# *TENTATIVE AGENDA*

**City of O'Fallon**
**PLANNING AND ZONING COMMISSION**
**O'Fallon Municipal Centre**
**100 North Main Street**
**O'Fallon, Missouri 63366**
**May 7, 2026**
**Pre-Meeting (Council Chambers)6:30 p.m.**
**Meeting (Council Chambers)7:00 p.m.**

**IF YOU WISH TO SPEAK DURING CITIZEN COMMENTS AND/OR FOR AN ITEM WITH A PUBLIC HEARING/COMMENT, SPEAKER CARDS ARE PROVIDED AT THE ENTRANCE OF THE CHAMBERS. SPEAKER CARDS MUST BE FILLED OUT AND TURNED INTO THE CHAIRPERSON PRIOR TO THE START OF THE MEETING.**

**A. CALL TO ORDER**

**B. ROLL CALL**

**C. PLEDGE OF ALLEGIANCE**

**D. APPROVAL OF THE AGENDA**

**E. CITIZENS COMMENTS**

**F. OLD BUSINESS**

**1. 1414 Bryan Road**

**a. (25-010375) Request for Consideration and Motion for Action on a Site Plan for 1414 Bryan Road - Nelson Real Estate, LLC, property owner -** proposed use: internal storage and parking addition

*(This item was tabled at the April 2, 2026 meeting.)*

**G. NEW BUSINESS**

1. **Caballo Farms Addition**

   a. **(26-000017) Unified Public Hearing for Rezoning and Area Plan for property on Gallup Lane - Caballo Farms Addition**

      *TO SPEAK DURING THIS PUBLIC COMMENT YOU WILL NEED TO TURN IN A SPEAKER CARD TO THE CHAIRPERSON PRIOR TO THE START OF THE MEETING*

   b. **(26-003278) Request for Consideration and Motion for Recommendation to the City Council regarding the Rezoning and Area Plan for property located Gallup Lane - from unincorporated, proposed to be annexed to R-1/PUD Single Family Residential District Planned Unit Development - McBride Land Growth, LLC, contract purchaser** - proposed use: residential development

2. **115 West 3rd Street - Parking Lot Relocation**

   a. **(26-003364) Request for Consideration and Motion for Action on a Site Plan for property located at 115 West 3rd Street - City of O'Fallon, applicant** - proposed use: relocation of existing parking lot

3. **North Main Street**

   a. **(26-004059) Request for Consideration and Motion for Action on a Site Plan for a property at North Main Street - Pate Projects, LLC, applicant** - proposed use: Site Plan for grading/stockpile plan

4. **Scooter's Coffee - Shady Creek Commercial**

   a. **(25-005752) Request for Consideration and Motion for Action on an Extension of Site Plan approval for property at Lot 4 Shady Creek Commercial - Joann Griffith Revocable Trust and Gary Kopadt Revocable Trust, property owners** - proposed use: extension of Site Plan approval for multi-tenant retail, including a drive-thru kiosk, coffee shop

5. **507 Sonderen Street - Stevenson Place**

   a. **(25-012715) Public Hearing for the Preliminary Plat for 507 Sonderen Street - Stevenson Place**

      TO SPEAK DURING THIS PUBLIC COMMENT YOU WILL NEED TO TURN IN A SPEAKER CARD TO THE CHAIRPERSON PRIOR TO THE START OF THE MEETING

   b. **(25-012715) Request for Consideration and Motion of Action on a Preliminary Plat for 507 Sonderen Street - Michael Schneider, property owner** - proposed use: residential subdivision

   c. **(25-012715) Request for Consideration and Motion for Action on a Site Plan for 409 Sonderen Street - JDL23, LLC, property owner** - proposed use: parking lot adjacent to Stevenson Place

6. **Elections**

   a. **Nomination and election of the position of Vice Chairperson**

   b. **Nomination and election of the position of Chairperson**

**H. CONSENT CALENDAR**

1. **Motion for Recommendation to the City Council regarding the following items relating to easements, right-of-way, or other public facilities or interests**

   - Right of Way Conveyance Deed - Thornwood Apartments
   - Stormwater Management and Best Management Practices Facilities Maintenance Agreement - Texas Roadhouse Parking Lot Addition
   - Stormwater Management and Best Management Practices Facilities Maintenance Agreement - Harvest at Hopewell Phase 3
   - Acquisition of easements - Barrington - Country Life - Schrader Farm Estates
   - Utility Easement Dedication - Ameren Rebuild
   - Utility Easement Dedication - Ameren Rebuild

**I. ALL OTHER ITEMS AS THEY MAY ARISE**

   a. **City Council Action Update**

**J. ADJOURN**

Posted this 1st day of May, 2026

**Tracy Coffman,**
**Recording Secretary**

**Notice is hereby given that, subject to a motion duly made and adopted, the Planning and Zoning Commission of the City of O'Fallon, Missouri may also hold a closed meeting for the purpose of dealing with matters relating to one or more of the following: 610.021(1) Legal Actions, Causes of Actions, Litigations or Privleged Communications between the City's representatives and its attorneys. If you need special accommodations to attend a Planning and Zoning Commission meeting, please call the ADA Coordinator, Tanya Davies at 636-379-5511 or email tdavies@ofallonmo.gov at least 48 hours notice prior to the meeting.**

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **F. 1. a.**

**Meeting Date:** 05/07/2026
**Re:** Site Plan for 1414 Bryan Road
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** Old Business

**Item:**
This is a Site Plan for 1414 Bryan Road.

**Previous Action:**
This item was tabled at the April 2, 2026 meeting.

**Recommendation:**
Staff Report is attached.

**Attachments**

Staff Report
Site Location Map
Site Plan
Elevations
Site Visit Memo

**O'Fallon Planning and Zoning Commission Meeting**
**O'Fallon Municipal Centre Council Chambers**
**100 North Main Street, O'Fallon, MO 63366**

This item was tabled at the April 2, 2026 Planning and Zoning Commission Meeting. Since that time, Staff has had a visit on site with the owners, and a new plan has been submitted showing increased parking among other changes.

## Project Summary:

| | |
|---|---|
| **Meeting Date:** | May 7, 2026 |
| **Case Number:** | 25-010375 |
| **Location of Subject Property:** | 1414 Bryan Road |
| **Action Requested:** | Approval of a Site Plan for lawn care services |
| **Recommendation:** | Approval |
| **Final Action:** | Planning and Zoning Commission |
| **Related Applications:** | None |
| **Staff Contact:** | Ethan Hendricks, AICP<br>ehendricks@ofallonmo.gov<br>636-379-5467 |




## Applicant Summary:

| | |
|---|---|
| **Applicant and Engineer:** | Jamey Henson – The Sterling Company<br>5055 New Baumgartner Road<br>St. Louis, MO 63129<br>jhenson@sterling-eng-sur.com<br>314-487-0440 |
| **Property Owner of Record:** | Scott Nelson – Nelson Real Estate, LLC<br>945 Claycrest Drive<br>St. Charles, MO 63304<br>nelsonlandserv@yahoo.com<br>636-244-5651 |

## Subject Property Datum:

| | | | |
|---|---|---|---|
| **Parcel Size:** | 4.69 acres | **Current Zoning:** | AG/Agricultural |
| **Comprehensive Plan Designation:** | The Comprehensive Plan's Future Land Use Map depicts this parcel as suitable for low density residential uses. | | |
| **Proposed Use of Subject** | The subject property is currently a landscaping company. The applicant is proposing a 4,200 sq. ft. pole barn towards the rear of the property. This will | | |

<table>
<tr><td>Property:</td><td colspan="3">serve as a storage building for equipment and materials. They are also proposing a bufferyard along the portions of the property they will be utilizing. Drainage basins are also proposed for the site.</td></tr>
<tr><td rowspan="4">Adjacent Parcel Data</td><td>North</td><td>R-1/PUD</td><td>Glenmaro</td></tr>
<tr><td>South</td><td>R-1</td><td>Amber Meadows</td></tr>
<tr><td>East</td><td>R-1</td><td>Amber Meadows</td></tr>
<tr><td>West</td><td>ROW</td><td>Mexico Road</td></tr>
<tr><td>Code Enforcement Action:</td><td colspan="3">This property has been written up by Code Enforcement multiple times going back to 2024. This has been for debris on the site, weeds, tall grass, run-off issues, improperly parked vehicles, and a large storage container without a permit. Most recently, a stop work order was issued for putting down gravel for a parking area without a permit. Gravel is not allowed for parking or driving surfaces by the code.<br><br>Photos from August of 2024<br><br>  <br><br>  </td></tr>
</table>

| | |
|---|---|
| | Photo from September of 2025<br>  <br>Photo from January of 2026<br>  <br>Photos from March of 2026 |

| | |
|---|---|
| |  <br>  <br>This plan seeks to correct the majority of these Code Enforcement issues. The storage building will allow for vehicles, equipment, and materials to be cleaned up and stored inside. This will allow for the shipping container to be removed from the site. They will be required to pave the site and designate parking spaces and will be required to remove all existing gravel. They are also proposing two drainage basins to help address the run-off issues. They are also proposing a bufferyard along the north and south property line and a sight-proof fence. |
| **Site Visit:** | After the April 2, 2026 Planning and Zoning Commission Meeting, several city staff members representing the Planning, Building, Code Enforcement, Engineering, and Police Departments met on site with the business owners and their engineer to discuss the issues raised. A memo describing the site visit and various items has been included in the agenda packet. |

**Site Development Details:**

| | |
|---|---|
| **Lot Coverage:** | Staff has placed a comment regarding this below. |

| | | | |
|---|---|---|---|
| **Access to Property:** | This is existing. | | |
| **Required Parking:** | Office: 1 space per 300 square feet.<br>1,716 square feet<br>**6** spaces required<br><br>Storage: 1 space per employee, plus one space for each vehicle utilized by the business, plus 2 guest spaces.<br>20 employees, 15 vehicles (as stated at the April 2, PZ meeting), 2 guest spaces.<br>**37** spaces required.<br><br>**43** total spaces required | **Proposed Parking:** | **24** parking spaces<br><br>**1** ADA parking space<br><br>**25** total parking spaces |
| **Storm Water Detention:** | Basins are shown on the plan. More details are needed. | | |
| **Landscape Plans:** | Provided. | | |
| **Building Detail:** | **Building Height:** | Approximately 23 feet | |
| | **Building Elevations:** | Staff has placed a comment regarding this below. | |
| **Construction Plan Comments:** | 1. Provide street trees along Bryan Road.<br>2. Identify the exterior materials of the proposed pole barn.<br>3. Provide parking calculations for all buildings. Provide parking spaces for all vehicles associated with the business. There shall be no parking on the grass. If there are additional employees or work vehicles in the future, additional parking spaces will need to be added with an approved site plan.<br>4. All gravel shall be removed from the site.<br>5. Provide a photometric plan if any new lights are being proposed.<br>6. Provide drainage calculations for the 100-year 20-minute storm.<br>7. Provide Passive trash enclosure and details.<br>8. Note on plan that all sanitary laterals are to be min 6" SDR 26.<br>9. Concrete pavement cross section shall be 7" of P.C. concrete over 5" of base.<br>10. Provide site coverage calculations showing the square footage and percentage of the site covered by buildings, pavement, and green space.<br>11. Provide approval letters from all reviewing agencies. | | |

## Staff Recommendation:

| Staff is recommending **approval** of the Site Plan based on the following Findings and Conditions: | |
|---|---|
| **Findings:** | 1. The proposed improvements at this site should help reduce impacts to the adjacent properties.<br>2. The use of the site complies with the standards required of properties zoned AG |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Construction Site Plan.<br>2. Address the Construction Plan Comments on all future submittals.<br>3. Clarify the property line along Bryan Road. If the property line goes into Bryan Road, right-of-way shall be conveyed to the City.<br>4. The area shown behind the proposed storage building outside of the fence |

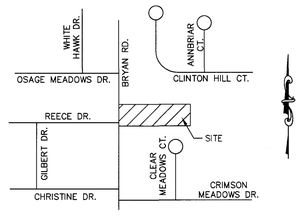
| | |
|---|---|
| | shall not be used for any sort of equipment, vehicle, or material storage.<br>5. The bufferyard and fencing shall extend around the perimeter of the property. If the fence between the proposed building and property lines are constructed, provide a gate or extend the fence around the detention basin to allow access for maintenance.<br>6. All materials and equipment shall be stored in the storage building. When the storage building has been constructed, the shipping container shall be removed from the site.<br>7. The area pictured above where gravel has been placed and stop work order issued has not been shown as a parking area on the Site Plan. If parking is proposed here, this will need to be shown on the Site Plan and Construction Plans and must comply with the proposed setbacks and bufferyard requirements.<br>8. Provide a sound study prepared by a sound engineer that reviews the proposed location along the north property line outside of the bufferyard and the Commission's preferred more centrally located placement. The location that has the lowest decibel level at the property lines shall be chosen for the bins. In addition, the sound study should address options for noise barriers or walls and the height and location of such barriers in relation to the bins.<br>9. Because this property is currently zoned AG and considered 'Lawn Care Services', snow removal operations shall not be conducted from this property. If the property is rezoned in the future to be considered 'Landscape Contracting Services', snow removal operations could resume. |




# 1414 Bryan Road

# PRELIMINARY PLAN
# 1414 Bryan Road

A TRACT OF LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 6, TOWNSHIP 46 NORTH, RANGE 3 EAST, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI.

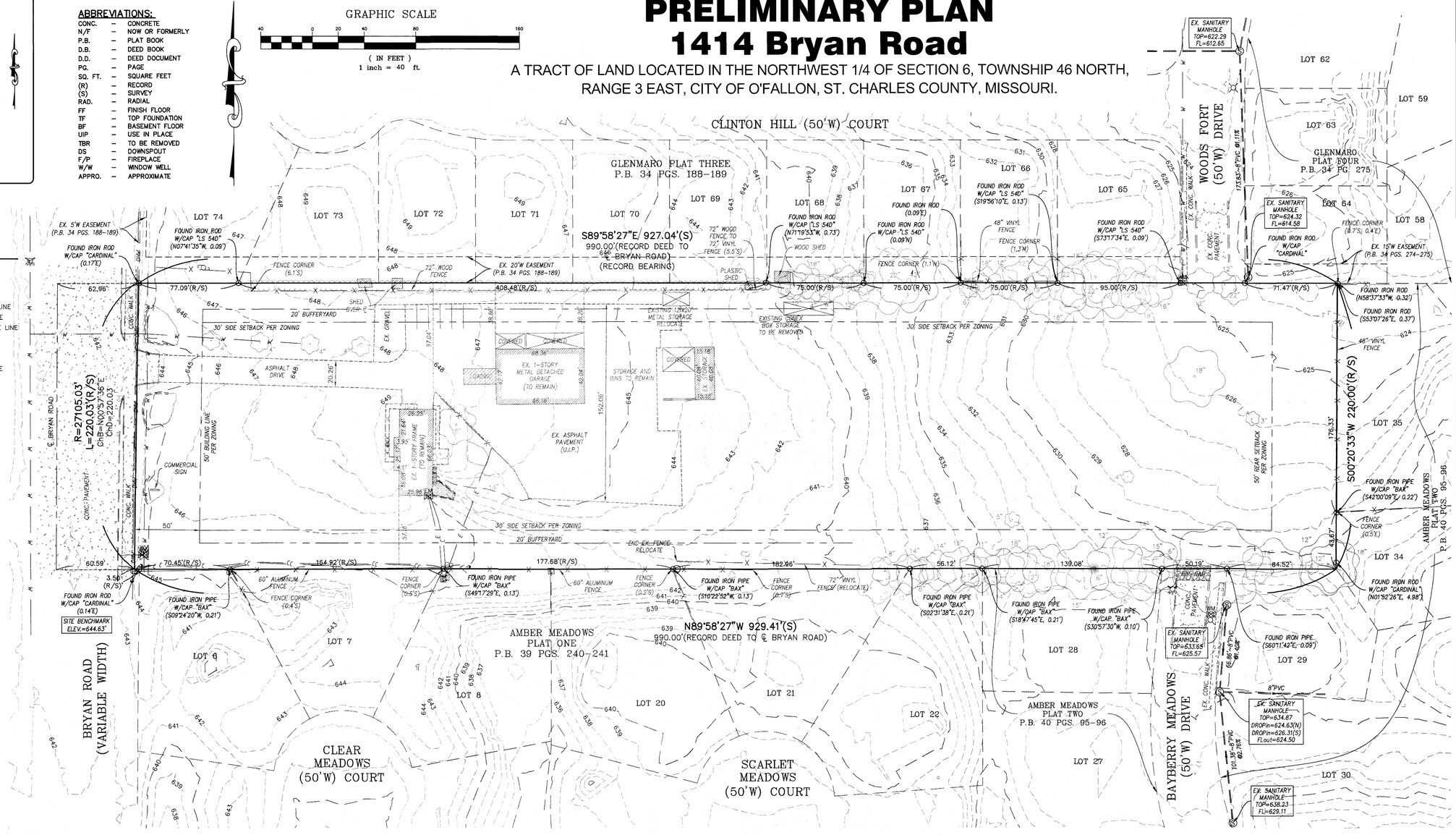



LOCATION MAP
N.T.S.

**ABBREVIATIONS:**

| | | |
|---|---|---|
| CONC. | – | CONCRETE |
| N/F | – | NOW OR FORMERLY |
| P.B. | – | PLAT BOOK |
| D.B. | – | DEED BOOK |
| D.D. | – | DEED DOCUMENT |
| PG. | – | PAGE |
| SQ. FT. | – | SQUARE FEET |
| (R) | – | RECORD |
| (S) | – | SURVEY |
| RAD. | – | RADIAL |
| FF | – | FINISH FLOOR |
| TF | – | TOP FOUNDATION |
| BF | – | BASEMENT FLOOR |
| U/P | – | USE IN PLACE |
| TBR | – | TO BE REMOVED |
| DS | – | DOWNSPOUT |
| F/P | – | FIREPLACE |
| W/W | – | WINDOW WELL |
| APPRO. | – | APPROXIMATE |

GRAPHIC SCALE
40 0 20 40 80 160
( IN FEET )
1 inch = 40 ft.




**LEGEND:**

- TREE LINE
- SILT FENCE
- FENCE LINE
- C — UNDERGROUND CATV LINE
- E — UNDERGROUND ELECTRIC LINE
- W — UNDERGROUND WATER LINE
- T — UNDERGROUND TELEPHONE LINE
- G — UNDERGROUND GAS LINE
- OE — OVERHEAD ELECTRIC
- OHW — OVERHEAD WIRE
- UNDERGROUND SEWER LINE
- BUILDING
- LIGHT STANDARD
- YARD LIGHT
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- UTILITY POLE W/ TRANSFORMER
- GUY WIRE
- TRAFFIC SIGNAL
- WATER SPIGOT
- ELECTRIC METER
- WATER METER
- GAS METER
- WATER VALVE
- GAS VALVE
- GAS DRIP
- ELECTRIC BOX
- CABLE TV BOX
- TELEPHONE BOX
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- STREET/ROAD SIGN
- MISC. POLE/POST
- PARCEL TIE (SAME OWNER)
- FIRE HYDRANT
- UTILITY MANHOLE
- MAIL BOX
- A/C UNIT
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM MANHOLE
- CURB INLET / AREA INLET
- GRATE MANHOLE
- GRATE INLET
- BUSH/SHRUB
- TREE
- SURFACE FLOW
- SURFACE FLOW WITH SLOPE
- DENOTES PERMANENT MONUMENT TO BE PLACED UPON COMPLETION OF GRADING AND ROADWAY IMPROVEMENTS 5/8"x24" REBAR WITH METAL CAP STAMPED LS 307-D.
- DENOTES SEMI-PERMANENT MONUMENT TO BE SET
- FOUND IRON PIPE
- CONC. MON./ STONE
- CROSS
- CROSS WITH ANCHOR
- CONC. PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- GRAVEL

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

## EX. ZONING INFO:

"AG" AGRICULTURAL DISTRICT
FRONT: 50' SETBACK
SIDE: 30' SETBACK
REAR: 50' SETBACK
HEIGHT: 35' / 2 1/2 STORIES
MIN. LOT AREA: 2 Ac.
MIN. LOT WIDTH: 150'
MAX. LOT COVERAGE BY STRUCTURES: 10%

## SITE INFO:

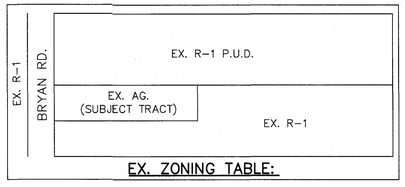
N/F NELSON REAL ESTATE LLC
D.D. 2022R–030032
PARCEL ID# 2–0067–S006–00–0009.2000000
#1414 BRYAN RD.
217,797 SQ. FT./ 5.000 Ac.±
(RECORD DEED TO ℄ BRYAN ROAD)
204,239 SQ. FT. / 4.688 AC.±

## TITLE NOTES

A CURRENT TITLE COMMITMENT OF THE SUBJECT TRACT HAS NOT BEEN PROVIDED TO THE SURVEYOR. IT IS POSSIBLE THERE ARE EASEMENTS AND OTHER INSTRUMENTS OF RECORD THAT AFFECT THE SUBJECT TRACT THAT WOULD BE EXPOSED IN THE TITLE COMMITMENT REPORT AND ARE UNKNOWN TO THE SURVEYOR AT THE TIME OF SURVEY WAS EXECUTED AND THEREFORE NOT PLOTTED HEREON. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR.

## SURVEYOR'S NOTES

1. THE SUBJECT TRACT CONTAINS 217,797 SQUARE FEET OR 5.000 ACRES MORE OR LESS
2. BASIS OF BEARING: THE BEARINGS ARE BASED ON THE RECORD PLAT OF "GLENMARO PLAT THREE" AS RECORDED IN PLAT BOOK 34 PAGES 188–189 OF THE ST. CHARLES COUNTY, MISSOURI RECORDS.
3. SOURCE OF RECORD TITLE: NELSON REAL ESTATE LLC IS DESCRIBED AS THE OWNER AS RECORDED IN DEED DOCUMENT 2022R–030032 OF THE ST. CHARLES COUNTY, MISSOURI RECORDS.
4. THE PROFESSIONAL WHOSE SEAL AND SIGNATURE APPEARS BELOW ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) ANY RESPONSIBILITY FOR PLANS, SPECIFICATIONS, ESTIMATES, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT FOR WHICH THIS PAGE REFERS.
5. THE SUBJECT TRACT SHOWN HEREON IS LOCATED IN AREA'S DESIGNATED AS IN FLOOD ZONE "X" (UNSHADED) ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAPS FOR ST. CHARLES COUNTY MISSOURI AND INCORPORATED AREAS; PANEL NUMBER 240 OF 525, MAP NUMBER 29183C0240G, EFFECTIVE DATE JANAURY 20, 2016. ZONE "X" IS DEFINED AS AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD.




EX. ZONING TABLE:

## EXISTING PROPERTY (EX. AGRICULTURAL DISTRICT):

A TRACT OF LAND LOCATED IN THE NORTHWEST 1/4 OF SECTION 6, TOWNSHIP 46 NORTH, RANGE 3 EAST, ST. CHARLES COUNTY, MISSOURI, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CENTERLINE OF BRYAN ROAD, WHICH POINT IS DISTANT NORTH 0 DEGREES 34 MINUTES 00 SECONDS EAST 2,696.32 FEET FROM THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF SECTION 6, TOWNSHIP 46 NORTH, RANGE 3 EAST; THENCE LEAVING THE CENTERLINE OF SAID BRYAN ROAD SOUTH 89 DEGREES 45 MINUTES 00 SECONDS EAST 990.00 FEET TO A POINT; THENCE SOUTH 0 DEGREES 34 MINUTES 00 SECONDS WEST 220.00 FEET TO A POINT; THENCE NORTH 89 DEGREES 45 MINUTES 00 SECONDS WEST 990.00 FEET TO A POINT IN THE CENTERLINE OF BRYAN ROAD; THENCE NORTH 0 DEGREES 34 MINUTES 00 SECONDS EAST 220.00 FEET TO THE POINT OF BEGINNING: EXCEPTING THEREFROM THAT PART THEREOF CONVEYED TO THE CITY OF O'FALLON BY DEED RECORDED IN BOOK 1824 PAGE 60 OF THE ST. CHARLES COUNTY RECORDS.

LOCATOR#: 4230604000
COMMONLY KNOWN AS: 1414 BRYAN ROAD, O'FALLON, MO 63366

## SITE BENCHMARK:

IRON ROD WITH CAP: 644.63' (NAVD88)
FOUND IRON ROD WITH CAP "CARDINAL" AT THE SOUTHWEST CORNER OF THE SUBJECT TRACT AS SHOWN HEREON.

## BENCHMARK:

THE STERLING COMPANY HAS ESTABLISHED A SITE BENCHMARK, AS SHOWN HEREON AND DESCRIBED BELOW. THE SITE DATUM HAS BEEN ESTABLISHED VIA A GPS REAL TIME KINEMATIC NETWORK PUBLISHED BY THE MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT RTK), USING PUBLISHED BASE STATION "MOOF" AND OBSERVING THE SITE BENCHMARK. THE ELEVATIONS PUBLISHED HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

## EXISTING UTILITIES NOTES

1. CONTRACTOR IS RESPONSIBLE TO CONTACT AND IDENTIFY ALL UTILITIES AND PERFORM WORK IN A SAFE AND RESPONSIBLE MANNER.
2. THE SERVICEABILITY OF ALL UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR / HOMEBUILDER. ANY AND ALL REQUIREMENTS FOR EXISTING OR PROPOSED FLOW RATES, FIRE PROTECTION, CONNECTION FEES OR REQUIRED STUDIES ARE NOT THE RESPONSIBILITY OF THE STERLING COMPANY.
3. THE STERLING COMPANY ASSUMES NO RESPONSIBILITY FOR CONTRACTOR'S WORK OR FOR ANY WORK NOT SPECIFICALLY MENTIONED.

MISSOURI 811

Plot Plan Prepared by
THE STERLING COMPANY (314) 487–0440
Notes:
1. Finished grades at the building to be a minimum of 8 inches below top of foundation for wood frame and 8 inches below for wood frame with brick veneer.
2. All wood framing members that rest on top of the foundation located less than 8 inches above the exposed ground and all other wood less than 6 inches from the ground shall be pressure treated in accordance with section R319.1.
3. Grade shall be noted to slope away from foundation a minimum of a 6 inch drop or min. 5% within the first 10 feet or to a swale.
4. Foundation footings shall be constructed so as to maintain a 2' 6" depth of earth cover or as required by local building codes.
5. This plot plan conforms to "ST. CHARLES CODE".
6. Elevation Examples: 714.0(E)=Existing Elevation, 714.0(P)=Proposed Elevation.

THIS IS NOT A SURVEY AND DOES NOT MEET THE "MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS" IN EFFECT AS OF THE DATE OF THIS PLOT PLAN.

THE STERLING COMPANY
MO. REG. 307–D

4-23-2026

JAMEY A. HENSON, P.L.S.
MO. REG. L.S. #2007017963

STATE OF MISSOURI
JAMEY A. HENSON
NUMBER PLS-2007017963
PROFESSIONAL LAND SURVEYOR

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | Original Issue |
| 2 | City Comment - 11/21/2025 |
| 3 | Revised Plan - 02/26/2026 |
| 4 | Revised to maintain current zoning 3/18/26 |
| 5 | REVISED PER STAFF COMMENTS 3-19-26 |
| 6 | REVISED PER CLIENT MEETING 4/23/2026 |


SCOTT NELSON
#945 CLAYCREST DR.
SAINT CHARLES, 63304
573-434-2160

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348


#1414 BRYAN ROAD
O'FALLON, MISSOURI 63366

EXISTING CONDITIONS / DEMOLITION PLAN

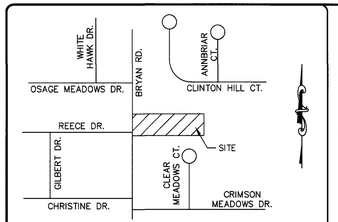
The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. All drawing, instruments or other documents not exhibiting this seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.

STATE OF MISSOURI
MIKE BOERDING
NUMBER E-28843
PROFESSIONAL ENGINEER

Date: 04/23/2026
Mike Boerding, PE
License # E28843
Professional Engineer

| | |
|---|---|
| Job Number | 24-12-310 |
| Date | 04/23/2026 |
| Designed: HHH | Sheet 1.1 |
| Drawn: HHH | |
| Checked: MGB | PRE |

Drawing name: V:\24\12\310 1414 Bryan Rd\Drawings\Surveying\Plot Plan\24123101 Preliminary Plan - 2026 04-23.dwg Plotted on: Apr 23, 2026 - 11:42am Plotted by: jhenson



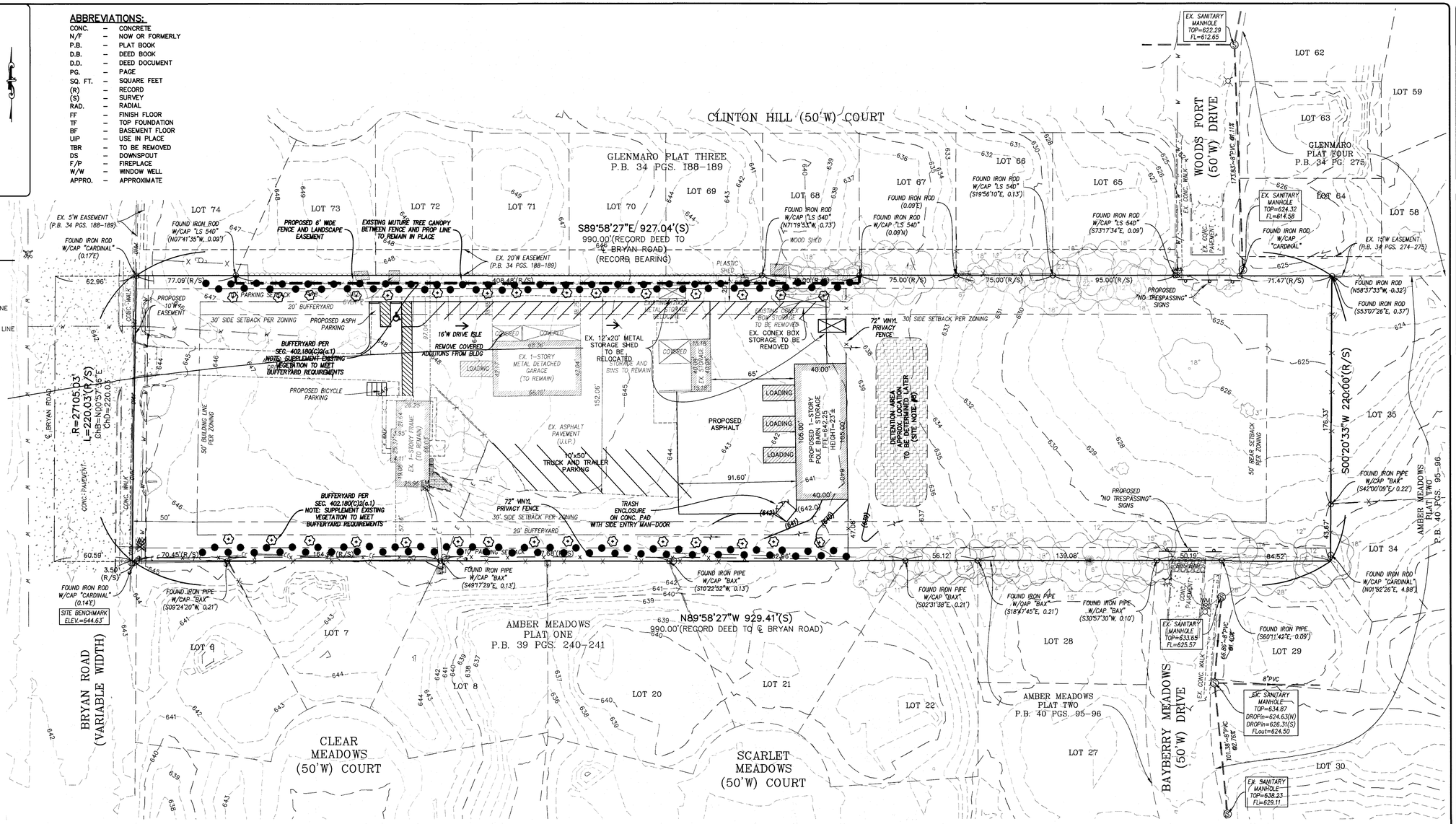

## LOCATION MAP
N.T.S.

**ABBREVIATIONS:**

| | | |
|---|---|---|
| CONC. | – | CONCRETE |
| N/F | – | NOW OR FORMERLY |
| P.B. | – | PLAT BOOK |
| D.B. | – | DEED BOOK |
| D.D. | – | DEED DOCUMENT |
| PG. | – | PAGE |
| SQ. FT. | – | SQUARE FEET |
| (R) | – | RECORD |
| (S) | – | SURVEY |
| RAD. | – | RADIAL |
| FF | – | FINISH FLOOR |
| TF | – | TOP FOUNDATION |
| BF | – | BASEMENT FLOOR |
| UIP | – | USE IN PLACE |
| TBR | – | TO BE REMOVED |
| DS | – | DOWNSPOUT |
| F/P | – | FIREPLACE |
| W/W | – | WINDOW WELL |
| APPRO. | – | APPROXIMATE |

## LEGEND:

- TREE LINE
- SILT FENCE
- FENCE LINE
- UNDERGROUND CATV LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND GAS LINE
- OVERHEAD ELECTRIC
- OVERHEAD WIRE
- UNDERGROUND SEWER LINE
- BUILDING
- LIGHT STANDARD
- YARD LIGHT
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- UTILITY POLE W/ TRANSFORMER
- GUY WIRE
- TRAFFIC SIGNAL
- WATER SPIGOT
- ELECTRIC METER
- WATER METER
- GAS METER
- WATER VALVE
- GAS VALVE
- GAS DRIP
- ELECTRIC BOX
- CABLE TV BOX
- TELEPHONE BOX
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- STREET/ROAD SIGN
- MISC. POLE/POST
- PARCEL TIE (SAME OWNER)
- FIRE HYDRANT
- UTILITY MANHOLE
- MAIL BOX
- A/C UNIT
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM MANHOLE
- CURB INLET / AREA INLET
- GRATE MANHOLE
- GRATE INLET
- BUSH/SHRUB
- TREE
- SURFACE FLOW
- SURFACE FLOW WITH SLOPE
- DENOTES PERMANENT MONUMENT TO BE PLACED UPON COMPLETION OF GRADING AND ROADWAY IMPROVEMENTS 5/8"x24" REBAR WITH METAL CAP STAMPED LS 307-D.
- DENOTES SEMI-PERMANENT MONUMENT TO BE SET
- FOUND IRON PIPE
- CONC. MON./ STONE
- CROSS
- CROSS WITH ANCHOR
- CONC. PAVEMENT
- ASPHALT PAVEMENT
- BRICK PAVERS
- GRAVEL




## UTILITY CONTACTS

SANITARY SEWER
DUCKETT CREEK
3550 HWY K
O'FALLON, MO 63368
CONTACT: 636-441-1244

GAS
SPIRE
6400 GRAHAM ROAD
ST. LOUIS, MO 63134
314-522-2297

WATER
PWSD #2
100 WATER DR.
O'FALLON, MO 63368
CONTACT: 636-561-3737

TELEPHONE
CENTURYLINK
1151 CENTURY TEL DR.
WENTZVILLE, MO 63385
636-332-7261

STORM SEWER
CITY OF O'FALLON
100 N. MAIN ST.
O'FALLON, MO 63366
636-281-2858

CHARTER COMMUNICATIONS
941 CHARTER COMMONS
TOWN & COUNTRY, MO 63017
1-888-438-2427

CUIVRE RIVER ELECTRIC
8757 HIGHWAY N
LAKE SAINT LOUIS, MO 63367
636-695-4731

FIRE DEPARTMENT
WENTZVILLE FIRE PROTECTION DISTRICT
502 LEUTKENHAUS BLVD.
WENTZVILLE, MO 63385
636-327-6239

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

## SITE NOTES:

1. THIS SITE IS IN THE FOLLOWING DISTRICTS:
   CITY OF O'FALLON WARD 4
   O'FALLON FIRE PROTECTION DISTRICT
   FORT ZUMWALT SCHOOL DISTRICT
2. THIS SITE IS IN THE FOLLOWING UTILITY SERVICE AREAS:
   DUCKETT CREEK SEWER DISTRICT
   PUBLIC WATER DISTRICT 2
   CUIVRE RIVER ELECTRIC COOPERATIVE, INC.
   SPIRE
   CENTURY LINK
   CHARTER
3. SIGNAGE IS PERMITTED SEPARATELY.
4. DEVELOPMENT WILL COMPLY WITH ARTICLE XIII, PERFORMANCE STANDARDS.
5. DEVELOPMENT WILL COMPLY WITH THE COMPREHENSIVE PLAN.
6. NO LANDSCAPING TO BE INSTALLED WITHIN FIVE (5) FEET OF EXISTING UNDERGROUND OR PROPOSED UNDERGROUND UTILITIES
7. ALL PROPOSED UTILITIES SHALL BE LOCATED UNDERGROUND.
8. NO GRADED SLOPES SHALL EXCEED 3 FEET (HORIZONTAL TO 1 FOOT (VERTICAL) UNLESS JUSTIFIED BY A GEOTECHNICAL REPORT THAT HAS BEEN REVIEWED AND APPROVED BY THE CITY OF O'FALLON.
9. DETAILED SITE IMPROVEMENT PLANS WILL ADDRESS FINISHED SITE GRADING AND STORMWATER DETENTION REQUIREMENTS.
10. TREE PRESERVATION
    EXISTING TREE CALIPER ON SITE = 433 INCHES
    TREE CALIPER REMOVED ON SITE = 12 INCHES
    TREE CALIPER RETAINED ON SITE = 97%

## SITE COVERAGE(TOTAL):

EX. COMM. BUILD. = 1,827 S.F.
EX. METAL GARAGE = 2,874 S.F.
EX. STORAGE = 609 S.F.
EX. SHEDS = 240 S.F.
EX. PORCHES = 1,261 S.F.
EX. CONC. WALK & STEPS = 508 S.F.
EX. BRICK PATIO = 142 S.F.
EX. ASPHALT DRIVE = 26,080 S.F.
EX. CONC. DRIVE = 386 S.F.
PROP. POLE BARN = 4,200 S.F.
PROP. ASPHALT = 26,482 S.F.
PROP. BICYCLE PARKING = 150 S.F.
PROP. TRASH ENCLOSURE = 252 S.F.
TOTAL = 64,961 S.F./204,239 S.F. = 31.81%

## SITE COVERAGE(PER SECTION 400.265):

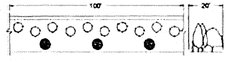
EX. COMM. BUILD. = 1,827 S.F.
EX. METAL GARAGE = 2,874 S.F.
EX. STORAGE = 609 S.F.
EX. SHEDS = 240 S.F.
EX. PORCHES = 1,261 S.F.
EX. CONC. WALK & STEPS = 508 S.F.
EX. BRICK PATIO = 142 S.F.
PROP. POLE BARN = 4,200 S.F.
PROP. TRASH ENCLOSURE = 252 S.F.
TOTAL = 11,913 S.F./204,239 S.F. = 5.83%

## PARKING CALCULATION NOTES:

1. OFFICE SPACE – 1 SPACE PER 300 SQ. FT. – REQUIRED 5 SPACES – PROPOSED 4 REGULAR SPACES & 1 HANDICAP SPACE.
2. BICYCLE REQUIRED 1 PER VEHICLE SPACE – REQUIRED MINIMUM 4 SPACES – PROPOSED 4 SPACES.
3. 1 SPACE PER EMPLOYEE – 20 REQUIRED (SEASONAL) – PROPOSED 20
4. LOADING REQUIREMENT – 1 FOR 5000 SQ. FT.
   BUILDING #1 – 2,874 SQ. FT.: REQUIRED 1 SPACE – PROPOSED 1 SPACE (12'x25')
   BUILDING #2 – 4,200 SQ. FT.: REQUIRED 1 SPACE – PROPOSED 3 SPACES (12'x25')

## BUFFERYARD PER SECTION 402.180

FOR EVERYONE HUNDRED (100) FEET OF FRONTAGE WHERE THE BUFFERYARD IS REQUIRED:
A TOTAL OF TWO (2) PLANT UNITS AND A SIGHT-PROOF, SIX-FOOT HIGH
WITHIN A MINIMUM TWENTY-FOOT WIDE BUFFERYARD AREA;




BUFFERYARD TO BE PROVIDED WHERE A CONFLICT OF USES EXIST AS SHOWN HEREON.

GRAPHIC SCALE
40 0 20 40 80 160
( IN FEET )
1 inch = 40 ft.

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | Original Issue |
| 2 | City Comment - 11/21/2025 |
| 3 | Revised Plan - 02/26/2026 |
| 4 | Updated Cover Sheet 3/18/26 |
| 5 | REVISED PER STAFF COMMENTS 3-19-2026 |
| 6 | REVISED PER CLIENT MEETING 4/23/2026 |

SCOTT NELSON
#9945 CLAYCREST DR.
SAINT CHARLES, 63304
573-434-2160

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterlingsurveying.com
Corporate Certificate of Authority #001348

#1414 BRYAN ROAD
O'FALLON, MISSOURI 63366

SITE / GRADING PLAN

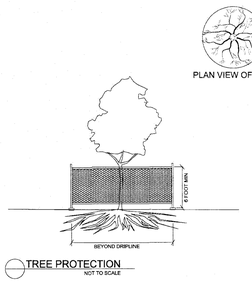
The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. Any use or reliance upon any portion thereof not exhibiting this seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.

STATE OF MISSOURI
MIKE GLENN BOERDING
NUMBER E-28643
REGISTERED PROFESSIONAL ENGINEER

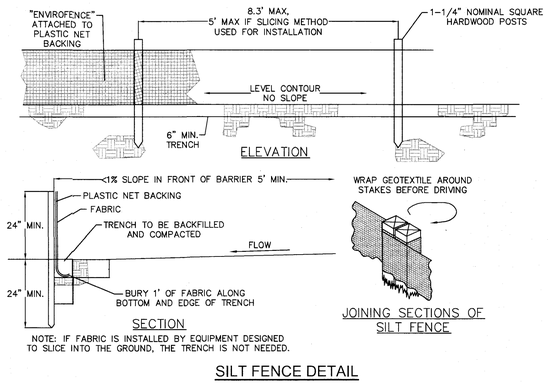
Date: 04/23/2026
Mike Boerding, PE
License # E28643
Professional Engineer

| | |
|---|---|
| Job Number | 24-12-310 |
| Date | 04/23/2026 |
| Designed: HHH | Sheet 2.1 |
| Drawn: HHH | |
| Checked: MGB | PRE |

Drawing name: V:\24\12310 1414 Bryan Rd\Drawings\Surveying\Plot Plan\12412310 Preliminary Plan - 2026 04-22.dwg Plotted on: Apr 23, 2026 - 11:38am Plotted by: jhenson

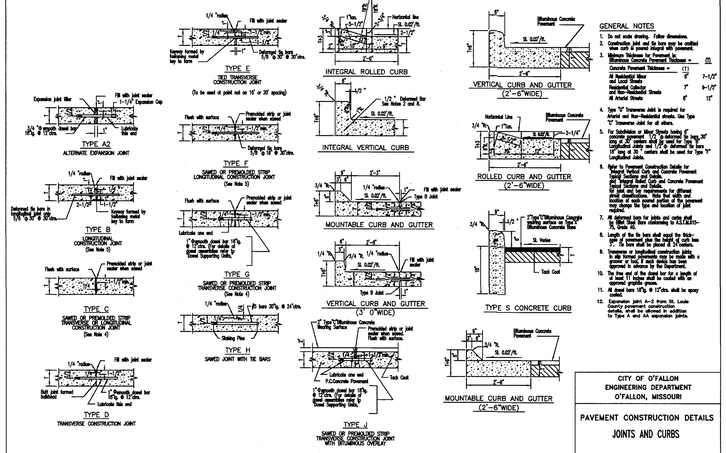



TREE PROTECTION
NOT TO SCALE




NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT NEEDED.

