CITY COUNCIL REGULAR MEETING AGENDA

REGULAR COUNCIL MEETING
TUESDAY
SEPTEMBER 2, 2025

COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
3:00 P.M.

All City Council Meetings are live streamed on the city's YouTube page (https://www.youtube.com/@FlagstaffCityGovernment)

PUBLIC COMMENT

Verbal public comments not related to items appearing on the posted agenda may be provided during the "Open Call to the Public" at the beginning and end of the meeting and may only be provided in person.

Verbal public comments related to items appearing on the posted agenda may be given in person or online and will be taken at the time the item is discussed.

To provide online verbal comment on an item that appears on the posted agenda, use the link below.

ONLINE VERBAL PUBLIC COMMENT

Written comments may be submitted to publiccomment@flagstaffaz.gov. All comments submitted via email will be considered written comments and will be documented in the record as such.

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1. CALL TO ORDER

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for discussion and consultation with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance through other technological means.

MAYOR DAGGETT
VICE MAYOR SWEET
COUNCILMEMBER ASLAN
COUNCILMEMBER GARCIA
COUNCILMEMBER HOUSE
COUNCILMEMBER MATTHEWS
COUNCILMEMBER SPENCE

3. PLEDGE OF ALLEGIANCE, MISSION STATEMENT, AND LAND ACKNOWLEDGEMENT

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

LAND ACKNOWLEDGEMENT

The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.

4. OPEN CALL TO THE PUBLIC

Open Call to the Public enables the public to address the Council about an item that is not on the prepared agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. Open Call to the Public appears on the agenda twice, at the beginning and at the end. The total time allotted for the first Open Call to the Public is 30 minutes; any additional comments will be held until the second Open Call to the Public.

If you wish to address the Council in person at today's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Open Call to the Public and Public Comment. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

5. PROCLAMATIONS AND RECOGNITIONS

A. **Proclamation:** Ovarian Cancer Awareness Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

B. **Proclamation:** Hunger Action Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

6. COUNCIL LIAISON REPORTS

7. APPOINTMENTS

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that the City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

A. **Consideration of Appointments:** Housing Commission

STAFF RECOMMENDED ACTION:

1. Mayor Daggett to make one appointment to a Low Income Housing Expert position.
2. Councilmember House to make one appointment to a Low Income Housing Expert position.
3. Councilmember Garcia to make one appointment to a Builders and Real Estate Professional - Realtor position.

8. CONSENT AGENDA

All matters under Consent Agenda are considered by the City Council to be routine. Unless a member of City Council expresses a desire at the meeting to remove an item from the Consent Agenda for discussion, the Consent Agenda will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

STAFF RECOMMENDED ACTION:

Approve the Consent Agenda as posted.

A. Ratification of FY26 Insurance Renewal Premiums

STAFF RECOMMENDED ACTION:

Ratify the insurance renewal premiums for FY26 submitted by: 1) Arizona Municipal Risk Retentional Pool (AMRRP) for General Liability, Errors and Omission (E&O), Sexual Abuse and Molestation (SAM), Property, Auto, Marine, Crime, Cyber, Excess, and Workers' Compensation coverage; 2) Aon Risk Insurance Services West (Aon) for Airport Liability; 3) Aon for International Travel; and 4) Industrial Commission of Arizona (ICA) to fund the Firefighters Presumptive Cancer Claims.

B. **Consideration and Approval of Contract:** First Amendment to the Construction Manager at Risk (CMAR) Construction Phase Services Agreement with Eagle Mountain Construction, Inc. in an amount of $4,555,128.00 to add Phase 1 - GMP 2 for the Wildcat Interceptor Sewer Upsizing Project.

STAFF RECOMMENDED ACTION:

1. Approve the First Amendment to the CMAR Construction Phase Services Agreement with Eagle Mountain Construction, Inc. (EMC) in an amount of $4,555,128 to add Phase 1 - GMP 2 for the Wildcat Interceptor Sewer Upsizing Project (Project); and
2. Approve an Owner's Contingency of $100,000, which is approximately 3% of Phase 1 - GMP 2; and
3. Authorize the City Manager to execute the necessary documents.

9. ROUTINE ITEMS

A. **Consideration and Adoption of Ordinance No. 2025-18:** An Ordinance of the City Council of the City of Flagstaff, amending the Flagstaff City Code Title 7, Health and Sanitation, Chapter 7-03 City Water System Regulations of the City of Flagstaff City Code by amending Section 87-03-001-0011 Water Main Capacity Charges.

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-18 by title only for the final time
2. City Clerk reads Ordinance No. 2025-18 by title only (if approved above)
3. Adopt Ordinance No. 2025-18

B. **Consideration and Adoption of Ordinance No. 2025-15**: An ordinance of the City Council of the City of Flagstaff, authorizing the acquisition of real property interests for the Wildcat Interceptor Sewer Upsizing Project; providing for delegation of authority, providing for severability, authority for clerical corrections, and establishing an effective date

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-15 by title only for the final time
2. City Clerk reads Ordinance No. 2025-15 by title only (if approved above)
3. Adopt Ordinance No. 2025-15

C. **Consideration and Adoption of Ordinance No. 2025-14**: An ordinance of the City Council of the City of Flagstaff, ratifying the grants of easements and real property; and formally accepting grants of easements and real property; providing for severability, authority for clerical corrections, and establishing an effective date

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-14 by title only for the final time
2. City Clerk reads Ordinance No. 2025-14 by title only (if approved above)
3. Adopt Ordinance No.2025-14

D. **Consideration and Approval of Contract**: Change Order No. 1 with Eagle Mountain Construction, Inc. in the amount of $1,990,330, to the Cedar Crossing, GMP 4, Amendment No. Four, as part of the Spruce Wash Flood Mitigation Suite of Projects.

STAFF RECOMMENDED ACTION:

1. Approve Change Order No. 1 for Cedar Crossing in an amount of $1,990,330; and
2. Authorize the City Manager to execute the necessary documents.

E. **Consideration and Approval**: A request for Preliminary Block Plat approval for Canyon del Rio Phase 2 located at 3200 E Butler Avenue within the Single-family Residential (R1) zone and the Medium Density Residential (MR) zone.

STAFF RECOMMENDED ACTION:

Approve the Preliminary Plat, in accordance with the findings presented in this report and the Planning and Zoning Commission recommendation of approval (7-0 on August 13, 2015) with the following conditions:

1. The final plats for each phase shall be in substantial conformance with the preliminary plat including the phasing plan and map (sheets PH01 and PH02) of the preliminary Block Plat of Canyon del Rio Phase 2. Each phase and parcel of the Canyon del Rio plat must meet all requirements independently.
2. The Final Plat for Canyon del Rio Phase 2 must meet the conditions of approval in the IDS approval comment letter dated June 5, 2025, as well as the conditions in the Traffic Impact Analysis Approval Memo dated July 10, 2025 (staff and the applicant are continuing to discuss the proportional share contribution for improvements at the Whetstone and Fourth Street Intersection, as well as responsibility for payment of that proportional share; the conditions related to improvements at the Whetstone and Fourth Street Intersection may be revised or removed depending on the outcome of those discussions).

10. PUBLIC HEARING ITEMS

1. Open the Public Hearing
2. Presentations (Staff and/or Applicant)
3. Council Questions
4. Public Comment
5. Close the Public Hearing
6. Council Deliberation and Action

A. **Consideration and Adoption of Ordinance No. 2025-17**: An ordinance of the City Council of the City of Flagstaff, amending the Flagstaff Zoning Map to rezone approximately 13.82 acres of real property located at 2951 S Masonic Lane, from the Rural Residential (RR) zone within the Resource Protection Overlay Zone (RPO) and Suburban Commercial (SC) zone within the RPO to the Medium Density Residential (MR) zone within the RPO, providing for severability, authority for clerical corrections, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the September 2, 2025 Council Meeting:
1. Continue the public hearing and consideration of the Development Agreement to September 16, 2025.

At the September 16, 2025 Council Meeting:
1. Read Ordinance No. 2025-17 by title only for the final time
2. City Clerk reads Ordinance No. 2025-17 by title only (if approved above)
3. Adopt Ordinance No. 2025-17

11. REGULAR AGENDA

A. **Consideration and Adoption of Resolution No. 2025-44**: A resolution adopting the Adaptive Reuse Bond Program, which provides framework for the expenditure of approximately $3,000,000 in general obligation bond funds for the creation of affordable rental units.

STAFF RECOMMENDED ACTION:

1. Read Resolution No. 2025-44 by title only
2. City Clerk reads Resolution No. 2025-44 by title only (if approved above)
3. Adopt Resolution No.2025-44

B. **Consideration and Adoption of Resolution No. 2025-42 and Ordinance No. 2025-16**: A Resolution of the City Council of the City of Flagstaff, Coconino County, Arizona, declaring as a public record that certain document filed with the City Clerk entitled "PZ-25-00041 - Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives" and an Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code.

STAFF RECOMMENDED ACTION:

At the September 2, 2025, Council Meeting:
1. Read Resolution No. 2025-42 by title only for the first time
2. City Clerk reads Resolution No. 2025-42 by title only (if approved above)
3. Read Ordinance No. 2025-16 by title only for the first time
4. City Clerk reads Ordinance No. 2025-16 by title only (if approved above)

At the September 16, 2025, Council Meeting:

1. Adopt Resolution No. 2025-42
2. Read Ordinance No. 2025-16 by title only for the final time
3. City Clerk reads Ordinance No. 2025-16 by title only (if approved above)
4. Adopt Ordinance No. 2025-16

C. **Consideration and Approval of Contract:** First Amendment to the Cooperative Purchase Contract with Flock Safety in the amount of $112,000, in addition to other fees and taxes, for safety cameras for the Flagstaff Police Department

Consideration and Direction on Citizen Petition: Freeing Flagstaff from invasive surveillance

STAFF RECOMMENDED ACTION:

1. Police Department presents on the contract amendment.
2. Introduce the citizen petition and take public comment.
3. Council provides direction on the citizen petition.
    1. If petition is advanced, postpone action on the contract amendment until after the citizen petition discussion
    2. If petition is declined, take action on the contract amendment
4. Approve the First Amendment to the Cooperative Purchase Contract with Flock Safety in the amount of $112,000, in addition to other fees and taxes, to the purchase of the Flock Cloud-Based Public Safety Program to include thirty-two (32) Flock Safety cameras and (1) Flock Safety Falcon system for the north and south downtown districts; and authorize the City Manager to execute the necessary documents.

12. OPEN CALL TO THE PUBLIC

13. INFORMATIONAL ITEMS TO/FROM MAYOR, COUNCIL, AND STAFF, AND FUTURE AGENDA ITEM REQUESTS

14. ADJOURNMENT

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at _____ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this _____ day of _____, 2025.

_____
Stacy Saltzburg, MMC, City Clerk

THE CITY OF FLAGSTAFF ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 48-hour advance notice, reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 213-2076 or email at stacy.saltzburg@flagstaffaz.gov to request an accommodation to participate in this public meeting.

NOTICE TO PARENTS AND LEGAL GUARDIANS: Parents and legal guardians have the right to consent before the City of Flagstaff makes a video or voice recording of a minor child, pursuant to A.R.S. § 1-602(A)(9). The Flagstaff City Council meetings are live-streamed and recorded and may be viewed on the City of Flagstaff's website. If you permit your child to attend/participate in a televised Council meeting, a recording will be made. You may exercise your right not to consent by not allowing your child to attend/participate in the meeting.

5. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Jessica Matias, Chief of Staff

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:
Proclamation: Ovarian Cancer Awareness Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

Executive Summary:
N/A

Financial Impact:
N/A

Policy Impact:
N/A

Previous Council Decision or Community Discussion:
N/A

Options and Alternatives to Recommended Action:
N/A

Connection to PBB Priorities and Objectives:
N/A

Connection to Regional Plan:
N/A

Connection to Carbon Neutrality Plan:
N/A

Connection to 10-Year Housing Plan:
N/A

Attachments: Proclamation

City of Flagstaff – Office of the Mayor

Proclamation

WHEREAS, Ovarian cancer is the fifth leading cause of cancer-related death among women in the United States, and the American Cancer Society estimates that in 2025 approximately 20,890 women will be diagnosed with ovarian cancer and 12,730 will die from the disease nationwide-including an estimated 470 new cases and 330 deaths in Arizona; and

WHEREAS, in the United States, a woman's lifetime risk of being diagnosed with ovarian cancer is about 1 in 91; and her lifetime risk of dying from the disease is approximately 1 in 143; and

WHEREAS, due to vague, nonspecific symptoms and the absence of reliable early detection tests, most women are not diagnosed until Stage III or later, when the cancer has already begun to spread beyond the ovaries; and

WHEREAS, although the five-year survival rate for Stage I ovarian cancer exceeds 90 percent, only 15 percent of cases are diagnosed at this early stage. For those diagnosed in later stages, the five-year survival rate drops below 30 percent; and

WHEREAS, while screening tools such as mammograms and Pap tests exist for breast and cervical cancers, no equivalent screening test exists for ovarian cancer, making awareness of symptoms and risk factors essential for early intervention; and

WHEREAS, increased public education about ovarian cancer can help save lives by promoting earlier diagnosis, supporting access to gynecologic oncology care, and encouraging research funding for better detection and treatment options; and

WHEREAS, this month, **The City of Flagstaff**, joins all those who are battling ovarian cancer, those who have lost their lives, their families and caregivers, and our dedicated healthcare professionals-in raising awareness, promoting education, and fostering hope for earlier diagnoses, improved treatments, and ultimately a cure.

NOW THEREFORE, I, BECKY DAGGETT, **MAYOR OF THE CITY OF FLAGSTAFF, ARIZONA,** encourage all residents to participate in awareness activities and engage in conversations that help save lives and support the families affected by this devastating disease. I do hereby proclaim September 2025, as

Ovarian Cancer Awareness Month

Becky Daggett

MAYOR

ATTEST:

Stacy Saltzburg

CITY CLERK

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Jessica Matias, Chief of Staff

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:
Proclamation: Hunger Action Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

Executive Summary:
N/A

Financial Impact:
N/A

Policy Impact:
N/A

Previous Council Decision or Community Discussion:
N/A

Options and Alternatives to Recommended Action:
N/A

Connection to PBB Priorities and Objectives:
N/A

Connection to Regional Plan:
N/A

Connection to Carbon Neutrality Plan:
N/A

Connection to 10-Year Housing Plan:
N/A

Connection to Division Specific Plan:
N/A

Attachments: Proclamation

City of Flagstaff – Office of the Mayor

Proclamation

WHEREAS, Hunger Action Month is a nationwide, month-long hunger awareness campaign intended to raise food, funds, and awareness about hunger in communities across the United States; and

WHEREAS, In Arizona, over 1 million people suffer from food insecurity; and

WHEREAS, Lack of consistent access to food is a problem for one in five adults, one in four children, and one in seven seniors in Arizona; and

WHEREAS, The need for hunger relief services is even higher in Coconino County, with 16.1% of the population considered food insecure and over half of children in Flagstaff qualifying for free or reduced lunch; and

WHEREAS, The Flagstaff Family Food Center provides the most extensive and wide-reaching emergency food support for the Flagstaff and broader community, serving 2,300 individuals through all programs across northern Arizona per day; and

WHEREAS, The City of Flagstaff Mayor and Council encourages all community members to work to support the efforts of organizations that provide hunger relief services and long-term solutions to poverty to our most vulnerable neighbors;

NOW, THEREFORE, I, BECKY DAGGETT, Mayor of the City of Flagstaff, Arizona, do hereby proclaim September 2025, as

Hunger Action Month

in Coconino County, Arizona and call upon the citizens of the City of Flagstaff to join community agencies in a partnership of understanding and compassion to make our community a healthier, safer, more connected community where families have the resources and opportunities to improve their well-being.

DATED this 2nd day of September 2025

Becky Daggett

MAYOR

ATTEST:

Stacy Saltzburg

CITY CLERK

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Stacy Saltzburg, City Clerk

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:
Consideration of Appointments: Housing Commission

STAFF RECOMMENDED ACTION:

1. Mayor Daggett to make one appointment to a Low Income Housing Expert position.
2. Councilmember House to make one appointment to a Low Income Housing Expert position.
3. Councilmember Garcia to make one appointment to a Builders and Real Estate Professional - Realtor position.

Executive Summary:
The Housing Commission consists of thirteen (13) voting members; twelve (12) members appointed by the City Council and one (1) representative from the Flagstaff Housing Authority Board of Commissioners. The Commission serves as an advisory board to City Council regarding housing policies, needs, and programs in Flagstaff.

The City of Flagstaff is committed to increasing diversity in every board and commission, please consider how the applicant stated they may contribute to this commitment. Efforts were made to attract additional applications but given the specific requirements of these positions, there were only a few applicants who met the criteria.

There is currently one (1) application on file for the Real Estate Professional - Realtor position:

- Jacqueline Kellogg (current commissioner)

There are four (4) applications on file for Low Income Housing Expert position:

- Alec Overmann (new applicant)
- Issaac Arenivaz (new applicant)
- Nicholas Tambakeras (new applicant)
- Jennifer Vargas (new applicant)

In an effort to reduce exposure to personal information, the applicant roster and applications will be submitted to the City Council separately.

COUNCIL APPOINTMENT ASSIGNMENT: Mayor Daggett, Councilmember House, and Councilmember Garcia

Financial Impact:
These are voluntary positions and there is no budgetary impact to the City of Flagstaff.

Policy Impact:

None

Previous Council Decision or Community Discussion:
None

Options and Alternatives to Recommended Action:

1. Appoint two Commissioners: By appointing members at this time, the Housing Commission will be almost full membership, allowing the group to meet and provide recommendations to the City Council.
2. Postpone the action to allow for further discussion or expand the list of candidates.

Connection to PBB Priorities and Objectives:
Inclusive and Engaged Community - Foster community pride and civic engagement; advance social equity and social justice in Flagstaff; facilitate and foster diversity and inclusivity; and enhance community outreach and engagement opportunities.

Connection to Regional Plan:
None

Connection to Carbon Neutrality Plan:
None

Connection to 10-Year Housing Plan:
Connect 2.2: Encourage community organizations such as the local Continuum of Care to continue to integrate equity into programs and policies.

Attachments: Housing Commission Authority

CHAPTER 2-25
FLAGSTAFF HOUSING COMMISSION

SECTIONS:

2-25-001-0001 CREATION OF COMMITTEE
2-25-001-0002 MEMBERS AND OFFICERS
2-25-001-0003 TERMS AND OFFICERS
2-25-001-0004 ELIGIBILITY
2-25-001-0005 PURPOSE AND DUTIES
2-25-001-0006 MEETINGS; ATTENDANCE

2-25-001-0001 CREATION OF COMMITTEE

A Housing Commission is hereby created. (Ord. 2019-25, Enacted, 07/02/2019)

2-25-001-0002 MEMBERS AND OFFICERS

The Housing Commission shall have thirteen (13) voting members; twelve (12) members appointed by the City Council and one (1) representative from the Flagstaff Housing Authority Board of Commissioners. All members shall reside within the Flagstaff City limits.

A. Members shall be appointed to fit into one (1) of the professional categories listed below; however, the members identified as required must be appointed. Any member may satisfy more than one (1) of the below qualifications and any "professional" category may be filled by a person who is retired from that profession.

1. Building and Real Estate Professionals (Six (6) Members).
    a. Builders (required);
    b. Developers (required);
    c. Architects;
    d. Land use experts;
    e. Realtors (required);
    f. Lenders (required);
    g. Residential multifamily/property management representative (required);
    h. Other building or real estate professional.
2. Low Income Housing Experts (Four (4) Members).
    a. Housing nonprofits;
    b. Low income representatives;

c. Flagstaff Housing Authority Board of Commissioners member (required);

d. Other low income housing expert.

3. Community Representatives (Three (3) Members).

a. General public;

b. Private business representatives;

c. Workforce representatives;

d. Neighborhood associations;

e. HOA representatives.

B. Appointed members shall have an interest in housing and be committed to represent not only their specific areas of expertise, but also the community at large. (Ord. 2019-25, Enacted, 07/02/2019)

2-25-001-0003 TERMS AND OFFICERS

A. Appointments to the Housing Commission from the Housing Authority Board of Commissioners shall be for no longer than the remaining term of the appointing Commission's designee. Terms of all other appointees shall be for three (3) years except for the first appointments creating staggered terms as follows: The City Council shall appoint four (4) members for three (3) year terms, four (4) members for two (2) year terms, and four (4) members for one (1) year terms. After the initial appointment all terms thereafter will be three (3) year terms.

B. The Commission shall, during its first meeting, elect a chairperson and a vice-chairperson from and by the voting membership of the Commission to serve one (1) year terms. A chairperson may serve no more than two (2) consecutive terms as chairperson (exclusive of a term as vice-chairperson). Upon the conclusion of a second consecutive term as chairperson, such Commission member shall be ineligible to serve as either chairperson or vice-chairperson until a calendar year has expired. (Ord. 2019-25, Enacted, 07/02/2019)

2-25-001-0004 ELIGIBILITY

Any resident of the City of Flagstaff shall be eligible for appointment by the City Council to the Commission, in accordance with the membership requirements outlined above, and shall serve at the pleasure of the City Council and without compensation. (Ord. 2019-25, Enacted, 07/02/2019)

2-25-001-0005 PURPOSE AND DUTIES

A. The Housing Commission serves as an advisory board to City Council, makes recommendations with respect to housing policies, needs, and programs in Flagstaff, and furnishes the Council with information through the Housing Director.

B. The Housing Commission shall:

1. Examine funding sources available for housing in Flagstaff, make recommendations to City Council on potential funding sources, including bond measures, and provide oversight of any funds approved by the electorate for housing purposes.

2. Make recommendations on the creation and implementation of housing and housing policies and programs for the benefit of Flagstaff and its citizens.

3. Make recommendations regarding the prioritization of the community's housing needs.

4. Make recommendations regarding how affordable market rate housing can be responsibly stimulated through changes in the City Code as well as other potential solutions.

5. Examine and make recommendations regarding increasing the affordability of housing in Flagstaff.

6. Explore alternative models of housing and make recommendations to Council.

7. Advise and assist the City Council on ways to educate the community on housing, including the role housing plays as infrastructure in Flagstaff.

8. Upon request, serve as a resource on implementation of housing policy and programs.

C. To further assist the Commission in carrying out its duties, the Commission may request the assistance of technical experts and/or employees and agents of the City and other entities. (Ord. 2019-25, Enacted, 07/02/2019)

2-25-001-0006 MEETINGS; ATTENDANCE

A. The Commission shall meet no less than quarterly from the first month following the initial appointment of Commission members.

B. The Housing Commission shall not conduct any business at a meeting unless a quorum is present. A quorum shall consist of a simple majority of the voting membership of the Commission, excluding current vacancies.

C. Official business shall be conducted pursuant to the Board and Commission Members' Rules and Operations Manual adopted by Resolution No. 2016-33 of the City Council, as may be amended from time to time, and in accordance with meeting procedures, if any, adopted by the Commission insofar as they are not in conflict with the Board and Commission Members' Rules and Operations Manual. In the event of any such conflict, the provisions of the Board and Commission Members' Rules and Operations Manual shall prevail. (Ord. 2019-25, Enacted, 07/02/2019)

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Aaron Kaminski, Risk Manager

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:
Ratification of FY26 Insurance Renewal Premiums

STAFF RECOMMENDED ACTION:

Ratify the insurance renewal premiums for FY26 submitted by: 1) Arizona Municipal Risk Retentional Pool (AMRRP) for General Liability, Errors and Omission (E&O), Sexual Abuse and Molestation (SAM), Property, Auto, Marine, Crime, Cyber, Excess, and Workers' Compensation coverage; 2) Aon Risk Insurance Services West (Aon) for Airport Liability; 3) Aon for International Travel; and 4) Industrial Commission of Arizona (ICA) to fund the Firefighters Presumptive Cancer Claims.

Executive Summary:
Upon renewal, the new estimated insurance premiums will total $2,827,060. This total will not be offset by a dividend, since a dividend was not declared by AMRRP for this fiscal year.

Breakdown of the individual costs by carrier are as follows:

1.a.	$1,325,899	Liability coverage (AMRRP):
1.b.	$215,363	Excess coverage (AMRRP):
1.c.	$1,075,026	Workers' Compensation coverage (AMRRP):
2.	$16,972	Aviation (Aon):
3.	$2,500	Foreign travel (Aon):
4.	$191,300	Firefighters Presumptive Cancer Reimbursement Fund (ICA):
Dividend	($0.00)	AMRRP did not declare a dividend for this fiscal year
Total:	$2,827,060	

Staff recommends ratification of the premium renewals offered by the current carriers.

Financial Impact:
The premium payments in the amount of $2,827,060 will be funded by the following accounts as authorized in the FY26 budget:

Vendor: Arizona Municipal Risk Retention Pool
Cost: $1,541,262.00, an increase of 13.5% over last year's premium
Account Number Budgeted: 600-09-406-1520-1-4253
Grant Funded: No
Funding Source: All funds

Vendor: Arizona Municipal Risk Retention Pool (Workers' Compensation)
Cost: $1,075,026.00, an increase of 16% over last year's premium
Account Number Budgeted: 600-09-406-1520-1-4160

Grant Funded: No
Funding Source: All funds

Vendor: Aon Risk Insurance Services West
Cost: $19,472.00
Account Number Budgeted: 600-09-406-1520-1-4253
FY26 Budgeted Amount: $25,000.00, a decrease of 26% from last year's premium
Grant Funded: No
Funding Source: All funds

Vendor: Firefighters Presumptive Cancer Reimbursement Fund
Cost: $191,300.43, a decrease of 1% from last year's premium
Account Number Budgeted: 600-09-406-1520-1-4290
Grant Funded: No
Funding Source: General Fund, Airport Fund, and Water Resource Infrastructure Protection Fund

Policy Impact:
None.

Previous Council Decision or Community Discussion:
Council has previously approved insurance coverage as outlined by the current carriers in prior fiscal years.

Options and Alternatives to Recommended Action:
No alternative options are recommended at this time

Background and History:
In 2020, the City of Flagstaff made the decision to explore the feasibility of being a self-insured/self-administered entity rather than being a member of an insurance pool. All primary lines of coverage were marketed, and it was determined that it was financially beneficial for the City of Flagstaff to become a member of AMRRP.

Connection to PBB Priorities and Objectives:
High Performing Governance -- Maintain the organization's fiscal stability through strong financial policies and best practices.

Connection to Regional Plan:
None.

Connection to Carbon Neutrality Plan:
None.

Connection to 10-Year Housing Plan:
None.

Connection to Division Specific Plan:
None.

Attachments: InvoicesandEstimates

Billing Invoice

Account Name and Address
City Of Flagstaff
211 W Aspen Ave
Flagstaff, AZ 86001

Invoice Date
07/07/2025

Program Administrator
Southwest Risk Services
14902 N 73rd St
Scottsdale, AZ 85260-3140
(602)996-8810

Invoice Number: 40003213 - 07072025
Account Number: 40003213
Amount Due: **$ 384,826.00**
Due Date: **07/28/2025**

			Total Amount for Account
AZ Commercial Package 2000315-6 Policy Period 07/01/2024 -07/01/2025			
Policy Expired			
Installment Billed - Renewal - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - OOS Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - OOS Endorsement - PR	$	0.00	
Installment Billed - OOS Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
Installment Billed - Endorsement - PR	$	0.00	
OOS Endorsement - PR 07/01/2024 Deleting a duplicate vehicles for VIN #'s 5155 & 5186 -$494.00			
Installment Billed - OOS Endorsement - PR	$	0.00	
Payment 06/24/2025 -$672.00			
Policy Ending Balance			$ 0.00
AZ Commercial Package 2000315-7 Policy Period 07/01/2025 -07/01/2026			
Renewal - PR 07/01/2025 $1,325,899.00			
Installment Billed - Renewal - PR	$	331,052.70	
Payment 06/24/2025 -$424.30			
Policy Ending Balance			$ 331,052.70
AZ Excess Liability 2000316-6 Policy Period 07/01/2025 -07/01/2026			
Renewal - PR 07/01/2025 $215,363.00			
Installment Billed - Renewal - PR	$	53,773.30	
Payment 06/24/2025 -$69.70			

Policy Ending Balance	$	53,773.30
Total Amount due for Account by 07/28/2025	$	**384,826.00**

EFT Payments and Billing Inquires: Please contact our Billing Unit at 602-996-8810 or email policyupdates@southwestrisk.org

Please include your Invoice Number on check. Make payable to AMRRP and send to:

AZ Municipal Risk Retention Pool P & C
PO BOX 842432
Los Angeles, CA 90084-2432

AMRRP
ARIZONA MUNICIPAL RISK RETENTION POOL

WC Estimated Premium 25-26

CLASS CODE	RATE	CLASS DESCRIPTION	Q1	Q2	Q3	Q4	Payroll	MANUAL PREMIUM
5506	8.83	Street or Road Construction--Paving or Repaving & Drivers	443,063	590,276	493,231	590,276	2,116,847	186,917.57
6217	5.47	Sanitary Landfill--& Drivers	35,863	44,460	37,241	44,460	162,024	8,862.71
7403	2.79	Airport or Heliport Operator--& Drivers	190,289	223,764	191,585	223,764	829,401	23,140.30
7520	3.47	Waterworks Operation & Driver	787,908	947,322	844,655	947,322	3,527,207	122,394.09
7710	4.75	Firefighters & Drivers	2,573,836	2,863,262	2,421,983	2,863,262	10,722,344	509,311.34
7720	4.75	Police Officers & Drivers	2,653,745	3,202,693	2,704,543	3,202,693	11,763,674	558,774.50
8380	2.79	Auto Service or Repair Center & Drivers	123,470	161,798	170,348	161,798	617,414	17,250.55
8411	1.05	Volunteer - Fire Professional	22,447	22,447	67,340	22,447	134,681	1,414.15
8413	1.00	Volunteer - Police Professional	44,880	44,880	43,992	44,880	178,632	1,786.32
8417	0.89	Volunteer- All other including, Fire Non-Professional, Police Non-Professional	63,200	63,200	97,200	63,200	286,800	2,552.52
8810	0.24	Clerical Office Employees NOC/Library/Museum	6,336,133	7,643,191	6,784,361	7,643,191	28,406,877	68,176.50
8820	0.22	Attorney-All Employees & Clerical, Messengers, Drivers	360,057	435,482	375,898	435,482	1,606,920	3,535.22
8831	2.25	Dog Pounds	20,983	23,886	20,370	23,886	89,126	2,005.34
9015	3.62	Buildings Operation by Owner or Lessee	129,602	164,328	154,134	164,328	612,392	22,168.57
9016	4.00	Skating Rink Operation & Drivers	38,045	42,680	33,499	42,680	156,905	6,276.18
9033	2.58	Housing Authority/Clerical	352,892	394,995	347,763	394,995	1,490,646	38,458.66
9102	3.10	Parks NOC All Employees & Drivers	654,006	778,440	684,696	778,440	2,895,582	89,763.04
9402	6.30	Sewer Cleaning & Drivers	-	3,519	30,987	3,519	38,026	2,395.61
9403	6.25	Garbage, Ashes or Refuse Collection & Drivers	531,784	629,254	478,075	629,254	2,268,367	141,772.95
9410	1.75	Municipal, Township, County or State Employee NOC	385,247	483,391	422,723	483,391	1,774,752	31,058.16
		TOTALS:	**15,747,452**	**18,763,270**	**16,404,624**	**18,763,270**	**69,678,615**	**1,838,014.30**
		DEDUCTIBLE PREMIUM CREDIT					0.1560	286,730.23
		RATING FACTOR					0.6300	977,308.96
		SCHEDULED RATING FACTOR					1.1000	1,075,039.86
		Total Estimate WC 25-26						**1,075,039.86**
		Grand Total W / volunteers						**1,075,039.86**

Risk Services | AON

City of Flagstaff

Invoice No. 6300000060829

City of Flagstaff
211 W. Aspen Avenue
Flagstaff AZ 86001 USA

Aon Risk Insurance Services West, Inc.
Phoenix AZ Office
4300 East Camelback Rd.
Suite 460
Phoenix AZ 85018
(602) 427-3200 FAX (602) 427-3032

Client Account No.	Invoice Date	Currency	Account Executive
570000083972	Jul-06-2025	US DOLLAR	Kathleen Lemon

Insurance Co.	Policy No. / Named Insured	Policy Term	Trans. Eff. Date	Description	Amount
ACE Property & Casualty Insurance Co.	AAPN00983354014 City of Flagstaff	Jul-01-2023 - Jul-01-2026	Jul-01-2025	Renewal - Airport Liability Premium	16,972.00
Comments Final Annual Installment					
				TOTAL INVOICE AMOUNT DUE	**16,972.00**

TO AVOID POTENTIAL DISRUPTION IN YOUR COVERAGE, PAYMENT IS DUE UPON RECEIPT.
Please Make Payable to Aon Risk Services

Please see last page for statement regarding Aon compensation.

Please detach here. Top portion is for your records, bottom portion to be returned with your payment.

Client Account No.	Invoice No.	Invoice Date	Currency	Amount Due
570000083972	6300000060829	Jul-06-2025	US DOLLAR	16,972.00

City of Flagstaff
211 W. Aspen Avenue
Flagstaff AZ 86001 USA

Remit to:

Aon Risk Insurance Services West, Inc.
Aon Risk Services Inc.
MSC# 17154
P.O. Box 19640
Irvine CA 92623

Please see last page for statement regarding Aon compensation.

Please detach here. Top portion is for your records, bottom portion to be returned with your payment.

Client Account No.	Invoice No.	Invoice Date	Currency	Amount Due
570000083972	6300000060829	Jul-06-2025	US DOLLAR	16,972.00

Overnight Remit to:

Aon Risk Services, Inc.
C/O Wells Fargo Bank
3440 Flair Drive
El Monte CA 91731

Reference: PO Box 079832
Phone No: 410-363-5800

Please Reference your Client Account No. & Invoice No. being paid
Wire payment information is for USD currency only. Please contact your Aon representative for Multi-Currency payment instructions.

Regarding Compensation and Taxes

Affiliates of Aon Group, Inc. providing retail, wholesale and reinsurance brokerage, risk management, underwriting and/or claim mgmt, captive mgmt, premium financing, or consulting may receive compensation in the form of (i)commissions and/or fees paid by an insurer and/or other third party and/or fees paid by a client; and (ii)investment and/or interest income on premiums, claim payments and return premiums temporarily held as fiduciary funds subject to the principal's consent as may be required or permitted by law. To the extent a portion of Aon's compensation by operation of law, agreement or otherwise becomes adjusted or credited to you, it is your responsibility to disclose the net cost of the brokerage and insurance costs you have incurred to third parties having an interest in such amounts.

The Data and Analytics services provide tools enabling Aon clients to access reports and analytics, including those related to insurers' capabilities, benchmarking and program design. Payment for this service is not part of your premium cost, and is neither a requirement nor a condition to receiving brokerage services or to the purchase of insurance policies. The charge for this service, plus tax where applicable, is in addition to any other compensation earned by Aon. You may choose to decline these services by contacting your Account Executive.

If you have any questions regarding the nature or amount of the compensation paid to an Aon company on your account, you should contact the head of the Aon office servicing your account. We have made every effort to identify any surplus lines or other premium taxes and/or fees due in advance, if applicable, but in all instances the payment of these taxes and/or fees will remain the responsibility of the Client and, to the extent tax rates change due to amendments to surplus lines and similar regulations, we will invoice you for the payment of such taxes and fees.

Premium Finance

Aon has access to the largest premium finance resources in the market, which creates the ability to secure the most competitive terms available.

Why Financing May Make Sense

Premium Increases

Unexpected premium increases are becoming more common. Clients may not have planned or budgeted for these expenses, making financing an attractive option.

Cash Flow

The ability to spread insurance costs over the policy term rather than fronting these costs at inception.

Alternate Credit Source

Loans are secured with the unearned premium of the insurance policies being financed and not company assets.

Single-Payer Option

Clients can finance all policies on one loan agreement, allowing one monthly payment for all insurance costs.

Competitive APR

We have access to the largest premium finance resources in the market, creating the ability to secure rates competitive with most clients' own costs of funds.

Financial Circumstances

Financial situations change from year to year. Acquisitions, stock buyback plans or other unusual expenses may create a need for improved cash flow.

Ease of Use

Proposals can be obtained within 24 hours, with no application process or fees. Policy details are usually the only information needed. Financial statements are requested only if needed.

We work with organizations of all sizes. Many companies choose Aon's premium finance resource in conjunction with their overall borrowing strategy. Costs are typically in line with internal benchmarks and financing preserves cash for future expenses, expansion plans or unexpected costs.

There are no minimum premium amounts and the only collateral is the policies being financed.

Need more information about premium finance?

Please send an email to premium.finance@aon.com.

Risk Services | AON

City of Flagstaff

Invoice No. 6300000060831

City of Flagstaff
211 W. Aspen Avenue
Flagstaff AZ 86001 USA

Aon Risk Insurance Services West, Inc.
Phoenix AZ Office
4300 East Camelback Rd.
Suite 460
Phoenix AZ 85018
(602) 427-3200 FAX (602) 427-3032

Client Account No.	Invoice Date	Currency	Account Executive
570000083972	Jul-07-2025	US DOLLAR	Kathleen Lemon

Insurance Co.	Policy No. / Named Insured	Policy Term	Trans. Eff. Date	Description	Amount
Travelers Property Cas Co of America	ZGC- 71N54510 City of Flagstaff	Jul-01-2025 - Jul-01-2026	Jul-01-2025	New - Commercial Package Policy-Foreign	
				Premium	2,500.00
Comments					
7/1/2025-2026 Travelers Foreign Liability Policy.					
				TOTAL INVOICE AMOUNT DUE	**2,500.00**

TO AVOID POTENTIAL DISRUPTION IN YOUR COVERAGE, PAYMENT IS DUE UPON RECEIPT.
Please Make Payable to Aon Risk Services

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Client Account No.	Invoice No.	Invoice Date	Currency	Amount Due
570000083972	6300000060831	Jul-07-2025	US DOLLAR	2,500.00

City of Flagstaff
211 W. Aspen Avenue
Flagstaff AZ 86001 USA

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Aon Risk Insurance Services West, Inc.
Aon Risk Services Inc.
MSC# 17154
P.O. Box 19640
Irvine CA 92623

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570000083972	6300000060831	Jul-07-2025	US DOLLAR	2,500.00

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Aon Risk Services, Inc.
C/O Wells Fargo Bank
3440 Flair Drive
El Monte CA 91731

Reference: PO Box 079832
Phone No: 410-363-5800

Please Reference your Client Account No. & Invoice No. being paid
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The Data and Analytics services provide tools enabling Aon clients to access reports and analytics, including those related to insurers' capabilities, benchmarking and program design. Payment for this service is not part of your premium cost, and is neither a requirement nor a condition to receiving brokerage services or to the purchase of insurance policies. The charge for this service, plus tax where applicable, is in addition to any other compensation earned by Aon. You may choose to decline these services by contacting your Account Executive.

If you have any questions regarding the nature or amount of the compensation paid to an Aon company on your account, you should contact the head of the Aon office servicing your account. We have made every effort to identify any surplus lines or other premium taxes and/or fees due in advance, if applicable, but in all instances the payment of these taxes and/or fees will remain the responsibility of the Client and, to the extent tax rates change due to amendments to surplus lines and similar regulations, we will invoice you for the payment of such taxes and fees.

INDUSTRIAL COMMISSION OF ARIZONA

800 W Washington Street
Suite 301
Phoenix, AZ 85007

INVOICE

DATE: July 1, 2025

INVOICE #: INV-M26-00000119

BILL TO: FLAGSTAFF

FLAGSTAFF
211 W ASPEN AVE
FLAGSTAFF, AZ 86001

DESCRIPTION	AMOUNT
FY 2026 Municipal Firefighters Cancer Reimbursement Fund Assessment (A.R.S. § 23-1703)	$191,300.43
TOTAL DUE	**$191,300.43**

Payment is due upon receipt.[1]

Pay by ACH using the following link: Pay now

Please Remit Checks To:

Industrial Commission of Arizona
800 West Washington Street, Suite 301
Phoenix, Arizona 85007
Reference Invoice: MFCR INV-M26-00000119

Accounting Division Phone: (602) 542-4654
Tax Unit Email: Taxes@azica.gov
Agency Website : https://www/azica.gov/

[1] *Any city or town that fails to pay the assessment in full on or before September 30, shall be considered delinquent and the Commission shall notify the State Treasurer who shall withhold the delinquent amount from the distribution of monies to the appropriate city or town pursuant to A.R.S. §§ 42-5029 and 43-206, and shall continue to withhold monies until the city or town has paid the entire amount of the assessment.*

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Jackson Salazar, Water Services Project Manager

Co-Submitter: Alec Latino

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Approval of Contract: First Amendment to the Construction Manager at Risk (CMAR) Construction Phase Services Agreement with Eagle Mountain Construction, Inc. in an amount of $4,555,128.00 to add Phase 1 - GMP 2 for the Wildcat Interceptor Sewer Upsizing Project.

STAFF RECOMMENDED ACTION:

1. Approve the First Amendment to the CMAR Construction Phase Services Agreement with Eagle Mountain Construction, Inc. (EMC) in an amount of $4,555,128 to add Phase 1 - GMP 2 for the Wildcat Interceptor Sewer Upsizing Project (Project); and
2. Approve an Owner's Contingency of $100,000, which is approximately 3% of Phase 1 - GMP 2; and
3. Authorize the City Manager to execute the necessary documents.

Executive Summary:

Staff recommends approval of the First Amendment to the CMAR Construction Phase Services Agreement to add Phase 1 - GMP 2 with EMC for the Project. The purpose of the Project will be to construct approximately 5,900 feet of new sewer main from the Wildcat Hill Wastewater Treatment Plant (WWTP) to the south side of Interstate 40 which will increase capacity in the sewer collection system and replace a critical piece of aging infrastructure. Phase 1 - GMP 2 will allow the contractor to install the new sewer main from the Wildcat Hill WWTP up until the first crossing of the Rio de Flag, approximately 3200 linear feet.

Financial Impact:

- CMAR Construction Phase Services Agreement Phase 1 - GMP 2 will cost $4,555,128 and will cover the first phase of construction from the Wildcat Hill WWTP up to the first Rio de Flag crossing. Staff anticipates a potential need for additional GMPs in the future to cover the balance of the scope and any additional items identified in the 100% plans and intends to bring any additional contracts to the City Council for consideration.
- This Project is funded through Water Services in both Wastewater and Reclaimed Water in the following accounts:
  - Account # 203-08-375-3441-0 with a budget of $6,000,000 in FY2025-26 and $2,000,000 in FY2026-27.
  - Account #203-08-375-3558-0 with a budget of $2,000,300 in FY2025-26
  - Account #204-08-380-3558-0 with a budget of $970,136 in FY2025-26.

Policy Impact:

Policy F3.4 Compliance: The City of Flagstaff will submit a report to ADEQ for any new subdivision, site, system extension or collection system expansion as currently required by law.

Community Benefits and Considerations:

- The current wastewater collection system is undersized for new development. The new sewer interceptor will replace the existing undersized sewer main to provide additional capacity to the wastewater collection system.
- The project will also replace a critical piece of aging infrastructure.

Previous Council Decision or Community Discussion:

- On June 16, 2024, the City Council approved a Professional Services Contract with Ardurra Group, Inc. to design the Wildcat Sewer Interceptor Upsizing Project. Ardurra has completed the engineering design documents up to the 90% level.
- On May 27, 2025, the City entered into a Design Phase Services Agreement with EMC in the amount of $78,750.00 for basic design phase services (see attached).
- On July 1, 2025, the City entered into a Construction Phase Services Agreement, including, Phase 1 - GMP 1 with EMC in the amount of $5,374,180 to order long lead time materials and set up a materials storage yard.

Options and Alternatives to Recommended Action:

1. Approve the First Amendment to the CMAR Construction Phase Agreement to add Phase 1 - GMP 2 in the amount of $4,555,128, as recommended; or
2. Reject approval of the award as recommended. This action would delay the Project and certain developments currently in review that are contingent on the completion of the Project.
    1. If rejection occurs, possible options include:
        1. Ask staff to re-evaluate the recommendation; or
        2. Suspend or cancel the Project completely.

Background and History:
In 1971, the City of Flagstaff constructed the Wildcat Hill Wastewater Treatment Plant and a new large diameter sewer interceptor to transport wastewater from the then current treatment plant to the new treatment plant. In a recent Water and Sewer Impact Analysis, the City of Flagstaff's consultant identified a deficiency in the wastewater collection system in this sewer interceptor. This Project was also identified in the City of Flagstaff's 2015 Sewer Master Plan as the second highest priority project. The pipeline is currently undersized to meet the additional developments that have been proposed. This Project will replace a portion of the undersized pipeline identified in the water and sewer impact analysis with a new larger wastewater interceptor. The new pipeline will allow the City to properly serve the wastewater needs of the new proposed developments.

Following the completion of 30% design plans by Ardurra, the Purchasing section posted a Request for Statements of Qualifications (RSOQ) solicitation for Construction Manger at Risk on December 6, 2024, on the PlanetBids website, and advertised it in the Arizona Daily Sun newspaper on December 17 & December 28, 2024. There were four Statements of Qualifications received by the due date of January 14, 2025.

After reviewing the Statements of Qualifications received by the evaluation team of six professionals, the RSOQ selection panel selected the highest scoring firm, Eagle Mountain Construction, Inc. to move forward to award. On May 27, 2025, the City entered into a Design Phase Services Agreement with Eagle Mountain Construction, Inc. for the amount of $78,750.00 for basic design phase services. The firms' final evaluation ranking scores are as follows:

Eagle Mountain Construction: 640
Fann: 606
B&F: 603
Jud Co.: 244

Connection to PBB Priorities and Objectives:

Safe & Healthy Community: Foster a safe, secure, and healthy community. Sustainable, Innovative Infrastructure: Deliver outstanding services to residents through a healthy, well maintained infrastructure system.

Connection to Regional Plan:

- Goal WR.3: Satisfy current and future human water demands and the needs of the natural environment through sustainable and renewable water resources and strategic conservation measure.
- Goal WR.4: Logically enhance and extend the City's public water, wastewater, and reclaimed water services including their treatment, distribution, and collection systems in both urbanized and newly developed areas of the City to provide an efficient delivery of services.
- Goal WR.6: Protect, preserve, and improve the quality of surface water, groundwater, and reclaimed water in the region.
- Goal CD.1: Improve the City and County financial systems to provide for needed infrastructure development and rehabilitation, including maintenance and enhancement of existing infrastructure.

Connection to Carbon Neutrality Plan:
N/A

Connection to 10-Year Housing Plan:
This Project will increase the capacity of the sewer collection system which will provide capacity for additional housing.

Attachments: First Amendment - Eagle Mountain - Phase 1 - GMP2
Phase 1 - GMP 1 Contract
Design Phase Services Contract
Exhibit 1 - Project Map

FIRST AMENDMENT

Wildcat Interceptor Sewer Upsizing Project
Construction Manager at Risk

Construction Phase Services Agreement
Phase 1 - GMP 2

Agreement No. 2025-94

This First Amendment ("First Amendment") and entered into this ____ day of _____, 2025, by and between the City of Flagstaff, an Arizona municipal corporation ("City"), and Eagle Mountain Construction, Inc., an Arizona corporation ("Construction Manager at Risk" or "CMAR"). The City and CMAR may be referred to as "Party" or jointly as "Parties."

RECITALS

WHEREAS, the City and CMAR entered into a Design Phase Services Agreement dated May 27, 2025 (the "Design Phase Agreement") for the City of Flagstaff Wildcat Interceptor Sewer Upsizing Project (the "Project') at a cost of **seventy-eight thousand seven hundred fifty dollars and no cents ($78,750.00)**; and

WHEREAS, subsequently, the City and CMAR entered into a Construction Phase Services Agreement dated July 14, 2025 (the "Construction Phase Agreement") for the Project which included the Guaranteed Maximum Price (GMP) Phase 1 – GMP 1 at a cost of **five million three hundred seventy-four thousand one hundred eighty dollars and no cents ($5,374,180.00)**; and

WHEREAS, the Parties desire to amend the Construction Phase Agreement to add an additional scope of work to this phase of the agreement.

AGREEMENT

NOW, THEREFORE, effective on the last date of execution, and in consideration for the mutual promises contained herein, the Parties agree as follows:

A. Article 5. Contract Price. Exhibit B referenced in this paragraph is amended to include Wildcat Sewer Interceptor & BNSF Utility Relocation Phase 1 – GMP 2 – dated August 12, 2025 (2 pages) attached hereto as Attachment A.

B. Article 5. Contract Price is amended to include an additional cost of **four million five hundred fifty-five thousand one hundred twenty-eight dollars and zero cents ($4,555,128.00)** as detailed in Phase 1 – GMP 2.

C. All other provisions of the Construction Phase Agreement shall remain unchanged in full force and effect.

D. The Recitals included in this First Amendment are incorporated herein.

IN WITNESS WHEREOF, the Parties hereto have executed this First Amendment as of the date hereinbefore indicated.

City of Flagstaff

By:_____
Greg Clifton, City Manager

Dated:_____

Attest:

_____
City Clerk

Approved as to form:

_____
City Attorney

Eagle Mountain Construction, Inc.

By:_____

Title:_____

Dated:_____

ATTACHMENT A
to the First Amendment

August 12, 2025

Jackson Salazar
Project Manager – Water Services
City of Flagstaff
Flagstaff, AZ 86004

Re: Wildcat Sewer Interceptor & BNSF Utility Relocation CMAR ("Project")
Construction Manager at Risk – Guaranteed Maximum Price ("GMP") 2

Dear Mr. Salazar,

Eagle Mountain Construction ("EMC") is submitting GMP 2 for the above referenced Project.

The Wildcat Sewer Interceptor (designed by Ardurra) and the BNSF Utility Relocation (designed by The WLB Group) projects are designed to replace the existing undersized pipeline feeding the Wildcat Hill Wastewater Treatment Plant, with an upsized 42" and 48" collection system.

This GMP 2 is based on 90% plans and is for the installation of the 48" pipe starting at the Wildcat plant, from manhole 20 south to MH 8, what we're calling Phase 1. In addition, it includes the clear & grubb, and rock slope stabilization south-east of the ADOT yard. This will allow the bulk of the 48" pipe install to commence while the balance of the design progresses. We're figuring this scope will need a five month duration, with additional time needed for trench rock excavation should it be encountered. We do anticipate a GMP 3 to follow within the next month, to include the balance of 48" pipe, the reclaim waterline realignment's, as well as the boring scopes under BNSF and Rte. 66. Then lastly we're anticipating a GMP 4 to include the scope and associated by-pass needs from what's known as junction structure 3, south to the beginning of the project.

As noted in GMP 1, it requires noting that due to recent events related to the federal government's tariff policies, there is significant volatility in the supply and pricing of most commodities and materials in our industry. As always, EMC strives to mitigate those impacts with our subs & vendors in various ways, however, should there be supply or cost effects beyond our control, EMC reserves the right to submit for equitable adjustments as needed.

We are honored to be apart this Team and appreciate the opportunity to work with you, the City, the engineers, and the relevant stakeholders to deliver another successful project to the City of Flagstaff!

Sincerely,

Eagle Mountain Construction

Marco Spagnuolo
CEO

Wildcat Sewer Interceptor CMAR - GMP 2

Keynote		DESCRIPTION	QTY	Unit	Unit Cost	Total
100 & 100.1		CLEAR AND GRUB	1	LS	$ 82,000.00	$ 82,000.00
	2700	ROCK SLOPE STABILIZATION S.E. OF ADOT YARD	3,470	CY	$ 85.00	$ 294,950.00
404.1	4110	48" ADS SANITITE SEWER INSTALL - PH 1	3,213	LF	$ 285.00	$ 915,705.00
405.3	4220	INSTALL 84" MANHOLE - MH'S 8-10; 12-20	12	EA	$ 14,705.00	$ 176,460.00
420	4900	INSTALL SLURRY BACKFILL	976	LF	$ 315.00	$ 307,440.00
428	5400	INSTALL 30" FRAME & COVER	12	LS	$ 1,250.00	$ 15,000.00
MISCELLANEOUS						
		MOBILIZATION & DEMOBILIZATION	1	LS	$ 220,000.00	$ 220,000.00
		SURVEY & STAKING	1	LS	$ 41,829.00	$ 41,829.00
		TRAFFIC CONTROL & MAINTENANCE	1	LS	$ -	$ -
		AS-BUILTS\RECORD DRAWINGS	1	LS	$ -	$ -
		QC TESTING & VERIFYING	1	LS	$ 20,000.00	$ 20,000.00
		SWPPP INSTALLATION & MAINTENANCE	1	LS	$ 30,000.00	$ 30,000.00
CONTRACT ALLOWANCES						
		TRENCH ROCK EX	2,500	CY	$ 350.00	$ 875,000.00
		UNSUITABLE SOIL	1,000	CY	$ 125.00	$ 125,000.00
		TBD	0	LS	$ -	$ -
		TBD	0	LS	$ -	$ -
SUMMARY						
COST OF WORK						**$ 3,103,384.00**
GENERAL CONDITIONS (GC'S) (Percent of Cost of the Work)			15.65%			$ 485,600.00
SUBTOTAL #1 - Cost of the Work + GC's						**$ 3,588,984.00**
CONSTRUCTION FEE (Fee) (Percentage of Subtotal #1)			12.00%			$ 430,678.08
SUBTOTAL #2 - Cost of the Work + GC's + Fee						**$ 4,019,662.08**
PERFORMANCE & PAYMENT BOND (Percentage of Subtotal #2)			0.80%			$ 32,157.30
SUBTOTAL #3 - Cost of the Work + GC's + Fee + Bonds						**$ 4,051,819.38**
INSURANCE (Percentage of Subtotal #3)			0.85%			$ 34,440.46
SUBTOTAL #4 - Cost of the Work + GC's + Fee + Bonds + Insurance						**$ 4,086,259.84**
SALES TAX (Percentage of GMP)			5.97%			$ 243,868.16
CMAR CONTINGENCY & PRICE ESCALATION FUNDING			4%			$ 125,000.00
GMP						**$ 4,455,128.00**
OWNERS CONTINGENCY (Percentage of Cost of the Work)			3%			$ 100,000.00
CONTRACT PRICE-GMP 2						**$ 4,555,128.00**

City of Flagstaff, Arizona

Wildcat Interceptor Sewer Upsizing Project

CONSTRUCTION MANAGER AT RISK

CONSTRUCTION PHASE SERVICES

Phase 1 – GMP 1

Agreement No. 2025-94

Mayor
Becky Daggett

Council

Austin Aslan
Anthony Garcia
Khara House
Lori Matthews
David Spence
Miranda Sweet

City Manager
Greg Clifton

Interim Water Services Director
Lee Williams

Interim Community Development Director
Michelle McNulty

Public Works Director
Scott Overton

Engineering & Capital Improvements Director
Paul Mood

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EXHIBIT A – PROJECT DESCRIPTION

EXHIBIT B – GMP SUBMITTAL REQUIREMENTS

City of Flagstaff, Arizona

Wildcat Interceptor Sewer Upsizing Project
CONSTRUCTION MANAGER AT RISK
DESIGN PHASE SERVICES
Agreement No. 2025-94

This Construction Services Agreement ("Agreement") is made and entered into by and between the City of Flagstaff, a political subdivision of the State of Arizona ("Owner"), and Eagle Mountain Construction, Inc., an Arizona corporation ("Construction Manager at Risk" or "CMAR") on this 14 day of July, 2025.

RECITALS

A. The City Manager of the City of Flagstaff, Arizona, is authorized and empowered by provisions of the City Charter to execute agreements for professional services and construction services.

B. The Owner intends to construct the *Wildcat Interceptor Sewer Upsizing Project***,** as more fully described in Exhibit "A," attached ("Project").

C. To undertake the construction administration of the Project, the Owner has entered into separate agreements with *Ardurra Group, Inc., a Florida Corporation* ("Design Professional(s)").

D. CMAR has represented to the Owner the ability to provide construction phase services for the Project, and based on this representation, the Owner hereby engages CMAR to provide these services and construct the Project.

E. A Design Phase Services Agreement (Contract No. 2025-94) has been executed previously between the Owner and CMAR to perform design phase services for the Project. Those services may continue during the duration of this Agreement.

AGREEMENT

NOW THEREFORE**,** for and in consideration of the mutual covenants and considerations hereinafter contained, it is agreed by and between the Owner and CMAR as follows:

Article 1 – Terms and Definitions

"Addenda" - Written or graphic instruments issued prior to the submittal of the GMP Proposal(s), which clarify, correct or change the GMP Proposal(s) requirements.

"Agreement (Contract)" - This written document signed by the Owner and CMAR covering the design phase of the Project, and including other documents itemized and referenced in or attached to and made part of this Agreement.

"Alternate Systems Evaluations" - Alternatives for design, means and methods or other scope considerations that are evaluated using value engineering principles which have the potential to reduce construction costs while still delivering a quality and functional Project that meets the Owner requirements.

"Change Directive" - A written order prepared and signed by the Owner, directing a change in the Work prior to agreement on an adjustment in the Contract Price and the Contract Time.

"Change Order" - A type of contract amendment issued after execution of the Contract Documents where unanticipated or unforeseen circumstances in the Work have been encountered. Each Change Order shall be signed by the Owner and CMAR, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or Deliverables; the amount of the adjustment to the Contract Price; the amount of the adjustment to the Contract Time;.

"City (Owner)" - The City of Flagstaff, a political subdivision of the State of Arizona, with whom CMAR has entered into this Agreement and for whom the services are to be provided pursuant to said Agreement.

"CMAR" - The Contractor selected by the Owner to provide design phase services as detailed in this Agreement.

"CMAR Representative" - The designated CMAR Representative.

"CMAR Senior Representative" - The designated CMAR Senior Representative.

"Construction Documents" - Certain plans, specifications and drawings prepared by the Design Professionals after correcting for permit review requirements or dated plans and specifications specifically identified as the "Construction Documents" herein or in an Exhibit or Addendum which is attached hereto.

"Construction Fee" - CMAR's administrative costs for providing off-site management, supervision, General Conditions support, support of construction activities, home office overhead, and profit, as applicable to this Project, whether at CMAR's principal or branch offices.

"Contingency, CMAR's" - A fund to cover cost growth during the Project, legitimate unforeseen construction expenses, or expenses otherwise agreed to by the Owner to be used at the discretion of CMAR usually for costs that result from Project circumstances. The amount of CMAR's Contingency shall be negotiated as a separate line item in each GMP package. Use and management of CMAR's Contingency is described in this Agreement.

"Contingency, Owner's" - A fund to cover cost growth during the Project used at the discretion of the Owner usually for costs that result from the Owner-directed changes or unforeseen Site conditions. The amount of the Owners' Contingency shall be set solely by the Owner and shall be in addition to the CMAR's GMP.

"Contract Documents" - The following items and documents in descending order of precedence executed by the Owner and CMAR: (i) all written, amendments and Change Orders; (ii) this Agreement, including all exhibits and attachments; (iii) Construction Documents; and (iv) GMP Plans and Specifications.

"Contract Price" - The cost for services for this Agreement.

"Contract Time(s)" - The number of days or the dates related to the construction phase, including authorized adjustments, allotted in the Construction Documents for Substantial and final Completion of the Work, subject to Winter Shutdown.

"Cost Models" - Cost tabulation for the construction of the Project developed by the CMAR and continually updated throughout the preconstruction phase fee and utilized to develop the Guaranteed Maximum Price Proposal. The Cost Model is created using the Design Professionals list of standard pay items.

"Cost of the Work" - The direct costs necessarily incurred by CMAR in the proper performance of the Work. The Cost of the Work shall include direct labor costs, subcontract costs, costs of materials and equipment incorporated in the completed construction, costs of other materials and equipment, temporary facilities, permit and license fees, materials testing, and related items. The Cost of the Work shall not include CMAR's Construction Fee, General Conditions Cost, bonds, insurance, or taxes.

"Critical Path Method" or "CMP" - A scheduling technique used to predict project duration by analyzing

which sequence of activities has the least amount of scheduling flexibility thus identifying the path (sequence) of activities which represent the longest time required to complete the Project. Delay in completion of the identified activities shall cause a delay in achieving Substantial Completion.

"Day(s)" - Calendar days unless otherwise specifically noted in the Contract Documents.

"Deliverables, Construction Phase Services Agreement" - The Work conducted by CMAR during the construction phase which may include, but is not limited to: Construction Management Plan, Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, cost models, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Statement of Proposed Minority Business Enterprise/Women's Business Enterprise ("MBE/WBE") Utilization as may be required or appropriate, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, and others as indicated in this Agreement or required by the Project Team and other services set forth in this Agreement or reasonably inferable therefrom.

"Deliverables, Design Phase Services Agreement" - The Work conducted by CMAR during the design phase which may include, but is not limited to: design recommendations, Project scheduling, constructability reviews, alternate systems evaluation, cost estimate, Minority Business Enterprise/Woman's Business Enterprise/Small Business Enterprise ("MBE/WBE/SBE") utilization, Subcontractor agreements, Subcontractor bid packages, GMP preparations and other services set forth in this Agreement or reasonably inferable therefrom.

"Design Professional(s)" - A qualified, licensed design professional who furnishes design, construction documents, and/or construction administration services required for the Project.

"Drawings (Plans)" - Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by CMAR during the construction phase, and which have been prepared or approved by the Design Professional(s) and the Owner. Includes Drawings that have reached a sufficient stage of completion and released by the Design Professional(s) solely for the purposes of review and/or use in performing constructability or biddability reviews and in preparing cost models (e.g., conceptual design Drawings, preliminary design Drawings, detailed design Drawings at 30%, 60%, 90% or 100% or schematic, design development, construction documents), but "not for construction". Shop Drawings are not Drawings as so defined.

"Differing Site Conditions" - Concealed or latent physical conditions or subsurface conditions at the Site that: (i) materially differ from the conditions indicated in the Contract Documents; or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work.

"Final Completion" - 100% completion of all construction Work noted in, or reasonably inferred from, the Contract Documents, including but not limited to, all Punch Lists work, all record and close-out documents specified in Owner's Project specifications and Owner training/start up activities.

"Float" - The number of Days by which an activity can be delayed without lengthening the CMP and extending the Substantial Completion date.

"General Conditions Costs" - All on-site Project-specific costs required to perform the Work, but not itemized or included in the Cost of the Work. Includes, but is not limited to, the following types of costs for CMAR during the construction phase: (i) payroll costs for Project manager or CMAR for Work conducted at the Site, (ii) payroll costs for the superintendent and full-time general foremen, (iii) payroll costs for other management personnel resident and working at the Site, (iv) workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), (v) costs of offices and temporary facilities setup solely for this Project including office materials, office supplies, office equipment and minor expenses, (vi) cost of utilities, fuel, sanitary facilities and telephone services at the Site; (vii) costs of liability and other applicable insurance premiums not include in labor burdens for direct labor costs; (viii) costs of bonds premiums; (ix) costs of consultants not in the direct employee of CMAR or Subcontractors.

"Guaranteed Maximum Price" ("GMP)" - The sum of the maximum Cost of the Work; the Construction Fee, General Conditions Costs, taxes, and CMAR's Contingency.

"GMP Plans and Specifications" - Plans and specifications upon which the Guaranteed Maximum Price Proposal is based.

"Guaranteed Maximum Price (GMP) Proposal" - The offer or proposal of CMAR submitted on the prescribed form setting forth the GMP prices for the entire Work or portions of the Work to be performed during the construction phase. The GMP Proposal(s) are to be developed pursuant to Article 2 of this Agreement.

"Legal Requirements" - All applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

"Notice to Proceed" or "NTP" - The directive issued by the Owner, authorizing CMAR to start Work.

"Opening Physical Conditions" - The current physical conditions present on the Site as jointly documented by an inspection of the Site by Owner and CMAR at the Pre-construction Conference.

"Owner's Representative" - The designated City Project Manager.

"Owner's Senior Representative" - The City of Flagstaff's designated Division/Department Head.

"Performance Period" - The period of time allotted in the Contract Documents to complete the Work comprised within a GMP. The Performance Period shall be stated with each GMP and shown on the Project Master Schedule.

"Payment Request" - The form used by CMAR in requesting progress payments or final payment and which shall include such supporting documentation as is required by the Contract Documents and or the Owner.

"Pre-construction Conference" - A Conference held between Owner and CMAR prior to the commencement of any Work, as scheduled by the Owner's Representative or designee.

"Product Data" - Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CMAR to illustrate materials or equipment for some portion of the Work.

"Project" - The Work to be completed in the execution of this Agreement, as amended, and as described in the Recitals above and in Exhibit "A" attached.

"Project Team" - The design phase services team consisting of the Design Professional(s), CMAR, the Owner's Representative, the Owner's Client Department representatives and other stakeholders who are responsible for making decisions regarding the Project.

"Schedule of Values (SOV)" - A statement furnished by CMAR to the Owner's Representative for approval, reflecting the portions of the GMP allotted for the various parts of the Work and used as the basis for evaluating CMAR's applications for progress payments.

"Shop Drawings" - All drawings, diagrams, schedules and other data specifically prepared for the Work by CMAR or a Subcontractor, Sub-Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

"Site" - Land or premises on which the Project is located.

"Specifications" - The part(s) of the Contract Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship, as

applied to the Work, and certain administrative details applicable thereto.

"Subconsultant" - A person, firm or corporation having an agreement with CMAR to furnish services required as its independent professional associate or consultant with respect to the Project.

"Subcontractor" - An individual or firm having a direct agreement with CMAR or any other individual or firm having an agreement with the aforesaid contractors at any tier, who undertakes to perform a part of the design phase services or construction phase Work at the Site for which CMAR is responsible.

"Submittals" - Documents and/or things that may be produced or presented by one party for consideration, review, or such other actions as may be required by this Agreement by another party, entity or person. Examples of Submittals include, but are not limited to, preliminary or evolving drafts, product data samples, etc.

"Substantial Completion" - The construction services for the Work (or a specified part thereof) has progressed to the point where, in the opinion of the Owner's Representative, as evidenced by a Certificate of Substantial Completion, such construction services are sufficiently complete in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; without any outstanding concurrent Work at the site, except as may be required to complete or correct Punch List items. If no such certificate is issued, Substantial Completion takes place when the construction services Work or a Construction Phase is complete and ready for final payment as evidenced by the written recommendation of final payment by the Owner's Representative. The terms "substantially complete" and "substantially completed" as applied to all or part of the construction Work refers to Substantial Completion thereof.

"Supplier" - A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct agreement with CMAR or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by CMAR or any Subcontractor.

"Winter Shutdown" - The period of time typically including December through March during which no Work will be performed by any person or entity (including, but not limited to, the CMAR) on the Project and CMAR shall shutdown, properly insulate and shelter the Project in a safe and workmanlike manner pursuant to local, state and federal laws. Although December through March is typically the time frame, the Owner reserves the right to initiate and terminate a Winter Shutdown at the Owner's sole discretion in the event of adverse weather conditions. A Winter Shutdown may be declared by the Owner despite delays, for any reason, on the Project.

"Work" - The entire completed construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Contract Documents for the construction phase.

Article 2 – CMAR's Services and Responsibilities

2.0 CMAR shall furnish any and all labor, materials, equipment, transportation, utilities, services and facilities required to perform all Work for the construction of the Project, and to completely and totally construct the same and install the material therein for the Owner. All Work shall be performed in a good and workmanlike and substantial manner and within the care and skill of a qualified CMAR in Flagstaff, Arizona. The Work shall be to the satisfaction of the Owner and strictly pursuant to and in conformity with the Project's Contract Documents. It is not required that the services be performed in the sequence in which they are described.

2.1 General Services

CMAR's Representative shall be reasonably available to the Owner and shall have the necessary expertise and experience required to supervise the Work. CMAR's Representative shall communicate regularly with the Owner but not less than once a week and shall be vested with the authority to act on behalf of CMAR. CMAR's Representative may be replaced only with the written consent of the Owner.

2.2 Government Approvals and Permits

2.2.1 Unless otherwise provided, CMAR shall obtain all applicable and/or necessary permits, approvals and licenses required for the prosecution of the Work from any government or quasi-government entity having jurisdiction over the Project. CMAR is specifically reminded of the need to obtain the applicable and/or necessary environmental permits or file the applicable and/or necessary environmental notices.

2.2.2 Copies of the permits and notices identified in this Agreement must be provided to the Owner's Representative prior to starting the permitted activity. In the case of Fire Department permits, a copy of the application for permit shall also be provided to the Owner's Representative. This provision does not constitute an assumption by the Owner of an obligation of any kind for violation of said permit or notice requirements.

2.2.3 Owner shall be responsible for City of Flagstaff review and permit(s) fees for grading and drainage, water, sewer, floodplain, and landscaping. Owner shall also pay for utility design fees for permanent services.

2.2.4 CMAR shall be responsible for all other permits and review fees not specifically listed in this Agreements

2.2.5 CMAR shall be responsible for the cost of water meter(s), water and sewer taps, fire lines and taps, and all water bills on the project meters until Substantial Completion of the Project. Arrangements for construction water are CMAR's responsibility.

2.3 Pre-construction Conference

2.3.1 Prior to the commencement of any Work, the Owner's Representative or designee shall schedule and conduct a Preconstruction Conference.

2.3.1.1 At the Pre-Construction Conference, Owner and CMAR shall document the Opening Physical Conditions of the Site as jointly documented by an inspection of the Site by Owner and CMAR at the Pre-Construction.

2.3.2 The purpose of this conference is to establish a working relationship between CMAR, utility firms, and various City agencies. The agenda shall include critical elements of the work schedule, submittal schedule, cost breakdown of major lump sum items, Payment Requests and processing, coordination with the involved utility firms, the level of Project Record Documents required and emergency telephone numbers for all representatives involved during construction.

2.3.3 The Notice to Proceed date shall be concurred with by the parties or set by the Owner at the Preconstruction Conference. After the meeting and upon receipt of a signed Agreement and delivery of the required bonds and insurance in an Owner approved format, a Notice to Proceed letter shall be issued confirming the construction start date, Performance Period and if applicable, the Substantial Completion date. If a Substantial Completion date is established the conditions of the Substantial Completion shall be listed and/or as set forth in Article 1 herein. Failure by CMAR to provide the properly executed bond and insurance forms in a timely manner may delay the construction start date; however, it shall not alter the proposed Substantial Completion date nor be

a basis for any time extension request or other claims.

2.3.4 CMAR shall provide a Schedule of Values based on the categories used in the buyout of the Work but not greater than the approved GMPs and identifying CMAR's Contingency. The Schedule of Values shall subdivide the Work into all items comprising the Work. The Schedule of Values shall contain sufficient detail to identify each individual element of the Work and shall relate to the approved GMPs Schedule. The Schedule of Values shall be subject to approval by the Owner's representative.

2.3.5 Minimum attendance by CMAR shall be CMAR's Representative, who is authorized to execute and sign documents on behalf of the firm, the CMAR Senior Representative, and CMAR's safety officer.

2.4 Control of the Work

2.4.1 Unless otherwise provided in the Contract Documents to be the responsibility of the Owner or a separate Contractor, CMAR shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities, and other temporary facilities to permit CMAR to complete the Work consistent with the Contract Documents.

2.4.2 CMAR shall perform all construction activities efficiently and with the requisite expertise, skill, and competence to satisfy the requirements of the Contract Documents. CMAR shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

2.4.3 CMAR's Representative or CMAR's Senior Representative shall be present at the Sites at all times that construction activities are taking place.

2.4.3.1 All elements of the Work shall be under the direct supervision of a foreman or his designated representative on the Sites who shall have the authority to take actions required to properly carry out that particular element of the work.

2.4.3.2 In the event of noncompliance with this Section, the Owner may require CMAR to stop or suspend the Work in whole or in part.

2.4.4 Where the Contract Documents require that a particular product be installed and/or applied by an applicator approved by the manufacturer, it is CMAR's responsibility to ensure the Subcontractor employed for such work is approved by the manufacturer.

2.4.5 Before ordering materials or doing work, CMAR and each Subcontractor shall verify measurements at the Site and shall be responsible for the correctness of such measurements. No extra charge or compensation shall be allowed because of differences between actual dimensions and the dimensions indicated on the drawings; differences which may be found shall be submitted to the Owner for resolution before proceeding with the Work.

2.4.6 CMAR shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to CMAR with the Contract Documents before commencing activities. Errors, inconsistencies, or omissions discovered shall be reported to the Owner at once.

2.4.7 CMAR shall establish and maintain all construction grades, lines, levels, and benchmarks, and shall be responsible for accuracy and protection of same. This Work shall be performed or supervised by a Civil Engineer or Surveyor licensed as such in the State of Arizona.

2.4.8 Any person employed by CMAR or any Subcontractor who, in the opinion of the Owner, does not perform his or her work in a proper, skillful, and safe manner or is intemperate or disorderly shall, at

the written request of the Owner, be removed from the Work by CMAR or Subcontractor employing such person, and shall not be employed again in any portion of Work without the written approval of the Owner. CMAR or Subcontractor shall hold the Owner harmless from damages or claims which may occur in the enforcement of this Section.

2.4.9 CMAR assumes responsibility to the Owner for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between the Owner and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

2.4.10 CMAR shall coordinate the activities of all Subcontractors. If the Owner performs other work on the Project or at the Site with separate contractors under the Owner's control, CMAR agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

2.5 Control of the Work Site

2.5.1 Throughout all phases of construction, including suspension of Work, CMAR shall keep the Site reasonably free from debris, trash and construction wastes to permit CMAR to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Upon Substantial Completion of the Work, or a portion of the Work, CMAR shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit the Owner to occupy the Project or a portion of the Project for its intended use.

2.5.2 CMAR shall take whatever steps, procedures or means to prevent any dust nuisance due to construction operations. The dust control measures shall be maintained at all times to the satisfaction of the Owner and in accordance with the requirements of the Arizona Department of Environmental Quality rules and regulations.

2.5.3 CMAR shall maintain ADA, ADAAG and ANSI accessibility requirements during construction activities in an occupied building or facility. ADA, ADAAG and ANSI accessibility requirements shall include, but not be limited to, parking, building access, entrances, exits, restrooms, areas of refuge, and emergency exit paths of travel. CMAR shall be responsible for the coordination of all work to minimize disruption to building occupants and facilities.

2.5.4 Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Site by CMAR. When equipment is no longer required for the Work, it shall be removed promptly from the Site. Protection of construction materials and equipment stored at the Site from weather, theft, damage and all other adversity is solely the responsibility of CMAR.

2.6 Shop Drawings, Product Data and Samples

2.6.1 Shop Drawings, Product Data, Samples and similar Submittals are not Contract Documents. The purpose of their submittal is to demonstrate, for those portions of the Work for which Submittals are required, the way CMAR proposes to conform to the information given and the design concept expressed in the Contract Documents.

2.6.2 CMAR shall review, approve, verify, and submit to the Owner five copies of each Shop Drawing, Product Data, Sample, and similar Submittals required by the Contract Documents in accordance with the approved GMP schedule as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals made by CMAR, which are not required by the Contract Documents, may be returned without action.

2.6.3 CMAR shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar Submittals until the respective submittal has been approved by the Owner or Owner's designee. Such Work shall be in accordance with approved Submittals.

2.6.4 By approving, verifying and submitting Shop Drawings, Product Data, Samples and similar Submittals, CMAR represents that CMAR has determined and verified materials, field measurements and field construction criteria related thereto, or shall do so, and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents.

2.6.5 CMAR shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Owner's approval of Shop Drawings, Product Data, Samples or similar Submittals unless CMAR has specifically informed the Owner in writing of such deviation at the time of submittal and the Owner has given written approval to the specific deviation. CMAR shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar Submittals by the Owner's approval thereof.

2.6.6 CMAR shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar Submittals, to revisions other than those requested by the Owner on previous Submittals.

2.6.7 Informational Submittals upon which the Owner is not expected to take responsive action may be so identified in the Contract Documents.

2.6.8 When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Owner shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

2.7 Quality Control, Testing and Inspection

2.7.1 All materials used in the Work shall be new and unused, unless otherwise noted, and shall meet all quality requirements of the Contract Documents.

2.7.2 All construction materials to be used on the Work or incorporated into the Work, equipment, plant, tools, appliances or methods to be used in the Work may be subject to the inspection and approval or rejection by the Owner. Any material rejected by the Owner shall be removed immediately and replaced in an acceptable manner.

2.7.3 The procedures and methods used to sample and test material shall be determined by the Owner. Unless otherwise specified, samples and tests shall be made in accordance with the most recently adopted edition of the City of Flagstaff Engineering Division Design and Construction Standards and Specifications.

2.7.4 The Owner shall select a City or Independent Testing Laboratory and shall pay for initial City Acceptance Testing.

2.7.4.1 When the first and/or subsequent tests indicate noncompliance with the Contract Documents, the cost associated with that noncompliance and the cost of all tests, except the first test, shall be paid for by CMAR. CMAR's Contingency cannot be utilized for the cost of re-testing.

2.7.4.2 When the first and/or subsequent tests indicate noncompliance with the Contract Documents, all retesting shall be performed by the same testing agency.

2.7.5 CMAR shall cooperate with the selected testing laboratory and all others responsible for testing and inspecting the work and shall provide them access to the Work at all times.

2.7.6 At the option of the Owner, materials may be approved at the source of supply before delivery is started.

2.7.7 Code compliance testing and inspections required by codes or ordinances, or by a plan approval authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid by CMAR, unless otherwise provided in the Contract Documents.

2.7.8 CMAR's convenience and quality control testing and inspections shall be the sole responsibility of CMAR and paid by CMAR.

2.8 Trade Names and Substitutions

2.8.1 Unless indicated that no substitutions are permitted, CMAR may request a substitution or alternative to Contract Document references to equipment, materials or patented processes by manufacturer, trade name, make or catalog number, subject to the following:

2.8.2 The substitution shall be submitted by CMAR in writing to the Owner.

2.8.3 CMAR shall certify that the substitution shall perform the functions and achieve the results called for by the general design, be similar and of equal substance, and be suited to the same use as that specified.

2.8.4 The submittal shall state any required changes in the Contract Documents to adapt the design to the proposed substitution.

2.8.5 The submittal shall contain an itemized estimate of all costs and credits that will result directly and indirectly from the acceptance of such substitution, including cost of design, license fees, royalties, and testing. Also, the submittal shall include any adjustment in the Contract Time created by the substitution.

2.8.6 CMAR if requested by the Owner shall submit Samples or any additional information that may be necessary to evaluate the acceptability of the substitution.

2.8.7 The Owner shall make the final decision and shall notify CMAR in writing as to whether the substitution has been accepted or rejected.

2.8.8 If the Owner does not respond in a timely manner, CMAR shall continue to perform the Work in accordance with the Contract Documents and the substitution shall be considered rejected.

2.9 Project Record Documents

2.9.1 During the construction period, CMAR shall maintain at the Site a set of blueline or blackline prints of the Construction Document drawings and shop drawings for Project Record Document purposes.

2.9.1.1 CMAR shall mark these drawings to indicate the actual installation where the installation varies appreciably from the original Construction Documents. CMAR shall give particular attention to information on concealed elements, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

2.9.1.1.1 Dimensional changes to the drawings

2.9.1.1.2 Revisions to details shown on drawings

2.9.1.1.3 Locations and depths of underground utilities

2.9.1.1.4 Revisions to routing of piping and conduits

2.9.1.1.5 Actual equipment locations

2.9.1.1.6 Locations of concealed internal utilities

2.9.1.1.7 Changes made by Change Order, Change Order Directive, Field Order, Record of Field Change, ASI's and RFI's

2.9.1.1.8 Addenda and other details not on original Agreement Drawings

2.9.1.2 CMAR shall mark completely and accurately Project Record Drawing prints of Construction Documents or Shop Drawings, whichever is the most capable of indicating the actual physical condition. Where Shop Drawings are marked, show cross-reference on the Construction Documents location.

2.9.1.3 CMAR shall mark Project Record Drawings sets with red erasable colored pencil.

2.9.1.4 CMAR shall note RFI Numbers, ASI Numbers and Change Order numbers, etc., as required to identify the source of the change to the Construction Documents.

2.9.1.5 CMAR shall, as a condition of Substantial Completion, submit Project Record Drawing prints and Shop Drawings to the Owner or its representative for review and comment.

2.9.2 Upon receipt of the reviewed Project Record Drawings from the Owner, CMAR shall correct any deficiencies and/or omissions to the drawings and prepare the following for submission to the Owner within 14 Days:

2.9.2.1 CMAR shall provide a complete set of electronic Project Record Drawings prepared in AutoCAD format compatible with City of Flagstaff CADD technology. The Design Professional shall provide files of the original Construction Documents to CMAR for the use of preparing these final Project Record Drawings or CMAR may contract with the Design Professional to revise and update the electronic drawing files. Each drawing shall be clearly marked with "As-Built Document."

2.9.2.2 CMAR shall provide a complete set of digital final AutoCAD drawings.

2.9.2.3 CMAR shall provide the original copy of the Project Record Drawings (redline mark-ups).

2.10 Project Safety

2.10.1 CMAR recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to (i) all individuals at the Site, whether working or visiting, (ii) the Work, including materials and equipment incorporated into the Work or stored on-Site or off-Site, and (iii) all other property at the Site or adjacent thereto.

2.10.2 CMAR assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work.

2.10.3 CMAR shall, prior to commencing construction, designate a Safety Representative with the necessary qualifications and experience to supervise the implementation and monitoring of all safety precautions and programs related to the Work. Unless otherwise required by the Contract Documents, CMAR's Safety Representative shall be an individual stationed at the Site who may have other responsibilities on the Project in addition to safety.

2.10.4 The Safety Representative shall make routine daily inspections of the Site and shall hold weekly safety meetings with CMAR's personnel, Subcontractors and others as applicable.

2.10.5 CMAR and Subcontractors shall comply with all Legal Requirements relating to safety, as well as any City-specific safety requirements set forth in the Contract Documents, provided that such City-specific requirements do not violate any applicable Legal Requirement.

2.10.6 CMAR shall immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Owner's Representative and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

2.10.7 CMAR's responsibility for safety under this Section is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

2.11 Warranty

2.11.1 CMAR warrants to Owner that the construction, including all materials and equipment furnished as part of the construction, shall be new unless otherwise specified in the Contract Documents, of good quality, in conformance with the Contract Documents and free of defects in materials and workmanship.

2.11.2 CMAR's warranty obligation shall be for one (1) year, except for such greater period as may be required by the technical specifications.

2.11.3 Nothing in this warranty is intended to limit any manufacturer's warranty which provides The Owner with greater warranty rights than set forth in this Section or the Contract Documents. CMAR shall provide Owner with all manufacturers' warranties upon Substantial Completion.

2.11.4 Nothing in this warranty is intended to limit any other remedy at law that may be available to the Owner.

2.12 Correction of Defective Work

2.12.1 CMAR agrees to correct any Work that is found to not be in conformance with the Contract Documents, including that part of the Work subject to this Agreement, within a period of one (1) year from the date of Substantial Completion of the Work or any portion of the Work, or within such longer period to the extent required by the Contract Documents, or as may be available to the Owner by law. A progress payment, or partial or entire use or occupancy of the Project by the Owner, shall not constitute acceptance of Work not in accordance with the Contract Documents.

2.12.2 During the performance of the Work, CMAR shall take meaningful steps to commence correction of such nonconforming Work as notified by the Owner or as discovered by CMAR. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If CMAR fails to commence the necessary steps during the performance of the Work, Owner, in addition to any other remedies provided under the Contract Documents, may provide CMAR with written notice that Owner shall commence correction of such nonconforming Work with its own forces.

2.12.3 CMAR shall, take meaningful steps to commence correction of nonconforming Work subject to this Agreement, within seven (7) days of receipt of written notice from Owner. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other

parts of the Work affected by the nonconforming Work. If CMAR fails to commence the necessary steps within such seven-day period, Owner, in addition to any other remedies provided under the Contract Documents, may provide CMAR with written notice that Owner shall commence correction of such nonconforming Work with its own forces.

2.12.4 If Owner does perform such corrective Work, CMAR shall be responsible for all reasonable costs incurred by Owner in performing such correction.

2.12.5 For nonconforming Work that creates an emergency requiring an immediate response, CMAR shall respond and initiate corrections within twenty-four hours.

2.12.6 The one-year period identified in this Agreement applies only to CMAR's obligation to correct nonconforming Work relative to the warranty set forth in that section and is not intended to constitute a period of limitations for any other rights or remedies the Owner may have regarding CMAR's other obligations under the Contract Documents or as may be allowed by law.

Article 3 - The Owner's Services and Responsibilities

3.1 Duty to Cooperate.

3.1.1 Owner shall, throughout the performance of the Work, cooperate with CMAR and perform its responsibilities, obligations and services in a timely manner to facilitate CMAR's timely and efficient performance of the Work and so as not to delay or interfere with CMAR's performance of its obligations under the Contract Documents.

3.1.2 Owner shall furnish at CMAR's request, at no cost to CMAR, a CADD file of the Construction Documents in AutoCAD format compatible with the City of Flagstaff CADD technology.

3.2 The Owner's Representative

3.2.1 Owner's Representative shall be responsible for providing Owner supplied information and approvals in a timely manner to permit CMAR to fulfill its obligations under the Contract Documents.

3.2.2 Owner's Representative shall also provide CMAR with prompt notice if Owner's Representative observes any failure on the part of CMAR to fulfill its contractual obligations, including any default or defect in the project or non-conformance with the drawings and specifications.

3.2.3 The Owner may utilize field inspectors to assist the Owner's Representative during construction in observing performance of CMAR. The inspector is for the purpose of assisting the Owner's Representative and should not be confused with an inspector with a City regulatory department.

3.2.3.1 The field inspector shall be authorized to inspect all Work and materials furnished. Such inspection may extend to all or part of the Work and to the preparation, fabrication or manufacture of the materials to be used.

3.2.3.2 The field inspector shall not be authorized to issue instructions contrary to the Construction Documents or to act as foreman for CMAR.

3.2.3.3 The field inspector shall have the authority to reject work or materials until any questions at issue can be decided by the Owner's Representative.

3.2.3.4 The furnishing of such services for the Owner shall not make the Owner responsible for or give the Owner control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs or responsibility for CMAR's failure to perform the work in accordance with Contract Documents.

3.3 Design Professional Services

3.3.1 The Owner may contract separately with one or more Design Professional(s) to provide construction administration of the Project. The Design Professional(s)' agreement as well as other firms hired by the Owner shall be available for review by CMAR. CMAR shall not have any right however, to limit or restrict any contract provisions and/or modifications that are mutually acceptable to the Owner and Design Professional(s).

3.3.2 The Owner may contract with the Design Professional(s) to provide some or all of the following services during the performance of the Work.

3.3.2.1 Provide oversight of the Work. The Owner and CMAR shall endeavor to communicate through the Design Professional. Communications by and with the Design Professional(s)' consultants shall be through the Design Professional(s).

3.3.2.2 Conduct Site visits at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the completed Work and to determine in general if the Work is being performed in accordance with the Contract Documents. The Design Professional(s) shall keep the Owner informed of progress of the Work and any noted defects and deficiencies of the Work and shall endeavor to guard the Owner against defects and deficiencies in the Work. The Design Professional(s) may have authority to reject construction, which does not conform to the Construction Documents and to require additional inspection or testing of the construction in accordance with this Agreement.

3.3.2.3 Review and recommend approval of Payment Requests.

3.3.2.4 Review and approve or take other appropriate action upon CMAR's Submittals such as Shop Drawings, Product Data and Samples in accordance with this Agreement.

3.3.2.5 Interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the Owner or CMAR. The Design Professional(s)' response to such requests shall be made with reasonable promptness and within any time limits agreed upon.

3.3.2.6 Prepare Change Orders and may authorize minor changes in the Work as defined in this Agreement.

3.3.2.7 Conduct inspections to determine Substantial Completion and Final Acceptance.

3.3.2.8 Receive and forward to the Owner for the Owner's review and records written warranties and related documents required by the Contract Documents and assembled by CMAR.

3.4 Owner's Separate Contractors

3.4.1 Owner is responsible for all work performed on the Project or at the Site by separate contractors under Owner's control. Owner shall contractually require its separate contractors to cooperate with and coordinate their activities so as not to interfere with CMAR in order to enable CMAR to timely complete the Work consistent with the Contract Documents.

3.5 Permit Review and Inspections

3.5.1 If requested by CMAR, the Owner's Representative shall provide assistance and guidance in obtaining necessary reviews, permits and inspections, however, the responsibility for obtaining the necessary reviews, permits and inspections remains with CMAR.

3.5.2 Regulating agencies of the Owner, such as Community Development, Fire, Planning, Building Inspection, Environmental Services, and Engineering Departments, enforce Legal Requirements. These enforcement activities are not subject to the responsibilities of the Owner under this Agreement.

Article 4 - Contract Time

4.0 Contract Time

4.0.1 Contract Time shall start with the NTP with construction services and shall end with Substantial Completion.

4.0.2 Where there is more than one GMP, each GMP shall establish a separate NTP date and a Performance Period. The Performance Periods for individual GMPs may be sequential or concurrent as established in the individual Notices to Proceed. The Performance Period for the GMPs under this Agreement shall be three hundred sixty-five (365) calendar days starting with the NTP.

4.0.3 CMAR agrees that it shall commence timely performance of the Work and shall achieve substantial completion within the Performance Periods and Contract Time.

4.0.4 All of the times set forth in this Article 4 shall be subject to adjustment in accordance with other provisions of this Agreement.

4.0.5 Time is of the essence, for time matters and the rest of this Agreement. Pursuant to this Agreement, if, in the sole discretion of the Capital Improvements Division of the City of Flagstaff, the Project is not at Substantial Completion prior to the advent of adverse weather conditions, a Winter Shutdown shall occur during which no Work will be performed by any person or entity (including but not limited to the CMAR) on the Project and CMAR shall shutdown, properly insulate and shelter the Project in a safe and workmanlike manner pursuant to local, state and federal laws. Although December through March is typically the time frame, the Owner reserves the right to initiate and terminate a Winter Shutdown at the Owner's sole discretion in the event of adverse weather conditions. A Winter Shutdown may be declared by the Owner despite delays, *for any reason,* on the Project.

4.1 Substantial Completion

4.1.1 Substantial Completion shall be for the entire Project unless a partial Substantial Completion is identified in the approved GMP schedule and stated in the Notice to Proceed letter or as may be mutually agreed by the parties in writing. Substantial Completion shall be in accordance with the definition in this Agreement and with the criteria set forth in the NTP.

4.1.2 Prior to notifying the Owner, CMAR shall inspect the Work and prepare and submit to the Owner a comprehensive list of items to be completed or corrected. CMAR shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of CMAR to complete all Work in accorda*nce with the C*ontract Documents**.**

4.1.3 CMAR shall notify Owner when it believes the Work, or to the extent permitted in the Contract Documents, a portion of the Work, is substantially complete.

4.1.4 Within five (5) days of Owner's receipt of CMAR's notice, the Owner and CMAR shall jointly inspect such Work to verify that it is substantially complete in accordance with the requirements of the Contract Documents.

4.1.5 If such Work is substantially complete, Owner shall prepare and issue a Certificate of Substantial Completion that shall set forth (i) the date of Substantial Completion of the Work or portion thereof,

(ii) the remaining items of Work that have to be completed within thirty (30) calendar days before Final Acceptance, (iii) provisions (to the extent not already provided in the Contract Documents) establishing Owner's and CMAR's responsibility for the Project's security, maintenance, utilities and insurance pending Final Acceptance and (iv) an acknowledgment that warranties commence to run on the date of Substantial Completion, except as may otherwise be noted in the Certificate of Substantial Completion.

4.1.6 Owner, at its option, may use a portion of the Work which has been determined to be substantially complete, provided, however, that (i) a Certificate of Substantial Completion has been issued for the portion of Work addressing the items in this Agreement, (ii) CMAR and Owner have obtained the consent of their sureties and insurers, and to the extent applicable, the appropriate government authorities having jurisdiction over the Project, and (iii) Owner and CMAR agree that Owner's use or occupancy shall not interfere with CMAR's completion of the remaining Work.

4.2 Final Completion

4.2.1 Upon receipt of written notice that the Work or identified portions of the Work is ready for final inspection and acceptance, Owner and CMAR shall jointly inspect to verify that the remaining items of Work have been completed. The Owner shall issue a Final Completion Letter and payment pursuant to this Agreement.

4.3 Liquidated Damages

4.3.1 CMAR understands that if Substantial Completion is not attained within the Contract Time as adjusted, the Owner shall suffer damages, which are difficult to determine and accurately specify. CMAR agrees that if Substantial Completion is not attained within the Contract Time as adjusted, CMAR shall pay the Owner **$1420.00** (to be determined on an agreement-by-agreement basis) per day as liquidated damages for each Day that Substantial Completion extends beyond the date determined by the Contract Time as adjusted and further agrees that such amount is reasonable under the circumstances.

4.3.2 CMAR understands that if Final Completion is not attained within the Contract Time as adjusted, the Owner shall suffer damages, which are difficult to determine and accurately specify. CMAR agrees that if Final Completion is not attained within the Contract Time as adjusted, CMAR shall pay the Owner **$1420.00** (to be determined on an agreement-by-agreement basis) per day as liquidated damages for each Day that Final Completion extends beyond the date determined by the Contract Time as adjusted and further agrees that such amount is reasonable under the circumstances.

4.4 Project Master Schedule

4.4.1 The Project Master Schedule approved as part of a GMP shall be updated and maintained throughout the Work by CMAR.

4.4.2 The Project Master Schedule shall be revised by CMAR as required by conditions and progress of the Work, but such revisions shall not relieve CMAR of its obligations to complete the Work within the Contract Time, as such dates may be adjusted in accordance with the Contract Documents.

4.4.3 Updated Project Master Schedules shall be submitted monthly by CMAR to the Owner as part of the Payment Request.

4.4.3.1 CMAR shall provide Owner with a monthly status report with each Project Master Schedule detailing the progress of the Work, including: (i) if the Work is proceeding according to schedule, (ii) any discrepancies, conflicts, or ambiguities found to exist in the Contract Documents that require resolution, and (iii) other items that require resolution so as not to jeopardize ability to complete the Work as presented in the GMP and within the Contract Time.

4.4.3.2 With each schedule submittal CMAR shall include a transmittal letter including the following:

4.4.3.2.1 Description of problem tasks (referenced to field instructions, requests for information (“RFI’s”), as appropriate.

4.4.3.2.2 Current and anticipated delays including:

4.4.3.2.2.1 Cause of the delay

4.4.3.2.2.2 Corrective action and schedule adjustments to correct the delay

4.4.3.2.2.3 Known or potential impact of the delay on other activities, milestones, and/or the date of Substantial Completion

4.4.3.2.3 Changes in construction sequence

4.4.3.2.4 Pending items and status thereof including but not limited to:

4.4.3.2.4.1 Time Extension requests

4.4.3.2.4.2 Other items

4.4.3.2.5 Substantial Completion date status:

4.4.3.2.5.1 If ahead of schedule, the number of calendar days ahead

4.4.3.2.5.2 If behind schedule, the number of calendar days behind

4.4.3.2.5.3 Other project or scheduling concerns

4.4.4 Owner’s review of and response to the Project Master Schedule is only for general conformance with the scheduling requirements of the Contract Documents. The review shall not relieve CMAR from compliance with the requirements of the Contract Documents or be construed as relieving CMAR of its complete and exclusive control over the means, methods, sequences and techniques for executing the Work.

4.4.5 The Project Master Schedule shall include a CPM diagram schedule that shall show the sequence of activities, the interdependence of each activity and indicate the Critical Path.

4.4.5.1 The CPM diagram schedule shall be in Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float times for all activities except critical activities. The CPM diagram schedule shall be presented in a time scaled graphical format for the Project as a whole.

4.4.5.2 The CPM diagram schedule shall indicate all relationships between activities.

4.4.5.3 The activities making up the schedule shall be in sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluating the progress of the Work.

4.4.5.4 The CPM diagram schedule shall be based upon activities, which would coincide with the Schedule of Values.

4.4.5.5 The CPM diagram schedule shall show all Submittals associated with each work activity and the review time for each submittal.

4.4.5.6 The CPM diagram schedule shall show milestones, including milestones for Owner-furnished information, and shall include activities for Owner-furnished equipment and furniture when those activities are interrelated with CMAR activities.

4.4.5.7 The CPM diagram schedule shall include a critical path activity that reflects anticipated weather delay during the performance of the Agreement. The duration shall reflect the average climatic range and usual industrial conditions prevailing in the locality of the Site. Weather data shall be based on the information set forth on the City of Flagstaff's Table of "Monthly Anticipated Adverse Weather Calendar Days" and the explanatory paragraphs attached thereto.

4.4.6 The Project Master Schedule shall consider the Owner's and the tenants' occupancy requirements showing portions of the Project having occupancy priority, and Contract Time.

4.4.7 Float time shall be as prescribed below:

4.4.7.1 The total Float within the overall schedule, is not for the exclusive use of either the Owner or CMAR but is jointly owned by both and is a resource available to and shared by both parties as needed to meet Agreement milestones and the Project completion date.

4.4.7.2 CMAR shall not sequester shared Float through such strategies as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, etc. Since Float time within the schedule is jointly owned, no time extensions shall be granted nor delay damages paid until a delay occurs which extends the Work beyond the Substantial Completion date and then only if any such extensions or damages are shown to be justified under the Contract Documents.

4.4.7.3 Since Float time within the schedule is jointly owned, it is acknowledged that Owner-caused delays on the Project may be offset by Owner-caused time savings (i.e., critical path Submittals returned in less time than allowed by the Agreement, approval of substitution requests and credit changes which result in savings of time to CMAR, etc.). In such an event, CMAR shall not be entitled to receive a time extension or delay damages until all Owner-caused time savings are exceeded, and the Substantial Completion date is also exceeded.

Article 5- Contract Price

5.0 General

5.0.1 CMAR agrees at his own cost and expense, to completely construct and install all Work and materials as called for by this Agreement, free and clear of all claims, liens and charges whatsoever, in the manner and under the conditions specified in the Contract Documents, within the time or times stated in the approved GMP.

5.1 Contract Price

5.1.1 The Contract Price shall be as approved in the Guaranteed Maximum Price Proposal attached as Exhibit B and an amount of **$5,243,102.42** with an additional **$131,077.58** allowed for Owner's Contingency for a total contract price of **$5,374,180.00**.

5.1.2 The Cost of the Work is actual costs and is a not-to-exceed reimbursable amount.

5.1.3 The General Conditions Costs will be included in the GMP as a not to exceed amount and paid for on actual costs based on submitted and approved invoices. The Construction Fee will be paid as a firm lump sum.

5.1.4 Taxes are deemed to include all sales, use consumer and other taxes, which are legally enacted when negotiations of the GMP were concluded, whether or not yet effective, or merely scheduled to go into effect. Taxes are actual costs and are a not-to-exceed reimbursable amount.

5.2 Guaranteed Maximum Price

5.2.1 The GMP is composed of the maximum Cost of the Work; the Construction Fee; General Conditions Costs; taxes; and CMAR's contingency all of which are not-to-exceed cost reimbursable or lump sum amounts. CMAR is at risk to cover any additional Project costs. If the Cost of Work amount, set forth in the GMP, is in excess of the actual Cost of Work and/or CMAR's Contingency, said amount by which the Cost of Work set forth in the GMP is in excess of the actual Cost of Work and/or CMAR's Contingency, shall revert to the Owner.

5.2.2 A Separate Construction Phase Agreement will be used for phased projects with separate GMPs for each phase of construction in a phased project.

5.2.3 The GMP is subject to adjustments made in accordance with this Agreement and by GMP amendments or change orders to this Agreement and phased Agreements.

5.2.4 GMP phased Agreements and change order amendments are cumulative except for CMAR's Contingency. The amount of CMAR's Contingency for each GMP shall be negotiated separately.

5.2.5 If the GMP requires an adjustment due to changes in the scope of the Work the cost of such changes is determined subject to this Agreement. The markups that may be allowed on such changes shall be no greater than the markups delineated in the approved GMP.

5.3 Contingencies

5.3.1 CMAR's Contingency is an amount CMAR may use at its sole discretion for, an increase in the Cost of Work, and may use for increases in General Conditions Costs with written approval of the Owner. CMAR's Contingency is assumed to be a direct Project cost and all applicable markups shall be applied at the time of GMP submission.

5.3.2 When CMAR utilizes CMAR's Contingency funds, CMAR shall make the appropriate changes to the Schedule of Values with the next regular progress payment request. CMAR shall deduct the amount of CMAR's Contingency funds used from CMAR's Contingency line item and add the same amount to the line item on the Schedule of Values where the funds were used. If CMAR's contingency funds are used for a new line item that was not given with the original Schedule of Values, these shall be so indicated.

5.3.3 Owner's Contingency are funds to be used at the sole discretion of the Owner to cover any increases in Project costs that result from Owner directed changes or unforeseen Site conditions. Owner's Contingency shall be added to the GMP amount provided by CMAR, the sum of which shall be the full Contract Price for construction. At the time that Owner's Contingency is used the appropriate markups shall be applied.

5.4 Open Book

5.4.1 CMAR shall submit to the Owner upon request all payrolls, reports, estimates, records and any other data concerning the Work performed or to be performed or concerning materials supplied or to be supplied, as well as Subcontractor or Consultant payment applications or invoices and such Subcontractor's or Consultant progress payment checks. The requirements of this Section shall be included in all Agreements between CMAR and its Subcontractors and Consultants. The Owner may exercise its rights under this Agreement as often as reasonably necessary in the Owner's sole judgment to assure the Owner has a complete and accurate understanding of all Project costs.

5.4.2 Upon Project closeout and immediately prior to the release of final payment, the CMAR shall provide to the Owner a Final Cost Report detailing all Project costs for each division of work with supporting documentation for materials, labor, equipment and other appurtenant items.

Article 6 - Changes to the Contract Price and Time

6.0 Delays to the Work

6.0.1 If CMAR is delayed in the performance of the Work that shall cause a change in the date of Substantial Completion due to acts, omissions, conditions, events, or circumstances beyond its control and due to no fault of its own, or, those for whom CMAR is responsible, the Contract Times for performance shall be reasonably extended by Change Order. However, the Owner and the CMAR must agree on the determination of whether acts, omissions, conditions, events, or circumstances are actually beyond the CMARs control and/or whether they are due to no fault of the CMAR, or those for whom CMAR is responsible; if the Owner and the CMAR do not agree, then an independent third party, selected by both parties, shall make the determination of whether acts, omissions, conditions, events, or circumstances are actually beyond the CMARs control and/or whether they are due to no fault of the CMAR, or those for whom CMAR is responsible.

6.0.2 CMAR shall request an increase in the Contract Time by written notice including an estimate of probable effect of delay on progress of the Work within three (3) days of the occurrence of the delay. In the case of a continuing delay only one request is necessary.

6.0.3 By way of example, events that shall entitle CMAR to an extension of the Contract Time include acts or omissions of Owner or anyone under Owner's control (including separate Contractors), changes in the Work, Differing Site Conditions, Hazardous Conditions, delays by regulating agencies, wars, floods, labor disputes, unusual delay in transportation, epidemics abroad, earthquakes, adverse weather conditions not reasonably anticipated, and other acts of God.

6.0.4 If adverse weather conditions are the basis for a request for additional Contract Time, such requests shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled Substantial Completion. All terms, conditions, and definitions necessary for the application of this paragraph shall be as set forth on the City of Flagstaff's Table of "Monthly Anticipated Adverse Weather Calendar Days" and the explanatory paragraphs attached thereto.

6.0.5 It is understood, however, that permitting CMAR to proceed to complete any Work, or any part of the Work, after the date to which the time of completion may have been extended, shall in no way act as a waiver on the part of the Owner of any of its legal rights herein.

6.0.6 In addition to CMAR's right to a time extension for those events set forth in this Agreement, CMAR shall also be entitled to an appropriate adjustment of the Contract Price provided, however, that the Contract Price shall not be adjusted for those events set forth in this Section that are beyond the control of both CMAR and Owner, including the events of war, floods, labor disputes, earthquakes, epidemics, adverse weather conditions not reasonably anticipated, and other acts of God and shall not be adjusted absent a showing of actual damage.

6.1 Differing Site Conditions

6.1.1 If CMAR encounters a Differing Site Condition, CMAR shall be entitled to an adjustment in the Contract Price and/or Contract Times to the extent CMAR's cost and/or time of performance are actually adversely impacted by the Differing Site Condition.

6.1.2 Upon encountering a Differing Site Condition, CMAR shall provide prompt written notice to Owner of such condition, which notice shall not be later than seven (7) days after such condition has been encountered. CMAR shall, to the extent reasonably possible, provide such notice before the Differing Site Condition has been substantially disturbed or altered.

6.2 Errors, Discrepancies and Omissions

6.2.1 If CMAR observes errors, discrepancies or omissions in the Contract Documents, CMAR shall promptly notify the Design Professional and request clarification.

6.2.2 If CMAR proceeds with the Work affected by such errors, discrepancies, or omissions, without receiving such clarifications, CMAR does so at its own risk. Adjustments involving such circumstances made by CMAR prior to clarification by the Design Professional shall be at CMAR's risk.

6.3 The Owner Requested Change in Work

6.3.1 The Owner reserves the right to make, at any time during the progress of the Work, such alterations as may be found necessary or in the Owner's best interest.

6.3.2 Such alterations and changes shall not invalidate this Agreement nor release the surety and CMAR agrees to perform the Work as altered, the same as if it has been a part of the original Contract Documents.

6.3.3 The Owner shall request a proposal for a change in Work from CMAR, and an adjustment in the Contract Price and/or Contract Times shall be made based on a mutual agreed upon cost and time.

6.4 Legal Requirements

6.4.1 The Contract Price and/or Contract Times shall be adjusted to compensate CMAR for the effects of any changes in the Legal Requirements enacted after the date of their Agreement or the date of the GMP, affecting the performance of the Work

6.5 Change Directives and Change Orders

6.5.1 Owner and CMAR shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for a Change Directive if any adjustments are appropriate. Upon reaching an agreement, the parties shall prepare and execute an appropriate Change Order reflecting the terms of the adjustment.

6.5.2 All changes in Work authorized by Change Directives and/or Change Orders shall be performed under the conditions of the Contract Documents.

6.6 Minor Changes in the Work

6.6.1 The Owner has authority to order minor changes in Work that do not materially and adversely affect the Work, including the design, quality, performance, and workmanship required by the Contract Documents. Such changes shall be affected by written order and shall be binding on the Owner and CMAR. CMAR shall carry out such written orders promptly.

6.6.2 CMAR may make minor changes in Work, provided, however that CMAR shall promptly inform Owner, in writing, of any such changes and record such changes, if appropriate, on the Project Record Documents maintained by CMAR.

6.6.3 Minor changes in Work shall not involve an adjustment in the Contract Price and/or Contract Times.

6.7 Contract Price Adjustments

6.7.1 The increase or decrease in Contract Price resulting from a change in the Work shall be determined by one or more of the following methods:

6.7.1.1 Unit prices set forth in this Agreement or as subsequently agreed to between the parties;

6.7.1.2 A mutually accepted, lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by Owner; and

6.7.1.3 Costs, fees and any other markups.

6.7.2 The markups that shall be allowed on such changes shall be no greater than the markups delineated in the approved GMP as shown on Exhibit B.

6.7.3 If an increase or decrease cannot be agreed to as set forth in this Agreement and Owner issues a Change Directive, the cost of the change of the Work shall be determined by the reasonable expense and savings in the performance of the Work resulting from the change, including a reasonable overhead and profit, as may be set forth in their Agreement. CMAR shall maintain a documented, itemized accounting evidencing the expenses and savings associated with such changes.

6.7.4 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices shall cause substantial inequity to Owner or CMAR because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted.

6.7.5 If Owner and CMAR disagree upon whether CMAR is entitled to be paid for any services required by Owner, or if there are any other disagreements over the scope of Work or proposed changes to the Work, Owner and CMAR shall resolve the disagreement pursuant this Agreement.

6.7.5.1 As part of the negotiation process, CMAR shall furnish Owner with a good faith estimate of the costs to perform the disputed services in accordance with Owner's interpretations.

6.7.5.2 If the parties are unable to agree and Owner expects CMAR to perform the services in accordance with Owner's interpretations, CMAR shall proceed to perform the disputed services, conditioned upon Owner issuing a written order to CMAR (i) directing CMAR to proceed and (ii) specifying Owner's interpretation of the services that are to be performed.

6.8 Emergencies

6.8.1 In any emergency affecting the safety of persons and/or property, CMAR shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Time resulting from emergency work under this Section shall be determined as provided in this Article.

6.9 Force Majeure

6.9.1 The parties acknowledge that there may be events that occur during the term of this Contract that are beyond the control of both the Owner and the CMAR, including events of war, floods, labor, disputes, earthquakes, epidemics, pandemics, adverse weather conditions not reasonably anticipated, forest fires, and other acts of God. These events may result in temporary delay or permanent shut down of the work that is the subject of this Contract. This may be caused by such things as stay-at-home orders, loss of labor force, supply chain delays, and other impediments to timely delivery of the Contract.

6.9.2 The parties agree that there will be no claims arising from a temporary delay or permanent shut down caused by the events described above and that the Owner will pay no additional costs incurred as a result of such events.

6.9.3 The parties agree to act in good faith to extend the Contract completion date without any penalty to the CMAR and that the extension will be in an amount of time equal to any temporary delay. This term supersedes all other terms regarding temporary delay, permanent shut down, or increased costs.

Article 7- Procedure for Payment

7.0 General

7.0.1 For and in consideration of the faithful performance of the Work herein embraced as set forth in the Contract Documents, which are a part hereof and in accordance with the directions of the Owner and to the Owner's satisfaction, the Owner agrees to pay CMAR the actual Cost of the Work and any applicable General Conditions Costs including, insurance and bonding, taxes and CMAR's Construction Fee, but no more than the GMP as adjusted by any change orders. Payment for the specific Work under this Agreement shall be made in accordance with payment provisions detailed below.

7.1 GMP Payment Request

7.1.1 At the pre-construction conference prescribed in this Agreement, CMAR shall submit for Owner's review and approval a Schedule of Values. The Schedule of Values shall serve as the basis for monthly progress payments made to CMAR throughout the Work.

7.1.2 At least five (5) working days prior to the date established for a Payment Request, CMAR shall submit an updated Project Master Schedule and meet with the Owner's Representative to review the progress of the Work as it shall be reflected on the Payment Request.

7.1.3 The Payment Request shall constitute CMAR's representation that the Work has been performed consistent with the Contract Documents, has progressed to the point indicated in the Payment Request, and that title to all Work shall pass to Owner free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the Work into the Project. The Payment Request shall include, at a minimum:

7.1.3.1 Monthly Executive summary detailing work completed during the pay period, a statement addressing the project budget and schedule and the items of work anticipated for the upcoming pay period

7.1.3.2 Current critical path schedule

7.1.3.3 Pay application cover sheet, detailed schedule of values and conditional lien waivers upon release of progress payment

7.1.3.4 Subcontractor and Supplier invoices and conditional lien waivers for current pay period

7.1.3.5 General Conditions invoices for current pay period

7.1.3.6 Daily Reports for current pay period

7.1.3.7 Weekly reports for current pay period

7.1.3.8 Project meeting minutes for current pay period

7.1.3.9 Certified payroll reports- alphabetical by subcontractor (when required for Davis Bacon projects)

7.1.4 The Payment Request may request payment for stored equipment and materials if construction progress is in reasonable conformance with the approved schedule.

7.1.4.1 For equipment and materials suitably stored at the Site, the equipment and materials shall be protected by suitable insurance and Owner shall receive the equipment and materials free and clear of all liens and encumbrances.

7.1.4.2 For materials and equipment stored off the Site, the Owner must approve the storage. The material and equipment must be stored within Coconino County or other Sites as may be approved and be accessible for Owner's inspection. CMAR must establish Owner title to such materials and equipment or otherwise protect the Owner's interest and shall include applicable insurance, bonding, storage and transportation to the Site.

7.1.4.3 All bonds and insurance required for stored materials shall name the Owner as the loss payee to the extent of its interest in the stored materials.

7.1.5 CMAR shall submit the Payment Request to Owner monthly either on the first of the month for payment on the 15th or on the 19th of the month for payment on the 30th or 31st. If the payment date is on a Saturday, payment shall be on Friday. If the payment date is on a Sunday, payment shall be on Monday.

7.2 Payment of GMP

7.2.1 Owner shall make payment in accordance with A.R.S. § 34-607. Payment shall be made no later than fourteen (14) days after the Payment Request is certified and approved, but in each case less the total of payments previously made, and less amounts properly retained under this Agreement.

7.2.2 Owner shall pay CMAR all amounts properly due. If Owner determines that CMAR is not entitled to all or part of a Payment Request, it shall notify CMAR in writing within (7) days after the date Payment Request is received by the Owner. The notice shall indicate the specific amounts Owner intends to withhold, the reasons and contractual basis for the withholding, and the specific measures CMAR shall take to rectify Owner's concerns. CMAR and Owner shall attempt to resolve Owner's concerns. If the parties cannot resolve such concerns, CMAR may pursue its rights under the Contract Documents, including those identified in this Agreement.

7.3 Retention of GMP

7.3.1 Owner shall retain ten percent (10%) of each Payment Request amount provided. When fifty percent (50%) of the Work has been completed by CMAR, upon request of CMAR, Owner may reduce the amount retained to five percent (5%) from CMAR's subsequent Payment Requests if CMAR's performance of Work has been satisfactory.

7.3.2 In lieu of retention, CMAR may provide as a substitute, an assignment of time certificates of deposit (CDs) from a bank licensed by the State of Arizona, securities of or guaranteed by the United States of America, securities of counties, municipalities and school districts within the State of Arizona or shares of savings and loan institutions authorized to transact business in Arizona.

7.3.2.1 CDs assigned to the Owner must be maintained at the Owner's single servicing bank, in the form of time deposit receipt accounts.

7.3.2.2 Securities deposited in lieu of retention must be deposited into a separate account with a bank within the State of Arizona.

7.3.2.3 CDs and Securities shall be assigned exclusively for the benefit of the City of Flagstaff pursuant to the Owner's form of Escrow Agreement. Escrow Agreement forms may be obtained from the Purchasing Department by contacting Matthew Luhman, Purchasing Manager.

7.4 Substantial Completion

7.4.1 Upon Substantial Completion of the entire Work or, if applicable, any portion of the Work, Owner shall release to CMAR all retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount up to two and one-half (2.5) times the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion.

7.5 Final Payment

7.5.1 After receipt of a final Payment Request, Owner shall make final payment within sixty (60) days after receipt by the Owner, provided that CMAR has completed all of the Work in conformance with the Contract Documents and a Final Completion Letter has been issued by the Owner.

7.5.2 At the time of submission of its final Payment Request, CMAR shall provide the following information:

7.5.2.1 An affidavit affirming that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which shall in any way affect Owner’s interests;

7.5.2.2 A general release executed by CMAR waiving, upon receipt of final payment by CMAR, all claims, except those claims previously made in writing to Owner and remaining unsettled at the time of final payment; and

7.5.2.3 Consent of CMAR’s surety, if any, to final payment.

7.6 Payments To Subcontractors or Suppliers

7.6.1 CMAR shall pay its Subcontractors or suppliers within seven (7) calendar days of receipt of each progress payment from the Owner. CMAR shall pay for Work performed or materials supplied by each Subcontractor or supplier as accepted and approved by the Owner with each progress payment. In addition, any reduction of retention by the Owner to CMAR shall result in a corresponding reduction to Subcontractors or suppliers who have performed satisfactory work. CMAR shall pay Subcontractors or suppliers the reduced retention within fourteen (14) calendar days of the payment of the reduction of the retention to CMAR. No agreement between CMAR and its Subcontractors and suppliers may materially alter the rights of any Subcontractor or supplier to receive prompt payment and retention reduction as provided herein.

7.6.2 If CMAR fails to make payments in accordance with these provisions, the Owner may take any one or more of the following actions and CMAR agrees that the Owner may take such actions:

7.6.2.1 Hold CMAR in default under this Agreement;

7.6.2.2 Withhold future payments including retention until proper payment has been made to Subcontractors or suppliers in accordance with these provisions;

7.6.2.3 Reject all future offers to perform work for the Owner from CMAR for a period not to exceed one (1) year from Substantial Completion date of this Project; or

7.6.2.4 Terminate this Agreement.

7.6.3 If CMAR's payment to a Subcontractor or supplier is in dispute, it shall act in compliance with A.R.S. § 32-1129.02(D) and related statutes as amended and shall further hold the Owner harmless from any ensuing damages, claims or costs.

7.6.4 Should the Owner fail or delay in exercising or enforcing any right, power, privilege, or remedy under this Section, such failure or delay shall not be deemed a waiver, release, or modification of the requirements of this Section or of any of the terms or provisions thereof.

7.6.5 CMAR shall include these prompt payment provisions in every subcontract, including procurement of materials and leases of equipment for this Agreement.

7.7 Record Keeping and Finance Controls

7.7.1 Records of CMAR's direct personnel payroll, reimbursable expenses pertaining to this Project and records of accounts between the Owner and CMAR shall be kept on a generally recognized accounting basis and shall be available for three (3) years after Final Completion of the Project.

7.7.2 The Owner, its authorized representative, and/or the appropriate federal agency, reserve the right to audit CMAR's records to verify the accuracy and appropriateness of all pricing data, including data used to negotiate Contract Documents and any Change Orders.

7.7.3 The Owner reserves the right to decrease Contract Price and/or payments made on this Agreement if, upon audit of CMAR's records, the audit discloses CMAR has provided false, misleading, or inaccurate cost and pricing data.

7.7.4 CMAR shall include a similar provision in all of its agreements with Subconsultants and Subcontractors providing services under the Contract Documents to ensure the Owner, its authorized representative, and/or the appropriate federal agency, has access to the Subconsultants' and Subcontractors' records to verify the accuracy of cost and pricing data.

7.7.5 The Owner reserves the right to decrease Contract Price and/or payments made on this Agreement if the above provision is not included in Subconsultant's and Subcontractor's Agreements, and one or more Subconsultants and/or Subcontractors do not allow the Owner to audit their records to verify the accuracy and appropriateness of pricing data.

7.7.6 The Owner and its employees, agents, and authorized representatives shall have the right at all reasonable times and during all business hours to inspect and examine CMAR's records related to this Agreement. CMAR shall comply with the City of Flagstaff's records retention policy. This record retention requirement shall remain in effect following expiration of the Agreement or termination of the Agreement by either Party.

Article 8 - Claims and Disputes

8.0 Requests for Agreement Adjustments and Relief.

8.0.1 If either CMAR or Owner believes that it is entitled to relief against the other for any event arising out of or related to Work, such party shall provide written notice to the other party of the basis for its claim for relief.

8.0.2 Such notice shall, if possible, be made prior to incurring any cost or expense and in accordance with any specific notice requirements contained in applicable sections of the Agreement.

8.0.3 In the absence of any specific notice requirement, written notice shall be given within a reasonable time, not to exceed fourteen (14) days, after the occurrence giving rise to the claim for relief or after

the claiming party reasonably should have recognized the event or condition giving rise to the request, whichever is later.

8.0.4 Such notice shall include sufficient information to advise the other party of the circumstances giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request.

8.1 Dispute Avoidance and Resolution

8.1.1 The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, CMAR and Owner each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the Work.

8.1.2 CMAR and Owner shall first attempt to resolve disputes or disagreements at the field level through discussions between CMAR's Representative and Owner's Representative.

8.1.3 If a dispute or disagreement cannot be resolved through CMAR's Representative and Owner's Representative, CMAR's Senior Representative and Owner's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than thirty (30) days after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meetings between the Senior Representatives, the parties shall exchange relevant information that shall assist the parties in resolving their dispute or disagreement.

8.1.4 Except as otherwise agreed by the parties, any litigation brought by either party against the other to enforce the provisions of this Agreement shall be filed in the Coconino County Superior Court and Arizona law shall apply and control. In the event any action at law or in equity is instituted between the parties in connection with this Agreement, the prevailing party in the action shall be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing party.

8.2 Duty to Continue Performance.

8.2.1 Unless provided to the contrary in the Contract Documents, CMAR shall continue to perform the Work and Owner shall continue to satisfy its payment obligations to CMAR, pending the final resolution of any dispute or disagreement between CMAR and Owner.

8.3 Representatives of the Parties

8.3.1 The Owner's Representatives

8.3.1.1 The Owner designates the individual listed below or his/her designee as its Senior Representative ("Owner's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under this Agreement:

Patrick Brown, Purchasing Director
City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001
Phone: (928) 213-2277
pbrown@flagstaffaz.gov

8.3.1.2 Owner designates the individual listed below as its Owner's Representative ("Owner's Representative"), which individual has the authority and responsibility under this Agreement:

Emily Markel, Purchasing Manager
City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001
Phone: (928) 213-2276
emarkel@flagstaffaz.gov

8.3.2 CMAR's Representatives

8.3.2.1 CMAR designates the individual listed below as its Senior Representative ("CMAR's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under this Agreement:

Jackson Salazar
Water Services Plan Reviewer
City of Flagstaff
2323 N. Walgreen Blvd.
Flagstaff, AZ 86004
Jackson.Salazar@flagstaffaz.gov

8.3.2.2 CMAR designates the individual listed below as its CMAR's Representative ("CMAR's Representative"), which individual has the authority and responsibility set forth in this Agreement:

Marco Spagnuolo, CEO
Eagle Mountain Construction, Inc.
3100 North Caden Court
Flagstaff, AZ 86004
marco@emcaz.com

Article 9 – Suspension and Termination

9.0 Owner's Right to Stop Work

9.0.1 Owner may, at its discretion and without cause, order CMAR in writing to stop and suspend the Work. Such suspension shall not exceed one hundred and eighty (180) consecutive days.

9.0.2 CMAR may seek an adjustment of the Contract Price and/or Contract Time if its cost or time to perform the Work has been adversely impacted by any suspension or stoppage of Work by Owner.

9.1 Termination for Convenience

9.1.1 The Owner may terminate this Agreement at any time for any reason by giving at least thirty (30) days written notice to the CMAR. In such event, Owner shall pay CMAR only the direct value of its completed Work and materials supplied as of the date of termination. CMAR shall be entitled to profit and overhead on completed Work only but shall not be entitled to anticipated profit or anticipated overhead.

9.1.2 If the Owner suspends the Work for one hundred eighty-one (181) consecutive days or more, such suspension shall be deemed a termination for convenience.

9.1.3 Upon such notice of termination for convenience, CMAR shall proceed with the following obligations:

9.1.3.1 Stop Work as specified in the notice.

9.1.3.2 Place no further subcontracts or orders.

9.1.3.3 Terminate all subcontracts to the extent they relate to the Work terminated. CMAR shall ensure that all subcontracts contain this same termination for convenience provision set forth in this Agreement.

9.1.3.4 At the Owner's sole discretion and if requested in writing by the Owner, assign to the Owner all rights, title and interest of CMAR under the subcontracts subject to termination.

9.1.3.5 Take any action that may be necessary for the protection and preservation of the property related to this Agreement that is in the possession of CMAR and in which the Owner has or may acquire an interest.

9.1.4 CMAR shall submit complete termination inventory schedules no later than one hundred twenty (120) days from the date of the notice of termination.

9.1.5 The Owner shall pay CMAR the following:

9.1.5.1 The direct value of its completed Work and materials supplied as of the date of termination.

9.1.5.2 The reasonable and direct, actual costs and expenses attributable to such termination. Reasonable costs and expenses shall not include, among other things, anticipated profit, anticipated overhead, or costs arising from CMAR's failure to perform as required under this Agreement.

9.1.5.3 CMAR shall be entitled to profit and overhead on completed Work only but shall not be entitled to anticipated profit or anticipated overhead. If it is determined that CMAR would have sustained a loss on the entire Work had they been completed, CMAR shall not be allowed profit and the Owner shall reduce the settlement to reflect the indicated rate of loss.

9.1.6 CMAR shall maintain all records and documents for three (3) years after final settlement. These records shall be maintained and subject to auditing as prescribed in this Agreement.

9.2 The Owner's Right to Perform and Terminate for Cause

9.2.1 If the Owner provides CMAR with a written order to provide adequate maintenance of traffic, adequate cleanup, adequate dust control or to correct deficiencies or damage resulting from abnormal weather conditions, and CMAR fails to comply in a time frame specified, the Owner may have work accomplished by other sources at CMAR's sole expense.

9.2.2 If CMAR persistently fails to (i) provide a sufficient number of skilled workers, (ii) supply the materials required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay, without cause, Subconsultants and/or Subcontractors, (v) prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Time, as such times may be adjusted, or (vi) perform material obligations under the Contract Documents, then Owner, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth in this Agreement.

9.2.3 Upon the occurrence of a terminable event, Owner may provide written notice to CMAR that it intends to terminate this Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of CMAR's receipt of such notice.

9.2.3.1 If CMAR fails to cure, or reasonably commence to cure, such problem, then Owner may give a second written notice to CMAR of its intent to terminate within an additional seven (7) day period.

9.2.3.2 If CMAR, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then Owner may declare this Agreement terminated for default by providing written notice to CMAR of such declaration.

9.2.4 Upon declaring this Agreement terminated, Owner may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which CMAR hereby transfers, assigns and conveys to Owner for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items.

9.2.5 In the event of such termination, CMAR shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, CMAR shall only be entitled to be paid for Work performed and accepted by the Owner prior to its default.

9.2.6 If Owner's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then CMAR shall be obligated to pay the difference to Owner. Such costs and expenses shall include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by Owner in connection with the re-procurement and defense of claims arising from CMAR's default.

9.2.7 If Owner improperly terminates the Agreement for cause, the termination for cause shall be converted to a termination for convenience in accordance with the provisions of this Agreement.

9.3 Maintenance During Winter Shutdown of Work; Snow Removal

9.3.1 The Capital Improvements Division of the City of Flagstaff retains the right to declare a Winter Shutdown when, in the opinion of the Owner, it would be unreasonable to continue Work due to adverse weather conditions. The Winter Shutdown determination is at the sole discretion of the Owner. If Work has been suspended due to winter weather, the CMAR shall be responsible for maintenance and protection of the improvements and of partially completed portions of the Work until final acceptance of the project. Winter Shutdown shall be by field order, change order or original contract. If repairs and/or maintenance are needed during the Winter Shutdown, the CMAR is required to perform the repairs and/or maintenance within twenty-four (24) hours of notification from the Owner. If the needed repairs and/or maintenance are not addressed within the timeframe, the Owner will accomplish the repairs and/or maintenance and deduct the cost from monies due or become due to the CMAR.

9.3.2 The Owner shall provide snow removal operations on active traffic lanes only. All other snow removal and maintenance operations shall be the responsibility of the CMAR. All cost associated with snow removal and proper disposal shall be considered incidental to the work including repair of temporary surface improvements due to normal wear and snow removal operations.

9.3.3 Upon termination of the Winter Shutdown by the Owner, the CMAR shall have the right to complete the Work and the Project.

9.3.4 The CMAR shall be solely responsible for any and all costs incurred either as a direct or indirect result of a Winter Shutdown and shall hold the Owner harmless from the same.

Article 10 - Insurance and Bonds

10.0 Insurance Requirements

10.0.1 CMAR and Subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the Work hereunder by CMAR, its agents, representatives, employees or Subcontractors.

10.0.2 The insurance requirements herein are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

10.0.3 The Owner in no way warrants that the minimum limits contained herein are sufficient to protect CMAR from liabilities that might arise out of the performance of the work under this Agreement by CMAR, its agents, representatives, employees, or subcontractors. CMAR is free to purchase such additional insurance as may be determined necessary.

10.1 Minimum Scope and Limits of Insurance

10.1.1 Commercial General Liability - Occurrence Form

General Aggregate/for this Project	$2,000,000/$1,000,000
Products – Completed Operations Aggregate	$1,000,000
Each Occurrence	$1,000,000

The policy shall be endorsed to include the following additional insured language: **"The City of Flagstaff shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of CMAR."**

Additional Insured Status. The insurance coverage, except Workers' Compensation, required by this Agreement, shall name the CITY, its agents, representatives, directors, officials, employees, and officers, as additional insured AND be accompanied by the required endorsement. Such evidence of additional insured status shall be subject to the approval of the Risk Management Department of the City of Flagstaff. The absence of acceptable insurance and endorsement shall be deemed a breach of this Agreement.

10.1.2 Automobile Liability **-** Bodily injury and property damage for any owned, hired, and non-owned vehicles used in the performance of this Agreement.

Combined Single Limit ("CSL")	$1,000,000

The policy shall be endorsed to include the following additional insured language: **"The City of Flagstaff shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of CMAR, including automobiles owned, leased, hired or borrowed by CMAR."**

10.1.3 Worker's Compensation: The CMAR shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes.

10.1.4 Builders' Risk Insurance or Installation Floater $ N/A

In an amount equal to the initial Contract Amount plus additional coverage equal to Contract Amount for all subsequent change orders.

10.1.4.1 The City of Flagstaff, CMAR, Subcontractors, Design Professional(s) and Design Professional(s)' consultant and any others with an insurable interest in the Work shall be Named Insureds on the policy**.**

10.1.4.2 Coverage shall be written on an all risk, replacement cost basis and shall include coverage for soft costs, flood and earth movement.

10.1.4.3 Coverage shall be maintained until whichever of the following shall first occur: (i) final payment has been made; or, (ii) until no person or entity, other than the City of Flagstaff, has an insurable interest in the property required to be covered.

10.1.4.4 Coverage shall be endorsed such that the insurance shall not be canceled or lapse because of any partial use or occupancy by the City.

10.1.4.5 CMAR shall provide coverage from the time any covered property becomes the responsibility of CMAR, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation Site, or awaiting installation, whether on or off Site.

10.1.4.6 Coverage shall contain a waiver of subrogation against the City of Flagstaff.

10.1.4.7 CMAR is responsible for the payment of all policy deductibles.

10.1.5 Umbrella/Excess Liability Insurance not less than $2,000,000 per occurrence combined limit Bodily Injury and Property Damage, that "follows form" and applies in excess of the Commercial General Liability, Automobile Liability as required above.

10.2 Additional Insurance Requirements

10.2.1 The policies shall include, or be endorsed to include the following provisions:

10.2.2 The City, its officers, officials, agents, employees and volunteers shall be additional insured to the full limits of liability purchased by CMAR even if those limits of liability are in excess of those required by this Agreement.

10.2.3 CMAR's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.

10.2.4 Coverage provided by CMAR shall not be limited to the liability assumed under the indemnification provisions of this Agreement.

10.2.5 The policies shall contain a Waiver of Subrogation against the City, its officers, officials, agents, and employees for losses arising from work performed by the CMAR for the Owner.

10.3 Notice of Cancellation

10.3.1 Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage or endorsed to lower limits except after thirty (30) days prior written notice has been given to the Owner. Such notice shall be sent directly to the Purchasing Section by certified mail, return receipt requested.

10.4 Acceptability of Insurers

10.4.1 Insurance is to be placed with insurers who are duly licensed companies in the State of Arizona with an "A.M. Best" rating of A-7, or as approved by the City and licensed in the State of Arizona

with policies and forms satisfactory to the Owner. The Owner in no way warrants that the above-required minimum insurer rating is sufficient to protect CMAR from potential insurer insolvency.

10.5 Verification Of Coverage

10.5.1 CMAR shall furnish the Owner with Certificates of Insurance (ACORD form or equivalent approved by the Owner) as required by this Agreement. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

10.5.2 All Certificates of Insurance and endorsements are to be received and approved by the Owner before work commences. Each insurance policy required by this Agreement shall be in effect at or prior to commencement of Work under this Agreement and remain in effect for the duration of the Project. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal is a material breach of contract.

10.5.3 All Certificates of Insurance required by this Agreement shall be sent directly to City's Purchasing Section. The City project/contract number and project description shall be noted on the Certificate of Insurance. The Owner reserves the right to require complete, certified copies of all insurance policies required by this Agreement at any time.

10.5.4 If the Certificate of Insurance reflecting policy coverage and cancellation notice does not conform to the Owner's requirements, the CMAR must submit a current Certificate of Insurance (dated within fifteen (15) days of the payment request submittal) with each payment request form. The payment request shall be rejected if the Certificate of Insurance is not submitted with the payment request.

10.6 Subcontractors

10.6.1 CMAR's Certificate(s) of Insurance shall include all Subcontractors as additional insureds under its policies. All coverages for Subcontractors shall be subject to the minimum requirements identified above.

10.7 Approval

10.7.1 Any modification or variation from the insurance requirements in this Agreement shall be made by the Owner Attorney's Office, whose decision shall be final. Such action shall not require a formal contract amendment but may be made by administrative action.

10.8 Bonds and Other Performance Security

10.8.1 Prior to execution of this Agreement, CMAR shall provide a performance bond and a labor and materials bond, each in an amount equal to the full amount of the GMP.

10.8.2 Each such bond shall be executed by a surety company, or companies, holding a Certificate of Authority to transact surety business in the State of Arizona, issued by the Director of the Arizona Department of Insurance. A copy of the Certificate of Authority shall accompany the bonds. The Certificate shall have been issued or updated within two (2) years prior to the execution of this Agreement.

10.8.3 The bonds shall be made payable and acceptable to the City of Flagstaff.

10.8.4 The bonds shall be written or countersigned by an authorized representative of the surety who is either a resident of the State of Arizona or whose principal office is maintained in Arizona, as by law required, and the bonds shall have attached thereto a certified copy of Power of Attorney of the signing official.

10.8.4.1 If one Power of Attorney is submitted, it shall be for twice the total GMP amount.

10.8.4.2 If two Powers of Attorney are submitted, each shall be for the total GMP amount. Personal or individual bonds are not acceptable.

10.8.5 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract Documents, CMAR shall promptly furnish a copy of the bonds or shall permit a copy to be made.

10.8.6 All bonds submitted for this project shall be provided by a company which has been rated AM Best rating of "A-,7, or better for the prior four quarters" by the A.M. Best Company.

Article 11 - Indemnification

11.1 CMAR's Liability and Indemnification

11.1.1 To the fullest extent permitted by law, CMAR shall defend, indemnify and hold harmless the Owner, its agents, representatives, officers, directors, officials and employees from and against all claims, damages, losses and expenses (including but not limited to attorney fees, court costs, and the cost of appellate proceedings), relating to, arising out of, or alleged to have resulted from the negligent, reckless, or intentional acts, errors, mistakes, omissions, work or services of CMAR, its employees, agents, or any tier of subcontractors in the performance of this Agreement. CMAR's duty to defend, hold harmless and indemnify the Owner, its agents, representatives, officers, directors, officials and employees shall arise in connection with the claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property including loss of use resulting therefrom, caused by any acts, errors, mistakes, omissions, work or services in the performance of this Agreement including any employee of CMAR or any tier of subcontractor or any other person for whose acts, errors, mistakes, omissions, work or services CMAR may be legally liable.

11.1.2 The amount and type of insurance coverage requirements set forth herein shall in no way be construed as limiting the scope of the indemnity in this paragraph.

Article 12 – General Provisions

12.1 Contract Documents

12.1.1 This Agreement, Plans, Standard Specifications and Details, Special Provisions, Addenda (if any) dated the ___ day of _____, 20___ and used as the basis for the Guaranteed Maximum Price Proposal and Guaranteed Maximum Price Proposal, as accepted by the Mayor and Council per Council Minutes the ____ day of _____, 20__, Performance Bond, Payment Bond, Certificates of Insurance, Construction Documents and Change Orders (if any) are by this reference made a part of this Agreement to the same extent as if set forth herein in full.

12.1.2 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Times for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

12.1.3 In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents shall take precedence in the order in which they are listed in the definitions section of this Agreement.

12.1.3.1 On the drawings, given dimensions shall take precedence over scaled measurements, and large-scale drawings over small-scale drawings.

12.1.3.2 Specifications take precedence over Plans.

12.1.3.3 In the event of any inconsistency, conflict, or ambiguity between the Contract Documents and the Design Phase Agreement, the Contract Documents take precedence over the Design Phase Agreement

12.1.4 The headings used in this Agreement, or any other Contract Documents, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

12.1.5 The Contract Documents form the entire agreement between Owner and CMAR and by incorporation herein are as fully binding on the parties as if repeated herein. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

12.2 Amendments

12.2.1 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

12.3 Time is of the Essence

12.3.1 The Owner and CMAR mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents.

12.4 Mutual Obligations

12.4.1 Owner and CMAR commit at all times to cooperate fully with each other and proceed on the basis of trust and good faith, to permit each party to realize the benefits afforded under the Contract Documents.

12.5 Cooperation and Further Documentation

12.5.1 CMAR agrees to provide the Owner such other duly executed documents as shall be reasonably requested by the Owner to implement the intent of the Contract Documents.

12.6 Assignment

12.6.1 CMAR shall not, without the written consent of the Owner, assign, transfer or sublet any portion of this Agreement or part of the Work or the obligations required by the Contract Documents. Notwithstanding the Owner's consent to assignment, CMAR as Assignor, and the Assignee shall both remain liable under all rights, obligations, terms, and conditions of this Agreement.

12.7 Successorship

12.7.1 CMAR and Owner intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

12.8 Third Party Beneficiary

12.8.1 Nothing under the Contract Documents shall be construed to give any rights or benefits in the Contract Documents to anyone other than the Owner and CMAR, and all duties and responsibilities undertaken pursuant to the Contract Documents shall be for the sole and exclusive benefit of Owner and CMAR and not for the benefit of any other party.

12.9 Governing Law

12.9.1 This Agreement and all Contract Documents shall be deemed to be made under, and shall be construed, in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any action to enforce any provision of this Agreement or to obtain any remedy with respect hereto shall be brought in the Superior Court, Coconino County, Arizona, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such Court.

12.10 Severability

12.10.1 If any provision of the Contract Documents or the application thereof to any person or circumstance shall be invalid, illegal or unenforceable to any extent, the remainder of the Contract Documents and the application thereof shall not be affected and shall be enforceable to the fullest extent permitted by law.

12.11 Compliance with All Laws

12.11.1 CMAR will comply with all applicable Federal, State, County and City laws, regulations and policies. CMAR understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989. CMAR agrees to comply with these laws in performing the Agreement and to permit the Owner to verify such compliance.

12.12 Legal Requirements

12.12.1 CMAR shall perform all Work in accordance with all Legal Requirements and shall provide all notices applicable to the Work as required by the Legal Requirements.

12.13 Construction Documents

12.13.1 It is not CMAR's responsibility to ascertain that the Construction Documents are in accordance with applicable laws, statutes, ordinances, building codes, rules and regulations. However, if CMAR recognizes that portions of the Construction Documents are at variance therewith, CMAR shall promptly notify the Design Professional and Owner in writing, describing the apparent variance or deficiency.

12.14 Independent Contractor

12.14.1 CMAR is and shall be an independent contractor. Any provisions in the Contract Documents that may appear to give the Owner the right to direct CMAR as to the details of accomplishing the Work or to exercise a measure of control over the Work means that CMAR shall follow the wishes of the Owner as to the results of the Work only. These results shall comply with all applicable laws and ordinances.

12.15 The Owner's Right of Cancellation

12.15.1 All parties hereto acknowledge that this Agreement is subject to cancellation by the Owner pursuant to the provisions of A.R.S. § 38-511.

12.16 Survival

12.16.1 All warranties, representations and indemnifications by CMAR shall survive the completion or termination of this Agreement.

12.17 Covenant against Contingent Fees

12.17.1 CMAR warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the Owner Council, or any employee of Owner has any interest, financially, or otherwise, in the firm. For breach or violation of this warrant, the Owner shall have the right to annul this Agreement without liability, or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

12.18 No Waiver

12.18.1 The failure of either party to enforce any of the provisions of the Contract Documents or to require performance of the other party of any of the provisions hereof shall not be construed to be a waiver of such provisions, nor shall it affect the validity of the Contract Documents or any part thereof, or the right of either party to thereafter enforce each and every provision.

12.19 Notice

12.19.1 Notices may be given to the other Party in writing, delivered in person, sent by facsimile transmission, emailed, deposited in the United States mail, postage prepaid, or deposited with any commercial air courier or express service at the addresses set forth below, or to such other address as the Parties may substitute by written notice, given in the manner prescribed in this paragraph. However, notices of termination, notices of default and any notice regarding warranties shall be sent via registered or certified mail, return receipt requested at the address set forth below ***and*** to legal counsel for the party to whom the notice is being given. Rejection, any refusal to accept or the inability to deliver because of changed address of which no notice was given shall be deemed to be receipt of the notice as of the date of such rejection, refusal or inability to deliver.

To CMAR:

Marco Spagnuolo, CEO
Eagle Mountain Construction, Inc.
3100 North Caden Court
Flagstaff, AZ 86004
marco@emcaz.com

To Owner:

City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001
Attn: Emily Markel, Purchasing Manager
Phone: (928) 213-2276
emarkel@flagstaffaz.gov

With a copy to:

Jackson Salazar
Water Services Plan Reviewer
City of Flagstaff
2323 N. Walgreen Blvd.
Flagstaff, AZ 86004
Jackson.Salazar@flagstaffaz.gov

Design Professional(s):

Steve Lewis
Water/Wastewater Practice Director
Ardurra Group, Inc.
110 Dale Avenue
Flagstaff, AZ 86001
slewis@adurra.com

12.19.2 Notices Related to Payment, Securities-in-lieu, Bonds. Any notice, request, instruction or other document to be given under this Agreement by any party to any other party related to payment, securities-in-lieu, bonds or other instrument securing the performance of this Agreement, including but not limited to, bid bonds, performance bonds, payment bonds or letters of credit, shall be in writing and shall be delivered in person or by courier or facsimile transmission or mailed by certified mail, postage prepaid, return receipt requested and shall be deemed given upon (a) confirmation of receipt of a facsimile transmission, (b) confirmed delivery by hand or standard overnight mail or (c) upon the expiration of three (3) business days after the day mailed by certified mail. Rejection, any refusal to accept or the inability to deliver because of changed address of which no notice was given shall be deemed to be receipt of the notice as of the date of such rejection, refusal or inability to deliver.

To CMAR:

Marco Spagnuolo, CEO
Eagle Mountain Construction, Inc.
3100 North Caden Court
Flagstaff, AZ 86004
marco@emcaz.com

To Owner:

City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001
Attn: Emily Markel, Purchasing Manager
Phone: (928) 213-2276
emarkel@flagstaffaz.gov

With copies to:

City of Flagstaff

Jackson Salazar
Water Services Plan Reviewer
City of Flagstaff
2323 N. Walgreen Blvd.
Flagstaff, AZ 86004
Jackson.Salazar@flagstaffaz.gov

12.20 Confidentiality of Plans and Specification

12.20.1 Any plans or specifications regarding this Project shall be for official use only. CMAR shall not share them with others except as required to fulfill the obligations of this Agreement with the Owner.

12.20.2 All Record Documents, Shop Drawings and other plans or drawings prepared or submitted by CMAR shall include the following language: “These plans are for official use only and may not be

shared with others except as required to fulfill the obligations of the Beulah/University Roadway Project Agreement with the City of Flagstaff."

12.21 CMAR and Subcontractor Employee Security Inquiries. The parties acknowledge that security measures required in this Section are necessary in order to preserve and protect the public health, safety and welfare. In addition to the specific measures set forth below, CMAR shall take such other measures, as it deems reasonable and necessary to further preserve and protect the public health, safety and welfare.

12.21.1 Security Inquiries. CMAR acknowledges that all of the employees that it provides pursuant to this Agreement shall be subject to background and security checks and screening ("Security Inquiries"). CMAR shall perform all such security inquiries and shall make the results available to Owner for all employees considered for performing work (including supervision and oversight) under this Agreement. Owner may make further security inquiries. Whether or not further security inquires are made by Owner, Owner may, at its sole, absolute and unfettered discretion, accept or reject any or all of the employees proposed by CMAR for performing work under this Agreement. Employees rejected by Owner for performing services under this Agreement may still be engaged by CMAR for other work not involving the Owner. An employee rejected for work under this Agreement shall not be proposed to perform work under other Owner Agreements or engagements without Owner's prior approval.

12.21.2 Criteria for Evaluating Security Inquiries. Once formally adopted by Owner, criteria for excluding an individual from performing work under this Agreement shall be communicated by Owner to CMAR and used by CMAR as a factor in making its decision. Prior to such adoption, CMAR shall use its best judgment in making its decision using, among other criteria, applicable law, administrative regulations of federal, state and local agencies concerned with work performed under this Agreement, specific local concerns that deal with the specific work and work location(s) of the Project, and standards used by Owner in evaluating its own personnel.

12.21.3 Additional Owner Rights Regarding Security Inquiries. In addition to the foregoing, Owner reserves the right to: (1) have an employee/prospective employee of CMAR be required to provide fingerprints and execute such other documentation as may be necessary to obtain criminal justice information pursuant to A.R.S. § 41-1750(G)(4); (2) act on newly acquired information whether or not such information should have been previously discovered; (3) unilaterally change its standards and criteria relative to the acceptability of CMAR 's employees and/or prospective employees; and, (4) object, at any time and for any reason, to an employee of CMAR performing work (including supervision and oversight) under this Agreement.

12.21.4 Background and Security-Contracts and Subcontracts. CMAR shall include the security inquiry terms of this Section for employee background and security checks and screening in all contracts and subcontracts for work performed under this Agreement, including supervision and oversight.

12.21.5 Materiality of Security Inquiry Provisions. The security inquiry provisions of this Agreement, as set forth above, are material to Owner 's entry into this Agreement and any breach thereof by CMAR may, at Owner's sole and unfettered discretion, be considered to be a breach of contract of sufficient magnitude to terminate this Agreement. Such termination shall subject CMAR to liability for its breach of this Agreement.

12.22 Hazardous Materials

12.22.1 Unless included in the Work, if CMAR encounters material on the Site which it reasonably believes to contain asbestos, polychlorinated biphenyl (PCB), or other hazardous substances or materials regulated by applicable law, it shall immediately stop work and report the condition to the Owner.

12.22.2 If the material is found to contain asbestos, PCB or other hazardous substances or materials regulated by applicable law, CMAR shall not resume work in the affected area until the material

has been abated or rendered harmless. CMAR and the Owner may agree, in writing, to continue work in non-affected areas on the Site.

12.22.3 An extension of Contract Time may be granted in accordance with this Agreement.

12.22.4 CMAR shall comply with all applicable laws/ordinances and regulations and take all appropriate health and safety precautions upon discovery.

12.23 Computer Systems

12.23.1 CMAR shall warrant fault-free performance in the processing of date and date-related data including, but not limited to calculating, comparing, and sequencing by all equipment and software products, individually and in combination, from the commencement of the Work. Fault-free performance shall include the manipulation of data when dates are in the 20th or 21st centuries and shall be transparent to the user. Failure to comply with "Year 2000" requirements shall be considered a breach of this Agreement.

12.24 Traffic Control

12.24.1 CMAR shall comply with all provisions of the latest version of the Manual on Uniform Traffic Control Devices and any other traffic control provisions as may be provided in the technical specifications.

12.25 No Boycott of Israel

12.25.1 Pursuant to A.R.S. §§ 35-393 and 35-393.01, if a Party has over ten (10) employees and the Agreement is worth at least one-hundred thousand dollars and no cents ($100,000), the Party shall certify that it is not currently engaged in, and agrees, for the duration of the Agreement, will not engage in a boycott of Israel.

12.26 Forced Labor of Ethnic Uyghurs

12.26.1 If CMAR engages in for-profit activity and has ten (10) or more employees, pursuant to A.R.S. §35-394, CMAR certifies that it does not currently, and agrees for the duration of the contract that it will not, use: 1) the forced labor of ethnic Uyghurs in the People's Republic of China; 2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and 3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If CMAR becomes aware during the term of the Contract that the company is not in compliance with the written certification, CMAR shall notify the Owner within five business days after becoming aware of the noncompliance. If CMAR does not provide the Owner with a written certification that CMAR has remedied the noncompliance within 180 days after notifying the Owner of the noncompliance, this Contract terminates, except that if the Contract termination date occurs before the end of the remedy period the Contract terminations on the Contract termination date.

(Signatures Appear on the Next Page)

This Agreement shall be in full force and effect only when it has been approved and executed by the duly authorized City officials.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on this 14 day of July, 20 25.

CONTRACTOR

Eagle Mountain Construction

Print name: Marco Spagnuolo

Title: CEO

CITY OF FLAGSTAFF

Greg Clifton signed on 7/14/2025 4:09:05 PM

Print name:

Title: City Manager

Attest:

City Clerk

Stacy Saltzburg signed on 7/14/2025 4:42:40 PM

Approved only as to form:

City Attorney's Office

Christina Kinnear signed on 7/14/2025 9:08:30 AM

Notice to Proceed issued: _____, 20___

Last updated February 28, 2024

EXHIBIT A - PROJECT DESCRIPTION

Following is a brief description of the Project for which the design phase service services specified in this Agreement are to be performed:

The general project scope includes the following work:

The Project is located in Flagstaff, Arizona between the Rio de Flag drainage crossing at I-40 and the Wildcat Hill Wastewater Treatment Plant and can be generally described as the construction of a 5200 LF of additional sewer main paralleling the existing sewer main between the I-40 and the Wildcat Hill Wastewater Treatment Plant. The project will include installation of the parallel sewer within ADOT Right of Way and State Land Parcels. Portions of the alignment are within the Floodway and Floodplain of the Rio De Flag. The existing wastewater flow must be maintained at all times. This project will be delivered through the CMAR project delivery process.

CMAR Construction Phase Services include coordination with various agencies, while performing the construction of the proposed improvements per the approved construction documents at the contracted GMP. The anticipated services include but are not limited to the following:

- Participate in a Pre-Construction Meeting.
- Perform and provide a pre-construction video and/or images of the site and adjacent properties.
- Provide Sewer Bypass plan for approval by the City of Flagstaff Water Services Department prior to construction.
- Prior to construction of the project provide or acquire all documents necessary to construct the Project including:
  - Bonds, Insurance, Permits, Material Submittals, etc.
  - Permit fees paid for by the City of Flagstaff
  - Bond and insure the construction in accordance with state and city requirements.
- Construct improvements per the approved construction documents.
- Self-perform at least 45% of the work as set forth in A.R.S. § 34-605(G)2 and solicit bids from qualified subcontractors to perform applicable portions of the work.
- Coordinate inspections and testing of all work including City Inspections & Testing.
- Coordinate weekly construction meetings.
- Maintain and update Project Master Schedule.
  - Identify activity sequencing, durations, and milestone dates.
- Ensure record As-built Drawings are kept current, accurate, and developed per the Owner's standards.
- Procurement of materials and services.
- Schedule and manage site operations.
- Provide all construction surveying and staking.
- Maintain a safe work site.
- Establish and maintain the Stormwater Pollution Prevention Plan (SWPPP).

The final scope of services will be negotiated after a qualified Contractor is selected.

EXHIBIT B – GMP SUBMITTAL (TO BE ATTACHED)

PROJECT #: 2025-94 Construction Phase 1 – GMP 1 **DATE: June 17, 2025**
PROJECT NAME: Wildcat Interceptor Sewer Upsizing Project

June 17, 2025

Jackson Salazar
Project Manager – Water Services
City of Flagstaff
Flagstaff, AZ 86004

Re: Wildcat Sewer Interceptor & BNSF Utility Relocation CMAR ("Project")
Construction Manager at Risk – Guaranteed Maximum Price ("GMP") 1

Dear Mr. Salazar,

Eagle Mountain Construction ("EMC") is submitting GMP 1 for the above referenced Project.

The Wildcat Sewer Interceptor (designed by Ardurra) and the BNSF Utility Relocation (designed by The WLB Group) projects are designed to replace the existing undersized pipeline feeding the Wildcat Hill Wastewater Treatment Plant, with an upsized 42" and 48" collection system.

This GMP 1 is based on 90% plans and is mainly for the pre-purchase of long lead items requiring shop drawing generation, submittal review & approval prior to ordering, as well as to mitigate the lengthy fabrication and delivery time frames. As we continue to solicit and contract with vendors, as well as analyze additional VE opportunities, we will account for whatever adjustments may arise in the anticipated GMP 2 for the balance of the scope, expected to be submitted within the next couple of months.

Also over these next couple of months we will be finalizing the Master Schedule and developing the Project Management Plan, detailing the parameters of access and logistics with neighboring properties, Purina, ADOT and BNSF.

Lastly, it requires noting that due to recent events related to the federal government's tariff policies, there is significant volatility in the supply and pricing of most commodities and materials in our industry. As always, EMC strives to mitigate those impacts with our subs & vendors in various ways, however, should there be supply or cost effects beyond our control, EMC reserves the right to submit for equitable adjustments as needed.

We are honored to be apart this Team and appreciate the opportunity to work with you, the City, the engineers, and the relevant stakeholders to deliver another successful project to the City of Flagstaff!

Sincerely,

Eagle Mountain Construction

Marco Spagnuolo
CEO

Wildcat Sewer Interceptor CMAR - GMP 1

Keynote	DESCRIPTION	QTY	Unit	Unit Cost	Total
WILDCAT SEWER INTERCEPTOR					
	42" ADS SANITITE PIPE	1,090	LF	$ 190.00	$ 207,100.00
	48" ADS SANITITE PIPE	4,290	LF	$ 220.00	$ 943,800.00
	JUNCTION STRUCTURE 1	1	EA	$ 395,000.00	$ 395,000.00
	JUNCTION STRUCTURE 2	1	EA	$ 388,000.00	$ 388,000.00
	JUNCTION STRUCTURE 3	1	EA	$ 401,000.00	$ 401,000.00
	48" POLYMER MANHOLE	3	EA	$ 19,000.00	$ 57,000.00
	60" TEMP BYPASS MANHOLE	4	EA	$ 17,500.00	$ 70,000.00
	72" POLYMER MANHOLE	3	EA	$ 46,500.00	$ 139,500.00
	84" POLYMER MANHOLE	17	EA	$ 63,250.00	$ 1,075,250.00
	96" POLYMER MANHOLE	1	EA	$ 97,000.00	$ 97,000.00
BNSF RELOCATION					
	60" POLYMER MANHOLE	2	EA	$ 28,750.00	$ 57,500.00
	42" DIP CL 350 SEWER PIPE	270	LF	$ 725.00	$ 195,750.00
MISCELLANEOUS					
	MOBILIZATION, YARD SETUP & STAGING	1	LS	$ 175,000.00	$ 175,000.00
	SURVEY & STAKING	1	LS	$ -	$ -
	TRAFFIC CONTROL & MAINTENANCE	1	LS	$ 7,500.00	$ 7,500.00
	AS-BUILTS\RECORD DRAWINGS	1	LS	$ -	$ -
	QC TESTING & VERIFYING	1	LS	$ -	$ -
	SWPPP INSTALLATION & MAINTENANCE	1	LS	$ 15,000.00	$ 15,000.00
CONTRACT ALLOWANCES					
	ROCK EX	2,500	CY	$ -	$ -
	UNSUITABLE SOIL	1,000	CY	$ -	$ -
	TBD	1	LS	$ -	$ -
	TBD	1	LS	$ -	$ -
SUMMARY					
COST OF WORK					**$ 4,224,400.00**
GENERAL CONDITIONS (GC'S) (Percent of Cost of the Work)		1.64%			$ 69,200.00
SUBTOTAL #1 - Cost of the Work + GC's					**$ 4,293,600.00**
CONSTRUCTION FEE (Fee) (Percentage of Subtotal #1)		12.00%			$ 515,232.00
SUBTOTAL #2 - Cost of the Work + GC's + Fee					**$ 4,808,832.00**
PERFORMANCE & PAYMENT BOND (Percentage of Subtotal #2)		0.90%			$ 43,279.49
SUBTOTAL #3 - Cost of the Work + GC's + Fee + Bonds					**$ 4,852,111.49**
INSURANCE (Percentage of Subtotal #3)		1.00%			$ 48,521.11
SUBTOTAL #4 - Cost of the Work + GC's + Fee + Bonds + Insurance					**$ 4,900,632.60**
SALES TAX (Percentage of GMP)		5.97%			$ 292,469.81
CMAR CONTINGENCY & POSSIBLE PRICE ESCALATION ALLOWANCE		1.2%			$ 50,000.00
GMP					**$ 5,243,102.42**
OWNERS CONTINGENCY (Percentage of Cost of the Work)		2.5%			$ 131,077.58
CONTRACT PRICE					**$ 5,374,180.00**

City of Flagstaff, Arizona

Wildcat Interceptor Sewer Upsizing Project

CONSTRUCTION MANAGER AT RISK

DESIGN PHASE SERVICES

Agreement No. 2025-92

Mayor
Becky Daggett

Council

Austin Aslan
Anthony Garcia
Khara House
Lori Matthews
David Spence
Miranda Sweet

City Manager
Greg Clifton

Water Services Director
Lee Williams

Interim Community Development Director
Michelle McNulty

Public Works Director
Scott Overton

Engineering & Capital Improvements Director
Paul Mood

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City of Flagstaff, Arizona

Wildcat Interceptor Sewer Upsizing Project
CONSTRUCTION MANAGER AT RISK
DESIGN PHASE SERVICES
Agreement No. 20 25-92

This Design Phase Services Agreement ("Agreement"), made and entered by and between City of Flagstaff, a political subdivision of the State of Arizona ("Owner") and Eagle Mountain Construction, Inc., an Arizona corporation, hereinafter designated the ("Construction Manager at Risk" or "CMAR) is entered into on this 27 day of May, 2025.

RECITALS

A. The City Manager of the City of Flagstaff, Arizona, is authorized and empowered by provisions of the City Charter to execute agreements for professional services and construction services.

B. The Owner intends to construct the *Wildcat Interceptor Sewer Upsizing Project* – Design Phase Services, as more fully described in Exhibit "A," attached ("Project".)

C. To undertake the construction administration of the Project, the Owner has entered into separate agreements with *Ardurra Group, Inc., a Florida Corporation* ("Design Professional(s)").

D. CMAR has represented to the Owner the ability to provide design phase services the Project, and based on this representation, the Owner hereby engages CMAR to provide these services and design the Project.

E. At the end of the design phase, at the Owner's discretion, the Owner may enter into a separate Construction Phase Services Agreement with CMAR for construction phase services.

AGREEMENT

NOW THEREFORE, for and in consideration of the mutual covenants and considerations hereinafter contained, it is agreed by and between the Owner and CMAR as follows:

ARTICLE 1 - TERMS AND DEFINITIONS

"Addenda" - Written or graphic instruments issued prior to the submittal of the GMP Proposal(s), which clarify, correct or change the GMP Proposal(s) requirements.

"Agreement (Contract)" - This written document signed by the Owner and CMAR covering the design phase of the Project, and including other documents itemized and referenced in or attached to and made part of this Agreement.

"Alternate Systems Evaluations" - Alternatives for design, means and methods or other scope considerations that are evaluated using value engineering principles which have the potential to reduce construction costs while still delivering a quality and functional Project that meets the Owner requirements.

"Change Directive" - A written order prepared and signed by the Owner, directing a change in the Work prior to agreement on an adjustment in the Contract Price and the Contract Time.

"Change Order" - A type of contract amendment issued after execution of the Contract Documents where unanticipated or unforeseen circumstances in the Work have been encountered. Each Change Order shall be

signed by the Owner and CMAR, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or Deliverables; the amount of the adjustment to the Contract Price; the amount of the adjustment to the Contract Time; or other modifications of other Agreement terms.

"City (Owner)" - The City of Flagstaff, a political subdivision of the State of Arizona, with whom CMAR has entered into this Agreement and for whom the services are to be provided pursuant to said Agreement.

"CMAR" - The Contractor selected by the Owner to provide design phase services as detailed in this Agreement.

"CMAR Representative" - The designated CMAR Representative.

"CMAR Senior Representative" - The designated CMAR Senior Representative.

"Construction Documents" - Certain plans, specifications and drawings prepared by the Design Professionals after correcting for permit review requirements or dated plans and specifications specifically identified as the "Construction Documents" herein or in an Exhibit or Addendum which is attached hereto.

"Construction Fee" - CMAR's administrative costs for providing off-site management, supervision, General Conditions support, support of construction activities, home office overhead, and profit, as applicable to this Project, whether at CMAR's principal or branch offices.

"Contingency, CMAR's" - A fund to cover cost growth during the Project, legitimate unforeseen construction expenses, or expenses otherwise agreed to by the Owner to be used at the discretion of CMAR usually for costs that result from Project circumstances. The amount of CMAR's Contingency shall be negotiated as a separate line item in each GMP package. Use and management of CMAR's Contingency is described in this Agreement.

"Contingency, Owner's" - A fund to cover cost growth during the Project used at the discretion of the Owner usually for costs that result from the Owner-directed changes or unforeseen Site conditions. The amount of the Owners' Contingency shall be set solely by the Owner and shall be in addition to the CMAR's GMP.

"Contract Documents" - The following items and documents in descending order of precedence executed by the Owner and CMAR: (i) all written modifications, amendments and Change Orders; (ii) this Agreement, including all exhibits and attachments; (iii) Construction Documents; and (iv) GMP Plans and Specifications.

"Contract Price" - The cost for services for this Agreement.

"Contract Time(s)" - The number of days or the dates related to the construction phase, including authorized adjustments, allotted in the Construction Documents for Substantial and final Completion of the Work, subject to Winter Shutdown.

"Cost Models" - Cost tabulation for the construction of the Project developed by the CMAR and continually updated throughout the preconstruction phase fee and utilized to develop the Guaranteed Maximum Price Proposal. The Cost Model is created using the Design Professionals list of standard pay items.

"Cost of the Work" - The direct costs necessarily incurred by CMAR in the proper performance of the Work. The Cost of the Work shall include direct labor costs, subcontract costs, costs of materials and equipment incorporated in the completed construction, costs of other materials and equipment, temporary facilities, permit and license fees, materials testing, and related items. The Cost of the Work shall not include CMAR's Construction Fee, General Conditions Cost, bonds, insurance, or taxes.

"Critical Path Method" or "CMP" - A scheduling technique used to predict project duration by analyzing which sequence of activities has the least amount of scheduling flexibility thus identifying the path (sequence) of activities which represent the longest time required to complete the Project. Delay in completion of the identified activities shall cause a delay in achieving Substantial Completion.

"Day(s)" - Calendar days unless otherwise specifically noted in the Contract Documents.

"Deliverables, Construction Phase Services Agreement" - The Work conducted by CMAR during the construction phase which may include, but is not limited to: Construction Management Plan, Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, cost models, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Statement of Proposed Minority Business Enterprise/Women's Business Enterprise ("MBE/WBE") Utilization as may be required or appropriate, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, and others as indicated in this Agreement or required by the Project Team and other services set forth in this Agreement or reasonably inferable therefrom.

"Deliverables, Design Phase Services Agreement" - The Work conducted by CMAR during the design phase which may include, but is not limited to: design recommendations, Project scheduling, constructability reviews, alternate systems evaluation, cost estimate, Minority Business Enterprise/Woman's Business Enterprise/Small Business Enterprise ("MBE/WBE/SBE") utilization, Subcontractor agreements, Subcontractor bid packages, GMP preparations and other services set forth in this Agreement or reasonably inferable therefrom.

"Design Professional(s)" - A qualified, licensed design professional who furnishes design, construction documents, and/or construction administration services required for the Project.

"Drawings (Plans)" - Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by CMAR during the construction phase, and which have been prepared or approved by the Design Professional(s) and the Owner. Includes Drawings that have reached a sufficient stage of completion and released by the Design Professional(s) solely for the purposes of review and/or use in performing constructability or biddability reviews and in preparing cost models (e.g., conceptual design Drawings, preliminary design Drawings, detailed design Drawings at 30%, 60%, 90% or 100% or schematic, design development, construction documents), but *"not for construction"*. Shop Drawings are not Drawings as so defined.

"Differing Site Conditions" - Concealed or latent physical conditions or subsurface conditions at the Site that: (i) materially differ from the conditions indicated in the Contract Documents; or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work.

"Final Completion" - 100% completion of all construction Work noted in, or reasonably inferred from, the Contract Documents, including but not limited to, all Punch Lists work, all record and close-out documents specified in Owner's Project specifications and Owner training/start up activities.

"Float" - The number of Days by which an activity can be delayed without lengthening the CMP and extending the Substantial Completion date.

"General Conditions Costs" - All on-site Project-specific costs required to perform the Work, but not itemized or included in the Cost of the Work. Includes, but is not limited to, the following types of costs for CMAR during the construction phase: (i) payroll costs for Project manager or CMAR for Work conducted at the Site, (ii) payroll costs for the superintendent and full-time general foremen, (iii) payroll costs for other management personnel resident and working at the Site, (iv) workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), (v) costs of offices and temporary facilities setup solely for this Project including office materials, office supplies, office equipment and minor expenses, (vi) cost of utilities, fuel, sanitary facilities and telephone services at the Site; (vii) costs of liability and other applicable insurance premiums not include in labor burdens for direct labor costs; (viii) costs of bonds premiums; (ix) costs of consultants not in the direct employee of CMAR or Subcontractors.

"Guaranteed Maximum Price" ("GMP)" - The sum of the maximum Cost of the Work; the Construction Fee, General Conditions Costs, taxes, and CMAR's Contingency.

"GMP Plans and Specifications" - Plans and specifications upon which the Guaranteed Maximum Price Proposal is based.

"Guaranteed Maximum Price (GMP) Proposal" - The offer or proposal of CMAR submitted on the prescribed form setting forth the GMP prices for the entire Work or portions of the Work to be performed during the construction phase or phases. The GMP Proposal(s) are to be developed pursuant to Article 2 of this Agreement.

"Legal Requirements" - All applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

"Notice to Proceed" or "NTP" - The directive issued by the Owner, authorizing CMAR to start Work.

"Opening Physical Conditions" - The current physical conditions present on the Site as jointly documented by an inspection of the Site by Owner and CMAR at the Pre-construction Conference.

"Owner's Representative" - The designated City Project Manager.

"Owner's Senior Representative" - The City of Flagstaff's designated Division/Department Head.

"Performance Period" - The period of time allotted in the Contract Documents to complete the Work comprised within a GMP. The Performance Period shall be stated with each GMP and shown on the Project Master Schedule.

"Payment Request" - The form used by CMAR in requesting progress payments or final payment and which shall include such supporting documentation as is required by the Contract Documents and or the Owner.

"Pre-construction Conference" - A Conference held between Owner and CMAR prior to the commencement of any Work, as scheduled by the Owner's Representative or designee.

"Product Data" - Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CMAR to illustrate materials or equipment for some portion of the Work.

"Project" - The Work to be completed in the execution of this Agreement, as amended, and as described in the Recitals above and in Exhibit "A" attached.

"Project Team" - The design phase services team consisting of the Design Professional(s), CMAR, the Owner's Representative, the Owner's Client Department representatives and other stakeholders who are responsible for making decisions regarding the Project.

"Schedule of Values (SOV)" - A statement furnished by CMAR to the Owner's Representative for approval, reflecting the portions of the GMP allotted for the various parts of the Work and used as the basis for evaluating CMAR's applications for progress payments.

"Shop Drawings" - All drawings, diagrams, schedules and other data specifically prepared for the Work by CMAR or a Subcontractor, Sub-Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

"Site" - Land or premises on which the Project is located.

"Specifications" - The part(s) of the Contract Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship, as applied to the Work, and certain administrative details applicable thereto.

"Subconsultant" - A person, firm or corporation having an agreement with CMAR to furnish services required as its independent professional associate or consultant with respect to the Project.

"Subcontractor" - An individual or firm having a direct agreement with CMAR or any other individual or firm having an agreement with the aforesaid contractors at any tier, who undertakes to perform a part of the design phase services or construction phase Work at the Site for which CMAR is responsible.

"Submittals" - Documents and/or things that may be produced or presented by one party for consideration, review, or such other actions as may be required by this Agreement by another party, entity or person. Examples of Submittals include, but are not limited to, preliminary or evolving drafts, product data samples, etc.

"Substantial Completion" - The construction services for the Work (or a specified part thereof) has progressed to the point where, in the opinion of the Owner's Representative, as evidenced by a Certificate of Substantial Completion, such construction services are sufficiently complete in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; without any outstanding concurrent Work at the site, except as may be required to complete or correct Punch List items. If no such certificate is issued, Substantial Completion takes place when the construction services Work or a Construction Phase is complete and ready for final payment as evidenced by the written recommendation of final payment by the Owner's Representative. The terms "substantially complete" and "substantially completed" as applied to all or part of the construction Work refers to Substantial Completion thereof.

"Supplier" - A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct agreement with CMAR or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by CMAR or any Subcontractor.

"Winter Shutdown" - The period of time typically including December through March during which no Work will be performed by any person or entity (including, but not limited to, the CMAR) on the Project and CMAR shall shutdown, properly insulate and shelter the Project in a safe and workmanlike manner pursuant to local, state and federal laws. Although December through March is typically the time frame, the Owner reserves the right to initiate and terminate a Winter Shutdown at the Owner's sole discretion in the event of adverse weather conditions. A Winter Shutdown may be declared by the Owner despite delays, *for any reason,* on the Project.

"Work" - The entire completed construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Contract Documents for the construction phase.

ARTICLE 2 – BASIC DESIGN PHASE SERVICES

2.1 GENERAL

2.1.1 CMAR, to further the interests of the Owner, shall perform the services required by, and in accordance with this Agreement, to the satisfaction of the Owner, exercising the degree of care, skill and judgment a professional construction manager performing similar services in Flagstaff, Arizona would exercise at such time, under similar conditions. CMAR shall, at all times, perform the required services consistent with sound and generally accepted construction management and construction contracting practice.

2.1.2 Program Evaluation. As a participating member of the Project Team, CMAR shall provide to the Owner and Design Professional(s) a written evaluation of the Owner's Project Program and Project Budget, each in terms of the other, with recommendations as to the appropriateness of each.

2.1.3 Project Meetings. CMAR shall attend Project Team meetings which may include, but are not limited to, monthly Project management meetings, Project workshops, special Project meetings, construction document rolling reviews and partnering sessions.

2.1.4 CMAR shall provide design phase services, described herein, in a proactive manner and consistent with the intent of the most current Drawings and Specifications. CMAR shall promptly notify the Owner in writing whenever CMAR determines that any Drawings or Specifications are inappropriate for the Project and/or cause changes in the scope of Work requiring an adjustment in the cost models, Project Schedule, GMP Proposals and/or in the Contract Time for the Work, to the extent such are established.

2.1.5 CMAR, when requested by the Owner, shall attend, make presentations and participate as may be appropriate in public agency and or community meetings, germane to the Project. CMAR shall provide drawings, schedule diagrams, budget charts and other materials describing the Project, when their use is

required or apropos in any such public agency meetings.

2.2 CONSTRUCTION MANAGEMENT PLAN

2.2.1 CMAR may, and at the written request of the Owner, shall prepare a Construction Management Plan ("CMP"), which, at the written request of the Owner, shall include CMAR's professional opinions concerning: (a) Project milestone dates and the Project Schedule, including the broad sequencing of the design and construction of the Project, (b) investigations, if any, to be undertaken to ascertain subsurface conditions and physical conditions of existing surface and subsurface facilities and underground utilities, (c) alternate strategies for fast-tracking and/or phasing the construction, (d) the number of separate subagreements to be awarded to Subcontractors and Suppliers for the Project construction, (e) permitting strategy, (f) safety and training programs, (g) construction quality control, (h) a commissioning program, (i) the cost models and basis of the GMP Proposal, and (j) a matrix summarizing each Project Team member's responsibilities and roles.

2.2.2 CMAR may, and at the written request of the Owner, shall add detail to its previous version of the CMP to keep it current throughout the design phase, so that the CMP is ready for implementation at the start of the construction phase. The update/revisions may, and at the written request of the Owner shall, take into account (a) revisions in Drawings and Specifications; (b) the results of any additional investigatory reports of subsurface conditions, drawings of physical conditions of existing surface and subsurface facilities and documents depicting underground utilities placement and physical condition, whether obtained by the Owner, Design Professional(s) or CMAR, (c) unresolved permitting issues, and significant issues, if any, pertaining to the acquisition of land and right of way, (d) the fast-tracking if any of the construction, or other chosen construction delivery methods, (e) the requisite number of separate bidding documents to be advertised, (f) the status of the procurement of long-lead time equipment (if any) and/or materials, and (g) funding issues identified by the Owner.

2.3 PROJECT MASTER SCHEDULE

2.3.1 The fundamental purpose of the "Project Master Schedule" is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize that Deliverable as a basis for managing and monitoring all member's compliance with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the Project Master Schedule requirements. CMAR shall develop and maintain the "Project Master Schedule" on behalf of and to be used by the Project Team based on input from the other Project Team members. The Project Master Schedule shall be consistent with the most recent revised/updated CMP. The Project Master Schedule shall use the Critical Path Method (CPM) technique, unless required otherwise, in writing by the Owner. CMAR shall use scheduling software to develop the Project Master Schedule that is acceptable to the Owner. The Project Master Schedule shall be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Project Master Schedule shall indicate milestone dates for the phases once determined.

2.3.2. The Project Master Schedule shall include a CPM diagram schedule that shall show the sequence of activities, the interdependence of each activity and indicate the CPM.

2.3.2.1 The CPM diagram schedule shall be in Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float times for all activities except critical activities. The CPM diagram schedule shall be presented in a time scaled graphical format for the Project as a whole.

2.3.2.2 The CPM diagram schedule shall indicate all relationships between activities.

2.3.2.3 The activities making up the CPM diagram schedule shall be in sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluating the progress of the Work. Formulation of the Project Master Schedule must also be based on the Opening Physical Conditions of the Site and any potential Winter Shutdown in the event the Work on the Project is delayed for any reason.

2.3.2.4 The CPM diagram schedule shall be based upon activities, which would coincide with the schedule of values.

2.3.2.5 The CPM diagram schedule shall show all Submittals associated with each work activity and the review time for each submittal.

2.3.2.6 The CPM diagram schedule shall show milestones, including milestones for Owner-furnished information, and shall include activities for Owner-furnished equipment and furniture when those activities are interrelated with CMAR activities.

2.3.2.7 The schedule shall include a CPM activity that reflects anticipated weather delay during the performance of this Agreement. The duration shall reflect the average climatic range and usual industrial conditions prevailing in the locality of the Site. Weather data shall be based on the information set forth on the City of Flagstaff's Table of "Monthly Anticipated Adverse Weather Calendar Days" Exhibit "D" attached, and the explanatory paragraphs attached thereto.

2.3.3 The Project Schedule shall consider the Owner's and the tenants' occupancy requirements showing portions of the Project having occupancy priority, and Contract Time.

2.3.4 Float time shall be as prescribed below:

2.3.4.1 The total Float within the overall schedule, is not for the exclusive use of either the Owner or CMAR, but is jointly owned by both and is a resource available to and shared by both parties as needed to meet Agreement milestones and the Project completion date.

2.3.4.2 CMAR shall not sequester shared Float through such strategies as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, etc. Since Float time within the schedule is jointly owned, no time extensions shall be granted nor delay damages paid until or unless a delay occurs which extends the Work beyond the Substantial Completion date.

2.3.4.3 Since Float time within the schedule is jointly owned, it is acknowledged that the Owner-caused delays on the Project may be offset by Owner-caused time savings (e.g., CPM Submittals returned in less time than allowed by the Agreement, approval of substitution requests and credit changes which result in savings of time to CMAR, etc.). In such an event, CMAR shall not be entitled to receive a time extension or delay damages until all Owner-caused time savings are exceeded, and the Substantial Completion date is also exceeded.

2.3.5 The Project Schedule shall be updated and maintained by CMAR throughout the design phase such that it shall not require major changes at the start of the construction phase to incorporate CMAR's plan for the performance of the construction phase Work. CMAR shall provide updates and/or revisions to the Project Schedule for use by the Project Team, whenever required, but no less often than at the monthly Project Team meetings. CMAR shall include with such Submittals a narrative describing its analysis of the progress achieved to-date vs. that planned, any concerns regarding delays or potential delays, and any recommendations regarding mitigating actions.

2.3.6 If phased construction is deemed appropriate and the Owner and Design Professional(s) approve, CMAR shall review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work, with the objective of reducing the Project Schedule and/or Cost of the Work. CMAR shall take into consideration such factors as natural and practical lines of Work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability, and any other factors pertinent to saving time and cost.

2.4 DESIGN DOCUMENT REVIEWS

2.4.1 CMAR shall evaluate periodically the availability of labor, materials/equipment, building systems, cost-sensitive aspects of the design; and other factors that may impact the cost models, GMP Proposals and/or the Project Master Schedule.

2.4.2 CMAR shall recommend, in conjunction with the Project Team, those additional surface and subsurface investigations that, in its professional opinion, are required to provide the necessary information for CMAR to construct the Project. Before initiating construction operations, CMAR may request additional investigations in their GMP Proposal to improve the adequacy and completeness of the Site condition information and data made available with the Construction Documents.

2.4.3 CMAR shall meet with the Project Team, as required, to review designs during their development. CMAR shall familiarize itself with the evolving documents through the various design phases. CMAR shall proactively advise the Project Team and make recommendations on factors related to construction costs, and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems, and, labor and material availability. CMAR shall advise the Project Team on proposed Site improvements, excavation and foundation considerations, as well as, concerns that exist with respect to coordination of the Drawings and Specifications. CMAR shall recommend cost effective alternatives.

2.4.4 CMAR shall conduct constructability and bidability reviews of the Drawings and Specifications as necessary to satisfy the needs of the Project Team and at a minimum as scheduled and identified by milestones in the Project Master Schedule. The reviews shall attempt to identify all discrepancies and inconsistencies in the Construction Documents especially those related to clarity, consistency, and coordination of Work of Subcontractors and Suppliers.

2.4.4.1 Constructability Reviews. CMAR shall evaluate whether (a) the Drawings and Specifications are configured to enable efficient construction, (b) design elements are standardized, (c) construction efficiency is properly considered in the Drawings and Specifications, (d) module/preassembly design are prepared to facilitate fabrication, transport and installation, © the design promotes accessibility of personnel, material and equipment and facilitates construction under adverse weather conditions, (f) sequences of Work required by or inferable from the Drawings and Specifications are practicable, and (g) the design has taken into consideration, efficiency issues concerning; access and entrance to the Site, laydown and storage of materials, staging of Site facilities, construction parking, and other similar pertinent issues.

2.4.4.2 Bidability Reviews. CMAR shall check cross-references and complementary Drawings and sections within the Specifications, and in general evaluate whether (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies, (b) named materials and equipment are commercially available and are performing well or otherwise, in similar installations, (c) Specifications include alternatives in the event a requirement cannot be met in the field, and (d) in its professional opinion, the Project is likely to be subject to differing Site conditions.

2.4.4.3 Results of the reviews shall be provided to the Owner in formal, written reports clearly identifying all discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. If requested by the Owner, CMAR shall meet with the Owner and Design Professional(s) to discuss any findings and review reports.

2.4.4.4 CMAR's reviews shall be from a contractor's perspective, and though it shall serve to reduce the number of Requests for Information (RFI) and changes during the construction phase, responsibility for the Drawings and Specifications shall remain with the Design Professional(s) and not CMAR.

2.4.5 Notification of Variance or Deficiency. It is CMAR's responsibility to assist the Design Professional(s) in ascertaining that, in CMAR's professional opinion, the Construction Documents are in accordance with applicable laws, statutes, ordinances, building codes, rules and regulations. If CMAR recognizes that

portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, rules and regulations, it shall promptly notify the Design Professional(s) and Owner in writing, describing the apparent variance or deficiency. However, the Design Professional(s) is ultimately responsible for the compliance with those laws, statutes, ordinances, building codes, rules and regulations.

2.4.6 Alternate Systems Evaluations. The Project Team shall routinely identify and evaluate using value engineering principles any alternate systems, approaches, design changes that have the potential to reduce Project costs while still delivering a quality and functional product. If the Project Team agrees, CMAR in cooperation with the Design Professional(s) shall perform a cost/benefit analysis of the alternatives and submit such in writing to the Project Team. The Project Team shall decide which alternatives shall be incorporated into the Project. The Design Professional(s) shall have full responsibility for the incorporation of the alternatives into the Drawings and Specifications. CMAR shall include the cost of the alternatives into the cost models and any GMP Proposals.

2.5 COST MODEL

2.5.1 Unless otherwise agreed by both parties, within fourteen (14) days after receipt of the documents for the various phases of design, CMAR shall develop a detailed Cost Model for the entire Project for review by the Owner and the Design Professional(s). The Cost Model shall be prepared in a format agreed upon in advance by the Owner and the CMAR. It will be based on the Design Professional(s)' list of standard pay items.

2.5.2 During the review period, the Cost Model will be compared with the estimates prepared by the CMAR and the Owner. The Design Professional(s) and CMAR shall reconcile any disagreements on the estimate to arrive at an agreed cost. If no consensus is reached, the Owner shall make the final determination. Once approved by the Owner, the Cost Model will be continually updated and kept current as the design progresses throughout the Preconstruction Phase until a GMP is agreed upon by both the CMAR and the Owner.

2.5.3 The Cost Model shall not include the CMAR's preconstruction services fee, sums due to CMAR, the cost of land, right of way, or other costs which are the responsibility of the Owner. The CMAR shall communicate to the Project Team any assumptions made in preparing the Cost Model.

2.5.4 Each Cost Model submitted shall be accompanied by backup documentation which shall include, but not be limited to the following:

2.5.4.1 Unit prices and quantity take-offs using the Design Professional(s)' standard pay items;

2.5.4.2 Details of all allowances and unit price work shown and specified in the detailed design documents;

2.5.4.3 Include a list of all assumptions and description and breakdown of all allowances;

2.5.4.4 Material costs, equipment costs, labor costs, General Conditions costs, hourly labor rates, and total cost;

2.5.4.5 Copies of quotations from subcontractors and suppliers;

2.5.4.6 Portion of the work to be performed by subcontractors including subcontractors overhead and profit;

2.5.4.7 Production rates, transportation, and other facilities and services necessary for the proper execution of the work, whether temporary or permanent, and whether or not incorporated or to be incorporated into the work;

2.5.4.8 All fixed equipment, site improvements, utility and equipment installations;

2.5.4.9 Project overhead;

2.5.4.10 Allocated general and administrative expenses;

2.5.4.11 Bonds, taxes, insurance;

2.5.4.12 The CMAR's profit; and

2.5.4.13 Memoranda, narratives, reports, and all other information included by the CMAR to arrive at the price shown in the Cost Model or GMP.

2.5.5 If any Cost Model submitted to the Owner exceeds previously accepted Cost Models or the Owner's Project budget, CMAR shall make appropriate recommendations on methods and materials to the Owner and Design Professional(s) that CMAR believes shall bring the Project back into the Project budget.

2.5.6 In between these milestone estimates, CMAR shall periodically provide a tracking report, which identifies the upward or downward movements of costs due to value engineering or scope changes. It shall be the responsibility of CMAR to keep the Owner and Design Professional(s) informed as to the major trend changes in costs relative to the Owner's budget.

2.5.7 If requested by the Owner, CMAR shall prepare a preliminary "cash flow" projection based upon historical records of similar type projects to assist the Owner in the financing process.

2.6 *SECTION LEFT INTENTIONALLY BLANK*

2.7 GUARANTEED MAXIMUM PRICE (GMP) PROPOSALS

2.7.1 The proposed GMP for the entire Work (or portions thereof) shall be presented in a format acceptable to the Owner and utilizing the formulas as shown in Exhibit "C" attached. The Owner may request a GMP Proposal for all or any portion of the Project and at any time during the design phase. Any GMP Proposals submitted by CMAR shall be based on and consistent with the current update/revised cost model at the time of the request and shall include any clarifications or assumptions upon which the GMP Proposal(s) are based. CMAR guarantees to complete the Project at or less than the final approved GMP Proposal amount, plus approved Change Orders, and agrees that it shall be responsible for any increase in the actual cost of the Work above that amount.

2.7.2 The Contract Price is the sum of the GMP and the Owner's Contingency. The Contract Price is comprised of the following actual costs and is a not-to-exceed, reimbursable amount.

2.7.2.1 The General Conditions will be included in the GMP as a not-to-exceed, reimbursable amount paid for on actual costs based on submitted and approved invoices.

2.7.2.2 The Construction Fee is a firm fixed lump sum and shall be paid monthly in accordance with the percentage of completion of the work.

2.7.2.3 Bonds are actual costs and are a not-to-exceed reimbursable amount.

2.7.2.4 Insurance is actual costs and is a not-to-exceed reimbursable amount.

2.7.2.5 Taxes are deemed to include all sales, use, consumer and other taxes, which are legally enacted when negotiations of the GMP were concluded, whether or not yet effective, or merely scheduled to go into effect. Taxes are actual costs and are a not-to-exceed reimbursable amount.

2.7.2.6 CMAR's Contingency is an amount CMAR may use at its sole discretion for increases in the Cost of the Work, legitimate unforeseen construction expenses, or expenses otherwise agreed to by the Owner, and for increases in General Condition Costs with written approval of the Owner. CMAR's Contingency shall

be included in the GMP amount provided by the CMAR, but all appropriate markups shall not be applied to the CMAR's Contingency at the time of GMP submission. At the time that the CMAR's Contingency is used the appropriate markups shall be applied, which shall only include Construction Fees, Bonds, Insurance, and Sales Tax. CMAR shall submit a Field Order Proposal, with supporting itemized schedule and pricing documentation, for Owner review and confirmation of appropriate CMAR's Contingency use for the project and for verification that appropriate markups are applied. The Owner has the authority to reject any use of the CMAR's Contingency if the Owner believes in its reasonable judgement that a portion or all the proposed amount is not a legitimate expense for the Project.

2.7.2.7 Owner's Contingency are funds to be used at the sole discretion of the Owner to cover any increases in Project costs that result from Owner directed changes or unforeseen Site conditions. Owner's Contingency shall be added to the GMP amount provided by the CMAR, the sum of which shall be the Contract Price for construction. At the time that Owner's Contingency is used, the appropriate markups shall be applied and shall only include Construction Fees, Bonds Insurance, and Sales Tax.

2.7.3 GMP amendments are cumulative except for CMAR's Contingency. The amount of CMAR's Contingency for each GMP shall be negotiated separately.

2.7.4 CMAR, in preparing any GMP Proposal, shall obtain from the Design Professional(s), three (3) sets of signed, sealed, and dated plans and specifications (including all addenda). CMAR shall prepare its GMP in accordance with the Owner's request for GMP Proposal requirements based on the most current completed plans and specifications at that time. CMAR shall mark the face of each document of each set upon which its proposed GMP is based. These documents shall be identified as the GMP Plans and Specifications. CMAR shall send one set of those documents to the Owner's Representative, keep one set and return the third set to the Design Professional(s).

2.7.5 An updated/revised Project Master Schedule shall be included with any GMP Proposal(s) that reflects the GMP Plans and Specifications. Any such Project Master Schedule updates/revisions shall continue to comply with the requirements of Section 2.3 above.

2.7.6 The Project Master Schedule required above shall include a preliminary Construction Schedule developed in a CPM with the first requested GMP. If subsequent GMP's are requested, CMAR shall include an updated CPM Construction Schedule with their GMP submittal.

2.7.7 GMP savings resulting from a lower actual Project cost than anticipated by CMAR remaining at the end of the project, shall revert to the Owner.

2.7.8 GMP Proposal(s) Review and Approval Process

2.7.8.1 The Owner may request a GMP from CMAR at any time during the performance of the design phase services. It is the Owner's expectation that the GMP shall not exceed the Owner-stated Project budget.

2.7.8.2 CMAR shall meet with the Owner and Design Professional(s) to review the GMP Proposal(s) and the written statement of its basis. In the event the Owner or Design Professional(s) discovers inconsistencies, inaccuracies or confusion in the information presented, CMAR shall make adjustments as necessary to the GMP Proposal, its basis or both.

2.7.8.3 CMAR's detailed cost model and GMP shall be reviewed by the Design Professional(s) and the Owner for reasonableness and compatibility with the Owner's Project and the Owner's budget. CMAR shall provide a response to the Design Professional(s) and Owner's questions and an explanation of differences between the Owner's Project budget and CMAR's cost model and corresponding GMP. Owner may require that such responses and explanations be submitted in writing. CMAR, Owner and Design Professional(s) shall engage in a mutually agreeable process in an effort to achieve a clearly understood mutually acceptable GMP.

2.7.8.4 If the GMP exceeds the Owner's Project budget, the Owner reserves the right to direct CMAR (and CMAR shall) work in conjunction with the Design Professional(s) to assist in the redesign of the Project

as necessary to meet the agreed upon program and the stated Project budget as follows:

2.7.8.4.1 After direction from the Owner, CMAR shall coordinate and cooperate with the Project Team to assist the Design Professional(s) in altering and re-drafting Construction Documents as necessary to accomplish the required reduction in cost.

2.7.8.4.2 CMAR shall develop and provide to the Owner a GMP in connection with the altered Construction Documents to accomplish the necessary reductions in cost.

2.7.8.4.3 CMAR shall analyze the Design Professional(s)' original submittal and as altered and redrafted Construction Documents and make recommendations to the Owner as to ways and methods to reduce the costs of constructing the Project to a sum which does not exceed the stated Project budget.

2.7.8.4.4 CMAR shall perform the work set forth in this Agreement without additional compensation.

2.7.8.4.5 The Owner, upon receipt of any GMP proposal from CMAR, may submit the GMP Plans and Specifications to a third-party for review and verification.

2.7.8.4.6 If the GMP Proposal is greater than the third-party estimate or if the Owner, for some other stated reason may desire, the Owner may require CMAR to reconfirm its GMP Proposal. CMAR shall accept the third-party's estimate for the cost of Work as part of its GMP Proposal or present a report within seven (7) days of a written request by the Owner for such a report identifying, explaining, and substantiating the differences and/or explaining other concerns the Owner may raise. CMAR may be requested to, or at its own discretion, submit a revised GMP Proposal for consideration by the Owner.

2.7.8.4.7 If during the review and negotiation of GMP Proposals design changes are required, the Owner shall authorize and cause the Design Professional(s) to revise the Construction Documents to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised Construction Documents shall be furnished to CMAR. CMAR shall promptly notify the Design Professional(s) and Owner in writing if any such revised Construction Documents are inconsistent with the agreed-upon assumptions and clarifications.

2.7.8.5 After final submission of the GMP Proposal, the Owner may do any of the following:

2.7.8.5.1 Accept the CMAR original or revised GMP Proposal, if within the Owner's budget, without comment;

2.7.8.5.2 Accept the CMAR original or revised GMP Proposal that exceeds the Owner's budget, and indicate in writing to CMAR that the Project Budget has been increased to fund the differences; or

2.7.8.5.3 Reject the CMAR original or revised GMP Proposal in which event, the Owner may terminate this Agreement and/or elect to not enter into a separate Agreement with CMAR for the construction phase services associated with the scope of Work reflected in the GMP Proposal.

2.7.8.5.4 Upon acceptance by the Owner of a GMP Proposal, the Owner shall prepare, and CMAR shall execute, the Owner's specified form of Agreement to reflect the GMP, and the GMP as approved shall become part of the Construction Services Agreement. Within ten (10) days after execution of the Construction Services Agreement, CMAR shall provide to the Procurement Section a Performance Bond and a Labor and Material Payment Bond, each for 100% of the full Agreement price.

2.8 SUBCONTRACTORS AND MAJOR SUPPLIERS SELECTION

2.8.1 There are three (3) ways to select Subcontractors and Major Suppliers prior to submission of any GMP Proposal. They are:

2.8.1.1 A combination of qualifications and price derived through competitive bidding.

2.8.1.2 Qualitative selection with the subsequent negotiation of a price that is reasonable, a prudent use of public funds and in the Owner's best interest.

2.8.1.3 Absent special circumstances documented in writing by CMAR as set forth below, the combination of qualifications and price derived through the competitive bidding process shall be used to select Subcontractors and Major Suppliers. The Owner has the sole discretion as to whether to allow the purely qualitative selection of Subcontractors and Major Suppliers. In any event, CMAR shall ensure compliance with A.R.S. § 34-603 et seq.

2.8.2 The Owner may approve the selection of Subcontractors and Major Suppliers based only on their qualifications when CMAR can demonstrate, in writing, that it is in the best interest of the Project and that the selection process shall constitute a prudent use of public funds.

2.8.2.1 A purely qualification-based selection of Subcontractors and Major Suppliers shall only occur prior to the submittal of any applicable GMP Proposal.

2.8.2.2 CMAR shall prepare a Subcontractor and Supplier selection plan and submit the plan to the Owner for approval. CMAR shall apply the plan in the evaluation of the qualifications of Subcontractors and Major Suppliers and provide the Owner with its review and recommendation.

2.8.2.3 CMAR shall obtain Owner approval of the selected Subcontractors and Major Suppliers. If CMAR is to self-perform under this alternative, CMAR shall submit a detailed explanation and demonstration of the cost of the Work it shall self-perform. CMAR shall further provide documentation to demonstrate that for any Work that is self-performed, the cost of any such Work is a reasonable and prudent use of public funds. The Owner shall approve CMAR self-performance of any part of the Work and the cost therefore prior to accepting any GMP Proposal.

2.8.2.4 CMAR shall negotiate costs for services/supplies from each of the Subcontractors and Major Suppliers selected under this method.

2.8.2.5 Within three (3) days of negotiating cost for services/supplies from all Subcontractors and Major Suppliers selected under this method, CMAR shall then prepare a report for the Owner's approval identifying the recommended Subcontractors and Major Suppliers for each category of the Work to be performed. The report shall be in a format approved by the Owner's Representative and shall include, among other things, the amount of each such cost. CMAR shall, at its discretion or at the request of the Owner's Representative, request written verification of any costs selected. CMAR shall provide an explanation of the qualifying factors for each selection.

2.8.3 In all other cases, CMAR shall select Subcontractors and Major Suppliers pursuant to the following process, which includes a combination of qualifications and price, derived through competitive bidding or as may otherwise be agreed in writing by the parties. CMAR shall ensure that any such process is fully compliant with Arizona law.

2.8.3.1 CMAR shall develop the interest of Subcontractors and Major Suppliers, submit the names of a minimum of three (3) qualified Subcontractors and Major Suppliers selected pursuant to a qualifications-based procedure, for each trade in the Project for approval by the Owner and solicit bids for the various construction categories. If there are not three (3) qualified Subcontractors or Major Suppliers available for a specific trade or there are extenuating circumstances warranting such, CMAR may request approval by the Owner to submit less than three (3) names. Without prior written approval by the Owner, no change in the Owner-approved Subcontractors shall be allowed.

2.8.3.2 If CMAR desires to self-perform certain portions of the Work, it shall comply with, and be subject to, the requirements set forth in this Agreement.

2.8.3.3 If the Owner objects to any nominated Subcontractors and Major Suppliers to any nominated self-performed Work for good reason, CMAR shall nominate substitute Subcontractors or Major Suppliers.

2.8.3.4 CMAR shall distribute drawings and specifications, and when appropriate, conduct a pre-bid conference with prospective Subcontractors and Major Suppliers.

2.8.3.5 CMAR shall receive, open, record and evaluate the bids. The apparent low bidders shall be interviewed to determine the responsiveness of their proposals. In evaluating the responsiveness of bid proposals, CMAR, in addition to bid price, shall consider the following factors: past performance on similar projects, qualifications and experience of personnel assigned, quality management plan, approach or understanding of the Work to be performed, and performance schedule to complete the Work. The final evaluation of Subcontractors' and Major Suppliers' bids shall be done with the Owner representative in attendance to observe and witness the process. CMAR shall resolve any Subcontractors' or Major Suppliers' bid withdrawal, protest or disqualification in connection with the award at no increase in the cost of the Work.

2.8.4 Upon completion of the Subcontractors or Major Suppliers' selection process, CMAR shall submit a summary report to the Owner of the entire Subcontractor selection process, including, the selected Subcontractors for each category of Work. The report shall indicate, by bid process, all Subcontractors contacted to determine interest, the Subcontractors solicited, the bids received and costs negotiated, compliance with Arizona law.

2.8.5 The selected Subcontractors and Major Suppliers shall provide a schedule of values, which shall be used to create the overall Project schedule of values.

2.8.6 CMAR shall contract with only Subcontractors and Major Suppliers who are duly licensed in Arizona and qualified to perform the Work per the requirements of the Contract Documents.

2.8.7 Regardless of the selection procedure, CMAR is responsible for ensuring that the costs of the Subcontractor's and Major Supplier's services are reasonable and a prudent use of public funds.

2.8.8 Regardless of the selection procedure, and in any case, CMAR is solely responsible for the cost and performance of the selected Subcontractors and Major Suppliers. The Owner's approvals under this Agreement are not, and shall not, be construed to be a waiver, in part or in whole, of CMAR's responsibility and obligation to perform as set forth in this Agreement or any subsequent construction agreement or GMP and for the cost, or less than the cost, set forth in any GMP to which the parties agree.

ARTICLE 3 - PERIOD OF SERVICES

3.1 The design phase services described in this Agreement shall be performed by CMAR in accordance with the most current updated/revised Project Master Schedule. Failure on the part of CMAR to adhere to the Project Master Schedule requirements for activities for which it is responsible shall be sufficient grounds for termination of this Agreement by the Owner.

3.1.1 If CMAR fails to adhere to the approved Project Master Schedule, the Owner may provide written notice to CMAR that it intends to terminate this Agreement unless the problem cited is cured, or commenced to be cured, within three (3) days of CMAR's receipt of such notice.

3.2 If the date of performance of any obligation or the last day of any time period provided for herein should fall on a Saturday, Sunday, or holiday for the Owner, then said obligation shall be due and owing, and said time period shall expire, on the first day thereafter which is not a Saturday, Sunday or legal City holiday. Except as may otherwise be set forth herein, any performance provided for herein shall be timely made if completed no later than 4:00 p.m. (Flagstaff time) on the day of performance.

ARTICLE 4 - CONTRACT PRICE AND PAYMENTS

4.1 CONTRACT PRICE

4.1.1 The Owner shall pay CMAR a Contract Price for the design phase services Work as proposed by CMAR and accepted by the Owner:

Basic Design Phase Services	$ 78,750.00
Additional services and allowances, as described in Section 4.3:	
Reimbursable Expenses	$ 0.00
Total Design Phase Services Agreement Contract Price Not to Exceed	$ 78,750.00

4.2 PAYMENTS

4.2.1 Requests for monthly payments by CMAR for design phase services shall be submitted on the Owner's "Contract Payment Request" form and shall be accompanied by a progress report, detailed invoices and receipts, if applicable. Any requests for payment shall include, as a minimum, a narrative description of the tasks accomplished during the billing period, a listing of any Deliverables submitted, and copies of any Subconsultants' requests for payment, plus similar narrative and listings of Deliverables associated with their Work. Payment for services negotiated as a lump sum shall be made in accordance with the percentage of Work completed during the preceding month. Services negotiated as a not-to-exceed fee shall be paid in accordance with the Work effort expended on that service during the preceding month.

4.2.2 Fees for CMAR and any Subconsultants shall be based upon the Hourly Rate Schedule included as Exhibit "B" attached hereto.

4.2.3 CMAR shall pay all sums due Subconsultants for services and reimbursable expenses within fourteen (14) calendar days after CMAR has received payment for those services from the Owner.

4.2.4 CMAR agrees that no charges or claims for costs or damages of any type shall be made by it for any delays or hindrances beyond the reasonable control of the Owner during the progress of any portion of the services specified in this Agreement. Such delays or hindrances, if any, shall be solely compensated for by an extension of time for such reasonable period as may be mutually agreed between the parties. It is understood and agreed, however, that permitting CMAR to proceed to complete any services, in whole or in part after the date to which the time of completion may have been extended, shall in no way act as a waiver on the part of the Owner of any of its legal rights herein.

4.2.5 No compensation to CMAR shall be allowed contrary to Article I, Chapter I, Title 34 of the Arizona Revised Statutes.

4.2.6 If any service(s) executed by CMAR is delayed or suspended in whole or in part, for a period of more than one hundred eighty (180) days through no fault of CMAR, CMAR shall be paid for the services performed prior to the delay or suspension.

4.2.7 In no event shall the Owner pay more than ninety percent (90%) of the Contract Price until final acceptance of all design phase services, and award of the final approved GMP for the entire Project by City Council.

4.3 ADDITIONAL DESIGN PHASE SERVICES

4.3.1 CMAR may be required to provide services in excess of those identified in this Agreement. Mark-ups are not authorized and only the reimbursables specifically identified below shall be reimbursed as authorized herein. Any additional services shall be requested by the Owner, in writing, prior to the delivery of said services. There shall be no payment by the Owner for any additional services provided prior to or without the written request of the Owner for said services.

4.3.2 When authorized by the Owner, CMAR shall be entitled to reimbursement at cost of design phase services related expenses incurred for the following items:

4.3.2.1 Reasonable charges for air transportation (not to exceed standard coach rates), ground travel (for automobile rental, taxi, parking, etc. not to exceed $50 per day), and authorized expenses while traveling (not to exceed the corporate rate at major business hotels in the area and a per diem for meal and miscellaneous business expenses of $45) shall be reimbursed. CMAR shall provide detailed receipts for all reimbursable charges. Travel expenses shall not exceed $0.00 without further approval of the Owner.

4.3.2.2 Non-overhead printing expenses incurred including the printing of Construction Documents for bidding, courier services or other Project-related services that may be requested by the Owner. The cost of such service shall not exceed **$ 7,500.00** (reimbursable allowance) without further approval by the Owner.

ARTICLE 5 - OWNER'S RESPONSIBILITIES

5.1 The Owner, at no cost to CMAR, shall furnish the following information:

5.1.1 One (1) copy of data the Owner determines pertinent to the work. However, CMAR shall be responsible for searching the records and requesting information it deems reasonably required for the Project.

5.1.2 All available data and information pertaining to relevant policies, standards, criteria, studies, etc.

5.1.3 The name of the person designated to be the Owner's representative during the term of this Agreement. The Owner's Representative has the authority to administer this Agreement and shall monitor CMAR's compliance with all terms and conditions stated herein. All requests for information from or decisions by the Owner on any aspect of the work or Deliverables shall be directed to the Owner's Representative.

5.2 The Owner additionally shall:

5.2.1 Contract separately, with one or more Design Professional(s), to provide architectural and/or engineering design services for the Project. The scope of services for the Design Professional(s) shall be provided to CMAR for its information. CMAR shall have no right, to limit or restrict any changes of such services that are otherwise mutually acceptable to the Owner and Design Professional(s).

5.2.2 Supply, without charge, all necessary copies of programs, reports, drawings, and specifications reasonably required by CMAR except for those copies whose cost has been reimbursed by the Owner.

5.2.3 Provide CMAR with adequate information in its possession or control regarding the Owner's requirements for the Project.

5.2.4 Give prompt written notice to CMAR when the Owner becomes aware of any default or defect in the Project or non-conformance with the Drawings and Specifications, or any of the services required hereunder. Upon notice of failure to perform, the Owner may provide written notice to CMAR that it intends to terminate this Agreement unless the problem cited is cured, or commenced to be cured, within

three (3) days of CMAR's receipt of such notice.

5.2.5 Notify CMAR of changes affecting the budget allocations or schedule.

5.3 The Owner's Representative shall have authority to approve the Project Budget and Project Master Schedule and render decisions and furnish information the Owner's Representative deems appropriate to CMAR.

ARTICLE 6 - AGREEMENT CONDITIONS

6.1 PROJECT DOCUMENTS AND COPYRIGHTS

6.1.1 Owner Ownership of Project Documents. All work products (electronically or manually generated) including but not limited to: cost estimates, studies, design analyses, original mylar drawings, Computer Aided Drafting and Design (CADD) file diskettes, and other related documents which are prepared specifically in the performance of this Agreement (collectively referred to as Project Documents) are to be and remain the property of the Owner and are to be delivered to the Owner's Representative before the final payment is made to CMAR. Nonetheless, in the event these Projects Documents are altered, modified or adapted without the written consent of CMAR, which consent CMAR shall not unreasonably withhold, the Owner agrees to hold CMAR harmless to the extent permitted by law, from the legal liability arising out of and or resulting from the Owner's alteration, modification or adaptation of the Project Documents.

6.1.2 CMAR to Retain Copyrights. The copyrights, patents, trade secrets or other intellectual property rights associated with the ideas, concepts, techniques, inventions, processes or works of authorship developed or created by CMAR, its Subcontractors or personnel, during the course of performing this Agreement or arising out of the Project shall belong to CMAR.

6.1.3 License to Owner for Reasonable Use. CMAR hereby grants, and shall require its Subcontractors to grant, a license to the Owner, its agents, employees, and representatives for an indefinite period of time to reasonably use, make copies, and distribute as appropriate the Project Documents, works or Deliverables developed or created for the Project and this Agreement. This license shall also include the making of derivative works as guided by this Agreement.

6.1.4 Documents to Bear Seal. When applicable and required by state law, CMAR and its Subcontractors shall endorse by an Arizona professional seal all plans, works, and Deliverables prepared by them for this Agreement.

6.1.5 Records Inspection. The Owner and its employees, agents, and authorized representatives shall have the right at all reasonable times and during all business hours to inspect and examine CMAR's records related to this Agreement.

6.1.6 Record Retention. CMAR shall comply with the Owner's record retention policy regarding all records associated with the Project. This record retention requirement shall remain in effect following expiration of the Agreement or termination of the Agreement by either Party.

6.2 COMPLETENESS AND ACCURACY OF CMAR'S WORK

6.2.1 CMAR shall be responsible for the completeness and accuracy of its reviews, reports, supporting data, and other design phase Deliverables prepared or compiled pursuant to its obligations under this Agreement and shall at its sole expense correct its work or Deliverables. Any damage incurred by the Owner as a result of additional construction cost caused by such willful or negligent errors, omissions or acts shall be chargeable to CMAR to the extent that such willful or negligent errors, omissions and acts fall below the standard of care and skill that a professional CMAR in Flagstaff, Arizona would exercise under similar conditions. The fact that the Owner has accepted or approved CMAR's Work or Deliverables shall in no way relieve CMAR of any of its responsibilities under this Agreement, nor does this requirement to correct the Work or Deliverables constitute a waiver of any claims or damages

otherwise available by law or this Agreement to the Owner. Correction of errors, omissions and acts discovered on architectural or engineering plans and specifications shall be the responsibility of the Design Professional(s).

6.3 ALTERATION IN CHARACTER OF WORK

6.3.1 In the event an unanticipated or unforeseen alteration or modification in the character of Work or Deliverables results in a substantial change in this Agreement, thereby materially increasing or decreasing the scope of services, cost of performance, or Project Master Schedule, the Work or Deliverables shall nonetheless be performed as directed by the Owner. However, before any altered or modified Work begins, a Change Order or Amendment shall be approved and executed by the Owner and CMAR. Such Change Order or Amendment shall not be effective until approved by the Owner.

6.3.2 Additions to, modifications, or deletions from the Project provided herein may be made, and the compensation to be paid to CMAR may accordingly be adjusted by mutual agreement of the contracting parties.

6.3.3 No claim for extra work done, or materials furnished, by CMAR shall be allowed by Owner except as provided herein, nor shall CMAR do any work or furnish any material(s) not covered by this Agreement unless such work or material is first authorized in writing. Work or material(s) furnished by CMAR without such prior written authorization shall be at CMAR's sole jeopardy, cost, and expense, and CMAR hereby agrees that without prior written authorization no claim for compensation for such work or materials furnished shall be made.

6.4 DATA CONFIDENTIALITY

6.4.1 As used in this Agreement, data ("Data") means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by or obtained by CMAR in the performance of this Agreement.

6.4.2 The parties agree that all Data, including originals, images, and reproductions, prepared by, obtained by, or transmitted to CMAR in connection with CMAR's performance of this Agreement is confidential and proprietary information belonging to the Owner.

6.4.3 CMAR shall not divulge Data to any third party without prior written consent of the Owner. CMAR shall not use the Data for any purposes except to perform the services required under this Agreement. These prohibitions shall not apply to the following Data:

6.4.3.1 Data, which was known to CMAR prior to its performance under this Agreement unless such data was acquired in connection with work performed for the Owner;

6.4.3.2 Data which was acquired by CMAR in its performance under this Agreement and which was disclosed to CMAR by a third party, who to the best of CMAR's knowledge and belief, had the legal right to make such disclosure and CMAR is not otherwise required to hold such data in confidence; or

6.4.3.3 Data which is required to be disclosed by CMAR by virtue of law, regulation, or court.

6.4.4 In the event CMAR is required or requested to disclose Data to a third party, or any other information to which CMAR became privy because of any other Agreement with the Owner, CMAR shall first notify the Owner as set forth in this Article of the request or demand for the Data. CMAR shall timely give the Owner sufficient facts, such that the Owner can have a meaningful opportunity to either first give its consent or take such action that the Owner may deem appropriate to protect such Data or other information from disclosure.

6.4.5 CMAR, unless prohibited by law, within ten (10) calendar days after completion of services for a third

party on real or personal property owned or leased by the Owner, shall promptly deliver, as set forth in this section, a copy of all Data to the Owner. All Data shall continue to be subject to the confidentiality agreements of this Agreement.

6.4.6 CMAR assumes all liability for maintaining the confidentiality of the Data in its possession and agrees to compensate the Owner if any of the provisions of this section are violated by CMAR, its employees, agents or Subconsultants. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this section shall be deemed to cause irreparable harm that justifies injunctive relief in court.

6.5 PROJECT STAFFING

6.5.1 Prior to the start of any work or Deliverables under this Agreement, CMAR shall submit to the Owner, an organization chart for CMAR staff and Subcontractors and detailed resumes of key personnel listed in its response to the Owner's Request for Qualifications or subsequent fee proposals (or revisions thereto), that shall be involved in performing the services prescribed in this Agreement. Unless otherwise informed, the Owner hereby acknowledges its acceptance of such personnel to perform such services under this Agreement. In the event CMAR desires to change such key personnel from performing such services under this Agreement, CMAR shall submit the qualifications of the proposed substituted personnel to the Owner for prior approval. Key personnel shall include, but are not limited to, principal-in-charge, project manager, superintendent, project director or those persons specifically identified to perform services of cost estimating, scheduling, value engineering, and procurement planning.

6.5.2 CMAR shall maintain an adequate number of competent and qualified persons, as determined by the Owner, to ensure acceptable and timely completion of the scope of services described in this Agreement throughout the period of those services. If the Owner objects, with reasonable cause, to any of CMAR's staff, CMAR shall take prompt corrective action acceptable to the Owner and, if required, remove such personnel from the Project and replace with new personnel acceptable to the Owner.

6.6 INDEPENDENT CONTRACTOR

6.6.1 CMAR is and shall be an independent contractor and whatever measure of control the Owner exercises over the work or Deliverables pursuant to this Agreement shall be as to the results of the Work only. No provision in this Agreement shall give, or be construed to give, the Owner the right to direct CMAR as to the details of accomplishing the work or Deliverables. These results shall comply with all applicable laws and ordinances.

6.7 SUBCONTRACTORS

6.7.1 Prior to beginning the work or Deliverables, CMAR shall furnish, for the Owner's approval, the names of all Subcontractors to be used on this Project. All subsequent changes shall be subject to the approval of the Owner.

6.8 TERMINATION

6.8.1 The Owner and CMAR hereby agree to the full performance of the covenants contained herein, except that the Owner reserves the right, at its discretion and without cause, to terminate any or all services provided for in this Agreement or terminate any portion of the Project for which services have been performed by CMAR.

6.8.2 In the event the Owner terminates any or all of the services or any part of the services as herein provided, the Owner shall so notify CMAR in writing, and CMAR shall immediately after receiving such notice, discontinue advancing the Work specified under this Agreement and mitigate the expenditure, if any, of costs resulting from such termination.

6.8.3 CMAR, upon such termination, shall promptly deliver to the Owner all reports, estimates and other Work or Deliverables entirely or partially completed, together with all unused materials supplied by the Owner.

6.8.4 CMAR shall appraise the Work completed and submit an appraisal to the Owner for evaluation. The Owner shall have the right to inspect CMAR's Work or Deliverables to appraise the Work completed.

6.8.5 CMAR shall receive compensation in full for services satisfactorily performed to the date of such termination and the reasonable direct costs and direct expenses attributable to such termination. The fee shall be paid in accordance with this Agreement and shall be an amount mutually agreed upon by CMAR and the Owner. The Owner shall make the final payment within sixty (60) days after CMAR has delivered the last of the partially or otherwise completed Work items and the final fee has been agreed upon.

6.9 DISPUTE AVOIDANCE AND RESOLUTION

6.9.1 The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, CMAR and Owner each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the Work.

6.9.2 CMAR and the Owner shall first attempt to resolve disputes or disagreements at the field level through discussions between CMAR's Representative and the Owner's Representative.

6.9.3 If a dispute or disagreement cannot be resolved through CMAR's Representative and the Owner's Representative, CMAR's Senior Representative and the Owner's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than thirty (30) days after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meetings between the Senior Representatives, the parties shall exchange relevant information that shall assist the parties in resolving their dispute or disagreement.

6.9.4 Except as otherwise agreed by the parties, any litigation brought by either party against the other to enforce the provisions of this Agreement shall be filed in the Coconino County Superior Court and Arizona law shall apply and control. In the event any action at law or in equity is instituted between the parties in connection with this Agreement, the prevailing party in the action shall be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing party.

6.10 WITHHOLDING PAYMENT

6.10.1 The Owner reserves the right to withhold funds from the Owner's progress payments up to the amount equal to the claims the Owner may have against CMAR, until such time that a settlement on those claims has been reached.

6.11 RECORDS/AUDIT

6.11.1 Records of CMAR's direct personnel payroll, reimbursable expenses pertaining to the Project and records of accounts between the Owner and CMAR shall be kept on a generally recognized accounting basis and shall be available for up to three (3) years following final completion of the Project. The Owner, its authorized representative, and/or the appropriate federal agency, reserve the right to audit CMAR's records to verify the accuracy and appropriateness of all pricing data, including data used to negotiate this Agreement and any Change Orders. The Owner reserves the right to decrease the Contract Price and/or payments made under this Agreement if, upon audit of CMAR's records, the audit discloses that CMAR has provided false, misleading, or inaccurate cost and pricing data.

6.11.2 CMAR shall include a provision identifying that generally recognized accounting practices shall be included in all of its agreements with Subconsultants, Subcontractors, and Suppliers providing services under this Agreement to ensure the Owner, its authorized representative, and/or the appropriate federal agency, has access to the Subconsultants', Subcontractors', and Suppliers' records to verify the accuracy of cost and pricing data. The Owner reserves the right to decrease the Contract Price and/or payments made under this Agreement if the above provision is not included in Subconsultant,

Subcontractor, and Supplier Agreements, and one or more of those parties do not allow the Owner to audit their records to verify the accuracy and appropriateness of pricing data.

6.12 INDEMNIFICATION

6.12.1 To the fullest extent permitted by law, CMAR agrees to defend, indemnify and hold harmless the Owner, its officers, agents and employees, and any jurisdiction or agency issuing permits for any Work included in the Project, their officers, agents and employees, hereinafter individually and collectively referred to as "indemnitee", from all suits and claims, including attorney's fees and cost of litigation, actions, losses, damage, expenses, costs or claims of any character or any nature relating to, arising out of, or alleged to have resulted from the negligent, reckless, or intentional acts, errors, mistakes, omissions, work or services of the CMAR related to the Work or Deliverables done in fulfilling the terms of this Agreement, or on account of any act, claim or amount arising out of or recovered under Workmen's Compensation Law, or arising out of the failure of CMAR to conform to any statutes, ordinances, regulation, law or court decree. It is agreed that CMAR shall be responsible for primary loss investigation, defense and judgment costs where this Agreement of indemnity applies.

6.13 NOTICES

6.13.1 Notices or demands required to be given under this Agreement, may be given in writing, delivered in person, sent by facsimile transmission, emailed, deposited in the United States mail, postage prepaid, or deposited with any commercial air courier or express service at the addresses set forth below, or to such other address as the Parties may substitute by written notice. However, notices of termination, notices of default and any notice regarding warranties shall be sent via registered or certified mail, return receipt requested at the address set forth below ***and*** to legal counsel for the party to whom the notice is being given.

to CMAR:

Marco Spagnuolo, CEO
Eagle Mountain Construction, Inc.
3100 North Caden Court
Flagstaff, AZ 86004
marco@emcaz.com

to Owner:

Jackson Salazar
Water Services Plan Reviewer
City of Flagstaff
2323 N. Walgreen Blvd.
Flagstaff, AZ 86004
Jackson.Salazar@flagstaffaz.gov

With a copy to:

Emily Markel
Purchasing Manager
City of Flagstaff
211 W. Aspen
Flagstaff, Arizona 86001
emarkel@flagstaffaz.gov

With a copy to Design Professionals:

Steve Lewis
Water/Wastewater Practice Director
Ardurra Group, Inc.
110 Dale Avenue
Flagstaff, AZ 86001
slewis@adurra.com

Or to other such place and with such other copies as either party may designate as to itself by written notice to the other party. Rejection, any refusal to accept, or the inability to deliver because of changed address of which no notice was given shall be deemed to be receipt of the notice as of the date of such rejection, refusal, or inability to deliver.

6.14 COMPLIANCE WITH ALL LAWS

6.14.1 CMAR will comply with all applicable Federal, State, County and City laws, regulations and policies. CMAR understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989. CMAR agrees to comply with these laws in performing the Contract Documents and to permit the Owner to verify such compliance.

6.15 CONFLICT OF INTEREST

6.15.1 To evaluate and avoid potential conflicts of interest, CMAR shall provide written notice to the Owner of any work or services performed by CMAR for third-parties that may involve or be associated with any real property or personal property owned or leased by the Owner. Such notice shall be given at least seven (7) business days prior to commencement of the Project by CMAR for a third party, or at least seven (7) business days prior to an adverse action as defined below. Written notice and disclosure shall be sent to:

Patrick Brown
Purchasing Director
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

6.15.2 Actions considered to be adverse to the Owner under this Agreement include but are not limited to:

6.15.2.1 Using Data, as defined in this Agreement, acquired in connection with this Agreement to assist a third party in pursuing administrative or judicial action against the Owner;

6.15.2.2 Filing a notice of claim or lawsuit against the City of Flagstaff, testifying or providing evidence on behalf of any person in connection with an administrative or judicial action against the City of Flagstaff; or

6.15.2.3 Using Data to produce income for CMAR or its employees independently of performing the services under this Agreement, without the prior written consent of the Owner.

6.15.3 CMAR represents that except for those persons, entities and projects previously identified in writing to the Owner, the services to be performed by CMAR under this Agreement are not expected to create an interest with any person, entity, or third-party project that is or may be adverse to the interests of the Owner.

6.15.4 CMAR's failure to provide a written notice and disclosure of the information as set forth in this section shall constitute a material breach of this Agreement.

6.16 CONTRACTOR'S LICENSE

6.16.1 Prior to award of this Agreement, CMAR shall provide to the Procurement Section, its Contractor's License Classification and number and its Federal Tax I.D. number.

6.17 SUCCESSORS AND ASSIGNS

6.17.1 The Owner and CMAR and their partners, successors, assigns, and legal representatives shall each be bound to the other party to this Agreement and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Agreement. Neither the Owner nor CMAR shall assign, sublet, or transfer its interest in this Agreement without the written consent of the other. In no event shall any contractual relationship be created or be construed to be created as between any third party and the Owner. Notwithstanding the Owner's consent to assignment, CMAR as Assignor, and the Assignee shall both remain liable under all rights, obligations, terms, and conditions of this Agreement.

6.18 FORCE MAJEURE

6.18.1 The parties acknowledge that there may be events that occur during the term of this Agreement that are beyond the control of both the Owner and the CMAR, including events of war, floods, labor, disputes, earthquakes, epidemics, pandemics, adverse weather conditions not reasonably anticipated, forest fires, and other acts of God. These events may result in temporary delay or permanent shut down of the work that is the subject of this Agreement. This may be caused by such things as stay-at-home orders, loss of labor force, supply chain delays, and other impediments to timely delivery of the Agreement.

6.18.2 The parties agree that there will be no claims arising from a temporary delay or permanent shut down caused by the events described above and that the Owner will pay no additional costs incurred because of such events.

6.18.3 The parties agree to act in good faith to extend the Contract completion date without any penalty to the Contractor and that the extension will be in an amount of time equal to any temporary delay. This term supersedes all other terms regarding temporary delay, permanent shut down, or increased costs.

6.19 COVENANT AGAINST CONTINGENT FEES

6.19.1 CMAR warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the City Council, or any employee of the Owner has any interest, financially, or otherwise, in CMAR. The Owner shall in the event of the breach or violation of this warranty, have the right to annul this Agreement without liability, or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

6.20 NON-WAIVER PROVISION

6.20.1 The failure of either party to enforce any of the provisions of this Agreement or to require performance by the other party of any of the provisions hereof shall not be construed to be a waiver of such provisions, nor shall it affect the validity of this Agreement or any part thereof, or the right of either party to thereafter enforce each and every provision.

6.21 JURISDICTION

6.21.1 This Agreement shall be deemed to be made under, and shall be construed in accordance with, and governed by the laws of the State of Arizona, without regard to the conflicts or choice of law provisions thereof. An action to enforce any provision of this Agreement or to obtain any remedy with respect hereto shall be brought in the Superior Court, Coconino County, Arizona, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such Court.

6.22 SURVIVAL

6.22.1 All warranties, representations and indemnifications by CMAR shall survive the completion or termination of this Agreement.

6.23 MODIFICATION

6.23.1 No supplement, modification, or amendment of any term of this Agreement shall be deemed binding or effective unless in writing and signed by the parties hereto and in conformation with provisions of this Agreement, except as expressly provided herein to the contrary.

6.24 SEVERABILITY

6.24.1 If any provision of this Agreement or the application thereof to any person or circumstance shall be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and shall be enforceable to the fullest extent permitted by law.

6.25 INTEGRATION

6.25.1 This Agreement contains the full agreement of the parties hereto. Any prior or contemporaneous written or oral agreement between the parties regarding the subject matter hereof is merged and superseded hereby.

6.26 TIME IS OF THE ESSENCE

6.26.1 Time of each of the terms, covenants, and conditions of this Agreement is hereby expressly made of the essence.

6.27 THIRD PARTY BENEFICIARY

6.27.1 This Agreement shall not be construed to give any rights or benefits in the Agreement to anyone other than the Owner and CMAR. All duties and responsibilities undertaken pursuant to this Agreement shall be for the sole and exclusive benefit of the Owner and CMAR and not for the benefit of any other party.

6.28 COOPERATION AND FURTHER DOCUMENTATION

6.28.1 CMAR agrees to provide the Owner such other duly executed documents as may be reasonably requested by the Owner to implement the intent of this Agreement.

6.29 CONFLICT IN LANGUAGE

6.29.1 All Work or Deliverables performed shall conform to all applicable Owner codes, ordinances and requirements as outlined in this Agreement. If there is a conflict in interpretation between provisions in this Agreement and any Exhibits, the provisions in this Agreement shall prevail.

6.30 CANCELLATION FOR CONFLICT OF INTEREST

6.30.1 All parties hereto acknowledge that this Agreement is subject to cancellation for conflict of interest by the Owner pursuant to the provisions of A.R.S. Section 38-511.

6.31 CONFIDENTIALITY OF PLANS & SPECIFICATIONS

6.31.1 Any plans or specifications received by CMAR regarding the Project are for official use only. CMAR may not share them with others except as required to fulfill Agreement obligations with the Owner.

6.32 NO BOYCOTT OF ISRAEL

6.32.1 Pursuant to A.R.S. §§ 35-393 and 35-393.01, if a Party has over ten (10) employees and the Agreement is worth at least one-hundred thousand dollars and no cents ($100,000), the Party shall certify that it is not currently engaged in, and agrees, for the duration of the Agreement, will not engage in a boycott of Israel.

6.33 FORCED LABOR OF ETHNIC UYGHURS

6.33.1 If CMAR engages in for-profit activity and has ten (10) or more employees, pursuant to A.R.S. §35-394, CMAR certifies that it does not currently, and agrees for the duration of the contract that it will not, use: 1) the forced labor of ethnic Uyghurs in the People's Republic of China; 2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and 3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China. If CMAR becomes aware during the term of the Contract that the company is not in compliance with the written certification, CMAR shall notify the Owner within five business days after becoming aware of the noncompliance. If CMAR does not provide the Owner with a written certification that CMAR has remedied the noncompliance within 180 days after notifying the Owner of the noncompliance, this Contract terminates, except that if the Contract termination date occurs before the end of the remedy period the Contract terminations on the Contract termination date.

ARTICLE 7 - INSURANCE

CMAR shall procure and maintain for the duration of this Agreement, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the Work or Deliverables hereunder by CMAR, its agents, representatives, employees, Subconsultants, Subcontractors, and/or Suppliers. Insurance requirements related to any construction Work done during the design phase or during the construction phase shall be defined in a separate Agreement associated with the construction phase. CMAR shall cause all Subcontracts to contain identical terms and conditions to those included in this Article.

The insurance requirements herein are minimum requirements for this Agreement and in no way limit the indemnity covenants that might arise out of the performance of the Work or Deliverables under this Agreement by CMAR, its agents, representatives, employees, Subconsultants, Subcontractors, or Suppliers and CMAR is free to purchase such additional insurance as it may determine necessary.

7.1 MINIMUM SCOPE AND LIMITS OF INSURANCE

7.1.1 CMAR shall provide coverage at least as broad and with limits of liability not less than those stated below.

7.1.1.1 Commercial General Liability-Occurrence Form

General Aggregate/per project	$2,000,000/$1,000,000
Products-Completed Operations Aggregate	$1,000,000
Each Occurrence	$1,000,000

7.1.1.2 Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles

Combined Single Limit Per Accident for Bodily Injury and Property Damage	$1,000,000

The policy shall be endorsed to include the following additional insured language: **"The City of Flagstaff shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of CMAR, including automobiles owned, leased, hired or borrowed by CMAR."**

7.1.1.3 Workers Compensation and Employers Liability

CMAR shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes.

Additional Insured Status. The insurance coverage, except Workers' Compensation, required by this Agreement, shall name the CITY, its agents, representatives, directors, officials, employees, and officers, as additional insured AND be accompanied by the required endorsement. Such evidence of additional insured status shall be subject to the approval of the Risk Management Department of the City of Flagstaff. The absence of acceptable insurance and endorsement shall be deemed a breach of this agreement.

7.1.2 Self-Insured Retentions

Any self-insured retentions and deductibles greater than $10,000 shall be declared to and approved by the Owner.

7.2 OTHER INSURANCE REQUIREMENTS

7.2.1 The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

7.2.1.1 The City, its officers, officials, agents, and employees, are to be named as additional insureds with respect to liability arising out of: activities performed by or on behalf of CMAR, including the Owner's general supervision of CMAR; products and completed operations of CMAR; and automobiles owned, leased, hired, or borrowed by CMAR.

7.2.1.2 The Commercial General Liability Insurance shall contain broad form contractual liability coverage and shall not exclude liability arising out of the explosion, collapse, or underground hazard ("EXU").

7.2.1.3 The City, its officers, officials, agents, and employees shall be additional insureds to the full limits of liability purchased by CMAR, even if those limits of liability are in excess of those required by this Agreement. The Commercial General Liability additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, Form B CG 20 10 11 85.

7.2.2 CMAR's insurance coverage shall be primary insurance with respect to the City, its officers, officials, agents, and employees. Insurance or self-insurance maintained by the City, its officers, officials, agents, and employees shall be in excess of CMAR's insurance and shall not contribute to it.

7.2.3 CMAR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. The coverage provided by CMAR and its Subcontractors shall not be limited to the liability assumed under the indemnification provisions of this Agreement.

7.2.4 The policies shall contain a waiver of subrogation against the City, its officers, officials, agents, and employees for losses arising from Work performed for the Owner.

7.2.5 Workers' Compensation and Employers Liability polices are to contain, or be endorsed to contain, the following: The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, agents, and employees for losses arising from work performed for the Owner.

7.3 SUBCONTRACTOR INSURANCE

7.3.1 CMAR's certificate(s) shall include all Subcontractors as insureds under its policies. All coverages for Subcontractors shall be subject to the minimum requirements identified above.

7.4 NOTICE OF CANCELLATION

7.4.1 Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice has been given, by certified mail, return receipt requested to:

Patrick Brown
Purchasing Director
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001
pbrown@flagstaffaz.gov

7.5 ACCEPTABILITY OF INSURERS

7.5.1 Insurance is to be placed with insurers duly licensed companies in the State of Arizona, and with an A.M. Best's rating of no less than A-,7, or as approved by the City and licensed in the State of Arizona with policies and forms satisfactory to the City. The Owner in no way warrants that the above required minimum insurer rating is sufficient to protect CMAR from potential insurer insolvency.

7.6 VERIFICATION OF COVERAGE

7.6.1 CMAR shall furnish the Owner, Certificates of Insurance (ACORD form or equivalent approved by the Owner) with original endorsements effecting coverage as required by this Agreement. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Any policy endorsement(s) that restricts or limits coverages shall be clearly noted on the Certificate of Insurance.

7.6.2 All certificates and endorsements are to be received and approved by the Owner before work commences. Each insurance policy required by this Agreement shall be in effect at or prior to the earlier of commencement of work under this Agreement or signing of this Agreement, and remain in effect for the duration of the Project. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal shall constitute a material breach of this Agreement.

7.6.3 All Certificates of Insurance required by this Agreement shall be sent directly to the Contracts Division. The Project Number and Project description shall be included on the Certificates of Insurance. The Owner reserves the right to require complete, certified copies of all insurance policies required by this Agreement at any time.

7.7 APPROVAL

7.7.1 Any modification or variation from the insurance requirements in this Agreement shall be approved by the City Attorney's Office, whose decision shall be final. Such action shall not require a formal Agreement amendment but may be made by administrative action.

This Agreement shall be in full force and effect only when it has been approved and executed by the duly authorized City officials.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on 5/27/2025.

CONSTRUCTION MANAGER AT RISK

Eagle Mountain Construction

Print name: Marco Spagnuolo

Title: CEO

CITY OF FLAGSTAFF

Lee Williams signed on 5/23/2025 1:41:35 PM

Print name:

Title: Division Director, Water Services

Attest:

Georgannis Staskey signed on 5/27/2025 8:21:27 AM

City Clerk

Approved as to form:

City Attorney's Office

Sterling Solomon signed on 5/22/2025 12:39:31 PM

Notice to Proceed issued:_____, 20___

Late updated February 28,2024

EXHIBIT A – PROJECT DESCRIPTION

Following is a brief description of the Project for which the design phase service services specified in this Agreement are to be performed:

Exhibit A

3100 North Caden Ct.
Flagstaff, Arizona 86004

Mass Earthwork • Utilities • Concrete • Paving
AZROC #315942 & 315943

928-526-2587
www.emcaz.com

March 10, 2025

City of Flagstaff
Attn: Jackson Salazar
211 W. Aspen Ave
Flagstaff, AZ 86001

RE: **WILDCAT SEWER INTERCEPTOR UPGRADE ("PROJECT")**
CMAR DESIGN PHASE SCOPE AND FEE PROPOSAL

Eagle Mountain Construction ("EMC") appreciates the opportunity to provide this Design Phase Scope and Fee Proposal to the City of Flagstaff for the above Project. We believe the project team assembled, combined with thoughtful planning and execution, will provide an excellent product for the City of Flagstaff, and a positive experience for the stakeholders and the Flagstaff community.

SCOPE OF SERVICES:

TASK 1 – KICKOFF MEETING

- On 2/20/25, the EMC Team met with the City of Flagstaff and Ardurra Engineering to discuss the current state of the Project and review the 60% drawings. We discussed the project goals and critical success factors, as well as desired tasks and milestones for the Design Phase. The salient points are addressed in this scope and fee proposal.

TASK 2 – PUBLIC OUTREACH

- It was determined by the City Staff that no outsourced public outreach would be needed.

TASK 3 – FRANCHISE UTILITY & STAKEHOLDER MEETINGS

Coordination meetings generally involve communication of the project scope and schedule to applicable stakeholders, then hearing and addressing any needs and concerns they may have. For this project, access will also be discussed due to the location adjacent to these stakeholders' infrastructure and ROW. We have included (12) coordination meetings with applicable stakeholders, including El Paso Gas, Unisource, ADOT, BNSF, Purina, Coconino County, COF Wildcat plant, and APS.

TASK 4 - 6 – DESIGN REVIEW, COST MODEL & PRELIMINARY PROJECT SCHEDULING

- EMC will internally review and comment on the 60%, 90%, Final 1 and Final 2 design plans. EMC will evaluate constructability and cost saving alternatives and provide comments and suggestions to the design team and City of Flagstaff.
- EMC will provide cost models at the 60%, 90%, Final 1 and Final 2 stages. These models will identify the schedule of value line items and will be adjusted and modified as the design progresses. EMC will seek a minimum of three bids from applicable vendors, when possible. Flagstaff is a unique market, with limited and sometimes one vendor to choose from. Also, for key vendors such as the pedestrian tunnel install and the traffic signals, EMC will seek the best value vendor, weighing factors such as experience, schedule and design phase involvement.
- EMC will evaluate long lead items and make recommendations for a pre-purchase GMP for those items that could affect the over-all project schedule and goals.

- EMC will develop the Project Master Schedule and provide updates at each stage and phase of the design and will include ARDURRA's design schedule. Coinciding with Project Master Schedule development is the Construction Management Plan, which will include items such as the construction phasing and traffic routing plans. These will all be utilized in the public outreach meetings as well.

TASK 7 – SUBCONTRACTOR AND SUPPLIER PROCUREMENT

- As mentioned above, subcontractors and suppliers will be solicited, scoped, and chosen in the design phase, but of course not contracted until the GMP is approved, and the Contract is issued to EMC from the City. EMC will seek the services of local vendors, while keeping in mind critical success factors such as experience, schedule, safety, and value-added suggestions in the design phase.

TASK 8 – GMP DEVELOPMENT

- EMC will take the cost models at the Final 2 design stage and develop the final GMP, Master Schedule, as well as all additional documents required for Council approval.

TASK 9 – KEY SUBCONTRACTOR – DESIGN PHASE INVOLVEMENT

- EMC feels the boring scope is a critical scope that deserves the involvement from a qualified subcontractor. EMC will seek initial proposals and project commitment from selected subcontractors and engage the most qualified to provide pre-construction services.

Again, Eagle Mountain sincerely thanks the City of Flagstaff for the opportunity to provide CMAR services for the Project, and we look forward to another successful Project with the City of Flagstaff.

Thank you,

Eagle Mountain Construction

Marco Spagnuolo
CEO

EXHIBIT B – HOURLY RATE SCHEDULE

(See Attached Fee Sheet)

Eagle Mountain Construction
3100 N. Caden Ct. - Flagstaff, AZ 86004
AZ ROC 315942, 315943

Phase Fee Proposal

To: City of Flagstaff
Project: Wildcat Sewer Interceptor Upgrade CMAR
Date: 3/10/2025
Rev #: 0

			Rate :	*$ 175*	*$ 160*	*$ 135*	*$ 65*				
TASK	**ITEM DESCRIPTION**	**# of Meetings**	**Project Director Hrs.**	**Project Manager(s) Hrs.**	**Superintendent Hrs.**	**Proj Adm \ SWPPP Hrs.**	**Direct Labor Hrs.**	**Direct Labor Total**	**Sub-consultants**	**TOTAL**
1	Partnering & Coordination Meetings	8	16.0	16.0	16.0	0.0	48.0	$ 7,520	$ -	$ 7,520
2	Public Outreach Meetings - N\A	0	0.0	0.0	0.0	0.0	0.0	$ -	$ -	$ -
3	Franchise Utility & Stakeholder Coordination Meetings	12	24.0	24.0	12.0	0.0	60.0	$ 9,660	$ -	$ 9,660
4	60% Design Review, Cost Model & Project Schedule		40.0	80.0	16.0	0.0	136.0	$ 21,960	$ -	$ 21,960
5	90% Design Review, Cost Model & Project Schedule		20.0	20.0	8.0	0.0	48.0	$ 7,780	$ -	$ 7,780
6	Final 1 & 2 Design Review, Cost Model & Project Schedule		24.0	24.0	4.0	0.0	52.0	$ 8,580	$ -	$ 8,580
7	Sub & Supplier Scoping & Bid Solicitation		40.0	20.0	2.0	40.0	102.0	$ 13,070	$ -	$ 13,070
8	Final GMP(s) & Management Plan Documents		8.0	8.0	0.0	0.0	16.0	$ 2,680	$ -	$ 2,680
9	Key Subcontractor Plan Review & Budgeting - ***ALLOWANCE***		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*$ -*	*$ 7,500*	*$ 7,500*
TOTALS:			**172**	**192**	**58**	**40**	**462**	**$ 71,250**	**$ 7,500**	**$ 78,750**

Exclusions & Clarifications

- Potholing is excluded. It's assumed the engineering firms will pothole for utility verifications. EMC will request additional locations if needed.
- Permitting costs (City & 404) are excluded. EMC will apply for permits if needed.
- Actual SWPPP Plans for ADEQ or regulatory review are excluded. EMC will submit for NOI's during construction.
- Meetings are assumed to be on average 2 hrs. each.

EXHIBIT C - SUBMITTAL REQUIREMENTS FOR THE GMPs

Submit an electronic/(PDF) GMP Proposal or Proposals to the Owner's Project Representative.

Table of Contents:

1. Scope of Work
2. Summary of the GMP
3. Schedule of Values
4. List of Plans and Specifications
5. List of Clarifications and Assumptions
6. Project Master Schedule

1. Scope of work

Include the Contract #, Project Name, and submittal date. Provide a brief description of the work to be performed by CMAR and major points that CMAR and the Owner shall be aware of pertaining to the scope.

2. Summary of the GMP

Include a total cost for each of the cost components of the GMP requested under this Agreement. The CMAR shall present this information in the format shown on the attached table. All costs should be listed individually for future use. The General Conditions Costs shall include a detailed breakdown of itemized costs separate but similar to the Schedule of Vales.

3. Schedule of Values

Provide a summary spreadsheet with the estimated cost organized by subagreement categories, contingencies, general conditions, taxes, bonds, insurances, and construction fee. Additionally, provide supporting documents for the spreadsheet in an organized manner that correlates with the schedule of values. The backup information shall consist of the most current version of the Cost Model utilized to develop the GMP.

4. List of Plans and Specifications

Provide a list of plans and specifications with latest issuance date including all addenda used in preparation of the GMP proposal. This document must be date stamped and signed by CMAR.

5. List of Clarifications and Assumptions

Provide a list of the clarifications and assumptions made by CMAR in the preparation of the GMP proposal. This information is intended to supplement the information contained within other documents submitted to the Owner.

6. Project Master Schedule

Provide a Critical Path Method (CPM) diagram and other information to identify the Project Master Schedule.

(**Do not acquire bond or insurance until notified by the Owner's Project Representative.**)

NOTE: Keep the submittal package as simple as possible all on 8 ½ x 11 sheets. Color or shading shall be kept to a minimum. If used, make sure the color or shading shall not affect the reproduction of the submittal. For questions regarding the submittal requirements, please contact Patrick Brown, Purchasing Director (pbrown@flagstaffaz.gov).

CITY OF FLAGSTAFF SAMPLE GMP SUMMARY TABLE

	A	B	D	E	
1	**ITEM DESCRIPTION**			**TOTAL**	
2	**DIRECT COSTS**				
3	COST OF THE WORK			$ 8,000,000.00	Total Cost of the Schedule of Values
4	**INDIRECT COSTS**				
5	GENERAL CONDITIONS COSTS (GCs) (Percentage of Cost of the Work)		10.00%	$ 800,000.00	Percentage based on Cost of the Work (E5/E3)
6		**SUBTOTAL #1 - Cost of the work + GCs**		**$ 8,800,000.00**	**Sum of E3 and E5**
7	CONSTRUCTION FEE (Fee) (Percentage of Subotal #1)		5.68%	$ 500,000.00	Percentage based on Subtotal #1 (E7/E6)
8		**SUBTOTAL #2 - Cost of the work + GCs + Fee**		**$ 9,300,000.00**	**Sum of E6 and E7**
9	PAYMENT & PERFORMANCE BONDS (Bonds) (Percentage of Subtotal #2)		1.08%	$ 100,000.00	Percentage based on Subtotal #2 (E9/E8)
10		**SUBTOTAL #3 - Cost of the work + GCs + Fee + Bonds**		**$ 9,400,000.00**	**Sum of E8 and E9**
11	INSURANCE (Percentage of Subtotal #3)		0.85%	$ 80,000.00	Percentage based on Subtotal #3 (E11/E10)
12		**SUBTOTAL #4 - Cost of the work + GCs + Fee + Bonds + Insurance**		**$ 9,480,000.00**	**Sum of E10 and E11**
13	SALES TAX (Percenage of Subtotal #4, Percentage = 65% x City of Flagstaff current tax rate)		5.82%	$ 551,560.62	Subtotal #4 multipled by current tax rate x 0.65 (E12xD13)
14					
15	CMAR CONTINGENCY (Percentage of Cost of the Work)		1.25%	$ 100,000.00	Percentage based on Cost of the Work (E15/E3)
16					
17	**GMP**			**$ 10,131,560.62**	**Sum of E12 through E15**
18	OWNER'S CONTINGENCY (Percentage of Cost of the Work)		2.50%	$ 200,000.00	Percentage based on Cost of the Work (E18/E3)
19	**CONTRACT PRICE**			**$ 10,331,560.62**	**Sum of E17 and E18**

Contractor can choose to fill in table using percentages or flat rates.

Last Revised 5/9/2018

EXHIBIT D – MONTHLY ANTICIPATED ADVERSE WEATHER DAYS

CMAR will be entitled to a Contract Time extension if the actual adverse weather Days experienced during the Work exceed the anticipated adverse weather Days shown in Table 108.7.

