ATTENTION

IN-PERSON AUDIENCES AT CITY COUNCIL MEETINGS HAVE BEEN SUSPENDED UNTIL FURTHER NOTICE

IN PERSON PARTICIPATION FOR PUBLIC HEARING ITEMS IS PERMITTED BUT PARTICIPANTS MUST EXIT THE MEETING ONCE THE PUBLIC HEARING IS CLOSED

The meetings will continue to be live streamed on the city's website (https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings)

The public can submit comments that will be read at the dais by a staff member to publiccomment@flagstaffaz.gov.

FINAL AGENDA
A M E N D E D**

REGULAR COUNCIL MEETING
TUESDAY
MARCH 17, 2020

COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:30 P.M. AND 6:00 P.M.

4:30 P.M. MEETING

Individual Items on the 4:30 p.m. meeting agenda may be postponed to the 6:00 p.m. meeting

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 legal advice and discussion 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 telephonically or by other technological means.

MAYOR EVANS
VICE MAYOR SHIMONI
COUNCILMEMBER ASLAN
COUNCILMEMBER MCCARTHY
COUNCILMEMBER ODEGAARD
COUNCILMEMBER SALAS
COUNCILMEMBER WHELAN

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

MISSION STATEMENT

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

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight'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 Public Participation. 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. **Recognition:** Flagstaff Avalanche Hockey Team State Champions

ITEM HAS BEEN POSTPONED TO A LATER DATE

B. **Recognition:** Coach Kiki Lockett

ITEM HAS BEEN POSTPONED TO A LATER DATE

6. LIQUOR LICENSE PUBLIC HEARINGS

ITEM 6A HAS BEEN MOVED TO 6:00 P.M. UNDER PUBLIC HEARINGS

A. **Consideration and Action on Liquor License Application:** Andrea Lewkowitz "Drury Inn & Suites," 2300 S. Milton Road, Series 10 (beer and wine store), New License.

STAFF RECOMMENDED ACTION:

Open the public hearing.
Receive citizen input.
Close the public hearing.

The City Council has the option to:
(1) Forward the application to the State with a recommendation for approval;
(2) Forward the application to the State with a recommendation for denial based on information from staff, the testimony received at the public hearing and/or other factors.

7. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

A. **Consideration and Approval of Contract**: Approve of the construction contract with Kinney Construction, LLC in the amount of $1,325,256.00 for the Sheep Crossing FUTS Trail Project.

STAFF RECOMMENDED ACTION:

1. Approve the construction contract with Kinney Construction, LLC in the amount of $1,325,256.00 and a contract duration of 175 calendar days;
2. Approve a contract allowance of $66,262.80, which is 5% of the lowest responsive bid;
3. Approve Change Order Authority to the City Manager in the amount of $132,525.60 which is 10% of the lowest responsive bid;
4. Authorize the City Manager to execute the necessary documents.

B. **Consideration and Approval of Contract:** Purchase of two (2) Commercial Front Load Refuse Trucks from Rush Truck Center Arizona through the Houston-Galveston Area Council Cooperative Purchase Agreement, Contract No. RH08-18 and HT06-18.

STAFF RECOMMENDED ACTION:

1. Approve the purchase of two (2) Commercial Front Load Refuse Trucks in the amount of $289,331.70 each for a total purchase amount of $578,663.40 (page 1 of pricing worksheet) from Rush Truck Center Arizona through the Houston-Galveston Area Council Cooperative Purchase Agreement, Contract No. RH-08-18 and HT06-18; and
2. Authorize the City Manager to execute the necessary documents.

8. ROUTINE ITEMS

A. **Consideration and Adoption of Ordinance No. 2020-06:** An ordinance of the City Council of the City of Flagstaff amending the Employee Handbook of Regulations relating to Compensation, Promotion and Vacation Leave

STAFF RECOMMENDED ACTION:

1) Read Ordinance No. 2020-06 by title only for the final time
2) City Clerk reads Ordinance No. 2020-06 by title only (if approved above)
3) Adopt Ordinance No. 2020-06

B. **Consideration and Approval of Contract:** Award Peak Engineering, Inc. a Contract for Professional Engineering Design Services for $169,925 for the Street Maintenance Program for Fiscal Years 2020, 2021 and 2022 in the total amount of $509,775.

STAFF RECOMMENDED ACTION:

1. Award the Contract for Professional Engineering Design Services to Peak Engineering, Inc. for $169,925 for the Street Maintenance Program for Fiscal Years 2020, 2021 and 2022 for a total cost of $509,775 over the three years; and
2. Authorized the City Manager to execute the necessary documents.

C. **Rio de Flag Project Update and Consideration and Approval of Contract:** Change Order No. 13 with Shephard-Wesnitzer, Inc. in the amount of $483,100.00 and adds 365 calendar days for the Rio de Flag Flood Control Utility Relocation design services contract.

STAFF RECOMMENDED ACTION:

1. Approve Change Order No. 13 with Shephard-Wesnitzer, Inc. the amount of $483,100.00.
2. Add 365 calendar days to the design services contract.
3. Authorize the City Manager to execute the necessary documents.

D. **Consideration and Adoption of Resolution No. 2020-08:** A resolution approving an amended and restated intergovernmental agreement between Coconino County and the City of Flagstaff regarding the Flagstaff Metropolitan Planning Organization, also known as MetroPlan, and amending Resolution No. 2070 to add a representative of the Northern Arizona Intergovernmental Public Transportation Authority to the FMPO Executive Board

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-08 by title only
2) City Clerk reads Resolution No. 2020-08 by title only (if approved above)
3) Adopt Resolution No. 2020-08

E. **Consideration and Adoption of Resolution No. 2020-11:** A resolution of the Flagstaff City Council adopting a notice of intention to increase Water Services rates or rate components, fees or service charges; and setting a public hearing date on June 2, 2020.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-11 by title only
2) City Clerk reads Resolution No. 2020-11 by title only (if approved above)
3) Adopt Resolution No.2020-11

F. **Consideration and Approval of Contract:** Approve a professional services contract for Election Consulting and Public Outreach services with NuPoint Marketing, LLC in the amount of $145,185.

STAFF RECOMMENDED ACTION:

1. Approve a professional services contract for Election Consulting and Public Outreach services (Contract No. 2020-85) with NuPoint Marketing, LLC in the amount of $145,185; and
2. Authorize the City Manager to execute the necessary documents.

G. **Consideration and Approval of Amendment to Contract:** Amendment to Contract for Legal Services (on-call) with Dickinson Wright, PLLC.

STAFF RECOMMENDED ACTION:

Approve amendment for price adjustment to contract for on-call legal services with the law firm Dickinson Wright, PLLC.

RECESS

6:00 P.M. MEETING

RECONVENE

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 legal advice and discussion 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).

9. ROLL CALL

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

MAYOR EVANS
VICE MAYOR SHIMONI
COUNCILMEMBER ASLAN
COUNCILMEMBER MCCARTHY
COUNCILMEMBER ODEGAARD
COUNCILMEMBER SALAS
COUNCILMEMBER WHELAN

10. PLEDGE OF ALLEGIANCE

11. PUBLIC PARTICIPATION

12. CARRY OVER ITEMS FROM THE 4:30 P.M. AGENDA

13. PUBLIC HEARING ITEMS

IN-PERSON PARTICIPATION FOR PUBLIC HEARING ITEMS IS PERMITTED BUT PARTICIPANTS MUST EXIT THE MEETING ONCE THE PUBLIC HEARING IS CLOSED

A. **Consideration and Action on Liquor License Application:** Andrea Lewkowitz "Drury Inn & Suites," 2300 S. Milton Road, Series 10 (beer and wine store), New License.

STAFF RECOMMENDED ACTION:

Open the public hearing.
Receive citizen input.
Close the public hearing.

The City Council has the option to:
(1) Forward the application to the State with a recommendation for approval;
(2) Forward the application to the State with a recommendation for denial based on information from staff, the testimony received at the public hearing and/or other factors.

B. **Consideration and Adoption of Ordinance 2020-05:** An Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code (Ordinance No. 2011-20), for the purpose of modifying Section 10-90.40.030 of the Zoning Code, the Rural Floodplain Map, to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain on an approximate 4.46-acre parcel located at 3451 East Lake Mary Road.

STAFF RECOMMENDED ACTION:

At the March 17, 2020 Council Meeting:
1) Hold Public Hearing
2) Read Ordinance No. 2020-05 by title only for the first time
3) City Clerk reads Ordinance No. 2020-05 by title only (if approved above)

At the April 7, 2020 Council Meeting:
4) Read Ordinance No. 2020-05 by title only for the final time
5) City Clerk reads Ordinance No. 2020-05 by title only (if approved above)
6) Adopt Ordinance No. 2020-05.

14. REGULAR AGENDA

A. **Presentation, Briefing and Discussion:** Coconino County Health and Human Services update regarding novel (new) coronavirus, COVID-19

TENTATIVE: Awaiting confirmation from Coconino County

B. **Consideration and Adoption of Resolution No. 2020-09:** A resolution endorsing the declaration of a climate emergency for the City of Flagstaff, and requesting regional collaboration on an equitable transition and urgent mobilization efforts to restore a safe climate.

ITEM POSTPONED TO A LATER DATE

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-09 by title only
2) City Clerk reads Resolution No. 2020-09 by title only (if approved above)
3) Adopt Resolution No. 2020-09

C. **Consideration and Adoption of Resolution No. 2020-10:** A resolution of the Council of the City of Flagstaff, proposing a permanent adjustment to the 1979-1980 base expenditure limitation of the City of Flagstaff.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-10 by title only
2) City Clerk reads Resolution No. 2020-10 by title only (if approved above)
3) Adopt Resolution No. 2020-10

D. ****Consideration and Potential Action:** Possible Modification of Future Council Meetings

15. DISCUSSION ITEMS

A. **Discussion:** Beautification project providing flowers and planters in certain Downtown and Southside commercial and community areas.

16. COUNCIL LIAISON REPORTS

17. CITY MANAGER REPORT

A. City Manager Report

B. Talking Points Regarding PSPRS Unfunded Liability

18. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

19. 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 _____, 2020.

_____
Stacy Saltzburg, MMC, City Clerk

7. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	David Pedersen, Capital Improvements Project Manager
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Approval of Contract: Approve of the construction contract with Kinney Construction, LLC in the amount of $1,325,256.00 for the Sheep Crossing FUTS Trail Project.

STAFF RECOMMENDED ACTION:

1. Approve the construction contract with Kinney Construction, LLC in the amount of $1,325,256.00 and a contract duration of 175 calendar days;
2. Approve a contract allowance of $66,262.80, which is 5% of the lowest responsive bid;
3. Approve Change Order Authority to the City Manager in the amount of $132,525.60 which is 10% of the lowest responsive bid;
4. Authorize the City Manager to execute the necessary documents.

Executive Summary:

Award of the construction contract to Kinney Construction, LLC will authorize the construction of the Sheep Crossing FUTS Trail in accordance with the approved public improvement plans prepared by Turner Engineering Inc. (TEI).

The Sheep Crossing Trail is a planned Flagstaff Urban Trails System (FUTS) trail, approximately 0.8 miles in length, 10 feet in width, which will connect the Ponderosa FUTS Trail along the west side of Pulliam Drive with the Sinclair Wash FUTS Trail in Fort Tuthill County Park. This multi-use, non-motorized, aggregate mix trail will allow users the opportunity to navigate under Interstate 17, connecting existing trails on the east and west sides of the Interstate, just north of the John Wesley Powell Boulevard and Interstate 17 Interchange. This trail segment is also part of the ultimate alignment of the Flagstaff Loop Trail, a 44-mile system of FUTS, County, and US Forest Service trails that circumnavigate the community and provide a world-class recreational opportunity in proximity to the city.

Financial Impact:

This project is funded by the FUTS Fund from the FY2019-2020 authorized budget of $4,355,034, approved by City Council on 06/18/2019. The budget accommodates design, permitting, construction, testing and inspection, and Capital Improvements project management costs.

Policy Impact:

No impact.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Council Goal || *Transportation and Other Public Infrastructure*

- Deliver quality community assets and continue to advocate and implement a highly performing multi-modal transportation system.

Council Goal || *Environmental and Natural Resources*

- Actively manage and protect all environmental and natural resources.

Regional Plan Goal || *Environmental Planning & Conservation*

- Reduce Greenhouse Gas Emissions (E&C.2)

Regional Plan Goal || *Community Character*

- Reflect and respect the region's natural setting and dramatic views in the built environment (CC.1)

Regional Plan Goal || *Transportation*

- Improve mobility and access throughout the region. (T.1)
- Improve transportation safety and efficiency for all modes. (T.2)
- Increase the availability and use of pedestrian infrastructure, including FUTS, as a critical element of a safe and livable community. (T.5)
- Provide for bicycling as a safe and efficient means of transportation and recreation. (T.6)

Flagstaff Strategic Plan || *Work in Partnership to Enhance a Safe and Livable Community*

- Foster a safe, healthy, equitable and accessible community.

Has There Been Previous Council Decision on This:

Council has previously approved the FY2019-2020 Capital Improvement Five-Year Plan and authorized the FY2019-2020 budget for this project.

Options and Alternatives:

1. Approve the award for the construction contract as recommended. Approval will allow work on the project to move forward.
2. Reject all bids. This action would delay the project.
    1. If rejection occurs, possible options include:
        1. Re-advertise the project and open new bids or
        2. Suspend or cancel the project

Background/History:

For years a solution has been sought for trail connectivity from an east-to-west transect traversing Interstate 17, south of Interstate 40. An investigation began to utilize the dual concrete box tunnels located under Interstate 17. After four years of working with project stakeholders, a design engineer, and numerous sub-consultants, a multi-agency effort has paved a path forward for this project to be constructed. This unique partnership is well represented by the trail crossing four jurisdictions: federal (US Forest Service), state (Arizona Department of Transportation), county (Coconino County), and municipality (City of Flagstaff).

Key Considerations:

On February 11, 2020, bids were received to construct the Sheep Crossing FUTS Trail Project. The summary results are listed below:

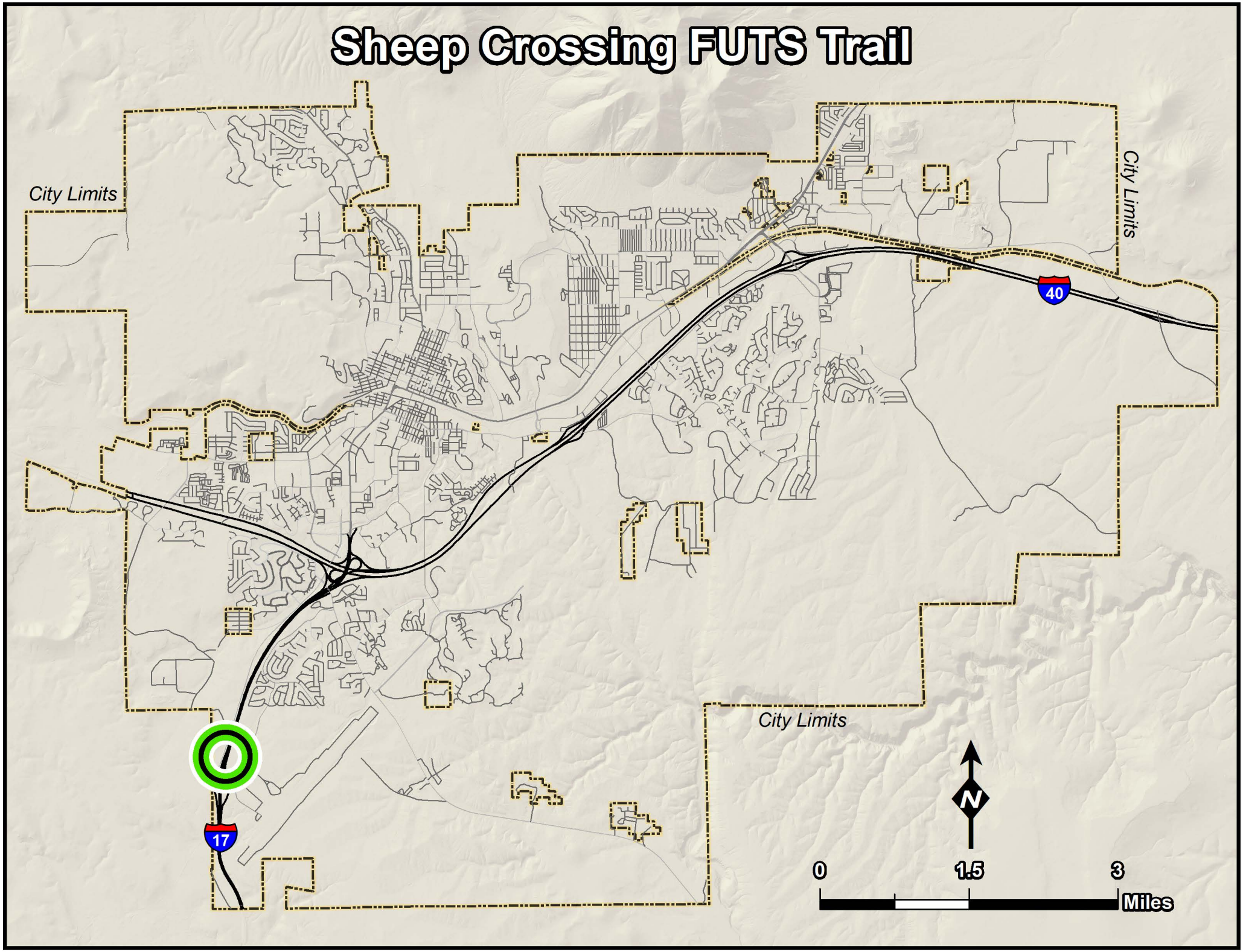
Company	**Bid**
Engineer's Estimate	*$1,230,119.00*
Kinney Construction, LLC	$1,325,256.00
Mountain High Excavating, LLC	$1,348,764.00
Standard Construction, Inc.	$1,380,524.00
MD Merrett, Inc.	$1,596,374.16

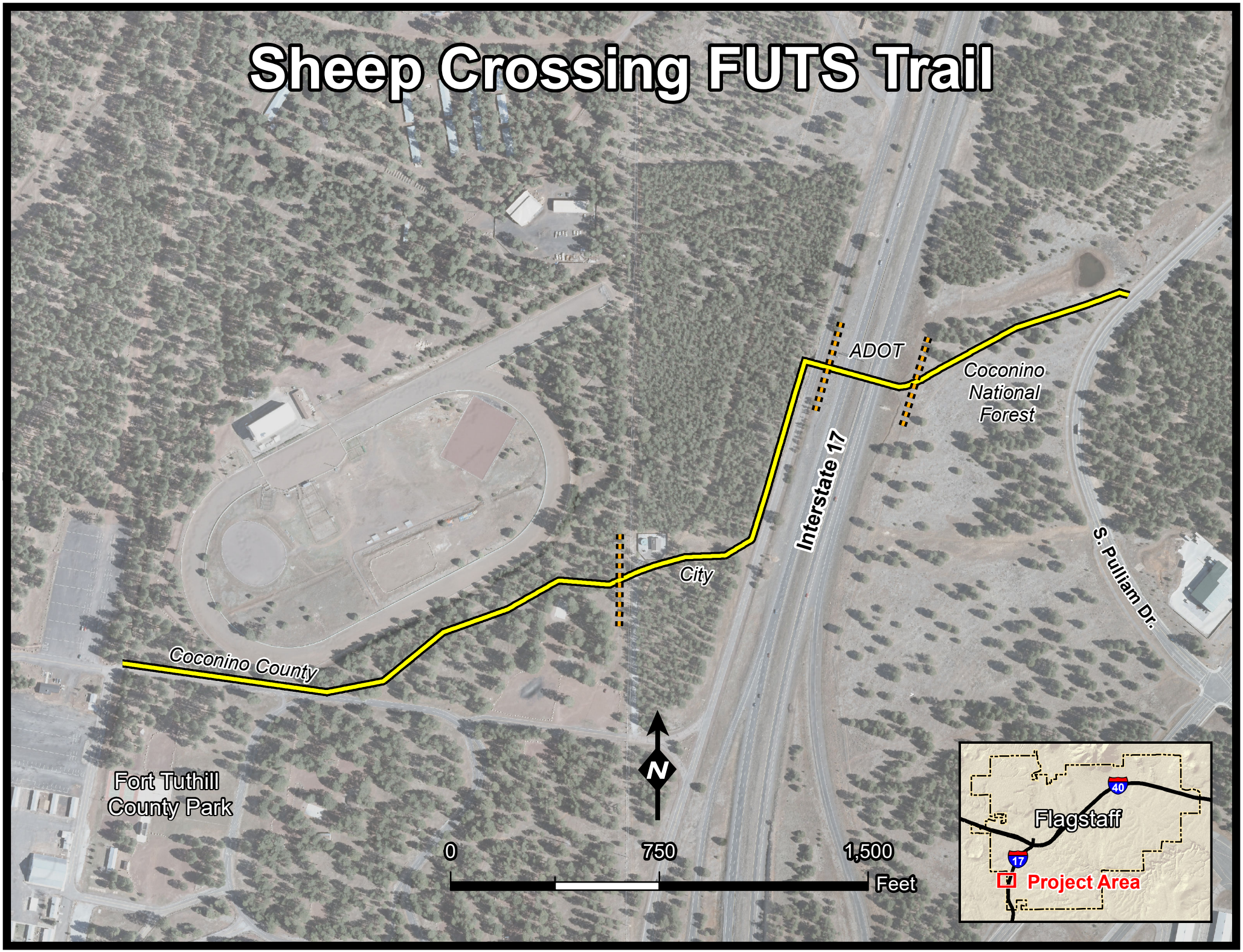
Community Benefits and Considerations:

The Sheep Crossing FUTS Trail will act as a critical connection corridor for multi-use, non-motorized users to have trail connectivity under Interstate 17 from the Ponderosa FUTS Trail (Ponderosa Trails Subdivision) to the Sinclair Wash FUTS Trail at Fort Tuthill County Park. This trail segment is also part of ultimate alignment of the Flagstaff Loop Trail, a 44-mile system of FUTS, County, and US Forest Service trails that circumnavigate the community and provide a world-class recreational opportunity in proximity to Flagstaff.

Attachments:

Context Map
Vicinity Map
Contract
Exhibit A
Exhibit B
CA & ACO Justification Form
Presentation


Sheep Crossing FUTS Trail
City Limits
City Limits
City Limits
40
17
N
0
1.5
3
Miles


Sheep Crossing FUTS Trail
ADOT
Coconino National Forest
Interstate 17
S. Pulliam Dr.
City
Coconino County
Fort Tuthill County Park
N
0
750
1,500
Feet
Flagstaff
40
17
Project Area

CONSTRUCTION CONTRACT #2020-92

City of Flagstaff, Arizona
and
Kinney Construction, LLC

This Construction Contract ("Contract") is made and entered into this _____ day of _____ 2020, by and between the City of Flagstaff, an Arizona municipal corporation with offices at 211 West Aspen Avenue, Flagstaff, Arizona ("Owner") and Kinney Construction, LLC ("Contractor") with offices at 121 East Birch Avenue, Suite 500, Flagstaff, AZ 86005. Contractor and the Owner may be referred to each individually as a "Party" and collectively as the "Parties."

RECITALS

A. Owner desires to obtain construction services; and

B. Contractor has available and offers to provide personnel and materials necessary to accomplish the work and complete the Project as described in the Scope of Work within the required time in accordance with the calendar days included in this Contract.

NOW, THEREFORE, the Owner and Contractor agree as follows:

1. Scope of Work. The Contractor shall furnish any and all labor, materials, equipment, transportation, utilities, services and facilities for the **Sheep Crossing FUTS Trail Project** (the "Project"). The Project scope is specific to the attached Special Provisions (Exhibit B). Contractor shall construct the Project for the Owner in a good, workmanlike and substantial manner and to the satisfaction of the Owner through its engineers and under the direction and supervision of the City Engineer, or his properly authorized agents including but not limited to project managers and project engineers. Contractor's work shall be strictly pursuant to and in conformity with the Contract.

1.1 A Pre-Construction Conference will be held with the successful Contractor after the Notice of Award is issued. The date and time of the Conference will be agreed upon between the Contractor and the Engineer. The meeting will be held at City Hall, 211 West Aspen Avenue, Flagstaff, AZ 86001. The purpose of the meeting is to outline specific construction items and procedures that the Owner feels require special attention on the part of the Contractor. The Contractor may also present any variations in procedures to improve the workability of the Project, reduce the cost, or reduce inconvenience to the public. The Contractor shall submit a written proposal at this conference outlining intended plans for pavement replacement, maintaining continuous access to residences and businesses along the construction site, and traffic control.

2. Contract; Ownership of Work. Contractor shall furnish and deliver all of the materials and perform all of the work in accordance with this Contract; Construction Plans; Special Provisions; the City of Flagstaff Engineering Design and Construction Standards and Specifications; the latest version of the Maricopa Association of Governments ("MAG")

Specifications for Public Works Construction and City revisions to the MAG Specifications for Public Works Construction ("Exhibit A"); and any Arizona Department of Transportation (A.D.O.T.) Standards that may be referenced on the Plans or in the specifications, incorporated in this Contract by reference, plans and associated documents. All provisions of the Invitation for Construction Bids, Performance Bond, Payment Bond, Certificates of Insurance, Addenda, Change Orders and Field Orders, if any, are hereby incorporated into this Contract. All materials, work, specifications and plans shall be the property of the Owner.

The following exhibits are incorporated by reference and are expressly made a part of this Contract:

2.1.1 Revisions of MAG Standard Specifications for Public Works Construction ("Flagstaff Addendum to MAG") Exhibit A

2.1.2 Special Provisions Exhibit B

3. Payments. In consideration of the faithful performance of the work described in this Contract, the Owner shall pay an amount not to exceed one million three-hundred twenty-five thousand two-hundred fifty-six dolloars and zero cents ($1,325,256.00) to the Contractor for work and materials provided in accordance with the bid schedule, which amount includes all federal, state, and local taxes, as applicable. This amount shall be payable through monthly progress payments, subject to the following conditions:

3.1 Contractor shall promptly submit to the Owner all proper invoices necessary for the determination of the prices of labor and materials;

3.2 Progress payments shall be made in the amount of ninety percent (90%) of the value of labor and materials incorporated in the work, based on the sum of the Contract prices of labor and material, and of materials stored at the worksite, on the basis of substantiating paid invoices, as estimated by the Owner, less the aggregate of all previous payments, until the work performed under this Contract is fifty percent (50%) complete. When and after such work is fifty (50%) complete, the ten percent (10%) of value previously retained may be reduced to five percent (5%) of value completed if Contractor is making satisfactory progress as determined by the Owner, and providing that there is no specific cause or claim requiring a greater amount to be retained. If at any time the Owner determines that satisfactory progress is not being made, the ten percent (10%) retention shall be reinstated for all subsequent progress payments made under this Contract;

3.3 The City Engineer shall have the right to finally determine the amount due to Contractor;

3.4 Monthly progress payments shall be made by the Owner, on or before fourteen (14) calendar days after the receipt by the Owner of an approved estimate of the work completed;

3.5 Contractor agrees that title to materials incorporated in the work, and stored at the site, shall vest with the Owner upon receipt of the corresponding progress payment;

3.6 The remainder of the Contract price, after deducting all such monthly payments and any retention, shall be paid within sixty (60) days after final acceptance of completed work by the Owner. The release of retention or alternate surety shall be made following the Owner's receipt and acceptance of: Contractor's Affidavit Regarding Settlement of Claims, Affidavit of Payment, Consent of Surety for Final Payment, and Unconditional Full and Final lien waivers from all subcontractors and suppliers who have filed an Arizona Preliminary 20 Day Lien Notice in accordance with A.R.S. §§ 33-992.01 and 33-992.02.

4. Time of Completion. Contractor agrees to complete all work as described in this Contract within **one hundred seventy-five (175) calendar days** from the date of the Owner's Notice to Proceed free of all liens, claims and demands of any kind for materials, equipment, supplies, services, labor, taxes and damages to property or persons, in the manner and under the conditions specified within the time or times specified in this Contract.

5. Performance of Work. All work covered by this Contract shall be done in accordance with the latest and best accepted practices of the trades involved. The Contractor shall use only skilled craftsmen experienced in their respective trades to prepare the materials and to perform the work.

6. Acceptance of Work; Non Waiver. No failure of the Owner during the progress of the work to discover or reject materials or work not in accordance with this Contract shall be deemed an acceptance of, or a waiver of, defects in work or materials. No payment shall be construed to be an acceptance of work or materials which are not strictly in accordance with the Contract.

7. Delay of Work. Any delay in the performance of this Contract due to strikes, lockouts, fires, or other unavoidable casualties beyond the control of the Contractor and not caused by any wrongful act or negligence of the Contractor shall entitle the Contractor to an extension of time equal to the delay so caused. The Contractor shall notify the Owner in writing specifying such cause within twenty-four (24) hours after its occurrence. In the event such delay is caused by strikes, lockouts, or inability to obtain workmen for any other cause, the Owner shall have the right but shall not be obligated to complete the work on the same basis as is provided for in Section 13 below (Contract Violations).

8. Failure to Complete Project in Timely Manner. If Contractor fails or refuses to execute this Contract within the time specified in Section 4 above, or such additional time as may be allowed, the proceeds of Contractor's performance guaranty shall become subject to deposit into the Treasury of the municipality as monies available to compensate the Owner for damages as provided by A.R.S. § 34-201 for the delay in the performance of work under this Contract, and the necessity of accepting a higher or less desirable bid from such failure or refusal to perform this Contract as required. If Contractor has submitted a certified check or cashier's check as a performance guaranty, the check shall be returned after the completion of this Contract.

9. Labor Demonstration. It is understood that the work covered by this Contract is for the Owner's business purposes and that any unfavorable publicity or demonstrations in connection with the work will have a negative effect upon the Owner. If Contractor's actions in performance of the Contract result in any public demonstration on behalf of the laborers or organized labor in the vicinity of the Owner's premises, whether such demonstration is in the form of picketing, posting of

placards or signs, violence, threats of violence or in any other form, which in the Owner's judgment, might convey to the public the impression that the Owner or the Contractor or any subcontractor is unfair to laborers or to organized labor, the Owner shall have the right to terminate this Contract immediately, unless the Contractor shall have caused such demonstration to be discontinued within two (2) days after request of the Owner to do so. In the event any such demonstration is attended by violence, the Owner may fix lesser time within which a discontinuance shall be accomplished. In the event of Contract termination, the Contractor agrees to remove from the Premises within twenty-four (24) hours of termination, all machinery, tools, and equipment belonging to it or to its subcontractors. All obligations or liabilities of the Owner to the Contractor shall be discharged by such termination, except the obligation to pay to the Contractor a portion of the Contract price representing the value based upon the Contract prices of labor and materials incorporated in the work as established by the Owner, less the aggregate of all previous payments, but subject to all of the conditions pertaining to payments generally.

10. Material Storage. During the progress of the work, the Contractor shall arrange for office facilities and for the orderly storage of materials and equipment. Contractor shall erect any temporary structures required for the work at his or her own expense. The Contractor shall at all times keep the premises reasonably free from debris and in a condition which will not increase fire hazards. Upon completion of the work, the Contractor shall remove all temporary buildings and facilities and all equipment, surplus materials and supplies belonging to the Contractor. Contractor shall leave the Premises in good order, clean, and ready to use by the Owner. The establishment of any temporary construction yard, material storage area or staging area to be located within City of Flagstaff limits and outside the public right-of-way or Project limits generally requires a Temporary Use Permit. (See Exhibit A, Section 107.2.1.)

11. Maintenance During Winter Suspension of Work. A "Winter Shutdown" is 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 Contractor) on the Project and Contractor 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 City reserves the right to initiate and terminate a Winter Shutdown at the City's sole discretion in the event of adverse weather conditions. A Winter Shutdown may be declared by the City despite delays, *for any reason,* on the Project. City retains the right to declare a Winter Shutdown. If work has been suspended due to winter weather, the Contractor 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 Contractor is required to perform the repairs and/or maintenance within twenty-four (24) hours of notification from the City. If the needed repairs and/or maintenance are not addressed within the timeframe, the City will accomplish the work and deduct the cost from monies due or become due to the Contractor.

The City shall provide snow removal operations on active traffic lanes only during the Winter Shutdown. All other snow removal and maintenance operations shall be the responsibility of the Contractor during the Winter Shutdown. 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 during the Winter Shutdown.

12. Assignment. Contractor shall not assign this Contract, in whole or in part, without the prior written consent of the Owner. No right or interest in this Agreement shall be assigned, in whole or in part, by Contractor without prior written permission of the City and no delegation of any duty of Contractor shall be made without prior written permission of the Owner. The Owner shall not unreasonably withhold consent to such assignment. Contractor agrees that any assignment agreement between Contractor and the Assignee shall include and subject to the assignee to all obligations, terms and conditions of this Contract and that Contractor shall also remain liable under all obligations, terms and conditions of this Contract.

13. Notices. Many notices or demands required to be given, pursuant to the terms of this Contract, 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.

If to Owner:	**If to Contractor:**
Matthew Luhman, CPP, CPPB	Tim Kinney, CEO
Purchasing Manager	Kinney Construction Services
211 West Aspen Avenue	121 E. Birch Ave. Ste. 500
Flagstaff, AZ 86001	Flagstaff, AZ 86001

14. Contract Violations. In the event of any of the provisions of this Contract are violated by the Contractor or by any of Contractor's subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate such Contract (the "Notice to Terminate"). The Contract shall terminate within five (5) days of the date Contractor receives the Notice to Terminate, unless the violation ceases and Contractor makes arrangements for correction satisfactory to the Owner. In the event of any such termination, the Owner shall immediately serve notice of the termination upon the Surety by registered mail, return receipt requested. The Surety shall have the right to take over and perform the Contract. If the Surety does not commence performance within ten (10) days from the date of receipt of the Owner's notice of termination, the Owner may complete the work at the expense of the Contractor, and the Contractor and his or her Surety shall be liable to the Owner for any excess cost incurred by the Owner to complete the work. If the Owner completes the work, the Owner may take possession of and utilize such materials, appliances and plants as may be on the worksite site and necessary for completion of the work.

15. Termination for Convenience. The Owner may terminate this contract at any time for any reason by giving at least **thirty (30) days** written notice to the Contractor. If termination occurs under this Section 15, the Contractor shall be paid fair market value for work completed by Contractor as of the date of termination. The parties agree that fair market value shall be determined

based on the Contractor's original bid price, less any work not yet completed by the Contractor as of the date the written notice of termination is given to the Contractor.

16. Contractor's Liability and Indemnification. To the fullest extent permitted by law, Provider shall indemnify, save and hold harmless the City of Flagstaff and its officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against liabilities, damages, losses and costs, including reasonable attorney fees, but only to the extent caused by the, recklessness or intentional wrongful conduct of the contractor, subcontractor or design professional or other persons employed or used by the contractor, subcontractor or design professional in the performance of the contract. The amount and type of insurance coverage requirements set forth in the Contract (Section 103.6 of Exhibit A) will in no way be construed as limiting the scope of the indemnity in this paragraph.

17. Non-Appropriation. In the event that no funds or insufficient funds are appropriated and budgeted in any fiscal period of the Owner to meet the Owner's obligations under this Contract, the Owner will notify Contractor in writing of such occurrence, and this Contract will terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Contract are exhausted. No payments shall be made or due to the other party under this Contract beyond these amounts appropriated and budgeted by the Owner to fund the Owner's obligations under this Contract.

18. Amendment of Contract. This Contract may not be modified or altered except in writing and signed by duly authorized representatives of the parties.

19. Subcontracts. Contractor shall not enter into any subcontract, or issue any purchase order for the completed work, or any substantial part of the work, unless in each instance, prior written approval shall have been given by the Owner. Contractor shall be fully responsible to the Owner for acts and omissions of Contractor's subcontractors and all persons either directly or indirectly employed by them.

20. Cancellation for Conflict of Interest. This Contract is subject to the cancellation provisions of A.R.S. § 38-511.

21. Compliance with All Laws. Contractor shall comply with all applicable laws, statutes, ordinances, regulations and governmental requirements in the performance of this Contract.

22. Employment of Aliens. Contractor shall comply with A.R.S. § 34-301, which provides that a person who is not a citizen or ward of the United States shall not be employed upon or in connection with any state, county or municipal public works project.

23. Compliance with Federal Immigration Laws and Regulations. Contractor warrants that it complies with all Federal Immigration laws and regulations that relate to its employees and complies with A.R.S. 23-214.A. Contractor acknowledges that pursuant to A.R.S. 41-4401 a breach of this warranty is a material breach of this contract subject to penalties up to and including termination of this contract, and that the City retains the legal right to inspect the papers of any employee who works on the contract to ensure compliance with this warranty.

24. Contractor's Warranty. Contractor warrants that it complies with all Federal Immigration laws and regulations that relate to its employees and complies with A.R.S. § 23-214.A, Verification of Employment Eligibility. Contractor shall not employ aliens in accordance with A.R.S. § 34-301, Employment of Aliens on Public Works Prohibited. Contractor acknowledges that pursuant to A.R.S. § 41-4401, Government Procurement; E-Verify Requirement; Definitions, a breach of this warranty is a material breach of this contract subject to penalties up to and including termination of this Contract, and that the Owner retains the legal right to inspect the papers of any employee who works on the Contract to ensure compliance with this warranty.

25. Jurisdiction and Venue. This Contract shall be administered and interpreted under the laws of the State of Arizona. The Contractor hereby submits itself to the original jurisdiction of those courts located within Coconino County, Arizona.

26. Attorney's Fees. If suit or action is initiated in connection with any controversy arising out of this Contract, the prevailing party shall be entitled to recover in addition to costs such sum as the court may adjudge reasonable as attorney fees, or in event of appeal as allowed by the appellate court.

27. Time is of the Essence. Contractor acknowledges that the completion of the Contract by the dates specified final completion is critical to the Owner, time being of the essence of this Contract.

28. No Third-Party Beneficiaries. The Parties acknowledge and agree that the terms, provisions, conditions, and obligations of this Contract are for the sole benefit of, and may be enforceable solely by, the Parties to this Contract, and none of the terms, provisions, conditions, and obligations of this Contract are for the benefit of, or may be enforced by, any person or entity not a party to this Contract.

29. Headings. The article and section headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Contract.

30. Severability. If any part of this Contract is determined by a court to be in conflict with any statute or constitution or to be unlawful for any reason, the parties intend that the remaining provisions of this Contract shall remain in full force and effect unless the stricken provision leaves the remaining Contract unenforceable.

IN WITNESS WHEREOF, the Owner and Contractor, by their duly authorized representatives, have executed this Contract as of the date written above.

(Please sign in blue ink. Submit original signatures – photocopies not accepted)

Owner, City of Flagstaff	**Contractor**
Greg Clifton, City Manager	Signature
Attest:	Printed Name
City Clerk	Title
Approved as to form:	
City Attorney	

CITY OF FLAGSTAFF, ARIZONA
PAYMENT BOND

PROJECT NAME: Sheep Crossing FUTS Trail Project
PROJECT NUMBER: 03-17001 **BID NUMBER:** 2020-92

STATUTORY PAYMENT BOND PURSUANT TO TITLE 34
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That, _____
(Hereinafter called the Principal), as Principal, and, _____
_____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ ("Surety"), as Surety, are held and firmly bound unto the City of Flagstaff, Arizona ("Obligee"), in the amount of _____
_____Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated this _____ day of_____, 20___, to the City of Flagstaff which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

Now, therefore, the condition of this obligation is such, that if the principal promptly pays all monies due to all persons supplying labor or materials to the principal or the principal's subcontractors in the prosecution of the work provided for in the contract, this obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Title and Chapter, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond shall recover as a part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____ 20___.

_____	_____
Principal (Seal)	Surety (Seal)
By: _____	By: _____
_____	_____
Agency of Record	Agency Address

CITY OF FLAGSTAFF, ARIZONA
PERFORMANCE BOND

PROJECT NAME: Sheep Crossing FUTS Trail Project
PROJECT NUMBER: 03-17001 **BID NUMBER:** 2020-92

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That, _____
(hereinafter called the Principal), as Principal, and, _____
_____, a corporation organized and existing under the laws of the State of _____
_____, with its principal office in the City of _____
("Surety"), as Surety, are held and firmly bound unto the City of Flagstaff, Arizona ("Obligee"), in the amount of _____Dollars ($_____
_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated this ____day of _____ 20__ in the City of Flagstaff which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

Now, therefore, the condition of this obligation is such, that if the principal faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of contract during the original term of the contract and any extension of the contract, with or without notice to the surety, and during the life of any guaranty required under the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be determined

in accordance with the provisions of said Title and Chapter, to the extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____20__.

_____	_____
Principal (Seal)	Surety (Seal)
By: _____	By: _____
_____	_____
Agency of Record	Agency Address

CITY OF FLAGSTAFF
AMENDMENTS
to
MAG STANDARD SPECIFICATIONS
FOR PUBLIC WORKS CONSTRUCTION
(General Provisions)

Amended May 2019

The
MAG UNIFORM STANDARD SPECIFICATIONS
for
PUBLIC WORKS CONSTRUCTION
is hereby amended to include the following:

PART 100 - GENERAL CONDITIONS

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

102.1 ELIGIBILITY AND PREFERENCE:
(revise to include the following)

If requested by the City, a Bidder shall furnish satisfactory evidence of the Bidder's competency to perform the proposed work. Such evidence of competency, unless otherwise specified, shall consist of statements covering the Bidder's experience on similar work, a list of equipment that would be available for the work and a list of key personnel that would be available.

In addition, if requested, a Bidder shall furnish the City of Flagstaff with satisfactory evidence of the Bidder's financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the Bidder's financial resources and liabilities as of the last calendar year or the contractor's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the Bidder shall further certify whether the Bidder's financial responsibility is approximately the same as stated or reported by the public accountant. If the Bidder's financial responsibility has changed, the Bidder shall qualify the public accountant's statement or report to reflect the Bidder's true financial condition at the time such qualified statement or report is submitted to the City of Flagstaff.

The Bidder shall submit such "evidence of competency" and "evidence of financial responsibility" to the City of Flagstaff no later than five (5) working days after receipt of a written request by the City of Flagstaff.

Each bidder, contractor and subcontractor shall possess and maintain the appropriate contractor's license for the work included in this contract. The appropriate license shall be as required by the Arizona State Registrar of Contractors and as required by Arizona Revised Statutes Chapter 10, Title 32.

102.2 CONTENTS OF PROPOSAL PAMPHLET:
(revise to include the following)

The Plans, Specifications and other Documents designated in the Contract Documents shall be considered a part of the Contract whether attached or not.
The City of Flagstaff reserves the right to refuse to issue a proposal form or accept a proposal form from a prospective Bidder if they are in default for any of the following reasons:

(A) Failure to comply with any prequalification regulations of the City of Flagstaff, if such regulations are cited or otherwise included in the Proposal as a requirement for bidding;

(B) Failure to pay or satisfactorily settle all bills due for labor and materials on former contracts in force (with the City of Flagstaff) at the time the City of Flagstaff issues the Proposal to a prospective Bidder;

(C) Contractor, as a company owner, has defaulted under previous contract(s) with the City of Flagstaff in the prior five calendar years;

(D) Record of unsatisfactory work on previous contract(s) with the City of Flagstaff in the prior five calendar years.

102.2 CONTENTS OF PROPOSAL PAMPHLET:
(third paragraph, revise last sentence to read as follows)

In the case of conflict, the following order of precedence shall govern:

1. Construction Plans and Addenda
2. Special Provisions
3. General Provisions and MAG Revisions
4. City of Flagstaff Standards and Specifications
5. MAG Standards and Specifications
6. ADOT Standards and Specifications
7. FHWA Manual of Uniform Traffic Control Devices

102.4 EXAMINATION OF PLANS, SPECIAL PROVISIONS AND SITE OF WORK:
(revise to include the following)

Before submitting a bid, each bidder shall examine the site and obtain information that pertains to the physical conditions of the site that may affect the cost, progress or performance of the work. Any restrictions or difficulties relating to the completion of the work shall be considered in accordance with the terms and conditions of the contract documents.

102.7 IRREGULAR PROPOSALS:
(revise to include the following)

The City of Flagstaff reserves the right to reject any irregular Proposal and the right to waive technicalities for acceptance of Proposals, if such waiver is in the best interest of the City of Flagstaff and conforms to local laws and ordinances pertaining to the letting of construction contracts. Proposals shall be considered irregular for the following additional reasons:

(A) If the Proposal contains unit prices that are obviously unbalanced.

(B) If the Proposal is not accompanied by the proposal guaranty specified by the City.

102.12 DISQUALIFICATION OF BIDDERS:
(revise to include the following)

A Bidder shall also be considered disqualified if the Bidder is considered in default for any reason specified in Subsection 102.2 as amended by this MAG Amendment.

102.13 SUCCESSFUL BIDDERS:
(revise paragraph to read as follows)

The City of Flagstaff shall provide six (6) sets of plans and Contract Documents at no cost. A direct expense fee shall be charged for any additional copies.

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

103.6 CONTRACTOR'S INSURANCE:

103.6.1 GENERAL:
(revise subsection to read as follows)

The Contractor and its Subcontractors, at Contractor's and Subcontractors' own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly licensed, possessing a current A.M. Best, Inc. Rating of A-, 7, or approved by the City. The insurance company shall be licensed in the State of Arizona. Policies and forms shall be satisfactory to the City.

All insurance required herein shall be maintained in full force and effect until all work and/or services required to be performed, under the terms of the Contract, are satisfactorily completed and formally accepted. At the sole discretion of the City, failure to do so may constitute a material breach of this Contract.

The Contractor's insurance shall be primary insurance as respects the City. Any insurance or self-insurance maintained by the City shall not contribute to it.

Contractor shall not fail to comply with the claim reporting provisions of the insurance policies or cause a breach of any insurance policy warranty that would affect coverage afforded under insurance policies to protect the City.

The insurance policies (except Worker's Compensation) shall contain a waiver of transfer of rights of recovery (subrogation) against the City, its agents, representatives, directors, officers, and employees for any claims arising out of the Contractor's acts, errors, mistakes, omissions, work or service.

The insurance policies may provide coverage, which contains deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to the City under such policies. The Contractor shall be solely responsible for the deductible and/or self-insured retentions, and the City, at its option, may require the Contractor to secure payment of such deductibles or self-insured retentions by a Surety Bond or an irrevocable and unconditional letter of credit.

The City reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance 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.

Except for Worker's Compensation, the insurance policies, required by this Contract shall name the City, its agents, representatives, officers, directors, officials and employees as additional insureds.

Required Coverage

A. Commercial General Liability

The Contractor shall maintain Commercial General Liability insurance with a limit of not less than $1,000,000 for each occurrence with a $2,000,000 Products/Completed Operations Aggregate and a $2,000,000 General Aggregate Limit. The Policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual coverage. Coverage will be at least as broad as Insurance Service Office, Inc. Policy Form CG 00011093 or any replacements thereof. The coverage shall not exclude X, C, U.

Such policy shall contain a severability of interest provision and shall not contain a sunset provision or commutation clause, nor any provision, which would serve to limit third party action

over claims. The Commercial General Liability additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc. Additional Insured, Form B, CG 20101185, and shall include coverage for Contractor's operations and products and completed operations.

B. Owners and Contractor's Protective Liability

The Contractor shall purchase and maintain, at all times during prosecution of the work, services or operations under this Contract, an Owner's and Contractor's Protective Liability insurance policy for bodily injury and property damage, including death, which may arise in the prosecution of the Work or Contractor's operations under this Contract. Coverage shall be on an occurrence basis with a limit not less than $1,000,000 per occurrence, and the policy shall be issued by the same insurance company that issues the Contractor's Commercial General Liability insurance.

C. Automobile Liability

Contractor shall maintain Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of not less than $1,000,000 each occurrence with respect to the Contractor's any auto, all owned autos, scheduled autos, hired autos, non-owned autos assigned to or used in performance of the Contractor's work. Coverage will be at least as broad as coverage code 1, "any auto", (Insurance Service Office, Inc. Policy CA 00011293, or any replacements thereof). Such insurance shall include coverage for loading and off-loading hazards. If hazardous substances, materials or wastes are to be transported, MCS 90 endorsement shall be included and $5,000,000 per accident limits for bodily injury and property damage shall apply.

D. Worker's Compensation

The Contractor shall carry Worker's Compensation insurance to cover obligations imposed by federal and state statues having jurisdiction of Consultant's employees engaged in the performance of the work or 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 case any work is subcontracted, the Contractor will require the Subcontractor to provide Worker's Compensation and Employer's Liability to at least the same extent as required of the Contractor.

E. Builder's Risk (Property) Insurance (As Required)

When the project includes construction of a new building, an addition to an existing building, modifications to an existing building, or as otherwise may be required by the contracting agency, the Contractor shall purchase and maintain, on a replacement cost basis, Builder's Risk insurance

in the amount of the initial Contract Amount as well as subsequent modifications thereto for the entire work at the site. At a minimum, the policy limits of such insurance shall be equal in face amount to the full Contract Amount. Such Builder's Risk insurance shall be maintained until final payment has been made or until no person or entity other than the City has an insurable interest in the property required to be covered, whichever is earlier. This insurance shall include interests of the City, the Contractor, and all Subcontractors and Sub-Subcontractors in the work during the life of the Contract and course of construction, and shall continue until the work is completed and accepted by the City. For new construction projects, the Contractor agrees to assume full responsibility for loss or damage to the work being performed and to the buildings under construction. For renovation construction projects, the Contractor agrees to assume responsibility for loss or damage to the work being performed at least up to the full Contract Amount, unless otherwise required by the Contract Documents or amendments thereto.

Builder's Risk insurance shall be on an all-risk policy form and shall cover false work and temporary buildings. Builder's Risk insurance shall insure against risk of direct physical loss or damage from external causes including debris removal, demolition occasioned by enforcement of any applicable legal requirements and shall cover reasonable compensation for Architect's service and expenses required as a result of such insured loss and other "soft costs" as required by the Contract.

Builder's Risk insurance must provide coverage from the time any covered property becomes Contractor's control and/or responsibility, and continue without interruption during construction or renovation or installation, including any time during which the covered property is being transported to the construction installation site, and while on the construction or installation site awaiting installation. The policy will provide coverage while the covered premises or any part thereof is occupied. Builder's Risk insurance shall be primary and not contributory.
If the Contract requires testing of equipment or other similar operations, at the option of the City, the Contractor will be responsible for providing property insurance for these exposures under a Boiler Machinery insurance policy.

Required coverage may be modified by an amendment to the Contract Documents.

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 Contractor's insurer(s), as evidence that policies providing the required coverage, conditions and limits required by this Contract are in full force and effect.

In the event any insurance policies required by this contract are written on a "claims made" basis, coverage shall extend for two years past completion and acceptance of the Contractor's work or services and as evidenced by annual Certificates of Insurance.

If a policy does expire during the life of the Contract, a renewal certificate must be sent to the City fifteen (15) days prior to the expiration date.

All Certificates of Insurance shall be identified with bid/project number and project name. A $25.00 administrative fee will be assessed for all certificates received without the appropriate bid serial number and title.

Cancellation and Expiration Notice

Insurance required herein shall not expire, be canceled, or materially changed without thirty (30) days written notice to the City.

SECTION 104 - SCOPE OF WORK

104.1.3 WATER SUPPLY:
(revise to include the following)

The Contractor is advised that the use of fire hydrants as a source of construction water is not guaranteed and is subject to the restrictions, terms and conditions of the City of Flagstaff Utilities Department. Prior to submitting a bid, the Contractor shall determine such restrictions, terms and conditions and shall incorporate the costs thereof into his or her proposal.

If hydrants are not available as a source of construction water, reclaimed water is available at the Wildcat Hill Wastewater Treatment plant on East Highway 66 and at the south end of Babbitt Drive at the Rio De Flag Water Reclamation Plant. Additional reclaimed water bulk loading sites are located in other areas of the city. The contractor should obtain current locations from the Utilities Department. **Current rates for the reclaimed water shall apply**.

Prior to loading, hauling and applying reclaim water, the Contractor shall be required to obtain the necessary no fee permit at the Wildcat Hill Wastewater Treatment Plant or from the Rio De Flag plant and shall be responsible for complying with all permit and ADEQ requirements regarding the use of reclaim water.

104.2 ALTERATION OF THE WORK:

104.2.3 DUE TO EXTRA WORK:
(revise to include the following)

When Allowance and/or Contingency items are provided for in the contract, the funds are encumbered for use at the discretion of the Project Manager. The funds are to cover unanticipated costs to complete items of work not included in the Contract Documents or may be applied to any

work deemed necessary by the Owner. Work would include, but not limited to, unanticipated conditions, scope changes, addressing errors or omissions, and/or construction changes that are warranted for project completion consistent with the purpose of the work. The amount of the allowance item is determined by the City and is not subject to individual bid pricing. All bidders shall incorporate the amount pre-entered in the bid proposal and shall reflect the same in the total amount bid for the project.

The allowance item provides an estimated funding to cover unforeseen changes that may be encountered and corresponding extra work needed to complete the contract. Any work which is to be paid out of this allowance shall be authorized in writing and approved by Field Order prior to proceeding with the work. Extra work shall be paid for in the following order of precedence: 1.) by extension of unit bid prices, 2.) by negotiated price or 3.) by a time and materials basis in accordance with MAG Section 109.5.

It shall be understood that the amount for this item in the proposal is an estimate only and no guarantee is given that the full amount or any portion thereof will actually be utilized. It shall not be utilized without first obtaining an approved Field Order signed by the Contractor and the Project Manager.

105.2.1 RECORD DRAWING PREPARATION AND COORDINATION
(revise to include new subsection as follows)

Record drawing preparation shall be the obligation of the Contractor whose purpose is to accurately record and depict the as-built conditions. During the construction phase and prior to backfilling or covering of improvements, the Contractor shall have the work surveyed and recorded for record drawing preparation.

The Contractor shall maintain a redline working copy of the project plans which shall include changes made in construction of the project. The redline copy of the plans shall be updated weekly.

105.2.2 RECORD DRAWING (As-Built Plans)
(revise to include new subsection as follows)

The Contractor shall retain an Arizona licensed civil engineer to record as-built information per Arizona Revised Statute § 32-152. Water and sewer record drawing certification shall comply with ADEQ R18-5-508 (drinking water) and ADEQ R18-9-E301 (sewage collection) requirements for as-built drawings. Unless otherwise noted, the City will complete and submit the Engineer's Certificate of Completion to ADEQ.

Prior to the City's final approval and acceptance of public improvements (sanitary sewer, water, storm sewer, streets) as-built plans must be submitted to the City for review and acceptance per Engineering Standard Specifications.

Submittal shall be two sets of blue or black line paper sets, copied from the original mylar set. One set will be reviewed by the City and returned with applicable comments. Comments are to be addressed and two paper sets resubmitted for City's final approval. A reference checklist is available from the office of the City Engineer.

Upon City and ADEQ (when applicable) review and approval of the submittal, one set of mylars shall be submitted to the City as a permanent record. All record drawing plan sets shall contain a statement by a licensed professional engineer, currently registered to practice in Arizona, certifying that the drawings are per the as-built condition. The record set requires the seal and signature of the registrant.

Payment shall be lump sum for all work required to develop the necessary documents, including but not limited to coordination, field inspection, survey, drafting, printing and engineer's seal. The fee shall include as-built information for all record changes within the project area.

SECTION 105 - CONTROL OF WORK

105.8 CONSTRUCTION STAKES, LINES AND GRADES:
(revise entire subsection to read as follows)

The Contractor shall be responsible for all required construction staking, including preconstruction staking for relocation of existing utilities. All construction staking is to be done under the direct supervision of a Registered Land Surveyor or Civil Engineer. All costs associated with this work are to be included in the amount bid for the items of work to which it is incidental or appurtenant. No separate payment will be made for construction staking.

105.10 INSPECTION OF THE WORK
(revise to include the following)

The Contractor is responsible for Quality Control of the work. The City will perform Quality Assurance; frequency of testing will be determined by the City. The Contractor shall be responsible for coordinating and scheduling all inspections of the work and shall confirm that the required inspections and material testing are completed and accepted prior to proceeding with additional work. The Contractor is required to perform the work to a confidence level that the City's Quality Assurance will validate that the work meets specification(s).

105.11 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK:
(revise to include the following)

Any work and/or materials condemned by the Project Manager as inferior or not in compliance with the Contract, Specifications and Plans shall be immediately removed by the Contractor. Materials and/or work so condemned shall be removed and promptly replaced and executed in accordance with the Contract, Specifications and Plans without any expense to the Owner. The Contractor shall bear the expense of making good on all work of other contractors destroyed or damaged by such removal and replacement.

105.12 MAINTENANCE DURING CONSTRUCTION:
(revise to include the following)

The Contractor is responsible to provide adequate drainage for the construction area at all times. Damage to any portion of the work caused by the Contractor's failure to provide adequate drainage of the construction area shall be repaired at the Contractor's expense. A contract time extension will not be granted for any additional time required to make such repairs.

The Contractor shall control open excavations and stockpiling in a manner to prevent water from running into excavations. Obstructions of surface drainage shall be avoided and means shall be provided whereby storm water and wastewater can flow uninterrupted in existing or established pipes, flow courses, other surface drains, temporary drains or channels.

Material for backfill or for protection of excavations within public roads or easements shall be placed and shaped to cause the least possible interference to public travel. In no event shall any flows be allowed to enter private property.

105.16 MAINTENANCE DURING WINTER SUSPENSION OF WORK
(revise to include new subsection as follows)

If work has been suspended due to winter weather, the Contractor 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 suspension shall be by field order, change order or original contract. City retains the right to declare a winter shutdown. If repairs and/or maintenance are needed during the suspension, the Contractor is required to perform the repairs and/or maintenance within twenty-four (24) hours of notification from the City. If the needed repairs and/or maintenance are not addressed within the timeframe, the City will accomplish the work and deduct the cost from monies due or become due to the Contractor.

The City shall provide snow removal operations on active traffic lanes only. All other snow removal and maintenance operations shall be the responsibility of the Contractor. All cost associated with

snow removal and proper disposal shall be considered incidental to the work including the repair of temporary surface improvements due to normal wear and snow removal operations.

SECTION 107 - LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

107.1 LAWS TO BE OBSERVED:
(revise to include the following)

(G) TAX EXEMPTION: Certain material, machinery and equipment to be installed in this project is exempt from sales tax or use tax as allowed in Arizona Revised Statutes Section 42-5061, 42-5009 and Section 42-5159 and by the Administrative Rules and Regulations of the Arizona Department of Revenue; ACC R15-5-608, R15-5-120 and R15-5-2314.

The City wishes to rely upon the expertise of the contractor in the purchase of items that qualify for the tax exemption. With respect to purchase of the qualifying items, the Contractor is authorized to act as an agent for the City. This agency agreement is strictly limited to the purchase of the qualifying items to be used in the construction of the project and will not otherwise affect or alter the respective rights, responsibilities and remedies of the parties as specified under this contract. The contractor shall furnish the City a list of suppliers and the material, machinery and equipment to be furnished by each. The City will then issue the materials and equipment exemption certificate to each supplier pursuant to A.R.S. §42-5009 (A) (2). The contractor's applicable unit bid prices for items qualifying for this tax exemption should not include sales or use tax. The materials, machinery and equipment that are a part of this project and to which the exemption applies are listed below:

1. Pipes, valves and appurtenances four (4) inches in diameter or larger used to transport potable water,
2. Any additional material, machinery or equipment identified in the Special Provisions.

107.2 PERMITS:
(revise to include the following)

The City of Flagstaff shall issue a no fee permit for work in City right-of-way for this Contract. The City shall work with the Contractor to obtain a permit for work in State of Arizona right-of-way from the Arizona Department of Transportation. The Contractor may not commence work until these permits are issued.

107.2.1 TEMPORARY USE PERMITS:
(revise to include new subsection as follows)

A Temporary Use Permit (and Above Ground Fuel Storage Permit if applicable) is required prior to the establishment of any temporary construction yard, material storage area or staging area located

within City limits and outside the public right-of-way or project limits. The Contractor is responsible for obtaining the necessary Temporary Use Permit from the agency with jurisdictional authority.

The time required to process the Temporary Use Permit is approximately twelve (12) calendar days. The Contractor shall submit the necessary permit application no later than ten (10) calendar days following the Notice of Award. Any delays experienced by the Contractor in acquiring the Temporary Use Permit shall not necessarily be grounds for delaying the project Notice to Proceed.

107.2.2 DISPOSAL OF WASTE AND SURPLUS MATERIAL:
(revise to include the following)

All disposal costs, regardless of disposal site, shall be included in the bid unit price for the related item of work and no direct payment will be made for disposal of waste or surplus materials. This right of disposal does not apply to any substance or items that are regarded as toxic and/or hazardous by the City, the State of Arizona or the United States Government.

Alternate disposal sites may be proposed by the Contractor but are subject to all applicable local ordinances and codes. In addition to the property owner's written authorization, all disposal sites within the city limits are subject to review and approval by the Temporary Use Permit process. The disposal of material at alternate disposal sites will not be allowed without written authorization of the owner, approval of the appropriate jurisdictional authority, and the issuance of all necessary permits.

107.2.3 ABOVE GROUND FUEL STORAGE PERMIT:
(revise to include new subsection as follows)

If required, Above Ground Fuel Storage Permits may be obtained from the City of Flagstaff Fire Department, located at 211 West Aspen Avenue, Flagstaff, AZ. The Contractor is responsible for obtaining the permit.

107.5 SAFETY, HEALTH, AND SANITATION PROVISIONS:

107.5.4 HANDLING, REMOVAL AND DISPOSAL OF SURPLUS MATERIAL AND ASBESTOS CONTAINING MATERIALS (ACM)
(revise to include new subsection as follows)

The Contractor is responsible for handling, removal and disposal of all soil material generated by the project as described in the General Provisions.

The City requires compliance with Environmental Protection Agency (EPA), Arizona Department of Environmental Quality (ADEQ) and Occupational Safety and Health Administration (OSHA) asbestos regulations for all City projects.

Utility pipes constructed of materials other than metal or polyvinyl chloride (PVC) require testing prior to any disturbance of the pipes to determine if regulated levels of asbestos are present in the pipe material. Suspect pipe materials requiring testing typically include vitrified clay and cement pipe (transite). Asbestos testing is not required for metal pipes.

City Public Works/Sustainability & Environmental Management staff are available to collect samples and submit the samples for analyses. **The City of Flagstaff will provide testing free of charge.** If the pipe does not contain regulated levels of asbestos, the contractor may disturb and remove the piping. If utility piping contains regulated levels of asbestos, an asbestos abatement contractor must perform any disturbance/removal of the pipe materials. This is required to ensure workers are not exposed to any asbestos fibers.

Work may require the proper handling, removal and disposal of regulated asbestos piping and materials generated by cutting or breaking the pipe to remove it from the ground. If asbestos containing materials (ACM) removal is necessary on the project, the City of Flagstaff requirements for handling, removal and disposal are as follows:

- If an infrastructure or building material that is not either wood, glass or metal is encountered during the project and has not yet been either assumed or positively identified to be ACM then the material(s) must be sampled in accordance with regulations generated by the EPA Asbestos Hazard and Emergency Response Act (AHERA) 40 CFR 763 as well as OSHA 29 CFR 1910.1101, by a certified AHERA Building Inspector and sent to a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory for analysis.

- Once materials of concern are assumed or properly identified to be ACM then material removal is required according to OSHA 29 CFR 1910-1926.1101 by a certified asbestos abatement worker, and NOT a general contractor (GC). However, if the GC holds the appropriate asbestos certifications (AHERA Asbestos Operations and Maintenance), which the City would need to verify is current, then the GC could perform the asbestos abatement.

The City requires the General Contractor arrange for abatement of assumed and/or identified ACM by a certified asbestos abatement contractor and to arrange area and/or clearance air monitoring by a third party certified asbestos consultant. If applicable to the project, copies of abatement activities and air monitoring shall be provided to City of Flagstaff Environmental Management staff.

In the event of large disturbances to ACM, compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61, Subpart M shall be followed. Notification would be required the Arizona Department of Environmental Quality 10 working days in advance of the start of a large project. This notification is not typically required for utility pipe work, but could

be required for a very large project involving numerous saw cuts of utility pipes. http://www.azdeq.gov/environ/air/asbestos/

If ACM removal is necessary on the project, the City of Flagstaff requirements for ACM disposal at the City's Cinder Lake Landfill are as follows:

Only non-friable asbestos waste is accepted for disposal at Cinder Lake Landfill. PRIOR to disposal of non-friable ACM, obtain the necessary forms, which are:

- Non-Friable Asbestos Waste Acceptance Application and accompanying instructions
- Non-Friable Asbestos Waste Shipment Record (WSR)

The Asbestos Waste Acceptance Application is available at the City of Flagstaff's website or by contacting the City of Flagstaff Environmental Management staff. A Waste Shipment Record is required to accompany each load of non-friable asbestos waste taken to the Cinder Lake Landfill.

Assure the non-friable ACM is properly handled and wrapped. Non-friable ACM must be thoroughly wetted using amended water PRIOR to being wrapped in 6-millimeter poly and be tightly sealed with duct tape. If the material is heavy (such as transite pipe), has sharp edges, or may easily puncture the poly wrap, a double layer of poly will be necessary. The Cinder Lake Landfill scale house attendant will inspect the load to ensure it is properly wrapped. Containers holding non-friable ACM shall be carefully unloaded and placed in a designated location. Dumping using a hydraulically lifted bed of a truck is not permitted (dump truck), as the poly wrap may be torn open.

If using a large bin for disposal, attach a copy of the Waste Shipment Record to the disposal bin. If not using a City of Flagstaff disposal bin, make sure the delivery driver takes a copy of the SIGNED Non-Friable Asbestos Waste Acceptance Application and the Waste Shipment Record to the Cinder Lakes Landfill with the waste delivery.

If using a City of Flagstaff disposal bin call City Environmental Services at (928) 774-0668 to schedule a pick-up for the disposal bin. Please be sure to provide the driver with the SIGNED Non-Friable Asbestos Waste Acceptance Application and the Waste Shipment Record and be sure to clarify if you would like the disposal bin emptied and removed, or emptied and returned to the work site. When disposal is completed, the Landfill Manager will sign the Waste Shipment Record and landfill staff will provide or mail a copy of the Waste Shipment Record.

Cutting of utility pipes generates Regulated Asbestos Containing Material (dust from cutting) and breaking pipes may generate RACM. RACM requires disposal at the Joseph City Landfill or at other landfills located in southern Arizona.

All work relating to the removal and disposal of unknown and/or unanticipated hazardous materials as described above shall be paid per MAG 109.4.3.

107.8 107 USE OF EXPLOSIVES:

(first paragraph, revise second sentence to read as follows)

The Contractor shall submit a blasting plan for approval and obtain a Blasting Permit from the City of Flagstaff Fire Department, located at 211 W. Aspen Avenue, Flagstaff, Arizona.

(revise to include the following)

The Contractor shall submit a copy of the approved blasting plan to the Project Manager. The plan shall include as a minimum; safety layout, drilling pattern, size and depth of bore, weight and type of charge, delay sequence, contractor's anticipated peak particle velocity at the right-of-way line or nearest structure, and the proposed seismograph locations.

A record of each blast shall be kept and all records including seismograph reports shall be available for inspection. Each record shall provide as a minimum; location, date and time of blast, name of person in charge, number of holes burdened, spacing, diameter and depth of holes, boring logs to determine top of rock, type and total amount of explosives used, direction and distance to nearest building, type of detonators and delay periods used, and exact locations of seismographs.

When blasting operations are to be conducted within 200 feet of a water line, sewer line or other underground utility, the Contractor shall take additional precautionary measures. The Contractor shall notify the owner of the facility a minimum of two weeks in advance that such blasting operations are intended. At their discretion, the Owner may perform pre-blast, post-blast pressure tests or other inspection of the facility. If any damage occurs because of blasting operations, the Contractor shall be responsible for the restoration of the facility to pre-blast conditions.

107.9 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE:

(revise to include the following)

The Contractor is responsible for replacing and/or restoring the site, landscaping and owner's improvements associated with the project to the pre-existing condition using in-kind materials. All cost shall be included in the bid as incidental to the work, unless otherwise specified in the bid schedule or plans.

Within easements, the Contractor is responsible for removing existing improvements and salvaging items (not identified for removal) for relocation after the public improvements are completed. Close coordination between the Contractor and property owners and/or residents is required.

107.11 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES:
(revise to include the following)

All power poles, pedestals, guy wires and underground facilities shall be removed and/or relocated by the respective owners of the facilities. The contractor is responsible for the notification and coordination with the utility companies to ensure that this work is accomplished in a manner consistent with the construction schedule. Payment for Franchise Utility coordination and location is incidental to the cost of the work.

The Contractor shall perform utility potholes and identify potential conflicts prior to trenching. The utility pothole information and identification of potential conflicts shall be provided to the Project Manager at least two weeks prior to performing trenching or pipeline construction.

SECTION 108 - COMMENCEMENT, PROSECUTION AND PROGRESS

108.1 NOTICE TO PROCEED:
(revise to include the following)

Time is of the essence in submitting the initial and revised construction schedule and traffic control plan. Each is a requirement that precedes the Contractor's right and the City's obligation to proceed with the agreement.

The Notice to Proceed shall be issued for a start date no later than twenty-seven (27) calendar days following receipt of the Notice of Award. The Contractor shall be required to submit a construction schedule and traffic control plan in accordance with the Contract Documents and the following:

The Contractor shall within seven (7) calendar days of receiving the Notice of Award, submit a construction schedule and traffic control plan to the Project Manager. The Project Manager shall promptly review the construction schedule and traffic control plan and either approve them, or provide a written list of the items that will require revision. The Contractor shall submit the revised construction schedule and traffic control plan within five (5) calendar days of receiving the Project Manager's list of required revisions. The corrected construction schedule and traffic control plan submittal shall address all comments from the Project Manager's list of required revisions.

If the Project Manager approves the second submission of the construction schedule and traffic control plan, a notice will be issued specifying the date on which the Contractor may proceed with the work. If it is determined that the construction schedule and/or traffic control plan are not adequate to manage the contract, the Contractor shall be notified in writing. Within three (3) full business days following receipt of the notice, the Contractor shall elect to:

1. Submit a revised final construction schedule and traffic control plan together with a cashier's check or bank draft in the amount of two and one half (2 1/2) percent of the contract price as liquidated damages for the delay time lost to that date; or
2. Do nothing, in which case this contract shall be deemed terminated at the Contractor's election. The Contractor shall then have no right or duty to continue performance and the City shall be released from all liability to the Contractor under this agreement.

In the event the Contractor elects the first alternative, the Project Manager shall approve the final construction schedule and traffic control plan if acceptable, in which case the City shall be entitled to the liquidated damages or shall reject the construction schedule and traffic control plan and return the check or draft. In the latter event, the contract shall be deemed terminated, the liquidated damages provision shall not apply, and the City shall be entitled to recover its actual damages incurred for the Contractor's breach of agreement.

108.3 CORRESPONDENCE TO THE CONTRACTOR:
(revise to include the following)

In addition to written communication to the Project Manager, the Contractor shall provide and maintain a contact located within ten miles of the job site at all times throughout the duration of the Contract. The designated contact shall be accessible by telephone at all times to respond to agency requirements and emergencies. The local location and phone number(s) shall be provided to the Project Manager prior to issuance of the Notice to Proceed. Any changes of the location or phone number(s) shall be reported immediately to the Project Manager.

If a response is needed, the Contractor is required to respond and perform the repairs and/or maintenance within two (2) hours of notification from the City. If the needed repairs and/or maintenance are not addressed within the timeframe, the City will accomplish the work and deduct the cost from monies due or become due to the Contractor.

108.4 CONTRACTOR'S CONSTRUCTION SCHEDULE:
(revise to include the following)

The Contractor’s schedule shall include, as a minimum, the following:

- Identification of project tasks with assigned dates and durations, which reflect anticipated sequencing of construction activities on scheduled working days;
- All anticipated subcontractors that will be used during the course of the work;
- The anticipated number of crews to expedite the progress and ensure prompt completion of the work;

  Definition of a crew;
  - personnel *(e.g. operator, laborer)*

- equipment *(e.g. Cat 325 Excavator, 950 Loader)*
- workdays anticipated or scheduled per week (*e.g. Monday through Friday)*
- work hours anticipated or scheduled per day *(e.g. 7:00 am to 3:30 pm)*

- Anticipated adverse weather days for weather dependent activities, weekends and holidays.
- Specific long lead times for delivery of equipment and materials;
- Critical path project schedules may be required as provided for by the Special Provisions or Project Addenda.

108.5 LIMITATION OF OPERATIONS:
(third paragraph, revise to read as follows)

Except in emergencies endangering life or property, written permission shall be obtained from the City prior to performing any work on weekends, legal holidays or after regular work hours (hereinafter defined as 7:00 a.m. to 5:00 p.m. - Monday through Friday). Inspection and testing will not be provided on Sundays or City legal holidays without prior approval from the Project Manager (72-hour advance notice) and total compensation by the Contractor for any necessary personnel, equipment and services.

Overtime compensation for City personnel shall be as follows:

Construction Supervisor @ $ 43.00/hour
Inspector II @ $ 35.00/hour
Inspector I @ $30.00/hour
Lab Tech I @ $ 25.00/hour
Vehicle @ $1.80/hour

108.7 DETERMINATION AND EXTENSION OF CONTRACT TIME:
(revise to include the following)

The contract time, including final clean-up of the project site and storage areas, may be extended because of weather conditions that cannot be reasonably anticipated. The number of actual days that the scheduled work is impacted by adverse weather shall be recorded weekly during the construction period.

The Contractor 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. The following is the monthly schedule of adverse weather days that shall be anticipated by the Contractor in scheduling the work:

TABLE 108.7 MONTHLY CALENDAR DAYS for ANTICIPATED ADVERSE WEATHER

MONTH	*JANUARY*	*FEBRUARY*	*MARCH*	*APRIL*	*MAY*	*JUNE*
Monthly Calendar Days for Anticipated Adverse Weather	7 Days	7 Days	8 Days	6 Days	4 Days	3 Days
Average Monthly Precipitation	1.98”	1.96”	2.05”	1.34”	0.68”	0.51”
MONTH	*JULY*	*AUGUST*	*SEPTEMBER*	*OCTOBER*	*NOVEMEBER*	*DECEMBER*
Monthly Calendar Days for Anticipated Adverse Weather	12 Days	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”

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 of an inch per calendar day.

The number of actual days that scheduled work is impacted by adverse weather as defined above shall be recorded weekly during the contract period. It is the Contractor's responsibility to request in writing any adverse weather delays experienced during the prior week no later than the normally scheduled weekly project meeting. Any adverse weather day requests that are not received, as stated above, shall neither be considered nor approved. Once the number of approved actual adverse weather days exceeds the number of anticipated adverse weather days in the schedule above, the Contractor is entitled to a contract time extension.

Actual adverse weather days must also prevent work for fifty (50) percent or more of the Contractor's work day and delay scheduled work critical to the timely completion of the project. The City will convert any delays meeting the above requirements to calendar days and extend the contract period as necessary. No additional compensation will be allowed for direct and indirect overhead expenses associated with any such contract time extensions. The Contractor's schedule must include the above anticipated adverse weather delays for all weather dependent activities and shall show all weekends and holidays.

108.8 GUARANTEE AND WARRANTY PROVISIONS:
(revise to include the following)

If requested by the City, the Contractor shall return to the project site eleven months after acceptance of the project and visually inspect, in the presence of the Owner's Representative, all accessible construction items and appurtenances. All defective materials and/or workmanship shall be satisfactorily repaired or replaced at the sole expense of the Contractor.

All costs for the 11-month inspection and repair shall be borne by the Contractor and in figuring his or her bid, the Contractor shall include an appropriate amount for such inspection and possible required repair, and no additional payment will be allowed.

108.10 FORFEITURE AND DEFAULT OF CONTRACT:
(revise to include new section)

Due to Failure to Prosecute the Work

If the Contractor fails to prosecute the work in accordance with the contract, including requirements of the progress schedule, the City may correct these deficiencies after three days after providing written notice to the Contractor. The cost of these remedies shall be charged against the Contractor. A change order may be issued to make the necessary changes in the contract and to make an appropriate reduction in the contract price. Such a change order shall not require the signature or approval of the Contractor. The remedy shall not prejudice the City's use of any other remedy, which the City may be entitled to use.

108.12 AUTHORIZED SIGNATURES:
(revise to include new section)

The Contractor shall provide a notarized list of all authorized signatures for project related documents. Only those individuals listed by the Contractor on the project Authorized Signature form shall be authorized to sign the contract, contract change orders, time extensions, bonds, securities, pay requests, certifications or other documents that affect the execution of the Contract.

108.13 SUBSTANTIAL COMPLETION:
(revise to include new section)

The project is substantially complete and liquidated damages will no longer be assessed when all of the following have occurred:

(A) All original bid items of work have been completed, accepted and pedestrian and vehicular traffic can move unimpeded through the project;

(B) The only work left for completion is incidental, causes no disruption to pedestrian and vehicular traffic, and does not affect the safety and convenience of the public;

The decision whether the project is substantially complete is within the sole discretion of the Project Manager.

Once substantial completion is granted, the Contractor shall actively work to achieve Final Acceptance of the construction phase of the Contract within 15-calendar days from the Substantial Completion date of that phase. Failure to prosecute the remaining work within this time-period will result in the resumption of time charges and the application of liquidated damages from the date scheduled for final acceptance.

The Contractor is responsible for maintenance and repairs of any project work until final acceptance, at which time the City will accept the improvements for operation and maintenance.

108.14 SUSPENSION and TERMINATION:
(revise to include new section)

City's Right to Stop Work

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

Contractor 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 City.

Termination for Convenience

Upon receipt of written notice to Contractor, City may, at its discretion and without cause, elect to terminate this Agreement. In such event, City shall pay Contractor only the direct value of its completed Work and materials supplied as of the date of termination. Contractor shall be entitled to profit and overhead on completed Work only, but shall not be entitled to anticipated profit or anticipated overhead.

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

Upon such termination, Contractor shall proceed with the following obligations.

1. Stop Work as specified in the notice.
2. Place no further subcontracts or orders.
3. Terminate all subcontracts to the extent they relate to the work terminated. Contractor shall ensure that all subcontracts contain this same termination for convenience provision.
4. At the City's sole discretion and if requested in writing by the City, assign to the City all right, title and interest of Contractor under the subcontracts subject to termination.
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 Contractor and in which the City has or may acquire an interest.
6. Contractor shall submit complete termination inventory schedules no later than one hundred twenty (120) days from the date of the notice of termination.

The City shall pay Contractor the following:

1. The direct value of its completed Work and materials supplied as of the date of termination.
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 Contractor's failure to perform as required under this Agreement.
3. Contractor 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 Contractor would have sustained a loss on the entire Work had they been completed, Contractor shall not be allowed profit and the City shall reduce the settlement to reflect the indicated rate of loss.

Contractor 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 Section 7.7.

The City's Right to Perform and Terminate for Cause

If the City provides Contractor 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 Contractor fails to comply in a time frame specified, the City may have work accomplished by other sources at Contractor's sole expense.

If Contractor persistently fails to

1. provide a sufficient number of skilled workers,
2. supply the materials required by the Contract Documents,
3. comply with applicable Legal Requirements,
4. timely pay, without cause, sub-consultants and/or subcontractors,
5. 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
6. perform material obligations under the Contract Documents, then the City, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth below.

Upon the occurrence of an event set forth above, City may provide written notice to Contractor that it intends to terminate this Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Contractor's receipt of such notice.

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

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

Upon declaring this Agreement terminated and for the purpose of completing the Work, City may enter upon the premises and take possession of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work. Contractor hereby transfers, assigns and conveys all items, which have been purchased or provided for the performance of the Work to the City 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.

In the event of such termination, Contractor 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, Contractor shall be entitled to be paid only for Work performed and accepted by the City prior to its default.

If City's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Contractor shall be obligated to pay the difference to City. 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 City in connection with the re-procurement and defense of claims arising from Contractor's default.

If City improperly terminates the Agreement for cause, the termination for cause shall be converted to a termination for convenience in accordance with the provisions of 108.14

SECTION 109 - MEASUREMENTS AND PAYMENTS

109.1 MEASUREMENT OF QUANTITIES:
(revise to include the following)

It is the responsibility of the Contractor to conform to the Contract Documents, including plans, typical sections and specifications including but not be limited to dimensions, materials, application rates and densities. The Contractor shall take all actions necessary to ensure that the work conforms to the contract documents. The Contractor shall cooperate fully with the Project Manager or Project Manager's representative to correct any known nonconformity to the contract documents.

109.1 MEASUREMENT OF QUANTITIES:
(delete the second paragraph)

Unless otherwise specified, longitudinal and surface (plane) measurements will be made in a horizontal plane.

PART 200 - EARTHWORK

SECTION 201 - CLEARING AND GRUBBING

201.3 CONSTRUCTION METHODS:
(revise to include the following)

The Contractor shall make every effort possible to avoid damaging existing trees. In the event that any trees suffer limb damage, the Contractor shall cut branches to the nearest branch crotch or to the branch collar at the trunk.

No separate payment will be made for trimming trees. The cost shall be considered incidental to the work.

SECTION 205 – ROADWAY EXCAVATION

205.1 DESCRIPTION
(revise to include the following)

The bid schedule unit cost for excavation, backfill and embankment work shall include the cost of rock excavation, handling rock or disposing of rock and no separate measurement or payment shall be made. Rock shall be defined as any highly cemented or hard material that may require additional efforts for removal, handling or disposal.

205.2 UNSUITABLE MATERIAL:
(third paragraph, revise to read as follows)

Should unsuitable material be encountered at subgrade elevation in cut areas or at existing grade in fill areas, the unsuitable material shall be removed and replaced with suitable fill material in accordance with MAG Section 210 and MAG Section 211.

Determination of unsuitable material and the limits and depths of required removal and replacement shall be at the sole discretion of the Project Manager. In no case shall any unsuitable material be removed without prior written consent of the Project Manager.

Measurement and payment for removal and replacement of unsuitable material will be by the cubic yard as shown in the proposal. Payment shall be compensation in full for the work complete and in-place including any borrow, permits, pit royalties, all excavation, hauling, placing, compacting, conditioning, watering and proper disposal, together with all appurtenant costs.

205.3 MEASUREMENT
(revise to include the following)
Earthwork is incidental to the roadway construction and no additional payment will be made for roadway excavation. The Contractor shall be responsible for estimating and accounting for earthwork import and haul off. It is recommended that the Contractor review the report on geotechnical investigation and sampling results.

PART 300 -- STREETS AND RELATED WORK

SECTION 301 - SUB-GRADE PREPARATION

301.1 DESCRIPTION:
(revise to include the following)
The untreated base or prepared subgrade shall be test rolled in the presence of the Project Manager prior to the placement of asphalt paving materials. The equipment used to perform the

test roll shall be approved by the Project Manager. The Contractor shall be responsible for scheduling this test roll with the Inspector during regularly scheduled work. All costs associated with the test roll shall be considered incidental to and included in the cost of sub-grade preparation.

SECTION 336 - PAVEMENT MATCHING AND SURFACING REPLACEMENT

336.1 DESCRIPTION:
(first paragraph, revise to include the following)

The exact points of pavement matching shall be determined in the field by the Project Manager.

336.2 MATERIALS AND CONSTRUCTION METHODS:

336.2.1 PAVEMENT WIDENING OR EXTENSIONS:
(first paragraph, revise second sentence to read as follows)

The minimum depth of cut shall be four (4) inches or Depth/4, whichever is greater.

PART 400 -- RIGHT-OF-WAY AND TRAFFIC CONTROL

SECTION 401 - TRAFFIC CONTROL

401.5 GENERAL TRAFFIC REGULATIONS:
(revise to include the following)

Within seven (7) calendar days following receipt of the Notice of Award and in accordance with Section 108.1 of these General Provisions, the Contractor shall submit to the Project Manager a traffic control plan that shows the control of traffic in accordance with Part VI of the FHWA Manual on Uniform Traffic Control Devices for all phases of the work. The plan should include nights, weekends, shut down periods and an approximate schedule of street closures and detours.

The Traffic Control Plan is to detail the Contractor's proposal for routing traffic and pedestrians around the areas of construction. The Plan shall be coordinated with the proposed construction schedule and show how the locations of the various traffic and pedestrian control devices will change as construction progresses. The Plan shall allow for complete detours around the work areas.

Private and commercial driveways shall not be closed for any period exceeding eight hours during any twenty-four-hour period. The affected resident and the City shall be notified 48 hours in advance of any closure. Convenient access to driveways, houses and buildings along the line of work shall be maintained and temporary crossings or alternate access shall be provided and maintained in good condition, except during that period mentioned above. **Business access shall be maintained at all times by at least one driveway.**

(eleventh paragraph, revise to read as follows)

The Contractor will reinstall all permanent traffic control devices as required by the approved construction plans and specifications.

(twelfth paragraph, delete the last sentence)

Delete - The Traffic Engineering Department will reinstall all traffic signs.

401.7 PAYMENT:
(revise paragraph to read as follows)

Payment for all work and materials required to prepare a traffic control plan and provide traffic control during construction shall be made at the lump sum price shown on the Bid Schedule. Full compensation for any required traffic control devices, flaggers, uniformed off-duty law enforcement officers, pilot cars and drivers shall be included in the lump sum contract price and no additional payment shall be allowed. Progress payments shall be made based on the Contractor's estimate for percent complete as approved by the Owner.

SECTION 425 TOPSOIL

425.2 MATERIALS:
(revise to read as follows)

Overburden topsoil shall be salvaged and reused when possible. All topsoil, whether overburden or imported, shall be free of roots, heavy clay, clods, noxious weed seeds, coarse sand, large rocks, sticks, brush, litter and other deleterious material and meet the requirements of MAG Section 795. The Project Manager's approval of the proposed topsoil shall be obtained before delivery to the project.

425.4 MEASUREMENT:
(revise paragraph to read as follows)

Topsoil shall be measured lump sum, complete and in place unless indicated otherwise by the bid schedule.

425.5 PAYMENT:
(revise to read as follows)

Topsoil will be paid for in accordance with the contracted price for furnishing and placing topsoil, as described and specified. Progress payment shall be made based on the Contractor's estimate for percent complete as approved by the Owner.

SECTION 431 – EROSION CONTROL
(revise to include new section as follows)

431.1 DESCRIPTION

Erosion control applies to improvements within the city and as part of the erosion control section of a Storm Water Pollution Prevention Plan (SWPPP). Materials, means and methods for erosion control and stabilization, Best Management Practices (BMPs), Erosion Control Plans (ECPs) and SWPPPs are described in the City of Flagstaff Stormwater Design Manual.

The Contractor shall stabilize all disturbed areas within the project site and as shown on the plans. Work shall be performed according to the provisions of this Section and shall include but not be limited to the furnishing, hauling, placement and application of erosion control materials.

The Contractor is responsible for complying with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit program. This generally includes submittal of a Notice of Intent to the Arizona Department of Environmental Quality (ADEQ) and Notice of Termination to ADEQ for the project. Preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the site is required per ADEQ and City of Flagstaff standards.

The cost for complying with the NPDES permit and the SWPPP, including the erosion control devices, shall be included in the NPDES & SWPPP Requirements portion of the Contractor's bid. It is recommended that contractors see the ADEQ Smart NOI (Notice of Intent) program website (http://az.gov/webapp/noi/main.do) for information and processes.

Progress payment shall be made based on the Contractor's estimate for percent complete as approved by the Owner.

432.1 NATIVE SEEDING

All areas to be seeded that are accessible to machinery shall be tilled to a minimum depth of four (4) inches. Areas inaccessible to machinery shall be hand tilled and prepared to a minimum depth

of two (2) inches. Cut slopes of 2:1 or steeper do not require tilling. Cultivation on sloping terrain shall run perpendicular to the direction to the slope. If weeds or herbaceous plant material interferes with proper seedbed preparation, the contractor shall remove them from the seedbed.

Contractor shall remove and dispose of all debris and other objectionable material that may interfere with seeding operations.

The area to be seeded shall be relatively smooth and all surface irregularities (e.g. rills, tire marks) shall be filled and firmed to conform to the desired cross sections. The seedbed shall be rolled both before and after the seeding operation with a minimum of one pass of a cultipacker or drag harrow.

Seed shall be sown when conditions will promote germination and growth. Normal non-irrigated permanent native seed application dates are between April 1 and June 15, between August 15 and September 20 and after the first frost (recurring overnight temperature of 28 degrees F) until snowfall. Seeding work shall be performed only after planting and other work affecting ground surface is complete.

To assist in establishment of the permanent seed mix, a nurse crop shall be used for this work. Preapproved nurse crop seed shall be one of the following, incorporated with the specified permanent seed mix;

Annual ryegrass	*(Lolium multiflorum)*	30 lbs/acre
Oats	(*Avena sativa)*	60 lbs/acre
Regreen©	(*Triticum aestivum x Elytrigia elongata)*	30 lbs/acre

Alternative species may be acceptable but are subject to prior approval from the City Project Manager or duly authorized representative.

When cut or fill slopes are greater than six (6) feet in height and steeper than 3H:1V, the seeded area shall be covered with American Excelsior Company straw/coconut blanket or an approved equal. Installation shall be per the manufacturer's written directions.

440.10. (D) SEQUENCING
(add the following section)

The irrigation system shall be installed, inspected, approved and operable prior to the installation of plant materials, landscape fabric and ground plane treatments (*decomposed granite, landscape rock, mulch, etc.)*

PART 600 - WATER AND SEWER

SECTION 601 - TRENCH EXCAVATION, BACKFILLING AND COMPACTION

601.2 EXCAVATION:

601.2.1 GENERAL:
(revise to include the following)

All excavation, including trench excavation, shall be performed in any substance and material encountered. The cost is considered incidental to and is to be included in the price for the bid item to be constructed or installed. No special payment shall be made for trench excavation other than rock excavation as specified under Trench Rock Excavation.

Trench Rock Excavation
Trench rock is defined as consolidated igneous, metamorphic and/or sedimentary material in the original bed and/or in well-defined ledges that cannot be removed by a mechanical method and therefore requires pneumatic hammering, drilling or blasting for removal. Example of mechanical methods include hand tools, trenching machine, backhoe, ≥195 horsepower hydraulic excavator with ripping teeth or equivalent.

Boulders and pieces of rock having a volume of more than 27 cubic feet (1 cubic yard) shall be considered rock.

For projects where trench rock excavation is anticipated, the estimated contingent quantity is shown in the proposal under the applicable bid item. The contingency quantity is an estimate only and no guaranty is given that any portion will be utilized. Trench rock excavation will be paid for separately at the unit price bid per cubic yard for Trench Rock Excavation.

Measurement of Trench Rock Excavation shall be per cubic yard in place. This volume of rock will be measured by the City representative, using the maximum trench width allowed in accordance with MAG Table 601-1, the lineal footage of actual rock excavation required and the actual depth of rock as determined by inspection of the trench after rock excavation and before backfilling.

SECTION 710 - ASPHALT CONCRETE

710.1 GENERAL:
(revise to include the following)

The asphaltic concrete designation shall be 3/4 inch, except as required by the project plans or Special Provisions.

End of Document

EXHIBIT B

SPECIAL PROVISIONS

CITY OF FLAGSTAFF

SHEEP CROSSING FUTS TRAIL

CITY OF FLAGSTAFF PROJECT NO.

03-17001 & ST3305

PREPARED BY

TURNER ENGINEERING INC.
CONSULTING CIVIL ENGINEERING
528 West Aspen Avenue
Flagstaff, Arizona 86001
Ph. 928 779-1814

Project Number 10617
August 28, 2019
Revised January 13, 2020

Registered Professional Engineer (Civil)
CERTIFICATE NO.
16258
PAUL W.
TURNER
Date Signed 1-15-20
ARIZONA U.S.A.



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NEW PART 000
INTRODUCTION

Modifications to the City of Flagstaff Engineering Design and Specifications for New Infrastructure, the MAG Specifications, Arizona Department of Transportation Specifications (A.D.O.T.), and the preceding City of Flagstaff's Amendments to MAG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – Amended May, 2019 EDITION (Hereinafter known as Exhibit A) are made in these Special Provisions and take precedence over aforementioned Specifications. Where there is no conflict between MAG Specifications, A.D.O.T. Specifications and the City of Flagstaff's Revisions of MAG Standard Specifications for Public Works Construction and the city of flagstaff engineering design standards and specifications for new infrastructure these Special Provisions are to be construed as being additions or replacements to the Specifications. In cases of conflict between the other Specifications and the Special Provisions, the Special Provisions are to be construed as supplanting only the conflicting portions of the other Specifications.