SILT FENCE DETAIL



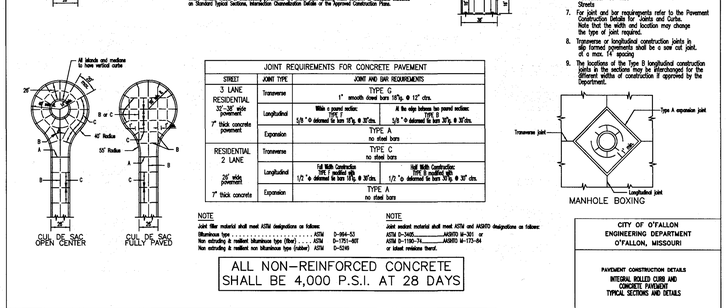

GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Construction joint and tie bars shall be omitted when curb is poured monolithic with pavement.
3. Minimum Thickness for Pavement is:
   Concrete Pavement Thickness = (T)
   At Residential Minor 6" T+1/2"
   At Residential Collector 7" T+1/2"
   and Non-Residential Streets
   At Arterial Streets 8" 12" T
4. Type "S" transverse joint is required for arterial and Non-Residential streets. Use Type "C" transverse joint for all others.
5. For Subdivisions or Minor Streets having 6" or less concrete pavement, the Type "A" curb may be used, except where the Type "C" curb is required by this Department. Type "A" curb shall be used for Type "F" Longitudinal Joints.
6. Refer to Pavement Construction Details for Integral Rolled Curb and Concrete Pavement, Mowing Sections and Details.
   Refer to Pavement Joints and Concrete Pavement Joints and Details.
   All sand and fine maintenance by different crews or contractors. Work shall be coordinated. Maintenance of the pavement may change the type and location of joint required.
7. All dimensions are for joints and curbs shown in Inches. See Note containing in ALLEGRO.
8. Length of the tie bars shall equal the thickness of pavement, but not less than 12" and not less than 30 diameters.
9. Transverse or longitudinal construction joints in slip formed pavements shall be a sawed cut joint, at a max. 14' spacing.
10. The top end of the dowel bar for a length of 6" shall be painted with one coat of an approved asphalt paint.
11. All dowel bars 18"ø @ 12"ctrs. shall be epoxy coated.
12. Expansion Joint A-2 from St. Louis Standard Construction Specifications, shall be allowed in addition to Type A and AA expansion joints.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

PAVEMENT CONSTRUCTION DETAILS

JOINTS AND CURBS



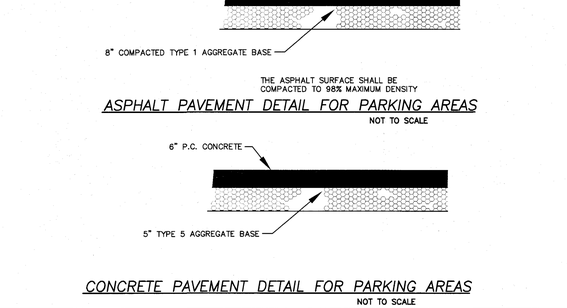

JOINT REQUIREMENTS FOR CONCRETE PAVEMENT

| STREET | JOINT TYPE | JOINT AND BAR REQUIREMENTS | |
|---|---|---|---|
| 3 LANE RESIDENTIAL 32'-36' wide pavement 7" thick concrete pavement | Transverse | TYPE C 1" smooth dowel bars 18"ø @ 12" ctrs. | |
| | Longitudinal | Wide x joints/ inches: 20ft 0 5/8 " ø deformed tie bars 18"L @ 30"ctrs. | At the edge between two pavement sections: 20ft 0 5/8 " ø deformed tie bars 36"L @ 30"ctrs. |
| | Expansion | TYPE A no steel bars | |
| RESIDENTIAL 2 LANE 26' wide pavement 7" thick concrete | Transverse | TYPE C no steel bars | |
| | Longitudinal | full Width Construction: 1/2 " ø deformed tie bars 18"L @ 30"ctrs. | full Width Construction: 1/2 " ø deformed tie bars 36"L @ 30" ctrs. |
| | Expansion | TYPE A no steel bars | |

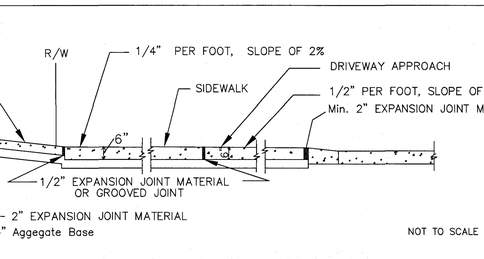
NOTE
Joint filler material shall meet ASTM designations or follows:
Bituminous type . . . . . ASTM D-994-53
Non extruding & resilient bituminous type (fiber) . . . . ASTM D-1751-52T
Non extruding & resilient non bituminous type (rubber) ASTM D-1241

NOTE
Joint sealant material shall meet ASTM and AASHTO designations as follows:
ASTM D-3405 AASHTO M-301 or
ASTM D-1190-74 AASHTO M-173-64
or latest revisions thereof.

ALL NON-REINFORCED CONCRETE SHALL BE 4,000 P.S.I. AT 28 DAYS

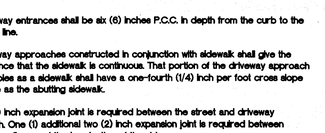



TYPICAL PAVEMENT SECTION
N.T.S.




THE ASPHALT SURFACE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY

ASPHALT PAVEMENT DETAIL FOR PARKING AREAS
NOT TO SCALE




CONCRETE PAVEMENT DETAIL FOR PARKING AREAS
NOT TO SCALE




NOTES:

HANDICAPPED SIGNS TO CONFORM WITH U.S. DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

COORDINATE WITH THE CITY FOR THE LATEST "FINE" SIGN WORDING AND REQUIREMENTS PRIOR TO CONSTRUCTION.

ACCESSIBLE PARKING SIGN
N.T.S.




NOTES:

ALL PARKING STRIPING SHALL BE 4" PAINTED YELLOW LINES (TYP)
ALL ACCESSIBLE PARKING STRIPING SHALL BE 4" PAINTED BLUE LINES

TYPICAL PARKING STRIPING
N.T.S.




NOT TO SCALE

**NOTES:**

**1. All driveway entrances shall be six (6) inches P.C.C. in depth from the curb to the property line.**

**2. All driveway approaches constructed in conjunction with sidewalk shall give the appearance that the sidewalk is continuous. That portion of the driveway approach that doubles as a sidewalk shall have a one-fourth (1/4) inch per foot cross slope the same as the abutting sidewalk.**

**3. A two (2) inch expansion joint is required between the street and driveway approach. One (1) additional two (2) inch expansion joint is required between the garage floor and the termination of the driveway.**

*CONCRETE NOTE:*
*ALL NON-REINFORCED CONCRETE SHALL BE 4,000 PSI AT 28 DAYS*

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

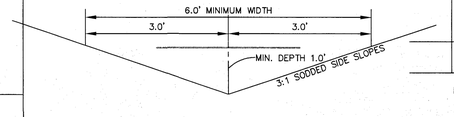
Integral Curb Detail "B" at Driveway

SECTION NO. 505.080

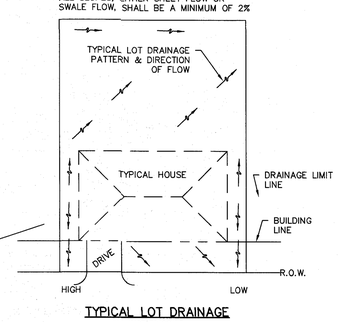
## TYPICAL YARD SWALE

Maximum Discharge (Q) = 3.00 cfs
Maximum Velocity (V) = 3.00 ft/sec
N = 0.030 (grass)
Maximum side slopes = 3 (horizontal) :1 (vertical)

| Longitudinal Slope (%) | Discharge (cfs) | Velocity (ft/sec) | Depth (ft) |
|---|---|---|---|
| 0.5 | 3.00 | 1.73 | 0.76 |
| 1.0 | 3.00 | 2.23 | 0.67 |
| 2.0 | 3.00 | 2.87 | 0.59 |
| 3.0 | 1.99 | 3.00 | 0.47 |
| 4.0 | 1.30 | 3.00 | 0.38 |
| 5.0 | 0.92 | 3.00 | 0.32 |
| 6.0 | 0.70 | 3.00 | 0.28 |
| 7.0 | 0.52 | 3.00 | 0.24 |
| 8.0 | 0.43 | 3.00 | 0.22 |
| 9.0 | 0.36 | 3.00 | 0.20 |
| 10.0 | 0.32 | 3.00 | 0.19 |




NOTE:
ALL SLOPES, EITHER SHEET FLOW OR SWALE FLOW, SHALL BE A MINIMUM OF 2%




TYPICAL LOT DRAINAGE
NOT TO SCALE

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | Original Issue |
| 2 | City Comment - 11/21/2025 |
| 3 | Revised Plan - 02/26/2026 |
| 4 | Updated Cover Sheet 3/18/26 |
| 5 | REVISED PER STAFF COMMENTS |
| 6 | NO CHANGE ON THIS SHEET |


SCOTT NELSON
#945 CLAYCREST DR.
SAINT CHARLES, 63304
573-434-2160

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348


#1414 BRYAN ROAD
O'FALLON, MISSOURI 63366

DETAILS 1

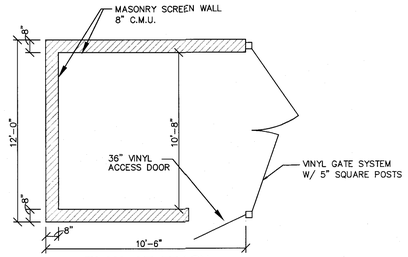

The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. All drawing, instruments or other documents not exhibiting this seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.


STATE OF MISSOURI
MICHAEL GENE BOERDING
NUMBER E-28643
PROFESSIONAL ENGINEER

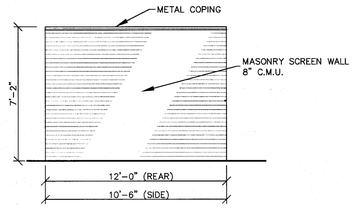
Date: 04/23/2026
Mike Boerding, PE
License # E28643
Professional Engineer

| | |
|---|---|
| Job Number | 24-12-310 |
| Date | 04/23/2026 |
| Designed: HHH | Sheet 3.1 |
| Drawn: HHH | |
| Checked: MGB | PRE |


Drawing name: V:\24\12310 1414 Bryan Rd\Drawings\Surveying\Plat Plan\24123101 Preliminary Plan - 2026 04-22.dwg Plotted on: Apr 23, 2026 - 11:46am Plotted by: jhenson



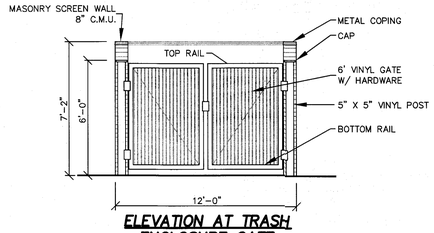

PLAN AT TRASH ENCLOSURE GATE



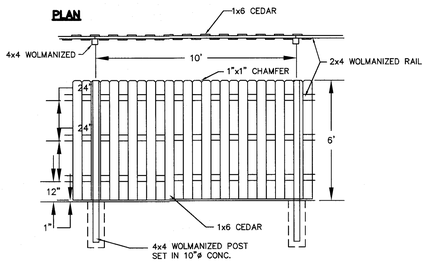

REAR AND SIDE VIEW OF TRASH ENCLOSURE

MASONRY TRASH ENCLOSURE

NOT TO SCALE

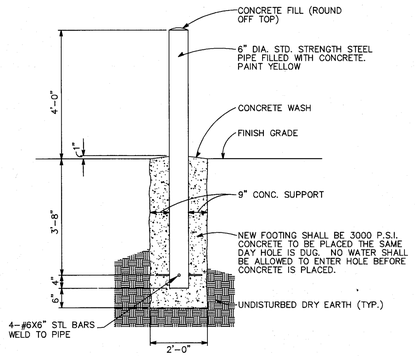



ELEVATION AT TRASH ENCLOSURE GATE



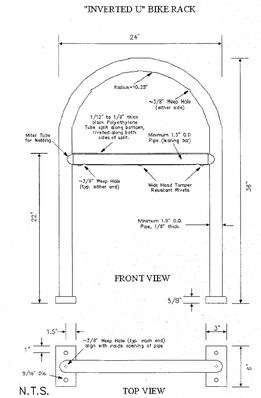

SCREEN FENCE DETAIL

NOT TO SCALE

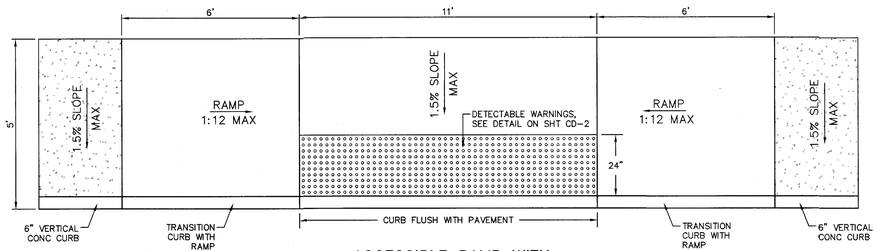



PIPE BOLLARD DETAIL

NOT TO SCALE

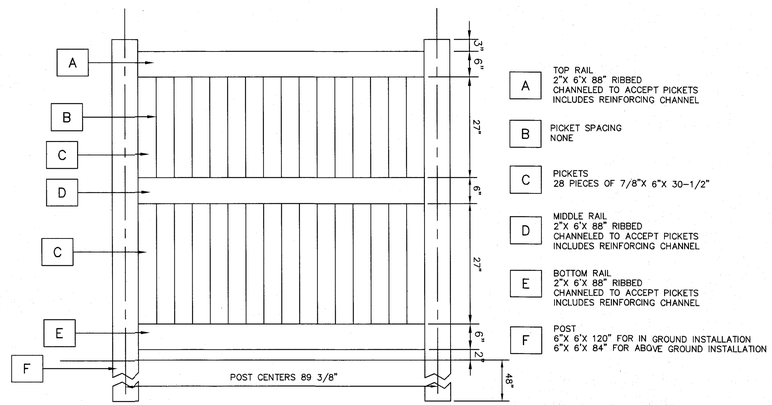



BIKE RACK DETAIL




ACCESSIBLE RAMP WITH DETECTABLE WARNINGS

N.T.S.




6' HIGH VINYL PRIVACY FENCE

NOT TO SCALE

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | Original Issue |
| 2 | City Comment - 11/21/2025 |
| 3 | Revised Plan - 02/26/2026 |
| 4 | Updated Cover Sheet 3/18/26 |
| 5 | REVISED PER STAFF COMMENTS 3-19-2026 |
| 6 | NO CHANGE THIS SHEET |


SCOTT NELSON
#945 CLAYCREST DR.
SAINT CHARLES, 63304
573-434-2160



THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-6944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348


#1414 BRYAN ROAD
O'FALLON, MISSOURI 63366

DETAILS 2


The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. All drawing, instruments or other documents not bearing the seal and signature of the engineer identified prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not bearing his seal and signature.

STATE OF MISSOURI
MICHAEL H. BOARDING
E-28643
PROFESSIONAL ENGINEER


Date: 04/23/2026
Mike Boarding, PE
License # E28643
Professional Engineer

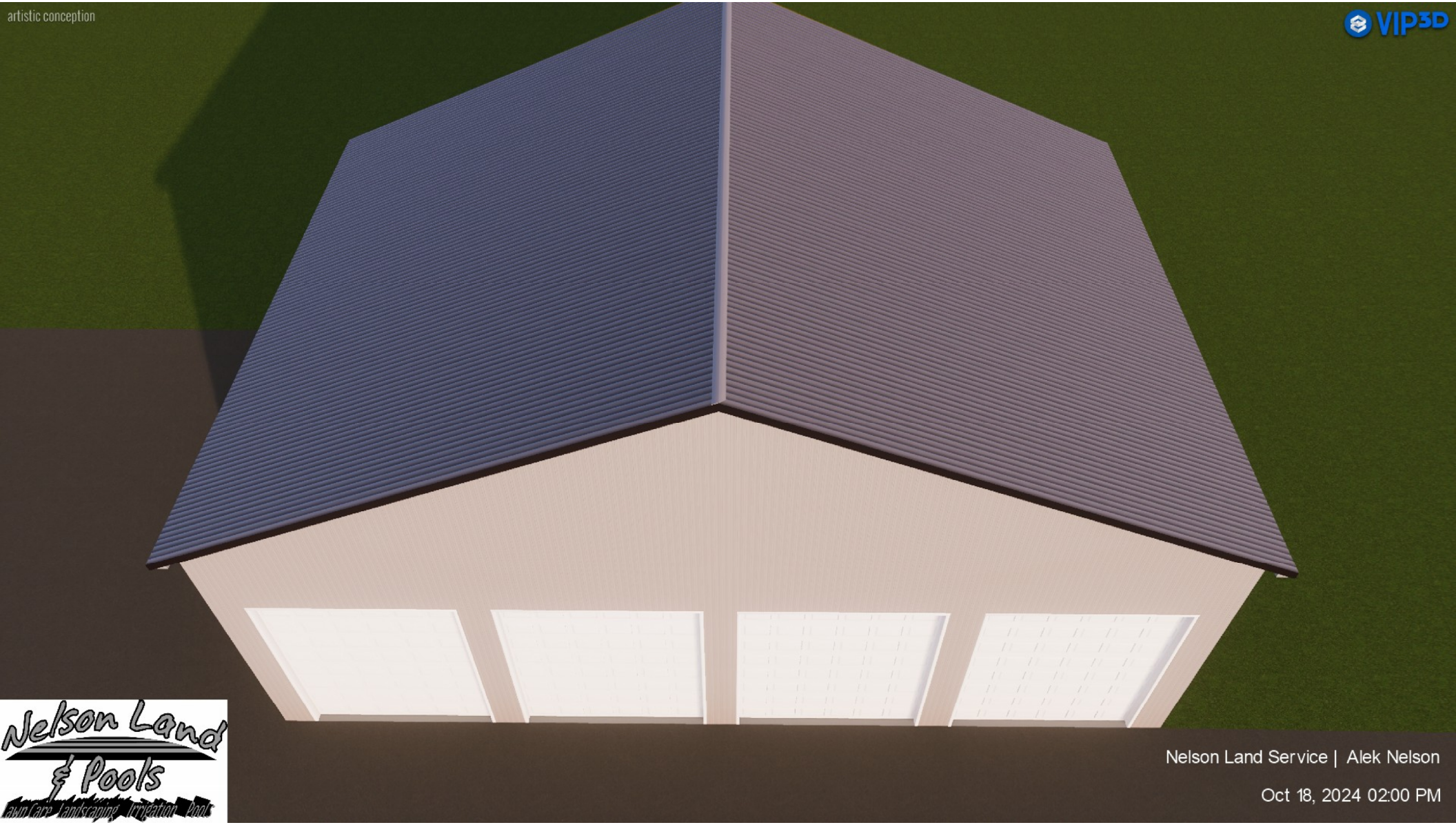
| | |
|---|---|
| Job Number | 24-12-310 |
| Date | 04/23/2026 |
| Designed: HHH | Sheet 4.1 |
| Drawn: HHH | |
| Checked: MGB | PRE |


Drawing name: V:\24\12310 1414 Bryan Rd\Drawings\Surveying\Plot Plan\2412310 Preliminary Plan - 2026 04-22.dwg Plotted on: Apr 23, 2026 - 11:52am Plotted by: jhanson


artistic conception
VIP3D
Nelson Land & Pools
Lawn Care Landscaping Irrigation Pools
Nelson Land Service | Alek Nelson
Oct 18, 2024 02:00 PM


artistic conception
VIP3D
Nelson Land & Pools
Lawn Care Landscaping Irrigation Pools
Nelson Land Service | Alek Nelson
Oct 18, 2024 02:00 PM


artistic conception
VIP3D
Nelson Land & Pools
Lawn Care Landscaping Irrigation Pools
Nelson Land Service | Alek Nelson
Oct 18, 2024 02:00 PM


artistic conception
VIP3D
Nelson Land & Pools
lawn care landscaping irrigation pools
Nelson Land Service | Alek Nelson
Oct 18, 2024 02:00 PM


artistic conception
VIP3D
Nelson Land & Pools
Lawn Care Landscaping Irrigation Pools
Nelson Land Service | Alek Nelson
Oct 18, 2024 02:00 PM

# City of O'Fallon, Missouri

## Memorandum

**Date:** April 30, 2026

**To:** Planning and Zoning Commission

**From:** David Woods, AICP
Director of Planning and Development

**Re:** 1414 Bryan Road, Nelson Land and Pools

At the April 2, 2026, Planning and Zoning Commission meeting, the site plan proposing a parking lot addition and new storage building was presented. During the citizen comment portion of the meeting the owners of neighboring properties expressed concerns with the business operations and the proposed additions. As a result, the Commission voted to table the site plan until the May meeting and requested that staff meet with the applicant to discuss a path forward in addressing the issues raised.

An on-site meeting occurred on April 14th which included representatives from the following City Departments: Planning, Code Enforcement, Building, Engineering and Police; and the following applicant representatives: business owners Scott and Stephanie Nelson, and Jamey Henson, Vice President of Sterling Engineering.

At this meeting the following topics were discussed and observed:

- All equipment (including plows, etc.) that was observed outside is planned to be stored inside the new building. Given the extent of the material stored outside staff cannot confirm that it all will fit inside the building.
- There were landscape blocks/pallets on an unimproved surface, the area in question is proposed to be paved.
- The City had received concerns from a neighboring property owner regarding drainage issues. There were no drainage issues observed that appeared to be caused by the site in question. The property seems to slope correctly. There is an adjacent owner who has the sump pump discharge pipe in a location that does not comply with City Code.
- There is a large pile of dirt and material that is being stored on the property. It was learned at the on-site meeting that this material is considered fill material and will be used to level the area for the new building pad. The Commission had asked for this material to be removed without knowing it was planned to be used as fill. In

further conversations with Mr. Nelson, I informed him that it made sense to me for this material to remain in place and be used as fill for the proposed storage building foundation. I informed him not to spread out the fill material and remove the piles as that would be considered site work which has not been approved and to leave it in its current state pending site plan approval.

- There was a discussion regarding the decibel levels that Mr. Nelson had recorded and found them to be at levels that are under the allowable decibel levels. It was explained that the summons that have been issued were not for violations of the sound level but a disturbance of peace violation. The Police will continue this enforcement action and are supportive of working together on a solution.
- There was a derelict vehicle and trailers observed on property. The derelict vehicle has been sold by an employee and should be removed soon.
- There are existing open-air storage bins located in the center of the site used for mulch and dirt. These bins hold the material in piles and allow a skid loader to scoop up the product and load onto trucks or trailers. The scraping of the metal bucket on the paved surface was loudest when heard from the open side of the bin. The scraping sound was dampened when heard from behind the bin wall. Moving the bins to the north property line should, in theory, dampen the sound that emits to the properties to the north. A new condition will be added to the site plan report that states: Provide a sound study prepared by a sound engineer that reviews the proposed location along the north property line and the Commission's preferred more centrally located placement. The location that has the lowest decibel level at the property lines shall be chosen for the bins. In addition, the sound study should address options for noise barriers or walls and the height and location of such barriers in relation to the bins.
- On April 21st and the 30th I talked with Mr. Nelson and he stated he plans to remove the Connex storage container. He has purchased two cargo trailers that will temporally store the material in the storage container until the building is complete. The cargo trailers will be delivered to the property in 4-6 weeks and the Connex storage container removed promptly thereafter.
- The existing office building also is used as a dwelling. There are limits on the number of individuals that can reside there. Further discussions regarding this will be necessary and a determination will need to be made as to what inspections or building permits will be required.
- It is Mr. Nelson's intent to begin construction of the new building as soon as possible after Planning and Zoning Commission approval. While it was mentioned, it may need further discussion to confirm that the City requires there to be Construction Site Plans and Building Plans submitted for review and approval.
- At the Commission meeting, it was mentioned that the business has approximately fifteen (15) trucks. These vehicles should be incorporated into the parking calculations.
- There were no signs of any swimming pools on the property, there were no fiberglass or whole pools. I learned that the pools this company installs are poured-

in-place at the customers property. These are called gunite pools: an inground concrete swimming pool made by pneumatically spraying a dry mix of sand and cement through a high-pressure hose, with water added only at the nozzle during application. The mixture is blasted onto a steel rebar framework to form a reinforced concrete shell that hardens into a durable, custom-shaped structure . There was a concrete pump stored on the property.

- The wooden privacy fence located along the north property line was installed seven feet onto the 1414 Bryan Road property. There are several residential lots along the north property line that have made use of the extra seven feet of rear yard area by placing improvements including sheds that are not on their property. Mr. Nelson and Mr. Henson mentioned the possibility of creating an easement along the northern common property line created to allow these improvements to remain in place while also providing a bufferyard along the same property line.
- Mr. and Mrs. Nelson met with the Glenmaro HOA President to discuss the proposed plan on April 14th.
- It was stated that the fertilizer that is stored on the property complies with all requirements and the comments made at the meeting about this not being the case were incorrect. Furthermore, there is no bulk chlorine or pool chemicals stored on the site.
- There were comments made at the Commission meeting regarding the building materials proposed for the building and if the Code required brick. There is not a code provision that would require the building to be brick. Agricultural zoning allows a full metal building, commercial zoning would allow aluminum composite material (ACM) panels used as accent features, provided that not more than thirty percent (30%) of the surface area of any elevation is constructed of such material. Mr. Nelson stated he would consider constructing the building using brick if the property was commercially zoned.
- It was observed that a property owner along the south property line at the stub street has installed a removable barrier to prevent golf carts or similar vehicles from traveling through his front yard. There is a wide area where large rocks have been placed at the end of the stub street to prevent passenger vehicles from traveling off of the public road.
- I was informed of a concern regarding soil contamination from the stored salt used for the snow removal operations. I asked Mr. Nelson about this on April 30th and was informed that calcium chloride is sprayed on salt so that the salt will melt ice at a lower temperature. I have learned that calcium chloride is colored blue as it contains a non-toxic tracking dye. Concentrated salt would kill vegetation; staff did not observe any dead vegetation during our recent site visit.

Zoning Question Regarding Land Use:

The property in question was zoned Agricultural in 1999 for a business called County Land Maintenance. The land use was approved as a lawn care service company, tree farm and single-family residence.

According to City records, County Land Maintenance closed in the spring of 2022 and Nelson County Land Maintenance DBA Nelson Land and Pool started operations in the summer of 2022.

In Appendix A of the Zoning Code there is a land use category for Landscape contracting services. There is another category for Lawn care services. Upon comparing these categories with the services provided by Nelson Land and Pools with the City Attorney, it has been determined that snow removal operations are not considered to be within the scope of a "Lawn care service". Snow removal operations are not separately listed as a permitted or conditional use in the zoning code and have been generally considered under the category of Landscape Contracting Service.

On April 20, I called Scott Nelson to relay this information and the fact that the snow removal operations are not allowed in an Agricultural zoning district. He asked what would be required for these operations to continue. The Code requires Landscape contracting services to be in a C-3, I-1 or I-2 zoning district with C-3 being the only feasible option. Given the time of year, the business is currently not conducting this service. The owner's initial thought on this is that they would like to move forward with the site plan for the parking and building addition and come back at a later time with a rezoning request for C-3 to maintain the snow operations.

In reviewing aerial photography, the structure where the salt is currently stored is first seen on GoogleEarth in August 2012; however, it is impossible to tell from aerial photographs what was stored in the structure. The property was already zoned Agriculture at that point in time and County Land Maintenance could not have lawfully conducted snow removal / salt operations on the site. City staff then reviewed websites and marketing materials from the timeframe in which County Land Maintenance was operating on the site and there is no mention of snow removal services being provided at all. From all indications it appears that snow removal and salt operations is not a lawful nonconforming use.

# City of O'Fallon, Missouri

## Memorandum

**Planning and Zoning Commission** **G. 1. a.**

**Meeting Date:** 05/07/2026

**Re:** Unified Public Hearing for Zoning and Area Plan for property on Gallup Lane - Caballo Farms Addition

**From:** Tracy Coffman, Planning Specialist for Planning & Development

**Department:** Planning and Development

**Agenda Category:** New Business

**Item:**

This is a Unified Public Hearing for Zoning and Area Plan for property on Gallup Lane, Caballo Farms Addition.

**Recommendation:**

To hold the Public Hearing to receive citizen input.

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 1. b.**

**Meeting Date:** 05/07/2026
**Re:** Zoning and Area Plan for property on Gallup Lane - Caballo Farms Addition
**From:** Tracy Coffman, Administrative Assistant for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a request for rezoning, from unincorporated, proposed to be annexed to R-1/PUD Single Family Residential District Planned Unit Development and Area Plan for property located on Gallup Lane, to be known as Caballo Farms Addition.

**Recommendation:**
Staff Report is attached.

**Attachments**

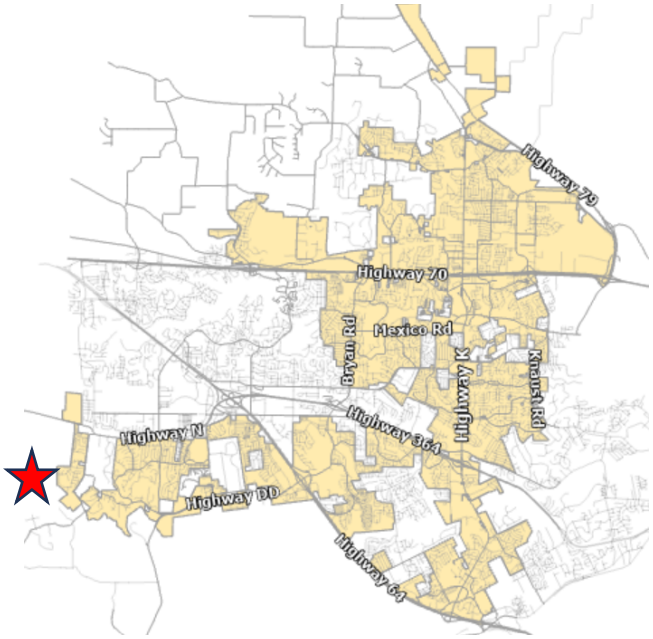
Staff Report
Site Location Map
Property Owner Notification List
Area Plan
Elevations
Rezoning Narrative
Traffic Study
Fiscal Impact Analysis
Wentzville School District Letter
Wentzville Fire District Letter

**O'Fallon Planning and Zoning Commission Meeting**
**O'Fallon Municipal Centre Council Chambers**
**100 North Main Street, O'Fallon, MO 63366**

This plan is for an addition to Caballo Farms. The original Area Plan and Rezoning for Caballo Farms was recommended for approval by the Planning and Zoning Commission at the February 5, 2026 meeting, and approved by the City Council at the February 26, 2026 meeting. The Final Plan for Caballo Farms was recommended for approval by the Planning and Zoning Commission at the April 3, 2026 meeting, and denied by the City Council at the April 23, 2026 Meeting. If this plan was recommended for approval and ultimately approved by the City Council as well as the associated annexation, it would be at the same status of the original Caballo Farms Subdivision plans. The land would be annexed into the City and zoned appropriately for development.

## Project Summary:

| | |
|---|---|
| **Meeting Date:** | May 7, 2026 |
| **Case Number:** | 26-003276 |
| **Location of Subject Property:** | Property to the west of Harvest at Hopewell Subdivision near Diehr Road |
| **Action Requested:** | Approval of a Rezoning from Unincorporated to R-1/PUD Single-Family Residential/ Planned Unit Development and an Area Plan for a 14-lot subdivision. |
| **Recommendation:** | Approval |
| **Final Action:** | City Council |
| **Related Applications:** | Annexation |
| **Staff Contact:** | Ethan Hendricks, AICP<br>ehendricks@ofallonmo.gov<br>636-379-5467 |




## Applicant Summary:

| | |
|---|---|
| **Applicant and Engineer:** | Scott Loveless – Sterling Engineering<br>5055 New Baumgartner Road<br>St. Louis, MO 63129<br>314-487-0440<br>sloveless@sterling-eng-sur.com |
| **Contract Purchaser:** | Jeremy Roth – McBride Land Growth, LLC<br>17415 North Outer Forty Road<br>Chesterfield, MO 63005<br>314-336-0248<br>jroth@mcbride-land.com |

| | |
|---|---|
| **Property Owner of Record:** | Alexandra Hart, Mary E Sudbrock Lucido and David J Lucido, Aaron Mohr and Cherie Mohr |

**Subject Property Datum**:

| | | | | | |
|---|---|---|---|---|---|
| **Parcel Size:** | 6.08 acres | **Current Zoning:** | Unincorporated | **Proposed Zoning:** | R-1/PUD Single-Family Residential/ Planned Unit Development |

**Proposed Residential Density:**

Residential Density for an Area Plan is based on several factors including the amount of Right-of-Way being conveyed, the amount of amenities, etc. The formula for determining the density is below.

*Total acres – proposed ROW (city) – detention areas – common ground area + common ground with amenities + undeveloped watershed corridor = Net Area*

*Net Area in acres * 43,560 sq. ft. / 10,000 sq. ft. = Total number of units*

The density calculations are below.

6.08 acres – 0.84 acres – 0.44 acres – 2.75 acres + 2.75 acres = 4.80 acres

4.80 acres * 43,560 sq. ft. / 10,000 sq. ft. = **20 lots allowed**

The developers are proposing 14 units with this plan, which is within the required density.

**Smallest Lot Comparison:**

| **Caballo Farms Village "A" 60' Lots** | **Caballo Farms Village "B" 52' Lots** | **Caballo Farms Village "C" 40' Lots** | **Caballo Farms Addition** |
|---|---|---|---|
| 7,200 sf | 5,316 sf | 4,600 sf | 5,807 sf |
| 7,200 sf | 5,454 sf | 4,680 sf | 6,042 sf |
| 7,200 sf | 5,477 sf | 4,680 sf | 6,060 sf |
| 7,200 sf | 5,613 sf | 4,720 sf | 6,083 sf |
| 7,200 sf | 5,714 sf | 4,740 sf | 6,252 sf |
| 7,200 sf | 5,746 sf | 4,740 sf | 6,264 sf |
| 7,200 sf | 6,145 sf | 4,756 sf | 6,264 sf |
| 7,200 sf | 6,163 sf | 4,760 sf | 6,264 sf |
| 7,200 sf | 6,212 sf | 4,760 sf | 6,264 sf |
| 7,200 sf | 6,293 sf | 4,781 sf | 6,264 sf |

**Comprehensive Plan Designation:**

This property is not shown on the Future Land Use Map. However, this property meets various goals and objectives of the Comprehensive Plan.

*Increase the diversity of housing stock to provide options for a variety of residents.*

- This plan has three different villages with three distinct lot sizes, which allows for a variety of single-family home plans and sizes throughout the development.

*Continue requirements for right-of-way dedication and street improvement by*

| | |
|---|---|
| | *developers.*<br>• This plan includes the extension of Diehr Road and stubs for additional future development. Diehr Road is a major road in this section of the City and is currently slated for additional improvements in 2026-2027 from Hopewell Road to Highway DD.<br><br>*Continue to preserve and support the unique identity of each neighborhood in the City with compatible development and standards.*<br>• This plan is compatible with other developments occurring in this rapidly developing area of the County. Between Harvest at Hopewell, Post Farms, and several other projects approved in the County, this development is compatible and helps to create the unique identity for developments in this area.<br><br>Based on this information, staff believes the development of this property follows the recommendations of the 2021 Comprehensive Plan. |
| **Current Use of Subject Property:** | The property is currently used as farmland. There are multiple buildings on the property. |
| **Proposed Use of Subject Property:** | The property is currently in unincorporated St. Charles County. The applicant is requesting to annex the property and zone it as R-1/Single Family Residential with a PUD/Planned Unit Development. This would then allow for an Area Plan to create a 14-lot single-family subdivision. This would be an addition to Caballo Farms Subdivision. The Caballo Farms amenity areas include a playground and a pavilion. They are also proposing a retention lake at the south end of the development. |
| **PUD Designation:** | Planned Unit Developments allow for increases flexibility and allow deviation from certain regulations of the underlying zoning district for large scale developments. Planned Unit Developments are meant to be used when various environmental factors would make development within the standard districts unreasonably difficult or impossible.<br><br>The intents of the Planned Unit Development Code are:<br>• To permit flexibility in site design.<br>• To achieve more efficient use of land, within the framework and intent of the Zoning Ordinance, which can result from large scale or multiple use developments.<br>• To encourage and permit provision of open space.<br>• To protect and preserve scenic assets and natural features and to incorporate these into the development.<br>• To foster a more stable community by providing a variety and balance of housing types and living environments.<br>• To encourage and permit variety in the location of buildings, roads, parking lots, and other facilities and activities.<br>• To increase the safety of pedestrian and vehicular traffic by reducing the number of traffic conflict points within a development.<br>• To reduce land cost per dwelling unit in residential developments.<br><br>This property has several environmental factors that impact any potential developments. The most prevalent is a creek that runs through the center of the property. Other environmental factors include floodplain and floodway located at |

| | |
|---|---|
| | the south end of this property. There is also an overhead power line that runs through the middle of this property as well.<br><br>The developer has shown staff an exhibit showing how the site would have to develop under R-1 zoning. This plan had a limited number of lots, included piping the creek, and minimal open space and natural features being preserved.<br><br>The design of this plan allows for the preservation of the creek, a majority of the floodplain and floodway, and allows for development around the overhead power line, which meets the following PUD intents:<br>• To permit flexibility in site design.<br>• To achieve more efficient use of land, within the framework and intent of the Zoning Ordinance, which can result from large scale or multiple use developments.<br>• To protect and preserve scenic assets and natural features and to incorporate these into the development.<br>• To foster a more stable community by providing a variety and balance of housing types and living environments. |
| **Fiscal Impact Analysis:** | Staff has developed a Fiscal Impact Analysis to study the short-term and long-term financial impacts to the City when reviewing large developments. The analysis looks at the cost of staffing, infrastructure maintenance and eventual replacement of infrastructure over the lifespan of the proposed development and compares it to the projected income from taxes, new residents spending money in O'Fallon and other income sources. The output of this analysis looks at how much money is generated per $1 spent by the city in maintenance because of a proposed development.<br><br>Based on the Fiscal Impact Analysis conducted by staff for this project, it is projected to generate $0.66 for every $1.00 spent by the City in maintenance and staffing. This is a yearly loss of $192,525 and a loss of $7,700,980 over the projected 40-year lifespan of the infrastructure. |

| | | | |
|---|---|---|---|
| **Adjacent Parcel Data** | **North** | Unincorporated | Undeveloped |
| | **South** | R-1/PUD | Undeveloped/Caballo Farms Subdivision |
| | **East** | Unincorporated | Autumn Hollow |
| | **West** | Unincorporated | Undeveloped |

**Area Plan Component Details:**

| | | |
|---|---|---|
| **Access to Property:** | The applicant is proposing access from Street A proposed within Caballo Farms Subdivision. This proposed street connects to Diehr Road. | |
| **Legal Description:** | Provided. | |
| **Storm Water Detention:** | A dry detention basin is proposed. | |
| **Landscape Plans:** | **On Site:** | Provided. |
| | **Bufferyard:** | Provided. |
| **Building Detail:** | Elevations have been provided. | |
| **Final Plan and Construction Plan and Plot** | 1. Provide details for all improvements. (Sidewalks, trails, pavement details, ADA ramps, parking stall details, ADA parking signs, etc.)<br>2. Provide Fire District, MODOT, MDNR, Sanitary and Water District and school | |

| | |
|---|---|
| **Plan Comments:** | district approvals.<br>3. Provide Detention easements (Access & 20' High Water) from a public road.<br>4. Provide documentation regarding habitat removal from the FFW services.<br>5. Label ADA ramps and types at all intersections.<br>6. Provide CC&R's for shared private infrastructure and amenities.<br>7. All storm infrastructure in common ground will be private.<br>8. Color code utilities (water-navy blue, sanitary-forest green, storm-violet purple).<br>9. Verify no landscaping within 5 feet of underground utilities/facilities. |

**Proposed Lot Datum:**

| | | |
|---|---|---|
| **General Information:** | The property is currently in unincorporated St. Charles County. The applicant is requesting to annex the property and zone it as R-1/Single Family Residential with a PUD/Planned Unit Development. This would be an addition to the Caballo Farms Subdivision, which is a 276-lot subdivision. This addition is for 14 lots. Their amenity areas include a playground and a pavilion. They are also proposing a retention lake at the south end of the development. | |
| **Proposed Setbacks (feet):** | **Front Yard:** | 25 feet |
| | **Side Yard:** | 6 feet |
| | **Rear Yard:** | 25 feet |
| **Proposed Amenities:** | Their amenity areas include a playground and a pavilion. They are also proposing a retention lake at the south end of the development. | |

**Comparison Breakdown of R-1/Single-Family District and the variations proposed as part of the Planned Unit Development.**

| Zoning District | Minimum Lot Size | Minimum Lot Width | Lot Coverage |
|---|---|---|---|
| **R-1** | 10,000 sf | 80 feet | 35% |
| **R-1/PUD:** | 5,200 sf | 40 feet | 55% |

**The following facts are to be considered by the Planning and Zoning Commission in the review of a petition for a zoning amendment per Section 400.680 of the Zoning Ordinance:**

| Zoning Regulations: | Staff Comments: |
|---|---|
| **1. Whether or not the requested zoning is justified by a change in conditions since the original ordinance was adopted or by an error in the original ordinance.** | The applicant is proposing to construct a residential development with 14 lots. The rezoning is justified due to the current and proposed use of the site. |
| **2. The precedents, the possible effects of such precedents, which might likely result from the approval or denial of the application.** | The subject property is adjacent to other residential uses, which is consistent with the area. This subdivision is an addition to an approved subdivision with the same zoning. Approving the rezoning request would not set a precedent. |
| **3. The ability of the City or other government agencies to provide any services, facilities, and/or programs that might likely result from approval or** | All necessary utilities are existing or able to be extended to the site. |

| | |
|---|---|
| **denial of the application.** | |
| **4. Effect of approval of the application on the conditions and/or value of the property in the City or adjacent civil divisions.** | The proposed zoning and land use is consistent with the surrounding area. The proposed rezoning would not have a negative impact on the surrounding land uses. |
| **5. Effect of approval of the petition on adopted policies of the City and other government units.** | Approval of the rezoning would be consistent with the City's adopted development policies and Comprehensive Plan. |
| **6. The zoning and land use recommended by the Comprehensive Plan.** | The subject property is not shown on the Future Land Use Map, but staff believes the plan meets the recommendations of the 2021 Comprehensive Plan. |

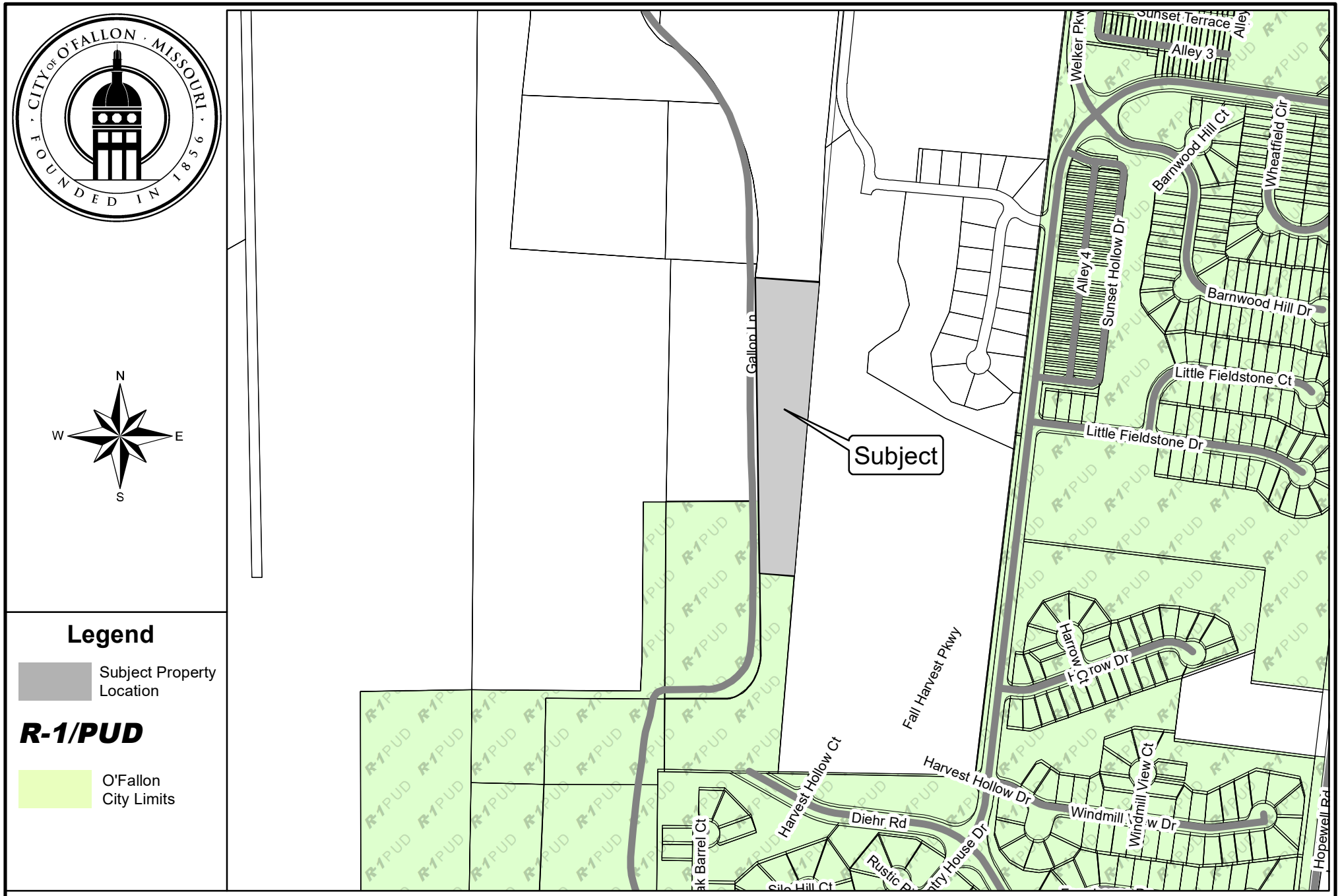
**The photograph shows the Public Meeting sign near the subject property.**




## Staff Recommendation:

| | |
|---|---|
| Staff is recommending **approval** of the Area Plan and Rezoning based on the following findings and conditions: | |
| **Findings:** | 1. The site is near single-family subdivisions within the City of O'Fallon and approval would not set a precedent.<br>2. The proposed subdivision is an addition to an adjacent 276-lot subdivision and the rezoning would not have a negative impact on the surrounding land uses. |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Final Plans and Construction Plans |

| | |
|---|---|
| | 2. Address the Final Plan and Construction Plan comments on future submittals.<br>3. The developer shall work with staff during the Construction Plan phase to determine the appropriate layout of driveways around cul-de-sacs and eyebrows throughout the development to allow for sufficient areas for snow deposits during snow events.<br>4. The developer shall comply with the findings and recommendations of traffic study.<br>5. Provide information regarding the FEMA flood map. It appears the study area stopped short of this property which doesn't necessarily mean it is not located in floodplain. Provide more information on the elevations of this area.<br>6. All perimeter lots need the full rear yard setback. Call out the rear year in the notes as being 25 feet.<br>7. Provide a detectable tracer wire for all underground utilities.<br>8. Verify that the changes to the legal description have been made as called out by St. Charles County. |




52 Gallop Lane

| Owner | SiteAddress | City_State_Zip |
|---|---|---|
| S AND W FARM INC | 678 E HWY N | WENTZVILLE MO, 63385-5907 |
| ST LOUIS LAND HOLDING LLC | 4 RESEARCH PARK DR STE 130 | ST CHARLES MO, 63304 |
| MOHR AARON*MOHR CHERIE | 74 GALLOP LN | WENTZVILLE MO, 63385 |
| STEINMANN ROGER O*STEINMANN THERESA L | 870 E HWY N | WENTZVILLE MO, 63385 |
| STEINMANN ROGER O*STEINMANN THERESA L | 24850 PIKE 9306 | EOLIA MO, 63344 |
| GALLOP LANE LLC*GROEPER R STEVEN ROTH IRA | 406 MAPLE LEAF CT | BALLWIN MO, 63021 |

# Caballo Farms Addition

*A TRACT OF LAND BEING PART OF U.S. SURVEY 891 AND FRACTIONAL SECTIONS 7, 8, AND 18, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, ST. CHARLES COUNTY, MISSOURI*

## Area Plan

### GENERAL NOTES:

1. SANITARY SEWER CONNECTIONS SHALL BE AS APPROVED BY DUCKETT CREEK SANITARY DISTRICT. SANITARY LATERALS SHALL BE 6" SDR-26 MINIMUM.
2. STORM WATER SYSTEMS SHALL BE DESIGNED PURSUANT TO THE REQUIREMENTS OF CITY OF O'FALLON AND SHALL DISCHARGE AT AN ADEQUATE NATURAL DISCHARGE POINT.
3. THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS TO BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLANS.
4. GRADING SHALL BE PER CITY OF O'FALLON STANDARDS.
5. LIGHTING SHALL BE PER CITY OF O'FALLON STANDARDS. STREET LIGHTING TO BE PRIVATE.
6. THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THE PROVISIONS SHALL IN NO WAY, ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.
7. THE SOURCE OF TOPOGRAPHIC INFORMATION: LIDAR
8. ALL SIDEWALKS SHALL BE 4' WIDE MINIMUM AND COMPLY WITH CITY OF O'FALLON AND ADA STANDARDS.
9. THIS PLAT IS NOT FOR RECORD.
10. NO GRADED SLOPES SHALL EXCEED 3 FEET (horizontal) TO 1 FOOT (vertical) UNLESS JUSTIFIED BY A GEOTECHNICAL REPORT THAT HAS BEEN REVIEWED AND APPROVED BY THE CITY OF O'FALLON.
11. REQUIRED 10' WIDE PERMANENT UTILITY EASEMENTS ALONG ALL RIGHTS-OF-WAY WILL BE PROVIDED ON RECORD PLAT.
12. IN CONFORMANCE WITH PHASE 2 STORM WATER GUIDELINES, THIS DEVELOPMENT SHALL PROVIDE LONG TERM POST CONSTRUCTION BMP'S SUCH AS LOW IMPACT DESIGN, SOURCE CONTROLS AND TREATMENT CONTROLS TO PROTECT WATER QUALITY AND CONTROL RUNOFF IN COMPLIANCE WITH THE REQUIREMENTS OF THE CITY OF O'FALLON. ALL POST CONSTRUCTION BMP'S WILL BE COVERED BY EASEMENTS AND WILL BE RECORDED WITH THE RECORD PLAT. THESE EASEMENTS WILL ALLOW ACCESS FOR MAINTENANCE FOR THE HOME OWNERS ASSOCIATION AND INSPECTION FOR THE CITY.
13. ALL NEW UTILITIES SHALL BE LOCATED UNDERGROUND.
14. ALL SUBDIVISION MONUMENTS, IDENTIFICATION SIGNAGE AND/OR DIRECTIONAL SIGNAGE SHALL BE REVIEWED AND PERMITTED SEPERATELY.
15. THIS SUBDIVISION WILL MEET ARTICLE 13, PERFORMANCE STANDARDS.
16. THIS PLAN IS IN SUBSTANTIAL CONFORMANCE WITH THE 2021 COMPREHENSIVE PLAN.
17. ALL STORM INFRASTRUCTURE IN COMMON GROUND OR LEADING TO/FROM COMMON GROUND WILL BE PRIVATE.
18. ALL UTILITIES ALONG SIDE YARD LOT LINES SHALL BE COVERED BY A 15 FOOT WIDE EASEMENT CORRIDOR.
19. ALL DETENTION BASINS SHALL BE ACCESSIBLE BY VEHICLE FOR MAINTENANCE AND INSPECTION.