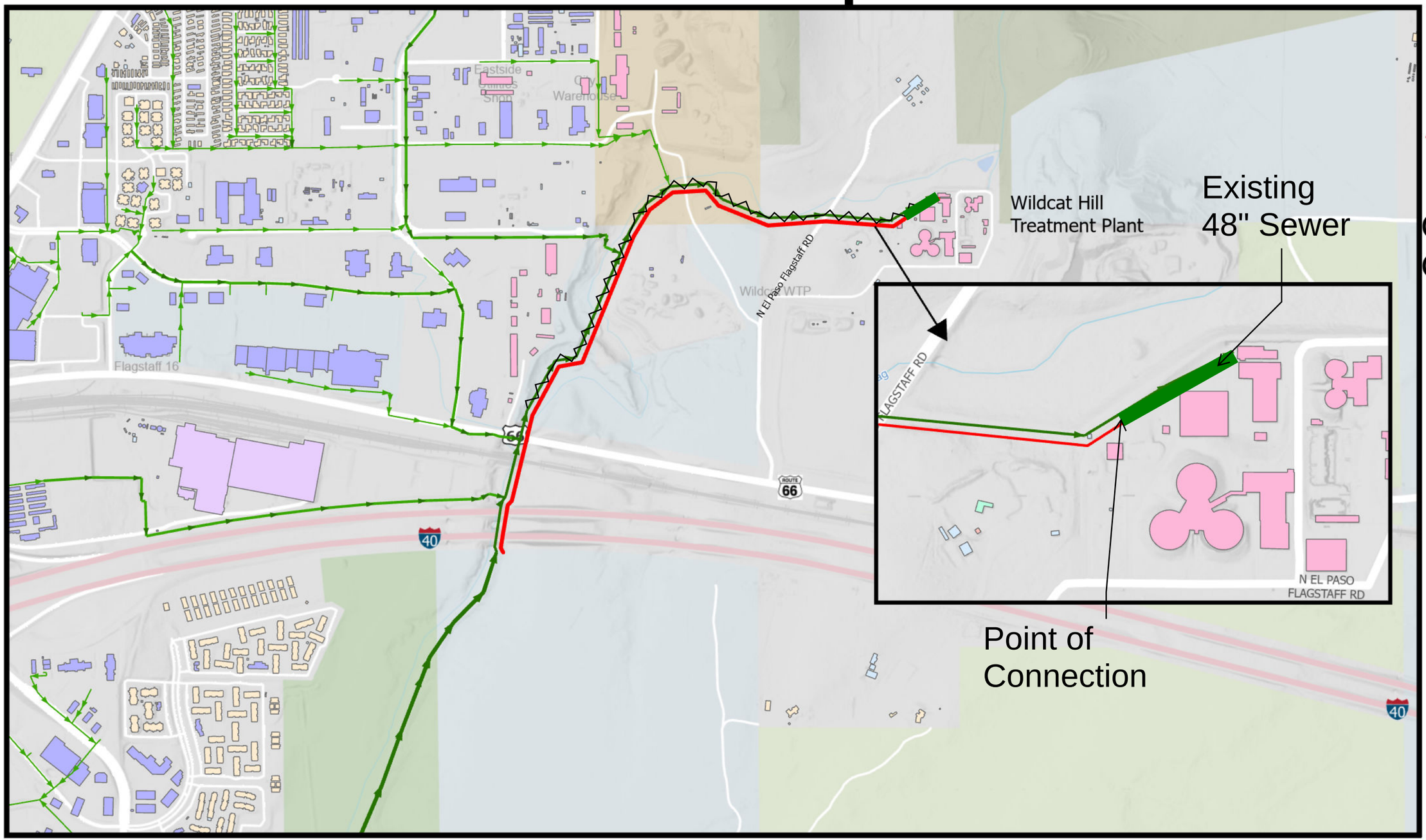
TABLE 108.7 – MONTHLY ANTICIPATED ADVERSE WEATHER CALENDAR DAYS

MONTH	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
MONTHLY ANTICIPATED ADVERSE WEATHER CALENDAR DAYS	**7 days**	**7 days**	**8 days**	**6 days**	**4 days**	**3 days**
AVERAGE MONTHLY PRECIPITATION	1.98”	1.96”	2.05”	1.84”	0.68”	0.51”
MONTHLY DAILY HIGH TEMPERATURE ≤32º F	5 days	3 days	2 days	0 days	0 days	0 days
MONTH	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
MONTHLY ANTICIPATED ADVERSE WEATHER CALENDAR DAYS	**12 day**	**11 days**	**7 days**	**5 days**	**5 days**	**6 days**
AVERAGE MONTHLY PRECIPITATION	2.78”	2.68”	1.82”	1.52”	1.49”	1.90”
MONTHLY DAILY HIGH TEMPERATURE ≤ 32º F	0 days	0 days	0 days	0 days	1 day	5 days

The above schedule of anticipated adverse weather days establishes the base line for the project’s monthly weather impacts, based on historical records, as recorded by the National Weather Service at Pulliam Airport, for precipitation in excess of 0.01 inch and daily high temperatures below 32º Fahrenheit.

Exhibit A

Sewer Interceptor Line



Proposed Sewer Line
5900 LF

COF Sewer Gravity Main

0 0.25 0.5 1 Miles

N

FLAGSTAFF WATER SERVICES

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Erin Young, Water Services Section Director - Water Resource Management

Co-Submitter: Rick Tadder, Management Services Director

Co-Submitter: Lee Williams

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Adoption of Ordinance No. 2025-18: An Ordinance of the City Council of the City of Flagstaff, amending the Flagstaff City Code Title 7, Health and Sanitation, Chapter 7-03 City Water System Regulations of the City of Flagstaff City Code by amending Section 87-03-001-0011 Water Main Capacity Charges.

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-18 by title only for the final time
2. City Clerk reads Ordinance No. 2025-18 by title only (if approved above)
3. Adopt Ordinance No. 2025-18

Executive Summary:

City Council adopted an increase to water and wastewater capacity fees in July, 2024 with the adoption of water, wastewater, and reclaimed water rates and fees. The changes to City Code were updated per the redline presented to City Council and provided to the City Clerk. However, two water meter capacity fees were mistyped by Staff. The charges listed for a 3-inch meter size and a 4-inch meter size in 7-03-001-0011 Water Main Capacity Charges need to be corrected in City Code to reflect the charges calculated and posted in the draft report at the time and the final report posted on the City's website in August 2024.

City Council adopted a Notice of Intention to increase fees on June 3, 2025 pursuant to Arizona Revised Statutes Section 9-511.01. The Notice of Intention was published in the Daily Sun newspaper on June 23, 2025. A written report and cost flow analysis to support the rate increases were filed with the City Clerk on May 20, 2024 and the final report was posted on the City website on August 20, 2024. The second public hearing is scheduled for the September 2, 2025 City Council meeting.

Financial Impact:

Staff is submitting to adjust the City Code 7-03-001-0011 Water Main Capacity Charges as follows:

- 3-inch was mistyped from $57,279 to $81,456 and needs to be corrected to $81,459
- 4-inch was mistyped from $95,484 to $84,459 and needs to be corrected to $135,791

Financial impact will be based on how many meters are purchased after the effective date of the new rates.

Policy Impact:

This is a correction to City Code.

Previous Council Decision or Community Discussion:
On July 3, 2024, City Council adopted Resolution No. 2024-30 and Ordinance No. 2024-19: A Resolution declaring as a public record that certain documents were filed with the City Clerk and entitled "Water Services Rates Code Changes" and an Ordinance amending the affected Flagstaff City Code by adopting by reference the document entitled "Water Services Rates Code Changes". The capacity fees were updated in City Code as per the redline presented to City Council. However, the two Capacity Fees were mistyped in the redlined document provided to the Clerk and presented to City Council.

On June 3, 2025 Council adopted Resolution 2025-34: A resolution of the Flagstaff City Council adopting a Notice of Intention to increase fees; and setting a public hearing date on August 26, 2025.

Options and Alternatives to Recommended Action:

- Adopt the Ordinance as recommended by staff and informed by the Rate Study
- Do not adopt the Ordinance. The Council may elect to retain the Capacity Fees as they are. However, this would result in the fees for the 3-inch and 4-inch meter sizes collecting less than the proportional share of the system capacity compared to the other meter sizes. This would also mean that Water Services is undercollecting the funds the utility was forecast to recover in the Rates and Fees Study.

Background and History:
The Water Services Division completed a Water, Reclaimed Water, and Wastewater Cost of Service Rates and Fees Study August 2024. The report provides details of the calculation of water capacity fees. The fees adopted by the Council contained an error in the redlines for the 3" and 4" capacity fees compared to the report. The report is currently available on the Water Services website at https://www.flagstaff.az.gov/1275/Water-Services main page. The proposed water capacity fees are on Page 54 of the Water, Reclaimed Water, and Wastewater Cost of Service Rates and Fees Study - Final Report. This process is to allow an update to City Code to reflect the appropriate rate for the 3" and 4" meter sizes.

Connection to PBB Priorities and Objectives:
Sustainable and Innovative Infrastructure, Safe and Healthy Community: Deliver outstanding services to residents through a healthy, well-maintained infrastructure system.

Connection to Regional Plan:
Goal WR.2. Manage a coordinated system of water, wastewater, and reclaimed water utility service facilities and resources at the City level and identify funding to pay for new resources.
Goal WR.4. Logically enhance and extend the City's public water, wastewater, and reclaimed water services including their treatment, distribution, and collection systems in both urbanized and newly developed areas of the City to provide efficient delivery of services.

Connection to Carbon Neutrality Plan:
CR-2 Strengthen existing community systems to create resilience to both short-term shocks and long-term change.
WS-1 Improve water infrastructure and expand water reuse.
HS-3 Adequately fund services for disaster preparedness.
HS-4 Improve the resilience of public infrastructure and City facilities.

Connection to 10-Year Housing Plan:
None.

Attachments: Ord. 2025-18

ORDINANCE NO. 2025-18

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING TITLE 7, HEALTH AND SANITATION, CHAPTER 7-03 CITY WATER SYSTEM REGULATIONS, OF THE FLAGSTAFF CITY CODE BY AMENDING SECTION 7-03-001-0011 WATER MAIN CAPACITY CHARGES; PROVIDING FOR PENALTIES, REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, ARS §§9-511, 9-511.01 et. seq. provides authority for municipalities to adjust water utility service charges (rates), and fees, and

WHEREAS, water capacity charges are established for the purpose of charging the cost of additional system capacity to new customers; and; and

WHEREAS, the City of Flagstaff ("City") has found that it is necessary to update, adjust and increase water capacity fees in order to provide for the present cost of maintaining service levels and system capacity; and

WHEREAS, the City wishes to change language in the City Code, Title 7, Health and Sanitation, Chapter, Chapter 7-03 City Water System Regulations to water capacity charges in order to revise and update the City Code, and

WHEREAS, the City has finds that the updates, adjustments and increases to the water, water capacity charges are all just and reasonable.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. Title 7, Health and Sanitation, of the Flagstaff City Code is hereby amended as follows:

7-03-001-0011 WATER MAIN CAPACITY CHARGES

The water main capacity charges for all new service connections to be charged by the Customer Service Section is presented in the following schedule:

A. A capacity charge, as prescribed below, shall be assessed upon:

1. Initial connection to the municipal water system; or
2. Any increase in meter size.

B. The capacity charges for the various types of users are as follows:

Schedule of Capacity Charges
Minimum Capacity Charge

Meter Size	Effective 09/01/2024	Maximum Flow Rate (gpm)
3/4"	$8,146	30
1"	$13,604	50
1-1/2"	$27,126	100
2"	$43,418	160
3"	~~$81,456~~ $81,459	350
4"	~~$84,459~~ $135,791	500
6"	$271,500	1,000
8"	$434,417	1,600
10"	$624,541	4,200

Meters will be sized using the American Water Works Association Manual, AWWA No. M22. Sizing will be submitted to the City Water Services Division by the developer or owner for City review.

When the fee schedule references “call,” capacity charges are based on a proration of maximum flow gallons per minute (gpm) of a three-fourths (3/4) inch meter divided into the maximum flow of the meter to be evaluated. The resulting number shall be used as a multiplier times the capacity fee for a three-fourths (3/4) inch meter to determine the large meter capacity fee. Meters will be sized using American Water Works Association Manual, AWWA No. M22. Sizing will be submitted to the City by the developer or owner for City review.

When the capacity charge results from an increase in meter size the charge shall be adjusted to the difference between the charge for the new size meter and the previous size meter based on the current capacity fees. No refund shall be made in the case of reduced volume of discharge from a change of use.

C. Capacity Fee Installment Payments. Capacity fees may be paid for by installment payments in accordance with the following conditions:

1. A capacity fee that totals an amount greater than one hundred thousand dollars ($100,000.00) may be paid as follows:

a. No less than one-third (1/3) of the total capacity fee due is to be paid upon receipt of the application for connection to the water system.
b. The balance due of the capacity fee is to be paid in equal monthly installments over no more than thirty-six (36) months to include an interest rate calculated to be the prime rate plus one-half percent (1/2%) at the time of the application.
c. The customer may be required to secure the balance due to the city by a letter of credit drawn in favor of the City, or in any other form of security satisfactory to the City Manager, City Attorney and Management Services Director.

SECTION 2. Repeal of Conflicting Ordinances

All ordinances and parts of ordinances in conflict with the provisions of the code adopted herein are hereby repealed.

SECTION 3. Severability

If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 4. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 5. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 2nd day of September, 2025.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Bryce Doty, Real Estate Manager

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Adoption of Ordinance No. 2025-15: An ordinance of the City Council of the City of Flagstaff, authorizing the acquisition of real property interests for the Wildcat Interceptor Sewer Upsizing Project; providing for delegation of authority, providing for severability, authority for clerical corrections, and establishing an effective date

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-15 by title only for the final time
2. City Clerk reads Ordinance No. 2025-15 by title only (if approved above)
3. Adopt Ordinance No. 2025-15

Executive Summary:

The Wildcat Sewer Interceptor Project will construct approximately 5,900 feet of new sewer main from the Wildcat Hill Wastewater Treatment Plant to the south side of Interstate 40. This will increase capacity in the sewer collection system and replace a critical piece of aging infrastructure. The new sewer main will be constructed adjacent to existing infrastructure and mostly within existing public utility easements. Portions of the new construction will require additional easements beyond existing easements.

This ordinance authorizes staff to acquire these outstanding easements needed in order to construct the project. City staff will be offering to pay just compensation to the property owner for purchase of the real property, based on an appraised value or a market analysis. If the City is unable to reach an agreement with the property owner despite good faith negotiations, City Council will have the opportunity at a future public meeting to decide whether to adopt a resolution authorizing condemnation of the interests needed for the project.

Financial Impact:

This Project is funded through Water Services in both Wastewater and Reclaimed Water in the following accounts:

- Account # 203-08-375-3441-0 with a budget of $6,000,000 in FY2025-26 and $2,000,000 in FY2026-27.
- Account #203-08-375-3558-0 with a budget of $2,000,300 in FY2025-26
- Account #204-08-380-3558-0 with a budget of $970,136 in FY2025-26

Policy Impact:

No

Previous Council Decision or Community Discussion:

- On June 16, 2024, the City Council approved a Professional Services Contract with Ardurra Group, Inc. to design the Wildcat Sewer Interceptor Upsizing Project. Ardurra has completed the engineering design

documents up to the 90% level.
- On May 27, 2025, the City entered into a Design Phase Services Agreement with EMC in the amount of $78,750.00 for basic design phase service
- Construction Phase Services Agreement Phase 1 for the project was approved on July 1, 2025.

Options and Alternatives to Recommended Action:
Do not acquire the rights necessary for the project and do not construct the project as designed.

Background and History:
In 1971, the City of Flagstaff constructed the Wildcat Hill Wastewater Treatment Plant and a new large diameter sewer interceptor to transport wastewater from the then current treatment plant to the new treatment plant. In a recent Water and Sewer Impact Analysis, the City of Flagstaff's consultant identified a deficiency in the wastewater collection system in this sewer interceptor. This Project was also identified in the City of Flagstaff's 2015 Sewer Master Plan as the second highest priority project. The pipeline is currently undersized to meet the additional developments that have been proposed. This Project will replace a portion of the undersized pipeline identified in the water and sewer impact analysis with a new larger wastewater interceptor. The new pipeline will allow the City to properly serve the wastewater needs of the new proposed developments.

Connection to PBB Priorities and Objectives:
Safe & Healthy Community: Foster a safe, secure, and healthy community. Sustainable, Innovative Infrastructure: Deliver outstanding services to residents through a healthy, well maintained infrastructure system.

Connection to Regional Plan:

- Goal WR.3: Satisfy current and future human water demands and the needs of the natural environment through sustainable and renewable water resources and strategic conservation measure.
- Goal WR.4. Logically enhance and extend the City's public water, wastewater, and reclaimed water services including their treatment, distribution, and collection systems in both urbanized and newly developed areas of the City to provide an efficient delivery of services.
- Goal WR.6: Protect, preserve, and improve the quality of surface water, groundwater, and reclaimed water in the region.
- Goal CD.1. Improve the City and County financial systems to provide for needed infrastructure development and rehabilitation, including maintenance and enhancement of existing infrastructure.

Connection to Carbon Neutrality Plan:
N/A

Connection to 10-Year Housing Plan:
This Project will increase the capacity of the sewer collection system which will provide capacity for additional housing.

Attachments: Ord. 2025-15
Exhibit A: Chart of Properties
Exhibit B: Map of Area

ORDINANCE NO. 2025-15

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AUTHORIZING THE ACQUISITION OF REAL PROPERTY INTERESTS FOR THE WILDCAT INTERCEPTOR SEWER UPSIZING PROJECT; PROVIDING FOR DELEGATION OF AUTHORITY; PROVIDING FOR SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City has authority to acquire real property, pursuant to the Article I, Section 3 of the Flagstaff City Charter; and

WHEREAS, acquisition of real property is to be approved by ordinance, pursuant to Article VII, Section 5 of the Flagstaff City Charter; and

WHEREAS, the City desires to acquire real property interests for the Wildcat Interceptor Sewer Upsizing Project, a project which will increase capacity in the sewer collection system and replace a critical piece of aging infrastructure.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

The Flagstaff City Council hereby authorizes the acquisition of all, or part of the real property identified in the attached Exhibit A. The real property interests may be acquired through purchase, exchange, gift, donation, dedication, or condemnation necessary for a public use; provided, however, prior to commencement of any condemnation proceeding the City Council shall adopt a separate resolution finding that the taking of the real property interest(s) is necessary for a public use and authorizing condemnation.

SECTION 2. Delegation of Authority

The Mayor, City Manager, Community Development Director, Real Estate Manager, City Attorney or their delegates or agents, are hereby authorized and directed to take all steps and execute all documents necessary to carry out the purpose and intent of this ordinance.

SECTION 3. Repeal of Conflicting Ordinances

All ordinances and parts of ordinances in conflict with the provisions of the code adopted herein are hereby repealed.

SECTION 4. Severability

If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 5. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 6. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 2nd day of September, 2025.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

Exhibits:
Exhibit A – Chart of Properties
Exhibit B – Map of Area

Exhibit "A"

Wildcat Interceptor Sewer Upsizing Project - Property Acquisition

ID	APN	Owner	Type of Easement
WC-01	113-37-010	El Paso Rd Land, LLC	Public Utility Easement
WC-02	113-37-010	El Paso Rd Land, LLC	Temporary Construction Easement
WC-03	113-37-007A	UNITED METRO MATERIALS INC	Public Utility Easement
WC-04	113-37-007A	UNITED METRO MATERIALS INC	Temporary Construction Easement
WC-05	113-10-003	Coconino County	Public Utility Easement
WC-06	113-10-003	Coconino County	Temporary Construction Easement

Exhibit "A"



Exhibit B--Map of Area

0 0.07 0.15 0.3 0.45 0.6

mi

City of Flagstaff maps and data are updated on a regular basis from data obtained from various sources. The City of Flagstaff endeavors to provide accurate information, but accuracy is not guaranteed. You are strongly encouraged to obtain any information you need for a business or legal transaction from a surveyor, engineer, title company, or other licensed professional as appropriate. Information is provided subject to the express condition that you knowingly waive any and all claims for damages against the City of Flagstaff relating to use of this information.

7/24/2025 3:51 PM

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Carmen Pryer, Real Estate Specialist

Co-Submitter: Bryce Doty

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Adoption of Ordinance No. 2025-14: An ordinance of the City Council of the City of Flagstaff, ratifying the grants of easements and real property; and formally accepting grants of easements and real property; providing for severability, authority for clerical corrections, and establishing an effective date

STAFF RECOMMENDED ACTION:

1. Read Ordinance No. 2025-14 by title only for the final time
2. City Clerk reads Ordinance No. 2025-14 by title only (if approved above)
3. Adopt Ordinance No.2025-14

Executive Summary:

All City of Flagstaff real property interests acquired by the City are required to be accepted by ordinance via the City Charter. This ordinance serves to approve acquisitions or dispositions of real property that have already occurred. The City regularly receives real property interests from private property owners during the development review process. These real property interests are acquired by dedication or donation. These acquisitions may be for drainage, utilities, the urban trails system, slopes, rights-of-way or other public purposes. Real property interests dedicated to the City upon recordation of a final plat are approved through the plat approval process.

Financial Impact:

Real property is considered a fixed asset in the City. Until City Council approves an ordinance accepting the acquisitions, the real property value is not recognized in an audit. While there is not an actual financial expenditure associated with these acquisitions, there is a fixed asset value the City receives through this action.

Policy Impact:

None

Previous Council Decision or Community Discussion:

Council has ratified other real property transactions and easements approved through the development review process. This ratification usually occurs on an annual basis. The Council adopted a similar Ordinance 2024-14 on the 7th day of May, 2024.

Options and Alternatives to Recommended Action:

1. Adopt the Ordinance
Pros: Formally approving the real property interest transactions conforms with City practices.
Cons: None.
2. Do not adopt the Ordinance. In this case, transactions may be voided or there would be a further discussion as to appropriate action.

Pros: None identified.
Cons: This may result in loss of legal rights to use properties for utilities, trails, drainage, and other public purposes.

Background and History:
The City Charter requires the acquisition and disposition of real property by ordinance. The City generally applies this principle to lesser interests as well.

Connection to PBB Priorities and Objectives:
TRANSPORTATION AND OTHER PUBLIC INFRASTRUCTURE
Deliver quality community assets and continue to advocate and implement a highly performing multi-modal transportation system.

Connection to Regional Plan:
None

Connection to Carbon Neutrality Plan:
None

Connection to 10-Year Housing Plan:
None

Connection to Division Specific Plan:
None

Attachments: Ord. 2025-14
Exhibit A: Chart Dedication of easements and real property

ORDINANCE NO. 2025-14

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, RATIFYING THE GRANT OF EASEMENTS; AND FORMALLY ACCEPTING DEDICATIONS OF EASEMENTS AND REAL PROPERTY INTERESTS; PROVIDING FOR SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff ("City") has received dedications of easements and real property interests across private property which have not yet been formally accepted by City Council; and

WHEREAS, the City has granted easements across City property for City projects, which have not yet been ratified by City Council.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1: In General.

That the City formally accepts the dedications and donations of easements and real property as listed in Exhibit A, attached to this ordinance.

That the City ratifies the grants and reservations of easements across City property as listed in Exhibit A, attached to this ordinance.

SECTION 2: Delegation of Authority.

That the City Manager, the City Attorney, the City Clerk, the Finance Director, the City Real Estate Manager, or other employees or agents as deemed necessary, are hereby authorized, and directed to take all steps and execute all documents necessary to carry out the purpose and intent of this ordinance.

SECTION 3. Severability

If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 4. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 5. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 2nd day of September, 2025.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:
Exhibit A: Dedications of easements and real property.

			Exhibit "A"						
Easement Type	Parcel Number	Project Name	Location	Grantor	Grantee	Easement size in square feet	Easement size in Acres	Document Number	Date Recorded
Public Water	107-13-017	Ocean Blue Flagstaff LLC	2301 E. Route 66	Ocean Blue Flagstaff LLC	City of Flagstaff	2,300	0.05	3992784	4/11/2024
Easement for Public Utilities	113-07-004	N/A	6500 E. Route 66	RE Asset Management LLC	City of Flagstaff	14,040	0.32	3992785	4/11/2024
Public Water	107-13-020	Chick-fil-A	2401 E. Route 66	DSP LT 2401 Flagstaff, LLC ES LP 2401 Flagstaff, LLC Selkirt FLP 2401 Flagstaff, LLC DKP FBO JLP LT 2401 Flagstaff, LLC SES LT 2401 FLAGSTAFF, LLC Starr FLP 2401 Flagstaff, LLC	City of Flagstaff	64	0.001	3994730	5/14/2024
Public Water	107-16-008Z	NA	3300 E. Sparrow Avenue	Northland Preparatory Academy	City of Flagstaff	7,405	0.17	3995852	5/31/2024

Urban Trail	107-12-008S	StorQuest	2690 E . Huntington Drive	2690 E Huntington SP, LLC.	City of Flagstaff	29,570	0.68	3999684	8/1/2024
Public Water and Sewer	107-12-008S	StorQuest	2690 E . Huntington Drive	2690 E Huntington SP, LLC.	City of Flagstaff	32,633	0.75	3999685	8/1/2024
Public Water and Sewer	107-12-008S	StorQuest	2690 E. Huntington Drive	2690 E Huntington SP, LLC	City of Flagstaff	32,633	0.75	3999685	8/1/2024
Urban Trail	107-12-008S	StorQuest	2690 E. Huntington Drive	2690 E Huntington SP, LLC	City of Flagstaff	29,570	0.68	3999684	8/1/2024
Public Sidewalk	100-39-014G	None	102 S. Mikes Pike	Miramonte QK Properties, LLC	City of Flagstaff	128	0.003	4004163	10/7/2024
Resource Protection	112-05-132	TRG LM FLAGSTAFF, LLC	Off of W. High County Trail	TRG LM Flagstaff LLC	City of Flagstaff	82,580	1.89	4008660	12/19/2024
Urban Trail	112-05-132	TRG LM FLAGSTAFF, LLC	Off of W. High County Trail	TRG LM Flagstaff LLC	City of Flagstaff	10,303	0.23	4008661	12/19/2024
Public Recreation Use and Access	112-05-132	TRG LM FLAGSTAFF, LLC	Off of W. High County Trail	TRG LM Flagstaff LLC	City of Flagstaff	10,745	0.24	4008662	12/19/2024
Public Water and Sewer	112-05-132	TRG LM FLAGSTAFF, LLC	Off of W. High County Trail	TRG LM Flagstaff LLC	City of Flagstaff	46,818	1.07	4008659	12/19/2024

Quit Claim Deed	Tract B Woodshire on Butler Condos	Woodshire Condos	N/A	City of Flagstaff	Woodshire on Butler Condominium Association	4,777	0.01	4008663	12/24/2024
Public Sidewalk	107-06-002J	None	1965 E. Mountain View Avenue	Flag Den Partners LLC	City of Flagstaff	2,276.30	0.052	4011649	2/14/2025
City of Flagstaff-APS Utility	100-44-005A	DCC Downtown Connection Center	116 W. Phoenix Avenue	City of Flagstaff	APS	570	0.01	4012018	2/21/2025
City of Flagstaff-APS Utility	101-37-002H	None	1450 N. Gemini Drive	City of Flagstaff	APS	100	0.002	4013517	3/18/2025

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Trevor Henry, Capital Improvements Engineer

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Approval of Contract: Change Order No. 1 with Eagle Mountain Construction, Inc. in the amount of $1,990,330, to the Cedar Crossing, GMP 4, Amendment No. Four, as part of the Spruce Wash Flood Mitigation Suite of Projects.

STAFF RECOMMENDED ACTION:

1. Approve Change Order No. 1 for Cedar Crossing in an amount of $1,990,330; and
2. Authorize the City Manager to execute the necessary documents.

Executive Summary:

Staff recommends approval of Change Order No. 1 to the Cedar Crossing, GMP 4, Amendment No. Four to the CMAR Construction Services Agreement No. 2023-60 (Agreement), with Eagle Mountain Construction, Inc. (EMC), for the Spruce Wash Flood Mitigation Suite of Projects (the Suite).

Change Order No. 1 would increase the amount for GMP No. 4 (Cedar Crossing) by $1,990,330 for a total GMP#4 amount of $3,940,273.54.

Change Order No. 1 is for asphalt pavement mill and overlay for Cedar Avenue under the Road Repair and Street Safety program, including concrete roadway edge improvements as needed. The limits are Cedar Avenue from West Street to the west edge of the new Cedar-Fourth-Lockett Roundabout and on West Street from the Linda Vista slip ramp to Cedar Avenue (next to the Wedge detention basin).

The existing pavement is in fair to poor condition and has been impacted by trenching for new utilities to accommodate the Spruce Wash drainage improvements. Cedar Avenue was programmed for road repair in the near future, however, it is advantageous to perform the work now as part of the Spruce Wash program. Funding will come from the Spruce Wash and Road Repair Street Safety programs.

Financial Impact:

Change Order No. 1 will be funded from the Spruce Wash, Cedar Avenue Crossing, Fund 410, Account No. 410-08-385-3524-3-4442. The Road Repair and Street Safety, FY2025-26 fund will provide supplemental funds as needed and will replenish the 410 fund.

The approved Spruce Wash -- Cedar Avenue Crossing FY2025-26 budget is $1,587,652 and the Road Repair and Street Safety fund, Road Repair Pavement Preservation program FY2025-26 budget in 046-06-163-3321-6-4443 is $13,553,983.

Policy Impact:

No Impact.

Previous Council Decision or Community Discussion:

The City Council previously approved Amendment Four with EMC for GMP#4, Cedar Crossing, on October 1, 2024.

Options and Alternatives to Recommended Action:

1. Approve Change Order No. 1 as recommended. Approval will allow work to comply with the grant provisions; or,
2. Reject approval of the award as recommended.
    1. If rejection occurs, possible options include:
        1. Ask staff to re-evaluate the recommendation; or
        2. Suspend the project and seek an alternate funding source which is uncertain and would delay or jeopardize completion.

Background and History:
On July 21, 2019, the Museum Fire broke out in the Dry Lake Hills area just above Flagstaff within the Coconino National Forest. The fire charred 1,961 acres, including a significant portion of the Spruce Wash Watershed. Throughout the summer of 2021, monsoon rain events on the Museum burn scar caused multiple flood events in Flagstaff neighborhoods.

In November 2022, voters approved Proposition 441 with support from 76% of Flagstaff voters. The Proposition invests $57 million in City of Flagstaff wildfire suppression, stormwater flood mitigation and wastewater treatment infrastructure. Specifically, $26 million of this funding will be used to fund stormwater infrastructure improvements in the Spruce Wash area to lessen the impacts of flooding in affected neighborhoods.

Engineering design commenced in 2022 for a suite of drainage improvements in the Museum flood areas of the Paradise, Grandview and Sunnyside neighborhoods. In April 2023, the City awarded Eagle Mountain Construction the CMAR design and construction phase services contract for the suite of projects. There have been multiple GMPs since construction commenced.

Construction of the Cedar Crossing box culvert commenced in January 2025. The work included utility relocations to accommodate an enlarged box culvert. Work is substantially complete.

Connection to PBB Priorities and Objectives:
Safe & Healthy Community: Ensure the built environment is safe through the use of consistent standards, rules & regulations, & land use practices.
Sustainable, Innovative Infrastructure: Deliver outstanding services to residents through a healthy, well maintained infrastructure system.

Connection to Regional Plan:
Goal T.21: Improve transportation safety and efficiency for all modes.

Connection to Carbon Neutrality Plan:
None

Connection to 10-Year Housing Plan:
None

Connection to Division Specific Plan:
None

Attachments: Change Order No. 1
Vicinity Map
Context Map

Presentation

CITY OF FLAGSTAFF

☐ CONFIRMING CHANGE ORDER NO.
☐ DESIGN CONTRACT CHANGE ORDER NO.
☑ CONSTRUCTION CONTRACT CHANGE ORDER NO. 1
☐ CONTRACT ALLOWANCE UPDATE NO.

PROJECT NO. 3524 **PROJECT NAME:** Spruce Wash - Cedar Avenue Crossing - GMP 4

FILE NO. 03-23011 **PROJECT MANAGER:** Trevor Henry

FIRM NAME: Eagle Mountain Construction

Purchase Order Number: 25-002469 | **Line Number:** 1 | **Amount** $ 1,949,943.54

Change Order originated by: ☑ CITY OF FLAGSTAFF ☐ CONTRACTOR ☐ DESIGN FIRM ☐ OTHER: _____

DETAILED DESCRIPTION:

This change order is for the addition of an asphalt mill, asphalt overlay and placement of concrete roadway edge improvements within Cedar Avenue, West Street to Fourth Street.

The City typically programs its yearly Road Repair and Street Safety work for various streets and avenues within the City. The work is typically associated with areas that meet a certain tolerance for under performing street surface conditions. Cedar Avenue is programmed in out years, but seemed advantageous to perform that work now with the Spruce Wash Program.

The recommendation is to add the work to the Spruce Wash - Cedar Avenue Crossing - GMP 4 work. Funding for the replacement will come from the Road Repair and Street Safety program. The attached change order proposal from Eagle Mountain Construction shows the costs for the change ordered work.

JUSTIFICATION:

The City has planned the yearly Road Repair and Street Safety program project. Included in the 2025 program is the improvements in Cedar Avenue, West Street to the Fourth Street. The Spruce Wash program is currently underway in this area and it would be advantageous to have the Spruce Wash program contractor perform the work for the Road Repair and Street Safety in Cedar Avenue.

TIME ANALYSIS:

There is no time extension associated with this Change Order. The original contract with subsequent field and change orders for time will account for this work.

COST ANALYSIS:

Change Order No. 1 will be funded from the Spruce Wash, Cedar Avenue Crossing, Fund 410, Account No. 410-08-385-3524-3-4442. The Road Repair & Street Safety Program, FY26 fund will provide supplemental funds as needed and will replenish the 410 fund. Please see the attached proposal from Eagle Mountain Construction dated August 1, 2026 for details on the cost of work.

CITY OF FLAGSTAFF	*PROJECT STATUS FORM*
PROJECT NAME: Spruce Wash - Cedar Avenue	☐ **Design** ☑ **Construction** ☐ **Other**
PROJECT NO. 3524	**FILE NO.** 03-23011
ACCT. NO. 410-08-385-3524-3-4442 100.00 %	
ACCT. NO. _____ %	
COUNCIL APPROVAL DATE: 10/01/2024	**ORIGINAL CONTRACT AMOUNT:** $ 1,949,943.54
PROJECT BUDGET (FY 25 **)** $ 1,949,943.54	**PROJECT BUDGET (FY_____)**
NOTICE TO PROCEED DATE: 09/05/2023	**ORIGINAL CONTRACT PERIOD (calendar days):** 845
ORIGINAL COMPLETION DATE: 06/26/2026	**ORIGINAL CONTRACT ALLOWANCE:** $ 75,000.00
DESIGN FIRM:	

Change Orders Revision Date	C.O. Amount New Total	C.O. Days New Total	Start Date New Comp. Date	REASON FOR CHANGE
1	$ 1,990,330.00	0	09/02/2025	Pavement Mill and Overlay for Cedar Avenue, Road Repair & Street Safety
08/07/2025	$ 3,940,273.54	1025	06/26/2026	
2				
3				
4				
5				

COMMENTS: The allocations shown above are inclusive of all Change Orders shown.If there are more than 5 Change Orders, please request a separate form from Purchasing that includes additional spaces. Thank you!

			END DATES		
ORIGINAL CONTRACT PERIOD	845 **Days**	(12/28/2025)	**ORIGINAL CONTRACT**	**$**	$ 1,949,943.54
PRIOR TIME CHANGES	180 **Days**	(06/26/2026)	**TOTAL PRIOR VALUE CHANGES**	**$**	$ 0.00
THIS TIME CHANGE	0 **Days**	(06/26/2026)	**VALUE OF THIS CHANGE**	**$**	$ 1,990,330.00
NEW CONTRACT PERIOD	1025 **Days**	(06/26/2026)	**NEW CONTRACT**	**$**	$ 3,940,273.54

CITY OF FLAGSTAFF

☐ CONFIRMING CHANGE ORDER NO. _____
☐ DESIGN CONTRACT CHANGE ORDER NO. _____
☑ CONSTRUCTION CONTRACT CHANGE ORDER NO. 1
☐ CONTRACT ALLOWANCE UPDATE NO. _____

PROJECT NO. 3524 **PROJECT NAME:** Spruce Wash - Cedar Avenue Crossing -

FILE NO. 03-23011 **PROJECT MANAGER:** Trevor Henry

SIGNATURES

SUBMITTER

Project Manager	8/5/2025 (Date)	**Approved Signature**	Trevor Henry
Department Head	8/5/2025 (Date)	**Approved Signature**	Paul Mood 2025.08.05 14:19:50 -07'00'

COMMITTEE

Water Services	2025-08-07 (Date)	**Approved Signature**	Douglas Slover Jr Digitally signed by Douglas Slover Jr Date: 2025.08.07 16:40:06 -07'00'
Public Works	8-8-2025 (Date)	**Approved Signature**	Daniel Dethlefs
City Engineering	8/8/2025 (Date)	**Approved Signature**	Paul Mood
City Attorney	(Date)	**Approved Signature**	Christina A. Kinnear Digitally signed by Christina A. Kinnear DN: cn=Christina A. Kinnear, o=City of Flagstaff, ou=City Attorney, email=christina.kinnear@flagstaffaz.gov, c=US Date: 2025.08.11 08:51:11 -07'00'
Finance	08/11/2025 (Date)	**Approved Signature**	Tammy L Ryan
Purchasing (Chair)	(Date)	**Approved Signature**	Patrick Brown Digitally signed by Patrick Brown Date: 2025.08.12 09:30:05 -07'00'

EXECUTIVE

City Manager	(Date)	**Approved Signature**	

Council Meeting Date (if required) 09/02/2025 **Council Approved?** Yes ☑ No ☐

We have given careful consideration to the proposed and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, and perform all services necessary for the work specified.

FIRM NAME: Eagle Mountain Construction **Signature:** Marco Spagnuolo

Date: 08/05/2025 **Print Name and Title:** Marco Spagnuolo, CEO

CEDAR AVE. & WEST ST. IMPROVEMENTS

Keynote	DESCRIPTION	QTY	Unit	Unit Cost	Total
	WEST ST.				
	TREE REMOVAL	1	EA	$ 1,755.00	$ 1,755.00
	REMOVE AND REPLACE SIDEWALK	2,215	SF	$ 20.00	$ 44,300.00
	REMOVE AND REPLACE DRIVEWAY RAMP & WING	871	SF	$ 38.00	$ 33,098.00
	RETROFIT ADA, ADD DOMES	0	EA	$ -	$ -
	NEW ADA RAMP W/ 3" AB	0	SF	$ -	$ -
	R&R INTEGRAL CURB FOR VG APRON W/ 3" AB	0	LF	$ -	$ -
	REMOVE AND REPLACE CURB - VERTICAL - W/3" AB	421	LF	$ 75.00	$ 31,575.00
	REMOVE AND REPLACE CURB - ROLL - W/3" AB	0	LF	$ -	$ -
	LOWER & ADJUSTMENTS OF CLEANOUTS, BLOWOFFS, HANDHOLES	3	EA	$ 1,738.00	$ 5,214.00
	LOWER & ADJUSTMENTS OF MANHOLE FRAME AND COVERS	2	EA	$ 1,683.00	$ 3,366.00
	LOWER & ADJUSTMENTS OF VALVE BOXES	0	EA	$ 2,233.00	$ -
	1' ASPHALT PATCHING AT CURB	46	SY	$ 125.00	$ 5,750.00
	2" AC MILLING	4,775	SY	$ 5.00	$ 23,875.00
	2" AC MAC OVERLAY - 1/2" MIX	4,775	SY	$ 30.00	$ 143,250.00
	STRIPING - ALLOWANCE, SPECS TO BE DETERMINED	1	LS	$ 18,000.00	$ 18,000.00
	CEDAR AVE.				
	REMOVE AND REPLACE SIDEWALK	1,720	SF	$ 20.00	$ 34,400.00
	REMOVE AND REPLACE DRIVEWAY RAMP & WING	4,343	SF	$ 38.00	$ 165,034.00
	RETROFIT ADA, ADD DOMES	10	EA	$ 2,775.00	$ 27,750.00
	NEW ADA RAMP W/ 3" AB	899	SF	$ 25.00	$ 22,475.00
	R&R INTEGRAL CURB FOR VG APRON W/ 3" AB	15	LF	$ 60.00	$ 900.00
	REMOVE AND REPLACE CURB - VERTICAL - W/3" AB	1,167	LF	$ 75.00	$ 87,525.00
	REMOVE AND REPLACE CURB - ROLL - W/3" AB	174	LF	$ 75.00	$ 13,050.00
	LOWER & ADJUSTMENTS OF CLEANOUTS, BLOWOFFS, HANDHOLES	5	EA	$ 1,738.00	$ 8,690.00
	LOWER & ADJUSTMENTS OF MANHOLE FRAME AND COVERS	23	EA	$ 1,683.00	$ 38,709.00
	LOWER & ADJUSTMENTS OF VALVE BOXES	18	EA	$ 2,233.00	$ 40,194.00
	LOWER & ADJUSTMENTS OF HANDHOLES	2	EA	$ 750.00	$ 1,500.00
	1' ASPHALT PATCHING AT CURB	150	SY	$ 125.00	$ 18,750.00
	2" AC MILLING	13,636	SY	$ 5.00	$ 68,180.00
	2" AC MAC OVERLAY - 1/2" MIX	13,636	SY	$ 30.00	$ 409,080.00
	STRIPING - ALLOWANCE, SPECS TO BE DETERMINED	1	LS	$ 32,000.00	$ 32,000.00
MISCELLANEOUS					
	MOBILIZATION & DEMOBILIZATION	1	LS	$ 39,600.00	$ 39,600.00
	SURVEY & STAKING	1	LS	$ 12,500.00	$ 12,500.00
	TRAFFIC CONTROL & MAINTENANCE	1	LS	$ 75,000.00	$ 75,000.00
	AS-BUILTS\RECORD DRAWINGS	1	LS	$ 5,000.00	$ 5,000.00
	SWPPP INSTALLATION & MAINTENANCE	1	LS	$ 5,000.00	$ 5,000.00
CONTRACT ALLOWANCES					
	ADDITIONAL TRAFFIC CONTROL BASED ON APPROVED TRAFFIC PLANS	1	LS	$ 25,000.00	$ 25,000.00
	UNSUITABLE MATERIAL\SUBGRADE STABILIZATION	250	SY	$ 90.00	$ 22,500.00
	TBD	1	LS	$ -	$ -
	TBD	1	LS	$ -	$ -
SUMMARY					
COST OF WORK					**$ 1,463,020.00**
GENERAL CONDITIONS (GC'S) (Percent of Cost of the Work)		11.14%			$ 163,000.00
SUBTOTAL #1 - Cost of the Work + GC's					**$ 1,626,020.00**
CONSTRUCTION FEE (Fee) (Percentage of Subtotal #1)		10.50%			$ 170,732.10
SUBTOTAL #2 - Cost of the Work + GC's + Fee					**$ 1,796,752.10**
PERFORMANCE & PAYMENT BOND (Percentage of Subtotal #2)		0.90%			$ 16,170.77
SUBTOTAL #3 - Cost of the Work + GC's + Fee + Bonds					**$ 1,812,922.87**
INSURANCE (Percentage of Subtotal #3)		1.00%			$ 18,129.23
SUBTOTAL #4 - Cost of the Work + GC's + Fee + Bonds + Insurance					**$ 1,831,052.10**
SALES TAX (Percentage of GMP)		5.97%			$ 109,277.90
CMAR CONTINGENCY & PRICE ESCALATION FUNDING		2%			$ 25,000.00
GMP					**$ 1,965,330.00**
OWNERS CONTINGENCY (Percentage of Cost of the Work)		2%			$ 25,000.00
CONTRACT PRICE					**$ 1,990,330.00**



Cedar Avenue, West Street to Ellen Avenue. Includes the intersection at West Street and Cedar Avenue



West Street – Cedar Avenue to the project limits of Linda Vista – Spruce Wash (GMP 5).



Spruce Wash Suite of Projects GMP #4 Vicinity

0 0.05 0.1 0.2 0.3 0.4

mi

City of Flagstaff maps and data are updated on a regular basis from data obtained from various sources. The City of Flagstaff endeavors to provide accurate information, but accuracy is not guaranteed. You are strongly encouraged to obtain any information you need for a business or legal transaction from a surveyor, engineer, title company, or other licensed professional as appropriate. Information is provided subject to the express condition that you knowingly waive any and all claims for damages against the City of Flagstaff relating to use of this information.

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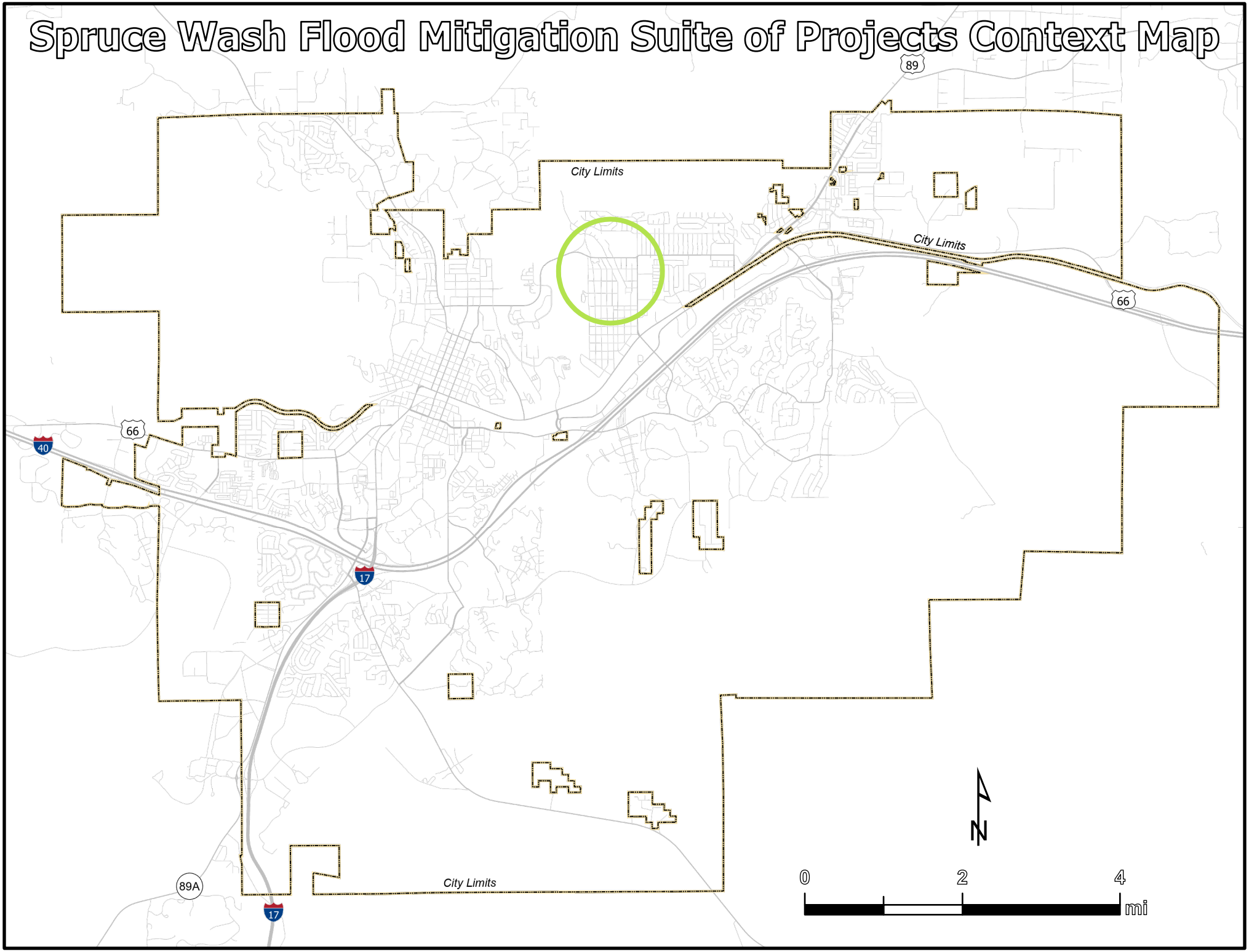
Spruce Wash Flood Mitigation Suite of Projects Context Map





Spruce Wash
Cedar Crossing
GMP 4
CO No. 1

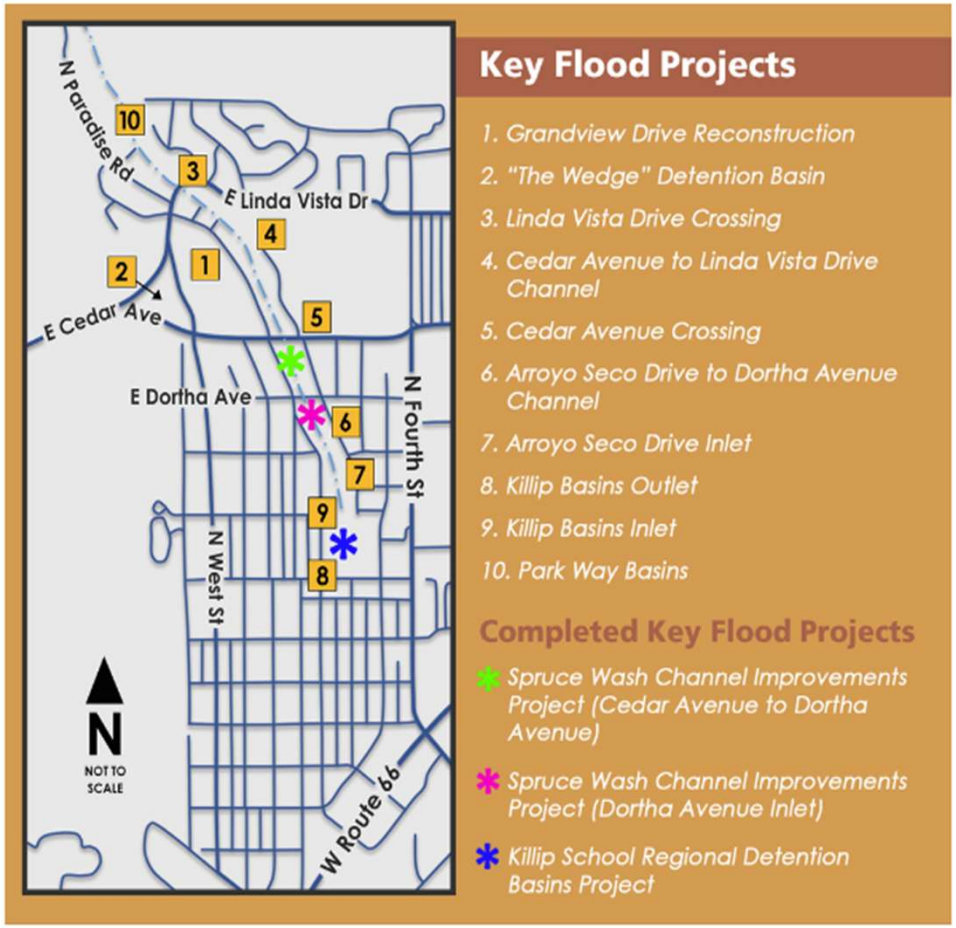
September 2, 2025

TEAM FLAGSTAFF
WE MAKE THE CITY BETTER

Cedar Crossing GMP4 – CO 1

Spruce Wash – Cedar Crossing

- Amendment No. 4 – 10/01/24
  - Removal of existing Box Culvert
  - Construct new Arch Box Culvert
  - Sidewalk, curb, gutter & asphalt
  - Utility adjustments/relocations
- GMP No. 4 - $1,949,944
  - Prop 441 – Fund 410
  - FEMA Hazard Mitigation Grant



Cedar Crossing GMP4 – CO 1

Spruce Wash – Cedar Crossing

- Consideration and Approval of Contract:

Approve Change Order No. 1 with Eagle Mountain Construction, Inc. in the amount of $1,990,330.00, to the Cedar Crossing, GMP 4, Amendment No. Four, as part of the Spruce Wash Flood Mitigation Suite of Projects.

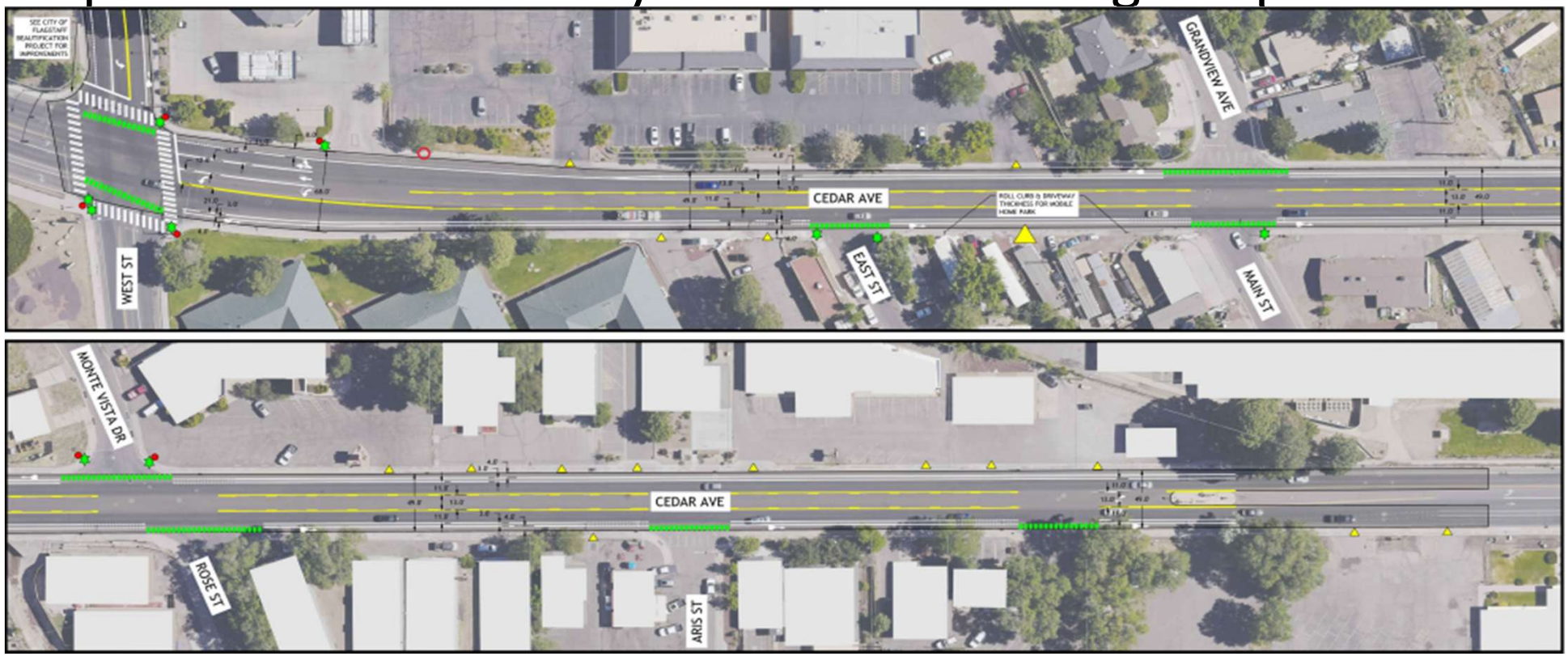
- Staff Recommended Action:

1. Approve Change Order 1 for Cedar Crossing in the amount of $1,990,330.00.
2. Authorize the City Manager to execute the necessary documents.

Cedar Crossing GMP4 – CO 1

Change Order No. 1

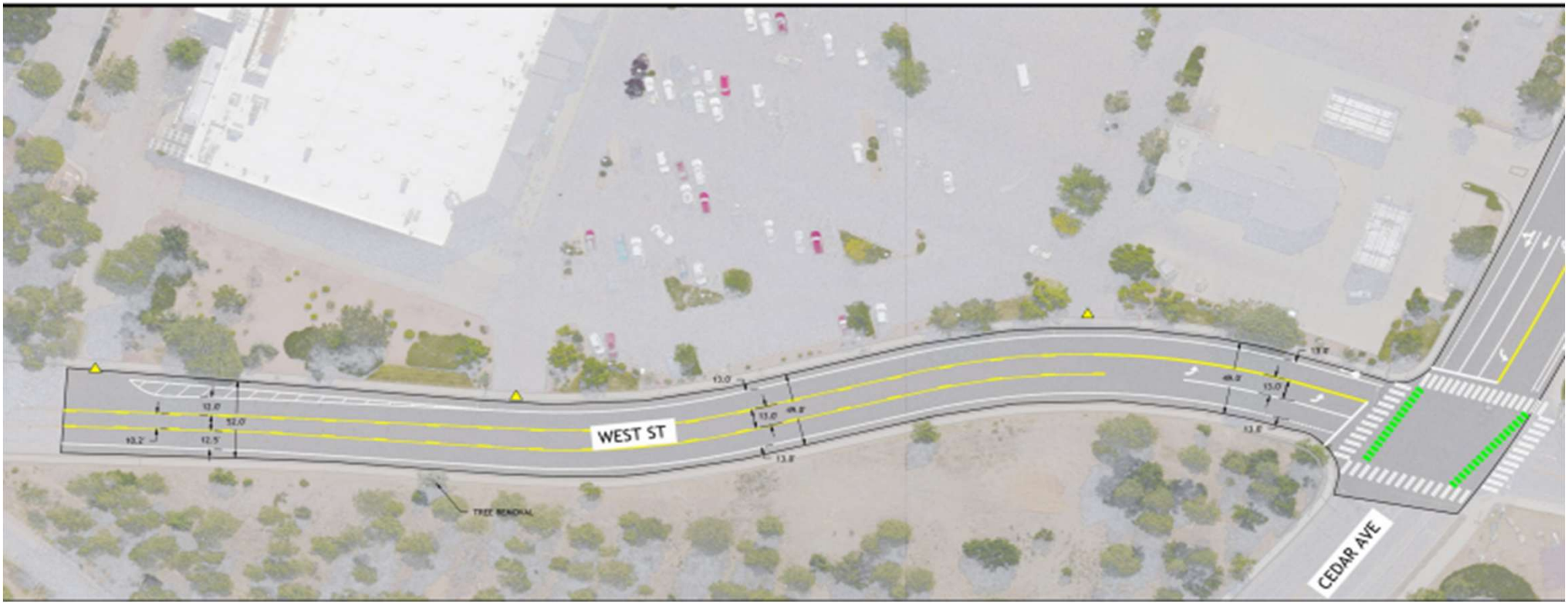
- Asphalt Mill and Overlay with Concrete Edge Improvements



Cedar Crossing GMP4 – CO 1

Change Order No. 1

- Asphalt Mill and Overlay with Concrete Edge Improvements



Cedar Crossing GMP4 – CO 1

Change Order No. 1 Includes:

- Mill 18,411 SY of existing asphalt pavement
- Place 18,411 SY of new asphalt pavement
- New concrete driveways, sidewalk, curb and gutter
- No additional time associated with CO 1 for Cedar Crossing
- $1,990,330 added to Amendment Four – GMP 4
- Funded by Prop 441 – Fund 410
- Road Repair and Street Safety – Fund 046

Cedar Crossing GMP4 – CO 1

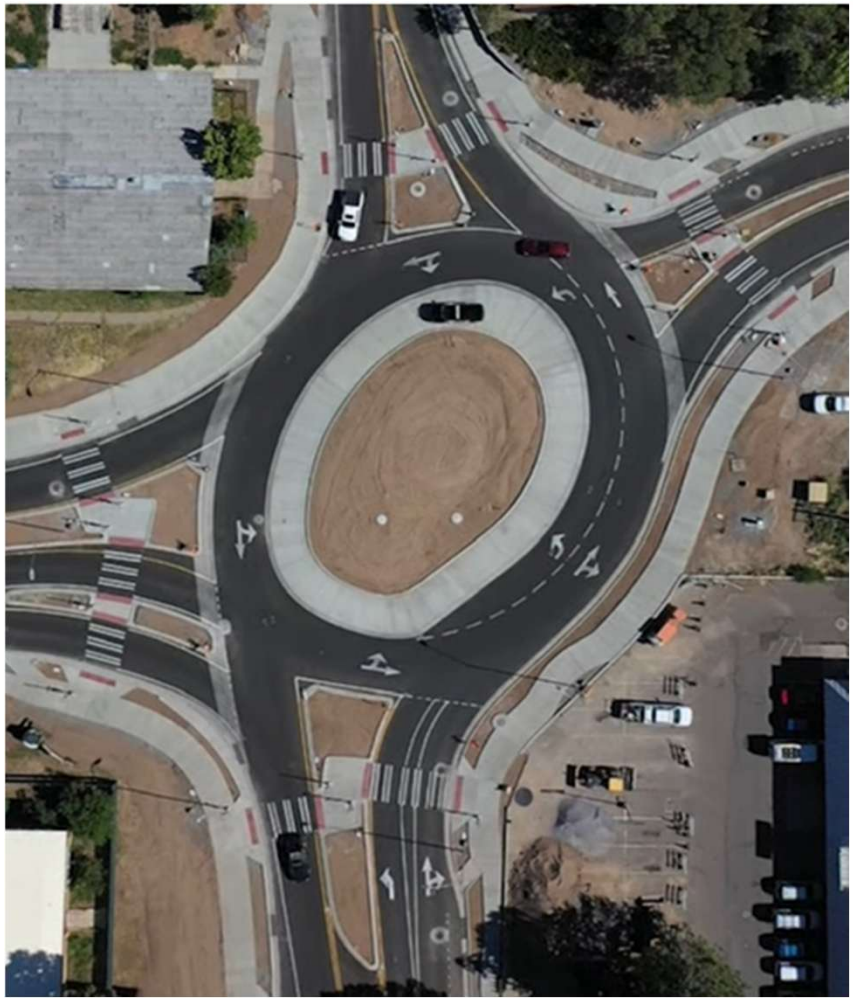
Public Outreach and Coordination Efforts

- Spruce Wash Suite of Projects – Prop 441
  - Public Information Firm – Beta Pr
  - Provide weekly eNewletters – Provide updates on construction
  - Walk-the-Corridor Campaign – Talk with Cedar Avenue Businesses
  - Traffic Control Plan, CO 1 – Lane shifts with no road closures
    - Driveways impacted but will have access – concrete curing
  - Begin work September 2025, complete December 2025
    - Cedar Avenue – eight weeks
    - West Street – four weeks

Cedar Crossing GMP4 – CO 1

Fourth-Cedar Roundabout

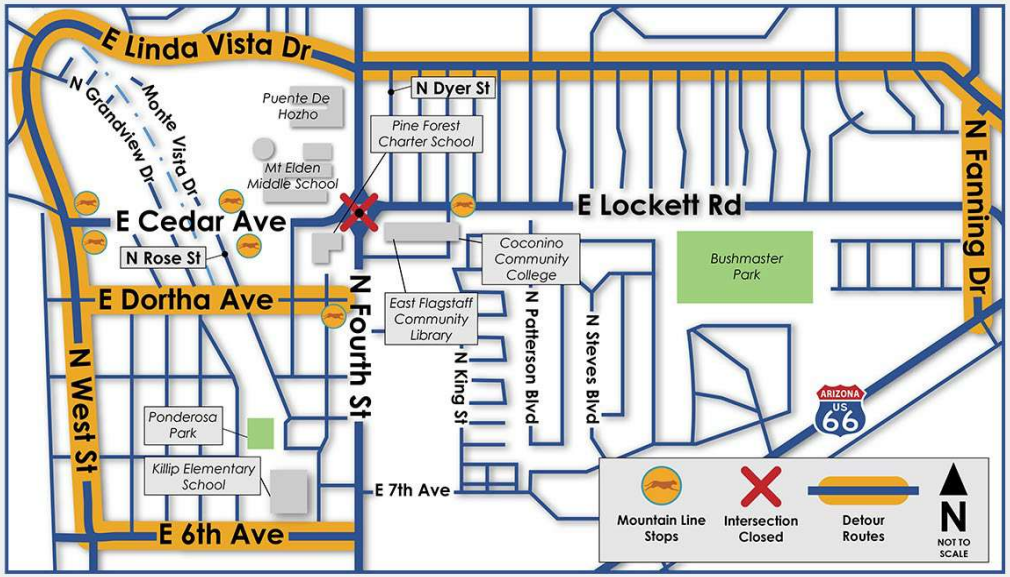
- ADOT – City Project
  - Intersection Closure, May to August
  - Work Completed – temp striping
  - Final Striping – September 13th
  - Closure, 5am to midnight
- Outreach
  - Schools – Library – Coconino Community College
  - Mountain Line
  - eNewsletter



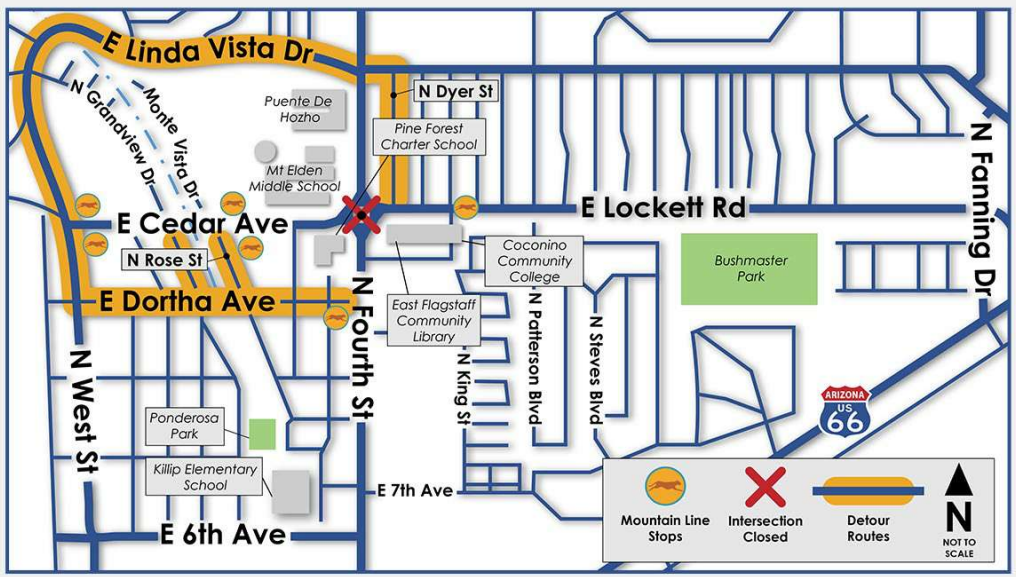
Cedar Crossing GMP4 – CO 1

Fourth-Cedar Roundabout

Vehicular Detour Map



Pedestrian Detour Map



Cedar Crossing GMP4 – CO 1

Questions?

SPRUCE WASH PROJECT INFORMATION

Project hotline: 928-255-5153

Project email address: info@museumfloodprojects.com

Project website: museumfloodprojects.com

FOURTH CEDAR ROUNDABOUT PROJECT INFORMATION

Project hotline: 928-255-5153

Project email address: info@fourthlockettproject.com

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Alaxandra Pucciarelli, Current Planning Manager

Date: 08/28/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Approval: A request for Preliminary Block Plat approval for Canyon del Rio Phase 2 located at 3200 E Butler Avenue within the Single-family Residential (R1) zone and the Medium Density Residential (MR) zone.

STAFF RECOMMENDED ACTION:

Approve the Preliminary Plat, in accordance with the findings presented in this report and the Planning and Zoning Commission recommendation of approval (7-0 on August 13, 2015) with the following conditions:

1. The final plats for each phase shall be in substantial conformance with the preliminary plat including the phasing plan and map (sheets PH01 and PH02) of the preliminary Block Plat of Canyon del Rio Phase 2. Each phase and parcel of the Canyon del Rio plat must meet all requirements independently.
2. The Final Plat for Canyon del Rio Phase 2 must meet the conditions of approval in the IDS approval comment letter dated June 5, 2025, as well as the conditions in the Traffic Impact Analysis Approval Memo dated July 10, 2025 (staff and the applicant are continuing to discuss the proportional share contribution for improvements at the Whetstone and Fourth Street Intersection, as well as responsibility for payment of that proportional share; the conditions related to improvements at the Whetstone and Fourth Street Intersection may be revised or removed depending on the outcome of those discussions).

Executive Summary:

Canyon del Rio is a 1,426 residential dwelling unit development with 225,000 square feet of commercial development on 261 acres. The development is intended to provide a mix of housing types with supporting commercial services and open space areas. The Phase 1 Block Plat was approved on June 1, 2021. The current request is for Phase 2 of Canyon del Rio (tract Z of Phase 1), consisting of four blocks, five tracts, and JW Powell public right-of-way on 119 acres.

Financial Impact:

No financial impacts are anticipated with the Preliminary Plat.

Policy Impact:

There are no policy impacts anticipated with this Preliminary Plat.

Previous Council Decision or Community Discussion:

A Concept Zoning Map Amendment and the original Development Agreement were approved by Council in 2019. The Phase 1 Block Plat was approved in 2021. An amendment to the Development Agreement was approved on December 3, 2024.

Options and Alternatives to Recommended Action:

1. Approve the Preliminary Plat as recommended by staff and the Planning & Zoning Commission.
2. Approve the Preliminary Plat with additional or modified conditions.
3. Deny the Preliminary Plat based on compliance with the Zoning Code, the Subdivision Code, and/or the Engineering Design Standards.

Background and History:

Canyon del Rio is a proposed 1,426 residential dwelling unit and 225,000 square foot commercial development located in the city of Flagstaff. The development underwent a concept zoning map amendment that rezoned 88.88 acres of the site from Research and Development (RD) zone to 27.9 acres MR zone, 30 acres HR zone, and 25.9 acres HC zone. The overall development proposes a mixture of high-, medium-, and single-family residential units combined with commercial service and open space on 261 acres. The Phase 1 Block Plat created Tract Z (119.60 acres) for future development. The Phase 2 Preliminary Block Plat proposes to subdivide tract Z into four blocks, five tracts, and public right-of-way for streets.

The site is situated north and west of the Butler Avenue and Fourth Street intersection. The site is heavily treed and is located within the Resource Protection Overlay Zone (RPO). The site has varied topography, including many slopes and small valleys. The most significant is the Rio de Flag drainage that runs across the southeast corner of the development and continues downstream to Foxglenn Park. The proposed Fourth Street alignment that will ultimately connect Butler Avenue and John Wesley Powell Boulevard runs along the eastern boundary. Butler Avenue is the northern boundary of the development; Herald Ranch Road and Little America are located adjacent to the western boundary. An existing aboveground 69 KV transmission line crosses the site in an east-west direction at the south end of the subdivision.

The Phase 1 block plat and the Development Agreement included a Phasing Map and Matrix to both allow flexibility in the order of development as well as ensure that each block was provided with the improvements necessary to support development on the site. Sheets 17 and 18 (PH01 and PH02) of the Phase 2 Preliminary Block Plat describes the public improvements that will be required prior to development of the remaining Phase 2 parcels, building on the Phasing Map and Matrix utilized to develop Phase 1. The phasing plan allows the developer flexibility by not defining a specific order of parcel development; any of the parcels defined by the block plat can be developed when the appropriate public improvements are provided.

The applicant, Canyon del Rio Investors, LLC. (CDRI) is seeking Preliminary Block Plat approval for a 4-block, 5-tract subdivision with rights-of-way for JW Powell Blvd and Harold Ranch Road. Each block will be either subdivided further into the individual lots that will be sold to homeowners or developed using the City's site plan review process. The site plan review process is used for land uses that are allowed by the zoning district. Typically, commercial and high-density rental land uses use the site plan process, and residential ownership products comply with the City's subdivision requirements. Preliminary and final plats will be reviewed and approved for each of the blocks that propose subdivision.

The intensities (commercial) and densities (residential) are provided as part of the "Lot Coverage and Building Information" chart provided on Sheet 1 (CVR), of the Phase 2 Preliminary Block Plat. The chart provides previous and existing zoning districts and anticipated land uses. This chart builds off the chart provided with the Phase 1 Block Plat and the Development Agreement.

Connection to PBB Priorities and Objectives:

Robust Resilient Economy - Support and strengthen a robust, diverse, and sustainable economy.

Connection to Regional Plan:

A Regional Plan analysis was completed in conjunction with the Concept Zoning Map amendment in 2019.
Policy LU.5.1. Encourage development patterns within the designated growth boundaries to sustain efficient infrastructure projects and maintenance.
Goal NH.1. Foster and maintain healthy and diverse urban, suburban, and rural neighborhoods in the Flagstaff region.
Policy WR.4.3. Development requiring public utility services will be located within the Urban Growth

Boundary.

Connection to Carbon Neutrality Plan:
DD-1: Encourage vibrancy, appropriate density, and attainability in existing neighborhoods, so that more residents live within walking distance of their daily needs.

Connection to 10-Year Housing Plan:
Protect 2.2: Encourage diversity of housing options in all neighborhoods, understanding that exclusive communities are incompatible with the City of Flagstaff's mission to protect and enhance the quality of life for all.

Attachments:
Staff Report
Application
Preliminary Block Plat Narrative
Preliminary Block Plat
IDS Approval comment Letter
CDR Phase 2 TIA comment Letter
CDR Phase 2 Whetstone Memo comment letter
Presentation

PLANNING & DEVELOPMENT SERVICES REPORT
PRELIMINARY BLOCK PLAT

PZ-18-00113-06 **DATE: July 14, 2025**

REQUEST:
A request for Preliminary Block Plat approval for Canyon del Rio Phase 2 located at 3200 E Butler Avenue within the Single-family Residential (R1) zone and the Medium Density Residential (MR) zone.

STAFF RECOMMENDATION:
Staff recommends the Planning and Zoning Commission, in accordance with the findings presented in this report, forward the Preliminary Block Plat to the City Council with a recommendation of approval, subject to conditions.

PRESENT LAND USE:
The subject site consists of undeveloped land located in central Flagstaff.

PROPOSED LAND USE:
Canyon del Rio is a 1,426 residential dwelling unit development with 225,000 square feet of commercial development on 261 acres. The development is intended to provide a mix of housing types with supporting commercial services and open space areas. The Phase 1 Block Plat was approved on June 1, 2021. The current request is for Phase 2 of Canyon del Rio (tract Z of Phase 1), consisting of four blocks, five tracts, and JW Powell public right-of-way on 119 acres.

NEIGHBORHOOD DEVELOPMENT:
See the attached vicinity map for more information.

North:	Canyon del Rio Phase 1, Highway Commercial (HC) zone; High Density Residential (HR) zone, MR zone, and R1 zone
East:	Vacant land in the Rural Residential (RR) zone, proposed to be developed as a single family subdivision
South:	Vacant land and Single family homes in the Estate Residential (ER) zone and Coconino County jurisdiction
West:	Vacant land in the ER zone owned by Little America Hotel

REQUIRED FINDINGS:
The Planning and Zoning Commission shall find the proposed Preliminary Block Plat meets the requirements of City Code Title 10, Flagstaff Zoning Code; City Code Title 11, General Plans and Subdivisions; and City Code Title 13, Engineering Design Standards and Specifications.

STAFF REVIEW:

I. Project Information

A. Background
Canyon del Rio is a proposed 1,426 residential dwelling unit and 225,000 square foot commercial development located in the city of Flagstaff. The development underwent a concept zoning map amendment that rezoned 88.88 acres of the site from Research and Development (RD) zone to 27.9 acres MR zone, 30 acres HR zone, and 25.9 acres HC zone. The overall development proposes a mixture of high-, medium-, and single-family residential units combined with commercial service and open space on 261 acres. The Phase 1 Block Plat created Tract Z (119.60 acres) for future development. The Phase 2 Preliminary Block Plat proposes to subdivide tract Z into four blocks, five tracts, and public right-of-way for streets.

The site is situated north and west of the Butler Avenue and Fourth Street intersection. The site is heavily treed and is located within the Resource Protection Overlay Zone (RPO). The site has varied topography, including many slopes and small valleys. The most significant is the Rio de Flag drainage that runs across the southeast corner of the development and continues downstream to Foxglenn Park. The proposed Fourth Street alignment that will ultimately connect Butler Avenue and John Wesley Powell Boulevard runs along the eastern boundary. Butler Avenue is the northern boundary of the development; Herald Ranch Road and Little America are located adjacent to the western boundary. An existing aboveground 69 KV transmission line crosses the site in an east-west direction at the south end of the subdivision.

The Phase 1 block plat and the Development Agreement included a Phasing Map and Matrix to both allow flexibility in the order of development as well as ensure that each block was provided with the improvements necessary to support development on the site. Sheets 17 and 18 (PH01 and PH02) of the Phase 2 Preliminary Block Plat describes the public improvements that will be required prior to development of the remaining Phase 2 parcels, building on the Phasing Map and Matrix utilized to develop Phase 1. The phasing plan allows the developer flexibility by not defining a specific order of parcel development; any of the parcels defined by the block plat can be developed when the appropriate public improvements are provided.

The applicant, Canyon del Rio Investors, LLC. (CDRI) is seeking Preliminary Block Plat approval for a 4-block, 5-tract subdivision with rights-of-way for JW Powell Blvd and Harold Ranch Road. Each block will be either subdivided further into the individual lots that will be sold to homeowners or developed using the City's site plan review process. The site plan review process is used for land uses that are allowed by the zoning district. Typically, commercial and high-density rental land uses use the site plan process, and residential ownership products comply with the City's subdivision requirements. Preliminary and final plats will be reviewed and approved for each of the blocks that propose subdivision.

The intensities (commercial) and densities (residential) are provided as part of the "Lot Coverage and Building Information" chart provided on Sheet 1 (CVR), of the Phase 2 Preliminary Block Plat. The chart provides previous and existing zoning districts and anticipated land uses. This chart builds off the chart provided with the Phase 1 Block Plat and the Development Agreement.

B. Type of Plat

This preliminary block plat request is to create blocks, tracts, and right-of-way for the future development of phase 2 of Canyon del Rio. The proposed use of the four proposed blocks is residential. The size and purpose of the tracts are listed under "Summary of Tracts" on Sheet 1 (CVR). Tracts ZZ, A, B, and C are primarily reserved for drainage and the Rio de Flag floodplain. Tract S is intended for future development and an application for a single-family residential subdivision is currently being reviewed by staff.

II. Required Findings: Conformance with City Development Standards

Staff reviewed and approved the Preliminary Plat based on conformance with City Code Title 10, Flagstaff Zoning Code; City Code Title 11, General Plans and Subdivisions; and City Code Title 13, Engineering Design Standards and Specifications.

A. City of Flagstaff Zoning Code (Title 10)

1. **Existing Zoning Regulations**

   The property included in this plat is zoned both R1 and MR. The proposed blocks meet the minimum parcel dimensions stipulated by the Zoning Code. The standards for the individual lots will be determined with the platting of each individual block. Future subdivision plats will create individual lots that will be required to meet the dimensional requirements of city code. These subdivisions will also need to meet the density requirements of either the zoning code or the density identified on the Lot Coverage/Building Information table of the block plat. The parcel-specific densities of the table were set with the approval of the Settlement Agreement made between the developer and the City of Flagstaff in 2013 and amended in 2015.

2. Natural Resources

A Natural Resource Protection Plan (NRPP) was provided as part of this Preliminary Block Plat (sheets 19 and 20 (NRPP1 and 2)). Resources on the site include steep and moderate slopes and a relatively consistent forest across the site. Floodplains are preserved at 100% and Tracts A and B are being dedicated to the City for maintenance of the Rio de Flag Floodplain. The specific resources to be protected have not yet been identified with this Preliminary Block Plat. The preserved resources will be identified with the platting/site plan review of the individual blocks.

A zoning code text amendment exempting public rights-of-way from resource calculation standards was approved by City Council in February 2025. This new code standard may be applied retroactively to the entire Canyon del Rio development per the development agreement.

The Zoning Code protection factors for resources in the MR and R1 districts are as follows:

100% of rural floodplains
70% of slopes between 17% and 24.99%
80% of slopes between 25% and 34.99%
100% of slopes greater than 35%
50% of forest canopy

The Planning Director approved a request to reduce the slope and forest canopy protection factors by 5%.

The Development Agreement discusses the resources and allows the developer to create two "resource banks": one for the residential properties and one for the commercial properties. These banks will allow the application of extra resources from one parcel to another parcel when extra resources are available.

3. Parks, Open Space, Pedestrian, and Bicycle Facilities

Internal to the Canyon del Rio development, approximately 54 acres have been identified for open space. The phase 2 Block Plat shows areas to be dedicated to the City as open space, as well as proposed FUTS trail alignments. The FUTS will be constructed as each parcel develops. Additionally, each parcel will be required to meet the open space and civic space requirements associated with the proposed development.

The JW Powell Blvd roadway section was agreed to as part of the amended Canyon del Rio development agreement. The cross section includes bike lanes and sidewalks. There is also a pedestrian underpass that allows the FUTS to continue under the future JW Powell Blvd.

4. Historic/Cultural Resources

At the time of original development approvals, the City of Flagstaff Heritage Preservation Commission accepted the Cultural Resource Report prepared by a professional meeting Secretary of the Interior Standards on file with the State.

B. City of Flagstaff Subdivision Standards (Title 11)

1. Preliminary Plat

This Preliminary Block Plat was reviewed and approved with conditions by the Inter-Division Staff on June 5, 2025.

2. Subdivision Standards and Regulations

IDS also approved the Preliminary Plat based on conformance with relevant standards in Section 11-20.120: Subdivision Design Standards and Requirements. These design standards require that all lots or parcels created by the subdivision of land shall have their own frontage to a public or private street. Public and private streets shall be designed and improved to public street standards in accordance with city standards. Tract S is dependent on future development of an adjacent parcel for access and utilities.

i. Lot Design

The future subdivision lots shall comply with the code standards for lot design.

ii. Street Design

The proposed street designs meet either Engineering Standards or the standards agreed to in the amended Canyon del Rio development agreement.

iii. Easement Design

The proposed subdivision meets the standards for easement design:

• Easements shall be provided and dedicated where deemed necessary for specific purposes.

• Drainage easements shall substantially follow the line of any existing watercourse that traverses the land.

iv. Block Design

The future subdivisions shall include local roads that create blocks that meet code standards .

3. Minimum Required Subdivision Improvements

The subdivider is required to improve all streets, pedestrian ways, alleys, and easements in the subdivision and adjacent to it as required to serve the subdivision. Staff review of the Preliminary Plat along with the impact analyses discussed in the Engineering Standards section below identified the required improvements in conformance with Section 11-20.130: Minimum Required Subdivision Improvements. The Phasing Map and Matrix identify what improvements are required for each parcel to be developed. These improvements will formally be approved with Civil Engineering Plans review, which will occur after Preliminary Plat approval by City Council.

C. City of Flagstaff Engineering Standards (Title 13)

As part of the Preliminary Plat review, Staff conducted a public systems analysis to confirm preliminary compliance with Engineering Standards. Following Preliminary Plat approval, the applicant shall submit and receive approval for Civil Engineering Plansfor the subdivision prior to review and approval of the Final Plat. Approval of the Civil Engineering Plans will be contingent on the plat meeting City Engineering Standards.

1. Access and Traffic

The Canyon Del Rio Phase 2 and R1 Transportation Impact Analysis (TIA) included analysis of Parcels Q1/Q2, Q3, O/P, R1, R2/R3, and R4/R5. The original approved TIA sealed June 5, 2017 did not include the current design of JW Powell connecting to S Fourth Street. A new TIA was required due to site plan changes, outdated traffic analysis, and to justify a lower roadway classification through Q & O/P. City staff approved the TIA with conditions and required additional analysis to be completed at the intersection of Whetstone and Fourth Street. The results of the approved TIA and the additional memo include off-site improvements detailed in the attached TIA approval with conditions memos. The developer is also required to provide a cost share of the intersection construction at Whetstone and JW Powell. This agreement will be required for civil plan approval. Included in the conditions are the following:

- Based on the TIA recommendations and the poor LOS/delay at the study intersections, right of way shall be reserved for a two-lane roundabout at the intersections of JWP & Whetstone, JWP & Fourth Street, and JWP & Herold Ranch.
- A 52.9% proportional cost share is required for the construction of a single lane roundabout at the intersection of JWP and Whetstone.

2. Water and Wastewater

Civil Design & Engineering, Inc., on behalf of the City of Flagstaff Water Services Division, prepared the Water and Wastewater Impact Analysis (WSIA) dated July 2015. The analysis was based on the demands generated by Canyon del Rio and a residential dwelling cap of 1,715 units and 67.9 acres of commercial development.

Water

The closest source of Zone B water for this site includes a 24-inch waterline within Butler Avenue along the northern property boundary. The existing Zone B waterline is supported by a new secondary water line extending new lines from north of I-40 to Soliere Drive, Fourth Street and to the site. Internally, 12-inch supply mains will be installed under the internal spine loop and with the roadways identified by the Phasing Map and Plan. A 20-inch main will be located under Fourth Street across the frontage of Canyon del Rio; this will ultimately be extended in the new John Wesley Powell Boulevard right-of way. Connection with the individual subdivisions and site plan approvals will extend the water system, providing services to individual structures. Canyon del Rio Investors have agreed through the Development Agreement to provide roughly $667,000 in a cash-in-lieu payment for future water storage, due with the issuance of the 400th-dwelling unit. The developer has also agreed to provide up to two well sites on the Canyon del Rio site if the City identifies that successful production wells warrant further exploration.

Wastewater
Several connections to the sewer are available to this project, given its location at the intersection of Butler Avenue and Fourth Street, and the location of the Rio de Flag Wash and the major sewer interceptor line located within the Wash. The nearest sewer that allows for gravity flow from the Canyon del Rio site is in the Rio de Flag Wash. The existing sewer line is 42-inches in diameter and gravity flows to the east along the river channel.

The Wildcat Hill Wastewater Treatment Plant will treat all sewage collected for Canyon del Rio. The design flows from the Canyon del Rio development indicate an average daily flow increase to the plant of 456,738 gallons per day.

The Water and Sewer Impact Analysis does not identify the need for off-site improvements from the Canyon del Rio development.

3. **Stormwater**
A completed Drainage Impact Analysis (2013) and Preliminary Drainage Report (2025) for Canyon del Rio has been submitted and reviewed by Stormwater Staff. To meet the volume storage requirements of the DIA, CDR will provide LID retention measures, for 1-1/2-inch rainfall. The development will use open space corridors to manage major portions of the stormwater on the project site. A series of retention basins will be constructed in the open space areas across the property. These basins will convey on-site and off-site flows from the project site ultimately outletting to the Rio de Flag channel. As the blocks are developed, each will provide stormwater mitigation on site. The system shown on the preliminary plat focuses on the public street improvements as well as some of the drainage for development on the Phase 1 portion of Canyon del Rio.

Low Impact Development (LID) water quality requirements are required to meet the ½-inch threshold, less than the current 1-inch code requirement. The ½-inch threshold was negotiated as part of the settlement agreement approved in 2013. The water quality aspects of the LID requirements will be met near the discharge points of impervious surface areas.

RECOMMENDATION:
Staff recommends the Planning and Zoning Commission, in accordance with the findings presented in this report, forward the Preliminary Block Plat for Canyon del Rio Phase 2 to the City Council with a recommendation of approval with the following conditions:

1. The final plats for each phase shall be in substantial conformance with the preliminary plat including the phasing plan and map (sheets PH01 and PH02) of the preliminary Block Plat of Canyon del Rio Phase 2. Each phase and parcel of the Canyon del Rio plat must meet all requirements independently.

2. The Final Plat for Canyon del Rio Phase 2 must meet the conditions of approval in the IDS approval comment letter dated June 5, 2025, as well as the conditions in the Traffic Impact Analysis Approval Memo dated July 10, 2025 (staff and the applicant are continuing to discuss the proportional share contribution for improvements at the Whetstone and Fourth Street Intersection, as well as responsibility for payment of that proportional share; the conditions related to improvements at the Whetstone and Fourth Street Intersection may be revised or removed depending on the outcome of those discussions).

ATTACHMENTS:

- Application
- Preliminary Block Plat Narrative
- Preliminary Block Plat
- IDS approval comment letter
- CDR Phase 2 TIA comment letter
- CDR Phase 2 Whetstone Memo comment letter

City of Flagstaff — Community Development Division

211 W. Aspen Ave
Flagstaff, AZ 86001
928-389-1016
www.flagstaff.az.gov
P: (928) 213-2618

Date Received	Application for Subdivision Review	File Number

Property Owner(s) CDR LAND INVESTORS II LLC & CDR Devcorp LTD		**Phone** 602-615-3048
Mailing Address 3605 S. Flagstaff Ranch Road	**City, State, Zip** Flagstaff, AZ. 86005	**Email** cwhiting@capstonehomesaz.com
Applicant(s) CDR Devcorp LTD		**Phone** 602-615-3048
Mailing Address 3605 S. Flagstaff Ranch Road	**City, State, Zip** Flagstaff, AZ. 86004	**Email** cwhiting@capstonehomesaz.com
Project Representative Kayla Fleishman, EIT Charity Lee- Entitlements Manager Capstone Homes		**Phone** 928-389-1016 928-600-3594
Mailing Address 110 West Dale Avenue	**City, State, Zip** Flagstaff, AZ 86001	**Email** clee@capstonehomesaz.com kfleishman@ardurra.com

Requested Review:
- ☐ Development Master Plan
- ☐ Conceptual Plat
- ☐ Preliminary Plat P&Z and Council
- ☐ Modified Subdivision
- ☒ Preliminary Plat
- ☐ Final Plat- Council

Project Name: CDR Phase 2	**Site Address** 3200 E. Butler Ave		**Parcel Number** APN - 106-08-043
Proposed Use Residential	**Existing Use** Undeveloped		**Subdivision, Tract & Lot Number** Tract Z of CDR Phase 1 Final Plat, Inst. No. 3944598
Zoning District MR & R1	**Regional Plan Category** Suburban - Future	**Flood Zone** X & AE	**Size of Site (Sq. ft. or Acres)** 119.6 ac

Property Information:
- ☐ Yes ☒ No Located in an existing Local/National Historic District? (Name: _____)
- ☐ Yes ☒ No Existing structures are over 50 years old at the time of application?
- ☒ Yes ☐ No Subject property is undeveloped land?

Surrounding Uses (Res, Com, Ind)	North	South	East	West
	Residential	Residential	Residential	Residential

Proposed Use:	Number of Lots	Number of Units	Number of acres per use	Building Square Feet
Only within Phase 2	6 lots/tract		119.6 ac	

Please complete a *"Subdivision Review Application"* and provide an initialed *"Application and Information Checklist"* form along with the required number of plans and information as appropriate for a Development Master Plan, Conceptual, Preliminary or Final Plat. **Incomplete submittals will not be scheduled.**

Property Owner Signature: (required)	Date: 2/27/24	Applicant Signature:	Date: 2/27/24

For City Use

Date Filed:	**Case Number (s)**	
P & Z Hearing Date:	**Publication and Posting Date:**	
Council Hearing Date:	**Publication and Posting Date:**	
Fee Receipt Number:	**Amount:**	**Date:**

Action by Planning and Zoning Commission:	Action By City Council:
☐ Approved	☐ Approved
☐ Denied	☐ Denied
☐ Continued	☐ Continued

Staff Assignments	Planning	Engineering	Fire	Public Works/Utilities	Stormwater

PROJECT NARRATIVE
FOR
THE PRELIMINARY BLOCK PLAT
OF CANYON DEL RIO PHASE 2

Located within Section 24, T 21 N, R 7 E, G&SR&M
Flagstaff, Arizona



Prepared by:
Ardurra Group, Inc.
110 West Dale Avenue
Flagstaff, AZ 86001

Prepared for:
CDR Devcorp, Ltd.
3605 South Flagstaff Ranch Road
Flagstaff, AZ 86005

Date: September 5, 2024
Revised: April 7, 2025
Ardurra Project No. 223357

PROJECT NARRATIVE
PRELIMINARY BLOCK PLAT FOR CDR PHASE 2

DESCRIPTION OF THE PROPOSAL

Canyon del Rio (CDR) is a proposed 262-acre mixed use development located at the southwest corner of Butler Avenue and Fourth Street. Within the 262 acres are multiple parcels with various uses including retail, office, multifamily housing, single family housing, school, and church. This narrative is for the Preliminary Block Plat for CDR Phase 2 (Block Plat) which will define where the blocks, tracts, and roads are in Phase 2. CDR Phase 2 consists of the land described as Tract Z, or Coconino County Assessor's Parcel Number 106-08-043, of the Final Block Plat for CDR Phase 1 according to instrument number 3944598. Tract Z is approximately 119.60 acres.

Blocks, Right-of-way, and Tracts are the three main components of the Block Plat. Blocks within Phase 2 include residential zoning where neighborhoods will be built and will be defined by their specific zoning category on the Block Plat. Phase 2 includes the dedication of Right-of-Way (ROW) for J.W. Powell Boulevard (JWP), a minor arterial roadway, and Harold Ranch Road, (Local) which will be labeled and dedicated to the City with the Final Block Plat approval. ROW for JWP through Parcel R1 will be dedicated via Map of Dedication or by the Final Plat for Parcel R1, whichever comes first, and recorded by a separate instrument number. This dedication is to be done concurrently with the Final Block Plat. Tracts will also be identified and will be mainly used for open space, trails, utilities, and storm water detention.

JWP through Canyon del Rio will be developed in accordance with the Phasing Matrix included in the Block Plat once the civil engineering plans and Final Block Plat approvals are complete. Planning for the individual Blocks will follow the City's Final Plat or Site Plan process to finalize their development plans.

Tract ZZ is the remnant piece between Parcel R1 and the JWP ROW, intended for private drainage facilities to be dedicated to the HOA.

Tract A and Tract B is intended to be dedicated to the City of Flagstaff as floodplain and open space.

Tract C is intended to be dedicated to the HOA for the regional detention basin

Parcel Q-1/Q-2 and Tract S are zoned R1-Single Family Residential.

Parcels Q-3, R-2/R-3, and R-4/R-5 are zoned MR – Medium Density Residential.

Overall zoning category sums for Phase 2 of Canyon del Rio will be:

- R1-Single Family Residential: 30.11 acres
- MR-Medium Density Residential: 63.47 acres
- Tracts A B & ZZ: 15.59 acres
- Tracts C: 2.66 acres
- Right-of-Way: 7.77 acres
- Total Area of CDR Phase 2: 119.6 acres

The existing CDR Phase 2 parcel boundary will not be changed and the existing zoning of the property aligns with the proposed blocks.

CONSTRUCTION PHASING

Canyon del Rio will be constructed in phases. Phase 1 has been completed which includes the construction of the "loop" roads and utilities in Peak Point Road from Fourth Street to Crest Stone Road and Whetstone Drive from Fourth Street to Crest Stone Road. The parcels within Phase 1 have utilities and access available and the parcels can be improved.

Phase 2 will include the construction of JWP and its associated improvements like water, sewer, stormwater detention, etc. Once JWP is constructed, most of the Blocks within Phase 2 will have utilities and access available and the parcels can be improved. Based on the Traffic Statement included in this submittal, the traffic generation within the CDR 2 Blocks is not anticipated to require any collector roadways. Each Block will construct the local roadways and utilities within their boundaries to provide access and service.

The Phasing Matrix chart on sheet PH02 of the Block Plat plans shows more detailed information on the CDR phasing and the infrastructure needed to construct each Block.

OPEN SPACE, RESOURCE PROTECTION, AND TRAILS

CDR is planned to contain open space, tree resources, and slope resources in common areas and within the Parcels themselves. Each Parcel within the Property will meet resource requirements which will be consistent with the Development Agreement and determined when the Final Plat or Site Plan of each Parcel is approved.

The Flagstaff Resource Text Amendment has been approved by the City Council. The modification removes the resource protection requirement from all public roads and utilities. Per the Development Agreement it has been applied retroactively to the entire CDR Property. This Natural Resource Protection Plan provides an updated Resource Bank for all of the residential parcels in Canyon Del Rio. The City of Flagstaff has also approved (10/28/2024) a 5%

reduction to the required resource protection. This factor has been included in the resource tables on NRPP2.

The Block Plat calculates the resources available and identifies where the resources would be located and the calculations for parcels that have already been completed or are currently under review. Every Parcel within the Property will be allowed to share the forest resources within CDR to achieve the amount of forest resources that are required of that Parcel. A resource bank will be maintained by CDR, and coordinated with the City, to keep an ongoing accounting of available resources. Each subsequent parcel that is developed will include an updated resources bank and the remaining allowable disturbance.

Ultimately, CDRI has already recorded comprehensive Master Covenants, Conditions and Restrictions ("Master CC&Rs") covering Phase 1. CDR Phase 2 will be annexed into the existing property owner's association and be subject to their existing CC&Rs.

The Master CC&Rs will provide commercially standard guidelines and rules insuring the Property is developed in a uniform manner that complies with the Development Agreement and reflects the Property's unique characteristics, benefiting all Parcel owners. The Master CC&Rs will also provide for the formation of a Master Association that will maintain specified common areas and common area improvements within the Property, together with an assessment mechanism to fund anticipated maintenance, repair and replacement expenses. Individual Parcels within the Property may also be subject to separate recorded covenants, conditions and restrictions (Sub-CC&Rs). The Sub-CC&Rs will establish Parcel specific rules and restrictions, and also provide for the formation of Parcel specific associations – in most cases, Homeowner Associations relating to the Property's single-family and condominium communities.

Open spaces and FUTS trails will transect the project and provide convenient access from the residential parcels throughout the community. "Social" trails are also proposed throughout to provide additional connectivity. The FUTS trail system will meet the intent of connectivity but may be with the design of the Blocks.

The Canyon Del Rio Open Space Tracking table has been included on Sheet DR01. The Development Agreement for Canyon Del Rio required 54 acres of Open Space. This table indicates the open space that has already been dedicated in Phase 1 and the proposed with Phase 2 of Canyon Del Rio. The Open Space indicated on DRO1 is projected meet the requirements of the development agreement. The open space within the Flood plain will be dedicated as Tract A and B to the City with the Phase 2 Final Block plat. The individual blocks will still dedicate the required open space within their boundaries as required by the zoning code. Any remaining open space required by the development agreement will be tracked during the design and platting of the individual Blocks.

PUBLIC SERVICES

Essential public services such as water and wastewater will be provided within JWP with service stubs provided to each parcel. Stormwater is being addressed through the Preliminary Drainage Report and related discussions. The City's Design Standards for solid waste dumpster enclosures and trash truck turning movements will be followed with the future design of each Parcel.

The Phasing Matrix chart on sheet PH02 of the Block Plat plans shows more detailed information on the CDR phasing and the infrastructure needed to construct each Block.

PLOTTED: Jul 07, 2025 - 2:47pm

PRELIMINARY BLOCK PLAT (PHASE 2) OF CANYON DEL RIO FLAGSTAFF, ARIZONA

LOCATED IN THE WESTERN HALF OF SECTION 24, TOWNSHIP 21 NORTH RANGE 7 EAST GILA AND SALT RIVER MERIDIAN, COCONINO COUNTY.

LEGEND

EXISTING		PROPOSED	
	PROPERTY BOUNDARY		RIGHT-OF-WAY
	RIGHT-OF-WAY		LOT LINE
	LOT LINE		EASEMENT
	CENTERLINE		CENTERLINE
	EASEMENT		CONTOUR (MAJOR)
	CONTOUR (MAJOR)		CONTOUR (MINOR)
12"W	CONTOUR (MINOR)	20"W	20" WATER LINE
	12" WATER LINE	8"SS	8" SEWER LINE
8"SS	8" SEWER LINE		STORM DRAIN PIPE
42"SS	42" SEWER LINE		
OHE	OVERHEAD ELECTRIC		PHASE 2
RW	RECLAIM WATER LINE		OPEN SPACE
	STORM DRAIN PIPE		CLEAR VIEW ZONE FOR RIGHT TURN FROM MINOR ROAD
	100-YEAR FLOODPLAIN		CLEAR VIEW ZONE FOR LEFT TURN FROM MINOR ROAD
	PHASE 1 INST. NO. 3944598		CLEAR VIEW ZONE FOR LEFT TURN FROM MAJOR ROAD
	DETENTION BASIN		

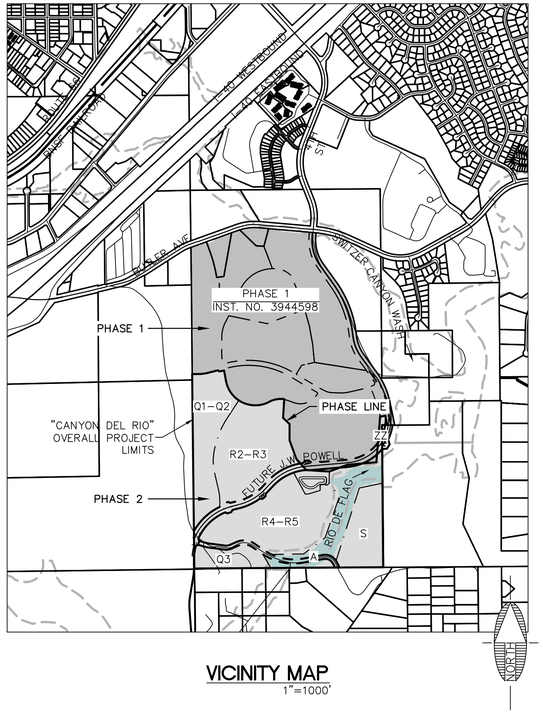
LOT COVERAGE/BUILDING INFORMATION

Parcel	Existing Zoning	Proposed Zoning	Use	Net Acreage	Development Units	0.20 FAR SF
E-1	R&D - Research and Development	HC-Highway Commercial	Office/Retail	6.4	N/A	55,757
E-2	R&D - Research and Development	HC-Highway Commercial	Office/Retail	2.7	N/A	23,522
F	R&D - Research and Development	HC-Highway Commercial	Office/Retail	1.4	N/A	12,197
G	R&D - Research and Development	MR-Medium Density Residential	Attached Residential	9.1	50	N/A
H	R&D - Research and Development	HC-Highway Commercial	Office/Retail	1.8	N/A	15,682
I	R1- Single Family Residential	R1- Single Family Residential	Detached Residential	13.4	50	N/A
J-1	R&D - Research and Development	HR-High Density Residential	Attached Residential/Multi-Family/ Apartments	11.6	240	N/A
J-2	R&D - Research and Development	HR-High Density Residential	Attached Residential/Multi-Family/ Apartments	18.4	432	N/A
K-1	R&D - Research and Development	HC-Highway Commercial	Retail	4.6	N/A	40,075
K-2	R&D - Research and Development	HC-Highway Commercial	Retail	8.8	N/A	76,666
N	R&D - Research and Development	MR-Medium Density Residential	Attached Residential/Duplex Units	7.1	42	N/A
O	R&D - Research and Development	MR-Medium Density Residential	Attached Residential/Church or School	6.1	49	N/A
P	R&D - Research and Development	MR-Medium Density Residential	Attached Residential/Church or School	5.4	40	N/A
Q-1	R1- Single Family Residential	R1- Single Family Residential	Detached Residential	10.2	41	N/A
Q-2	R1- Single Family Residential	R1- Single Family Residential	Detached Residential	3.9	21	N/A
Q-3	MR-Medium Density Residential	MR-Medium Density Residential	Attached Residential/Duplex Units	6	80	N/A
R-1 thru 5	MR-Medium Density Residential	MR-Medium Density Residential	Detached Residential	73.2	367	N/A
S	R1- Single Family Residential	R1- Single Family Residential	Detached Residential	10.6	14	N/A
Total Commercial Acreage					25.7	
Total Residential Units					1426	
Total Acreage ROW					28.6	

Notes:

1. Open space areas are reserved throughout the project consisting of areas between parcels and the floodplain areas within the Rio De Flag. Refer to Sheet 3 for the locations of open space and trails.

2. Floor areas shown on parcels E1/E2, K1/K2, and F are from the site capacity calculations. Ultimate maximum floor areas may be different based on the actual type of development. A 0.20 FAR was used for the impact analyses and also for calculating the building square footages listed in the table.



VICINITY MAP
1"=1000'

SHEET INDEX		
SHT NO.	DWG NO.	TITLE
1	CVR	COVER SHEET
2	EX01	RECORD OF EXISTING BOUNDARY SURVEY
3	PM01	PRELIMINARY PLAT OVERVIEW MAP
4	PP01	PRELIMINARY PLAT
5	XS01	TYPICAL ROADWAY CROSS SECTIONS
6	SC01	OVERVIEW MAP
7	SC02	CLEARVIEW ZONE PLAN (1)
8	SC03	CLEARVIEW ZONE PLAN (2)
9	SC04	CLEARVIEW ZONE PLAN (3)
10	GD01	GRADING PLAN
11	GD02	GRADING - PLAN & PROFILE (1)
12	GD03	GRADING - PLAN & PROFILE (2)
13	GD04	GRADING - PLAN & PROFILE (3)
14	GD05	GRADING - PLAN & PROFILE (4)
15	UT01	UTILITIES PLAN
16	DR01	DRAINAGE AND OPEN SPACE PLAN
17	PH01	PHASING MAP
18	PH02	PHASING MATRIX
19	NRPP1	NATURAL RESOURCE PROTECTION PLAN (1)
20	NRPP2	NATURAL RESOURCE PROTECTION PLAN (2)

SUMMARY OF TRACTS

1. TRACT ZZ (±0.43 AC) IS INTENDED FOR PRIVATE DRAINAGE FACILITIES AND DRAINAGE MAINTENANCE EASEMENT.
2. TRACT A (±1.93 AC) IS INTENDED FOR OPEN SPACE AND THE FEMA FLOODPLAIN TO BE DEDICATED TO THE CITY OF FLAGSTAFF.
3. TRACT B (±12.35 AC) IS INTENDED FOR OPEN SPACE, UTILITIES, FUTURE WELL FACILITIES AND THE FEMA FLOODPLAIN TO BE DEDICATED TO THE CITY OF FLAGSTAFF.
4. TRACT C (±2.66 AC) IS INTENDED FOR DRAINAGE AND TO BE DEDICATED TO THE HOA WITH A DME TO THE CITY OF FLAGSTAFF.
5. TRACT S (±13.04 AC) IS INTENDED FOR PURPOSE OF FUTURE DEVELOPMENT.

FLOODPLAIN DEDICATION

CDR DEVCORP. LTD., AN ARIZONA CORPORATION, AS OWNER, AND CANYON DEL RIO INVESTORS II, LLC, AN ARIZONA LIMITED LIABILITY COMPANY, AS OWNER, HEREBY DEDICATE TO THE CITY OF FLAGSTAFF, IN FEE SIMPLE BUT SUBJECT TO ALL MATTERS OF RECORD, TRACT A AND TRACT B (THE "FLOODPLAIN DEDICATED AREAS"); PROVIDED, HOWEVER, THAT (1) THE FLOODPLAIN DEDICATED AREAS MUST BE USED AND MAINTAINED BY THE CITY OF FLAGSTAFF SOLELY FOR OPEN SPACE PURPOSES AND (2) EACH OWNER HEREBY RESERVES AND EXCEPTS FROM SUCH DEDICATION, FOR THE USE AND BENEFIT OF EACH SUCH OWNER AND ITS SUCCESSORS AND ASSIGNS, EXCLUSIVE EASEMENTS OVER, ACROSS, UNDER, THROUGH, AND UPON THE FLOODPLAIN DEDICATED AREAS FOR THE INSTALLATION, CONSTRUCTION, MAINTENANCE, REPAIR AND OPERATION OF (A) THE FLAGSTAFF URBAN TRAIL SYSTEM AND OTHER TRAILS; (B) WATER, SEWER AND ALL OTHER UTILITY LINES AND FACILITIES OF EVERY TYPE AND NATURE; (C) DRAINAGE AND STORMWATER RETENTION; (D) ROADWAYS; AND (E) SUCH OTHER USES REASONABLY REQUIRED IN CONNECTION WITH THE DEVELOPMENT OF CANYON DEL RIO. AS A CONDITION TO SUCH DEDICATION, THE CITY OF FLAGSTAFF AGREES THAT ALL RESOURCES WITHIN THE FLOODPLAIN DEDICATED AREAS WILL BE COUNTED TOWARDS SATISFACTION OF THE RESOURCES REQUIRED UNDER THE RESOURCE PROTECTION OVERLAY ZONE FOR CANYON DEL RIO.

PROPERTY OWNER:

CANYON DEL RIO INVESTORS II, LLC (CDRI)
3605 S. FLAGSTAFF RANCH RD.
FLAGSTAFF, AZ 86005
CONTACT: ROBERT M. SEMPLE, CPA

CDR DEVCORP LTD
3605 S. FLAGSTAFF RANCH RD.
FLAGSTAFF, AZ 86005
CONTACT: CLINT WHITING

PROJECT DEVELOPER:

CDR DEVCORP LTD
3605 S. FLAGSTAFF RANCH RD.
FLAGSTAFF, AZ 86005
CONTACT: CLINT WHITING

PLAT PREPARER:

SHEPHARD-WESNITZER, INC., AN ARDURRA COMPANY
CONTACT: ALICIA STOFFERS
110 W. DALE AVENUE
FLAGSTAFF, ARIZONA 86001
928-773-0354

PROJECT INFORMATION

SITE ADDRESS: TO BE ASSIGNED (CURRENTLY A PORTION OF THE PARCELS ASSOCIATED WITH THIS PROJECT ARE LOCATED AT 3200 E. BUTLER AVENUE.)

APNS: 106-08-043

CITY ENGINEER

BY: _____ DATE: _____

CITY PUBLIC WORKS DIRECTOR

BY: _____ DATE: _____

CITY WATER SERVICES DIRECTOR

BY: _____ DATE: _____

AUTHORIZATION TO CONSTRUCT:

THE SIGNATURES ABOVE ARE REQUIRED BEFORE THE CONTRACTOR CAN COMMENCE. UNSIGNED, THESE PLANS HAVE NOT BEEN COMPLETED WITH RESPECT TO AGENCY REVIEW AND APPROVAL.

ADEQUATE WATER SUPPLY NOTE:

THE CITY OF FLAGSTAFF PROVIDES WATER [UTILITY] SERVICE PURSUANT TO STATE LAW, AND IS CURRENTLY OPERATING UNDER A DESIGNATION OF ADEQUATE WATER SUPPLY GRANTED BY THE ARIZONA DEPARTMENT OF WATER RESOURCES, APPLICATION NO. 41-900002.0002.

ALTICE USA

JASON QUINLAN (BY LETTER) 05/08/2025
BY: DATE:

ARIZONA PUBLIC SERVICE

CHAD BROOKS (BY LETTER) 05/03/2024
BY: DATE:

UNISOURCE ENERGY SERVICES

MARTIN CONBOY (BY LETTER) 05/03/2024
BY: DATE:

CENTURYLINK

BY: DATE:

UTILITY CONFLICT

UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND WERE COMPILED FROM RECORD DRAWINGS, SURVEY, AND CONSTRUCTION PLANS FURNISHED BY OTHERS. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS OF ALL UNDERGROUND LINES THAT MAY AFFECT WORK PRIOR TO CONSTRUCTION.

ACTION IS BEING TAKEN TO OBTAIN RESPONSES FROM THE FRANCHISE UTILITY COMPANIES IN REGARDS TO THE POSSIBLE UTILITY CONFLICTS.

RESOURCE PRESERVATION

THE PROJECT DOES FALL WITHIN THE CITY OF FLAGSTAFF RESOURCE PROTECTION OVERLAY ZONE. REFER TO THE PRELIMINARY NATURAL RESOURCE PROTECTION PLAN FOR MORE INFORMATION ON THE FOREST RESOURCES AVAILABLE ON THIS PROJECT SITE. THE NARRATIVE CONTAINS THE CROSS-CREDITING DESCRIPTION. A MASTER ASSOCIATION WILL BE CREATED TO ADMINISTER THIS.

FEMA DESIGNATION

THE PROJECT AREA IS WITHIN ZONES AE AND X DESIGNATED BY FEMA FIRM'S 04005C-6828G. A GOOD PORTION OF THE PROJECT AREA HAS BEEN DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THEREFORE, NO BUILDING WILL OCCUR IN A FLOODPLAIN. A SMALL PORTION OF THE PROJECT AREA HAS BEEN DETERMINED TO BE WITHIN THE 100-YR FLOODPLAIN.

WATER AND SEWER IMPACT ANALYSIS

THE PRELIMINARY PLAT IS IN COMPLIANCE WITH THE RECOMMENDATIONS SET FORTH IN THE PUBLIC W.S.I.A. PREPARED BY THE CITY OF FLAGSTAFF UTILITIES DEPARTMENT DATED JULY 29, 2015.

EARTHWORK SUMMARY

EXCAVATION: 59,163 C.Y.
EMBANKMENT: 108,467 C.Y.

THESE PRELIMINARY EARTHWORK VALUES ARE FOR THE CONSTRUCTION OF J.W. POWELL BOULEVARD AND REGIONAL DETENTION BASIN.

SOURCE OF PROJECT INFORMATION

BOUNDARY BASED ON CDR PHASE 1 FINAL PLAT PER INSTRUMNET NO. 394459.

TOPOGRAPHIC INFORMATION ACCORDING TO AN ALTA SURVEY PREPARED BY SHEPHARD-WESNITZER, INC. IN MAY 2003, INSTRUMENT NUMBER 3203783, OFFICIAL RECORDS OF COCONINO COUNTY, ARIZONA.

BASIS OF BEARING

NORTH 89-34-20 EAST, 2655.62' FROM THE NORTHWEST CORNER OF SECTION 24 TO THE NORTH QUARTER CORNER OF SECTION 24, TOWNSHIP 21 NORTH, RANGE 7 EAST OF THE GILA AND SALT RIVER MERIDAN, COCONINO COUNTY, ARIZONA, ACCORDING TO AN ALTA SURVEY PREPARED BY SHEPHARD-WESNITZER, INC. IN MAY 2003, INSTRUMENT NUMBER 3203783, OFFICIAL RECORDS OF COCONINO COUNTY, ARIZONA.

LEGAL DESCRIPTIONS

ASSESSOR'S PARCEL NUMBER 106-08-043 (TRACT Z) ACCORDING TO INSTRUMENT NUMBER 3944598, OFFICIAL RECORDS OF COCONINO COUNTY, ARIZONA.

CERTIFICATE OF LAND SURVEYOR

I HEREBY STATE THAT THE SURVEY SHOWN HEREON WAS DONE UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____
Aaron D. Borling, RLS 48756

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
ARIZONA U.S.A.

FLAGSTAFF ARIZONA

CDR PHASE II - PRELIMINARY BLOCK PLAT

COVER SHEET

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: KMF/BH
DESIGN: KMF/BH
CHECKED: SC/DEC/ADB

REVISIONS

NO.	DESCRIPTION	DATE	BY

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.6934 fax
www.swoz.com

Shephard Wesnitzer, Inc.

Call at least two full working days before you dig in Arizona
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

DRAWING NO.
CVR

SHT NO. 1 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - COVER.DWG BHONAHE

PLOTTED: Jul 07, 2025 - 2:47pm

NORTH

SCALE 1" : 200'
0 100 200

106-08-002T
FLAGSTAFF UNIFIED SCHOOL DISTRICT #1
(NOT A PART)

SINAGUA HEIGHTS SUBDIVISION

106-08-001D
COCONINO HUMANE ASSOC. INC
(NOT A PART)

CWE 1/64

S 0°30'11" E 662.44'

REBAR STAMPED "LS 16630 FLAGSTAFF ENGINEERING"
NWSE 1/64

106-08-003F
BURCH 6 LLC
(NOT A PART)

N 89°32'15" E 660.12'

S 89°36'21" W 660.26'

106-08-005G
CANYON CHAPEL INC
(NOT A PART)

106-08-001C
CITY OF FLAGSTAFF
(NOT A PART)

106-11-042
CITY OF FLAGSTAFF
(NOT A PART)

2 1/2" ALUMINUM CAP STAMPED
"CITY OF FLAGSTAFF LS 16630" #1100
NORTHING= 52318.51
EASTING= 44745.93
ELEV= 6880.14

3/4" OPEN PIPE
C1/4 S24

S 0°29'59" E 2644.85'

S 0°29'29" E 1986.62'

BLM BRASS CAP
1965

1/4 S13
S24

1/4 S24
S25

CNS 1/64

106-08-005G
CANYON CHAPEL INC
(NOT A PART)

TRACT Y
0.73 ACRES

75' ROW

106-08-005J
FLAGSTAFF ELKWOOD PARTNERS LP
(NOT A PART)

106-08-000
STATE LAND
(NOT A PART)

102' ROW

FOURTH STREET

106-07-033C
PEACE MATTHEW
(NOT A PART)

TRACT X
0.94 ACRES

BLOCK K2
8.80 ACRES

BLOCK N
7.11 ACRES

BLOCK R1
27.07 ACRES

FOURTH STREET

BLOCK E2
2.64 ACRES

BLOCK K1
3.40 ACRES

70' ROW

WHETSTONE DRIVE

106-08-005K
CLIPPER PINEHURST FLAGSTAFF LLC
(NOT A PART)

BLOCK E1
6.35 ACRES

PHASE 1

PHASE 2

CANYON DEL RIO PHASE II

TRACT Z
119.60 ACRES

BLOCK O
6.49 ACRES

S 89°34'20" W 2655.62'

BUTLER AVENUE

BLOCK J1
9.85 ACRES

BLOCK J2
20.2 ACRES

S 89°35'39" W 2638.48'

106-07-012A
KIMBRELL PAUL F
& TERRY M JT
(NOT A PART)

106-07-001C
RINALDI JAMES
(NOT A PART)

BLOCK F
1.44 ACRES

70' ROW

CREST STONE ROAD

BLOCK G
PER INST. 3957199
9.03 ACRES

BLOCK P
5.40 ACRES

106-07-010
O'NEILL COLLEEN
(NOT A PART)

TRACT W
1.78 ACRES

70' ROW

PEAK POINT ROAD

106-07-011B
SCHMITT FAMILY TRUST DTD
(NOT A PART)

106-08-005H
CSL FLAGSTAFF 2019 LLC
(NOT A PART)

70' ROW

BLOCK I
PER INST. 3957200
13.31 ACRES

2x2 SQUARE ROD W/ PUNCH MARK
COF CP#1922200

N 0°43'05" W 2645.53'

REBAR W/1.5" ALUMINUM CAP STAMPED "LS 4321"

N 0°38'39" W 2646.63'

BLM BRASS CAP 1965
COF CP#2122101

14 13
23 24

23 24
26 25

1/4 S23
S24

106-04-070
CITY OF FLAGSTAFF
(NOT A PART)

106-04-069
WOODSHIRE ON BUTLER LLC
(NOT A PART)

106-10-002
LITTLE AMERICA HOTELS & RESORTS INC
(NOT A PART)

106-04-006B
HORSESHOE REALTY FLAGSTAFF LLC
(NOT A PART)

106-04-005B
LITTLE AMERICA HOTEL & RESORTS INC
(NOT A PART)

106-09-002
LITTLE AMERICA HOTELS & RESORTS INC
(NOT A PART)

106-04-007E
CITY OF FLAGSTAFF
(NOT A PART)

BASIS OF BEARING

NORTH 89°34'20" EAST, 2655.62' FROM THE NORTHWEST CORNER OF SECTION 24 TO THE NORTH QUARTER CORNER OF SECTION 24, TOWNSHIP 21 NORTH, RANGE 7 EAST OF THE GILA AND SALT RIVER MERIDAN, COCONINO COUNTY, ARIZONA, ACCORDING TO AN ALTA SURVEY PREPARED BY SHEPHARD-WESNITZER, INC. IN MAY 2003, INSTRUMENT NUMBER 3203783, OFFICIAL RECORDS OF COCONINO COUNTY, ARIZONA (R1).

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, U.S.A.

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - RECORD SURVEY.DWG BHONAME

RECORD OF EXISTING BOUNDARY SURVEY

CDR PHASE II - PRELIMINARY BLOCK PLAT

FLAGSTAFF
ARIZONA

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	BH
DESIGN:	BH
CHECKED:	AOB

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.8934 fax
www.swaz.com

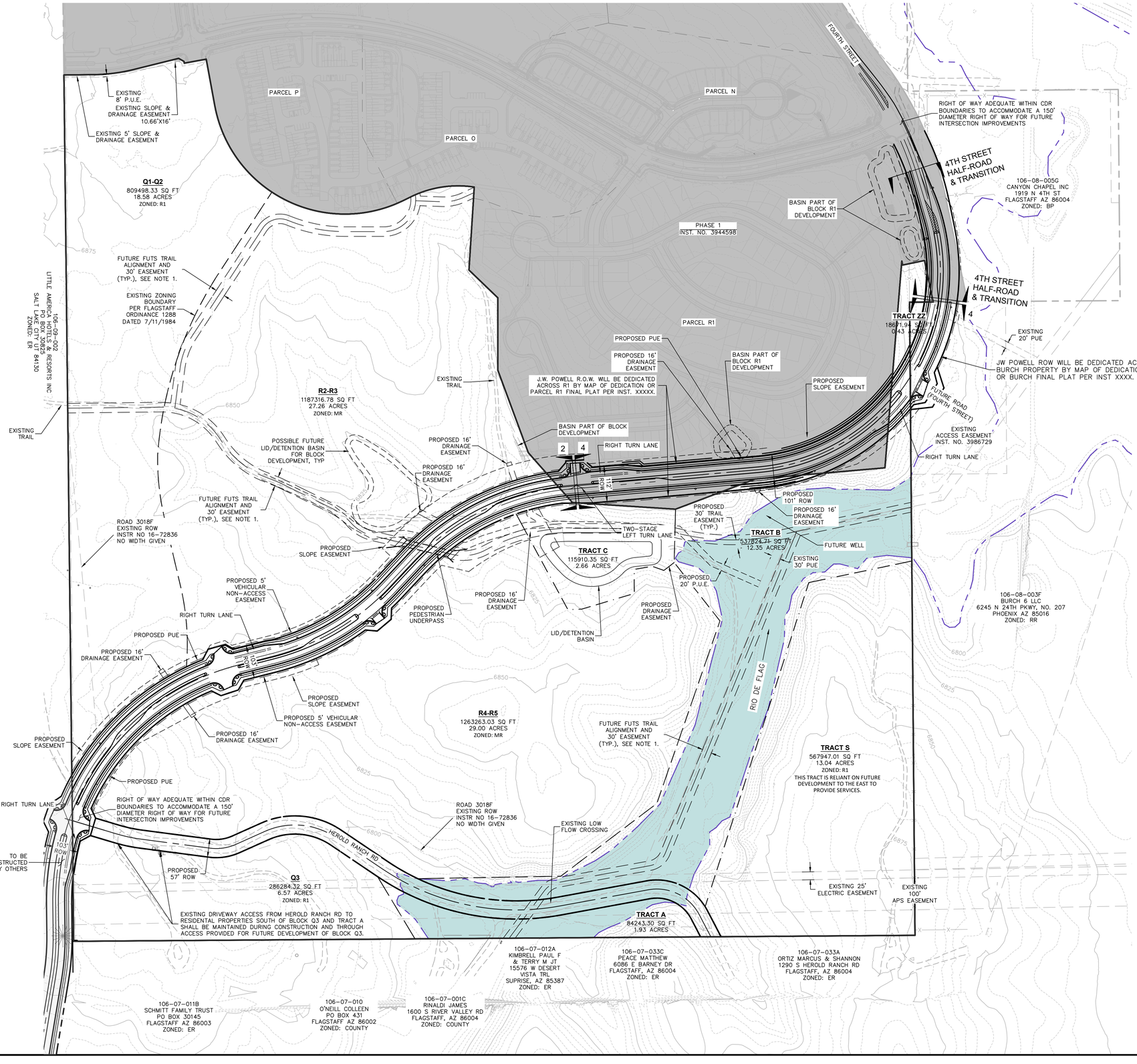
Shephard Wesnitzer, Inc.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

Call at least two full working days before you plan to excavate.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

DRAWING NO.
EX01

SHT NO.	OF
2	20



SCALE 1" : 150'
0 75 150

NOTES:
1. THE FUTS TRAIL SYSTEM WILL MEET THE INTENT OF THE CONNECTIVITY BUT THE TRAIL ALIGNMENT IS SUBJECT TO CHANGE AS THE PARCELS ARE DEVELOPED.

FLAGSTAFF ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

PRELIMINARY PLAT OVERVIEW MAP

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	KMF
DESIGN:	KMF
CHECKED:	SCI/DEC

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0334
928.774.6934 fax
www.swiaz.com

SWI
Shephard Wesnitzer, Inc.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

Call at least two full working days before you plan to excavate
ARIZONA811
BlueStake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

DRAWING NO.
PM01

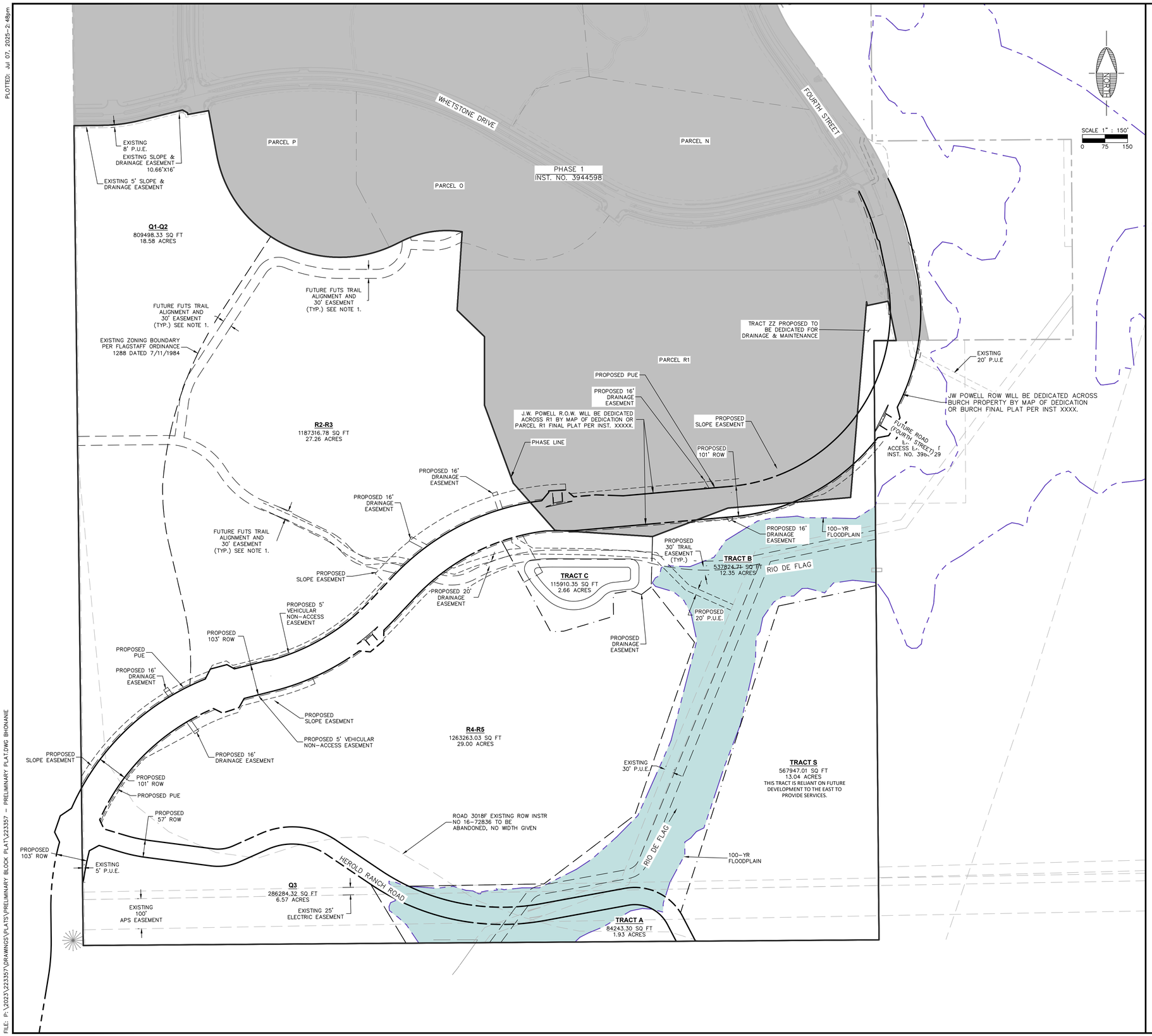
SHT NO.	OF
3	20

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
State of Arizona
ARIZONA, U.S.A.

PLOTTED: Jul 07, 2025 - 2:48pm

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - PRELIMINARY PLAT.DWG BHONAME

PLOTTED: Jul 07, 2025 - 2:48pm



NOTES:
1. AS EACH PARCEL DEVELOPS, THE TRAIL SYSTEM WILL MEET THE INTENT OF THE CONNECTIVITY BUT THE TRAIL ALIGNMENT IS SUBJECT TO CHANGE.

FLAGSTAFF ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

PRELIMINARY PLAT

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	KMF
DESIGN:	KMF
CHECKED:	SCI/DEC

REVISIONS

NO.	DESCRIPTION	DATE	BY

Shephard Wesnitzer, Inc.
110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0334
928.774.8934 fax
www.swiaz.com

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ARIZONA811
Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

DRAWING NO.
PP01

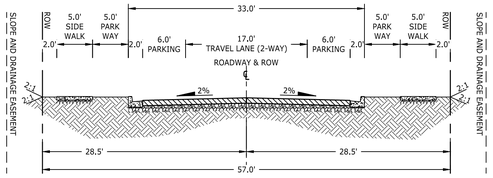
SHT NO. 4 OF 20

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, USA

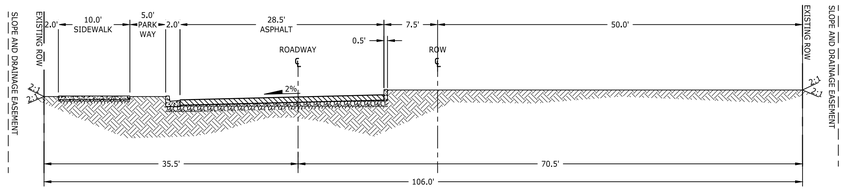
FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - PRELIMINARY PLAT.DWG BHONANIE

PLOTTED: Jul 07, 2025 - 2:48pm

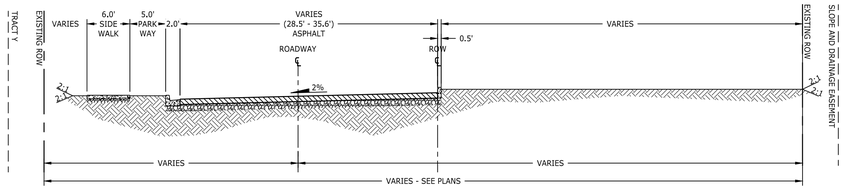
ROADWAY SECTIONS PER DA DATED 12/02/2024



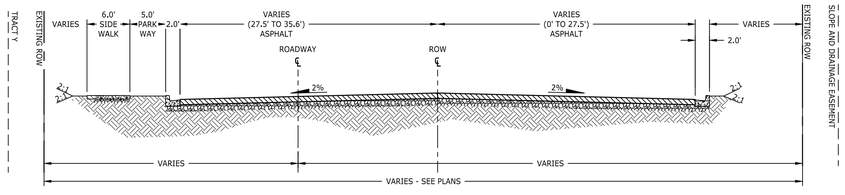
RESIDENTIAL LOCAL (COF 10-09-038)



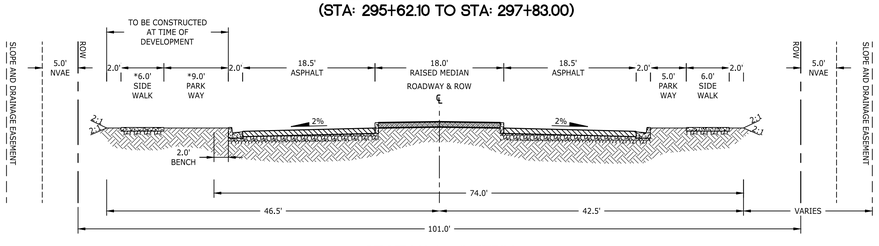
4TH STREET - EXISITNG CONDITION



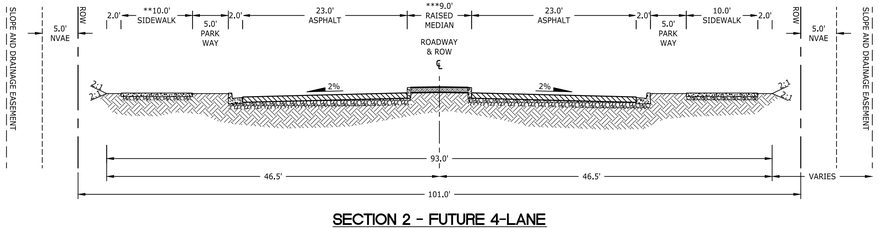
4TH STREET - TRANSITION
(STA: 297+83.00 TO STA: 298+39.89)



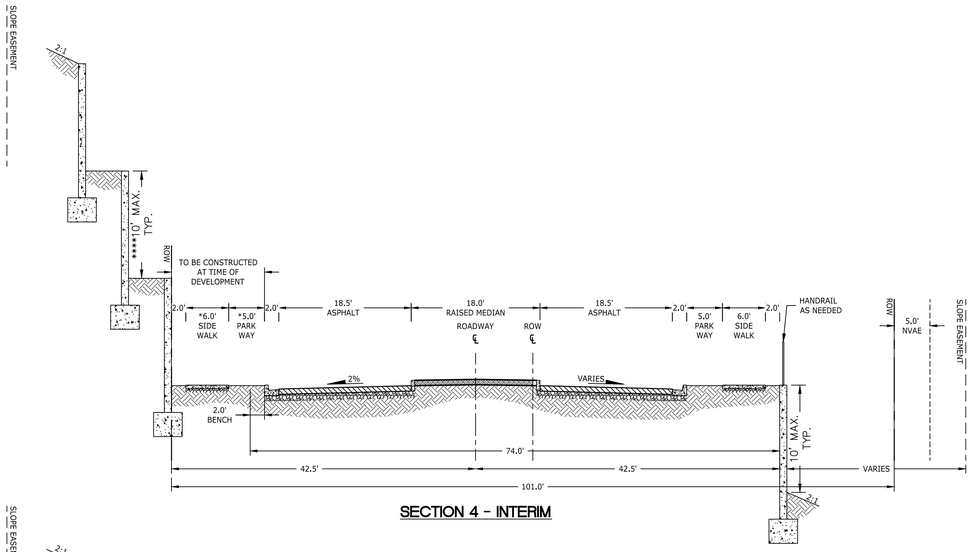
4TH STREET - TRANSITION
(STA: 295+62.10 TO STA: 297+83.00)



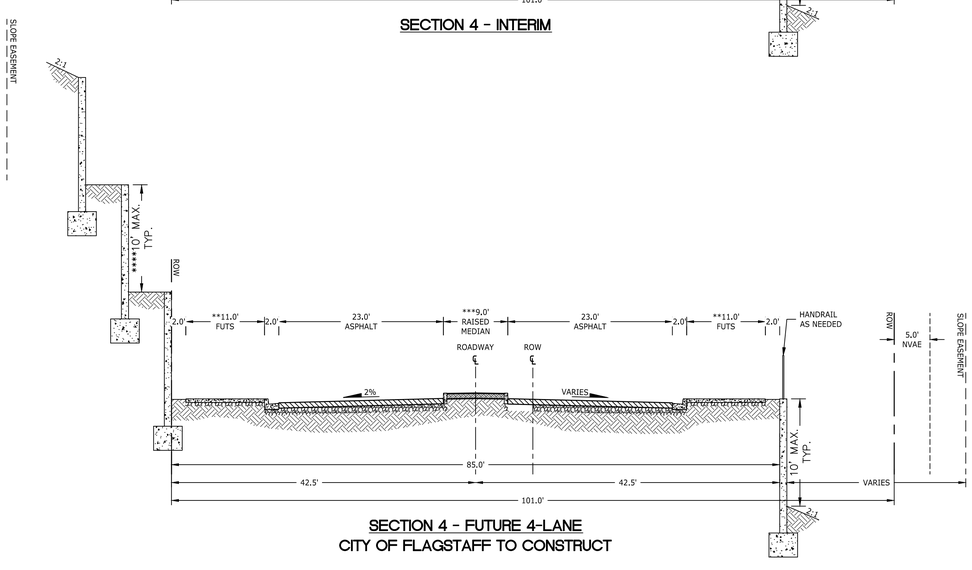
SECTION 2 - INTERIM



SECTION 2 - FUTURE 4-LANE
CITY OF FLAGSTAFF TO CONSTRUCT



SECTION 4 - INTERIM



SECTION 4 - FUTURE 4-LANE
CITY OF FLAGSTAFF TO CONSTRUCT

* SIDEWALK & PARKWAY TO BE BUILT BY ADJACENT DEVELOPMENTS.

** WHEN THE ROADWAY IS CONVERTED TO A 4-LANE CROSS SECTION, THE BIKE LANE WILL COME OFF THE ROADWAY AND A FUTS WILL NEED TO BE CONSTRUCTED.

*** ALLOWS FOR THE 9' RAISED MEDIAN, OR WHERE LEFT TURNS ARE NEEDED, LIP OF GUTTER TO LIP OF GUTTER WILL BE 11' - 11' - 11' - 11' - 11', WITH NO RAISED MEDIAN.

**** A VERTICAL ROCK SLOPE MAY BE UTILIZED AT THE CUT WALLS WITH GEOTECHNICAL CERTIFICATION.

Registered Professional Engineer
CERTIFICATE NO. 49953
ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, U.S.A.

FLAGSTAFF ARIZONA

CDR PHASE II - PRELIMINARY BLOCK PLAT

TYPICAL ROADWAY CROSS SECTIONS

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: KMF
DESIGN: KMF
CHECKED: SCI/CEC

REVISIONS

NO.	DESCRIPTION	DATE	BY

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0334
928.774.8934 fax
www.swiaz.com

Shephard Wesnitzer, Inc.

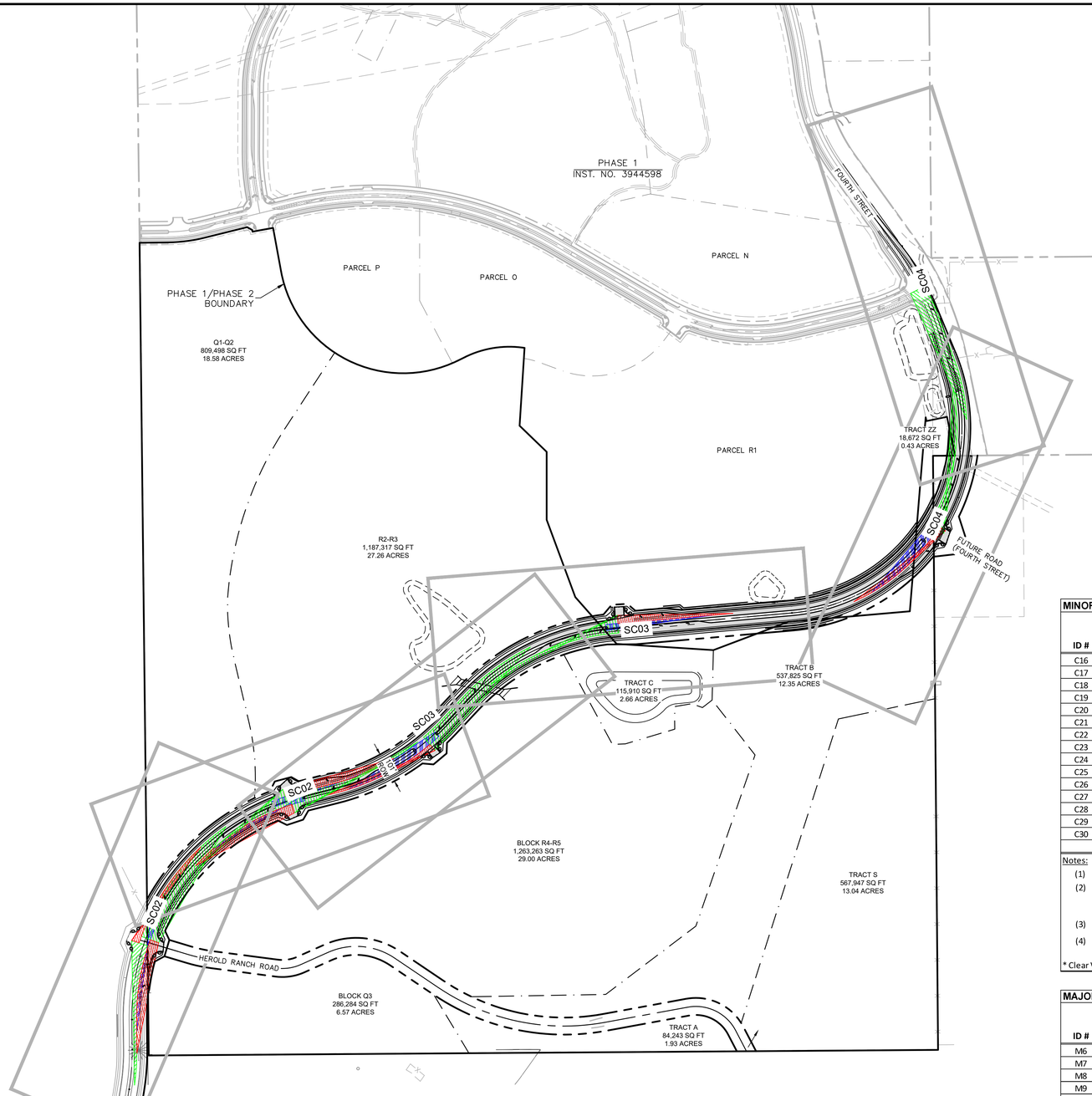
Call at least two full working days before you begin excavation
ARIZONA811 BlueStake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

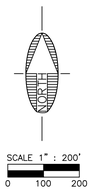
DRAWING NO.
XS01

SHT NO. 5 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - TYPICAL ROADWAY CROSS SECTIONS.DWG BHONANIE

PLOTTED: Jul 07, 2025 - 2:49pm





MINOR ROAD CLEAR VIEW ZONE CALCULATIONS

ID #	MINOR ROAD (STOP CONTROL)	MAJOR ROAD	MANEUVER DIRECTION	MAJOR ROAD DESIGN SPEED (V_{MAJOR})[1]	TIME GAP $t_{g\,(unadjusted)}$[2]	Grade ≤ 3%	MULTIPLE LANE CROSSINGS	NO. OF LANES[4]	TIME GAP $t_{g(adjusted)}$[2]	INTERSECTION SIGHT DISTANCE (ISD[3])	STOPPING SIGHT DISTANCE (SSD)
C16	Whetstone	J.W. Powell Boulevard	Left	40	7.5	**Yes**	**Yes**	**2**	8	470	305
C17	Burch Access Road	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C18	Burch Access Road	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C19	Proposed Driveway R1	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8.0	470	305
C20	Proposed Driveway R1	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C21	Proposed Driveway R4-R5	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C22	Proposed Driveway R4-R5	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C23	Proposed Driveway R4-R5	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C24	Proposed Driveway R4-R5	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C25	Proposed Driveway R2-R3	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C26	Proposed Driveway R2-R3	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C27	Herold Access Road S	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C28	Herold Access Road S	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305
C29	Herold Access Road N	J.W. Powell Boulevard	Left	40	7.5	Yes	Yes	2	8	470	305
C30	Herold Access Road N	J.W. Powell Boulevard	Right	40	6.5	Yes	No	1	6.5	385	305

Notes:

(1) The major road speed limits (V_{MAJOR} in MPH) are based on existing conditions in the project vicinity.

(2) The time gap values, adjusted ($t_{g\,(adjusted)}$ in seconds) and unadjusted ($t_{g\,(unadjusted)}$ in seconds), are based on the current site plan and the *AASHTO-Geometric Design of Highways and Streets* Exhibits 9-54 and 9-57. The first lane crossed does not warrant an adjustment to the time gap.

(3) The intersection site distance (ISD in feet) calculations are based on Equation 9-1 in the *AASHTO-Geometric Design of Highways and Streets* . Equation 9-1: $ISD=1.47*V_{MAJOR}*t_g$

(4) The number of lanes crossed may include medians converted to equivalent lanes. The number of lanes provided in the table includes the first lane crossed. For left turns onto roadways with more than two lanes, consult AASHTO Geometric Design of Highways and Streets for additional time gap information.

* Clear View Zones #D1 and #D16 do not encroach into the adjacent properties at full build-out of 4th Street and are shown for reference only for the interim condition.

MAJOR ROAD CLEAR VIEW ZONE CALCULATIONS

ID #	MAJOR ROAD	MINOR ROAD (STOP CONTROL)	MANEUVER DIRECTION	MAJOR ROAD DESIGN SPEED (V_{MAJOR})[1]	TIME GAP $t_{g\,(unadjusted)}$[2]	Grade ≤ 3%	MULTIPLE LANE CROSSINGS	NO. OF LANES[4]	TIME GAP $t_{g(adjusted)}$[2]	INTERSECTION SIGHT DISTANCE (ISD[3])	STOPPING SIGHT DISTANCE (SSD)
M6	J.W. Powell Boulevard	Burch Access Road	Left	40	5.5	Yes	Yes	2	6.0	355	305
M7	J.W. Powell Boulevard	Proposed Driveway R1	Left	40	5.5	Yes	yes	2	6.0	355	305
M8	J.W. Powell Boulevard	Proposed Driveway R4-R5	Left	40	5.5	Yes	yes	2	6.0	355	305
M9	J.W. Powell Boulevard	Proposed Driveway R4-R5	Left	40	5.5	Yes	yes	2	6.0	355	305
M10	J.W. Powell Boulevard	Proposed Driveway R2-R3	Left	40	5.5	Yes	yes	2	6.0	355	305
M11	J.W. Powell Boulevard	Herold Access Rd S	Left	40	5.5	Yes	yes	2	6.0	355	306

Notes:

(1) The major road speed limits (V_{MAJOR} in MPH) are based on existing conditions in the project vicinity.

(2) The time gap values, adjusted ($t_{g\,(adjusted)}$ in seconds) and unadjusted ($t_{g\,(unadjusted)}$ in seconds), are based on the current site plan and the *AASHTO-Geometric Design of Highways and Streets* Exhibits 9-66 and 9-67. The first lane crossed does not warrant an adjustment to the time gap.

(3) The intersection site distance (ISD in feet) calculations are based on Equation 9-1 in the *AASHTO-Geometric Design of Highways and Streets.* Equation 9-1: $ISD=1.47*V_{MAJOR}*t_g$

(4) The number of lanes crossed may include medians converted to equivalent lanes. The number of lanes provided in the table includes the first lane crossed.

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
ARIZONA U.S.A.
Date signed: 7/07/25

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - CLEAR VIEW ZONES PLANS.DWG BHONANIE

CDR PHASE II – PRELIMINARY BLOCK PLAT
FLAGSTAFF ARIZONA

OVERVIEW MAP

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: KMF
DESIGN: KMF
CHECKED: SCI/CEC

NO.	DESCRIPTION	DATE	BY

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DRAWING NO.
SC01

SHT NO. 6 OF 20

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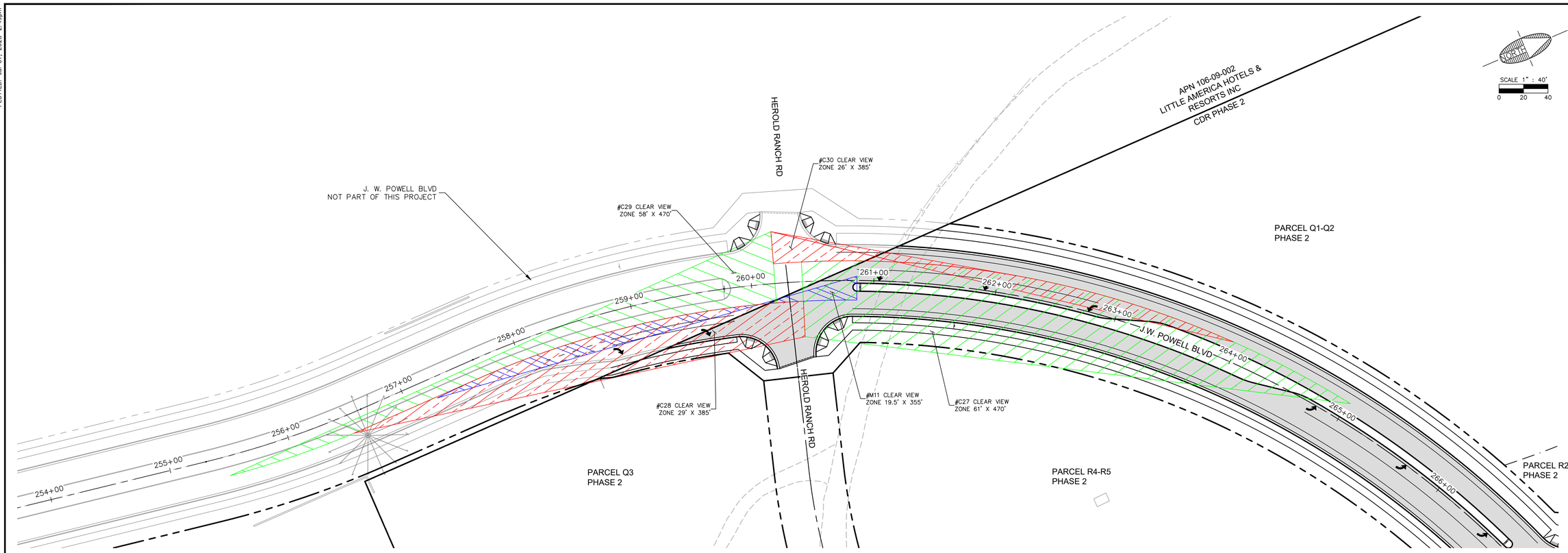

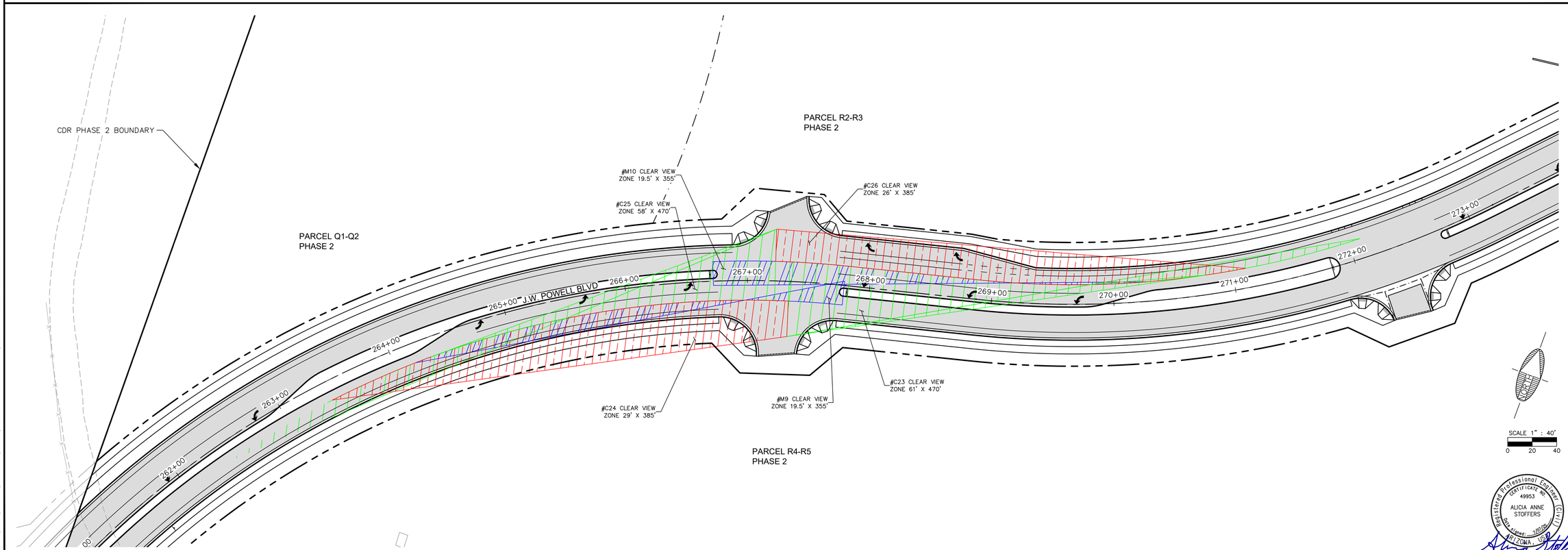

FLAGSTAFF
ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

CLEARVIEW ZONE PLAN (1)

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
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DESIGN:	KMF
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DRAWING NO.
SC02

SHT NO. 7 OF 20

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Date Signed: 10/31/25
ARIZONA, USA

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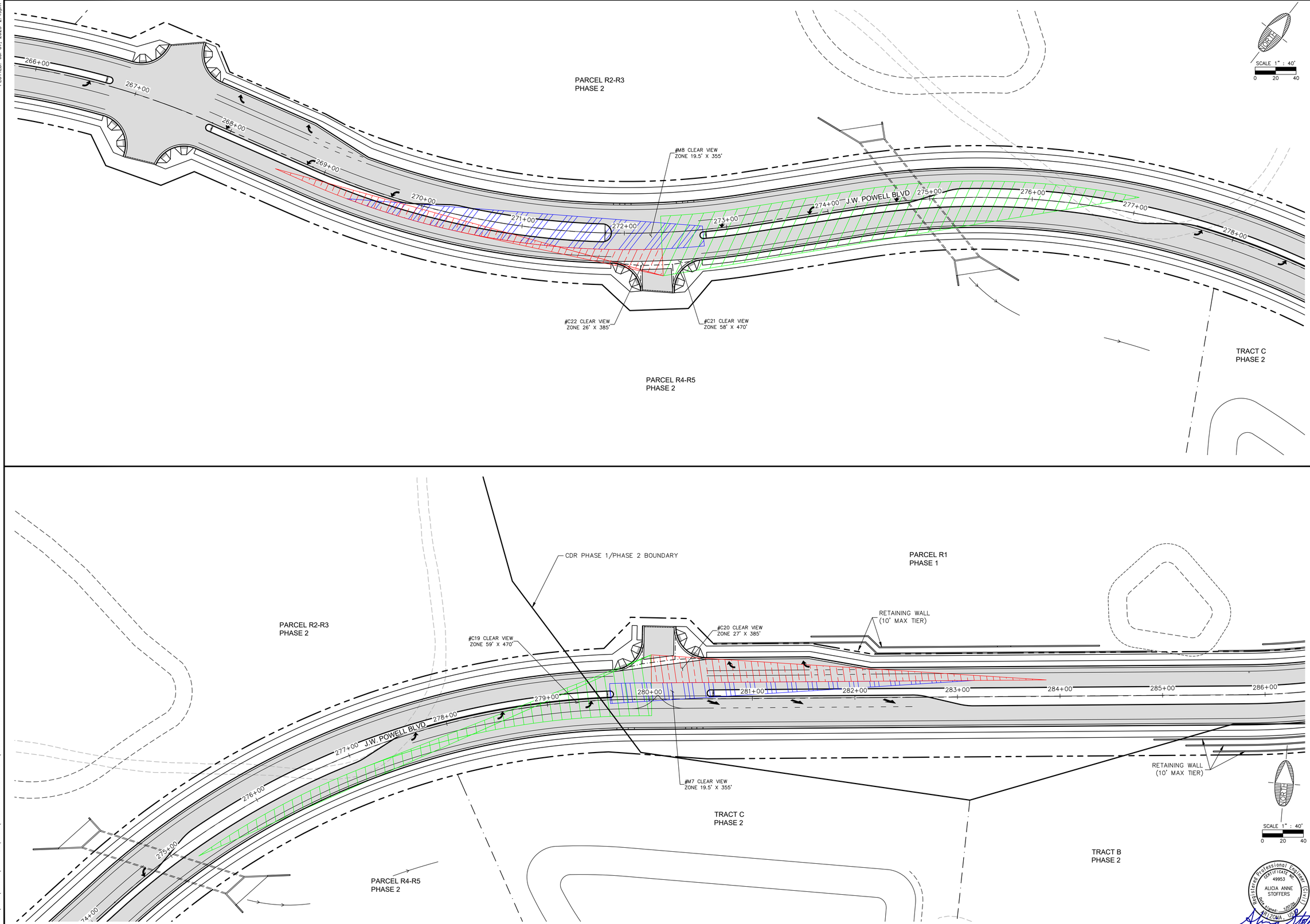

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CDR PHASE II – PRELIMINARY BLOCK PLAT

CLEARVIEW ZONE PLAN (2)

JOB NO:	223357
DATE:	JUL 25
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DRAWING NO.
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SHT NO. 8 OF 20

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CERTIFICATE NO.
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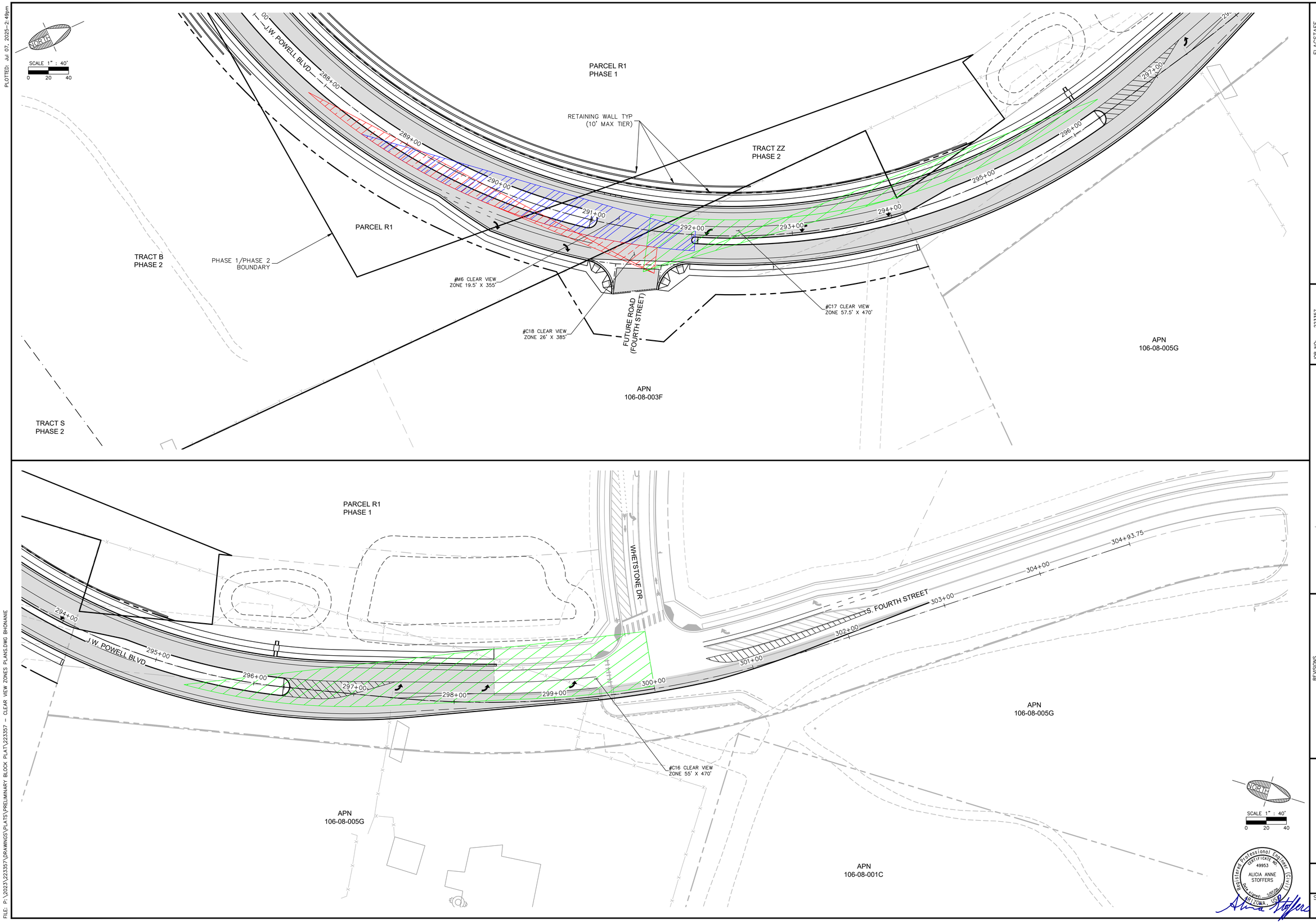
Date Signed: 7/07/25
ARIZONA, USA



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ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

CLEARVIEW ZONE PLAN (3)

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
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DESIGN:	KMF
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ALICIA ANNE STOFFERS
Date signed: 7/07/25
ARIZONA, USA

DRAWING NO.
SC04

SHT NO. 9 OF 20

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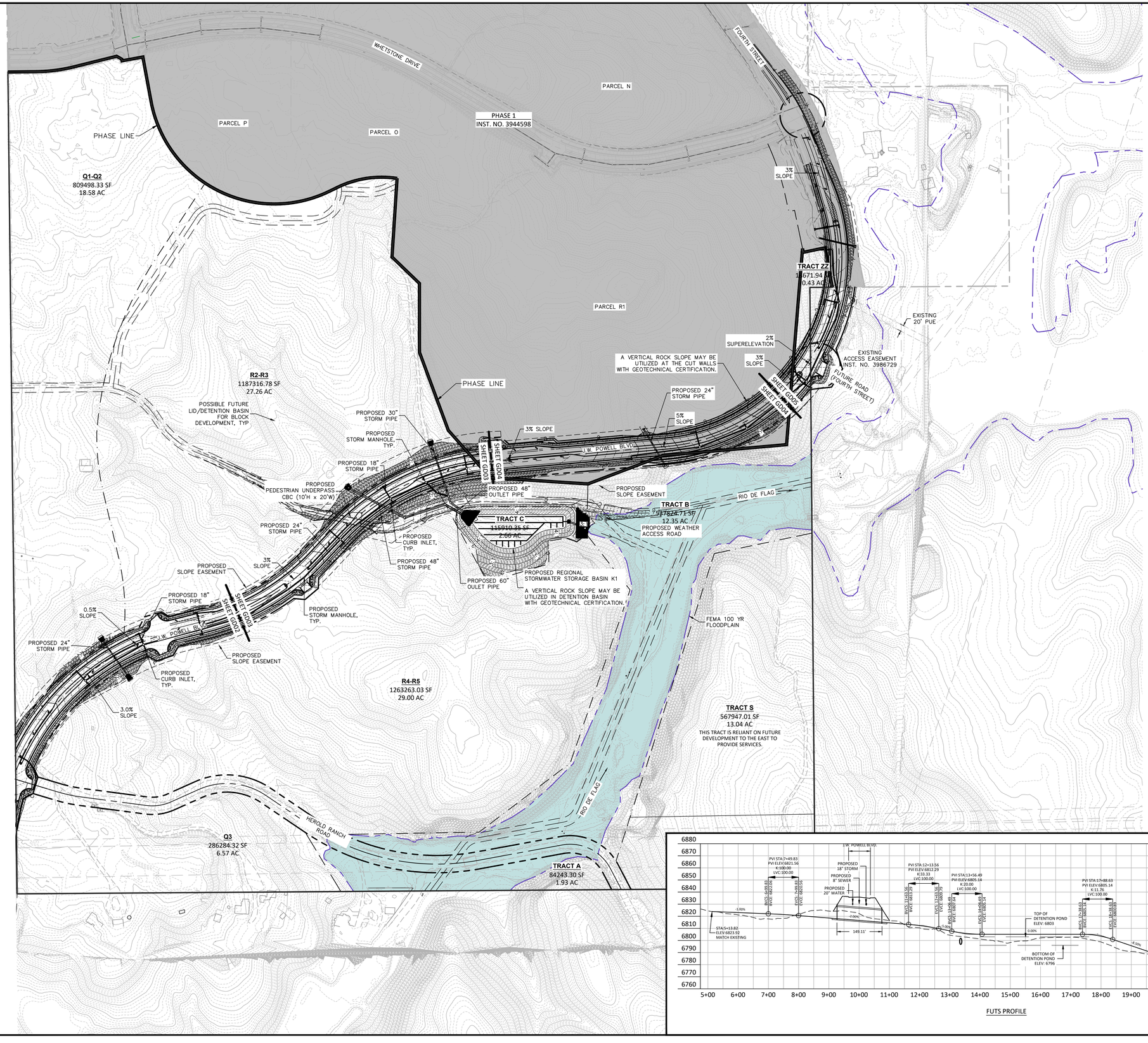

EARTHWORK (UNADJUSTED)

CUT = 66,512 CY
FILL = 105,186 CY

THESE PRELIMINARY EARTHWORK VALUES ARE FOR THE CONSTRUCTION OF J.W. POWELL BOULEVARD AND REGIONAL DETENTION BASIN.

FUTS PROFILE

PROFILE SCALE
H: 1" = 150'
V: 1" = 37.5'

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
ARIZONA, U.S.A.

FLAGSTAFF ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

GRADING PLAN

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	KMF
DESIGN:	KMF
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NO.	DESCRIPTION	DATE	BY
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GD01

SHT NO. 10 OF 20

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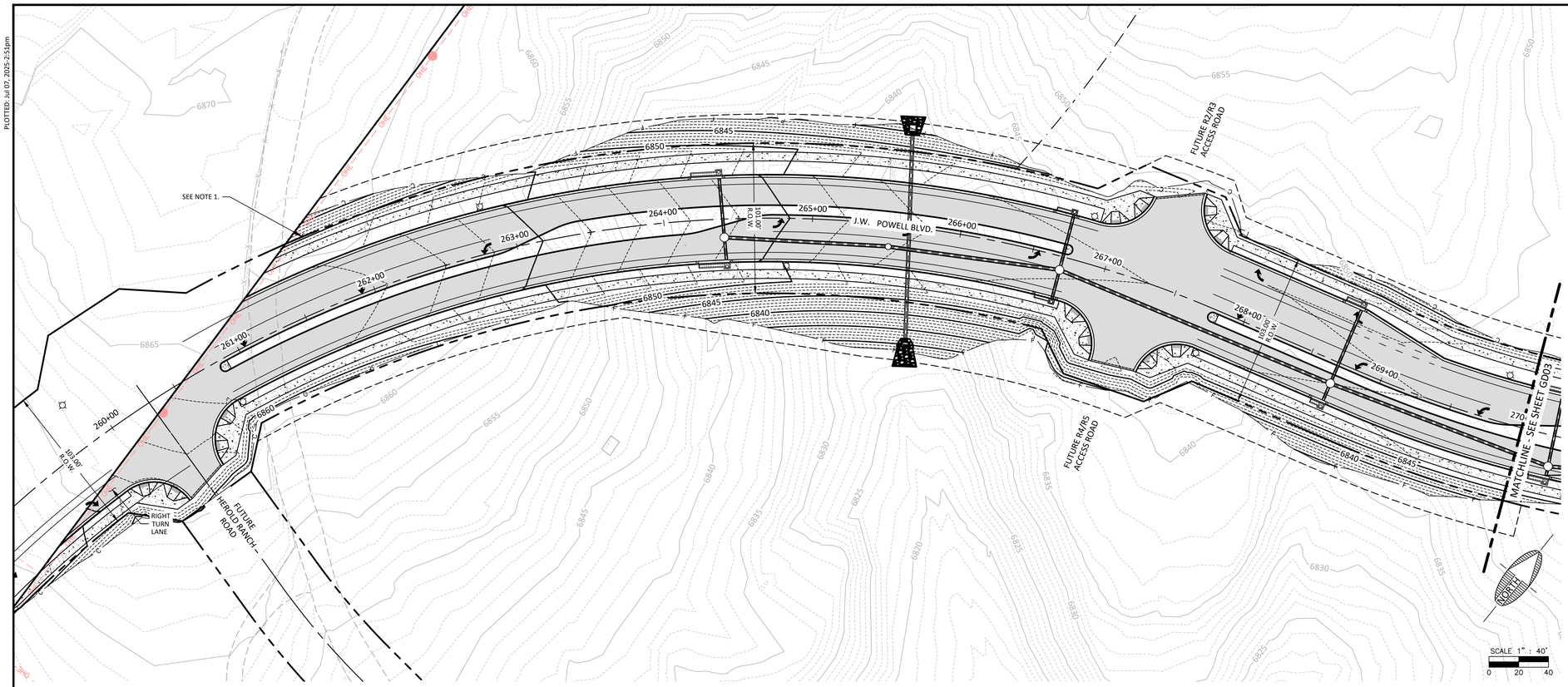

NOTE:
1. FINAL GRADING AT PROPERTY LINE WILL BE DEPENDENT ON TIMING OF THE FULL EXTENSION OF JWP BLVD. SEE PHASING MATRIX ON PH01 AND PH02 FOR EXTENSION REQUIREMENTS WITHIN THE CDR PHASE 2 SITE



PLOTTED: Jul 07, 2025-2:51pm

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - PLAN & PROFILE.DWG BHONANIE

CDR PHASE II – PRELIMINARY BLOCK PLAT

FLAGSTAFF ARIZONA

GRADING - PLAN & PROFILE (1)

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
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GD02

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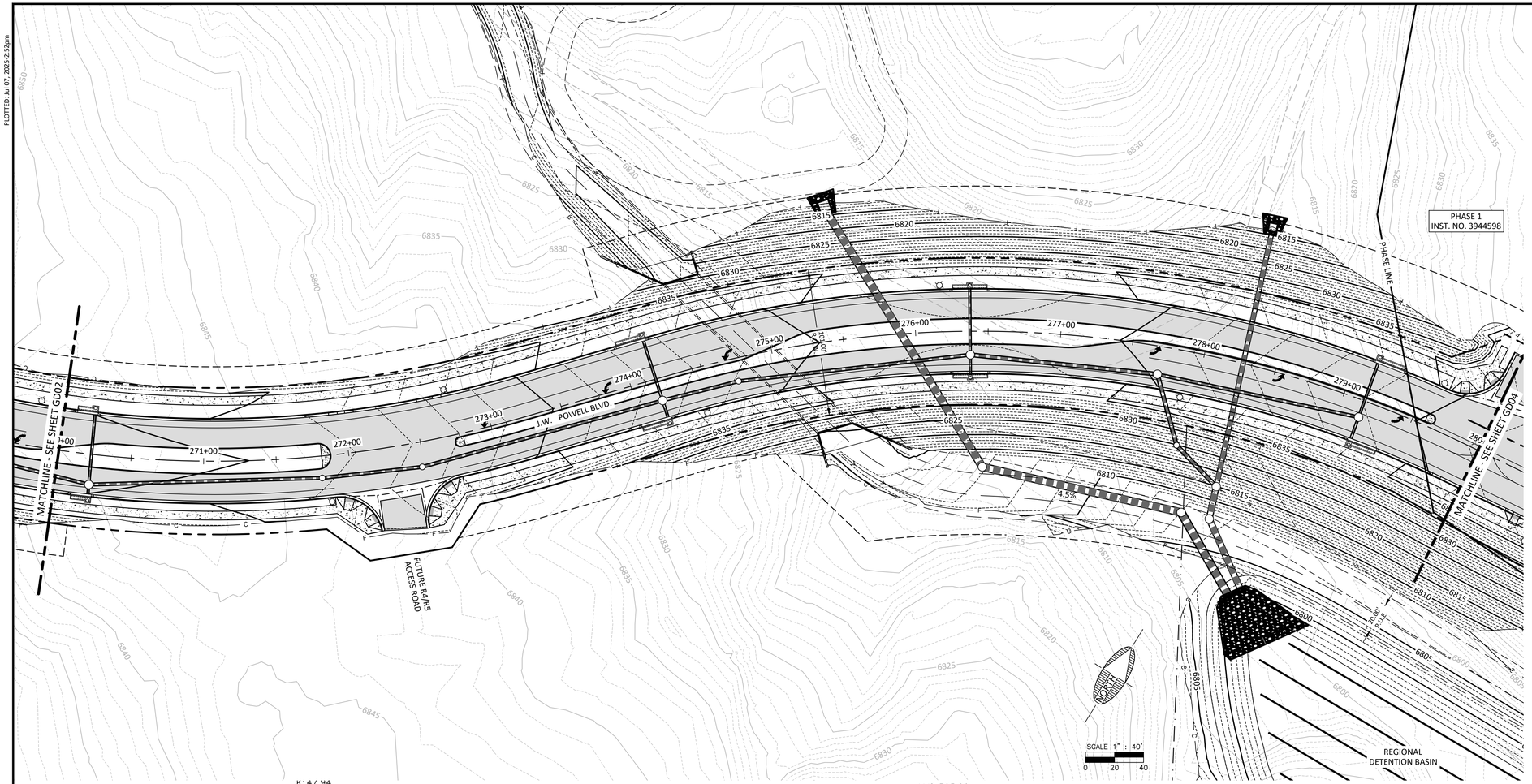

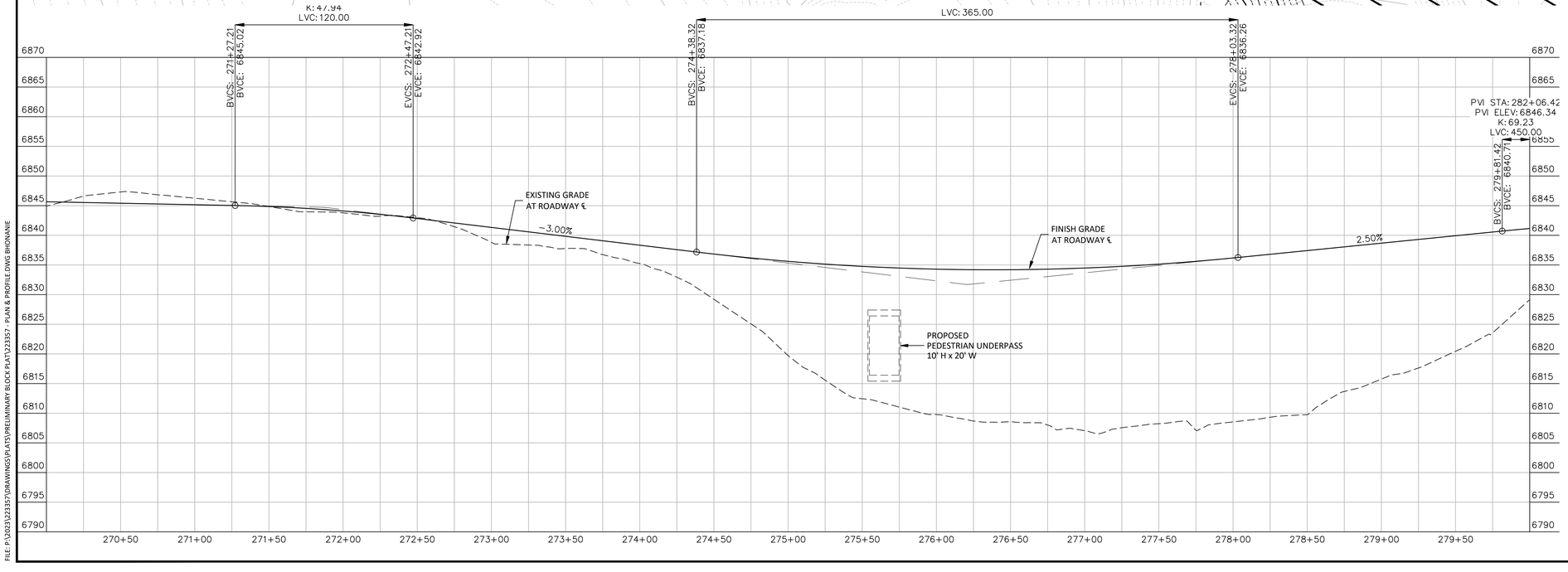

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GRADING - PLAN & PROFILE (2)

CDR PHASE II – PRELIMINARY BLOCK PLAT

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JOB NO:	223357
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GD03

SHT NO. 9 OF 20

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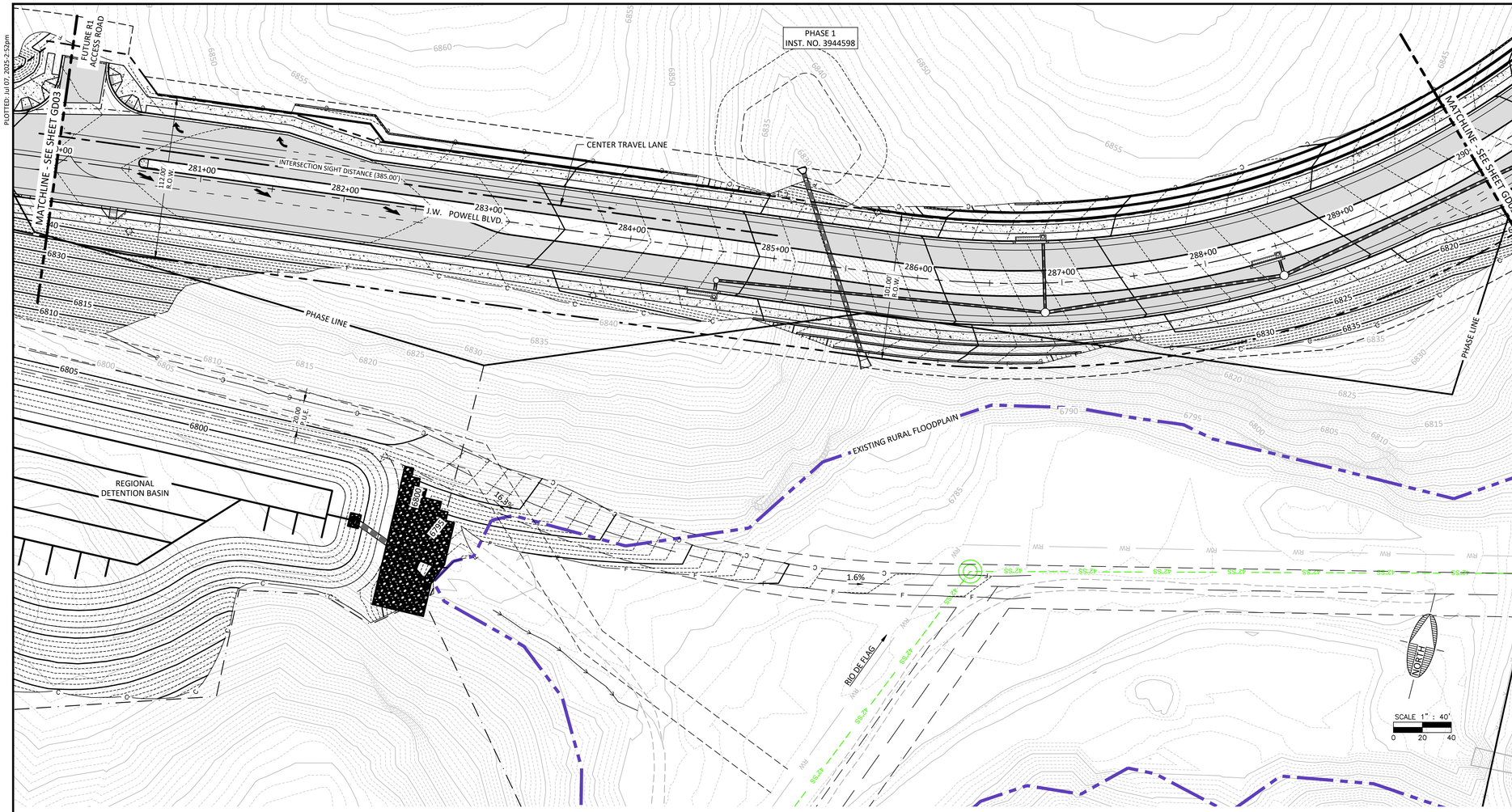
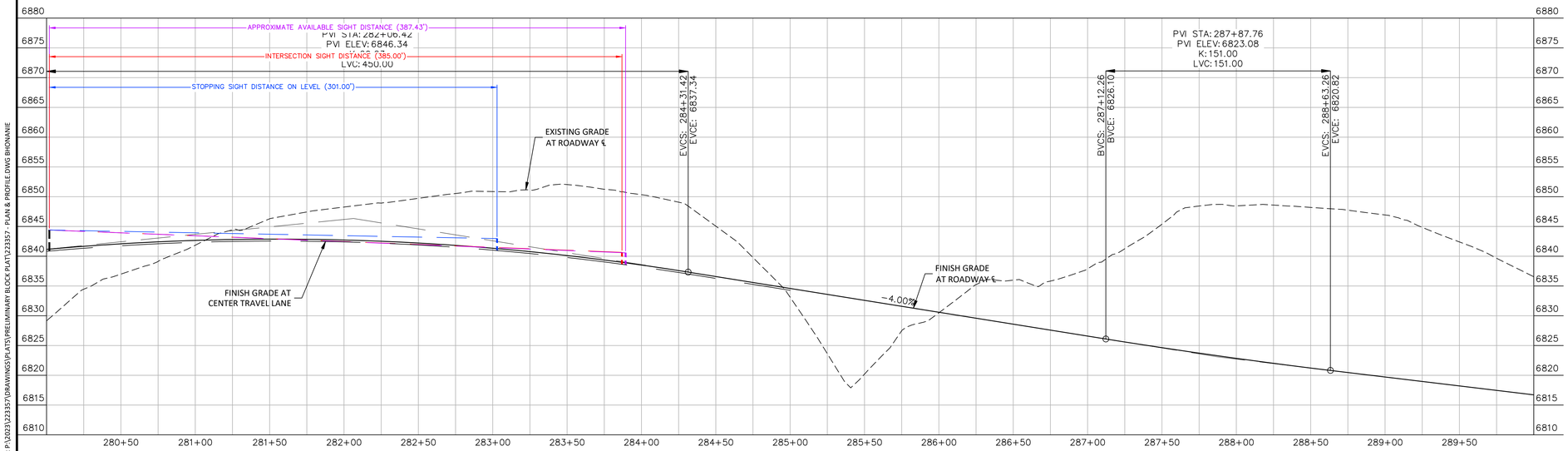
(Civil)





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CDR PHASE II – PRELIMINARY BLOCK PLAT

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GRADING - PLAN & PROFILE (3)

JOB NO:	223357
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DRAWING NO. GD04

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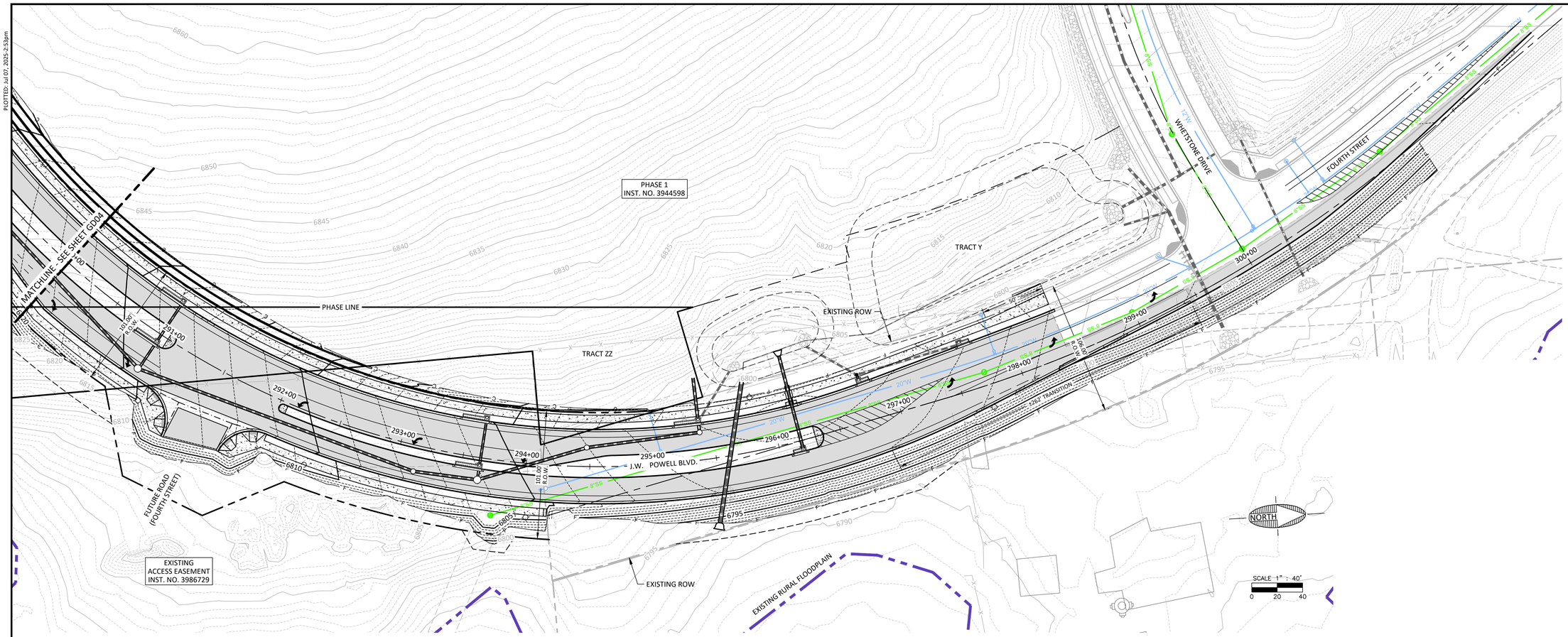

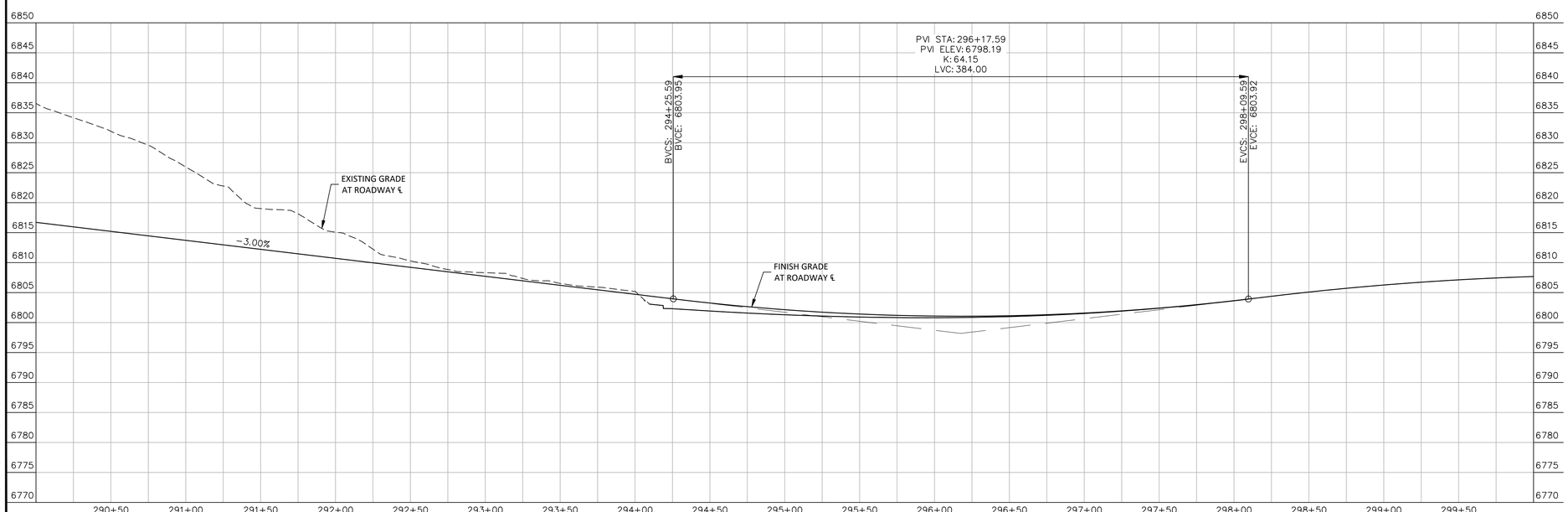

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GRADING - PLAN & PROFILE (4)

CDR PHASE II – PRELIMINARY BLOCK PLAT

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JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	BH
DESIGN:	BH
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Date Signed: 7/07/25
ARIZONA, USA

DRAWING NO.
GD05

SHT NO. 11 | OF 20

PLOTTED: Jul 07, 2025--2:53pm

NOTES:
1. STREET LIGHTS SHALL BE PLACED EVERY 200' DOUBLE SIDED ALONG JWP..
2. FIRE HYDRANT SPACING IS AS FOLLOWS:
   2.1. FROM EXISTING HYDRANT TO HYDRANT #1 IS APPROXIMATELY 500 FT
   2.2. FROM HYDRANT #1 TO HYDRANT #2 IS APPROXIMATELY 500 FT
   2.3. FROM HYDRANT #2 TO HYDRANT #3 IS APPROXIMATELY 500 FT
   2.4. FROM HYDRANT #3 TO HYDRANT #4 IS APPROXIMATELY 500 FT
   2.5. FROM HYDRANT #4 TO HYDRANT #5 IS APPROXIMATELY 500 FT
   2.6. FROM HYDRANT #5 TO HYDRANT #6 IS APPROXIMATELY 500 FT
   2.7. FROM HYDRANT #6 TO HYDRANT #7 IS APPROXIMATELY 500 FT

SCALE 1" : 150'
0 75 150

WHETSTONE DRIVE
FOURTH STREET
PARCEL P
PARCEL N
PARCEL O
PARCEL R1
PARCEL R2
PARCEL R3
PARCEL R4-R5
PARCEL Q1-Q2
PHASE 1
INST. NO. 3944598
PHASE LINE
PROPOSED CONNECTION TO 12" WATER MAIN
Q1-Q2
809498.33 SF
18.58 AC
CONCEPT LOTTING ONLY
R2-R3
1187316.78 SF
27.26 AC
PROPOSED 12" WATER MAIN, ALIGNMENT TO BE DETERMINED WITH INTERNAL LOTS. ALIGNMENT WILL BE LOCATED WITHIN THE ROAD R.O.W. OR P.U.E.
POSSIBLE FUTURE LID/DETENTION BASIN FOR BLOCK DEVELOPMENT
PROPOSED 8" SEWER (TYP.)
PROPOSED 8" SEWER STUB
PROPOSED 8" WATER STUB
PROPOSED FIRE HYDRANT #3
PROPOSED 20" WATER MAIN(TYP.)
PROPOSED FIRE HYDRANT #2
PROPOSED FIRE HYDRANT #1
CONNECT TO EXISTING 20" WATER MAIN FROM FOURTH STREET
TRACT ZZ
18671.94 SF
0.43 AC
PROPOSED STREET LIGHT (TYP.)
EXISTING 20' PUE
EXISTING ACCESS EASEMENT PER INST NO. 3986729.
PROPOSED CONNECTION (BURCH PROPERTY) TO EXISTING 42" SEWER
EXISTING 30' PUE
EXISTING 42" SEWER MAIN (TYP.)
EXISTING 12" RECLAIMED WATER (TYP.)
RIO DE FLAG
TRACT B
537824.71 SF
12.35 AC
PROPOSED CONNECTION TO EXISTING 42" SEWER
PROPOSED WEATHER ACCESS ROAD
FUTURE 20' PUE
TRACT C
115910.35 SF
2.66 AC
BASIN K
H.W.E 6802
STORMWATER STORAGE BASIN OUTLET
PROPOSED 8" SEWER (TYP.)
PROPOSED 12" WATER MAIN(TYP.)
PROPOSED 20" WATER MAIN(TYP.)
PROPOSED 8" WATER STUB
PROPOSED 8" SEWER STUB
PROPOSED FIRE HYDRANT #4
PROPOSED FIRE HYDRANT #5
PROPOSED FIRE HYDRANT #6
PROPOSED FIRE HYDRANT #7
PROPOSED STREET LIGHT (TYP.)
PROPOSED 8" SEWER (TYP.)
PROPOSED 8" WATER STUB
PROPOSED 8" SEWER STUB
CONCEPT LOTTING ONLY
R4-R5
1263263.03 SF
29.00 AC
EXISTING 30' PUE
EXISTING 12" RECLAIMED WATER (TYP.)
EXISTING 42" SEWER MAIN (TYP.)
TRACT S
567947.01 SF
13.04 AC
THIS TRACT IS RELIANT ON FUTURE DEVELOPMENT TO THE EAST TO PROVIDE SERVICES.
PROPOSED 8" WATER STUB
PROPOSED 8" SEWER MAIN
PROPOSED 8" SEWER STUB
HERALD RANCH ROAD
PROPOSED 57' ROW
Q3
286284.32 SF
6.57 AC
EXISTING 25' ELECTRIC EASEMENT
PROPOSED CONNECTION TO EXISTING 42" SEWER
RIO DE FLAG
EXISTING 100' APS EASEMENT
TRACT A
84243.30 SF
1.93 AC

FLAGSTAFF
ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

UTILITIES PLAN

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	KMF
DESIGN:	KMF
CHECKED:	SCI/DEC

REVISIONS

NO.	DESCRIPTION	DATE	BY

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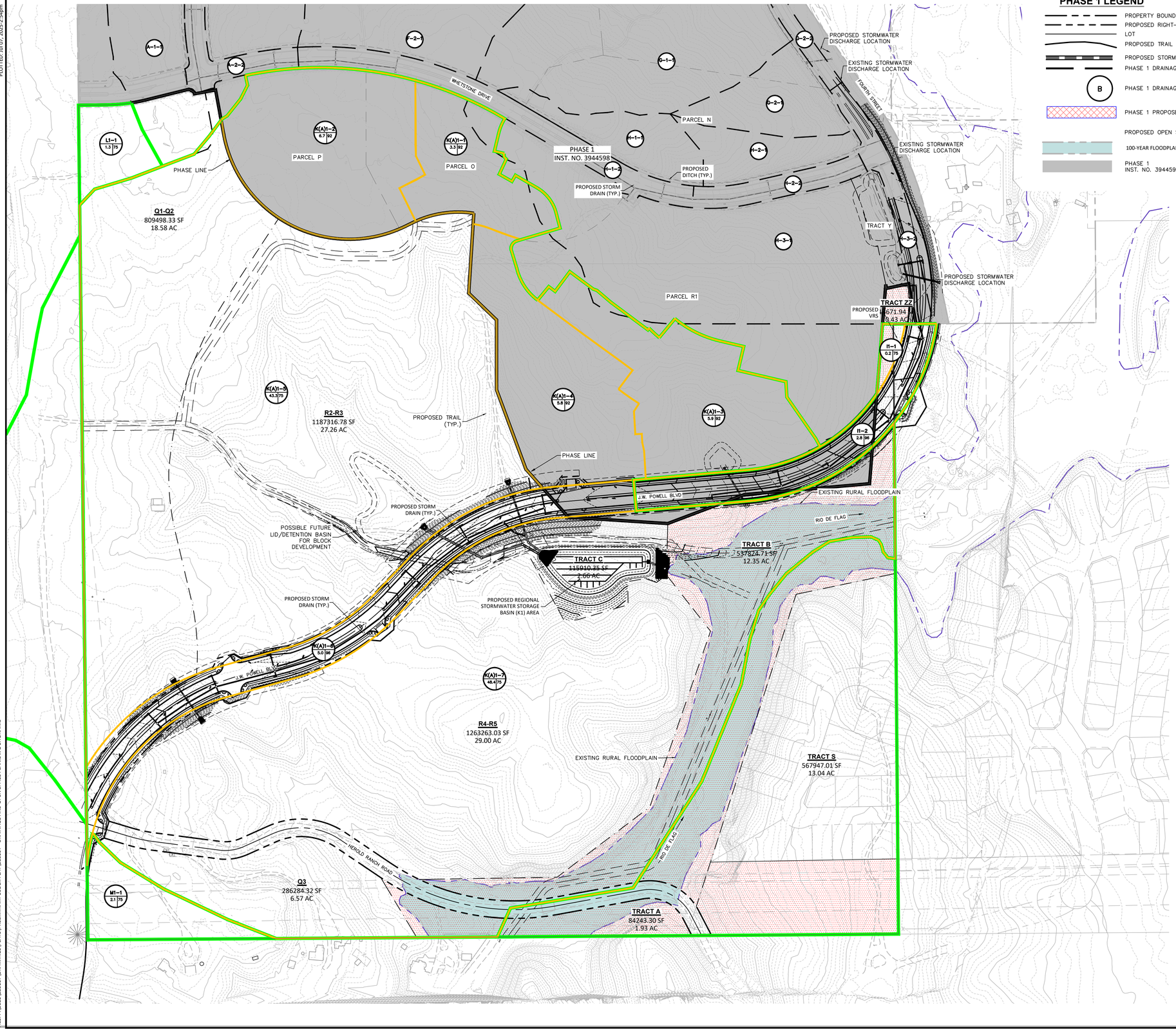
Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, USA

DRAWING NO.
UT01

SHT NO. 15 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 – UTILITIES PLANS.DWG BHONANIE

PLOTTED: JUL 07, 2025 2:54pm



PHASE 1 LEGEND

- PROPERTY BOUNDARY
- PROPOSED RIGHT–OF–WAY
- LOT
- PROPOSED TRAIL
- PROPOSED STORM DRAIN
- PHASE 1 DRAINAGE BASIN BOUNDARY
- PHASE 1 DRAINAGE BASIN IDENTIFIER
- PHASE 1 PROPOSED DETENTION BASIN
- PROPOSED OPEN SPACE
- 100-YEAR FLOODPLAIN
- PHASE 1 INST. NO. 3944598

PHASE 2 LEGEND

- DRAINAGE BASIN IDENTIFIER: A= MAJOR BASIN DESIGNATION -1 = SUB-BASIN DESIGNATION 13.8= APPROXIMATE BASIN AREA (ACRES) 80= SCS CURVE NUMBER
- MAJOR BASIN BOUNDARY
- MINOR BASIN BOUNDARY
- PARCEL BOUNDARY
- PROJECT BOUNDARY
- PHASE BOUNDARY
- OPEN SPACE PROVIDED PER DEVELOPMENT AGREEMENT

NORTH

SCALE 1" : 150'
0 75 150

NOTES:
1. REFER TO THE "PRELIMINARY BLOCK PLAT DRAINAGE REPORT FOR CANYON DEL RIO", DATED SEPTEMBER 5, 2024, FOR MORE INFORMATION REGARDING THE PRELIMINARY DRAINAGE DESIGN FOR THIS INTERIM CONDITION.

CDR OPEN SPACE TRACKING

	OPEN SPACE AREA (AC)	GROSS PARCEL/ TRACT AREA (AC)	% OPEN SPACE PROVIDED	VALUES BASED ON
PARCEL G	3.29	9.03	36%	FINAL PLAT
PARCEL I	1.43	13.31	11%	FINAL PLAT
PARCEL J1	3.31	9.85	34%	CIVIL PLANS
PARCEL J2	5.21	20.2	26%	CONCEPT PLAN
TRACT W	0.94	0.94	100%	FINAL BLOCK PLAT
TRACT X	1.78	1.78	100%	FINAL BLOCK PLAT
TRACT Y	0.73	0.73	100%	FINAL BLOCK PLAT
NOT YET CONSTRUCTED				
PARCEL E1	TBD[1]	6.35		
PARCEL E2	TBD	2.64		
PARCEL F	TBD	1.44		
PARCEL K1	TBD	4.34		
PARCEL K2	TBD	8.8		
PARCEL N	3.17	7.11	45%	PRELIMINARY PLAT
PARCEL O	6.86	6.49	58%	SITE PLAN
PARCEL P	--	5.4		SITE PLAN
PARCEL R1	8.67	27.59	31%	PRELIMINARY PLAT
PARCEL Q1-Q2	TBD	18.58		
PARCEL Q3	TBD	6.57		
PARCEL R2-R3	TBD	27.26		
PARCEL R4-R5	TBD	29.00		
TRACT S	3.52	13.04	27%	PRELIMINARY PLAT
TRACT A	1.93	1.93	100%	PRELIM BLOCK PLAT
TRACT B	12.35	12.35	100%	PRELIM BLOCK PLAT
TRACT C	0	2.66	0%	PRELIM BLOCK PLAT
TRACT ZZ	0.43	0.43	100%	PRELIM BLOCK PLAT
TOTAL OPEN SPACE PROVIDED	**53.62**	**237.82**	**23%**	
TOTAL REQUIRED OPEN SPACE PER DA	**54.00**			

NOTE

1.THE OPEN SPACE AS TABULATED ABOVE INCLUDES THE REQUIRED OPEN SPACE PER THE CANYON DEL RIO PRELIMINARY BLOCK PLAT AND THE DEVELOPMENT AGREEMENT. THE OPEN SPACE INCLUDES TRACT A AND B WITH THE RURAL FLOODPLAIN TO BE DEDICATED TO THE CITY WITH THE CANYON DEL RIO PHASE 2 FINAL BLOCK PLAT.

2.OPEN SPACE SHOWN ABOVE THAT IS NOT RECORDED ON FINAL PLAT OR SHOWN ON CONSTRUCTION PLANS IS SUBJECT TO CHANGE.

Registered Professional Engineer
CERTIFICATE NO.
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ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, USA

FLAGSTAFF ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

DRAINAGE AND OPEN SPACE PLAN

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: JEE
DESIGN:
CHECKED:

110 W. Dale Avenue
Flagstaff, AZ 86001
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928.774.6934 fax
www.swoz.com

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NO.	DESCRIPTION	DATE	BY

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DRAWING NO.
DR01

SHT NO. 16 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - DRAINAGE AND OPEN SPACE PLAN.DWG BHONANIE

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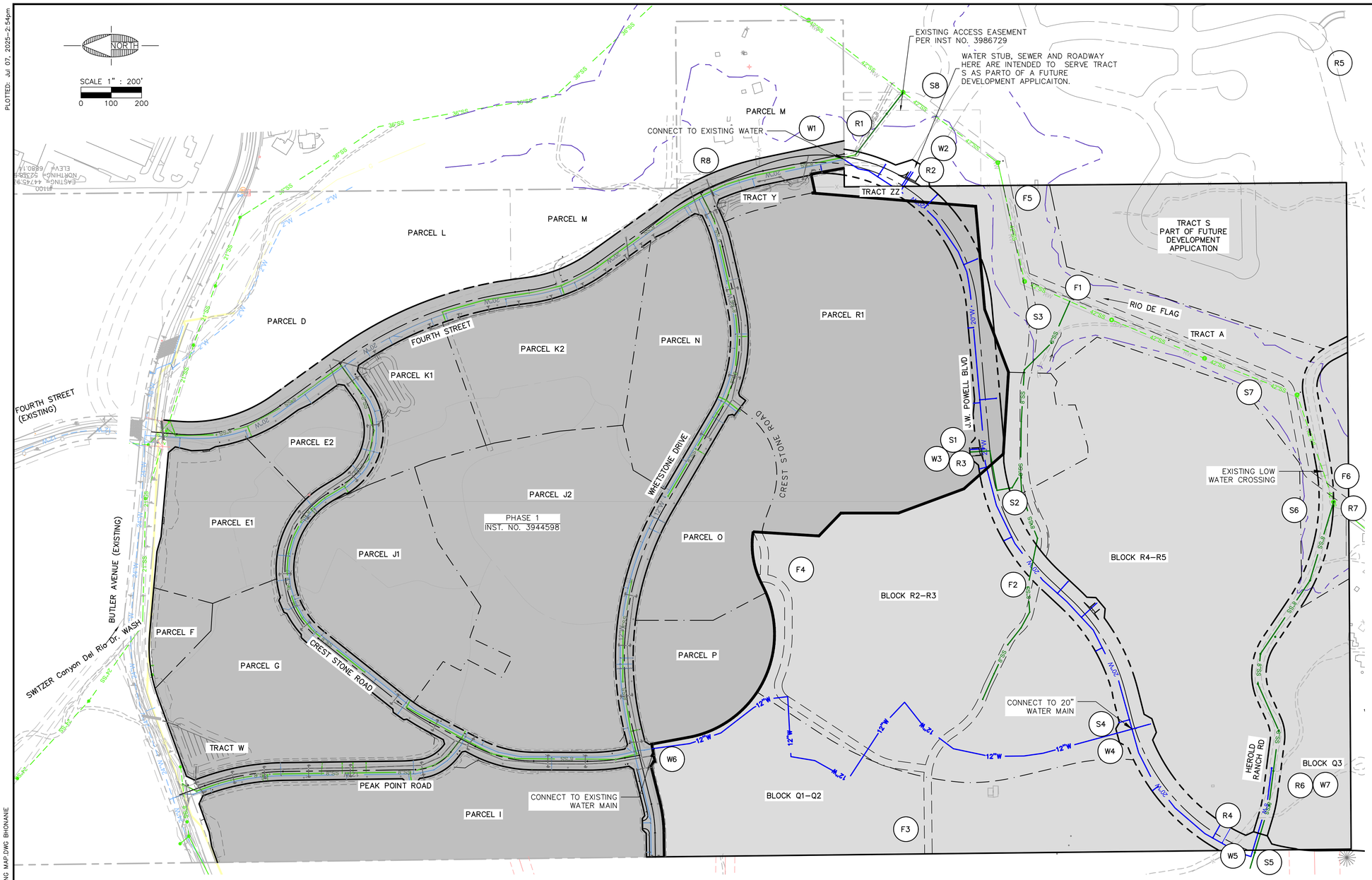

PHASE 1
INST. NO. 3944598

PHASE 2

(SXX) LIMITS OF SEWER IMPROVEMENTS

(RXX) LIMITS OF ROADWAY IMPROVEMENTS AND OR WATER IMPROVEMENTS

(WXX) LIMITS OF WATER IMPROVEMENTS

(FXX) LIMITS OF FUTS IMPROVEMENTS

FOR PHASING MATRIX TABLE REFER TO DWG PHO2

Registered Professional Engineer
CERTIFICATE NO. 49953
ALICIA ANNE STOFFERS
Date Signed: 7/07/25
ARIZONA, U.S.A.

FLAGSTAFF
ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

PHASING MAP

JOB NO:	223357
DATE:	JUL 25
SCALE:	AS SHOWN
DRAWN:	SCI/KMF
DESIGN:	SCI
CHECKED:	GEC

REVISIONS

NO.	DESCRIPTION	DATE	BY

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DRAWING NO.
PH01

SHT NO. 17 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - PHASING MAP.DWG BHONANIE

	Project Phasing Matrix - Required Infrastructure for Each Parcel						
	R1 - PHASE 1	R1 - PHASE 2 & 3	Q1/Q2	Q3	R2/R3	R4/R5	S
Roadways - Internal Looping Required to Parcel							
J.W. Powell - Parcel Bndry (E) to Collector Road (R1, R2)		X	X	X	X	X	X
Collector Road - Parcel Bndry to Tract "S" (R2, R5)							X
J.W. Powell - Parcel Bndry (E) to Parcel Bndry R1 (W) (R2, R3)		X	X	X	X	X	
J. W. Powell Blvd - Parcel Bndry R1 to Parcel Bndry (W) (R3, R4)			X	X	X	X	
Herold Ranch (Local Road) - J.W. Powell to Block Q3 Driveway (R4, R6)				X			
Herold Ranch (20' Chip Seal Fire Access Road) to west side of County Low Water Crossing (R4, R7)				X		X	
J. W. Powell Blvd CDR 4TH ST (1/2) section - Whetstone Drive to Parcel Bndry (R8, R1)		X	X	X	X	X	
Waterline Segments							
20" Waterline in J.W. Powell - Parcel Bndry (E) to Collector Road (W1, W2)		X	X	X	X	X	X
20" Waterline in J.W. Powell - Collector Road to Parcel Bndry R1 (W2, W3)		X	X	X	X	X	
20" Waterline in J.W. Powell - Parcel Bndry R1 to Block Bndry R2/R3 (W3, W4)			X	X	X	X	
20" Waterline in J.W. Powell - Block Bndry R2/R3 to Parcel Bndry (W) (W4, W5)			X	X		X	
8" Waterline in Herold Ranch Rd to the Block Q3 Driveway with the development of Block Q3 (W5, W7)				X			
12" Waterline Connecting Whetstone Drive and J.W. Powell - Through Blocks Q1/Q2 and R2/R3 (W4, W6)			X	X	X	X	
Sewerline Segments							
J.W. Powell - Parcel Bndry R1 to ex sewer within Rio De Flag (S1, S2, S3)		X	X		X	X	
J.W. Powell - high pt (S) to low pt (S4, S2)			X		X	X	
J.W. Powell to Herold Ranch - J. W. Powell Blvd to ex sewer within Rio De Flag (S5, S6)				X			
Tract S connection to ex sewer within Rio de Flag (S8)							X
Block R4/R5 connection to ex sewer within Rio de Flag (S7)						X	
FUTS Segments							
FUTS segment 1 - J.W.P. Underpass to Rio De Flag (F1, F2)			X	X	X	X	
FUTS segment 2 - Parcel Bndry P to J.W.P. Underpass (F2, F3)					X		
FUTS segment 3 - Western Parcel Bndry Q1 & Q2 to J.W.P. Underpass (F3,F4)			X		X		
FUTS Segment 4 - Floodplain from East Property Boundary to Herold Ranch Road (F5-F6)						X	

Notes:

1. Any secondary access road must meet all fire access road requirements including 20' minimum unobstructed width.
2. Traffic volume considerations have not been considered as part of this analysis. Right-of-way improvements will be established through the Traffic Statement and/or individual subdivision tract improvements.
3. Blocks R1, R2/R3, R4/R5, Q1/Q2 & S will require internal roadway and connectivity to provide two points of access and water service.
4. Pursuant to the approved Drainage Impact Analysis (DIA), the developer shall mitigate the identified downstream impacts. The DIA has identified several conceptual mitigation strategies including on-site and off-site mitigations. Prior to approval of the first site plan and/or subdivision plat or any development, specific strategies must be identified and approved by the City and reflected accordingly on any Plats and/or Plans. If on-site strategies are chosen, each phase of development shall mitigate proportional impacts. A master plan for phasing of on-site mitigations may be required to ensure that each phase can mitigate proportional impacts. Each phase of development shall mitigate their fair proportionate share of the impact identified in the DIA. Detention, LID, and retention must stand alone for each phase of the project. Any phase requiring offsite improvements impacting drainage courses, peak flows or total runoff volume, such as the spine road, will mitigate these impacts with the implementation of said phase.
5. This table was intended to show just the utilities required to serve each parcel (or block). It is assumed that any roads needed to serve a parcel will also need to have the water and sewer installed at the same time as the road regardless as to whether or not that particular parcel needs the water and sewer infrastructure. Please note all parcels will have to go through the Community Development Site Plan or Platting process and meet the City of Flagstaff Zoning Code including but not limited to access, utilities, resources, and stormwater.
6. Any dead end roads in excess of 1200' are required to have a secondary access.
7. Tract S is a part of a future development application, which will provide internal roadways and utilities to meet City of Flagstaff Engineering Standards.
8. To ensure a “no-rise” condition for Lake Continental”, developments will be required to provide 1-1/2” retention volume storage, which will include water quality treatment for the first flush volume of 1/2" over all new impervious area. Retention for the 1" rainfall depth on all impervious surfaces draining to the regional detention basin south of J.W. Powell are included within the provided volume. However, the first flush volume of 1/2" over all new impervious area for the water quality component will be required to be provided with each block and has not been included in the regional detention basin. The required 1" retention volume for parcels O, P, and R1 is included within the regional detention basin south of J.W. Powell as well.
9. CDR Phase 1 infrastructure has been completed except segment R6 to R1 that will be constructed with Phase 2.
10. The 8" water line in Herold Ranch Road will be required to be looped.
11. Parcel R1 noted in this table refers to Phases 2 and 3 of the Parcel R1 Development. Phase 1 of Parcel R1 can be served by the CDR Phase 1 Infrastructure that has already been completed.
12. Waterline in J. W. Powell will be phased with ADEQ. W1-W3 will be Phase 1 and W3-W5 will be Phase 2.
13. The extension of the 12" waterline may be accomplished with each phase of Q1/Q2 & R2/R3 per COF Engineering Standards. Full buildout of these parcels will construct the required WSIA 12" waterline connection from Whetstone Dr. to J.W. Powell Blvd.
14. Blocks R2/R3 and Q1/Q2 could be phased such that they only require access from Whetstone Dr. For example, if Block Q1/Q2 is phased with the first phase only including 50 units, then primary access would only be required off Whetstone.
15. FUTS Construction may occur within each phase of Q1/Q2 and R2/R3 interim connection will be provided to existing trails. Easements will be dedicated on the Final Plats.

EXAMPLE

TO DETERMINE THE REQUIRED INFRASTRUCTURE ASSOCIATED WITH ANY OF THE PARCELS, LOCATE THE PARCEL ALONG THE TOP OF THE TABLE AND SCROLL DOWN UNTIL THERE IS AN 'X'. THE 'X' CORRESPONDS TO THE REQUIRED INFRASTRUCTURE - WATER, SEWER, ROADWAY. EACH SEGMENT OF INFRASTRUCTURE INCLUDES ABBREVIATED LETTERS AND NUMBERS THAT CORRESPOND TO THE PHASING PLAN SHOWN ON THE PHASING MAP. THE FOLLOWING IS AN EXAMPLE FOR PARCEL R1:

THE FIRST 'X' CORRESPONDS TO THE REQUIRED ROADWAY SEGMENT FOR J. W. POWELL BLVD THAT WILL NEED TO BE CONSTRUCTED FROM THE EAST PARCEL BOUNDARY (R1) TO THE COLLECTOR ROAD (R2). THE SECOND 'X' CORRESPONDS TO THE REQUIRED SEGMENT FOR J. W. POWELL BLVD THAT WILL NEED TO BE CONSTRUCTED FROM THE EAST PARCEL BOUNDARY (R2) TO THE WEST PARCEL BOUNDARY OF R1 (R3). THE THIRD 'X' CORRESPONDS TO THE REQUIRED 20" WATERLINE SEGMENT IN J. W. POWELL BLVD THAT WILL NEED TO BE CONSTRUCTED FROM THE EAST PARCEL BOUNDARY (W1) TO THE COLLECTOR ROAD (W2). THE FOURTH 'X' CORRESPONDS TO THE REQUIRED 20" WATERLINE SEGMENT IN J. W. POWELL BLVD THAT WILL NEED TO BE CONSTRUCTED FROM THE THE COLLECTOR ROAD (W2) TO THE WEST PARCEL BOUNDARY OF R1 (W3). THE FIFTH 'X' CORRESPONDS TO THE REQUIRED SEWERLINE THAT WILL NEED TO BE CONSTRUCTED FROM THE PARCEL BOUNDARY OF R1 (S1) TO (S2) IN J. W. POWELL BLVD, TO THE EXISTING SEWERLINE IN RIO DE FLAG (S3).



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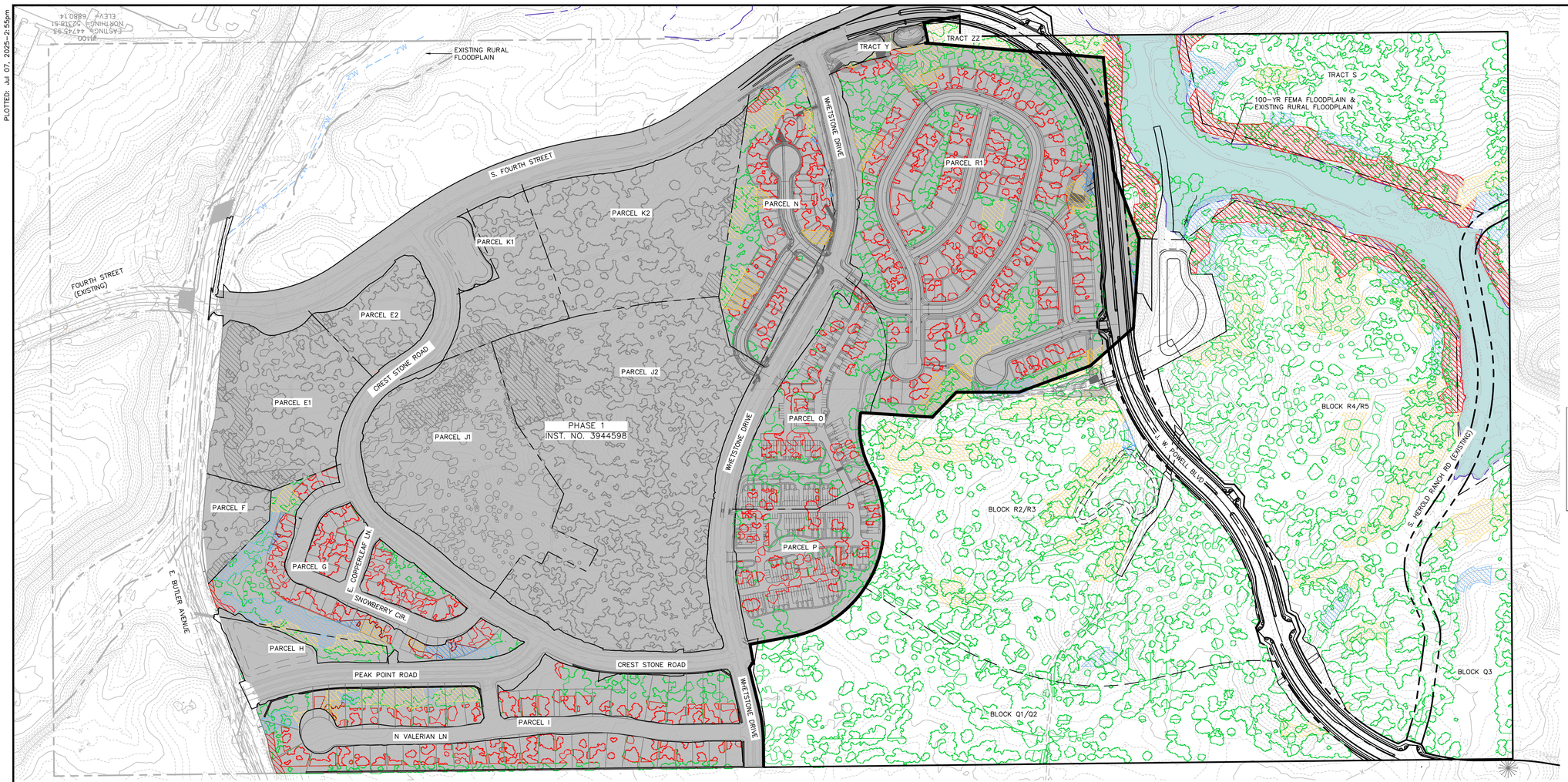
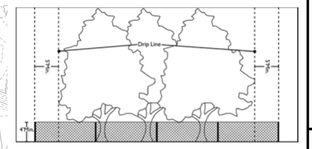


LEGEND

- PROPERTY BOUNDARY
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- LOT
- 100-YEAR FLOODPLAIN
- SLOPE RESOURCES 17-24.99%
- SLOPE RESOURCES 25-34.99%
- SLOPE RESOURCES >35%
- EXISTING TREE CANOPY
- DISTURBED TREE CANOPY
- PHASE 1 INST. NO. 3944598

NOTES:
1. ROW INCLUDES FOURTH STREET, CREST STONE ROAD, PEAK POINT ROAD AND WHETSTONE DRIVE.
2. RESOURCES WITHIN ALL PUBLIC ROADS AND REGIONAL DETENTION BASINS ARE NOT INCLUDED IN THE NATURAL RESOURCE PROTECTION CALCULATIONS FOR THIS PROJECT.
3. RESOURCES IMPACTED BY THE FUTS DEVELOPMENT WILL BE SHOWN AS REMOVED FROM THE TOTAL TREE CALCULATION AT THE TIME OF DEVELOPMENT.



NOTES:
1. IF A "POTENTIALLY PRESERVED" TREE IS INDEED PRESERVED THROUGH THE CONSTRUCTION PROCESS, THE TREE OR GROUP OF TREES IS TO HAVE TEMPORARY CONSTRUCTION FENCING ACCORDING TO C.O.F. ENGINEERING ZONING CODE SECTION 10-50.90.090.
2. TEMPORARY FENCING SHALL BE INSTALLED ALONG THE OUTER EDGE OF THE PRESERVED NATURAL RESOURCE(S) AND COMPLETELY SURROUND THE DRIP LINES PLUS FIVE FEET OF ALL TREES OR CLUMPS OF TREES WITHIN 50 FEET OF PROPOSED LAND DISTURBANCE AREAS. THE FIGURE ABOVE ILLUSTRATES THE TEMPORARY CONSTRUCTION FENCING REQUIREMENTS. SEE C.O.F. ZONING CODE SECTION 10-50.90-090.

NORTH

SCALE 1" : 200'
0 100 200

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ARIZONA, USA

FLAGSTAFF ARIZONA

CDR PHASE II - PRELIMINARY BLOCK PLAT

NATURAL RESOURCE PROTECTION PLAN (1)

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: JEE
DESIGN: JEE/KMF
CHECKED: SCI

REVISIONS

NO.	DESCRIPTION	DATE	BY

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DRAWING NO.
NRPP1

SHT NO. 19 OF 20

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - NATURAL RESOURCE PROTECTION PLAN.DWG BHONANIE

PLOTTED: Jul 07, 2025 - 2:55pm

SUMMARY TABLE OF TREE RESOURCES FOR CDR

BLOCK/TRACT	LAND USE ZONE	EXISTING TREE CANOPY ($SF)_1$	REQUIRED TREE PRESERVATION RATE	REQUIRED TREE CANOPY AREA TO BE PRESERVED ($SF)_2$	TREE CANOPY AREA PRESERVED ($SF)_3$	PERCENT TREE CANOPY AREA PRESERVED$_4$	NOTES
RESIDENTIAL							
G	MR	109,957	47.5%	52,230	67,898	61.7%	APPROVED
I	R1	167,950	47.5%	79,776	104,742	62.4%	APPROVED
N	MR	80,670	47.5%	38,318	38,905	48.2%	PROPOSED
O-P	MR	149,085	47.5%	70,815	82,728	55.5%	PROPOSED
Q1/Q2	MR	277,762	47.5%	131,937	277,762	100.0%	UNDEVELOPED
Q3	MR	84,436	47.5%	40,107	84,436	100.0%	UNDEVELOPED
R1	MR	274,762	47.5%	130,512	149,699	54.5%	PROPOSED
R2/R3	MR	355,572	47.5%	168,897	355,572	100.0%	UNDEVELOPED
R4/R5	MR	338,753	47.5%	160,907	338,753	100.0%	UNDEVELOPED
S	R1	215,995	47.5%	102,598	215,995	100.0%	UNDEVELOPED
Y	MR	806	47.5%	383	806	100.0%	DRAINAGE
ZZ	MR	0	47.5%	0	0	100.0%	DRAINAGE
A	MR	13,258	47.5%	6,298	13,258	100.0%	PUBLIC LANDS
B	MR	56,051	47.5%	26,624	56,051	100.0%	PUBLIC LANDS
RESIDENTIAL TOTAL:		**2,125,057**	**47.5%**	**1,009,402**	**1,786,604**	**84%**	

NOTES:

THE FLAGSTAFF RESOURCE TEXT AMENDMENT HAS BEEN APPROVED BY THE CITY COUNCIL. PER THE DEVELOPMENT AGREEMENT IT HAS BEEN APPLIED RETROACTIVELY TO THE ENTIRE CDR PROPERTY. THIS NATURAL RESOURCE PROTECTION PLAN PROVIDES AN UPDATED RESOURCE BANK FOR ALL OF THE RESIDENTIAL PARCELS IN CANYON DEL RIO.

1. EXISTING TREE CANOPY INCLUDES TREES WITHIN THE PARCEL OUTSIDE OF SLOPE RESOURCES.

2. THIS IS CALCULATED BASED ON THE EXISTING TREE CANOPY AS DESCRIBED IN NOTE 1.

3. THIS TABLE DOES NOT INCLUDE CREDIT FOR FOREST RESOURCES IN STEEP SLOPE AREA. DURING DEVELOPMENT OF THE INDIVIDUAL SITES, THIS CREDIT MAY BE ADDED TO THE RESOURCE TOTALS. PER 10-20.90.060, UP TO 25 PERCENT OF THE FOREST RESOURCES IN THE STEEP SLOPE AREA MAY BE COUNTED TOWARDS THE REQUIRED AMOUNT OF FOREST RESOURCES FOR THE ENTIRE SITE AT A RATIO OF ONE CREDIT POINT FOR FOREST RESOURCES TO 50 SQUARE FEET OF SLOPE AREA.

4. PARCELS E1, E2, F, K1, K2, J1, AND J2, WILL BE REQUIRED TO MEET CITY OF FLAGSTAFF RESOURCE PRESERVATION REQUIREMENTS AS INDIVIDUAL STANDALONE DEVELOPMENTS. RESOURCES WITHIN COMMERCIAL AREAS TO BE TRANSFERRED AND REALLOCATED TO OTHER COMMERCIAL AREAS. THOSE PARCELS HAVE BEEN REMOVED FROM THE TABLE.

5. THE COMMERCIAL TREE RESOURCE TARGET IS INDICATED WITH A YELLOW HIGHLIGHT. THE COMMERCIAL TREE RESROUCE BUDGET IS INDICATED WITH AN ORANGE HIGHLIGHT. EACH OF THE COMMERCIAL PARCELS MUST MEET CITY OF FLAGSTAFF TREE RESOURCE PRESERVATION REQUIREMENTS AS INDIVIDUAL STANDALONE DEVELOPMENTS AS DESCRIBED IN NOTE 5. HOWEVER, AT THE COMPLETION OR APPROVAL OF ALL COMMERCIAL DEVELOPMENTS THE BUDGET MUST BE AT OR ABOVE THE TARGET. RESOURCES WITHIN COMMERCIAL AREAS TO BE

6. THE RESIDENTIAL TREE RESOURCE TARGET IS INDICATED WITH A GREEN HIGHLIGHT. THE RESIDENTIAL TREE RESROUCE BUDGET IS INDICATED WITH AN BLUE HIGHLIGHT. AT THE COMPLETION OF ALL RESDIENTIAL DEVELOPMENTS THE BUDGET MUST BE AT OR ABOVE THE TARGET.

7. APPROVED OR COMPLETED PARCEL DEVELOPMENTS ARE INDICATED WITH A PURPLE HIGHLIGHT. AS PARCEL DEVELOPMENTS ARE SUBMITTED, THE TABLE ABOVE WILL BE UPDATED TO TRACK PROGRESS OF THE BUDGET VS THE TARGET AS DESCRIBED IN NOTES 7 AND 8.

8. ALL PARCELS, EXCLUDING PHASE 1 ROADWAYS, HAVE BEEN THINNED ACCORDING TO THE FIRE-WISE PROGRAM SINCE THE NRPP WAS APPROVED FOR THE PHASE 1 INFRASTRUCTURE.

SUMMARY TABLE OF SLOPE RESOURCES 17-24.99% FOR CDR

BLOCK/TRACT	LAND USE ZONE	EXISTING SLOPE AREA ($SF)_1$	REQUIRED SLOPE (17-24.99%) PRESERVATION RATE	REQUIRED SLOPE AREA TO BE PRESERVED ($SF)_2$	SLOPE AREA PRESERVED (SF)	PERCENT SLOPE AREA PRESERVED	NOTES
RESIDENTIAL							
G	MR	19,191	66.5%	12,762	12,199	63.6%	APPROVED
I	R1	30,394	66.5%	20,212	27,772	91.4%	APPROVED
N	MR	50,079	66.5%	33,303	33,203	66.3%	PROPOSED
O-P	MR	0	66.5%	0	0	100.0%	PROPOSED
Q1/Q2	MR	6,589	66.5%	4,382	6,589	100.0%	UNDEVELOPED
Q3	MR	25,939	66.5%	17,250	25,939	100.0%	UNDEVELOPED
R1	MR	123,132	66.5%	81,883	96,388	78.3%	PROPOSED
R2/R3	MR	156,297	66.5%	103,937	156,297	100.0%	UNDEVELOPED
R4/R5	MR	227,009	66.5%	150,961	227,009	100.0%	UNDEVELOPED
S	R1	22,167	66.5%	14,741	22,167	100.0%	UNDEVELOPED
Y	MR	5,449	66.5%	3,624	5,449	100.0%	DRAINAGE
ZZ	MR	17,369	66.5%	11,551	17,369	100.0%	DRAINAGE
A	MR	0	66.5%	0	0	100.0%	PUBLIC LANDS
B	MR	12,369	66.5%	8,226	12,369	100.0%	PUBLIC LANDS
RESIDENTIAL TOTAL:		**695,985**	**66.5%**	**462,830**	**642,751**	**92%**	

NOTES:

THE FLAGSTAFF RESOURCE TEXT AMENDMENT HAS BEEN APPROVED BY THE CITY COUNCIL. PER THE DEVELOPMENT AGREEMENT IT HAS BEEN APPLIED RETROACTIVELY TO THE ENTIRE CDR PROPERTY. THIS NATURAL RESOURCE PROTECTION PLAN PROVIDES AN UPDATED RESOURCE BANK FOR ALL OF THE RESIDENTIAL PARCELS IN CANYON DEL RIO.

1.EXISTING SLOPE AREA INCLUDES SLOPE WITHIN THE PARCEL WITH THE REGIONAL DETENTION AND PUBLIC ROADS REMOVED.

2. THIS IS CALCULATED BASED ON THE EXISTING SLOPE AREA AS DESCRIBED IN NOTE 1.

3. PARCELS E1, E2, F, K1, K2, J1, AND J2, WILL BE REQUIRED TO MEET CITY OF FLAGSTAFF RESOURCE PRESERVATION REQUIREMENTS AS INDIVIDUAL STANDALONE DEVELOPMENTS. RESOURCES WITHIN COMMERCIAL AREAS TO BE TRANSFERRED AND REALLOCATED TO OTHER COMMERCIAL AREAS. THEREFORE HAVE BEEN REMOVED FROM THE TABLE.

4. THE RESIDENTIAL SLOPE RESOURCE TARGET IS INDICATED WITH A GREEN HIGHLIGHT. THE RESIDENTIAL SLOPE RESROUCE BUDGET IS INDICATED WITH AN BLUE HIGHLIGHT. AT THE COMPLETION OF ALL RESDIENTIAL DEVELOPMENTS THE BUDGET MUST BE AT OR ABOVE THE TARGET.

5. APPROVED OR COMPLETED PARCEL DEVELOPMENTS ARE INDICATED WITH A PURPLE HIGHLIGHT. AS PARCEL DEVELOPMENTS ARE SUBMITTED, THE TABLE ABOVE WILL BE UPDATED TO TRACK PROGRESS OF THE BUDGET VS THE TARGET AS DESCRIBED IN NOTES 4.

APPROVED DEVELOPMENT

RESIDENTIAL TREE RESOURCE BUDGET

RESIDENTIAL TARGET

PROPOSED DEVELOPMENT

SUMMARY TABLE OF SLOPE RESOURCES 25-34.99% FOR CDR

BLOCK/TRACT	LAND USE ZONE	EXISTING SLOPE AREA ($SF)_1$	REQUIRED SLOPE (25-34.99%) PRESERVATION RATE	REQUIRED SLOPE AREA TO BE PRESERVED ($SF)_2$	SLOPE AREA PRESERVED (SF)	PERCENT SLOPE AREA PRESERVED	NOTES
RESIDENTIAL							
G	MR	60,480	76%	45,965	50,892	84.1%	APPROVED
I	R1	13,556	76%	10,303	12,997	95.9%	APPROVED
N	MR	1,631	76%	1,240	1,171	71.8%	PROPOSED
O-P	MR	0	76%	0	0	100.0%	PROPOSED
Q1/Q2	MR	0	76%	0	0	100.0%	UNDEVELOPED
Q3	MR	7,277	76%	5,530	7,277	100.0%	UNDEVELOPED
R1	MR	9,840	76%	7,478	7,077	71.9%	PROPOSED
R2/R3	MR	11,085	76%	8,424	11,085	100.0%	UNDEVELOPED
R4/R5	MR	44,031	76%	33,464	44,031	100.0%	UNDEVELOPED
S	R1	36,061	76%	27,406	36,061	100.0%	UNDEVELOPED
Y	MR	0	76%	0	0	100.0%	DRAINAGE
ZZ	MR	0	76%	0	0	100.0%	DRAINAGE
A	MR	3,972	76%	3,019	3,972	100.0%	PUBLIC LANDS
B	MR	15,832	76%	12,033	15,832	100.0%	PUBLIC LANDS
RESIDENTIAL TOTAL:		**203,766**	**76%**	**154,862**	**190,395**	**93%**	

NOTES:

THE FLAGSTAFF RESOURCE TEXT AMENDMENT HAS BEEN APPROVED BY THE CITY COUNCIL. PER THE DEVELOPMENT AGREEMENT IT HAS BEEN APPLIED RETROACTIVELY TO THE ENTIRE CDR PROPERTY. THIS NATURAL RESOURCE PROTECTION PLAN PROVIDES AN UPDATED RESOURCE BANK FOR ALL OF THE RESIDENTIAL PARCELS IN CANYON DEL RIO.

1.EXISTING SLOPE AREA INCLUDES SLOPE WITHIN THE PARCEL WITH THE REGIONAL DETENTION AND PUBLIC ROADS REMOVED.

2. THIS IS CALCULATED BASED ON THE EXISTING SLOPE AREA AS DESCRIBED IN NOTE 1.

3. PARCELS E1, E2, F, K1, K2, J1, AND J2, WILL BE REQUIRED TO MEET CITY OF FLAGSTAFF RESOURCE PRESERVATION REQUIREMENTS AS INDIVIDUAL STANDALONE DEVELOPMENTS. RESOURCES WITHIN COMMERCIAL AREAS TO BE TRANSFERRED AND REALLOCATED TO OTHER COMMERCIAL AREAS. THEREFORE HAVE BEEN REMOVED FROM THE TABLE.

4. THE RESIDENTIAL SLOPE RESOURCE TARGET IS INDICATED WITH A GREEN HIGHLIGHT. THE RESIDENTIAL SLOPE RESROUCE BUDGET IS INDICATED WITH AN BLUE HIGHLIGHT. AT THE COMPLETION OF ALL RESDIENTIAL DEVELOPMENTS THE BUDGET MUST BE AT OR ABOVE THE TARGET.

5. APPROVED OR COMPLETED PARCEL DEVELOPMENTS ARE INDICATED WITH A PURPLE HIGHLIGHT. AS PARCEL DEVELOPMENTS ARE SUBMITTED, THE TABLE ABOVE WILL BE UPDATED TO TRACK PROGRESS OF THE BUDGET VS THE TARGET AS DESCRIBED IN NOTES 4.

6. FOR PROPPOSED DEVELOPMENT INDICATED WITH RED HIGHLIGHT, SEE INDIVIDUAL BLOCK DEVELOPMENT PLANS FOR DETAILED NRPP CALCULATIONS.

SUMMARY TABLE OF SLOPE RESOURCES +35% FOR CDR

BLOCK/TRACT	LAND USE ZONE	EXISTING SLOPE AREA ($SF)_1$	REQUIRED SLOPE (+35%) PRESERVATION RATE	REQUIRED SLOPE AREA TO BE PRESERVED ($SF)_2$	SLOPE AREA PRESERVED (SF)	PERCENT SLOPE AREA PRESERVED	NOTES
RESIDENTIAL							
G	MR	2,544	100%	2,544	2,544	100.0%	APPROVED
I	R1	3,872	100%	3,872	3,872	100.0%	APPROVED
N	MR	4,179	100%	4,179	4,179	100.0%	PROPOSED
O-P	MR	0	100%	0	0	100.0%	PROPOSED
Q1/Q2	MR	0	100%	0	0	100.0%	UNDEVELOPED
Q3	MR	0	100%	0	0	100.0%	UNDEVELOPED
R1	MR	0	100%	0	0	100.0%	PROPOSED
R2/R3	MR	0	100%	0	0	100.0%	UNDEVELOPED
R4/R5	MR	70,481	100%	70,481	70,481	100.0%	UNDEVELOPED
S	R1	75,953	100%	75,953	75,953	100.0%	UNDEVELOPED
Y	MR	0	100%	0	0	100.0%	DRAINAGE
ZZ	MR	0	100%	0	0	100.0%	DRAINAGE
A	MR	14,023	100%	14,023	14,023	100.0%	PUBLIC LANDS
B	MR	119,348	100%	119,348	119,348	100.0%	PUBLIC LANDS
RESIDENTIAL TOTAL:		**290,401**	**100%**	**290,401**	**290,401**	**100%**	

NOTES:

THE FLAGSTAFF RESOURCE TEXT AMENDMENT HAS BEEN APPROVED BY THE CITY COUNCIL. PER THE DEVELOPMENT AGREEMENT IT HAS BEEN APPLIED RETROACTIVELY TO THE ENTIRE CDR PROPERTY. THIS NATURAL RESOURCE PROTECTION PLAN PROVIDES AN UPDATED RESOURCE BANK FOR ALL OF THE RESIDENTIAL PARCELS IN CANYON DEL RIO.

1.EXISTING SLOPE AREA INCLUDES SLOPE WITHIN THE PARCEL WITH THE REGIONAL DETENTION AND PUBLIC ROADS REMOVED.

2. THIS IS CALCULATED BASED ON THE EXISTING SLOPE AREA AS DESCRIBED IN NOTE 1.

3. PARCELS E1, E2, F, K1, K2, J1, AND J2, WILL BE REQUIRED TO MEET CITY OF FLAGSTAFF RESOURCE PRESERVATION REQUIREMENTS AS INDIVIDUAL STANDALONE DEVELOPMENTS. RESOURCES WITHIN COMMERCIAL AREAS TO BE TRANSFERRED AND REALLOCATED TO OTHER COMMERCIAL AREAS. THEREFORE HAVE BEEN

4. THE RESIDENTIAL SLOPE RESOURCE TARGET IS INDICATED WITH A GREEN HIGHLIGHT. THE RESIDENTIAL SLOPE RESROUCE BUDGET IS INDICATED WITH AN BLUE HIGHLIGHT. AT THE COMPLETION OF ALL RESDIENTIAL DEVELOPMENTS THE BUDGET MUST BE AT OR ABOVE THE TARGET.

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FLAGSTAFF ARIZONA

CDR PHASE II – PRELIMINARY BLOCK PLAT

NATURAL RESOURCE PROTECTION PLAN (2)

JOB NO: 223357
DATE: JUL 25
SCALE: AS SHOWN
DRAWN: JEE
DESIGN: JEE/KMF
CHECKED: SCI

REVISIONS

NO.	DESCRIPTION	DATE	BY

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0334
928.774.8934 fax
www.ardurra.com

Shephard Wesnitzer, Inc.
An ARDURRA Company

Contact Arizona 811 at least two full working days before you begin excavation
Call 811 or click Arizona811.com

DRAWING NO.
NRPP2

SHT NO. 20 OF 20

Registered Professional Engineer
CERTIFICATE NO.
49953
ALICIA ANNE STOFFERS
State Arizona United
ARIZONA, USA

FILE: P:\2023\223357\DRAWINGS\PLATS\PRELIMINARY BLOCK PLAT\223357 - NATURAL RESOURCE PROTECTION PLAN.DWG BHONANIE

City of Flagstaff
Community Development
Substantive Review Comments

Project Name: Canyon Del Rio Phase 2 **Date:** June 5, 2025
Project No.: PZ-18-00113-06
Project Address: 3295 E Whetstone Dr

Application Type: Preliminary Plat
Review Type: Substantive

Project Manager: Alaxandra Pucciarelli
E-mail: apucciarelli@flagstaffaz.gov
Phone: 928 213-2640

Status of Review: Approved with Conditions
The Inter-Division Staff (IDS) Review has approved the Preliminary Plat application subject to the conditions and comments listed below. The plat will now go before the Planning and Zoning Commission and City Council. Following City Council approval, the next step in the development process is Civil Improvement Plans review. This correspondence is transmitted to the applicant on day 77 of the 78-day Substantive Review Period in accordance with ARS 9-835(J). The next submittal should include a copy of this Preliminary Plat Review Comments Letter along with your responses to each comment, in addition to all required application materials and plans.

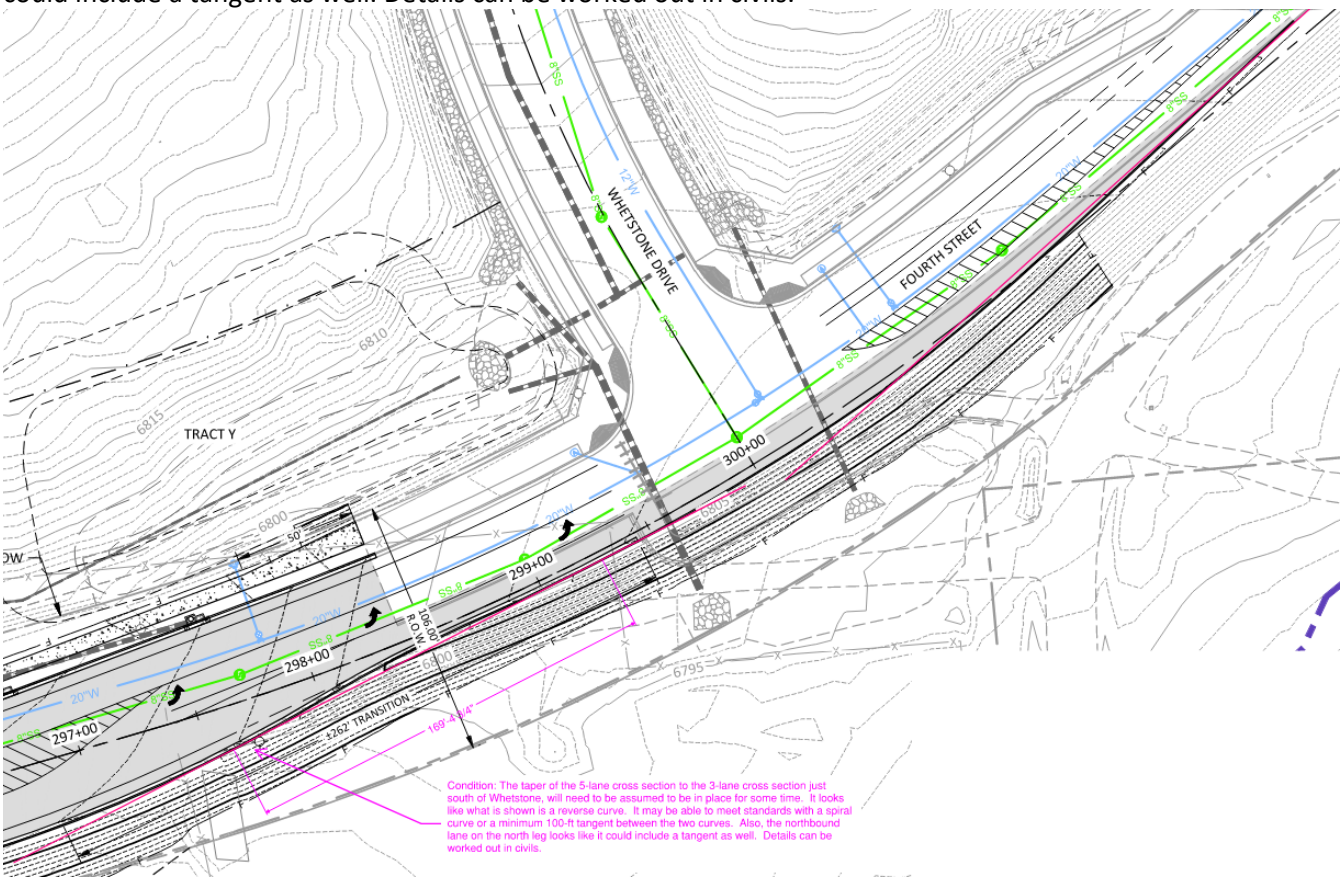
PROJECT SUMMARY:
This application is a preliminary plat of Phase 2 (aka Tract Z) of Canyon Del Rio, APN 106-08-043. The proposed development includes four blocks, five tracts, and ROW dedication of JW Powell and Harold Ranch Road.

CONDITIONS/COMMENTS:

Substantive Current Planning: Current Planning, Alaxandra Pucciarelli Approved with Conditions 06/05/2025
Conditions of Approval:
1. The language stating that the dedicated floodplain (tracts A and B) may be used to meet the common space requirements of future Planned Residential Developments must be removed prior to scheduling the Planning & Zoning Commission and City Council meetings.
General Comments:
1. Depending on how tract ZZ is developed, it may not be counted towards Open Space as indicated on sheet DR01. The development must meet the Open Space requirements of the Rezoning Ordinance and the Development Agreement.