MAG UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2018 EDITION) AND EXHIBIT A ARE HEREBY AMENDED TO INCLUDE THE FOLLOWING:

PART 100
GENERAL CONDITIONS

SECTION 103
AWARD AND EXECUTION OF CONTRACT

103.6 CONTRACTOR'S INSURANCE:

103.6.1 General: (add the following after the first sentence)

No additional payment shall be made for compliance with insurance requirements and certificates.

SECTION 104
SCOPE OF WORK

104.1: WORK TO BE DONE:

104.1.2 Maintenance of Traffic: (add the following)

The Contractor is responsible for preparing, submitting and obtaining approval of a complete traffic control plan satisfactory to the Project Manager. A permit shall not be issued until approval is granted from the City of Flagstaff (Public Improvements Permit at no cost to Contractor) and Arizona Department of Transportation (ADOT), Transportation Departments. Detailed traffic control plans shall include provisions for access to all adjacent properties within the project area. Fort Tuthill points of vehicular and pedestrian ingress/egress shall remain accessible at all times throughout construction – at no time during construction shall access be limited or closed. Traffic Control Plan & Implementation are pursuant to Exhibit A. Finalization of the traffic control plan(s) will be done prior to issuance of the Public Improvements Permit and Encroachment Permit through the City's Transportation Engineering Section, ADOT and Coconino County, respectively.

104.2 ALTERATION OF WORK:

104.2.3 Due to Extra Work: (modify Exhibit A as following)

Delete the last sentence in the first paragraph.

Delete the last paragraph.

SECTION 105
CONTROL OF WORK

105.12 MAINTENANCE DURING CONSRUCTION: (add the following)

Portions of the trail work require working in close proximity of traffic inclusive of vehicular, bicycle and pedestrian. The Contractor shall be responsible to secure the work site for general public safety at all times. The cost of this effort shall be included in the cost of whole project.

SECTION 107
LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

107.9 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE: (add the following)

Survey monuments and property corners shall be identified, protected and not disturbed except as noted on the Plans. All costs associated with protecting or re-establishing disturbed survey monuments and property corners shall be the sole responsibility of the Contractor. Re-establishing all monuments and property corners shall be performed by a currently Licensed Arizona Surveyor pursuant to the Arizona State Board of Technical Registration and all applicable State Statutes. Monuments and property corners shall be in place and visible prior to final acceptance of the Project.

107.9.1 COORDINATION OF SERVICE INTERRUPTION AND HOURS OF OPERATION: (add new sub section)

The work affecting adjacent properties services including emergency services, trash and recycling pick-up and mail delivery shall be coordinated with those property owners, occupants, renters, lessees (herein after called owners) being affected. The Contractor shall notify those owners two weeks prior to any interruption in service. Service interruptions shall be coordinated with the affected owners, primarily Fort Tuthill. This may mean that the Contractor will have to do their work during the night or on a weekend or both. This effort and cost shall be included in work of those items that require service interruption.

107.9.2 Erosion and Sediment Control and SWPPP: (new subsection added)

An erosion and sediment control plan sheet is contained within the Plans. The Contractor is required to follow the instructions for obtaining authorization to discharge stormwater from construction activities under the AZPDES Construction General Permit or the most current revision thereto. For specific information about the program or the permit, visit their website at adeq.gov/node/524. This effort will include, but not be limited to, a Notice of Intent (NOI), preparation and maintenance of the SWPPP and a Notice of Termination (NOT). The cost of this effort shall be paid Lump Sum per the Bid Schedule as NPDES & SWPPP.

107.11 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES: (add the following)

All franchise utilities will be asked to attend the preconstruction meeting. The Contractor shall perform required utility potholes. It shall be the Contractor's responsibility to determine the exact location of the utilities prior to any construction operations and to notify the respective utility and the city's project manager at least two (2) weeks prior to commencing any work near the conflict.

The Contractor shall protect existing water, sewer, electric, gas, telephone, cable TV, and fiber optic lines where construction crosses lines. Main line and electric, telephone, cable TV, other components and service lines may not be shown on the plans or may not be accurately shown on the plans. It is the Contractor's responsibility to determine their location in the field. (Call Arizona 811). Protection or repair of existing main or service lines damaged by the Contractor is incidental to the work causing such damage. In the event that there is a physical conflict between an existing utility main or service line and the work, the Contractor shall immediately notify the Project Manager of the conflict. The Project Manager will make a determination as to how the conflict will be resolved. Any Extra Work required as a result of an unforeseen main or service conflict will be ordered and paid for in accordance with Section 104.2.3 in Exhibit A. Locations of underground utilities shown on the plans are to be regarded as approximately only. The Contractor shall perform utility potholes in advance of the trenching or excavation operations to determine the actual locations of underground utilities which may affect the proposed work as called out on the plans. The Contractor shall contact all utility companies prior to commencing any work and shall be responsible for scheduling and coordinating his work activities accordingly to avoid conflicts and delays with utilities. Delays due to the lack of early coordination with utilities shall not warrant an increase in contract time as determined by the City Project Manager.

107.11.1 Payment: (new subsection)

No additional payment shall be made for the franchise utility coordination and pothole work. This cost shall be included in the price bid for the construction or installation of items to which such measures are incidental or appurtenant.

SECTION 108
COMMENCEMENT, PROSECUTION AND PROGRESS

108.4 CONTRACTOR'S CONSTRUCTION SCHEDULE:

108.4.1 Weekly Construction Meetings: (new subsection added)

The Contractor's Responsible Person-in-Charge shall attend weekly construction meetings and be knowledgeable about daily operations. The Contractor shall update the current schedule to include the past work and the worked planned for the next two weeks. In addition to the schedule, the Contractor shall keep a log of problems, issues, complaints, safety, traffic or pedestrian issues, delays, material testing results, inspection results and notes, any service disruptions and

duration, access disruptions and duration, field orders or changes, or any items related to Project that the Project Manager considers necessary. This log shall be updated weekly and be available for review by the Project Manager at the weekly construction meetings. The Contractor shall prepare meeting agendas and meeting minutes. Meeting agendas shall be distributed to the Project Manager two working days prior to the meeting. Minutes shall be distributed within four working days of the meeting. No separate measurement or payment shall be made for weekly construction meetings, agendas and minutes. Weekly construction meetings shall be considered incidental to the work.

108.5 LIMITATION OF OPERATIONS: (add the following)

Notwithstanding anything to contrary, the Contractor shall be prepared to perform some work during nights, weekends and/or both. This generally applies to work within right-of-ways. It also applies to work in and around roadway intersections or driveways. Night time work is to be considered incidental to those bid items requiring night time work and no additional compensation will be paid to the Contractor. The Contractor is hereby made aware of the additional inspection and testing cost and should include such costs in the bid items requiring night time, weekends and/or both (See Exhibit A, 108.5). Night time work shall be done at the request of the Project Manager and requires the approval of the Project Manager.

SECTION 109
MEASUREMENTS AND PAYMENTS

109.2 SCOPE OF PAYMENT: (add the following)

The form for submitting pay requests shall be NSPE form C620. The successful Bidder shall be provided this form in Excel© electronic version upon request at no cost. No additional payment will be made to the contractor for using this form An Adobe© copy is attached as Appendix B for reference.

PART 200
EARTHWORK

SECTION 201 - CLEARING AND GRUBBING

201.3 CONSTRUCTION METHODS:

(revise to include the following)

The Contractor shall have the services of an ISA Certified Arborist to prune trees and cut branches. Payment shall be made per the Bid Schedule.

SECTION 205
ROADWAY EXCAVATION

205.1 DESCRIPTION:

(add the following)

FUTS trail shall be classified under ROADWAY EXCAVATION. All excavation, backfill and embankment work shall include the cost of rock excavation, handling rock or disposing of rock in the bid schedule unit cost for excavation (cut), backfill (fill) and embankment and no separate measurement or payment shall be made. Rock shall be defined as any highly cemented or hard material that may require additional efforts to remove, handle, or dispose of. Furthermore Rock as defined herein shall not be classified as unsuitable material. Sink hole remediation shall be pursuant to the new Subsection **240 SINK HOLE REMEDIATION,** below

205.2 UNSUITABLE MATERIAL: (add the following)

It shall be understood that the amount for this item in the proposal is an estimate only and no guarantee is given that the full amount or any portion of it will actually be utilized. It shall not be utilized without specific written authorization by the Project Manager.

240 SINK HOLE REMEDIATION: (add new section)

240.1 DESCRIPTION:

During design a depression in the ground was identified just west of the north box culvert. The area was investigated by Western Technologies, Inc. and identified in their report WT Job No 2528JW011. Refer to this report for a description and remediation methods. Measurement of the volume of earth to be excavated and replaced for remediation is included in the Bid Schedule.

PART 300
STREETS AND RELATED WORK

SECTION 301
SUB-GRADE PREPARATION

301.1 DESCRIPTION: (add the following)

Site preparation, earthwork factors, fill and backfill, utility installation, slabs-on-grade, corrosion protection, and permanent Cut/Fill Slope Limitations shall all be per the Geotechnical Evaluation prepared by Western Technologies, Inc. Project number 2528JW011 dated 4/4/2018. The Geotechnical Evaluation is attached as Appendix A.

301.3 RELATIVE COMPACTION: (add the following paragraph)

Additional compaction requirements and soil treatment shall be per the Geotechnical Evaluation prepared by Western Technologies, Inc. Project number 2528JW011 dated 4/4/2018. The Geotechnical Evaluation is attached as Appendix A.

SECTION 340
CONCRETE CURB, GUTTER, SIDEWALK, SIDEWALK RAMPS, DRIVEWAY AND ALLEY ENTRANCE

340.3 CONSTRUCTION METHODS: (add the following paragraph)

Curb, gutter, sidewalk, driveway aprons, driveways, and handicapped sidewalk ramps shall be constructed on 3" of A.B.C. or as shown on the plans, placed in accordance with M.A.G. Section 310. The cost for the A.B.C. and placement as specified shall be included in the respective bid item. This does not apply to work inside the tunnel nor FUTS Trail.

340.3.4.1 Expansion Joints: (add the following paragraph)

Transverse expansion joints along concrete flatwork (such as the FUTS trail inclusive of this project) shall have flexible modified PVC joint seal as detailed within the plans. Joints shall be placed not more than forty feet. Cost shall be incidental to the work

340.3.4.2 Contraction Joints: (add the following paragraph)

Transverse contraction joints along concrete flatwork (such as the FUTS trail inclusive of this project) shall be filled with elastomeric sealant as detailed within the plans. Cost shall be incidental to the work.

340.3.4.11: (add the following section) **Concrete Colorization on USFS Lands**

New concrete in the area east of the existing concrete tunnel shall be colorized by the "Natina" process. Contact Natina Products, LLC, Casa Grande, AZ; (877) 762-8462. Alternative colorization processes may be allowed but will be subject to prior approval by the Coconino National Forest, which has jurisdiction over the area. Cost of colorization shall be per the Bid Schedule.

PART 600
WATER AND SEWER

SECTION 601
TRENCH EXCAVATION, BACKFILLING AND COMPACTION

601.1 DESCRIPTION: (add the following)

Storm drain pipes shall be included in this PART 600. Furthermore, add, the Contractor shall complete the required excavations in accordance with generally accepted practice and the plans and specifications and these Special Provisions. The Contractor shall complete the work in whatever type of material they encounter. Trench Rock, is measurement and payment is further defined in Exhibit A.

601.2.3 Trench Grade: (add the following)

Elevation stakes are required for all pipes that have grades shown on the Plans.

602.2.11 DEWATERING: (new subsection)

All water encountered, including, but not limited to, during any excavation, trenching or jacking or tunneling operation shall be disposed of by the Contractor in such a manner as will not damage public or private property or create a nuisance or health problem. The cost of furnishing pumps, pipes and equipment for dewatering will be considered incidental to the work and no additional payment will be made.

PART 800
SOUTH TUNNEL
NEW PART

SECTION 800 DESCRIPTION:

The purpose of this new part is to provide additional special considerations and specifications for using the existing box culverts that are under I-17 and Beulah for both drainage and installing a FUTS trail. The north box will continue to convey drainage and the south box will converted into a FUTS trail. Refer to the Plans for more detail.

SECTION 801 CONCRETE:

The new floor of the FUTS trail shall be ADOT Class B concrete and conform to all ADOT specifications.

SECTION 802 PREPARATION AND TREATMENT OF EXISTING SOUTH TUNNEL FOR USE AS FUTS TRAIL:

1. The tunnel shall be clean of all trash and debris and then pressure washed or use another method to clean all sides, top, bottom and both inlet and outlet, for inspection by the Project Manager for potential defects. It is the contractor's responsibility to keep the tunnel clean and dry throughout the duration of the project and until the final inspection and acceptance. This shall be paid per Clean and Prepare Existing Concrete on the Bid Schedule.
2. Any apparent structural defects identified shall be duly noted for further inspection by a geotechnical and/or structural engineer as maybe deemed necessary by the Project Manager. Remedies shall be identified and quantified and shall be paid for as a field order under 104.2.3 in Exhibit A only by prior written approval of the Project Manager.
3. Interior walls and ceiling shall be checked for surfaces where irregularities exceed more than 1/2'" (one-half inch) from a plane to which they are adjacent to. Those areas should be identified (marked) and require inspection by the Project Manager to determine if further treatment is necessary. Further treatment could be grinding smooth the surface of the protruding side or by filling the sub surface side with an approved concrete filler. Contractor shall submit type, method, and any warranty data of the product to the Project Manager prior to doing the work. Throughout this section, the term "PC" includes all of the many types of polymer resins used in mortars, including epoxy resins. The PC can be used for cold weather repairs down to temperatures as low as 15 °F. PC repairs can be accomplished in thicknesses varying from about ¼ inch to several feet if appropriate precautions are taken. Epoxy PC systems must meet the appropriate requirements of ASTM C881 (100-percent solids, Type III, Grade 2, Class B or C). Class B epoxy is used between 40 and 60 °F. Class C epoxy is used above 60 °F up to the highest temperature defined by the epoxy manufacturer. The temperature at time of application shall determine which Class is appropriate. The filled surface shall be feathered out and troweled smooth and be acceptable to the Project Manager. Irregularity repair shall be measured and paid for in the Bid Schedule by Lump Sum. Estimated Linear feet of repair is 400 feet of varying widths. The actual linear feet may vary and will be paid on a pro-rata share of the Lump Sum amount after cleaning and inspection is performed. The total amount paid may be more or less than the Lump Sum.

4. Crack Sealing: Cracks have been identified within the tunnel. After a thorough cleaning as identified in 1. above, a thorough inspection for cracks shall be made by the City Project Manager and Contractor. Crack sealing of existing walls and ceiling of tunnel shall be accomplished with a sealant "Sikaflex" or approved equal. The Contractor shall follow the manufactures recommendations on applying the crack sealant. Crack sealing shall be measured and paid for in the Bid Schedule by the linear foot. The actual linear feet may vary from the Bid Schedule after cleaning and inspection is performed.
5. In the area that is to receive the floor grate the surface of the wall shall be on a true straight plane. This is required due to the fact the supporting angle iron shall be able to support the grate without excessive gaps or fit too tight. Fitting too tight will not allow for expansion and fitting too loose will not allow for contraction.

CITY OF FLAGSTAFF ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS FOR NEW INFRASTRUCTURE (2017 EDITION) ARE HEREBY AMENDED AS FOLLOWS:

Division 13-17-002

NATIVE SEEDING

Section 13-17-002-0003 Materials

Paragraph B. Replace as follows:

B. Seed. Seed shall be fresh, clean and latest season's crop. Legume seed shall be inoculated with appropriate bacteria cultures in accordance with the manufacturer's instructions. Manufacturer's preinoculated seed with protective coating may be used. Contractor inoculated seed that is not sown within eight (8) hours shall be inoculated again. Seed rates are expressed as pounds of pure live seed (PLS) per one acre. The seed mix shall consist of the following grass species mix:

Grasses		**% of Total Mix 25**	**#/Acres**
Arizona Fescue	*Festuca arizonica*	11.3	2.8
Bottlebush Squireltail	Elymus elymoides	22.7	5.7
Western wheatgrass	Pascopyrum smithii	31.8	8.0
Blue grama	Bouteloua gracilis	13.6	3.4

Little bluestem	Schizachyrium scoparium	20.5	5.1

25# Total/Acre

Division 13-17-004

(New Section)

Invasive Weed Management

Section 13-17-004-0001 General

The contractor shall be responsible for establishing weed management practices that prevent the enhancement, spread or introduction of nonnative weed species within disturbance areas of the project. In all areas of the project, the contractor shall be aware of problem species and high density weed areas within the work area as identified within the approved Weed Management Plan for this project. In areas of grading and earthwork, weeds may be removed and buried by mechanical and/or hand methods to prevent germination or regrowth.

In staging areas, weeds shall be removed prior to entering the construction area. Once weeds have been removed, spread a layer of clean (weed-free) soil or gravel, 3 to 6 inches deep to minimize weed growth. The contractor shall avoid creating staging and storage areas in areas infested with weeds to limit traffic to/from these areas. Upon completion of weed management activities in areas of concern, the contractor shall maintain said area in a weed-free condition. Other areas not directly scheduled for disturbance within the overall project limits may be marked as off limits to travel to prevent spread of weed seed.

Any ground disturbing activities such as parking and staging must occur within the construction project footprint or as approved by the City Inspector.

Section 13-17-004-0002 Equipment Management

Avoid or minimize all types of travel through weed-infested areas, or restrict travel to those periods when spread of seed or propagules is least likely.

Equipment Wash Station: Equipment and vehicles must be washed prior to entering and exiting the project site to remove any traces of noxious or other undesired weeds and plants. This

practice should reduce the level of re-infestation of noxious weeds, and thus, herbicides used to control these species.

Preferably, equipment and vehicles will be cleaned at an off-site, commercial facility prior to entering the construction zone. Temporary locations for washing vehicles and equipment shall be designated within the staging area(s). The horizontal dimensions of the washing areas will be determined by the contractor based on site access needs, number of vehicles being washed at any one time, etc. They must have a filter system, for example at least 6 inches of large cinder or gravel spread over an area 10ft x 30ft. Filter cloth may be used for temporary stations. The area will be a perched drainage to allow excess moisture to drain after being filtered and must be at least 200 feet from a natural drainage to avoid contamination.

Remove mud, dirt, and plant parts from project equipment before moving it into the specific construction area. Determine the need for, and when appropriate, identify sites where equipment can be cleaned. In all cases, cleaning areas are to be located outside of USFS controlled lands. This practice does not apply to service vehicles traveling frequently in and out of the project area that will remain on a clean roadway. Seeds and plant parts accumulated in the cleaning area shall be collected when practical and disposed of in deep fill or by incineration at approved site.

If operating in areas infested with weeds, clean all equipment before leaving the project site. To minimize time spent cleaning equipment, time all work in infested areas last and concurrently, designate a "contaminated" parking lot where project vehicles working in the infested area may be parked for the duration of the project. Seeds and plant parts shall be collected when practical and incinerated.

Section 13-17-004-0003 Measurement and Payment

Invasive Weed Management: Invasive weed management, including weed management and equipment management will be paid as one lump sum for the project as a whole per the Bid Schedule.

AENDMENTS TO ARIZONA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2008 EDITION)

SECTION 902 CHAIN LINK FENCE

SECTION 902-1 Description (add the following paragraph)

New chain link fence in the area east of the existing concrete tunnel shall be colorized by the "Natina" process. Fence fabric, fence posts, and all other components shall be colorized. Contact Natina Products, LLC, Casa Grande, AZ; (877) 762-8462. Alternative colorization processes may be possible but will be subject to prior approval by the Coconino National Forest, which has jurisdiction over the area. Payment for colorization of new chain link fence shall be per the Bid Schedule.

Western Technologies Inc.

GEOTECHNICAL EVALUATION REPORT

FUTS I-17 UNDERPASS
Flagstaff, Arizona
WT Reference No. 2528JW011

PREPARED FOR:
Turner Engineering
528 West Aspen Avenue
Flagstaff, Arizona 86001
Attn: Mr. Mike Kearly, P.E.

April 4, 2018

Registered Professional Engineer (Civil) CERTIFICATE NO. 11860 CRAIG P. WIEDEMAN Date Signed 4/5/18 ARIZONA, U.S.A. Expires 12-31-2019

Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Reviewed By: Bruce M. MacIlroy, P.E.
Senior Geotechnical Engineer

Western Technologies Inc.
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-8700 • fax 774-6469

April 4, 2018

Turner Engineering
528 West Aspen Avenue
Flagstaff, Arizona 86001

Attn: Mr. Mike Kearly, P.E.

Re: Geotechnical Evaluation
FUTS I-17 Underpass
Flagstaff, Arizona

Job No. 2528JW011

Western Technologies Inc. has completed the geotechnical evaluation for the proposed FUTS Interstate 17 underpass and sinkhole evaluation located near Flagstaff, Arizona. This study was performed in general accordance with our proposal number 2527PW155 dated August 28, 2017. The results of our study, including the boring location diagram, laboratory test results, boring 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

Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Copies to: Addressee (emailed)

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GEOTECHNICAL EVALUATION
FUTS I-17 UNDERPASS
FLAGSTAFF, ARIZONA
JOB NO. 2528JW011

1.0 PURPOSE

This report contains the results of our geotechnical evaluation for the proposed FUTS Interstate 17 underpass and sinkhole evaluation located near Flagstaff, Arizona. The purpose of these services is to provide information and recommendations regarding:

- retaining wall foundation design parameters
- lateral earth pressures
- earthwork
- sinkhole remediation
- drainage
- corrosivity to concrete

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 Mr. Michael Kearly, P.E., the proposed project will consist of converting an existing stormwater box culvert approximately 300 feet long below Interstate 17 into an underpass for the Flagstaff Urban Trail System. Included is an evaluation of a sinkhole located on the western side of Highway 89A. Additional retaining walls will be added as part of the box culvert conversion. Maximum retaining wall heights are anticipated to be about 5 feet. Should any of our information or assumptions not be correct, we request that the Client notify WT immediately.

3.0 SCOPE OF SERVICES

3.1 Field Exploration

Four borings were drilled to depths ranging from about 8 to 28 feet below existing site grades at the approximate locations shown on the attached boring location diagram. Logs of the borings are presented in Appendix A. Subsoils encountered during drilling were examined visually and sampled at selected depth intervals.

A field log was prepared for each boring. These logs contain visual classifications of the materials encountered during drilling as well as interpolation of the subsurface conditions between samples. Final logs, included in Appendix A, represent our interpretation of the field logs and include modifications based on laboratory observations and tests of the field samples. The final logs describe the materials encountered, their thicknesses, and the locations where samples were obtained. The Unified Soil Classification System was used to classify soils. The soil classification symbols appear on the boring logs and are briefly described in Appendix A.

3.2 Laboratory Analyses

Laboratory analyses were performed on representative soil samples to aid in material classification and to estimate pertinent engineering properties of the on-site soils for preparation of this report. Testing was performed in general accordance with applicable ASTM and Arizona methods. The following tests were performed and the results are presented in Appendix B.

- Water content
- Dry density
- Compression
- Direct shear
- Expansion
- Gradation
- Plasticity
- Soluble salts and sulfates

Test results were utilized in the development of the recommendations contained in this report.

3.3 Analyses and Report

This geotechnical evaluation 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 required to satisfy the purpose previously described.

This report is for the exclusive purpose of providing geotechnical engineering and/or testing information and recommendations. The scope of services for this project does not include, either specifically or by implication, any environmental assessment of the Site or identification of contaminated or hazardous materials or conditions. If the owner is concerned 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

The Site is an approximate east-west oriented double box concrete culvert running below Interstate 17 and Highway 89A. Each box opening is approximately 10 feet wide and 10 feet tall. Sloped concrete wingwalls are located at both ends of the culvert. The culvert was bordered on both sides by undeveloped land. The sinkhole is located approximately 10 feet west of the western end of the culvert. At the time of our field exploration, the surface expression of the sinkhole was about 12 feet long, 6.5 feet wide and 6 inches deep. The sinkhole had been filled with soil. A previous photo from August, 2016 shows a roughly circular surface expression about 2 feet in diameter and 4 feet deep. The ground surface near both ends of the box culvert was rocky, and contained embedded limestone cobbles and boulders. The ground surface sloped gently down toward both ends of the box culvert. Some minor ponding was present in the box culvert and along the eastern entrance. Evidence of previous ponding was present along the western entrance to the box. Site surface drainage appeared to be poor by means of sheet flow toward both ends of the box culvert. Vegetation in areas adjacent to the culvert consisted of a sparse to moderate growth of native grasses and weeds, with pine trees east and west of the culvert location.

4.2 Subsurface

As presented on the boring logs, Silty SAND fill soil was encountered to a depth of about 5 feet in Boring 1. This soil had been used to fill the deeper surface expression of the sinkhole from earlier. Below the fill was medium dense Silty, Clayey SAND with gravel that extended to a depth of about 20 feet. An approximate 1 foot thick LIMESTONE ledge was encountered at a depth of about 12 feet. Very loose to loose Silty SAND was then found from a depth of about 20 feet and extended to about 28 feet, where auger refusal occurred on hard LIMESTONE.

Boring 2 was located about 10 feet southwest of Boring 1. In Boring 2, surface and near-surface soils to a depth of about 6 feet were found to be medium dense to very dense Silty, Clayey SANDS with gravel and low plasticity fines. The materials underlying the surficial soils and extending to the full depth of exploration consisted of lightly to moderately weathered, thickly bedded, hard LIMESTONE with relatively close fracture spacing. Refusal to auger penetration occurred on hard LIMESTONE at a depth of about 8 feet in Boring 2.

Boring 3 was located about 10 feet northwest of Boring 1. Surface and subsoils extending to the full depth of exploration in Boring 3 were found to be very stiff to hard, non-plastic Sandy SILTS with variable amount of gravel. An approximate 1 foot thick LIMESTONE ledge was encountered at a depth of about 8 feet. Boring 3 was stopped at a depth of about 21 feet on highly weathered LIMESTONE.

Boring 4 was located on the east side of the culvert. Surface and subsoils extending to the full depth of exploration (21 feet) in Boring 4 consisted of loose to dense, Clayey SANDS with variable amounts of gravel and near-high plasticity fines. An approximate 1 foot thick LIMESTONE ledge was encountered at a depth of about 8 feet.

Soil moisture contents in all the borings ranged from slightly damp to moist. Free groundwater was not encountered in any boring at the time of exploration. The logs in Appendix A show details of the subsurface conditions encountered during the field exploration.

The boring 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 borings may become evident during construction. If variations appear, we should be contacted to re-evaluate our recommendations.

5.0 GEOTECHNICAL PROPERTIES

5.1 Laboratory Tests

Laboratory test results indicate that native subsoils exhibit moderate to moderately high compressibility at existing water contents. Low additional compression occurs when the water content is increased. When water is added to compacted near-surface silty, clayey sand soils, low expansion occurs. When water is added to compacted near-surface clayey sand soils, relatively high expansion occurs. The site soils exhibited moderate to relatively high shear strengths at water contents approaching saturation.

5.2 Field Tests

Native subsoils located outside of the sinkhole area exhibited generally moderate to high resistance to penetration using the standard penetration test method (ASTM D1586) and test method ASTM D3550. Penetration resistances in the sinkhole area were low to moderate and varied significantly with depth.

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, **PROJECT DESCRIPTION**, and the assumption that the soil and subsurface conditions are those disclosed by the borings. Others may change the plans, number and type of structures, and finished grades 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.

6.2 Retaining Wall Foundations

If the recommendations contained in this report are followed, the proposed retaining wall structures can be supported by conventional, continuous spread footings bearing on a minimum thickness of 2 feet of site soils removed and recompacted as engineered fill or on 2 feet of lean mix (2-sack) concrete backfill. The depth and lateral extents of the engineered fill/concrete backfill is presented in the **EARTHWORK** section of this report.

The retaining wall footings should bear at least 2.5 feet below the lowest adjacent finished grade. For any portions of the walls that are located on the existing slopes, this depth should be measured from the toe of the retaining wall footing. The footings may be designed to impose a maximum dead plus live-load pressure of up to 2500 pounds per square foot.

We anticipate that total and differential settlement of the proposed retaining wall structures, supported as recommended, should be less than 1 inch. Additional foundation movements could occur if water from any source infiltrates the foundation soils. Therefore, proper drainage should be provided in the final design and during construction.

The design bearing capacity applies to dead loads plus design live load conditions. The recommended minimum width of continuous wall footings is 24 inches. The bearing value given is a net bearing value and the weight of the concrete in the footing may be ignored. All footings, stem walls and retaining walls should be reinforced to reduce the potential for distress caused by differential foundation movements.

Site preparation procedures and foundation excavations should be observed by the geotechnical engineer to assess that adequate bearing conditions exist and that recompaction of site soils and/or placement of engineered fill/concrete backfill has been performed satisfactorily. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

6.3 Lateral Design Criteria

For abutments and wingwalls located above any free water surface with no surcharge loads, recommended equivalent fluid pressures and coefficients of base friction for unrestrained elements are:

Level backfill behind wall:

- Active:
  Existing site soils .....36 psf/ft
  Compacted granular backfill .....30 psf/ft
  Compacted site soils .....36 psf/ft

2:1 (horizontal:vertical) sloping backfill behind wall:

- Active:
  Undisturbed subsoil: .....50 psf/ft
  Compacted granular backfill .....45 psf/ft
  Compacted site soils .....50 psf/ft

3:1 (horizontal:vertical) sloping backfill behind wall:

- Active:
  Undisturbed subsoil .....45 psf/ft
  Compacted granular backfill .....40 psf/ft
  Compacted site soils .....45 psf/ft

- Passive:
  Shallow wall footings .....225 psf/ft

- Coefficient of base friction..... 0.35*

* The coefficient of base friction 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:
  Existing site soils .....64 psf/ft
  Compacted granular backfill .....55 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.

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 walls should be compacted to densities specified in **EARTHWORK**. Medium to high plasticity clay soils should not be used as backfill against 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.

6.4 Corrosivity to Concrete

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.

6.5 Sinkhole Remediation

The geologic unit that underlies the surface and subsoils on the Site is the Kaibab Formation that is comprised of interbedded limestones and sandstones. There are numerous accounts of sinkholes developing in highly fractured limestone members within the Kaibab Formation, including several in the Flagstaff area. The sinkhole on this Site was explored using auger drilling techniques. Boring 1 was drilled near the center of the current surface expression of the sinkhole. Boring 2 was drilled about 10 feet southwest of Boring 1, and Boring 3 was drilled approximately 10 feet northwest of Boring 1. Using test method ASTM D3550, drive samples were obtained at 5 foot intervals in all borings, and blow counts were compared. Low blow counts were recorded in Boring 1, and highly weathered limestone was obtained in the samples. Auger refusal was encountered in Boring 2 at a depth of about 8 feet below the existing site grade on hard limestone. Blow counts recorded in Boring 3 were similar to those recorded in Boring 4, which are assumed to represent native soil conditions unaffected by sinkhole activity.

The sinkhole on this Site is likely the result of a collapsed karst feature, as represented by the low resistance to penetration and moderate to moderately high compressibility results obtained on the samples tested. The maximum lateral extent of the area affected by the collapse of the karst is estimated to be an approximate 10 to 15-foot radius from the center of the surface expression of the sinkhole. However, the extent of the affected area could be greater on the eastern side of the sinkhole, as exploration access was limited in that area by the existing 89A development.

The following procedures are recommended to repair the surface distress in the existing sinkhole area:

- Excavate the existing sinkhole surface expression to a minimum depth of 5 feet below the design finished grade in this area. Widen the excavation, as necessary, until dense soils are encountered on all sides of the excavation.

- Remove all previously placed fill, and all loose and disturbed materials from the bottom and sides of the excavation.

- Backfill the excavation with properly compacted, engineered fill material. The fill material should consist of site soils or imported, low expansive engineered fill with a high percentage of fines.

- Backfill should be placed in horizontal lifts with a maximum uncompacted lift thickness of 8 inches. Backfill should be compacted to a minimum of 95 percent of the maximum density as determined by ASTM D698 at a compaction moisture content of optimum plus or minus 3 percent.

- Improve surface drainage, as existing grades allow, for more positive flow throughout the path alignment so that water does not pond in this area. Scarifying and recompacting the bottom and sides of the path both up and down gradient of this area would help to improve surface flow characteristics and reduce infiltration of surface water.

7.0 EARTHWORK

7.1 General

The conclusions contained in this report for the proposed construction and sinkhole remediation are contingent upon compliance with recommendations presented in this section. Any excavating, trenching, or disturbance which 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, grading or backfilling occurs.

7.2 Site Clearing

Strip and remove existing vegetation, organic topsoils, debris, and any other deleterious materials from the retaining wall areas. All exposed surfaces should be free of mounds and depressions which 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. Any excavations encountering large boulders may require the use of heavy-duty, specialized equipment, possibly together with large pneumatic hammers, to facilitate rock break up and removal.

On-site soils may pump or become unworkable at high water contents. Workability may be improved by scarifying and drying. Overexcavation 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 Retaining Wall Foundation Preparation

In retaining wall footing areas, remove existing soils to a minimum depth of 2 feet below the bottom of the footing. If engineered fill is used below the footing, removal should extend a minimum of 1 foot horizontally beyond the footing edges. If lean mix (2-sack) concrete backfill is used below the footing, removal may extend straight down along the sides of the footing. Replace the removed soil with properly compacted, engineered fill material or with lean mix (2-sack) concrete backfill.

7.5 Materials

a. Clean, on-site native soils with a maximum dimension of 6 inches or imported materials may be used as fill material for the following:

- retaining wall foundation areas
- trail areas
- sinkhole backfill

b. The more highly expansive clayey sand soils, as encountered in Boring 4, are not recommended for use as retaining wall backfill.

c. Frozen soils should not be used as fill or backfill.

d. Lean mix (2-sack) concrete backfill should consist of aggregate base course material combined with 2 sacks of cement per cubic yard. A minimum 28-day compressive strength of 400 pounds per square inch is recommended.

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 (%)* 1.5

- Maximum soluble sulfates (%) 0.10

* 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.

f. Base course should conform to City of Flagstaff specifications.

7.6 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 fill lifts should not exceed 8 inches.

c. No fill should be placed over frozen ground.

d. Materials should be compacted to the following:

Material Compaction (ASTM D698)	Minimum Percent
• On-site and imported soil, reworked and fill:	
Below footings	95
Trail areas	95
• Aggregate base	95
• Backfill	95

e. The on-site clayey sand soils should be compacted with a moisture content in the range of 1 percent below to 3 percent above optimum. On-site and 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.

7.7 Compliance

Recommendations for retaining wall foundations and other structural elements 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 Section 2.0. 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, contact WT 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 borings. 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 borings, 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 until the earlier of one year from the date of issuance, a change in circumstances, or discovered variations. After expiration, no person or entity shall have any right to 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 borings, 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 warranty, express or implied, is made.



Not to Scale

Approximate Test Boring Location

FUTS I-17 UNDERPASS	
Boring Location Diagram	
Western Technologies Inc.	
Job No.: 2528JW011	Plate: 1

Geotechnical
Environmental
Inspections
Materials

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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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The number shown in **"BORING NO."** refers to the approximate location of the same number indicated on the "Boring Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features.

"DRILLING TYPE" refers to the exploratory equipment used in the boring wherein **HSA = hollow stem auger**, and the dimension presented is the outside diameter of the HSA used.

"N" in "BLOW COUNTS" refers to a 2-inch outside diameter split-barrel sampler driven into the ground with a 140 pound drop-hammer dropped 30 inches repeatedly until a penetration of 18 inches is achieved or until refusal. The number of blows, or "blow count", of the hammer is recorded for each of three 6-inch increments totaling 18 inches. The number of blows required for advancing the sampler for the last 12 inches (2^{nd} and 3^{rd} increments) is defined as the Standard Penetration Test (SPT) **"N"**-Value. Refusal to penetration is considered more than 50 blows per 6 inches. (Ref. ASTM D1586). A double vertical line within the symbol indicates no sample recovery.

"R" in "BLOW COUNTS" refers to a 3-inch outside diameter ring-lined split barrel sampler driven into the ground with a 140 pound drop-hammer dropped 30 inches repeatedly until a penetration of 12 inches is achieved or until refusal. The number of blows required to advance the sampler 12 inches is defined as the **"R"** blow count. The **"R"** blow count requires an engineered conversion to an equivalent SPT N-Value. Refusal to penetration is considered more than 50 blows per foot. A double vertical line within the symbol indicates no sample recovery. A circle within the symbol indicates sample disturbance.

"SAMPLE TYPE" refers to the form of sample recovery, in which **N** = Split-barrel sample, **R** = Ring-lined sample, **G** = Grab sample.

"DRY DENSITY (LBS/CU FT)" refers to the laboratory-determined dry density in pounds per cubic foot.

"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 boring logs are intended for use in conjunction with the purposes of our services defined in the text. Boring log data should not be construed as part of the construction plans nor as defining construction conditions.

Boring 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 borings. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the boring logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the boring location. The transition between materials is approximate and may be more or less gradual than indicated.

©81WTI
091614

DATE DRILLED: **3-6-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

BORING NO. 1

EQUIPMENT TYPE: **CME-75**
DRILLING TYPE: **7"HSA**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
						SM		Silty SAND (FILL); black, damp
10.4	118	R		12	5	SC-SM		Silty, Clayey SAND; with gravel, yellow/brown, medium dense, damp to moist
								increased moisture with depth
25.3	90	R		18	10			
								limestone lense from 12 to 13 feet
								decreased moisture with depth
17.1	90	R		14	15			
12.1	86	R		2	20	SM		Silty SAND; light brown, very loose to loose, damp
11.7	94	R		8	25			
		G						
		R		refusal				**Auger Refusal at 28 Feet on LIMESTONE**
					30			

N- STANDARD PENETRATION TEST
R- RING SAMPLE
CA- CALIFORNIA MODIFIED SAMPLER
G- GRAB SAMPLE
B- BUCKET SAMPLE

NOTES: **Groundwater Not Encountered**
Boring located near surface extension of sinkhole

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **FUTS I-17 UNDERPASS**
PROJECT NO.: **2528JW011**

PLATE **A-4**

BORING 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 DRILLED: **3-6-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

BORING NO. 2

EQUIPMENT TYPE: **CME-75**
DRILLING TYPE: **7"HSA**
FIELD ENGINEER: **G. Burr**

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, brown, medium dense to very dense, moist to damp
20.5	105	R		19				
								decreased moisture with depth
12.3	111	R		50/6"	5			
								LIMESTONE; lightly to moderately weathered, close fracture spacing, thickly bedded, hard
		N		refusal				**Auger Refusal at 8 Feet on LIMESTONE**
					10			
					15			
					20			
					25			
					30			

N- STANDARD PENETRATION TEST
R- RING SAMPLE
CA- CALIFORNIA MODIFIED SAMPLER
G- GRAB SAMPLE
B- BUCKET SAMPLE

NOTES: **Groundwater Not Encountered**
Boring located approximately 10 feet SW of TB1

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.

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **FUTS I-17 UNDERPASS**
PROJECT NO.: **2528JW011**

PLATE **A-5**

BORING LOG

DATE DRILLED: **3-6-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

BORING NO. 3

EQUIPMENT TYPE: **CME-75**
DRILLING TYPE: **7"HSA**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				ML		Sandy SILT; trace to some gravel, brown, hard to very stiff, slightly damp to moist
11.2	122	R		30				
9.6	107	R		50/4"	5			
								limestone lense from 8 to 9 feet
6.5	103	R		50/9"	10			
21.4	85	R		50	15			
16.8	95	R		21	20			
								Boring Stopped at 21 Feet on Highly Weathered LIMESTONE
					25			
					30			

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.

N- STANDARD PENETRATION TEST
R- RING SAMPLE
CA- CALIFORNIA MODIFIED SAMPLER
G- GRAB SAMPLE
B- BUCKET SAMPLE

NOTES: **Groundwater Not Encountered**
Boring located approximately 10 feet NW of TB1

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **FUTS I-17 UNDERPASS**
PROJECT NO.: **2528JW011**

PLATE **A-6**

BORING LOG

DATE DRILLED: **3-6-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

BORING NO. 4

EQUIPMENT TYPE: **CME-75**
DRILLING TYPE: **7"HSA**
FIELD ENGINEER: **G. Burr**

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; trace to some gravel, brown/yellow, loose to dense, moist to slightly damp
26.9	85	R		14				
16.9		R		28	5			
28.4	94	R		10	10			
16.7	122	R		50	15			
8.3	108	R		38	20			
					25			**Boring Stopped at 21 Feet**
					30			

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.

N- STANDARD PENETRATION TEST
R- RING SAMPLE
CA- CALIFORNIA MODIFIED SAMPLER
G- GRAB SAMPLE
B- BUCKET SAMPLE

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **FUTS I-17 UNDERPASS**
PROJECT NO.: **2528JW011**

BORING LOG

PLATE
A-7

Boring 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	
2	0-5	SC-SM	100	99	76	68	57	40.8		23	5				2
3	0-5	ML		100	94	88	81	54.7			NP				2
4	0-5	SC		100	92	84	74	49.4		42	23				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

Geotechnical Environmental Inspections Materials
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PROJECT: FUTS I-17 UNDERPASS
JOB NO.: 2528JW011

SOIL PROPERTIES

PLATE
B-1

Boring No.	Depth (ft.)	USCS Class.	Initial Dry Density (pcf)	Initial Water Content (%)	Compression Properties			Expansion Properties		Plasticity		Percent Passing #200	Soluble		Remarks
					Surcharge (ksf)	Total Compression (%)		Surcharge (ksf)	Expansion (%)	LL	PI		Salts (ppm)	Sulfate (ppm)	
						In-Situ	After Saturation								
2	0-5	SC-SM	115.7	11.9				0.1	0.1						1,2
4	0-5	SC	111.2	13.5				0.1	5.9						1,2

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.

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PROJECT: FUTS I-17 UNDERPASS
JOB #: 2528JW011

SOIL PROPERTIES

PLATE
B-2

MOTZZ LABORATORY, INC.

Soil Analysis Report

Western Technologies - Flagstaff
Crockett Saline
2400 East Huntington
Flagstaff, AZ 86004-8934

Project: 2528JW011
Date Received: 3/19/2018
Date Reported: 3/21/2018
PO Number: 2858PO020

Lab Number: 924186-1 **2 (0-5)**

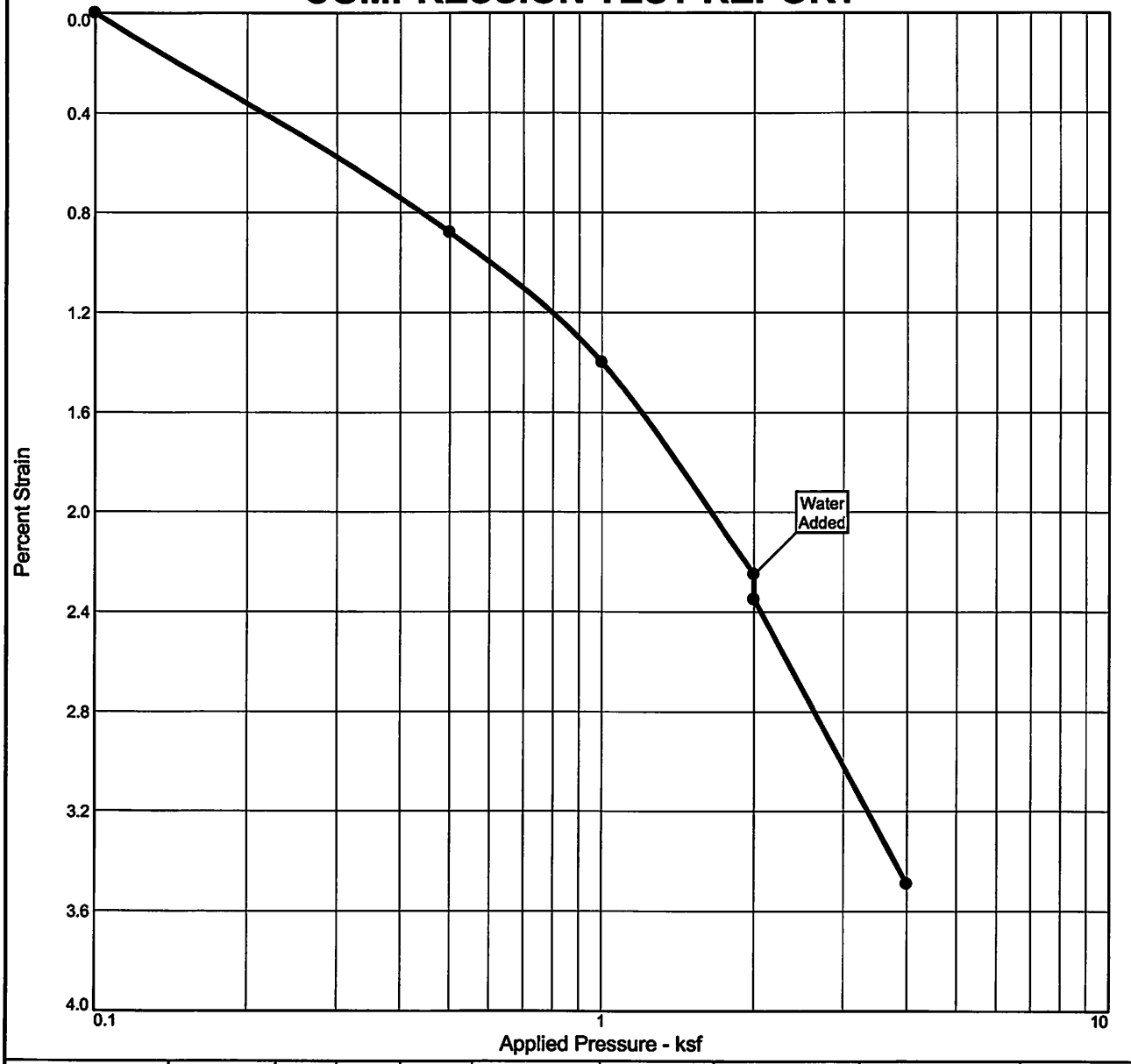
Soluble Salts, Sulfate & Chloride	Method	Result	Units	Levels
Soluble Salts	ARIZ 237b SS	359	ppm	
Sulfate, SO4	ARIZ 733	37	ppm	
Chloride, Cl	ARIZ 736	24	ppm	

Lab Number: 924186-2 **4 (0-5)**

Soluble Salts, Sulfate & Chloride	Method	Result	Units	Levels
Soluble Salts	ARIZ 237b SS	870	ppm	
Sulfate, SO4	ARIZ 733	26	ppm	
Chloride, Cl	ARIZ 736	60	ppm	

3540 E Corona Ave., Phoenix AZ 85040 602-454-2376 (Phone) 602-454-9243 (Fax)

COMPRESSION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Clpse. %	C_r
Sat.	Moist.									
67.5 %	10.4 %	117.5			2.65		0.408		0.1	

MATERIAL DESCRIPTION	USCS	AASHTO
SILTY, CLAYEY SAND WITH GRAVEL	SC-SM	

Project No. 2528JW011 **Client:** TURNER ENGINEERING

Project: FUTS I-17 UNDERPASS

Source: RING SAMPLE **Depth:** 5-6 FEET **Sample No.:** BORING 1

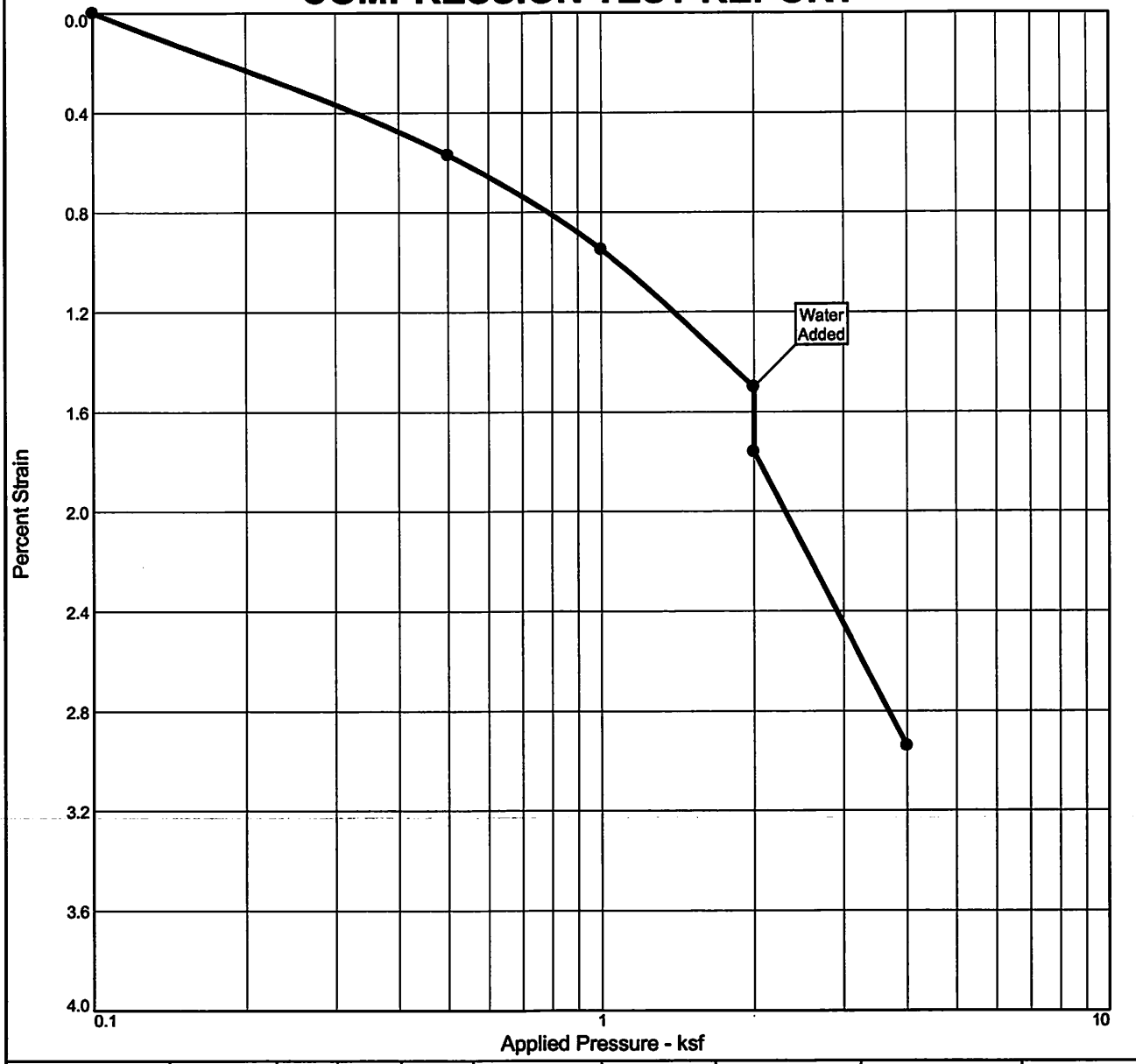
Remarks:

Western Technologies, Inc.

Flagstaff, AZ

Plate B-4

COMPRESSION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Clpse. %	C_r
34.2 %	12.1 %	85.5			2.65		0.934		0.3	

MATERIAL DESCRIPTION	USCS	AASHTO
SILTY SAND	SM	

Project No. 2528JW011 **Client:** TURNER ENGINEERING

Project: FUTS I-17 UNDERPASS

Source: RING SAMPLE **Depth:** 20-21 FEET **Sample No.:** BORING 1

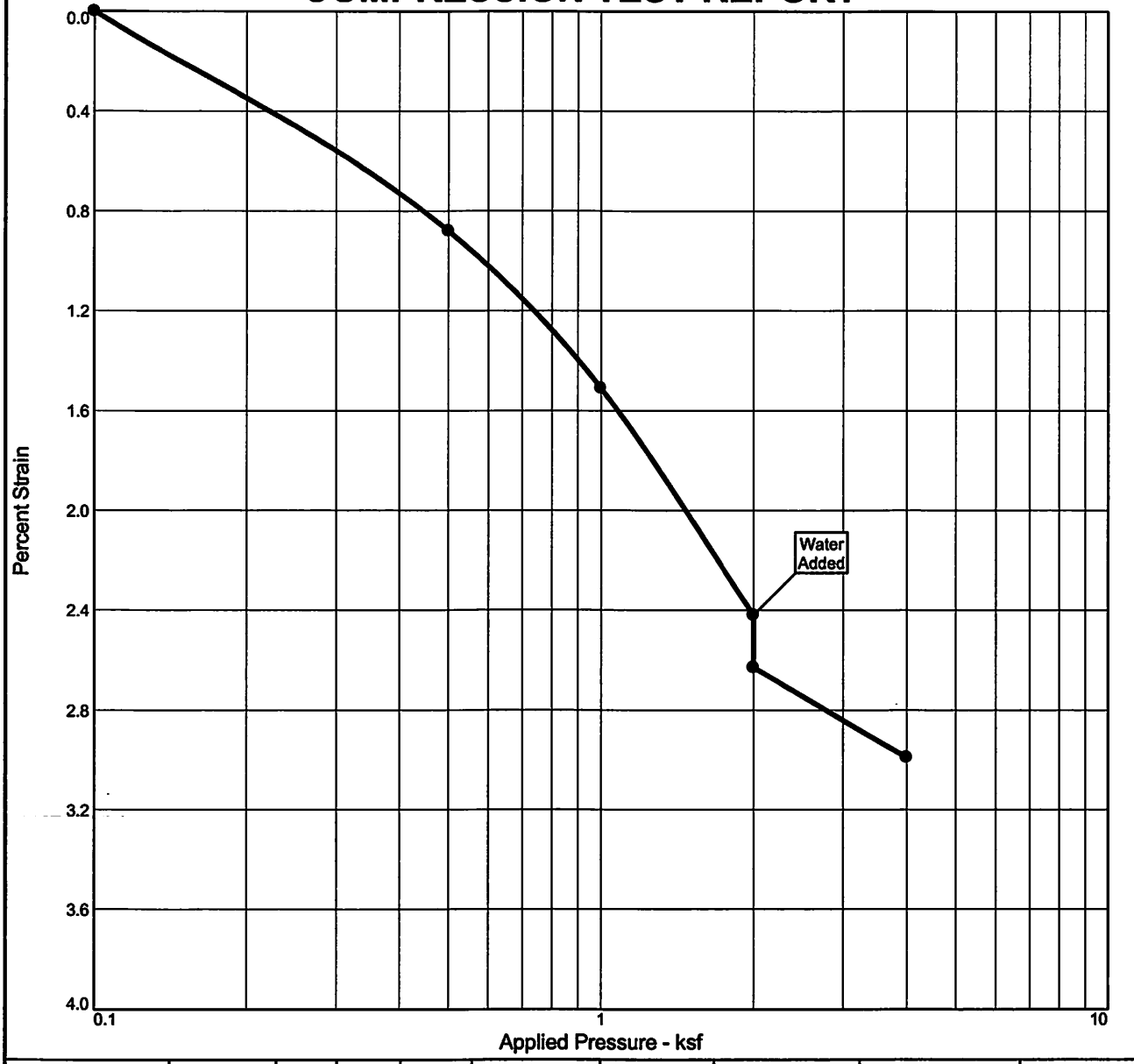
Western Technologies, Inc.

Flagstaff, AZ

Remarks:

Plate B-5

COMPRESSION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Clpse. %	C_r
84.4 %	11.2 %	122.4			2.65		0.351		0.2	

MATERIAL DESCRIPTION	USCS	AASHTO
SANDY SILT	SM	

Project No. 2528JW011 **Client:** TURNER ENGINEERING

Project: FUTS I-17 UNDERPASS

Source: RING SAMPLE **Depth:** 2-3 FEET **Sample No.:** BORING 3

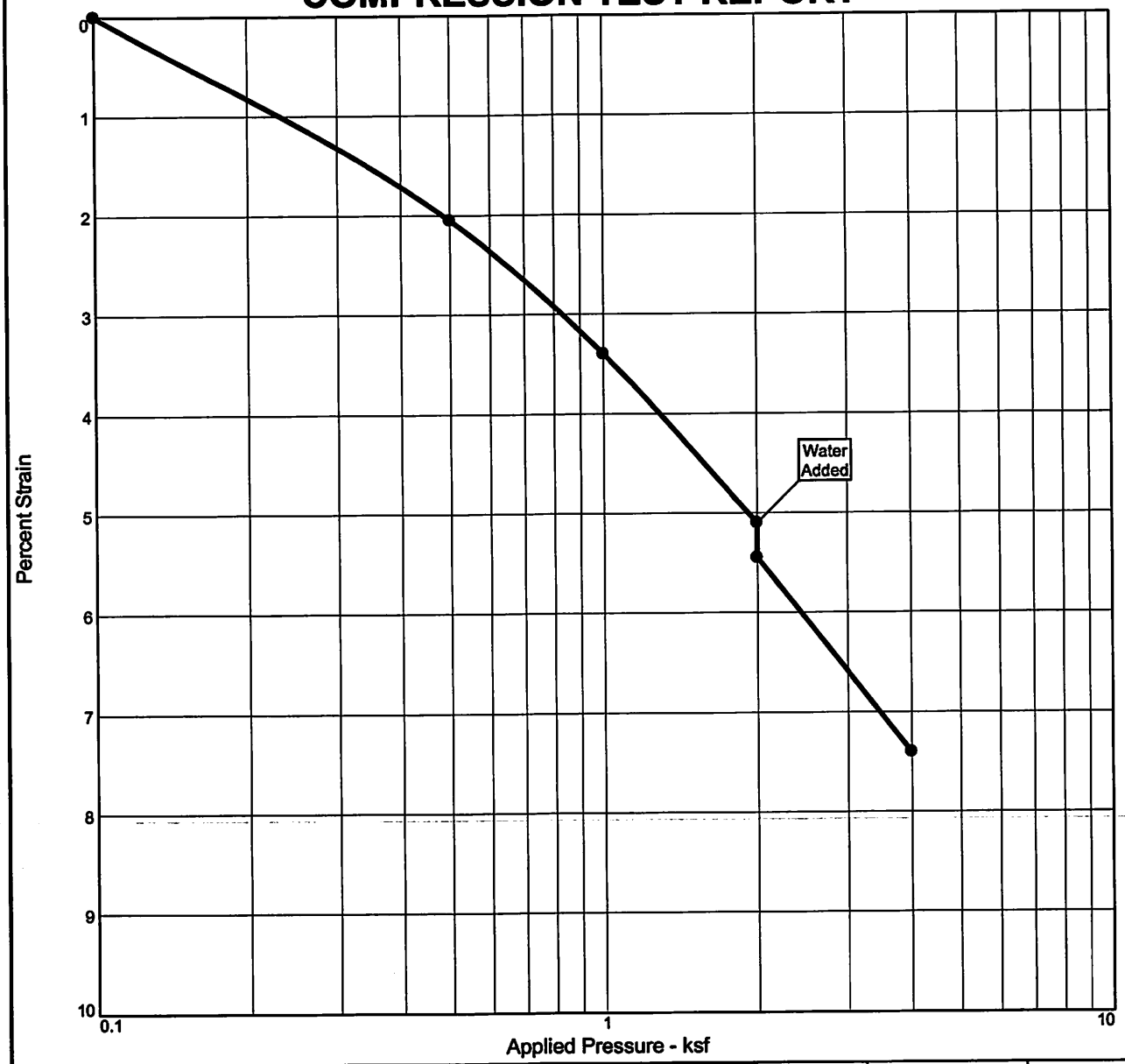
Western Technologies, Inc.

Flagstaff, AZ

Remarks:

Plate B-6

COMPRESSION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	e_o	Swell Press. (ksf)	Clpse. %	C_r
76.0 %	26.9 %	85.4			2.65		0.938		0.4	

MATERIAL DESCRIPTION	USCS	AASHTO
CLAYEY SAND	SC	

Project No. 2528JW011 **Client:** TURNER ENGINEERING

Project: FUTS I-17 UNDERPASS

Source: RING SAMPLE **Depth:** 2-3 FEET **Sample No.:** BORING 4

Remarks:

Western Technologies, Inc.

Flagstaff, AZ

Plate B-7

Boring No.	Depth (ft.)	USCS Class.	Initial Dry Density (pcf)	Initial Water Content (%)	Compression Properties			Direct Shear		Plasticity		Percent Passing #200	Soluble Salts (ppm)	Remarks
					Surcharge (ksf)	Total Compression (%)		Cohesion (ksf)	Φ Angle (deg.)	Liquid Limit	Plasticity Index			
						In-Situ	After Saturation							
2	2-3	SC-SM	104.5	20.5				1.2	37					2,5
4	5-6	SC		16.9										4
4	10-11	SC	93.8	28.4				0.7	20					2,5

Note: Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted.
NP = Non-Plastic

Remarks

1. Compacted density (approx. 95% of ASTM D698 max. density at moisture content slightly below optimum.)
2. Submerged to approximate saturation.
3. Slight rebound after saturation.
4. Sample disturbance observed.
5. ASTM D3080 Procedure

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PROJECT: FUTS I-17 UNDERPASS
JOB NO.: 2528JW011

SOIL PROPERTIES

PLATE
B-8

Appendix B

Contractor's Application for Payment

Owner:		**Owner's Project No.:**	
Engineer:		**Engineer's Project No.:**	
Contractor:		**Contractor's Project No.:**	
Project:			
Contract:			
Application No.:		**Application Date:**	
Application Period:	**From**	**to**	

1. Original Contract Price	$ -
2. Net change by Change Orders	$ -
3. Current Contract Price (Line 1 + Line 2)	$ -
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	$ -
5. Retainage	
a. _____ X $ - Work Completed	$ -
b. _____ X $ - Stored Materials	$ -
c. Total Retainage (Line 5.a + Line 5.b)	$ -
6. Amount eligible to date (Line 4 - Line 5.c)	$ -
7. Less previous payments (Line 6 from prior application)	
8. Amount due this application	$ -
9. Balance to finish, including retainage (Line 3 - Line 4)	$ -

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor: _____

Signature: _____ **Date:** _____

Recommended by Engineer		**Approved by Owner**	
By:		**By:**	
Title:		**Title:**	
Date:		**Date:**	
Approved by Funding Agency			
By:		**By:**	
Title:		**Title:**	
Date:		**Date:**	

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Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: _____
Engineer: _____
Contractor: _____
Project: _____
Contract: _____

Owner's Project No.: _____
Engineer's Project No.: _____
Contractor's Project No.: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L
		Contract Information				Work Completed					
Bid Item No.	Description	Item Quantity	Units	Unit Price ($)	Value of Bid Item (C X E) ($)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) ($)	Materials Currently Stored (not in G) ($)	Work Completed and Materials Stored to Date (H + I) ($)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) ($)
Original Contract											
					-		-		-		-
					-		-		-		-
					-		-		-		-
					-		-		-		-
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					-		-		-		-
					-		-		-		-
				Original Contract Totals	$ -		$ -	$ -	$ -		$ -

EJCDC C-620 Contractor's Application for Payment
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Progress Estimate - Unit Price Work | **Contractor's Application for Payment**

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____
Contract: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L
		Contract Information				Work Completed					
Bid Item No.	Description	Item Quantity	Units	Unit Price ($)	Value of Bid Item (C X E) ($)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) ($)	Materials Currently Stored (not in G) ($)	Work Completed and Materials Stored to Date (H + I) ($)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) ($)
Change Orders											
					-		-		-		-
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					-		-		-		-
					-		-		-		-
				Change Order Totals	$ -		$ -	$ -	$ -		$ -
Original Contract and Change Orders											
				Project Totals	$ -		$ -	$ -	$ -		$ -

EJCDC C-620 Contractor's Application for Payment
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Stored Materials Summary

Contractor's Application for Payment

Owner: _____
Engineer: _____
Contractor: _____
Project: _____
Contract: _____

Owner's Project No.: _____
Engineer's Project No.: _____
Contractor's Project No.: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L	M
						Materials Stored			Incorporated in Work			
Item No. (Lump Sum Tab) or Bid Item No. (Unit Price Tab)	Supplier Invoice No.	Submittal No. (with Specification Section No.)	Description of Materials or Equipment Stored	Storage Location	Application No. When Materials Placed in Storage	Previous Amount Stored ($)	Amount Stored this Period ($)	Amount Stored to Date (G+H) ($)	Amount Previously Incorporated in the Work ($)	Amount Incorporated in the Work this Period ($)	Total Amount Incorporated in the Work (J+K) ($)	Materials Remaining in Storage (I-L) ($)
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
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								-			-	-
								-			-	-
								-			-	-
					Totals	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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CITY OF FLAGSTAFF

CONTRACT SUPPLEMENTARY JUSTIFICATION

☒ CONTRACT ALLOWANCE

☒ ADMINISTRATIVE CHANGE ORDER

PROJECT NO.	ST 3305	**PROJECT NAME**	Sheep Crossing FUTS Trail
FILE NO.	03-17001	**PROJECT MANAGER**	David Pedersen
CONTRACTOR / CONSULTANT	Kinney Construction, LLC		

PROJECT DESCRIPTON

The Sheep Crossing Trail is a planned Flagstaff Urban Trails System (FUTS) trail, approximately 0.8 miles in length, 10 feet in width, which will connect the Ponderosa FUTS Trail along the west side of Pulliam Drive with the Sinclair Wash FUTS Trail in Fort Tuthill County Park. This multi-use, non-motorized, aggregate mix trail will allow users the opportunity to navigate under Interstate 17, connecting existing trails on the east and west sides of the Interstate, just north of the John Wesley Powell Boulevard and Interstate 17 Interchange. This trail segment is also part of ultimate alignment of the Flagstaff Loop Trail, a 44-mile system of FUTS, County, and US Forest Service trails which circumnavigate the community and provide a world-class recreational opportunity in proximity to the city. (Vicinity Map Attached)

JUSTIFICATION FOR USE & AMOUNT

Contract Allowance Amount	$ 66,262.80 (5%)	**Administrative Change Order Amount**	$132,525.60 (10%)

Justification

Request is to provide an allowance to accommodate unanticipated and/or unforeseen issues and for quantity adjustments. Plan quantities are considered accurate but final quantities are measured during construction. The contractor must be compensated for actual quantities of work (MAG 102.3). Quantities often change because of unknown and/or necessary field changes. Without an allowance, project work may need to be suspended until an agenda item can be brought before Council for consideration and approval. An allowance will provide needed flexibility in delivery of improvements, minimizing negative impacts to the community during construction. Any additional quantities needed do become an asset of the City and any unused fund allocation is returned to the program fund.

COST / BUDGET / FUNDING SOURCE ANALYSIS

Contract Allowance Amount	$ 66,262.80 (5%)	**Administrative Change Order Amount**	$132,525.60 (10%)

Justification

Allowance request is 5% and Change Order Amount is 10% of the $1,325,256.00 low bid from Kinney Construction, LLC. Adequate funding is in the FY2020 authorized FUTS Fund budget of $4,355,034. The budget accommodates design, construction estimated cost, permitting, testing and inspection, soft costs, and Capital Improvements project management costs.

APPROVALS

	Signature		Date
Project Manager		David Pedersen	2.27.2020
Program Manager		Bret C. Petersen	2/27/20
Section Head	for RAB	Richard A. Barrett	2/27/20
Division Head		Daniel Folke	2/27/2020

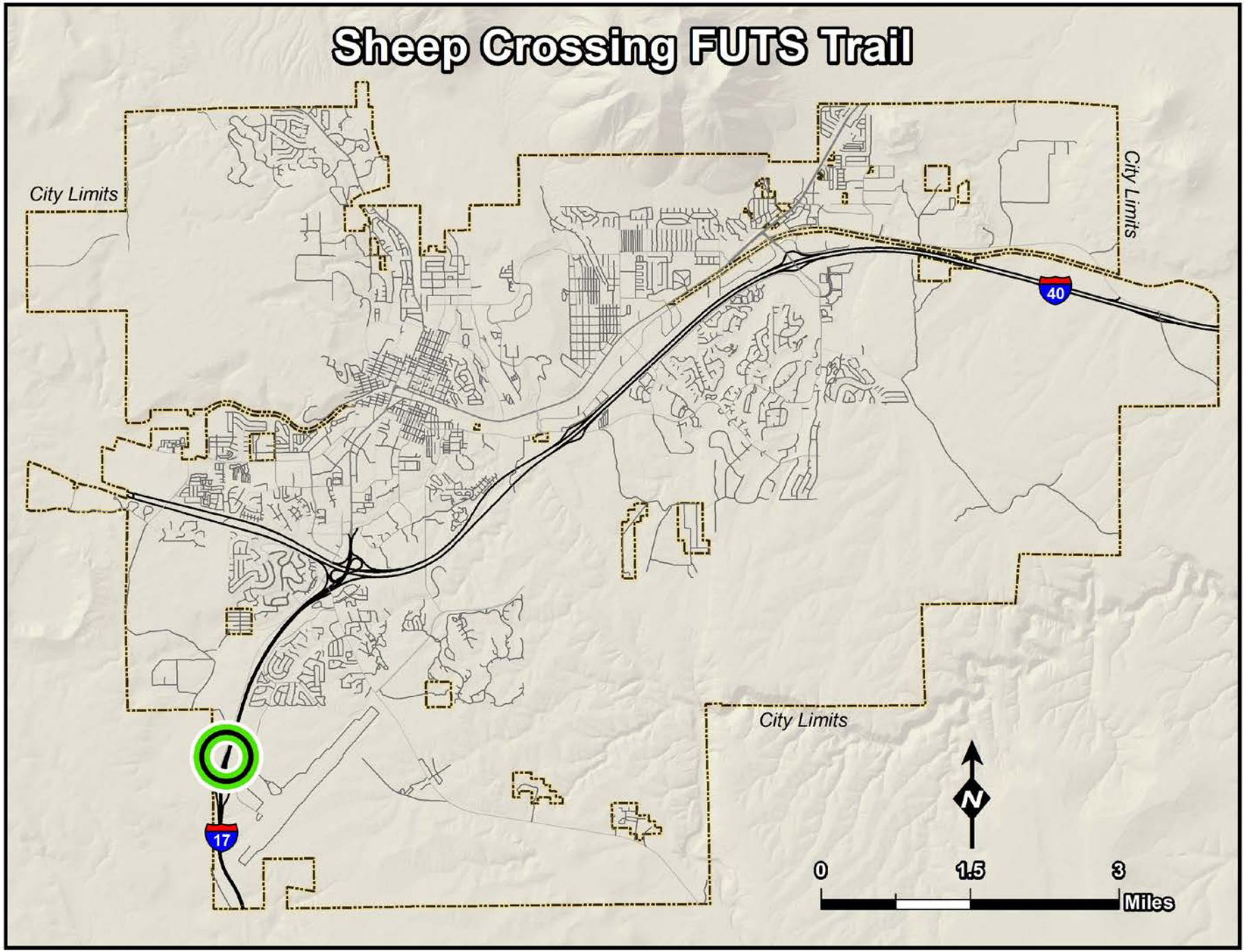


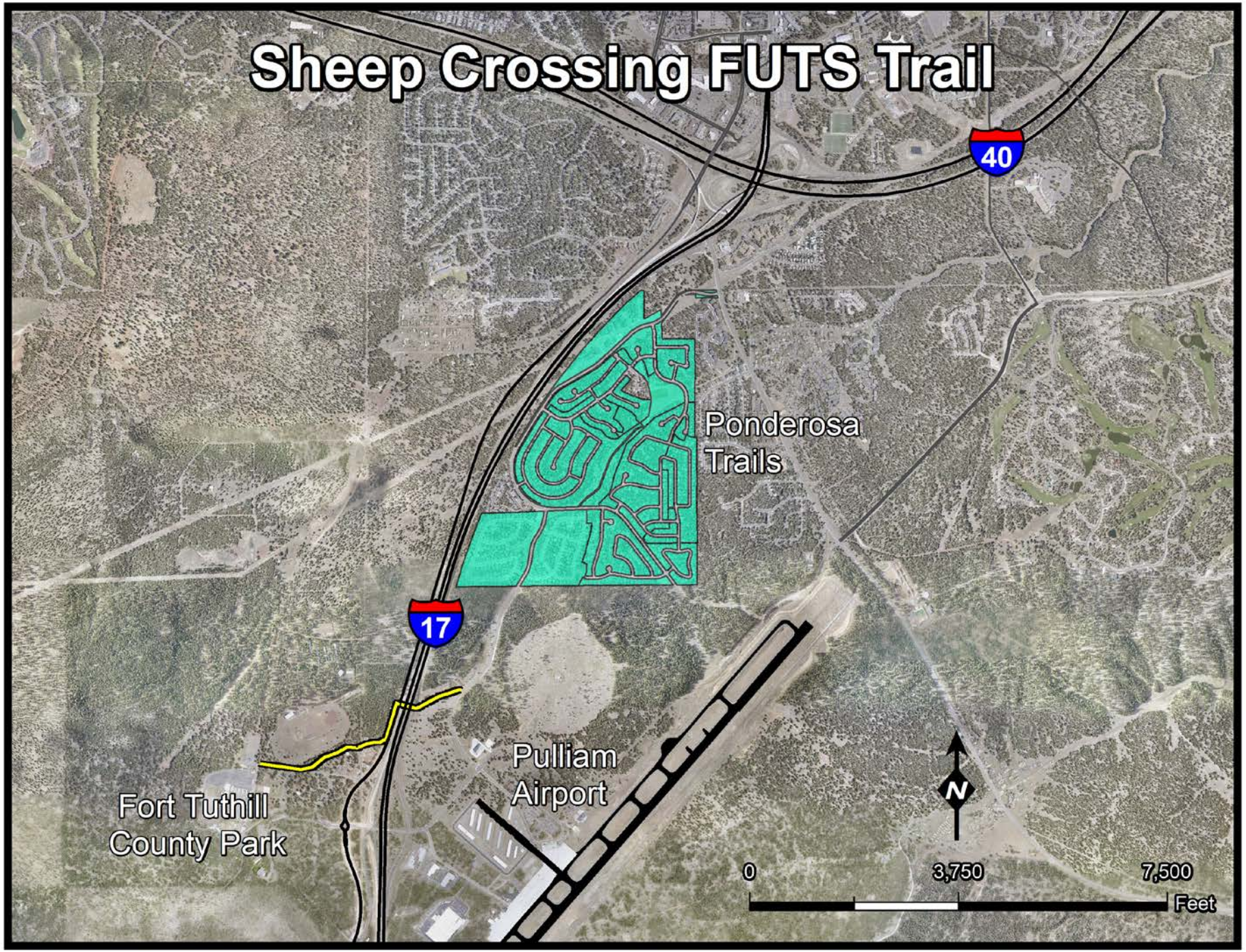
Sheep Crossing FUTS Trail

CITY OF FLAGSTAFF · ARIZONA · ESTABLISHED 1882 ·

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER


Sheep Crossing FUTS Trail
City Limits
City Limits
City Limits
40
17
N
0
1.5
3
Miles

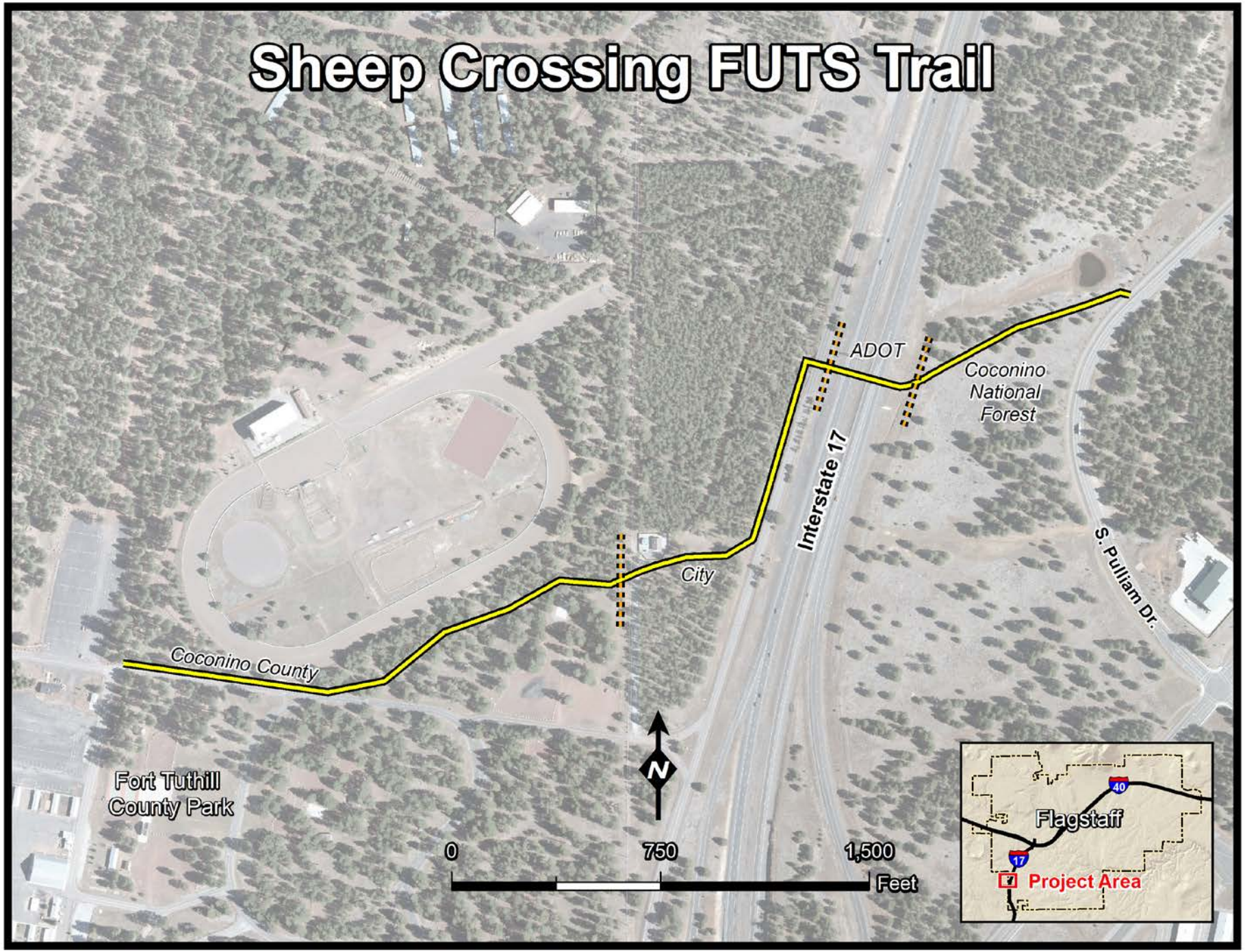

Sheep Crossing FUTS Trail
40
Ponderosa
Trails
17
Pulliam
Airport
Fort Tuthill
County Park
N
0
3,750
7,500
Feet

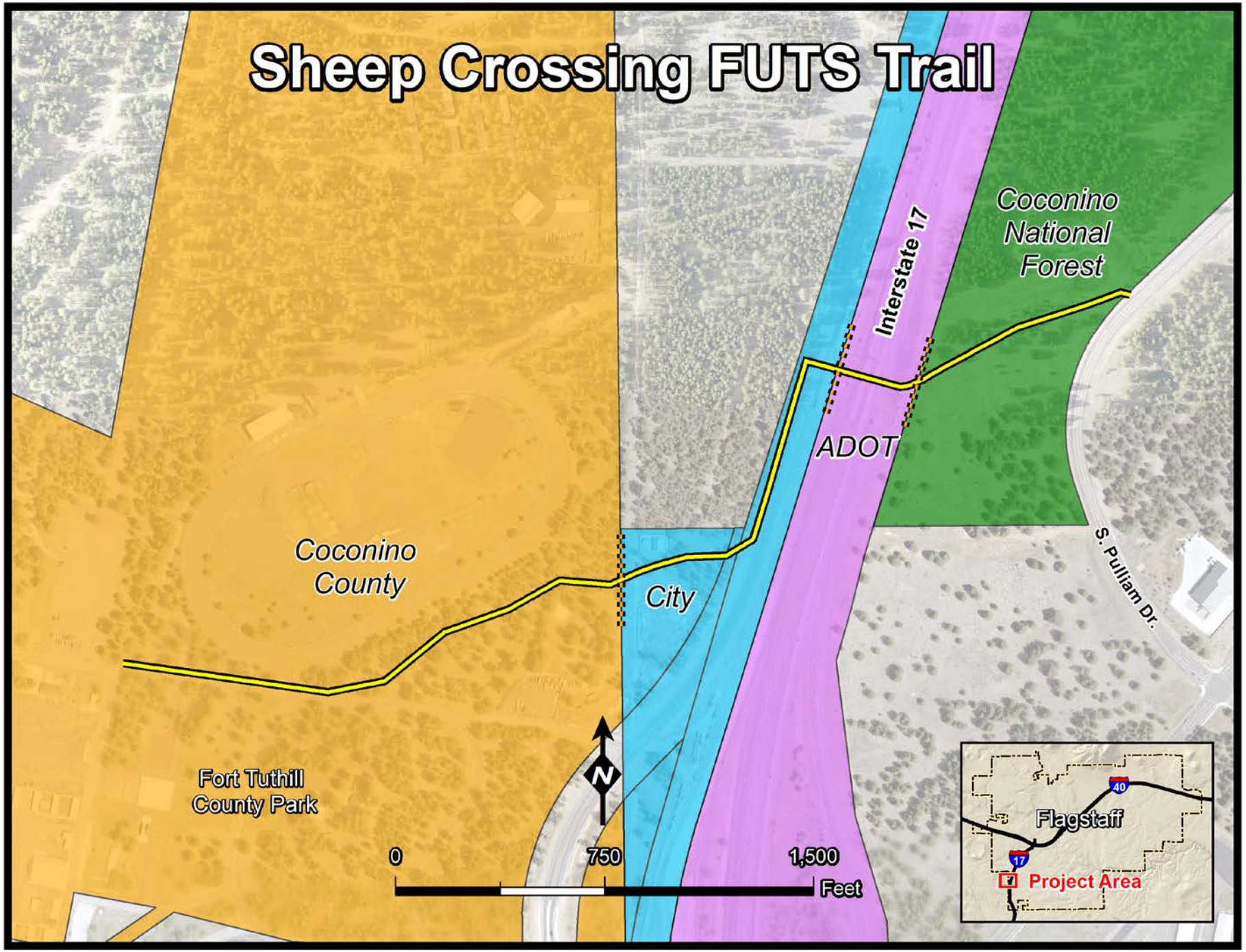
Sheep Crossing FUTS Trail

Project Details

- **Trail Crosses Four Jurisdictions** (requiring four permits)**:**
  - *US Forest Service*
  - *ADOT*
  - *Coconino County*
  - *City of Flagstaff*
- **Dual Concrete Boxes**
  - *10 ft x 10 ft; ≈300 ft in length*
  - *Under Interstate 17*
- **Trail Length:** *0.82 miles*




Sheep Crossing FUTS Trail
ADOT
Coconino National Forest
Interstate 17
S. Pulliam Dr.
City
Coconino County
Fort Tuthill County Park
N
0
750
1,500
Feet
Flagstaff
40
17
Project Area

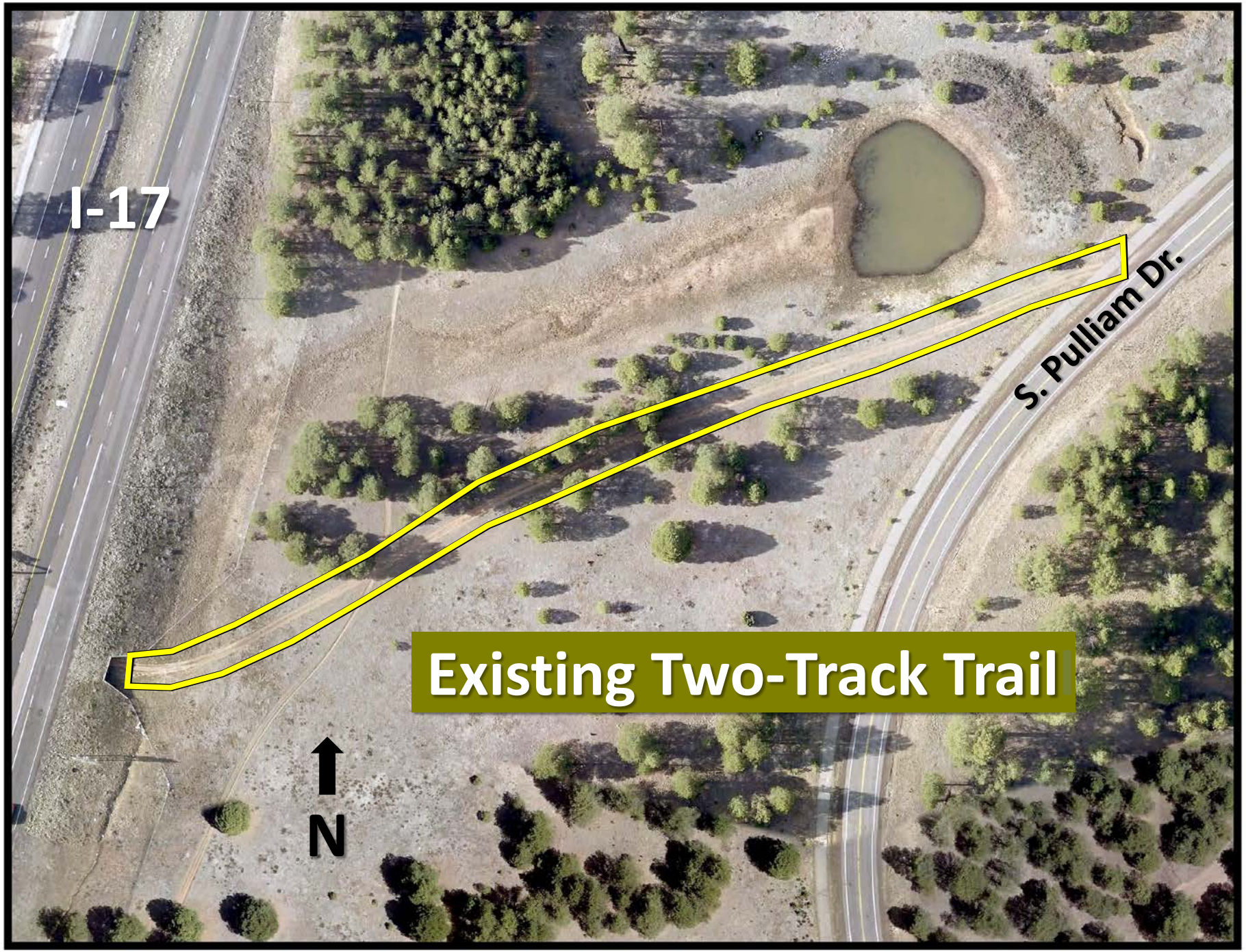

Sheep Crossing FUTS Trail
Coconino National Forest
Interstate 17
ADOT
Coconino County
City
S. Pulliam Dr.
Fort Tuthill County Park
N
0
750
1,500
Feet
Flagstaff
40
17
Project Area

Sheep Crossing FUTS Trail

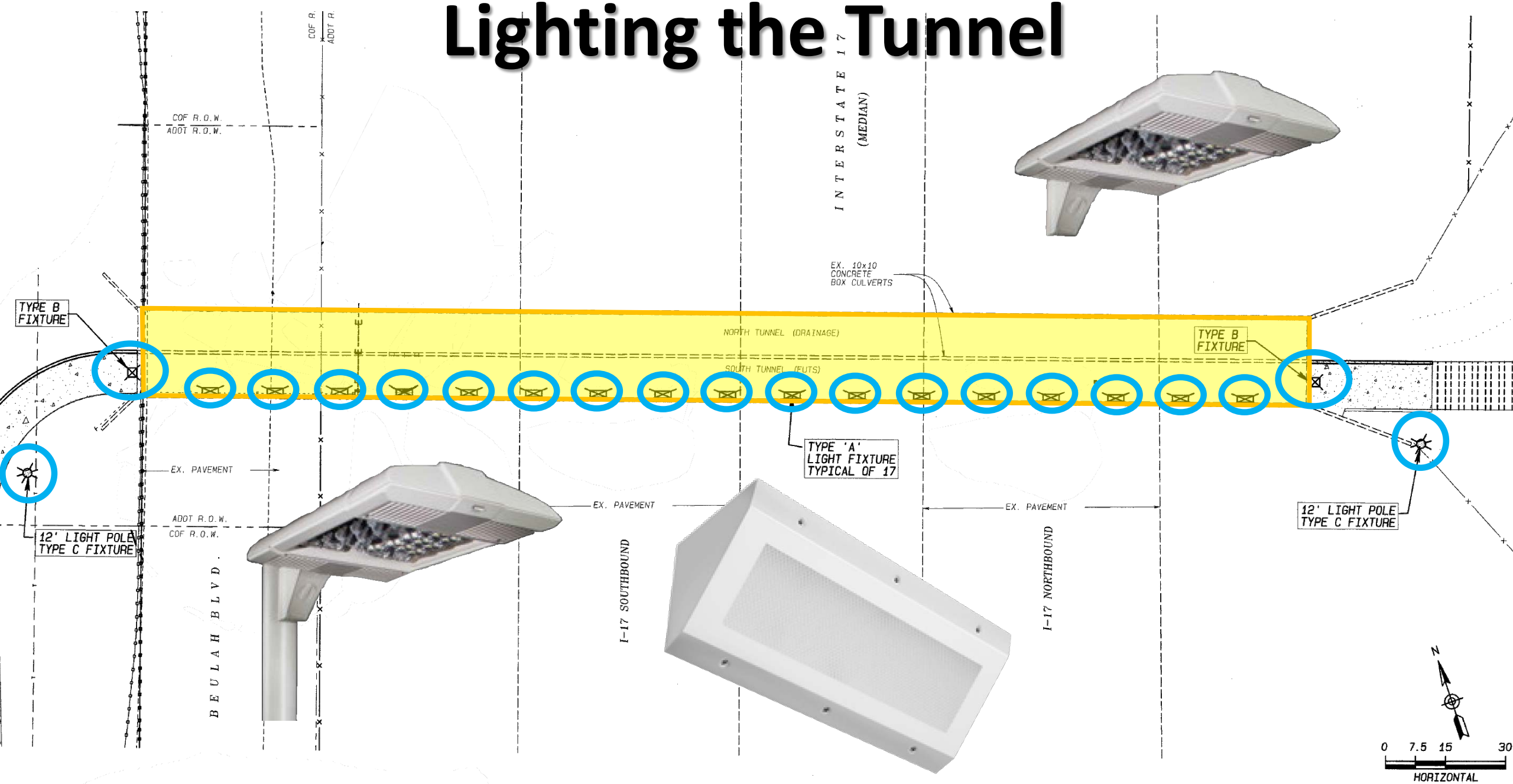
Project Details

- **Construction Duration:** *175 days*
  - *Late April to late October*
- **Segment of the Loop Trail**
  - *44-mile circumnavigating trail*
  - *Passage under Interstate 17*
    - *Users currently cross I-17 on JWP*
- ***Conversion of Two-Track Path***
  - *From Pulliam Dr. to east portal*




I-17
S. Pulliam Dr.
Existing Two-Track Trail
N

Lighting the Tunnel



Sheep Crossing FUTS Trail

Digital Surface Model

Flagstaff Urban Trails System

N

Statistics

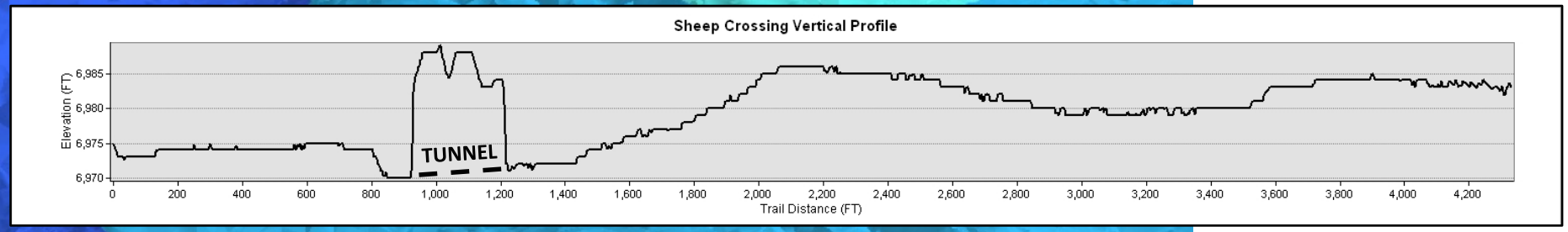
Length *4330 LF*

High Elev. *6989’*

Min. Elev. *6970’*

Vertical *20’*

CAPITAL IMPROVEMENTS
CITY OF FLAGSTAFF



5x Vertical Exaggeration

Sheep Crossing FUTS Trail

SPECIAL THANKS TO…

- **US Forest Service**
- **US Army Corps**
- **ADOT**
- **Coconino County**
- **Adams Trenching**
- **Turner Engineering**
- **EnviroSystems**
- **Franchise Utilities**
- **City Staff**
  - *Transportation*
  - *Stormwater*
  - *Wastewater*
  - *Real Estate*
  - *Legal*
  - *Multi-Modal Planner*
  - *Capital Improvements*
- **City Council & Community**



7. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Todd Hanson, Solid Waste Section Director
Co-Submitter:	Emily Markel
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Approval of Contract: Purchase of two (2) Commercial Front Load Refuse Trucks from Rush Truck Center Arizona through the Houston-Galveston Area Council Cooperative Purchase Agreement, Contract No. RH08-18 and HT06-18.