### DEVELOPMENT NOTES:

1. GROSS AREA OF SITE: 6.08 ACRES
2. CURRENT ZONING: A AGRICULTURAL (UNINCORPORATED ST. CHARLES COUNTY)
3. PROPOSED ZONING: R-1 PUD (CITY OF O'FALLON)
4. PRELIMINARY DEVELOPMENT DATA:

| | |
|---|---|
| DENSITY CALCULATION: | |
| GROSS AREA: | 6.08 AC. |
| (–) PROPOSED RIGHT-OF-WAY: | 0.84 AC. |
| (–) DETENTION: | 0.44 AC. |
| (–) TOTAL COMMON GROUND (EXC. DETENTION): | 2.75 AC. |
| (+) PORTION OF COMMON GROUND AS AMENITIES OR DEVELOPABLE OPEN SPACE: | 2.75 AC. |
| NET AREA: | 4.80 AC. |

4.80 AC. * 43,560 / 10,000 S.F. = 20.9 lots allowable

TOTAL LOTS PROPOSED: 14

MAXIMUM BUILDING HEIGHT: 2.5 STORIES OR 35'

MINIMUM SQUARE FOOTAGE OF DWELLING UNIT TO BE BUILT: SEE SECTION 500.030 OF CITY CODE

TOTAL COMMON GROUND: 3.19 AC. (52.4%)

### SETBACKS:

FRONT YARD = 25 FT.
SIDE YARD = 6 FT.
REAR YARD = 20 FT.

### DEVIATIONS FROM R-1 ZONING DISTRICT

| | R-1 REGULATIONS | PROPOSED |
|---|---|---|
| MIN. LOT SIZE | 10,000 S.F. | 5,200 S.F. |
| MIN. LOT WIDTH | 80 FT. | 52 FT. |
| MAX. LOT COVERAGE | 35% | 55% |

### TREE ORDINANCE COMPLIANCE:

EXISTING TREES = 1.24 ACRES
TREES REMOVED = 0.05 ACRES
TREES SAVED = 1.19 ACRES (95%)
TREES REQUIRED TO BE SAVED = 0.24 ACRES (20%)
NO PLANTING MITIGATION REQUIRED.
COMPLIED WITH CHAPTER 402, SECTION 402.040

### PARKING REQUIREMENTS:

REQUIRED: (2.0 SPACES/UNIT)x 14 UNITS= 28 SPACES

SPACES PROVIDED: 28 GARAGE SPACES
28 DRIVEWAY SPACES
56 TOTAL SPACES PROVIDED

### CURRENT OWNERS:

MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/I MARY E. SUDBROCK LUCIDO DATED JUNE 18, 1992
DEED BOOK 1563, PAGE 1327
PARCEL ID:
4-0038-S008-00-0005.600
ADDRESS: 74 GALLOP LANE

CABALLO FARMS INC.
DEED BOOK 2260, PAGE 2016
PARCEL ID:
4-0038-S007-00-0005.200
ADDRESS: NONE LISTED

JEFFREY LAPPE
2025R-043091 (9/29/25)
4-0038-S007-00-0005.5100000
ADDRESS: NONE LISTED

JEFFREY G. LAPPE
DEED BOOK 2677, PAGE 556
4-0038-S008-00-0005.81
ADDRESS: 52 GALLOP LANE

### OWNER UNDER CONTRACT:

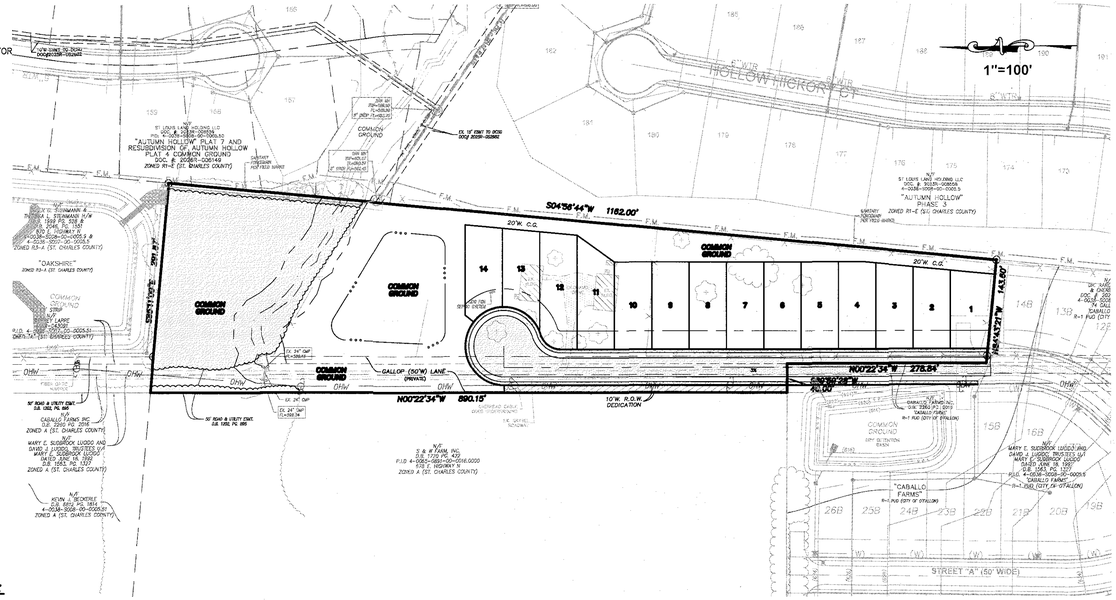
MCBRIDE LAND GROWTH, LLC
17415 NORTH OUTER FORTY ROAD
CHESTERFIELD, MISSOURI 63005

### LOT DATA:

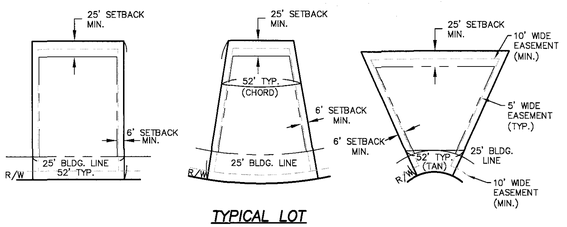
| | |
|---|---|
| MIN. LOT WIDTH | 52 FT. |
| AVERAGE LOT SIZE | 6,393 SQ.FT. |
| MINIMUM LOT | 5,200 SQ.FT. |
| MAXIMUM LOT | 8,161 SQ.FT. |

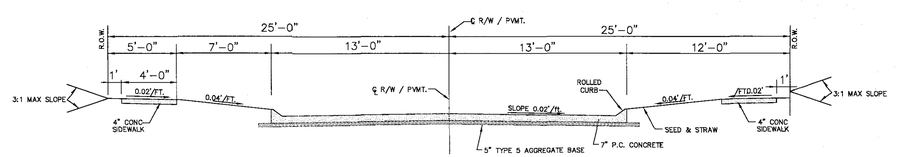
### 10 SMALLEST LOTS:

| LOT # | LOT SIZE |
|---|---|
| 2 | 5,807 Sq. Ft. |
| 13 | 6,042 Sq. Ft. |
| 3 | 6,060 Sq. Ft. |
| 1 | 6,083 Sq. Ft. |
| 4 | 6,252 Sq. Ft. |
| 5 | 6,264 Sq. Ft. |
| 6 | 6,264 Sq. Ft. |
| 7 | 6,264 Sq. Ft. |
| 8 | 6,264 Sq. Ft. |
| 9 | 6,264 Sq. Ft. |




### TYPICAL LOT
NOT TO SCALE




### "MINOR LOCAL" TYPICAL PAVEMENT SECTION
N.T.S.
RIGHT-OF-WAY TO BE PUBLIC

### PROPERTY DESCRIPTION:

PROPERTY DESCRIPTION (AS SURVEYED):

A TRACT OF LAND BEING PART OF FRACTIONAL SECTIONS 7 AND 8, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, ST. CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A STONE FOUND ON THE COMMON CORNER OF SECTIONS 7, 8, 17, AND 18 OF THE ABOVEMENTIONED TOWNSHIP AND RANGE, SAID CORNER BEING THE NORTHWEST CORNER OF HARVEST AT HOPEWELL PLAT SEVEN-B, A SUBDIVISION RECORDED AS DOCUMENT NO. 2025R-020093 OF THE ST. CHARLES COUNTY, MISSOURI RECORDS; THENCE ALONG THE EAST LINE OF SAID FRACTIONAL 7, SAID LINE ALSO BEING THE EAST LINE OF A TRACT OF LAND CONVEYED TO CABALLO FARMS INC. BY INSTRUMENT RECORDED IN DEED BOOK 2260 PAGE 2016 OF THE ST. CHARLES COUNTY, MISSOURI RECORDS, NORTH 01°20'48" EAST, 287.94 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED TRACT OF LAND; THENCE CONTINUING ALONG THE EAST LINE OF SAID FRACTIONAL SECTION 7 AND SAID CABALLO FARMS INC. TRACT, NORTH 01°20'48" EAST, 10.00 FEET TO A POINT; THENCE LEAVING THE EAST LINE OF SAID FRACTIONAL SECTION 7 AND CONTINUING ALONG THE EAST LINE OF SAID CABALLO FARMS INC. TRACT, THE FOLLOWING COURSES, DISTANCES, AND CURVES: NORTH 89°33'15" EAST, 217.51 FEET TO A POINT OF CURVATURE; ALONG AN ARC CONCAVE TO THE NORTHWEST, AN ARC LENGTH OF 288.98 FEET, A RADIUS OF 165.00 FEET, THE CHORD OF WHICH BEARS NORTH 44°35'21" EAST, 233.20 FEET TO A POINT OF TANGENCY; NORTH 00°22'34" WEST, 1,759.25 FEET TO A POINT OF CURVATURE; ALONG AN ARC CONCAVE TO THE WEST, AN ARC LENGTH OF 802.49 FEET, A RADIUS OF 890.00 FEET, THE CHORD OF WHICH BEARS NORTH 26°12'26" WEST, 775.58 FEET TO A POINT OF REVERSE CURVATURE; ALONG AN ARC CONCAVE TO THE EAST, AN ARC LENGTH OF 275.55 FEET, A RADIUS OF 285.55 FEET, THE CHORD OF WHICH BEARS NORTH, 24°23'38" WEST, 264.98 FEET TO A POINT OF TANGENCY, AND NORTH 03°15'02" EAST, 1,280.52 FEET TO THE NORTHEAST-MOST CORNER OF SAID CABALLO FARMS INC. TRACT, SAID CORNER BEING LOCATED ON THE SOUTH RIGHT-OF-WAY LINE OF MISSOURI STATE HIGHWAY 'N' (60 FEET WIDE); THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE, SOUTH 75°33'40" EAST, 10.19 FEET OT A FOUND IRON ROD LOCATED ON THE NORTHWEST CORNER OF A TRACT OF LAND CONVEYED TO STEVEN C. BADER, BY INSTRUMENT RECORDED IN DEED BOOK 6257 PAGE 794 OF SAID RECORDS; THENCE ALONG THE WEST LINE OF SAID BADER TRACT, AND THE WEST LINE OF A TRACT OF LAND CONVEYED TO ROGER D. AND THERESA L. STEINMANN BY INSTRUMENT RECORDED IN DEED BOOK 1999 PAGE 508 OF SAID RECORDS, SOUTH 03°15'02" WEST, 1,278.55 FEET TO A POINT OF TANGENCY, FROM WHICH POINT A FOUND IRON ROD CAPPED 'LS 2002000247' BEARS SOUTH 54°25'00" EAST, 0.19 FEET; THENCE CONTINUING ALONG THE EAST LINE OF SAID STEINMANN TRACT, THE FOLLOWING COURSES, DISTANCES, AND CURVES: ALONG AN ARC CONCAVE TO THE EAST, AN ARC LENGTH OF 265.90 FEET, A RADIUS OF 275.55 FEET, THE CHORD OF WHICH BEARS SOUTH 24°23'38" EAST, 255.70 FEET TO A FOUND IRON ROD CAPPED 'LS2002000247' LOCATED ON A POINT OF REVERSE CURVATURE; ALONG AN ARC CONCAVE TO THE WEST, AN ARC LENGTH OF 811.51 FEET, A RADIUS OF 900.00 FEET, THE CHORD OF WHICH BEARS SOUTH 26°12'26" EAST, 784.30 FEET TO A POINT OF TANGENCY, FROM WHICH A FOUND IRON ROD BEARS SOUTH 21°03'36" WEST, 0.21 FEET; AND SOUTH 00°22'34" EAST, 254.50 FEET TO A FOUND IRON ROD LOCATED ON THE SOUTHWEST CORNER OF SAID STEINMANN TRACT; THENCE ALONG THE SOUTH LINE OF SAID STEINMANN TRACT, SOUTH 85°11'09" EAST, 241.66 FEET TO THE SOUTHEAST CORNER OF SAID STEINMANN TRACT, SAID CORNER BEING LOCATED ON WEST LINE OF 'AUTUMN HOLLOW PLAT 7 AND RESUBDIVISION OF AUTUMN HOLLOW PLAT 4 COMMON GROUND' A SUBDIVISION RECORDED AS DOCUMENT NUMBER 2026R-006149 OF SAID RECORDS, FROM WHICH CORNER A FOUND IRON ROD BEARS NORTH 85°11'09" WEST, 0.26 FEET; THENCE ALONG THE WEST LINE OF SAID 'AUTUMN HOLLOW PLAT 7 AND RESUBDIVISION OF AUTUMN HOLLOW PLAT 4 COMMON GROUND' SUBDIVISION, AND THE WEST LINE OF A TRACT OF LAND CONVEYED TO ST. LOUIS LAND HOLDING LLC, BY INSTRUMENT RECORDED AS DOCUMENT NUMBER 2023R-008559 OF SAID RECORDS, A BOUNDARY SURVEY OF WHICH IS RECORDED AS DOCUMENT NUMBER 2023R-024124 OF SAID RECORDS, SOUTH 04°56'44" WEST, 1,162.00 FEET TO A FOUND IRON ROD CAPPED 'RLS 1851' LOCATED ON THE NORTHEAST CORNER OF A TRACT OF LAND CONVEYED TO DR. AARON MOHR AND CHERI MOHR BY INSTRUMENT RECORDED AS DOCUMENT NUMBER 2024R-038459 OF SAID RECORDS; THENCE ALONG THE NORTH LINE OF SAID MOHR TRACT, NORTH 84°43'21" WEST, 143.55 FEET TO THE NORTHWEST CORNER OF SAID MOHR TRACT, FROM WHICH A FOUND IRON ROD CAPPED 'RLS 1851' BEARS NORTH 84°43'21" WEST, 0.12 FEET; THENCE ALONG THE WEST LINE OF SAID MOHR TRACT, THE FOLLOWING COURSES, DISTANCES AND CURVES: SOUTH 00°22'34" EAST, 339.05 FEET TO A POINT OF CURVATURE FROM WHICH A FOUND IRON ROD BEARS NORTH 27°51'43" WEST, 0.13 FEET; ALONG AN ARC CONCAVE TO THE NORTHWEST, AN ARC LENGTH OF 274.68 FEET, A RADIUS OF 175.00 FEET, THE CHORD OF WHICH BEARS SOUTH 44°35'21" WEST, 247.34 FEET TO A POINT OF TANGENCY; AND SOUTH 89°33'15" WEST, 217.83 FEET TO THE POINT OF BEGINNING, AND CONTAINING 265,873 SQUARE FEET (6.0577 ACRES) MORE OR LESS, ACCORDING TO A BOUNDARY SURVEY PERFORMED BY THE STERLING COMPANY DURING THE MONTH OF MARCH, 2026 UNDER PROJECT NUMBER 26-02-028.

### UTILITY CONTACTS

SANITARY SEWER
DUCKETT CREEK
3550 HWY K
O'FALLON, MO 63368
CONTACT:

WATER
PWSD #2
100 WATER DR.
O'FALLON, MO 63368
CONTACT:

STORM SEWER
CITY OF O'FALLON
100 N. MAIN ST.
O'FALLON, MO 63366
636-281-2858

CUIVRE RIVER ELECTRIC
8757 HIGHWAY N
LAKE SAINT LOUIS, MO 63367
636-695-4731

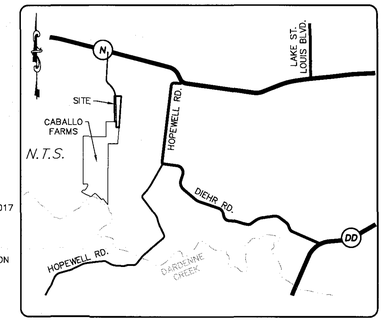
CENTRAL ELECTRIC POWER COOPERATIVE
2106 JEFFERSON STREET
JEFFERSON CITY MO 65102
573-761-2860

GAS
SPIRE
6400 GRAHAM ROAD
ST. LOUIS, MO 63134
314-522-2297

TELEPHONE
CENTURYLINK
1151 CENTURY TEL DR.
WENTZVILLE, MO 63385
636-332-7261

CHARTER COMMUNICATIONS
941 CHARTER COMMONS
TOWN & COUNTRY, MO 63017
1-888-438-2427

FIRE DEPARTMENT
WENTZVILLE FIRE PROTECTION DISTRICT
502 LEUTKENHAUS BLVD.
WENTZVILLE, MO 63385
636-327-6239




### LOCATION MAP
N.T.S.

PROJECT ZIP CODE 63385

LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| 542 | CONTOURS | (542 |
| X536 | SPOT ELEVATIONS | 536.0 |
| | CENTER LINE | |
| | BUILDINGS, ETC. | |
| | TREE LINE | |
| x | FENCE | x |
| | STORM SEWERS | |
| | SANITARY SEWERS | |
| EX CI | CATCH BASIN | CI NO. |
| EX AI | AREA INLET | AI NO. |
| EX GI | GRATED INLET | GI NO. |
| EX MH | STORM MANHOLE | MH NO. |
| EX SM | SANITARY MANHOLE | SM NO. |
| EX FE | FLARED END SECTION | FE NO. |
| CO | CLEANOUT | CO |
| | LATERAL CONNECTION | |
| | UTILITY OR POWER POLE | |
| | FIRE HYDRANT | |
| | TEST HOLE | |
| | PAVEMENT | |
| 2"G | GAS MAIN & SIZE | (2"G) |
| 6"W | WATER MAIN & SIZE | (6"W) |
| T | TELEPHONE | (T) |
| E | ELECTRIC (U) UNDERGROUND | (E) |
| OWW | ELECTRIC (O) OVERHEAD | (OHW) |
| FL | FLOW LINE | FL |
| | TO BE REMOVED | TBR |
| TC | TOP OF CURB | (TC) |
| | SWALE | |
| | LIGHT STANDARD | |
| S | STREET SIGN | S |
| P.S. | PARKING STALLS | P.S. |
| ELEC | YARD LIGHT | ELEC |

W/O ~ DENOTES PROPOSED WALKOUT LOTS
STND. ~ DENOTES PROPOSED STANDARD LOTS
H.R. ~ DENOTES PROPOSED HANDICAP RAMP W/ TRUNCATED DOME

NOTE:
AN "@" WITH THE LOT NUMBER INDICATES A LOT WHICH IS MORE SUSCEPTIBLE TO STREET MOVEMENT.

### INDEX OF SHEETS


1.1 COVER SHEET
2.1 ANNEXATION / ZONING
3.1 PRELIMINARY SITE / GRADING PLAN
L-1 LANDSCAPE PLAN


### FLOOD NOTE:

ACCORDING TO THE FLOOD INSURANCE RATE MAP OF THE COUNTY OF ST. CHARLES COUNTY, MISSOURI, UNINCORPORATED AREAS (COMMUNITY PANEL NUMBERS 29183C0215G, DATED JANUARY 20, 2016), THIS PROPERTY LIES OUTSIDE THE SPECIAL FLOOD HAZARD AREA.

### SURVEYOR'S CERTIFICATION:

THIS IS TO CERTIFY THAT WE HAVE, DURING THE MONTH OF APRIL, 2026, AT THE REQUEST MCBRIDE LAND GROWTH, LLC, PREPARED AN AREA PLAN OF "CABALLO FARMS ADDITION", A TRACT OF LAND BEING PART OF FRACTIONAL SECTIONS 7 AND 8, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, ST. CHARLES COUNTY, MISSOURI. THIS PLAN IS NOT A SURVEY AND DOES NOT MEET THE "MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS" IN EFFECT AT THE DATE OF THIS PLAN.

THE STERLING COMPANY

4-22-2026

JAMEY A. HENSON, PLS
MO.REG. PLS #2007017963

STATE OF MISSOURI
JAMEY A. HENSON
NUMBER PLS-2007017963
PROFESSIONAL LAND SURVEYOR

MSD Base Map
MSD P #
Highway & Traffic #

| ISSUE | REMARKS | DATE |
|---|---|---|
| 1 | 1ST SUBMITTAL | 4-22-2026 |
| 2 | CITY COMMENTS | 4-22-2026 |

*McBride Land Growth, LLC*
17415 NORTH OUTER FORTY ROAD
CHESTERFIELD, MISSOURI 63005

THE STERLING CO
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph. 314-487-0440 Fax 314-487-8944
Missouri Certificate of Authority #2001348

*Caballo Farms Addition*
AREA PLAN
COVER SHEET

The Professional Engineer's seal and signature affixed to this sheet applies only to the exhibit and plan shown on this sheet. All drawing, instruments or other documents not exhibiting this seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.

PRELIMINARY PLAN
Date: 4-22-2026
MICHAEL G. BOERDING
License No. E-28643
Professional Engineer

| | |
|---|---|
| Job Number | 26-02-028 |
| Date | Apr. 22, 2026 |
| Designed: | Sheet 1.1 |
| Drawn: | |
| Checked: | AREA |

Drawing name: V:\26\02\078 Lagan\Drawings\Preliminary\Preliminary\2026area.dwg Plotted on: Apr 22, 2026 - 9:34am Plotted by: stevelss

GRAPHIC SCALE

50 0 25 50 100 200

( IN FEET )
1 inch = 50 ft.

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | 4-3-2026, 1st SUBMITTAL |
| 2 | 4-22-2026, CITY COMMENTS |

*McBride Land Growth, L.L.C*
17415 NORTH OUTER FORTY ROAD
CHESTERFIELD, MISSOURI 63005

THE **STERLING** CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax: 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001348

# *Caballo Farms Addition*

AREA PLAN
ANNEXATION / ZONING EXHIBIT

**GROSS SITE AREA**
**265,058.25 S.F.**
**6.08 AC.**

S04°56'44"W 1162.00'

S85°11'09"E 291.87'

N84°43'21"W 143.60'

N00°22'34"W 890.15'

N00°22'34"W 278.84'

S89°59'28"W 40.00'

GALLOP (50'W) LANE
(PRIVATE)

HOLLOW HICKORY CT

STREET "A" (50' WIDE)

"AUTUMN HOLLOW" PLAT 7 AND RESUBDIVISION OF AUTUMN HOLLOW PLAT 4 COMMON GROUND
DOC. #: 2026R-006149
ZONED R1-E (ST. CHARLES COUNTY)

"AUTUMN HOLLOW" PHASE 3
ZONED R1-E (ST. CHARLES COUNTY)

"OAKSHIRE"
ZONED R3-A (ST. CHARLES COUNTY)

"CABALLO FARMS"
R-1 PUD (CITY OF O'FALLON)

N/F
ST. LOUIS LAND HOLDING, LLC
DOC. #: 2023R-008559
PID: 4-0038-S008-00-0005.50

N/F
ST. LOUIS LAND HOLDING LLC
DOC. #: 2023R-008559
4-0038-S008-00-0005.5

N/F
ROGER D. STEINMANN & THERESA L. STEINMANN H/W
D.B. 1999 PG. 528 & D.B. 2046, PG. 1551
870 E. HIGHWAY N
4-0038-S008-00-0005.9 & 4-0038-S007-00-0005.5
ZONED R3-A (ST. CHARLES COUNTY)

N/F
JEFFREY G. LAPPE
D.B. 2677 PG. 556
4-0038-S008-00-0005.81
52 GALLOP LN.
ZONED A (ST. CHARLES COUNTY)

10' STRIP
N/F
JEFFREY LAPPE
2025R-043091
P.I.D. 4-0038-S007-00-0005.51
ZONED "A" (ST. CHARLES COUNTY)

N/F
JEFFREY LAPPE
2025R-043091
P.I.D. 4-0038-S007-00-0005.51
ZONED "A" (ST. CHARLES COUNTY)

N/F
DR. AARON MOHR & CHERIE MOHR
DOC. #: 2024R-058459
4-0038-S008-00-0005.8
74 GALLOP LN.
'CABALLO FARMS'
R-1 PUD (CITY OF O'FALLON)

N/F
CABALLO FARMS INC.
D.B. 2260 PG. 2016
'CABALLO FARMS'
R-1 PUD (CITY OF O'FALLON)

N/F
MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A
MARY E. SUDBROCK LUCIDO
DATED JUNE 18, 1992
D.B. 1563, PG. 1327
P.I.D. 4-0038-S008-00-0005.6
'CABALLO FARMS'
R-1 PUD (CITY OF O'FALLON)

N/F
MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A
MARY E. SUDBROCK LUCIDO
DATED JUNE 18, 1992
D.B. 1563, PG. 1327
P.I.D. 4-0038-S007-00-0005.51
ZONED A (ST. CHARLES COUNTY)

N/F
MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A
MARY E. SUDBROCK LUCIDO
DATED JUNE 18, 1992
D.B. 1563, PG. 1327
P.I.D. 4-0038-S008-00-0005.6
ZONED A (ST. CHARLES COUNTY)

N/F
CABALLO FARMS INC.
D.B. 2260 PG. 2016
ZONED A (ST. CHARLES COUNTY)

N/F
CABALLO FARMS INC.
D.B. 2260 PG. 2016
ZONED A (ST. CHARLES COUNTY)

N/F
KEVIN J. BECKERLE
D.B. 6812 PG. 1814
4-0038-S008-00-0005.51
ZONED A (ST. CHARLES COUNTY)

N/F
S & W FARM, INC.
D.B. 1720 PG. 422
P.I.D 4-0065-0891-00-0016.0000
678 E. HIGHWAY N
ZONED A (ST. CHARLES COUNTY)

50' ROAD & UTILITY ESMT.
D.B. 1202, PG. 895

50' ROAD & UTILITY ESMT.
D.B. 1202, PG. 895

10'W ESMT TO DCSD
DOC#2025R-052982

EX. 15' ESMT TO DCSD
DOC# 2025R-052982

SAN MH
TOP=589.99
FL=589.99
8" DROP FL=582.90

SAN MH
TOP=601.07
FL=590.57
8" DROP FL=582.45

SAN MH
TOP=603.55
FL=589.02
8" DROP FL=588.70
8" DROP FL=586.90

SANITARY FORCEMAIN PER FIELD MARKS

EX. 24" CMP
FL=599.18

EX. 24" CMP
FL=599.24

EX. 24" CMP

LIDS FOR SEPTIC SYETEM

EX. BLDG.

EX. BLDG.

EX. TRAVEL DRIVE

OVERHEAD CABLE GOES UNDERGROUND

EX. GRAVEL ROADWAY

FIBER OPTIC MARKER

COMMON GROUND

COMMON GROUND
DRY DETENTION BASIN

COMMON GROUND

STREET

FRACTIONAL SECTION 7

FRACTIONAL SECTION 8

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

MSD Base Map
MSD P #
Highway & Traffic #

The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. All drawing, instruments or other documents not exhibiting this seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.

MICHAEL G. BOERDING
NUMBER E-28643
STATE OF MISSOURI
PROFESSIONAL ENGINEER

PRELIMINARY PLAN
Date 4-22-2026
MICHAEL G. BOERDING
License No. E-28643
Professional Engineer

| | |
|---|---|
| Job Number | 26-02-028 |
| Date | Apr. 22, 2026 |
| Designed: | Sheet 2.1 |
| Drawn: | |
| Checked: | AREA |

Drawing name: V:\26\02\028 Logo\Drawings\Preliminary\Preliminary\028area.dwg Plotted on: Apr 22, 2026 - 9:24am Plotted by: stevelless

GRAPHIC SCALE

50 0 25 50 100 200

( IN FEET )
1 inch = 50 ft.

| ISSUE | REMARKS/DATE |
|---|---|
| 1 | 4-3-2026, 1st SUBMITTAL |
| 2 | 4-22-2026, CITY COMMENTS |

*McBride Land Growth, LLC*
17415 NORTH OUTER FORTY ROAD
CHESTERFIELD, MISSOURI 63005

THE **STERLING** CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314.487.0440 Fax 314.487.8944
www.sterling-eng.com
Corporate Certificate of Authority #001348

# *Caballo Farms Addition*

AREA PLAN
PRELIMINARY SITE / GRADING PLAN

10'W ESMT TO OCSD DOC#2025R-052982

N/F ST LOUIS LAND HOLDING LLC DOC. #: 2023R-008559 PID: 4-0038-S008-00-0005.50 "AUTUMN HOLLOW" PLAT 7 AND RESUBDIVISION OF AUTUMN HOLLOW PLAT 4 COMMON GROUND DOC. #: 2025R-006149 ZONED R1-E (ST. CHARLES COUNTY)

SAN MH TOP=599.99 FL=589.93 8" DROP FL=583.70

SAN MH TOP=601.07 FL=592.57 8" DROP FL=582.45

SANITARY FORCEMAIN PER FIELD MARKS

EX. 15" ESMT TO OCSD DOC# 2025R-052982

CONNECT TO EX. SANITARY MANHOLE

S04°56'44"W 1162.00'

20'W. C.G.

HOLLOW HICKORY CT

N/F ROGER D. STEINMANN & THERESA L. STEINMANN H/W DEED BK. 1996 PG. 528 & PLAT BK. B, PG. 2046, PG. 1551 870 E. HIGHWAY N 4-0038-S008-00-0005.9 & 4-0038-S007-00-0005.5 ZONED R3-A (ST. CHARLES COUNTY)

"OAKSHIRE" ZONED R3-A (ST. CHARLES COUNTY)

COMMON GROUND 20' STRIP N/F LINDSEY LAPPE DEED BK. 043091 P.I.D. 4-0038-S007-00-0005.51 ZONED "A" (ST. CHARLES COUNTY)

S85°11'09"E 291.87'

EX. TOP OF CREEK BANK

25' CREEK BANK SETBACK

COMMON GROUND

EXIST. TREES (TO REMAIN)

COMMON GROUND DETENTION & WATER QUALITY

25' CREEK BANK SETBACK

EX. 24" CMP FL=599.18

EX. 24" CMP FL=599.04

COMMON GROUND

GALLOP (50'W) LANE (PRIVATE)

N00°22'34"W 890.15'

50' ROAD & UTILITY ESMT. D.B. 1202, PG. 895

50' ROAD & UTILITY ESMT. D.B. 1202, PG. 895

N/F CABALLO FARMS INC. D.B. 2260 PG. 2016 ZONED A (ST. CHARLES COUNTY)

N/F MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A MARY E. SUDBROCK LUCIDO DATED JUNE 18, 1992 D.B. 1563, PG. 1327 ZONED A (ST. CHARLES COUNTY)

N/F KEVIN J. BECKERLE D.B. 6812 PG. 1814 4-0038-S008-00-0005.61 ZONED A (ST. CHARLES COUNTY)

N/F S & W FARM, INC. D.B. 1720 PG. 422 P.I.D 4-0065-0691-02-0016.0000 678 E. HIGHWAY N ZONED A (ST. CHARLES COUNTY)

OVERHEAD CABLE LINES UNDERGROUND

LT. GRAVEL ROADWAY

FIBER OPTIC MARKER

COMMON GROUND

14 6,277 Sq.Ft.
13 6,042 Sq.Ft.
12 8,161 Sq.Ft.
11 7,236 Sq.Ft.
10 6,264 Sq.Ft.
9 6,264 Sq.Ft.
8 6,264 Sq.Ft.
7 6,264 Sq.Ft.
6 6,264 Sq.Ft.
5 6,264 Sq.Ft.
4 6,252 Sq.Ft.
3 6,060 Sq.Ft.
2 5,807 Sq.Ft.
1 6,083 Sq.Ft.

STORM SEWER (TYP.)

4'w SIDEWALK

52'

25' BUILDING SETBACK

PROP. SANITARY SEWER

PROPOSED LIGHT STANDARD (TYP.)

STREET "A"
(50' RIGHT-OF-WAY, 28' PAVEMENT)

10'W. R.O.W. DEDICATION

N00°22'34"W 278.84'

S89°59'28"W 40.00'

MATCH PROPOSED PAVEMENT TO CABALLO FARMS PAVEMENT

BY-PASS STORM SEWER

CONNECT PROPOSED SIDEWALK TO CABALLO FARMS SIDEWALK

FIRE HYDRANT

N/F CABALLO FARMS INC. D.B. 2260 PG. 2016 "CABALLO FARMS" R-1 PUD (CITY OF O'FALLON)

N/F MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A MARY E. SUDBROCK LUCIDO DATED JUNE 18, 1992 D.B. 1563, PG. 1327 P.I.D. 4-0038-S008-00-0005.6 "CABALLO FARMS" R-1 PUD (CITY OF O'FALLON)

"CABALLO FARMS" R-1 PUD (CITY OF O'FALLON)

COMMON GROUND DRY DETENTION BASIN

STREET "A" (50' WIDE)

N/F ST LOUIS LAND HOLDING LLC DOC. #: 2023R-008559 4-0038-S008-00-0005.5 "AUTUMN HOLLOW" PHASE 3 ZONED R1-E (ST. CHARLES COUNTY)

SANITARY FORCEMAIN PER FIELD MARKS

N/F DR. AARON MOHR & CHERE MOHR DOC. #: 2024R-038459 4-0038-S008-00-0005.8 74 GALLOP LN. "CABALLO FARMS" R-1 PUD (CITY OF O'FALLON)

N/F 4-0038-S007-00-0005.21 D.B. 1563, PG. 1327 DATED JUNE 18, 1992 MARY E. SUDBROCK LUCIDO AND DAVID J. LUCIDO, TRUSTEES U/A

FRACTIONAL SECTION 7

FRACTIONAL SECTION 8

**100-YEAR, 20-MINUTE DIFFERENTIAL RUNOFF**

PRE-DEVELOPED RUNOFF

| Drainage Area | (AC.) | PI (cfs/ac.) | $Q_{15}$ |
|---|---|---|---|
| Impervious Area | 0.30 | 4.77 | 1.43 |
| Pervious Area | 2.76 | 2.29 | 6.32 |

TOTAL PRE-DEVELOPED $Q_{100}$= 7.75

POST-DEVELOPED RUNOFF

| Drainage Area | (AC.) | PI (cfs/ac.) | $Q_{15}$ |
|---|---|---|---|
| Impervious Area | 1.50 | 4.77 | 7.16 |
| Pervious Area | 4.58 | 2.29 | 10.49 |

TOTAL POST-DEVELOPED $Q_{100}$= 17.64

TOTAL POST-DEVELOPED DIFFERENTIAL $Q_{100}$= 9.89

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

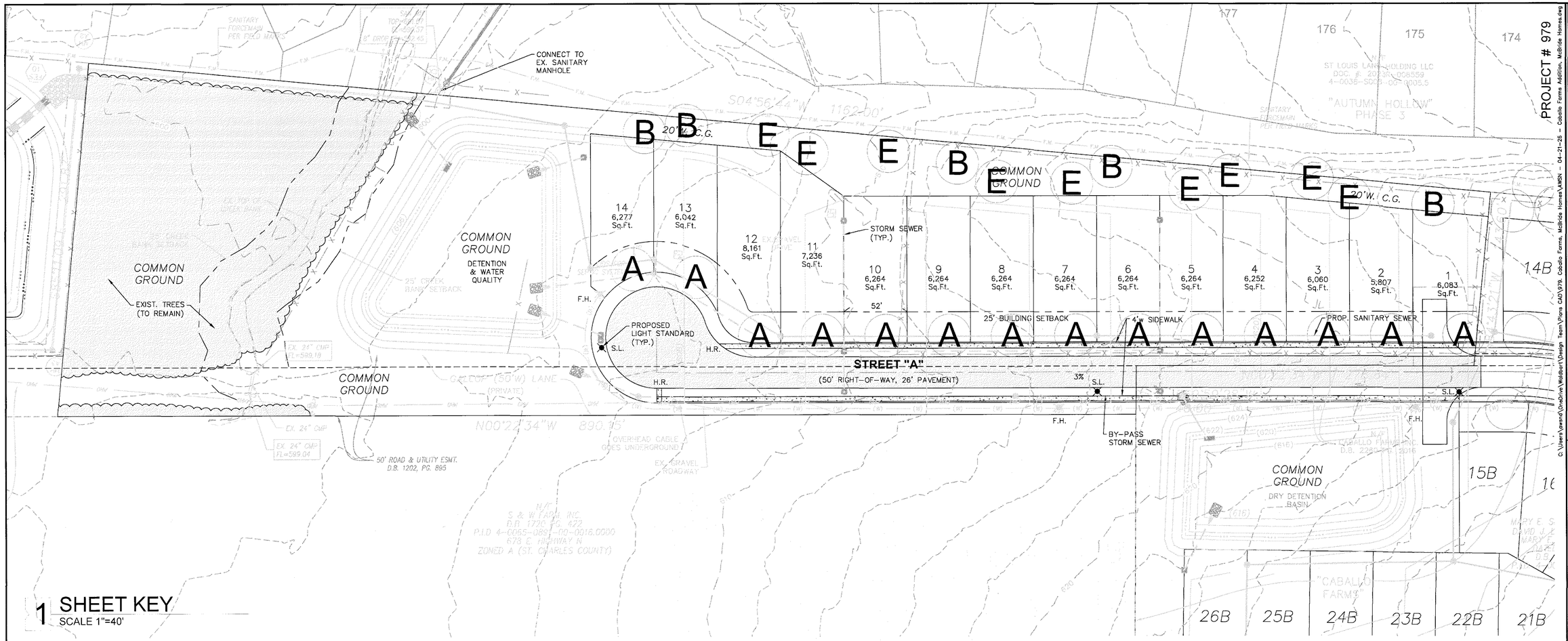
MSD Base Map
MSD P.#
Highway & Traffic #

The Professional Engineer's seal and signature affixed to this sheet applies only to the material and items shown on this sheet. All drawing, instruments or other documents not bearing the seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting the seal and signature.

PRELIMINARY PLAN
Date: 4-22-2026
MICHAEL G. BOERDING
License No. E-28643
Professional Engineer

| Job Number | |
|---|---|
| 26-02-028 | |
| Date | |
| Apr. 22, 2026 | |
| Designed: | Sheet 3.1 |
| Drawn: | |
| Checked: | AREA |

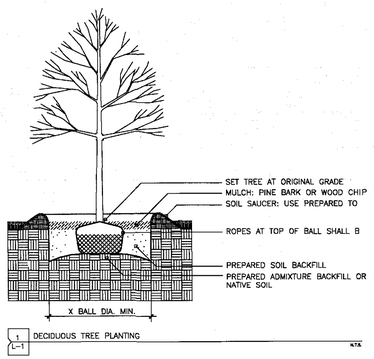
Drawing name: V:\26\02\028 Lspd\Drawings\Preliminary\Preliminary2028revd.dwg Plotted on: Apr 22, 2026 - 9:24am Plotted by: slovelless



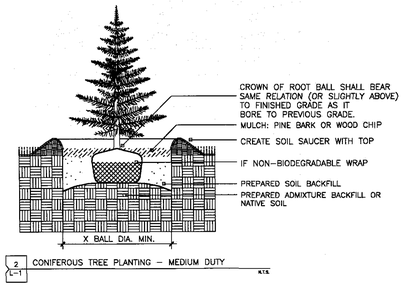

1 SHEET KEY
SCALE 1"=40'

# PLANTING LEGEND

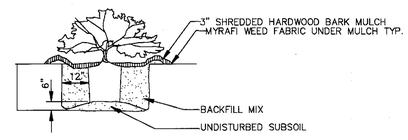
| ID | QTY | COMMON NAME | BOTANICAL NAME | SIZE |
|---|---|---|---|---|
| TREES | | | | |
| A | 14 | Street Tree | Maple, Locust, London Plane, Zelkova | 2" Caliper |
| B | 5 | Shade Tree | Maple, Oak, London Plane | 2" Caliper |
| E | 9 | Evergreen Tree | Green Giant Arborvitae, Pine, Spruce | 6' Height |




1 L-1 DECIDUOUS TREE PLANTING N.T.S.




2 L-1 CONIFEROUS TREE PLANTING - MEDIUM DUTY N.T.S.




NOTE: USE SHREDDED BARK MULCH ONLY

3 L-1 SHRUB PLANTING N.T.S.

GRAPHIC SCALE

40 0 20 40 80 160

( IN FEET )
1 inch = 40 ft.

NOTICE
This drawing is the property of A. Waldbart and Sons Nursery. Each plan formulated by our firm involves original thought and ideas; therefore, we reserve the copyright to any design prepared by our staff. Use of this plan and/or any portion thereof for competitive bids, pricing, or related purposes is illegal without our written permission.