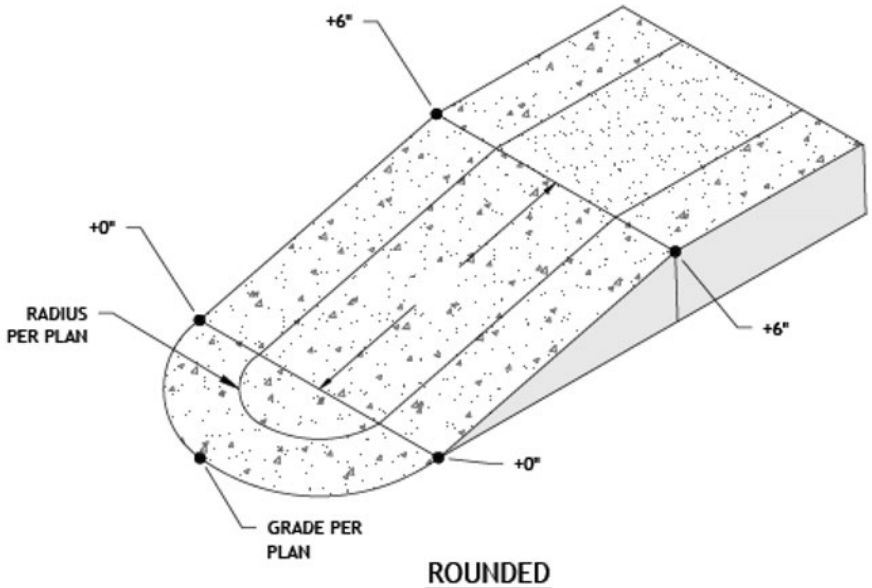
Substantive Traffic: Traffic, Stephanie Santana Approved with Conditions 06/05/2025
Approved with the following conditions:
1. The Whetstone traffic memo will be reviewed outside of this IDS submittal and comments will be provided separately.
2. The intersection of JWP and Herold Ranch shall be constructed to be functional. If CDR constructs before the City, the intersection will need to be completed to the southern leg. Details can be worked out in civils.
3. CDR and the Burch Property shall continue to coordinate for required intersection improvements at Fourth Street & JWP.
4. The taper of the 5-lane cross section to the 3-lane cross section just south of Whetstone, will need to be assumed to be in place for some time. It looks like what is shown is a reverse curve. It may be able to meet standards with a spiral

curve or a minimum 100-ft tangent between the two curves. Also, the northbound lane on the north leg looks like it could include a tangent as well. Details can be worked out in civils.



Future Submittal (Civil):

1. The details of the two-stage left turn lane will be worked out in civils. The arrows shall be lane reduction arrows, not right turn arrows. There should be a portion of solid stripe, small skip stripe, then a gap (no stripe).
2. Streetlight details and locations will be confirmed and worked out in civils.
3. Left turn storage lengths will be confirmed in civils.
4. Details of the ADA ramps will need to be worked out in civils.
5. All median noses shall start at a 0” elevation around the radius and rise to 6” elevation for a minimum 5’ transition length. Follow the sign design on Eng Standard 10-06-015.



ROUNDED

ELEVATIONS PROVIDED ARE RELATIVE TO THE ADJACENT PAVEMENT ELEVATION.

L CURB TERMINATION
NOT TO SCALE

Substantive Engineering: Development Engineering, David Millis Approved with Conditions 06/02/2025
Conditions of Future Submittals:
1. At civil plan review indicate adjustment of existing Herold Ranch Rd to align with proposed JWP intersection and provide a MAG 205 paved turn-out to provide for continuing residential access prior to the developments ahead of the development on Q3 or R4-R5.
2. During civil design and depending on the order of phasing, interim hydrant and/or blow-off locations to be determined based on the need for flushing of interim dead end mains.

General Comments:
1. Conceptual lotting within individual blocks indicated on this submittal was not reviewed as part of this submittal.

Substantive Water Services: Water Services, Courtney Hawley Approved with Conditions 02/04/2025
Conditions of Approval:
1. 12” water line on Block Q1-Q2 requires an easement on Block R2-R3. Please realign the 12” water main to limit the crossing of parcel lines.
2. Block Q3 may require additional looping, a dead end shall never exceed 1000ft.
3. All utilities shall be placed under a paved surface.

Substantive Fire Prevention: Fire Prevention, Christopher Jack Approved 02/03/2025
No Comments

City of Flagstaff
Community Development
Substantive Review Comments

Substantive Stormwater: Stormwater, Douglas Slover Approved 02/04/2025
No Comments

Substantive Parks: Parks, Amy Hagin Approved 02/04/2025
No Comments

Substantive HPC/Comm Design: Heritage Preservation, Mark Reavis Approved 05/14/2024
No Comments

Substantive Building & Safety: Building Safety, Brian Cook Approved 05/14/2024
No Comments

Substantive Public Works: Public Works, Jarrett Nelson Approved 06/18/2024
No Comments

To: **Larry Frostad, Ardurra**

From: **Stephanie Santana, Sr. Lead Transportation Engineer** SS

Date: **April 2, 2025**

RE: **Second Review of the CDR Phase 2 & R1 TIA, sealed March 18, 2025**

CC: **Jeffrey Bauman, Transportation Director / Traffic Engineer**
Alax Pucciarelli, Current Planning Manager
Ben Mejia, Senior Planner

The City of Flagstaff Transportation Engineering Section has reviewed the CDR Phase 2 & R1 TIA sealed March 18, 2025.

Please address the following comment and resubmit the TIA.

1. The intersection of JWP & Whetstone is showing failing LOS/delay and meets signal warrants as a three-leg intersection in the study year of 2045. The TIA will need to be updated to include analysis for an interim year to determine when the improvements to the intersection will be required.

The following comments are required to be included in the resubmittal of the Preliminary Block Plat for CDR Phase 2 and the Preliminary Plat for CDR R1.

1. Based on the TIA recommendations and the poor LOS/delay at the study intersections, right of way shall be reserved for a two-lane roundabout at the intersections of JWP & Whetstone, JWP & Fourth Street, and JWP & Herold Ranch.
2. The collector roadway through the Burch development (referred to as Pitch) shall be called Fourth Street per the Regional Plan.
3. Right turn lanes warrant per City of Flagstaff Engineering Standard section 13-10-010-0002 Right Turn Deceleration Lane Warrants, at intersections A11 NB, A4 SB, A6 NB, A5/A7 NB & SB, and A8 NB. Right turn lanes warrant per ADOT TGP 245 at intersections A11 NB, A4 SB, A5/A7 SB, and A8 NB. Right turn lanes shall be constructed at intersections A11 NB, A4 SB, A5/A7 SB, and A8 NB.
4. The directional splits of 70/30 were not done consistently, it can be assumed that all intersections on the north side of JWP have failing left turn movements. The recommendation for roundabouts at the intersection of JWP & Herold Ranch and JWP & Whetstone will help in the future if the left turns at these intersections need to be restricted. In the interim, a two-stage left turn lane shall be constructed at the intersection of JWP & A4 and be able to hold two vehicles with the appropriate taper lengths.

5. The existing single-family residential to the east of CDR should not be assumed to use intersection A8 (Herold Ranch Rd). Herold Ranch is an unimproved dirt road, and these trips should be assumed to use Fourth Street. When the volumes are updated, the intersection of JWP & Fourth Street result in failing LOS/delay for the westbound left turn movement. This deficiency is mitigated for CDR Phase 2 & R1 by providing ROW for a future roundabout at the intersection and will be further studied in the Fourth Street Single Family TIA.

To: **Larry Frostad, Ardurra**

From: **Stephanie Santana, Sr. Lead Transportation Engineer** *SS*

Date: **July 10, 2025**

RE: **Review of the CDR Phase 2 Whetstone Memo, sealed June 13, 2025**

CC: **Jeffrey Bauman, Transportation Director / Traffic Engineer**
Alax Pucciarelli, Current Planning Manager

The City of Flagstaff Transportation Engineering Section has reviewed the CDR Phase 2 Whetstone Memo sealed June 13, 2025. The memo is approved with the following condition.

1. A 52.9% proportional cost share is required for the construction of a single lane roundabout at the intersection of JWP and Whetstone.

Canyon del Rio Phase 2

Preliminary Block Plat

September 2, 2025 City Council

Alaxandra Pucciarelli, Current Planning Manager

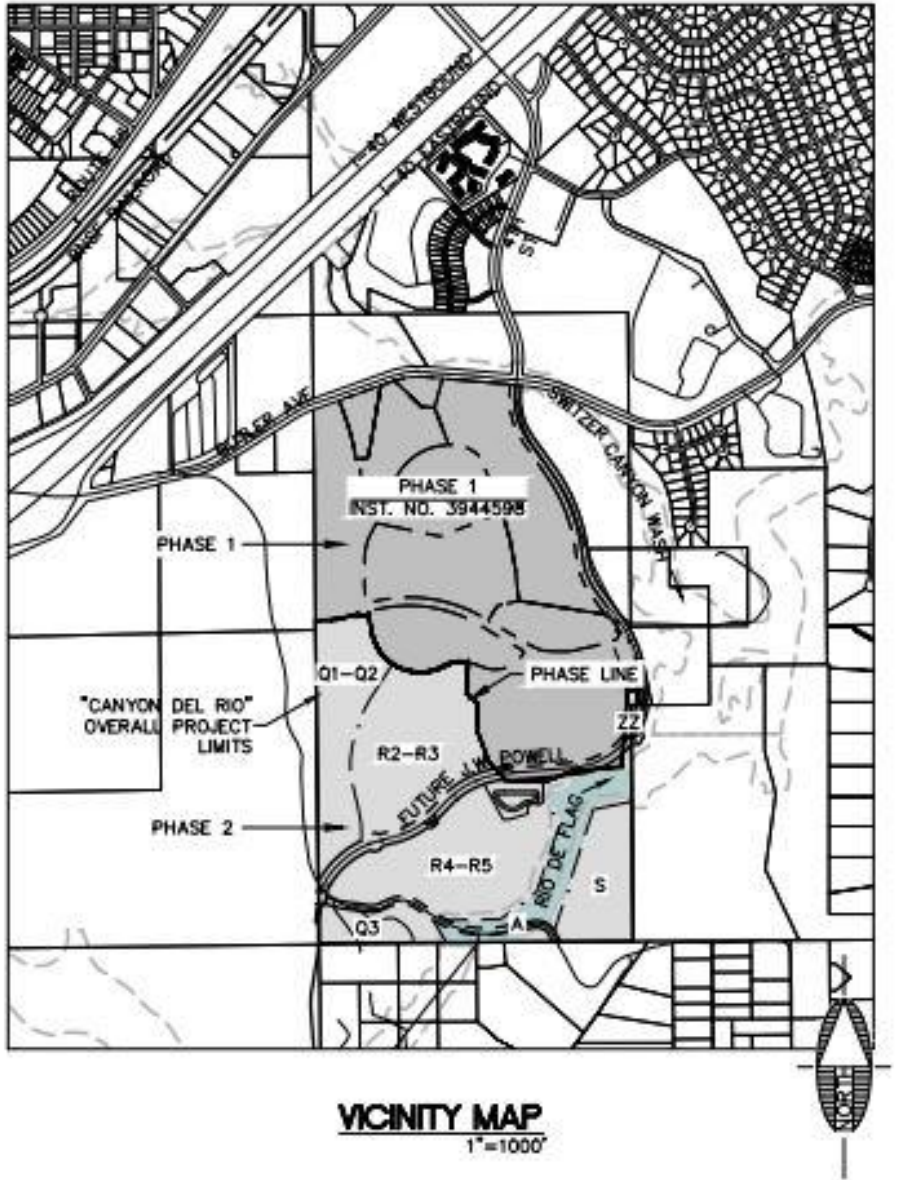
TEAM FLAGSTAFF
WE MAKE THE CITY BETTER

Canyon del Rio

CDR Devcorp LTD requests Preliminary Block Plat approval for Canyon del Rio Phase 2, a 119.60-acre residential subdivision located at 3200 E Butler Ave in the Single-Family Residential (R1) and Medium Density Residential (MR) zones.

Canyon del Rio Area Map

- **North:** Canyon del Rio Phase 1, Highway Commercial (HC) zone; High Density Residential (HR) zone, MR zone, and R1 zone
- **East:** Vacant land in the Rural Residential (RR) zone, proposed to be developed as a single-family residential subdivision
- **South:** Vacant land and single-family homes in the Estate Residential (ER) zone and Coconino County jurisdiction
- **West:** Vacant land in the ER zone owned by Little America Hotel



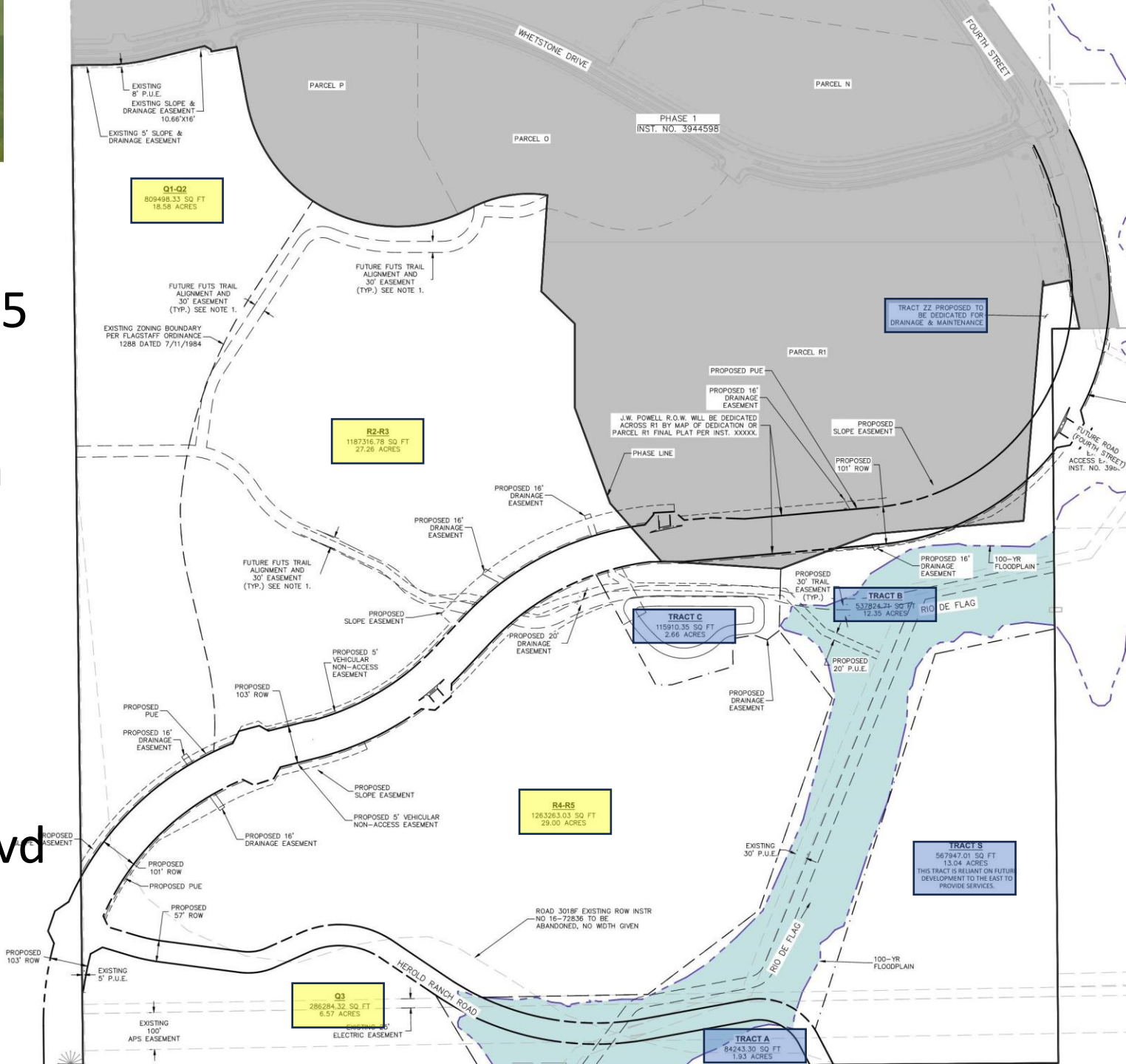
Canyon del Rio

Preliminary Block Plat

- CDR proposes a maximum of 1,426 residential units, over 200,000 sq ft of commercial space, and 54 acres of open space.
- The Phase 1 plat created tract Z for the future development of Phase 2.
- The Phase 2 plat contains 119 acres subdivided into 4 blocks of land, 5 tracts, and required rights-of-way for JW Powell Blvd and Harold Ranch Road

Preliminary Block Plat

- Blocks Q1/Q2, Q3,R2/R3, R4/R5
- Tract ZZ, private drainage
- Tract A, open space, floodplain
- Tract B, open space, utilities, wells, floodplain
- Tract C, drainage
- Tract S, future development
- Rights-of-way for JW Powell Blvd and Harold Ranch Road



Subdivision Plat Findings

Conformance with Development Standards:

- 1) City of Flagstaff Zoning Code (Title 10)
- 2) City of Flagstaff Subdivision Standards (Title 11)
- 3) City of Flagstaff Engineering Standards (Title 13)

Finding #1: Zoning Code

Existing Zoning Regulations:

- The property included in this plat is zoned both R1 and MR. The proposed blocks meet the minimum parcel dimensions stipulated by the Zoning Code.
- The standards for the individual lots will be determined with the subdivision platting of each individual block.
- These subdivisions will also need to meet the density requirements of either the zoning code or the density identified on the Lot Coverage/Building Information table of the block plat.

Finding #1: Zoning Code

Natural Resources:

- A Natural Resource Protection Plan (NRPP) was provided as part of this Preliminary Block Plat
- Floodplains are preserved at 100% and Tracts A and B are being dedicated to the City for maintenance of the Rio de Flag Floodplain
- The specific resources to be protected will be identified with the platting/site plan review of the individual blocks
- The DA allows the developer to create two “resource banks”

Finding #1: Zoning Code

Parks, Open Space, Pedestrian and Bicycle Facilities:

- CDR development proposes approximately 54 acres for open space
- The Plat shows the proposed FUTS trail alignments, which will be constructed as each parcel develops
- Each parcel will be required to meet the open space and civic space requirements of the development
- The JW Powell Blvd roadway section includes bike lanes, sidewalks, and a FUTS underpass

Finding #2: Subdivision Standards

Meets Subdivision and Land Split Regulations (Chapter 11-20)

- Preliminary Plat procedures, application requirements
- Minimum Required Subdivision Improvements
  - Lot Design
  - Street Design
  - Easement Design
  - Block Design

Finding #3: Engineering Standards

Meets Engineering Standards

- Public systems analysis conducted to confirm preliminary compliance with Engineering Standards
  - Compliance confirmed with Civil Engineering Plans (after Preliminary Plat approval)

Finding #3: Engineering Standards

Access and Traffic

- A new TIA was required due to site plan changes, outdated traffic analysis, and to justify a lower roadway classification through Q & O/P
- Off-site improvements include:
  - Right of way shall be reserved for a two-lane roundabout at the intersections of JWP & Whetstone, JWP & Fourth Street, and JWP & Herold Ranch
  - 52.9% proportional cost share for the construction of a single lane roundabout at the intersection of JWP and Whetstone

Finding #3: Engineering Standards

Water and Wastewater

- The approved WSIA is dated July 2015 and was based on the demands generated by 1,715 units max and 67.9 acres of commercial development
- The DA a $667,000 cash-in-lieu payment for future water storage, due with the issuance of the 400th-dwelling unit, and up to two well sites if the City identifies that successful production wells warrant further exploration
- The WSIA does not identify the need for off-site improvements from CDR

Finding #3: Engineering Standards

Stormwater

- A DIA (2013) and Preliminary Drainage Report (2025) for CDR was submitted and reviewed by Stormwater Staff
- As the blocks are developed, each will provide stormwater mitigation on site
- The system shown on the preliminary plat focuses on the public street improvements as well as some of the drainage for development on the Phase 1 portion of CDR
- LID water quality requirements are required to meet the ½-inch threshold, less than the current 1-inch code requirement, per the settlement agreement approved in 2013

Canyon del Rio

Staff Recommendation

- Approve the Preliminary Plat, in accordance with the findings presented in this report and the Planning and Zoning Commission recommendation of approval (7-0 on August 13, 2025) with the following conditions:

  1. The final plats for each phase shall be in substantial conformance with the preliminary plat, including the phasing plan and map (sheets PH01 and PH02) of the preliminary Block Plat of Canyon del Rio Phase 2. Each phase and parcel of the Canyon del Rio plat must meet all requirements independently.

  2. The final plat for Canyon del Rio Phase 2 must meet the conditions of approval in the IDS approval comment letter dated June 5, 2025, as well as the conditions in the Traffic Impact Analysis Approval Memo dated July 10, 2025 (staff and the applicant are continuing to discuss the proportional share contribution for the improvements at the Whetstone and Fourth Street Intersection, as well as responsibility for payment of that proportional share; the conditions related to improvements at the Whetstone and Fourth Street Intersection may be revised or removed depending on the outcome of those discussions).

City Council Meeting - FINAL **10. A.**
Meeting Date: 09/02/2025
From: Ben Mejia, Planner

TITLE:
Consideration and Adoption of Ordinance No. 2025-17: An ordinance of the City Council of the City of Flagstaff, amending the Flagstaff Zoning Map to rezone approximately 13.82 acres of real property located at 2951 S Masonic Lane, from the Rural Residential (RR) zone within the Resource Protection Overlay Zone (RPO) and Suburban Commercial (SC) zone within the RPO to the Medium Density Residential (MR) zone within the RPO, providing for severability, authority for clerical corrections, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the September 2, 2025 Council Meeting:
1. Continue the public hearing and consideration of the Development Agreement to September 16, 2025.

At the September 16, 2025 Council Meeting:
1. Read Ordinance No. 2025-17 by title only for the final time
2. City Clerk reads Ordinance No. 2025-17 by title only (if approved above)
3. Adopt Ordinance No. 2025-17

Executive Summary:
A Direct to Ordinance Zoning Map Amendment request from ViewPoint Engineering on behalf of Red Oak Development Group to rezone approximately 13.82 acres located at 2951 S Masonic Lane from the Rural Residential (RR) zone within the Resource Protection Overlay zone (RPO) and Suburban Commercial (SC) zone within the RPO to the Medium Density Residential (MR) zone within the RPO.

The Flagstaff Planning and Zoning Commission voted (6-0) to forward the request with a recommendation of approval with the following conditions in addition to the conditions recommended by staff:

1. The site plan shall be revised to remove the rooftop deck from the amenity building.
2. The site plan shall be revised to remove the observation deck.
3. Should the development result in condominiums, a restriction prohibiting the fractional sale of units shall be placed in the codes, covenants, and restrictions and recorded prior to or concurrent with recordation of the final plat.

Financial Impact:
The Direct to Ordinance Zoning Map Amendment has no financial impact.

Policy Impact:
The Direct to Ordinance Zoning Map Amendment has no policy impact.

Connection to PBB Priorities/Objectives, Carbon Neutrality Plan & Regional Plan:
Connection to PBB Priorities and Objectives:

Livable Community:

- Actively support attainable and affordable housing through the City's 10-Year Housing plan as well as other projects and opportunities.

Environmental Stewardship:

- Implement sustainable building practices, enhance waste diversion programs, alternative energy programs & multi-modal transportation options.
- Increase the private sector's participation in environmental stewardship efforts.

Connection to Regional Plan:
A complete analysis of the Regional Plan goals and policies is included in the attached Planning and Zoning Commission staff report.

Connection to Carbon Neutrality Plan:
HA-1: Create housing options for households at all income levels and family sizes occupied by local residents.
FS-2: Encourage new buildings to rely on the electric grid as their main energy source.

Connection to 10-Year Housing Plan:
Create 2.2: Identify suburban areas to support greater density and intensity of development

Has There Been Previous Council Decision on This:
There has not been a previous City Council decision on this ordinance.

Options and Alternatives:
The City Council may adopt, modify or deny the proposed Direct to Ordinance Zoning Map Amendment.

The Planning and Zoning Commission has the following suggested conditions:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 9, 2024. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. The site plan shall be revised to remove the rooftop deck from the amenity building.
3. The site plan shall be revised to remove the observation deck.
4. Should the development result in condominiums, a restriction prohibiting the fractional sale of units shall be placed in the codes, covenants, and restrictions and recorded prior to or concurrent with recordation of the final plat.
5. All other requirements of the Zoning Code and other City codes, ordinances, and regulations, shall be met by the proposed development.
6. All terms, conditions, and restrictions detailed within the "Pinehaven Development Agreement" must be fully satisfied.
7. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classification of Rural Residential (RR) and Suburban Commercial (SC) in accordance with A.R.S. § 9-462.01.

Background and History:
The request for a Direct to Ordinance Zoning Map Amendment was filed by ViewPoint Engineering on behalf of the applicant, Red Oak Development Group, to rezone approximately 13.82 acres from the RR zone within the RPO and the SC zone within the RPO to the MR zone with the RPO located at 2951 S Masonic Lane.

The subject property ("Property") is approximately a 13.82-acre vacant parcel. S Masonic Lane bisects the site in the form of an access easement providing connection from the Pinnacle Pines subdivision to E Zuni

Drive. The applicant proposes an 83-unit multiple-family development consisting of townhome-style buildings which cluster units in 20 groups of 4 and 5. The development proposes a financial contribution to the City's Affordable Housing Fund totaling $1,802,413.83. This contribution is in lieu of constructing 10 Category 1 affordable units at 12% of the total unit count in order to utilize the affordable housing incentives for a reduction in resource protection.

Key Considerations:

The following Zoning Map Amendment Findings will be analyzed specific to the approved site plan and considered if the site were to be redeveloped entirely under the MR zone standards.

A. Finding #1:

The proposed amendment must be found to be consistent with and in conformance with the goals and policies of the General Plan and any applicable specific plans. If the application is not consistent with the General Plan, and any other applicable specific plan, the applicable plan must be amended in compliance with the procedures established in Chapter 11-10 of the City Code (Title 11: General Plans and Subdivisions) prior to considering the proposed amendment. Refer to the Planning & Zoning Staff Report for an analysis of the Regional Plan.

B. Finding #2

To meet the finding, the proposed amendment must be determined not to be detrimental to the public interest, health, safety, convenience, or welfare of the City of Flagstaff (the "City"); and will add to the public good as described in the General Plan. Staff does not believe that the proposed project will be detrimental to the public interest, health, safety, convenience, or welfare. The developer has identified the following Community Benefits and Public Good:

i. The developer will provide improvements along E Zuni Drive and S Lone Tree Road, including new/improved sidewalks, parkway, and a bike lane.
ii. The developer will provide two bus stops serving both directions along E Zuni Drive.
iii. The developer will contribute to the City of Flagstaff Affordable Housing fund commensurate with 10 Category 1 affordable units or 12% of the total number of units for a total contribution of $1,802,413.83.

C. Finding #3

To meet the finding, the affected site must be determined to be physically suitable in terms of design, location, shape, size, operating characteristics; and the provision of public and emergency vehicle access, public services, and utilities to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located. The Inter-Division Staff reviewed the application and concluded that the site was suitable for the proposed development as conditioned. The IDS team based its conclusion on the review of all applicable codes and requirements as well as impact analysis of the site. Any potential impacts will be mitigated by the developer and off-site improvements will be required to serve this development.

Community Benefits and Considerations:

The developer has identified the following Community Benefits and Public Good:

i. The developer will provide improvements along E Zuni Drive and S Lone Tree Road, including new/improved sidewalks, parkway, and a bike lane.
ii. The developer will provide two bus stops serving both directions along E Zuni Drive.
iii. The developer will contribute to the City of Flagstaff Affordable Housing fund commensurate with 10 Category 1 affordable units or 12% of the total number of units for a total contribution of $1,802,413.83.

Community Involvement:

The developer held two neighborhood meetings in regard to this case on October 17, 2024, and November 21, 2024. Both meetings were held with in-person and virtual options for attendance. Per the meeting sign-in, approximately 17 individuals attended the first meeting, and 10 individuals attended the second meeting. Citizen participation summaries, attached, were prepared in response to the questions, comments and concerns presented. The meetings included a presentation from the developer and a question-and-answer session where questions could be asked or typed into the chat. Comments on the project included the

following topics: increase in density of the area, impacts to traffic, impacts to dark skies and natural environment, increased noise, the project's proposal to use a fractional ownership model, and the timing of the project. Ten emails from the public have been received as of the writing of this report and have been included with this agenda item. All correspondence either voiced opposition or concerns with the project such as traffic, concerns about parking, impacts to the natural environment, and concerns about fractional ownership or short-term rentals. In response to neighbor participation, the applicants removed fractional ownership from their proposal. The applicant has included in their development agreement a restriction that prohibits leases under 30 days.

At the Planning and Zoning Commission held on July 23, 2025, the applicant stated that the rooftop deck of the clubhouse and the observation tower had been removed from their plans in response to neighbor discussion held in the neighborhood meetings. These modifications were not made to the site plan application that had been approved by staff. To account for the applicant's intended changes, staff recommended that the Planning and Zoning Commission include in their recommended conditions of approval the removal of both the rooftop deck and the observation deck. The applicants have provided a revised site plan with the observation tower removed as well as revised building elevations and floor plans for the Clubhouse. These amended files have been attached to this report in addition to the original files.

The Planning and Zoning Commission also included a recommendation to prohibit fractional sales of units to be consistent with discussions the applicant had with the neighbors. Staff modified the draft Zoning Ordinance to include the following condition: "Should the development result in condominiums, a restriction prohibiting the fractional sale of units shall be placed in the codes, covenants, and restrictions and recorded prior to or concurrent with recordation of the final plat."

Attachments

Staff Report
Ord. 2025-17
Draft Development Agreement
Application
Area Context Map
Legal Notice
Project Narrative and Regional Plan Analysis
WSIA
Preliminary Drainage Report
Traffic Impact Statement
Citizen Participation Plan, Record of Proceedings, Emails from Public
Approved Site Plan & NRPP
Amended Site Plan
Landscape Plan
Floor Plans and Elevations
Amended Clubhouse Floor Plans and Elevations
Presentation

PLANNING AND DEVELOPMENT SERVICES REPORT
DIRECT TO ORDINANCE ZONING MAP AMENDMENT

PUBLIC HEARING
PZ-22-00109-04

DATE: **July 3, 2025**
MEETING DATE: **July 23, 2025**
REPORT BY: **Ben Mejia**

REQUEST:
Direct to Ordinance Zoning Map Amendment requested by ViewPoint Engineering on behalf of Red Oak Development Group to rezone approximately 13.82 acres located at 2951 S Masonic Lane from the Rural Residential (RR) zone within the Resource Protection Overlay Zone (RPO) and Suburban Commercial (SC) zone within the RPO to the Medium Density Residential (MR) zone within the RPO.

STAFF RECOMMENDATION:
Staff believes that the proposed Zoning Map amendment is in substantial conformance with the required findings and recommends the Planning & Zoning Commission forward the request to the City Council with a recommendation for approval, subject to the following conditions:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 9, 2024. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. All other requirements of the Zoning Code and other City codes, ordinances, and regulations, shall be met by the proposed development.
3. All terms, conditions, and restrictions detailed within the "Pinehaven Development Agreement" must be fully satisfied.
4. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classification of Rural Residential (RR) and Suburban Commercial (SC) in accordance with A.R.S. § 9-462.01.

PRESENT LAND USE:
The subject property ("Property") is approximately a 13.82-acre vacant parcel. S Masonic Lane bisects the site in the form of an access easement providing connection from the Pinnacle Pines subdivision to E Zuni Drive.

PROPOSED LAND USE:
The applicant proposes to develop the site with an 83-unit multiple-family development with associated parking, landscaping, and amenities.

NEIGHBORHOOD DEVELOPMENT:
See the attached area context map.

North: Vacant parcel, zoned Public Facility (PF) and Suburban Commercial (SC)
East: College/University, zoned PF
South: Single-family home subdivision, zoned MR; Vacant parcel, zoned High-Density Residential (HR)
West: Vacant parcel, zoned PF

I. Project Introduction

A. Background/Introduction

The request was filed by ViewPoint Engineering on behalf of Red Oak Development Group for a Direct to Ordinance Zoning Map Amendment. The proposal would rezone approximately 13.82 acres located at 2951 S Masonic Lane from the RR zone within the RPO and SC zone within the RPO to the MR zone within the RPO.

The subject property is vacant land located along E Zuni Drive and S Lone Tree Road and is bisected by S Masonic Lane, which serves as access to the Pinnacle Pines subdivisions. The applicant proposes an 83 unit multiple-family development consisting of townhome-style buildings which cluster units in 20 groups of 4 and 5. The development proposes a financial contribution to the City's Affordable Housing Fund totaling $1,802,413.83. This contribution is in lieu of constructing 10 Category 1 affordable units at 12% of the total unit count in order to utilize the affordable housing incentives for a reduction to resource protection. The project plans to be developed in two construction phases; Phase 1 consists of all development to the west of S Masonic Lane and Phase 2 consists of all development east of Masonic Lane. Phase 1 will construct 40 units and public improvements along E Zuni Drive. The entirety of the trail proposed for civic space will be constructed at part of Phase 1. Phase 2 will construct the remaining 43 units to the east of Masonic Lane and public improvements along S Lone Tree Road.

An applicant requesting an amendment to the Zoning map may elect to pursue either a "Direct to Ordinance with a Site Plan" or "Authorization to Rezone with a Concept Zoning Plan" per Section 10-20.50.040.D of the Zoning Code. The Direct to Ordinance with a Site Plan process requires the applicant to submit fully developed site plans with all supporting information required for site plan review concurrently with the Zoning Map amendment application. Once the Zoning Map amendment is approved by the Council, the applicant can proceed directly to construction plans and building permit review.

B. Proposed Rezoning and Development Plan

The applicant requests rezoning approval to permit the construction of a multiple-family development consisting of 83 units. Upon rezoning approval, the applicant intends to subdivide the units as condominiums. The site layout includes 20 townhome-style structures in clusters of 4 and 5 units and a resident clubhouse. The following unit composition is proposed:

Unit Type	Unit Count	Composition
Two Bedroom	9	11%
Three Bedroom	72	87%
Four Bedroom	2	2%

The MR Zone allows a density range of 6-9 units/acre in the RPO outside of an activity center. The Regional Plan has designated the site as Suburban Neighborhood area type, which has an allowable density range of 2-13 units/acre. The gross density of this project is 6 units/acre and is within the allowable density for the MR Zone and the Suburban Neighborhood area type.

II. Staff Site Plan Review

On May 9, 2024, Inter-Division Staff (IDS) approved an application for Site Plan Review of the proposed development subject to a successful Direct to Ordinance Zoning Map Amendment request. A copy of the application is attached to this report. Should the rezoning be denied, the Site Plan, as submitted, will no longer be approved.

A. Zoning – City of Flagstaff Zoning Code

If this Direct to Ordinance Zoning Map Amendment request is approved, approximately 13.82 acres will be rezoned to the MR zone within the RPO. Development of the site will be conditioned to the approved site plan, the final development agreement, and the additional conditions stated above. Any substantial change to the approved site plan would require a new rezoning request and further review and approvals by the Planning and Zoning Commission and City Council. The Site Plan provided includes the overall site layout, common space and civic space areas, resource protection plan, preliminary landscaping, building floor plans, and building elevations.

i. Site Planning Standards

In accordance with Section 10-30.60.030 of the Zoning Code a site analysis was completed in conjunction with the concept plan for this project that examines the topography of the site, solar orientation, existing/native vegetation types, view corridors, climate, subsurface conditions, drainage swales and stream corridor, and the built environment and land use context. The proposal includes townhome-style units in groups of Four and five side-by-side units located along a central drive aisle running east-west through the site. The proposal utilizes a common space amenity area surrounding the site which serves as a buffer to E Zuni Drive, S Lone Tree Road, and the neighboring subdivision to the south. The common area includes a walking trail for public use, which meets the civic space requirement at the time of site plan review.

ii. Resource Protection

The subject site is within the RPO. The Zoning Code requires 50% of the tree resources to be saved. This project utilizes an Affordable Housing incentive for resource protection which allows a 35% reduction to the required forest resource preservation for projects with 12% Category 1 affordable housing units. Use of this incentive reduces the required forest resource protection rate to 32.5%, the developer proposes to save 33.6% of the existing forest resources. The majority of the preserved forest resources are located along the northern and southern property lines within the common space area. This proposal meets all slope preservation requirements. This site is not within a protected floodplain.

iii. Common Space & Civic Space

The MR zone requires 15% of the gross lot area to be Common Space (Table 10-40-30.030.G). A minimum of 87,802 square feet of common space is required for the proposed residential project. The approved site plan identifies 87,981 square feet of common space. Common space is proposed to serve as a buffer around the site. Access to common space is provided by the trail network with trailheads distributed throughout the site.

At the time of review for the site plan, Section 10-30.60.090.B.1 of the Zoning Code required developments with 50 or more dwelling units to provide a minimum of 5% of the site as Civic Space. A total of 29,268 square feet of civic space is required. The site plan identifies a total of 39,450 square feet, or 6.7% of the site, toward civic space within the residential development. The civic space is proposed as a walking trail that runs through the forested common space area encompassing the development. A pinecone-inspired amenity structure provides a seating and viewing area along the trail.

iv. Pedestrian and Bicycle Circulation Systems

The approved site plan includes 5-foot-wide sidewalks along the central drive aisle. Sidewalks internal to the site are provided to the north of Drive “B” and connect to off-site sidewalks along all driveway access points from E Zuni Dr, S Masonic Ln, and S Lone Tree Road. Residents to the south of Drive B and along Drive B2 will rely on the internal drives to provide pedestrian connection to the nearest sidewalk.

Five-foot wide sidewalks and a bicycle lane will be constructed along the project's entire E Zuni frontage as part of this development's improvements to E Zuni Dr.

v. Compatibility and Architectural Design Standards

Compatibility does not mean "the same as" but rather it refers to how well a new development is sensitive to the character of existing development. The Zoning Code breaks down compatibility into three categories: Patterns of Development, Scale, and Continuity.

Patterns of Development include streetscapes, site relationships, signage, and landscape features. This project prioritizes resource protection along the rights-of-way and provides a buffer between the site and the adjacent neighborhood to the south. This resource protection buffer around the site maintains visual continuity of the forested areas surrounding the site and serves as an extension of the common space areas in Pinnacle Pines.

Scale refers to similar or harmonious proportions, overall height and width, the visual intensity of the development, and the building massing. The surrounding existing developments are primarily townhomes and a manufactured home park. The townhome-style structures are grouped in clusters of 4 and 5 units, breaking up the massing so that facades are generally 75 feet or less. The maximum height of 35 feet is comparable to the maximum height permissible in surrounding zones. The density of approximately 6 units/acre and the townhome-style buildings are compatible with the town-home development to the south of the site in Pinnacle Pines.

Continuity encompasses patterns of development and scale, but also site development, building forms, texture, materials, details, and colors. The proposal is consistent with Architectural Design Standards requirements for exterior materials and light reflectance values by using stone veneer and batten board siding with darker, low reflectance paint.

vi. Landscaping

A preliminary landscaping plan, showing all landscape areas, plant locations, plant species, and sizing was reviewed and approved with the approved site plan application. The preliminary landscaping plan meets the requirements of parking lot, street buffer, building foundation, and peripheral buffer landscaping found within Section 10-50.60 of the Zoning Code. A final landscape plan will be reviewed at the time of civil plan submittal.

vii. Outdoor Lighting

The subject property is located within Lighting Zone II and is allowed a total of 30,000 lumens per acre. Outdoor lighting plans are not required in conjunction with a Direct to Ordinance Zoning Map Amendment and will be reviewed for compliance at the time of building permit submittal.

viii. Parking

Based on the requirements for market rate units and guest parking, 188 spaces are required. This project provides 189 parking spaces including three ADA accessible parking spaces throughout the site. Two ADA parking spaces are provided in the driveway for both accessible units. Parking spaces for each unit are provided within one-car garages and driveways. Garages are not included for the accessible units; two driveway parking spaces are provided for the accessible units. There are 25 surface parking spaces dispersed throughout the site for guest use. While the project is eligible for parking reductions for proximity to proposed bus stops and affordable housing, this project meets the base parking requirements without any reductions.

ix. Historic/Cultural Resources

The Historic Preservation Officer reviewed this project and made no comments or conditions.

B. Public Systems Impact Analysis

i. Traffic/Right-of-Way Impact

The specific objectives of the Traffic Impact Analysis are:

- To determine whether the planned street system in the vicinity of the site is adequate to accommodate the increased traffic that results from the proposed development;
- To recommend additional street improvements or traffic control devices, where necessary, to mitigate the additional site-generated traffic; and,
- To evaluate the internal site circulation and provide recommendations if necessary.

The scope of a Traffic Impact Analysis is generally determined by the estimated peak hour trips generated by a development, per the Engineering Standards. The study of this site was based on the original proposal of 87 residential units and estimated peak hour trips of 48 vehicles/hour in the a.m. and 56 vehicles/hour in the p.m. According to the Standards, a Traffic Impact Statement (TIS) was sufficient. ViewPoint Engineering, the engineering consultant for the developer, completed the TIS in December of 2022.

Transportation Improvements

The project includes improvements to E Zuni Drive to meet City standards, the street section along the project frontage. Improvements along E Zuni Drive will include the following:

- A bicycle lane along the full frontage of E Zuni;
- Construction of curb and gutter along the full frontage of E Zuni;
- Construction of parkway along the full frontage of E Zuni, with the exception of approximately 150-ft to the east of Driveway A and between S Masonic Lane and S Lone Tree Road to protect existing slope resources;
- Construction of a five (5) foot wide concrete sidewalk along the full frontage of E Zuni;

Improvements along S Lone Tree Road will include the following:

- A right-turn lane into the project site;
- Construction of a five (5) foot wide parkway;
- Construction of a six (6) foot wide concrete sidewalk;

The project site is serviced by transit and proposes two bus stops along E Zuni Drive. The exact location of the bus stops will be coordinated with Mountain Line and finalized as part of the civil plans. Pedestrian access to the subject property is served by existing and proposed sidewalk along both rights-of-way.

ii. Water and Wastewater Impact

A Water and Sewer Impact Analysis (WSIA) was completed by the City on March 10, 2023 based on the original proposed count of 87 units. The proposed development is located within the City of Flagstaff urban growth boundary and is served by City water and sewer utilities. All public utilities are proposed within a 26-foot Public Utility Easement in the driveway on both sides of Masonic Lane.

Water

Currently, public water infrastructure exists across the property and in the adjacent roadways. There is a 12" water main in S Lone Tree Road, a 12" PVC water main in Zuni Drive and an 8" PVC water main in Masonic Lane. This main falls within the City of Flagstaff Pressure Zone 'B' and meets the minimum pressure requirements stated in the City of Flagstaff Engineering Standards.

New 8" water mains will be extended and looped on both sides of Masonic Lane in the PUE to provide water service to each unit. The water mains will have two fire hydrants and individual meters for each of the units.

Wastewater
The site is bordered by two existing sewer lines and a sewer line crossing the site in Masonic Lane. To the north of the project in Zuni Drive is a 21" VC sewer interceptor. An 8" sewer in Masonic Dr and a 10" PVC sewer in Lone Tree flow to this main. New 8" sewer mains will extend on both sides of Masonic Lane inside the PUE to provide sewer collection to each unit.

iii. Stormwater Analysis

The on-site stormwater system consists of a detention basin located central to the site along E Zuni Drive. As part of the rezoning request, a Drainage Impact Analysis was performed. The impact analysis studied the existing and proposed conditions. Results of the impact analysis show the proposed stormwater system has the capacity to mitigate and improve upon pre-development conditions based on analysis of 2-year, 10-year, and 100-year storm events.

III. Zoning Map Amendment Findings

An application for a Direct to Ordinance Zoning Map Amendment shall be submitted to the Planning Director and shall be reviewed and a recommendation prepared. The Planning Director's recommendation shall be transmitted to the Planning and Zoning Commission in the form of a staff report prior to a scheduled public hearing. The recommendation shall include: an evaluation of the consistency and conformance of the proposed amendment with the goals and policies of the General Plan and any applicable specific plans; the grounds for the recommendation based on the standards and purposes of the zones set forth in Section 10-40.20 (Establishment of Zones) of the Zoning Code; and whether the amendment should be granted, granted with conditions to mitigate anticipated impacts caused by the proposed development, or denied.

Zoning Map Amendments shall be evaluated based on the following findings:

A. Finding #1:

The proposed amendment must be found to be consistent with and in conformance with the goals and policies of the General Plan and any applicable specific plans. If the application is not consistent with the General Plan, and any other applicable specific plan, the applicable plan must be amended in compliance with the procedures established in Chapter 11-10 of the City Code (Title 11: General Plans and Subdivisions) prior to considering the proposed amendment.

i. General Plan/Flagstaff Regional Plan (FRP 2030) Process and Analysis Summary

When staff performs a Regional Plan (the "Plan") analysis, staff reviews all maps, text, and goals and policies to determine which are the most relevant in relation to the proposed application. The Plan's Future Growth Illustration on Maps 21 and 22 (same map; one is regional scale, and one is city scale) and the text of the Plan provide supplemental information for the interpretation of goals and policies. In the case of any conflict between the Future Growth Illustration and the Plan's goals and policies, the goals and policies will prevail. The Future Growth Illustration has two types of land use designations: "Area Types" describe the place-making context of Urban, Suburban, Rural, or Employment, and "Place Types" such as activity centers, corridors, and neighborhoods provide the framework for the density, intensities, and mix of uses within the area types.

The subject property is designated as Existing Suburban Neighborhood area-type. Suburban Neighborhood Characteristics include a density of 2-13 units per acre, low-rise apartments (generally accepted as three-story maximum), and open spaces used for passive recreation. The proposed development is consistent with density range supported by the Regional Plan area/place type and uses 3-story structures with typical heights of approximately 35 feet to achieve a low-rise development style.

ii. Applicable General Plan Goals and Policies

As part of its review, staff identified relevant Regional Plan Goals and Policies that could be applied to support or not support the proposed Zoning Map Amendment. The relevant goals and policies can be found below and within the developer's comprehensive plan analysis. The following is a discussion of how the project generally meets or conflicts with goals and policies in each relevant chapter.

a. Environmental Planning & Conservation (Air Quality, Climate Change and Adaptation, Dark Skies, Ecosystem Health, Environmentally Sensitive Lands, Natural Quiet, Soils, and Wildlife)

The Regional Plan encourages development to work with the existing landforms. Developments should step down sloped sites and preserve as much natural topography as possible. Policy E&C.9.2 states that construction projects employ strategies to minimize disturbed areas, soil compaction, soil erosion and destruction of vegetation. Policy CC.1.1 identifies the goal of preserving the natural character of the region through planning and design to maintain views of significant landmarks, sloping landforms, rock outcroppings, water courses, floodplains, and meadows, and conserve stands of ponderosa pine.

The site has considerable forest and slope resources which makes adherence to the resource protection standards challenging. This project utilizes an affordable housing incentive for a 35% reduction in the preservation rate of forest resources, bringing the required forest preservation from 50% to 32.5%. This development meets the reduced preservation requirement at a preservation rate of 33.6%. By focusing development along a central east-west axis through the site, the project minimizes disturbance to slope resources and concentrates forest resource protection along the periphery of the site to provide continuity to surrounding forest areas.

By incorporating walking trails through its forest preservation areas, this project meets Policy E&C.10.5. "Support the development of watchable wildlife recreation opportunities." This trail network will be available for public use for the enjoyment of the natural environment and resident wildlife.

b. Open Space

The project uses resource protection areas along the borders of the property to serve as buffer areas to neighboring uses, maintain continuity of the forest, and provide publicly available civic space to enjoy the natural environment. The design of this common space supports the following policies: Policy OS.1.3. "Use open spaces as natural environment buffer zones to protect scenic views and cultural resources, separate disparate uses, and separate private development from public lands, scenic byways, and wildlife habitats." Policy OS.1.4. "Use open space as opportunities for non-motorized connectivity, to interact with nature, and to enjoy the views and quiet."

c. Water Resources (Water Sources, Water Demand, Stormwater and Watershed Management, and Water Quality)

As shown on Map 21 and referenced in Policy WR.4.3. "Development requiring public utility services will be located within the Urban Growth Boundary," the Property is located within the Urban Growth Boundary and served by existing infrastructure.

The Drainage Impact Analysis studied the pre- and post-development conditions of stormwater flows and proposes an improvement to the impacts downstream of this site, meeting Policy WR.5.3. "Identify downstream impacts as the result of development and provide for mitigation measures to address impacts. When possible, mitigations should be non-structural in nature." The proposed development complies with the findings of the Drainage Impact Analysis discussed in the Public Systems Impact Analysis section of this report.

d. Efficient Use of Energy Goals and Policies

This project is fully electric and therefore meets Regional Plan Policy E.2.1. “Promote renewable energy sources that reduce demand upon fossil fuels and other forms of generation that produce waste.” Additionally, this project provides electric hookup locations in garages for each unit and two public-access charging stations on-site to promote the use of electric vehicles per Policy E.1.13. “Promote and encourage the use of fuel-efficient vehicles that use renewable fuels.”

The Regional Plan Policy E.1.5 promotes the expansion of energy-efficient modes of transportation. The improvements to E Zuni Drive as part of this project include the construction of a new sidewalk and a bike lane along the project frontage where there currently is none. This will encourage the use of non-motorized transportation along E Zuni Drive creating safe separation between these modes of transportation and vehicles on the road.

The project includes a bike share program for residents to rent bicycles at no cost. The number of bikes and whether they will be e-bikes or not will be determined by the applicant and coordinated with the City’s Sustainability office for compliance.

The project includes two new bus stops which provide new opportunities for the use of public transportation. The developer encourages the use of public transportation by offering bus pass reimbursement for homeowners to purchase two adult bus passes for the first year of ownership and promoting Mountain Line's EcoPass for Educators program.

e. Community Character (Scenic Resources and Natural Setting, Heritage Preservation, Community Design, and Arts, Sciences and Education)

This project proposes buildings designed at a scale comparable to the existing neighborhood of Pinnacle Pines to the south of the project site, with maximum heights of 35 feet and wall plane lengths generally not exceeding 75 feet. The project is designed to blend with the existing neighborhood in conformance with Policy CC.3.2. “Maintain and enhance existing buildings and blend well-designed new buildings into existing neighborhoods.”

The project incorporates an accessory structure with a sculptural design inspired by the shape of a pinecone to serve as a rest and amenity area along the publicly accessible walking trail. By blending a functional space with artistic design, the project promotes Policy CC.5.3. “Encourage the integration of art into public and private development projects.”

To the north of this site is a parcel of land owned by the Arizona Board of Regents which is currently under review for the Kinsey Elementary School relocation. To the east of this site is the Coconino Community College. This project proposes the development of new sidewalk along the full frontage of E Zuni Drive and improvements to the existing sidewalk along S Lone Tree Road. Policy CC.5.4. requires that “Complete sidewalks and Flagstaff Urban Trails System connections for all schools, community colleges, and university campuses.” The construction of these sidewalk improvements will provide safer pedestrian connections to the adjacent schools in general conformance with this policy.

f. Growth Areas & Land Use (Reinvestment, Greenfield, Urban Area, Suburban Area, Rural Area, Employment Area, Special Planning Area, and Activity Centers)

The proposed development is on a vacant parcel within the urban growth boundary and adjacent to existing neighborhoods. The development of the infill parcel includes the required civic space, common

space, and pedestrian amenities, including public improvement along the street frontage. The requested rezoning promotes a more seamless transition between surrounding development, in conformance with Policy LU.3.4 "Promote transitions between urban, suburban, and rural areas with an appropriate change in development intensity, connectivity, and open space."

This request supports infill development within the urban growth boundary in support of Policy LU.5.1. "Encourage development patterns within the designated growth boundaries to sustain efficient infrastructure projects and maintenance." The proposal also supports Policy LU.5.2. "Promote infill development over peripheral expansion to conserve environmental resources, spur economic investments, and reduce the cost of providing infrastructure and services".

E Zuni Drive does not currently have sidewalks or a bike lane along its entire length. This project includes the development of a new sidewalk and bike lane along E Zuni Drive and improved sidewalk along S Lone Tree Road, in conformance with Policy LU.13.1. "Prioritize connectivity for walking, biking, and driving within and between surrounding neighborhoods." The Bow and Arrow Trail runs along the northern edge of E Zuni Drive, providing some pedestrian connectivity in place of a sidewalk, however this trail is unpaved and cannot serve as an accessible substitute for sidewalk. The project's public improvements will shorten the gap between the neighboring properties to the west and the closest pedestrian/bicycle infrastructure on S Lone Tree Road.

g. Transportation (Mobility and Access, Safe and Efficient Multimodal Transportation, Environmental Considerations, Quality Design, Pedestrian Infrastructure, Bicycle Infrastructure, Transit, Automobile, Passenger Rail and Rail Freight, Air Travel, and Public Support for Transportation)

Policy T.1.6. promotes strategies that support alternate modes of travel. Policy T.2.1. promotes the design of infrastructure to provide safe and efficient transportation for vehicles, bicycles, and pedestrians. The proposed improvements to E Zuni Drive provide separation between competing modes of transportation and increase safety and potential use.

h. Neighborhoods, Housing, and Urban Conservation

This project includes a $1,802,413.83 contribution to the Affordable Housing Fund for the City to support affordable housing projects and incentives. This financial contribution provides the City with resources to give assistance throughout the City and supports the following policies:
Policy NH.3.5. "Encourage and incentivize affordable housing"
Policy NH.5.1. "Provide adequate resources for families with children experiencing homelessness"
Policy NH.5.2. "Provide adequate resources for individuals experiencing homelessness"

B. <u>Finding #2</u>

To meet the finding, the proposed amendment must be determined not to be detrimental to the public interest, health, safety, convenience, or welfare of the City of Flagstaff (the "City"); and will add to the public good as described in the General Plan. Staff does not believe that the proposed project will be detrimental to the public interest, health, safety, convenience, or welfare. Staff believes that the proposed amendment will add to the public good.

The developer has identified the following Community Benefits and Public Good:

i. The developer will provide improvements along E Zuni Drive and S Lone Tree Road, including new or improved sidewalk, parkway, and a bike lane.
ii. The developer will provide two bus stops serving both directions along E Zuni Drive.
iii. The developer will contribute to the City of Flagstaff Affordable Housing fund commensurate with 10 Category 1 affordable units or 12% total number of units at a total contribution of $1,802,413.83.

C. Finding #3

To meet the finding the affected site must be determined to be physically suitable in terms of design, location, shape, size, operating characteristics; and the provision of public and emergency vehicle access, public services, and utilities to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Staff believes that the proposed application meets this finding. The Inter-Division Staff reviewed the application and concluded that the site was suitable for the proposed development. The IDS team based its conclusion on the review of all applicable codes and requirements as well as impact analysis for the site. Any potential impacts were mitigated by the developer and off-site improvements will be required to serve this development.

II. DEVELOPMENT AGREEMENT

A draft development agreement has been prepared. The primary purpose of this agreement is to set out roles and responsibilities in regard to the following (not limited to):

- Developer obligations for public improvements to rights-of-way
- Development Phasing
- Commitments to sustainability initiatives
- Restrictions on short-term rentals, no leases under 30 days
- Administration of the Affordable Housing Fund contribution payments

III. CITIZEN PARTICIPATION

Public hearings before the Planning and Zoning Commission and City Council are conducted in conjunction with requests for Direct to Ordinance Zoning Map Amendments. In accordance with State Statute, notice of the public hearing was provided by placing an ad in the Daily Sun, posting notices on the property, and mailing a notice to all property owners within 300 feet of the site excluding rights-of-way.

The developer held two neighborhood meetings in regard to this case on October 17, 2024 and November 21, 2024. Both meetings were held with in-person and virtual options for attendance. Per the meeting sign-in, approximately 17 individuals attended the first meeting, and 10 individuals attended the second meeting. Citizen Participation summaries, attached, were prepared in response to the questions, comments and concerns presented. The meetings included a presentation from the developer and a question-and-answer session where questions could be asked or typed into the chat. Comments on the project included the following topics: increase in density of the area, impacts to traffic, impacts to dark skies and natural environment, increased noise, the project's proposal to use a fractional ownership model, and timing for the project.

Ten emails from the public have been received as of the writing of this report and have been included with this agenda item. All correspondence either voiced opposition or concerns with the project such as traffic, concerns about parking, impacts to the natural environment, and concerns about fractional ownership or short-term rentals.

In response to neighbor participation, the applicants removed fractional ownership from their proposal. The applicant has included in their development agreement a restriction that prohibits leases under 30 days. Nothing in the development agreement precludes fractional ownership in the future.

RECOMMENDATION:

Staff recommends the Planning & Zoning Commission forward the request to the City Council with a recommendation approving PZ-22-00109-04, subject to the following conditions which will be included into the zoning map amendment ordinance:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 9, 2024. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. All other requirements of the Zoning Code and other City codes, ordinances and regulations, shall be met by the proposed development.
3. All terms, conditions, and restrictions detailed within the "Pinehaven Development Agreement" must be fully satisfied.
4. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classification of Rural Residential (RR) and Suburban Commercial (SC) in accordance with A.R.S. § 9-462.01.

Attachments:

- Application
- Area Context Map
- Legal Notice
- Project Narrative and Regional Plan Analysis
- WSIA
- Drainage Impact Analysis
- Traffic Impact Statement
- Citizen Participation Plan, Record of Proceedings, Emails from the Public
- Approved Site Plan Drawings and Natural Resource Protection Plan
- Landscape Plan
- Building Floor Plans and Elevations

ORDINANCE NO. 2025-17

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF ZONING MAP TO REZONE APPROXIMATELY 13.82 ACRES OF REAL PROPERTY GENERALLY LOCATED AT 2951 S MASONIC LANE, APN 103-26-002D, FROM THE RURAL RESIDENTIAL (RR) ZONE IN THE RESOURCE PROTECTION OVERLAY AND SUBURBAN COMMERCIAL (SC) ZONE IN THE RESOURCE PROTECTION OVERLAY TO THE MEDIUM DENSITY RESIDENTIAL (MR) ZONE IN THE RESOURCE PROTECTION OVERLAY WITH CONDITIONS; PROVIDING FOR SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, Red Oak Development Group ("the Applicant"), has applied for a Direct to Ordinance Zoning Map Amendment to rezone approximately 13.82 acres of real property located within the City of Flagstaff, a legal description of which is provided in "**Exhibit A**" attached hereto and incorporated by this reference ("the Property"), from the Rural Residential (RR) zone in the Resource Protection Overlay (RPO) and Suburban Commercial (SC) zone in the RPO to the Medium Density Residential (MR) zone in the RPO for purposes of developing a multi-family residential development with 83 proposed dwelling units; and

WHEREAS, the Applicant proposes to develop the Property pursuant to the terms and conditions of this Ordinance and a Development Agreement between Applicant and the City ("Agreement"), which will be presented to the City Council through a proposed resolution at the second reading of this Ordinance; and

WHEREAS, the Applicant conducted neighborhood meetings on October 17, 2024 and November 21, 2024 to discuss the proposed Zoning Map Amendment with the surrounding community, as required by Section 10-20.50.040 of the Flagstaff Zoning Code; and

WHEREAS, the Planning and Zoning Commission has formally considered the proposed Direct to Ordinance Zoning Map Amendment application, following proper notice and a hearing on July 23, 2025, and has recommended approval of the requested Zoning Map Amendment application, subject to the Applicant's compliance with certain conditions set forth below; and

WHEREAS, the Council finds that the applicant has complied with all application requirements set forth in Chapter 10-20 of the Flagstaff Zoning Code; and

WHEREAS, staff have recommended approval of the Direct to Ordinance Zoning Map Amendment application, subject to the conditions proposed by the Planning and Zoning Commission, and the Council has considered each of the conditions and has found each condition to be appropriate for the Property and necessary for the proposed development; and

WHEREAS, the Council has read and considered the staff reports prepared by the current Planning Division staff and all attachments to those reports, the Applicant's application, the narrative provided by the Applicant, and all statements made by the Applicant and its representatives or agents during the presentation to Council, and the Council finds that the

proposed Direct to Ordinance Zoning Map Amendment, subject to the conditions set forth below, meets the findings required by Section 10-20.50.040(F)(1)(a) of the Flagstaff Zoning Code.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. The foregoing recitals are incorporated as if fully set forth herein.

SECTION 2. The amendment requested in the application is consistent with and conforms to the goals of the Regional Plan.

SECTION 3. The amendment requested in the application will not be detrimental to the public interest, health, safety, convenience, or welfare of the City, and will add to the public good as described in the General Plan.

SECTION 4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle access and public services and utilities to ensure that the amendment requested in the application will not endanger, jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

SECTION 5. The Zoning Map designation for the Property is hereby amended from Rural Residential (RR) zone in the Resource Protection Overlay (RPO) and Suburban Commercial (SC) zone in the RPO to the Medium Density Residential (MR) zone in the RPO as set forth in “Exhibit A”, attached hereto and incorporated by reference.

SECTION 6. That the Zoning Map Amendment be conditioned on compliance with the Development Agreement between the City of Flagstaff and the Applicant, approved by the City Council through Resolution No. 2025-43 on September 2, 2025 (the “Pinehaven Development Agreement”) and should that Development Agreement not be approved and executed this Ordinance becomes null and void.

SECTION 7. The Zoning Map Amendment is further conditioned upon the Applicant’s satisfaction of the following conditions:

CONDITIONS:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 9, 2024. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. The site plan shall be revised to remove the rooftop deck from the amenity building.
3. The site plan shall be revised to remove the observation deck.
4. Should the development result in condominiums, a restriction prohibiting the fractional sale of units shall be placed in the codes, covenants, and restrictions and recorded prior to or concurrent with recordation of the final plat.
5. All other requirements of the Zoning Code and other City codes, ordinances, and regulations, shall be met by the proposed development.

6. All terms, conditions, and restrictions detailed within the “Pinehaven Development Agreement” must be fully satisfied.
7. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classification of Rural Residential (RR) and Suburban Commercial (SC) in accordance with A.R.S. § 9-462.01.

SECTION 8. That City staff is hereby authorized to take such other and further measures and actions as are necessary and appropriate to carry out the terms, provisions, and intents of this Ordinance.

SECTION 9. If any section, subsection, sentence, clause, phrase, or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 10. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 16th day of September, 2025.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

Exhibits:
Exhibit A: Legal Description

When recorded, mail to:
City Clerk
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

DEVELOPMENT AGREEMENT
BETWEEN
CITY OF FLAGSTAFF
AND
RODG DT PINE HAVEN HORIZONTAL LLC
FOR PINEHAVEN

THIS DEVELOPMENT AGREEMENT ("Agreement") is entered into this _____ day of _____, 2025, by and between the City of Flagstaff, an Arizona municipal corporation ("City"), and RODG DT PINE HAVEN HORIZONTAL LLC, authorized to do business in the State of Arizona ("Developer"). City and Developer may be referred to in this Agreement as "Party" in the singular, and collectively as the "Parties."

RECITALS

I. A.R.S. § 9-500.05 authorizes the City to enter into development agreements with landowners and persons having an interest in real property in order to facilitate development of property.

II. Developer owns an approximately 13.44 gross acre parcel of land generally located at the southwest corner of E Zuni Drive and S Lone Tree Road, depicted and legally described in Exhibit "A" attached hereto (collectively the "Property").

III. Developer intends to develop the Property for use as a medium-density multi-family residential community (the "Project"). The Property is currently dual zoned Rural Residential (RR) and Suburban Commercial (SC) with Resource Protection Overlay (RPO) zone. The Developer is requesting to rezone to Medium Density Residential; Resource Protection Overlay (MR RPO) zone in Direct to Ordinance Zoning Map Amendment No. PZ-22-00109-04.

IV. The Parties desire to enter into this Agreement in order, among other things, to facilitate development of the Property as depicted in the preliminary plan for the Project (the "Site Plan"), a copy of which is attached as Exhibit "B", and as set forth in this Agreement and in the Project Narrative, a copy of which is attached as Exhibit "C", and as conditioned by Ordinance 202X-XX.

V. This Agreement and the Project, described and conditioned as set forth in this Agreement, are consistent with the Flagstaff Regional Plan 2030 in effect on the Effective Date of this Agreement, as set forth below.

VI. The Developer desires to comply with the strategies and goals of the City of Flagstaff Carbon Neutrality Plan.

VII. The Developer intends to assist the City's "Housing Crisis Emergency Declaration" (Resolution No. 2020-66) by contribution to the City's Affordable Housing Fund.

VIII. The City has an interest in ensuring that the development of the Property complies with City standards for development and engineering improvements, and the City believes that development of the Property pursuant to this Agreement will result in planning, safety, and other benefits to the City and its residents.

IX. The Developer acknowledges that development of the Property pursuant to this Agreement will be beneficial and advantageous to the Developer because it provides assurances to the Developer that it will have the ability to develop the Property in accordance with the Concept Plan as set forth herein.

X. The City and Developer acknowledge that this Agreement is a development agreement pursuant to the provision of A.R.S. § 9-500.05.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises and agreements set forth herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and in order to fulfill the foregoing objectives, the Parties agree as follows:

1. INCORPORATION OF RECITALS

Each of the recitals, including the attached Exhibits, set forth above, is incorporated into this Agreement as fully set forth herein.

2. DEFINITIONS

"Certificate of Occupancy" shall mean a document issued by an authorized City official setting forth that a building or structure legally complies with the City's building codes, the Flagstaff Zoning Code, and other pertinent state and local requirements, and that the same may be used for the purpose(s) therein.

"City" shall mean and refer to the City of Flagstaff, an Arizona municipal corporation, and any successor public body or entity.

"Developer" shall mean and refer to RODG DT Pine Haven Horizontal LLC, a Limited Liability Company (LLC), and any successor-in-interest or assignee of RODG DT Pine Haven Horizontal LLC, as contemplated pursuant to Section 8.14.

"Project" shall mean and refer to the development of the Property for the uses, intensities, and densities currently shown and described in Site Plan Application No. PZ-22-00109-02 and the Site Plan attached hereto as Exhibit "B" and further described in the Project Narrative attached hereto as Exhibit "C", this Agreement, and Ordinance 202X-XX.

3. ENTITLEMENTS

3.1. Zoning Map Amendment

Developer hereby agrees to be subject to all the terms, conditions, and stipulations of the rezoning ordinance for PZ-22-00109-04 (City Ordinance No. 202X-XX) and Site Plan (PZ-22-00109-02), including any approved development standard, engineering, or other modification(s) (collectively, the "Entitlements"). In addition to the provisions for reversion set forth in Ordinance No. 202X-XX and the Flagstaff City Code, the Developer's failure to obtain Certificate of Occupancy for the entirety of the Project within five (5) years of the effective date of the rezoning ordinance shall entitle the City, in its sole discretion, to conduct a public hearing for the purpose of reverting the Medium Density Residential zoning on the Property to its former zoning classification of Rural Residential (RR) and Suburban Commercial (SC) with the Resource Protection Overlay (RPO), in accordance with Arizona Revised Statutes § 9-462.01.

3.2. Zoning

Developer intends to develop the Property for use as a medium-density multi-family residential community. The Property is currently dual zoned Rural Residential (RR) and Suburban Commercial (SC) with Resource Protection Overlay (RPO) zone. The Developer is requesting a Rezone to Medium Density Residential, Resource Protection Overlay (MR RPO) zone in Direct to Ordinance Zoning Map Amendment Application No. PZ-22-00109-04.

3.3. Development Standards

For a period of five (5) years from the Effective Date, development of the Property, as well as the requirements for Improvements, will be governed by the Flagstaff Zoning Code, ordinances, regulations, rules, guidelines, and standards in effect on the Effective Date. For any development application(s) made after five (5) years from the Effective Date, the codes, ordinances, regulations, rules, guidelines, and standards in effect at the time of application shall apply. Regardless of the time of development, the current City Engineering Standards, Building Code, Fire Code, and other Code provisions, regulations, rules, and guidelines shall apply to the Project.

4. DEVELOPMENT PLAN

4.1. Scope of Development

The City and the Developer hereby acknowledge that the City of Flagstaff Development Review Staff approved, subject to conditions, the Site Plan for the Project, attached hereto as Exhibit "B". The Project is further conditioned by rezoning Ordinance, the Project Narrative, attached hereto as Exhibit "C", and this Agreement. The Project consists of 83 townhome style condominium residential dwelling units.

The unit mix may change by ten percent (10%) based on Site Plan approval. Maximum building height is 35'. An additional 20% of allowable build height is allowed for unoccupied architectural features.

4.2. Open Space/Common Area

The Project shall provide approximately 5.7% (0.76 acres) civic open space and 15% (2.01 acres) common open space, consisting of walking trails throughout the site, and a clubhouse/amenity center.

4.3. Public-Civic Space

The Project shall provide approximately 0.76 acres of public-civic space designed as walking trails.

5. DEVELOPER OBLIGATIONS

5.1. Off-Site and On-Site Improvements

Developer will make all off-site and on-site improvements as shown in this development agreement and as required by the Developer's impact analyses. Developer will construct on-site and off-site improvements to the specifications outlined in City code and as shown on the approved civil plans. (Developer has submitted civil plans for review, but these plans will require corrections to conform to the City of Flagstaff Engineering Design Standards and Specifications and Details.) The specific requirements included below are not exhaustive.

5.2. Construction of General Off-Site Roadway Improvements

Developer shall be responsible for the following Off-Site Roadway Improvements as shown on the approved civil plans, including:

5.2.1. Improvements along E Zuni Drive will include the following:

5.2.1.1 Widening of the eastbound side of E Zuni Drive to provide a bicycle lane along the full frontage;

5.2.1.2 Construction of curb and gutter along the full frontage;

5.2.1.3 Construction of parkway along the full frontage, with the exception of approximately 150 feet to the east of Driveway A and between S Masonic Lane and S Lone Tree Road to protect existing slope resources;

5.2.1.4 Construction of a five (5) foot wide concrete sidewalk along the full frontage;

5.2.1.5 Adjustments of roadway striping between S Masonic Lane and S Lone Tree Road. Restriping shall reduce queuing length of the westbound left-turn onto S Masonic Lane and increase the queuing of eastbound left-turn onto S Lone Tree Road in accordance with City staff direction;

5.2.1.6 Widening and restriping between S Masonic Lane and S Lone Tree Road will be set an additional 1.5 feet south to accommodate future plans for the intersection of E Zuni Drive and S Lone Tree Road;

5.2.1.7 Construction of a physical barrier prohibiting left-turn movements out of Driveway A.

5.2.2. Improvements along S Lone Tree Road will include the following:

5.2.2.1 Project will construct a right-turn lane into the project site at the appropriate location to become the future southbound through lane;

5.2.2.2 Construction of a five (5) foot wide parkway to abut the curb along the newly constructed right-turn lane;

5.2.2.3 Construction of a six (6) foot wide concrete sidewalk to abut the parkway along the newly constructed right-turn lane;

5.2.2.4 Provide one (1) additional foot of right-of-way for the ultimate half street right-of-way of 51 feet from the centerline;

5.2.2.5 Construction of a physical barrier prohibiting left-turn movements into and out of Driveway B;

5.2.2.6 Provide restriping of the roadway along the proposed improvements to provide appropriate lane transitions to existing roadway lane dimensions.

5.3. Project Construction Phasing

The Project will be developed as a single project; however, the Project will be grouped into "Phases" so as to efficiently develop the site, minimize disturbances, and provide for an efficient construction process. To that end, the Phases will be established as follows:

5.3.1. Phase 1 will consist of the onsite project area west of S Masonic Lane and bounded by E Zuni Drive. This Phase will construct 40 condominium townhomes and a Clubhouse facility with associated utility infrastructure within the bound limits. Further, this Phase will construct Road 'A' and 'A1'; construct a

stormwater management basin with associated storm sewers tributary to the basin; and construct associated public water and sewer facilities shown therein between the connection in E Zuni Drive and the connection within S Masonic Lane. Finally, Phase 1 will construct Public Improvements along the frontage of E Zuni Drive only.

5.3.2. Phase 2 shall refer to the onsite project area east of S Masonic Lane and bounded by S Lone Tree Road as well as the proposed roadway improvements along S Lone Tree Road. This Phase will construct the remaining 43 condominium townhomes. In addition, this Phase will construct the infrastructure to support the buildings to include construction of Road 'B' and 'B1'; construct storm sewers; and construct associated public water and sewer facilities shown therein between the connection in S Masonic Lane and the connection within S Lone Tree Road. Finally, Phase 2 will construct the public improvements within S Lone Tree Road as indicated on the plans.

5.3.3. Project Permitting and approval process for the project phasing.

The project will proceed with permitting and approvals following zoning approval in accordance with the following general process. The information that follows provides for the segmentation/grouping of the project work should the developer decide to proceed with the project in two phases; however, Developer has the discretion to develop the project in a single phase. The Developer acknowledges the necessary permits and approvals have expiration dates and performance agreements have requirements for continuous progress on construction and defined performance period.

5.3.3.1 Preliminary Plat: The Developer shall provide the information for all phases of development for the Preliminary Plat submission. Information shall be provided and/or annotated in a fashion sufficient to clearly indicate the elements being provided within each phase. In addition, the Developer has agreed to provide the following within the Phase 1 designation: 1) all improvements required along East Zuni Drive and South Masonic Lane as depicted on approved civil plans; and 2) R.O.W. dedications required for both East Zuni Drive and Lone Tree Road.

5.3.3.2 Phase 1 Civil Plan Review: Developer will submit the civil plan review application and documentation for the phase 1 area only. Phase 2 information may be provided for reference, but City Staff will not formally review any components not related to phase 1 infrastructure. In conjunction with the Phase 1 Civil Plan Review, the Developer will submit ADEQ water and sewer permit applications for the Phase 1 development area.

5.3.3.3 Phase 1 Final Plat: The Developer will prepare the Phase 1 final plat. Included within the plat will be the necessary easements and

dedications related to the improvements approved on the phase 1 Civil review plans, the right-of-way on Lone Tree Road for Phase 2, as well as the platting information relevant to the airspace of the Phase 1 condominium units.

Phase 1 Permits & Assurances: The Developer will provide a form of assurance and a performance agreement for all public improvements indicated on the Phase 1 Civil Plans prior to recordation of the plat.

5.3.3.4 The developer may consider utilizing a third-party trust for on-site public improvements, but no condo sales (excluding pre-sales) can happen until all public improvements have been completed and accepted by the City or an acceptable substitute assurance is accepted by the City. Certificate of Occupancy for any unit may not occur prior to the completion and acceptance of all public improvements, with a one-year warranty assurance in place as required by the City Code.

5.3.3.5 Phase 2 Civil Plan Review: Developer will submit the civil plan review application and documentation for the phase 2 area only. Phase 1 information will be provided for reference as required by City of Flagstaff Engineering Standards. In conjunction with the Phase 2 Civil Plan Review, the Developer will submit ADEQ water and sewer permit applications for the Phase 2 development area.

5.3.3.6 Phase 2 Final Plat: The Developer will prepare the Phase 2 Final Plat to Include any new easements and dedications not previously provided in the Phase 1 Final plat. Additionally, the Phase 2 Final Plat will include platting information relevant to the airspace of the Phase 2 condominium units.

5.3.3.7 Phase 2 Permits & Assurances: The Developer will provide a form of assurance and a performance agreement for all public improvements indicated on the Phase 2 Civil Plans prior to recordation of the plat.

The developer may consider utilizing a third-party trust for on-site public improvements, but no condo sales (excluding pre-sales) can happen until all public improvements have been completed and accepted by the City or an acceptable substitute assurance accepted by the City. Certificate of Occupancy for any unit may not occur prior to the completion and acceptance of all public improvements, with a one-year warranty assurance in place as required by City Code.

5.3.3.8 Phase 2 is dependent on the completion of Phase 1 infrastructure. All Phase 1 infrastructure must be completed and accepted by the City prior to the acceptance of the Phase 2 infrastructure.

5.4. Sustainability

Developer agrees to incorporate sustainable practices as set forth in this section to help implement the strategies and goals of the City of Flagstaff Carbon Neutrality Plan, including helping to reduce greenhouse gas emissions and contributing to the City's neighborhoods and resources being more resilient to climate change impacts.

5.4.1. Materials Management

Developer agrees to incorporate infrastructure to support recycling activities on-site in order to help divert waste materials from landfills.

5.4.1.1 Developer shall provide recycling receptacles within each dwelling unit and shall furnish each unit with materials provided by the City's Sustainability Division on best practices for waste diversion and reduction. Developer shall provide, as part of the certificate of occupancy request for each unit, photo documentation confirming placement of recycling receptacles and waste reduction and diversion materials in each unit.

5.4.1.2 Developer shall provide recycling dumpsters immediately next to those dedicated for trash and recycling/trash valet pick-up service. All recycling and trash dumpsters shall be properly signed with waste reduction and diversion information provided by the City's Sustainability Division. Developer shall provide photo documentation confirming proper signage on all trash and recycling dumpsters with the first certificate of occupancy request for a residential unit on the development site.

5.5. Mobility

Developer is committed to multi-modal transportation in efforts to meet the City's goals. The Developer will provide the following in support of this goal.

5.5.1. Public Transportation

5.5.1.1 Developer has coordinated with Mountain Line for future needs. Developer will construct one bus pad (24'4" x 5'9") behind sidewalk on E Zuni Drive in the eastbound direction, just east of S Masonic Lane. The Developer will construct one bus pad (24'4" x 5'9") along with approximately 150 feet of sidewalk, curb, and gutter with an ADA accessible ramp on E Zuni Drive in the westbound direction, just west of S Masonic Lane.

5.5.1.2 Bus Pass Program: The community will offer homeowners reimbursement for the purchase of two adult bus passes for the first

year of ownership. Homeowners will submit proof of purchase to the HOA for reimbursement in perpetuity.

5.5.1.3 EcoPASS for Educators: The community will offer and facilitate participation of residents in the EcoPASS for Educators program for non-student staff at Northern Arizona University. The HOA will work with NAU to facilitate direct enrollment or reimburse educators who apply independently.

5.5.2. Bicycle Transportation

5.5.2.1 Parking: The Developer shall provide no less than 12 total bicycle parking spots. Nine spaces are required for the development.

5.5.2.2 Resident Bike Share Program: Community residents will have access to a free bike share program managed through the community office. This initiative will provide scheduled bike rentals at no cost. The HOA will maintain and oversee the scheduling system, ensuring availability and fair usage for all participants. The HOA will provide the City's Sustainability Division with information needed to monitor compliance on an annual basis, including how many bikes are included in the program and whether they are e-bikes.

5.6. Smart Home Automation

Developer shall include smart home climate control (thermostat) automation features within all dwelling units. Conformance with the smart home climate control units shall be stated on the building permit application.

5.7. Electrified Units

All units within the development shall be constructed and equipped for electricity. No natural gas lines will be installed within the development and no natural gas appliances will be incorporated into the units.

5.8. Electric Vehicle Support

5.8.1. For units without garages, weather resistant hookups will be provided at the driveway space.

5.8.2. Additional Site Charging: The project will install two (2) additional public access charging stations on-site. Both stations will be outdoor weather resistant connections. One will be located in the lower parking area adjacent to the clubhouse. The second will be located in the central parking area within the phase 2 area.

5.9. Department of Energy/Environmental Protection Agency Standards

All appliances, HVAC systems, climate control devices, and related features subject to DOE EnergyStar standards shall be EnergyStar certified. All water fixtures shall be WaterSense certified, and the units shall meet EPA Indoor AirPlus requirements.

Conformance with DOE and EPA Standards shall be confirmed with building permit review and final inspection for certificate of occupancy for each unit.

5.10. Air Heating and Cooling

The primary air heating and cooling source for each unit shall be a high-performance cold climate air source heat pump (CCASHP) per the standards of the Northeast Energy Efficiency Partnerships. This means the heat pump shall be rated to operate down to -22 degrees Fahrenheit and shall meet the CCASHP efficiency and performance standards for ducted and/or ductless systems, depending on which is installed. Standards shall be confirmed with building permit review and final inspection for certificate of occupancy for each unit.

5.11. Establishment of Homeowners Association

Developer will establish a Homeowners Association (HOA) for the management and upkeep of the Property. The HOA will be empowered to manage and enforce policies as determined in documents of incorporation. These documents shall include but not be limited to the following:

5.11.1. Length of Stay: no lease or rental agreement shall be permitted for a period of less than 30 days.

5.11.2. Longer Term Rentals

Long-term rentals are defined as lease agreements with a duration of one year or longer. All prospective tenants must submit a clean background check to the HOA for approval prior to finalizing a rental agreement.

5.11.2.1 No unit shall have more than one lease. "Renting by the room" shall be prohibited.

5.11.2.2 Any direct or indirect sublease, assignment, transfer, or other obligation of a tenant shall be prohibited.

5.11.2.3 All lease or rental agreements shall include an eviction addendum. In the event a tenant violates the lease or rental agreement or eviction addendum, or if any violation of the lease or rental agreement or eviction addendum occurs within the tenant's area of control or if the tenant's family, guest, or agent violates the lease or rental agreement, such violation shall constitute a violation of the lease or rental agreement, and the lease or rental agreement may be immediately terminated by the Developer.

5.11.2.4 Developer shall provide annual training to property management for the purposes of managing, operating, and/or maintaining Project.

5.12. Multi-Housing Safety Plan

Developer agrees to consult with the City Police Department and create a safety plan to be approved by the City Police Department prior to a Certificate of Occupancy.

5.13. Permits and Building Fees

Developer agrees and understands that upon the submittal date of any application or permit, the current fees in effect at the time of submittal shall apply.

6. AFFORDABLE HOUSING

6.1. Incentives for Affordable Housing

Developer intends to use affordable housing incentives but is unable to construct the affordable units. Pursuant to Flagstaff Zoning Code Section 10-30.20.030(D), Developer agrees to provide a financial contribution in the amount of the cost of land and the cost of development for the creation of ten (10) Category 1 affordable units, as set forth in Section 6.2 below. In return, the City agrees to allow Developer to use up to three affordable housing incentives. Developer intends to use one affordable housing incentives for this development: a 35% reduction in the preservation of forest resources pursuant to Table 10-30.20.040.B. Developer remains eligible to use two additional incentive.

6.2. Calculation of Affordable Housing Contribution

Using the "Construction Cost Method", developer has identified, and the City has agreed, to the in-lieu fee set forth as follows:

Contribution Calculation - Construction Cost Method	
LAND COSTS	
Land Area (1 ac,) [1]	0.83
Avg Land Price $/ac [2]	$153,351.00 / AC
Estimated Land Cost per unit	$127,741.38
CONSTRUCTION COSTS	
Typical Home Size (SF)	1,500 SF
Avg Construction Cost per SF [3]	$179.00 / SF
Estimated Construction cost per unit	$268,500.00
CONTRIBUTION CALCULATION	
Calculated cost per unit	$396,241.38
Sale Price for Affordable Home [4]	$216,000.00
PRICE DIFFERENTIAL	**$180,241.38**
Proposed No. Lot/Unit Credit	10
TOTAL CONTRIBUTION	**$1,802,413.83**

1) Assumes a density of 14 units/ac per allowable maximum density specified for MR use on Table 10-40.30.030.C located in the Flagstaff Zoning Code.
2) Reference for AZ https://www.landsearch.com/properties/flagstaff-az

3) Reference to AZ https://www.homeblue.com/home-building/flagstaff-az-cost-to-build-a-house.htm#:~:text=The%20cost%20to%20build%20a%20house%20in%20Flagstaff%2C,cost%20to%20build%20a%20house%20in%20Flagstaff%2C%20AZ and information provided by City staff.
4) Maximum Home Prices Affordable to 80% Annual Mean Income
2025 AMI for household of 4 people = $79,900
Monthly Payment @ 30% Household Ratio = $1,998 ($79,900 * 30% / 12)
Maximum Affordable Home Price = $216,000
ref: https://www.nerdwallet.com/mortgages/mortgage-calculator/arizona

6.3. Contribution Payment Structure

The City and Developer agree that the payment of the affordable housing contribution will occur as follows:

6.3.1. Developer shall provide an initial contribution in the amount of four hundred thousand dollars ($400,000) divided across each of the first forty (40) units constructed, or ten thousand dollars ($10,000) per unit and a subsequent fee of one million four hundred two thousand four hundred thirteen dollars and eighty-three cents ($1,402,413.83), divided across each of the remaining 43 units constructed or thirty-two thousand six hundred fourteen dollars and twenty-eight cents ($32,614.28) per unit.

6.3.1.1 The per unit contribution set forth above must be paid by check(s) at the City's front counter, unless Developer is advised otherwise by the City. When Developer determines that substantial completion has been reached on a unit, Developer will contact the building inspector to initiate the Certificate of Occupancy router. Immediately following Developer's initiation of the Certificate of Occupancy router, Developer must contact the City's Housing Planning Manager to pay the contribution for the unit(s). Although the Certificate of Occupancy router typically takes 14 calendar days, the City is agreeing to accept this payment outside of a standard City process at Developer's request and, therefore, Developer is urged to communicate early with the City's Housing Planning Manager to prevent delay in the processing of the Certificate of Occupancy router for the unit(s). No temporary or final Certificate of Occupancy will be issued until the unit contribution has been paid for all units subject to the router, regardless of the status of final inspections for those units.

6.3.1.2 Nothing within this section alters any City requirement for certificate of occupancy.

7. DEFAULT; REMEDIES

7.1. Events Constituting Default

A party hereunder shall be deemed to be in default under this Agreement if such party breaches any obligation required to be performed by the respective party hereunder within any time period required for such performance and such breach or default continues for a period of thirty (30) days after written notice thereof from the party not in default hereunder; provided, however, that if the nature of the default is such that it cannot reasonably be cured within the 30-day period, no default shall be deemed to exist if the party failing to perform commences a cure within such 30-day period and thereafter diligently and expeditiously pursues such cure to completion within sixty (60) days.

7.2. Dispute Resolution

In the event that there is a dispute hereunder which the Parties cannot resolve between themselves, the Parties agree that there shall be a forty-five (45) day moratorium on litigation during which time the Parties agree to attempt to settle the dispute by nonbinding mediation before the commencement of litigation. The mediations shall be held under the commercial mediation rules of the American Arbitration Association. The mediator selected shall have at least five (5) years' experience in mediating or arbitrating disputes relating to commercial property development. The costs of any such mediation shall be divided equally between the City and the Developer or in such other fashion as the mediator may order. The results of the mediation shall be nonbinding on the Parties and any party shall be free to initiate litigation upon the conclusion of mediation.

7.3. Developer's Remedies

In the event that the City is in default under this Agreement and fails to cure any such default within the time period required therefore as set forth in Section 7.1 above, then, in that event, in addition to all other legal and equitable remedies which the Developer may have, the Developer may terminate this Agreement by written notice delivered to the City.

7.4. City's Remedies

In the event that the Developer is in default under this Agreement, and the Developer thereafter fails to cure any such default within the time period described in Section 7.1 above, then, in that event, in addition to all other legal and equitable remedies which the City may have, the City may terminate this Agreement by written notice delivered to the Developer.

7.5. Development Rights in the Event of Termination

Upon the termination of this Agreement as provided herein, the Developer shall have no rights to develop the Property pursuant to this Agreement.

7.6. No Personal Liability

No current or former member, manager, officer, director, agent, representative, official, employee, or other natural person of the City or Developer when acting within the scope of their official capacity shall be personally liable:

a) in the event of any default or breach by the City or Developer, as applicable; or
b) for any amount which may become due to the nonbreaching party or its successor or assign; or
c) pursuant to any obligation of the City or Developer, as applicable, under the terms of this Agreement.

7.7. Liability and Indemnification

Developer shall indemnify, protect, defend, and hold harmless the City, its Council members, officers, employees, and agents for, from, and against any and all claims, demands, losses, damages, liabilities, fines, charges, penalties, administrative and judicial proceedings and orders, judgments, remedial actions of any kind, including, without limitation, reasonable attorney's fees and costs of defense arising, directly or indirectly, in whole or in part, out of the performance of this Agreement by City or Developer, or nonperformance of this Agreement by the Developer.

8. GENERAL PROVISIONS

8.1. Effective Date and Term

This Agreement shall be effective (the "Effective Date") upon execution by the Parties hereto and recordation in accordance with A.R.S. § 9-500.05 (as amended). The term of this Agreement shall extend from the Effective Date of this Agreement and shall automatically terminate thirty (30) years from such date.

8.2. Notices

All notices and communications provided for herein, or given in connection herewith, shall be validly made if in writing and delivered personally or sent by registered or certified United States Postal Service mail, return receipt requested, postage prepaid to:

To City:	**To Developer:**
City Manager	RODG DT PINE HAVEN
City of Flagstaff	HORIZONTAL, LLC
211 West Aspen Avenue	2121 E 6th Street, Suite 203
Flagstaff, Arizona 86001	Austin, TX 78702

or to such other addresses as either party may from time to time designate in writing and deliver in a like manner. Any such change of address notice shall be given at least ten (10) days before the date on which the change is to become effective. Notices given by mail

shall be deemed delivered 72 hours following deposit in the United States Postal Service in the manner set forth above.

8.3. Waiver

No delay in exercising any right or remedy shall constitute a waiver thereof, and no waiver by the Parties of the breach of any provision of this Agreement shall be construed as a waiver of any preceding or succeeding breach of the same or of any other provision of this Agreement.

8.4. Headings

The descriptive headings of the paragraphs of this Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions of the Agreement.

8.5. Authority

The undersigned represent to each other that they have full power and authority to enter into this Agreement, and that all necessary actions have been taken to give full force and effect to this Agreement. The Developer represents and warrants that it is duly formed and validly existing under the laws of the State of Arizona and that it is duly qualified to do business in the State of Arizona and is in good standing under applicable state laws. The Developer and the City warrant to each other that the individuals executing this Agreement on behalf of their respective parties are authorized and empowered to bind the party on whose behalf each individual is signing. The Developer represents to the City that by entering into this Agreement, the Developer has bound the Property and all persons and entities having any legal or equitable interest therein to the terms of the Agreement.

8.6. Entire Agreement

This Agreement, including the following exhibits which are incorporated in this Agreement by reference, constitutes the entire agreement between the Parties and supersedes any prior written or oral understandings or agreements between the Parties. This provision applies only to the entirety of this Agreement; additional and separate zoning stipulations and agreements with the City may apply to the Property, and this provision has no effect on them.

Exhibit "A"	***Legal Description of Property***
Exhibit "B"	***Approved Site Plan***
Exhibit "C"	***Project Narrative***
Exhibit "D"	***Water and Sewer Impact Analysis for Pinehaven dated March 10, 2023 (the "WSIA")***

8.7. Amendment

This Agreement may be amended, in whole or in part and with respect to all or any portion of the Property, only with the mutual written consent of the Parties to this Agreement or by their successors in interest or assigns. The City shall record the amendment or cancellation in the official records of the Coconino County Recorder.

8.8. Severability

If any other provision of the Agreement is declared void or unenforceable, such provision shall be severed from this Agreement, which shall otherwise remain in full force and effect.

8.9. Governing Law

The laws of the State of Arizona shall govern the interpretation and enforcement of this Agreement. This Agreement has been made and entered into in Coconino County, Arizona, and any lawsuit to dispute or enforce any provision of this Agreement must be brought in Coconino County, Arizona.

8.10. Recordation of Agreement and Subsequent Amendment; Cancellation

The City will record this Agreement, and any amendment or cancellation of it, in the official records of the Coconino County Recorder no later than ten (10) days after the City and the Developer execute the Agreement, amendment, or cancellation, as required by A.R.S. § 9-500.05.

8.11. No Partnership; Third-Party

It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture, or other arrangement between Developer and the City. No term or provision of this Agreement is intended to, or shall, be for the benefit of any person, firm, organization, or corporation not a party hereto, and no such other person, firm, organization, or corporation shall have any right or cause of action hereunder.

8.12. Conflict of Interest

Pursuant to Arizona law, rules, and regulations, no member, official, or employee of the City shall have a personal interest, direct or indirect, in this Agreement, nor shall any such member, official, or employee participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is, directly or indirectly, interested. This Agreement is subject to the cancellation provisions of A.R.S. § 38-511.

8.13. Compliance with All Laws

Developer will comply with all applicable federal, state, and county laws, as well as with all applicable City ordinances, regulations, and policies.

8.14. Successors and Assigns; Restriction on Assignment by Developer

The provisions of this Agreement shall inure to the benefit and be binding upon any successors and assigns of the Parties hereto. Notwithstanding anything contained in the foregoing to the contrary, until completion of construction of the Project, the right of Developer to assign its rights, duties, and obligations under this Agreement shall be limited to the following:

8.14.1. Assignment made by the Developer in connection with obtaining financing and the exercise of lender remedies with respect thereto;

8.14.2. An assignment of all rights and obligations of Developer under this Agreement to a real estate developer reasonably acceptable to and approved by the City; however, if Developer or a current principal of Developer retains an ownership interest and management control in such real estate developer, then, in that event, the City's prior approval shall not be required; or

8.14.3. An assignment by Developer of its rights under this Agreement to a corporation, partnership, joint venture, limited liability company, trust, or other legal entity, which is controlled by, under common control with, or which controls Developer, or which is owned or controlled by a principal of Developer.

8.14.4. With the exception of those instances set forth in Section 8.14.1 and 8.14.3, or if the Developer retains an ownership and management interest as set forth in Section 8.14.2 above, the Developer shall not transfer or assign any part of its rights and/or obligations arising under this Agreement without the prior written approval of the City, which approval shall not be unreasonably withheld, conditioned, or delayed. After the completion of construction of the Project, Developer may assign this Agreement to any purchaser without the City's consent (provided that the City is timely notified of such assignment). Notwithstanding anything contained in the foregoing to the contrary, no assignment of this Agreement or any specific rights, obligation, or duties of Developer under this Agreement shall release Developer, its successors, or assigns, from its obligations hereunder, unless specifically agreed to by the City.

8.15. Restriction on Assignment by City

The City shall not transfer or assign all or any part of its rights and obligations under this Agreement without the prior written consent of the Developer, which consent may not be unreasonably withheld, conditioned, or delayed.

8.16. Time of the Essence

Time is of the essence in implementing the terms of this Agreement.

9. WAIVER OF CLAIM FOR DIMINUTION IN VALUE

Developer hereby waives and fully releases any and all financial loss, injury, claims, and causes of action that the Developer may have, now or in the future, for any "diminution in value" and for any "just compensation" under the Private Property Rights Protection Act,

codified in A.R.S §§ 12-1131 through 12-1138 (the "Act"), in connection with the application of the City's existing land use laws and including Ordinance Number 20XX-XX regarding the Property. This waiver constitutes a complete release of any and all claims and causes of action that may arise or may be asserted under the Act with regard to the subject Property. Developer agrees to indemnify, hold harmless, and defend City, its officers, employees, and agents, from any and all claims, causes of actions, demands, losses, and expenses, including attorney's fees and litigation costs, that may be asserted by or may result from any of the present or future owners of any interest in the Property seeking potential compensation, damages, attorney's fees, or costs under the Act that they may have, as a result of the application of the City's existing land use laws, including Ordinance Number 20XX-XX, upon the Property.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first written above.

City of Flagstaff

_____
Becky Daggett, Mayor

Attest:

_____
City Clerk

Approved as to form and authority:

_____
City Attorney

RODG DT Pine Haven Horizontal LLC, a(n) Arizona Limited Liability Company.

By:_____

Name:_____

Title:_____

STATE OF ARIZONA)
COUNTY OF _____)

On this ____ day of _____, 20_____, before me a Notary Public, personally appeared _____, known to be or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument and acknowledged that they executed the same on behalf of **RODG DT PINE HAVEN HORIZONTAL LLC**, an Arizona limited liability company, for the purposes therein contained.

_____
Notary Public

My Commission Expires: _____

City of Flagstaff — Community Development Division

211 W. Aspen Ave
Flagstaff, AZ 86001
www.flagstaff.az.gov
P: (928) 213-2618
F: (928) 213-2609

Date Received	Application for Direct to Ordinance Zoning Map Amendment	File Number

Project Name Pinehaven			
Site Address 2951 Masonic Ln, Flagstaff, AZ 86005	**Parcel Number(s)** 103-26-002-D	**Subdivision & Lot Number**	**Site Acreage** 13.82
Existing Zoning District Rural Residential	**Proposed Zoning District** Medium Density Residential	**Existing Regional Plan Area and Place Type** Suburban Residenital	
Existing Use undeveloped land	**Proposed Use** Residential Multifamily		
Property Information:	☐ Yes ☒ No Located in an existing Local/National Historic District? (Name:_____) ☐ Yes ☒ No Existing structures are over 50 years old at the time of application? ☒ Yes ☐ No Subject property is undeveloped land?		
Type of Zoning Map Amendment (Small, Medium, Large or Multi-Phase) Medium			

Property Owner(s) Thomas Staub - RedOak Development Group	**Phone** 737-717-3097
Mailing Address 2121 E 6th Street, Suite 203, Austin, TX, 78702 **City, State, Zip**	**E-mail** tom@redoakvc.com
Applicant(s) Eric Beals, ViewPoint Engineering, Director of Horizontal Design	**Phone** 737-717-3097
Mailing Address 2121 E 6th Street, Suite 203, Austin, TX, 78702 **City, State, Zip**	**E-mail** ebeals@viewpointengineering.com
Project Representative(s) Kentzie Mosley, ViewPoint Engineering, Project Engineer	**Phone** 940-655-4881
Mailing Address 2121 E 6th Street, Suite 203, Austin, TX, 78702 **City, State, Zip**	**E-mail** kmosley@viewpointengineering.com

Property Owner Signature (required)	Date	Applicant Signature	Date
Eric Beals	2/8/2024	Kentzie K Mosley P.E.	2/8/2024

For City Use

Date Filed:	**File Number(s):**	
P & Z Hearing Date:	**Publication and Posting Date:**	
Council Hearing Date:	**Publication and Posting Date:**	
Fee Receipt Number:	**Amount:**	**Date:**

Action by Planning and Zoning Commission:	Action by City Council:
☐ Approved	☐ Approved
☐ Denied	☐ Denied
☐ Continued	☐ Continued

Staff Assignments	Planning	Engineering	Fire	PW/Water Services	Stormwater


PF
SC
E ZUNI DR
MR
HR
RR
E J W POWELL BLVD

NOTICE OF PUBLIC HEARINGS & DEVELOPMENT AGREEMENT

NOTICE IS HEREBY GIVEN that the Flagstaff Planning and Zoning Commission will hold a Public Hearing on Wednesday, July 23, 2025, at 4:00 p.m. and the Flagstaff City Council will hold a Public Hearing on Tuesday, August 26, 2025, at 3:00 p.m. in City Hall Council Chambers (211 W Aspen Ave). A virtual option will be provided for these meetings. Please see the corresponding agenda for additional information on how to participate virtually. Agendas can be found on the City of Flagstaff website. The public hearing is to consider the following:

A proposed amendment to the official City of Flagstaff zoning map to rezone 13.8 acres from Rural Residential (RR) and Suburban Commercial (SC) zoning with the Resource Protection Overlay (RPO) to Medium Density Residential (MR) zoning with the Resource Protection Overlay (RPO) for the purpose of allowing a multi-family residential development with 83 units.

NOTICE IS HEREBY GIVEN that the Flagstaff City Council will consider a Development Agreement on Tuesday, September 2, 2025 at 3:00 p.m. in City Hall Council Chambers (211 W Aspen Ave). A virtual option will be provided for this meeting.

General Description of the Affected Area:
Approximately 13.8 acres located at 2951 S Masonic Lane City of Flagstaff, Coconino County Assessor's Parcel Number 103-26-002D.

The Council hearing for these items may be continued if the Planning and Zoning Commission has not given a recommendation.

Interested parties may file comments in writing regarding the proposed amendment or may appear and be heard at the hearing dates set forth above. Maps and information regarding the proposed amendment are available at the City of Flagstaff, Planning and Development Services Section, 211 West Aspen Avenue.

PROPOSED ZONING MAP AMENDMENT
From Rural Residential (RR) and Suburban Commercial (SC) to Medium Density Residential (MR) for the purpose of allowing a multi-family development with 83 proposed units

PROPOSED DEVELOPMENT AGREEMENT
Pinehaven Development Agreement intended to facilitate the development of the property



ADDRESS:	**2951 S Masonic Lane**
APN:	103-26-002D
ACRES:	Approximately 13.8 Acres
	City of Flagstaff
	Coconino County

FOR FURTHER INFORMATION, CONTACT

Ben Mejia, Senior Planner
Planning & Development Services
211 West Aspen Avenue
Flagstaff, Arizona 86001
(928) 213-2616
Ben.Mejia@flagstaffaz.gov

Publish: July 5, 2025

ViewPoint Engineering

MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com

July 3, 2024
via First Class Mail

Subject: **Notice of Public Hearings regarding**
Direct to Ordinance Zoning Map Amendment
2951 S Masonic Lane
VPE#: 22004

Dear Neighbor,

This letter is to notify you of the upcoming public hearings for a **Direct to Ordinance Zoning Map Amendment** request by the property owner, **RODG DT Pine Haven Horizontal LLC.** The site is located at **2951 S Masonic Lane**, a 13.8 acre property at the southeast corner of E Zuni Drive and S Lone Tree Road. The parcel is bisected by S Masonic Lane. The request is to rezone the parcel from the Rural Residential (RR) and Suburban Commercial (SC) Zone in the Resource Protection Overlay (RPO) to the Medium Density Residential (MR) Zone in the RPO to construct a multi-family development with 83 dwelling units as well as a clubhouse and public walking/hiking trails. Refer to the attached documents for additional site-specific information.

Any interested parties and/or authorized agents may attend the public hearings so that they be heard and offer comments. The meeting information is as follows:

Planning & Zoning Commission Meeting
- **Date:** .....July 23, 2025
- **Time:**.....4:00 pm
- **Location:**.....City Council Chambers, City Hall, 211 W Aspen Ave.
- Please direct written comments can be emailed to the city at CDPandZCommission@flagstaffaz.gov

City Council Public Hearing #1 – First Reading
- **Date:** .....August 26, 2025
- **Time:**.....3:00 pm
- **Location:**.....City Council Chambers, City Hall, 211 W Aspen Ave.
- Please direct written comments may be submitted to publiccomment@flagstaffaz.gov.

City Council Public Hearing #2 – Second Reading and Consideration of the Development Agreement
- **Date:** .....September 2, 2025
- **Time:**.....3:00 pm
- **Location:**.....City Council Chambers, City Hall, 211 W Aspen Ave.
- Please direct written comments may be submitted to publiccomment@flagstaffaz.gov.

Options for virtual attendance are available on the agenda of each public hearing. Agendas can be found on the City of Flagstaff website.

A complete application will be available for viewing during regular work hours at the Community Development Front Counter in City Hall. For more information about the public hearing, the application, or how to submit public comments, please contact Ben Mejia, Senior Planner with the City of Flagstaff.

Applicant Contact Information:

Contact: ..... **Marc Toth**
Title/Position: ..... **Design Manager**
Organization/Company: ..... **Viewpoint Engineering**
Phone Number: **737.717.3097**
Email Address: ..... **Pinehaven-Zone@viewpointengineering.com**

City Contact Information:

Contact: ..... **Ben Mejia**
Title/Position: ..... **Senior Planner**
Organization/Company: ..... **Current Planning Section; City of Flagstaff**
Phone Number: **928.213.2616**
Email:.....**Ben.Mejia@flagstaffaz.gov**

Thank you for your time, and we hope to see you at the meeting.

Sincerely,
ViewPoint Engineering

By: _____
Luke Caraway, PE, President

Attached: Project Description
Site Information
Location Map
FEMA Map
Zoning Map

cc: Client
File

https://viewpointengineering.sharepoint.com/sites/viewpoint/shared documents/vpls/horiz/22004 flagstaff 14/permitting/city/draft notice to property owners.docx

PROJECT DESCRIPTION

RODG DT Pine Haven Horizontal LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN, a total of 13.82 acres. The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium development with clubhouse. The site is currently zoned as a mix of rural residential (RR) and commercial suburban (SC).

The property in question is further identified parcel number 103-26-002-D. A project location map can be found in the appendix.

PLAN OVERVIEW

The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium residential community. The project site is ±13.82 gross acres with ±5.12 acres developed and a proposed improvement density of 6.18 units per acre. (83 units/13.82 acres = ±6). Additionally, the project will construct a clubhouse, stormwater management basin and other associated infrastructure.

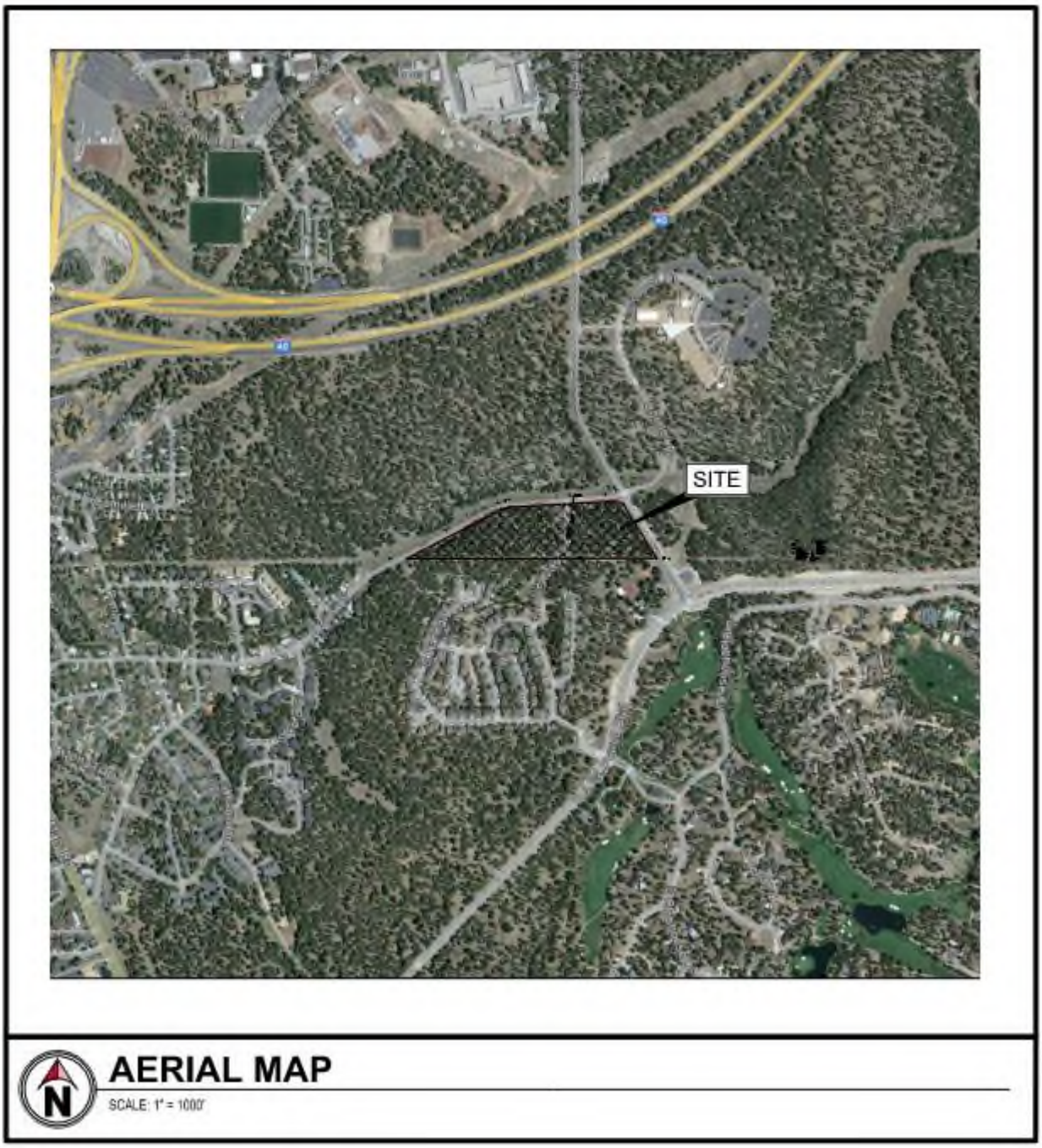
The project site is located on the southwest corner of E Zuni Drive and Lone Tree Road. The Site is bisected by Masonic Lane. To the south of the site is the Pinnacle Pines development consisting of condominium style townhomes. To the west of the site is the National Forest. To the north and the east of the site is vacant undeveloped land that has been purchased by the board of regents for Northern Arizona University.

The SITE will have four (4) access points. Two of the access points will be off Masonic Ln. There will be additional access from Zuni Dr and Lone Tree Rd. These access points will provide access for pedestrians, bicyclists, and motorists.

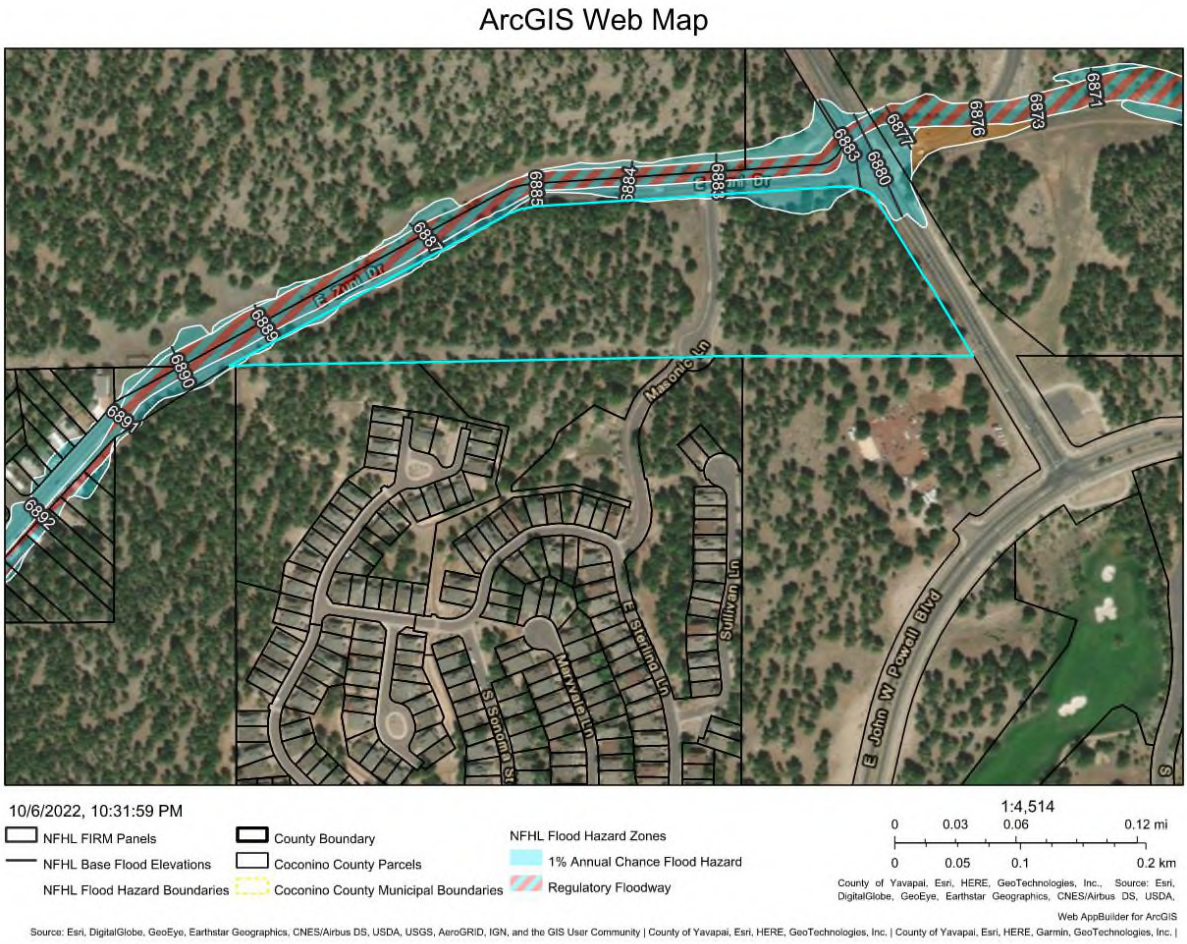
SITE DATA

PLAN REFERENCE		
PLAN TITLE		**ALTA/NSPS LAND TITLE SURVEY**
		DATED: SEPT. 14, 2022
SURVEYOR		ARIZONA SURVEYING INC. 1843 W HEAVENLY CT FLAGSTAFF, AZ 86001 JOB NO: 22-42
OWNER APPLICANT		
NAME		**RODG DT PINE HAVEN HORIZONTAL LLC**
ADDRESS		2121 EAST 6TH STREET, SUITE 203 AUSTIN, TX 78702
PARCEL DATA		
ADDRESS		E. ZUNI DRIVE & S. MASONIC LANE FLAGSTAFF, AZ 86001
TAX MAP NO/ PARCEL ID		APN: 103-26-002D
ZONING DATA		
ZONING DISTRICT	*EXISTING*	*RURAL RESIDENTIAL, SUBURBAN COMMERCIAL* *[RPOZ: RESOURCE PROTECTION OVERLY ZONE]*
	PROPOSED	MEDIUM DENSITY RESIDENTIAL (MR)
USE	*EXISTING*	*UNDEVELOPED*
	PROPOSED	RESIDENTIAL (PERMITTED)
STATEMENT OF INTENT		
THE APPLICANT IS PROPOSING TO DEVELOP THE SUBJECT PARCEL WITH TWO NEW ROADS, TOWNHOUSES AND ASSOCIATED SITE IMPROVEMENTS		

A.1 PROJECT LOCATION MAP



A.2 FLOOD MAP


ArcGIS Web Map
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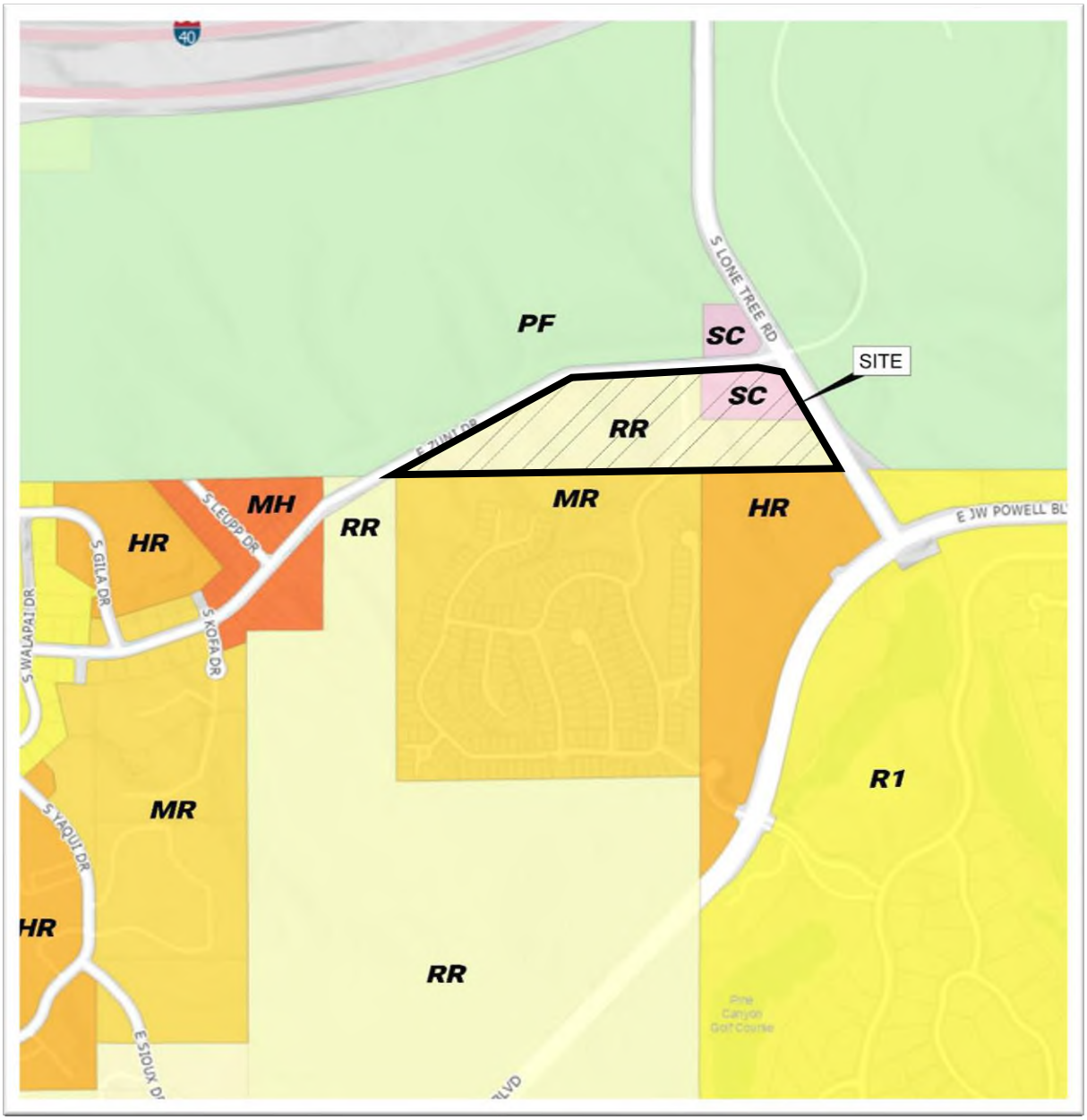
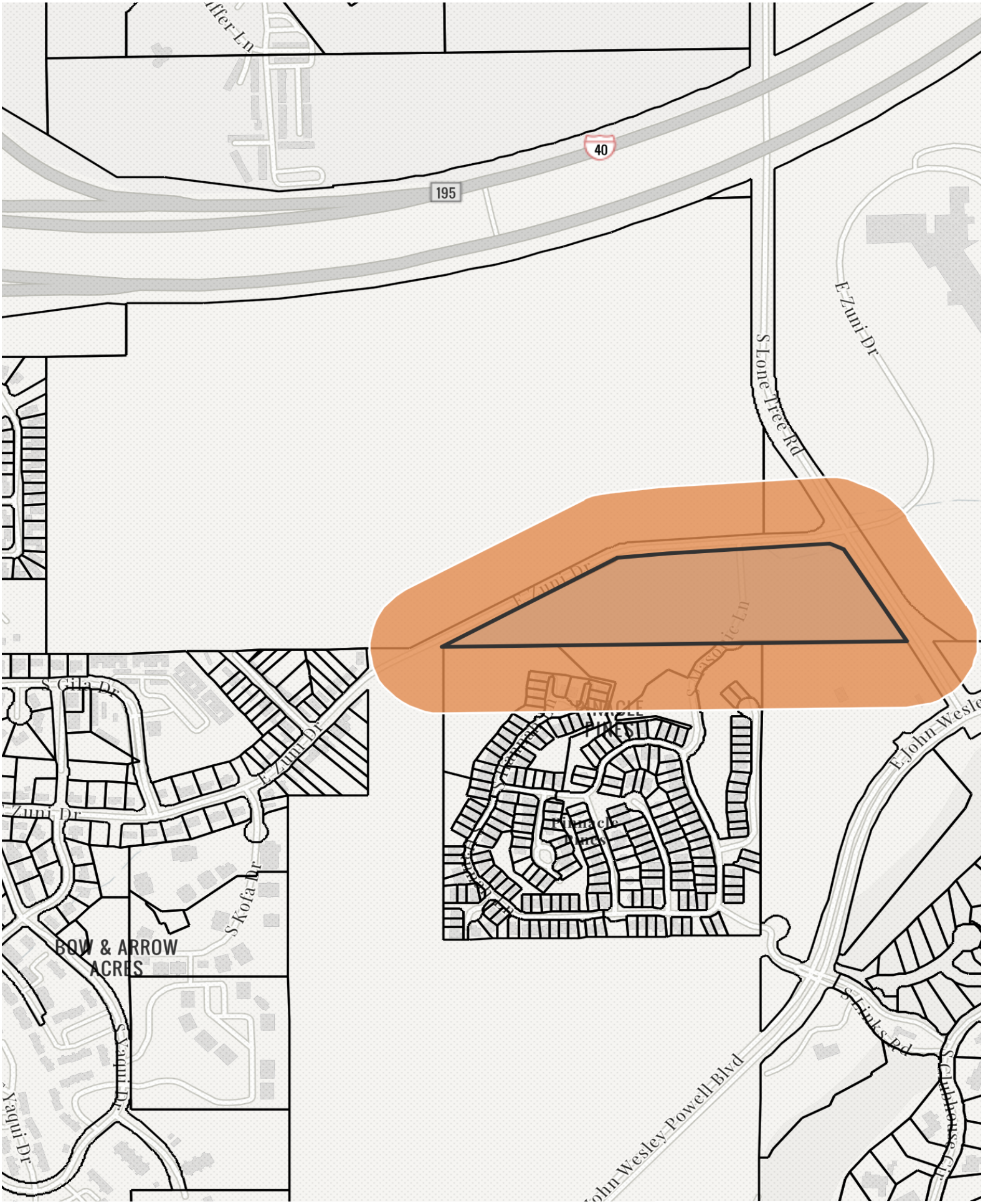
Masonic Dr
E Sterling Ln
Sullivan Ln
Mayan Ln
S Sonoma St
E John W Powell Blvd
10/6/2022, 10:31:59 PM
NFHL FIRM Panels
NFHL Base Flood Elevations
NFHL Flood Hazard Boundaries
County Boundary
Coconino County Parcels
Coconino County Municipal Boundaries
NFHL Flood Hazard Zones
1% Annual Chance Flood Hazard
Regulatory Floodway
1:4,514
0 0.03 0.06 0.12 mi
0 0.05 0.1 0.2 km
County of Yavapai, Esri, HERE, GeoTechnologies, Inc., Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,
Web AppBuilder for ArcGIS
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community | County of Yavapai, Esri, HERE, GeoTechnologies, Inc. | County of Yavapai, Esri, HERE, Garmin, GeoTechnologies, Inc. |

A.3 ZONING MAP




40
195
E Zumi Dr
S Lone Tree Rd
S Gila Dr
E Zumi Dr
Zumi Dr
S Kofa Dr
BOW & ARROW ACRES
S Yaqui Dr
Yaqui Dr
Pinnacle Pines
E John Wesley Powell Blvd
S Links Rd
S Clubhouse Cir

Contact Type	NAME	ATTN	STREET	CITY	STATE	ZIP
300	Anthony & Kathleen Brau		19550 N Greyhawk Drive No 1120	Scottsdale	AZ	85255
300	Michael & Lisa Vukonich		2030 E Mead Drive	Gilbert	AZ	85298
300	City of Flagstaff		211 W Aspen Avenue	Flagstaff	AZ	86001
300	Nsh Llc		26611 N 150th Street	Scottsdale	AZ	85262
300	Van Der Werf Family Trust		3086 S Hannah Lane	Flagstaff	AZ	86005
300	3109 South Salvestrin Ln Llc		3245 E Donald Drive	Phoenix	AZ	85050
300	Joanne & Richard Glazar		48392 Stillwater Drive	La Quinta	CA	92253
300	Monje John S & Linda K Revocable Trust Agreement		6121 S Four Peaks Place	Chandler	AZ	85249
300	Styskal Jeff J & Emily J Revocable Trust		6819 E Winchcomb Drive	Scottsdale	AZ	85254
300	Lucaire Claudia Revocable Trust		7408 E Onyx Court	Scottsdale	AZ	85258
300	Esmurdoc Revocable Family Trust		8205 Ruby Mountain Way	Las Vegas	NV	89128
300	Towns On Lone Tree Owner LLC		8601 N Scottsdale Road No 335	Scottsdale	AZ	85253
300	Patricia & Brent Thornquist		8923 E Arizona Park Place	Scottsdale	AZ	85260
300	Pinnacle Pines Community Association		PO Box 10000	Prescott	AZ	86304
300	Glenn Gippner		PO Box 1042	Flagstaff	AZ	86002
300	Arizona Board Of Regents For Northern Arizona University		PO Box 4092	Flagstaff	AZ	86011
email	Chris & Claudia Lucaire		3191 S. Marryvale	Flagstaff	AZ	86005
mtg	Michael Morano		3109 S Salvestrin Ln	Flagstaff	AZ	86005
mtg	Irma Sandercock		1005 E Sterling Ln	Flagstaff	AZ	86005
mtg	Steve Worth		1164 E Streling Ln	Flagstaff	AZ	86005
mtg	Patrick Hurley		2800 S Lone Tree Road Coconino College	Flagstaff	AZ	86005
mtg	Claire Wilkinson		3117 S Salvestrin Ln	Flagstaff	AZ	86005
mtg	Sheryl Dawson		3127 S Hannah Ln	Flagstaff	AZ	86005
mtg	Carol Newton		3202 S Sonoma St	Flagstaff	AZ	86005
mtg	L Stone & P Watters		3209 S. Hannah Ln	Flagstaff	AZ	86005
mtg	Bob & Sue James		3225 S Sonoma St	Flagstaff	AZ	86005
mtg	Bruce Ertmann		3279 S Hannah Ln	Flagstaff	AZ	86005
mtg	Xiaoqing Ma		800 E Sterling Ln	Flagstaff	AZ	86005
mtg	Michael Plumer		918 E Sterlin Ln	Flagstaff	AZ	86005
mtg	Kennedy Tania & Vincent Lopez		925 E Sterling Ln	Flagstaff	AZ	86005
mtg	Mary Norton		969 E Sterling Ln	Flagstaff	AZ	86005
mtg2	Dana & Bill Coughlin		1037 E Sterling Ln	Flagstaff	AZ	86005
mtg2	Jason Hale		216 N Humphreys St			
city	Friends of Flagstaff's Future	ATTN: Michelle James	P.O.Box 23462	Flagstaff	AZ	86002
city	Betsy McKellar		330 S Ash Lane	Flagstaff	AZ	86004
city	Flagstaff Lodging, Restaurant & Tourism Association	ATTN: Steve Finch	P.O.Box 30622	Flagstaff	AZ	86003
city	Marilyn Weissman		1055 East Apple Way	Flagstaff	AZ	86001
city	David Carpenter		1109 W Beal Road	Flagstaff	AZ	86001
city	Norther Az Assoc. of Realtors	ATTN: Robb Shedd	1515 East Cedar Avenue, Suite C4	Flagstaff	AZ	86004
city	Maury Herman		3 North Leroux St	Flagstaff	AZ	86001
city	Coconino Co. Community Development	ATTN: Jay Christeman	2500 N Fort Valley Rd, Bldg 1	Flagstaff	AZ	86001
city	Nat White		1120 North Rockridge Road	Flagstaff	AZ	86001
	Charlie Silver		720 West Aspen Ave.	Flagstaff	AZ	86001
	Barry Levitan		19 S San Francisco St	Flagstaff	AZ	86001
	Celia Barotz		3354 N Crest St.	Flagstaff	AZ	86001
	US Navy, Intergovernmental Branch	ATTN: Mary Beth Dreusike	850 Pacific Highway, Bldg1, 5th Fl, Suite 513	San Diego	CA	92101
	Tyler Denham		538 S. Fountaine, Suite 2	Flagstaff	AZ	86001
	AZ Army National Guard, ASAA-FMO	ATTN: Dorenda Coleman	5636 E. McDowell Rd.	Phoenix	AZ	85008
	Coconino Co. Community Development	ATTN: Jess McNeely	2500 N Fort Valley Rd, Bldg 1	Flagstaff	AZ	86001
	Charity Lee, Entitlements Manager		3605 S. Flagstaff Ranch Rd	Flagstaff	AZ	86005
	Adrian Skabelund		819 W. Grand Canyon Ave.	Flagstaff	AZ	86001
	Rachel Bass		3083 W Easterday Lane	Flagstaff	AZ	86001

ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY
PO BOX 4092
FLAGSTAFF
AZ
86011

VUKONICH MICHAEL W & LISA R
2030 E MEAD DR
GILBERT
AZ
85298

RODG DT PINE HAVEN HORIZONTAL LLC
8512 BESTRIDE
AUSTIN
TX
78744

3109 SOUTH SALVESTRIN LN LLC
3245 E DONALD DR
PHOENIX
AZ
85050

FLAGSTAFF CITY OF
211 W ASPEN AVE
FLAGSTAFF
AZ
86001

PINNACLE PINES COMMUNITY ASSOCIATION
PO BOX 10000
PRESCOTT
AZ
86304

ARIA FRESCA PROPERTIES LLC
10212 N 109TH PL
SCOTTSDALE
AZ
85259

VAN DER WERF FAMILY TRUST DTD 09-18-97
3086 S HANNAH LN
FLAGSTAFF
AZ
86005

GIPPNER GLENN M
PO BOX 1042
FLAGSTAFF
AZ
86002

STYSKAL JEFF J & EMILY J REVOCABLE TRUST DTD 02-15-14
6819 E WINCHCOMB DR
SCOTTSDALE
AZ
85254

LUCAIRE CLAUDIA REVOCABLE TRUST DTD 02-14-07
8513 E WELSH TRAIN
SCOTTSDALE
AZ
85258

GLAZAR JOANNE M & RICHARD C
48392 STILLWATER DR
LA QUINTA
CA
92253

ESMURDOC REVOCABLE FAMILY TRUST DTD 07-11-14
8205 RUBY MOUNTAIN WAY
LAS VEGAS
NV
89128

BRAU ANTHONY & KATHLEEN
19550 N GREYHAWK DR NO 1120
SCOTTSDALE
AZ
85255

SIRAGUSA FAMILY REVOCABLE TRUST DTD 09-09-98
4761 E MARSTON DR
PARADISE VALLEY
AZ
85253

THORNQUIST PATRICIA & BRENT
19700 N 76TH ST NO 1065
SCOTTSDALE
AZ
85255

MONJE JOHN S & LINDA K REVOCABLE TRUST AGREEMENT
6121 S FOUR PEAKS PL
CHANDLER
AZ
85249

TOWNS ON LONE TREE OWNER LLC
8601 N SCOTTSDALE RD NO 335
SCOTTSDALE
AZ
85253

Neighborhood Meeting Certification

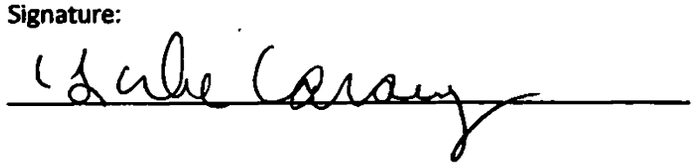
I, LUKE CARAWAY, the authorized representative of REDOAK DEVELOPMENT GROUP, do hereby attest that the neighborhood meeting for Project No. PZ-22-00109-04 was noticed and conducted in compliance with Section 10-20.30.060 of the City of Flagstaff Zoning Code and included the following:

- ☐ A Citizen Participation Plan, prepared in accordance with Section 10-20.30.030.C of the City of Flagstaff Zoning Code, was submitted to the City of Flagstaff on 12/23/25 and accepted by the City of Flagstaff on 2/7/25.
- ☐ A list of property owners within 300 feet of the subject property boundaries was prepared and submitted to the City of Flagstaff as part of the Citizen Participation Plan.
- ☐ Notices of the neighborhood meeting were sent via first class mail on 10/4/24 & 11/1/24 to all property owners within 300 feet of the subject property boundaries, to all tenants residing on the subject property, to all Homeowners Associations (HOAs) within 1,000 feet of the subject property, and all persons or groups whose names are listed on the Registry of Persons and Groups.
- ☐ A total of 2 neighborhood meeting notification sign(s) were installed on 10/2/24 & 11/5/24 at the following location(s):
  - Corner of Lone Tree Road and East Zuni Drive
  - _____
  - _____
- ☐ A written summary of the meetings, known as a Citizen Participation Report, was submitted to the City of Flagstaff on 12/23/25.
- ☐ Copies of the Citizen Participation Report were sent via first class mail on 7/11/25 to all persons who recorded their names on the neighborhood meeting sign-in sheet.

Authorized Representative of the Applicant:

LUKE CARAWAY

Signature:



Affidavit of Notifications to Affected Property Owners

Case Number: PZ-22-00109-04

Project Name: PINEHAVEN (formerly Juniper Estates)

Applicant Name: Red Oak Development Group

Location: 2951 S Masonic Lane

In order to assist in providing adequate notice to interested parties and to meet Arizona State Statute requirements, the applicant for public hearings in the City of Flagstaff shall notify affected property owners as prescribed by Section 10-20.30.080 of the City of Flagstaff Zoning Code. **It shall be the responsibility of the applicant to establish a list of the names and addresses of persons who require notification of a public hearing as established in Sections 10-20.30.060.A, 10-20.30.060.B, and 10-20.30.060.C of the Zoning Code, and mail a notice of required public hearing via first class mail to each of the persons on the list referenced above no later than 15 days prior to the public hearing date. It shall also be the responsibility of the applicant to submit a notarized copy of the mailing list to the Planning Director prior to the fifteenth day before the public hearing date.**

I confirm that the public hearing notifications were mailed as detailed in Section 10-20.30.080 of the City of Flagstaff Zoning Code at least fifteen (15) days prior to the public hearing.

Applicant's/Representative's Signature: Luke Conroy

SUBSCRIBED AND SWORN before me this 11th day of July, 2025 by:

Notary Public

KATHERINE TIERNAN RHOTEN
Notary Public, State of Texas
Comm. Expires 04-21-2027
Notary ID 134319370

My Commission Expires:

4/21/27

Affidavit of Sign Posting

Case Number: PZ-22-00109-04

Project Name: PINEHAVEN (formerly Juniper Estates)

Applicant Name: Red Oak Development Group

Location: 2951 S Masonic Lane

In order to assist in providing adequate notice to interested parties and to meet Arizona State Statute requirements, the applicant for public hearings in the City of Flagstaff shall post signs as prescribed by Section 10-20.30.080 of the City of Flagstaff Zoning Code. **It shall be the responsibility of the applicant to erect and to maintain the sign on the subject property 15 days prior to the hearing and to update the hearing information on the sign until final disposition of the case. It shall also be the responsibility of the applicant to remove the sign within seven (7) days after the final disposition of the case.**

I confirm that the site has been posted as detailed in Section 10-20.30.080 of the Zoning Code as well as the Public Hearing Notice Sign Specifications included in this application for the case above, and that the site was posted at least fifteen (15) days prior to the public hearing.

See attached date stamped photo exhibit of posted signs.

Applicant's/Representative's Signature: Gabe Conaway

SUBSCRIBED AND SWORN before me this 10th day of July, 2025 by:

Notary Public

4/21/27
My Commission Expires:

KATHERINE TIERNAN RHOTEN
Notary Public, State of Texas
Comm. Expires 04-21-2027
Notary ID 134319370

Owner Certification Acknowledging Receipt

of Notice of Right to Appeal Exactions and Dedications

I hereby certify that I am the owner of property located at:

2951 S Masonic Lane

(address of development approval or City required improvements and dedications)

and hereby certify that I have received a notice that explains my right to appeal all exactions and/or dedications required by the City of Flagstaff as part of my property development on the parcel listed in the above address.

Signature of Property Owner

7/10/25

Date


Jul 8, 2025 at 8:45:57 AM
794–798 E Zuni Dr
Flagstaff AZ 86001
United States
ViewPoint Engineering
MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com
City of Flagstaff
PUBLIC HEARING
PLANNING & ZONING COMMISSION: Wednesday, July 23, 2025 at 4pm
CITY COUNCIL (1st Read): Tuesday, August 26, 2025 at 3pm
CITY COUNCIL (2nd Read/Development Agreement): Tuesday, September 2, 2025 at 3pm
LOCATION OF HEARINGS: City Council Chambers, City Hall
211 W Aspen Ave., Flagstaff AZ 86001
REQUEST: Direct to Ordinance Zoning Map Amendment to rezone from Rural Residential (RR) and Suburban Commercial (SC) to Medium Density Residential (MR)
PROPOSAL: Multi-Family Development for 83 dwelling units
SITE LOCATION: 2951 S Masonic Lane
SIZE: 13.82 ac
CASE #: PZ-22-00109-04
Applicant Contact: Marc Toth, Viewpoint Engineering
Phone Number: 737.717.3097
Email Address: Pinehaven-Zone@viewpointengineering.com
Flagstaff Planning & Development Services Division Contact: Ben Mejia, Senior Planner
Phone: 928.213.2616
Email: bmejia@flagstaffaz.gov

PROJECT NARRATIVE

November 2023

Revised: July 2025

Pinehaven – Condominium Development
(formerly Juniper Estates)

2951 S Masonic Lane
Flagstaff, AZ 86005

Prepared for
RODG DT Pine Haven Horizontal LLC
2121 East 6th Street, Suite 203
Austin, Texas 78702

Prepared By:
ViewPoint Engineering
2121 East 6TH Street, Suite 203
Austin, TX 78702
VPE Project No: **22004**

Will Buzzelli, P.E.

ViewPoint Engineering

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APPENDIX A: Supporting Documents
A.1 Project Location Map
A.2 Flood Map
A.3 Zoning Map

1.0 PROJECT DESCRIPTION

Red Oak Development Group, LLC (RODG) is proposing the development of the property located at 2651 S Masonic Lane. a total of 13.44 acres (per ALTA survey). The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium development with clubhouse. The site is currently zoned as a mix of rural residential (RR) and suburban commercial (SC).

The property in question, further identified parcel number 103-26-002-D. A project location map can be found in the appendix.

2.0 DEVELOPMENT DETAILS

2.1 PLAN OVERVIEW

The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium residential community. The project site is 13.44 gross acres with ~5.1 acres developed and a proposed improvement density of 6.2 units per acre. Additionally, the project will construct a clubhouse, stormwater management basin and other associated infrastructure.

The project site is located on the southwest corner of E Zuni Drive and Lone Tree Road. Masonic Lane bisects the Site. To the south of the site is the Pinnacle Pines development consisting of condominium style townhomes. To the west of the site is the National Forest. To the north and the east of the site is vacant undeveloped land that has been purchased by the board of regents for Northern Arizona University.

The SITE will have four (4) access points. Two of the access points will be off Masonic Lane. There will be additional access from Zuni Dr and Lone Tree Rd. These access points will provide access for pedestrians, bicyclists, and motorists.

2.2 ZONING MAP AMENDMENT

Developing the property as proposed requires an amendment to the zoning map. The site is currently zoned as a mix of rural residential (RR) and suburban commercial (SC). The applicant is proposing to rezone this area to medium density residential (MR). The project meets the characteristics of the Suburban Neighborhood area-place type and conforms to the goals and policies of the Flagstaff Regional Plan 2030 and additionally meets the requirements for findings for zoning map amendments (§10-20.50.040.F.a) according to the following:

1) Consistent with the Goals of the General Plan: The proposed zoning is consistent with the zoning of the adjacent parcels and the general zoning of the surrounding area (see zoning map in appendix) and therefore meets the goals of the General Plan.

2) Not Detrimental to the Public Interest: The site proposes to meet or exceed the City regulations for stormwater management which will reduce runoff and any flooding present near the site or downstream. Additionally, the site proposes improvements to roadways and the implementation of public transit structures. Finally, the project proposes the construction of a trail system throughout the site for public recreation.

3) Site Suitability: The project site fronts along two major rights-of-way and is therefore able to take advantage of existing infrastructure and City services. Additionally, the project has been designed to address City requirements for all appropriate regulations including but not limited to storm drainage, solid waste collection as well as wastewater disposal.

2.3 HOUSING

The project follows the guidelines set forth in The City of Flagstaff's 10-year Housing Plan. The project is proposing a housing contribution to the city for the equivalent of 10 affordable units (~12.0%). The site will consist of three types of housing. The table below summaries the unit count and the square footage per unit.

Table 1: Building Type Summary

BUILDING SUMMARY						
BUILDING MODEL	**UNIT TYPE**	**Qty**	**FLOORS**	**TOTAL FLOOR AREA (SF)**	**BEDROOMS**	**BUILDING NUMBER**
PONDEROSA	INTERIOR UNIT	32	3	2,226	3	10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 26, 28, 29
	END UNIT	30	3	2,250	3	
ASPEN	INTERIOR UNIT	9	3	2,180	2	12, 23, 25, 27
	END UNIT	8	3	2,231	3	
JUNIPER	INTERIOR UNIT	2	2	1,565	3	22
	END UNIT [ACCESSIBLE]	2	2	1,585	4	
	TOTAL	**83**				
CLUBHOUSE			2	5,100	N/A	N/A

PARKING / BICYCLE PARKING: In conjunction with the housing incentive the project is entitled to utilize a parking reduction incentive for the site based upon a Category 1 designation. This incentive would have allowed for a reduction of 23 spaces from the total requirement. However, to address concerns from the community, the incentive will not be taken. See the table below for a breakdown of the required parking, incentives taken, and parking provided on the proposed site.

Table 2: Parking / Bicycle Parking Requirements

PARKING REQUIREMENTS			
REQUIRED PARKING CALCULATION			
USE	**REQUIREMENT [1]**	**PARKING REQUIRED**	
		UNITS	**PARKING**
SINGLE FAMILY (ATTACHED)			
STANDARD UNITS (2 - 3 BEDROOMS)	2.00 SPACES PER UNIT	81	162.00
STANDARD UNITS (4 BEDROOMS)	2.50 SPACES PER UNIT	2	5.00
GUEST PARKING	0.25 SPACES PER UNIT	83	20.75
TOTAL PARKING REQUIRED		TOTAL	187.75
		USE	188
PARKING PROVIDED			
GARAGE SPACE (1 PER UNIT, EXCL ADA UNITS)		81	
DRIVEWAY SPACE		83	
ADDITIONAL SPACES		22	
ADA SITE SPACES		3	
TOTAL PARKING PROVIDED		**189**	
REQUIRED BICYCLE PARKING			
5% OF TOTAL REQUIRED PARKING SPACES		188	9.4
TOTAL BICYCLE PARKING REQUIRED		USE	10
BICYCLE PARKING PROVIDED			**12**
1) PER TABLE 10-50.80.040.A			
2) THE PROJECT WILL PROVIDE AN AFFORDABLE HOUSING CONTRIBUTION TO THE CITY FOR THE EQUIVALENT OF 10 SITE UNITS.			

PARKING REDUCTION CALCULATION (NOT TAKEN)			
DESCRIPTION	**REQUIREMENT [1]**	**QTY**	**REDUICTION**
AFFORDABLE TYPE UNITS **[2]**	-0.5 SPACES PER UNIT (2 - 1.5 REQ FOR AFFORDABLE HOUSING)	10	5.0
BUS STOP	10% REDUCTION	188	18.8
TOTAL ALLOWED PARKING REDUCTION		TOTAL	23.80
		USE	23
1) PER TABLE 10-50.80.040.A			
2) THE PROJECT WILL PROVIDE AN AFFORDABLE HOUSING CONTRIBUTION TO THE CITY FOR THE EQUIVALENT OF 10 SITE UNITS.			

3.0 REGIONAL PLAN ANALYSIS

The City of Flagstaff has provided a vision and list of goals for the future development of the region. The following analysis shall demonstrate the project's compliance with the goals of the City's Regional Plan 2030. The analysis has been developed based upon the overall issues identified; Natural Environment, Built Environment; and Human Environment. While the accomplishment of every goal defined would be ideal, it is not always possible. The goals and policies of the regional plan have been analyzed for this project. Not all of the plan initiatives are pertinent to this project. Additionally, the implementation of pertinent goals/policies may not be viable as some of these goals overlap with others which create an either/or situation. Therefore, the analysis below provides only those goals/policies for which the project is compliant. All others have been omitted for clarity.

The proposed project best fits with the Suburban Neighborhood area type. In accordance with the plan the project characteristics are as follows:

- Block Size: The project proposes private driveways; however, these drives function similarly to roadways and provide connectivity between Zuni and Masonic and Masonic and Lone Tree. The proposed layout provides for a well-organized structure integrating with the surrounding roadway network in lieu of creating dead-end cul-de-sacs and allows for direct pedestrian and bicycle connections to established networks.
- Density: The project has been designed with a residential density of 6.18 units / acre which meets the area-type target range of 2-13 units / acre and is further at the target of 6 units /acre for the pedestrian shed.
- Residential: The project consists of a townhome-style development on the outskirts of Flagstaff proper. The development has been designed in such a way to cluster improvements and maximize the preservation of the wooded areas. These wooded areas have been provided with walking trails which are connected to the nearby FUTS trail system (Bow & Arrow Trail). Further the project proposes the installation of a bus stop on Zuni Drive for Route 04 & 14 buses. In addition to providing public transit for the proposed community, it will improve access for the Pinnacle Pines and LoneTree communities.
- Parks/Open Space /Public Space: The project open space provides a network of trails for passive recreation. While not directly connected, the project area is in close proximity to the FUTS trail network.
- Conservation: (Refer to Section 3.1 below) The project has developed a site plan to minimize the disturbance of site natural resources; more specifically protections to forest/woodlands and steep slopes

The analysis that follows shall use the characteristics of this area-type in determining compliance with the Regional Plan. The following are the characteristics of this area-type

3.1 NATURAL ENVIRONMENT

Environmental Planning & Conservations (Chapter IV): Flagstaff is rich with natural resources and goals are established to protect or improve them. Upon review of the project area, the following natural resources were identified on site. The site is predominantly forested, so overlaps the other resources.

- **Wild Life Linkages:** As shown on the image below, the project preserves open space along the southern boundary line. This area will preserve a link/path to wildlife areas to the north.
- **Limestone Soils:** Development has been clustered around the existing roadways and avoids the soils present on the property.
- **Trees >20":** As shown, the identifies tree areas have been avoided.
    - **Forested areas:** While not indicated on the image below, the property contains additional forested areas (refer to plans in the appendix) and as such the smaller contiguous disturbance area preserves these areas as well

Figure 1: Excerpt from Map 7 Significant Natural Resources

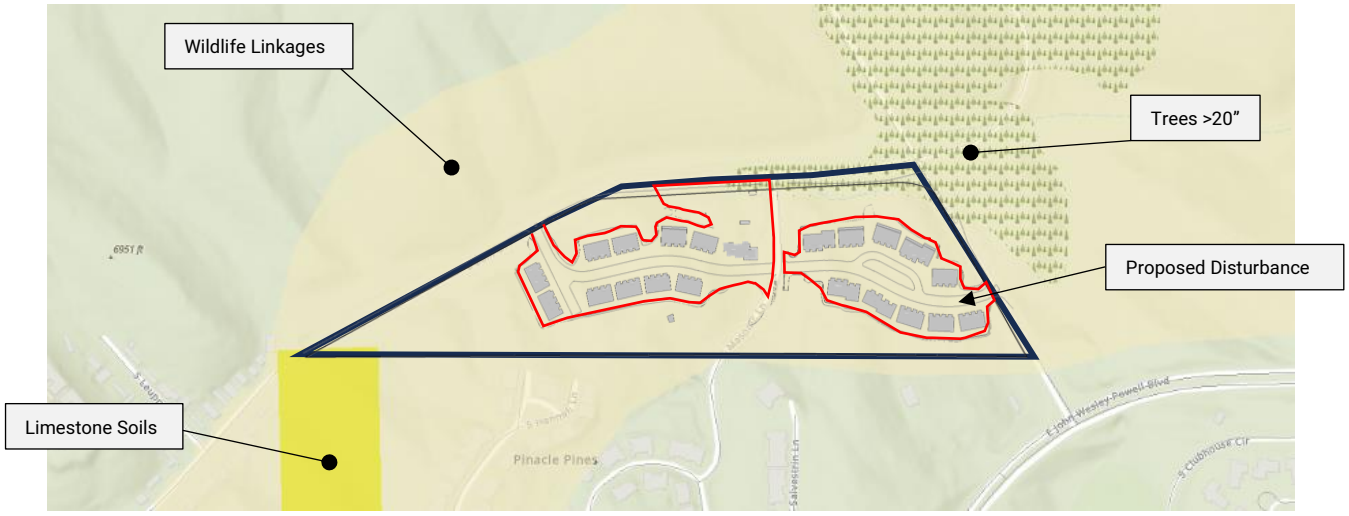
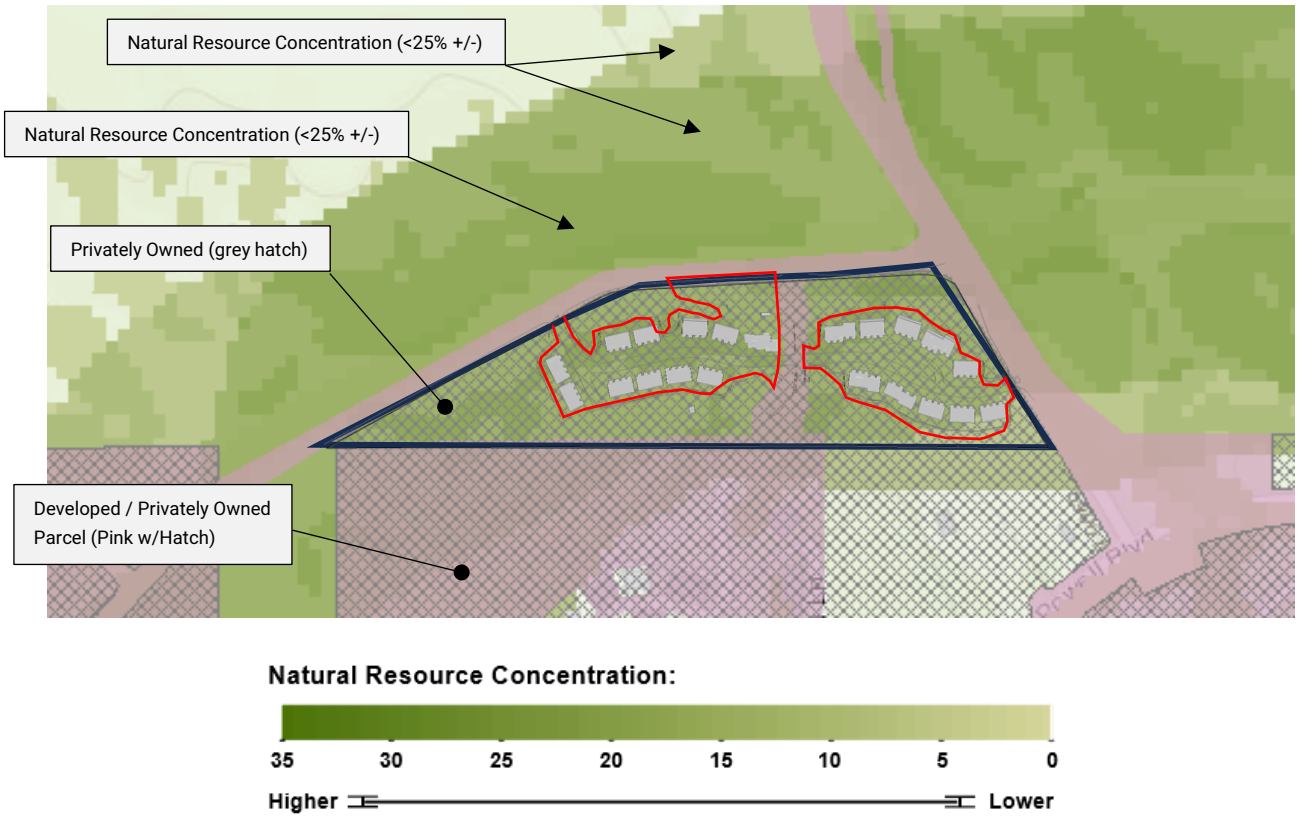


Figure 2: Excerpt from Map 8 Concentration of Natural Resources



- **Concentration of Natural Resources:** As indicated with the green areas on the image above, the project site contains varying concentrations of natural resources. The site contains steep slopes up to and greater than 35% as well as forested areas as indicated above in addition to floodplain areas. The project has been developed to minimize these disturbances by clustering the development into a tight footprint. The natural resources are mor specifically described below. An analysis of the site topography has been performed and is contained on sheets C201 and C202 of the plan set. The table below provides a breakdown of the respective areas.

    - **Steep Slopes:** The site contains steep slopes up to and greater than 35%. An analysis of the site topography has been performed and is contained on sheets C201 and C202 of the plan set. The table provides a breakdown of the respective areas.

    - **Floodplain:** The Site resides in two different flood zones. Most of the project site is contained in flood zone X, the area of minimal flood zone hazard. The northeast corner of the site is in the AE flood zone. Within the AE flood zone there will be no dwelling development (See appendix).

With a Category 1 project designation, in accordance with Table 10-30.20.040B, a resource reduction of 35% has been applied to the forest protection requirements indicated. The resulting reduction adjusted the required resource protection from 50% to 32.5% [50% x (1-35%)]. The proposed resource protection plan can be seen on the table below.

Table 3: Resource Protection Summary

RESOURCE PROTECTION LAND									
RESOURCE	TOTAL RESOURCE PROTECTION LAND (SF)	AREA IN A MORE RESTRICTIVE RESOURCE (SF)	NET RESOURCE PROTECTION AREA (SF)	REQ. RESOURCE PROTECTION (%)	ADJUSTED REQ. RESOURCE PROTECTION [2] (%)	ALLOWED DISTURBANCE AREA (SF)	PROPOPSED DISTURBANCE (SF / %)		PROPOSED PROTECTION (%)
FLOODPLAIN	147,602	0	147,602	100%	100%	0	0	0.0%	100.0%
STEEP SLOPES									
>35%	13,072	1,012	12,060	100%	100%	0	0	0.0%	100.0%
25% - 34.99%	56,355	0	56,355	80%	80%	11,271	9,948	17.7%	82.3%
17% - 24.99%	134,233	0	134,233	70%	70%	40,270	34,468	25.7%	74.3%
FOREST	423,852	154,857	268,995	50%	32.5% [2]	181,572	178,535	66.4%	33.6%
1) VALUES PROVIDED IN THE TABLE ARE MEASURED WITHIN THE TITLE BOUNDARY ONLY. IMPROVEMENTS REQUIRED WITHIN ROAD RIGHTS-OF-WAY HAVE BEEN EXCLUDED.									
2) AFFORDABLE HOUSING REDUCTION: THE PROJECT IS PROPOSING A HOUSING CONTRIBUTION FOR THE EQUIVALENT OF 10 AFFORDABLE UNITS OUT OF 83 TOTAL UNITS (10 / 83 = 12.04 %). THE PROJECT IS A CATEGORY 1 PROJECT, THEREFORE IN ACCORDANCE WITH TABLE 10-30.20.040.B, A RESOURCE REDUCTION OF 35% HAS BEEN APPLIED TO THE PROTECTION REQUIREMENTS INDICATED. [50% x (1 - 35%)]									

These goals were also critical in the development of site design. The project implements these goals as follows:

- **Air Quality.** To promote improved air quality in the city, the project will implement various methods during the construction process.

Policy E&C.1.3. Encourage strategies and partnerships to mitigate dust.

During construction, where possible, construction vehicles will be prevented from idling to reduce exhaust. Further the project has minimized construction disturbance areas and forest/tree removal. The preservation of forested areas will improve air quality for the new homes.

- **Climate Change:** As climate change is caused by many factors the cumulative impacts of proposed improvements will aid in mitigating the projects' effect.

Policy E&C.2.2. Promote investments that create a connected and efficient community, decrease emissions from transportation and building energy, and strengthen climate resiliency.

The project will be providing each unit with EV hookup ability within the garage or on the exterior of the dwelling for units without garages. Additionally, an external EV charging space adjacent to the clubhouse as well as within the central parking area of Phase 2. Additionally, the project is proposing the construction of a bus stop on Zuni Drive encouraging use of public transportation. Finally, the

project will be providing a dedicated bicycle lane along Zuni Drive improving connectivity of alternative vehicular pathways.

Policy E&C.3.3. Invest in forest health and watershed protection measures.

The project proposes preserving forested areas as well as the implementation of shade trees with help to reduce the localized temperatures. The project also proposes forest maintenance measures to be implemented as part of this initial construction and periodically as part of site maintenance.

Additionally, the project will implement a slow-release stormwater management basin in the project. The basin will retain stormwater runoff onsite and encourage evaporation in lieu of direct runoff into the waterways providing improvements to the overall watershed.

- **Dark Skies:** In accordance with city requirements, the project (located in Zone 2) will implement appropriate Dark Skies requirements.

Policy E&C.5.2. Encourage and incentivize voluntary reduction of "exempt" lighting that degrades night sky visibility, and work to prevent light trespass whenever possible in both public and private areas.

As a community dedicated to preserving Flagstaff's renowned dark skies, Pinehaven will proactively implement lighting restrictions to minimize light pollution (i.e. the project will provide doors and windows with low-E ratings and film applications to reduce light trespass). HOA regulations will limit excessive outdoor lighting, including security lights and seasonal decorations, ensuring that residents enjoy the breathtaking night sky while maintaining neighborhood aesthetics. Compliance with these guidelines will not only protect the environment but also enhance property values and the overall ambiance of the community.

- **Ecosystem Health:** The project site is located in proximity to an intermittent stream and stormwater runoff from the site will have a direct impact on the health of the ecosystem.

Policy E&C.6.1. Encourage public awareness that the region's ponderosa pine forest is a fire-dependent ecosystem and strive to restore more natural and sustainable forest composition, structure, and processes.

The HOA will provide information packets to homeowners at initial purchase and as well as any change in ownership. Further, informational packets will be provided in the clubhouse, as available, of the city's/community's of local resources and programs.

Policy E&C.6.7. Use best practices to control the spread of exotic and invasive plants, weeds, and animals, and eradicate where possible.

As part of the construction project and periodically thereafter, the HOA will perform forest maintenance as needed. This maintenance will include, but not be limited to, the removal of invasive species and cleanup of the forest floor.

Policy E&C.6.8. Disturbed areas for improvements and landscaping for new developments shall emphasize the use of native, drought-tolerant or edible species appropriate to the area

The project landscape plans have been developed utilizing native species plants throughout the site.

- **Environmentally Sensitive Lands:** The project site contains the natural resources/sensitive lands below. The site-specific resources can be found in Table 3 above.

Policy E&C.7.1. Design development proposals and other land management activities to minimize the alteration of natural landforms and maximize conservation of distinctive natural features.

Policy LU.3.3. Protect sensitive cultural and environmental resources with appropriate land uses and buffers.

The design of the project avoided these areas as much as feasible. One strategy employed was to use the sites underlying rock structure. In lieu of providing gentler slopes to taper out construction, the project will utilize the rock to create more natural rock walls. The implementation of these walls allows for a much smaller disturbance footprint.

As the site is mostly forested, disturbance was inevitable. However, in conjunction with the method above to protect the slopes, the minimal disturbance footprint preserved as much of the forested areas as possible.

- **Soils:** The project site contains hilly areas and therefore due to the planned construction the site will require excavation into the rock layers below.

Policy E&C.9.2. Construction projects employ strategies to minimize disturbed areas, soil compaction, soil erosion, and destruction of vegetation

In conjunction with the minimized disturbance, the rock cut areas will be stabilized with reinforcement material to allow for increased vertical slopes in lieu of shallower tapering slopes. These methods will preserve the surrounding areas. The designs of the reinforcements will be developed to visually integrate with the natural topologic features.

- **Wildlife:** The Flagstaff region boasts an abundance of wildlife that is highly valued by residents and visitors alike.

Policy E&C. I 0.5. Support the development of watchable wildlife recreation opportunities.

Policy WR.5.2. Incorporate pedestrian access, trails, and watchable wildlife opportunities into natural watercourses when practical.

Policy LU.2.3. New development should protect cultural and natural resources and established wildlife corridors, where appropriate.

The preservation of contiguous open spaces on-site will aid in the development of opportunities to be exposed to the local wildlife. Additionally, the project has proposed a walking trail in and around the site to facilitate observations. This trail network will provide seating areas not only for areas to rest but also to experience local fauna.

OPEN SPACE (Chapter V) Providing open space areas for public use and enjoyment being another goal of the regional plan, the project implements the following strategy to achieve compliance.

Policy OS.1.4. Use open space as opportunities for non-motorized connectivity, to interact with nature, and to enjoy the views and quiet.

Policy OS.1.5. Integrate open space qualities into the built environment.

With the minimized disturbance footprint of the development, the project is preserving the forested areas onsite which will be used as open space for the community. Additionally, the project is proposing walking/hiking trails through the site which will be open to the public. Thes trails provide various degrees of difficulty as well as provide rest areas. The design of these trails will be naturalized into the terrain. Additionally, the trails will provide multiple access points to public rights-of-way to encourage public use.

WATER RESOURCES (Chapter VI) Water resources within the Flagstaff area are related to not only the delivery of potable water to the population but protection of surface waters which feed those aquifers. This project addresses the goals of the plan through the implementation of stormwater management strategies.

Goal WR.1. Maintain a sustainable water budget incorporating regional hydrology, ecosystem needs, and social and economic well-being.

Policy WR.5.5. Give preference to regional detention facilities that are designed in conjunction with smaller low-impact development features, rather than numerous smaller dispersed basins. Encourage regional detention basins to incorporate natural watershed characteristics as well as offering recreational components.

- **Stormwater Management:** The existing offsite drainage from the south will continue to be routed through the project using the existing storm drain network. The portion of runoff from Masonic Lane will be captured and retained in the retention pond. The proposed site runoff on the east side of the site will be routed through storm drains into an on-site retention pond. Runoff on the West side of the site will be routed through storm drains where they will be discharged from the site at the existing culvert at the intersection of Zuni and Lone Tree. Pre- vs post-development analysis has been performed on the site and there will be no increase in peak flows due to the proposed development.

  The implementation of this strategy meets the goals of the regional plan by slowly releasing accumulated stormwater runoff into the waterways. This slow-release process mimics the natural hydrologic process of water infiltrating into the ground and migrating through the soil to the nearest waterway and trickling into the base flow.

  Additionally, the basin was designed in conjunction with the open space trail system. To integrate into the surroundings and provide connections for pedestrians and wildlife.

Policy WR.6.2. Recognizing the concern about water quality, seek methods to divert contaminants from the waste stream.

- **Water Quality:** In addition to runoff being slowly released into the watershed, the proposed basin will filter pollutants through soil media which were picked up from roadways. By holding and filtering runoff through soil, the temperature of the water discharging from the basin will be reduced thereby reducing the overall water temperature the downstream waterways and encourages a more beneficial ecosystem. Further, and in conjunction with other goals of the regional plan, the project implements minimal disturbances of natural resources and clustering of improvements, each of which fosters improved quality.

ENERGY (Chapter VII) Energy usage within the city plays an important role in community development both economically and personally. The project plans to implement the following to address energy goals.

Policy E.1.4. Promote cost-effective, energy-efficient technologies and design in all new and retrofit buildings for residential, commercial, and industrial projects.

Policy NH.4.4. Encourage green practices in housing construction and rehabilitation that support durable, healthy, and energy-efficient homes.

Pine Haven has been designed to be very energy efficient. Energy Star certified appliances will be provided in units. Additionally, units will be equipped with Energy efficient heat pump HVAC and

Electric, tankless water heaters, which means that their insulation levels, windows, and mechanical heating and cooling systems greatly surpass current energy codes by a very wide margin.

Policy E.1.5. Promote and encourage the expansion and use of energy-efficient modes of transportation: 1) Public transportation; 2) Bicycles; and 3) Pedestrians

Pinehaven will be a community designed for connectivity and mobility, reducing reliance on personal vehicles and embracing alternative transportation methods. As part of this vision, we are offering several initiatives that will set a new standard for accessibility and convenience:

- **Bus Pass Program ($408+ per Homeowner Value)**: In support of a more transit-friendly lifestyle, Pinehaven will offer homeowners reimbursement for the purchase of two adult bus passes for the first year of ownership. Adult passes cost $34 per month per individual, bringing the total value of this incentive to $408 for a full year per person. Homeowners will submit proof of purchase to the HOA for reimbursement, ensuring easy access to local transit options and reducing personal vehicle dependency.

- **EcoPASS for Educators ($300 - $500 Value per Educator per year)**: As an extension of our teacher incentives, Pinehaven will participate in the EcoPASS program for non-student staff at Northern Arizona University. This program provides discounted or free transit passes, significantly reducing commuting costs for educators. Pinehaven will work with NAU to facilitate direct enrollment or reimburse educators who apply independently, supporting sustainable commuting solutions for Flagstaff's educational workforce.

- **Bike Share Program ($300 - $500 per Resident Value)**: Residents of Pinehaven's condominiums will have access to a free bike share program managed through the community office. This initiative will provide scheduled bike rentals at no cost, allowing residents to explore nearby trails, parks, and commercial areas conveniently. The HOA will maintain and oversee the scheduling system, ensuring availability and fair usage for all participants.

Policy E.1.13. Promote and encourage the use of fuel-efficient vehicles that use renewable fuels..

- **EV Charging:** The project will be providing EV Charging connection hookup locations within each of the residential garages. For the units without garages, a weather resistant hookup will be provided on the exterior. Further, two additional public access external EV charging units will be installed in partnership onsite.

3.2 BUILT ENVIRONMENT

COMMUNITY CHARACTER (Chapter VIII) being the combination of qualities and assets that establish the unique sense of place and promotes as high quality of life, this project strives to meet this goal in the following ways.

Policy CC.1.1. Preserve the natural character of the region through planning and design to maintain views of significant landmarks, sloping landforms, rock outcroppings, water courses, floodplains, and meadows, and conserve stands of ponderosa pine.

Policy CC.1.2. Continue to define and further develop the community character by incorporating the natural setting into the built environment at all design scales.

This project has proposed minimal disturbance to the site area. The existing site contains a wooded area of Pine Trees. This element was a crucial factor in the development of the project so as to provide a sense of nature for the future residence. By clustering the disturbance areas, the remaining open space encloses the structures giving a sense of being within the environment.

GROWTH AREAS & LAND USE (Chapter IX) Planning for smart development in the future is an important goal. Ensuring development progresses to meet the needs of the community in a smart logical direction ensures future expansions do not get ahead of the community and address the needs of the community.

Policy LU.2.2. Design new development to coordinate with existing and future development, in an effort to preserve viewsheds, strengthen connectivity, and establish compatible and mutually supportive land uses.

The project site was designed to provide structures to integrate into the topography as much as possible and maintain visual sightlines around the area. Proposed Homes are sighted to maximize views for the respective owners, as well as prevent obstruction of views from parcels located to the south of the site. See the view cross-sections provided during the neighborhood meetings to illustrate typical views. As shown, the proposed development is nestled into the topography thereby providing scenic views to the residents and neighbors.

Figure 3: Sample View Section



Policy LU.2.4. Utilize Low Impact Development (LID) strategies and stormwater best practices as part of the overall design for new development

Policy LU.5.3. Promote compact development appropriate to and within the context of each area type: urban, suburban, and rural.

Policy LU.5.4. Encourage development to be clustered in appropriate locations as a means of preserving natural resources and open space, and to minimize service and utility costs, with such tools as Transfer of Development Rights (TDR)

Policy LU.7.1. Concentrate urban development in locations that use land efficiently, and are served by roads, water, sewer, and other public facilities and services, and that support transit, reduced vehicle trips, and conservation of energy and water.

The project implements the LID strategy of cluster development to minimize the disturbed area and preserve the surrounding area. Further, the basin has been designed to incorporate a soil media filter to minimize impacts to downstream waterways. Additionally, the basin design will provide filtering of stormwater runoff to improve water quality.

TRANSPORTATION (Chapter X) To counter the car-culture which has developed, the regional plan aims to encourage development which provides for all forms of transportation in a manner which serves all within the community. The project meets this goal as described below.

Policy T.1.6. Provide and promote strategies that increase alternate modes of travel and demand for vehicular travel to reduce peak period traffic.

Policy T.1.7. Coordinate transportation and other public infrastructure investments efficiently to achieve land use and economic goals.

Policy T.2.1. Design infrastructure to provide safe and efficient movement of vehicles, bicycles, and pedestrians.

Policy T.3.1. Design and assess transportation improvement plans, projects, and strategies to minimize negative impacts on air quality and maintain the region's current air quality

Policy T.5.1. Provide accessible pedestrian infrastructure with all public and private street construction and reconstruction projects.

Policy T.5.4. Design streets with continuous pedestrian infrastructure of sufficient width to provide safe, accessible use and opportunities for shelter.

The project provides multiple avenues for transportation around the region. Specifically, the construction of a Bus Stop on Zuni Drive. Additionally, the project is proposing bicycle and car-share programs. Refer to the section **Energy** Above for more information.

- Bicycle: The project will widen Zuni Drive to provide the addition of a bicycle lane. Additionally, Bicycle racks are being provided onsite in accordance with regulations. The project site is not directly connected to the FUTS trail system; however the site is in close proximity.

- Pedestrian: The project will install/improve public sidewalks along the frontages of Zuni Drive and Lone Tree Road. The proposed sidewalks will improve pedestrian access to the area.

- Transit: The regional transit authority has identified this location as being deficient for public access. Therefore, the project proposes the construction of two bus stop shelters along Zuni Drive. This location can potentially serve both Route 4 & 14 lines.

Policy T.6.2. Establish and maintain a comprehensive, consistent, and highly connected system of bikeways and FUTS trails

The project proposes a public use trail within the open space. This trail system is adjacent to the Bow & Arrow trail and provides for a short loop to the existing FUTS system.

Policy T.8.3. Design neighborhood streets using appropriate traffic calming techniques and street widths to sustain quality of life while maintaining traffic safety.

Roads & Corridors: The applicant has worked with the city staff in review of the public improvements to the adjacent roadways. As part of the consultations, the project has provided improvements based upon the ultimate buildout of the respective roads. Further, the city indicated the need for an adjustment of the centerline of Zuni Drive near the intersection of Lone Tree. The centerline adjustment is needed so future improvements do not impact adjacent natural resources. The applicant is providing the additional R.O.W. to allow for the adjustment and the proposed improvements will be construction relative to this adjusted location. These improvements will complement the long-term planned improvements for JW Powell for mobility in the region.

PUBLIC BUILDINGS, SERVICES, FACILITIES AND SAFETY (Chapter XII) Planning for and protecting critical infrastructure while promoting community resilience are important considerations in the timing, location, and pattern of development. Well-planned infrastructure, public facilities and services, and safety and emergency response are keys to community civic pride and accessibility.

Policy CD.1.5. Require that new development pay for a fair and rough proportional share of public facilities, services, and infrastructure.

- Locating Facilities: The project proposes adding publicly accessible open space areas adjacent to public R.O.W.s in addition to being in close proximity to public transit.
- The project will provide improvements to Zuni Drive and will install sidewalk and curb along the frontage.
- The project will install a deceleration lane along Lone Tree for entrance into the site and will replace the existing sidewalk with 5ft wide sidewalk along areas of improvement.

3.3 HUMAN ENVIRONMENT

NEIGHBORHOODS, HOUSING, AND URBAN CONSERVATION (Chapter XIII) These are the places where people live, play, go to school, work, and interact. Central to Flagstaff 's urban neighborhoods are a pedestrian experience interconnecting business, homes, schools, places of worship, transit, and parks in a compact, walkable land use pattern. The following methods have been developed to meet the goals of the plan.

Policy NH.1.2. Respect traditions, identifiable styles, proportions, streetscapes, relationships between buildings, yards, and roadways; and use historically appropriate and compatible building and structural materials when making changes to existing neighborhoods, especially in historic neighborhoods

Project Inspiration: I suppose that people who live in a beautiful area like this must get kind of used to seeing the natural beauty every day, but I can tell you that we "flatlanders" continue to be in awe of the natural beauty of this region every time we visit. So it shouldn't come as a surprise that the pine trees and topography of the site have always been the main inspiration for our project, and that we designed the buildings to be fairly simple in order to let the forest itself shine through.

Site Planning: We designed the residential units to be grouped into blocks of four or five units in order to preserve as much open space as possible. This minimizes the construction footprint so that you can enjoy more of the surrounding natural forest. The majority of the site has been protected in its natural state to allow for an extensive network of publicly accessible trails.

Building Design: We specifically kept the massing of the units simple, designed them to have low-sloped, shed roofs not only to conform to the city's height restrictions but also to facilitate snow removal in the wintertime and direct any runoff away from the front walkways and entries.

Following the city's guidelines on low reflectance values and darker colors, we plan to paint the vertical exterior siding a kind of dark umber color that will really make the surrounding forest pop! We also have stone facing at the lower floor near the garages and main entries, with some rust-colored steel accent paneling that frames the front balconies above. Each residence has a number of decks, balconies, and/or patio at both ends that are designed to connect residents to the outdoors and provide views to the surrounding landscape.

Echoing the materials and aesthetics of the adjacent residences, our community clubhouse provides each resident with an opportunity to get to know their neighbors and interact in a variety of ways— such as hanging out in the media room watching the big game with friends, working out in

the gym, occasionally sweating it out in one of the two saunas, or maybe just “chilling out” in one of our cold immersion tanks.

Policy NH.1.3. Interconnect existing and new neighborhoods through patterns of development, with complete streets, sidewalks, and trails.

Policy NH.1.4. Foster points of activities, services, increased densities, and transit connections in urban and suburban neighborhoods.

The project provides for expansion of the public rights-of-way, providing sidewalks along the frontages and providing a bicycle lane on Zuni Drive. Further the project will provide a bus stop on Zuni Drive. This bus stop will allow for a connection needed for the adjacent subdivisions to provide an access point into the city or other points. Proposed walking and hiking trail within the open space. While not directly connected, the project is in close proximity to the City’s FUTS trail system to encourage interconnectivity. Further, the project is providing bus stops along Zuni, facilitating multi-modal transportation.

Policy NH.1.6. New development, especially on the periphery, will contribute to completing neighborhoods, including inter-connecting with other neighborhoods; providing parks, civic spaces, and a variety of housing types; and protecting sensitive natural and cultural features.

Policy NH.6.1. Promote quality redevelopment and infill projects that are contextual with surrounding neighborhoods. When planning for redevelopment, the needs of existing residents should be addressed as early as possible in the development process.

The development is proposed within the space between the city and existing subdivisions (infill development). By providing this development and the interconnectivity of the roads, and walks, the development provides for a smart expansion of the city in lieu of moving further out and fighting against urban sprawl.

Policy NH.3.3. Increase the availability of affordable housing for very low-income persons, through innovative and effective funding mechanisms

The dynamics of the proposed project are not conducive to providing affordable housing as part of the project. Due to the challenges of the site topography, the proposed house product demands a higher price point. The final sale price will likely be higher than the neighboring Pinnacle Pines development. Providing affordable housing with this project was not viable. Therefore, in consulting with City staff, the developer will be providing a housing contribution to the city for an equivalent of 10 units. This contribution can then be used to assist in other efforts by the city or in conjunction with

other programs or developments. Terms of the contribution have been prepared in consultation with city staff and included in the project's development agreement.

Policy NH.4.3. Address accessibility issues and other housing barriers to persons with disabilities or special needs.

The developer is committed to providing for people with disabilities or special needs. As such this project has committed to providing two units dedicated to ADA accessibility. These units go beyond exterior accessibility and have integrated ADA guidelines into the full internal layout design.

Policy NH.4.6. Consider and integrate public transportation when possible in planning housing developments, to help reduce a household's transportation costs and minimize impact on the community's roads and transportation system.

The project's inclusion of the bus stop on Zuni, as well as the proposed reimbursements incentives will encourage the use of public transportation around the city.

RECREATION (Chapter XV) The Flagstaff region prides itself as being one of the best "quality of life" communities in the nation, in part due to abundant indoor and outdoor recreational opportunities, all of which contribute greatly to the community's public health. To further the goals set forth in the regional plan the project proposes the following:

Policy Rec.1.1. Integrate active and passive recreational sites within walking distance throughout the region to promote a healthy community for all City and County residents and visitors.

Development of Recreation Areas: In conjunction with the preservation of natural resources, the applicant has preserved a large area of green space/forested area. Within this area, the project is providing a walking/hiking trail for public use. This trail system interweaves throughout the site and provides challenging hiking areas and scenic views of the area. The project is proposing a walking and hiking trail within the open space. Further, the project will improve Zuni Drive by providing sidewalks along the frontage. While not directly connected, the project is in close proximity to the City's FUTS trail system.

3.4 PEDESTRIAN CONNECTIVITY

The SITE will have 5-foot sidewalks throughout the development and connect to the existing sidewalks on Masonic Lane and Lone Tree Rd. This will encourage the use of pedestrian elements and expand upon the pedestrian corridor connectivity of the City of Flagstaff. The project proposes installing walking trails through the undisturbed portions of the site. Trail locations will be coordinated with the city during the plan approval process.

3.5 MATERIALS MANAGEMENT PLAN

Each unit will consist of trash and recycling receptacles within the kitchen cabinets.

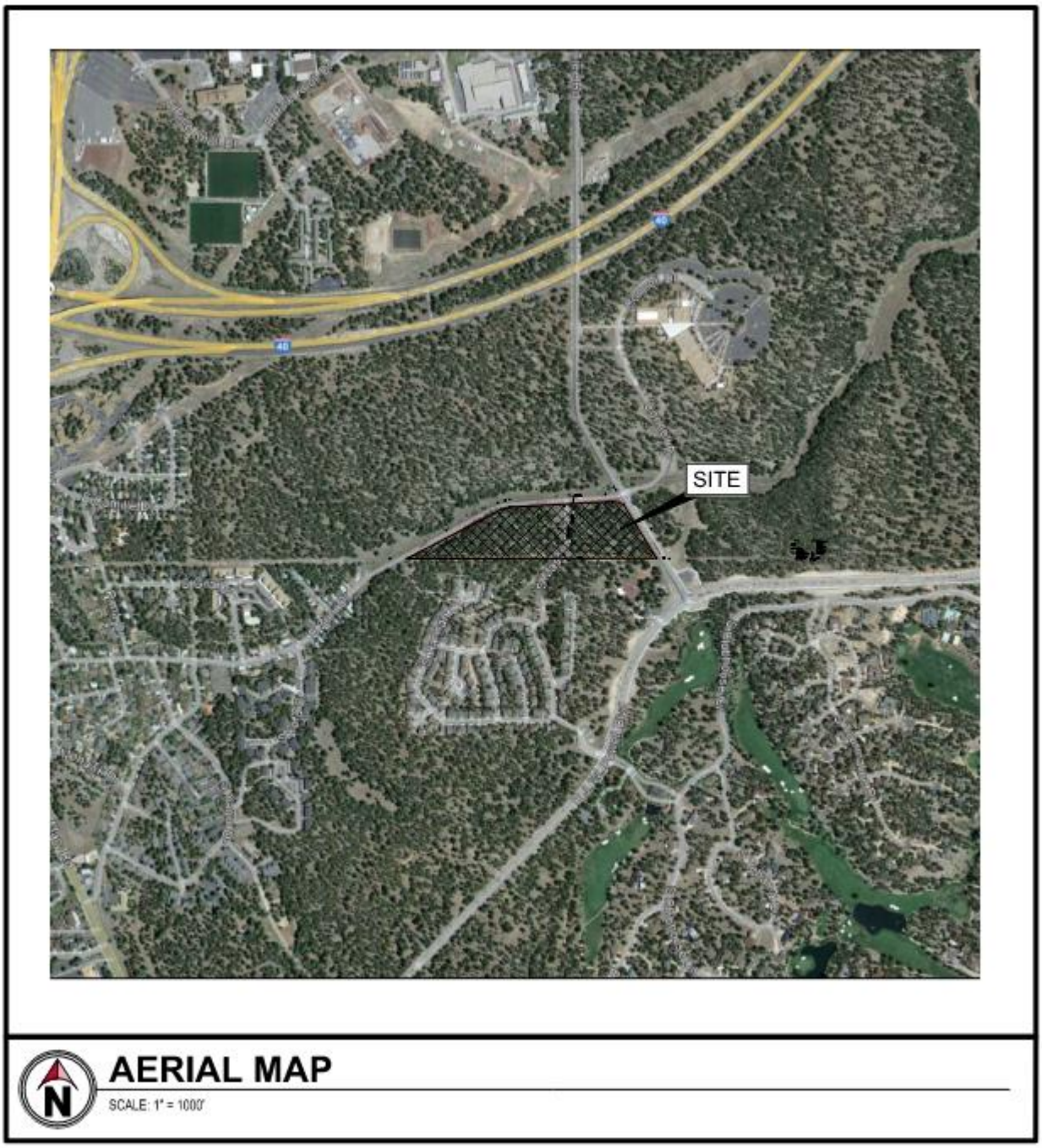
No centralized storage rooms for trash or recycling materials are planned in the individual units. No trash chutes will be utilized on site. Trash and recycling receptacles will be located throughout the club house. The site will consist of 4 collection locations throughout the site. Each location will consist of 8-yard dumpsters which typically can store up to 1,600 lbs. of material. Estimating that each home will consist of 2.5 occupants that generate 4.40 lbs. of waste per day based on the national average. The total amount of waste the site will need to accommodate per week is 6,391. This amount divided by 1,600 is 3.99. Given that there are four (4) 8-yard dumpsters on site there should be sufficient storage. Pick up of trash and recycling from these locations is proposed to be picked up by the city following the cities current collection schedule.

Educational materials will be provided to the residents regarding being resourceful within the home and reducing their individual carbon footprint. The methods included within this material will be focused on bringing your own, encouraging donation of unused items, buying smart, fix and maintain items they currently have, and borrowing and share items.

ViewPoint Engineering

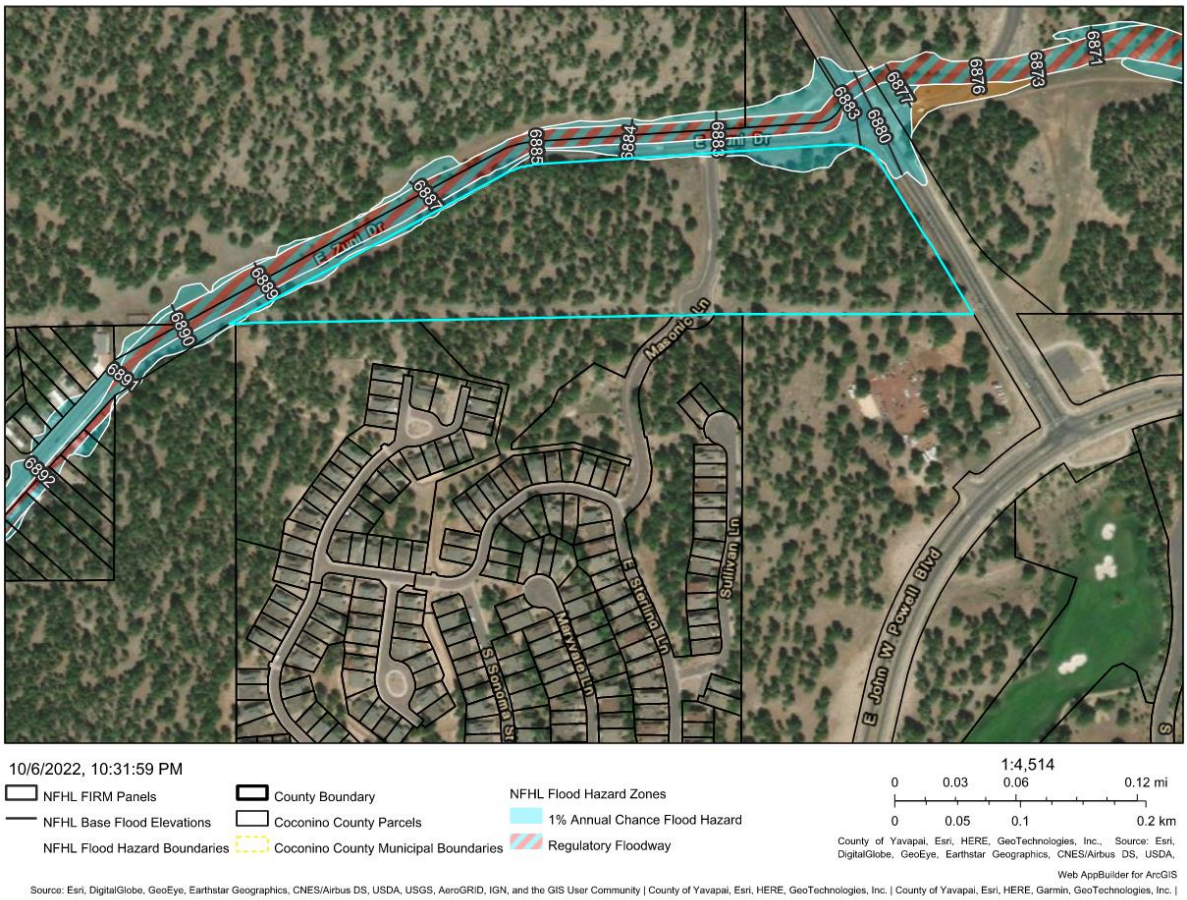
APPENDIX A: SUPPORTING DOCUMENTS

A.1 PROJECT LOCATION MAP

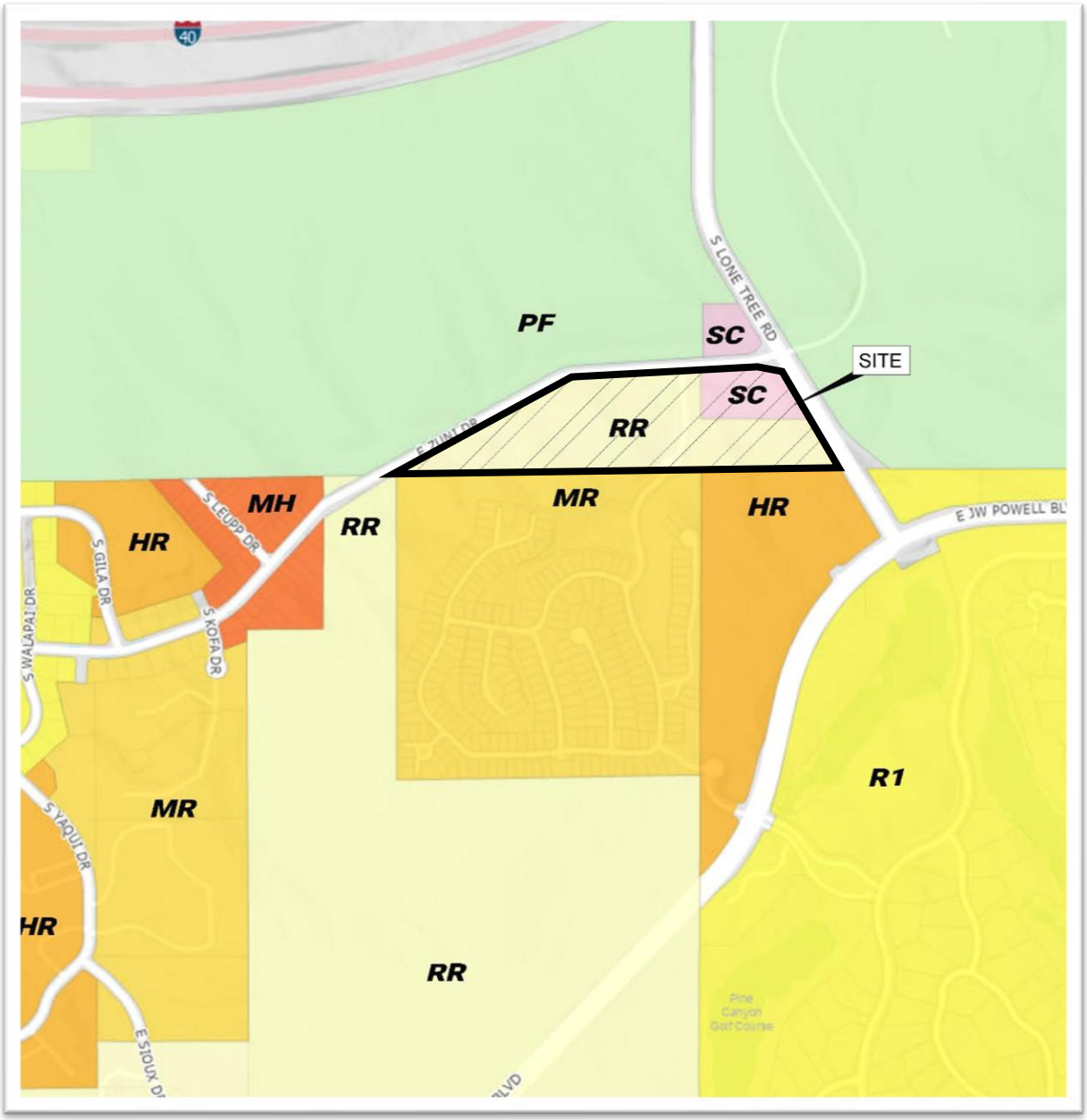


A.2 FLOOD MAP

ArcGIS Web Map



A.3 ZONING MAP



Juniper Estates

13.8+/- Acre Condo Development Project

Analysis Completed March 10, 2023

Public Water & Sewer Impact Analysis

Prepared by Ardurra, for The City of Flagstaff Water Services

Mayor

Becky Daggett

Council

Austin Aslan
Khara House
Lori Matthews
Jim McCarthy
Miranda Sweet
Deborah Harris

City Manager

Greg Clifton

Water Services Director

Shannon Jones

City Engineer

Paul A. Mood, P.E.

Public Works Director

Scott Overton

Registered Professional Engineer (Civil)
CERTIFICATE NO. 49953
ALICIA ANNE STOFFERS
Date signed: 3/10/23
ARIZONA, USA

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Public Water and Sewer Impact Analysis
Juniper Estates

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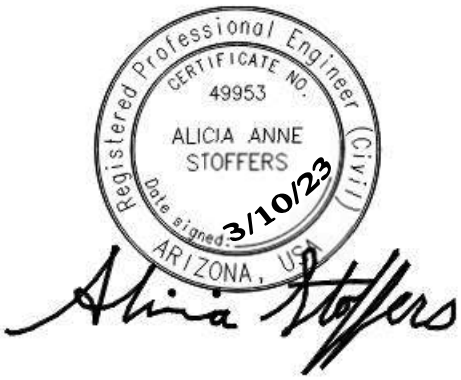
WaterGEMS Peak Domestic Flows and Pressures	Appendix A
WaterGEMS Fire Flow Analysis Report	Appendix B
SewerCAD Gravity Pipe Report	Appendix C



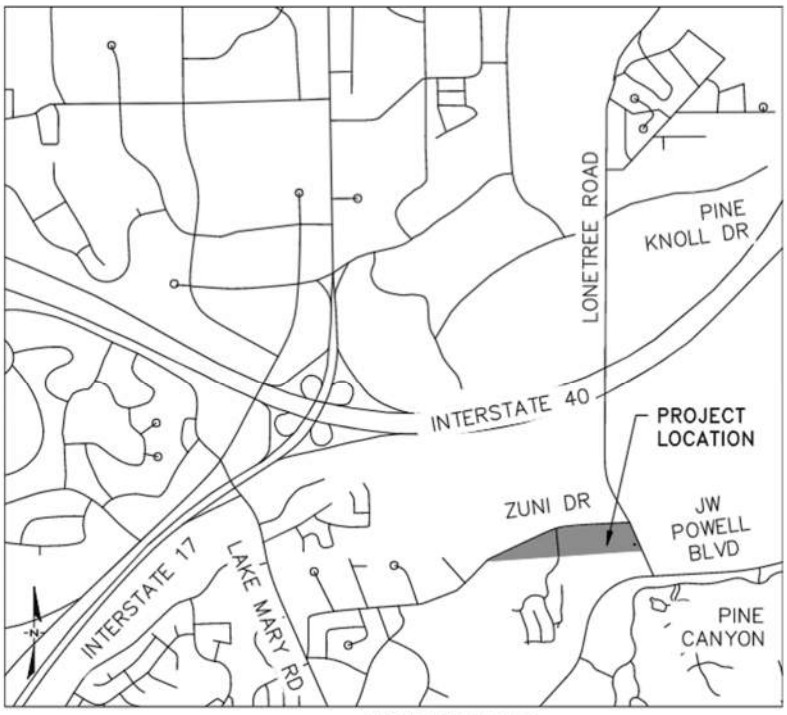
I. INTRODUCTION

The Juniper Estates project is located on Masonic Lane, southwest of the intersection of Zuni Dr and Lonetree Road. The project is located on Coconino County parcel 103-26-002D in Section 28, Township 21N, Range 7E, Gila and Salt River Base & Meridian (see Figure 1).

The proposed development lies within the City of Flagstaff urban growth boundary and has the ability to be served by City water and sewer utilities.

The Juniper Estates Overall Utility Plan Dated 10/07/22 and Utility Plan Sheets 1 and 2 (Exhibit 1) was provided to the City by ViewPoint Engineering. and has been used as the basis for this preliminary analysis. The developer is proposing two 26' PUEs for a total width of 52' centered on the proposed roadway. All public utilities are within the 52' PUE.

The criteria used herein to estimate the project's utility impacts is from the City of Flagstaff Engineering Design Standards (COF EDS), Chapter 13-09, effective October 2017. This Water and Sewer Impact Analysis (WSIA) is considered valid for two years from its completion date, which is 3/10/2023.



VICINITY MAP
NOT TO SCALE

II. ANALYSIS SUMMARY

On-site modifications:

The project site is bisected by Masonic Lane. In that road there are existing public sewer and water mains. Connections are proposed to the existing utilities and to existing utilities in Zuni Drive and Lone Tree Road. The remainder of the parcel is vacant, and it is assumed that there is currently no infrastructure in the ground to support this development, so all systems for the project will have to be designed and built.

Off-site modifications:

Sewer:. Currently there are sewer mains crossing the parcel that can be utilized for sewer service and also existing mains in the adjacent roadways. Tapping and extending the sewer line should be done according to City of Flagstaff Standards.

Water: Currently there is a water main crossing the parcel that can be utilized for water service and also existing mains in the adjacent roadways. Tapping and extending the waterline should be done according to City of Flagstaff Standards.

III. WATER SYSTEM ANALYSIS

A. EXISTING WATER SYSTEM

Currently, public water infrastructure exists across the property and in the adjacent roadways. There is a 12" DI water main in Lonetree Rd, a 12" PVC water main Zuni Dr. and an 8" PVC water main in Masonic Lane. This main falls within the City of Flagstaff Pressure Zone 'B'. See Exhibit 3 for the City of Flagstaff GIS map of the existing water facilities.

B. PROPOSED WATERLINE EXTENSIONS

The Concept Plan shows new 8" water mains extended on both sides of Masonic Lane in a 52' PUE to provide water service to each condo (Exhibit 1). The water mains will have two fire hydrants and individual meters for each of the 87 condos. The site plan provided by View Point Engineering shows the project tapping the public water system in 4 locations to loop the new mains through the site and provide a second source to both sections of the project.

There are structures proposed on the Concept Plan provided. A building on this

development could have multiple stories with water and sewer fixture heights up to 35 feet above ground level (according to zoning category MR Zoning and Table 10-40.30.040.C). This analysis provides the water pressure at the existing ground level. After grading is complete and finished floor elevations are established, analysis should be performed by the Architect/Engineer (A/E) to verify adequate pressure throughout the project.

C. WATER SYSTEM DEMANDS

The following quantifies the anticipated water demands for the project. The following Demand Criteria is from the City of Flagstaff Code 13-09-003-0004.2.

Water System Demand

Population Density MFR	2.5 person/unit
Average Daily Flow MFR	75 gpcd
Peak Daily Flow SFR	300 gpcd
Single Family Residential	87 Dwelling Units

Average Daily Demand = 87 DU X 2.5 person/unit X 75 gpcd = 16,313 gpd

Peak Daily Demand = 87 DU X 2.5 person/unit X 300 gpcd = 65,250 gpd

Fire Flow Demand = 1,500 gpm

D. WATER SYSTEM ANALYSIS RESULTS

Bentley WaterGEMS software was used for simulations of peak daily and fire flow.

The analysis area was estimated to be the area impacted by the proposed Juniper Estates development additional demands and locations that supply fire flows. This area is bounded by Lake Mary Road and Pine Knoll Dr. See the GIS Water Map Exhibit 3 with the analysis area. Proposed Demands were added to the model at J-14177 on Zuni Dr for the 45 western lots and J-7497 on Lonetree Rd for the 42 eastern lots. The Water Gems Junction Map is Exhibit 4.

Results of the computer analysis (Appendix A) for peak daily flow indicate a range in pressures off-site in the project vicinity from 109.58 psi (J-11543, Pine Knoll Drive) to 54.01 psi (J-2405, Pine Canyon). The nodes are consistent given the elevations of the

junction nodes within the analyzed boundary. The existing waterline in Masonic Lane has an approximate elevation of 6892 at the connection point to the new waterlines. The peak daily flow condition yields a pressure on the project site of 100.64 psi. This project meets the minimum pressure requirements stated in the City of Flagstaff Engineering Standards.

A pressure-reducing valve is required by the City of Flagstaff Engineering Standards if the pressure is above the 80 psi pressure. High pressures on-site will require the developer to install pressure-reducing valves after the meter.

Based on the computer simulation of fire flow, residual pressures in the project vicinity are projected to remain above 20 psi (COF EDS 13-09) or higher during fire flow scenarios of 1500 gpm or less. All of the hydrants in the analysis area can provide the required fire flow. Results are included in Appendix B and the Water Gems Hydrant Map is Exhibit 5. The lowest fire flow available within the analysis area occurs within the existing Bow and Arrow Neighborhood, west of the project site, due to higher elevations and smaller supply mains. This area still meets the minimum required Fire Flow and is not impacted by the proposed development.

It is the developer's responsibility to design, acquire adequate right-of-way for, and construct all on-site and connecting water infrastructure per all applicable City, State, and Federal rules and regulations.

IV. SEWER SYSTEM ANALYSIS

A. EXISTING SEWER SYSTEM

The project site is bordered by two existing sewer lines and a sewer line crossing the site in Masonic Lane. To the north of the project in Zuni Dr. is a 21" VC sewer interceptor. An 8" DI sewer in Masonic Dr and a 10" PVC sewer in Lonetree Rd flow to this main. The analysis area looks at the sewer downstream of the project to the Rio De Flag WRP junction MH R-034. See Exhibit 2 for the City of Flagstaff GIS map of the existing sewer system. The Wildcat Hill Treatment Plant treats all sewage collected from this proposed project.

B. PROPOSED SEWER SYSTEM EXTENSIONS

The Concept Plan shows new 8" sewer mains extended on both sides of Masonic Lane in a 52' PUE to provide sewer collection to each condo (Exhibit 1). Constructing and tapping the sewer line in the right-of-way should be done according to City of

Flagstaff Standards.

The proposed on-site sewer system was not analyzed as a part of this report and shall be addressed by the A/E as part of their design for their project. The A/E's engineering analysis and design shall be consistent with the requirements called out in the City of Flagstaff Engineering Standards.

C. SEWER SYSTEM FLOWRATES

The following criteria were utilized in determining the anticipated wastewater generation for this project. The following Demand Criteria is from the City of Flagstaff Code 13-09-002-0002.

The peaking factor is determined based on existing upstream population and calculated per Figure 13-09-002-01 in the Flagstaff Design Standards. The Population Equivalent for the existing flow rate in the upstream sewer system is 19,000 (100 gpcpd). A peaking factor of 1.75 is used in this analysis.

Sewer System Design Flows Condo

Population Density	2.5 person/unit
Average Daily Flow	75 gpcd
Peak Factor	1.75
Condos	87

Average Daily Flow = 87 lots X 2.5 person/unit X 75 gpcd = 16,313 gpd

Peak Daily Flow= 16,313 gpd X 1.75 = 28,548 gpd

D. SEWER SYSTEM ANALYSIS RESULTS

The submitted Utility Plan, Exhibit 1, shows connections to all three of the existing sewer mains. Without design elevations to determine flow direction, this analysis assumes the proposed site will contribute a portion of the generated flow to the sewers in both Zuni Dr and Lonetree Rd based on existing topography.

In the SewerGEMS model prepared for this evaluation, the sewer design flows for 45 condos were applied to manhole 6-213 in Zuni Dr. and 42 units at manhole 11-002 in Lonetree Rd (See Exhibit 6). These total design flows from Juniper Estates project

will yield a peak day flow increase of 28,548 gallons per day (0.028 MGD).

The capacity of the existing collection system downstream of this project is adequate to convey the existing and proposed flow rates and maintain the City's required d/D pipe capacity ratio (expressed as a percentage) at less than 70%. The highest D/d in the analysis area is 33.9% in the 24" sewer south of the Rio De Flag Wastewater Reclamation Plant. See Appendix C and Exhibit 6 for results.

According to the City of Flagstaff's Biosolids Master Plan developed by Carollo in 2019, the City's wastewater treatment capacity for both treatment plants combined is 6.3 MGD average daily flow based on current conditions and configurations. Average daily flows for both plants measured 5.404 MGD for the calendar year 2021. The remaining treatment capacity of both plants combined has been previously committed. The City is creating additional wastewater treatment capacity currently scheduled for completion by the end of 2024. The additional wastewater demand created by the Juniper Estates can be accommodated within the current wastewater treatment capacity projections. Therefore, the two-year reservation of capacity through the WSIA is not contingent upon the successful construction of improvements by 2024.

V. CONCLUSIONS & REQUIREMENTS

Sewer and water service to all adjacent homes and businesses must be maintained during construction and tapping for this project.

The findings of this analysis indicate that the completion of the project will comply with public water and sewer infrastructure requirements as outlined in the current City of Flagstaff Engineering Standards as long as all on-site infrastructure is designed and constructed per the Engineering Standards and as stipulated herein. All new service connections to the City water and sewer infrastructure are required to pay capacity fees for the new connection to the public water and sewer system. Deviations from the intent shown on the developer's provided preliminary drawings, and/or further development beyond what was shown on the preliminary drawings will require additional review and must gain full IDS (Inter-Division Staff) Approval. It should be noted that the City of Flagstaff Engineering Standards (Chapter 13 of the City of Flagstaff Code) is the only document used for this analysis. This WSIA does not guarantee conformance to any other codes, standards, or specifications similar to, but not limited to, IBC, IFC, IRC etc.

The location(s) of any required fire hydrants related to this project is (are) left to the discretion of the City of Flagstaff Fire Department per City of Flagstaff Engineering Standards and current Fire Codes. Approval by the City Engineer shall also be obtained.

Water and Sewer computer analyses were done with Bentley Systems WaterGEMS and SewerGEMS software. The existing City of Flagstaff master water and sewer models were modified to incorporate the estimated infrastructure and flows that will be required by this development.

All existing utility information is based on the City of Flagstaff GIS data and other information contained within the WaterGEMS & SewerCAD master models or provided by the City of Flagstaff engineering staff. The developer's A/E should confirm the City water system supply and wastewater collection system pipe sizes, materials, and locations as part of their design for connection to the COF water and sewer systems.

Changes to the development plan can impact the results of this Water and Sewer Impact Analysis. Those changes include modification of the development size, area of commercial space, number or type of residential units, population, etc. If such changes are made, then the developer must apply for an updated analysis and

provide the proposed changes to the City of Flagstaff for review and consideration.

This WSIA is considered valid for two years from its completion date, 3/10/2023, which is the date of the engineer's seal on the cover sheet and table of contents of this WSIA. All water and sewer utility lines and treatment plant capacity reservations as a result of this study will expire at that time. This WSIA will function as place holder for the developer. The capacity assurances discussed within this report will be provided by the City for 2 years. At which time the developer will need to have applied for a building permit or will be removed from the list of assured capacity. If this project is removed from the capacity assurance list, the developer will need to re-apply for capacity assurance by getting a new WSIA.

Exhibit Maps

LAND USE				ESTIMATED WATER DEMAND		
TYPE		PEAK	# OF UNITS	DESIGN POPULATION	MAXIMUM TOTAL DAILY CONSUMPTION	PEAK DAY FLOW RATE
RESIDENTIAL CONDO	3.5 PERSONS PER DWELLING UNIT	250 (GPCD)	87	304.5	76125 (GPD)	52.86 (GPM)

*Values found in Table 13-09-003-02 Water Demand Criteria of the Flagstaff Municipal Code.

LAND USE				ESTIMATED WASTE WATER DEMAND	
TYPE		AVERAGE DRY WEATHER FLOW	# OF UNITS	DESIGN POPULATION	ESTIMATED DAILY FLOW
RESIDENTIAL CONDO	3.5 PERSONS PER DWELLING UNIT	75 (GPCD)	87	304.5	22837.5 (GPD)

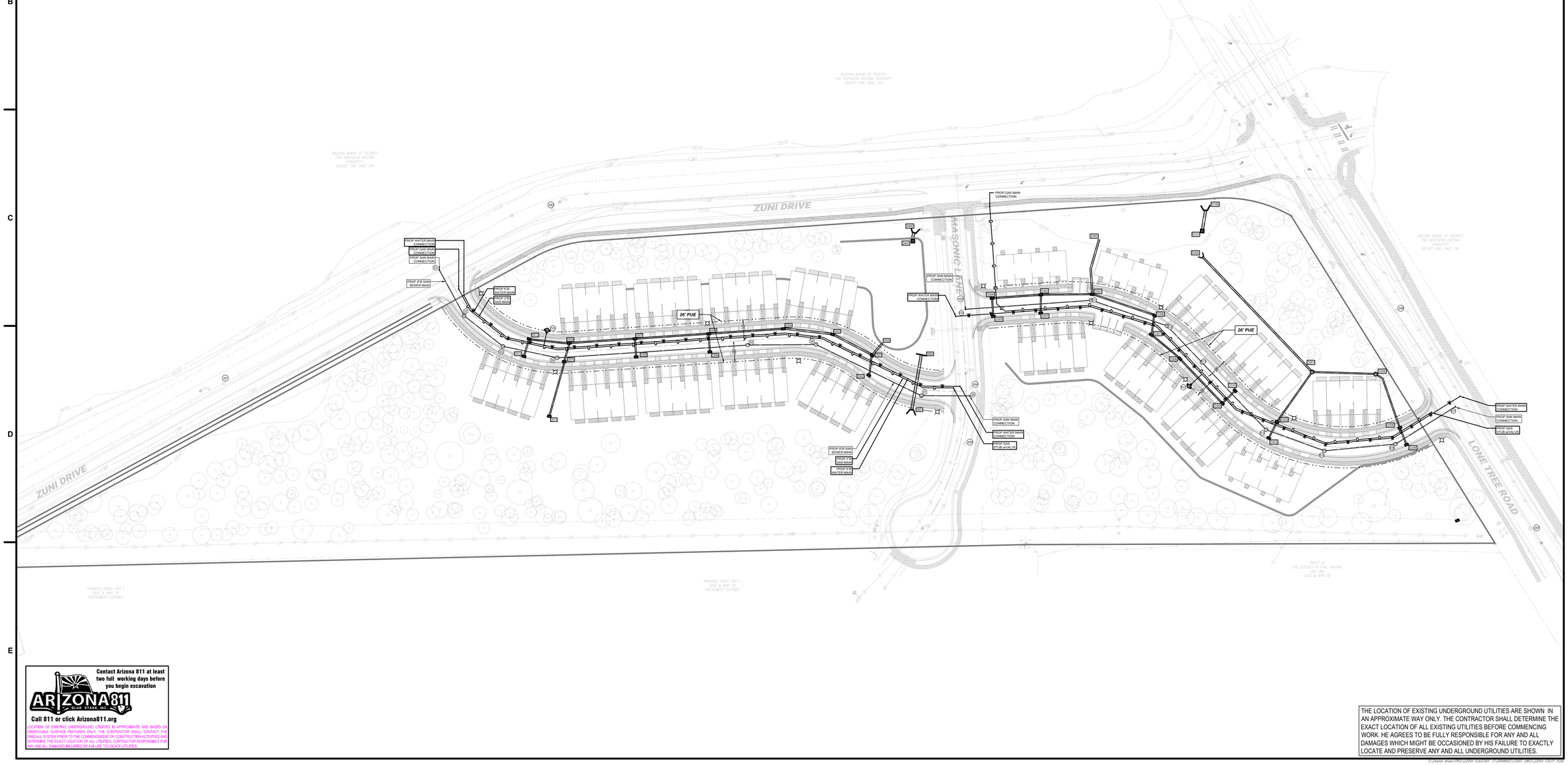
* Values found in 13-09-002-01 Average Daily Flows by Land Use of the Flagstaff Municipal Code.

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- APPROX. FEMA ZONE AE BOUNDARY
- APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- EX. SANITARY SEWER MAIN
- EX STORM PIPE
- EX. UNDERGROUND ELECTRIC SERVICE LINE
- EX. OVERHEAD WIRE
- EX. GAS SERVICE MAIN
- EX TELEPHONE/COMMUNICATIONS LINE
- EX WATER MAIN
- EX CONTOUR ELEVATION LINE
- PROP CONTOUR ELEVATION LINE
- PROP STORM SEWER
- PROP SAN SEWER MAIN
- PROP GAS SERVICE MAIN
- PROP WATER SERVICE MAIN
- PUE

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- EX. TREES (PINE, OAK, DECID.)
- PROP STORM STRUCTURE w/ID
- PROP SAN STRUCTURE w/ID
- PROP FIRE HYDRANT w/ID
- PROP LIGHT POLE
- LANDSCAPE STRIP



Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE, AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

REV	DATE	DESCRIPTION	INIT
REVISIONS			

PRELIMINARY NOT FOR CONSTRUCTION

THIS PLAN HAS BEEN PREPARED FOR GENERAL DISCUSSION ONLY AND IS BASED UPON LIMITED DUE DILIGENCE.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE 1" = 50' (0, 25, 50)
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **JUNIPER ESTATES**
RESIDENTIAL LAND DEVELOPMENT
2955 N MAIN ST, FLAGSTAFF, AZ
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
8512 BESTRIDE BEND, AUSTIN, TEXAS 78744

TITLE: **OVERALL UTILITY PLAN**

PROJECT NO. 22004
DATE OCTOBER 7, 2022
SHEET ID
REV 0

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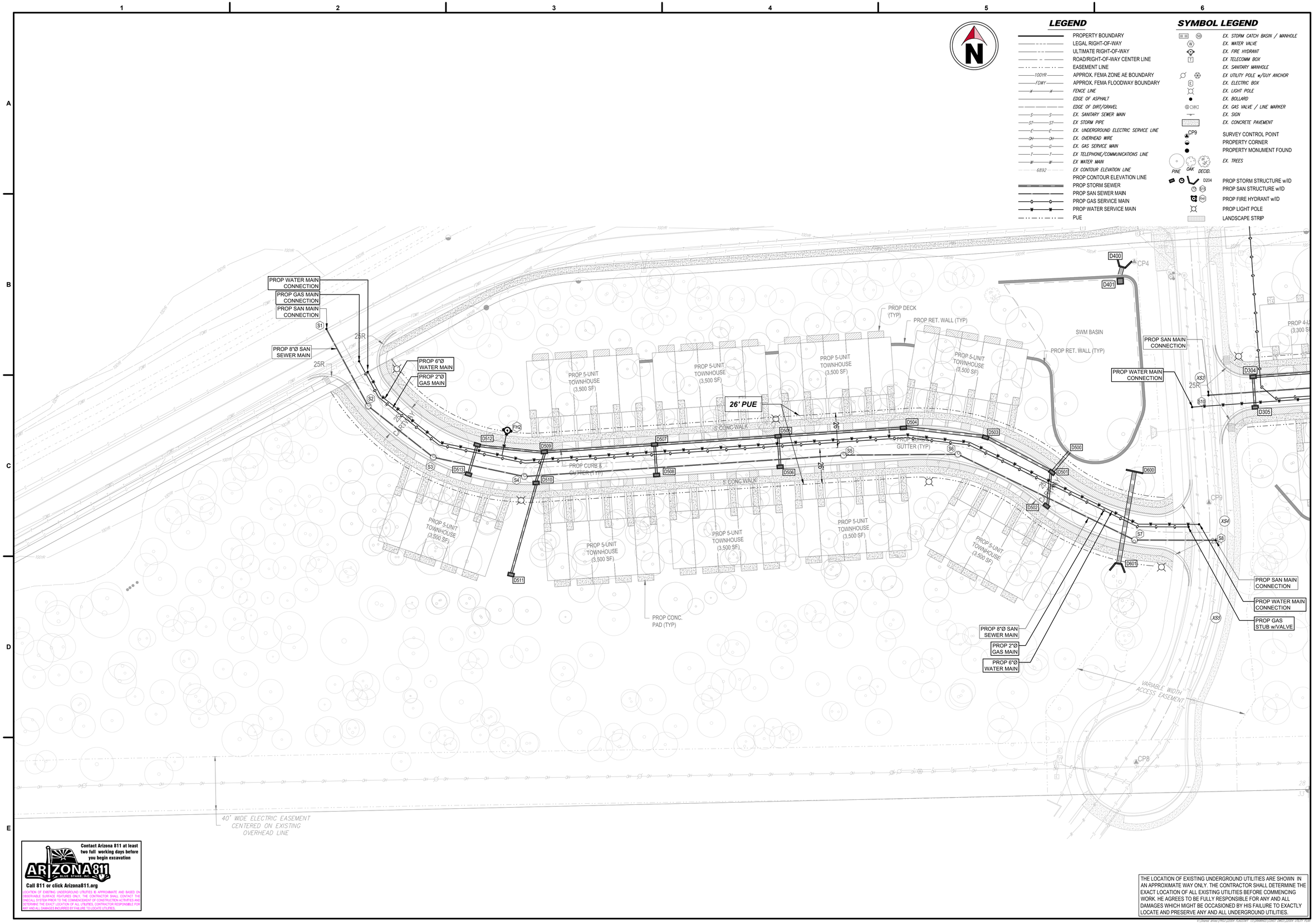

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REVISIONS

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ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE 1" = 30'
0 15 30

DWN BY: M TOTH
CHK BY: E BEALS

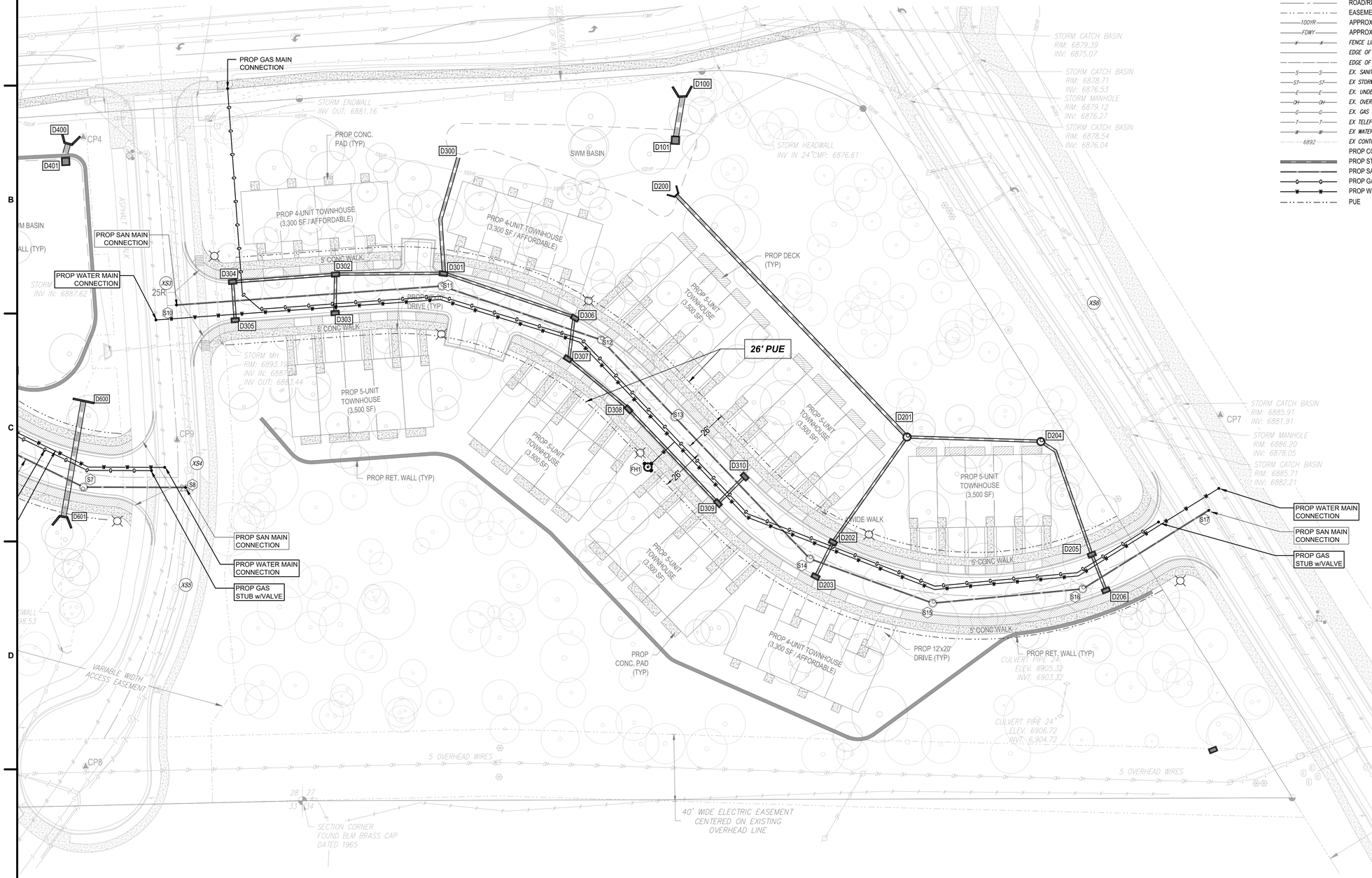
PROJECT: JUNIPER ESTATES
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
8512 BESTRIDE BEND, AUSTIN, TEXAS 78744

TITLE: UTILITY PLAN (1 OF 2)

PROJECT NO. 22004
DATE OCTOBER 7, 2022
SHEET ID
REV 0

SHEET 11 of 13



LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. FEMA ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- EX. SANITARY SEWER MAIN
- EX STORM PIPE
- EX. UNDERGROUND ELECTRIC SERVICE LINE
- EX. OVERHEAD WIRE
- EX. GAS SERVICE MAIN
- EX TELEPHONE/COMMUNICATIONS LINE
- EX WATER MAIN
- 6892 — EX CONTOUR ELEVATION LINE
- PROP CONTOUR ELEVATION LINE
- PROP STORM SEWER
- PROP SAN SEWER MAIN
- PROP GAS SERVICE MAIN
- PROP WATER SERVICE MAIN
- PUE

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- EX. TREES (PINE, OAK, DECID.)
- D204 — PROP STORM STRUCTURE w/ID
- S16 — PROP SAN STRUCTURE w/ID
- FH1 — PROP FIRE HYDRANT w/ID
- PROP LIGHT POLE
- LANDSCAPE STRIP

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		REVISIONS	

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ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

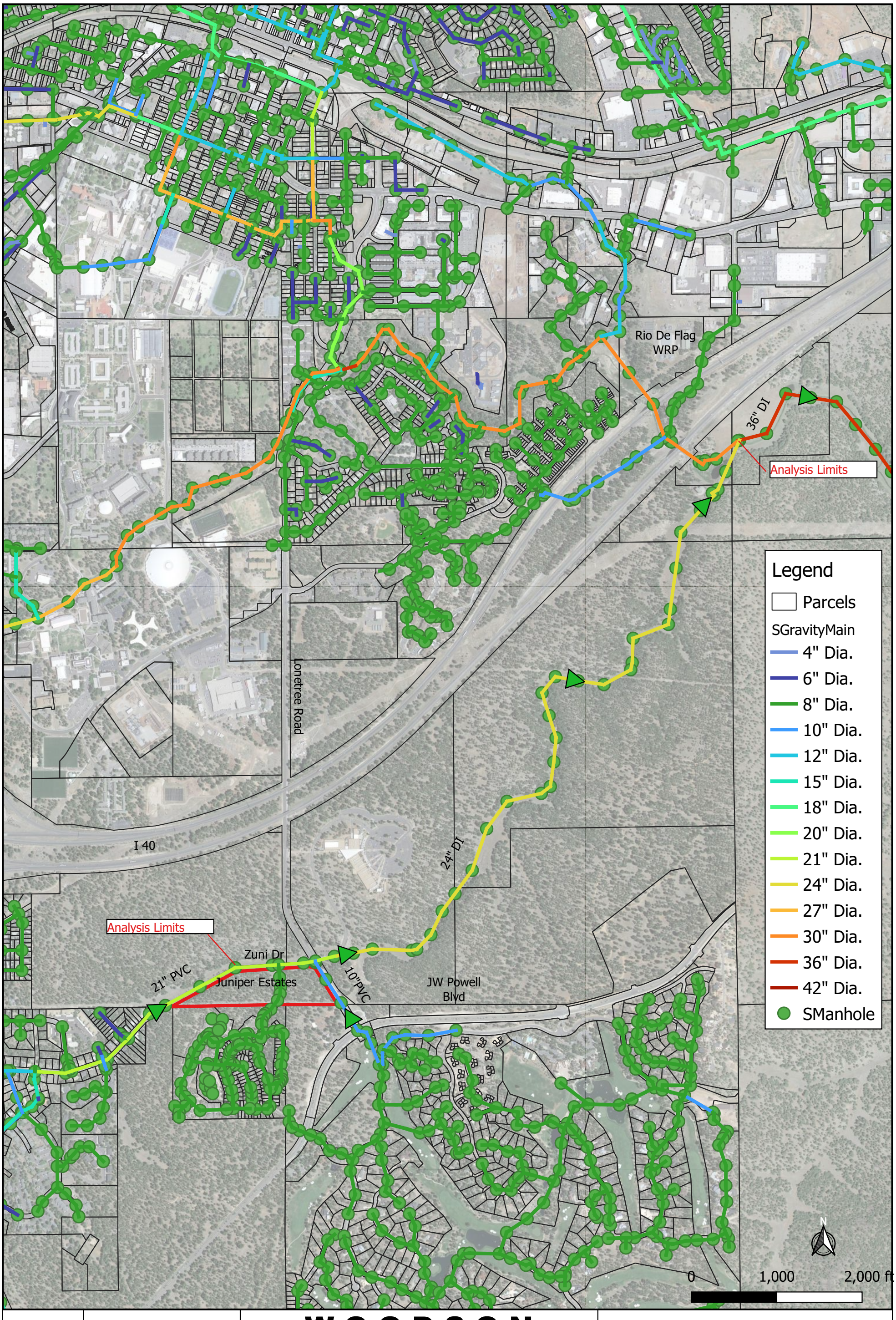
SCALE 1" = 30' (0 15 30)
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: JUNIPER ESTATES
RESIDENTIAL LAND DEVELOPMENT
2955 S. MILITARY TRAIL
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
8512 BESTRIDE BEND, AUSTIN, TEXAS 78744

TITLE: UTILITY PLAN (2 OF 2)

PROJECT NO. 22004
DATE OCTOBER 7, 2022
SHEET ID
REV 0



PROJ # 122802

ARDURRA

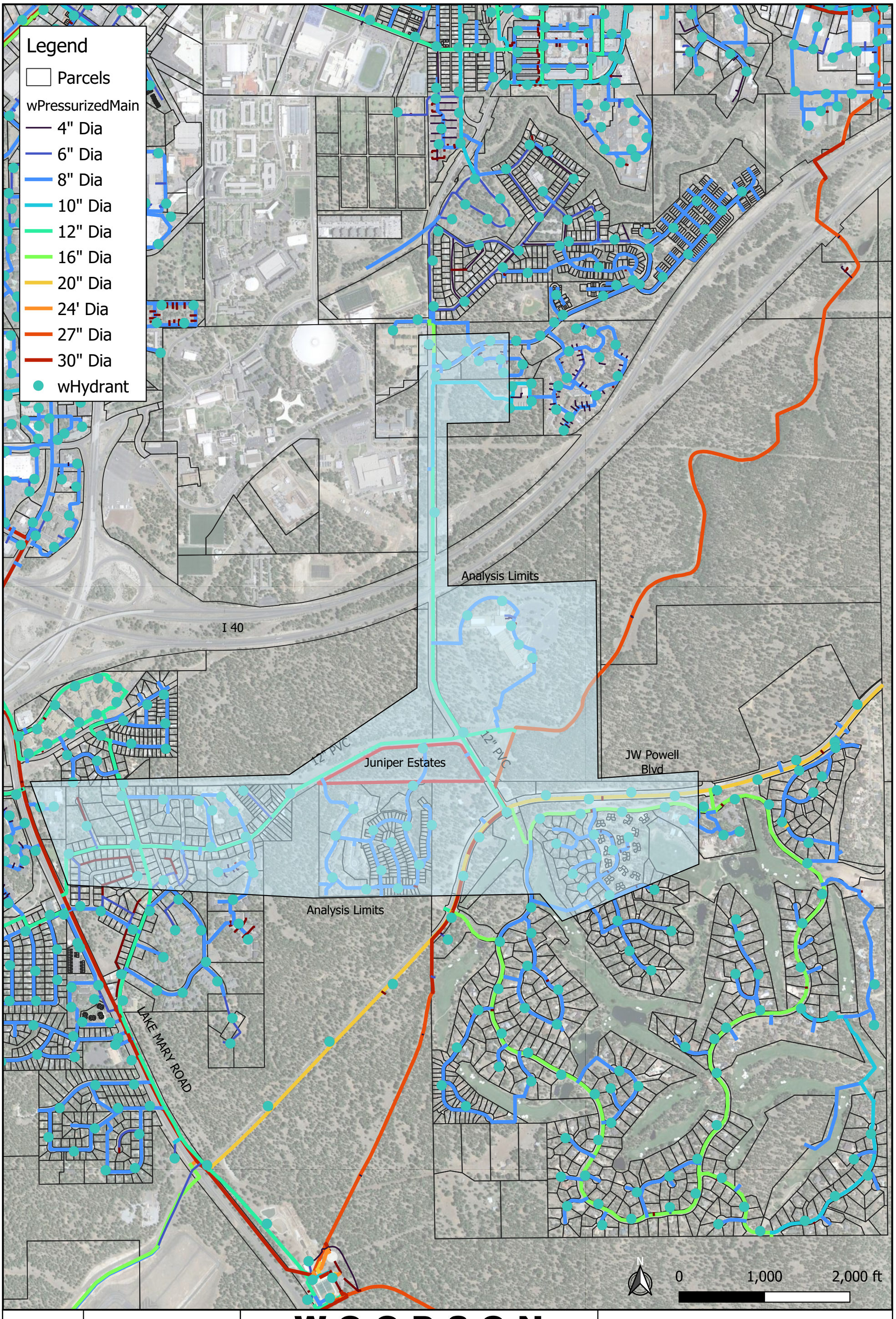
W O O D S O N

ENGINEERING AND SURVEYING

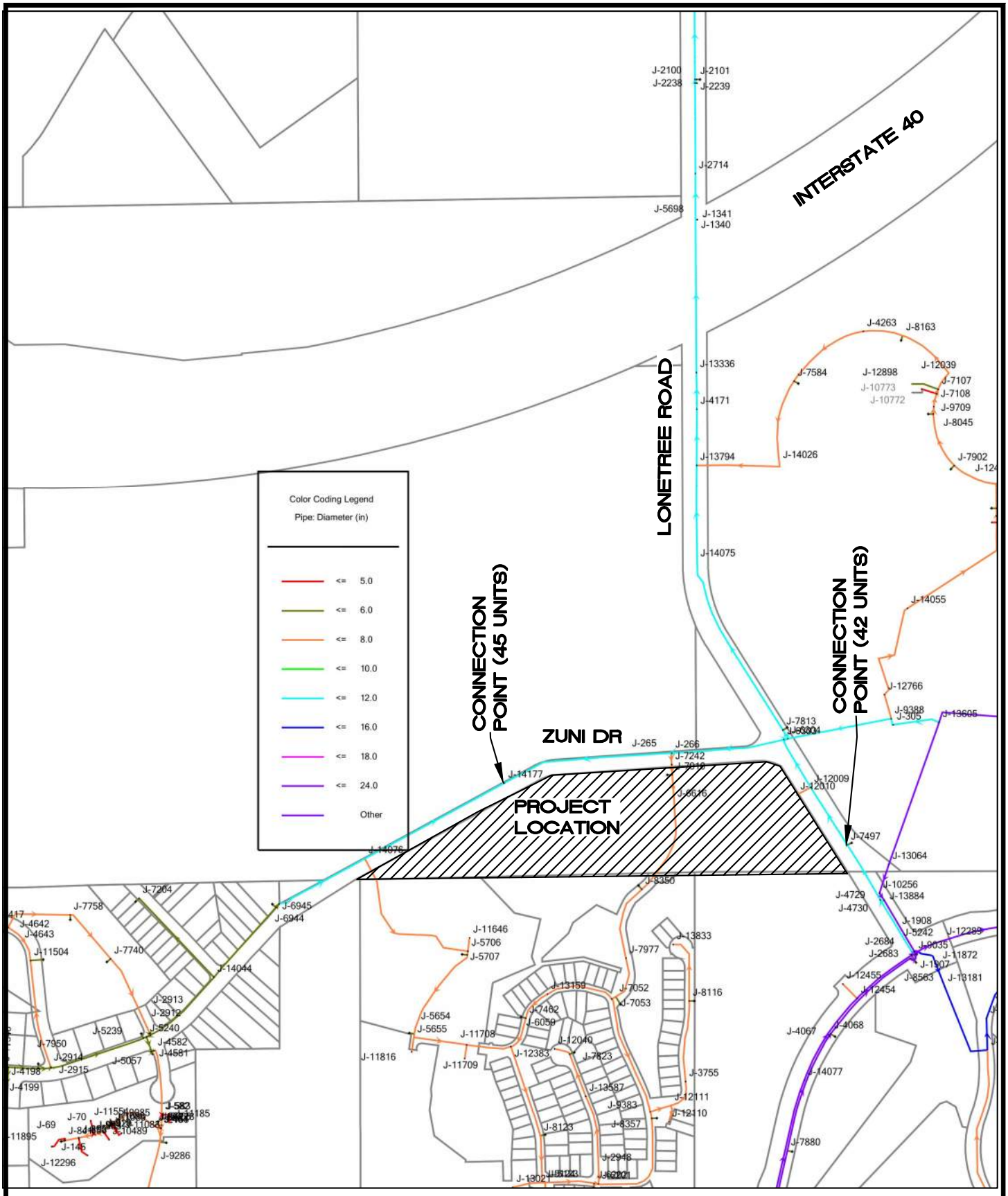
124 N ELDEN ST.
FLAGSTAFF, AZ 86001
PHONE: (928) 774-4636 WWW.ARDURRA.COM

EXHIBIT 2

Juniper Estates
FLAGSTAFF SEWER GIS MAP

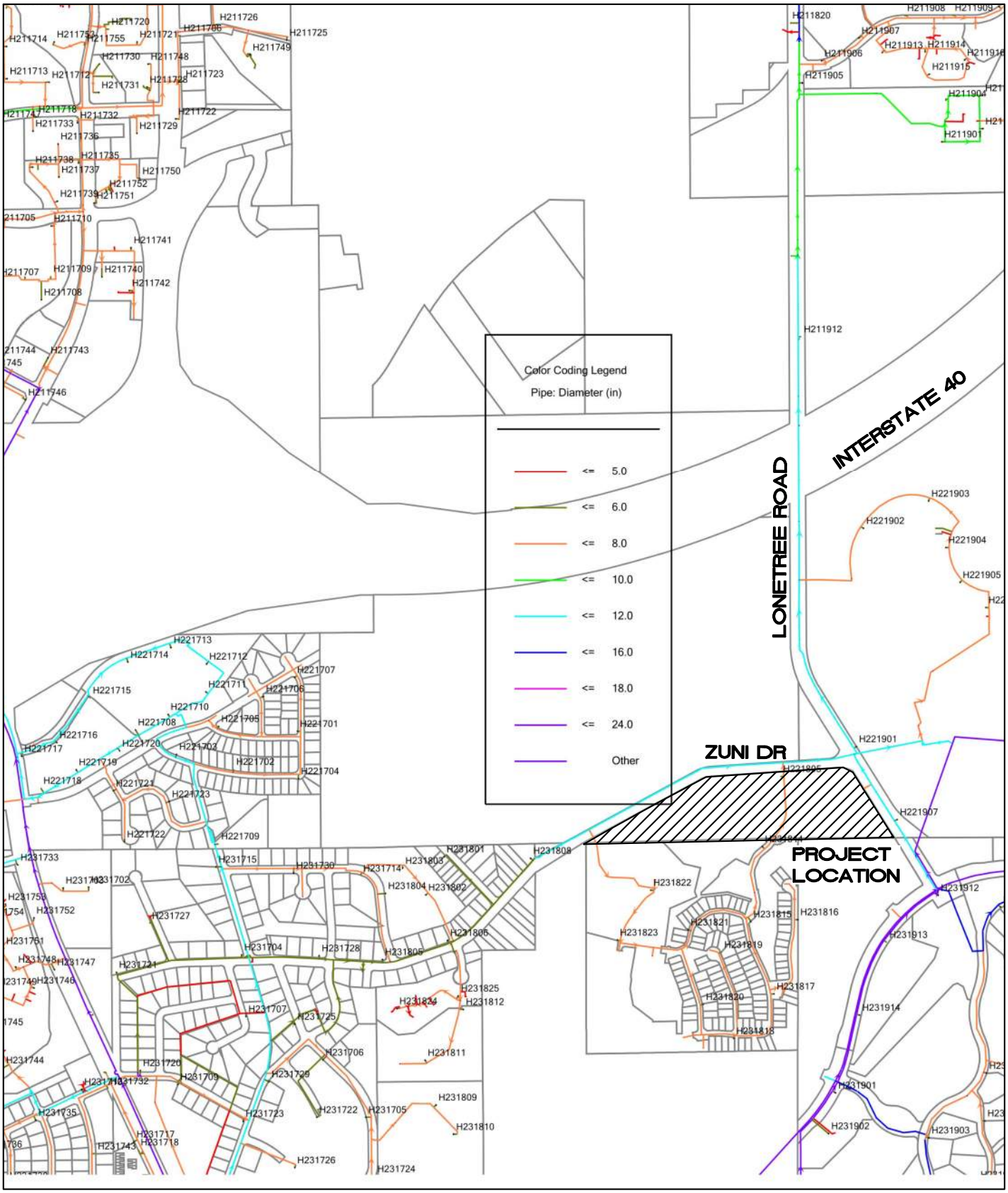


PROJ # 122802	ARDURRA	**WOODSON** ENGINEERING AND SURVEYING 124 N ELDEN ST. FLAGSTAFF, AZ 86001 PHONE: (928) 774-4636 www.ardurra.com	**EXHIBIT 3** **JUNIPER ESTATES** **FLAGSTAFF WATER GIS**



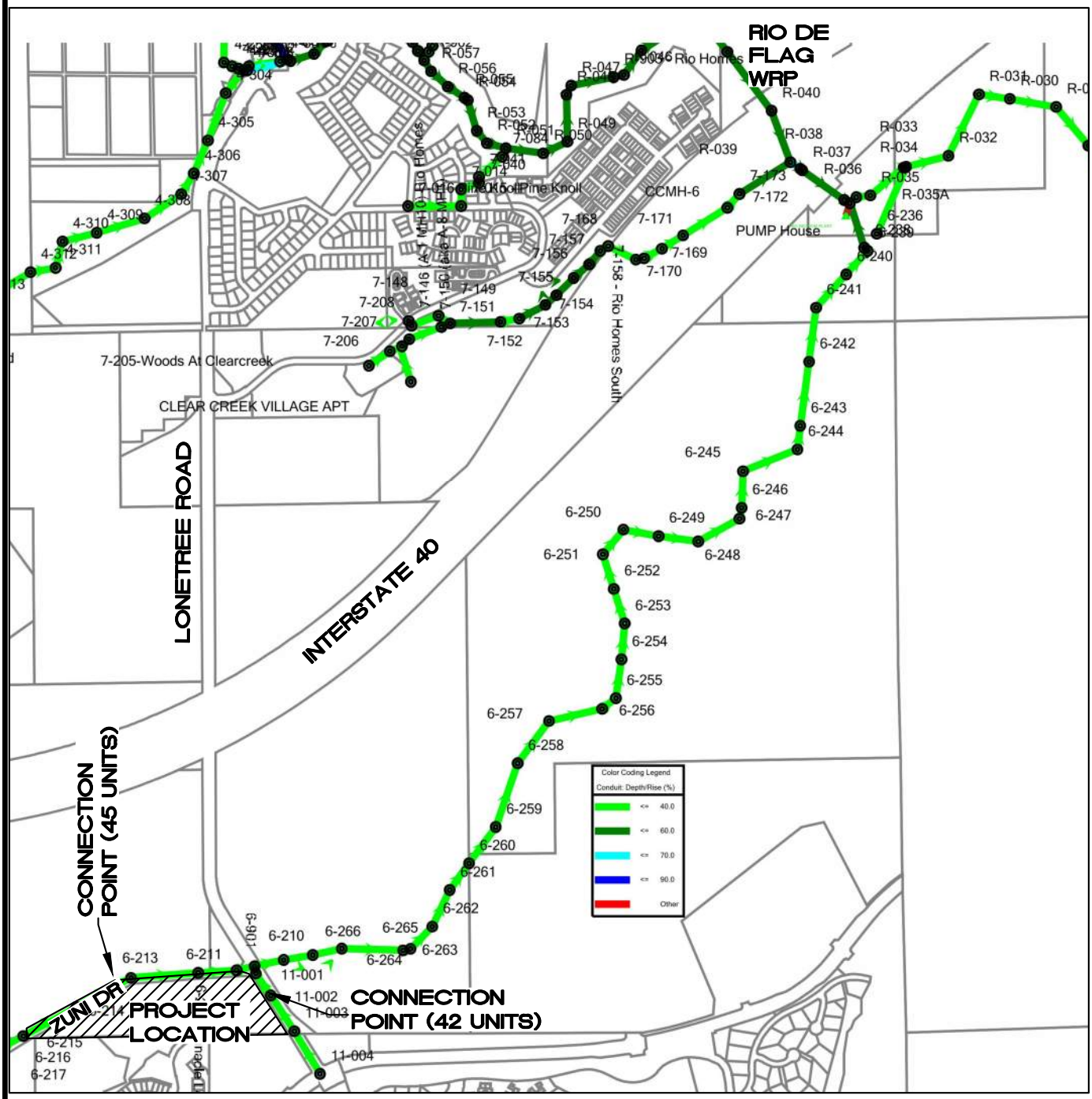
NOT TO SCALE

DRAFTED BY: AAS DATE: 1/24/2023 PROJ. NO.: 122802 FN: GEMS MAPS	**WOODSON** ENGINEERING & SURVEYING (928)774-4636 | WWW.ARDURRA.COM	EXHIBIT 4 WISA JUNIPER ESTATES WATER GEMS JUNCTIONS



NOT TO SCALE

DRAFTED BY: AAS DATE: 1/24/2023 PROJ. NO.: 122802 FN: GEMS MAPS	**WOODSON** ENGINEERING & SURVEYING (928)774-4636 | WWW.ARDURRA.COM	EXHIBIT 5 WISA JUNIPER ESTATES WATER GEMS HYDRANTS



NOT TO SCALE

DRAFTED BY: AAS DATE: 1/24/2023 PROJ. NO.: 122802 FN: GEMS MAPS	**WOODSON** ENGINEERING & SURVEYING (928)774-4636 | WWW.ARDURRA.COM	EXHIBIT 6 WISA JUNIPER ESTATES SEWER GEMS MANHOLES



Appendix A

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)
J-2405	7,000.00	0.00	54.01	7,124.83
J-2406	7,000.00	0.00	54.01	7,124.83
J-9128	6,999.84	0.23	54.08	7,124.83
J-10863	6,999.21	0.00	54.35	7,124.83
J-5739	6,999.14	0.00	54.38	7,124.83
J-9986	6,998.88	0.00	54.49	7,124.83
J-7903	6,998.57	0.00	54.63	7,124.83
J-5380	6,996.06	0.00	55.71	7,124.83
J-10983	6,995.55	0.08	55.94	7,124.83
J-1299	6,995.53	0.00	55.94	7,124.83
J-1300	6,995.43	0.00	55.99	7,124.83
J-7383	6,995.00	0.09	56.17	7,124.83
J-408	6,994.83	0.08	56.24	7,124.83
J-409	6,994.82	0.00	56.25	7,124.83
J-8225	6,994.64	1.21	56.33	7,124.83
J-10100	6,994.52	0.13	56.38	7,124.83
J-856	6,994.08	0.00	56.57	7,124.83
J-857	6,993.76	0.00	56.71	7,124.83
J-5219	6,993.57	0.00	56.79	7,124.83
J-2501	6,992.86	0.00	57.10	7,124.83
J-2500	6,992.80	0.00	57.13	7,124.83
J-13295	6,992.32	0.39	57.33	7,124.83
J-5473	6,991.38	0.00	57.74	7,124.83
J-12602	6,988.00	0.00	59.21	7,124.86
J-1251	6,987.46	0.00	59.43	7,124.83
J-1252	6,987.35	0.00	59.48	7,124.83
J-5448	6,987.05	0.00	59.61	7,124.83
J-6201	6,983.79	0.37	61.04	7,124.86
J-13296	6,983.73	0.15	61.05	7,124.83
J-2948	6,983.66	0.26	61.09	7,124.86
J-6202	6,983.56	0.00	61.14	7,124.86
J-2317	6,983.19	0.00	61.28	7,124.83
J-2318	6,982.95	0.00	61.38	7,124.83
J-5207	6,982.58	0.00	61.55	7,124.83
J-1682	6,982.00	0.00	61.80	7,124.83
J-1683	6,982.00	0.00	61.80	7,124.83
J-5458	6,982.00	0.00	61.80	7,124.83
J-8152	6,981.94	0.00	61.82	7,124.83
J-9485	6,981.59	0.00	61.97	7,124.83
J-8323	6,980.67	0.00	62.37	7,124.83
J-293	6,980.59	0.00	62.41	7,124.83
J-292	6,980.00	0.00	62.66	7,124.83
J-7189	6,979.68	0.00	62.80	7,124.83
J-7580	6,978.93	0.30	63.13	7,124.83
J-5123	6,978.95	0.00	63.13	7,124.86
J-5124	6,978.89	0.00	63.15	7,124.86
J-5736	6,977.53	0.02	63.73	7,124.83
J-691	6,977.15	0.00	63.90	7,124.83
J-690	6,976.83	0.04	64.03	7,124.83
J-13021	6,976.56	0.00	64.17	7,124.86
J-8092	6,975.25	0.04	64.72	7,124.83
J-13992	6,975.19	0.42	64.74	7,124.83
J-11160	6,973.60	0.00	65.43	7,124.82
J-3755	6,973.23	0.44	65.61	7,124.86
J-13587	6,973.13	0.28	65.65	7,124.86

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)
J-5708	6,971.51	0.00	66.34	7,124.83
J-4263	6,971.15	0.00	66.50	7,124.86
J-818	6,970.21	0.00	66.90	7,124.83
J-817	6,969.82	0.00	67.07	7,124.83
J-8357	6,969.44	0.37	67.25	7,124.86
J-12110	6,969.40	0.42	67.26	7,124.86
J-12111	6,968.34	0.00	67.72	7,124.86
J-7823	6,968.12	0.11	67.81	7,124.86
J-7584	6,967.65	0.00	68.01	7,124.86
J-12488	6,967.47	0.00	68.09	7,124.86
J-5175	6,967.03	0.00	68.27	7,124.83
J-9383	6,967.05	0.55	68.28	7,124.86
J-8116	6,967.03	0.29	68.29	7,124.86
J-716	6,966.53	0.00	68.49	7,124.83
J-12898	6,966.25	0.00	68.62	7,124.86
J-12040	6,966.07	0.00	68.70	7,124.86
J-717	6,966.02	0.00	68.71	7,124.83
J-5699	6,966.00	0.00	68.72	7,124.83
J-8045	6,966.00	0.00	68.73	7,124.86
J-8019	6,966.00	0.00	68.73	7,124.86
J-9709	6,965.95	0.00	68.75	7,124.86
J-11816	6,965.84	0.00	68.80	7,124.86
J-7902	6,965.76	0.00	68.83	7,124.86
J-7108	6,965.47	0.00	68.96	7,124.86
J-8163	6,965.45	0.00	68.97	7,124.86
J-7107	6,965.33	0.00	69.02	7,124.86
J-12039	6,965.30	0.00	69.04	7,124.86
J-8018	6,964.90	0.00	69.21	7,124.86
J-8123	6,964.83	0.00	69.24	7,124.86
J-8255	6,964.45	0.00	69.40	7,124.86
J-7880	6,961.18	0.00	70.82	7,124.87
J-13833	6,960.78	0.14	70.99	7,124.86
J-5655	6,959.85	0.00	71.39	7,124.86
J-5654	6,959.79	0.00	71.42	7,124.86
J-7404	6,958.95	0.00	71.77	7,124.84
J-6652	6,956.96	0.00	72.62	7,124.81
J-7758	6,955.99	0.00	73.07	7,124.88
J-11138	6,955.56	0.00	73.24	7,124.84
J-4076	6,954.33	0.00	73.76	7,124.82
J-4077	6,954.16	0.00	73.84	7,124.82
J-12417	6,953.20	0.41	74.28	7,124.88
J-6059	6,953.09	0.00	74.32	7,124.86
J-4642	6,952.33	0.00	74.66	7,124.88
J-5707	6,952.00	0.00	74.79	7,124.86
J-4643	6,951.82	0.00	74.88	7,124.88
J-5706	6,951.57	0.00	74.97	7,124.86
J-7462	6,951.50	0.00	75.01	7,124.86
J-10221	6,951.33	0.07	75.09	7,124.89
J-6454	6,950.40	0.47	75.49	7,124.89
J-11646	6,949.87	0.00	75.71	7,124.86
J-7740	6,949.64	0.02	75.82	7,124.88
J-7058	6,949.56	0.92	75.86	7,124.89
J-11975	6,948.96	0.18	76.10	7,124.84
J-11709	6,948.61	0.00	76.26	7,124.86
J-14077	6,948.13	0.00	76.47	7,124.86

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)
J-14026	6,946.93	0.00	76.98	7,124.85
J-12383	6,946.79	0.00	77.05	7,124.86
J-13566	6,945.55	0.19	77.59	7,124.89
J-11708	6,944.97	0.00	77.83	7,124.86
J-11976	6,944.66	0.00	77.96	7,124.84
J-1224	6,943.93	0.00	78.30	7,124.91
J-4171	6,943.68	0.00	78.38	7,124.85
J-1225	6,943.74	0.00	78.38	7,124.91
J-13159	6,942.59	0.18	78.86	7,124.86
J-13336	6,941.19	0.00	79.46	7,124.85
J-7053	6,937.20	1.22	81.19	7,124.86
J-7052	6,936.61	0.12	81.45	7,124.86
J-4067	6,936.24	0.00	81.61	7,124.87
J-4068	6,935.72	0.00	81.84	7,124.87
J-13794	6,935.40	0.00	81.97	7,124.85
J-11504	6,934.97	8.04	82.17	7,124.88
J-13137	6,934.92	0.00	82.17	7,124.85
J-12289	6,931.85	0.00	83.50	7,124.85
J-11872	6,929.36	0.00	84.58	7,124.85
J-12454	6,929.36	0.00	84.58	7,124.86
J-9035	6,929.32	0.00	84.60	7,124.85
J-1908	6,929.16	0.00	84.68	7,124.87
J-1907	6,929.11	0.00	84.70	7,124.87
J-5242	6,928.99	0.00	84.75	7,124.87
J-2684	6,928.90	0.00	84.78	7,124.85
J-2683	6,928.79	0.00	84.83	7,124.85
J-8563	6,928.54	0.00	84.94	7,124.87
J-12455	6,928.40	0.00	85.00	7,124.86
J-7977	6,927.77	0.00	85.27	7,124.86
J-14055	6,926.86	0.00	85.67	7,124.87
J-12296	6,926.87	0.06	85.67	7,124.87
J-3601	6,921.64	0.00	87.91	7,124.82
J-11083	6,921.55	0.38	87.97	7,124.87
J-3135	6,919.73	0.00	88.74	7,124.82
J-3136	6,919.69	0.00	88.75	7,124.82
J-3147	6,919.68	0.00	88.76	7,124.82
J-896	6,919.16	0.00	89.00	7,124.87
J-9085	6,919.14	0.28	89.01	7,124.87
J-516	6,918.92	0.00	89.08	7,124.82
J-515	6,918.77	0.00	89.15	7,124.82
J-895	6,918.44	0.00	89.32	7,124.87
J-4730	6,917.59	0.00	89.68	7,124.87
J-4729	6,917.54	0.00	89.70	7,124.87
J-13884	6,916.84	0.00	90.00	7,124.87
J-8844	6,916.39	0.67	90.21	7,124.90
J-841	6,915.77	0.00	90.47	7,124.87
J-70	6,915.71	0.00	90.50	7,124.87
J-1089	6,915.64	0.11	90.53	7,124.87
J-69	6,915.46	0.00	90.61	7,124.87
J-1088	6,915.22	0.00	90.71	7,124.87
J-145	6,915.14	0.00	90.74	7,124.87
J-10256	6,915.03	0.00	90.79	7,124.87
J-12653	6,914.83	0.00	90.85	7,124.82
J-8845	6,914.62	0.00	90.98	7,124.90
J-6522	6,913.28	0.00	91.56	7,124.90

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)	
J-6521	6,912.94	0.16	91.70	7,124.90	
J-7389	6,912.92	0.27	91.71	7,124.90	
J-9286	6,912.89	1.74	91.72	7,124.87	
J-10489	6,912.35	0.00	91.95	7,124.87	
J-7204	6,911.59	0.94	92.28	7,124.87	
J-13181	6,911.16	0.00	92.46	7,124.85	
J-8350	6,910.79	0.00	92.62	7,124.86	
J-2238	6,909.84	0.00	93.01	7,124.83	
J-2100	6,909.70	0.00	93.07	7,124.83	
J-920	6,909.47	0.00	93.20	7,124.87	
J-868	6,909.39	0.00	93.23	7,124.87	
J-983	6,909.25	0.00	93.29	7,124.87	
J-10636	6,909.09	0.78	93.37	7,124.89	
J-919	6,909.06	0.00	93.37	7,124.87	
J-984	6,908.77	0.71	93.50	7,124.87	
J-6236	6,908.58	0.06	93.59	7,124.90	
J-867	6,908.51	0.00	93.61	7,124.87	
J-11895	6,908.51	0.00	93.61	7,124.87	
J-8160	6,908.44	0.00	93.65	7,124.89	
J-6235	6,908.23	1.11	93.74	7,124.90	
J-2101	6,907.96	0.00	93.83	7,124.83	
J-464	6,907.94	0.00	93.86	7,124.87	
J-2239	6,907.85	0.00	93.87	7,124.83	
J-465	6,907.85	0.00	93.90	7,124.87	
J-5068	6,907.47	0.00	94.06	7,124.87	
J-10797	6,906.94	0.06	94.30	7,124.89	
J-4728	6,906.86	0.00	94.32	7,124.87	
J-361	6,906.69	0.32	94.41	7,124.89	
J-11185	6,905.97	0.00	94.71	7,124.87	
J-14075	6,905.87	0.00	94.75	7,124.86	
J-85	6,905.53	0.51	94.91	7,124.89	
J-86	6,905.48	0.00	94.93	7,124.89	
J-11554	6,904.92	0.00	95.16	7,124.87	
J-583	6,903.70	1.18	95.69	7,124.87	
J-582	6,903.63	0.00	95.72	7,124.87	
J-14131	6,903.15	0.00	95.89	7,124.78	
J-13767	6,903.05	0.95	95.98	7,124.89	
J-13978	6,902.42	0.00	96.22	7,124.81	
J-4089	6,900.21	0.12	97.21	7,124.89	
J-4090	6,899.91	0.00	97.34	7,124.89	
J-7829	6,899.80	0.65	97.39	7,124.90	
J-11144	6,899.31	0.00	97.60	7,124.89	
J-9813	6,899.18	0.08	97.66	7,124.90	
J-8379	6,899.17	0.38	97.66	7,124.89	
J-13977	6,899.00	0.00	97.69	7,124.79	
J-8378	6,898.98	0.64	97.74	7,124.89	
J-13298	6,898.63	0.00	97.89	7,124.89	
J-12884	6,898.19	0.93	98.03	7,124.78	
J-3446	6,898.00	0.69	98.16	7,124.89	
J-5507	6,898.00	0.09	98.16	7,124.89	
J-5508	6,898.00	0.23	98.16	7,124.89	
J-1038	6,898.00	0.06	98.17	7,124.89	
J-1039	6,898.00	0.00	98.17	7,124.89	
J-4509	6,898.00	0.42	98.17	7,124.89	
J-7497	6,897.13	21.88	98.53	7,124.87	New Demand Location

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)	
J-8044	6,896.79	0.29	98.69	7,124.89	
J-3914	6,896.28	0.00	98.91	7,124.89	
J-3913	6,896.13	0.24	98.97	7,124.89	
J-4198	6,896.00	0.00	99.03	7,124.88	
J-4199	6,896.00	0.29	99.03	7,124.88	
J-11540	6,896.00	0.35	99.03	7,124.88	
J-11748	6,895.63	0.00	99.14	7,124.78	
J-7950	6,895.64	0.23	99.18	7,124.88	
J-2914	6,895.14	0.60	99.40	7,124.88	
J-2915	6,895.12	0.00	99.41	7,124.88	
J-4581	6,894.00	0.00	99.89	7,124.88	
J-4582	6,894.00	0.33	99.89	7,124.88	
J-5057	6,894.00	0.34	99.89	7,124.88	
J-2912	6,894.00	0.03	99.89	7,124.88	
J-2913	6,894.00	0.00	99.89	7,124.88	
J-5239	6,894.00	0.36	99.89	7,124.88	
J-5240	6,894.00	0.00	99.89	7,124.88	
J-12291	6,893.18	0.00	100.20	7,124.78	
J-3436	6,893.05	0.00	100.26	7,124.78	
J-3437	6,892.92	0.00	100.31	7,124.78	
J-13064	6,892.52	0.00	100.53	7,124.87	
J-7736	6,892.38	0.00	100.55	7,124.78	
J-6616	6,892.25	0.00	100.64	7,124.86	Connection Point in Masonic Lane
J-11642	6,892.00	0.00	100.71	7,124.78	
J-14044	6,892.00	1.04	100.75	7,124.87	
J-6944	6,891.85	0.19	100.81	7,124.86	
J-6945	6,891.41	0.00	101.01	7,124.86	
J-12550	6,890.99	0.00	101.15	7,124.78	
J-14076	6,889.43	0.00	101.86	7,124.86	
J-12010	6,889.23	0.00	101.95	7,124.87	
J-11681	6,887.63	0.00	102.60	7,124.78	
J-11682	6,886.66	0.00	103.02	7,124.78	
J-14177	6,886.07	23.44	103.31	7,124.86	New Demand Location
J-7910	6,885.37	0.00	103.62	7,124.86	
J-7242	6,884.03	0.00	104.20	7,124.86	
J-34	6,883.27	0.53	104.49	7,124.78	
J-35	6,883.20	0.00	104.52	7,124.78	
J-184	6,882.57	0.00	104.79	7,124.78	
J-265	6,882.32	0.00	104.94	7,124.86	
J-266	6,882.31	3.59	104.94	7,124.86	
J-185	6,882.16	0.00	104.97	7,124.78	
J-12766	6,881.43	0.00	105.33	7,124.87	
J-12009	6,881.20	0.00	105.42	7,124.87	
J-7813	6,880.00	0.00	105.94	7,124.86	
J-6303	6,880.00	0.00	105.94	7,124.87	
J-6304	6,879.96	0.00	105.96	7,124.87	
J-6040	6,879.45	0.00	106.14	7,124.77	
J-6039	6,879.30	0.00	106.20	7,124.77	
J-305	6,876.18	0.00	107.59	7,124.87	
J-500	6,876.00	0.00	107.63	7,124.77	
J-501	6,876.00	0.00	107.63	7,124.77	
J-3554	6,876.00	0.00	107.63	7,124.77	
J-3555	6,876.00	0.00	107.63	7,124.77	
J-12669	6,875.32	0.00	107.93	7,124.77	
J-7767	6,875.28	0.00	107.94	7,124.77	

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gal/min)	Pressure (psi)	Hydraulic Grade (ft)
J-9388	6,875.34	0.00	107.96	7,124.87
J-3581	6,875.11	0.00	108.02	7,124.77
J-2196	6,874.83	0.00	108.14	7,124.77
J-2195	6,874.63	0.00	108.23	7,124.77
J-11982	6,874.00	0.00	108.50	7,124.77
J-13605	6,873.98	0.00	108.55	7,124.87
J-2666	6,873.25	0.00	108.82	7,124.77
J-2667	6,873.06	0.00	108.90	7,124.77
J-11983	6,871.96	4.58	109.38	7,124.77
J-11543	6,871.49	0.00	109.58	7,124.77



Appendix B

FlexTable: Hydrant Table

Label	Zone	Elevation (ft)	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gal/min)	Fire Flow (Available) (gal/min)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)
231721	B	6,904.96	True	1,500.00	2,924.17	20.01	181701
221901	B	6,879.34	True	1,500.00	3,500.00	94.23	181701
221902	B	6,970.00	True	1,500.00	3,412.09	20.00	181701
231913	B	6,935.86	True	1,500.00	3,500.00	71.89	181701
211909	B	6,869.71	True	1,500.00	3,500.00	46.66	181701
202101	B	6,863.13	True	1,500.00	3,500.00	51.73	181701
192102	B	6,860.04	True	1,500.00	3,500.00	66.14	181701
192001	B	6,879.89	True	1,500.00	3,500.00	77.52	181701
192129	B	6,859.15	True	1,500.00	3,500.00	71.07	181701
192007	B	6,878.00	True	1,500.00	3,500.00	87.93	181701
231914	B	6,962.09	True	1,500.00	3,500.00	60.96	181701
232009	B	6,956.68	True	1,500.00	3,500.00	63.00	181701
211908	B	6,873.94	True	1,500.00	3,500.00	45.38	181701
192218	B	6,839.90	True	1,500.00	3,500.00	77.84	181701
192022	B	6,878.12	True	1,500.00	3,500.00	83.96	181701
192127	B	6,868.68	True	1,500.00	3,500.00	48.28	181701
192032	B	6,878.00	True	1,500.00	3,500.00	76.91	181701
231729	B	6,901.79	True	1,500.00	3,500.00	75.96	181701
192029	B	6,874.26	True	1,500.00	3,500.00	57.65	181701
201923	B	6,903.05	True	1,500.00	3,500.00	28.55	181701
181929	B	6,891.51	True	1,500.00	3,500.00	44.26	181701
231925	B	6,955.55	True	1,500.00	3,500.00	51.62	181701
231808	B	6,892.00	True	1,500.00	3,500.00	68.05	181701
192116	B	6,864.12	True	1,500.00	3,500.00	51.11	181701
231707	B	6,908.98	True	1,500.00	1,603.21	20.00	181701
241804	B	6,963.54	True	1,500.00	3,500.00	46.52	181701
222003	B	6,991.30	True	1,500.00	3,500.00	42.07	181701
221906	B	6,966.00	True	1,500.00	3,245.56	20.02	181701
231726	B	6,935.67	True	1,500.00	3,500.00	26.05	181701
231708	B	6,927.36	True	1,500.00	3,500.00	44.92	181701
231912	B	6,928.38	True	1,500.00	3,500.00	68.64	181701
192124	B	6,877.46	True	1,500.00	3,500.00	70.42	181701
231719	B	6,906.00	True	1,500.00	3,500.00	62.92	181701
192115	B	6,863.20	True	1,500.00	3,500.00	65.55	181701
192123	B	6,862.39	True	1,500.00	3,500.00	50.02	181701
231722	B	6,910.17	True	1,500.00	1,809.75	20.00	181701
222004	B	6,986.59	True	1,500.00	3,500.00	34.87	181701
231902	B	6,986.60	True	1,500.00	2,839.93	20.01	181701
211910	B	6,863.46	True	1,500.00	3,500.00	51.38	181701
231704	B	6,900.21	True	1,500.00	3,500.00	33.13	181701
192120	B	6,858.00	True	1,500.00	3,500.00	85.18	181701
192031	B	6,877.94	True	1,500.00	3,500.00	84.17	181701
231813	B	7,014.29	True	1,500.00	3,500.00	35.63	181701
192208	B	6,852.86	True	1,500.00	3,500.00	66.31	181701
192216	B	6,852.46	True	1,500.00	3,500.00	72.85	181701
231701	B	6,943.00	True	1,500.00	3,500.00	29.99	181701
211821	B	6,908.58	True	1,500.00	2,969.75	20.00	181701
231706	B	6,901.13	True	1,500.00	3,500.00	50.36	181701
231805	B	6,895.62	True	1,500.00	3,500.00	46.96	181701
231824	B	6,913.60	True	1,500.00	2,272.95	20.00	0
192019	B	6,874.20	True	1,500.00	3,500.00	77.43	181701
222002	B	6,988.47	True	1,500.00	3,500.00	30.44	181701
231926	B	6,979.92	True	1,500.00	3,500.00	52.70	181701

FlexTable: Hydrant Table

Label	Zone	Elevation (ft)	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gal/min)	Fire Flow (Available) (gal/min)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	
231727	B	6,912.90	True	1,500.00	1,924.75	20.00	181701	
211907	B	6,876.00	True	1,500.00	3,500.00	49.60	181701	
221805	B	6,885.80	True	1,500.00	3,500.00	79.31	181701	Masonic Lane and Zuni
192130	B	6,860.00	True	1,500.00	3,500.00	26.80	181701	
202002	B	6,860.69	True	1,500.00	3,500.00	49.88	181701	
192006	B	6,880.16	True	1,500.00	3,500.00	64.90	181701	
231705	B	6,913.01	True	1,500.00	3,500.00	33.57	181701	
221905	B	6,965.42	True	1,500.00	3,167.90	20.01	181701	
232018	B	6,963.96	True	1,500.00	3,500.00	58.84	181701	
241805	B	6,985.00	True	1,500.00	3,500.00	38.97	181701	
192023	B	6,879.13	True	1,500.00	3,500.00	84.59	181701	
192045	B	6,882.00	True	1,500.00	3,228.61	20.00	181701	
231806	B	6,894.00	True	1,500.00	3,500.00	44.52	181701	
221903	B	6,965.41	True	1,500.00	3,186.75	20.02	181701	
231720	B	6,914.00	True	1,500.00	3,500.00	76.45	181701	
181955	B	6,899.67	True	1,500.00	3,500.00	67.97	181701	
192030	B	6,868.24	True	1,500.00	3,500.00	66.24	181701	
201943	B	6,867.76	True	1,500.00	3,500.00	40.65	181701	
231809	B	6,960.13	True	1,500.00	2,393.14	20.01	181701	
192126	B	6,868.83	True	1,500.00	3,500.00	58.03	181701	
222001	B	6,968.00	True	1,500.00	3,500.00	57.70	181701	
231812	B	6,912.11	True	1,500.00	2,427.10	28.64	181701	
192005	B	6,866.81	True	1,500.00	3,500.00	63.71	181701	
192125	B	6,868.89	True	1,500.00	3,500.00	67.14	181701	
192033	B	6,879.22	True	1,500.00	3,500.00	53.59	181701	
221907	B	6,897.86	True	1,500.00	3,500.00	87.17	181701	Near Connection Point at Lonetree Rd
192214	B	6,858.27	True	1,500.00	3,500.00	47.58	181701	
211912	B	6,902.72	True	1,500.00	3,500.00	65.11	181701	
231901	B	6,969.96	True	1,500.00	3,500.00	56.20	181701	
211820	B	6,896.64	True	1,500.00	3,500.00	33.60	181701	
231731	B	6,911.36	True	1,500.00	3,500.00	66.81	181701	
192021	B	6,877.61	True	1,500.00	3,500.00	72.34	181701	
192217	B	6,846.43	True	1,500.00	3,500.00	75.30	181701	
192114	B	6,863.96	True	1,500.00	3,500.00	63.80	181701	
202003	B	6,864.44	True	1,500.00	3,500.00	55.64	181701	
231810	B	6,963.18	True	1,500.00	2,110.05	20.00	181701	
231801	B	6,913.74	True	1,500.00	1,780.71	20.01	181701	
202001	B	6,862.07	True	1,500.00	3,500.00	60.01	181701	
192128	B	6,868.00	True	1,500.00	3,500.00	51.06	181701	
192122	B	6,865.86	True	1,500.00	3,500.00	41.30	181701	
231927	B	6,973.61	True	1,500.00	3,500.00	43.27	181701	
211906	B	6,884.61	True	1,500.00	3,500.00	48.11	181701	
201802	B	6,911.16	True	1,500.00	3,500.00	26.11	181701	
231811	B	6,942.40	True	1,500.00	2,004.23	20.01	181701	
192046	B	6,879.86	True	1,500.00	3,500.00	36.73	181701	
192020	B	6,878.00	True	1,500.00	3,500.00	80.96	181701	
231802	B	6,949.26	True	1,500.00	3,500.00	22.98	181701	
231709	B	6,913.18	True	1,500.00	3,500.00	76.07	181701	
231728	B	6,896.86	True	1,500.00	3,500.00	37.68	181701	
202004	B	6,865.35	True	1,500.00	3,500.00	28.91	181701	
231825	B	6,906.18	True	1,500.00	2,686.22	20.02	0	
192118	B	6,873.14	True	1,500.00	3,500.00	65.96	181701	
211911	B	6,865.98	True	1,500.00	3,500.00	48.08	181701	

FlexTable: Hydrant Table

Label	Zone	Elevation (ft)	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gal/min)	Fire Flow (Available) (gal/min)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)
192219	B	6,839.33	True	1,500.00	3,500.00	77.78	181701
231903	B	6,962.62	True	1,500.00	3,500.00	58.28	181701
231723	B	6,903.99	True	1,500.00	3,500.00	80.34	181701
231725	B	6,899.79	True	1,500.00	3,500.00	39.45	181701
221904	B	6,966.00	True	1,500.00	3,130.48	20.02	181701
231724	B	6,916.50	True	1,500.00	3,500.00	37.19	181701
211905	B	6,890.74	True	1,500.00	3,500.00	56.72	181701
192209	B	6,852.12	True	1,500.00	3,500.00	57.43	181701



Appendix C

Title: FlexTable: Conduit Table

Label	Diameter (in)	Material	Manning's n	Start Node	Invert (Start) (ft)	Stop Node	Invert (Stop) (ft)	Slope (Calculated) (ft/ft)	Flow (gpd)	Depth/Rise (%)	Capacity (Full Flow) (gpd)	
1832	10.0	Ductile Iron	0.013	11-003	6,891.77	11-004	6,902.00	0.027	334,031.00	31.7	2,329,462.69	
1831	10.0	Ductile Iron	0.013	11-002	6,872.17	11-003	6,891.77	0.060	334,031.00	38.2	3,477,364.34	Juniper Estates Loading Location
1830	10.0	PVC	0.010	11-001	6,871.01	11-002	6,872.17	0.006	347,812.00	36.3	1,391,515.89	
1829	10.0	PVC	0.010	11-001	6,871.01	6-901	6,868.78	0.039	347,812.00	58.0	3,641,012.73	
5810	21.0	PVC	0.010	6-215	6,877.05	6-214	6,875.56	0.003	1,408,958.50	29.8	7,568,351.92	
5811	21.0	PVC	0.010	6-214	6,875.56	6-213	6,873.32	0.005	1,408,958.50	30.5	9,210,002.09	
5812	21.0	PVC	0.010	6-213	6,873.32	6-212 Pinnacle Load	6,871.25	0.004	1,423,724.55	31.2	8,464,646.75	Juniper Estates Loading Location
5813	21.0	PVC	0.010	6-212 Pinnacle Load	6,871.25	6-211	6,869.49	0.006	1,526,849.46	28.9	10,335,311.12	
5814	21.0	PVC	0.010	6-211	6,869.49	6-901	6,868.78	0.005	1,526,849.46	34.3	9,480,337.60	
5815	21.0	PVC	0.010	6-901	6,868.78	6-210	6,867.65	0.005	2,041,263.45	34.2	9,434,233.24	
5816	24.0	PVC	0.010	6-210	6,867.65	6-266	6,864.50	0.014	2,045,013.48	25.7	22,539,024.00	
5817	24.0	PVC	0.010	6-266	6,864.50	6-265	6,861.45	0.014	2,045,013.48	25.8	22,129,036.18	
5818	24.0	PVC	0.010	6-265	6,861.45	6-264	6,856.55	0.011	2,045,013.48	26.5	19,489,869.00	
5819	24.0	PVC	0.010	6-264	6,856.55	6-263	6,856.05	0.009	2,045,013.48	27.2	17,801,287.43	
5820	24.0	PVC	0.010	6-263	6,856.05	6-262	6,853.05	0.013	2,045,013.48	26.0	21,429,323.65	
5821	24.0	PVC	0.010	6-262	6,853.05	6-261	6,851.25	0.006	2,045,013.48	28.2	14,529,970.50	
5822	24.0	PVC	0.010	6-261	6,851.25	6-260	6,850.02	0.005	2,045,013.48	28.8	13,331,726.32	
5823	24.0	PVC	0.010	6-260	6,850.02	6-259	6,848.35	0.005	2,045,013.48	28.8	13,262,182.92	
5824	24.0	PVC	0.010	6-259	6,848.35	6-258	6,844.05	0.008	2,045,013.48	27.1	17,418,192.49	
5825	24.0	PVC	0.010	6-258	6,844.05	6-257	6,838.65	0.014	2,045,013.48	25.8	22,139,060.25	
5826	24.0	PVC	0.010	6-257	6,838.65	6-256	6,833.05	0.013	2,045,013.48	25.8	22,078,715.51	
5827	24.0	PVC	0.010	6-256	6,833.05	6-255	6,831.05	0.015	2,045,013.48	25.5	23,307,356.32	
5828	24.0	PVC	0.010	6-255	6,831.05	6-254	6,824.75	0.021	2,045,013.48	24.7	27,681,899.55	
5830	24.0	PVC	0.010	6-254	6,824.75	6-253	6,823.15	0.006	2,045,013.48	28.2	14,524,077.18	
5831	24.0	PVC	0.010	6-253	6,823.15	6-252	6,821.32	0.007	2,045,013.48	27.8	15,504,688.17	
5832	24.0	PVC	0.010	6-252	6,821.32	6-251	6,819.47	0.007	2,045,013.48	27.8	15,560,916.11	
5833	24.0	PVC	0.010	6-251	6,819.47	6-250	6,817.75	0.007	2,045,013.48	27.6	15,957,804.81	
5834	24.0	PVC	0.010	6-250	6,817.75	6-249	6,816.35	0.005	2,045,013.48	28.6	13,635,887.33	
5835	24.0	PVC	0.010	6-249	6,816.35	6-248	6,814.75	0.005	2,045,013.48	28.5	13,811,553.03	

Title: FlexTable: Conduit Table

Label	Diameter (in)	Material	Manning's n	Start Node	Invert (Start) (ft)	Stop Node	Invert (Stop) (ft)	Slope (Calculated) (ft/ft)	Flow (gpd)	Depth/Rise (%)	Capacity (Full Flow) (gpd)
5840	24.0	PVC	0.010	6-248	6,814.75	6-247	6,811.05	0.010	2,045,013.48	26.5	19,322,494.26
5841	24.0	PVC	0.010	6-247	6,811.05	6-246	6,810.55	0.006	2,045,013.48	28.1	14,663,890.11
5842	24.0	PVC	0.010	6-246	6,810.55	6-245	6,808.25	0.008	2,045,013.48	27.2	17,134,622.41
5843	24.0	PVC	0.010	6-245	6,808.25	6-244	6,804.95	0.007	2,045,013.48	27.5	16,367,441.70
5844	24.0	PVC	0.010	6-244	6,804.95	6-243	6,802.85	0.012	2,045,013.48	26.2	20,472,656.43
5845	24.0	PVC	0.010	6-243	6,802.85	6-242	6,797.65	0.011	2,045,013.48	32.7	19,579,764.78
5846	24.0	Ductile Iron	0.012	6-242	6,797.65	6-241	6,796.55	0.003	2,077,826.56	35.1	8,164,296.42
5847	24.0	Ductile Iron	0.012	6-241	6,796.55	6-240	6,795.74	0.002	2,122,451.55	35.7	7,730,821.45
5848	24.0	Ductile Iron	0.012	6-240	6,795.74	6-239	6,795.15	0.002	2,122,451.55	33.6	7,836,823.70
4792	24.0	Ductile Iron	0.012	6-239	6,795.15	6-238	6,794.50	0.019	2,122,451.55	26.7	21,899,783.02
4793	24.0	PVC	0.010	6-238	6,794.50	PUMP House	6,791.15	0.009	2,122,451.55	40.1	18,489,476.32

STORMWATER MANAGEMENT REPORT

January 2023

Revised: -

Juniper Estates – PZ-22-000109-01

2951 S Masonic Ln
Flagstaff, Arizona, 86005

Prepared for
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VPE Project No: **22004**

PRELIMINARY

ViewPoint Engineering

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ViewPoint Engineering

1.0 INTRODUCTION

Red Oak Development Group, LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN. Juniper Estates is an 87-unit townhome/condominium residential community. The project site is ±13.82 gross acres with ±5.12 acres developed.