STAFF RECOMMENDED ACTION:

1. Approve the purchase of two (2) Commercial Front Load Refuse Trucks in the amount of $289,331.70 each for a total purchase amount of $578,663.40 (page 1 of pricing worksheet) from Rush Truck Center Arizona through the Houston-Galveston Area Council Cooperative Purchase Agreement, Contract No. RH-08-18 and HT06-18; and
2. Authorize the City Manager to execute the necessary documents.

Executive Summary:

The Solid Waste Commercial Program uses these trucks daily to collect commercial refuse and recyclable materials. Consistent reliability of these vehicles ensure the Solid Waste program can provide services to the City of Flagstaff facilities, privately owned businesses and maintain our contractual obligations with NAU, FUSD and others. The purchase of these trucks has been approved by the Fleet Management Committee; the trucks that are being replaced meet the City's Fleet Management replacement criteria. These will be replacing vehicles that are 12 years old. Additionally, the manufacturer of these chassis is no longer in operation causing the parts to be extremely difficult and expensive to source effecting the reliability of the trucks. The combined maintenance costs of these two vehicles was $81,374 last year, and a combined lifetime maintenance cost of $785,216. The new trucks will have far superior emission standards and fuel efficiencies making them more environmentally beneficial. The Equipment warranty and services are supported locally in Flagstaff by Rush (Peterbilt) Truck Centers Arizona

Financial Impact:

The Solid Waste Collection Program has $919,930 remaining budget capacity in the Fleet Capital line item for the replacement of collection trucks in FY 2019-20 in accounts 211-06-166-0641-0-4401, 211-06-166-0643-0-4401 and 211-06-166-0644-0-4401. The Section is planning on utilizing $578,663.40 of those funds for the purchase of two (2) vehicles

Policy Impact:

None

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Connection to Current Council Goals:

- Take meaningful climate change action through the use of collection vehicles with lower emission and greater fuel efficiency.
- Actively manage and protect all environmental and natural resources by collecting trash and recyclables, which ensures waste is handled in an environmentally safe manner.

Priority Based Budgeting Council Results and Definitions:

- High Performing Governance by providing high quality internal and external customer service.
- Inclusive & Engaged Community by promoting environmental justice & the fair distribution of environmental benefits. Typically multi-family dwellings do not get the same attention to environmental services that single family homes get. A dependable commercial solid waste collection program ensures trash and recycling services are offered to these citizens.

Has There Been Previous Council Decision on This:

No. These trucks are budgeted FY 2019-2020 and are replacement trucks for Solid Waste Collection Operations. The old trucks will be auctioned off or used for spare parts and the manufacturer of the chassis is no longer in business

Options and Alternatives:

Option 1. Approve cooperative purchase contract (2020-64) with Rush Truck Center Arizona for the purchase of two (2) Commercial Front Load Refuse Trucks.
Option 2. The City Conducts its own competitive bid process.
Option 3. Attempt to acquire used parts and service resources (in the case of American LaFrance equipment which is no longer being manufactured) from independent vendors and internal resources to keep the aging equipment in service.

Background/History:

During the annual budget process for FY19-20, Solid Waste was approved to purchase these collection vehicles. The purchase of these proposed collection vehicles were approved in the Fiscal Year 2019-2020 equipment replacement budget and provide for the sustainable operation of Solid Waste Collection services. All of the trucks being considered for replacement meet the City's Fleet Management criteria for replacement for mileage/hours used and life to date costs. All proposed fleet purchases were approved by the Fleet Management Committee for replacement. Access to parts and diagnostic support has become more challenging for the equipment to be replaced and the Fleet Management Committee used the appropriate criteria such as life to date repair costs to score and approve these replacement requests. Solid Waste vehicles under consideration for fiscal year 2019-2020 were appropriately planned and budgeted.

Key Considerations:

A significant portion of the Solid Waste Section's fleet are Peterbilt chassis'. The City of Flagstaff and Fleet Services have had a long working relationship with Rush (Peterbilt) Truck Centers here in Flagstaff and they will be able to provide warranty and post warranty repairs, if needed. Having additional local resources to support the Section is a direct connection to supporting Council's goal of providing "sustainable and equitable" services to our population. Fleet Services will also be authorized to perform warranty repair on these refuse bodies and be eligible for reimbursement.

Expanded Financial Considerations:

Increased costs of equipment acquisition have made intergovernmental cooperative purchase contracts is a viable alternative to the bid process when the desired equipment can be obtained. Volume pricing, expedited build times and delivery provide value to the purchaser. The City is utilizing a cooperative purchase contract pursuant to Article 20 of the City of Flagstaff Procurement Manual.

Community Benefits and Considerations:

Community benefits include continued consistent quality Commercial trash and recycle collection service at the lowest possible user fees. In addition, having modern, clean and efficient collection equipment with the most advanced emission control and fuel saving technology in our fleet portrays a positive image to the community we serve

Community Involvement:

Solid Waste collection is a significant source of community interest in the importance of having the tools to perform the duties as obligated. Community stakeholders such as NAU, FUSD, and the City's own infrastructure, rely on the Commercial Solid Waste Collection program to deliver safe and timely collection of trash and recyclables in the community.

Attachments:

Truck COOP Pricing
Truck and Body Brochure
Pic of truck to replace
Pic of truck to replace 2
Pic of truck to replace 3
Pic of truck to replace 4
Coop Contract
CoF Truck Picture

HGACBuy	CONTRACT PRICING WORKSHEET For MOTOR VEHICLES Only	Contract No.:	HT06-18	Date Prepared:	1/31/2020

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents **MUST** *be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.*

HGACBuy	CONTRACT PRICING WORKSHEET For Standard Equipment Purchses	Contract No.:	RH08-18	Date Prepared:	1/31/2020

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents **MUST** *be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.*

PLEASE NOTE THIS IS A COMBINED OFFER FROM RUSH TRUCK CENTERS OF TEXAS, L. P.

AND

SCRANTON MFG./NEW WAY TRUCKS

CHASSIS UNIT COST PER HT06-18	$183,136.70
TOTAL CHASSIS COST PER HT06-18	$366,273.40
SCRANTON MFG. UNIT COST PER RH08-18	$106,195.00
TOTAL SCRANTON MFG.COST PER RH08-18	$212,390.00

FLAGSTAFF, CITY OF - TOTAL COST FOR THIS COMBINED OFFER FOR TWO (2) UNITS $578,663.40

HGACBuy THE SMART PURCHASING SOLUTION

SEE THE FOLLOWING PAGES FOR DETAILS

HGACBuy	CONTRACT PRICING WORKSHEET For MOTOR VEHICLES Only	Contract No.:	HT06-18	Date Prepared:	1/31/2020

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.

Buying Agency:	FLAGSTAFF, CITY OF	Contractor:	RUSH TRUCK CENTER, PHOENIX
Contact Person:	TODD HANSON	Prepared By:	GEORGE BEAL
Phone:	(928) 213-2278	Phone:	(602) 352-7601
Fax:	-	Fax:	(602) 352-5729
Email:	thanson@flagstaffaz.gov	Email:	bealg@rushenterprises.com

Product Code:	J3	Description:	PETERBILT "520" CHASSIS FOR NEW WAY MAMMOTH 40FL

A. Product Item Base Unit Price Per Contractor's H-GAC Contract: $ 130,492.00

B. Published Options - Itemize below - Attach additional sheet(s) if necessary - Include Option Code in description if applicable.
(Note: Published Options are options which were submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
		Subtotal From Additional Sheet(s):	$28,992.79
		Subtotal B:	$ 28,992.79

HGACBuy
THE SMART PURCHASING SOLUTION

C. Unpublished Options - Itemize below / attach additional sheet(s) if necessary.
(Note: Unpublished options are items which were not submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
UNDER CAB INSULATION	$ 1,900.00		
		Subtotal C:	$ 1,900.00

Check: Total cost of Unpublished Options (C) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B). **For this transaction the percentage is:** 1%

D. Total Cost Before Any Applicable Trade-In / Other Allowances / Discounts (A+B+C)

Quantity Ordered:	2	X Subtotal of A + B + C:	$ 161,384.79	=	Subtotal D:	$ 322,769.58

E. H-GAC Order Processing Charge (Amount Per Current Policy) Subtotal E: $ 1,000.00

F. Trade-Ins / Other Allowances / Special Discounts / Freight / Installation

Description	Cost	Description	Cost
H-GAC FEE DISCOUNT - VENDOR PAID	$ (1,000.00)	DOCUMENT FEE	$ 500.00
RUSH TRUCK SPECIAL DISCOUNT	$ (1,389.12)	ADDITIONAL TAXES AND TIRE RECYCLING PRG	$ 90.00
AZ STATE SALES TAX (BODY INCLUDED)	$ 44,302.94	Subtotal F:	$ 42,503.82

Delivery Date:	235 DAYS ARO	G. Total Purchase Price (D+E+F):	$ 366,273.40

FLAGSTAFF, CITY OF **January 31, 2020**

PETERBILT COMPUTATIONS:

PETERBILT 520 CHASSIS:	CHASSIS FOR NEW WAY
OPTIONS CALCULATIONS:	
COMPLETE CHASSIS LIST PRICE: [SEE CHASSIS SPEC]	**$228,108.00**
CHASSIS LIST:	**$196,670.00**
CHASSIS OPTIONS LIST:	**$31,438.00**

	LIST			
$	**31,438.00**	**0.6897**	**$**	**21,682.79**

OTHER PUBLISHED OPTIONS:

RTC-0101	**TOW HOOKS**	**$1,250.00**
RTC-0103	**SPECIALITY BODY FRAME PREP**	**$2,000.00**
RTC-0131	**SERVICE PACK [P.D.I]**	**$1,500.00**
RTC-0198	**PRE DELIVERY WORK**	**$1,060.00**
RTC-0203	**DELIVERY FROM BODY COMPANY**	**$1,500.00**

OTHER PUBLISHED OPTIONS TOTAL:	**$7,310.00**
TOTAL OF PUBLISHED OPTIONS FOR PAGE 1:	**$28,992.79**

CHASSIS & BODY OPTIONS

HGACBuy	CONTRACT PRICING WORKSHEET For Standard Equipment Purchases	Contract No.:	RH08-18	Date Prepared:	1/31/2020

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.

Buying Agency:	City of Flagstaff	Contractor:	Scranton Mfg./New Way Trucks
Contact Person:	Todd Hanson	Prepared By:	Dave Short
Phone:		Phone:	712-830-2925
Fax:		Fax:	
Email:		Email:	dshort@newwaytrucks.com

Product Code:	AH05	Description:	New Way: Western Series 40FL: 40-Yd Light Body, High Compaction Front Loader

A. Product Item Base Unit Price Per Contractor's H-GAC Contract: 89,724

B. Published Options - Itemize below - Attach additional sheet if necessary - Include Option Code in description if applicable
(Note: Published Options are options which were submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
FL1 - Service Hoist	2,922	SW14 - Steel Toolbox	603
FL4 - Mid-Body Backup Lights	354		
FL5 - Work Lights	354		
FL7 - Upper Integrated Strobe Lights	420		
FL8 - Lower Integrated Strobe Lights	420		
FL11 - Color Paint - FLNA51645	1,609		
FL18 - Shovel/Broom Racks - 2	394		
SW1 - Hot Shift PTO	2,726		
RP1 - Halogen Backup Lights	725		
		Subtotal From Additional Sheet(s):	
		Subtotal B:	10527

C. Unpublished Options - Itemize below - Attach additional sheet if necessary
(Note: Unpublished options are items which were not submitted and priced in Contractor's bid.)

Description	Cost	Description	Cost
3rd Eye - 5 Camera System w/ DVR	3,350.00	In Tank Oil Heater	1,515.50
Body Floor 3/16" AR235	231.42	High Pressure Filter	1,561.78
Hopper Floor 1/4" AR450	578	8,000lb Arms	494.04
Low Fluid Level Switch	532.79	Aluminum Canopy w/ Air Cylinder Extension	1394.95
	0	Subtotal From Additional Sheet(s):	
	0	Subtotal C:	9658.48

Check: Total cost of Unpublished Options (C) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B). **For this transaction the percentage is:** 10%

D. Total Cost before any other applicable Charges, Trade-Ins, Allowances, Discounts, Etc. (A+B+C)

Quantity Ordered:	1	X Subtotal of A + B + C:	109909.48	=	Subtotal D:	109909.48

E. Trade-Ins / Special Discounts / Other Allowances / Freight / Installation / Miscellaneous Charges

Description	Cost	Description	Cost
Freight	3,200.00	Factory Discount	-6,914.48
		Subtotal E:	-3714.48

Delivery Date:	Sep-20	F. Total Purchase Price (D+E):	106195

HGACBuy THE SMART PURCHASING SOLUTION

Rush Trk Ctrs Of Arizona (A265)
9600 West Roosevelt St
Tolleson, Arizona 85353

City Of Flagstaff
211 W Aspen Ave
Flagstaff, Arizona 86001
United States of America

George Beal
Cell Phone:
Office Phone: (602)272-7611
Email: bealg@rush-enterprises.com

TODD HANSON
Cell Phone: 928-310-6210
Office Phone: 928-213-2115
Email: thanson@flagstaffaz.gov

Vehicle Summary

Unit

Model:	Model 520
Type:	Full Truck
Description 1:	CITY OF FLAGSTAFF
Description 2:	FRONT LOADER,Clone of Chassis 108398

Application

Intended Serv.:	Refuse/Landfill
Commodity:	Refuse, Scrap, Recycling

Body

Type:	Commercial Front Loader/Push-out
Length (ft):	24
Height (ft):	13.5
Max Laden Weight (lbs):	1000

Trailer

No. of Trailer Axles:	0
Type:	
Length (ft):	0
Height (ft):	0
Kingpin Inset (in):	0
Corner Radius (in):	0

Restrictions

Length (ft):	40
Width (in):	102
Height (ft):	13.5

Chassis

Fr Axle Load (lbs):	20000
Rr Axle Load (lbs):	44000
G.C.W. (lbs):	64000
Road Conditions:	
Class A (Highway)	95
Class B (Hwy/Mtn)	5
Class C (Off-Hwy)	0
Class D (Off-Road)	0
Maximum Grade:	6
Wheelbase (in):	210
Overhang (in):	70
Fr Axle to BOC (in):	0.1
Cab to Axle (in):	209.9
Cab to EOF (in):	279.9
Overall Comb. Length (in):	337.6

Special Req.

Approved by: _____ **Date:** _____

Note: All sales are F.O.B. designated plant of manufacture.

Sales Code	Std/ Opt	Description	$ List	Weight
Base Model				
0005201	S	**Model 520** Peterbilt's Model 520 is built to withstand the harsh demands of the refuse industry. The rugged, aluminum cab delivers best-in-class durability for increased uptime and lap seam construction on a zinc-coated steel sub-frame for corrosion resistance. Bulkhead-style doors provide years of watertight performance. This low-cab forward vehicle adds a new dimension of productivity and versatility. An industry-leading, 65-degree cab tilt enhances maintenance and serviceability. Body installation is cost effective and efficient and the center console provides convenient access to body control integration points.	196,670	**16,475**
0091180	S	**Refuse, Scrap, Recycling**	0	**0**
0093040	O	**Refuse/Landfill** Truck which picks up refuse or recycled material from curbside containers in residential areas. Operation typically includes very frequent stops and starts. Unloading can be at transfer station or at landfill (may enter landfill).	0	**0**
0095380	O	**Commercial Front Loader/Push-out** A lift-equipped truck used to load waste from the front into the body on commercial routes. A hydraulic ram pushes the load out of the body.	0	**0**
0098170	S	**United States Registry** Canadian Registry PackageRequires Air Conditioning Excise Tax Canada, Speedometer to be KPH ipo MPH, Daytime Running Lights and Rubber Battery Pad in Bottom of Battery Box.	0	**0**
Configuration				
0200700	S	**Not Applicable** Secondary Manufacturer	0	**0**
Frame & Equipment				
0514160	O	**10-3/4" Steel Rails 306-342"** 10.75x3.5x.375 Dimension, 2,136,000 RBM; Yield Strength: 120,000 psi. Section Modulus: 17.8 cubic inches. Weight: 1.74 lbs/inch pair	175	**196**
0601500	O	**Full Steel Inner Liner**	693	**681**
0611330	O	**Zinc Coated Anti Corrosion Treated Frame Rails** Requires Frame Rail Code..Zinc Phosphate coating will replace the standard frame rail primer and provide added corrosion prevention for your customer's operating in severe conditions or in climates where vehicle rust is common.	393	**4**
0644090	S	**EOF Square without Crossmember** For use with body builder installed crossmember.	0	**0**
0651090	S	**Omit Rear Mudflaps and Hangers**	0	**0**
0712520	O	**Holland (2) TH-10050 Tow Hooks EOF**	68	**40**
0713130	O	**(2) Solid Mount Cable Hooks**	0	**0**

Sales Code	Std/ Opt	Description	$ List	Weight
Front Axle & Equipment				
1011890	S	**PACCAR Steer Axle 20,000 lb, 4 in. Drop** Axle is designed for applications with a gross axle weight rating (GAWR) of 20,000 pounds. Front axle is designed for demanding applications such as construction, heavy haul, refuse, and other vocational uses. Robust forged steel beam construction for long-lasting performance. It utilizes innovative tapered kingpin roller bearings for more efficient operation and improved steering efficiency.	0	0
1114040	O	**Taper Leaf Springs, Shocks 23,000 lb** Standard with Heavy Resistance Shocks.	427	473
1243010	S	**Power Steering Sheppard M100 Dual** For use with 16,000 to 20,000 lb. axle ratings. Glidekote splines on steering shaft extend service life of components.	0	0
1354840	O	**PHP10 Iron PreSet PLUS Hubs** PHP10 iron PreSet PLUS hubs have a fully integrated spindle nut design, an optimized wheel spacer, magnetic fill plug on drive and trailer hubs for inspection of metal particles in lubricant, with a long life oil seal and bearings are pre-adjusted. Use with Front Axle.	-669	84
1380280	O	**Bendix Air Cam Front Drum Brakes 16.5x7** For use with 16,000 lbs to 22,000 lbs steer axles or front drive axles. Includes automatic slack adjusters & outboard mounted brake drums.	811	0
1380490	O	**PACCAR Wide Track IPO Standard** 71in KPI IPO 69in front axle for improved turning radius.	0	0
1391390	O	**Long Stroke Brakes, Front Axle** Long Stroke Brakes have 3" long-stroke chambers can provide improved braking efficiency and increased reserve stroke.	26	0
1391410	O	**Gusseted Cam Brackets, Steer Axle**	28	0
1392540	O	**Bendix Slacks and Chambers on Steer Axle**	17	0
1392970	O	**Heavy Duty Cam Bushings, Steer Axle**	31	0
Rear Axle & Equipment				
1523330	O	**Dana Spicer DSH44 44,000 lb, High Performance 44** Interaxle diff lock air rocker occupies space of one gauge. 12.5 mm housing, 15.75 ring gear. Laser factory axle alignment to improve handling & reduce tire wear. Magnetic rear axle oil drain plug captures & holds any metal fragments in drive axle lube to extend service life. Parking brakes on all drive axles for optimal performance. Cognis EMGARD® FE 75W-90 synthetic axle lube provides over 1% fuel economy improvement. Reduces wear & extends maintenance intervals, resulting in increased uptime. Provides improved fluid flow to protect components in extreme cold conditions & withstand the stress from high temperatures, extending component life.	-508	-311
1616290	O	**PHP10 Aluminum PreSet PLUS Hubs**	-429	0
1632650	S	**Long Stroke Parking Brakes, Drive Axle(s)**	0	0

Sales Code	Std/ Opt	Description	$ List	Weight
1672630	O	**Differential Lock Both Axles** Air Rocker Switch Occupies the Space of One Gauge	2,046	60
1680280	O	**Bendix Smart ATC Traction Control**	228	2
1680440	O	**Refuse Service Brakes, Steer And Drive Axles** Designed for heavy-duty applications for refuse industry, providing long brake life, safety and performance.	0	0
1680450	O	**Rear Brake Camshaft Reinforcement** Rear brake camshaft reinforcement helps guard against wear and corrosion.	63	9
1680490	O	**Gusseted Cam Brackets, Drive Axle(s)**	71	2
1680500	S	**SBM Valve** Full trucks require a spring brake modulation (SBM) system for emergency braking application. This system requires an SBM valve and a relay valve with spring brakes on the rear axles. The SBM valve allows the foot valve to operate the rear axle spring brakes if a failure exists in the rear air system.	0	0
1682710	O	**Anti-Lock Braking System (ABS) 6S6M** ABS-6. Includes air braking system.	414	35
1684200	S	**Synthetic Axle Lubricant All Axles** Peterbilt heavy duty models include Fuel Efficient Cognis EMGARD FE75W-90 which provides customers performance advantages over current synthetic lubricants with reduced gear wear and extended maintenance intervals, resulting in increased uptime. In addition, the lubricant provides improved fluid flow to protect gears in extreme cold conditions and withstand the stress from high temperatures, extending component life.	0	0
1687020	O	**Bendix Air Cam Rear Drum Brakes 16.5x8.6** Bendix Air Cam Rear Drum Brakes to fit all heavy haul, contruction, refuse and highway truck and tractor applications. Includes Automatic Slack Adjusters & Outboard Mounted Brake Drums. Refer to TSB 11-57 for more information.	-867	0
1687400	O	**Bendix Slacks and Chambers on Drive Axle**	58	0
1705570	O	**Ratio 5.57 Rear Axle**	0	0
1824240	O	**Hendrickson Haulmaax HMX460 46,000 lb, 54in Axle** Spacing, 60K Creep Rating	1,011	-64
Engine & Equipment				
2074507	O	**PACCAR PX-9 370@1900 GOV@2100 1250@1400** Performance (2017 Emissions) N21320 N205 120...Standard Maximum Speed Limit N21470 P062 NO....Cruise Control Auto Resume (N21480 P068 NO....Auto Engine Brake in Cruise N21450 P026 NO....Gear Down Protection (P026) N21440 P015 YES...Engine Protection Shutdown (N21350 P001 64....Maximum Accelerator Pedal Ve N21370 P059 64....Maximum Cruise Speed (P059)	2,572	0

Sales Code	Std/ Opt	Description	$ List	Weight
		N21590 P230 YES...Enable Hot Ambient Automatic N21530 P233 YES...Enable Impending Shutdown Wa N21540 P234 30....Timer For Impending Shutdown N21460 P046 1400..Max PTO Speed (P046) N21520 P030 5.....Timer Setting (P030) N21570 P031 NO....Idle Shutdown Manual Overrul N21610 P172 40....Low Ambient Temperature Thre N21630 P171 80....High Ambient Temperature Thr N21510 P520 YES...Enable Idle Shutdown Park Br N21430 N201 0.....Reserve Speed Limit Offset (N21410 N202 0.....Maximum Cycle Distance (N202 N21400 N203 252...Reserve Speed Function Reset N21420 N206 10....Maximum Active Distance (N20 N21340 P112 120...Hard Maximum Speed Limit (P1 N21550 P516 0.....Engine Load Threshold (P516) N21620 P173 60....Intermediate Ambient Tempera N21330 N207 0.....Expiration Distance (N207) N21500 N209 0.....Expiration Distance (N209)		
2091305	O	**Engine Idle Shutdown Timer Enabled**	0	0
2091315	O	**Enable EIST Ambient Temp Overrule**	0	0
2091372		**Eff EIST NA Expiration Miles**	0	0
2091640		**Effective VSL Setting NA**	0	0
2092012	O	**Typical Operating Speed 55 MPH**	0	0
2092032	O	**Powertrain Optimized for Performance** Best analysis for vehicles used in vocational applications or with heavy GCWRs.	0	0
2140200	S	**CARB Engine Idling Compliance** PACCAR PX-7, PX-9 and MX, Cummins X15 and ISX diesel engines will include the required factory installed serialized sticker on the drivers door to identify them as meeting the NOx idling standard.	0	0
2147460	S	**Bed Plate for PX-9, L9N Engines** Designed to increase engine longevity by incorporating a stiffener bracket on the bottom side of the engine, inside the oil pan, for additional reinforcement. Required for all PX-9/L9N refuse applications and recommended for other high load 9-liter applications.	0	0
2513060	S	**PACCAR 160 Amp Alternator, Brushed** PACCAR 160 AMP alternator, brushed producing 160 Amps at road speed and 100 Amps at idle.	0	0
2521090	O	**Immersion Type Block Heater 110-120V** Standard location for 2.1M and 1.9M models is left-hand under cab, Model 520 is in bumper, and for Model 220 it is at the driver step. Plug includes a weather-proof cover that protects the receptacle. This pre-heater keeps the coolant in the engine block from freezing when the engine is not running.	74	2

Sales Code	Std/ Opt	Description	$ List	Weight
2521110	O	**Oil Pan Heater 120V/300W** Oil Pan Heater 120V/300W operates via 120V ShorePower system and keeps oil warm and free flowing for instant lubrication with oil and transmission immersion heaters when the engine is not running. This option utilizes the same receptacle as the immersion pre-heater if specified together.	65	2
2522110	O	**PACCAR 12V Starter, N/A PACCAR MX Engines** PACCAR 12-volt electrical system. With centralized power distribution incorporating plug-in style relays. Circuit protection for serviceability, 12-volt light system w/circuit protection circuits number & color coded.	0	0
2538040	S	**3 PACCAR Premium 12V Dual Purpose Batt 2190 CCA** Threaded stud type terminal. Stranded copper battery cables are double aught (00) or larger to reduce resistance.	0	0
2539010	O	**Battery Warmer, 120V** 120V heating blanket that wraps around the batteries.	39	0
2539740	O	**Kissling Battery Disconnect Switch, 300 amp** Mounted on battery box	222	3
2621000	S	**2-Speed Fan Clutch For Frequent Start/Stops** A 2-speed fan clutch is ideal for vocational applications where the fan clutch engagement time exceeds 10% of the engine run time. When the fan clutch is disengaged, the fan still rotates at 15-25% of the engine RPM. This fan rotation provides crucial airflow to the engine and draws virtually no horsepower.	0	0
2723210	S	**18.7 CFM Air Compressor** N/A X15. Furnished on engine. Teflon lined stainless steel braided compressor discharge line.	0	0
2921110	S	**PACCAR Fuel/Water Separator Standard Service** PACCAR Fuel/Water separator standard service intervals. High efficiency media protects critical engine components.	0	0
2921210	S	**No Fluid Heat Option for Fuel Filter**	0	0
2921310	S	**No Electric Heat Option for Fuel Filter**	0	0
3010400	O	**Engine Protection Shutdown** Includes oil pressure, oil temperature, coolant temperature, and intake manifold temperature.	10	0
3114270	S	**High Efficiency Cooling System** Cooling module is a combination of steel and aluminum components, with aluminum connections to maximize performance and cooling capability. Silicone radiator & heater hoses enhance value, durability, & reliability. Constant tension band clamps reduce leaks. ClimaTech extended life coolant extends maintenance intervals which reduces maintenance costs. Anti-freeze effective to -30 degrees F helps protect the engine. Low coolant level sensor warns of low coolant condition to prevent engine damage. Radiator Size by Model: 579/367 FEPTO 1325 sq in, 567/365/367: 1440 sq in, 365 FEPTO: 1184 sq in, 389/367 HH: 1669 sq in, 348: 1000 sq in, 520: 1242 sq in.	0	0
3120320	O	**Bugscreen-Removable Type Grille Mtd** Additional clips at bottom of bugscreen.	84	0
3120450	S	**Stainless Steel Grille**	0	0

Sales Code	Std/ Opt	Description	$ List	Weight
3261980	S	**Heavy Duty Air Cleaner** Molded rubber air intake connections with lined stainless steel clamps seal to prevent contaminants in air intake.	0	0
3281750	O	**Pre-Cleaner ECG**	141	13
3365300	S	**Exhaust Vertical LH** DPF/SCR LH Back of Cab Vertical (2017).	0	0
3381860	O	**Exhaust 90 Degree Diffuser**	108	0
Transmission & Equipment				
4052420	O	**Allison 4500 RDS-P Transmission, Gen 5** Rugged Duty Series. Includes Rear Transmission Support except on MX engines, Mobil Delvac Transmission Fluid, and Water-Oil Heat Exchange. Also includes features that monitor the transmission fluid, filter and clutch condition. Will display percent life remaining for the transmission fluid, filter and clutches on the shift selector. This information may be displayed using the Mode and Up and Down buttons. A wrench icon will also be included to indicate when the transmission fluid, filter or clutches need servicing. Suited for vehicles operating on/off highway and/or requiring PTO operation. Forward ratios: 1st-4.70, 2nd-2.21, 3rd-1.53, 4th-1.00, 5th-0.76, 6th-0.67. Reverse ratios: DR-(5.55).	17,799	390
4211000	S	**SPL170 HD-XL Driveline, 1 Midship Bearing**	0	0
4216330	S	**SPL170 XL Driveline Interaxle** Dana Spicer Life Series heavy-duty drive shafts are built for heavy loads over the long haul. For tandem rear axles.	0	0
4250470	U	**ALLISON 5TH GEN RDS, PKG 225**	0	0
4252840	S	**Allison FuelSense 2.0 Plus** Features include: EcoCal shift technology keeps the engine speed at the most efficient level, DynActive Shifting system incorporates a learning algorithm that selects variable shift points to find the ideal balance of fuel economy and performance, based upon the vehicle specifications and environmental parameters. This is valuable for applications with heavy start-stop needs like refuse, city delivery, and construction and Neutral at Stop reduces or eliminates the load on the engine when vehicle is stopped, lowering fuel consumption and emissions.	0	0
4252940	S	**Allison Neutral At Stop** Neutral at Stop features and benefits: Reduces or eliminates the load on the engine when vehicle is stopped, can help lower fuel consumption and C02 emissions, and is included in FuelSense 2.0 Plus and Max packages only.	0	0
4256020	S	**Console Mounted Push Button Shifter** Allison transmissions	0	0
4256740	O	**Allison 6-Speed Configuration, Wide Ratio Gears** Allison 4500 transmission only	0	0

Sales Code	Std/ Opt	Description	$ List	Weight
4256870	O	**Allison Output Function S Neutral Indicator** For PTO. Required on Refuse Packer Applications. With this configuration NEUTRAL only, PTO engagement is permitted only when the transmission is in Neutral. Once the transmission is in Neutral, the PTO is automatically engaged and fast idle is initiated when the PTO switch is switched On. Also, with this configuration Pack-on-the-fly, the PTO is automatically engaged and fast idle is initiated when the PTO switch is On concurrently with shifting of the transmission to Neutral.	0	0
Air & Trailer Equipment				
4510330	S	**Bendix AD-IS EP Air Dryer, Heater** Bendix Air Treatment Oil Coalescing filter, extended purge. Collects and removes solid, liquid and vapor contaminants before they enter the air brake system.	0	0
4540420	S	**Nylon Chassis Hose**	0	0
4542320	O	**Central Location For Air Tank Drain Valves** Wire braid hose to air tanks. (Not available with optional drain valves.)	337	4
4543320	S	**Steel Painted Air Tanks** All air tanks are steel with painted finish except when Code 4543330 Polish Aluminum Air Tanks is also selected (then exposed air tanks outside the frame rails will be polished aluminum). Peterbilt will determine the optimal size and location of required air tanks. Narratives requesting a specific air tank size or location will not be accepted for factory installation. See ECAT to determine number or location of air tanks installed.	0	0
4543530	O	**Clear Outside Frame of All Air System Components** LH BOC	678	0
4543540	O	**Clear Outside Frame of All Air System Components** RH BOC	678	0
Tires & Wheels				
5064010	S	**FF: BR 20ply 315/80R22.5 M870** Diameter= 42.8 inches; SLR= 19.9 inches	0	0
5169440	O	**RR: BR 16ply 11R22.5 M853** Diameter= 41.8 inches; SLR= 19.4 inches	928	192
5190008	S	**Code-rear Tire Qty 08**	0	0
5210550	S	**FF: Accur Stl Armor 29039PK 22.5X9.00** PHP10-5 Hand Holes	0	0
5310600	S	**RR: Accur Stl Armor 50291PK 22.5X8.25** Heavy Duty, Two Hand Holes	0	0
5390008	S	**Code-rear Rim Qty 08**	0	0
Fuel Tanks				
5536100	O	**23" Aluminum 70 Gallon Fuel Tank LH BOC** Paddle handle filler cap with threadless filler neck. Top draw fuel plumbing reduces chance of introducing air into the fuel system during	21	9

Sales Code	Std/ Opt	Description	$ List	Weight
		low fuel level conditions due to the central placement of fuel pickup tube. Wire braid fuel lines increase durability & reduce potential for leaks.		
5604070	O	**Location LH BOC 70 Gallon**	0	0
5650490	S	**Fuel Cooler** Required with single fuel tank	0	0
5652990	S	**Standard DEF to Fuel Ratio 2:1 Or Greater**	0	0
5655069	S	**DEF Tank 520**	0	0
Battery Box & Bumper				
6011070	O	**Aluminum Battery Box LH Frame Mtd Back Of Fender** 8" Below top of frame	559	0
6121700	S	**Steel Bumper Channel Painted** Includes two front tow eyes with pins	0	0
Cab & Equipment				
6501080	S	**53" LCF ProBilt Cab LH Drive** Includes steel frames with alum and fiberglass panels, all alum doors, dual door stops, door locks, tinted safety glass thru-out, cab and door mounted entry grab handles, 65 degree hydraulic tilt, stainless steel grille, dual rear cab fenders, service module BOC (cab tilt pump, oil fill and dipstick, coolant fill and check, fluid fill and dipstick for auto trans), door mounted armrests, power windows, doghousefull insulation, rubber floor mats, ergonomic center control console, removable instrument panel, Driver Information Display, LED backlit gauges, adjustable side flip-down interior sunvisor, 16" steering wheel with integrated horn button, tilt/telescopic adjustable column, over-door storage, driver and passenger side cup holders, USB charging port and 12VDC charging outlet, header includes HVAC controls and 12V power connection behind header cover, rear cab corner windows, 18" bolt-on step each side, self-canceling turn signals and front directional and side mounted turn signals.	0	0
6540020	O	**Key All Units Alike** Please add your 3 digit key code number in the key code field.	245	0
6541275		**KEY G275**	0	0
6800500	S	**4.5" Rubber Flares On Cab** And wheel well fenders	0	0
6911720	S	**Peterbilt Driver Seat**	0	0
6921720	S	**Peterbilt Passenger Seat**	0	0
6931120	O	**Seat Belt Color Orange IPO Standard Black**	10	0
6939400	O	**Air Ride Driver**	310	43
6939420	O	**High Back Driver**	33	0

Sales Code	Std/ Opt	Description	$ List	Weight
6939470	S	**Vinyl Driver**	0	0
6939510	S	**Non-Air Ride Passenger**	0	0
6939540	S	**Low Back Passenger**	0	0
6939570	S	**Vinyl Passenger**	0	0
7000000	S	**Gray Interior Color** Includes ABS gray headliner & rear cab panel, gray vinyl engine tunnel cover. For LH, RH, and dual steer dual seated power windows are standard on both doors. For dual steer RH stand-up the LH window is power and the RH window is a manual sliding window.	0	0
7001520	S	**Adjustable Steering Column - Tilt/Telescope**	0	0
7001620	S	**Steering Wheel With Peterbilt Logo** Steering Wheel with embossed Peterbilt logo over horn button.	0	0
7040020	O	**Diamond Plate Floor Covering on Driver side floor** in place of Rubber Mat. In Dual Steer application RH Diamond Plate covering is standard. Single drive applications the Diamond Plate is optional.	46	6
7220130	S	**Rear Window Back of Cab Standard Tint** 18.5in X 54in	0	0
7230350	S	**2-Piece Flat Windshield**	0	0
7322010	S	**Combo Fresh Air Heater/Air Conditioner** With radiator mounted condenser, dedicated side window defrosters, Bi-Level Heater/Defroster Controls, 54,500 BTU/HR, and silicone heater hoses.	0	0
7560100	O	**Mirrors SSTL Each Side Heated and Motorized** with Switch on Door.	-29	-7
7561450	O	**(4) Convex 8 Inch SSTL Mirrors; (2) Center** These optional convex mirrors provide enhanced rearward visibility by allowing the driver to see the operation of front-end loader arms or other obstacles that may interfere with operation in refuse services. The mirrors have an off-center mounting that maximizes adjustability for field of view. Dual door stops are included with these mirrors for added protection to the mirrors during cab entry and exit. These stainless steal mirrors, includes 4 convexed 8" and 2 center, are mounted center over mirror bracket. If rear view mirrors are heated, the convex mirrors will be heated. Includes dual door stops.	117	4
7610470	O	**(1) Air Horn 24.5" Chrome - Round w/Horn Shield**	66	0
7725715	O	**ConcertClass Without CD, Includes BT Phone and** Audio, AM/FM, WB, USB and MP3.	388	10
7725740	O	**Midlevel Speaker Package For Cab** (4) Speakers	134	6

Sales Code	Std/ Opt	Description	$ List	Weight
7728020	O	**Bluetooth Located On Driver Side**	0	0
7788055	S	**SmartLINQ Remote Diagnostics** SmartLINQ is Peterbilt's proprietary remote diagnostics service which monitors the engine and aftertreatment for diagnostic codes providing real-time code analysis maximizing vehicle uptime and strengthening the fleets partnership with their dealer. SmartLINQ provides fault coverage for over 800 codes, a customizable email notification for 116 codes plus a web portal to manage your entire fleet included at no additional charge. SmartLINQ is compatible with any telematics system and doesn't require a specific fleet management system. For those whose customers utilize PeopleNet, the pre-wire with remote diagnostics will provide a more integrated solution utilizing the existing SmartLINQ modem. For those whose customers utilize other fleet services products, the existing pre-wire option for the other fleet service devices will continue to be available. SmartLINQ is standard with MX-13 engines and available on Models 579, 567, 389, 367 and 365.	0	0
7851330	O	**Cab Tilt Pump Air Assist**	509	0
7851580	O	**Front Cab Guard, Painted Black**	409	15
7851870	O	**Rain Gutters Over Driver and Passenger Doors**	75	8
7852150	S	**Peterbilt Pantograph Windshield Wipers** With intermittent feature.	0	0
7900970	S	**Backup Alarm Wiring To EOF**	0	0
8011400	S	**Main Transmission Oil Temperature Gauge** Located in Driver Information Display	0	0
8021315	S	**Air Restriction Indicator** Mounted on exhaust stanchion	0	0
8031120	O	**Warning Light Battery Disconnect, Switch Engaged** Marker light external mounted	15	0
8070010	O	**Up To (4) Additional Electric Switches** Up to (4) additional electric switches without wiring. Switch will short pin5 to pin 4 when off, and pin 5 to 6 when on. Backlighting provided by Lin jumper.	37	1
8110120	O	**Headlights Single Rectangular LED**	811	0
8120570	S	**(5) LED Clearance With (2) LED Marker Lights** Includes (5) lights mounted on roof of cab and (1) cab side marker light mounted in front of each cab door	0	0
8133900	S	**None Furnished Stop/Tail/Backup Lights** Available with full truck only, not available with tractor	0	0
8133960	O	**Daytime Running Lights** The brake interlock turns the daytime running lights off when the parking brakes are engaged. This is required on all Canadian vehicles.	60	0

Paint

Sales Code	Std/ Opt	Description	$ List	Weight
8500710	S	**Standard Paint Color Selection**	-200	0
8530770	O	**(1) Color Axalta Two Stage - Cab/Hood** Base Coat/Clear Coat N85020 A - L0006EY WHITE N85700 BUMPER L0001EA BLACK N85500 CAB ROOF L0006EY WHITE N85200 FRAME L0001EA BLACK	0	0
Shipping Destination				
8999989	O	**Shipping Destination To Dealership**	0	0
Options Not Subject To Discount				
9400090	S	**Peterbilt Class 8 Standard Coverage** 1 year/100,000 Miles (160,000 km)	0	0
9400094	S	**PACCAR PX-9 Standard Coverage** 2 yrs/250,000 mi (402,336 km)/6,250 hrs	0	0
Miscellaneous				
9409800	S	**2017 EPA Emissions Engine** Warranty Only	0	0
9409869	O	**Presentation Created With SmartSpec**	0	0

Promotions

Order Comments

Total List Price (W/O Freight & Warranty & Surcharges)	~~$228,108~~
Marketing and Service Support Fee	$775
Prepaid Freight	$3,225
Total Surcharge/Options Not Subject To Discount	$0
Total Weight	18,427

Prices and Specifications Subject to Change Without Notice.

Unpublished options may require review/approval.
Dimensional and performance data for unpublished options may vary from that displayed in CRM.

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Phoenix, AZ 85034
www.shortequipment.com
Direct: 480-404-8542
Office: 480-999-5455
Prepared by: Zac Short

QUOTE

DATE	1/27/20
QUOTE #	2005
VALID FOR	60 Days
TERMS	Net/30

CUSTOMER

City of Flagstaff - Todd Hanson
via Rush Truck Center
George Beal, Byron Haught
Tolleson, AZ

DESCRIPTION	Quantity	AMOUNT
New Way Mammoth LW 40FL	1	106,195.00
Light Weight Service Hoist		
Hot Shift PTO Mount Vane Pump		
LED High Instensity Backup Lights (2 mid-body, 2 tailgate)		
LED High Instensity Work Lights (2 hopper, 1 canopy)		
Intergrated Strobe System (upper and lower tailgate)		
3rd Eye 5 Camera System (Tailgate, Hopper, In-cab Forward, Alleycams LH and RH)		
Color Paint (Flag Blue)		
Steel Upgrades - Body Floor 3/16" AR235, Hopper Floor 1/4" AR450		
High Pressure Filter		
8,000lb Arm Lift Rating		
Shovel/Broom Racks		
Steel Tool Box 18x18x24		
Single Joystick Controls		
In-Tank Hydraulic Oil Heater		
Low Fluid Level Switch and Indicator In-Cab		
Air-Actuated Canopy Extension		
FOB Tolleson AZ - 135 Days AROC		

Subtotal	106,195.00
Taxable	-
Tax rate	
Tax due	-
Other	-
TOTAL	**$ 106,195.00**

TERMS AND CONDITIONS

1. Does not include taxes or fees unless otherwise noted
2. Valid for 30 days unless otherwise noted
3. Please return after signing or submit PO to confirm

Customer Acceptance (sign below):

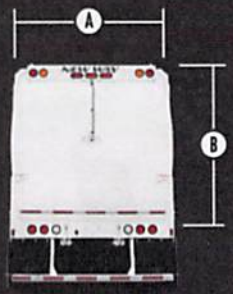
x _____ **Date:**_____

Print Name:

If you have any questions about this price quote, please contact
Zac Short - zac@shortequipment.com

Thank You For Your Business!

MAMMOTH™





GENERAL SPECIFICATIONS

Model	34 F	40 F	43 F
Body Capacity	22 yd³	28 yd³	31 yd³
Hopper Capacity	12 yd³	12 yd³	12 yd³
Body Width (A)	101.5"	101.5"	101.5"
Body Height (B)	119.5"	119.5"	119.5"
Body Length (C)	264"	300"	315"
Body Length Arms Down	381"	417"	432"
Body Height Arms Down	110.75"	110.75"	110.75"
Body Length Overall	421"	457"	472"
*Approx. Body Weight	16,500 lbs	17,200 lbs	17,400 lbs

MINIMUM CHASSIS SPECIFICATIONS

**Wheelbase	180-182"	208-210"	208-210"
Front Axle	20,000 lbs	20,000 lbs	20,000 lbs
Rear Axle	36,000 lbs	44,000 lbs	44,000 lbs
Total GVWR	56,000 lbs	64,000 lbs	64,000 lbs

HYDRAULIC CYLINDER SPECIFICATIONS

Pack Cylinders 3-Stage (2)	6.5"	6.5"	6.5"
Arm Cylinder (2)	4.5"	4.5"	4.5"
Fork Cylinder (2)	3.5"	3.5"	3.5"
Hopper Cover Cylinder	2.5"	2.5"	2.5"
Tailgate Cylinder	3"	3"	3"

BODY CONSTRUCTION

Body Sides	1/8"	AR450
Body Roof	10 gauge	80K
Body Floor	3/16"	AR235
Hopper Sides	3/16"	AR450
Hopper Floor	1/4"	AR450
Packer Plate	3/16"	AR450
Tailgate	1/8"	AR450
Forks	1 1/4"	100K
Arm Lift Capacity	8,000 lbs	

HYDRAULIC SYSTEMS

Operating Press. (6.5")	2,450 psi
Pump Flow	55 gpm
Oil Reservoir	70 gal
Packing Force	132,732 lbs
Packer Cycle Time	25 secs.
Loader Arm Cycle	13 secs.
Hydraulic Hoses	4-to-1 burst
Return Filter	10 micron

STANDARD EQUIPMENT

- Air joystick control
- Denison vane pump
- Auto-lock tailgate
- All LED lights
- Curved shell body
- Sliding hopper door
- Body side ladder
- Dual camera system
- Automatic packer
- Imron elite productive paint
- Mounting
- Pack-on-the-Go
- Air over hydraulic
- Hopper side access door
- Full ejection body
- Rear body sump with curved floor (145 gal)
- Dual sump clean out doors

OPTIONAL EQUIPMENT

- Special lighting
- Outside controls
- 10,000 lb arm capacity
- Container disinfectant sprayer
- Pressure line filter
- Service hoist
- Electric valve
- West Coast/Lightweight model also available
- External pack cylinder hoses
- Under body valve mount

* Approximate Body Weight empty and exclusive of options. All models and specifications subject to change.

** Wheelbase will vary depending on chassis and additional axles.

AUTHORIZED NEW WAY DEALER

AVAILABLE ON ALL MODELS

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MAMMOTH™
SERIES



STOMPING THE INDUSTRY

Designed with one-piece body side construction, a curved shell, for superior strength and streamlined appearance, the New Way® Mammoth™ Front Loader comes equipped with the strongest steel specs in the industry. In addition, heavy-duty, AR450 arm skins w/ 100ksi arm bars constructed arms, torque tube assembly and Pack-on-the-Go features maximize route and labor efficiency.

MODEL 520

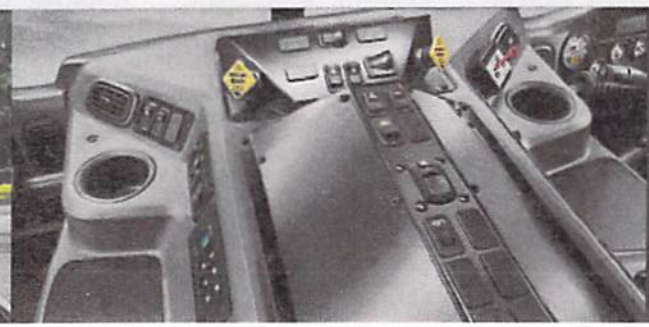
THE UNDISPUTED REFUSE CHAMPION.

Available in four driving configurations, the Model 520 is the clear choice for automated front loader, side loader and rear loader operations. The rugged all-aluminum cab provides exceptional durability and low maintenance. Powertrain options include the PACCAR MX-11, PX-9 and several natural gas options ideally configured for your specific application. An RP170 connection as well as a joystick mounting pad come standard for seamless body integration. The driving position and ergonomic dash and center console provide an optimum work environment with commanding views of the road and easy access to instruments and controls. Whether for commercial or residential refuse applications, the Model 520 is proven like no other low cab forward in the market today.

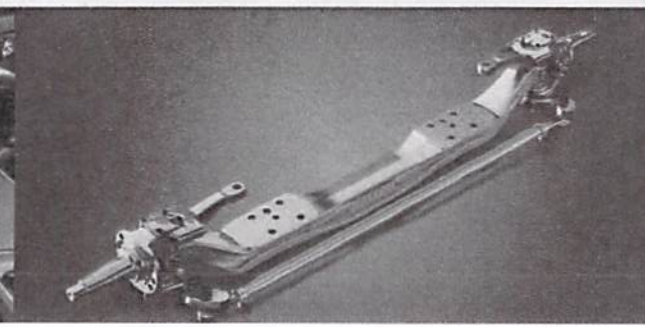
The center console features angled control panels that allow full visibility and easy access to controls from either side of the vehicle.



The Model 520s center console provides excellent connectivity for body controls and allows easy access to service points for maximum uptime.



The Model 520 comes standard with the PACCAR 20K steer axle. Designed for demanding vocational applications, the PACCAR steer axle is lightweight and durable and provides excellent maneuverability.



The Model 520 standard halogen headlamps deliver class-leading forward illumination, while pantograph wipers provide expansive windshield coverage for outstanding visibility.

The Model 520 is designed for maximum versatility and is available in left-hand drive, right-hand drive, dual-seated and right-hand stand-up configurations.

The interior features an ergonomic dash design with LED-backlit gauges, a driver information display and easy-to-reach rocker switches.










G8 95
DANGER
BACKING
RIGHT TURN




WARNING

COOPERATIVE PURCHASE CONTRACT
Contract No. 2020-64

This Cooperative Purchase Contract is made and entered into this _____ day of _____, 20_____by and between the City of Flagstaff, Arizona, a political subdivision of the State of Arizona ("City") and Rush Truck Centers of Texas, L.P., a State of Texas corporation ("Contractor").

necessary

RECITALS:

A. Houston-Galveston Area Council of Governments (HGACBuy) has Contract #RH08-18 to supply materials and/or services ("Agency Contract");

B. Contractor is an authorized distributor of the HGACBuy materials and/or services, which was awarded through a competitive and open procurement process; 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 City the materials and or services, as specified in the Purchase Order(s) submitted by the City in accordance with the Agency Contract. General description of materials and or services being purchased:

TWO (2) FRONT LOADER SOLID WASTE TRUCKS

2. Specific Requirements of City: Contractor shall comply with all specific purchase and delivery requirements and/or options of City, as specified in the Purchase Order(s) submitted to Contractor or *Exhibit A* attached hereto and incorporated by reference.

3. Payment: Payment to the Contractor for the materials and or services provided for Five hundred and seventy-six thousand, six hundred and sixty-three dollars and forty cents **($578,663.40) including other fees and taxes**; made in accordance with the price list and terms set forth in the Agency Contract.

4. Terms and Conditions of Agency Contract Apply: All provisions of the Agency Contract documents, including any amendments, are incorporated in and shall apply to this Contract as though fully set forth herein. The Agency Contract documents are set forth in *Exhibit B* attached hereto and incorporated by reference. Contractor is responsible for promptly notifying City in writing of any changes to the Agency Contract, including, specifically changes in price for the materials.
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.

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.

Rush Truck Centers of Texas, L.P.:

By:_____

Title:_____

CITY OF FLAGSTAFF

By:_____

Title:_____

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney's Office

EXHIBIT A

QUOTE (attached)

EXHIBIT B
AGENCY CONTRACT

#RH08-18 with the Houston-Galveston Area Council Government (attached)


MAMMOTH

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Jeanie Gallagher, Human Resources Director

Co-Submitter: Greg Clifton

Date: 03/13/2020

Meeting Date: 03/17/2020

TITLE:

Consideration and Adoption of Ordinance No. 2020-06: An ordinance of the City Council of the City of Flagstaff amending the Employee Handbook of Regulations relating to Compensation, Promotion and Vacation Leave

STAFF RECOMMENDED ACTION:

1) Read Ordinance No. 2020-06 by title only for the final time
2) City Clerk reads Ordinance No. 2020-06 by title only (if approved above)
3) Adopt Ordinance No. 2020-06

Executive Summary:

The Human Resources Division and the City Manager have worked with the City Attorney's Office, the Employee Advisory Committee, and Leadership to create the recommended changes to the Appropriate Salary, Promotion and Vacation Leave policies.

Currently, the City's policies provide for a difference in the way salary offers may be calculated for newly hired or rehired employees from those employees whose positions are reclassified (both during a formal division reorganization as well as less formal redistribution of duties within a work group) or an employee that is promoted to a higher pay range position (both through a competitive external recruitment as well as internal recruitment).

In addition, a practice not specified in policy has permitted newly hired, rehired or promoted employees to negotiate their level of Vacation Leave accrual based on overall years of experience. This practice has been applied inconsistently.

Appropriate Salary 1-20-020

Newly hired or rehired employees are eligible for a salary offer between the minimum of the pay range and twelve (12%) above the minimum based on economic conditions, unusual employment conditions, or where they possess exceptional qualifications and a higher hiring rate is in the City's best interest to attract exceptional talent. The City Manager may authorize hiring at a rate twelve percent above the minimum based on such factors and on a recommendation by the Human Resources Director and appropriate Division Director.

Reclassified employees are either placed at the new range minimum or receive a 6% increase whichever is higher. Consideration is not routinely given for experience or other exceptional qualifications.

Promoted employees are placed in the new range and given a minimum of a 6% increase. While there are provisions for the Director of Human Resources in conjunction with the City Manager to approve exceptions for higher pay for promotions, this further contributes to creating inconsistencies as these only occur upon support from an internal equity analysis or upon request.

The consequences for these differing policies are that current employees may be disenfranchised. In many instances, newly hired employees are making a higher rate of pay than incumbents with similar qualifications or even greater qualifications who entered that same position with a promotion or reclassification.

Employee dissatisfaction continues to be evidenced with respect to this policy by the Employee Advisory Committee as well as Exit Interview data. The ratings of "Poor" increased for every Compensation question on the Exit Questionnaire year over year (calendar 2018 and 2019) for every category except Salary Upon Hire. The question regarding Promotional Increases has a 61% Poor rating and the question regarding Movement Through the Pay Plan a 58% Poor rating.

Staff's recommendation is to amend this policy to treat all newly hired, rehired, promoted and reclassified employees the same – eligible for a salary offer between the minimum of the pay range and twelve (12%) above the minimum based on economic conditions, unusual employment conditions, or where they possess exceptional qualifications and a higher hiring rate is in the City's best interest to attract exceptional talent. The City Manager may authorize hiring at a rate twelve percent above the minimum based on such factors and on a recommendation by the Human Resources Director and appropriate Division Director. This policy change would also apply to Section 1-40-010 related to *Promotion*. This amendment shall be retroactive to January 1, 2020.

Vacation Leave 10-50-020
The City Manager or designee may authorize an employee, upon hire, to accrue vacation at any rate with the vacation accrual table based on years of experience. Where the inability to compete on salary has occurred, to attract new hires and to incentivize internal candidates for promotion a practice emerged to permit placement on the Vacation Leave accrual table based on overall years of eligible experience including those obtained prior to employment with the City.

While in many instances this has been effective for recruitment and retention, due to the changes in interpretation of "upon hire" and "years of experience" over the forty years the policy has been in existence, the practice has been applied inconsistently creating dissatisfaction for those that were not aware they might have negotiated.

Staff recommendation is to amend this policy by adding the following language: Upon hire, rehire, promotion or reclassification an eligible employee's relevant experience shall be evaluated, and the employee placed in the applicable vacation accrual level based on that experience. This amendment shall be retroactive to January 1, 2020.

Financial Impact:

It is not possible to predict an exact financial impact.

Policy Impact:

These policy recommendations will not impact any other City policies.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

The policy recommendation may impact the attraction and retention of City personnel related to the Council Goal - Personnel.

Has There Been Previous Council Decision on This:

No.

Attachments: Ord. 2020-06

ORDINANCE NO. 2020-06

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, *PERSONNEL SYSTEM* BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS RELATING TO COMPENSATION, PROMOTION AND VACATION LEAVE; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City Council has authority to approve this Addendum 23 of the Flagstaff Employee Handbook of Regulations pursuant to the Flagstaff City Charter, Article IV.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General

The Flagstaff City Code, Chapter 1-14 *Personnel System* is amended by adopting amendments (Addendum 23) to the Employee Handbook of Regulations ("Handbook") as follows:

The Employee Handbook of Regulations, Section 1-20-020, *Appropriate Salary,* is hereby amended by as shown below (additions are underlined and in caps, deletions are stricken):

1-20-020 *Appropriate Salary,* Subsection B is hereby amended as shown below:

B. A newly hired, promoted, ~~or~~ rehired, OR RECLASSIFIED employee may be compensated between the minimum and twelve (12) percent above the minimum (i.e. minimum of the salary range x 1.12) of the salary range of the job class based on economic conditions, unusual employment conditions, or exceptional qualifications when a higher hiring rate may be in the City's best interest. The City Manager may authorize hiring above twelve percent above the minimum based on such factors and on a recommendation by the Human Resources Director and appropriate Division Director. IN NO CASE SHOULD THE SALARY BE ABOVE THE MAXIMUM OF THE ASSIGNED RANGE.

1-20-020 *Appropriate Salary,* Subsection F is hereby amended as shown below:

F. Upward Salary Adjustments. When an employee's position is reclassified to a higher level, the following rules shall determine the affected employee's salary:

1. In all cases, every affected employee shall be assigned to the new salary range.

2. In no case will an employee receive a decrease as a result of a salary adjustment to a higher salary range.

~~3. Employees reclassified to a higher pay range that overlaps with their present~~

~~range shall be placed in the new range at a salary resulting in a minimum increase of six (6) percent in pay unless the minimum increase would exceed the range maximum. If the six (6) percent increase results in a salary that is greater than the maximum of the range, the employee's increase will be limited to the maximum of the new range.~~

3. Employees shall retain their classification dates for purposes of performance evaluations and merit increases.

~~5.a. If a position is reclassified from classified to exempt, the employee will receive a minimum of a six (6) percent increase unless the minimum increase would exceed the range maximum. If the six (6) percent increase results in a salary that is greater than the maximum of the range, the employee's increase will be limited to the maximum of the new range.~~

4. <u>WHEN AN EMPLOYEE'S CLASSIFICATION CHANGES FROM CLASSIFIED TO EXEMPT</u> the employee will be eligible for ~~any performance increase exempt positions are eligible to receive above any increase received~~ <u>AN INCREASE</u> per ~~5a~~ <u>B</u> above.

1-20-020 *Appropriate Salary,* Subsection H is hereby amended as shown below:

H. <u>Promotion.</u> Promotions shall be made as provided in Article 1-40, Section 1-40-010. Upon promotion to another classification, an employee shall receive a rate of pay based on the following criteria:

~~1. The new salary rate will be in the new range that results in a minimum of a six (6) percent increase, with flexibility for a higher amount with prior approval of the Human Resources Director and City Manager.~~

~~2. The new salary should be increased to at least the minimum of the new salary range.~~

~~3. In no case should a promotion increase place the salary above the maximum of the assigned range.~~

1. In additio~~nal~~ to the ~~minimum of a six (6) percent increase~~ <u>INCREASE PROVIDED IN B ABOVE,</u> employees may continue to receive their regular merit increase if their classification date before promotion falls within three (3) months of the promotion. Thereafter, merit increases and performance evaluations will be based on the effective date of the promotion.

The Employee Handbook of Regulations, Section 1-40-010, *Promotion,* is hereby amended by as shown below (additions are underlined and in caps, deletions are stricken):

1-40-010 *Promotion,* Subsection A is hereby amended as shown below:

A. – 3. Upon promotion to another range, an employee shall receive a pay rate as outlined in Section 1-20-020 <u>B AND</u> H.

The Employee Handbook of Regulations, Section 1-50-20, *Vacation Leave,* is hereby amended

by as shown below (additions are underlined and in caps, deletions are stricken):

1-50-20 *Vacation Leave,* Subsection A is hereby amended as shown below:

A. Eligibility

1. ~~The City Manager or designee may authorize an employee, upon hire, to accrue vacation at any rate within the Table A or Table B below, based on years of experience.~~ UPON HIRE, REHIRE, PROMOTION OR RECLASSIFICATION AN ELIGIBLE EMPLOYEE'S RELEVANT EXPERIENCE SHALL BE DETERMINED AND THE EMPLOYEE PLACED IN THE APPLICABLE VACATION ACCRUAL WITHIN TABLE A OR TABLE B BELOW BASED ON THAT EXPERIENCE.

SECTION 2. Penalties

Any person found in violation of any provision of the Handbook may be subject to discipline, as set forth in such Handbook and Flagstaff City Code Section 1-14-001-0001, *Personnel System Adopted.*

Section 3. Repeal of Conflicting Ordinances.

All ordinances, parts of ordinances, and any sections of the Handbook in conflict with the provisions of this ordinance 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. 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 17th day of March 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

8. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Scott Overton, Streets Section Director
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Approval of Contract: Award Peak Engineering, Inc. a Contract for Professional Engineering Design Services for $169,925 for the Street Maintenance Program for Fiscal Years 2020, 2021 and 2022 in the total amount of $509,775.

STAFF RECOMMENDED ACTION:

1. Award the Contract for Professional Engineering Design Services to Peak Engineering, Inc. for $169,925 for the Street Maintenance Program for Fiscal Years 2020, 2021 and 2022 for a total cost of $509,775 over the three years; and
2. Authorized the City Manager to execute the necessary documents.

Executive Summary:

The Streets Section maintains approximately 700 lane miles of roadway surface. An annual program to provide on-going maintenance is critical to the preservation of the existing infrastructure. Asphalt treatments are primarily milling, concrete repair, asphalt overlay and chip seal.

The Streets Section completes annual preliminary evaluation and utilizes an outside engineering firm to quantify and program the appropriate streets for the various surface applications. The firm is responsible for reviewing the programed roadway sections identified by staff and develop construction plans and specifications for the City's Construction Manager At Risk (CMAR) contractor.

The engineering firm will verify roadway lengths, widths, existing utility hardware (surface inspection), identify areas of patching and review all of the adjacent concrete for needed repairs. Additionally, the engineering firm will verify the pavement areas identified for the programed overlay and chip seal treatments. The engineering firm will develop the corresponding plans and specifications and assist the Public Works Project Manager with construction planning, estimation and documentation.

Financial Impact:

The Street Maintenance Program is funded using two primary sources;
1. Road Repair Street Safety (RRSS) Acct # 046-06-163-3321-6-4443 - A dedicated sales tax to address the community transportation infrastructure.
2. Highway User Revenue Funds (HURF) Acct # 040-06-162-3073-6-4443 - A state shared revenue source also commonly referred to as the "Gas Tax."
This engineering service is often a percentage of the overall work in a given year and the actual dollar amount will fluctuate depending on the program funding and work scope designed each year. This award for the Street Maintenance Program Professional Engineering Design Services Contract would be for a total of $509,775.

Policy Impact:

The Streets Maintenance Program implements the program result of Proposition 406, Road Repair and Street Safety (RRSS), a dedicated sales tax that provided additional resources and a community commitment to investing in the transportation infrastructure. The outcomes are being meet by improving the roadways Overall Condition Index (OCI) and reducing pavement deterioration over time. Our emergency repairs as a result of failing asphalt continue to decline as the improvements are made. The utilization of contracted engineering service providers expedites the delivery of this program and is efficient governance, reducing needed internal staffing and only utilized when most needed during the project delivery.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

This Street Maintenance Program is essential in providing appropriate maintenance of the City infrastructure. Goals in all of our planning documents stress the importance of providing the highest level of service possible to our citizens and improving the transportation system for all.

Has There Been Previous Council Decision on This:

Yes, this method has been utilized in the past and was last awarded in 2016. Other discussions occur during the annual budget discussions and during the overlay and chip seal annual Street Maintenance Program construction contract award.

Options and Alternatives:

1.) Approve the Professional Engineering Design Services Contract as presented. This will allow timely completion of the design portion of the yearly street maintenance projects.

2.) Reject approval of the contract and direct staff to re-solicit design phase services for the annual street maintenance project.

3.) Develop internal engineering resources to self-perform and deliver the needed preparation planning documents and specifications as a component of the Pavement Preservation Program.

Background/History:

Annually, the City of Flagstaff implements a comprehensive annual street maintenance program. The program consists of asphalt pavement overlay, application of chip seal and micro seal surface treatments, concrete work for ADA compliance, utility adjustments and upgrades, pavement marking and related miscellaneous work (grading, hydroseeding…). Funding for the overlay portion of the Street Maintenance Program is to be provided by the 2014 voter approved sales tax. Funding for the chip seal portion of the Street Maintenance Program is to be provided by the Highway User Revenue Funds (HURF) as well as other accounts (i.e. Airport, Parks and Recreation, Water Services).

Areas selected for improvement rotate on an annual basis. Overlay work has historically been programed for either the west half or east half of the City streets while surface treatments (chip seal, microseal) are selected within a specific quadrant of the City. The City will include ten (10) additional intersections to receive new / modifications to striping and pavement markings to be incorporated into the plan set. Switzer Mesa and Route 66 define the boundaries for definition of the annual scope of work. The City of Flagstaff may explore programing future projects differently.

The scope of services will consist of the design and preparation of a complete set of construction plans, contract documents, construction specifications, special provisions, cost estimates, bid schedule, video logs of all streets to receive treatment, and engineering data for construction of the proposed

improvements. In order to avoid conflicts with other current or planned projects, it is expected that preparation of this information will require considerable coordination with City divisions including streets, traffic, survey, utilities (Water Services) and private development as well as the franchise utilities.

Street condition ratings, as determined utilizing Cartegraph OMS software will form the basis for determination of street improvement selections. These ratings will be conducted by City staff and provided to the Firm. Final definition of the annual program will be determined by the Firm based upon budgetary considerations, cost estimates prepared for treatment of selected streets and definition of conflicts with other projects. It is expected than no less than three scope/cost iterations will be required in order to fully define the contracted improvement program.

Purchasing staff published a Request for Statement of Qualifications (RSOQ) solicitation for engineering professional services in the Arizona Daily Sun on December 15 and December 22, 2019 and posted the solicitation to the City of Flagstaff's PlanetBids Website on December 10, 2019. On January 7, 2020, the City received four Statements of Qualifications (SOQs) from Engineering Consultant Firms. A six-member Selection Committee consisting of City staff and one being from an outside business Consultant, reviewed and evaluated the statements. Based upon the numerical scoring of the SOQs, the Selection Committee identified the three most qualified Firms to interview for the engineering professional services for the Project. A further numerical scoring was totaled by the committee and recommended to commence negotiations for a scope and fee proposal to be provided by Peak Engineering. Final scores of all firms are as followed:

Peak Engineering	1115
Shephard Wesnitzer	992
Woodson Engineering	861
WLB Group	454

Peak Engineering's SOQ demonstrated a clear recognition of the knowledge and experience to design a complex sequence of improvements within an existing fully developed neighborhood, as well as understanding the schedule requirements for completing the improvements.

Expanded Financial Considerations:

The Street Maintenance Program and the Road Repair & Street Safety Initiative is funded annually, (account number 040-06-162-3073-6-4443 & 046-06-163-3321-6-4443), as well as other accounts as specific needs are identified. For any given fiscal year, consultant fees as well as internal labor costs will be charged against the total available budget with the remaining balance allocated toward physical improvements.

Community Benefits and Considerations:

Once completed each season our residents and visitors enjoy traveling on some of the smoothest streets in the West. This delivery method and the structure of the program allows the Streets Section to invest as much as possible in actual surface treatments. It has been well received and is one of our most visible and popular programs each summer.

Community Involvement:

The engineering professional is critical in assisting with the development of the construction plan and preparing documents that will streamline the efforts of the Streets Section. Public notice and Education Campaigns throughout the project ensure smooth delivery. One change this season will be the notification to property owners explaining the work and the participation that is required in relationship to the needed sidewalk repairs and the financial responsibility of the property owner per Ordinance 2020-02.

Attachments: Professional Services Contract
Exhibit A - Peak Scope of Work

CONTRACT FOR PROFESSIONAL SERVICES
Contract No.: 2020-48

This Contract is entered into this _____ day of _____, 20___ by and between the City of Flagstaff, a political subdivision of the State or Arizona ("City"), and Peak Engineering, Inc., an Arizona Corporation ("Contractor").

WHEREAS, the City of Flagstaff desires to receive and Contractor is able to provide professional services;

NOW THEREFORE, in consideration for the mutual promises contained herein, the City and Contractor (the "parties") agree as follows:

SERVICES

1. Scope of Work: Contractor shall provide the professional services generally described as follows:

STREET MAINTENANCE PROGRAM 2020, 2021 AND 2022
PROFESSIONAL ENGINEERING DESIGN SERVICES

2. Schedule of Services: Contractor shall perform all work per the Scope of Services set forth in *Exhibit A.*

3. Standard Terms and Conditions: The City of Flagstaff Standard Terms and Conditions, attached hereto as *Exhibit B* are hereby incorporated by reference and shall apply to performance of this Contract, except to the extent modified in *Exhibit A.*

4. Key Personnel/Subcontractors: Contractor's Key Personnel, Subcontractors (if any), and contact information are designated in *Exhibit A.* Key Personnel are those employees whose license number and signature will be placed on key documents and those employees who have significant responsibilities for completion of the services. The City Representative for this Contract has the right to approve any proposed substitution of Key Personnel or Subcontractors.

CITY RESPONSIBILITIES

5. City Representative: The City Representative is Emily Markel, C.P.M., Senior Procurement Specialist or his/her designee. All communications to the City shall be through the City Representative. City Representative is responsible for bringing any request for a Contract amendment or price adjustment to the attention of the City Buyer.

6. City Cooperation: City will cooperate with Contractor by placing at its disposal all available information concerning the City, City property, or the City project reasonably necessary for Contractor's performance of this Contract.

CONTRACT TERM

7. Contract Term: The Contract shall be effective as of the date signed by both parties. Performance shall commence within ten (10) days from the City's issuance of the Notice to Proceed and shall be in force for an initial term of three (3) consecutive years.

8. Renewal: This Contract may be renewed for up to two (2) additional one (1) year terms by mutual written consent of the parties. The City Manager or his designee (the Purchasing Director) shall have authority to approve renewal on behalf of the City.

9. Termination: This Contract may be terminated pursuant to the Standard Terms and Conditions attached as *Exhibit B* hereto.

PAYMENT

10. Compensation: Payment to the Contractor for the professional engineering design services will be one hundred and sixty-nine thousand, nine hundred and twenty-five dollars **($169,925) per fiscal year 2020, 2021 and 2022** in the total amount of five hundred and nine thousand, seven hundred and seventy-five dollars **($509,775)** for satisfactory performance of the work identified in *Exhibit A.*

11. Price Adjustment: If price adjustments are permitted under this Contract, the price adjustment must be approved by the City in writing as a formal Contract Amendment. The City Council must approve the price adjustment if the annual contract price exceeds $50,000; otherwise the City Manager or his designee (the Purchasing Director) shall have authority to approve a price adjustment on behalf of the City.

DATA AND RECORDS

12. City Ownership of Document and Data: Any original documents prepared or collected by Contractor in performance of this Contract such as models, samples, reports, test plans, survey results, graphics, tables, charts, plans, maps, specifications, surveys, computations and other data shall be the property of City ("City's work product"), unless otherwise agreed by the parties in writing. Contractor agrees that all materials prepared under this Contract are "works for hire" within the meaning of the copyright laws of the United States and hereby assigns to the City all rights and interests Contractor may have in the materials it prepares under this Contract, including any right to derivative use of the material.

13. Re-Use: City may use City's work product without further compensation to Contractor; provided, however, City's reuse without written verification or adaption by Contractor for purposes other than contemplated herein is at City's sole risk and without liability to Contractor. Contractor shall not engage in any conflict of interest nor appropriate any portion of City's work product for the benefit of Contractor or any third parties without City's prior written consent.

14. Delivery of Document and Data: Upon termination of this Contract in whole or part, or upon expiration if not previously terminated, Contractor shall immediately deliver to City copies all of City's work product and any other documents and data accumulated by Contractor in performance of this Contract, whether complete or in process.

INSURANCE

15. Insurance: Contractor shall meet insurance requirements of the City, set forth in *Exhibit C.*

MISCELLANEOUS

16. Notice: Any notice concerning this Contract shall be in writing and sent by certified mail and email as follows:

To the City:

Emily Markel
Senior Procurement Specialist
City of Flagstaff
211 W. Aspen
Flagstaff, Arizona 86001
emarkel@flagstaffaz.gov

To Contractor:

Julie Leid
Peak Engineering, Inc.
110 N Agassiz
Flagstaff, Arizona 86001
julie@peakegr.com

With a copy to:

Adam Miele
Senior Project Manager
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, Arizona 86001
AMiele@flagstaffaz.gov

17. Authority. Each party warrants that it has authority to enter into this Contract and perform its obligations hereunder, and that it has taken all actions necessary to enter into this Contract.

(Please sign in blue ink. Submit original signatures – photocopies not accepted)

CONTRACTOR

_____

Print name:_____

Title:_____

CITY OF FLAGSTAFF

_____

Print name:_____

Title:_____

Attest:

_____
City Clerk

Approved as to form:

_____
City Attorney's Office

Notice to Proceed issued: _____, 20___

EXHIBIT A

SCOPE OF SERVICES

[ATTACHED]

Exhibit B

CITY OF FLAGSTAFF
STANDARD TERMS AND CONDITIONS

IN GENERAL

1. **NOTICE TO PROCEED:** Contractor shall not commence performance until after City has issued a Notice to Proceed.

2. **LICENSES AND PERMITS:** Contractor its expense shall maintain current federal, state, and local licenses, permits and approvals required for performance of the Contract, and provide copies to City upon request.

3. **COMPLIANCE WITH LAWS:** Contractor shall comply with all applicable federal, state and local laws, regulations, standards, codes and ordinances in performance of this Contract.

4. **NON-EXCLUSIVE:** Unless expressly provided otherwise in the Contract, this Contract is non-exclusive and the City reserves the right to contract with others for materials or services.

MATERIALS

5. **PURCHASE ORDERS:** The City will issue a purchase order for the materials covered by the Contract, and such order will reference the Contract number.

6. **QUALITY:** Contractor warrants that all materials supplied under this Contract will be new and free from defects in material or workmanship. The materials will conform to any statements made on the containers or labels or advertisements for the materials, and will be safe and appropriate for use as normally used. City's inspection, testing, acceptance or use of materials shall not serve to waive these quality requirements. This warranty shall survive termination or expiration of the Contract.

PAYMENT

7. **INVOICES:** A separate invoice shall be issued for each shipment and each job completed. Invoices shall include the Contract and/or Purchase Order number, and dates when goods were shipped or work performed. Invoices shall be sent within 30 days following performance. Payment will only be made for satisfactory materials and/or services received and accepted by City.

8. **LATE INVOICES:** The City may deduct up to 10% of the payment price for late invoices. The City operates on a fiscal year budget, from July 1 through the following June 30. Except in unusual circumstances, which are not due to the fault of Contractor, City will not honor any invoices or claims submitted after August 15 for materials or services supplied in the prior fiscal year.

9. **TAXES:** Contractor shall be responsible for payment of all taxes including federal, state, and local taxes related to or arising out of Contractor's performance of this Contract. Such taxes include but are not limited to federal and state income tax, social security tax, unemployment insurance taxes, transaction privilege taxes, use taxes, and any other taxes or business license fees as required.

Exception: The City will pay any taxes which are specifically identified as a line item dollar amount in the Contractor's bid, proposal, or quote, and which were considered and approved by the City as part of the Contract award process. In this event, taxes shall be identified as a separate line item in Contractor's invoices.

10. **FEDERAL EXCISE TAXES:** The City is exempt from paying certain Federal Excise Taxes and will furnish an exemption certificate upon request.

11. **FUEL CHARGES:** Contractor at its own expense is liable for all fuel costs related to performance. No fuel surcharges will be accepted or paid by City.

12. **DISCOUNTS:** If the Contract provides for payment discounts, payment discounts will be computed from the later date of the following: (a) when correct invoice is received by the City; or (b) when acceptable materials and/or materials were received by City.

13. **AMOUNTS DUE TO THE CITY:** Contractor must be current and remain current in all obligations due to the City during performance. Payments to Contractor may be offset by any delinquent amounts due to City or fees and charges owed to City under this Contract.

14. **OFAC:** No City payments may be made to any person in violation of Office of Foreign Assets Control regulations, 31 C.F.R. Part 501.

SERVICES

15. **INDEPENDENT CONTRACTOR:** Contractor shall be an independent contractor for purposes of all laws, including but not limited to the Fair Labor Standards Act, Federal Insurance Contribution Act, Social Security Act, Federal Unemployment Tax Act, Internal Revenue Code, Immigration and Naturalization Act; Arizona revenue and taxation, workers' compensation, and unemployment insurance laws.

16. **QUALITY:** All work shall be of good quality and free of defects, performed in a diligent and professional manner.

17. **ACCEPTANCE:** If work is rejected by the City due to noncompliance with the Contract, the City, after notifying Contractor in writing, may require Contractor to correct the deficiencies at Contractor's expense, or cancel the work order and pay Contractor only for work properly performed.

18. **WARRANTY:** Contractor warrants all work for a period of one (1) year following final acceptance by the City. Upon receipt of written notice from the City, Contractor at its own expense shall promptly correct work rejected as defective or as failing to conform to the Contract, whether observed before or after acceptance, and whether or not fabricated, installed or completed by Contractor, and shall bear all costs of correction. If Contractor does not correct deficiencies within a reasonable time specified in the written notice from the City, the City may perform the work and Contractor shall be liable for the costs. This one-year warranty is in addition to, and does not limit Contractor's other obligations herein. This warranty shall survive termination or expiration of the Contract.

INSPECTION, RECORDS, ADMINISTRATION

19. RECORDS: The City shall have the right to inspect and audit all Contractor books and records related to the Contract for up to five (5) years after completion of the Contract.

20. RIGHT TO INSPECT BUSINESS: The City shall have the right to inspect the place of business of the Contractor or its subcontractor during regular business hours at reasonable times, to the extent necessary to confirm Contract performance.

21. PUBLIC RECORDS: This Contract and any related materials are a matter of public record and subject to disclosure pursuant to Arizona Public Records Law, A.R.S. § 39-121 et seq. If Contractor has clearly marked its proprietary information as "confidential", the City will endeavor to notify Contractor prior to release of such information.

22. CONTRACT ADMINISTRATION: Contractor will be required to participate in the City's Contract Administration Process. Contractor will be closely monitored for contract compliance and will be required to promptly correct any deficiencies.

INDEMNIFICATION, INSURANCE

23. GENERAL INDEMNIFICATION: Contractor shall indemnify, defend and hold harmless the City, its council, boards and commissions, officers, employees from all losses, claims, suits, payments and judgments, demands, expenses, attorney's fees or actions of any kind resulting from personal injury to any person, including employees, subcontractors or agents of Contractor or damages to any property arising or alleged to have arisen out of the negligent performance of the Contract, except any such injury or damages arising out of the sole negligence of the City, its officers, agents or employees. This indemnification provision shall survive termination or expiration of the Contract. This indemnification clause shall not apply, if a different indemnification clause is included in the City's Specific Terms and Conditions.

24. INSURANCE: Contractor shall maintain all insurance coverage required by the City, including public liability and worker's compensation.

25. INTELLECTUAL PROPERTY INDEMNIFICATION: Contractor shall indemnify and hold harmless the City against any liability, including costs and expenses, for infringement of any patent, trademark or copyright or other proprietary rights of any third parties arising out of contract performance or use by the City of materials furnished or work performed under this Contract. Contractor shall promptly assume full responsibility for the defense of any suit or proceeding which is, has been, or may be brought against the City and its agents for alleged infringement, or alleged unfair competition resulting from similarity in design, trademark or appearance of goods, and indemnify the City against any and all expenses, losses, royalties, profits and damages, attorneys fees and costs resulting from such proceedings or settlement thereof. This indemnification shall survive termination or expiration of the Contract.

CONTRACT CHANGES

26. PRICE INCREASES: Except as expressly provided for in the Contract, no price increases will be approved.

27. **COMPLETE AGREEMENT:** The Contract is intended to be the complete and final agreement of the parties.

28. **AMENDMENTS:** This Contract may be amended by written agreement of the parties.

29. **SEVERABILITY:** If any term or provision of this Contract is found by a court of competent jurisdiction to be illegal or unenforceable, then such term or provision is deemed deleted, and the remainder of this Contract shall remain in full force and effect.

30. **NO WAIVER:** Each party has the right insist upon strict performance of the Contract, and the prior failure of a party to insist upon strict performance, or a delay in any exercise of any right or remedy, or acceptance of materials or services, shall not be deemed a waiver of any right to insist upon strict performance.

31. **ASSIGNMENT:** This Contract may be assigned by Contractor with prior written consent of the City, which will not be unreasonably withheld. Any assignment without such consent shall be null and void. Unless expressly provided for in a separately executed Consent to Assignment, no assignment shall relieve Contractor (Assignor) from any of its obligations and liabilities under the Contract with respect to City. The Purchasing Director shall have authority to consent to an assignment on behalf of City.

32. **BINDING EFFECT:** This Contract shall be binding upon and inure to the benefit of the parties and their successors and assigns.

EMPLOYEES AND SUBCONTRACTORS

33. **SUBCONTRACTING:** Contractor may subcontract work in whole or in part with the City's advance written consent. City reserves the right to withhold consent if subcontractor is deemed irresponsible and/or subcontracting may negatively affect performance. All subcontracts shall comply with the underlying Contract. Contractor is responsible for Contract performance whether or not subcontractors are used.

48. **NONDISCRIMINATION:** Contractor warrants that it complies with any state and federal laws, rules and regulations which mandate that all persons, regardless of race, color, pregnancy, religion, sex, sexual orientation, gender identify, genetic information, age, national origin, disability, veteran status, caregiving responsibilities, or familial status shall have equal access to employment opportunities. Contractor shall take affirmative action to ensure that it will not participate either directly or indirectly in the discrimination prohibited by or pursuant to Title VI of the Civil Rights Act of 1964, Pregnancy Discrimination Act of 1978, Americans with Disabilities Act of 2008 as amended, Section 504 of the Rehabilitation Act of 1973, Section 109 of the Housing and Community Development Act of 1974, the Age Discrimination Act of 1975, Age Discrimination and Employment Act of 1967 as amended, Genetic Information Nondiscrimination Act of 2008. In addition, any Contractor shall also comply with City Code, Chapter 14-02, Civil Rights which prohibits discrimination based upon sexual orientation, or gender identity or expression.

49. **DRUG FREE WORKPLACE:** The City has adopted a Drug Free Workplace policy for itself and those doing business with the City to ensure the safety and health of all persons working on City contracts and projects. Contractor personnel shall abstain from use or possession of illegal drugs while engaged in performance of this Contract.

50. IMMIGRATION LAWS: Pursuant to A.R.S. § 41-4401, Contractor hereby warrants to the City that the Contractor and each of its subcontractors will comply with, and are contractually obligated to comply with, all State and Federal Immigration laws and regulations that relate to its employees and A.R.S. § 23-214(A) (hereinafter "Contractor Immigration Warranty"). A breach of the Contractor Immigration Warranty shall constitute a material breach of this Contract and shall subject the Contractor to penalties up to and including termination of this Contract at the sole discretion of the City. The City retains the legal right to inspect the papers of any Contractor or subcontractor employee who works on this Contract to ensure compliance with the Contractor Immigration Warranty. Contractor agrees to assist the City in regard to any such inspections. The City may, at its sole discretion, conduct random verification of the employment records of the Contractor and any subcontractors to ensure compliance with Contractor's Immigration Warranty. Contractor agrees to assist the City in regard to any random verification performed. Neither Contractor nor any subcontractor shall be deemed to have materially breached the Contractor Immigration Warranty if Contractor or subcontractor establishes that it has complied with the employment verification provisions prescribed by sections 274A and 274B of the Federal Immigration and Nationality Act and the E-verify requirements prescribed by A.R.S. § 23-214(A).

DEFAULT AND TERMINATION

51. TERMINATION FOR DEFAULT: Prior to terminating this Contract for a material breach, the non-defaulting party shall give the defaulting party written notice and reasonable opportunity to cure the default, not to exceed thirty (30) days unless a longer period of time is granted by the non-defaulting party in writing. In the event the breach is not timely cured, or in the event of a series of repeated breaches the non-defaulting party may elect to terminate Contract by written notice to Contractor, which shall be effective upon receipt. In the event of default, the parties may execute all remedies available at law in addition Contract remedies provided for herein.

52. CITY REMEDIES: In the event of Contractor's default, City may obtain required materials and/or services from a substitute contractor, and Contractor shall be liable to the City to pay for the costs of such substitute service. City may deduct or offset the cost of substitute service from any balance due to Contractor, and/or seek recovery of the costs of substitute service against any performance security, and/or collect any liquidated damages provided for in the Contract. Remedies herein are not exclusive.

53. CONTRACTOR REMEDIES: In the event of City's default, Contractor may pursue all remedies available at law, except as provided for herein.

54. SPECIAL DAMAGES: In the event of default, neither party shall be liable for incidental, special, or consequential damages.

55. TERMINATION FOR NONAPPROPRIATION OF FUNDS: The City may terminate all or a portion of this Contract due to budget constraints and non-appropriation of funds for the following fiscal year, without penalty or liability to Contractor.

56. TERMINATION FOR CONVENIENCE: Unless expressly provided for otherwise in the Contract, this Contract may be terminated in whole or part by the City for convenience upon thirty (30) days written notice, without further penalty or liability to Contractor. If this Contract is terminated, City shall be liable only for payment for satisfactory materials and/or services received and accepted by City before the effective date of termination.

57. **TERMINATION DUE TO INSOLVENCY:** If Contractor becomes a debtor in a bankruptcy proceeding, or a reorganization, dissolution or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of Contractor under federal bankruptcy law or any state insolvency law, Contractor shall immediately provide the City with a written notice thereof. The City may terminate this Contract, and Contractor is deemed in default, at any time if the Contractor becomes insolvent, or is a party to any voluntary bankruptcy or receivership proceeding, makes an assignment for a creditor, or there is any similar action that affects Contractor's ability to perform under the Contract.

58. **PAYMENT UPON TERMINATION:** Upon termination of this Contract, City will pay Contractor for satisfactory performance up until the effective date of termination. City shall make final payment within thirty (30) days from receipt of the Contractor's final invoice.

59. **CANCELLATION FOR GRATUITIES:** The City may cancel this Contract at any time, without penalty or further liability to Contractor, if City determines that Contractor has given or offered to give any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant ("Gratuities") in connection with award or performance of the Contract.

60. **CANCELLATION FOR CONFLICT OF INTEREST (A.R.S. § 38-511):** The City may cancel this Contract within three (3) years after its execution, without penalty or further liability to Contractor.

MISCELLANEOUS

61. **ADVERTISING:** Contractor shall not advertise or publish information concerning its Contract with City, without the prior written consent of the City.

62. **NOTICES:** All notices given pursuant to this Contract shall be delivered at the addresses as specified in the Contract or updated by Notice to the other party. Notices may be: (a) personally delivered, with receipt effective upon personal delivery; (b) sent via certified mail, postage prepaid, with receipt deemed effective four (4) days after being sent; (c) or sent by overnight courier, with receipt deemed effective two (2) days after being sent Notice may be sent by email as a secondary form of notice.

63. **THIRD PARTY BENEFICIARIES:** This Contract is intended for the exclusive benefit of the parties. Nothing herein is intended to create any rights or responsibilities to third parties.

64. **GOVERNING LAW:** This Contract shall be construed in accordance with the laws of Arizona.

65. **FORUM:** In the event of litigation relating to this Contract, any action at law or in equity shall be filed in Coconino County, Arizona.

66. **ATTORNEYS' FEES:** If any action at law or in equity is necessary to enforce the terms of this Contract, the prevailing party shall be entitled to recover its reasonable attorneys' fees, costs, professional fees and expenses.

Exhibit C

INSURANCE REQUIREMENTS

1. In General. Contractor shall maintain insurance against claims for injury to persons or damage to property, arising from performance of or in connection with this Contract by the Contractor, its agents, representatives, employees or contractors.

2. Requirement to Procure and Maintain. Each insurance policy required by this Contract shall be in effect at, or before, commencement of work under this Contract and shall remain in effect until all Contractor's obligations under this Contract have been met, including any warranty periods. The Contractor's failure to maintain the insurance policies as required by this Contract or to provide timely evidence of renewal will be considered a material breach of this Contract.

3. Minimum Scope and Limits of Insurance. The following insurance requirements are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The City does not represent or warrant that the minimum limits set forth in this Contract are sufficient to protect the Contractor from liabilities that might arise out of this Contract, and Contractor is free to purchase such additional insurance as Contractor may determine is necessary.

   Contractor shall provide coverage at least as broad and with limits not less than those stated below.

   a. Commercial General Liability - Occurrence Form

General Aggregate	$2,000,000
Products/Completed Operations	$1,000,000
Each Occurrence	$1,000,000

   b. Umbrella Coverage $2,000,000

   c. Automobile Liability –
      Any Automobile or Owned, Hired
      and Non-owned Vehicles
      Combined Single Limit Per Accident
      for Bodily Injury & Property Damage $1,000,000

   d. Workers' Compensation and Employer's Liability

Workers' Compensation	Statutory
Employer's Liability: Each Accident	$500,000
Disease - Each Employee	$500,000
Disease - Policy Limit	$500,000

   e. Professional Liability $2,000,000

4. Self-Insured Retention. Any self-insured retentions must be declared to and approved by the City. If not approved, the City may require that the insurer reduce or eliminate such self-insured retentions with respect to the City, its officers, agents, employees, and volunteers.

Contractor shall be solely responsible for any self-insured retention amounts. City at its option may require Contractor to secure payment of such self insured retention by a surety bond or irrevocable and unconditional letter of credit.

5. Other Insurance Requirements. The policies shall contain, or be endorsed to contain, the following provisions:

   a. Additional Insured. In Commercial General Liability and Automobile Liability Coverages, the City of Flagstaff, its officers, officials, agents and employees shall be named and endorsed as additional insureds with respect to liability arising out of this Contract and activities performed by or on behalf of the Contractor, including products and completed operations of the Contractor, and automobiles owned, leased, hired or borrowed by the Contractor.

   b. Broad Form. The Contractor's insurance shall contain broad form contractual liability coverage.

   c. Primary Insurance. The Contractor's insurance coverage shall be primary insurance with respect to the City, its officers, officials, agents, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, agents and employees, shall be in excess of the coverage of the Contractor's insurance and shall not contribute to it.

   d. Each Insured. The Contractor's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

   e. Not Limited. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.

   f. Waiver of Subrogation. The policies shall contain a waiver of subrogation against the City, its officers, officials, agents and employees for losses arising from work performed by Contractor for the City.

6. Notice of Cancellation. Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, cancelled, reduced in coverage or in limits unless prior written notice has been given to the City. Notices required by this section shall be sent directly to the Buyer listed in the original Solicitation and shall reference the Contract Number:

   Attention: Emily Markle
   Contract No. 2020-48
   Purchasing Section
   City of Flagstaff
   211 W. Aspen Avenue
   Flagstaff, Arizona 86001.

7. Acceptability of Insurers. Contractor shall place insurance hereunder with insurers duly licensed or approved unlicensed companies in the State of Arizona and with a "Best's" rating of not less than A-: VII. The City does not represent or warrant that the above required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

8. Certificates of Insurance. The Contractor shall furnish the City with certificates of insurance (ACORD form) as required by this Contract. The certificates for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. Any policy endorsements that restrict or limit coverage shall be clearly noted on the certificate of insurance. The City project/contract number and project description shall be noted on the certificates of insurance. The City must receive and approve all certificates of insurance and endorsements before the Contractor commences work.

9. Policies. The City reserves the right to require, and receive within ten (10) days, complete, certified copies of all insurance policies and endorsements required by this Contract at any time. The City shall not be obligated, however, to review any insurance policies or to advise Contractor of any deficiencies in such policies and endorsements. The City's receipt of Contractor's policies or endorsements 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.