PROJECT # 979

C:\Users\kwend\OneDrive\Waldbart\Design Team\Plans CAD\979_Caballo Farms, McBride Homes\MBSN - 04-21-25 - Caballo Farms Addition, McBride Homes.dwg

**Caballo Farms Addition**
McBride Homes

| Date | 04/20/26 | Revised | 04/21/26 | Sheet | L-2.00 |
|---|---|---|---|---|---|
| Scale | 1"=40' | Approved | | Drawn By | NNB |

895-4589

A. WALDBART AND SONS Nursery
Established 1872

Landscape Designers, Landscape Contractors & Nurserymen
1420 Teson Rd., Hazelwood, MO 63042

THE BAYSIDE SERIES

# ASPEN

Ranch | 2 or 3 Bedrooms | 2 Full Baths



TRADITIONAL II



ENGLISH COLONIAL III



CLASSIC



COLONIAL II



CRAFTSMAN



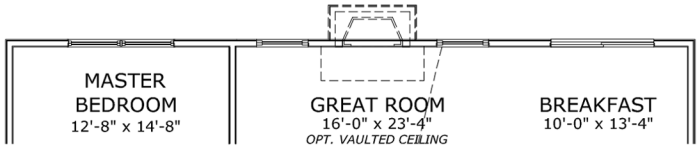
RUSTIC CRAFTSMAN



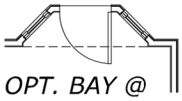
FARMHOUSE

McBRIDE HOMES

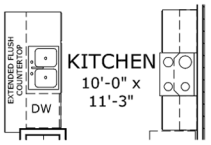
*Missouri's Largest Homebuilder*



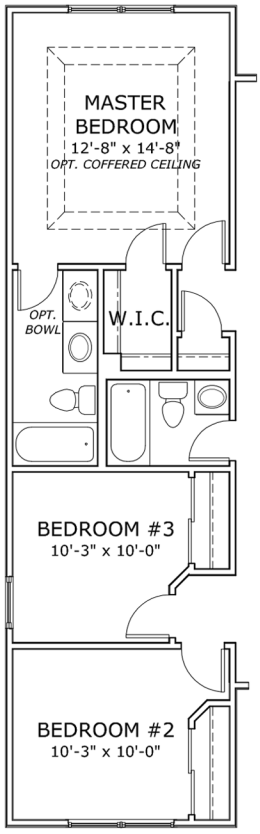

*OPT. 4'-0" REAR EXTENSION w/ 3 BEDROOM OPTION ONLY*



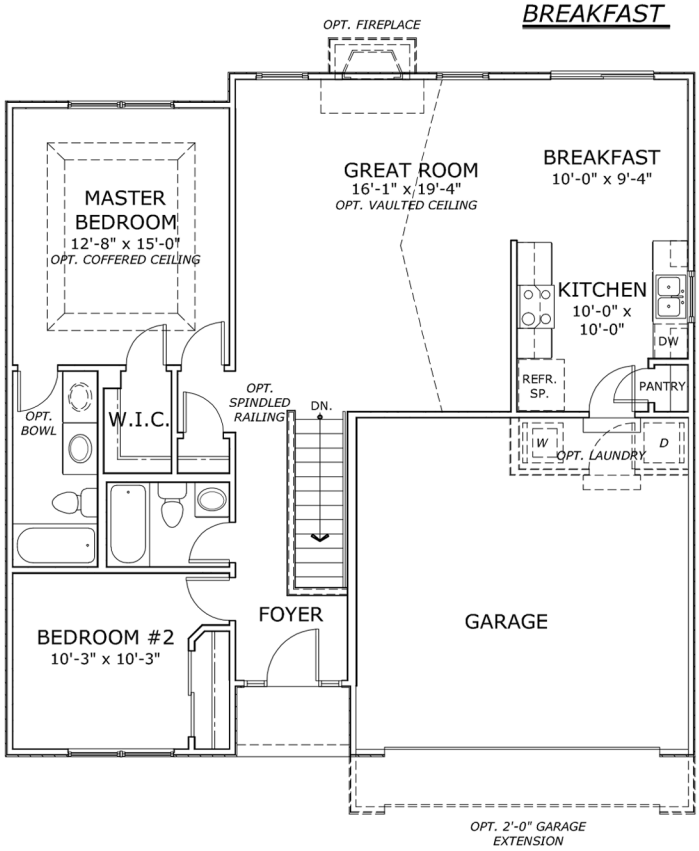
*OPT. BAY @ BREAKFAST*



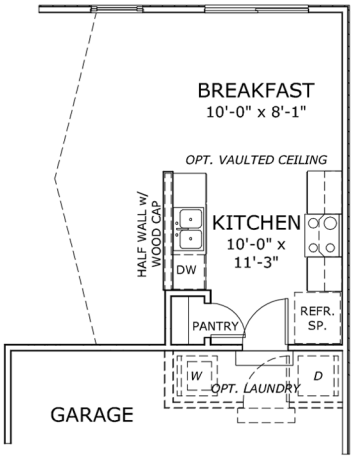

*OPT. EXTENDED FLUSH COUNTERTOP*




*OPT. 3 BEDROOM PLAN*




FIRST FLOOR PLAN




*OPT. KITCHEN*

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE BAYSIDE SERIES

# ASPEN II

Ranch | 3 Bedrooms | 2 Full Baths



TRADITIONAL II



CRAFTSMAN



FARMHOUSE



COLONIAL II



ENGLISH COLONIAL III



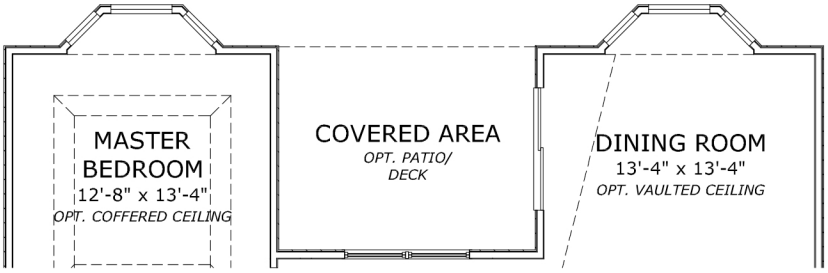
RUSTIC FARMHOUSE



CLASSIC

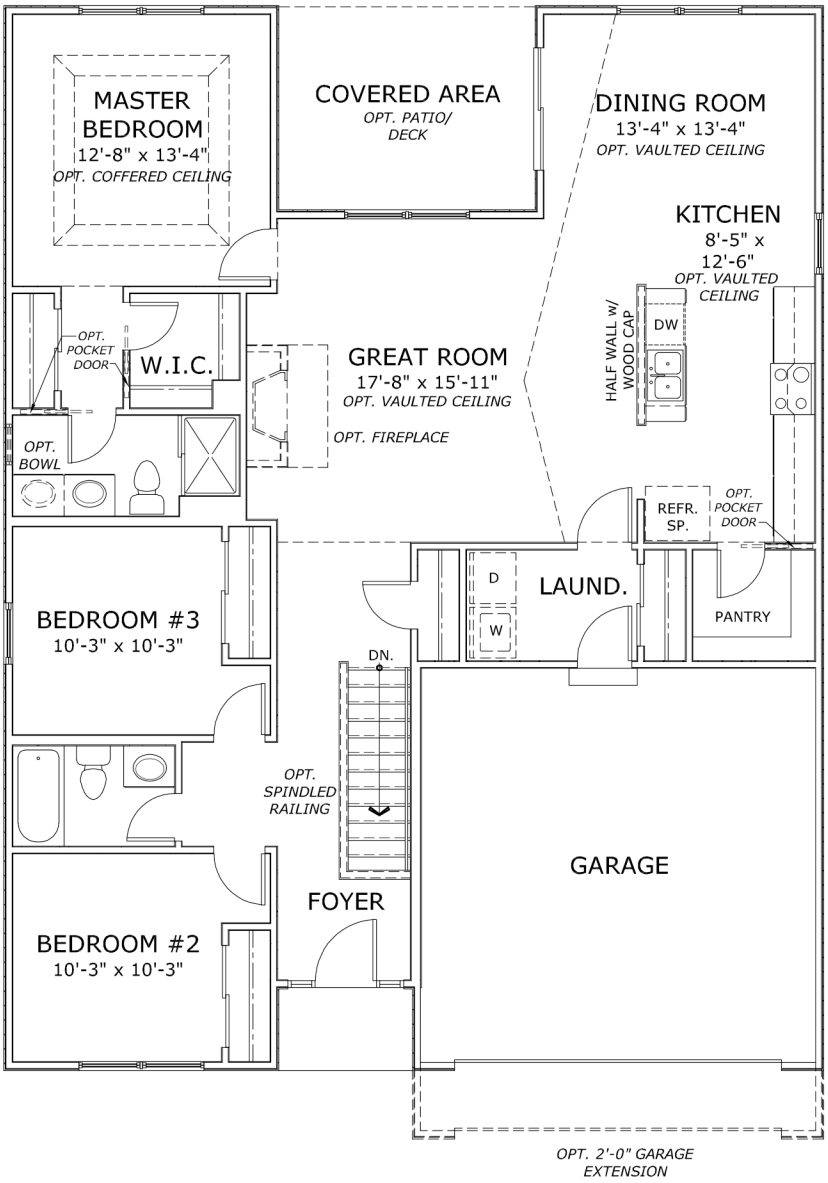
McBRIDE HOMES

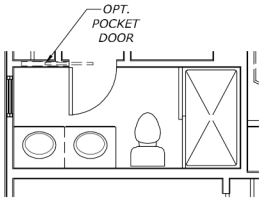
*Missouri's Largest Homebuilder*



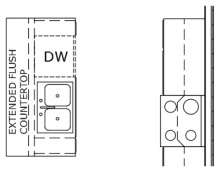

*OPT. BAY WINDOW @ MASTER BDRM.*

*OPT. BAY WINDOW @ DINING ROOM*




*OPT. LUXURY MASTER BATH*




*OPT. EXTENDED FLUSH COUNTERTOP*

# FIRST FLOOR PLAN

BUILT BY McBRIDE & SON HOMES, INC.

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams. McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

EQUAL HOUSING OPPORTUNITY

©2014, McBride & Son Homes, LLC and McBride & Son Properties, LLC
These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE BAYSIDE SERIES

# MAPLE

Ranch | 2 or 3 Bedrooms | 2 Full Baths



COUNTRY COLONIAL



CRAFTSMAN



COLONIAL



PROVINCIAL



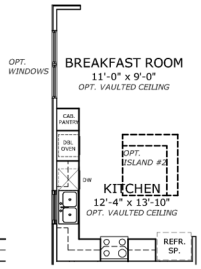
FARMHOUSE

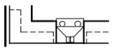


RUSTIC FARMHOUSE

McBRIDE HOMES

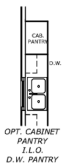
*Missouri's Largest Homebuilder*



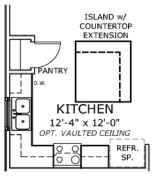



**OPT. APPLIANCE HOOD**
ONLY AVAIL. w/ OPT. LUXURY KITCHEN

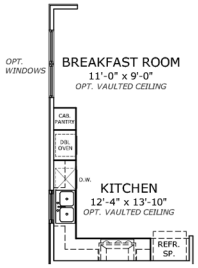
**OPT. LUXURY KITCHEN**

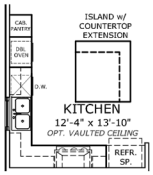



OPT. CABINET PANTRY I.L.O. D.W. PANTRY



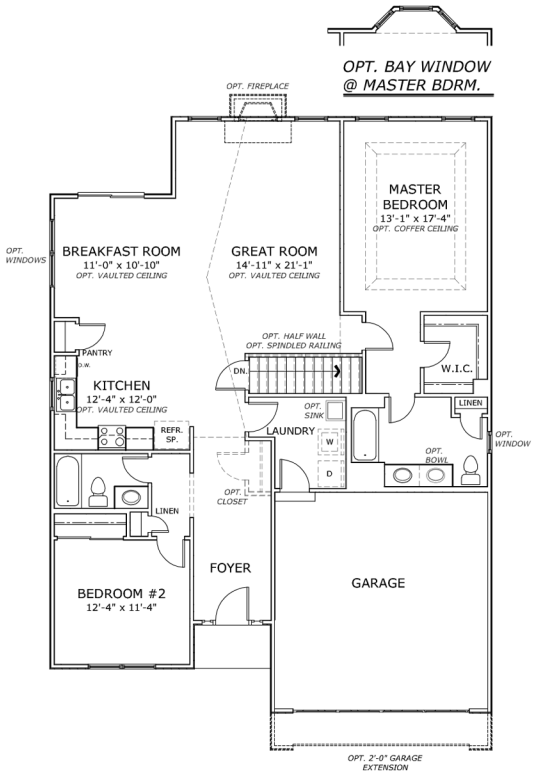

**OPT. ISLAND #2**



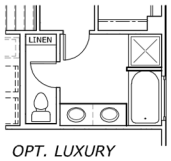




**OPT. ISLAND #3**
ONLY AVAIL. w/ OPT. APPLIANCE HOOD OR OPT. GOURMET CHEF'S KITCHEN

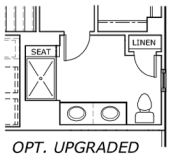
**OPT. GOURMET CHEF'S KITCHEN**
ONLY AVAIL. w/ OPT. 9'-0" CEILING
NOT AVAILABLE w/ OPT. VAULT



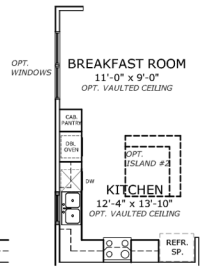

**FIRST FLOOR PLAN - 2 BEDROOM**

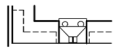



**OPT. LUXURY MASTER BATH**



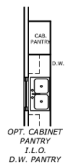

**OPT. UPGRADED MASTER BATH w/ SHOWER & SEAT**



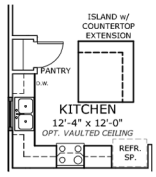



**OPT. APPLIANCE HOOD**
ONLY AVAIL. w/ OPT. LUXURY KITCHEN

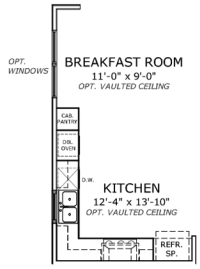
**OPT. LUXURY KITCHEN**

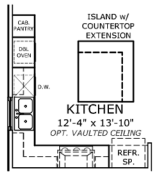



OPT. CABINET PANTRY I.L.O. D.W. PANTRY



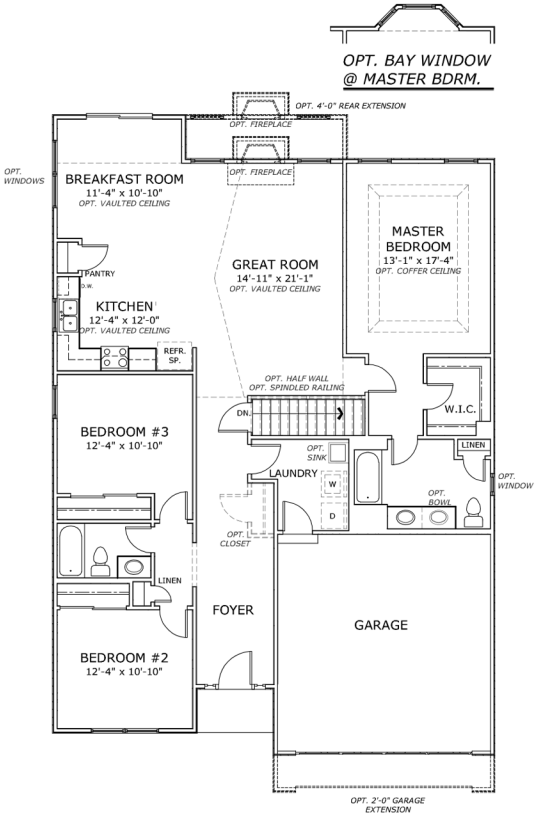

**OPT. ISLAND #2**



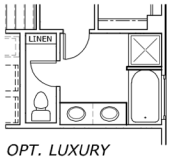




**OPT. ISLAND #3**
ONLY AVAIL. w/ OPT. APPLIANCE HOOD OR OPT. GOURMET CHEF'S KITCHEN

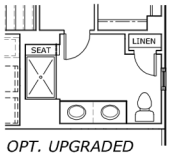
**OPT. GOURMET CHEF'S KITCHEN**
ONLY AVAIL. w/ OPT. 9'-0" CEILING
NOT AVAILABLE w/ OPT. VAULT




**FIRST FLOOR PLAN - 3 BEDROOM**




**OPT. LUXURY MASTER BATH**




**OPT. UPGRADED MASTER BATH w/ SHOWER & SEAT**

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE BAYSIDE SERIES

# BERWICK

Two Story | 3 Bedrooms | 2 Full Baths | 1 Half Bath



CLASSIC



COUNTRY II



FARMHOUSE



CRAFTSMAN



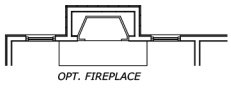
TUDOR

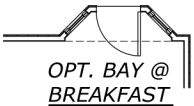


RUSTIC CRAFTSMAN

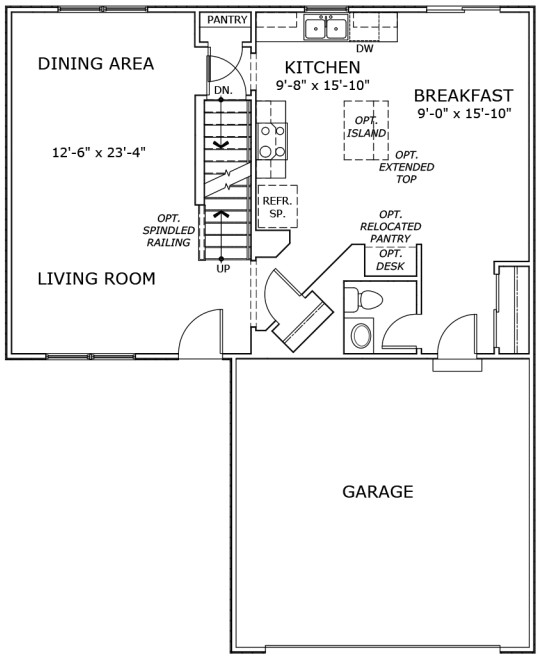
McBRIDE HOMES

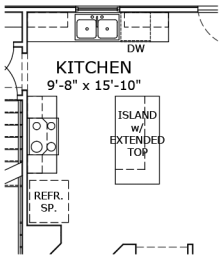
*Missouri's Largest Homebuilder*



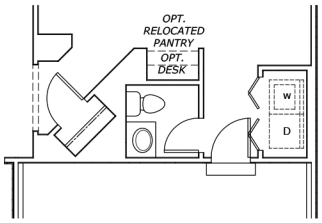
OPT. BAY @
BREAKFAST



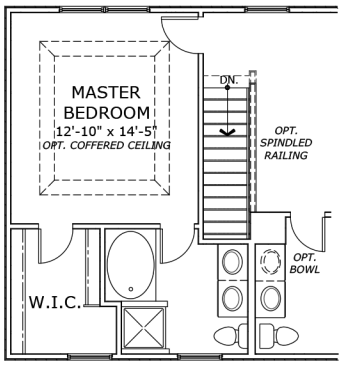




OPT. ISLAND #2

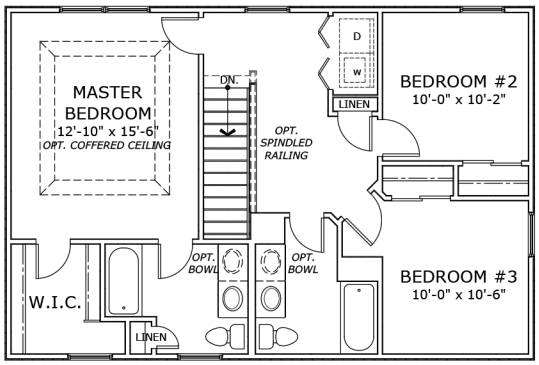
OPT. 1ST
FLR. LAUNDRY



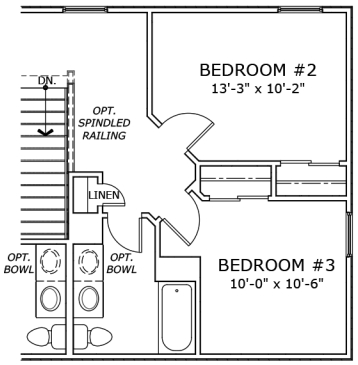

FIRST FLOOR PLAN



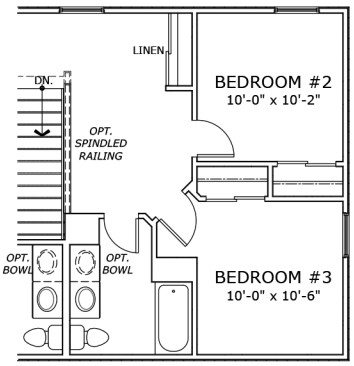

OPT. LUXURY
MASTER BATH




SECOND FLOOR PLAN




OPT. 2ND FLR. PLAN w/
ENLARGED BEDROOM #2




2ND FLR. PLAN w/
OPT. 1ST FLR. OR
OPT. BSM'T. LAUNDRY

**BUILT BY McBRIDE HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride Homes, Inc. The use or copying of these plans, without the express written consent of McBride Homes, is prohibited by law. McBride Homes may take immediate legal action against any unauthorized user of these plans.

THE BAYSIDE SERIES

# STERLING

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



CLASSIC



COUNTRY



TRADITIONAL



FARMHOUSE



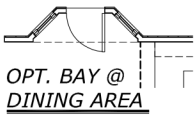
CRAFTSMAN



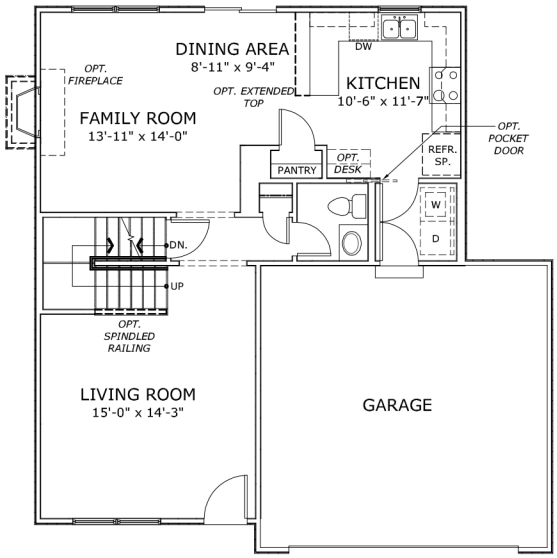
RUSTIC CRAFTSMAN

McBRIDE HOMES

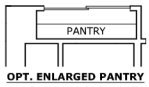
*Missouri's Largest Homebuilder*



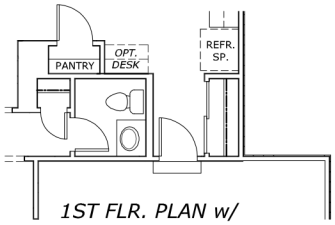
OPT. BAY @
DINING AREA



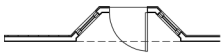

FIRST FLOOR PLAN



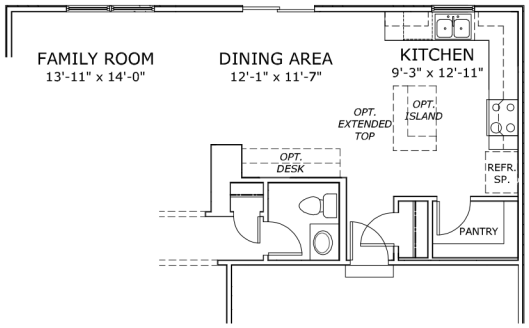

OPT. ENLARGED PANTRY




1ST FLR. PLAN w/
OPT. 2ND FLOOR/
BASEMENT LAUNDRY

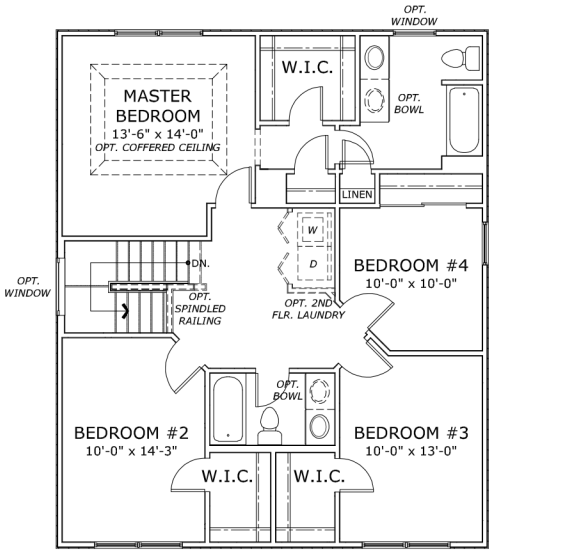


OPT. BAY @
DINING AREA

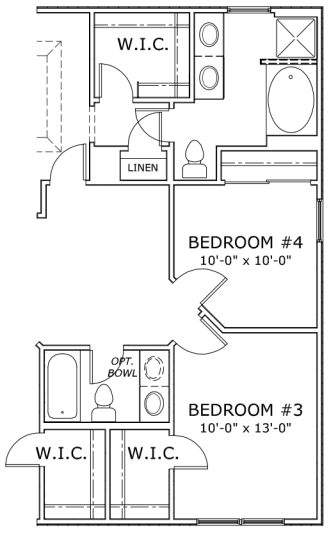



OPT. EXTENDED 1st FLOOR PLAN #2

AVAILABLE ONLY w/ OPT. BASEMENT
OR OPT. 2ND FLOOR LAUNDRY




SECOND FLOOR PLAN




OPT. LUXURY
MASTER BATH

BUILT BY McBRIDE & SON HOMES, INC.

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams. McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

EQUAL HOUSING OPPORTUNITY

©2001, McBride & Son Homes, LLC and McBride & Son Properties, LLC
These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE BAYSIDE SERIES

# ROYAL II

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



COUNTRY COLONIAL



FARMHOUSE



PROVINCIAL



RUSTIC FARMHOUSE



RUSTIC CRAFTSMAN



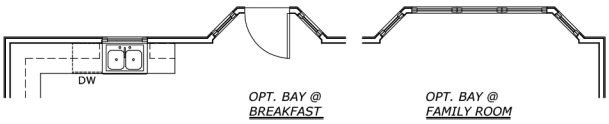
COLONIAL

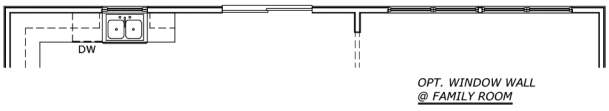


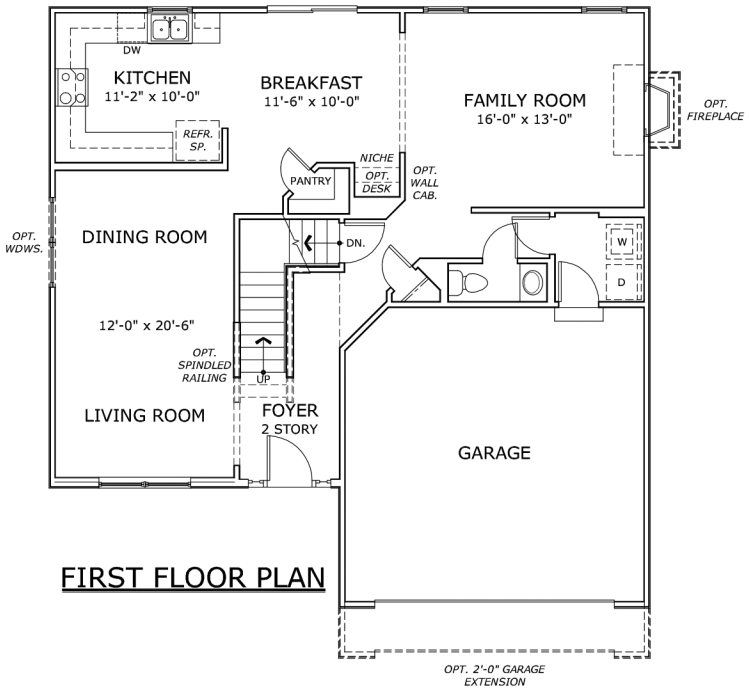
RENAISSANCE

MCBRIDE HOMES

*Missouri's Largest Homebuilder*



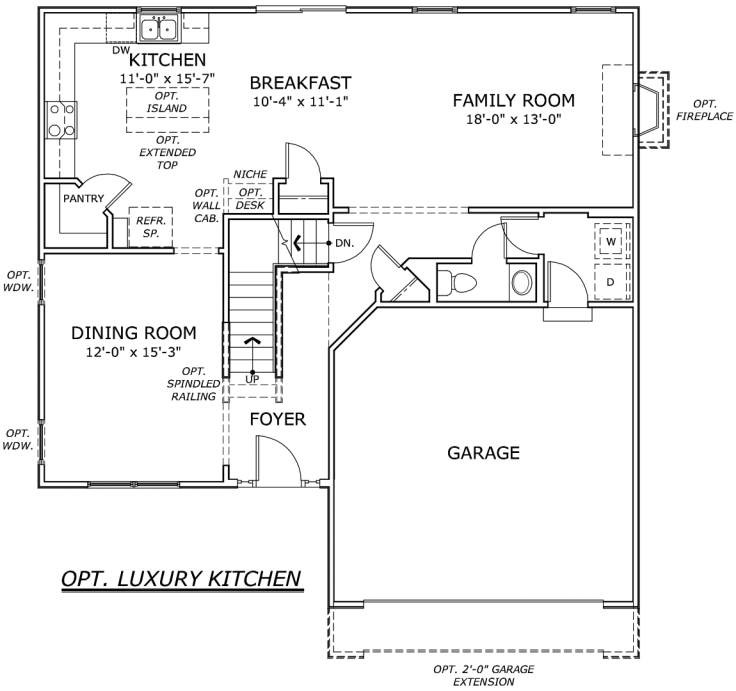




FIRST FLOOR PLAN

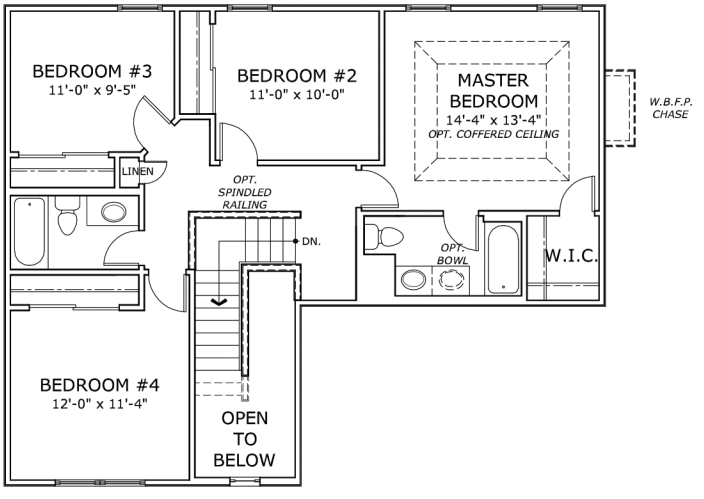




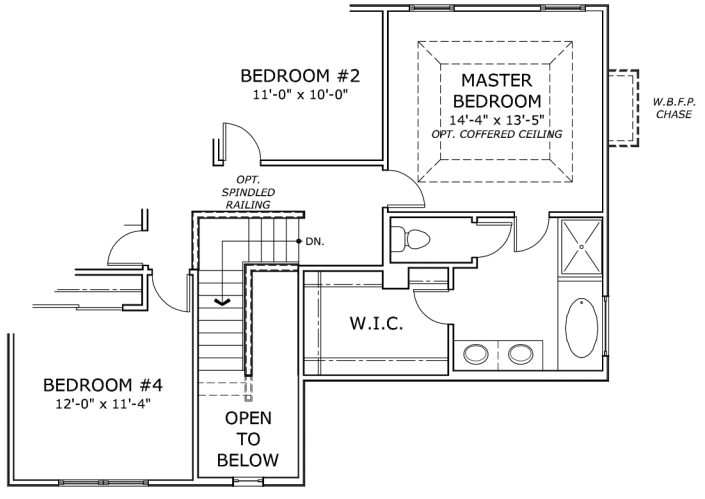





OPT. LUXURY KITCHEN




SECOND FLOOR PLAN




OPT. LUXURY MASTER BATH

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE BAYSIDE SERIES

# ASHFORD

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



CLASSIC



PRAIRIE



AMERICAN COLONIAL



FRENCH COLONIAL



RUSTIC FARMHOUSE



TRADITIONAL



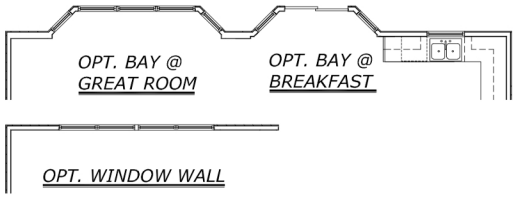
RENAISSANCE



RUSTIC CRAFTSMAN

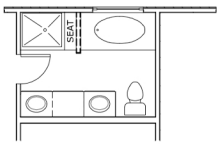
McBRIDE HOMES

*Missouri's Largest Homebuilder*

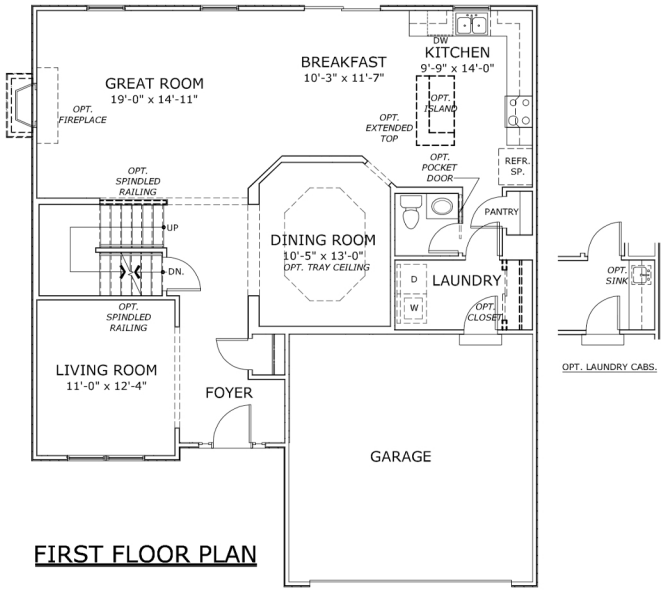




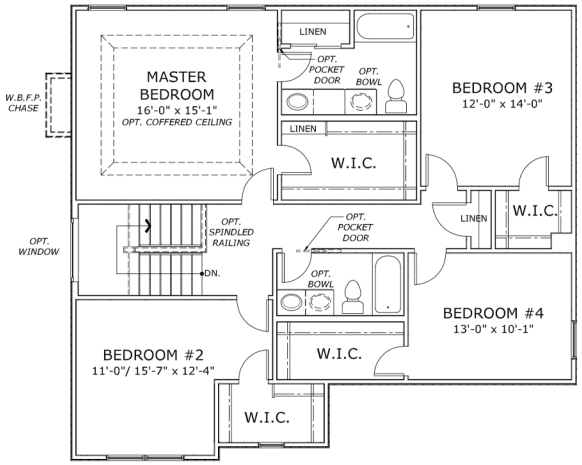




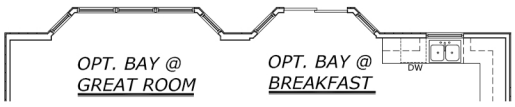

OPT. LUXURY MASTER BATH




FIRST FLOOR PLAN

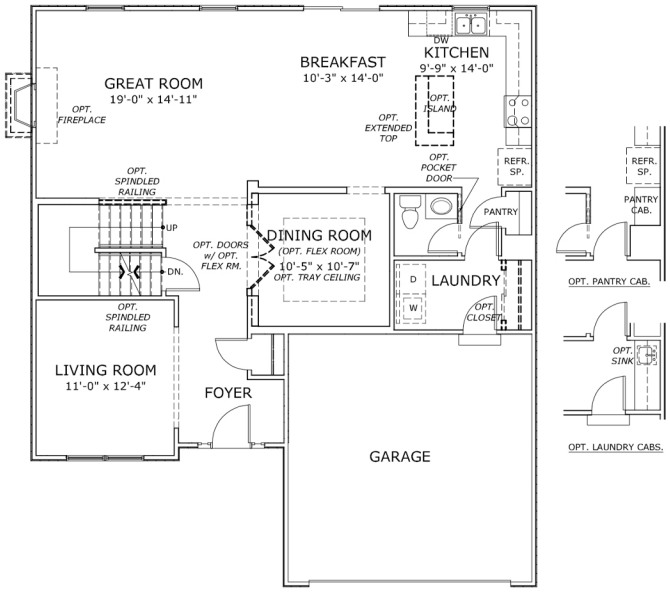



SECOND FLOOR PLAN

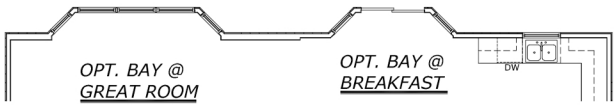






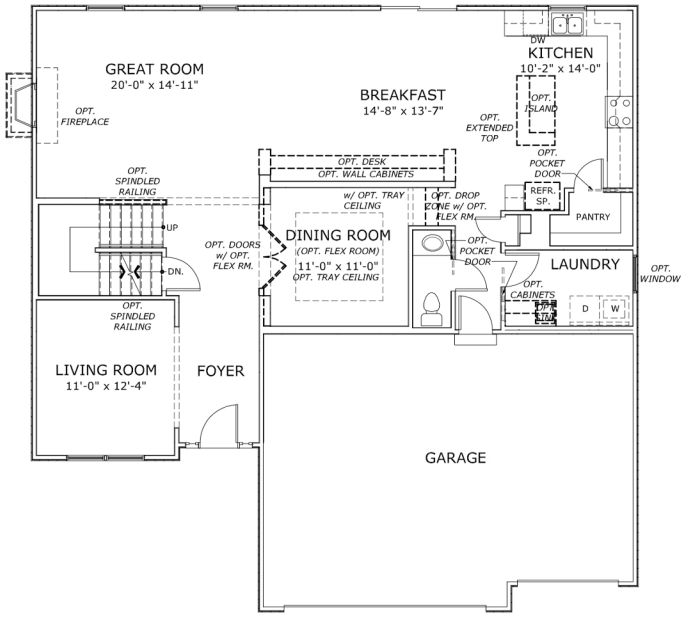



FIRST FLOOR PLAN #2










EXPANDED FIRST FLOOR PLAN #3

BUILT BY McBRIDE & SON HOMES, INC.

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams. McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

©2004, McBride & Son Homes, LLC and McBride & Son Properties, LLC
These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE HERITAGE SERIES

# CAROLINA

Ranch | 2 Bedrooms | 2 Full Baths



Classic



Colonial



Craftsman



Traditional



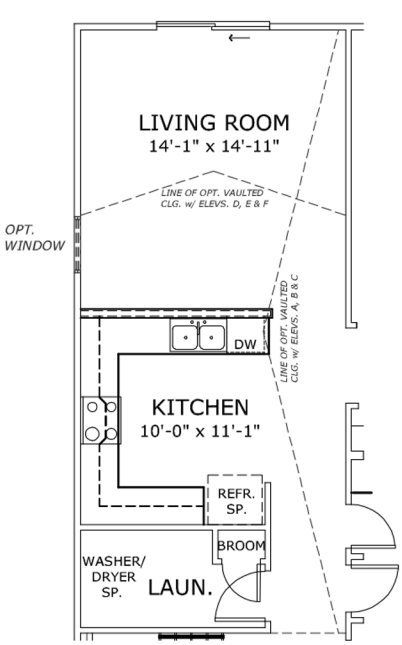
Modern Farmhouse



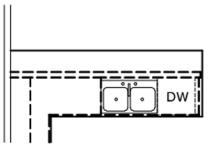
Rustic Craftsman

McBRIDE HOMES

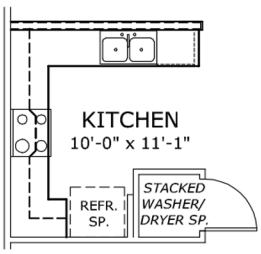
*Missouri's Largest Homebuilder*



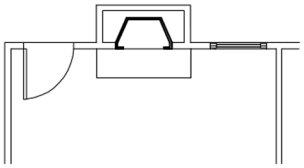

OPT. 1st FLOOR LAUNDRY #2



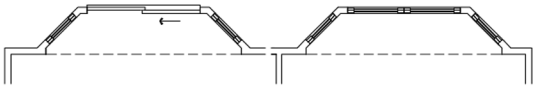

OPT. EXTENDED FLUSH COUNTERTOP



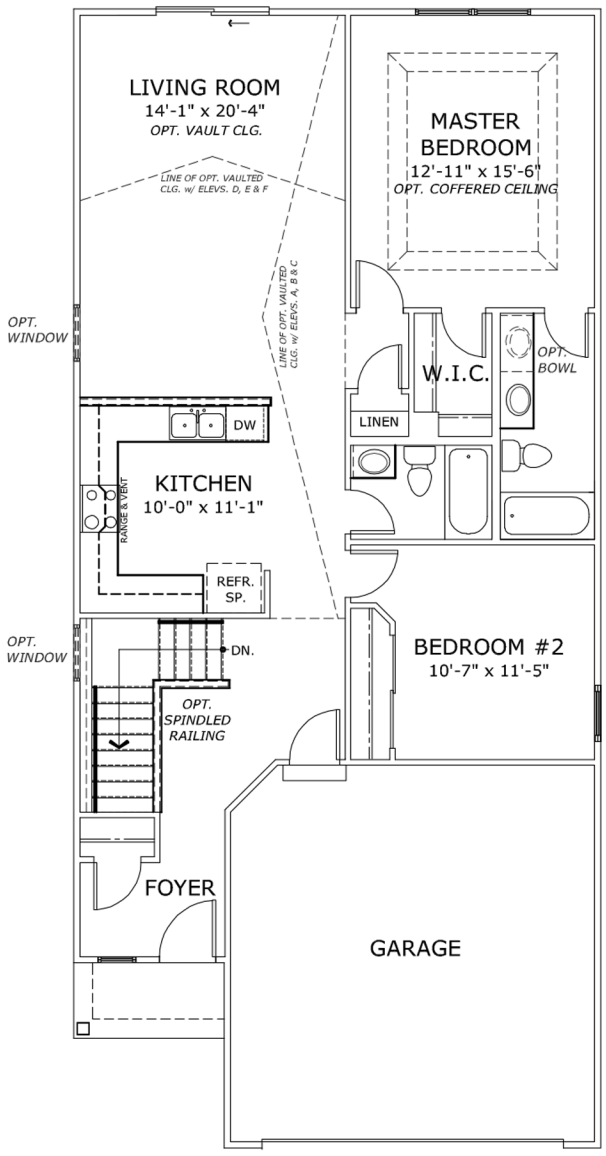

OPT. 1st FLOOR LAUNDRY #1

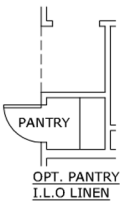


OPT. FIREPLACE



OPT. BAYS




# FIRST FLOOR PLAN

**BUILT BY McBRIDE HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride Homes, Inc. The use or copying of these plans, without the express written consent of McBride Homes, is prohibited by law. McBride Homes may take immediate legal action against any unauthorized user of these plans.

THE HERITAGE SERIES

# BELMONT

1.5 Story | 3 Bedrooms | 2 Full Baths | Optional Half Bath



Classic



Colonial



Traditional



Modern Farmhouse



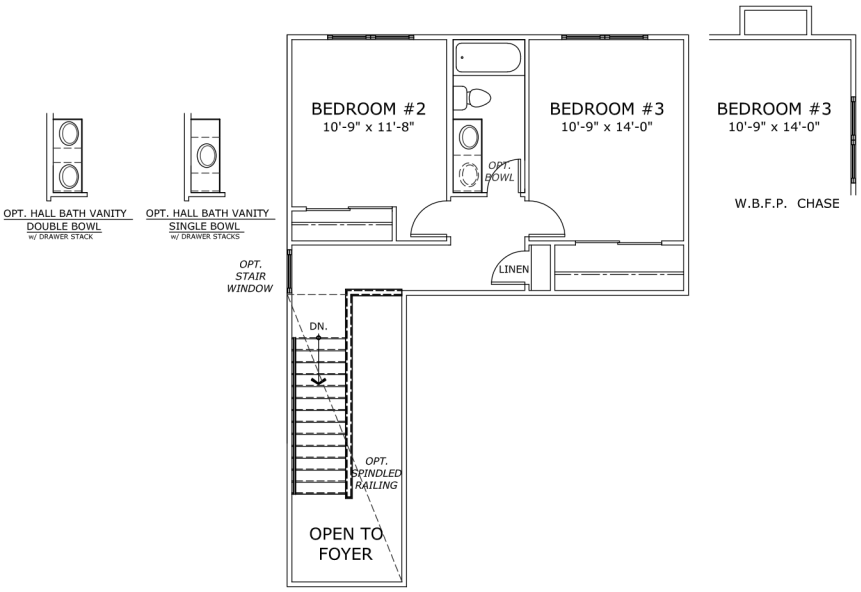
Craftsman



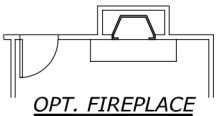
Rustic Craftsman

McBRIDE HOMES

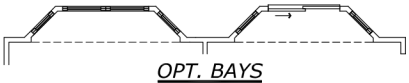
*Missouri's Largest Homebuilder*



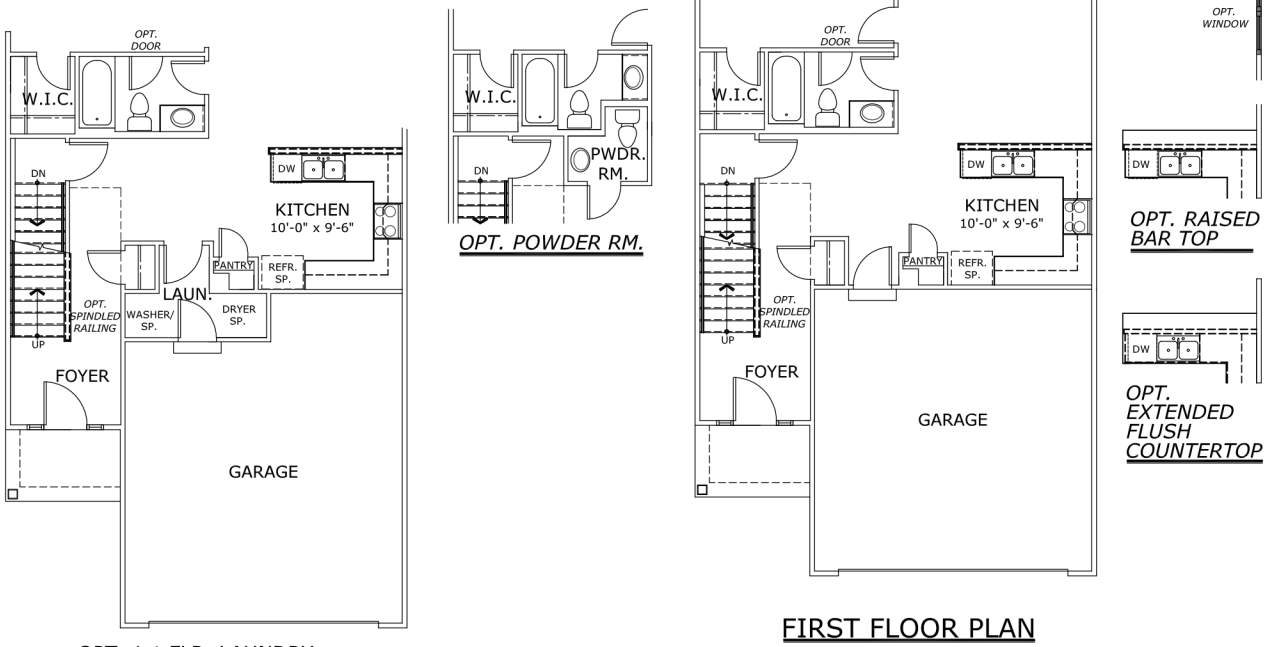

## SECOND FLOOR PLAN



*OPT. FIREPLACE*



*OPT. BAYS*




*OPT. POWDER RM.*

*OPT. 1st FLR. LAUNDRY*

## FIRST FLOOR PLAN

BUILT BY McBRIDE & SON HOMES, INC.