The property in questions is further identified parcel number 103-26-002-D. A project location map can be found in the appendix.

Tract Area: **13.82 acres**
Limit of Disturbance: **5.12 acres**

1.1 LEGAL DESCRIPTION

The land referred to herein below is situated in the county of Coconino, state of Arizona, and is described as follows:

A tract of land in the Southeast quarter of Section 28 and in the Southwest quarter of the Southwest quarter of Section 27, Township 21 Norther, Range 7 East of the Gila and Salt River Base and Meridian, Coconino County, Arizona, more particularly described as follows:
BEGINNING at the Southeast corner of said Section 28;
Thence South 89° 13’00” West, a distance of 1321.47 feet along the Section line to the Southwest corner of the Southeast quarter of the Southeast quarter of said Section 28;
Thence South 89° 13’00” West, a distance of 24.80 feet along the Section line to the intersection of the Southerly right-of-way line of Zuni Drive as described in Docket 350, page 203 of the Coconino County Records.
Thence along said Southerly right-of-way line as follows:
North 61° 32’00” East, a distance of 826.32 feet;
Thence along a curve to the right having a radius of 170.00 feet and having a central angle of 24° 32’00” a distance of 72.30 feet;
Thence North 86° 04’00” East, a distance of 549.48 feet to a point on the East line of said Section 28;
Thence North 86° 04’00” East, a distance of 241.41 feet;
Thence along a curve to the right having a radius of 170.00 feet and having a central angle of 33° 52’00”, a distance of 100.42 feet, said curve having tangents bearing North 86° 04’00” East and South 60° 02’00” East, to the Westerly right-of-way line of Lone Tree Road;
Thence South 32° 00’00” East along said Westerly right-of-way line, a distance of 502.08 feet to the Southerly line of said Section 27;

Thence South 89° 48’00” West along Section line, a distance of 601.21 feet to the POINT OF BEGINNING.

1.2 Existing Conditions

The site is currently an existing undeveloped parcel that is densely wooded with pine trees. The ground is rocky with moderate grass coverage. The site has steep slopes that slope towards the north and northwest directing most of the surface runoff towards Zuni Drive and to Masonic Lane. Surface runoff is sheet flow and shallow concentrated flow throughout the site. A single analysis point is representative of the site as all the flow converges to a single point and flows under Zuni Drive after leaving the site. The site zoning does have an RPO layer, both tree and slope preservation have been considered and maintained in this development. To the south of the site is the Pinnacle Pines development consisting of townhomes. To west of the site is National Forest. To the north and the east of the site is vacant undeveloped land that has been purchased by the board of regents for Northern Arizona University. The site currently is intersected with an underground pipe conveying the flow of the upstream development, Pinnacle Pines. These flows have been included in the analysis.

1.3 Proposed Conditions

This report identifies and quantifies the existing runoff conditions and estimates future runoff conditions based on the proposed development. Juniper Estates will comprise of new streets, town homes, open spaces, a nature trail, and sidewalks. Analysis of the proposed site conditions will be utilized to manage and plan development to reduce negative impacts on the proposed homes as well as the existing upstream and downstream developments. Any estimated increases in runoff rates will be mitigated.

1.4 Receiving Waters

The SITE is within the Lower Bow and Arrow Wash. Runoff from the site is intercepted to nearby bow and arrow stream. Bow and arrow stream continues northeast and flows into Rio De Flag.

1.5 Project Area Soils

The site was evaluated using the latest soil survey information and mapped accordingly. The soil types for this site were obtained from the United States Department of Agriculture NRCS Web Soil Survey and a custom report generated (see Appendix). The mapped area extended beyond the property boundary line to ensure adequate coverage of the site.

Table 1: Site Soils

Description	Slopes	Hydrologic Soil Group	Acres of Site
Jacques Clay Loam	0% - 2%	C	0.001
Lynx Loam	0% - 2%	B	2.5
Tortugas-Daze Complex	0% - 15%	D	1.5
Tortugas Cobbly and Gravelly Loam	15% - 30%	D	9.7

1.6 FLOODPLAINS

The site does lie within a regulated flood area. FEMA's Flood Insurance Rate Map for Coconino County, AZ designates the site and surrounding area as "Zone X" or "Areas determined to be outside the 0.2% (500-year) annual chance floodplain" (see Map in Appendix). The northeast corner of the site is in the "Zone AE" or "Areas determined to be within the 0.1% (100-year) annual chance floodplain". Per the City of Flagstaff's resource protection plan there will be no disturbance to the flood plain.

1.7 WETLANDS

There are no wetlands located on site.

2.0 OBJECTIVES AND PROCEDURES

2.1 SUMMARY AND PURPOSE

This report is in relation to the new development of Juniper Estates. The analysis was performed, and this report was written, during the site plan development phase of the project. This report is also pertinent to the rezoning process which will accompany this project.

2.2 DESIGN CRITERIA

The stormwater design standards for the development are set forth by The City of Flagstaff Stormwater Management Design Manual and The City of Flagstaff Low impact Development Manual. Specific design standards and project site conditions are as follows:

2.2-1 CITY OF FLAGSTAFF STORMWATER MANAGEMENT DESIGN MANUAL

1. §8.1 Storage and Detention Facilities: Detention facility storage volume shall be adequate to attenuate the post-development peak discharge rates to pre-development discharge rates for the 2, 10, and 100-year design storms. Reservoir routing calculations must be used to demonstrate that the storage volume is adequate. Detention facility outlet structure release rates shall be less than the pre-development peak runoff rates for the 2, 10, and 100-year storm events, with emergency overflow provisions. Design calculations are required to demonstrate that developed runoff from the 2, 10, and 100-year design storms are controlled. The total combined post-development discharge from a development cannot exceed the total pre-development peak discharge for the 2, 10, and 100-year storms. Drainage flows of all frequencies shall enter and depart the property to be developed in substantially the same manner as under the pre-developed condition.

2. §9.1 Low Impact Development Requirements for Infiltration and Reuse of Stormwater: Developments will be required to retain/infiltrate one (1) inch of runoff from all additional impervious surfaces.

2.2-2 City of Flagstaff Low Impact Development Manual

1. §2.7 Types of ROCV Facilities: Draining impervious areas over vegetated buffers slows down runoff and encourages infiltration, in effect reducing the impact of the impervious area. Runoff from 100-percent of the impervious surfaces of a site must flow through a properly designed installation of one or more of the ROCV IMPs that are listed herein. Alternate designs may be considered, but they must have equivalent functional requirements of these IMPs, including ROCV and its drain times.

2.3 Methodology

The SCS method was utilized to analyze the pre-development and pos-development stormwater flows. The computer program “Hydrocad” Ver. 10 by “Hydrocad Software Solutions LLC” was used to calculate and plot the runoff hydrographs. The SCS Method incorporates the time of concentration, runoff coefficients, the 24-hour rainfall, and associated drainage area to calculate the runoff rates. Input values were obtained from existing and proposed site conditions and the City of Flagstaff Stormwater Management Design Manual.

2.3-1 Curve Number (CN)

The conveyance systems have been designed using the SCS equations to determine peak runoff rates within the systems. The cover conditions within the respective structure/systems drainage

area were analyzed. The curve numbers used in analysis were obtained from ADWR, *Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990* and USDA, SCS TR -55, "*Urban hydrology for Small Watersheds"*, June 1986, per the City of Flagstaff Stormwater Management Design Manual. See Appendix for the tables used.

Table 2: SCS Curve Numbers

Cover Type	Hydrologic Soil Group	Curve Numbers (CN)
Ponderosa Pine	D	80
Residential 1/8 Acre (Townhomes)	D	92

2.3-2 TIME OF CONCENTRATION (TOC)

Time of concentrations were determined based on the methodology specified in the USDA Urban Hydrology for Small Watersheds (TR55) manual. A minimum time of concentration of 5 minutes has been utilized and a maximum of 60 minutes per the City of Flagstaff Stormwater Management Design Manual.

2.3-3 DESIGN STORM RAINFALL

Design storm rainfall intensities were taken from table 3-2 of The City of Flagstaff SWM Design Manual.

Table 3: City of Flagstaff Rainfall Intensities (in/hr)

Duration	Frequency (YR)					
	2	5	10	25	50	100
5-min	3.96	5.04	5.76	6.84	7.68	8.52
10-min	3.06	3.90	4.50	5.34	6.00	6.66
15-min	2.48	3.20	3.48	4.40	4.92	5.48
30-min	1.58	2.06	2.40	2.86	3.22	3.58
1-hour	0.95	1.25	1346	1.76	1.98	2.21
2-hour	0.56	0.73	0.85	1.02	1.15	1.28
3-hour	0.41	0.53	0.62	0.74	0.83	0.92
6-hour	0.24	0.31	0.36	0.43	0.48	0.53
12-hour	0.14	0.19	0.21	0.26	0.29	0.32
24-hour	0.08	0.11	0.12	0.15	0.17	0.18

2.3-4 RUNOFF HYDROGRAPH

Hydrographs for the 1-yr, 10-yr, and 100-yr storms were computed with the SCS TR-55 Method utilizing Hydrocad version 10.0 software and the weighted CN's and time of concentration values computed as mentioned above. See the runoff hydrograph in the Appendix of this report for details.

3.0 HYDROLOGY

3.1 PEAK RATE ANALYSIS

Pre-Development Drainage Area 1: Runoff from the Existing conditions of Drainage Area 1 flows via sheet flow for approximately 300 feet before beginning to form shallow concentrated flow. The flows are then intercepted by the storm sewer system of the Pinnacle Pines development and routed downstream onto the Juniper Estates project area. Then the upstream flows are combined with the flows on the West side of Masonic Lane. The combined flows then cross underneath Masonic Lane. The combined flow then converges with the flows from the East side of Masonic Lane and travel to the discharge point #1.

Post-Development: The post-development drainage areas and are described as follows (refer to the drainage area maps in the appendix):

- Proposed DA 1: This area consists of the upstream development, Pinnacle Pines, and the areas on site which will not be routed through the storm system.
- DA1 West: This area encompasses the areas West of Masonic Lane that will be captured, routed, and released to flow to discharge point #1.
- DA1 East: This area encompasses the area East of Masonic Lane that will be captured, routed, and released to flow to discharge point #1.

The following table summarizes the peak rate analysis for the project.

Table 4: Peak Discharge Summary

Design Storm	Pre-Dev (cfs)	Post Dev (cfs)	Net Change (cfs)
2-yr	20.00	17.73	-2.27
10-yr	48.24	44.25	-3.99
100-yr	105.51	98.24	-7.27

3.2 Volume Control/Recharge Volume

In accordance with municipal code, development is required to recharge one inch of runoff from the impervious area.

3.3 Water Quality Design

In accordance with the City of Flagstaff Stormwater Management Design Manual and the City of Flagstaff Low Impact Development Manual 100% of the impervious surfaces must flow through one or more of a ROCV IMP.

3.4 Conveyance Design

Storm sewers have been designed for inlet capacity and conveyance of the 10-yr storm design storm for structures within the tributary area of the peak control device. The Rational Method was utilized to analyze the stormwater flows. The rainfall intensities are taken from the City of Flagstaff Stormwater Management Design Manual.

The computer program “Hydraflow Storm Sewers Extension for Autocad Civil 3D” Ver. 2014 by Autodesk is utilized to design the proposed storm sewer conveyance system.

3.5 Upstream and Downstream Analysis

The flows from the upstream development are not significantly altered within the proposed storm design. Therefore, there are no adverse impacts anticipated. As shown above, the peak rates for the 2-, 5-, and 100-year storms have been reduced when compared to pre-development rates. Erosion potential is a function of velocity of flow, which is directly proportional to flow rate. Therefore, a reduction in the overall rate from the development areas will correspond to a similar reduction is velocity, thereby reducing erosion of the downstream channel.

4.0 Conclusions

The stormwater management facility design detailed within this Stormwater Management Report meets or exceeds the standards set forth by The City of Flagstaff Stormwater Management Design Manual and The City of Flagstaff Low Impact Development Manual.

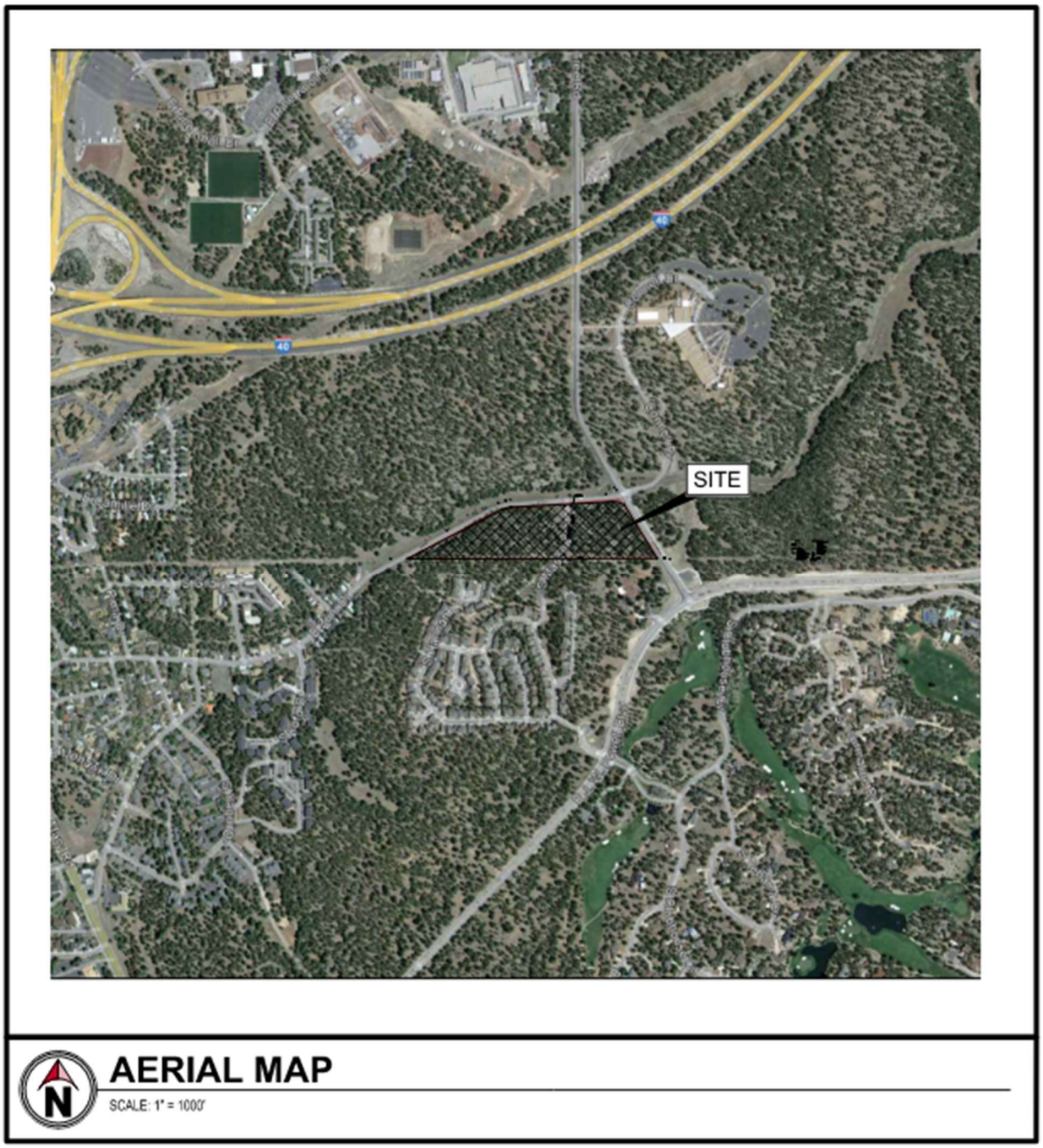
5.0 References

- City of Flagstaff Stormwater Management Design Manual

- City of Flagstaff Low Impact Development Manual
- “ADWR, Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990”
- “USDA Urban Hydrology for Small Watersheds Technical Release 55 (TR55)”

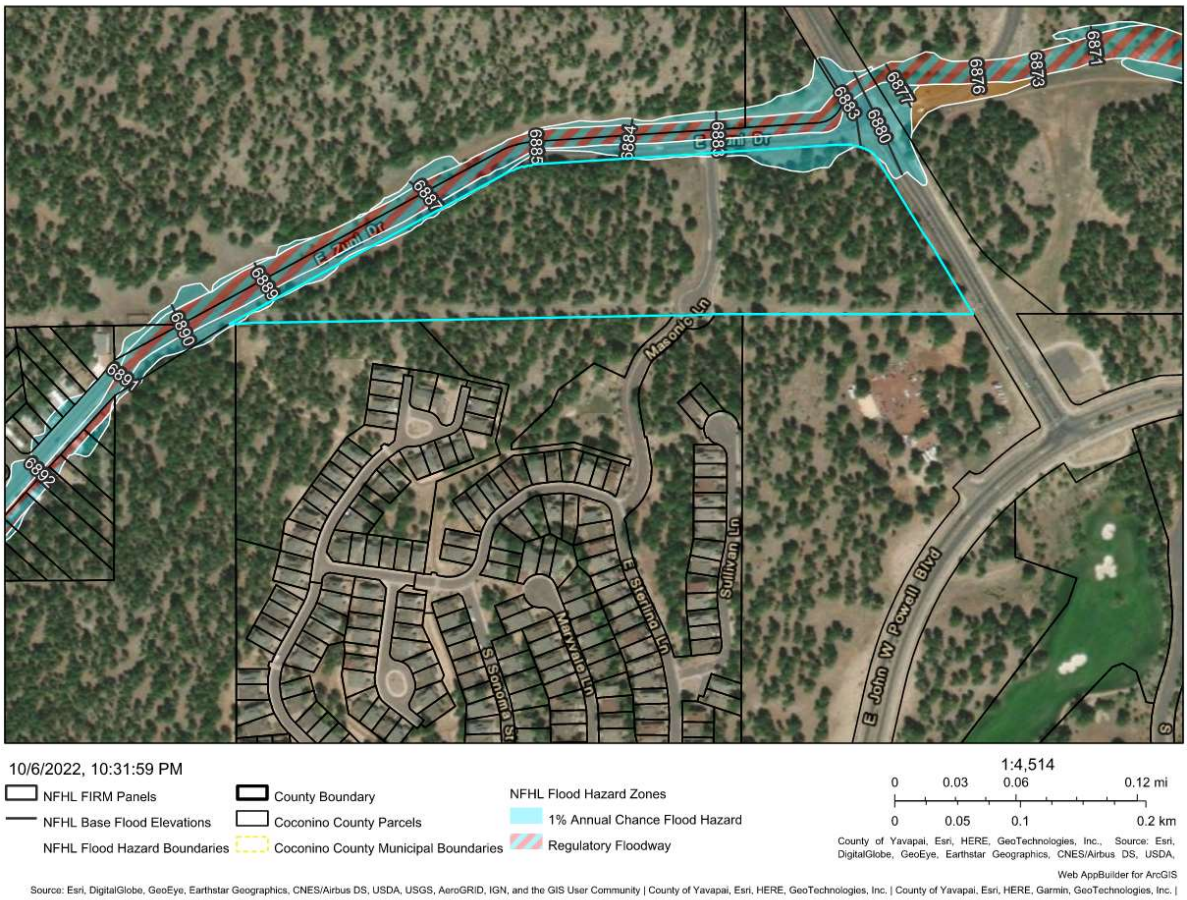
APPENDIX A: SUPPORTING DOCUMENTS

A.1 PROJECT LOCATION MAP



A.2 FEMA Flood Insurance Rate Map

ArcGIS Web Map



A.3 TR-55 Curve Numbers

Table 2-2a Runoff curve numbers for urban areas [1]

Cover description: Cover type and hydrologic condition	Average percent impervious area [2]	Curve numbers for hydrologic soil group: A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1] Average runoff condition, and $I_a = 0.2S$.
[2] The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.
[3] CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.
[4] Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.
[5] Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

APPENDIX B: SITE SOILS INVESTIGATION

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County



January 12, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 12, Aug 29, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 5, 2021—Aug 3, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Jacques clay loam, 0 to 2 percent slopes	0.0	0.0%
13	Lynx loam, 0 to 2 percent slopes	2.5	18.1%
15A	Tortugas-Daze complex, 0 to 15 percent slopes	1.5	11.2%
15B	Tortugas cobbly and gravelly loam, 15 to 30 percent slopes	9.7	70.7%
Totals for Area of Interest		**13.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

1—Jacques clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhjq
Elevation: 6,580 to 7,080 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Jacques and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Jacques

Setting

Landform: Valleys, drainageways
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 16 inches: clay loam
H2 - 16 to 60 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: R039XA108AZ - Meadow 17-22" p.z.
Hydric soil rating: No

13—Lynx loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhk6
Elevation: 6,560 to 7,030 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Lynx and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lynx

Setting

Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 60 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: R039XA130AZ - Loamy Bottom 17-22" p.z.
Hydric soil rating: No

15A—Tortugas-Daze complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 1vhkb
Elevation: 6,670 to 7,090 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Tortugas and similar soils: 55 percent
Daze and similar soils: 45 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tortugas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or residuum weathered from limestone

Typical profile

H1 - 0 to 3 inches: cobbly loam
H2 - 3 to 14 inches: very cobbly loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Ecological site: F039XA134AZ - Limestone Upland 17-22" p.z. (PIPO)
Hydric soil rating: No

Description of Daze

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone and sandstone

Typical profile

H1 - 0 to 3 inches: fine sandy loam
H2 - 3 to 7 inches: clay loam
H3 - 7 to 18 inches: clay
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Ecological site: F039XA139AZ - Limestone/Sandstone Upland 17-22"
Hydric soil rating: No

15B—Tortugas cobbly and gravelly loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: 1vhkc
Elevation: 6,380 to 7,070 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Tortugas and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tortugas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or residuum weathered from limestone

Typical profile

H1 - 0 to 3 inches: cobbly loam
H2 - 3 to 14 inches: very cobbly loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Ecological site: F039XA110AZ - Limestone Hills 17-22" p.z. (PIPO, JUDE2)
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

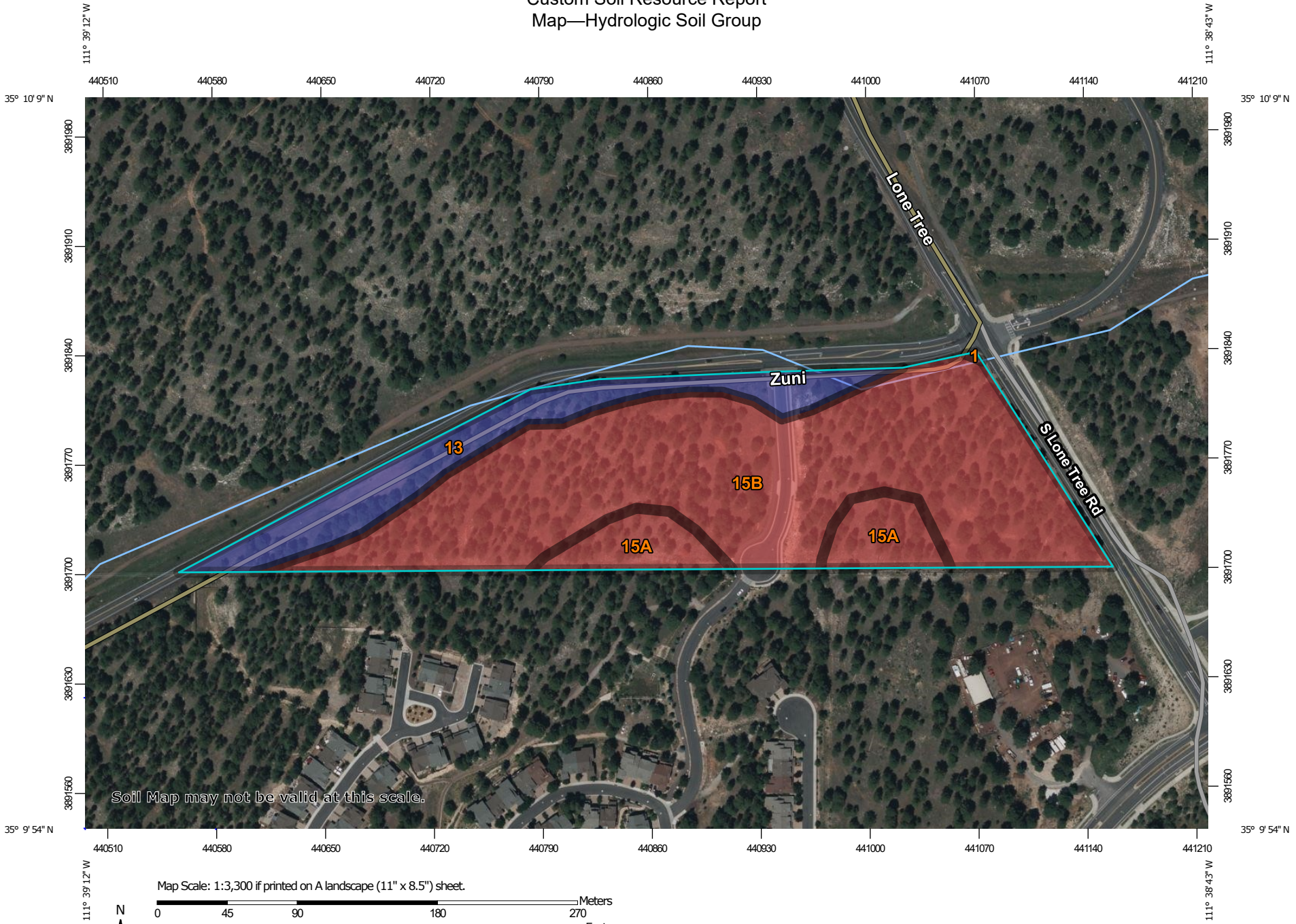
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



Map Scale: 1:3,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 12, Aug 29, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 5, 2021—Aug 3, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Jacques clay loam, 0 to 2 percent slopes	C	0.0	0.0%
13	Lynx loam, 0 to 2 percent slopes	B	2.5	18.1%
15A	Tortugas-Daze complex, 0 to 15 percent slopes	D	1.5	11.2%
15B	Tortugas cobbly and gravelly loam, 15 to 30 percent slopes	D	9.7	70.7%
Totals for Area of Interest			**13.7**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

B.2 SOILS TESTING REPORT

Western Technologies Inc.

GEOTECHNICAL EVALUATION REPORT

MASONIC LANE TOWNHOMES
APN # 103-26-002D
2951 South Masonic Lane
Flagstaff, Arizona
WT Reference No. 2522JB158

PREPARED FOR:
Red Oak Development Group, LLC
8512 Bestride Bend
Austin, Texas 78744
Attn: Mr. Dan Ross, V.P. of Operations
Attn: Ms. Jill Manlove, P.M.
August 19, 2022



Gregory L. E. Burr, R.G., E.I.T.
Director of Geotechnical Services



Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

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Since 1955

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August 19, 2022

Red Oak Development Group, LLC
8512 Bestride Bend
Austin, Texas 78744

Attn: Mr. Dan Ross, V.P. of Operations
Attn: Ms. Jill Manlove, P.M.

Re: Geotechnical Evaluation — Job No. 2522JB158
Masonic Lane Townhomes
APN # 103-26-002D
2951 South Masonic Lane
Flagstaff, Arizona

Western Technologies Inc. has completed the geotechnical evaluation for the proposed townhomes to be located in Flagstaff, Arizona. This study was performed in general accordance with our proposal number 2522PW273 dated July 8, 2022. The results of our study, including the test pit location diagram, laboratory test results, test pit logs, and the geotechnical recommendations are attached.

We have appreciated being of service to you in the geotechnical engineering phase of this project and are prepared to assist you during the construction phases as well. If design conditions change, or if you have any questions concerning this report or any of our testing, inspection, design and consulting services, please do not hesitate to contact us. We look forward to working with you on future projects.

Sincerely,
WESTERN TECHNOLOGIES, INC.
Geotechnical Engineering Services

Gregory L. E. Burr, R.G., E.I.T.
Director of Geotechnical Services

Copies to: Addressee (emailed)

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GEOTECHNICAL EVALUATION
MASONIC LANE TOWNHOMES
APN # 103-26-002D
2951 SOUTH MASONIC LANE
FLAGSTAFF, ARIZONA
JOB NO. 2522JB158

1.0 PURPOSE

This report contains the results of our geotechnical evaluation for the proposed townhomes to be located at 2951 South Masonic Lane in Flagstaff, Arizona. The purpose of these services is to provide information and recommendations regarding:

- Subsurface conditions
- Foundation design parameters
- Slabs-on-grade
- On-site pavements
- Lateral earth pressures
- Seismic considerations
- Earthwork guidelines
- Drainage
- Corrosivity

Results of the field exploration, field tests, and laboratory testing program are presented in the Appendices.

2.0 PROJECT DESCRIPTION

Based on information provided by Ms. Jill Manlove, P.M., the proposed project will consist of a subdivision containing one-hundred and five townhomes that will be either single-story or two-story with attached garages, and plan areas ranging from about 1,300 to 3,900 square feet, to be constructed on a lot with a total area of 13.82-acres. It is assumed that the structures will use wood frame and/or masonry construction with slab-on-grade ground floors. Maximum wall and column loads for the structures are assumed to be 3 kips per linear foot and 45 kips, respectively. We anticipate no extraordinary slab-on-grade criteria and that the finished first floor levels will be within about 2 to 3 feet of the existing site grades, although grading plans were not available at the time of this report. In addition, asphalt paved access roads will be included as part of the

proposed development. Should any of our information or assumptions not be correct, we request that the Client notify Western Technologies (WT) immediately.

3.0 SCOPE OF SERVICES

3.1 Field Exploration

Fourteen test pits were excavated to depths ranging from about 1 to 10 feet below existing site grades at the approximate locations shown on the attached Test Pit Location Diagram. A field log was prepared for each test pit.

These logs contain visual classifications of the materials encountered during excavating as well as interpolation of the subsurface conditions between samples. Final logs, included in Appendix A, represent our interpretation of the field logs and may include modifications based on laboratory observations and tests of the field samples. The final logs describe the materials encountered, their thickness, and the locations where samples were obtained. Two samples of the on-site rock were obtained for laboratory testing.

The Unified Soil Classification System was used to classify soils. The soil classification symbols appear on the test pit logs and are briefly described in Appendix A. Local and regional geologic characteristics were used to estimate the seismic design criteria and liquefaction potential.

3.2 Laboratory Analyses

Laboratory analyses were performed on representative soil and rock samples to aid in material classification and to estimate pertinent engineering properties of the on-site soils and rock for preparation of this report. Testing was performed in general accordance with applicable standard test methods. The following tests were performed and the results are presented in Appendix B.

- Water content
- Dry density
- Compression
- Expansion
- Optimum moisture/maximum density
- Sieve analysis

- Plasticity
- Water soluble salt/sulfate/chloride content
- Corrosivity (ASTM A674)
- Unit weight (rock)
- Unconfined compressive strength (rock)

Test results were utilized in the development of the recommendations contained in this report.

3.3 Analyses and Report

This geotechnical engineering report includes a description of the project, a discussion of the field and laboratory testing programs, a discussion of the subsurface conditions, and design recommendations as appropriate to the purpose. The scope of services for this project does not include, either specifically or by implication, any environmental assessment of the site, discovery of underground storage tanks or other underground structures, or identification of contaminated or hazardous materials or conditions. If there is concern about the potential for such contamination, other studies should be undertaken. We are available to discuss the scope of such studies with you.

4.0 SITE CONDITIONS

4.1 Surface

At the time of our field exploration, the site was a developed lot. Previous development on the site consisted of a north-south oriented asphalt paved residential roadway with a cul-de-sac that bisects the site, and includes concrete curbs and gutters that all appeared to be in good condition. The site is bordered on the north and west by East Zuni Drive, on the south by developed townhomes, and on the east by South Lone Tree Road. The ground surface was rolling and exhibited gentle to steep slopes down to the north. Evidence of previous surface water ponding was observed throughout the flatter portions of the site. Surface drainage appeared to be poor to good by means of sheet flow to the north. Vegetation on the site consisted of a sparse to heavy growth of ponderosa pine trees, grasses and weeds.

4.2 Subsurface

As presented on the Test Pit Logs, shallow surface and subsoils extending to the full depth of exploration in all but one test pit were found to be low to medium plasticity Silty, Clayey SANDS and Clayey SANDS, both with variable amounts of gravel; low to medium plasticity Silty, Clayey GRAVELS and Clayey GRAVELS, both with variable amounts of sand; and high plasticity CLAYS with variable amounts of sand and gravel. All soils encountered contained random amounts of cobbles and boulders. Refusal to excavator penetration occurred in all test pits, except Test Pit 10, at depths of about 1 to 5 feet on LIMESTONE. Groundwater was not encountered in any test pit at the time of exploration. A detailed description of the soils encountered can be found on the test pit logs in Appendix A.

The test pit logs included in this report are indicators of subsurface conditions only at the specific location and date noted. Variations from the field conditions represented by the test pits may become evident during construction. If variations appear, we should be contacted to re-evaluate our recommendations.

5.0 GEOTECHNICAL PROPERTIES AND ANALYSIS

Laboratory test results indicate that the site soils exhibit low to high compressibility at existing water contents. Moderate to moderately high expansive pressures develop when the water content is increased. Two samples of the on-site rock were tested for unit weight and unconfined compressive strength, and the results are presented in Appendix B.

Near-surface soils contain low to high plasticity fines. These soils exhibit moderately high to very high expansion potential when recompacted, confined by loads approximating floor loads and saturated in accordance with standard Arizona test methods. Slabs-on-grade supported on recompacted native soils have a high potential for heaving if the water content of the soil increases. Densification of the soil by the passage of construction equipment will increase the expansion potential of the native clayey soils.

6.0 RECOMMENDATIONS

6.1 General

Recommendations contained in this report are based on our understanding of the project criteria described in Section 2.0 and the assumption that the soil and subsurface conditions are those disclosed by the explorations. Others may change the plans, final elevations, number and type of structures, foundation loads, and floor levels during design or construction. Substantially different subsurface conditions from those described herein may be encountered or become known. Any changes in the project criteria or subsurface conditions shall be brought to our attention in writing. This report does not encompass the effects, if any, of underlying geologic hazards or regional groundwater withdrawal and expresses no opinion regarding their effects on surface movements at the project site.

6.2 Design Considerations

The borings indicate the presence of medium to high plasticity clayey/clay soils throughout the site. These soils will expand or swell significantly with an increase in moisture content. Structures and related improvements situated on expansive soils will be subject to relatively large movements if the supporting soils experience an increase in moisture content. It should be understood that if moisture penetrates expansive soils, there will be some heave and resultant cracking/distress of the proposed structures and related improvements. Construction of site fences, screen walls and other miscellaneous improvements such as exterior slabs-on-grade within the development that typically fall under building code guidelines will be susceptible to heave as well.

Cobbles and some boulders were encountered in the test pits. These oversized materials, greater than 3 inches, could present construction difficulties for foundation, utility trenches and other excavations. In cut areas and excavations, exposed oversized materials should be removed.

6.3 Foundations

A main geotechnical concern on this project will be the possibility of differential bearing conditions between rock areas and moderately deep soil/fill areas. Basically, four different types of bearing conditions may occur on this site:

1. Structures bearing entirely within shallow rock areas.
2. Structures bearing partially on rock and partially on shallow fills (less than 5 feet deep).
3. Structures bearing entirely on fill.
4. Structures bearing entirely in high plasticity soils

To help reduce differential movements, mixed bearing conditions (rock and fill) should be avoided within an individual structural unit.

Following removal of any existing fill materials, conventional shallow spread footings may be used to support the proposed structures. Footings should bear at least 2.5 feet below the lowest adjacent finished grade. Footings may be designed to impose a maximum dead plus live-load pressure of up to 2500 pounds per square foot. Foundation preparation procedures will vary depending on the structure location within the site. Refer to Section 7.5 **Foundation Preparation** in this report for details.

Settlements will also vary depending on the foundation bearing conditions. For foundation elements bearing on dense rock and/or lean mix (2-sack) concrete backfill extending to dense rock, total and differential settlements should be nominal. Settlement of foundation elements bearing on engineered fill will vary depending on the total depth of the fill, and may approach 1 inch in the deeper fill areas. Differential settlements are anticipated to be approximately one-half of the total settlements. Additional foundation movements could occur if water from any source infiltrates the foundation bearing soils. Therefore, proper drainage should be provided in the final design and during construction.

Finished grade is the lowest adjacent grade for perimeter footings and floor level for interior footings. The design bearing capacity applies to dead loads plus design live load conditions. Recommended minimum widths of column and wall footings are 24 inches and 16 inches, respectively. The bearing value given is a net bearing value and the weight of the concrete in the footings may be ignored.

All footings, stem walls and masonry walls should be reinforced to reduce the potential for distress caused by differential foundation movements. The use of joints at openings or other discontinuities in masonry walls is recommended. Site preparation procedures and foundation excavations should be observed by the geotechnical engineer to assess that adequate bearing conditions exist and that recompaction of native soils and/or placement of engineered fill has been performed satisfactorily. If the soil conditions encountered differ

significantly from those presented in this report, supplemental recommendations will be required.

6.4 Lateral Design Criteria

For cantilevered walls above any free water surface with level backfill and no surcharge loads, recommended equivalent fluid pressures and coefficients of base friction for unrestrained elements are:

- Active:
  Undisturbed subsoil .....38 psf/ft
  Compacted granular backfill .....30 psf/ft
  Compacted site soils (low expansive potential) .....38 psf/ft
  Clay/Clayey site soils (high expansive potential) ..... not recommended for use

- Passive:
  Shallow wall footings (soil) .....225 psf/ft
  Shallow column footings (soil) .....350 psf/ft
  Dense rock .....500 psf/ft

- Coefficient of base friction:
  Soil 0.35*
  Rock 0.55

  * The coefficient of base friction (soil) should be reduced to 0.25 when used in conjunction with passive pressure.

Where the design includes restrained elements, the following equivalent fluid pressures are recommended:

- At-rest:
  Undisturbed subsoil .....68 psf/ft
  Compacted granular backfill .....57 psf/ft

These lateral earth pressures are not applicable for submerged soils. We should be consulted for additional recommendations if such conditions are to be included in the

design. Any surcharge from adjacent loadings must also be considered. Walls below grade should be waterproofed.

We recommend a free-draining soil layer or manufactured geocomposite material, be constructed adjacent to the back of retaining walls. A filter may be required between the soil backfill and drainage layer. This drainage zone should help prevent hydrostatic pressure buildup. This vertical drain should be tied into a gravity drainage system at the base of the wall. It is important that all backfill be properly placed and compacted. Backfill should be mechanically compacted in layers. Flooding or jetting should not be permitted. Care should be taken not to damage the walls when placing the backfill. Backfills should be inspected and tested during placement.

Fill against footings, stem walls and retaining walls should be compacted to densities specified in **EARTHWORK**. Medium to high plasticity clay soils should not be used as backfill against retaining walls. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors. Overcompaction may cause excessive lateral earth pressures which could result in wall movements.

6.5 Seismic Considerations

Structures should be designed in accordance with applicable building codes. The seismic design parameters presented in the following table, in accordance with the 2018 International Building Code and ASCE 7-16, are applicable to the project site:

Seismic Design Parameters International Building Code 2018, ASCE 7-16	
Soil Site Class	C
Mapped Spectral Response Acceleration at 0.2 sec period (S_s)	0.312g
Mapped Spectral Response Acceleration at 1.0 sec period (S_1)	0.096g
Site Coefficient for 0.2 sec period (F_a)	1.3
Site Coefficient for 1.0 sec period (F_v)	1.5
Design Spectral Response Acceleration at 0.2 sec period (S_{DS})	0.271g
Design Spectral Response Acceleration at 1.0 sec period (S_{D1})	0.096g

The soil site class is based upon conditions identified in shallow exploratory test pits and local knowledge of the geotechnical conditions in the vicinity of the site. Conditions extending

beyond the depth of our test pits to a depth of 100 feet were assumed for the purposes of providing the information presented in the table. Based upon the density of the on-site soils, the shallow rock conditions in some areas of the site, and lack of groundwater, the potential settlement and lateral spread due to liquefaction is not a considered to be a significant concern on this site.

6.6 Conventional Slab-on-Grade Support

Slabs-on-grade should be supported on a minimum thickness of 3 feet of properly placed and compacted, imported, low expansive, engineered fill. For design of interior slabs-on-grade, we recommend using a modulus of subgrade reaction (k) of 200 pounds per cubic inch (pci) for the on-site soils and 225 pci for imported fill material, based on a 30-inch diameter plate. For design of interior slabs-on-grade, we recommend using a modulus of subgrade reaction (k) of 200 pounds per cubic inch (pci) for the on-site soils and 225 pci for imported fill material, based on a 30-inch diameter plate. A minimum 4-inch thick layer of base course should be provided beneath all slabs to help prevent capillary rise and a damp slab.

The use of vapor retarders or barriers is desirable for any slab-on-grade where the floor will be covered by products using water-based adhesives, wood, vinyl backed carpet, impermeable floor coatings (urethane, epoxy, acrylic terrazzo, etc.) or where the floor will be in contact with moisture sensitive equipment or product. When used, the design and installation should be in accordance with the guidance given in ACI 302.1R and 302.2R. Final determination on the use of a vapor retarder should be left to the slab designer.

All concrete placement and curing operations should follow the American Concrete Institute manual recommendations. Improper curing techniques and/or high slump (high water-cement ratio) could cause excessive shrinkage, cracking or curling. The plastic properties of the concrete should be documented at the time of placement and specimens should also be prepared for strength testing to verify compliance with project specifications. Concrete slabs should be allowed to cure adequately before placing vinyl or other moisture sensitive floor covering.

6.7 Drainage

The major cause of soil-related foundation and slab-on-ground problems is moisture increase in soils below structures. Properly functioning conventional foundations and floor slabs-on-ground require appropriately constructed and maintained site drainage conditions.

Therefore, it is extremely important that positive drainage be provided during construction and maintained throughout the life of the residential structures. It is also important that proper planning and control of landscape and irrigation practices be performed.

Infiltration of water into utility or foundation excavations must be prevented during construction. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to minimize the possibility of moisture infiltration. If utility line trenches are backfilled with a granular material, then a clay or concrete plug should be placed in the trench adjacent to the structures to prevent water from following the trench back under the structures.

In areas where sidewalks, patios or driveways do not immediately adjoin the structures, protective slopes should be provided with an outfall of about 5 percent for at least 10 feet from perimeter walls. Scuppers or gutters and drain pipes should be designed to provide drainage away from the structures for a minimum distance of 10 feet. Planters or other surface features that could retain water adjacent to residential structures should be avoided if at all possible. If planters and/or landscaping are adjacent to or near the structures, there will be a greater potential for moisture infiltration, soil movement and structure distress. As a minimum, we recommend the following:

- Grades should slope away from the structures.

- Planters should slope away from the structures and should not pond water. Drains should be installed in enclosed planters to facilitate flow out of the planters.
- Only shallow rooted landscaping should be used.

- Watering should be kept to a minimum. Irrigation systems should be situated on the far side of any planting and away from the structures to minimize infiltration beneath foundations from possible leaks.

- Trees should be planted no closer than a distance equal to three-quarters of their mature height or 15 feet, whichever is greater.

It should be understood that these recommendations will help minimize the potential for soil movement and resulting distress, but will not eliminate this potential.

6.8 Corrosivity

Based on the laboratory test results, the on-site soils exhibit a low to moderate corrosive potential to ductile iron piping. This information should be used as an aid in choosing the construction materials that will be in contact with these soils and that will need to be resistant to various corrosive forces. Manufacturers' representatives should be contacted regarding the specific corrosivity resistance for their particular product.

The chemical test results indicate that the site soils are negligibly corrosive to concrete. However, in order to be consistent with standard local practice and for reasons of material availability, we recommend that Type II portland cement be used for all concrete on and below grade.

6.9 Pavements

Based on existing subgrade conditions, the following pavement sections are recommended for the areas indicated:

Traffic Area	Asphalt Concrete (in.)	Base Course (in.)
Passenger car parking/drives (low traffic frequency)	3	7
Residential Roadways (high traffic frequency)	4	5

Bituminous surfacing should be constructed of dense-graded, central plant-mix, asphalt concrete. Base course and asphalt concrete should conform with City of Flagstaff specifications.

Material and compaction requirements should conform to the recommendations presented under **EARTHWORK**. The gradient of paved surfaces should ensure positive drainage. Water should not pond in areas directly adjoining paved sections. The native subgrade soils will soften and lose stability if subjected to conditions which result in an increase in water content.

Due to the high static loads imposed by parked trucks in loading and unloading areas and at dumpster locations, we recommend that a rigid pavement section be considered for these

areas. A minimum 6-inch thick concrete pavement over 4 inches of aggregate base course material is recommended.

6.9.1 Pavement Analyses

The recommended pavement sections are based on the following conditions. This firm should be contacted if any of these conditions change so that revised recommendations can be provided, if necessary.

a. A design R-value of 20 for the on-site soils which corresponds to a resilient modulus of approximately 5,700 pounds per square inch. Any required fills should be constructed using on-site or imported materials with subgrade support characteristics equal to or greater than the subgrade soils in the area being filled.

b. Structural coefficients of 0.40 for asphalt concrete and 0.12 for aggregate base course material.

c. A present serviceability index of 4.5, a terminal serviceability index of 2.5, an overall standard deviation of 0.35, a reliability factor of 85 percent, a drainage coefficient of 0.85, a seasonal variation factor of 3.5, and design life of 20 years.

d. A total 18-kip equivalent single axle load (ESAL) of 25,000 for the passenger car parking areas and 36,500 for the residential roadway areas.

7.0 EARTHWORK

7.1 General

The conclusions contained in this report for the proposed construction are contingent upon compliance with recommendations presented in this section. Any excavating, trenching, or disturbance that occurs after completion of the earthwork must be backfilled, compacted and tested in accordance with the recommendations contained herein. It is not reasonable to rely upon our conclusions and recommendations if any future unobserved and untested trenching, earthwork activities or backfilling occurs.

7.2 Site Clearing

Strip and remove all vegetation, debris, and any other deleterious materials from the building and pavement areas. The building area is defined as that area within the building footprint plus 5 feet beyond the perimeter of that footprint. All exposed surfaces should be free of mounds and depressions that could prevent uniform compaction.

7.3 Excavation

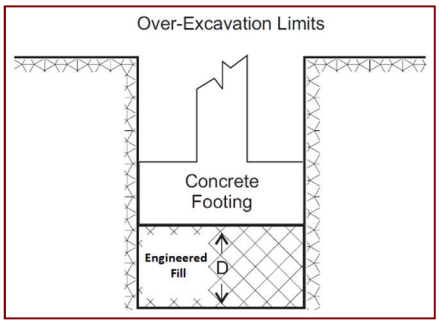
We anticipate that excavations into the site soils for the proposed construction can be accomplished with conventional equipment. Excavations penetrating the underlying limestone may require the use of heavy duty, specialized equipment to facilitate rock break-up and removal.

On-site soils will pump or become unworkable at high water contents. Workability may be improved by scarifying and drying. Over-excavation of wet zones and replacement with drier granular materials may be necessary. The use of lightweight excavation and compaction equipment may be required to minimize subgrade pumping.

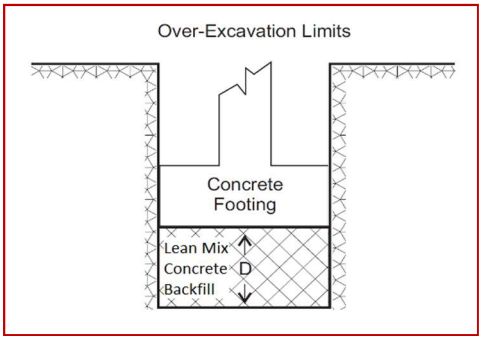
7.4 Foundation Preparation

For structures located within cut areas of the site where rock is encountered throughout the entire building area, remove all loose or disturbed materials from the bottoms and sides of the footing excavations prior to the placement of foundation reinforcement and concrete. The depth of removal required for this condition will vary and is best determined in the field during foundation excavation operations. If desired, lean mix (2-sack) concrete backfill may be used to backfill any deeper portions of the excavations to design bottom of foundation elevation.

For structures bearing partially on rock and partially on fill, provide a minimum thickness of 2 feet of engineered fill material below all foundation elements (depth D in the diagram to the right). Removal and replacement in rock areas may extend straight down along the sides of the footing.

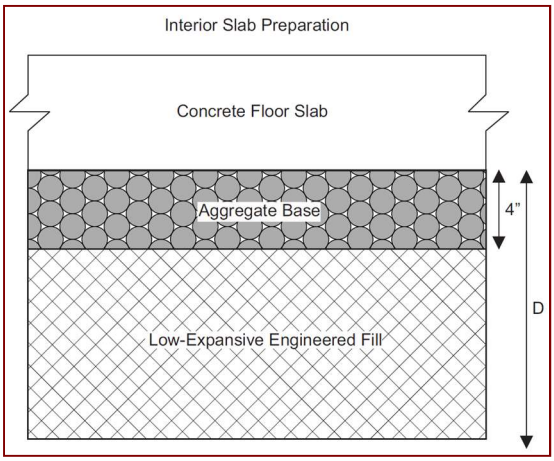


For structures bearing partially or entirely on high plasticity soils, remove existing soils to a minimum depth of 3 feet below the bottom of the footing (depth D in the diagram to the right). Removal should extend straight down along the sides of the footing. Replace the removed soils with properly consolidated, lean mix (2-sack) concrete backfill material.



7.5 Slab-on-Grade Preparation

Slabs-on-grade should be founded on a minimum thickness of 3 feet of imported, low expansive, engineered fill material. Remove native soils, as necessary, to a minimum depth of 3 feet below the bottom of the slab (depth D in the diagram below). Following the removal, scarify, moisten or dry as required, and compact all subgrade soils to a minimum depth of 8 inches. Replace the removed soils with properly compacted, imported, low to non-expansive, engineered fill material. The aggregate base course below the slab may be included as part of the low to non-expansive engineered fill. Removal and/or scarifying and compacting are not required in areas where dense limestone is encountered.



The subgrade preparation should be accomplished in a manner that will result in uniform water contents and densities after compaction.

7.6 Exterior Slab Preparation

Some of the soils on this site have the potential to expand and shrink with changes in moisture content. In addition, frost penetration in the upper soils may cause surface heaving. Therefore, relatively lightweight exterior concrete flatwork such as sidewalks and patios may experience movements resulting in cracking or vertical offsets. To reduce the potential for damage, we recommend:

- Use of fill with low expansion potential
- Use of fill with low to negligible frost susceptibility
- Placement of effective control joints on relatively close centers
- Moisture-density control during placement of subbase fills
- Provision for adequate drainage in areas adjoining the slabs
- Use of designs which allow vertical movement between the exterior slabs and adjoining structural elements

It should be understood that these recommendations will help reduce the potential for soil movement and resulting distress, but will not eliminate this potential. Furthermore, the use of municipal specifications and details may not mitigate the potential for movements of the expansive or frost susceptible on-site soils.

7.7 Pavement Preparation

Prior to placement of fill and/or pavement materials, the exposed subgrade soils should be proof-rolled and observed by the geotechnical engineer or his qualified representative to verify that stable subgrade conditions exist. Any loose, soft, disturbed, or otherwise unsuitable materials should be over-excavated and replaced with engineered fill. The subgrade should then be scarified, moisture conditioned as required, and recompacted for a minimum depth of 8 inches. Scarifying and compacting are not required in areas where dense limestone is encountered.

7.8 Materials

a. Clean on-site soils with low expansive potential and a maximum dimension of 6 inches or imported materials may be used as fill material for the following:

- Foundation areas
- Interior slab areas
- Pavement areas
- Backfill

b. On-site clay/clayey soils are not recommended for use beneath foundations, conventional interior or exterior slabs-on-grade or as backfill below slabs. Imported, low expansive, engineered fill should be used in these areas.

c. Frozen soils should not be used as fill or backfill.

d. Lean mix (2-sack) concrete backfill should consist of aggregate base course type material combined with 2 sacks of cement per cubic yard. A coarse rock mix should not be used.

e. Imported soils should conform to the following:

- Gradation (ASTM C136): percent finer by weight

6"	100
4"	85-100
¾”	70-100
No. 4 Sieve	50-100
No. 200 Sieve	40 (max)

- Maximum expansive potential (%)[1] 1.5

- Maximum soluble sulfates (%) 0.10

f. Base course should conform to City of Flagstaff, Current Edition specifications.

[1] Measured on a sample compacted to approximately 95 percent of the ASTM D698 maximum dry density at about 3 percent below optimum water content. The sample is confined under a 100 psf surcharge and submerged.

7.9 Placement and Compaction

a. Place and compact fill in horizontal lifts, using equipment and procedures that will produce recommended water contents and densities throughout the lift.

b. Uncompacted lift thickness should not exceed 8 inches.

c. Materials should be compacted to the following:

Material	Minimum Percent Compaction (ASTM D698)
• On-site soil, reworked:	
Below slabs-on-grade	90
Pavement areas	95
• On-site soil (moderate expansive potential), fill:	
Pavement areas	95
Landscape areas	85
• Imported and on-site soil (low expansive potential), fill:	
Below foundations	95
Below slabs-on-grade	95
Pavement areas	95
• Aggregate base:	
Below slabs-on-grade	95
Pavement areas	100
• Backfill:	
Structural	95
Nonstructural	90

d. On-site soils should be compacted with a moisture content in the range of optimum to 4 percent above optimum. Imported soils with low expansive potential and aggregate base course materials should be compacted with a moisture content in the range of 3 percent below to 3 percent above optimum.

7.10 Compliance

Recommendations for foundations, slabs-on-grade and pavements supported on compacted fills or prepared subgrade depend upon compliance with the **EARTHWORK** recommendations. To assess compliance, observation and testing should be performed under the direction of a WT geotechnical engineer. Please contact us to provide these observation and testing services.

8.0 ADDITIONAL SERVICES

The recommendations provided in this report are based on the assumption that a sufficient schedule of tests and observations will be performed during construction to verify compliance. At a minimum, these tests and observations should be comprised of the following:

- Observations and testing during site preparation and earthwork,
- Observation of foundation excavations, and
- Consultation as may be required during construction.

Retaining the geotechnical engineer who developed your report to provide construction observation is the best way to verify compliance and to help you manage the risks associated with unanticipated conditions.

9.0 LIMITATIONS

This report has been prepared assuming the project criteria described in **2.0 PROJECT DESCRIPTION**. If changes in the project criteria occur, or if different subsurface conditions are encountered or become known, the conclusions and recommendations presented herein shall become invalid. In any such event, WT should be contacted in order to assess the effect that such variations may have on our conclusions and recommendations. If WT is not retained for the construction observation and testing services to determine compliance with this report, our professional responsibility is accordingly limited.

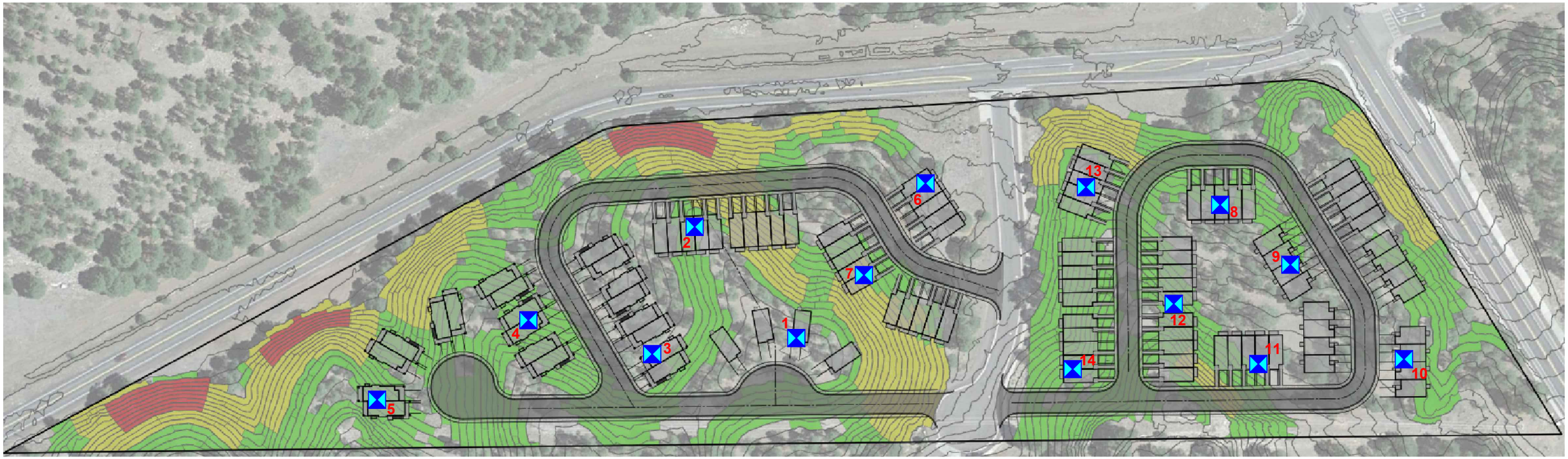
The recommendations presented are based entirely upon data derived from a limited number of samples obtained from widely spaced explorations. The attached logs are indicators of

subsurface conditions only at the specific locations and times noted. This report assumes the uniformity of the geology and soil structure between explorations, however variations can and often do exist. Whenever any deviation, difference, or change is encountered or becomes known, WT should be contacted.

This report is for the exclusive benefit of our client alone. There are no intended third-party beneficiaries of our contract with the client or this report, and nothing contained in the contract or this report shall create any express or implied contractual or any other relationship with, or claim or cause of action for, any third party against WT.
This report is valid for the earlier of one year from the date of issuance, a change in circumstances, or discovered variations. After expiration, no person or entity shall rely on this report without the express written authorization of WT.

10.0 CLOSURE

We prepared this report as an aid to the designers of the proposed project. The comments, statements, recommendations and conclusions set forth in this report reflect the opinions of the authors. These opinions are based upon data obtained at the location of the explorations, and from laboratory tests. Work on your project was performed in accordance with generally accepted standards and practices utilized by professionals providing similar services in this locality. No other warranty, express or implied, is made.



Not to Scale

Approximate Test Pit Location

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

MASONIC LANE TOWNHOMES

Test Pit Location Diagram

Western Technologies Inc.

Job No.: 2522JB158

Plate: 1

Allowable Soil Bearing Capacity	The recommended maximum contact stress developed at the interface of the foundation element and the supporting material.
Backfill	A specified material placed and compacted in a confined area.
Base Course	A layer of specified aggregate material placed on a subgrade or subbase.
Base Course Grade	Top of base course.
Bench	A horizontal surface in a sloped deposit.
Caisson/Drilled Shaft	A concrete foundation element cast in a circular excavation which may have an enlarged base (or belled caisson).
Concrete Slabs-On-Grade	A concrete surface layer cast directly upon base course, subbase or subgrade.
Crushed Rock Base Course	A base course composed of crushed rock of a specified gradation.
Differential Settlement	Unequal settlement between or within foundation elements of a structure.
Engineered Fill	Specified soil or aggregate material placed and compacted to specified density and/or moisture conditions under observations of a representative of a soil engineer.
Existing Fill	Materials deposited through the action of man prior to exploration of the site.
Existing Grade	The ground surface at the time of field exploration.
Expansive Potential	The potential of a soil to expand (increase in volume) due to absorption of moisture.
Fill	Materials deposited by the actions of man.
Finished Grade	The final grade created as a part of the project.
Gravel Base Course	A base course composed of naturally occurring gravel with a specified gradation.
Heave	Upward movement.
Native Grade	The naturally occurring ground surface.
Native Soil	Naturally occurring on-site soil.
Rock	A natural aggregate of mineral grains connected by strong and permanent cohesive forces. Usually requires drilling, wedging, blasting or other methods of extraordinary force for excavation.
Sand and Gravel Base Course	A base course of sand and gravel of a specified gradation.
Sand Base Course	A base course composed primarily of sand of a specified gradation.
Scarify	To mechanically loosen soil or break down existing soil structure.
Settlement	Downward movement.
Soil	Any unconsolidated material composed of discrete solid particles, derived from the physical and/or chemical disintegration of vegetable or mineral matter, which can be separated by gentle mechanical means such as agitation in water.
Strip	To remove from present location.
Subbase	A layer of specified material placed to form a layer between the subgrade and base course.
Subbase Grade	Top of subbase.
Subgrade	Prepared native soil surface.

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COARSE-GRAINED SOILS

LESS THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
GW	WELL-GRADED GRAVEL OR WELL-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE
GP	POORLY-GRADED GRAVEL OR POORLY-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	
GM	SILTY GRAVEL OR SILTY GRAVEL WITH SAND, MORE THAN 12% FINES	
GC	CLAYEY GRAVEL OR CLAYEY GRAVEL WITH SAND, MORE THAN 12% FINES	
SW	WELL-GRADED SAND OR WELL-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE
SP	POORLY-GRADED SAND OR POORLY-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	
SM	SILTY SAND OR SILTY SAND WITH GRAVEL, MORE THAN 12% FINES	
SC	CLAYEY SAND OR CLAYEY SAND WITH GRAVEL, MORE THAN 12% FINES	

NOTE: Coarse-grained soils receive dual symbols if they contain 5% to 12% fines (e.g., SW-SM, GP-GC).

FINE-GRAINED SOILS

MORE THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
ML	SILT, SILT WITH SAND OR GRAVEL, SANDY SILT, OR GRAVELLY SILT	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50
CL	LEAN CLAY OF LOW TO MEDIUM PLASTICITY, SANDY CLAY, OR GRAVELLY CLAY	
OL	ORGANIC SILT OR ORGANIC CLAY OF LOW TO MEDIUM PLASTICITY	
MH	ELASTIC SILT, SANDY ELASTIC SILT, OR GRAVELLY ELASTIC SILT	SILTS AND CLAYS LIQUID LIMIT MORE THAN 50
CH	FAT CLAY OF HIGH PLASTICITY, SANDY FAT CLAY, OR GRAVELLY FAT CLAY	
OH	ORGANIC SILT OR ORGANIC CLAY OF HIGH PLASTICITY	
PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	HIGHLY ORGANIC SOILS

NOTE: Fine-grained soils may receive dual classification based upon plasticity characteristics (e.g. CL-ML).

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	Above 12 in.
COBBLES	3 in. – 12 in.
GRAVEL	No. 4 – 3 in.
Coarse	¾ in. – 3 in.
Fine	No. 4 – ¾ in.
SAND	No. 200 – No. 4
Coarse	No. 10 – No. 4
Medium	No. 40 – No. 10
Fine	No. 200 – No. 40
Fines (Silt or Clay)	Below No. 200

NOTE: Only sizes smaller than three inches are used to classify soils

CONSISTENCY

CLAYS & SILTS	BLOWS PER FOOT
VERY SOFT	0 – 2
SOFT	3 – 4
FIRM	5 – 8
STIFF	9 – 15
VERY STIFF	16 – 30
HARD	OVER 30

RELATIVE DENSITY

SANDS & GRAVELS	BLOWS PER FOOT
VERY LOOSE	0 – 4
LOOSE	5 – 10
MEDIUM DENSE	11 – 30
DENSE	31 – 50
VERY DENSE	OVER 50

NOTE: Number of blows using 140-pound hammer falling 30 inches to drive a 2-inch-OD (1⅜-inch ID) split-barrel sampler (ASTM D1586).

PLASTICITY OF FINE GRAINED SOILS

PLASTICITY INDEX	TERM
0	NON-PLASTIC
1 – 7	LOW
8 – 20	MEDIUM
Over 20	HIGH

DEFINITION OF WATER CONTENT

DRY
SLIGHTLY DAMP
DAMP
MOIST
WET
SATURATED

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090414

The number shown in **"TEST PIT"** refers to the approximate location of the same number indicated on the "Test Pit Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features.

"EQUIPMENT TYPE" refers to the equipment used in the excavation of the test pit, and may include the width of the bucket on the excavator and the use of “rock” teeth or attachments.

"SAMPLE TYPE" refers to the form of sample recovery, in which **R** = Ring sample and **G** = Grab Sample.

"DRY DENSITY (LBS/CU FT)" refers to the laboratory-determined dry density in pounds per cubic foot. A double vertical line within the symbol indicates no sample recovery. A circle within the symbol indicates sample disturbance.

"WATER (MOISTURE) CONTENT” (% of Dry Wt.) refers to the laboratory-determined water content in percent using the standard test method ASTM D2216.

"USCS" refers to the “Unified Soil Classification System” Group Symbol for the soil type as defined by ASTM D2487 and D2488. The soils were classified visually in the field, and where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

These notes and test pit logs are intended for use in conjunction with the purposes of our services defined in the text. Test pit log data should not be construed as part of the construction plans nor as defining construction conditions.

The test pit logs depict our interpretations of subsurface conditions at the locations and on the date(s) noted. Variations in subsurface conditions and characteristics may occur between test pits. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the test pit logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the test pit location. The transition between materials is approximate and may be more or less gradual than indicated.

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DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 1

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC		Clayey GRAVEL; with sand, cobbles and boulders, light brown/white, damp
					5			**Excavator Refusal at 2 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-4**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 2

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC		Clayey GRAVEL; with sand, cobbles and boulders, dark brown, damp
					5			**Excavator Refusal at 2 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-5**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 3

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				SC-SM		Silty, Clayey SAND; with gravel, cobbles and boulders, light brown, damp
					5			**Excavator Refusal at 4 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-6**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 4

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				SC		Clayey SAND; with gravel, cobbles and boulders, brown, damp
								Excavator Refusal at 2 Feet on LIMESTONE

5

10

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-7**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 5

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC		Clayey GRAVEL; with sand, cobbles and boulders, dark brown, damp
					5			**Excavator Refusal at 3 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-8**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 6

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				SC-SM		Silty, Clayey SAND; some gravel, cobbles and boulders, black/dark brown, damp
					5			**Excavator Refusal at 2 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-9**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 7

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC-GM		Silty, Clayey GRAVEL; with sand, cobbles and boulders, brown, damp
					5			**Excavator Refusal at 3 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-10**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 8

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC-GM		Silty, Clayey GRAVEL; with sand, cobbles and boulders, light brown, damp
		R		Push				
								Excavator Refusal at 4 Feet on LIMESTONE
					5			
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-11**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 9

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
						SC-SM		Silty, Clayey SAND; with gravel, cobbles and boulders, tan, damp
18.4	99	R		Push		CH		Sandy Fat CLAY; some gravel, brown, damp
		G						
					5			**Excavator Refusal at 5 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-12**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 10

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				CH		Sandy Fat CLAY; some gravel, brown, moist
20.2	99	R		Push				
					5			
					10			**Excavation Stopped at 10 Feet**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-13**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 11

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				SC-SM		Silty, Clayey SAND; with gravel, cobbles and boulders, tan, damp
					5			**Excavator Refusal at 2 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE
A-14

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 12

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC-GM		Silty, Clayey GRAVEL; with sand, cobbles and boulders, brown, damp
					5			**Excavator Refusal at 2 Feet on LIMESTONE**
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-15**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 13

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC-GM		Silty, Clayey GRAVEL; with sand, cobbles and boulders, black/dark brown, damp
								Excavator Refusal at 1 Foot on LIMESTONE
					5			
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-16**

TEST PIT LOG

DATE EXCAVATED: **7-22-22**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 14

EQUIPMENT: **CASE 580 N**
EXCAVATION TYPE: **24" BUCKET**
FIELD ENGINEER: **C. Senior**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC-GM		Silty, Clayey GRAVEL; with sand, cobbles and boulders, black/dark brown, damp
								Excavator Refusal at 1 Foot on LIMESTONE
					5			
					10			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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PROJECT: **MASONIC LANE TOWNHOMES**
PROJECT NO.: **2522JB158**

PLATE **A-17**

TEST PIT LOG

Test Pit No.	Depth (ft)	USCS Class.	Particle Size Distribution (%) Passing by Weight							Atterberg Limits		Laboratory Compaction Characteristics			Remarks
			3"	¾"	#4	#10	#40	#200	2µ	LL	PI	Dry Density (pcf)	Optimum Moisture (%)	Method	
1	0-2	GC	100	60	45	40	36	25.0		39	23				2
4	0-2	SC	100	88	80	76	71	36.3		34	16				2
5	0-3	GC	80	58	53	50	48	30.1		32	13				2
6	0-2	SC-SM		100	90	85	79	41.7		28	7				2
8	0-4	GC-GM	100	80	70	66	62	44.0		28	7				2
10	0-5	CH	100	92	89	87	83	51.1		53	38				2
12	0-2	GC-GM	83	60	49	45	40	18.9		30	7				2

NOTE: NP = Non-plastic
µ = microns (2µ = 0.002mm)

REMARKS

Classification / Particle Size / Moisture-Density Relationship
1. Visual
2. Laboratory Tested
3. Minus #200 Only
4. Test Method ASTM D698/AASHTO T99
5. Test Method ASTM D1557/AASHTO T180
6. From the ADOT Family of Curves

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PROJECT: MASONIC LANE TOWNHOMES
JOB NO.: 2522JB158

PLATE
B-1

SOIL PROPERTIES

Test Pit No.	Depth (ft.)	USCS Class.	Initial Dry Density (pcf)	Initial Water Content (%)	Laboratory Compaction Characteristics			Expansion Properties		Plasticity		Soluble		Remarks
					Dry Density(pcf)	Optimum Moisture(%)	Method	Surcharge (ksf)	Expansion (%)	LL	PI	Salts (ppm)	Sulfate (ppm)	
4	0-2	SC	96.9	14.2	102.0	17.3	A	0.1	3.4					1,2,3
10	0-5	CH	88.2	19.7	92.5	23.2	A	0.1	8.1					1,2,3

Notes: Initial Dry Density and Initial Water Content are remolded.

Remarks

1. Compacted density (approx. 95% of ASTM D698 max. density at moisture content slightly below optimum.)
2. Submerged to approximate saturation.
3. Test Method ASTM D698/AASHTO T99
4. Test Method ASTM D1557/AASHTO T180
5. From the ADOT Family of Curves

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PROJECT: MASONIC LANE TOWNHOMES

JOB NO.: 2522JB158

SOIL PROPERTIES

PLATE

B-2

Test No.	Depth (ft)	Rock Classification	Unit Weight (pcf)	Unconfined Compressive Strength (psi)	Remarks
1	Surface	Limestone	156.3	10,680	1,2
2	Surface	Limestone	160.1	13,700	1,2

REMARKS:

1. ASTM D7012 – Unit Weight of Rock Cores
2. ASTM C39 – Unconfined Compressive Strength of Rock Cores

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PROJECT: MASONIC LANE TOWNHOMES
JOB NO.: 2522JB158

PLATE
B-3

ROCK PROPERTIES

CORROSIVITY TEST RESULTS

The procedures for soil survey tests and observations can be found in Appendix X1.1 of ASTM A674-10 and includes five soil properties: earth resistivity • pH • redox potential • sulfides • moisture.

Test Pit 4(0-2):

Analysis	Results		Points
Resistivity (ohm-cm)	2851		1
pH	8.2		0
Redox Potential (mV)	+396		0
Sulfides	trace		2
Moisture	fair		1
		Total Points	4

Test Pit 10(0-5):

Analysis	Results		Points
Resistivity (ohm-cm)	1136		10
pH	8.2		0
Redox Potential (mV)	+347		0
Sulfides	trace		2
Moisture	fair		1
		Total Points	13

The test procedure states that if the sum of the points is greater than 10, the soil is considered corrosive to ductile iron pipe and special protection against exterior corrosion is necessary. This conclusion is limited to soil corrosion and does not include consideration of stray direct current.

MOTZZ LABORATORY, INC.

Laboratory Analysis Report

Western Technologies - Flagstaff
Gregory L. E. Burr
2400 East Huntington
Flagstaff, AZ 86004-8934

Project: 2522JB158
Date Received: 7/29/2022
Date Reported: 8/3/2022
PO Number: 2522P163

Lab Number: 943102-1 **1 (0-2')**

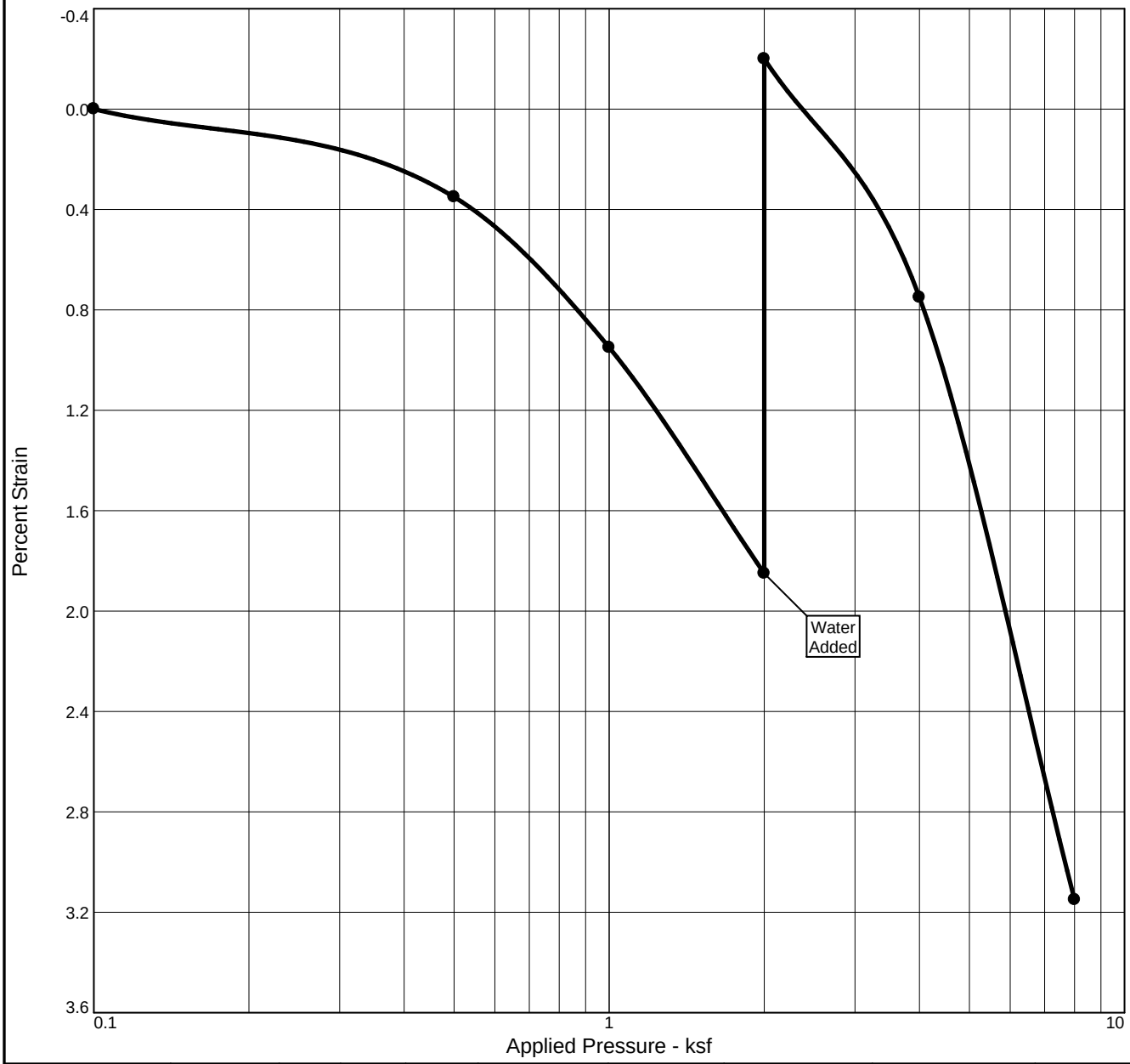
Test Parameter	Method	Result	Units	Levels
Soluble Salts	ARIZ 237b	326	ppm	
Sulfate	ARIZ 733b	9	ppm	
Chloride	ARIZ 736b	3	ppm	
Redox Potential	ASTM G200-09	396	(Eo) mV	

Lab Number: 943102-2 **12 (0-2')**

Test Parameter	Method	Result	Units	Levels
Soluble Salts	ARIZ 237b	402	ppm	
Sulfate	ARIZ 733b	19	ppm	
Chloride	ARIZ 736b	9	ppm	
Redox Potential	ASTM G200-09	347	(Eo) mV	

Plate B-5

COMPRESSION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Swell %	C_r
Sat.	Moist.									
71.9 %	18.4 %	98.6			2.65		0.678	3.6	2.0	

MATERIAL DESCRIPTION	USCS	AASHTO
SANDY FAT CLAY	CH	

Project No. 2522JB158 **Client:** RED OAK DEVELOPMENT GROUP, LLC

Project: MASONIC LANE TOWNHOMES

Source: RING SAMPLE **Depth:** 2-3 FEET **Sample No.:** TEST PIT 9

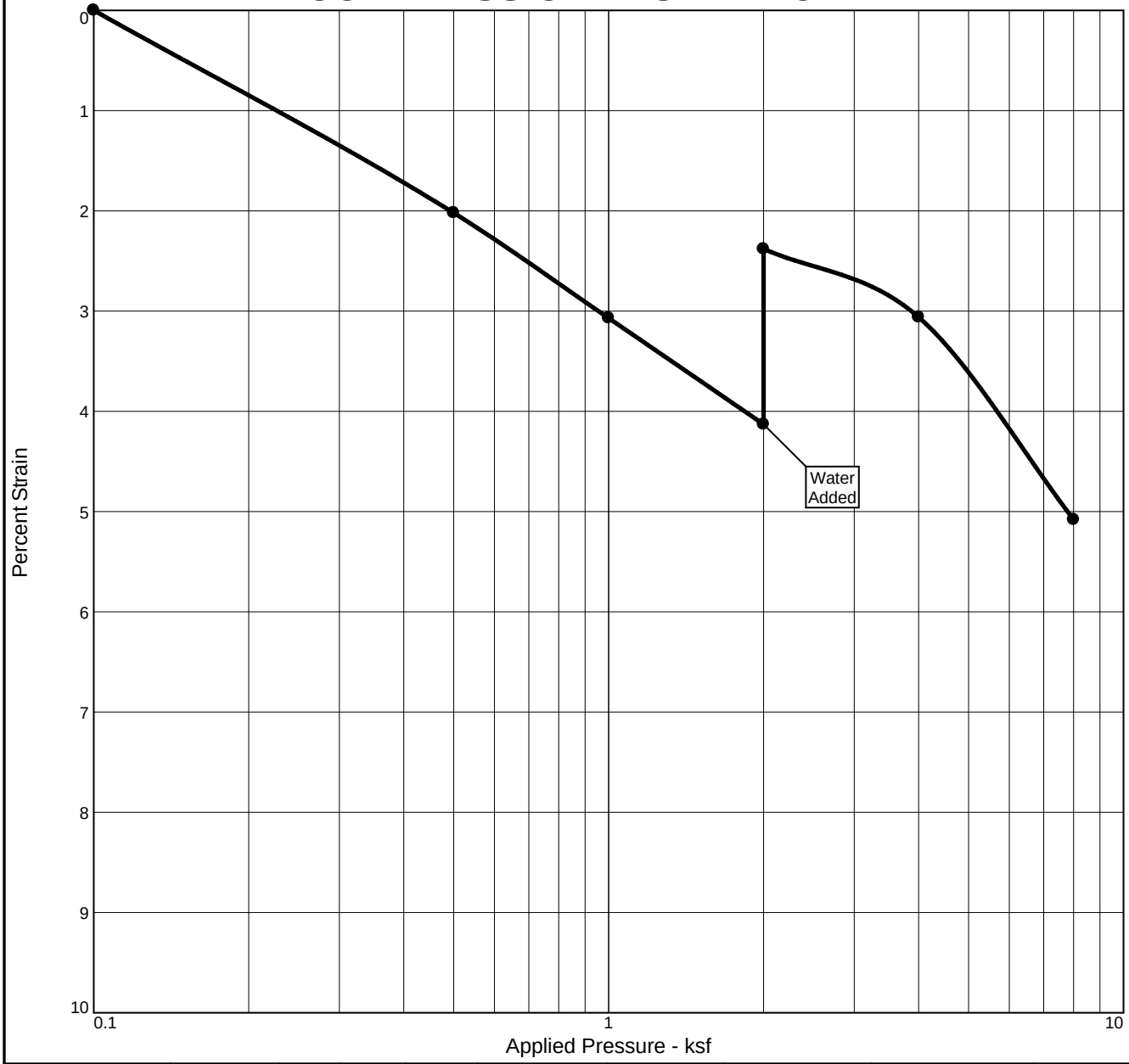
Remarks:

Western Technologies, Inc.

Flagstaff, AZ

Figure B-6

COMPRESSION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Swell %	C_r
Sat.	Moist.									
79.7 %	20.2 %	99.1			2.65		0.670	3.9	1.7	

MATERIAL DESCRIPTION	USCS	AASHTO
SANDY FAT CLAY	CH	

Project No. 2522JB158 **Client:** RED OAK DEVELOPMENT GROUP, LLC

Project: MASONIC LANE TOWNHOMES

Source: RING SAMPLE **Depth:** 2-3 FEET **Sample No.:** TEST PIT 10

Remarks:

Western Technologies, Inc.

Flagstaff, AZ

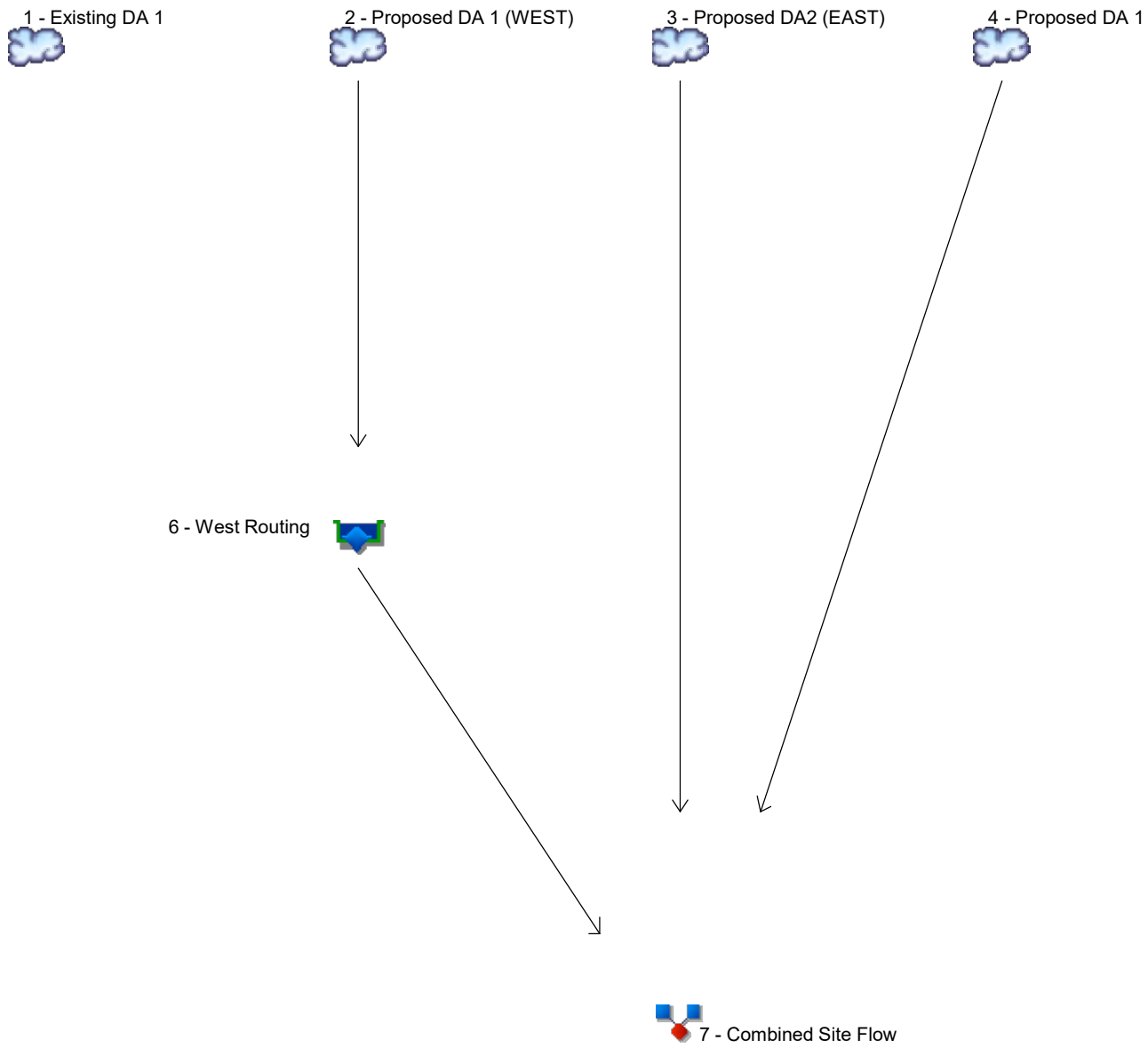
Figure B-7

ViewPoint Engineering

APPENDIX C: PEAK RATE & VOLUME ANALYSIS

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023



Legend

Hyd.	Origin	Description
1	SCS Runoff	Existing DA 1
2	SCS Runoff	Proposed DA 1 (WEST)
3	SCS Runoff	Proposed DA2 (EAST)
4	SCS Runoff	Proposed DA 1
6	Reservoir	West Routing
7	Combine	Combined Site Flow

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)							Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	-------	36.05	-------	-------	69.53	-------	-------	131.33	Existing DA 1
2	SCS Runoff	------	-------	4.872	-------	-------	8.346	-------	-------	14.40	Proposed DA 1 (WEST)
3	SCS Runoff	------	-------	4.387	-------	-------	7.515	-------	-------	12.97	Proposed DA2 (EAST)
4	SCS Runoff	------	-------	16.83	-------	-------	42.27	-------	-------	94.70	Proposed DA 1
6	Reservoir	2	-------	0.741	-------	-------	2.982	-------	-------	7.485	West Routing
7	Combine	3, 4, 6	-------	17.73	-------	-------	44.25	-------	-------	98.24	Combined Site Flow

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

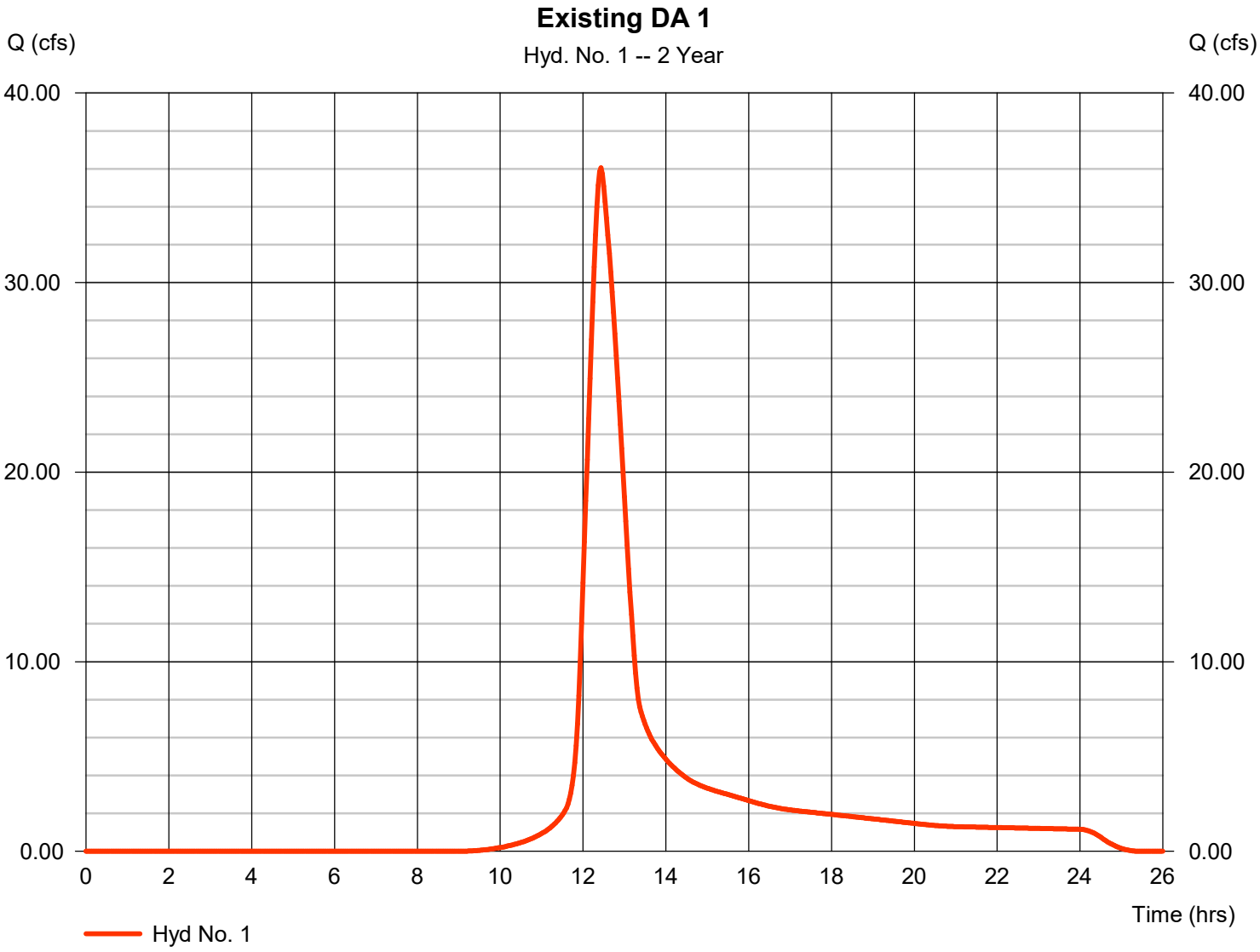
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	36.05	2	746	218,163	------	------	------	Existing DA 1
2	SCS Runoff	4.872	2	716	9,956	------	------	------	Proposed DA 1 (WEST)
3	SCS Runoff	4.387	2	716	8,965	------	------	------	Proposed DA2 (EAST)
4	SCS Runoff	16.83	2	748	115,807	------	------	------	Proposed DA 1
6	Reservoir	0.741	2	702	7,263	2	6883.88	4,608	West Routing
7	Combine	17.73	2	748	132,035	3, 4, 6	------	------	Combined Site Flow

Hydrograph Report

Hyd. No. 1

Existing DA 1

Hydrograph type	=	SCS Runoff	Peak discharge	=	36.05 cfs
Storm frequency	=	2 yrs	Time to peak	=	12.43 hrs
Time interval	=	2 min	Hyd. volume	=	218,163 cuft
Drainage area	=	66.170 ac	Curve number	=	88
Basin Slope	=	5.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	52.40 min
Total precip.	=	1.92 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

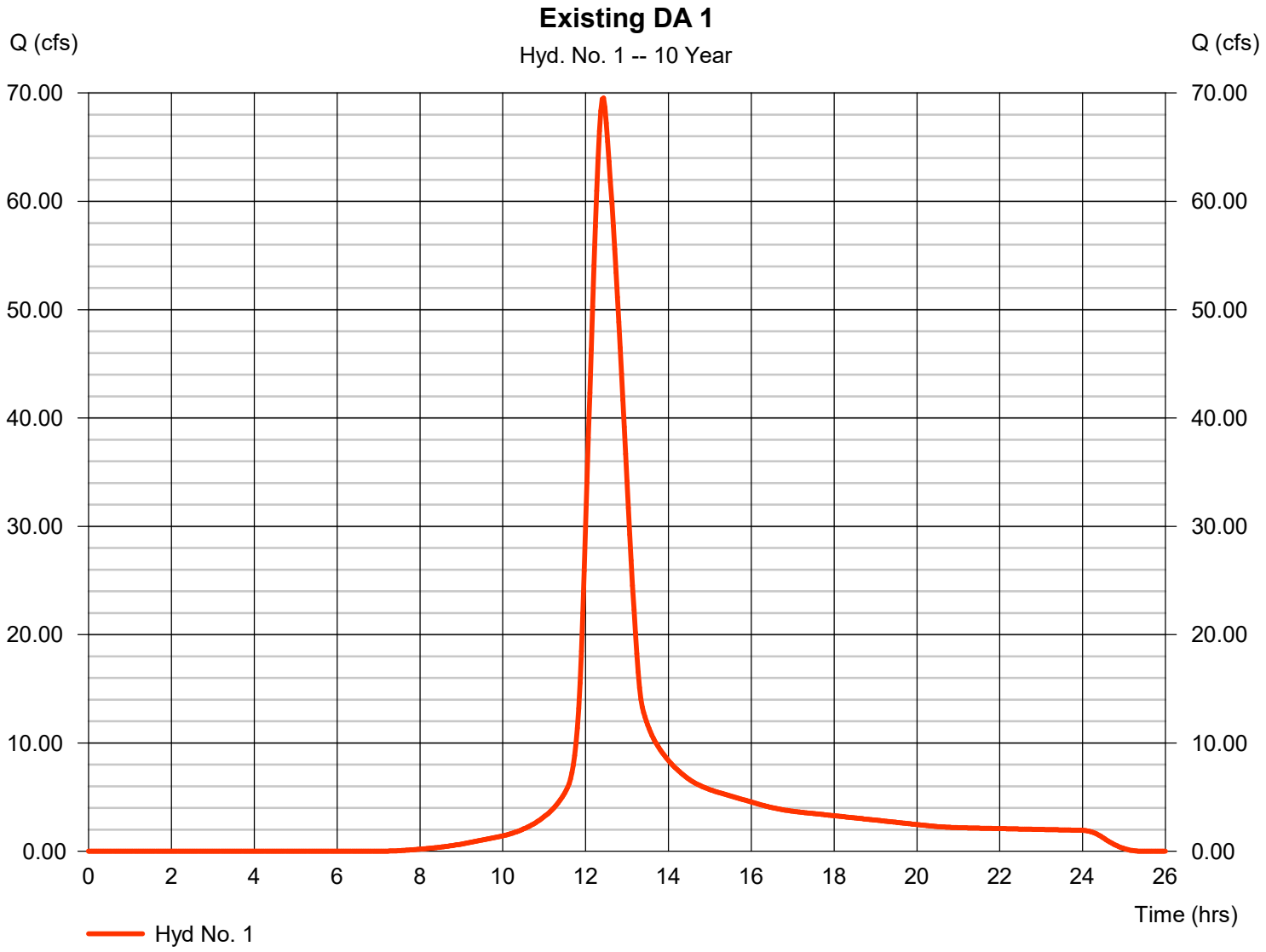
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	69.53	2	746	414,410	------	------	------	Existing DA 1
2	SCS Runoff	8.346	2	716	17,494	------	------	------	Proposed DA 1 (WEST)
3	SCS Runoff	7.515	2	716	15,751	------	------	------	Proposed DA2 (EAST)
4	SCS Runoff	42.27	2	746	261,323	------	------	------	Proposed DA 1
6	Reservoir	2.982	2	724	14,800	2	6884.31	6,789	West Routing
7	Combine	44.25	2	746	291,875	3, 4, 6	------	------	Combined Site Flow

Hydrograph Report

Hyd. No. 1

Existing DA 1

Hydrograph type	= SCS Runoff	Peak discharge	= 69.53 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.43 hrs
Time interval	= 2 min	Hyd. volume	= 414,410 cuft
Drainage area	= 66.170 ac	Curve number	= 88
Basin Slope	= 5.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 52.40 min
Total precip.	= 2.88 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

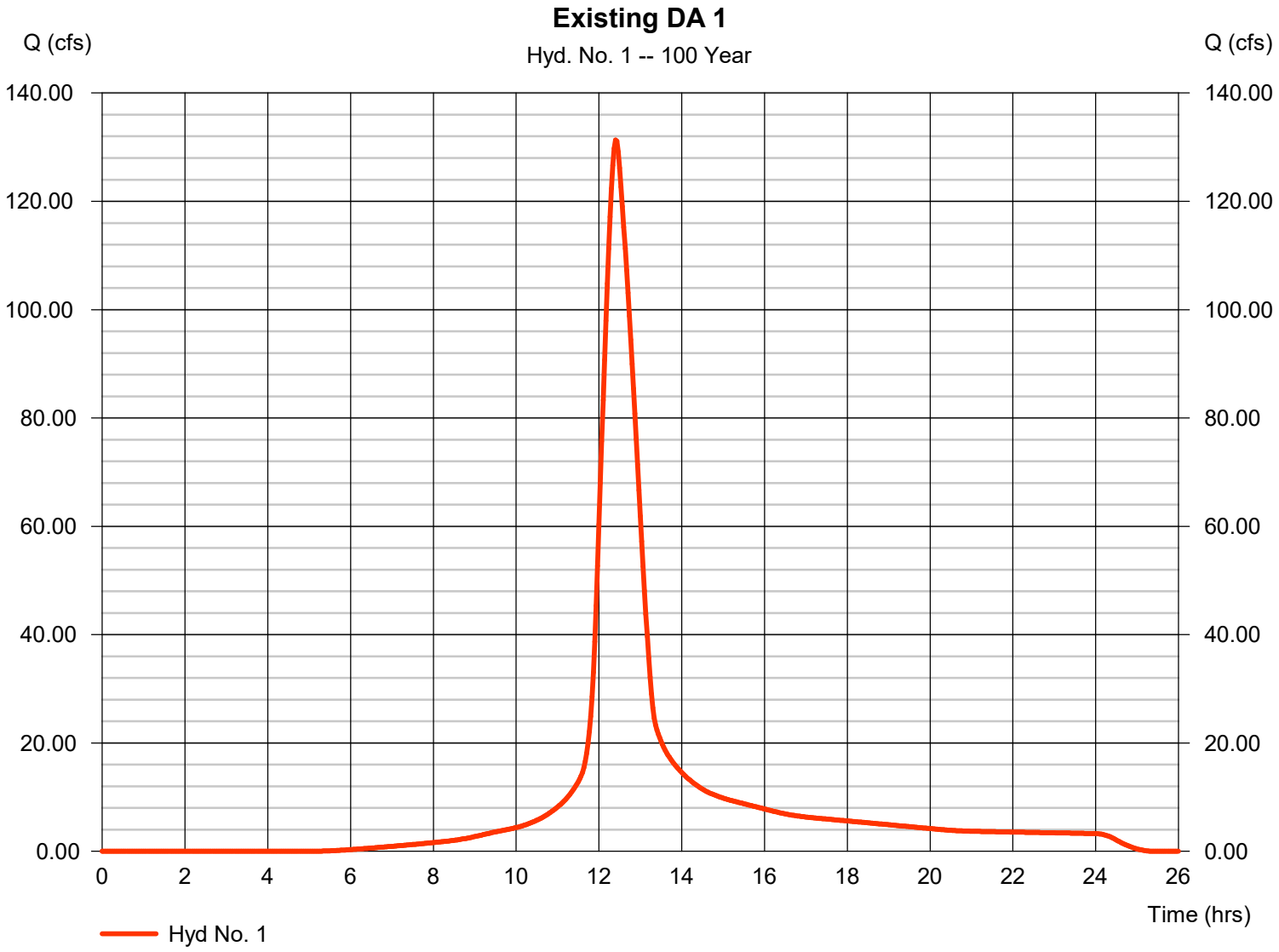
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	131.33	2	744	787,393	------	------	------	Existing DA 1
2	SCS Runoff	14.40	2	716	31,267	------	------	------	Proposed DA 1 (WEST)
3	SCS Runoff	12.97	2	716	28,152	------	------	------	Proposed DA2 (EAST)
4	SCS Runoff	94.70	2	746	565,707	------	------	------	Proposed DA 1
6	Reservoir	7.485	2	722	28,573	2	6885.03	10,134	West Routing
7	Combine	98.24	2	744	622,433	3, 4, 6	------	------	Combined Site Flow

Hydrograph Report

Hyd. No. 1

Existing DA 1

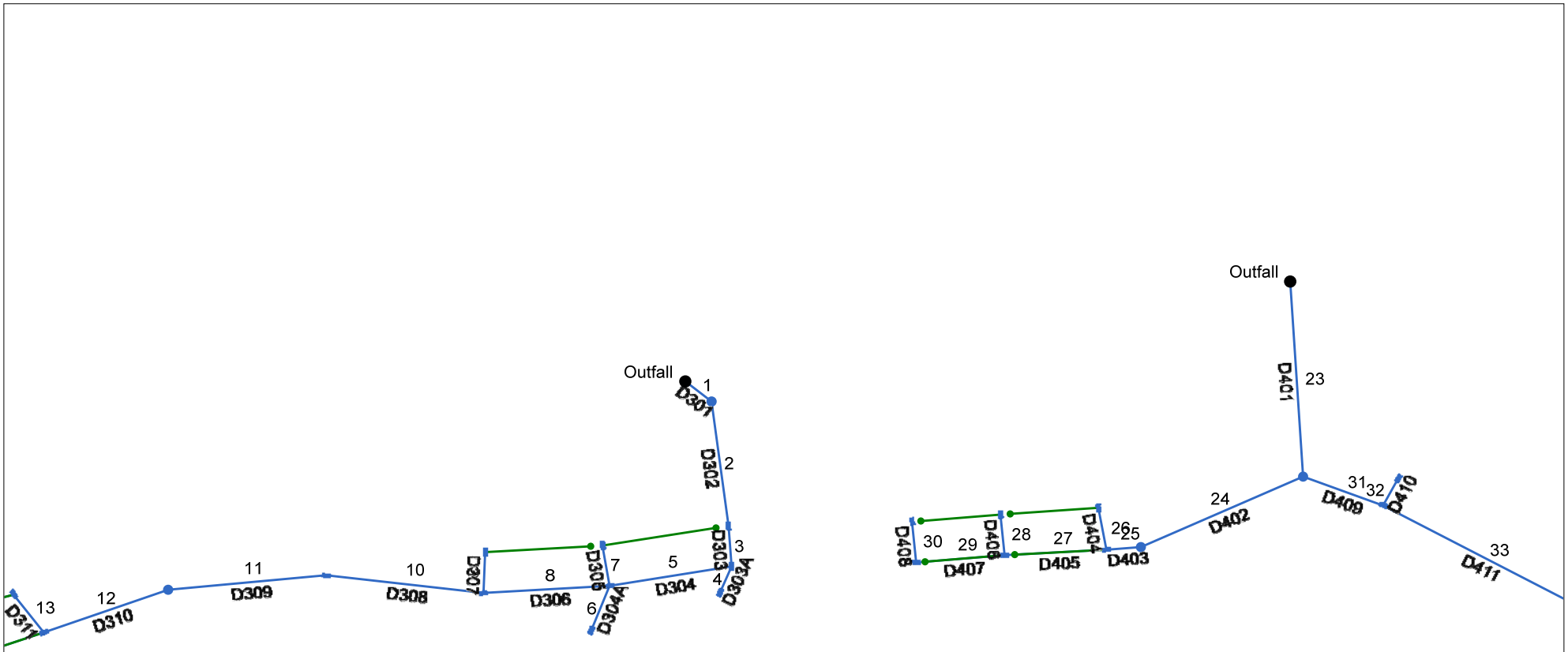
Hydrograph type	=	SCS Runoff	Peak discharge	=	131.33 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.40 hrs
Time interval	=	2 min	Hyd. volume	=	787,393 cuft
Drainage area	=	66.170 ac	Curve number	=	88
Basin Slope	=	5.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	52.40 min
Total precip.	=	4.56 in	Distribution	=	Type II
Storm duration	=	24 hrs	Shape factor	=	484



APPENDIX D: WATER QUALITY ANALYSIS

APPENDIX E: CONVEYANCE DESIGN

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: 22004 Juniper Estates.stm	Number of lines: 40	Date: 5/26/2023

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
40	D418	0.10	18	Cir	22.48	6887.50	6887.61	0.489	6887.62	6887.73	0.04	6887.76	39	Grate
39	D417	0.15	18	Cir	42.65	6887.00	6887.30	0.703	6887.22	6887.44	n/a	6887.44 j	37	Grate
38	D416	0.19	18	Cir	21.81	6891.89	6892.00	0.504	6892.05	6892.16	0.06	6892.16	37	Grate
37	D415	0.34	18	Cir	33.18	6886.80	6887.00	0.603	6887.00	6887.22	n/a	6887.22	36	Grate
36	D414	0.40	18	Cir	49.08	6886.30	6886.60	0.612	6886.52	6886.83	n/a	6886.83	34	Grate
35	D413	0.19	18	Cir	21.87	6901.00	6901.19	0.869	6901.14	6901.35	0.06	6901.35	34	Grate
34	D412	0.63	18	Cir	28.82	6885.60	6885.80	0.693	6885.86	6886.09	0.14	6886.09	33	Grate
33	D411	0.62	18	Cir	115.21	6884.80	6885.40	0.521	6885.08	6885.69	n/a	6885.69	31	Manhole
32	D410	0.36	18	Cir	15.89	6899.92	6900.00	0.504	6900.14	6900.22	n/a	6900.22	31	Grate
31	D409	0.95	18	Cir	43.19	6884.30	6884.60	0.695	6884.69	6884.96	n/a	6884.96 j	23	Grate
30	D408	0.41	18	Cir	20.89	6889.90	6890.00	0.479	6890.13	6890.24	n/a	6890.24	29	Grate
29	D407	0.47	18	Cir	44.99	6889.40	6889.70	0.667	6889.63	6889.96	0.13	6889.96	27	Grate
28	D406	0.10	18	Cir	20.82	6889.40	6889.50	0.481	6889.63	6889.64	0.02	6889.66	27	Grate
27	D405	1.32	18	Cir	51.74	6888.90	6889.20	0.580	6889.30	6889.63	n/a	6889.63	25	Grate
26	D404	0.44	18	Cir	21.77	6897.09	6897.20	0.507	6897.33	6897.44	0.08	6897.44	25	Grate
25	D403	1.96	18	Cir	17.54	6888.20	6888.40	1.139	6888.61	6888.93	0.32	6888.93	24	Grate
24	D402	1.95	18	Cir	89.82	6887.60	6888.00	0.445	6888.12	6888.53	0.07	6888.53	23	Manhole
23	D401	2.39	18	Cir	99.59	6883.00	6884.10	1.105	6883.48	6884.69	0.21	6884.69	End	Manhole
22	D319	0.29	18	Cir	31.07	6889.61	6889.77	0.515	6889.80	6889.97	0.07	6889.97	21	Grate
21	D318	0.39	18	Cir	35.26	6889.23	6889.41	0.511	6889.45	6889.64	0.08	6889.64	19	Grate
20	D317A	0.41	18	Cir	17.91	6896.00	6897.00	5.582	6896.13	6897.24	n/a	6897.24	19	DropGrate
19	D317	0.86	18	Cir	23.93	6888.91	6889.03	0.500	6889.36	6889.37	n/a	6889.37 j	16	Grate
18	D316	2.16	18	Cir	48.20	6893.30	6898.00	9.752	6893.55	6898.55	0.21	6898.55	17	Grate
17	D315	2.20	18	Cir	50.90	6888.91	6889.62	1.395	6889.36	6890.18	n/a	6890.18	16	Grate

Project File: 22004 Juniper Estates.stm | Number of lines: 40 | Run Date: 5/26/2023

NOTES: Return period = 100 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
16	D314	2.90	18	Cir	36.27	6888.54	6888.71	0.468	6889.18	6889.36	0.36	6889.36	15	Grate
15	D313	3.06	18	Cir	91.42	6887.88	6888.34	0.503	6888.52	6889.01	0.13	6889.01	12	Grate
14	D312	0.15	18	Cir	57.33	6901.04	6901.33	0.506	6901.18	6901.47	0.05	6901.52	13	Grate
13	D311	0.20	18	Cir	24.59	6900.73	6900.84	0.447	6900.90	6901.01	n/a	6901.08 j	12	Grate
12	D310	2.94	18	Cir	66.75	6887.03	6887.38	0.525	6887.65	6888.03	n/a	6888.03	11	Grate
11	D309	2.91	18	Cir	80.46	6886.46	6886.83	0.460	6887.10	6887.48	n/a	6887.48	10	Manhole
10	D308	3.03	18	Cir	80.41	6885.86	6886.26	0.497	6886.50	6886.92	0.13	6886.92	8	Grate
9	D307	0.41	18	Cir	20.82	6898.30	6898.50	0.962	6898.50	6898.74	n/a	6898.74	8	Grate
8	D306	3.42	18	Cir	64.04	6885.34	6885.66	0.500	6886.02	6886.37	0.42	6886.37	5	Grate
7	D305	0.12	18	Cir	20.82	6894.50	6894.60	0.481	6894.63	6894.73	0.04	6894.77	5	Grate
6	D304A	1.11	18	Cir	24.49	6896.00	6896.49	2.002	6896.27	6896.88	n/a	6896.88	5	DropGrate
5	D304	4.41	18	Cir	62.71	6884.83	6885.14	0.494	6886.06	6885.95	n/a	6885.95	3	Grate
4	D303A	1.31	18	Cir	14.75	6890.00	6890.50	3.389	6890.25	6890.93	n/a	6890.93	3	DropGrate
3	D303	5.40	18	Cir	20.70	6884.53	6884.63	0.483	6885.61	6885.64	0.43	6886.06	2	Grate
2	D302	5.44	18	Cir	63.98	6884.17	6884.33	0.250	6885.35	6885.50	0.10	6885.61	1	Grate
1	D301	5.42	18	Cir	16.80	6884.00	6884.17	1.012	6884.75	6885.07	n/a	6885.07	End	Manhole

Project File: 22004 Juniper Estates.stm | Number of lines: 40 | Run Date: 5/26/2023

NOTES: Return period = 100 Yrs. ; j - Line contains hyd. jump.

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
40	39	22.48	0.04	0.04	0.45	0.02	0.02	6.0	6.0	5.4	0.10	7.95	1.54	18	0.49	6887.50	6887.61	6887.62	6887.73	6893.99	6893.33	D418
39	37	42.65	0.03	0.07	0.45	0.01	0.03	6.0	12.8	4.8	0.15	9.54	1.37	18	0.70	6887.00	6887.30	6887.22	6887.44	6898.79	6893.99	D417
38	37	21.81	0.08	0.08	0.45	0.04	0.04	6.0	6.0	5.4	0.19	8.07	1.89	18	0.50	6891.89	6892.00	6892.05	6892.16	6898.79	6898.39	D416
37	36	33.18	0.03	0.18	0.45	0.01	0.08	6.0	20.3	4.2	0.34	8.84	2.30	18	0.60	6886.80	6887.00	6887.00	6887.22	6902.59	6898.79	D415
36	34	49.08	0.04	0.22	0.45	0.02	0.10	6.0	22.5	4.1	0.40	8.90	2.41	18	0.61	6886.30	6886.60	6886.52	6886.83	6907.11	6902.59	D414
35	34	21.87	0.08	0.08	0.45	0.04	0.04	6.0	6.0	5.4	0.19	10.60	2.09	18	0.87	6901.00	6901.19	6901.14	6901.35	6907.11	6906.49	D413
34	33	28.82	0.06	0.36	0.45	0.03	0.16	6.0	25.2	3.9	0.63	9.47	2.80	18	0.69	6885.60	6885.80	6885.86	6886.09	6908.25	6907.11	D412
33	31	115.21	0.00	0.36	0.00	0.00	0.16	0.0	26.2	3.8	0.62	8.21	2.65	18	0.52	6884.80	6885.40	6885.08	6885.69	6904.21	6908.25	D411
32	31	15.89	0.15	0.15	0.45	0.07	0.07	6.0	6.0	5.4	0.36	8.08	2.26	18	0.50	6899.92	6900.00	6900.14	6900.22	6904.21	6904.21	D410
31	23	43.19	0.08	0.59	0.45	0.04	0.27	6.0	30.2	3.6	0.95	9.49	2.76	18	0.70	6884.30	6884.60	6884.69	6884.96	6904.35	6904.21	D409
30	29	20.89	0.17	0.17	0.45	0.08	0.08	6.0	6.0	5.4	0.41	7.87	2.33	18	0.48	6889.90	6890.00	6890.13	6890.24	6896.56	6896.56	D408
29	27	44.99	0.03	0.20	0.45	0.01	0.09	6.0	7.5	5.2	0.47	9.29	2.56	18	0.67	6889.40	6889.70	6889.63	6889.96	6898.82	6896.56	D407
28	27	20.82	0.04	0.04	0.45	0.02	0.02	6.0	6.0	5.4	0.10	7.89	0.86	18	0.48	6889.40	6889.50	6889.63	6889.64	6898.82	6898.82	D406
27	25	51.74	0.37	0.61	0.45	0.17	0.27	6.0	12.3	4.8	1.32	8.67	3.35	18	0.58	6888.90	6889.20	6889.30	6889.63	6902.18	6898.82	D405
26	25	21.77	0.18	0.18	0.45	0.08	0.08	6.0	6.0	5.4	0.44	8.10	2.38	18	0.51	6897.09	6897.20	6897.33	6897.44	6902.18	6901.91	D404
25	24	17.54	0.13	0.92	0.45	0.06	0.41	6.0	13.4	4.7	1.96	12.14	4.29	18	1.14	6888.20	6888.40	6888.61	6888.93	6903.25	6902.18	D403
24	23	89.82	0.00	0.92	0.00	0.00	0.41	0.0	13.6	4.7	1.95	7.59	3.56	18	0.45	6887.60	6888.00	6888.12	6888.53	6904.35	6903.25	D402
23	End	99.59	0.00	1.51	0.00	0.00	0.68	0.0	31.1	3.5	2.39	11.96	4.32	18	1.10	6883.00	6884.10	6883.48	6884.69	6904.50	6904.35	D401
22	21	31.07	0.12	0.12	0.45	0.05	0.05	6.0	6.0	5.4	0.29	8.17	2.13	18	0.52	6889.61	6889.77	6889.80	6889.97	6896.13	6894.56	D319
21	19	35.26	0.05	0.17	0.45	0.02	0.08	6.0	9.1	5.1	0.39	8.13	2.32	18	0.51	6889.23	6889.41	6889.45	6889.64	6900.52	6896.13	D318
20	19	17.91	0.17	0.17	0.45	0.08	0.08	6.0	6.0	5.4	0.41	26.88	3.92	18	5.58	6896.00	6897.00	6896.13	6897.24	6900.52	6902.44	D317A
19	16	23.93	0.05	0.39	0.45	0.02	0.18	6.0	11.7	4.9	0.86	8.04	2.37	18	0.50	6888.91	6889.03	6889.36	6889.37	6901.66	6900.52	D317

Project File: 22004 Juniper Estates.stm | Number of lines: 40 | Run Date: 5/26/2023

NOTES:Intensity = 54657470000000000000.00 / (Inlet time + 447.02) ^ 7.91; Return period =Yrs. 100 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
18	17	48.20	0.89	0.89	0.45	0.40	0.40	6.0	6.0	5.4	2.16	35.53	7.36	18	9.75	6893.30	6898.00	6893.55	6898.55	6901.16	6903.00	D316
17	16	50.90	0.03	0.92	0.45	0.01	0.41	6.0	6.7	5.3	2.20	13.44	4.33	18	1.39	6888.91	6889.62	6889.36	6890.18	6901.66	6901.16	D315
16	15	36.27	0.03	1.34	0.45	0.01	0.60	6.0	12.4	4.8	2.90	7.79	4.03	18	0.47	6888.54	6888.71	6889.18	6889.36	6905.28	6901.66	D314
15	12	91.42	0.08	1.42	0.45	0.04	0.64	6.0	12.8	4.8	3.06	8.07	4.15	18	0.50	6887.88	6888.34	6888.52	6889.01	6911.25	6905.28	D313
14	13	57.33	0.06	0.06	0.45	0.03	0.03	6.0	6.0	5.4	0.15	8.09	1.73	18	0.51	6901.04	6901.33	6901.18	6901.47	6910.94	6907.45	D312
13	12	24.59	0.04	0.10	0.45	0.02	0.05	6.0	17.6	4.4	0.20	7.60	1.85	18	0.45	6900.73	6900.84	6900.90	6901.01	6911.25	6910.94	D311
12	11	66.75	0.04	1.56	0.45	0.02	0.70	6.0	20.6	4.2	2.94	8.24	4.13	18	0.52	6887.03	6887.38	6887.65	6888.03	6911.79	6911.25	D310
11	10	80.46	0.00	1.56	0.00	0.00	0.70	0.0	21.2	4.2	2.91	7.72	4.02	18	0.46	6886.46	6886.83	6887.10	6887.48	6908.47	6911.79	D309
10	8	80.41	0.08	1.64	0.45	0.04	0.74	6.0	21.8	4.1	3.03	8.02	4.13	18	0.50	6885.86	6886.26	6886.50	6886.92	6903.22	6908.47	D308
9	8	20.82	0.17	0.17	0.45	0.08	0.08	6.0	6.0	5.4	0.41	11.16	2.65	18	0.96	6898.30	6898.50	6898.50	6898.74	6903.22	6903.25	D307
8	5	64.04	0.06	1.87	0.45	0.03	0.84	6.0	22.4	4.1	3.42	8.05	4.28	18	0.50	6885.34	6885.66	6886.02	6886.37	6899.30	6903.22	D306
7	5	20.82	0.05	0.05	0.45	0.02	0.02	6.0	6.0	5.4	0.12	7.89	1.63	18	0.48	6894.50	6894.60	6894.63	6894.73	6899.30	6899.30	D305
6	5	24.49	0.46	0.46	0.45	0.21	0.21	6.0	6.0	5.4	1.11	16.10	4.12	18	2.00	6896.00	6896.49	6896.27	6896.88	6899.30	6900.00	D304A
5	3	62.71	0.05	2.43	0.45	0.02	1.09	6.0	22.8	4.0	4.41	8.00	3.70	18	0.49	6884.83	6885.14	6886.06	6885.95	6896.88	6899.30	D304
4	3	14.75	0.54	0.54	0.45	0.24	0.24	6.0	6.0	5.4	1.31	20.94	4.87	18	3.39	6890.00	6890.50	6890.25	6890.93	6896.88	6896.58	D303A
3	2	20.70	0.02	2.99	0.45	0.01	1.35	6.0	23.2	4.0	5.40	7.91	4.12	18	0.48	6884.53	6884.63	6885.61	6885.64	6896.88	6896.88	D303
2	1	63.98	0.03	3.02	0.45	0.01	1.36	6.0	23.3	4.0	5.44	5.69	3.67	18	0.25	6884.17	6884.33	6885.35	6885.50	6892.56	6896.88	D302
1	End	16.80	0.00	3.02	0.00	0.00	1.36	0.0	23.5	4.0	5.42	11.44	5.53	18	1.01	6884.00	6884.17	6884.75	6885.07	6893.50	6892.56	D301

Project File: 22004 Juniper Estates.stm

Number of lines: 40

Run Date: 5/26/2023

NOTES:Intensity = 5465747000000000000000.00 / (Inlet time + 447.02) ^ 7.91; Return period =Yrs. 100 ; c = cir e = ellip b = box

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
40	D418	0.10	0.00	0.10	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	1.02	0.00	0.00	0.0	Off
39	D417	0.07	0.00	0.07	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	0.91	0.00	0.00	0.0	Off
38	D416	0.19	0.00	0.19	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.07	1.32	0.00	0.00	0.0	40
37	D415	0.07	0.00	0.07	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	0.91	0.00	0.00	0.0	39
36	D414	0.10	0.00	0.10	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	1.02	0.00	0.00	0.0	37
35	D413	0.19	0.00	0.19	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.08	1.66	0.00	0.00	0.0	38
34	D412	0.15	0.00	0.15	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.07	1.49	0.00	0.00	0.0	36
33	D411	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
32	D410	0.36	0.00	0.36	0.00	Grate	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.050	0.020	0.000	0.11	2.56	0.11	2.56	0.0	Off
31	D409	0.19	0.00	0.19	0.00	Grate	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.050	0.020	0.000	0.08	1.61	0.08	1.61	0.0	Off
30	D408	0.41	0.00	0.41	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.11	2.49	0.01	0.21	0.0	Off
29	D407	0.07	0.04	0.11	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.07	1.35	0.00	0.00	0.0	Off
28	D406	0.10	0.00	0.10	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.06	1.16	0.00	0.00	0.0	30
27	D405	0.90	0.00	0.86	0.04	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.13	3.60	0.04	0.83	0.0	29
26	D404	0.44	0.00	0.44	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.10	2.10	0.00	0.00	0.0	28
25	D403	0.32	0.00	0.32	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.09	1.80	0.00	0.00	0.0	27
24	D402	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
23	D401	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
22	D319	0.29	0.00	0.29	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.08	1.54	0.00	0.00	0.0	Off
21	D318	0.12	0.00	0.12	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.06	1.11	0.00	0.00	0.0	Off
20	D317A	0.41	0.00	0.41	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.020	0.020	0.000	0.05	7.07	0.05	7.07	0.0	Off
19	D317	0.12	0.00	0.12	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.06	1.11	0.00	0.00	0.0	21
18	D316	2.16	0.00	2.16	0.00	Grate	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.050	0.020	0.000	0.25	9.52	0.25	9.52	0.0	Off

Project File: 22004 Juniper Estates.stm | Number of lines: 40 | Run Date: 5/26/2023

NOTES: Inlet N-Values = 0.016; Intensity = 5465747000000000000000.00 / (Inlet time + 447.02) ^ 7.91; Return period = 100 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
17	D315	0.07	0.00	0.07	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.06	1.15	0.00	0.00	0.0	22
16	D314	0.07	0.00	0.07	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	0.91	0.00	0.00	0.0	22
15	D313	0.19	0.00	0.19	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.07	1.32	0.00	0.00	0.0	16
14	D312	0.15	0.00	0.15	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.06	1.19	0.00	0.00	0.0	19
13	D311	0.10	0.00	0.10	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	1.02	0.00	0.00	0.0	14
12	D310	0.10	0.00	0.10	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.100	2.00	0.050	0.020	0.013	0.05	1.02	0.00	0.00	0.0	15
11	D309	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
10	D308	0.19	0.00	0.19	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.08	1.50	0.00	0.00	0.0	8
9	D307	0.41	0.00	0.41	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.10	2.00	0.00	0.00	0.0	7
8	D306	0.15	0.00	0.15	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.07	1.35	0.00	0.00	0.0	5
7	D305	0.12	0.00	0.12	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.06	1.26	0.00	0.00	0.0	2
6	D304A	1.11	0.00	1.11	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.020	0.020	0.000	0.10	11.85	0.10	11.85	0.0	Off
5	D304	0.12	0.00	0.12	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.050	2.00	0.050	0.020	0.013	0.06	1.26	0.00	0.00	0.0	3
4	D303A	1.31	0.00	1.31	0.00	DrGrt	0.0	0.00	8.00	4.00	2.00	Sag	2.00	0.020	0.020	0.000	0.11	12.96	0.11	12.96	0.0	Off
3	D303	0.05	0.00	0.05	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.05	0.98	0.00	0.00	0.0	Off
2	D302	0.07	0.00	0.07	0.00	Grate	0.0	0.00	0.00	4.00	2.00	0.030	2.00	0.050	0.020	0.013	0.06	1.15	0.00	0.00	0.0	Off
1	D301	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off

Project File: 22004 Juniper Estates.stm | Number of lines: 40 | Run Date: 5/26/2023

NOTES: Inlet N-Values = 0.016; Intensity = 5465747000000000000000.00 / (Inlet time + 447.02) ^ 7.91; Return period = 100 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

APPENDIX F: DRAINAGE MAPS

Date: 12/12/2022 **Pre-Scope** ☒ **Revised** ☐ **Final** ☐

TIA SCOPE OF WORK FORM

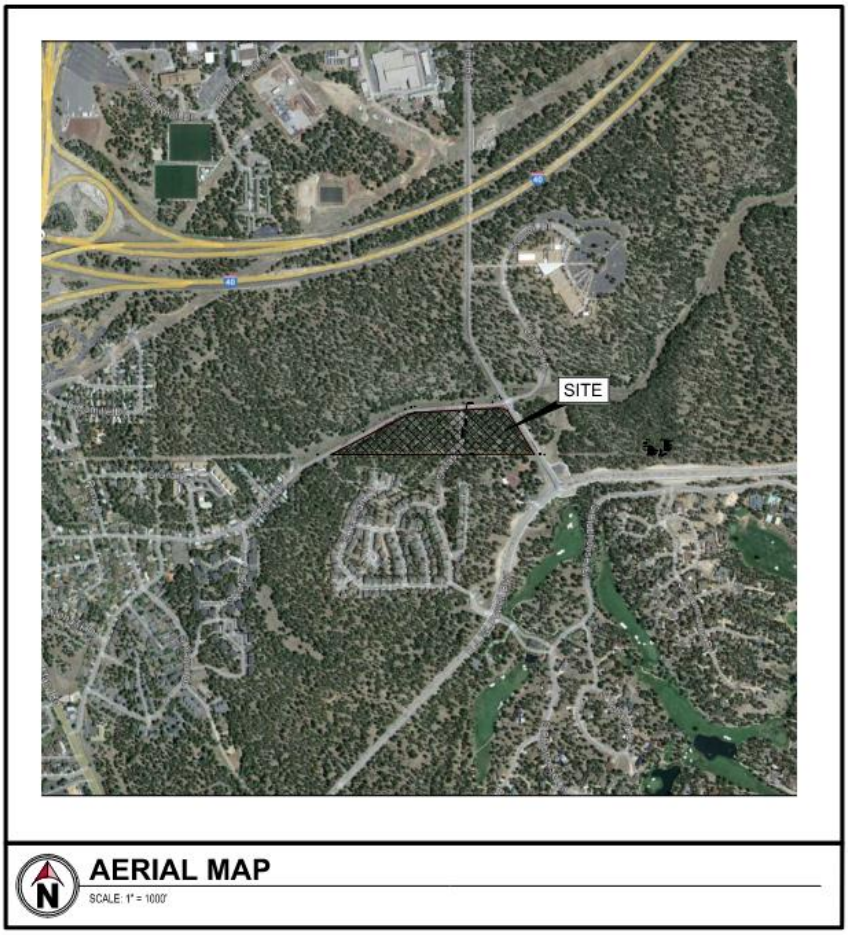
Information on the Project
Traffic Impact Analysis Base Assumptions

City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001

The applicant is responsible for entering the relevant information and submitting the form to the City of Flagstaff and the locality no less than three (3) business days prior to the scheduled meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information	
Consultant Name:	Kentzie Mosley with ViewPoint Engineering
Telephone:	940-655-4881
E-Mail:	kmosley@viewpointengineering.com
Developer/Owner Name:	RedOak Development Group
Telephone:	512-779-9464
Email:	dan@redoakvc.com

Project Information	
Project Name:	Juniper Estates
Project Location: (Attach regional and site specific location map)	2651 Masonic LN Flagstaff, AZ



It is important for the applicant to provide sufficient information to the City of Flagstaff so questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Project Description: Including type of application (rezoning, subdivision, site plan), acreage, business square ft., number of dwelling units, access location, etc. Attach additional sheet if necessary.	Red Oak Development Group, LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN, a total of 13.82 acres. The site will consist of condominium style townhomes. The site is currently zoned as a mix of rural residential and commercial suburban it will be rezoned to medium density suburban. The average townhome size will be approximately 700 square foot. The proposed site would have access from Zuni dr and Lonetree. The site will be pedestrian friendly and potentially have a bus stop to encourage the use of the City's transportation system			
Trip Generation (Attach calculation summary)	Residential ☒	Commercial ☒	Mixed Use ☐	Other ☐
Proposed Use: Number of Units: ITE Code(s):	Residential Condominium 87 230			
Proposed Use: Number of Units: ITE Code(s):	Click here to enter text. Click here to enter text. Click here to enter text.			
Proposed Use: Number of Units: ITE Code(s):	Click here to enter text. Click here to enter text. Click here to enter text.			
Proposed Use: Number of Units: ITE Code(s):	Click here to enter text. Click here to enter text. Click here to enter text.			
Proposed Use: Number of Units: ITE Code(s):	Click here to enter text. Click here to enter text. Click here to enter text.			

Traffic Impact Analysis Assumptions

Study Period:	Existing:	Opening:	Phase 1:		
	Phase 2:	Phase 3:	Build-Out:		
Study Area Boundaries: (Attach map)	North:	South:			
	East:	West:			
External Factors That Could Affect Project: (Planned road improvements, other nearby developments)	Click here to enter text.				
Available Traffic Data: (Historical, forecasts)	Click here to enter text.				
Trip Distribution: (Attach sketch)	Road Name:	N ____%	S ____%	E ____%	W ____%
	Road Name:	N ____%	S ____%	E ____%	W ____%
	Road Name:	N ____%	S ____%	E ____%	W ____%
	Road Name:	N ____%	S ____%	E ____%	W ____%
Annual Vehicle Trip Growth Rate:	Click here to enter text.				
Peak Period for Study: (Check all that apply)	☐ AM	☐ Midday	☐ PM	☐ SAT	
Study Intersections and/or Road Segments: (Attach additional sheets as necessary)	1. Click here to enter text.	2. Click here to enter text.			
	3. Click here to enter text.	4. Click here to enter text.			
	5. Click here to enter text.	6. Click here to enter text.			
	7. Click here to enter text.	8. Click here to enter text.			
	9. Click here to enter text.	10. Click here to enter text.			
Trip Adjustment Factors: (Attach calculations and assumptions)	Internal allowance: ☐ Yes ☐ No Reduction: _____% of trips	Pass-by allowance: ☐ Yes ☐ No Reduction: _____% of trips			
Software Methodology:	☐ Synchro ☐ HCS (v.2010) ☐ aaSIDRA ☐ CORSIM ☐ Other: _____				
Traffic Signal Proposed or Affected: (analysis software to be used, progression speed, cycle length)	Click here to enter text.				
Improvement(s) Assumed or to be Considered:	Click here to enter text.				
Relevant Traffic Studies Considered:	Click here to enter text.				
Plan Submission:	☐ Master Development Plan ☐ Preliminary / Sketch Plan	☐ Generalized Development Plan ☐ Other Plan Type (Final Site, Subd. Plan)			
Analysis Types:	☐ Queuing Analysis ☐ Merge Analysis ☐ TDM Measures ☐ Other: _____	☐ Actuation / Coordination ☐ Bike / Ped Accommodations ☐ LOS Analysis ☐ Other: _____	☐ Weaving Analysis ☐ Intersection(s) ☐ Delay Analysis		

It is important for the applicant to provide sufficient information to the City of Flagstaff so questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Notes on Assumptions

Click here to enter text.

Traffic Impact Analysis Fee

*TIA Analysis Category**	*Fee Schedule (Levels 1-5)***
0	1
1 & 2-M	2 & 3
2-L & 2-MULTI	4 & 5

TIA REVIEW FEE: $_____

*refer to Flagstaff City Code 13-05-002-0003.3 for TIA Analysis Category
**refer to Flagstaff City Code 3-10-001-0002 for current Fee Schedules

Applicant or Consultant

SIGNATURE: _____ DATE: Click to enter date.

PRINT NAME: _____

City of Flagstaff Approved ☐ Revisions Required ☐

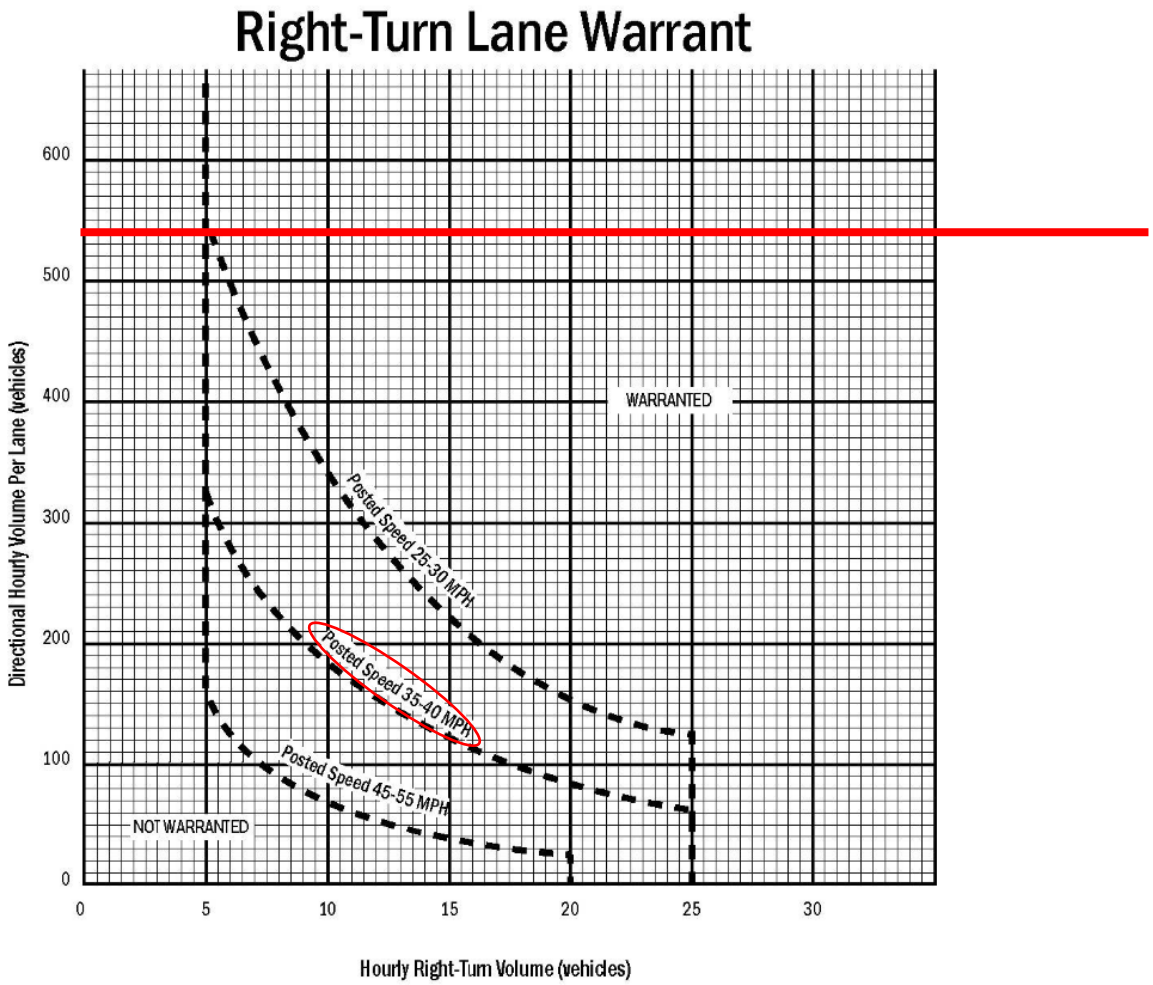
SIGNATURE: _____ DATE: _____

PRINT NAME: _____

It is important for the applicant to provide sufficient information to the City of Flagstaff so questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Juniper Estates Rough Calculations for Right Turn Warrant Analysis off Lone Tree

- Lone Tree SB volume 2019 is 501 vph grown at 2% in 2023 is **542 vph** = (1.02)^4*501
- Lone Tree posted speed limit is **35mph**
- Would need **6 vehicles** making a SBR turn to warrant a right turn lane.
- 82-unit multi-family residential community – ITE Code 220:
    - Weekday AM Peak
        - Fitted Curve: **48** (Total), 12 (Entry), 36 (Exit)
    - Weekday PM Peak
        - Fitted Curve: **56** (Total), **35 (Entry)**, 21 (Exit)
- In the PM, assuming 90% entering in the SB direction and 10% entering in the NB direction. Of the 90% SB 45% turn onto Zuni and 45% turn into site off Lone Tree. So, 45% of 35 vehicles is **16 vehicles** making a SBR into the site from Lone Tree. This meets warrants for a designated SB right turn lane with the project.
- When Lone Tree goes to a 4-lane cross-section, there would need to be less than 120 vehicles SB on Lone Tree, in the curb lane, to *NOT* meet warrants.



CITIZENS PARTICIPATION REPORT

November 2024

Revised: -December 2025

Pinehaven – Condominium Development

2951 S Masonic Lane
Flagstaff, AZ 86005

Prepared for

Red Oak Development Group, LLC

RODG DT Pine Haven Horizontal LLC
2121 East 6th Street, Suite 203
Austin, Texas 78702

Prepared By:

ViewPoint Engineering
2121 East 6TH Street, Suite 203
Austin, TX 78702
VPE Project No: **22004**

Luke Caraway, P.E.

ViewPoint Engineering

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APPENDIX A: Supporting Documents

A.1 Neighborhood Meeting Notification Techniques

A.2 Meeting Handouts

A.3 Presentation Boards

A.4 PowerPoint Presentations

A.5 Neighbor Comments Received

1.0 Citizen Participation Report

1.1 Meetings Plan – Details of Techniques.

The applicant provided a neighborhood meeting plan to the City for review and approval prior to implementation (see appendix for a copy). The plan details the dates of the anticipated meetings as well as the mailing list of properties effected within 300 feet of the project.

Notifications provided: The applicant sent a notification letter to the neighbors indicated on the plan. The letter provided the requisite information and provided additional attachments illustrating the project description, site criteria and location. Refer to the appendix for a copy of the notifications

General Notification: Additionally, a sign (meeting city criteria) was posted at the corner of Lone Tree and Zuni providing the appropriate meeting information.

2.0 Summary of Concerns: Meeting #1-10/17/2024

The Applicant provided a PowerPoint presentation (see appendix) describing the project to the neighbors and had an open discussion about impacts to the area and discussion of neighbor concerns. The meeting's sign in sheet and printouts of the received comments can be found in the appendix. The following is a summary of the concerns recorded at the meeting as well as written comments submitted to the applicant and/or city. The general items of concern / reasoning for opposition can be categorized as

- Zoning Use
- Traffic / Pedestrian Separation
- Dark Skies / Firewise
- Open Space / Clubhouse / Noise
- Condominiums / Townhouses / Rentals / Fractional Ownership.
- Architecture
- Onsite Parking Adequacy / No Parking on Masonic
- Trash / Snow Removal
- Environment / Stormwater

2.1 ZONING

The neighbors expressed concerns regarding the change of zoning from Rural Residential (RR) to Medium Density Residential (MR). They felt a denser zoning on the parcel would negatively impact traffic (see traffic below) and the environment (see natural resources below).

The current property zoning is primarily RR however the northeast corner of the property is zoned as SC – Urban Commercial. Upon review of the City's master plan, it was determined the zoning shown on the maps were placeholders based upon potential future growth in the overall region and not meant to be permanently defining. For instance, SC Commercial on the corner of a major intersection could likely be a gas station. These regional planning methods were illustrated to the neighbors. It should be noted those in attendance expressed more negative feelings about the possibility of the gas station.

In addition to the general regional planning aspect, the applicant described potential RR use implementation on site and, to be compliant with city code, given the challenges of the site from a topological standpoint would likely require the same level of disturbances to the surrounding environment.

Further, the applicant provided the zoning map of the surrounding area. Upon review of this map, it can be illustrated that the change in zoning is consistent with the area. The parcels to the south of the project site are either the same or more dense (high density residential HR) in nature. These developments, similar to the proposed, cluster residential units and preserve more open space. The tradeoff in density vs preservation provides a more sustainable community.

2.2 TRAFFIC / PEDESTRIAN SEPARATION

The neighbors expressed concerns about traffic in the immediate area. They provided stories of issues related to the intersection of Lone Tree and Zuni as well as Zuni and Masonic Lane. They felt the increased traffic from 83 residential units would obviously exacerbate the problems. Largely the neighbors questioned as to if the project would be providing a Traffic Light at the intersection of LoneTree and Zuni. They felt a signal would alleviate the traffic problems as the traffic is due to the turning movements.

Through consultation with City staff, the project did not warrant any traffic improvements to the intersection. The project is providing deceleration and turning lanes to address the immediate needs for the development only. However, also upon review with Staff, the applicant provided information related to the City's planned improvements to Lone Tree Road and more specifically to the intersection. The exact timing of the improvements was not known at the time of the meeting.

The city is proposing either a traffic signal or a roundabout at the intersection. These plans are still in progress and the city could not offer any more information for us to provide to neighbors except to say in progress. We are currently seeking additional information to provide to the community but the knowledge it is forthcoming was encouraging.

Another aspect of traffic from the development was increased traffic on Masonic Lane through the Pinnacle Pines development. This was not specifically studied; however, the project is providing multiple points of ingress and egress. As such, the project should provide a net neutral effect. In conjunction with the future improvements to Lone Tree, those in attendance seemed to indicate traffic had been addressed.

Separation of Pedestrian pathways from traffic has been mitigated/improved as much as possible with the proposed development. The project will be installing a sidewalk along the frontage of Zuni Road and , where feasible, a grass strip is provided to allow for a buffer from traffic. It was not possible to provide the buffer strip along the frontage where Zuni has a bend in the roadway. Providing a buffer in this area would disturb forested areas as well as protected steep slopes. The second area where a buffer was not viable was along Zuni to the east of Masonic Lane. This area is the bottom of the watershed and collects a good deal of runoff from this project as well as portions of Pinnacle Pines. As such conveyance of this area is critical to reduce any potential flooding. Based upon the topography, providing the gras buffer would have further impacted natural resources.

2.3 Dark Skies / Firewise

Flagstaff being the world's first Dark Skies city was one of the draws of the developer for this project. As such, we would like to confirm the project will meet all Dark Skies ordinance requirements of the city.

The Pinnacle Pines residents indicated they have been working to implement Firewise strategies within their development and would like to see measures also implemented as part of this project as well. The applicant is also committed to Firewise strategies and will implement them where feasible.

2.4 Open Space / Clubhouse / Noise

Of concern to neighbors was the use and/or implementation of the Clubhouse and Recreational areas of the project and its relation to increased noise. In addition, the neighbors were concerned regarding the duration of the project and associated construction noise.

Regarding construction noise, the applicant provided a rough timetable for the project and a representative of the intended contractor was present to discuss plans during construction. The project is anticipated to be constructed in three phases. Initial site work (rock excavation and rough

grading of both sides of Masonic Lane and construction of about half of the units west of Masonic. The remaining two phases would consist of construction of the remaining units and clubhouse west of Masonic with the final phase being construction of all units east of Masonic. The estimated timetable for the full construction was ~4 years. The large extent of noise will be generated during Phase 1 with the excavation of rock as part of rough grading. The contractor indicated at the meeting that although the site will require a large excavation of rock, the type of rock present can generally be removed with a bulldozer/backhoe and would only minimally require drilling. Further blasting would not be required.

In terms of noise from the clubhouse and recreation areas, the main concern dealt with outdoor activities such as pickleball courts and the like. Or use of the outdoor areas of the clubhouse should it contain a pool. The project does not offer facilities as described. Outdoor recreation areas are limited to walking/hiking trails through the open space areas; and an outdoor spa/plunge pool attached to the clubhouse. The outdoor clubhouse spaces do not provide large gathering areas. Noise levels from the clubhouse are not anticipated to be any greater than that of a typical backyard. In addition, the location of the clubhouse central to the site should buffer any excess noise that may occur.

2.5 CONDOMINIUMS / TOWNHOUSES / RENTALS / FRACTIONAL OWNERSHIP.

2.5-1 CONDOMINIUMS/TOWNHOMES

The community, in different ways, expressed concerns regarding Fractional Ownership vs Rental, as well as a miscommunication/misunderstanding of why the project indicates condominiums vs townhomes.

Regarding Condominiums vs Townhomes, it appears the misconception revolved around the impression a condo is more like an apartment structure. The residents could not understand what we were building and what it would look like. Once the following information was provided to those in attendance the concerns were alleviated.

The structures being proposed will be townhouse type buildings. Unit blocks will contain either 4 or 5 units. The condominium aspect of the development is more of an organization structure of the development which allows for the establishment of a homeowner's association as well as common spaces along with the providing for management of the grounds. The condominium designation is also applied as this is the designation the city requires for a development of this type.

2.5-2 FRACTIONAL/RENTAL/TIMESHARES

The following provides an in-depth explanation of the differences between timeshares and fractional ownership, focusing on ownership structures, financial models, usage flexibility, and community impact. The desire to own vacation property has given rise to various models of shared ownership, including timeshares and fractional ownership. Although both models allow multiple individuals to access the same property, the financial structures, ownership stakes, and usage terms differ significantly.

At Pinehaven, ONLY fractional ownership is offered as a purchase option, with no timeshare involvement. The following sections outline the fundamental differences between timeshares and fractional ownership, highlighting the advantages of Pinehaven's approach.

Additionally, this report will detail how Pinehaven seeks to manage and restrict rentals within the community.

Overview of Timeshares

Timeshares are a popular form of shared vacation property that allows individuals to purchase the right to use a property for a specific time period each year. Although timeshares offer access to desirable locations at a lower cost than full ownership, they come with several limitations that can hinder financial value, community stability and the longer-term aesthetics of a community.

Key Characteristics of Timeshares

1. **No Deeded Ownership**: Timeshare buyers **do not own a portion** of the property itself; instead, they acquire the right to use the property for a designated week or time period each year.
2. **Limited Flexibility**: Most time shares operate on fixed or floating schedules, meaning owners may face scheduling conflicts and lack the flexibility to adjust their vacations.
3. **High Maintenance Fees**: Owners are required to pay annual maintenance fees, regardless of whether they use the property. These fees often increase over time, adding financial burden.
4. **Depreciating Value:** Timeshares tend to lose value quickly, with limited resale opportunities due to an oversaturated market and lack of equity ownership.
5. **Short-Term Usage Focus**: The timeshare model encourages a transient population, with owners spending only one or two weeks per year at the property, leading to low community engagement.

Timeshares can attract vacationers seeking affordable travel options, but the lack of financial benefits and the transient nature of ownership often result in minimal long-term commitment to the property or the surrounding community. Pinehaven has a firm commitment to in no way allow timeshares as part of the community

Overview of Fractional Ownership

Fractional ownership offers a more appealing model for buyers seeking both real estate ownership and the lifestyle benefits of a vacation property. In this structure, multiple owners purchase deeded shares of the property, which gives them proportional ownership and usage rights. For example, at Pinehaven, buyers will have the option to acquire 1/4 shares, granting them three months of usage annually. Unlike timeshares, fractional ownership is structured to provide equity, flexibility, and long-term value in perpetuity. As a comparison, the community Seven Canyons, is a fractional ownership community in Sedona, Arizona.

Structure of Fractional Ownership

1. **Deeded Ownership:** Buyers own a percentage of the property and receive a title deed reflecting their ownership stake.
2. **Usage Periods:** Owners have proportional access to the property based on their share (e.g., a 1/4 share provides three months of access per year).
3. **Equity and Appreciation:** Owners benefit from any appreciation in the property's value and can sell their share, often at market value.
4. **Shared Maintenance Costs:** Costs such as repairs, insurance, and upkeep are divided among the owners, ensuring lower individual expenses.
5. **Fully Furnished:** Fractional properties come fully furnished and fully maintained both the interior and exterior

Key Differences Between Timeshares and Fractional Ownership

Aspect	Timeshare	Fractional Ownership
Ownership	No ownership stake, only usage rights	Deeded ownership with equity stake
Usage	1-2 weeks per year	Proportional usage (3 months for 1/4 share)
Flexibility	Fixed or floating weeks; limited adjustments	Flexible scheduling based on owner agreements
Resale Value	Limited resale opportunities	Potential for market-value resale
Maintenance Costs	High annual fees per person	Shared among co-owners, part of HOA fees
Community Impact	Transient users; minimal engagement	Consistent owner presence; fosters community
User Type	Tends to be for the short-term vacationer that seeks affordability above all else	Tends to be in the nicest parts of the world with access to 5-star amenities

Benefits of Fractional Ownership for the Pinehaven Community and Neighbors

1. **Economic Growth and Property Value Appreciation:** Fractional ownership models attract high-income buyers seeking second homes or vacation properties, which brings increased spending in the local economy. As owners have a vested interest in maintaining their property, this encourages well-maintained homes that contribute to overall property value appreciation within the neighborhood. Pinehaven's owners will be stakeholders in the community, driving demand for local services, businesses, and seeking to maximize their living experience.

2. **Long-Term Community Engagement:** Since fractional owners own a stake in the property, they tend to have a stronger attachment to the community compared to timeshare users. Rather than treating their time at Pinehaven as a fleeting vacation, fractional owners are likely to engage in community events, support local businesses, and establish relationships with neighbors. This results in a more connected and stable neighborhood atmosphere.

3. **Lower Impact on Neighborhood Stability:** Unlike timeshare developments that can lead to a high turnover of short-term vacationers, fractional ownership encourages consistent visitation patterns. Owners returning to Pinehaven multiple times a year will develop a connection to the area, contributing to a sense of familiarity and security among neighbors. This creates a more stable residential environment compared to areas with transient vacation renters.

4. **Better Property Maintenance and Care:** Fractional owners are financially invested in their properties, which motivates them to ensure that the homes remain in excellent condition. The cost-sharing model also ensures that high-quality maintenance and upkeep are feasible. Pinehaven's properties will be well-managed through professional services, ensuring that the entire development maintains a high aesthetic standard—benefiting both owners and the surrounding community.

5. **No Timeshare-Related Issues or Concerns:** Pinehaven’s decision to offer no timeshare options ensures that the development avoids the negative perceptions and logistical challenges associated with timeshares. Some communities oppose timeshares due to concerns about high traffic, overuse, and poor property maintenance. By focusing solely on fractional ownership, Pinehaven ensures that the properties will be used responsibly by invested owners who have a long-term stake in the community.

Pinehaven’s Strategy for Responsible Rentals

Pinehaven is committed to ensuring aesthetic appeal, cleanliness, and environmental harmony while offering owners the flexibility to rent their homes responsibly. We understand it is difficult to completely rule out rentals but that does not mean we cannot enforce restrictions to ensure rentals

are done in a responsible manner. With a focus on maintaining a peaceful neighborhood, Pinehaven enforces clear guidelines for short-term rentals through platforms like Airbnb and VRBO to balance rental opportunities with community well-being.

Aesthetic Appeal and Cleanliness Standards

Pinehaven will enforce community-wide design guidelines to ensure that all homes and public spaces maintain a consistent and appealing aesthetic. Owners will be responsible for keeping their properties in good condition, with support from professional maintenance services to ensure that exteriors, landscaping, and public areas meet the development's high standards.

Regular maintenance services, including landscaping, waste management, and seasonal cleaning, will be provided by the homeowners' association (HOA). These services will ensure that the community remains clean, attractive, and well-maintained year-round. Owners will be expected to comply with HOA regulations, and inspections will be conducted periodically to ensure homes meet community standards.

Noise and Traffic Control for Rentals

A priority for Pinehaven is to minimize noise pollution and traffic to preserve the tranquility of the neighborhood. Owners who rent their properties through Airbnb, VRBO, or other platforms must adhere to community rules designed to control noise levels and reduce traffic. Quiet hours will be strictly enforced, with guidelines provided to renters to ensure they respect the peace of the neighborhood.

To prevent congestion, parking limits will also be in place, ensuring that the influx of rental guests does not create traffic issues for neighbors. The HOA will monitor parking areas and provide clear instructions for renters to park in designated spaces. This will minimize disruptions for permanent residents and keep the neighborhood calm and orderly.

Two-Strike Rule for Rental Violations at Pinehaven

To maintain the peace, order, and high standards of the Pinehaven community, the HOA will implement a two-strike rule for owners who violate rental policies. This rule ensures compliance with rental guidelines and holds owners accountable for the behavior of their guests, fostering a safe, clean, and harmonious environment for all residents.

How the Two-Strike Rule Works

1. **First Strike – Formal Warning:**
    - Upon the first violation of rental policies—such as exceeding the 180-day limit, noise disturbances, parking violations, or failure to register guests—the owner will receive a formal warning from the HOA. This warning serves as a reminder of the community's standards and expectations, along with instructions to rectify the issue immediately.
    - The owner will also receive documentation of the violation and a clear outline of the potential consequences of a second infraction.
2. **Second Strike – Substantial Fines and Penalties:**
    - If the same or a similar violation occurs again, the HOA will issue a second warning, accompanied by substantial fines. These fines are designed to serve as a strong deterrent against further non-compliance.
    - In addition to fines, the owner's rental privileges may be suspended temporarily, and continued violations could lead to further penalties, such as permanent restrictions on rental activity.

Purpose of the Two-Strike Rule

The two-strike rule emphasizes accountability and fairness, giving owners the opportunity to correct issues after the first violation while ensuring that repeat offenses carry meaningful consequences. This policy ensures that owners take proactive steps to manage their rentals responsibly and ensures guests understand and comply with community rules.

By enforcing substantial fines and potential suspensions, Pinehaven maintains its commitment to a peaceful, well-regulated community, reducing the risks of noise pollution, traffic congestion, and disruptive behavior associated with short-term rentals.

Enforcing the 180-Day Rental Limit

To maintain the balance between owner use and rental activity, Pinehaven will limit rentals to 180 days per year. This ensures that properties remain primarily for personal enjoyment while still giving owners the opportunity to earn rental income. By capping rental days, Pinehaven prevents the overuse of homes as vacation rentals, reducing the risk of constant guest turnover, noise, and traffic congestion.

The HOA will enforce the 180-day rental cap through a monitoring system, tracking the rental activity of each property. Owners will be required to register all rentals with the HOA, including providing the dates of guest stays. Any property that exceeds the rental limit will be flagged, and owners will face fines or penalties for non-compliance.

Restrictions on Airbnb, VRBO, and Short-Term Rentals

In addition to the 180-day cap, Pinehaven will impose specific restrictions on Airbnb, VRBO, and other short-term rental platforms to ensure that rental activity aligns with the community's values. These restrictions include:

- **Guest Registration:** Owners must register rental guests with the HOA to ensure transparency and accountability.
- **Quiet Hours Compliance:** Renters must adhere to strict quiet hours to minimize noise disruptions for neighbors.
- **Parking Rules:** Guests will be required to follow the community's parking guidelines to prevent overcrowding and maintain smooth traffic flow.
- **Monitoring of Listings:** The HOA will monitor Airbnb, VRBO, and other rental platforms for compliance with the 180-day limit. Unauthorized or excessive rentals will result in penalties such as fines or temporary suspension of rental privileges.

By enforcing these restrictions, Pinehaven ensures that rental activity remains responsible and aligned with community values. The HOA will actively monitor guest behavior and respond promptly to any issues, ensuring that renters follow the rules and maintain respect for neighbors.

Supporting a Stable and Peaceful Community

The careful management of short-term rentals at Pinehaven will promote a stable and peaceful environment for all residents. Unlike developments that permit unlimited short-term rentals, Pinehaven's rental limitations reduce the transient nature of vacation guests, fostering a more consistent community atmosphere. Residents and neighbors will benefit from the stability of reduced guest turnover and well-regulated rental activity.

With the HOA actively involved in monitoring rentals and enforcing community rules, owners can enjoy rental flexibility without compromising the neighborhood's quality of life. This approach ensures that Pinehaven remains a desirable place to live and visit, with minimal noise, traffic, or disruption.

2.6 ARCHITECTURE

The community was exposed to early iterations of the architecture being proposed which had not gone through the full design process. The community concerns prior to the meeting focused on the proposed architecture being "too modern" and "in stark contrast" to the surrounding community. While the general shape of the structures has not changed some of the features were adjusted and material and color choices were made to become more cohesive with the community. The product presented at the meeting was met with support. While moving in a more modern direction, the resulting product compliments the surroundings.

2.7 ONSITE PARKING ADEQUACY / NO PARKING ON MASONIC

The project has been designed to exceed ordinance requirements for parking. The individual units are each provided with one garage space and one driveway space. Additionally, guest parking is provided at a rate of one space for every four units for a net requirement of 2.25 spaces per unit. As the clubhouse is this private community's amenity, it was located centrally to the site with the intent of residents walking to use the facility. However, additional spaces have been provided to accommodate residents who may need to drive to the building instead of walking.

In conjunction with fractional ownership/rental comments and typical multi-car households, neighbors expressed concerns about parking adequacy relating to the likelihood of multiple cars being needed for units instead of the 2.25 allotted. As part of the presentation the applicant provided further information regarding the expected financials related to the units and the demographics of likely owners. The expectation for ownership of the properties is as vacation homes of later in life individuals. Alternatively, as potential fractional ownership or even if rented, more than two cars is unlikely. As such the city required minimum parking is expected to account for any variations which may occur.

2.8 TRASH / SNOW REMOVAL

Neighbors expressed concerns regarding Trash Removal on site as well as the plan for snow removal. Specifically, they were curious how these two items would affect parking on site as they are issues in their neighborhood with spillover parking as a result being located on Masonic further complicating traffic.

Regarding trash removal, they indicate trash bins often impede vehicular movement during collection days. These thoughts were welcome feedback, and the applicant is re-evaluating this element for the development. The intent at this point is to provide curbside pickup, however, the community has a whole is not intended for year-round occupancy. As indicated above, parking should be limited to

garage /driveway spaces or guest parking so is not anticipated to adversely affect other parking or traffic conditions.

With regards to Snow Removal, the concerns of the neighbors were a welcome comment. The project was not evaluated for this aspect. The applicant is currently evaluating options for the development. The current plan is to provide snow storage areas for plows to push snow out of the roadway. This will allow for residents to safely shovel individual drives without being impacted by roadway accumulations. Further it is being evaluated to provide some sort of aspect as part of the home-owners association documents. The specifics have not been finalized at this stage, but the applicant is committed to providing a system which will not affect the other neighborhoods.

2.9 ENVIRONMENT / STORMWATER MANAGEMENT

Environmental concerns raised primarily focused upon the removal of trees from a forested area. Other concerns raised dealt with the resulting stormwater generated from the development as well as the quality of stormwater runoff. These concerns are also of importance to the applicant. The city has strict guidelines related to the protection of natural resources in the area to which the project is meeting or exceeding.

The topography of the site is challenging with several steep slope areas. Additionally, as mentioned, the site is forested with large growth ponderosa pines. To mitigate the impacts to these areas, the project development was designed with a tight limit of disturbance to ensure maximum protection. Upon initial layout, the design team visited the site so the design could be tailored to protect the best areas feasible. Through this design process and in conjunction with architectural design, the development will not only protect the environmental features but also the views of the features around the area.

As with any development the increase in impervious surfaces will generate additional runoff during storm events. This project is proposing a stormwater detention/retention basin to mitigate the effects of the development on the downstream area. The basin will serve two functions; 1) control the rate of runoff leaving the property; and 2) treat the runoff the address the water quality leaving the site. After analyzing the runoff from the site prior to and following construction, the site has been designed to keep the release of runoff at or below the predeveloped condition by holding the majority of runoff in the basin from the west side of Masonic Lane while allowing all of the runoff from east of Masonic to directly discharge downstream. This method allows for a net decrease in runoff from the site. Further the runoff detained in the basin is filtered through the soil media in the bottom of the basin to provide a cleansing effect. The basin is then slowly released. The basin design is intended to mimic the normal processes in nature.

Finally, by slowly filtering and releasing runoff in this fashion the temperature of the discharge is much lower. In a traditional basin, runoff collected picks up heat from the impervious surfaces and then further increases in temperature as it sits in the open. This water is then discharged from the basin within the next 24 hours or so. The short time frame does not provide sufficient time for even a small amount of water to evaporate. This higher temperature runoff can adversely affect the downstream environment. Within the proposed basin, by filtering through the soil media, this extra heat begins to dissipate into the soil. Further the discharge time is extended to permit additional evaporation from the water ponded on the surface.

3.0 SUMMARY OF CONCERNS - MEETING #2-11/21/2024

The Applicant provided a PowerPoint presentation (see appendix). This presentation recapped information previously provided as well as information regarding how the concerns we reviewed and addressed from the previous meeting. The meeting's sign in sheet and printouts of the received comments can be found in the appendix. No "new" concerns were raised at this meeting. Discussions during the meeting focused on clarifications for those who were not in attendance at the first meeting or clarifications on the solutions being presented. The following is a summary of the concerns recorded at the meeting as well as written comments submitted to the applicant and/or city.

3.1 ZONING

The presentation provided a recap of the previous zoning concerns, and a brief discussion took place. The discussion provided the previous clarifications and nNo additional comments were expressed.

3.2 TRAFFIC / PEDESTRIAN SEPARATION

Following a recap of the previous concerns, VPE provided additional information related to placing a traffic signal at the intersection of Lone Tree and Zuni. VPE discussed the 5yr plan with City officials and it said this intersection is not part of the plan and no signal is currently being proposed. No additional comments were expressed.

3.3 DARK SKIES / FIREWISE

Dark skies adherence was discussed following a recap. The project will comply with the appropriate sections of City code. One item of concern from the previous meeting was the presence of large windows (patio doors, etc.) on the proposed homes. These features are not being removed; however, the selected materials contain a Low-E film which provides some tinting effect and additional screening can also be provided.

Firewise aspects were recapped and discussed. The project is not proposing any new efforts as part of the project. City building codes require elements of Firewise methods.

3.4 OPEN SPACE / CLUBHOUSE / NOISE

The item of discussion focused on the park amenity (Pinecone Structure). The look of the structure was a main issue. Red Oak indicated they will look to replace the structure with something less impactful or remove the structure completely. No specific resolution was reached

3.5 CONDOMINIUMS / TOWNHOUSES / RENTALS / FRACTIONAL OWNERSHIP.

The fractional ownership plan was of great concern at the previous meeting. Upon review, **the developer has decided and committed to not building nor selling any timeshares or fractional ownership units.** The units will be sold individually; however, they still may be used as part of short-term rentals such as AirBnB, VRBO, etc. The developer has committed to specific restrictions which will be part of the Homeowners Association documentation.

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Pinehaven will impose specific restrictions on Airbnb, VRBO, and other short-term rental platforms to ensure that rental activity aligns with the community's values. These restrictions include:

- **Guest Registration:** Owners must register rental guests with the HOA to ensure transparency and accountability.
- **Quiet Hours Compliance:** Renters must adhere to strict quiet hours to minimize noise disruptions for neighbors.
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Longer term Rentals

Pinehaven allows long-term rentals, which are defined as lease agreements with a duration of one year or longer. To ensure the safety and security of the community, all prospective tenants must submit a clean background check to the HOA for approval prior to finalizing a rental agreement. This requirement helps maintain the integrity and well-being of the Pinehaven community. Similar two strike rules apply to long term rentals and will be agreed upon with the owner to enforce an eviction if the long term tenant abuses such rules.

Clean Background Check:

A clean background check is defined as the absence of any of the following disqualifying factors within the timeframes specified below, as reviewed by the HOA or its designated representative:

Criminal History:

- Convictions for violent crimes, including assault, robbery, or offenses involving physical harm, within the past 7 years.
- Convictions for felony offenses related to property damage, theft, or fraud within the past 5 years.
- Convictions for drug manufacturing, trafficking, or distribution within the past 7 years.
- Registered sex offender status or crimes requiring lifelong reporting.

Rental History:

- Documented evictions, lease violations, or failure to pay rent in full within the past 5 years.
- Verified complaints from prior landlords for disruptive behavior or property damage.

Compliance with HOA Rules:

History of non-compliance with HOA or similar community regulations at prior residences, if applicable.

3.6 ARCHITECTURE

No Additional Comments received,

3.7 Onsite Parking Adequacy / No Parking on Masonic

Parking was another item of concern from the previous meeting. Discussion regarding parking were sporadically discussed as part of other elements of the meeting. The following is a list of items the developer is planning on implementing to address parking concerns on the project site.

- Signage / Towing: The project will install signage as require per city code to prevent on-street parking. Additional signage will be posted on Masonic Lane. Additional signage will be posted in parking areas designated for snow removal. The HOA will strictly enforce these restrictions and ensure towing as needed.
- Unit Restrictions / Rental Restrictions: The HOA documents will restrict cars per units and as part of any rental agreement. Fines will be assessed as needed.

3.8 Trash / Snow Removal

Neighbors previously expressed concerns regarding snow removal, more specifically related to parking and trash removal. The developer has contacted a local plow company to discuss servicing the project area. In conjunction with the company a plan was developed to indicate where snow will be piled up when needed. Additionally, to ensure roads are properly maintained during storms, the developer has committed to a 2 inch trigger for plowing services. Barring excessively intense storms, the plow company indicated this trigger should adequately maintain the roadways.

Trash: The project is proposing on-site dumpsters for trash collection. This will remove the need for individual curbside collection.

3.9 Environment / Stormwater Management

The developer recapped the previous presentation and clarified the protections being implemented. One previous concern pertained to the removal of trees and the sightlines from the adjacent development. The developer provided diagrams to illustrate the sightlines to the project as well as rendering of the final product. Further discussions occurred regarding the preservation of woodlands, but no changes were required.

No additional concerns were expressed.

3.10 CONSTRUCTION / TIMELINES

Construction and Timeline: Not so much a concern of the project, but more information. The Neighbors requested information regarding the construction process and what to expect. The following was presented to the neighbors.

- Anticipated Construction Timeline:
    a. Expected Start Date: April/May 2025
    b. Major Site Work (Rock Excavation): to last approx. 3-5 mos; completed End 2025
    c. First Units occupied Spring 2026
    d. Total Project: 3-5 Years
- Rock / Large Wall: What will they look like and will they be visible
    a. Should not be visible from Zuni Drive
    b. Will be surfaced with a Shock-crete type surface for stabilization. This surfacing will be textured and colored to match surrounding as much as possible.
- General Financing: Discussions on how the project will be finacially structured..
    a. Unit costs will be variable
    b. Financing based on Investors and Bank Debt

This information seemed adequate, and no additional comments were expressed.

APPENDIX A: SUPPORTING DOCUMENTS

A.1 NEIGHBORHOOD MEETING NOTIFICATION TECHNIQUES

- Meetings Plan
- Sample Notification Letter w/Handouts
- Sign Posting Notification
- Meeting Sign In Sheets

MEMORANDUM			
SUBJECT	**NEIGHBORHOOD MEETING PLAN – PINEHAVEN**	**VERSION**	v1.0
		DATE:	SEPTEMBER 2024

Objective: The goal is to outline the strategy for engaging property owners, citizens, jurisdictions, and public agencies through a series of neighborhood meetings.

We are submitting for your review and approval the attached plan outlining our approach for conducting neighborhood meetings concerning the proposed development project at [Development Address]. This plan aims to ensure effective public engagement and compliance with city regulations.

- **Notification Area:**
  a. Target Area: Notifications will be sent to property owners, citizens, jurisdictions, and public agencies within 300 feet of the development site.

Table 1: Parcels within Notification Area

OWNER NAME	SITE ADDRESS
Pinnacle Pines Community Association (Hoamco)	3100 S Masonic Ln
Thornquist Patricia & Brent	3097 S Hannah Ln
Nsh Llc	3079 S Hannah Ln
Glazar Joanne M & Richard C	3074 S Hannah Ln
Esmurdoc Revocable Family Trust Dtd 07-11-14	3073 S Hannah Ln
Styskal Jeff J & Emily J Revocable Trust Dtd 02-15-14	3080 S Hannah Ln
Van Der Werf Family Trust Dtd 09-18-97	3086 S Hannah Ln
Vukonich Michael W & Lisa R	3101 S Salvestrin Ln
3109 South Salvestrin Ln Llc	3109 S Salvestrin Ln

- **Notification Methods:**
  a. **Mail:** Formal notification letters will be sent to all identified recipients (see sample attached).
  b. **Newspaper:** Announcements will be published in local newspapers (see sample attached)
  c. **Posting:** Notices will be posted at the development site to adhere to the City's specifications.
  d. **Notification Timeline**: Notification letters will be dispatched, and the posting will be installed on October 7, 2024.

Neighborhood Meeting #1:

1. Meeting Details:
   a. Meeting Type:.....Community Information Meeting
   b. Date:.....October 17, 2024
   c. Time:.....3:00 pm- 5:00 pm
   d. Location:.....Flagstaff Aquaplex- Community Room- 1702 N Fourth St, Flagstaff, AZ 86004
   e. Agenda:
      i. Introduction to the project and its objectives
      ii. Presentation of the proposed development plans
      iii. Open forum for questions and discussion
      iv. Collection of initial feedback and suggestions
   f. Public Comment Period (Approx 45 mins planned)

2. Reporting and Follow-Up:
    a. Feedback Compilation: We will summarize the feedback collected from each meeting.
    b. Reporting to the Director: A detailed report of the meeting outcomes and feedback will be provided to the Director.
    c. Communication of Results: Updates on the status and results of the meetings will be shared through email.

Neighborhood Meeting #2:

1. Meeting Details:
    a. Meeting Type:.....Community Information Meeting
    b. Date:.....November 14, 2024
    c. Time:.....3:00 pm- 5:00 pm
    d. Location:.....Flagstaff Aquaplex- Community Room- 1702 N Fourth St, Flagstaff, AZ 86004
    e. Agenda:
        i. Overview of feedback received from the first meeting
        ii. Discussion of potential revisions and updates to the proposal
        iii. Open forum for further questions and input
        iv. Summary of next steps and project timeline
    f. Public Comment (Approx 45 min planned):

2. Reporting and Follow-Up:
    a. Feedback Compilation: We will summarize the feedback collected from each meeting.
    b. Reporting to the Director: A detailed report of the meeting outcomes and feedback will be provided to the Director.
    c. Communication of Results: Updates on the status and results of the meetings will be shared through email.

Contact Information:

Primary Contact: .....**Luke Caraway**
Title/Position:.....**President**
Organization/Company: .....**Viewpoint Engineering**
Phone Number:.....**737.717.3097**
Email Address:.....**Pinehaven-Zone@viewpointengineering.com**

ATTACHED:
Sample Public Meeting Notification Letter
Sample Public Meeting Newspaper Ad
Sample Public Notice Sign

MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com

Date
via First Class Mail

Address
Street
City, State, Zip
Attn:

Subject: **Notice of Public Hearing regarding**
Direct to Ordinance Zoning Map Amendment
29551 S Masonic Lane
VPE#: 22004

Dear Neighbor,

This is a notice for a community information meeting for an upcoming request by **RedOak Development Group,** property owner, for a **Direct to Ordinance Zoning Map Amendment** for the property located **2951 S Masonic Lane**. The project contains two parcels: one at the southeast corner of Zuni Drive and Lone Tree Road and the second at the southeast corner of Zuni Drive and Masonic Lane. The owner is applying to have both parcels designated MR – Medium Residential in order to construct 83 residential homes as well as a clubhouse and public walking/hiking trails. The parcels are currently zoned RR – Rural Residential / SC – Suburban Commercial and RR – Rural Residential respectively. Refer to the attached documents for additional site-specific information.

The owner invites interested parties and/or authorized agents to attend a public hearing so that they be heard and offer comments. The meeting information is as follows:

- **Date:** ..... October 17, 2024
- **Time:** ..... 3:00 pm- 5:00 pm
- **Location:** ..... Flagstaff Aquaplex- Community Room- 1702 N Fourth St, Flagstaff, AZ 86004

Written comments can be submitted to the applicant and received no later than 2 days prior to the meeting date listed above. Comments can be submitted **via Regular Mail to** 2121 E 6th Street, Austin, TX 78702 or **via email to:** pinehaven-zone@viewpointengineering.com.

A complete application will be available for viewing at the City Planning office on October 2, 2024.

Thank you for your time, and we hope to see you at the meeting.

Sincerely,
ViewPoint Engineering

By: _____
Luke Caraway, PE, President

Attached: Project Description
Site Information
Location Map
FEMA Map
Zoning Map

cc: Client
File

https://viewpointengineering.sharepoint.com/sites/viewpoint/shared documents/vpls/horiz/22004 flagstaff 14/permitting/city/draft notice to property owners.docx

PROJECT DESCRIPTION

RODG DT Pine Haven Horizontal LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN, a total of 13.82 acres. The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium development with clubhouse. The site is currently zoned as a mix of rural residential (RR) and commercial suburban (SC).

The property in question is further identified parcel number 103-26-002-D. A project location map can be found in the appendix.

PLAN OVERVIEW

The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium residential community. The project site is ±13.82 gross acres with ±5.12 acres developed and a proposed improvement density of 6.18 units per acre. (83 units/13.82 acres = ±6). Additionally, the project will construct a clubhouse, stormwater management basin and other associated infrastructure.

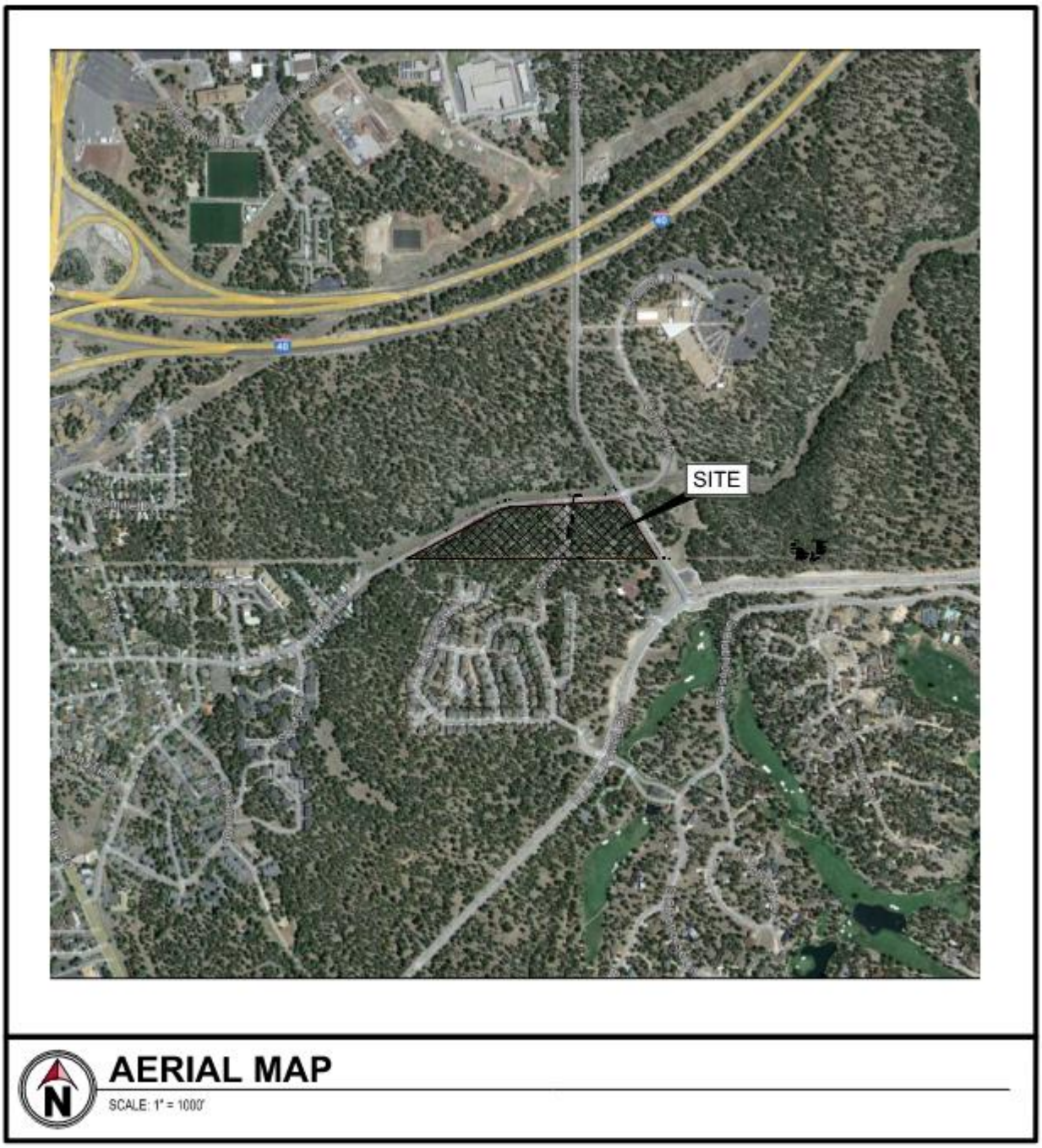
The project site is located on the southwest corner of E Zuni Drive and Lone Tree Road. The Site is bisected by Masonic Lane. To the south of the site is the Pinnacle Pines development consisting of condominium style townhomes. To the west of the site is the National Forest. To the north and the east of the site is vacant undeveloped land that has been purchased by the board of regents for Northern Arizona University.

The SITE will have four (4) access points. Two of the access points will be off Masonic Ln. There will be additional access from Zuni Dr and Lone Tree Rd. These access points will provide access for pedestrians, bicyclists, and motorists.

SITE DATA

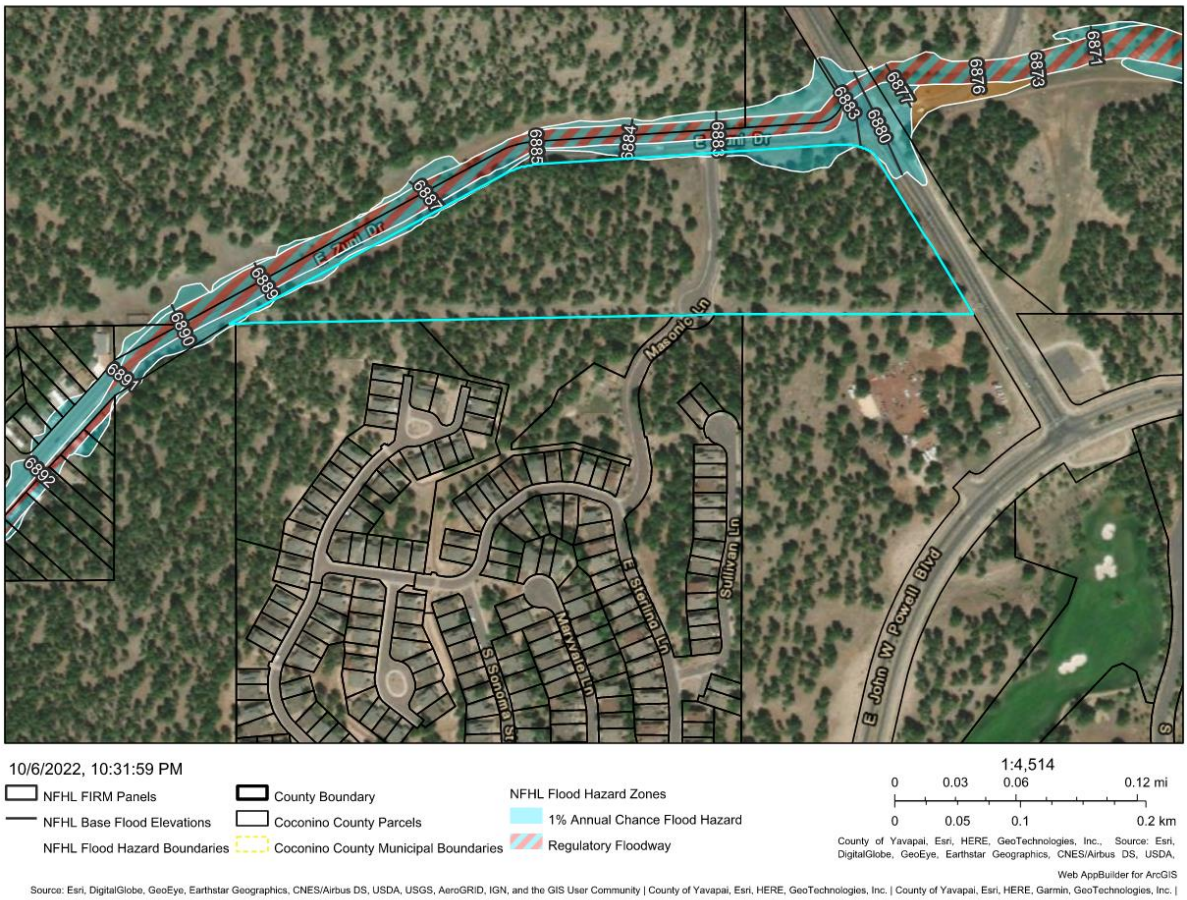
PLAN REFERENCE		
PLAN TITLE		**ALTA/NSPS LAND TITLE SURVEY**
		DATED: SEPT. 14, 2022
SURVEYOR		ARIZONA SURVEYING INC. 1843 W HEAVENLY CT FLAGSTAFF, AZ 86001 JOB NO: 22-42
OWNER APPLICANT		
NAME		**RODG DT PINE HAVEN HORIZONTAL LLC**
ADDRESS		2121 EAST 6TH STREET, SUITE 203 AUSTIN, TX 78702
PARCEL DATA		
ADDRESS		E. ZUNI DRIVE & S. MASONIC LANE FLAGSTAFF, AZ 86001
TAX MAP NO/ PARCEL ID		APN: 103-26-002D
ZONING DATA		
ZONING DISTRICT	*EXISTING*	*RURAL RESIDENTIAL, SUBURBAN COMMERCIAL* *[RPOZ: RESOURCE PROTECTION OVERLY ZONE]*
	PROPOSED	MEDIUM DENSITY RESIDENTIAL (MR)
USE	*EXISTING*	*UNDEVELOPED*
	PROPOSED	RESIDENTIAL (PERMITTED)
STATEMENT OF INTENT		
THE APPLICANT IS PROPOSING TO DEVELOP THE SUBJECT PARCEL WITH TWO NEW ROADS, TOWNHOUSES AND ASSOCIATED SITE IMPROVEMENTS		

A.1 PROJECT LOCATION MAP

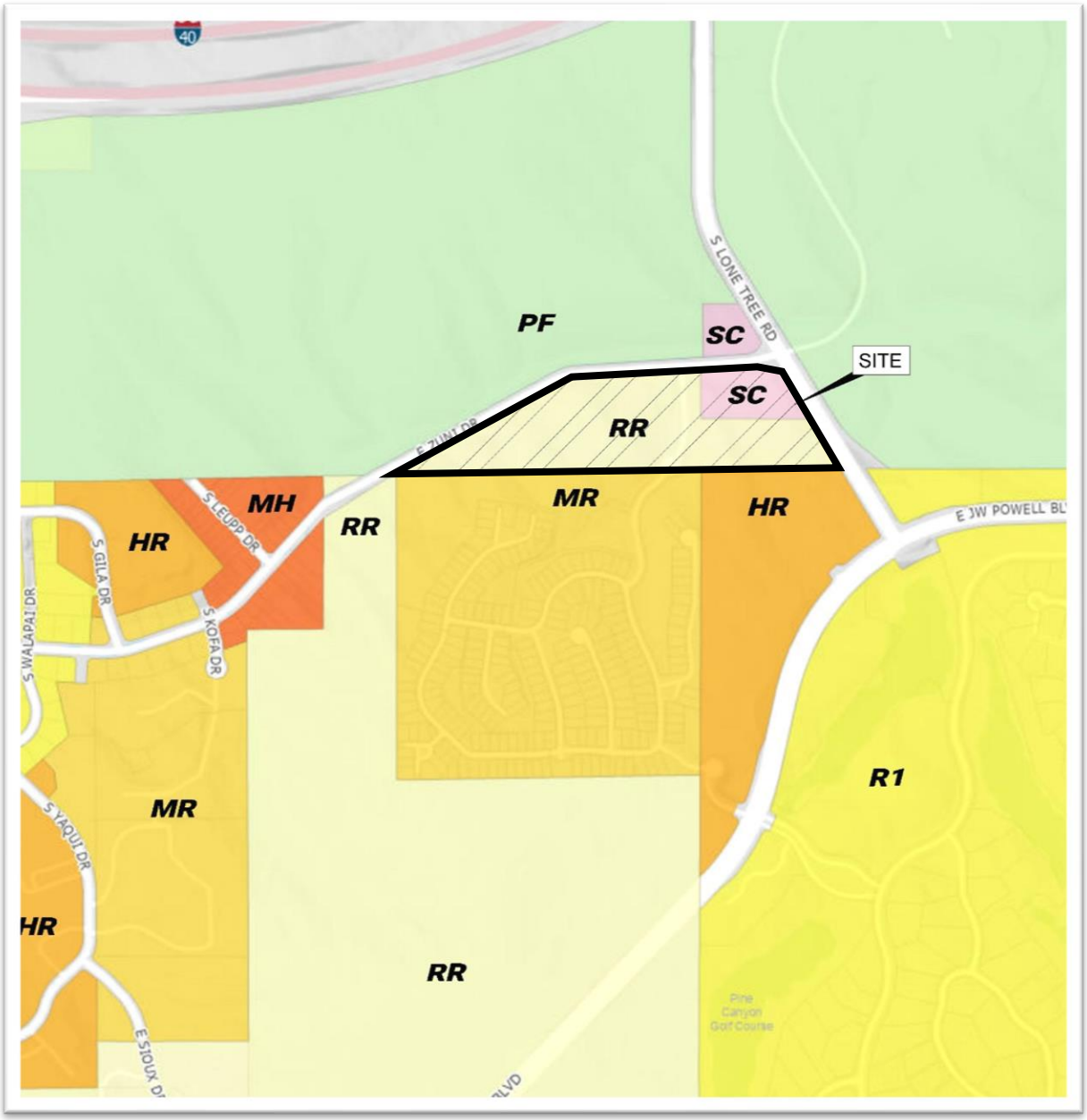


A.2 FLOOD MAP

ArcGIS Web Map



A.3 ZONING MAP



PROJECT DESCRIPTION

Red Oak Development Group, LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN, a total of 13.82 acres. The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium development with clubhouse. The site is currently zoned as a mix of rural residential (RR) and commercial suburban (SC).

The property in question is further identified parcel number 103-26-002-D. A project location map can be found in the appendix.

PLAN OVERVIEW

The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium residential community. The project site is ±13.82 gross acres with ±5.12 acres developed and a proposed improvement density of 6.18 units per acre. (83 units/13.82 acres = ±6). Additionally, the project will construct a clubhouse, stormwater management basin and other associated infrastructure.

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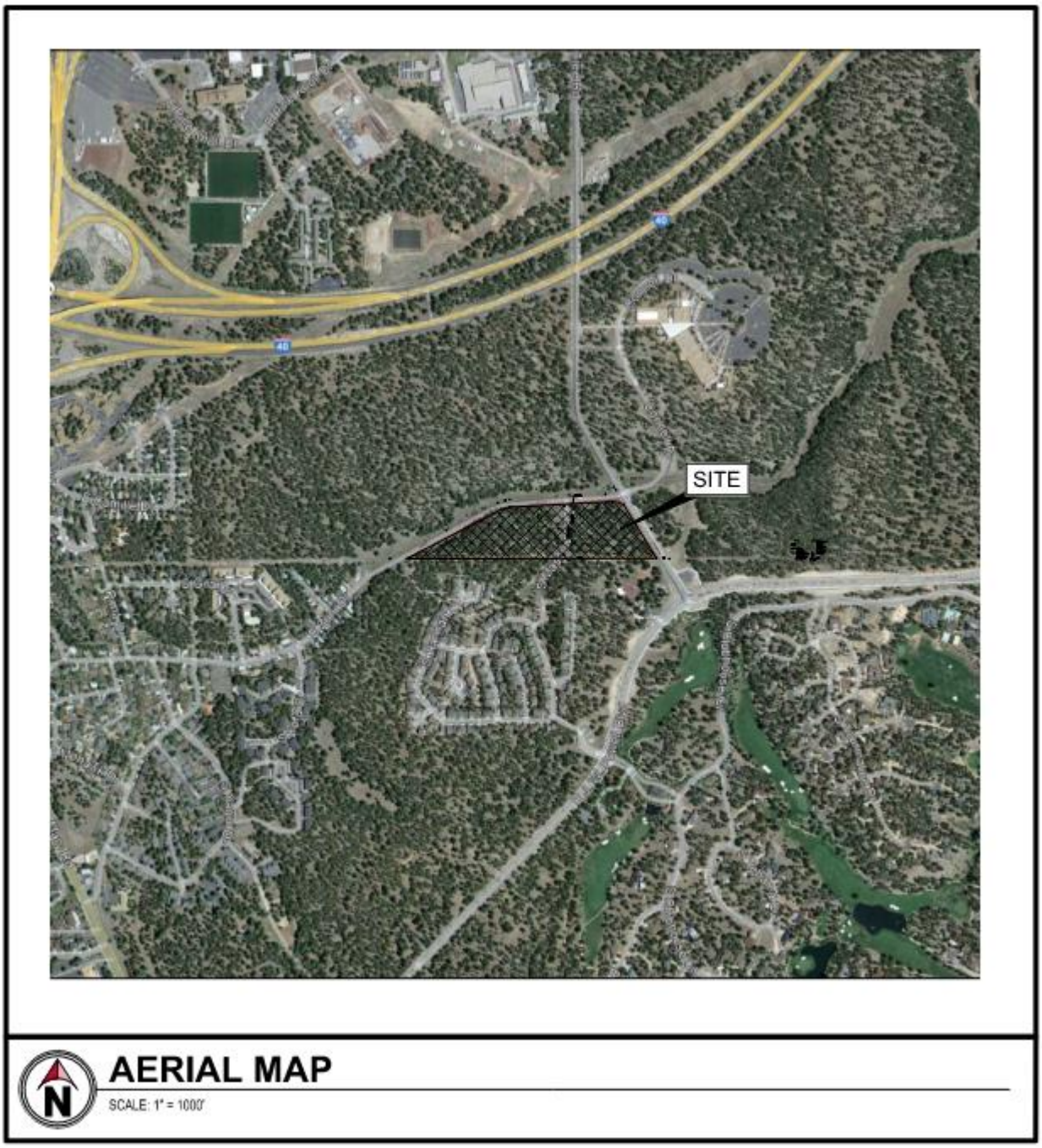
The SITE will have four (4) access points. Two of the access points will be off Masonic Ln. There will be additional access from Zuni Dr and Lone Tree Rd. These access points will provide access for pedestrians, bicyclists, and motorists.

SITE DATA

PLAN REFERENCE		
PLAN TITLE		**ALTA/NSPS LAND TITLE SURVEY**
		DATED: SEPT. 14, 2022
SURVEYOR		ARIZONA SURVEYING INC. 1843 W HEAVENLY CT FLAGSTAFF, AZ 86001 JOB NO: 22-42
OWNER of RECORD		
NAME		**FLAGSTAFF LODGE NO.7**
ADDRESS		2951 S MASONIC LANE FLAGSTAFF, AZ 86005
APPLICANT		
NAME		**RODG DT FLAGSTAFF PROP CO LLC**
ADDRESS		2121 EAST 6TH STREET, SUITE 203 AUSTIN, TX 78702
PARCEL DATA		
ADDRESS		E. ZUNI DRIVE & S. MASONIC LANE FLAGSTAFF, AZ 86001
TAX MAP NO/ PARCEL ID		APN: 103-26-002D
ZONING DATA		
ZONING DISTRICT	*EXISTING*	*RURAL RESIDENTIAL, SUBURBAN COMMERCIAL* *[RPOZ: RESOURCE PROTECTION OVERLY ZONE]*
	PROPOSED	MEDIUM DENSITY RESIDENTIAL (MR)
USE	*EXISTING*	*UNDEVELOPED*
	PROPOSED	RESIDENTIAL (PERMITTED)
STATEMENT OF INTENT		
THE APPLICANT IS PROPOSING TO DEVELOP THE SUBJECT PARCEL WITH TWO NEW ROADS, TOWNHOUSES AND ASSOCIATED SITE IMPROVEMENTS		

A.1 PROJECT LOCATION MAP



A.2 FLOOD MAP

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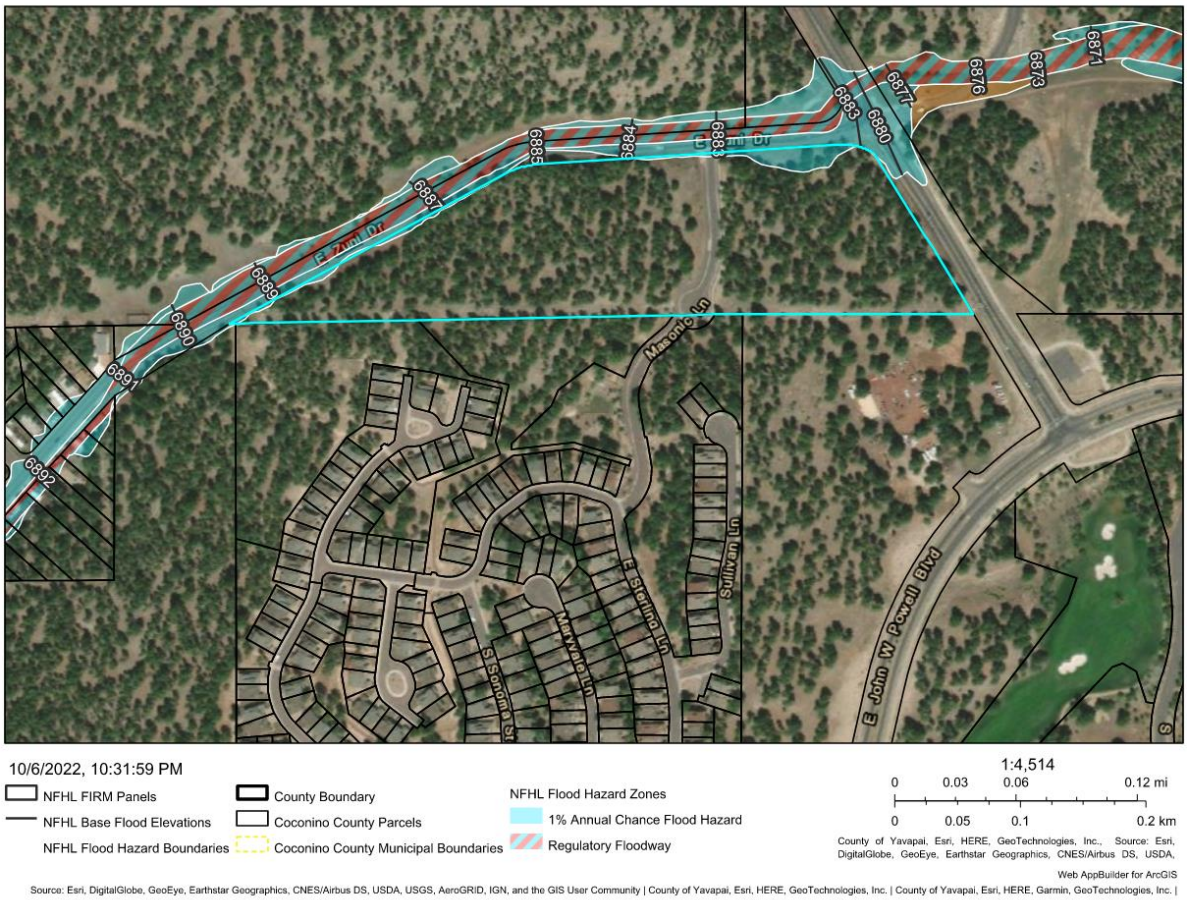
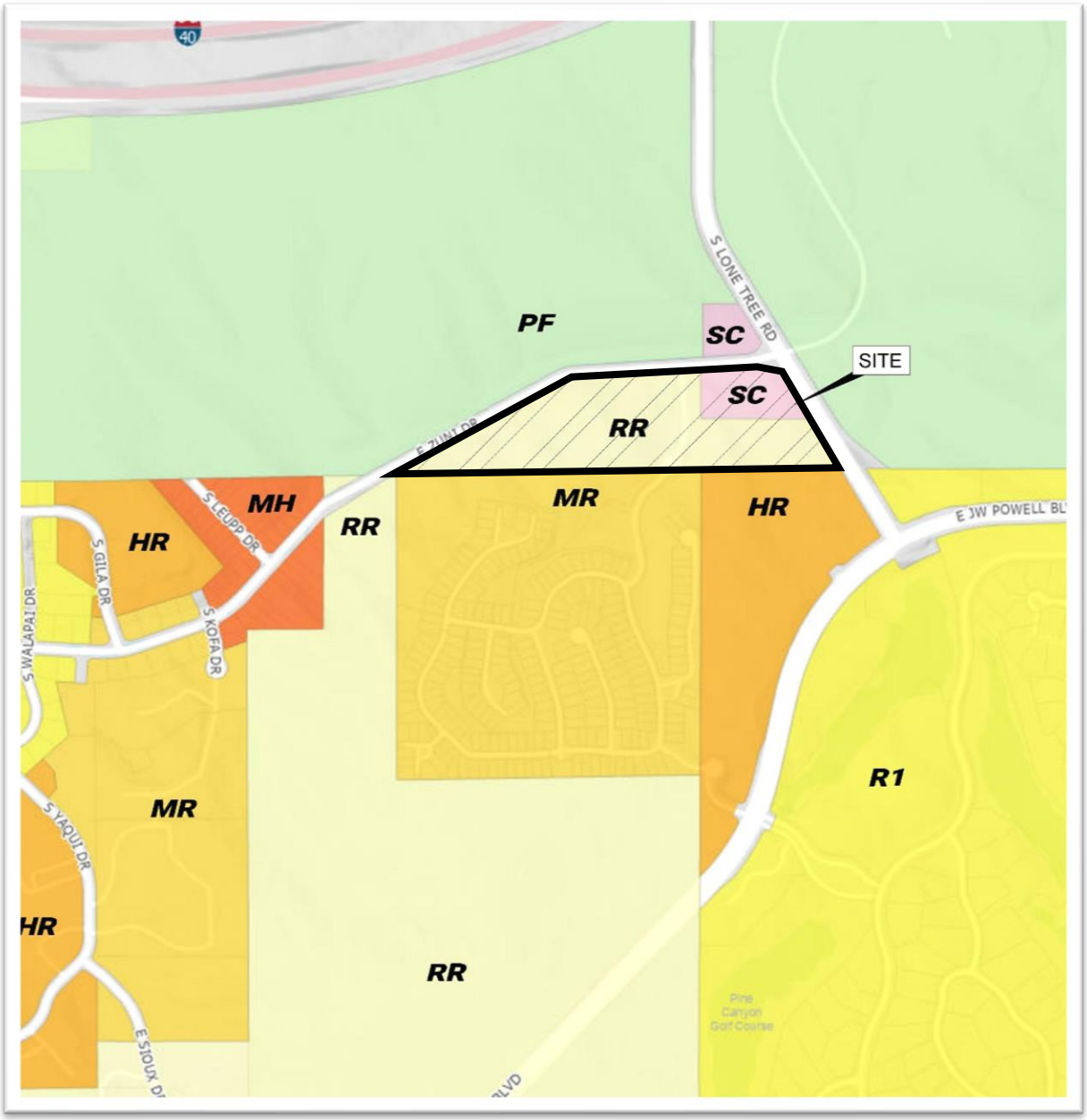


A.3 ZONING MAP



MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com

Site Sign Posting Notification

CITY OF FLAGSTAFF
NEIGHBORHOOD MEETING

Date: Thursday, October 17, 2024
Time: 5:30 pm to 7:30 pm

LOCATION: Flagstaff Aquaplex- Community Room
702 N Fourth St, Flagstaff, AZ 86004.

REQUEST: Direct to Ordinance Zoning Map Amendment

PROPOSAL: NOTICE is hereby given that RODG DT Pine Haven Horizontal LLC , owner of the property located at 2951 S Masonic Lane, is requesting a Direct to Ordinance Zoning Map Amendment for said property. The Property consists of a parcel designated RR Rural Residential and SC Suburban Commercial. The Applicant is requesting a designation of MR Medium Residential.

SITE LOCATION: 2951 S Masonic Lane

SIZE: 13.82 ac

CASE #: PZ-22-00109-04

Applicant Contact Information:
Contact:..... **Marc Toth**
Organization/Company: ..... **Viewpoint Engineering**
Phone Number:..... **737.717.3097**
Email Address:..... **Pinehaven-Zone@viewpointengineering.com**

Flagstaff Planning & Development Services Division: **928.213.2600**

Posting Date: **>>to be filled in by Signarama<<**

MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com

ViewPoint Engineering

Pinehaven Neighborhood Meeting

October 16 – 18, 2024

NAME	ADDRESS	PHONE NUMBER	EMAIL ADDRESS
L Stone + P Watters	3205 S. Hannah Lane		lstone.a3@gmail.com
STEVE WORTH	1164 E STERLING LN, FLAGSTAFF		STEVE.WORTH11@GMAIL.COM
Jim Van Dee Weef	3036 S HANNAH LN	380-244-8138	
Mary Norton	969 E Sterling Ln	979-300-4790	mnortoncomm@gmail.com
Bruce Ertmann	3279 S HANNAH LN		boe714@gmail.com
Irma Sandercock	1005 E Sterling		irma.sandercock@gmail.com
Michael Moreno	3109 S. Salvestrin Lane	602 525 9808	
Michael Pluper	918 E Sterling LANE	303-249-2621	Michaelgeana@gmail.com
Bob + Sue James	3225 So. Sodoma St.		bobjohnjames@GMail.com
CLAIRE WILKINSON	3117 S SALVESTRIN LANE	928-286-7069	MCW48@HOTMAIL.COM
Carol Newton	3202 S Sonoma St	704.236.6374	Carol.newton@peter-voc.com
XMA	900 E Sterling Lane	602 373 1688	XMa@WLGone.com
Sheryl Dawson	3127 S Hannah Ln	281 451 4244	sdawson@celebratingchrist.com
Tania Cagnin	925 E. Sterling Lane	415 298 3363	TZWAVE@HOTMAIL.COM
VINCENT LOPEZ	925 E STERLING LN.	" " "	" " "
Patrick Hurley	Coconino College	928 853 9097	constnmgr@gmail.com

ViewPoint Engineering

MAILING ADDRESS
2121 East Sixth Street, Suite 203
Austin, TX 78702
ph: 512.779.9464
www.viewpointengineering.com

Pinehaven Neighborhood Meeting - November 21, 2024

(please print)

NAME	ADDRESS	PHONE NUMBER	EMAIL ADDRESS
Irma Sandercock	1005 E. Sterling Ln	480.390.2282	irma.sandercock@gmail.com
BILL SANDERCOCK	" " "	" " "	" "
Dana Coughlin	1037 E. Sterling Ln	480-205-6635	
Bill Coughlin	" " " "	" " "	billc1970@msn.com
BRUCE ERTMANN	3279 S. HANNAH	949-300-4770	bce714@gmail.com
JASON HALE	216 N HUMPHREYS ST	928.458.5155	CSGHALE@GMAIL.COM
PATRICK HURLEY	1701 N SLIPPERY ROCK RD	928 853-9097	CONSTNMGR@GMAIL.COM
Bob Jamm	3225 S. Sonoma St.	928-699-6977	bobjohnjamm@Gmail.com
Mary Norton	969 E Sterling	909-5135332	mnortoncomm@gmail.com
Carol Newton	3202 S Sonoma St	704 236 6374	Carol.newton@peter-rock...

A.2 MEETING HANDOUTS

- Handouts 10/17/2024 and 11/21/2024

PROJECT DESCRIPTION

RODG DT Pine Haven Horizontal LLC (RODG) is proposing the development of the property located at 2651 S Masonic LN, a total of 13.82 acres. The project, Pinehaven, formerly Juniper Estates, (SITE) is an 83-unit condominium development with clubhouse. The site is currently zoned as a mix of rural residential (RR) and commercial suburban (SC).

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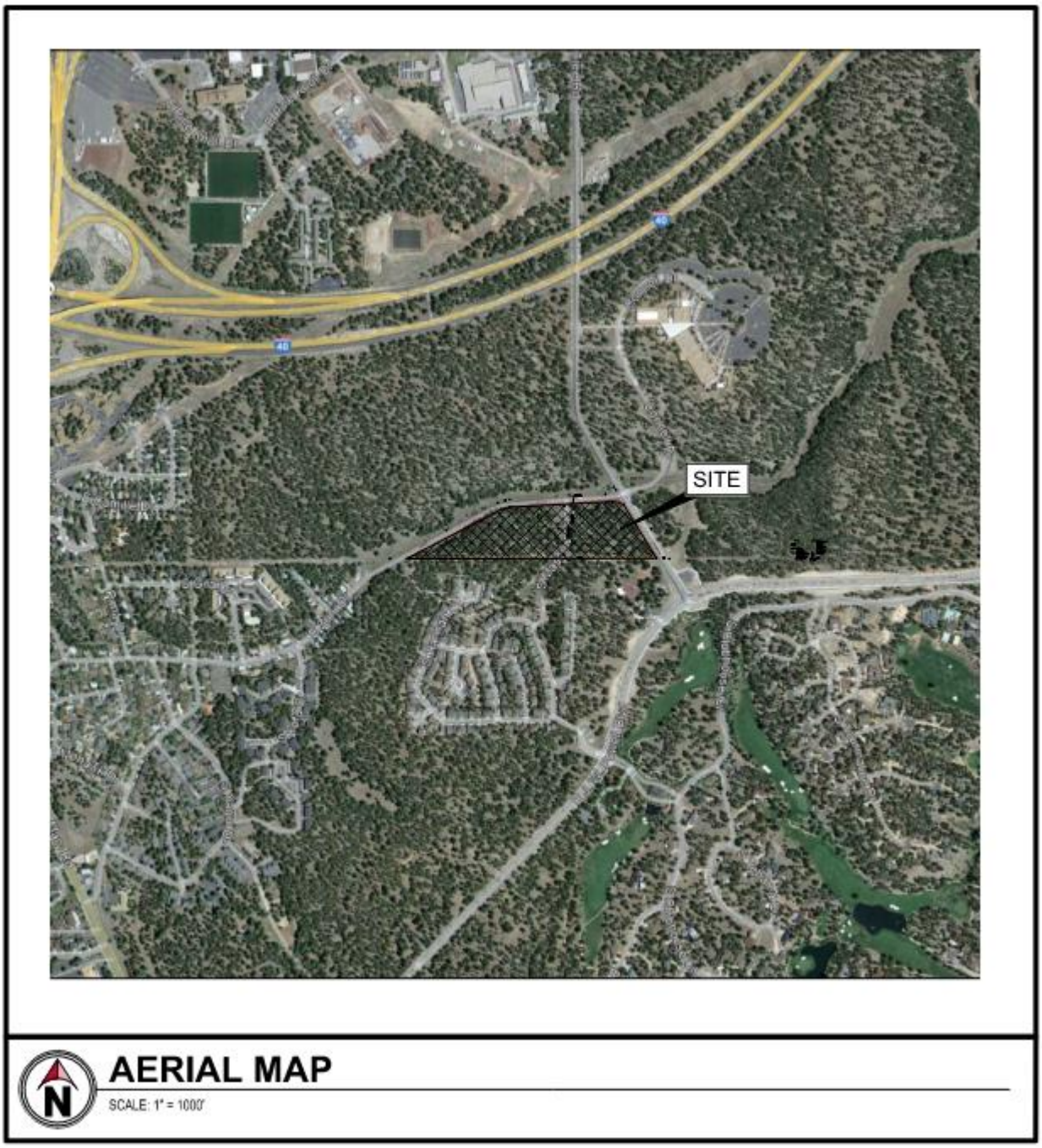

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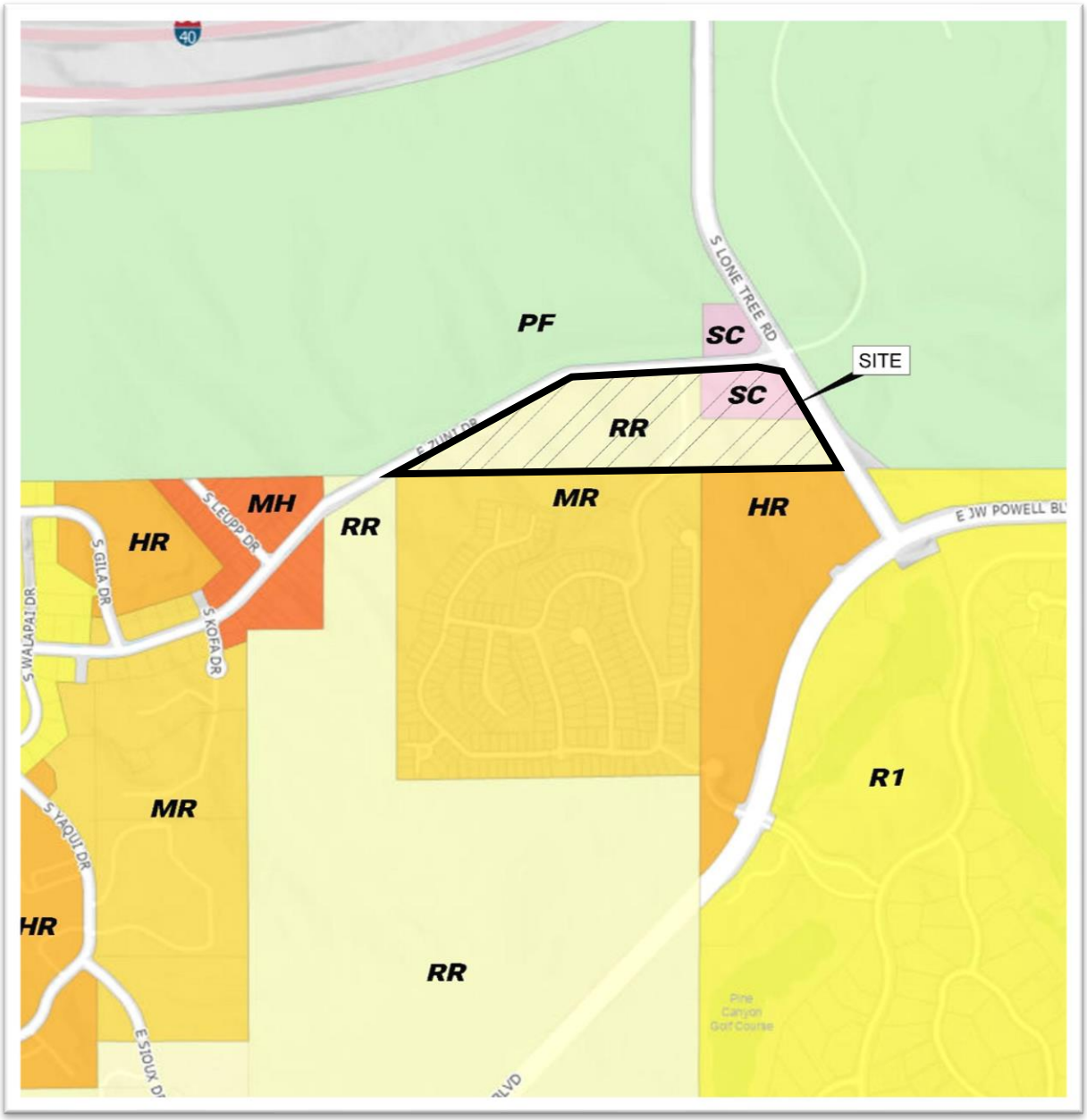

A.3 PRESENTATION BOARDS

- Meeting 10/17/2024 & 11/21/2024

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

ZUNI DRIVE

MASONIC LANE

SWM BASIN

PRELIMINARY
NOT FOR CONSTRUCTION
THIS PLAN HAS BEEN PREPARED FOR GENERAL DISCUSSION ONLY AND IS BASED UPON LIMITED DUE DILIGENCE.