10. Modifications. Any modification or variation from the insurance requirements in this Contract must have the prior approval of the City's Attorney's Office in consultation with the City's Risk Manager, whose decision shall be final. Such action will not require a formal Contract amendment but may be made by their handwritten revision and notation to the foregoing insurance requirements.

Peak ENGINEERING, INC.

CITY OF FLAGSTAFF PUBLIC WORKS

Annual Street Maintenance Program (2020-2022)
Proposed Scope of Services
February 20, 2020

Project Understanding

The proposed scope of work includes development of construction documents and opinion of probable construction cost for the annual street maintenance program. The location of annual improvements within the city changes year-to-year but the budgets are projected as constant. It is expected that the annual street maintenance budget for overlay and associated concrete improvements is ~$3.5M, while the annual street maintenance budget for surface chip seal is ~$2.5M.

This scope of services presents a consistent approach to development of construction documents that will be used each year of the contract. While the approach will remain consistent each year, it is understood that available budgets may be changed (increased or decreased) and may be cause for adjustments to the design fees.

Peak Engineering will subcontract with Northland Exploration Surveys, Inc. for surveying and mapping services, if deemed necessary. An allowance has been included in the proposal that will only be used if authorized by the City Senior Project Manager of Public Works.

SCOPE OF SERVICES

TASK 1: DATA COLLECTION & 30% CONSTRUCTION DOCUMENTS

Peak Engineering will provide the following services:

- Review, compile, organize and prepare for use, street programming and applicable data from the City of Flagstaff and utility companies, including OCI data, utility basemaps, and GIS information.
- Conduct field data collection activities in support of the overlay program. This will include street lengths, widths, concrete replacements, utility appurtenance data, existing survey monuments and infrastructure that may be impacted by construction. Concrete replacements will be identified by paint.
- Download, organize and manage the overlay data obtained during field data collection activities.
- Conduct field data collection activities in support of the chip seal program. This will include street lengths, widths, utility appurtenance data, existing survey monuments and infrastructure that may be impacted by construction.
- Conduct quality control activities to confirm data collection and organization.
- Prepare 30% cover sheet, general notes sheet, and detail sheet(s) for each program (overlay and chip seal).
- Prepare key map sheets for each program (overlay and chip seal).
- Prepare Improvement Schedules of Quantities for each program and include as plan sheets.
- Prepare an opinion of probable construction cost for each program (overlay and chip seal).
- Review 30% documents with the City of Flagstaff Public Works and CM@R.
- Meet with ADOT and franchise utilities as necessary.

Deliverables: 30% Construction Documents, Opinion of Probable Construction Cost

TASK 2: 60% CONSTRUCTION DOCUMENTS

Peak Engineering will provide the following services:

- Compile comments from the 30% review meeting and prepare responses to each in a comment response form.
- Revise the included streets based on comments received at the 30% review. These revisions will largely be based on project conflicts.
- Attend and participate in up to 3 meetings with the City of Flagstaff and CM@R contractor, including meeting with development engineering when 60% Construction Documents are complete.
- Conduct topographic surveying (if necessary) of elements such as manholes to be rebuilt. Authorization to use the topographic surveying allowance will be obtained from the City Senior Project Manager prior to commencing.
- Update the Cover Sheet, General Notes Sheet, Details Sheets and Keynote Sheets to reflect program changes.
- Include intersection striping.
- Update the Improvement Schedules of Quantities for each program based on 30% review comments.
- Update the opinion of probable construction cost for each program based on 30% review comments.
- Prepare Draft Special Provisions.
- Conduct internal quality control reviews.
- Submit 60% Construction Documents to the City of Flagstaff Public Works and CM@R for review and comment.
- Submit 60% Construction Documents to ADOT and franchise utilities for review and approval.
- Submit 60% Construction Documents to the City of Flagstaff Development Engineering as a courtesy submittal.

Deliverables: 60% Construction Documents, Opinion of Probable Construction Cost

TASK 3: PRE-FINAL CONSTRUCTION DOCUMENTS

Peak Engineering will provide the following services:

- Compile comments from the 60% review meeting and prepare responses to each in a comment response form.
- Revise the included streets based on comments received at the 60% review. These revisions will largely be based on budget constraints.
- Attend and participate in up to 3 meetings with the City of Flagstaff and CM@R contractor.
- Update the Cover Sheet, General Notes Sheet, Details Sheets and Keynote Sheets to reflect program changes.
- Update intersection striping.
- Update the Improvement Schedules of Quantities for each program based on 60% review comments.
- Update the opinion of probable construction cost for each program based on 60% review comments.
- Prepare updated Special Provisions.
- Conduct internal quality control reviews.
- Submit Pre-Final Construction Documents to the City of Flagstaff Public Works and CM@R for review and comment.
- Submit Pre-Final Construction Documents to ADOT for permitting, if required.
- Coordinate with franchise utilities to obtain project approval letters.

Deliverables: Pre-Final Construction Documents, Opinion of Probable Construction Cost. Documents at this stage are sealed by a Registered Professional Engineer.

TASK 4: FINAL CONSTRUCTION DOCUMENTS

Peak Engineering will provide the following services:

- Compile comments from the Pre-Final review meeting and prepare responses to each in a comment response form.
- Revise the construction documents based on comments received at the Pre-Final submittal.
- Attend and participate in up to 3 meetings with the City of Flagstaff and CM@R contractor.
- Finalize the Cover Sheet, General Notes Sheet, Details Sheets and Keynote Sheets to reflect comments.
- Finalize design elements.
- Finalize the Improvement Schedules of Quantities for each program.
- Finalize the opinion of probable construction cost for each program.
- Finalize Special Provisions.
- Conduct internal quality control reviews.
- Submit Final Construction Documents to the City of Flagstaff Public Works for approval.
- Coordinate with franchise utilities to obtain project approval letters, as necessary.

Deliverables: Final Construction Documents, Opinion of Probable Construction Cost

TASK 5: CONSTRUCTION PHASE SUPPORT

Peak Engineering will provide the following services:

- After approval of the Final Construction Documents, Peak Engineering will prepare a video log of each street to be affected by construction and will provide the videos to the City of Flagstaff Public Works in a format acceptable to the City.
- Repaint the concrete markings indicating removals for the City and Contractor use during construction.
- Provide additional engineering support as requested by the City of Flagstaff Public Works Senior Project Manager.

FEE SUMMARY

This proposal assumes that the payment provisions will be Time & Materials per Task. We will invoice monthly or at project submittals, for labor and expenses incurred up to the budget shown for each task. Certain assumptions govern each task, and these are presented in the scope of services. If the assumptions are incorrect or actual work requirements differ from the stated assumptions, including estimate of labor hours required, we will coordinate with the City Senior Project Manager of Public Works to adjust the fee.

The total proposed fee for basic services including subconsultant allowance, construction phase support and project expenses is ***$169,925 per year.*** Please refer to the attached cost detail spreadsheet for tasks, anticipated hours and hourly rates.

The total contract amount would be ***$509,775*** including subconsultant allowances, construction phase support and project expenses for 3 years.

ASSUMPTIONS & EXCLUSIONS

Submittals will be made digitally in PDF format. Hard copy printing is available and a reprographic expense budget of $500 annually has been included for plan set printing for the City and CM@R as requested.

This scope includes one courtesy submittal at 60% Construction Documents to the City of Flagstaff Community Development Department.

This scope does not include geotechnical engineering.

This scope does not include water or sewer design.

This scope does not include structural design.

This scope does not include a traffic impact study or analysis.

This scope does not include landscape, irrigation or wayfinding design.

This scope does not include environmental or cultural studies.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Trevor Henry, Project Manager
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Rio de Flag Project Update and Consideration and Approval of Contract: Change Order No. 13 with Shephard-Wesnitzer, Inc. in the amount of $483,100.00 and adds 365 calendar days for the Rio de Flag Flood Control Utility Relocation design services contract.

STAFF RECOMMENDED ACTION:

1. Approve Change Order No. 13 with Shephard-Wesnitzer, Inc. the amount of $483,100.00.
2. Add 365 calendar days to the design services contract.
3. Authorize the City Manager to execute the necessary documents.

Executive Summary:

Approval of Change Order No. 13 will compensate Shephard-Wesnitzer, Inc. (SWI) for additional work tasks required to bring the Rio de Flag Flood Control design services contract to 100%, and to comply with design plans prepared by the US Army Corps of Engineers (USACE) and their design consultant. The added tasks are: additional topographical survey, side storm drain analysis, landscaping design, composite channel design, sanitary sewer siphon design, Beal Road bridge design and traffic signal modifications. There is a 365-day time extension requested with this change order.

SWI design efforts, inclusive of work contemplated in CO#13, will remain focused on completing the City responsibility for the DRAFT 100% by the June 2020 deadline. We will continue to coordinate with the USACE to be certain that the plans are complete and certified to allow for procurement and award of the construction contract no later than September 30, 2020 as required in order to begin expenditure of the recently allocated project funds.

Financial Impact:

The FY2005 original contract approved by City Council for design services to SWI was $1,582,521.00. Subsequent values of prior changes authorized through the City Manager's Change Order Authority and City Council approval has been $1,100,796.34. The funding to pay the amount of Change Order No. 13, $483,100.00, will come from the Stormwater Fund, tracked in the Rio de Flag project account #206-08-385-3236-0-4421, within FY2020 Budget in the amount of $3,264,134.00.

Original Contract Value	$1,582,521.00
Value of Prior Changes	$1,100,796.34
Value of this Change	$ 483,100.00
New Contract Value	$3,166,417.34

Policy Impact:

No impact

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Council Goal 2017 – 2019 - Environmental and Natural Resources

Actively manage and protect all environmental and natural resources.

Regional Plan – Policy WR 5

Manage watersheds and stormwater to address flooding concerns, water quality, environmental protections and rainwater harvesting.

Team Flagstaff Strategic Plan – Priority 3 - Foster A Resilient and Economically Prosperous City

Deliver outstanding services through a healthy environment, resources and infrastructure.

Has There Been Previous Council Decision on This:

Previous Council actions pertaining to authorized value changes and action items necessary for the continuation of the Rio de Flag Flood Control project since FY2005.

Options and Alternatives:

1. Approve Change Order No. 13 with Shephard-Wesnitzer, Inc. the amount of $483,100.00 as recommended.
2. Reject Change Order No. 13, which will forfeit the opportunity to complete the Rio de Flag Flood Control Utility Relocation design services contract and comply with the design plans prepared by the USACE and their design consultant.

Background/History:

On January 18, 2005, the City Council awarded the Agreement for Consulting Services to Shephard-Wesnitzer Inc. of Flagstaff, Arizona to perform design services for this project.

Key Considerations:

The Rio de Flag Flood Control Project is included in the City's Stormwater Management Capital Improvement Program and is the number one priority. The project has also been the subject of numerous Council Meetings, City to Citizen communications and newspaper articles.

In 2018, the City Council authorized a fee increase to the Stormwater rate that would provide funding for their Capital Improvement Program (CIP). In 2019, City Council authorized collection of the rate increase. The rate increase will provide funding for the Stormwater CIP, of which the Rio de Flag Flood Control Project is the number one priority. The City has the capacity and commitment to complete our share of the project as outline in the Project Cooperation Agreement.

The USACE requested funding for their FY2020 work plan to construct the entire project. The USACE was received $52M which will complete their share (65%) of the project as outlined in the Project Cooperation Agreement.

Change order No. 13 includes added tasks:

1. Topographic Surveys for areas to produce 100% plans. Areas include surface utilities, proposed composite channel, existing catch basin infrastructure.
2. Side Drain Analysis for areas adjacent to the project. This analysis is intended to ensure that planned connections are adequate and existing infrastructure will not adversely impact or

cause flooding.
3. Bridge design at Beal Road. Design will accommodate the project and provide for a structure that will meet hydrological and hydrology parameters.
4. Landscaping for the Low Flow Composite Channel. Provide for contract documents to support construction.
5. Final Design for the Low Flow Composite Channel. Provide for contract documents to support construction.
6. Sanitary sewer design. Design of a system to provide delivery of sanitary sewer as a relocated utility to support the project.
7. Traffic Signal Modifications. Coordinate with ADOT and provide a plan to modify the operations and phasing to accommodate the project.

Change Order No. 13 will also add 365 calendar days to the design contract. The completion date is April 30, 2021, which corresponds with the preliminary start of construction for the Rio de Flag Flood Control Project as indicated by the USACE.

Expanded Financial Considerations:

Funding for Change Order No. 13, $483,100.00, will come from the Stormwater Fund and will be tracked in the Rio de Flag Flood Control project 206-08-385-3236-0-4421. The Stormwater Fee rate increase started collection in July 2019 to fund the Stormwater Capital Improvement Program. The Rio de Flag Flood Control is part of the Stormwater Capital Improvement Program.

Community Benefits and Considerations:

Change Order No. 13 includes work that will provide a final design for the low flow composite channel that the community has been requesting as an element of the Rio de Flag Flood Control Project. The City will be working with the Public Relations consultant (Beta Pr) to continue a public information plan.

Community Involvement:

No community involvement was made on the consideration of Change Order No. 13

Expanded Options and Alternatives:

1. Approve Change Order No. 13 with Shephard-Wesnitzer, Inc. the amount of $483,100.00 as recommended.
2. Reject Change Order No. 13, which will forfeit the opportunity to complete the Rio de Flag Flood Control Utility Relocation design services contract and comply with the design plans prepared by the USACE and their design consultant.

Attachments: Presentation
Change Order
Vicinity Map

City of Flagstaff

Rio de Flag Flood Control Project

Update and Change Order No. 13

March 17, 2020

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

Project Update

- Project Design
- Real Estate
- Environmental
- BNSF
- USACE

Project Design

- **City provided comments to the Army Corps and their Consultant**
  - December 4, 2019
- **USACE and their Consultant are reviewing**
  - Next submittal (Third) **Mid-March** for City review
- **City to complete the Utility Relocations, finalize the Storm Sewer Design and Street Reconstruction Plans**
  - Working with City consultant to complete
  - Coordinating with USACE consultant
- **USACE schedule for Completion of Design,** May 2020

Real Estate

- **Legal Descriptions for Affected Properties**
  - Lower and Clay Wash
- **Appraisals**
  - As legal descriptions are being finalized, appraisals are being ordered
  - BNSF and commercial properties
  - City leased properties have been requested
  - All appraisals need to be reviewed by the Army Corps of Engineers

Environmental

- **BNSF has Permitted Access**
  - Testing and remediation underway
  - Complete environmental remediation – Council action
- **Revision to Phase I Documents**
  - Upper and Clay Wash
- **Environmental Work Plan Development**
  - Council action
- **Army Corps of Engineers Certification**

BNSF RAILWAY CO.

- **Working on Real Estate and Environmental**
- **Working with BSNF to review the Project Plans**
  - Coordinate utility relocations
- **Technical Meetings BNSF-COF**
  - Construction and Maintenance Agreements
  - Council Action for Agreements
- **Council visit to Headquarters, Ft. Worth TX**

USACE

- **Federal FY 20 Work Plan Funding**, $52M
- **Project Construction**
  - Phase I – Lower and Clay Wash
  - Phase II – Upper
- **Agency Technical Review of Project Plans**
- **Advertise Phase I –** July 2020
- **Award Phase I Contract** – September 2020
- **Debriefing Meeting with BG Colloton, Col. Barta, Senator McSally's Office**

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- January 2005, Council approved the Original Design Contract
  - **$1,582,521.00**, 275 days,
  - Contract Allowance **$75,000** and Change Order Authority **$150,750**
  - Part I – Based on 30% plans
    - Charter, Utility Maps, R/W Maps, Plans and Specifications
    - Completed April 27, 2005
  - Part II – At the Completion of Part I, added scope to complete design
    - Surveys, R/W Acquisition, Utility Relocation, Roadway Relocations, Mapping, Franchise

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- August 2005 to March 2009
  - **Three Change Orders** – added scope: Utilities, R/W needs and Title Report
    - $38,417 with 991 days
  - **Seven Field Orders** – added scope: Exhibits, Calendar Days
    - $10,063.96 with 300 days
  - **No Council Action**, authorized under City Manager's Change Order Authority and Staff's Contract Allowance Authority

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- May 5, 2009 Council Approval of Change Order No. 4
  - Change Order No. 4 – Revised scope based on results from Value Engineering Workshops facilitated by USACE.
  - Original Contract was based on a 30% scope.
  - Change Order No. 4 – Cost was based on added value of work
    - **$1,038,036.34** with 270 days
  - Overall contract was extended with a credit from the Original Design Contract

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- September 2009 to March 2020
  - **Eight Change Orders** – added scope: Utility design and Calendar days
    - $24,343.00 with 3,516 days
  - **Seven Field Orders** – added scope: Utility coordination, Subconsultants
    - $5,904.13 with 0 days
  - **No Council Action**, authorized under City Manager's Change Order Authority and Staff's Contract Allowance Authority

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- March 17, 2020 Council Consideration
  - **Change Order No. 13** – added scope: Surveys, Storm Drain Analysis, Landscaping, Composite Channel, Sewer Design, Beal Bridge, Traffic Signal Modifications
    - **$483,100** with 356 days
  - February 2019, USACE funding to complete plans
    - Plans had been on hold since 2010/2011
  - City and USACE reviewed, additional scope to finalize the design and meet the City's obligations per the Project Cooperation Agreement

CHANGE ORDER NO. 13

History of Design Services with Shephard Wesnitzer, Inc.

- **Change Order No. 13**:
  - Scope has been reviewed by staff
  - Coincides with USACE schedule to deliver Phase I
  - On February 13, 2020 the Change Order Committee reviewed and recommended approval of the Change Order for consideration by the City Council

CITY OF FLAGSTAFF

☐ CONFIRMING CHANGE ORDER NO. ____
☒ CONSULTING CONTRACT CHANGE ORDER NO. 13
☐ CONSTRUCTION CONTRACT CHANGE ORDER NO. ____
☐ CONTRACT ALLOWANCE UPDATE NO. ____

PROJECT NO. 346800 **PROJECT NAME:** Rio de Flag Flood Control Utility Relocation

FILE NO. 03-04011 **PROJECT MANAGER:** Trevor Henry

TO: Shepard Wesnitzer, Inc.

You are hereby directed to make the herein described changes from the plans and/or specifications or perform the following described work not included in the plans and/or specifications of this contract. Description of work to be done:

Provide additional work tasks as described in the proposal dated February 12, 2020 to bring the Rio de Flag Flood Control design services contract to 100%, and to comply with design plans prepared by the US Army Corps of Engineers (USACE) and their design consultant. The added tasks are; additional topographical survey, side storm drain analysis, landscaping design, composite channel design, sanitary sewer siphon design, Beal Road bridge design and traffic signal modifications. There is a 365-day time extension requested with this change order.

Change Order originated by: ☒ CITY OF FLAGSTAFF ☐ CONTRACTOR ☐ CONSULTANT ☐ OTHER: ____

Project Manager	2/13/2020 Date	Approval Recommended	Trevor Henry
Department Head	2/13/2020 Date	Approval Recommended	Ra Barnett for DWF
Water Services	2/13/2020 Date	Approval Recommended	
Public Works	2/13/2020 Date	Approval Recommended	
Community Development	2/13/2020 Date	Approval Recommended	Ra Barnett for DWF
City Attorney	2/13/2020 Date	Approval Recommended	Christine Parks
Purchasing (Chair)	2/13/2020 Date	Approval Recommended	
City Manager	3/17/2020 Date	Approval Recommended	

		END DATES		
ORIGINAL CONTRACT PERIOD	275 Days	(10/30/05)	ORIGINAL CONTRACT	$ 1,582,521.00
PRIOR TIME CHANGES	5,570 Days	(4/30/20)	TOTAL PRIOR VALUE CHANGES	$ 1,100,796.34
THIS TIME CHANGE	365 Days	(4/30/21)	VALUE OF THIS CHANGE	$ 483,100.00
NEW CONTRACT PERIOD	6,210 Days	(4/31/21)	NEW CONTRACT	$ 3,166,417.34

We, the undersigned consultant, have given careful consideration to the change proposed and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, except as may otherwise be noted above and perform all services necessary for the work above specified and will accept as full payment therefore the prices and time extensions shown above.

FIRM NAME: Shephard Wesnitzer, Inc.

Accepted Date: 02/12/2020 **By:** Gillian E. Cole

CITY OF FLAGSTAFF

☐ CONFIRMING CHANGE ORDER NO.
☒ CONSULTING CONTRACT CHANGE ORDER NO. 13
☐ CONSTRUCTION CONTRACT CHANGE ORDER NO.
☐ CONTRACT ALLOWANCE UPDATE NO.

PROJECT NO. 346800 **PROJECT NAME:** Rio de Flag Flood Control Utility Relocation

FILE NO. 03-04011 **PROJECT MANAGER:** Trevor Henry

JUSTIFICATION:
Shepard Wesnitzer Inc. (SWI) completed the design of the Final I utility and right of way relocation plans on February 24, 2010 as part of the City's LERRD (Land, Easements, Rights of Way, Relocation and Disposal) contribution. The USACE has hired TetraTech to complete the 100% flood control design, excluding the structural and landscaping components. The USACE has submitted the draft plans on February 6, 2019 and has projected a final design completion date of April 30, 2020. The USACE has received federal funding as part of their FY 20 work program to complete the Rio de Flag Flood Control Project. In order to comply with the USACE's schedule of May 2020 for design completion, SWI will address any outstanding tasks to comply with the USACE final design and meet the project schedule for construction delivery.

TIME ANALYSIS:
A 365-calendar day contract time extension is proposed to meet the completion of the design at 100% in May 2020 and provide support for the USACE through the initial stages to procure a construction contract, targeting full construction by spring 2021. The USACE has provided a schedule to complete the final design, this contract time extension to SWI should be considered final to meet the final design and initial stages of full construction.

COST ANALYSIS:
Reference attached documentation from SWI dated February 12,2020 for scope of services and fee proposal regarding the additional tasks for the Rio de Flag Flood Control Project.

Original Contract Amount:	$1,582,521.00
Total Prior Value Changes:	$1,100,796.34
Value of this Change Order:	$ 483,100.00
New Contract Amount:	$3,166,417.34

This change order exceeds the authorized change order authority and will require City Council approval. The Stormwater Fee increase authorized in November 2018 and collection in July 2019, will provide funding. The Rio de Flag Hydrology account (206-08-385-3236-0-4421) will fund Change Order #13.

CITY OF FLAGSTAFF		*PROJECT STATUS FORM*
PROJECT NAME: Rio de Flag Flood Control Utility Relocation		☒ Design ☐ Construction ☐ Other
PROJECT NO. 346800		**FILE NO.** 03-04011
ACCT. NO.		
206-08-385-3236-0-4433	100%	$3,166,417.34
PROPOSED CONTRACT TOTAL *(Includes Original Contract Amount & All Change Orders)*		$3,166,417.34

COUNCIL APPROVAL:	January 18, 2005	**ORIGINAL CONTRACT AMOUNT:**	$1,582,521.00
PROJECT BUDGET	$2,870,940.00	**FY:**	12/13
PROJECT BUDGET		**FY:**	
NOTICE TO PROCEED:	January 28, 2005	**ORIGINAL CONTRACT PERIOD (calendar days):**	275
ORIGINAL/REVISED COMPLETION DATES:	October 30, 2005	**ORIGINAL CONTRACT ALLOWANCE:**	$75,000.00
CONSULTANT: Shepard Wesnitzer, Inc.		**LOCATION:** Flagstaff, AZ	
CITY PROJECT MANAGER: Trevor Henry			

Change Orders	C.O. Amount/ Allowance Amt	C.O. Days	Council Date	REASON FOR CHANGE
Revision Date	New Total	Original / New Total	New Comp. Date	
CO#1	$14,404.00	0	N/A	Revise sewer crossings & cost estimate due to change in structures & flood elevations by USACE. Amount is to be taken from City Manager's Authority. $136,346.00/$150,750.00
8/04/05	$1,596,925.00	275	10/30/05	
Field Order #1	$1,290.00	0	N/A	Prepare exhibits and convert files to Arcmap format. $73,710.00/$75,000.00
8/22/05			10/30/05	
Field Order #2	N/A	60	N/A	Time extension due to City/USACE delays.
10/26/05		335	12/29/05	
Field Order #3	2,800.00	60	N/A	Time extension due to City/USACE delays.
2/09/06	0	395	2/27/06	
CO#2	$11,998.00	261	N/A	Additional Title Reports, time extension due to City delay. Amount is to be taken from City Manager's Authority. $124,348.00/$150,750.00
3/20/06	$1,608,923.00	656	11/15/06	
Field Order #4	$941.98	0	N/A	Prepare Brownfield Exhibits. $69,968.02/$75,000.00
5/20/06	N/A	656	11/15/06	
Field Order #5	N/A	60	N/A	Time extension due to City/USACE delays.
11/6/06		716	1/14/07	

CITY OF FLAGSTAFF	*PROJECT STATUS FORM*
PROJECT NAME: Rio de Flag Flood Control Utility Relocation	☒ Design ☐ Construction ☐ Other
PROJECT NO. 346800	**FILE NO.** 03-04011

ACCT. NO.		
206-08-385-3236-0-4433	100%	$3,166,417.34
	PROPOSED CONTRACT TOTAL *(Includes Original Contract Amount & All Change Orders)*	$3,166,417.34

COUNCIL APPROVAL:	January 18, 2005	**ORIGINAL CONTRACT AMOUNT:**	$1,582,521.00
PROJECT BUDGET	$2,870,940.00	**FY:**	12/13
PROJECT BUDGET		**FY:**	
NOTICE TO PROCEED:	January 28, 2005	**ORIGINAL CONTRACT PERIOD (calendar days):**	275
ORIGINAL/REVISED COMPLETION DATES:	October 30, 2005	**ORIGINAL CONTRACT ALLOWANCE:**	$75,000.00
CONSULTANT: Shepard Wesnitzer, Inc.		**LOCATION:** Flagstaff, AZ	
CITY PROJECT MANAGER: Trevor Henry			

Change Orders	C.O. Amount/ Allowance Amt	C.O. Days	Council Date	REASON FOR CHANGE
Revision Date	New Total	Original / New Total	New Comp. Date	
Field Order #6	N/A	60	N/A	Time extension due to City/USACE delays.
1/08/07		776	3/15/07	
CO#3	$12,015	730	N/A	Additional design to determine estimate of right of way needed and utility relocations cost for the Corps Limited Re-evaluation Report. Amount is to be taken from City Manager's Authority. $112,333.00/$150,750.00
2/1/07	$1,620,938	1506	3/14/09	
Field Order #7	N/A	60	N/A	Time delays due to City and USACE.
3/09/09		1566	5/13/09	
CO#4	$1,038,036.34	270	5/05/09	Deliver Phase II of the project per the attached scope and fee.
4/16/09	$2,658,974.34	1836	2/07/10	
Field Order #8	$3,600.00	0	N/A	Provide additional sewer flow measurement.
9/14/09	2,662,574.34	1836	2/07/10	
CO#5	$24,343.00	38	N/A	Accelerate design of lower 850 l.f. of utility plans to meet shovel ready designation. Amount is to be taken from City Manager's Authority. $87,990.00/$150,750.00
10/15/09	$2,683,317.34	1874	3/17/10	

CITY OF FLAGSTAFF		*PROJECT STATUS FORM*
PROJECT NAME: Rio de Flag Flood Control Utility Relocation		☒ Design ☐ Construction ☐ Other
PROJECT NO. 346800		**FILE NO.** 03-04011
ACCT. NO.		
206-08-385-3236-0-4433	100%	$3,166,417.34
PROPOSED CONTRACT TOTAL *(Includes Original Contract Amount & All Change Orders)*		$3,166,417.34

COUNCIL APPROVAL:	January 18, 2005	**ORIGINAL CONTRACT AMOUNT:**	$1,582,521.00
PROJECT BUDGET	$2,870,940.00	**FY:**	12/13
PROJECT BUDGET		**FY:**	
NOTICE TO PROCEED:	January 28, 2005	**ORIGINAL CONTRACT PERIOD (calendar days):**	275
ORIGINAL/REVISED COMPLETION DATES:	October 30, 2005	**ORIGINAL CONTRACT ALLOWANCE:**	$75,000.00
CONSULTANT: Shepard Wesnitzer, Inc.		**LOCATION:** Flagstaff, AZ	
CITY PROJECT MANAGER: Trevor Henry			

Change Orders	C.O. Amount/ Allowance Amt	C.O. Days	Council Date	REASON FOR CHANGE
Revision Date	New Total	Original / New Total	New Comp. Date	
Change Order #6	$0	180	N/A	Time extension due to City/USACE delays as a result of the January 2010 VE study.
3/4/10	$2,683,317.34	2054	9/13/10	
Change Order #7	$0	365	N/A	Time extension due to City/USACE delays as a result of the 2010 VE study and revisions to the 90% plans.
9/9/10	$2,683,317.34	2419	9/13/11	
Change Order #8	$0	365	N/A	Time extension due to City/USACE delays as a result of the 2010 VE study and revisions to the 90% plans.
9/8/11	$2,683,317.34	2784	9/13/12	
Change Order #9	$0	365	N/A	Time extension due to City/USACE delays as a result of the 2010 VE study and revisions to the 90% plans.
9/13/12	$2,683,317.34	3149	9/13/13	
Change Order #10	$0	972	N/A	Time extension due to City/USACE delays.
5/21/15	$2,683,317.34	4,121	5/12/2016	
Change Order #11	$0	491	N/A	Time extension due to City/USACE delays.
9/15/16	$2,683,317.34	4,612	9/15/2017	

CITY OF FLAGSTAFF		*PROJECT STATUS FORM*
PROJECT NAME: Rio de Flag Flood Control Utility Relocation		☒ Design ☐ Construction ☐ Other
PROJECT NO. 346800		**FILE NO.** 03-04011
ACCT. NO.		
206-08-385-3236-0-4433	100%	$3,166,417.34
PROPOSED CONTRACT TOTAL *(Includes Original Contract Amount & All Change Orders)*		$3,166,417.34

COUNCIL APPROVAL:	January 18, 2005	**ORIGINAL CONTRACT AMOUNT:**	$1,582,521.00
PROJECT BUDGET	$2,870,940.00	**FY:**	19
PROJECT BUDGET		**FY:**	
NOTICE TO PROCEED:	January 28, 2005	**ORIGINAL CONTRACT PERIOD (calendar days):**	275
ORIGINAL/REVISED COMPLETION DATES:	April 30, 2020	**ORIGINAL CONTRACT ALLOWANCE:**	$75,000.00
CONSULTANT: Shepard Wesnitzer, Inc.		**LOCATION:** Flagstaff, AZ	
CITY PROJECT MANAGER: Trevor Henry			

Change Orders / Revision Date	C.O. Amount/ Allowance Amt / New Total	C.O. Days / Original / New Total	Council Date / New Comp. Date	REASON FOR CHANGE
Change Order #12	$0	958	N/A	Time extension to bring current the existing contract and meet the new USACE final design completion date of 04/30/2020
3/7/19	$2,683,317.34	5,845	4/30/20	
Change Order #13	$483,100.00	365	3/17/2020	Additional work to bring outstanding tasks to comply with the USACE final design and meet the project schedule for construction delivery, Spring 2021
2/13/2020	$3,166,417.34	6,210	4/30/21	

COMMENTS: The allocations shown above are inclusive of all Change Orders shown.

Purchase Order Number:	14-000120	**Line Number:**	1	**Amount**	$698,015.35
Purchase Order Number:	14-000120	**Line Number:**	2	**Amount**	$7,244.66

Shephard Wesnitzer, Inc.
Engineering an environment of excellence

110 West Dale Avenue
Flagstaff, AZ 86001

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928.774.8923

www.swiaz.com

Engineering an environment of excellence.

Ms. Christine Cameron
City of Flagstaff
211 W. Aspen Avenue
Flagstaff. AZ 86001 ("Client")

February 12, 2020
Job # 04473

RE: Rio De Flag
Additional Services Change Order #13

Dear Ms. Cameron:

SWI has been asked to provide supplemental survey, additional side drain analysis, and subconsultant design to produce 100% Construction Plans. Please provide a change order for the additional services listed below.

1.0 SCOPE OF SERVICES, ADDITIONAL
We propose to provide the following:

Item No.	Description	Fee
1.	**Topographic Survey (Time & Material Not to Exceed):** Perform a topographic survey for the areas identified by SCI, NCD, Norris, and Tetra Tech to produce 100% Construction plans. The supplemental topographic survey will include all surface utility appurtenances within the proposed composite channel that have not been accounted for: water valves, fire hydrants, vaults, sewer manholes and cleanouts, storm drain manholes and catch basins, and FDC's. Item includes dipping the sewer and storm drain manholes and catch basins. Underground utility locating/potholing is not included in this item. City of Flagstaff GIS will be used in conjunction with the survey data. This item also includes survey of the historic wall locations as identified by the City of Flagstaff and any other items as identified by the design team dated November 22, 2019. Existing storm drain facilities (i.e., catch basins and storm drain pipes) will also be surveyed to support Item 2, Side Drain Analysis, below. Items include catch basin locations; catch basin curb opening lengths and grate dimensions and elevations; catch basin inverts; and storm drain pipe materials, sizes, and inverts. This item also includes survey of the backyards of the homes along Navajo Drive, the Butler Tunnel, and Beal Street.	**$16,500**
2.	**Side Drain Analysis:** This item includes providing supplemental analysis and design of the side drains for four (4) specific areas within the Rio de Flag corridor.	

Navajo Drive: **$8,900**

This study area is located along Navajo Dr. south of Beal Rd., where the Rio de Flag plans include the construction of a flood wall along on the east side of the Rio.

Based on the site visit on November 5, 2019, it was discussed among City and Tetra Tech staff that the proposed improvements for this study area does not require any supplemental hydrologic analysis. It is anticipated that the proposed improvements will only be modifications to the existing storm drain pipes that outlet into the Rio de Flag just upstream of Thorpe Rd. and just downstream of Beal Rd. These improvements are anticipated to include truncating the existing storm drain pipes at the new flood wall and fitting each pipe with a flap gate to prevent flows in the Rio de Flag from backing up into the pipes.

SWI will coordinate the design with the City of Flagstaff, the Army Corps of Engineers, and Tetra Tech. SWI will incorporate the supplemental and/or new side drain facilities for these specific areas into the Street Reconstruction Plans. Multiple design iterations are not included.

Item also includes up to one (1) site visit and two (2) additional coordination meetings with Tetra Tech, if necessary.

North Lake (Standalone Project): **$49,600**

This study area is considered as 'North Lake' and is located near the existing City of Flagstaff Court building where flood waters have historically ponded before draining to the south across Rt. 66 and the BNSF railway corridor. This project is assumed to be a standalone project.

Tasks will include supplemental hydrologic analysis for the 10-year and 100-year storm events to determine peak discharge rates at various points of interest (e.g., specific catch basin locations or concentration points) within previously identified side drain drainage basins, hydraulic analysis to determine the capacities of existing roadways and storm drain systems, and design of supplemental and/or new storm drain facilities to convey the 10-year and 100-year runoff to the Rio de Flag main stem facilities in accordance with the City of Flagstaff Stormwater Management Design Manual (SMDM). It is assumed that the new storm drain facilities for this area will run to the west within Aspen Ave. and connect to the Rio de Flag main stem facilities near the City of Flagstaff Library and City Hall. This will result in a shorter run of storm drain and less intergovernmental coordination than constructing new facilities to the south, across Rt. 66 and the BNSF railway.

SWI will coordinate the analyses and design with the City of Flagstaff, the Army Corps of Engineers, and Tetra Tech. Multiple design iterations are not included.

Item also includes up to two (2) site visits and three (3) additional coordination meetings with Tetra Tech, if necessary.

Santa Fe Avenue (Standalone Project): **$55,900**

This study area is located at West Santa Fe Ave., where significant runoff from Mars Hill and the downtown neighborhood have historically drained into Rt. 66 and the Rt.66/Milton Rd. underpass under the BNSF railway. This project is assumed to be a standalone project.

Tasks will include supplemental hydrologic analysis for the 10-year and 100-year storm events to determine peak discharge rates at various points of interest (e.g., specific catch basin locations or concentration points) within previously identified side drain drainage basins, hydraulic analysis to determine the capacities of existing roadways and storm drain systems, and design of supplemental and/or new storm drain facilities

to convey the 10-year and 100-year runoff to the Rio de Flag main stem facilities in accordance with the SMDM. Currently, storm drain facilities run to the west up Santa Fe Ave. It is anticipated that these facilities will need to be upsized and may need to be extended further upstream to supplement in-street flow capacities in accordance with the SMDM. New storm drain facilities may also be required in Grand Canyon Ave. and/or Coconino Ave. to provide the necessary conveyance capacity in for those roadways.

SWI will coordinate the analyses and design with the City of Flagstaff, the Army Corps of Engineers, and Tetra Tech. Multiple design iterations are not included.

Item also includes up to one (1) site visit and two (2) additional coordination meetings with Tetra Tech, if necessary.

Malpais Lane: **$43,900**

This study area is located at the intersection of Malpais Ln. and Milton Rd., adjacent to the Dairy Queen, where runoff from West Rt. 66, Milton Rd., and Malpais Ln. have historically combined to create significant local flooding.

Tasks will include supplemental hydrologic analysis for the 10-year and 100-year storm events to determine peak discharge rates at various points of interest (e.g., specific catch basin locations or concentration points) within previously identified side drain drainage basins, hydraulic analysis to determine the capacities of existing roadways and storm drain systems, and design of supplemental and/or new storm drain facilities to convey the 10-year and 100-year runoff to the Rio de Flag main stem facilities in accordance with the SMDM. It is anticipated that existing storm drain facilities in this area will need to be upsized and may need to be extended to the west up West Rt. 66. It is also assumed that the new storm drain facilities for this area will run to the north within Malpais Ln. and connect to the Rio de Flag main stem facilities where they cross Malpais. This will result in a shorter run of storm drain, less intergovernmental coordination, fewer utility conflicts, and less traffic interruption than constructing new facilities to the northeast along Milton Rd. to the five-points intersection.

SWI will coordinate the analysis and design with the City of Flagstaff, the Army Corps of Engineers, and Tetra Tech. SWI will incorporate the supplemental and/or new side drain facilities for these specific areas into the Street Reconstruction Plans. Multiple design iterations are not included.

Item also includes up to one (1) site visit and two (2) additional coordination meetings with Tetra Tech, if necessary.

3. **Beal Bridge Design:** **$43,800**

This item will include the design of the Beal Bridge to accommodate the flows for the Rio De Flag project. The hydrology analysis is assumed to be provided by Tetra Tech. The improvements will include the drainage structure, street improvements, channel improvements, and water and sewer realignment.

4. **Landscaping:** **$47,200**

Items below are tasks that will be completed by Norris Design Group.

Task 1: Design Development – 60% Design

Upon approval of the Schematic Design and notice to proceed, Norris Design shall prepare the Design Development documentation necessary for coordination and pricing of the landscape, irrigation, and pocket parks. Structures such as ramadas and playground equipment are anticipated to be prefabricated and not custom. Norris Design will perform an internal quality assurance review before distribution of the Design Development documents to the Design Team. It is anticipated that these

drawings will be submitted to the City for review. Specific to Design Development Norris Design anticipates the following deliverables:

A. Provide one (1) Design Development (60%) Review Package Submittal:
    a. Design Development Landscape Plans
    b. Design Development Landscape Details
    c. Design Development Pocket Park Plans
    d. Design Development Pocket Park Details
    e. Design Development Site Amenities and Materials Schedules
    f. Design Development Irrigation Plans, identifying points of connection, water and power requirements, mainline, and controller location
    g. Design Development Irrigation Details
    h. Required City Notes and Landscape Charts
B. Attend up to two (2) coordination meetings (in Flagstaff) and approximately four (4) conference call meetings. Norris Design anticipates that the Construction Document phase will span six weeks.

Task 2: Construction Documents – 100% Design and Permit

Upon approval of the Design Development drawings and your notice to proceed, Norris Design shall prepare the final Construction Documents. Plans will be coordinated with the Design Team and the Owner. Norris Design will incorporate minor design modifications required based on budgetary analysis and owner feedback. Norris Design anticipates submitting one (1) 90% CD set prior to issuing the final Construction Documents. The Construction Documents will be packaged for review and approval of from the Design Team and the City of Flagstaff.

A. Provide one (1) Construction Documents (100%) Review Package Submittal:
    a. Final Landscape Plans
    b. Final Landscape Details
    c. Final Pocket Park Plans
    d. Final Pocket Park Details
    e. Enlargement Plans as needed
    f. Final Site Amenities and Materials Schedules
    g. Final Irrigation Plans, identifying meter location, mainline, lateral lines, valves, drip irrigation lines, controller locations, etc.
    h. Final Irrigation Details
    i. Required City Notes and Landscape Charts
    j. Technical Specifications including: Irrigation System, General Landscape, Soil Preparation, Seeding and Sodding
B. Attend up to three (3) coordination meetings (in Flagstaff) and five (5) conference call meetings. Norris Design anticipates that the Construction Document phase will span eight weeks.

Optional Services:

Optional Task 3: Landscape Restoration Plans Between Thorpe Road and Bonito Street **$7,700**

Norris Design will provide Landscape and Irrigation plans for the areas disturbed by drainage improvements between North Thorpe Road and North Bonito Street (not including Frances Short Pond). This task would run concurrent with Task 1 and Task 2. No pocket parks are anticipated for this area.

Optional Task 4: Construction Administration **$10,500**

Norris Design will provide construction administration services for the hardscape, landscape, and irrigation portion of the project, as required. The services that are anticipated in this scope of work are as follows:

A. Attend a pre-construction meeting
B. Review and respond to eight (8) shop drawings and other required contractor submittals for the project pertaining to our construction documents

C. Review and respond to eight (8) RFI's
D. Review and tag trees at a local greater Flagstaff nursery. Norris Design anticipates two (2) visits to fulfill project requirements.
E. Attend five (5) field visits to the project site during construction activity and follow-up with a written report for each visit
F. Attend one (1) substantial completion review & provide written report
G. Attend one (1) final completion review & provide written report
H. Attend one (1) warranty review & provide written report

5. Composite Channel: **$130,300**

Items below are tasks that will be completed by Natural Channel Design.

Task 1: Design and Coordination Meetings

NCD will attend multiple design meetings as part of the design team. These meetings will be needed to provide timely coordination on utility relocations; rights-of-way and easement needs; verify most current information on crossings designs; flood culvert alignment, elevations and dimension changes; and other project parameters which are needed and relevant to the channel design process. We anticipate multiple meetings with City staff for design review and potential public outreach meetings to present the design and answer questions from stakeholders.

Task 2: Engineering Plan Development

NCD will be responsible for design and plan development of the open channel, above the USACE box culvert form back of sidewalk to back of sidewalk between road crossings extending from Bonito Street to Route 66. Design will include open channel plan/profile, cross sections, channel substrate, in-stream geomorphic and aesthetic features, construction notes, construction specifications, quantities, estimated costs and basis of design report for the open channel construction.

NCD also understands that the channel will be utilized to capture and convey a portion of the local storm runoff where possible, with excess flows routed into the box culvert at each road crossing. Due to the limited space available for the channel, it should not be expected to carry a significant portion of the storm flows but will need to carry some flows to support the vegetation and aesthetic intent. Design will include a limited hydraulic analysis (HydroCAD) of the open channel under the chosen seasonal base flow rate and the potential high flow conditions as well as consideration and incorporation of any low impact development benefits available within the stream corridor. IT is understood that USACE's design consultant (Tetra Tech) will provide the design and plans for the channel overflow structures into the box culvert with NCD coordination.

NCD will prepare a limited hydrologic analysis for multiple intercept points along the channel route to assist in modeling the hydraulic performance for each reach and to determine the size requirements for outlets to the underground channel. Close coordination between NCD and SWI in this design element will be needed to ensure excess street runoff from the adjacent residential areas (above that which can be carried by the open channel) is captured into SWI's plans for storm drains and catch basins which diverts that flow into the USACE box culvert rather than the channel.

Within the deliverables for this task will be a design for the capture of a portion of the seasonal snowmelt flows arriving at Frances Short Pond and piping those to the headworks of the open channel at Bonito Street. NCD will include within the PS&E deliverables, a plan for the inlet at the pond and plan/profile for the pipeline to the open channel headworks at Bonito Street.

It is expected that NCD's plans and specifications will be sealed by NCD and then incorporated into SWI deliverables to the City of Flagstaff.

Task 3: Design Coordination of Stream Crossings
NCD will develop conveyance pipe size and configuration for road/stream crossings that are most compatible with the design stream function and incorporate those parameters in the open channel plans up to the new backs of sidewalks at the four road/stream crossings. SWI will incorporate the required pipe size into their plans for each of the road crossings from back of sidewalk and back of sidewalk.

SWI will also utilize this information to form the basis of final designs for road and utility crossings. It is anticipated that four road crossings and potentially two trail crossings will be needed for the reach.

Task 4: FUTS Trail and Planting Design Coordination
The design of the open channel corridor is understood to include a leg of the Flagstaff Urban Trail System (FUTS) and be inclusive of landscape architecture to provide for a linear park effect for the length of the project.

NCD will provide a final design for the FUTS trail and crossings. This design will work in concert with the channel alignment to utilize the space within the project corridor and provide a non-motorized travel corridor compatible with the FUTS system.

6. **Sanitary Sewer Siphon:** **$50,100**
Items below are tasks that will be completed by Water Works Engineering.

Task 1: Design
Water Works will provide detailed design and permitting for a 0.1 MGD sanitary sewer siphon following common industry standards/scope as detailed below:

- Dual 8-inch barrels
- Manual isolation gates
- Air jumper
- Odor control to be determined
- Permitting fees to be paid by Owner
- Geotechnical report for soil conditions via Owner
- Project sewer demands provided by Owner
- Excludes:
  - Construction phase services other than responding to RFIs
  - Sewer system modeling

7. **Final Points Signal Modification:** **$18,700**
This item will be completed by Lee Engineering.

ASWO#1 DESIGN TOTAL: $465,000.00
ASWO#1 DESIGN TOTAL WITH OPTIONAL SERVICES: $483,100.00

Your signature below will serve as your acceptance of this Work Order, pursuant to the terms and conditions of the original contract. Feel free to call if you have any questions or concerns.

Sincerely,

Guillermo E. Cortes, P.E.
Vice President

Accepted: _____ Date: February 12, 2020

SCHEDULE OF MANPOWER REQUIREMENTS AND FEES

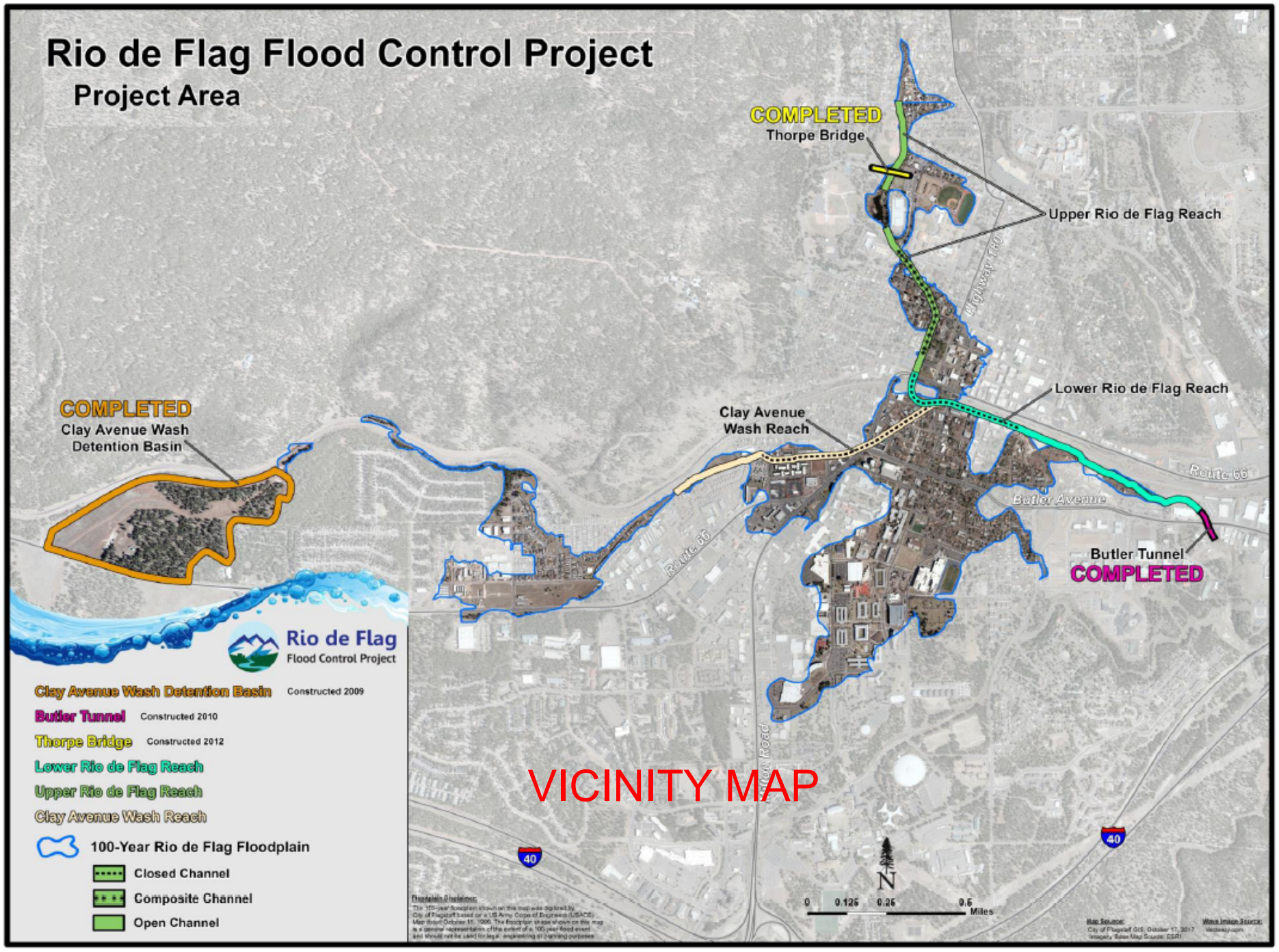
SHEPHARD-WESNITZER, INC.
Consulting Engineers
Sedona, Flagstaff, Prescott, Cottonwood

CITY OF FLAGSTAFF
ASWO #1 - TOPO SURVEY, SIDE DRAIN ANALYSIS, BEAL BRIDGE DESIGN, 100% LANDSCAPE PLANS, 100% COMPOSITE CHANNEL, SEWER SIPHON,

PHASE	TASK ID		TASK DESCRIPTION	Principal in Charge	E-3	E-2	Project Surveyor	Surveyor	Subcontract Fee	Task Fee
				$185	$150	$135	$145	$105	1	
IX	1		SURVEY							
		A	Supplemental Topographic Survey				44	96		$16,500.00
	2		SIDE DRAIN ANALYSIS							
		A	Navajo Drive	6	16	40				$8,900.00
		B	North Lake	18	76	258				$49,600.00
		C	Santa Fe Avenue	18	84	296				$55,900.00
		D	Dairy Queen	18	76	216				$43,900.00
	3		BEAL BRIDGE DESIGN							
		A	Hydraulic Analysis	4		24				$4,000.00
		B	Construction Plans	8	40	160				$29,100.00
		C	Drainage Report	8		24				$4,700.00
		D	Meetings & Coordination	8	16	16				$6,000.00
	4		100% LANDSCAPE PLANS - NORRIS							
		A	100% Landscape Plans						$47,200	$47,200.00
		B	Optional Task 3: Landscape Restoration Plans						$7,700	$7,700.00
		C	Optional Task 4: Cosntruction Administration						$10,500	$10,500.00
	5		100% COMPOSITE CHANNEL PLANS - NCD							
		A	100% Composite Channel Plans						$130,290	$130,300.00
	6		SANITARY SEWER SIPHON - WATER WORKS							
		A	100% Sanitary Sewer Siphon Plans						$50,050	$50,100.00
	7		FIVE POINTS TRAFFIC SIGNAL MODIFICATION							
		A	100% Traffic Signal Plans						$18,700	$18,700.00
			Total Time and Material Fees for A-L Engineering Services, Not To Exceed							**$483,100.00**

Rio de Flag Flood Control Project

Project Area



8. D.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Kevin Fincel, Deputy City Attorney
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Adoption of Resolution No. 2020-08: A resolution approving an amended and restated intergovernmental agreement between Coconino County and the City of Flagstaff regarding the Flagstaff Metropolitan Planning Organization, also known as MetroPlan, and amending Resolution No. 2070 to add a representative of the Northern Arizona Intergovernmental Public Transportation Authority to the FMPO Executive Board

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-08 by title only
2) City Clerk reads Resolution No. 2020-08 by title only (if approved above)
3) Adopt Resolution No. 2020-08

Executive Summary:

The City authorized the establishment of a Metropolitan Planning Organization (the "FMPO") by Resolution 2070, adopted May 21, 1996. The County authorized the establishment of an FMPO by Resolution 96-32, adopted May 20, 1996. The City and County have entered into prior intergovernmental agreements to clarify the nature of each party's responsibilities with regard to the FMPO, most recently on September 18, 2018, at which time the parties sought to establish the FMPO as a separate legal entity. The City and County now desire to add a representative of the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) to the FMPO Executive Board by adopting the amended and restated intergovernmental agreement attached to the Resolution and amending Resolution No. 2070, both of which identify the membership of the Executive Board.

Financial Impact:

None.

Policy Impact:

Adding a representative of NAIPTA to the FMPO Executive Board will support the regional focus of the FMPO.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

TRANSPORTATION AND OTHER PUBLIC INFRASTRUCTURE

Deliver quality community assets and continue to advocate and implement a highly performing multi-modal transportation system.

Has There Been Previous Council Decision on This:

No.

Attachments: Res. 2020-08
Amended and Restated IGA
Resolution No. 2070

RESOLUTION NO. 2020-08

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL APPROVING AN AMENDED AND RESTATED INTERGOVERNMENTAL AGREEMENT BETWEEN COCONINO COUNTY AND THE CITY OF FLAGSTAFF REGARDING THE FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION, ALSO KNOWN AS METROPLAN, AND AMENDING RESOLUTION NO. 2070 TO ADD A REPRESENTATIVE OF NORTHERN ARIZONA INTERGOVERNMENTAL PUBLIC TRANSPORTATION AUTHORITY TO THE FMPO EXECUTIVE BOARD

RECITALS:

WHEREAS, the City authorized the establishment of a Metropolitan Planning Organization (the "FMPO") by Resolution 2070, adopted May 21, 1996; and

WHEREAS, the County authorized the establishment of an FMPO by Resolution 96-32, adopted May 20, 1996; and

WHEREAS, on or about June 24, 1996, Fife Symington, then Governor of the State of Arizona, in accordance with 23 CFR § 450.306, designated the FMPO as the Metropolitan Planning Organization for the Flagstaff Urbanized Area; and

WHEREAS, the City and County have entered into prior intergovernmental agreements to clarify the nature of each party's responsibilities with regard to the FMPO, most recently on September 18, 2018, at which time the parties sought to establish the FMPO as a separate legal entity; and

WHEREAS, the City and County now desire to add a representative of the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) to the FMPO Executive Board by adopting the amended and restated intergovernmental agreement attached hereto and amending Resolution No. 2070, both of which identify the membership of the Executive Board.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. Authorization to Execute Amended and Restated Intergovernmental Agreement.

The Flagstaff City Council hereby authorizes the Mayor to execute the Intergovernmental Agreement between Coconino County and the City of Flagstaff, Arizona, attached hereto as Exhibit A.

SECTION 2. Amendment to Resolution No. 2070.
Resolution No. 2070 (attached hereto as Exhibit B), which was adopted on May 21, 1996, is hereby amended as follows (additions underlined in bold):

Section 4: The Metropolitan Planning Organization shall be administered by a

board composed of representatives of the City of Flagstaff, Coconino County, **Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA),** and the Arizona Department of Transportation (ADOT) (the Board).

Section 5: Each representative organization of the Board shall have the following assigned number of votes:

City of Flagstaff	3
Coconino County	2
ADOT	1
NAIPTA	**1**

SECTION 3. Effective Date.

This resolution shall be immediately effective upon adoption.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 17th day of March, 2020.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:
Exhibit A, IGA
Exhibit B, Resolution No. 2070

AMENDED AND RESTATED
INTERGOVERNMENTAL AGREEMENT
REGARDING
THE FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION

Between
City of Flagstaff
and
Coconino County

This Amended and Restated Intergovernmental Agreement ("Agreement") is entered into this ___ day of _____, 2020 (the “Effective Date”), among the City of Flagstaff (the "City"), an Arizona municipal corporation with offices at 211 West Aspen Avenue, Flagstaff, Arizona and Coconino County (the "County"), a political subdivision of the State of Arizona, with offices at 219 E. Cherry Avenue, Flagstaff, Arizona. The City and the County may each be referred to in this Agreement individually as a Party, and collectively as the Parties.

RECITALS

A. The City authorized the establishment of a Metropolitan Planning Organization (the “FMPO”) by Resolution 2070, adopted May 21, 1996.

B. The County authorized the establishment of an FMPO by Resolution 96-32, adopted May 20, 1996.

C. Under 23 C.F.R. § 450.104, a Metropolitan Planning Organization is a federal designation for "the policy board of an organization created and designated to carry out the metropolitan transportation planning process."

D. On or about June 24, 1996, Fife Symington, then Governor of the State of Arizona, in accordance with 23 CFR § 450.306, designated the FMPO as the Metropolitan Planning Organization for the Flagstaff Urbanized Area.

D. The City, the County and the State entered into an intergovernmental agreement regarding the designation of the Flagstaff Metropolitan Planning Organization (FMPO) on September 12, 1996 (the "1996 IGA").

E. On October 7, 2005, the County and the City entered into an intergovernmental agreement (the "2005 IGA") that sought to clarify the nature of each Party's FMPO responsibilities, removed ADOT from the IGA at ADOT’s request, and superseded the 1996 IGA.

F. On January 9, 2012, the County and the City entered into an intergovernmental agreement (the “2012 IGA”) that extended and further clarified the nature of each Party’s responsibilities with regard to the FMPO.

G. On September 18, 2018, the County and City entered into an intergovernmental agreement (“2018 IGA”) to establish the FMPO as a separate legal entity, and the FMPO was created as a separate Arizona nonprofit corporation on May 14, 2019.

H. The County and City desire to amend and restate the 2018 IGA in order to recognize the FMPO as a separate legal entity and to add a representative of the Northern Arizona

Intergovernmental Public Transportation Authority (NAIPTA) to the FMPO Executive Board.

NOW, THEREFORE, in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

1. Purpose of the Agreement

The purpose of this Agreement is to carry out metropolitan transportation planning for the FMPO planning area, and such other functions as may be determined by the FMPO Executive Board (the "Executive Board") that are within the FMPO's authority and consistent with its designation as an MPO. The FMPO planning area is described in the attached Exhibit A, the boundaries of which are unchanged by this Agreement. The Executive Board will serve as the policy-making body for cooperative decision-making regarding the use of federal transportation funds and other transportation related policies. In addition to this Agreement, the FMPO Board will adopt Operating Procedures. FMPO responsibilities include:

1.1 Determining the metropolitan planning area boundary subject to approval of the Governor;

1.2 Carrying out its federal and state required regional transportation planning processes, including corridor and sub-area studies, in cooperation with the State and transit operators;

1.3 Developing the metropolitan transportation plan and transportation improvement program (TIP) in coordination with other providers of transportation such as regional airports, rail and truck companies, and the unified planning work program (UPWP) in cooperation with the State and transit operators;

1.4 Approving the metropolitan transportation plan, updates, the TIP, and amendments;

1.5 Assisting in the development of a cooperative process to initiate and perform each major investment study involving the State, transit operators, environmental interests, resource and permitting agencies, and appropriate federal agencies;

1.6 Satisfying such other requirements or mandates from the state or federal government; and

1.7 Leveraging resources, identifying projects, and working to secure funding in collaboration with member agencies and other partners.

2. Duration and Termination of Agreement

Upon execution by the Parties, all previous agreements and understandings between the City and the County regarding the FMPO will cease to be effective. This Agreement will remain effective for five (5) years from the Effective Date. This Agreement shall renew automatically, subject to the appropriation of funds by the Parties or the federal or state government for MPO purposes, for one (1) additional five (5) year period. A Party may terminate this Agreement upon at least sixty days prior written notice to the other Party to the Agreement. Terminating the Agreement shall not relieve a Party from those liabilities or obligations already incurred under this Agreement.

3. Form and Common Powers of the FMPO

3.1 The FMPO is a separate legal entity formed pursuant to A.R.S. § 11-952. More specifically, the FMPO is a domestic nonprofit corporation organized pursuant to Title 10, Chapter 25 of the Arizona Revised Statutes.

3.2 The FMPO is governed by an Executive Board that consists of the following voting members:

- Three (3) members of the Flagstaff City Council
- Two (2) members of the Coconino County Board of Supervisors
- One (1) representative from the Arizona Department of Transportation or Arizona State Transportation Board.
- One (1) representative of NAIPTA appointed by the NAIPTA Board of Directors who is not a member of the Flagstaff City Council or County Board of Supervisors.

3.3 As a separate legal entity formed pursuant to A.R.S. § 11-952, the FMPO, subject to existing applicable law, may:

a. Make and enter into contracts, including contracts, leases or other transactions with one or more of the parties to the agreement forming the separate legal entity.
b. Employ agents and employees.
c. Acquire, hold or dispose of property.
d. Acquire, construct, manage, maintain and operate buildings, works, infrastructure and improvements.
e. Incur debts, liabilities and obligations.
f. Sue and be sued.

4. Administrative and Financial Responsibilities

4.1 The Parties agree that the FMPO will procure administrative and financial services (collectively "Services") as required to meet its legal and regulatory responsibilities in a manner that best serves the needs of the FMPO as determined by the FMPO Executive Board, and include, but are not limited to:

4.1.1 Administrative services including human resources, personnel policies, legal services, information technology, office space, payroll processing, and other services needed to carry out the business of the FMPO.

4.1.2 Fiscal services including procurement, grant acceptance, auditing, budgeting, and budget adoption.

4.2 Services may be provided by FMPO staff, procured from the public or private sector, or from a Party that is interested in providing the services, and will be memorialized in a separate IGA or contract.

4.3 The City of Flagstaff will continue to provide Services to the FMPO until the FMPO makes different arrangements or until June 30, 2021, whichever is sooner.

5. Executive Leadership and Staffing

5.1. The FMPO is led by an Executive Director, who is hired by the Executive Board, which sets the compensation and conducts an annual review of the Executive Director.

5.2 The Executive Director hires and supervises FMPO staff.

5.3 The FMPO Board may request that the Executive Director be considered a City of Flagstaff employee for FMPO purposes during the transition period, enter into a contract with the Executive Director, or employ the Executive Director as an employee of the FMPO, selecting the method that best meets the needs of the FMPO.

6. Funding and Reimbursement

For FMPO annual operating support, including grant-related match requirements and non-federal aid eligible expenses, the Parties will make an annual contribution to the FMPO to be determined through the Parties' respective annual budget processes.

For FMPO projects, the Parties will provide the local match to be determined on a project-by-project basis. Factors to be considered to determine which Party will be responsible for the amount and type of match include: (i) grant requirements; (ii) jurisdictional location or authority of a project (e.g., within the City limits, state highway); and (iii) funding allocated through the annual budget process.

7. Federal and State Funding

On FMPO projects, the Parties and the FMPO agree to follow all applicable provisions of federal or state law pertaining to procurement and accounting procedures with regard to the acceptance of federal or state funding.

8. Liability and Indemnification

8.1 Force Majeure. A Party shall not be liable for failure to comply with any of the terms and conditions of this Agreement where any failure to comply is caused by an act of God, court order, government regulation or requirement, other than those imposed by the Party that fails to perform, strike or labor difficulty, fire, flood, windstorm, breakdown or other damage to equipment, power failure or any other cause beyond the reasonable control of said Party.

8.2 Indemnification. Each Party (as "Indemnitor") agrees to indemnify, defend, and hold harmless the other Party (as "Indemnitee") from and against any and all claims, losses, liability, costs, or expenses (including reasonable attorney's fees) (collectively referred to as "Claims") arising out of bodily injury of any person (including death) or property damage, but only to the extent that such claims which result in vicarious/derivative liability to the Indemnitee are caused by the act, omission, negligence, misconduct, or other fault of the Indemnitor, its officers, officials, agents, employees, or volunteers.

9. Dispute Resolution

9.1 Mediation. If a dispute arises out of or relates to this Agreement, and if the dispute cannot be settled through negotiation, the Parties agree first to try in good faith to resolve the dispute by mediation before resorting to litigation or some other dispute resolution procedure. Mediation will take place in Flagstaff, Arizona, be self-administered and be conducted under the CPR Mediation Procedures established by the CPR Institute for Dispute Resolution, 366 Madison Avenue, New York, New York 10017, (212) 949-6490, www.cpradr.org, with the exception of the mediator selection provisions, unless other procedures are agreed upon by the Parties. Unless the Parties agree otherwise, the mediator(s) shall be selected from panels of mediators trained under the

auspices of the Alternative Dispute Resolution Program of the Coconino County Superior Court. Each agrees to bear its own costs in mediation. The Parties will not be obligated to mediate if an indispensable Party is unwilling to join the mediation.

9.2 Legal Action. This mediation provision is not intended to constitute a waiver of a Party's right to initiate legal action if a dispute is not resolved through good faith negotiation or mediation, or if a Party seeks provisional relief under the Arizona Rules of Civil Procedure.

9.3 Litigation and Attorney's Fees. 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 will be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing Party.

10. Notices

Unless otherwise specified in this Agreement, any notice or other communication required or permitted to be given shall be in writing and sent to the address given below for the Party to be notified, or to such other address notice of which is given:

If to City:	If to the County:
City Manager	County Manager
City of Flagstaff	Coconino County
211 West Aspen Avenue	219 E. Cherry Avenue
Flagstaff, Arizona 86001	Flagstaff, Arizona 86001

11. General Provisions

11.1 Authorization to Contract. Each Party represents and warrants that it has full power and authority to enter into this Agreement and perform its obligations under this Agreement and has taken all required acts or actions necessary to authorize the same.

11.2 Integration; Modification. Each Party acknowledges and agrees that it has not relied upon any statements, representations, agreements or warranties, except as expressed in this Agreement, and that this Agreement constitutes the Parties' entire agreement with respect to the matters addressed in this document. All prior or contemporaneous agreements and understandings, oral or written, with respect to such matters are superseded and merged in this Agreement. This Agreement may be modified or amended only by written agreement signed by or for both Parties and recorded by the County Recorder, and any modification or amendment will become effective on the date so specified, but no earlier than the date of the recording by the County Recorder.

11.3 Cancellation for Conflict of Interest. Pursuant to A.R.S. § 38-511, the City or the County may cancel this Agreement without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting or creating this Agreement on behalf of a Party is, at any time while the Agreement or any extension of the Agreement is in effect, an employee or agent of another Party of the Agreement in any capacity or as a consultant to the other Party of the Agreement with respect to the subject matter of this Agreement.

11.4 Waiver. No failure to enforce any condition or covenant of this Agreement will imply or constitute a waiver of the right of a Party to insist upon performance of the condition or covenant, or of any other provision of this Agreement, nor will any waiver by either Party of any breach of any one or more conditions or covenants of this Agreement constitute a waiver of any succeeding

or other breach under this Agreement.

11.5 Compliance with Immigration Laws and Regulations. Pursuant to the provisions of A.R.S. § 41-4401, each Party warrants to the other Parties that the warranting Party and its subconsultants, if any, are in compliance with all Federal Immigration laws and regulations that relate to their employees and with the E-Verify Program under A.R.S. § 23-214(A). The Parties acknowledge that a breach of this warranty by a Party or any of its subconsultants is a material breach of this IGA subject to penalties up to and including termination of this IGA or any subcontract. Each Party retains the legal right to inspect the papers of any employee of the other or any subconsultant who works on this IGA to ensure compliance with this warranty.

11.5.1 A Party may conduct random verification of the employment records of the other Parties, and any of its subconsultants, to ensure compliance with this warranty.

11.5.2 A Party will not consider the other Parties or any of their subconsultants in material breach of the foregoing warranty if the other Party and its subconsultants establish that they have complied with the employment verification provisions prescribed by 8 USCA § 1324(a) and (b) of the Federal Immigration and Nationality Act and the E-Verify requirements prescribed by A.R.S. § 23-214(A).

11.5.3 The provisions of this Article must be included in any contract a Party enters into with any and all of its subconsultants who provide services under this IGA or any subcontract. As used in this Section 11.5, "services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility, or improvement to real property.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the day and year first written above.

City of Flagstaff	**Coconino County**
_____	_____
Coral Evans, Mayor	Lena Fowler, Chair Board of Supervisors
Attest:	Attest:
_____	_____
City Clerk	Clerk of the Board
Approved as to form:	Approved as to form:
_____	_____
City Attorney	County Attorney

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

ACKNOWLEDGED AND AGREED:

Flagstaff Metropolitan Planning Organization, an
Arizona nonprofit corporation

_____

Jeff Meilbeck, Executive Director

Approved as to form:

_____

Mangum, Wall, Stoops & Warden, PLLC
Legal Counsel for FMPO

RESOLUTION NO. 2070

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AUTHORIZING THE ESTABLISHMENT OF A METROPOLITAN PLANNING ORGANIZATION AS PROVIDED FOR IN THE PROVISIONS OF 23 UNITED STATES CODE (USC) 134 AND 49 USC 5303.

WHEREAS, the Flagstaff area has been designated as an urbanized area as a result of the 1995 Mid-Decennial Census; and

WHEREAS, in order to receive and use both the Federal Highway Administration and Federal Transit Administration funds as provided for in the provisions of 23 USC 134 and 49 USC 5303 within the urbanized area, certain organizational arrangements and planning requirements must be undertaken;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1: The City Council authorizes the establishment of a Metropolitan Planning Organization.

SECTION 2: The City Council authorizes City of Flagstaff participation in the formation of the Metropolitan Planning Organization.

SECTION 3: To promote both continuity and participation in the long range planning, the area included in the Metropolitan Planning Organization will be designated as shown on Exhibit "A" and "A-1".

SECTION 4: The Metropolitan Planning Organization shall be administered by a board composed of representatives of the City of Flagstaff, Coconino County, and the Arizona Department of Transportation (ADOT) (the Board).

SECTION 5: Each representative organization of the Board shall have the following assigned number of votes:

City of Flagstaff	3
Coconino County	2
ADOT	1

SECTION 6: This Resolution shall take effect and become operative from and after its passage by the City Council and signature of the Mayor.

PASSED AND ADOPTED by the Council and approved by the Mayor of the City of Flagstaff, this 21st day of May, 1996.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

CERTIFICATION

I, LINDA BUTLER, City Clerk of the City of Flagstaff, Arizona, do hereby certify that the foregoing is a full, true, and correct copy of Resolution No. 2070 including Exhibits "A" and "A-1", adopted by the Flagstaff City Council at their Meeting held May 21, 1996.

IN WITNESS WHEREOF, I have hereunto set my hand and impressed the official Seal of the City of Flagstaff, this 22nd day of May, 1996.

CITY CLERK

(SEAL)

EXHIBIT A

Five hundred and twenty five square miles, more or less, situated in Coconino County, Arizona, more particularly described as follows;

BEGINNING at the southeast corner of Section 26, Township 20 North, Range 9 East, Gila and Salt River Meridian (G&SRM);

Thence westerly along the south line of Sections 26 through 30, Township 20 North, Range 9 East, G&SRM, the south line of Sections 25 through 30, Township 20 North, Range 8 East, G&SRM, the south line of Sections 25 through 30, Township 20 North, Range 7 East, G&SRM, the south line of Sections 25 through 30, Township 20 North, Range 6 East, G&SRM, and the south line of Sections 25 and 26 Township 20 North, Range 5 East, G&SRM, to the southwest corner of said Section 26, Township 20 North, Range 5 East;

Thence northerly along the west line of Sections 26, 23, 14, 11, and 2, Township 20 North, Range 5 East, G&SRM, to the northwest corner of said Section 2, Township 20 North, Range 5 East;

Thence easterly along the north line of said Section 2 to the southwest corner of Section 35, Township 21 North, Range 5 East, G&SRM;

Thence northerly along the west line of Sections 35, 26, 23, 14, 11, and 2, Township 21 North, Range 5 East, G&SRM, the west line of Sections 35, 26, 23, 14, 11, and 2, Township 22 North, Range 5 East, G&SRM, the west line of Sections 35, 26, 23, and 14, Township 23 North, Range 5 East, G&SRM, to the northwest corner of said Section 14, Township 23 North, Range 5 East;

Thence easterly along the north line of Sections 14 and 13, Township 23 North, Range 5 East, G&SRM, the north line of Sections 18 through 13, Township 23 North, Range 6 East, G&SRM, the north line of Sections 18 through 13, Township 23 North, Range 7 East, G&SRM, to the northeast corner of said Section 13, Township 23 North, Range 7 East;

Thence northerly along the west line of Section 18, Township 23 North, Range 8 East, G&SRM, to the northwest corner of said Section 18;

Thence westerly along the northerly line of Sections 18 through 13, Township 23 North Range 8 East, G&SRM, to the northeast corner of said Section 13;

Thence southerly along the east line of said Section 13 to the northwest corner of Section 18, Township 23 North, Range 9 East, G&SRM;

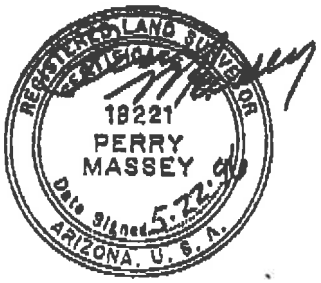
Thence easterly along the north line of Sections 18 through 14, Township 23 North, Range 9 East, G&SRM, to the northeast corner of said Section 14, Township 23 North, Range 9 East;

Thence southerly along the east line of Sections 14, 23, 26, and 35, Township 23 North, Range 9 East, G&SRM, the east line of Sections 2, 11, 14, 23, 26, and 35, Township 22 North, Range 9 East, G&SRM, and the east line of Sections 2, 11, 14, 23, 26, and 35, Township 21 North, Range 9 East, G&SRM, to the southeast corner of said Section 35, Township 21 North, Range 9 East;

Thence westerly along the south line of said Section 35, Township 21 North, Range 9 East, G&SRM, to the northeast corner of Section 2, Township 20 North, Range 9 East, G&SRM;

Thence southerly along the east line of Sections 2, 11, 14, 23, and 26, Township 20 North, Range 9 East, G&SRM, to the southeast corner of said Section 26, Township 20 North, Range 9 East, and the POINT OF BEGINNING.

All shown on the attached Exhibit A-1, which is made a part hereof by this reference.

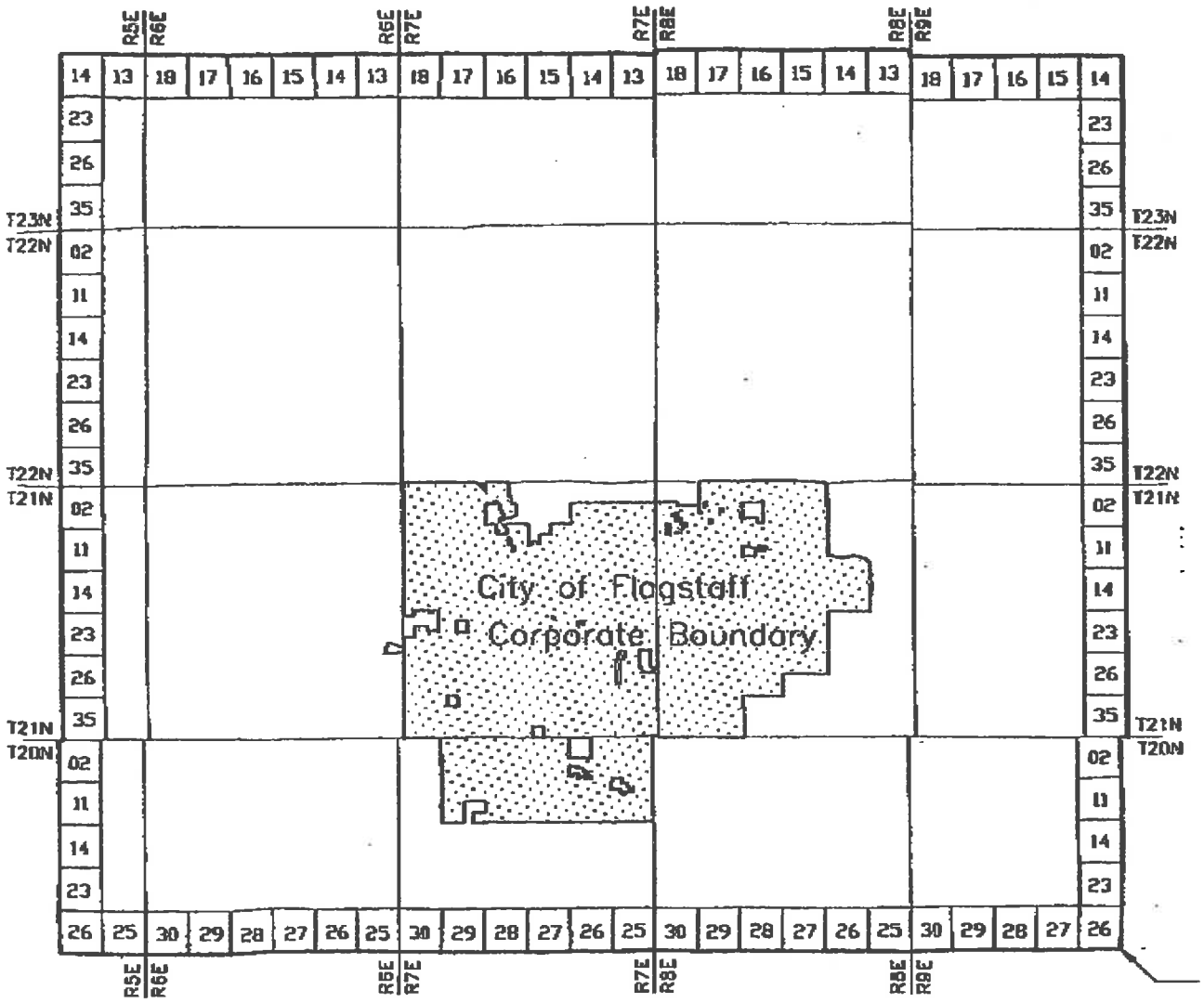


MPO
DESCRIPTIVE TITLE

10-96015
C.O.F. FILE NO.

FLAGSTAFF METROPOLITAN PLANNING ORGANIZATION BOUNDARY

(525 +/- SQUARE MILES)



N

N.T.S.
Gila & Salt River Meridian,
Coconino County, Arizona.

REGISTERED LAND SURVEYOR
18221
PERRY
MASSEY
Date Signed 5-22-96
ARIZONA, U. S. A.

EXHIBIT A-1	CITY OF FLAGSTAFF	Drawn by: R. BLACK
CITY FILE NO. 10-96015	ENGINEERING DIVISION	Date: 5/14/96

8. E.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Rick Tadder, Management Services Director

Co-Submitter: Neil Chapman, Wildland Forest Health Supervisor; Nicole Antonopoulos, Sustainability Manager; Anja Wendel, Senior Assistant City Attorney

Date: 03/13/2020

Meeting Date: 03/17/2020

TITLE:

Consideration and Adoption of Resolution No. 2020-11: A resolution of the Flagstaff City Council adopting a notice of intention to increase Water Services rates or rate components, fees or service charges; and setting a public hearing date on June 2, 2020.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-11 by title only
2) City Clerk reads Resolution No. 2020-11 by title only (if approved above)
3) Adopt Resolution No.2020-11

Executive Summary:

A Notice of Intention must be adopted, pursuant to Arizona Revised Statutes Section 9-511.01, before a municipality may increase water, wastewater, reclaimed water or stormwater rates, rate components, fee or service charges. The Notice of Intention must be adopted at least 60 days prior to a public hearing, and published in the local newspaper not less than 20 days before the public hearing. A written report and cost flow analysis to support the rate increases must be filed with the City Clerk and posted on the City website at least 30 days prior to the public hearing. This report will be filed and posted by April 17, 2020. A public hearing will be held on June 2, 2020.

This is just the first step in the process towards consideration of rate/fee changes.

****A presentation will be included in the Council's final packet****

Financial Impact:

The City is recognizing the need for a new fee to provide Water Resource Protection for our water, wastewater, reclaimed water and stormwater resources and infrastructure for the City. The City seeks to protect these resources and infrastructure through the City's Wildland Fire Management program. The Program's cost to provide this service is estimated at $1,300,000 annually.

In addition, the City is looking to restructure the Environmental Management Fee currently being collected. The fee restructure is intended to collect the same amount of annual revenues, approximately $1,200,000 annually. The current fee is a flat $4.00 fee added to each Municipal Service Bill sent out to

the customer. The restructured fee is intended to be billed based on municipal services being billed to each customer.

The proposed fee changes, if approved, are anticipated to be effective August 1, 2020.

Policy Impact:

The proposed Water Resources Protection Fee will enable the City to continue providing wildland fire management services that protect water resources and infrastructure. It is anticipated the Watershed Protection Program funding approved by voters in 2012 will be expended by the end of the calendar year 2020. The new fee will enable watershed protection efforts to continue.

The proposed restructure of the Environmental Management Fee will incentivize households and businesses to reduce water consumption and generation of solid waste, consistent with the Climate Action and Adaption Plan. The restructuring may result in reduced costs for single-family or small households and will help ensure multi-family housing projects pay their fair share of environmental management costs.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Sustainable, Innovative Infrastructure: Deliver outstanding services to residents through a healthy, well-maintained infrastructure system (Specific Priority: 3.2; Regional Plan:PF.2/E.1-2)/WR1.6/LU.7-8/CD.1/T.4-6/REC.1);

Implement, maintain and further the Climate Action and Adaption Plan (CAAP) (Regional Plan: E&C.2-4).

Has There Been Previous Council Decision on This:

February 7, 2020, Budget Retreat: Discussion on Wildland Fire Management and Flagstaff Watershed Protection Project.
September 10, 2019, Work Session: Discussion on Water Resource and Infrastructure Protection and Environmental Management Fee.
February 4, 2020, Budget Retreat: Discussion on Wildland Fire Management and Environmental Management Fee

Options and Alternatives:

- Adopt the Notice of Intention: This will begin the formal process to bring back a fee change for adoption.
- Delay Adoption of the Notice of Intention, direct staff to explore other alternatives: This will delay the process and implementation of fee changes.
- Do not adopt the Notice of Intention: This will eliminate ongoing funding for Water Resource Protection and reduce the Wildland Fire Management Program in the calendar year 2021. The Environmental Management fee will remain with the current structure.

Community Benefits and Considerations:

Protecting water resources and infrastructure through a successful Wildland Fire Management program provides many community benefits including:

- Safe and reliable water supply;
- Protection of highly expensive and sophisticated water-service infrastructure;
- Effective collection and distribution of stormwater using engineered systems;
- Restored, sustainable forests;
- A healthy, sustainable business environment;
- Implementation of the Forest Health components of the City's Climate Adaptation and Action Plan;

- Continuation of efforts identified in the Greater Flagstaff Area Community Wildfire Protection Plan;
- Continuation of environmental planning and conservation aspects of the Regional Plan;
- Continuation of effective application of the City's Wildland-Urban Interface Code;
- Enhanced public safety and community well-being.

Restructure of the Environmental Management Fee provides an equitable distribution of the fee base on the costs of city services.

Community Involvement:

The community will have the opportunity to comment at a public hearing that occurs prior to the adoption of any rate or fee changes.

Attachments: Res. 2020-11
Presentation

RESOLUTION NO. 2020-11

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL ADOPTING A NOTICE OF INTENTION TO INCREASE WATER SERVICES RATES OR RATE COMPONENTS, FEES OR SERVICE CHARGES; AND SETTING A PUBLIC HEARING DATE ON JUNE 2, 2020

RECITALS:

WHEREAS, the City of Flagstaff provides water, reclaimed water, wastewater, sewer and stormwater utility services (collectively "Water Services"); and

WHEREAS, Arizona Revised Statutes ("A.R.S.") § 9-511.01 requires any municipality engaging in a domestic water or wastewater business to follow specific procedures before increasing rates or rate components, fees or service charges related to water and wastewater; and

WHEREAS, the City is proposing a new rate to generate revenues that will be used to protect water resources and infrastructure from wildfires ("the Water Resource Protection Fee"); and

WHEREAS, the City is proposing a new rate component to generate revenues that will be used to conserve water resources and address climate changes that affect Water Services, along with a separate solid waste rate component to generate revenues that will be used for solid waste management and recycling services, to restructure the current $4.00 environmental management fee ("Environmental Management Fee").

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. Notice of Intention.

The City Council hereby adopts a notice of intention to increase Water Services rates or rate components, fees or service charges.

SECTION 2. Public Hearing.

A public hearing will be held before the City Council to consider proposed increases to Water Services rates or rate components, fees or service charges at the regularly scheduled public meeting on **Tuesday, June 2, 2020, at 6:00 p.m. in the Council Chambers at City Hall, 211 West Aspen Avenue, Flagstaff, Arizona 86001.**

SECTION 3. Written Report and Cash Flow Analysis.

The City Management Services Division is directed to prepare a written report or supply data supporting the increased rates or rate components, fees or service charges.

The written report or data shall include cash flow projections that indicate all anticipated revenues

from residential and nonresidential customers and the overall expenses for providing water or wastewater service.

This information shall be made available for public inspection at least thirty (30) days and preferably at least sixty (60) days before the public hearing, by filing it with the City Clerk's Office to be maintained as a public record, and by posting it on the City website.

SECTION 4. Effective Date.

This resolution shall be immediately effective.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 17th day of March, 2020.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

S:\Legal\Civil Matters\2017\2017-219 Environmental Management Fee\Res Notice of Intent EMF & WFM rates 2-28-20.docx







Notice of Intention to Increase Water Fees: Water Resource Protection and Environmental Management

City Council Meeting

March 17, 2020

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER







Overview

- Staff is seeking Council Adoption of Resolution 2020-11
- New Water Resource Protection Fee
  - Delivered though Wildland Fire Protection
- Amends the Environmental Management Fee
  - Changes from a flat Municipal Bill fee to a more equitable allocation of the fee







Water Resource Protection Fee

- Previous Council Discussion
  - February 7, 2019: Budget Retreat
  - September 10, 2019: Council Work Session
  - February 4, 2020: Budget Retreat
    - Direction to develop a new fee to cover 100% of the cost of the program







Environmental Management Fee

- Previous Council Discussion
  - February 4, 2020: Budget Retreat
    - Direction to restructure the fee based on Municipal Services versus a flat rate per bill







If Council Adopts Res. 2020-11:

- Does not increases rates until future Ordinance
- Provides Staff direction to develop fee analysis and financial plans – Report due April 17th (60 days prior to adoption)
- Staff will develop community outreach and commission presentations
- Work Session scheduled for May 12, 2020
- Public Hearings and Council Adoption in June
- Fees effective August 1, 2020







Options

- **<u>Adopt the Notice of Intention:</u>** This will begin the formal process to bring back a fee change for adoption.

- **<u>Delay Adoption of the Notice of Intention:</u>** Direct staff to explore other alternatives: This will delay the process and implementation of fee changes.

- **<u>Do not adopt the Notice of Intention:</u>** This will eliminate ongoing funding for Water Resource Protection and reduce the Wildland Fire Management Program in the calendar year 2021. The Environmental Management fee will remain with the current structure

8. F.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Shannon Anderson, Deputy City Manager
Co-Submitter:	Patrick Brown, Purchasing Director
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Approval of Contract: Approve a professional services contract for Election Consulting and Public Outreach services with NuPoint Marketing, LLC in the amount of $145,185.

STAFF RECOMMENDED ACTION:

1. Approve a professional services contract for Election Consulting and Public Outreach services (Contract No. 2020-85) with NuPoint Marketing, LLC in the amount of $145,185; and
2. Authorize the City Manager to execute the necessary documents.

Executive Summary:

The City Council is considering potential ballot measures for affordable housing, parks and recreation, open space, watershed protection and unfunded pension liability for the November 2020 general election. Staff recommends using NuPoint Marketing, LLC (NuPoint Marketing) to conduct surveys, focus groups and research for further evaluation and feedback prior to bringing the more refined ballot measures forward for the City Council's consideration. In addition, NuPoint Marketing would develop publicity pamphlets, graphic design and informational materials, website design and launch, educational videos, and social media messaging as part of public outreach services for those ballot measures selected for the November 2020 general election.

Financial Impact:

This professional services contract is funded in FY 2020-2021 in account 021-05-106-0363-4-4290 with a budget of $50,000 and in the recommended budget for FY 2021-2022 in account 001-01-011-0016-1-4290 with a budget of $150,000.

Policy Impact:

None.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

These potential ballot measures support the following Council Goals, Regional Plan goals and policies, and Climate Action and Adaptation Plan goals.

Council Goals:
High Performing Governance

- Enhance the organization's fiscal stability and increase efficiency and effectiveness

Safe & Healthy Community

- Foster a safe, secure, and healthy community

Livable Community

- Provide amenities and activities that support a healthy lifestyle.
- Support the development of attainable and accessible housing

Environmental Stewardship

- Actively manage and protect all environmental and natural resource

Regional Plan:

- E&C.3.3. Invest in forest health and watershed protection measures
- E&C.3.4. Increase the region's preparedness for extreme climate events
- E&C.6.7. Use best practices to control the spread of exotic and invasive plants, weeds, and animals, and eradicate where possible.
- OS.1.4. Use open space as opportunities for non-motorized connectivity, to interact with nature, and to enjoy the views and quiet.
- OS.1.5. Integrate open space qualities into the built environment.
- WR.6.3. Implement best management practices to protect, restore, and maintain surface waters and their contributing watersheds.
- 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.
- NH.3.3 Increase the availability of affordable housing for very low-income persons, through innovative and effective funding mechanisms.
- NH.3.5. Encourage and incentivize affordable housing.
- NH.4.1. Expand the availability of affordable housing throughout the region by preserving existing housing, including housing for very low-income persons.
- NH.5.3. Support and expand programs that prevent homelessness.
- NH5.4. Make transitional housing resources available to populations experiencing homelessness.
- REC.1.4. Design new or updated public facilities to include parks, open space, and/or recreational opportunities where feasible.

Climate Action and Adaptation Plan:
Natural Environment

- Strategy 1. Protect existing forests, resources and meaningful open space.
- Strategy 2. Improve forest management through collaboration with regional partners

Has There Been Previous Council Decision on This:

No.

Options and Alternatives:

1. Approve the professional services contract for Election Consulting and Public Outreach to NuPoint Marketing; or
2. Do not Approve the professional services contract to NuPoint Marketing.

Background/History:

On January 28, 2020, Staff sought direction from the City Council on the possibility of hiring an outside consultant for Election Consulting and Public Outreach for the upcoming 2020 election in November and presented the City Council with a draft scope of work. The City Council gave staff direction to proceed with a procurement to hire an election consultant, and gave input to incorporate into the scope of work that would be part of the Request for Proposals (RFP).

On January 31, 2020, Purchasing staff posted the RFP solicitation for Election Consultant and Public Outreach services on the PlanetBids website and advertised the RFP in the Arizona Daily Sun February 4th and 9th, 2020. Additionally, Purchasing sent out courtesy email notifications of the solicitation on the PlanetBids website to 6 known firms that provide this type of service. There were 4 proposals received and opened electronically on February 21, 2020. A six member selection committee consisting of City staff and two outside local organizations reviewed and evaluated the proposals. Based upon the numerical scoring of the proposals, the selection committee identified NuPoint Marketing as the most qualified firm to provide all services. The selection committee determined it was in the best interest to the City to award to one firm in lieu of multiple for different services. Final scores of the evaluation are as followed:

NuPoint Marketing	521
GlobaLocal	506
Maguire Company	500
Beta Public Relations	441

NuPoint Marketing's proposal demonstrated a clear recognition of knowledge and experience in both Election Consulting and Public Outreach.

Key Considerations:

The current election timeline is as follows:

March 31, 2020 - City Council finalizes potential ballot measures
March through June 2020 - Preliminary preparations for public outreach, surveys, etc.
July 7, 2020 - Deadline for the City Council to call the election
July through October 2020 - Preparation of final public outreach informational materials and educational presentations to public
August 2020 - Staff to finalize Publicity Pamphlet for distribution
November 3, 2020 - Election Day

Community Benefits and Considerations:

NuPoint Marketing will provide public outreach to the community as part of the scope of work of this professional services contract, including, a public survey process that would start soon after the contract is finalized.