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams. McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

EQUAL HOUSING OPPORTUNITY

©2022, McBride & Son Homes, LLC and McBride & Son Properties, LLC
These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE HERITAGE SERIES

# FIELDCREST

Two Story | 3 Bedrooms | 2 Full Baths | 1 Half Bath



Classic



Rustic Colonial



Modern Farmhouse



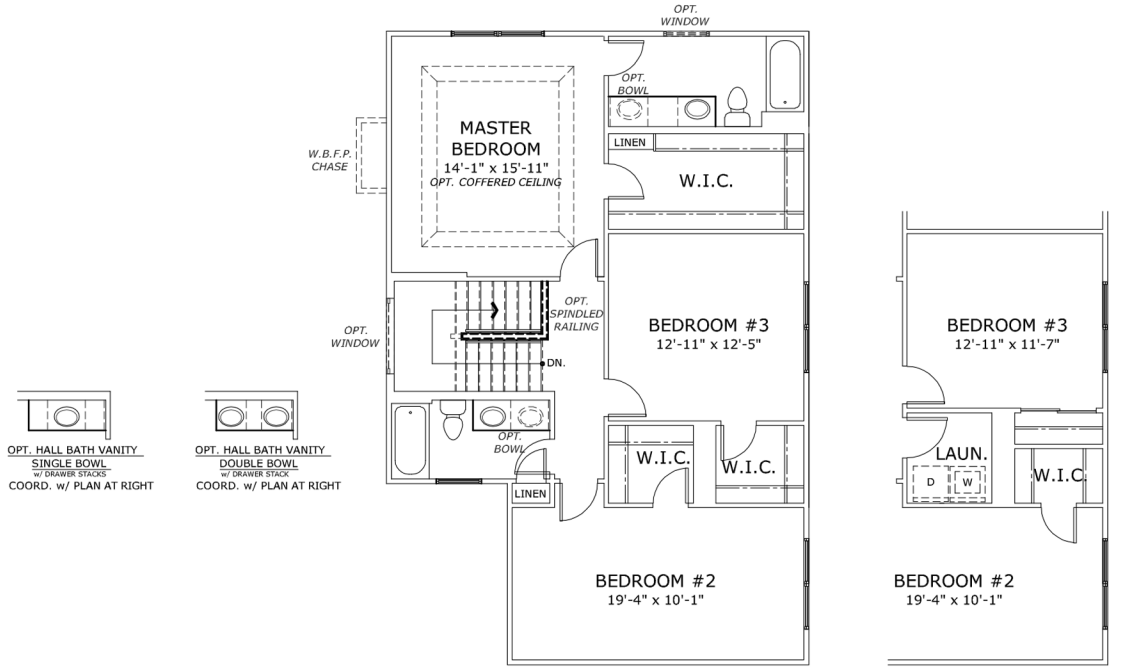
Craftsman



Traditional

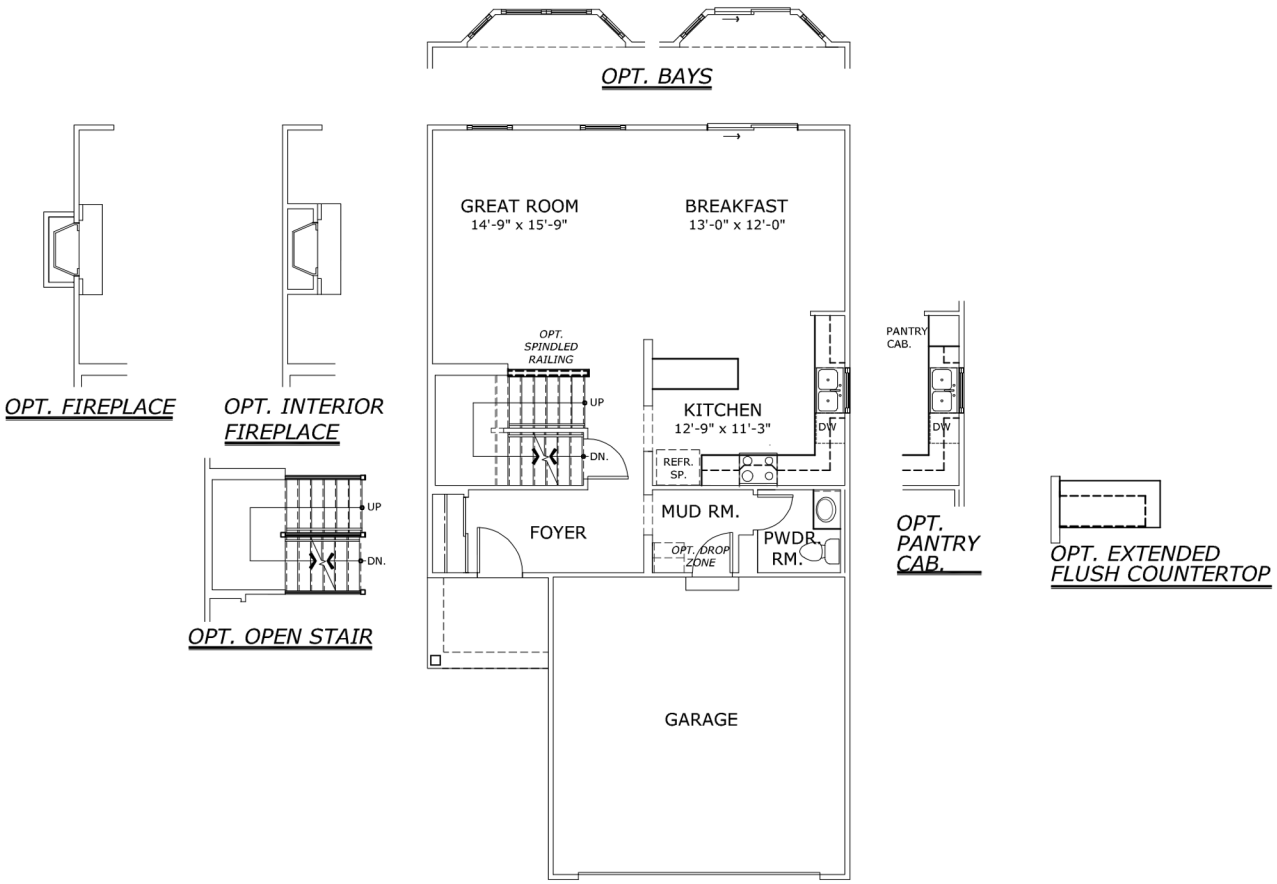
McBRIDE HOMES

*Missouri's Largest Homebuilder*




## SECOND FLOOR PLAN

## OPT. 2nd FLR. LAUNDRY




## FIRST FLOOR PLAN

BUILT BY McBRIDE & SON HOMES, INC.

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams. McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

EQUAL HOUSING OPPORTUNITY

©2022, McBride & Son Homes, LLC and McBride & Son Properties, LLC
These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE HERITAGE SERIES

# ARLINGTON

Two Story | 2 or 3 Bedrooms | 2 Full Baths | Optional Half Bath



Elevation A - Traditional 2 Bedroom Detached



Elevation C - Colonial 2 Bedroom Detached



Elevation H - Classic 2 Bedroom Detached



Elevation G - Traditional II 2 Bedroom Detached



Elevation D - Traditional 3 Bedroom Detached



Elevation F - Colonial 3 Bedroom Detached



Elevation K - Classic 3 Bedroom Detached



Elevation J - Traditional II 3 Bedroom Detached

McBRIDE HOMES

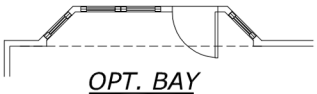
*Missouri's Largest Homebuilder*



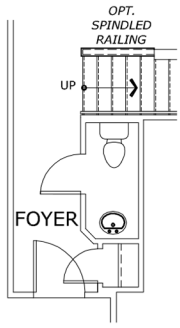
OPT. FIREPLACE
(ON ATTACHED PLANS AVAILABLE ON LEFT END UNIT OR WALK-OUT CONDITIONS ONLY)



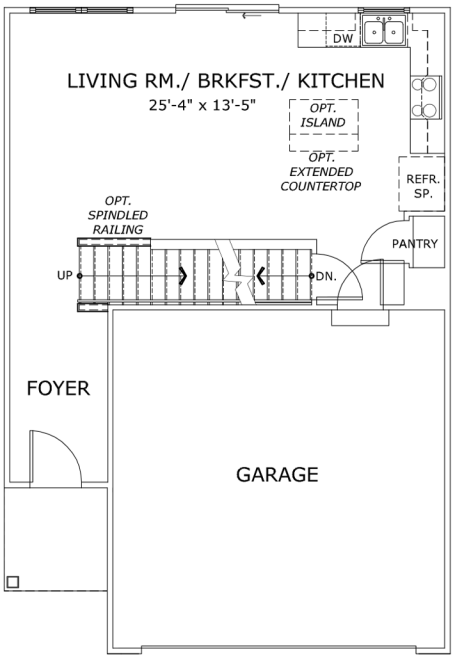
OPT. BAY
ONLY AVAILABLE w/ ATTACHED UNIT ON LEFT END UNIT OR WALK-OUT CONDITIONS



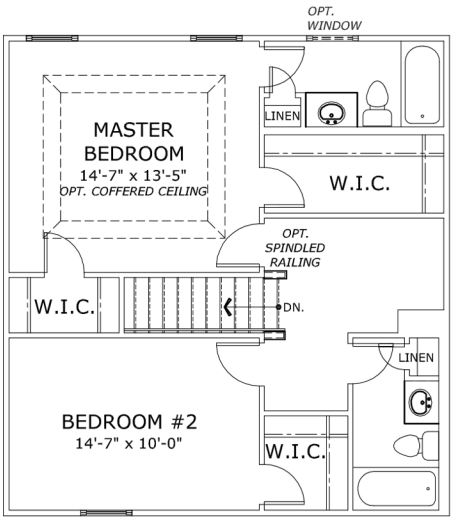
OPT. BAY
ONLY AVAILABLE w/ DETACHED UNIT



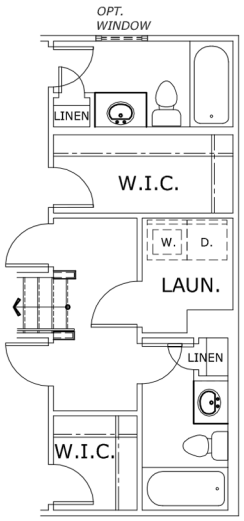

OPT. POWDER RM.



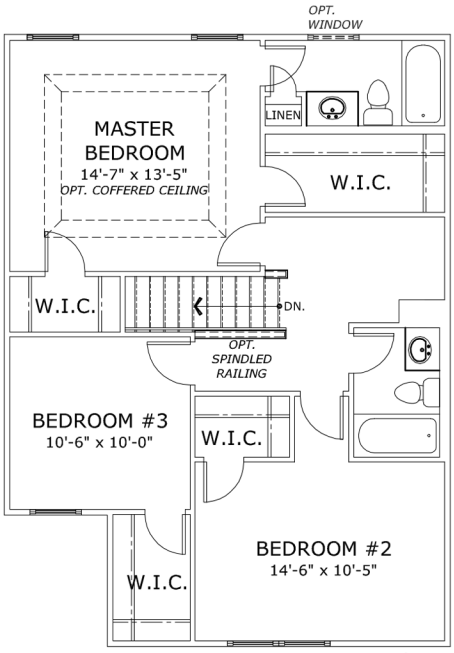

FIRST FLOOR PLAN



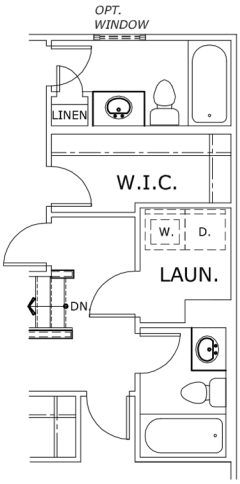

STD. SECOND FLOOR PLAN - 2 BEDROOM




OPT. 2ND FLR. LAUNDRY - 2 BDRM.




2ND FLOOR PLAN w/ OPT. 3 BEDROOM




OPT. 2ND FLR. LAUNDRY - 3 BDRM.

**BUILT BY McBRIDE HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride Homes, Inc. The use or copying of these plans, without the express written consent of McBride Homes, is prohibited by law. McBride Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE HERITAGE SERIES

# BURLINGTON

Two Story | 2 or 3 Bedrooms | 2 Full Baths | Optional Half Bath



Traditional 2 Bedroom



Colonial 2 Bedroom



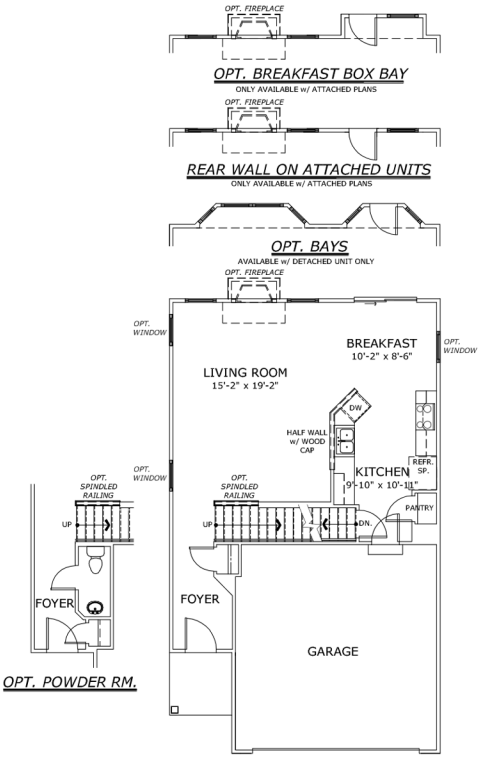
Traditional 3 Bedroom



Colonial 3 Bedroom

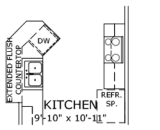
McBRIDE HOMES

*Missouri's Largest Homebuilder*

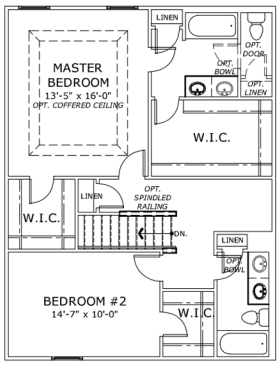



OPT. POWDER RM.

FIRST FLOOR PLAN



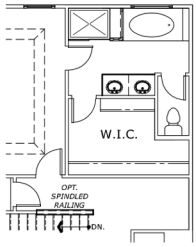

OPT. EXTENDED FLUSH COUNTERTOP



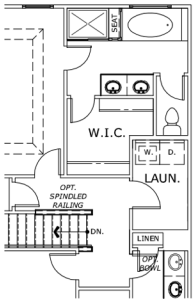

SECOND FLOOR PLAN
w/ STD. 2 BEDROOM



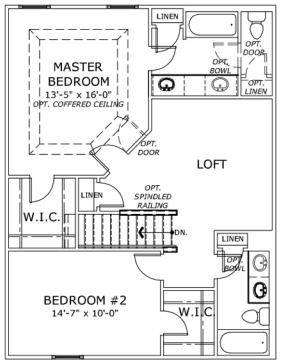

OPT. 2ND FLR. LAUNDRY
w/ STD. 2 BEDROOM



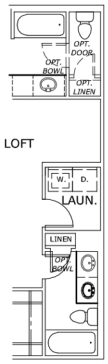

OPT. LUXURY MASTER BATH
w/ STD. 2 BEDROOM



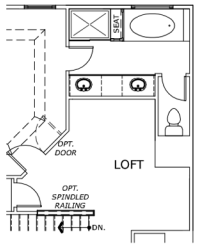

OPT. LUXURY MASTER BATH
AND 2ND FLR. LAUNDRY
w/ STD. 2 BEDROOM



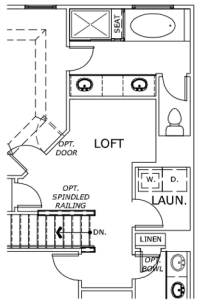

OPT. 2ND FLR. w/ LOFT -
2 BEDROOM



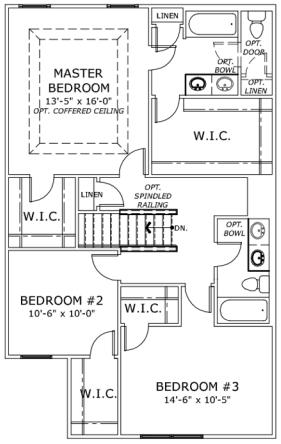

OPT. 2ND FLR. LAUNDRY
AND LOFT - 2 BEDROOM



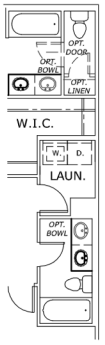

OPT. LUXURY MASTER BATH
AND LOFT - 2 BEDROOM



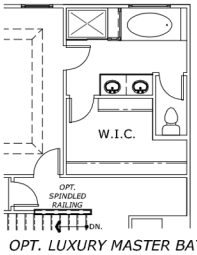

OPT. LUXURY MASTER BATH
w/ OPT. LOFT AND LAUNDRY -
2 BEDROOM



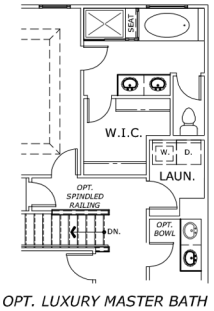

SECOND FLOOR PLAN
w/ OPT. 3 BEDROOM




OPT. 2ND FLR. LAUNDRY
w/ OPT. 3 BEDROOM




OPT. LUXURY MASTER BATH
w/ OPT. 3 BEDROOM




OPT. LUXURY MASTER BATH
AND LAUNDRY w/ OPT. 3 BEDROOM

**BUILT BY McBRIDE HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride Homes, Inc. The use or copying of these plans, without the express written consent of McBride Homes, is prohibited by law. McBride Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE OAKWOOD SERIES

# HICKORY

Ranch | 3 or 4 Bedrooms | 2 Full Baths



COUNTRY COLONIAL



COLONIAL I



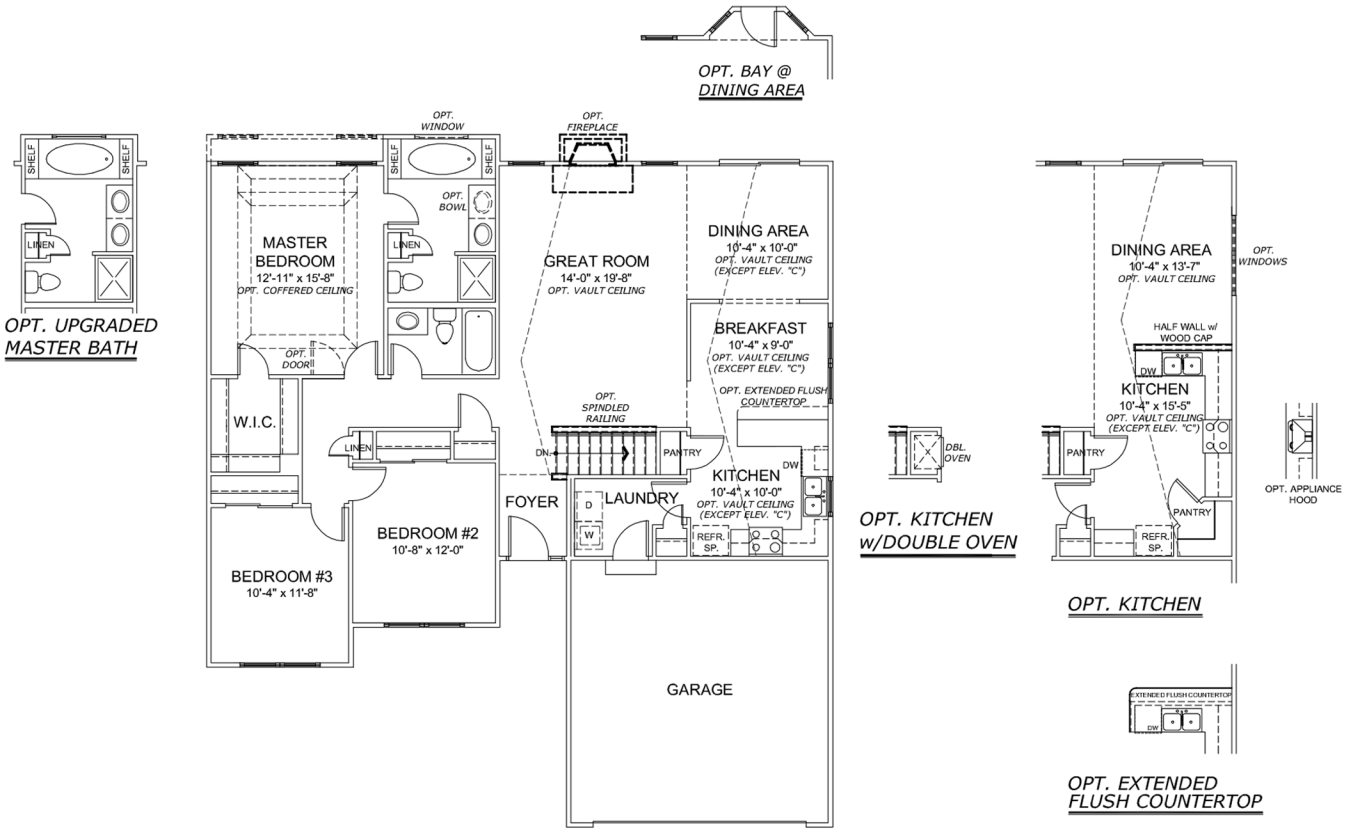
COLONIAL II



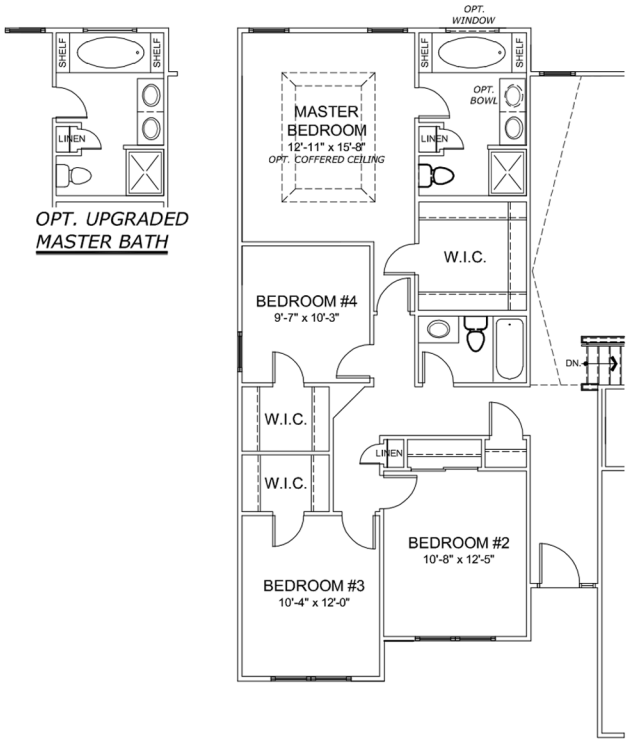
PROVINCIAL

McBRIDE HOMES

*Missouri's Largest Homebuilder*




## FIRST FLOOR PLAN- 3 BEDROOM




## *OPT. FIRST FLOOR PLAN- 4 BEDROOM*

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE OAKWOOD SERIES

# MAPLE EXPANDED

Ranch | 3 Bedrooms | 2 Full Baths



COUNTRY COLONIAL



CRAFTSMAN



COLONIAL



PROVINCIAL



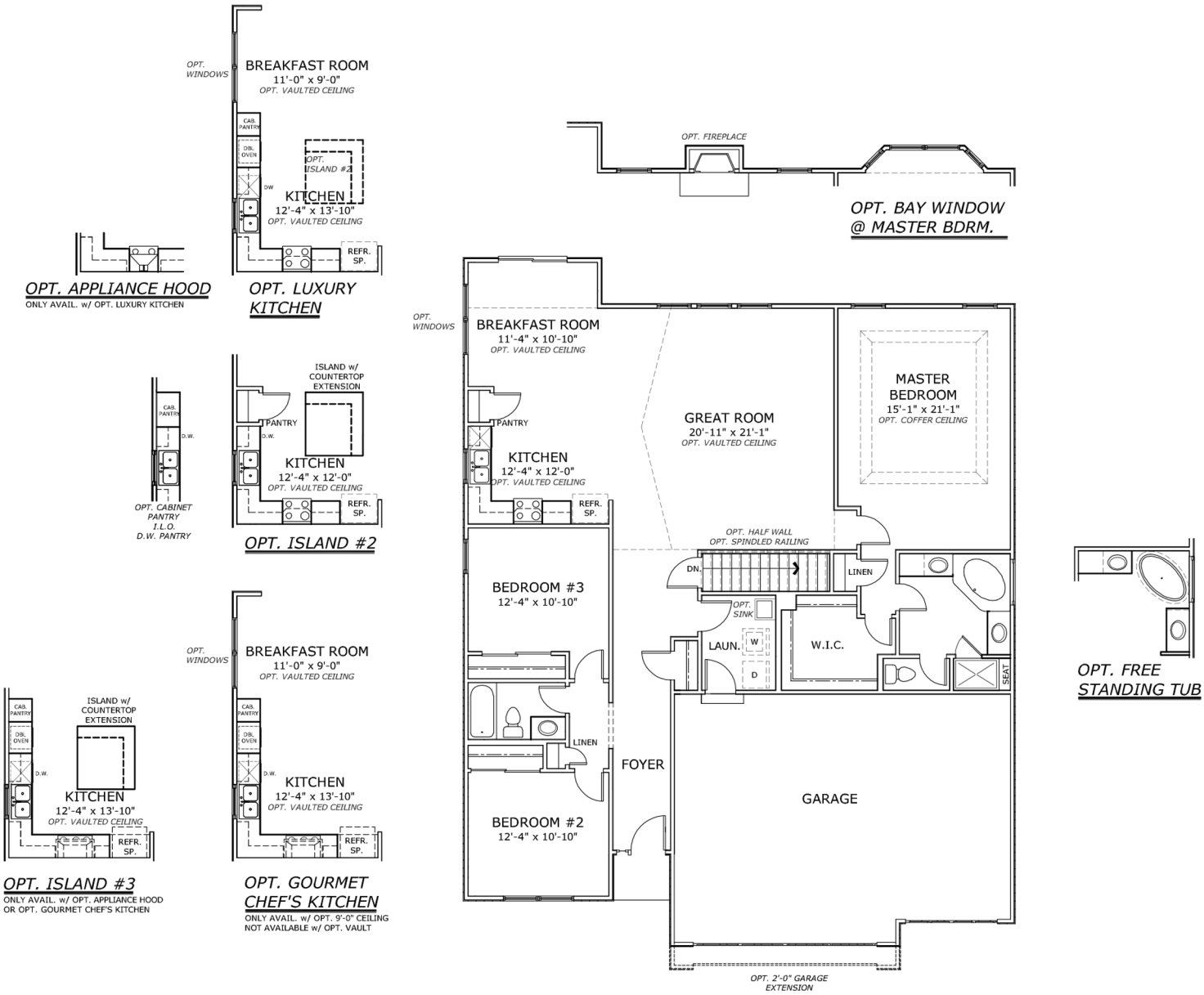
FARMHOUSE



RUSTIC FARMHOUSE

McBRIDE HOMES

*Missouri's Largest Homebuilder*




## FIRST FLOOR PLAN - 3 BEDROOM w/ OPT. EXPANDED PLAN/ 3 CAR GARAGE

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

THE OAKWOOD SERIES

# PIN OAK

1.5 Story | 3 or 4 Bedrooms | 2 or 3 Full Baths | 1 Half Bath



COUNTRY COLONIAL



TRADITIONAL



RUSTIC CRAFTSMAN

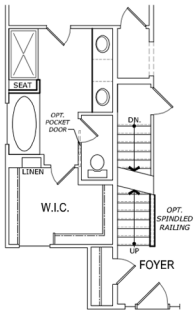


RENAISSANCE

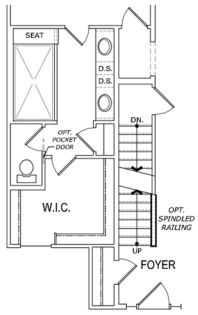
McBRIDE HOMES

*Missouri's Largest Homebuilder*

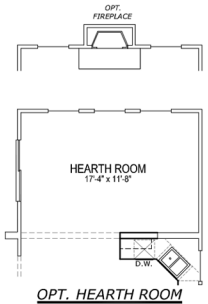
# PIN OAK 224 - OAKWOOD SERIES - 8/2024



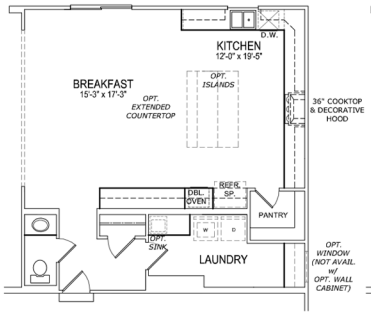

OPT. LUXURY MASTER BATH #2



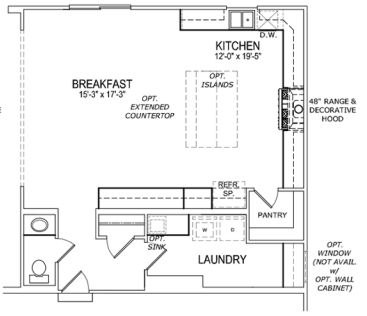

OPT. LUXURY MASTER BATH #3



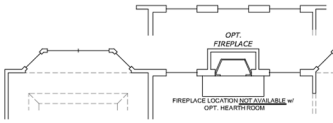

OPT. HEARTH ROOM




OPT. GOURMET CHEF'S KITCHEN
ONLY AVAILABLE w/ OPT. EXPANDED 1st FLR. & 9'-0" 1st FLOOR

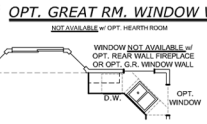



OPT. SIGNATURE CHEF'S KITCHEN
ONLY AVAILABLE w/ OPT. EXPANDED 1st FLR. & 9'-0" 1st FLOOR

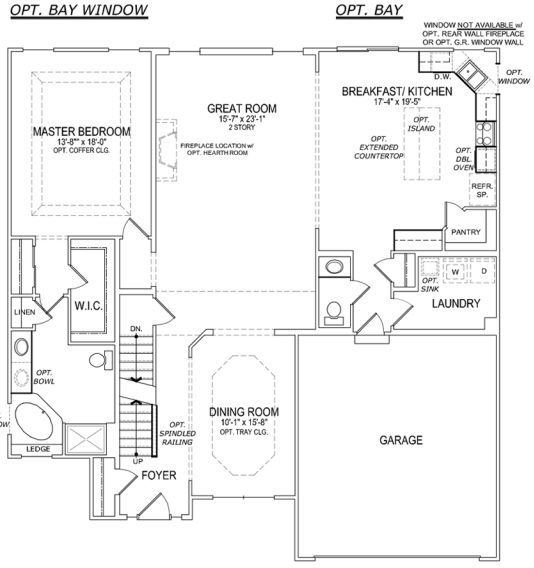



OPT. BAY WINDOW

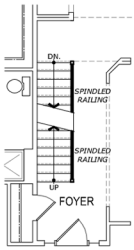
OPT. GREAT RM. WINDOW WALL
NOT AVAILABLE w/ OPT. HEARTH ROOM




OPT. BAY

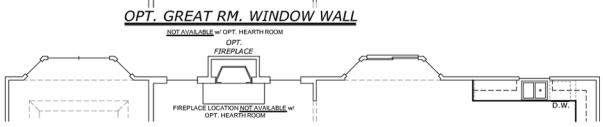



FIRST FLOOR PLAN



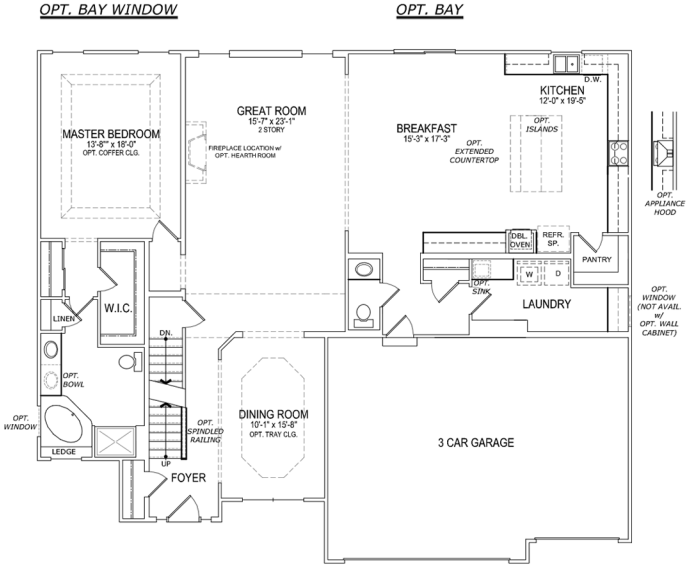

OPT. OPEN STAIR @ FIRST FLOOR

OPT. GREAT RM. WINDOW WALL
NOT AVAILABLE w/ OPT. HEARTH ROOM

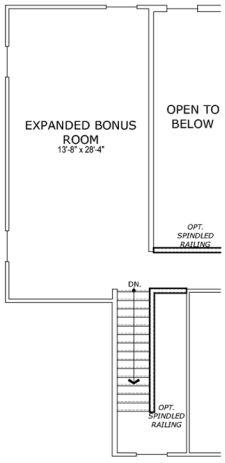



OPT. BAY WINDOW

OPT. BAY



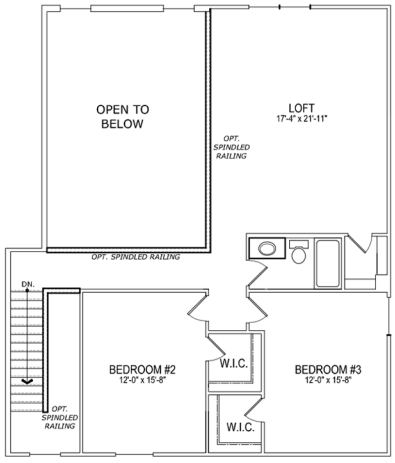

OPT. EXPANDED 1st FLOOR PLAN
STANDARD 2ND FLOOR




OPT. EXPANDED BONUS ROOM

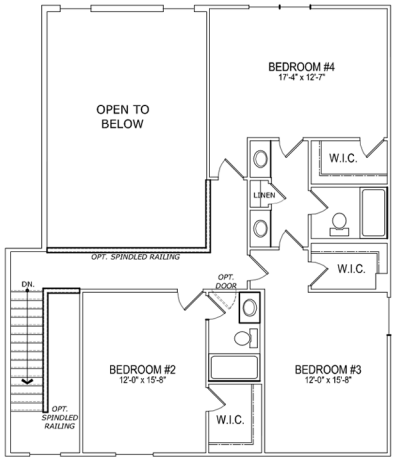
OPT. GREAT RM. WINDOW WALL
NOT AVAILABLE w/ OPT. HEARTH ROOM

WINDOWS w/ OPT. HEARTH ROOM




SECOND FLOOR PLAN

WINDOWS w/ OPT. HEARTH ROOM




OPT. SECOND FLOOR PLAN #2

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE OAKWOOD SERIES

# HERMITAGE II

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



COUNTRY COLONIAL



COLONIAL II



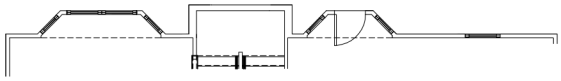
AMERICAN COLONIAL



TRADITIONAL II

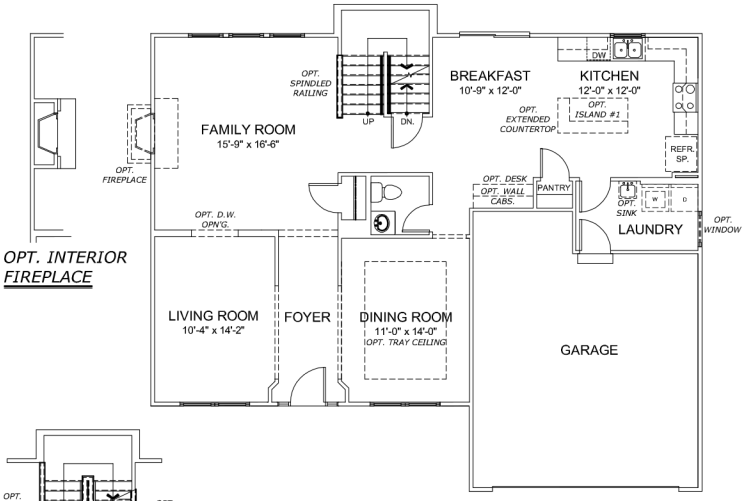
McBRIDE HOMES

*Missouri's Largest Homebuilder*



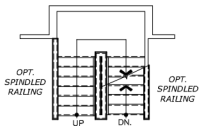
OPT. BAY WINDOW

OPT. BAY

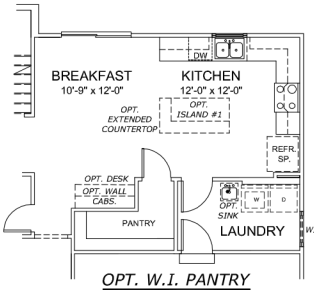



OPT. INTERIOR FIREPLACE

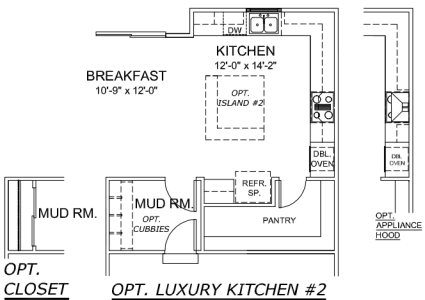
FIRST FLOOR PLAN




OPT. OPEN STAIR @ FIRST FLOOR




OPT. W.I. PANTRY



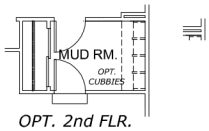




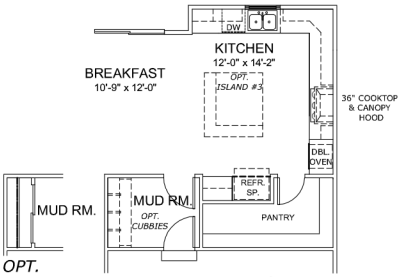
OPT. CLOSET

OPT. LUXURY KITCHEN #2

OPT. 2nd FLR. LAUNDRY IS NEEDED WITH THIS OPTION




OPT. 2nd FLR. LAUNDRY



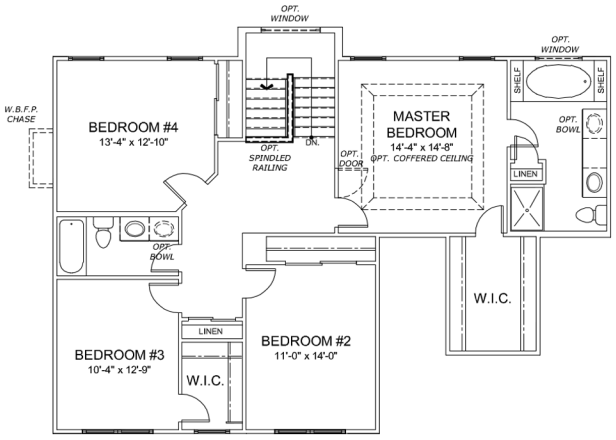




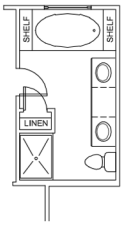
OPT. CLOSET

OPT. GOURMET CHEF'S KITCHEN #2

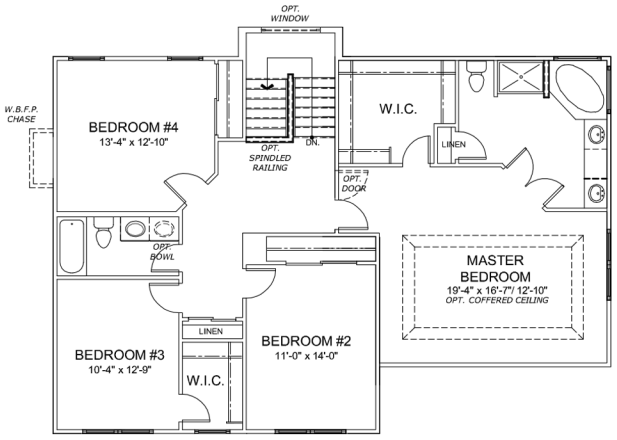
OPT. 2nd FLR. LAUNDRY IS NEEDED WITH THIS OPTION
ONLY AVAILABLE w/ OPT. 9'-0" 1st FLOOR



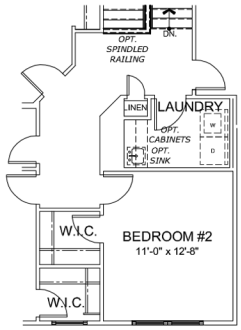

SECOND FLOOR PLAN




OPT. UPGRADED MASTER BATH




OPT. LUXURY MASTER BEDROOM #2




OPT. 2nd FLR. LAUNDRY

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE OAKWOOD SERIES

# SEQUOIA

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



COLONIAL



AMERICAN COLONIAL



FRENCH COLONIAL



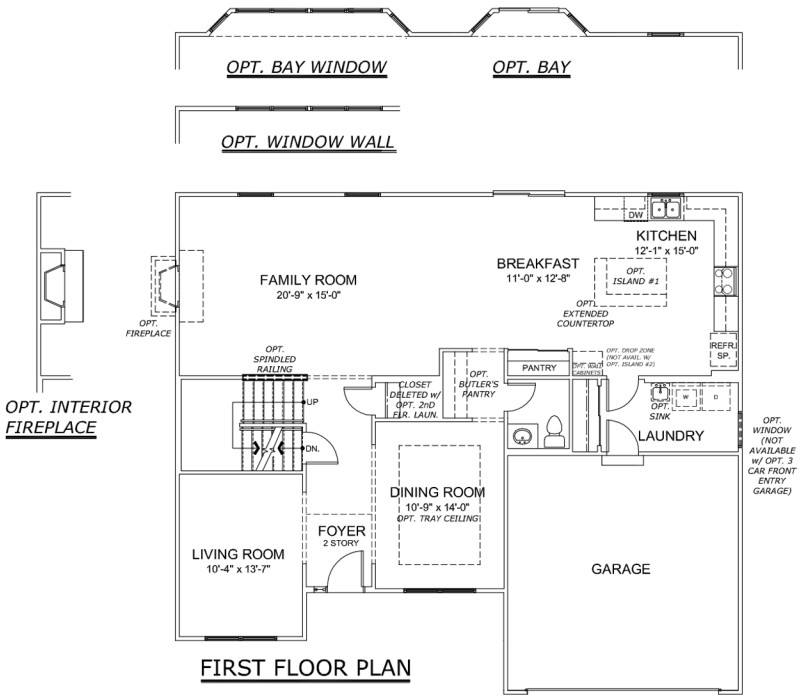
PROVINCIAL



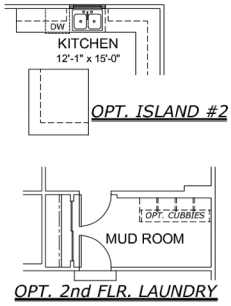
RENAISSANCE

McBRIDE HOMES

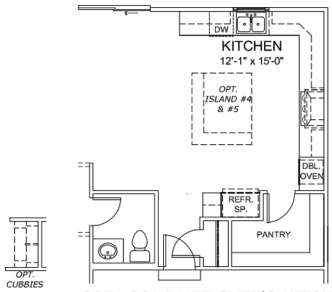
*Missouri's Largest Homebuilder*



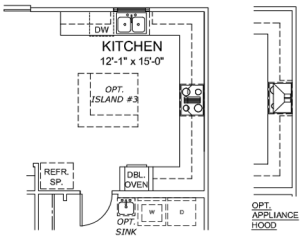

FIRST FLOOR PLAN



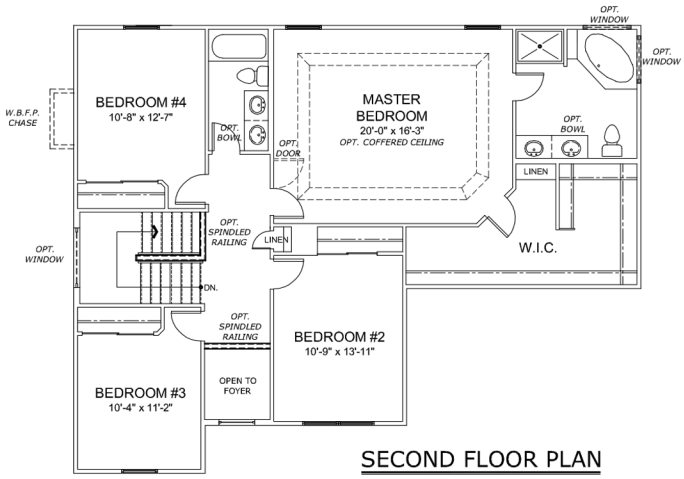

OPT. 2nd FLR. LAUNDRY



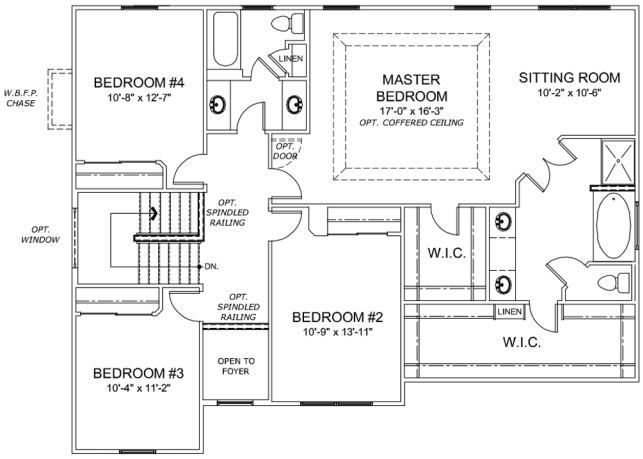

OPT. GOURMET CHEF'S KITCHEN #3
2nd FLR. LAUNDRY IS STANDARD WITH THIS OPTION
ONLY AVAILABLE w/ OPT. 9'-0" 1st FLOOR



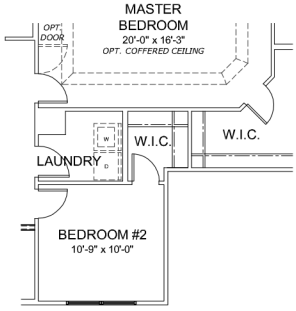

OPT. LUXURY KITCHEN #2



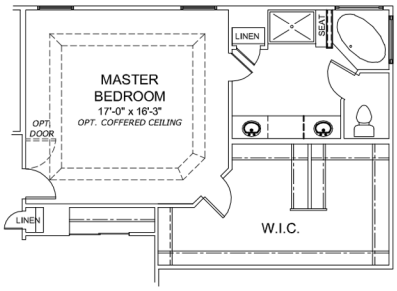

SECOND FLOOR PLAN



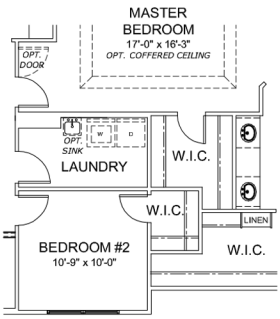

OPT. SECOND FLOOR PLAN w/
MASTER BEDROOM SITTING ROOM




OPT. 2nd FLR. LAUNDRY #2
STANDARD WITH OPT. GOURMET CHEF'S KITCHEN




OPT. LUXURY MASTER BATH




OPT. 2nd FLR. LAUNDRY #3
STANDARD WITH OPT. GOURMET CHEF'S KITCHEN

**BUILT BY McBRIDE & SON HOMES, INC.**

* Due to the evolutionary changes in our design improvements process, there may be variations between these plans and the "as built" floor plans, including layout and room sizes, square footage of the residence itself, and the location and size of doors, windows, openings, door swings, and other building components, including the location of posts and beams.