PINEHAVEN RESIDENTIAL DEVELOPMENT

COCOCINO COUNTY, ARIZONA
OCTOBER 2024

V:\WORK_22004 FLAGSTAFF 141_DRAWINGS\EXHIBITS\24-1009 22004 RENDER SITE || MARCT



ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

PINEHAVEN RESIDENTIAL DEVELOPMENT

COCOCINO COUNTY, ARIZONA
OCTOBER 2024

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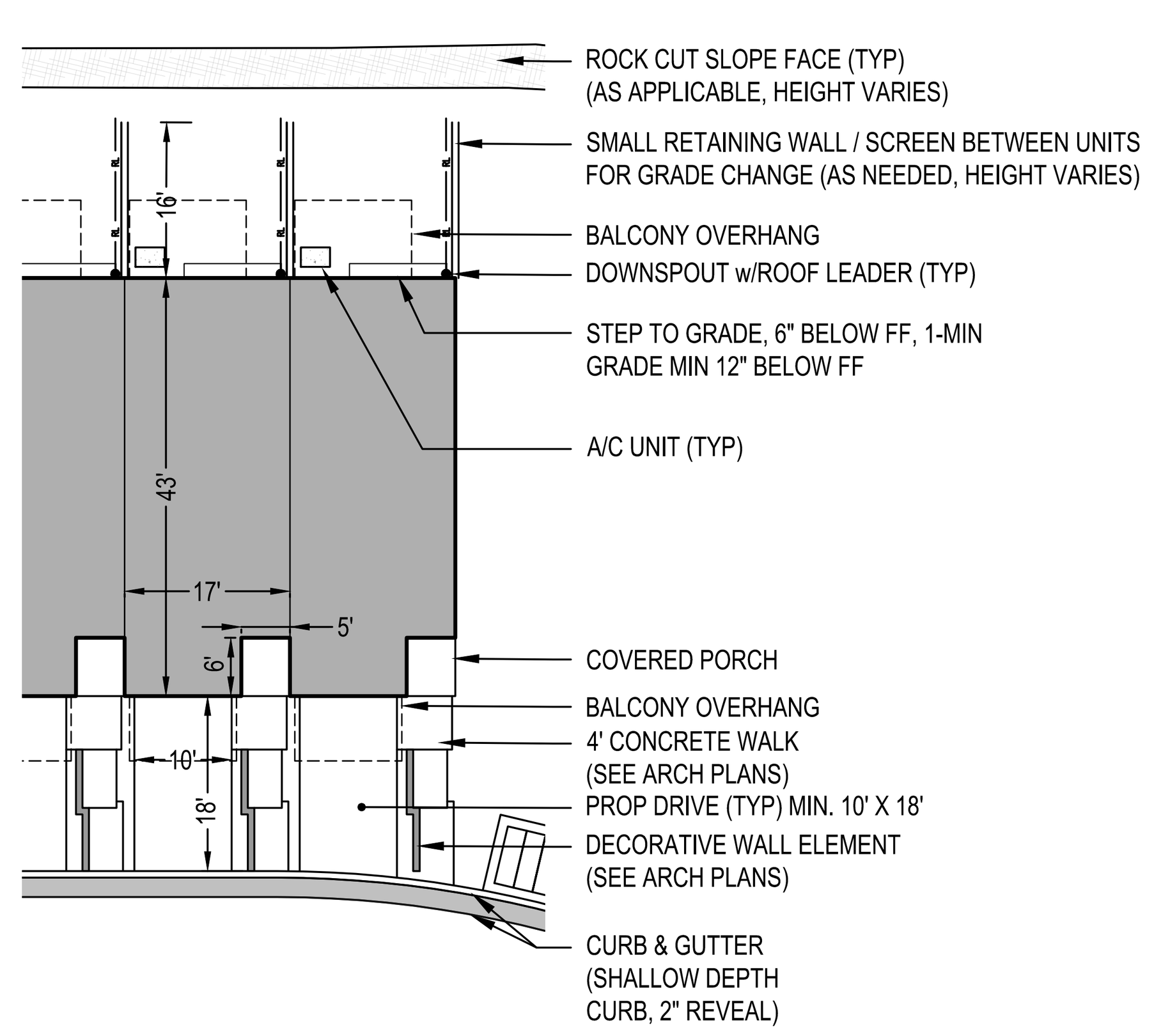
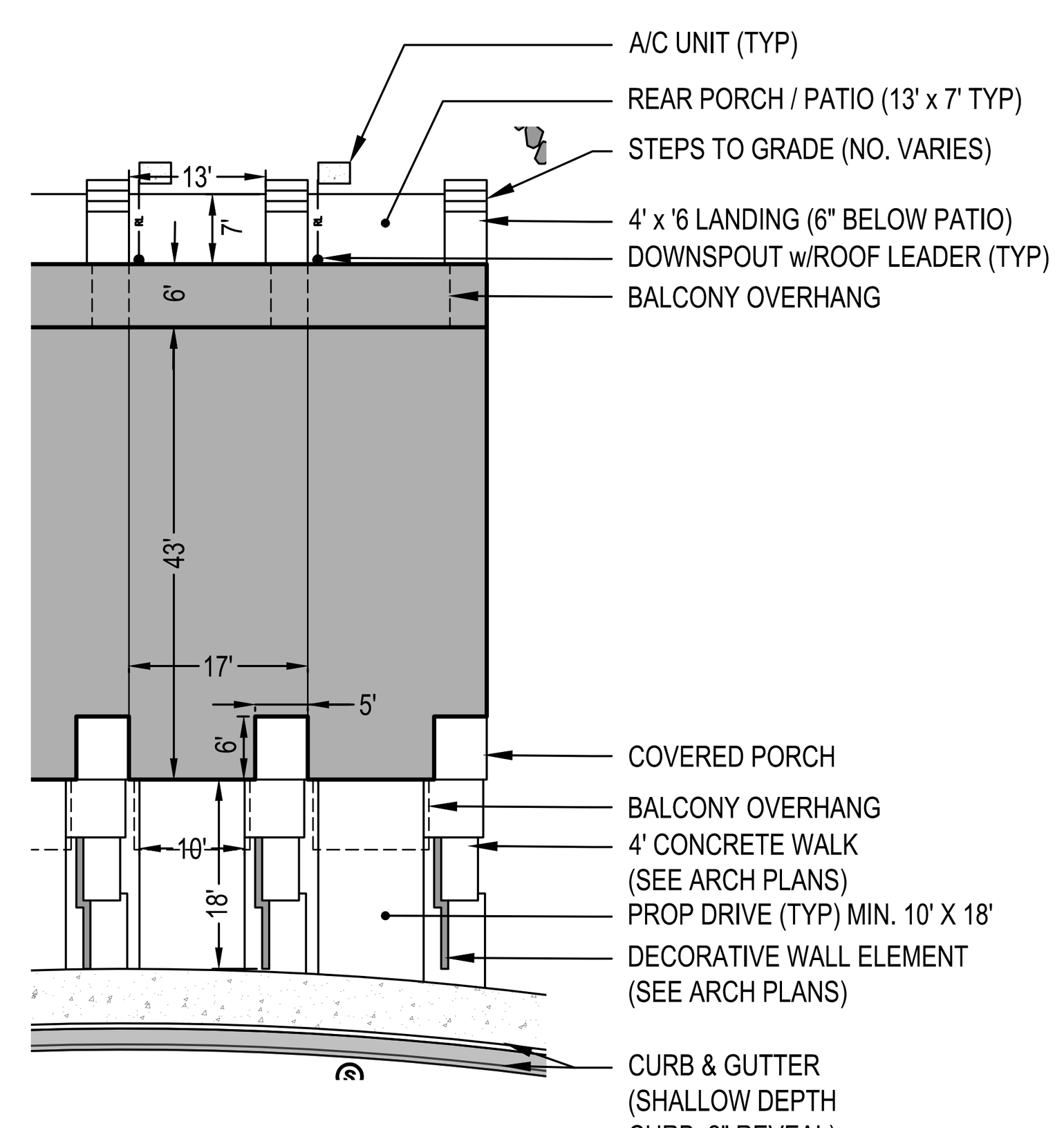
V:\WORK_22004 FLAGSTAFF 141\DRAWINGS\EXHIBITS\24-1009 22004 RENDER SITE || MARCT



UNITS IN CUT
(3-STORY / SLAB ON GRADE)

PONDEROSA UNIT

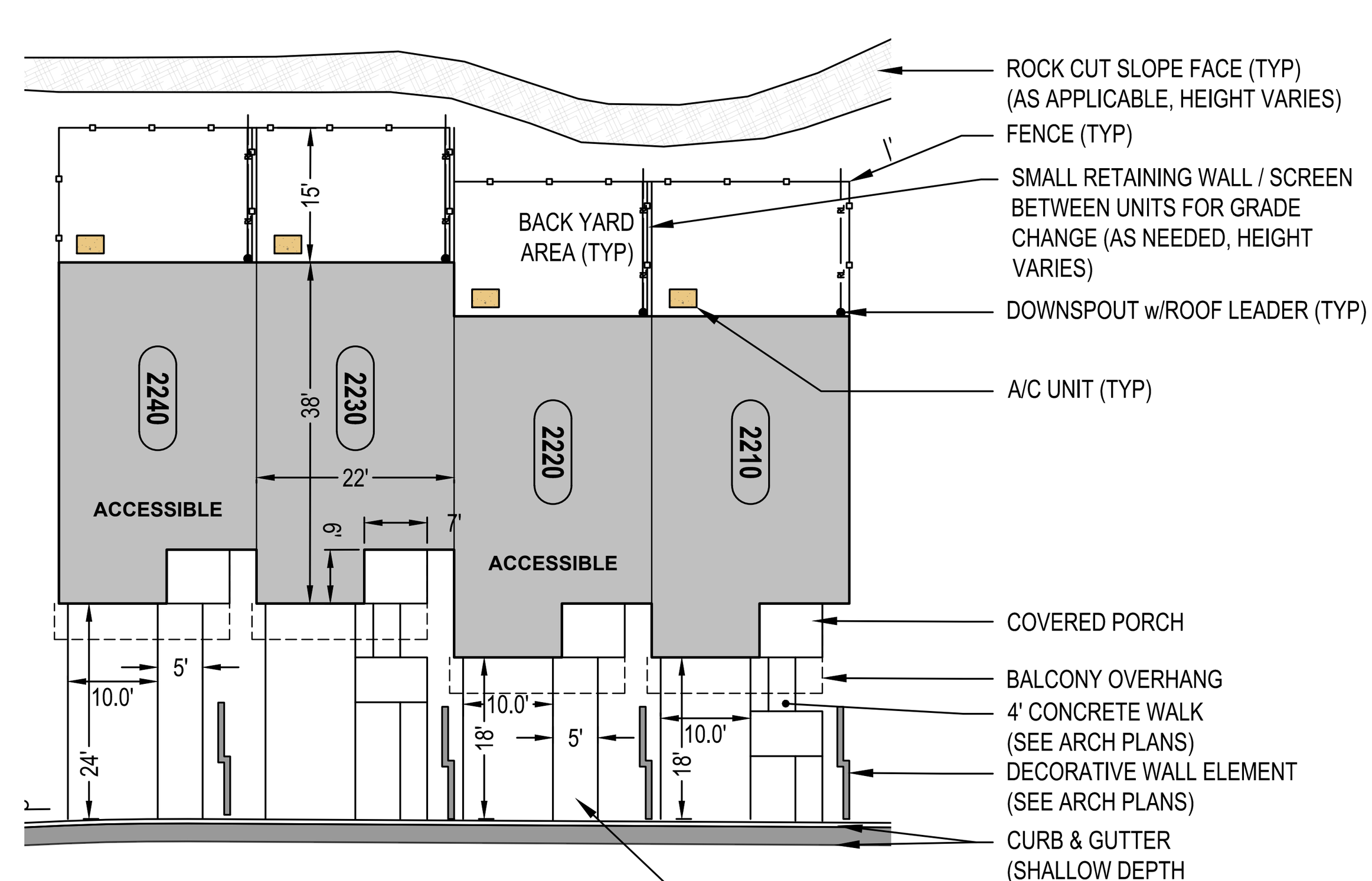
NOT TO SCALE



UNITS IN FILL
(2-STORY FRONT / 3-STORY REAR)

ASPEN UNIT

NOT TO SCALE



UNITS IN CUT
(2-STORY / SLAB ON GRADE)

JUNIPER UNIT

NOT TO SCALE

BUILDING SUMMARY

BUILDING MODEL	UNIT TYPE	Qty	FLOORS	TOTAL FLOOR AREA (SF)	BEDROOMS	BUILDING NUMBER
PONDEROSA	INTERIOR UNIT	32	3	2,226	3	10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 26, 28, 29
	END UNIT	30	3	2,250	3	
ASPEN	INTERIOR UNIT	9	3	2,180	2	12, 23, 25, 27
	END UNIT	8	3	2,231	3	
JUNIPER	INTERIOR UNIT	2	2	1,565	3	22
	END UNIT [ACCESSIBLE]	2	2	1,585	4	
	TOTAL	83				
CLUBHOUSE			2	5,100	N/A	N/A

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA 811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

GENERAL NOTES

1. FIRE HYDRANTS, STREET LIGHTS AND LANDSCAPING ALONG ZUNI & LONE TREE FRONTAGES WILL BE PROVIDED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING STANDARDS.
2. ALL PROPOSED DRIVE AISLES WILL BE PROVIDED WITH RED CURBING AND NO PARKING/FIRE LANE SIGNAGE.

CITY OF FLAGSTAFF - GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS FOR A ONE (1) YEAR PERIOD, SUBSEQUENT TO THE DATE OF APPROVAL. IF CONSTRUCTION WORK IS NOT STARTED WITHIN THE ONE (1) YEAR PERIOD, OR HAS BEEN DISCONTINUED FOR ANY REASON FOR LONGER THAN ONE (1) YEAR, THE PLANS SHALL BE RESUBMITTED FOR REVIEW AND RE-APPROVAL.
2. PLAN REVIEW BY THE CITY DOES NOT EXTEND TO MATERIAL QUANTITIES SHOWN ON THE PLANS.
3. A PUBLIC WORKS PERMIT, ISSUED BY THE CITY, IS REQUIRED FOR ALL WORK IN CITY RIGHTS-OF-WAY OR EASEMENTS AND FOR CONSTRUCTION OF ANY IMPROVEMENTS INTENDED TO BECOME PUBLIC PROPERTY.
4. THE CITY SHALL BE NOTIFIED TWENTY-FOUR (24) HOURS PRIOR TO BEGINNING DIFFERENT PHASES OF CONSTRUCTION SO THAT CITY INSPECTORS MAY BE SCHEDULED.
5. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH TITLE 13, ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS FOR NEW INFRASTRUCTURE, CURRENT "MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION," THE CITY OF FLAGSTAFF STORMWATER DESIGN MANUAL, AND WITH GENERALLY ACCEPTED ENGINEERING DESIGN AND CONSTRUCTION PRACTICE. ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO THE STANDARDS AND SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING CHAPTER 13-21, WHICH MAKES MINOR MODIFICATIONS TO CERTAIN MAG SPECIFICATIONS AND DETAILS.
6. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN HIS JUDGMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS DANGER TO THE PUBLIC HEALTH OR SAFETY.
8. THE CITY ENGINEER MAY ORDER ANY OR ALL MATERIALS USED IN THE WORK TO BE TESTED ACCORDING TO THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS. THE CONTRACTOR SHALL, AT HIS EXPENSE, SUPPLY ALL SAMPLES REQUIRED FOR TESTING.
9. ACCESS THAT MEETS SECTION 13-13-004-0001, FIRE ACCESS, SHALL BE IN PLACE AND APPROVED BEFORE AND AT ALL TIMES DURING ON-SITE COMBUSTIBLE CONSTRUCTION AND/OR PRIOR TO ISSUANCE OF BUILDING PERMITS IN NEW SUBDIVISIONS. FIRE DEPARTMENT AND ENGINEERING SECTION APPROVAL IS REQUIRED FOR OBSTRUCTION OF ACCESS OR WATER SYSTEM SHUTDOWN.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STREETS AND OF PARTIALLY COMPLETED PORTIONS OF THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER FOR APPROVAL A CONSTRUCTION SCHEDULE FOR ANY STREETS REQUIRED TO BE CLOSED OR PARTIALLY CLOSED FOR THE CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL REOPEN THE STREETS NO LATER THAN THE OPENING DATE SHOWN ON THE CONSTRUCTION SCHEDULE OR UPON ORDER OF THE CITY ENGINEER. THE REGULATION AND CONTROL OF CONSTRUCTION TRAFFIC SHALL BE AS DIRECTED BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
11. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE OWNER/DEVELOPER OR THE CONTRACTOR.
12. ACCEPTANCE OF COMPLETED PUBLIC IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEAN-UP IS COMPLETE.
13. LOCATION OF UNDERGROUND UTILITIES BEFORE WORK IS BEGUN IS TO BE ACCOMPLISHED IN ACCORDANCE WITH A.R.S. SECTION 40-360.22.
14. IF WORK IS DONE ON PRIVATE PROPERTY IN RELATION TO A PROJECT CONSTRUCTED UNDER THESE STANDARDS, THE CONTRACTOR WILL PROVIDE THE CITY WITH WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER TO DO SO.
15. THE ESTABLISHMENT AND USE OF TEMPORARY CONSTRUCTION YARDS SHALL CONFORM TO THE CURRENT CITY ZONING CODE STANDARDS FOR TEMPORARY USES.
16. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE CITY CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CITY APPROVALS AND PERMITS AS DEEMED NECESSARY BY THE CITY TO DISPOSE OF EXCAVATED MATERIAL.
17. ALL CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER AND PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED LAND SURVEYOR OR CIVIL ENGINEER.
18. ALL TRAFFIC SIGN SHEETING SHALL BE TYPE VIII AS DESIGNED BY ASTM D4956-07E1 STANDARD SPECIFICATIONS FOR RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL, UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION PLANS.
19. WHEN THE CONSTRUCTION PLANS SPECIFY GRAFFITI CONTROL ON BRIDGES OR OTHER STRUCTURES, THE CONTRACTOR SHALL SEAL THE STRUCTURE FIRST USING MONOCHEM AQUASEAL ME 12 AND THEN APPLY MONOCHEM PERMASHIELD, SACRIFICIAL GRAFFITI CONTROL SYSTEM (OR APPROVED EQUAL).
20. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AND RESEEDED IN ACCORDANCE WITH CHAPTER 13-17. IN THE EVENT THAT THE CONSTRUCTION ACTIVITY DISTURBS MORE THAN ONE (1) ACRE, A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED IN ORDER TO OBTAIN A CONSTRUCTION GENERAL PERMIT FROM ADEQ. (ORD. 2017-22, REP&REEN, 07/05/2017)

PARKING REQUIREMENTS

USE	REQUIREMENT [1]	PARKING REQUIRED	
		UNITS	PARKING
SINGLE-FAMILY (ATTACHED)			
STANDARD UNITS (<= 4 BEDROOMS)	2 SPACES PER UNIT	73	146
AFFORDABLE TYPE UNITS [2]	1.5 SPACES PER UNIT	10	15
GUEST PARKING	0.25 SPACES PER UNIT	83	20.8
	TOTAL PARKING REQUIRED	TOTAL	181.8
		USE	182
PARKING PROVIDED			
GARAGE SPACE (1 PER UNIT, EXCL ADA UNITS)		81	
DRIVEWAY SPACE		83	
ADDITIONAL SPACES		22	
ADA SITE SPACES		3	
	TOTAL PARKING PROVIDED	189	
REQUIRED BICYCLE PARKING			
5% OF TOTAL REQUIRED PARKING SPACES		182	9.1
	TOTAL BICYCLE PARKING REQUIRED	USE	10
	BICYCLE PARKING PROVIDED		12

1) PER TABLE 10-50.80.040.A

2) THE PROJECT HAS PROVIDED A FEE IN LIEU FOR AFFORDABLE HOUSING CREDITS FOR THE EQUIVALENT OF 10 SITE UNITS.

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 3/20/24 ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN RESIDENTIAL LAND DEVELOPMENT**
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW OVERALL SITE PLAN**

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID **C100** REV 3

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 SITE PLAN

- /

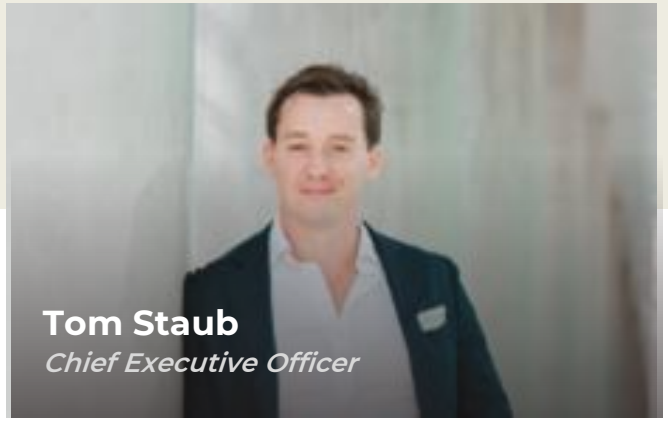
A.4 POWERPOINT PRESENTATIONS

- 10/17/2024


pine haven
pine haven
RedOak
Development
Group

Executive Expertise

Red Oak Development Group



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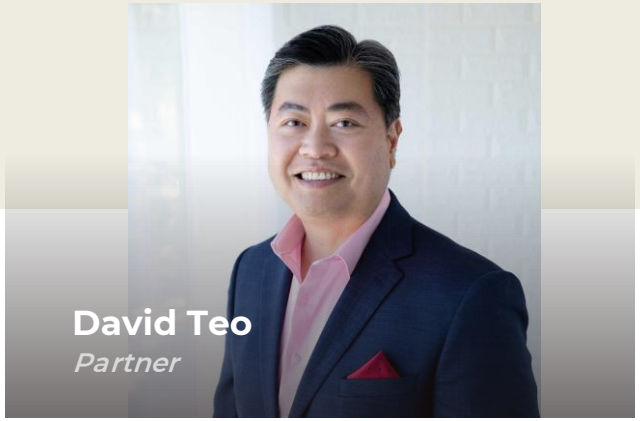

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pine haven

"At Pine Haven, we've designed a community where architecture and nature coexist in harmony. Thoughtfully designed energy efficient homes that do not outshine the beauty of the Coconino Forest, but rather keep the focus on the natural beauty of the land, while a wellness-centered amenity hub invites residents to embrace a lifestyle of balance, health, and connection to the land through the extensive trail system"

Pinehaven: Project Overview

Aerial View









Architectural Design Inspiration



1. Public Trail System
2. Phase 1: 8-16 Units
3. Phase 2: 24-30 Units & Amenity Center
4. Pine Cove Park
5. Water Feature
6. Amenity Center, Cold Plunges, Saunas, Japanese Meditation Room
7. Phase 3: 43 Units

Phasing Plan: Pine Haven will be developed in multiple phases:

- Phase 1 includes 8-16 units
- Phase 2 will introduce 24-30 units, and the amenity center.
- Phase 3 will add 43 units, completing the project entirely

Amenities: Pine Haven's amenities are centered around promoting wellness and relaxation:

- A state-of-the-art amenity center includes features like cold plunges, saunas, and a Japanese meditation room, offering residents a wellness retreat in the heart of the community.
- Outdoor amenities include Pine Cove Park and an extensive public trail system, allowing residents to immerse themselves in the surrounding natural beauty.

Design Principles: Pine Haven's design philosophy is rooted in creating harmony between architecture and the natural environment:

- The community offers energy-efficient, sustainable homes that blend seamlessly into the surrounding forest, with architecture inspired by the simplicity and elegance of nature.
- Open space preservation is a priority, ensuring vast areas remain untouched, offering a sanctuary-like experience.
- The integration of thoughtful design and a strong focus on wellness sets Pine Haven apart as a community that nurtures both its residents and the environment.

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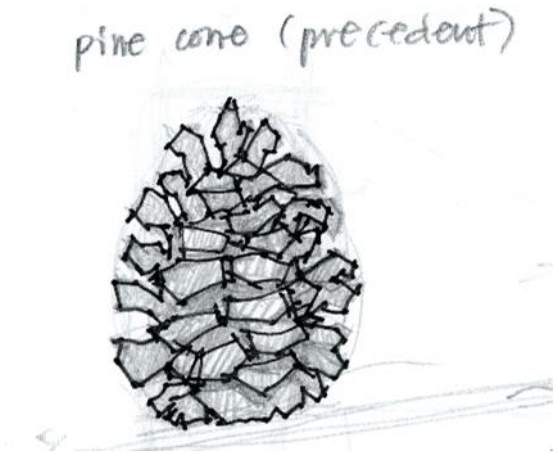
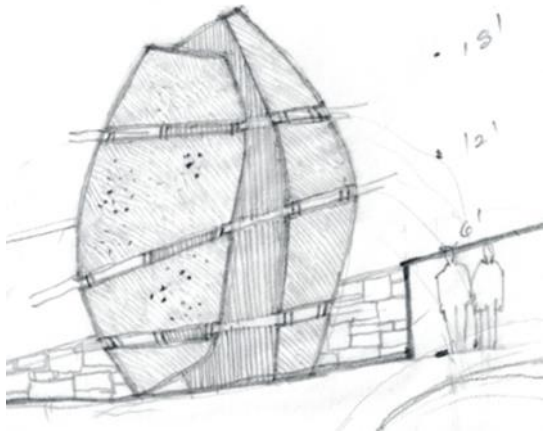
Pine Haven

- Pine Haven Living draws inspiration from the timeless beauty of the Coconino Forest, creating a sanctuary where modern living harmonizes with the rhythms of nature.
- Architectural design embraces simplicity and elegance, with low-sloped roofs, natural stone accents, and earth-toned exteriors that merge seamlessly with the forest, allowing nature to be the true centerpiece.
- The community's layout prioritizes the preservation of open spaces, leaving vast stretches of the land untouched, offering residents a deep connection to the wilderness through trails, green spaces, and serene outdoor vistas.
- Sustainability is woven into every aspect of Pine Haven, with energy-efficient, fire-safe homes that honor and protect the forest, ensuring future generations can enjoy its beauty.
- At the heart of Pine Haven is the community clubhouse a gathering place designed to nurture the spirit and foster connections, with spaces dedicated to wellness, reflection and social engagement.
- Pine Haven is more than just a place to live; it is a lifestyle rooted in balance, where the tranquility of nature and the comforts of contemporary living coalesce into a sanctuary of peace and sustainability.

Pine Cone Park













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Home Types & Exterior Inspiration







Stone Elements

The use of stone on both the exterior and interior of the homes helps anchor the buildings to the earth, symbolizing a strong connection to the natural landscape and aligning with Pine Haven's philosophy of creating a seamless blend between architecture and the surrounding environment.

Contrasting Accents

The rust-colored metal siding provides a natural yet bold contrast to the green of the pines, creating visual interest while staying rooted in the organic, earthy tones of the forest. This thoughtful contrast reinforces the design philosophy of elegance and simplicity.

Subtle Integration

Dark-painted siding ensures that the homes harmonize with the forest, allowing the architecture to blend into the landscape rather than dominate it, reflecting Pine Haven's core principle of allowing nature to take center stage.

Interior Warmth and Natural Light

The strategic placement of large windows invites ample natural light into the homes and provides breathtaking views of the forest, continuing Pine Haven's goal of fostering a living experience that embraces the beauty and serenity of nature.

Architectural Design Inspiration Interior

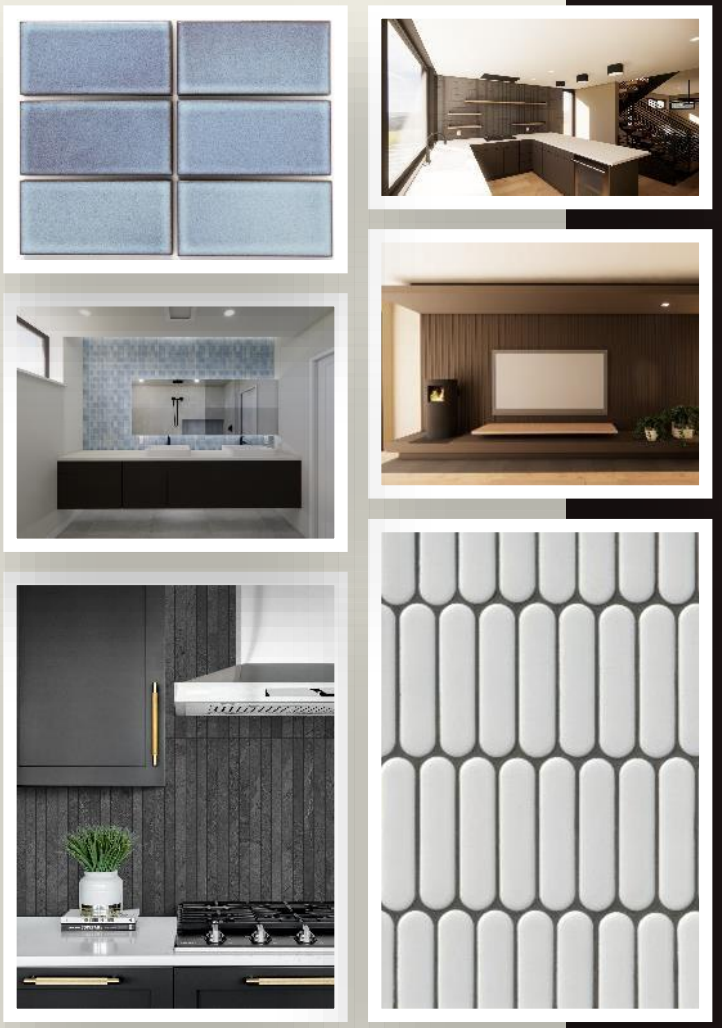
The interior design inspiration of Pine Haven connects with the natural landscape of Flagstaff, drawing from the surrounding trees and mountains.

Nature-Inspired Color Palette: The interior design reflects the surrounding environment with a color palette of greens and blues, bringing the calming and serene essence of the Coconino Forest indoors, in line with the community's emphasis on harmony with nature.

Warmth through Natural Materials: The use of wood flooring adds warmth to the living spaces, echoing the organic textures found in the forest and supporting Pine Haven's vision of creating a natural, welcoming atmosphere that feels grounded in its environment.

Maximizing Natural Light: Generous glazing on both the front and rear sides of the homes allows natural light to flood the spaces, fostering a strong connection between indoor living and the forested surroundings, emphasizing Pine Haven's philosophy of blending modern comfort with nature.

Anchoring to the Landscape: The interior design complements the exterior's natural stone elements, creating a seamless transition from the rugged beauty of the outdoors to the refined yet earthy aesthetic within the homes, staying true to the project's ethos of simplicity and elegance.



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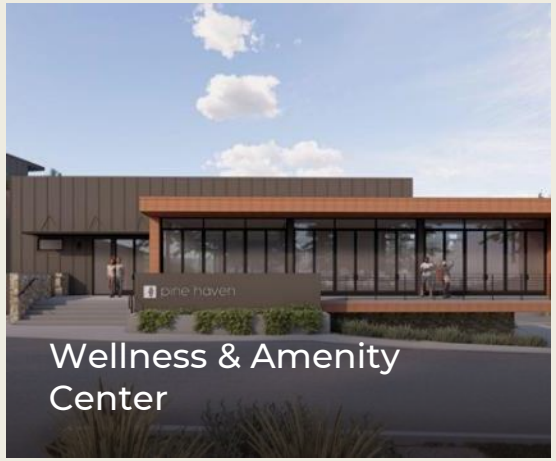
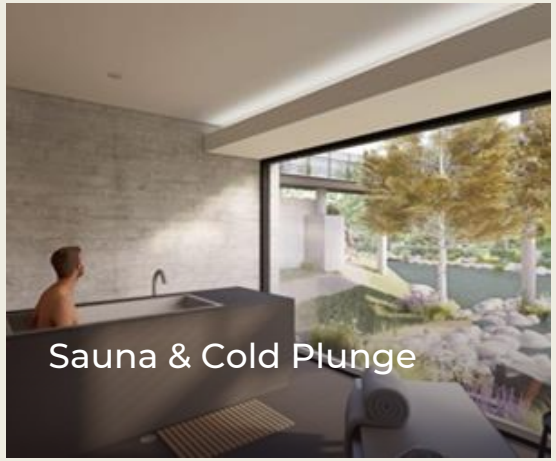
Above & Beyond - Amenities


Pine Cone Park


Event Center



Wellness & Amenity Center


Sauna & Cold Plunge

Wellness-Centered Amenities

Pine Haven's amenity center is designed with a strong focus on wellness, featuring cold plunges, saunas, and a Japanese meditation room. These spaces provide residents with opportunities for relaxation, health, and self-care, reinforcing the community's emphasis on balancing modern living with well-being.

Extensive Trail System

The public trail system is a central part of Pine Haven's design, offering residents direct access to nature and encouraging outdoor activities like walking, hiking, and reflecting in the serene beauty of the forest. This trail system preserves the community's connection to the natural landscape while fostering an active, health-conscious lifestyle.

Pine Cone Park

Pine Cone Park serves as a key communal space, integrating natural surroundings into the heart of the community. This park allows for gatherings, recreation, and quiet moments, enhancing residents' connection to the environment while maintaining a sense of community and shared space.

Integration of Nature and Wellness

By embedding nature into the daily living experience through amenities and green spaces, Pine Haven maintains a deep connection to the surrounding forest. This integration of natural beauty with wellness-focused design helps create a living environment where residents can enjoy the peace and balance that nature provides while benefiting from the comforts of modern life.

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Promoting Natural Resources

Challenging Topography

The unique topography of the site, while difficult to work with, ultimately became an opportunity; offering stunning views and natural light that were intentionally incorporated into the design of the homes. The elevation changes provided opportunities to maximize scenic vistas including Pine Cove Park being situated at a higher elevation

Rocky Soil as a Design Feature

The rocky soil, which posed initial challenges for construction, was creatively transformed into a landscape feature near the amenity center. The integration of natural stone into the landscape design allowed us to turn this obstacle into an aesthetic highlight, enhancing the organic beauty of the community.

Reducing Light Pollution

To preserve the natural nighttime environment and maintain the serene ambiance of the forest, we adopted dark sky ordinances. By minimizing artificial light pollution, Pine Haven aligns with its mission to create a community that respects and harmonizes with the natural environment.

Minimizing Environmental Impact

Throughout the development process, we adhered to strict environmental codes to limit the impact on the surrounding forest. Aligning with city regulations, we optimized the project while ensuring that environmental considerations were at the forefront of our design and planning, preserving the integrity and beauty of the natural landscape.

Preserving the biggest trees on the site

We are preserving the towering pines along the southern border, which, combined with the way the homes are carefully nestled into the natural slopes, creates a natural buffer that enhances privacy while maintaining uninterrupted views for residents to the south Disturbance is less than 40% much lower than a typical development.

Responsible Development

Traffic

- Drastically improving other modes of transportation- cycling, walking, bus transit
- Sidewalks across both Zuni and Lone Tree frontage and internal trails
- Bike Lanes across both Zuni (widening) and Lone Tree frontage
- Constructing two bus stations, one on each side of Zuni
- Providing improved connectivity to Pinehaven and Pinnacle
- New Driveways on Zuni and Lone Tree
- Dedicating ROW to facilitate future roadway improvements

Environmental

- Units at 6.18 vs 6.33 at Pinnacle Pines (lower density)
- **Disturbance of entire site below 40%, 20% below typical**
- Preserving the biggest trees on the site
- Buffer from Zuni, (less visibility for neighbors)
- Complied with city code

Public Park Access

- Pine Cone Park will be accessible to public (this is not a city requirement)
- Dog park
- Extensive trail system
- Sidewalk connection to Pinnacle Pines and masonic creating a walkable loop network for both Pine Haven and Pinnacle Pines

Dark Sky Ordinance

Strict HOA Guidelines

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- 11/21/2024

pine haven



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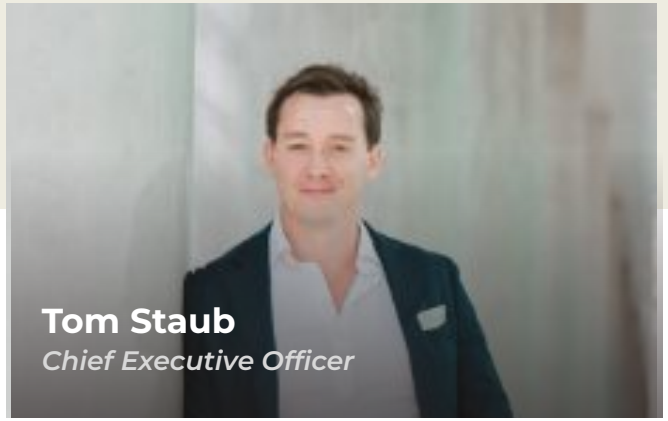

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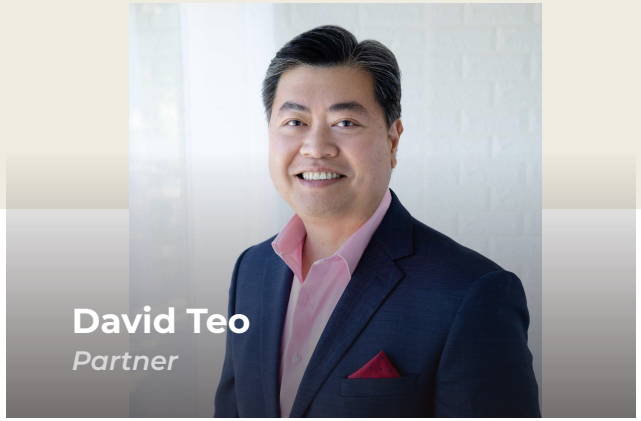

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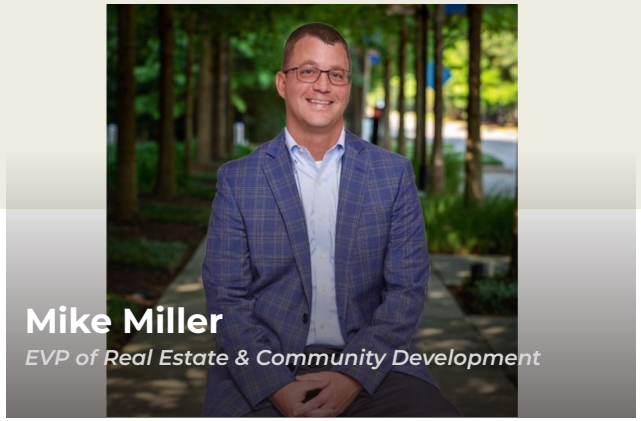

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Snow Removal

- Reviewed site with Local Plow Company
- Developed Plan for Snow Pile Locations
- Will Provide 2” depth trigger for plowing
- Will provide additional Snow Areas with Signage and with HOA documents

Line of Sight

- Minimal interference
- Homes built below line of sight
- Variety of Tree Coverage to buffer

Firewise Plan

- Met with City Fire department to review standards
- City Building Code Incorporates most Firewise elements
- Working with Landscape architect to evaluate proposed plantings

Timeshares & AirBnb

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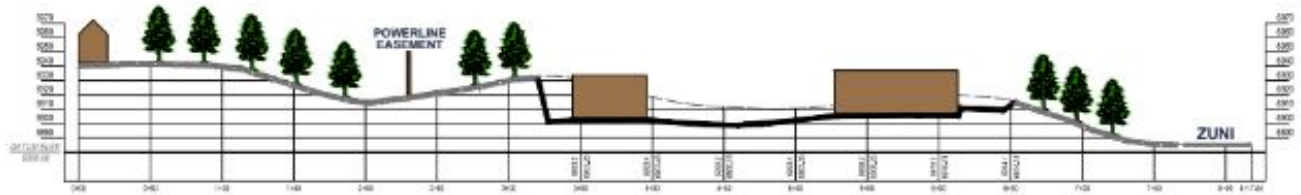
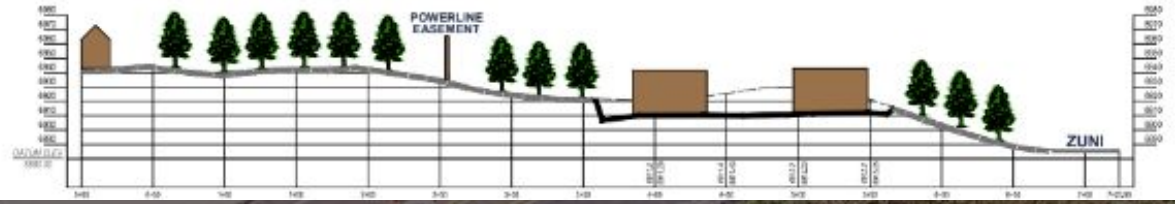
Line of Sight 1



Line of Sight 2







Line of Sight 3



VIEW FROM MASONIC LANE + ZUNI DRIVE

Line of Sight 4



VIEW FROM CUL DE SAC ON MASONIC LANE

Line of Sight 5



VIEW FROM ENTRY AT ZUNI DRIVE

Snow Removal Plan





AirBnb & Fractional Ownership

Key Differences Between Timeshares and Fractional Ownership

Aspect	Timeshare	Fractional Ownership
Ownership	No ownership stake, only usage rights	Deeded ownership with equity stake
Usage	1-2 weeks per year	Proportional usage (3 months for 1/4 share)
Flexibility	Fixed or floating weeks; limited adjustments	Flexible scheduling based on owner agreements
Resale Value	Limited resale opportunities	Potential for market-value resale
Maintenance Costs	High annual fees per person	Shared among co-owners, part of HOA fees
Community Impact	Transient users; minimal engagement	Consistent owner presence; fosters community
User Type	Tends to be for the short term vacationer that seeks affordability above all else	Tends to be in the nicest parts of the world with access to 5 star amenities

Conclusion: Pinehaven will not be offering either Timeshare or Fractional Ownership purchase options

AirBnb Restrictions

- Two-Strike Rule for Rental Violations
- 180-Day Rental Limit
- Guest Registration: Owners must register rental guests with the HOA to ensure transparency and accountability.
- Quiet Hours Compliance: Renters must adhere to strict quiet hours to minimize noise disruptions for neighbors.
- Parking Rules: Guests will be required to follow the community's parking guidelines to prevent overcrowding and maintain smooth traffic flow.
- Monitoring of Listings: The HOA will monitor Airbnb, VRBO, and other rental platforms for compliance with the 180-day limit. Unauthorized or excessive rentals will result in penalties such as fines or temporary suspension of rental privileges.

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Pinehaven: Project Overview

Aerial View

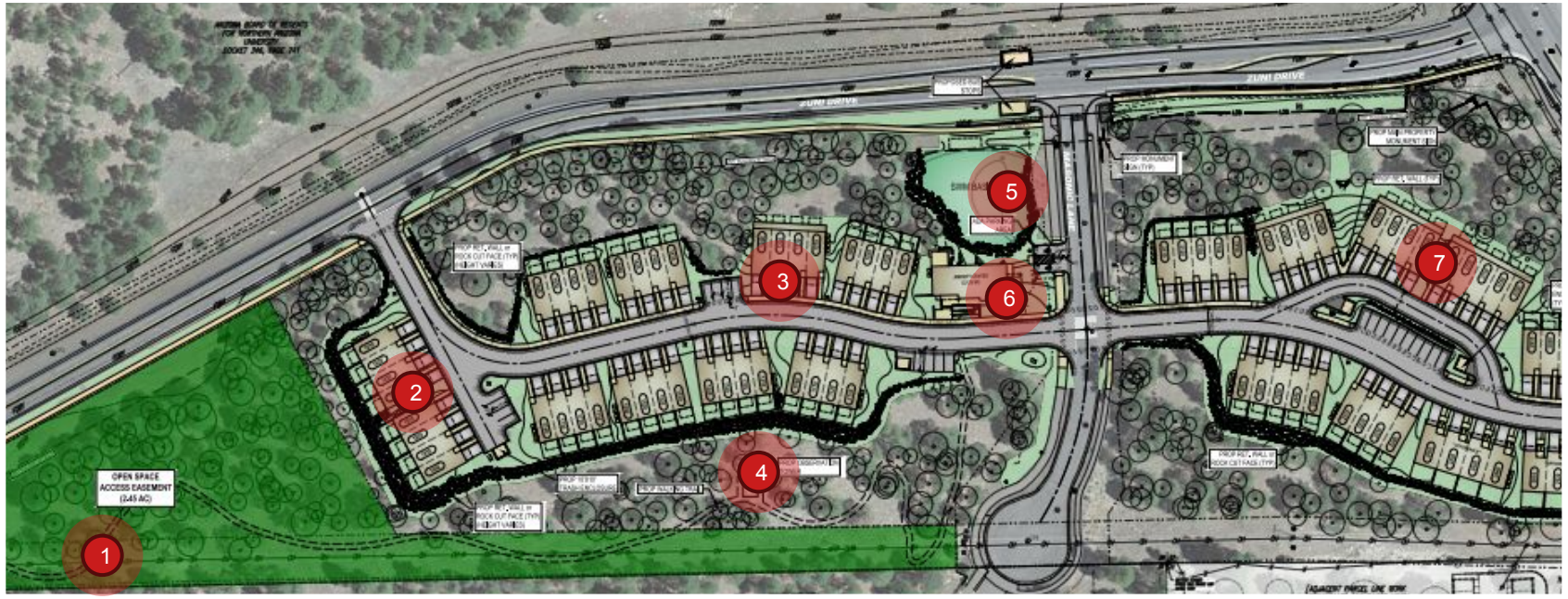








Architectural Design Inspiration



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3. Phase 2: 32 Units & Amenity Center
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7. Phase 3: 35 Units

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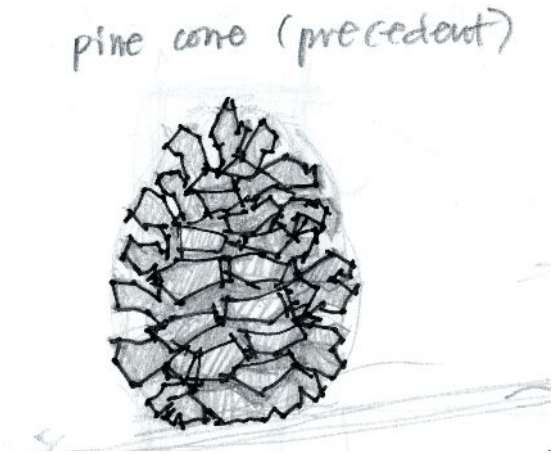

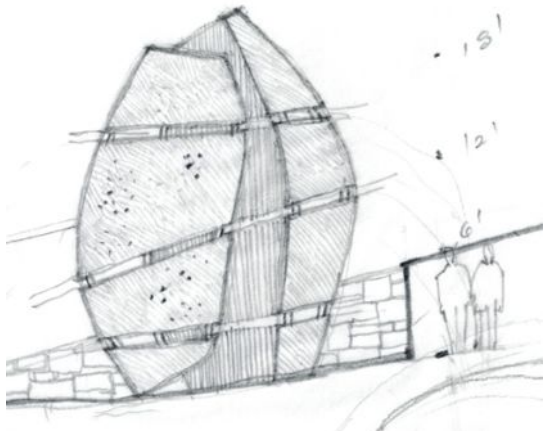









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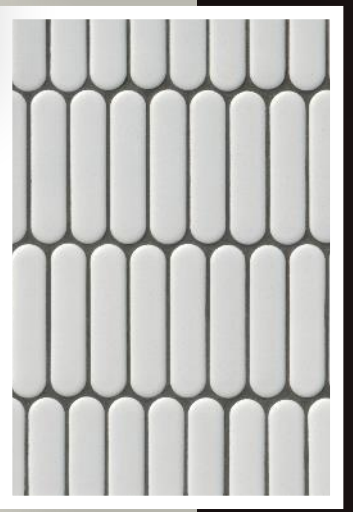
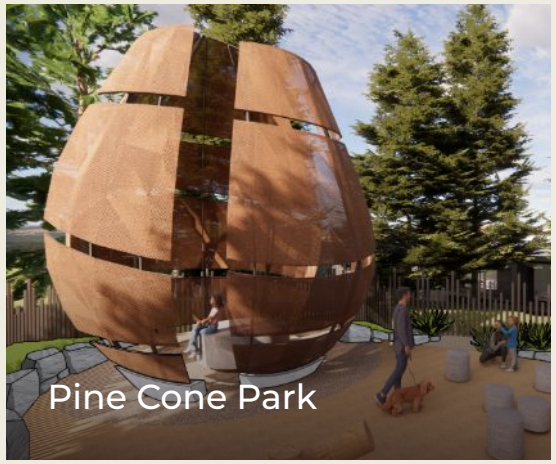


RedOak Development Group

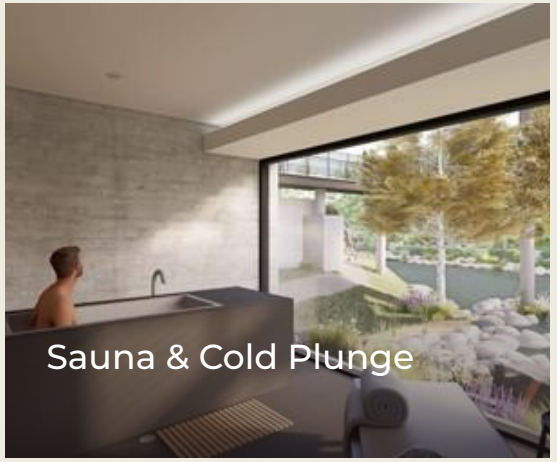
Above & Beyond - Amenities


Pine Cone Park


Event Center



Wellness & Amenity Center


Sauna & Cold Plunge

Wellness-Centered Amenities

Pine Haven's amenity center is designed with a strong focus on wellness, featuring cold plunges, saunas, and a Japanese meditation room. These spaces provide residents with opportunities for relaxation, health, and self-care, reinforcing the community's emphasis on balancing modern living with well-being.

Extensive Trail System

The public trail system is a central part of Pine Haven's design, offering residents direct access to nature and encouraging outdoor activities like walking, hiking, and reflecting in the serene beauty of the forest. This trail system preserves the community's connection to the natural landscape while fostering an active, health-conscious lifestyle.

Pine Cone Park

Pine Cone Park serves as a key communal space, integrating natural surroundings into the heart of the community. This park allows for gatherings, recreation, and quiet moments, enhancing residents' connection to the environment while maintaining a sense of community and shared space.

Integration of Nature and Wellness

By embedding nature into the daily living experience through amenities and green spaces, Pine Haven maintains a deep connection to the surrounding forest. This integration of natural beauty with wellness-focused design helps create a living environment where residents can enjoy the peace and balance that nature provides while benefiting from the comforts of modern life.

Promoting Natural Resources

Challenging Topography

The unique topography of the site, while difficult to work with, ultimately became an opportunity; offering stunning views and natural light that were intentionally incorporated into the design of the homes. The elevation changes provided opportunities to maximize scenic vistas including Pine Cove Park being situated at a higher elevation

Rocky Soil as a Design Feature

The rocky soil, which posed initial challenges for construction, was creatively transformed into a landscape feature near the amenity center. The integration of natural stone into the landscape design allowed us to turn this obstacle into an aesthetic highlight, enhancing the organic beauty of the community.

Reducing Light Pollution

To preserve the natural nighttime environment and maintain the serene ambiance of the forest, we adopted dark sky ordinances. By minimizing artificial light pollution, Pine Haven aligns with its mission to create a community that respects and harmonizes with the natural environment.

Minimizing Environmental Impact

Throughout the development process, we adhered to strict environmental codes to limit the impact on the surrounding forest. Aligning with city regulations, we optimized the project while ensuring that environmental considerations were at the forefront of our design and planning, preserving the integrity and beauty of the natural landscape.

Preserving the biggest trees on the site

We are preserving the towering pines along the southern border, which, combined with the way the homes are carefully nestled into the natural slopes, creates a natural buffer that enhances privacy while maintaining uninterrupted views for residents to the south Disturbance is less than 40% much lower than a typical development.

Responsible Development

Traffic

- Drastically improving other modes of transportation- cycling, walking, bus transit
- Sidewalks across both Zuni and Lone Tree frontage and internal trails
- Bike Lanes across both Zuni (widening) and Lone Tree frontage
- Constructing two bus stations, one on each side of Zuni
- Providing improved connectivity to Pinehaven and Pinnacle
- New Driveways on Zuni and Lone Tree
- Dedicating ROW to facilitate future roadway improvements

Environmental

- Units at 6.18 vs 6.33 at Pinnacle Pines (lower density)
- **Disturbance of entire site below 40%, 20% below typical**
- Preserving the biggest trees on the site
- Buffer from Zuni, (less visibility for neighbors)
- Complied with city code

Public Park Access

- Pine Cone Park will be accessible to public (this is not a city requirement)
- Dog park
- Extensive trail system
- Sidewalk connection to Pinnacle Pines and masonic creating a walkable loop network for both Pine Haven and Pinnacle Pines

Dark Sky Ordinance

Strict HOA Guidelines

RedOak Development Group

A.5 NEIGHBOR COMMENTS RECEIVED

- Prior to 10/17/2024

Marc Toth

Subject: FW: Pine Haven - Follow-up

From: ANTHONY BRAU[redacted]
Date: October 18, 2024 at 11:13:52 AM MST
To: Tom Staub <tom@redoakvc.com>
Subject: Re: Pine Haven - Follow-up

Hello Tom,

I want to thank you for your letter explaining the specifics about your proposed development. So many times the developer and the neighbors are at odds and nothing is resolved. I really appreciate your reaching out to my wife and me. It appears that much thought has gone into the plan for Pine Haven. It was especially encouraging hearing that you will be a resident of the development.
My wife and I purchased our townhome summer of 2023. It is our second home and our primary residence is in Scottsdale. Scottsdale is turning into a major metro area due to excessive development. In the past two to three years, over 14,000 residential medium and high density units have been constructed. Thus our concern about seeing a very special area turning into a conglomeration of residential units. Your letter has certainly helped to resolve our concerns.

I do have a questions regarding the proposed clubhouse. Will it be in close proximity to Pinnacle Pines? Also, will it be more of a clubroom with exercise area and pool area? Or is there going to be (the bane of every homeowner) a Pickle Ball Court. As I had mentioned in our letter, I have a degree in Urban Planning and have been a residential appraiser for almost 30 years. My most recent experience with properties close to residential developments with the Courts is that there is a direct relationship to loss of value and close proximity to Pickle Ball amenities. One of the main reasons we decide to purchase in Pinnacle Pines was due to not having ANY community facilities other than sidewalks and roads. Also, what is the position in Pine Haven with Short Term Rentals? I am the President of our HOA in Scottsdale. I know that one can't stop units being used as STR's. However, we were able to limit the adverse impact of STR's by having a minimum requirement of a 30 day rental period. Is that something you have considered in the Declaration?

Again, I want to thank you for your response and we certainly feel much better about your proposed community. Oh...and yes...I did notice that a portion of the 14 acres was zoned commercial....and yes...a gas station would be my personal HELL.....
Wishing you success with your project.

Best Regards,

Tony & Kathy Brau

On Thursday, October 17, 2024 at 03:45:54 PM MST, Tom Staub <tom@redoakvc.com> wrote:

Hello Anthony & Kathleen - Hope all is well. Tom Staub here, CEO of Red Oak, and developer on this project.

I hear you will not be able to attend tonight's neighborhood meeting. I also understand you have several concerns with Pine Haven and I can appreciate your concerns. We will be sure to provide all materials to you shortly.

I do believe part of the concern is due to no one seeing the site plan and concepts.

However, in the meantime, I'd like to address a few items that may help provide clarity.

1) The property, approx. 14 acres, while zoned residential is also zoned commercial with about 2 acres fronting the main thoroughfare. This commercial tract is an ideal location for a gas station and what we are doing is bringing a community that is one Red Oak can be proud of for a number of reasons which then removes the chance of a gas station or convenience store a baseball throw away from Pinnacle Pines
2) We are investing heavily in extensive trail systems which will be open to the public
3) Pine Cone Park will also be public access (not required by the city)
4) Our substantial traffic investments have a number of mitigations that not only solve for our 83 units but will enhance the current plan
5) In terms of density, if you compare Pine Haven to Pinnacle Pines, Pine Haven is actually less dense at 6.18 units per acre vs. 6.33 in Pinnacle Pines
6) We are focusing heavily on ensuring we disturb the site as little as possible and we are under 40% disturbance about 20% lower than most other projects in Flagstaff
7) We have a number of other environmental concepts to maintain the biggest trees on site, create a buffer from main roads to lesson visibility by our neighbors, and a number of other ways we are doing all that we can to protect the beauty of the land
7) Our dark sky ordinance and strict HOA guidelines are there to enforce strict rules to ensure this community achieves our long term goals.

Lastly, it's important to note that I myself plan to live here with my family and so selfishly I am very invested in HOW this community lives.

Given that you are unable to attend, I would welcome a phone call at your convenience.

I sincerely want to ensure our neighbors are informed and hear any concerning parties out.

Thanks for the comments, Anthony and Kathleen.

--
Best,
Tom Staub
CEO
Red Oak Development Group
Austin, TX 78702
m 717.856.0018
tom@redoakvc.com
Schedule a Call

Disclosure: The financial information provided is solely an estimate based on best estimates given the current market conditions and are not guaranteed. Always do your own due diligence.

Marc Toth

From: Ben Mejia <Ben.Mejia@flagstaffaz.gov>
Sent: Tuesday, October 15, 2024 4:13 PM
To: Pinehaven-zone
Subject: FW: Proposed Zoning Change Pine Haven Horizontal LLC

Forwarding this email for your record.

Thanks,

Ben Mejia, AICP
Senior Planner | Current Planning Section
City of Flagstaff | 211 W. Aspen Ave. | Flagstaff, AZ 86001
ben.mejia@flagstaffaz.gov | 928-213-2616

From: ANTHONY BRAU[redacted]
Sent: Monday, October 14, 2024 12:58 PM
To: Ben Mejia <Ben.Mejia@flagstaffaz.gov>
Subject: Proposed Zoning Change Pine Haven Horizontal LLC

You don't often get email from abrau@cox.net. Learn why this is important

Mr. Ben Mejia
Senior Planner City of Flagstaff

Dear Mr. Mejia:

I am writing to you regarding Pinehaven Condo Development (formerly Juniper Estates) and our objection to the City of Flagstaff changing zoning on a 13.82 acre site from RR Rural Residential to MR Medium Residential. Per information provided by the Developer, there will be a public hearing on October 17, 2024 regarding the change in zoning to the site. My wife and I are residents at the Pinnacle Pines condominium community which is adjacent to the proposed Pinehaven Condo Development, and we will be unable to attend to deliver our objections to the zoning change. I have a Masters Degree in Urban Planning from the University of Wisconsin-Milwaukee campus and have been a residential real estate appraiser for almost 30 years. The proximity of the site and proposed development of 83 condo units will have a direct impact on home values in Pinnacle Pines. The 13.82 acre site is heavily wooded and to destroy that environment is unconscionable!

Does Flagstaff really need another residential development? Currently there are a number of medium to high density residential developments existing and under construction along Lake Mary Road. The explosion of residential units in the Pine Canyon area currently has a negative impact on traffic in the area. As the number of residential units in the area increases, traffic along JW Powell Boulevard, Lone Tree Road, and Masonic Lane/Zuni Drive has increased exponentially. The site, which is located at the southeast corner of Lone Tree Road and Masonic Lane, will negatively impact the traffic along those two roadways. Both Lone Tree Road and Masonic Lane are narrow two lane unimproved (no curbs or gutters) roadways that will make travel a nightmare. Already traffic has increased on the major roadways in the area to the point that infrastructure is in dire need of improvement. Do we really need more residential units in the neighborhood to compound the traffic situation?

Perhaps the most objectionable and infuriating maneuver by developers is to purchase a site knowing that the site is zoned Rural Residential and then ask the City to change the zoning so that the developer may make a sizable profit at the expense of residents in the area. The 83 units will also have a negative impact on services…sewer and water, refuse collection, roadway improvements. Who has to pay for those services….those of us who live in the area…not the developer!

One other aspect of the development that is a negative for our community is 1st.. the noise associated with the construction of the development and 2nd.. the noise associated with the recreational facilities (clubhouse) proposed by the developer. Pinnacle Pines is a very quite community with common grounds being streets and sidewalks. There are no recreational facilities (pool, clubhouse, gym, etc) in the community.

In closing, please take our objections to the zoning change into consideration. I ask you the question…would you like to have such a development adjacent to your property? My guess is: NO.

Sincerely,

Anthony & Kathleen Brau
3091 S. Hannah Lane
Flagstaff, AZ 86005

Marc Toth

From: Chris Lucaire [redacted]
Sent: Thursday, October 17, 2024 6:26 PM
To: Pinehaven-zone
Subject: Horizontal llc 83 residential homes plus Clubhouse etc.

Dear mr. Toth!

We are absolutely AGAINST having that high a density in this neighborhood. 83 residential homes will bring 163 cars into the area! Unrest!
Traffic! All the builder.developers want to have is the most bang for the bucks so to speak, meaning whatever they can get out of the land use and is permitted by the City will be done. The City of course sides with the developers, why I never could figure this out. The other residential Areas around the development and its course what might happen to them bears little consequence to them. We are against the density Change!!!

CHRIS/CLAUDIA LUCAIRE
3191 S. MARRYVALE
FLAGSTAFF, AZ 86005

Marc Toth

From: Claudia Lucaire [redacted]
Sent: Friday, October 18, 2024 12:22 AM
To: Pinehaven-zone; ben.mejia@flagstaff.gov
Subject: Against Medium Density Housing

Engineering Team and Project Managers,

I am an owner of 2 residences that back to the new project and am shocked at the request to expand this small area to medium density housing. This saturation of 83 condominiums with only 1 car garages raises concern with parking on where other residents or visitors will be parking. Additionally I question what a fractional share ownership will be? Would this be for college students buying into fractional shares of a condominium, so the project becomes more of a mixed use or student housing development?

It is important to mention that our community strictly abides by the DarkSky Rules to reduce light pollution. Will this community be doing the same? We have also spent countless hours to become a Firewise community to protect our community and the forest, will you be doing the same ?

Claudia Lucaire
[redacted]

Marc Toth

From: Janet Leger [redacted]
Sent: Tuesday, October 15, 2024 11:22 AM
To: Pinehaven-zone
Subject: Questions on Pine Haven development

Hello,
Unfortunately I will not be able to attend the meeting on Thursday evening.

I have one comment and four questions:

Comment:
1. The style of the Pine Haven units is very stark and modern. It doesn't blend well with the style of homes in the surrounding area, in particular, Pinnacle Pines and Pine Canyon.

Questions:
1. Will something be done to address traffic at Zuni and Lone Tree? It is already difficult to turn left onto Lone Tree from Zuni. This development will add to traffic.
2. Will a sidewalk be build on the south side of Zuni between Masonic and Lone Tree?
3. How will parking be addressed? It looks like the units have only 1 car garages. We know most units will need space for 2 cars.
4. Will owners be allowed to rent out their units? (Short term rentals)

Thank you.

Janet Leger
[redacted]

Marc Toth

From: Judith Nordburg [redacted]
Sent: Thursday, October 17, 2024 6:19 PM
To: Pinehaven-zone
Subject: VPE# 22004 Notice of Neighborhood Meeting on Direct to Ordinance Zoning Map Amendment Pine Haven Comments/Questions

1. Understanding the nature of fractional share ownership and the momentum towards short term rentals nationally, will short term rentals (under 30 days) be allowed in the HOA Regulations? As a point of fact, one national source indicates that 43% of fractional share developments underway have short term rentals as a significant goal of ownership.

2. If short term rentals are allowed, how would a single garage and single driveway accommodate the typical short term rental group with multiple autos? Typically, "vacation mode" means multiple families or groups of non-related persons.

3. Reviewing Intent and Purpose of Zoning Chapter 10-02-005-0007.A., how will the development achieve "better separation of pedestrian and vehicular traffic"? The site plan shows no indication of that intent.

4. Also, under my Item 3, above, how will the development achieve "more efficient use of open space"? The open space appears to be an afterthought of leftover, not easily developable land that one would traverse the crowded streets to gain access (assuming there is street parking).

5. Reviewing 10-02-005-0007.E. OFF STREET PARKING, if only "minimum off-street parking shall be provided in accordance with Chapter 10-07 of this Ordinance" is required, how can my Item 2, above, be achieved?

Apologies for the late comments, but as a Pinnacle Pines homeowner, we only found out about this meeting today. Better communication for those neighboring communities would be appreciated.

Judith Nordburg

Marc Toth

From: Skip Allen [redacted]
Sent: Thursday, October 17, 2024 3:00 PM
To: Pinehaven-zone
Cc: 'Pinnacle Pines Community Association'
Subject: 2951 S. MASONIC LANE

Regarding the Pine Haven Development, please address the following concerns:

1. Traffic at the cross street of Zuni & Lone Tree Rd, are you putting a traffic signal for that intersection? If not, why not?
2. If a traffic study has been completed, please share the information.
3. A better and a more complete explanation of the parking requirements and the handling of parking during the winter.
4. For the Factual Ownership, how is the parking going to be controlled?
5. How is the “No Parking” on the S. Masonic Lane going to be controlled?

Regards,

Skip Allen

- Prior to 11/21/2024

Marc Toth

From: Michael Banker <michael.banker7@gmail.com>
Sent: Thursday, October 31, 2024 4:04 PM
To: Marc Toth
Subject: Pinehaven Questions

Marc,
I am a full-time resident in Pinnacle Pines and a former HOA Board member. I was on vacation in Santa Barbara during your initial meeting. I plan to attend the next meeting. In the meantime, I have a few comments for your consideration. I have listed them in no particular order of priority.

1. **Parking**—Parking is always a challenge. All of our units have two-car garages and, of course, driveway spaces for two cars. This accommodates both owner's vehicles and short-term renters for those properties that rent out to vacation groups. Your comment that even if rented, the parking proposed is adequate is unrealistic. Relying on the City's opinion or guidance is not wise. I have found the City to be "out of touch" with reality. I do understand that providing two garage spaces and the driveway space to accommodate two vehicles would dramatically impact your design. Just so you know, Pinnacle Pines streets are private, and we have a strict parking policy that is aggressively enforced. if any vehicle is found parked on our streets and is not an owner's vehicle or a renter's vehicle, it will be immediately towed. Parking on Masonic or Zuni that might impede emergency vehicle access to Pinnacle Pines will be aggressively reported to the City.
2. **Snow Removal** - I am sharing our experience here in Pinnacle Pines for your education and consideration. Snow removal is a huge issue, particularly when we have a heavy accumulation of snow. There are several issues. One is securing competent and reliable snow removal contractors. Most contractors do it as a winter side job. So their competence varies greatly. When they plow the streets, they have to have open areas to pile the snow. And the plowing typically produces snow berms in front of driveways. This puts an increased burden on the owner to clear the driveway. This typically leads to multiple complaints to the property manager or HOA.
3. **Short-Term Rentals** - I applaud your 180 Cap. However, I would like to see it at 90 days. In the worst case, a property could be rented out 50% of the time. Unfortunately, short-term rentals are here to stay despite significant pushback from citizens. The laws in Arizona very much favor STR owners. In the disclosure documents, you will most likely be providing to owners, I suggest you let them know that the City of Flagstaff has an ordinance that requires registration of STR properties. Certainly, your real estate agent should be disclosing this. As a point of interest, there are 2,500 STR known STR properties in the Flagstaff area, Of which 1,500 are in Flagstaff. Pinnacle Pines has 40 STR properties. We closely monitor properties being rented as STRs and report to the City any that are not registered.
4. **Noise and other nuisance issues** - The City has a fairly strict ordinance regarding these issues. We encourage our owners to immediately call the police if they are experiencing these issues. I have found the Flagstaff police to be very quick to respond.

Although you are planning for as minimal destruction of forest land as possible, forest land will be destroyed. There is no way to "put lipstick on this pig". it is what it is. In any case, I wish you great success with your endeavor. Fractional ownership is an innovative approach that I hope works. What we do not

need is a failed development going into bankruptcy and then going through years of efforts to find new ownership.

Respectfully,

--
Michael Banker
602-820-1372 Cell
michael.banker7@gmail.com

Marc Toth

From: claire wilkinson <mcw48@hotmail.com>
Sent: Tuesday, November 5, 2024 12:22 AM
To: Marc Toth
Subject: Response to your recent letter to Pinnacle Pines Community

November 1, 2024

Dear Mr. Toth,

After I attended your first neighborhood meeting in which you unveiled your development plans for the Masonic land adjacent to Pinnacle Plans, I gave all of this a great deal of thought. Although your presentation was very impressive, I have the following reservations about this project:

1. **Condominium Design**: My husband and I have traveled extensively during his military career and lived in neighborhoods in many locations around the United States. Although the condominiums are very nice looking, they look like something that belongs in an urban setting. They are very different from the type of construction more common in this more rural area, and just don't fit.

2. **Dark Sky Concerns**: During the meeting, the fact that Flagstaff is a Dark Skies Community was discussed. I am concerned that with glass fronts on these condominiums, we are going to have a lot of light from these condominiums at night. You stated that the glass would not be tinted, so how is the light going to be controlled? Is your HOA going to require window coverings? Pinnacle Pines does not allow excessive light in our neighborhood, so I do not want to have yours right next to me. It diminishes our beautiful night sky with all the constellations that can be seen.

3. **Bus Stops**: You mentioned that you are going to build two bus stops on Zuni, and assured the attendees at your meeting that those would not interfere with the traffic flow on Zuni. Since there are no pull out lanes planned for these bus stops, I beg to differ with you. Zuni is a two lane road and there is not enough room to pass, so traffic will be backed up when the buses stop to load or unload. I believe that a better location would be near the corner of Lone Tree and Zuni. There is room for a pull out area so that traffic would not be impeded. If one has to be built on Zuni, it would be better to have one on the side of Zuni, where a pull out area is more logical since the other side of Zuni has a ditch.

4. **Condominium ownership**: You mentioned that there is a strong possibility that there will be multiple owners for each condominium. Since we have experienced short term rentals in Pinnacle Pines, it is not a selling idea to have to deal with multiple owners in lieu of one owner when there is a problem unless you plan to have on site management.

5. **One Car Garage**: It is my experience in Pinnacle Pines that even a 2-car garage with enough room in the driveway for 2 additional cars is often not enough parking when people have visiting family, friends, or other guests. I believe that by building a 1-car garage in your condominiums, there will be a real parking problem in spite of the limited additional parking spaces you have planned. I would hate to see cars, legally or illegally, lined up on the sides of Masonic as we drive into our neighborhood. There are some years when we have a great deal of snow, which has left us with basically a one lane road and very high berms of snow on each side of our roads in Pinnacle Pines. The 170 feet plus of snow during the year before last would have covered your

additional parking spaces due to the fact that there would be no place else to put it. Our turn around on Masonic before entering our neighborhood usually has an enormous amount of snow in the center, which creates a circular entry to Pinnacle Pines there due to lack of a better alternative.

6. **Financial Concerns**: People like to protect their cars by parking in the garage. Do you really think that people are going to pay the price you are asking for a 1-car garage? Empire Homes went bankrupt after building most of Pinnacle Pines Stage 1, and then unfinished townhomes sat empty for an extended period of time. I would hate for your company to begin this project and then for it to sit due to lack of sales after you've cut trees and leveled the landscape. It would be a real eyesore, and extremely sad for humans and wildlife alike.

7. **Our Home**: My husband and I live here full time, as do many of our neighbors. We are retired and our home is not just a vacation get away for us. We love our forests, the wild flowers, the trails, and our wild life (namely, elk herds and deer). These are what brought us to Flagstaff, and are probably the type of things which attracted you to Flagstaff. We made Flagstaff our home because we really value all of this. Please reconsider what you want to build on this forest land, and how it will effect those who live here, and not just vacation here occasionally.

Thank you for your consideration. My email address is mcw48@hotmail.com should you wish to contact me.

Sincerely,

Claire Wilkinson

3117 S Salvestrin Lane

Flagstaff, AZ 86005

Marc Toth

From: mnortoncomm@gmail.com
Sent: Monday, November 18, 2024 5:08 PM
To: Marc Toth; tom@redoakvc.com
Subject: Pinehaven community comment

Hello Tom Staub and Marc Toth,

Thank you for the detailed report from the first community meeting, of which I was in attendance. I and my husband are owners & full-time residents at 969 Sterling near the entrance of Pinnacle Pines closest to your property. I have been involved with the HOA since moving here in late 2014 currently serving on two committees, and I am the Residential Leader for the Firewise USA program of which we spoke briefly about at the first community meeting. I am also retired from the homebuilding industry, having spent over 30 years in the southern California and Flagstaff markets.

As a neighboring community member, I wanted to express these concerns about the development:

1. I am against the Fractional Ownership option. Our community and Flagstaff is in need of housing for residents who wish to be part of our community more than ¼ of the time. And, fractional ownership coupled with loose rental allowances is not conducive to community or fulfilling the need of appropriate residential development in Flagstaff.
2. I am against the allowance of Short-Term Rentals and the looseness of allowing 180 annual days of rentals. In Arizona, a Short-Term Rental is defined as "a lodging rental stay of less than 30 days". **I encourage you to adopt that definition**. While your anticipated HOA rules of oversight on rentals and short term rentals is well-intended, I can tell you that we here in Pinnacle Pines HOA attempt the same and it is not only difficult but ineffective. Allowing 180 days of rentals could result in 60, 3-day rental intervals! **My recommendation would be to limit rentals to not less than a 30-day interval and not more than 180 days a year.**
3. In "Pinecone Park", you call for an architectural element of a very large/tall "pine cone". We find this to be obtrusive in scale, design and location as it is near the highest elevation of the site. It is both unnecessary and unnatural to add an artificial pine cone among the ponderosa pines that we Flagstaff residents hold dear. If you'd like to add elements to the park, my suggestion would be metal or teak benches for quiet reflection in the park or along your trails where appropriate.
4. I find the exterior architecture incompatible with the newer surrounding communities of Pinnacle Pines, and even beyond to Juniper Point and Pine Canyon. While mountain-modern is being seen among new developments, it is still tapered with elements of craftsman creating a more complimentary look for this area of Flagstaff. I would encourage you to make some revisions to your elevations.
5. As an additional comment on the architecture, the abundance of glass sliding doors will inevitably create light spill and sky glow in our dark skies. While the development is being held to dark sky standards, there is more that can be done to be a good neighbor in protection of our dark skies with regard to design, glass tinting, and included window coverings for glass doors.
6. This parcel (as well as a neighboring parcel) have long been rumored among our local developers to be undevelopable and difficult/expensive to develop due to the terrain such as slope and rock. Such elements are noted in your acknowledgement of the site's natural resources (and challenges). Your plan is to dig in to the slope & down 30'-35'. What will the retaining wall structure look like? Please provide details and drawings.
7. The Pinehaven marketing website (not the investor website for Red Oak) was to be updated, but is still offline. When will those updates be made? There are a few elements that were of additional concern represented in that first website iteration:
    a. Rooftop deck for the community center. Please confirm this element has been removed from the plans as mentioned at the first meeting.

b. There was a rendering of the monument signage/architectural art. It is my hope that element has also been removed from the plans as it is not consistent with Flagstaff neighborhoods, communities, or even master planned communities here.

8. In your presentation to our community, the Suburban Commercial piece was explained that it would likely be a gas station if left as is. I found this to be an unwelcome scare tactic. There are MANY allowable uses in the SC zone that could be appropriate for a parcel of this size that are in-line with Flagstaff desires such a recreational facility (rock gym, yoga studio, etc.), education such as a preschool or day care, a café, small retail, veterinarian office, etc.

Thank you for your time in taking these comments.

Mary & Jeff Norton

969 E. Sterling Lane

From: Claudia Lucaire
To: Ben Mejia
Subject: Re: Against Medium Density Housing
Date: Tuesday, November 12, 2024 1:08:01 PM

[You don't often get email from clucaire@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

This was the email that I had sent.

Claudia Lucaire
602.620.8009

> On Oct 17, 2024, at 9:22 PM, Claudia Lucaire <clucaire@gmail.com> wrote:
>
> Engineering Team and Project Managers,
>
> I am an owner of 2 residences that back to the new project and am shocked at the request to expand this small area to medium density housing. This saturation of 83 condominiums with only 1 car garages raises concern with parking on where other residents or visitors will be parking. Additionally I question what a fractional share ownership will be? Would this be for college students buying into fractional shares of a condominium, so the project becomes more of a mixed use or student housing development?
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> It is important to mention that our community strictly abides by the DarkSky Rules to reduce light pollution. Will this community be doing the same? We have also spent countless hours to become a Firewise community to protect our community and the forest, will you be doing the same ?
>
> Claudia Lucaire
> 602.620.8009

Outlook

Viewpoint Engineering

From TYLER HOWLAND <tshowland@cox.net>
Date Mon 7/14/2025 8:23 PM
To Ben Mejia <Ben.Mejia@flagstaffaz.gov>
Cc awebb@hoamco.com <awebb@hoamco.com>; Christy Lang <clang@hoamco.com>

You don't often get email from tshowland@cox.net. Learn why this is important

Hello Ben, my name is Tyler Howland and I have resided at 3298 S Hannah Lane in Flagstaff since April of 2018. I have a great concern with changing the residential property owned by RODG DT Pine Haven Horizontal LLC to "medium density residential" by adding 84 units into that space. While I concede that there may be physical space to build such suggested units however, the roads in and out of that space are ALREADY inadequate to the current traffic volume and much less the future volume by expansions in progress. Where does this traffic go. And you can't say that they will bike or walk as there is not one complete sidewalk on one side of either road at this intersection, down Zuni or Lone Tree. Very few people bike that now little lone walk it, usually its NAU track students running.
I strongly suggest that Rodg or the City come up with a plan to improve the traffic flow by Lura Kinsey Community School, which is already a current pinch point, soon to be worse with the completion and selling out of the individual home units north of JW Powel and East of Lone Tree on S Cottonrose lane area. Or simply leave the Zone designation as it is currently, Residential.

Thank you for your time,
Tyler Howland

SITE PLAN REVIEW

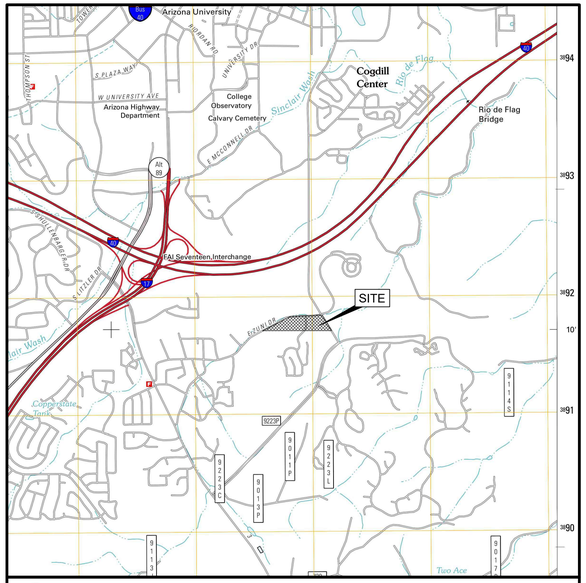
FOR

PINEHAVEN

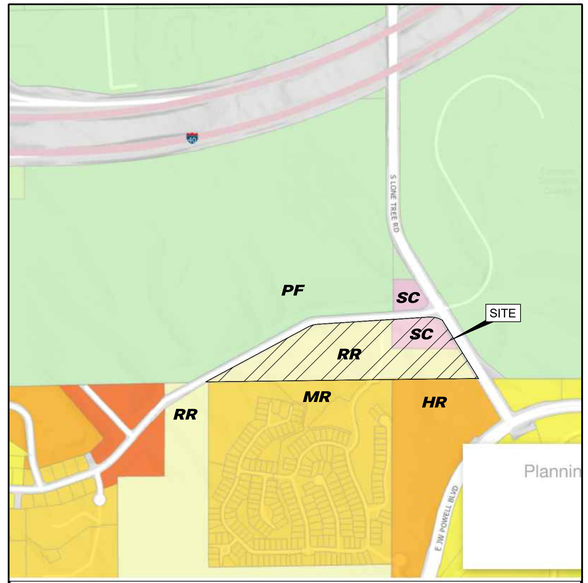
CONDOMINIUM DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA



AERIAL MAP
SCALE: 1" = 1000'
SCALE: 1" = 1000'
500 0 500 1000'



VICINITY MAP
SCALE: 1" = 5000'
SCALE: 1" = 5000'
2500 0 2500 5000'



ZONING MAP
SCALE: 1" = 5000'
SCALE: 1" = 5000'
2500 0 2500 5000'

SITE DATA

PLAN REFERENCE		
PLAN TITLE		**ALTA/NSPS LAND TITLE SURVEY**
		DATED: SEPT. 14, 2022
SURVEYOR		ARIZONA SURVEYING INC. 1843 W HEAVENLY CT FLAGSTAFF, AZ 86001 JOB NO: 22-42
OWNER of RECORD		
NAME		**FLAGSTAFF LODGE NO.7**
ADDRESS		2951 S MASONIC LANE FLAGSTAFF, AZ 86005
APPLICANT		
NAME		**RODG DT FLAGSTAFF PROP CO LLC**
ADDRESS		2121 EAST 6TH STREET, SUITE 203 AUSTIN, TX 78702
PARCEL DATA		
ADDRESS		E. ZUNI DRIVE & S. MASONIC LANE FLAGSTAFF, AZ 86001
TAX MAP NO/ PARCEL ID		APN: 103-26-002D
ZONING DATA		
ZONING DISTRICT	*EXISTING*	*RURAL RESIDENTIAL, SUBURBAN COMMERCIAL [RPOZ: RESOURCE PROTECTION OVERLY ZONE]*
	PROPOSED	MEDIUM DENSITY RESIDENTIAL (MR)
USE	*EXISTING*	*UNDEVELOPED*
	PROPOSED	RESIDENTIAL (PERMITTED)
STATEMENT OF INTENT		
THE APPLICANT IS PROPOSING TO DEVELOP THE SUBJECT PARCEL WITH TWO NEW ROADS, TOWNHOUSES AND ASSOCIATED SITE IMPROVEMENTS		

BULK REQUIREMENTS (MR)

REQUIREMENT		REQUIRED	EXISTING	PROPOSED
BUILDING REQUIREMENTS				
MINIMUM LOT AREA	(SF)	6,000	585,346	581,069 [2]
	(AC)	-	13.44	13.34
MINIMUM YARD SETBACKS				
FRONT YARD	(FT)	10	N/A	>10
FRONT YARD (above second floor)	(FT)	15		>15
SIDE YARD	(FT)	5		>5
REAR YARD	(FT)	15		>15
MAXIMUM IMPERVIOUS COVERAGE	(%)	40		39.7
	(SF)	-		230,613
MAXIMUM BUILDING COVERAGE	(%)	20		10.8
	(SF)	-		62,646
MAXIMUM BUILDING HEIGHT	(FT)	35		< 35
OPEN SPACE				
CIVIC SPACE	(%)	5	N/A	6.7 [1]
	(SF)	29,268 [1]		39,450
COMMON OPENS SPACE	(%)	15	N/A	15.0 [1]
	(SF)	87,802 [1]		87,981
MINIMUM / MAXIMUM DENSITY	(UNITS/AC)	6 / 9	N/A	6.18 [1]
	UNITS	81 / 120 [1]		**83**
1) BASED UPON EXISTING GROSS TRACT AREA				
2) NET LOT AREA: GROSS LOT AREA LESS RIGHT-OF-WAY DEDICATIONS ON ZUNI AND LONE LONETREE AS APPLICABLE. NOTE FINAL DIMENSIONS FOR R.O.W. DEDICATION TO BE DETERMINED DURING CIVIL PLAN REVIEW				

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LANDSCAPE PLANS prepared by THE WLB GROUP, INC. 500 N BEAVER ST, FLAGSTAFF, AZ 86001			
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IRRIGATION PLANS		L2.1, L2.2	
ALTA/NSPS LAND TITLE SURVEY 2951 S. MASONIC LANE, FLAGSTAFF, ARIZONA 86005 APN: 103-26-002D prepared by: ARIZONA SURVEYING, INC, 1843 W HEAVENLY CT, FLAGSTAFF, ARIZONA 86001		1 to 3 of 3	

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-26-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.org
LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

PROFESSIONAL ENGINEER SIGNATURE BLOCK
STATE OF ARIZONA
COUNTY OF COCOCINO:

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN TO THIS PLAT TO THE MATTERS OF STREETS, LOTS, AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS AND THAT THIS PLAT IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ERIC S. BEALS, P.E.
ARIZONA REGISTRATION NO. **77934**; EXPIRATION: **3/31/2026**
VIEWPOINT ENGINEERING
2121 E 6TH STREET, SUITE 203
AUSTIN, TEXAS 78702

SURVEYOR SIGNATURE BLOCK
STATE OF ARIZONA
COUNTY OF COCOCINO

I, _____, A REGISTERED PROFESSIONAL LAND SURVERYOR IN THE STATE OF ARIZONA, INDICATE TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PLAT IS TRUE AND CORRECT, CONFORMS TO THE MINIMUM STANDARDS SET FORTH BY THE ARIZONA BOARD OF PROFESSIONAL LAND SURVEYORS, AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE ON THE GROUND, UNDER MY SUPERVISION.

>>name<<
REGISTERED PROFESSIONAL LAND SURVEYOR NO. **6503**
ARIZONA SURVEYING, INC
1843 W. HEAVENLY CT
FLAGSTAFF, AZ 86001

OWNER SIGNATURE BLOCK
I (WE) THE UNDERSIGNED OWNER(S) OF THE LAND SHOWN ON THE PLAT, AND DESIGNATED HEREIN AS **WILLOW CREEK** SUBDIVISION, GUADALUPE COUNTY, TEXAS, AND WHOSE NAME IS SUBSCRIBED HERETO, DO HEREBY SUBDIVIDE SUCH PROPERTY AND DEDICATE TO THE USE OF THE PUBLIC ALL STREETS, ALLEYS, PARKS, WATERCOURCES DRAINS, EASEMENTS, AND PUBLIC PLACES FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER/AGENT: THOMAS STAUB _____ DATE
RODG ASPIRE SEGUIN 2 PROP, LLC
2121 E 6TH STREET, SUITE 203
AUSTIN, TX 78702

NOTARY SIGNATURE BLOCK
STATE OF ARIZONA:
COUNTY OF COCOCINO:

BEFORE ME THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FORGOING CERTIFICATION, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES OF CONSIDERATIONS THEREIN EXPRESSED AND CAPACITY THEREIN STATED. GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____ 20_____ AD.

NOTARY SIGNATURE\
MY COMMISSION EXPIRES _____

CITY ENGINEER APPROVAL:
DATA ON THIS PLAT REVIEWED AND APPROVED THIS _____DAY OF_____ 20____
BY CITY ENGINEER OF THE CITY OF FLAGSTAFF ARIZONA

CITY ENGINEER _____ DATE

FINAL PLAT SIGNATURE BLOCK:
APPROVED BY THE ZONING AND PLANNING COMMISSION ON THIS _____DAY OF _____ 20____. THIS PLAT IS HEREBY APPROVED BY THE ZONING PLANNING COMMISSION OF THE CITY OF FLAGSTAFF ARIZONA, OR ITS AGENT IN TESTIMONY WHERE OF WITNESS OF THE OFFICIAL SIGNATURE.

CHAIRPERSON _____ DATE

RECORDER _____ DATE

DIRECTOR OF PLANNING _____ DATE

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
COVER SHEET

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID CVR
REV 4
SHEET 1 of 46

S:\2022\22004 PLAN\DWG\ [C100_OVERALL SITE PLAN.dwg]Layout: CVR

GENERAL NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND DRAWINGS OF THE CITY, COUNTY AND/OR AZDOT (AS WELL AS THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)).
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES TO LOCATE EXISTING FACILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION CONFERENCE WITH PERMITTING AUTHORITY, CONSULTING ENGINEER, CONTRACTOR(S), UTILITY COMPANIES AND ANY OTHER AFFECTED PARTIES.
5. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE.
6. NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS AS MAYBE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC, SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND MAINTAINED AT ALL TIMES (24 HRS. PER DAY) DURING THE CONSTRUCTION PROCESS.
7. THE INFORMATION CONTAINED ON THESE DRAWINGS IN REGARDS TO EXISTING UTILITIES, TOPOGRAPHY, CONTOURS, HYDROGRAPHY, OR SUBSURFACE CONDITIONS IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AT THIS TIME. ITS ACCURACY IS NOT GUARANTEED AND ITS USE IN NO WAY RELIEVES THE CONTRACTOR OF ANY RESPONSIBILITY FOR DAMAGES DUE TO ANY INACCURACIES.
8. THE LOCATION AND ELEVATION OF IMPROVEMENTS TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO THE CONSTRUCTION OF THE WORK. THE CONTRACTOR IS TO MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL THE NECESSARY ARRANGEMENTS WITH THE RESPECTIVE UTILITY COMPANIES. GRAVITY LINE CONSTRUCTION IS REQUIRED TO BE VERIFIED AT CONNECTION POINT THEN BUILD UPSTREAM.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING FACILITIES FROM DAMAGE AND COST OF REPAIR TO EXISTING FACILITIES AND IMPROVEMENTS AS A RESULT OF CONTRACTOR'S WORK. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OFFICES PRIOR TO STARTING WORK AND SHALL COORDINATE THEIR WORK WITH THE UTILITY OFFICES.
10. DURING CONSTRUCTION, THE OWNER WILL PROVIDE A GEOTECHNICAL LAB TO PERFORM MATERIALS TESTING DURING THE CONSTRUCTION. RETESTS REQUIRED DUE TO CONTRACTOR PERFORMANCE SHALL BE PAID FOR BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL KEEP AND LEAVE THE AREA NEAT AND CLEAN DURING CONSTRUCTION. DEBRIS SHALL NOT BE BURIED OR DUMPED ANYWHERE WITHIN THE LIMITS OF THE PROJECT. ALL DEBRIS, CONSTRUCTION MATERIALS, CONTRACTOR'S BUILDINGS OR EQUIPMENT, LOGS, STUMPS, BOULDERS, OR ANY OTHER EXTRANEOUS MATERIAL DEPOSITED DURING CONSTRUCTION SHALL BE DISPOSED OFFSITE PROMPTLY IN COMPLIANCE WITH APPLICABLE REGULATIONS.
12. ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
13. ALL UNDERGROUND FACILITIES SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO THE CONSTRUCTION OF SURFACE IMPROVEMENTS, SUCH AS SIDEWALKS, CURBS, GUTTERS AND PAVING.
14. ALL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED SURVEYOR AND PAID FOR BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL KEEP THE APPROVED SET OF PLANS ON SITE AT ALL TIMES. THE CONTRACTOR SHALL REDLINE THE ACTUAL LOCATIONS AND DIMENSIONS (VERTICAL AND HORIZONTAL) OF UTILITIES, STRUCTURES, SERVICES, AND OTHER DETAILS DEFERRING FROM OR NOT SHOWN ON THE ORIGINAL DRAWINGS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT THE RECORD DRAWINGS TO THE ENGINEER OF RECORD.
16. THE CONTRACTOR SHALL RESTORE AND REVEGETATE ALL DISTURBED AREAS NOT COVERED BY LANDSCAPE PLANS AT THEIR EXPENSE.
17. CONTRACTOR SHALL MAKE REQUIRED SUBMITTALS AT LEAST 14 DAYS PRIOR TO USE.
18. IF THE CONTRACTOR INTENDS TO HAVE FUEL TANKS STORED ON THE PROJECT SITE AT ANY TIME, THE CONTRACTOR WILL NEED TO PROVIDE THE OWNER AND ENGINEER WITH A COPY OF THEIR "SPILL PREVENTION, CONTROL AND COUNTERMEASURE" (SPCC) PLAN MEETING THE REQUIREMENTS OF TITLE 40, CODE OF FEDERAL REGULATIONS, PART 112 AS GOVERNED BY THE USEPA. THIS IS A CONTRACTOR PROVIDED ITEM.

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA 811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

PAVEMENT NOTES

1. DESIGN MIX SUBMITTALS SHALL BE PROVIDED FOR REVIEW AT LEAST 14 DAYS PRIOR TO PLACEMENT.
2. DO NOT UNLOAD OR USE ANY HEAVY CONSTRUCTION EQUIPMENT ON NEW CONCRETE FOR AT LEAST 7 DAYS AFTER CONCRETE IS POURED.
3. JOINTS SHALL BE PLACED IN ANY PROPOSED CONCRETE PAVEMENT AND CURBING AS RECOMMENDED IN THE GEOTECHNICAL STUDY FOR THIS SITE OR JOINT LAYOUT AND DESIGN SHALL CONFORM TO THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) TECHNICAL PUBLICATION 150 61.01P, TABLE Z AND FIGURE 13.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK SUCH THAT UTILITIES ARE INSTALLED PRIOR TO PAVEMENT BASE BEING INSTALLED OR ELSE LOCATE AND PLACE LINES FOR PROPOSED UNDERGROUND UTILITIES.
5. ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ACI 330. FLY ASH CAN BE USED IN MIX DESIGNS WHERE SUITABLE.
6. ALL CONCRETE PAVING AND FLATWORK SHALL BE CURED IN CONFORMANCE WITH AMERICAN CONCRETE PAVEMENT ASSOCIATION GUIDELINES.
7. ALL REPORTS AND SUPPLEMENTAL LETTERS OR AMENDMENTS FROM GEOTECHNICAL ENGINEER. MUST BE REVIEWED AND ADHERED TO.
8. AN EXISTING SLAB MAY BE LEFT IN PLACE, WHEN GRADES ALLOW, PROVIDED THE FOLLOWING OCCURS WITH REGARDS TO PAVEMENT PERFORMANCE:
   - 8.1. IF FILL THICKNESS BETWEEN THE TOP OF SLAB AND BOTTOM OF PAVEMENT BASE IS AT LEAST 2 FEET, SLAB MAY BE LEFT AS IS WITH NO SPECIAL PREPARATION.
   - 8.2. IF FILL THICKNESS BETWEEN TOP OF SLAB AND BOTTOM OF PAVEMENT BASE IS LESS THAN 2 FEET, SLAB MAY BE LEFT IN PLACE PROVIDED A STRIP OF GEOGRID (TENSAR BX 1100) AND 6 INCHES OF GRANULAR BASE ARE PLACED IMMEDIATELY ABOVE THE EDGE OF THE SLAB THAT IS LEFT IN PLACE. CENTER THE GRID OVER THE EDGE OF THE LAB. ADD WIDTH OF GRID STRIP SHOULD BE SAME AS STANDARD ROLL. THE SLAB SHALL BE SAW CUT AND REMOVED IN AREAS WHERE THE ABOVE CANNOT BE ACHIEVED.
9. WHEN GRADES PERMIT, NEW BASE CAN BE PLACED DIRECTLY ON TOP OF THE EXISTING ASPHALT PAVEMENT. IN MOST CASES IN AREAS TO BE COVERED WITH FILL, NO NEED TO REMOVE EXISTING ASPHALT PAVEMENT. THE ASPHALT SURFACE SHALL BE "LIGHTLY SCARIFIED" OR "ROUGHENED" TO HELP PROMOTE BOND WITH FILL. THIS SHOULD BE DONE WITH EITHER A SHEEPSFOOT ROLLER OR SCARIFYING TEETH ON A MAINTAINER. DISCUSS THIS ISSUE WITH GEOTECHNICAL ENGINEER PRIOR TO STARTING. IT MAY BE PRUDENT NOT TO DAMAGE THE EXISTING ASPHALT PAVEMENT BY "SCARIFICATION" AND/OR "ROUGHENING".
10. ASPHALT CRACKS EQUAL TO OR LARGER THAN 1/16" SHALL BE REPAIRED BASED ON GEOTECHNICAL ENGINEER'S RECOMMENDATIONS PRIOR TO OVERLAY INSTALLATION.

HOT MIX ASPHALT CONCRETE PAVING

PROVIDE NECESSARY LABOR AND MATERIALS TO INSTALL THE HOT MIX ASPHALT PAVING SHOWN ON THE PLANS, GEOTECHNICAL REPORT AND IN THE PAVEMENT DESIGN DETAILS. THIS INCLUDES THE SUBGRADE PREPARATION, AGGREGATE, ASPHALT MATERIALS, MINERAL FILLER, PRIME COAT, TACK COAT AND FINAL ASPHALT PAVING SURFACE.

ALL ASPHALT MUST MEET A RETAINED STRENGTH OF AT LEAST 70% ON THE TXDOT 531-C TEST OR HAVE ALL LIMESTONE AGGREGATE. IF SILICEOUS AGGREGATES (WHICH INCLUDE GRAVEL, CRUSHED GRAVEL OR GRANITE) ARE USED, ADD HYDRATED LIME (AT LEAST 1%) OR ANTI-STRIP AGENT TO THE MIX TO MEET THE RETAINED STRENGTH REQUIREMENTS. THE MIXTURE MUST BE DESIGNED FOR 97% OF OPTIMUM LABORATORY DENSITY. ASPHALT GRADE SHALL BE PG 64-22.

EXECUTION:

1. START OF THIS WORK ITEM INDICATES ACCEPTANCE BY THE CONTRACTOR OF THE SUBGRADE PREPARATION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE FINAL RESULTS.
2. CONTRACTOR SHALL ESTABLISH AND MAINTAIN REFERENCE POINTS TO HOLD PROPER ELEVATIONS AND GRADES. ALL PAVEMENT SHOULD BE WITHIN 0.5 INCH OF PROPOSED GRADES.
   - 2.1. UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, MATERIALS AND INSTALLATION OF SUCH SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE ARIZONA DEPARTMENT OF TRANSPORTATION 2021 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION:
   - 2.2. SECTION 303 - AGGREGATE BASE AND SUBBASE.
   - 2.3. SCETION 340 - HOT MIX ASPHALTIC CONCRETE PAVEMENT.
3. IN PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
   - 3.1. HMAC SURFACE COURSE: 1/4", PLUS OR MINUS
   - 3.2. SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS, USING 10' STRAIGHTEDGE APPLIES PARALLEL WITH AND AT RIGHT ANGLES TO CENTERLINE OF PAVED AREA. SURFACE SMOOTHNESS WILL NOT BE ACCEPTABLE IF THE WEARING COURSE SURFACE EXCEEDING 3/16".
4. THE INITIAL QUALITY CONTROL TESTING SHALL BE PERFORMED AT THE OWNER'S COST. ANY NECESSARY REPAIRS OR REPLACEMENTS, ALONG WITH ADDITIONAL TESTING, SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH OWNER'S STANDARD SPECIFICATION FOR MATERIAL TESTING.
5. CONTRACTOR SHALL ENSURE THE FOLLOWING:
6. TESTING LAB TO VERIFY THICKNESS OF BASE MATERIAL INSTALLED.
7. VERIFY APPROVED MIX DESIGN MATCHES DELIVERY TICKETS IN FIELD.
8. RECORD ARRIVAL TIMES OF TRUCKS AND MIX TEMPERATURE UPON ARRIVAL. RECORD LIST OF EQUIPMENT USED TO LAY AND COMPACT ASPHALT.
9. RECORD AIR TEMPERATURE & MIX TEMPERATURE AT TIME OF LAYDOWN.
10. GEO-TECH ENGINEER OF RECORD TO MAKE MIN. OF THREE SITE VISITS.
11. ASPHALT JOB MIX FORMULA APPROVED IN ADVANCE (WITH ACCOMPANYING LAB TEST DATA) MINIMUM 14 DAYS PRIOR TO PAVING. THIS INCLUDES VERIFYING THE AGGREGATE MEETS ITEM 340 REQUIREMENTS AND ALL OTHER SPECIFICATIONS REQUIREMENTS.
12. HMAC SURFACE COURSE SHALL BE ORIENTED SUCH THAT JOINTS OR SEAMS ARE PARALLEL WITH THE DIRECTION OF TRAFFIC.

PORTLAND CEMENT CONCRETE PAVING

FURNISH AND INSTALL THE PORTLAND CEMENT CONCRETE PAVING AND PREPARED BASE COURSE TO THE EXTENT SHOWN ON THE DRAWINGS. THESE AREAS INCLUDE CURBS, GUTTERS, WALKS AND PAVING AGGREGATE.

EXECUTION:

1. ALL CONCRETE ITEMS SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE DIVISION 3 SECTIONS FOR CONCRETE MIX DESIGN, SAMPLING AND TESTING, CURING AND QUALITY CONTROL, AND AS HEREIN SPECIFIED.
2. UNLESS OTHERWISE SHOWN ON THE PLANS, RECOMMENDED BY THE GEOTECHNICAL ENGINEER OR APPROVED BY THE ENGINEER, CONCRETE AREAS SHALL COMPLY WITH THE FOLLOWING ITEMS WITHIN THE ARIZONA DEPARTMENT OF TRANSPORTATIONS 2021 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION:
   - 2.1. SECTION 303 - AGGREGATE SUBBASES AND AGGREGATE BASES
   - 2.2. SECTION 401 - CONCRETE PAVING
   - 2.3. SECTION 1006 - PORTLAND CEMENT CONCRETE
   - 2.4. SECTION 908 - CONCRETE CURBS, GUTTER, SIDEWALKS AND DRIVEWAYS
3. UNLESS OTHERWISE SHOWN ON THE PLANS OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER, DESIGN MIX SHALL PRODUCE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
   - 3.1. COMPRESSIVE STRENGTH: (4000 PSI FOR PAVEMENTS AND 3000 PSI FOR ALL OTHER FLATWORK, MINIMUM AT 28 DAYS.)
   - 3.2. SLUMP RANGE: 4" TO 6"
   - 3.3. AIR CONTENT: 3 TO 5%
4. FORMS WILL BE SET TO GRADE LINES WITHIN THE FOLLOWING TOLERANCES:
5. TOP OF FORMS NOT MORE THAN 1/8" IN 10'.
6. VERTICAL FACE ON LONGITUDINAL AXIS, NOT MORE THAN 1/4" IN 10'.
7. LOCATE, PLACE AND SUPPORT REINFORCEMENT AS SPECIFIED IN THE GEOTECHNICAL REPORT AND IN COMPLIANCE WITH TXDOT ITEM 440.
8. PRE-POUR INSPECTION BY THE GEOTECH LAB IS REQUIRED PRIOR TO FINAL PLACEMENT OF CONCRETE.
9. AUTOMATIC MACHINE MAY BE USED FOR CURB AND GUTTER PLACEMENT. IF MACHINE PLACEMENT IS USED, CONTRACTOR SHALL SUBMIT REVISED MIX DESIGN AND LABORATORY TEST RESULTS THAT MEET OR EXCEED MINIMUMS SPECIFIED. MACHINE PLACED CURBS MUST MEET THE CROSS SECTION, LINES, GRADES, FINISH AND JOINTING SPECIFIED, OR SHALL BE REMOVED AND REPLACED WITH FORMED CONCRETE AS SPECIFIED.
10. AFTER COMPLETION OF FLOATING AND TROWELING WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, BROOM FINISH BY DRAWING A FINE-HAIR BROOM ACROSS
11. CONCRETE SURFACE PERPENDICULAR TO THE LINE OF TRAFFIC. REPEAT OPERATION IF REQUIRED TO PROVIDE A TEXTURE ACCEPTABLE TO THE OWNER OR DESIGNATED REPRESENTATIVE.
12. CONTRACTOR SHALL PROTECT CONCRETE FROM DAMAGE UNTIL ACCEPTANCE OF WORK.
13. VEHICULAR TRAFFIC SHALL BE PROHIBITED FOR AT LEAST 7 DAYS AFTER PLACEMENT.
14. BROKEN OR DEFECTIVE CONCRETE WILL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER.
15. DRILL TEST CORES WHERE DIRECTED BY THE ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. TESTING WILL BE IN ACCORDANCE WITH THE MATERIAL TESTING SPECIFICATION.
16. CONCRETE PAVED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR SUCH THAT AT FINAL INSPECTION, CONCRETE SHALL BE FREE OF STAINS, DISCOLORATIONS, DIRT AND OTHER FOREIGN MATERIAL.

EARTHWORK

PREPARE SUBGRADE BY EXCAVATION OR EMBANKMENT FOR BUILDING SLABS, WALKS AND PAVEMENTS. EXCAVATION AND BACKFILL FOR UNDERGROUND UTILITIES AND DRAINAGE FILL COURSE FOR SUPPORT OF BUILDING SLABS ARE INCLUDED IN THIS ITEM.

EXECUTION:

1. ALL EXCAVATION, BACKFILL AND COMPACTION SHALL BE PERFORMED AS SHOWN IN THE PLANS AND GEOTECHNICAL REPORT FOR THE SITE.
2. EXCESS MATERIAL RESULTING FROM EXCAVATION OPERATIONS IS THE PROPERTY OF THE CONTRACTOR. APPROPRIATE DISPOSAL SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. ALL EXCAVATION SHALL BE PERFORMED AS DIRECTED IN THE PLANS AND IN COMPLIANCE WITH OSHA STANDARDS.
4. OWNER WILL ENGAGE AT THE OWNER'S COST SOIL TESTING AND INSPECTION SERVICE IN ACCORDANCE WITH MATERIAL TESTING SPECIFICATION TO VERIFY COMPLIANCE WITH THE PLANS & SPECIFICATIONS. REPLACEMENT AND RETESTING OF DEFICIENT WORK SHALL BE DONE BY CONTRACTOR AT NO ADDITIONAL COMPENSATION.
5. DATA ON SUBSURFACE CONDITIONS IS AVAILABLE TO THE CONTRACTOR. THE OWNER MAKES NO WARRANTY AS TO THE CORRECTNESS OF THESE REPORTS. THE CONTRACTOR MAY, AT HIS OWN EXPENSE, PERFORM ADDITIONAL TEST BORINGS.
6. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL AFFECTED UTILITY COMPANIES. THIS SHALL INCLUDE LOCATION OF FACILITIES, PROTECTION DURING CONSTRUCTION, DAMAGE REPAIRS AND DISRUPTION OF SERVICE.
7. THE EXCAVATION IS UNCLASSIFIED, AND CONTRACTOR SHALL PERFORM EXCAVATION TO THE ELEVATIONS INDICATED IN THE PLANS, REGARDLESS OF CHARACTER OF MATERIAL, WITH NO ADDITIONAL COMPENSATION FROM THE OWNER. USE OF EXPLOSIVE IS PROHIBITED.
8. CONTRACTOR IS RESPONSIBLE FOR PROVIDING BARRICADES REQUIRED TO WARN AND/OR PREVENT ACCESS TO CONSTRUCTION AREA.
9. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT FACILITIES FROM DAMAGE.
10. EARTHWORK SHALL BE PERFORMED IN COMPLIANCE WITH LANDSCAPE PROTECTION REQUIREMENTS.
11. OVER-EXCAVATION IS NON-COMPENSABLE, AND SHALL BE BACKFILLED AND COMPACTED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR SHALL PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO PROPERLY DEWATER EXCAVATION AREAS - AS REQUIRED.
13. EXCAVATED MATERIAL SHALL BE STOCKPILED WHERE DIRECTED IN THE PLANS. STOCKPILE SHALL BE MAINTAINED IN COMPLIANCE WITH ALL RELEVANT POLLUTION PREVENTION PLANS.
14. EARTHWORK SHALL BE PERFORMED TO THE TOLERANCES SHOWN IN THE PLANS AND/OR SPECIFIED IN THE GEOTECHNICAL REPORT FOR THE PROJECT.
15. TRENCHES SHALL BE BACKFILLED ONLY AFTER INSPECTION AND APPROVAL OF THE TESTING LAB. BACKFILL MATERIAL AND PROCEDURES FOR TRENCHES SHALL BE IN COMPLIANCE WITH THE ARIZONA DEPARTMENT OF TRANSPORTATION 2021 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 203-5 STRUCTURAL EXCAVATION AND STRUCTURE BACKFILL.

WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS

FURNISH AND INSTALL THE FIRE LINE, DOMESTIC WATER LINE AND WASTEWATER COLLECTION SYSTEM AND ALL RELATED APPURTENANCES FROM THE PUBLIC MAIN TO THE BUILDING PAD(S) AS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO ALL PIPING, FITTINGS, VAULTS, VALVES, METERS, MANHOLES AND JUNCTION BOXES REQUIRED.

EXECUTION:

1. INSTALLATION OF WASTEWATER LINES SHALL BEGIN AT THE TAP TO THE PUBLIC WASTEWATER SYSTEM AND PROGRESS UPSTREAM. WATER AND WASTEWATER LINES SHALL BE EXTENDED TO SERVICE ENTRANCE INTO BUILDING(S). CONTRACTOR SHALL PROVIDE A WATERTIGHT SLEEVE IN FOUNDATION FOR WATER LINE.
2. CONTRACTOR IS RESPONSIBLE FOR TAP AT PUBLIC MAIN AND ALL LINES, FITTINGS AND APPURTENANCES SHOWN ON PLANS OR REQUIRED BY THE LOCAL UTILITY COMPANY.
3. ALL MATERIALS, INSTALLATION, INSPECTION AND TESTING OF WATER METER AND RELATED PIPING AND APPURTENANCES SHALL CONFORM TO UPC STANDARDS, AWWA STANDARDS, TCEQ STANDARDS, AND THE APPLICABLE LOCAL UTILITY COMPANY REGULATIONS. ALL MATERIALS AND INSTALLATIONS REQUIRED FOR FIRE PROTECTION SHALL MEET FACTORY MUTUAL GLOBAL STANDARDS.
4. TRENCH EXCAVATION SHALL BE PERFORMED AND BACKFILL MATERIAL AND PROCEDURES SHALL BE IN COMPLIANCE WITH THE ARIZONA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES.

STORM WATER COLLECTION SYSTEM

FURNISH AND INSTALL ALL MATERIAL COMPRISING THE STORM WATER COLLECTION SYSTEM SHOWN ON THE PLANS.

EXECUTION

1. ALL WORK UNDER THIS ITEM SHALL BE IN COMPLIANCE WITH ANY GOVERNING PERMITS FOR THIS SITE INCLUDING BUT NOT LIMITED TO FEDERAL TPDES PERMITS OR LOCAL WATERWAY OR SITE DEVELOPMENT PERMITS.
2. ALL MATERIALS AND INSTALLATION OF STORM SEWER PIPING SHALL COMPLY WITH THE FOLLOWING ARIZONA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES.
3. INSTALLATION OF THE STORM SEWER SYSTEM SHALL BEGIN AT THE OUTFALL AND PROGRESS UPSTREAM.
4. ANY WORK DONE IN THE PUBLIC RIGHT OF WAY WILL BE COMPLETED ACCORDING TO GOVERNING SPECIFICATIONS AND REGULATIONS.
5. TRENCH EXCAVATION SHALL BE PERFORMED AND BACKFILL MATERIAL AND PROCEDURES SHALL BE IN COMPLIANCE WITH THE ARIZONA DEPARTMENT OF TRANSPORTATION 2021 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 203-5 STRUCTURAL EXCAVATION AND STRUCTURE BACKFILL.

STORM SEWER NOTES

1. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. (SEE SITE INFORMATION SHEET FOR UTILITY CONTACTS)
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.
3. CONTRACTOR IS RESPONSIBLE TO COMPLETE OR COORDINATE ADJUSTMENT OF OTHER UTILITIES IN ORDER TO CONSTRUCT STORM SEWER TO ELEVATIONS PROVIDED.
4. THE FOLLOWING STORM SEWER PIPES ARE ALLOWABLE:
   - 4.1. 2" THRU 48" RCP, D-LOAD DESIGN
   - 4.2. 6" THRU 12" PVC, SDR 35 OR SCH. 40
   - 4.3. 12" THRU 18" GALVANIZED CORRUGATED METAL (2-2/3"X 1/2" CORRUGATED) (N= 0.013 MAX.)
   - 4.4. 12" THRU 48" "ULTRAFLO" SPIRAL RIB PIPE (AASHTO M-36 TYPE I.R. WITH GALVANIZED STEEL AS PER AASHTO M-218)
   - 4.5. 6" THRU 36", HDPE
5. ALL SLOPES STEEPER THAN 3:1 SHALL BE OVERLAID WITH GEOWEB 8204, 4" CELLULAR CONFINEMENT SYSTEM. SUPAC 6NP WILL BE PLACED UNDER GEOWEB AND SYSTEM ANCHORED PER MANUFACTURERS RECOMMENDATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AND GRADED TO DRAIN.

REVISIONS

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Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
DATE SIGNED 5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
GENERAL NOTES

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID **C001** REV **4**

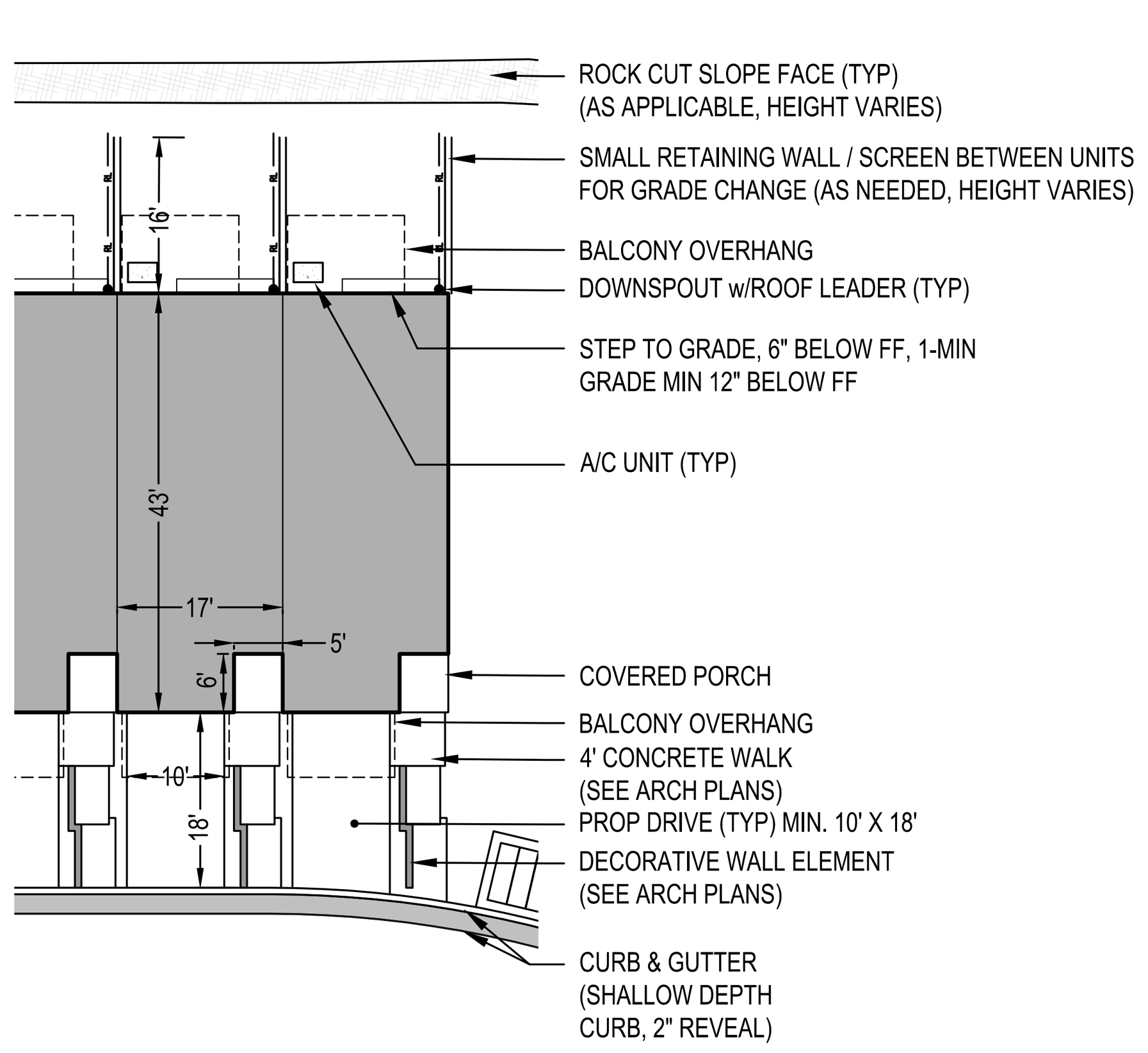
V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 COVER

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- *FENCE LINE*
- *EDGE OF ASPHALT*
- *EDGE OF DIRT/GRAVEL*
- S — *EX. SANITARY SEWER MAIN*
- ST — *EX STORM PIPE*
- E — *EX. UNDERGROUND ELECTRIC SERVICE LINE*
- OH — *EX. OVERHEAD WIRE*
- G — *EX. GAS SERVICE MAIN*
- T — *EX TELEPHONE/COMMUNICATIONS LINE*
- W — *EX WATER MAIN*
- 6985 — *EX CONTOUR ELEVATION LINE*
- 8"W — PROP 8" WATER MAIN
- 8"W — PROP 8" WATER MAIN
- L — PROP SAN LATERAL
- SS — PROP SAN SEWER MAIN
- 8"W — PROPERTY MONUMENT FOUND

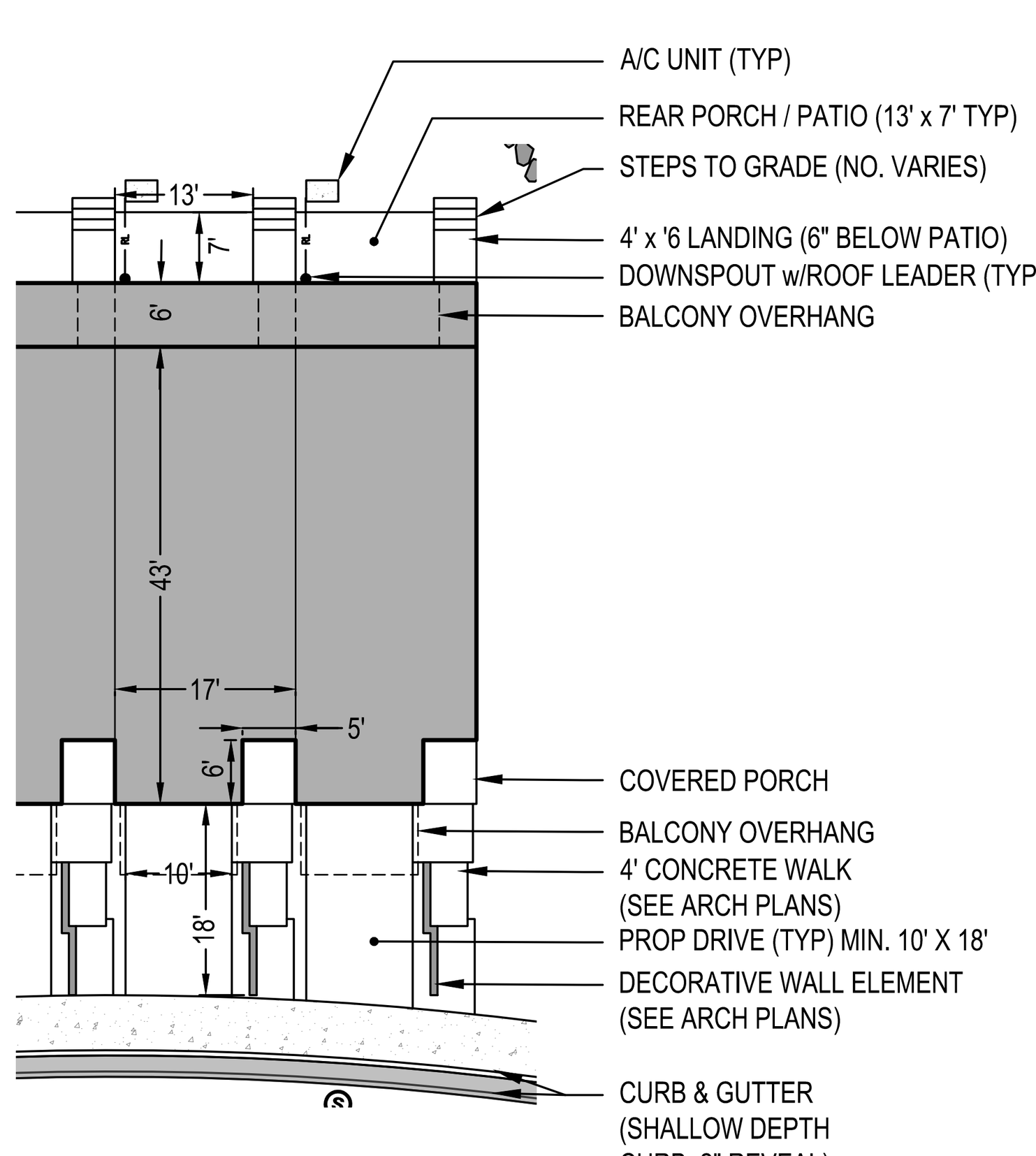
SYMBOL LEGEND

- SD — *EX. STORM CATCH BASIN / MANHOLE*
- W — *EX. WATER VALVE*
- *EX. FIRE HYDRANT*
- T — *EX TELECOMM BOX*
- S — *EX. SANITARY MANHOLE*
- *EX UTILITY POLE w/GUY ANCHOR*
- E — *EX. ELECTRIC BOX*
- *EX. LIGHT POLE*
- *EX. BOLLARD*
- G GAS — *EX. GAS VALVE / LINE MARKER*
- *EX. SIGN*
- *EX. CONCRETE PAVEMENT*
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- PINE, OAK, DECID. — *EX. TREES*
- PROP FIRE HYDRANT
- PROP WATER VALVE
- PROP LIGHT POLE



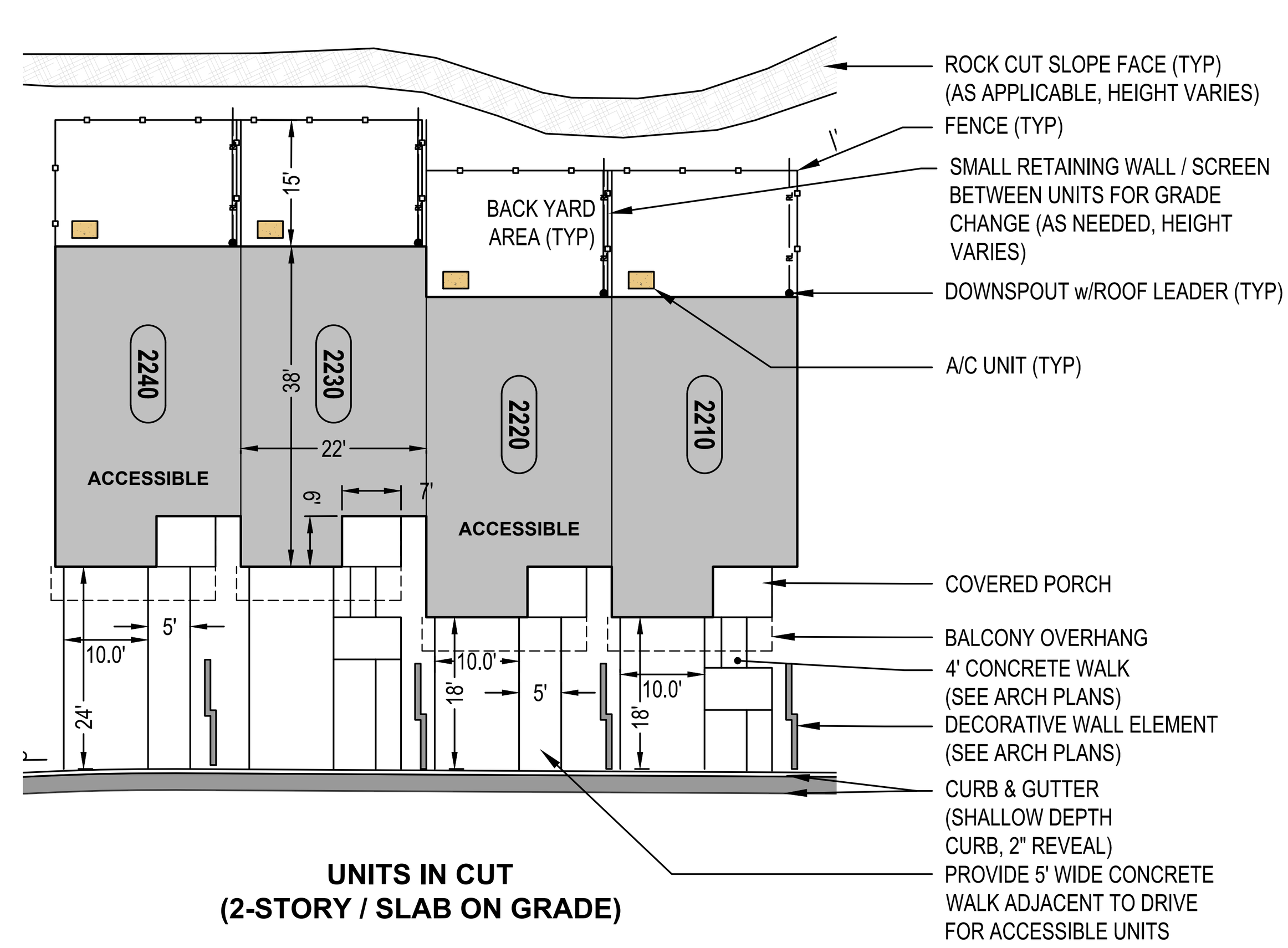
UNITS IN CUT
(3-STORY / SLAB ON GRADE)

PONDEROSA UNIT
NOT TO SCALE



UNITS IN FILL
(2-STORY FRONT / 3-STORY REAR)

ASPEN UNIT
NOT TO SCALE



UNITS IN CUT
(2-STORY / SLAB ON GRADE)

JUNIPER UNIT
NOT TO SCALE

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA 811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

BUILDING SUMMARY

BUILDING MODEL	UNIT TYPE	Qty	FLOORS	TOTAL FLOOR AREA (SF)	BEDROOMS	BUILDING NUMBER
PONDEROSA	INTERIOR UNIT	32	3	2,226	3	10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 26, 28, 29
	END UNIT	30	3	2,250	3	
ASPEN	INTERIOR UNIT	9	3	2,180	2	12, 23, 25, 27
	END UNIT	8	3	2,231	3	
JUNIPER	INTERIOR UNIT	2	2	1,565	3	22
	END UNIT [ACCESSIBLE]	2	2	1,585	4	
	TOTAL	83				
CLUBHOUSE			2	5,100	N/A	N/A

GENERAL NOTES

1. FIRE HYDRANTS, STREET LIGHTS AND LANDSCAPING ALONG ZUNI & LONE TREE FRONTAGES WILL BE PROVIDED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING STANDARDS.
2. ALL PROPOSED DRIVE AISLES WILL BE PROVIDED WITH RED CURBING AND NO PARKING/FIRE LANE SIGNAGE.

CITY OF FLAGSTAFF - GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS FOR A ONE (1) YEAR PERIOD, SUBSEQUENT TO THE DATE OF APPROVAL. IF CONSTRUCTION WORK IS NOT STARTED WITHIN THE ONE (1) YEAR PERIOD, OR HAS BEEN DISCONTINUED FOR ANY REASON FOR LONGER THAN ONE (1) YEAR, THE PLANS SHALL BE RESUBMITTED FOR REVIEW AND RE-APPROVAL.
2. PLAN REVIEW BY THE CITY DOES NOT EXTEND TO MATERIAL QUANTITIES SHOWN ON THE PLANS.
3. A PUBLIC WORKS PERMIT, ISSUED BY THE CITY, IS REQUIRED FOR ALL WORK IN CITY RIGHTS-OF-WAY OR EASEMENTS AND FOR CONSTRUCTION OF ANY IMPROVEMENTS INTENDED TO BECOME PUBLIC PROPERTY.
4. THE CITY SHALL BE NOTIFIED TWENTY-FOUR (24) HOURS PRIOR TO BEGINNING DIFFERENT PHASES OF CONSTRUCTION SO THAT CITY INSPECTORS MAY BE SCHEDULED.
5. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH TITLE 13, ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS FOR NEW INFRASTRUCTURE, CURRENT "MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION," THE CITY OF FLAGSTAFF STORMWATER DESIGN MANUAL, AND WITH GENERALLY ACCEPTED ENGINEERING DESIGN AND CONSTRUCTION PRACTICE. ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO THE STANDARDS AND SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING CHAPTER 13-21, WHICH MAKES MINOR MODIFICATIONS TO CERTAIN MAG SPECIFICATIONS AND DETAILS.
6. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN HIS JUDGMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS DANGER TO THE PUBLIC HEALTH OR SAFETY.
8. THE CITY ENGINEER MAY ORDER ANY OR ALL MATERIALS USED IN THE WORK TO BE TESTED ACCORDING TO THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS. THE CONTRACTOR SHALL, AT HIS EXPENSE, SUPPLY ALL SAMPLES REQUIRED FOR TESTING.
9. ACCESS THAT MEETS SECTION 13-13-004-0001, FIRE ACCESS, SHALL BE IN PLACE AND APPROVED BEFORE AND AT ALL TIMES DURING ON-SITE COMBUSTIBLE CONSTRUCTION AND/OR PRIOR TO ISSUANCE OF BUILDING PERMITS IN NEW SUBDIVISIONS. FIRE DEPARTMENT AND ENGINEERING SECTION APPROVAL IS REQUIRED FOR OBSTRUCTION OF ACCESS OR WATER SYSTEM SHUTDOWN.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STREETS AND OF PARTIALLY COMPLETED PORTIONS OF THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER FOR APPROVAL A CONSTRUCTION SCHEDULE FOR ANY STREETS REQUIRED TO BE CLOSED OR PARTIALLY CLOSED FOR THE CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL REOPEN THE STREETS NO LATER THAN THE OPENING DATE SHOWN ON THE CONSTRUCTION SCHEDULE OR UPON ORDER OF THE CITY ENGINEER. THE REGULATION AND CONTROL OF CONSTRUCTION TRAFFIC SHALL BE AS DIRECTED BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
11. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE OWNER/DEVELOPER OR THE CONTRACTOR.
12. ACCEPTANCE OF COMPLETED PUBLIC IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEAN-UP IS COMPLETE.
13. LOCATION OF UNDERGROUND UTILITIES BEFORE WORK IS BEGUN IS TO BE ACCOMPLISHED IN ACCORDANCE WITH A.R.S. SECTION 40-360.22.
14. IF WORK IS DONE ON PRIVATE PROPERTY IN RELATION TO A PROJECT CONSTRUCTED UNDER THESE STANDARDS, THE CONTRACTOR WILL PROVIDE THE CITY WITH WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER TO DO SO.
15. THE ESTABLISHMENT AND USE OF TEMPORARY CONSTRUCTION YARDS SHALL CONFORM TO THE CURRENT CITY ZONING CODE STANDARDS FOR TEMPORARY USES.
16. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE CITY CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CITY APPROVALS AND PERMITS AS DEEMED NECESSARY BY THE CITY TO DISPOSE OF EXCAVATED MATERIAL.
17. ALL CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER AND PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED LAND SURVEYOR OR CIVIL ENGINEER.
18. ALL TRAFFIC SIGN SHEETING SHALL BE TYPE VIII AS DESIGNED BY ASTM D4956-07E1 STANDARD SPECIFICATIONS FOR RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL, UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION PLANS.
19. WHEN THE CONSTRUCTION PLANS SPECIFY GRAFFITI CONTROL ON BRIDGES OR OTHER STRUCTURES, THE CONTRACTOR SHALL SEAL THE STRUCTURE FIRST USING MONOCHEM AQUASEAL ME 12 AND THEN APPLY MONOCHEM PERMASHIELD, SACRIFICIAL GRAFFITI CONTROL SYSTEM (OR APPROVED EQUAL).
20. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AND RESEEDED IN ACCORDANCE WITH CHAPTER 13-17. IN THE EVENT THAT THE CONSTRUCTION ACTIVITY DISTURBS MORE THAN ONE (1) ACRE, A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED IN ORDER TO OBTAIN A CONSTRUCTION GENERAL PERMIT FROM ADEQ. (ORD. 2017-22, REP&REEN, 07/05/2017)

PARKING REQUIREMENTS

REQUIRED PARKING CALCULATION			
USE	REQUIREMENT [1]	PARKING REQUIRED: UNITS	PARKING REQUIRED: PARKING
SINGLE FAMILY (ATTACHED)			
STANDARD UNITS (2 - 3 BEDROOMS)	2.00 SPACES PER UNIT	81	162.00
STANDARD UNITS (4 BEDROOMS)	2.50 SPACES PER UNIT	2	5.00
GUEST PARKING	0.25 SPACES PER UNIT	83	20.75
	TOTAL PARKING REQUIRED	TOTAL	187.75
		USE	188
PARKING PROVIDED			
GARAGE SPACE (1 PER UNIT, EXCL ADA UNITS)		81	
DRIVEWAY SPACE		83	
ADDITIONAL SPACES		22	
ADA SITE SPACES		3	
	TOTAL PARKING PROVIDED	189	
REQUIRED BICYCLE PARKING			
5% OF TOTAL REQUIRED PARKING SPACES		188	9.4
	TOTAL BICYCLE PARKING REQUIRED	USE	10
	BICYCLE PARKING PROVIDED		12

1) PER TABLE 10-50.80.040.A
2) THE PROJECT WILL PROVIDE AN AFFORDABLE HOUSING CONTRIBUTION TO THE CITY FOR THE EQUIVALENT OF 10 SITE UNITS.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

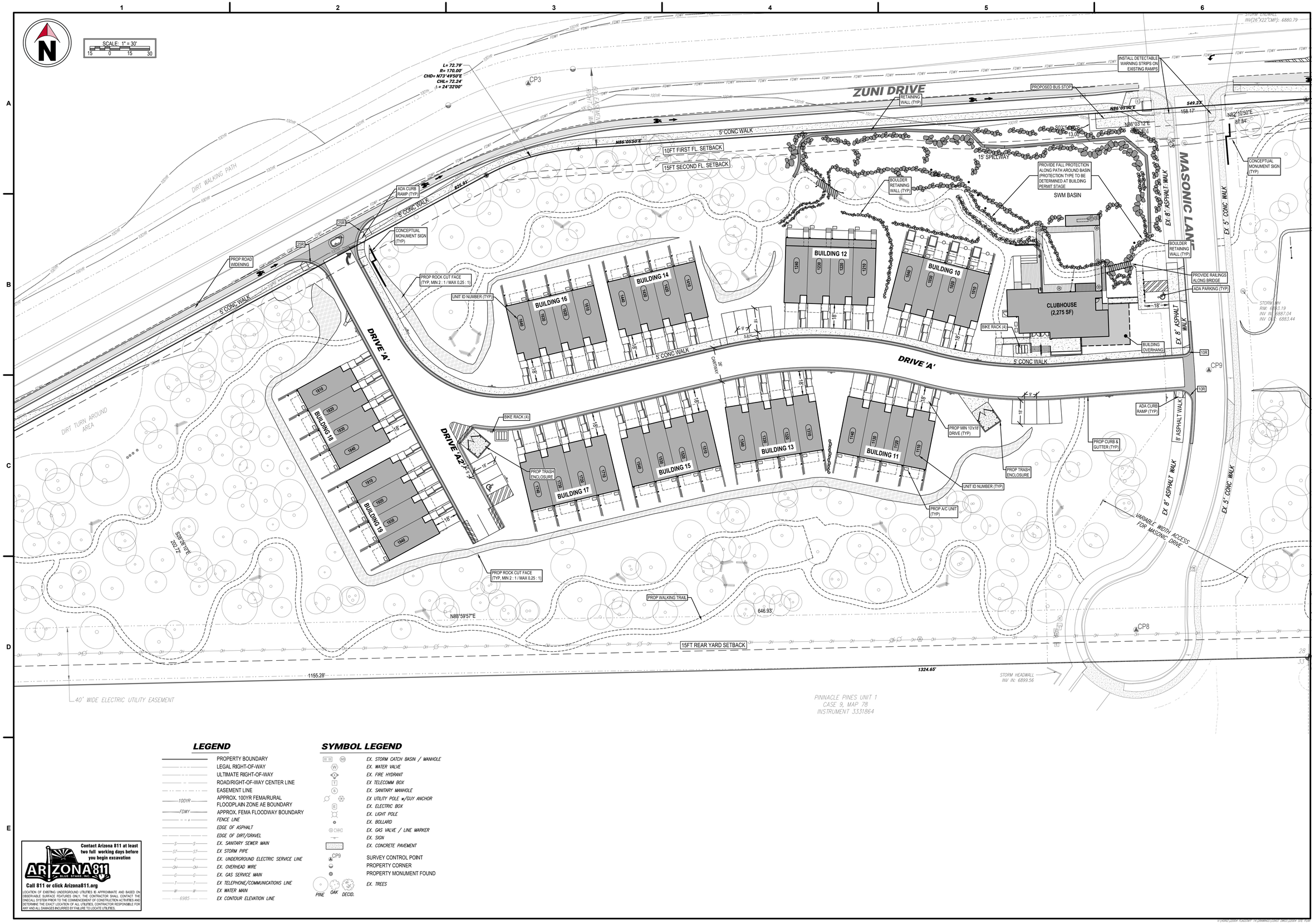
PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
OVERALL SITE PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID **C100** REV **4**

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 SITE PLAN



LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- S — S — EX. SANITARY SEWER MAIN
- ST — ST — EX STORM PIPE
- E — E — EX. UNDERGROUND ELECTRIC SERVICE LINE
- OH — OH — EX. OVERHEAD WIRE
- G — G — EX. GAS SERVICE MAIN
- T — T — EX TELEPHONE/COMMUNICATIONS LINE
- W — W — EX WATER MAIN
- 6985 — EX CONTOUR ELEVATION LINE

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- EX. TREES (PINE, OAK, DECID.)

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

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REVISIONS

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Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 DATE SIGNED ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

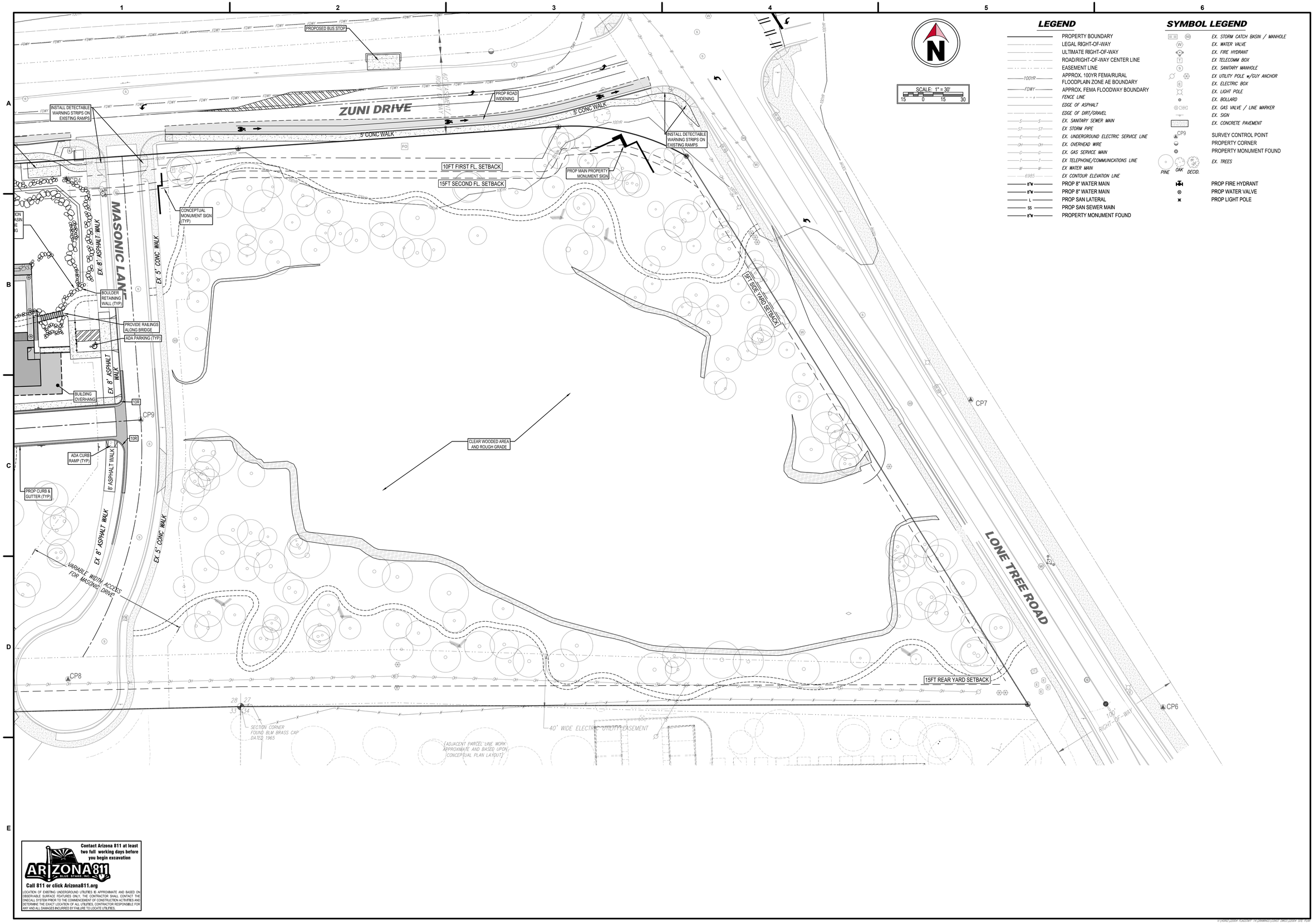
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2651 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
PHASE 1 SITE PLAN (1 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C101
REV 4
SHEET 4 of 46



LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- S — S — EX. SANITARY SEWER MAIN
- ST — ST — EX STORM PIPE
- E — E — EX. UNDERGROUND ELECTRIC SERVICE LINE
- OH — OH — EX. OVERHEAD WIRE
- G — G — EX. GAS SERVICE MAIN
- T — T — EX TELEPHONE/COMMUNICATIONS LINE
- W — W — EX WATER MAIN
- 6985 — EX CONTOUR ELEVATION LINE
- 8"W — PROP 8" WATER MAIN
- 8"W — PROP 8" WATER MAIN
- L — PROP SAN LATERAL
- SS — PROP SAN SEWER MAIN
- 8"W — PROPERTY MONUMENT FOUND

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- PINE / OAK / DECID. — EX. TREES
- PROP FIRE HYDRANT
- PROP WATER VALVE
- PROP LIGHT POLE

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

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AUSTIN, TEXAS 78702
FIRM No. F-23395
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DWN BY: M TOTH
CHK BY: E BEALS

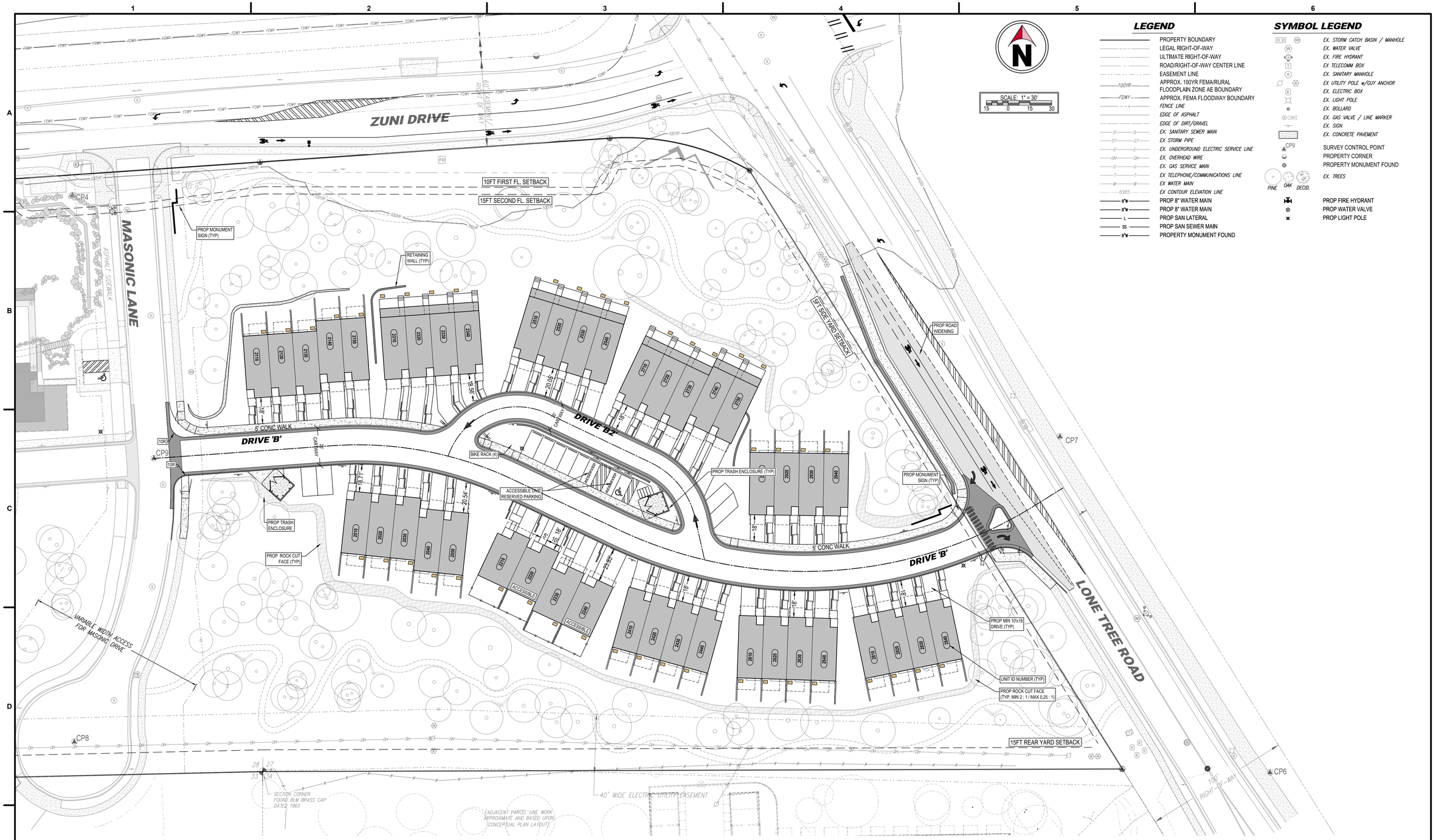
PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
PHASE 1 SITE PLAN (2 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C102
REV 4

V:\WORK\22004 FLAGSTAFF 1\PLANNING\CIVIL DWG\22004 SITE PLAN



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SYMBOL LEGEND

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- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
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Registered Professional Engineer, (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
DATE SIGNED
5/02/24
ARIZONA, U.S.A.

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2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
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DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
PHASE 2 SITE PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C103
REV 4
SHEET 6 of 46

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
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- W — W — EX WATER MAIN
- EX. CONTOUR ELEVATION LINE

SYMBOL LEGEND

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- W — EX. WATER VALVE
- EX. FIRE HYDRANT
- T — EX TELECOMM BOX
- S — EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- E — EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- GAS — EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- PINE OAK DECID. — EX. TREES

ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY DOCKET 346, PAGE 741

PROPOSED RIGHT-OF-WAY DEDICATION (5,385 SF, 0.123AC)

SCALE: 1" = 60'

ZUNI DRIVE

L= 72.79'
R= 170.00'
CHD= N73°49'50"E
CHL= 72.24'
Δ = 24°32'00"

N86°05'50"E 825.31'

PUBLIC UTILITY EASEMENT (0.93 AC)

CIVIC OPEN SPACE (~39,450 SF / 0.90 AC)
[EIGHT (8) FOOT WIDE EASEMENT CENTERED ON FOUR (4) FOOT WIDE TRAIL, ~4,950 L.F.]

PUBLIC USE TRAIL (TYP.)

MASONIC LANE

VARIABLE WIDTH ACCESS FOR MASONIC DRIVE

L= 100.42'
R= 170.00'
CHD= S76°58'52"E
CHL= 98.96'
Δ = 33°50'37"

S03°54'10"E 13.00'
N86°03'12"E 76.54'
549.23'
158.17'
N82°10'50"E 87.84'
N86°05'50"E
N83°37'22"E
241.66'
S89°52'04"E 228.63'
N28°39'08"E 26.80'
S71°53'01"E

100' RIGHT-OF-WAY

LONE TREE ROAD

COMMON OPEN SPACE EASEMENT (2.01 AC)

S28°26'10"E 201.72'
490.00'
N61°33'50"E
S88°40'33"W 21.07'
N88°42'41"E 1155.28'
N88°59'57"E 646.93'
S02°35'46"E 39.94'
S89°49'33"W 1324.65'
592.89'
486.39'

R= 321.00'
L= 182.59'
R= 279.00'
L= 158.71'
R= 279.00'
L= 86.20'
R= 315.00'
L= 144.36'
R= 285.00'
L= 68.10'
R= 315.00'
L= 20.46'
R= 315.00'
L= 40.58'
R= 115.00'
R= 271.00'
L= 69.74'
L= 121.10'
R= 235.00'
R= 279.00'
L= 158.54'
L= 270.73'
R= 316.00'

N76°36'54"E 148.31'
N76°36'54"E 149.31'
N85°54'52"E
S13°32'57"W 7.08'
S76°27'03"E 20.00'
S13°32'57"W 5.88'
N13°32'57"E 7.08'
N61°33'57"E 20.56'
N61°33'53"E 28.00'
S71°54'26"W 17.39'
S84°33'56"E 78.54'
S84°33'56"E 78.72'
N12°37'48"W 3.13'
N76°57'13"W 16.57'
N09°49'22"E 7.65'

VARIABLE WIDTH ACCESS FOR MASONIC DRIVE

40' WIDE ELECTRIC UTILITY EASEMENT

[ADJACENT PARCEL LINE WORK APPROXIMATE AND BASED UPON CONCEPTUAL PLAN LAYOUT]

ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY DOCKET 346, PAGE 741

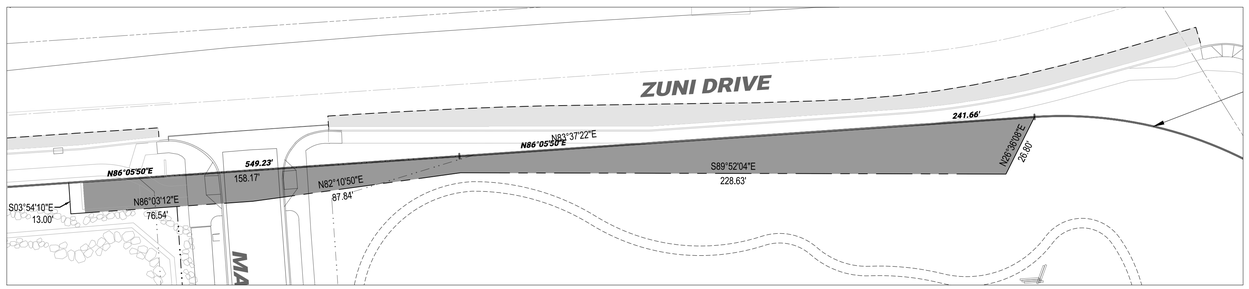
PINNACLE PINES UNIT 1 CASE 9, MAP 78 INSTRUMENT 3331864

PINNACLE PINES UNIT 1 CASE 9, MAP 78 INSTRUMENT 3331864

40' WIDE ELECTRIC UTILITY EASEMENT

TRACT 22 THE ESTATES AT PINE CANYON UNIT ONE CASE 8, MAP 92

NOTE: RIGHT-OF-WAY AND EASEMENT DIMENSIONS SHALL BE FINALIZED DURING CIVIL PLAN REVIEW



D1 ZUNI DRIVE RIGHT-OF-WAY DEDICATION

SCALE: 1" = 30'

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2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2655 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

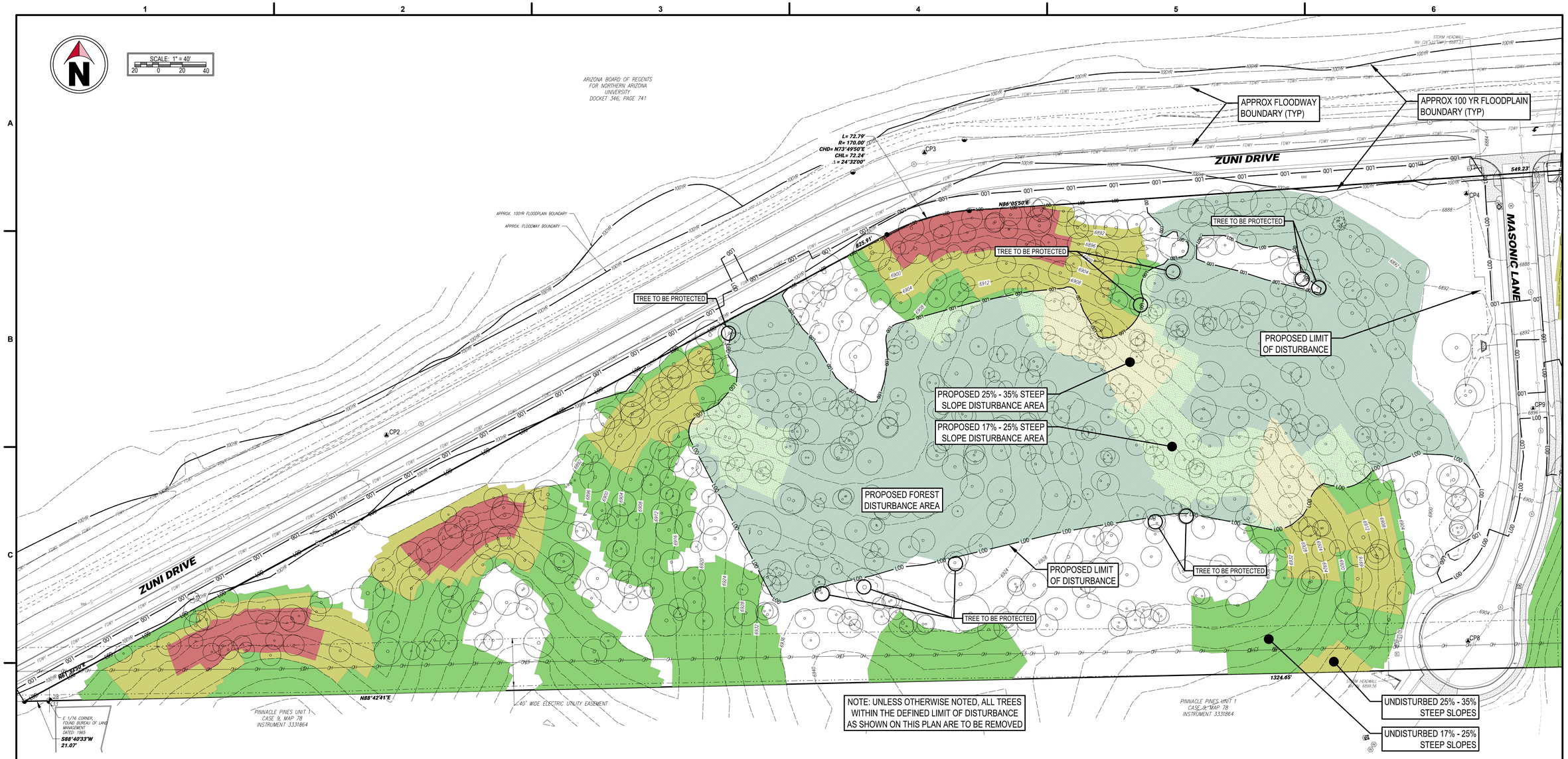
APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E 6TH STREET, SUITE 205, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
EASEMENT PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C105 REV 4

SHEET 7 of 46

R:\PROJECTS\22004 PEAKS\SHEET FILES\DRAWINGS\CURRENT DWGS\22004 SITE PLAN



HATCH LEGEND

UNDISTURBED STEEP SLOPES
- SLOPES >35%
- SLOPES 25% - 35%
- SLOPES 17% - 25%

DISTURBED AREAS
- SLOPES >35%
- SLOPES 25% - 35%
- SLOPES 17% - 25%
- WOODLAND AREAS

LEGEND

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- ULTIMATE RIGHT-OF-WAY
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- *EX. LIGHT POLE*
- *EX. BOLLARD*
- *EX. GAS VALVE / LINE MARKER*
- *EX. SIGN*
- *EX. CONCRETE PAVEMENT*
- SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- *EX. TREES* (PINE, OAK, DECID.)

RESOURCE PROTECTION LAND

RESOURCE	TOTAL RESOURCE PROTECTION LAND (SF)	AREA IN A MORE RESTRICTIVE RESOURCE (SF)	NET RESOURCE PROTECTION AREA (SF)	REQ. RESOURCE PROTECTION (%)	ADJUSTED REQ. RESOURCE PROTECTION [2] (%)	ALLOWED DISTURBANCE AREA (SF)	PROPOPSED DISTURBANCE (SF / %)		PROPOSED PROTECTION (%)
FLOODPLAIN	147,602	0	147,602	100%	100%	0	0	0.0%	100.0%
STEEP SLOPES									
>35%	13,072	1,012	12,060	100%	100%	0	0	0.0%	100.0%
25% - 34.99%	56,355	0	56,355	80%	80%	11,271	9,948	17.7%	82.3%
17% - 24.99%	134,233	0	134,233	70%	70%	40,270	34,468	25.7%	74.3%
FOREST	423,852	154,857	268,995	50%	32.5% [2]	181,572	178,535	66.4%	33.6%

1) VALUES PROVIDED IN THE TABLE ARE MEASURED WITHIN THE TITLE BOUNDARY ONLY. IMPROVEMENTS REQUIRED WITHIN ROAD RIGHTS-OF-WAY HAVE BEEN EXCLUDED.

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DWN BY: M TOTH
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PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2551 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E 6th STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
NATURAL RESOURCES PLAN (1 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C201
REV 4
SHEET 8 of 46



HATCH LEGEND

- UNDISTURBED STEEP SLOPES
  - SLOPES >35%
  - SLOPES 25% - 35%
  - SLOPES 17% - 25%
- DISTURBED AREAS
  - SLOPES >35%
  - SLOPES 25% - 35%
  - SLOPES 17% - 25%
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- *EX. GAS SERVICE MAIN*
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- *EX WATER MAIN*
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2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 DATE SIGNED ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

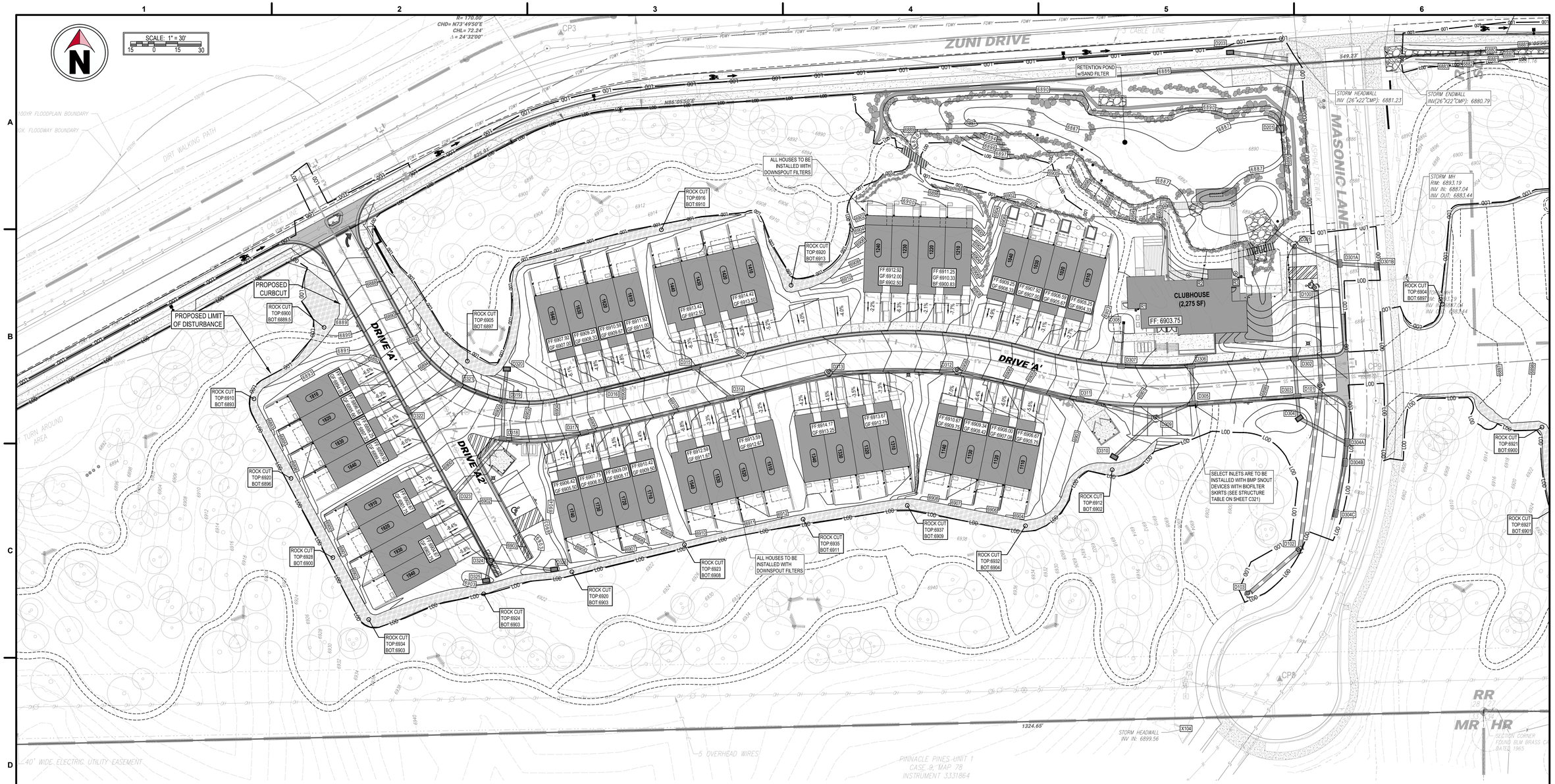
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2955 MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
NATRUAL RESOURCES PLAN (2 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C202
REV 4
SHEET 9 of 46


SCALE: 1" = 30'
15 0 15 30
N= 170.00'
CHD= N73°49'50"E
CHL= 72.24'
Δ = 24°32'00"
ZUNI DRIVE
MASONIC LANE
DRIVE 'A'
DRIVE 'A2'
DIRT WALKING PATH
TURN AROUND AREA
100YR FLOODPLAIN BOUNDARY
FOX. FLOODWAY BOUNDARY
40' WIDE ELECTRIC UTILITY EASEMENT
5 OVERHEAD WIRES
5 CABLE LINE
RETENTION POND w/SAND FILTER
CLUBHOUSE (2,275 SF)
FF: 6903.75
PROPOSED CURBCUT
PROPOSED LIMIT OF DISTURBANCE
ALL HOUSES TO BE INSTALLED WITH DOWNSPOUT FILTERS
SELECT INLETS ARE TO BE INSTALLED WITH BMP SNOUT DEVICES WITH BIOFILTER SKIRTS (SEE STRUCTURE TABLE ON SHEET C321)
STORM HEADWALL INV (26"x22"CMP): 6881.23
STORM ENDWALL INV(26"X22"CMP): 6880.79
STORM MH RIM: 6893.19 INV IN: 6887.04 INV OUT: 6883.44
STORM HEADWALL INV IN: 6899.56
PINNACLE PINES UNIT 1 CASE 9, MAP 78 INSTRUMENT 3331864
SECTION CORNER FOUND BLM BRASS CAP DATED 1965
549.33'
635.84'
1324.65'
N86°25'58"E
ROCK CUT TOP:6916 BOT:6910
ROCK CUT TOP:6920 BOT:6913
ROCK CUT TOP:6905 BOT:6897
ROCK CUT TOP:6910 BOT:6893
ROCK CUT TOP:6900 BOT:6889.5
ROCK CUT TOP:6920 BOT:6895
ROCK CUT TOP:6928 BOT:6900
ROCK CUT TOP:6934 BOT:6903
ROCK CUT TOP:6924 BOT:6903
ROCK CUT TOP:6920 BOT:6903
ROCK CUT TOP:6923 BOT:6908
ROCK CUT TOP:6935 BOT:6911
ROCK CUT TOP:6937 BOT:6909
ROCK CUT TOP:6932 BOT:6904
ROCK CUT TOP:6912 BOT:6902
ROCK CUT TOP:6904 BOT:6897
ROCK CUT TOP:6921 BOT:6900
ROCK CUT TOP:6927 BOT:6901
FF:6907.92 GF:6907.00
FF:6909.25 GF:6909.33
FF:6910.88 GF:6909.67
FF:6911.92 GF:6911.00
FF:6913.47 GF:6912.50
FF:6914.42 GF:6913.50
FF:6912.92 GF:6912.00 BF:6902.50
FF:6911.25 GF:6910.33 BF:6900.83
FF:6906.25 GF:6906.33
FF:6907.92 GF:6907.00
FF:6906.59 GF:6905.67
FF:6903.25 GF:6904.33
FF:6906.42 GF:6905.50
FF:6907.75 GF:6906.83
FF:6909.09 GF:6908.17
FF:6910.42 GF:6909.50
FF:6911.59 GF:6911.67
FF:6912.59 GF:6912.67
FF:6914.17 GF:6913.25
FF:6913.67 GF:6912.75
FF:6910.67 GF:6909.75
FF:6909.34 GF:6909.42
FF:6908.01 GF:6907.08
FF:6906.67 GF:6905.75
FF:6906.92 GF:6906.00
FF:6907.75 GF:6906.83
FF:6909.09 GF:6908.17
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FF:6911.75 GF:6910.83
FF:6913.09 GF:6912.17
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FF:6917.09 GF:6916.17
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FF:6919.75 GF:6918.83
FF:6921.09 GF:6920.17
FF:6922.42 GF:6921.50
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FF:6925.09 GF:6924.17
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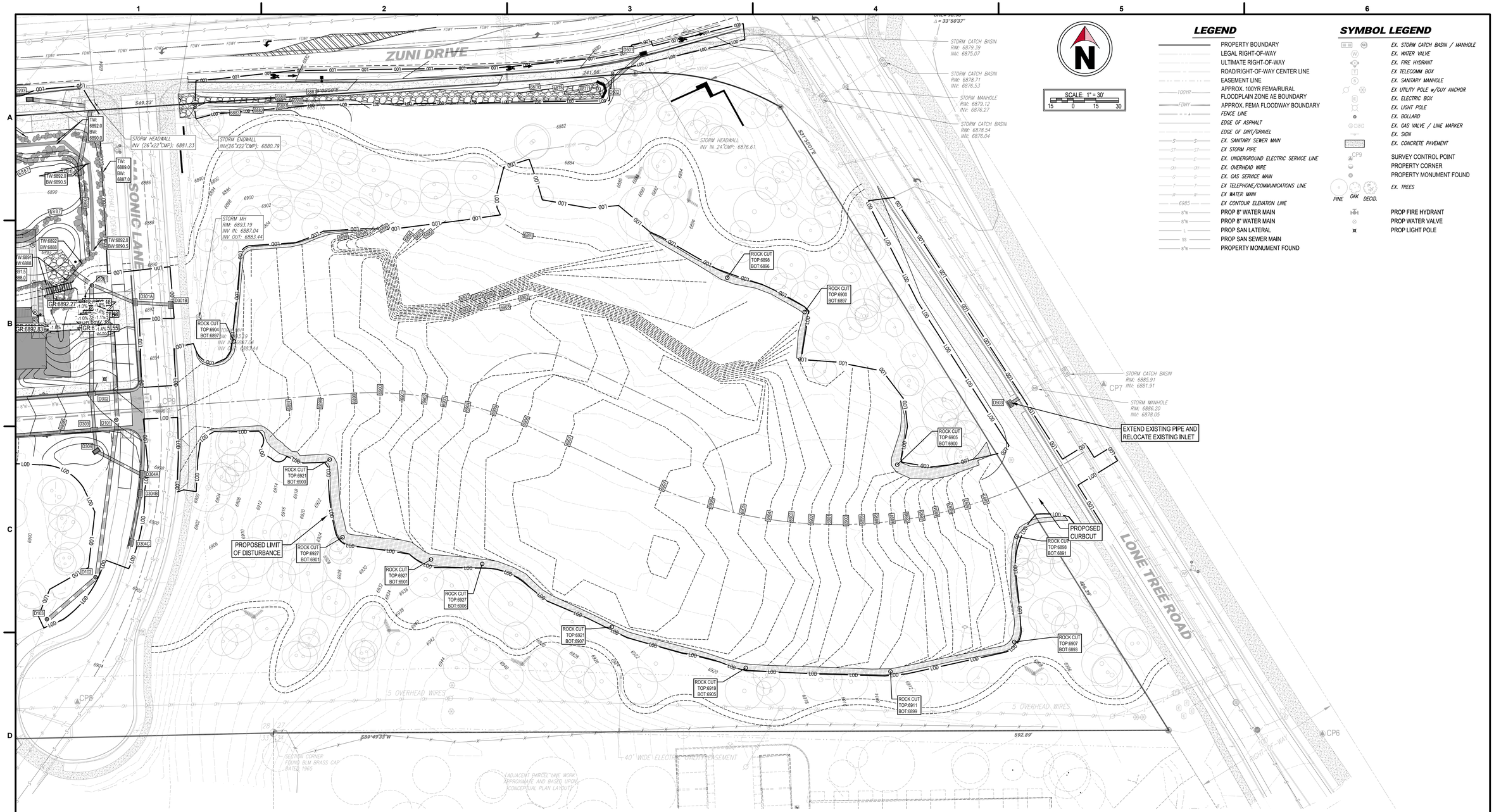
FF:6927.75 GF:6926.83
FF:6929.09 GF:6928.17
FF:6930.42 GF:6929.50


ZUNI DRIVE
SASONIC LANE
LONE TREE ROAD
PROPOSED LIMIT OF DISTURBANCE
PROPOSED CURBCUT
EXTEND EXISTING PIPE AND RELOCATE EXISTING INLET
STORM HEADWALL INV (26"x22"CMP): 6881.23
STORM ENDWALL INV(26"x22"CMP): 6880.79
STORM MH RIM: 6893.19 INV IN: 6887.04 INV OUT: 6883.44
STORM HEADWALL INV IN 24"CMP: 6876.61
STORM CATCH BASIN RIM: 6879.39 INV: 6875.07
STORM CATCH BASIN RIM: 6878.71 INV: 6876.53
STORM MANHOLE RIM: 6878.12 INV: 6876.27
STORM CATCH BASIN RIM: 6878.54 INV: 6876.04
STORM CATCH BASIN RIM: 6885.91 INV: 6881.91
STORM MANHOLE RIM: 6886.20 INV: 6878.05
ROCK CUT TOP:6898 BOT:6896
ROCK CUT TOP:6900 BOT:6897
ROCK CUT TOP:6904 BOT:6897
ROCK CUT TOP:6905 BOT:6900
ROCK CUT TOP:6901 BOT:6900
ROCK CUT TOP:6927 BOT:6901
ROCK CUT TOP:6927 BOT:6906
ROCK CUT TOP:6921 BOT:6907
ROCK CUT TOP:6919 BOT:6905
ROCK CUT TOP:6911 BOT:6899
ROCK CUT TOP:6898 BOT:6891
ROCK CUT TOP:6907 BOT:6893
TW: 6892.0 BW: 6890.0
TW: 6889.0 BW: 6887.0
TW:6892 BW:6888
TW:6892.0 BW:6890.5
GR 6892.27
GR 6892.83
GR 6.1% 5.55
S71°59'01"E
549.23'
341.66'
S89°49'33"W
592.89'
486.97'
5 OVERHEAD WIRES
40' WIDE ELECTRIC UTILITY EASEMENT
SECTION CORNER FOUND BLM BRASS CAP DATED 1965
(ADJACENT PARCEL ONE WORK APPROXIMATE AND BASED UPON CONCEPTUAL PLAN LAYOUT)
CP5
CP6
CP7
CP9
D101
D102
D103
D301A
D301B
D302
D303
D304
D304A
D304B
D304C
D501
D502
D503
D504
D505
D506
D507
D508
D509
D510
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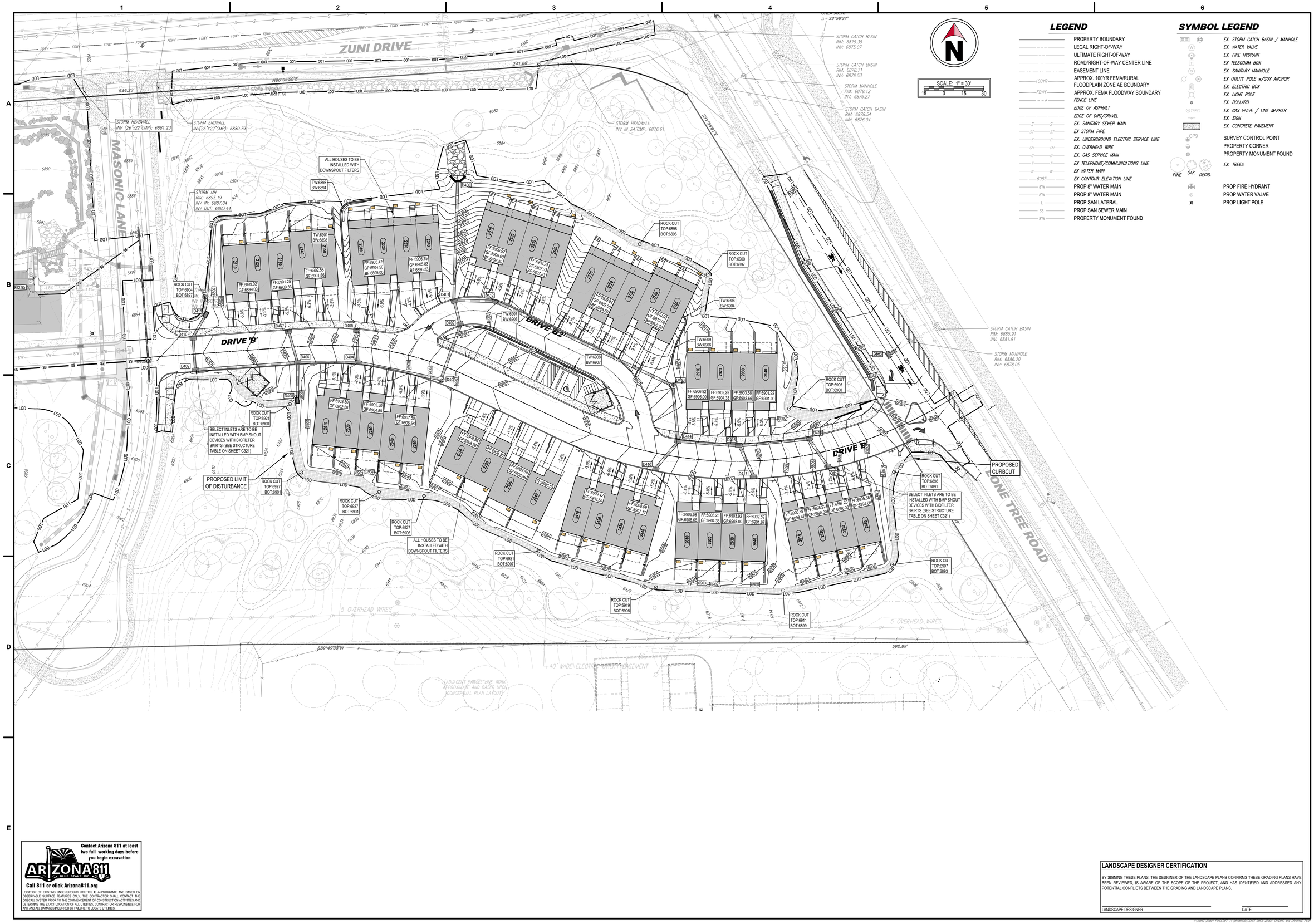
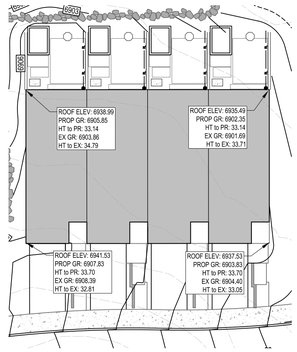
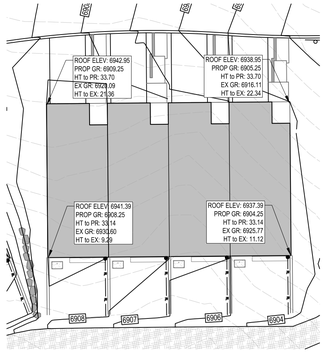
D539
D540


ZUNI DRIVE
MASONIC LANE
DRIVE 'B'
DRIVE 'B1'
DRIVE 'B2'
DRIVE 'B3'
DRIVE 'B4'
DRIVE 'B5'
DRIVE 'B6'
DRIVE 'B7'
DRIVE 'B8'
DRIVE 'B9'
DRIVE 'B10'
DRIVE 'B11'
DRIVE 'B12'
DRIVE 'B13'
DRIVE 'B14'
DRIVE 'B15'
DRIVE 'B16'
DRIVE 'B17'
DRIVE 'B18'
DRIVE 'B19'
DRIVE 'B20'
DRIVE



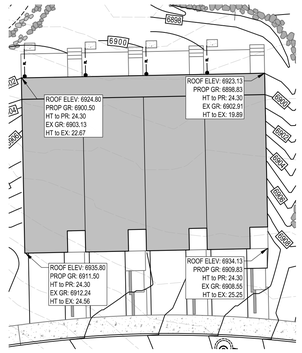
BUILDING 10 HEIGHT

SCALE: 1" = 20'



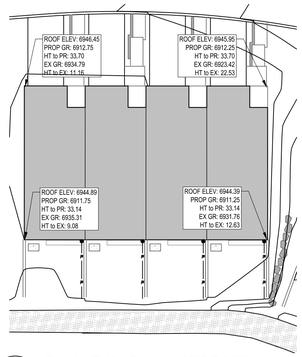
BUILDING 11 HEIGHT

SCALE: 1" = 20'



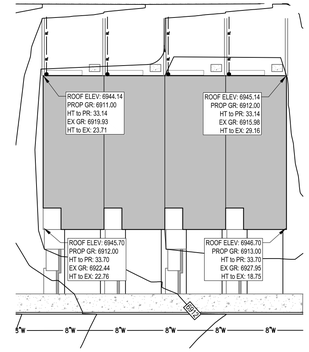
BUILDING 12 HEIGHT

SCALE: 1" = 20'



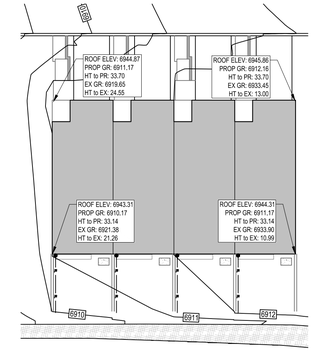
BUILDING 13 HEIGHT

SCALE: 1" = 20'



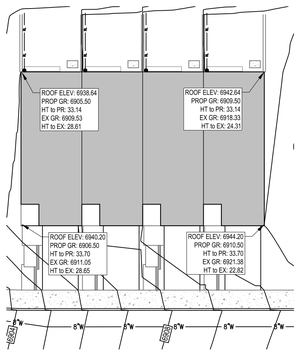
BUILDING 14 HEIGHT

SCALE: 1" = 20'



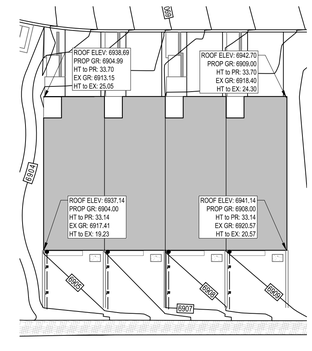
BUILDING 15 HEIGHT

SCALE: 1" = 20'



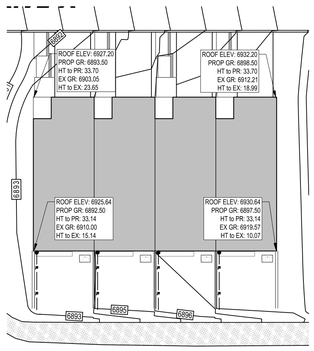
BUILDING 16 HEIGHT

SCALE: 1" = 20'



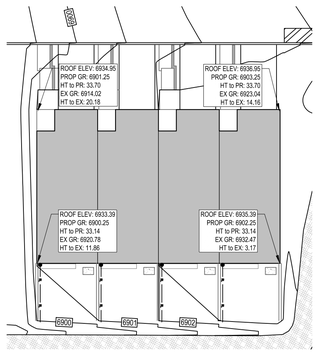
BUILDING 17 HEIGHT

SCALE: 1" = 20'



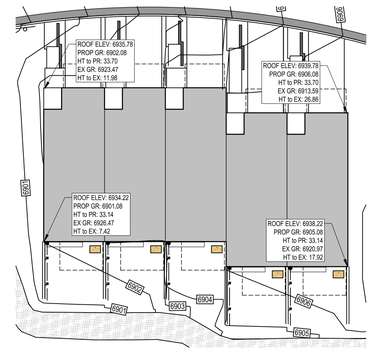
BUILDING 18 HEIGHT

SCALE: 1" = 20'



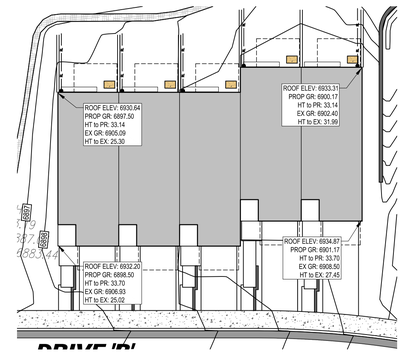
BUILDING 19 HEIGHT

SCALE: 1" = 20'



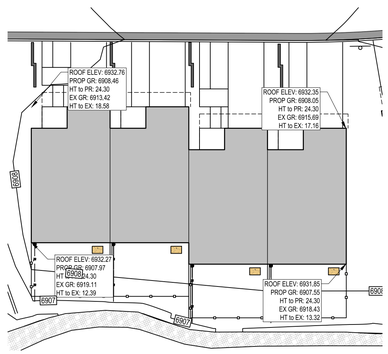
BUILDING 20 HEIGHT

SCALE: 1" = 20'



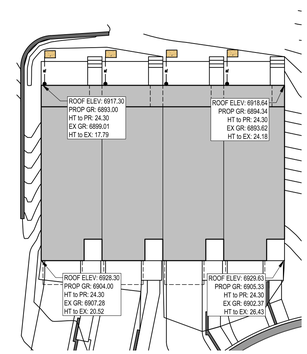
BUILDING 21 HEIGHT

SCALE: 1" = 20'



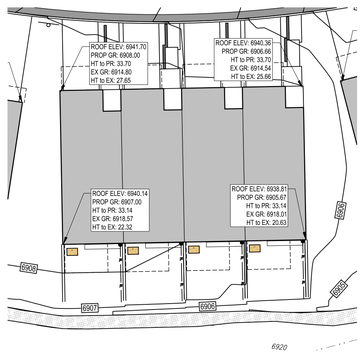
BUILDING 22 HEIGHT

SCALE: 1" = 20'



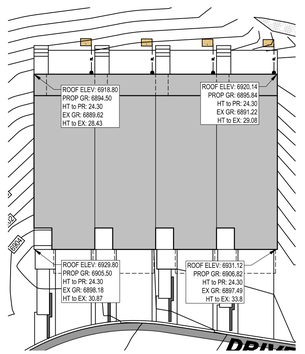
BUILDING 23 HEIGHT

SCALE: 1" = 20'



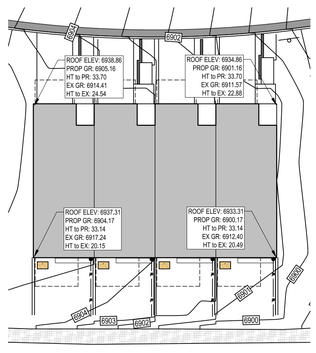
BUILDING 24 HEIGHT

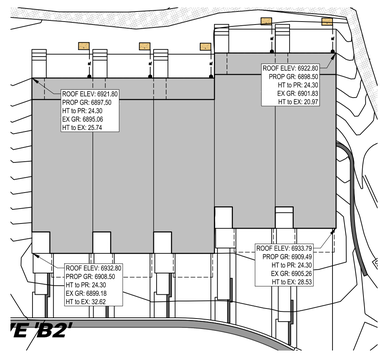
SCALE: 1" = 20'



BUILDING 25 HEIGHT

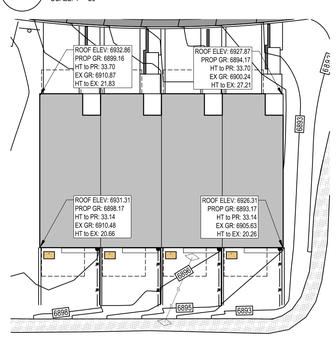
SCALE: 1" = 20'





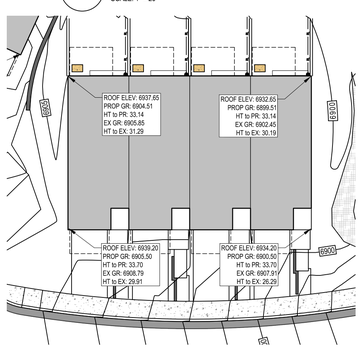
BUILDING 26 HEIGHT

SCALE: 1" = 20'



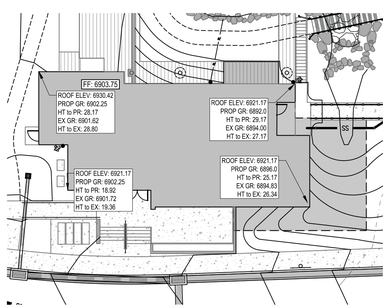
BUILDING 28 HEIGHT

SCALE: 1" = 20'



BUILDING 29 HEIGHT

SCALE: 1" = 20'



CLUBHOUSE BUILDING HEIGHT

SCALE: 1" = 20'

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	INIT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

REVISIONS

Registered Professional Engineer, Civil
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
REGISTERED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

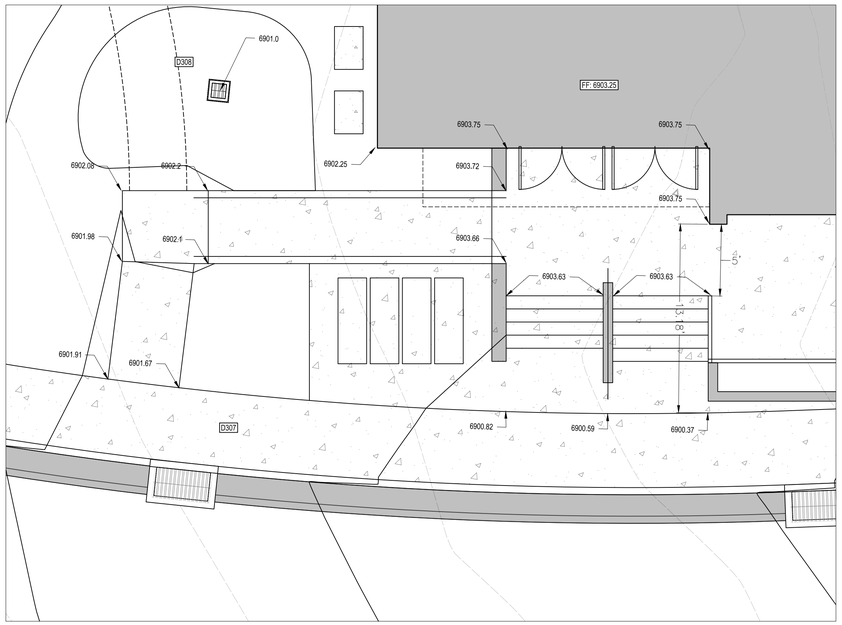
PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2621 SUNSET LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
BUILDING HEIGHT DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C305
REV 4
SHEET 13 of 46

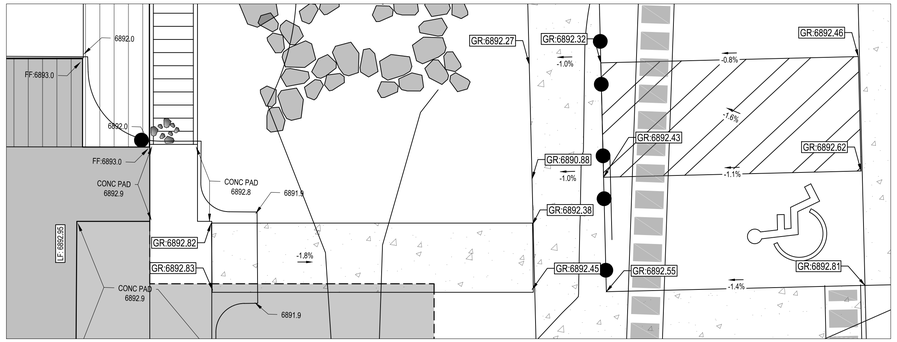
P:\PROJ\22004 FLAGSTAFF TX\DRAWINGS\CONST DWGS\22004 BRDLDNG and SRVWAGE .PLAN



C1 CLUBHOUSE MAIN ENTRANCE GRADING DETAIL

SCALE 1" = 5'

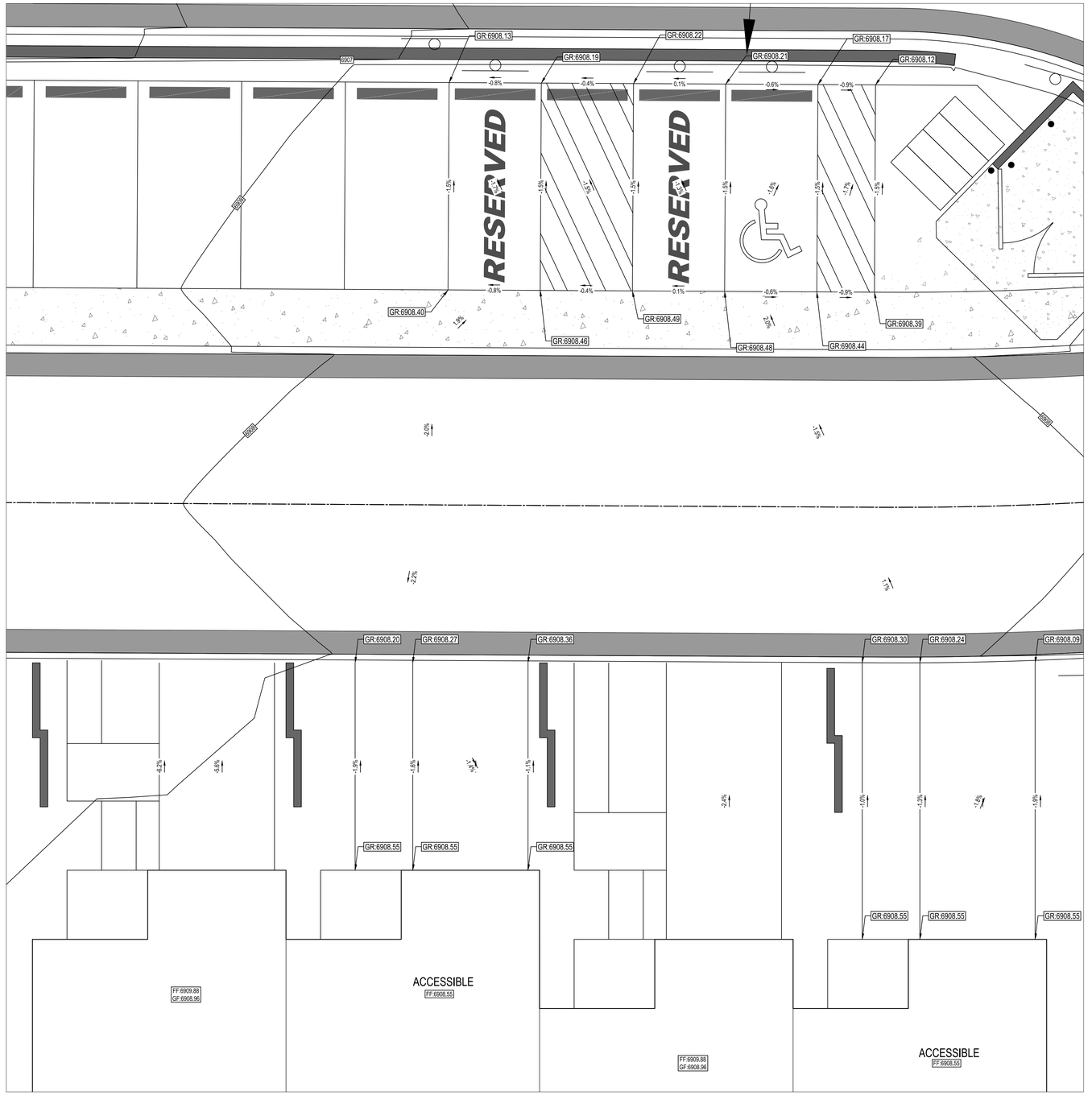
SCALE: 1" = 5'
2.5 0 5'



D1 CLUBHOUSE LOWER ENTRANCE GRADING DETAIL

SCALE 1" = 5'

SCALE: 1" = 5'
2.5 0 5'



E3 ACCESSIBLE UNIT GRADING DETAIL

SCALE 1" = 5'

SCALE: 1" = 5'
2.5 0 5'

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
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Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
DATE SIGNED
5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 SOUTHLAKE LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
ADA GRADING PLAN

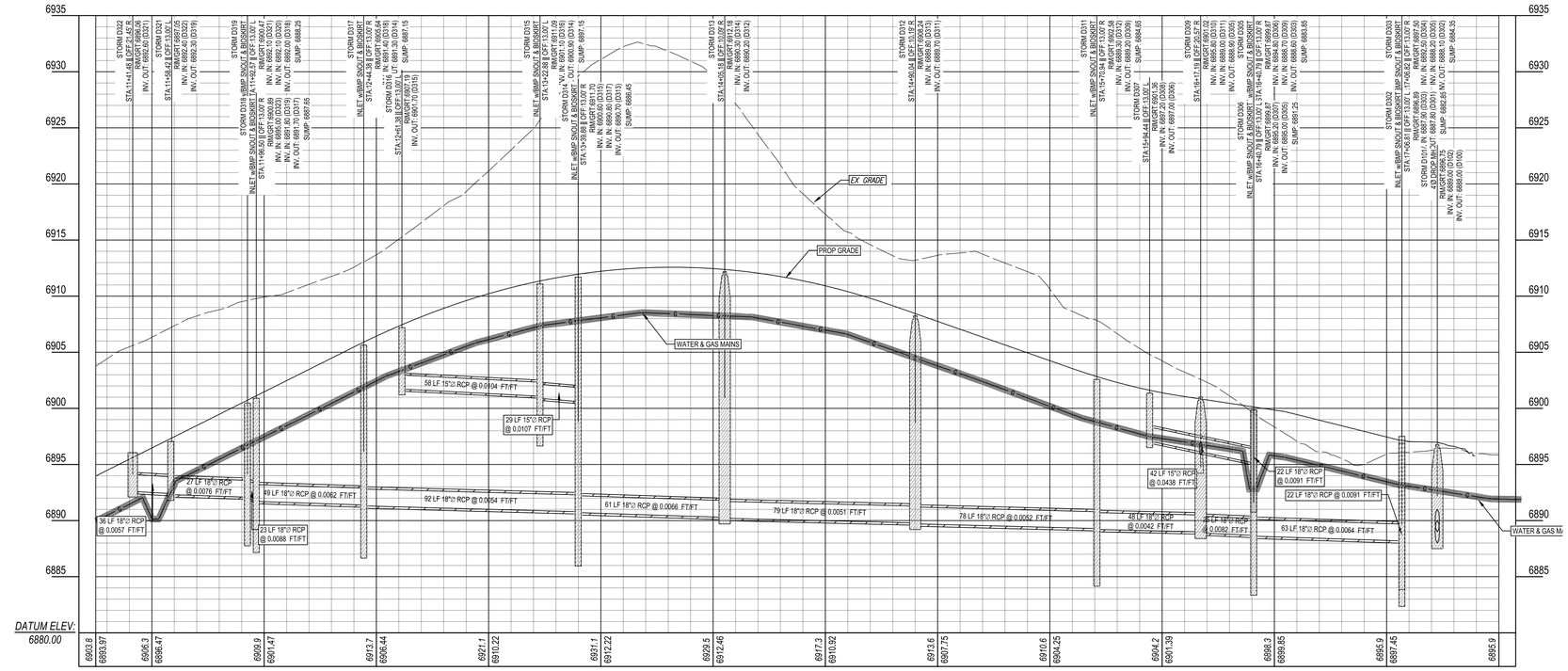
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C306
REV 4
SHEET 14 of 46



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

SCALE: 1" = 30'



E1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 REGISTERED PROFESSIONAL ENGINEER ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering

FIRM No. F-23395
viewpointengineering.com

2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

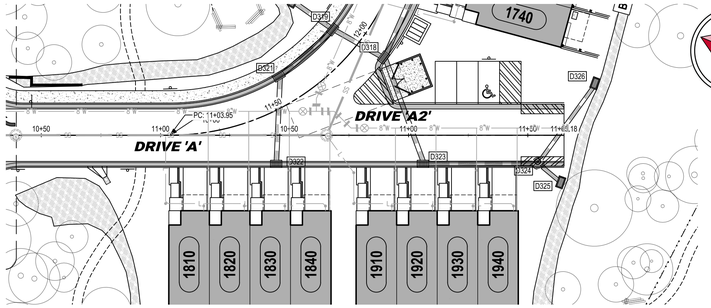
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
STORM SEWER PLAN & PROFILE
(DRIVE 'A')

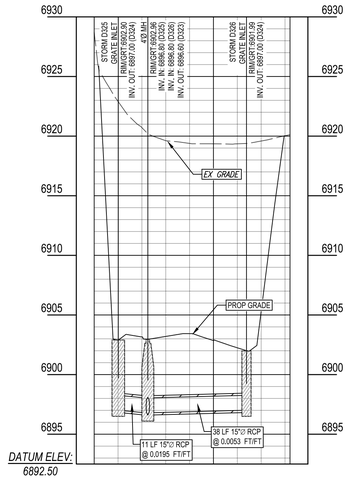
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C310
REV 4



B1 PLAN VIEW: DRIVE 'A2'

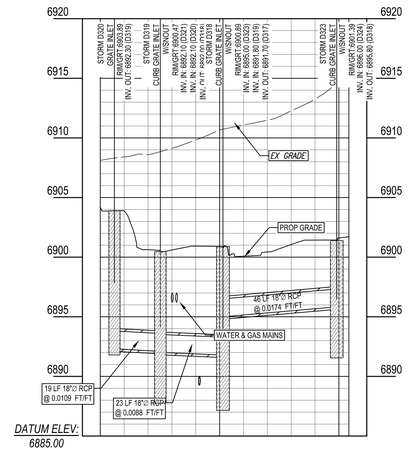
SCALE: 1" = 30'

SCALE: 1" = 30'
15 0 15 30



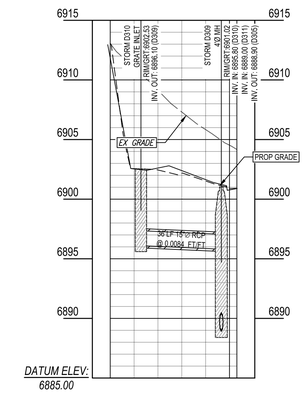
B3 STORM: D325 - D326

SCALE: (H) 1" = 30' || (V) 1" = 6'



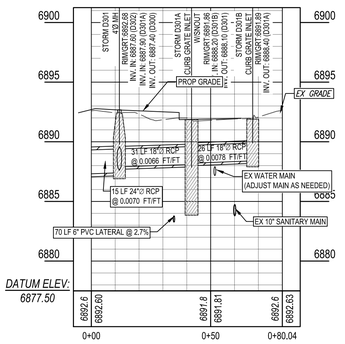
B4 STORM: D320 - D323

SCALE: (H) 1" = 30' || (V) 1" = 6'



B5 STORM: D310 - D309

SCALE: (H) 1" = 30' || (V) 1" = 6'



B5 STORM: D301 - D301B

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'



D1 PROFILE VIEW: DRIVE 'A2'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

D3 STORM: D304D - D300

SCALE: (H) 1" = 30' || (V) 1" = 6'

D5 STORM: D103 - D100

SCALE: (H) 1" = 30' || (V) 1" = 6'

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

REV	DATE	DESCRIPTION	INIT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S
BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

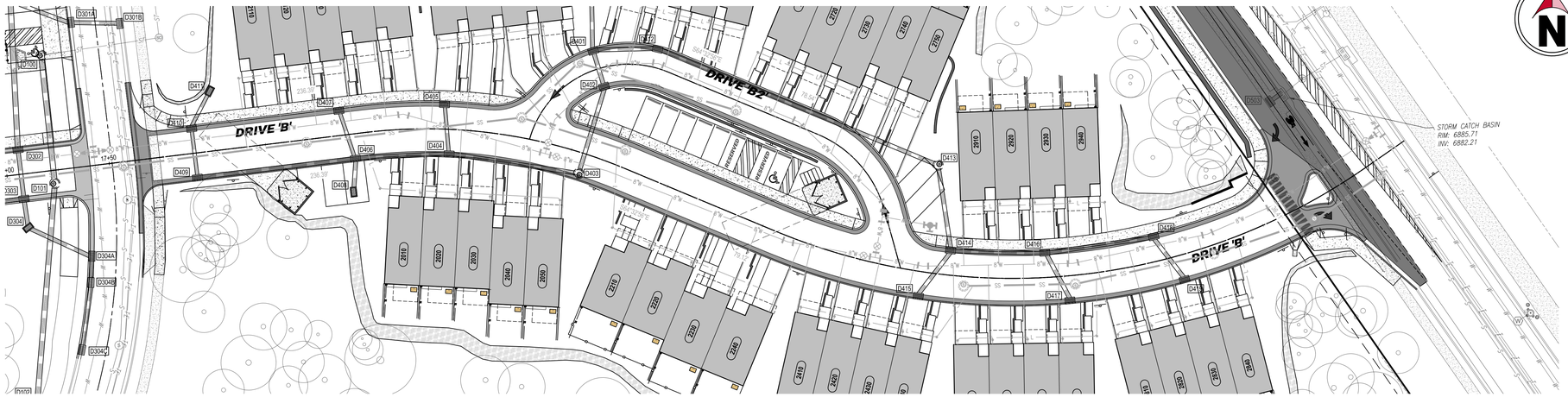
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2655 S. MISSION LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
STORM SEWER PLAN & PROFILE
(DRIVE 'A2' & CROSS PROFILES)

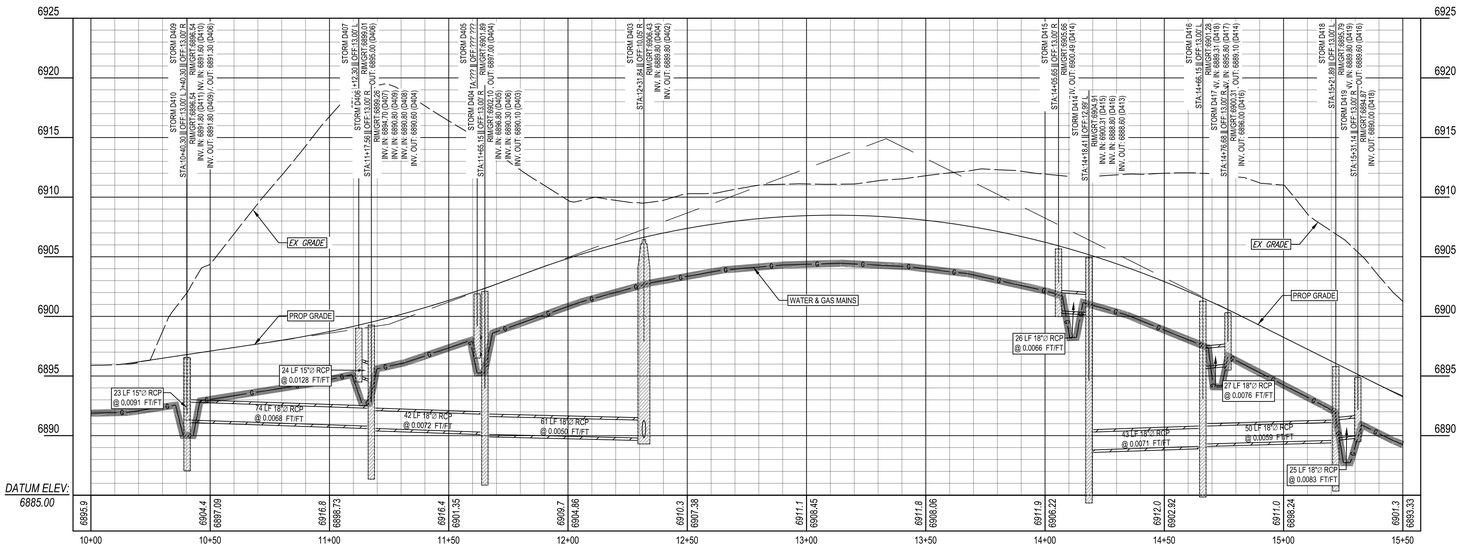
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C311
REV 4
SHEET 16 of 46



B2 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

SCALE: 1" = 30'
15 0 15 30



D2 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' ‖ (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

REVISIONS

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Registered Professional Engineer
CERTIFICATE NO.
77934
ERIC S
BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2951 S HIGHWAY 89A
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
STORM SEWER PLAN & PROFILE (DRIVE 'B')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C312
REV 4
SHEET 17 of 46

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.org
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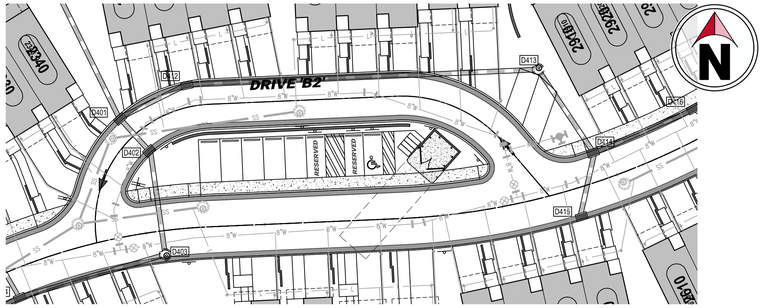
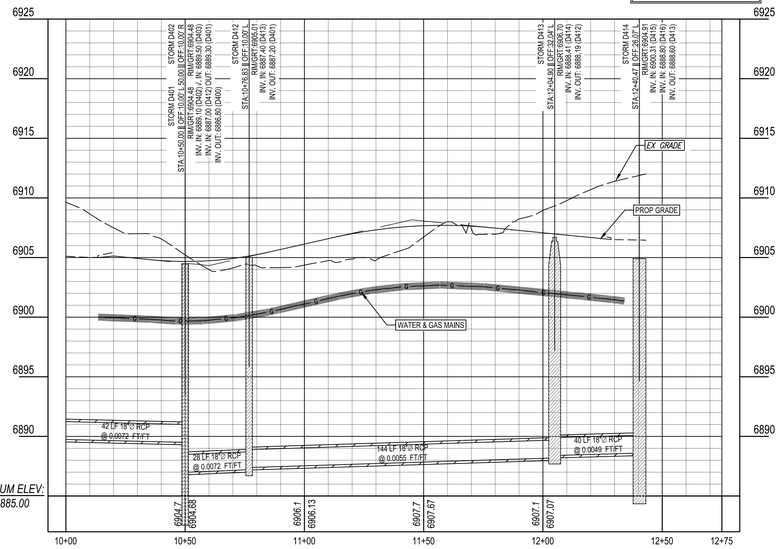
P:\PROJ\22004 FLAGSTAFF - PINEHAVEN\CONST DWGS\22004 PROFILE



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

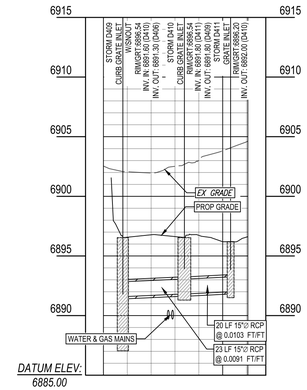
SCALE: 1" = 30'
15 0 15 30



D1 PROFILE VIEW: DRIVE 'A'

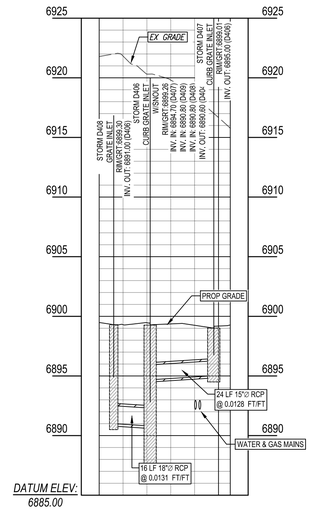
SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'



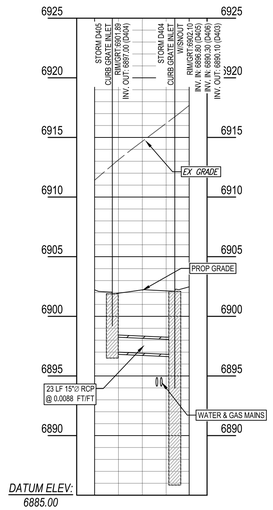
B3 STORM: D409 - D411

SCALE: (H) 1" = 30' || (V) 1" = 6'



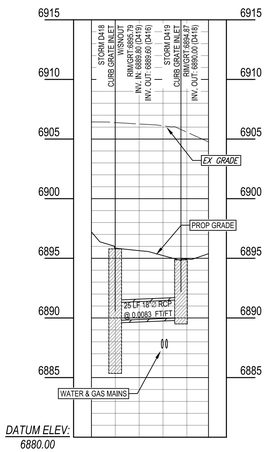
B4 STORM: D408 - D407

SCALE: (H) 1" = 30' || (V) 1" = 6'



B5 STORM: D405 - D404

SCALE: (H) 1" = 30' || (V) 1" = 6'



B6 STORM: D418 - D419

SCALE: (H) 1" = 30' || (V) 1" = 6'

D3 STORM: D403 - D400

SCALE: (H) 1" = 30' || (V) 1" = 6'

D5 STORM: D415 - D413

SCALE: (H) 1" = 30' || (V) 1" = 6'

D6 STORM: D416 - D417

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

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Registered Professional Engineer
CERTIFICATE NO.
77934
ERIC S
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DATE SIGNED
5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 S HIGHWAY 89A
COCONINO COUNTY, ARIZONA

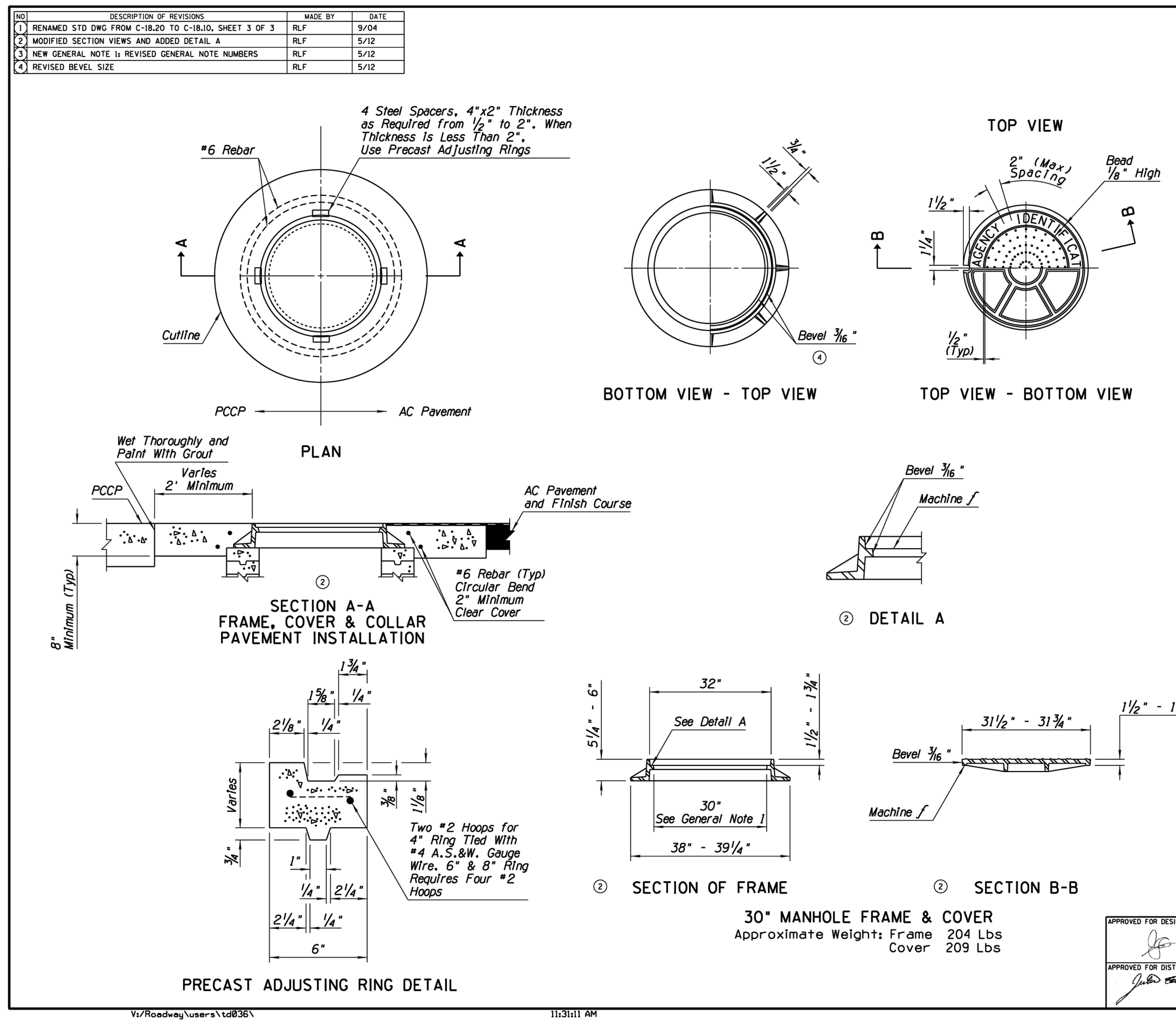
APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
STORM SEWER PLAN & PROFILE
(DRIVE 'B2' & CROSS PROFILES)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C313
REV 4

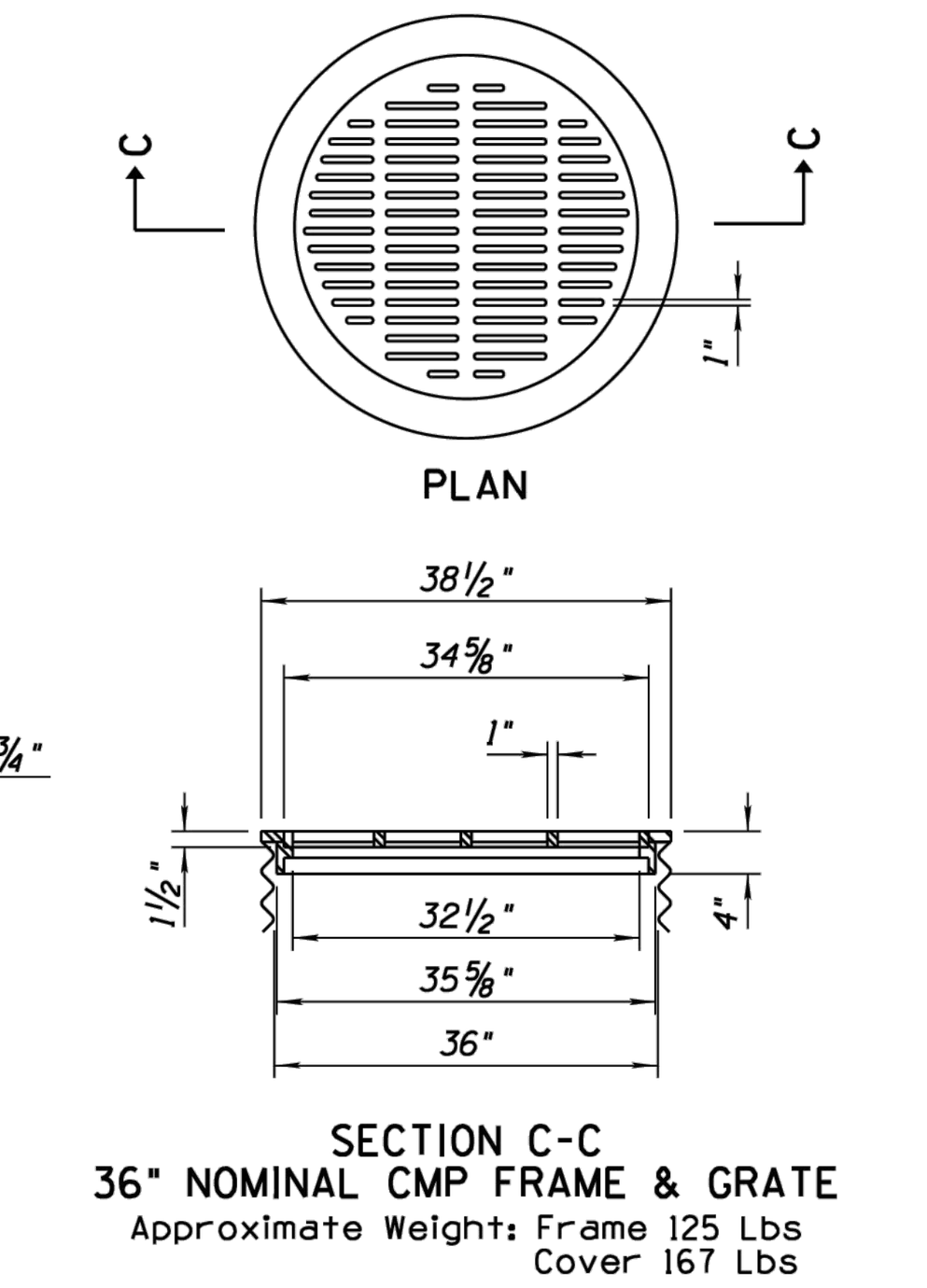
SHEET 18 of 46

R:\DWG\22004 FLAGSTAFF PROP CO\PLANS\ISSUED SHEETS\22004 PROFILE

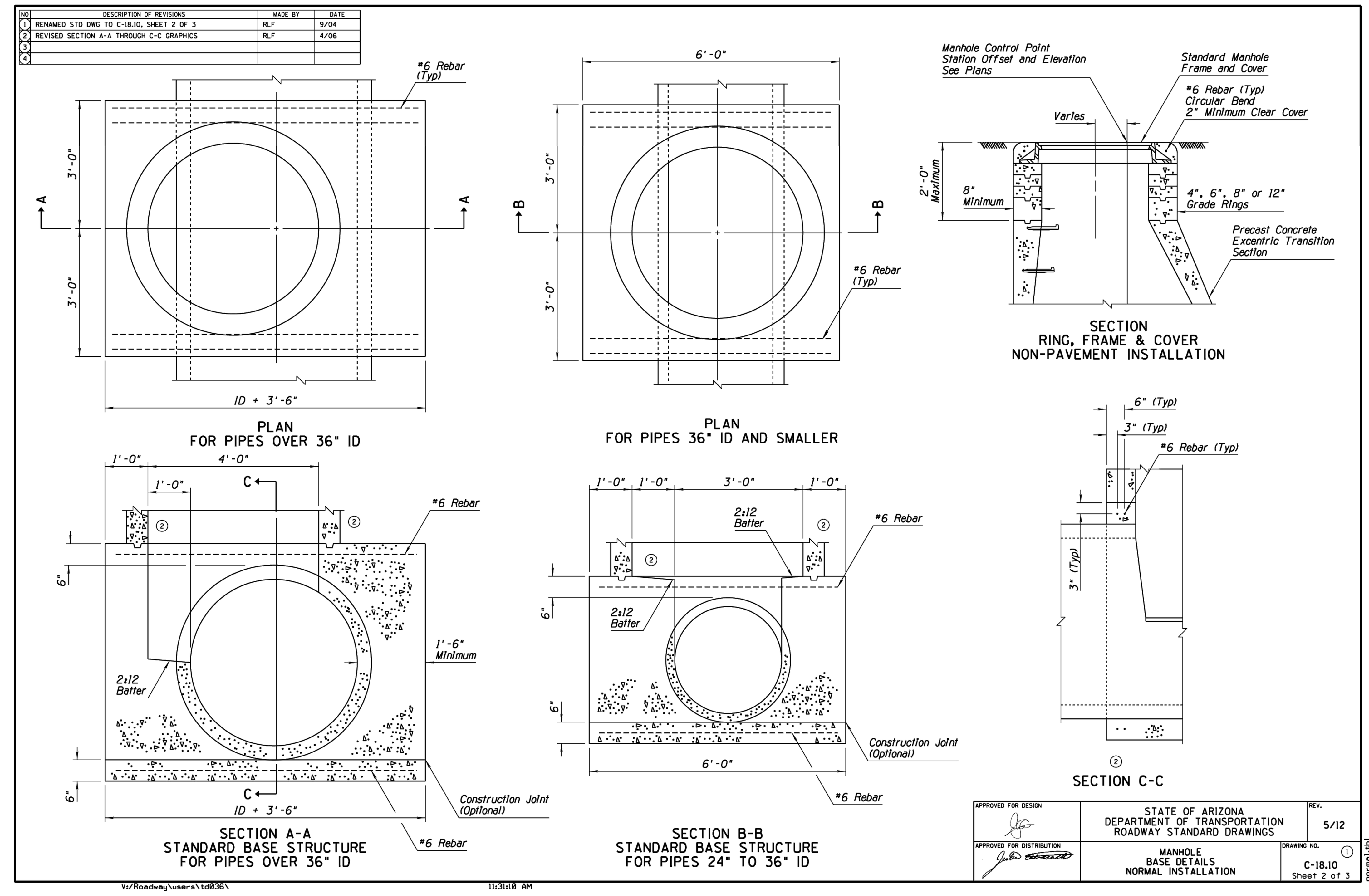


GENERAL NOTES

1. The 30" minimum opening shall be required. Other Frame and Cover dimensions shown are nominal and vary by manufacturer.
2. All frames, grates, and covers shall support HS20 loading, minimum.
3. Casting weights shown are minimum weights and are either for cast-iron or ductile-iron castings. Casting weight shall not exceed 110% of the weights shown.
4. Covers (excluding grates) shall conform to the following:
   A. Manhole covers to contain the agency name and utility, as directed;
   B. Letters shall be 2 inches in height and raised 1/8-inch above the plane of the cover;
   C. Letters and words to be equally spaced; and
   D. Letter font and layout shall be as approved by the Engineer.
5. Details shown are typical. Alternative designs of manhole frames and covers may be used upon approval of the Engineer, as long as the minimum loading and weight criteria (see above) are met.



STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
ROADWAY STANDARD DRAWINGS
REV. 5/12
MANHOLE FRAME AND COVER DETAILS
DRAWING NO. C-18.10 Sheet 3 of 3



STRUCTURE TABLE

ID	TYPE	STRUCTURE INFO
D100	4'Ø MH	RIM/GRT: 6892.83 INV IN (D101 / 24") : 6887.60 INV OUT (X1 / 36") : 6887.53 SUMP: 6887.53
D101	4'Ø DROP MH	RIM/GRT: 6896.75 INV IN (D102 / 24") : 6889.00 INV OUT (D100 / 24") : 6888.00 SUMP: 6888.00
D102	4'Ø MH	RIM/GRT: 6902.41 INV IN (D103 / 24") : 6893.70 INV OUT (D101 / 24") : 6889.51 SUMP: 6889.51
D103	4'Ø DROP MH	RIM/GRT: 6903.48 INV IN (X104 / 24") : 6898.68 INV OUT (D102 / 24") : 6895.00 SUMP: 6895.00
D200	HEADWALL NO WING	RIM/GRT: 6883.75 INV IN (D201 / 24") : 6881.50 SUMP: 6881.50
D201	OUTLET STRUCTURE (SEE BASIN DETAIL)	RIM/GRT: 6884.75 INV OUT (D200 / 24") : 6882.00 SUMP: 6882.00
D300	HEADWALL	RIM/GRT: 6889.55 INV IN (D301 / 24") : 6887.30 SUMP: 6887.30
D301	4'Ø MH	RIM/GRT: 6892.68 INV IN (D302 / 24") : 6887.60 INV IN (D301A / 18") : 6887.90 INV OUT (D300 / 24") : 6887.40 SUMP: 6887.40
D301A	CURB GRATE INLET W/SNOUT	RIM/GRT: 6891.86 INV IN (D301B / 18") : 6888.20 INV OUT (D301 / 18") : 6888.10 SUMP: 6884.35
D301B	CURB GRATE INLET	RIM/GRT: 6891.89 INV OUT (D301A / 18") : 6888.40 SUMP: 6888.40
D302	CURB GRATE INLET W/SNOUT	RIM/GRT: 6896.89 INV IN (D303 / 18") : 6887.90 INV OUT (D301 / 24") : 6887.80 SUMP: 6882.85
D303	CURB GRATE INLET W/SNOUT	RIM/GRT: 6897.50 INV IN (D304 / 18") : 6892.50 INV IN (D305 / 18") : 6888.20 INV OUT (D302 / 18") : 6888.10 SUMP: 6884.35
D304	GRATE INLET W/SNOUT	RIM/GRT: 6896.50 INV IN (D304A / 18") : 6892.80 INV OUT (D303 / 18") : 6892.70 SUMP: 6888.95
D304A	CURB GRATE INLET	RIM/GRT: 6898.32 INV IN (D304B / 18") : 6893.20 INV OUT (D304 / 18") : 6893.10 SUMP: 6893.10
D304B	CURB GRATE INLET	RIM/GRT: 6898.99 INV IN (D304C / 18") : 6893.40 INV OUT (D304A / 18") : 6893.30 SUMP: 6893.30
D304C	CURB GRATE INLET	RIM/GRT: 6900.72 INV OUT (D304B / 18") : 6893.60 SUMP: 6893.60

STRUCTURE TABLE

ID	TYPE	STRUCTURE INFO
D305	CURB GRATE INLET W/SNOUT	RIM/GRT: 6899.87 INV IN (D306 / 18") : 6894.80 INV IN (D309 / 18") : 6888.70 INV OUT (D303 / 18") : 6888.60 SUMP: 6883.85
D306	CURB GRATE INLET W/SNOUT	RIM/GRT: 6899.87 INV IN (D307 / 15") : 6895.20 INV OUT (D305 / 18") : 6895.00 SUMP: 6891.25
D307	CURB GRATE INLET	RIM/GRT: 6901.36 INV IN (D308 / 8") : 6897.20 INV OUT (D306 / 15") : 6897.00 SUMP: 6897.00
D308	YARD DRAIN	RIM/GRT: 6898.61 INV OUT (D307 / 8") : 6897.40 SUMP: 6897.40
D309	4'Ø MH	RIM/GRT: 6901.02 INV IN (D310 / 15") : 6895.80 INV IN (D311 / 18") : 6889.00 INV OUT (D305 / 18") : 6888.90 SUMP: 6888.90
D310	GRATE INLET	RIM/GRT: 6902.53 INV OUT (D309 / 15") : 6896.10 SUMP: 6896.10
D311	CURB GRATE INLET W/SNOUT	RIM/GRT: 6902.58 INV IN (D312 / 18") : 6889.30 INV OUT (D309 / 18") : 6889.20 SUMP: 6884.65
D312	4'Ø MH	RIM/GRT: 6908.24 INV IN (D313 / 18") : 6889.80 INV OUT (D311 / 18") : 6889.70 SUMP: 6889.70
D313	4'Ø MH	RIM/GRT: 6912.18 INV IN (D314 / 18") : 6890.30 INV OUT (D312 / 18") : 6890.20 SUMP: 6890.20
D314	CURB GRATE INLET W/SNOUT	RIM/GRT: 6911.70 INV IN (D315 / 15") : 6900.60 INV IN (D317 / 18") : 6890.80 INV OUT (D313 / 18") : 6890.70 SUMP: 6886.45
D315	CURB GRATE INLET W/SNOUT	RIM/GRT: 6911.09 INV IN (D316 / 15") : 6901.10 INV OUT (D314 / 15") : 6900.90 SUMP: 6897.15
D316	CURB GRATE INLET	RIM/GRT: 6907.19 INV OUT (D315 / 15") : 6901.70 SUMP: 6901.70
D317	CURB GRATE INLET W/SNOUT	RIM/GRT: 6905.64 INV IN (D318 / 18") : 6891.40 INV OUT (D314 / 18") : 6891.30 SUMP: 6887.15
D318	CURB GRATE INLET W/SNOUT	RIM/GRT: 6900.89 INV IN (D323 / 18") : 6895.00 INV IN (D319 / 18") : 6891.80 INV OUT (D317 / 18") : 6891.70 SUMP: 6887.65
D319	CURB GRATE INLET W/SNOUT	RIM/GRT: 6900.47 INV IN (D321 / 18") : 6892.10 INV IN (D320 / 18") : 6892.10 INV OUT (D318 / 18") : 6892.00 SUMP: 6888.25
D320	GRATE INLET	RIM/GRT: 6903.89 INV OUT (D319 / 18") : 6892.30 SUMP: 6892.30

STRUCTURE TABLE

ID	TYPE	STRUCTURE INFO
D321	CURB GRATE INLET	RIM/GRT: 6897.05 INV IN (D322 / 18") : 6892.40 INV OUT (D319 / 18") : 6892.30 SUMP: 6892.30
D322	CURB GRATE INLET	RIM/GRT: 6896.06 INV OUT (D321 / 18") : 6892.60 SUMP: 6892.60
D323	CURB GRATE INLET W/SNOUT	RIM/GRT: 6901.39 INV IN (D324 / 18") : 6896.00 INV OUT (D318 / 18") : 6895.80 SUMP: 6892.05
D324	4'Ø MH	RIM/GRT: 6902.96 INV IN (D325 / 15") : 6896.80 INV IN (D326 / 15") : 6896.80 INV OUT (D323 / 18") : 6896.60 SUMP: 6896.60
D325	GRATE INLET	RIM/GRT: 6902.90 INV OUT (D324 / 15") : 6897.00 SUMP: 6897.00
D326	GRATE INLET	RIM/GRT: 6901.99 INV OUT (D324 / 15") : 6897.00 SUMP: 6897.00
D501	CURB GRATE INLET	RIM/GRT: 0.00 SUMP: -2.41
D502	HEADWALL (W/WINGS)	RIM/GRT: 6878.71 SUMP: 6877.00

PIPE TABLE

PIPE RUN	SIZE	LENGTH (FEET)	SLOPE (FT/FT)
D100 - D101	24" RCP	60	0.0067
D101 - D102	24" RCP	103	0.0050
D102 - D103	24" RCP	42	0.0315
D103 - X104	24" RCP	95	0.0093
D200 - D201	24" RCP	42	0.0120
D300 - D301	24" RCP	15	0.0070
D301 - D302	24" RCP	72	0.0028
D302 - D303	18" RCP	22	0.0091
D303 - D304	18" RCP	14	0.0152
D303 - D305	18" RCP	63	0.0064
D305 - D306	18" RCP	22	0.0091
D305 - D309	18" RCP	25	0.0082
D307 - D308	8" HDPE	27	0.0075
D311 - D312	18" RCP	78	0.0052
D312 - D313	18" RCP	79	0.0051
D313 - D314	18" RCP	61	0.0066
D314 - D315	15" RCP	29	0.0107
D314 - D317	18" RCP	92	0.0054
D315 - D316	15" RCP	58	0.0104
D317 - D318	18" RCP	49	0.0062
D318 - D319	18" RCP	23	0.0088
D318 - D323	18" RCP	46	0.0174
D319 - D320	18" RCP	19	0.0109
D319 - D321	18" RCP	27	0.0076

PIPE TABLE

PIPE RUN	SIZE	LENGTH (FEET)	SLOPE (FT/FT)
D321 - D322	18" RCP	36	0.0057
D323 - D324	18" RCP	45	0.0134
D324 - D325	15" RCP	11	0.0195
D324 - D326	15" RCP	38	0.0053
D501 - D502	18" RCP	33	0.0092

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
DATE SIGNED 5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

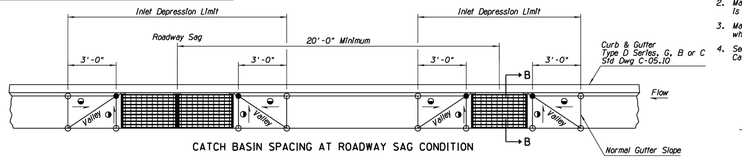
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
STORMWATER DETAILS

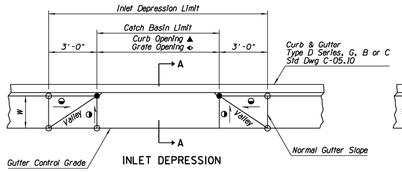
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C321
REV 4
SHEET 19 of 46

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 DETAIL

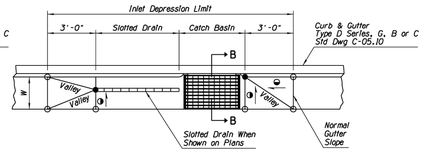
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED STANDARD DRAWING	RLF	5/04
2			
3			
4			



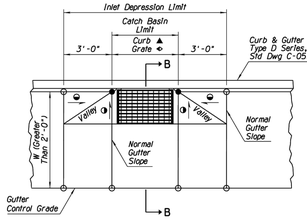
CATCH BASIN SPACING AT ROADWAY SAG CONDITION



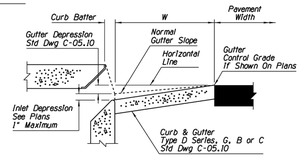
INLET DEPRESSION



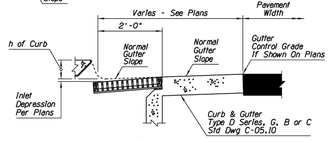
INLET DEPRESSION
CATCH BASIN WITH SLOTTED DRAIN



INLET DEPRESSION
CATCH BASIN WITH WIDE GUTTER



SECTION A-A
(Type D Curb & Gutter Shown)



SECTION B-B
(Type D Curb & Gutter Shown)

GENERAL NOTES

1. No inlet depression shall extend into a traffic lane.
2. Maximum combined inlet and gutter depression is 3". See Section A-A.
3. Maximum distance along curb between catch basins where full gutter depression is used is 10'.
4. See Std Dwg C-15.80 for aprons used with Std Dwg C-15.80 Catch Basin.

LEGEND

- ○ - Normal pavement or gutter flow line elevation.
- ● - Depressed elevation.
- ⊖ - Straight grade with downward slope.
- W - Normal gutter width per Std Dwg C-05.10.
- ▲ - For Types 1, 3, & 5 Catch Basin.
- ⊕ - For Type 4 Catch Basin & Std Dwg C-15.91.

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	CATCH BASIN MISCELLANEOUS DETAILS	DRAWING NO. C-15.70 Sheet 1 of 2 ①

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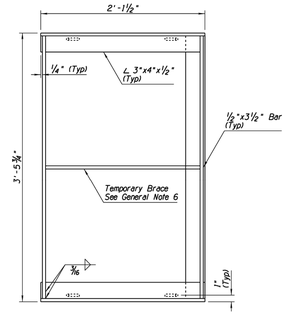
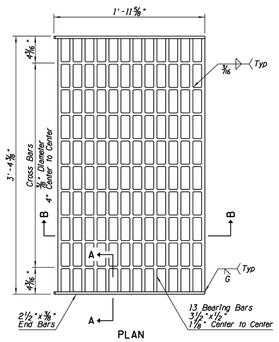
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REVISED GRATE DIMENSIONS AND REISSUED STANDARD	RLF	7/05
2			
3			
4			



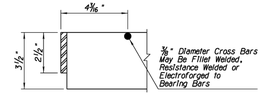
PLAN



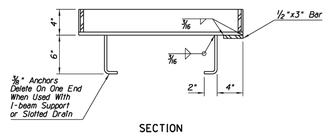
PLAN

GENERAL NOTES

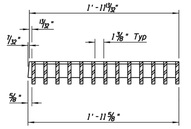
1. Grating units and frames shall be fabricated from structural steel ASTM A36 except as noted.
2. All welding shall be in accordance with Std Spec 604-3.06.
3. The completed assembly shall be given one shop coat of Number 1 paint.
4. Frames and grates shall fit to a maximum rock of 1/32" at any point.
5. Grate opening is 3.60 Sq Ft.
6. Bracing of frame is recommended for handling and placement purposes.
7. Frame and Grate to be used with Std Dwgs C-15.10, C-15.30 and C-15.40.
8. Grate may be used with Std Dwg C-15.92 Frame.



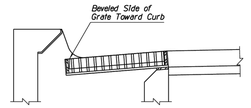
SECTION A-A



SECTION
FRAME



SECTION B-B
GRATE
①



TYPICAL INSTALLATION
C-15.10 Catch Basin Shown
Similar for C-15.30 and C-15.40

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	CATCH BASIN FRAME AND GRATE	DRAWING NO. C-15.50

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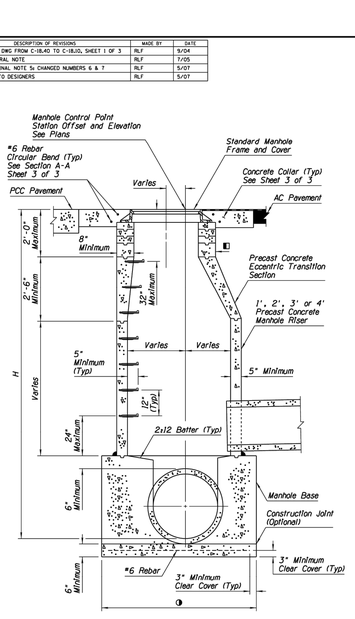
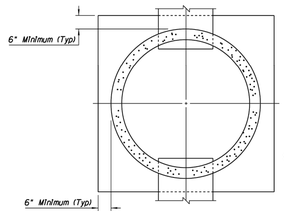
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	RENAMED STD DWG FROM C-18.40 TO C-18.10, SHEET 1 OF 3	RLF	9/04
2	REVISED GENERAL NOTE	RLF	7/05
3	DELETED ORIGINAL NOTE 5; CHANGED NUMBERS 6 & 7	RLF	5/07
4	ADDED NOTE TO DESIGNERS	RLF	5/07



SECTION
NORMAL INSTALLATION
STANDARD BASE



SECTION A-A

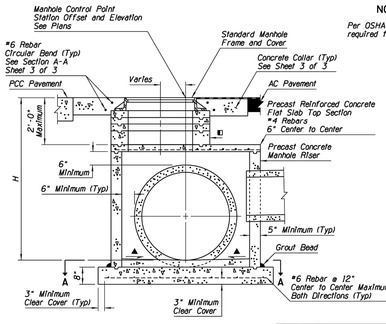
GENERAL NOTES

1. Pipe sizes and elevations are shown on plans.
2. The manhole height, H, shall be measured from the lowest invert elevation to the top of the manhole frame.
3. Concrete for cast-in-place manholes shall be Class B.
② 4. All manholes deeper than 56 inches shall have steps. Manhole steps shall be constructed in accordance with AASHTO M199. Where precast manholes are used, the steps shall be installed at the same time sections are cast.
③ 5. Precast manhole sections shall be manufactured in accordance with AASHTO M199, except that the compressive strength of each section shall be determined and accepted in accordance with Std Spec 1006-7.
③ 6. Manhole size, location and elevation shall be as shown on plans.
③② 7. Backfill material shall be compacted to at least 95 percent of the maximum density per the applicable test method of the ADOT Materials Testing Manual.
◧ 4', 6', 8' or 12' (30" Inside Diameter) Grade Rings
▲ 1/4"/ft
◑ See Sheet 2 of 3

④

NOTE TO DESIGNERS

Per OSHA requirements, special treatments are required for heights exceeding 30 ft.