Community Involvement:

Two representatives form the community assisted in the evaluation of the proposals resulting in the selection of NuPoint Marketing.

Expanded Options and Alternatives:

1. Approve the professional services contract with NuPoint Marketing: This will allow surveys and development of the election campaign to begin as soon as possible.
2. Do not approve the professional services contract with NuPoint Marketing and direct staff to re-solicit the RFP or conduct campaign and outreach in-house. This would delay the election consulting and public outreach.

Attachments: Professional Services Contract 2020-85

CONTRACT FOR PROFESSIONAL SERVICES
Contract No. 2020-85

This Contract is entered into this _____ day of _____, 20___ by and between the City of Flagstaff, a political subdivision of the State or Arizona ("City"), and, StrongPoint Mobius Partners, LLC., doing business as NuPoint Marketing, an Arizona limited liability company ("Consultant").

WHEREAS, the City of Flagstaff desires to receive and Consultant is able to provide Election Consulting and Public Outreach services; and

NOW THEREFORE, in consideration for the mutual promises contained herein, the City and Consultant (the "parties") agree as follows:

SERVICES

1. Scope of Work: Consultant shall provide Election Consultant services to develop, implement and campaign through public outreach the City of Flagstaff's ballot measures as generally described as followed:

ELECTION CONSULTING AND PUBLIC OUTREACH

and as more specifically described in the scope of work attached hereto as *Exhibit A.*

2. Compensation: In consideration for the Consultant's satisfactory performance, City shall pay Consultant **one hundred forty-five thousand one hundred eighty-five dollars ($145,185.00).** Any price adjustment must be approved by mutual written consent of the parties. The City Manager or his/her designee (the Purchasing Director) may approve an adjustment if the annual increased price is less than $50,000; otherwise, City Council approval is required. Price increases will be processed according to Article 41 of this contract.

3. Standard Terms and Conditions: The City of Flagstaff Standard Terms and Conditions, attached hereto as *Exhibit B,* are hereby incorporated into this Contract by reference and shall apply to performance of this Contract, except to the extent modified in *Exhibit B.*

4. Key Personnel/Subcontractors: Consultant's shall provide the contact information for Key Personnel and Subcontractors (if any). Key Personnel are those employees whose license number and signature will be placed on key documents and those employees who have significant responsibilities for completion of the services. The City Representative for this contract has the right to approve any proposed substitution of Key Personnel or Subcontractors.

CITY RESPONSIBILITIES

5. City Representative: The City Representative is Shannon Anderson. All communications to the City shall be through the City Representative. City Representative is responsible for bringing any request for a contract amendment or price adjustment to the attention of the Purchasing Director.

6. City Cooperation: City will cooperate with Consultant by placing at its disposal all available information concerning the City, City property, or the City project reasonably necessary for Consultant's performance of this Contract.

CONTRACT TERM

7. Contract Term: The Contract term is for a period of two (2) years unless terminated pursuant to the Standard Terms and Conditions. This Contract shall be effective as of the date signed by both parties.

8. Renewal: This Contract may be renewed or extended for up to one additional two-year term by mutual written consent of the parties. The City Manager or his designee (the Purchasing Director) shall have authority to approve renewal on behalf of the City.

9. Additional Services: The City reserves the right to add or remove services at any time as needed for the election campaign. Service revisions will be made through written amendment pursuant to Article 41 of the Standard Terms and Conditions contained in this contract as *Exhibit B.*

DATA AND RECORDS

10. City Ownership of Document and Data: Any original documents prepared or collected by Consultant in performance of this Contract such as models, samples, reports, test plans, survey results, graphics, tables, charts, plans, maps, specifications, surveys, computations and other data shall be the property of City ("City's work product"), unless otherwise agreed by the parties in writing. Consultant agrees that all materials prepared under this Contract are "works for hire" within the meaning of the copyright laws of the United States and hereby assigns to the City all rights and interests Consultant may have in the materials it prepares under this Contract, including any right to derivative use of the material.

11. Re-Use. City may use City's work product without further compensation to Consultant; provided, however, City's reuse without written verification or adaption by Consultant for purposes other than contemplated herein is at City's sole risk and without liability to Consultant. Consultant shall not engage in any conflict of interest nor appropriate any portion of City's work product for the benefit of Consultant or any third parties without City's prior written consent.

12. Delivery of Document and Data: Upon termination of this Contract in whole or part, or upon expiration if not previously terminated, Consultant shall immediately deliver to City copies all of City's work product and any other documents and data accumulated by Consultant in performance of this Contract, whether complete or in process.

MISCELLANEOUS

13. Notice: Any notice concerning this Contract shall be in writing and sent by certified mail and email as follows:

To the City:

Shannon Anderson
Deputy City Manager
City of Flagstaff
211 W. Aspen Avenue

To Consultant:

Mary Rowley, APR
CEO & Managing Partner
NuPoint Marketing
4400 E. Broadway Street, Suite 315
Tucson, AZ. 85711

Flagstaff, AZ 86001
sanderson@flagstaffaz.gov
Phone: (928) 213-2084

mrowley@nupointmarketing.com
Phone: (520) 795-1566 x222

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

14. Authority. Each party warrants that it has authority to enter into this Contract and perform its obligations hereunder, and that it has taken all actions necessary to enter into this Contract.

NuPoint Marketing

_____

Print name: _____

Title: _____

Date: _____

CITY OF FLAGSTAFF

_____

Greg Clifton

City Manager

Date: _____

Attest:

_____
City Clerk

Approved as to form:

_____
City Attorney's Office

EXHIBIT A

SCOPE OF WORK

Election Consultant to assist the City with ballot evaluation, development, implementation and public outreach. The Election Consultant shall:

Consulting Service:

- Review recent, relevant documents from Parks & Recreation, Open Space, Housing and Flagstaff Watershed Protection Project, potential ballot measures from other agencies, and election history.
- Collaborate with City staff to develop key components of the informational messages regarding any proposed projects and purposes of any potential bond measures for Parks & Recreation, Open Space, Housing and Flagstaff Watershed Protection Project (FWPP).
- Coordinate with City staff, Council members and others, as requested, to identify methods and techniques to effectively communicate the results and conclusions of the Parks & Recreation and Open Space Priorities Committee, Housing Commission and FWPP stakeholders.
- Assist City staff in designing ballot measures to include optimal ballot language and best practices for ballot measures.
- Support City staff on presentations to Council members, as requested.

Outreach Services:

- Conduct opinion research in the form of a survey and focus group to gather public opinion on Parks & Recreation, Open Space, and Housing potential bond measures.
- Collaborate with City staff to develop messaging and communications plan to educate the public about potential bond measures for Parks & Recreation, Open Space, Housing and Flagstaff Watershed Protection Project.
- Develop required election-related publicity pamphlets for Parks & Recreation, Open Space, Housing and Flagstaff Watershed Protection Project potential bond measures.
- Develop outreach strategies to educate the public, including the creation of design graphics, informational materials and website, and educational videos.
- Assist City staff with public outreach using social media, direct mailers and advertising through appropriate local venues.
- Attend project team meetings to strategize on educating the public with proper educational messaging and outreach.
- Support City staff on presentations to Council members, as requested.

Additional Services as Needed:

The City may need to add or delete election measures as necessary, or add other election initiatives if necessary. Any additions of service will be in accordance to Article 41 of this contract through an Amendment.

Fees For Services

Fees for Consulting Services

Hourly Fee: All members of the Consultant team are billed at a blended hourly rate of $150.

Bond Measure Language Consulting $1,300

- Evaluate results of the bond survey research for bond composition
- Craft bond contents that meet the need of residents
- Provide a recommendation to City of Flagstaff staff

Bond Initiative Consulting

- Phase 1: Develop strategy and communications plan $4,700
- Phase 2: Message development $3,500
- Ongoing consulting and client meetings (across 9 months), including supporting City staff on presentations to Council members, as requested $5,750

Fees for Outreach Services

Hourly Fee: All members of the Consultant team are billed at an hourly rate of $150.

Surveys, Focus Groups, and Research

- Open Public Web-based Survey $7,450
    - Develop the questionnaire
    - Code and host the online survey
    - Collect up to 1500 responses
    - Clean and code all data
    - Conduct data analysis on the responses
    - Aggregate all responses into a report
    - Lead presentation of the research results to City of Flagstaff leadership

- Telephone-based Bond Survey $19,500
    - Develop the questionnaire
    - Code and host the telephone survey
    - Collect 600 responses
    - Clean and code all data
    - Conduct data analysis on the responses
    - Aggregate all responses into a report
    - Lead presentation of the research results to City of Flagstaff leadership

- Brushfire Poll $3,000
    - One telephone poll of 200 randomly selected City of Flagstaff residents.

- Focus Group (Initial) $10,310
    - Develop discussion guide
    - Recruit initial focus group with qualifying participants
    - Run focus group session
    - Honoraria fee for each participant
    - Collect responses
    - Analyze responses
    - Develop focus group results report
    - Provide results report, presentation and focus group video to client

- Additional Focus Groups $2,375
    - Cost per focus group to create, organize, and recruit qualifying participants, using the discussion guide created for the initial focus group

- Focus Group Facility Expenses $300
    - Direct cost per focus group of site rental, food cost for focus group participants

Design, Website, Video and Social Media

- Developing publicity pamphlets $4,500

- Creating design graphics and informational materials $33,750

- Website Design and Launch $15,000

- Educational video conceptualization, scripting, filming, editing publishing (cost per video, depending on length, number of locations, etc.) $4,000/video

- Social Media messaging and creative development and strategy $3,200

Consulting $17,250

- Ongoing consulting, attending project team meetings and supporting City staff on presentations to Council members, as requested (across 9 months)

EXHIBIT B
STANDARD TERMS AND CONDITIONS

IN GENERAL

1. **NOTICE TO PROCEED:** Consultant shall not commence performance until after City has issued a Notice to Proceed.

2. **LICENSES AND PERMITS:** Consultant at its expense shall maintain current federal, state, and local licenses, permits and approvals required for performance of the Contract, and provide copies to City upon request.

3. **COMPLIANCE WITH LAWS:** Consultant shall comply with all applicable federal, state and local laws, regulations, standards, codes and ordinances in performance of this Contract.

4. **NON-EXCLUSIVE:** Unless expressly provided otherwise in the Contract, this Contract is non-exclusive and the City reserves the right to contract with others for materials or services.

5. **SAMPLES:** Any sample submitted to the City by the Consultant and relied upon by City as representative of quality and conformity, shall constitute an express warranty that all materials and/or service to be provided to City shall be of the same quality and conformity.

MATERIALS

6. **PURCHASE ORDERS:** The City will issue a purchase order for the materials covered by the Contract, and such order will reference the Contract number.

7. **QUALITY:** Consultant warrants that all materials supplied under this Contract will be new and free from defects in material or workmanship. The materials will conform to any statements made on the containers or labels or advertisements for the materials and will be safe and appropriate for use as normally used. City's inspection, testing, acceptance or use of materials shall not serve to waive these quality requirements. This warranty shall survive termination or expiration of the Contract.

8. **ACCEPTANCE:** All materials and services provided by Contract are subject to final inspection and acceptance by the City. Materials and services failing to conform to the Contract specifications may be rejected in whole or part. If rejected, Consultant is responsible for all costs associated arising from rejection.

9. **MANUFACTURER'S WARRANTIES:** Consultant shall deliver all Manufacturer's Warranties to City upon City's acceptance of the materials.

10. **PACKING AND SHIPPING:** Consultant shall be responsible for industry standard packing which conforms to requirements of carrier's tariff and ICC regulations. Containers shall be clearly marked as to lot number, destination, address and purchase order number. All shipments shall be F.O.B. Destination, City of Flagstaff, 211 West Aspen Avenue, Flagstaff, Arizona 86001, unless otherwise specified by the City. C.O.D. shipments will not be accepted.

11. **TITLE AND RISK OF LOSS:** The title and risk of loss of material shall not pass to the City until the City actually receives the material at the point of delivery, and the City has completed inspection and has accepted the material, unless the City has expressly provided otherwise in the Contract.

12. **NO REPLACEMENT OF DEFECTIVE TENDER:** Every tender of materials shall fully comply with all provisions of the Contract. If a tender is made which does not fully conform, this shall constitute a breach and Consultant shall not have the right to substitute a conforming tender without prior written approval from the City.

13. **DEFAULT IN ONE INSTALLMENT TO CONSTITUTE TOTAL BREACH:** Consultant may not substitute nonconforming materials, or services. Delivery of nonconforming materials, and/or services, or a default of any nature, at the option of the City, shall constitute shall deliver conforming materials, or services, in each installment or lot of the contract a breach of the contract as a whole.

14. **SHIPMENT UNDER RESERVATION PROHIBITED:** Consultant is not authorized to ship materials under reservation and no tender of a bill of lading shall operate as a tender of the materials.

15. **LIENS:** All materials and other deliverables supplied to the City shall be free of all liens other than the security interest held by Consultant until payment in full is made by the City. Upon request of the City, Consultant shall provide a formal release of all liens.

16. **CHANGES IN ORDERS:** The City reserves the right at any time to make changes in any one or more of the following: (a) methods of shipment or packing; (b) place of delivery; and (c) quantities. If any change causes an increase or decrease in the cost of or the time required for performance, an equitable adjustment may be made in the price or delivery schedule, or both. Any claim for adjustment shall be evidenced in writing and approved by the City Purchasing Director prior to the institution of the change.

PAYMENT

17. **INVOICES:** A separate invoice shall be issued for each shipment and each job completed. Invoices shall include the Contract and/or Purchase Order number, and dates when goods were delivered or work performed. Invoices shall be sent within 30 days following performance. Payment will only be made for satisfactory materials and/or services received and accepted by City.

18. **LATE INVOICES:** The City may deduct up to 10% of the payment price for late invoices. The City operates on a fiscal year budget, from July 1 through the following June 30. Except in unusual circumstances, which are not due to the fault of Consultant, City will not honor any invoices or claims submitted after August 15 for materials or services supplied in the prior fiscal year.

19. **TAXES:** Consultant shall be responsible for payment of all taxes including federal, state, and local taxes related to or arising out of Consultant's performance of this Contract. Such taxes include but are not limited to federal and state income tax, social security tax, unemployment

insurance taxes, transaction privilege taxes, use taxes, and any other taxes or business license fees as required.

Exception: The City will pay any taxes which are specifically identified as a line item dollar amount in the Consultant's bid, proposal, or quote, and which were considered and approved by the City as part of the Contract award process. In this event, taxes shall be identified as a separate line item in Consultant's invoices.

20. **FEDERAL EXCISE TAXES:** The City is exempt from paying certain Federal Excise Taxes and will furnish an exemption certificate upon request.

21. **FUEL CHARGES:** Consultant at its own expense is liable for all fuel costs related to performance. No fuel surcharges will be accepted or paid by City.

22. **DISCOUNTS:** If the Contract provides for payment discounts, payment discounts will be computed from the later date of the following: (a) when correct invoice is received by the City; or (b) when acceptable materials and/or materials were received by City.

23. **AMOUNTS DUE TO THE CITY:** Consultant must be current and remain current in all obligations due to the City during performance. Payments to Consultant may be offset by any delinquent amounts due to City or fees and charges owed to City under this Contract.

24. **OFAC:** No City payments may be made to any person in violation of Office of Foreign Assets Control regulations, 31 C.F.R. Part 501.

SERVICES

25. **INDEPENDENT CONTRACTOR:** Consultant shall be an independent contractor for purposes of all laws, including but not limited to the Fair Labor Standards Act, Federal Insurance Contribution Act, Social Security Act, Federal Unemployment Tax Act, Internal Revenue Code, Immigration and Naturalization Act; Arizona revenue and taxation, workers' compensation, and unemployment insurance laws.
26. **CONTROL:** Consultant shall be responsible for the control of the work.
27. **WORK SITE:** Consultant shall inspect the work site and notify the City in writing of any deficiencies or needs prior to commencing work.
28. **SAFEGUARDING PROPERTY:** Consultant shall responsible for any damage to real property of the City or adjacent property in performance of the work and safeguard the worksite.
29. **QUALITY:** All work shall be of good quality and free of defects, performed in a diligent and professional manner.
30. **ACCEPTANCE:** If work is rejected by the City due to noncompliance with the Contract, The City, after notifying Consultant in writing, may require Consultant to correct the deficiencies at Consultant's expense, or cancel the work order and pay Consultant only for work properly performed.
31. **WARRANTY:** Consultant warrants all work for a period of one (1) year following final acceptance by the City. Upon receipt of written notice from the City, Consultant at its own

expense shall promptly correct work rejected as defective or as failing to conform to the Contract, whether observed before or after acceptance, and whether or not fabricated, installed or completed by Consultant, and shall bear all costs of correction. If Consultant does not correct deficiencies within a reasonable time specified in the written notice from the City, the City may perform the work and Consultant shall be liable for the costs. This one-year warranty is in addition to, and does not limit Consultant's other obligations herein. This warranty shall survive termination or expiration of the Contract.

INSPECTION, RECORDS, ADMINISTRATION

32. RECORDS: The City shall have the right to inspect and audit all Consultant books and records related to the Contract for up to five (5) years after completion of the Contract.

33. RIGHT TO INSPECT BUSINESS: The City shall have the right to inspect the place of business of the Consultant or its subcontractor during regular business hours at reasonable times, to the extent necessary to confirm Contract performance.

34. PUBLIC RECORDS: This Contract and any related materials are a matter of public record and subject to disclosure pursuant to Arizona Public Records Law, A.R.S. § 39-121 et seq. If Consultant has clearly marked its proprietary information as "confidential", the City will endeavor to notify Consultant prior to release of such information.

35. CONTRACT ADMINISTRATION: Consultant will be required to participate in the City's Contract Administration Process. Consultant will be closely monitored for contract compliance and will be required to promptly correct any deficiencies.

INDEMNIFICATION, INSURANCE

36. GENERAL INDEMNIFICATION: Consultant shall indemnify, defend and hold harmless the City, its council, boards and commissions, officers, employees from all losses, claims, suits, payments and judgments, demands, expenses, attorney's fees or actions of any kind resulting from personal injury to any person, including employees, subcontractors or agents of Consultant or damages to any property arising or alleged to have arisen out of the negligent performance of the Contract, except any such injury or damages arising out of the sole negligence of the City, its officers, agents or employees. This indemnification provision shall survive termination or expiration of the Contract. This indemnification clause shall not apply, if a different indemnification clause is included in the City's Specific Terms and Conditions.

37. INSURANCE: Consultant shall maintain all insurance coverage required by the City, including public liability and worker's compensation.

38. INTELLECTUAL PROPERTY INDEMNIFICATION: Consultant shall indemnify and hold harmless the City against any liability, including costs and expenses, for infringement of any patent, trademark or copyright or other proprietary rights of any third parties arising out of contract performance or use by the City of materials furnished or work performed under this Contract. Consultant shall promptly assume full responsibility for the defense of any suit or proceeding which is, has been, or may be brought against the City and its agents for alleged infringement, or alleged unfair competition resulting from similarity in design, trademark or appearance of goods, and indemnify the City against any and all expenses, losses, royalties,

profits and damages, attorneys fees and costs resulting from such proceedings or settlement thereof. This indemnification shall survive termination or expiration of the Contract.

CONTRACT CHANGES

39. PRICE INCREASES: Except as expressly provided for in the Contract, no price increases will be approved.

40. COMPLETE AGREEMENT: The Contract is intended to be the complete and final agreement of the parties.

41. AMENDMENTS: This Contract may be amended by written agreement of the parties. The City Manager or his/her designee (the Purchasing Director) may administrative approve the amendment if the amended price is less than $50,000; otherwise City Council approval is required.

42. SEVERABILITY: If any term or provision of this Contract is found by a court of competent jurisdiction to be illegal or unenforceable, then such term or provision is deemed deleted, and the remainder of this Contract shall remain in full force and effect.

43. NO WAIVER: Each party has the right insist upon strict performance of the Contract, and the prior failure of a party to insist upon strict performance, or a delay in any exercise of any right or remedy, or acceptance of materials or services, shall not be deemed a waiver of any right to insist upon strict performance.

44. ASSIGNMENT: This Contract may be assigned by Consultant with prior written consent of the City, which will not be unreasonably withheld. Any assignment without such consent shall be null and void. Unless expressly provided for in a separately executed Consent to Assignment, no assignment shall relieve Consultant (Assignor) from any of its obligations and liabilities under the Contract with respect to City. The Purchasing Director shall have authority to consent to an assignment on behalf of City.

45. BINDING EFFECT: This Contract shall be binding upon and inure to the benefit of the parties and their successors and assigns.

EMPLOYEES AND SUBCONTRACTORS

46. SUBCONTRACTING: Consultant may subcontract work in whole or in part with the City's advance written consent. City reserves the right to withhold consent if subcontractor is deemed irresponsible and/or subcontracting may negatively affect performance. All subcontracts shall comply with the underlying Contract. Contractor is responsible for Contract performance whether or not subcontractors are used.

47. NONDISCRIMINATION: Consultant shall not discriminate against any employee or applicant for employment or person to whom it provides services because of race, color, religion, sex, national origin, disability, genetic information, veteran's status, pregnancy, familial status and represents and warrants that it complies with all applicable federal, state and local laws and executive orders regarding employment. In addition, any Consultant located within City of

Flagstaff limits shall comply with the City Code, Chapter 14-02Civil Rights which also prohibits discrimination based on sexual orientation, or gender identity or expression.

48. **DRUG FREE WORKPLACE:** The City has adopted a Drug Free Workplace policy for itself and those doing business with the City to ensure the safety and health of all persons working on City contracts and projects. Consultant personnel shall abstain from use or possession of illegal drugs while engaged in performance of this Contract.

49. **IMMIGRATION LAWS:** Pursuant to A.R.S. § 41-4401, Consultant hereby warrants to the City that the Consultant and each of its subcontractors will comply with, and are contractually obligated to comply with, all State and Federal Immigration laws and regulations that relate to its employees and A.R.S. § 23-214(A) (hereinafter "Consultant Immigration Warranty"). A breach of the Consultant Immigration Warranty shall constitute a material breach of this Contract and shall subject the Consultant to penalties up to and including termination of this Contract at the sole discretion of the City. The City retains the legal right to inspect the papers of any Consultant or subcontractor employee who works on this Contract to ensure compliance with the Consultant Immigration Warranty. Consultant agrees to assist the City in regard to any such inspections. The City may, at its sole discretion, conduct random verification of the employment records of the Consultant and any subcontractors to ensure compliance with Consultant's Immigration Warranty. Consultant agrees to assist the City in regard to any random verification performed. Neither Consultant nor any subcontractor shall be deemed to have materially breached the Consultant Immigration Warranty if Consultant or subcontractor if Consultant or subcontractor establishes that it has complied with the employment verification provisions prescribed by sections 274A and 274B of the Federal Immigration and Nationality Act and the E-verify requirements prescribed by A.R.S. § 23-214(A).

DEFAULT AND TERMINATION

50. **TERMINATION FOR DEFAULT:** Prior to terminating this Contract for a material breach, the non-defaulting party shall give the defaulting party written notice and reasonable opportunity to cure the default, not to exceed thirty (30) days unless a longer period of time is granted by the non-defaulting party in writing. In the event the breach is not timely cured, or in the event of a series of repeated breaches the non-defaulting party may elect to terminate Contract by written notice to Consultant, which shall be effective upon receipt. In the event of default, the parties may execute all remedies available at law in addition Contract remedies provided for herein.

51. **CITY REMEDIES:** In the event of Consultant's default, City may obtain required materials and/or services from a substitute Consultant, and Consultant shall be liable to the City to pay for the costs of such substitute service. City may deduct or offset the cost of substitute service from any balance due to Consultant, and/or seek recovery of the costs of substitute service against any performance security, and/or collect any liquidated damages provided for in the Contract. Remedies herein are not exclusive.

52. **CONSULTANT REMEDIES:** In the event of City's default, Consultant may pursue all remedies available at law, except as provided for herein.

53. **SPECIAL DAMAGES:** In the event of default, neither party shall be liable for incidental, special, or consequential damages.

54. **TERMINATION FOR NONAPPROPRIATION OF FUNDS:** The City may terminate all or a portion of this Contract due to budget constraints and non-appropriation of funds for the following fiscal year, without penalty or liability to Consultant.

55. **TERMINATION FOR CONVENIENCE:** Unless expressly provided for otherwise in the Contract, the parties may agree by mutual written assent to terminate the Contract for convenience, in whole or part, upon thirty (30) days written notice, without further penalty or liability to either party. If this Contract is terminated, City shall be liable only for payment for satisfactory materials and/or services received and accepted by City before the effective date of termination.

56. **TERMINATION DUE TO INSOLVENCY:** If Consultant becomes a debtor in a bankruptcy proceeding, or a reorganization, dissolution or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of Consultant under federal bankruptcy law or any state insolvency law, Consultant shall immediately provide the City with a written notice thereof. The City may terminate this Contract, and Consultant is deemed in default, at any time if the Consultant becomes insolvent, or is a party to any voluntary bankruptcy or receivership proceeding, makes an assignment for a creditor, or there is any similar action that affects Consultant's ability to perform under the Contract.

57. **PAYMENT UPON TERMINATION:** Upon termination of this Contract, City will pay Consultant for satisfactory performance up until the effective date of termination. City shall make final payment within thirty (30) days from receipt of the Consultant's final invoice.

58. **CANCELLATION FOR GRATUITIES:** The City may cancel this Contract at any time, without penalty or further liability to Consultant, if City determines that Consultant has given or offered to give any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant ("Gratuities") in connection with award or performance of the Contract.

59. **CANCELLATION FOR CONFLICT OF INTEREST (A.R.S. § 38-511):** The City may cancel this Contract within three (3) years after its execution, without penalty or further liability to Consultant.

MISCELLANEOUS

60. **ADVERTISING:** Consultant shall not advertise or publish information concerning its Contract with City, without the prior written consent of the City.

61. **NOTICES:** All notices given pursuant to this Contract shall be delivered at the addresses as specified in the Contract or updated by Notice to the other party. Notices may be: (a) personally delivered, with receipt effective upon personal delivery; (b) sent via certified mail, postage prepaid, with receipt deemed effective four (4) days after being sent; (c) or sent by overnight courier, with receipt deemed effective two (2) days after being sent Notice may be sent by email as a secondary form of notice.

62. **THIRD PARTY BENEFICIARIES:** This Contract is intended for the exclusive benefit of the parties. Nothing herein is intended to create any rights or responsibilities to third parties.

63. **GOVERNING LAW:** This Contract shall be construed in accordance with the laws of Arizona.

64. **FORUM:** In the event of litigation relating to this Contract, any action at law or in equity shall be filed in Coconino County, Arizona.

65. **ATTORNEYS FEES:** If any action at law or in equity is necessary to enforce the terms of this Contract, the prevailing party shall be entitled to recover its reasonable attorney's fees, costs, professional fees and expenses.

8. G.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Sterling Solomon, City Attorney
Date:	03/12/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Approval of Amendment to Contract: Amendment to Contract for Legal Services (on-call) with Dickinson Wright, PLLC.

STAFF RECOMMENDED ACTION:

Approve amendment for price adjustment to contract for on-call legal services with the law firm Dickinson Wright, PLLC.

Executive Summary:

In 2015, the City issued a Request for Proposals (RFP) for on-call legal services to be provided by outside legal counsel. One of the law firms that responded and is now under contract for such on-call services is Dickinson Wright, PLLC. The hourly rate at which Dickinson Wright, PLLC provides legal services to the City is on a tiered scale, based on experience. For example, partners and senior attorneys at the law firm charge a higher hourly rate than associates or paralegals, as is customary with all law firms.

Pursuant to Section 5 of the agreement, Dickinson Wright, PLLC may request an adjustment to their hourly rate (Price Adjustment). On February 21, 2020, Dickinson Wright requested a Price Adjustment for the remainder of the contract which expires later this year (November). The contact, under an extension, is almost five years old. The amount requested is not excessive and well within the discounted hourly rates currently customary in the industry. Staff believes that the new proposed hourly rates are reasonable. As an example, this law firm requesting the Price Adjustment typically charges approximately $550.00 per hour for litigation work by partners at the firm.

The hourly rates at which Dickinson Wright currently provides legal services to the City are as follows:

Partners & Senior Attorneys (Non-Litigation)	$240.00 / Per Hour
Partner & Senior Attorneys (Litigation & Arbitration)	$290.00 / Per Hour
Associates	$200.00 / Per Hour
Paralegals	$100.00 / Per Hour

If approved by Council the new hourly rates, as requested, would be as follows:

Partners & Senior Attorneys (Non-Litigation)	$325.00 / Per Hour
Partner & Senior Attorneys (Litigation & Arbitration)	$350.00 / Per Hour
Associates	$260.00 / Per Hour
Paralegals	$150.00 / Per Hour

Staff recommends approval of the Price Adjustment to the contract accordingly.

By way of additional information, staff is currently in the process of issuing a new RFP for on-call legal service contracts, as is typical every five years. New on-call contracts will be coming before the Council sometime later this year. It is anticipated that Dickinson Wright, PLLC will be one of the respondents to that forthcoming RFP, but that would be a separate matter for a future agenda.

Financial Impact:

Please see the Executive Summary above.

Policy Impact:

Maintaining well-qualified outside legal counsel to provide legal services on an on-call basis is a high priority for the implementation and defense of City policies and continued compliance with federal and state laws and regulations.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Having outside legal counsel on call allows City Council and staff to better achieve all of the Council's goals and maintain forward the objectives of the Regional Plan, the CAAP and the Strategic Plan.

Has There Been Previous Council Decision on This:

On June 16, 2015, the City Council approved the on-call contract with Dickinson Wright, PLLC.

Attachments: Request for Price Adjustment
Contract Extension
Original Contract

DICKINSON WRIGHT PLLC

1850 NORTH CENTRAL AVENUE, SUITE 1400
PHOENIX, AZ 85004-4568
TELEPHONE: (602) 285-5000
FACSIMILE: (844) 670-6009
http://www.dickinsonwright.com

SCOT L. CLAUS
SClaus@dickinsonwright.com
(602) 285-5086

RECEIVED
FEB 25 2020
City Attorney's Office

February 21, 2020

COPY VIA EMAIL
ORIGINAL VIA U.S. MAIL

Sterling T. Solomon
City Attorney
City of Flagstaff
211 W Aspen Avenue
Flagstaff, AZ 86001
SSolomon@FlagstaffAZ.gov

Re: Request for Consideration: Price Adjustment

Dear Mr. Solomon:

We value our long relationship with the City of Flagstaff. I hope that you agree that Dickinson Wright has had a track record of high-quality representation of the City. As I think you also know, we have not raised our rates charged to the City in more than five (5) years. Accordingly, we are writing to see if the City Council would consider approving the following increase to our rates charged pursuant to the City of Flagstaff Contract for Legal Services and RFP # 2015-23:

- Partners & Senior Attorneys (Non-Litigation) $325
- Partners & Senior Attorneys (Litigation) $350
- Associates: $260
- Paralegals: $150

While the foregoing represents an increase over our 2015 rates, it nonetheless still reflects a significant discount from our customary commercial rates. By way of example, my customary commercial rate is currently $550 per hour. The foregoing rates are also consistent with the rates we currently charge to other Arizona municipalities and governmental subdivisions.

Please let me know if you would like to discuss this request or if I can provide any additional information. As always, we look forward to working with you and the City in the future. Thank you for your consideration.

Sincerely,

DICKINSON WRIGHT PLLC



Scot L. Claus

SLC/smr
4819-2092-2037 v1 [99998-1655]

TER-2015-160-AG1-EX1

City of Flagstaff

October 24, 2018

Fredda Bisman, Member
Scott Holcomb, Member
Dickinson Wright PLLC
1850 North Central Avenue, Suite 1400
Phoenix, AZ 85004
fbisman@dickinsonwright.com
sholcomb@dickinsonwright.com

RE: Contract Name: On-Call Legal Services
Contract No.: 2015-23
CONTRACT EXTENSION NO.: 1

Dear Ms. Bisman and Mr. Holcomb:

The City of Flagstaff entered into contract #2015-23 with Dickinson Wright PLLC on 12/01/2015 for On-Call Legal Services, (hereafter referred to as the "Contract").

The current Contract commenced on 12/01/2015 and will expire on 11/30/2018. The Contract provides for one (1) additional two-year Contract Extension with the same terms and conditions as the original Contract by mutual agreement between the City of Flagstaff and Dickinson Wright PLLC.

The City of Flagstaff is requesting your consideration to this two-year Contract Extension, effective 12/01/2018 to 11/30/2020. If your organization is willing to continue services for the two-year Contract Extension, please sign and return this formal letter via email to rcompau@flagstaffaz.gov.

Please let me know if you have any questions or concerns regarding this extension.

Sincerely,

Rick Compau, C.P.M., CPPO, CPPB
Purchasing Director

Dickinson Wright PLLC hereby agrees to the two-year Contract Extension per the terms, conditions, as well as the scope of work outlined in Contract #2015-23 dated 12/01/2015.

Scott A Holcomb — **Authorized Signature**

11/8/18 — **Date**

Member — **Title**

2015 160

CONTRACT FOR LEGAL SERVICES (On-Call)
CITY OF FLAGSTAFF

THIS CONTRACT is made and entered into on this 1st day of, December by and between the **City of Flagstaff**, a municipal corporation ("City"), and the law firm of **Dickinson Wright PLLC** ("Counsel").

RECITALS

WHEREAS, City issued **RFP # 2015-23** requesting proposals for legal services;

WHEREAS, Counsel submitted a proposal and is willing to provide legal services;

NOW, THEREFORE, it is agreed between the parties as follows:

1. Scope of Service and Representation. Counsel agrees to perform all necessary legal services, including investigation, legal research, preparation of pleadings, legal memoranda and briefs, and appearances in court, in representing the City on those specific matters as subsequently confirmed by letter between the City Attorney or designee and Counsel. This confirming letter will identify the specific Matter ("Matter") and the scope of the representation, who will be the billing attorneys for Counsel on the Matter, and who will be the City's contacts and Contract Administrator on the Matter, and who will be the primary contact for Counsel, either the Risk Manager in consultation with the City Attorney's Office, or the City Attorney or designee. The legal services shall be carried out in cooperation with the City Attorney's Office, who shall be apprised of the status of the Matter on a regular basis and at least monthly. Major decisions regarding the strategy or resolution of the legal issues or litigation shall be made in coordination and with the prior approval of the City Attorney's Office. Copies of all correspondence and pleadings related to the Matter shall be provided to the City Attorney's Office and, if designated in the confirming letter, the Risk Manager. Decisions related to the management of claims may be made at the discretion of the Risk Manager in coordination with the City Attorney's Office. All offers of compromise made by opposing counsel shall be promptly transmitted to City through its City Attorney's Office, together with Counsel's recommendations. City will be responsible for obtaining proper authority to accept a compromise or for obtaining authority to make a counter-offer. No appeals will be taken from judgments in any litigation without prior approval of City, acting through its City Attorney's Office.

The attorney(s) who will have primary responsibility for overseeing all Matters are **Fredda Bisman** and **Scott Holcomb**. However, Counsel may utilize other attorneys, paralegals, or other employees when appropriate upon approval of the City Attorney in the confirming letter for a Matter and pursuant to the generalized fee schedule in Section 3 below. Staffing decisions will be made with the objective of providing the best possible professional services for the City in an efficient and cost-effective manner.

2. **Advice and Status Reporting**. Counsel shall provide City with timely advice of all significant developments arising during performance of their services hereunder orally or in writing, as Counsel considers appropriate. Counsel shall provide copies of all pleadings and other documents prepared by Counsel, including research memoranda prepared by Counsel, unless they have been otherwise provided to the City Attorney's Office.

3. **Compensation**. CITY agrees to pay COUNSEL for services rendered under this Contract, up to a maximum of $250,000 per year or as further limited in the confirming letter for a MATTER, per Exhibit A of this Contract, which are part of this Contract and adopted by reference.

3.1 $0 per hour for "process servers" or "runners". (However costs of service are reimbursable).

3.2 Travel time shall be billed at no more than 50% of the hourly rates set forth above.

4. **Term.** The initial term of this Contract shall be for a three (3) year period, and may be renewed by mutual agreement of the parties for an additional two year term.

5. **Price Adjustment**. Counsel may offer to reduce its prices at any time to CITY. Counsel may request a price increase for the following fiscal year (effective July 1), provided that such request is received prior to March 1 annually. City is unable to consider requests for price increases which are untimely.

5.1 Any increased rate shall be based upon mutual consent of Counsel and the City and processed as an amendment to this Contract and as an amendment to the retention letter for a specific Matter; however, the Contract Administrator shall evaluate Counsel's performance, services and records documentation to determine the appropriateness of the increase requested, including the rates Counsel charges to other governmental clients.

5.2 Any increased rate greater than five percent (5%) must be approved by the Flagstaff City Council; an increased rate of less than 5% may be approved by the City Attorney.

6. **Travel**. Approval for travel shall be obtained through the City Attorney's Office or Risk Manager prior to departure. Travel time may be billed to City at no more than 50% of the attorney's hourly rate. "Reasonable expenses" means expenses not exceeding one hundred eighty five dollars ($185.00) per night for hotel rooms, seventy-five dollars ($75.00) per person per day for meals including gratuity, and for the rental charges of the most economical type of rental car available. When possible, Counsel, consultants, experts, and subcontractors shall stay at hotels that charge a government rate. When traveling by airplane, whenever possible, reduced fare tickets shall be purchased. Gasoline shall not be billed to City except when a rental car is used out-of-state.

7. **Reimbursement for Expenses.** All costs and other disbursements for outside services not specified hereinabove shall be billed at actual cost, plus employee related costs, if any. All copying charges shall be billed at no more than fifteen cents ($.15) per page. To the extent practical, large photocopying tasks will be sent out to an outside copy service in an effort to further reduce photocopying costs. City will not reimburse Counsel for outgoing faxes, online legal research services (such as Westlaw, Lexis, or other similar services), or document management platforms (such as Relativity, Summation, CaseCentral, etc.).

8. **Billing Procedures.** Counsel shall follow these billing procedures:

8.1 "Itemized billing"is required. Counsel shall bill for actual time spent on a task, and each task shall be itemized (e.g. tel. to opposing counsel re. time extension (1.); tel. to Mr. Smith re. events witnessed (2.); prepare motion to continue (3.).; legal research re. statutes of limitation. "Block billing" is not permissible.

8.2 Secretarial, word processing or other overtime shall not be billed (e.g., preparation of documents which are computerized or on a form, such as subpoenas, notices of deposition, independent medical examinations, medical authorizations, trial notices, uniform interrogatories, and requests to produce); only the actual time spent by the attorney reviewing, revising or drafting such documents shall be billed.

8.3 Whenever possible, attorneys shall minimize time spent consulting with one another and agree to use their best efforts to minimize the costs of the legal representation to City. Internal conferences are billable only by one of the participants. Work on this matter billed by attorneys not listed in the confirming letter must be approved by the Contract Administrator in advance.

8.4 All consultants, experts and subcontractors engaged to provide services to Counsel in the performance of this Contract, and the use and extent of those services, shall be approved by the City in advance. Payment of their expenses will be subject to the same terms as paragraphs 4 and 5 above.

8.5 Counsel shall submit monthly billings for services rendered and expenses incurred, which shall be paid by the City.

8.6 Each bill shall contain information to enable City to easily identify its ongoing costs related to each specific Matter, including the following:

8.6.1 Fees and costs incurred in the preceding month for each specific Matter (the invoiced amount);

8.6.2 Fees and costs incurred since inception for each specific Matter(the accruing expense of the Matter), even if the Matter has been ongoing for a considerable length of time; and

8.6.3 Total amount invoiced during the City's current fiscal year (July 1 to June 30).

8.7 Counsel will use its best efforts to inform the City eight weeks prior to Counsel billing the final fees and costs authorized under this contract. City will pay no fees incurred over and above the contract amount or specified in the confirming letter without prior authorization from City.

9. Maintenance of Records. City may audit all services performed by Counsel with reasonable notice to Counsel. Counsel shall maintain all books, documents, papers, accounting records, and other evidence pertaining to time billed and to costs incurred on a Matter for a time period consistent with the City's record retention policy, which shall be four years from conclusion of the final payment on a specific Matter. Upon reasonable notice by the City, Counsel shall make such materials available for review at their offices and, if requested, copies thereof shall be furnished or provided to City at City's expense.

10. Conflict of Interest. Counsel warrants and covenants that Counsel presently has no interest in, nor shall any interest be hereinafter acquired in, any matter which will render the services required under the provisions of this Contract a violation of any applicable local, state, or federal law or ethical standard, including the Arizona Rules of Professional Conduct. It shall be Counsel's responsibility to check for the existence of conflicts of interest. In the event that any conflict of interest should nevertheless hereinafter arise, Counsel shall promptly notify City of the existence of such conflict of interest, so that City may determine whether to terminate this Contract. The City Attorney is authorized to grant customary conflicts waivers to Counsel on behalf of the City.

11. Reporting Requirements. Within sixty (60) days following the issuance of a confirmation letter for a Matter, or at the time disclosure statements are first filed, whichever is sooner, Counsel shall provide City with an initial written evaluation containing the following:

11.1 A summary of the Matter's facts and issues;

11.2 An evaluation of the potential exposure to City;

11.3 An outline of the course of action Counsel intends to pursue in the matter (e.g., names and/or categories of witnesses to be interviewed or deposed; experts to be retained; motions to be filed; etc.);

11.4 An estimate of the cost (budget) to represent City through resolution of the Matter;

11.5 A cost/benefit analysis, including recommendations as to early settlement or offers of judgment; and,

11.6 The name of the attorney who will be primarily responsible for handling the Matter, the names of others who will assist that person, and their hourly rates consistent with this Contract.

12. Additional Investigation. Whenever additional investigation is deemed desirable by Counsel and can be provided by use of non-attorney investigators, Counsel shall notify City of such need, and City may elect, at its option, to conduct such investigation. In this event, City shall be solely responsible for the accuracy of the facts or other information developed in response to such requests.

13. Termination. City may terminate this Contract in whole or part with or without cause upon giving ten (10) days written notice. In the event of termination for cause, City shall not be liable to Counsel for any amount, and Counsel shall be liable to City for any and all damages sustained by reason of the default which gave rise to the termination. Any notice of cancellation shall specify the particular matter to which it applies, and any matter not particularly specified shall continue to be handled by Counsel and, as to those, this Contract will continue in effect; provided, however, the right is retained by City to terminate services at any time by notifying Counsel in writing.

14. Relocation of Assigned Attorney. If an attorney assigned to a Matter leaves the employment of Counsel, Counsel will immediately notify City. City may, in its sole discretion, request transfer of that Matter to a new firm or work with another attorney employed by Counsel.

15. Notices. When notice or correspondence is required to be sent to City, it shall be sent to the following:

City Attorney	and to:	Risk Manager
City of Flagstaff		City of Flagstaff
211 West Aspen Avenue		211 West Aspen Avenue
Flagstaff, Arizona 86001		Flagstaff, AZ 86001

Should the above notification information change, City will notify Counsel in writing.

When notice or correspondence is required to be sent to Counsel, it shall be sent to: **Michelle D'Andrea, City Attorney, 211 West Aspen Avenue, Flagstaff, Arizona 86001**

16. Indemnification For Liability and Professional Liability. To the fullest extent permitted by law Counsel, its successors, assigns and guarantors, shall defend, indemnify and hold harmless City, its agents, representatives, officers, directors, officials and employees from and against all allegations, demands, proceedings, suits, actions, claims, damages, losses, expenses, including but not limited to, attorney fees, court costs, and the

cost of appellate proceedings, and all claim adjusting and handling expense, related to, arising from or out of or resulting from any negligent, or intentional actions, acts, errors, mistakes or omissions caused in whole or part by Counsel relating to work or services in the performance of this Contract, including but not limited to, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and any injury or damages claimed by any of Counsel's and Subcontractor's employees.

16.1 Insurance provisions set forth in this Contract are separate and independent from the indemnity provisions of this section and shall not be construed in any way to limit the scope and magnitude of the indemnity provisions. The indemnity provisions of this paragraph shall not be construed in any way to limit the scope and magnitude and applicability of the insurance provisions.

17. Insurance Representations and Requirements

17.1 Counsel agrees to comply with all applicable City Ordinances and state and federal laws and regulations.

17.2 Without limiting any obligations or liabilities of Counsel, Counsel shall purchase and maintain, at its own expense, the minimum insurance required by this Contract with insurance companies duly licensed by the State of Arizona (admitted insurer) with an AM Best, Inc. rating of B ++ 6 or above or an equivalent qualified unlicensed insurer by the State of Arizona (non-admitted insurer) with policies and forms satisfactory to City. Failure to maintain insurance as specified may result in termination of this Contract at City's option.

17.3 No Representation of Coverage Adequacy: By requiring insurance herein, City does not represent that coverage and limits will be adequate to protect Counsel. City reserves the right to review any and all of the insurance policies and/or endorsements cited in this Contract but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Contract or failure to identify any insurance deficiency shall not relieve Counsel from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Contract.

17.4 Coverage Term: All insurance required herein shall be maintained in full force and effect until all work or services required to be performed under the terms of subject contract is satisfactorily performed, completed and formally accepted by the City, unless specified otherwise in this Contract.

17.5 Claims Made: In the event any insurance policies required by this Contract are written on a "claims made" basis, coverage shall extend, either by keeping coverage in force or purchasing an extended reporting

option, for three (3) years past completion and acceptance of the work or services evidenced by submission of annual Certificates of Insurance citing applicable coverage is in force and contains the provisions as required herein for the three year period.

17.6 Use of Subcontractors: Counsel shall not use subcontractors to perform work under this Contract, unless specifically authorized by the City.

17.7 Evidence of Insurance: Prior to commencing any work or services under this Contract, Counsel shall furnish City with Certificate(s) of Insurance, or formal endorsements as required by this Contract, issued by Counsel's insurer(s) as evidence that policies are placed with acceptable insurers as specified herein and provide the required coverages, conditions, and limits of coverage and such coverage and provisions are in full force and effect. If a Certificate of Insurance is submitted as verification of coverage, City shall reasonably rely upon the Certificate of Insurance as evidence of coverage but such acceptance and reliance shall not waive or alter in any way the insurance requirements or obligations of this Contract. If any of the cited policies expire during the life of this Contract, it shall be Counsel's responsibility to forward renewal Certificates within ten (10) days after the renewal date containing all the aforementioned insurance provisions.

17.8 Required Coverage:

17.8.1 Professional Liability: Counsel shall maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by Counsel, or anyone employed by Counsel, or anyone for whose acts, mistakes, errors and omissions Counsel is legally liable, with a liability insurance limit of $1,000,000 each claim and $2,000,000 all claims. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage shall extend for three (3) years past completion and acceptance of the work or services, and Counsel shall be required to submit Certificates of Insurance evidencing proper coverage is in effect as required above.

17.8.2 Vehicle Liability: Counsel shall maintain Business Automobile Liability insurance with a limit of $1,000,000 each accident on Counsel's owned, hired, and non-owned vehicles assigned to or used in the performance of the Counsel's work or services under this Contract.

17.8.3 Workers' Compensation Insurance: Counsel shall maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Counsel's employees engaged in the performance of work or services under

this Contract and shall also maintain Employers Liability Insurance of not less than $100,000 for each accident, $100,000 disease for each employee and $500,000 disease policy limit.

17.9 Additional Insurance Requirements:

17.9.1 City, its agents, representatives, officers, directors, officials and employees shall be named an Additional Insured under the following policies: a) Business Automobile Liability.

17.9.2 Counsel's insurance shall be primary insurance as respects performance of this Contract.

17.9.3 All policies, except Professional Liability insurance, waive rights of recovery (subrogation) against City, its agents, representatives, officers, directors, officials and employees for any claims arising out of work or services performed by Counsel under this contract.

18. **Choice of Law**. This Contract shall be governed and interpreted according to the laws of the State of Arizona.

19. **Whole Agreement.** This Contract constitutes the entire understanding of the parties, and no representations or agreements, oral or written, made prior to its execution shall vary or modify the terms herein.

20. **Amendments**. Any amendment, modification or variation from the terms of this Contract shall be in writing and shall be effective only after approval of all parties signing the original Contract. Should there be a change in the Contract Administrator, however, CITY shall only need to notify Counsel in writing.

21. **Non-Assignment.** Services covered by this Contract shall not be assigned or sublet in whole or in part without the prior written consent of the City.

22. **Cancellation.** In accordance with A.R.S. § 38-511, the City may cancel this Contract, without penalty or obligation, if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of City's departments or agencies is, at any time while the contract or any extension of the contract is in effect, an employee of any other party of the contract in any capacity, or a consultant to any other party of the contract with respect to the subject matter of the contract. The cancellation shall be effective when written notice from City is received by all other parties to the contract, unless the notice specifies a later time.

23. **Independent Contractor Status**. The services Counsel provides under the terms of this Contract to CITY are that of an independent contractor, not an employee. CITY shall report the value paid for these services each year to the Internal Revenue Service (I.R.S.) using Form 1099. Withholding of income tax is not deducted from contractual payments. As a result of this, Counsel may be subject to I.R.S. provisions for payment of

estimated income tax. Consult the local I.R.S. office for current information on estimated tax requirements. Failure to comply may subject Counsel to a penalty.

24. **Attorney's Fees in Contract Dispute.** In the event any action at law or in equity is instituted between the parties in connection with this Contract, the prevailing party in the action shall be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing party.

25. **Severability**. Should any part of this Contract be declared in a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of this Contract, which shall continue in full force and effect, provided that the remainder of this Contract, absent the excised portion, can be reasonably interpreted to give effect to the intentions of the parties.

26. **Compliance with Federal Immigration Laws and Regulations.** Counsel warrants that it complies with all Federal Immigration laws and regulations that relate to their employees and complies with A.R.S. § 23-214.A. COUNSEL acknowledges that pursuant to A.R.S. § 41-4401, a breach of this warranty is a material breach of this contract subject to penalties up to and including termination of this contract, and that the City retains the legal right to inspect the papers of any employee who works on the contract to ensure compliance with this warranty.

27. **Licenses.** Counsel shall maintain current and in good standing all Federal, State, and local licenses and permits required for performance of services.

28. **Nonexclusive.** City may enter into other contracts for legal services with any firm of its choosing. This Contract is non-exclusive.

City of Flagstaff

Gerald W. Nabours
Mayor

Josh Copley
City Manager

Law Firm

Dickinson Wright PLLC

By:

Title: MEMBER

Attest:

City Clerk

Approved as to form:

City Attorney

Exhibit A

Please see attached hourly rates and/or fees which are part of this Contract and adopted by reference. All reimbursement of costs and out of pocket expenses not paid directly by the City shall be paid by the City based on the costs/expenses outlined in Sections 3 "Compensation", Section 6 "Travel" and Section 7 "Reimbursement for Expenses" of this Contract.

Exhibit A DICKINSON WRIGHT

City of Flagstaff Request for On-Call Legal Services
RFP No. 2015-23
Response of Dickinson Wright PLLC

PRICE / FEE STRUCTURE

ATTORNEY/SERVICE:	RATE/CHARGE
Partners & Senior Attorneys (Non-Litigation)	$240.00 / Per Hour
Partners & Senior Attorneys (Litigation & Arbitration)	$290.00 / Per Hour
Associates	$200.00 / Per Hour
Paralegals	$100.00 / Per Hour

PROFESSIONAL FEES AND DISBURSEMENTS

All costs and other disbursements for outside services not specified herein shall be billed at actual cost. All copying charges shall be billed at no more than twenty cents ($.20) per page, which may include an allocation of the Firm's overhead and thus exceed actual cost. To the extent practical, large photocopying tasks will be sent out to an outside copy service in an effort to further reduce photocopying costs. On-line database retrieval charges (i.e., Lexis, Westlaw, CompuServe, Dialogue, etc.) shall be billed at actual cost or the Firm's best approximation thereof in the absence of per copy or permanent charges based upon actual time of use. The Firm may charge for outgoing facsimile services (not to exceed fifty ($.50) per page, an amount estimated to cover the Firm's direct and indirect costs associated with such services.

POLICY NUMBER: (14) 7357-81-28

COMMERCIAL AUTO
CA 20 48 10 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured:

Endorsement Effective Date:

SCHEDULE

Name Of Person(s) Or Organization(s):

CITY OF FLAGSTAFF, AN ARIZONA MUNICIPAL CORPORATION
211 WEST ASPEN AVENUE
FLAGSTAFF, AZ 86001

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph **A.1.** of Section **II** – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph **D.2.** of Section **I** – Covered Autos Coverages of the Auto Dealers Coverage Form.

© Insurance Services Office, Inc., 2011

Policy Number
(14)7357-81-28

COMMON POLICY CHANGE ENDORSEMENT

Endorsement No. 001

Named Insured DICKINSON WRIGHT PLLC

Effective Date: 09-01-2015
12:01 A.M., Standard Time

Agent Name OSWALD COMPANIES

Agent No. 36539-000

This endorsement will not be used to decrease coverages, increase rates or deductibles or alter any terms or conditions of coverage unless at the sole request of the insured.

COVERAGE PART INFORMATION - Coverage parts affected by this change as indicated by [X] below.

- ☐ Commercial Property
- ☐ Commercial General Liability
- ☐ Commercial Crime
- ☐ Commercial Inland Marine
- ☒ COMMERCIAL AUTOMOBILE — NO CHARGE
- ☐

The following item(s):

- ☐ Insured's Name
- ☐ Policy Number
- ☐ Effective/Expiration Date
- ☐ Payment Plan
- ☐ Additional Interested Parties
- ☐ Limits/Exposures
- ☐ Covered Property/Located Description
- ☐ Rates
- ☐ Insured's Mailing Address
- ☐ Company
- ☐ Insured's Legal Status/Business of Insured
- ☐ Premium Determination
- ☐ Coverage Forms and Endorsements
- ☐ Deductibles
- ☐ Classification/Class Codes
- ☐ Underlying Exposure

is (are) changed to read **{See Additional Page(s)}**

THE POLICY IS AMENDED AS FOLLOWS:
ADD DESIGNATED INUSRED

THE FOLLOWING FORM(S) HAS BEEN ADDED:

CA 20 48 10-13 DESIGNATED INSURED

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME

The above amendments result in a change in the premium as follows:

This premium does not include taxes and surcharges.

☒ No Changes	☐ To be Adjusted at Audit	Additional NO CHARGE	Return NO CHARGE

Tax and Surcharge Changes

Additional	Return

AUTHORIZED AGENT

16-02-0212 (01/97)

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Rick Compau, Purchasing Director
Co-Submitter:	Michelle D'Andrea, City Attorney
Date:	06/01/2015
Meeting Date:	06/16/2015

TITLE:

Consideration and Approval of Multiple Contracts: On-Call Legal Services Contracts.

RECOMMENDED ACTION:

A) Award contracts, not to exceed $250,000 annually per firm, for On-Call Legal Services to the following fourteen (14) firms:

1.) Jones, Skelton & Hochuli
2.) Gust Rosenfeld
3.) Struck Wieneke
4.) Ayers & Brown
5.) Ryley, Carlock & Applewhite
6.) Udall Law Firm
7.) Dickinson Wright
8.) Curtis, Goodwin & Sullivan
9.) Lee Story
10.) Coppersmith Brockelman
11.) Mangum, Wall, Stoops & Warden
12.) Ellen Van Riper
13.) Holm, Wright, Hyde & Hays
14.) Hufford, Horstman & Mongini

B) Authorize the City Manager to execute the necessary documents

Executive Summary:

The City, on occasion, has the need to utilize an outside law firm based on the specific areas of expertise of the selected firms and the number of anticipated situations where outside legal services will be needed. Award of these "On-Call Legal Services" contracts will allow for more timely legal services to be provided.

Financial Impact:

Awarding multiple Contracts based on specific areas of qualifications and experience on an as needed basis will result in increased efficiency. Award of these on-call legal services contracts does not obligate the City to utilize a particular firm's services or to assign a minimum number of cases to any of these firms.

Connection to Council Goal and/or Regional Plan:

All of the 11 Council goals may need outside legal counsel in the future dependent on the particular topic.

Has There Been Previous Council Decision on This:

Yes: October 7, 2008 Council approved multiple on-call legal services contracts for an initial five (5) year contract term, with two (2) additional annual extensions. The award of multiple on-call Contracts, based on qualifications and experience in various areas of expertise, proved to be very beneficial to the City in situations where outsourcing was necessary to utilize an outside firm's expertise with regard to a particular subject matter.

Options and Alternatives:

1.) Approve the multiple Contract awards as recommended.
2.) Approve a smaller number of Contracts.
3.) Approve with a lower spending cap limit of $150,000 maximum annually.
3.) Reject the on-call legal services contract format and advertise an RFP for each individual legal services Contract as needed.

Background/History:

The City Attorney's office handles and manages a significant number of projects, which span the spectrum of size and complexity. The selection for professional services such as this, is typically a qualifications based process that can consume significant staff time and take several months to complete. To improve efficiencies, the City Attorney's office will utilize these on-call legal services contracts for expedited selection. There is an ongoing need for legal services related to specific areas of expertise.

The City's Purchasing Section conducted a Request for Proposals (RFP) process and a total of twenty-two (22) proposals were received. An evaluation committee comprised of seven (7) members evaluated the proposal responses according to the following evaluation criteria:

1.) Experience, qualifications and demonstrated areas of expertise;
2.) References and reputation;
3.) Conflicts of interest and perceived conflicts of interest;
4.) Qualifications of staff attorneys;
5.) Past performance in City of Flagstaff matters; and
6.) Price/Fee structure

After completing the evaluation process, the evaluation committee determined that it would be in the best interest of the City to award multiple on-call Contracts. The on-call legal services Contract allows for an initial three (3) year term, with the option to extend the Contract for an additional two (2) year period upon mutual agreement from both parties. None of the awarded contracts guarantee any case or that any minimum number of cases will be assigned to that firm. The City selects firms on a case-by-case basis, based upon the needs of the City in a particular legal matter.

Key Considerations:

On-call legal services contracts will allow the City to react more quickly to legal issues as they arise and will save considerable time for all parties involved. The legal firms are relieved of many hours of proposal preparation and interview time, along with related expenses. The City saves the cost of multiple legal advertisements and staff time and related soft dollar costs for conducting a formal solicitation process for each separate project where outside legal services are required.

Expanded Financial Considerations:
None.

Community Benefits and Considerations:
Enhanced protection of the City's interests in various types of legal matters.

Community Involvement:
Not applicable

Attachments: Contract For Legal Services (On-Call)
Evaluation Ranking

13. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Action on Liquor License Application: Andrea Lewkowitz "Drury Inn & Suites," 2300 S. Milton Road, Series 10 (beer and wine store), New License.

STAFF RECOMMENDED ACTION:

Open the public hearing.
Receive citizen input.
Close the public hearing.

The City Council has the option to:
(1) Forward the application to the State with a recommendation for approval;
(2) Forward the application to the State with a recommendation for denial based on information from staff, the testimony received at the public hearing and/or other factors.

Executive Summary:

The liquor license process begins at the State level and applications are then forwarded to the respective municipality for posting of the property and holding a public hearing, after which the Council recommendation is forwarded back to the State. A series 10 license allows a retail store to sell beer and wine (no other spirituous liquors), only in the original unbroken package, to be taken away from the premises of the retailer and consumed off the premises. This is a non-quota type of license.

Drury Inn & Suites is an existing business in Flagstaff. The Drury Inn partnership already possesses a Series 11 hotel license (#11033052) in Flagstaff and the Series 10 license will allow the hotel to see packaged beer and wine to guests for consumption in their hotel room which they will serve from 6 a.m. to 2 a.m. daily. If approved, it will be the 38th active series 10 license in Flagstaff. To view surrounding liquor licenses, please visit the Active Liquor Licenses Map.

The property has been posted as required, and the Police and Community Development divisions have reviewed the application and provided their respective reports.

Financial Impact:

There is no budgetary impact to the City of Flagstaff as this is a recommendation to the State.

Policy Impact:

Not applicable.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Liquor licenses are a regulatory action and there is no Council goal that applies.

Has There Been Previous Council Decision on This:

Not applicable.

Key Considerations:

Because the application is for a new license, consideration may be given to both the applicant's personal qualifications and the location.

The deadline for issuing a recommendation on this application is April 3, 2020.

Community Benefits and Considerations:

This business will contribute to the tax base of the community. We are not aware of any other relevant considerations.

Community Involvement:

The application was properly posted on February 25, 2020. No written protests have been received to date.

Attachments:

Letter to Applicant
Hearing Procedures
Series 10 Description
Drury Inn & Suites - PD Memo
Drury Inn & Suites - Zoning Memo
Drury Inn & Suites - Map

OFFICE OF THE CITY CLERK

February 27, 2020

Andrea Lewkowitz
Re: Drury Inn & Suites
2600 N. Central Avenue #1775
Phoenix, AZ 85004

Dear Ms. Lewkowitz:

Your application for a new Series 10 Liquor License for Drury Inn & Suites located at 300 S. Milton Road in Flagstaff, AZ was posted on February 25, 2020. The City Council will consider the application at a public hearing during their regularly scheduled City Council Meeting on **Tuesday, March 17, 2020 which begins at 4:30 p.m.**

It is important that you or your representative attend this Council Meeting and be prepared to answer any questions that the City Council may have. Failure to be available for questions could result in a recommendation for denial of your application. We suggest that you contact your legal counsel or the Department of Liquor Licenses and Control at 602-542-5141 to determine the criteria for your license. To help you understand how the public hearing process will be conducted, we are enclosing a copy of the City's liquor license application hearing procedures.

The twenty-day posting period for your liquor license application is set to expire on March 16, 2020 and the application may be removed from the premises at that time.

There is an $815 application fee which needs to be received prior to the hearing date. Payment can be made online at https://www.flagstaff.az.gov/2452/E--Services under Business Licensing Payment Online Services by clicking Liquor License Request Payment, in person at the payment window, or you can send a check to my attention at 211 W. Aspen Ave., Flagstaff, AZ 86001.

If you have any questions, please feel free to call me at 928-213-2077.

Sincerely,

Stacy M. Fobar
Deputy City Clerk

Enclosure

City of Flagstaff

Liquor License Application
Hearing Procedures

1. When the matter is reached at the Council meeting, the presiding officer will open the public hearing on the item.

2. The presiding officer will request that the Applicant come forward to address the Council regarding the application in a presentation not exceeding ten (10) minutes. Council may question the Applicant regarding the testimony or other evidence provided by the Applicant.

3. The presiding officer will then ask whether City staff have information to present to the Council regarding the application. Staff should come forward at this point and present information to the Council in a presentation not exceeding ten (10) minutes. Council may question City staff regarding the testimony or other evidence provided by City staff.

4. Other parties, if any, may then testify, limited to three (3) minutes per person. Council may question these parties regarding the testimony they present to the Council.

5. The Applicant may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of the Applicant.

6. City staff may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of City Staff.

7. The presiding officer will then close the public hearing.

8. The Council will then, by motion, vote to forward the application to the State with a recommendation of approval, disapproval, or shall vote to forward with no recommendation.

R19-1-702. Determining Whether to Grant a License for a Certain Location

A. To determine whether public convenience requires and the best interest of the community will be substantially served by issuing or transferring a license at a particular unlicensed location, local governing authorities and the Board may consider the following criteria:

1. Petitions and testimony from individuals who favor or oppose issuance of a license and who reside in, own, or lease property within one mile of the proposed premises;

2. Number and types of licenses within one mile of the proposed premises;

3. Evidence that all necessary licenses and permits for which the applicant is eligible at the time of application have been obtained from the state and all other governing bodies;

4. Residential and commercial population of the community and its likelihood of increasing, decreasing, or remaining static;

5. Residential and commercial population density within one mile of the proposed premises;

6. Evidence concerning the nature of the proposed business, its potential market, and its likely customers;

7. Effect on vehicular traffic within one mile of the proposed premises;

8. Compatibility of the proposed business with other activity within one mile of the proposed premises;

9. Effect or impact on the activities of businesses or the residential neighborhood that might be affected by granting a license at the proposed premises;

10. History for the past five years of liquor violations and reported criminal activity at the proposed premises provided that the applicant received a detailed report of the violations and criminal activity at least 20 days before the hearing by the Board;

11. Comparison of the hours of operation at the proposed premises to the hours of operation of existing businesses within one mile of the proposed premises; and

12. Proximity of the proposed premises to licensed childcare facilities as defined by A.R.S. § 36-881.

B. This Section is authorized by A.R.S. § 4-201(I).

License Types: Series 10 Beer and Wine Store License (Beer and wine only)

Non-transferable
Off-sale retail privileges
Note: Terms in **BOLD CAPITALS** are defined in the glossary.

PURPOSE:
Allows a retail store to sell beer and wine (no other spirituous liquors), only in the original unbroken package, to be taken away from the premises of the retailer and consumed off the premises.

ADDITIONAL RIGHTS AND RESPONSIBILITIES:
A retailer with off-sale privileges may deliver spirituous liquor off of the licensed premises in connection with a retail sale. Payment must be made no later than the time of **DELIVERY**. The retailer must complete a Department approved "Record of Delivery" form for each spirituous liquor retail delivery.

On any original applications, new managers and/or the person responsible for the day-to-day operations must attend a basic and management training class.

A licensee acting as a **RETAIL AGENT**, authorized to purchase and accept delivery of spirituous liquor by other licensees, must receive a certificate of registration from the Department.

A **PREGNANCY WARNING SIGN** for pregnant women consuming spirituous liquor must be posted within twenty (20) feet of the cash register or behind the bar.

FLAGSTAFF POLICE DEPARTMENT
911 SAWMILL RD • FLAGSTAFF, ARIZONA 86001• (928) 779-3646
ADMIN FAX (928)213-3372
TDD 1-800-842-4681

Chief of Police
Kevin D. Treadway

MEMORANDUM

Memo # 20-016

TO **Chief Treadway**

FROM **Sgt. Collin Seay**

DATE **February 27th, 2020**

REF **Liquor License Series 10 (Beer and Wine Store) Application for Drury Inn and Suites**

On February 27th, 2020, I initiated an investigation into an application for a new series 10 (Beer and Wine Store) liquor license for Drury Inn and Suites located at 300 S Milton Rd. The application license number is 10093610.

The new series 10 liquor license is being requested by Andrea Lewkowitz (Agent), Dennis Vollink (Controlling Person), and Carolyn Bohnert (Controlling Person), Herbert Wedemeier (Controlling Person), and Kevin Whitfield (Controlling Person). I contacted Andrea over the phone, and she advised Dennis, Carolyn, Herbert, and Kevin were business partners of the hotel franchise across the country and would not be on site for daily operations. She advised Blake Soreng will be the premises manager and overseeing the daily operation of the license, and he has attended the mandatory liquor license training.

The Drury Inn partnership already possesses a Series 11 hotel license (#11033052) in Flagstaff, and I did not locate any liquor violations against this license. Drury Inn also possesses four additional Series 11 hotel licenses in their other Phoenix metropolitan locations, and I did not locate any liquor violations against these licenses either. I checked all involved parties in public records and local databases and found no areas of concern with any of the applicants.

Andrea explained over the phone the Series 10 license will allow the hotel to see packaged beer and wine to guests for consumption in their hotel room, and they will serve from 6 a.m. to 2 a.m. daily. Andrea advised she would attempt to attend the council meeting on March 17th, 2020.

Planning and Development Services Memorandum

To: Stacy Fobar, Deputy City Clerk

From: Reggie Eccleston, Code Compliance Manager

CC: Tiffany Antol, Planning Director

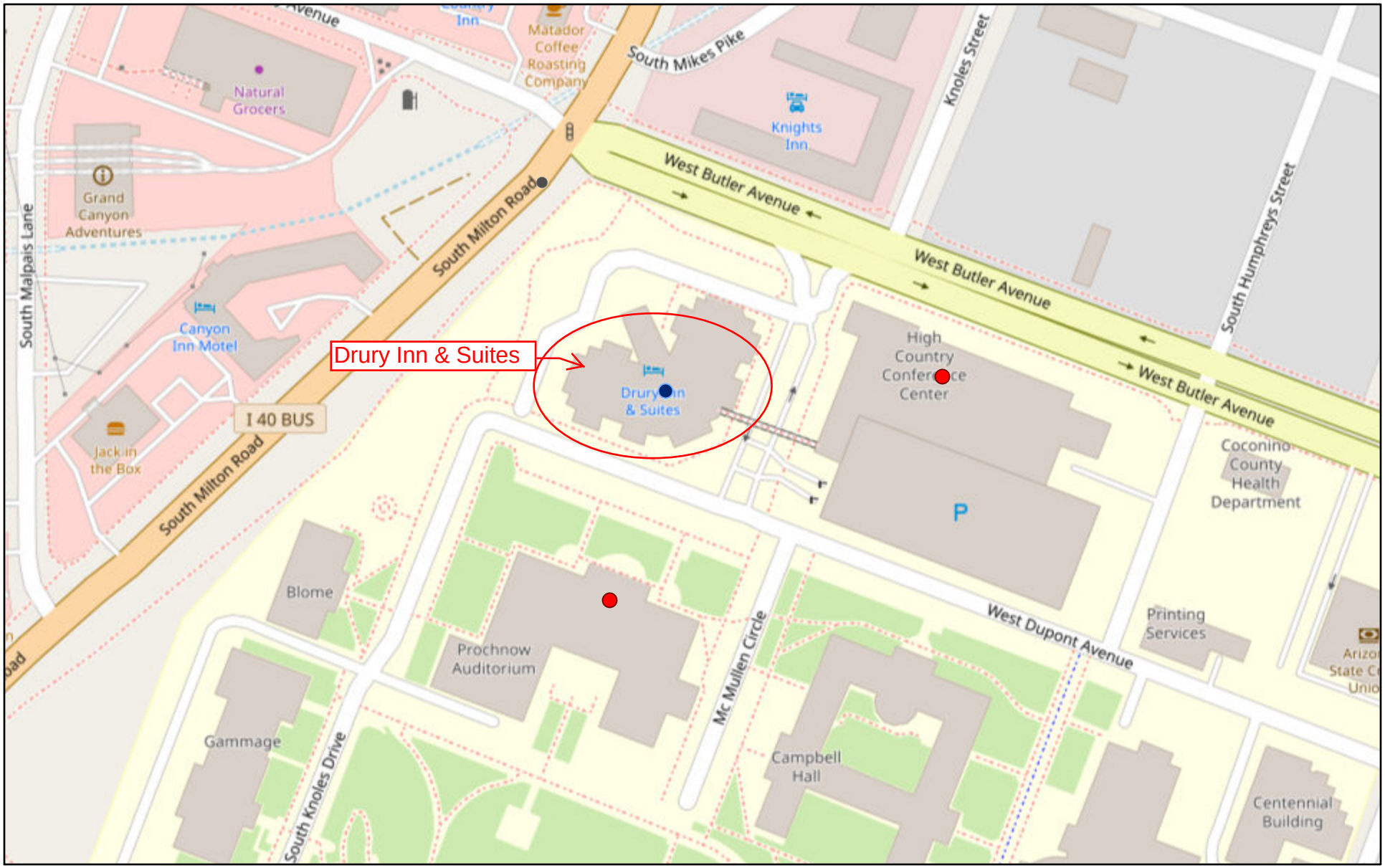
Date: Feb. 24, 2020

Re: Application for Liquor License #93610
300 S. Milton Road, Flagstaff, Arizona 86001
Assessor's Parcel Number 103-06-014
Andrea Lewkowitz on behalf of Drury Inn & Suites

This application is a request for a new Series 10 Beer & Wine Store liquor license by Andrea Lewkowitz on behalf of Drury Inn & Suites. This business is located within the Public Facility district. This district does allow for this use.

There are no active Zoning Code violations associated with the applicant or the property at this time.

Drury Inn & Suites



2/27/2020, 1:53:03 PM

Liquor Licenses

- Hotel/Motel
- Government

1:2,257

0 0.01 0.03 0.06 mi

0 0.03 0.05 0.1 km

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Web AppBuilder for ArcGIS
Map data © OpenStreetMap contributors, CC-BY-SA |

City Council Meeting - FINAL (AMENDED) **13. B.**

Meeting Date: 03/17/2020

From: Dan Symer, Zoning Code Manager

Information

TITLE:

Consideration and Adoption of Ordinance 2020-05: An Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code (Ordinance No. 2011-20), for the purpose of modifying Section 10-90.40.030 of the Zoning Code, the Rural Floodplain Map, to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain on an approximate 4.46-acre parcel located at 3451 East Lake Mary Road.

STAFF RECOMMENDED ACTION:

At the March 17, 2020 Council Meeting:

1) Hold Public Hearing
2) Read Ordinance No. 2020-05 by title only for the first time
3) City Clerk reads Ordinance No. 2020-05 by title only (if approved above)

At the April 7, 2020 Council Meeting:

4) Read Ordinance No. 2020-05 by title only for the final time
5) City Clerk reads Ordinance No. 2020-05 by title only (if approved above)
6) Adopt Ordinance No. 2020-05.

Executive Summary:

The proposed Zoning Code Text Amendment (Case No. PZ-19-00187) is to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain on an approximately 4.46-acre parcel located at 3451 East Lake Mary Road (Attachment 3).

On January 22, 2020, the Planning and Zoning Commission recommended approval of the proposed amendment to the City Council with a vote of 7-0.

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.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Council Goals:
Revise the Zoning Code to remove ambiguities and ensure it is consistent with the community values and the Regional Plan.

Team Flagstaff Strategic Plan:
Work in partnership to enhance a safe and livable community.

Regional Plan:
Please refer to letter "A" of the Key Considerations section of this report.

Has There Been Previous Council Decision on This:
In April 2017, the City Council approved a Zoning Code amendment to modify the Rural Floodplain map to include additional floodplain areas.

During the February discussion on the subject application City Council had questions regarding the zoning on the property and what could be built. The subject request does not change the property's zoning. The Rural Floodplain map is found in the zoning code, therefore an amendment to the map is considered a text amendment to the zoning code. But it is not a request to rezone the property. The question for City Council in the subject application is rather narrow, "Is the Rural Floodplain correctly mapped?"

Options and Alternatives:
The City Council may adopt, modify, or deny the amendment.

Background/History:
The Zoning Code was adopted by the City Council on November 1, 2011, to replace the former Land Development Code. Incorporated into the Zoning Code is the Resource Protection Overlay (RPO) that was originally adopted in June 1999. The intent of the RPO regulations is to maintain and protect existing natural resources, including floodplains, steep slopes, and forests. The most recent amendment to the RPO that is applicable to this application was approved in April 2017. The April 2017 Zoning Code amendment modified the Rural Floodplain map to include additional floodplain areas.

Overview of the Proposed Amendment:
The proposed amendment is to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain on an approximately 4.46-acre parcel located at 3451 East Lake Mary Road (Attachment 3). The applicant’s narrative and graphics are included as Attachment 4.

The Zoning Code describes the Urban and Rural Floodplains as:

- Urban Floodplains. All watercourses and associated floodplains not defined as rural floodplains are urban floodplains. Urban floodplains are typically located in urbanized areas and have typically been altered from their natural state by channelization. Urban floodplains may be altered to address conveyance and erosion concerns; provided, that all necessary requirements of the City’s Stormwater Regulations as administered by the Stormwater Manager are addressed. However, certain urban floodplains that have characteristics conducive to water quality, wildlife habitat, and stream ecology should be preserved. Proposals for any disturbance of these watercourses shall be reviewed by the Stormwater Manager and must address these attributes and provide for mitigation if necessary. Undergrounding of urban floodplains is strongly discouraged and justification must be provided prior to any approval of undergrounding.
- Rural Floodplains. Rural floodplains are natural undisturbed open spaces that are unsuitable for development purposes due to periodic flood inundation and the need to preserve the stream corridor for beneficial uses such as the preservation of important ecological resources. Rural floodplains are delineated in Section 10-90.40.030 of the Zoning Code, Rural Floodplain Map, and

defined as areas of delineated 100-year floodplain that cannot be disturbed or developed except for roadway and utility crossings. Rural floodplains cannot be altered through a floodplain map amendment or revision and must remain undisturbed (i.e., 100 percent protection). The extension of rural floodplains beyond the limits of the delineated floodplains, both upstream and laterally, may be required based on more current or extended floodplain studies, master plan documents or other studies or documents related to hydrology, hydraulics, stream geomorphology, wildlife habitat, or wildlife corridors.

The City of Flagstaff's Floodplain Manager has reviewed the watercourse that crosses the subject property and has determined that the watercourse is not a natural watercourse. Therefore, the subject watercourse would not be considered a rural floodplain. In some limited situations, the extension of a rural floodplain beyond the limits of a delineated rural floodplain, both upstream and laterally, may be required based on more current or extended floodplain studies, master plan documents or other studies or documents related to hydrology, hydraulics, stream geomorphology, wildlife habitat, or wildlife corridors. Staff is aware of two reports related to these areas. Staff's 2018 Rio de Flag Floodplain Assessment is a health assessment of all City floodplains regardless of whether they are natural or man-made (Attachment 5). Also attached, is the City's Flagstaff Floodplain Plant Identification Report (Attachment 6). The purpose of the Flagstaff Floodplain Plant Identification Report was to identify native plant species that can survive among invasive and exotic plants and to develop a seed mix that could be utilized to revegetate floodplain corridors.

Key Considerations:

Zoning Code Text Amendment

An application for a Zoning Text 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, or denied.

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;

The proposed amendment is to correct a designation in the Rural Floodplain Map. Currently, a 1.47-acre area of a 4.46-acre parcel located at 3451 East Lake Mary Road is designated as Rural Floodplain. The designated area is a man-made watercourse. This watercourse was constructed to divert a historical natural watercourse to accommodate development on the northeast side of Lake Mary Road. This amendment will change the designation from Rural Floodplain to Urban Floodplain.

Consistent with Policies WR.5.4., and WR.5.5 of the Regional Plan, the man-made watercourse was constructed to mitigate downstream impacts, and divert stormwater flows to a regional detention facility. The 1.47-acre designated area is consistent with the Zoning Code's description of an Urban Floodplain, which includes watercourses "…in urbanized areas [that] have typically been altered from their natural state...." The proposed amendment maintains conformance with the Regional Plan. There are no applicable specific plans related to this amendment.

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 not anticipated to be detrimental to the public interest, health, safety, convenience or welfare of the City. This amendment will correct an erroneous designation in the Rural Floodplain Map.

C. Finding #3
The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

The existing 1.47-acre area of a 4.46-acre parcel located at 3451 East Lake Mary Road is a man-made watercourse, which is consistent with the Zoning Code's description of an Urban Floodplain. The Zoning Code describes the Urban Floodplain as watercourses "…in urbanized areas [that] have typically been altered from their natural state...." The current indicated area is inconsistent with the description of Rural Floodplains. Rural floodplains are described as "…natural undisturbed open spaces that are unsuitable for development purposes due to periodic flood inundation and the need to preserve the stream corridor for beneficial uses such as the preservation of important ecological resources." In addition, the City of Flagstaff's Floodplain Manager has reviewed the watercourse that crosses the subject property and has determined that the watercourse is not a natural watercourse. The proposed amendment enhances the Zoning Code's internal consistency by correcting a designation on the Rural Floodplain Map pertaining to the subject property.

Community Benefits and Considerations:
Please refer to the key considerations included in this report.

Community Involvement:
In accordance with State Statute and the Zoning Code, the Planning and Zoning Commission work session and public hearing for this amendment were advertised in the Arizona Daily Sun on Dec 21, 2020. Also, persons of interest that are on file with the Planning and Development Services Department were notified of the work sessions and hearings via first class mail. The City Council public hearings were advertised in the Arizona Daily Sun on Dec 21, 2020.

Staff has not directly received public comments regarding this application, and there were no public comments made at the Planning and Zoning Commission meetings. The applicant has received comments from the public, and these are attached as, Attachment #8. These comments pertain to a private access easement that crosses the southern section of the property to provide access to the west. This Zoning Code Text Amendment will not affect the private cross access easement.

Attachments

Ord. 2020-05
2. Exhibit A of Ordinance 2020-05
3. Site Location
4. Applicant's Narrative and Graphics
5. Floodplan Health Final Report
6. Flagstaff Floodplain Plant Identification Report
7. Application
8. Public Comment
Staff Presentation

ORDINANCE NO. 2020-05

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE, TITLE 10, FLAGSTAFF ZONING CODE, SECTION 10-90.40.030 RURAL FLOODPLAIN MAP, TO CHANGE THE MAP DESIGNATION OF APPROXIMATELY 1.47 ACRES FROM RURAL FLOODPLAIN TO URBAN FLOODPLAIN ON APPROXIMATELY 4.46 ACRES OF REAL PROPERTY LOCATED AT 3451 EAST LAKE MARY ROAD; PROVIDING FOR SEVERABILITY; AUTHORITY FOR CLERICAL CORRECTIONS; AND ESTABLISHING AN EFFECTIVE DATE.

RECITALS:

WHEREAS, Preston Family Trust (the "Applicant"), applied for a Zoning Code Text Amendment to amend Title 10 of the Flagstaff City Code, Section 10-90.40.030 Rural Floodplain Map (the "Rural Floodplain Map") to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain, in the area marked "Change from Rural Floodplain to Urban Floodplain" on Exhibit "A", incorporated herein by reference, on approximately 4.46 acres of real property located 3451 East Lake Mary Road and marked as "Site" (the "Property"), on the map attached as Exhibit "A"; and

WHEREAS, A citizen review session was held at the Planning Commission work session on January 8, 2020, 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 public hearing on January 22, 2020, and provided a recommendation to City Council on proposed Zoning Code text amendment; and

WHEREAS, the Council has read and considered the staff reports prepared by the Planning Division and all attachments to those reports, the narrative provided by the Applicant, 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.

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 proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

SECTION 5. That the designation on the Rural Floodplain Map for approximately 1.47 acres of the Property is hereby amended from Rural Floodplain to Urban Floodplain, as set forth in Exhibit A.

SECTION 6. 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 7. Repeal of Conflicting Ordinances

All ordinances and parts of ordinances in conflict with the provisions of the code adopted herein are hereby repealed.

SECTION 8. 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 9. 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 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 7th day of April, 2020.

_____
MAYOR

ATTEST:

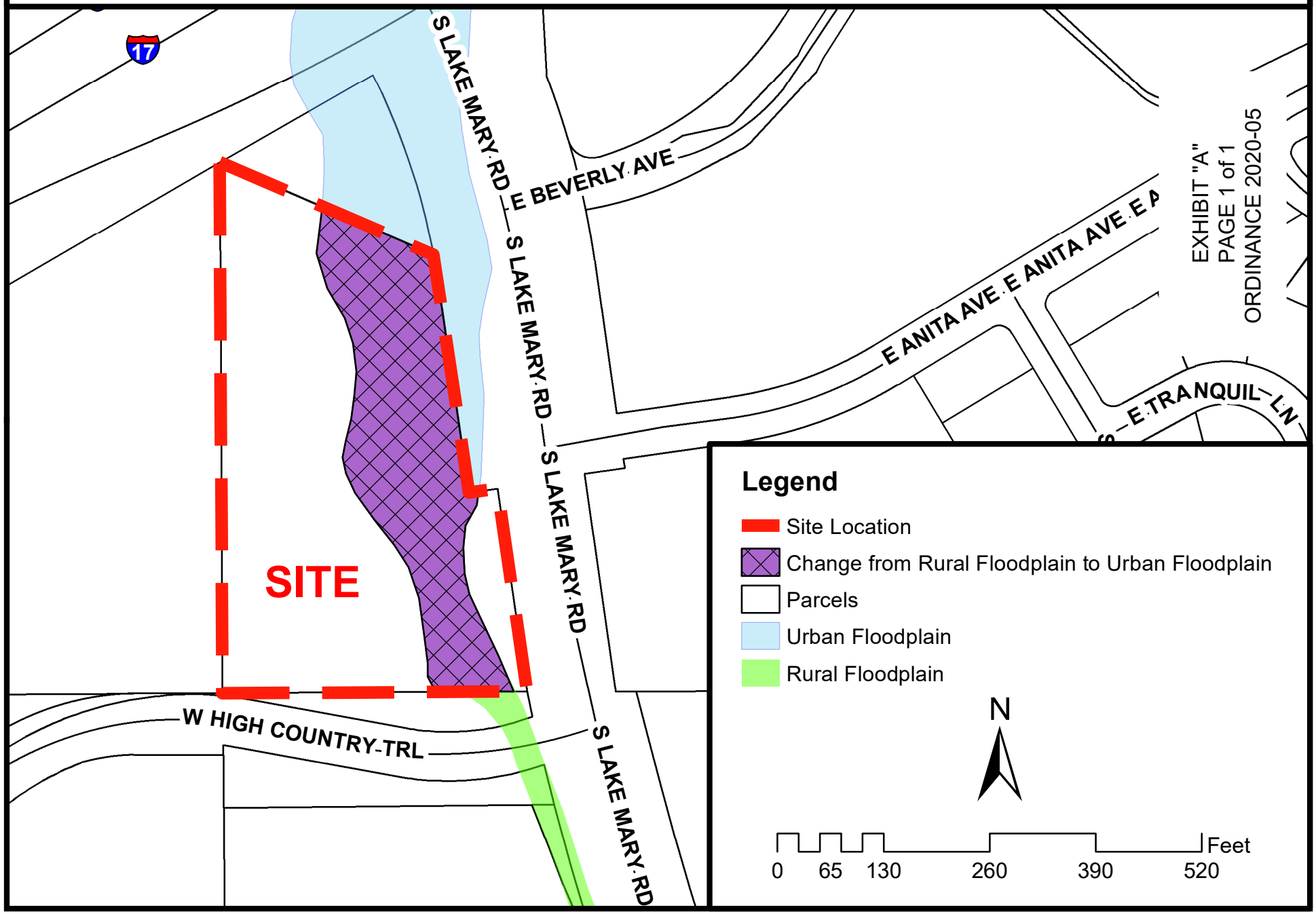
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CITY CLERK

APPROVED AS TO FORM:

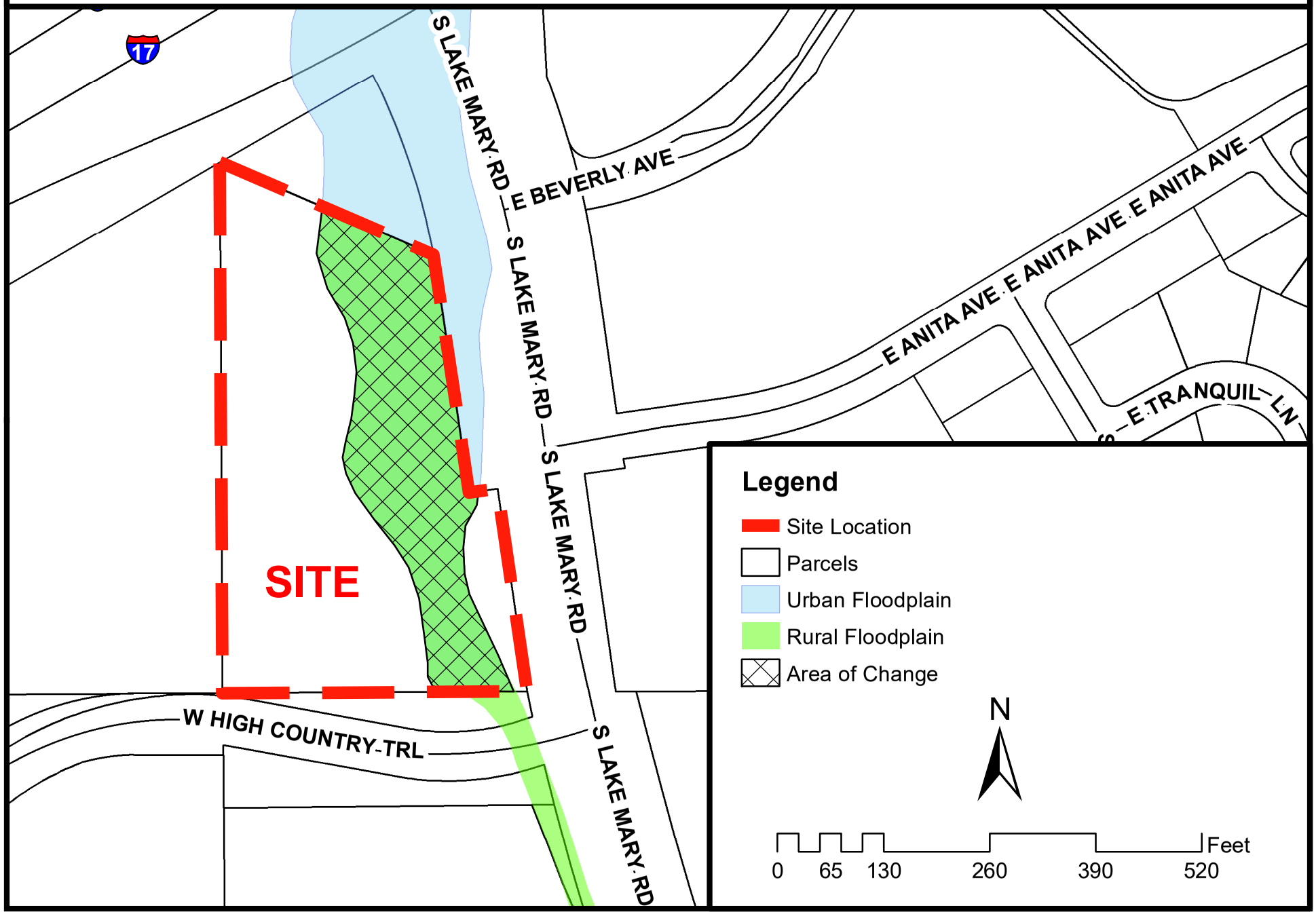
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CITY ATTORNEY

Exhibits:
Exhibit A – Rural Floodplain Map

Area of Change From Rural Floodplain to Urban Floodplain



Location of Area of Change



WOODSON ENGINEERING

Narrative for Lake Mary Parcel Floodplain Zoning Code Text Amendment

Date: October 25, 2019

To: Daniel Symer, Zoning Code Manager, COF

From: Woodson Engineering & Surveying

Re: 118029- Floodplain Zoning Code Text Amendment

The purpose of this narrative is to support the request for a Zoning Code Text Amendment to revise the floodplain designation on a private parcel from a Rural Floodplain to an Urban Floodplain designation.

The private parcel (APN# 103-270-03K) owned by the Preston Family Trust is a 4.46-acre site located NW of the Lake Mary Road and High Country Trail intersection. The current zoning of the site is Highway Commercial (HC). The site is bordered by I-17 on north, Lake Mary Road on east and High Country Trail on south. The site is in very close proximity to the I-40 & I-17 Interchange and to Northern Arizona University (NAU).

Per Federal Emergency Management Agency's (FEMA), Flood Insurance Rate Map (FIRM) 04005C6816G (effective 09/03/2010), a portion of the site is located within a floodzone A. Zone A is subjected to 100-year flooding and the base floodplain is not modeled to any degree of accuracy and is mapped by approximate methods with no Base Flood Elevations (BFEs) determined. Zone A is subjected to 1% annual chance of flooding. See Exhibit 1 for FIRMette for subject site that shows the Zone A limits. The COF Rural and Urban Floodplain maps the area limits set on the FEMA maps.

Per COF Zoning Code Rural Floodplain Map, the floodplain on the subject parcel is designated as a Rural Floodplain. Per the COF Zoning Code, Rural Floodplains are defined as natural undisturbed open spaces that are unsuitable for development purposes due to periodic flood inundation and the need to preserve the stream corridor for beneficial uses such as the preservation of important ecological resources. See Exhibit 2 for the Rural Floodplains within the City of Flagstaff.

All watercourses and associated floodplains not defined as Rural Floodplains are Urban Floodplains which are typically located in urbanized areas and have typically been altered from their natural state by channelization. Urban Floodplains may be altered to address conveyance and erosion concerns.

It is the opinion of the owner that the floodplain has been incorrectly designated and should be re-defined as an Urban Floodplain per the definition in the Zoning Code for Urban Floodplains and per the historical and current nature of the wash.

Based on research on the history of the unnamed wash, we find that it has been diverted from its historical flow path over time, please see Exhibit 3. Prior to 1960, the flow historically drained east crossing Lake Mary Road at the Bow and Arrow subdivision located east of Lake Mary Road, please see the attached

Exhibit 4 for the 1954 USGS historical topographic map which shows that the unnamed wash didn't traverse through the subject site historically.