McBride & Son Homes, in its sole and absolute discretion, reserves the right to substitute materials of comparable quality.

These plans are the sole and absolute property of McBride & Son Homes, Inc. The use or copying of these plans, without the express written consent of McBride & Son Homes, is prohibited by law. McBride & Son Homes may take immediate legal action against any unauthorized user of these plans.

EQUAL HOUSING OPPORTUNITY

THE OAKWOOD SERIES

# NOTTINGHAM

Two Story | 4 Bedrooms | 2 Full Baths | 1 Half Bath



CLASSIC



FRENCH COLONIAL



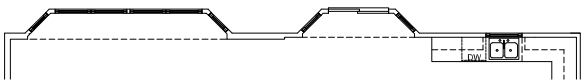
AMERICAN COLONIAL



PROVINCIAL

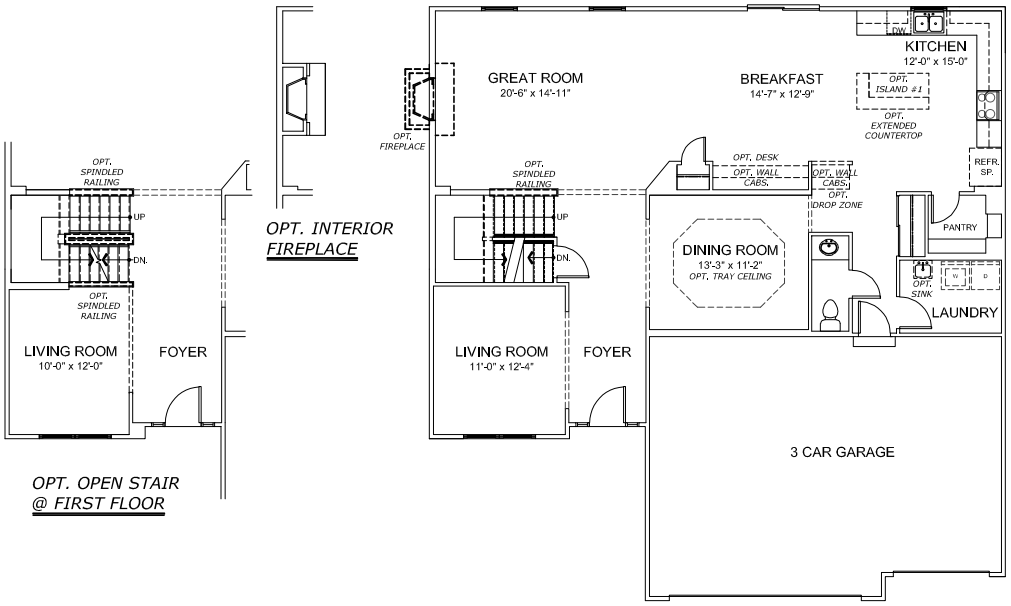
McBRIDE HOMES

*Missouri's Largest Homebuilder*



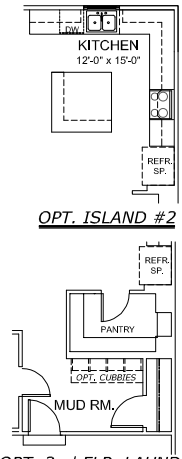

OPT. BAY WINDOWS

OPT. GREAT ROOM WINDOW WALL



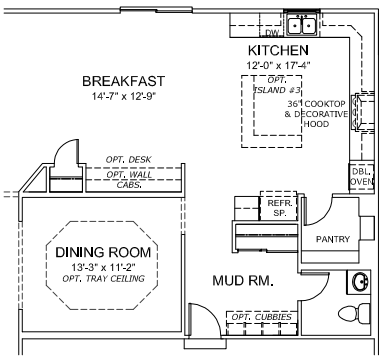

OPT. OPEN STAIR @ FIRST LOOR

FIRST FLOOR PLAN

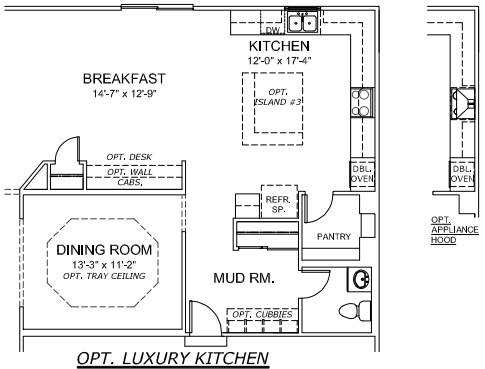



OPT. ISLAND #2

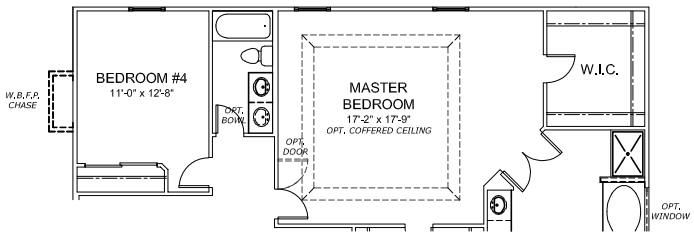
OPT. 2nd FLR. LAUNDRY



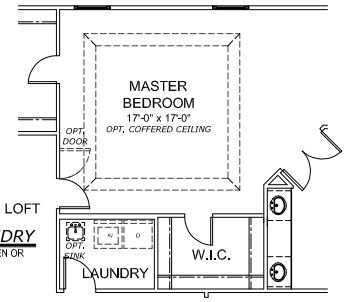

OPT. GOURMET CHEF'S KITCHEN
2nd FLR. LAUNDRY IS STANDARD WITH THIS OPTION
ONLY AVAILABLE w/ OPT. 9'-0" 1st FLOOR



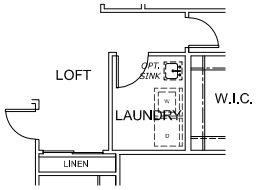

OPT. LUXURY KITCHEN
2nd FLR. LAUNDRY IS STANDARD WITH THIS OPTION



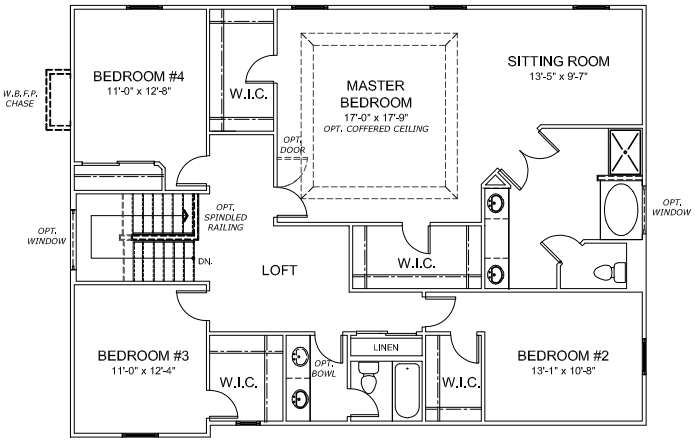

OPT. HALL BATH I.L.O. SITTING ROOM



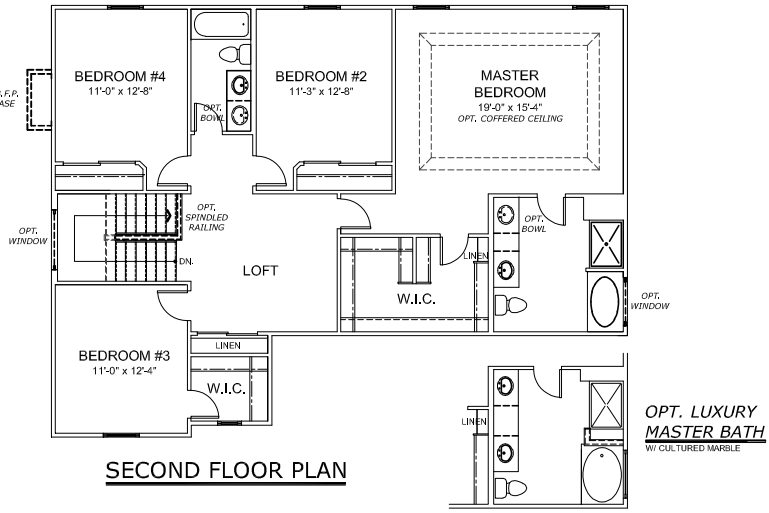

OPT. 2nd FLR. LAUNDRY
STANDARD WITH OPT. LUXURY KITCHEN OR
OPT. GOURMET CHEF'S KITCHEN




OPT. 2nd FLR. LAUNDRY
STANDARD WITH OPT. LUXURY KITCHEN OR
OPT. GOURMET CHEF'S KITCHEN




OPT. SECOND FLOOR PLAN




SECOND FLOOR PLAN

# CABALLO FARMS ADDITION ZONING NARRATIVE

McBride Land Growth, LLC (referred to herein as "**McBride**" and/or "**Applicant**") is excited to unveil its newest project to the City of O'Fallon ("**City**"), Caballo Farms Addition. Caballo Farms Addition is a residential community to be developed on an approximately 6.08 acre site located near Diehr Road ("**Property**"). The Property is currently located in unincorporated St. Charles County and zoned as "Agricultural," but McBride, with the consent of all owners of record, is proposing that the City annex the Property and thereafter rezone it to R-1 Planned Unit Development ("**R-1 PUD**").

Caballo Farms Addition will be an extension of the Caballo Farms community, for which the R1-PUD zoning was recently approved. Caballo Farms Addition and Caballo Farms follow McBride's Harvest community, which has proven to be very successful and highly sought-after. Caballo Farms Addition will be developed in one phase and will consist of 14 single-family home sites which will feature our popular Bayside series product line. The site will include over 3.8 acres of common ground which shall be maintained by a homeowners association. Caballo Farms Addition will also feature new streets, right-of-way dedications, and pedestrian walkways, connecting it to the Caballo Farms Community and amenities.

McBride is requesting that the City annex the Property and rezone it to R-1 PUD to accommodate the proposed residential development. Consistent with the intent of Section 400.236 of the Municipal Code, the flexibility to site design afforded by the PUD allows for a more efficient land utilization, resulting in the preservation of approximately 53.9% of the site as green space/common ground, while maximizing tree preservation, and reducing the cost per dwelling unit for residents. Additionally, the proposed plan concentrates development away from, and thereby protecting and preserving, the scenic assets and natural features of the site, including a creek running through a section of the Property.

Requested modifications from the underlying zoning include:

| Standards | R-1 Regulations | Proposed |
|---|---|---|
| Minimum Lot Size | 10,000 SF | 5,200 SF |
| Minimum Lot Width | 80 FT | 52 FT |
| Rear Yard Setback | 25 FT | 20 FT |
| Maximum Lot Coverage | 35% | 55% |

In support of the annexation of the Property and the zoning request, McBride addresses the Municipal Code criteria and rezoning fact analysis, as follows:

1. ***Whether or not the requested zoning change is justified by a change in conditions since the original Ordinance was adopted, or by an error in the original Ordinance.***

The annexation of the Property is a change in condition that justifies the requested zoning change. Provided the Property is annexed into the City, the City will require that it be rezoned under the Municipal Code. Additional condition changes include the availability of sanitary sewer to the

Property and area road improvements by St. Charles County, which affect the City's development patterns which show that this area is where future growth and development will and should occur. Finally, the pending development of Caballo Farms constitutes a material change in area conditions, thereby justifying the rezoning of the subject Property to the same zoning designation to ensure compatibility and continuity of land use

2. ***The precedents, and the possible effects of such precedents, which might likely result from approval or denial of the application.***

Approving the proposed zoning requests will not create new precedent for the City as all properties which are annexed into the City must be rezoned. Additionally, the current proposed annexation and requested zoning to PUD R-1 for Caballo Farms Addition follows the precedent of the zoning change approved by the City for the adjacent Caballo Farms and nearby Harvest projects.

3. ***The ability of the City or other government agencies to provide any services, facilities and/or programs that might likely result from approval or denial of the petition.***

The utility companies, Wentzville School District, and the City are able to adequately service the Property. Further, with the new adjacent sewer plant constructed by the Duckett Creek Sewer District, the Caballo Farms Addition project is helping to bring new sewer service to the area.

4. ***The effect of approval of the application on the condition and/or value of property in the City or in adjacent civil divisions.***

The Property is located adjacent to acreage recently annexed by the City, and, as such, is located in the City's logical growth area. The Property and areas to the west are now primed for new development due to the new sewer service and roadway improvements coming to the area. The Property as it currently sits is of no value to the City or its residents because it is located in unincorporated St. Charles County and it is largely undeveloped. However, by annexing the Property and approving the zoning request, the residents of O'Fallon will benefit from having this new residential community which will drive and create opportunities for future commercial growth along Highway N, create additional municipal revenue, and will create new employment opportunities in the City. The variety of new and modern housing options and amenities planned for the Caballo Farms Addition and Caballo Farms development will also serve to attract new City residents and raise area property values, both of which will create additional value for the City and its current residents.

5. ***The zoning classification and land use recommended by the City's adopted Comprehensive Plan.***

The Caballo Farms project and corresponding zoning requests <u>are consistent</u> with goals set forth in the City's Comprehensive Plan which aim to "increase the diversity of housing stock to provide options for a variety of resident types". Caballo Farms Addition, in conjunction with Caballo Farms, furthers the City's goal by providing a variety of housing options for residents in nearly all stages of life and price point.

## A. CONCLUSION

McBride is pleased to bring Caballo Farms Addition to the City. To move forward with this project, McBride is seeking the annexation of the Property, and approval of the rezoning to R-1 PUD and accompanying area plan. These approvals for the Caballo Farms Addition project are fully justified, and we, therefore, respectfully request a positive recommendation and ultimate approval of this project.

March 24, 2026

Mr. Jeremy Roth, P.E.
President
McBride Land Strategy
17415 North Outer Forty
St. Louis, Missouri 63005

RE: Traffic Impact Study
Proposed Caballo Farms Development
O'Fallon, Missouri
CBB Job No: 31-2026

Dear Mr. Roth:

As requested, CBB has completed a traffic impact study pertaining to the proposed Caballo Farms development in O'Fallon, Missouri. The development site is located approximately one half mile west of the Hopewell Road and Diehr Road intersection. The location of the site relative to the surrounding area is depicted in **Figure 1**.




Figure 1: Project Location Map

Based on the site plan prepared by The Sterling Company, the proposed development will include approximately 276 single-family homes. In conjunction with the proposed development, Diehr Road would be extended farther west to gain access to the Caballo Farms site. Primary access for the proposed development would be via two new drives on this extension of Diehr Road. A connection is also proposed via the existing stub street of Country House Drive in the Harvest subdivision. The conceptual site plan is shown in **Exhibit 1**.

The purpose of this study was to determine the number of trips that would be generated by the proposed Caballo Farms development; assess the impact(s) of those trips on operating conditions on the study intersections and determine the ability of motorists to safely enter and exit the site. As appropriate, access changes, roadway improvements and/or traffic control modifications/refinements were identified to mitigate the impact of the development. The focus of this study was the AM and PM peak hours of a typical weekday.

The scope of work was discussed with representatives from the City of O'Fallon, St. Charles County and the Missouri Department of Transportation (MoDOT) to outline the parameters of the traffic impact study being prepared in a scoping meeting on February 25, 2026. CBB also provided the City, County and MoDOT a Technical Memo summarizing the 2030 Base traffic volumes, 2050 Base traffic volumes, proposed site trip generation and directional distribution estimates, and study scenarios and gained their consensus on the assumptions prior to completing the traffic analyses.

As requested by the agencies, the following intersections were included in the study:

- Route N and Hopewell Road/Duello Road;
- Route N and Welker Parkway/Post Farm Drive; and
- Hopewell Road and Diehr Road.

The traffic impact study evaluated the following analysis scenarios for the weekday AM and PM peak hours: hours:

**2030 Opening Year Conditions**

*Roadway Network: Existing two-lane Route N cross-section with new signal at Route N and Hopewell Road, new roundabout at Diehr Road and Hopewell Road, and existing right-in/right-out at Welker Parkway with full access at Post Farms Drive.*

- ✓ 2030 Base (Existing Volumes from Route N Conceptual Study and CBB counts plus background growth plus 50% of approved Harvest, Autumn Hollow, Post Farms, and Trailside Farm developments)
- ✓ 2030 Build (2030 Base plus Caballo Farms site trips)

**2050 Design Year Design Conditions**

*Roadway Network: Planned Route N Improvements (four-lane) with roundabout at Welker Parkway/Post Drive*

- ✓ 2050 Base (2050 Traffic Volumes from Route N Conceptual Study plus Trailside Farm build out trips)
- ✓ 2050 Build Conditions (2050 Base plus Caballo Farms site trips)

The following report presents the methodology and findings relative to the opening year 2030 and design year 2050 conditions.

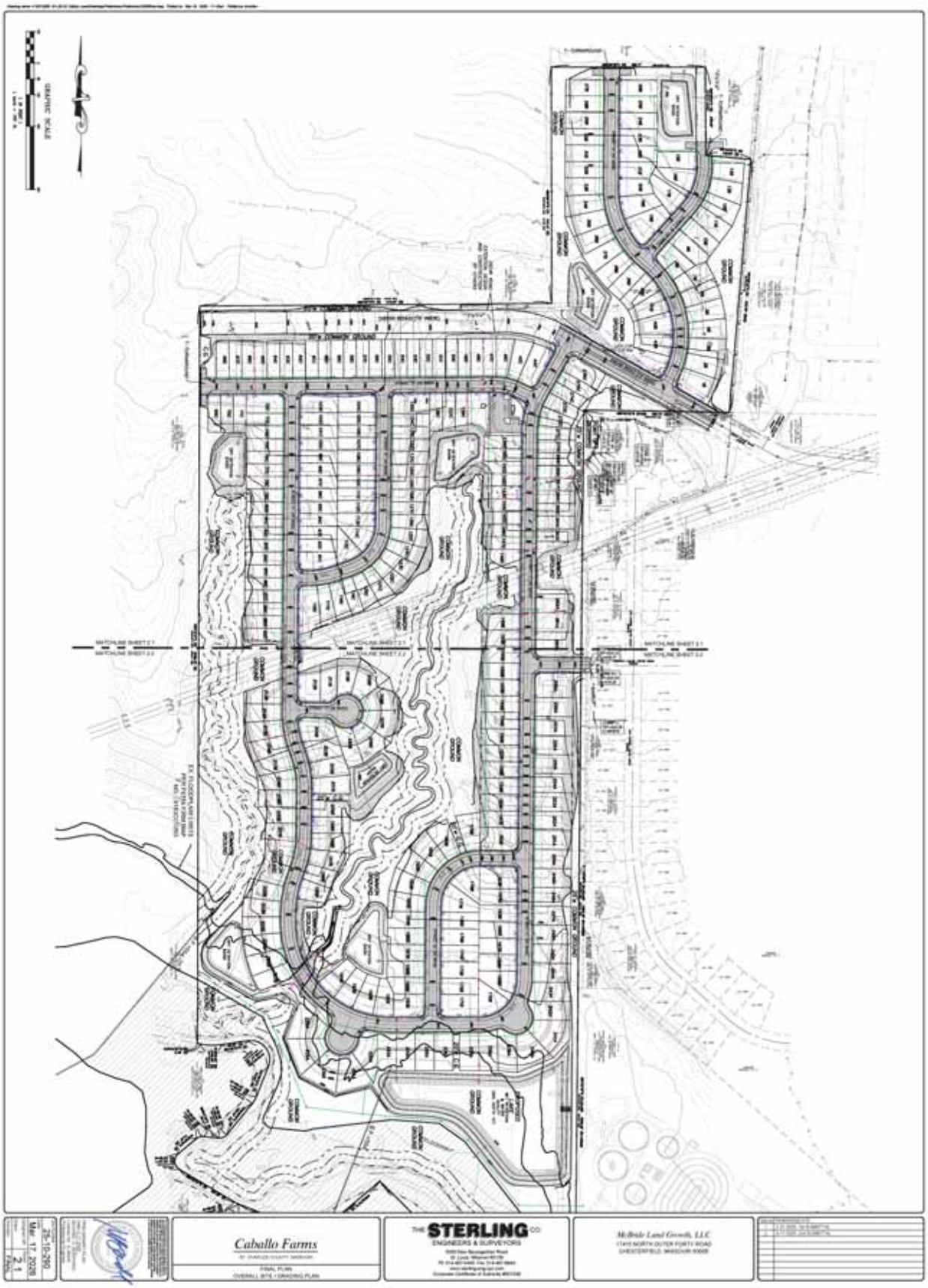



Exhibit 1: Preliminary Site Plan (provided by others)

## EXISTING/2030 NO BUILD CONDITIONS

**Area Roadway System: Route N** is an east-west Principal Arterial owned and maintained by MoDOT. Within the study area, the roadway provides one lane in each direction, and no sidewalks are provided on either side of the roadway. Route N provides access to subdivisions, commercial uses, and several schools to the west of the study area. The roadway has a posted speed limit of 50 miles per hour (mph).

**Duello Road** is a north-south Major Collector owned and maintained by St. Charles County. Within the study area, the roadway provides one lane in each direction. Sidewalks were recently constructed along both sides of the roadway from just north of Route N to just north of Orf Road. Duello Road provides access between Route N and Highway 40/I-64/Prospect Road. The posted speed limit on Duello Road is 35 mph.

**Hopewell Road** is a north-south Major Collector owned and maintained by St. Charles County. Hopewell Road provides one lane in each direction and provides access from Route N to the southwest to Route D. Sidewalks are not provided along the roadway. The posted speed limit is 35 mph.

**Diehr Road** is an east-west Minor Collector owned and maintained by St. Charles County. Diehr Road provides one lane in each direction and provides access to several large residential areas from near Route DD on the east end to just past Hopewell Road on the west end. Sidewalks are not provided along the roadway. The posted speed limit is 35 mph.

**Welker Parkway** is a north-south local road with one lane in each direction separated by a grassy median. Welker Parkway provides access to the Harvest and Autumn Hollow subdivisions. Sidewalks are provided along both sides of the roadway. There was no posted speed limit that CBB could identify.

The intersection of Route N and Hopewell Road/Duello Road currently operates under side-street STOP control with Duello Road and Hopewell Road required to stop. The eastbound and westbound approaches of Route N provide one left-turn lane, one through lane and one channelized right-turn lane. The northbound Hopewell Road and southbound Duello Road approaches provide a shared left-turn/through lane and a channelized right-turn lane. **Figure 2** provides an aerial view of the Route N and Hopewell Road/Duello Road intersection as an unsignalized intersection. As will be discussed later in this report, a new signal will be constructed at the intersection later this year.

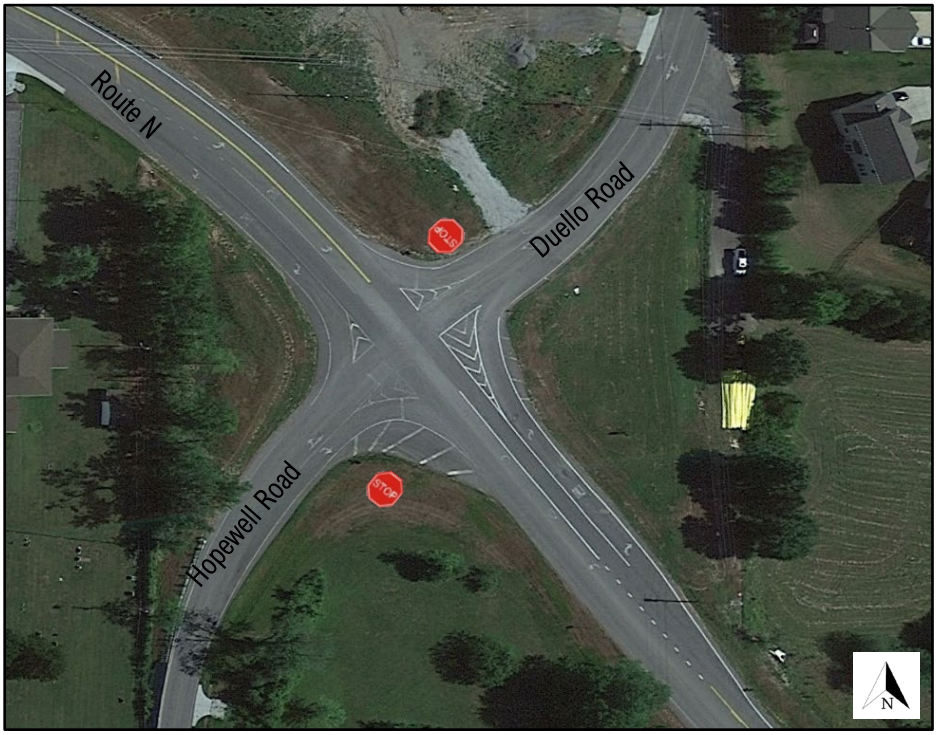



Figure 2: Aerial View of the Route N and Hopewell Road/Duello Road Intersection (unsignalized)

The intersection of Route N and Welker Parkway/Post Farms Drive operates under side-street stop control. Post Farms Drive is full access, while Welker Parkway is restricted to right-in/right-out access only. The northbound and southbound approaches consist of a single shared lane. The westbound Route N approach consists of a single shared lane, though a separate westbound right-turn lane will be provided in conjunction with the Post Farms development. The eastbound Route N approach consists of a though lane and a right-turn lane, though a separate left-turn lane will be provided in conjunction with the Post Farms development. **Figure 3** provides an aerial view of the Route N and Welker Parkway/Post Farms Drive intersection.

The intersection of Hopewell Road and Diehr Road currently operates under side-street STOP control with the Diehr Road approaches required to stop. All approaches consist of a single shared lane. **Figure 4** provides an aerial view of the Hopewell Road and Diehr Road intersection. As will be discussed later in this report, a new roundabout will be constructed at the intersection later this year.

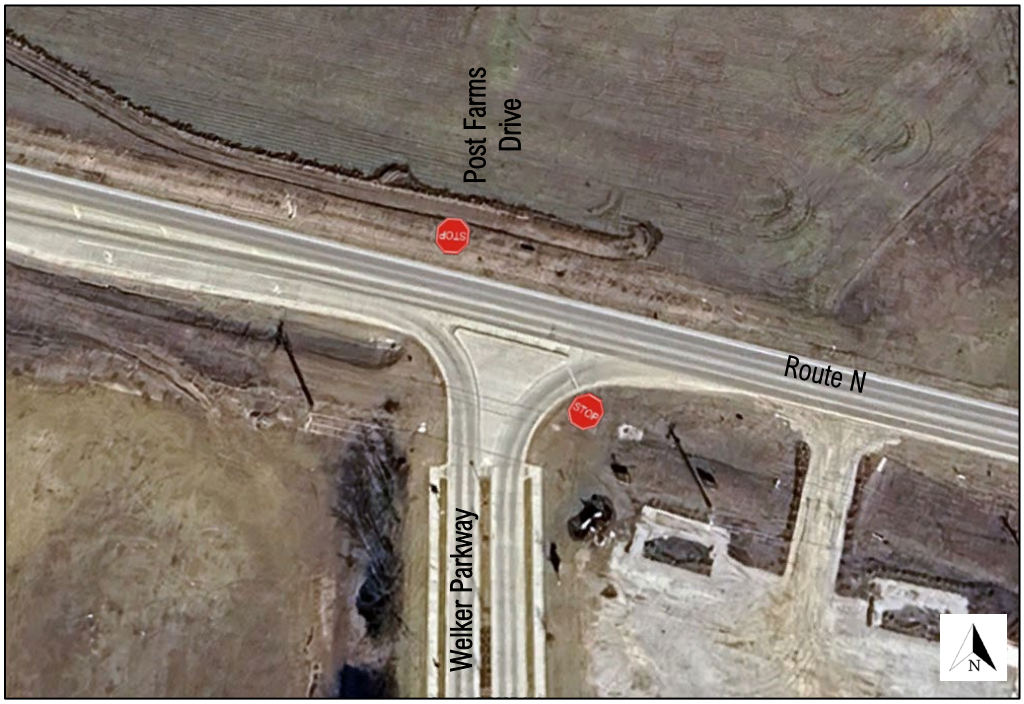



Figure 3: Aerial View of the Route N and Welker Parkway/Post Farms Drive Intersection




Figure 4: Aerial View of the Hopewell Road and Diehr Road Intersection

**Existing Traffic Volumes:** It is our understanding that MoDOT and St. Charles County have studied the Route N corridor to develop corridor improvements between I-64 and Route Z. Specifically, a Route N Expansion study began in 2023 and is in the preliminary roadway design phase for proposed improvements. From that study, MoDOT provided the *Route N Expansion Traffic Forecast Memo* completed by HNTB which provides Existing traffic volumes collected in 2023 and 2024 for the Route N corridor. Based on our discussion with the agencies, it was agreed that this study would utilize the 2023/2024 traffic volumes at the following intersections:

- Route N and Hopewell Road/Duello Road; and
- Route N and Welker Parkway/Post Tract Drive.

Based on the MoDOT traffic data, the weekday AM peak hour occurred between 6:45 and 7:45 AM and the PM peak hour occurred between 4:30 and 5:30 PM. The existing peak hour traffic volumes at each of the intersections from the respective studies are summarized in **Exhibit 2**.

For the study intersection of Diehr Road and Hopewell Road, counts collected in April 2021 as part of prior traffic studies for the Harvest and Autumn Hollow developments were used. Note that at the time of the 2021 counts, the intersection of Diehr Road and Hopewell Road was a T intersection, with the west leg added as part of the Harvest development.

Given the traffic characteristics in the area and the anticipated trip generation for the proposed development, the peak periods identified would represent a "worst-case scenario" with regards to the traffic impact. If traffic operations are acceptable during these weekday peak hours, it can be reasoned that conditions would be acceptable throughout the remainder of the day.

**2030 No Build Traffic Volumes (Existing plus Background Growth):** In order to develop the 2030 No Build traffic volumes, background linear traffic growth was used. Based on the *Route N Expansion Traffic Forecast Memo* completed by HNTB, the annual growth rates along Route N ranged from approximately 1.0% on the east end of the corridor (near I-64) to approximately 2.75% on the west end (near Route Z). Based on the location of study area in relation to the Route N corridor study area, a growth rate of 1.5% percent per year will be used to account for the background growth on the study roadways. For the counts on Route N collected in 2023, seven years of background was accounted for which represents a global increase of approximately 11%. For the count at Diehr Road and Hopewell Road collected in 2021, nine years of background was accounted for which represents a global increase of approximately 14.3%. The 2030 No Build peak hour traffic volumes are summarized in **Exhibit 3**. Note that the traffic volumes were rounded to the nearest 5 vehicles per hour (vph).

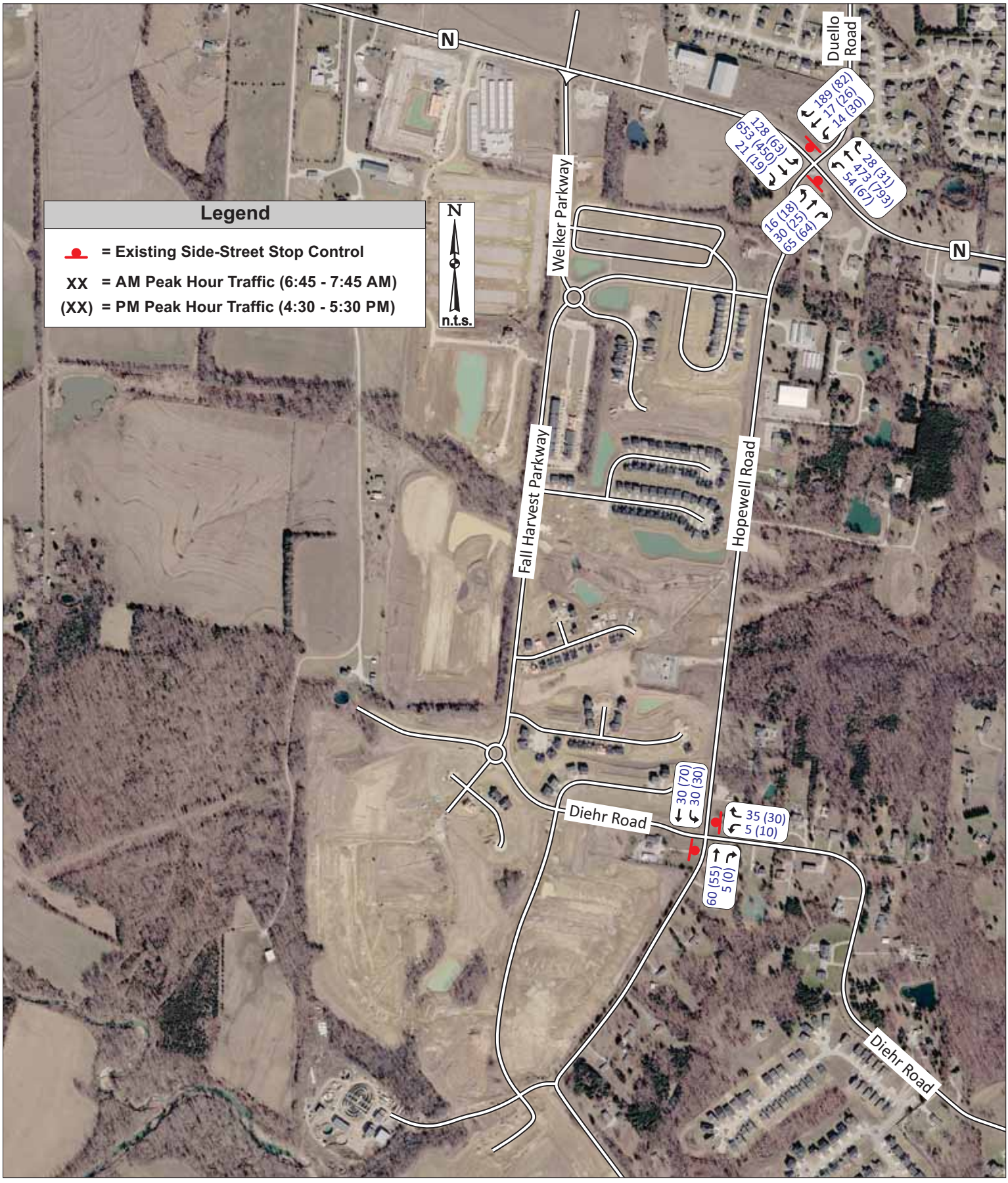



Exhibit 2: 2021/2023 Existing Traffic Volume (From Prior Traffic Studies)

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

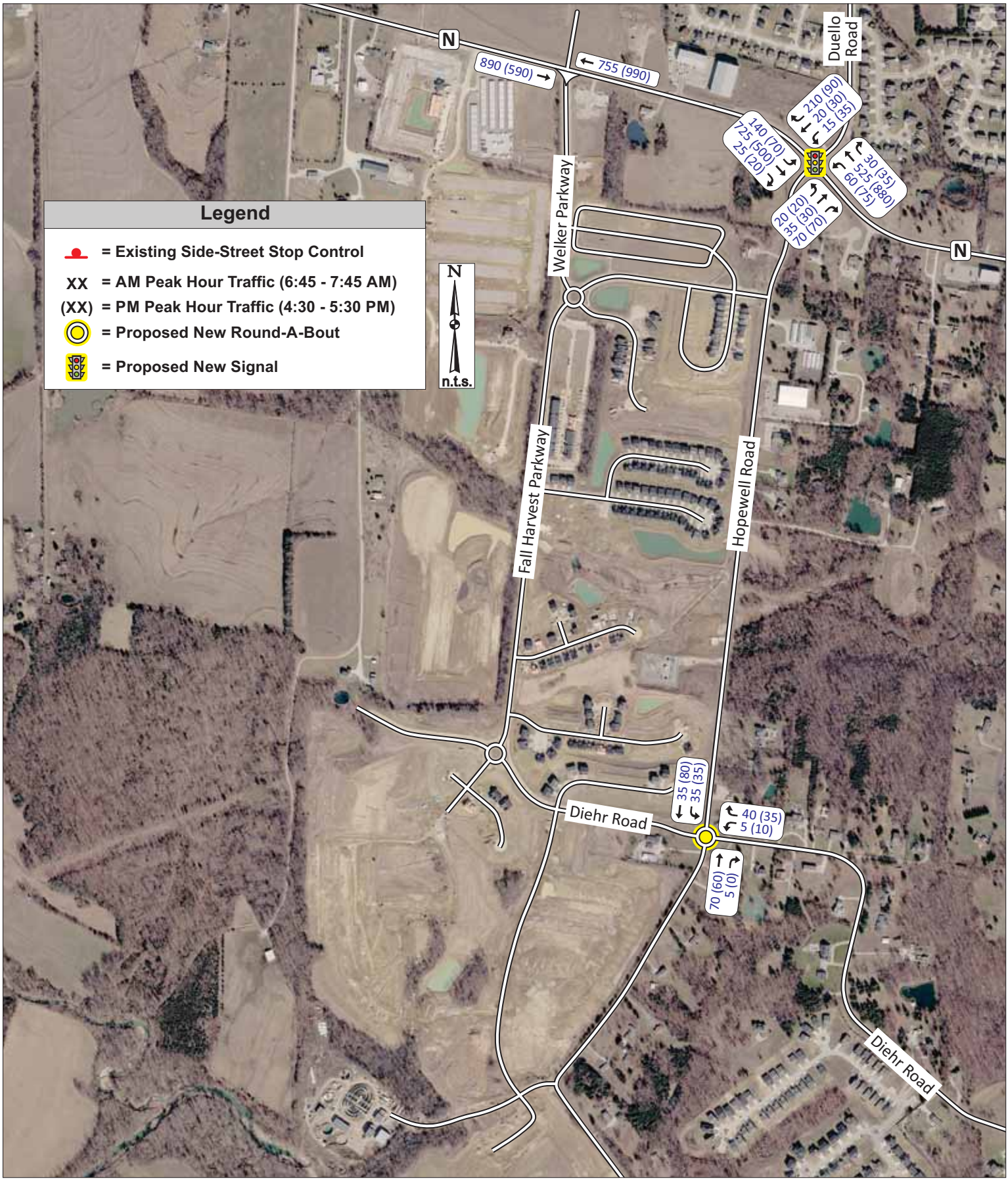



Exhibit 3: 2030 No Build Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

## 2030 BASE CONDITIONS

**Area Approved Developments:** There are several approved subdivisions near the study area that are approved but not yet built out, including the Harvest, Autumn Hollow, Post Farms and Trailside Farm developments. The studies completed by CBB are as follows:

- Autumn Hollow Update to Harvest Traffic Study, May 13, 2022;
- Post Tract Traffic Study, November 28, 2023; and
- Trailside Farm Traffic Study, January 15, 2026.

As discussed with the agencies, the 2030 Base Traffic Volumes will include 50% of the area approved subdivision trips, including Harvest, Autumn Hollow, Post Farms, and Trailside Farm. The site generated trips for the respective developments which show the full build out of each development are provided in the **Appendix**. The area approved development trips (50% of the Harvest, Autumn Hollow, Post Tract and Trailside Farm developments) are shown in **Exhibit 4**.

**2030 Base Traffic Volumes**: The area approved development trips (Exhibit 4) were added to the 2030 No Build traffic volumes (Exhibit 3) to develop the 2030 Base traffic volumes. **Exhibit 5** summarizes the 2030 Base traffic volumes which includes the background growth and 50% build out of the Harvest, Autumn Hollow, Post Farms and Trailside Farm residential developments.

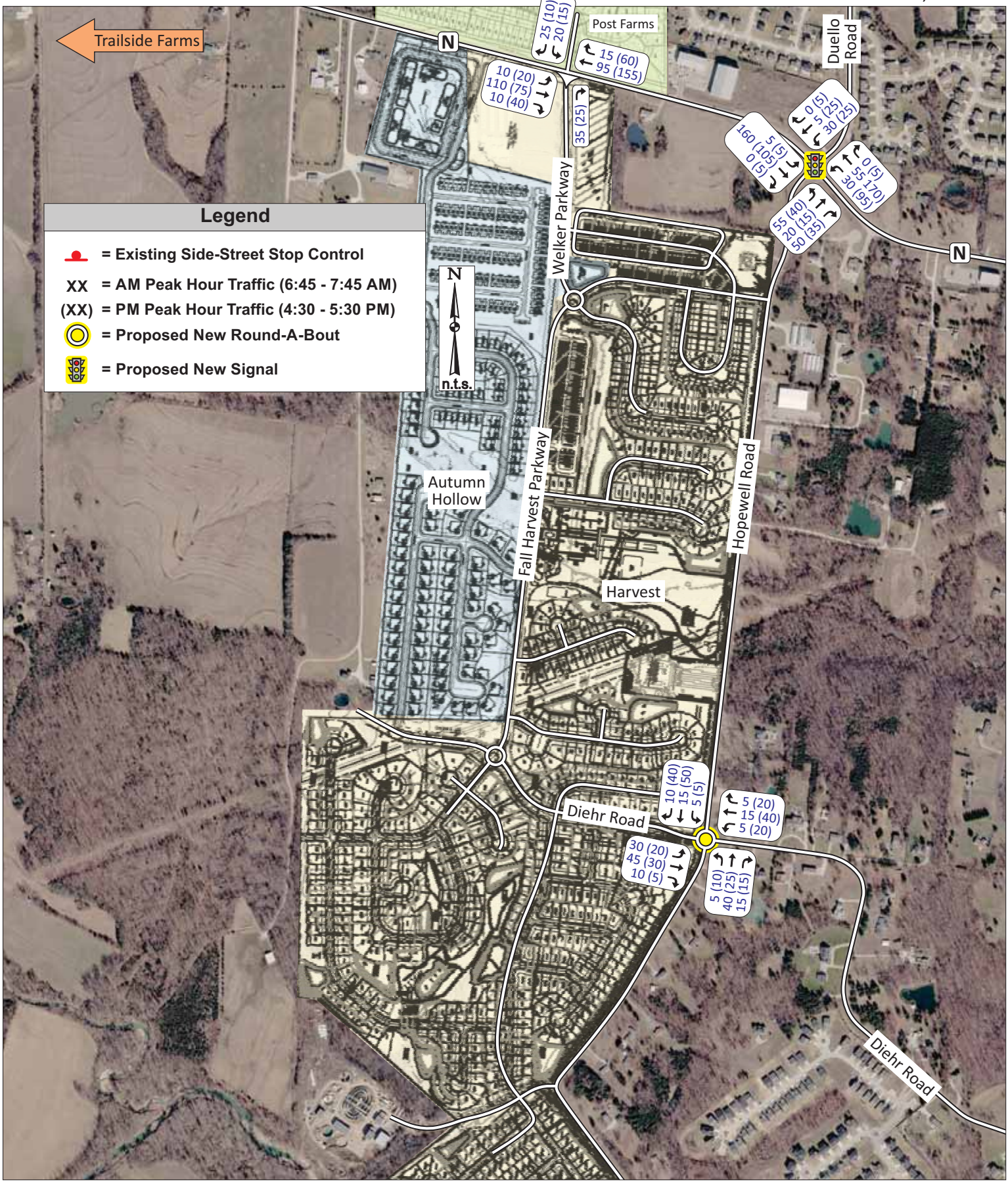



Exhibit 4: Area Approved Development 50% Build Out 2030

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

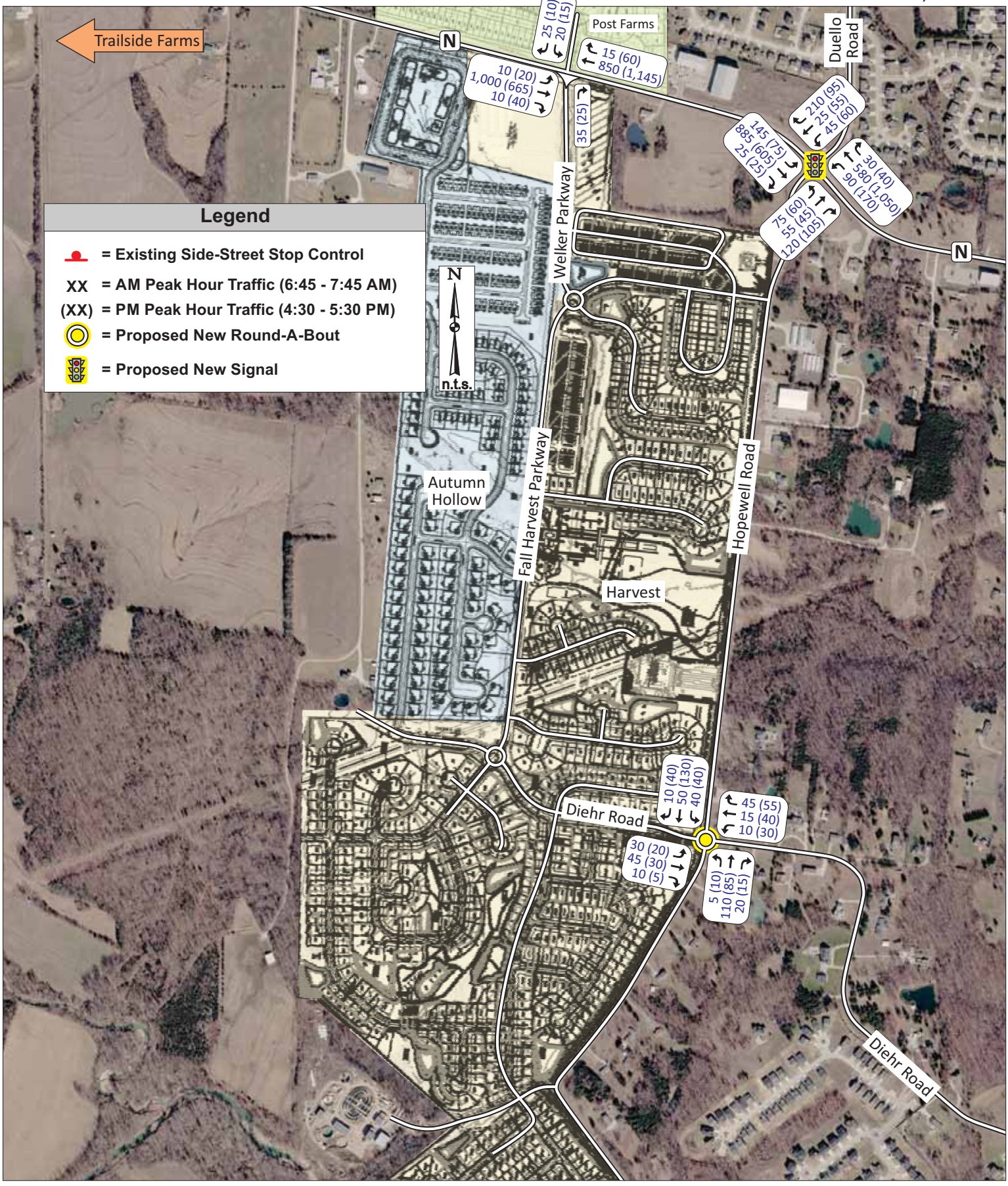



Exhibit 5: 2030 Base Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

## PLANNED ROADWAY IMPROVEMENTS IN THE AREA

MoDOT is currently in the process of developing improvement plans for the Route N corridor. As such the primary purpose of this study would be to ensure that the intersection of Route N and Hopewell Road/Duello Road is designed appropriately for the long term needs of the intersection. Additionally, this study would evaluate the planned roundabout at Diehr Road and Hopewell Road to assess the long term needs of the intersection.