SECTION
SHALLOW INSTALLATION
SLAB BASE

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	MANHOLE RISER DETAILS	DRAWING NO. C-18.10 Sheet 1 of 3 ①

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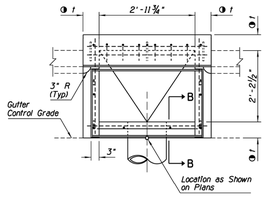
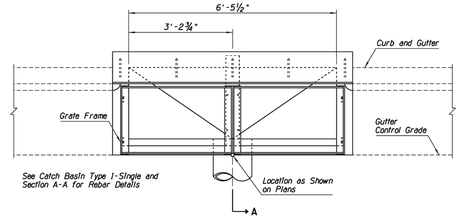
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REVISED NOTE * 5	RLF	7/05
2	REMOVED UNIT OF MEASURE FROM WELD SPECIFICATION	RLF	4/06
3			
4			



PLAN - CATCH BASIN TYPE 1 - SINGLE

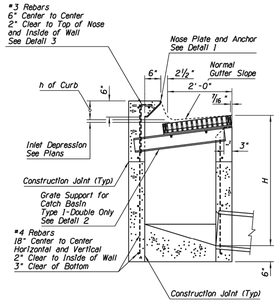
Dimensions are Common to Catch Basin Type 1-Single Except as Shown



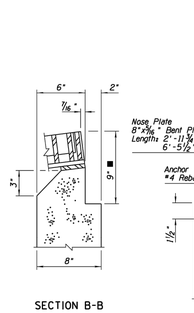
PLAN - CATCH BASIN TYPE 1 - DOUBLE

GENERAL NOTES

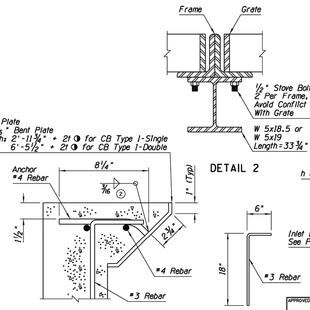
1. Catch basin used at roadway sag.
2. Pipes can be placed in any wall.
3. Sump floor shall be a wood troweled finish with a minimum 4:1 slope in all directions to outlet.
4. All rebar shall be ASTM A36.
5. All welding shall be in accordance with Std Spec 604-3.06.
6. Grate, frame, beam and nose plate shall be given one shop coat of Number 1 paint.
7. All concrete shall be Class B.
8. Construction joints and drains shall be placed to meet field conditions. See Std Dwg C-15.70.
9. Any specified inlet depression shall be warped to opening according to Std Dwg C-15.70.
10. Silicone sealant shall be placed between the grate frame and PCCP, recessed 1/4" from the pavement surface.
11. Curb opening areas, sq. ft., for Type 1-single and Type 1-double equal 0.25 and 0.54, respectively, for each inch of "h" + inlet depression - 2.35". See Std Dwg C-15.70.
12. See Std Dwg C-15.50 for grate and frame details and grate opening areas.
13. ◑ 1 = 6" when H is 8' or less
8" when H is greater than 8'
See Section B-B
■ = 9" when pavement is AC
Match pavement thickness when pavement is PCCP



SECTION A-A



SECTION B-B
USE THIS SECTION WHEN T=8"



DETAIL 1

DETAIL 2

DETAIL 3

DETAIL FOR WIDE GUTTER
(SEE STD DWG C-05.10)

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	CATCH BASIN TYPE 1	DRAWING NO. C-15.10

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REV	DATE	DESCRIPTION	INIT
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2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

REVISIONS

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 REGISTERED ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

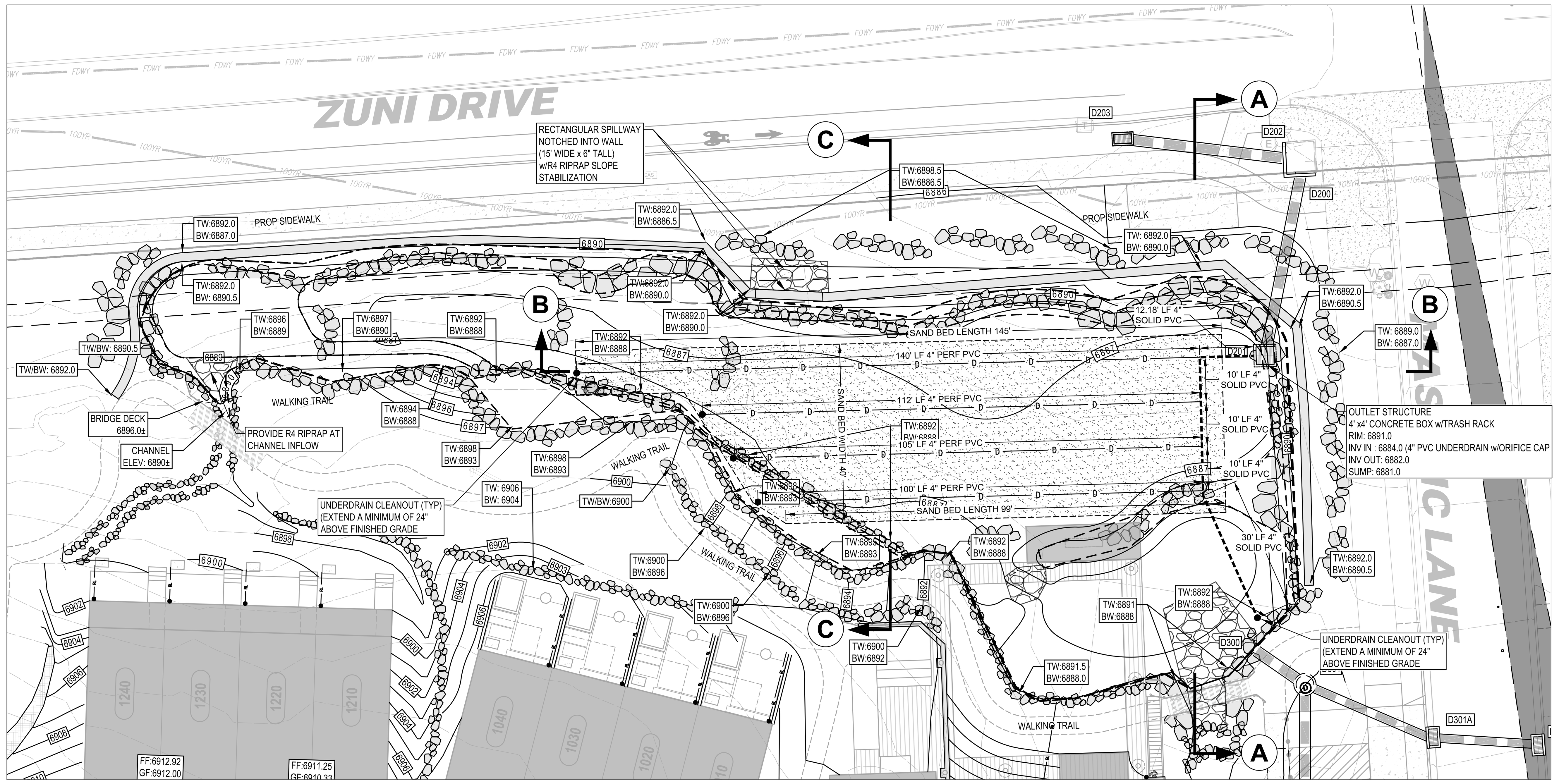
PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2655 W. KINGMAN LANE
COCONINO COUNTY, ARIZONA

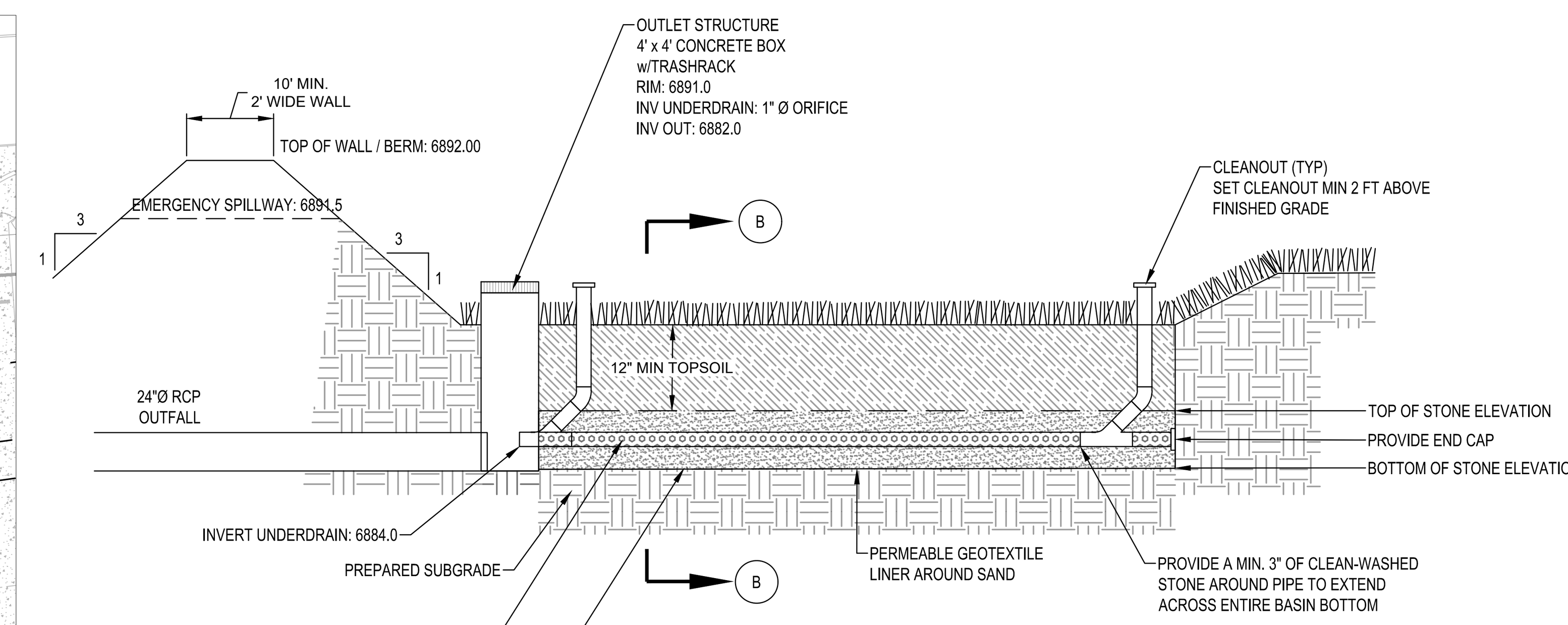
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
STORMWATER DETAILS

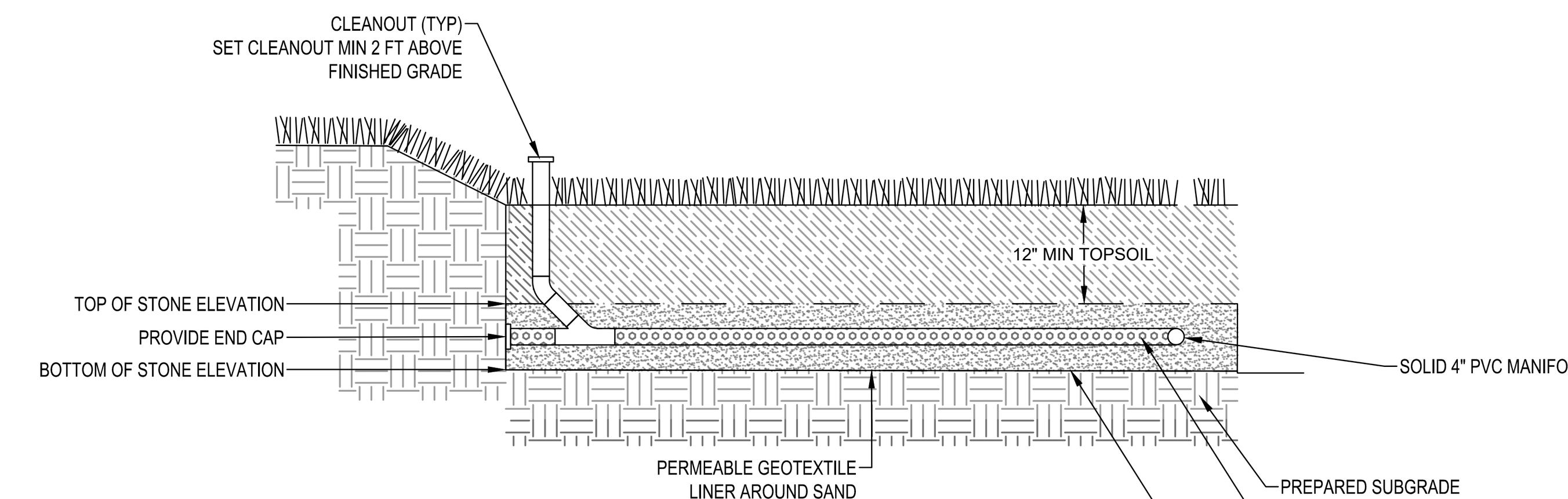
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C322
REV 4

SHEET 20 of 46

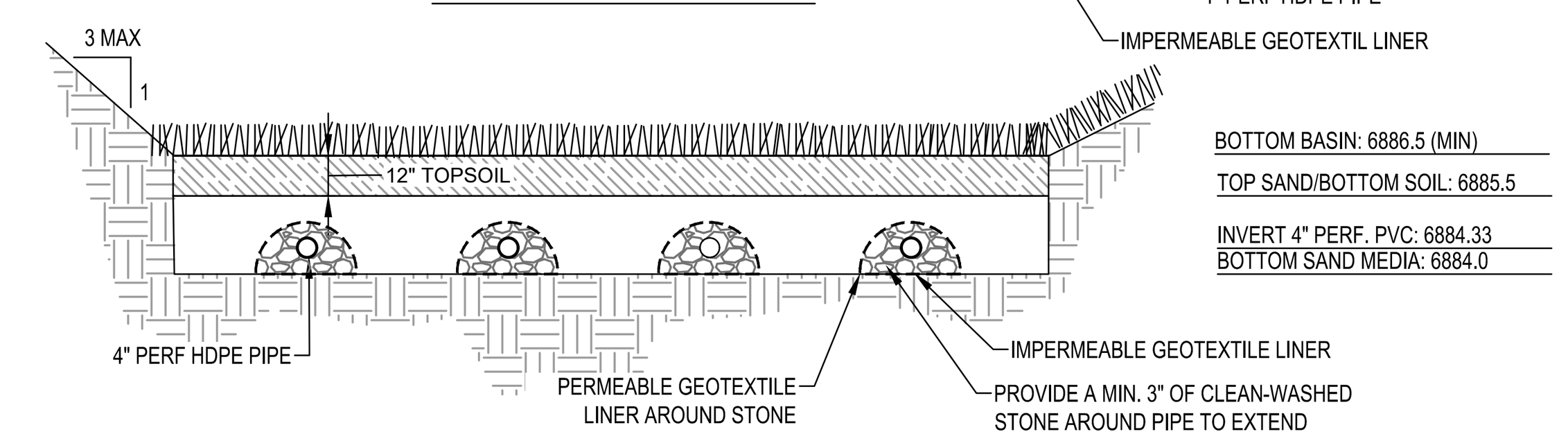




SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

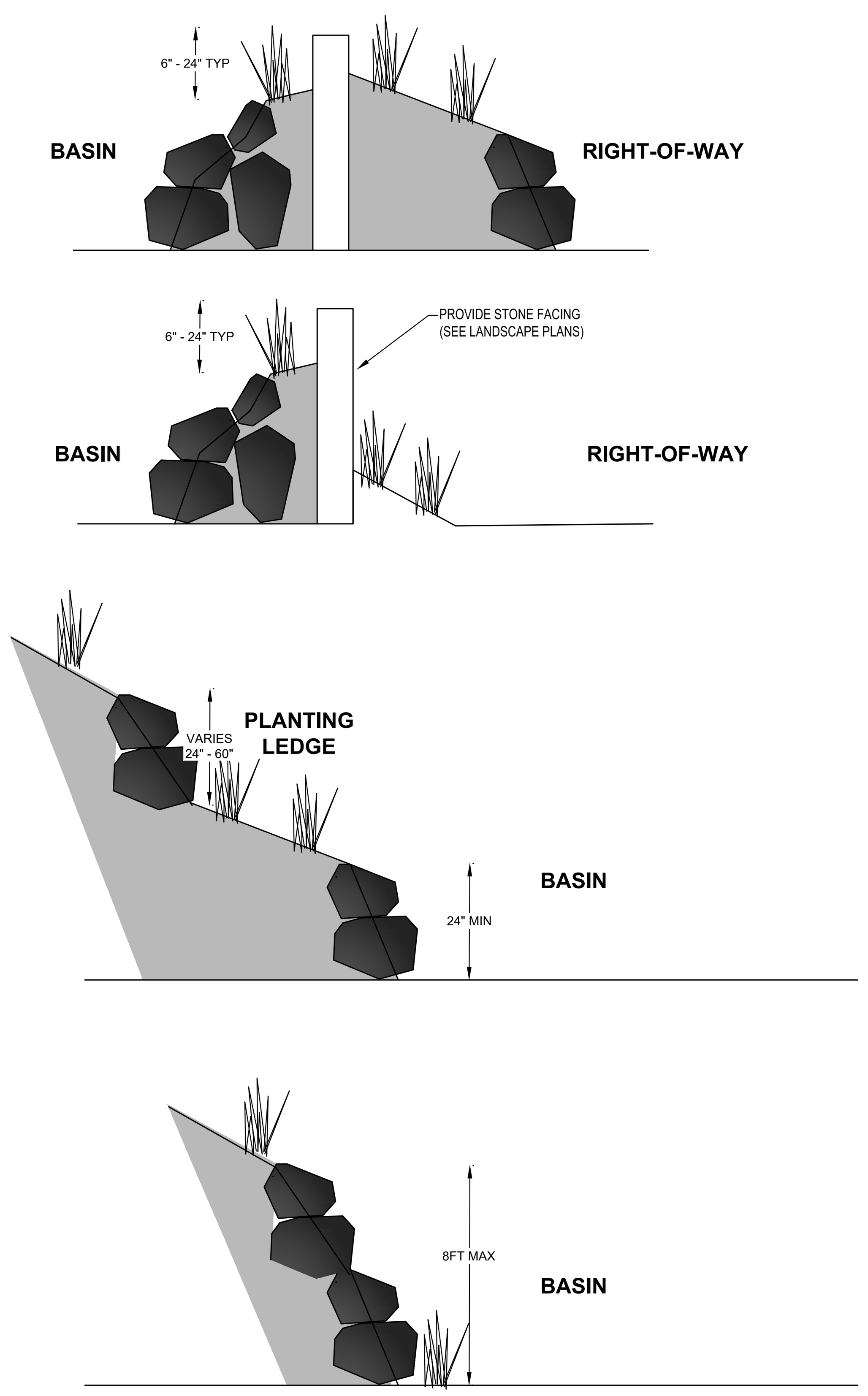
1. TEXTURE OF PLANTING SOIL SHOULD CONFORM TO THE CLASSIFICATION WITHIN THE USDA TRIANGLE FOR SANDY LOAM OR LOAMY SAND. PLANTING SOIL SHOULD BE A MIXTURE OF SAND, SILT, AND CLAY PARTICLES AS REQUIRED TO MEET THE CLASSIFICATION. RANGES OF PARTICLE SIZE DISTRIBUTION, AS DETERMINED BY PIPETTE METHOD IN COMPLIANCE WITH ASTM F-1632.
2. PLANTING SOIL SHOULD BE SCREENED AND FREE OF STONES LARGER THAN A HALF-INCH (½"; 12.7 mm) IN ANY DIMENSION. NO MORE THAN TEN PERCENT (10%) OF THE SOIL VOLUME SHOULD BE COMPOSED OF SOIL PEDS GREATER THAN ONE INCH (1").
3. CLODS, OR NATURAL CLUMPS OF SOILS, GREATER THAN THREE INCHES (3") IN ANY DIMENSION SHOULD BE ABSENT FROM THE PLANTING SOIL. SMALL CLODS RANGING FROM ONE TO THREE INCHES (1-3") AND PEDS, NATURAL SOIL CLUMPS UNDER ONE INCH (1") IN ANY DIMENSION, MAY BE PRESENT BUT SHOULD NOT MAKE UP MORE THAN TEN PERCENT (10%) OF THE SOIL BY VOLUME.
4. THE pH OF THE PLANTING SOIL SHOULD HAVE A RANGE OF 5.8-7.1.
5. SOLUBLE SALTS SHOULD BE LESS THAN 2.0 mmhos/cm (dS/m), TYPICALLY AS MEASURED BY 1:2 SOIL-WATER RATIO BASIC SOIL SALINITY TESTING. SODIC SOILS (EXCHANGEABLE SODIUM PERCENTAGE (ESP) GREATER THAN 15 AND/OR SODIUM ADSORPTION RATIO (SAR) GREATER THAN 13) SHALL NOT BE ACCEPTABLE FOR USE REGARDLESS OF AMENDMENT.
6. ORGANIC CONTENT OF PLANTING SOIL SHOULD HAVE A RANGE OF THREE TO FIFTEEN PERCENT (3-15%) BY WEIGHT AS DETERMINED BY LOSS ON IGNITION (ASTM D2974). TO ADJUST ORGANIC CONTENT, PLANTING SOIL MAY BE AMENDED, PRIOR TO PLACING AND FINAL GRADING, WITH THE ADDITION OF ORGANIC COMPOST.
7. ALL AGGREGATE WITHIN THE STONE STORAGE BED SHALL BE CLEAN-WASHED, DEFINED AS HAVING LESS THAN 0.5% WASH LOSS, BY MASS, WHEN TESTED PER THE AASHTO T-11 WASH LOST TEST.
8. THE BASIN EMBANKMENT SHALL BE PLACED IN EIGHT-INCH MINIMUM LIFTS TO A MINIMUM NINETY-FIVE (95) PERCENT DRY DENSITY. PRIOR TO PROCEEDING TO THE NEXT LIFT, COMPACTION SHALL BE CHECKED BY THE TOWNSHIP ENGINEER OR AN APPROVED SOILS ENGINEER WHO SHALL PROVIDE THE TOWNSHIP ENGINEER WITH A WRITTEN REPORT. COMPACTION TESTS SHALL BE PERFORMED USING THE MODIFIED PROCTOR METHOD IN ACCORDANCE WITH ASTM D-1577. COMPACTION TESTS SHALL BE RUN ON THE LEADING AND TRAILING EDGE AS WELL AS THE TOP OF BERM.

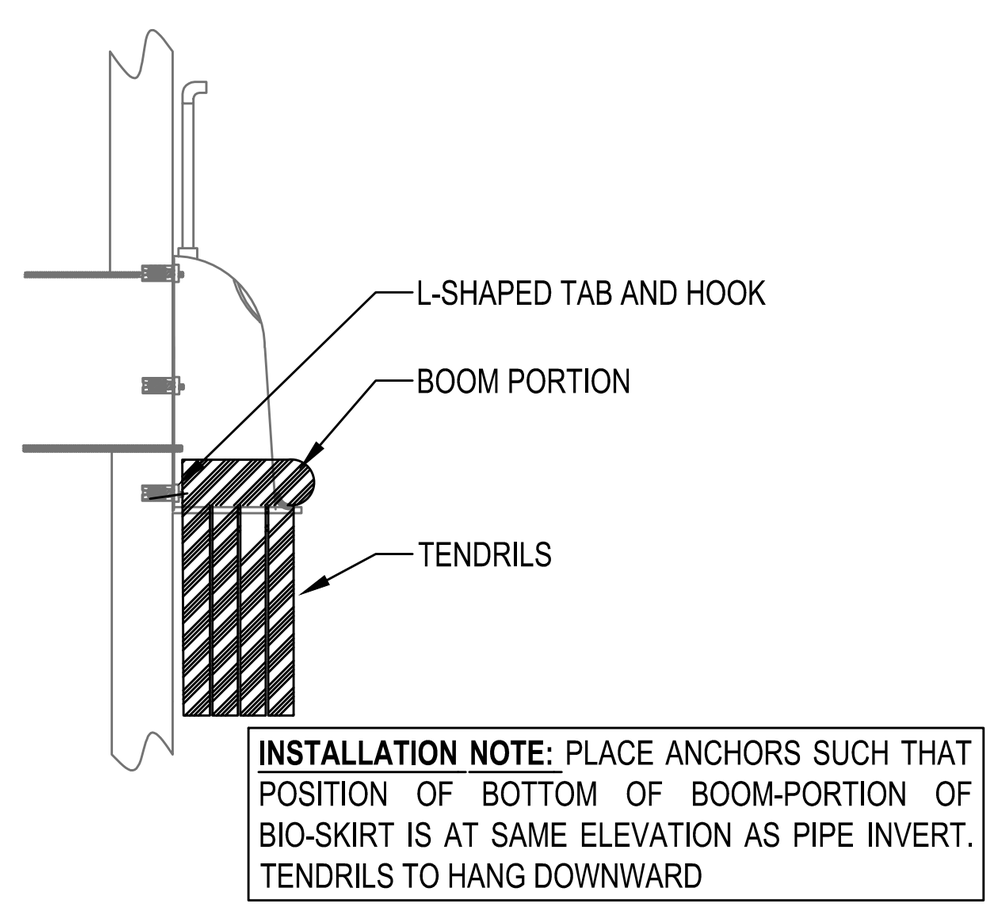
MAINTENANCE:

1. THE PERMITTED SHALL BE REQUIRED TO FOLLOW THE MAINTENANCE PROCEDURES OUTLINES BELOW AND IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE NOTES ON THE PCSM NOTES SHEET OF THIS PLAN SET.
2. MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE EXTENDED DETENTION BASIN AND SHOULD TAKE PLACE ON A QUARTERLY BASIS. A BASIN MAINTENANCE PLAN SHOULD BE DEVELOPED WHICH INCLUDES THE FOLLOWING MEASURES:
   - ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR, AS WELL AS AFTER EVERY STORM GREATER THAN 1 INCH.
   - STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.
   - SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED.
   - MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE REMOVED FROM THE BASIN.
   - VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION.
   - VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES.
   - VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REESTABLISHED.

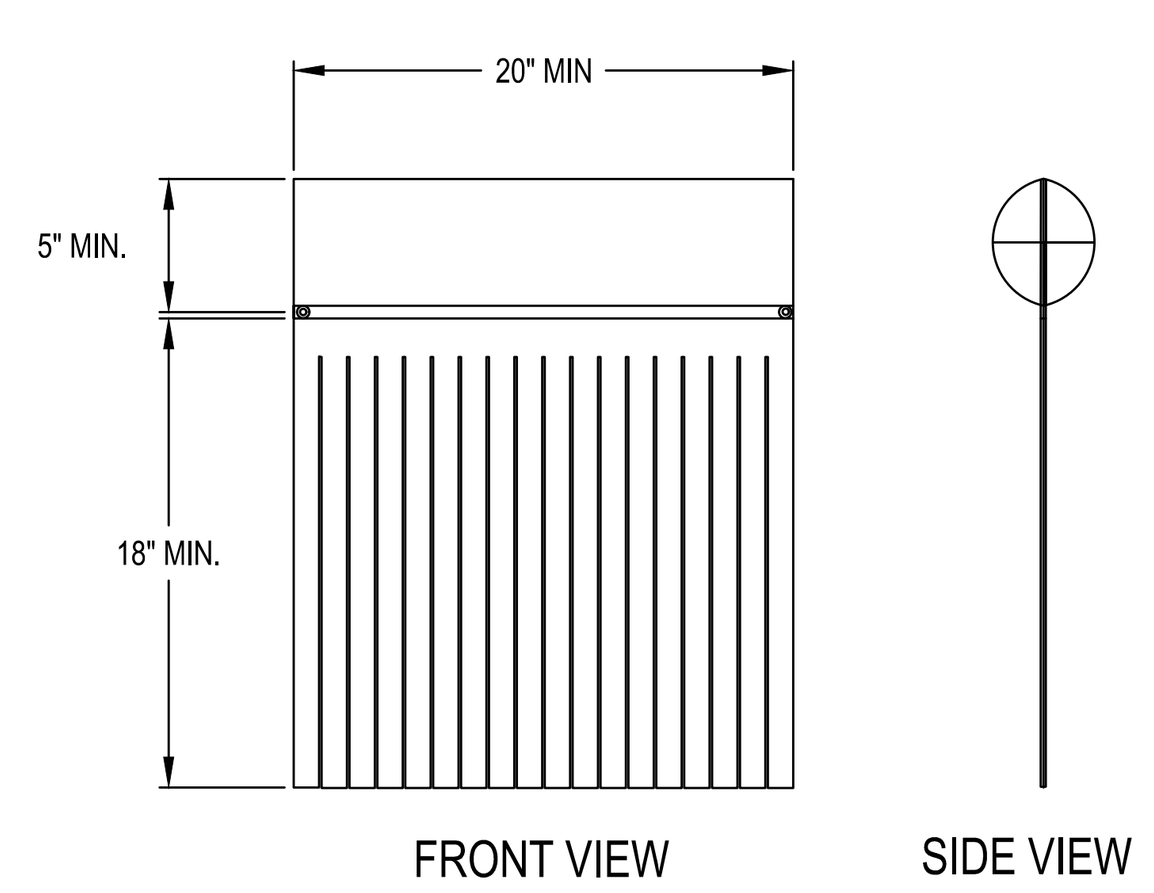
C1 BASIN DETAIL

NOT TO SCALE





INSTALLATION DETAIL

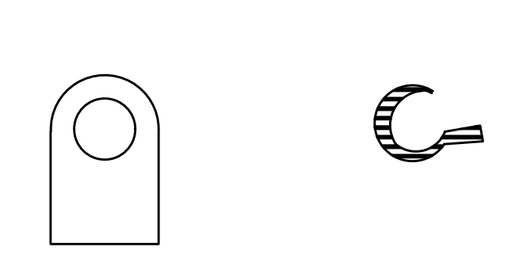


CONFIGURATION DETAIL

NOTES:

1. MANUFACTURER: ALL NEW CATCH BASINS OR WATER QUALITY STRUCTURES SHALL BE OUTFITTED WITH THE BIO-SKIRT(R) HYDROCARBON REDUCING SKIRTED BOOM AS MANUFACTURED BY: (OR PRE-APPROVED EQUAL)
   BEST MANAGEMENT PRODUCTS, INC.
   9 MATHEWS DRIVE, UNITS A1-A2
   EAST HADDAM, CT 06423
   TOLL FREE (800) 504-8008 OR (888) 434-0277
   WEB SITE: WWW.BMPINC.COM
2. THE SKIRTED BOOM SHALL BE COMPRISED OF AN UPPER BOOM PORTION THAT IS AN ADSORBENT FABRIC COVERED FLOATING BOOM OF 5" MINIMUM DIAMETER WITH AN INTEGRAL LOWER SKIRT PORTION COMPRISED OF FABRIC TENDRILS OF AN 18" MINIMUM LENGTH THAT HANG BENEATH THE BOOM.
3. ALL BOOMS SHALL BE MADE FROM GEO-TEXTILE QUALITY NEEDLE-WOVEN FILTRATION FABRIC MANUFACTURED FROM 100% RECYCLED SELECT FIBERS WITH A 0.125" MINIMUM THICKNESS.
4. ALL FABRIC SHALL BE PROTECTED WITH A COVALENTLY SURFACE BONDED NON-LEACHING ANTIMICROBIAL AGENT AND BOOMS SHALL DISPLAY A TAG INDICATING "ANTIMICROBIAL" WHICH PRESERVES THE SERVICE LIFE OF THE UNIT.
5. THE BIO-SKIRT SHALL BE POSITIONED IN FRONT OF THE EXIT PIPE AND SNOUT® OIL-DEBRIS SEPARATOR IF SO EQUIPPED (THE PREFERRED APPLICATION OF THE BIO-SKIRT IS TO BE DEPLOYED WITH THE SNOUT).
6. THE SKIRTED BOOM SHALL BE SECURELY ATTACHED TO THE STRUCTURE WALL ON EACH SIDE OF THE EXIT PIPE WITH 3/8" STAINLESS STEEL BOLTS, STAINLESS STEEL TABS, PLASTIC-COMPOSITE HOOKS AND ELASTOMERIC CORD AS FOUND IN MANUFACTURER SUPPLIED IN INSTALLATION KIT.
7. FOR APPLICATIONS WHERE MULTIPLE BIO-SKIRTS ARE DEPLOYED TOGETHER FOR LARGER SNOUTS (E.G. ON 24" AND LARGER SNOUTS PER SCHEDULE BELOW*), CONNECT SKIRTS GROMMET TO GROMMET WITH HOOKS AND CORD AS SUPPLIED IN THE INSTALLATION KIT.

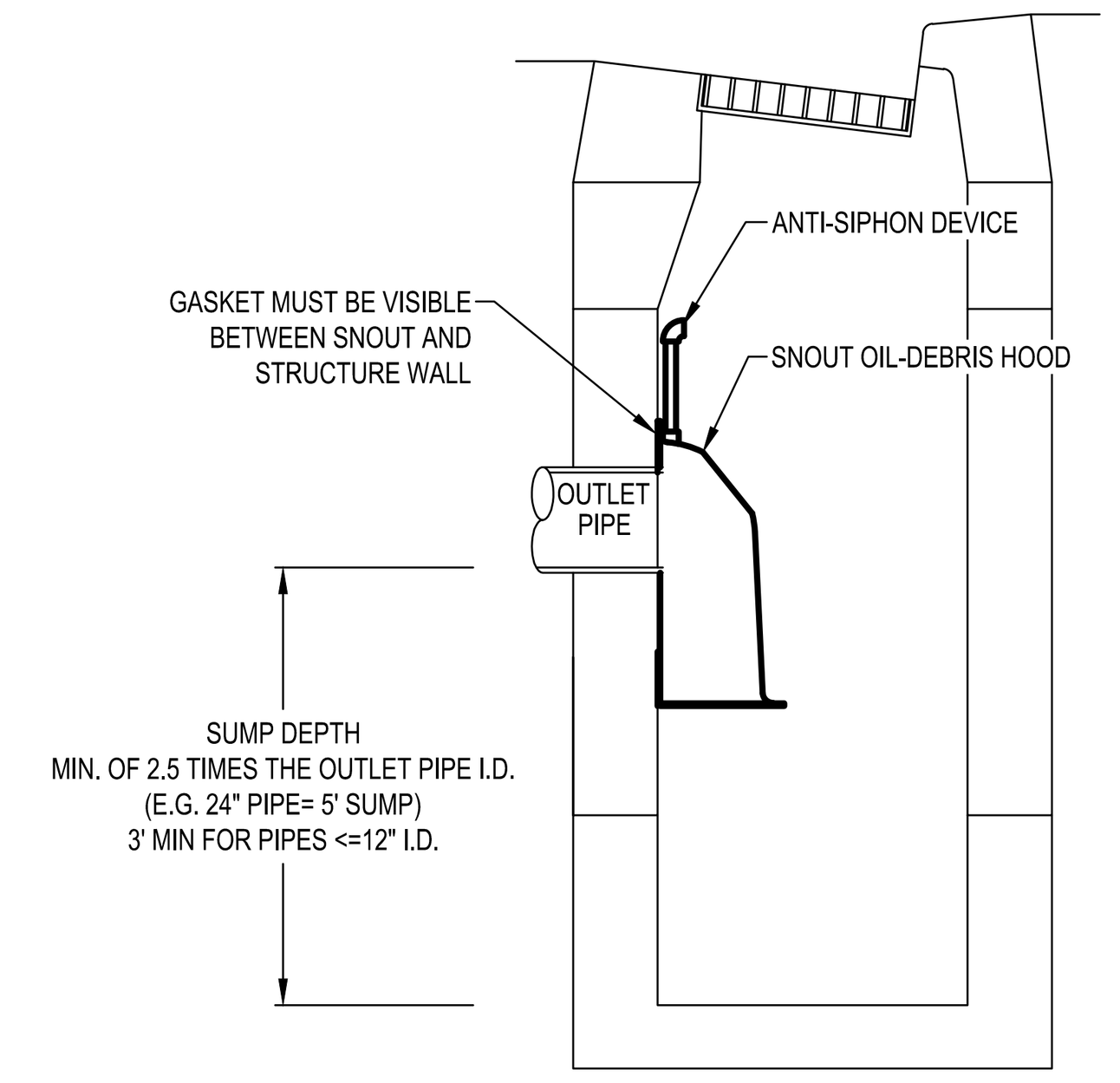
TYPICAL DEPLOYMENT SCHEDULE:
- 12-18" SNOUT- ONE BIO-SKIRT
- 24-30" SNOUT- TWO BIO-SKIRTS
- 36-52" SNOUT- THREE BIO-SKIRTS
- 72" AND UP, CALL 800-504-8008 FOR GUIDANCE.



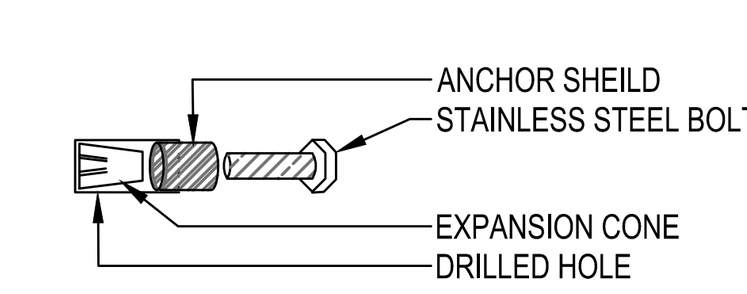
L-SHAPED TAB AND HOOK

D1 BMP INLET SNOUT - BIOSKIRT DEVICE

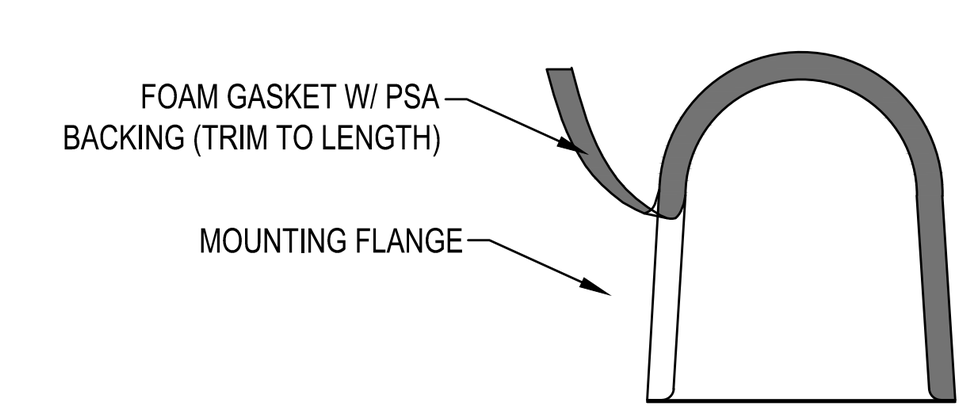
NOT TO SCALE



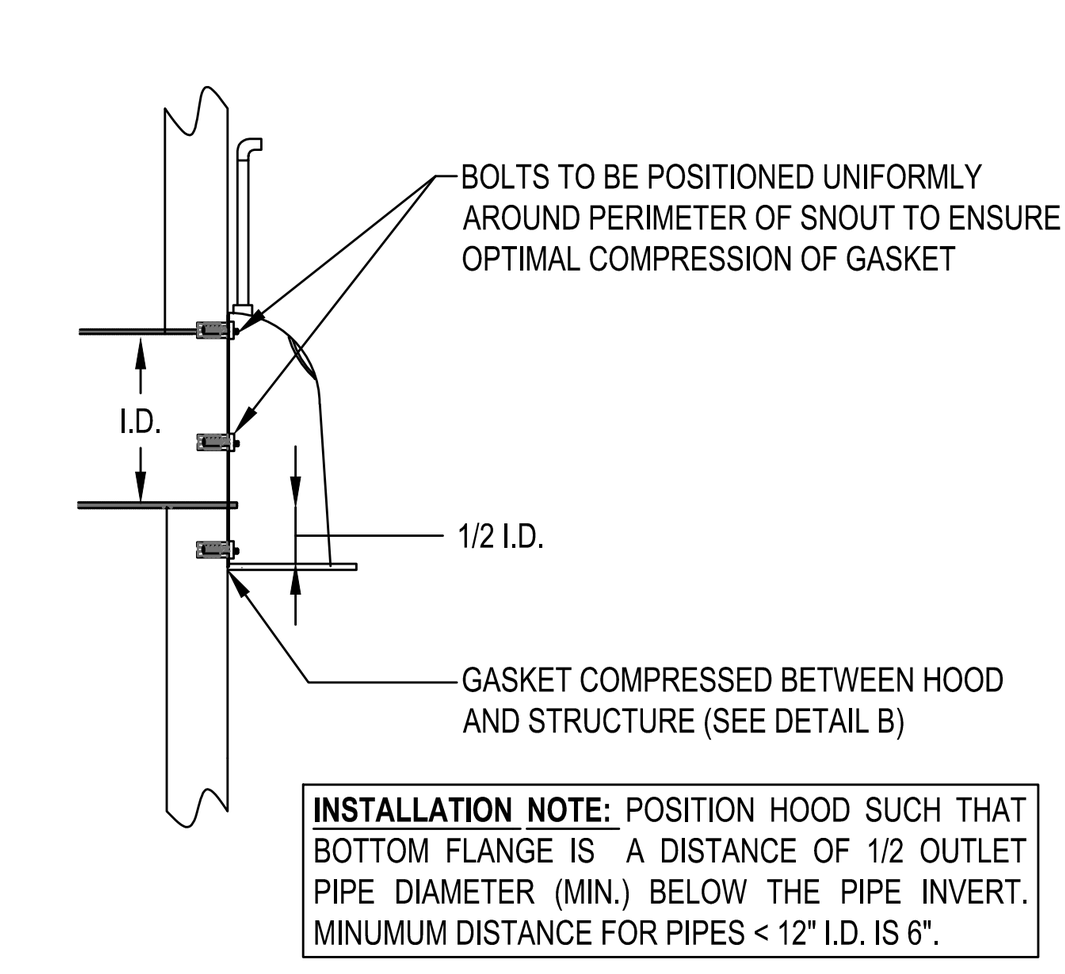
TYPICAL INSTALLATION



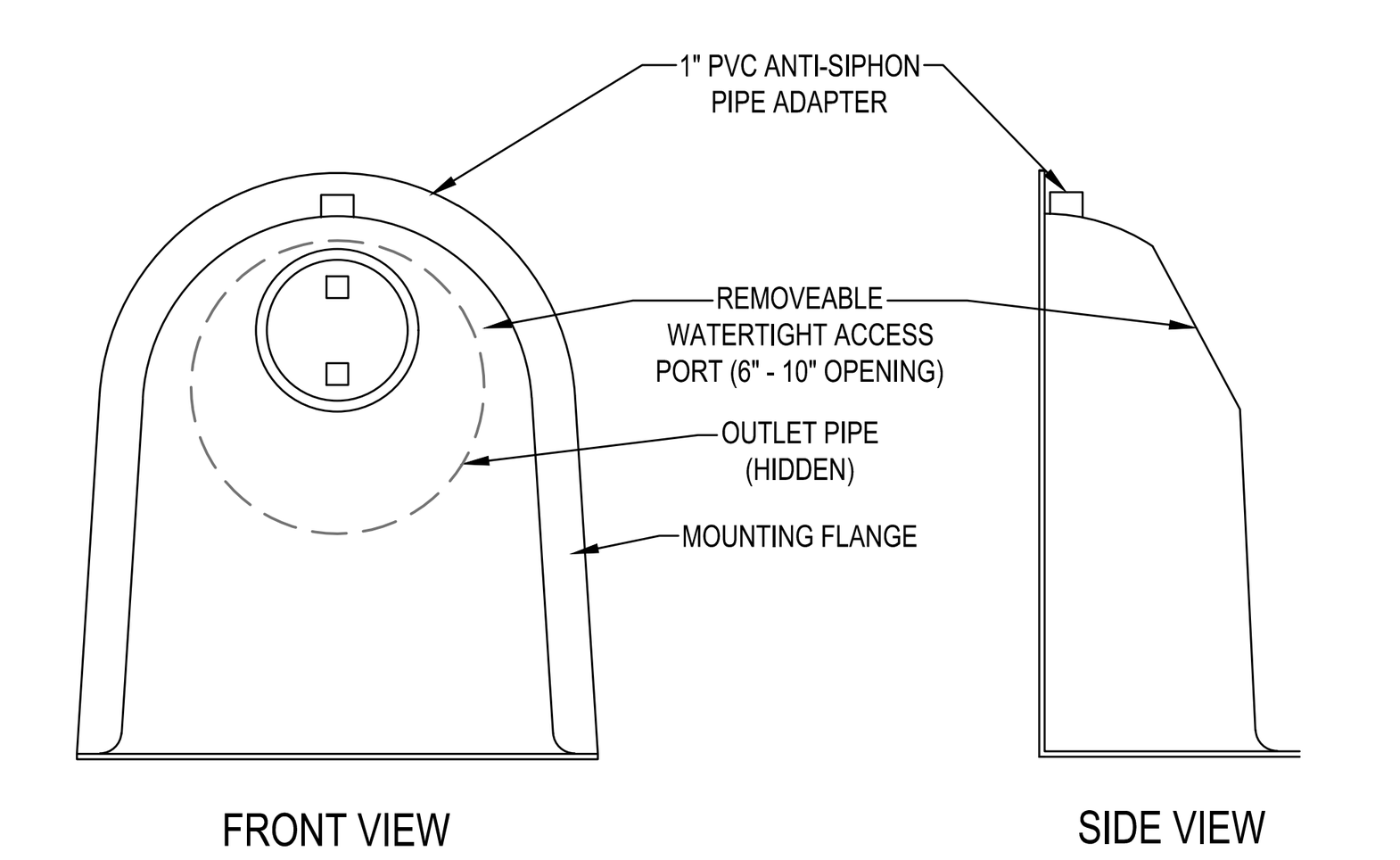
DETAIL A



DETAIL B



INSTALLATION DETAIL



CONFIGURATION DETAIL

C1 BMP INLET SNOUT DEVICE

NOT TO SCALE

NOTES:

1. MANUFACTURER: ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE PROVIDED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   53 MT. ARCHER RD.
   LYME, CT 06371
   TOLL FREE: (800) 504-8008 OR (877) 434-3197
   WEB SITE: www.bmpinc.com
2. CONFIGURATION: ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
3. PIPE COVERAGE: THE SIZE OF THE HOOD SHALL PERMIT THE O.D. OF THE OUTLET PIPE TO BE COVERED COMPLETELY.
4. HOOD POSITION: THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE I.D. WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D. GREATER INSERTION DEPTH IS PERMISSIBLE.
5. ANTI-SIPHON VENT: VENT WITH ELBOW AND FEMALE ADAPTER SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
6. MOUNTING SURFACE PREPARATION: THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
7. SNOUT/SRUCTURE INTERFACE: THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8' STAINLESS STEEL BOLTS. OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER MUST BE INSTALLED TO PROVIDE PROPER SEAL. (SEE DETAIL "B")
8. ACCESSORIES: IF OIL BOOMS OR FLOW DEFLECTORS ARE SPECIFIED, THEY MUST BE INSTALLED AND PRESENT FOR INSPECTION.
9. INSTALLATION INSTRUCTIONS: INSTRUCTIONS SHALL BE FURNISHED UPON REQUEST OF INSPECTOR WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
   - INSTALLATION INSTRUCTIONS
   - PVC ANTI-SIPHON VENT PIPE, FEMALE ADAPTER WITH NUT, O-RING GASKETS
   - OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
   - 3/8" STAINLESS STEEL BOLTS
   - ANCHOR SHIELDS

(SEE BELOW FOR MULTI-PART SNOUTS 36F, 48F, 54R, 96F AND SPLIT SNOUTS ONLY) STAINLESS NUTS AND BOLTS PLUS GASKET TO SECURE TOP AND BOTTOM OF SNOUT. US Patent # 6126817 CANADIAN Patent # 2285146

REVISIONS

REV	DATE	DESCRIPTION	INIT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

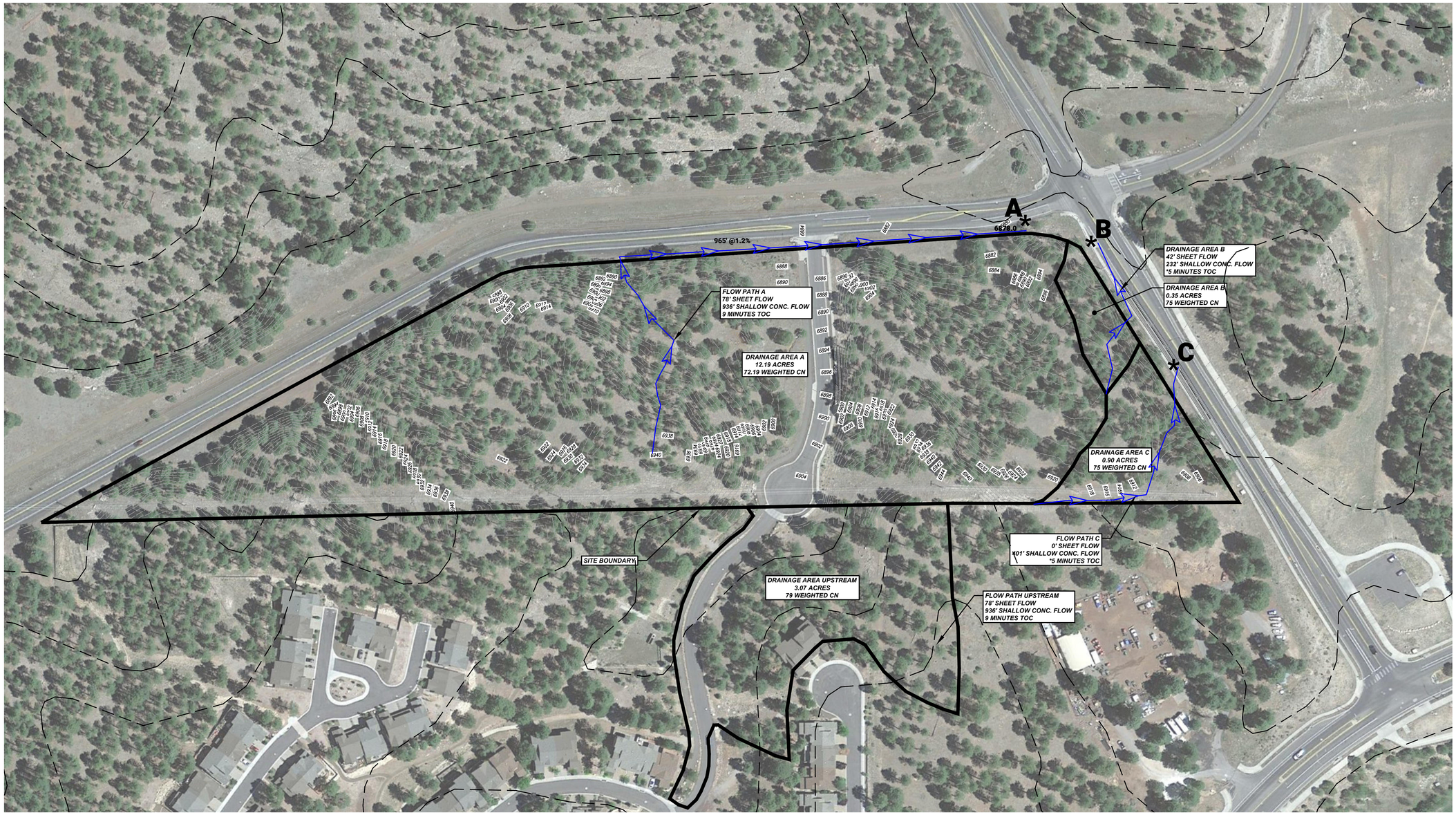
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW STORMWATER DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C323 REV 4
SHEET 21 of 46

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 DETAIL



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SCALE: 1" = 80'

40 0 40 80

Runoff Discharge Summary Existing Conditions				
Drainage Area ID	Area (AC)	TOC (MIN)	10-YR (CFS)	100-YR (CFS)
A	12.19	13.20	2.78	32.74
UPSTREAM	3.07	13.20	8.16	14.71
B	0.35	5.00	1.35	3.19
C	0.90	5.00	0.82	3.19

EXISTING CONDITIONS COMPOSITE CURVE NUMBER						
Drainage Area ID	Total Area (ac)	Soil Map Symbol	Hydrologic Soil Group	SCS Curve Number	Area for Individual CN	Composite SCS CN
A	12.19	15A	D	75	1.50	72.23
		15B	D	75	7.27	
		13	B	53	2.50	
		Impervious		98	0.92	
UPSTREAM CAPTURE	3.07	15A	D	75	0.58	89.82
		Impervious		98	1.05	
B	0.35	15B	D	75	0.35	75
C	0.9	15B	D	75	0.9	75

STORM FREQ.	PRECIP.
(YRS)	(IN)
2-YR	1.92
10-YR	2.88
100-YR	4.56

NOTE:
A MINIMUM TIME OF CONCENTRATION (TOC) OF 5 MINUTES WAS USED IN AREAS WITH A CALCULATED TOC LESS THAN 5 MINUTES

REVISIONS

REV	DATE	DESCRIPTION	INIT
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Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

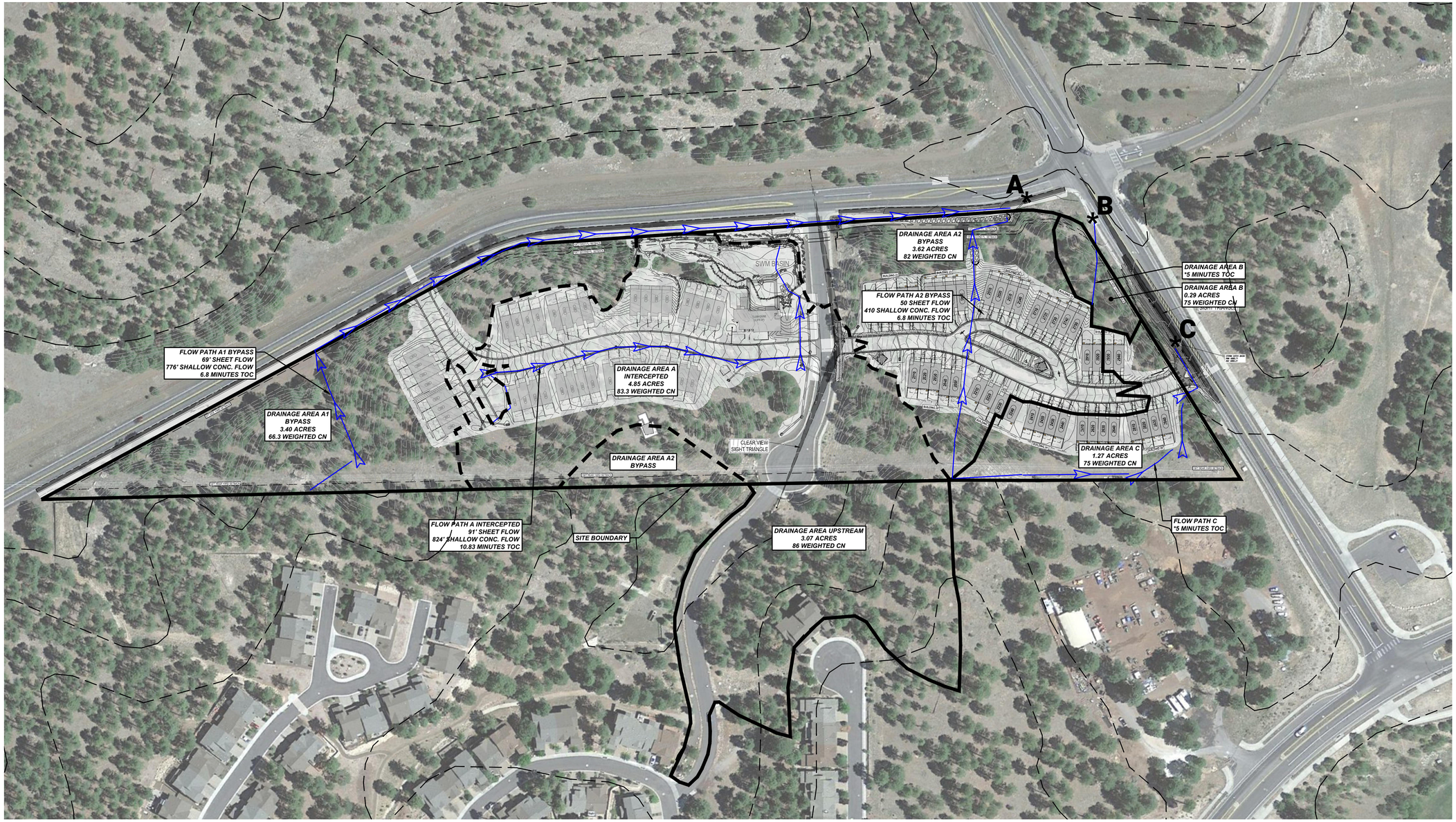
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
PRE-DEVELOPMENT DRAINAGE MAP

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C391
REV 4



Runoff Discharge Summary Proposed Conditions

Drainage Area ID	Area (AC)	TOC (MIN)	10-YR (CFS)	100-YR (CFS)
A	4.85	13.40	6.68	16.12
UPSTREAM	3.07	13.20	8.16	14.71
A1_BYPASS	3.40	14.20	1.69	5.97
A2_BYPASS	3.62	6.10	7.87	16.26
B	0.29	5.00	0.43	1.03
C	1.27	5.00	1.90	4.50

STORMWATER SUMMARY

POND ELEV	STORAGE VOLUME (CF)	INTENT
6886.5	0	ROCV
6887	487	ROCV
6888	6,619	ROCV
6889	17,471	ROCV
6890	29,752	RETENTION
6891	42,802	RETENTION

Drainage Area ID	Total Area (ac)	Soil Map Symbol	Hydrologic Soil Group	SCS Curve Number	Area for Individual CN	Composite SCS CN
A	4.85	15B	D	75	3.81	75.0
		13	B	53	0.45	
		Townhomes		92	0.59	
A1_BYPASS	3.40	15B	D	75	1.01	66.3
		13	B	53	1.80	
		Townhomes		92	0.59	
A2_BYPASS	3.62	15A	D	75	1.50	82.0
		15B	D	75	2.45	
		13	B	53	0.25	
		Townhomes		92	3.51	
UPSTREAM CAPTURE	3.07	15A	D	75	0.58	89.8
		MASONIC LN		98	1.05	
C	0.29	15B	D	75	0.29	75.0
D	1.27	15B	D	75	1.27	75.0

STORM FREQ.	PRECIP.
(YRS)	(IN)
2-YR	1.92
10-YR	2.88
100-YR	4.56

NOTE:
A MINIMUM TIME OF CONCENTRATION (TOC) OF 5 MINUTES WAS USED IN AREAS WITH A CALCULATED TOC LESS THAN 5 MINUTES

REVISIONS

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
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ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

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2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2621 MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
POST-DEVELOPMENT DRAINAGE MAP

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C392
REV 4
SHEET 23 of 46



REVISIONS

REV	DATE	DESCRIPTION	INIT
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Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
INLET DRAINAGE AREA MAP (DRIVE 'A')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C393
REV 4
SHEET 24 of 46



PROJECT	**PINEHAVEN** **RESIDENTIAL LAND DEVELOPMENT** 2951 S. MASONIC LANE COCONINO COUNTY, ARIZONA	DWN BY: M TOTH CHK BY: E BEALS
APPLICANT	**RODG DT FLAGSTAFF PROP CO LLC** **2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702**	
TITLE	**SITE PLAN REVIEW** **INLET DRAINAGE AREA MAP (DRIVE 'B')**	PROJECT NO. 22004 DATE MAY 30, 2023 REV 4

C394 4
SHEET 25 of 46

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

Registered Professional Engineer (Civil) ERIC S BEALS 50123 ARIZONA U.S.A.

REVISIONS

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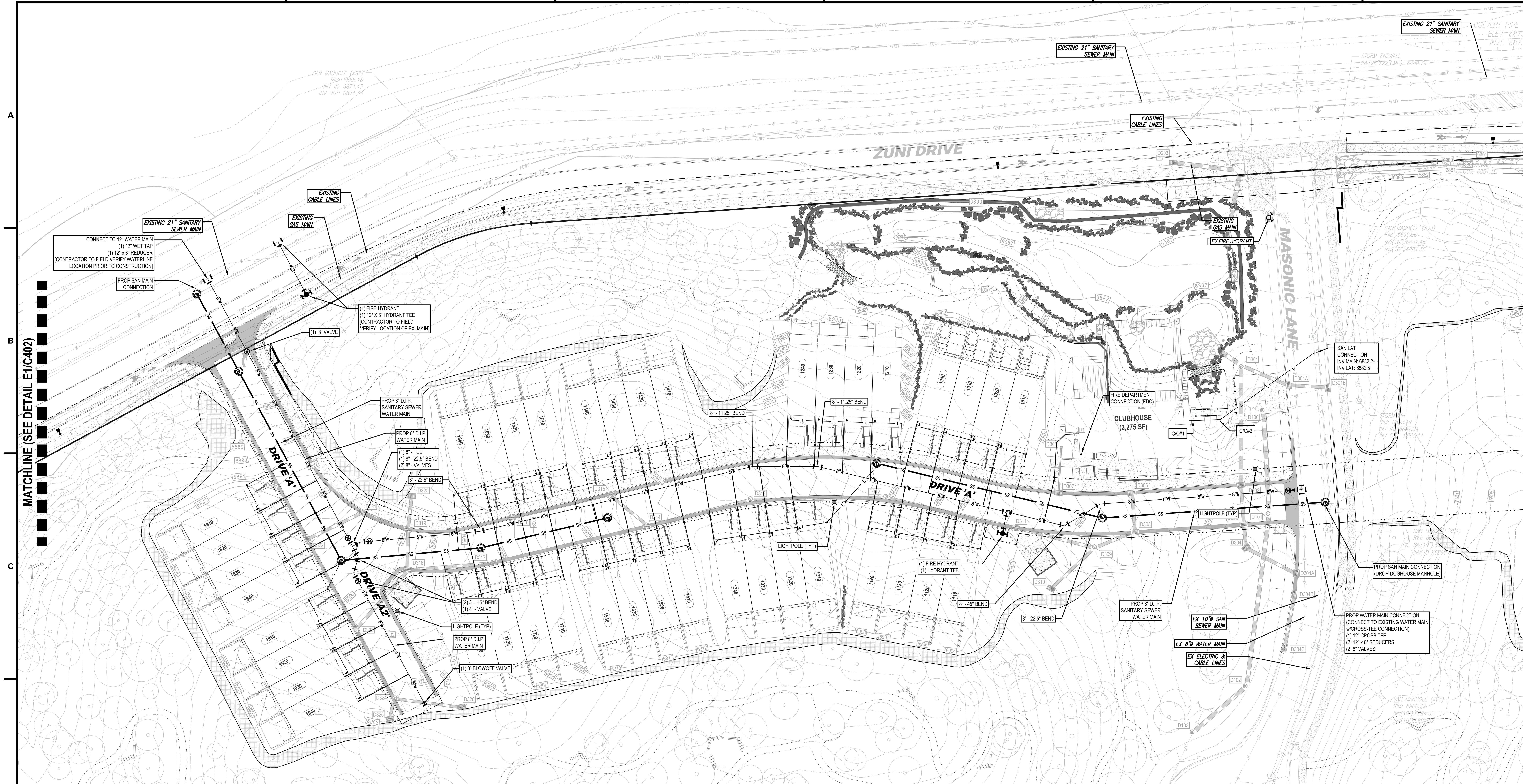

CITY OF FLAGSTAFF - WATER & SEWER NOTES

ALL DESIGN, CONSTRUCTION, TESTING AND INSPECTION SHALL CONFORM TO THE ADEQ REQUIREMENTS: WATER DISTRIBUTION IN ACCORDANCE WITH BULLETINS 10 AND 8, AND SEWER COLLECTION IN ACCORDANCE WITH AAC TITLE 18. IN THE EVENT THE ADEQ REQUIREMENTS CONFLICT WITH THESE STANDARDS, THE MORE RESTRICTIVE SHALL APPLY.

A. ROUGH GRADING SHALL BE COMPLETED WITHIN ONE-TENTH (1/10) OF A FOOT OF PLAN GRADE AND APPROVED BY THE CITY ENGINEER'S AUTHORIZED REPRESENTATIVES PRIOR TO INSTALLATION OF UNDERGROUND UTILITIES.

B. NO TRENCH SHALL BE FILLED WITH BEDDING MATERIAL OR BACKFILL UNTIL THE EXCAVATION AND PIPE LAYING, RESPECTIVELY, HAVE BEEN APPROVED BY THE CITY ENGINEER'S AUTHORIZED REPRESENTATIVE.

C. A WATER PRESSURE TEST IS REQUIRED OF ALL WATER LINES AND A HYDROSTATIC OR AIR TEST IS REQUIRED OF ALL SEWER LINES AND MANHOLES. TESTS ARE TO BE CONDUCTED AFTER BACKFILLING IS COMPLETE AND COMPACTED ON ALL PUBLIC AND/OR PRIVATE UNDERGROUND UTILITIES.

D. WATER AND SEWER SERVICE LINES ARE TO BE MARKED AS SHOWN ON THE STANDARD SERVICE DETAILS.

E. WATER LINE DISINFECTION IS TO BE ACCOMPLISHED AS OUTLINED IN ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) "BULLETIN NO. 8."

F. WATER PIPE CLASSIFICATION SHALL BE CLASS 305 FOR A.W.W.A. C-900 PVC AND CLASS 350 FOR DUCTILE IRON UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. C-900 SHALL CONFORM TO CAST-IRON-EQUIVALENT OUTSIDE DIAMETER AND HAVE ELASTROMERIC GASKETS AND COUPLINGS. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE ENCASED IN ACCORDANCE WITH MAG SPECIFICATIONS.

G. ALL MATERIALS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61 INCLUDING, BUT NOT LIMITED TO, GASKETS, LUBRICANTS, PIPE FITTINGS, AND VALVES (NSF-PW SEAL) (R18-4-119B).

H. ALL PUBLIC SANITARY SEWER LINES AND PRIVATE SEWER SERVICE LINES WITHIN A PUBLIC UTILITY EASEMENT OR RIGHT-OF-WAY WILL BE INSPECTED PRIOR TO ACCEPTANCE BY THE CITY.

I. WATER AND SEWER MAINS SHALL BE SEPARATED IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. SEPARATION REQUIREMENTS ARE AS FOLLOWS:

1. A WATER MAIN SHALL NOT BE PLACED:

   a. WITHIN SIX (6) FEET, HORIZONTAL DISTANCE, AND LESS THAN TWO (2) FEET, VERTICAL DISTANCE, ABOVE THE TOP OF A SEWER MAIN UNLESS EXTRA PROTECTION IS PROVIDED. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE OR WITH SLIP-JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED. ALTERNATE EXTRA PROTECTION SHALL CONSIST OF ENCASING BOTH THE WATER AND SEWER MAINS IN AT LEAST SIX (6) INCHES OF CONCRETE FOR AT LEAST TEN (10) FEET BEYOND THE AREA COVERED BY THIS SUBSECTION.

   b. WITHIN TWO (2) FEET HORIZONTALLY AND TWO (2) FEET BELOW THE SEWER MAIN. WHEN A WATER MAIN IS PLACED BELOW A SEWER MAIN, EXTRA PROTECTION IS ALWAYS REQUIRED REGARDLESS OF THE VERTICAL SEPARATION.

2. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE SIX (6) FEET, MEASURED FROM THE CENTER OF THE MANHOLE.

3. THE MINIMUM SEPARATION BETWEEN FORCE MAINS OR PRESSURE SEWERS AND WATER MAINS SHALL BE TWO (2) FEET VERTICALLY AND SIX (6) FEET HORIZONTALLY UNDER ALL CONDITIONS. WHERE A SEWER FORCE MAIN CROSSES ABOVE OR LESS THAN SIX (6) FEET BELOW A WATER LINE, THE SEWER MAINS SHALL BE ENCASED IN AT LEAST SIX (6) INCHES OF CONCRETE OR CONSTRUCTED USING MECHANICAL JOINT DUCTILE IRON PIPE FOR TEN (10) FEET ON EITHER SIDE OF THE WATER MAIN.

4. EVEN WHEN EXTRA PROTECTION IS UTILIZED, THE MINIMUM CLEARANCE BETWEEN WATER AND SEWER SHALL BE ONE (1) FOOT.

5. THE SEPARATION REQUIREMENTS DO NOT APPLY TO BUILDING, PLUMBING, OR INDIVIDUAL HOUSE SERVICE CONNECTIONS.

J. WHEN HYDROSTATIC TESTING IS PERFORMED, SEWER LINES SHALL BE TESTED FOR INFILTRATION/EXFILTRATION IN ACCORDANCE WITH ADEQ ENGINEERING BULLETIN NO. 11. MANHOLES SHALL BE TESTED BY FILLING THE MANHOLE WITH WATER. THE APPLICANT SHALL ENSURE THAT THE DROP IN WATER LEVEL DOES NOT EXCEED ONE-THOUSANDTH (0.001) OF THE TOTAL MANHOLE VOLUME IN ONE (1) HOUR.

WHEN AIR TESTING IS PERFORMED, SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH ASTM F1417-92. MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C1244.

K. SEWER PIPE SHALL BE SDR 35, ASTM D3034 FOR PVC PIPE, OR CLASS 150 DIP LINED WITH PROTECTO 401 CERAMIC EPOXY OR HDPE ASTM F894. ALL DUCTILE IRON PIPELINES SHALL BE POLYETHYLENE ENCASED IN ACCORDANCE WITH MAG SPECIFICATIONS. SPECIAL DESIGN CONSIDERATIONS MAY REQUIRE A HIGHER CLASS RATING OF DIP.

L. NO WATER SETTLING OF TRENCH FILL MATERIAL IS ALLOWED.

M. ALL WATER AND SEWER DESIGN AND CONSTRUCTION SHALL CONFORM TO THE CURRENT ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REQUIREMENTS. WHEN ADEQ REQUIREMENTS ARE IN CONFLICT WITH THESE STANDARDS, THE MORE RESTRICTIVE SHALL APPLY.

N. TRACER WIRES AND TAPES SHALL BE INSTALLED PRIOR TO TESTING THE WATER OR SEWER MAIN AS REQUIRED BY SECTION 13-09-001-0002. (STRIP WIRE TWO (2) INCHES AT TERMINATION OF THE SERVICE.)

O. WATER VALVES SHALL BE ADJUSTED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING DETAIL NO. 9-03-060 AND MANHOLES SHALL BE ADJUSTED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING DETAIL NO. 9-03-062.

P. ONE HUNDRED PERCENT (100%) OF THE SEWER LINE SHALL BE TESTED FOR UNIFORM SLOPE BY REMOTE CAMERA AND TESTED FOR SHORT-TERM DEFLECTION.

1. WHEN A SEWER SERVICE IS REQUIRED TO BE ABANDONED, IT SHALL BE ABANDONED AT THE PROPERTY LINE AND CAPPED USING THE APPROPRIATE MATERIALS (PVC, CLAY, OR CONCRETE).

2. WHEN AN EXISTING WATER SERVICE IS REQUIRED TO BE ABANDONED, IT SHALL BE ABANDONED AT THE MAIN. THE SADDLE AND CORP. STOP SHALL BE REMOVED AND THE MAIN CLAMPED WITH AN APPROVED FULL CIRCLE REPAIR CLAMP.

Q. THE LOCATION OF WATER SERVICES SHALL BE IDENTIFIED BY BRANDING A "W" ON THE TOP OR FACE OF CURB.

R. SEWER SERVICE LOCATIONS SHALL BE IDENTIFIED BY BRANDING AN "S" ON THE TOP OR FACE OF THE CURB. (ORD. 2017-22, REP&REEN, 07/05/2017)

WATER/SEWER DEMAND SCHEDULE

LAND USE	CRITERIA [1]	# UNITS	ESTIMATE WATER DEMAND[2] PEAK FLOW PER UNIT (GPCD)	ESTIMATE WATER DEMAND[2] MAXIMUM DAILY CONSUMPTION (GPD)	ESTIMATE WATER DEMAND[2] PEAK FLOW RATE (GPM)	ESTIMATE WASTEWATER DEMAND [2] AVERAGE DRY-WEATHER FLOW (GPCD)	ESTIMATE WASTEWATER DEMAND [2] ESTIMATED DAILY FLOW (GPCD)
RESIDENTIAL SINGLE-FAMILY (TH-MEDIUM DENSITY)	3.5 PERSONS / DWELLING UNIT	83	250	72,625	50.4	75	21,787.5

1) PER TABLE 13-09-003-01 AVERAGE POPULATION DENSITY

2) PER TABLE 13-09-003-02 WATER DEMAND CRITERIA

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA 811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- S — EX. SANITARY SEWER MAIN
- ST — EX STORM PIPE
- E — EX. UNDERGROUND ELECTRIC SERVICE LINE
- OH — EX. OVERHEAD WIRE
- G — EX. GAS SERVICE MAIN
- T — EX TELEPHONE/COMMUNICATIONS LINE
- W — EX WATER MAIN
- 6985 — EX CONTOUR ELEVATION LINE
- 8"W — PROP 8" WATER MAIN
- 8"W — PROP 8" WATER MAIN
- L — PROP SAN LATERAL
- SS — PROP SAN SEWER MAIN
- 8"W — PROPERTY MONUMENT FOUND

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- PINE, OAK, DECID. — EX. TREES
- PROP FIRE HYDRANT
- PROP WATER VALVE
- PROP LIGHT POLE

REVISIONS

REV	DATE	DESCRIPTION	INIT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

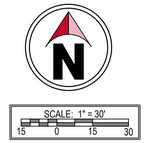
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT, 2951 S. MASONIC LANE, COCONINO COUNTY, ARIZONA

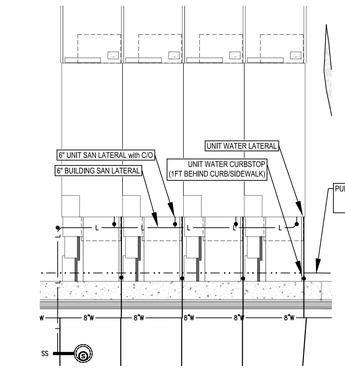
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC, 2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW PHASE 1 UTILITY PLAN (1 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C401 REV 4
SHEET 26 of 46

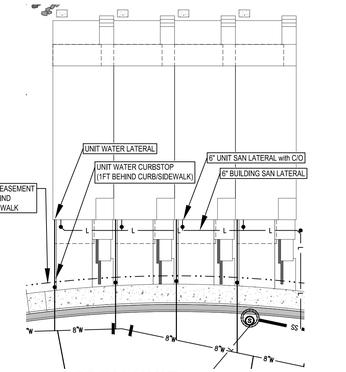
V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 UTILITY PLAN





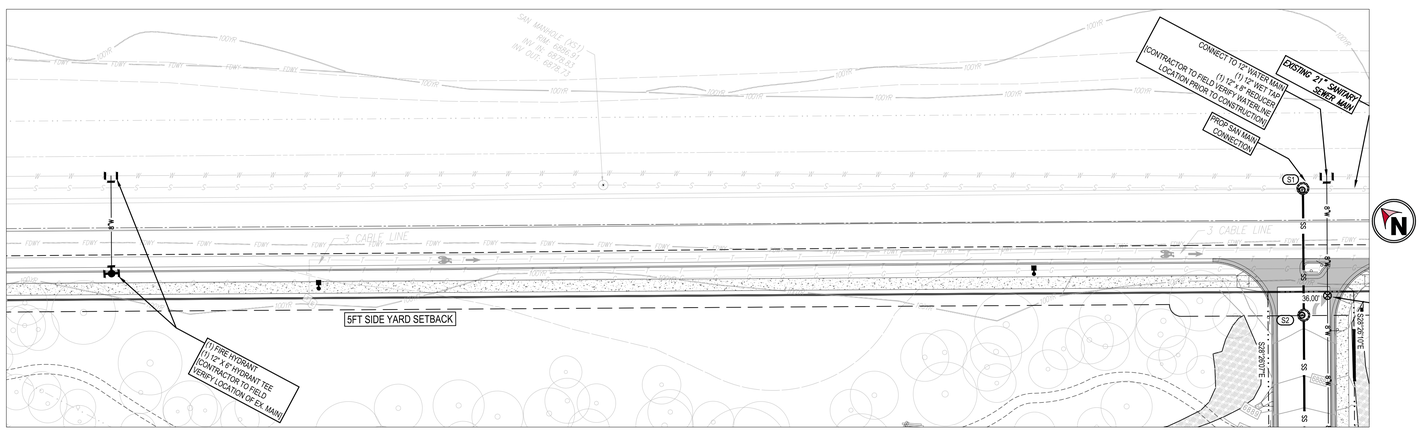
PONDEROSA UNIT
(TYP UTILITY CONNECTIONS)

B5 NOT TO SCALE



ASPEN UNIT
(TYP UTILITY CONNECTIONS)

B6 NOT TO SCALE



E1 **ZUNI DRIVE WATER MAIN / FIRE HYDRANT LOCATION**

NOT TO SCALE

LEGEND

	PROPERTY BOUNDARY
	LEGAL RIGHT-OF-WAY
	ULTIMATE RIGHT-OF-WAY
	ROAD/RIGHT-OF-WAY CENTER LINE
	EASEMENT LINE
100YR	APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
FDWY	APPROX. FEMA FLOODWAY BOUNDARY
	FENCE LINE
	EDGE OF ASPHALT
	EDGE OF DIRT/GRAVEL
S S	EX. SANITARY SEWER MAIN
ST ST	EX STORM PIPE
E E	EX. UNDERGROUND ELECTRIC SERVICE LINE
OH OH	EX. OVERHEAD WIRE
G G	EX. GAS SERVICE MAIN
T T	EX TELEPHONE/COMMUNICATIONS LINE
W W	EX. WATER MAIN
6985	EX CONTOUR ELEVATION LINE
8"W	PROP 8" WATER MAIN
8"W	PROP 8" WATER MAIN
L	PROP SAN LATERAL
SS	PROP SAN SEWER MAIN
8"W	PROPERTY MONUMENT FOUND

SYMBOL LEGEND

SCB	EX. STORM CATCH BASIN / MANHOLE
W	EX. WATER VALVE
	EX. FIRE HYDRANT
T	EX TELECOMM BOX
S	EX. SANITARY MANHOLE
	EX. UTILITY POLE w/GUY ANCHOR
E	EX. ELECTRIC BOX
	EX. LIGHT POLE
	EX. BOLLARD
GMH	EX. GAS VALVE / LINE MARKER
	EX. SIGN
	EX. CONCRETE PAVEMENT
CP9	SURVEY CONTROL POINT
	PROPERTY CORNER
	PROPERTY MONUMENT FOUND
PINE OAK DECID.	EX. TREES
	PROP FIRE HYDRANT
	PROP WATER VALVE
	PROP LIGHT POLE

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

REV	DATE	DESCRIPTION	INIT
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Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

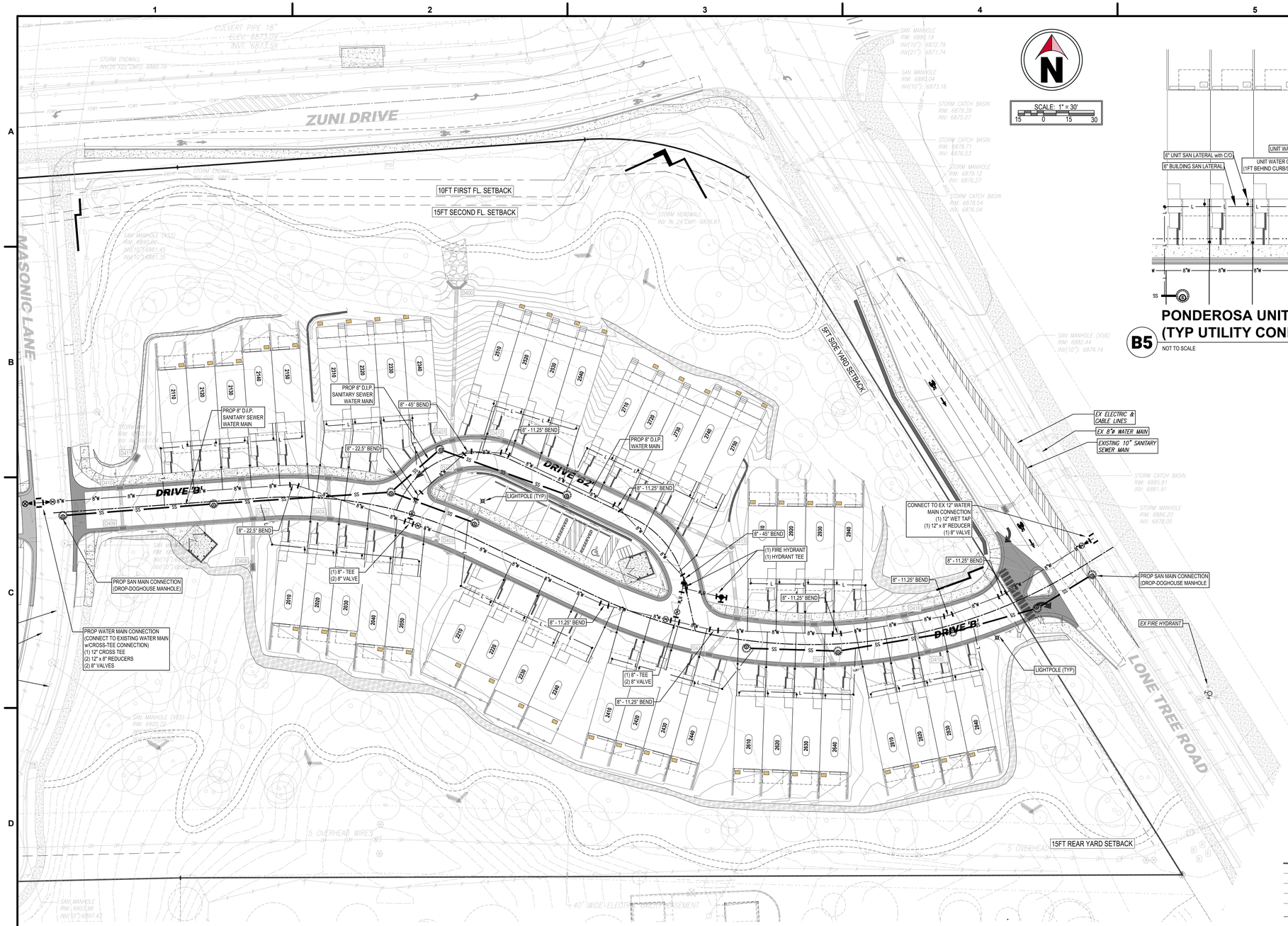
PROJECT: **PINEHAVEN**
RESIDENTIAL AND DEVELOPMENT
2655 S PERSONAL LAND
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
PHASE 1 UTILITY PLAN (2 OF 2)

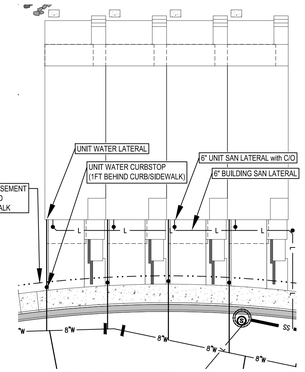
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C402
REV 4

V:\PDRC\22004 FLAGSTAFF - PINEHAVEN\CIVIL\SHEETS\22004 UTILITY PLAN



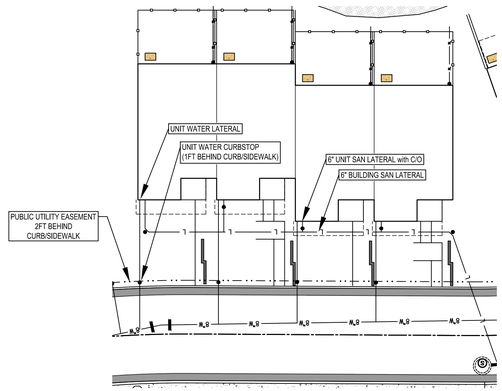
PONDEROSA UNIT (TYP UTILITY CONNECTIONS)

B5 NOT TO SCALE



ASPEN UNIT (TYP UTILITY CONNECTIONS)

B6 NOT TO SCALE



JUNIPER UNIT (TYP UTILITY CONNECTIONS)

C5 NOT TO SCALE

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
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- 8"w — PROP 8" WATER MAIN
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- 8"w — PROPERTY MONUMENT FOUND

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- EX. TREES (PINE, OAK, DECID.)
- PROP FIRE HYDRANT
- PROP WATER VALVE
- PROP LIGHT POLE

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

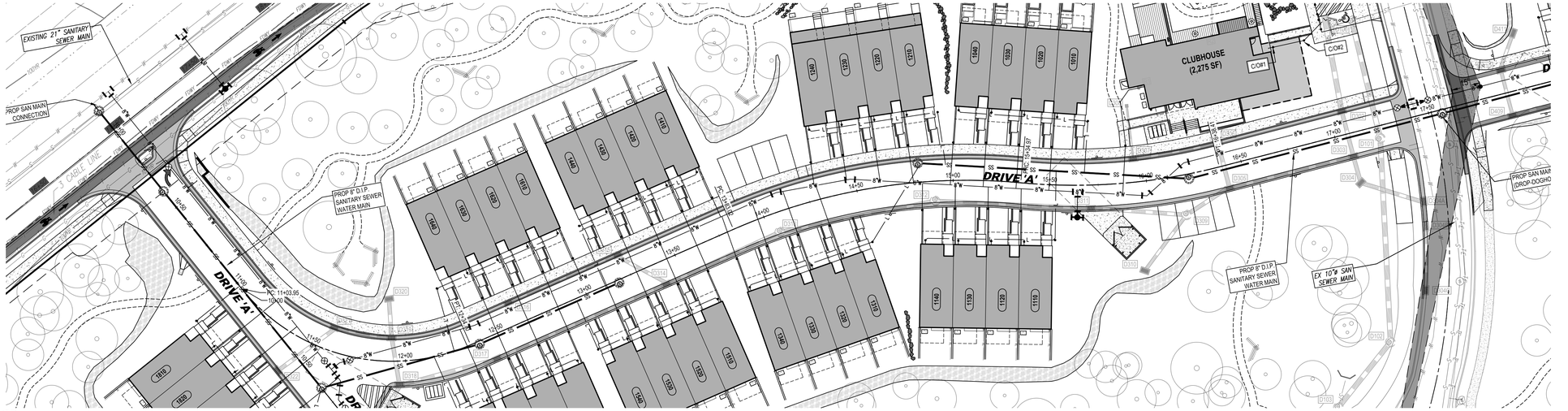
PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2955 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
PHASE 2 UTILITY PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C403
REV 4

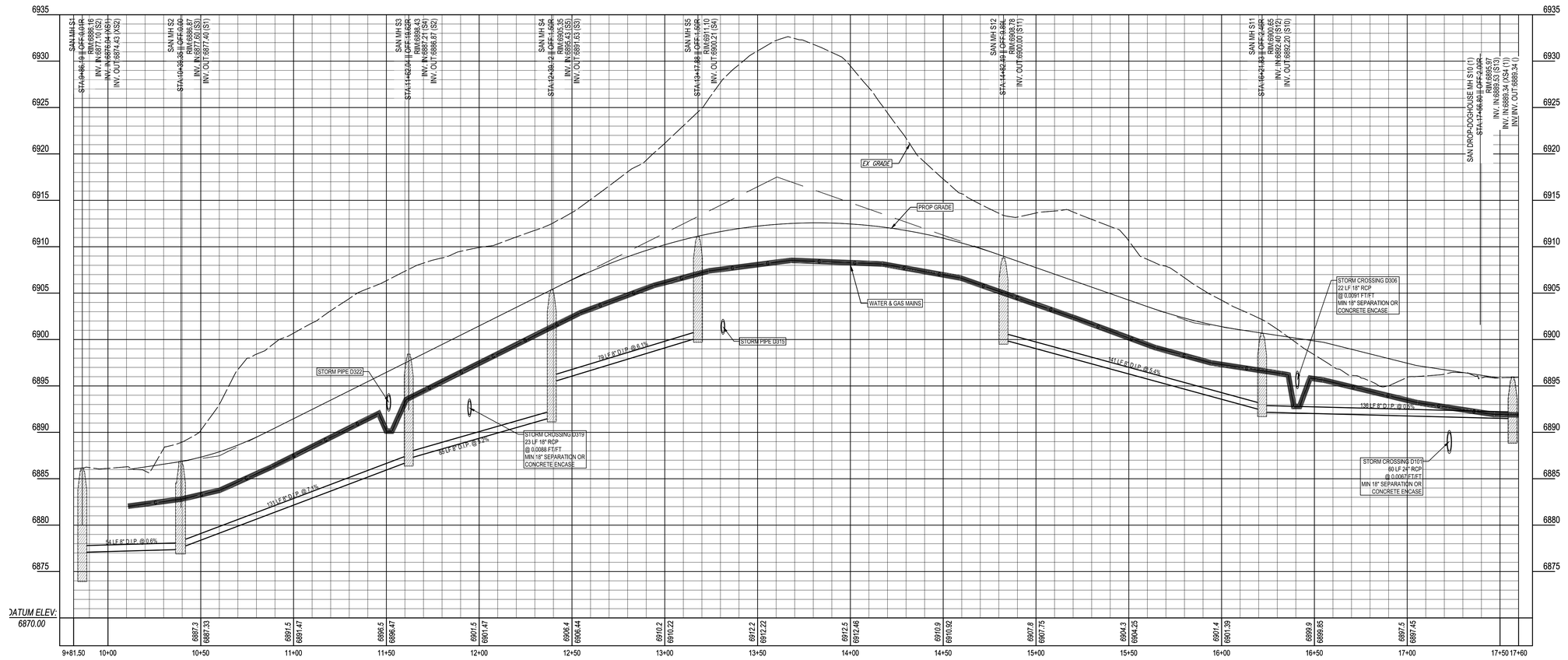
SHEET 27 of 46



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

SCALE: 1" = 30'



E1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

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Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 DATE SIGNED ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

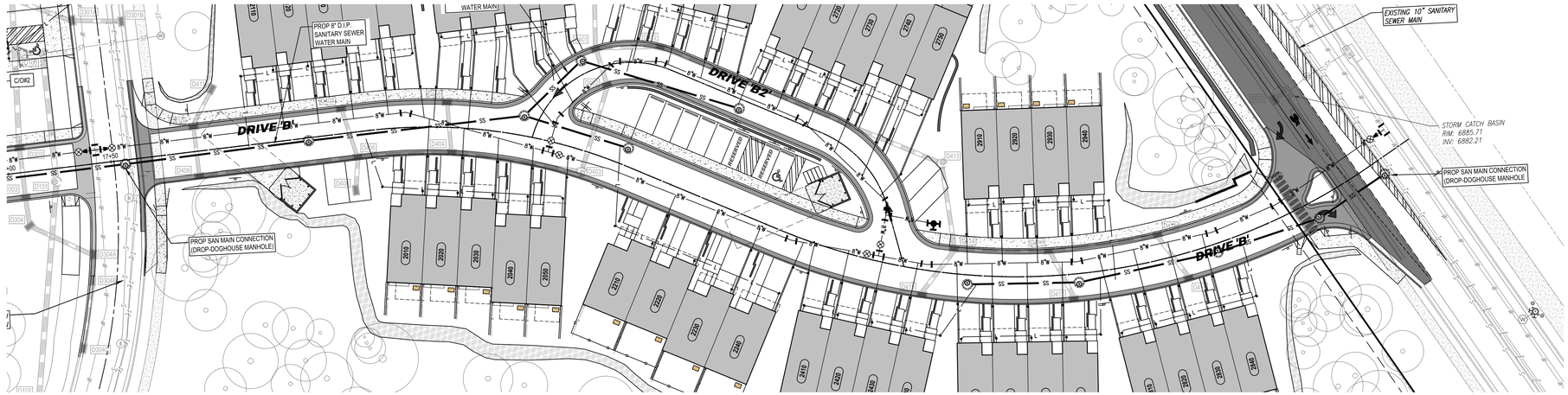
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
UTILITY PLAN & PROFILE
(DRIVE 'A')

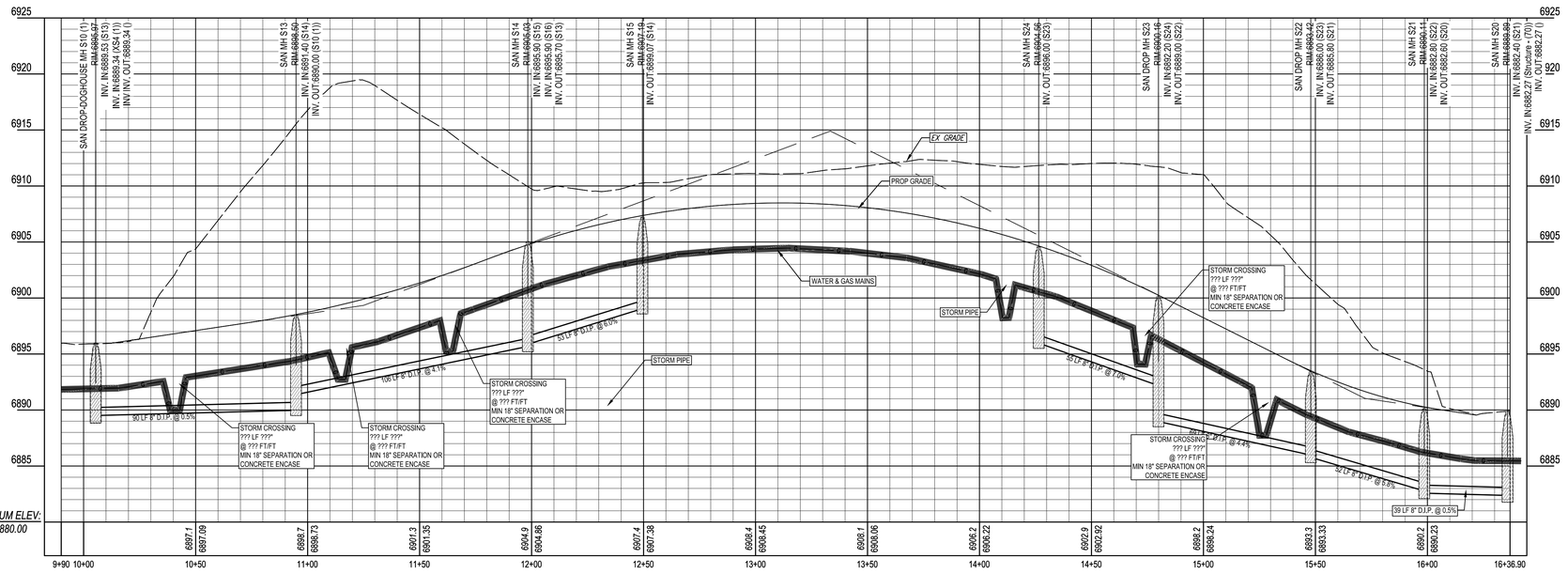
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C410
REV 4



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" - 30'

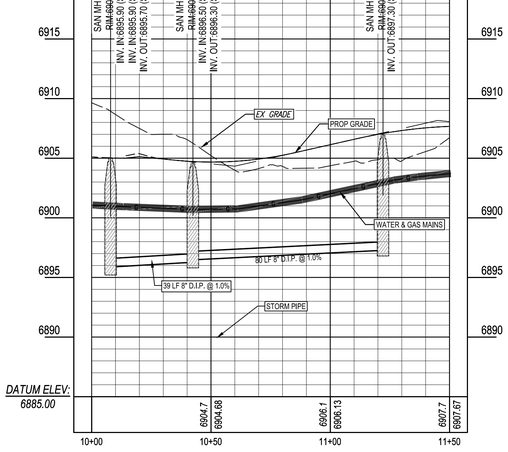
SCALE: 1" = 30'
15 0 15 30



D1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'



D5 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

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ARIZONA811 BLUE STAKE, INC.

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S
BEALS
5/02/24
REGISTERED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

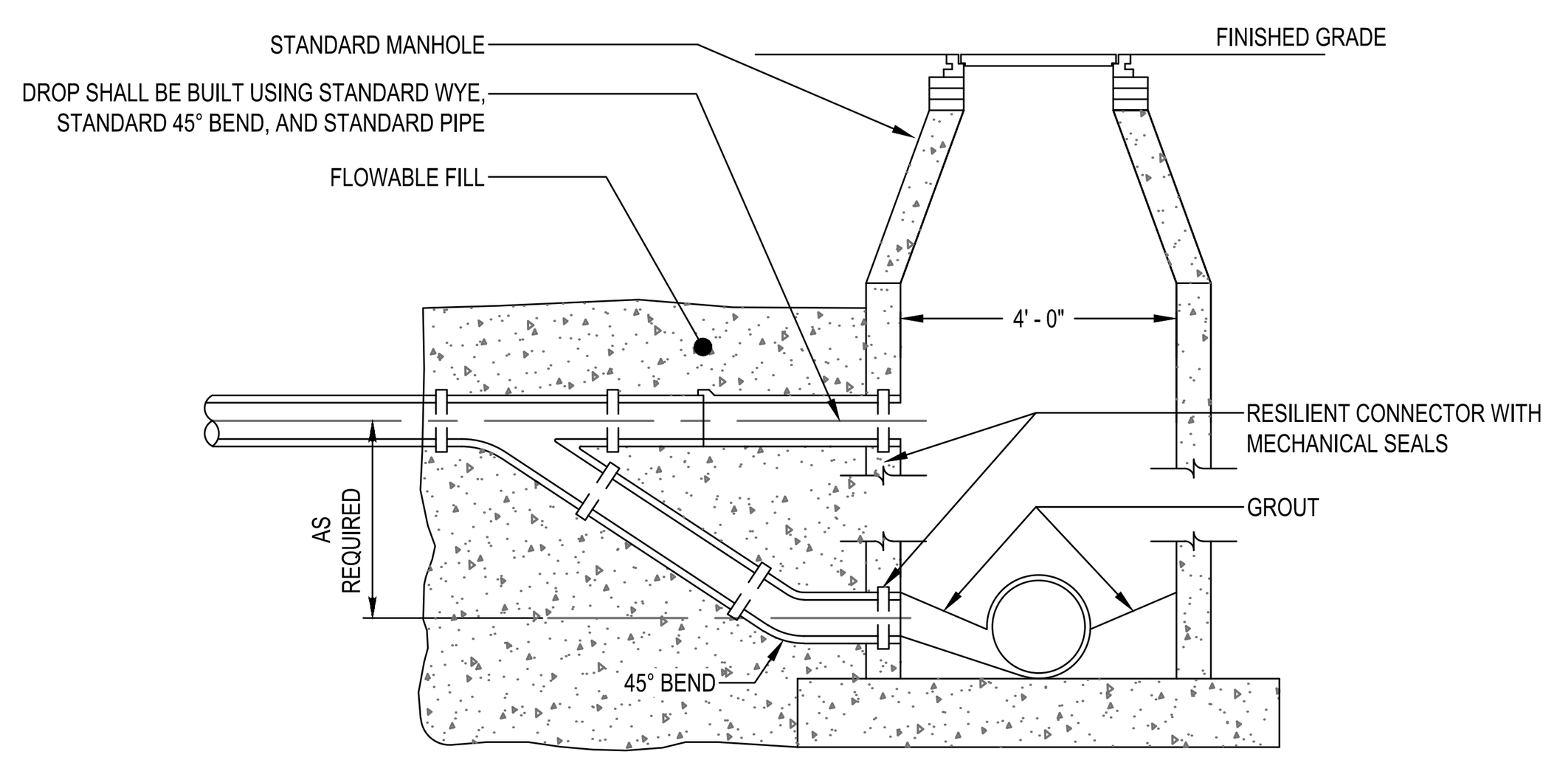
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2935 S. HUMPHREYS LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

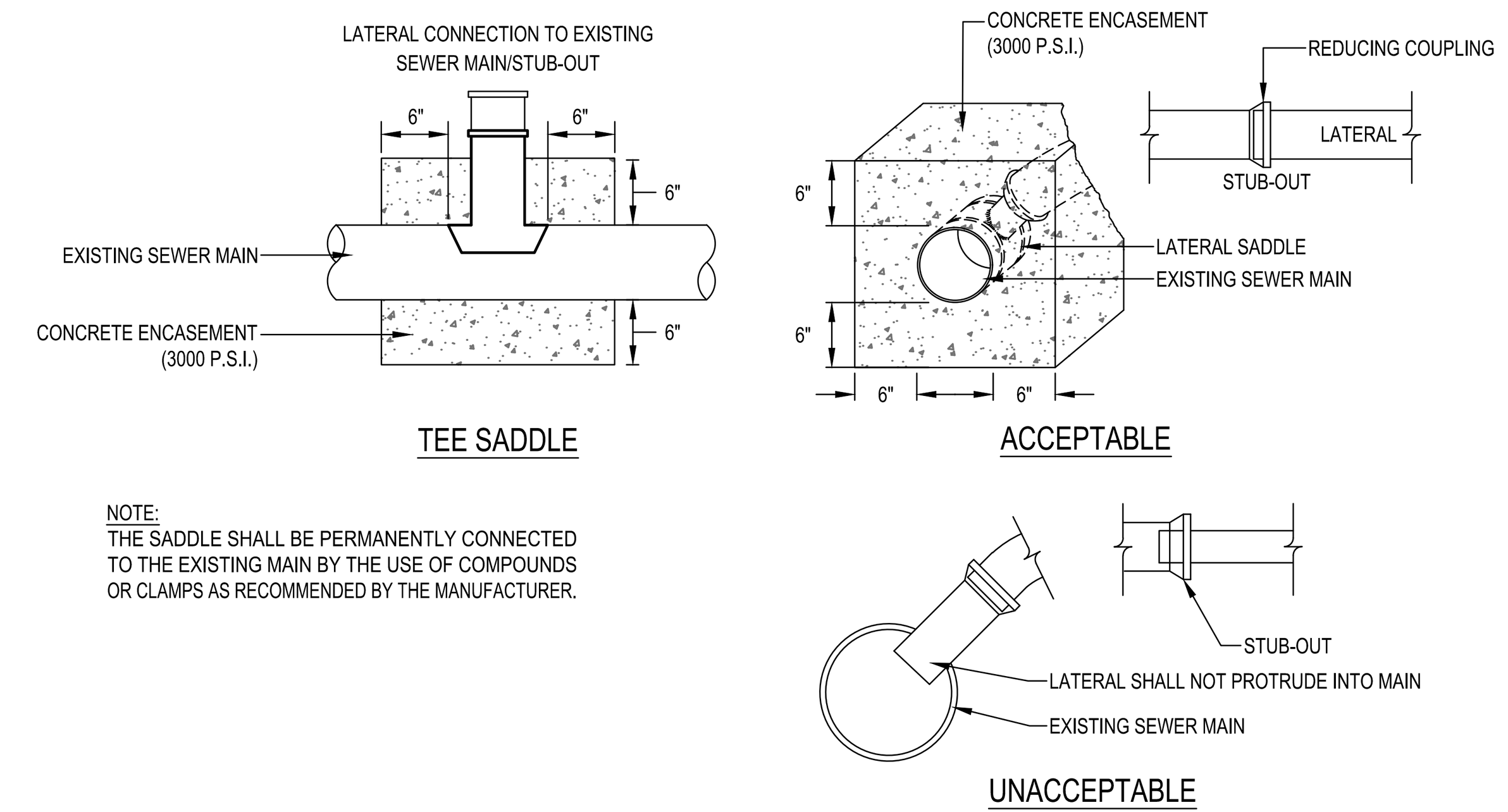
TITLE: SITE PLAN REVIEW
UTILITY PLAN & PROFILE (DRIVE 'B')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C411
REV 4
SHEET 30 of 46



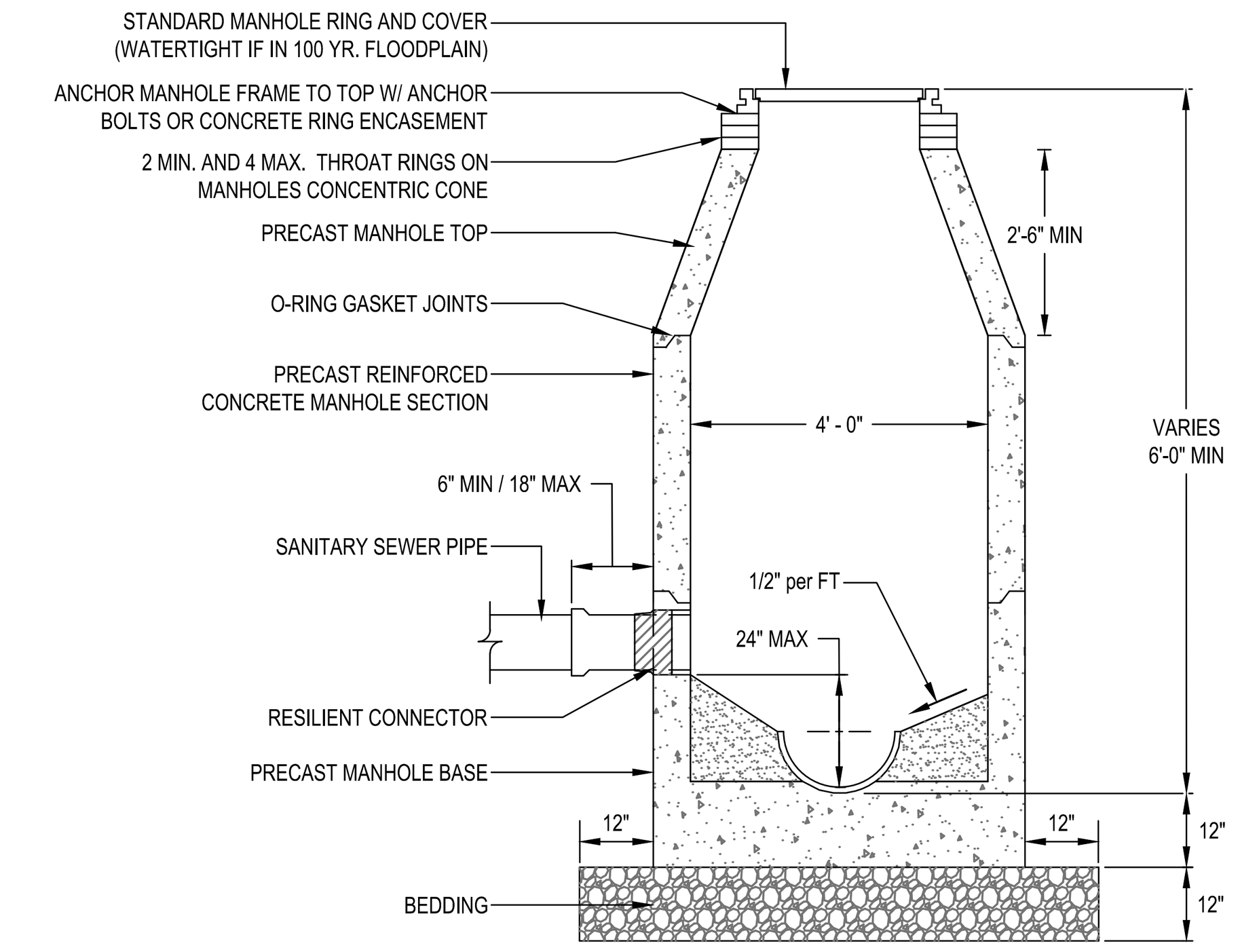
B1 SANITARY DROP MANHOLE CONNECTION

NOT TO SCALE



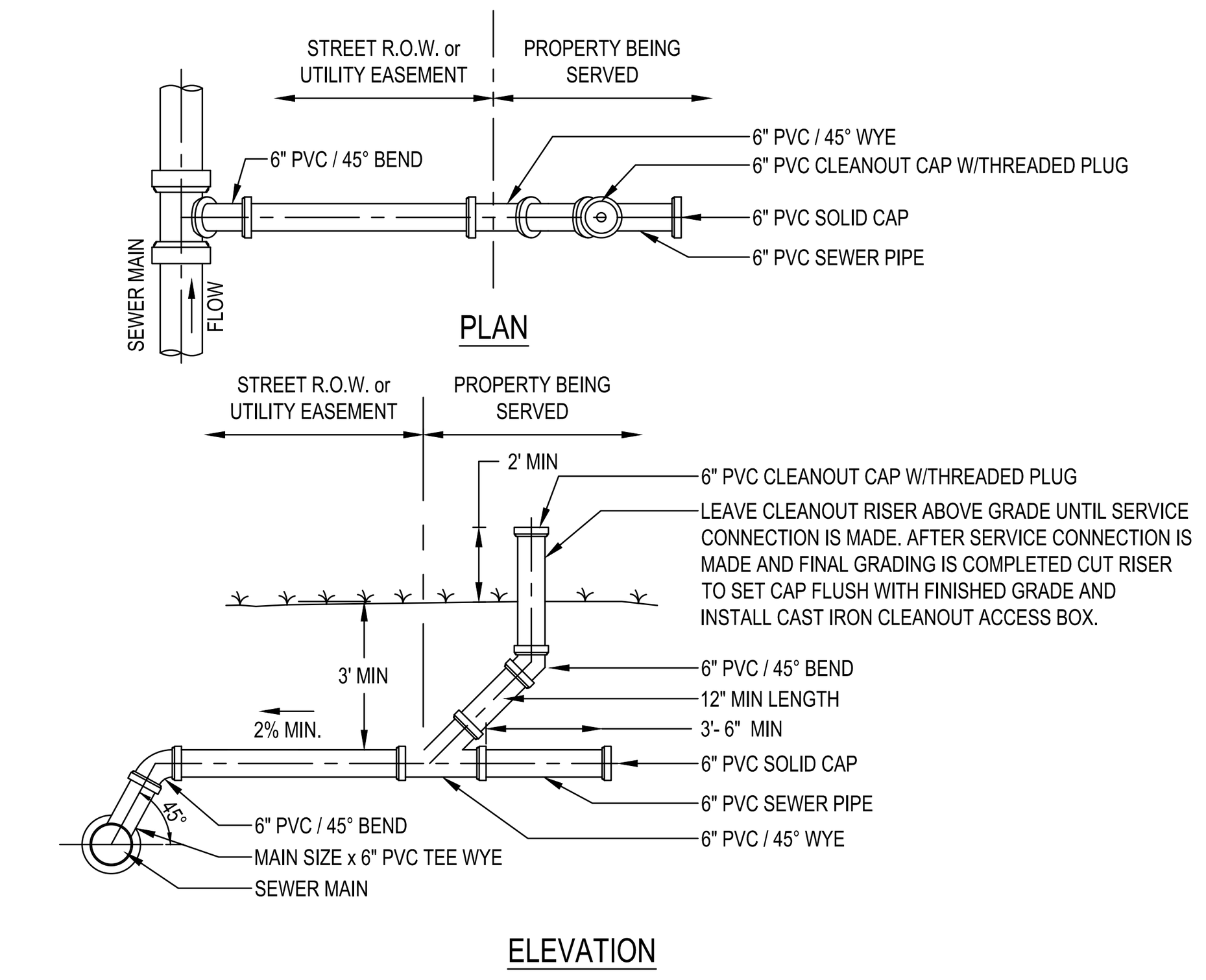
B2 SANITARY LATERAL CONNECTION

NOT TO SCALE



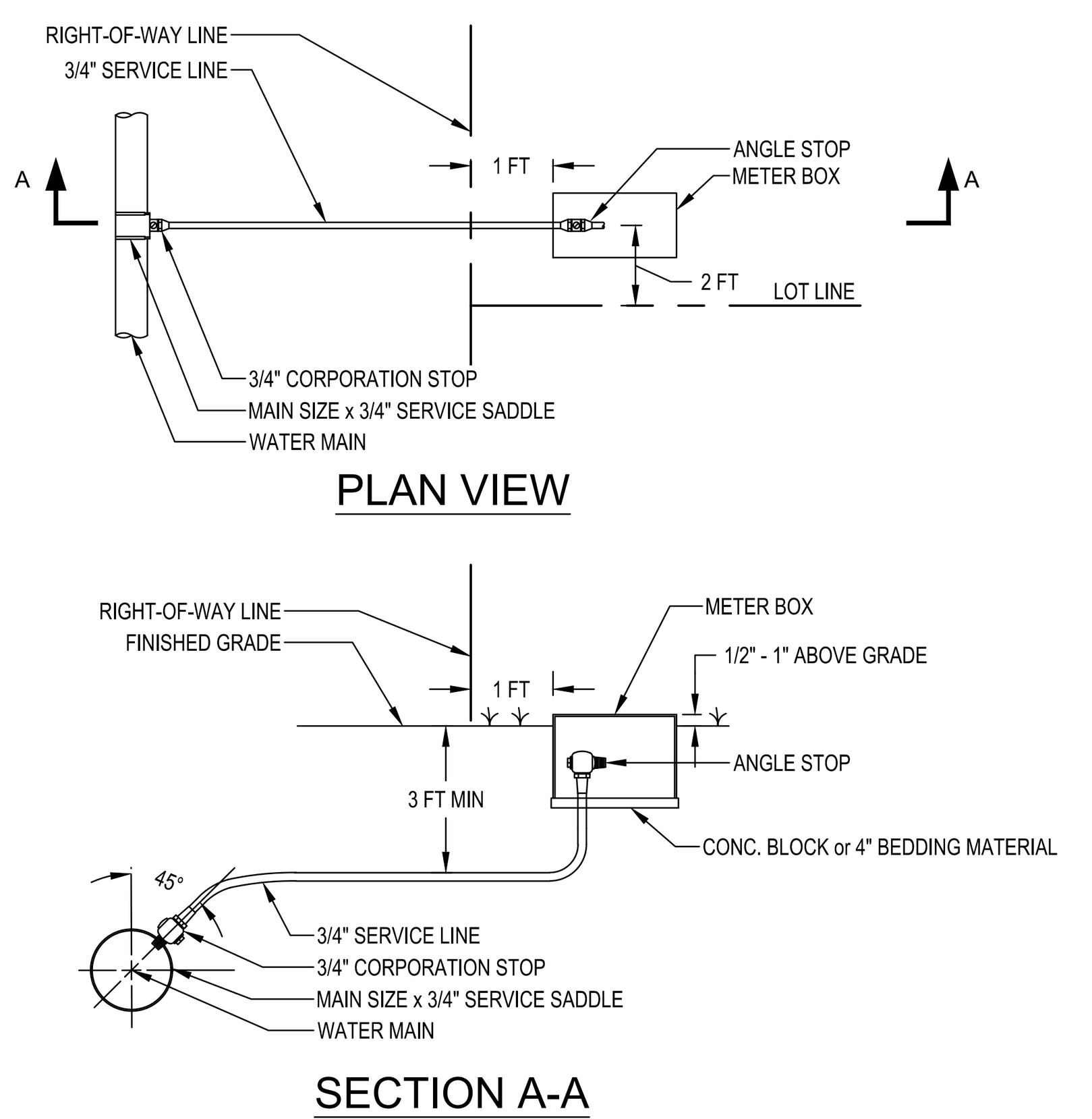
B4 SANITARY MANHOLE (4' DIA.)

NOT TO SCALE



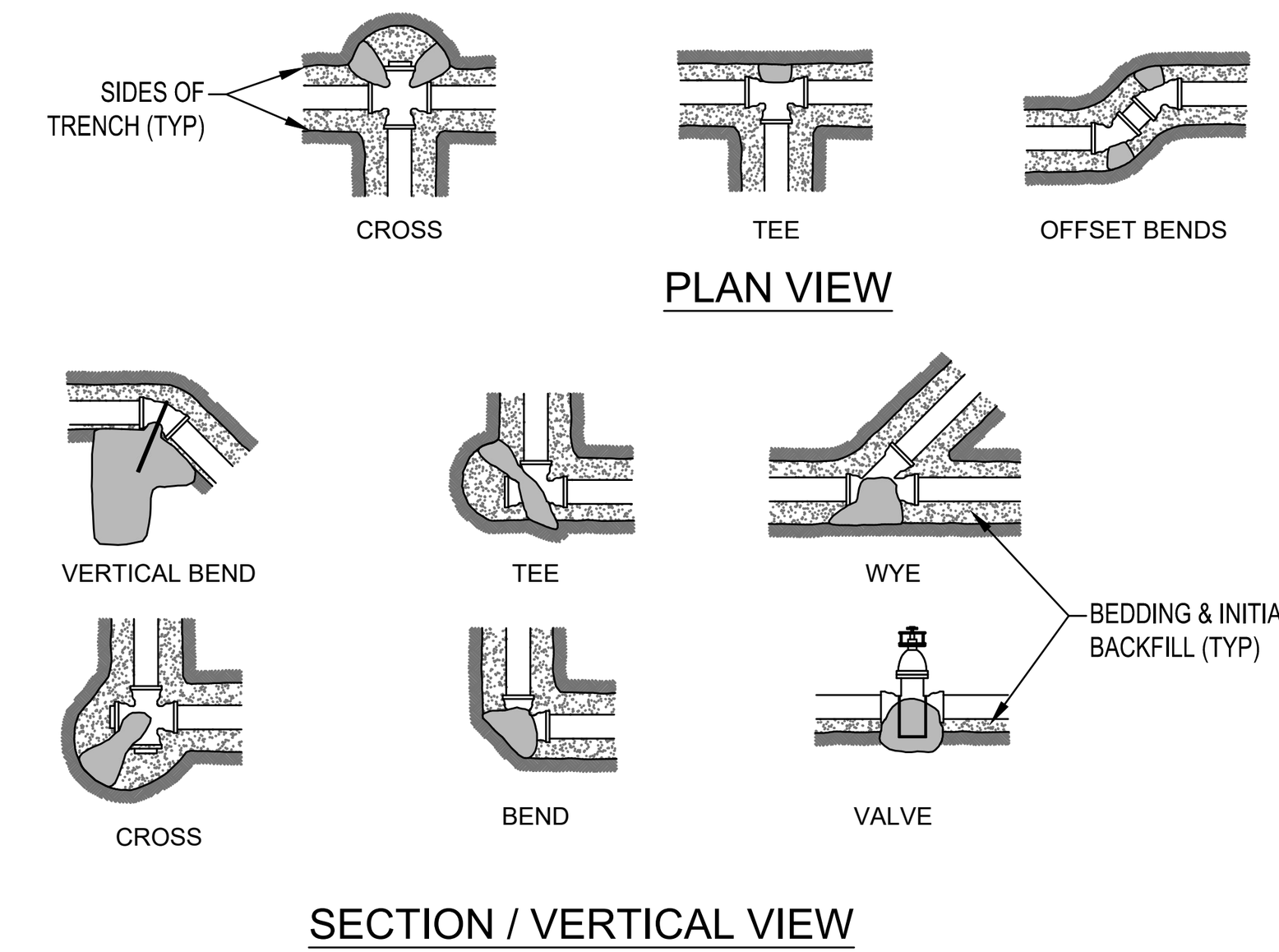
B5 SANITARY SERVICE LATERAL

NOT TO SCALE



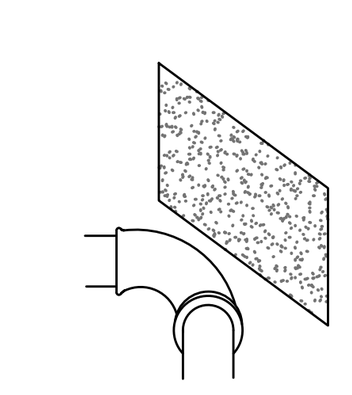
C1 3/4" WATER SERVICE CONNECTION

NOT TO SCALE



BLOCKING AREA IN SQUARE FEET

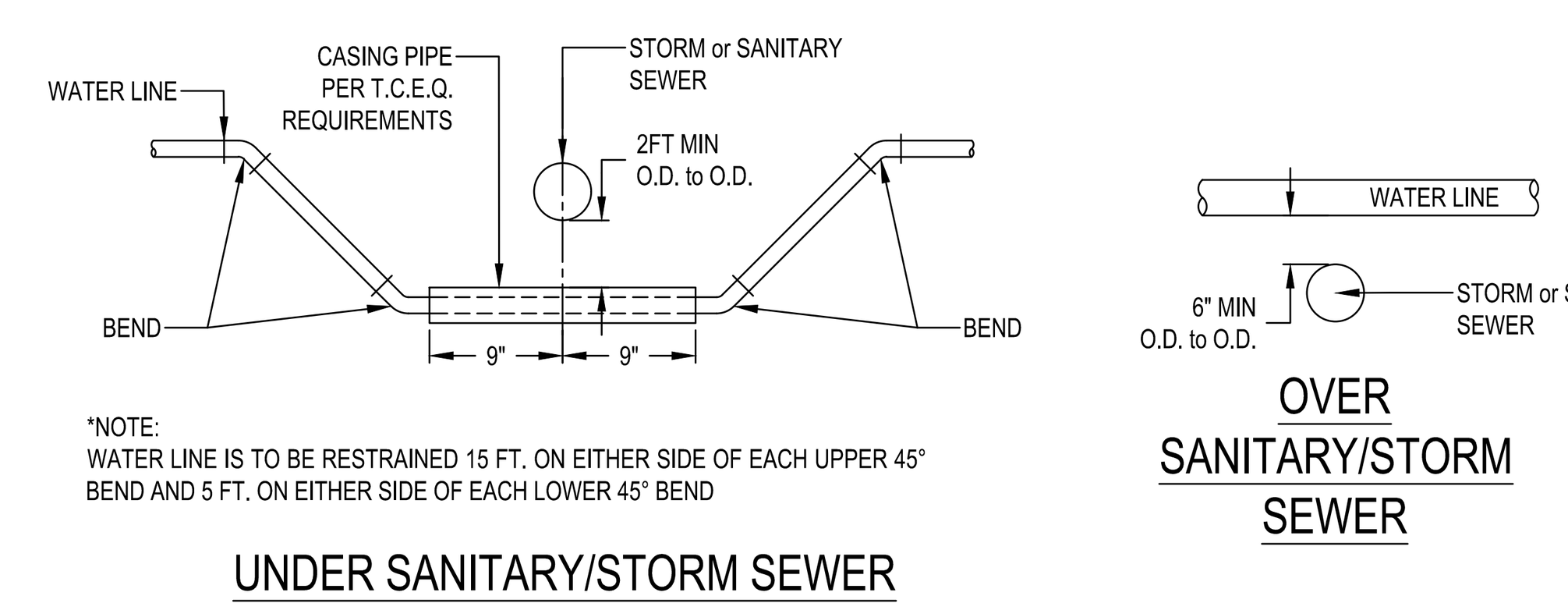
PIPE SIZE	TEES & DEAD ENDS	90° BENDS	45° BENDS	22-1/2° BENDS
IN ROCK WALL TRENCH				
6"	2	2	1	1
8"	3	4	2	1
12"	6	9	5	2
16"	11	15	8	4
IN OTHER THAN ROCK WALL TRENCH				
6"	3	4	2	1
8"	4	6	4	2
12"	10	14	8	4
16"	18	25	14	7



- BLOCKING AREA FOR 200 PSI TEST AND 175 PSI WORKING PRESSURES.
- THRUST BLOCKING SHALL BE CONCRETE FILL.

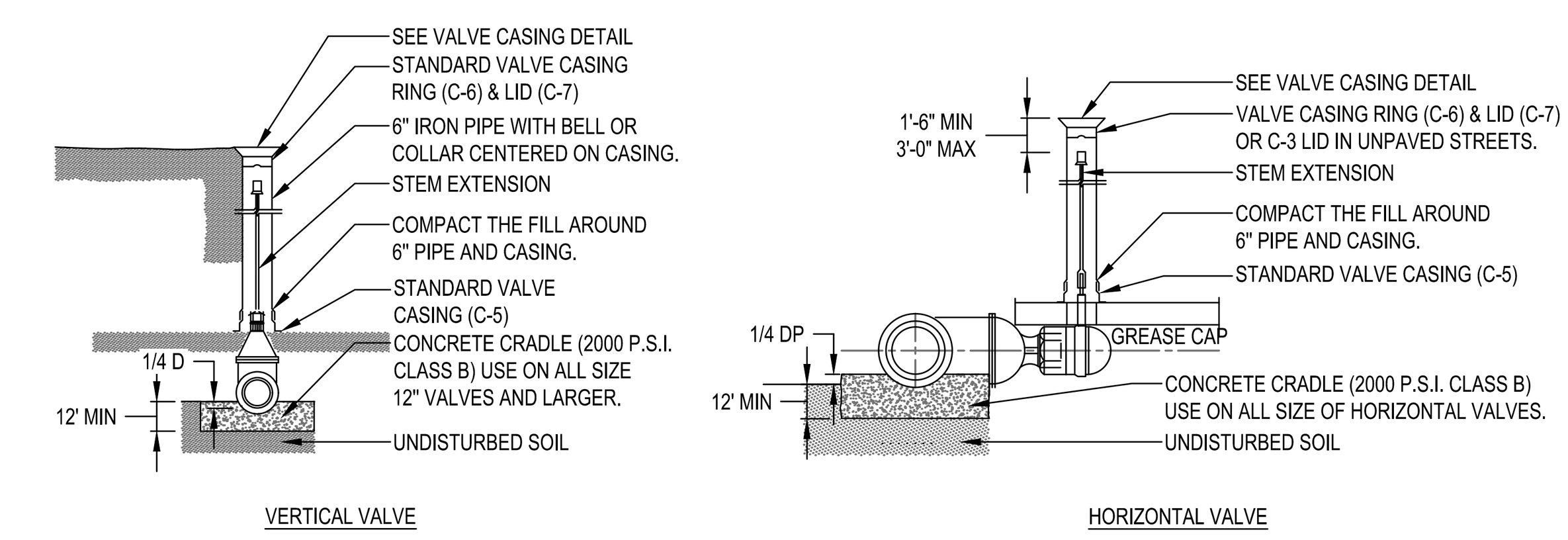
C2 THRUST BLOCKING

NOT TO SCALE



C4 WATER CROSSING DETAIL

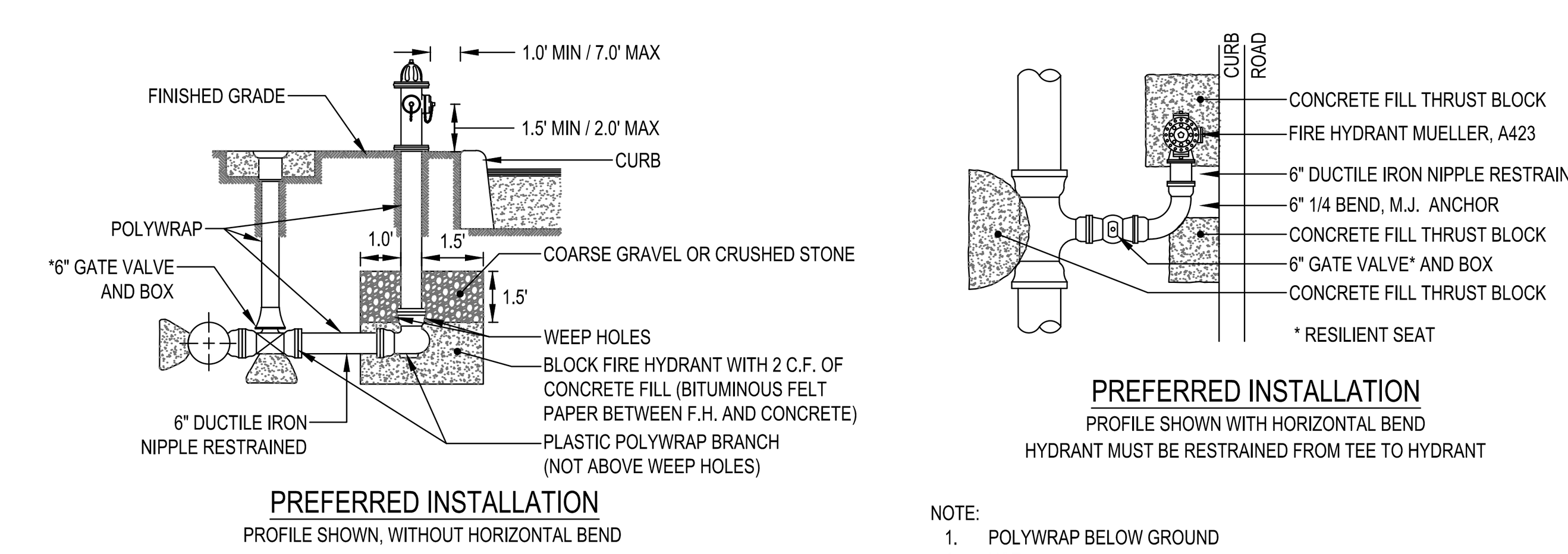
NOT TO SCALE



NOTES:
1. WELD SOCKET 2 5/8" X 1 1/4" DEEP TO 1 1/8" SOLID ROUND STEM EXTENSION FITTED ON OPERATION NUT.
2. STANDARD VALVE CASING RING C-6 & LID C-7 OR C-3 LID IN UNPAVED AREAS. SEE VALVE CASING DETAIL.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE 2" SQUARE 1 1/2" LONG WELDED TO TOP OF ROD.

C5 GATE VALVE DETAIL

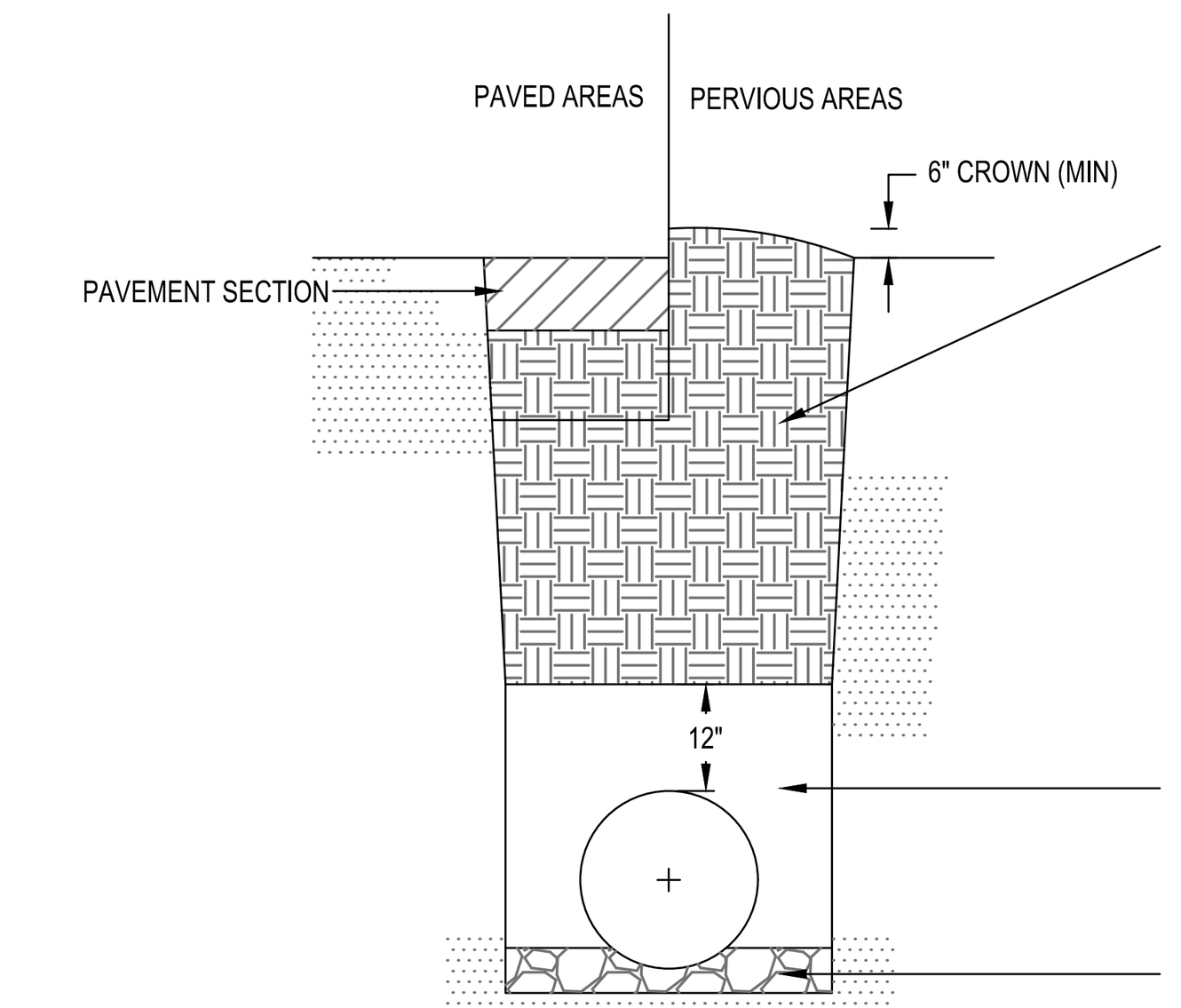
NOT TO SCALE



NOTE:
1. POLYWRAP BELOW GROUND
2. USE:
   2.1. ANCHORING TEE WITH M.J. FITTING OR M.J. VALVE
   2.2. STANDARD M.J. TEE WITH ANCHORING COUPLING OR ANCHORING FITTING

D5 FIRE HYDRANT INSTALLATION

NOT TO SCALE



*NOTE: ALL COMPACTION TESTING SHALL BE PERFORMED AS PER TEX-113-E. ALL BACKFILL MATERIAL SHALL BE FREE OF ROCKS IN EXCESS OF 3 INCHES IN ANY DIRECTION.

SECONDARY ZONE:

COMPACTION
- WITHIN PAVED AREAS: TO BE COMPACTED IN 10" LIFTS TO 95%* COMPACTION AT OPTIMUM MOISTURE (TOLERANCE = ±2). **TOP 12" TO BE COMPACTED TO 95% IN 2" LIFTS**
- WITHIN R.O.W. PERVIOUS AREAS: TO BE COMPACTED IN 10" LIFTS TO 95%* COMPACTION AT OPTIMUM MOISTURE (TOLERANCE = ±2).
- OUTSIDE OF R.O.W.: TO BE COMPACTED IN 18" LIFTS TO 85%* COMPACTION AT OPTIMUM MOISTURE (TOLERANCE = ±3).

MAXIMUM PLASTICITY INDEX
- WITHIN PAVED AREAS: MAX PI = 22
- WITHIN R.O.W. PERVIOUS AREAS: MAX PI = 26
- OUTSIDE R.O.W.: NO LIMIT

NATIVE SOIL

IS ALLOWED IF STABILIZED IN AN ACCEPTABLE MANNER. NO ZERO P.I. SAND IS ALLOWED.

PRIMARY ZONE

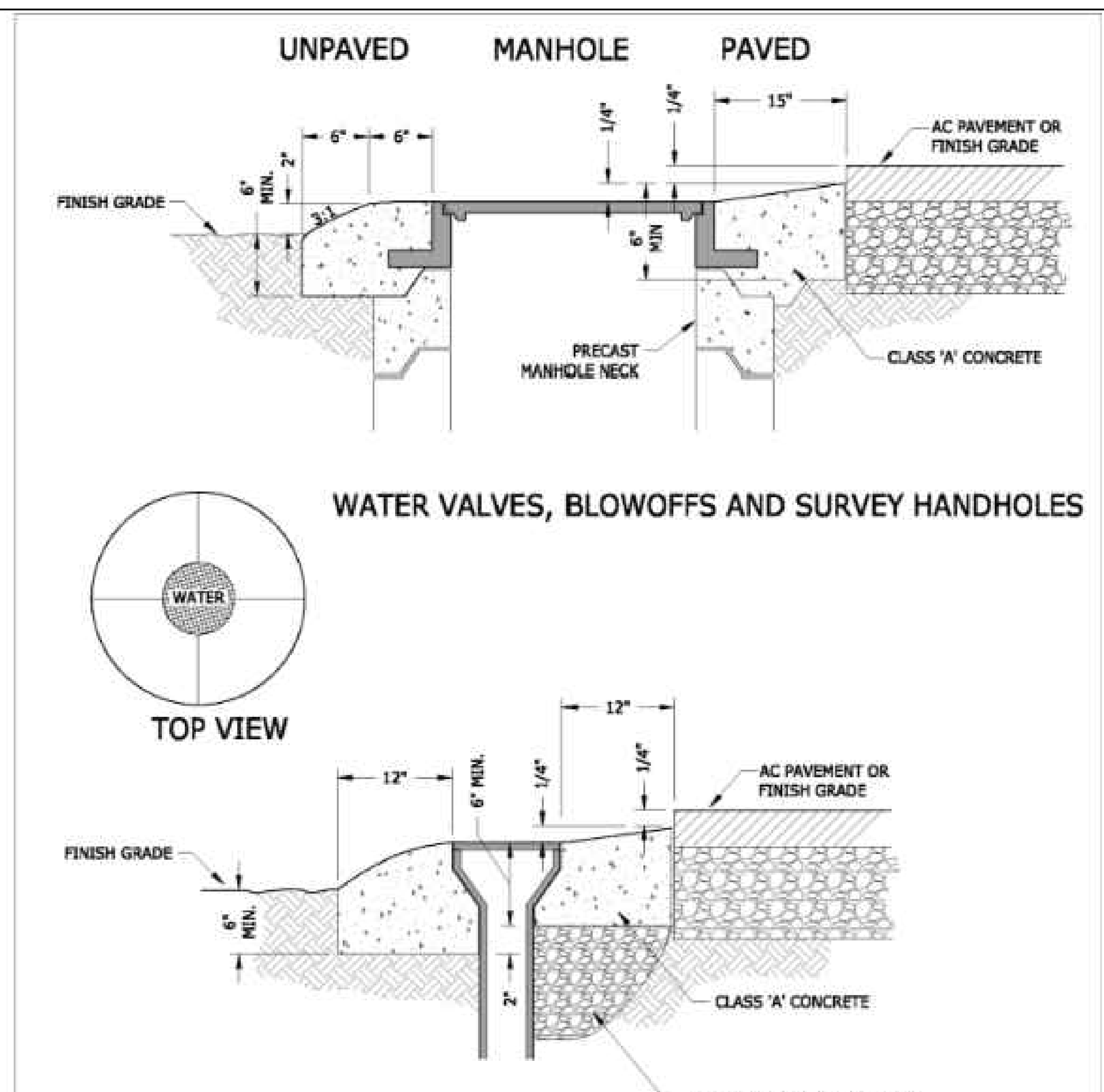
TO BE COMPACTED IN 6" LIFTS TO 95%* COMPACTION AT OPTIMUM MOISTURE (TOLERANCE = ±2).
MAXIMUM P.I. = 18.
NO ZERO P.I. SAND IS ALLOWED.

BEDDING ZONE

THICKNESS = PIPE O.D./8. (4" MIN.) AND SHALL CONSIST OF SAND OR PEA GRAVEL.

E5 UTILITY TRENCH BACKFILL METHODS

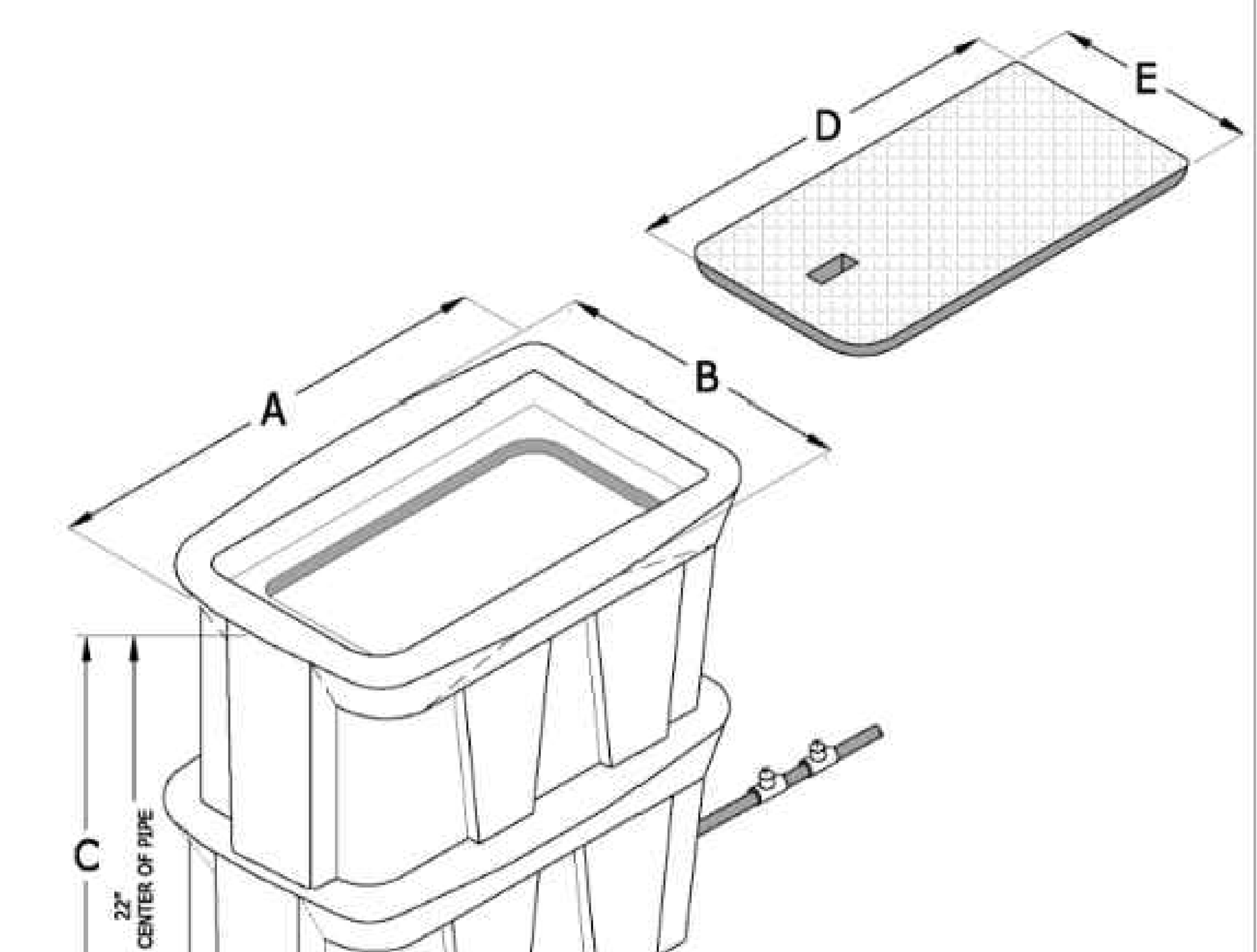
NOT TO SCALE



NOTE:
1. TOP OF VALVE BOX AND CONCRETE RING MUST BE 1/4" BELOW FINISHED GRADE.
2. CONCRETE RING FOR VALVES AND MANHOLES SHALL HAVE FOUR (4) STRESS JOINTS AT 90° ANGLES.
3. DEPTH OF CONCRETE SHALL BE A MIN. 6" OR SAME AS AC AND ABC SEC TION, NOT TO EXCEED 8".
4. VALVES AND MANHOLES LOCATED UNDER CONCRETE PAVING SHALL HAVE A COLD JOINT OR EXPANSION JOINT CONCRETE COLLAR.

NTS

City of Flagstaff ENGINEERING DETAIL — RING, FRAME OR COVER INSTALLATION — DETAIL NO. 09-03-062 — REVISION DATE: 11/22/16 — 1/1

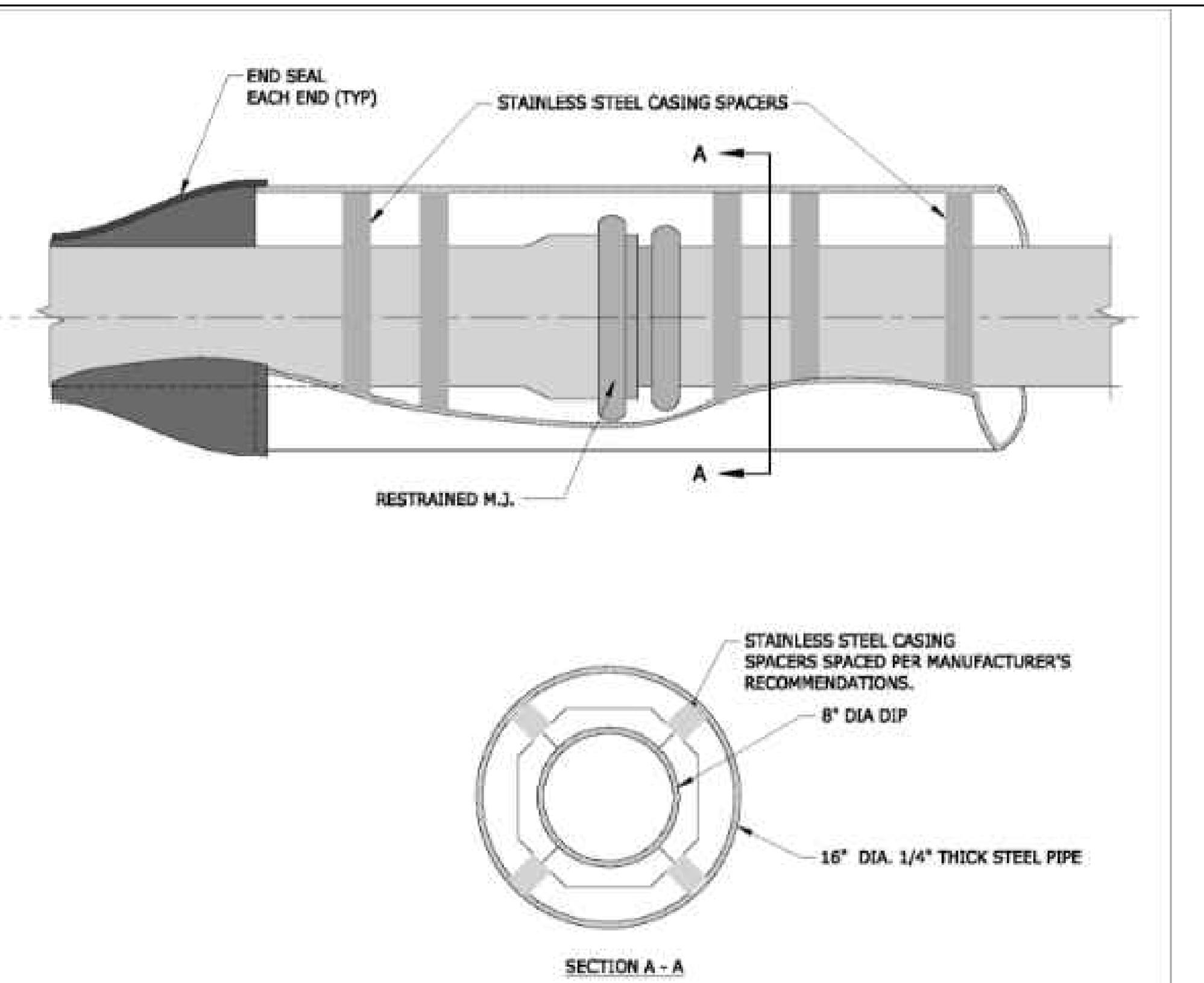


METER BOX DIMENSIONS				
DIM	BOX NUMBER			
	A1C 3/4" METER	A2C 1" METER	A3C 1 1/2" METER	A4C 2" METER
A	19 1/4"	25 1/8"	29 9/16"	33 7/8"
B	12 1/2"	17 5/8"	18 13/16"	23 3/8"
C	12" / 14"	12" / 14"	12" / 14"	12" / 14"
D	14"	19 7/8"	23 1/2"	28 1/4"
E	7 1/4"	12 1/8"	12 5/8"	17 3/4"

NOTES:
1. THE METER BOXES SHALL CONFORM TO THE DIMENSIONS AS SHOWN AND SHALL BE MADE OF LLDPE POLYMER.
2. MINIMUM 3/8" WALL THICKNESS.
3. THE METER BOXES SHALL BE BLACK EXCEPT FOR THE LID THROUGHOUT USING POLYETHYLENE MATERIALS AND SHALL NOT HAVE FOAMING OR BLOWING AGENTS.
4. LIDS SHALL BE OF THE LOCATABLE TYPE, COLORED AS FOLLOWS: BLUE (POTABLE WATER USE) PURPLE (RECLAIM WATER USE)
5. BOXES & LIDS SHALL BE MADE IN THE U.S.A. BY DFW OR APPROVED EQUAL.

NTS

City of Flagstaff ENGINEERING DETAIL — POLYMER WATER METER BOX — DETAIL NO. 9-03-080 — REVISION DATE: 11/22/16 — 1/1



PIPE SIZE	SLEEVE SIZE (MIN)
10"	20"
12"	24"

SEE SPECIFICATION 13-09-006-0001.B.5

NOTES:
1. THE END OF THE DIP PIPE IS RESTRAINED MECHANICALY JOINT AND NOT TO REST ON THE CASING.
2. ALL CASING SPACERS SHALL RUN THE LENGTH OF THE MJ DIP PIPE.
3. CASING SPACERS TO BE BY ADVANCE PRODUCTS & SYSTEMS, INC. OR APPROVED EQUAL.
4. SEAL ENDS OF CASING W/END SEALS BY ADVANCE PRODUCTS & SYSTEM, INC. OR APPROVED EQUAL.

NTS

City of Flagstaff ENGINEERING DETAIL — WATER/SEWER LINE CASING — DETAIL NO. 09-06-010 — REVISION DATE: 11/22/16 — 1/1

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

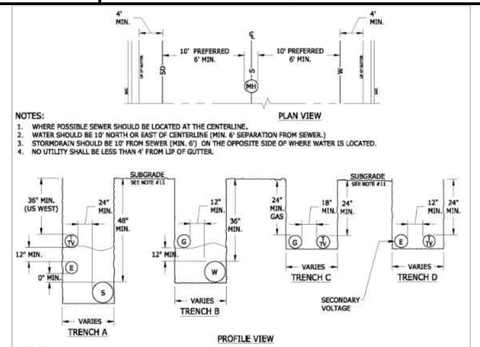
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT, 2951 S. MASONIC LANE, COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC, 2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW UTILITY DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C421 REV 4
SHEET 31 of 46

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 DETAIL



NOTES:

1. WHERE POSSIBLE SEWER SHOULD BE LOCATED AT THE CENTERLINE.
2. WATER SHOULD BE 10' NORTH OR EAST OF CENTERLINE (MIN. 6' SEPARATION FROM SEWER.)
3. STORMDRAIN SHOULD BE 10' FROM SEWER (MIN. 6') ON THE OPPOSITE SIDE OF WHERE WATER IS LOCATED.
4. NO UTILITY SHALL BE LESS THAN 4' FROM LIP OF GUTTER.

NOTES:

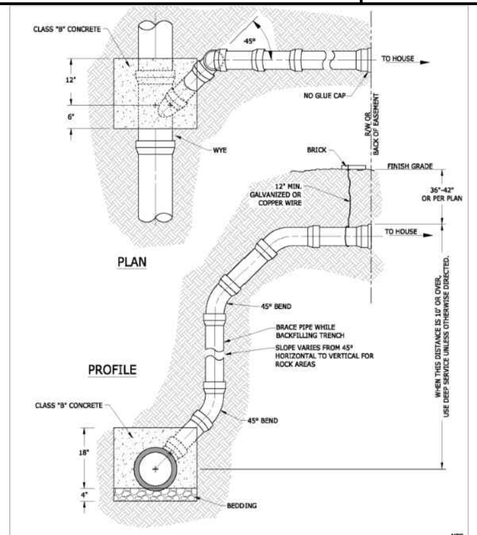
1. THE DIMENSIONS GIVEN IN THESE TRENCH DETAILS ARE MINIMUM. DEPENDING ON THE NUMBER AND SIZE OF UTILITIES IN A TRENCH, ADDITIONAL COVER AND/OR CLEARANCES MAY BE REQUIRED.
2. MINIMUM COVER SHALL BE MEASURED FROM THE TOP OF THE PIPE TO THE SUBGRADE UNDER EXISTING OR PROPOSED PAVEMENT. IN AREAS THAT ARE NOT TO BE PAVED, MINIMUM COVER SHALL BE MEASURED FROM FINISHED GRADE.
3. MINIMUM HORIZONTAL DISTANCE BETWEEN WATER AND SEWER PIPS IS 6 FEET.
4. WHEN SEWER AND WATER LINES CROSS, REFER TO ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (A.D.E.Q.) GUIDELINES, AND OTHER CITY STANDARDS.
5. WHILE POWER AND COMMUNICATION CABLES MAY BE INSTALLED IN SANITARY SEWER TRENCHES, A SEPARATE TRENCH MAY BE REQUIRED WHEN DEEMED NECESSARY BY UTILITY COMPANIES.
6. WATER AND ELECTRIC POWER LINES ARE NOT ALLOWED IN THE SAME TRENCH.
7. GAS AND SEWER LINES ARE NOT ALLOWED IN THE SAME TRENCH
8. TWO WORKING DAYS BEFORE YOU DIG, CALL FOR THE BLUE STAKES 1-800-STAKE-IT
9. TRACER WIRES SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD 9-01-020.
10. WHEN POWER AND COMMUNICATION CABLES ARE NOT IN THE SAME TRENCH, THEY SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 36" FROM WATER LINES AND 24" FROM SEWER LINES, AND SHALL MAINTAIN A MINIMUM OF 24" ABOVE SEWER LINES. WHEN GAS LINES ARE NOT IN THE SAME TRENCH, A MINIMUM HORIZONTAL SEPARATION OF 36" FROM SEWER LINES AND 18" FROM WATER LINES SHALL BE MAINTAINED; GAS LINES SHALL ALSO BE A MINIMUM OF 18" ABOVE WATER LINES. ALL MEASUREMENTS SHALL BE MADE FROM THE OUTSIDE EDGE OF PIPE OR CABLE.
11. MINIMUM DEPTHS FOR POWER, GAS, TELEVISION, AND COMMUNICATION ARE MEASURED FROM FINISHED GRADE.
12. ALL WATERLINE (FIRE HYDRANT LEAD LINES, FIRE LINES AND SERVICE LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 3')

NTS

City of Flagstaff — ENGINEERING DETAIL

UNDERGROUND UTILITES IN STREETS
TYPICAL LOCATION AND TRENCH DETAIL

DETAIL NO. 9-01-010 | REVISION DATE: 11/22/16 | 1/1



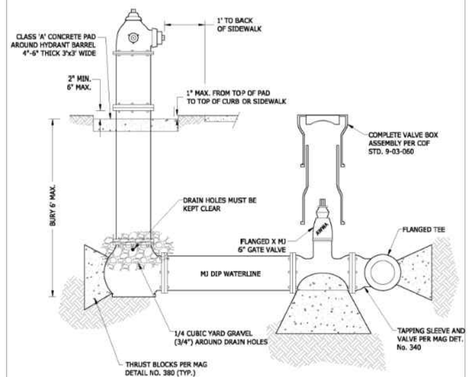
NTS

City of Flagstaff — ENGINEERING DETAIL

DEEP SEWER SERVICE

DETAIL NO. 9-02-080 | REVISION DATE: 11/22/16 | 1/1

SEE DETAIL NO. 13-03-012 FOR PROTECTION POST INSTALLATION
NOTE: MIN. 3' CLEAR LEVEL AREA AROUND HYDRANT



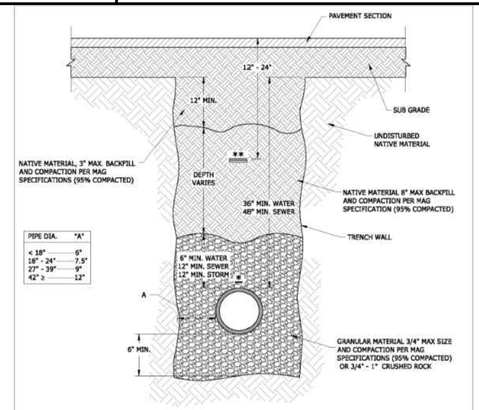
FOR SPECIFICATIONS, INSTALLATION, AND TESTING REFER TO SECTION 13-09-006-0006 (FIRE HYDRANTS).

NTS

City of Flagstaff — ENGINEERING DETAIL

FIRE HYDRANT ASSEMBLY

DETAIL NO. 13-03-011 | REVISION DATE: 9/28/17 | 1/1



NOTES:

1. NATIVE BACKFILL SHALL BE PER MAG SPECS AND MAY BE SELECTED FROM THE EXCAVATION MATERIAL OR FROM A SOURCE SELECTED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER.
2. NON-SHRINK BACKFILL IN ACCORDANCE WITH COF STD. 9-6-030 AND MAY BE USED FOR BACKFILL UP TO EXISTING SUBGRADE. THE NON-SHRINK BACKFILL SHALL BE PROPORTIONED AS FOLLOWS: 3500 LBS OF 3/8" MINUS AGGREGATE, 800 LBS SAND, 94 LBS CEMENT AND 11 GALLONS WATER

* TRACER WIRE TAPED TO TOP CENTER OF MAIN WITH 10MIL PVC TAPE ON 4' CENTERS, SEE COF STD 9-01-020.

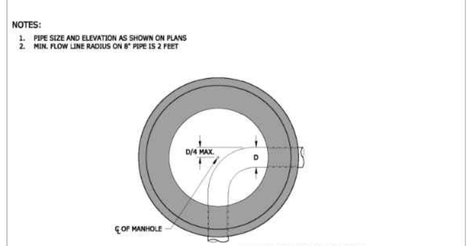
** WARNING TAPE

NTS

City of Flagstaff — ENGINEERING DETAIL

TRENCHING AND BACKFILL
NEW PAVED STREET

DETAIL NO. 9-01-031 | REVISION DATE: 11/22/16 | 1/1



NOTES:

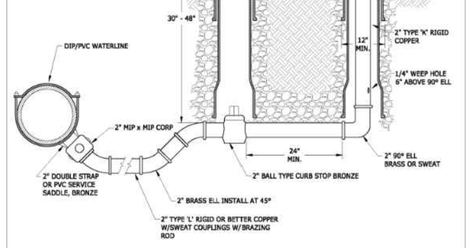
1. PIPE SIZE AND ELEVATION AS SHOWN ON PLANS
2. MIN. FLOW LINE RADIUS ON 8" PIPE IS 2 FEET

NTS

City of Flagstaff — ENGINEERING DETAIL

MANHOLE BASE GEOMETRY

DETAIL NO. 9-02-092 | REVISION DATE: 11/22/16 | 1/1



NOTES:

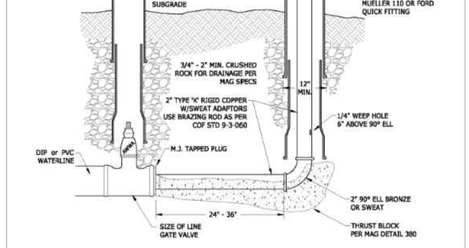
1. ALL SWEAT FITTINGS PER COF DETAIL 9-3-070
2. PIPE FITTINGS BEDDED IN GRANULAR MATERIAL 3/4" MAX AND COMPACTION PER MAG SPECS. (95% COMPACTION) WHERE DRAINAGE GRAVEL NOT REQUIRED
3. ALL MATERIALS COMPACTED TO 95% UNDER VALVE BOXES.

NTS

City of Flagstaff — ENGINEERING DETAIL

IN-LINE BLOW-OFF
ON WATER LINE 12" and SMALLER

DETAIL NO. 9-03-055 | REVISION DATE: 11/22/16 | 1/1



NOTES:

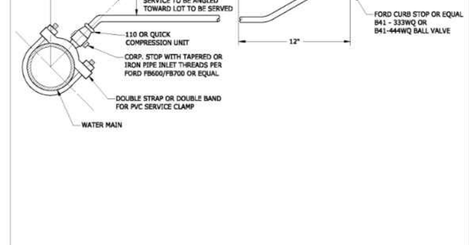
1. PIPE FITTINGS BEDDED IN GRANULAR MATERIAL 3/4" MAX. AND COMPACTION PER MAG SPEC (95% COMPACTION) WHERE DRAINAGE GRAVEL NOT REQUIRED.
2. ALL MATERIAL COMPACTED TO 95% UNDER VALVE BOXES.

NTS

City of Flagstaff — ENGINEERING DETAIL

END-OF-LINE PERMANENT BLOW-OFF

DETAIL NO. 9-03-054 | REVISION DATE: 11/22/16 | 1/1



SEE SECTION 13-09-003-0007 FOR NOTES RELATING TO THIS DETAIL.

NTS

City of Flagstaff — ENGINEERING DETAIL

WATER SERVICE CONNECTION
3/4" AND 1"

DETAIL NO. 09-03-070 | REVISION DATE: 11/22/16 | 1/2

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) — CERTIFICATE NO. 77934 — ERIC S BEALS — 5/02/24 — DATE SIGNED — ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2955 S. MALIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
UTILITY DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C422
REV 4

SHEET 32 of 46

K:\FLMS\22004 FLAGSTAFF PH\DRAWINGS\CIVIL\ 5/02/2024 10:06:

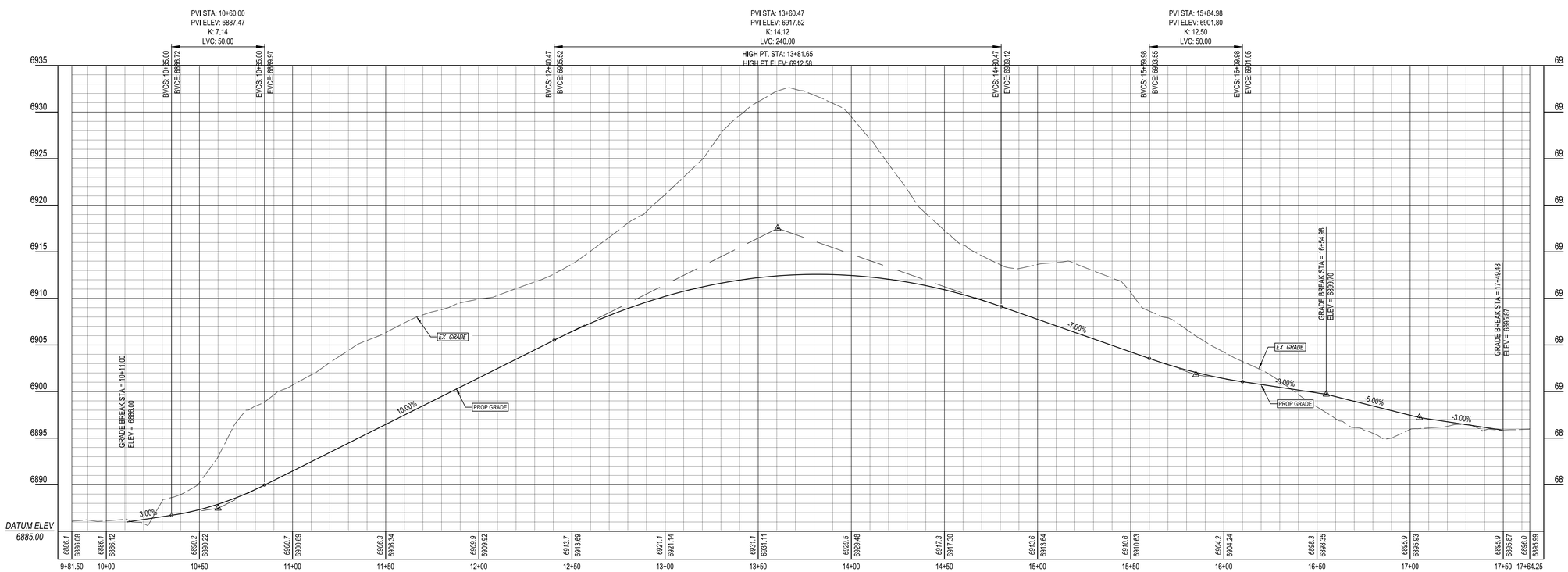


B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" - 30'

SCALE: 1" = 30'

15 0 15 30



E1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'

HORIZONTAL SCALE 0 15' 30'

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

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Registered Professional Engineer (Civil)
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ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering

FIRM No. F-23395
viewpointengineering.com

2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

DWN BY: M TOTH
CHK BY: E BEALS

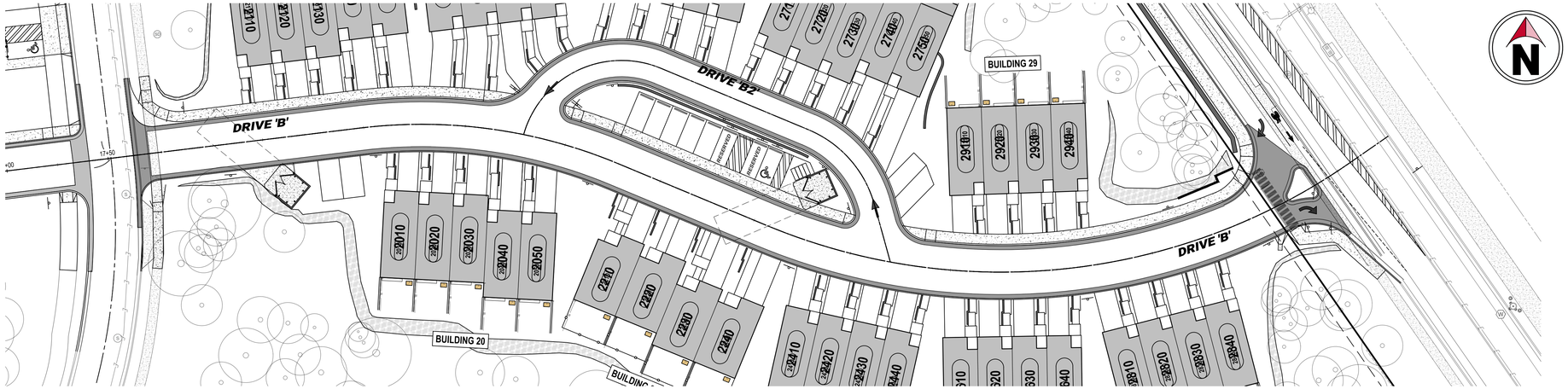
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
ROAD GEOMETRY PLAN & PROFILE
(DRIVE 'A')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C501
REV 4

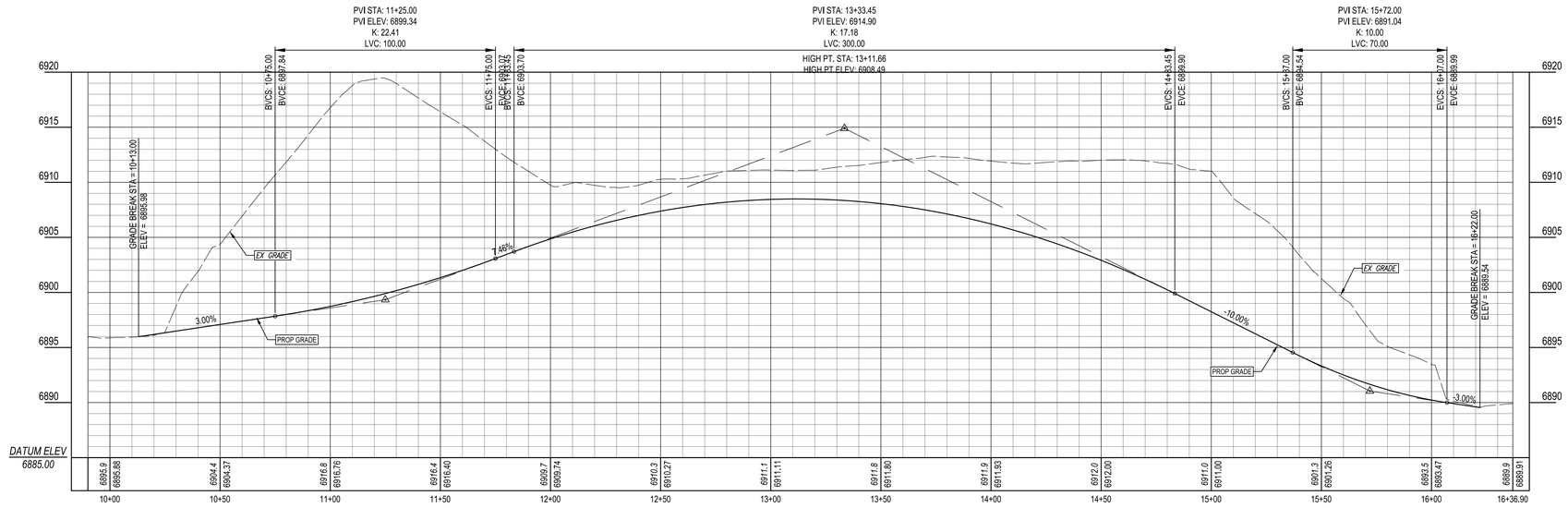
SHEET 33 of 46



B2 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

SCALE: 1" = 30'
15 0 15 30



D2 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

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Registered Professional Engineer - Civil
CERTIFICATE NO.
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ERIC S
BEALS
DATE SIGNED
5/02/24
ARIZONA, U.S.A.

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AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

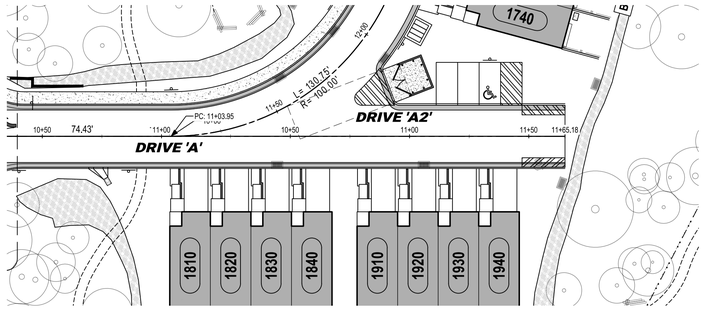
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2655 S. HISTORIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
ROAD GEOMETRY PLAN & PROFILE (DRIVE 'B')

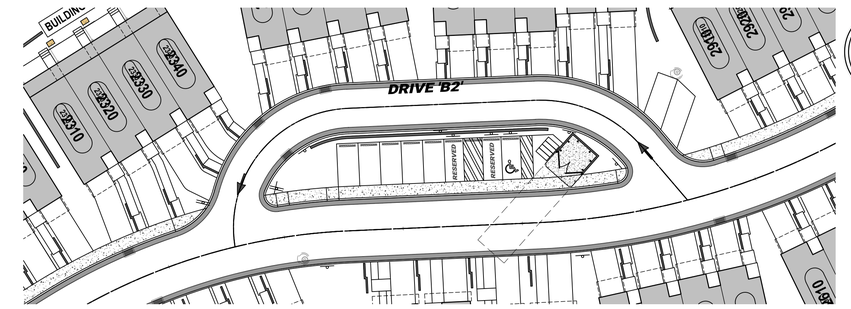
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C502
REV 4
SHEET 34 of 46



B2 PLAN VIEW: DRIVE 'A2'

SCALE: 1" = 30'

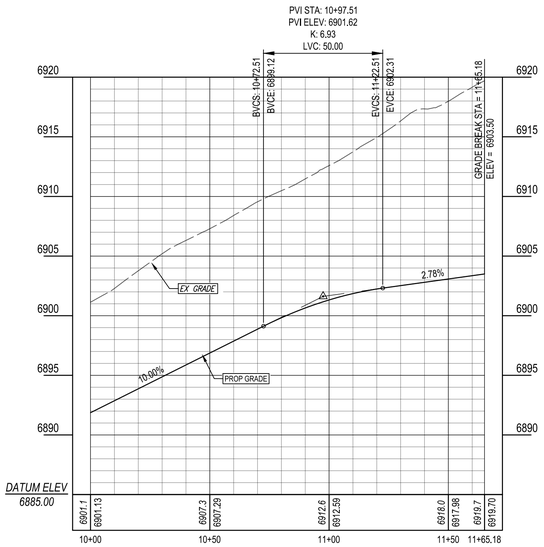
SCALE: 1" = 30'
15 0 15 30



B4 PLAN VIEW: DRIVE 'B2'

SCALE: 1" = 30'

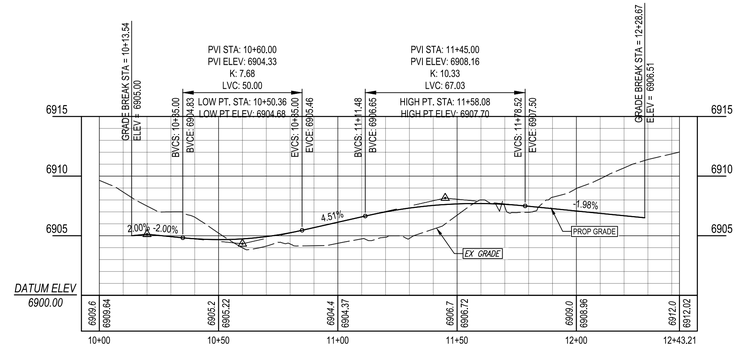
SCALE: 1" = 30'
15 0 15 30



C2 PROFILE VIEW: DRIVE 'A2'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'



C4 PROFILE VIEW: DRIVE 'B2'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

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ARIZONA811 BLUE STAKE, INC.

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DWN BY: M TOTH
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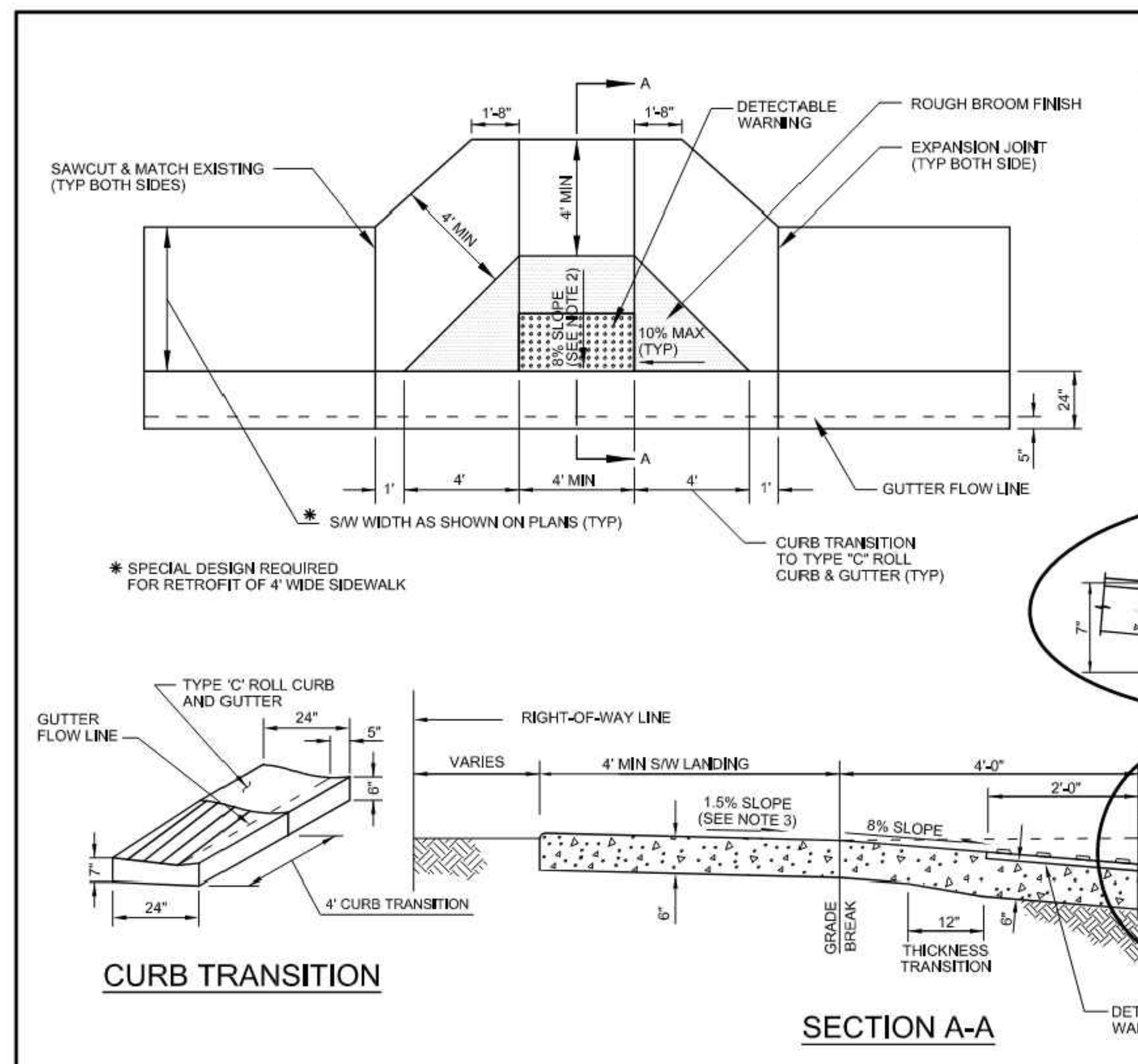
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
ROAD GEOMETRY PLAN & PROFILE
(DRIVE 'A2' & 'B2')

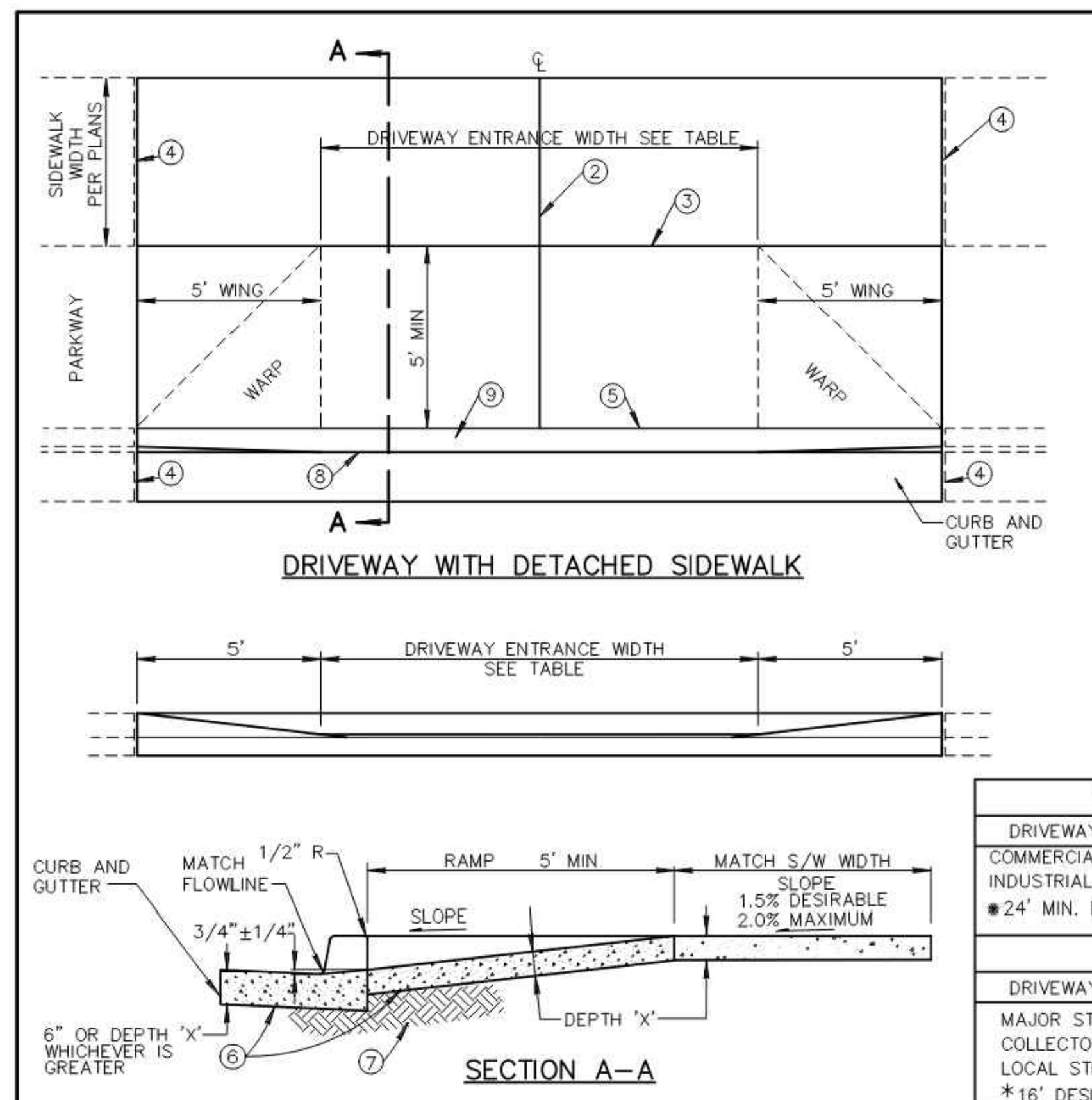
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C503
REV 4



NOTES:

1. CLASS 'A' CONCRETE PER SECTION 725.
2. CONSTRUCTION INCLUDING JOINTS, CONCRETE FINISH AND MAXIMUM SLOPES SHALL CONFORM TO SECTION 340.
3. SIDEWALK SURFACE TO MATCH 1.5 % SLOPE FROM TOP OF CURB.
4. DETECTABLE WARNING IS TO COMPLY WITH THE JURISDICTIONAL AGENCY'S REQUIREMENTS.

DETAIL NO. 238-4 | MARICOPA ASSOCIATION of GOVERNMENTS | STANDARD DETAIL ENGLISH | SINGLE CURB RAMP MID-BLOCK RESIDENTIAL STREET W/ 4" ROLL CURB | REVISED 01-01-2020 | DETAIL NO. 238-4

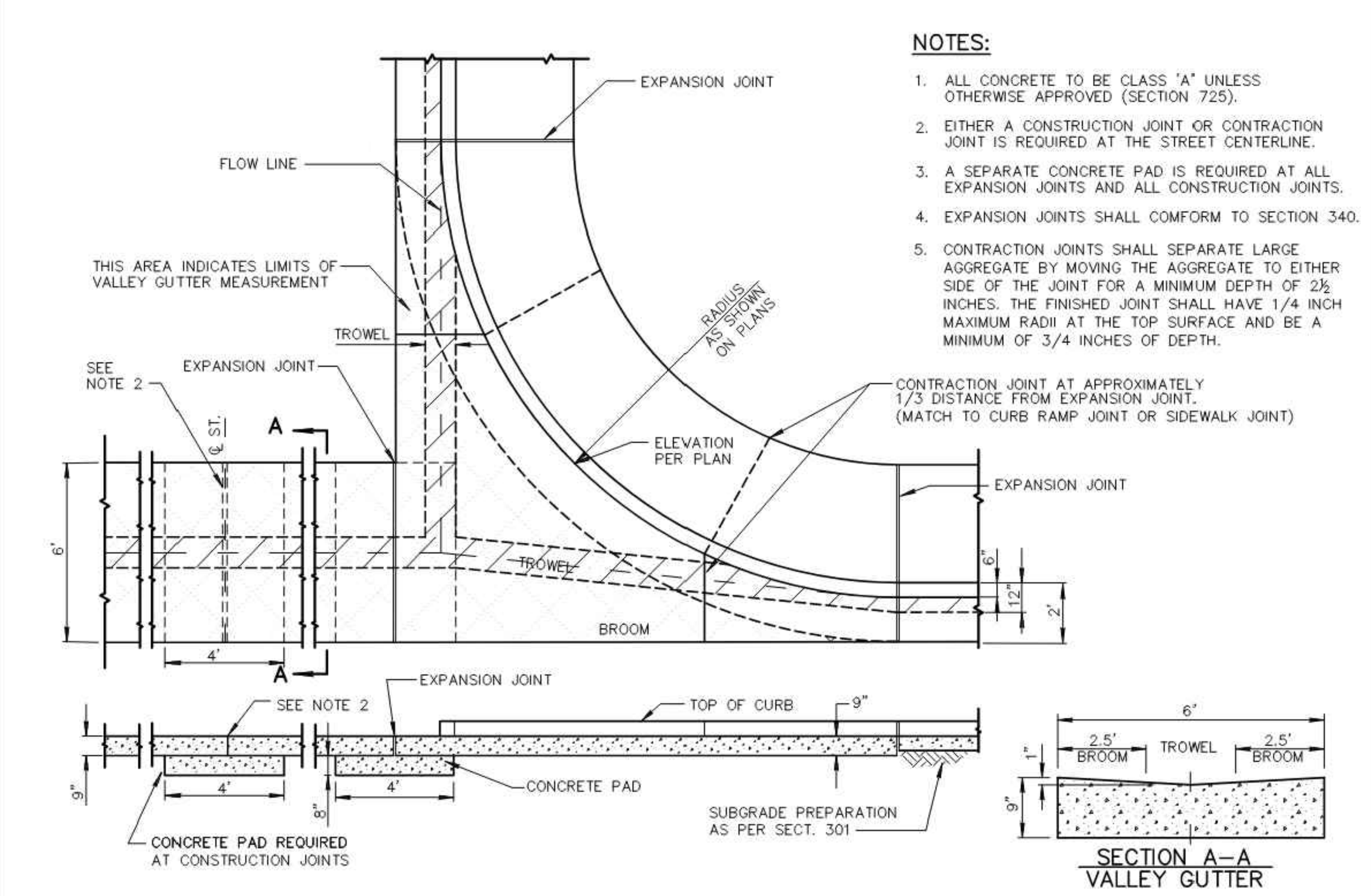


NOTES:

1. DEPRESSED CURB SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. CONTRACTION JOINT ON D/W CENTERLINE.
3. CONTRACTION JOINT.
4. 1/2-INCH EXPANSION JOINTS SHALL COMPLY WITH SECTION 340.
5. BACK OF CURB – CONSTRUCTION JOINT.
6. CONCRETE CLASS AS NOTED IN TABLE. CONCRETE PER SECTION 725.
7. SUBGRADE PREPARATION, SECT. 301.
8. FLOW LINE OF GUTTER.
9. DEPRESSED CURB.
10. SECT. A-A AND ELEVATION: D/W SHOWN WITH VERTICAL CURB AND GUTTER, ROLL TYPE CURB AND GUTTER TREATED SIMILARLY.
11. ROUGH BROOM FINISH FULL WIDTH OF RAMP AND WINGS.
12. TROWEL AND USE LIGHT HAIR BROOM FINISH FOR WALKWAY AREA.
13. 'DRIVEWAY ENTRANCE WIDTH' IS THE DRIVEWAY WIDTH PLUS ADDITIONAL WIDENING REQUIRED BY THE LOCAL JURISDICTION.
14. ELEVATION AT TOP OF DRIVEWAY RAMP SHALL BE EQUAL TO OR HIGHER THAN NORMAL CURB ELEVATION.

COMMERCIAL AND INDUSTRIAL				
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'
COMMERCIAL	* 16'	40'	A	9"
INDUSTRIAL	* 16'	40'	A	9"
* 24' MIN. FOR TWO WAY TRAFFIC				
RESIDENTIAL				
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'
MAJOR STREET	16'	30'	B	5"
COLLECTOR STREET	* 12'	30'	B	5"
LOCAL STREET	12'	30'	B	5"
*16' DESIRABLE				

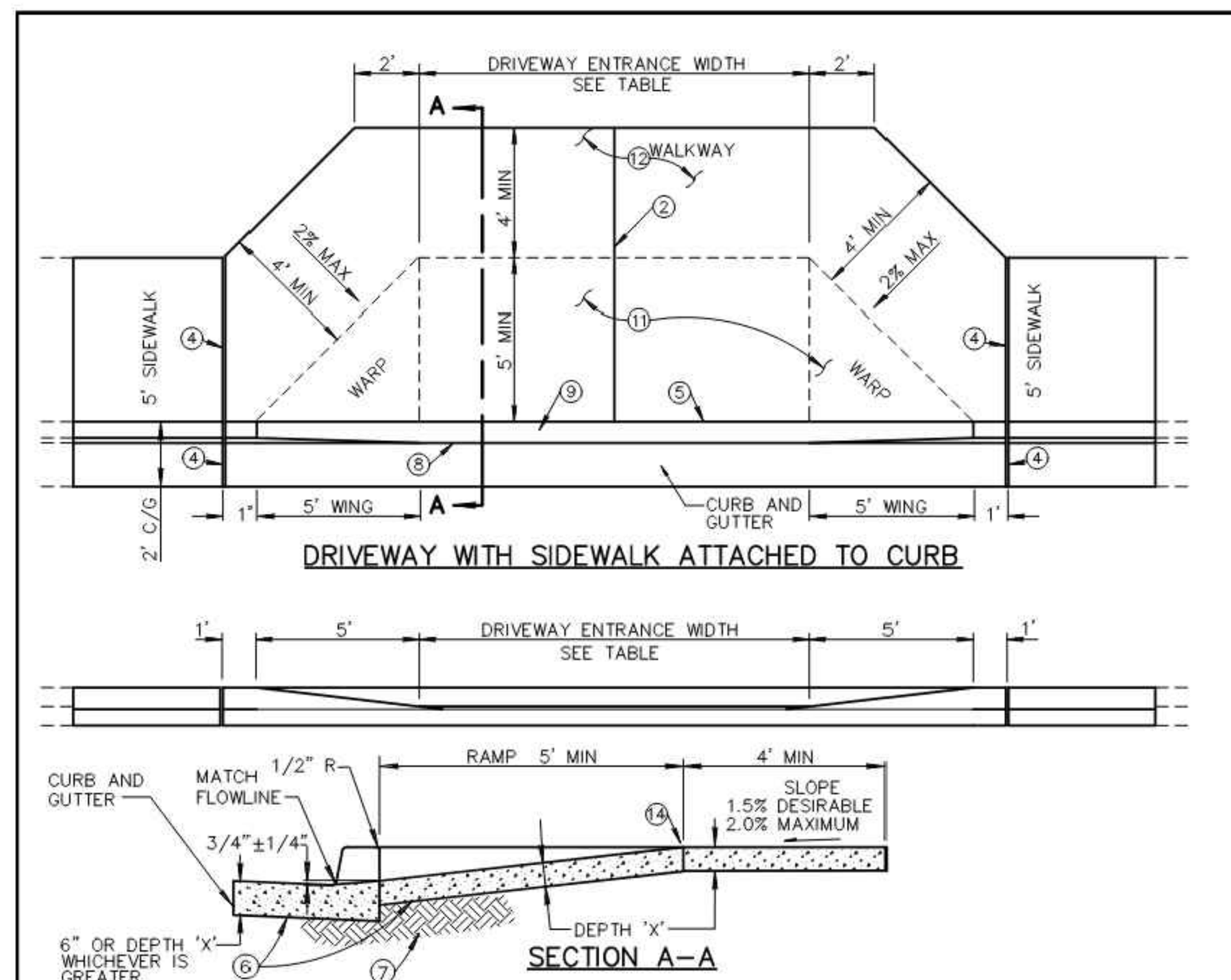
DETAIL NO. 250–1 | MARICOPA ASSOCIATION of GOVERNMENTS | STANDARD DETAIL ENGLISH | DRIVEWAY ENTRANCES WITH DETACHED SIDEWALK | REVISED 01-01-2014 | DETAIL NO. 250–1



NOTES:

1. ALL CONCRETE TO BE CLASS "A" UNLESS OTHERWISE APPROVED (SECTION 725).
2. EITHER A CONSTRUCTION JOINT OR CONTRACTION JOINT IS REQUIRED AT THE STREET CENTERLINE.
3. A SEPARATE CONCRETE PAD IS REQUIRED AT ALL EXPANSION JOINTS AND ALL CONSTRUCTION JOINTS.
4. EXPANSION JOINTS SHALL COMFORM TO SECTION 340.
5. CONTRACTION JOINTS SHALL SEPARATE LARGE AGGREGATE BY MOVING THE AGGREGATE TO EITHER SIDE OF THE JOINT FOR A MINIMUM DEPTH OF 2½ INCHES. THE FINISHED JOINT SHALL HAVE 1/4 INCH MAXIMUM RADII AT THE TOP SURFACE AND BE A MINIMUM OF 3/4 INCHES OF DEPTH.

DETAIL NO. 240 | MARICOPA ASSOCIATION of GOVERNMENTS | STANDARD DETAIL ENGLISH | VALLEY GUTTER | REVISED 01-01-2010 | DETAIL NO. 240

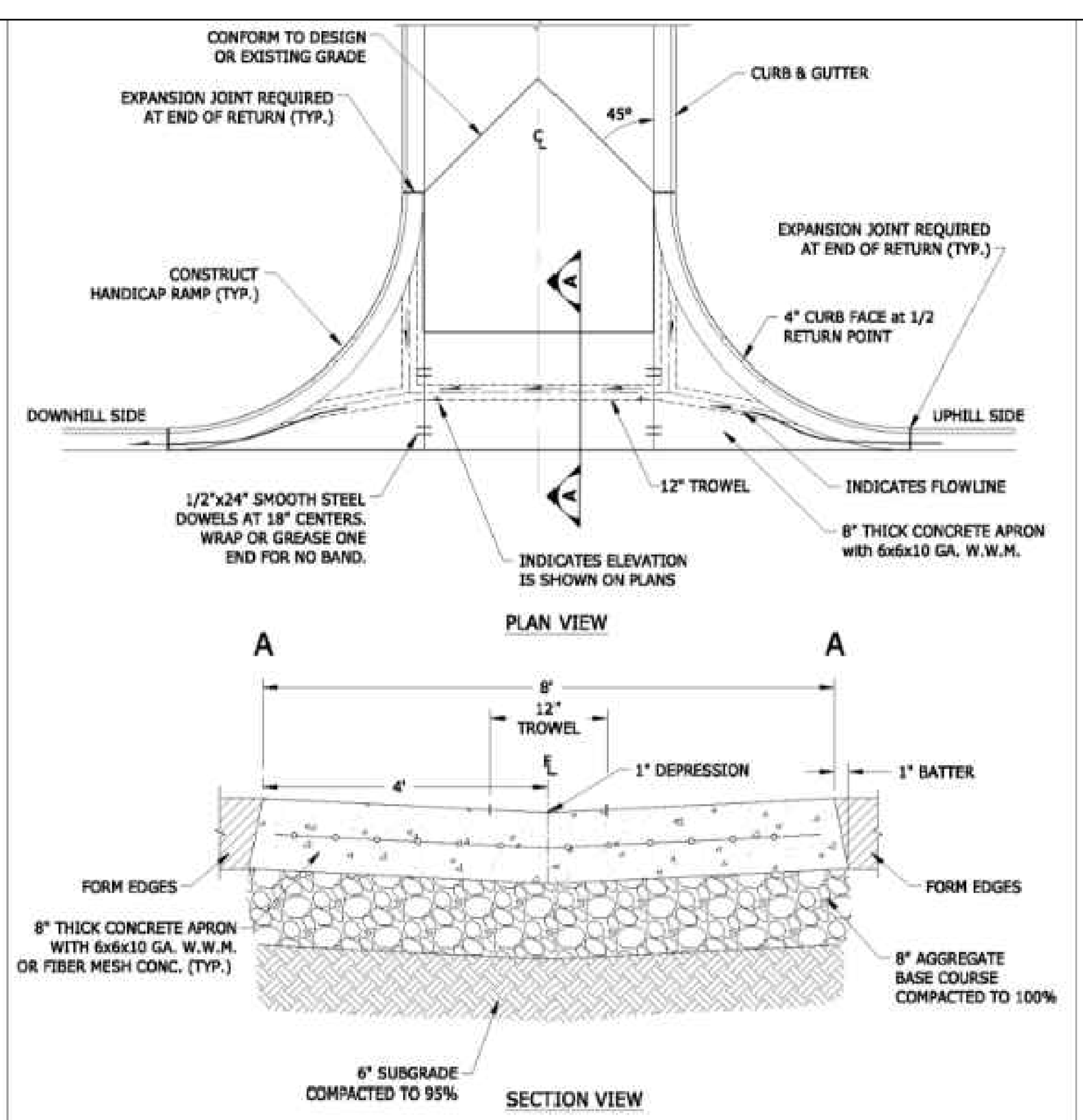


NOTES:

1. DEPRESSED CURB SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. CONTRACTION JOINT(S) FOR DRIVEWAY ENTRANCE: WIDTH LESS THAN 22' NONE REQUIRED; WIDTH GREATER THAN 22' AND LESS THAN 30' LOCATE SINGLE JOINT ON D/W CENTERLINE; WIDTH OF 30' OR GREATER LOCATE TWO JOINTS TO EQUALLY DIVIDE THE DRIVEWAY ENTRANCE WIDTH.
3. DETAIL GEOMETRICS ARE BASED ON A CURB HEIGHT OF SIX INCHES (6"), AN ATTACHED SIDEWALK WIDTH OF FIVE FEET (5'), AND A DRIVEWAY RAMP LENGTH NOT EXCEEDING SIX FEET (6'). GEOMETRIC MODIFICATIONS MAY BE REQUIRED WHEN CONDITIONS ARE MODIFIED.
4. 1/2-INCH EXPANSION JOINTS SHALL COMPLY WITH SECTION 340.
5. BACK OF CURB – CONSTRUCTION JOINT.
6. CONCRETE CLASS AS NOTED IN TABLE. CONCRETE PER SECTION 725.
7. SUBGRADE PREPARATION, SECT. 301.
8. FLOW LINE OF GUTTER.
9. DEPRESSED CURB.
10. SECT. A–A AND ELEVATION: D/W SHOWN WITH VERTICAL CURB AND GUTTER, ROLL TYPE CURB AND GUTTER TREATED SIMILARLY.
11. ROUGH BROOM FINISH FULL WIDTH OF RAMP AND WINGS.
12. TROWEL AND USE LIGHT HAIR BROOM FINISH FOR WALKWAY AREA.
13. 'DRIVEWAY ENTRANCE WIDTH' IS THE DRIVEWAY WIDTH PLUS ADDITIONAL WIDENING REQUIRED BY THE LOCAL JURISDICTION.
14. ELEVATION AT TOP OF DRIVEWAY RAMP SHALL BE EQUAL TO OR HIGHER THAN NORMAL CURB ELEVATION.

COMMERCIAL AND INDUSTRIAL					RESIDENTIAL				
DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'	DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'
COMMERCIAL	* 16'	40'	A	9"	MAJOR STREET	16'	30'	B	5"
INDUSTRIAL	* 16'	40'	A	9"	COLLECTOR STREET	* 12'	30'	B	5"
* 24' MIN. FOR TWO WAY TRAFFIC					LOCAL STREET	12'	30'	B	5"
					*16' DESIRABLE				

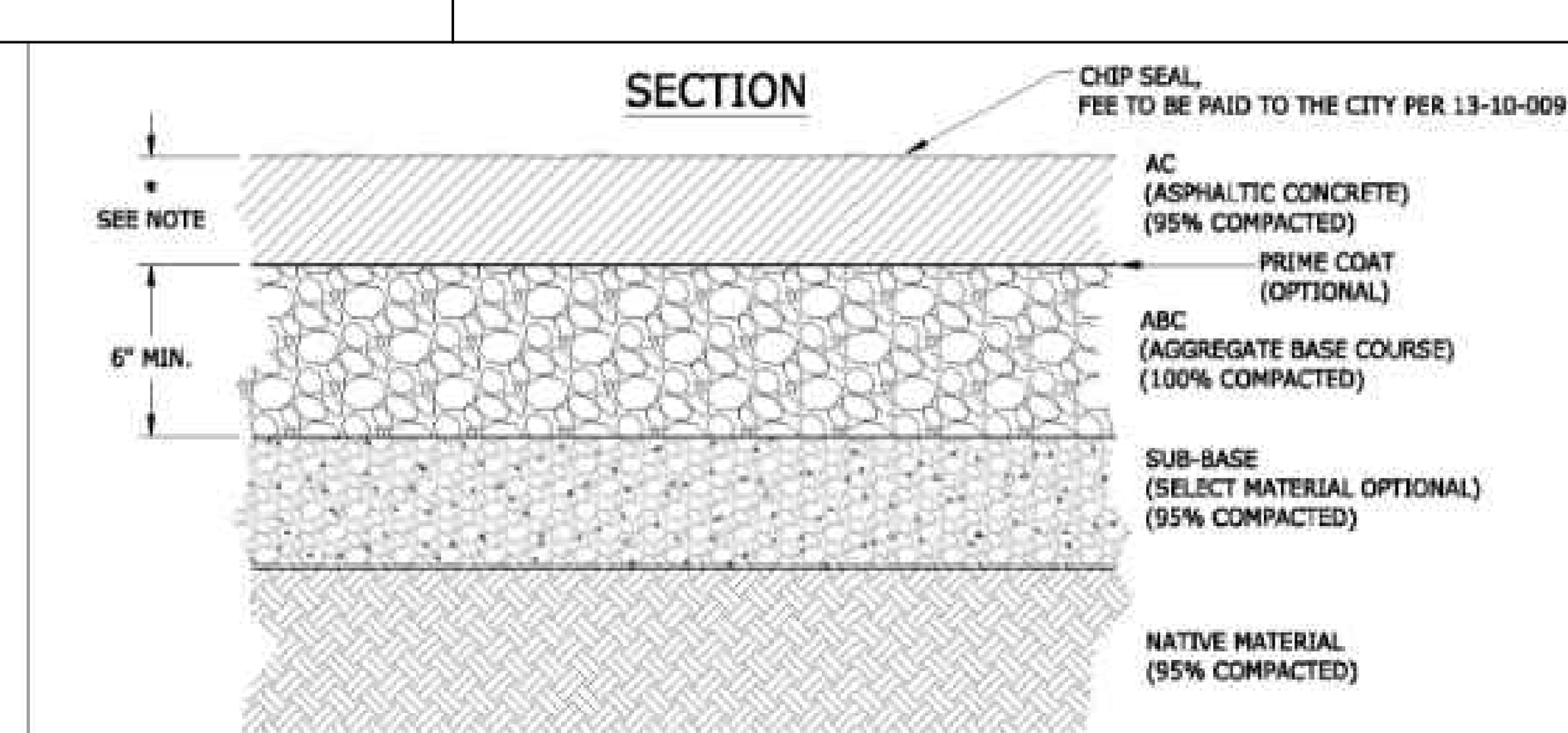
DETAIL NO. 250–2 | MARICOPA ASSOCIATION of GOVERNMENTS | STANDARD DETAIL ENGLISH | DRIVEWAY ENTRANCES WITH SIDEWALK ATTACHED TO CURB | REVISED 01-01-2013 | DETAIL NO. 250–2



1. CONCRETE SHALL BE CLASS "AA" (WITH 5-7% ENTRAINED AIR)
2. NO CONCRETE SHALL BE PLACED PRIOR TO FORM INSPECTION BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
3. ASPHALTIC CONCRETE SHALL BE HELD 1/4" HIGH AT EDGE OF CONCRETE.

NTS

City of Flagstaff ENGINEERING DETAIL | STANDARD VALLEY GUTTER | DETAIL NO. 8-06-010 | REVISION DATE: 11/22/16 | 1/1



* THE MINIMUM DEPTH OF THE AC VARIES, DEPENDING ON THE TYPE OF ROADWAY. THE TYPICAL MINIMUM PAVEMENT DEPTHS ARE AS FOLLOWS, OR MATCH EXISTING, WHICHEVER IS GREATER.

ARTERIALS = 5"
COLLECTORS = 4"
LOCALS & ALLEYS = 3"

OFF-STREET PARKING MINIMUM DEPTH OF AC IS 2 1/2"
PARKING LOTS MAY BE PAVED WITH 4" PORTLAND CEMENT CONCRETE UPON COMPACTED SUBGRADE.

ALTERNATIVE SECTIONS:

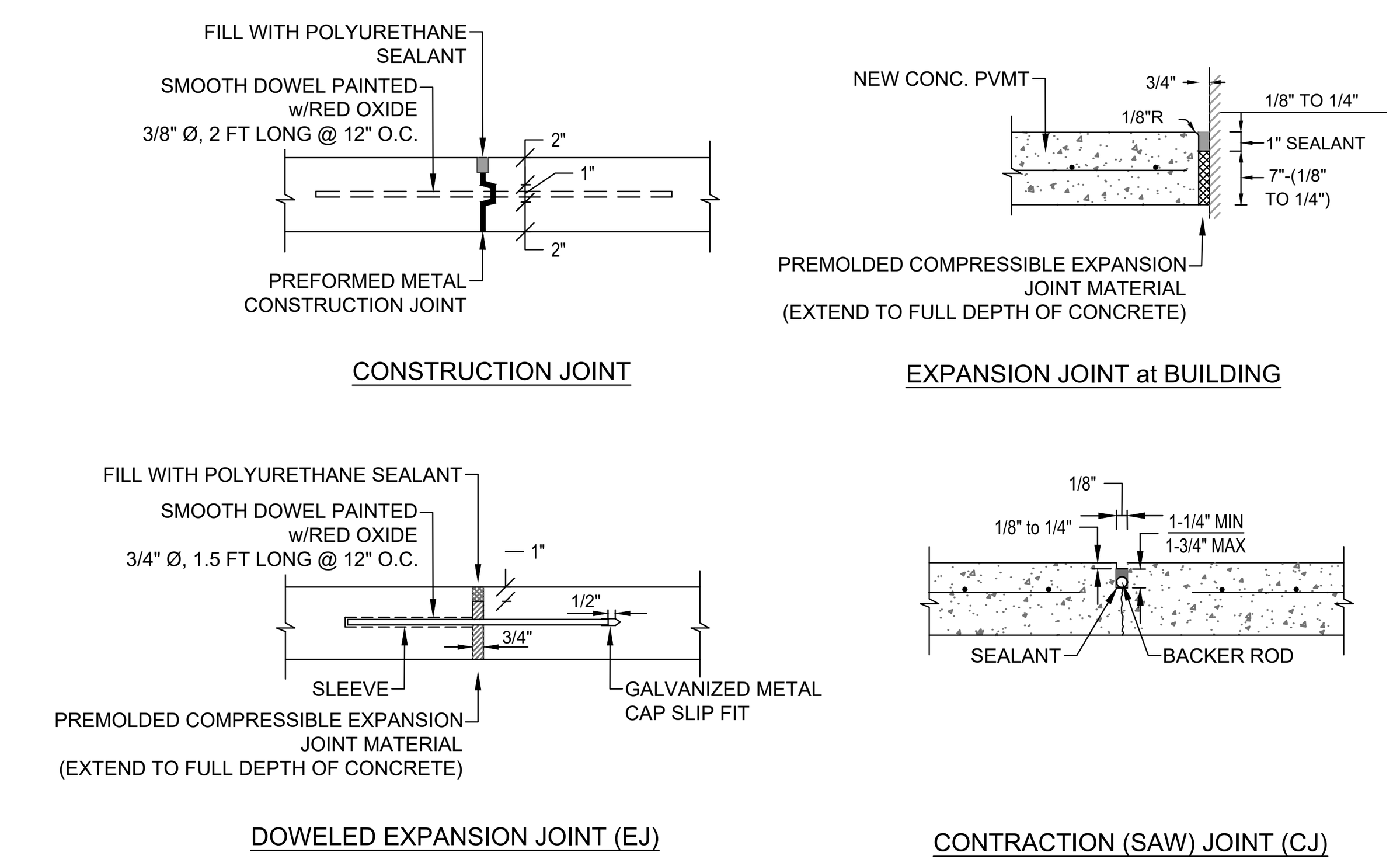
1. FOR PARKING LOTS, ALTERNATIVE SECTIONS OF PAVEMENT WILL BE CONSIDERED (I.e. PAVERS, POROUS ASPHALT AND CONCRETE, GRASS CRETE, GRAVEL PAVE, ETC.)

NOTES:

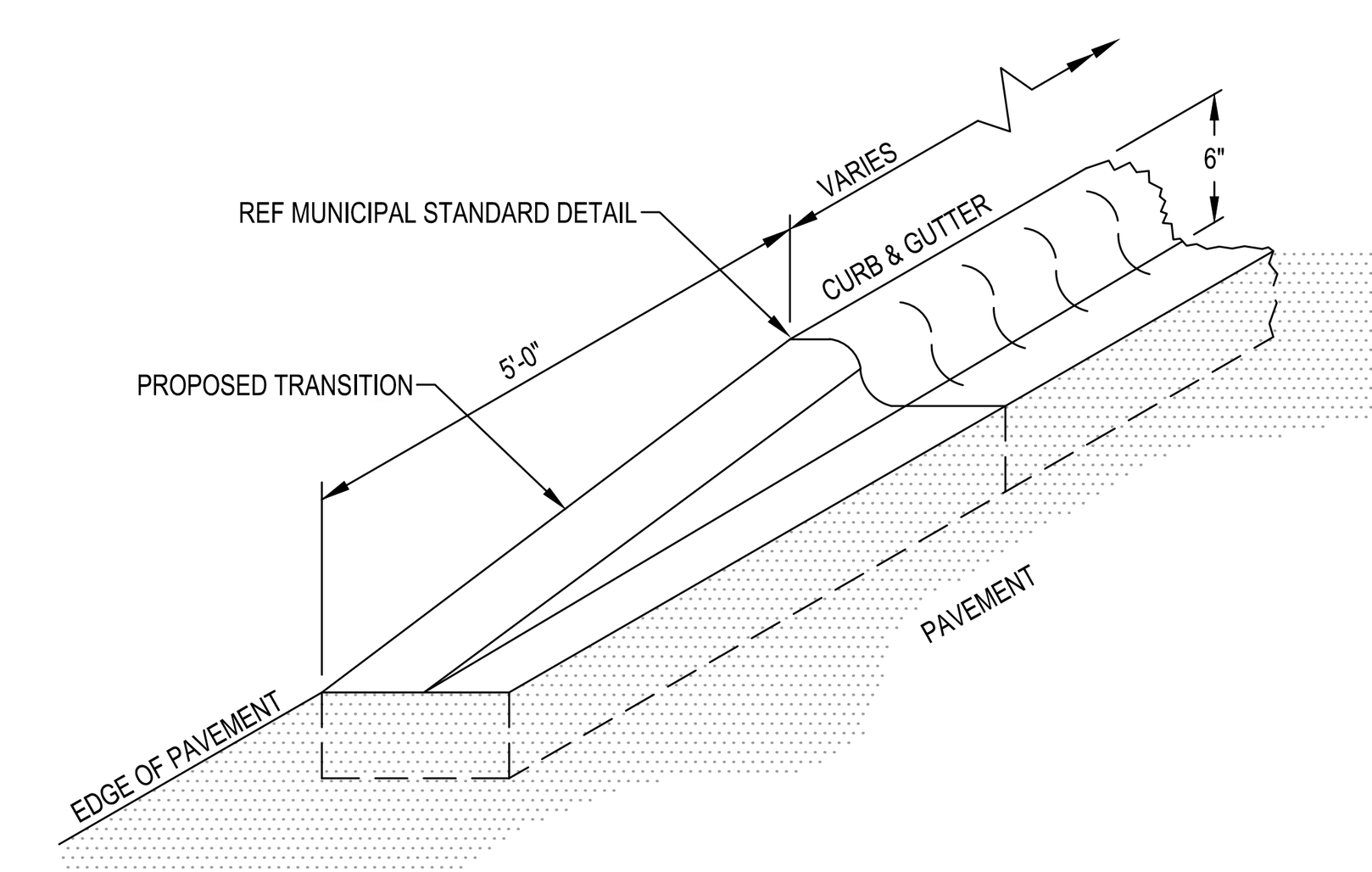
1. ALTERNATIVE SECTIONS SHALL BE LIMITED TO THE PARKING AREAS AND DRIVE AISLES THAT DO NOT SERVE AS FIRE ACCESS AISLES.
2. THE PROFESSIONAL ENGINEER MAY RECOMMEND PAVEMENT STRUCTURAL SECTION THAT ARE EQUIVALENT TO THE MINIMUM SECTIONS ABOVE.

NTS

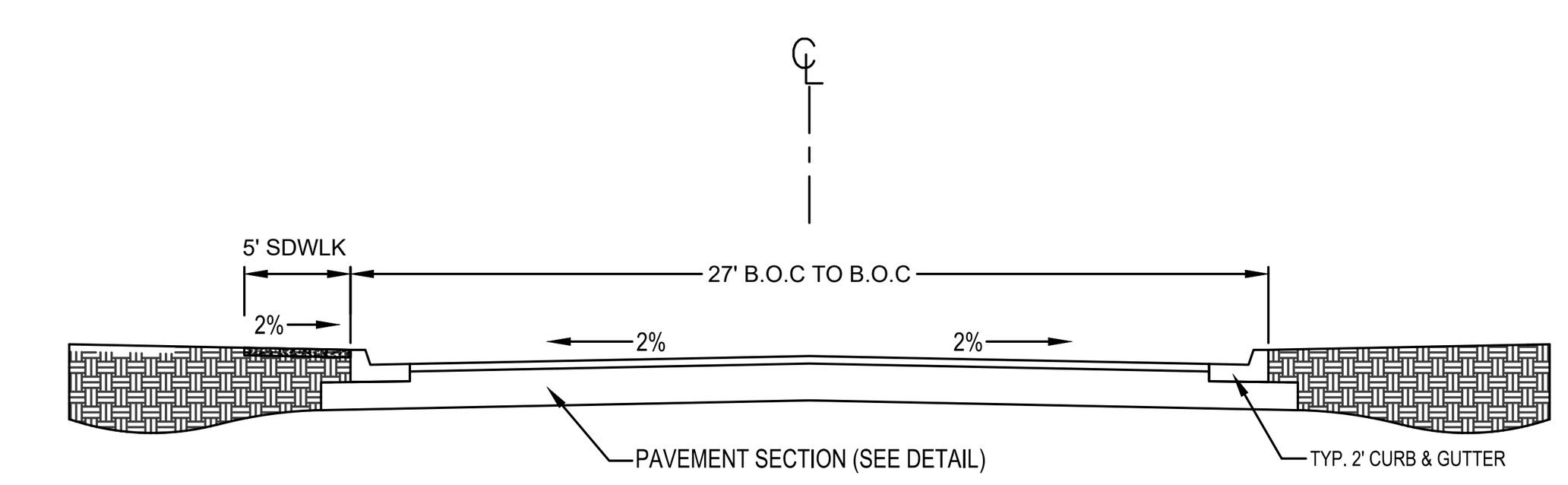
City of Flagstaff ENGINEERING DETAIL | PAVEMENT STRUCTURAL SECTIONS for STREETS & OFF-STREET PARKING LOTS | DETAIL NO. 10-09-010 | REVISION DATE: 11/22/16 | 1/1



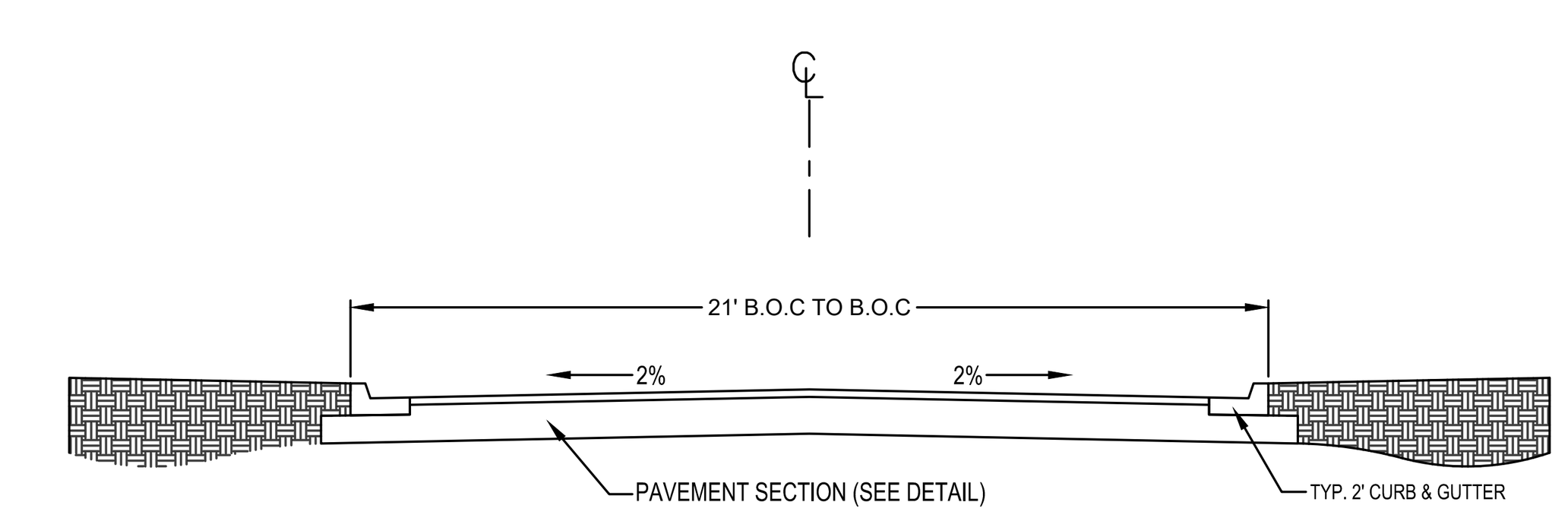
B5 PAVEMENT JOINTS
NOT TO SCALE



C5 CURB TRANSITION
NOT TO SCALE



D5 DRIVE 'A', 'A2' & 'B' SECTION TYPICAL
NOT TO SCALE



E5 DRIVE 'B2' SECTION TYPICAL
NOT TO SCALE

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW CONSTRUCTION DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C510
REV 4
SHEET 36 of 46

V:\HORIZ\22004 FLAGSTAFF 14\DRAWINGS\CONST DWGS\22004 DETAIL

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REVISED GENERAL NOTE 3; SLOPES & LENGTHS	RLF	11/06
2	DELETED GENERAL NOTE 8	RLF	5/07
3	ADDED NOTE & REVISED VIEW	RLF	5/12
4			

◧ Ramp Shall Be Laid Out Radially from the Back of the 5' Wide Detectable Warning Strip, Except That In No Case Shall It Be Less Than 4' Wide at the Back of the Sidewalk

PLAN

SECTION A-A

PERSPECTIVE

ELEVATION
DEPRESSED CURB AT SIDEWALK RAMP

GENERAL NOTES

1. For use where sidewalk is not continuous.
2. Ramp centerline shall be radial from the face of the curb at the Sidewalk Ramp Control Point.
3. ① For ramps 15-ft long or less, the 15:1 slope governs. If a 15:1 slope results in a ramp length longer than 15-ft, the 15:1 slope may be waived and the ramp length held at 15-ft, regardless of the slope.
4. The top of the Ramp Curb along the back of the Sidewalk Ramp shall match the elevation of the adjacent back of sidewalk and run parallel to the Sidewalk Ramp. The Ramp Curb along the side of the Sidewalk Ramp shall match the elevation at the back of the Curb & Gutter and the back of Ramp Curb.
5. Drainage inlets should not be located within the marked crosswalks, or if crosswalks aren't marked, within the area a standard marked crosswalk would enclose.
6. Concrete shall receive a rough broom finish as shown.
7. See Std Dwgs C-05.10 and C-05.20 for joint details.
8. ② ■ Pedestrian Push Button Pole When Shown on Traffic Plans. See Traffic Signal Plans for Additional Information
9. ◑ 10" Maximum to Face of Pedestrian Push Button

LEGEND

▲ Minimum Slope = 100:1 (0.01 'm)

Maximum Slope = 50:1 (0.02 'm)

◪ Maximum Slope = 20:1 (0.05 'm) ③

SIDEWALK RAMP AT SIDEWALK TERMINUS

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	SIDEWALK RAMP TYPE C	DRAWING NO. C-05.30 Sheet 3 of 7

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NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED STD DWG	RLF	5/07
2	ADDED NOTE & REVISED VIEW	RLF	5/12
3	REVISED DIMENSION LOCATION	RLF	5/12
4			

◧ Ramp Shall Be Laid Out Radially from the Back of the 5' Wide Detectable Warning Strip, Except That In No Case Shall It Be Less Than 4' Wide at the Back of the Sidewalk

TWO CROSSING DIRECTIONS AT CORNER

ONE CROSSING DIRECTION AT CORNER

SECTION A-A

SECTION B-B

SECTION C-C

RAMP CURB DETAIL

PARALLEL SIDEWALK RAMP

GENERAL NOTES

1. Ramp centerline shall be radial from the face of the curb at the Sidewalk Ramp Control Point.
2. For ramps 15-ft long or less, the 15:1 slope governs. If a 15:1 slope results in a ramp length longer than 15-ft, the 15:1 slope may be waived and the ramp length held at 15-ft, regardless of the slope.
3. Drainage inlets should not be located within the marked crosswalks, or if crosswalks aren't marked, within the area a standard marked crosswalk would enclose.
4. Concrete shall receive a rough broom finish as shown.
5. See Std Dwgs C-05.10 and C-05.20 for joint details.
- ● See Note 2
- ◑ 10" Maximum to Face of Pedestrian Push Button
- ■ Pedestrian Push Button Pole When Shown on Traffic Plans. See Traffic Signal Plans for Additional Information

LEGEND

▲ Minimum Slope = 100:1 (0.01 'm)

Maximum Slope = 50:1 (0.02 'm)

② ◪ Maximum Slope = 20:1 (0.05 'm)

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. ① 5/12
APPROVED FOR DISTRIBUTION	SIDEWALK RAMP TYPE A	DRAWING NO. C-05.30 Sheet 1 of 7

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PROVIDE TAPERED CONCRETE
CONCRETE PAD SLOPE TO GUTTERLINE AT 2% MIN
ROAD 'A'
ROAD 'B'

D2 CURB CUT DETAIL

NOT TO SCALE

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REISSUED STANDARD DRAWING	RLF	5/07
2	ADDED TYPE E & E-1 CURBS, REVISED TABLES & NOTE	RLF	5/12
3	REARRANGED STANDARD DRAWING GRAPHICS	RLF	5/12
4	ADDED NOTE AND REVISED VIEW	RLF	5/12

SINGLE CURB TYPE A & A1

CURB & GUTTER TYPE G

SINGLE CURB TYPE G

CURB & GUTTER TYPE B, C, C-1, E & E-1

VALLEY GUTTER

EMBANKMENT CURB

CURB & GUTTER TYPE D, D-1, D-2 & D-3

DEPRESSED CURB & GUTTER

CURB TERMINAL SECTION

EXPANSION JOINT DETAIL

GENERAL NOTES
SINGLE CURB AND CURB & GUTTER

1. Single curb and curb & gutter may be constructed by the use of forms or the concrete may be extruded.
2. When the pavement section slopes away from the gutter, the slope of the gutter shall match the pavement cross slope. Therefore, the gutter depression is not applicable.
3. Two-inch deep contraction joints shall be placed in the curb and the gutter at locations which match the joints in adjacent PCCP and at approximate 15' centers when adjacent to AC pavement. Joints shall be either hand-tooled or sawn.
4. Expansion joints shall be located at tangent points in curb returns, at structures and at maximum 60' intervals. The ½" joint filler shall extend the full depth of the concrete.
5. Concrete shall be finished with a steel trowel followed by brushing with a fine brush along the length of the curb and gutter.
6. All exposed edges and hand-tooled joints shall be finished with a tool having a ¼" radius, or as noted on the plans.
7. Place AB under single curb, valley gutter, and curb & gutter when shown on plans

④ ◪ Gutter Depression shall be reduced at sidewalk ramps (C-05.30) to achieve a maximum gutter cross-slope of 5%.

② ◑ See Plans (6 inch typical)

◧ Curb Radius when shown on plans

EMBANKMENT CURB

1. No additional finishing will be required after extrusion or removal of the forms when the curb presents a neat appearance and the surface is uniform in texture and color.
2. The curb shall conform to the cross section as shown except that the horizontal dimensions shall not vary more than ½".

Curb & Gutter Type	Curb Height h	Gutter Width w	Gutter Depression d ◪ ④
D	◑	2'-0"	1⅝"
D-1	◑	2'-6"	1¾"
D-2	◑	4'-6"	1¾"
D-3	◑	2'-0"	N/A
G	◑	2'-0"	1⅝"

URBAN FREEWAY CURB & GUTTER

Curb & Gutter Type	Curb Height h	Curb Width c	Slope	Gutter Depression d
B	6"	1'-6"	3:1	2"
C	3"	1'-6"	6:1	5/8"
C-1	3"	1'-6"	6:1	N/A
② E	4"	2'-0"	6:1	5/8"
E-1	4"	2'-0"	6:1	N/A

① Type D-3 See General Note 2

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. ① 5/12
APPROVED FOR DISTRIBUTION	CURB & GUTTER CURB GUTTER ③	DRAWING NO. C-05.10

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REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
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Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 REGISTERED ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL SUBDIVISION AND DEVELOPMENT
2951 SUNSET LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E 6th STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
CONSTRUCTION DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C511
REV. 4
SHEET 37 of 46

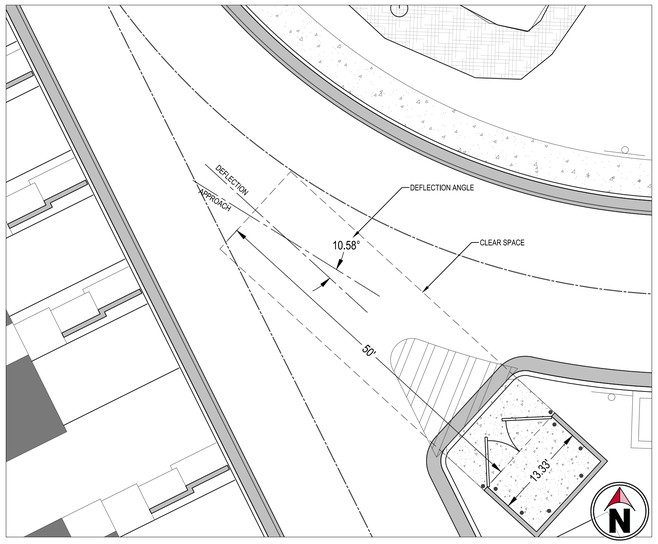
V:\WORK\22004 FLAGSTAFF TH\DRAWINGS\CIVIL\ SWCS\22004 DETAIL



B1 TRASH ENCLOSURE - CLUBHOUSE

SCALE 1" = 5'

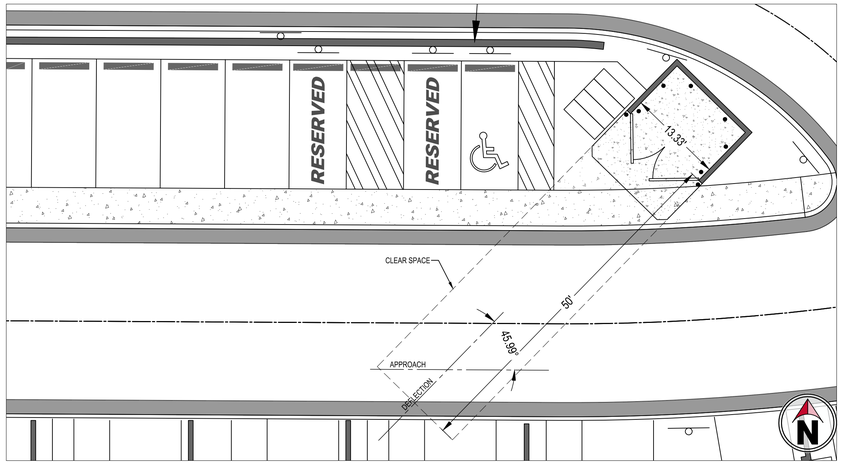
SCALE: 1" = 10'
5 0 5 10



D1 TRASH ENCLOSURE - ROAD A

SCALE 1" = 5'

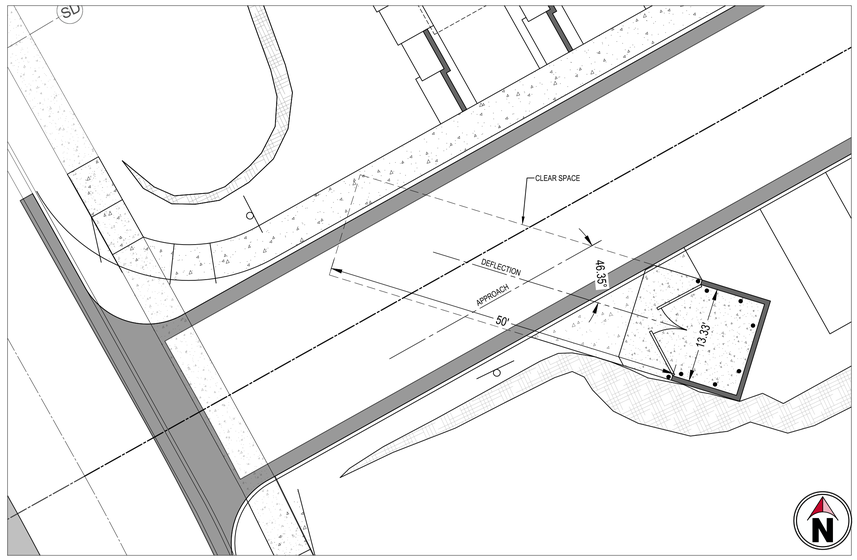
SCALE: 1" = 10'
5 0 5 10



B4 TRASH ENCLOSURE - ROAD B PARKING AREA

SCALE 1" = 5'

SCALE: 1" = 10'
5 0 5 10



D4 TRASH ENCLOSURE ROAD B

SCALE 1" = 5'

SCALE: 1" = 10'
5 0 5 10

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

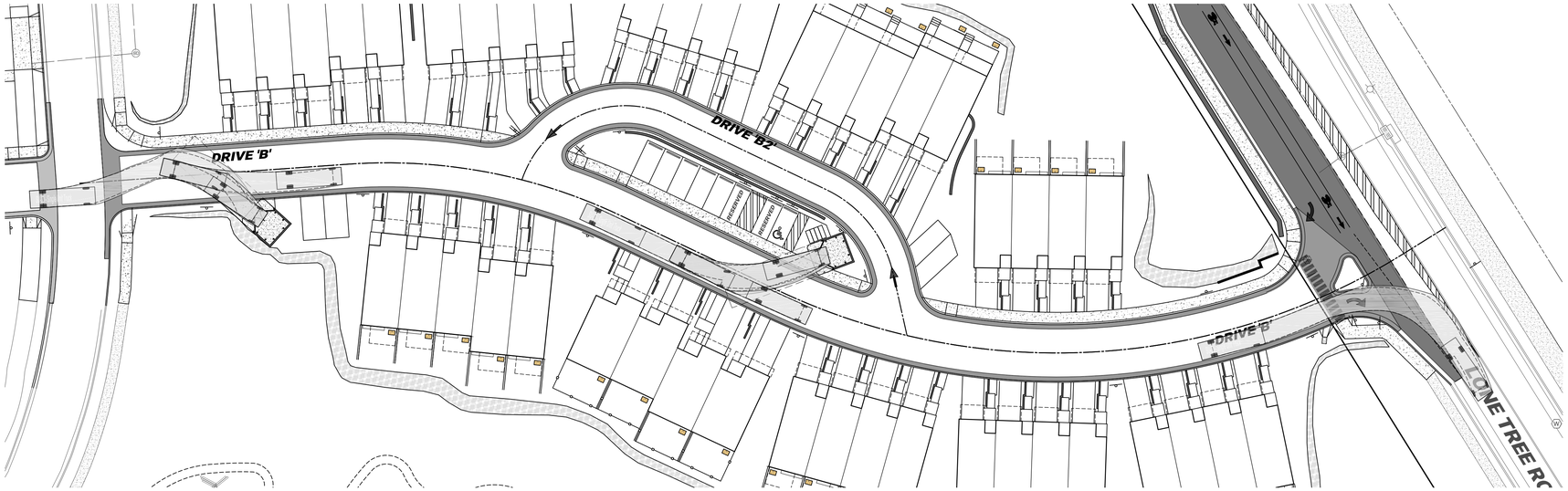
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
TRASH ENCLOSURE DETAILS

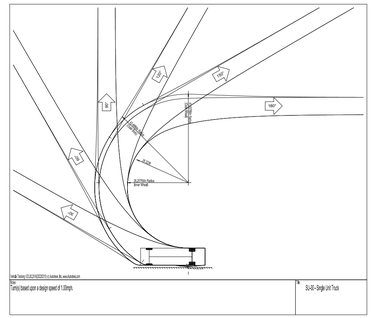
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C512
REV 4

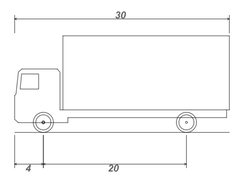


B1 TRASH TRUCK MOVEMENT - ROAD 'A'
SCALE 1" = 30'



D1 TRASH TRUCK MOVEMENT - ROAD 'B'
SCALE 1" = 30'





SU-30 - Single Unit Truck	
Overall Length	*30.000ft*
Overall Width	*8.000ft*
Overall Body Height	*13.500ft*
Min Body Ground Clearance	*1.367ft*
Track Width	*8.000ft*
Lock-to-lock time	*5.00s*
Max Steering Angle (Virtual)	*31.80°*

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
REGISTERED
ARIZONA, U.S.A.
5/02/24

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

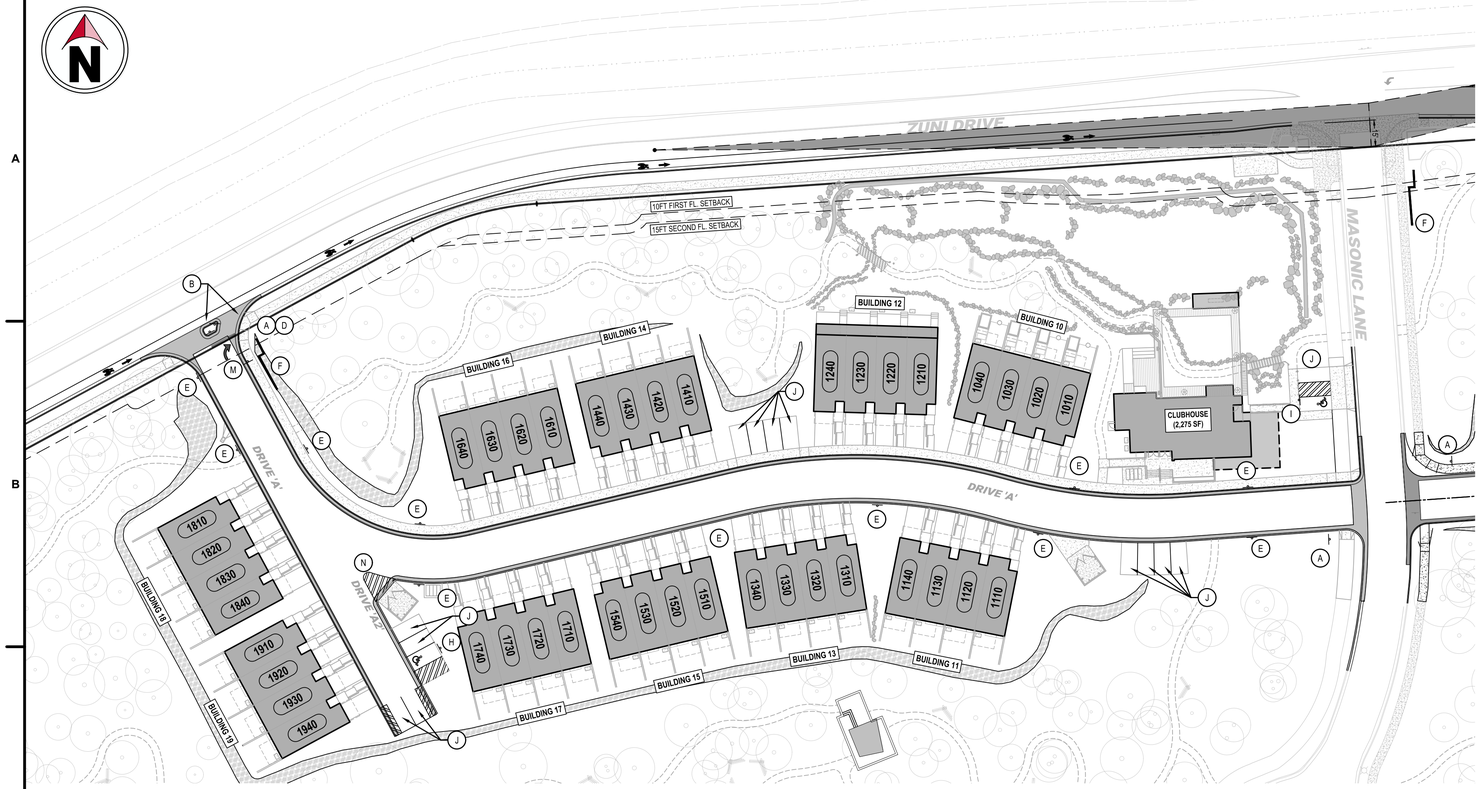
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2655 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

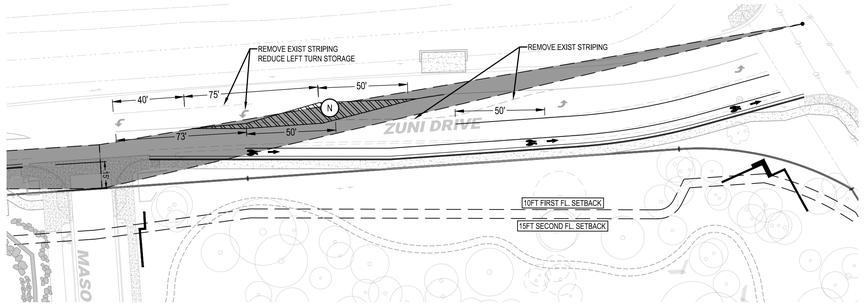
TITLE: **SITE PLAN REVIEW**
TRASH VEHICLE MOVEMENT PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C513
REV 4
SHEET 39 of 46



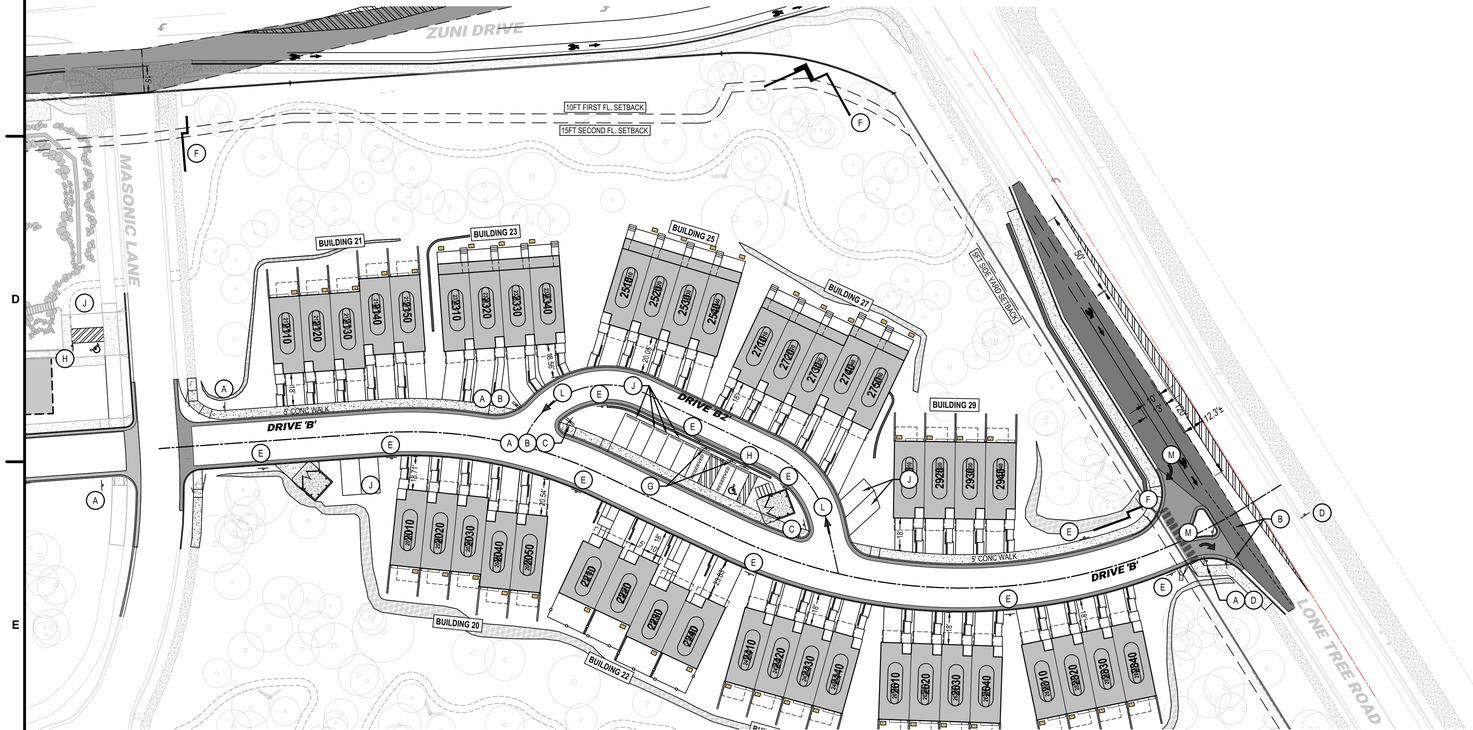
C1 PLAN VIEW (DRIVE 'A' / 'A2')

SCALE: 1" = 40'



A4 PLAN VIEW: ZUNI DRIVE RESTRIPING

SCALE: 1" = 40'



E1 PLAN VIEW (DRIVE 'B' / 'B2')

SCALE: 1" = 40'

NOTE: SIGNAGE AND STRIPING PROVIDED IS FOR CONCEPTUAL PURPOSES ONLY TO DEMONSTRATE GENERAL COMPLIANCE WITH CITY CODE. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE AND STRIPING.

THE APPLICANT IS REQUIRED TO SUBMIT A SEPARATE SIGN PERMIT WITH THE CITY FOR REVIEW AND APPROVAL..

SCALE: 1" = 40'
20 0 20 40

SIGNAGE & STRIPING TABLE

ID	DESCRIPTION
A	STOP SIGN
B	DO NOT ENTER
C	ONE WAY
D	NO LEFT TURN
E	NO PARKING FIRE LANE
F	MONUMENT SIGN (SEE ARCH PLANS)
G	RESERVED PARKING (WITH UNIT NUMBER)
H	ADA PARKING SPACE w/SIGN
I	ADA PARKING SPACE w/BOLLARD MOUNTED SIGN
J	9' x 18' PARKING
K	PAINTED CROSSWALK
L	PAINTED ARROW (STRAIGHT)
M	PAINTED ARROW (RIGHT)
N	GORE STRIPING

NOTE: ALL SIGNAGE, PAVEMENT MARKINGS, AND TRAFFIC CONTROL DEVICES USED DURING CONSTRUCTION ARE TO BE IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

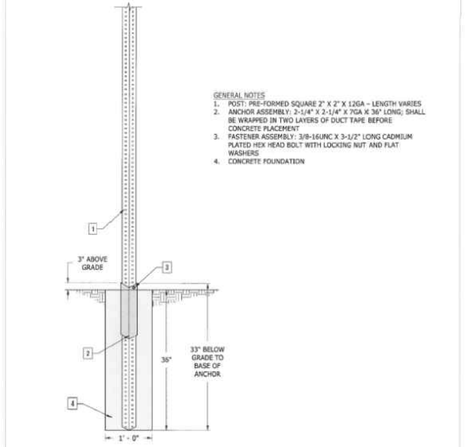
PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2500 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
CONCEPTUAL SIGNAGE & STRIPING PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C601
REV 4
SHEET 40 of 46

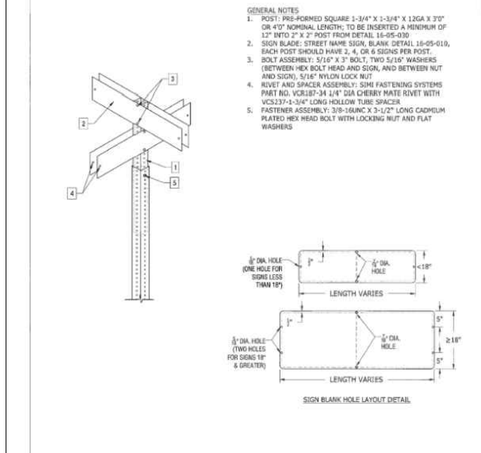
K:\DWG\22004 FLAGSTAFF PI\DWG\CONST DWG\22004 SIGNS



City of Flagstaff — ENGINEERING DETAIL

SIGN POST DETAIL

DETAIL NO. 16-05-030 | REVISION DATE: 01/22/2020 | 1/1



City of Flagstaff — ENGINEERING DETAIL

STREET NAME SIGN INSTALL DETAIL

DETAIL NO. 16-05-040 | REVISION DATE: 01/22/2020 | 1/1





NOTES:
1. FOR PUBLIC ROADWAYS SIGNS ARE TO BE A GREEN BACKGROUND WITH WHITE RETRO-REFLECTIVE (TYPE XI SHEETING) LETTERS.
2. FOR PRIVATE ROADWAYS SIGNS ARE TO BE A BLUE BACKGROUND WITH WHITE RETRO-REFLECTIVE (TYPE XI SHEETING) LETTERS.
3. THE ARROW SHALL POINT IN THE DIRECTION OF INCREASING ADDRESSES FOR A GIVEN STREET.
4. SIGNS SHALL MEET 2009 MUTCD SECTION 2D.43.
5. LETTER FONT SHALL BE HIGHWAY C.
6. FOR POST DESIGN, REFER TO SECTION 13-16-005-0002.

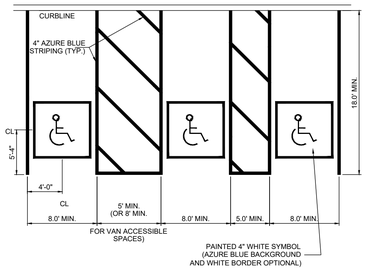
NTS

City of Flagstaff — ENGINEERING DETAIL

STREET NAME SIGNS

DETAIL NO. 16-05-010 | REVISION DATE: 11/22/16 | 1/1

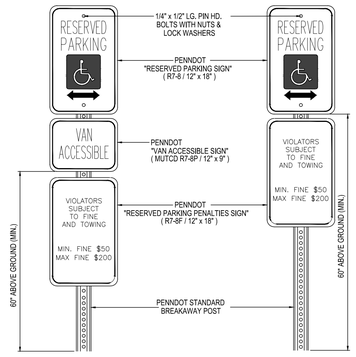
REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-26-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT



NOTES:
1. CURB RAMPS, PAVEMENT MARKINGS, & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.
2. CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
3. SLOPE, CROSS SLOPE OF ACCESSIBLE SPACES NOT TO EXCEED 2% IN ANY DIRECTION
4. ACCESSIBLE PARKING SPACES, SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
5. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET), WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES. THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
6. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FOR ACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
7. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
8. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
9. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
10. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
11. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
12. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
13. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
14. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
15. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH THE APPROPRIATE SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE PENNSYLVANIA PARKING PENALTY SIGN AND VAN ACCESSIBLE SPACES SHALL HAVE SIGNAGE STATING "VAN ACCESSIBLE". SIGNS SHALL BE INSTALLED SO THAT THE BOTTOM OF SIGNS ARE MOUNTED NO LOWER THAN 60 INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE

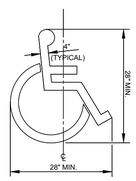
RESERVED ADA PARKING STALL

NOT TO SCALE



RESERVED ADA PARKING SIGN

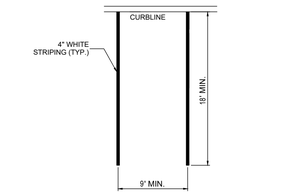
NOT TO SCALE



REFER TO RESERVED PARKING STALL DETAIL FOR SYMBOL LOCATION

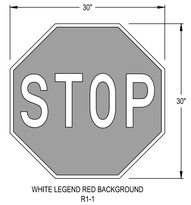
ADA PARKING SYMBOL

NOT TO SCALE



PARKING STALL DETAIL

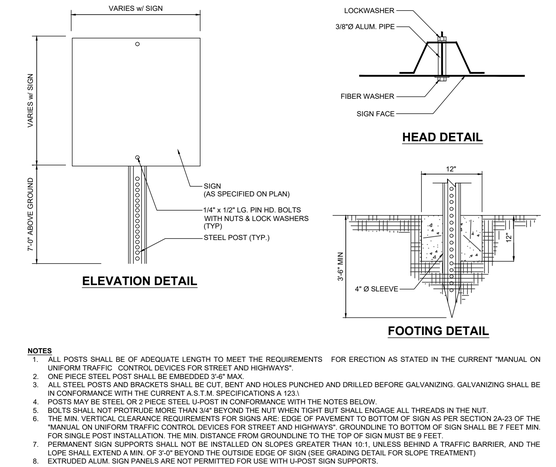
NOT TO SCALE



WHITE LEGEND RED BACKGROUND
R1-1

STOP SIGN

NOT TO SCALE



NOTES
1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS".
2. ONE PIECE STEEL POST SHALL BE EMBEDDED 3'-6" MAX.
3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH THE CURRENT A.S.T.M. SPECIFICATIONS A 123.\
4. POSTS MAY BE STEEL OR 2 PIECE STEEL U-POST IN CONFORMANCE WITH THE NOTES BELOW.
5. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
6. THE MIN. VERTICAL CLEARANCE REQUIREMENTS FOR SIGNS ARE: EDGE OF PAVEMENT TO BOTTOM OF SIGN AS PER SECTION 2A-23 OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS". GROUNDLINE TO BOTTOM OF SIGN SHALL BE 7 FEET MIN. FOR SINGLE POST INSTALLATION. THE MIN. DISTANCE FROM GROUNDLINE TO THE TOP OF SIGN MUST BE 9 FEET.
7. PERMANENT SIGN SUPPORTS SHALL NOT BE INSTALLED ON SLOPES GREATER THAN 10:1, UNLESS BEHIND A TRAFFIC BARRIER, AND THE LOPE SHALL EXTEND A MIN. OF 3'-0" BEYOND THE OUTSIDE EDGE OF SIGN (SEE GRADING DETAIL FOR SLOPE TREATMENT)
8. EXTRUDED ALUM. SIGN PANELS ARE NOT PERMITTED FOR USE WITH U-POST SIGN SUPPORTS.

TYPICAL SIGN POST

NOT TO SCALE

NOTE: SIGNAGE AND STRIPING PROVIDED IS FOR CONCEPTUAL PURPOSES ONLY TO DEMONSTRATE GENERAL COMPLIANCE WITH CITY CODE. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE AND STRIPING.

THE APPLICANT IS REQUIRED TO SUBMIT A SEPARATE SIGN PERMIT WITH THE CITY FOR REVIEW AND APPROVAL..