After the Bow and Arrow subdivision improvements, the wash that historically traversed east crossing Lake Mary Road is shown to be diverted north to flow parallel along Lake Mary Road and then flow east crossing Lake Mary Road just north of at the current day's Beverly Avenue. Please see the attached Exhibit 5 for the 1962 USGS historical topographic map which shows that the unnamed wash has been diverted and the flow is traversing through the subject site, then crossing Lake Mary Road and continuing in a north easterly direction.

Please see Exhibit 3 which shows the how the wash has been diverted from it's historical flow path.

The diverted nature of the wash from it's natural course is clearly shown. As to the current condition of the floodplain, it is readily apparent that this floodplain does not exhibit a natural wash morphology. The braided nature of the flow channels with erosion and head cutting continuing with no well-defined channel through the site supports the argument that this is not a natural channel and is a diverted channel formed by surrounding improvements. There is no riparian preserve or alluvium deposits with low flow channels and defined banks which reduce stream bank erosion and maintain stable stream morphology which is the typical nature of natural and established channels.

The wash has been crossed by High Country Trail utilizing a 10' x 4' RCBC, a private parcel access road and by another access road for the parcel west of subject site utilizing three 36-inch cmps and US Interstate 17 utilizing twin 6' x 5' RCBCs. These impacts include concrete channels converging flow to the Interstate culverts. Thus, this diverted wash has been modified by surrounding improvements and is not a natural undisturbed channel.

Thus, we believe that the unnamed wash through the subject site has been created due to previous private and public improvements and the wash does not follow the historic flow path and cannot be considered as a Rural Floodplain as a natural undisturbed space. Therefore, we request that the floodplain designation on the subject site be revised to Urban Floodplain from Rural Floodplain via Zoning Code Text Amendment. This Amendment would provide an opportunity to the land owner to channelize the flow through the site and reduce the eroded braided channels.

Findings: Zoning Code Section 10-20.50.040.F.1.b: Findings for the approval of this Text Amendment

1. The proposed amendment is consistent with and conforms to the goals of the general Plan and any applicable specific plan;

   Following is the list of the applicable goals and policies that will be met by the proposed project:

Climate Change and Adaptation Goals and Policies:

Goal: E&C.3. Strengthen community and natural environment resiliency through climate adaptation efforts.

Provide an improved wash that is not subjected to the erosion problems occurring onsite now.

Policy E&C.3.3 Invest in forest health and watershed protection measures.

Response: The trees will be preserved to meet the Natural Resources Protection Plan (NRPP) requirements, thereby preserving the forest health. Channelizing the flow also reduces erosion and head cutting and promotes forest health.

Ecosystem Health Goals and Policies:

Goal: E&C.6. Protect, restore and improve ecosystem health and maintain native plant and animal community diversity across all land ownerships in the Flagstaff region.

Policy E&C.6.3 Promote protection, conservation , and ecological restoration of the region's diverse ecosystem types and associated animals.

Response: Preserving the trees and eliminating eroded channels will result in restoration of region's natural vegetation and ecosystem and associated wildlife habitat.

Policy E&C.6.4 Support collaborative efforts to return local native vegetation, channel structure and where possible and applicable, preservation and restoration of in-stream flows to the region's riparian ecosystem.

Response: Introducing a defined channel to replace eroded and braided channels will eventually establish a natural drainage corridor which will promote the region's riparian ecosystem along the channel which runs along the eastern perimeter of the subject parcel.

Stormwater and Watershed Management Goals and Policies:

Goal WR.5. Manage watersheds and stormwater to address flooding concerns, water quality, environmental protections, and rainwater harvesting

Policy: WR.5.1. Preserve and restore existing natural watercourse corridors, including the 100-yr floodplain escarpments, wildlife corridors, natural vegetation, and other natural features using methods that result in a clear legal obligation to preserve corridors in perpetuity, where feasible.

Response: Since there is designated FEMA floodzone A on the property, change of floodplain from rural to the urban floodplain would still require protecting the improved drainageway. Project intends to improve the channel and submit CLOMR and LOMR applications to FEMA to officially remap the floodplain limits which clearly obligates the site to preserve the stream corridor and designates it FEMA floodplain which can not modified without notifying the Floodplain Administrator (COF) and FEMA in future.

Policy: WR.5.7. Support healthy watershed characteristics through implementation of practices, consistent with the City of Flagstaff Low Impact Design Manual, that improve flood control and flood attenuation, stormwater quality, and water sustainability; increase groundwater recharge; enhance open space quality; increase biodiversity; and reduce land disturbance and soil compaction.

Response: The project improvements will include City of Flagstaff's Low Impact Development Integrated Management Practices (LID-IMPs). LID facilities will be implemented to address Runoff Control Volume (ROCV) for the first 1-inch rain. The LID facilities will treat and infiltrate ROCV which improves water quality and promotes groundwater recharge. Stormwater detention facilities will be implemented to attenuate the increased flow rate from the proposed improvements.

2. The proposed amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City.

Response: The proposed amendment is to revise floodplain designation on a private parcel and is not detrimental to the public interest, health, safety, convenience or welfare of the City. The proposed change will provide an opportunity to the owner to address erosion, head cutting and transporting sediment further downstream in the watershed which in turn enhances ecosystem health, water quality, restores natural, riparian and wildlife habitat. As discussed above, the amendment is in conformance to many of the goals and policies of the City's General Plan.

3. The proposed amendment is internally consistent with other applicable provisions of the Zoning Code.

Response: The proposed amendment is internally consistent with all other applicable provisions of the Zoning Code. The development procedures will conform to City's Zoning Code requirements for Commercial Developments.

The request is to revise the floodplain designation only and any modifications to the flood Zone A limits will be performed via FEMA notifications with a formal Conditional Letter of Map Revision (CLOMR) prior to any construction and a Letter of Map Revision (LOMR) after construction will be prepared for the City's concurrence and FEMA's approval. Please see the attached Exhibit 7 for the floodplain limits overlaid on the site plan.

The owner intends to improve the channel to address erosion and head cutting which will improve the water quality of the wash. The trees will be preserved to meet the Natural Resources Protection Plan (NRPP) requirements, there by preserving the wildlife habitat. The stream ecology will also be maintained by an open channel to the maximum extent possible except at access crossings. All of these measures will promote a naturally healthy environment and conform with the requirements of the City's Regional Plan.

If you have any questions, please feel free to contact us: Rick Schuller at rschuller@woodsoneng.com or Sirisha Kalluri at skalluri@woodsoneng.com, or call 928-774-4636.

Sincerely,

WOODSON ENGINEERING

Rick Schuller, PE
Associate Principal

Registered Professional Engineer (Civil) CERTIFICATE NO. 34537 RICHARD L. SCHULLER 10/25/19 Date signed: ARIZONA, USA

Sirisha Kalluri, PE, CFM
Assistant Project Manager

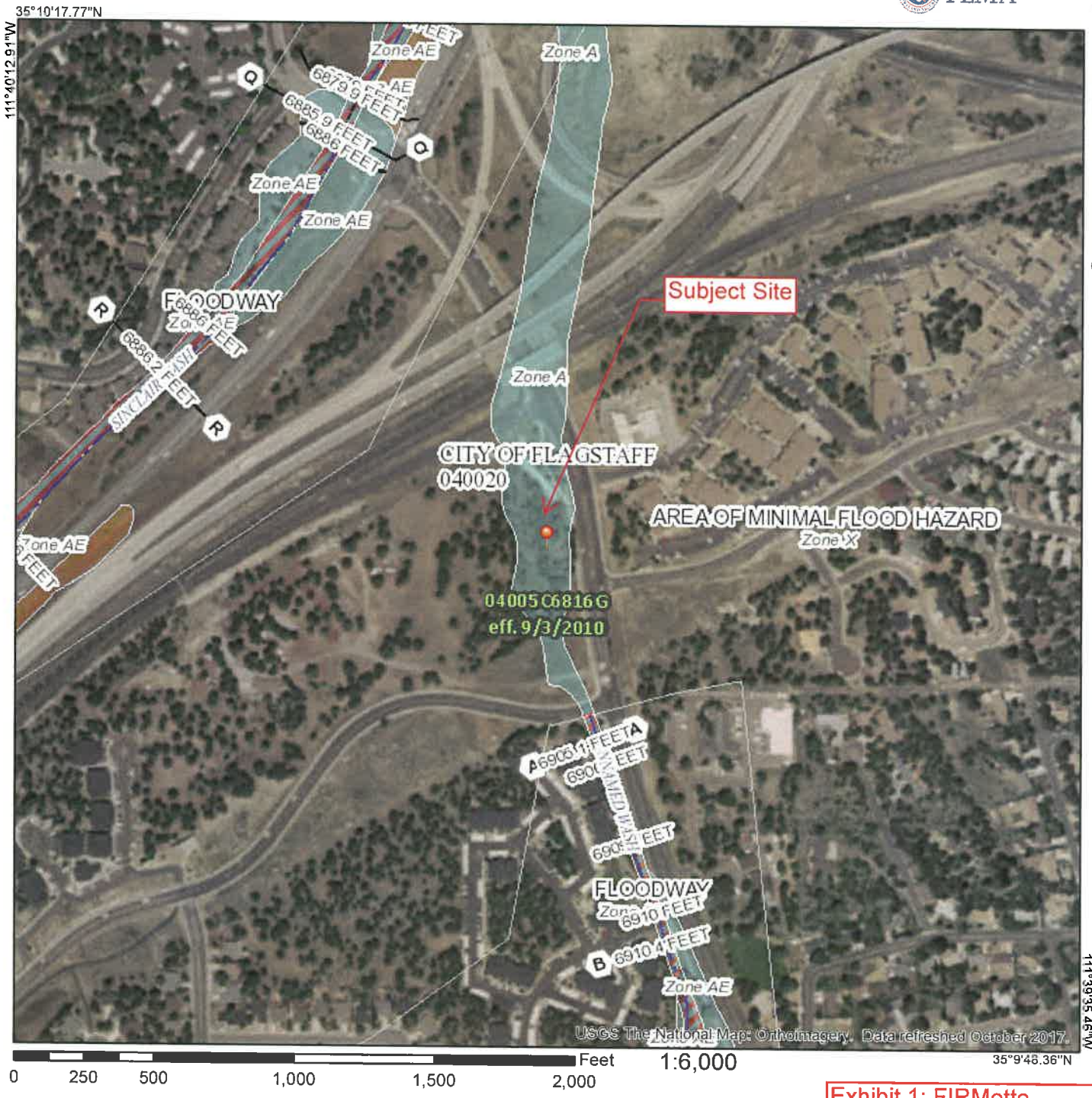
REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 58144 SIRISHA KALLURI 10/25/19 Date Signed ARIZONA, U.S.A.

Attachments:

Exhibit 1: FIRMette
Exhibit 2: COF Rural Floodplain Map
Exhibit 3: 1982 USGS Historical map that shows the change of flow path of the Wash
Exhibit 4: 1954 USGS Historical Topographic Map
Exhibit 5: 1962 USGS Historical Topographic Map
Exhibit 6: Floodplain Limits Overlaid on Site Plan

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- **SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- **OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- **OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- **GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- **OTHER FEATURES**
  - 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - 513 Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- **MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/5/2018 at 4:15:19 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Exhibit 1: FIRMette

Division 10-90.50.030: Rural Floodplain Map

- City Limits
- Urban Floodplains
- Rural Floodplains
- Parcels

Floodplain widths reflect the FEMA regulated floodplain widths, and are subject to change. Please consult theCity of Flagstaff Stormwater section for the latest width information.

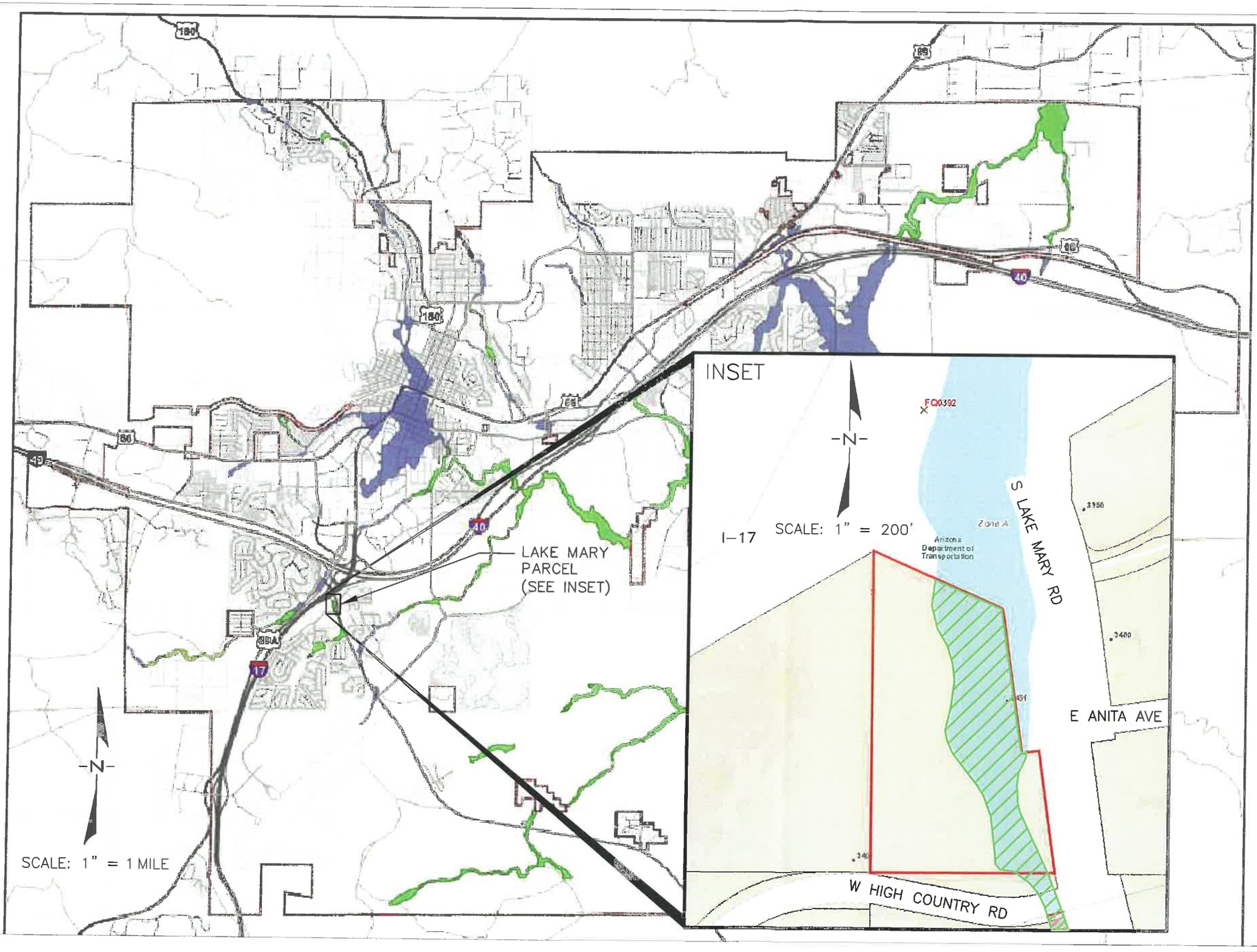
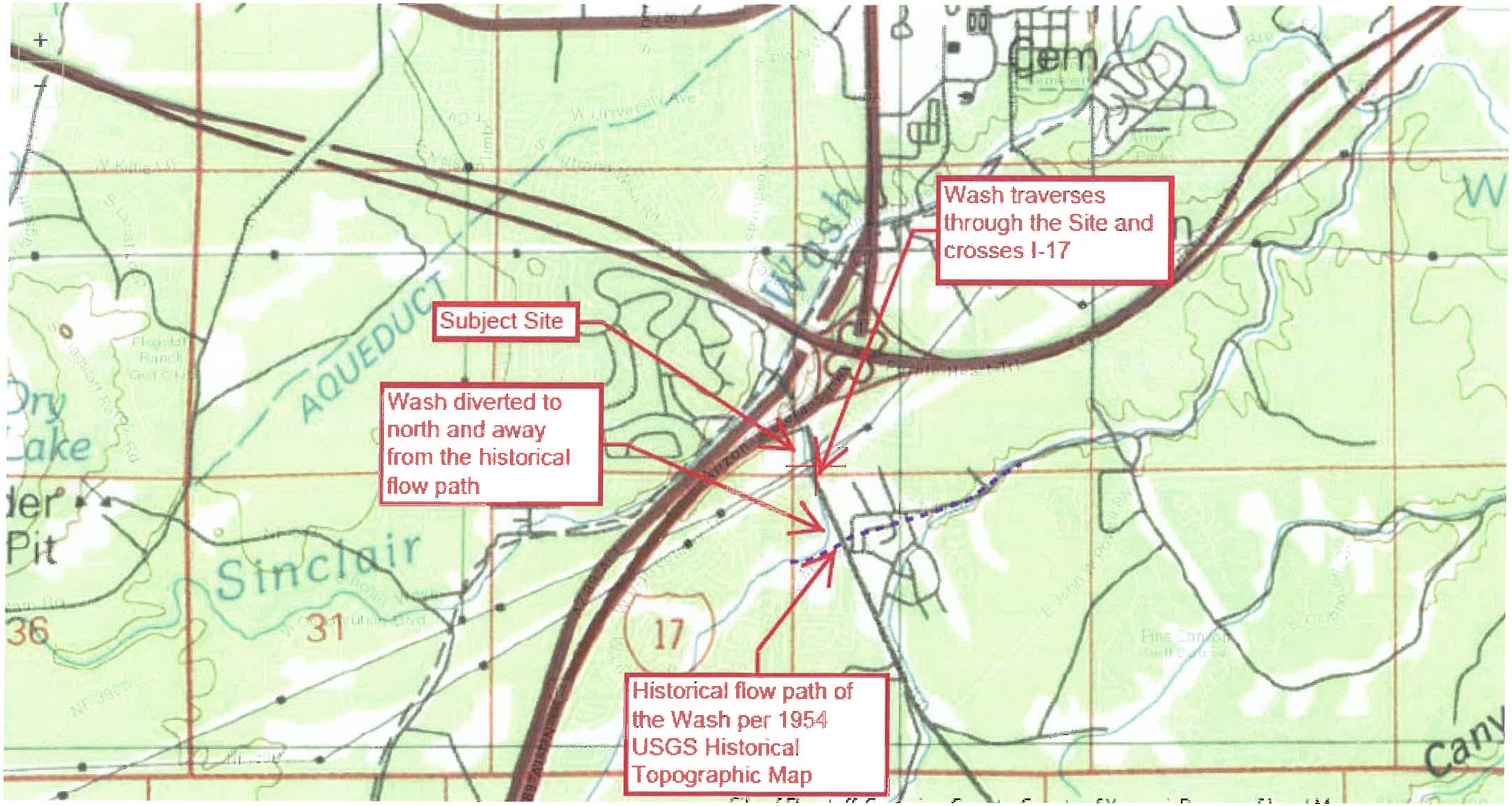
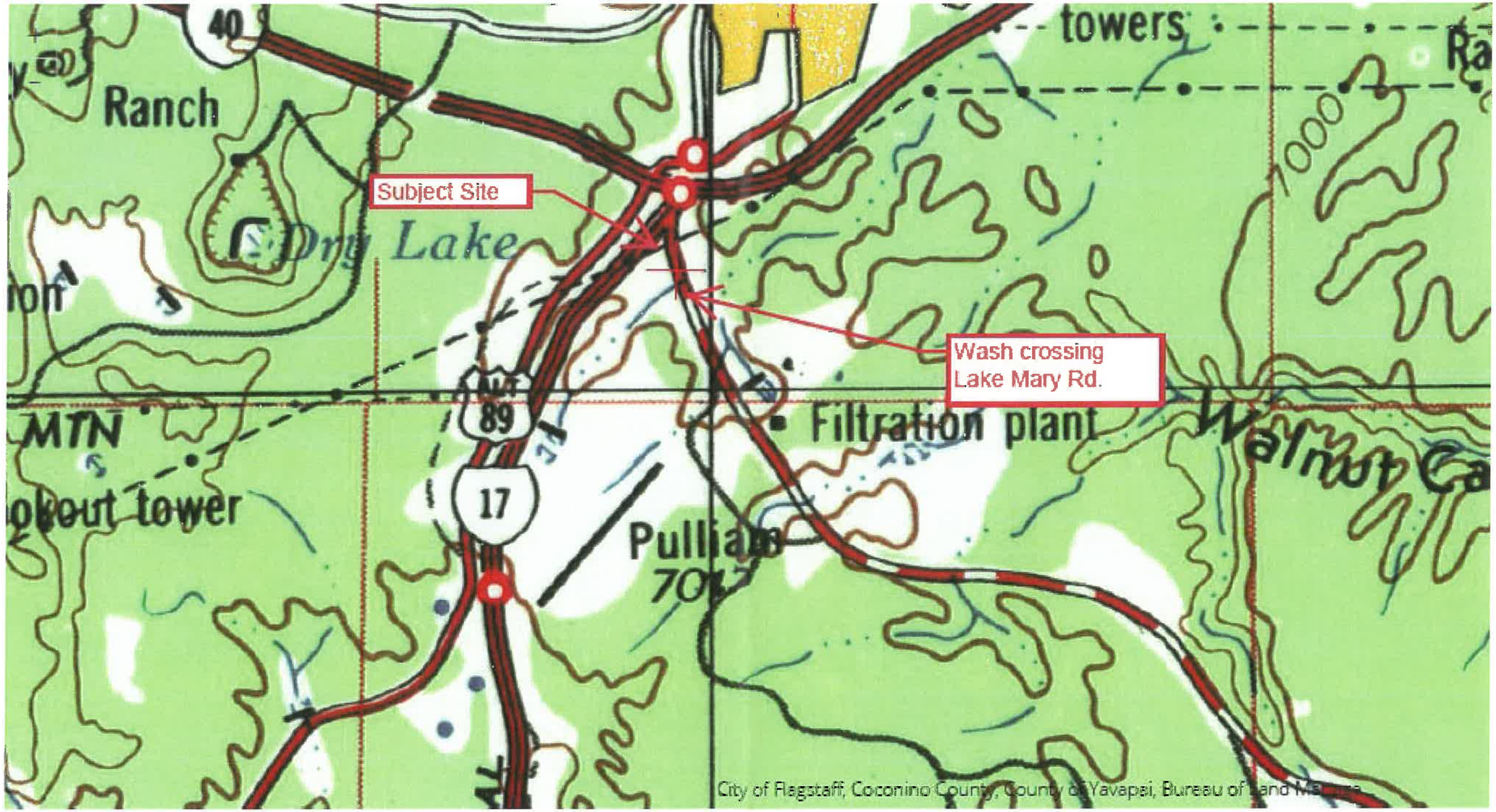


EXHIBIT 2: COF RURAL FLOODPLAIN MAP



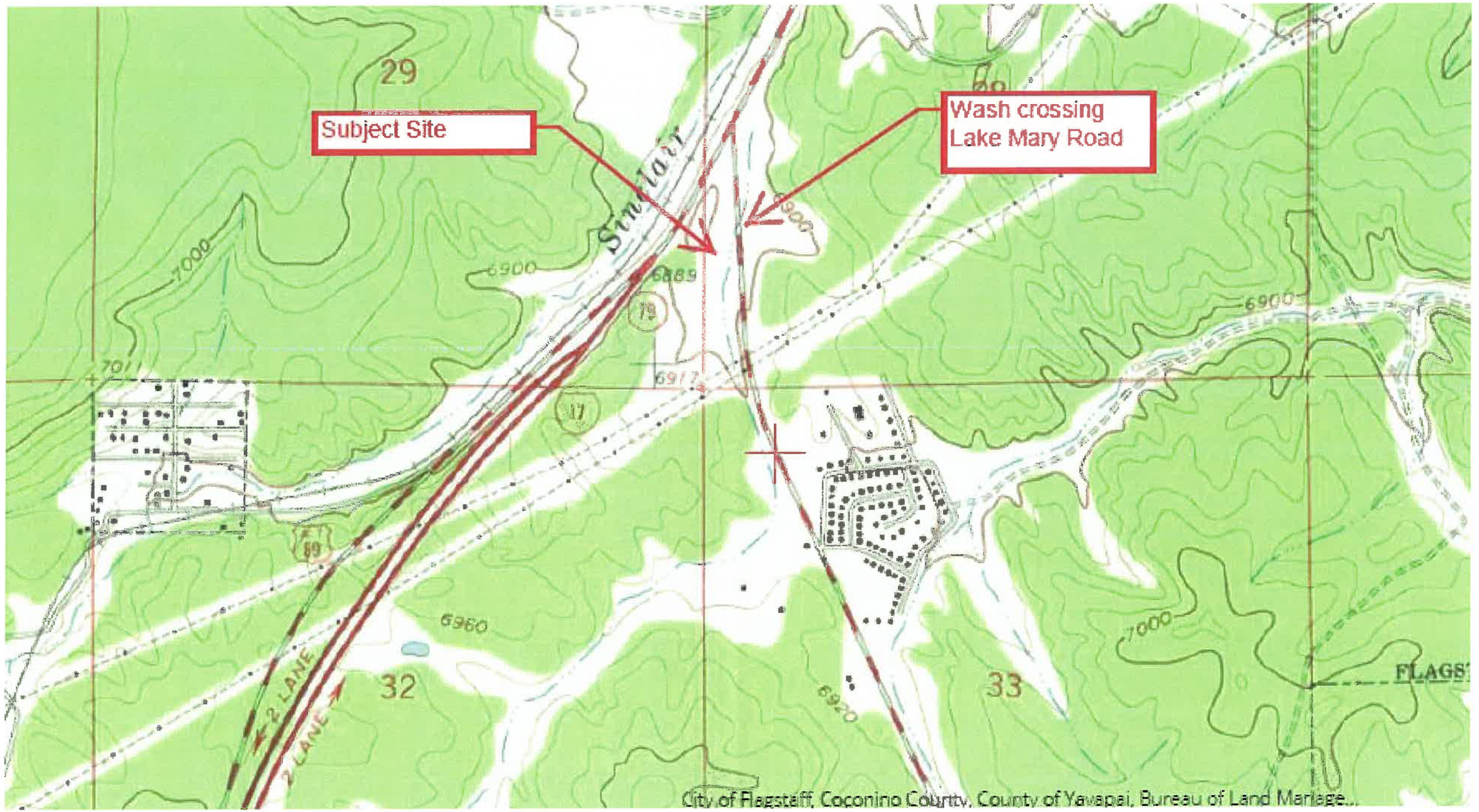
CHANGE OF HISTORICAL FLOW PATH OF THE WASH

EXHIBIT 3



1954 USGS HISTORICAL TOPOGRAPHIC MAP

EXHIBIT 4

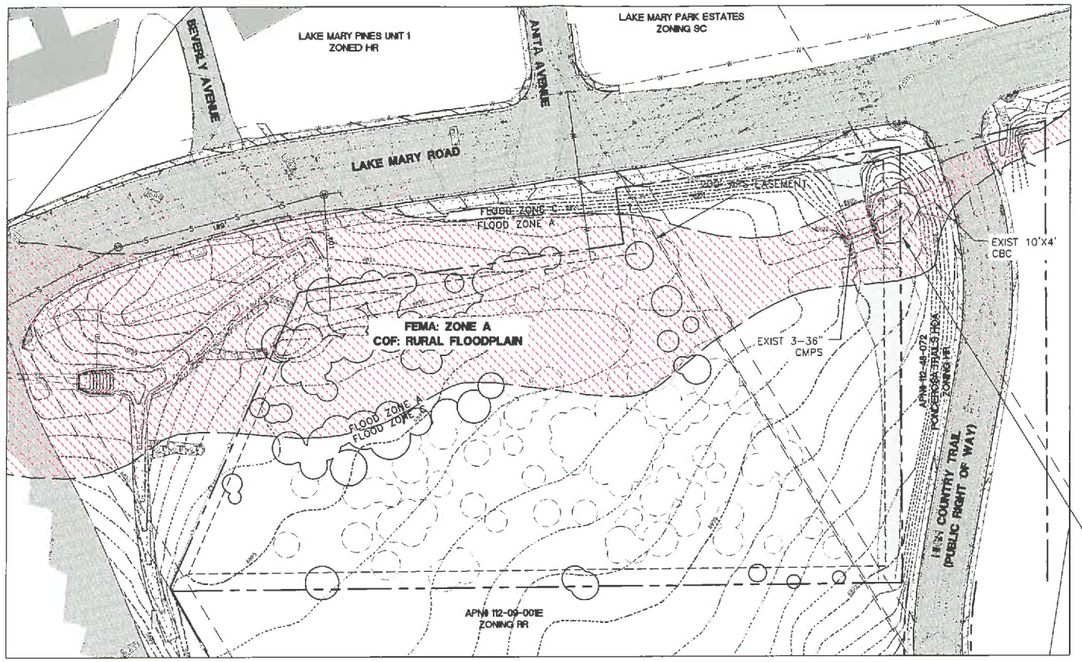


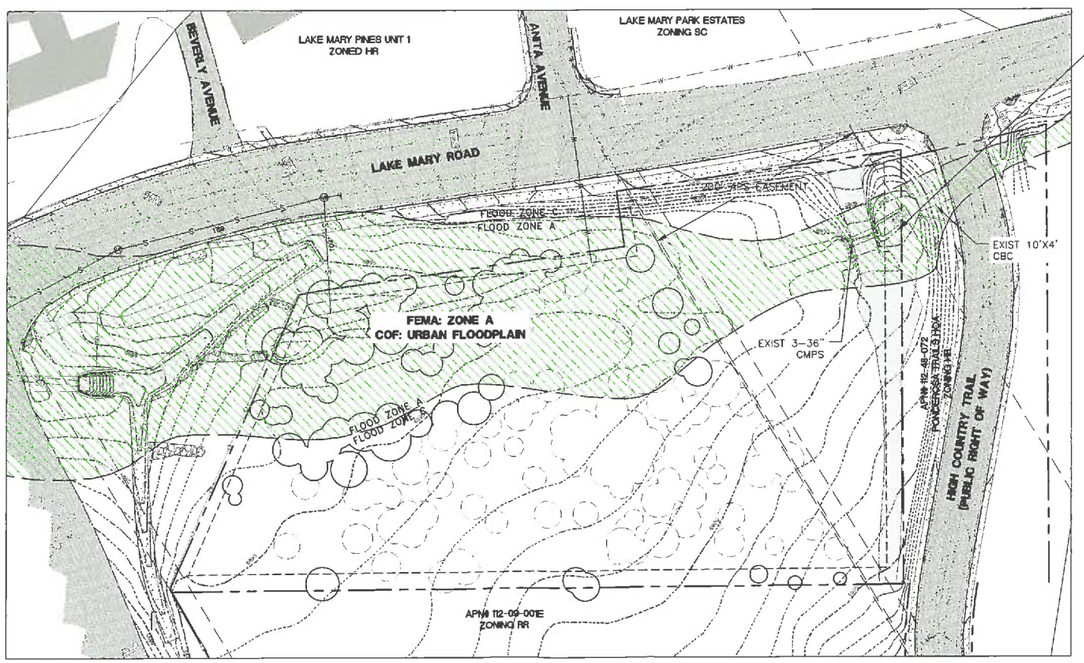
1962 USGS HISTORICAL TOPOGRAPHIC MAP

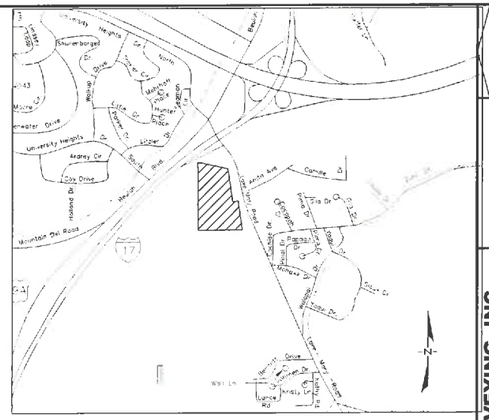
EXHIBIT 5

LAKE MARY ROAD PARCEL

PORTION OF SECTION 28, TOWNSHIP 21 NORTH, RANGE 07 EAST,
GILA AND SALT RIVER MERIDIAN, CITY OF FLAGSTAFF, COCONINO COUNTY, ARIZONA







VICINITY MAP
FLAGSTAFF, ARIZONA (NOT TO SCALE)

N
0 30 60 120
SCALE: 1" = 60'
CONTOUR INTERVAL: 1'

CHANGE OF COF FLOODPLAIN FROM RURAL FLOODPLAIN TO URBAN FLOODPLAIN BY ZONING CODE TEXT AMENDMENT.

THE LIMITS OF FLOODPLAIN (BOTH RURAL AND URBAN FLOODPLAINS) MATCH FEMA'S FLOODZONE A.

FEMA ZONE A
COF: RURAL FLOODPLAIN

FEMA ZONE A
COF: URBAN FLOODPLAIN

LEGEND

- PROPERTY BOUNDARY, EXISTING
- EASEMENT, EXISTING
- RIGHT-OF-WAY, EXISTING
- RIGHT-OF-WAY, PROPOSED
- ASPHALT EDGE, EXISTING
- ASPHALT EDGE, PROPOSED
- ROAD SHOULDER, PROPOSED
- ROAD CENTERLINE, EXISTING
- ROAD CENTERLINE, PROPOSED
- BACK OF CURB, EXISTING
- BACK OF CURB, PROPOSED
- SIDEWALK, EXISTING
- SIDEWALK, PROPOSED
- CONCRETE EDGE, EXISTING
- CONCRETE EDGE, PROPOSED
- MAJOR CONTOUR, EXISTING
- MINOR CONTOUR, EXISTING
- BUILDING EDGE, EXISTING
- OVERHEAD ELECTRIC LINE, EXISTING
- SANITARY SEWER LINE, EXISTING
- SANITARY SEWER LINE, PROPOSED
- WATER LINE, EXISTING
- WATER LINE, PROPOSED
- STORM DRAIN, EXISTING
- FIBER OPTIC LINE, EXISTING
- DIRT ROAD, EXISTING
- BARBED WIRE FENCE, EXISTING
- CHAIN LINK FENCE, EXISTING
- WOOD FENCE, EXISTING
- EXISTING PAVEMENT
- EXISTING STRUCTURE
- WATER VALVE, EXISTING
- WATER VALVE, PROPOSED
- GAS VALVE, EXISTING
- SANITARY-SEWER MANHOLE, EXISTING
- SANITARY-SEWER MANHOLE, PROPOSED
- ELECTRIC MANHOLE, EXISTING
- STORM DRAIN MANHOLE, EXISTING
- WATER MANHOLE, EXISTING
- TELEPHONE RISER, EXISTING
- ELECTRIC RISER, EXISTING
- GAS RISER, EXISTING
- CABLE TV RISER, EXISTING
- SEWER RISER, EXISTING
- WATER RISER, EXISTING
- ELECTRIC METER, EXISTING
- GAS METER, EXISTING
- WATER METER, EXISTING
- FIRE HYDRANT, EXISTING
- FIRE HYDRANT, PROPOSED
- AIR RELEASE VALVE MANHOLE, PROPOSED
- AIR RELEASE VALVE VENT, PROPOSED
- CATCH BASIN, EXISTING
- GUY ANCHOR, EXISTING
- LIGHT POLE, EXISTING
- LIGHT POLE, PROPOSED
- SIGN POST, EXISTING
- SIGN POST, PROPOSED
- UTILITY POLE, EXISTING
- UTILITY POLE, PROPOSED
- BOLLARD, EXISTING
- BOLLARD, PROPOSED
- TREE, DIAMETER AT BREAST HEIGHT AS NOTED (P=PINE, (J=JUNIPER, D=DECIDUOUS)
- FOUND REBAR AS NOTED
- FOUND PIPE AS NOTED
- FOUND SECTIONAL CORNER AS NOTED
- FOUND RIGHT-OF-WAY MONUMENT AS NOTED
- FOUND NAIL AS NOTED
- FOUND PANEL POINT
- FOUND MONUMENT AS NOTED
- SET MONUMENT AS NOTED

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

SITE DATA:

PARCEL:
APN 103-27-003K
ZONING HIGHWAY COMMERCIAL (HC)

FLOOD DATA:
FIRM PANEL 04005C6816G (EFF. DATE – 9/03/2010)

FLOOD ZONE A (BASE FLOODPLAIN MAPPED BY APPX. METHODS, BFE's NOT DETERMINED)

FLOW RATE 150 CFS (BASE FLOW RATE IE., Q100 REFERENCED FROM FIS FOR UNNAMED WASH)

FLOODPLAIN NOTES FLOODPLAIN ON THE SUBJECT PROPERTY IS DESIGNATED AS RURAL FLOODPLAIN PER CITY OF FLAGSTAFF ZONING CODE DIVISION 10-90.40.030: RURAL FLOODPLAIN MAP. THE CURRENT APPLICATION IS TO CHANGE THE RURAL FLOODPLAIN DESIGNATION TO URBAN FLOODPLAIN BY ZONING CODE TEXT AMENDMENT.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click www.Arizona811.com

ENGINEER
WOODSON ENGINEERING AND SURVEYING, INC.
124 N. ELDEN ST.
FLAGSTAFF, AZ 86001
(928) 774-4636

WOODSON
ENGINEERING & SURVEYING
124 N ELDEN ST, FLAGSTAFF, AZ 86001
(928) 774-4636 | WWW.WOODSONENG.COM

Exhibit 6

SHEET 1 OF 1

WOODSON ENGINEERING AND SURVEYING, INC.
124 N. ELDEN ST. • FLAGSTAFF, AZ 86001 • PHONE: (928) 774-4636 • WWW.WOODSONENG.COM

118029

06/26/19

AZNorth DEVELOPMENT
LAKE MARY ROAD PARCEL
EXHIBIT: FLOODPLAIN AMENDMENT

DRAFTED BY: SK
DATE: 06/26/19
PROJ. NO.: 118029
FN: Vicinity_Lot Amendment

2018 Rio de Flag Floodplain Assessment

Floodplain Health Assessment

PO # 18-001691



Natural Channel Design, Inc.
2900 N. West St, Ste 5
Flagstaff, AZ 86004

July 2018

2018 Rio De Flag Floodplain Assessment

Floodplain Health Assessment
PO # 18-001691

Submitted to:
Jim Janecek
City of Flagstaff Stormwater Section
211 West Aspen Ave
Flagstaff, AZ 86001

Prepared by:
Natural Channel Design, Inc.
2900 North West St., Ste 5
Flagstaff, AZ 86004

July 2018

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EXECUTIVE SUMMARY

Key aspects of floodplain health (erosion, aggradation, channel access to floodplain, vegetation composition and distribution, blockage and sediment inflow, trash, etc.) were assessed throughout the Rio de Flag and its tributaries within and near the City of Flagstaff. The study was conducted by analysis of spatially referenced photos taken during November 2017. Each photograph was scored using a scoring matrix which included 12 different aspects of floodplain health. This matrix did not cover floodplain capacity. All scoring was done through visual inspection and estimation following the outline of the matrix developed for the study. Scores were combined into 18 different reaches of stream throughout the city that were delineated by relatively homogeneous health condition as well as inflow of major tributaries.

The spatially referenced scores show a relatively clear effect of urbanization on the Rio de Flag and its tributaries. Weeds, bank erosion, blockages and access to floodplain generally scored best on the western and northern end of tributaries outside of the city limits and decreased as the channel flows through the city to the eastern boundary.

While the data clearly indicate specific areas for cleanup, restoration and protection, they also indicated that many of the issues originated outside of the floodplain. Weeds, sediment production and trash accumulation were key issues and all linked to sources outside of the floodplain. These issues will clearly require cooperation with landowners and city departments outside of the stormwater group. Another key finding is that reaches with low scores in one category were often low scoring in other categories. This indicated the compound effects of multiple stressors (for example bank erosion related to both sediment aggradation, incision and invasion by weeds.)

Suggestions have been made in the form of best management practices, seeding and weed management specifications that can help to address many of the issues.

This data can easily be replicated and the methods can be utilized by citizen scientists with limited training in the future. The data sets are supplied to the city in the form of spatially linked photos in ArcGIS as well as excel worksheets with photo numbers, scores etc. New photos and reanalysis with the scoring matrix can be utilized to understand the effects of restoration projects and implementation of new management strategies. Moreover, mobilization of citizen groups to help with future monitoring further encourages a relatively well informed and interested public into continued participation in aspects of the floodplain that citizens of Flagstaff have expressed concern for including open space, aesthetics, wildlife habitat and recreational activity.

PROJECT DESCRIPTION

The City of Flagstaff, Stormwater Section wishes to make an assessment of floodplain health for the Rio de Flag, the main drainage through the city, and several of its key tributaries. The major aspects of floodplain health that are of interest are: vegetation components, erosion or aggradation of the floodplain, excessive trash or dumped materials, access to floodplain by the active channel, and culverts or other infrastructure that improperly alters the hydraulic or sediment transport capacity of the channel or inflow. These key aspects of floodplain health combined with hydrologic modeling results which the stormwater section already has in place will provide a snapshot condition of how well specific reaches perform hydrologic, physical and ecological functions.

Although flows are ephemeral, the channel flows often enough and for long enough periods that some riparian vegetation is supported along the length of the channel. Consequently, the channel is recognized for wildlife habitat, aesthetic and recreational values along much of its length. Accordingly, the floodplain of the Rio and its tributaries are targeted for multiple uses compatible with flood conveyance. Open space, wildlife habitat, aesthetics and recreational/non-motorized transportation use are key elements recognized in concert with flood control. Thus, understanding of multiple aspects of floodplain health beyond hydraulic capabilities is key to broad public support for flood control and water quality missions of the city.

Analysis of the site conditions and causes will not only be utilized as a tool to prioritize enhancements and improvement projects but will provide insight into potential shortcomings of current floodplain management regulations. Natural Channel Design (NCD) will provide a report identifying floodplain health conditions and patterns within the data set that was provided by the City. Issues affecting floodplain management will be identified. Suggested changes to city maintenance operations, codes and regulations will be developed and provided in the final deliverable. These suggestions along with proposed future monitoring ideas and information needs for development of floodplain management plan will be provided as well.

LOCATION

The Rio de Flag is the major water course draining Flagstaff, Arizona. The Rio de Flag is an ephemeral stream for most of its length. However, there are several springs that contribute perennial flow for short reaches. Although the channel lacks perennial flow it has a large watershed which contributes stormwater and snowmelt runoff to the channel. Watershed area upstream of the city limits is 72 square miles. There are numerous relatively large tributaries that join the Rio de Flag within the boundaries of the City of Flagstaff (COF) and the watershed area grows to 114 square miles at the downstream end of the city boundary. The COF greater city limits include approximately 64 square miles.

Most tributary watersheds and the watershed of the main channel of the Rio de Flag originate on Coconino National Forest lands outside of the city limits. The watershed upstream of the city is characterized by relatively steep slopes, ponderosa pine forest and volcanic soils. There is some development on Coconino County lands outside the city limits that could affect downstream floodplain health, however, the majority of the watershed and floodplain leading into the city limits is undeveloped

forest lands. The Rio de Flag watershed is entirely within the Canyon Diablo HUC 15020015 and represents the northern most subdrainage in that unit.

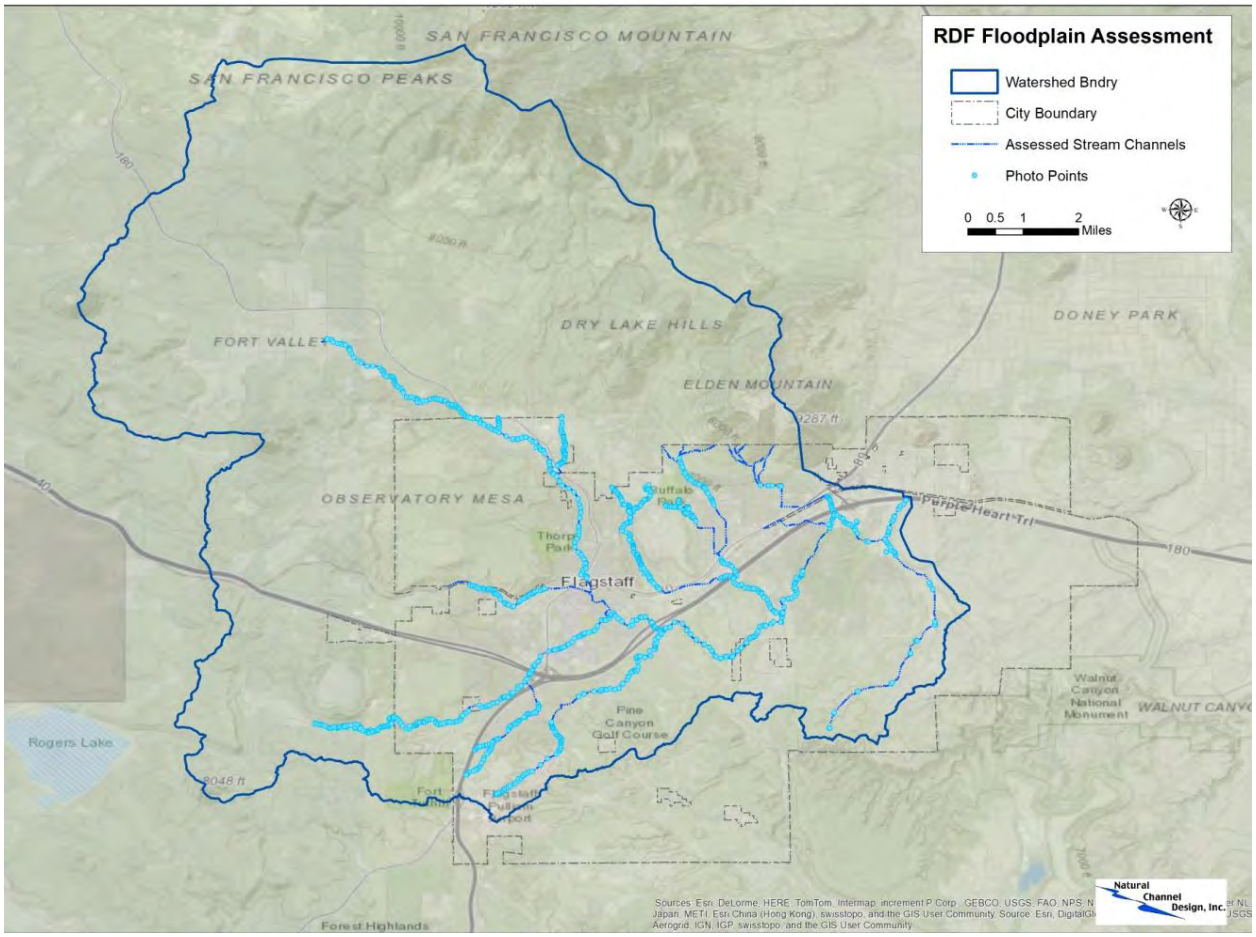


Figure 1 Location map.

The project is located along the Rio de Flag and its tributaries through Flagstaff, AZ. Tributaries originating outside of city boundaries with significant connections to the Rio were also studied.

PROJECT OBJECTIVES

The objective of the study is to provide a repeatable and quantifiable snapshot of floodplain health and function throughout the City of Flagstaff. This study is meant to utilize easily available data, which can be updated for new analysis. The use of georeferenced photos provides a means of utilizing easily obtainable data which can be used in a quantifiable manner and easily reproduced. The data produced should help to define problem areas, as well as specific issues that can be addressed through management or enhancement projects. Additionally, the repeatable nature of the study will allow monitoring of regulatory and project success in the future.

METHODS

City of Flagstaff Stormwater Section provided photographs of the channel and floodplain of the Rio de Flag and its major tributaries. Photos were taken in a systematic manner during the late fall of 2017. Photos were taken roughly every 400 feet along the channel in addition to any structures in the channel (culverts and bridges) and significant inflow channels. There were 17 different stream reaches photographed by the Stormwater Section, with NCD completing an 18th reach in early summer of 2018 for a total of 2100 photographs. Reaches were designated by the stormwater section and further refined during data analysis.

A scoring matrix was developed to evaluate the health of the floodplain shown in the photos. There are seven main categories with twelve total categories. The main categories evaluated were: vegetation, erosion/aggradation, floodplain access, flow conveyance, trash and debris, roads and trails, and inflow sources. Four of the main categories included sub-categories. The vegetation category was comprised of composition and zonation. Erosion/aggradation included bank erosion and bed stability. Flow conveyance considered floodplain blockages and structures such as culverts. Inflow source had three subcategories: pollution prevention, inflow channel condition and sediment source from inflow.

All photos were evaluated for each category. Visual estimates were made based on what could be seen in the photograph. These were visual estimates for conditions such as percent vegetative cover, entrenchment ratio, percent floodplain blockage, etc. presented in the photos. Local knowledge of the floodplain condition surrounding the photo was utilized to augment the photographic information as needed and field verification of conditions at some sites unfamiliar to the survey team. Actual field conditions may vary significantly if the photo was not representative of overall existing conditions.

Each photo was scored from 'one' (indicating poor health) through 'five' (indicating good health) or NA for Not Applicable for each of the 12 categories. A map has been made for each category with each photo color-coded by score. These maps help show hotspots and provide an overall sense of scale of problem areas. A georeferenced database containing all the photos was developed in ArcGIS and is provided as a reference data set/electronic appendix to this report.

Categories and scoring matrix are presented in Table 1 and explained in detail below.

The **vegetation composition** category considered the percent cover of non-native and weedy annual species present and the presence of any highly aggressive invasive species. A vegetative community that appeared to be all native scored a five. A score of four, three or two indicated increasing levels of non-native or weedy annual species percent cover. A 'one' indicates a vegetative community that is dominated by non-native and weedy, annual species. In addition, there is an **invasive weed** map showing the locations of all aggressive, invasive species seen in the photos. Aggressive invasive species are a subgroup of the many invasive species common to the region. These are considered highly problematic in this region and several are often target weed species outside the floodplain area. These include Scotch thistle (*Onopordum acanthium*), diffuse knapweed (*Centaurea diffusa*), common teasel (*Dipsacus fullonum*), and poison hemlock (*Conium maculatum*).

Vegetation zonation is an indicator of location of appropriate species growing in relation to the active channel and floodplain. The function being addressed is blockage of the active channel by large diameter stiff vegetation that captures debris and blocks flows as well as having appropriate densely rooted vegetation in active stress areas of the channel to prevent erosion. Ideally, vegetation is distributed in the floodplain similar to that show in Figure 2. Vegetation zonation is scored as a

departure from this norm. A 'five' indicates that the vegetation is appropriately zoned, 'four' indicates that there was some large, woody vegetation in the active channel, 'three' that the floodplain was lacking in trees or in appropriate vegetation, 'two' there was dense, woody vegetation in the active channel and 'one' indicates that the toe zone of the active channel was unprotected by vegetation allowing erosion along the toe of the bank.

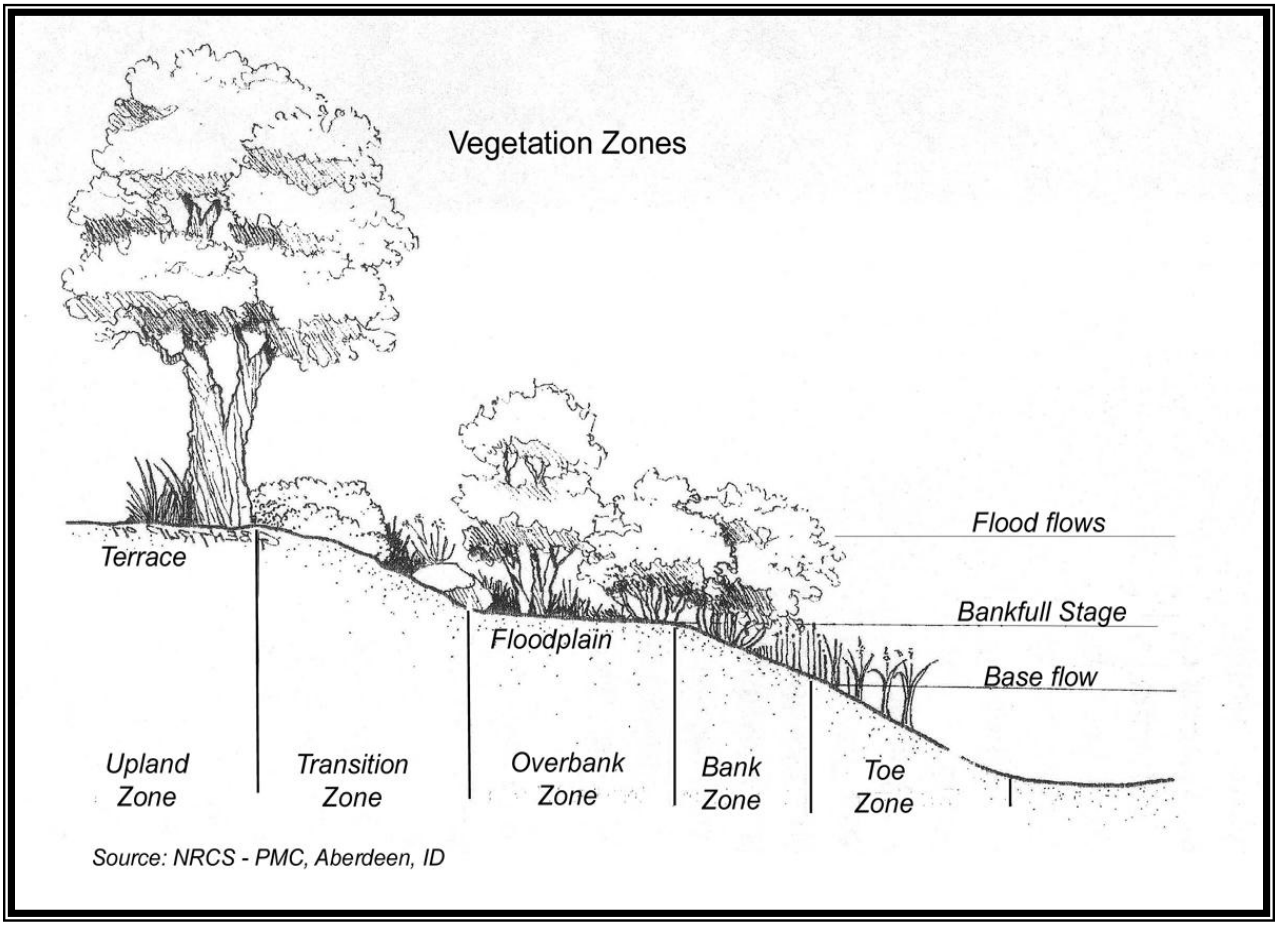


Figure 2. Reference vegetation zones along streambank.

Stylized layout of vegetation zones along cross section of stream bank. Low growing, flexible and rhizomatous materials are closer to the active channel and grade into taller, stiffer and more long lived species at the outside of the floodplain. Zonation is driven by both moisture gradients and the frequency and magnitude of high flow events.

Bank erosion considered whether the banks were stable or eroding and provide an indicator of both channel lateral stability and sediment supply to the channel. Banks that were stable with good vegetation scored a 'five', while stable banks with artificial protections, such as riprap or concrete, scored a 'four' because they lacked habitat and aesthetic qualities. Eroding banks with smaller unprotected areas of generally less than 25% scored a 'three' and eroding banks with larger unprotected areas, often greater than 75% scored a 'two'. Vertical eroding banks with an eroded bank height that was greater than the bankfull height scored a 'one'.

The **bed stability** category determined whether the channel bed was incising, aggrading, or stable as indicated by headcutting or sediment size distribution in the channel. A 'five' indicated a stable channel bed with appropriate vegetation or sediment size to withstand normal erosive forces. 'Four' indicated a stable bed dependent on artificial grade control placed within the channel. An incised bed that has incised, then widened and stabilized with flood plain features and some vegetation scored a 'three'. A bed with signs of instability or inappropriate sized sediment to projected shear stress (i.e. fine sediment dominate bed in a channel that now receives concentrated storm flows from a culvert or ditch) scored a 'two'. A channel with obvious signs of incision, erosion or aggradation scored a 'one'.

Floodplain access evaluated the degree to which flood flows had access to the floodplain or were confined within a narrow channel which creates high velocities and shear stress. Flood flows that are allowed to spread across a floodplain travel at reduced velocities and can attenuate as they travel downstream. Additionally, floodplains can help improve water quality of peak flows as vegetation and soil bacteria utilize nutrients and capture other pollutants. An estimate of the entrenchment ratio was used to determine scoring. The entrenchment ratio is a measure of the vertical containment of a channel that is defined as the flood-prone width divided by the bankfull width. Bankfull being the width of the active channel and flood-prone being the width at twice the depth of the active channel. These ratios were estimated from the photos and no actual measurements were taken. An entrenchment ratio of 2.0 means that the flood-prone width is twice the bankfull width. A larger entrenchment ratio means there is a larger flood area/width relative to the size of the bankfull or active channel. Photos that showed larger floodplains or floodplains with minor blockages scored highest (five). Channels with flood-prone width that was less than twice the bankfull width scored a 'two' and if there was no access to the floodplain because the channel was entirely within a pipe or conveyance it scored a 'one'.

The **culverts and bridges** category scored these structures on capacity, floodplain connectivity and condition. Bridges that spanned the entire floodplain scored a 'five'. Geomorphically designed culvert arrays (mimicking natural channel dimensions) or bridges that came close (but not quite) to spanning the floodplain scored a 'four'. A relatively stable, standard design (single barrel or all barrels at same elevation) culvert scored a 'three'. Culverts that were under capacity, created problematic slope breaks in the channel, or high energy flows scored a 'two'. Broken culverts or those with signs of erosion or aggradation received a 'one'.

Floodplain blockage evaluated the degree to which the floodplain was blocked by objects like stockpiles or fill. A floodplain that was clear for the full width and in a natural condition scored a 'five'. Floodplains with other uses that did not necessarily hinder flood flows but interacted with them scored a 'four' such as when fill, rock, roads or development encroached on the floodplain but did not block it. A floodplain with less than 50% blockage scored a 3. One with greater than 50% blockage but with accommodations for increased stage a velocity (such as armoring) scored a 'two', while one with similar blockage but without armoring scored a 'one' due to potential for erosion during peak flows.

The **trash and debris** category rated the amount of these materials seen in each photo. Essentially no trash or debris scored a 'five'. Minor debris along the floodline was score as 'four'. Trash and debris buildup around grates and culverts scored a 'three'. Trash and debris dumping along the fringe of the floodplain scored a 'two', while dumping in or near the active channel scored a 'one'.

The **roads and trails** category evaluated the degree travel ways were appropriately placed within the floodplain. A 'five' indicated that there were no roads or trails in the channel or floodplain. A 'four' indicated they were perpendicular to the flow and supported by an appropriate crossing. A 'three'

indicated they ran parallel to the flow but were placed at the outer fringe of the floodplain, while 'two' indicated they were parallel but blocking the floodplain. The photo was scored 'one' when a road or trail was parallel to flow, sunken or at grade or there were roads/trails that were dense, rutted or heavily used by ATVs because of the potential for flood flows to be captured by the pathway and create erosion or divert the channel.

Pollution prevention focused on the degree to which inflow areas were influenced by direct runoff from areas which normally provide relatively high non-point source pollution or direct flows from impermeable surfaces. Only the inflow area seen in the photograph was assessed. Low impact development features such as stormwater retention/detention basins may have been installed upstream of the inflow area and were not assessed. The **inflow channel condition** category estimated the degree to which the inflow channel was natural. A fully natural channel scored a 'five', ≥ 75% natural scored 'four', approximately 50% natural 'three', ≤ 25% natural 'two' and a fully paved or piped channel scored 'one'.

The **sediment source** category evaluated the amount of sediment potentially supplied to the channel and its source. If the inflow source was from a forest or a neighborhood with no bare ground it scored a 'five'. Temporary construction site near the floodplain scored a 'four'. Chronic inflow of cinders from roadways scored a 'three'. Chronic dirt roads or erosion in the drainage scored a 'two'. Bare ground or eroding banks near the confluence scored a 'one'.

Scoring was tabulated in an Excel™ spreadsheet that correlated reach designation and photo number with scores for each category and notes about observations made from the photo. Reach designations were used to combine photos and determine mean scores in each category.

Scores for each category at each photo point were plotted in ArcGIS for visual assessment of each reach. In several cases, reaches were subdivided based on scoring observations to provide reach boundaries with more homogeneous scores, thereby providing a better description of the functions in the reach. Mean scores calculated from combining unweighted categories are likely not useful to understand the overall score of a specific reach since scores from each category operate on an independent scoring description which is not related to scoring in other categories. In order to understand the overall health of a reach in relation to other reaches we tabulated the sum of how many categories the reach scored in the bottom 25th percentile compared to other reaches for each category. While this helps to pinpoint specific reaches in the greatest need, as a practical point, scores from individual categories are likely more meaningful to direct management action or regulation changes.

Importantly, these results are also provided in a GIS database which can easily be utilized to locate specific problem areas or reference reaches and drive management decisions or be tied to future monitoring efforts.

Table 1. Scoring matrix for floodplain health

Each photograph was scored utilizing the scoring matrix below. Scores were based on visual assessment of photographs. No measurements were made. However, a subset of photos was field verified by the scoring team.

Rio de Flag Photo Scoring Matrix

5 point max (good health), 1 point min (poor health), NA is not applicable

Main Category	Sub-Category	Score 5	4	3	2	1
Vegetation	Composition	All native	≤25% non native	50%/50%	≥75% non native	Dominated by non-natives and weedy annual species
	Zonation	Appropriately zoned	Some large woody in active channel	Floodplain lacking any trees or appropriate vegetation	Dense woody debris in active channel	Toe zone unprotected by vegetation
Erosion/ Aggradation	Bank Erosion	Stable banks with vegetation	Stable with riprap	≤25-50% unprotected bank	≥50-75 % unprotected bank	Vertical eroding bank >bankfull height
	Bed Stability	Stable with appropriate vegetation or sediment size	Stable with artificial grade control	Incised but showing signs of widening or aggrading	Easily erodible bed material with … Bed showing signs of instability	Obvious erosion or aggradation
Floodplain Access		Entrenchment ratio >3	Floodplain with some blockage	Entrenchment ratio ≈2	Entrenchment ratio <2	No floodplain, all in pipe or conveyance
Flow Conveyance	Culverts and Bridges	Bridge span over entire floodplain	Geomorphically designed culvert array	Standard design, with over-wide section	Under capacity, slope break, high energy, etc.	Broken, leaking, erosion or aggradation
	Floodplain Blockage	Clear for full width - natural	Clear for full width - other use	<50% blockage (stock piles, fill sections, etc.)	>50% blockage with accomodations for increase stage and	>50% blockage - no armoring
Trash & Debris		Essentially none	Minor debris along flood line	Debris buildup on grates or around culverts	Trash and debris dumping along fringe of floodplain	Trash and debris dumping in or near channel
Road & Paths		No roads or trails in floodplain	Roads and trails at grade or supported by appropiate channel	Road or trail parrallel to flow but at outer finge of floodplain	Parrallel to flow and above grade: blocking floodplain	Parrallel to flow: at grade or sunken or dense, rutted, ATV use
Inflow Source	Pollution Prevention	Full LID retention/detention	Partial LID	Detention only	Partial detention	Direct runoff to channel
	Inflow Channel Condition	Natural channel above	≥75% natural channel	50% natural channel	≤25% natural channel	Paved or piped channel
	Sediment Source	Healthy forest or neighborhood with no bare ground	Temporary construction site near floodplain	Chronic inflow of cinders or icemelt from roadways	Chronic dirt roads or erosion in drainage	Bare ground or eroding banks near confluence

RESULTS

The original 17 reaches provided by the city are currently divided into 22 different reaches. One reach (18) was added by doing additional survey in 2018. Some larger reaches were subdivided based on junctions with major tributaries or significant changes in surrounding land use.

Tabulated category mean score results are provided in the table below for each reach. There was a tendency for reaches with low scores in one category to also have low scores in additional categories. This is reflected by the 'number of lowest scores' column which sums the number of categories that the reach scored in the lowest 25th percentile.

Summary results indicate that the most widespread issues affecting the floodplain are inflow channel conditions, lack of pollution prevention, effects of roadways including culverts and bridges as well as invasive plants. Trash and debris in the floodplain was not generally a problem although several discreet areas do have considerable litter generated issues. In general, the areas to the west and north either outside of the city limits or in the upstream portions within the city score relatively high in each category while scores generally decrease in the Rio and its tributaries as they progress through the city. The exception to this is Reach 5- Peaceful Valley Wash which is very rural for most of its length but has been heavily impacted by off road vehicle use on a roadway that runs within the ephemeral channel. This pattern is strongest for nonnative species and invasive weeds which do increase dramatically in reaches to the eastern or downstream end of the city. Specific highlights of the results from each category are presented separately below. Maps, indicating scores for each photograph are provided fore each category in the Appendix to this report.

Table 2. Results for reach analysis of photos.

Mean scores for each category by reach. The far right column contains the number of times that each reach scored in the lowest 25th percentile of reach scores for additional categories and provides an estimate of cumulative impacts.

Reach	Vegetation Composition	Vegetation Zonation	Bank Erosion	Bed Stability	Floodplain Access	Culverts & Bridges	Floodplain Blockages	Trash & Debris	Roads & Trails	Inflow Pollution Prevention	Inflow Channel Condition	Inflow Sediment Source	# of Lowest Scores
1a	3.6	4.5	4.3	4.6	3.8	2.8	4.5	4.9	3.4	1.0	4.5	4.6	2
1b	3.4	4.9	4.5	4.8	4.6	4.2	4.5	4.8	4.0	1.3	3.1	4.7	1
1c	2.6	4.9	4.3	4.8	3.4	2.5	3.4	4.6	4.4	1.5	1.2	4.9	6
2	4.5	4.5	4.0	4.0	3.5	2.8	3.7	4.8	4.1	1.9	2.9	4.2	4
3	4.6	4.3	4.5	4.7	4.2	3.4	3.8	4.5	4.5	1.8	2.6	4.9	1
4	4.4	4.3	4.7	4.7	3.6	3.0	4.8	4.9	4.7	5.0	4.0	4.9	0
5	3.2	4.2	4.1	4.0	4.1	2.3	4.9	4.9	3.3	1.0	2.1	4.1	8
6	4.5	5.0	4.4	4.5	2.6	2.4	5.0	4.9	4.5	1.8	1.0	4.0	4
7	4.7	4.7	4.4	4.7	3.8	3.3	4.6	5.0	4.3	1.0	2.1	4.9	0
8	4.9	4.7	4.7	4.8	4.3	3.0	4.8	5.0	4.6	1.0	3.3	4.9	0
9a	4.7	4.3	4.7	4.8	3.9	3.5	4.7	5.0	4.7	1.4	4.8	5.0	1
9b	4.3	4.5	4.6	4.8	3.8	3.9	4.5	4.9	3.4	1.0	5.0	4.9	1
10	4.6	4.6	4.4	4.8	4.2	3.3	4.6	4.5	4.8	1.4	4.5	4.9	1
11a	4.1	4.6	4.2	4.0	3.2	3.1	3.4	4.7	3.6	1.0	3.3	4.7	3
11b	4.3	5.0	4.2	4.3	2.9	3.1	4.2	4.7	3.3	1.0	2.0	4.5	5
11c	4.7	5.0	4.5	4.7	4.1	3.8	4.8	5.0	3.3	1.0	3.7	5.0	1
12	4.9	4.9	4.2	4.9	4.4	3.0	4.5	5.0	4.8	1.0	NA	4.9	0
13	3.8	3.7	3.5	4.1	3.8	2.8	4.7	4.5	4.2	1.6	2.3	4.2	5
14	4.9	4.7	4.7	4.8	4.4	3.0	4.5	4.7	4.6	1.6	1.3	4.6	1
15	4.9	4.8	4.7	4.7	4.1	3.0	4.2	4.8	4.3	3.1	3.7	4.5	0
17	4.1	4.0	4.3	4.4	3.6	2.7	3.8	4.7	4.6	2.9	4.1	4.6	3
18	2.5	2.6	3.7	4.4	3.2	2.7	3.2	4.3	4.0	1.0	2.6	3.6	8

VEGETATION COMPOSITION AND INVASIVE WEEDS

The vegetation composition category evaluated the presence and degree of non-native and weedy, annual species as well as the presence of highly invasive species. The majority of the Rio de Flag watershed has a primarily native vegetation community that is in good condition, especially in the upstream reaches around the edges of the city limits. This vegetated community composition changes depending on floodplain morphology and can be dominated by either native grasses, willows and other shrubs as well as more upland trees such as ponderosa pine and oak. As the watershed enters more urban areas with higher levels of disturbance, the vegetation begins shifting toward more non-native and weedy, annual species and in some areas becomes dominated by non-natives. These non-natives include Siberian elm, Russian olive as well as weedy annuals and the pattern of occurrence indicates that weed seed is being actively transported by both flood flows as well as prevailing wind patterns (from the southwest). Weedy, annual species (both native and non-native) are a concern because they have shallow root systems and provide the channel with little to no protection from erosive forces and they tend to lower the habitat quality for wildlife. There are high levels of non-native species along the lower reach of the Rio de Flag and along the washes that enter in this area including Spruce Avenue Wash, Fanning and Peaceful Valley. Many of these areas appear to have been disturbed but were not revegetated, leaving them vulnerable to easy invasion by weeds. There is also a section of Sinclair Wash (Reaches 11a,b,c) with some high levels on non-native plants. The non-native section through Wheeler Park just indicates the presence of turf grasses instead of native grasses. This is not generally considered a problem from an erosion point of view, however turf grass does limit the habitat diversity and quality.

Not surprisingly the areas with aggressive invasive species overlap with the areas with least amount of native vegetation. There are also several smaller, scattered populations of invasive weeds found throughout the watershed. There were four key invasive species identified in the photos: diffuse knapweed (*Centaurea diffusa*), poison hemlock (*Conium maculatum*), common teasel (*Dipsacus fullonum*), and Scotch thistle (*Onopordum acanthium*). These species are highly invasive and are of great concern because that can take over both disturbed and natural areas. They can push out native species and form large, dense stands. They are also quite difficult to control once they become established and take years or longer to eradicate.

Common teasel and poison hemlock are almost exclusively found in wetter areas along channels and on floodplains. Working to control these species in the Rio de Flag floodplain is key to controlling these species in the Flagstaff area. In addition to the locations on the map, the unevaluated area of Switzer Wash (Reach 15 Switzer and 13 Spruce Ave Wash) is heavily infested with teasel. Scotch thistle is found in uplands but often dominates floodplains. Controlling this species in the floodplain would make a large impact on the local population.

Diffuse knapweed prefers dryer habitats but is happy to invade and dominate a disturbed floodplain such as upstream of Foxglenn Park (Reach 1b and 1c).

ZONATION

Poor scores in the vegetation zonation category was due to either dense woody vegetation or an unprotected toe zone in the active channel. Appropriate vegetation such as native grasses and shrubs protect the channel from erosion. This is especially important to the Rio de Flag where most of the reaches are located in relatively fine soils which lack sufficient cohesion to resist erosion without

vegetation or some other protection. This becomes even more important since many of these reaches have either incised due to natural forces or been channelized to increase flood capacity. The channel in the upper Peaceful Valley reach runs down a road which does not have vegetation leaving the toe unprotected.

Dense woody vegetation can block the channel causing increased flood stages and occasionally causing lateral instability. There were a few reaches with consistently lower scores in the zonation category which included Fanning Wash, lower Spruce Avenue Wash, and upper Peaceful Valley. The Fanning reach consists almost entirely of annual species and invasive weeds which provide no protection for the toe of the bank. Spruce Ave Wash has several sections of dense woody vegetation in the active channel which has caused the banks to erode. The eroding banks no longer have vegetation protecting the toe which can lead to increasing rates of erosion.

BANK EROSION

Overall bank stability within the City is not a major issue in most of the channels. Many of the sites that are eroding are in stable channels that have incised in the past and have widened. There are taller banks that are still unvegetated due to the banks being too steep to support vegetation, but the toes of the banks are stable. This appears to be the case along the Sinclair Wash reaches, and also in the Schultz Reach. The Bow and Arrow Reach 2 has instability at the beginning of the reach near the airport that is causing active bed and bank erosion. This may be a result of increased runoff directed from activities around the airport. Further downstream the channel is relatively stable.

Within Spruce Ave. wash, isolated pockets of bank erosion occur to the north of Butler Ave. These appear to be caused in some instances by trees in the channel creating blockages that can cause widening. Others are caused by culvert alignments. In Spruce Avenue downstream from Butler, incision followed by channel widening is creating highly unstable banks.

Along the lower portion of Fanning Wash, the stream crosses a low water crossing and drops down from approximately 6 feet, followed by another headcut and widening reach downstream. This long reach of tall banks and low stability is creating one of the largest sediment sources in the reaches that have been assessed.

The final problem area is along the upper end of Peaceful valley wash. The channel here is located in a dirt road located in the valley bottom that has captured what would probably have been dispersed flow. Incision and erosion along the road create a long reach of unstable channel and high sediment supply.

BED STABILITY

The channel beds in the city are overall fairly stable. There is evidence that many channels have incised in the past, but have since stabilized by widening and creating a flood plain. Instability tends to be localized and due to the presence of obstructions such as culverts or floodplain encroachment. Aggradation most often occurs at the entrances of culverts or road crossings where the channel is overwide. Current incisions are due to channel obstructions, culverts, roads or other factors that are not generally apparent in the photos.

Specific problem areas include the upstream end of Bow and Arrow Reach 2. The channel becomes incised at the outlet of a recently installed culvert and remains incised with eroding banks for the next half mile until the valley changes and the stream becomes more stable.

Sinclair Wash Reach 11 shows several areas of aggradation, mostly in relation to culverts. There does appear to be a headcut upstream from the wastewater treatment plant near I-40 that could be a problem. The upstream end of Peaceful Valley Reach 5 is unstable due to the dirt road in the valley bottom that has concentrated flows causing incision. There is also a relatively active headcut in Reach 9a of the Rio de Flag in the Cheshire neighborhood that threatens to move upstream into channel that is in relatively good condition.

FLOODPLAIN ACCESS

Floodplain access is the ability of flood waters to spread outside of the active channel, reducing the erosive forces of the water on channel banks. This is not a measure of the ability of the channel to carry a given flood flow. Only and indication of the ability of the channel to reduce the erosive stress of flood flows. In some cases, the active floodplain can be very narrow, depending on the stream type and valley it's located in. In natural systems, the stream can adjust to this condition by both channel form and sediment size, but in a manipulated stream where it has been channelized and confined through relatively fine sediments that do not resist erosion, problems can occur such as excessive bank or bed erosion.

Within the city, floodplain access was overall adequate with some floodplain being available for water to spread out. Isolated spots shown on the map within an otherwise good section are typically located at culverts or bridge locations. At these points, there is no access to floodplains. Areas where a lack of floodplain access is a problem include the Bow & Arrow Reach 2 by the airport. Here there is active incision that has created a small gully with little floodplain access. The other site where problems occur is in the lower end of Fanning and the Rio de Flag (Reach 18). Here the channel is confined and active bank erosion is occurring.

CULVERTS AND BRIDGES

The vast majority of culverts around the City are the standard design that create an overwide area in the channel but generally appear in good condition and are adequately sized with no apparent issues. The photos showed several culverts around the City that were aggrading and filling in, some with significant blockages. Several others had erosion around the outlet, cracked gunnite, failing concrete, or were smashed. A handful of culverts appeared to be significantly undersized, showing sign of frequent overtopping. All of the problematic culverts and bridges are marked on the map and notes of specific failures are within the database file.

FLOODPLAIN BLOCKAGE

Floodplain blockage includes any obstruction, encroachment, fill or larger trees on the floodplain that can obstruct flows or catch excessive debris. The most widespread types of blockages within the study area include raised road crossings that force the channel into a culvert. Floodplain filling around structures, houses, trails and roads account for further blockages. At the upstream ends of some of the

drainages where the channels are very small, tree growth encroachment onto the channel has caused some blockage.

TRASH & DEBRIS

Trash and debris accumulations in the channels around Flagstaff are fairly light overall, but with several focal points of trash concentration, typically around larger shopping centers or along I-40 with transient camps. The only reach of stream where woody debris concentrations are present in significant quantities are along Schultz Reach 10, although these don't appear to pose a risk of blockage. The major trash concentrations are located around the Walmart parking lots, and the larger culverts crossing under I-40. Concentration of trash generally becomes reduced as you travel downstream from these areas.

ROADS AND TRAILS

The most common and significant issues of concern found under the Roads and Trails category were roads and trails, at grade, running in or immediately adjacent to the active channel, rutted roads and trails crossing the channel sometime repeatedly, and roads and trails that were above grade, running adjacent to the channel blocking the floodplain.

In the lower Sinclair Wash reach and the reach of the Rio de Flag immediately downstream, several roads and trails, as well as parking lots, consistently ran parallel to the channel blocking the floodplain and often constricting the channel. In upper Peaceful Valley a rutted road frequently ran down the active channel or was adjacent to or repeatedly crossed the channel bed. In Rio de Flag (Reach 1) and Bow and Arrow Wash (Reach 1), rutted and sunken roads repeatedly ran in the channel. Sometimes the roads were immediately adjacent to the channel or crossed it.

POLLUTION PREVENTION

The map for pollution prevention simply highlights that the majority of the Rio de Flag watershed has direct runoff of inflow sources to the Rio. This is likely a large under estimate of the amount of low impact development, retention/detention projects installed within the city since we are not looking at areas outside the view of the photo. However, it is evident that areas near the channel that contribute flow to the channel lack pollution prevention measures or even adequate buffer zones.

INFLOW CHANNEL CONDITION

Inflow channel condition was poorest in the most densely developed areas. This is likely a function of the need for drainage and road crossings in these areas creating a high density of piped and concentrated flows into the main drainage. Less densely developed areas tended to more natural conditions. However, the majority of drainage confluences within the city limits were not fully natural and had been modified to some degree.

SEDIMENT SOURCE

Sediment sources immediately adjacent to the channel were generally healthy and sourced very little sediment into the channel. This generally matches with the low instance of aggradation throughout the study area. The map highlights a handful of areas where there is chronic sources of cinders and

significant sediment from eroding roads or banks. While eroding banks are obvious sources of sediment, the use of cinders on roadways for road base and traction during snow storms represents a relatively large sediment source that is not recognized outside this region. Some area that capture cinder materials off roadways are scattered throughout the city. These may become more obvious in winter or early spring surveys.

MULTIPLE CATEGORIES OF IMPAIRMENT

Initial analysis of the data indicated that reaches with the lowest scores in one category were likely to have low scores in other categories as well. This is somewhat to be expected since high bank erosion is likely connected to floodplain connectivity, floodplain blockage and poor vegetation and vice versa as an example. The reaches most affected this way were identified by creating a category that summed the number of categories where the reach scored in the lowest 25th percentile for that category. The spatial results provide a relatively striking view of the impacts that the urban space has made on floodplain health. Northern and western reaches (upstream) are least affected. The most eastern (downstream) reaches are all heavily impacted and exhibit low scores in nearly half the categories. This result along with others indicate clearly that while floodplain health is driven by watershed forces outside the city boundary, the greatest impacts are created within the city and are likely under the direct control of the city.

RECOMMENDATIONS

This study points to several floodplain health issues along the Rio de Flag and its tributaries. Some, such as the amount of incision and blockages to the floodplain, are remnants from past manipulations of the channel with the aim to consolidate flood flows on what would have otherwise been a very wide floodplain. These historical actions have set conditions that current managers will have to understand and work with. Other floodplain health issues appear to be created from current activities within the city limits and can likely be rectified through changes in management or through direct actions and maintenance along the floodplain. A partial set of recommendations is provided below and examples of specific specifications and actions that can be incorporated into regulatory code changes are provided in Appendix B.

Weeds and Vegetation Management

The spread of nonnative invasive plants within the floodplain is an important detriment to the resource in several ways. The floodplain acts as a major pathway for distribution of invasive weeds and provides a long-term seed repository that perpetuates the issue for long periods of time. The presence of these invasive plants negatively affects floodplain function, habitat quality, recreational value and aesthetics. It is very important to recognize that floodplains are only a portion of the problem area within the city. The most aggressive weed species are found outside the floodplain as well as within. Effective control will require a coordinated effort.

Common teasel (*Dipsacus fullonum*) is a species that has recently established and currently has a limited but growing distribution that is mainly limited to floodplains. This species can likely be eradicated from the city with a rapid and concentrated effort. The location maps provided in the report provide a good starting point for treatment that can consist of both chemical and mechanical removal. Follow up

treatments will be required but this infestation is in an early stage and timely treatments will save considerable time and effort compared to treatment within the next few years.

The more widespread species will require considerable sustained effort to make progress. Educational and administrative changes should be utilized as well as normal removal methods. Our observations indicate that activities outside the floodplain are heavy contributors to the spread of knapweed and Scotch thistle. Large sites prepared for development but left neglected as well as stockpile areas become ideal establishment areas for these species. The seed produced during the fallow period is easily transported by wind and runoff to other areas and the problem is perpetuated even as development finalizes and landscaping is put into place on the original site. Development codes that mandate temporary plantings and weed management of sites left fallow for more than a growing season should be utilized to help limit this problem.

Similarly, revegetation efforts that are not fully effective allow low density vegetation communities to become infested with invasive weeds. Revegetation in arid environments is more difficult than mesic environments where most techniques have been adapted from. Multiple attempts may be needed if rains are insufficient to support establishment. It is recommended that specifications for revegetation of disturbed sites be based on a performance type specification that allows full payment after establishment or requires further contractor efforts if establishment goals are not met. Such an arrangement would help assure that sites were well vegetated after disturbance and help prevent invasion by nonnatives.

Finally, the city should develop a comprehensive weed management plan that establishes coordination across multiple jurisdictions within the city. It is recommended that this plan identify target species and control methods for each species along with goals for removal and control. A budget for weed management should be established and efforts should be coordinated amongst stormwater, streets, parks and recreation, open spaces and development within the city. Coordination with local groups focused on weeds, the National Forest Service and Coconino County are also warranted. Control efforts will require multiple years and should likely be targeted at source areas in the north and west of the city, then working downstream to the east into rapidly establishing areas.

Maintenance of vegetation within the channel may be required in some areas to reduce stiff woody vegetation that can impede storm runoff and increase flood stage. Vegetation maintenance should be accomplished with geomorphic and ecological principles in mind and with an imperative to maintain high quality habitat along the channel.

Deference should be given to native vegetation growing within the appropriate channel zone. The active channel (below bankfull stage) should be kept free of stiff woody vegetation and flexible native shrubs density should be low in this area. Grasses and wetland plants should be encouraged. Some nonnative grasses (i.e. Quackgrass) may be appropriate vegetation in areas that require protection from erosion and it is well established. Removal of native willows should only occur within the active channel and should only involve cutting and removal of stems rather than excavation of roots that disturb channel sediments. Live cuttings can be planted in appropriate zones of other reaches.

Mature woody trees should be discouraged in the area outside the channel that is approximately twice the width of the active channel. All nonnative elms and Russian olive trees should be discouraged.

Trash and Debris

Accumulation of trash and debris is generally limited to specific reaches of the Rio and tributaries. Several areas that have backwatered stormflow act as catchment areas which help keep the problem from spreading out. However, source areas appear to be associated with high traffic commercial areas. It is likely that runoff (and wind carried items) be routed through detention areas that can catch most of the trash generated from the area and allow it to be picked up.

Additional areas sourcing trash were associated with homeless encampments within the city. Tighter enforcement of littering laws in these areas might be possible, but it is likely that the most reasonable path forward is periodic cleanup of the areas during periods of low use.

Channel morphology

Impairments to floodplain health related to channel morphology issues are usually linked to either recent or historic incision of channels that have reduced the width of the floodplain and thereby increased stress on the channel which is normally composed of relatively fine grain sediments that have little resistance to erosive forces. The resulting bed and bank instability can take years or decades to reach some stable equilibrium and many reaches of channel may be ill prepared for infrequent, high intensity flooding.

Improving this condition will require consideration of the additional shear stress created from concentration of flows within culverts and other stormwater conveyances. New and replacement designs for culverts should attempt to mimic channel and floodplain dimensions and avoid concentration of flows into pipes that can greatly increase velocity or slope. When concentration of flow and shear stress are necessary components of the design, energy dissipaters or practices that return flow conditions to the basic dimension found prior to the crossing may be required. These may be as simple as building 'media luna' or water spreading structures from native rock at the outlet of the culvert.

Off road vehicle use in the floodplain or channel should be discouraged and existing damage should be repaired to prevent further degradation of the channel and flood plain. Reaches in the Rio de Flag (1c), Bow and Arrow Wash and Peaceful Valley Wash need to consider road relocation or closure along with restoration techniques to repair and revegetate the floodplains.

Head cut areas should be armored as soon as practical. Unstable headcuts can move rapidly upstream during single storm events, causing near permanent damage to channels, wetlands and nearby properties and utilities. Once incised, the ensuing widening, bank erosion and habitat degradation can take decades to repair itself. Repair of these areas may be the simplest and most pressing of items found in this assessment.

At least two reaches of the assessment area may be candidates for full scale channel restoration. Fanning Wash (Reach 18) and Lower Spruce Wash (Reach 13) have multiple impacts to vegetation and

geomorphology that could be successfully addressed using geomorphic and vegetation restoration techniques in combination. Repair of these areas should improve aesthetics, hydrologic function, habitat and vegetation in addition to stream stability. The city should consider developing conceptual designs and costs to prepare for grant writing efforts that secure funds for these projects.

Sediment sources and non-point source pollution

Sediment sources along the Rio de Flag and tributaries are relatively limited. However, increased sediment supply is noticeable because most reaches of the natural channels have a relatively poor geometry for efficient sediment transport. Noticeably, increased sediment supply along Spruce Ave Wash has resulted in the need for recent channel capacity maintenance at the corner of Fourth Street and Butler Avenue. In addition to declining conveyance at culverts and bridges, sediment aggradation affects vegetation growth in the channel and accumulation of central bars increases shear stress against banks.

Bank erosion and cinders from snow removal activities appear to the largest sources of sediment. Bank erosion sites often represent unique circumstances that must be understood on a case by case basis in order to affect a successful repair. However, roadway and parking area drainage represent a more diffuse problem. Sediment retention traps provide a relatively effective practice for concentrated runoff flows from these areas. However, ensuring a robust vegetated buffer between the roadway and channel can benefit areas with sheet flow runoff and provide a less maintenance intensive solution. A schematic and explanation of roadway buffers designed for this purpose are provided in Appendix B.

Monitoring and Citizen Involvement

The methods employed in this assessment provide an ideal vehicle for citizen involvement and potential future monitoring efforts for the Rio de Flag. The City of Flagstaff, through citizen groups like Friends of the Rio de Flag and other organizations has a relatively active and engaged citizenry that is very interested in issues related to the Rio de Flag, flood control, open space, recreation and science. There have been previous efforts by citizen groups and the volunteer Flagstaff Area Stream Team (FAST) to document ecological and physical conditions along the Rio de Flag and its tributaries. The results from this report can be related to this older data set through spatial correlation. However, the repeatability of the older data set is difficult because it involved somewhat subjective observations by relatively well trained citizens. This proved difficult to repeat on a frequent basis and large portions of the stream length still had not been documented after a decade.

This method requires much less training on the part of the observer (GPS operation and photo replication) and it allows participation in data collection by a much larger pool of volunteers. The photo interpretation matrix was intentionally set up to allow high repeatability amongst a wide variety of expertise. Hence, data collection and analysis can be repeated often and by a wide variety of people. Data assimilation may require specific GIS skills that are not widely held, but this is a relatively small portion of the project.

It is suggested that the stormwater section work with citizen partners to organize citizen data collection efforts several times a decade for the entire water course or as needed within subsections of the project area to monitor general trends or specific project efforts. This would provide a valuable tool to

stormwater section and generate interest, knowledge and support within the Flagstaff populace. The data generated by the efforts would likely lead to citizen group led and sponsored restoration, cleanup and enhancement projects at target areas throughout the length of the channel.

CONCLUSIONS

Residents of the City of Flagstaff recognize that the drainage easements through the city are capable of providing aesthetic, recreational and ecological benefits as well as physical accommodation of floods. While this study does not address floodplain capacity directly, the findings in this report indicate that floodplains within the City of Flagstaff are generally healthy with several key areas as exceptions. The trend is toward decreasing floodplain health as reaches extend downstream through the city limits. This provides a clear indicator of how urbanization is affecting plant composition, channel stability and other related floodplain functions. However, these findings also provide guidance on how to change management tools and regulations to improve these aspects of floodplain health. Indeed, many of the problems noted in this study are not necessarily problems generated within the floodplain itself but are symptoms of these issues outside the flood plain. Impervious sources of high peak runoff that put additional shear stress on channels, weed sources from lands outside the channel and trash sources from specific areas of drainage outside the channel. While the City of Flagstaff Stormwater Section does have management over the floodplain, solutions to many of these issues will require working among other departments and directly with citizens and citizen groups to provide successful solutions.

The methods utilized in this study can lend themselves to citizen science monitoring of floodplains in the future. Utilization of the methods in the future can allow for citizen involvement in aspects of the floodplain that they care directly about, build an educated and involved citizenry that will be supportive of projects and regulation to improve floodplain health.

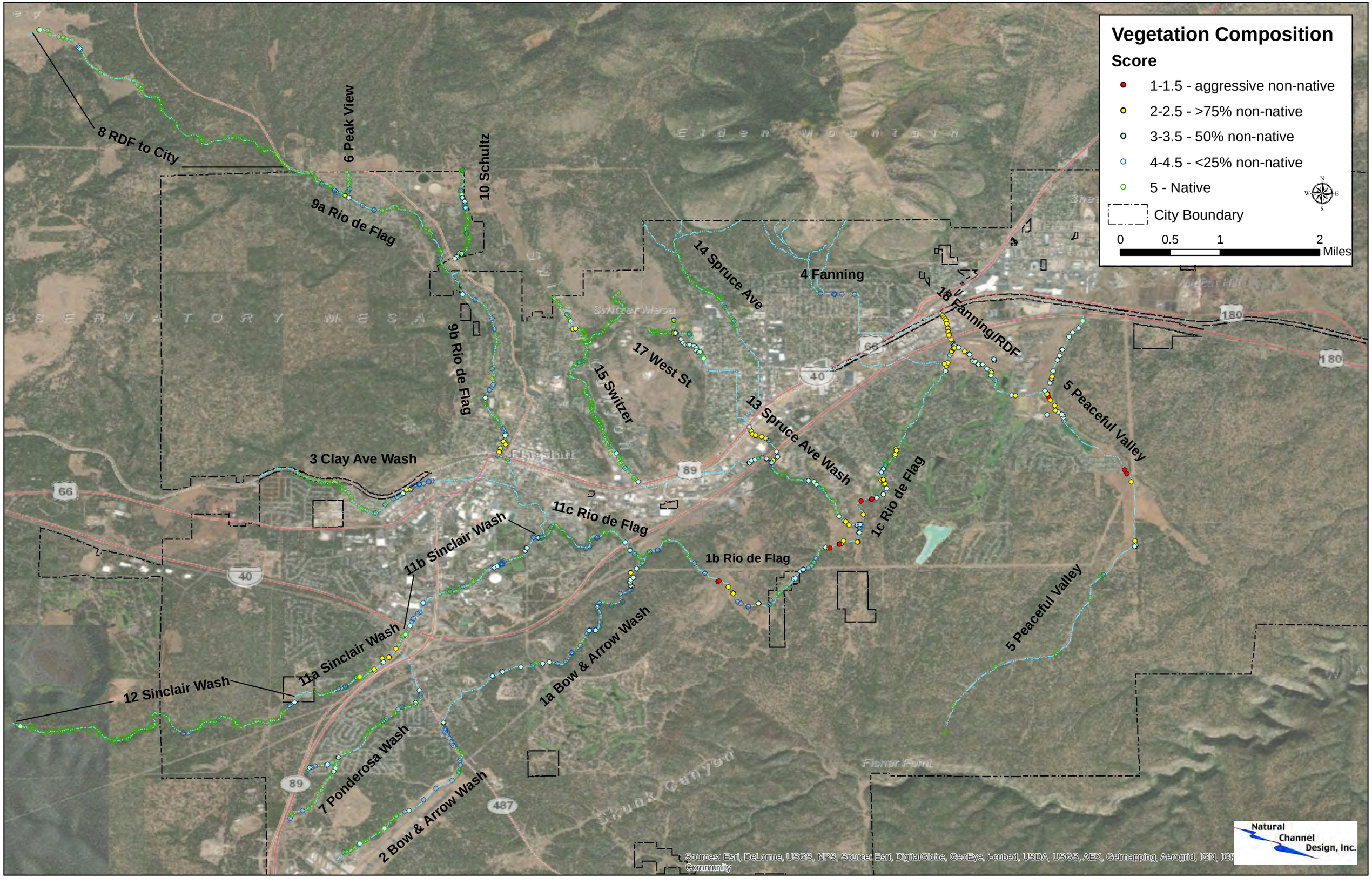
Given the subject of this floodplain health study and the relatively high citizen support that these function have there should be a tendency towards restoration of more natural drainage features through the city. Restoration of floodplain access, reduction of shear stress, natural channel substrate, proper placement of native vegetation and the inclusion of adequate buffers between development and channels will support the aspects of floodplain health studied here. Additionally, paying adequate attention to vegetation/bare ground management and runoff generation outside the floodplain will absolutely help to improve the condition of the floodplain. While such findings are not unique to this study, the clear connections between the floodplain and the watershed can help us to utilize the floodplain as a monitor of the ecological and physical health of the City of Flagstaff.