It is our understanding that the Route N corridor improvement project is a priority project, that is funded and is planned for construction starting in late 2027 or 2028. The Phase I improvements will improve Route N to a six lane roadway from Hawk Ridge Trail to Sommers Road and to a four-lane roadway with access modifications at several intersections from Sommers Road to approximately 1/3 mile west of Perry Cate Boulevard.

Within the study area, the Route N Phase I improvements consist of the following improvements:

- Provide two through lanes in each direction on Route N;
- Improve the northbound Hopewell Road and southbound Duello Road approaches to provide a left-turn lane, a through lane, and a right-turn lane; and
- Convert the intersection of Route N and Welker Parkway/Post Farms Drive to a dual lane (eastbound and westbound) roundabout.

**Figure 5** illustrates the conceptual improvement plan for Route N within the study area. Although construction of the Phase I improvements are planned to start in 2027/2028, at the request of the agencies the 2030 scenario will assume the Route N improvements are not in place to present an interim worst-case scenario. The Route N Phase 1 improvements shown in Figure 5 will be incorporated in the long-term (2050) analysis scenario.

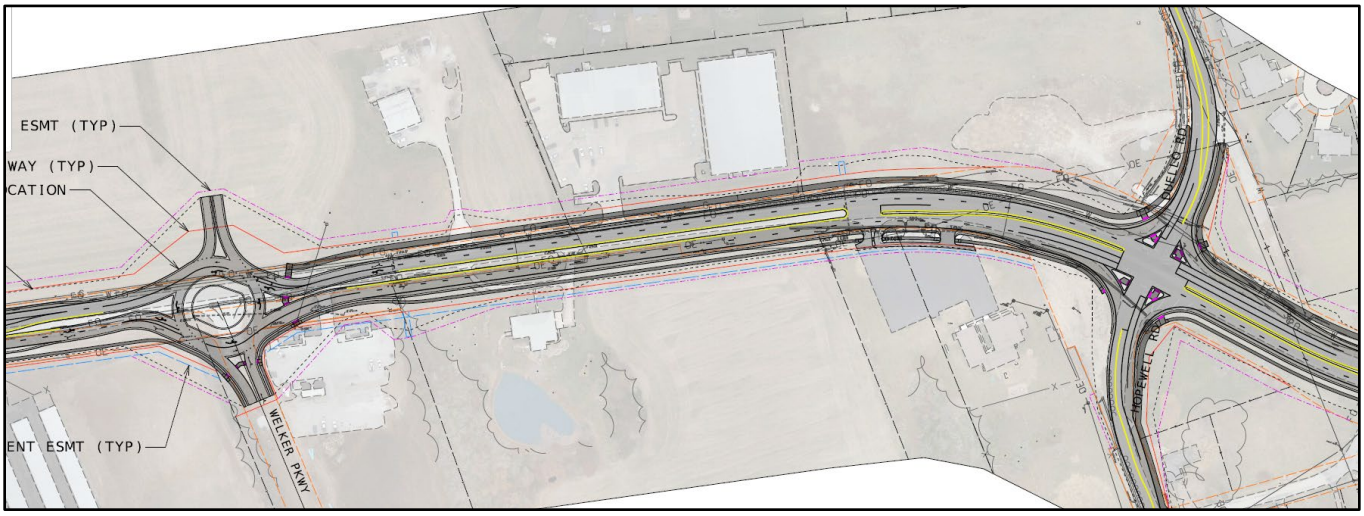



Figure 5: Route N Conceptual Phase I Improvement Plan (prepared by others)

The County has plans to install a traffic signal at the Route N and Hopewell Road/Duello Road intersection later this year. As such, the improved signalized intersection will be assumed in the 2030 conditions. **Figure 6** illustrates the signal plan for Route N and Hopewell Road/Duello Road intersection. The initial intersection improvement maintains the existing configuration for the northbound and southbound approaches; however, the Route N Phase I Improvements will improve the northbound Hopewell Road and southbound Duello Road approaches to provide a left-turn lane, a through lane, and a right-turn lane.

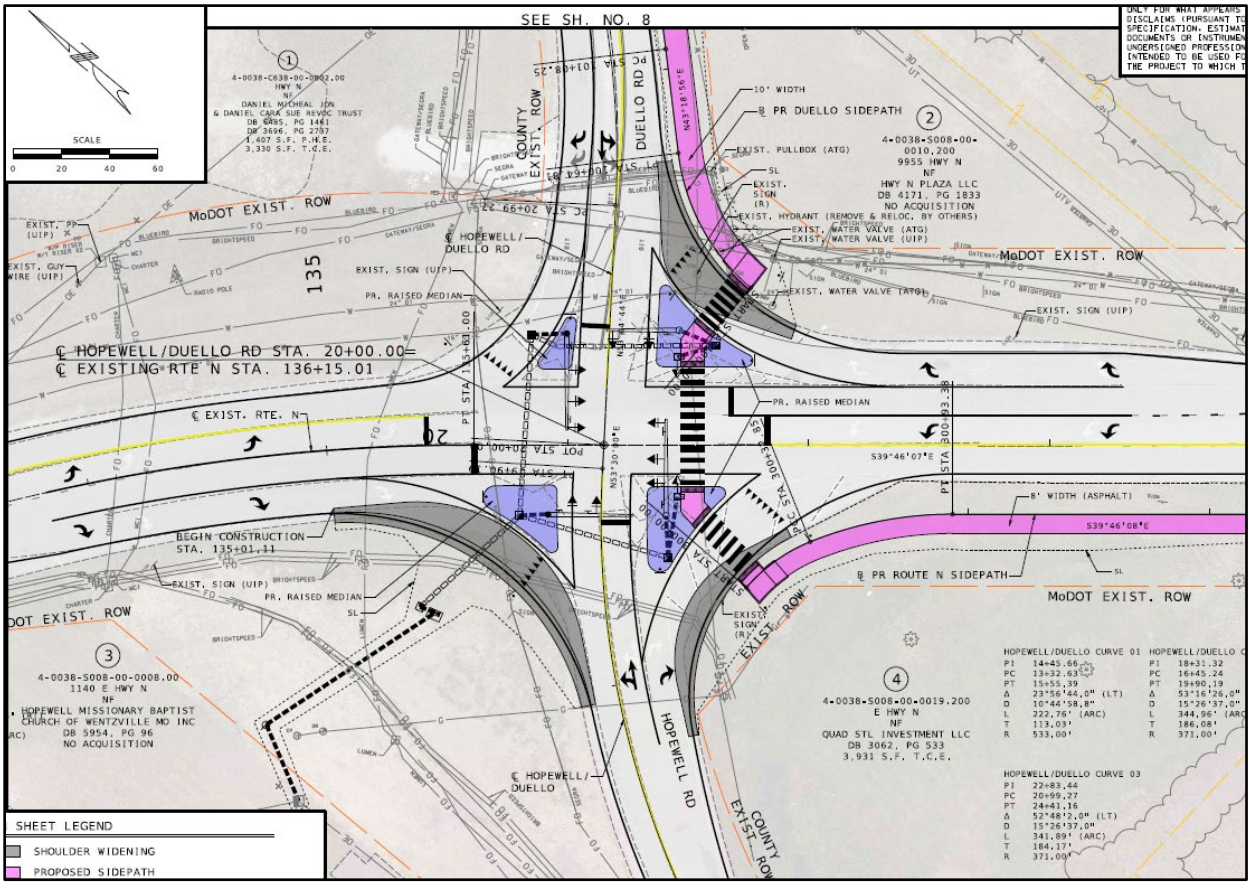



Figure 6: Route N and Hopewell Road/Duello Road Signal Plans (prepared by others)

It is our further understanding that the planned roundabout at Diehr Road and Hopewell Road will be under construction later this year. As such, the improved roundabout intersection will be assumed in the 2030 conditions. **Figure 7** illustrates the planned roundabout at the Diehr Road and Hopewell Road intersection.

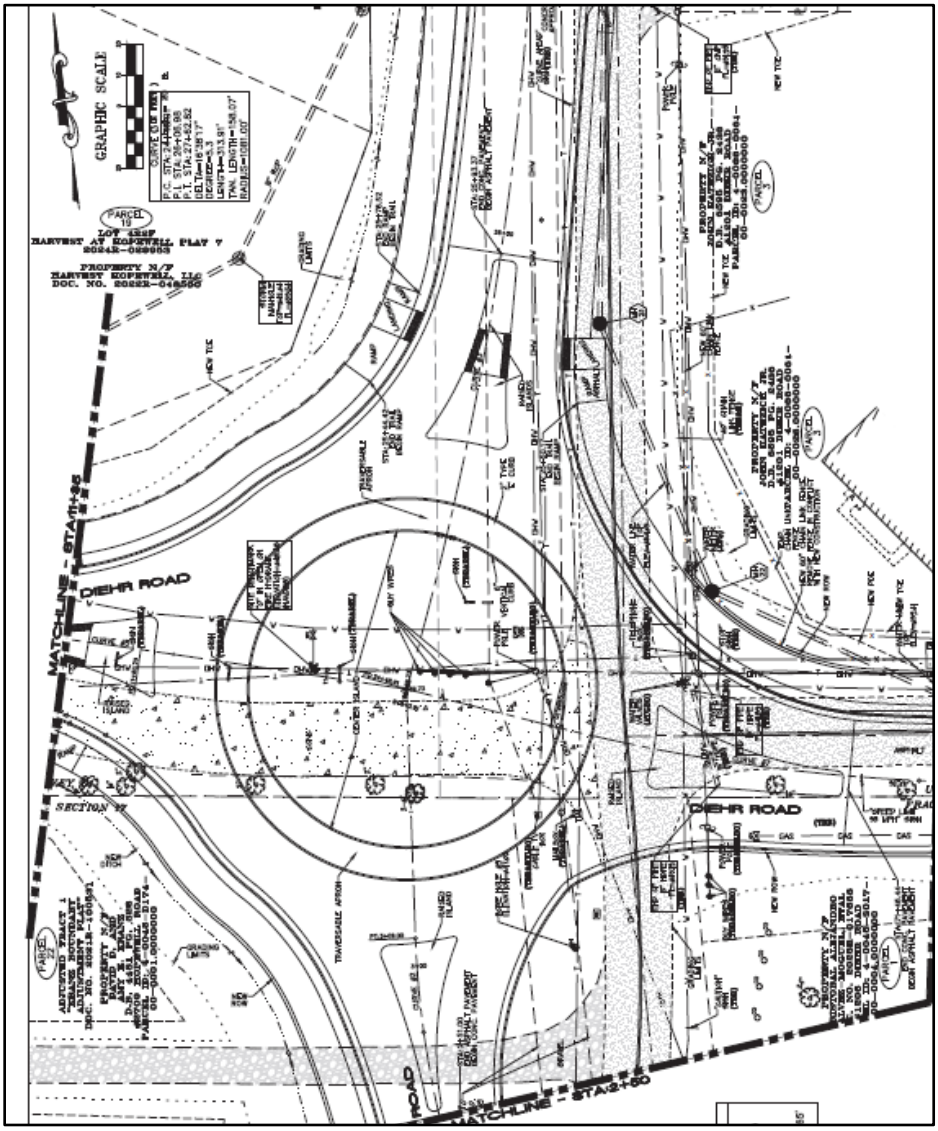



Figure 7: Diehr Road and Hopewell Road Roundabout Plan (prepared by others)

## PROPOSED CABALLO FARMS DEVELOPMENT

**Proposed Land Use:** Based on the site plan prepared by The Sterling Company, the proposed development will include approximately 276 single-family homes.

**Site Access:** In conjunction with the proposed development, Diehr Road would be extended farther west to gain access to the Caballo Farms site. Primary access for the proposed development would be via two new drives on this extension of Diehr Road. A connection is also proposed via the existing stub street of Country House Drive in the Harvest subdivision.

As more detailed plans are developed, it is recommended that the site civil engineer illustrate the minimum sight distance triangle requirements on the plans at the proposed access drive to ensure that adequate sight distance can be achieved for safe operations within the clear area of the right-of-way.

Careful consideration should be given to sight distance obstructions when planning any future aesthetic enhancements, such as berms, fencing and landscaping, at the development drives to ensure that these improvements do not obstruct the view of entering and exiting traffic at the site drives on the public roadways. It is generally recommended that all improvements wider than two inches (posts, tree trunks, etc.) and higher than 3 1/2 feet above the elevation of the nearest pavement edge be held back at least 20 feet from the traveled roadway.

**Trip Generation:** Forecasts were prepared to estimate the amount of traffic that the proposed Caballo Farms development would generate during the weekday AM and PM peak hour. These forecasts were based upon information provided in the *Trip Generation Manual*, 12$^{th}$ Edition, published by the Institute of Transportation Engineers (ITE). This manual, which is a standard resource for transportation engineers, is based on a compilation of nationwide studies documenting the characteristics of various land uses. Trip estimates for the proposed single-family homes were based on ITE Land Use 210 - Single-Family Detached Housing. The data provided for Land Use 210 Peak Hour of the Adjacent Street Traffic (one hour between 7 and 9 a.m. and one hour between 4 and 6 p.m.) was used for the traditional weekday AM and PM peak hour forecasts.

The resulting trip generation estimate for the proposed Caballo Farms residential development is summarized in **Table 1.** As shown, the proposed development is anticipated to generate a total of 190 trips during the AM peak hour and 245 trips during the PM peak hour.

Table 1: Trip Estimate – Proposed Caballo Farms Residential Development

| Land Use (ITE Code) | Unit | ADT (VPD) | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total |
| Single-Family Detached Housing (ITE Land Use 210) | 276 Homes | 2,495 | 50 | 140 | 190 | 150 | 95 | 245 |

~ Trips rounded to nearest 5 vph

**Trip Distribution***:* The total trips for the proposed Caballo Farms residential development were assigned into and out of the site based upon an assumed directional distribution. Based upon the existing travel patterns in the area and prior approved traffic study trip distribution assumptions, it is anticipated that the distribution of site-generated trips would be as summarized in **Table 2**.

Table 2: Anticipated Directional Distribution for Caballo Farms Residential Development

| Route | Assumed Directional Distribution | |
|---|---|---|
| | AM Peak Hour | PM Peak Hour |
| To/From West on Route N | 27% | 20% |
| To/From East on Route N | 36% | 40% |
| To/From East on Diehr Road | 22% | 25% |
| To/From North on Duello Road | 10% | 10% |
| To/From South on Hopewell Road | 5% | 5% |

The resulting trip assignment of the proposed Caballo Farms development during the weekday AM and PM peak hours is summarized in **Exhibit 6**.

**2030 Build Traffic Volumes (2030 Base plus Caballo Farms Site Trips):** The assigned traffic volumes resulting from the trip distribution for the proposed Caballo Farms residential development (Exhibit 6) were added to the 2030 Base volumes (Exhibit 5) to determine the total volumes in the forecasted scenario. The forecasted, or 2030 Build, traffic volumes for the weekday AM and PM peak hours are shown in **Exhibit 7.**

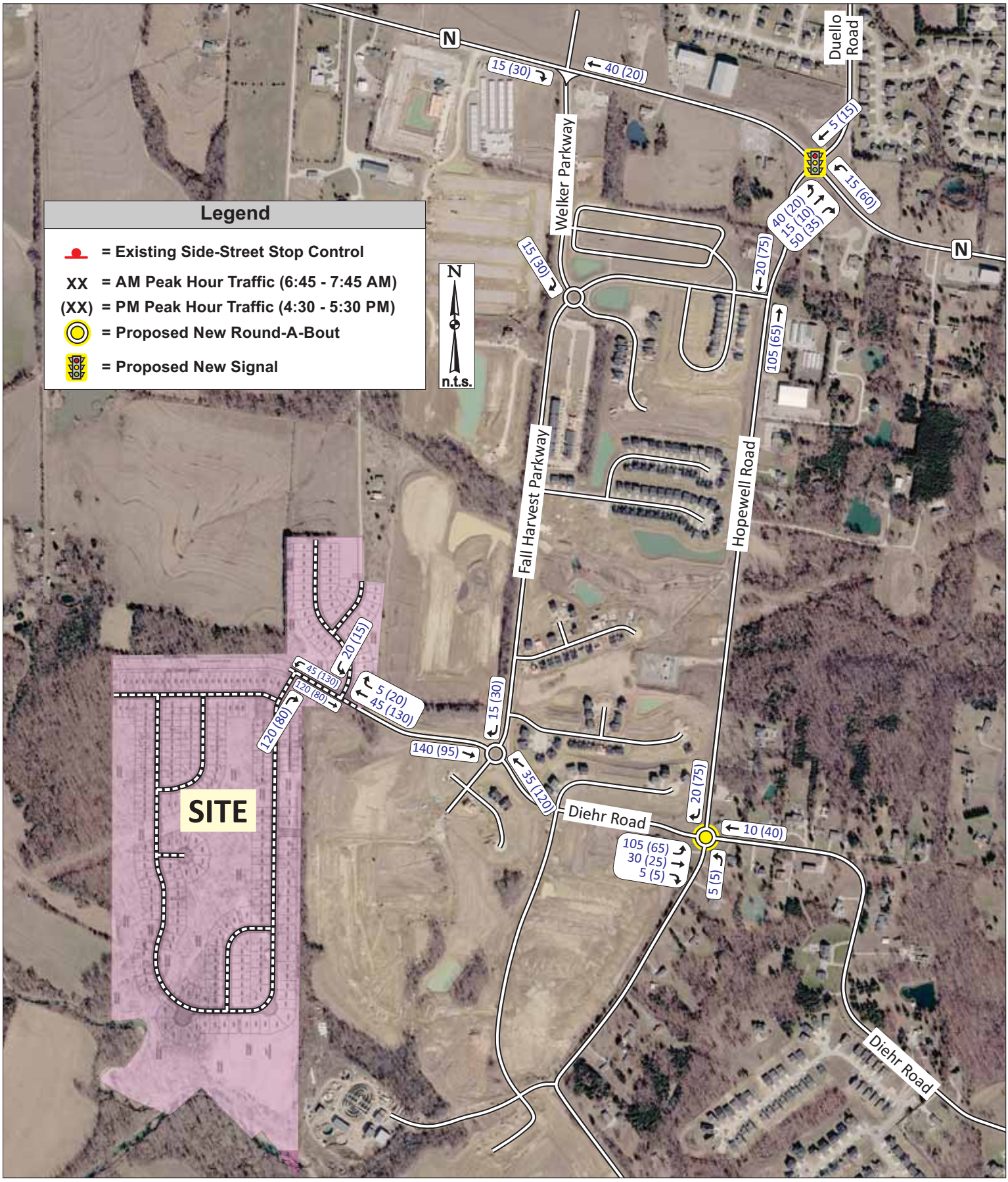



Exhibit 6: 2030 Caballo Farms Site-Generated Trips (Existing Route N Corridor)

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

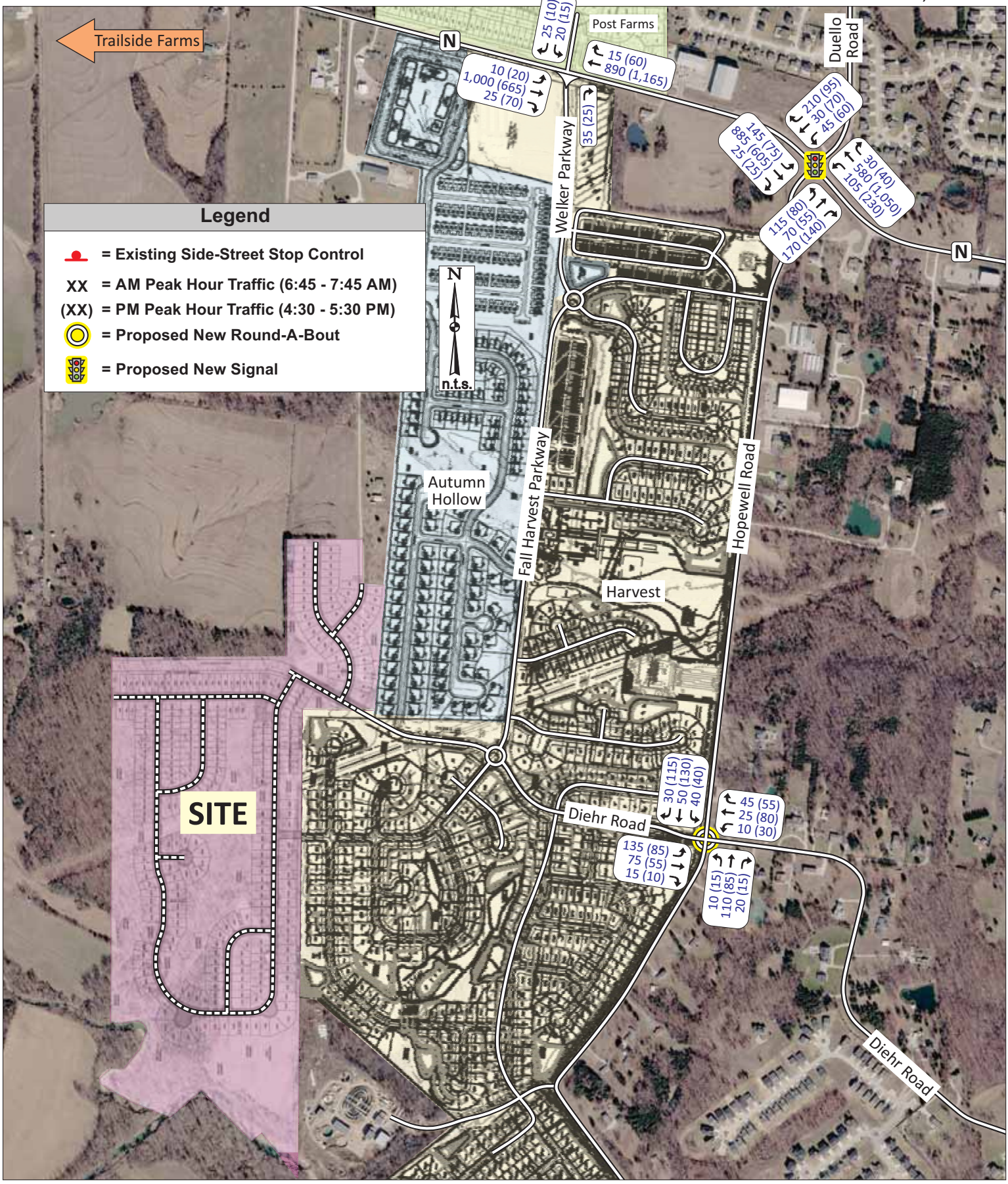



Exhibit 7: 2030 Build Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

## 2030 Traffic Analysis

**Study Procedures:** The 2030 Base and 2030 Build operating conditions were analyzed using SYNCHRO 11 and SIDRA, which are based on procedures outlined in the *Highway Capacity Manual*, published by the Transportation Research Board to determine estimates of capacity and operational performance of signalized and unsignalized intersections. Our traffic operations analysis includes measures of effectiveness generated by the SYNCHRO and/or SIDRA software for all intersections. The Synchro 11 outputs are reported for signalized intersections, while the HCM 6th Edition outputs from Synchro are shown for the unsignalized intersections. The HCM outputs are considered more realistic for unsignalized intersections.

The HCM, which is used universally by traffic engineers to measure roadway capacity, establishes six levels of traffic service (Level A "Free Flow" to Level F "Fully Saturated") established by the *Highway Capacity Manual*. Levels of service (LOS) are measures of traffic flow which consider such factors as speed, delay, traffic interruptions, safety, driver comfort, and convenience. Level C, which is normally used for highway design, represents a roadway with volumes ranging from 70% to 80% of its capacity. However, Level D is generally considered acceptable for peak period conditions.

The thresholds that define levels of service at an intersection are based upon the type of control used (i.e., whether it is signalized or unsignalized) and the calculated delay. For signalized and all-way stop intersections, the average control delay per vehicle is estimated for each movement and aggregated for each approach and the intersection as a whole. At intersections with partial (side-street) stop control, delay is calculated for the minor movements only since motorists on the main road are not required to stop. Furthermore, criteria differ for the two, since control types create different driver expectations. **Table 3** summarizes the thresholds used in the analysis for signalized and unsignalized intersections.

Table 3: Level of Service Thresholds

| Level of Service (LOS) | Control Delay per Vehicle (sec/veh) | |
|---|---|---|
| | Signalized Intersections | Unsignalized Intersections |
| A | ≤ 10 | 0-10 |
| B | > 10-20 | > 10-15 |
| C | > 20-35 | > 15-25 |
| D | > 35-55 | > 25-35 |
| E | > 55-80 | > 35-50 |
| F | > 80 | > 50 |

**2030 Operating Conditions:** The study intersections were evaluated using the same methodologies described previously. **Table 4** summarizes the results of this analysis, which reflects the 2030 Base and Build operating conditions and average delay at the study intersections during the weekday AM and PM peak hours. The Synchro/Sidra estimated 95th percentile queue length for movements with a queue over 50 feet is also shown in the table. As discussed previously, the 2030 scenario assumes the planned signal at the Route N and Hopewell Road/Duello Road intersection and the planned roundabout at the Hopewell Road and Diehr Road intersection. Note that the planned Route N Phase I Improvements are not assumed in the 2030 scenario.

Table 4: 2030 Capacity Analysis Summary

| Intersection / Approach | Weekday AM Peak Hour | | Weekday PM Peak Hour | |
|---|---|---|---|---|
| | 2030 Base | 2030 Build | 2030 Base | 2030 Build |
| **Route N and Hopewell Road/Duello Road (Planned Signalized)** | | | | |
| Eastbound Route N Approach | C (27.3)<br>95th Q: 875' T | D (35.1)<br>95th Q: 890' T | B (14.8)<br>95th Q: 385' T | B (17.0)<br>95th Q: 395' T |
| Westbound Route N Approach | C (25.1)<br>95th Q: 390' T | C (25.1)<br>95th Q: 390' T | C (31.4)<br>95th Q: 1,010' T | D (35.2)<br>95th Q: 1,010' T |
| Northbound Hopewell Road Approach | C (34.7)<br>95th Q: 190' TL | D (51.7)<br>95th Q: 315' TL | C (29.4)<br>95th Q: 115' TL | C (32.3)<br>95th Q: 150' TL |
| Southbound Duello Road Approach | B (16.4)<br>95th Q: 90' TL | B (17.3)<br>95th Q: 100' TL | C (31.3)<br>95th Q: 125' TL | C (34.1)<br>95th Q: 140' TL |
| **Overall** | **C (25.9)** | **C (31.9)** | **C (26.3)** | **C (29.7)** |
| **Route N and Welker Parkway/Post Farms Drive (Side-Street Stop)** | | | | |
| Eastbound Route N Left-Turn | B (11.5) | B (11.8) | B (12.1) | B (12.2) |
| Westbound Route N Approach | Free Flow | Free Flow | Free Flow | Free Flow |
| Northbound Welker Parkway Right-Turn | C (21.7) | C (21.7) | B (14.0) | B (14.0) |
| Southbound Post Farms Drive Approach | F (211)<br>95th Q: 75' | F (245)<br>95th Q: 80' | F (107.5) | F (115.8) |
| **Diehr Road and Hopewell Road (Planned Roundabout)** | | | | |
| Eastbound Diehr Road Approach | A (6.0) | A (7.2) | A (6.6) | A (7.7) |
| Westbound Diehr Road Approach | A (5.3) | A (6.1) | A (5.5) | A (5.8) |
| Northbound Hopewell Road Approach | A (4.6) | A (5.9) | A (4.6) | A (5.4) |
| Southbound Hopewell Road Approach | A (5.7) | A (5.5) | A (5.0) | A (5.2) |
| **Overall** | **A (5.3)** | **A (6.4)** | **A (5.2)** | **A (5.9)** |

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)
95th percentile queue for the critical movement of the approach and lane (L-Left, T-Thru, R-Right) (only values over 50 feet shown)

As shown in the table, the overall intersections and all individual intersection approaches are forecasted to operate at acceptable levels of service (i.e., LOS D or better) in the 2030 Base conditions during both the AM and PM peak hours except for the southbound Post Farms Drive approach at Route N which is forecasted to operate at LOS F in the AM and PM peak hours. Recall that the base scenario assumes 50% of the area approved developments are built out, but the Route N improvements are not constructed to provide a likely worst-case scenario of the potential interim traffic operations prior to the Route N improvements being constructed.

The poor operations for the southbound Post Farms Drive approach are due to the heavy through volumes along Route N and the limited number of gaps for motorists to make a left-turn onto Route N. As shown in Exhibit 7, there are an estimated 20 left-turns in the AM peak hour and 15 left turns in the PM peak hour, fairly low volumes. The Post Farms residents also have the ability to utilize Duello Road to access the new signal at Route N. As such, if the southbound left-turn movement is difficult to make in the peak hours, it is likely residents will choose to utilize Duello Road to gain access to the signal at Route N to make a left-turn. Furthermore, as mentioned previously, the Route N Improvement project will construct a roundabout at the Route N and Welker Parkway/Post Farms Drive intersection, so this left-turn will operate acceptably under roundabout control once the Route N improvements are in place.

In the 2030 Build conditions, the overall intersections and all individual intersection approaches would continue to operate at acceptable levels of service (i.e., LOS D or better) in the AM and PM peak hours except for the southbound Post Farms Drive approach at Route N which is forecasted to continue to operate at LOS F.

The two site drives on Diehr Road were not analyzed as there would be no through volume on Diehr Road until such time that Diehr Road is extended further west. However, both site drive intersections are expected to operate favorably with a single lane approach for the site drives operating under side-street stop control. **Figure 8** depicts the existing Diehr Road cross section just east of the proposed site which shows a median divided parkway with left-turn lanes striped at the subdivision entrances.



Figure 8: Diehr Road Cross Section in Study Area

**Potential for 14 additional homes:** Subsequent to the traffic analysis herein being completed, CBB was made aware of the potential for 14 additional single-family homes in the future at the end of street B on the north side of Diehr Road. The additional 14 homes would result in an additional 10 to 15 total trips in the peak hours, which would not be expected to have any impact on the findings in this analysis.

## 2050 Design Year Conditions

MoDOT and St. Charles County commissioned traffic studies to consider the long-term traffic volumes within the study area. As mentioned previously, MoDOT provided 2023 Existing traffic volumes for the corridor as well as 2050 Design Year traffic volumes. Based on our discussions with the agencies, it was agreed that this study would utilize the 2050 traffic volumes provided for the design year scenario.

**2050 No Build Traffic Volumes:** As mentioned previously, there are several approved subdivisions near the study area. Based on our discussions with MoDOT and the County, it is our understanding that the Harvest, Autumn Hollow, and Post Farms developments were included in the development of the 2050 Build traffic volumes in the *Route N Expansion Traffic Forecast Memo*. Note, the 2050 scenario will also assume the planned Route N Phase 1 corridor improvements as previously discussed. The 2050 No Build peak hour traffic volumes are summarized in **Exhibit 8**. Note that a portion of the northbound left-turn volume on Hopewell Road at Route N was shifted to Welker Parkway in the 2050 No Build Traffic Volumes to account for likely shifts in traffic with the planned roundabout at Route N and Welker Parkway which will allow for left turns out of Welker Parkway.

**2050 Base Traffic Volumes**: As discussed with the agencies, the 2050 Base Traffic Volumes include the full build out of the recently approved Trailside Farm development (residential and commercial tracts). The site generated trips for the Trailside Farm development are provided in the **Appendix**.

The Trailside Farm development trips (Appendix) were added to the 2050 No Build traffic volumes (Exhibit 8) to develop the 2050 Base traffic volumes. **Exhibit 9** summarizes the 2050 Base traffic volumes which includes the full build out of the area approved developments.

**2050 Build Traffic Volumes*:*** The Caballo Farms site-generated trips were reassigned to account for likely shifts in traffic with the planned roundabout at Route N and Welker Parkway which will allow for left turns out of Welker Parkway. The trip assignment for the proposed Caballo Farms development in the design year scenario is summarized in **Exhibit 10**.

The assigned traffic volumes resulting from the trip distribution for the proposed Caballo Farms residential development (Exhibit 10) were added to the 2050 Base volumes (Exhibit 9) to determine the total volumes in the design year scenario. The forecasted, or 2050 Build, traffic volumes for the weekday AM and PM peak hours are shown in **Exhibit 11.**

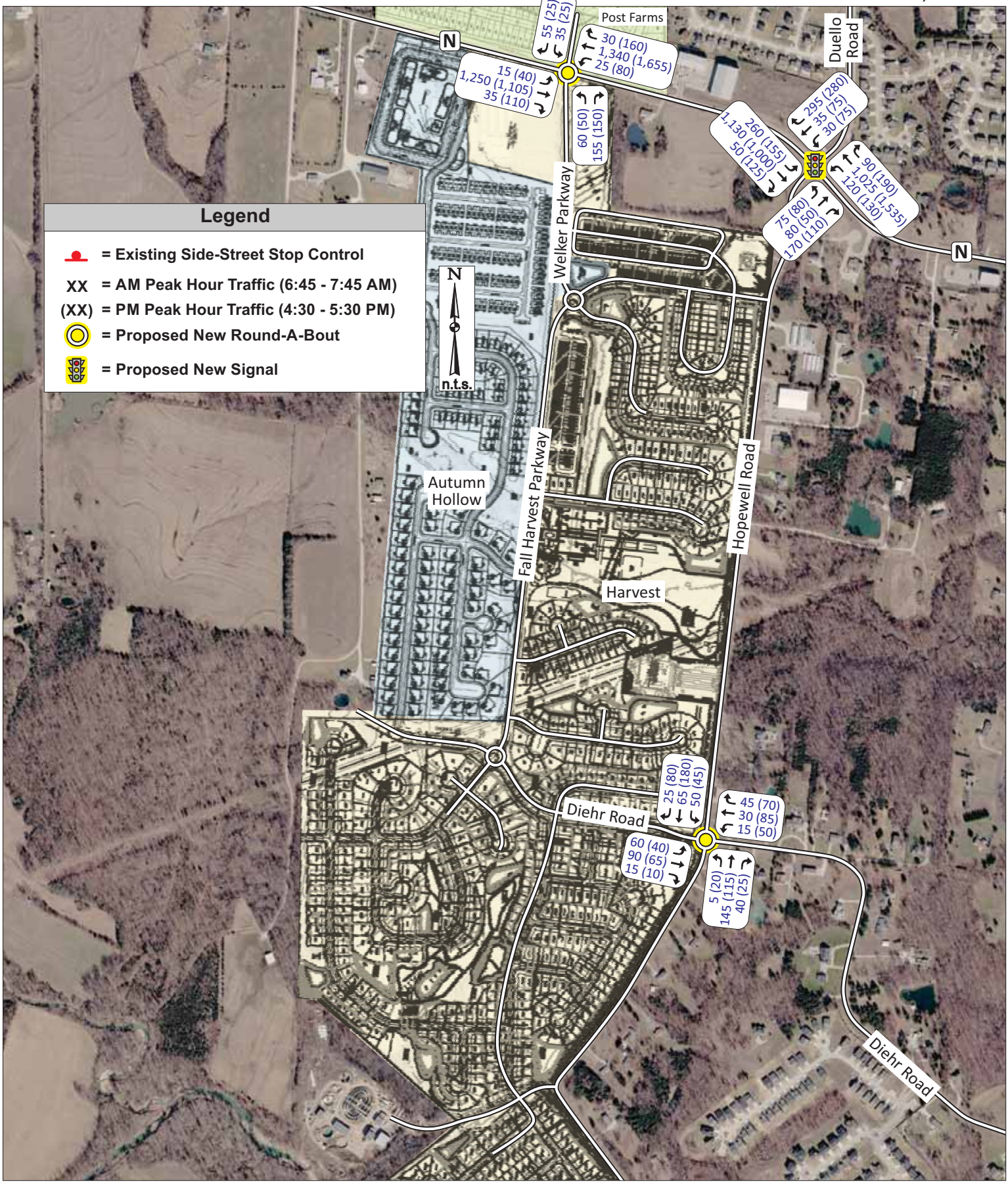



Exhibit 8: 2050 No Build Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

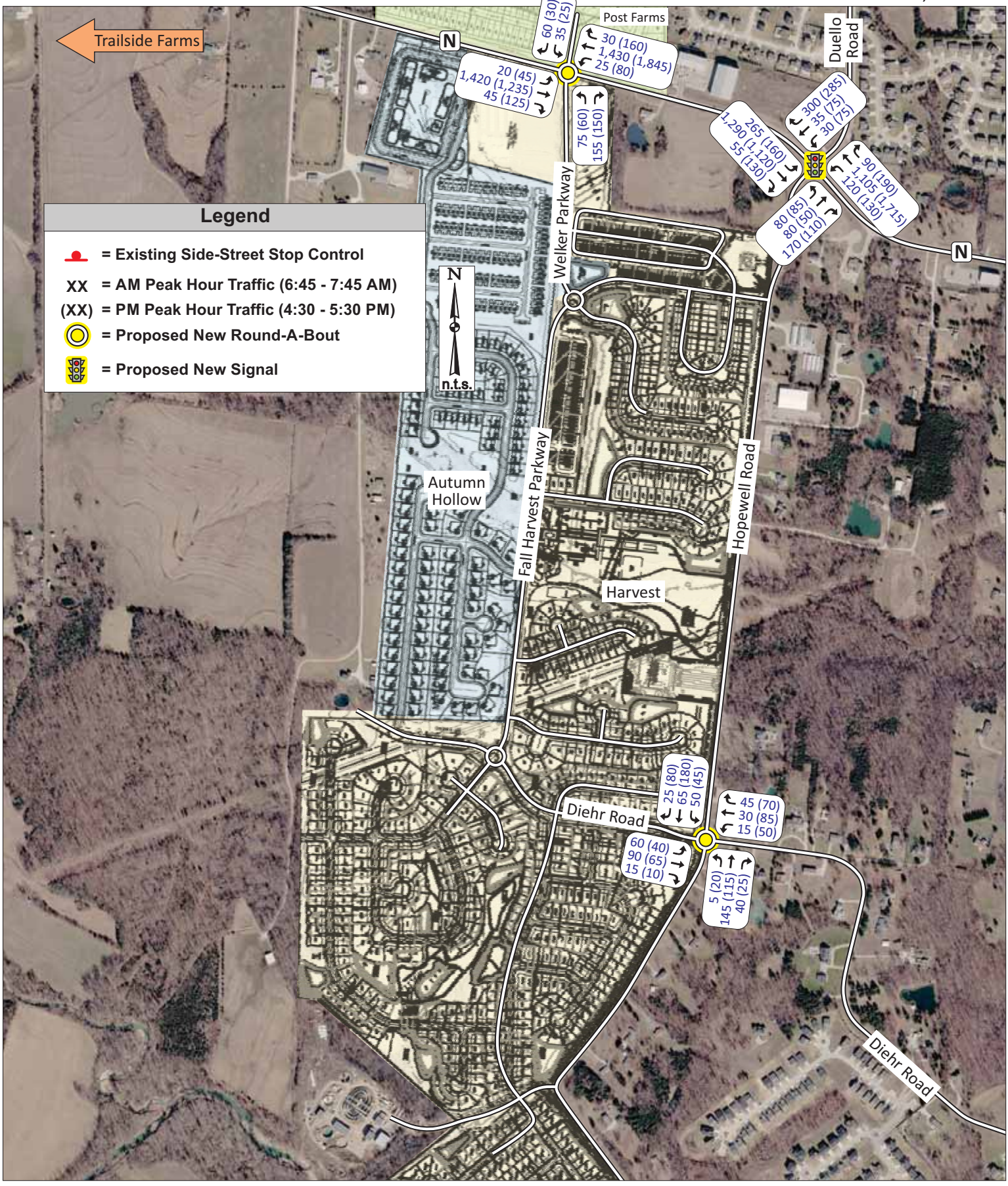



Exhibit 9: 2050 Base Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

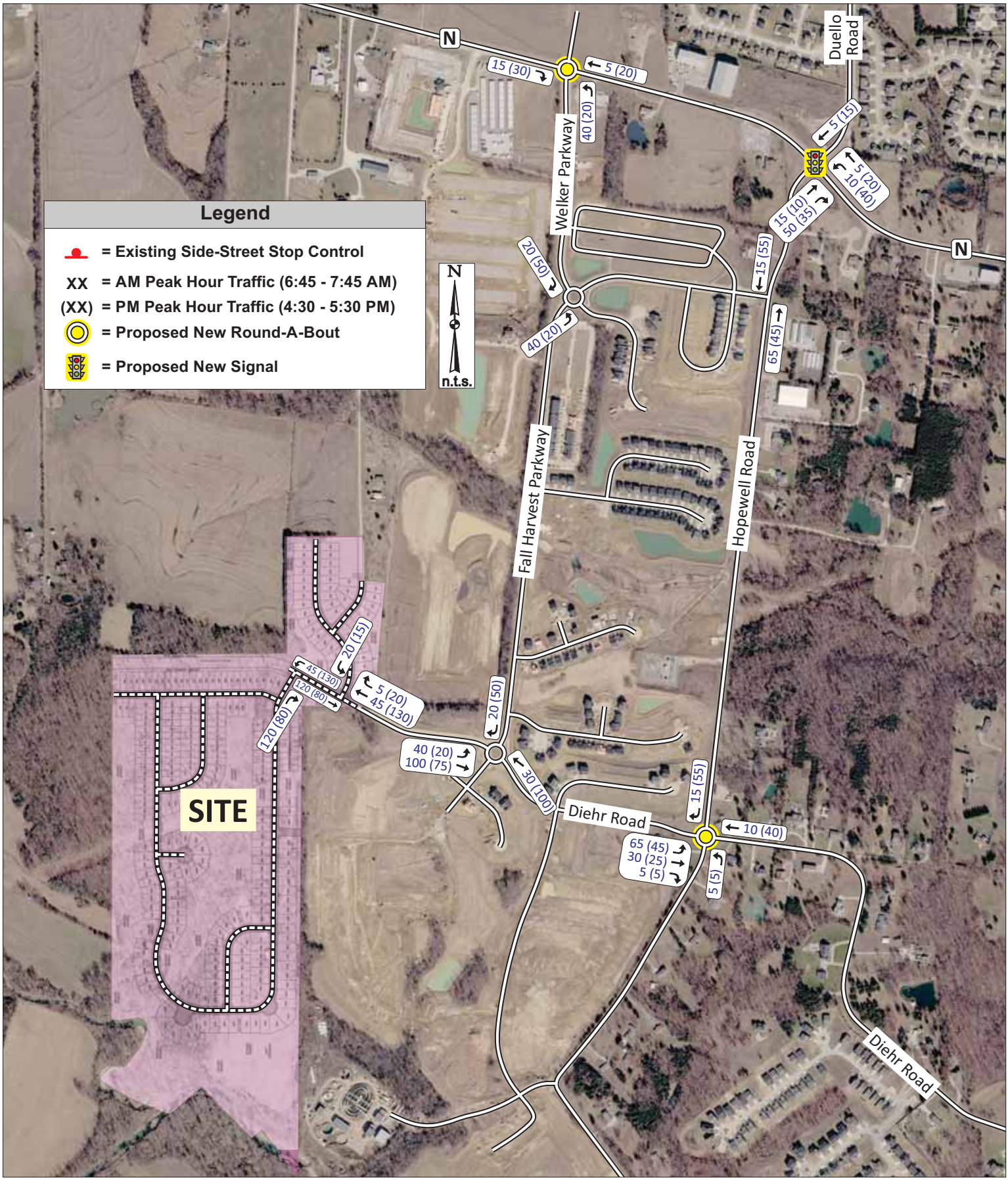



Exhibit 10: 2050 Caballo Farms Site-Generated Trips (Improved Route N Corridor)

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

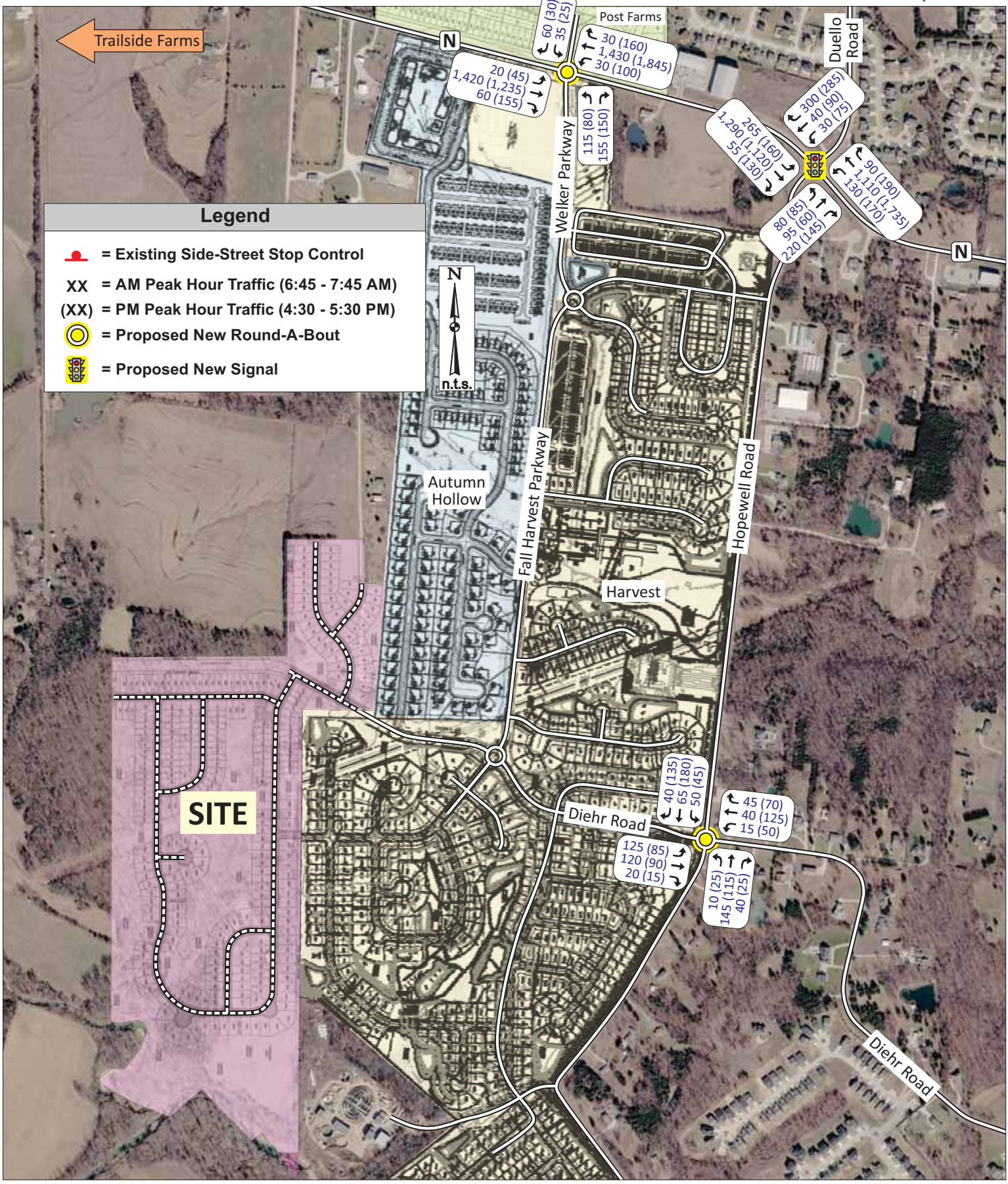



Exhibit 11: 2050 Build Traffic Volumes

Job# 031-26
03/23/2026

CBB TRANSPORTATION ENGINEERS+PLANNERS

**2050 Operating Conditions:** The study intersections were reevaluated using the methodologies described previously. **Table 5** summarizes the results of these analyses which reflect the 2050 Base and Build operating conditions with average delays at the study intersections during the weekday AM and PM peak hours. The Synchro/Sidra estimated 95th percentile queue length for movements with a queue over 50 feet is also shown in the table. As discussed previously, the 2050 scenario assumes the planned Route N Phase I Improvements are in place.