Registered Professional Engineer (Civil) — CERTIFICATE NO. 77934 — ERIC S. BEALS — DATE SIGNED 5/02/24 — ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
PRESIDENTIAL LAND DEVELOPMENT
2955 SOUTH MILO LANE
COCONINO COUNTY, ARIZONA

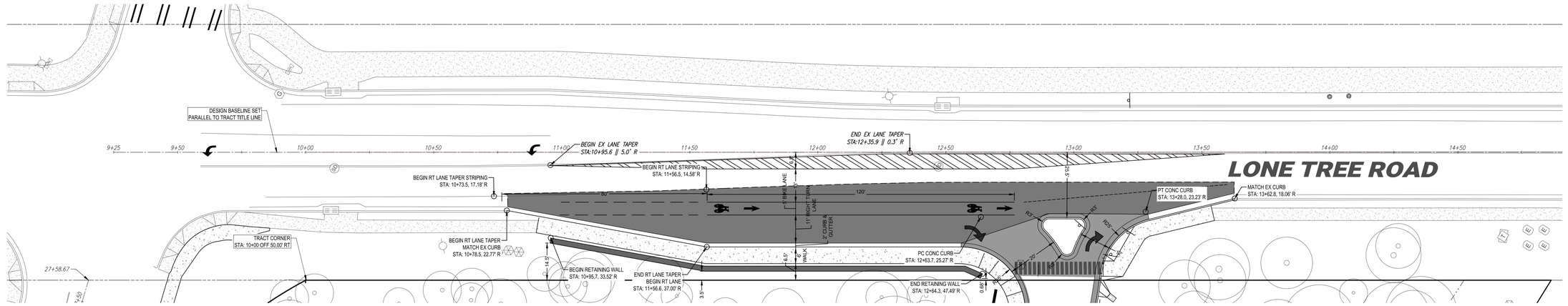
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
CONCEPTUAL SIGNAGE & STRIPING DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C602 REV 4

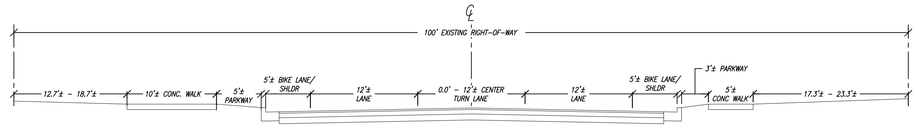
SHEET 41 of 46

V:\HOME\22004 FLAGSTAFF PH\DRAWINGS\CONST DWGS\22004 SIGNAGE



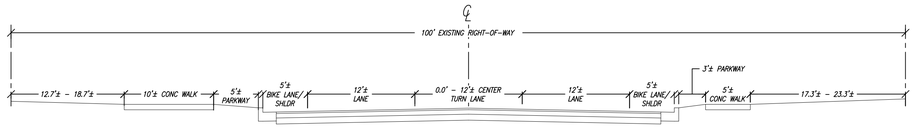
B1 PLAN VIEW: LONE TREE ROAD (STA 9+90 to STA 17+75)

SCALE: 1" - 20'

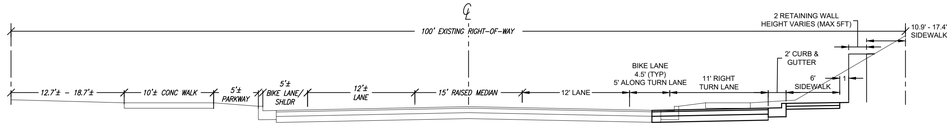


C1 CROSS-SECTION LONE TREE ROAD / MAJOR COLLECTOR (EXISTING SECTION)

NOT TO SCALE



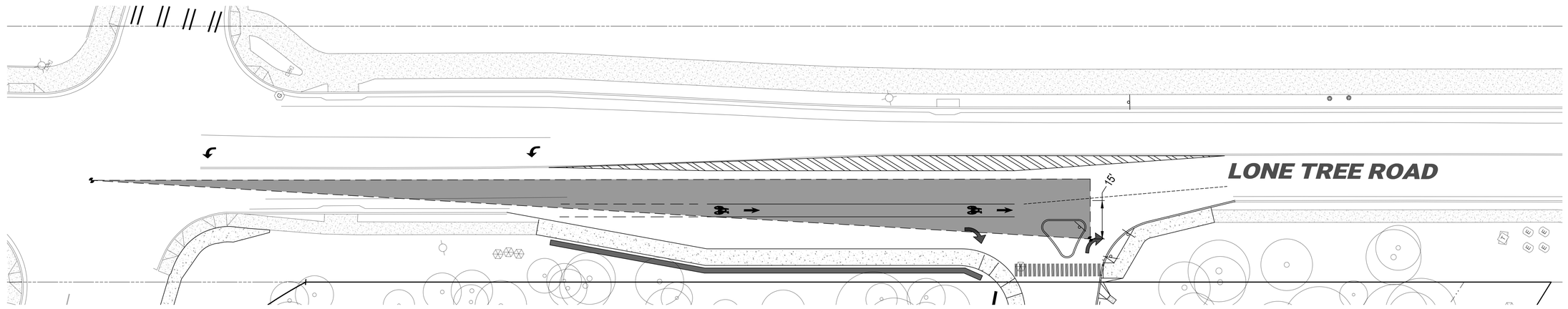
EXISTING SECTION



PROPOSED SECTION

C4 CROSS-SECTION LONE TREE ROAD / MAJOR COLLECTOR (STA 11+04.6 to 12+75)

NOT TO SCALE



E1 CLEAR VIEW ZONE - ROAD 'B' & LONETREE ROAD (LEFT)

SCALE: 1" - 20'

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS DATE SIGNED 5/02/24 ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

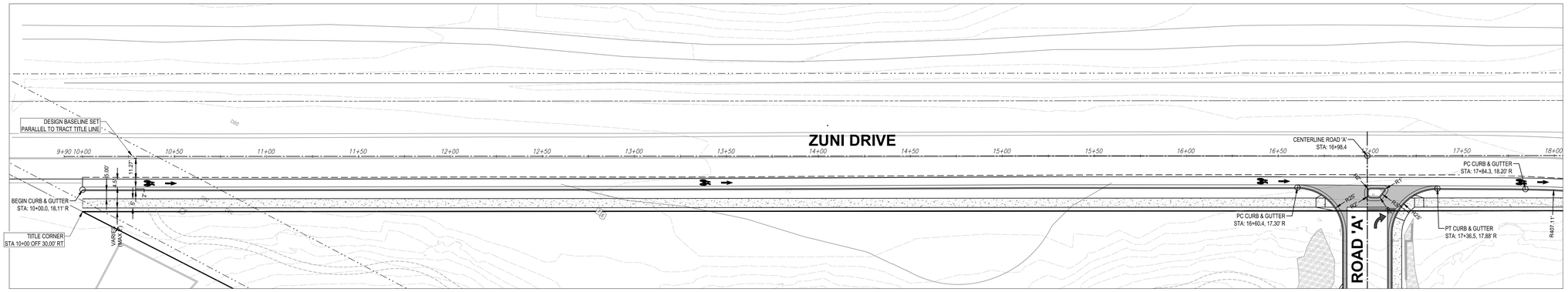
PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 MAGNOLIA LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
LONETREE ROAD IMPROVEMENT PLAN

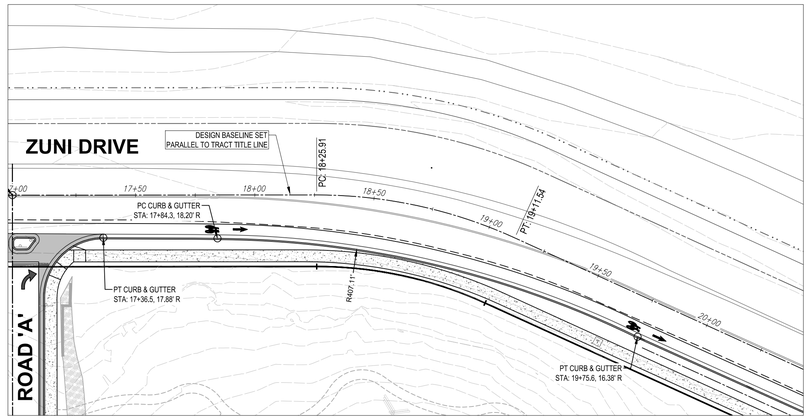
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C701 REV. 4

V:\PROJ\22004 FLAGSTAFF 1\PLANNING\CIVIL\DWGS\22004 ROAD IMPROVMENT



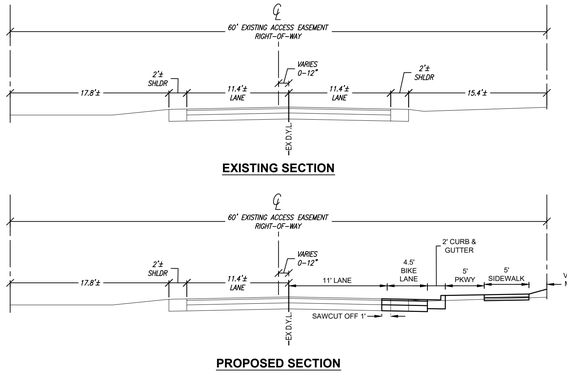
B1 PLAN VIEW: MASONIC LANE (STA 9+90 to STA 17+75)

SCALE: 1" - 30'



D1 PLAN VIEW: MASONIC LANE (STA 17+75 to STA 19+75)

SCALE: 1" = 30'

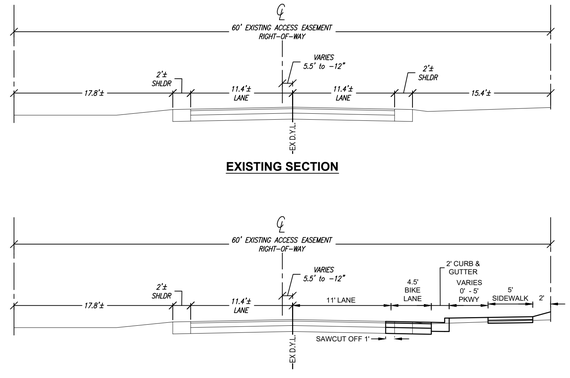


EXISTING SECTION

PROPOSED SECTION

D3 CROSS-SECTION ZUNI DRIVE / MINOR COLLECTOR (STA 10+00 to 17+75)

NOT TO SCALE

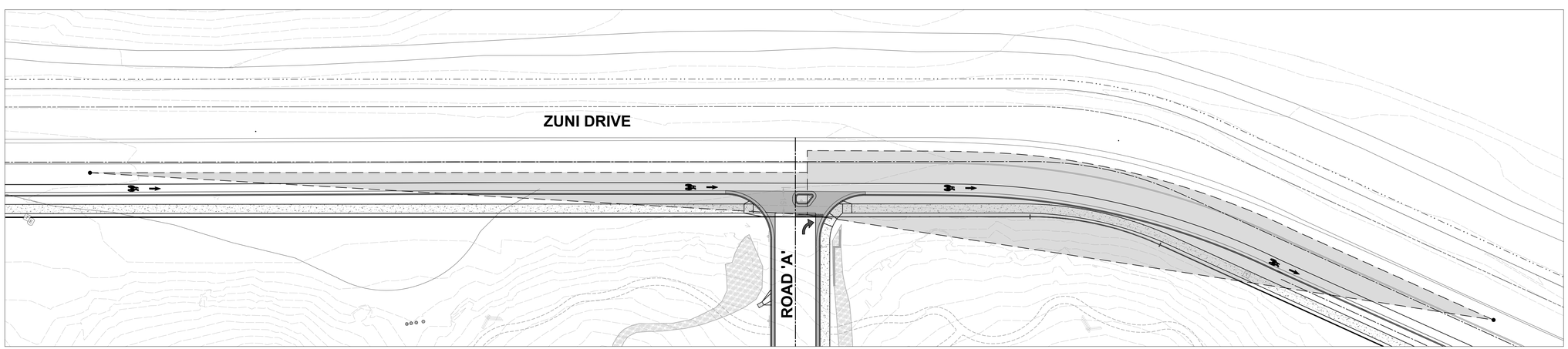


EXISTING SECTION

PROPOSED SECTION

D5 CROSS-SECTION ZUNI DRIVE / MINOR COLLECTOR (STA 17+75 to 19+75)

NOT TO SCALE



E1 CLEAR VIEW ZONE - ROAD 'A' & ZUNI DRIVE (RIGHT/LEFT)

SCALE: 1" - 30'

REV	DATE	DESCRIPTION	INIT
1	11-16-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
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2121 E 6th STREET, SUITE 203
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DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2955 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

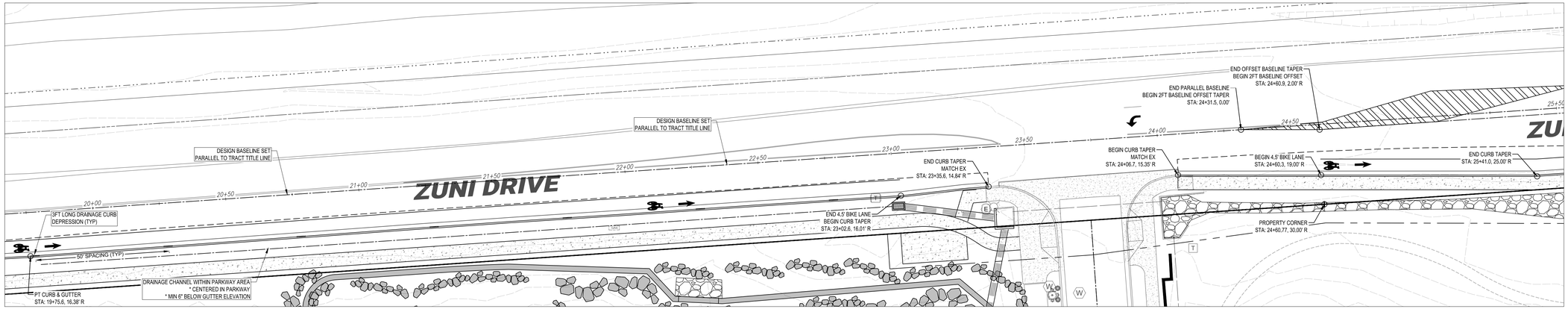
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
ZUNI ROAD IMPROVEMENT PLAN (1 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C702
REV 4

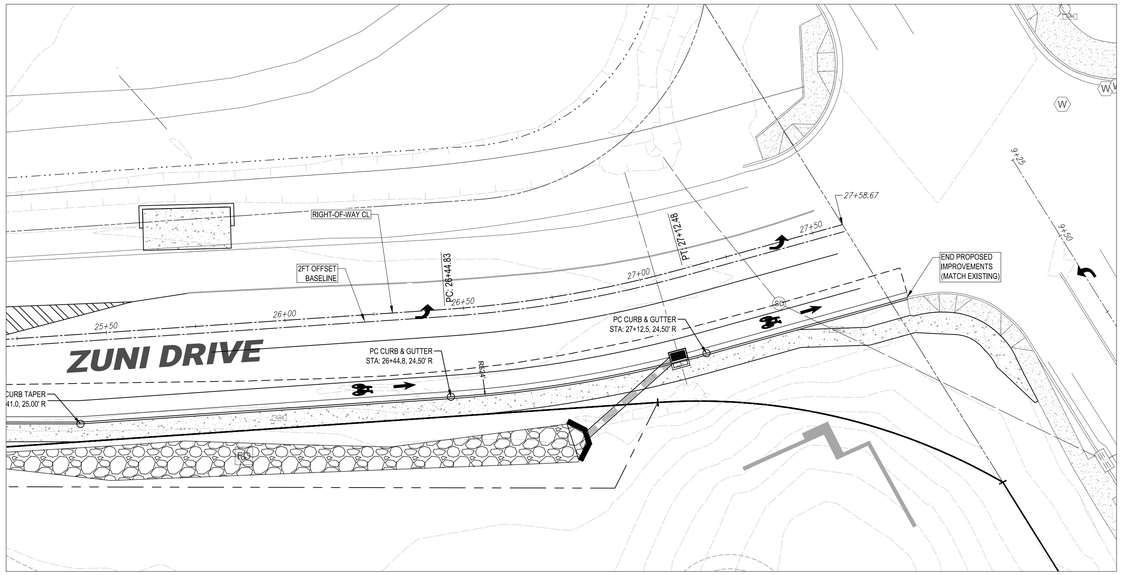
SHEET 43 of 46

W:\WORK\22004 FLAGSTAFF 1\PLANNING\CIVIL\ DWG\ [22004 ROAD IMPROVE]



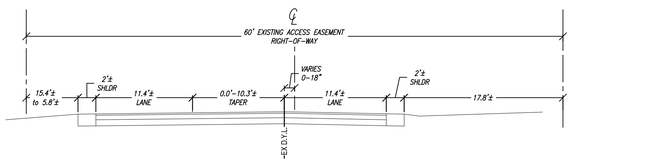
B1 PLAN VIEW: MASONIC LANE (STA 19+75 to STA 24+00)

SCALE: 1" = 30'

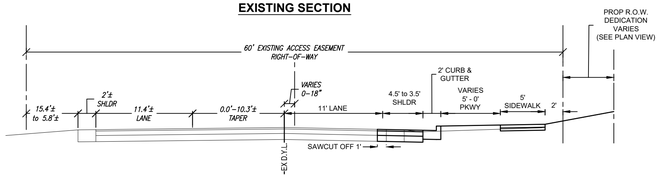


B1 PLAN VIEW: MASONIC LANE (STA 19+75 to STA 24+00)

SCALE: 1" = 30'



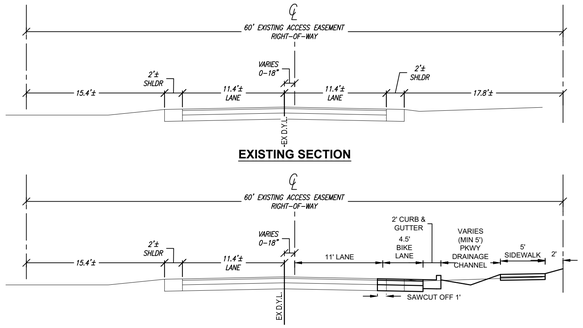
EXISTING SECTION



PROPOSED SECTION

E1 CROSS-SECTION ZUNI DRIVE / MINOR COLLECTOR (STA 23+02.6 to STA 24+60.9)

NOT TO SCALE

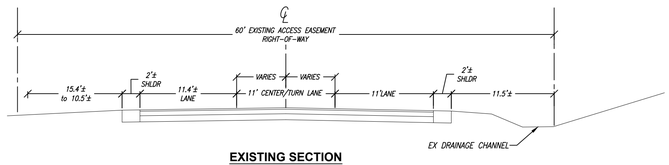


EXISTING SECTION

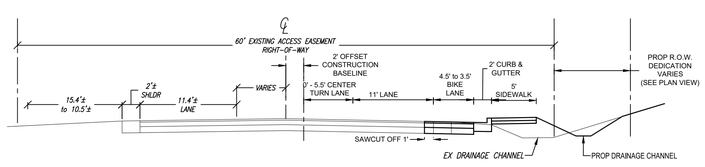
PROPOSED SECTION

C4 CROSS-SECTION ZUNI DRIVE / MINOR COLLECTOR (STA 19+75 to STA 23+02.6)

NOT TO SCALE



EXISTING SECTION



PROPOSED SECTION

E4 CROSS-SECTION ZUNI DRIVE / MINOR COLLECTOR (STA 24+60.9 to STA 27+50)

NOT TO SCALE

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-15-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-20-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil) CERTIFICATE NO. 77934 ERIC S. BEALS 5/02/24 DATE SIGNED ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

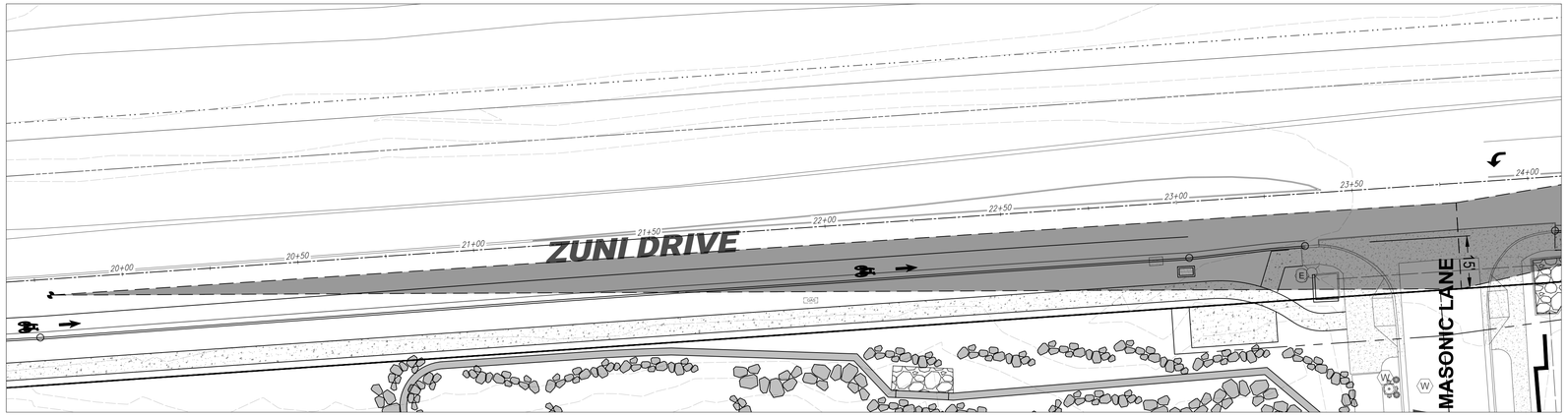
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2555 MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

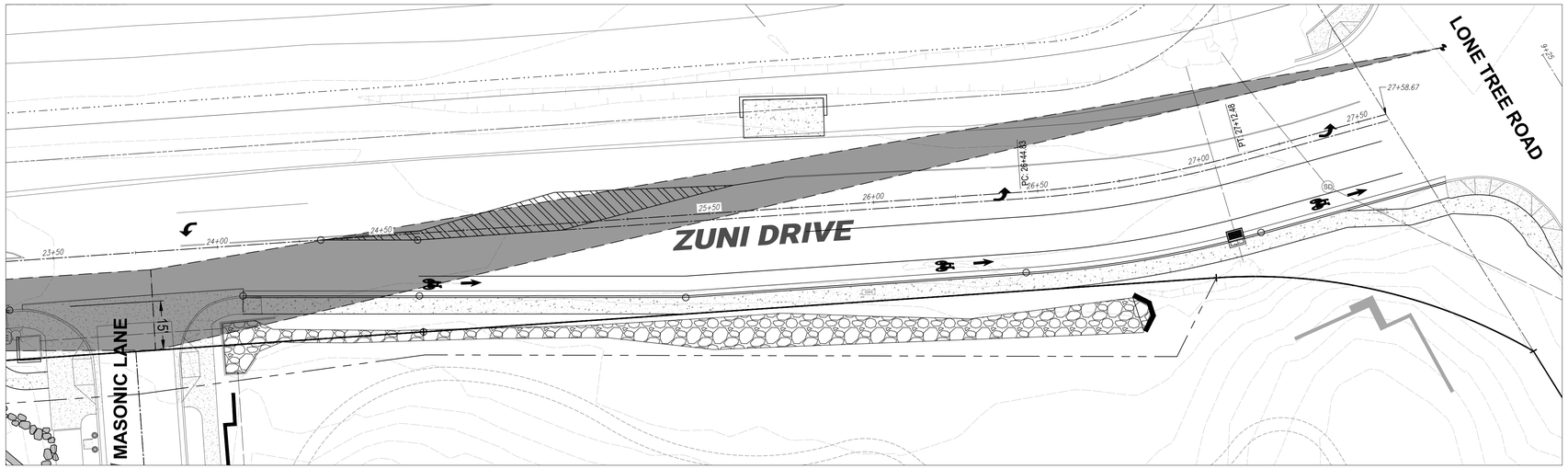
TITLE: **SITE PLAN REVIEW**
ZUNI ROAD IMPROVEMENT PLAN (2 OF 2)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C703
REV 4
SHEET 44 of 46



B1 CLEAR VIEW ZONE - MASONIC LANE & ZUNI DRIVE (LEFT)

SCALE: 1" = 30'



D1 CLEAR VIEW ZONE - MASONIC LANE & ZUNI DRIVE (RIGHT)

SCALE: 1" = 30'

REVISIONS

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4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
ROAD IMPROVEMENT DETAILS

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID **C704** REV 4



CLEAR VIEW ZONE
ROAD 'A' & MASONIC LANE (LEFT)
ROAD 'S' & MASONIC LANE (RIGHT)

B1 SCALE: 1" = 30'



CLEAR VIEW ZONE
ROAD 'A' & MASONIC LANE (RIGHT)
ROAD 'S' & MASONIC LANE (LEFT)

B1 SCALE: 1" = 30'

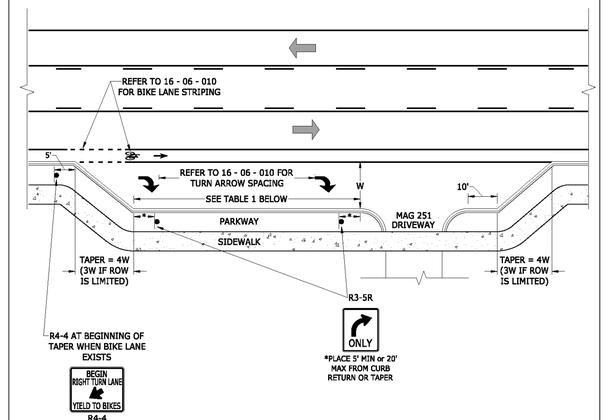

TABLE 1

DESIGN SPEED (MPH)	DECELERATION LANE LENGTH, L (ft)
30	90
35	120

Per 2010 AASHTO:
Stopping Sight Distance on Level Roadways

NOTES:

1. REFER TO 16-06-010 FOR PAVEMENT MARKING DETAILS.
2. THIS DETAIL APPLIES ONLY WITH SPEEDS OF 35 MPH OR LESS.
3. WHERE THE SPEED LIMIT EXCEEDS 35 MPH, REFER TO ADOT STANDARDS FOR TURN LANE DETAIL (THE DESIGN SPEED IS THE GREATER OF THE POSTED SPEED OR THE 85TH PERCENTILE SPEED).

NTS

City of Flagstaff
ENGINEERING DETAIL

RIGHT TURN LANE FOR
URBAN DRIVEWAY

DETAIL NO. 10-10-020 | REVISION DATE: 11/22/16 | 1 / 1

REVISIONS

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AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2955 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
ROAD IMPROVEMENT DETAILS

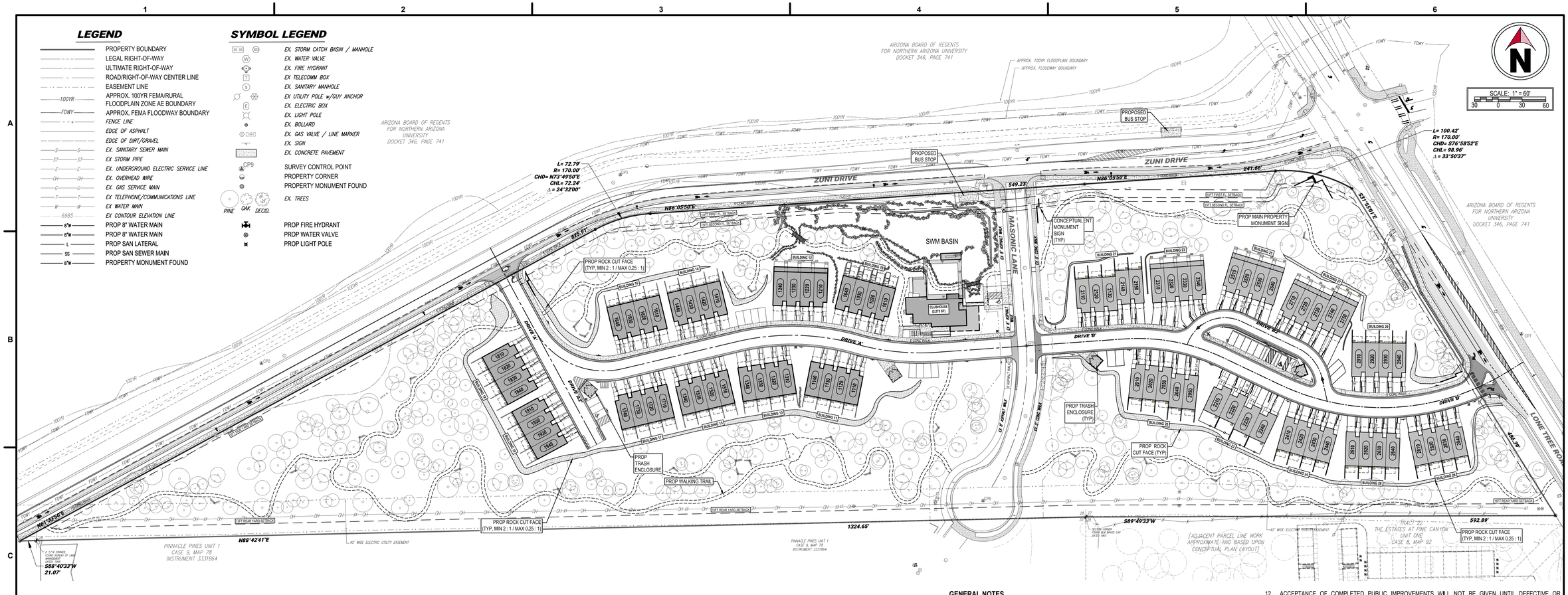
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C705 REV 4

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
- EDGE OF DIRT/GRAVEL
- S — S — EX. SANITARY SEWER MAIN
- ST — ST — EX STORM PIPE
- E — E — EX. UNDERGROUND ELECTRIC SERVICE LINE
- OH — OH — EX. OVERHEAD WIRE
- G — G — EX. GAS SERVICE MAIN
- T — T — EX TELEPHONE/COMMUNICATIONS LINE
- W — W — EX WATER MAIN
- 6985 — EX CONTOUR ELEVATION LINE
- 8"W — PROP 8" WATER MAIN
- 8"W — PROP 8" WATER MAIN
- L — PROP SAN LATERAL
- SS — PROP SAN SEWER MAIN
- 8"W — PROPERTY MONUMENT FOUND

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 — SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- PINE, OAK, DECID. — EX. TREES
- PROP FIRE HYDRANT
- PROP WATER VALVE
- PROP LIGHT POLE


N
SCALE: 1" = 60'
30 0 30 60
ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY DOCKET 346, PAGE 741
ZUNI DRIVE
L= 72.79'
R= 170.00'
CHD= N73°49'50"E
CHL= 72.24'
Δ = 24°32'00"
N86°05'50"E
895.91'
549.23'
N86°05'50"E
241.66'
L= 100.42'
R= 170.00'
CHD= S76°58'52"E
CHL= 98.96'
Δ = 33°50'37"
S53°53'31"E
PROPOSED BUS STOP
PROPOSED BUS STOP
SWM BASIN
MASONIC LANE
CLUBHOUSE (1,270 SF)
CONCEPTUAL ENT MONUMENT SIGN (TYP.)
PROP MAIN PROPERTY MONUMENT SIGN
PROP ROCK CUT FACE (TYP, MIN 2 : 1 / MAX 0.25 : 1)
PROP TRASH ENCLOSURE
PROP WALKING TRAIL
PROP TRASH ENCLOSURE (TYP.)
PROP ROCK CUT FACE (TYP.)
DRIVE 'A'
DRIVE 'A1'
DRIVE 'A2'
DRIVE 'B'
DRIVE 'B1'
DRIVE 'B2'
LONE TREE ROAD
N01°33'00"E
N88°42'41"E
S89°40'33"W
21.07'
1324.65'
S89°49'33"W
592.89'
486.39'
FINNACLE PINES UNIT 1 CASE 9, MAP 78 INSTRUMENT 3331864
FINNACLE PINES UNIT 1 CASE 9, MAP 78 INSTRUMENT 3331864
THE ESTATES AT PINE CANYON UNIT ONE CASE 8, MAP 92
TRACT 22
[ADJACENT PARCEL LINE WORK APPROXIMATE AND BASED UPON CONCEPTUAL PLAN LAYOUT]
SECTION CORNER FOUND BRASS CAP
1.17ft CORNER, TOPAZ BUREAU OF LAND MANAGEMENT
40' WIDE ELECTRIC UTILITY EASEMENT
50FT REAR YARD SETBACK
50FT FIRST FL. SETBACK
50FT SECOND FL. SETBACK
BUILDING 12
BUILDING 13
BUILDING 15
BUILDING 17
BUILDING 21
BUILDING 23
BUILDING 25
BUILDING 27
BUILDING 29
BUILDING 31
BUILDING 33
BUILDING 35
BUILDING 37
BUILDING 39
BUILDING 41
BUILDING 43
BUILDING 45
BUILDING 47
BUILDING 49
BUILDING 51
BUILDING 53
BUILDING 55
BUILDING 57
BUILDING 59
BUILDING

LEGEND

- PROPERTY BOUNDARY
- LEGAL RIGHT-OF-WAY
- ULTIMATE RIGHT-OF-WAY
- ROAD/RIGHT-OF-WAY CENTER LINE
- EASEMENT LINE
- 100YR — APPROX. 100YR FEMA/RURAL FLOODPLAIN ZONE AE BOUNDARY
- FDWY — APPROX. FEMA FLOODWAY BOUNDARY
- FENCE LINE
- EDGE OF ASPHALT
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- S — S — EX. SANITARY SEWER MAIN
- ST — ST — EX STORM PIPE
- E — E — EX. UNDERGROUND ELECTRIC SERVICE LINE
- OH — OH — EX. OVERHEAD WIRE
- G — G — EX. GAS SERVICE MAIN
- T — T — EX TELEPHONE/COMMUNICATIONS LINE
- W — W — EX WATER MAIN
- EX CONTOUR ELEVATION LINE

SYMBOL LEGEND

- EX. STORM CATCH BASIN / MANHOLE
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. TELECOMM BOX
- EX. SANITARY MANHOLE
- EX UTILITY POLE w/GUY ANCHOR
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. BOLLARD
- EX. GAS VALVE / LINE MARKER
- EX. SIGN
- EX. CONCRETE PAVEMENT
- CP9 SURVEY CONTROL POINT
- PROPERTY CORNER
- PROPERTY MONUMENT FOUND
- EX. TREES (PINE, OAK, DECID.)

ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY DOCKET 346, PAGE 741

PROPOSED RIGHT-OF-WAY DEDICATION (5,385 SF, 0.123AC)

SCALE: 1" = 60'

ZUNI DRIVE

L= 72.79'
R= 170.00'
CHD= N73°49'50"E
CHL= 72.24'
Δ = 24°32'00"

N86°05'50"E 825.31'

PUBLIC UTILITY EASEMENT (0.93 AC)

CIVIC OPEN SPACE (~39,450 SF / 0.90 AC)
[EIGHT (8) FOOT WIDE EASEMENT CENTERED ON FOUR (4) FOOT WIDE TRAIL, ~4,950 L.F.]

PUBLIC USE TRAIL (TYP.)

COMMON OPEN SPACE EASEMENT (2.01 AC)

N61°33'50"E 490.00'

S88°40'33"W 21.07'

N88°42'41"E 1155.28'

PINNACLE PINES UNIT 1
CASE 9, MAP 78
INSTRUMENT 3331864

40' WIDE ELECTRIC UTILITY EASEMENT

N88°59'57"E 646.93'

S02°35'46"E 39.94'

589°49'33"W 1324.65'

PINNACLE PINES UNIT 1
CASE 9, MAP 78
INSTRUMENT 3331864

S86°05'50"W 549.23'

N86°05'50"E 158.17'

S03°54'10"E 13.00'

N86°03'12"E 76.54'

N82°10'50"E 87.84'

N86°05'50"E 241.66'

N89°37'22"E

S89°52'04"E 228.63'

N26°39'05"E 20.80'

MASONIC LANE

VARIABLE WIDTH ACCESS FOR MASONIC DRIVE

S71°55'01"E

L= 100.42'
R= 170.00'
CHD= S76°58'52"E
CHL= 98.96'
Δ = 33°50'37"

ARIZONA BOARD OF REGENTS FOR NORTHERN ARIZONA UNIVERSITY DOCKET 346, PAGE 741

100' RIGHT-OF-WAY

LONE TREE ROAD

592.89'

TRACT 22
THE ESTATES AT PINE CANYON
UNIT ONE
CASE 8, MAP 92

40' WIDE ELECTRIC UTILITY EASEMENT

[ADJACENT PARCEL LINE WORK APPROXIMATE AND BASED UPON CONCEPTUAL PLAN LAYOUT]

R= 321.00'
L= 182.59'

L= 144.36'
R= 285.00'

R= 279.00'
L= 86.20'

L= 68.10'
R= 315.00'

L= 20.46'
R= 315.00'

L= 40.58'
R= 115.00'

R= 279.00'
L= 158.54'

L= 270.73'
R= 315.00'

L= 121.15'
R= 235.00'

R= 271.00'
L= 69.74'

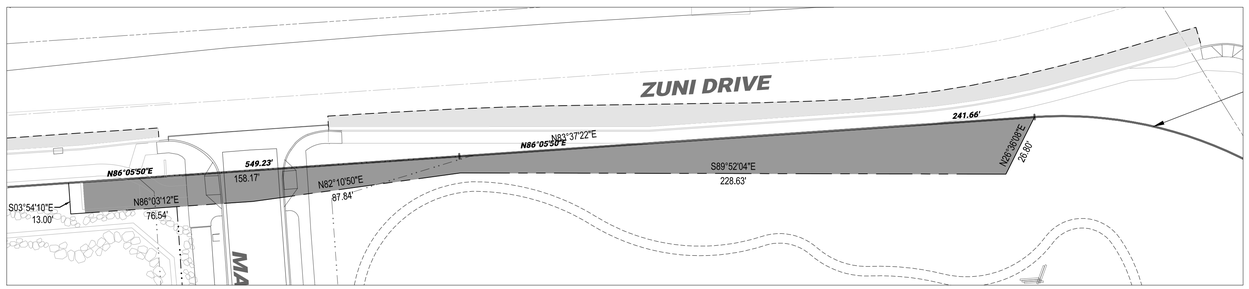
R= 42.50'
L= 75.01'

R= 69.50'
L= 67.57'

N12°37'48"W 3.13'
N76°57'13"W 16.57'
N09°49'22"E 7.65'

N76°36'54"E 168.31'
N85°54'52"E 236.39'
S71°54'26"W 17.39'
S84°33'36"E 78.54'
S84°33'36"E 78.12'

NOTE: RIGHT-OF-WAY AND EASEMENT DIMENSIONS SHALL BE FINALIZED DURING CIVIL PLAN REVIEW



D1 **ZUNI DRIVE RIGHT-OF-WAY DEDICATION**
SCALE: 1" = 30'

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.org
LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

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Registered Professional Engineer's Cert.
CERTIFICATE NO.
77934
ERIC S. BEALS
5/02/24
REGISTERED
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: **PINEHAVEN**
RESIDENTIAL LAND DEVELOPMENT
2551 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **SITE PLAN REVIEW**
EASEMENT PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C105
REV 4

SHEET 7 of 46

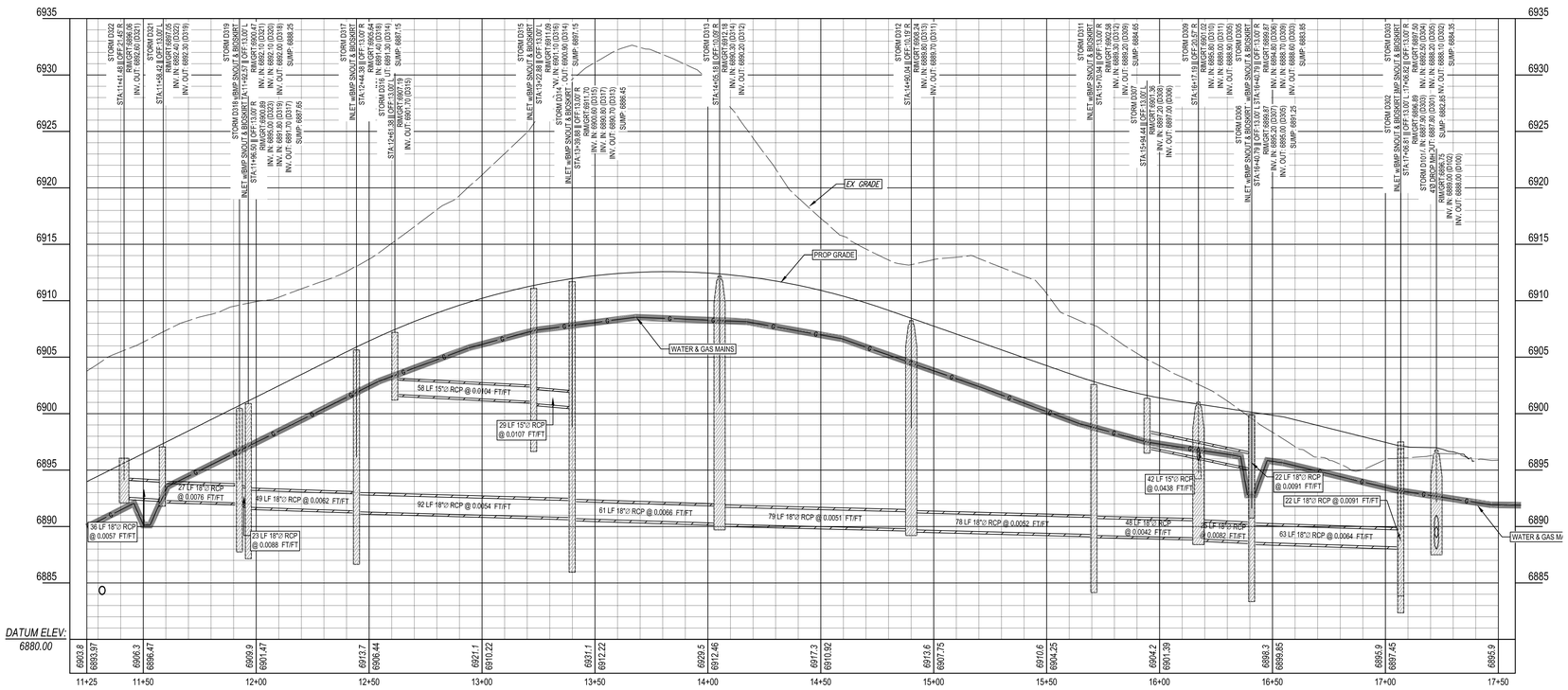
I:\22xxx\22004 FLAGSTAFF 141\DRAWINGS\CIVIL\ 22003_ARCHIVE [APPROVED SITEPLAN FILES]\22004 SITE PLAN



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" = 30'

SCALE: 1" = 30'
15 0 15 30



E1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

Contact Arizona 811 at least two full working days before you begin excavation

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

REV	DATE	DESCRIPTION	INIT
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Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
DATE SIGNED
5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

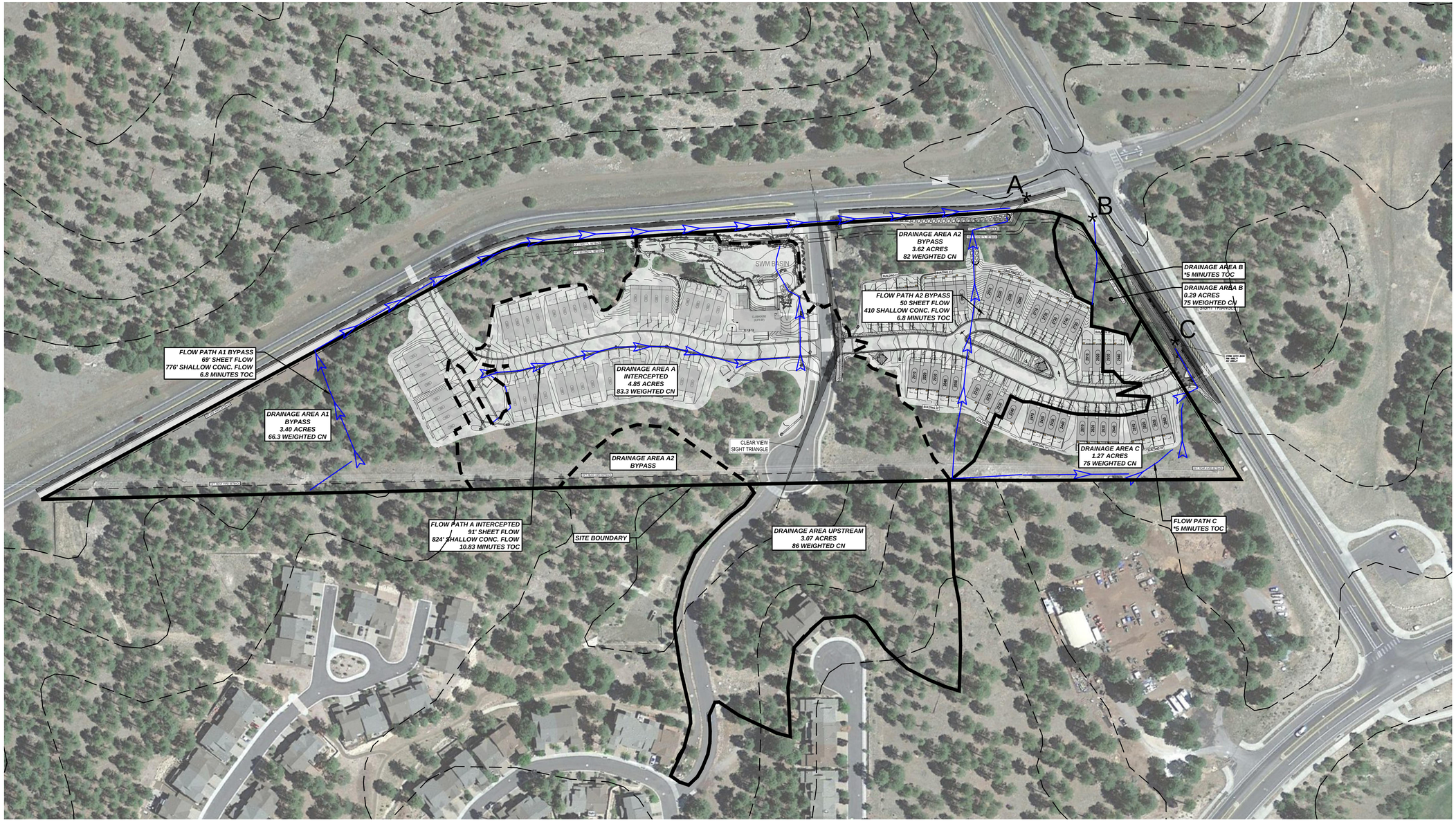
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
NEC OF SOLIDAD LANE AND LEE'S X-ING
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: CONCEPT PLAT REVIEW
STORM SEWER PLAN & PROFILE (DRIVE 'A')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C310
REV 4
SHEET 15 of 44

P:\22xxx\22004 FLAGSTAFF 1\PLANNING\CIVIL\DWG\ARCHIVE\APPROVED SITE\PLAN PLOTS\22004 PROFILE



Runoff Discharge Summary Proposed Conditions				
Drainage Area ID	Area (AC)	TOC (MIN)	10-YR (CFS)	100-YR (CFS)
A	4.85	13.40	6.68	16.12
UPSTREAM	3.07	13.20	8.16	14.71
A1_BYPASS	3.40	14.20	1.69	5.97
A2_BYPASS	3.62	6.10	7.87	16.26
B	0.29	5.00	0.43	1.03
C	1.27	5.00	1.90	4.50

STORMWATER SUMMARY		
POND ELEV	STORAGE VOLUME (CF)	INTENT
6886.5	0	ROCV
6887	487	ROCV
6888	6,619	ROCV
6889	17,471	ROCV
6890	29,752	RETENTION
6891	42,802	RETENTION

Drainage Area ID	Total Area (ac)	Soil Map Symbol	Hydrologic Soil Group	SCS Curve Number	Area for Individual CN	Composite SCS CN
A	4.85	15B	D	75	3.81	75.0
		13	B	53	0.45	
		Townhomes		92	0.59	
A1_BYPASS	3.40	15B	D	75	1.01	66.3
		13	B	53	1.80	
		Townhomes		92	0.59	
A2_BYPASS	3.62	15A	D	75	1.50	82.0
		15B	D	75	2.45	
		13	B	53	0.25	
		Townhomes		92	3.51	
UPSTREAM CAPTURE	3.07	15A	D	75	0.58	89.8
		MASONIC LN		98	1.05	
C	0.29	15B	D	75	0.29	75.0
D	1.27	15B	D	75	1.27	75.0

STORM FREQ.	PRECIP.
(YRS)	(IN)
2-YR	1.92
10-YR	2.88
100-YR	4.56

NOTE:
A MINIMUM TIME OF CONCENTRATION (TOC) OF 5 MINUTES WAS USED IN AREAS WITH A CALCULATED TOC LESS THAN 5 MINUTES

REVISIONS

REV	DATE	DESCRIPTION	INIT
1	11-15-2023	REVISED PER CITY REVIEW LETTER DATED 9-20-2023	MDT
2	01-18-2024	REVISED PER CITY REVIEW LETTER DATED 12-18-2023	MDT
3	03-26-2024	REVISED PER CITY REVIEW LETTER DATED 2-8-2024	MDT
4	05-02-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO.
77934
ERIC S. BEALS
DATE SIGNED
5/02/24
ARIZONA, U.S.A.

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2651 S MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: SITE PLAN REVIEW
POST-DEVELOPMENT DRAINAGE MAP

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C392
REV 4
SHEET 23 of 44

C:\ACAD\22004 FLAGSTAFF - PLANNING\CIVIL\SHEET SETS\22004 GRADING.dwg


BUILDING 18
BUILDING 19
1810
1820
1830
1840
1910
1920
1930
1940
DRIVE 'A'
DRIVE 'A2'
DA 322 0.04 AC
DA 323 0.03 AC
DA 325 0.12 AC
DA 326 0.93 AC
DA 328 0.04 AC
DA 329 0.07 AC
DA 332 0.26 AC
DA 316 0.05 AC
DA 317 0.09 AC
DA 315 0.04 AC
DA 310 0.33 AC
DA 311 0.15 AC
DA 307 0.18 AC
DA 305 0.06 AC
DA 306 0.04 AC
DA 308 0.03 AC
DA 304 0.41 AC
DA 303 0.02 AC
DA 302 0.03 AC
DA 331 0.04 AC
BUILDING 17
BUILDING 16
BUILDING 15
BUILDING 14
BUILDING 13
BUILDING 12
BUILDING 11
BUILDING 10
1710
1720
1730
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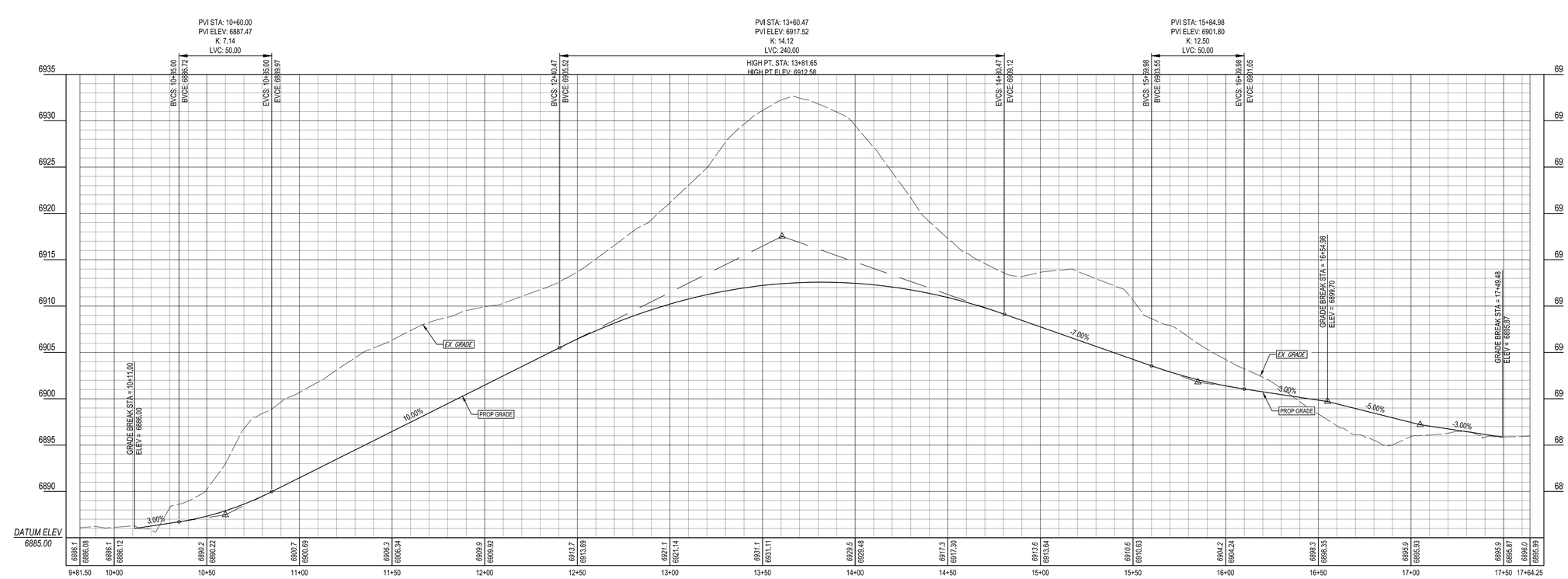
1110
1120
1130
1140
1010
1020
1030
1040
15FT REAR YARD SETBACK
10FT FIRST FL. SETBACK
15FT SECOND FL. SETBACK
S CHEROKEE WAVE
NW 66TH PLACE
ZUNI DRIVE
MASONIC LANE
SWM BASIN
CABLE LINE
CABLE LINE
CABLE LINE



B1 PLAN VIEW: DRIVE 'A'

SCALE: 1" - 30'

SCALE: 1" = 30'
15 0 15 30



E1 PROFILE VIEW: DRIVE 'A'

SCALE: (H) 1" = 30' || (V) 1" = 6'

VERTICAL SCALE 0 3' 6'
HORIZONTAL SCALE 0 15' 30'

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA 811 BLUE STAKE, INC.

Call 811 or click Arizona811.org

LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND BASED ON OBSERVABLE SURFACE FEATURES ONLY. THE CONTRACTOR SHALL CONTACT THE ONECALL SYSTEM PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND DETERMINE THE EXACT LOCATION OF ALL UTILITIES. CONTRACTOR RESPONSIBLE FOR ANY AND ALL DAMAGES INCURRED BY FAILURE TO LOCATE UTILITIES.

REVISIONS

REV	DATE	DESCRIPTION	INIT
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4	05-20-2024	REVISED PER CITY REVIEW LETTER DATED 4-9-2024	MDT

Registered Professional Engineer (Civil)
CERTIFICATE NO. 77934
ERIC S. BEALS
5/02/24
DATE SIGNED
ARIZONA, U.S.A.

Eric Beals

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

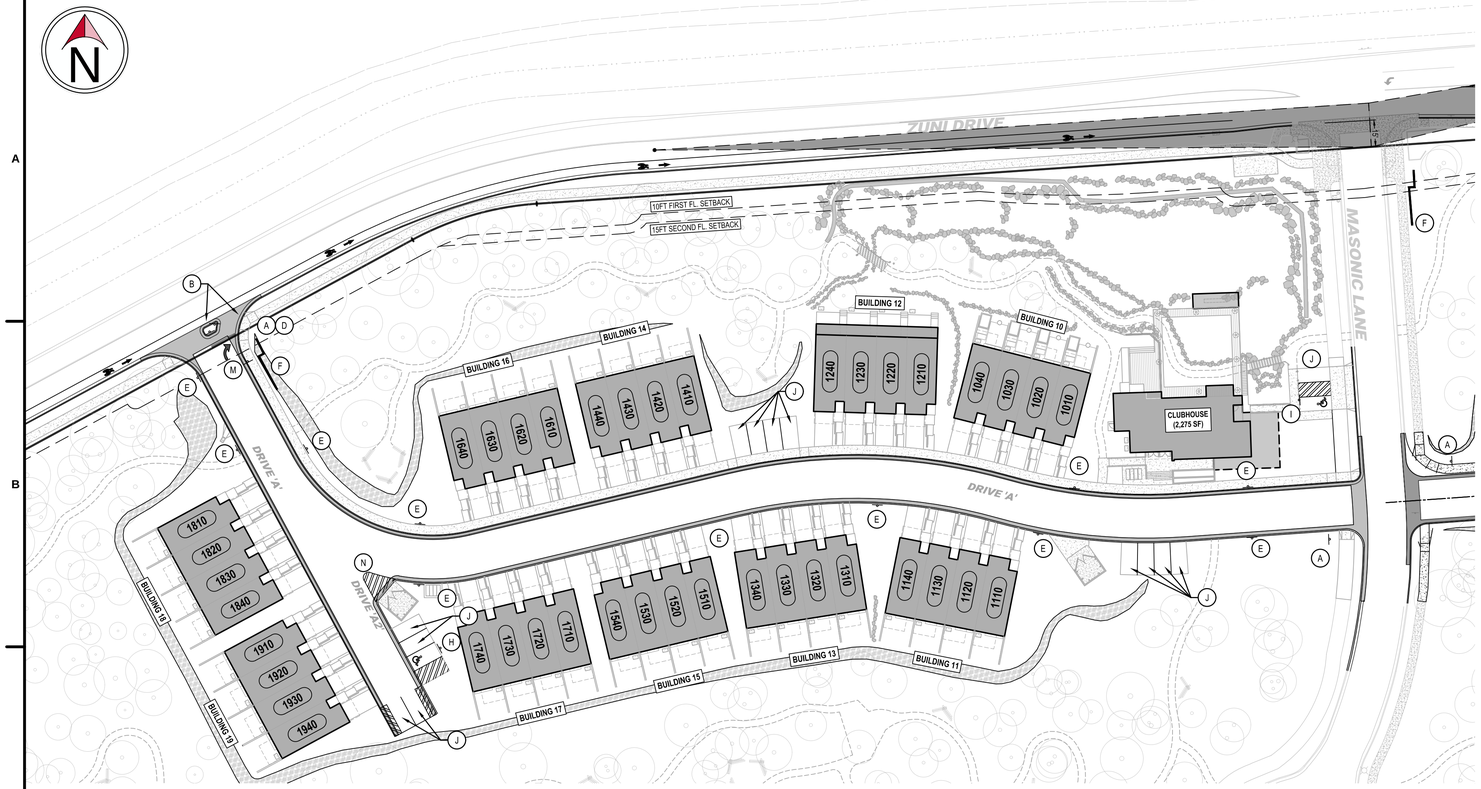
DWN BY: M TOTH
CHK BY: E BEALS

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

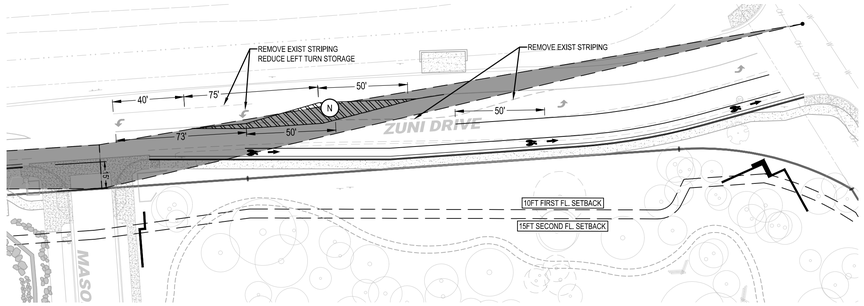
TITLE: SITE PLAN REVIEW
ROAD GEOMETRY PLAN & PROFILE
(DRIVE 'A')

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C501
REV 4



C1 PLAN VIEW (DRIVE 'A' / 'A2')

SCALE: 1" = 40'



A4 PLAN VIEW: ZUNI DRIVE RESTRIPING

SCALE: 1" = 40'



E1 PLAN VIEW (DRIVE 'B' / 'B2')

SCALE: 1" = 40'

NOTE: SIGNAGE AND STRIPING PROVIDED IS FOR CONCEPTUAL PURPOSES ONLY TO DEMONSTRATE GENERAL COMPLIANCE WITH CITY CODE. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE AND STRIPING.

THE APPLICANT IS REQUIRED TO SUBMIT A SEPARATE SIGN PERMIT WITH THE CITY FOR REVIEW AND APPROVAL..

SCALE: 1" = 40'
20 0 20 40

SIGNAGE & STRIPING TABLE

ID	DESCRIPTION
A	STOP SIGN
B	DO NOT ENTER
C	ONE WAY
D	NO LEFT TURN
E	NO PARKING FIRE LANE
F	MONUMENT SIGN (SEE ARCH PLANS)
G	RESERVED PARKING (WITH UNIT NUMBER)
H	ADA PARKING SPACE w/SIGN
I	ADA PARKING SPACE w/BOLLARD MOUNTED SIGN
J	9' x 18' PARKING
K	PAINTED CROSSWALK
L	PAINTED ARROW (STRAIGHT)
M	PAINTED ARROW (RIGHT)
N	GORE STRIPING

NOTE: ALL SIGNAGE, PAVEMENT MARKINGS, AND TRAFFIC CONTROL DEVICES USED DURING CONSTRUCTION ARE TO BE IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)

REVISIONS

REV	DATE	DESCRIPTION	INIT
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DWN BY: M TOTH
CHK BY: E BEALS

PROJECT
PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2600 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT
RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE
SITE PLAN REVIEW
CONCEPTUAL SIGNAGE & STRIPING PLAN

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID C601 REV 4

SHEET 40 of 46

LANDSCAPE CALCULATIONS

Street Buffer (Lone Tree Rd.)	Reqd.	Prov.
455 LF @ 1 trees per 25 LF	18	–
Credit for Ex. Trees to Remain	−59	–
Net Trees Required	0	0
Shrubs @ 2 per tree	0	0
Groundcovers @ 2 per tree	0	0

Street Buffer (Zuni Drive)		
1,704 LF @ 1 trees per 25 LF	68	–
Credit for Ex. Trees to Remain	−149	–
Net Trees Required	0	0
Shrubs @ 2 per tree	0	0
Groundcovers @ 2 per tree	0	0

Peripheral Buffer (South Property Line)		
1,864 LF @ 1 trees per 25 LF	75	–
Credit for Ex. Trees to Remain	−135	–
Net Trees Required	0	–
Shrubs @ 2 per tree	0	0
Groundcovers @ 2 per tree	0	0

Parking Spaces		
30s.f. times 8 parking spaces	240s.f.	
2 trees per 8 spaces	2	–
Net Trees Required	2	2
Shrubs @ 2 per tree	4	0
Groundcovers @ 2 per tree	4	0

Building Foundation (Bldg. 1)		
227 LF @ 1 tree per 25 LF	9	–
Credit for Ex. Trees to Remain	−8	–
Net Trees Required	1	1
Shrubs @ 2 per tree	2	–
Groundcovers @ 2 per tree	2	–

Reduction for Overlap with Bldg. 2 Foundation

Building Foundation (Bldg. 2)		
185 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−6	–
Net Trees Required	1	1
Shrubs @ 2 per tree	2	–
Groundcovers @ 2 per tree	2	–

Reduction for Overlap with Bldg. 3 Foundation

Building Foundation (Bldg. 3)		
185 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−2	–
Net Trees Required	5	5
Shrubs @ 2 per tree	10	–
Groundcovers @ 2 per tree	10	–

Reduction for Overlap with Bldg. 4 Foundation

Building Foundation (Bldg. 4)		
233 LF @ 1 tree per 25 LF	9	–
Credit for Ex. Trees to Remain	−10	–
Net Trees Required	0	–
Shrubs @ 2 per tree	0	–
Groundcovers @ 2 per tree	0	–

Reduction for Overlap with Bldg. 5 Foundation

Building Foundation (Bldg. 5)		
222 LF @ 1 tree per 25 LF	9	–
Credit for Ex. Trees to Remain	−10	–
Net Trees Required	0	–
Shrubs @ 2 per tree	0	–
Groundcovers @ 2 per tree	0	–

–

Building Foundation (Bldg. 6)		
180 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−11	–
Net Trees Required	0	–
Shrubs @ 2 per tree	0	–
Groundcovers @ 2 per tree	0	–

Reduction for Overlap with Bldg. 7 Foundation

Building Foundation (Bldg. 7)	Reqd.	Prov.
180 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−2	–
Net Trees Required	5	5
Shrubs @ 2 per tree	10	–
Groundcovers @ 2 per tree	10	–

Reduction for Overlap with Bldg. 8 Foundation

Building Foundation (Bldg. 8)		
180 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	0	–
Net Trees Required	7	7
Shrubs @ 2 per tree	14	–
Groundcovers @ 2 per tree	14	–

Reduction for Overlap with Bldg. 9 Foundation

Building Foundation (Bldg. 9)		
225 LF @ 1 tree per 25 LF	9	–
Credit for Ex. Trees to Remain	0	–
Net Trees Required	9	9
Shrubs @ 2 per tree	18	–
Groundcovers @ 2 per tree	18	–

Reduction for Overlap with Bldg. 10 Foundation

Building Foundation (Bldg. 10)		
270 LF @ 1 tree per 25 LF	11	–
Credit for Ex. Trees to Remain	0	–
Net Trees Required	11	11
Shrubs @ 2 per tree	22	–
Groundcovers @ 2 per tree	22	–

Building Foundation (Bldgs. 11,12,13,14 & 17 each)		
179 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	0	–
Net Trees Required	7	–
Shrubs @ 2 per tree	14	–
Groundcovers @ 2 per tree	14	–

Reduction for Overlap with Bldg. Foundations

Building Foundation (Bldg. 15 & 16 each)		
179 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−2	–
Net Trees Required	5	5
Shrubs @ 2 per tree	10	–
Groundcovers @ 2 per tree	10	–

Reduction for Overlap with Bldg. Foundation

Building Foundation (Bldg. 18)		
179 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−4	–
Net Trees Required	3	5
Shrubs @ 2 per tree	6	–
Groundcovers @ 2 per tree	6	–

Reduction for Overlap with Bldg. Foundation

Building Foundation (Bldg. 19)		
185 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−6	–
Net Trees Required	1	3
Shrubs @ 2 per tree	2	–
Groundcovers @ 2 per tree	2	–

Reduction for Overlap with Bldg. Foundation

Building Foundation (Bldg. 20)		
179 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	−2	–
Net Trees Required	5	–
Shrubs @ 2 per tree	10	–
Groundcovers @ 2 per tree	10	–

Reduction for Overlap with Bldg. Foundation

Building Foundation (Amenity Bldg.)		
185 LF @ 1 tree per 25 LF	7	–
Credit for Ex. Trees to Remain	0	–
Net Trees Required	7	8
Shrubs @ 2 per tree	14	–
Groundcovers @ 2 per tree	14	–

Reduction for Overlap with Bldg. 20 Foundation

CITY OF FLAGSTAFF LANDSCAPE NOTES

1. *ADJACENT SITE IMPROVEMENTS, PAVEMENT CONSTRUCTION, IRRIGATION INSTALLATION AND FINISH GRADING SHALL BE COMPLETED PRIOR TO INSTALLATION OF PLANT MATERIAL. DO NOT PLANT WHEN CONDITIONS ARE NOT SUITABLE FOR DIGGING, MIXING, RAKING AND/OR GRADING. PLANTING SHALL OCCUR DURING THE MONTHS THAT IRRIGATION SYSTEMS ARE IN OPERATION. THEREFORE, PLANTING MAY OCCUR BETWEEN APRIL 1st AND SEPTEMBER 30th.*
2. *SOIL EXCAVATED FROM THE PLANTING PIT SHALL BE TYPICALLY CONSIDERED ACCEPTABLE AS BACKFILL MATERIAL: BACKFILL MIXTURE TO BE COMPRISED OF 75% NATIVE SOIL, 25% GRANULAR BARK MULCH, AND 2 LBS. DISPERSAL PER CUBIC YARD OF BACKFILL.*
3. *ALL CONTAINERS SHALL BE REMOVED PRIOR TO PLANT INSTALLATION IN A MANNER THAT DOES NOT DISTURB THE POTTED SOIL OR ROOT BALL.*
4. *SET THE ROOT BALL ON SIX-INCHES OF FIRM PLANTING SOIL, PLUMB AND IN THE CENTER OF THE PIT WITH THE ROOT BALL CROWN SLIGHTLY ABOVE THE SAME ELEVATION AS ADJACENT FINISHED LANDSCAPE GRADES. REMOVE ANY WIRE, TWINE, BURLAP, OR OTHER MATERIAL FROM THE UPPER ONE-THIRD OF THE ROOT BALL OF BALLED AND BURLAPPED STOCK. WIRE BASKETS AND SYNTHETIC BURLAP SHALL BE COMPLETELY REMOVED AFTER THE ROOT BALL HAS BEEN PLACED IN ITS FINAL LOCATION.*
5. *ONCE PLANT IS SET, PLACE BACKFILL MATERIAL AROUND BASE AND SIDES OF ROOT BALL AND WORK EACH LAYER TO SETTLE BACKFILL AND ELIMINATE VOIDS. WHEN BACKFILLING IS TWO-THIRDS COMPLETE, WATER THOROUGHLY. PLACE THE REMAINDER OF THE BACKFILL AND REPEAT WATERING UNTIL NO MORE IS ABSORBED. PLACE THE FINAL LAYER OF BACKFILL AND WATER.*
6. *ALL DECIDUOUS TREES SHALL BE WRAPPED FROM THE GROUND LINE UP TO AND INCLUDING THE FIRST PRIMARY CROTCH FORMED BY THE FIRST MAJOR BRANCH. WRAPPING SHALL BE DONE AFTER THE PLANT HAS BEEN INSTALLED.*
7. *TWO TO THREE INCHES OF SPECIFIED MULCH SHALL BE PLACED IN THE AREA DISTURBED BY EXCAVATION OF THE PLANTING WELL.*
8. *PRIOR TO PLANTING ACTIVITIES, COMPLETELY REMOVE EXISTING WEEDS, INCLUDING ROOTS. IMMEDIATELY PRIOR TO INSTALLATION, CULTIVATE GROUND COVER AREAS TO A DEPTH OF SIX-INCHES AND GRADE SMOOTHLY AND UNIFORMLY. PLANT GROUND COVER SO THE ROOT CROWN IS AT OR SLIGHTLY ABOVE THE BED'S FINISH GRADE. AFTER PLANTING OF GROUND COVER AND PRIOR TO MULCHING, APPLY PRE-EMERGENT WEED CONTROL OVER PLANTING BED SOIL SURFACE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN DIRECTIONS. INSTALL THE SPECIFIED MULCH TO A DEPTH OF THREE-INCHES OVER THE ENTIRE GROUND COVER BED.*
9. *PRUNE DEAD OR DAMAGED BRANCHES, MAKING ALL CUTS AT BRANCH COLLAR. MAINTAIN THE NATURAL HABIT, SHAPE AND SPECIFIED SIZE. REMOVE ALL TAGS, LABELS, AND OTHER MATERIAL.*

GENERAL LANDSCAPE NOTES

1. *CONTRACTOR TO OBTAIN PERMITS FROM LOCAL AGENCIES AND UTILITIES HAVING JURISDICTION OVER THIS SITE.*
2. *CONTRACTOR TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO ANY INSTALLATION.*
3. *CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO INSTALL THE WORK INDICATED ON THE LANDSCAPE DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR CAREFUL SITE INSPECTION, DETAILED REVIEW OF THE PLANS, AND COORDINATION WITH SUB-CONTRACTORS ON-SITE PRIOR TO ANY INSTALLATION. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S AGENT.*
4. *PRIOR TO INITIATING THESE LANDSCAPE IMPROVEMENTS, THE LANDSCAPE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING ON SITE WITH THE OWNER'S REPRESENTATIVE, THE GENERAL CONTRACTOR, AND THE PROJECT LANDSCAPE ARCHITECT TO REVIEW AND RESOLVE ANY EXISTING SITE CONDITIONS THAT MAY BE IN CONFLICT WITH THE LANDSCAPE CONSTRUCTION DOCUMENTS AND THAT IMPACT THE INSTALLATION OF ANY OF THE PROPOSED SITE IMPROVEMENTS. THIS FIRST MEETING SHOULD BE SCHEDULED TO OCCUR AT THE COMPLETION OF ON-SITE AND OFF-SITE IMPROVEMENTS INCLUDING; ALL UNDERGROUND UTILITIES, MASS GRADING, AND STREET IMPROVEMENTS.*
5. *DAMAGE TO EXISTING LANDSCAPING, UNDERGROUND UTILITIES, IRRIGATION LINES, ELECTRICAL LINES, ETC. SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.*
6. *ANY DISCREPANCIES FOUND BETWEEN THE PLANS AND THE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT.*
7. *ALL QUANTITIES PROVIDED ARE FOR BIDDING PURPOSES ONLY; LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO INSTALLATION.*
8. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADES IN THE LANDSCAPE AREAS. CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THE EXTENT OF ROUGH GRADING AND/OR FINE GRADING TO BE ESTABLISHED BY OTHERS.*
9. *ALL GRADING AND DRAINAGE SHALL BE IN ACCORDANCE WITH THE PLANS PREPARED BY THE PROJECT CIVIL ENGINEER. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING(S) IN ALL CONDITIONS. CONTRACTOR TO MEET ALL EXISTING GRADES AT PROJECT BOUNDARIES. FINISH GRADE SHALL BE THREE INCHES (3") BELOW THE TOP OF ADJACENT WALKS AND CURBS PRIOR TO RECEIVING MULCH OR DECOMPOSED GRANITE.*
10. *ALL AREAS DISTURBED DURING CONSTRUCTION TO BE FINE GRADED. ADJACENT UNDISTURBED AREAS THAT ARE DAMAGED OR DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.*
11. *CONTRACTOR SHALL FINE GRADE ENTIRE LANDSCAPE AREA AS REQUIRED FOR INSTALLATION OF PLANT MATERIALS. ALL GRADES SHALL BE NEAT, RAKED SMOOTH AND BE FREE OF DEBRIS PRIOR TO SUBSTANTIAL COMPLETION.*
12. *PRIOR TO SPREADING MATERIAL GROUNDCOVERS (MULCH OR DECOMPOSED GRANITE), ADJUST AND COMPACT FINISH GRADES, APPLY WEED PRE-EMERGENT SURFLAN OR EQUAL PER MANUFACTURER'S SPECIFICATIONS; THEN SPREAD DECOMPOSED GRANITE OR MULCH AS INDICATED ON THE PLANS. DECOMPOSED GRANITE SHALL BE RAKED AND WATERED TO SETTLE FINES WITH A MINIMUM FINAL DEPTH OF TWO INCHES (2"). PROVIDE A SECOND APPLICATION OF THE PRE-EMERGENT AT THE END OF THE MAINTENANCE PERIOD.*
13. *ALL LANDSCAPE AREAS SHALL RECEIVE A TWO INCH (2") TOP DRESSING OF DECOMPOSED GRANITE MULCH AS SPECIFIED ON THE LANDSCAPE PLANS. CONTRACTOR SHALL PROVIDE A SAMPLE TO OWNER'S AGENT FOR APPROVAL PRIOR TO DELIVERY.*
14. *STAKE LOCATIONS OF ALL TREES FOR APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT AND OWNER'S AGENT PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.*
15. *ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED (IN-LEAF) AS IS TYPICAL FOR THE SPECIES. THEY SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS (NOT POT BOUND), A NORMAL HABIT OF GROWTH CONSISTENT WITH INDUSTRY STANDARDS, AND FREE OF BRUISES, CUTS, OR OTHER ABNORMALITIES. PLANT MATERIAL SHALL BE SIZED IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN AND THE ARIZONA NURSERYMAN ASSOCIATION.*
16. *BACKFILL MIXTURES, EXCEPT AS NOTED, TO BE COMPRISED OF 75% NATIVE SOIL, 25% GRANULAR BARK MULCH, AND 2 LBS. DISPERSAL PER CUBIC YARD OF BACKFILL.*
17. *ADD AGRI-FORM FERTILIZER TABLETS AT THE FOLLOWING RATES:*
    1 GALLON PLANT – 1 TABLET — 15 GALLON TREE – 4 TABLETS
    5 GALLON PLANT – 2 TABLETS — BOXED TREE – 6 TABLETS
    TABLETS TO BE PLACED NO DEEPER THAN 6 FEET BELOW THE SOIL SURFACE.
18. *THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON THE LANDSCAPE PLAN. DO NOT SUBSTITUTE PLANTS BY TYPE OR QUANTITY WITHOUT WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT OR OWNER'S AGENT.*
19. *THE OWNER'S AGENT RESERVES THE RIGHT TO REJECT ANY SELECTION OF PLANT MATERIAL THAT DOES NOT SATISFY THE INTENT OF THE LANDSCAPE DESIGN BASED ON; SIZE, SHAPE, EVIDENCE OF STRESS OR IMPROPER CARE.*
20. *PRIOR TO INITIATING THE AGREED UPON MAINTENANCE PERIOD, COMPLETE ALL PUNCH LIST ITEMS FROM THE SITE INSPECTION AND THEN OBTAIN A WRITTEN APPROVAL FROM THE OWNER'S AGENT ACKNOWLEDGING SUBSTANTIAL COMPLETION. DETERMINE WITH THE OWNER'S AGENT THE START DATE FOR THE MAINTENANCE PERIOD: CONTRACTOR SHALL THEN MAINTAIN THE LANDSCAPE INCLUDING IRRIGATING, WEEDING, PRUNING, MOWING, AND REPLACEMENT OF ANY MATERIAL THAT HAS DIED OR IS SHOWING EVIDENCE OF STRESS. SUBMIT A REQUEST FOR FINAL INSPECTION ONE WEEK PRIOR TO THE END OF THE MAINTENANCE PERIOD.*
21. *CONTRACTOR TO PROVIDE THE OWNER WITH A WRITTEN GUARANTEE OF ONE YEAR FOR ALL TREES AND SIX MONTHS FOR ALL OTHER PLANT MATERIAL DATED FROM THE START OF THE MAINTENANCE PERIOD AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.*
22. *PROVIDE THE OWNER A SPECIFIC MAINTENANCE MANUAL OUTLINING THE RECOMMENDED MAINTENANCE REQUIREMENTS FOR THE LANDSCAPE AND IRRIGATION SYSTEM. PROVIDE RECOMMENDED CARE, PRUNING TECHNIQUES AND FREQUENCY FOR ALL PLANTS. INCLUDE A FERTILIZATION SCHEDULE. PROVIDE A SEASONAL IRRIGATION SCHEDULE AND WINTERIZATION METHODS.*

PLANT SCHEDULE

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY.	MAT. SIZE	REMARKS
TREES					
	ACER GINNALA 'FLAME' AMUR MAPLE	2" CAL.	28	15x15	STANDARD
	CRATAEGUS LAEVIGATA 'CRIMSON CLOUD' CRIMSON CLOUD HAWTHORN	2" CAL.	12	20x15	STANDARD
	POPULUS TREMULOIDES QUAKING ASPEN	2" CAL.	47	50x15	STANDARD
	QUERCUS GAMBELII GAMBEL OAK	15-GAL.	40	25x15	STANDARD
SHRUBS / GRASSES					
	CALAMAGROSTIS x ACUTIFLORA 'K.F.' FOERSTER'S FEATHER REED GRASS	5 GAL.	97	4x2.5	2 GPH EMITTER
	CORNUS SERICEA 'ARCTIC FIRE' ARCTIC FIRE DOGWOOD	5 GAL.	33	4x4	2 GPH EMITTER
	FESTUCA GLAUCA 'ELIJAH BLUE' ELIJAH BLUE FESCUE	5 GAL.	764	1x1	2 GPH EMITTER
	MUHLENBERGIA REVERCHONII 'UNDAUNTED' SEEP MUHLY	5 GAL.	78	2x2	2 GPH EMITTER
	PEROVSKIA ATRIPLICIFOLIA RUSSIAN SAGE	5 GAL.	104	4x4	2 GPH EMITTER
	PHYSOCARPUS OPULIFOIUS 'DART'S GOLD' DART'S GOLD NINEBARK	5 GAL.	44	4x4	2 GPH EMITTER
	POTENTILLA FRUTICOSA 'GOLDFINGER' GOLDFINGER POTENTILLA	5 GAL.	105	3x3	2 GPH EMITTER
GROUNDCOVER					
	COTONEASTER DAMMERI 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER	3 GAL.	16	1x6	2 GPH EMITTER
	JUNIPERUS HORIZONTALIS 'WILTONII' BLUE RUG JUNIPER	5 GAL.	56	6"x6	2 GPH EMITTER
	MAHONIA REPENS CREEPING OREGON GRAPE	1 GAL.	706	1x3	2 GPH EMITTER
	PRUNUS BESSEYI 'PAWNEE BUTTES' CREEPING SAND CHERRY	5 GAL.	46	1.5x5	2 GPH EMITTER
MATERIALS					
	MAHOGANY (ROCK PROS) DECOMPOSED GRANITE	1/2" SCREENED	–		3" DEPTH IN PLANTING AREAS
	NATIVE BARK MULCH DARK BROWN COLOR	STANDARD SIZE	–		2" TOP DRESSING HYDROSEED AREAS
	BASALT BOULDERS SALVAGED FROM SITE	VARIOUS SIZES	–		INSTALL PER DETAIL

HYDROSEED MIX

	NATIVE SEED MIX	30,020 S.F.+/-	HYDROSEED PER CITY OF FLAGSTAFF ENGINEERING DESIGN STANDARDS DIVISION 13-17-002

GRASSES	BOTANICAL/COMMON NAME	
	BOUTELOUA GRACILIS / BLUE GRAMA	5.0
	FESTUCA ARIZONICA / ARIZONA FESCUE	4.0
	SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM	4.0
FLOWERS / PERENNIALS		
	ACHILLEA LANULOSA / WESTERN YARROW	2.0
	LINUM LEWISII / BLUE FLAX	1.0
	LUPINUS ARGENTEUS / SILVER LUPINE	2.0
	PENSTEMON BARBATUS / SCARLET BUGLER	1.5
	RATIBIDA COLUMNARIS / MEXICAN HAT	1.5

GENERAL SEEDING NOTES

1. REMOVE AND DISPOSE OF ALL ROCKS, DEBRIS, WEEDS, AND ALL OTHER OBJECTIONABLE MATERIAL THAT MAY INTERFERE WITH SEEDING OPERATIONS.
2. SEEDBED PREPARATION TO BE DONE PER SECTION 13-17-002-0004 OF THE CITY OF FLAGSTAFF ENGINEERING DESIGN STANDARDS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE THE PROPER SEEDBED CONDITION. ADD SOIL AMENDMENTS AS NECESSARY.
3. ALL SEEDING OPERATIONS ARE TO FOLLOW THE STANDARDS PER DIVISION 13-17-002 OF THE CITY OF FLAGSTAFF ENGINEERING DESIGN STANDARDS.

PLANT SCHEDULE (PARKWAY - OFFSITE)

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY.	MAT. SIZE	REMARKS
	ACER GINNALA 'FLAME' AMUR MAPLE	2" CAL.	5	15x15	STANDARD
	NATIVE BLACK CINDERS	STANDARD SIZE	–		2" DEPTH IN PARKWAY

IRRIGATION LEGEND:

SYMBOL	DESCRIPTION	MANUFACTURER/MODEL	COMMENTS
M	WATER METER	N/A	WATER METER TO BE INSTALLED PER CIVIL PLANS
	BACKFLOW PREVENTER	FEBCO 825YA	1" BFP TO BE INSTALLED PER CIVIL PLANS. INSTALL IN A SECURABLE BACKFLOW PREVENTER CAGE.
	FLOW SENSOR	IRRITROL FS-400	INSTALL AFTER MASTER VALVE AT P.O.C.
A	CONTROLLER	IRRITROL TC-18EXM-R 18-STATION WALL MOUNTED CONTROLLER IN METAL CABINET	INSTALL PER MANUFACTURER'S SPECIFICATIONS PROVIDE KEYS AND OPERATING INSTRUCTIONS TO OWNER
	GATE VALVE	WATTS WGV THD BRASS GATE VALVE	INSTALL IN 10" ROUND VALVE BOX.
	1" QUICK COUPLER	TORO 100-SLSC W/ 100-SLK KEY	INSTALL IN 10" ROUND VALVE BOX. PROVIDE 3 KEYS
	REMOTE CONTROL DRIP VALVE ASSEMBLY	TORO DZK-700, 1" DRIP VALVE ASSEMBLY INCLUDES Y-FILTER AND PRESSURE REGULATOR	INSTALL IN VALVE BOX
	MAIN LINE	SCH 40 PVC, SCH 80 FITTINGS	SIZE PER PIPE SCHEDULE (1" MIN.); SOLVENT WELD.
	SHRUB/G.C. LATERAL	CLASS 200 PVC	3/4" UNLESS OTHERWISE NOTED.
	TREE LATERAL	CLASS 200 PVC	3/4" UNLESS OTHERWISE NOTED.
	MULTI-OUTLET DRIP EMITTER	TORO T-PR25-9 PRESSURE REGULATING MANIFOLD OR APPROVED EQUAL	NOT SHOWN ON PLAN. SEE EMITTER DETAILS..
	SINGLE-OUTLET DRIP EMITTER	TORO T-DPJ08-A, 2-GPH EMITTER OR APPROVED EQUAL	NOT SHOWN ON PLAN. SEE EMITTER DETAILS.
	DISTRIBUTION TUBE	1/4" POLYETHYLENE	MAXIMUM LENGTH 6-FEET. SEE EMITTER DETAILS.
	END FLUSH CAP	TORO T-FCH-H-FIPT, OR APPROVED EQUAL	LOCATE IN 10" ROUND VALVE BOX
	SLEEVE	SCH. 40 PVC PIPE	SIZE TO BE 2X DIAMETER OF PIPE BEING SLEEVED
	ELECTRICAL SLEEVE	SCH. 40 PVC PIPE (1.5" MINIMUM)	SLEEVE UNDER ALL PAVING TYP.

PIPE SIZING SCHEDULE			
SIZE	GPM	SIZE	GPM
3/4"	6-10	1 1/2"	26-35
1"	11-15	2"	36-55
1 1/4"	16-25	2 1/2"	56-80

SLEEVE SIZING SCHEDULE (MIN.)			
PIPE	SLEEVE	PIPE	SLEEVE
3/4"	1 1/2"	1 1/2"	3"
1"	2"	2"	4"
1 1/4"	2.5"	2 1/2"	5"

A1 / 1" S — *STATION NUMBER / VALVE SIZE / ZONE TYPE*

EMITTER NOTES

1. INSTALL ONE (1.0 GPH) OR (2.0 GPH) SINGLE OUTLET EMITTER PER SHRUB OR GROUNDCOVER AS REQUIRED. SEE PLANT SCHEDULE FOR EMITTER SPECIFICATION.
2. INSTALL EMITTERS AROUND EACH TREE; SEE THE EMITTER DETAIL FOR EMITTER QUANTITY AND SPACING.
3. MULTI-OUTLET EMITTERS MAY BE USED INSTEAD OF SINGLE EMITTERS WHERE ↓" TUBING DOES NOT EXCEED 6' IN LENGTH.
4. INSTALL EMITTERS AT EDGE OF ROOTBALL AND UPGRADE FROM PLANTS.
5. INSTALL ALL EMITTERS AND EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.

IRRIGATION NOTES:

1. ALL EXACT QUANTITIES OF EQUIPMENT REMAIN THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR AND NO ADDITIONAL COSTS TO OWNER WILL BE ACCEPTED AFTER BIDDING THIS PROJECT EXCEPT FOR CHANGE ORDERS APPROVED BY THE OWNER.
2. PLANS ARE DIAGRAMMATIC AND APPROXIMATE. ALL IRRIGATION EQUIPMENT SHALL BE LOCATED IN LANDSCAPE AREAS; ALL SLEEVES SHALL BE INSTALLED PRIOR TO PAVING WORK. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING EXCEPT WHERE SHOWN ON THE PLANS.
3. THE IRRIGATION SYSTEM IS DESIGNED FOR 90 STATIC PSI. CONTRACTOR SHALL VERIFY WATER PRESSURE IN THE FIELD PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALERTING THE LANDSCAPE ARCHITECT AND OWNER OF ANY DISCREPANCIES BETWEEN DESIGN PRESSURE AND FIELD PRESSURE.
4. CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL CODES AND IS RESPONSIBLE FOR OBTAINING PERMITS FROM LOCAL AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THE PROJECT SITE.
5. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO ANY INSTALLATION. CONTACT BLUE STAKES CENTER (263-1100) FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS INDICATED ON THE IRRIGATION PLANS. CONTRACTOR IS RESPONSIBLE FOR CAREFUL SITE INSPECTION, REVIEW OF ALL LANDSCAPE DOCUMENTS, AND COORDINATION WITH OTHER CONTRACTORS ON-SITE PRIOR TO ANY INSTALLATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SITE SUPERINTENDENT AND THE OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATING THE INSTALLATION OF SLEEVES UNDER PAVED SURFACES WITH THE GENERAL CONTRACTOR.
8. PROVIDE PVC VALVE BOXES FOR ALL UNDERGROUND VALVES, PRESET PRESSURE REGULATORS AND FLUSH PLUGS.
9. USE ONLY #14 DIRECT BURIAL COPPER WIRE FOR ALL UNDERGROUND WIRING. ALL WIRE RUNS TO BE CONTINUOUS FROM CONTROLLER TO CONTROL VALVE. USE ONLY EPOXY FILLED WATERPROOF WIRE ASSEMBLIES BY SPEARS (OR EQUAL) FOR ALL WIRE SPLICES.
10. OBTAIN APPROVAL FROM THE OWNER'S AGENT OF STAKED LOCATIONS FOR ALL VALVES, MAINLINE, AND THE AUTOMATIC CONTROLLER PRIOR TO INSTALLATION.
11. TEST MAINLINE UNDER PRESSURE FROM THE WATER SOURCE (POINT OF CONNECTION) TO CONTROL VALVES AND QUICK COUPLERS FOR A MINIMUM OF 12-HOURS. OBTAIN APPROVAL FROM OWNER'S AGENT PRIOR TO BACKFILLING.
12. ALL PVC SLEEVEING PASSING UNDER PAVED SURFACES AND THROUGH FOOTINGS SHALL BE SCHEDULE-40 PVC PIPE TWICE THE SIZE OF THE PIPE PASSING THROUGH. PROVIDE A SEPARATE SLEEVE FOR ELECTRICAL WIRING (1.5" MINIMUM).
13. EXACT PIPE SIZING AND FOOTAGE ARE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
14. USE TEFLON TAPE OR PIPE JOINT COMPOUND ON ALL THREADED JOINTS.
15. ALL DRIP SYSTEM LATERAL PIPING SHALL BE 3/4-INCH CLASS 200 PVC. ALL FITTINGS SHALL BE SCHEDULE 40 PVC.
16. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE IRRIGATION WORK WITH THE LANDSCAPE PLANS TO AVOID CONFLICT BETWEEN IRRIGATION EQUIPMENT AND PLANTING PITS.
17. WHERE TREES, LIGHT STANDARDS, ETC. ARE AN OBSTRUCTION OF SPRAYS, PIPING AND SPRINKLER HEADS SHALL BE ADJUSTED AND/OR RELOCATED AS REQUIRED TO ACHIEVE FULL HEAD TO HEAD COVERAGE.
18. PROVIDE A TYPED WATERING SCHEDULE ENCASED IN PLASTIC AND ATTACHED TO THE INSIDE OF THE CONTROLLER ENCLOSURE.
19. PRIOR TO INITIATING THE 90-DAY MAINTENANCE PERIOD, TEST THE SYSTEM WITH THE OWNER'S AGENT TO VERIFY THAT THE SYSTEM IS FULLY OPERATIONAL. PROVIDE WRITTEN RECOMMENDATIONS OF SUGGESTED SEASONAL WATERING SCHEDULES.
20. PROVIDE A WRITTEN 18-MONTH GUARANTEE FOR ALL IRRIGATION EQUIPMENT DATED FROM THE START OF THE 90-DAY MAINTENANCE PERIOD. CONTRACTOR SHALL PROVIDE LABOR, MATERIALS AND EQUIPMENT AS NECESSARY TO RESTORE THE FULL OPERATION OF THE SYSTEM AND REPLACE ANY PLANT MATERIAL THAT DIED AS A DIRECT RESULT OF THE FAILURE.

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REVISIONS

The WLB Group, INC.
Engineering • Planning • Surveying
Landscape Architecture
Offices located in: Tucson, Phoenix, Flagstaff, and Las Vegas, NV.
500 N. Beaver Street, Flagstaff, AZ 86001
PH:(928) 779-1500

PINEHAVEN

LANDSCAPE COVER SHEET

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
34188
STEPHEN C. PARSONS
Date Signed 5/1/24
ARIZONA,

PLANT SCHEDULE

SYMBOL | BOTANICAL/COMMON NAME

TREES

- ACER GINNALA 'FLAME' — AMUR MAPLE
- CRATAEGUS LAEVIGATA 'CRIMSON CLOUD' — CRIMSON CLOUD HAWTHORN
- POPULUS TREMULOIDES — QUAKING ASPEN
- QUERCUS GAMBELII — GAMBEL OAK

SHRUBS / GRASSES

- CALAMAGROSTIS x ACUTIFLORA 'K.F.' — FOERSTER'S FEATHER REED GRASS
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- PHYSOCARPUS OPULIFOIUS 'DART'S GOLD' — DART'S GOLD NINEBARK
- POTENTILLA FRUTICOSA 'GOLDFINGER' — GOLDFINGER POTENTILLA

GROUNDCOVER

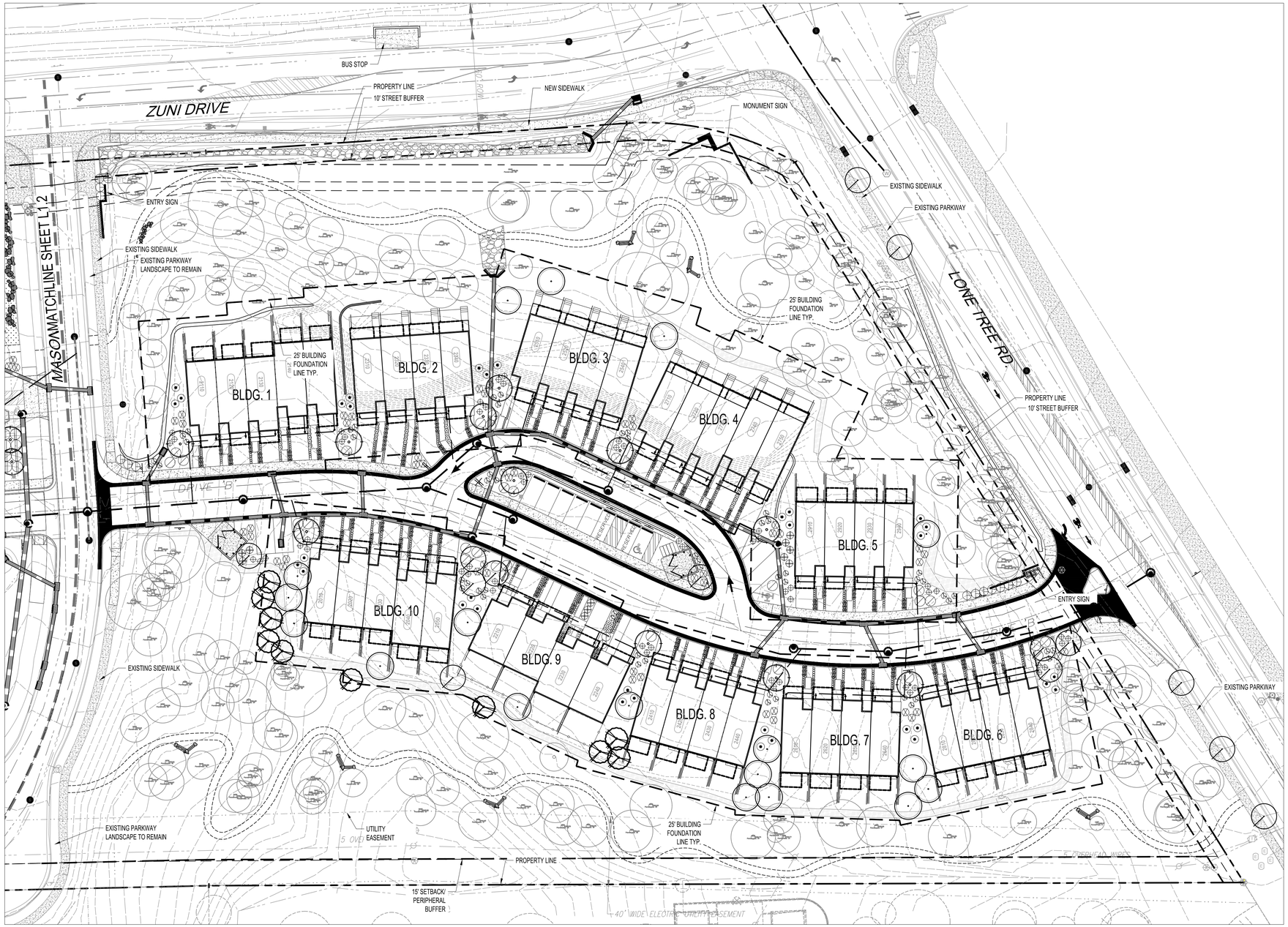
- COTONEASTER DAMMERI 'CORAL BEAUTY' — CORAL BEAUTY COTONEASTER
- JUNIPERUS HORIZONTALIS 'WILTONII' — BLUE RUG JUNIPER
- MAHONIA REPENS — CREEPING OREGON GRAPE
- PRUNUS BESSEYI 'PAWNEE BUTTES' — CREEPING SAND CHERRY

MATERIALS

- MAHOGANY (ROCK PROS) — DECOMPOSED GRANITE
- NATIVE BARK MULCH — DARK BROWN COLOR
- BASALT BOULDERS — SALVAGED FROM SITE

HYDROSEED MIX

- NATIVE SEED MIX



GRAPHIC SCALE
30 0 15 30 60
HORIZONTAL SCALE 1" = 30'

NORTH

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PH:(928) 779-1300

PINEHAVEN

LANDSCAPE SITE PLAN

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
34188
STEPHEN C. PARSONS
Date Signed 5/17/24
ARIZONA, U.S.A.

DESIGNED BY:	SP
DRAWN BY:	SP
CHECK BY:	SP
DATE:	MAY 2024

PROJECT NO.
322021A001

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PLANT SCHEDULE

SYMBOL BOTANICAL/COMMON NAME

TREES

- ACER GINNALA 'FLAME' — AMUR MAPLE
- CRATAEGUS LAEVIGATA 'CRIMSON CLOUD' — CRIMSON CLOUD HAWTHORN
- POPULUS TREMULOIDES — QUAKING ASPEN
- QUERCUS GAMBELII — GAMBEL OAK

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- FESTUCA GLAUCA 'ELIJAH BLUE' — ELIJAH BLUE FESCUE
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- PHYSOCARPUS OPULIFOIUS 'DART'S GOLD' — DART'S GOLD NINEBARK
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MATERIALS

- MAHOGANY (ROCK PROS) — DECOMPOSED GRANITE
- NATIVE BARK MULCH — DARK BROWN COLOR
- BASALT BOULDERS — SALVAGED FROM SITE

HYDROSEED MIX

- NATIVE SEED MIX

PROJECT CONSTRUCTION LIMIT

ZUNI DRIVE
NEW SIDEWALK
GAS LINE
PROPERTY LINE
10' STREET BUFFER
NEW PARKWAY
5' CABLE LINE
BUS STOP
MASONIC LANE
MONUMENT SIGN
25' BUILDING FOUNDATION LINE TYP.
BLDG. 16
BLDG. 17
BLDG. 18
BLDG. 19
BLDG. 20
AMENITY BUILDING
BLDG. 15
BLDG. 14
BLDG. 13
BLDG. 12
BLDG. 11
DRIVE AISLE
OBSERVATION TOWER
TRAIL
UTILITY EASEMENT
15' SETBACK/ PERIPHERAL BUFFER
5' OVERHEAD WIRES
PINNACLE PINES UNIT 1 CASE 9 MAP 78 INSTRUMENT 3331864
MATCHLINE SHEET L1.1

GRAPHIC SCALE
30 0 15 30 60
HORIZONTAL SCALE 1" = 30'

NORTH

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ARIZONA811 BLUE STAKE, INC.
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PINEHAVEN

LANDSCAPE SITE PLAN

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO
34188
STEPHEN C. PARSONS
Date Signed 6/4/24
ARIZONA, U.S.A.

DESIGNED BY:	SP		
DRAWN BY:	SP		
CHECK BY:	SP	DATE:	MAY 2024

PROJECT NO.
322021A001

SHEET
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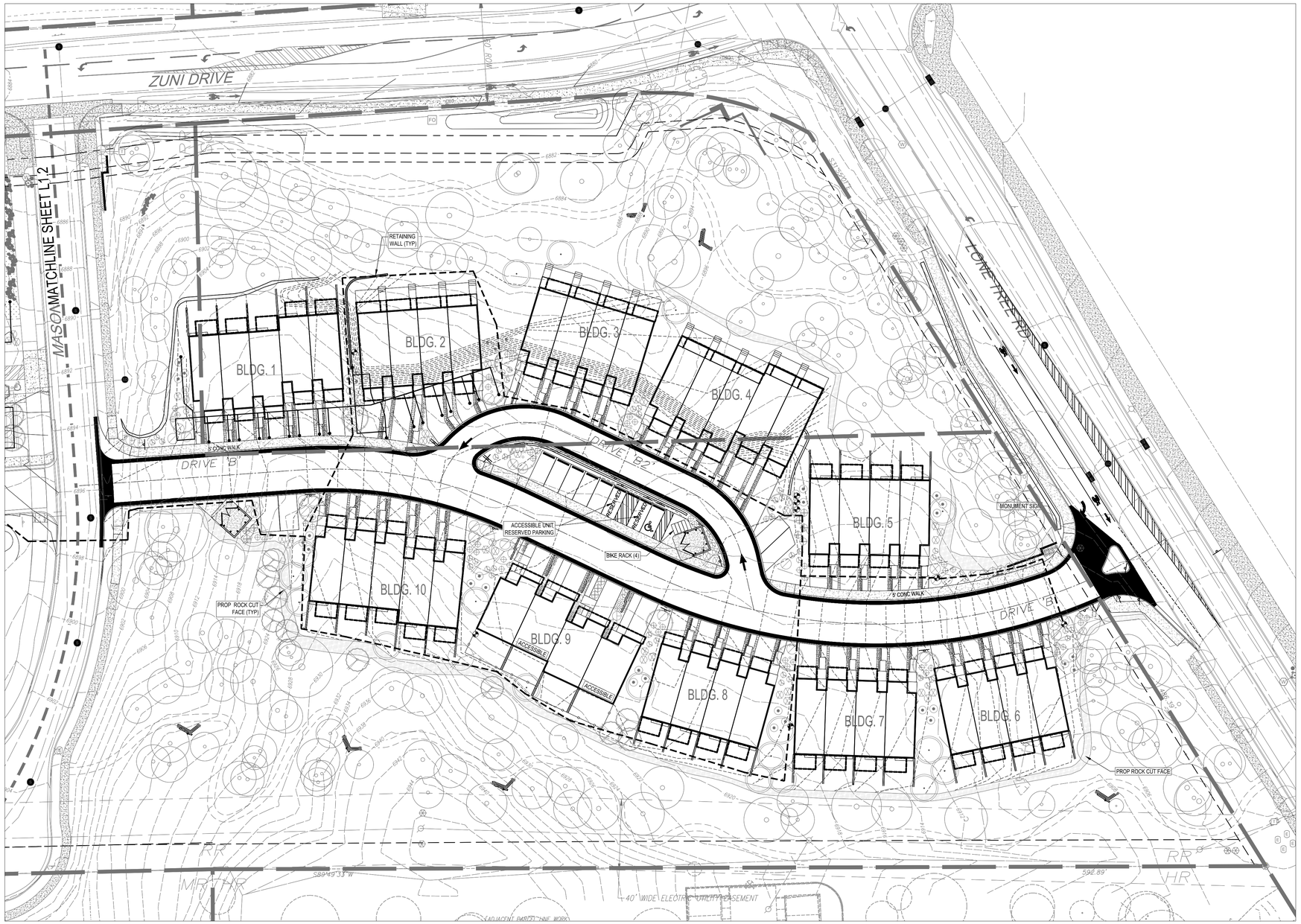
IRRIGATION LEGEND:

SYMBOL	DESCRIPTION
M	WATER METER
	BACKFLOW PREVENTER
	FLOW SENSOR
A	CONTROLLER
	GATE VALVE
	1" QUICK COUPLER
	REMOTE CONTROL DRIP VALVE ASSEMBLY
	MAIN LINE
	SHRUB/G.C. LATERAL
	TREE LATERAL
	MULTI-OUTLET DRIP EMITTER
	SINGLE-OUTLET DRIP EMITTER
	DISTRIBUTION TUBE
	END FLUSH CAP
	SLEEVE
	ELECTRICAL SLEEVE



GRAPHIC SCALE
30 0 15 30 60
HORIZONTAL SCALE 1" = 30'

NORTH

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The WLB Group INC.

PINEHAVEN
LANDSCAPE IRRIGATION

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
34188
STEPHEN C. PARSONS
Date Signed 6/7/24
ARIZONA, U.S.A.

DESIGNED BY:	SP
DRAWN BY:	SP
CHECK BY:	SP
DATE:	MAY 2024

PROJECT NO.
322021A001

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IRRIGATION LEGEND:

SYMBOL	DESCRIPTION
M	WATER METER
	BACKFLOW PREVENTER
	FLOW SENSOR
A	CONTROLLER
	GATE VALVE
	1" QUICK COUPLER
	REMOTE CONTROL DRIP VALVE ASSEMBLY
	MAIN LINE
	SHRUB/G.C. LATERAL
	TREE LATERAL
	MULTI-OUTLET DRIP EMITTER
	SINGLE-OUTLET DRIP EMITTER
	DISTRIBUTION TUBE
	END FLUSH CAP
	SLEEVE
	ELECTRICAL SLEEVE



GRAPHIC SCALE

30 0 15 30 60

HORIZONTAL SCALE 1" = 30'

NORTH

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PINEHAVEN

LANDSCAPE
IRRIGATION

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
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STEPHEN C. PARSONS
Date Signed 6/14/24
ARIZONA U.S.A.

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DATE:	MAY 2024

PROJECT NO.
322021A001

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L2.2

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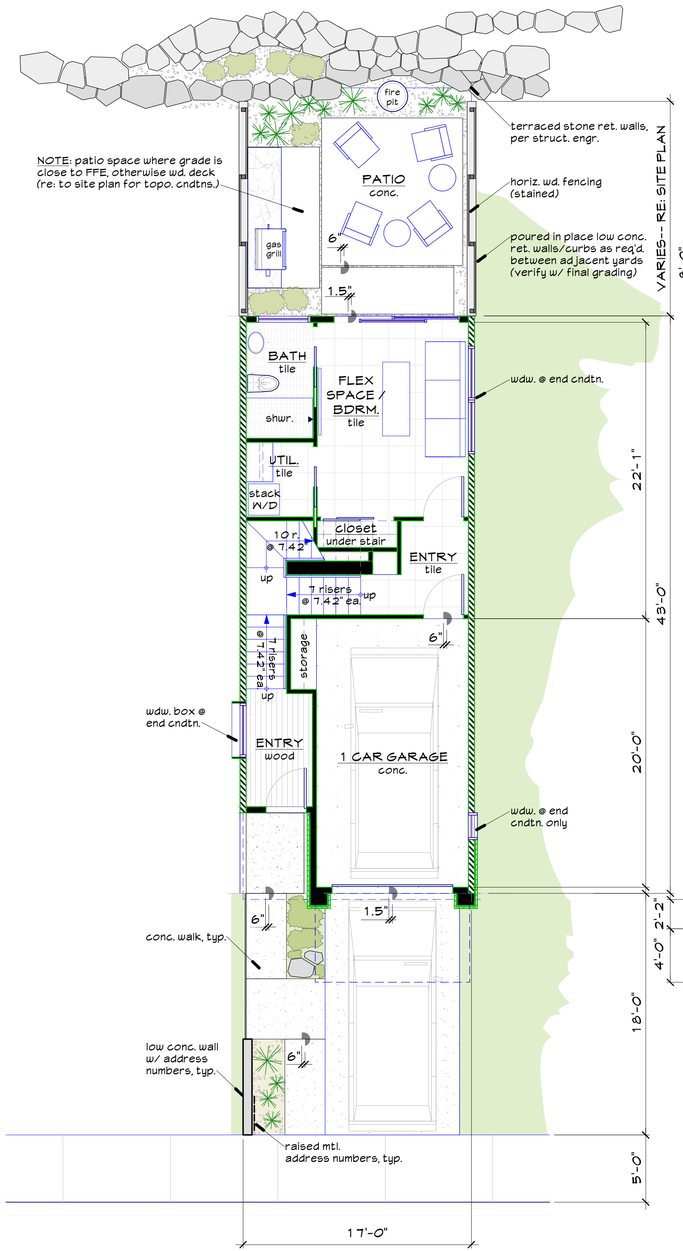
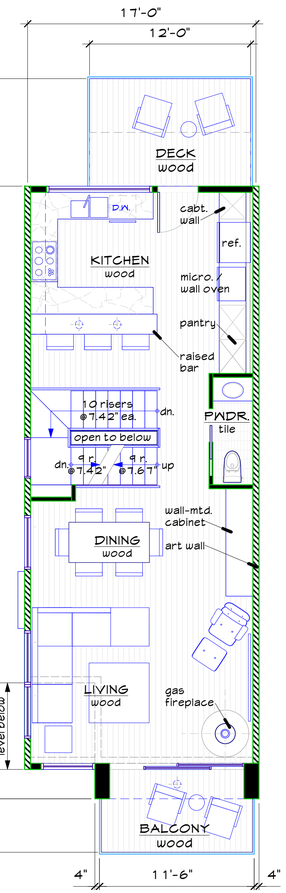
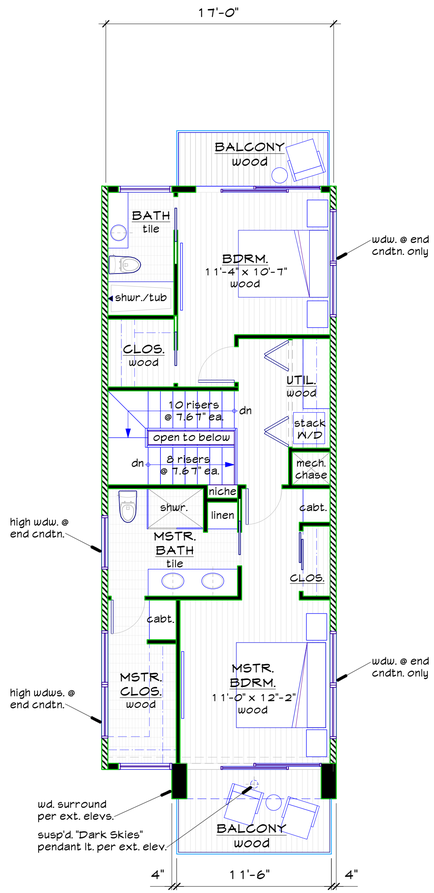


GROUND FLOOR



SECOND FLOOR



THIRD FLOOR

0 1 2 4 8 16'

REVISIONS

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			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2055 S. MAIN STREET LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: FLOOR PLANS
unit "A" (3 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-1.1
REV 0

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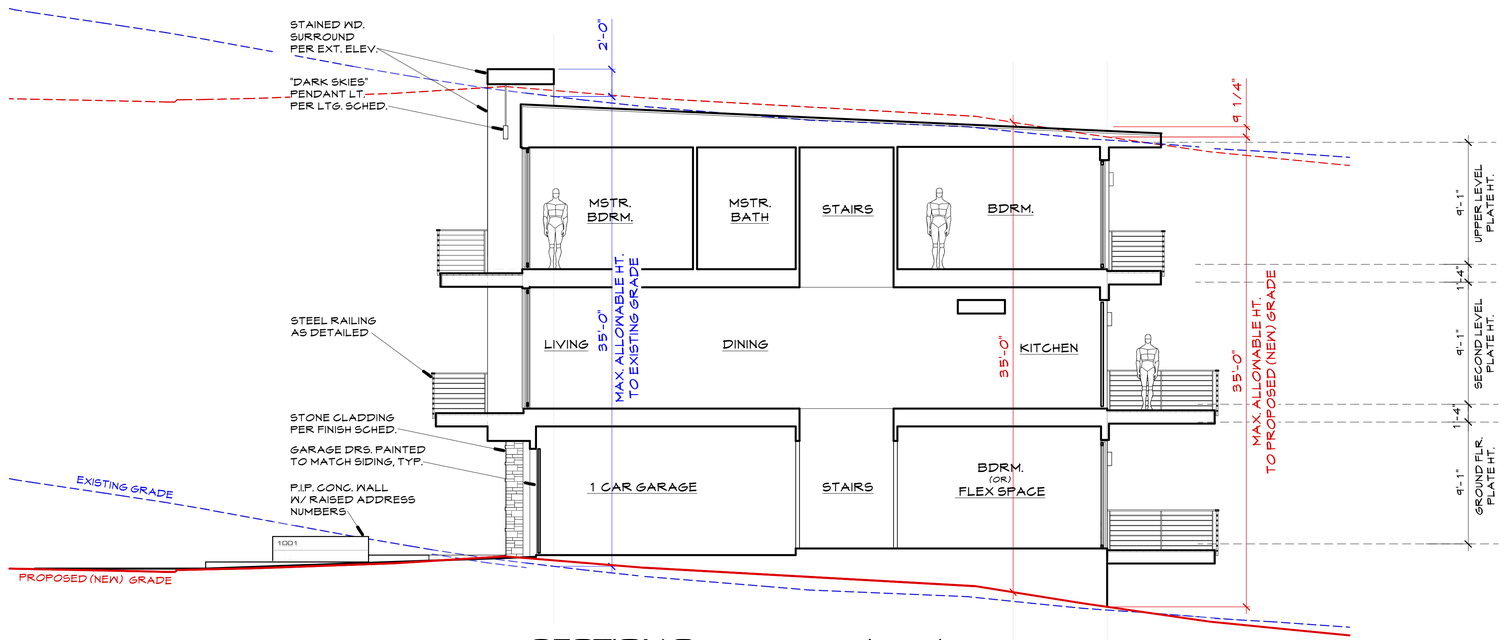
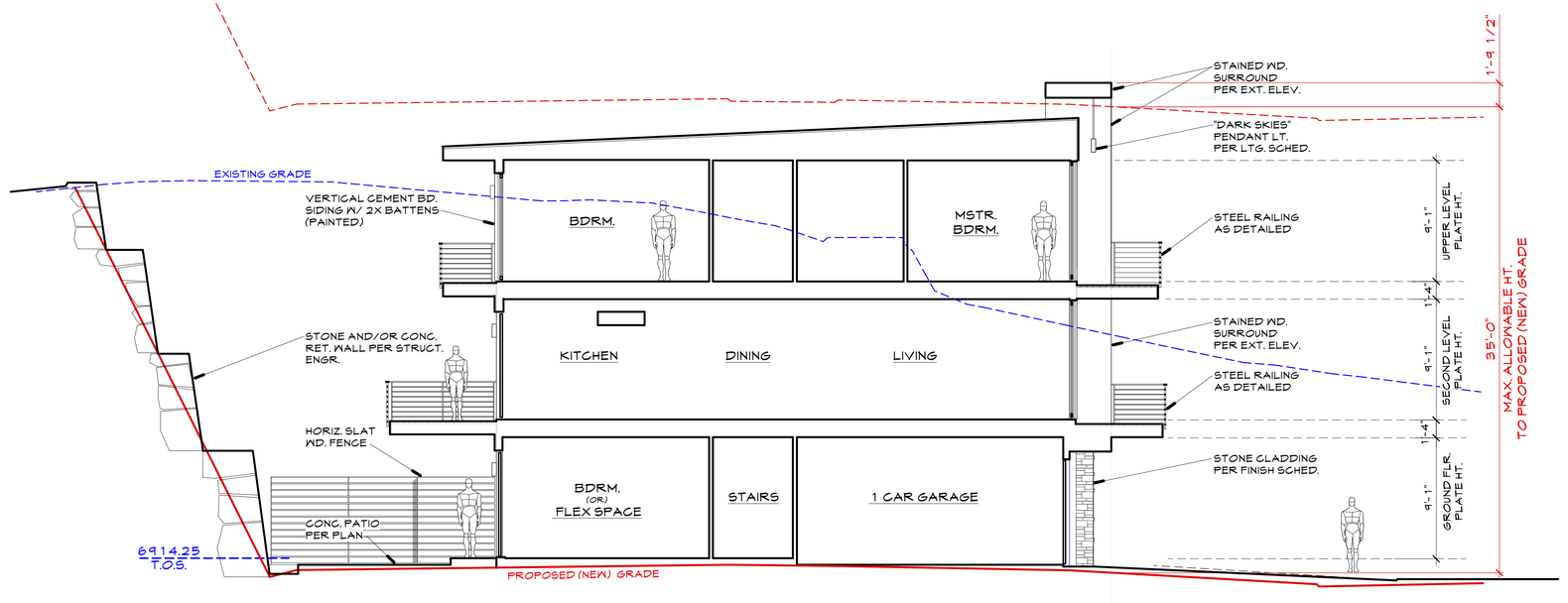


SECTION @ worst case location
"A" unit #1030



SECTION @ best case location
"A" unit #1940

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: BUILDING SECTIONS
unit "A" (3 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-1.2
REV 0



FRONT ELEVATION (typical)
unit "A"



LEFT SIDE ELEV. (@ end condition)
unit "A"

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
unit "A" (3 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-1.3
REV 0



REAR ELEVATION (typical)
unit "A"



RIGHT SIDE ELEV. (@ end condition)
unit "A"

REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

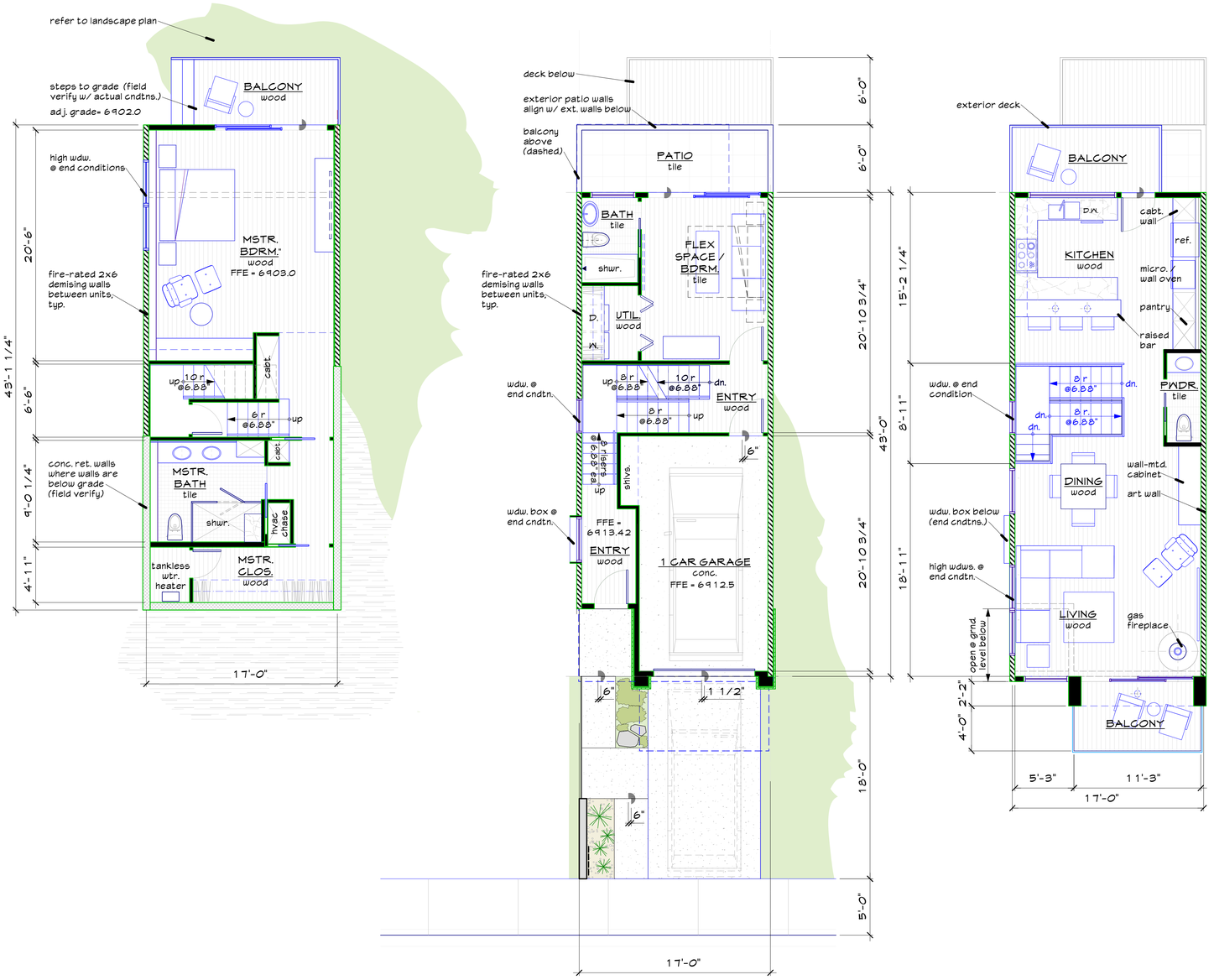
SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
unit "A" (3 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-1.4
REV 0



LOWER FLOOR
unit # 1240 (RE: SITE PLAN)

GROUND FLOOR
unit #1240

SECOND FLOOR
unit #1240

0 1 2 4 8 16'

REVISIONS			
REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

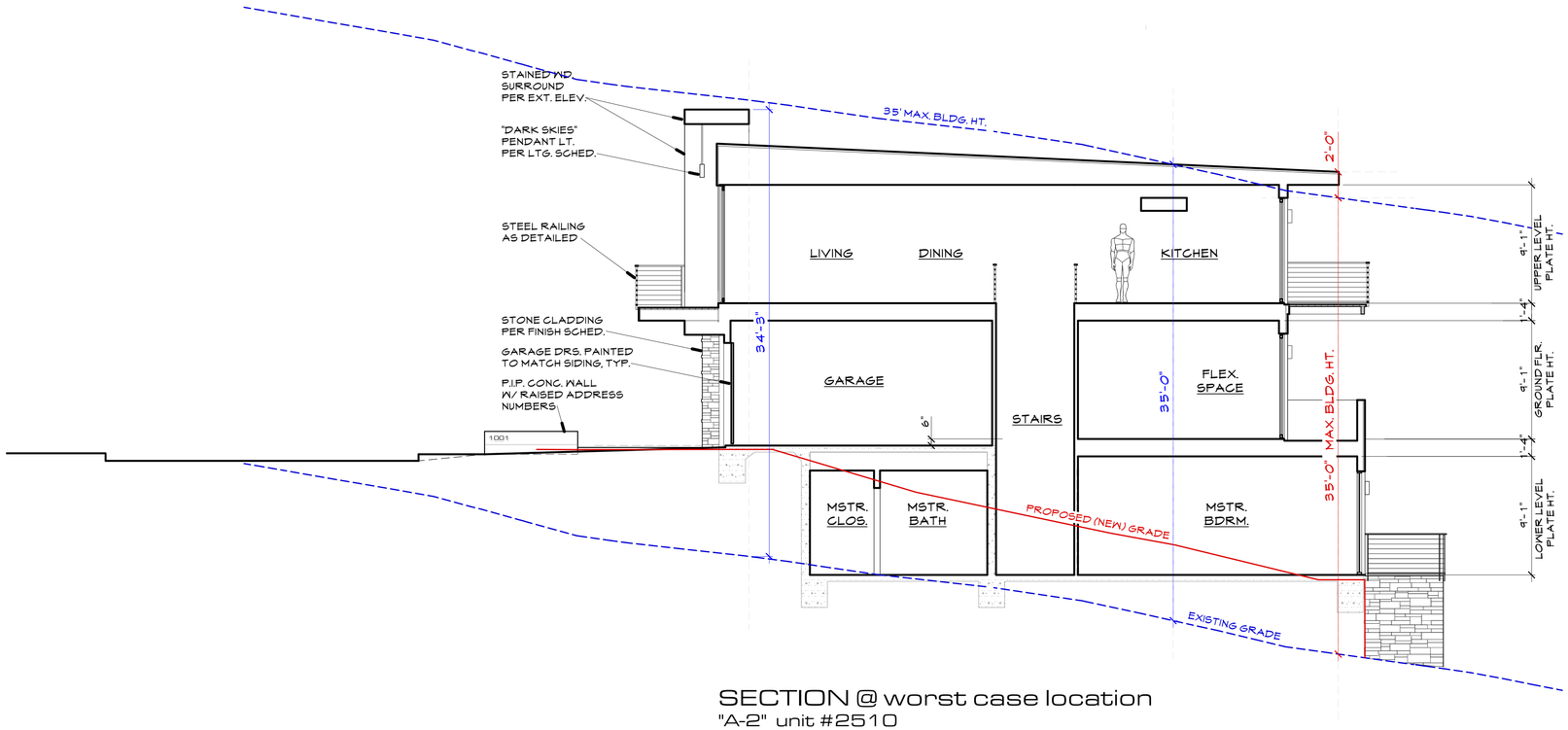
PROJECT: **PINEHAVEN RESIDENTIAL LAND DEVELOPMENT**
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: **FLOOR PLANS**
unit "A-2" (3 story townhome modified w/ lower level)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID **A-2.1** REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF 12\DRAWINGS\CONST DWGS\arch TITLE 22004



SECTION @ worst case location
"A-2" unit #2510

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
FIRM No. F-23395
viewpointengineering.com
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

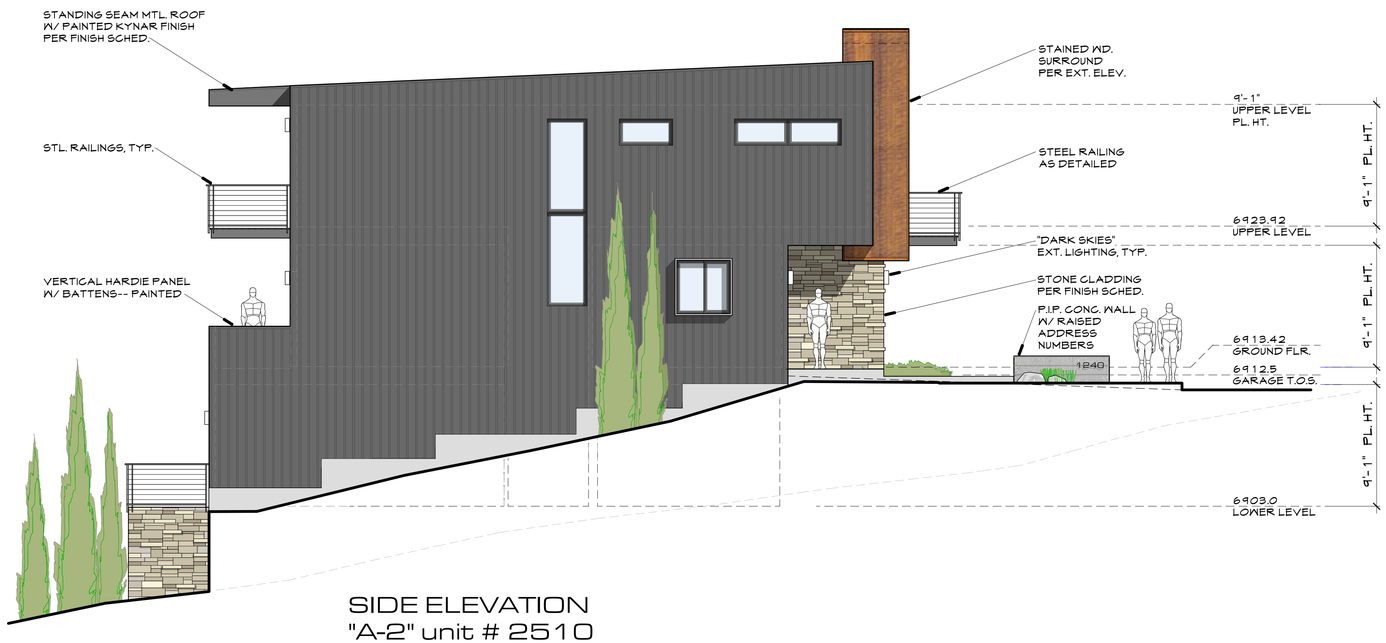
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: BUILDING SECTIONS
unit "A-2" (3 story townhome modified w/ lower level)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-2.2
REV 0



FRONT ELEVATION (typical)
"A-2" w/ lower level



SIDE ELEVATION
"A-2" unit # 2510

0 1 2 4 8 16'

REVISIONS			
REV.	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0" 0"
DWN BY: M LIND
CHK BY:

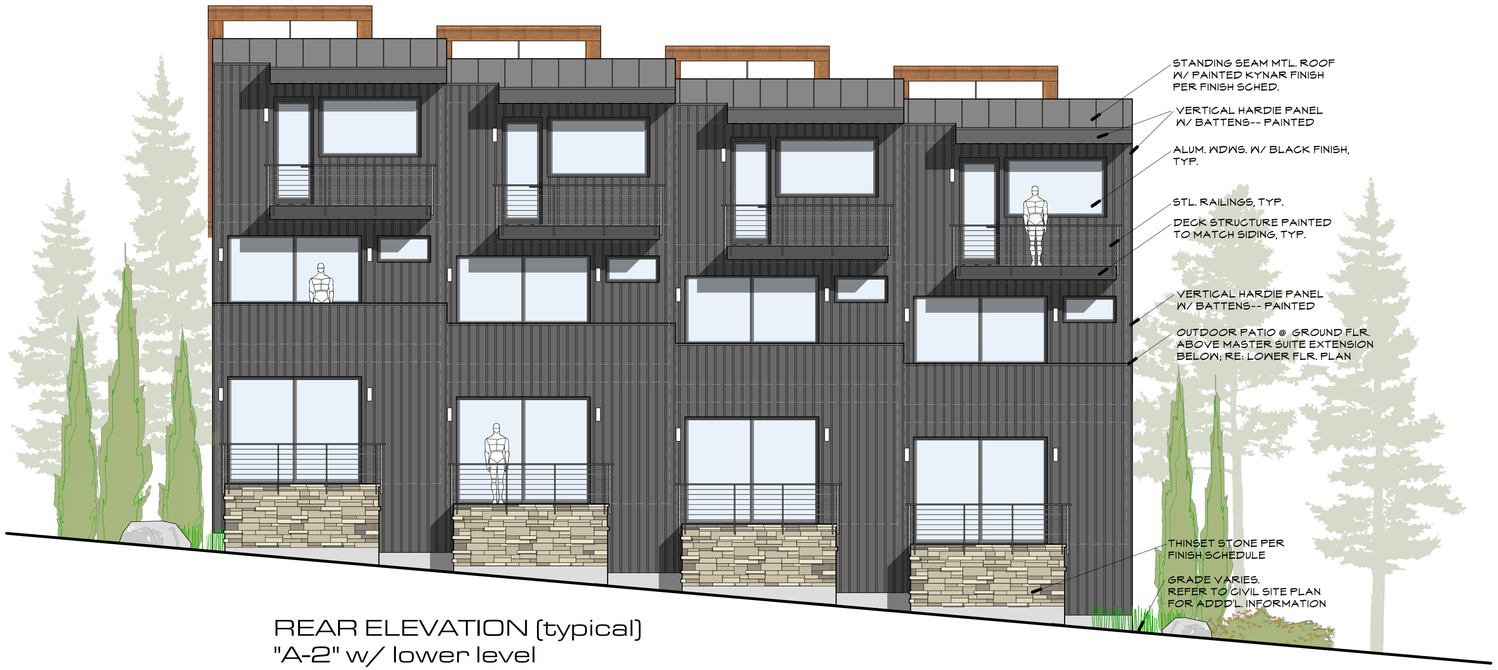
PROJECT: **PINEHAVEN RESIDENTIAL LAND DEVELOPMENT**
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

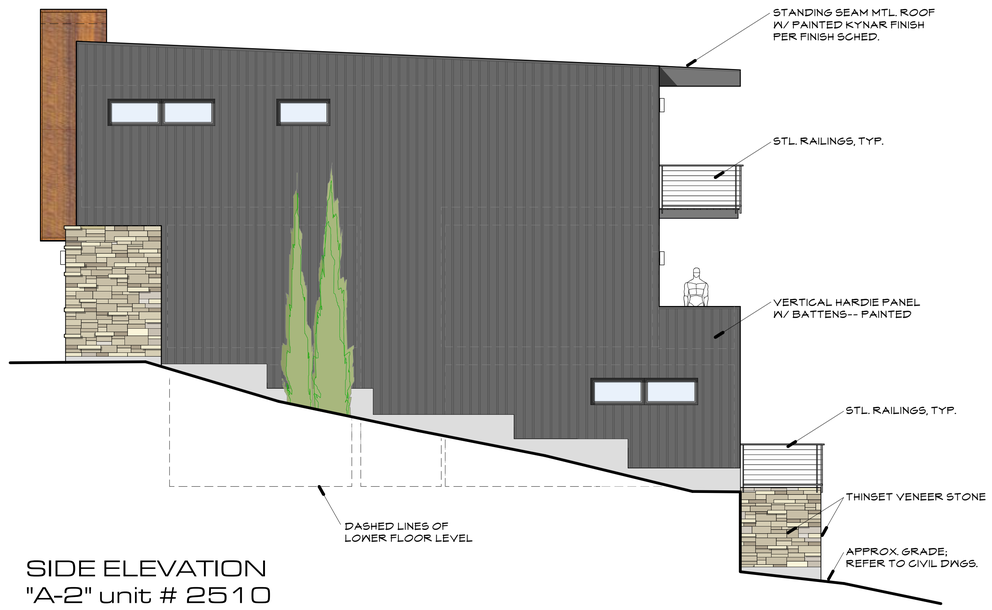
TITLE: **EXTERIOR ELEVATIONS**
unit "A-2" (3 story townhome modified w/ lower level)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-2.3
REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF 1\DRAWINGS\CONST DWGS\arch TITLE 22004



REAR ELEVATION (typical)
"A-2" w/ lower level



SIDE ELEVATION
"A-2" unit # 2510

0 1 2 4 8 16'

REVISIONS			
REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

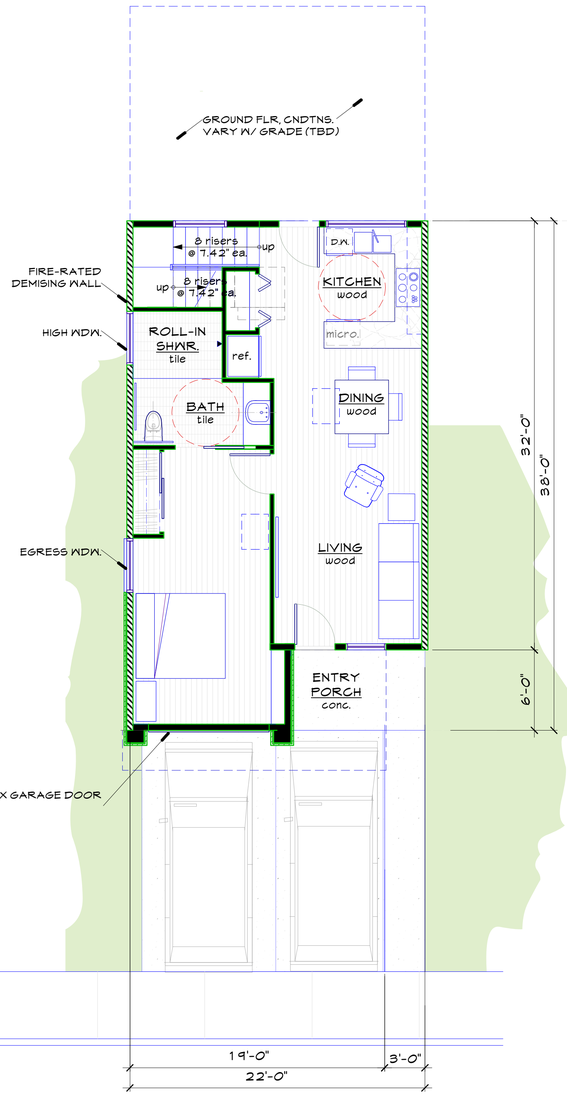
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
unit "A-2" (3 story townhome modified w/ lower level)

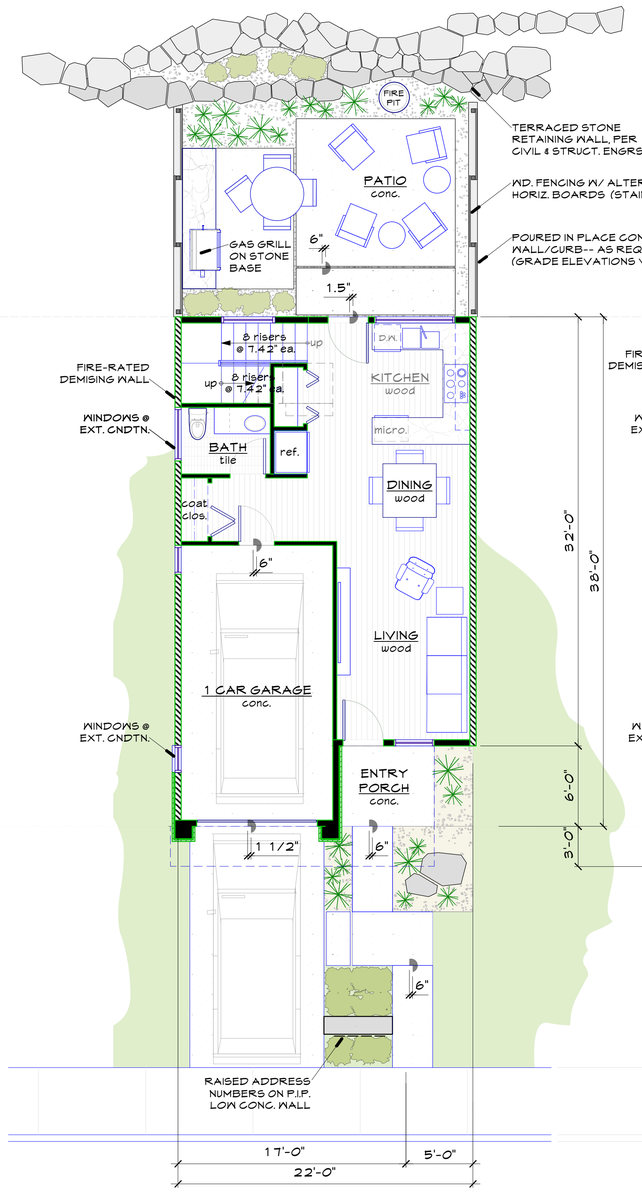
PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-2.4
REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF 13\DRAWINGS\CONST DWGS\arch TITLE 22004



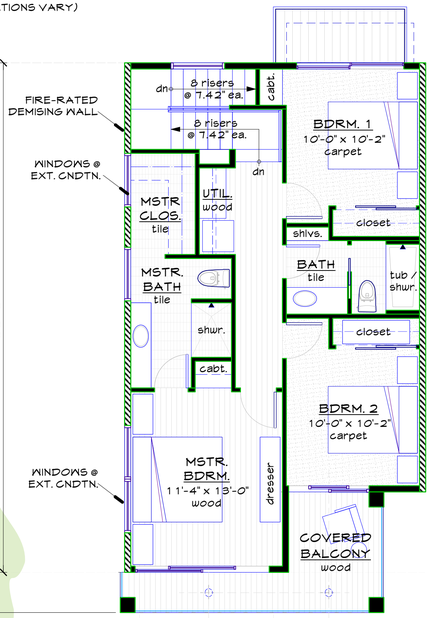
ACCESSIBLE UNIT

note: to provide an egress window in the ground floor bdrm., accessible units must be on on an outside location.



GROUND FLOOR

unit #2610



SECOND FLOOR

unit #2610

0 1 2 4 8 16'

V:\Shared drives\PROJ\22004 FLAGSTAFF 13\DRAWINGS\CONST DWGS\arch TITLE 22004

REVISIONS

REV.	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

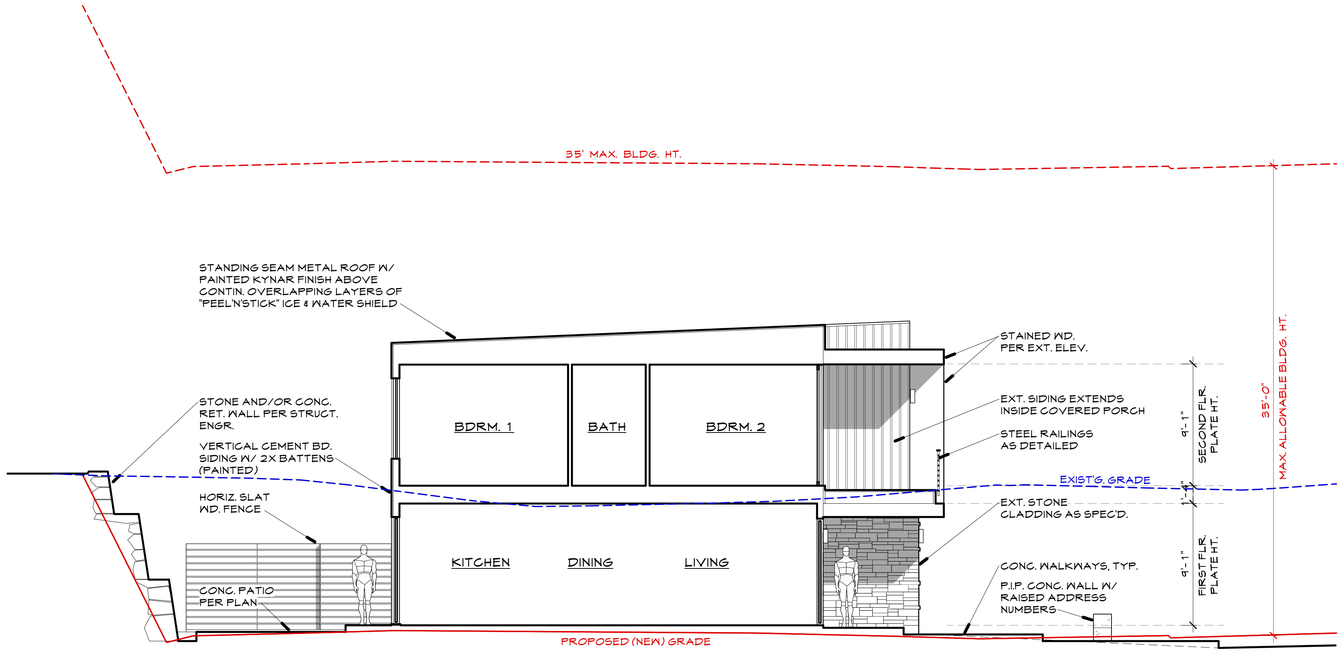
SCALE: 3/16 = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

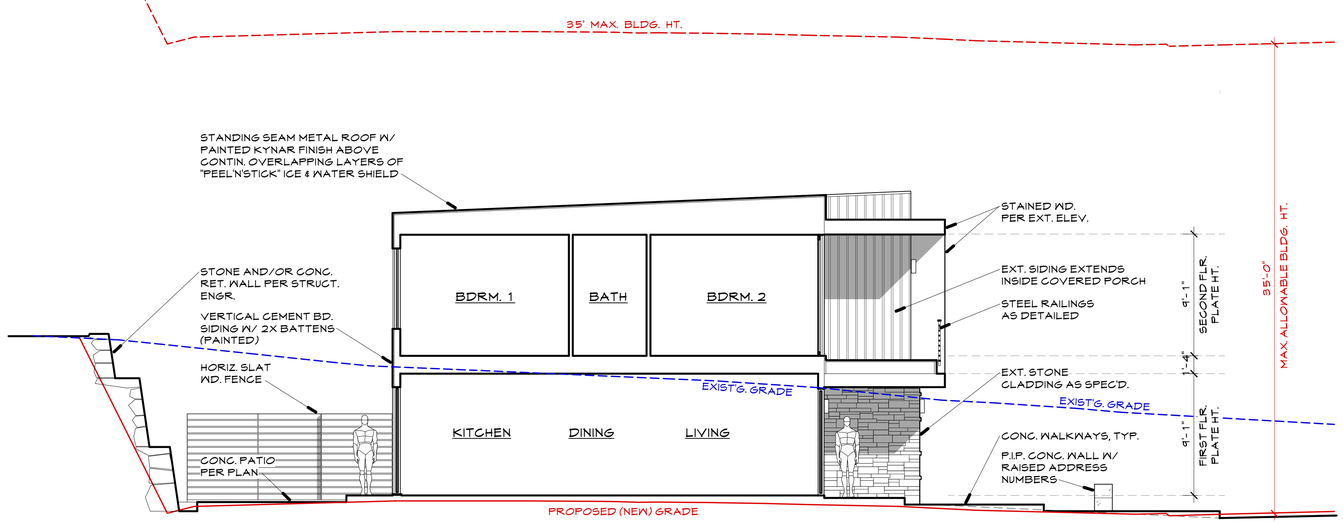
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: FLOOR PLANS
unit "B" (2 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-3.1
REV 0



SECTION @ best case location
"B" unit #2810



SECTION @ worst case location
"B" unit #2610

0 1 2 4 8 16'

REVISIONS

REV.	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16 = 1'-0"
DWN BY: M LIND
CHK BY:

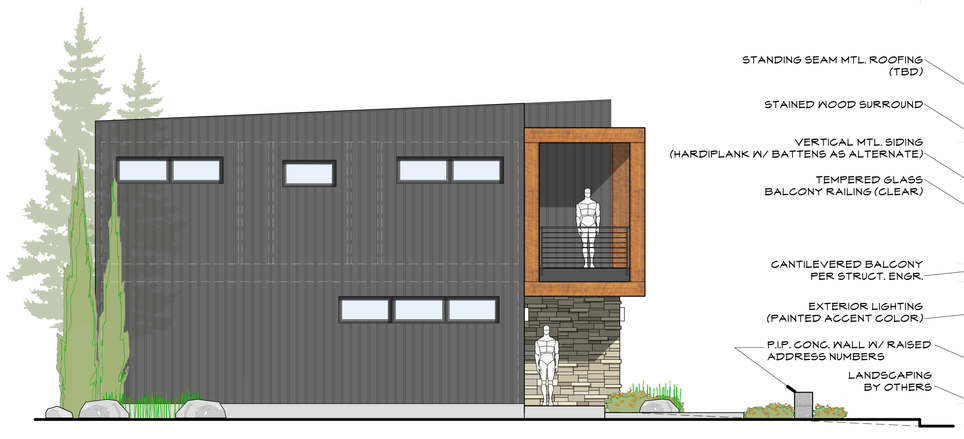
PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

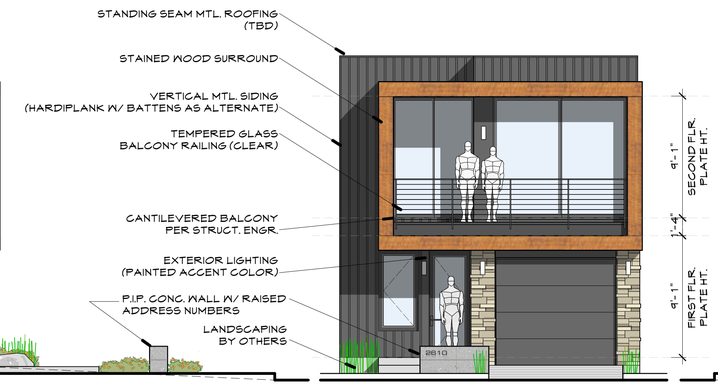
TITLE: BUILDING SECTIONS
unit "B" (2 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-3.2
REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF TOWNHOMES\CONST DWGS\arch TITLE 22004



LEFT SIDE ELEVATION
unit "B"



FRONT UNIT ELEVATION
unit "B"



RIGHT SIDE ELEVATION
unit "B"



FRONT ELEVATION (typical)
unit "B"

0 1 2 4 8 16'

REVISIONS			
REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16 = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2351 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
unit "B" (2 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-3.3
REV 0

C:\Users\mlind\PROJ\22004 FLAGSTAFF TOWNHOMES\CONST SHEETS\arch TITLE 22004



REAR ELEVATION (typical)
unit "B"

0 1 2 4 8 16'

REVISIONS			
REV.	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16 = 1'-0"
DWN BY: M LIND
CHK BY:

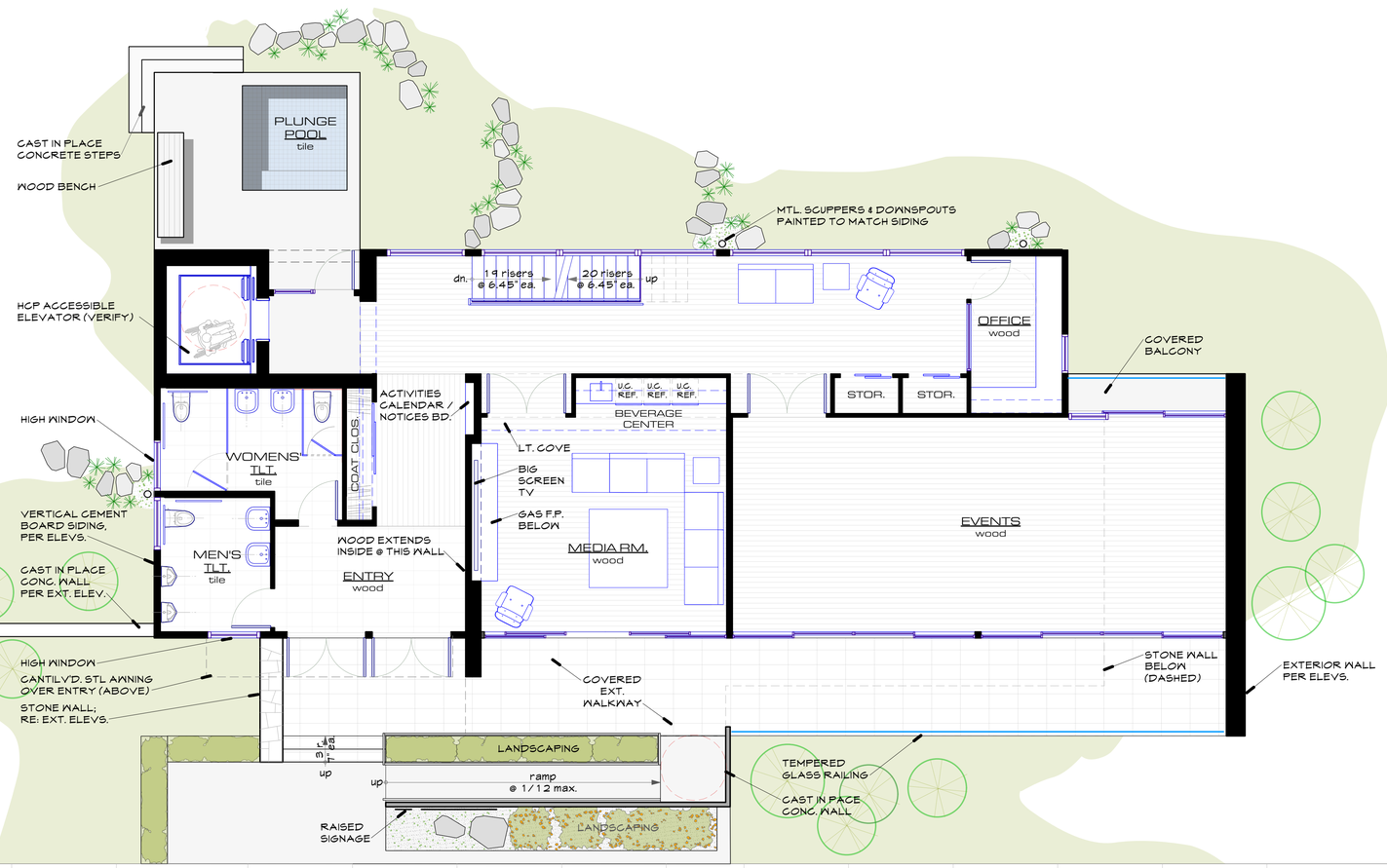
PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
unit "B" (2 story townhome)

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-3.4
REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF TOWNHOMES\CONST DWGS\arch TITLE 22004



GROUND FLOOR PLAN
clubhouse

NORTH

0 1 2 4 8 16'

REVISIONS			
REV.	DATE	DESCRIPTION	INIT / MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

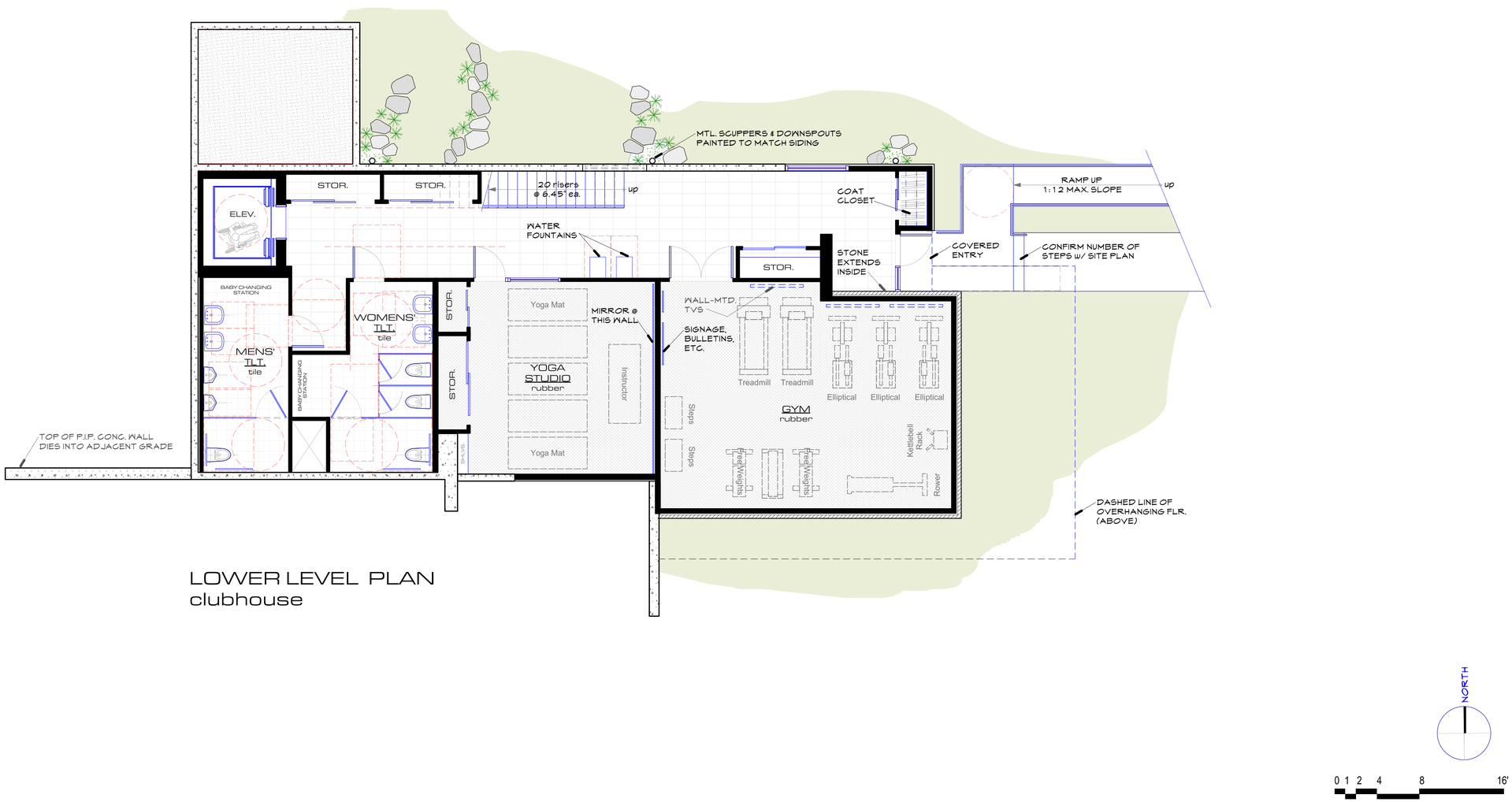
SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: GROUND FLOOR PLAN
community clubhouse

PROJECT NO. 22004
DATE: MAY 30, 2023
SHEET ID: A-4.1
REV: 0



LOWER LEVEL PLAN
clubhouse

REVISIONS

REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

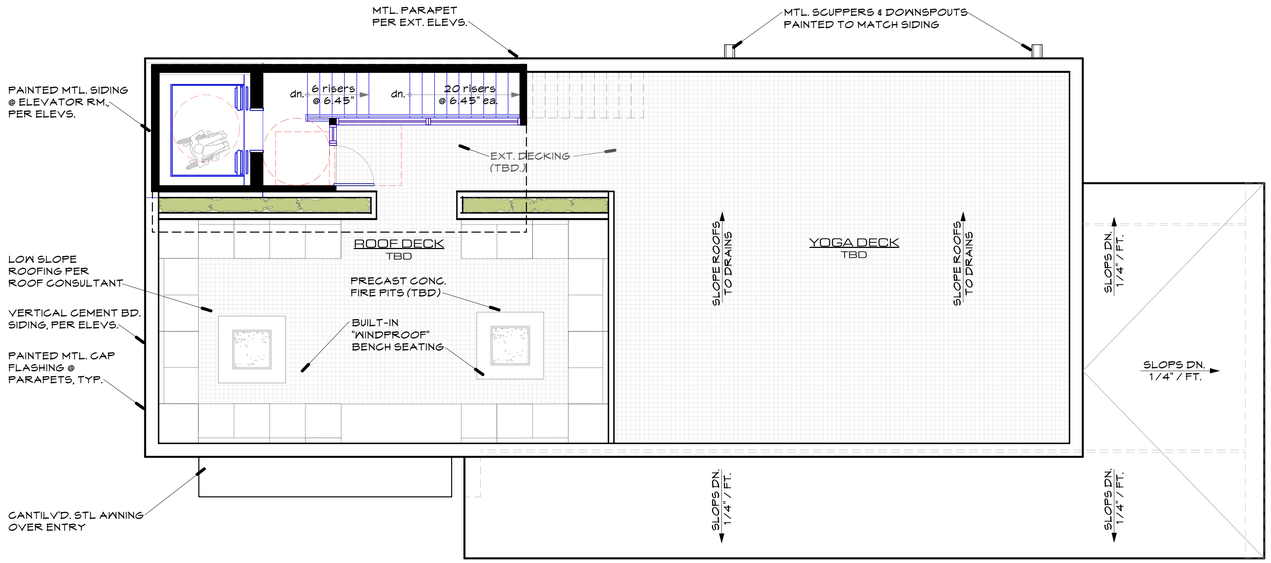
SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

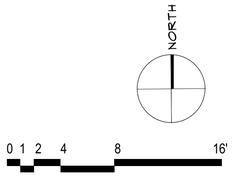
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: LOWER FLOOR PLAN
community clubhouse

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-4.2
REV 0



ROOF PLAN
clubhouse



REVISIONS

REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

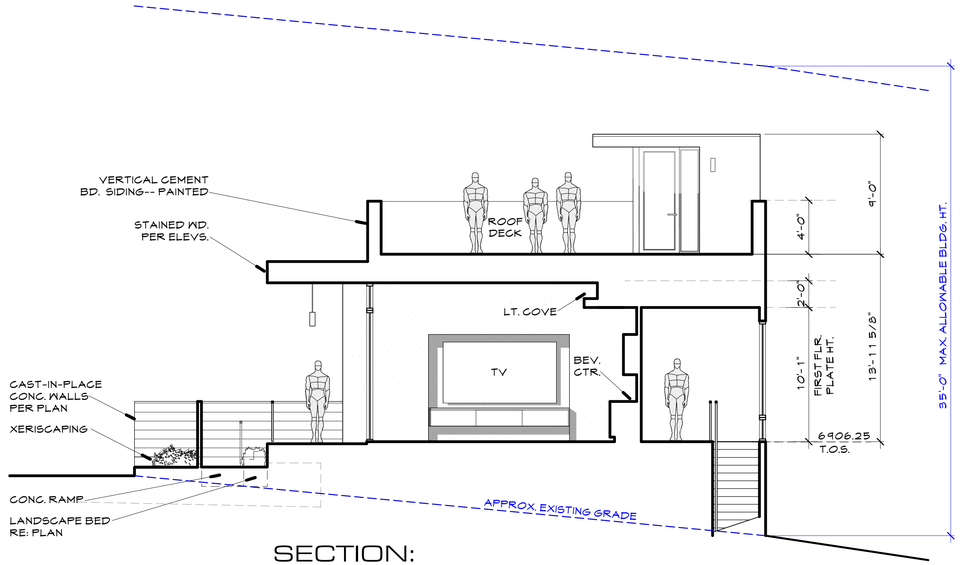
SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

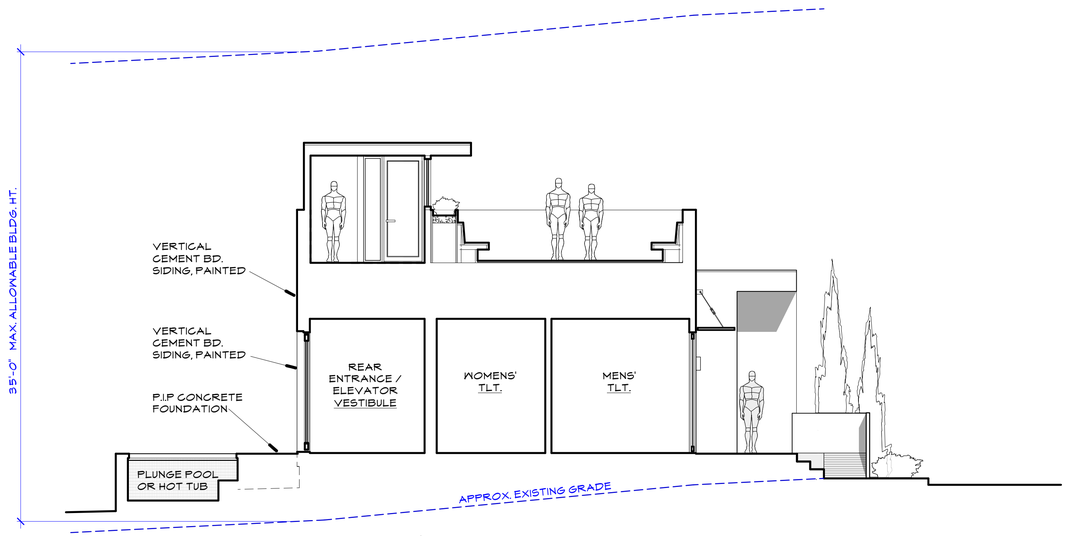
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: ROOF PLAN
community clubhouse

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-4.3
REV 0



SECTION:
thru entry ramp & media room
clubhouse



SECTION: thru entry
clubhouse

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: **PINEHAVEN RESIDENTIAL LAND DEVELOPMENT**
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: **RODG DT FLAGSTAFF PROP CO LLC**
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

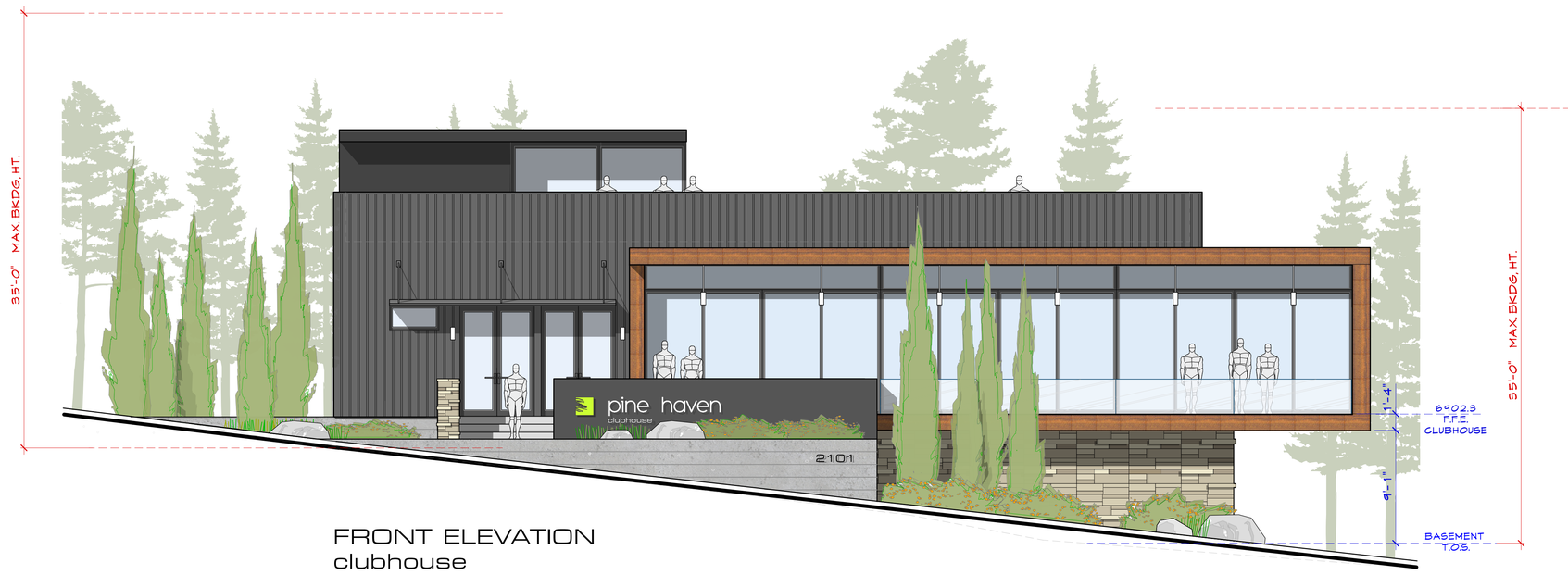
TITLE: **BUILDING SECTIONS**
community clubhouse

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-4.4
REV 0

V:\Shared drives\PROJ\22004 FLAGSTAFF 13\DRAWINGS\CONST DWGS\arch TITLE 22004



RIGHT ELEVATION
clubhouse



FRONT ELEVATION
clubhouse

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT
			MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

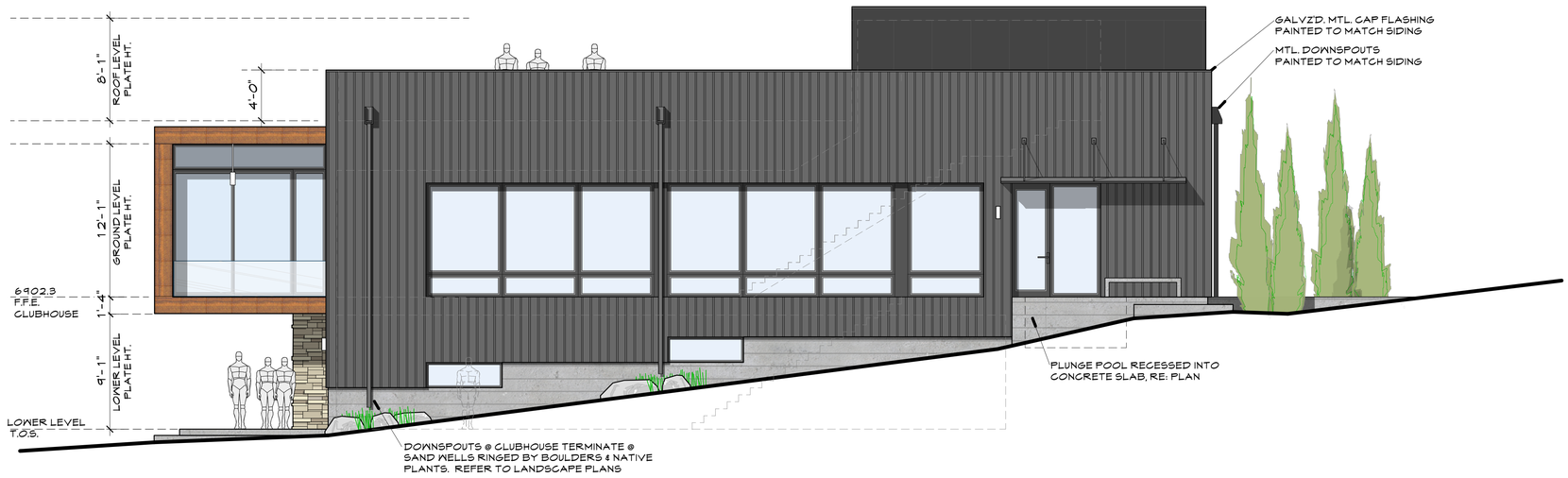
APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
community clubhouse

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-4.5
REV 0



LEFT ELEVATION
clubhouse



REAR ELEVATION
clubhouse

0 1 2 4 8 16'

REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: 3/16" = 1'-0"
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: EXTERIOR ELEVATIONS
community clubhouse

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-4.6
REV 0

EXTERIOR PAINT COLORS

SIDING, FASCIA, SOFFITS:
painted Kelly Moore "Hazel's Coat"
(KM3928-5]

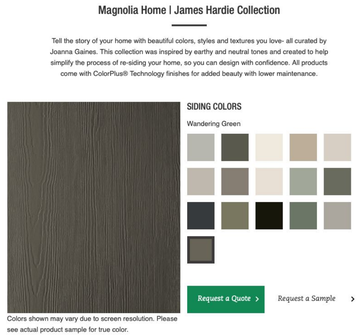


RGB: 85 79 71 **HEX:** #554F47
LRV: 8.03%

RAILINGS:
painted Kelly Moore "Portland Whitbed"
(KM3922-2]

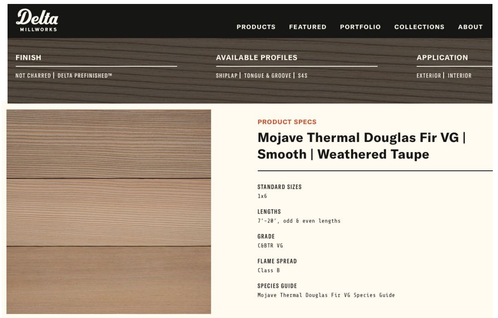
RGB: 213 209 202 **HEX:** #D5D1CA
LRV: 63.99%

SIDING cement board "hardie" siding:
(vertical panels= textured / battens & trim=smooth



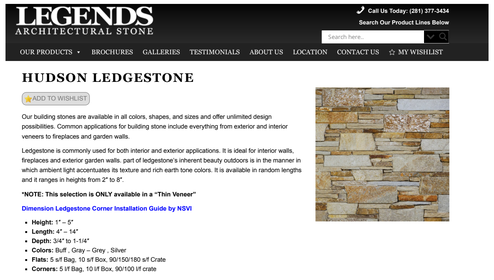
Colors shown may vary due to screen resolution. Please see actual product sample for true color.

WOOD PANELLING
(thermally modified wood)



STONE





ROOFING
[standing seam, mtl, w/ knar finish]

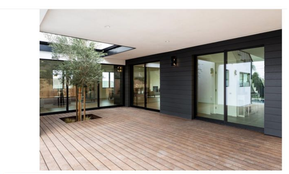




Chart of SRI Values

Berridge Colors	Solar Reflectance	Emissivity	SRI
Aged Bronze	.31	.85	31
Almond	.65	.86	77
Bristol Blue	.33	.85	33
Buckskin	.43	.83	46
Burgundy	.32	.84	32
Charcoal Grey	.29	.84	28
Cityscape	.48	.85	54
Colonial Red	.35	.83	35
Copper Brown	.32	.85	32
Dark Bronze	.28	.85	27
Deep Red	.41	.84	44
Evergreen	.30	.83	29

WINDOWS (matrial: aluminum, color: black)



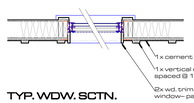
Classic Line

Western Window Systems' Classic Line of aluminum moving glass walls and windows combines exceptional capability with ease of use and versatility. With a narrow profile, stainless-steel rolling hardware, and standard or thermally broken aluminum for energy performance, no wonder it's been the choice of builders for over two decades.

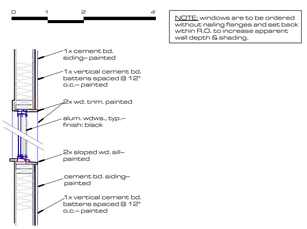
Architectural Details How They're Made







TYP. WDW. SCTN.
plan view @ cement bd. siding



TYP. WDW. SCTN.
thru head & sill @ cement bd. siding

RETAINING WALLS
(board-form concrete, natural finish)



DECKS
(Trex composite, color: "Clamshell")

Clam Shell

Clam Shell is an easy-to-match shade of medium grey, featuring a low-maintenance, wood-like grain pattern.
Read More

12 Inch Composite Deck Board Sample **$5.00**

Order a Sample

Naturals



Basics





REVISIONS

REV	DATE	DESCRIPTION	INIT	MDT

ViewPoint Engineering
2121 E 6th STREET, SUITE 203
AUSTIN, TEXAS 78702
FIRM No. F-23395
viewpointengineering.com

SCALE: N.A.
DWN BY: M LIND
CHK BY:

PROJECT: PINEHAVEN
RESIDENTIAL LAND DEVELOPMENT
2951 S. MASONIC LANE
COCONINO COUNTY, ARIZONA

APPLICANT: RODG DT FLAGSTAFF PROP CO LLC
2121 E. 6TH STREET, SUITE 203, AUSTIN, TEXAS 78702

TITLE: MATERIAL SELECTIONS & EXT. FINISHES
pine haven project

PROJECT NO. 22004
DATE MAY 30, 2023
SHEET ID A-5.0
REV 0

X:\Shared drives\PROJ\22004 FLAGSTAFF 1\SDP&MINOR\DOCS\SDP2 SHEETS\Sheet TITLE 22004

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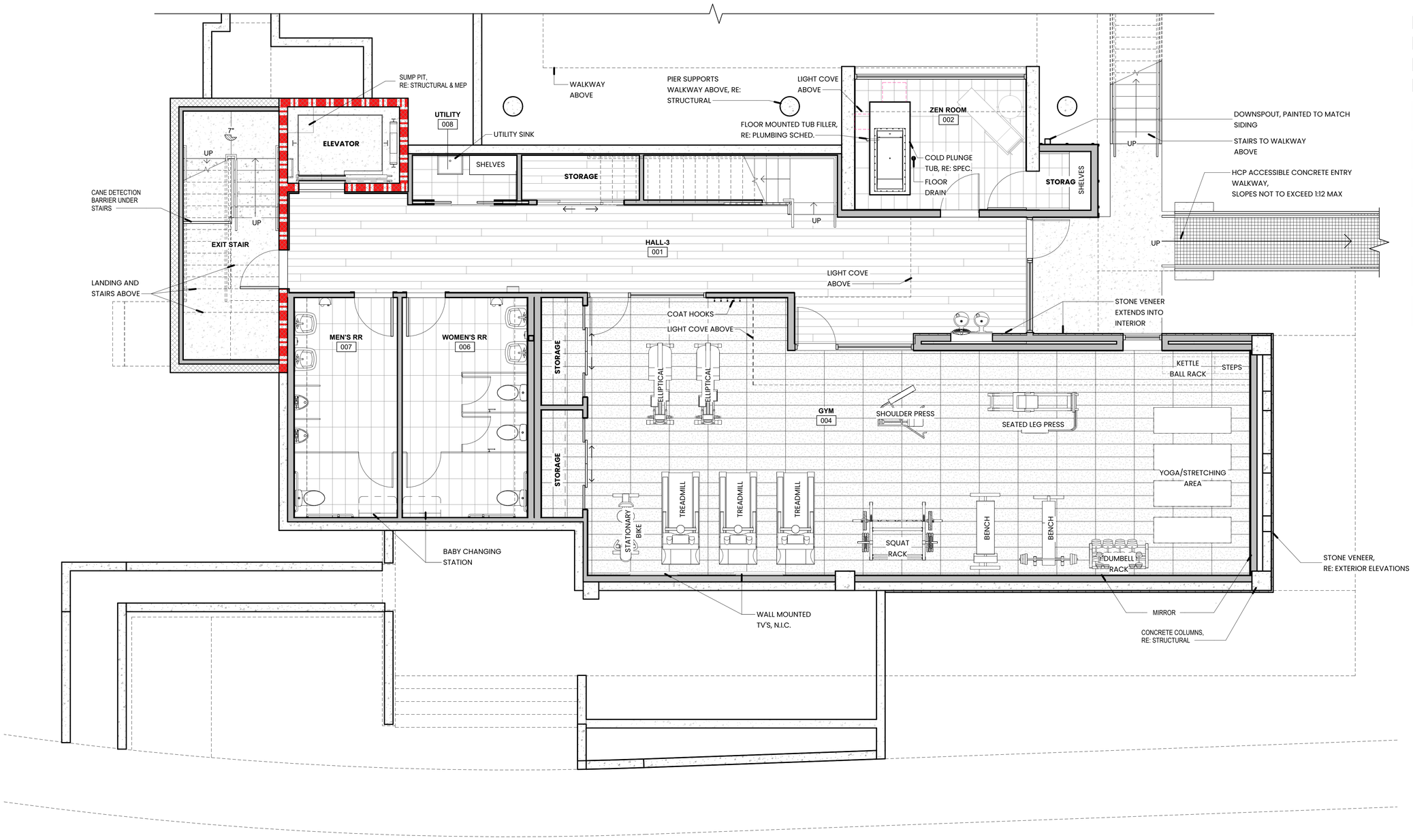

PROJECT NORTH

1 LOWER LEVEL
1/4" = 1'-0"
0 2 4 8

PLAN LEGEND

- NEW CONSTRUCTION 1 HR FIRE RATED WALL
- CMU WALL
- CONCRETE WALL
- WOOD FLOORING
- WOOD DECKING
- CONCRETE FLOORING
- TILE FLOORING
- CORK FLOORING
- GRAVEL

FLOOR PLAN NOTES

1. ALL DIMENSIONS & GRID LINES ARE TO FACE OF STUD, U.N.O.

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Revisions

No.	Date	Description

Project

PINE HAVEN

2951 S MASONIC LN
FLAGSTAFF, AZ 86005

Project No. **22004**

Date **2025-07-31**

CLUBHOUSE

FLOOR PLAN - LOWER LEVEL

Sheet No.

A1.1

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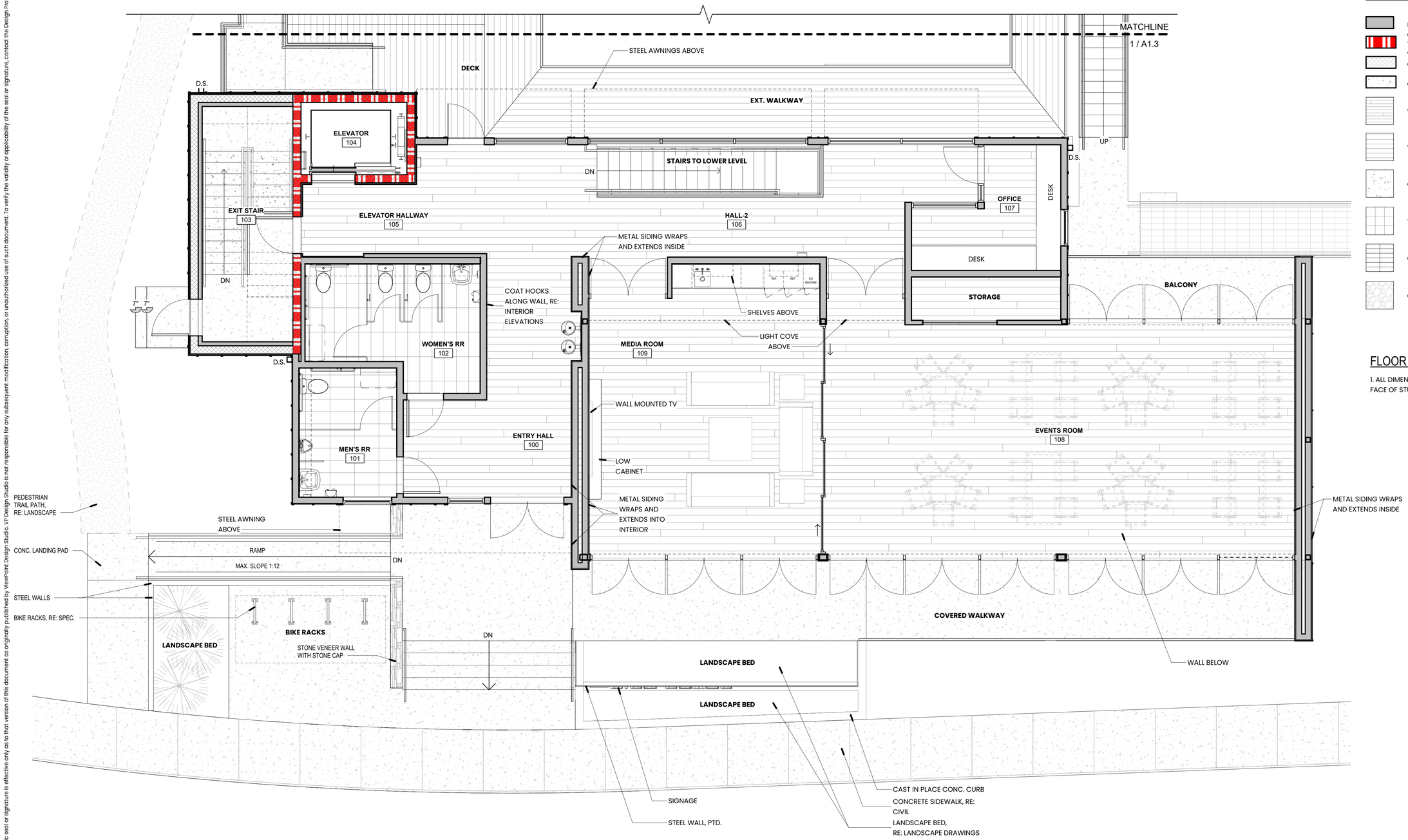

PROJECT NORTH

1 FLOOR PLAN - LEVEL 1

1/4" = 1'-0"

0 2 4 8

PLAN LEGEND

- NEW CONSTRUCTION 1 HR FIRE RATED WALL
- CMU WALL
- CONCRETE WALL
- WOOD FLOORING
- WOOD DECKING
- CONCRETE FLOORING
- TILE FLOORING
- CORK FLOORING
- GRAVEL

FLOOR PLAN NOTES

1. ALL DIMENSIONS & GRID LINES ARE TO FACE OF STUD, U.N.O.

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FLAGSTAFF, AZ 86005

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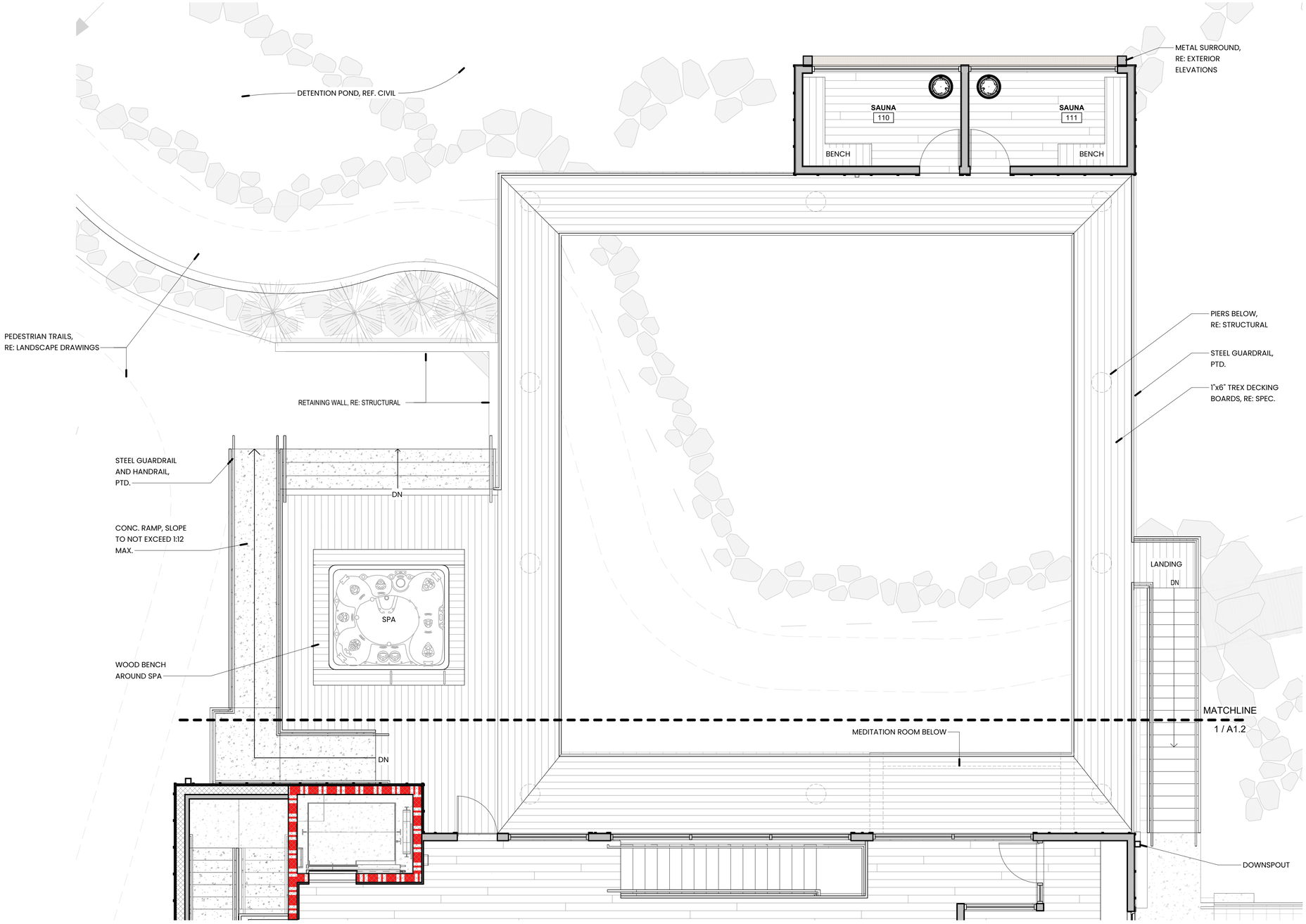
CLUBHOUSE

FLOOR PLAN - LEVEL 1

Sheet No.

A1.2



PROJECT NORTH

1 FLOOR PLAN - LEVEL 1 - WALKWAY & SAUNAS

1/4" = 1'-0"

0 2 4 8

PLAN LEGEND

- NEW CONSTRUCTION
- 1 HR FIRE RATED WALL
- CMU WALL
- CONCRETE WALL
- WOOD FLOORING
- WOOD DECKING
- CONCRETE FLOORING
- TILE FLOORING
- CORK FLOORING
- GRAVEL

FLOOR PLAN NOTES

1. ALL DIMENSIONS & GRID LINES ARE TO FACE OF STUD, U.N.O.

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Revisions

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PINE HAVEN

2951 S MASONIC LN
FLAGSTAFF, AZ 86005

Project No. **22004**

Date **2025-07-31**

CLUBHOUSE

FLOOR PLAN - LEVEL 1 - WALKWAY & SAUNAS

Sheet No.

A1.3

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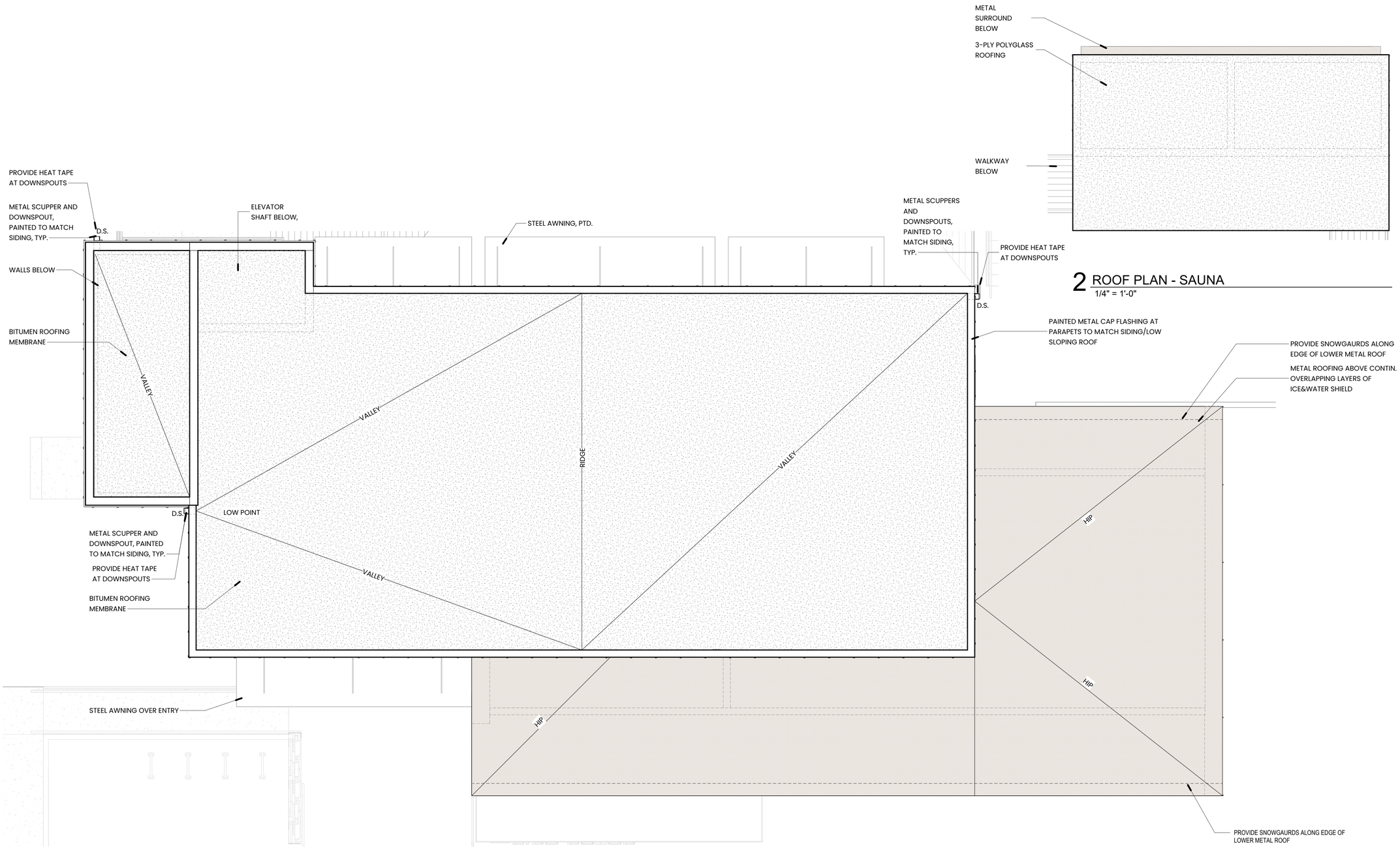

2 ROOF PLAN - SAUNA

1/4" = 1'-0"

PROJECT NORTH

1 ROOF PLAN - CLUBHOUSE

1/4" = 1'-0" 0 2 4 8

PLAN LEGEND

- WALLS BELOW
- METAL ROOFING
- POLYGLASS, BITUMEN ROOF MEMBRANE
- WOOD FLOORING
- WOOD DECKING
- WOOD TILE FLOORING
- CONCRETE FLOORING
- STANDING SEAM ROOF

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PINE HAVEN

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CLUBHOUSE

ROOF PLANS

Sheet No.

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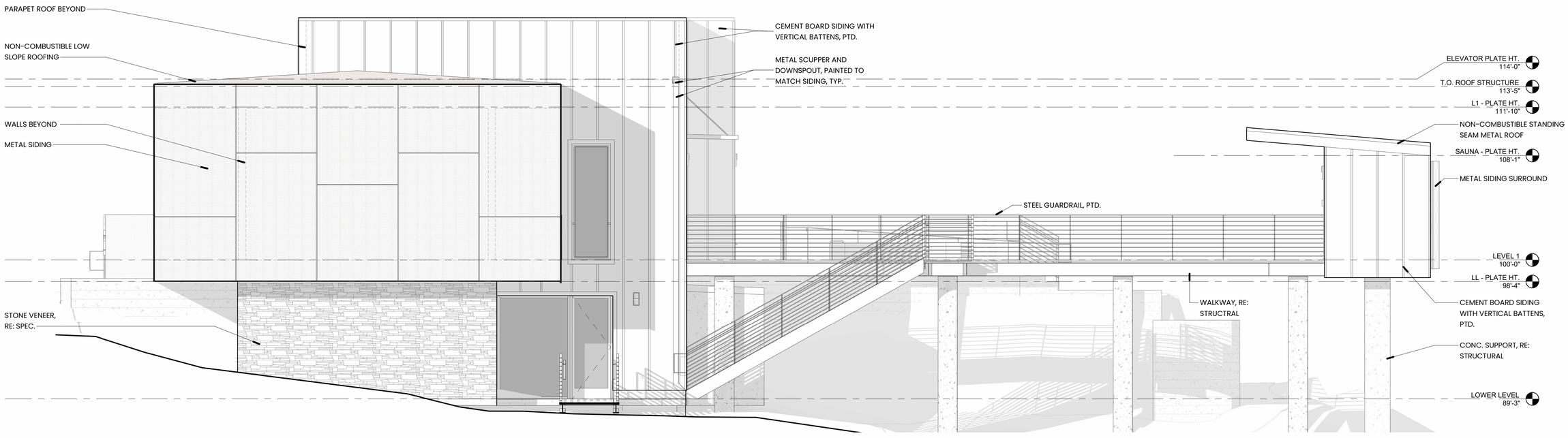
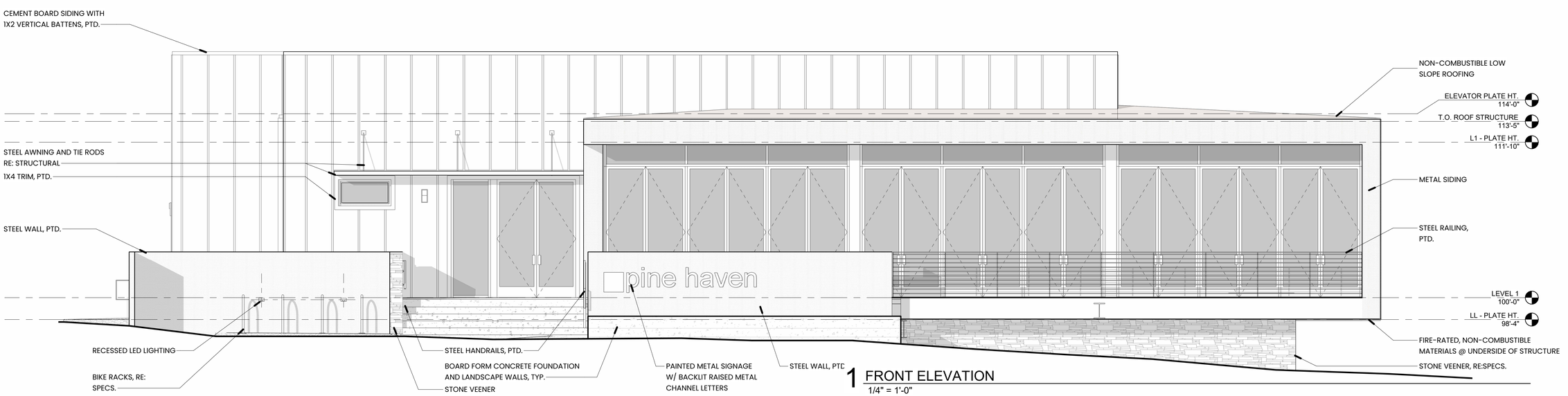


2 RIGHT ELEVATION
1/4" = 1'-0"



1 FRONT ELEVATION
1/4" = 1'-0"

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CLUBHOUSE

EXTERIOR ELEVATIONS

Sheet No.

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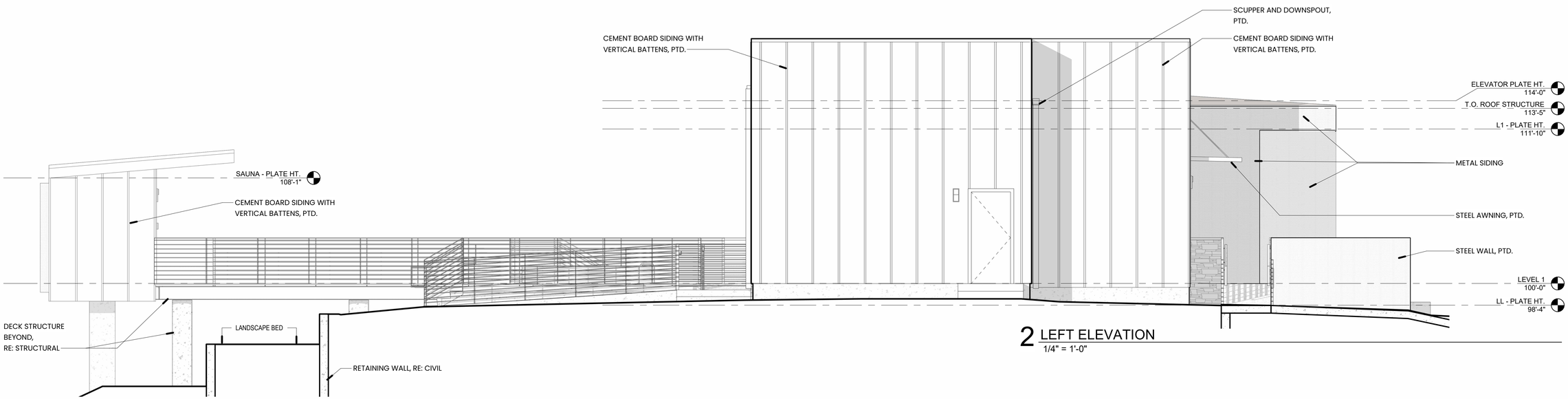
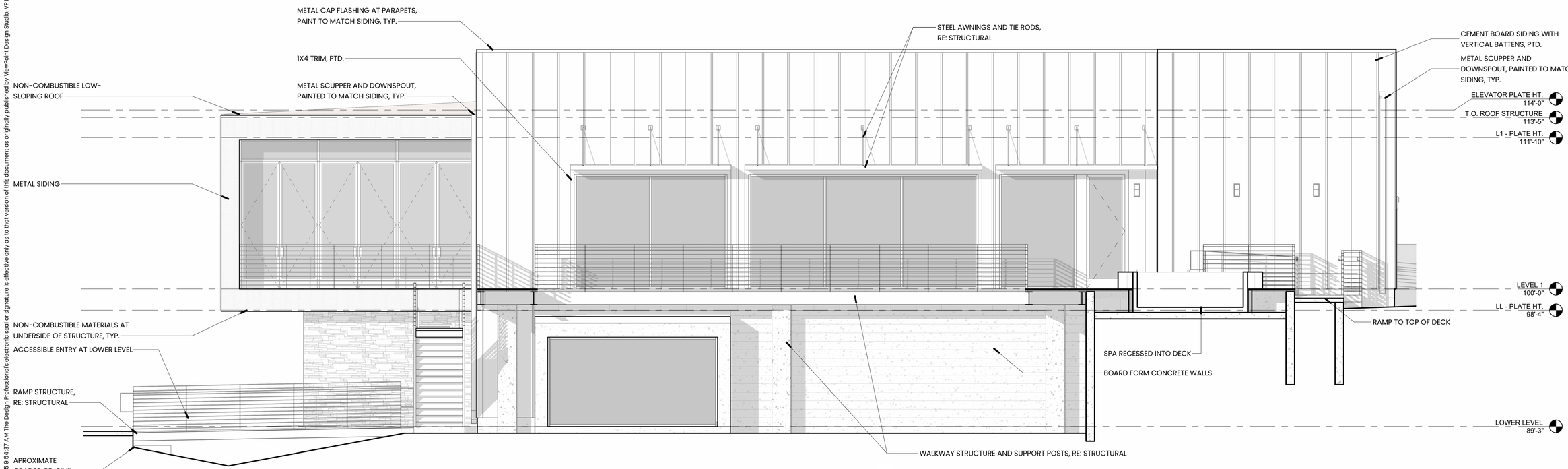


2 LEFT ELEVATION
1/4" = 1'-0"



1 REAR ELEVATION
1/4" = 1'-0"

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CLUBHOUSE

EXTERIOR ELEVATIONS

Sheet No.

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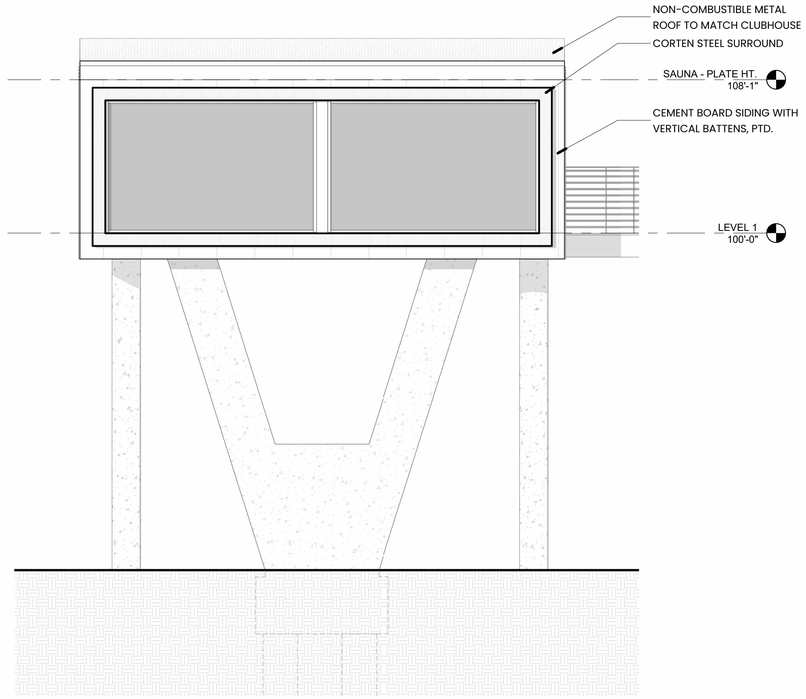
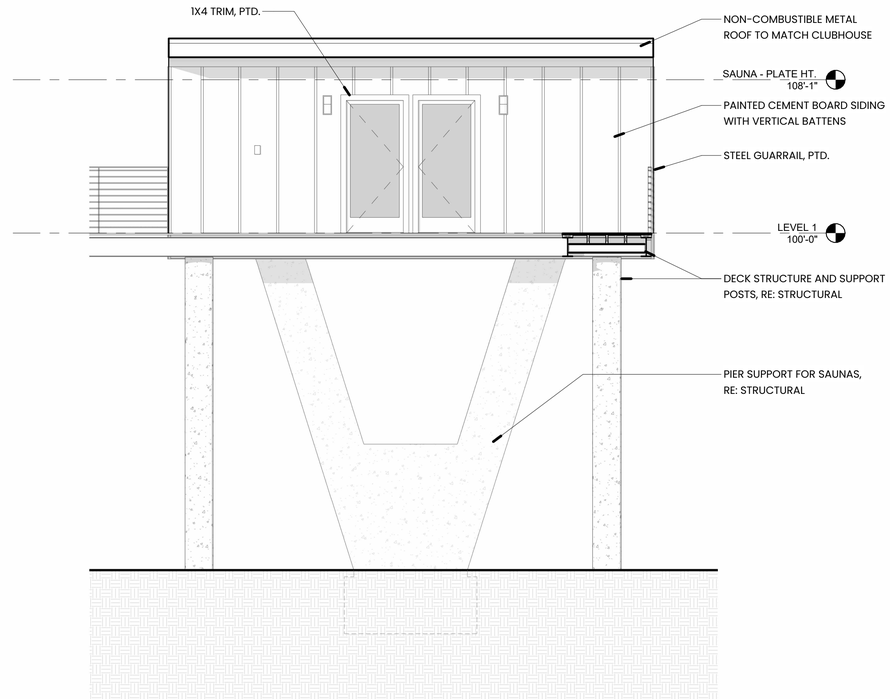


2 REAR ELEVATION - SAUNA
1/4" = 1'-0"



1 FRONT ELEVATION - SAUNA
1/4" = 1'-0"

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2951 S MASONIC LN
FLAGSTAFF, AZ 86005

Project No. **22004**

Date **2025-07-31**

CLUBHOUSE

EXTERIOR ELEVATIONS

Sheet No.

A2.2



Pinehaven

PZ-22-00109-04

Direct to Ordinance
Zoning Map Amendment

Ben Mejia, AICP
Senior Planner

TEAM FLAGSTAFF
WE MAKE THE CITY BETTER

Area Context Map





North: Vacant parcel, (PF and SC)
East: College/University, (PF)
South: Single-family subdivision (MR); Vacant parcel (HR)
West: Vacant parcel, zoned (PF)

Existing:
RR and SC Zones within RPO
Vacant 13.82-acre parcel providing access to Pinnacle Pines via Masonic Lane access easement

Proposed:
MR Zone within RPO
83 residential units

Proposed Density

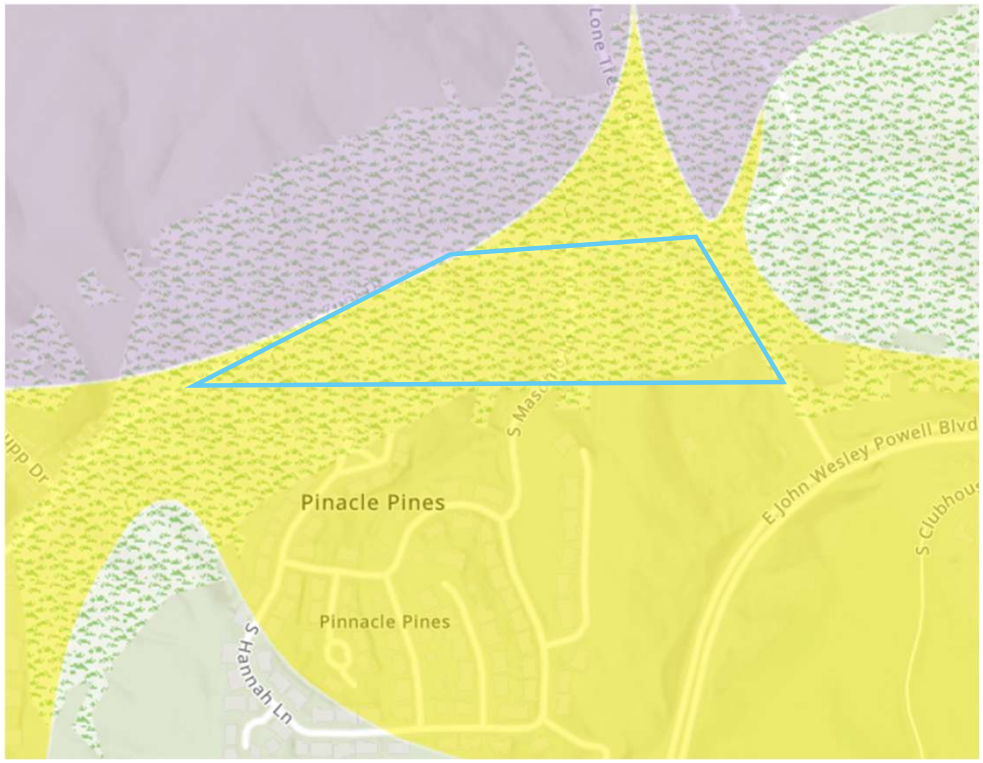
MR Zone

6-9 units/acre in RPO outside Activity Center

Regional Plan

Existing Suburban Neighborhood

2-13 units/acre



Regional Plan Future Land Use Map identifies site as existing Suburban Neighborhood

Proposal includes 83 units

13.82 acres x 6 units/acre = 82.92 units

The proposed 83 units is within the allowable density of the MR zone and the Suburban Neighborhood area type

Affordable Housing Incentives

- Provides a financial contribution to the City's Affordable Housing Fund totaling $1,802,413.83.
- Contribution is in lieu of constructing 10 Category 1 affordable units at 12% of the total unit count.
- Allows applicant to use three incentives, one incentive being used: Forest Resource Protection reduction of 35%

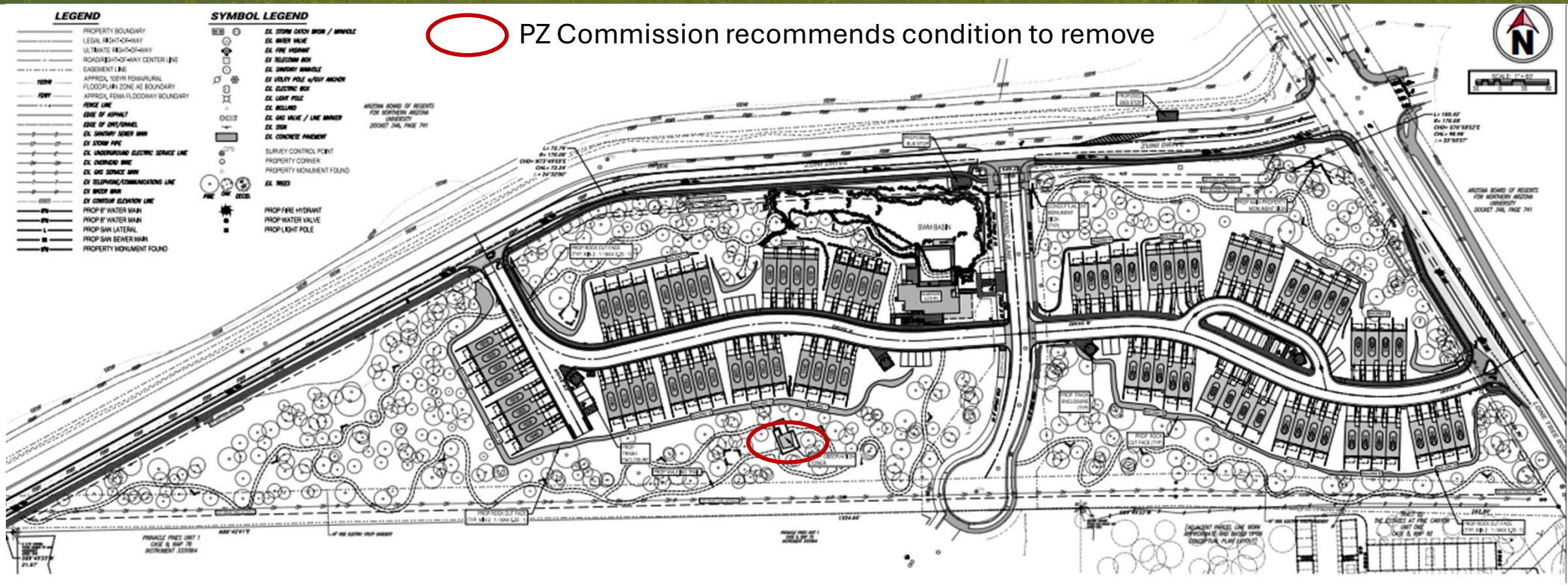
Category 1: serves up to 80% of the area median income (AMI), and it provides permanent affordability through both rental and ownership opportunities.

10-30.20.030:

D. In limited circumstances, where the applicant is unable to construct affordable housing, the City may permit the applicant to use incentives and provide a comparable land or financial donation in order to provide affordable housing in other locations. Opting to put forth a financial contribution must not be an incentive unto itself; it should accurately reflect the cost of land and development for affordable housing.

Site Design

PZ Commission recommends condition to remove



MR Zone Minimum Setbacks
Front: 10’, 15’ above second story
Side: 5’
Rear: 15’

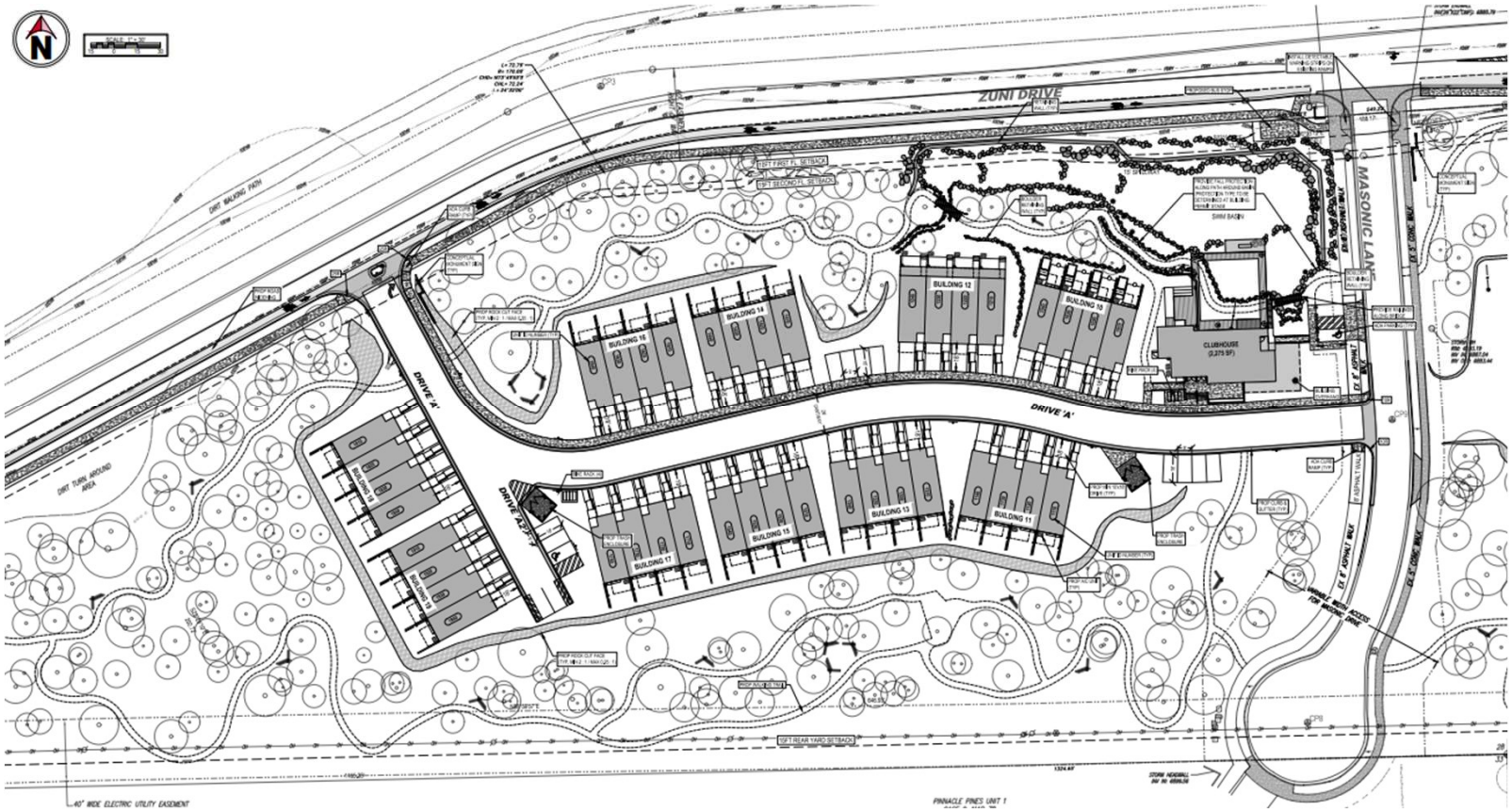
Unit Mix

Unit Type	Unit Count
Two Bedroom	9
Three Bedroom	72
Four Bedroom	2

Common Space: 15% Lot Area Required, Provided in Resource areas
Civic Space: 5% Lot Area Required, 6.7% Provided

Parking
Required: 188 spaces
Provided: 189 spaces
Bicycle Parking
Required: 9 Provided: 12

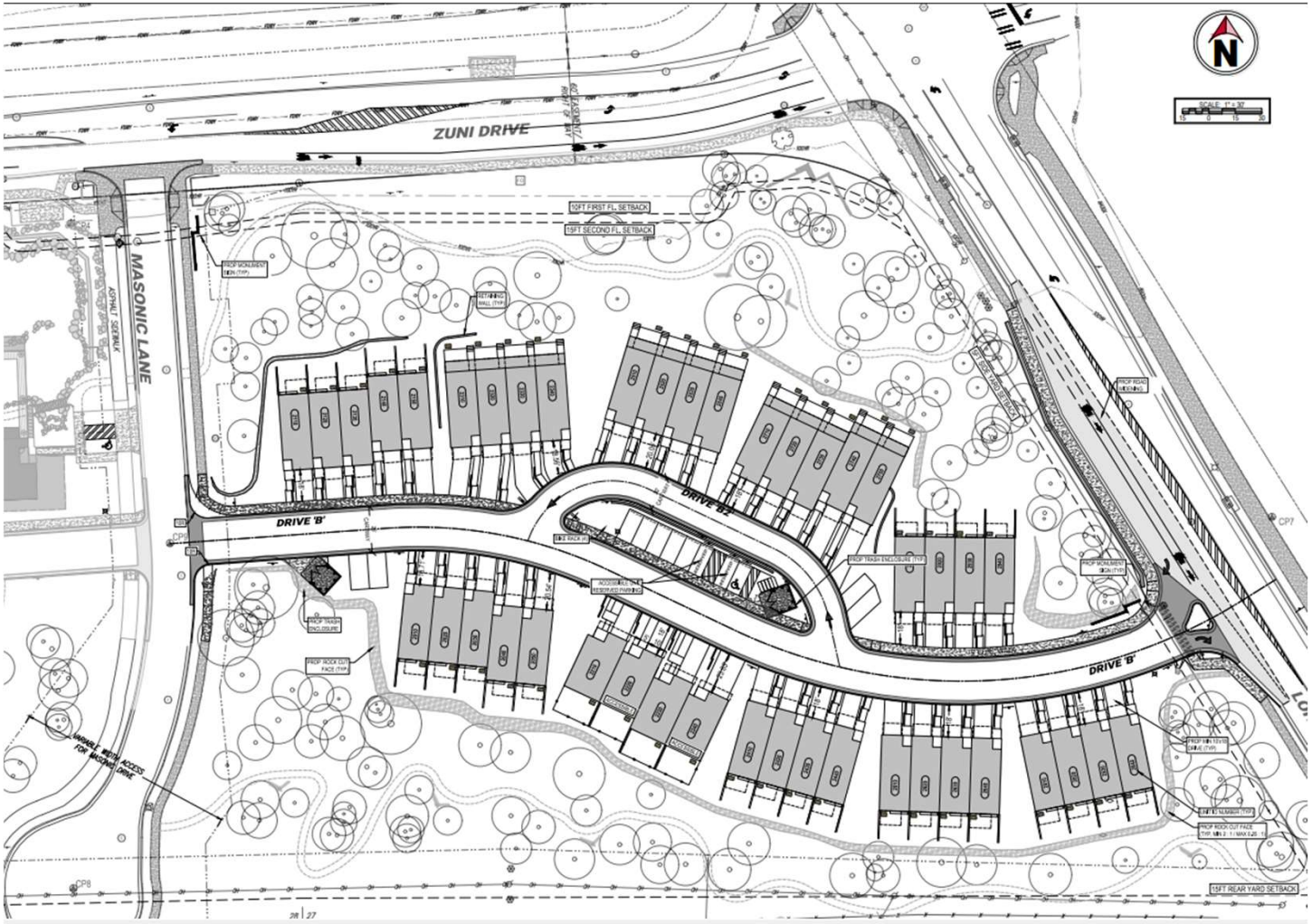
Site Design



Phase 1 –
West of Masonic Lane

- 40 residential units, clubhouse
- East-west Drive connecting Zuni to Masonic Lane
- Sidewalk on northside of Drive
- New bike Lane and sidewalk along Zuni frontage, 2 bus stops
- Detention Basin

Site Design



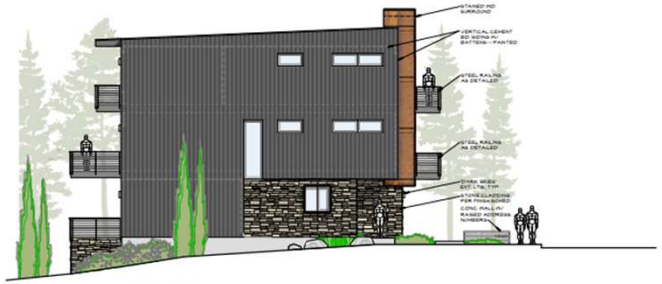
Phase 2 –
East of Masonic Lane

- 43 residential units
- East-west Drive connecting Lone Tree to Masonic Lane
- Sidewalk on northside of Drive
- Right turn lane in from S Lone Tree, reconstruction of 6’ sidewalk, and new 5’ parkway

Building Design



FRONT ELEVATION (typical)
unit "A"



LEFT SIDE ELEV. (@ end condition)
unit "A"

Unit “A”



FRONT ELEVATION (typical)
"A-2" w/ lower level

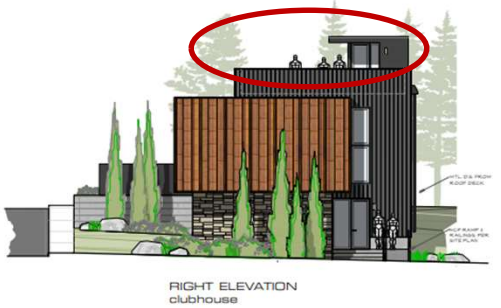


SIDE ELEVATION
"A-2" unit # 2510

Unit “A-2”

Building Design





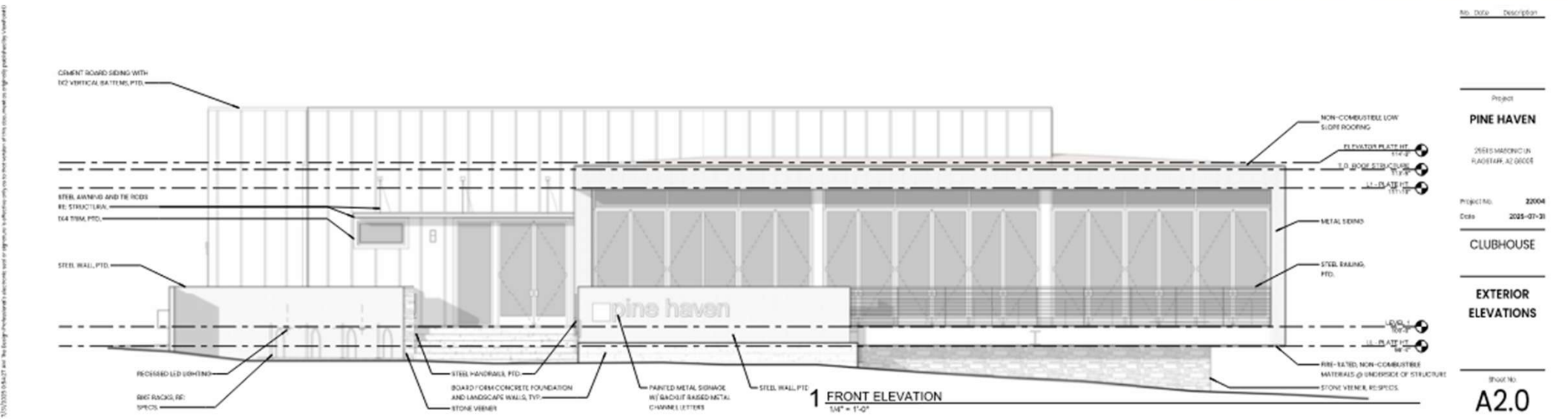


Unit "B"

Clubhouse

PZ Commission recommends condition to remove

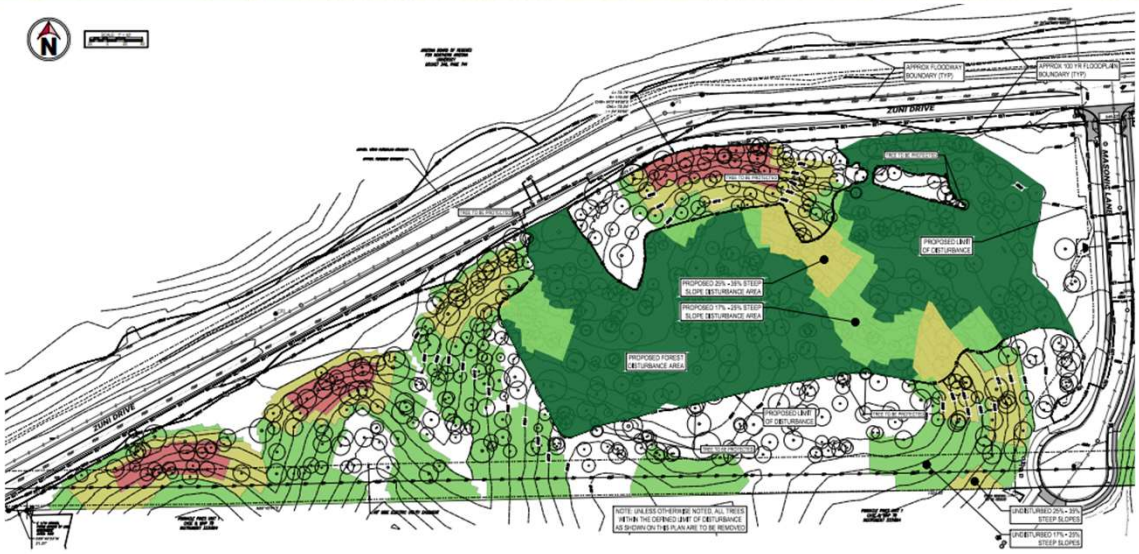
Building Design



Clubhouse: rooftop deck removed

PZ Commission recommends condition to remove rooftop deck

Resource Protection





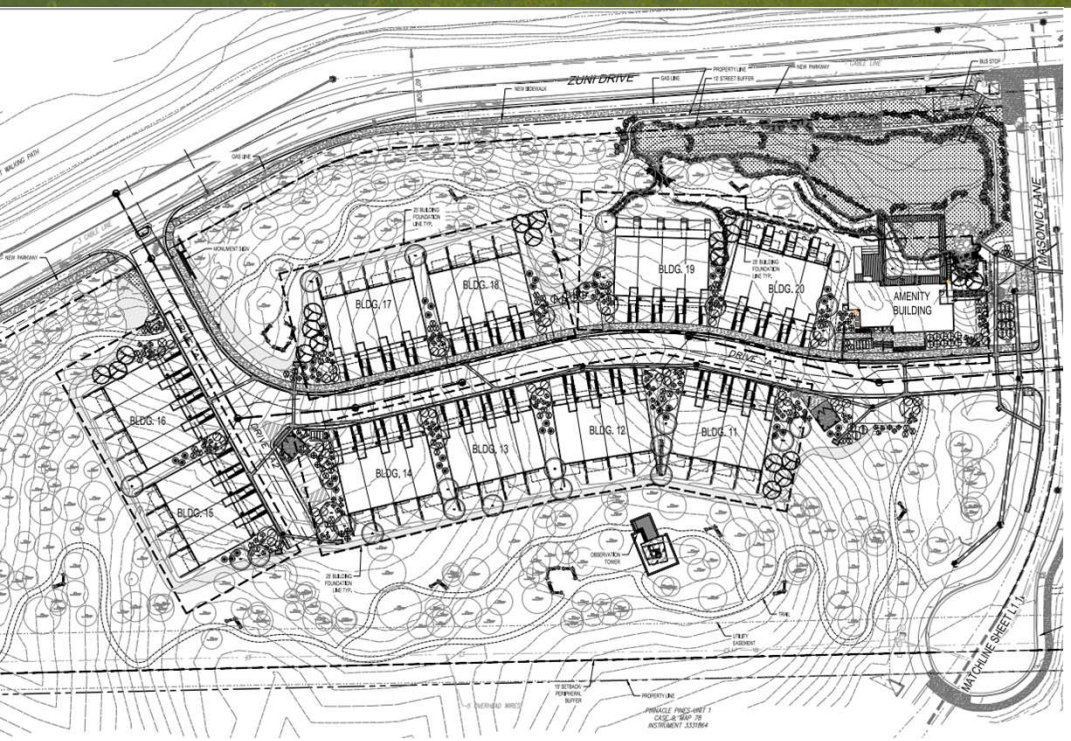
Forest Preservation

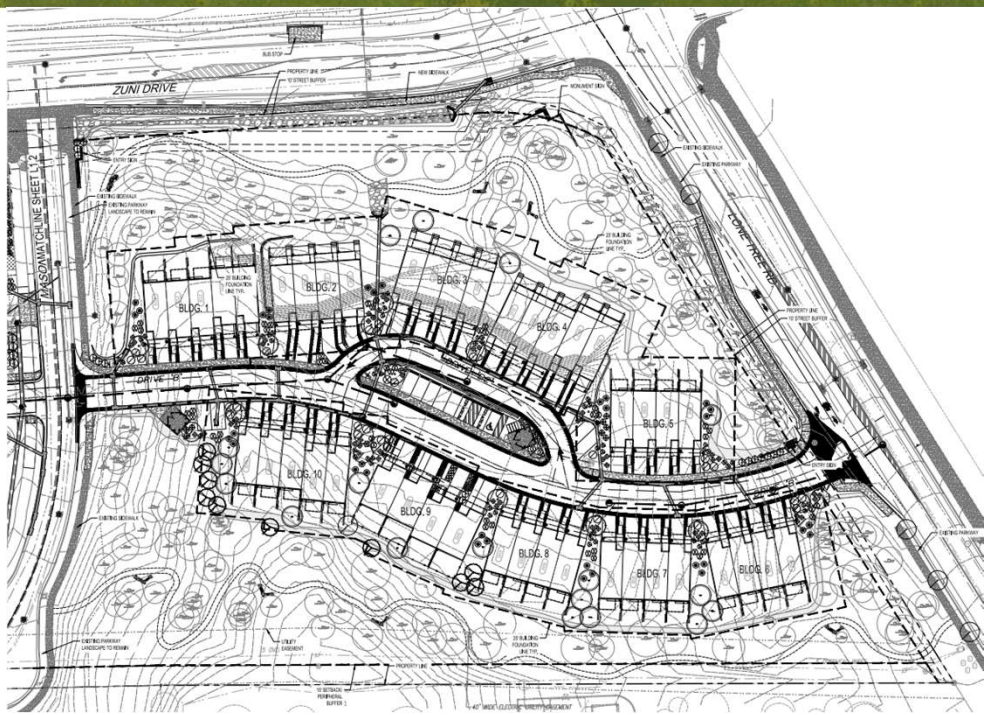
Residential Requirement	50%
Affordable Housing Reduction	35%
Required	32.5%
Proposed	33.6%

Slope Preservation

Slope Category	Required	Proposed
>35%	100%	100%
25-34.99%	80%	82.3%
17%-24.99%	70%	74.3%

Preliminary Landscape Plan





Preliminary Landscape Plan meets landscaping standards
DA commits to meaningful amount of pollinator-friendly landscaping

Public Systems Impact Analysis

Traffic/Right of Way Impact

- Study based on the original proposal of 87 residential units and estimated peak hour trips of 48 vehicles/hour in the a.m. and 56 vehicles/hour in the p.m.

Stormwater

- DIA performed to study existing and proposed conditions. Results of the impact analysis show the proposed stormwater system has the capacity to mitigate and improve upon pre-development conditions based on analysis of 2-year, 10-year, and 100-year storm events.

Water/Wastewater

- WSIA completed March 10, 2023 .
- New 8” water mains will be extended and looped on both sides of Masonic Lane in the PUE to provide water service to each unit. The water mains will have two fire hydrants and individual meters for each of the units.
- New 8” sewer mains will extend on both sides of Masonic Lane inside the PUE to provide sewer collection to each unit.

Citizen Participation

Neighborhood Meetings

- Applicant held two neighborhood meetings on October 17, 2024 and November 21, 2024
- Per sign-in sheet 17 attended first meeting, 10 attended second meeting
- Concerns included traffic, parking, impacts to the natural environment, fractional ownership, and short-term rentals.
- In response to neighbor participation, the applicants removed fractional ownership from their proposal. The applicant has included in their development agreement a restriction that prohibits leases under 30 days.

Planning and Zoning Commission Meeting

- Commission meeting held on July 23, 2025
- Applicant stated that they had made changes to the site plan to address neighbor concerns about rooftop deck and observation structure.
- Commission added the following recommendations:
  1. The site plan shall be revised to remove the rooftop deck from the amenity building.
  2. The site plan shall be revised to remove the observation deck.
  3. A restriction shall be placed to prohibit fractional sales.

Development Agreement

The primary purpose of this agreement is to set out roles and responsibilities in regard to the following (not limited to):

- Developer obligations for public improvements to rights-of-way
- Development Phasing
- Restrictions on short-term rentals, no leases under 30 days
- Administration of the Affordable Housing Fund contribution payments
- Commitments to sustainability initiatives
  - 100% electric units
  - Two EV charging stations on-site, hookups for each unit
  - Bus pass program for first-year owners, applicant also promotes use of Ecopass for Educators program
  - Bike Share Program
  - Pollinator-Friendly Landscaping

Findings for Zoning Map Amendment

Findings:

1. The proposed amendment is consistent with and conforms to the goals of the General Plan and any applicable specific plans;
2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City and will add to the public good as described in the General Plan; and
3. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics and the provision of public and emergency vehicle (e.g., fire and medical) access and public services and utilities (e.g., fire protection, police protection, potable water, schools, solid waste collection and disposal, storm drainage, wastewater collection, treatment, and disposal), to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger, jeopardize or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Findings

Finding #1: Conformance with the General Plan

Conforms with Existing Suburban Neighborhood Area Type

Environmental Planning & Conservation

E&C.10.5. “Support the development of watchable wildlife recreation opportunities.”

Open Space

OS.1.4. “Use open space as opportunities for non-motorized connectivity, to interact with nature, and to enjoy the views and quiet.”

- Natural resource areas along periphery of site with public-access trail

Water Resources

WR.4.3. “Development requiring public utility services will be located within the Urban Growth Boundary”

Energy

E.2.1. “Promote renewable energy sources that reduce demand upon fossil fuels and other forms of generation that produce waste.”

E.1.13. “Promote and encourage the use of fuel-efficient vehicles that use renewable fuels.”

- 100% electric units, bike share program, bus pass program, two EV charging units on-site, EV hookups in all residential units

Findings

Finding #1: Conformance with the General Plan

Community Character

CC.3.2. “Maintain and enhance existing buildings and blend well-designed new buildings into existing neighborhoods.”

- Project uses townhome-style units, building massing is compatible with adjacent development

Growth Areas & Land Use

LU.5.1. “Encourage development patterns within the designated growth boundaries to sustain efficient infrastructure projects and maintenance.”

LU.5.2. “Promote infill development over peripheral expansion to conserve environmental resources, spur economic investments, and reduce the cost of providing infrastructure and services.”

Transportation

T.1.6. “Provide and promote strategies that increase alternate modes of travel and demand for vehicular travel to reduce peak period traffic”

Neighborhoods, Housing, and Urban Conservation

NH.3.5. “Encourage and incentivize affordable housing”

NH.5.2. “Provide adequate resources for individuals experiencing homelessness”

Findings

Finding #2: Community Benefits and Public Good

- The developer will provide improvements along E Zuni Drive and S Lone Tree Road, including new or improved sidewalk, parkway, and a bike lane.
- The developer will provide two bus stops serving both directions along E Zuni Drive.
- The developer will contribute to the City of Flagstaff Affordable Housing fund commensurate with 10 Category 1 affordable units or 12% total number of units at a total contribution of $1,802,413.83.

Findings

Finding #3: Site is Physically Suitable

Meets applicable codes and requirements

- Site Plan was approved on May 9, 2024, subject to Direct to Ordinance Zoning Map Amendment

Mitigates any impacts determined by impact analyses

- Traffic Impact Analysis (TIA) completed
- Water and Sewer Impact Analysis (WSIA) completed
- Drainage Impact Analysis (DIA) completed
- Off-site improvements required: Bike lane, sidewalk, right-turn lane from Lone Tree

Recommendation

The Planning and Zoning Commission recommends the City Council approve the zoning map amendment request in accordance with the findings in the staff report and subject to the following conditions:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 9, 2024. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. The site plan shall be revised to remove the rooftop deck from the amenity building.
3. The site plan shall be revised to remove the observation deck.
4. A restriction shall be placed to prohibit fractional sales.
5. All other requirements of the Zoning Code and other City codes, ordinances, and regulations, shall be met by the proposed development.
6. All terms, conditions, and restrictions detailed within the “Pinehaven Development Agreement” must be fully satisfied.
7. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classification of Rural Residential (RR) and Suburban Commercial (SC) in accordance with A.R.S. § 9-462.01.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Jennifer Mikelson, Housing Planning Manager

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Adoption of Resolution No. 2025-44: A resolution adopting the Adaptive Reuse Bond Program, which provides framework for the expenditure of approximately $3,000,000 in general obligation bond funds for the creation of affordable rental units.

STAFF RECOMMENDED ACTION:

1. Read Resolution No. 2025-44 by title only
2. City Clerk reads Resolution No. 2025-44 by title only (if approved above)
3. Adopt Resolution No.2025-44

Executive Summary:

Consideration of the Adaptive Reuse Bond Program for the expenditure of general obligation bond funds totaling approximately three million dollars ($3,000,000) to be provided as forgivable loans to eligible developers of affordable rental housing.

Financial Impact:

There is no financial impact to the city's general fund.
This program will provide loans utilizing general obligation bond funds, as approved by Flagstaff voters in the November 2022 election.
Summary of loan terms:

- Individual loans will require Council approval; total awards not to exceed $3,000,000
- 30-year minimum term
- 0% interest and no payments during 30-year term
- Loan forgiven after 30 years of compliance with program requirements

Policy Impact:

Approval of this resolution will result in the creation of an adaptive reuse program specifically for the creation of affordable rental housing.

Previous Council Decision or Community Discussion:

In 2022, Flagstaff voters approved Proposition 442, which authorized up to $20 million in general obligation bonds and funding categories for affordable housing. On November 7, 2023 Council adopted Resolution No. 2023-51 establishing the City of Flagstaff Rental Incentive Bond program with an allocation of $5 million in general obligation bonds. One of the funding categories is "Repurpose Existing Buildings into Affordable Rentals." The Housing Commission provided feedback on the program in March 2025 and recommended the program for approval for this new program at its July 2025 meeting.

Options and Alternatives to Recommended Action:

1. Revise the proposed program.
2. Reject the proposed program and provide further direction.

Background and History:

Housing Bond Background

Proposition 442 -- "Creating Rental and Ownership Opportunities for Residents of Flagstaff" identified four affordable housing spending categories totaling $20 million dollars and was approved in the November 8, 2022 General Election. Per the City of Flagstaff Information Pamphlet, one of the approved spending categories is described below:

Repurpose Existing Buildings into Affordable Rentals (Approximately $3,000,000)

"Funding in this area will allow the City of Flagstaff to partner with private developers, non-profits included, to repurpose existing and available buildings and spaces into rental opportunities for the residents of Flagstaff. Housing units are not the only benefit this activity will provide. In addition to the creation of an estimated 75 rental units, currently vacant space in Flagstaff will transition to occupied homes."

The initial program requirements were developed in late 2024 based on interviews with local non-profits and the affordable development community. A working session to further refine the program requirements with the Housing Commission was held in March 2025. The revised program was presented to the Housing Commission on July 24, 2025 and was recommended for Council approval.

Program Overview

The purpose of this program is to encourage the adaptive reuse of available existing buildings so they may be repurposed as affordable rental housing. The program will offer a simple application and award process while maintaining the necessary safeguards surrounding expenditure of public funding.
The application process will be non-competitive, with funds awarded to applicants on a pass/fail basis. Projects that meet every requirement across the three categories below will be eligible for funding. If the project fails to meet any of the criteria, it will be ineligible.

Project Details

- Property Eligibility: Property must be located within City limits and provide proof of ownership, a contingent purchase contract, a lease agreement providing the applicant the right to operate the proposed residential use onsite for the minimum affordability period, or a letter of intent to purchase or lease the property. Applicant must also provide documentation that the proposed residential use is permitted within the underlying zoning district, per the City Zoning Code.
- Eligible Uses: Program funds may be used for costs relating to the acquisition and rehabilitation of new affordable rental housing in existing buildings, including purchase, renovation, and rehabilitation.
- Ineligible Uses: Program funds may not be awarded to pay for any costs related to the construction of new freestanding buildings, renovation of market-rate units, renovation of existing residential units, complete demolition of buildings, or the improvement of undeveloped land.
- Affordability Period: The minimum required affordability period is thirty (30) years from the Certificate of Occupancy and shall be sustained regardless of any transfer of ownership, such transfer subject to the terms and conditions of the City loan documents.
- Area Median Income Limit (AMI): The project must provide affordable units at an average of 80% AMI or less, with a maximum household income of 100% AMI.
- Affordable Rent Methodology: Unless other funding sources require otherwise, the City's Affordable Rent & Income Limits shall be used.

Cost Per Affordable Unit

Applications requesting $40,000 or less per affordable unit will be eligible. Funding will be awarded on a per-unit basis to meet the 75-unit goal: $3,000,000 / 75 = $40,00. While funding will only be awarded to support the creation of affordable rental units, this program does not prohibit market-rate units within the same project.

Leveraged Funding

Additional funding sources beyond City program funds are required and will be evaluated for project viability, sustainability, and other metrics. All funding sources must be provided, including current and signed letters of commitment from pending funders or loan documents from closed funders.

Lastly, during the creation of this program, Housing staff collaborated with the City's Zoning Code Manager to ensure adaptive reuse projects seeking this funding would have a path to by-right development. A related zoning code amendment providing incentives for affordable adaptive reuse projects is currently going through the public hearing process and, if approved by Council, will be effective in November 2025.

Connection to PBB Priorities and Objectives:
Livable Community: Actively support attainable & affordable housing through City projects & opportunities with developers.

Connection to Regional Plan:
Goal LU.9. Focus reinvestment, partnerships, regulations, and incentives on developing or redeveloping urban areas.
Goal NH.3. Make available a variety of housing types at different price points, to provide housing opportunity for all economic sectors.
Policy NH.3.1. Provide a variety of housing types throughout the City and region, including purchase and rental options, to expand the choices available to meet the financial and lifestyle needs of our diverse population.
Policy NH.3.3. Increase the availability of affordable housing for very low-income persons, through innovative and effective funding mechanisms.
Policy NH.3.5. Encourage and incentivize affordable housing.
Policy CC.2.10. Educate the community and developers on the benefits of adaptive reuse and create policies to incentivize the reuse of historic buildings to maintain their integrity.

Connection to Carbon Neutrality Plan:
HA-1: Create housing options for households at all income levels and family sizes occupied by local residents.
HA-2: Connect people to equitable housing solutions.

Connection to 10-Year Housing Plan:
Create 1: Incentivize the creation of affordable units through various programs and mechanisms.
Protect 2: Ensure affordable housing is a part of every Flagstaff neighborhood and work to address disparate impact as part of any development or redevelopment.
Preserve 1: Encourage the adaptive reuse of buildings.

Attachments: Res. 2025-44
Draft Adaptive Reuse Bond Program
Presentation

RESOLUTION NO. 2025-44

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL, ADOPTING THE ADAPTIVE REUSE BOND PROGRAM

RECITALS:

WHEREAS, affordable housing in Flagstaff has been a documented need for more than 50 years and has reached crisis levels in recent years with data showing housing costs pushed higher by limited supply and external demand exceeding the buying and renting power of the local workforce; and

WHEREAS, in response to a citizen's petition, in December 2020, Flagstaff City Council adopted Resolution 2020-66 declaring a Housing Emergency for the City of Flagstaff, prioritizing affordable housing within City operations to create safe, decent and affordable housing opportunities for all community members; and

WHEREAS, on February 15, 2022, Council adopted Resolution 2022-03, approving the City of Flagstaff's 10-Year Housing Plan, which identifies a strategy to "Present 2022 Bond Measure to Council and Community for consideration for additional funding to be leveraged with local, state, and federal dollars" to fund the creation of affordable housing programs; and

WHEREAS, City Council placed Proposition 442 on the ballot for the November 2022 election with one of the funding categories being "Repurpose Existing Buildings into Rental Units"; and

WHEREAS, voters of Flagstaff approved Proposition 442 in the November 8, 2022 General Election; and

WHEREAS, on November 7, 2023, Council adopted Resolution 2023-51, establishing the City of Flagstaff Rental Incentive Bond Program with an allocation of approximately $5 million in general obligation bond funds; and

WHEREAS, the City desires to further the Proposition 442 purposes by adopting an "Adaptive Reuse Bond Program" policy; and

WHEREAS, for-profit and non-profit entities seeking to acquire, repurpose, and rehabilitate existing buildings for the purpose of affordable rental housing may be eligible to apply for funding under this policy.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1: That the Adaptive Reuse Bond Program, a copy of which is attached as Exhibit A to this Resolution, is hereby adopted.