TECHNICAL APPENDICES

Appendix A – Reach Maps
Appendix B – Additional Materials

APPENDIX A

REACH MAPS


Vegetation Composition
Score
1-1.5 - aggressive non-native
2-2.5 - >75% non-native
3-3.5 - 50% non-native
4-4.5 - <25% non-native
5 - Native
City Boundary
0 0.5 1 2
Miles
8 RDF to City
6 Peak View
10 Schultz
9a Rio de Flag
9b Rio de Flag
14 Spruce Ave
4 Fanning
18 Fanning/RDF
17 West St
15 Switzer
13 Spruce Ave Wash
1c Rio de Flag
5 Peaceful Valley
3 Clay Ave Wash
11c Rio de Flag
11b Sinclair Wash
1b Rio de Flag
11a Sinclair Wash
12 Sinclair Wash
1a Bow & Arrow Wash
7 Ponderosa Wash
2 Bow & Arrow Wash
Observatory Mesa
Elden Mountain
Flagstaff
Switzer Mesa
Fisher Point
Skunk Canyon
66
40
89
180
487
Natural Channel Design, Inc.
Sources: Esri, DeLorme, USGS, NPS, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Invasive Weeds

Legend

- Invasive Weeds
- No Invasive Weeds Noted in Photos
- City Boundary

Cedi - Knapweed (any species)
Coma - Hemlock
Difu - Teasel
Onac - Scotch Thistle

0 0.5 1 2 Miles

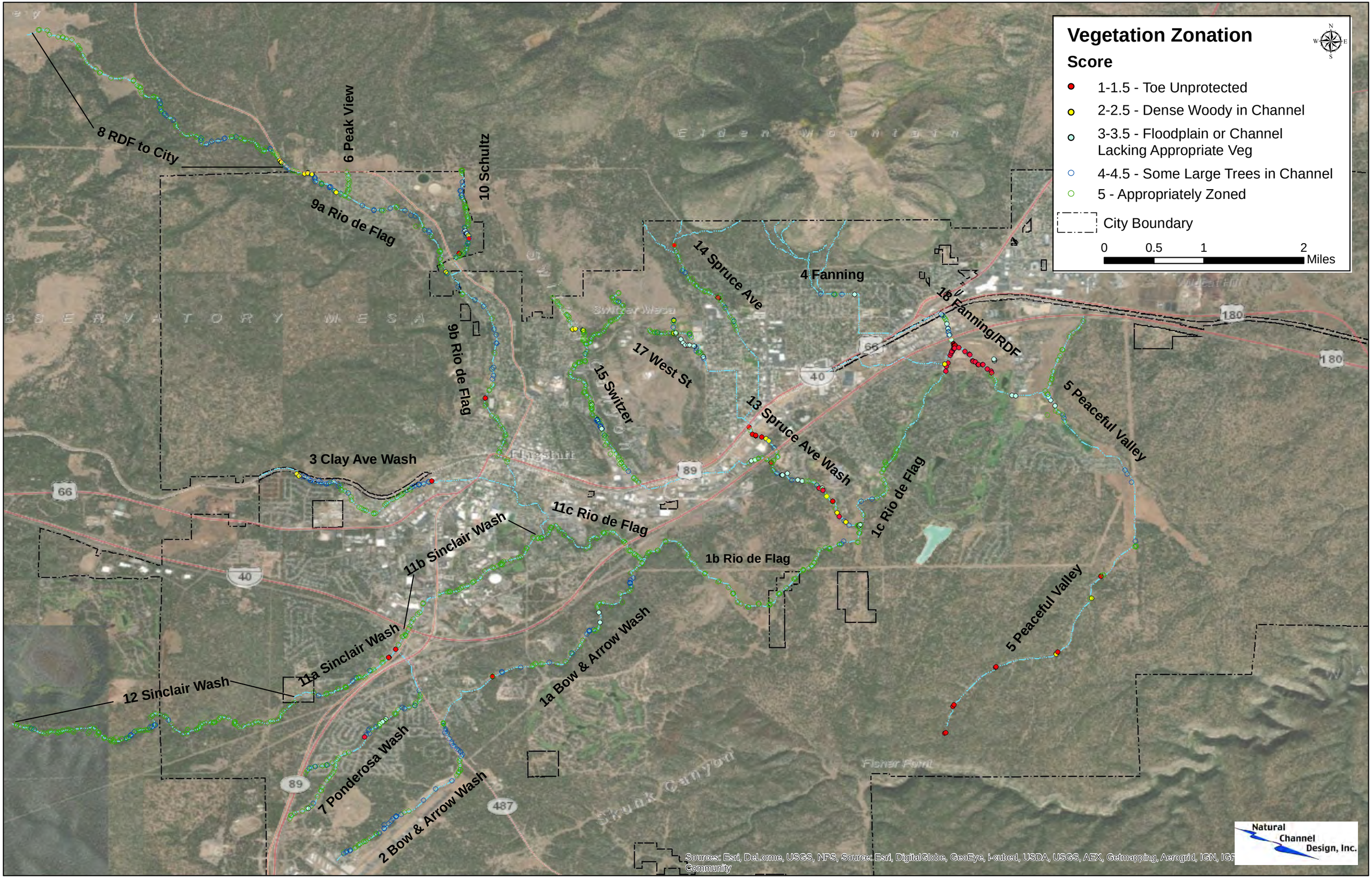
8 RDF to City
6 Peak View
10 Schultz
9a Rio de Flag
9b Rio de Flag
14 Spruce Ave
4 Fanning
18 Fanning/RDF
17 West St
15 Switzer
13 Spruce Ave Wash
5 Peaceful Valley
3 Clay Ave Wash
11c Rio de Flag
11b Sinclair Wash
11a Sinclair Wash
12 Sinclair Wash
1a Bow & Arrow Wash
1b Rio de Flag
1c Rio de Flag
7 Ponderosa Wash
2 Bow & Arrow Wash

Onac
Coma
Cedi
Difu

Observatory Mesa
Elden Mountain
Switzer Mesa
Flagstaff
Fisher Point
Skunk Canyon

Sources: Esri, DeLorme, USGS, NPS, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

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Vegetation Zonation
Score
1-1.5 - Toe Unprotected
2-2.5 - Dense Woody in Channel
3-3.5 - Floodplain or Channel Lacking Appropriate Veg
4-4.5 - Some Large Trees in Channel
5 - Appropriately Zoned
City Boundary
0 0.5 1 2
Miles
8 RDF to City
6 Peak View
10 Schultz
9a Rio de Flag
9b Rio de Flag
14 Spruce Ave
4 Fanning
18 Fanning/RDF
17 West St
15 Switzer
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RDF Floodplain Assessment
Bank Erosion

- 1-1.5 - Vertical Eroding Bank
- 2-2.5 - >75% Unprotected Bank
- 3-3.5 - <25% Unprotected Bank
- 4-4.5 - Stable with Riprap
- 5 - Stable with Vegetation

City Boundary

0 0.5 1 2 Miles

8 RDF to City
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9b Rio de Flag
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RDF Floodplain Assessment
Bed Stability

- 1-1.5 - Aggradation
- 1-1.5 - Incision
- 2-2.5 - Instability - Aggradation
- 2-2.5 - Instability - Incision
- 3-3.5 - Incised but widening
- 4-4.5 - Stable w/ Artificial Grade Ctrl
- 5 - Stable
- City Boundary

0 0.5 1 2 Miles

8 RDF to City
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Elden Mountain
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66 40 89 180 487

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RDF Floodplain Assessment
Floodplain Access

- 1-1.5 - No Floodplain, In Pipe or Conveyance
- 2-2.5 - ER<2, with fill on edges
- 3-3.5 - ER ~2
- 4-4.5 - Floodplain w/ some blockage
- 5 - ER > 3
- City Boundary

0 0.5 1 2 Miles

N W E S

8 RDF to City
6 Peak View
10 Schultz
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9b Rio de Flag
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Fisher Point
Skunk Canyon
Observatory Mesa
Eldon Mountain

66 40 89 180 487

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RDF Floodplain Assessment
Culverts/Bridges

- 1-1.5 - Broken, Erosion, Aggradation
- 2-2.5 - Under Capacity, Slope Break, High Energy
- 3-3.5 - Standard Design, Overwide Section
- 4-4.5 - Geomorphically Designed Culvert
- 5 - Bridge Span over Entire FP
- City Boundary

0 0.5 1 2 Miles

8 RDF to City
6 Peak View
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9b Rio de Flag
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RDF Floodplain Assessment

Floodplain Blockage

- 1-1.5 - >50% Blockage, no armoring
- 2-2.5 - >50% Blockage, accomodations for increased stage
- 3-3.5 - <50% Blockage
- 4-4.5 - Clear full width, other useage
- 5 - Clear full width, natural
- City Boundary

0 0.5 1 2 Miles

N W E S

8 RDF to City

6 Peak View

10 Schultz

9a Rio de Flag

9b Rio de Flag

14 Spruce Ave

4 Fanning

18 Fanning/RDF

17 West St

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RDF Floodplain Assessment

Trash/Debris

- 1-1.5 - Trash/debris in channel
- 2-2.5 - Trash/Debris along floodplain edge
- 3-3.5 - Trash/Debris impeding flow
- 4-4.5 - Minor debris along flood line
- 5 - Essentially None
- City Boundary

0 0.5 1 2 Miles

N W E S

8 RDF to City
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RDF Floodplain Assessment

Roads or Trails

- 1-1.5 - Dense, rutted, ATV use, social trail
- 2-2.5 - Parallel to flow, at grade or below
- 3-3.5 - Parallel to flow above grade
- 4-4.5 - Parallel to flow at edge of floodplain
- 5 - None in or near floodplain

City Boundary

0 0.5 1 2 Miles

N W E S

8 RDF to City

6 Peak View

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9b Rio de Flag

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RDF Floodplain Assessment
Inflow Channel

- 1-1.5 - Paved/piped channel
- 2-2.5 - 25% Natural Channel
- 3-3.5 - 50% Natural Channel
- 4-4.5 - 75% Natural Channel
- 5 - Natural Channel Above
- City Boundary

0 0.5 1 2 Miles

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RDF Floodplain Assessment

Pollution Prevention

- 1-1.5 - Direct runoff into channel
- 2-2.5 - Partial Detention
- 3-3.5 - Detention Only
- 4-4.5 - Partial LID
- 5 - Full LID Retention/Detention
- City Boundary

0 0.5 1 2 Miles

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OBSERVATORY MESA
Flagstaff
Skunk Canyon
Fisher Point

66 40 89 180 487

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RDF Floodplain Assessment

Sediment Source

- 1-1.5 - Bare ground or eroding banks
- 2-2.5 - Chronic dirt road erosion in drainage
- 3-3.5 - Chronic inflow of sediment from embankments or cinder from roads
- 4-4.5 - Temporary construction site nr floodplain or minor sediment input from adjacent land
- 5 - Healthy forest or neighborhood, no bare ground

City Boundary

0 0.5 1 2 Miles

8 RDF to City

6 Peak View

10 Schultz

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9b Rio de Flag

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4 Fanning

18 Fanning/RDF

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RDF Floodplain Assessment

# of Categories in Lowest 25th Percentile

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 8
- Not Evaluated

0 0.5 1 2 Miles

8 RDF to City

6 Peak View

10 Schultz

9a Rio de Flag

9b Rio de Flag

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APPENDIX B

ADDITIONAL MATERIALS

Included are abridged versions of a Seeding Specification and Weed Management Plan developed for Coconino County

A Seeding Specification at a minimum should specify:

- An appropriate seed mix
- Appropriate timing for seeding
- Seedbed preparation requirements
- Appropriate seeding methods including minimum requirements for hydroseeding
- Requirements for covering the seed with soil and mulch
- Requirement for reseeding if initial effort fails

2.1.3 Seed Mixes

The Temporary seed mix shall be used for a short-term cover which germinates and establishes rapidly for effective erosion control, weed control and temporary cover. A Temporary seed mix shall be required and applied to all disturbed areas if disturbed areas are left untouched or open for more than six weeks during the growing season (March through September) or in disturbed areas that will require future weed management or grading and that are left open during the growing season. The Permanent seed mix shall be used as the final diverse native grass mix. The Permanent seed mix will be applied to all disturbed areas before the end of the project.

For wetlands, wet meadows, riparian areas or other areas deemed a special concern for habitat, the seed mix will depend on site conditions and be specially designed to meet those site conditions and habitat goals. For normal construction areas, right of way work and staging areas, the seed mix can be derived from the conditions set forth below.

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The seeding rates given below are for mechanical seeding methods, for hand broadcasting the seeding rates are typically doubled.

A. Temporary Seed Mix

Species	Scientific Name	% Composition	Seeding Rate
Quickguard™ Sterile Triticale*	*Triticum aestivum x Secale cereale*	100%	12 PLS lbs/ac

*or similar

Note: Sterile triticale seed will provide one season of growth only and the area must be overplanted with a permanent cover. All materials shall meet the approval of the Engineer (and USFS biological specialists when on USFS lands) before purchase and application.

-or-

Alternatively, the Temporary seed mix shall consist of at least one cool season and one warm season grass that are native to the immediate area and appropriate for the soils, aspect and hydrologic regime of the site. For most areas around Flagstaff, Blue Grama and Slender or Western Wheatgrass would make a good temporary seed mix.

B. Permanent Seed Mix

i. For volcanic or limestone soils above 6,800 feet in elevation use:

Species	Scientific Name	% Composition	Pure Stand Seeding Rate PLS lbs/ac	Final Mix Seeding Rate PLS lbs/ac
Blue Grama	*Bouteloua gracilis*	25	2	0.5
Little Bluestem	*Schizachyrium scoparium*	25	5	1.25
Arizona Fescue	*Festuca arizonica*	25	3	0.75
Western Wheatgrass	*Pascopyrum smithii*	25	9	2.25

Potential Alternatives: Mountain Muhly (*Muhlenbergia montana*), Purple Three-awn (*Aristida purpurea*), or Pine Dropseed (*Blepharoneuron tricholepsis*) may be an acceptable substitution for Little Bluestem.
Slender Wheatgrass (*Elymus trachycaulus*), Muttongrass (*Poa fendleriana*), Bottlebrush Squirreltail (*Elymus elymoides*), or Prairie Junegrass (*Koeleria macrantha*) may be an acceptable substitution for Western Wheatgrass.

ii. For limestone soils below 6,800 feet in elevation use:

Species	Scientific Name	% Composition	Pure Stand Seeding Rate PLS lbs/ac	Final Mix Seeding Rate PLS lbs/ac
Blue Grama	*Bouteloua gracilis*	25	2	0.5
Purple Three-awn	*Aristida purpurea*	25	6	1.5
Indian Ricegrass	*Achnatherum hymenoides*	25	7	1.75
Needle and Thread	*Hesperostipa comata*	25	10	2.5

Potential Alternatives: Sideoats Grama (*Bouteloua curtipendula*), Vine Mesquite (*Panicum obtusum*), Bottlebrush Squirreltail (*Elymus elymoides*), Muttongrass (*Poa fendleriana*)

DRAFT

iii. For sand or cinder soils use:

Species	Scientific Name	% Composition	Pure Stand Seeding Rate PLS lbs/ac	Final Mix Seeding Rate PLS lbs/ac
Blue Grama	*Bouteloua gracilis*	25	2	0.5
Galleta Grass	*Pleuraphis jamesii*	25	8	2
Indian Ricegrass	*Achnatherum hymenoides*	25	7	1.75
Needle and Thread	*Hesperostipa comata*	25	10	2.5

Potential Alternatives: Sand Dropseed (*Sporobolus cryptandrus*), Sideoats Grama (*Bouteloua curtipendula*), Purple Three-awn (*Aristida purpurea*), Cane Bluestem (*Bothriochloa barbinodis*), Sand Bluestem (*Andropogon hallii*), Vine Mesquite (*Panicum obtusum*: lower elevation)

iv. For clay soils use:

Species	Scientific Name	% Composition	Pure Stand Seeding Rate PLS lbs/ac	Final Mix Seeding Rate PLS lbs/ac
Galleta Grass	*Pleuraphis jamesii*	35	8	2.8
Alkalai Sacaton	*Sporobolus airoides*	30	2	0.6
Western Wheatgrass	*Pascopyrum smithii*	35	10	3.5

Potential Alternatives: Blue Grama (*Bouteloua gracilis*), Buffalograss (*Bouteloua dactyloides*), Little Bluestem (*Schizachyrium scoparium)*, Muttongrass (*Poa fendleriana),* Curly Mesquite *(Hilaria belangeri)*

-or-

The permanent cover seed mix shall consist of, at minimum, two cool season and two warm season native, perennial grass species appropriate to the site. Chosen species should be dominant species from adjacent sites with similar soils, hydrology and aspect. Perennial forbs and annual grasses can be added as required per the goals of the revegetation plans. However all materials shall meet the approval of the Engineer (and USFS biological specialists when on USFS lands) before purchase and application.

1.1 Hydroseed Additives (if utilized)

Hydroseeding requires the use of a tacking agent, wood cellulose fiber mulch and an indicator dye. An inoculum may be used if recommended by the supplier.

2.2.1 Tacking Agent

Tacking agent shall be a naturally occurring organic compound and shall be non-toxic. The tacking agent shall be a product typically used for binding soil and mulch in seeding or erosion control operations. Approved types shall consist of mucilage or gum by dry weight as active ingredient obtained from guar or plantago. The tacking agent shall be labeled indicating the type and purity.

The tacking agent swell volume will be tested by an approved testing laboratory using the USP method. Test results shall be provided to the Engineer. Material shall have a swell volume of at least 24 milliliters per gram. The standard swell volume shall be considered as 30 milliliters per gram and tacking agent rates will be adjusted to compensate for swell volume variation. Material tested with lesser swell volume shall have the tacking agent rate increased by the same percentage of decrease in swell volume from the standard 30 milliliters per gram and vice versa for material tested with greater swell volume. Tacking agent shall be pure material without starches, bentonite or other compounds that would alter the swell volume test results of mucilage or the effectiveness of the tacking.

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2.2.2 Wood Cellulose Fiber

Wood cellulose fiber mulch shall be a thermo-mechanically processed wood, processed to contain no growth or germination inhibiting factors. The mulch shall be from virgin wood manufactured and processed so the fibers will remain in uniform suspension in water under agitation to form homogenous slurry. Paper products will not be considered virgin wood. The thermally refined wood fiber mulch shall have the properties shown below…

PART 2 - EXECUTION

2.1 Seedbed Preparation

Once the project area has been graded to appropriate elevations, ensure that the surface soil is in a roughened condition favorable for seed germination and growth. On sites where equipment can safely operate on slopes, the seedbed shall be adequately loosened (4 to 6 inches deep) and smoothed, with large clods being broken up. Areas that have been compacted by heavy equipment or other operations shall be ripped to a depth of at least 6 inches to ensure adequate permeability. All ripping should be conducted on contour to prevent rilling during runoff conditions. Disking, cultipacking, or both may be necessary to properly prepare a seedbed that is too rough to uniformly scatter seed. Where equipment cannot operate safely, the seedbed shall be prepared by hand methods by scarifying to provide a roughened soil surface so that broadcast seed will remain in place.

2.2 Seed Application

Application rate of seed, as specified, are for Pure Live Seed (PLS). Seed mix species, percent composition, and the PLS application rates per acre are shown in the seed mix tables above, Part 2.1.

All seeding operations shall be performed in such a manner that the seed is applied in the specified quantities uniformly in the designated areas. Seed shall be incorporated into the soil, but not more than 0.5 to 1.0 inches deep if using the dry method or hand application, as described below. Seeding should occur before installation of erosion control fabric, if required. To control erosion and weeds, apply seed to disturbed soil and slopes as soon as is practical after disturbance.

To increase likelihood of seeding success, seeding should be timed to precede seasonal monsoon moisture or winter snow cover. Avoid leaving seed on the soil for long periods of time without adequate moisture for germination and growth or winter cover, as this will promote seed predation by birds and insects. Seed must be worked into ground and protected by mulch. Seeding that occurs late in summer towards end of monsoon season rains may germinate but lack adequate growth during the shortened wet season to successfully over winter.

3.3 Seeding Methods

DRAFT

The following methods may be used to place material:

- *Hydroseeding Method.* Mix the seed with water in the amounts and mixtures specified by the supplier to produce a slurry and apply it under pressure at the rates specified by the supplier. Add wood cellulose fiber mulch after all other materials have been thoroughly mixed in the tank. Mix shall be colored with a green indicator dye. Hydroseeding mixing has the potential to mechanically damage native grass seeds. The mix should be utilized within 1/2 hour of adding seed to avoid over agitation and seed damage.
- *Dry Method.* Use mechanical, landscape, or cultipacker seeders, seed drills, or other approved mechanical seeding equipment to apply the seed in the amounts and mixtures shown in Part 2.1 of this specification. Dry method application must also utilize a weed-free mulch or erosion control fabric application over the seedbed as specified by the Engineer and described in a separate specification.
- *Hand Application* - Hand-operated seeding devices may be used to apply dry seed. Hand application method must utilize weed-free mulch or erosion control fabric application over the seedbed as specified by the Engineer and described in a separate specification.

A Weed Management Plan at a minimum should specify:

- The target area
- The target species and method for keeping species list updated
- Inventory and mapping methodology to help prioritize and track target weeds and treatments
- A management strategy
- The treatment methods and appropriate usage (Mechanical, Chemical, Competing Vegetation, Public Outreach/Education, Collaboration on Multi-Jurisdictional Infestations, Prevention)
- An implementation schedule
- A monitoring plan and record keeping method

Coconino County

Weed Management Plan:
County Maintained Right of Ways



Natural Channel Design, Inc.

July 2016

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INTRODUCTION

Coconino County, Arizona has the second largest area of any county in the lower 48 states with 18,661 square miles. While generally considered arid, the area covers a diverse array of habitats and plant communities ranging from mid elevation desert scrub to high elevation forests. The county also covers a diverse array of political landscapes as well. These include right of ways that cross Navajo Nation lands, US Forest Service, Bureau of Land Management, Hualapai Tribal lands and boundaries with several National Parks. The county public works department is responsible for weed management on right of ways and other county maintained areas across the county. This covers approximately 1012 miles of right of way of various widths.

The purpose of this document is the development of a weed management plan for county right of ways (ROW) across multiple ecological zones and jurisdictions. The plan is meant to provide guidance as to what types of plants to target, the methods best used to manage them, timing and planning for management activities and administrative tasks required for a successful, long-term management program. In addition, the plan provides specific language, which can be utilized as a specification for weed management tasks in contracts with county contractors (Appendix A).

The goal of the weed management program is to effectively control invasive species and to promote growth of desirable species along roadways. The plan is to significantly reduce the density of invasive species and shift those areas currently dominated by invasive species to native vegetation. Complete eradication of invasive species is not a practical goal over such a wide area. Once native grasses are well established, and there is no further disturbance, minimal maintenance is usually required to maintain the system. Successful establishment of native grasses, however, is key to the long-term success of the weed management program. Flowering native forbs are desirable as well, however grasses are a more economical community to plant and provide year-round competition to weeds. In areas that receive frequent disturbance (ditches with frequent maintenance or borrow pits), growth of native plants will not be achieved and the area will need to be maintained with frequent treatments.

This management plan should be considered a living document. It is not possible to anticipate the entire spectrum of weeds that may invade county ROW's in the future. However, the methods set forth for monitoring and treatment can easily be adapted to meet new situations. Annual monitoring and review of program performance is recommended. Treated infestations should become smaller and less dense over the course of several growing seasons and the number of treated areas should be reduced over a slightly longer time period.

COUNTY RIGHT OF WAYS

The County was divided into four major geographic areas (Figure 1) representing right of ways in the Navajo Reservation, Flagstaff, Williams and the Fredonia areas. Detailed maps of each area are provided in Figures 2 though 5.

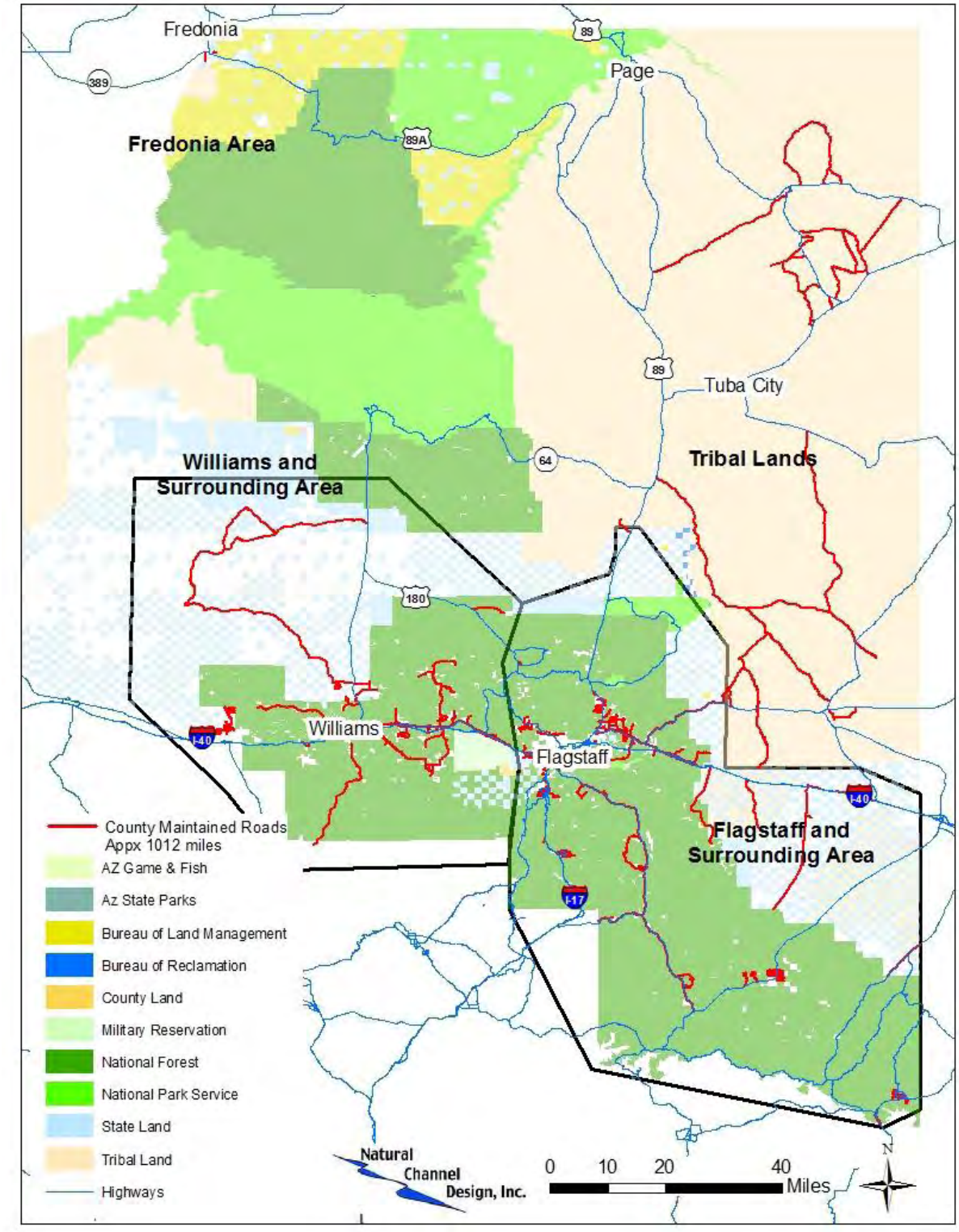


Figure 1. Overview map of Coconino County ROW's

SELECTION OF TARGET SPECIES

Weeds are plants out of place. Even native trees and shrubs can be a nuisance on certain areas of road right of way. However, many invasive species are highly competitive and utilize disturbed areas like ROWs to establish themselves and spread along the ROWs to new areas. Those species that are especially adept at occupying and controlling new territory, while out-competing native species, are the prime targets for control. Additionally, species that can affect the abundance and distribution of ecological keystone native species are targets since the loss of keystone plant species can trigger the loss of dependent species.

The Coconino National Forest shares many miles of road ROW with Coconino County and has the most exhaustive list of target weed species of any agency in the area. The list for target species for Coconino County ROW program is based on the Coconino National Forest list for that reason with a few additions. It should be noted that the list is periodically updated by the Coconino National Forest. The county personnel or knowledgeable consultants will need to review the new lists as they appear.

The Coconino National Forest Invasive weed list for 2016 is provided in Table 1. It provides the scientific name, common name and management goal for the forest. While the list is long, the first 13 species listed represent the most aggressive and disruptive weeds of the group. These species are listed by the forest as 'Class E" (for extreme hazard) species and are considered to provide the greatest threat to the forest's ecosystem (Not all species listed will be located along ROWs) These species receive priority control within the national forest lands and are therefore recommended as the highest priority for treatment on Coconino County maintained land. Other species on the list should be considered for treatment but usually in conjunction with treatment of the Class E species. These other species on the list do represent a threat to native ecosystems but have been shown to be either locally contained, relatively rare, or low level threats.

However, there will often be reasons to include other species in the top priority list for treatment. Currently there are very few areas where musk thistle is found in the county ROW. These areas should continue to be treated to keep this species from spreading. Another consideration for treatment are small areas where less aggressive weeds have formed dense patches that prevent desired vegetation from germinating or growing. A few species we have found to be occasionally problematic include kochia, horehound, Russian thistle and common sunflower.

Many of the species listed have a limited occurrence or have a very specific elevation and habitat type preference. As such they are not found county wide. Persons conducting weed inventory should be knowledgeable in the species identification and biology and should also know how to locate historic records utilizing IMapInvasives and Forest Service databases. Species descriptions are provided in Appendix B.

Table 1. Coconino National Forest Invasive Weed List (2016)

Species on this list are considered weed species in Coconino County. However, most of these species are not included as part of the target species list for Coconino County ROW's since they are low in abundance, and have limited distribution within County maintained lands. These species should be treated if they occur in part of a treatment area which targets "E" species, which are considered aggressive and widespread.

SCIENTIFIC NAME	COMMON NAME	OBJECTIVE	R3 CATEGORY
Acroptilon repens	**Russian knapweed**	**Eradicate/Control**	**E**
Ailanthus altissima	**tree of heaven**	**Eradicate/Control**	**E**
Alhagi maurorum (pseudoalhagi)	**camelthorn**	**Eradicate/Control**	**E**
Arundo donax	**giant reed grass**	**Eradicate/Control**	**E**
Centaurea diffusa	**diffuse knapweed**	**Contain/Control**	**E**
Centaurea maculosa	**spotted knapweed**	**Eradicate/Control**	**E**
Centaurea solstitialis	**yellow starthistle**	**Eradicate/Control**	**E**
Eleagnus angustifolia	**Russian olive**	**Contain/Control**	**E**
Euphorbia esula	**leafy spurge**	**Contain/Control**	**E**
Onopordum acanthium	**Scotch thistle**	**Contain/Control**	**E**
Salvia aethiopis	**Mediterranean sage**	**Eradicate/Control**	**E**
Tamarix ramosissima or spp.	**salt cedar or tamarisk**	**Eradicate/Control**	**E**
Ulmus pumila	**Siberian elm**	**Contain/Control**	**E**
Asphodelous fistulosis	onion weed	Prevent/Eradicate	A
Alliaria petiole	garlic mustard	Prevent/Eradicate	A
Cardaria chalepensis	lens-podded hoary cress	Prevent/Eradicate	A
Cardaria drada	whitetop or hoary cress	Eradicate/Control	A
Cardaria pubescens	globe-podded hoary cress	Prevent/Eradicate	A
Carduus nutans	musk thistle	Eradicate/Control	A
Centaurea calcitrap	purple starthistle	Prevent/Eradicate	A
Centaurea melitensis	Malta starthistle	Eradicate	A
Cirsium arvense	Canada thistle	Prevent/Eradicate	A
Conium maculatume	poison hemlock	Eradicate/Control	A
Cynoglossum officinale	houndstongue	Eradicate	A
Dipsacus fullonum	teasel	Eradicate	A
Euryops subcarnosus	seet resin bush	Prevent/Eradicate	A
Hydrilla verticillata	hydrilla	Prevent/Eradicate	A
Hyoscyamus niger	black henbane	Prevent/Eradicate	A
Hypericum perforatum	common St. Johnswort	Prevent/Eradicate	A

SCIENTIFIC NAME	COMMON NAME	OBJECTIVE	R3 CATEGORY
Isatis tinctoria	dyer's woad	Prevent/Eradicate	A
Lepidium latifolium	perennial pepperweed	Prevent/Eradicate	A
Leucanthemum vulgare	oxeye daisy	Prevent/Eradicate	A
Linaria vulgaris	yellow toadflax	Eradicate	A
Lythrum salicaria	purple loosestrife	Prevent/Eradicate	A
Myriophyllum spicata	Eurasian water milfoil	Eradicate	A
Peganum harmala	African rue	Prevent/Eradicate	A
Pennisetum ciliare	bufflegrass	Prevent/Eradicate	A
Pennisetum setaceum	fountain grass	Prevent/Eradicate	A
Potentilla recta	Sulfur cinquefoil	Eradicate	A
Taeniatherum caput-medusae	Medusahead	Prevent/Eradicate	A

Region 3 Invasive Weed Classification System. The Region 3 invasive weed classification system provides a systematic approach for assigning management emphasis priorities. The invasive weed classes may be further subdivided to meet regional, National Forest, or local needs.

Class E species – These invasive weed species have wide distribution across the forest, district, or else within a particular watershed and pose an unacceptable, extreme hazard (accordingly, E) to watershed condition, TES species, wilderness, or other natural and economic resources. These particular wide-ranging species must be controlled continuously to prevent overwhelming damage to natural resources (e.g., a fire cycle introduced by buffelgrass into Sonoran Desert plant communities unadapted to fire). Weeds species in this classification should receive high priority for control and restoration which may supersede Class B species for treatment priority.

Class A species – These invasive weed species are newly established or else have the potential to become established on the forest, district, or else within a particular watershed. Such species pose a major or unacceptable threat to watershed condition, TES (threatened, endangered, or sensitive) species, wilderness, or other natural and economic resources. Weeds species in this classification should receive highest priority for prevention, eradication, containment, control, and/or restoration. Management emphasis is to prevent and eradicate whenever possible or else use containment as a last resort.

WEED INVENTORY

Prior to any type of annual weed treatment, an inventory of the County maintained roads needs to be undertaken in order to prioritize and quantify the areas needing treatment: identifying target species and developing treatment strategies including timing and type of treatment.

All right of ways will need to be inventoried on an annual basis. However, inventories should occur throughout the growing season on areas that are actively being treated in order to estimate success. To prepare for any spring treatments, the window of opportunity for inventory is usually from April through mid May. Identification of specific species is more difficult at this time since plants are small, less conspicuous and lack flowers. However, early identification creates opportunities for rapid treatment of smaller plants which requires less chemical, is often more successful on younger plants, and younger plants are not in danger of setting seed for the next growing season.

Another key time to inventory for weeds is during the early summer and through monsoon season. This is the easiest time to locate and identify newly emerging problem areas. This dual inventory survey protocol is preferred to a single spring inventory. The second inventory will reveal late season weeds that may not have been large enough to identify in the spring. New weed locations identified during the summer inventory can be targeted for immediate mechanical removal, later fall spraying targeting new rosettes or for a spring treatment. Summer weed treatments can be more difficult to plan and schedule appropriate action before weeds have flowered and set seed. Once seed set has occurred, removal is more difficult and expensive. But these areas can be targeted for aggressive treatment the following spring.

Inventories should be done in a systematic way but do not require lengthy amounts of time. Databases of current and historic weed locations iMapInvasives, Forest Service Surveys) should be consulted to help identify target areas. Once, smaller areas of the ROW have been sampled to identify the species available, the remaining inventory for a reach can be accomplished by a slow drive down the road shoulder. The locations surveyed should be marked with GPS coordinates for mapping in County GIS and iMapInvasives database. All areas that have been inventoried and shown to be free of target species should also be noted. A survey form is provided in Appendix C.

WEED MANAGEMENT STRATEGY

The weed management plan was developed using a combination of control strategies that should successfully reduce the abundance and distribution of target species. Herbicide applications with some mechanical treatments will be the most widely used treatments. It is anticipated that efforts to control large infestations along County ROW's will take several years of ongoing treatments to be effective. Many of the species being targeted produce copious amounts of seed that can remain viable for years. Control efforts will reduce the seedbank and ultimately the density of weeds while native vegetation can become established. As a result, areas needing treatment and overall cost for treatment should decrease over time. Additionally, since the goal of the management is to convert weedy vegetation along right of ways into native grasses that prevent reinvasion, seeding with appropriate species will be needed in areas that have sparse native vegetation.

It should be noted that different areas of the ROW are expected to contain different plant communities, which can require different methods and timing for control. Prescriptions for each portion of the ROW should be formulated with the latest inventory data as well as treatment history in mind. Additionally, the prescription for each site will likely change over time as the plant community changes in response to previous treatments. It is highly unlikely, that weed infested sites can be restored within a single growing season. The seed bank of non-native plants in many areas of the ROW have built up over the years and can last for many years in the soil until proper conditions for germination and recruitment are met. For these reasons, multiple years of treatment, combined with multiple types of treatments may be required to reach management goals. As prescriptions for specific areas are developed and revised, they should be formulated with the following general points in mind.

- Plan treatments for the early part of the growing season after the majority of target species have germinated but while the plants are still small so that the total amount of herbicide required is minimized. Also for many species, treatment of younger plants is often more successful than mature plants.
- Time treatments so that target species are killed prior to setting seed. In some cases it may take more than a week for plants to die from herbicide treatment. The stress often initiates rapid development of seed which can drop after the plant is dead. If treatment must take place close to seed set, cutting and bagging the seed heads may be needed to prevent the release of seeds.

- It is impossible to control every weed, noxious or otherwise that occurs on the project site. Therefore, those weed species which have the greatest potential environmental impacts are to be targeted.
- Following initial treatments, future treatment activities should be developed based on effectiveness of treatments and the extent of infestation.
- Herbicide treatments utilizing herbicides with known pre-emergent qualities should be applied well ahead of the monsoon season or well after the start of monsoon season to avoid interaction with germinating seed of desirable species.
- Areas with desirable vegetation should not be treated with herbicide if at all avoidable. Reliance on spot treatment of undesirable vegetation is preferred over broadcast treatments.
- Non-specific herbicides should only be utilized in areas without significant desirable vegetation.
- Public outreach efforts will improve program effectiveness as private landowners become aware of efforts and incorporate measures on their own properties.
- Promotion of the growth and dispersal of desirable vegetation within the project areas will help insure that the treatment program is making progress toward a reduced effort level every season.
- Proactive planting and management of disturbed areas will help to minimize weed establishment and propagation.
- Monitoring and data management are key aspects of the management program, leading to knowledge of effectiveness and efficiency.
- Early detection is also an efficient long-term strategy in the management of non-native and invasive species. Quickly detecting invasions that occur allows for immediate eradication measures to be implemented. These areas should be prioritized for treatment.
- Since the management area crosses multiple jurisdictions, there will be a need to incorporate goals and methods utilized by other jurisdictions in an overall weed management program.

MANAGEMENT METHODS

This section describes several management methods for weed control including mechanical control methods such as pulling and mowing, the use of herbicides, and seeding with desirable vegetation to provide competition. An integrated weed management strategy incorporates active control methods such as herbicides and mechanical removal to provide short-term management and the establishment of competing vegetation as a long-term strategy. The methods outlined here are intended to be a reference for weed management along County ROWs. It is not intended to be a complete guide to weed management.

Effective short-term management of the target species generally requires a two-part approach: preventing seed dispersal and reducing the existing population. Reducing the population entails either physical removal or herbicide treatment. Many of the target species identified in this plan are prolific seed-producers. Preventing seed set and dispersal is critical to preventing the populations from growing larger. Several of the target species have seeds that can remain viable in the seed bank for a minimum of five years and as long as thirty years. Managing these species requires removal of the new plants every year for several years until germination is minimal or absent. In addition, application of a pre-emergent herbicide may be necessary in areas with adequate desirable vegetation but adjacent to weed populations outside of the ROW.

Establishment of native vegetation that can provide competition for invasive species is extremely important and will help to lessen the need for long-term commitment to invasive removal. Seeding areas that have been successfully treated for weed removal will help prevent reinvasion. Seeding should be

timed to avoid pre-emergent affects of herbicides and take advantage of the full monsoon season to ensure establishment. Additional seeding with native flowering forbs can be considered after the initial year of weed treatment. It is recommended that during the initial year of treatment no additional seeding of wildflowers be conducted due to the possibility of those plants being removed by weed eradication efforts.

The use of herbicide on ROWs in the Coconino and Kaibab forests requires a Pesticide Use Permit prior to application. Ensure enough time is allocated for the procurement of this permit during planning. A pesticide use permit for areas within the Coconino National Forest that were treated in 2016 is attached to this report. It is valid until the treatments change. New treatment chemicals or new areas to be treated will require additional permitting through the Coconino or Kaibab National Forest Pesticide Use Coordinator. Mechanical control of target species within right of ways on national forest land does not require a permit.

It is anticipated that efforts to control weeds along County ROWs will take several years of ongoing treatments to be effective. The species being targeted produce copious amounts of seed that can remain viable for years. Control efforts will reduce the seedbank and ultimately the density of weeds while native vegetation can become established. As a result, areas needing treatment and overall cost for treatment should lower over time. The weed control strategies outlined above target the currently known areas of infestation within the work areas of the County easements. Based on monitoring of these areas, subsequent treatment strategies should be developed annually following fall and early spring monitoring.

MECHANICAL CONTROL

Mechanical control consists of pulling and mowing or cutting. Mechanical control can be used to reduce existing weed biomass which can result in shading of desirable species, and to eliminate the current year's seed source from mature plants that have started flowering but have not yet set seed. Small infestations of plants that are not capable of vegetative reproduction can often be controlled when pulled in early summer or prior to setting seed. However, pulling is not practical for larger areas. Mowing or cutting can be effective control for larger infestations of some annual species, such as kochia or Russian thistle. The mowing will not eliminate the plants, but will reduce the amount of seed produced and will remove much of the shading effect on native species. Mowing or cutting is not recommended for knapweed or Scotch thistle as it encourages additional branching and flowering. In some cases, pulling or mowing in conjunction with chemical treatments can be an effective control method.

Pulling:

Pulling or uprooting annuals and tap-rooted plants in small areas can be an effective control method with minimal ecological impact and low cost. Pulling will be a common method for treating smaller infestation and individuals. The best time to pull plants is when the ground is moist so that the entire root can be extracted without causing too much ground disturbance. Pulling of annual or perennial plants when they reach the flowering stage is a very effective method of control for many species. Flower heads should never be left on the ground because many plants can set seed even when the plant is severed from the root. The flowering parts should be bagged and incinerated.

Mowing and Cutting:

Mowing and cutting can reduce seed production and spread and restrict weed growth, especially in annuals cut before they flower and set seed. Mowing also removes taller annuals, reducing shading to native grasses trying to get established. Mowing may be used in areas where herbicide treatment is less desirable in order to remove aboveground biomass, or integrated with herbicide treatments.

Mowing can be an effective control for kochia. Repeated mowing (2 to 3 times a summer) can prevent kochia from flowering and setting seed. Kochia seeds last only a year or two in the seed bank so repeatedly preventing seed set for a few years can severely curtail its population. However, mowing is not an effective control on its own for many species, including knapweed and Scotch thistle, because it stimulates resprouting.

HERBICIDES

Herbicides can be an appropriate and effective way to treat certain weed species. The application should be timed to capture the proper phenological stage or the most appropriate season for the weeds that are present. Applications timed for the rosette or seedling stages of many annual and biennial weed species can provide effective control. Early spring application may also limit the exposure to herbicide of many native species that germinate or emerge later in the season. Another effective treatment strategy for some biennial or perennial weeds is to treat in the fall immediately after the first hard frost. Early season and late fall time periods may optimize the plant uptake of the herbicide.

Herbicides can be divided between pre-emergent and post-emergent herbicides (or both). Pre-emergent herbicides are applied to the soil before the weed germinates; they disrupt germination or kill the germinating seedling. Post-emergent herbicides are foliar-applied directly to the established plants and/or soil. Some herbicides are effective both pre- and post-emergent.

The effects on non-target species, native grasses and forbs in particular, should be considered when choosing an herbicide. When possible, herbicides with the least toxicity, persistence in the environment, soil mobility, and related side effects should be used. Whether the herbicide is broadleaf specific and does not affect grasses or is nonspecific and will kill both broadleaf and grass species should be considered. All herbicides must be applied according to label instructions and care must be taken for selection of equipment used, and application and timing to avoid unwanted consequences.

It is recommended that the herbicides used in the county be limited to those approved for use on the Coconino National Forest (list obtained from L. Moser, Invasive Species Botanist and Pesticide Use Coordinator, Coconino Nation Forest). This list of approved herbicides, based on the active ingredient common name, is given below along with the Trade name in parenthesis. A brief description of each herbicide is provided in Appendix D. Be sure to obtain and read the label of the herbicide selected for treatment.

- Aminocyclopyrachlor
- Aminopyralid (Milestone)
- Chlorsulfuron (Telar)
- Clopyralid (Transline)
- 2,4-D
- Dicamba (Clarity)
- Glyphosate (Roundup)
- Imazapic (Plateau)
- Imazapyr (Arsenal)
- Metsulfuron methyl (Escort)
- Picloram (Tordon)
- Sulfometuron methyl (Landmark)
- Triclopyr (Garlon)

Additives:

Activator adjuvants increase the effectiveness of the herbicide by altering the spray droplet size, distribution of the spray on the plant, viscosity (stickyness) of the spray, evaporation rate, rate of uptake (absorption) by the plant, solubility of the herbicide in the spray solution. Examples of activator adjuvants are:

- *Surfactants* (surface-active agent) promote the penetration of the chemical into the leaves of the plant. Any side effects should be considered when choosing a surfactant.
- *Wetting agents* increase the ability of water to displace air or liquid from the plant's surface so the herbicide will spread more evenly over the plant.
- *Oils* increase the retention time of the sprayed material on the plant and enhance uptake though the leaf surface.

Utility adjuvants are added to improve the application of the formulation to the target plants. An example of a utility adjuvant is:

- *Dye* is commonly used for spot or boom spraying. The presence of a dye makes it easy to see where the herbicide was applied and if it has spilled or leaked.

COMPETING VEGETATION / REVEGETATION

Ultimately, the reestablishment of native vegetation is the most effective long-term strategy for managing non-native and invasive weeds. Many exotic species are dependent on open, disturbed ground to germinate and grow. As native plants become established and begin to form a more solid ground cover, populations of invasive species should decrease and the area will become resistant to reinvasion.

Areas determined to be lacking in adequate grasses should be seeded with an appropriate native grass seed mix. Herbicide use can occur prior to seeding. However be sure the herbicide has no pre-emergent activity that will result in seeding failure. Once seeding and germination has occurred, herbicide use at the site can continue. However, only broadleaf specific compounds should be utilized and application of those herbicides with a known pre-emergent effect should be timed to have minimal effect on germination of desired species.

The seed mix should be appropriate for the elevation and soils at the site. A native grass seed mix should contain a mix of both warm and cool season grasses. In the Flagstaff area some good choices based on what grows on the neighboring forest and is readily available include: (warm season) blue grama, little bluestem and purple three-awn (*Bouteloua gracilis, Schizachyrium scoparium, and Aristida purpurea*); (cool season) western wheatgrass, Arizona fescue, bottlebrush squirreltail and muttongrass (*Pascopyrum smithii, Festuca arizonica, Elymus elymoides, and Poa fendleriana*). Lower elevation sites with sandier soils will require different species similar to Indian ricegrass (*Oryzopsis hymenoides*) and sideoats grama (*Bouteloua curtipendula*). In areas that will receive relatively frequent disturbance (road ditches) where native grasses are unlikely to become established, foxtail barley (*Hordeum jubatum*) may be a good choice. This is a rapidly growing annual, cool season, native grass that can rapidly colonize disturbed sites. Care should be taken where foxtail barley is applied as it can be considered a pest on pasture lands. Choices for reseeding should be based on native grasses growing adjacent to the right of way. In general the most common cool season and warm season grass will provide a reasonably priced native ground cover.

While native grass species provide ground cover and protection from weed invasion at a low cost, flowering native plants can provide other ecological benefits for pollinators and other insects. Some native wildflowers that also attract pollinators include desert globemallow, firecracker or Rocky

Mountain penstemon, hoary tansyaster, Indian blanket, Mexican hat, tufted evening primrose, Rocky Mountain beeplant, and showy or butterfly milkweed. Again the mix of these species is dependent on the elevation and soil conditions at the site. Additionally, because these species are susceptible to broadleaf specific herbicides, they should not be planted until the need for herbicide applications at the site has become minimal.

PUBLIC OUTREACH

The ROWs are a relatively small island of habitat in a much larger area of mixed land ownership. Management will be more successful if adjacent lands are managed with a similar goal of addressing weeds. Public outreach targeting the local residents will help private landowners identify and learn how to control the target weed species on and around their property. Educating landowners about the types of weeds and different control measures and encouraging them to monitor and remove weeds on their property will help in the overall weed management efforts.

At a minimum, notice of weed treatment should be provided to adjacent property owners via letter, email or Coconino County website. Notification should include: proposed dates for treatment, area to be treated, target species, proposed methods and a contact number. The contractor should be responsible for posting signs around the treatment area indicating the materials utilized, and any precautions necessary. Such notifications will help build trust and partnership between the county and private landowners.

ADJACENT INFESTED LANDS

In many instances, weeds are not just growing in the right of way, but are part of a larger area of infestation that continues on the adjacent land. In these cases, management activities conducted on the ROW will have little effect on the overall weed population in a given area and will require continual treatment to keep the ROW clear if the landowner does nothing to control the weeds on their lands. But in these areas, it is important to control the weeds in the ROW to prevent further spreading of the seeds outside the area by vehicles or persons who unknowingly move across the ROW. The use of a pre-emergent herbicide may be warranted in these situations. Also, it would be important to contact the landowner to educate them on the weed problem and encourage them to take action.

TREATMENT OF DISTURBED AREAS

New construction areas, gravel pits and staging areas are not expected to develop and maintain sufficient native vegetation to prevent invasion of nonnative weed species. These areas are susceptible to invasion of weeds and can become troublesome to other areas since materials and equipment are shipped out to other sites and can carry weed seed with them.

Management of these areas may require use of a pre-emergent herbicide that prevents successful germination of weed seed. Pre-emergent herbicide should be selected for the duration of its affect and the intended use of the borrow material. Long lasting pre-emergent can work for several growing seasons, and should be utilized on areas that contain inert materials or areas that will be left unutilized for several months or more. Shorter duration pre emergent herbicides have a half life of approximately 120 days depending on conditions. Short duration herbicides can be utilized on temporary staging areas or stockpiles of materials that will be utilized in surface treatments where revegetation is planned. It should be noted that once the surface of the treated soil is broken, the pre-emergent qualities of the herbicide are lost since the herbicide is likely to be buried below the shallow zone of soil where seeds germinate.

TREATMENT SUMMARY BY SPECIES

Russian Knapweed

- Pull seedlings. Mechanical removal not effective on established plants due to vast root reserves.
- Spray herbicide on growing plants.

Camelthorn

- Spray herbicide on rapidly growing plants.
- Mechanical removal is not effective; it can stimulate remaining roots to spread.

Diffuse Knapweed, Spotted Knapweed and Scotch Thistle

- Pull or dig out young plants.
- Spray herbicide on rosettes to early bolting stage. Spraying after flowers have matured may not be effective.
- Pull and bag flowering plants. Incinerate plants to prevent spread of seed.
- Mowing is not recommended.
- Reseeding of disturbed sited with fast growing grass helps prevent knapweed establishment.

Yellow Starthistle

- Pull or dig out young plants.
- Pull and bag flowering plants.
- Mow up to bolting stage.
- Spray pre- and post-emergence herbicides.

Russian Olive

- Mechanical removal of seedlings and saplings before they mature.
- Broadcast foliar spray when leaves are fully developed.
- Cut stump treatment.

Siberian Elm

- Mechanical removal of seedlings and saplings before they mature.
- Broadcast foliar spray when leaves are fully developed.
- Cut stump treatment.
- Girdling stem.

TIMELINE

Recognizing that the weed management plan will use an adaptive management approach, the timeline as outlined in Table 2 will be reviewed and modified as necessary based on the impact of management actions. Please note that the timing of treatments is approximate since precipitation can greatly affect the timing of germination and flowering.

Table 2. Annual Weed Management Implementation Schedule

Date	Action/Method	Description	Comments/Notes
March - May	Annual Assessment	Depending on elevation – Spot check ROWs and other management areas for early growth rosettes and germination. Refer to iMapInvasives database for additional survey areas.	Map areas for late spring/early summer treatment and prioritize
May - June	Herbicide Treatment – Spot Spraying	Treatment of target areas	Prevent growth/seed set of early annuals and perennials
late June	Seeding	Seed bare areas with native grass and forbs in preparation for monsoon season	Seed areas that need minimal treatment in future. Timed to coincide with monsoon rains.
July/August	Mid Season Assessment	Spot check ROWs and other management areas for late season growth and germination after monsoons have begun	Target late season growth and bolting that is easier to identify.
July - September	Mid Season Treatment	Herbicide immature forms, mow or pull late form annual/biennials before seed set, pull perennials before seed set.	Prevent seed set of target species. Bag flowers that could set seed after treatment.
September	Monitoring	Assess areas treated for effectiveness, prepare plan for next Spring and Summer treatments.	
October/ November	Seeding	Additional seeding as needed/ late season herbicide treatment on certain species prior to dormancy	Plant seed to miss late season rain and minimize predation by insects and birds

MONITORING AND RECORD KEEPING

Spring and post-monsoon surveys are recommended to evaluate the distribution and abundance of target species. The monitoring data should be compared to treatment records to ensure that treatments are having the desired effect. Areas should also be monitored for any new weed species that should be added to the target species list as well as the success of the establishment of native grasses.

Coconino County contractors should provide records of site inventories and treatments utilizing a common database accessible by multiple contractors and county personnel. NCD highly recommends that the Coconino County utilize AZ iMapInvasives as the platform for record keeping. This GIS based database captures area (point or polygon), species observed, treatments utilized, personnel and dates in a common data base of other users in the state. It is free and maintained by Arizona Game and Fish Department. Other researcher's and iMapInvasives users will have access to the data. For additional information contact Jami Kuzek at Arizona Game and Fish Department. (jkusek@azgfd.gov or 623-236-7686). The iMapInvasives home page is http://www.imapinvasives.org/.

JURISDICTIONAL CONSIDERATIONS

ROWs for Coconino County maintained roads cross several jurisdictional boundaries that should be considered during weed management activities. While several ROWs border Bureau of Land Management, National Park Service and Arizona State Trust Lands, these ROWs appear to be separate from the adjacent lands and care should be taken to ensure that the ROW boundaries are clearly known to weed management applicators and respected.

In addition to the ROW's directly adjacent to neighboring lands, there are numerous county maintained roads that cross US Forest Service and Navajo Tribal lands. US Forest Service in particular has very specific procedures for weed treatment on their lands and county treatment plans should conform to these procedures. US Forest Service has specific herbicides and concentrations that are approved for use on forest lands through the NEPA process.

In a similar process to USFS, weed treatments on Navajo Nation Tribal lands are governed by a Navajo Nation Weed management plan. Likewise this plan is vetted through the National Environmental Policy Act (NEPA). Unfortunately as of this writing the plan is not approved and is still in the review stage. It is understood that the proposed methods for weed management within road ROWs follow Arizona Department of Transportation guidelines, which are compatible with this plan. However, this cannot be confirmed until the plan is approved and adopted. Approval should come within the next six months to one year. Once approved, Coconino County should coordinate with Navajo Nation EPA for herbicide use permits as needed.

CERTIFICATION AND SAFETY CONSIDERATIONS

Herbicide application within the County ROWs will need to be accomplished by a contractor with a Right-of-Way herbicide applicator certification. More remote areas and open lands can be addressed by applicators with forestry or agricultural certification. Mechanical removal does not require a certified applicator.

Herbicide applicators should develop and provide the county with a copy of their safety and spill plan. A sample safety plan is provided in Appendix E and at a minimum, the safety and spill plan should cover the items set forth in the example plan.

Contractor shall provide a traffic control plan, per MUTCD standards, to the County Engineer for approval prior to commencing weed mitigation work within the right-of-way.

REFERENCES

DiTomaso, J.M., G.B. Kyser et al. 2013. Weed Control in Natural Areas in the Western United States. Weed Research and Information Center, University of California.

White, M.R., ed. 2013. Invasive Plants and Weeds of the National Forests and Grasslands in the Southwestern Region, Second Edition. USDA Forest Service, Southwestern Region, Apache-Sitgreaves National Forest. December 2013. MR-R3-16-6.

Whitson, T.D.(ed.), L.C. Burrill, S.A. Dewey, D.W. Cudney, B.E. Nelson, R.D. Lee, R. Parker. 2006. *Weeds of the West.* Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services.

28 October, 2017

To: Jim Janacek
City of Flagstaff, Water Services Division
Stormwater Section Project Manager
211 Aspen Ave. Flagstaff, AZ 86001

From: Max Licher
P.O. Box 1456
Sedona, AZ 86339
928-282-7071

Report summarizing plant identification consulting work for the Flagstaff Floodplain Management Plan.

Methods:

Per direction form City of Flagstaff Stormwater Section Project Manager Jim Janacek, 12 previously identified sites within the Rio de Flag and its major tributaries were visited during a two-week period from September 14-24, 2017. Approximately ½-3/4 hour was spent at each site, and a list of plant species based on observation was created for each site. If a plant was not known to species level, samples were taken and further identification work was done using keys, texts, and comparative specimens at the Deaver Herbarium at NAU. Return trips were made to 4 of the sites to gain additional samples or get better material after studying the original samples. Eighteen of these samples will be made into herbarium specimens and accessioned at the Deaver Herbarium.

Only plants growing within the riparian zones or drainage ways were noted; adjacent upland species were not inventoried. Some of the plants growing in the dry drainage ways are more often associated with upland or forest floor habitats, but these were listed if they were growing within the lower banks of the various drainage sites.

It should be noted that the above methodology requested will not create a complete list of all plants that may be growing in these sites. A strong effort was made to note as many species as possible, but some species not in flower may have easily been overlooked. At each of the 4 sites where a

second visit was made, several additional species were added to the original lists, which would imply that more species could probably be added to the other sites also. A valuable follow-up project might visit the same sites in late spring or early summer, in order to fill out the lists with additional early season species.

It is also important to know that this list does not differentiate between those species that were abundant at a site versus those that might have been seen only once. That type of annotation would require a much longer period of fieldwork and a different methodology. However, observations of consistently abundant and potentially useful plants are discussed in the Results section.

Several species pairs are listed together where there are two very similar taxa that are difficult to tell apart without microscopic work, and it was not practical to test all of the individuals encountered to verify which species was present. In most cases, the two species are ecologically interchangeable, and the specific information would not add to the value of this survey.

Results:
A matrix (Appendix A) was created listing the plant species found at each site. A total of 156 different species were observed within the riparian zones or drainage way banks of the identified sites. 52 (33%) of these species are introduced. This would be considered a high number for a flora of an entire area, but is not unusual for disturbed areas adjacent to development. Riparian zones also typically support a greater number of exotic species than undisturbed uplands.

The matrix is divided into 4 sections:

Trees & shrubs – 14 species (2 exotic)
Perennial forbs – 55 species (16 exotic)
Annual forbs – 47 species (18 exotic)
Graminoids – 40 species (16 exotic)

The plants observed were primarily a mix of facultative and upland species, with only a few true riparian obligates. This is probably due to the intermittent nature of water in these drainage ways. Upland species were only listed if they were found within the banks of the drainage ways; many

of these same species are common in and around Flagstaff in Ponderosa Pine forests and associated mountain meadows, and were present at some of the sites where they are not listed, but above the banks in the surrounding uplands. The matrix identifies riparian obligates (3) and facultative wetland (16) species, as so designated by USDA in either the Arid West or Western Mountains. The remaining species are either facultative, facultative upland, or upland per USDA. The majority of the riparian species were found in the northernmost sites, along the uppermost two Rio de Flag locations, and Schultz Creek.

The matrix also notes the number of exotic species per site, and gives the percentage of total species. It is harder to observe a pattern to these numbers, with the most "pristine" sites in order by the percentage of native species being Ponderosa Wash, Spruce Avenue Wash, Fanning Drive Wash, Schultz Creek, and Clay Avenue Wash. Spruce Ave, Clay Ave, and Schultz Creek visually appear to be the least disturbed, with drainages coming in directly from the forested areas to the north, but Ponderosa and Fanning are small areas that appear to be highly disturbed, but still retain predominantly native species. At Ponderosa Wash, the native species are dominant in both number of species and density, whereas at the Fanning site native species are high in number, but the few exotic species appear higher in density of occurrence. However, as mentioned earlier, to fully analyze the composition of each site by density/frequency of species would be a far more rigorous task requiring different methodology than requested for this project.

Discussion:

Although not requested as part of this project, I would offer a few observations about the potential use of these lists for the design of restoration projects at sites along these drainages.

Among all the native plants identified as occurring in these sites, perennial graminoids, forbs, shrubs and trees will be more valuable than the annuals in stabilizing soils in the floodplains and channel banks. True wetland obligates will not be useful as none of these sites have enough water to create viable populations (the three species were observed at only two of the sites, and there in small quantities).

Of the trees and shrubs observed, all of the native species could be appropriate for restoration projects adjacent to the actual drainage channel.

Pinus ponderosa (Ponderosa Pine) was most frequently recorded; in fact, this keystone species of the dominant surrounding biotic community was present at all sites in the adjacent upland areas. It is found in the drainage channels only where water is intermittent and not of sufficient volume to be periodically scouring. *Rosa woodsii* (Wood's Rose) was the most common and widespread shrub, and is more adapted to the drainage ways than most of the other upland species. The three facultative wetland species, *Acer negundo* (Boxelder), *Populus angustifolia* (Narrowleaf cottonwood), and *Salix lasiolepis* (Arroyo Willow) will do better in sites that stay moist for greater periods of the year; they were all found in the more northern drainage sites. They could do well in other sites with some supplemental irrigation as part of a development project.

Although trees and shrubs tend to be the most visually important species in a given area, the graminoids may ultimately be the most important for good ecosystem function. The perennial native graminoids observed in these sites that will be most useful for restoration are *Pascopyrum smithii* (Western wheatgrass – rhizomatous), *Elymus trachycaulus* (Slender wheatgrass – clumping), *Poa fendleriana* (Muttongrass – clumping), *Muhlenbergia rigens* (Deergrass – clumping), *Muhlenbergia wrightii* (Spike muhly – clumping), *Bouteloua gracilis* (Blue gramma – clumping to sod-forming), and *Carex occidentalis* (Western sedge – clumping). Most of these are upland species that seem to also grow well in dry creek beds, on the banks, and in the surrounding floodplains. Many of the other natives observed could also be used, but may be of lesser import due to their being shorter-lived or preferring more pristine habitats.

Elymus repens (Quackgrass – rhizomatous), *Dactylis glomerata* (Orchardgrass – clumping), *Bromus inermis* (Smooth brome – rhizomatous), *Poa pratensis* (Kentucky Bluegrass – rhizomatous), and *Schedonorus arundinaceus* (Tall fescue – clumping) are introduced pasture grasses that were commonly seen in large numbers at many of the sites. These species will probably end up being a part of any modified site along the drainage ways due to their current prevalence and adaptability to these ecosystems. Quackgrass is listed by the State of Arizona as a noxious weed, and the others are known to act weedy and be potentially invasive according to many different sources, although they have no official status in Arizona. Quackgrass was dominant at only one site (Rio de Flag near Herold Ranch), although it was also present at 50% of the other locations. Due to its

rhizomatous nature, this would be a difficult species to eradicate, and it is contributing to soil stabilization.

Other Arizona listed noxious weeds that were observed at several sites are the following forbs: *Acroptilon repens* (Russian knapweed – rhizomatous perennial), *Centaurea diffusa* (Diffuse knapweed – biennial to perennial), *Convolvulus arvensis* (Field bindweed – rhizomatous perennial), *Linaria dalmatica* (Dalmatian toadflax – rhizomatous perennial), and *Onopordum acanthium* (Scotch thistle – biennial). In my opinion, *Acroptilon repens*, *Centaurea diffusa*, and *Onopordum acanthium* should be targeted for elimination when populations form in disturbed areas and along waterways. These species seem more prone to dense infestations that crowd out other preferable native species than the other two.

A number of native forbs that were found in these sites will also be useful components of a restoration mix. They will add color and interest, as well as providing various ecosystem functions (wildlife habitat and forage, pollinator support, etc). The most frequently encountered, showy upland species that also are found in the drainage ways are:

Achillea millefolium (Common yarrow)
Cirsium wheeleri (Wheeler's thistle)
Geranium caespitosum (Pineywoods geranium)
Heliomeris multiflora (Showy goldeneye)
Ipomopsis aggregata (Scarlet gilia)
Mirabilis decipiens (Broadleaf four o'clock)
Sphaeralcea fendleri (Fendler's globemallow)
Symphyotrichum falcatum/ericoides (White heath aster)
Thalictrum fendleri (Fendler's meadowrue
Verbena macdougallii (MacDougall's verbena)

Epilobium ciliatum (Fringed willowherb) and *Sidalcea neomexicana* (New Mexico checkermallow) were also observed in several sites each, but these are both facultative wetland species, and would need more moisture to be successful over the long-term.

It should be noted that there are some very common non-showy native species that were present in significant numbers. Two perennial ragweeds, *Ambrosia psilostachya* and *A. tomentosa* seem to thrive in disturbed sites,

and help bind soil due to their rhizomatous nature. These are typically not used in landscaping or restoration due to their allergenic pollen and rather drab appearance, but will probably end up being part of any restoration due to their presence in the surrounding ecosystems. Sageworts (rhizomatous herbaceous *Artemisias*), are also allergenic, but while their flowers are not showy, their vegetative form is attractive and potentially useful. Both *Artemisia dracunculus* (False tarragon) and *A. ludoviciana* (White sagewort) are probably available in seed and in the nursery trade. *Rumex mexicanus* is one of the native docks that was found in a number of sites, but only directly in the drainage channel or areas where water may pond for periods of time. It is unlikely to be available in the trade.

Milkweeds were not observed in very many sites; only one, *Asclepias subverticillata* (Horsetail milkweed), was seen in two different locations. However, this species, along with *A. tuberosa* (Butterflyweed), *A. asperula* (Antelope horns), and *A. speciosa* (showy milkweed – in moister locations) would all be valuable local native plants to use in restoration for both pollinator support and general beauty.

While perhaps not as important for restoration over the long term, annual and biennial plants also play a role in ecosystems, and should not be overlooked completely. A number of native species were observed, many in great numbers, and some such as *Helianthus annuus* (Common sunflower), *Verbesina encelioides* (Golden Crownbeard), *Erigeron divergens* (Spreading fleabane), *Oenothera elata* (Hooker's evening primrose), *Amauriopsis dissecta* (Ragleaf bahia) , and *Coreopsis tinctoria* (Golden tickseed) would be attractive additions to most seed mixes.

APPENDIX A

Species	Common Name	# Sites observed	Riparian	Exotic	Site 1 Rio de Flag at Peak View St.	Site 2 Rio de Flag at Meade Ln.	Site 3 Rio de Flag at Herold Ranch Rd.	Site 4 Rio de Flag at Butler Ave.	Site 5 Clay Ave. Wash at Thompson St.	Site 6 Sinclair Wash at N. Univ. Heights Dr.	Site 7 Ponderosa Wash at High Country Tr.	Site 8 Schultz Ck at Mary Russel Way	Site 9 Switzer Canyon Wash at S. Turquoise Dr.	Site 10 Spruce Ave Wash at Linda Vista Dr.	Site 11 Fanning Dr. Wash at Linda Vista Dr.	Site 12 Bow & Arrow Wash at Lone Tree Rd.
TREES & SHRUBS																
Acer negundo	Boxelder	1	FACW			x										
Ericameria nauseosa var. oreophilus	Rubber rabbitbrush	1														x
Gleditsa ? (non-thorny Fabaceae)	Locust?	1		•		x										
Gutierrezia sarothrae	Broom snakeweed	1														x
Pinus ponderosa	Ponderosa pine	7							x		x	x	x	x	x	x
Populus angustifolia	Narrowleaf cottonwood	1	FACW		x											
Populus tremuloides	Aspen	2			x					x						
Purshia stansburiana	Common cliffrose	1													x	
Quercus gambellii	Gambel oak	2							x					x		
Ribes cereum	Wax currant	1												x		
Robinia neomexicana	New Mexico locust	2			x	x										
Rosa woodsii	Wood's rose	5						x	x			x	x			x
Salix lasiolepis	Arroyo willow	3	FACW		x	x						x				
Ulmus pumila	Siberian elm	4		•		x							x	x	x	
PERENNIAL FORBS																
Achillea millefolium	Common yarrow	3					x		x		x					
Acroptilon repens	Russian knapweed	1		•												x
Ambrosia confertiflora	Slimleaf bursage	1						x								
Ambrosia psilostachya	Western ragweed	7					x		x	x	x		x	x		x
Ambrosia tomentosa	Skeletonleaf bursage	6			x	x	x	x	x							x
Antennaria parvifolia	Mountain pussytoes	1									x					
Apocynum androsaemifolium	Spreading dogbane	1							x							
Artemisia campestris	Field sagewort	1					x									
Artemisia carruthii	Carruth's sagewort	2												x	x	
Artemisia dracunculus	False tarragon	7			x		x	x	x			x		x	x	
Atremisia ludoviciana	White sagewort	2											x		x	
Asclepias subverticillata	Horsetail milkweed	2								x	x					
Centaurea diffusa	Diffuse Knapweed	1		•				x							x	
Cirsium wheeleri	Wheeler's thistle	3								x	x		x			
Commelina dianthifolia	Birdbill dayflower	1													x	
Convolvulus arvensis	Field bindweed	6		•	x		x			x			x	x		x
Datura wrightii	Sacred datura	1													x	
Epilobium ciliatum	Fringed willowherb	3	FACW		x						x	x				
Erigeron flagellaris	Trailing Fleabane	1									x					
Gaillardia pulchella	Firewheel	2		•									x			x
Geranium caespitosum	Pineywoods geranium	6							x		x		x	x	x	x
Heliomeris multiflora	Showy goldeneye	5							x			x	x	x	x	
Ipomopsis aggregata	Scarlet gilia	4							x	x				x	x	
Leonurus cardiaca	Motherwort	1		•								x				
Linaria dalmatica	Dalmatian toadflax	9		•	x				x	x	x	x	x	x	x	x
Machaeranthera canescens	Hoary tansyaster	1					x									
Macromeria viridiflora	Giant trumpets	1													x	
Marrubium vulgare	Horehound	1		•			x									
Mentha spicata	Spearmint	1	FACW	•		x										
Mirabilis decipiens	Broadleaf four o'clock	3												x	x	x
Mirabilis oxybaphoides	Smooth spreading four o'cloc	1													x	
Nepeta cataria	Catnip	3		•		x				x		x				
Oenothera flava/taraxacoides	Yellow evening primrosa	2								x	x					
Phaseolus pedicillatus var. grayanus	Gray's bean	1													x	
Potentilla crinita	Bearded cinquefoil	1									x					
Potentilla recta	Sulphur cinquefoil	1		•	x											

Potentilla thurberi	Scarlet cinquefoil	1												x		
Ratibida columnifera	Mexican hat coneflower	2		•							x					x
Rumex crispus	Curly dock	10		•	x	x		x	x	x	x	x	x	x		x
Rumex mexicanus	Mexican dock	4					x	x		x	x					
Saponaria officinalis	Bouncingbet	2		•										x	x	
Securigera varia (Coronilla varia)	Crownvetch	1		•												x
Sidalcea neomexicana	NM checkermalow	2	FACW		x							x				
Solidago velutina	Hairy goldenrod	1							x							
Spharalcea fendleri	Fendler's globemallow	3								x					x	x
Symphyotrichum falcatum/ericoides	White heath aster	5			x	x	x				x		x			
Symphyotrichum lanceolatum	White panicle aster	2			x	x										
Taraxacum sp.	Dandelion	6		•		x		x	x				x	x		x
Thalictrum fendleri	Fendler's meadowrue	5					x		x			x		x	x	
Thermopsis montana	Golden pea	1										x				
Trifolium mucronatum ssp. lacerum	Spinytooth clover	1										x				
Verbena macdougallii	MacDougall's verbena	7						x		x	x		x	x	x	x
Vicia americana	American vetch	1										x				
Vicia pulchella	Vetch	1											x			
Viola (cultivated)	Violet	1		•		x										
ANNUAL/BIENNIAL FORBS																
Amarantus powellii	Powell's amaranth	2			x	x										
Amaranthus retroflexus	Redroot amaranth	1													x	
Amauriopsis dissecta	Ragleaf bahia	6			x					x		x	x		x	x
Artemisia biennis	Biennial wormwood	1	FACW	•		x										
Berteroa incana	Hoary alyssum	2		•					x							x
Bidens tenuisecta	Slimlobe beggarticks	6			x	x		x		x					x	x
Castilleja minor	Lesser indian paintbrush	1	OBL									x				
Chenopodium album	Lambsquarters	1		•		x										
Chenopodium fremontii	Fremont's goosefoot	1												x		
Chenopodium pratericola	Desert goosefoot	2						x							x	
Cirsium vulgare	Bull thistle	1		•									x			
Conium maculatum	Poison hemlock	4	FACW	•	x	x	x	x								x
Conyza canadensis	Horseweed	8				x	x	x				x	x	x	x	x
Coreopsis tinctoria	Golden tickseed	3						x			x		x			
Cosmos parvifolia	Southwestern cosmos	4				x	x							x	x	
Dalea leporina	Foxtail prairie clover	1														x
Dipsacus fullonum	Teasel	2		•				x								x
Dracocephalum parviflorum	American dragonhead	1												x		
Dysphania graveolens (Chenopodium)	Fetid goosefoot	1												x		
Epilobium brachycarpum	Tall annual willowherb	3					x	x			x					x
Erigeron divergens	Spreading fleabane	6			x		x			x	x	x		x		
Euphorbia dentata/davidii	Toothed spurge	1							x							
Gnaphalium exilifolium	Slender cudweed	1	FACW									x				
Grindellia nuda	Curlytop gumweed	6			x		x	x		x	x					x
Helianthus annua/petiolaris	Common sunflower	7				x	x	x		x	x	x	x			
Kochia scoparia	Kochia	3		•	x		x			x						
Lactuca serriola	Prickly lettuce	9		•	x	x	x	x		x		x	x	x	x	
Lepidium densiflorum	Common pepperweed	5			x		x				x			x	x	
Malva neglecta	Common mallow	4		•	x	x	x	x								
Medicago lupulina	Black medic	3		•					x			x				x
Melilotus alba/officinalis	Sweetclover	6		•	x			x		x		x	x			x
Mimulus gutattus	Common monkeyflower	2	OBL		x							x				
Oenothera elata	Hooker's eveningprimrose	7	FACW		x			x		x	x	x	x		x	
Oenothera curtiflora (Gaura mollis)	Velvetweed	5			x		x	x		x	x					
Oenothera hexandra (Gaura hexandra)	Harlequinbush	4								x			x	x		x
Onopordum acanthium	Scotch thistle	1		•			x									
Persecaria lapathifolia	Curlytop knotweed	1	FACW					x								
Polygonum aviculare	Prostrate knotweed	3		•			x				x					x
Polygonum convolvulus	Black bindweed	2		•		x						x				
Polygonum ramosissimum	Bushy knotweed	1						x								

Potentilla norvegica	Norwegian cinquefoil	3		•			x			x	x					
Pseudognaphalium macounii	Macoun's cudweed	1													x	
Pseudognaphalium stramineum	Cottonbatting plant	1									x					
Tragopogon dubius	Yellow salsify	4		•			x		x	x						x
Verbascum thapsis	Common mullein	8		•	x			x	x	x		x		x	x	x
Verbesina encelioides	Golden crownbeard	1								x						
Xanthium strumarium	Common cocklebur	1					x									
GRAMINOIDS																
Agropyron cristatum	Crested wheatgrass	1		•		x										
Agrostis gigantea	Redtop	2	FACW	•	x							x				
Aristida arizonica	Arizona threeawn	2									x				x	
Arrhenatherum elatius	Tall oatgrass	1		•								x				
Blepharoneuron tricholepis	Pine dropseed	1												x		
Bouteloua gracilis	Blue grammagrass	4									x			x	x	x
Bromus ciliatus/richardsonii	Fringed brome	3					x							x	x	
Bromus inermis	Smooth brome	4		•	x	x				x		x				
Bromus marginatus/polyanthus	Great Basin brome	2				x						x				x
Bromus tectorum	Cheatgrass	2		•			x				x				x	
Carex occidentalis	Western sedge	6							x	x		?	x	x	x	
Carex pellita	Woolly sedge	1	OBL		x											
Carex subfusca	Little brown sedge	2			x							x				
Cyperus fendlerianus	Fendler's flatsedge	2												x	x	
Dactylis glomerata	Orchardgrass	7		•	x	x			x	x			x	x	x	
Echinochloa crus-galii	Barnyardgrass	1	FACW	•				x								
Elymus elymoides	Squirrletail	7							x		x	x	x	x	x	x
Elymus x pseudorepens	False quackgrass	2							x					x		
Elymus repens	Quackgrass	6		•	x	x	x	x				x	x			
Elymus trachycaulus	Slender wheatgrass	6			x			x	x	x	x					x
Eragrostis curvula	Weeping lovegrass	1		•											x	
Festuca ovina	Sheep fescue	1		•		x										
Hordeum jubatum	Foxtail barley	8			x	x	x	x		x	x	x	x			
Juncus bufonius	Toad rush	1	FACW									x				
Juncus interior	Interior rush	1										x				
Juncus longistylis	Longstyle rush	1	FACW									x				
Muhlenbergia montana	Mountain muhly	3												x	x	x
Muhlenbergia rigens	Deergrass	4								x		x	x			x
Muhlenbergia wrightii	Spike muhly	5								x	x		x	x		x
Panicum bulbosum	Bulb panicgrass	1													x	
Pascopyron smithii	Western wheatgrass	3							x		x		x			x
Poa compressa	Canada bluegrass	3		•	x	x						x				
Poa fendleriana	Muttongrass	3										x		x	x	
Poa palustris	Fowl bluegrass	1										x				
Poa pratensis	Kentucky bluegrass	9		?				x	x	x	x	x	x	x	x	x
Schedonorus arundinaceus/pratensis	Tall/Meadow fescue	11		•	x	x	x	x	x	x	x		x	x	x	x
Secale cerale	Cereal Rye	2		•		x									x	
Thinopyron intermedium	Intermediate wheatgrass	3		•						x			x	x		
Thinopyron ponticum	Tall wheatgrass	1		•	x											
OTHER																
Equisetum laevigatum	Smooth horsetail	5	FACW		x	x				x				x		x
# total species observed per site					41	35	33	32	29	39	38	45	36	44	47	44
# exotic species per site					17	21	13	13	10	15	8	15	14	11	13	18
% exotic species					41%	60%	39%	41%	34%	38%	21%	33%	39%	25%	28%	41%

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 Zoning Code Text Amendment	File Number

Applicant(s)/Property Owner(s)	Title	Phone	Email
PRESTON FAMILY TRUST - BILL PRESTON		928-774-7386	
Mailing Address		**City, State, Zip**	
PO BOX E		FLAGSTAFF, AZ 86002	
Representative (If applicable)	**Title**	**Phone**	**Email**
RICK SCHULLER - WOODSON ENGINEERING		928-774-4638	rschuller@woodsoneng.com
Mailing Address		**City, State, Zip**	
124 N ELDEN RD, FLAGSTAFF, AZ - 86001			

Property Address	City, State, Zip
3451 S LAKE MARY ROAD,	FLAGSTAFF, AZ - 86004

Application Name:	LAKE MARY PARCEL - FLOODPLAIN ZONING CODE TEXT AMENDMENT
Zoning Code Text Amendment	
Chapter Name and Number:	
Division Name and Number:	
Section Name and Number:	
Chapter Name and Number:	
Division Name and Number:	
Section Name and Number:	
Chapter Name and Number:	
Division Name and Number:	
Section Name and Number:	

Additional Information: APPLICATION TO REVISE RURAL FLOODPLAIN TO URBAN FLOODPLAIN VIA ZONING CODE TEXT AMENDMENT.

Owner's Signature (required)	Date:	Representative Signature (If applicable)	Date:
PRESTON FAMILY TRUST	9-5-19	William R Preston Trustee	9-5-19

For City Use

Date Filed:	**File Number(s):**	**Fee Receipt Number:**
P & Z Hearing Date:	**Publication and Posting Date:**	**Amount:**
Council Hearing Date:	**Publication and Posting Date:**	**Date:**
Received by:	**Comments:**	

Rick Schuller

From: Rick Schuller
Sent: Tuesday, January 7, 2020 10:01 AM
To: Bryan Duke
Subject: RE: 118029- Lake Mary Parcel Floodplain Zoning Amendment

Good morning Bryan – This Zoning Amendment application is moving forward, so I wanted to respond to your previous email. The zoning action changing the flood plain from a Rural designation to an Urban designation will not affect the current drainage patterns in the area. After the zoning amendment there could be a channelization project but this would only affect the drainage specifically on this site. All improvements have to meet the requirements of FEMA since this is a FEMA Floodplain.

Future development on this site would have to bring up sanitary sewer from the University Heights area. Access improvements would also occur.

Let me know if you have any further questions.

Thanks for your questions,

Rick Schuller
Woodson Engineering and Surveying, Inc
124 N. Elden St., Flagstaff, AZ 86001
rschuller@woodsoneng.com | www.woodsoneng.com
W 928-774-4636 x14 | F 928-774-4646

1994 – 2019 • Celebrating 25 Years!

From: Bryan Duke <duke@aultas.com>
Sent: Monday, September 23, 2019 2:58 PM
To: Rick Schuller <rschuller@woodsoneng.com>
Subject: 118029- Lake Mary Parcel Floodplain Zoning Amendment

Hi Rick,

I work for the ownership group of Table Rock apartments at 3400 Lake Mary Road and I received your notice of amending the floodplain zoning for the 4.46 acre site across the street. How will this rezoning effect drainage? Will there need to be any change to existing infrastructure?

Thank you,
Bryan Duke
Director, Asset Management
831-261-6751 | aultas.com

Lake Mary Parcel
Floodplain Zoning Code Text Amendment

RECEIVED OCT 17 2019

Neighbor Notification

Comment Form

Name: Martin & Shirley Anza

Address: 3401 Lake Mary Road

Phone Number: 928-261-6675

Please provide any comments you might have regarding this project

We don't know if this will impact the road that we have accessed our property for the past 50 years. We must have access to our property through the side road. Our family accessed that same road/property since 1965. Bill Preston has stated to Martin Anza that no one can take the entrance from the property owned by Anza Arizona Properties. We must have access to our property!! Thank you.

~~Return to: Woodson Engineering & Surveying, Inc.~~
Attn: Rick Schuller
124 N. Elden Street
Flagstaff, AZ 86001
rschuller@woodsoneng.com

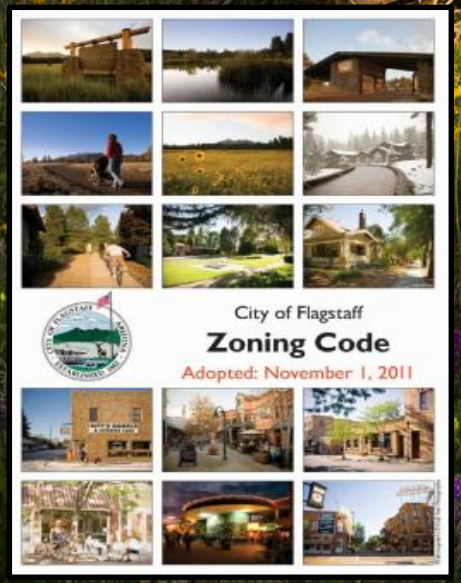
Thank you.

called: 10.1.19 Schuller
*can't pick
mailed
10/12/19

City Council

Applicant's Request to Amend the Zoning Code

PZ-19-00187 Lake Mary and I-17 Rural to Urban Floodplain



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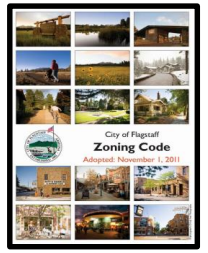
Dan Symer, AICP
Zoning Code Manager

Request:

- **For a Zoning Code Text Amendment to change the map designation of approximately 1.47 acres from Rural Floodplain to Urban Floodplain on an approximate 4.46-acre parcel located at 3451 East Lake Mary Road.**

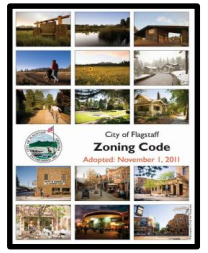
  - **Applicant:**
    Rick Schuller
    Woodson Engineering & Surveying

  - **Owner:**
    Preston Family Trust



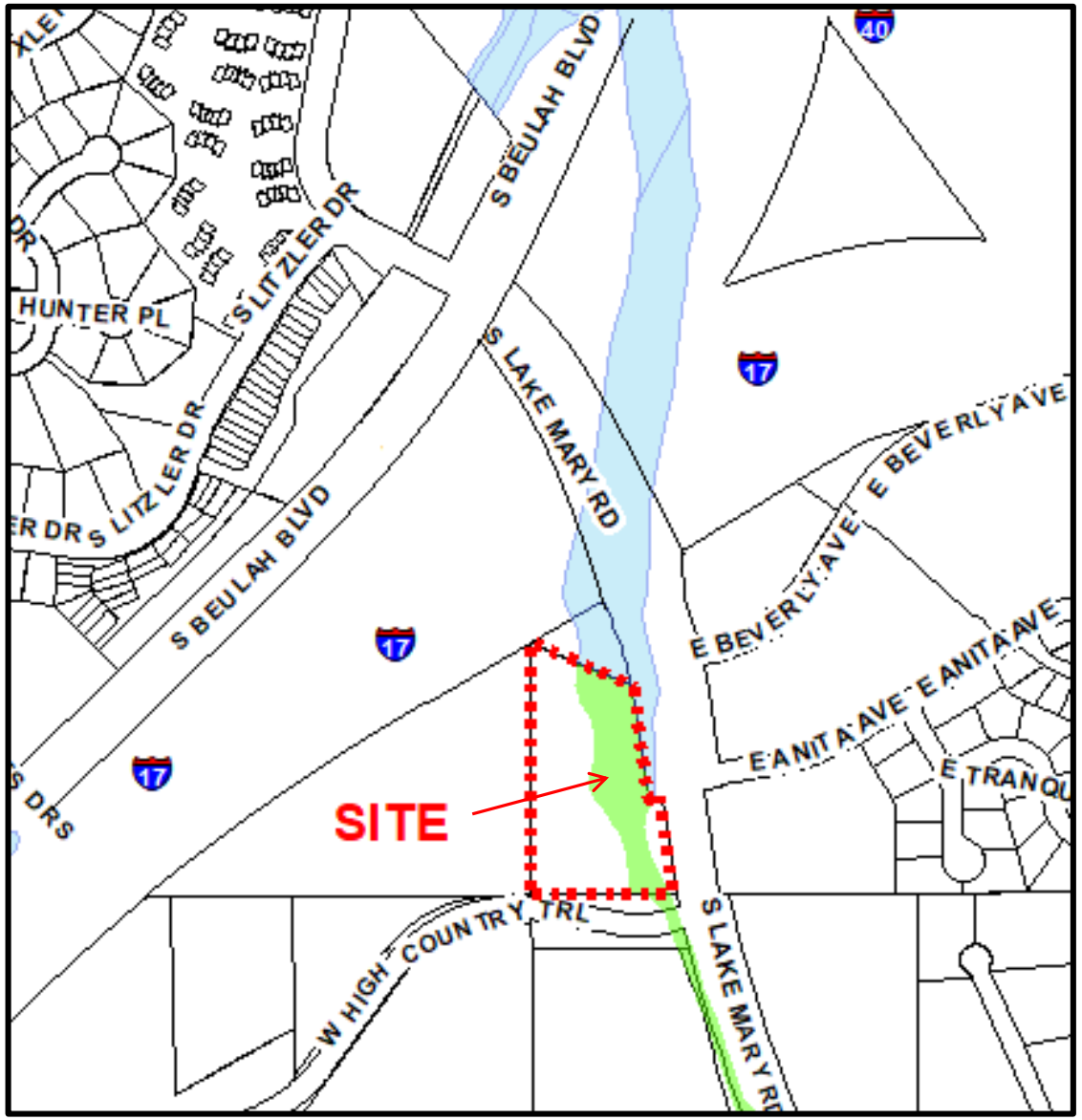
Order of Presentation and Questions:

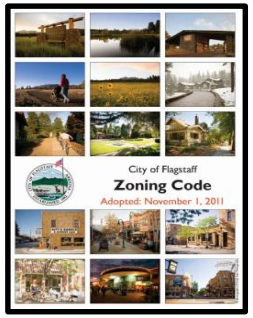
1. Staff presentation
2. Applicant presentation
3. Council's questions to staff and applicant.
4. Public comment
5. Applicant's response, only upon applicant's specific request
6. Staff's response
7. Council deliberation and questions to staff and applicant.



Location

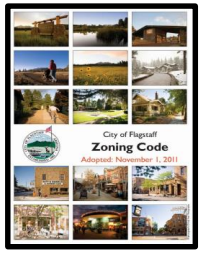
3451 East Lake Mary Road.



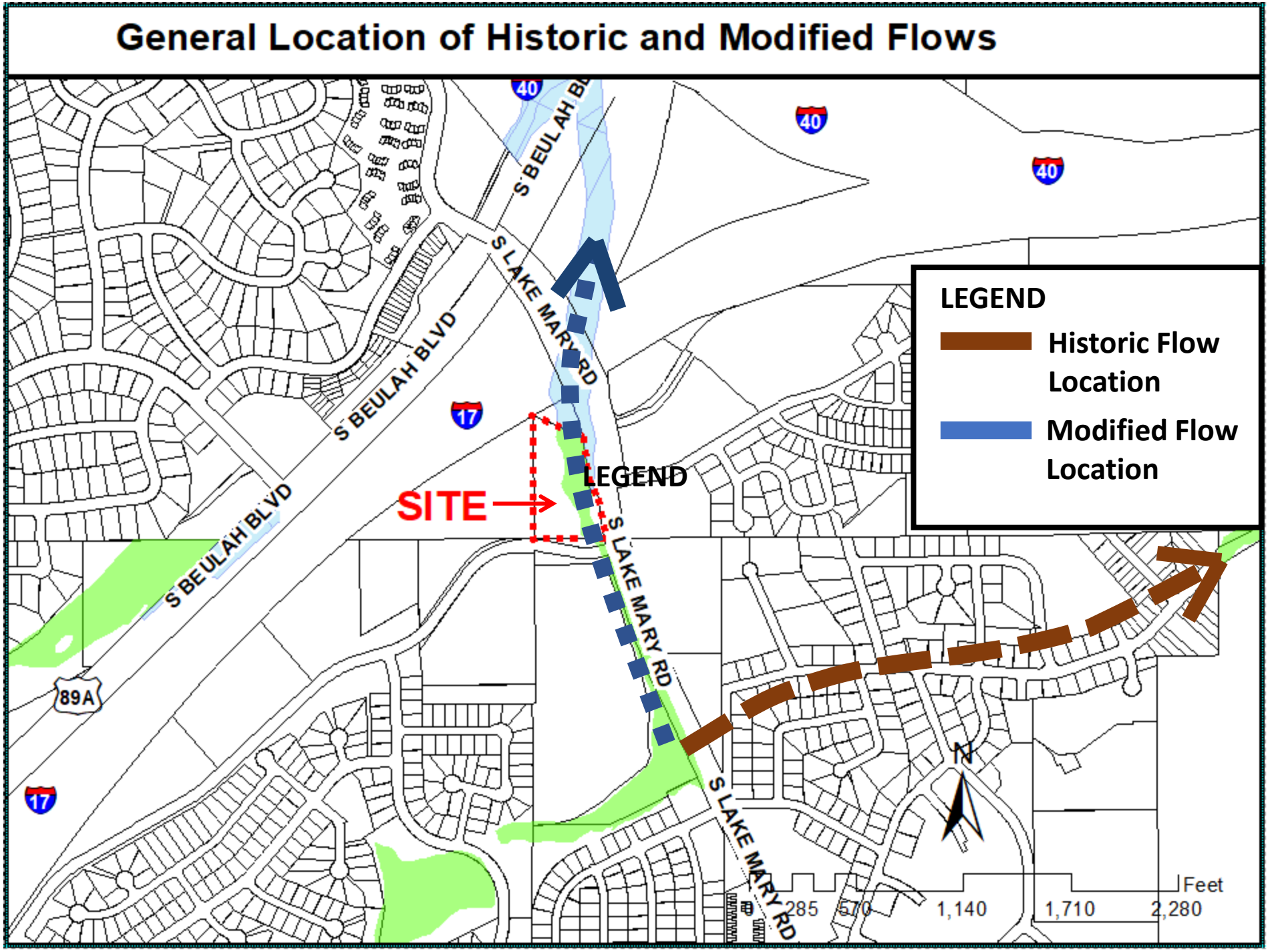


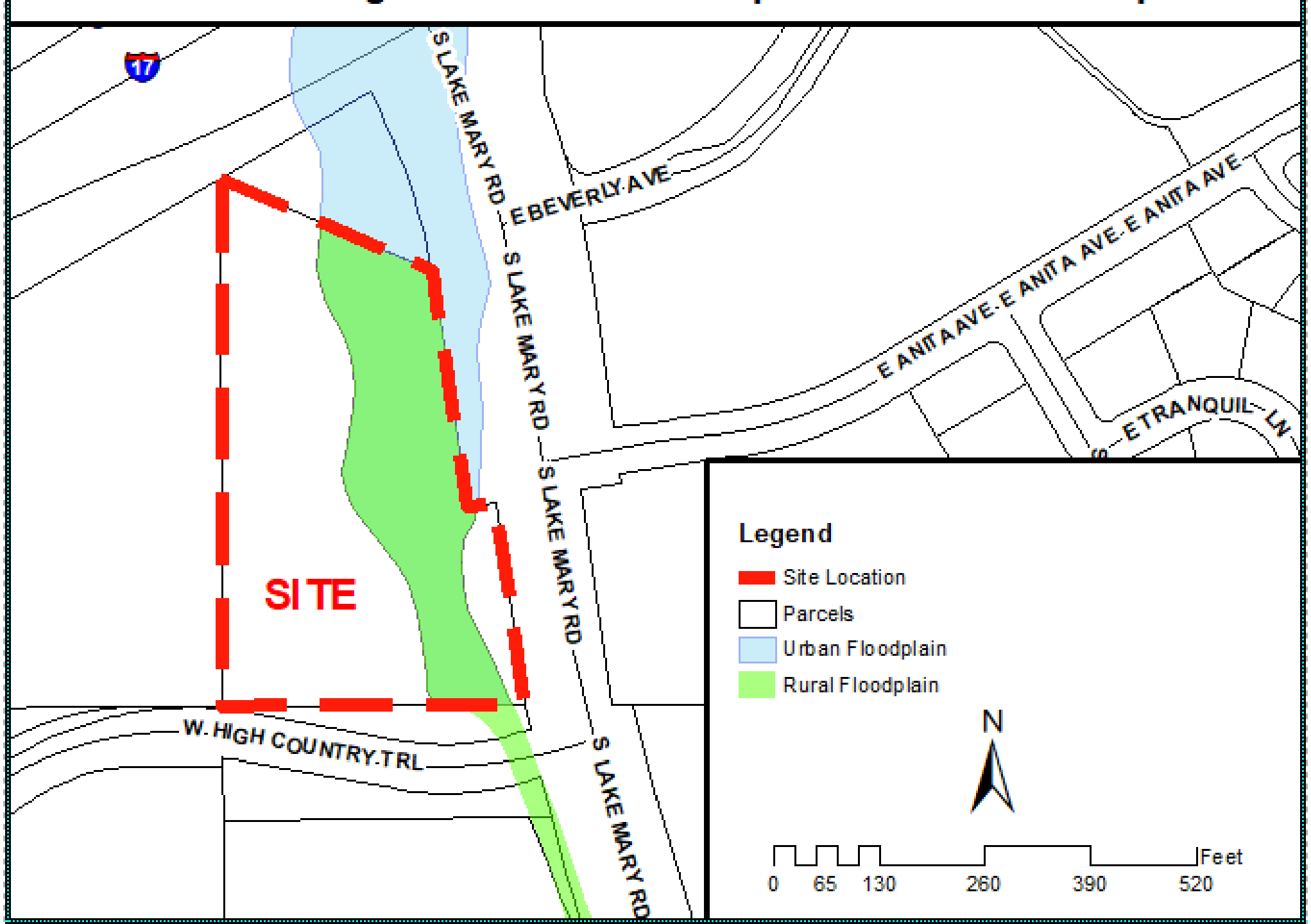
Description of the Rural and Urban Floodplains

- ***Rural Floodplains. Rural floodplains are natural undisturbed open spaces that are unsuitable for development purposes due to periodic flood inundation and the need to preserve the stream corridor for beneficial uses such as the preservation of important ecological resources.***
- ***Urban Floodplains. Urban Floodplains are all watercourses and associated floodplains not defined as rural floodplains are urban floodplains. Urban floodplains are typically located in urbanized areas and have typically been altered from their natural state by channelization.***

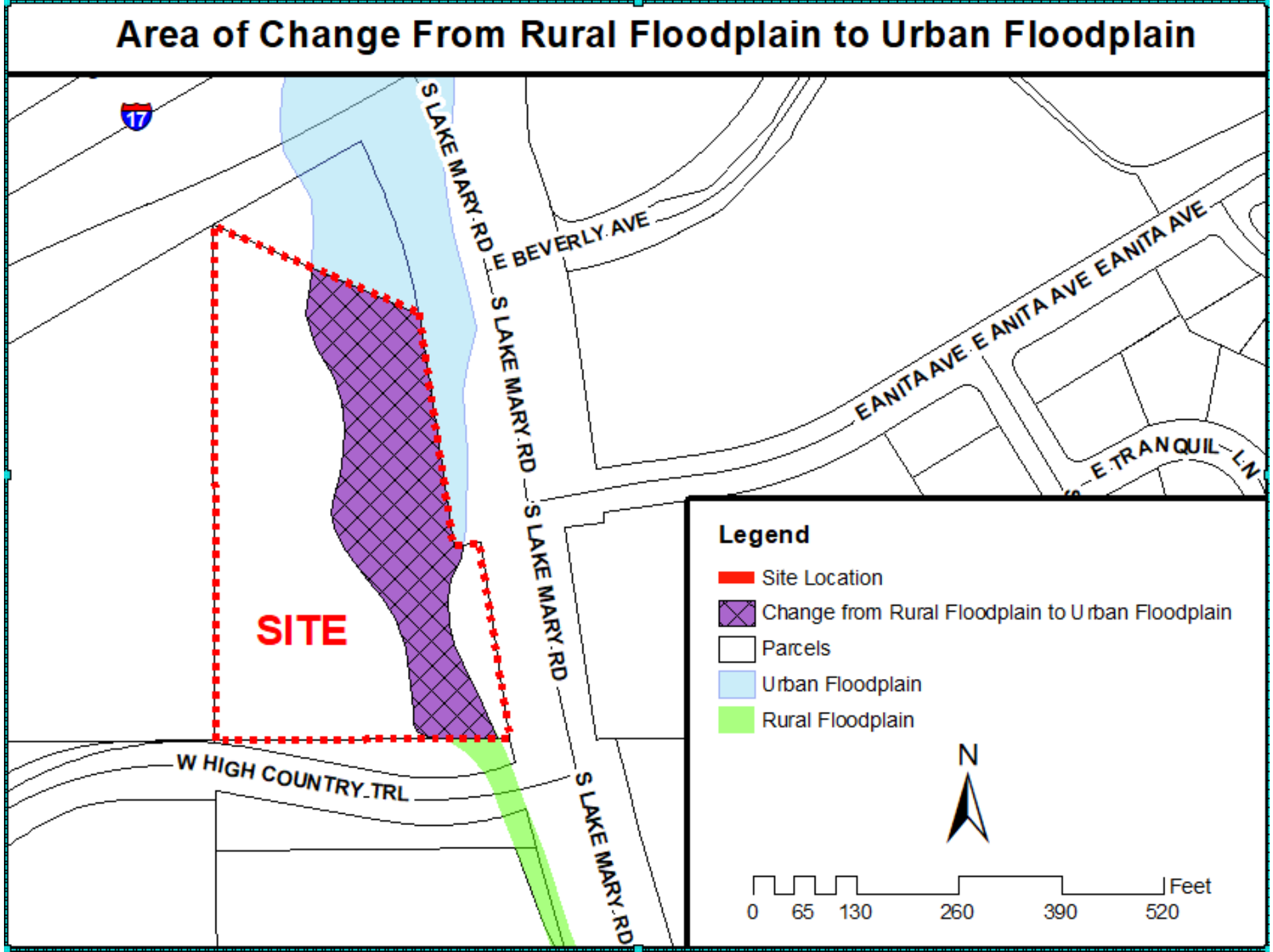


General Location of Historic and Modified Flows

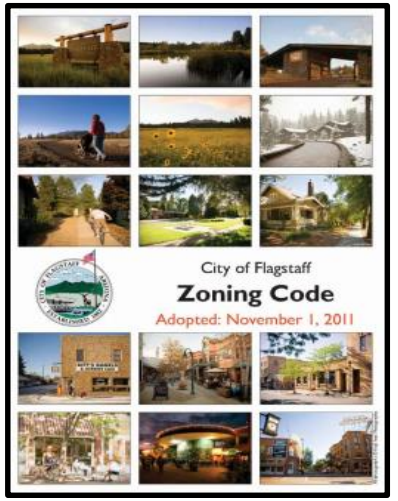



17
S LAKE MARY RD
E BEVERLY AVE
E ANITA AVE
E TRANQUIL LN
SITE
W HIGH COUNTRY TRL
Legend
Site Location
Parcels
Urban Floodplain
Rural Floodplain
N
Feet
0
65
130
260
390
520

Area of Change From Rural Floodplain to Urban Floodplain



Zoning Code Text Amendment Findings



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;**

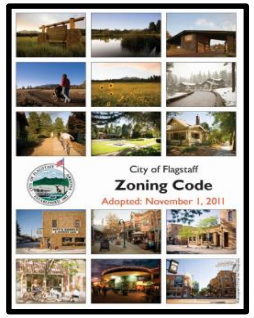
3. **The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.**

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City's Proposed Zoning Code Text Amendment

City Council

Comments, Questions and Discussion



14. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Nicole Antonopoulos, Sustainability Manager
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Adoption of Resolution No. 2020-09: A resolution endorsing the declaration of a climate emergency for the City of Flagstaff, and requesting regional collaboration on an equitable transition and urgent mobilization efforts to restore a safe climate.

ITEM POSTPONED TO A LATER DATE

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-09 by title only
2) City Clerk reads Resolution No. 2020-09 by title only (if approved above)
3) Adopt Resolution No. 2020-09

Executive Summary:

On January 28, 2020 City Council directed staff to bring forward a resolution to declare a climate emergency for the City of Flagstaff, and request regional collaboration on an equitable transition and urgent mobilization efforts to restore a safe climate.

Financial Impact:

The resolution calls for advancing the 2018 Climate Action and Adaptation Plan's goals to achieve carbon neutrality by 2030. A $20,000 Increased Funding Request (IFR) was submitted as part of the Fiscal Year 20-21 budget process to hire technical consultation. Assistance would provide engineering services and analysis of what strategies and actions are necessary. Staff would report findings to the City Council and Flagstaff community.

Policy Impact:

Several climate action strategies will have long-term impacts on City policy, including but not limited to the Regional Plan, Zoning Code, Engineering Standards,Building Code, and the Solid Waste Code. Each of these policy recommendations will be brought to City Council for discussion and consideration.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

Council Goals:
Take meaningful climate change action.

Strategic Priorities:
High performing governance
Safe and healthy community
Inclusive and engaged community
Sustainable, innovative infrastructure
Robust resilient economy
Livable community

Regional Plan:
Goal E.1. Increase energy efficiency.
Goal E.2. Expand production and use of renewable energy.
Goal E&C.1. Proactively improve and maintain the region's air quality.
Goal E&C.2 Reduce Greenhouse gas emissions.
Goal E&C.3 Strengthen community and natural environment resiliency through climate adaptation efforts.
Goal E&C.4. Integrate the best available science into all policies governing the use and conservation of Flagstaff's natural resources.

Has There Been Previous Council Decision on This:

Yes, on January 28, 2020 the City Council discussed the Citizen's petition.

Community Involvement:

The Flagstaff community submitted Citizen Petition 2019-02 on September 24, 2019, following the global Climate Strike. The Flagstaff community has been actively involved in climate discussion and action. Since the passing of the Climate Action and Adaptation Plan Sustainability staff have engaged nearly 4,000 community members in climate and resiliency conversations.

Attachments: Res. 2020-09
Citizen Petition 2019-02

RESOLUTION NO. 2020-09

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL, ENDORSING THE DECLARATION OF A CLIMATE EMERGENCY FOR THE CITY OF FLAGSTAFF, AND REQUESTING REGIONAL COLLABORATION ON AN EQUITABLE TRANSITION AND URGENT MOBILIZATION EFFORT TO RESTORE A SAFE CLIMATE

RECITALS:

WHEREAS, in November of 2018 the City adopted a Climate Action and Adaptation Plan that included input from citizens of the community and addressed carbon offset strategies, carbon neutral buildings, livable neighborhoods, renewable energy, local agriculture, zero waste, and transportation; and

WHEREAS, as embodied in the Flagstaff Climate Action and Adaptation Plan, Flagstaff has committed to meeting the Paris Agreement goals, an international agreement pledging to work towards keeping average future warming "well below 3.6°F above pre-industrial levels" and to "pursue efforts to limit the temperature increase to 2.7°F"; and

WHEREAS, the United Nations November 2019 Emissions Gap Report finds that countries collectively failed to stop the growth in emissions, meaning that deeper and faster cuts are now required. In order to stay on track to meeting the Paris agreement goals, the UN calls for immediate and aggressive action to achieve carbon neutrality by 2030; and

WHEREAS, by way of example, the Flagstaff Climate Action and Adaptation Plan identifies an 80% reduction in carbon emissions by 2050; and

WHEREAS, if we want to have a 66% chance of staying below 2.7 degrees warming by 2030, we're not on track to hit that target; and

WHEREAS, according to recent studies, global warming of approximately 1.8°F is already threatening or causing detrimental effects on Earth's human, physical, biological, and hydrological systems as attested by increased and intensifying wildfires, floods, rising seas, diseases, prolonged droughts, extreme weather events, loss of biodiversity, and climate refugees; and

WHEREAS, Flagstaff has experienced the predicted clear warming trend since 1995, with higher temperatures and fewer cold days per year, contributing to an overall drying trend; and

WHEREAS, Flagstaff and our region face significant risks of reduced water availability, increased wildfires, drought, and flooding, snowpack loss, and widespread forest loss. Recent models forecast average temperature increase in Flagstaff of 9.4°F by 2080, creating a climate similar to that experienced currently in Show Low; and

WHEREAS, average model estimates also indicate a likelihood of 25 days each summer with maximum daily high temperatures over 105°F; and

WHEREAS, a fair shift to an economy that is ecologically sustainable, equitable, and just for all

its members is a necessary step for the City of Flagstaff in the effort to address the climate emergency; and

WHEREAS, initiatives shifting from inefficient fossil energy systems to sustainable energy systems of energy production, conservation, and transportation, from landfills to zero waste, from industrial food systems to food sovereignty, from car-dependent sprawl and unbridled growth to smart urban development without displacement, and from destructive over-development to habitat and ecosystem restoration are essential to achieving necessary carbon reductions and a stable climate; and

WHEREAS, the unique threats that climate change poses present multiple opportunities for the City to benefit through swift actions. By declaring a climate emergency, we recognize the severity of the issue, while at the same time acting to solve the challenges presented by climate change locally. With coordinated actions and targeted investments from the City and our local higher education partners, we can be a leader in addressing climate change issues and at the same time invest in the mitigation and adaptation strategies outlined in our City's existing CAAP, thereby reducing future risks and costs.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. The City of Flagstaff declares that a climate emergency threatens our City, region, state, nation, civilization, humanity and the natural world, and recognizes the need for a dramatic increase in its ambition to combat climate change, so that it meets or exceeds the current recommendations of the foremost climate scientists working around the world.

SECTION 2. The City of Flagstaff commits to its own City-wide transition and climate emergency mobilization effort, utilizing Flagstaff's Climate Action and Adaptation Plan as the foundational framework in recognition of accelerating climate changes and prioritizing appropriate funding for its implementation.

SECTION 3. The City of Flagstaff commits to educating residents and especially Flagstaff's youth about the current climate emergency and inspiring action.

SECTION 4. The City of Flagstaff underscores the need for full community participation, and recognizes that the residents of Flagstaff, and community organizations and other such allies will be integral to and in the leadership of the mobilization effort.

SECTION 5. The City of Flagstaff commits to keeping the concerns of vulnerable communities central to all transition and climate emergency mobilization efforts and to facilitate the active participation of such communities.

SECTION 6. The City of Flagstaff joins a nationwide call for an emergency mobilization collaborative effort, in full partnership with surrounding Tribal nations and traditional agricultural communities, at all levels of government to prioritize adaptation and mitigation in relation to climate change while making all government decisions.

SECTION 7. The City of Flagstaff will take steps to revise the goals outlined in the Climate Action

and Adaptation Plan to be in alignment with the United Nations' November 2019 Emissions Gap Report, while maintaining equal emphasis on adaptation, mitigation, and equity, by advancing the Climate Action and Adaptation Plan's goals to achieve carbon neutrality by 2030.

SECTION 8. The City of Flagstaff calls on the State of Arizona, the United States of America, and all governments and peoples worldwide to initiate a transition and climate emergency mobilization effort to mitigate global warming and create high-quality, good-paying jobs with comprehensive benefits for those who will be impacted by this transition.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 17th day of March, 2020.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

PETITION TO FLAGSTAFF CITY COUNCIL

Pursuant to Flagstaff City Charter Article II Section 17 and Flagstaff City Code Title I Chapter 12

RECEIVED
SEP 24 2019
BY:

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: Flagstaff City Council's response to the Global Climate Crisis

Action Requested: We request that the Flagstaff City Council declare a Climate Emergency Resolution. This action should be followed by immediately elevating the Sustainability Section to Department status, so staff have the ability to expedite the Climate Action and Adaptation Plan and can then implement CAAP goals. This would be a significant positive step for the public safety of Flagstaff residents

Printed Name of Submitter: Joseph Shannon

(Submitter must also sign below and complete information)

Contact Information: 928 380 9537 jshannon27808@mail.com

(Phone Number and/or e-mail address)

PETITION SIGNATURES

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/14/19	Joseph Shannon	2882 WEST NORVA ST 86001	Joseph Shannon
9/14/19	Diane Traylor	3833 N. STEVE'S BLVD Flagstaff, AZ 86004	Diane Traylor
9/14/19	Valarie A. Bryant	1300 N. Indian Spring Ln Flagstaff, AZ 86004	Valarie A Bryant
9/14/19	EVA PUTZOVA	1700 E LINDA VISTA DR	
9/14/19	JEFF BALMAT	6741 E ANAZAZI DR FLAGSTAFF 86004	
9/14/19	CHARLES BAME	3335 N. MANOR RD, FLAGSTAFF AZ	Charles Bame
9-14-19	Joan Stone	1825 E Arrowhead Flagstaff A	
9-14-19	Cynthia L Jones	2601 N Eday Dr Flagstaff, AZ 86001	Cynthia L Jones
9/14/19	Tallei Tatunney Rogers	2715 E Hembergh Dr Flagstaff 86004	
9/14/19	Stephanie Abel	1713 E. Mountain View Flagstaff, AZ 86004	Stephanie Abel

RECEIVED BY CITY OF FLAGSTAFF		
DATE RECEIVED	**BY**	**COUNCIL MEETING DATE**
9/24/19	Stacy Fobar	10/15/19

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE: Flagstaff City Council's response to the Global Climate Crisis PAGE 2 OF 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/14/19	Cassidy Mott	695 S. Knoles Dr. Apt 301 Flagstaff, AZ 86011	Cassidy Mott
9/14/19	Mary McDowell	3720 N. Groundview Dr Flagstaff, AZ 86004	Mary McDowell
9/14/19	James Guidetti	709 Old Munds F129, 86005	
9/14/19	SEAN AUSTIN	1251 N Pine Cliffs Dr FLAG AZ 86001	
9-14-19	Marcia Burns	801 W. Cherry Ave. Flag AZ	Marcia Burns
9-14-19	JAY Larsen	3375 E Lockett Flag	
9-14-19	Tierra James	7601 S Lake Mary Rd Flagstaff, AZ	
9-14-19	Tony Roybal	6910 Chris Ln.	
9-14-19	Lynn Weller	4000 N. Luzern 86004	Lynn Weller
9-14-19	DAN TOPPING	4000 N. Luzern Cir 86004	
9/14/19	Jac Tolchin	2915 E Lewis Flag AZ 86004	
9-20-19	Sara Ryan	1160 N Rockridge Rd Flagstaff AZ 86001	
9/20/19	Mara Anderson	2803 N Jamison Blvd Flagstaff 86004	Mara Anderson
9/20/19	Erika Elz	4 University Dr DUGG 46 Allen Hall 257	
9/20/19	ERIKA RAND	2536 W PIKES PEAK DR FLAGSTAFF AZ 86001	
9/20/19	GABRIEL REY-GOODLATTE	2536 W Pikes Peak Dr Flagstaff AZ 86001	
9/20/19	Ethan Tsitouris	5585 Pumpkin Ranch AZ	Ethan Tsitouris
9/20/19	Dottina Pegeen	1013 Navajo Dr	
9/20/19	Gabriel Macias	2400 N. Cortland Blvd #122	
9/20/19	Robert Wallace	4410 S Lamar Rd Flagstaff AZ 86005	
9/20/19	ORION REY	2536 W. PIKES PEAK DRIVE FLAGSTAFF AZ 86001	ORION

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 3 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20	Jesse Goodfellow	517 S Agassiz #3	
9-20-19	Elizabeth Martinez	1225 Piedra Ln	
9/20/19	Kathryn Beegle	1362 E Hatch dr	
9/20/19	Tacey Heelberg	875 E. Pine Knoll Dr.	
9/20/19	Kimberly Anderson	3747 W. State Ave Phx	
9/20/19	Sofia Ramcke	4016 S. Lexrax	
9/20/19	Sierra Stewart	997 E Pine Knoll Dr. #227	
9/20/2019	Hope Hecht	1350 S. KNOLES DR	~~Hope Hecht~~
9/20/19	Christina Meeks	1350 S. KNOLES DR #401	
9/20/19	Claire Simchuk	1185 W. University Ave #18 156	
9/20/19	Deborah W McFatter	1078 N Sky View St FLG	
9.20.19	Mason Wiggins	323 N Bonito St.	
9/20/19	Brooke Apana	2800 S Highland Mesa Rd	
9/20/19	Emily Lashbrook	2800 S. Highland Mesa Tucson, Az	
9/20/19	Meagan Owens	4161 N. Bidahochi Dr.	
9/20/19	Renee Dimas	1350 S Knoles Dr Unit #4130-1	
9/20/19	Ramón DC Alatorre	1340 S. Lone Tree Rd Apt 1	
9/20/19	ERIN ZWIER	1340 S Lone Tree Rd	
9/20/2019	Marco Alatorre	1120 N Manzanita Way	
9/20/2019	Valentine Sargent	575 S. Seville Ln. ~~E. Indigo Ct.~~	
9/20/19	Erica McIlwraith	2535 E. Jeffrey Lp.	
9/20/19	Ann Schepper	2401 W Rt 66 #29	
9/20/19	Elizabeth Dannenbrink	4868 S. Elves Chasm Trl.	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 4 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Thomas Kaiser	211 W Cottage Ave #4	
9/20/19	Ben Flory	6258 W. Camino de Oro	
9/20/19	CYNTHIA HAUSERMAN	210 Navajo Trail #336	
9/20/19	Kyle Thomas	2195 W. Reading Court	
9/20/19	Emily Aitken	2195 W Reading Ct	
9/20/19	Catherine Clark	1201 E Ponderosa Pkwy	
9/20/19	Breanna Fimbres	2076 S W. Ridge Rd	
9/20/19	Leo Crowder	555 W Forest Meadows St	
9.20.19	ERIC BROWN	1011 N. ELIZABETH	
9/20/19	Cecilia Barnhill	S. San Francisco	
9/20/19	Donald Hepburn	825 W Route 66 #204	
9/20/2019	Paul Keene	1303 E. Dunsover 86004	
9/20/19	Olivia Kruse	901 S O'Leary St apt 13	
9/20/19	Mackenzie Roberts	901 S O'Leary St. apt 13	
9/20/19	Julia Smith	515 S Maricopa St. #102	
9/20/19	Cassidy Mott	695 S. Knoles Dr, Flagstaff AZ, 86011 Apt. 301	
9/20/19	Kalah Knight	6870 Bean Flagstaff Blvd	
9/20/19	Samantha Fellwright	313 Clayton Ave Rockville, MD	
9/20/19	N.J. CARLILE	PO BOX 1003 FLAGSTAFF, AZ 86002	
9/20/19	Alec Garcia	2506 S Hutter Lane, Flagstaff AZ	
8/20/19	Nancy Schenemann-Brehm	925 N. Sinagua Hts. Dr, Flagstaff 86004	
9/20/19	Kyle Thomas	850 S Knoles Dr. Flagstaff, AZ 86001	
9/20/19	David Hosking	2726 W. Adirondack Ave	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Kalima Nameth	555 W. Forest Meadows St	
9/20/19	Alexa Portman	555 W. Forest Meadows St	
9/20/19	Jacqui Foreman	219 E. Zuni Drive	
9/20/19	Bianca Dillard	405 Beaver Creek	
9/20/19	Kim Curtis	1805 N. Beaver St	
9/20/19	Elliott Greenberg	520 Forest Rd	
9/20/19	Sierra Bryan	2800 S. Highland Mesa Rd #7-208	
9/20/19	Kelsey Blakley	1750 N Vista Dr	
9/20/19	Michael Daugherty	240 W. Saunders Dr #162	
9/20/19	Ethan Tsitoulis	5285 Pumpkin Patch Rd	
9/20/19	Esiah contreras	1807 N Main St.	
9/20/19	JoAnna Perea	10013 North Lillian	
9/20/19	Gabriel Macias	2404 N. Cortland.	
9/20/19	Joseph Perea	10013 North Lillian	
9/20/19	Daniella Hernandez	13 E Dupont Ave	
9/20/19	Camila Hernandez	1450 W. Kaibab Ln.	
9/20/19	Dorothy Hoagland	2530 N. Sweet Clover Way	
9/20/19	Larry Brett Larson	2398 N Keystone Dr	
9/20/19	Isabelle morse	813 W. university ave	
9/20/19	William Gallegos	8920 Olivine St NE	
9/20/19	Amber Hoagland	2530 N Sweet Clover Way	
9/20/19	TYffany Sweeney	1971 North Meteor dr.	
9/20/19	annadeiming	2800 s highland mesa rd.	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 6 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
20 Sep 19	Bruce Hungate	1730 N Kittredge Rd Flagstaff	
9/20/19	Jane Marks	1730 N Kittredge Rd Flagstaff	
9/20/19	Mo Allen	2928 W. Presidio Dr	Morgan Allen
9/20/19	Em Bee	I dK	
9/20/19	Robin Tittelbaugh	3520 N. Eiger Mt. Rd.	Robin Tittelbaugh
9/20/19	Sarah Tittelbaugh	3520 N. Eiger Mt. Rd.	Sarah Tittelbaugh
9/20/19	Mackenzie Spillman	416 N. Bertrand St	Mackenzie Spillman
9/20/19	Madeline Trilling	2226 N Lantern Ln Flg.	Madeline Trilling
9/20/19	Zane Walden	4343 E. Soliere Ave. Apt. 208	
9/20/19	Eden Fahy	2710 N. Fremont Ave.	Eden Fahy
9/20/19	Ella Moore	1665 N. Turquoise Dr.	Ella Moore
9/20/19	PEARL GARNER	1931 N. CONTINENTAL	
9/20/19	Micah Turner	3335 N. Estates St.	
9/20/19	Aleona Page	7980 Picture Canyon Trl.	
9/20/19	Grant Cerrohaus	496 E Clover Creek Dr.	
9/20/19	Abigail Glazer	4995 S. Pyrite Rd	
9/20/19	Hyrum Rayner	315 N. Park Dr	
9/20/19	Rowan Sullivan	2107 Lockwood DR	
9/20/19	Indigo Corvidae	1500 E. Linda Vista Dr.	
9/20/19	Jessi Quizar	1500 E. Linda Vista Dr.	
9/20/19	Timothy Shaya	4169 S Orchard Lake Dr	
9/20/19	Shandiin Arnold	5490 N Park Drive	
9/20/19	BROOKE PHILLIPS	2310 W. BLACKHAWK LN.	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 7 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Connie Bullis	4760 Bright Angel Trl	Connie Bullis
9/20/19	Meagen Owen	4161 N. Bidahochi Dr.	Meagen Owen
9/20/19	Jacob McAdams	1500 S san francisco st	Jacob McAdams
9/20/19	Alana Nichols	1362 E Hatcher Dr	
9/20/19	Sara Kubisty	575 S Seville Ln	
9/20/19	Lucy Bayge	991 E. Pine Knoll Dr. #602	
9-20-19	Roseanne Fulcher	150 E Camille Dr.	R Fulcher
9.20.19	Dorothy A Rissel	150 E Camille Dr	
9/20/19	Jody Clements	889 W Riordan Rd #1004-344	
09/20/2019	Andrew Volz	520 S. Verde St	Andrew F. Volz
9/20/19	Pirjo P. Atkinson	2104 GOLDRUSH LANE Coconino	Pirjo P. Atkinson
9/20/19	Mary McKell	111 E Oak Ave Fly	Mary McKell
9/20/19	Kathy Flores	1021 N Hopi	Kathy Flores
9/20/19	Shawn Newell	3308 N. Grand View Dr.	Shawn Newell
9/20/19	Kelsey Hontz	602 N Leroux Street	Kelsey Hontz
9/20/19	Josh Ostby	624 W Ponce 66	
9/20/19	Monique Scraggs	Henslow	
9/20/19	Cora M. Phillips	3100 N Kyle Loop Flagstaff	
9/20/19	melinda calnimptewa	442 Piccadilly LN.	
9/20/19	Karis Begaye	442 Piccadilly LN	
9/20/19	Caitlyn Burford	417 W. Cedar Ave, FLG	
9/20	Matthew Muchna	417 W. Cedar Ave,	
9/20/19	Kara Koenitzer Tate	2398 N. Keystone Dr. 86004	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 8 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Monty Glaser	901 S. Cleary Rd	
9/20/19	Shonto Begay	603 W. Birch #1 Flagstaff, AZ 86001	
9/20/19	Shelley Jones	851 N. Silver View St Flagstaff, AZ 86004	
9/20/19	Ron JONES	4128 N. 55th Pl Scottsdale AZ 85251	
9/20/19	John Bodensteiner		
9/20/19	Donna Bodensteiner	Scottsdale AZ	
9/20/19	TRUMAN SHOAFF	2418 TORENA PL FLG, AZ	
9/20/19	Zachary Hansen	817 cella Mountainaire	
9/20/19	Rachel McCormick	1655 E Appalachian Rd	
9/20/19	Sarah VanEss	6565 E Eagle Crest Dr	
9/20/19	Celia Barotz	3354 N. Crest 86001	
9/20/19	MARILYN WASSMAN	1055 E. APPLE WAY FLAGSTAFF, AZ 86001	
9/20/19	Nicole Sasses	3160 S. Troxler Cir. FLAGSTAFF, AZ 86005	
9/20/19	Michele A. James	713 W. Grand Canyon Ave. Flagstaff, AZ 86001	
09/20/19	Sydney Gibney	McConnell Hall	
09/20/19	Kara Valenzuela	McConnell Hall	
9/20/19	Camila Hes Neustadt	3960 N. Aloso Way 86004, Flagstaff AZ	
9/20/19	Grace Martin		
9/20/19	Megan Smith	2772 W Pico del Monte Cir, Flagstaff AZ 86001	
9/20/19	Sophie. Fuller		
9/20/19	Mia Hickey		
9/20/19	Ali Henes		
9/20/19	Rhyka Nelson	4940 E Halfmoon Dr	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
09-20	[illegible]	270 Adobe Ln.	[illegible]
9-20	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
9/2	[illegible]	[illegible]	[illegible]
9/20	Brad Bernier	[illegible]	[illegible]
9/20	[illegible]	3328 N Moore Rd.	[illegible]
9/20	Natalie Jacobs	604 N. San Francisco	[illegible]
9/20	Elliot Kennedy	630 E [illegible] DR	[illegible]
9/20	Shaun Willson	20701 N. [illegible]	[illegible]
9/20	Andrew Fockler	2518 E Miller Dr.	[illegible]
9/20	Olivia Garcia	1732 N Lakeview In	[illegible]
9/20	Kennedy Heck	3535 west nicole lane	[illegible]
9/20	Olivia Tardone	7700 N snowbowl rd	[illegible]
9/20	Maya Webner	707 W Tombstone Cir	[illegible]
9/20	Peyton Ellis	2301 E. 5th Ave	[illegible]
9/20	Gabriella Garcia	1732 N lakeview In	[illegible]
9/20	Emily Nore	7 mountain view dr.	[illegible]
9/20	Ashley Hansen	7 E University Dr	[illegible]
9/20	adeline Jones	7E university Dr	[illegible]
9/20	Patrick Counihan	3400 Lake Mary Rd	[illegible]
9/20	Julia freeborn	215 W Dupont Ave	[illegible]
9/20	Sarah Jacobson	4 E University Dr	[illegible]
9/20	Josh Dries	301 N SKYVIEW St	[illegible]

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis **PAGE** 10 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	ERIC SOLDERS	7880 N Rain Valley Rd Flagstaff AZ	
9/20/19	MARK ALLEN AND CO	7860 B GEMINI DR.	
9-20-19	DARIEN DEGNER	144 W. GOLD RUSH	
9/20/19	Sena Gachnang	601 E. Piccadilly Dr. 313	
9/20/19	Clayson Benally	6026 Columbine Blvd Flag AZ	
9/20/19	Liam Friedrici	713 W. Grand Canyon Ave.	
9/20/19	Barrett Miller	3160 S. Traylor Circle	
9/20/19	STEPHANIE HAMMOND	11160 RODEO Rd. AZ 86004 Flagstaff	
9/20/19	Aidan Buckstead	11160 Rodeo Rd	
9/20/19	Crystal Kelly	Po Box 5279, Leupp AZ 86035	
9/20/19	Erika Benally	1720 E Thunderbird Rd #1073 Phoenix Az	
9/20/19	Jasmine Yazzie	8391 N christensen dr. 86004	
9.20.19	Nicolas Jimmy	1109 E Ponderosa Pkwy	
9/20/19	Nicole Doherty	3505 NW Rainier Loop	
9/20/19	Dawn Dyer	2478 Hachina tr.	
9/20/19	Kathleen Preston	1624 N. San Francisco St.	
9/20/19	Steve Zavadnyik	1408 N. Lomalai Lane Flagstaff	
9-20-19	Michelle Schaffer	9576 Lunar DR.	
9-20-19	George Villas	9576 Lunar Dr.	
9 20 19	Lukas Eddy	Tuba City S Tamarax St #1010	
9 20 19	Suhei Eddy	Tuba City S Tamarax St #1010	
9-20-19	George villas	3705 Final Dr. Flagstaff AZ 86005	
9/20/19	Tonya Garcia	8720 N Rogers Roost	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 11 **OF** 2017

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Andy Bessler	1255 N Kachina Way	
9/20/19	Harry Snyder	[illegible]	
9/20/19	Evan Britt-Meyer	3617 Arrowhead Ln	
9/20/2019	Jessica Bedin	8615 Jupiter Ln.	
9/20/19	Kelly Roberson	1401 N 4th St	
9/20/19	Bella Bass	1131 linda vista	
9/20/19	Wyatt Runge	1275 N Fanning dr	
9/20/19	Paul Holmes	3023 N Woodlise R	
9/20/19	Chuck Reinshagen	3121 N. park dr.	
9/20/19	Marlee Stephens	2805 N. Lantern L	
9/20/19	Samuel Rhodes	3310 W. Mountain Dr.	
9/20/19	Keeta Bippus	3022 N Peakview	
9/20/19	Milo Nash-Hayes	98 W separation canyon Trl	
9/20/19	Florence McPhee	822 W. Santa Fe Ave,	
9/20/19	Roman James	8601 S Yuma drive	
9/20/19	Nora Hungate	1730 N Kittredge rd	
9/20/19	Sascha Palatinsky	2812 W Hale dr	
9/20/19	Téa Iucci	3335 N Estates St.	
9/20/19	Christopher Clark	2524 E Miller Dr	
9/20/19	Jonathan Clark	2524 E Miller Dr.	
9/20/19	Andy Filar	2275 E Hanley Dr	
9/20/19	Isaiahs Beltran	3212 N Childress	
9/20/19	Henry Todd	1510 N Bandtail Rd	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 12 **OF** 19

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Noah Bessler	1255 N Hemlock way	Noah Bessler
9/20/19	Zandra Vaiza	~~3721 N~~	Zandra Vaiza
9/20/2019	Ameera Bippus	Twilight Way	Ameera Bippus
9/20/19	Alina Skrocki	2636 N Doves Nest Lane	Alina Skrocki
9/20	Maayan Cohen	721 W. Aspen	
9/20	Sydney Gizney	McConnell Hall	Sydney Gizney
9/20	Karla Villarzuba	McConnell Hall	
9/20	Romie Wareham	8605 Arroyo Dr.	
9-20	Elizabeth Brixen	2147 N. Belleview Ln.	Elizabeth Brixen
1-20	Veela Fowler	116 N. Aztec St.	
9-20	Kaylee Elison	1980 N Venus Dr	
9/20	Emma Hagen	4090 N Snbera Ln	
9/20	Caroline Jordan	5150 N Bandtail Ridge	
9/20	Shane Reagan	Turtle creek ct.	
9/20	Jim Holtje	3809 E Mallard Ln.	
9-20-19	Izabella Vaiza	3721 N. Stevens Blvd	
9/20/19	Nichole Hamberger	413 E Edison	
9/20/19	Lauren Mitchell-St. John	321 N Park St #C	
9/20/19	Ina Nearsilver	2184 S. Linmar Ln	
9/20/19	Edward Sullivan	9183 N. Lunar dr	
9/20/19	Christy Bolognani	520 W Birch #1	
9/20/19	Callie Gabelman	8675 Arroyo Trail	
9/20/19	Hannah Abuzainch	2809 N. Fox Run Dr.	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 13 **OF** 19

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20	Evangeline Chappas	407 Comanche St	Evangeline Chappas
9/20	Mira Fitz-Hesler	1990 N. Meteor Dr.	
9/20	Harlow Kelley	1121 W. Azure Dr.	
9/20	Sandra Lubarsky	1021 N. Navajo Dr.	Sandra B. Lubarsky
9/20	Marcus Ford	1021 N. Navajo	
9/20/19	Naima Schuller	103 N. Hilltop Dr.	
9/20/19	ETHAN AUMAN	1140 PINECLIFF DR.	
9/20/19	Amelia Hill	1547 Daystream Dr	Amelia Hill
9/20	Mo Cooney	3205 W. Brenda Loop	Mo Cooney
9/20/19	Mathias C-N	997 E. Pine Knoll dr.	Mathias
9/20/19	Abby Speri	1138 W. Mexican Hat trl	Abby Speri
9/20/19	MICA SONG	3117 N. Meadow Brook Drive	Mica Song
9/20	Maryn Coate	1821 N. Deer Crossing	Maryn Coate
9 20	Kevin Ketchus	3450 South Dobbin st	
9/20	Mike Taylor	2020 E Chisholm trl	MT
9/20	Laura Taylor	2020 E Chisholm trail	Laura Ron Taylor
9/20	Tatiana Gillick	5200 N Magdalena Rd	Tatiana Gillick
9/20	AJ Flores	1670 N Center St	
9/20	Susan Gillick	5200 N. Magdalena Rd	Susan Gillick
9/20	Andy Gould	2458 N Eagle Dr 86004	Andrew Gould
9/20	Rachel C. Tso	8960 Princess Ave Flagstaff, AZ 86004	Rachel C Tso
09/20/2019	John Marvel	2096 W. Fresh Air St. Flg	
09/20/2019	Kristin Marvel	"	Kristin Marvel

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ PAGE 14 OF 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20	ABBIE LETOURNEAU	400 E Pineknoll	Dr. Abbie Le
9/20	Elizabeth Eyshu	824 W. Route 66	
9/20	Megan White	400 E. Pine Knoll Dr.	
9/20	Kerry Nugent	2393 W. Mission Timber Dr	
9/20	Theresa Prichard	615 N. Apollo Wy	
09/20	Steve LaFaces	9185 Starfield	
9/20	LIANE GIUNTA	4343 E. SOLIERE AVE	
9/20	BILL ANDERSON	7980 RIO RANCHO	
9/20	Linda Fox	2654 W. Jadyn Dr.	
9/20	Mackenzie Roberts	901 S. O'Leary Street apt 113	
9/20	Tim Aydelott	9758 Lunar Drive	
9/20/19	Christine Brown	2675 N. Nelson Dr	
9/20/19	Frederica Hall	5001 Wayward Way	
9/20/19	Oceanna Boulanger	1075 S. Beaver St.	
9/20/19	Emma Cole	1830 S Milton Rd	
9/20/19	Hallie Calhan	1075 S. Beaver St	
9/20/19	Soledad Garcia	3330 S Litzler Ln.	
9/20/19	Karlike Jansen	E. University Dr.	
9/20/19	Emily Segovia Maze	E. University Dr.	
9/20/19	Marissa Largo	1924 N St	
9/20/19	ENGA LOKEY	675 W. Cl	
9/20/19	Ariannah Carreon	3465 E Longhorn Dr	
9/20/19	Natalynn Slatten	7 E. University Dr.	

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 15 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
Sept. 20, 2019	Mary Guaraldi	4279 East Coburn Flagstaff	Mary Guaraldi
9/20/19	Alexandra Geter	1730 N Izabel St. Apt. A, Flagstaff 86004	Alexandra Geter
9/20/19	Nancy Curvet	1750 N Blue Spruce Circle, FG 86001	Nancy Elayne Curvet
9/20/19	Aubrey Sonderegger	3851 N Patterson Blvd Flagstaff, AZ 86004	Aubrey Sonderegger
9/20/19	Gary Lee	4830 Paintbrush Flagstaff 86004	Gary Lee
9/20/19	Julian Bard	4. University drive BLDG 46	
9/20/19	Mary McCarty	6603 E. Anazazi Dr. 86004	
9/20/19	Emma Liu	4455 E Meadow View Dr. 86004	
9/20/19	Shea Blackburn	7. E. University Dr Bldg. 48	
9/20/19	Rebecca Criando	7 E University Dr Bldg 48	
09/20/19	Susan Jamel	4110 N. Cedar Ave Flagstaff AZ 86004	Susan A. Jamel

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 16 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	Remy Phillips	204 N. Elden St	Remy Phillips
9/20/19	Dermot Corbett	4120 E. Cohen Dr.	Dermot Corbett
9/20/19	Zoi Lytle	2011 Strimbaugh	Zoi Lytle
9/20/19	Emma Duskiz	3016 W. Foothills Way	Emma Duskiz
9/20/19	Ed Kabotie	3101 N. Ft Valley Rd	Ed Kabotie
9/20/19	Matthew Satchen	4343 E. Solivus Blvd	Matthew Satchen
9/20/19	ELIZABETH HAMLIN	620 N. Curling Smoke	Elizabeth Hamlin
9/20/19	Carson Woodcraft	3212 W. Cooper Dr.	Carson Woodcraft
9/20/19	Kale Elisen	1040 N Venus Dr	Kale Elisen
9/20/19	Carrie Harrington	7712 Saturn Dr	Carrie Harrington
9/20/19	Preston Harrington	7712 Saturn Dr	Preston Harrington
9/20/19	David Harrington	7712 Saturn Dr	David Harrington
9/20/19	Mehrdad Khatibi	1020 W. Coy Drive	Mehrdad Khatibi
9/20/19	Kimberly Lyons	1613 N West St	Kimberly Lyons
9/20/19	NATHAN RENN	2270 E HEMBERG DR	Nathan Renn
9/20/19	Emily Renn	2220 E Hemberg Dr.	Emily Renn
9/20/19	Kelsey Hundtofft	327 N Summit Ave	Kelsey Hundtofft
9.20.19	Alicyn Gitlin	116 S. Spring St.	Alicyn Gitlin
9/20/19	Susan Bischoff	3200 S. LITZLER DR apt T-130 Flag 86005	Susan Bischoff

PETITION TO FLAGSTAFF CITY COUNCIL (Continued)

TITLE OF ISSUE:_ Flagstaff City Council's response to the Global Climate Crisis ____ **PAGE** 17 **OF** 17

DATE SIGNED	PRINTED NAME	RESIDENCE ADDRESS	SIGNATURE
9/20/19	GABRIELLE SEQUEIRA	1200 SKNOLES [redacted]	
9/20/19	David Spence	8610 Arroyo Trail Flagstaff AZ 86004	David A. Spence
9-20-19	Elysse Voyer	4984 S Pyrite Rd. Flagstaff, AZ 86005	Elysse N.
9/20/19	James Ingram	3200 E Matterhorn Dr Flagstaff, AZ 86004	
9/20/19	Gabrielle Arsenault	2800 S Highland Mesa Rd Flagstaff AZ 86001	Gabrielle Arsenault
9/20/19	Travis Braun	214A W Dale Ave Flagstaff AZ 86001	
9/20/19	Rachel Buthers	214A W Dale Ave	Flagstaff, AZ Rachel B
9/20/19	Sandra Goodman	3396 Kachina Trl	Flagstaff, AZ Goodman

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Title of issue:

Flagstaff City Council's response to the Global Climate Crisis

Action Requested:

We request that the Flagstaff City Council declare a Climate Emergency Resolution. This action should be followed by immediately elevating the Sustainability Section to Department status, so staff have the ability to expedite the Climate Action and Adaptation Plan and can then act on CAAP goals. This would be a significant positive step for the public safety of Flagstaff residents.





14. C.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Brandi Suda, Finance Director
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE:

Consideration and Adoption of Resolution No. 2020-10: A resolution of the Council of the City of Flagstaff, proposing a permanent adjustment to the 1979-1980 base expenditure limitation of the City of Flagstaff.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2020-10 by title only
2) City Clerk reads Resolution No. 2020-10 by title only (if approved above)
3) Adopt Resolution No. 2020-10

Executive Summary:

The expenditure limitation limits the amount a City/Town can spend in a fiscal year. An increase in the expenditure limitation does not increase the City revenues but provides the City with the authorization to spend the revenues that are collected as promised. Due to increases in both operating budget and pay-as-you-go capital budget related to increases in local tax and other revenue increases since 2006, the City needs to permanently increase its base expenditure limitation to avoid invoking future penalties or limiting current spending on revenues already authorized by the voters or Council.

Adopting this resolution:

- Allow city staff to submit a detailed analysis to the Attorney General for review and approval of the additional $4.0 million base adjustment as related to increases in local tax and other revenue increases since 2006. This base adjustment would subsequently increase the expenditure limitation of $30 million to an estimated $205 million for FY 2021-2022.
- And the first step in asking the Flagstaff voters whether or not they wish to approve a permanent base adjustment to our expenditure limitation, for consideration at the August 4, 2020 election. The call for an election will occur at the April 7th City Council meeting.

Financial Impact:

Without an increase to the City expenditure limitation, the City will be limited in its spending each year, and this will delay many pay as you go capital improvement projects in the future. The City will be collecting the revenues but will not have the authority to spend them as quickly as promised by the voters.

Policy Impact:

None.

Connection to Council Goal, Regional Plan, CAAP, and/or Strategic Plan:

None.

Has There Been Previous Council Decision on This:

Yes, Permanent base adjustment was discussed at the December 3rd, 2019 City Council meeting. Staff was directed to provide further analysis on the need for the increase.

Options and Alternatives:

1. Adopt resolution 2020-10 for expenditure limitation base adjustment ballot question at the August 2020 election

2. Plan and prepare for an expenditure limitation adjustment ballot question for November 2020 election

3. Do not move forward with an expenditure limitation base adjustment at this time

Background/History:

What is the City's "expenditure limitation"?

The expenditure limitation is the maximum amount that the City may spend each year, even if it has more money available to spend. The expenditure limitation is recalculated by the State on an annual basis. For FY 2019-20 the City's expenditure limitation is $162,133,141.

Why is there a limitation?

We have an expenditure limitation because in 1980 Arizona voters approved an amendment to the Arizona Constitution, which set an annual expenditure limitation on all cities, counties, towns, and community college districts. The purpose of the expenditure limitation is to limit spending.

How is the expenditure limitation calculated?

The formula for calculating the expenditure limitation is found in the Arizona Constitution, Article IX, Section 20: the limitation "shall be determined by adjusting the amount of actual payments of local revenues for [the City] for fiscal year 1979-1980 to reflect the changes in the population of [the City] and the cost of living. The City "base expenditure limitation" was $15,122,966 in 1980. Our current base limitation is $22,522,966. The state Economic Estimates Commission (EEC) uses the base limitation to calculate our annual expenditure limitation by evaluating changes for population and inflation, per A.R.S. § 41-563.

Is there is a process for changing the expenditure limitation?

If a municipality needs to spend more revenues to meet community needs, the expenditure limitation may be changed by approving a "permanent base adjustment" under the Arizona Constitution, and A.R.S. § 41-563.03. At least 2/3 of the City Council members must pass a resolution referring the question to the voters. The City will then send a detailed analysis to the State Auditor General. After the State Auditor General's review, the question will be put on the ballot. A permanent base adjustment must be approved by a majority of the qualified electors voting in an election. Permanently increasing a city's base expenditure limitation often is necessary when there is an increase in revenue, like the addition or increase of a city tax for example.

What happens if the City were to exceed the expenditure limitation, without an authorization?

If the City were to exceed its expenditure limitation without authorization, the State will withhold shared income tax revenues from the City as follows:

- If the City's excess expenditures are less than 5 percent of the limitation, the amount withheld is equal to the excess expenditures.
- If the excess expenditures are between 5 percent and 10 percent of the limitation or are less than 5 percent of the limitation but it is at least the second consecutive instance of excess expenditures, the amount withheld is equal to 3 times the excess expenditures.
- If the excess expenditures are equal to 10 percent or more of the limitation, the amount withheld is equal to 5 times the excess expenditures or one-third of its allocation of State income tax, whichever is less.

In case of disaster, however, that penalty would not apply.

Has the City changed its expenditure limitation in the past?

The City has been able to change its expenditure limitation in the past.

- In 1988 the City received a permanent base adjustment of $1.9 million to allow for the expenditure of funds resulting from the addition of the 2% Bed, Board & Beverage tax.
- In 2006 the City received a permanent base adjustment of $5.5 million which increased the total FY 2006-2007 expenditure limitation by $25 million due to a 49.8% increase in primary property tax collections, a 26.4% increase in City sales tax, a 34.1% increase in auto lieu tax, a 37.4% increase in pay-as-you-go capital and an $8 million increase in transportation tax.

Key Considerations:

Actual Expenditures vs. Our Expenditure Limitation – the Gap is Shrinking

City expenditures have grown by an average of 6% since 2012-2013, with a range of $35.6 million. The growth is in both governmental and enterprise funds. In the same period, the maximum expenditure limitation only grew by an average of 3% with a range of $24.2 million. In 2012-2013, a $42.8 million gap existed between the City's expenditure limitation and reconciled expenditures. The gap has gradually decreased and for 2017-2018, it was $19.7 million. For 2018-2019, the gap was $31.5 million. The gap increased in FY2018-2019 due to the timing of key capital projects. We anticipate the gap to shrink further in FY2019-2020. Please the attached detail analysis for a graphical analysis.

The City may be at risk for exceeding the expenditure limitation in the next few years unless it slows down work on the pay as you go capital improvement project work using tax revenues approved by voters and/or Council approved fee increases.

The process of calculating the amount of City expenditure for the expenditure limitation report consists of reconciling base operating expenditure amounts by adding certain categorical items including capital and debt principal payments, deducting depreciation, bad debt, landfill post-closure costs, and finally excluding bond proceeds, debt service requirements, grants, some Highway User Revenue Fund revenue, and contract revenue with other political subdivisions.

Since FY2012-13, when comparing the expenditure limitation to the operating budget and pay-as-you-go capital budget, the risk of going over expenditure limitation increases each year especially in FY 2019-2020 ($69 million over) and continues into the future. Since FY 2012-13, The City's overall budget growth has been 37%, or over $90.7 million. Furthermore, the operating budget increased 46% or $41.5 million and pay as you go capital increased 135% or over $56 million since 2013. Conversely, the expenditure limitation has only grown by 24% or $31.8 million. We project future budget projections for FY 2020-21 through FY2023-24 will be an average of **approximately $27 million over** the estimated

expenditure limitation based on overall budget growth at 5% per year; pay as you go capital as depicted in the FY 2019-2020 budget 5-year capital plan; and an average expenditure limitation growth of 3.2%. Please the attached detail analysis for a graphical analysis.

Since 2006, the City has adopted the following new revenues and taxes or experienced significant increases in expenditures that are causing the budget to exceed the expenditure limitation. They total $45.9 million and include:

- New Road Repair and Street Safety taxes - $7 million
- New Parking District - $1.5 million
- Stormwater increase - $3.6 million (since FY 2005-2006)
- Water Service Rate increases $14.1 million (since FY 2005-2006)
- Flagstaff Housing Authority - $1.9 million
- New Butler/Route 66 Bridge taxes - $4.8 million
- Pension cost increase $13 million (since FY 2005-2006)

Attachments: Analysis for Expenditure Limitation
Res. 2020-10

City of Flagstaff Expenditure Limitation and Permanent Base Adjustment

Background:

What is the City "expenditure limitation"?

The expenditure limitation is the maximum amount that the City may spend each year, even if it has more money available to spend. The expenditure limitation is recalculated by the State on an annual basis. For FY 2019-20 the City's expenditure limitation is $162,133,141.

Why is there a limitation?

We have an expenditure limitation because in 1980 Arizona voters approved an amendment to the Arizona Constitution, that set an annual expenditure limitation on all cities, counties, towns, and community college districts. The purpose of the expenditure limitation is to limit spending.

How is the expenditure limitation calculated?

The formula for calculating the expenditure limitation is found in the Arizona Constitution, Article IX, Section 20: the limitation "shall be determined by adjusting the amount of actual payments of local revenues for [the City] or fiscal year 1979-1980 to reflect the changes in the population of [the City] and the cost of living. The City "base expenditure limitation" was $15,122,966 in 1980. Our current base limitation is $22,522,966. The state Economic Estimates Commission (EEC) uses the base limitation to calculate our annual expenditure limitation by evaluating changes for population and inflation, per A.R.S. § 41-563.

Is there is a process for changing the expenditure limitation?

If a municipality needs to spend more revenues to meet community needs, the expenditure limitation may be changed by approving a "permanent base adjustment" under the Arizona Constitution, and A.R.S. § 41-563.03. At least 2/3 of the City Council members must pass a resolution referring the question to the voters. The City will then send a detailed analysis to State Auditor General. After the State Auditor General's review, the question will be put on the ballot. A permanent base adjustment must be approved by a majority of the qualified electors voting in an election. Permanently increasing a city's base expenditure limitation often is necessary when there is an increase in revenue, like the addition or increase of a city tax for example.

What happens if the City were to exceed the expenditure limitation, without authorization?

If the City were to exceed its expenditure limitation without authorization, the State will withhold shared income tax revenues from the City as follows:

- If the City's excess expenditures are less than 5 percent of the limitation, the amount withheld is equal to the excess expenditures.
- If the excess expenditures are between 5 percent and 10 percent of the limitation or are less than 5 percent of the limitation but it is at least the second consecutive instance of excess expenditures, the amount withheld is equal to 3 times the excess expenditures.
- If the excess expenditures are equal to 10 percent or more of the limitation, the amount withheld is equal to 5 times the excess expenditures or one-third of its allocation of State income tax, whichever is less.

In case of disaster, however, that penalty would not apply.

Has the City changed its expenditure limitation in the past?

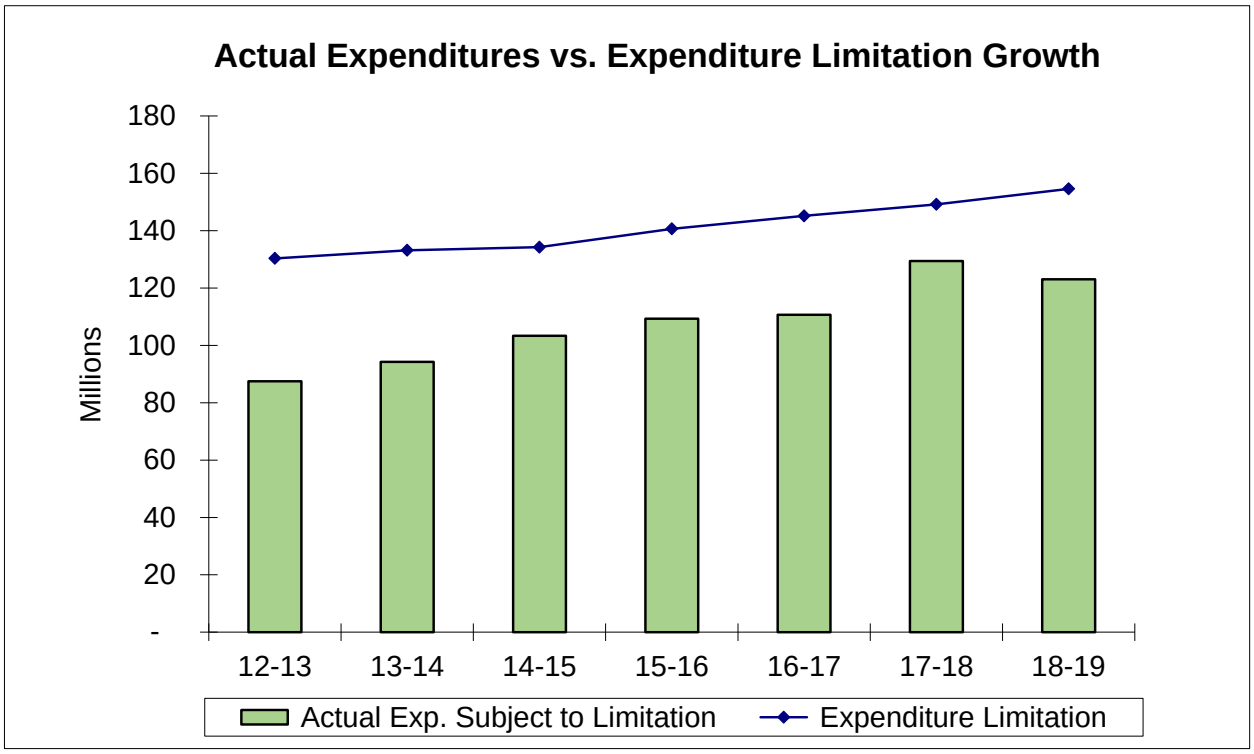
The City has been able to change its expenditure limitation in the past.

- In 1988 the City received a permanent base adjustment of $1.9 million to allow for the expenditure of funds resulting from the addition of the 2% Bed, Board & Beverage tax.
- In 2006 the City received a permanent base adjustment of $5.5 million which increase the total FY 2006-2007 expenditure limitation by $25 million due to a 49.8% increase in primary property tax collections, a 26.4% increase in City sales tax, a 34.1% increase in auto lieu tax, a 37.4% increase in pay-as-you go capital, and an $8 million increase in transportation tax.

Actual Expenditures vs. Our Expenditure Limitation – the Gap is Shrinking

As you can see from the graph below, City expenditures have grown by an average of 6% since 2012-2013, with a range of $35.6 million. The growth is in both governmental and enterprise funds. In the same period, the maximum expenditure limitation only grew by an average of 3% with a range of $24.2 million. In 2012-2013, a $42.8 million gap existed between the City's expenditure limitation and reconciled expenditures. The gap has gradually decreased and for 2017-2018, it was $19.7 million. For 2018-2019, the gap was $31.5 million. The gap increased in FY2018-2019 due the timing of key capital projects. We anticipate the gap to shrink further in FY2019-2020.

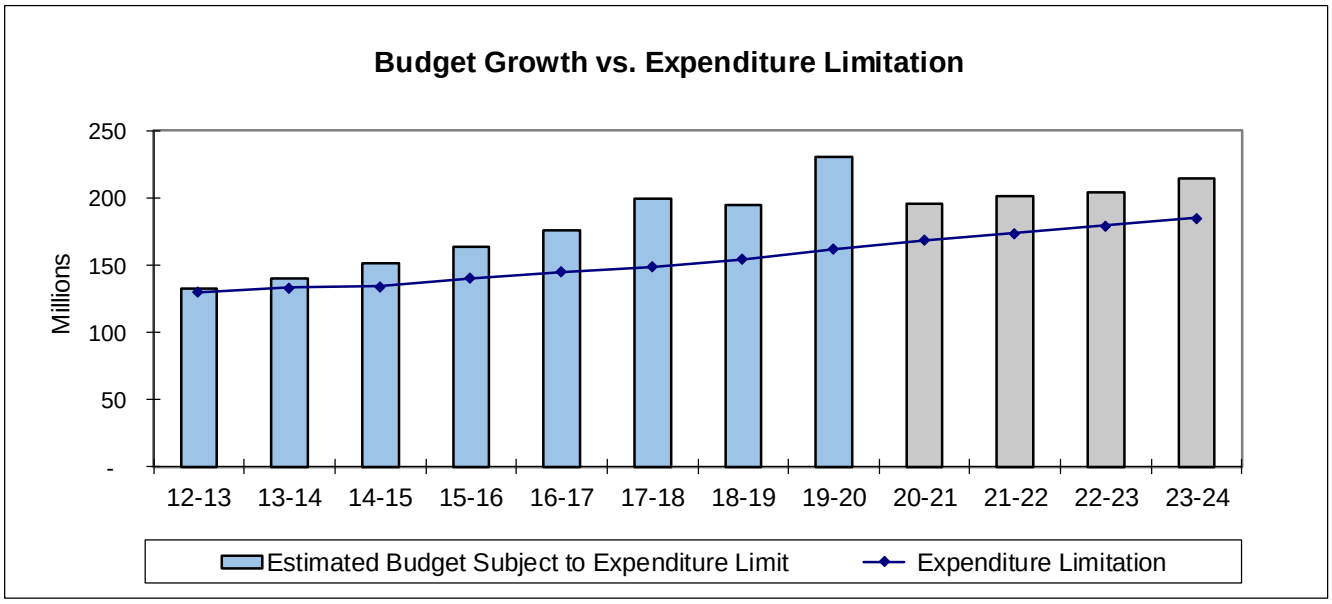
The City may be at risk for exceeding the expenditure limitation in the next few years, unless it slows down work on the pay as you go capital improvement project work using tax revenues approved by voters and/or Council approved fee increases.



The process of calculating the amount of City expenditure for the expenditure limitation report consists of reconciling base operating expenditure amounts by adding certain categorical items including capital and debt principal payments, deducting depreciation, bad debt, landfill post-closure costs, and

finally excluding bond proceeds, debt service requirements, grants, some Highway User Revenue Fund revenue, and contract revenue with other political subdivisions.

The graph below reflects the total operational budget, which consists of operating expenses, equipment, and pay-as-you-go capital. Debt and grant funded capital and other certain expenditures are not shown as they are excludable on the expenditure limitation. The graph indicates the possible risk of expenditure limitation increases each year especially in FY 2019-2020 ($69 million over) and into the future. Since FY 2012-13, The City's overall budget growth has been 37%, or over $90.7 million. Furthermore, the operating budget increased 46% or $41.5 million and pay as you go capital increased 135% or over $56 million since 2013. Conversely, the expenditure limitation has only grown by 24% or $31.8 million. The future year projections are based on overall budget growth at 5% per year; pay as you go capital as depicted in the FY 2019-2020 budget 5-year capital plan; and expenditure limitation growth at 3.2% based on average increase since FY2012-13. These budget projections for FY 2020-21 through FY2023-24 average approximately $27 million over the estimated expenditure limitation.



Since 2006, the City has adopted the following new revenues and taxes or experienced significant increases in expenditures that is causing the budget to exceed the expenditure limitation. They total $45.9 million and include:

- New Road Repair & Street Safety taxes - $7 million
- New Parking District - $1.5 million
- Stormwater increase - $3.6 million (since FY 2005-2006)
- Water Service Rate increases $14.1 million (since FY 2005-2006)
- Flagstaff Housing Authority - $1.9 million
- New Butler/Route 66 Bridge taxes - $4.8 million
- Pension cost increase $13 million (since FY 2005-2006)

As of FY 2018-2019, the City has accumulated carryforward amounts that can be used to abate exceeding the expenditure limitation. However, in evaluating longer term scenarios, the carryforward is likely not adequate to cover long term overage in the expenditure limitation. The current carryforward amounts are:

Governmental Funds	$37,854,384
Enterprise Funds	$19,022,674
Fiduciary Funds	$835,149

Conclusion and Recommendation:

Due to increases in both operating and pay-as-you-go capital which are supported by local tax and other revenue increases, the City needs to permanently increase its base expenditure limitation to avoid invoking future penalties which could have significant revenue implications.

It is recommended that:

- The City request an additional $4.0 million base adjustment as related to increases in local tax and other revenue increases as listed previously. This base adjustment would subsequently increase the expenditure limit $30 million to an estimated $205 million for FY 2021-2022.
- Ask the Flagstaff voters whether or not they wish to approve a permanent base adjustment to our expenditure limitation, for consideration at the August 4, 2020 election.

Next Steps:

1. City Council adopts a resolution for a permanent base adjustment.
2. A summary analysis and detailed analysis must be submitted to the Auditor General by the City at least 60 days before printing the publicity pamphlet and the election.
3. A review must be completed within 15 working days once received. Additional information may be requested by the Auditor General to clarify or correct the analyses. No revision may be made to the documents after the Auditor General review.
4. The City must provide a publicity pamphlet presenting the proposed permanent base limit adjustment to be voted upon.

A tentative timeline for this process is reflected below:

Sample Timeline						
	March	**April**	**May**	**June**	**July**	**August**
Present to Council						
Forward information to Auditor General						
Receive response from Auditor General						
Complete/mail publicity pamphlet						
Election						

RESOLUTION NO. 2020-10

A RESOLUTION OF THE COUNCIL OF THE CITY OF FLAGSTAFF, PROPOSING A PERMANENT ADJUSTMENT TO THE 1979-80 BASE EXPENDITURE LIMITATION OF THE CITY OF FLAGSTAFF

RECITALS:

WHEREAS, the Arizona State Constitution permits the submission to the voters of a city or town of a permanent adjustment to the base expenditure limitation;

WHEREAS, the City Council of the City of Flagstaff has determined that a permanent base adjustment is necessary for the City of Flagstaff;

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

That the following permanent base adjustment be submitted to the voters of the City of Flagstaff:

Shall the expenditure base of the City of Flagstaff be permanently adjusted by $4,000,000.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 17th day of March, 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

15. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Eliza Kretzmann, Beautification, Arts & Sciences Manager
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE

Discussion: Beautification project providing flowers and planters in certain Downtown and Southside commercial and community areas.

STAFF RECOMMENDED ACTION:

Hear presentation regarding the intended flowers and planters project and provide feedback.

EXECUTIVE SUMMARY:

Much as Holiday lights mark the season and draw the community and members to Flagstaff, flowers provide beautification to important community and commercial places in our city. Beautification, Arts and Sciences staff is bringing a flower pilot project to Downtown and the Southside.

Pilot project locations include: South San Francisco between Cottage and Phoenix, Aspen Avenue between Leroux and San Francisco, Heritage Square, and a few planters at the Murdoch Center. Key aspects of the project include:

- A pollinator-focused garden in Heritage Square;
- Hanging baskets on the ornamental lampposts on Aspen Avenue and in Heritage Square;
- Hanging baskets along South San Francisco on the city lamp posts; and
- Potted plants at a key locations on Aspen Avenue and South San Francisco and a few at the Murdoch Center.

Community groups, stakeholder divisions and relevant Commissions were informed or consulted about this project including, but not limited to: the Downtown Business Alliance, the Beautification and Public Arts Commission, the Southside Community Association, the Historic Preservation Commission, Sirius Structures (to assess capacity of the ornamental lampposts), and City of Flagstaff divisions including Public Works and Community Development.

In future years the scope and locations can increase or change based on what we learn from the pilot project.

INFORMATION:

In the coming summer staff intends to provide a pilot project using flowers and pollinator gardens to continue enhancing the Downtown and Southside areas. The pilot will place flowers in identified locations that have been vetted to ensure they will not impact traffic site lines, accessible use of sidewalks and other important factors. The intention is to procure a professional firm who is qualified to identify and install the proper flowers for the disparate micro-climates in the Downtown and the Southside to maintain the flowers for the season. It is intended the pots and other infrastructure will be removed for the winter and placed in the sites again in future years with possible programmatic expansion. The Downtown Business Alliance is supportive of the endeavor.

City Council and Regional Plan Goals: Goal CC.5: Support and promote art, science, and education resources for all to experience. Goal LU.11: Prioritize the continual reinvigoration of downtown Flagstaff, whose strategic location, walkable blocks, and historic buildings will continue to be a vibrant destination for all. Policy NH.2: Look to downtown Flagstaff as the primary focal point of the community character. Council Goal: Economic Development: Grow and strengthen a more equitable and resilient economy. Pollinator Planter: Council Goal: Environmental & Natural Resources: Actively manage and protect all environmental and natural resources.

Attachments: Flowers and Planters Presentation



Flowers and Planters

2020 Pilot Project

Eliza Kretzmann
Beautification, Arts & Sciences Manager

CITY OF FLAGSTAFF · ARIZONA · ESTABLISHED 1882

TEAM FLAGSTAFF
WE MAKE THE CITY BETTER

Flowers and Planters

- Project Description
- Locations
- Planting Descriptions
- Anticipated Costs
- Questions



Description

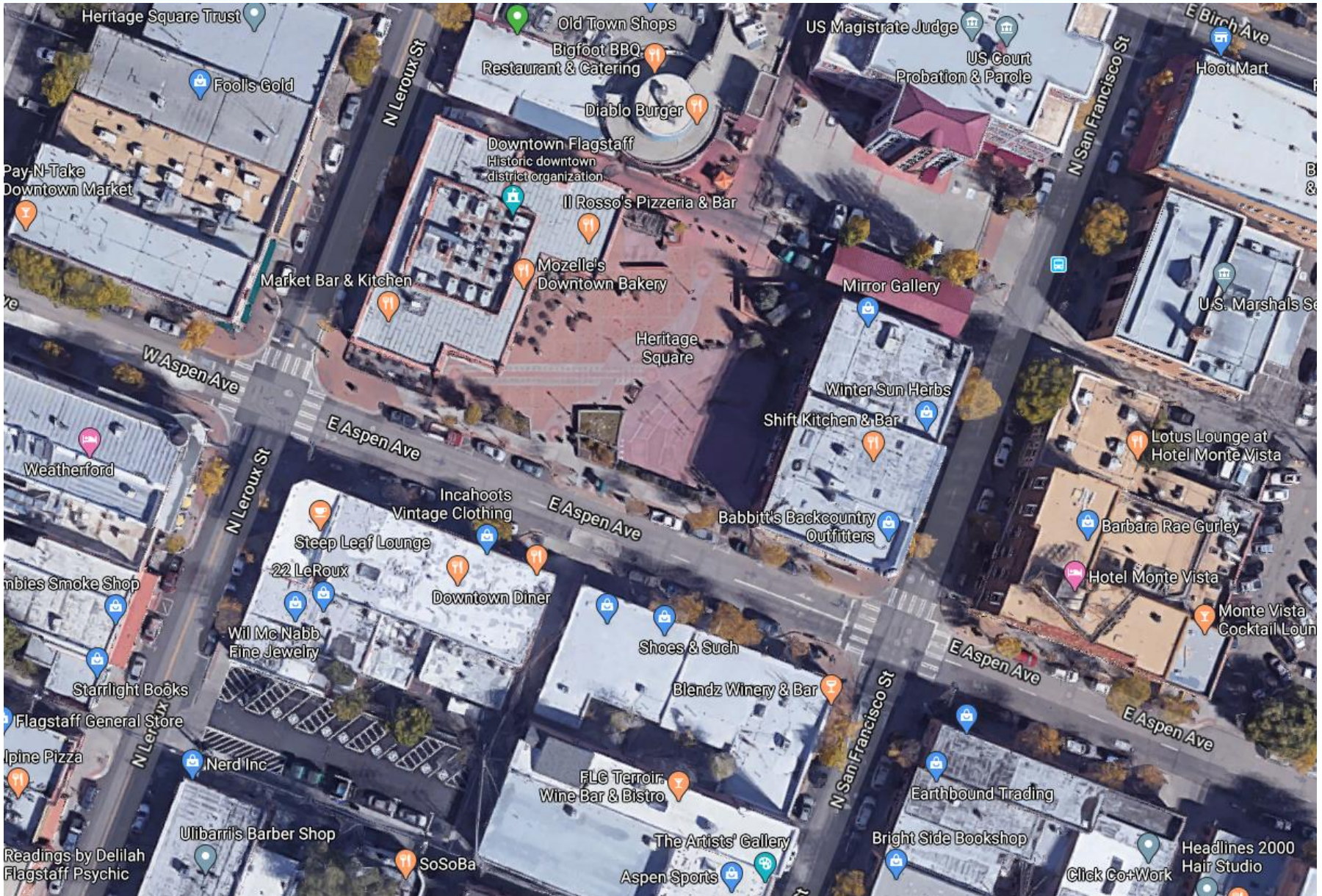
Flowers and Planters Pilot Project

- Enhance a section of the Southside and the Historic Downtown for residents and visitors
- Engage the public with information about a pollinator garden
- Project informed by studies, other City Divisions, and partners
- Pilot project carried out by a local contractor this year; can consider different models in future years



Location: Downtown

- Hanging baskets along East Aspen Avenue
- About 11 pots along Aspen Avenue and in Heritage Square
- Pollinator garden in the large permanent planter in Heritage Square



Location: Downtown

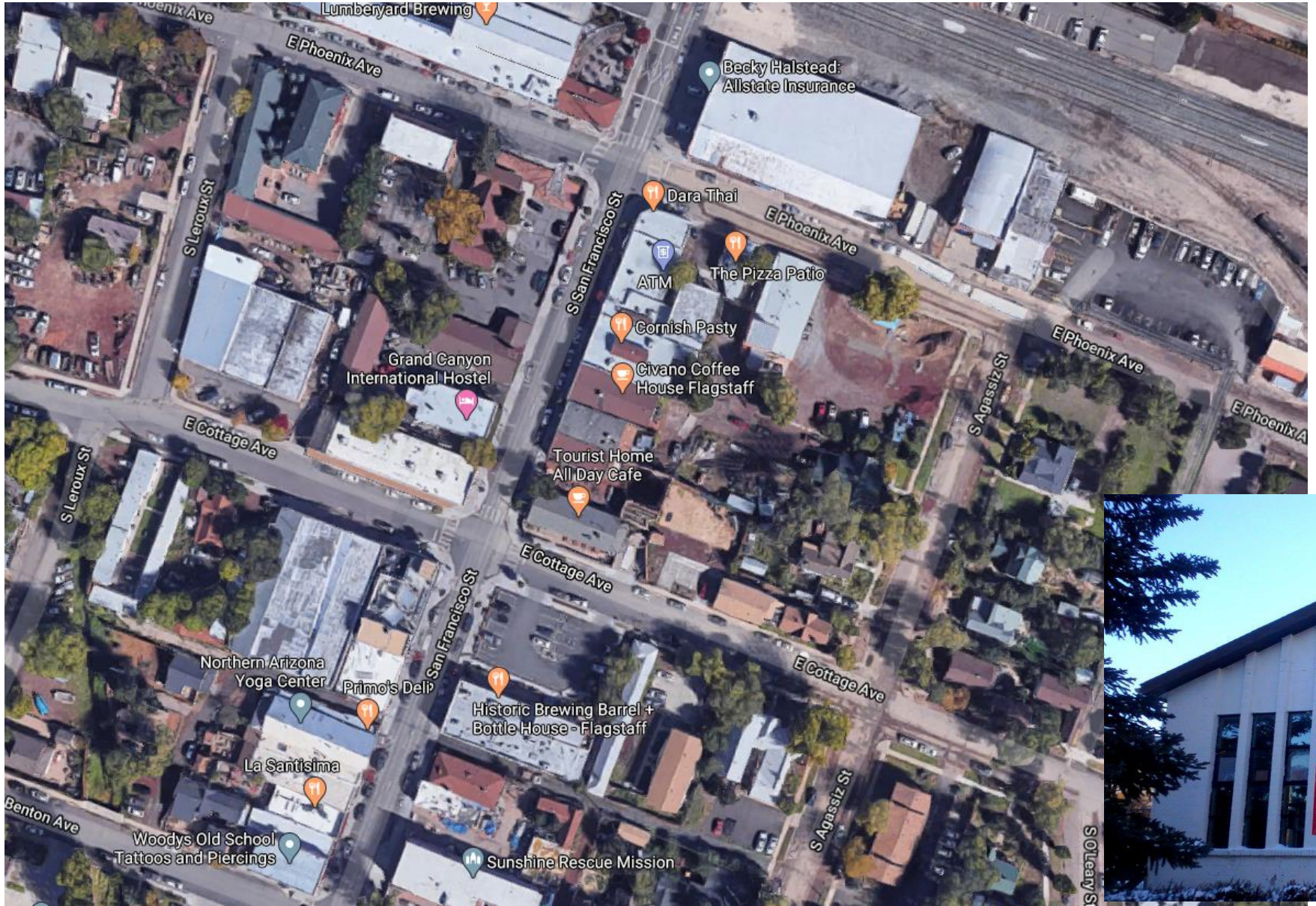


Downtown Planters





Location: Southside



- Hanging baskets along South San Francisco
- Sidewalk pots along South San Francisco and several at the Murdoch Community Center
- Planting the 2 existing ‘parking planters’ on East DuPont Avenue



Location: Southside



Examples of Hanging Baskets







Ground Pots







Flowers and Planters: Budget

- Item is in our current, approved 5-year-plan
- Plants and Materials: $15,000
- Maintenance: $10,000
- Pots: $20,000
- Estimated Total: $45,000

Council Feedback & Questions

- Reduction in the number of ground pots?
- Questions about the project?



17. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	03/13/2020
Meeting Date:	03/17/2020

TITLE

City Manager Report

STAFF RECOMMENDED ACTION:

Information Only

EXECUTIVE SUMMARY:

These reports will be included in the City Council packet for regularly scheduled Council meetings, excluding Work Session meetings. The reports are intended to be informational, covering miscellaneous events and topics involving the City organization.

INFORMATION:

Attachments: Manager's Report
PSPRS Talking Points

City Manager's Report

March 13, 2020

Council and Colleagues, Greetings!

These reports will be included in the City Council packet for regularly scheduled Council meetings, excluding Work Session meetings. The reports are intended to be informational, covering miscellaneous events and topics involving the City organization. This report will provide some miscellaneous staff updates, followed by an update with talking points related to our safety pension liability (thanks to contributors Sarah Langley, Rick Tadder, Brandi Suda).

Staff Updates

Budget Team

The Budget Team has concluded, temporarily, its Division Budget meetings after a two-week stint. Divisions have been apprised of the General Fund shortfalls in the draft 2020-21 Budget and tasked with the responsibility of further reducing the proposed expenditures. Stay tuned.

Sustainability

Staff provided comments on solar feasibility and compliance with the Regional Plan's energy goals for the Flag at Fourth rezoning case. The City Hall EV Charging Stations construction schedule has been delayed, due to changes to the design to allow for improved ADA accessibility. Staff will provide an updated construction schedule once the designs have been finalized.

Staff facilitated the final HEE101 Workshop for the 2019-20 winter season at Hal Jensen Recreation Center. The final workshop served nine residents. For the season (starting with the October 2019 Workshop) the program was facilitated seven times and served 72 residents.

The Sustainability Section was awarded a Food Systems VISTA who will focus on engagement related to community gardens and food waste reduction efforts. Additionally, twelve open space stewards have signed up for 2020-21. With respect to solid waste diversion, staff members are collaborating with Courts administration to create a recycling infrastructure plan at the new City Courthouse. Also, please mark your calendars for the Earth festivities:

- Friday, April 24th -- Albert at Bookman's Storytime: Earth Day Theme
- Sunday, April 26th -- Drag Queen Storytime Does Earth Day with Albert
- Saturday, April 25th, -- Earth Day Celebration at Bushmaster Park (11am to 2pm)
- Saturday, April 25th – Earth Day Cleanup (9 am to 10am, neighborhoods surrounding Bushmaster Park)
- Saturday, April 25th -- Earth Day Butterfly Garden Installation (10 am to 11 am at Bushmaster Park)
- Saturday, April 25th -- Drop Off Day, Dump the Drugs, Shred A Thon (10am to 2pm at Flag PD).

Community Development

Regarding the Rt 66 / Rio de Flag Bridge Utility Relocation Project, our Project Manager is working with the PIO and variable message boards have gone up soon indicating lane impacts during spring break, from March 13th to March 23rd. A press release was distributed indicating that the contractor will implement an ADOT approved traffic control plan/setup that will allow a single lane closure to north and west bound traffic while the work occurs in Rt. 66. The duration of the traffic control/setup is from 8pm on March 13th to 5am on March 23rd.

Similarly, we have installed variable message boards on Linda Vista, occupying each side of the project site, advising of the pending construction projects and resulting detours. Doorknob hangers have been distributed to the affected neighborhoods advising of reduced water pressures.

Information Technology

Help Desk recently installed a new Conference Room availability screen outside of CR-Staff. It will glow green if a conference room is available or glow red if it's unavailable. Should an individual attempt to enter the room while the device is red, there will be a low-voltage shock transmitted through the door handle. We'd appreciate any feedback on the device.



Fire

Carl Nelson of American Conservation Experience (ACE) presented on the City, ACE, and USFS partnership that was instrumental in Phase II Dry Lake Hills operations at the Public Lands Alliance annual conference in DC. The presentation was well-received.

Two FFD shifts trained with Unisource employees this week at their facility on Butler Avenue. The training centered on gas emergencies and on gas line systems in place in the community. The training offered an opportunity for Unisource and fire crews to interact in a non-emergency environment. Three fire personnel attended a week-long Active Violence Rescue Task Force train the trainer course this week in Camp Navajo with law enforcement agencies within the region.

Public Works

Streets crews have been out working on sign repairs and addressing pavement issues as a result of the recent rain event.

Hal Jensen Recreation Center hosted *Up with People* for a deep clean of the facility. *Up with People* also hosted three workshops (World Class Dance, Team Building Olympics and Take Stand) for the youth at the Center (image of the group with Crystal Warden)



Human Resources

Staff has been training City personnel on the new applicant tracking software. City applicants will have a new and improved experience through NEOGov.

Public Affairs

The new section is now complete, with the arrival of Jason Cook who now joins Shawn Johnson. Jason's position at Management Services has been backfilled by Tara Love. The arrangement appears to be working quite well. We feel that we have the right employees in place to serve the many important functions, and we are moving forward.





Police

March 4th was the opening session of the Spring Citizens Academy and there are 27 new attendees. FPD held a promotional ceremony on March 4th and Collin Seay was promoted to Lieutenant, Kevin Sapp to Sergeant, Ben Beebe, Mike Oliver and Dustin Eberhardt to Corporal and Sara Byerrum to Dispatch Supervisor. It was a well-attended ceremony. A big congratulations to all!



Unfunded Safety Pension Liability

A consortium of us visited the Public Safety Personnel Retirement System offices this week, followed by a working lunch with our financial consultant, Stifel Financial. The two offices are near each other in Phoenix, enabling a quick but very meaningful visit. Much information was obtained. A list of talking points related to the unfunded liability is attached to this report. It is intended to be factual and informative. There will be a more detailed presentation forthcoming that will involve a greater dive into the details and strategies to consider for paying down the debt. There may be some very timely opportunities here with the current bond market. Mike Townsend has graciously agreed to come to Flagstaff to assist us in presenting to you, as well as Mark Reader, Managing Director with Stifel Financial.





The following talking points are intended to be succinct factual items to assist you in addressing questions related to this very complex topic, as it has garnered much attention in recent weeks. It is also central issue in our ongoing budget discussions, of course.

That's all for now. Upward and onward…

PSPRS Unfunded Liability Talking Points

Function

- The PSPRS (Public Safety Personnel Retirement System) provides a statewide retirement system for public safety personnel.[1]

Management

- The Board of Trustees oversee the system's policies, operations, and investments.
- The board consists of nine members, each serving five-year terms.[2]

Funding

- PSPRS money comes from employee contributions, employer contributions, and net investment income.[3] The equation is as follows:

Contributions + Investment Earnings = Benefits Payments + Expenses in Administration

Funding Ratios of PSPRS across AZ

- An employer's funding ratio indicates the amount of assets that are already available in the trust to present value of future benefits.
- For example, a funding ratio of 100% (commonly called being "fully funded") means there are enough assets in the trust to pay 100% of future expected benefits.[4]
- The majority of employers participating in the PSPRS within AZ are not fully funded.[5]
- As of June 30, 2019, Flagstaff's Fire Department was funded at 36.5% (there are enough assets to pay for 36.5% of present value of future expected benefits).[1]
- As of June 30, 2019, Flagstaff's police department was funded at 38.5% (there are enough assets to pay for 38.5% of present value of future expected benefits).[6]
- Other cities also experience this problem:
    - The Bisbee Fire Department was funded in 2019 at 8.1% and its Police Department at 14.3%

Unfunded Liabilities across AZ

- Funding ratios of less than 100% create to unfunded liabilities.
- Unfunded liability is debt.
- Flagstaff's PSPRS unfunded liability in 2019 (police and fire) approx. $112 million.[7]

[1] http://www.psprs.com/investments--financials/funding-ratios

- Other cities around AZ have higher unfunded liabilities:
    - For example, Mesa's is $599 million as of 6/30/18.[8]
    - Tempe's is $496 million as of 6/1/2017[9]

Paying down Unfunded Liabilities (increased contributions)

- Some jurisdictions have successfully contributed toward paying down the unfunded liability to reach a higher funding ratio:
- Coconino County has paid $20M into the fund to lower its unfunded liability and is now subject to a funding ratio of 80%. The County used cash balances from Jail District and Capital Facilities Fund.[10]
    - In paying down the unfunded liability, jurisdictions are able to realize more investment earnings; Coconino County has realized $5M in investment earnings subsequent to paying down the unfunded liability
    - Paying down the unfunded liability can free up monies otherwise encumbered in the General Fund
        - The City of Flagstaff's PSPRS employer contributions of $11.3M currently equals 19% of total labor costs in the General Fund; see below matrix

General Fund	Expense	Percentage
Total Labor	59,326,283.00	
Total Pension	13,897,209.00	23%
Total PSPRS	11,277,607.00	19%
Unfunded Portion of PSPRS	8,800,000.00	15%

How Did We Get Here?

- The PSPRS Board of Trustees gives several reasons for the fund's problems
    1. The 2008 financial market crash greatly reduced the value of PSPRS assets.[111213]
    2. Up until 2016, the Pension Benefit Increase (PBI) formula used was financially unsustainable.[141516]
        i. When PSPRS produced a positive return greater than 9%, retirees received a PBI. This was basically using one-time money for compounding, permanent ongoing benefits for retirees.
        ii. This caused the system to lose money.
        iii. Arizona voters passed a 2016 proposition that changed this formula to make it more sustainable.[17]
    3. PSPRS lost two lawsuits that were filed in response to pension reforms where judges ruled that states can't change a person's retirement benefits after their hiring.

i. This meant that PSPRS had to refund about a quarter of a billion dollars, which negatively impacted municipalities' unfunded liabilities.[18]

4. The assumed earnings rate calculated by PSPRS has decreased over past years; It is currently at 7.3%.
5. There has been a change in mortality assumptions with public safety specific mortality table which show retirees living longer.[19]
6. Payroll growth is another assumption that is changing, with a downward adjustment being anticipated in the months ahead. It is currently at 3.5%. The City of Flagstaff falls significantly short of this.

What Flagstaff is Doing – Council PSPRS Funding Policy

- Flagstaff only controls the contribution part of the equation, not how the resources are invested and how benefits are paid out.[20]
- Flagstaff City Council has a PSPRS Pension Funding Policy (Resolution 2019-32)
    - In addition to paying its Annual Required Contribution, Council is also taking additional measures to reduce its unfunded liability, including:
        - Pre-paying the annual contribution at the beginning of each fiscal year to maximize interest payments
        - Making extra contributions when possible:
            - Use tax revenues approved in 2019 will be used as increased contributions starting this year; these increased annual contributions are estimated to be $ 850,000.
            - If, at the end of the year, the required annual contribution is lower than the pre-paid amount, the City will leave the overpayment with PSPRS (an extra contribution).
            - In a year with the minimum contribution rate is calculated to be lower than prior year, the City will maintain contribution rates at least equal to the prior year's contribution rate.
        - Flagstaff pays the employer contribution for the deferred retirement option plan (DROP) even though not required by PSPRS.
        - Flagstaff pays excess contributions of approximately $630,000 for the PSPRS Police plan to reduce the amortization period.

What Are Other Municipalities Doing?

- City of Prescott - Dedicated 0.75% sales tax to pay down PSPRS, lasts for about 10 years.[21]
- Some cities, such as Oro Valley, Wilcox, are looking at Pension Bonds[22]

What additional steps should the City of Flagstaff consider

- City staff are consulting with financial advisers to develop funding strategies for the City Council to consider
- City staff are looking at financially prudent measures to pay down the unfunded liability with bond opportunities.
    - There is opportunity with historically low interest rates that make a bond issuance highly favorable to pay down our unfunded liability with lower risk at this time.
    - Bond issuance does not have to be predicated upon increased taxes; other tools may be available such as the issuance of certificates of participation

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[1] https://azlibrary.gov/sla/agency_histories/public-safety-personnel-retirement-system-psprs>

[2] http://www.psprs.com/about/board-of-trustees

[3] *http://cityweb.flagstaffaz.gov/agendaquick/docs/2020/CCWS/20200203_988/4491_Budget_Retreat_Presentation_February_2020.pdf*

4 http://www.psprs.com/investments--financials/funding-ratios

5 ibid

6 ibid

7 http://cityweb.flagstaffaz.gov/agendaquick/docs/2020/CCWS/20200203_988/4491_Budget_Retreat_Presentation_February_2020.pdf

8 https://www.mesaaz.gov/Home/ShowDocument?id=34449

9 http://documents.tempe.gov/sirepub/cache/1207/tspjghiewr2cwts4dhmvjhek/24783149031020200035403879.PDF

10 https://www.flagstaffbusinessnews.com/addressing-the-public-safety-personnel-retirement-system/

11 https://www.tucsonlocalmedia.com/news/article_95185368-86f2-11e9-b9b6-eb53585dc6b1.html

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