SECTION 2: Council directs staff to develop an application for the award of approximately $3 million

dollars in funding as set forth in the Adaptive Reuse Bond Program.

SECTION 3: That City staff is hereby authorized to take such other and further measures and actions as are necessary and appropriate to carry out the terms, provisions, and intents of this Resolution.

This resolution shall be immediately effective upon adoption.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 2nd day of September, 2025.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

Exhibits:
Adaptive Reuse Bond Program

City of Flagstaff Adaptive Reuse Bond Program

City of Flagstaff - Housing Office

Contact:
Jennifer Mikelson, Housing Planning Manager
jmikelson@flagstaffaz.gov
(928) 213-2744

Program Description

The language below is from the City of Flagstaff Voter Information Pamphlet (2022) and explains the intent behind the bond funding for this activity.

"This funding…will allow the City of Flagstaff to partner with private developers, non-profits included, to repurpose existing and available buildings and spaces into rental opportunities for the residents of Flagstaff."

This Program will offer approximately $3,000,000 in general obligation bond funds through an open call for applications. Funding will be provided as forgivable 30-year loans to assist non-profit or for-profit developers in repurposing and rehabilitating existing buildings into affordable rental units. The goal is to create seventy-five (75) new affordable rental units through the adaptive reuse of the City of Flagstaff's ("City") existing building stock.

Funding Availability

The City will make approximately $3,000,000 in program funds available through an open call for applications. Applications for funding will be considered on a first-come, first-served basis and will continue to be received until all program funds have been allocated. Applications will be evaluated on a pass/fail basis.

Applicability

For the purposes of the Program, 'Adaptive Reuse' is defined as repurposing and/or rehabilitating any existing building for the creation of affordable residential units and is defined more specifically in the Flagstaff Zoning Code. Please ensure the proposed project is permitted by right and does not require zoning approvals. Refer to Section 10-40.30 of the Flagstaff Zoning Code for permitted residential uses in all zoning districts, and Section 10-30.20 for Affordable Housing Incentives for Adaptive Reuse Projects.

Project Requirements & Award Determination

To be eligible to apply for funding, projects must meet **all** requirements across three (3) categories: Project Details, Cost Per Affordable Unit, and Leveraged Funding. Applications that contain all necessary materials and are deemed complete by the City will be reviewed on a first-come, first-served basis. At a minimum, complete applications must pass **all** of the requirements below to be eligible for an award of funding. If the project fails to meet any of the criteria below, it will not be eligible for funding. City staff will endeavor to review applications and notify applicants of their eligibility for an award of funding within thirty (30) calendar days of the application submission date.

1. Project Details (Pass/Fail): Describe how the project meets all criteria listed below.
   - ❑ **Property Eligibility**: Property must be located within City limits and show proof of ownership, a contingent purchase contract, lease agreement providing the applicant

with the right to operate the proposed residential use onsite for the minimum affordability period, or a letter of intent to purchase or lease the property. Applicant must also provide documentation that the proposed residential use is permitted within the underlying zoning district, per the City Zoning Code.

- ❑ **Eligible Uses**: Program funds may be used for costs relating to the acquisition and rehabilitation of new affordable rental housing in existing buildings, including purchase, renovation, and rehabilitation.
- ❑ **Ineligible Uses**: Program funds may not be used for any costs related to the construction of new freestanding buildings, renovation of market-rate units, renovation of existing residential units, complete demolition of buildings, or the improvement of undeveloped land.
- ❑ **Affordability Period**: The minimum required affordability period is thirty (30) years from the Certificate of Occupancy and shall be sustained regardless of any transfer of ownership, such transfer subject to the terms and conditions of the City loan documents.
- ❑ **Area Median Income Limit (AMI)**: The project must provide affordable units at an average of 80% AMI or less, with a maximum household income of 100% AMI.
- ❑ **Affordable Rent Methodology**: Unless other funding sources require otherwise, the City's Affordable Rent & Income Limits shall be used.

2. Cost Per Affordable Unit (Pass/Fail): Applications requesting $40,000 or less per affordable unit will be eligible for funding. Funding will be awarded on a per-unit basis to meet the 75-unit goal: $3,000,000 / 75 = $40,000. Applications requesting more than $40,000 per unit are ineligible. While funding will only be awarded to support the creation of affordable rental units, this program does not prohibit market rate units within the same project.

3. Leveraged Funding (Pass/Fail): Additional funding sources beyond City Program funds are required and will be evaluated for project viability, sustainability, and other metrics. All funding sources must be provided, including current and signed letters of commitment from pending funders or loan documents from closed funders.

Loan Terms

- Funding will be a loan between eligible applicants and the City. Loan documents will be provided by the City. Loan documents with each applicant will be subject to approval by City Council. The Program funds will be dispersed at either the close of escrow or after the primary loan closes.

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- The loan will be secured against the property with a promissory note and recorded deed of trust and will be subordinate to first mortgage financing, with further subordination considered on a case-by-case basis and in the City's sole discretion.
- No interest or principal payments are required during the 30-year term if affordable units continue to meet the terms identified in the loan documents.
- A 30-year compliance period will commence at the issuance of the certificate of occupancy. After the required 30-year term, the loan may be forgiven depending on the borrower's performance in accordance with the loan documents
- Units must be available for lease within twenty-four (24) months of the applicant receiving notification of an award of Program funds.
- A default under the loan documents will result in the City's ability to deem the loan in default and immediate repayment of all Program funds, such determination in the City's sole discretion.

DRAFT

Adaptive Reuse Bond Program

September 2, 2025

Jennifer Mikelson,
Housing Planning Manager

Prop 442 – approved Nov. 2022

"Creating rental and homeownership opportunities for residents of Flagstaff"

- Redevelop City-owned housing to create additional rental units - $5M
- **Repurpose existing buildings into rental units -$3M**
- Incentivize private sector to incorporate affordable rental units - $5M
- Expand the Homebuyer Assistance Program -$7M

Purpose of Funding

Repurposing Existing Available Buildings into Rental Units (~$3M)

"Funding in this area will allow the City of Flagstaff to partner with private developers, non-profits included, to repurpose existing and available buildings and spaces into rental opportunities for the residents of Flagstaff. Housing units are not the only community benefit this activity will provide. In addition to the creation of an estimated 75 rental units, currently vacant space in Flagstaff will transition to occupied homes."

Program Development

Fall 2024

Research

Stakeholder Interviews

Winter 2024

Program Drafted

Initiated Code Amendment

Spring 2025

Code Amendment Collaboration

Housing Commission Work Session

Summer 2025

Code Amendment Hearings Begin

Housing Commission Recommendation

Priorities for this Program

- ✓ Allow for a variety of projects to meet different housing needs
- ✓ Allow funds to be used for acquisition and renovation
- ✓ Simple and fast non-competitive application process
- ✓ Award funds on a per-unit cost basis to meet 75-unit goal
- ✓ Remove zoning uncertainties; permit affordable residential use in commercial buildings by-right

Pass/Fail Evaluative Criteria

Project Details

- ✓ Property Eligibility
- ✓ Eligible Uses
- ✓ Ineligible Uses
- ✓ 30-Year Affordability Period
- ✓ 80% Area Median Income Limit
- ✓ Affordable Rent Methodology

Pass/Fail Evaluative Criteria

Cost Per Affordable Unit

- ✓ Applications requesting $40,000 or less per affordable unit will be eligible for funding.

Other Funding Sources

- ✓ Additional funding sources beyond City Program funds are required and will be evaluated for project viability, sustainability, and other metrics.

Application Process

- Funding will be available on a first come, first served basis until all program funds have been awarded
- Applications will be reviewed for eligibility by staff:
  - Applications must pass all evaluative criteria to receive a recommendation for full funding
  - Notices of eligibility for funding will be provided within 30 days of application date

Loan Terms

- Loan documents require approval by City Council
- Loan secured against property via promissory note and deed of trust and is subordinate to first mortgage financing
- No interest or principal payments required during 30-year term
- Compliance period begins at issuance of certificate of occupancy
- Loan may be forgiven after 30 years of compliance
- Affordable units must be available within 24 months of notification of award

Next Steps

- Application for funding will be posted to Housing's website
- Eligibility reviews will be made on a first come, first served basis
- Awards will be brought back to Council for approval

Thank you

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Tiffany Antol, Zoning Code Manager

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Adoption of Resolution No. 2025-42 and Ordinance No. 2025-16: A Resolution of the City Council of the City of Flagstaff, Coconino County, Arizona, declaring as a public record that certain document filed with the City Clerk entitled "PZ-25-00041 - Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives" and an Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code.

STAFF RECOMMENDED ACTION:

At the September 2, 2025, Council Meeting:
1. Read Resolution No. 2025-42 by title only for the first time
2. City Clerk reads Resolution No. 2025-42 by title only (if approved above)
3. Read Ordinance No. 2025-16 by title only for the first time
4. City Clerk reads Ordinance No. 2025-16 by title only (if approved above)

At the September 16, 2025, Council Meeting:
1. Adopt Resolution No. 2025-42
2. Read Ordinance No. 2025-16 by title only for the final time
3. City Clerk reads Ordinance No. 2025-16 by title only (if approved above)
4. Adopt Ordinance No. 2025-16

Executive Summary:

The City is requesting a modification to the Zoning Code provisions in Chapter 10-30: General to All, Division 10-30.20: Affordable Housing Incentives and Chapter 10-40: Specific to Zones, Division 10-40.30: Non-Transect Zones, Section 10-40.30.040: Commercial Zones, Table 10-40.30.040.B. Commercial Zones -- Allowed Uses and Table 10-40.30.060.B. Public and Open Space Zones -- Allowed Uses, to add existing High Occupancy Housing incentive, and add new incentives for Single Use Residential projects in commercial zones and Adaptive Reuse projects. This amendment also includes modifications to Chapter 10-50: Supplemental to Zones, Division 10-50.80 Parking Standards for general clarifications on permitted parking adjustments and to include a new parking reduction for non-residential or mixed-use adaptive reuse project less than 5,000 square feet.

Financial Impact:

There are no anticipated financial impacts affiliated with the proposed Zoning Code Text Amendment.

Policy Impact:

There are no anticipated policy impacts affiliated with the proposed Zoning Code Text Amendment.

Previous Council Decision or Community Discussion:

There has not been a previous City Council decision on this Resolution or Ordinance.

Options and Alternatives to Recommended Action:

The City Council may adopt, modify, or deny the proposed Zoning Code Text Amendment.

Background and History:
The Housing Section is currently preparing a policy/program for the provision of housing bond funds for eligible adaptive reuse projects. After consultation with the Housing Section about their proposal to create a program to encourage adaptive reuse, staff identified a potential zoning code amendment to make these projects easier to accomplish as an incentive for providing affordable housing resources in alignment with the new policy/program.

The Zoning Code currently requires that most single-use residential (100% residential) developments in the commercial and Public Facility zoning districts obtain a Conditional Use Permit (CUP) prior to issuance of construction permits. As an incentive to bypass the conditional use permit process for both adaptive reuse and single-use residential projects, the developer must provide a minimum of 20% of all housing units within the development at an average of 80% Area Median Income (AMI), (with a maximum household income of 100% AMI) for a period of 30 years for rental projects. For ownership projects, the developer must provide 15% of all housing units at an average of 150% AMI for a period of 99 years. To incentivize developers to provide more than the usual 10% affordable housing contribution, the incentive of not having to obtain a conditional use permit requires a minimum affordable housing contribution of 20%. Increasing the affordable housing contribution from 10% to 20% will more swiftly address the declared affordable housing shortage in Flagstaff's 10-Year Housing Plan.

In addition to the housing incentive provisions, an additional incentive has been added for nonresidential adaptive reuse projects that are less than 5,000 square feet, to allow greater flexibility in the requirements for parking and changes in land use. When an existing development site is proposed to become a different land use (i.e., a retail space is converted to a restaurant), planning staff perform an analysis of the parking on site versus the required parking for the new land use. If the site does not have sufficient parking for the new land use, additional parking is typically required. The Zoning Code includes an exception for parking new uses on properties located in the Central Business zoning district which only applies to portions of the downtown. Properties in this zone are not required to provide additional parking when the land use changes so long as there are no additions to the existing development, as many of the properties downtown are historic and were developed without any parking. Strict application of parking requirements to these properties would alter the historic character of this area. The same is true for areas outside of the Central Business zoning district. This amendment is meant to alleviate the requirement for additional parking on these sites as well.

The proposed Zoning Code Text Amendment includes adding the following definitions:

Single-Use Residential: A development containing only residential uses.
Adaptive Reuse: The repurposing of an existing building from the use for which it was constructed to a new use by preserving the elements of the existing building rather than demolition.

The proposed Zoning Code Text Amendment includes adding the following affordable housing incentives:

- Single Use Residential in Commercial and Public Facility Zones. Projects providing a minimum of 20% of all housing units within the development at an average of 80% AMI (with a maximum household income of 100% AMI) for a period of 30 years for rental or a minimum of 15% of all housing units at a maximum of 150% AMI for a period of 99 years for ownership are not required to obtain a Conditional Use Permit.
- Adaptive Reuse Projects. Projects providing a minimum of 20% of all housing units within the development at an average of 80% AMI (with a maximum household income of 100% AMI) for a period of 30 years for rental or a minimum of 15% of all housing units at a maximum of 150% AMI for a period of 99 years for ownership. To be eligible for the Adaptive Reuse incentives, a building needs to be a minimum of fifteen years of age and the project may not include additions that exceed 25% of the existing building. The incentives include relief from parking, site design, architectural design standards, landscaping, and common space requirements.

The proposed Zoning Code Text Amendment includes new parking reductions as follows:
Adaptive Reuse Reduction. No additional off-street parking shall be required for the Adaptive Reuse of a building that meets the following requirements:

1. The building shall be a minimum of 15 years of age; and
2. The development shall be a non-residential use or a mixed-use building; and
3. The size of the building shall not exceed 5,000 gross square feet, including any proposed additions. No proposed additions may exceed fifty percent of the existing building; and
4. On-street public parking is available within 1,320 feet from the development site.

A Zoning Code Text Amendment shall be evaluated based on the following findings:

A. Finding #1: The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan;
Flagstaff Regional Plan 2030
Policy LU.1.10. Consider adaptive reuse possibilities when new big box developments are proposed.
Goal LU.10. Increase the proportion of urban neighborhoods to achieve walkable, compact growth.
Policy LU.10.6. In mixed use developments, encourage residential uses located above and behind commercial uses within urban areas as well as a variety of housing types where appropriate.
Policy LU.15.2. Consider the compatible integration of residential uses and proposed employment centers to reduce vehicle trips and commute times.
Policy LU.18.8. Increase residential densities, live-work units, and home occupations within the activity center's pedestrian shed.
Policy LU.18.12. Corridors should focus commercial development to the corridor frontage and residential to the back.
Policy CC.2.9. Strengthen the City's historic preservation and adaptive reuse programs by increasing funding for further inventories, grants to property owners, and education campaigns, especially, where the underlying Zoning for the historic resource put it at risk.
Policy CC.2.10. Educate the community and developers on the benefits of adaptive reuse and create policies to incentivize the reuse of historic buildings to maintain their integrity.
Policy NH.2.1. Encourage the rehabilitation of historic downtown structures and contextual new structures as office, retail, entertainment, and residential space to reinvigorate the area as a destination of culture, shopping, government, and the arts.

The above-referenced goals and policies show general support for allowing residential uses in commercial and Public Facility zones and supporting or incentivizing adaptive reuse projects. There are no policies in the Regional Plan that support the reduction of parking.

B. Finding #2: The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City;
The proposed amendment is intended to enhance public health and safety by incentivizing the contribution of affordable housing units as defined by the Zoning Code. In addition, the amendment incentivizes the reuse of existing commercial buildings for residential development by minimizing site improvement requirements including parking, landscaping, architectural design standards, and site planning design standards. Lastly, the amendment includes provisions for nonresidential adaptive reuse projects that reduce the amount of on-site parking requirements.

C. Finding #3: The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.
The amendment is internally consistent with the existing Zoning Code, following its format and aligning with its comprehensive purpose. It does not conflict with any other provisions and ensures that the Zoning Code remains clear, usable, and easily understood.

Connection to PBB Priorities and Objectives:
Achieve a well maintained community throough comprehensive and equitable code compliance, and development is compatible with community values.

Connection to Regional Plan:
Flagstaff Regional Plan 2030
Policy LU.1.10. Consider adaptive reuse possibilities when new big box developments are proposed.
Goal LU.10. Increase the proportion of urban neighborhoods to achieve walkable, compact growth.

Policy LU.10.6. In mixed use developments, encourage residential uses located above and behind commercial uses within urban areas as well as a variety of housing types where appropriate.
Policy LU.15.2. Consider the compatible integration of residential uses and proposed employment centers to reduce vehicle trips and commute times.
Policy LU.18.8. Increase residential densities, live-work units, and home occupations within the activity center's pedestrian shed.
Policy LU.18.12. Corridors should focus commercial development to the corridor frontage and residential to the back.
Policy CC.2.9. Strengthen the City's historic preservation and adaptive reuse programs by increasing funding for further inventories, grants to property owners, and education campaigns, especially, where the underlying Zoning for the historic resource put it at risk.
Policy CC.2.10. Educate the community and developers on the benefits of adaptive reuse and create policies to incentivize the reuse of historic buildings to maintain their integrity.
Policy NH.2.1. Encourage the rehabilitation of historic downtown structures and contextual new structures as office, retail, entertainment, and residential space to reinvigorate the area as a destination of culture, shopping, government, and the arts.

The above referenced goals and policies show general support for allowing residential uses in commercial and Public Facility zones and supporting or incentivizing adaptive reuse projects. There are no policies in the Regional Plan that support the reduction of parking.

Connection to Carbon Neutrality Plan:
Carbon Neutrality Plan
HA-1: Create housing options for households at all income levels and family sizes occupied by local residents.
HA-2: Connect people to equitable housing solutions.
HA-3: Preserve affordable housing.

Connection to 10-Year Housing Plan:
10-Year Housing Plan
Create 1: Incentivize the creation of affordable units through various programs and mechanisms.
Create 1.1: Ensure that modifications to the zoning code improve and maintain the effectiveness of the density incentives for affordable housing.
Create 1.2: Update the City's affordable housing incentive policy to implement the goals and policies of the 10-Year Housing Plan.
Create 1.3: Amend the City code to implement the revised affordable housing incentive policy.
Preserve 1: Encourage the adaptive reuse of buildings.
Preserve 1.2: Review the Land use Goals and Policies in the Regional Plan, Specific Plans, and City code to remove barriers to adaptive reuse for the creation of affordable housing.

Attachments: Res. 2025-42
Ex. A - PZ-25-0041
Ord. 2025-16
Housing Statement
Presentation

RESOLUTION NO. 2025-42

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK AND ENTITLED "PZ-25-00041 – SINGLE USE RESIDENTIAL IN THE COMMERCIAL AND PUBLIC FACILITY ZONES AND ADAPTIVE RESUE INCENTIVES"

RECITALS:

WHEREAS, pursuant to A.R.S. § 9-802 a municipality may enact or amend provisions of the City Code by reference to a public record, provided that the adopting ordinance is published in full;

WHEREAS, the City of Flagstaff wishes to incorporate by reference amendments to the Flagstaff Zoning Code, Ordinance No. 2025-16, by first declaring said amendments to be a public record.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

That certain document known as *"PZ-25-000041 – Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives"* attached hereto as Exhibit A is hereby declared to be a public record, and one (1) paper copy and one (1) electronic copy shall remain on file with the City Clerk in compliance with A.R.S. § 44-7041.

SECTION 2. Effective Date.

This resolution shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 16th day of September, 2025.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____

CITY ATTORNEY

Exhibits:
A. PZ-25-00041 – Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives

Case No. PZ-25-00041 – Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives

Provisions that are being deleted are shown in bold **~~strikethrough~~** text.
Provisions that are being added are shown in bold **red** text.

Section 1. Amend Title 10 Flagstaff Zoning Code, Chapter 10-30: General to All, Division 10-30.20: Affordable Housing Incentives, Section 10-30.20.040: Affordable Housing Incentives, Subsection 10-30.20.040.B: Incentives Defined to add incentives for High Occupancy Housing, Single Use Residential in Commercial Zones and Adaptive Reuse Projects as follows:

6. High Occupancy Housing. Housing Developments, either for rental or purchase, in which all Dwelling Units are Permanently Affordable and offered at 60 percent or less of the Area Median Income (AMI) in compliance with the Department of Housing and Urban Development regulations shall not be categorized as High Occupancy Housing Development, regardless of the number units, Bedrooms, or zoning.

7. Single Use Residential in the Commercial and Public Facility Zones. Housing Developments, providing a minimum of 20 percent of all Dwelling Units at an average of 80 percent AMI with a maximum household income of 100 percent AMI for a period of 30 years for rental or a minimum of 15 percent of all Dwelling Units at a maximum of 150 percent AMI for a period of 99 years for ownership are not required to obtain a Conditional Use permit as designated in Table 10-40.30.040.B.

8. Adaptive Reuse Projects. Housing Developments that are part of an Adaptive Reuse project providing a minimum of 20 percent of all Dwelling Units at an average of 80 percent AMI with a maximum household income of 100 percent AMI for a period of 30 years for rental or a minimum of 15 percent of all Dwelling Units at a maximum of 150 percent AMI for a period of 99 years for ownership.

a. Applicability. To be eligible for the Adaptive Reuse Project incentives, the following criteria must be met:

(i) The Building shall be a minimum of 15 years of age; and

(ii) The project may not include additions that exceed 25 percent of the floor area of the existing Building.

b. Adaptive Reuse Project Incentives. Applicable projects are not required to do the following:

(i) Provide additional parking spaces or update the existing parking spaces in accordance with Division 10-50.80: Parking Standards or Division 10-30.60: Site Planning Design Standards. All zoning code requirements for accessible parking shall apply. If the total parking required is less than the number of spaces that exist, then the number of parking spaces may be reduced to that number of required parking spaces; and

(ii) Provide additional or update the existing on-site landscaping in accordance with Division 10-50.60: Landscaping Standards; and

(iii) Provide Common Space as required by the zoning district; and

(iv) Comply with the provisions of Division 10-50.020: Architectural Design Standards.

Section 2. Amend Title 10 Flagstaff Zoning Code, Chapter 10-40: Specific to Zones, Division 10-40.30: Non-Transect Zones, Section 10-40.30.040: Commercial Zones, Table 10-40.30.030.C.: Residential Zones – Building Form and Property Development Standards, as follows:

Table 10-40.30.040.B.
Commercial Zones – Allowed Uses

Primary Land Use[1]	Specific Use Regulations	Commercial Zones					
		SC	CC	NCC	HC	CS	CB
Residential[5]							
Co-Housing	10-40.60.120	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]
Co-Housing as Part of a Mixed-Use Development	10-40.60.120	P	P	P	P	P	P
Congregate Care Facilities		UP	P	P	P	P	UP
Day Care, Centers	10-40.60.150.B	P	P	P	P	UP	UP
Day Care, Home	10-40.60.150.A	P	P	P	P	P	P
Dwelling, Duplex		UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]
Dwelling, Duplex as Part of a Mixed-Use Development		P	P	P	P	P	P
Dwelling, Multiple-Family		UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]	UP[5,9]
Dwelling, Multiple-Family as Part of a Mixed-Use Development		P	P	P	P	P	P
Dwelling, Single-Family Attached			P[5,7]	P[5,7]			
Dwelling, Single-Family Detached		--	P[5,7]	P[5,7]	--	--	--
Dwelling, Single-Family as Part of a Mixed-Use Development		P	P	P	P	P	P
Dormitories		UP	UP	UP	UP	UP	UP

Table 10-40.30.040.B. Commercial Zones – Allowed Uses							
Primary Land Use[1]	Specific Use Regulations	Commercial Zones					
		SC	CC	NCC	HC	CS	CB
Fraternities and Sororities		UP	UP	UP	UP	UP	UP
Group Homes		P[5,8]	P[5]	P[5]	P[5,8]	P[5,8]	P[5,8]
High Occupancy Housing Development, Single-Family	10-40.60.170	--	UP[9]	UP[9]	--	--	--
High Occupancy Housing Development, Two Units	10-40.60.170	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]
High Occupancy Housing Development, Three Units	10-40.60.170	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]
High Occupancy Housing Development, Four Units and Greater	10-40.60.170	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]
Home Occupation	10-40.60.180	P	P	P	P	P	P
Institutional Residential							
Custodial Care Facilities		P[6]	P[6]	P[6]	P[6]	P[6]	P[6]
Homeless Shelters							
Emergency Shelters	10-40.60.190	P[6]	P[6]	P[6]	P[6]	P[6]	P[6]
Short Term Housing		P[6]	P[6]	P[6]	P[6]	P[6]	P[6]
Transitional Housing		P	P	P	P	P	P
Sheltered Care Homes		P	P	P	P	P	P
Nursing Homes		UP	UP	UP	UP	UP	UP
Live/Work	10-40.60.200	P	P	P	P	P	P
Residence for Owner, Caretaker or Manager		P	P	P	P	P	P
Single Room Occupancy		UP	--	--	P	--	P

Table 10-40.30.040.B. Commercial Zones – Allowed Uses							
Primary Land Use[1]	Specific Use Regulations	Commercial Zones					
		SC	CC	NCC	HC	CS	CB
Retail Trade							
Bars/Taverns		P	P	P	P	P	P
Crematorium		P	P	P	P	P	--
Drive-through Retail	10-40.60.160	P	P	P	P	--	--
Drive-through Service		P	P	P	P	--	--
Farmers Markets and Flea Markets		--	P	P	P	P	P
General Retail Business		P	P	P	P	P	P
Mixed Use	10-40.60.260	P	P	P	P	P	P
Mixed-Use High Occupancy Housing Development	10-40.60.170 and 10-40.60.260	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]	UP[9]
Restaurant or Cafe		P	P	P	P	P	P
End Notes							
1. A definition of each listed use type is in Chapter 10-80, Definitions.							
2. Only allowed on lots that do not have highway frontage or behind existing/new commercial uses.							
3. Only permitted when incidental to permitted use.							
4. This use shall be screened. See Division 10-50.50, Fences and Screening, for fencing and screening requirements.							
5. Residential uses in the SC, CC, HC, CS and CB zones existing prior to the effective date of this Zoning Code are considered legal, conforming uses. Residential uses in the HC, CS and CB zones							

Table 10-40.30.040.B. Commercial Zones – Allowed Uses							
Primary Land Use[1]	Specific Use Regulations	Commercial Zones					
		SC	CC	NCC	HC	CS	CB
shall be subject to the development standards established in the HR zone. Residential uses in the SC, CC and NCC zones shall be subject to the development standards established in the MR zone.							
6. Conditional use permit is required if proximity between shelter facilities is less than one-quarter mile.							
7. Single-family and duplex dwellings are permitted by right on existing lots 9,000 square feet or less subject to the building placement and building form requirements of the MR zone.							
8. Only permitted in legal nonconforming single-family dwellings (attached or detached).							
9. Permitted without a Conditional Use permit per the provisions of Division 10-30.20: Affordable Housing Incentives.							
Key							
P = Permitted Use							
UP = Conditional Use Permit Required							
-- = Use Not Allowed							

Section 3. Amend Title 10 Flagstaff Zoning Code, Chapter 10-40: Specific to Zones, Division 10-40.30: Non-Transect Zones, Section 10-40.30.040: Commercial Zones, Table 10-40.30.030.C.: Residential Zones – Building Form and Property Development Standards, as follows

Table 10-40.30.060.B. **Public and Open Space Zones – Allowed Uses**				
Land Use	**Specific Use Regulations**	**Public and Open Space Zones**		
		PF	**PLF**	**POS**
Industrial, Manufacturing, Processing and Wholesaling				
Quarrying Operations	10-40.60.290	UP	--	--
Ranching, Forestry and Animal Keeping				
Forestry		--	P	--
Ranching		--	P	--
Recreation, Education and Assembly				
Commercial Campgrounds	10-40.60.130	UP	--	--
Commercial Recreation Facilities, Indoor		UP	--	--
Commercial Recreation Facilities, Outdoor	10-40.60.270	UP	--	--
Libraries, Museums		P	--	--
Outdoor Public Uses, General		P	--	--
Open Spaces		P	P	P
Parks or Recreation Facilities				
Active Recreation		P	--	--
Passive Recreation		P	P	P
Schools – Public and Charter		P	--	--
Schools – Private		UP	--	--
Universities and Colleges		P	--	--
Residential				
Employee Housing		P[1]	--	--
Dwelling, Duplex		UP[1, 2]	--	--
Dwelling, Multiple-Family		UP[1, 2]	--	--
Dwelling, Attached Single-Family		UP[1, 2]	--	--
Dwelling, Detached Single-Family		UP[1, 2]	--	--

Table 10-40.30.060.B.

Public and Open Space Zones – Allowed Uses

Land Use	Specific Use Regulations	Public and Open Space Zones		
		PF	PLF	POS
Institutional Residential				
Congregate Care Facilities		P	--	--
Convents or Monasteries		UP	--	--
Custodial Care Facilities		UP	--	--
Homeless Shelters	10-40.60.190			
Emergency Shelters		UP	--	--
Short Term Housing		UP	--	--
Transitional Housing		UP	--	--
Nursing Homes		UP	--	--
Sheltered Care Homes		UP	--	--
Retail Trade				
Farmers Markets and Flea Markets		P	--	--
Services				
Cemeteries		UP	--	--
Governmental Offices		P	--	--
Public Services				
Public Services Major		UP	--	--
Public Services Minor		UP	UP	--
Emergency Services		UP	--	--
Telecommunication Facilities				
AM Broadcasting Facilities	10-40.60.310	UP	UP	--
Antenna-Supporting Structure	10-40.60.310	UP	UP	--
Attached Telecommunication Facilities	10-40.60.310	P	P	--
Collocation Facility	10-40.60.310	P	P	--
FM/DTV/Low Wattage AM Broadcasting Facilities	10-40.60.310	P	UP	--
Stealth Telecommunication Facilities	10-40.60.310	P	P	--
Transportation and Infrastructure				
Accessory Wind Energy Systems	10-40.60.040	P	P	--

Table 10-40.30.060.B. **Public and Open Space Zones – Allowed Uses**				
Land Use	**Specific Use Regulations**	**Public and Open Space Zones**		
		PF	**PLF**	**POS**
Wind Energy Production Facility		UP	P	--
Airports/Landing Strips, Heliports, or Helistops	10-40.60.060	UP	--	--
Government Service/Maintenance Facilities		P	--	--
Municipal Airports		P	--	--
Urban Agriculture				
Community Gardens	10-40.60.140	P	--	--
Urban Farm	10-40.60.320	P	--	--
End Notes				
1. Residential Uses, not including Institutional Residential Uses, shall be subject to the Building form and property Development standards of the High Density Residential (HR) zone.				
2. Permitted without a Conditional Use permit as a Single-Use Residential Development per the provisions of Division 10-30.20: Affordable Housing Incentives.				
Key				
P = Permitted Use				
UP = Conditional Use Permit Required				
-- = Use Not Allowed				

Section 4. Amend Title 10 Flagstaff Zoning Code, Chapter 10-50: Supplemental to Zones, Division 10-50.80: Parking Standards, as follows:

Division 10-50.80:

Parking Standards

Sections:

10-50.80.010 Purpose

10-50.80.020 Applicability

10-50.80.030 General Parking Standards

10-50.80.040 Number of Motor Vehicle Parking Spaces Required

10-50.80.050 Bicycle Parking

10-50.80.060 Parking ~~**Adjustments**~~ **Reductions**

10-50.80.061 Transit Pass Parking Reduction Pilot Program

10-50.80.070 Parking Alternatives

10-50.80.080 Parking Spaces, Parking Lot Design and Layout

10-50.80.090 Development and Maintenance

Section 4. Amend Title 10 Flagstaff Zoning Code, Chapter 10-50: Supplemental to Zones, Division 10-50.80: Parking Standards, Section 10-50.80.060: Parking Adjustments, as follows:

10-50.80.060 Parking ~~**Adjustments**~~ **Reductions**

The purpose of these reductions is to allow applicable Developments to reduce the required off-street parking to encourage more pedestrian activity, reduce vehicle trips between land uses, and promote re-investment, preservation, and revitalization of existing neighborhoods as well as sustainability. The amount of parking required for a specific land use may be reduced from what is otherwise required when one of the following provisions is applicable to the development site. In the case that more than one parking ~~**adjustment**~~ **reduction** may apply, ~~**for example as a result of allowed reductions for affordable housing (see Division 10-30.20, Affordable Housing Incentives), reductions for bike racks, or any other reduction authorized by this code,**~~ the cumulative parking **reduction** ~~**adjustment**~~ shall not exceed 20 percent **except as otherwise noted**. However, in multifamily residential developments no less than one parking space per residential unit shall be required, unless **otherwise** approved by **the** City Council~~**. as part of an affordable housing development meeting the criteria set**~~

~~forth in Section 10-30.20.040.B.4.c.~~ **All zoning code requirements for accessible parking shall apply regardless of the reduction or substitution employed.**

A. Transit. In all zones, a parking reduction of up to 10 percent may be approved by the Director for any use within 1,320 feet of a permanent transit stop, except for a High Occupancy Housing Development (HOHD) or a Mixed-Use High Occupancy Housing Development (MHOHD). The distance between the permanent transit stop to the Development Site shall be measured following a continuously improved sidewalk and/or public paved trail.

B. Forest Resources Reduction. The number of parking spaces required for a new Development may be reduced by no more than five percent if existing native trees such as ponderosa pine trees are located within parking areas (but not circulation areas) and these trees are required to be preserved to satisfy the requirements for Forest Resource protection as defined in Division 10-50.90, Resource Protection Standards, except for an HOHD or MHOHD. An applicant shall demonstrate to the satisfaction of the Director the preservation of existing native trees within the parking area.

C. Bicycle Parking Reduction. The Director may allow a reduction of one required motor vehicle parking space for each four bicycle parking spaces provided to a maximum of five percent of the required motor vehicle parking spaces, except for an HOHD or MHOHD.

D. Motorcycle Parking Substitution. The substitution of one motor vehicle parking space for one motorcycle parking space for either multifamily residential or nonresidential uses may be allowed by the Director subject to the following standards:

1. Each motorcycle space shall be easily accessible and have adequate space for a standard-size motorcycle, i.e., a minimum dimension of four feet by nine feet.

2. Motorcycle parking areas shall be clearly identified with appropriate striping.

3. No more than five percent of the total motor vehicle spaces may be substituted for a motorcycle parking space.

E. Adaptive Reuse Reduction. No additional off-street parking shall be required for the Adaptive Reuse of a Building that meets the following requirements:

1. **The Building shall be a minimum of 15 years of age; and**
2. **The Development shall be a non-residential use or a Mixed-Use Building; and**

3. The size of the Building shall not exceed 5,000 gross square feet including any proposed additions. No proposed additions may exceed fifty percent of the existing Building; and

4. On-street public parking is available within 1,320 feet from the Development Site.

F~~B~~. Shared On-Site Parking **Reduction**. Where two or more uses on the same site or adjacent parcels have distinct and differing peak parking usage periods (e.g., a theater and a bank), a reduction in the required number of parking spaces as determined by the Director may be allowed in the following manner:

1. The reduction in number of required parking spaces shall be based on a parking demand study. The parking demand study shall be in accordance with established professional practices.
2. Approval shall also require a recorded covenant running with the land, recorded by the owner of the parking lot, guaranteeing that the required parking will be maintained exclusively for the uses served and remain for the duration of the use.

G~~C~~. Parking Demand Study – Reduced Parking.

1. The property owner shall submit a study/plan prepared in accordance with the established professional traffic and parking practices by a registrant licensed to practice in the State of Arizona. The study/plan shall document how any reductions are calculated and the assumptions utilized in the calculations.

2. The Director may approve a reduction equal to, or less than, 30 percent of the total parking spaces required by this Division, except as required in subsection C.3. of this section. Any request greater than 30 percent requires the approval of the City Council.

3. Any request to use a Parking Demand Study to reduce the required parking for an HOHD or MHOHD shall be approved by the City Council.

H~~D~~. Traffic Management Plan Parking Reduction. The Director shall have the ability to reduce the parking requirements for office and other uses in Section 10-50.80.040, Number of Motor Vehicle Parking Spaces Required, except for an HOHD or MHOHD. A traffic management plan shall be submitted with an application for site plan review. A reduction may be granted if the following standards are met:

1. The amount of the reduction shall be no more than 90 percent of the proposed reduction in employee motor vehicle trips.

2. The buildings shall have a single user/owner who can effectively exercise control over compliance with the plan.

3. The traffic management plan shall be submitted by a registered traffic engineer and shall include data on the effectiveness of similar plans elsewhere.

4. The traffic management plan shall contain information on the strategies, designated parking, incentives, company vehicles, staggered work hours, and information indicating the owner's ability to provide and enforce these elements over time.

5. The Director may impose conditions that are needed to ensure the long-term compliance to the plan, including but not limited to a reserve parking area, phasing, or contributions to transit or other alternative means of transportation.

~~**E. Parking Reduction for Forest Resources. The number of parking spaces required for a new development may be reduced by no more than five percent if existing native trees such as ponderosa pine trees are located within parking areas (but not circulation areas) and these trees are required to be preserved to satisfy the requirements for forest resource protection as defined in Division10-50.90, Resource Protection Standards, except for an HOHD or MHOHD. An applicant shall demonstrate to the satisfaction of the Director that by incorporating these existing native trees within the parking area, adequate measures are taken during construction to ensure that the trees are protected from construction activity.**~~

~~**F. Bicycle Parking Reduction. The Director may allow a reduction of one required motor vehicle parking space for each four bicycle parking spaces provided to a maximum of five percent of the required motor vehicle parking spaces, except for an HOHD or MHOHD.**~~

~~***G.* Motorcycle Parking Reduction. A reduction of one parking space for multifamily residential and nonresidential uses may be allowed by the Director if one motorcycle parking space for every 25 required motor vehicle spaces is provided, subject to the following standards:**~~

~~**1. Each motorcycle space shall be easily accessible and have adequate space for a standard-size motorcycle, i.e., a minimum dimension of four feet by nine feet.**~~

~~**2. Motorcycle parking areas shall be clearly identified with appropriate striping.**~~

Section 5. Amend Title 10 Flagstaff Zoning Code, Chapter 10-80: Definitions, Division 10-80.20: Definition of Specialized Terms, Phrases, and Building Functions, Section 10-80.10: Definitions "A", as follows:

Adaptive Reuse: The repurposing of an existing Building from the use for which it was constructed to a new use by preserving the elements of the existing Building rather than demolition.

Section 6. Amend Title 10 Flagstaff Zoning Code, Chapter 10-80: Definitions, Division 10-80.20: Definition of Specialized Terms, Phrases, and Building Functions, Section 10-80.190: Definitions "S", as follows:

Single-Use Residential: A Development containing only residential uses.

ORDINANCE NO. 2025-16

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE, TITLE 10, FLAGSTAFF ZONING CODE, BY ADOPTING BY REFERENCE THAT CERTAIN DOCUMENT ENTITLED "PZ-25-00041 – SINGLE USE RESIDENTIAL IN THE COMMERCIAL AND PUBLIC FACILITY ZONES AND ADAPTIVE REUSE INCENTIVES"; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff wishes to amend provisions in Chapter 10-30: General to All, Division 10-30.20: Affordable Housing Incentives and Chapter 10-40: Specific to Zones, Division 10-40.30: Non-Transect Zones, Table 10-40.30.040.B. and Table 10-40.30.060./b Specifically, to add an incentive for both Single Use Residential development in the commercial and Public Facility zones and for qualifying Adaptive Reuse projects; and

WHEREAS, the City of Flagstaff wishes to amend provisions in Chapter 10-50: Supplemental to Zones, Division 10-50.80: Parking Standards, Section 10-50.80.060 Parking Adjustments. Specifically, to change parking adjustments to parking reductions, reorganize allowed reductions, clarify motorcycle parking substitution, and add a reduction for adaptive reuse projects less than 5,000 square feet; and

WHEREAS, a citizen review session was held at the Planning Commission work session on June 25, 2025, to discuss the proposed Zoning Code text amendment in accordance with Section 10-20.50.040 of the Flagstaff Zoning Code; and

WHEREAS, the Planning and Zoning Commission held a public hearing on August 13, 2025, and provided a recommendation to City Council on the proposed Zoning Code text amendment; and

WHEREAS, the Council has read and considered the staff report prepared by the Planning and Development Services section of the Community Development division and all attachments to those reports, and the Council finds that the proposed Zoning Code text amendment is in conformance with the General Plan, and the findings of Section 10-20.50.040 of the Flagstaff Zoning Code have been met; and

WHEREAS, that certain document known as *"PZ-25-00041 – Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives"*, one (1) paper copy and one (1) electronic copy of which are on file with the City Clerk in compliance with A.R.S. § 44-7041, was declared to be a public record by Resolution No. 2025-42.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. The foregoing recitals are incorporated as if fully set forth herein.

SECTION 2. That certain document known as *"PZ-25-00041–Single Use Residential in the Commercial and Public Facility Zones and Adaptive Reuse Incentives"*, one (1) paper copy and (1) electronic copy of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, and which document is declared a public record by Resolution No. 2025-42 of the City of Flagstaff, Arizona, is hereby referred to, adopted and made a part hereof as if fully set out in this ordinance and its provisions are hereby declared to amend the Flagstaff City Code, replacing and superseding the existing relevant provisions of the City Code, as set forth therein.

SECTION 3. The amendment is consistent with and conforms to the goals of the Regional Plan (General Plan).

SECTION 4. The amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City, and will add to the public good as described in the General Plan.

SECTION 5. The amendment is internally consistent with other applicable provisions of this Zoning Code.

SECTION 6. Repeal of Conflicting Ordinances

All ordinances and parts of ordinances in conflict with the provisions of the code adopted herein are hereby repealed.

SECTION 7. Severability

If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 8. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 9. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 16th day of September 2025.

_____

MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

HOUSING IMPACT STATEMENT
PZ-25-00041 SINGLE USE RESIDENTIAL IN THE COMMERCIAL AND PUBLIC FACILITY ZONES AND ADAPTIVE REUSE INCENTIVES

Pursuant to ARS 9-462.01 (J) a Housing Impact Statement shall be considered by the City Council prior to adopting a Zoning Code Text Amendment regarding the impact of the amendment on the following:

1. A general estimate of the probable impact on the average cost to construct housing for sale or rent within the zoning districts to which the zoning text amendment applies.

   The proposed zoning code text amendment would only have the potential to reduce costs affiliated with the cost of construction including reducing review timeframes and fees when developments provide Affordable Housing units.

2. A description of any data or reference material on which the proposed zoning text amendment is based.

   Staff worked in partnership with the City of Flagstaff Housing section to implement their 10-year housing plan. This incentive is meant to also work in tandem with affordable housing bond funds set aside for assistance with adaptive reuse projects that provide affordable housing units.

3. A description of any less costly or less restrictive alternative methods of achieving the purpose of the proposed zoning text amendment.

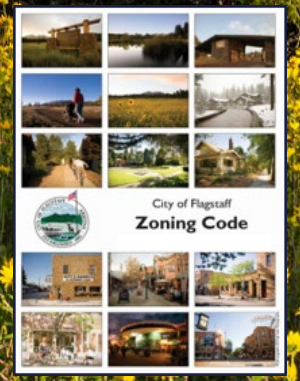
   Alternatives include allowing single use residential in the commercial and public facility zones by right which could increase total number of housing units but does not guarantee that housing units will be provided as affordable housing units as defined by the Zoning Code. Additionally, allowing adaptive reuse developments to move forward without complying with regular development requirements by right instead of as an incentive to provide affordable housing units.

PZ-25-00041: Single Use Residential & Adaptive Reuse Incentives

September 2, 2025

Tiffany Antol, AICP
Zoning Code Manager

TEAM FLAGSTAFF
WE MAKE THE CITY BETTER



Single Use Residential & Adaptive Reuse

Why is this amendment happening?

Proposition 442 authorized a general obligation bond of $20,000,000 for the creation of rental and homeownership opportunities for residents of Flagstaff in 2022.

This funding…will allow the City of Flagstaff to partner with private developers, non-profits included, to repurpose existing and available buildings and spaces into rental opportunities for the residents of Flagstaff

This specific program will offer approximately $3M in general obligation bond funds through an open call for applications. Funding will be provided as forgivable 30-year loans to assist non-profit or for-profit developers in repurposing and rehabilitating existing buildings into affordable rental units.

Single Use Residential & Adaptive Reuse

Background

- **The Code Analysis Project identified the current requirement for a Conditional Use Permit for single use residential land uses in commercial zones as a potential impediment to increasing housing stock in Flagstaff.**
- **The Code Concepts report includes suggestions for either incentivizing single use residential land uses in commercial zones or allowing them by-right.**
- **In support of the release of bond funding for adaptive reuse residential projects that provide affordable housing units, staff is pursing the most conservative approach to allowing single use residential land uses in commercial zones by removing the requirement for a CUP when affordable housing units are provided.**

Single Use Residential & Adaptive Reuse

What does the amendment include?

- **Includes new definitions for both Adaptive Reuse and Single Use Residential**
- **Creates two new affordable housing incentives for Adaptive Reuse and Single Use Residential developments.**
- **Relocates an existing affordable housing incentive for High Occupancy Housing developments from the definitions to the Affordable Housing Incentives.**
- **Provides reduced parking incentives for nonresidential adaptive reuse projects.**
- **Clarifies existing allowed parking reductions.**

Single Use Residential & Adaptive Reuse

New Definitions

- **Single-Use Residential:** A development containing only residential uses.
- **Adaptive Reuse:** The repurposing of an existing building from the use for which it was constructed to a new use by preserving the elements of the existing building rather than demolition.

Single Use Residential & Adaptive Reuse

New Affordable Housing Incentive

Single Use Residential in Commercial and Public Facility Zones. (This provision is not specific to Adaptive Reuse and may include new construction projects).

Projects providing a minimum of 20% of all housing units within the development at an average of 80% AMI (with a maximum household income of 100% AMI) for a period of 30 years for rental or a minimum of 15% of all housing units at a maximum of 150% AMI for a period of 99 years for ownership are not required to obtain a Conditional Use Permit.

New Affordable Housing Incentive

Adaptive Reuse Projects. (May not be a single use residential project in a commercial zone)

Projects providing a minimum of 20% of all housing units within the development at an average of 80% AMI (with a maximum household income of 100% AMI) for a period of 30 years for rental or a minimum of 15% of all housing units at a maximum of 150% AMI for a period of 99 years for ownership.

Adaptive Reuse Applicability

To be eligible for the Adaptive Reuse Project incentives, the following criteria must be met:

(i) The building shall be a minimum of fifteen years of age; and

(ii) The project may not include additions that exceed 25% of the existing building.

Adaptive Reuse Incentives

Applicable projects are NOT required to do the following:

(i) Provide additional parking spaces or update the existing parking spaces in accordance with Division 10-50.80: Parking Standards or Division 10-30.60: Site Planning Design Standards. All Zoning Ordinance requirements for accessible parking shall apply. If the total parking required is less than the number of spaces that exist, then the number of parking spaces may be reduced to that number of required parking spaces, and

Adaptive Reuse Incentives

(ii) Provide additional or update the existing on-site landscaping in accordance with Division 10-50.60: Landscaping Standards, and

(iii) Provide Common Space as required by the zoning district, and

(iv) Comply with the provisions of Division 10-50.020: Architectural Design Standards.

Non Residential Adaptive Reuse Parking Reductions

No additional off-street parking shall be required for the Adaptive Reuse of a Building that meets the following requirements:

1. **The Building shall be a minimum of 15 years of age; and**
2. **The Development shall be a non-residential use or a Mixed-Use Building; and**
3. **The size of the Building shall not exceed 5,000 gross square feet including any proposed additions. No proposed additions may exceed fifty percent of the existing Building; and**
4. **On-street public parking is available within 1,320 feet from the Development Site.**

Single Use Residential & Adaptive Reuse

Staff Recommendation

Findings for Zoning Code Text Amendments:

(1) The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan;

(2) The proposed amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City; and

(3) The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

Single Use Residential & Adaptive Reuse

The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

Flagstaff Regional Plan 2030

Policy LU.1.10. Consider adaptive reuse possibilities when new big box developments are proposed.

Goal LU.10. Increase the proportion of urban neighborhoods to achieve walkable, compact growth.

Policy LU.10.6. In mixed use developments, encourage residential uses located above and behind commercial uses within urban areas as well as a variety of housing types where appropriate.

Policy LU.15.2. Consider the compatible integration of residential uses and proposed employment centers to reduce vehicle trips and commute times.

Policy LU.18.8. Increase residential densities, live-work units, and home occupations within the activity center's pedestrian shed.

Policy LU.18.12. Corridors should focus commercial development to the corridor frontage and residential to the back.

Single Use Residential & Adaptive Reuse

The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

Flagstaff Regional Plan 2030

Policy CC.2.9. Strengthen the City's historic preservation and adaptive reuse programs by increasing funding for further inventories, grants to property owners, and education campaigns, especially, where the underlying Zoning for the historic resource put it at risk.

Policy CC.2.10. Educate the community and developers on the benefits of adaptive reuse and create policies to incentivize the reuse of historic buildings to maintain their integrity.

Policy NH.2.1. Encourage the rehabilitation of historic downtown structures and contextual new structures as office, retail, entertainment, and residential space to reinvigorate the area as a destination of culture, shopping, government, and the arts.

The above referenced goals and policies show general support for allowing residential uses in commercial zones and supporting or incentivizing adaptive reuse projects. There are no policies in the Regional Plan that support the reduction of parking.

Single Use Residential & Adaptive Reuse

The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

10-Year Housing Plan

Create 1: Incentivize the creation of affordable units through various programs and mechanisms.

Create 1.1: Ensure that modifications to the zoning code improve and maintain the effectiveness of the density incentives for affordable housing.

Create 1.2: Update the City's affordable housing incentive policy to implement the goals and policies of the 10-Year Housing Plan.

Create 1.3: Amend the City code to implement the revised affordable housing incentive policy.

Preserve 1: Encourage the adaptive reuse of buildings.

Preserve 1.2: Review the Land use Goals and Policies in the Regional Plan, Specific Plans, and City code to remove barriers to adaptive reuse for the creation of affordable housing.

Single Use Residential & Adaptive Reuse

The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

Carbon Neutrality Plan

HA-1: Create housing options for households at all income levels and family sizes occupied by local residents.
HA-2: Connect people to equitable housing solutions.
HA-3: Preserve affordable housing.

Single Use Residential & Adaptive Reuse

The proposed amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City.

The proposed amendment is intended to enhance public health and safety by incentivizing the contribution of affordable housing units as defined by the Zoning Code. In addition, the amendment incentivizes the reuse of existing commercial buildings for residential development by minimizing site improvement requirements including parking, landscaping, architectural design standards, and site planning design standards. Lastly, the amendment includes provisions for nonresidential adaptive reuse projects that reduce the amount of on-site parking requirements.

Single Use Residential & Adaptive Reuse

The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

The amendment is internally consistent with the existing Zoning Code, following its format and aligning with its comprehensive purpose. It does not conflict with any other provisions and ensures that the Zoning Code remains clear, usable, and easily understood.

Single Use Residential & Adaptive Reuse

Recommendation

The Planning and Zoning Commission recommendation on this item will be presented at the Council meeting.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Collin Seay, Deputy Police Chief - Patrol Operations

Co-Submitter: Emily Markel

Date: 08/25/2025

Meeting Date: 09/02/2025

TITLE:

Consideration and Approval of Contract: First Amendment to the Cooperative Purchase Contract with Flock Safety in the amount of $112,000, in addition to other fees and taxes, for safety cameras for the Flagstaff Police Department

Consideration and Direction on Citizen Petition: Freeing Flagstaff from invasive surveillance

STAFF RECOMMENDED ACTION:

1. Police Department presents on the contract amendment.
2. Introduce the citizen petition and take public comment.
3. Council provides direction on the citizen petition.
    1. If petition is advanced, postpone action on the contract amendment until after the citizen petition discussion
    2. If petition is declined, take action on the contract amendment
4. Approve the First Amendment to the Cooperative Purchase Contract with Flock Safety in the amount of $112,000, in addition to other fees and taxes, to the purchase of the Flock Cloud-Based Public Safety Program to include thirty-two (32) Flock Safety cameras and (1) Flock Safety Falcon system for the north and south downtown districts; and authorize the City Manager to execute the necessary documents.

Executive Summary:

In regards to the Citizen petition: In accordance with Art. II, Sect. 17 of the Flagstaff City Charter, any citizen may present a written petition to the City Manager, signed by a minimum of 25 citizens from the City...who shall present it to the Council at its next regular meeting. The attached petition was filed with the City Clerk's Office on August 20, 2025, requesting "Freeing Flagstaff from invasive surveillance."

In regards to the contract amendment: The Flagstaff Police Department is interested in continuing our automated license plate reader (ALPR) cameras in Flagstaff. The Northern Arizona University Police Department and Coconino County Sheriff's Office have implemented their Flock Safety ALPR programs, and our participation will make our community and the region safer. This Flock Cloud-Based Public Safety Program ("Program") allows for the continued installation of thirty-two (32) ALPR cameras at the entrances and exits to Flagstaff and at major intersections within the community. Cameras will continue to be mounted on existing city-owned infrastructure, on designated city-owned areas, or on approved infrastructure with the permission of the Arizona Department of Transportation (ADOT). The cameras are solar-powered with cell phone technology and designed to function during all seasons. The installation and maintenance of each camera is included with the annual cost of the camera.

ALPR cameras take still images of license plates as they pass through designated locations in Flagstaff, and these images are maintained in their cloud storage for thirty days. The provided operating system from Flock Safety can be queried by a law enforcement officer only for a legitimate law enforcement purpose, which is entered and archived into the cloud-based public safety platform (called FlockOS). The Flagstaff Police Department has experienced numerous successes since the installation of these cameras, and they include

an arrest of a local homicide suspect, the arrest of a fatal hit-and-run driver, numerous recovered stolen vehicles and trailers, locating dangerous warrant suspects, narcotics traffickers, and finding missing subjects from our community. Many crimes that occur in Flagstaff typically involve a vehicle in the crime, and this tool will allow the police department to gather leads and solve crimes that were once considered unsolvable. Examples would be the following:

1. Hit-and-Run investigation where the victim only gets a vehicle description of the suspect
2. Human trafficking case where a vehicle is known to law enforcement
3. Bank robbery where the driver leaves the scene in a specific make and model of vehicle
4. Vehicles used to traffic deadly fentanyl through our community
5. Drive-by shootings, active shooter, and other weapon-related calls where the suspect leaves the scene in a vehicle
6. Amber alert scenarios where endangered juveniles enter or exit the city
7. Silver alert scenarios where endangered subjects are missing from their loved ones
8. Catalytic converter thefts where a description of a suspect vehicle is obtained
9. Stolen vehicles
10. Impaired-driver alerts that get reported to the communication center

The FlockOS platform will allow officers to query the system, with supervisor approval, for a make and model of vehicle involved in a crime like those listed above and get a photo bank of license plates and pictures of similar vehicles that could have been involved in the crime. The FlockOS platform can also be configured to immediately notify the communications center and officers in the field if a stolen vehicle, amber alert, silver alert, vehicle wanted in a homicide or major crime, or another specific vehicle needed by law enforcement has entered or exited our community. The Flagstaff Police Department has existing policy and procedure for this technology and regularly audits the Flock OS system to ensure it is used correctly.

We genuinely believe the community will continue to be a safer place with this technology because it will prevent or reduce the likelihood of some of the crimes listed above. We have had overwhelming success in making our community safer in this first year while being extremely considerate of the community's right to privacy.

Financial Impact:
Project Name: Flock Safety ALPR Cameras for the Flagstaff Police Department
Cost: $112,000.00 in addition to other fees and taxes
Account Number Budgeted: 001-04-061-0222-2-4343
FY Budgeted Amount: $110,000. The additional $12,512 to cover this contract plus taxes and fees will be covered from 001-04-061-0220-2-4229.
Grant Funded: No
Funding Source: General Fund, FPD Budget FY2025-26

Policy Impact:
Aligns with Police Department mission of protecting and preserving life.

Previous Council Decision or Community Discussion:

- At a City Council meeting on June 18, 2024, the Flagstaff City Council approved an initial Cooperative Purchase Contract with Flock Safety for the FY 2024-25 Flock Cloud-Based Public Safety Program.
- On June 27, 2024, the City of Flagstaff entered into a Cooperative Purchase Contract with Flock Safety at a cost of $124,000, in addition to other fees and taxes (see attached).
- City Leadership and budget team have also approved this Flock Cloud-Based Public Safety Program in our FY2025-26 budget, which was voted on by council prior to the new budget year.

Options and Alternatives to Recommended Action:

1. City Council can approve the First Amendment to the Cooperative Purchase Contract with Flock Safety for the purchase of public safety cameras; or

2. City Council can deny the First Amendment to the Cooperative Purchase Contract with Flock Safety for the purchase of public safety cameras.

Background and History:
The Flagstaff Police Department patrol division has struggled with staffing for several decades, and this technology allows our department to obtain leads on cases which were previously thought to be unsolvable because law enforcement members did not detect them. The Flock Safety camera system serves as a force multiplier for our department, and we have many documented successes in our first year with the technology. In 2023 and 2024 alone, we have calculated numerous hit-and-run cases, shooting cases, homicide cases, and sexual assault cases where the Flock Safety cameras would have given our investigators leads to help solve these crimes.

The LPR information is shared with other law enforcement agencies. This is similar to other law enforcement databases that agencies use to share information with each other to protect their communities. An example of the advantage of sharing data would be a case our Detectives are currently working pn involving high-end stolen trailers from local business owners. Our Detectives were able to track these missing vehicles through multiple states to provide the best level of service to our victim. We share our ALPR data with state and local police agencies only, and we currently do not share this date with any federal law enforcement agency. Law enforcement agencies sharing data leads to more interoperability between law enforecement agencies, and this is especially critical when a member of our community is in danger or a victim of crime.

In June 2024, PD and Procurement worked together to create a cooperative contract pilot purchase with FlockOS to test the product and confirm its validity. The Flock Cloud-Based Public Safety Program has proven to be a success; there is a need to amend the original Cooperative Purchase Contract to continue the usage of the FlockOS hardware and software to protect and serve the Flagstaff community.

Connection to PBB Priorities and Objectives:
Safe and Healthy Community, Provide public safety services with resources, staff, and training responsive to the community's needs.

Connection to Regional Plan:
Policy PF.3.1. Maintain high-quality effectiveness and efficiency in law enforcement, fire, and emergency services to the extent that is consistent with governmental operations, plans, public policies, population served, and monies available.

Connection to Carbon Neutrality Plan:
There is no impact to Carbon Neutrality Plan.

Connection to 10-Year Housing Plan:
There is no impact on 10-Year Housing Plan.

Connection to Division Specific Plan:
Our mission is to protect and preserve life, property and public order by providing elite service. This technology will better allow our officers to achieve this mission by not only having the right technology to solve crimes involving vehicles but reducing the occurrence of crime and the fear of crime in our community. We strive to make Flagstaff the safest city in Arizona to live in and embracing this technology is one piece toward that vision.

Attachments: Citizen Petition - 2025-01
Presentation
2024 City of Flagstaff Cooperative Contract Amendment

RECEIVED
AUG 20 2025
BY: Georgana Staskey
2025-01

PETITION TO FLAGSTAFF CITY COUNCIL

Pursuant to Flagstaff City Charter Article II Section 17
and Flagstaff City Code Title I Chapter 12

Pursuant to the Flagstaff City Charter and the City Code, any citizen (resident) of the City may present a written petition to the City Manager, signed by a minimum of 25 citizens from the City of Flagstaff, which shall be presented to the City Council.

Title of Issue: Freeing Flagstaff from invasive surveillance ~~and fascizing tech~~

Action Requested: 1. Do not renew the City's contract with Flock Safety for Automated License Plate Reader cameras and cause all such cameras currently installed in Flagstaff to be uninstalled. 2. Resolve not to entangle the City with Big Tech Surveillance in future.

Printed Name of Submitter: Brendan Trachsel

(Submitter must also sign below and complete information)

Contact Information: (858)880-5962, brendantrachsel@fastmail.com

(Phone Number and/or e-mail address)

PETITION SIGNATURES

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
8/16/25	Jennifer Dorn	[redacted]	
8/16/25	Kristoffer Stein		
8/16/25	FRADY MAESTAS		
~~8/16/25~~	~~Katherine Noll~~		~~Katherine Noll~~
8/16/25	Ruth Porter Tilma		
8/16/25	Adam Neisen		
8/16/25	Wren Carr		
8/16/25	Wesley Carr		
8-16-25	SAMUEL SMITH		
8-16-25	Joe Pavlik		

Out of Range

RECEIVED BY CITY OF FLAGSTAFF		
DATE RECEIVED	BY	COUNCIL MEETING DATE

02/2016

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(Phone Number and/or e-mail address)

PETITION SIGNATURES

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
08/16	Neha Khurana	[redacted]	
8/16	Sean Pagson		
8/16/25	Michael Caulkins		Michael Caulkins
8/16/25	EMILY JOHNSON		
8/16/25	KATELIN LAWRENCE		
8/16/	Rodney L Batey		Rodney L Batey
8/16/25	Joni Sykora		Joni Sykora
8/16/25	Cole Lessard		

RECEIVED BY CITY OF FLAGSTAFF		
DATE RECEIVED	BY	COUNCIL MEETING DATE

02/2016

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(Submitter must also sign below and complete information)

Contact Information: (858) 880-5962, brendantrachsel@fastmail.com
(Phone Number and/or e-mail address)

PETITION SIGNATURES

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
8/16/25	Kainoa Kelly	[redacted]	
8/16/25	Brendan Trachsel		B. Trachsel
8/16/25	Elizabeth Deere		Elizabeth Deere
8/16/25	Fen Salix		
8/16/25	THOMAS HUTTNER		
8/16/25	Mars Purcell		M. C. Purcell
8/16/25	Celia Barotz		Celia Barotz
8/16/25	CJ Lucke		
8/16/25	Kevin White		Kevin White
8/16/25	Abigayle Wilson		

RECEIVED BY CITY OF FLAGSTAFF		
DATE RECEIVED	BY	COUNCIL MEETING DATE

02/2016

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE: ban Flock Cameras **PAGE** _____ **OF** _____

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
8/16/25	Sarah Andrews	[redacted]	
8/16/25	Andres Adamo		

02/2016

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE: Ban flock Cameras **PAGE** _____ **OF** _____

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
08/16/25	Elijah Bustamante	[redacted]	st [signature]
08-16-25	Kristi Wutt	[redacted]	[signature]

02/2016

Automated License Plate Reader (ALPR) Discussion with the Flagstaff City Council for the Flagstaff Police Department

September 2, 2025

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

City of Flagstaff ALPR Discussion

The Flagstaff Police Department's Commitment:

- Our Mission is to protect and preserve life, property, and public order through Elite Service.

- We are committed to leveraging the usage of modern technology to best serve our community and victims of crime.

- We also are cognizant and respect the community's right to privacy.

City of Flagstaff ALPR Discussion

History of Flagstaff Police Department ALPR Program:

- Brought first Flock contract to Council on June 18, 2024 which as approved by Budget Team and Council.
- Requested and received permits with City and Arizona Department of Transportation (ADOT).
- Flock cameras went live in the Fall of 2024.
- Community member shared comments with Council in a March 2025 meeting, and PD responded to Mayor and Council follow up questions.
- Arizona Daily Sun did an article on ALPR technology which ran on July 30, 2025.

City of Flagstaff ALPR Discussion

Information about ALPR Technology:

They are fixed solar cameras that use cellular technology.





City of Flagstaff ALPR Discussion

Case Examples that Highlighted the need for ALPRs:

- 1400 N Fourth St fatal hit and run collision in 2011. Our victim was 17-year-old Jennifer Bekay.

- 2023 sexual assault at Park and E Route 66

- June 2024 murder of Kelly Paduchowski

City of Flagstaff ALPR Discussion

What is an ALPR?

- ALPRs take still images of license plates and rear of vehicles as they pass a fixed location where the ALPR is located. No personal identifying information is captured.
- This data is owned by Flagstaff PD and is stored for 30 days only
- ALPR technology notifies FPD officers of stolen vehicle, missing and wanted persons, protection orders, terrorist-related activity, Amber Alert, Blue Alert, and Silver Alerts.
- An officer can query the ALPR system after they input an auditable criminal justice purpose.
- An officer can create a hot list after receiving supervisor approval. This allows the officer to be alerted if a vehicle of interest in criminal activity is scanned in Flagstaff. An example would be a vehicle involved in a crime.
- 7 out of 10 crimes in America involve a vehicle (IACP)

City of Flagstaff ALPR Discussion

Competitors on the Market:

- Flock Safety
  - Company started in 2017, first law enforcement contract in 2019
  - Helped recover over 1000 missing persons
  - 30-day storage
  - Audit Log

- Motorola Vigilant

- Axon International

City of Flagstaff ALPR Discussion

Our Policy:

- All officers must attend an in-house training on the usage of Flock Operating System (FlockOS)
  - They also must past exams on alert and search tool certifications.
- All officers must go over our policy with our legal advisor in the training.
- If an officer receives an alert hit in the field, they must confirm the plate and the information prior to enforcement.
- An officer must get supervisor approval prior to creation of a hot list.

City of Flagstaff ALPR Discussion

Quality Control and Auditing:

- We have an ALPR administrator who oversees the program (DC Seay, LT Darr)
- We have an in-house trainer who teaches the program and goes over the policy with legal (Ofc. Condon).
- The Office of Professional Standards conducts monthly audits of inquiries and hot lists to ensure the system is used correctly.
- All hot list entries must be approved by a supervisor, have an expiration date, and are routinely audited.

City of Flagstaff ALPR Discussion

Our Flock camera deployment

- FPD currently has 32 fixed ALPR cameras and 4 battery operated flex cameras. They are deployed on major thoroughfares and locations of ingress and egress in the city.



City of Flagstaff ALPR Discussion

Agency Data Sharing:

- We previously shared our ALPR data with 146 police agencies around the United States.
- We recently reduced this to only 50 Arizona agencies only.
- When an officer queries the system, it may show a scan in an out of state jurisdiction. The officer/investigator would have to contact the agency for further information about the vehicle.
- We do not share scans with federal police agencies. Requests can be made on a case-by-case basis and are not used for immigration cases.

City of Flagstaff ALPR Discussion

Victim Success Stories:

- A murder case suspect was located, apprehended, and taken into custody
- Identified the vehicle involved in a drive by shooting and cleared an innocent person who was initially indicated as the shooter
- Located the vehicle a murder suspect stole in Camp Verde entering Flagstaff

City of Flagstaff ALPR Discussion

Victim Success Stories Continued:

- Captured the vehicle that fatally struck a pedestrian at Route 66 and Fourth St
- Found a missing/suicidal person who said they were going to stand in front of train before she entered the tracks
- Identified a string of grand theft autos
- Obtained license plate on vehicle involved in theft of construction supplies
- Vehicle linked to numerous vehicle burglaries

City of Flagstaff ALPR Discussion

Contract Amendment:

- Amendment to fund ALPRs for fiscal year 2025-2026
- 32 Flock cameras and 1 Flock Falcon system
- $112,000 in addition to other fees and taxes
- Funding allocation in fiscal year budget

Questions & Comments

FPD ALPR Discussion





DocuSign Envelope ID: 17507265-F7C1-4C3D-877B-5E00C0B15918

COOPERATIVE PURCHASE CONTRACT
Contract No. 2024-163

This Cooperative Purchase Contract is made and entered into this 27 day of June, 20 24 by and between the City of Flagstaff, Arizona, a political subdivision of the State of Arizona ("City") and Flock Group, Inc. dba Flock Safety, a Delaware Corporation ("Contractor").

RECITALS:

A. Contractor is a fully authorized vendor of FlockOS Hardware and Software.

B. The City of Tempe, conducted a competitive and open procurement process through Request for Proposal Solicitation No. 21-119 that resulted in Contract No.T21-119-01 with Contractor ("Agency Contract"); and

C. The City has authority to enter into a cooperative purchase contract with Contractor utilizing the Agency Contract.

AGREEMENT:

NOW THEREFORE, in consideration for the mutual promises contained herein, the Parties agree as follows:

1. Materials and or Services Purchased: Contractor shall provide to the City the materials and or services, as specified in the Scope of Work attached as *Exhibit A*, and in accordance with the Agency Contract. A general description of materials and/or services being purchased is:

FLOCKOS HARDWARE AND SOFTWARE

2. Specific Requirements of City: Contractor shall comply with all specific purchase and delivery requirements and/or options of City, as specified in the Scope of Work attached as *Exhibit A* and incorporated by reference.

3. Payment: Payment to Contractor for the materials and or services provided for **ONE HUNDRED TWENTY-FOUR THOUSAND DOLLARS AND ZERO CENTS ($124,000.00), in addition to other fees and taxes**; made in accordance with the price list and terms set forth in the Agency Contract. Any price adjustment must be approved by mutual written consent of the parties through a formal amendment. The City Manager or his/her designee (the Purchasing Director) may approve an amendment if the amendment price increase is less than $50,000; otherwise, City Council approval is required.

4. Terms and Conditions of Agency Contract Apply: All provisions of the Agency Contract documents attached as *Exhibit B*, including any amendments, are incorporated in and shall apply to this Contract as though fully set forth herein. Contractor is responsible for promptly notifying City in writing of any changes to the Agency Contract, including, specifically changes in price for materials and/or services.

5. Certificates of Insurance: All insurance provisions of the Agency Contract shall apply, including any requirement to name the City as an additional insured. Prior to commencing performance under this Contract, Contractor shall furnish City with a copy of the current Certificate of Insurance required by the Agency Contract.

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6. Term: This Cooperative Purchase Contract shall commence upon execution by the Parties and shall continue until expiration or termination of the underlying Agency Contract, unless sooner terminated by City in writing.

7. Renewal: This Cooperative Purchase Contract shall be automatically renewed if the underlying Agency Contract is renewed, for the same renewal period, unless City provides advance written notice to Contractor of its intention to non-renew.

8. Notice: Any formal notice required under the Contract shall be in writing and sent by certified mail and email as follows:

To the City:
Collin Seay
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001
cseay@flagstaffaz.gov
Phone: 928-679-4083

To Contractor:
Hamza Al Baroudi
Flock Group, Inc dba Flock Safety
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318
hamza.albaroudi@flocksafety.com
480-489-2024

With a copy to:
Emily Markel
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001
EMarkel@flagstaffaz.gov
Phone:928-213-2276

DocuSign Envelope ID: 17507265-F7C1-4C3D-877B-5E00C0B15918

9. Authority: Each Party warrants that it has authority to enter into the Contract and perform its obligations hereunder, and that it has taken all actions necessary to enter into the Contract.

FLOCK GROUP, INC dba FLOCK SAFETY:

By: DocuSigned by: Mark Smith AC5C931454C24F3...

Title: General Counsel

CITY OF FLAGSTAFF

By: Greg Clifton

Greg Clifton signed on 6/27/2024 11:16:16 AM

Title: City Manager

ATTEST:

Stacy Saltzburg

City Clerk

Stacy Saltzburg signed on 6/27/2024 11:26:53 AM

APPROVED AS TO FORM:

Christina Kinnear

City Attorney's Office

Christina Kinnear signed on 6/25/2024 3:11:48 PM

Notice to Proceed issued: _____, 20___

Last Updated October 30, 2023

DocuSign Envelope ID: 17507265-F7C1-4C3D-877B-5E00C0B15918

EXHIBIT A
SCOPE OF WORK
(attached)

1. FLOCKOS HARDWARE AND SOFTWARE SOW 6 pages

Flock Safety + AZ - Flagstaff PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Hamza Al Baroudi
hamza.albaroudi@flocksafety.com
4804892024

flock safety

Company Overview

At Flock Safety, technology unites law enforcement and the communities they serve to eliminate crime and shape a safer future, together. We created the first public safety operating system to enable neighborhoods, schools, businesses, and law enforcement to work together to collect visual, audio, and situational evidence across an entire city to solve and prevent crime.

Our connected platform, comprised of License Plate Recognition (LPR), live video, audio detection, and a suite of integrations (AVL, CAD & more), alerts law enforcement when an incident occurs and turns unbiased data into objective answers that increase case clearance, maximize resources, and reduce crime -- all without compromising transparency or human privacy.

Join thousands of agencies reducing crime with Flock Safety's public safety operating system

2000+	**120**	**1B+**	**<60%***
communities with private-public partnerships	incident alerts / minute	1B+ vehicles detected / month	<60% local crime reduction in Flock cities

*According to a 2019 study conducted by Cobb County Police Department

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Introduction

Layer Intelligence to Solve More Crime

The pathway to a safer future looks different for every community. As such, this proposal presents a combination of products that specifically addresses your public safety needs, geographical layout, sworn officer count, and budget. These components make up your custom public safety operating system, a connected device network and software platform designed to transform real-time data into a panoramic view of your jurisdiction and help you zero in on the leads that solve more cases, prevent future crimes, and foster trust in the communities you serve.

Software Platform

Flock Safety's out-of-box software platform collects and makes sense of visual, audio, and situational evidence across your entire network of devices.

Out-of-Box Software Features	
Simplified Search	Get a complete view of all activity tied to one vehicle in your network of privately and publicly owned cameras. The user-friendly search experience allows officers to filter hours of footage in seconds based on time, location, and detailed vehicle criteria using patented Vehicle Fingerprint ™ technology. Search filters include: ● Vehicle make ● Body type ● Color ● License plates ○ Partial tags ○ Missing tags ○ Temporary tags ○ State recognition ● Decals ● Bumper stickers ● Back racks ● Top racks
National and Local Sharing	Access 1B+ additional plate reads each month without purchasing more cameras. Solve cross-jurisdiction crimes by opting into Flock Safety's sharing networks, including one-to-one, national, and statewide search networks. Users can also receive alerts from several external LPR databases: *California SVS* *FDLE* *FL Expired Licenses* *FL Expired Tags* *FL Sanctioned Drivers* *FL Sex Offenders* *Georgia DOR* *IL SOS* *Illinois Leads* *NCIC* *NCMEC Amber Alert* *REJIS* *CCIC* *FBI*
Real-time Alerts	Receive SMS, email, and in-app notifications for custom Hot Lists, NCIC wanted lists, AMBER alerts, Silver alerts, Vehicle Fingerprint matches, and more.
Interactive ESRI Map	View your AVL, CAD, traffic, and LPR alerts alongside live on-scene video from a single interactive map for a birdseye view of activity in your jurisdiction.
Vehicle Location Analysis	Visualize sequential Hot List alerts and the direction of travel to guide officers to find suspect vehicles faster.

Out-of-Box Software Features (Continued)	
Transparency Portal	Establish community trust with a public-facing dashboard that shares policies, usage, and public safety outcomes related to your policing technology.
Insights Dashboard	Access at-a-glance reporting to easily prove ROI, discover crime and traffic patterns and prioritize changes to your public safety strategy by using data to determine the most significant impact.
Native MDT Application	Download FlockOS to your MDTs to ensure officers never miss a Hot List alert while out on patrol.
Hot List Attachments	Attach relevant information to Custom Hot List alerts. Give simple, digestible context to Dispatchers and Patrol Officers responding to Hot List alerts so they can act confidently and drive better outcomes. When you create a custom Hot List Alert, add case notes, photos, reports, and other relevant case information.
Single Sign On (SSO)	Increase your login speed and information security with Okta or Azure Single Sign On (SSO). Quickly access critical information you need to do your job by eliminating the need for password resets and steps in the log-in process.

License Plate Recognition		
The Flock Safety Falcon® LPR camera uses Vehicle Fingerprint™ technology to transform hours of footage into actionable evidence, even when a license plate isn't visible, and sends Hot List alerts to law enforcement users when a suspect vehicle is detected. The Falcon has fixed and location-flexible deployment options with 30% more accurate reads than leading LPR.* *Results from the 2019 side-by-side comparison test conducted by LA County Sheriff's Department		
Flock Safety Falcon®LPR Camera	Flock Safety Falcon® Flex	Flock Safety Falcon® LR
Fixed, infrastructure-free LPR camera designed for permanent placement. √ 1 Standard LPR Camera √ Unlimited LTE data service + Flock OS platform licenses √ 1 DOT breakaway pole √ Dual solar panels √ Permitting, installation, and ongoing maintenance	Location-flexible LPR camera designed for fast, easy self-installation, which is ideal for your ever-changing investigative needs. √ 1 LPR Camera √ Unlimited LTE data service + software licenses √ 1 portable mount with varying-sized band clamps √ 1 Charger for internal battery √ 1 hardshell carrying case	Long-range, high-speed LPR camera that captures license plates and Vehicle Fingerprint data for increasing investigative leads on high-volume roadways like highways and interstates. √ 1 Long-Rage LPR Camera √ Computing device in protective poly case √ AC Power √ Permitting, installation, and ongoing maintenance

Your Flock Safety Team	
Flock Safety is more than a technology vendor; we are a partner in your mission to build a safer future. We work with thousands of law enforcement agencies across the US to build stronger, safer communities that celebrate the hard work of those who serve and protect. We don't disappear after contracts are signed; we pride ourselves on becoming an extension of your hard-working team as part of our subscription service.	
Implementation	Meet with a Solutions Consultant (former LEO) to build a deployment plan based on your needs. Our Permitting Team and Installation Technicians will work to get your device network approved, installed, and activated.
User Training + Support	Your designated Customer Success Manager will help train your power users and ensure you maximize the platform, while our customer support team will assist with needs as they arise.
Maintenance	We proactively monitor the health of your device network. If we detect that a device is offline, a full-time technician will service your device for no extra charge. *Note: Ongoing maintenance does not apply to Falcon Flex devices.*
Public Relations	Government Affairs Get support educating your stakeholders, including city councils and other governing bodies. Media Relations Share crimes solved in the local media with the help of our Public Relations team.

flock safety

EXHIBIT A
ORDER FORM

Customer:	AZ - Flagstaff PD	Initial Term:	12 Months
Legal Entity Name:	AZ - Flagstaff PD	Renewal Term:	24 Months
Accounts Payable Email:	cseay@flagstaffaz.gov	Payment Terms:	Net 30
Address:	911 E Sawmill Rd Flagstaff, Arizona 86001	Billing Frequency:	Annual Plan - First Year Invoiced at Signing.
		Retention Period:	30 Days

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$108,000.00**
Flock Safety Flock OS			
FlockOS ™ - Essentials	Included	1	Included
Flock Safety LPR Products			
Flock Safety Falcon ®	Included	32	Included
Flock Safety Audio Products			
Flock Safety Raven ® - 1/4mi	Included	1	Included

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			
Flock Safety Professional Services			
Professional Services - Standard Implementation Fee	$650.00	5	$3,250.00
Professional Services - Existing Infrastructure Implementation Fee	$150.00	19	$2,850.00
Professional Services - MASH Tested Pole Implementation Fee - Non-Coastal Region	$1,250.00	8	$10,000.00

Subtotal Year 1:	$124,100.00
Annual Recurring Subtotal:	$108,000.00
Estimated Tax:	$9,915.48
Contract Total:	$124,100.00

*Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This Agreement will automatically renew for successive renewal terms of the greater of one year or the length set forth on the Order Form (each, a "**Renewal Term**") unless either Party gives the other Party notice of non-renewal at least thirty (30) days prior to the end of the then-current term.*

Referencing Tempe's cooperative RFP 21-119

Billing Schedule

Billing Schedule	Amount (USD)
Year 1	
At Contract Signing	$124,100.00
Annual Recurring after Year 1	$108,000.00
Contract Total	$124,100.00

*Tax not included

Product and Services Description

Flock Safety Platform Items	Product Description	Terms
FlockOS™	Flock Safety's situational awareness operating system.	
Flock Safety Falcon ®	An infrastructure-free license plate reader camera that utilizes Vehicle Fingerprint® technology to capture vehicular attributes.	The Term shall commence upon first installation and validation of Flock Hardware.
Flock Safety Raven®	An audio detection device that provides real-time alerting to law enforcement based on programmed audio events.	The Term shall commence upon first installation and validation of Flock Hardware.

One-Time Fees	Service Description
Installation on existing infrastructure	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.
Professional Services - Standard Implementation Fee	One-time Professional Services engagement. Includes site and safety assessment, camera setup and testing, and shipping and handling in accordance with the Flock Safety Standard Implementation Service Brief.
Professional Services - Advanced Implementation Fee	One-time Professional Services engagement. Includes site & safety assessment, camera setup & testing, and shipping & handling in accordance with the Flock Safety Advanced Implementation Service Brief.

FlockOS Features & Description

FlockOS Features	Description
Community Network Access	The ability to request direct access to feeds from privately owned Flock Safety Falcon® LPR cameras located in neighborhoods, schools, and businesses in your community, significantly increasing actionable evidence that clears cases.
Unlimited Users	Unlimited users for FlockOS
State Network (License Plate Lookup Only)	Allows agencies to look up license plates on all cameras opted into the Flock Safety network within your state.
Nationwide Network (License Plate Lookup Only)	With the vast Flock Safety sharing network, law enforcement agencies no longer have to rely on just their devices alone. Agencies can leverage a nationwide system boasting 10 billion additional plate reads per month to amplify the potential to collect vital evidence in otherwise dead-end investigations.
Law Enforcement Network Access	The ability to request direct access to evidence detection devices from Law Enforcement agencies outside of your jurisdiction.
Time & Location Based Search	Search full, partial, and temporary plates by time at particular device locations
License Plate Lookup	Look up specific license plate location history captured on Flock devices
Vehicle Fingerprint Search	Search footage using Vehicle Fingerprint™ technology. Access vehicle type, make, color, license plate state, missing / covered plates, and other unique features like bumper stickers, decals, and roof racks.
Insights & Analytics	Reporting tool to help administrators manage their LPR program with device performance data, user and network audits, plate read reports, hot list alert reports, event logs, and outcome reports.
ESRI Based Map Interface	Map-based interface that consolidates all data streams and the locations of each connected asset, enabling greater situational awareness and a common operating picture.
Real-Time NCIC Alerts on Flock ALPR Cameras	Receive automated alerts when vehicles entered into established databases for missing and wanted persons are detected, including the FBI's National Crime Information Center (NCIC) and National Center for Missing & Exploited Children (NCMEC) databases.
Unlimited Custom Hot Lists	Ability to add a suspect's license plate to a custom list and get alerted when it passes by a Flock camera

By executing this Order Form, Customer represents and warrants that it has read and agrees all of the terms and conditions contained in the Terms of Service located at https://www.flocksafety.com/terms-and-conditions

The Parties have executed this Agreement as of the dates set forth below.

FLOCK GROUP, INC.	**Customer: AZ - Flagstaff PD**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
	PO Number: _____

DocuSign Envelope ID: 17507265-F7C1-4C3D-877B-5E00C0B15918

EXHIBIT B
AGENCY CONTRACT
(attached)

1. City of Tempe Contract #T21-119-01 54 Pages
2. Offer and Acceptance 21 Pages
3. Contract Renewal 4 Pages
4. Amendment for Flex Cameras 1 Page
5. Price Clarification 1 Page

REQUEST FOR PROPOSAL

RFP# 21-119
Fixed Camera ALPR Solution for Police

RFP ISSUE DATE:
March 3, 2021

DEADLINE FOR INQUIRIES/QUESTIONS:
March 12, 2021 AT 5:00 P.M. LOCAL ARIZONA TIME

RFP DUE DATE AND TIME:
March 24, 2021 at 3:00 P.M. LOCAL ARIZONA TIME

ALL INQUIRIES MUST BE DIRECTED TO:
Michael Greene, CPPO, C.P.M.
Michael_Greene@tempe.gov
480-350-8516

SUBMITTAL LOCATION: Due to the COVID Virus, Tempe will only accept an e-copy of the completed and signed proposal via e-mail to the following address: Bids@tempe.gov

No hard copy proposals will be accepted at this time.

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General Instructions

Failure to follow these instructions may result in rejection of proposal for non-responsiveness or cancellation of any Contract awarded.

1. **Preparation of Proposal:**

   A. Proposals shall be submitted to the City of Tempe ("City") in the sequence specified herein, on the forms attached hereto, including Vendor's Offer.

   B. All proposals shall be submitted on the forms provided in this Request for Proposal, signed by an authorized signer and returned with the proposal response to the City.

   C. Completed and signed proposal forms for offer, acceptance and any solicitation addendums shall be signed by an authorized individual. Such proposal constitutes an irrevocable Offer to sell the good and/or service specified herein. Offeror shall submit all additional data, documentation, or information as requested by the City, signifying its intent to be bound by the terms of the Request for Proposal.

   D. Negligence in preparation of a proposal confers no right of withdrawal. Offeror is solely responsible for seeking clarification of any requirement and presenting accurate information in the proposal response. The City shall not reimburse any costs for a proposal, or its submission, presentation or withdrawal, for any reason. Failure to read, examine and understand the Solicitation and any of its addenda will not excuse any failure to comply with the requirements of the Solicitation or any resulting contract, nor shall such failure be a basis for claiming additional compensation.

   E. Offeror shall identify each subcontractor to be utilized in the services and/or work set forth herein, if applicable.

2. **Definitions:** For purposes of this Request for Proposal and resultant Contract, the following definitions apply:

   A. "City" means the municipal corporation of the City of Tempe, Arizona.

   B. "Code Governance" means unless otherwise specified herein, the provisions of the Tempe City Code, Chapter 26A shall apply and govern this Request for Proposal.

   C. "Contract" means the agreement for the procurement of goods, equipment, materials, software, maintenance, contracted services, professional services, or concessions.

   D. "Contractor" means an Offeror responding to a Request for Proposal who has been awarded a Contract with the City.

   E. "Offer" means a written offer to furnish goods, equipment, materials, software, maintenance, contracted services, professional services, or concessions to the City, in conformity with the standards, specifications, delivery terms and conditions, and all other requirements established in a competitive solicitation.

   F. "Offeror" means a business, entity or person who submits an Offer in response to a competitive solicitation.

   G. "Public Record" means proposals and all other documents submitted in response to this solicitation shall become the property of the City and shall be a matter of public record available for review following the Contract award.

   H. "Purchase Order" means a document issued by the Procurement Office directing the Contractor to deliver the goods, equipment, materials, software, maintenance, contracted services, professional services or concessions. to the City.

   I. "Request for Proposal" means a competitive solicitation issued by the City for the procurement of goods, equipment, materials, software, maintenance, contracted services, professional services or concessions.

3. **Late, Unsigned and/or Incomplete Proposal:** A late, unsigned and/or materially incomplete proposal will be considered nonresponsive and rejected.

4. **Inquiries:** Questions regarding this Request for Proposal shall be directed to the Procurement Officer identified on the cover page of this document, unless another City contact is specifically named. Inquiries shall be submitted in writing (preferably via e-mail), identifying the appropriate Request for Proposal's number, page and paragraph at issue. PLEASE NOTE: Offeror must not place the Request for Proposal's number on the outside of an envelope containing questions. Oral responses provided by the City shall have no binding effect or legal effect. Inquiries should be submitted within the designated timeframe noted on the front page of the solicitation. Those questions received after the designated date may be considered at the sole discretion of the Procurement Officer. The City reserves the right to contact Offerors to obtain additional information for use in evaluating proposal and solicitation requirements.

5. **Proposal Conference:** If a proposal conference is scheduled, Offerors are strongly encouraged to attend to seek clarification on any aspects of the documents that are not clear or questions that might pertain the specifications or scope of work published. There are times when attendance at a proposal conference is mandatory and those conferences shall be specially noted when applicable.

6. **Withdrawal of Proposal:** At any time before the specified proposal due date and time, an Offeror may withdraw its proposal by way of written correspondence from the Offeror or its authorized representative.

7. **Proposal Addenda:** Receipt and acceptance of a Request for Proposal addendum shall be acknowledged by signing and returning the document either with the vendor's proposal response or by separate envelope prior to proposal due date/time. Failure to sign and return an addendum prior to the proposal due date/time may result in the proposal being considered nonresponsive to that portion of the Request for Proposal and may result in rejection. For all addenda published, the City will send electronic notification to those companies who have downloaded the solicitation from the City's web site. If a company receives the solicitation via a third- party plan holder organization, it will be the responsibility of the company to download the solicitation from the City's web site to ensure that their company is included on any forthcoming addenda notification.

8. **Compliance with City Solicitation Requirements:** Unless stated otherwise in this Request for Proposal, the City reserves the right to award by individual line item, by group of items, or as a total at the City's discretion. The City expressly reserves the right to waive any immaterial defect or informality, or reject any or all proposals, or portions thereof, or reissue this Request for Proposal.

9. **Compliance of Proposal Offeror/Contractor Forms:** Any documents or forms (including separate Contract, maintenance agreement or training agreement) intended by the Offeror to be utilized in any resulting Contract, must be submitted with proposal. Any documents inconsistent with or taking exception to the terms, conditions, specifications and/or other requirements stated within this Request for Proposal may cause the proposal to be considered as nonresponsive and rejected. No documents will be considered unless submitted with vendor's proposal Offer and approved by the Procurement Office.

10. **Responsiveness to Specifications:** Performance or feature requirements which are designated as mandatory or minimums are needed in order to satisfy an identified task or performance need. A description is given for each designated feature. This description shall be used to determine if the Offeror's proposed product(s) and/or service(s) is/are capable of performing the function(s) specified in the Request for Proposal.

    It is recognized that more than one method may be used to accomplish the sought-after task functionality. If Offeror has an alternate method of performing functional tasks, then Offeror shall list such method as an "alternate" and described in full detail within the proposal. The City shall be the sole judge as to whether any alternate methodology will be accepted.

    "Must", "shall", "will", "minimum", "required" and/or "mandatory" performance/feature statements must be met or exceeded by the Offeror. Should no Offeror be found responsive to all designated Request for Proposal requirements, the City at its option, may either award the Contract to the most responsive Offeror or cancel the Request for Proposal and issue another Request for Proposal for the need under revised specifications.

11. **Questionnaire:** Offeror must complete the Questionnaire portion of this Request for Proposal and provide any documentation required to support the answers. Questionnaire items, which are designated as mandatory, are needed to satisfy a required task or performance criteria. Items, which may be listed as desirable, are not required to be responsive to the Request for Proposal and will be relatively evaluated against other proposals in making a final award decision.

    If supporting documentation is required, Offeror shall provide the documentation in the sequence set forth in the Request for Proposal and ensure all technical literature and/or narrative explanations fully address the specifics of the question. Vague or disorganized responses that do not allow sufficient information for evaluation purposes may result in rejection of a proposal.

12. **Clarifications and Negotiations with Offerors and Revisions to Proposal:** Clarifications may be made with any submitting firm at any time during the evaluation phase of this procurement. Clarifications are not negotiations and may be utilized by the City to ensure thorough and complete understanding of, and responsiveness to, the solicitation requirements. Negotiations may be conducted with responsible Offerors who submit proposals determined to be reasonably susceptible of being selected for award. The purpose of negotiations is to allow the City and the Offeror(s) to revise initial Offers through an exchange or series of exchanges. Should the City elect to call for best and final offers, Offerors shall be accorded fair and equal treatment with respect to any opportunity for negotiations and revision of proposals, and such revisions may be permitted after submissions and prior to award. In conducting clarifications and negotiations there shall be no disclosure of any information derived from proposals submitted by competing Offerors. The purposes of such negotiations shall include but not be limited to:

    A. Determine in greater detail such Offeror's qualifications;

    B. Explore with the Offeror the scope and nature of the project, the Offeror's proposed method of performance, and the relative utility of alternate methods of approach;

    C. Determine that the Offeror will make available the necessary personnel and facilities to perform within the required time; and

    D. Agree upon compensation which is fair and reasonable, taking into account the estimated value of the required services, and the scope, complexity and nature of such services.

13. **Proposal Opening:** Proposals shall be opened at the time and place designated on the cover page of this Request for Proposals. The name of each Offeror and the identity of the Request for Proposal for which the proposal was submitted shall be publicly read and recorded in the presence of witnesses. Proposals, modifications and all other information received in response to this Request for Proposal shall be shown only to City personnel having a legitimate interest in its evaluation. Prices shall not be read. After Contract award, the proposals and the evaluation documentation shall be open for public inspection, except where the City has determined that specific portions of the proposal are confidential.

14. **Technical Proposal Opening:** Technical proposals (as received in step one of a two-step bidding process) shall be opened at the time and place designated on the cover page of this document. The name of each Offeror and the identity of the Request for Proposal for which the proposal was submitted shall be publicly read and recorded in the presence of witnesses. Proposals, modifications and all other information received in response to this Request for Proposal shall be shown only to City personnel having a legitimate interest in the evaluation. Evaluation documentation to substantiate technical proposal selection(s) shall be open for public inspection.

15. **Proposal Evaluation and Award:** The City shall determine whether a proposal meets the specifications and requirements of this Request for Proposal, at its sole discretion, and reject any proposals not meeting the intent or requirements set forth herein. Award(s) shall be made to the responsible Offeror whose proposal is determined in writing to be the most advantageous to the City, taking into consideration the evaluation factors set forth in the Request for Proposal. The City shall be the sole judge as to the acceptability of the products and/or services offered. The City reserves the right to reject any and all proposals.

16. **Award of Contract:** A proposal shall constitute a binding Offer to Contract with the City based on the terms, conditions and specifications contained in this Request for Proposal. An Offeror shall become a Contractor only upon execution of a formal Contract from the Procurement Office. Unless this Request for Proposal includes separate Contract document(s) or requires the Offeror to submit a Contract for review, a Contract shall be formed when the Procurement Office provides a written notice of award or a purchase order to the successful Offeror. All terms and conditions of the Contract are contained herein, unless modified by an amendment approved by the City. Proposals that take exception to the terms, conditions, specifications and/or other requirements stated within this Request for Proposal may cause the vendor's Offer to be considered non-responsive and rejected. Exceptions will be evaluated on an individual basis to determine compliance with the purpose and intent of the terms and conditions stated within this solicitation. The City shall be the sole judge as to whether an exception complies with the general purpose and intent of any term, condition and/or specification set forth herein.

17. **Proposal Results:** Offerors may attend the scheduled proposal opening at which the name of each Offeror will be publicly read. All other information contained in the proposals shall be kept confidential until the Contract is awarded. After award of Contract, an appointment may be made with the Procurement Officer to review proposal documents. Formal Contract award results shall be placed on the Procurement Office web page (www.tempe.gov/procurement) and posted at the front counter of the Procurement Office at the time the Contract award is approved by the City Council. Award recommendations may also be viewed via the City Clerk's web site normally up to five (5) days prior to the scheduled City Council meeting by visiting (http://documents.tempe.gov/sirepub/?sort=meet_date .

18. **Protests:** Any actual or prospective Offeror who is aggrieved in conjunction with this Request for Proposal or award may protest the award to the Procurement Office. A protest based upon alleged improprieties in this Request for Proposal that are apparent before the proposal opening shall be filed prior to the proposal due date/time. A protest concerning an award recommendation must be filed within ten (10) business days after the date of award. Up to five (5) days before award of a contract, the Procurement Office will post award recommendations on the City Clerks website at (http://documents.tempe.gov/sirepub/?sort=meet_date) and at the Procurement Office front counter and web site for public review (www.tempe.gov/procurement). A protest shall be in writing and include the protester's name, address and phone number, identification of the solicitation or Contract being protested, a detailed statement of the legal and factual grounds of the protest, including copies of all relevant documents and the form of relief requested. A protest is to be on the protester's company letterhead and signed by the protestor or its authorized representative.

19. **Delivery:** All materials, equipment and/or products shall be delivered F.O.B. Destination to the City of Tempe Per the location identified in the solicitation.

20. **Tax:** Unless specified herein, sales, use or federal excise tax shall not be included in proposal pricing. The City is exempt from payment of federal excise tax. For proposal evaluation, transaction (sales) privilege tax paid to the City of Tempe (1.8%) is considered a pass-through cost, calculated as zero ($0) expense when comparing pricing among competing companies that are not located in Tempe. For information on privilege (sales) tax, please contact the City's Tax and License Office at (480) 350-2955 or visit their web site at **salestax@tempe.gov**

21. **Payment:** For a single requirement purchase, the City will endeavor to remit payment within thirty (30) calendar days from receipt and approval of acceptable products, materials and/or services and approval of correct invoice. For ongoing term Contract purchases, the City will endeavor to remit payment within thirty (30) calendar days from approval of invoice.

22. **Discounts:** Payment discounts periods shall be computed from the date of receipt of acceptable products, materials and/or services or correct invoice, whichever is later to the date payment is mailed. Discounts shall be taken on the full amount of the invoice, unless otherwise indicated. The City shall be entitled to receive any discounts offered by Offeror, if payment is made within the discount period.

23. **Payment by City Procurement Card:** The Procurement Office may elect to remit payment through the use of a City procurement card. Each Offeror may indicate on the Vendor's Offer Page in this Request for Proposal its ability to accept City procurement card payments. The inability to accept payment by City procurement card will not disqualify a proposal.

24. **Code Governance:** Unless otherwise specified herein, the provisions of the Tempe City Code, Chapter 26A shall apply and govern this Request for Proposal.

25. **Public Record:** Proposals and all other documents submitted in response to this solicitation shall become the property of the City and shall be a matter of Public Record available for review following the Contract award. Material portions of the recommended Offer(s) as determined by the City may be posted to the City's web site up to five (5) days prior to the City Council meeting.

26. **Late Responses:** The Offeror assumes responsibility for having the Proposal submitted on time via e-mail to the address shown on the front page of this RFP. Any Offers received after the Solicitation Due Date and Time shall not be considered and will be returned to the Offeror. The Offeror assumes the risk of any delay in the electronic processing of the supplier's e-mail through both parties (Supplier and City) networks. Offerors must allow adequate time to ensure that the e-mail is timely received by the City at the designated e-mail address. All times referenced are Tempe, Arizona local times. Respondents agree to accept the time and date that is recorded on the received e-mail as the official time. Any e-mail submissions that are timed at 3:01 or later on the schedule due date will be considered late and not considered.

27. **Copying Responses:** The Offeror hereby grants the City permission to copy all parts of its Offer including, without limitation, any documents and/or materials copyrighted by the Offeror. The City's right to copy shall be for internal use in the evaluating the Offers.

28. **Confidential Information and Public Record:** After award of a Contract, proposals shall be available for public inspection, except to the extent that the withholding of information is required or permitted by law. Pursuant to A.R.S. § 35-214, and 41-1330 *et seq*., all records relating to the Request for Proposal and Contract shall be subject to inspection at all reasonable times by the City for five (5) years after completion of the Contract. Such records shall be produced by Bidder or Contractor at the time and place designated by the City.

    A. If a person believes that an offer or specification contains information that should be withheld as confidential, a statement advising the procurement officer of this fact shall accompany the submission and the information shall be so identified wherever it appears. A general statement of confidentiality that is not appropriately referenced to a specific section of the RFP will not be sufficient to warrant protection by the City. The confidential portion of the submission must be clearly noted with accompanying justification for treating the section confidential. Failure of the vendor to appropriately designate confidential information in this manner will relieve the City of any obligation to protect this information as confidential.

    B. The information identified by the person as confidential shall not be disclosed until the Procurement Office makes a written determination pursuant to A.R.S. § 121, *et seq*.

    C. If the City determines to disclose the information, the Offeror shall be informed in writing of such determination. Notwithstanding the foregoing, following an award of Contract, all proposal response information shall be available for public inspection.

Standard Terms and Conditions

Please note that these Standard Terms & Conditions shall be fully complied with by Offeror. Failure to comply with these requirements may result in rejection of a proposal for non-responsiveness, or cancellation or termination of any awarded Contract.

1. **Applicable Law:** This Contract shall be governed by, and the City and Contractor shall have all remedies afforded each by the Uniform Commercial Code as adopted in the State of Arizona, except as otherwise provided in this Request for Proposal and resultant Contract, and all statutes, or ordinances pertaining specifically to the City. This Contract shall be governed by State of Arizona law and suits pertaining to this Contract may only be brought in courts located in Maricopa County, Arizona.

2. **Arizona Climate Action Compliance:** Offeror shall comply with all applicable standards, laws, rules, orders and regulations issued pursuant to A.R.S. §49-101, *et seq*., including but not limited to, Arizona Executive Orders Nos. 2006-13, 2005-02, and 2010-14 with regard to reducing GHG emissions, increasing energy efficiency, conserving natural resources and developing renewable energy sources.

3. **Availability of Funds for the Next Fiscal Year:** The City's obligation for performance of the Contract is contingent upon the availability of City, state and federal funds that are allocated or appropriated for payment obligations of the Contract. If funds are not allocated by the City or available for the continued use or purchase of services, work and/or materials set forth herein, the City may terminate the Contract. The City will use reasonable efforts to notify Contractor of such non-allocation affecting the obligations of the Contractor and/or City. The City shall not be penalized or adversely affected for exercise of its termination rights. Further, the City shall in no way be obligated or liable for additional payments or other damages as a result of such termination. No legal liability on the part of the City for any payment may arise for performance under this Contract.

4. **Certification:** By signing the "Vendor's Offer", the Offeror certifies:

   A. The submission of the vendor's proposal Offer response did not involve collusion or other anti-competitive practices.

   B. Offeror agrees that it will comply with section 2-603(5) of the Tempe City Code ("TCC"), and will not refuse to hire or employ or bar or discharge from employment any person or discriminate against such person in compensation, conditions, or privileges of employment because of race, color, gender, gender identity, sexual orientation, religion, national origin, familial status, age, disability, or United States military veteran status. Offeror further agrees to provide a copy of its antidiscrimination policy to the Procurement Officer to demonstrate compliance with TCC section 2-603(5) or attest in writing to its compliance in accordance with the attached Affidavit of Compliance.

   C. Offeror has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted Offer. Failure to sign the "Vendor's Offer" or signing it with a false statement shall void the submitted proposal and any resulting Contract. In addition, the Offeror may be barred from future proposal and bidding participation with the City and may be subject to such further actions as permitted by law.

   D. The Offeror agrees to promote and offer to the City only those materials and/or services as stated and allowed by this Request for Proposal and resultant Contract award. Violation of this condition shall be grounds for Contract termination by the City.

   E. The Offeror expressly warrants that it has and will continue to comply in all respects with Arizona law concerning employment practices and working conditions, pursuant to A.R.S. § 23-211, *et seq*., and all laws, regulations, requirements and duties relating thereto. Offeror further warrants that to the extent permitted by law, it will fully indemnify the City for any and all losses arising from or relating to any violation thereof.

F. Contractor agrees and covenants that it will comply with any and all applicable governmental restrictions, regulations and rules of duly constituted authorities having jurisdiction insofar as the performance of the work and services pursuant to the Contract, and all applicable safety and employment laws, rules and regulations, including but not limited to, the Fair Labor Standards Act, the Walsh-Healey Act, and the Legal Arizona Workers Act (LAWA), and all amendments thereto, along with all attendant laws, rules and regulations. Contractor acknowledges that a breach of this warranty is a material breach of this Contract and Contractor is subject to penalties for violation(s) of this provision, including termination of this Contract. City retains the right to inspect the documents of any and all contractors, subcontractors and sub-subcontractors performing work and/or services relating to the Contract to ensure compliance with this warranty. Any and all costs associated with City inspection are the sole responsibility of Contractor. Contractor hereby agrees to indemnify, defend and hold City harmless for, from and against all losses and liabilities arising from any and all violations thereof.

G. If Contractor engages in for-profit activity and has 10 or more employees, and if this Agreement has a value of $100,000 or more, Contractor certifies it is not currently engaged in, and agrees for the duration of this Agreement to not engage in, a boycott of goods or services from Israel. This certification does not apply to a boycott prohibited by 50 U.S.C. § 4842 or a regulation issued pursuant to 50 U.S.C. § 4842. Unless and until the U.S. District Court, District of Arizona's injunction is lifted, A.R.S. § 35-393.01 is unenforceable.

5. **Commencement of Work:** Contractor is cautioned not to commence any work or provide any materials or services under the Contract until and unless Contractor receives a purchase order, Notice to Proceed, or is otherwise directed in writing to do so, by the City.

6. **Confidentiality of Records:** The Contractor shall establish and maintain procedures and controls that are acceptable to the City for the purpose of assuring that no information contained in its records or obtained from the City or from others in carrying out its functions under the Contract shall be used by or disclosed by it, its agents, officers, or employees, except as required to efficiently perform duties under the Contract. Persons requesting such information should be referred to the City. Contractor also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of Contractor as needed for the performance of duties under the Contract, unless otherwise agreed to in writing by the City.

7. **Termination for Conflict of Interest:** This Contract is subject to the cancellation provisions of A.R.S. § 38-511. The City may cancel this Contract within three (3) years after its execution, without penalty or further obligation, if any person significantly involved in initiating, securing, drafting, or creating the Contract for the City becomes an employee or agent of the Contractor.

8. **Contract Formation:** This Contract shall consist of this Request for Proposal and the vendor's proposal Offer submitted, as may be found responsive and approved by the City. In the event of a conflict in language between the documents, the provisions of the City's Request for Proposal shall govern. The City's Request for Proposal shall govern in all other matters not otherwise specified by the Contract between the parties. All previous contracts between the Offeror and the City are not applicable to this Contract or other resultant contracts. Any contracted vendor documents that conflict with the language and requirements of the City's solicitation are not acceptable and void the Contract.

9. **Contract Modifications:** This Request for Proposal and resultant Contact may only be modified by a written Contract modification issued by the Procurement Office and counter-signed by the Contractor. Contractors are not authorized to modify any portion of this solicitation or resulting Contract without the written approval of the Procurement Office and issuance of an official modification notice.

10. **Contract Administration:** Contractor must notify the designated Procurement Officer from the Procurement Office for guidance or direction on matters of Contract interpretation or problems regarding the terms, conditions or scope of this Contract. The Contract shall contain the entire agreement between the City and the Contractor and the Contract shall prevail over any and all previous agreements, contracts, proposals, negotiations, purchase orders or master agreements in any form.

11. **Cooperative Use of Contract:** Any Contract resulting from this solicitation shall be for the use of the City of Tempe. In addition, public and nonprofit agencies that have entered into a Cooperative Purchasing Agreement with the City of Tempe's Department of Procurement are eligible to participate in any subsequent Contract. Additionally, this Contract is eligible for use by the Strategic Alliance for Volume Expenditures (SAVE) cooperative. See http://www.mesaaz.gov/business/purchasing/save for a listing of participating agencies. The parties agree that these lists are subject to change. Any such usage by other municipalities and government agencies must be in accord with the ordinance, charter and/or rules and regulations of the respective political entity.

    Any orders placed to, or services required from, the successful Contractor(s) will be requested by each participating agency. Payment for purchases made under this agreement will be the sole responsibility of each participating agency. The City shall not be responsible for any disputes arising out of transactions made by others. Contractor shall be responsible for correctly administering this Contract in accordance with all terms, conditions, requirements, and approved pricing to any eligible procurement unit.

12. **Dispute Resolution:** This Contract is subject to arbitration to the extent required by law. If arbitration is not required by law, the City and the Contractor agree to negotiate with each other in good faith to resolve any disputes arising out of the Contract. In the event of any legal action or proceeding arising out of this Contract, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs incurred with said fees and costs to be included in any judgment rendered.

13. **Energy Efficient Products:** The City may consider energy conservation factors including costs in the evaluation of equipment and product purchases for the purpose of obtaining energy efficient products. In addition, vendor proposal Offers may specify items that have been given an energy efficient classification by the federal government for consideration by the City.

14. **Billing:** All invoices submitted by Contractor for the City's review and approval shall be in itemized form to identify the specific item(s) being billed. Items must be identified by the name, model number, and/or serial number most applicable along with the correct unit cost. Any purchase/delivery order issued by the City shall refer to the Contract number resulting from this Request for Proposal. Separate invoices are required on individual contracts or purchase orders. Only invoices with items resulting from this Request for Proposal will be accepted for review and approval by the City.

15. **Estimated Quantities:** This Request for Proposal references quantities as a general indication of the City's needs. The City anticipates considerable activity resulting from Contracts that will be awarded as a result of this Request for Proposal; however, the quantities shown are estimates only and the City reserves the right to increase or decrease any quantities actually acquired, in its sole discretion. No commitment of any kind is made concerning quantities and Offeror hereby acknowledges and accepts same.

16. **Events of Default and Termination:**

    A. In the event a party is in default then the other party may, at its option and at any time, provide written notice to the defaulting party of the default. The defaulting party will have thirty (30) days from the receipt of the written notice to cure the default; the thirty (30) day cure period may be extended by mutual agreement of the parties, but no cure period may exceed ninety (90) days. A default notice will be deemed to be sufficient if it is reasonably calculated to provide notice of the nature and extent of such default. Failure of the non-defaulting party to provide written notice of the default does not waive any rights under the Agreement. The occurrence of any one or more of the following events shall constitute a material breach of and default under the Contract.

        i) Any failure by Contractor to pay funds or furnish materials, services and/or goods that fail to conform to any requirement of this Contract or provide personnel that do not meet Contract requirements;

ii) Any party's failure to observe, perform or undertake any provision, covenant or condition of this Contract to be observed or performed by Contractor or City herein, including but not limited to failing to submit any report required herein;

iii) Any failure to make progress in the performance required pursuant to the Contract and/or gives either party reason to believe that the other party cannot or will not perform to the requirements of the Contract; or,

iv) Any failure of Contractor to commence construction, work or services within the time specified herein, and to diligently undertake Contractor's work to completion.

B. In the event the default has not been corrected to the non-defaulting party's satisfaction within the cure time specified, the non-defaulting party, at its option and in addition to any other remedies available by law or in equity, without further notice or demand of any kind to Contractor, may do the following:

i) Terminate the Contract;

ii) Pursue and/or reserve any and all rights for claims to damages for breach or default of the Contract; and/or,

iii) Recover any and all monies due from Contractor, including but not limited to, the detriment proximately caused by Contractor's failure to perform its obligations under the Contract, or which in the ordinary course would likely result therefrom, including, any and all costs and expenses incurred by the City in: (a) maintaining, repairing, altering and/or preserving the premises (if any) of the project; (b) costs incurred in selecting and retaining a substitute Contractor for the purchase of services, materials and/or work; and/or (c) attorneys' fees and costs in pursuing any remedies under the Contract and/or arising therefrom.

C. The exercise of any one of the City's remedies as set forth herein shall not preclude subsequent or concurrent exercise of further or additional remedies. In addition, the City shall be entitled to terminate this Contract at any time, in its discretion. The City may terminate this Contract for default, non-performance, breach or convenience, or pursuant to A.R.S. § 38-511, or abandon any portion of the project for which services have not been fully and/or properly performed by the Contractor.

D. Termination shall be commenced by delivery of written notice to Contractor by the City personally or by certified mail, return receipt requested. Upon notice of termination, Contractor shall immediately stop all work, services and/or shipment of goods hereunder and cause its suppliers and/or subcontractors to cease work pursuant to the Contract. Contractor shall not be paid for work or services performed or costs incurred after receipt of notice of termination, nor for any costs incurred that Contractor could reasonably have avoided.

E. The City, in its sole discretion, may terminate or reduce the scope of this Contract if available funding is reduced for any reason.

F. Whenever the City in good faith has reason to question Contractor's intent or ability to perform, the City may demand that Contractor give a written assurance of its intent and ability to perform. In the event that the demand is made, and no written assurance is given within the time period required, the City may treat this failure as an anticipatory repudiation of the Agreement.

17. **Termination for Convenience:** The City at its sole discretion may terminate this Contract for convenience with thirty (30) days advance notice to Contractor. Contractor shall be reimbursed for all appropriate costs as provided for within the Contract up to the termination date specified.

18. **Force Majeure:**

A. Except for payment of sums due, neither party shall be liable to the other nor deemed in default under the Contract only in the event that and to the extent that such party's performance of the Contract is prevented by reason of force majeure. Force majeure means an occurrence that is beyond the control of the party affected and occurs without its fault or negligence. Without limiting the foregoing, force majeure includes acts of God, acts of the public enemy, war, riots, mobilization, labor disputes, civil disorders, fire, floods, lockouts, injunctions, failures or refusal to act by government authority, and other similar occurrences beyond the control of the party declaring force majeure which such party is unable to prevent by exercising reasonable diligence.

B. Force majeure shall not include the following occurrences:

i) Late delivery of equipment or materials caused by congestion at a manufacturer's plant or elsewhere, an oversold condition of the market, inefficiencies, or similar occurrences.

ii) Late performance by a subcontractor.

C. If either party is delayed at any time in the progress of the work by force majeure, then the delayed party shall notify the other party in writing of such delay within forty-eight (48) hours of the commencement thereof and shall specify the causes of such delay in the notice. Such notice shall be hand delivered or sent via certified mail and shall make a specific reference to this clause, thereby invoking its provisions. The delayed party shall cause such delay to cease as soon as practicable and shall notify the other party in writing by hand delivery or certified mail when it has done so. The time of completion shall be extended by Contract modification for a period of time equal to the time that the results or effects of such delay prevent the delayed party from performing in accordance with the Contract.

19. **Gratuities:** The City may elect to terminate any resultant Contract, if it is found that gratuities in any form were offered or given by the Contractor or agent thereof, to any employee of the City or member of a City evaluation committee with a view toward securing an order, securing favorable treatment with respect to awarding, amending or making of any determinations with respect to performing such order.

20. **Indemnification:** To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the City, its agents, officer, officials, and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees, court costs, and the costs of appellate proceedings), arising out of, or alleged to have resulted from the acts, errors, mistakes, omissions, work, services, or professional services of the Contractor, its agents, employees, or any other person (not the City) for whose acts, errors, mistakes, omissions, work, services, or professional services the Contractor may be legally liable in the performance of this Contract. Contractor's duty to hold harmless and indemnify the City, its agents, officers, officials and employees shall arise in connection with any claim for damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of any person or property, including loss of use resulting from, or caused by any acts, errors, mistakes, omissions, work, services, or professional services in the performance of this Contract by Contractor or any employee of the Contractor or any other person (not the City) for whose acts, errors, mistakes, omissions, work, or services the Contractor may be legally liable. The amount and type of insurance coverage requirement set forth herein will in no way be construed as limiting the scope of indemnity in this paragraph. This provision shall survive the term of this Contract.

21. **Interpretation of Parole Evidence:** This Contract is intended as a final expression of the agreement between the parties and as a complete and exclusive statement of the Contract, unless the signing of a subsequent Contract is specifically called for in this Request for Proposal. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any term used in the Contract. Acceptance or acquiescence in a course of performance rendered under this Contract shall not be relevant to determine the meaning of the Contract, even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity to object.

22. **Key Personnel:** Contractor shall provide adequate experienced personnel, capable of and devoted to the successful accomplishment of work to be performed under this Contract during the Contract term and any renewal periods. The Contractor must agree to assign specific individuals to the key positions.

    A. The Contractor agrees that, once assigned to work under this Contract, key personnel shall not be removed or replaced without prior written notice to the City.

    B. If key personnel are not available for work under this Contract for a continuous period exceeding thirty (30) calendar days or are expected to devote substantially less effort to the work than initially anticipated, the Contractor shall immediately notify the City, and shall replace each person with personnel of substantially equal ability and qualifications upon prior City approval.

23. **Licenses and Permits:** Contractor shall maintain in current status and at its sole expense, all federal, state and local licenses and permits required for the operation of the business conducted by the Contractor and the provision of the services to be provided under the Contract.

24. **No Assignment:** No right or interest in this Contract shall be assigned by Contractor and no delegation of any duty of Contractor shall be made without prior written permission of the City, which consent may be granted or withheld in City's unfettered discretion.

25. **Notices:** All notices, requests, demands, consents, approvals, and other communications which may or are required to be served or given hereunder (for the purposes of this provision collectively called "Notices"), shall be in writing and shall be hand delivered or sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the party or parties to receive such notice as follows:

    City of Tempe Procurement Office
    Attn: Procurement Officer
    20 E. 6th Street (Second Floor)
    PO Box 5002
    Tempe, Arizona 85280

    [Contractor's Name]
    [Attn of Offeror Named in Contract]
    [Address]

    Or to such other address as either party may from time to time furnish in writing to the other by notice hereunder.

26. **No Waiver:** No breach of default hereunder shall be deemed to have been waived by the City, except by written instrument to that effect signed by an authorized agent of the City. No waiver of any such breach or default shall operate as a waiver of any other succeeding or preceding breach or default or as a waiver of that breach or default after demand by the City for strict performance of this Contract. Acceptance of partial or delinquent payments or performance shall not constitute the waiver of any right of the City. Acceptance by the City for any materials shall not bind the City to accept remaining materials, future shipments or deprive the City of the right to return materials already accepted. Acceptance by the City of delinquent or late delivery shall not constitute a waiver of a later claim for damages and/or bind the City for future or subsequent deliveries.

27. **Overcharges by Antitrust Violations:** The City maintains that, in actual practice, overcharges resulting from antitrust violations are borne by the City. Therefore, to the extent permitted by law, the Contractor hereby assigns to the City any and all claims for such overcharges as to the goods and/or services used to fulfill the Contract.

28. **Performance Standards:** Equipment shall operate in accordance with the performance criteria specified in the Request for Proposal, including the manufacturer's published specifications applicable to the equipment involved. Equipment is expected to be available for productive use, as provided in the procurement documents. Penalties and/or bonuses applicable to equipment and system performance, if any, shall be calculated as specified in the Request for Proposal.

29. **Preparation of Specifications by Persons Other Than City Personnel:** No person preparing specifications for this Request for Proposal shall receive any direct or indirect benefit from the use of these specifications.

30. **Procurement of Recycled Materials:** If the price of recycled material that conforms to specifications is within five percent (5%) of the lower priced material that is not recycled and the recycled Offeror is otherwise the lowest responsive and responsible Offeror, the proposal containing recycled material shall be considered more advantageous; provided the item(s) to be obtained contains at least the minimum amount of recycled content material as defined in the City's solicitation and sufficient funds have been budgeted for the purchase.

31. **Provisions by Law:** Each and every provision of law and any clause required by law to be in this Contract will be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract will forthwith be physically amended to make such insertion or correction.

32. **Public Record:** After award of Contract, proposal responses shall be considered Public Record and open for public inspection except to the extent the withholding of information is permitted or required by law. If an Offeror believes a specific section of its proposal response is confidential, the Offeror shall mark the page(s) confidential and isolate the pages marked confidential in a specific and clearly labeled section of its proposal response. The Offeror shall include a written statement as to the basis for considering the marked pages confidential and the Procurement Office will review the material and make a determination, pursuant to A.R.S. §§ 39-121, *et seq.*, and 41-151, *et seq.* A general statement of confidentiality (boiler plate statement) that is not appropriately referenced to a specific section of the RFP will not be sufficient to warrant protection by the City. The confidential portion of the submission must be clearly noted with accompanying justification for treating the section confidential. Failure of the vendor to appropriately designate confidential information in this manner will relieve the City of any obligation to protect this information as confidential.

33. **Records:** Pursuant to provisions of Title 35, Chapter 1, Article 6 Arizona Revised Statutes §§ 35-214 and 36-215, Contractor shall retain, and shall contractually require each subcontractor to retain, all books, accounts, reports, files and other records relating to the acquisition and performance of the Contract for a period of five (5) years after the completion of the Contract. All such documents shall be subject to inspection and audit at reasonable times. Upon request, a legible copy of any or all such documents shall be produced at the offices of the City Attorney or Procurement Office.

34. **Relationship of Parties:** It is clearly understood that each party to this Contract will act in its individual capacity and not as an agent, employee, partner, joint venture, or associate of the other party. The Contractor is an independent Contractor and shall be solely responsible for any unemployment or disability insurance payments, or any social security, income tax or other withholdings, deductions or payments that may be required by federal, state or local law with respect to any compensation paid to the Offeror. An employee or agent of one party shall not be an employee or agent of the other party for any purpose whatsoever.

35. **Rights and Remedies:** No provisions of this Request for Proposal or in the proposal shall be construed, expressly or by implication, as a waiver by the City of any existing or future right and/or remedy available by law in the event of any claim of default or breach of Contract. The failure of the City to insist upon strict performance of any term or condition of the Contract or to exercise or delay the exercise of any right or remedy provided in the Contract, or by law, shall not release the Contractor from any responsibilities or obligations imposed by the Contract or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of the Contract.

36. **Safety Standards:** All items supplied on this Contract must comply with the current applicable Occupational Safety and Health Standards of the State of Arizona Industrial Commission, the National Electric Code and the National Fire Protection Association Standards.

37. **Serial Numbers:** Proposals shall include equipment on which the original manufacturer's serial number has not been altered in any way. The City reserves the right to reject any and all equipment.

38. **Severability:** The provisions of this Contract are severable to the extent that any provision or application held to be invalid shall not affect any other provision or application of the Contract which may remain in effect without the invalid provision or application.

39. **Specially Designated Nationals and Blocked Persons List:** Contractor represents and warrants to the City that neither Contractor nor any affiliate or representative of Contractor:

    A. Is listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury (OFAC) pursuant to Executive Order no. 13224, 66 Fed. Reg. 49079 ("Order");

    B. Is listed on any other list of terrorists or terrorist organizations maintained pursuant to the Order, the rules and regulations of OFAC or any other applicable requirements contained in any enabling legislation or other related Order(s);

    C. Is engaged in activities prohibited in the Order; or,

    D. Has been convicted, pleaded *nolo contendre,* indicted, arraigned or custodially detained on charges involving money laundering or predicate crimes to money laundering.

40. **Time of the Essence:** Time is and shall be of the essence in this Contract. If the delivery date(s) specified herein cannot be met, Contractor shall notify the City using an acknowledgment of receipt of order and intent to perform without delay, for instruction. The City reserves the right to terminate this Contract and to hold Contractor liable for any cost of cover, excess cost(s) or damage(s) incurred as a result of delay.

41. **Unauthorized Firearms & Explosives:** No person conducting business on City property is to carry a firearm or explosive of any type. All Offerors, Contractors and subcontractors shall honor this requirement at all times and failure to honor this requirement shall result in Contract termination and additional penalties. This requirement also applies to any and all persons, including those who maintain a concealed weapons permit. In addition to Contract termination, anyone carrying a firearm or explosive device will be subject to further legal action.

42. **Warranties:** Contractor expressly warrants that all materials and/or goods delivered under the Contract shall conform to the specifications of this Contract and be merchantable and free from defects in material and workmanship, and of the quality, size and dimensions specified herein. This express warranty shall not be waived by way of acceptance or payment by the City, or otherwise. Contractor expressly warrants the following:

    A. All workmanship shall be finest and first-class;

    B. All materials and goods utilized shall be new and of the highest suitable grade for its purpose; and

    C. All services will be performed in a good and workmanlike manner. Contractor's warranties shall survive inspection, acceptance and/or payment by the City, and shall apply to the City, its successors, agents and assigns.

    The Contractor agrees to make good by replacement and/or repair, at its sole expense and at no cost to the City, any defects in materials or workmanship which may appear during the period ending on a date twelve (12) months after acceptance by the City, unless otherwise specified herein. Should Contractor fail to perform said replacement and/or repair to City's satisfaction within a reasonable period of time, City may correct or replace said defective or nonconforming materials and recover the costs thereof from Contractor. This warranty shall not operate to reduce the statute of limitations period for breach of contract actions or otherwise, or reduce or eliminate any legal or equitable remedies.

43. **Work for Hire and Ownership of Deliverables:** Contractor hereby agrees and covenants that all the results and proceeds of Contractor's work and/or services for the Project specified herein, for Contractor and all of its agents, employees, officers and subcontractors, shall be owned by the City, including the copyright thereto, as work for hire. In the event, for any reason such results and proceeds are not deemed work for hire, Contractor agrees and covenants that it shall be deemed to have assigned to the City all of its right, title and interests in such results, proceeds and content to the City, without limitation. Contractor agrees to indemnify and hold the City harmless from and against all claims, liability, losses, damages and expenses, including without limitation, legal fees and costs, arising from or due to any actual or claimed trademark, patent or copyright infringement and any litigation based thereon, with respect to any work, services and/or materials contemplated in this Contract. Contractor agrees to pay to defend any and all such actions brought against the City. Contractor's obligations hereunder shall survive acceptance by the City of all covenants herein as well as the term of the Contract itself.

44. **Non-exclusive Contract:** Any Contract resulting from this Request for Proposal shall be awarded with the understanding and agreement that it is non-exclusive and entered into for the sole convenience of the City. The City reserves the right to obtain like goods or services from another source.

45. **Ordering Process:** Upon award of a Contract by the Procurement Office, the City may procure the specific material and/or service awarded by the issuance of a purchase order to the appropriate Contractor. Each purchase order must cite the correct Contract number. Such purchase order is required for the City to order and the Contractor to deliver the material and/or service.

46. **Shipping Terms:** Prices shall be F.O.B. Destination to the delivery location(s) designated herein. Contractor shall retain title and control of all goods until they are delivered and the Contract of coverage has been completed. All risk of transportation and all related charges shall be the responsibility of the Contractor. The City will notify the Contractor promptly of any damaged materials and shall assist the Contractor in arranging for inspection. Shipments under reservation are prohibited. No tender of a bill of lading shall operate as a tender of the materials.

47. **Delegated Awards:** In the event this Contract is administratively awarded via delegated authority as provided for in Section 26A-5 of the Procurement Ordinance, the Contractor acknowledges that a final Contract with the City of Tempe requires City Council approval and possibly the signature of the Mayor. Should this Contract be rejected by the City Council, Contractor agrees that it is immediately void and unenforceable against any party. The awarded firm(s) will be compensated only for any and all costs incurred up to the date of notification of such termination.

Special Terms & Conditions and Instructions

Proposals taking exception to Special Terms & Conditions and Instructions stated within this Request for Proposal may cause the Proposal to be considered nonresponsive and rejected.

1. **City Procurement Document:** This Request for Proposal is issued by the City. No alteration of any portion of this Request for Proposal by an Offeror is permitted and any attempt to do so shall result in vendor's proposal Offer being considered nonresponsive and rejected. No alteration of any portion of a resultant Contract is permitted without the written approval of the Procurement Office and any attempt to do so shall be considered a breach of the Contract. Any such action is subject to the legal and contractual remedies available to the City inclusive of, but not limited to, Contract termination and/or suspension of the Contractor.

2. **Offer Acceptance Period:** To allow for an adequate evaluation, the City requires the vendor's proposal Offer in response to this Request for Proposal to be valid and irrevocable for ninety (90) days after the proposal due time and date.

3. **Contract Type:** Term with justifiable price adjustments allowed, indefinite quantity.

4. **Term of Contract:** The term of the Contract shall commence on the date of award and shall continue for a period of one (1) year thereafter, unless terminated, canceled or extended as otherwise provided herein.

5. **Contract Renewal:** The City reserves the right to unilaterally extend the period of any resultant Contract for ninety (90) days beyond the stated term. In addition, the City at its option may renew for supplemental terms of up to a maximum of five (5) additional years. The period for any single renewal increment shall be determined by the Procurement Office. Such increment shall not be for more than a period of one (1) year each, unless the City is eligible to obtain a significant cost and/or supply advantage by a longer Contract renewal period.

6. **Price Adjustment:**

   A. The Procurement Office will review fully documented requests for price increases after the Contract has been in effect for twelve (12) months. The requested price increase must be based upon a cost increase that was clearly unpredictable at the time of the Proposal and can be shown to directly affect the price of the item concerned. The Procurement Office will determine whether the requested price increase, or an alternative option, is in the best interest of the City. Advanced thirty (30) day written notification by Contractor is required for any price changes. All price adjustments will be effective on the first day of the month following approval or acceptance by the Procurement Office. After the City approves a price increase the Contractor shall not be eligible to receive an additional increase until twelve (12) months from the date of the last approved price increase.

   B. Price increase requests must be acknowledged in writing by the Procurement Office before becoming effective. If not acknowledged within thirty (30) days, Contractor shall contact the Procurement Office to ensure the price increase request was received.

   C. The Contractor shall offer any published price reduction or if applicable to the Contract, profit sharing price advantage to the City concurrent with its announcement to other customers. A price reduction or profit-sharing price advantage may be offered at any time during the term of an awarded Contract and shall become effective upon notice and acceptance. The City shall likewise be given any special sales discounts offered to the general public, which exceed contracted price discounts extended to the City by the Contractor.

7. **Multiple Awards:** The City has a large number and variety of potential customer departments. In order to ensure that any ensuing Contracts will allow the City to fulfill current and future requirements, the City reserves the right to award Contracts to multiple companies. The actual utilization of any Contract will be at the sole discretion of the City. The fact that the City may make multiple awards should be taken into consideration by each Offeror.

8. **Warranty:** Each proposal must include a complete and exclusive statement of the product warranty. Warranty offers will be relatively considered as appropriate to life cycle costing.

9. **Demonstration Models:** Demonstration units of the equipment offered must be available in the Tempe/Phoenix geographic area. The Procurement Office may arrange a time and place for equipment demonstrations for the purpose of evaluation. Demonstrations shall be performed at no expense to the City.

10. **Current Products:** All Offers made in response to this Request for Proposal shall be in current and ongoing production shall have been formally announced for general marketing purposes shall be a model or type currently functioning in user environments and shall meet or exceed all specifications and requirements set forth in this solicitation. Enhancements to established products need not necessarily comply with this clause and will be reviewed on individual merits.

11. **Product Discontinuance:** The City may award Contracts for particular products and/or models of equipment as a result of this solicitation. In the event that a product or model is discontinued by the manufacturer, the City at its sole discretion may allow the Contractor to provide a substitute for the discontinued item. The Contractor shall request permission by the City to substitute a new product or model and provide all of the following:

    A. A formal announcement from the manufacturer that the product or model has been discontinued;

    B. Documentation from the manufacturer that names the replacement product or model;

    C. Documentation that provides clear and convincing evidence that the replacement meets or exceeds all specifications required by the original solicitation;

    D. Documentation that provides clear and convincing evidence that the replacement will be compatible with all the functions or uses of the discontinued product or model; and

    E. Documentation confirming that the price for the replacement is the same as or less than the discontinued product or model.

12. **Maintenance Service:** Contractor covenants and agrees to maintain the equipment set forth in the Request for Proposal, or alternatively, warrants that the equipment manufacturer will maintain the equipment acquired under the Contract in good working order and in accordance with the manufacturer's official published specifications and any other specifications set forth herein. Additional terms and conditions applicable to maintenance of the equipment may be specified in a separate maintenance agreement between the City and the Contractor or equipment manufacturer. In no event shall the provisions of such separate agreement supersede the provisions of the Contract.

13. **Installation and Training:** The Contractor shall install the equipment and provide training to City personnel to ensure proper operation and utilization.

14. **Installation and Acceptance:**

    A. Installation Date: The Contractor shall install equipment ready for use on or before the installation date specified in the applicable schedule.

    B. Site Preparation: The City shall have the site available and prepared in a timely manner in accordance with Contractor published specifications. The Contractor shall be given access to the site for installation and testing purposes.

    C. Site Inspection: Prior to the installation date, Contractor shall inspect the site and shall report to the City, in writing, the dates of such inspections, any rejections and the reasons therefore, and the final acceptance thereof. Such final site acceptance shall include a written representation to the City by the Contractor that the site meets the Contractor's and/or equipment manufacturer's site specifications for the efficient and safe operation of the equipment.

D. Acceptance Testing: When Contractor has completed installation and is satisfied that the equipment is operating successfully and meets minimum design capabilities, the City shall be so notified. The City may accept or reject any portion or all of the equipment.

E. Acceptance: At the conclusion of the acceptance testing period, the City's acceptance may be conclusively presumed if a written rejection specifying the reasons therefore is not delivered to Contractor within ten (10) business days following the end of the acceptance testing period.

15. **Contractor's Risk:** Contractor agrees to bear all risk of loss, injury, or destruction of materials (equipment/products) ordered as a result of this Contract which occurs prior to delivery to the City; and such loss, injury, or destruction shall not release Contractor from any obligation hereunder.

16. **Insurance:**

A. Insurance Required: Prior to commencing services under this Contract, Contractor shall procure and maintain for the duration of the Contract insurance against claims for injuries (including death) to persons and damages to property, which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees, subcontractors, or sub-subcontractors. For Offerors with self-insurance, proof of self-insurance with minimum limits expressed below must be submitted on proper forms for evaluation prior to award of Contract.

A Contract Award Notice or Purchase Order will not be issued to the Contractor until receipt of all required insurance documents by the Procurement Office with such documents meeting all requirements herein. In addition, before any Contract renewal, all required insurance must be on file with the Procurement Office. Contractor must submit required insurance within ten (10) calendar days after request by the Procurement Office or the award may be rescinded and another Offeror selected for award.

B. Minimum Limits of Coverage: Without limiting any obligations or liabilities, the Contractor, at its sole expense, shall purchase and maintain the minimum insurance specified below with companies duly licensed or otherwise approved by the State of Arizona, Department of Insurance and with forms satisfactory to the City. Each insurer shall have a current A.M. Best Company, Inc., rating of not less than A-VII. Use of alternative insurers requires prior approval from the City.

i. Minimum Limits of Insurance. Contractor shall maintain the following minimum limits:

a. *Commercial General Liability*

Commercial general liability insurance limit of not less than $1,000,000 for each occurrence, with a $2,000,000 general aggregate limit. The general aggregate limit shall apply separately to the services under this Contract or the general aggregate shall be twice the required per occurrence limit. The policy shall be primary and include coverage for bodily injury, property damage, personal injury, products, completed operations, and blanket contractual coverage, including but not limited to the liability assumed under the indemnification provisions of this Contract which coverage will be at least as broad as Insurance Service Office policy form CG0001 or its equivalent.

In the event the general liability policy is written on a "claims made" basis, coverage shall extend for two (2) years past completion and acceptance of the services as evidenced by annual certificates of insurance. In addition, the retro date shall be no later than the start date of the contract. The retro date shall be disclosed on the certificate of insurance.

Such policy shall contain a "severability of interests" provision.

b. *Worker's Compensation*

The Contractor shall carry worker's compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance

of services; and employer's liability insurance of not less than $100,000 for each accident, $100,000 disease for each employee and $500,000 disease policy limit.

In cases when services are subcontracted, the Contractor will require the subcontractor to provide worker's compensation and employer's liability to at least the same extent as provided by Contractor.

c. *Automobile Liability*

Commercial business automobile liability insurance with a combined single life or bodily injury and property damages of not less than $1,000,000 per accident regarding any owned, hired, and non-owned vehicles assigned to or used in performance of the Contractor services. Coverage will be at least as broad as coverage Code 1 "any auto". Insurance Service Office policy form CA0001 Y87 or any replacements thereof. Such coverage shall include coverage for loading and unloading hazards.

C. Additional Insured: The insurance coverage, except for workers compensation and professional liability coverage, required by this Contract, shall name the City, its agents, representatives, directors, officials, employees, and officers, as additional insureds, and shall specify that insurance afforded the Contractor shall be primary insurance. The additional insured wording on the commercial general liability policy will be at least as broad as Insurance Services Office policy forms CG2010 04/13 edition and CG2037 04/13 edition or their equivalent. The additional insured wording on the automobile liability policy will be at least as broad as Insurance Services Office policy form CA 20 48 or its equivalent. This provision and the naming of the city as an additional insured shall in no way be construed as giving rise to responsibility or liability of the City for applicable deductible amounts under such policy(s).

D. Coverage Term: All insurance required herein shall be maintained in full force and effect until all work or service required to be performed under the terms of the Contract is satisfactorily completed and formally accepted by the City. Failure to do so shall constitute a material breach of this Contract.

E. Primary Coverage: Contractor's insurance shall be primary insurance to the City, and any insurance or self-insurance maintained by the City shall not contribute to it.

F. Claim Reporting: Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage afforded under the policy to protect the City.

G. Waiver: The policies, including workers' compensation, shall contain a waiver of transfer rights of recovery (subrogation) against the City, its agents, representatives, directors, officers, and employees for any claims arising out of the work or services of the Contractor.

H. Deductible/Retention: The policies may provide coverage which contain deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall be disclosed by the contractor and shall not be applicable with respect to the coverage provided to the City under such policies. Contractor shall be solely responsible for deductible and/or self-insurance retention and the City, at its option, may require Contractor to secure the payment of such deductible or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

I. Certificates of Insurance: Prior to commencing work or services under this Contract, Contractor shall furnish the City with certificates of insurance, or formal endorsements as required by the Contract, issued by the Contractor's insurer(s), as evidence that policies providing the required coverages, conditions, and limits required by this Contract are in full force and effect. Such certificates shall identify this Contract number or name and shall provide for not less than thirty (30) days advance notice of cancellation, termination, or material alteration. Such certificates shall be sent directly to: Contract Administrator, City of Tempe, P. O. Box 5002, Tempe, AZ 85280.

J. Copies of Policies: The City reserves the right to request and to receive, within ten (10) working days, certified copies of any or all of the above policies and/or endorsements. The City shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements,

and such receipt shall not relieve Contractor from, or be deemed a waiver of, the City's right to insist on strict fulfillment of Contractor's obligations under this Contract.

17. **Contract Submittal:** Offeror is to furnish a copy of its proposed Contract with its proposal response. Contractual considerations are an important evaluation factor and will be considered in making an award decision. Any proposed Contract should be tailored to the specific requirements of the City's Request for Proposal and overall conformity with the City's Request for Proposal requirements. The failure of an Offeror to reach an acceptable Contract to the satisfaction of the City will result in proposal rejection.

18. **Software License:** The Contractor grants to the City a non-assignable, non-transferable and non-exclusive license to use the proprietary computer programs and related materials (software) specifically identified in the appropriate schedule to this Contract. The City understands and acknowledges that the software contains confidential information and other data proprietary to Contractor. The City agrees not to disclose, proliferate or duplicate nor allow to be disclosed, proliferated or duplicated any such confidential information or data except for archive, diagnostic, backup or emergency restart purposes. However, if confidential proprietary information of the Contractor, as determined by the City and the Contractor, is requested from the City pursuant to a public records request, subpoena or other process, Contractor shall be responsible for protecting its confidential information, shall be responsible for representing itself and the City with the City retaining the right to approve the selection of any attorneys hired to defend its interests, in any resulting legal actions and shall be responsible for any and all costs in so doing, including the payment of attorneys' fees, court costs and other expenses as may be required in protecting such information and in representing itself and the City.

19. **Protection and Restoration of Property and Landscape:** The Contractor shall be responsible for all damage or injury to public or private property of any character, during the prosecution of the work resulting from any act, omission, neglect, or misconduct in its manner or method of executing the work or at any time due to defective work or materials. The Contractor's responsibility will not be released until the project has been completed and accepted.

    If damage is caused by the Contractor, the Contractor shall restore at no cost to the City, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or they shall make good such damage or injury in an acceptable manner. Further payments will be withheld until the City has inspected the corrected damage or injury and has signed-off the completion and acceptance. Contractor shall not dump spoils or waste material on private or public property without first obtaining from the owner written permission for such dumping.

20. **Sub-Contractor(s):** The City reserves the right to approve all sub-contractors. Contractor is responsible for all actions of sub-contractors. Contractor shall name sub-contractors as additionally insured, in addition to the City on all required insurance documents.

21. **Use of Safety Vests and Orange Colored Shirts:** The Contractor will follow the City code on the use of high visibility vests and clothing as specified below: The Tempe City Code addresses this matter in Section 29-4. Working within right-of-way

    (a) For the purposes of this section, the following words or phrases shall have the meanings respectively ascribed to them by this subsection:

        1) Motor vehicle means any vehicle required to be licensed or registered under the laws of the state.

        2) Protective devices include, but are not limited to, orange vest (daytime), reflectorized orange vest (nighttime), traffic cones, barricades, flashing lights, flares and any other traffic-control device as required by the City.

        3) Right-of-way means all of that property used as a traveled portion of public roadways for motor vehicles lying between the exterior boundary lines of any area granted to or received by the City by grant, gift, easement, deed, dedication or operation of law for street purposes.

    Worker means any person whose duties cause his presence in the right-of-way.

(a) No person shall perform any work within the right-of-way until he is properly equipped with protective devices.

(b) Any person violating any of the provisions of this section shall be guilty of a misdemeanor and punishable as set forth in subsection 1-7 of this code.

(c) Following are a list of circumstances relative to the use of orange vests and/or orange shirts:

1) According to the City Code, orange shirts are acceptable for daytime use providing the color is still bright and crisp. It is up to each supervisor to determine whether the color is still appropriate or not.

2) Orange shirts are not recommended for those who are qualified and certified to direct traffic. Those who have received training to manually direct traffic from the Tempe Police Department are called Manual Traffic Directors. When directing traffic, orange vests are required for higher visibility. This also applies to certified flaggers at flagger stations. These persons do not direct traffic in the roadway. They are off the traveled portion of the roadway, behind barricading and stationary at an identified flagger station. However, vests and hardhats are required for higher visibility.

3) Reflectorized vests, that meet ANSI standards, are to be worn when performing any work-related activity within the public right-of-way during the hours from dusk to dawn (sunset to sunrise). The current City approved vests meet the current ANSI standards.

(e) These requirements apply to all persons; City personnel (including the police and fire department), contractors, utility companies and any subcontractor or employee hired to perform work within public right-of-way. Keep in mind that public right-of-way includes, not only the roadway itself, but also the sidewalk and usually 3 feet to 8 feet or more of landscape area behind the sidewalk.

(f) Just a note for supervisors or foremen who may be visiting a job site for just a few minutes or more, to talk with fellow coworkers: An orange shirt or vest is required when one exits their vehicle, depending on the time of day.

22. **Traffic Operations on Roadways/Thoroughfares:** Any and all work carried out on adjacent roadways and thoroughfares will use the appropriate traffic barricading as set forth in the City of Phoenix TRAFFIC BARRICADE MANUAL published by the Street Transportation Department as adopted by the City of Tempe. Any and all pruning operations must comply with the safety standards set forth in ANSI 133. 1. All traffic control and lane closures shall be presented as a written plan to City of Tempe Traffic Engineering (480-350-8219) of the Transportation Division.

Short term operations are allowed under Chapter 9 of the City of Phoenix Traffic Barricade Manual; however, the City of Tempe has revised this policy to allow for short duration work up to thirty (30) minutes.

Non-compliance of any safety or related items within this Contract will result in a deficiency of performance deduction of a minimum of $100 from the City payment made to the Contractor.

Automated License Plate Recognition (ALPR) Solution

Fixed Camera Location

PURPOSE

The purpose of this Request for Proposal (RFP) is to develop term contract with a qualified company to provide an Automated License Plate Recognition (ALPR) solution that is installed at fixed locations on designated City traffic and light poles to assist the Tempe Police Department in fighting crime, pursuing investigations, and ensuring community safety. This RFP seeks the initial provision of 10 cameras, license plate reading software, installation services, mobile broadband connections, device management and cloud storage. Additional cameras may be purchased at any time during the term of contract. The City prefers a solution where it retains no ownership in the cameras and all usage fees are included as an annual fee per camera. The successful company (Contractor) will also be responsible for complete installation, maintenance, and re-location of the camera solution. Alternate solutions that provide camera ownership to the City may be submitted as well.

BACKGROUND

The City of Tempe is located in the center of the Phoenix metropolitan area. Tempe is bordered by Phoenix to the West, Mesa to the East, Scottsdale to the North and Chandler to the South. Tempe is the most densely populated large city in the state of Arizona and is home to Arizona State University. Tempe has a population of 190,000 people within a 40 square-mile area that is connected to four major freeways. The Police Department includes 350 sworn officers.

ALPR FUNCTION

ALPR cameras scan license plates of vehicles that pass through a designated fixed location. The solution compares the scanned plate against the existing database of plates of interest to law enforcement – for example stolen vehicles and vehicles registered to owners with open warrants. ALPR technology has the capability to scan thousands of vehicles each day. When the system recognizes a match, a signal alerts the Officer to proceed with further confirmation, investigation, or actions as appropriate. An additional benefit of the solution is the capability to capture vehicle information including make, model and condition of vehicle (damage, etc.).

Applications for the Tempe Police Department include:

- To alert law enforcement of license plates in Amber Alert incidents.
- To alert law enforcement of plates related to active warrants.
- To alert law enforcement of license plates which belong to sex offenders around schools and Playgrounds.
- To prevent and suppress crime, apprehend offenders, and recover stolen property.
- To alert law enforcement of license plate numbers related to crimes in progress and time sensitive pursuit of criminal suspects.
- To provide information on the type of vehicle and condition of vehicle.
- Narcotics trafficking and illegal drug enforcement.
- Homeland security and interoperability with partner law enforcement.
- To assist both Tempe and its partner law enforcement investigators in crime analysis and correlations between suspect vehicle location with crime scenes, particularly critical since criminals do not recognize boundaries, and may often live outside the Tempe area.

PERFORMANCE REQUIREMENTS

Responding companies shall indicate their compliance or deviation in the right column for the following preferred performance requirements (All elements noted below are considered preferred):

	GENERAL REQUIREMENTS	
	Performance Requirement	**Company's Response**
1.	The Contractor must provide variants of the Optical Character Recognition (OCR) Engine that are tailored/designed for a specific country, state or region of interest.	
2.	As part of the Contractor's system maintenance agreement with the customer, Optical Character Recognition (OCR) updates and/or revisions must be reasonably provided to address changes in the state's license plates during the term of the maintenance agreement.	
3.	The system must have the capability to capture vehicle license plates with license plate capture and read accuracy rates in excess of 90% for machine readable plates.	
4.	The system must provide effective license plate capture at night with no external lighting required. The usage at night shall not disclose the presence of the cameras (such as any triggered lighting, flash, red signal light, etc.)	
5.	After award of contract, all hardware and software for the initial 10 camera system shall be delivered, installed and made operational as soon as possible. It is preferred to have the solution installed and operational within 6 to 8 weeks of order.	
6.	It is preferred that each camera system is capable of capturing date/time of capture, direction of travel of entity captured, vehicle make, and any additional vehicle details at the time of capture to include condition of vehicle (damage).	
7.	National Crime Information Center (NCIC) alerts from camera system must be relayed to Tempe Police within 60 seconds.	
8.	The Contractor shall provide system training as needed in coordination with the installation of the equipment.	
9.	The Contractor must provide system installation according to the Tempe Police requirements (location) and provide relocation of camera(s). It is anticipated that mounting locations will be to existing signal and lighting poles. However, Contractor shall have the capability to install a custom pole configuration, if necessary.	

	HARDWARE SPECIFICATIONS	
10.	The system must be primarily comprised of self-illuminating infrared (IR) cameras for effective license plate image capture in a variety of weather and lighting conditions.	
11.	The cameras must be capable of producing high quality images regardless of weather or lighting conditions.	
12.	All camera mounting bracket systems must be fabricated to support the Contractor's cameras and must be furnished by the Contractor.	
13.	The cameras must have a fixed focal point or target distance from the camera to the vehicle license plates from 10 feet to 50 feet.	
14.	It is preferred that all camera systems are solar powered.	
	SERVER SOFTWARE SPECIFICATIONS	
15.	The system must allow for an administrator to easily import users from their Active Directory, assign these users to a Group, and establish a password. Ideally, the system will integrate with Active Directory for single sign-on.	
16.	The system must provide the System Administrator with the ability to define and configure custom roles with various access privileges based upon user responsibilities.	
17.	The system should allow the administrator to view users currently logged into the system, and disconnect users as needed.	
18.	The system must provide the ability to query for license plate data based upon time, date, location and the user.	
19.	The system shall allow for remote user setup, and networking capabilities, to facilitate querying and data sharing across agencies and jurisdictions.	
20.	The client application for networked PC's and laptops must be a zero-administration installation from a web page residing on the server.	
21.	Data and images stored in the system should have the capability to be printed as determined by the System Administrator.	
22.	The system must provide a method for automatically purging data at the device level, based upon the System Administrator's specifications.	

23.	The system shall be a cloud-based solution, compatible to interface with other agencies and other ALPR systems and databases.	

Proposal Questionnaire

"Return this Section with your Response"

Questionnaire responses and supporting documentation provided will be used to evaluate the proposal. In order to evaluate an Offeror's overall experience and competence to perform the Scope of Work described herein, the City may rely on additional resources beyond the information provided.

General Information Questionnaire

Item	Question	Response
1.	Provide a brief overview of the company to include its history, location, years in operation, legal formation, and general scope of services provided, etc.	
2.	Identify the key contact person that will be responsible for the overall management of this contract to include brief background and contact information.	
3.	How long has your company been providing ALPR solutions?	
4.	How many law enforcement entities in the U.S. are using your ALPR product?	
5.	How many law enforcement entities in Arizona are using your ALPR product?	
6.	Provide an overview the ALPR solution being proposed.	
7.	Describe all of the image capture capabilities of the solution proposed regarding vehicle information (license plate, make, damage, etc.)	
8.	Can the solution capture paper licenses?	
9.	Can the solution capture information from vehicles with no license plate?	
10.	How many lanes of traffic can a single camera capture simultaneously?	
11.	What is the power source used to operate the camera solution?	
12.	Describe the camera being proposed to include pixels, weight, dimensions, etc. (include photos)	

Proposal Questionnaire

"Return this Section with your Response"

13.	How many vehicles can be captured per day by a single camera?	
14.	Does your solution utilize a Cloud storage solution?	
15.	Can your solution be integrated with Axon Evidence.com	
16.	Describe the quality of the Web based footage retrieval and what Tempe Police staff can view.	
17.	Describe the camera mounting bracket system to be utilized.	
18.	How far can a camera be placed from the traffic focal point and still function as fully described?	
19.	Will your company install the cameras to mutually agreed site locations?	
20.	Describe the methodology used to secure the cameras to the pole structure.	
21.	Will your company take down the installed cameras and re-install at new mutually agreed locations?	
22.	Will the firm agree to provide a number of "no cost" relocations as part of their offer? If so, please describe the offer.	
23.	Describe the maintenance to be performed on the installed cameras.	
24.	Can the cameras capture images day and night?	
25.	Describe how the cameras will avoid detection at night when triggered.	
26.	Describe the conditions that might negatively impact the ability of the cameras to properly read vehicle plates.	
27.	What storage solution does your company use to secure captured images?	
28.	How long is that data available to Tempe Police?	
29.	How quickly does the solution notify Tempe Police staff once a license plate match is made?	

Proposal Questionnaire

"Return this Section with your Response"

30.	Describe the license plate data base that your solution utilizes to compare captured plate images.	
31.	Describe the training program you will offer Police staff.	
32.	Describe the key personnel who will be involved in this contract.	
33.	Provide three (3) references where your solution is currently being utilized. Include the organization name, key contact, phone number, e-mail, and brief description of the number of cameras being utilized and length of time utilizing the solution.	Reference #1: Reference #2 Reference #3
34.	Provide a timeline for the furnishing, installation, and training for 10 cameras based on a tentative award date of April 5, 2021.	
35.	Provide any additional information regarding the capabilities of the proposed solution.	
36.	Will your company require the City to sign a separate contract? If so please include with submittal.	
37.	Describe your response time commitment for camera relocations. This would be for normal/routine relocations and emergency relocations. The City would prefer emergency relocations no less than 48 hours. Response time commitment means the camera(s) are removed and installed at a new location within the time commitment offered.	
38.	Can your firm provide a suitable mounting pole if needed?	
39.	Describe the pole configuration and include images of the pole configuration with submittal.	

"Return this Section with your Response"

Technical Questionnaire

The following section is focused on requirements covering the solution platform, security, disaster recovery, integration, etc. These questions are part of the City's standard software template and as a result not all questions will apply to this ALPR solution. Please feel free to mark NA for any questions that do not apply to the solution being proposed.

Section	Description
10.1	General IT Information
10.2	Security
10.3	Disaster Recovery
10.4	Solution Data
10.5	Integrations & Application Programmable Interface (API)
10.6	Reporting
10.7	Releases & Quality Control

10.1 General IT Information

1. What is the name of the product(s) that you are providing responses to via the RFP? Click or tap here to enter text.

2. Can your solution move from SaaS to on-premise and vice-versa? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

3. If applicable, describe in detail your hosting platform including any third-party providers. Click or tap here to enter text.

4. Did your Company develop your proposed solution or does your Company re-sell / integrate solutions?
   Yes ☐ **No** ☐ Comments: Click or tap here to enter text. Click or tap here to enter text.

5. Does your solution use IPv4 and is it compatible with IPv6? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

6. Is application administration compatible with Microsoft Windows in a VMware Vue desktop environment? If no, please explain how the application is administered by the City of Tempe staff? Click or tap here to enter text.

7. What are the recommended and/or required hardware and operating system platforms for deployment? Click or tap here to enter text.

8. Does the proposed solution have a mobile application for use on smart phones and tablets, and is this application compatible with iOS and Android? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

9. What is the release version and how long has this product been on the market? Click or tap here to enter text.

10. Describe the process your customers typically follow to customize your proposed solution. Click or tap here to enter text.

11. What software development language(s) and tools are used to make and maintain the proposed solution? Click or tap here to enter text.

12. Provide detailed system architecture documentation including system, network, security, and traffic flows to assist City of Tempe Information Technology with understanding Firewall configuration and system implementation requirements. Click or tap here to enter text.

13. Please describe your proposed solutions licensing model. Click or tap here to enter text.

14. If using subcontractors anywhere within your process or infrastructure, describe your contractual and working relationship including; how long you have worked with them, what services they are providing, where they are located, the length of your current contract, and what extension options are in place. Click or tap here to enter text.

10.2 Security

1. Describe the application's integration components with Microsoft Active Directory for managing system security access and authentication. Click or tap here to enter text.

2. Please describe the process for user creation, management and security of customer facing user / password database. Click or tap here to enter text.

3. Does the solution allow for multi-faceted role-based authorization security levels for activities within the solution? Example: division assignment + role = permission / access **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

4. Can the solution enforce identification security by Active Directory group memberships? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

5. If the application is installed on or accessed from a user's workstation, does it contain methods of security to prevent unauthorized access? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

Proposal Questionnaire

"Return this Section with your Response"

6. Do the users of the system need local administration rights, after initial installation, in order to run the application? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

7. Does the solution prohibit third-party vendor access to the system unless allowed by authorized personnel at the City of Tempe? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

8. If the solution stores or transmits regulated data (PCIDSS, HIPAA, CJIS, DOJ, etc.), can you provide compliance letters to include third-party data centers? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

9. Does the solution include granular security features to restrict information by user that can be viewed, added or modified? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

10. Does the solution support customization of the number of failed logins or access attempts that triggers account or data lockout? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

11. Describe how your web interface and exchange of information (data) uses standard SSL (Security Socket Layer) or TLS (Transport Layer Security). If neither of these security layers are used, explain what method of data security is utilized. Click or tap here to enter text.

12. Does your solution include security audit reports? If yes, please explain types and how often they are completed. **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

13. Does your proposed solution allow customer access to your firm's security and audit reports? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

14. Does your proposed solution allow customer access to your firm's security breach reports and corresponding logs? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

15. Describe how your firm manages your technology, whether on-premise or off-premise. Click or tap here to enter text.

16. For hosted data, if applicable, provide documented security policies and procedures to include handling of electronic data, physical security, and employee security. Click or tap here to enter text.

17. Describe how user's personally identifiable information is secured. Click or tap here to enter text.

"Return this Section with your Response"

18. Has your company developed and implemented an Identity Theft Prevention Program? **Yes ☐ No ☐**
    Comments: Click or tap here to enter text. Click or tap here to enter text.

19. If a customer insists on different options for the identity theft monitoring, what is your policy? Click or tap here to enter text.

20. How does your company respond to security breaches or loss of information? Click or tap here to enter text.

21. Provide a comprehensive review of your company's internal and external security procedures. Click or tap here to enter text.

22. Describe Internet sign-on and multi-factor identification procedures. Click or tap here to enter text.

23. Provide options for Advanced Authentication (Two Factor Authentication), IP access restriction, and / or security challenge questions upon access from an unknown or previously used location. Click or tap here to enter text.

24. What would be the City's liability in the event of a security breach, loss of data, or default by the payment card serve provider or third-party portal? Click or tap here to enter text.

25. Provide information about any third-party data centers that provide services including, but not limited to, data storage, processing, etc. Click or tap here to enter text.

26. What are your procedures for off-site storage of information? Click or tap here to enter text.

10.3 Disaster Recovery

If a hosted solution is proposed, the Service Provider must indicate the capability to recover from natural, human-caused, and electronic disasters (including security compromises) that could interrupt service to the City and the City's customers. The Service Provider will detail their solution to include:

1. Is redundancy of network gateways using multiple, physically non-contiguous US locations provided in case of network-related issues or loss of service? Click or tap here to enter text.

2. Describe the environment safeguards present at any data centers that host the solution, including:
    - Fire detection and suppression
    - Uninterruptible power supply
    - Power generator management
    - Climate control
    - Procedures for off-site storage of data

    Click or tap here to enter text.

3. Provide the location, including City and State, of all data centers that could potentially host Tempe data. Click or tap here to enter text.

4. Will there be any cost to the City for disaster recovery services? Click or tap here to enter text.

5. Is all data, including metadata and transactional data, backed up on a scheduled basis? If yes, please describe the process and frequency. Click or tap here to enter text.

6. Does your proposed solution require a service interruption during scheduled backups? If yes, please explain. Click or tap here to enter text.

7. Does your solution have a restore process when data is lost, corrupted, etc.? If yes, please explain. Click or tap here to enter text.

8. What are your capabilities and availability for alternate processing, communications, and operations facilities? Click or tap here to enter text.

9. What are your plans for maintaining business processes, including communications with the City and the City's customers? Click or tap here to enter text.

10. What is the estimated time to recover from disaster events and what are the service level expectations for business continuity following a disaster? Click or tap here to enter text.

11. Provide information related to your disaster recovery and business continuity plan including dates of disaster recovery tests and schedule for future tests. Click or tap here to enter text.

10.4 Solution Data

1. Are data migration services offered? Is there an additional cost for these services? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text. Click or tap here to enter text.

2. What data migration tools does your company use? Click or tap here to enter text.

3. Describe how you receive, store, process and transmit encrypted data that is provided to your software by the City. Click or tap here to enter text.

"Return this Section with your Response"

4. What processes do you have in place that would allow for regularly scheduled interim return of the City's data? Would this be transactional data? Click or tap here to enter text.

5. Describe the method, condition, and format (e.g. XML, JSON, native database format) you use to return City data upon expiration or cessation of use of resulting contract? Click or tap here to enter text.

6. Describe the data modeling documentation that will be provided for the proposed solution. Will entity relationship diagrams, data dictionaries, schemas, and record layout documentation be furnished? Click or tap here to enter text.

10.5 Integrations & API

1. Describe the architecture of any API integration capabilities included with the proposed solution. Click or tap here to enter text.

2. Does the API have an implementation that is compatible with the .NET framework? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

3. Does the API have an implementation that is accessible via HTTP over TLS? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

4. What major business functions cannot be completed via the API? Click or tap here to enter text.

5. Can the solution API be used to query data stored within the application? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

6. Can the provided API be used to send commands to alter the state of data within the application? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

7. Will the solution API support web hooks or another similar form of custom callbacks that can be used to notify external systems of changes within your app in (near) real time? Describe. **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

8. If your solution supports customizations, does the API support accessing and using those customizations (as opposed to only being able to access the "base product" through the API)? **Yes** ☐ **No** ☐ Comments: Click or tap here to enter text.

"Return this Section with your Response"

10.6 Reporting

1. Does the solution provide standard reports? If so, please list and provide samples. **Yes ☐ No ☐** Comments: Click or tap here to enter text.

2. With this solution can end-users create and store customized queries and reports? **Yes ☐ No ☐** Comments: Click or tap here to enter text.

3. What reporting technologies / platforms are used to create ad-hoc reports for the proposed solution? Click or tap here to enter text.

4. Describe the system's ability to run and distribute reports on a scheduled basis. Click or tap here to enter text.

5. Can solution reports be exported to an external format such as an Excel workbook or a PDF? **Yes ☐ No ☐** Comments: Click or tap here to enter text.

6. Describe how security roles and access are maintained within the reporting function. Click or tap here to enter text.

10.7 Releases & Quality Control

1. Describe the criteria for assuring full system performance and outline how tests will be conducted to demonstrate proper installation. Click or tap here to enter text.

2. Describe the quality assurance processes that your organization employs to ensure that solution versions are free of defects prior to release. Click or tap here to enter text.

3. How are customers informed about new patches and upgrades? Click or tap here to enter text.

4. Describe the product documentation, including any release notes that are included with minor and major releases. Click or tap here to enter text.

5. How frequently are minor and major solution updates released? Click or tap here to enter text.

6. List all minor and major updates of the proposed solution including version number and date of release over the past 12 calendar months. Click or tap here to enter text.

Proposal Questionnaire

"Return this Section with your Response"

7. Describe the process to ensure the integrity of any customizations is maintained during upgrades. Click or tap here to enter text.

8. Can customers elect whether or not to upgrade to the latest version? If customers can choose to remain on an older version, are they still under active support? Click or tap here to enter text.

9. What is the frequency and duration of any regularly scheduled maintenance windows? Click or tap here to enter text.

10. Is the application unavailable during maintenance windows? Click or tap here to enter text.

11. Are users informed in advance of planned maintenance outages? If so, how far in advance, and in what manner? Click or tap here to enter text.

12. Describe the lifecycle policy for the solution and the process and frequency whereby non-current versions are rotated out of active support. Click or tap here to enter text.

Evaluation Criteria

Proposals will be reviewed by an Evaluation Committee consisting of City staff using the criteria and process outlined below.

Evaluation Process

1. The Procurement Office will verify that all proposals meet the requirements to be considered responsive. Responses that do not comply with any mandatory requirements will be considered non-susceptible for award and not forwarded to the Evaluation Committee for scoring.
2. The Evaluation Committee will review and score all responsive proposals and rank them based on the committee's scores. Any proposals determined to score outside of the competitive range may be removed for non-susceptibility. Remaining Offerors may be invited for interviews, negotiations, site visits and best and final offers as determined at the sole discretion of the City.

It is important to note that firms may be removed for non-susceptibility anytime during the evaluation process and not just at the specific points noted above.

	Award Criteria	**Weight**	**X**	**Rating**	**=**	**Points**
1.	Quality of the ALPR Solution – The overall quality of the solution to include the ability of the solution to meet the performance requirements detailed herein, the quality of the cameras and capture capabilities, speed of notification alert, added value, etc.	30	X		=	
2.	Matching Data Base – The quality and volume of the data base used to compare and match captured plate images	20	X		=	
3.	Experience – The overall experience of the company in providing similar solutions to Law Enforcement accounts to include reference reviews.	15	X		=	
4.	Pricing	25	X		=	
5.	Response time commitment to complete camera re-locations.	10	X		=	
				Total	**=**	

This proposal will be evaluated on a cumulative point system using the rating scale shown below (fractional points may be selected within this range).

Scoring

Outstanding	9 – 10
Good	6 – 8
Average	3 – 5
Poor	1 – 2
Not Addressed or Unacceptable	0

To evaluate the cost portion of the above criteria, the City may elect to evaluate each firm on a percentage basis of the lowest cost offer. The formula would be: (Lowest Priced Offer/Evaluated Firm's Price) x Points Possible = Evaluation Points.

Pricing Section

"Return this Section with your Response"

ITEM NO.	DESCRIPTION OF REQUIRED MATERIAL, SERVICE OR CONSTRUCTION	QTY	UNIT	Annual Price	EXTENDED PRICE
1.	Annual fee for each camera to include all costs including equipment, software, installation, maintenance, mobile communications, delivery, etc. based on the number of cameras utilized:				
	Initial acquisition of 10 cameras	10	Each	$	$
	Accumulated utilized cameras between 11 and 20	20	Each	$	$
	Accumulated utilized cameras between 21 and 30	30	Each	$	$
	Accumulated utilized cameras between 31 and 40	40	Each	$	$
	Accumulated utilized cameras between 41 and 50	50	Each	$	$
2.	Cost per each to remove and re-install camera at new location (beyond any no-cost moves offered)	1	Each	$	$
3.	Cost of customized pole, if needed, to include installation	1	Each	$	$
3.	Firms may propose alternate pricing models based on the solution proposed. Please be sure to include any and all costs that would apply.				
4.	Detail any additional costs that might apply to this agreement below:				
	The above pricing schedule allows for discounted pricing as the City grows its investment with the awarded firm's solution. The adjusted pricing shall be trued up on anniversary date of agreement.				

* Applicable Tax _____ %

*** State correct jurisdiction to receive sales tax on the <u>Vendor's Offer</u>, included in this Request for Proposal.**

Less prompt payments discount terms of __ % __ days/ or net thirty (30) days. (To apply after receipt and acceptance of an itemized monthly statement.) For evaluation purposes, the City cannot utilize pricing discounts based upon payments being made in less than thirty (30) days from receipt of statement.

<u>Ordering and Invoice Instructions</u>

Invoices shall be issued directly to the ordering department. Invoices shall be accurate and complete including the information shown below. Failure to provide a properly documented invoice may cause a delay in receipt of payment. The City will not process an invoice for payment until it has been approved by the ordering department and forwarded to Accounts Payable. The City endeavors to process invoices within 30 days after receipt of an accurate and complete document.

Pricing Section

"Return this Section with your Response"

Invoices shall include:

1. Line item listing of all ordered items to include description of items;
2. Unit cost and extended cost for each line item;
3. Applicable Tax;
4. Payment Terms;
5. Purchase Order Number;
6. Name of selling organization clearly stated on invoice along with address;
7. Phone number and or e-mail address for contact person to clarify invoicing questions;

Invoices that do not follow the above minimum invoicing requirements will not be paid. Payment must be applied to only invoices referenced on check/payment stub. The City reserves the right to process payments via check or P-Card.

Accounting Contacts:	Yesenia Loredo-Flores	Letters A – H and Numbers
	Carlene Foster	Letters I – Z
	Scott Gruber	General AP Inquiries and AP Checks

Vendor's Offer

"Return this Section with your Response"

Offeror must complete, sign and submit this form to the Procurement Office with the proposal response. An unsigned "Vendor's Offer", late proposal response, and/or a materially incomplete response will be considered nonresponsive and rejected. Offeror is to type or legibly write in ink all information required below. A scanned copy of this page is acceptable.

Company Name: _____

Company Purchase Order Mailing Address:

Street Address: _____

City, State, Zip: _____

Contact Person: _____ Phone Number: _____

E-mail Address: _____ Cell Number: _____

Remit to Information

Company Name (as it appears on invoice): _____

Company Payment Remit to Address:

Street Address: _____

City, State, Zip: _____

Company Tax Information

If a Tempe-based firm, provide Tempe Transaction Privilege (Sales) Tax No.: _____

Payment Options

Will your company accept the City's Master Card for payment?	Yes	☐	No	☐
Will your company accept Payment via ACH (Automated Clearing House) for payment?	Yes	☐	No	☐

THIS PROPOSAL IS OFFERED BY

REQUIRED SIGNATURE OF AUTHORIZED OFFEROR

By signing this Vendor's Offer, Offeror acknowledges acceptance of all terms and conditions contained herein and that prices offered were independently developed without consultation with any other Offeror or potential Offeror. Failure to sign and return this form with proposal response will be considered nonresponsive and rejected.

_____ _____

Signature of Authorized Offer | Date

_____ _____

Print or Type Name of Authorized Individual | Title of Authorized Individual

COMPLIANCE WITH CITY'S ANTIDISCRIMINATION ORDINANCE NO. 02016.25

The Tempe City Council approved Ordinance No. 02016.25 that requires vendors who are being recommended for award to provide evidence of their compliance with the City's antidiscrimination policy as shown below:

Sec. 2-601. Policy.

It is declared to be the policy for the citizens of Tempe, Arizona, to be free from discrimination in public accommodations, employment, and housing, and contrary to public policy and unlawful to discriminate against any person on the basis of race, color, gender, gender identify, sexual orientation, religion, national origin, familial status, age, disability, or United States military veteran status, in places of public accommodation, employment, and housing; and contrary to the policy of the city and unlawful for vendors and contractors doing business with the city to discriminate, as set forth in this article.

Sec. 2-603. Unlawful Practices.

The following shall constitute a violation of this article:

For a city vendor or city contractor, because of race, color, gender, gender identify, sexual orientation, religion, national origin, familial status, age, disability, or United States military veteran status, to refuse to hire or employ or bar or discharge from employment any person, or to discriminate against such person in compensation, conditions, or privileges or employment. City vendors and contractors of fifteen (15) or more employees shall provide a copy of its antidiscrimination policy to the Procurement Officer to confirm compliance with this article. Employers having fourteen (14) or less employees may attest in writing to compliance with this article.

Vendor Requirements

Vendors who have fifteen (15) or more employees shall include with their bid/proposal submittal a copy of its antidiscrimination policy that must mirror the City's policy as stated above. Suppliers who have fourteen (14) or less employees may include their antidiscrimination policy *or* complete a written affidavit of compliance per the attached.

To be completed by responding company and returned with submittal:

_____ Our company has 15 or more employees and has included its antidiscrimination policy that mirrors the City's policy;

_____ Our company has fourteen (14) or less employees and is attaching the signed AFFIDAVIT OF COMPLIANCE WITH TEMPE CITY CODE CHAPTER 2 ARTICLE VIII SECTION 2-603(5).

Please include this document along with the company's antidiscrimination policy or the completed affidavit with offer submittal

Anti-Discrimination Policy

Only complete this document if you have 14 or less employees.

AFFIDAVIT OF COMPLIANCE WITH TEMPE CITY CODE

CHAPTER 2 ARTICLE VIII SECTION 2-603(5)

Per Tempe City Code Chapter 2 Article VIII Section 2-603(5), it is unlawful for a City vendor or City contractor, because of race, color, gender, gender identity, sexual orientation, religion, national origin, familial status, age, disability, or United States military veteran status, to refuse to hire or employ or bar or discharge from employment any person, or to discriminate against such person in compensation, conditions, or privileges of employment.

City vendors and contractors shall provide a copy of their antidiscrimination policy to City to confirm compliance with this requirement or attest in writing to compliance.

- CONTRACTOR means any person who has a contract with the City.
- VENDOR means a person or firm in the business of selling or otherwise providing products, materials, or services.

CONTRACTOR/VENDOR, select one:

_____ Current copy of antidiscrimination policy attached

OR

_____ I hereby certify _____ (contractor/vendor) to be in compliance with Tempe City Code Chapter 2 Article VIII Section 2-603(5).

_____ Date: _____
Signature

_____ _____
Print Name Title

_____
Company

Supplier Sustainability Questionnaire

The City of Tempe is strongly committed to sustainable practices and programs that help build a vibrant and resilient community. The City accomplishes this through a variety of innovative programs, including water and energy conservation, recycling, composting, alternative transportation, sustainable business practices and environmental stewardship. Tempe recently established its 2019 Climate Action Plan (CAP) that provides a guideline for how the City will take local action on global climate change by reducing its greenhouse gas (GHG) emissions and adapting to the changing climate. The Climate Action Plan serves as a guideline for the City's path toward a sustainable and resilient future that will benefit the entire City. The City has strengthened its commitment to sustainability by adopting a new carbon neutrality goal by 2050 and a strategy of sourcing 100 percent of its electricity from renewable sources by 2035. To learn more about the City's commitment to sustainability, please visit https://www.tempe.gov/government/sustainable-tempe.

To further this commitment, the City has developed a Sustainable Procurement Policy that provides specific guidelines for how these important sustainable practices and programs will be reflected in contract award decisions. By partnering with companies who share these sustainability goals, the City will be able to significantly enhance sustainable outcomes.

To support these efforts, the following Supplier Sustainability Questionnaire has been developed that will allow the City to better understand your company's efforts and commitments regarding sustainable practices and initiatives. This questionnaire has two sections – a section to understand what your company is doing regarding sustainable actions and a section to understand the specific sustainable attributes of the product or service that you are offering.

Item	Question	Response
Corporate Sustainable Actions		
1.	What sustainability guidelines or environmental statement does your company have to guide the company as a whole? Please include a link.	
2.	What is your company doing to be more energy efficient?	
3.	What is your company doing to reduce greenhouse gas emissions?	
4.	What is your company doing to reduce waste transferred to landfills?	
5.	What is your company doing to reduce water waste?	
6.	What kind of effort does your company make to reduce the use of environmentally harmful materials *(such as cleaning products, etc.)?*	
7.	Does your company take any actions to manage the sustainability of your supply chain? If yes, please explain.	
8.	Has your company received any environmental or sustainability related independent certifications or recognitions? If yes, please explain.	

Supplier Sustainability Questionnaire

Item	Question	Response
Product Sustainable Attributes		
1.	Has your company performed an environmental life cycle analysis on the product being offered the City? If yes, please provide documentation	
2.	Can the product being offered be refurbished, recycled, or composted at the end of its life? If yes, please elaborate	
3.	Does the product being offered include any recycled materials? If yes, please explain.	
4.	What measures have been taken to reduce unnecessary packaging materials associated with the product being offered?	
5.	What kind of reusable, recyclable, and/or compostable packaging materials does your company use?	
6.	Has the product being offered been rated or certified by a third-party organization such as Energy Star, Green Seal, Leadership in Energy and Environmental Design (LEED), Forest Stewardship Council, etc.? If yes, please provide certification documentation.	
7.	Please provide any additional information you would like to share regarding your product's sustainable attributes.	

Please find some helpful links below that will provide additional information, tools and resources regarding sustainable practices:

Greenhouse Gas Calculators:
https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

Sustainable Packaging:
https://www.epa.gov/smm/sustainable-packaging
https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/containers-and-packaging-product-specific-data

Cleaning Products:
https://www.epa.gov/saferchoice

Tool to Measure and Track your Waste and Recycling:
http://www.epa.gov/smm/wastewise/measure-progress.htm

Water Conservation:
http://water.epa.gov/polwaste/nps/chap3.cfm

The following checklist has been provided to assist you in submission of your offer.

This list should not be considered complete, other information or documents may be necessary as part of your submission.

The items listed are the primary documents and information that must be completed and/or included with your proposal.

Please include any additional information or documents that will clarify your submittals.

This document has been issued in Word format to allow the responding firm the ability to provide requested information, answer questions and provide pricing within the actual document.

Description		Included √
1.	One signed and completed copy of the Proposal response – only sections marked **"Return this Section with your Response"** are required but you may include supplemental materials you believe necessary to clarify your submittal.	
a.	Signed and Completed Vendor's Offer Form	
2.	Due to the COVID Virus, please submit a single e-copy of the signed and completed proposal to Bids@tempe.gov The City's e-mail is capable of accepting up to a 10MB attachment. Please try and keep the proposal under this size limit. However, if you need to exceed 10MB, please break the proposal up into two sections and e-mail in two separate messages clearly indicating the solicitation number on the subject line and denoting Part 1 and Part 2 response. We will be unable to accept any hard copies of the proposal so please e-mail the response as noted above.	
3.	Proposal General Information Questionnaire	
4.	Security Questionnaire	
4.	Pricing Section	
5.	If company has 14 or less employees include a signed and completed Affidavit of Compliance with Tempe City Code Chapter 2 Article VII Section 2-603(5) (form attached)	
6.	If company has 15 or more employees include a copy of its anti-discrimination policy	
7.	Signed Addenda (if applicable)	
8.	Supplier Sustainability Questionnaire	

Alert – If you received this solicitation via a third-party plan-holder company and did not directly download it from the City of Tempe's Procurement home page you might not have received any addendums that were published during the bidding period. To ensure you are notified of addendums it is critical that you download this solicitation from the City's web site per the below link:
https://ww2.tempe.gov/bids/

Addendum to Solicitation

City Procurement Office/City of Tempe PO Box 5002 • 20 East 6th Street • Tempe, AZ 85280 • (480) 350-8324

www.tempe.gov/procurement

	Issue Date:	March 19, 2021
This addendum will modify and/or clarify:	Solicitation No.:	21-119
and is	Addendum No.:	1
	Procurement Description:	Fixed Camera ALPR Solution for Police

A. The Request for Proposal Due Date is hereby changed from March 24, 2021 to April 1, 2021. The Opening Time remains unchanged at 3:00 P.M. (MST).

B. The City is modifying all references in the RFP regarding the "provisioning of 10 cameras for the initial implementation." In a number of areas in the Scope of Work section as well as the Pricing Section the City explained that an initial implementation of 10 cameras would be authorized after award. After further research, the City will allow the proposing firms to determine the initial number of cameras needed to meet the performance objectives as described more fully below.

The following supplier questions have been received with the City's responses noted in italics:

1. Proposal Questionnaire, Technical Questionnaire, Section 10.2 Security, Question 8, p.31
   Question 8. states, "If the solution stores or transmits regulated data (PCIDSS, HIPAA, CJIS, DOJ, etc.), can you provide compliance letters to include third-party data centers?" At this time, there is no such thing as Criminal Justice Information Services Division (CJIS) certification as there is CJIS certifying body and as such, there is no way to provide compliance letters that would substantiate CJIS compliance. And, while Amazon Web Services (AWS), a Cloud Services Provider (CSP) is FedRamp compliant, organizations, such as ALPR vendors that use the cloud hosting to store or transmit data do not get certified– rather the CSP is certified and complies. For this reason, ALPR Software as a Service cannot provide certification compliance letter for, say, FedRamp certification of their cloud hosting since only Amazon holds such certification. Compliance letters do not seem applicable to the ALPR products/services being solicited as there are no applicable certifying bodies that can provide third-party certification and issue compliance letters. Can the City remove the requirement to provide compliance letters from these organizations, as they are not applicable or available or instead require that a Contractor affirm that its system and processes are CJIS (or equivalent) compliant?

   As noted in the RFP, the questions in the technical questionnaire are part of the City's standard software template and as a result not all questions will apply to this ALPR solution. Please feel free to mark NA for this question and any other questions that do not apply to the solution being proposed. If you care to include verbiage that outlines why you feel it is NA in your reply, doing so will be helpful to the committee's overall assessment of your response.

2. Pricing Section, item 2., p.40 and Proposal Questionnaire, question 22, page 28
Pricing section requirement is, “Cost per each to remove and re-install camera at new location (beyond any no-cost moves offered).” Proposal questionnaire inquires, “Will the firm agree to provide a number of “no cost” relocations as part of their offer? If so, please describe the offer.” In order to answer this question, clarification is needed on what is specifically meant by relocation. Can the City clarify what is involved with “re-install camera at new location” and “relocations” Can the City provide specific guidance regarding its relocation strategy to help us understand this requirement? Specifically, will ALPR cameras be relocated to a location without power or pole? Will they require solar? Do you know the locations you anticipate going to in the future and specifics on power and infrastructure availability? Should the City desire to not use solar-powered equipment, can the City please confirm if 120-volt power will be available at all desired ALRP locations? Is the City interested in considering trailers as an option? Can the City please specify on how often it would request re-locating a camera? In other words, does the City intend to routinely relocate cameras on a weekly or monthly basis, or will this be more of a medium or long-term strategy where cameras may be relocated sporadically based on accumulated crime data over a 6-12month period of time?

The City recognizes there could be numerous factors impacting a camera re-location. Tempe’s strategy on the overall use of fixed camera solutions will evolve with use but for now the City does not anticipate a high degree of movement on cameras – possibly once a year in some locations. For purposes of this RFP and the pricing section, please price based on relocations that would be similar as to the original location which would be using a City pole and tied into a solar array power source (or equal) provided by the firm. We are currently targeting several locations in what is referred to as the Baseline Corridor. The initial installation will be based on the number of cameras recommended by the proposing firm to meet the following objective:

<u>Capture all vehicle traffic both east and west bound between the 2000-1300 block of West Baseline to include major points of ingress and egress within the hundred block.</u>

The City initially estimated that this would include up to 10 cameras, but this number is being modified to allow the firm to recommend the number of cameras based on their specific camera technology.

3. Evaluation Criteria, Award Criteria, 2. Matching Data Base, p. 39; and Proposal Questionnaire, Question 30, Page 29. The Proposal Questionnaire asks to, “Describe the license plate data base that your solution utilizes to compare captured plate images.” The evaluation criteria weighting is based in part on “Matching Data Base”, specifically, “The quality and volume of the data base used to

compare, and match captured plate images." Clarification is needed on what is meant by "data base" in both instances. Can you provide an explanation of the specific data base functionality that the City is seeking, a description of such a data bases, and example/s of the types of data base to which the RFP refers? LPR typically does not require "matching to a database" unless you are referring to NCIC or other hotlists as "databases".

The term "database" may be confusing. The City would like to know what source of information your firm uses to compare against the captured images of the City's soon to be installed camera solution. The proposed solution must be capable of interfacing with the NCIC and ACIC data repositories to generate automatic notifications.

4. Proposal Questionnaire, General Information Questionnaire, #38, page 39. Questionnaire inquires, "Can your firm provide a suitable mounting pole if needed?" Clarification is needed on what the City is seeking. If poles need to be provided and the City did not want to use solar power, would the City provide a power source to the pole? Will the Contractor be required to provide engineering drawings and obtain permits for installing poles? Will the contractor be required to provide construction and traffic control services and install the poles?

The City does prefer solar power to support these installations. The City will not provide a power source. Should a pole be needed, the firm will need to work through engineering and obtain permits. The firm will also be responsible for installation and traffic control for installation of any poles required. As indicated later in this addendum, Tempe Police will assist with up to 1 hour of traffic control per location.

5. It says the City prefers a solar powered ALPR solution. Will there be areas where power and/or connectivity are available?

The City cannot guarantee the availability of power on any installed location. Companies must provide independent source of power to support their installation – such as solar, batteries, etc.

6. The system shall be a cloud-based solution, compatible to interface with other agencies and other ALPR systems and databases. Please supply a complete list of other agencies and other ALPR systems and databases to which our solution is required to be compatible and interface with.

The proposed solution must be capable of interfacing with the NCIC and ACIC data repositories. The City does not anticipate the need to interface with other ALPR solutions but if that advantage

is available the firm should indicate which other ALPR products that their solutions can interface with. The City would expect that the awarded solution would be able to share data collected from private and public entities within the same ALPR solution.

7. Per the submittal requirements on Page 47 of the RFP, items #4 is “Security Questionnaire”, is there a separate questionnaire or does this refer to section 10.2 “Security” in the General Information Questionnaire?

The General Information Questionnaire is comprised of 39 questions. The Security Questionnaire begins on page 30 of the RFP and includes Section 10.1 through 10.7. Both of these questionnaires shall be returned with submittal.

8. Will the City of Tempe be supplying SIM’s and necessary data plan, or are does the data plan and SIM need to be included in the ALPR solution and provided by the vendor?

The supplier shall provide the SIM and data plan.

9. After reviewing the Tempe RFP Fixed Camera ALPR Solution for Police, we would like to inquire if the City had proposed locations predetermined for the initial 10-camera locations?

Yes – The City has identified the Baseline Corridor for the initial camera installation. The City is seeking the firm’s recommendation for how many cameras to be installed based on the following performance measure: Capture all vehicle traffic both east and west bound between the 2000-1300 block of West Baseline to include major points of ingress and egress within the hundred block.

10. Is there going to be a scheduled job walk?

No.

11. Are there going to be maps provided for each intersection location so we can install the proper amount of cabling?

Maps can be provided to the successful firm. It is our expectation that cabling should be minimal (if any at all) as the City is wanting to secure a self-sufficient and independent powered solution.

12. If we are installing on poles do the poles belong to the City of Tempe?

Yes.

13. Is there a design for this already?

We have identified several initial locations, but the design will be the responsibility of the successful firm.

14. Are we providing power to the poles?

The City is seeking a self-sufficient and independent powered solution.

15. Need to know what power source we are tapping into?

The City is seeking a self-sufficient and independent powered solution.

16. Are we providing the electrical work?

The firm will be responsible for any electrical work needed.

17. Will we be required to have a Police assistance on the job for most sites since there are at intersections or hire our own assistance company?

If the assistance is minimal (up to 1 hour) City Police can assist with traffic control.

18. Will we need to provide our own bucket truck for installation?

Yes

19. The concludes the questions and responses.

Please ensure that you sign and submit this addendum with your proposal response by the revised due date noted above.

The balance of the specifications and bid solicitation instructions to remain the same. Bidders/Proposal Offerors are to acknowledge receipt and acceptance of this addendum by returning of signed addendum with bid/proposal response. Failure to sign and return an addendum prior to bid/proposal opening time and date may make the bid/proposal response non-responsive to that portion of the solicitation as materially affected by the respective addendum.

Flock Safety	Alex Latraverse, VP Sales
Name of Company	By – Name and Title (Please Print)
alex@flocksafety.com 770-905-6240	
Email Address Telephone	Alex Latraverse
Atlanta GA 30318	
City State Zip	Authorized Signature

Signature Certificate

Document Ref.: JREUM-AAGPY-YBPTV-QV6TT

Document signed by:



Alex Latraverse

Verified E-mail:
alex@flocksafety.com

IP: 76.97.107.29 | Date: 30 Mar 2021 20:10:04 UTC

Alex Latraverse

Document completed by all parties on:
30 Mar 2021 20:10:04 UTC

Signed with PandaDoc.com

PandaDoc is the document platform that boosts your company's revenue by accelerating the way it transacts.

Contract Award Notice

Internal Services
Procurement Office
20 E. 6th Street
Tempe, AZ 85281

Tempe. Making waves in the desert

Contract Number:	T21-119-01		
Description:	Fixed Camera ALPR Solution for Police		
Vendor Number:		**Award Period**	
Name of Firm:	Flock Group Inc.	**Beginning**	October 1, 2021
Contact Name:	Mr. Giorgio Giurdanella / Alex Latraverse	**Ending**	September 30, 2022
Address:	1170 Howell Mill Road, NW Unit 210		
City, State and Zip:	Atlanta, Georgia 30318	Potential Renewals	Five, one-year renewal options
E-mail:	Giorgio.giurdanella@flocksafety.com		
Phone No:	623-707-5874 / 866-901-1781		

This Contract Award Notice is issued for the establishment of a contract to provide for the purchase of Fixed Camera ALPR Solution for Police. It is to be noted that any contracted vendor document(s) that conflict with the language and requirements of the City's solicitation are not acceptable and will void the contract. In addition, contracted vendor is not to begin work or make delivery of awarded items until any and all required insurance are posted with the City Procurement Office.

This award notice along with the executed Services Agreement Order Form represent the award documents related to Contract T21-119-01. The pricing is shown below for the lease of cameras per contract requirements:

ITEM NO.	Awarded Products and Services	Quantity	Unit Price	Extended Price
1.	Annual fee for each camera to include all costs including equipment, software, maintenance, mobile communications, solar array, delivery, etc.	10	$2,500	$25,000.00
2.	Cost to remove and re-install camera at new location (First move is no charge)	1	$250.00	$250.00
3.	Cost of customized pole, if needed, to include installation	1	$0.00	$0.00
4.	Cost to install each camera on initial deployment	10	$250.00	$2,500.00
	Total Initial Annual Cost for 10 Camera Deployment			$27,750.00
5.	Flock Group has agreed to implement Single Sign on (SSO) access via OKTA at not cost to Tempe.			No Charge

Additional cameras can be purchased based on the pricing shown above.

Michael Greene, C.P.M.
Procurement Administrator

10-7-2021
Date

Revised 08/17

flock safety

Flock Group Inc.
Today's Date - Oct 06, 2021
This proposal expires in 30 days.

Order Form
City of Tempe PD

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FLOCK GROUP INC.

SERVICES AGREEMENT ORDER FORM – Contract T21-119-01

This Order Form together with the Terms (as defined herein) describe the relationship between Flock Group Inc. ("**Flock**") and the City of Tempe Police Department ("**Customer**") (each of Flock and Customer, a "**Party**"). This order form ("**Order Form**") hereby incorporates and includes the "GOVERNMENT AGENCY CUSTOMER AGREEMENT" attached (the "**Terms**") which describe and set forth the general legal terms governing the relationship (collectively, the "**Agreement**"). The Terms contain, among other things, warranty disclaimers, liability limitations and use limitations. This contract is effective October 1, 2021, and will continue for one year, unless renewed or cancelled as provided herein.

The Agreement will become effective when this Order Form is executed by both Parties (the "**Effective Date**").

Customer: City of Tempe Police Department	Contact: Michael Greene
Address: 120 E 5th St, Tempe, AZ 85281	Phone: 480-350-8516
	E-Mail: Michael_Greene@tempe.gov
Usage Fees: **$2,500 per year per camera.** First year estimate cost based on a 10-camera deployment is $25,000. Additional cameras may be acquired during the contract term.	**Initial Term: 12** Months **Renewal Term: 60** Months in annual increments
Installation Fee (one-time) $250 per camera **Pole Fee** (one-time) $0 **Relocation Fee: $250** **Special Term: Flock will provide one (1) free relocation of up to one (1) camera**	Billing Contact: Miyoung Kim (if different than above) Expected Payment Method: Purchase Order – check process

By executing this Order Form, Customer represents and warrants that it has read and agrees all of the terms and conditions contained in the Terms attached. The Parties have executed this Agreement as of the dates set forth below.

Flock Group Inc	**Customer:**
By: Alex Latraverse Alex Latraverse Name: Title: VP of Sales Date: 10/07/2021	By: Michael Greene Name: Michael Greene Title: Procurement Administrator Date: 10/06/2021

EXHIBIT A

Statement of Work

Installation of 10 Flock Cameras on existing pole or Flock-supplied pole if required. Additional cameras can be placed based on pricing and terms herein. All work shall be in accordance with Contract T21-119-01 Scope of Work section along with Flock Group's proposal response and best and final offer.

Flock Group Inc. Order Form Tempe Police Department

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Document Ref: 8RMZE-DCCNC-9E9ZV-2RRVJ Page 2 of 13

flock safety

GOVERNMENT AGENCY CUSTOMER AGREEMENT

This Government Agency Agreement (this "**Agreement**") is entered into by and between Flock Group, Inc. with a place of business at 1170 Howell Mill Rd NW Suite 210, Atlanta, GA 30318 ("**Flock**") and the City of Tempe Police Department ("Agency"), a government agency, (each a "**Party**," and together, the "**Parties**").

RECITALS

WHEREAS, Flock offers a software and hardware solution for automatic license plate detection through Flock's technology platform (the "**Flock Service**"), and upon detection, the Flock Service creates images and recordings of suspect vehicles (**"Footage"**) and can provide notifications to Agency upon the instructions of Non-Agency End User (**"Notifications"**);

WHEREAS, Agency desires to purchase, use and/or have installed access to the Flock Service in order to create, view, search and archive Footage and receive Notifications, including those from non-Agency users of the Flock System (where there is an

investigative purpose) such as schools, neighborhood homeowners associations, businesses, and individual users;

WHEREAS, because Footage is stored for no longer than 30 days in compliance with Flock's records retention policy, Agency is responsible for extracting, downloading and archiving Footage from the Flock System on its own storage devices; and

WHEREAS, Flock desires to provide Agency the Flock Service and any access thereto, subject to the terms and conditions of this Agreement, solely for the purpose of crime awareness, crime prevention and criminal investigations by police departments and archiving for evidence gathering ("Purpose").

AGREEMENT

NOW, THEREFORE, Flock and Agency agree as follows and further agree to incorporate the Recitals into this Agreement.

1. DEFINITIONS

Certain capitalized terms, not otherwise defined herein, have the meanings set forth or cross-referenced in this Section 1.

1.1 "***Authorized End User***" shall mean any individual employees, agents, or contractors of Agency accessing or using the Services through the Web Interface, under the rights granted to Agency pursuant to this Agreement.

1.2 "***Agency Data***" will mean the data, media and content provided by Agency through the Services. For the avoidance of doubt, the Agency Content will include the Footage and geolocation information and environmental data collected by sensors built into the Units.

1.3 "***Documentation***" will mean text and/or graphical documentation, whether in electronic or printed format, that describe the features, functions and operation of the Services which are provided by Flock to Agency in accordance with the terms of this Agreement.

1.4 "***Embedded Software***" will mean the software and/or firmware embedded or preinstalled on the Hardware.

1.5 "***Flock IP***" will mean the Flock Services, the Documentation, the Hardware, the Embedded Software, the Installation Services, and any and all intellectual property therein or otherwise provided to Agency and/or its Authorized End Users in connection with the foregoing.

1.6 "***Footage***" means still images and/or video captured by the Hardware in the course of and provided via the Services.

1.7 "***Hardware***" shall mean the Flock Cameras and any other physical elements that interact with the Embedded Software and the Web Interface to provide the Services. The term "***Hardware***" excludes the Embedded Software.

1.8 "***Installation Services***" means the services provided by Flock regarding the installation, placements and configuration of the Hardware, pursuant to the Statement of Work attached hereto.

1.9 "***Flock Services***" means the provision, via the Web Interface, of Flock's software application for automatic license plate detection, searching image records, and sharing Footage.

1.10 ***"Non-Agency End User"*** means a Flock's non-Agency customer that has elected to give Agency access to its data in the Flock System.

1.11 ***"Non-Agency End User Data"*** means the Footage, geolocation data, environmental data and/or Notifications of a Non-Agency End User.

1.12 "***Unit(s)***" shall mean the Hardware together with the Embedded Software.

1.13 "***Web Interface***" means the website(s) or application(s) through which Agency and its Authorized End Users can access the Services in accordance with the terms of this Agreement.

2. FLOCK SERVICES AND SUPPORT

2.1 **Provision of Access.** Subject to the terms of this Agreement, Flock hereby grants to Agency a non-exclusive, non-transferable right to access the features and functions of the Flock Services via the Web Interface during the Service Term and No-Fee Term, solely for the Authorized End Users. The Footage will be available for Agency's designated administrator, listed on the Order Form, and any Authorized End Users to access via the Web Interface for 30 days. Authorized End Users will be required to sign up for an account and select a password and username ("***User ID***"). Flock will also provide Agency the Documentation to be used in accessing and using the Flock Services. Agency shall be responsible for all acts and omissions of Authorized End Users, and any act or omission by an Authorized End User which, if undertaken by Agency, would constitute a breach of this Agreement, shall be deemed a breach of this Agreement by Agency. Agency shall undertake reasonable efforts to make all Authorized End Users aware of the provisions of this Agreement as applicable to such Authorized End User's use of the Flock Services and shall cause Authorized End Users to comply with such provisions. Flock may use the services of one or more third parties to deliver any part of the Flock Services, including without limitation using a third party to host the Web Interface which the Flock Services make available to Agency and Authorized End Users. Flock will pass-through any warranties that Flock receives from its then current third-party service provider to the extent that such warranties can be provided to Agency. SUCH WARRANTIES, AS PROVIDED AS HONORED BY SUCH THIRD PARTIES, ARE THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY AND FLOCK'S SOLE AND EXCLUSIVE LIABILITY WITH REGARD TO SUCH THIRD-PARTY SERVICES, INCLUDING WITHOUT LIMITATION HOSTING THE WEB INTERFACE.

2.2 **Embedded Software License.** Subject to all terms of this Agreement, Flock grants Agency a limited, non-exclusive, non-transferable, non-sublicensable (except to the Authorized End Users), revocable right to use the Embedded Software as installed on the Hardware by Flock; in each case, solely as necessary for Agency to use the Flock Services.

2.3 **Documentation License.** Subject to the terms of this Agreement, Flock hereby grants to Agency a

non-exclusive, non-transferable right and license to use the Documentation during the Service Term for Agency's internal purposes in connection with its use of the Flock Services as contemplated herein.

2.4 **Usage Restrictions.** The purpose for usage of the equipment, the Services and support, and the Flock IP is solely to facilitate gathering evidence that could be used in a criminal investigation by the appropriate government agency and not for tracking activities that the system is not designed to capture ("Permitted Purpose"). Agency will not, and

will not permit any Authorized End Users to, (i) copy or duplicate any of the Flock IP; (ii) decompile, disassemble, reverse engineer or otherwise attempt to obtain or perceive the source code from which any software component of any of the Flock IP is compiled or interpreted, or apply any other process or procedure to derive the source code of any software included in the Flock IP, or attempt to do any of the foregoing, and Agency acknowledges that nothing in this Agreement will be construed to grant Agency any right to obtain or use such source code; (iii) modify, alter, tamper with or repair any of the Flock IP, or create any derivative product from any of the foregoing, or attempt to do any of the foregoing, except with the prior written consent of Flock; (vi) interfere or attempt to interfere in any manner with the functionality or proper working of any of the Flock IP; (v) remove, obscure, or alter any notice of any intellectual property or proprietary right appearing on or contained within any of the Application IP; (vii) use the Flock Services for timesharing or service bureau purposes or otherwise for the benefit of a third party or any purpose other than the Purpose; (viii) use the Services, support, equipment and the Flock IP for anything other than the Permitted Purpose; or (ix) assign, sublicense, sell, resell, lease, rent or otherwise transfer or convey, or pledge as security or otherwise encumber, Agency's rights under Sections 2.1, 2.2, or 2.3.

2.5 **Retained Rights; Ownership.** As between the Parties, subject to the rights granted in this Agreement, Flock and its licensors retain all right, title and interest in and to the Flock IP and its components, and Agency acknowledges that it neither owns nor acquires any additional rights in and to the foregoing not expressly granted by this Agreement. Agency further acknowledges that Flock retains the right to use the foregoing for any purpose in Flock's sole discretion. There are no implied rights.

2.6 **Suspension.** Notwithstanding anything to the contrary in this Agreement, Flock may temporarily suspend Agency's and any Authorized End User's access to any portion or all of the Flock IP if (i) Flock reasonably determines that (a) there is a threat or attack on any of the Flock IP; (b) Agency's or any Authorized End User's use of the Flock Service disrupts or poses a security risk to the Flock Service or any other customer or vendor of Flock; (c) Agency or any Authorized End User is/are using the Flock IP for fraudulent or illegal activities; (d) Flock's provision of the Flock Services to Agency or any Authorized End User is prohibited by applicable law; or (e) any vendor of Flock has suspended or terminated Flock's access to or use of any third party services or products required to enable Agency to access the Flock (each such suspension, in accordance with

this Section 2.6, a "***Service Suspension***"). Flock will make commercially reasonable efforts, circumstances permitting, to provide written notice of any Service Suspension to Agency (including notices sent to Flock's registered email address) and to provide updates regarding resumption of access to the Flock IP following any Service Suspension. Flock will use commercially reasonable efforts to resume providing access to the Application Service as soon as reasonably possible after the event giving rise to the Service Suspension is cured. Flock will have no liability for any damage, liabilities, losses (including any loss of data or profits) or any other consequences that Agency or any Authorized End User may incur as a result of a Service Suspension. To the extent that the service suspension is not caused by Agency's direct actions or by the actions of parties associated with the Agency, the expiration of the Term will be tolled by the duration of any suspension (for any continuous suspension lasting at least one full day).

2.7 Installation Services.

2.7.1 *Designated Locations.* Prior to performing the physical installation of the Units, Flock shall advise Agency on the location and positioning of the Units for optimal license plate image capture, as conditions and location allow. Flock and Agency must mutually agree on the location (mounting site or pole), position and angle of the Units (each Unit location so designated by Agency, a "***Designated Location***"). Flock shall have no liability to Agency resulting from any poor performance, functionality or Footage resulting from or otherwise relating to the Designated Locations or delay in installation due to Agency's delay in identifying the choices for the Designated Locations, in ordering and/or having the Designated Location ready for installation including having all electrical work preinstalled and permits ready. Designated Locations that are suggested by Flock and accepted by Agency without alteration will be known as Flock Designated Locations. For relocations of installed cameras, and camera re-positioning, adjusting of camera mounting, re-angling, removing foliage, camera replacement, changes to heights of poles, regardless of whether the need for reinstalls related to vandalism, weather, theft, lack of criminal activity in view, and the like, Agency will pay $250 per reinstall.

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2.7.2 *Agency's Installation Obligations.* Agency agrees to allow Flock and its agents reasonable access in and near the Designated Locations at all reasonable times upon reasonable notice for the purpose of performing the installation work (e.g., location access granted Monday to Friday 8AM to 5PM, based on customer availability and at least 2 business days notice), (ii) any federal, state or local taxes including property, license, privilege, sales, use, excise, gross receipts or other similar taxes which may now or hereafter become applicable to, measured by or imposed upon or with respect to the installation of the Hardware, its use, or (iii) any other services performed in connection with installation of the Hardware. Any fees payable to

Flock exclude the foregoing. Without being obligated or taking any responsibility for the foregoing, Flock may pay and invoice related costs to Customer if Customer did not address them or a third party requires Flock to pay. Agency represents and warrants that it has all necessary right title and authority and hereby authorizes Flock to install the Hardware at the Designated Locations and to make any necessary inspections or tests in connection with such installation.

2.7.3 *Flock's Installation Obligations.* The Hardware shall be installed in a workmanlike manner in accordance with Flock's standard installation procedures, and the installation will be completed within a reasonable time from the time that the Designated Locations are selected by Agency. Following the initial installation of the Hardware and any subsequent Reinstalls or maintenance operations, Flock's obligation to perform installation work shall cease; however, Flock will continue to monitor the performance of the Units and receive access to the Footage for a period of 3 business days for maintenance purposes. Customer can opt out of Flock's access in the preceding sentence, which would waive Flock's responsibility to ensure such action was successful. Agency understands and agrees that the Flock Services will not function without the Hardware. Labor may be provided by Flock or a third party (provided the Customer is made aware of third-party entity).

2.7.4 *Security Interest.* The Hardware shall remain the personal property of Flock and will be removed upon the termination or expiration of this Agreement. Agency agrees to perform all acts which may be necessary to assure the retention of title of the Hardware by Flock. Should Agency default in any payment for the Flock Services or any part thereof or offer to sell or auction the Hardware, then Agency authorizes and empowers Flock to remove the Hardware or any part thereof. Such removal, if made by Flock, shall not be deemed a waiver of Flock's rights to any damages Flock may sustain as a result of Agency's default and Flock shall have the right to enforce any other legal remedy or right.

2.8 **Hazardous Conditions.** Unless otherwise stated in the Agreement, Flock's price for its services under this Agreement does not contemplate work in any areas that contain hazardous materials, or other hazardous conditions, including, without limit, asbestos. In the event any such hazardous materials are discovered in the designated locations in which Flock is to perform services under this Agreement, Flock shall have the right to cease work immediately in the area affected until such materials are removed or rendered harmless. Any additional expenses incurred by Flock as a result of the discovery or presence of hazardous material or hazardous conditions shall be the responsibility of Agency and shall be paid promptly upon billing.

2.9 **Support Services.** Subject to the payment of fees, Flock shall monitor the performance and functionality of Flock Services and may, from time to time, advise Agency on changes to the Flock Services, Installation Services, or the Designated Locations which may improve the performance or functionality of the Services or may improve the quality of the Footage. The work, its timing, and the fees payable relating to such work shall be agreed by the Parties prior to any alterations to or changes of the Services or the Designated Locations ("***Monitoring Services***"). Subject to the terms hereof, Flock will provide Agency with reasonable technical and on-site support and maintenance services ("***On-Site Services***") in-person or by email at hello@flocksafety.com. Flock will use commercially reasonable efforts to respond to requests for support.

2.10 **Special Terms.** From time to time, Flock may offer certain "Special Terms" related to guarantees, service and support which are indicated in the proposal and on the order form and will become part of this Agreement provided the Customer agrees with those changes.

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3. AGENCY RESTRICTIONS AND RESPONSIBILITIES

3.1 **Agency Obligations.** Agency agrees to provide Flock with accurate, complete, and updated registration information. Agency may not select as its User ID a name that Agency does not have the right to use, or another person's name with the intent to impersonate that person. Agency may not transfer its account to anyone else without prior written permission of Flock. Agency will not share its account or password with anyone, and must protect the security of its account and password. Agency is responsible for any activity associated with its account. Agency shall be responsible for obtaining and maintaining any equipment and ancillary services needed to connect to, access or otherwise use the Services with the exception of any electrical work/equipment needed to operationalize the designated camera location. Agency will, at its own expense, provide assistance to Flock, including, but not limited to, by means of access to, and use of, Agency facilities, as well as by means of assistance from Agency personnel, to the limited extent any of the foregoing may be reasonably necessary to enable Flock to perform its obligations hereunder, including, without limitation, any obligations with respect to Support Services or any Installation Services.

3.2 **Agency Representations and Warranties.** Agency represents, covenants, and warrants that Agency will use the Services only in compliance with this Agreement and all applicable laws and regulations, including but not limited to any laws relating to the recording or sharing of video, photo, or audio content and retention thereof. To the extent allowed by the governing law of the state mentioned in Section 10.6, or if no state is mentioned in Section 10.6, by the law of the State of Georgia, Agency hereby agrees to indemnify and hold harmless Flock against any damages, losses, liabilities, settlements and expenses, including without limitation costs and attorneys' fees, in connection with any claim or action that arises from an alleged violation of the foregoing, Agency's Installation Obligations, or otherwise from Agency's use of the Services, Hardware and any Software, including any claim that such actions violate any applicable law or third party right. Although Flock has no obligation to monitor Agency's use of the Services, Flock may do so and may prohibit any use of the Services it believes may be (or alleged to be) in violation of the foregoing.

4. CONFIDENTIALITY; AGENCY DATA; NON-AGENCY DATA

4.1 **Confidentiality.** Each Party (the "***Receiving Party***") understands that the other Party (the "***Disclosing Party***") has disclosed or may disclose business, technical or financial information relating to the Disclosing Party's business (hereinafter referred to as "***Proprietary Information***" of the Disclosing Party). Proprietary Information of Flock is non-public information including but not limited to features, functionality, designs, user interfaces, trade secrets, intellectual property, business plans, marketing plans, works of authorship, hardware, customer lists and requirements, and performance of the Flock Services. Proprietary Information of Agency includes non-public Agency Data, Non-Agency End User Data, and data provided by Agency or a Non-Agency End User to Flock or collected by Flock via the Unit, including the Footage, to enable the provision of the Services. The Receiving Party shall not disclose, use, transmit, inform or make available to any entity, person or body any of the Proprietary Information, except as a necessary part of performing its obligations hereunder, and shall take all such actions as are reasonably necessary and appropriate to preserve and protect the Proprietary Information and the parties' respective rights therein, at all times exercising at least a reasonable level of care. Each party agrees to restrict access to the Proprietary Information of the other party to those employees or agents who require access in order to perform hereunder. The Receiving Party agrees: (i) to take the same security precautions to protect against disclosure or unauthorized use of such Proprietary Information that the party takes with its own proprietary information, but in no event will a party apply less than reasonable precautions to protect such Proprietary Information, and (ii) not to use (except in performance of the Services or as otherwise permitted herein) or divulge to any third person any such Proprietary Information. Flock's use of the Proprietary Information may include processing the Proprietary Information to send Agency Notifications or alerts, such as when a car exits Agency's neighborhood, or to analyze the data collected to identify motion or other events.

The Disclosing Party agrees that the foregoing shall not apply with respect to any information that the Receiving Party can document (a) is or becomes generally available to the public, or (b) was in its possession or known by Receiving Party prior to receipt from the Disclosing Party, or (c) was rightfully disclosed to Receiving Party without restriction by a third party, or (d) was independently developed without use of any Proprietary Information of the Disclosing Party.

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Nothing in this Agreement will prevent the Receiving Party from disclosing the Proprietary Information pursuant to any subpoena, summons, judicial order or other judicial or governmental process including relevant public records laws, provided that the Receiving Party gives the Disclosing Party reasonable prior notice of such disclosure to obtain a protective order or otherwise oppose

the disclosure. For clarity, Flock may access, use, preserve and/or disclose the Footage to law enforcement authorities, government officials, and/or third parties, if legally required to do so or if Flock has a good faith belief that such access, use,

preservation or disclosure is reasonably necessary to: (a) comply with a legal process or request; (b) enforce this Agreement, including investigation of any potential violation thereof; (c) detect, prevent or otherwise address security, fraud or technical issues; or (d) protect the rights, property or safety of Flock, its users, a third party, or the public as required or permitted by law, including respond to an emergency situation. Having received notice prior to data being deleted, Flock may store Footage in order to comply with a valid court order but such retained Footage will not be retrievable without a valid court order.

4.2 **Agency and Non-Agency End User Data.** As between Flock and Agency, all right, title and interest in the Agency Data and Non-Agency End User Data, belong to and are retained solely by Agency. Agency hereby grants to Flock a limited, non-exclusive, royalty-free, worldwide license to use the Agency Data and Non-Agency End User Data and perform all acts with respect to the Agency Data and Non-Agency End User Data as may be necessary for Flock to provide the Flock Services to Agency, including without limitation the Support Services set forth in Section 2.9 above, and a non-exclusive, perpetual, irrevocable, worldwide, royalty-free, fully paid license to use, reproduce, modify and distribute the Agency Data and Non-Agency End User Data as a part of the Aggregated Data (as defined in Section 4.4 below). As between Flock and Agency, Agency is solely responsible for the accuracy, quality, integrity, legality, reliability, and appropriateness of all Agency Data and Non-Agency End User Data. As between Agency and Non-Agency End Users that have prescribed access of Footage to Agency, each of Agency and Non-Agency End Users will share all right, title and interest in the Non-Agency End User Data. This Agreement does not by itself make any Non-Agency End User Data the sole property or the Proprietary Information of Agency. Flock will automatically delete Footage older than 30 days. Agency has a 30-day window to view, save and/or transmit Footage to the relevant government agency prior to its deletion.

4.3 **Feedback.** If Agency provides any suggestions, ideas, enhancement requests, feedback, recommendations or other information relating to the subject matter hereunder, Agency hereby assigns (and will cause its agents and representatives to assign) to Flock all right, title and interest (including intellectual property rights) with respect to or resulting from any of the foregoing.

4.4 **Aggregated Data.** Notwithstanding anything in this Agreement to the contrary, Flock shall have the right to collect and analyze data that does not refer to or identify Agency or any individuals or de-identifies such data and other information relating to the provision, use and performance of various aspects of the Services and related systems and technologies (including, without limitation, information concerning Agency Data and data derived therefrom). Agency acknowledges that Flock will be compiling anonymized and/or aggregated data based on Agency Data and Non-Agency End User Data input into the Services (the "***Aggregated Data***"). Agency hereby grants Flock a non-exclusive, worldwide, perpetual, royalty-free right and license (during and after the Service Term hereof) to (i) use and distribute such Aggregated Data to improve and enhance the Services and for other marketing, development, diagnostic and corrective purposes, other Flock offerings, and crime prevention efforts, and (ii) disclose the Agency Data and Non-Agency End User Data (both inclusive of any Footage) to enable law enforcement monitoring against law enforcement hotlists as well as provide Footage search access to law enforcement for investigative purposes only. No rights or licenses are granted except as expressly set forth herein.

5. PAYMENT OF FEES

5.1 **Fees.** Agency will pay Flock the first Usage Fee, the Installation Fee and any Hardware Fee (defined on the Order Form, together the "Initial Fees") as set forth on the Order Form no later than 30 days after contract Effective Date Agency shall pay the ongoing Usage Fees set forth on the Order Form with such Usage Fees due and payable thirty (30) days after the Effective Date of renewal. . All payments will be made by either ACH, check, or credit card. The first month of Services corresponding to the first Usage Fee payment will begin October 1, 2021, for 10+-camera

offerings where only some of the cameras are installed at the first installation and additional cameras will be installed later, prorated Usage Fees corresponding to the then-installed cameras will be invoiced to Agency immediately after installation and to the later camera installation(s) subsequently invoiced.

5.2 **Changes to Fees.** Flock reserves the right to request a change to the Fees or applicable charges and to institute new charges and Fees at the end of the Initial Term or any Renewal Term, upon sixty (60) days' notice prior to the end of such Initial Term or Renewal Term (as applicable) to Agency (which may be sent by email). Full justification for any price adjustment will be provided to the Customer at the time of request and any increases in pricing shall be mutually agreed upon. Inquiries should be directed to Flock's customer support department for any pricing discrepancies.

5.3 **Invoicing, Late Fees; Taxes.** Flock may choose to bill through an invoice, in which case, full payment for invoices issued in any given month must be received by Flock thirty (30) days after the mailing date of the invoice. Agency shall be responsible for all taxes associated with Services as determined and line item billed by Flock other than U.S. taxes based on Flock's net income.

5.4 **No-Fee Term Access.** Subject to Flock's record retention policy, Flock offers complimentary access to the Flock System for 30 days (**"No Fee Term"**) to Agency when Non-Agency End Users intentionally prescribe access or judicial orders mandate access to Non-Agency End User Data. No hardware or installation services will be provided to Agency. No financial commitment by Agency is required to access the Flock Services or Footage. Should such access cause Flock to incur internal or out-of-pocket costs that are solely the result of the access, Flock reserves the right to invoice these costs to Agency under Section 5.3 and Agency agrees to pay them, upon written consent. For clarity, No-Fee Terms and Service Terms can occur simultaneously, and when a No-Fee Term overlaps with a Service Term, Agency agrees to pay the Initial Fees and Usage Fees payments according to Section 5.1.

6. TERM AND TERMINATION

6.1 **Term.** Subject to earlier termination as provided for in RFP 21-119 , the initial term of this Agreement shall be for a one-year period. . ***Following the Initial Term, the agreement may be extended for an additional one year term (up to a maximum of five additional years) based on mutual written agreement. Renewal terms shall be in administered in accordance with contract 21-119-01.***

6.2 **Agency Satisfaction Guarantee**. At any time during the agreed upon term, a customer not fully satisfied with the service or solution may self-elect to terminate their contract. Self-elected termination will result in a one-time fee of actual cost of removal, said cost not to exceed $500 per camera. Upon self-elected termination, a refund will be provided, prorated for any fees paid for the remaining Term length set forth previously. Self-termination of the contract by the customer will be effective immediately. Flock will remove all equipment at its own convenience upon termination. Advance notice will be provided.

6.3 **Termination.** In the event of any material breach of this Agreement, the non-breaching party may terminate this Agreement prior to the end of the Service Term by giving thirty (30) days prior written notice to the breaching party; provided, however, that this Agreement will not terminate if the breaching party has cured the breach prior to the expiration of such thirty-day period. Either party may terminate this Agreement, without notice, (i) upon the institution by or against the other party of insolvency, receivership or bankruptcy proceedings, (ii) upon the other party's making an assignment for the benefit of creditors, or (iii) upon the other party's dissolution or ceasing to do business. Upon termination for Flock's breach, Flock will refund to Agency a pro-rata portion of the pre-paid Fees for Services not received due to such termination.

6.4 **Effect of Termination.** Upon any termination of the Service Term, Flock will collect all Units, delete all Agency Data, terminate Agency's right to access or use any Services, and all licenses granted by Flock hereunder will immediately cease. Agency shall ensure that Flock is granted access to collect all Units and shall ensure that Flock personnel does not encounter Hazardous Conditions in the collection of such units. Upon termination of this Agreement, Agency will immediately cease all use of Flock Services.

6.5 **No-Fee Term.** The initial No-Fee Term will extend, after entering into this Agreement, for 30 days from the date a Non-Agency End User grants access to their Footage and/or Notifications. In expectation of repeated non-continuous No-Fee Terms, Flock may in its sole discretion leave access open for Agency's Authorized End Users despite there not being any current Non-Agency End User authorizations. Such access and successive No-Fee Terms are deemed to be part of the No-Fee Term. Flock, in its sole discretion, can determine not to provide additional No-Fee Terms or can impose a price per No-Fee Term upon 30 days' notice. Agency may terminate any No-Fee Term or access to future No-Fee Terms upon 30 days' notice.

6.6 **Survival.** The following Sections will survive termination: 2.4, 2.5, 3, 4, 5 (with respect to any accrued rights to payment), 6.5, 7.4, 8.1, 8.2, 8.3, 8.4, 9.1 and 10.5.

7. REMEDY; WARRANTY AND DISCLAIMER

7.1 **Remedy.** Upon a malfunction or failure of Hardware or Embedded Software (a "Defect"), Agency must first make commercially reasonable efforts to address the problem by contacting Flock's technical support as described in Section 2.9 above. If such efforts do not correct the Defect, Flock shall, or shall instruct one of its contractors to, in its sole discretion, repair or replace the Hardware or Embedded Software suffering from the Defect. Flock reserves the right to refuse or delay replacement or its choice of remedy for a Defect until after it has inspected and tested the affected Unit; provided that such inspection and test shall occur within 72 hours after Agency notifies the Flock of defect. Flock agrees to replace cameras at the current authorized fee as published by the City of Tempe.). Customer shall not be required to replace subsequently damaged or stolen units; however, Customer understands and agrees that functionality, including Footage, will be materially affected due to such subsequently damaged or stolen units and that Flock will have no liability to Customer regarding such affected functionality nor shall the Fees owed be impacted.

7.2 **Exclusions.** Flock will not provide the remedy described in Section 7.1 above if any of the following exclusions apply: Agency's (a) misuse of the Hardware or Embedded Software in any manner, including operation of the Hardware or Embedded Software in any way that does not strictly comply with any applicable specifications, documentation, or other restrictions on use provided by Flock (b) damage, alteration, or modification of the Hardware or Embedded Software in any way; or (c) combination of the Hardware or Embedded Software with software, hardware or other technology that was not expressly authorized by Flock.

7.3 **Warranty.** Flock shall use reasonable efforts consistent with prevailing industry standards to maintain the Services in a manner which minimizes errors and interruptions in the Services and shall perform the Installation Services in a professional and workmanlike manner. Services may be temporarily unavailable for scheduled maintenance or for unscheduled emergency maintenance, either by Flock or by third-party providers, or because of other causes beyond Flock's reasonable control, but Flock shall use reasonable efforts to provide advance notice in writing or by e-mail of any scheduled service disruption.

7.4 **Disclaimer.** THE REMEDY DESCRIBED IN SECTION 7.1 ABOVE IS AGENCY'S SOLE REMEDY, AND FLOCK'S SOLE LIABILITY, WITH RESPECT TO DEFECTIVE HARDWARE AND/OR EMBEDDED SOFTWARE. THE FLOCK DOES NOT WARRANT THAT THE SERVICES WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES IT MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SERVICES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION, THE SERVICES AND INSTALLATION SERVICES ARE PROVIDED "AS IS" AND FLOCK DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF

MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT .THIS DISCLAIMER OF SECTION 7.4 ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW

OF THE STATE MENTIONED IN SECTION 10.6, OR IF NO STATE IS MENTIONED IN SECTION 10.6, BY THE LAW OF THE STATE OF GEORGIA.

7.5 **Insurance.** Flock and Agency will each maintain commercial general liability policies with policy limits as stipulated in contract T21-119-01.. Certificates of Insurance will be provided upon request.

8. LIMITATION OF LIABILITY AND INDEMNITY

8.1 **Limitation of Liability.** NOTWITHSTANDING ANYTHING TO THE CONTRARY, FLOCK AND ITS SUPPLIERS (INCLUDING BUT NOT LIMITED TO ALL HARDWARE AND TECHNOLOGY SUPPLIERS), OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS AND EMPLOYEES SHALL NOT BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS AND CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, PRODUCT LIABILITY, OR OTHER THEORY: (A) FOR ERROR OR INTERRUPTION OF USE OR FOR LOSS OR INACCURACY, INCOMPLETENESS OR CORRUPTION OF DATA OR FOOTAGE OR COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY OR LOSS OF BUSINESS; (B) FOR ANY INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES; (C) FOR ANY MATTER BEYOND FLOCK'S ACTUAL KNOWLEDGE OR REASONABLE CONTROL INCLUDING REPEAT CRIMINAL ACTIVITY OR INABILITY TO CAPTURE FOOTAGE OR IDENTIFY AND/OR CORRELATE A LICENSE PLATE WITH THE FBI DATABASE; (D) FOR ANY PUBLIC DISCLOSURE OF PROPRIETARY INFORMATION MADE IN GOOD FAITH; (E) FOR CRIME PREVENTION; OR (F) FOR ANY AMOUNTS THAT, TOGETHER WITH AMOUNTS ASSOCIATED WITH ALL OTHER CLAIMS, EXCEED 10X THE FEES PAID AND/OR PAYABLE BY AGENCY TO FLOCK FOR THE SERVICES UNDER THIS AGREEMENT IN THE 12 MONTHS PRIOR TO THE ACT OR OMISSION THAT GAVE RISE TO THE LIABILITY, IN EACH CASE, WHETHER OR NOT FLOCK HAS BEEN ADVISED OF
THE POSSIBILITY OF SUCH DAMAGES. IN THE EVENT OF AN EMERGENCY, AGENCY SHOULD CONTACT 911 AND SHOULD NOT RELY ON THE SERVICES.THIS LIMITATION OF LIABILITY OF SECTION 8 ONLY APPLIES TO THE EXTENT ALLOWED BY THE GOVERNING LAW OF THE STATE MENTIONED IN SECTION 10.6, OR IF NO STATE IS MENTIONED IN SECTION 10.6, BY THE LAW OF THE STATE OF GEORGIA

8.2 **Additional No-Fee Term Requirements.** IN NO EVENT SHALL FLOCK'S AGGREGATE LIABILITY, IF ANY, ARISING OUT OF OR IN ANY WAY RELATED TO THE NO-FEE TERM EXCEED $100, WITHOUT REGARD TO WHETHER SUCH CLAIM IS BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY OR OTHERWISE. Except for Flock's willful acts, Agency agrees to pay for Flock's attorneys' fees to defend Flock for any alleged or actual claims arising out of or in any way related to the No-Fee Term.

8.3 **Responsibility.** Each Party to this Agreement shall assume the responsibility and liability for the acts and omissions of its own employees, deputies, officers, or agents, in connection with the performance of their official duties under this Agreement. Each Party to this Agreement shall be liable (if at all) only for the torts of its own officers, agents, or employees that occur within the scope of their official duties.

8.4 **Indemnity.** To the extent permitted by law, each Party does hereby covenant and agree to indemnify, defend, and hold harmless the other Party, its elected officials, officers, employees, volunteers and agents from and against any and all suits, actions, legal or administrative proceedings, claims, demands or damages of any kind or nature relating to this Agreement which, are the result of any act or omission of the Party, its elected officials, officers, employees, volunteers, agents, and anyone acting under its direction or control, whether intentional or negligent, in connection with or incident to this Agreement. Although Flock has no obligation to monitor Agency's use of the Services, Flock may do so and may prohibit any use of the Services it believes may be (or alleged to be) in violation of Section 3.2 or this Agreement.

flock safety

9. RECORD RETENTION

9.1 **Data Preservation.** The Agency agrees to store Agency Data and Non-Agency End User Data in compliance with all applicable local, state and federal laws, regulations, policies and ordinances and their associated record retention schedules. As part of Agency's consideration for paid access and no-fee access to the Flock System, to the extent that Flock is required by local, state or federal law to store the Agency Data or the Non-Agency End User Data, Agency agrees to preserve and securely store this data on Flock's behalf so that Flock can delete the data from its servers and, should Flock be legally compelled by judicial or government order, Flock may retrieve the data from Agency upon demand.

10. MISCELLANEOUS

10.1 **Severability.** If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect and enforceable.

10.2 **Assignment.** This Agreement is not assignable, transferable or sublicensable by Agency except with Flock's prior written consent. Flock may transfer and assign any of its rights and obligations, in whole or in part, under this Agreement with the

prior consent of the Agency whose consent shall not be unreasonably withheld.

10.3 **Entire Agreement.** This Agreement, together with the Order Form(s), and the Standard and Special Terms and Conditions contained in RFP 21-119, Addendum #1 and #2 and Flock Group's proposal and best and final offer.), These documents as noted above are the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements, communications and other understandings relating to the subject matter of this Agreement, and that all waivers and modifications must be in a writing signed by both parties, except as otherwise provided herein. None of Agency's purchase orders, authorizations or similar documents will alter the terms of this Agreement, and any such conflicting terms are expressly rejected.

10.4 **Relationship.** No agency, partnership, joint venture, or employment is created as a result of this Agreement and Agency does not have any authority of any kind to bind Flock in any respect whatsoever.

10.5 **Costs and Attorneys' Fees.** In any action or proceeding to enforce rights under this Agreement, the prevailing party will be entitled to recover costs and attorneys' fees.

10.6 **Governing Law; Venue.** This Agreement shall be governed by the laws of the State of Arizona without regard to its conflict of laws provisions. To the extent that the arbitration language below does not apply, the federal and state courts sitting in Maricopa County, Arizona will have proper and exclusive jurisdiction and venue with respect to any disputes arising from or related to the subject matter of this Agreement. The parties agree that the United Nations Convention for the International Sale of Goods is excluded in its entirety from this Agreement. Any dispute arising out of, in connection with, or in relation to this agreement or the making of validity thereof or its
interpretation or any breach thereof shall be determined and settled by arbitration in Maricopa County, Arizona by a sole arbitrator pursuant to the rules and regulations then obtaining of the American Arbitration Association and any award rendered therein shall be final and conclusive upon the parties, and a judgment thereon may be entered in the
highest court of the forum, state or federal, having jurisdiction. The service of any notice, process, motion or other document in connection with an arbitration award under this agreement or for the enforcement of an arbitration award hereunder may be effectuated by either personal service or by certified or registered mail to the respective addresses provided herein.

10.7 **Publicity.** Unless otherwise indicated on the Order Form, Flock has the right to reference and use Agency's name and trademarks and disclose the nature of the Services provided hereunder in each case in business and development and marketing efforts, including without limitation on Flock's website.

10.8 **Export.** Agency may not remove or export from the United States or allow the export or re-export of the Flock IP or anything related thereto, or any direct product thereof in violation of any restrictions, laws or regulations of the United States Department of Commerce, the United States Department of Treasury Office of Foreign Assets

Control, or any other United States or foreign agency or authority. As defined in FAR section 2.101, the Services, the Hardware, the Embedded Software and Documentation are "commercial items" and according to DFAR section 252.2277014(a)(1) and (5) are deemed to be "commercial computer software" and "commercial computer software documentation." Consistent with DFAR section 227.7202 and FAR section 12.212, any use, modification, reproduction, release, performance, display, or disclosure of such commercial software or commercial software documentation by the U.S. Government will be governed solely by the terms of this Agreement and will be prohibited except to the extent expressly permitted by the terms of this Agreement.

10.9 **Headings.** The headings are merely for organization and should not be construed as adding meaning to the Agreement or interpreting the associated Sections.

10.10 **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

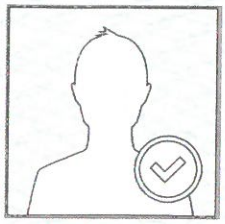
10.11 **Authority.** Each of the below signers of this Agreement represent that they understand this Agreement and have the authority to sign on behalf of and bind the organizations and individuals they are representing.

10.12 **Notices.** All notices under this Agreement will be in writing and will be deemed to have been duly given when received, if personally delivered; when receipt is electronically confirmed, if transmitted by facsimile or e-mail; the day after it is sent, if sent for next day delivery by recognized overnight delivery service; and upon receipt, if sent by certified or registered mail, return receipt requested.

Signature Certificate

Document Ref.: ORZBQ-FCEU3-XCTXQ-EWPQO

Document signed by:

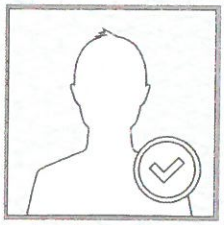


Michael Greene

Verified E-mail:
michael_greene@tempe.gov

IP: 164.50.248.107 Date: 06 Oct 2021 20:15:09 UTC

Michael Greene



Alex Lat

Verified E-mail:
lat@flocksafety.com

IP: 73.7.86.182 Date: 07 Oct 2021 15:32:54 UTC

Alex Latraverse

Document completed by all parties on:
07 Oct 2021 15:32:54 UTC

Signed with PandaDoc.com

PandaDoc is a document workflow and certified eSignature solution trusted by 25,000+ companies worldwide.

Financial Services
Procurement Office
20 E 6th Street
Tempe, AZ 85281

May 25, 2023

Flock Group Inc
Kraig Gardner
1170 Howell Mill Rd, NW Unit 210
Atlanta, GA 30318
kraig.gardner@flocksafety.com

RE: Renewal of Contract T21-119-01 - Fixed Camera ALPR Solution for Police

Kraig,

The contract that Flock Group Inc has with the City of Tempe is nearing the end of the contract period (September 30, 2023) and is eligible for renewal.

The City is offering this renewal based on the continuation of the current terms, conditions and pricing.

I have enclosed the Contract Renewal Notice that will have to be signed by you and returned before the current contract can be extended. Return the included forms to me no later than July 26, 2023.

This contract requires that you maintain insurance for the duration of the contract. If you choose to renew the contract you will need to provide a new Certificate of Insurance.

The certificate we have on file has an expiration date of *Has not been received* .

Note: The Certificate of Insurance must list the City of Tempe as an additional insured.

If you have any questions, please contact me.

Thank you for your assistance,

Taylor

Taylor Powell
Procurement Specialist
480-350-8617
Taylor_Powell@tempe.gov

Contract Renewal Notice

Financial Services
Procurement Office
20 E 6th Street
Tempe, AZ 85281

Contract Number T21-119-01
Contract Description Fixed Camera ALPR Solution for Police

Date May 25, 2023

99625

Flock Group Inc
Kraig Gardner
1170 Howell Mill Rd, NW Unit 210
Atlanta, GA 30318

Renewal Information

Beginning	October 1, 2023
Ending	September 30, 2024
Renewal	2 of 5

Contract Renewal Information

The City of Tempe is requesting renewal of the above mentioned contract under the same terms and conditions at either current contract prices/discounts or at prices/discounts more favorable to the City of Tempe.

If the contractor has lowered the market price(s) of any item(s) on the City's contract, then such lowered prices should be offered to the City of Tempe.

Where performance bonds and/or insurance coverage were requirements of the City's original solicitation/contract, a renewing contractor must provide evidence of bonds and/or insurance extensions as applicable to ongoing City of Tempe contract. Failure to provide insurance certificates as outlined below may result in contract cancellation.

Flock Group Inc certifies that it is not currently engaged in, and agrees for the duration of this Contact/Agreement that it will not engage in, a boycott of Israel, as that term is defined in A.R.S.§ 35-393

Contractor hereby acknowledges receipt and understanding of this Contract Renewal Notice and that a signed copy of this notice must be filed with the City of Tempe Procurement Office within thirty (30) days from the above noted issue date and the updated insurance certificates (City of Tempe included as additional insured) will be submitted.

Please note: If included, the Affidavit of Compliance form must be completed and returned with the renewal documents. This affidavit is related to the City's new anti-discrimination ordinance that requires compliance from all City contractors.

Administrator	Michael Greene, C.P.M., CPPO	480-350-8516	Michael_Greene@tempe.gov
Procurement Specialist	Taylor Powell	480-350-8617	Taylor_Powell@tempe.gov

To Be Completed and Signed By Flock Group Inc

Contract Number T21-119-01
Contract Description Fixed Camera ALPR Solution for Police

Contractor's Name **Flock Group Inc**

Contractor's Mailing Address 1170 Howell Mill Rd, NW Unit 210 Atlanta, GA 30318

Printed name of person signing _____

Phone Number _____

email Address _____

Contractor's Authorized Signature _____ Date

City of Tempe Contract Renewal Acceptance

Michael Greene, C.P.M., CPPO Date
Administrator

Michael Greene, CPM, CPPO Date
Procurement Administrator

AFFIDAVIT OF COMPLIANCE WITH HOUSE BILL 2488

SUPPLIER AGREES TO NOT USE THE FORCED LABOR OF ETHNIC UYGHURS IN THE PEOPLE'S REPUBLIC OF CHINA

Per House Bill 2488 approved by the Arizona Legislature, this law stipulates that a public entity may not enter into or renew a contract with a company for the acquisition or disposition of supplies, services, goods, information technology or construction unless the contract includes written certification that the company does not currently, and agrees for the duration of the contract that it will not, use:

- The forced labor of ethnic Uyghurs in the People's Republic of China;
- Any services or goods produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and
- Any suppliers, contractors or sub-contractors that use the forced labor of any services or goods produce by the forced labor of ethnic Uyghurs in the People's Republic of China

Based on the above, the supplier certifies:

_____ _____

Signature Date

_____ _____

Print Name Title

_____

Company Name

DocuSign Envelope ID: 68FA88EE-BC26-4110-B463-51E23DDF600D

Contract Modification Notice

Financial Services
Procurement Office
20 E. 6th Street
Tempe, AZ 85281

Contract Number: T21-119-01
Description: Fixed Camera ALPR Solution for Police

Issue Date: March 22, 2024

99625
Flock Group Inc
Gwen Saltal
1170 Howell Mill Rd, NW Unit 210
Atlanta, GA 30318
Office: 866-901-1781
Email: gwen.saltal@flocksafety.com; hamza.albaroudi@flocksafety.com

Effective Date
Beginning: March 22, 2024

This Contract Modification is being issued to formally document a change related to the above referenced contract. It shall remain in effect through the current expiration date unless extended or canceled per terms and conditions of the above referenced contract.

Contract Modification Information:

The City is hereby adding the following camera to this contract:

- Falcon Flex priced at $3,500 per year.

This addition is based on a limited source determination due to the need to maintain system compatibility and integration capacity with the existing Flock fleet of cameras purchased via the competitively sourced RFP noted above.

City of Tempe Contract Modification Acceptance

DocuSigned by:
Mark Smith
AC5C831454C24F3...
3/25/2024

Flock Safety Representative Date
Typed Name: Mark Smith

3-26-24

Michael Greene, C.P.M., CPPO Date
Procurement Administrator

DocuSign Envelope ID: 965F1CA3-E408-48B6-8B9D-7759B58C13C9

Contract Modification

Financial Services
Procurement Office
20 E. 6th Street
Tempe, AZ 85281

Contract Number: T21-119-01
Description: Fixed Camera ALPR Solution for Police

Issue Date: February 26, 2024

99625
Flock Safety, Inc.
Gwen Saltal
1170 Howell Mill Rd, NW Unit 210
Atlanta, GA 30318
Office: 866-901-1781
Email: gwen.saltal@flocksafety.com

Effective Date
Beginning: October 1, 2023, through September 30, 2027 (Retro)

This Contract Modification is being issued to formally document a change related to the above referenced contract. It shall remain in effect through the current expiration date unless extended or canceled per terms and conditions of the above referenced contract. **This modification clarifies an error that was included in the previous CM which is corrected below as part of line item #3 that changes "per month" to "per year". All other information remains unchanged and is restated below:**

Contract Modification Information:

In accordance with the contract Special Terms and Conditions, the parties to this contract have agreed to renew the agreement for four (4) years through September 30, 2027. This extension is in line with the available renewals under the original RFP (4 years remaining). In order to secure savings, the City is utilizing this long-term extension through the end of the natural term of agreement. A new agreement has been negotiated and approved that is attached to this Contract Modification. A summary of the agreed to changes are noted below:

1) The agreement has been renewed through September 30, 2027.

2) The City currently has 33 cameras in its fleet. All of these cameras will continue to be priced at $2500 per camera per year through September 30, 2027.

3) Any new cameras purchased during the renewal period will be priced at $3,000 per camera per ~~month~~ year which will be held firm through September 30, 2027.

4) The parties have agreed to move the term to a fiscal year basis as noted in the attached agreement. Payment will be made up front annually based on the schedule included in the agreement and referenced below:

   a) 12/31/2023 through 6/30/2024..... $42,413.01
   b) 7/1/2024 through 6/30/2025..... $82,500.00
   c) 7/1/2025 through 6/30/2026..... $82,500.00
   d) 7/1/2026 through 9/29/2027..... $103,011.99

   Total..... $310,425.00

5) There is a typo on Page 11.4 of the attached agreement, Paragraph 11.4, Entire Agreement: The reference to RFP 21-110 is hereby changed to **RFP 21-119**.

Contract Modification Acceptance

DocuSigned by:
Mark Smith
AC5C931454C24F3...
Flock Safety Representative 2/27/2024 Date
Printed Name:

Michael Greene, C.P.M., CPPO 2/27/24 Date
Procurement Administrator

FIRST AMENDMENT

FLOCK SAFETY COOPERATIVE PURCHASE CONTRACT
Contract No. 2024-163

This First Amendment ("First Amendment") is entered into this ___ day of _____, 2025, by and between the City of Flagstaff, a political subdivision of the State of Arizona, and Flock Group, Inc. dba Flock Safety, a Delaware Corporation ("Contractor"). The City and Contractor may be referred to as "Party" or jointly as "Parties."

RECITALS

WHEREAS, the City and Contractor entered a Cooperative Purchase Contract dated June 27, 2024 (the "Initial Contract"), wherein Contractor agreed to provide FlockOS hardware and software to the City at a cost of **$124,000, in addition to other fees and taxes**; and

WHEREAS, the term of the Initial Contract was based on the term of the underlying Agency Contract that Contractor has with the City of Tempe, Contract No. T21-119-01, which extends until September 30, 2027; and

WHEREAS, the Parties desire to amend the Initial Contract to add an additional length and scope to the agreement.

AGREEMENT

NOW, THEREFORE, effective on the last date of execution, and in consideration for the mutual promises contained herein, the Parties agree as follows:

A. Paragraph 1. Materials and or Services Purchased. The exhibit referenced in this paragraph is supplemented with the Scope of Work dated July 30, 2025, attached to this First Amendment as *Revised Exhibit A*.

B. Paragraph 3. Payment is amended as follows (deleted text is shown with a ~~strikethrough~~ and new text is **BOLDED AND ALL CAPS**):

   Payment: Payment to Contractor for the materials and or services provided for **ONE HUNDRED TWELVE THOUSAND DOLLARS AND ZERO CENTS ($112,000.00)** ~~**ONE HUNDRED TWENTY-FOUR THOUSAND DOLLARS AND ZERO CENTS ($124,000.00)**~~**, in addition to other fees and taxes**; made in accordance with the price list and terms set forth in the Agency Contract. Any price adjustment must be approved by mutual written consent of the **P**~~p~~arties through a formal amendment. The City Manager or his/her designee (the Purchasing Director) may approve an amendment **IF THE TOTAL AMOUNT OF THE ANNUAL CONTRACT PRICE, AS AMENDED, IS LESS THAN $100,000** ~~if the amendment price increase is less than $50,000~~; otherwise, City Council approval is required.

C. All other terms and conditions of the Initial Contract, except to the extent amended herein, remain in full force and effect.

D. The Recitals included in this First Amendment are incorporated herein.

IN WITNESS WHEREOF, the Parties hereto have executed this First Amendment as of the date hereinbefore indicated.

City of Flagstaff

By:_____
City Manager

Dated:_____

Attest:

_____
City Clerk

Flock Group, Inc. dba Flock Safety

By:_____

Title:_____

Dated:_____

Approved as to form:

_____
City Attorney

Last Updated August 19, 2025

Revised Exhibit A
SCOPE OF WORK DATED JULY 30, 2025
(attached)

Flock Safety + AZ - Flagstaff PD

Flock Group Inc.
1170 Howell Mill Rd, Suite 210
Atlanta, GA 30318

MAIN CONTACT:
Ashlee Adeli
ashlee.adeli@flocksafety.com
(470) 508-5771

Created Date: 07/30/2025
Expiration Date: 08/29/2025
Quote Number: Q-154097
PO Number:

flock safety

flock safety

Budgetary Quote

This document is for informational purposes only. Pricing is subject to change.

Bill To: 911 E Sawmill Rd Flagstaff, Arizona 86001

Ship To: 911 E Sawmill Rd Flagstaff, Arizona 86001

Billing Company Name: AZ - Flagstaff PD
Billing Contact Name:
Billing Email Address:
Billing Phone:

Subscription Term: 12 Months
Payment Terms: Net 30
Retention Period: 30 Days
Billing Frequency: Annual - First Year at Signing.

Hardware and Software Products

Annual recurring amounts over subscription term

Item	Cost	Quantity	Total
Flock Safety Platform			**$112,000.00**
Flock Safety Platform			
Flock Safety Platform - Essentials	Included	1	Included
Flock Safety LPR Products			
Flock Safety LPR, fka Falcon	Included	31	Included
Flock Safety LPR Flex, fka Falcon Flex	Included	4	Included
Solar Long-Range LPR, fka Solar Falcon LR	Included	1	Included

Professional Services and One Time Purchases

Item	Cost	Quantity	Total
One Time Fees			

Subtotal Year 1:	$112,000.00
Annual Recurring Subtotal:	$112,000.00
Estimated Tax:	$10,512.32
Contract Total:	$112,000.00

Taxes shown above are provided as an estimate. Actual taxes are the responsibility of the Customer. This is not an invoice – this document is a non-binding proposal for informational purposes only. Pricing is subject to change.

Product and Services Description

FlockOS Features	Description
Flock Safety Platform - Essentials	An integrated public safety platform that detects, centralizes and decodes actionable evidence to increase safety, improve efficiency, and connect the community.
Flock Safety LPR, fka Falcon	Law enforcement grade infrastructure-free (solar power + LTE) license plate recognition camera with Vehicle Fingerprint ™ technology (proprietary machine learning software) and real-time alerts for unlimited users.
Flock Safety LPR Flex, fka Falcon Flex	Law enforcement grade tactical deployment (portable + LTE) license plate recognition camera with Vehicle Fingerprint ™ technology (proprietary machine learning software) and real-time alerts for unlimited users.
Solar Long-Range LPR, fka Solar Falcon LR	Law enforcement grade, long range and high vehicle speed license plate recognition camera with Vehicle Fingerprint ™ technology (proprietary machine learning software) and real-time alerts for unlimited users, with LTE. Solar Power only

FlockOS Features & Description

FlockOS Features	Description
Community Network Access	The ability to request direct access to feeds from privately owned Flock Safety LPR cameras located in neighborhoods, schools, and businesses in your community, significantly increasing actionable evidence that clears cases.
Unlimited Users	Unlimited users for FlockOS
State Network (License Plate Lookup Only)	Allows agencies to look up license plates on all cameras opted into the Flock Safety network within your state.
Nationwide Network (License Plate Lookup Only)	With the vast Flock Safety sharing network, law enforcement agencies no longer have to rely on just their devices alone. Agencies can leverage a nationwide system boasting 10 billion additional plate reads per month to amplify the potential to collect vital evidence in otherwise dead-end investigations.
Law Enforcement Network Access	The ability to request direct access to evidence detection devices from Law Enforcement agencies outside of your jurisdiction.
Time & Location Based Search	Search full, partial, and temporary plates by time at particular device locations
License Plate Lookup	Look up specific license plate location history captured on Flock devices
Vehicle Fingerprint Search	Search footage using Vehicle Fingerprint™ technology. Access vehicle type, make, color, license plate state, missing / covered plates, and other unique features like bumper stickers, decals, and roof racks.
Insights & Analytics	Reporting tool to help administrators manage their LPR program with device performance data, user and network audits, plate read reports, hot list alert reports, event logs, and outcome reports.
Real-Time NCIC Alerts on Flock ALPR Cameras	Receive automated alerts when vehicles entered into established databases for missing and wanted persons are detected, including the FBI's National Crime Information Center (NCIC) and National Center for Missing & Exploited Children (NCMEC) databases.
Unlimited Custom Hot Lists	Ability to add a suspect's license plate to a custom list and get alerted when it passes by a Flock camera