Table 5: 2050 Capacity Analysis Summary

| Intersection / Approach | Weekday AM Peak Hour | | Weekday PM Peak Hour | |
|---|---|---|---|---|
| | 2050 Base | 2050 Build | 2050 Base | 2050 Build |
| **Route N and Hopewell Road/Duello Road (Signalized)** | | | | |
| Eastbound Route N Approach | C (21.1)<br>95th Q: 445' T | C (21.3)<br>95th Q: 445' T | B (14.2)<br>95th Q: 325' T | B (14.9)<br>95th Q: 345' T |
| Westbound Route N Approach | C (23.5)<br>95th Q: 385' T | C (23.8)<br>95th Q: 390' T | C (23.3)<br>95th Q: 785' T | C (23.5)<br>95th Q: 800' T |
| Northbound Hopewell Road Approach | C (25.9)<br>95th Q: 95' L | C (24.9)<br>95th Q: 110' T | C (29.3)<br>95th Q: 100' L | C (27.7)<br>95th Q: 105' L |
| Southbound Duello Road Approach | C (33.9)<br>95th Q: 145' R | C (34.0)<br>95th Q: 145' R | C (33.4)<br>95th Q: 155' R | C (34.1)<br>95th Q: 155' R |
| **Overall** | **C (23.7)** | **C (23.9)** | **C (21.6)** | **C (22.1)** |
| **Route N and Welker Parkway/Post Farms Drive (Roundabout)** | | | | |
| Eastbound Route N Approach | A (6.3)<br>95th Q: 175'<br>v/c 0.63 | A (6.3)<br>95th Q: 180'<br>v/c 0.64 | A (6.7)<br>95th Q: 165'<br>v/c 0.62 | A (7.0)<br>95th Q: 180'<br>v/c 0.65 |
| Westbound Route N Approach | A (6.6)<br>95th Q: 180'<br>v/c 0.66 | A (7.1)<br>95th Q: 195'<br>v/c 0.70 | A (9.5)<br>95th Q: 530'<br>v/c 0.91 | B (13.2)<br>95th Q: 680'<br>v/c 0.94 |
| Northbound Welker Parkway Approach | C (18.1)<br>95th Q: 105'<br>v/c 0.70 | C (24.9)<br>95th Q: 155'<br>v/c 0.83 | B (13.8)<br>95th Q: 80'<br>v/c 0.59 | C (16.1)<br>95th Q: 100'<br>v/c 0.68 |
| Southbound Post Farms Drive Approach | B (11.2)<br>95th Q: 35'<br>v/c 0.29 | B (12.4)<br>95th Q: 40'<br>v/c 0.33 | C (19.4)<br>95th Q: 40'<br>v/c 0.35 | C (22.3)<br>95th Q: 45'<br>v/c 0.39 |
| **Overall** | **A (7.4)** | **A (7.4)** | **A (8.9)** | **B (11.2)** |
| **Diehr Road and Hopewell Road (Roundabout)** | | | | |
| Eastbound Diehr Road Approach | A (6.3) | A (7.0) | A (7.2) | A (7.8) |
| Westbound Diehr Road Approach | A (5.9) | A (6.4) | A (6.0) | A (6.3) |
| Northbound Hopewell Road Approach | A (5.3) | A (6.4) | A (5.2) | A (5.9) |
| Southbound Hopewell Road Approach | A (5.6) | A (5.6) | A (5.6) | A (6.0) |
| **Overall** | **A (5.8)** | **A (6.4)** | **A (5.9)** | **A (6.4)** |

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)
95th percentile queue for the critical movement of the approach and lane (L-Left, T-Thru, R-Right) (only values over 50 feet shown)

As shown in the table, the overall intersections and all individual intersection approaches are forecasted to operate at favorable levels of service (i.e., LOS C or better) in the 2050 Base conditions during both the AM and PM peak hours.

In the 2050 Build conditions, the overall intersections and all individual intersection approaches are forecasted to continue to operate at favorable levels of service (i.e., LOS C or better) during both the AM and PM peak hours.

Based on the analysis, even with significant growth in the Route N corridor, the planned improvements along Route N will provide acceptable operations in the design year conditions.

## SUMMARY

CBB completed the preceding study to address the traffic impacts associated with the proposed Caballo Farms development in O'Fallon, Missouri, located approximately one half mile west of the Hopewell Road and Diehr Road intersection. The proposed development will include approximately 276 single-family homes. In conjunction with the proposed development, Diehr Road would be extended farther west to gain access to the Caballo Farms site. Primary access for the proposed development would be via two new drives on this extension of Diehr Road. A connection is also proposed via the existing stub street of Country House Drive in the Harvest subdivision.

In summary, the following findings should be considered in conjunction with the proposed Caballo Farms development in the near-term 2030 conditions:

- The proposed Caballo Farms residential development is anticipated to generate a total of 190 trips during the AM peak hour and 245 trips during the PM peak hour.
- The 2030 Base Traffic Volumes include 50% of the area approved subdivision trips, including Harvest, Autumn Hollow, Post Farms, and Trailside Farm.
- The 2030 Base scenario assumes the planned signal at the Route N and Hopewell Road/Duello Road intersection and the planned roundabout at the Hopewell Road and Diehr Road intersection. However, the planned Route N Phase I improvements were not assumed to be completed in the 2030 analysis.
- In the 2030 Base conditions, the overall intersections and all individual intersection approaches are forecasted to operate at acceptable levels of service during the peak hours with the following exception:
    - The southbound Post Farms Drive approach at Route N is forecasted to operate at LOS F in the peak hours due to the heavy through volumes along Route N and the limited number of gaps for motorists to make a left-turn onto Route N.
        - The residents within Post Farms also have the ability to utilize Duello Road to access the new signal at Route N. As such, if the southbound left-turn movement is difficult to make in the peak hours, it is likely residents will choose to utilize the access to Duello Road and the signal at Route N to make a left-turn.
        - Furthermore, as mentioned previously, the Route N Improvement project will construct a roundabout at the Route N and Welker Parkway/Post Farms Drive intersection, so the left-turn will operate acceptably under roundabout control.

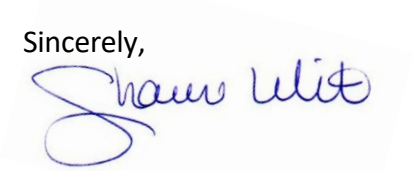
- In the 2030 Build conditions, the overall intersections and all individual intersection approaches are forecasted to continue to operate at acceptable levels of service during the peak hours except for the southbound Post Farms Drive approach at Route N which would continue to operate at LOS F under side-street stop control.
- As more detailed plans are developed, it is recommended that the site civil engineer illustrate the minimum sight distance triangle requirements on the plans at the proposed access drives to ensure that adequate sight distance can be achieved for safe operations within the clear area of the right-of-way.

In summary, the following findings should be considered in conjunction with the proposed Caballo Farms development in the long-term 2050 conditions:

- The 2050 scenario assumes the full build out of the area approved developments, as well as the planned Route N Improvements including a four-lane Route N through the study area and a new roundabout at Route N and Welker Parkway/Post Farms.
- In the 2050 Base conditions, the overall intersections and all individual intersection approaches are forecasted to operate at acceptable levels of service during the peak hours
- In the 2050 Build conditions, the overall intersections and all individual intersection approaches are forecasted to continue to operate at acceptable levels of service during the peak hours.

We trust this traffic impact study adequately describes the forecasted traffic conditions that should be expected as a result of the proposed Caballo Farms development in O'Fallon, Missouri. If additional information is desired, please feel free to contact me at 314-449-9572 or swhite@cbbtraffic.com.

Sincerely,



Shawn Lerai White, P.E., PTOE
Associate - Senior Traffic Engineer

# APPENDIX

- Exhibit 8: Total Route N/Hopewell Road Residential Site-Generated Trips for Harvest Development and Autumn Hollow - Autumn Hollow Update to Harvest Traffic Study, May 13, 2022
- Exhibit 6: Site-Generated Trips - Post Tract Traffic Impact Study, November 28, 2023
- Exhibit 5: Trailside Farm Residential Trips - Trailside Farm Traffic Impact Study, January 15, 2026
- Exhibit 6: Trailside Farm Commercial Trips - Trailside Farm Traffic Impact Study, January 15, 2026

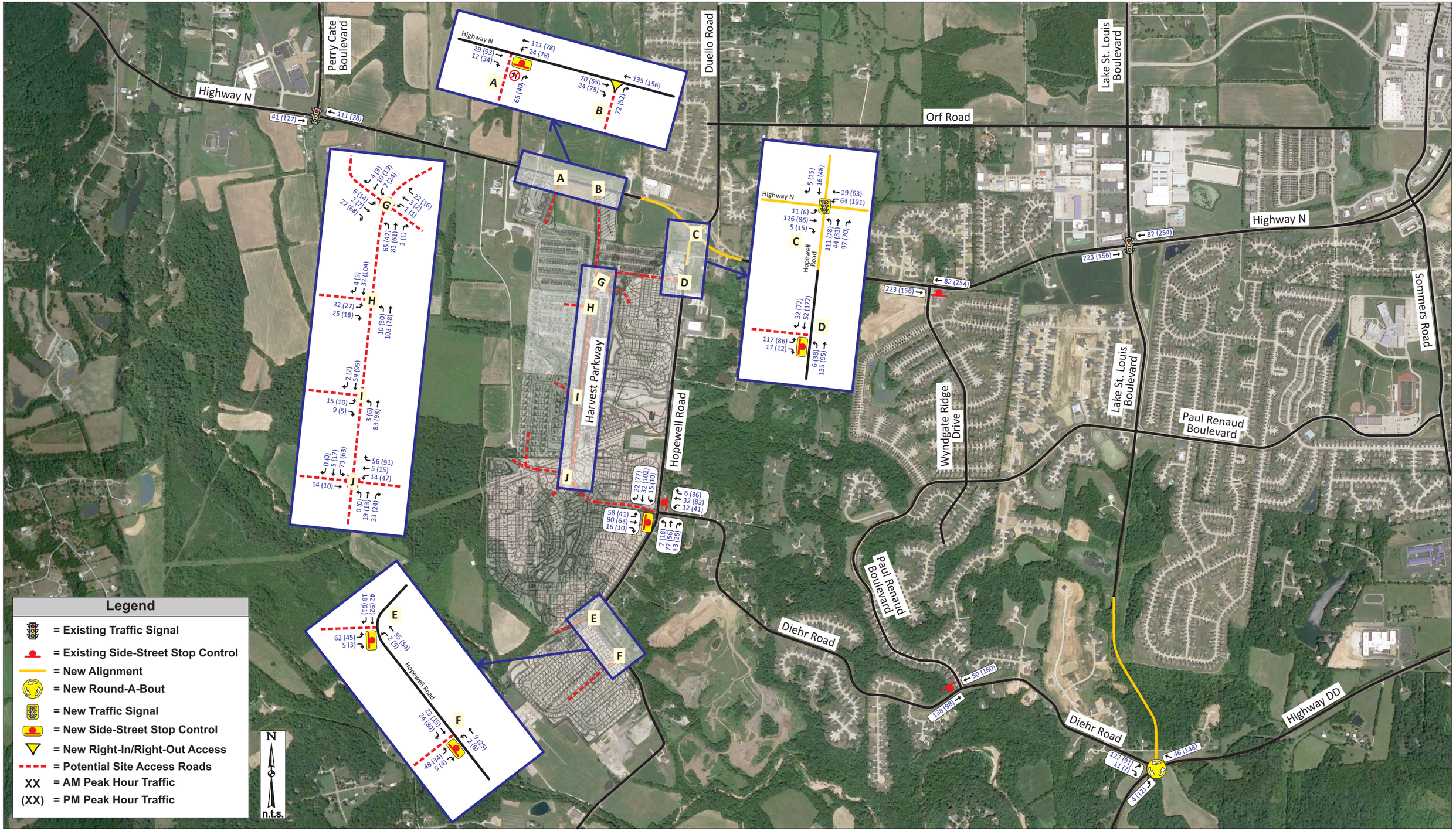



Exhibit 8: Total Route N/Hopewell Road Residential Site-Generated Trips for Harvest Development and Autumn Hollow (1,328 Total Units)

Job# 042-21 & 129-21
12/07/2021

CBB TRANSPORTATION ENGINEERS+PLANNERS

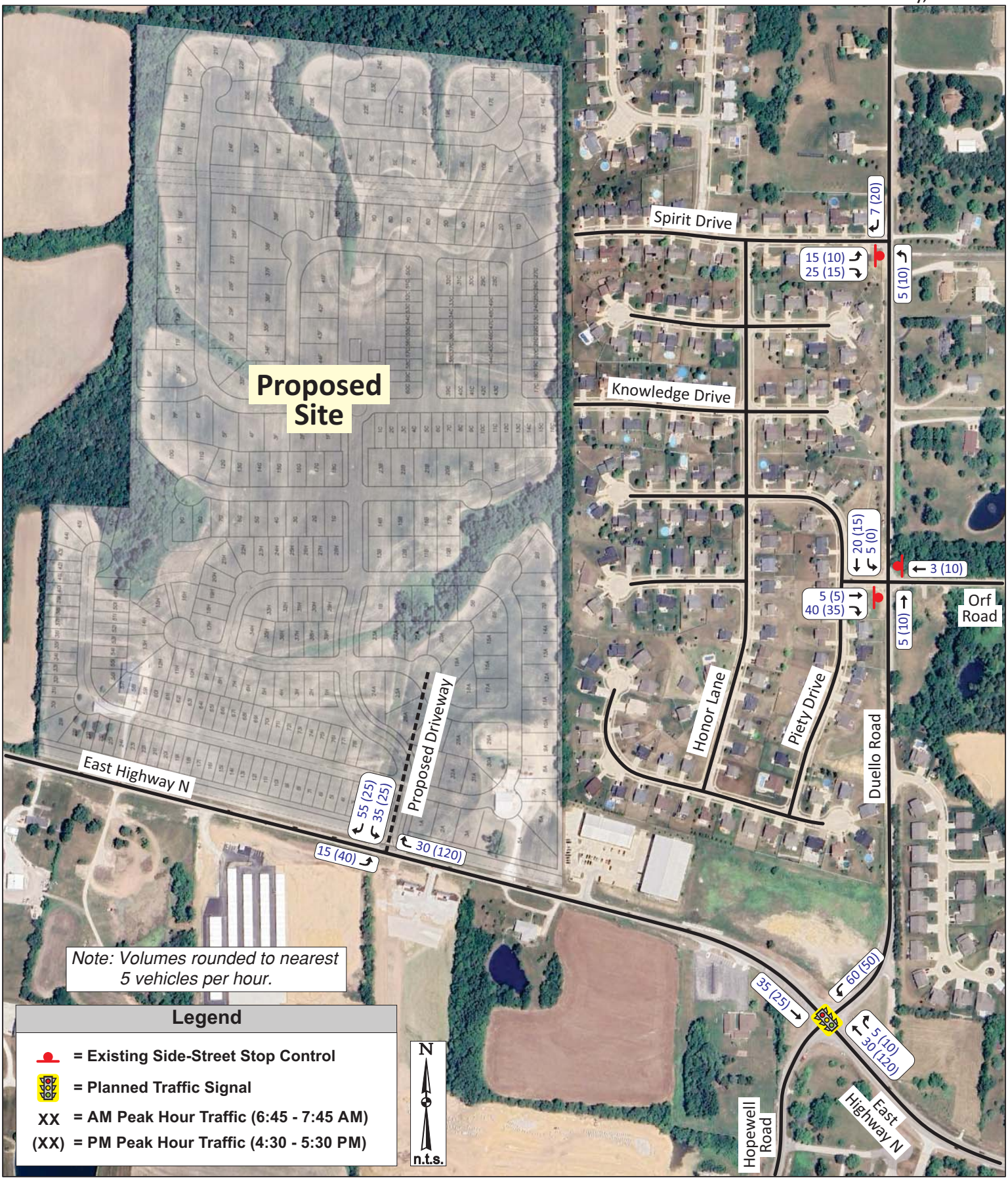



Exhibit 6: Site-GeneratedTrips

Job# 099-23
11/15/2023

CBB TRANSPORTATION ENGINEERS+PLANNERS

Boone Trail Elementary School Drive

Boone Trail Elementary School

Timberland High School Drive

Wentzville South Middle School

Perry Cate Boulevard

N

A

B

C

D

10 (35) <30>

35 (20) <20>

60 (160) <130>

150 (105) <85>

St. Gianna Catholic Church Driveway

Immanuel Lutheran Church and School Driveway

St. Gianna Catholic Church

Immanuel Lutheran Church

SITE

E

F

G

5 (10) <10>

75 (220) <180>

10 (10) <5>

210 <135> (120)

50 (145) <120>

25 (75) <60>

70 (45) <40>

140 (90) <80>

45 (125) <105>

5 (20) <15>

20 (10) <10>

120 (80) <70>

35 (20) <20>

35 (20) <20>

150 (105) <85>

## Legend

- = Existing Traffic Signal
- = Existing Side-Street Stop Control
- = Proposed Side-Street Stop Control
- = Proposed Trailside Farm Roads
- XX = AM Peak Hour Traffic (6:45 - 7:45 AM)
- (XX) = PM Peak Hour Traffic (4:30 - 5:30 PM)
- <XX> = School Dismissal Peak Hour Traffic (2:30 - 3:30 PM)

*Note: Exhibit is graphical representation only. Not to scale.*

### SOUTH OF INTERSECTION "F"

H

I

20 (55) <50>

25 (70) <55>

65 (45) <40>

55 (35) <30>

5 (5) <5>

5 (5) <5>

15 (50) <45>

50 (30) <25>

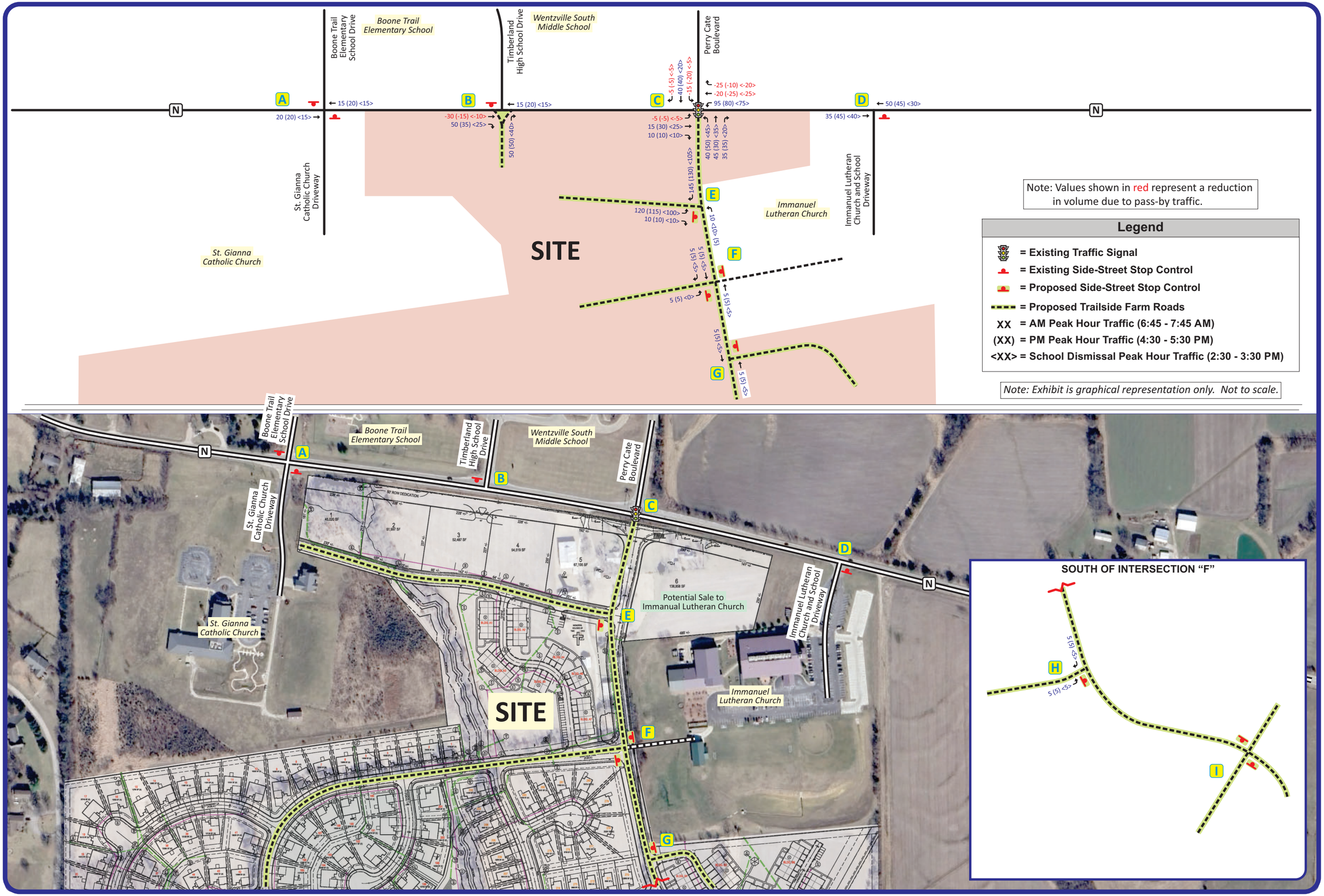
CBB TRANSPORTATION ENGINEERS+PLANNERS

Job# 113-25
01/14/2026

N
NOT TO SCALE

Trailside Farm Traffic Impact Study
St. Charles County, Missouri

Exhibit 5: Trailside Farm Residential Trips




Note: Values shown in red represent a reduction in volume due to pass-by traffic.

## Legend

- = Existing Traffic Signal
- = Existing Side-Street Stop Control
- = Proposed Side-Street Stop Control
- = Proposed Trailside Farm Roads
- XX = AM Peak Hour Traffic (6:45 - 7:45 AM)
- (XX) = PM Peak Hour Traffic (4:30 - 5:30 PM)
- <XX> = School Dismissal Peak Hour Traffic (2:30 - 3:30 PM)

*Note: Exhibit is graphical representation only. Not to scale.*







CBB TRANSPORTATION ENGINEERS+PLANNERS

Job# 113-25
01/14/2026

N
NOT TO SCALE

Trailside Farm Traffic Impact Study
St. Charles County, Missouri

Exhibit 6: Trailside Farm Future Commercial Trips

Development Fiscal Analysis Spreadsheet

| | |
|---|---|
| Date: | 1/28/2026 |
| Development Name: | Caballo Farms |
| Development Type: | Single Family Residential |
| Current Parcel Zoning: | County AG |
| Proposed Parcel Zoning: | R-1/PUD |

= **Fillable Cells**

| **Development Factors** | | **Descriptions** |
|---|---|---|
| **DEVELOPMENT INFORMATION** | | |
| Developed Acres | 69.02 | Total number of acres within the development with proposed improvements |
| **RESIDENTIAL** | | |
| New Single Family Units | 290 | Number of single family units proposed within the development |
| Estimated Single Family Units Home Value | $ 450,000 | General value of a typical single family lot within the development |
| New Multifamily Units | | Number of multi-family units proposed within the development |
| Estimated MFU Home Value | | General value of a typical multi-family lot within the development |
| **COMMERCIAL** | | |
| Commercial Land (acres) | 0 | Total number of acres dedicated to commercial development |
| Commercial Land Value ($/acre) | $ - | Market value of the commercial land |
| New Commercial/Industrial Square Feet | 0 | Amount of commercial or industrial square footage building (s) proposed within the development |
| Estimated C/I Value ($/SF) | $ - | Market value of the commercial building space |
| **INFRASTRUCTURE** | | |
| Lane Miles of Public Pavement to be added | 4.44 | Total number of lane miles of pavement to be turned over to the City for acceptance/dedication/maintenance |
| Pavement Type | Concrete | Type of pavement to be installed and maintained by the City of O'Fallon |
| **DEMOGRAPHIC INFORMATION** | | |
| Median Household Income | $ 125,000 | Projected Median Household Income for Development ($113,996) 2024 Estimate |

If not using the Citywide value, provide justification. Based on estimated housing prices.

| Staff Determined Factors | | Descriptions |
|---|---|---|
| **DEVELOPMENT INFORMATION** | | |
| Tax Factor Increase | 5% | Percentage increase applied to tax revenue to account for additional taxes not explicitly captured in this analysis (utility gross receipts, state motor/fuel, county bridge, county road, etc.) |
| Revenue Escalation Amount (%) | 4% | Estimate for percentage growth for tax revenues, typically 3-5% |
| Cost Escalation Amount (%) | 4% | Estimate for percentage growth for costs, typically 3-5% |
| **RESIDENTIAL** | | |
| Lot Contribution | $0.00 | $/Lot Contribution from the developer |
| Estimated Percentage Capture of Disposable Income | 5% | Estimated percentage of disposable income that will be spent within the City of O'Fallon in a given year |
| Estimated Residential Personal Property Market Value | $ 65,000 | Estimated market value of residential personal property for the average household in the City of O'Fallon, MO |
| Estimated Amount Spent Online Yearly in O'Fallon | $ 1,000 | Expected amount to be spent annually in ***online*** sales from out of state vendors for the average household in the City of O'Fallon |
| **COMMERCIAL** | | |
| Estimated Commercial Personal Property Market Value | $ - | Estimated market value of commercial personal property for the average business in the City of O'Fallon, MO |
| Estimated Amount Spent Online Yearly in O'Fallon | $ - | Expected amount to be spent annually in ***online*** sales from out of state vendors for the average business in the City of O'Fallon |
| **INFRASTRUCTURE** | | |
| Factor of Need (Police Dept) | 0.1 | Number of new police officers needed as a result of the population increase due to this development |
| Factor of Need (Code Enforcement) | 0.1 | Number of new code enforcement officers needed as a result of the population increase due to this development |

| Estimated Tax Revenues generated for the City | | Descriptions |
|---|---|---|
| **Property Tax** | | |
| **RESIDENTIAL** | | |
| Estimated New Development Total Market Value | $ 130,500,000 | Projected market value of new development, X lots x $Y/LOT |
| Assessed Property Tax Value | $ 24,795,000 | Assessed value is determined as 19 percent of the market value for the property tax value |
| Debt Service Property Tax Rate | 0.001401 | Current city property tax rate for debt service (per $100 assessed value) |
| Expected Debt Service Tax Revenue @ Year 1 | $ 34,738 | Tax generated which can be used ONLY for debt service |
| General Fund Property Tax Rate | 0.002815 | Current city property tax rate for general fund (per $100 assessed value) |
| Expected General Fund Tax Revenue @ Year 1 | $ 69,798 | Tax generated which can be used ONLY for general fund |
| **Expected Total Annual Residential Property Tax Revenue** | **$ 260,756** | Expected Annual Property Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Residential Property Taxes to City over 40 years | $ 10,430,239 | Expected Total Property Tax revenue for the City of O'Fallon over 40 years |
| **COMMERCIAL** | | |
| Estimated New Development Total Market Value | $ - | Projected value of new development, land+building |
| Assessed Property Tax Value | $ - | Assessed value is determined as 32 percent of the market value for the property tax value |
| Debt Service Property Tax Rate | 0.001401 | Current city property tax rate for debt service (per $100 assessed value) |
| Expected Debt Service Tax Revenue @ Year 1 | $ - | Tax generated which can be used ONLY for debt service |
| General Fund Property Tax Rate | 0.002815 | Current city property tax rate for general fund (per $100 assessed value) |
| Expected General Fund Tax Revenue @ Year 1 | $ - | Tax generated which can be used ONLY for general fund |
| Sur Tax Property Tax Rate | 0.004216 | Current city sur tax rate (per $100 assessed value) |
| Expected General Fund Tax Revenue @ Year 1 | $ - | Typically receive 50% (confirm with Vicki) return on Sur Tax to the City |
| **Expected Total Annual Commercial Property Tax Revenue** | **$ -** | Expected Annual Property Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total CommercialProperty Taxes to City over 40 years | $ - | Expected Total Property Tax revenue for the City of O'Fallon over 40 years |
| **Sales Tax** | | |
| **RESIDENTIAL** | | |
| Expected Disposable Income for Typical Household | $ 38,188 | Estimated total disposable income per lot in the development |
| Expected Percentage Capture of Disposable Income | 5% | Expected percentage of disposable income to be spent in the City of O'Fallon in a given year |
| Expected Amount Spent Yearly in O'Fallon | $ 1,909 | Expected $ amount to be spent in the City of O'Fallon in a given year |
| Expected Taxable Sales Revenue | $ 553,719 | Expected annual total taxable amount spent in O'Fallon businesses generated from development |
| Sales Tax Rate | 0.02 | Current City sales tax rate |
| Expected Total Annual Sales Tax Revenue @ Year 1 | $ 11,074 | Sales tax rate applied to the expected annual taxable sales |
| Revenue for General Fund | $ 5,537 | 1% of City Sales Tax |
| Revenue for Streets/Road Improvement Fund | $ 2,769 | 0.5% of City Sales Tax |
| Revenue for Parks/Stormwater Fund | $ 2,769 | 0.5% of City Sales Tax |
| **Expected Total Annual Residential Sales Tax Revenue** | **$ 27,624** | Expected Annual Sales Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Residential Sales Taxes to City | $ 1,104,965.61 | Expected Total Sales Tax revenue for the City of O'Fallon over 40 years |

**COMMERCIAL**

| | | | |
|---|---|---|---|
| Commercial Square Footage | $ | - | Commercial Building Square Footage |
| O'Fallon Estimated Commercial Sales Tax Generation ($/sf) | $ | 6.40 | Current City sales tax rate |
| Expected Total Annual Sales Tax Revenue @ Full Build Out | **$** | **-** | Sales tax rate applied to the expected annual taxable sales |
| Revenue for General Fund | **$** | **-** | 1% of City Sales Tax |
| Revenue for Streets/Road Improvement Fund | **$** | **-** | 0.5% of City Sales Tax |
| Revenue for Parks/Stormwater Fund | **$** | **-** | 0.5% of City Sales Tax |
| **Expected Total Annual Commercial Sales Tax Revenue** | **$** | **-** | Expected Annual Sales Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Commercial Sales Taxes to City | $ | - | Expected Total Sales Tax revenue for the City of O'Fallon over 40 years |

**Personal Property Tax**

**RESIDENTIAL**

| | | |
|---|---|---|
| Estimated Personal Property Market Value | $ 65,000 | Estimated market value of personal property for the typical home in the development |
| Estimated Total Market Value | $ 18,850,000 | Total markey value of personal property for this development |
| Assessment Rate | 0.3334 | Tax rate for personal property based on State Tax Commission Website |
| Estimated Total Assessed Value | $ 6,284,590 | Assessed value of the total personal property for this development |
| Personal Property Tax Rate | 0.2909 | General fund tax rate (per $100 of assessed value) - 2023 Rates - Changes every year |
| Expected General Fund Revenue | $ 18,282 | Tax generated which can be used ONLY for general fund |
| Personal Property Tax Rate | 0.155 | Debt Service fund tax rate (per $100 of assessed value) - 2023 Rates - Changes every year |
| Expected Debt Service Revenue | $ 9,741 | Tax generated which can be used ONLY for debt service |
| **Expected Total Annual Residential Personal Property Tax Revenue** | **$ 69,901** | Expected Annual Personal Property Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Residential Personal Property Taxes to City | $ 2,796,044 | Expected Total Personal Property Tax revenue for the City of O'Fallon over 40 years |

**COMMERCIAL**

| | | |
|---|---|---|
| Estimated Personal Property Market Value | $ - | Estimated market value of personal property for the commercial business in the development |
| Assessment Rate | 0.3334 | Tax rate for personal property based on State Tax Commission Website |
| Estimated Total Assessed Value | $ - | Assessed value of the total personal property for this commercial development |
| Personal Property Tax Rate | 0.2909 | General fund tax rate (per $100 of assessed value) - 2023 Rates - Changes every year |
| Expected General Fund Revenue | $ - | Tax generated which can be used ONLY for general fund |
| Personal Property Tax Rate | 0.1505 | Debt Service fund tax rate (per $100 of assessed value) - 2023 Rates - Changes every year |
| Expected Debt Service Revenue | $ - | Tax generated which can be used ONLY for debt service |
| **Expected Total Annual Commercial Personal Property Tax Revenue** | **$ -** | Expected Annual Personal Property Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Commercial Personal Property Taxes to City | $ - | Expected Total Personal Property Tax revenue for the City of O'Fallon over 40 years |

**Use Tax**

**RESIDENTIAL**

| | | |
|---|---|---|
| Expected Amount Spent Yearly in O'Fallon | $ 1,000 | Expected amount to be spent by each home in online transactions with out-of-state vendors in the City of O'Fallon in a given year |
| Expected Taxable Online Sales Revenues | $ 290,000 | Expected annual total taxable amount spent in online transactions with out-of-state vendors in O'Fallon |
| Use Tax Rate | 0.02 | Current City use tax rate |
| Expected Residential Use Tax Revenues | $ 5,800 | Total Use Tax Revenues from new residents |
| Revenue for Streets/Road Improvement Fund | $ 2,900 | 50% to SRIF |
| Revenue for O'Fallon PD | $ 2,900 | 50% to OPD |
| **Expected Total Annual Residential Use Tax Revenue** | **$ 14,468** | Expected Annual Use Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Use Taxes to City | $ 578,705 | Expected Total Use Tax revenue for the City of O'Fallon over 40 years |

**COMMERCIAL**

| | | |
|---|---|---|
| Expected Taxable Sales Revenues from Out of State Vendors | $ - | Expected amount to be spent by the business(es) in online transactions with out-of-state vendors in the City of O'Fallon in a given year |

| | | |
|---|---|---|
| Use Tax Rate | 0.02 | Current City use tax rate |
| Expected Commercial Use Tax Revenues | $ - | Total Use Tax Revenues from new commercial business(es) |
| Revenue for Streets/Road Improvement Fund | $ - | 50% to SRIF |
| Revenue for O'Fallon PD | $ - | 50% to OPD |
| **Expected Total Annual Commercial Use Tax Revenue** | **$ -** | Expected Annual Use Tax revenue for the City of O'Fallon, averaged over 40 years |
| Expected Total Use Taxes to City | $ - | Expected Total Use Tax revenue for the City of O'Fallon over 40 years |

**TOTAL TAXES GENERATED**

| | | | |
|---|---|---|---|
| **Estimated Annual Total Tax Revenues to the City** | **$ 372,749** | | Total Expected Annual Tax Revenue to the City |
| **Revenue - General Fund** | **$ 233,520** | 63% | Portion of Tax Revenue going to General Fund |
| **Revenue - Debt Service** | **$ 110,949** | 30% | Portion of Tax Revenue going to Debt Service |
| **Revenue - Parks/Stormwater Fund** | **$ 6,906** | 2% | Portion of Tax Revenue going to Parks / Stormwater |
| **Revenue - Street/Road Improvement Fund** | **$ 14,140** | 4% | Portion of Tax Revenue going to Streets / Road Improvement Fund |
| **Revenue - O'Fallon PD (Use Tax)** | **$ 7,234** | 2% | Portion of Tax Revenue going to O'Fallon PD (Use Tax) |

## Ongoing Costs for Providing Services

| | | | **Descriptions** |
|---|---|---|---|
| **Asset Costs - Maintenance/Replacement** | | | |
| **Public Roadways** | | | |
| Total Estimated Public Road Replacement/Maintenance Cost over design lifespan | $ 20,182,641 | | Total Roadway Maintenance Costs for the service life of the infrastructure (40 years, avg.) |
| **Expected Total Annual Public Roadway Maintenance Costs** | **$ 504,566** | | Total Annual Roadway Maintenance Costs for the service life of the infrastructure (40 years, avg.) |
| **Stormsewer Infrastructure** | | | |
| Total Estimated Public Road Replacement/Maintenance Cost over design lifespan | $ 1,197,321 | | Total Stormsewere Maintenance Costs for the service life of the infrastructure (40 years, avg.) |
| **Expected Total Annual Stormsewer Maintenance Costs** | **$ 29,933** | | Total Annual Stormsewere Maintenance Costs for the service life of the infrastructure (40 years, avg.) |
| **Asset Costs - City Personnel** | | | |
| **Police** | | | |
| Salary | 66,123 | | Salary Increases 4% each year |
| Benefits | 26,449 | | Calculated as 40% of salary |
| **Subtotal** | 92,572 | | Salary + Benefits |
| Required Equipment (Gear/Car/Electronics) | 47,000 | | Replaced every three (3) years |
| Factor of Need (Police Dept) | 0.10 | | Number of new police officers needed as a result of the population increase due to this development |
| **Expected Total Annual Police Cost** | **17,662** | | Estimated annual cost to for an additional police officer (total costs, including escalation/replacement, divided by 40 years) **x Factor of Need** |
| **Code Enforcement** | | | |
| Salary | 48,028 | | Salary Increases 4% each year |
| Benefits | 19,211 | | Calculated as 40% of salary |
| **Subtotal** | 67,239 | | Salary + Benefits |
| Required Equipment (Gear/Car/Electronics) | 47,000 | | Replaced every five (5) years |
| Factor of Need (Code Enforcement) | 0.10 | | Number of new code enfrocement officers needed as a result of the population increase due to this development |
| **Expected Total Annual Code Enforcement Cost** | **13,112** | | Estimated annual cost to for an additional code enforcement officer (total costs, including escalation/replacement, divided by 40 years) **x Factor of Need** |
| **Expected Total Annual City Cost** | **$ 565,273** | | |

## Cost/Benefit Analysis

| | | Descriptions |
|---|---|---|
| **Initial Contribution** | | |
| Contribution from Developer, based on total number of lots | $ - | Revenue from developer to help offset project costs for the area |
| **Average Annual Net Revenue** | | |
| Annual Project Revenues | $ 372,749 | Total annual projected tax revenues generated for the City of O'Fallon from the proposed development |
| Annual Project Costs | $ 565,273 | Total annual projected expenses generated for the City of O'Fallon from the proposed development |
| Annual Project Net Revenue | $ (192,525) | |
| **Lifespan Net Revenue (40 Years)** | | |
| Total Project Revenues | $ 14,909,953 | Total lifecycle projected tax revenues generated for the City of O'Fallon from the proposed development |
| Total Project Costs | $ 22,610,933 | Total lifecycle projected expenses generated for the City of O'Fallon from the proposed development |
| Total Project Net Revenue | $ (7,700,980) | |
| Revenue to Cost Ratio | 0.66:1 | Estimated revenue divided by the annual cost to the city (>1:1 is net positive) |

**For every $1.00 the City spends in maintenance for this development, it generates $ 0.66 cents in taxes.**

| Residential Property Tax | | | Commercial Property Tax | |
|---|---|---|---|---|
| Initial Amount | $ 104,535.72 | | Initial Amount | $ - |
| Escalation Rate | 4% | | Escalation Rate | 4% |
| Tax Factor Increase | 105% | | Tax Factor Increase | 105% |

| Period | Balance | Cumulative | Period | Balance |
|---|---|---|---|---|
| Year 1 | $ 109,762.51 | $ 109,762.51 | Year 1 | $ - |
| Year 2 | $ 114,153.01 | $ 223,915.51 | Year 2 | $ - |
| Year 3 | $ 118,719.13 | $ 342,634.64 | Year 3 | $ - |
| Year 4 | $ 123,467.89 | $ 466,102.53 | Year 4 | $ - |
| Year 5 | $ 128,406.61 | $ 594,509.14 | Year 5 | $ - |
| Year 6 | $ 133,542.87 | $ 728,052.01 | Year 6 | $ - |
| Year 7 | $ 138,884.59 | $ 866,936.60 | Year 7 | $ - |
| Year 8 | $ 144,439.97 | $ 1,011,376.57 | Year 8 | $ - |
| Year 9 | $ 150,217.57 | $ 1,161,594.13 | Year 9 | $ - |
| Year 10 | $ 156,226.27 | $ 1,317,820.41 | Year 10 | $ - |
| Year 11 | $ 162,475.32 | $ 1,480,295.73 | Year 11 | $ - |
| Year 12 | $ 168,974.34 | $ 1,649,270.06 | Year 12 | $ - |
| Year 13 | $ 175,733.31 | $ 1,825,003.37 | Year 13 | $ - |
| Year 14 | $ 182,762.64 | $ 2,007,766.01 | Year 14 | $ - |
| Year 15 | $ 190,073.15 | $ 2,197,839.16 | Year 15 | $ - |
| Year 16 | $ 197,676.07 | $ 2,395,515.23 | Year 16 | $ - |
| Year 17 | $ 205,583.12 | $ 2,601,098.35 | Year 17 | $ - |
| Year 18 | $ 213,806.44 | $ 2,814,904.79 | Year 18 | $ - |
| Year 19 | $ 222,358.70 | $ 3,037,263.48 | Year 19 | $ - |
| Year 20 | $ 231,253.05 | $ 3,268,516.53 | Year 20 | $ - |
| Year 21 | $ 240,503.17 | $ 3,509,019.70 | Year 21 | $ - |
| Year 22 | $ 250,123.29 | $ 3,759,142.99 | Year 22 | $ - |
| Year 23 | $ 260,128.23 | $ 4,019,271.21 | Year 23 | $ - |
| Year 24 | $ 270,533.35 | $ 4,289,804.57 | Year 24 | $ - |
| Year 25 | $ 281,354.69 | $ 4,571,159.26 | Year 25 | $ - |
| Year 26 | $ 292,608.88 | $ 4,863,768.13 | Year 26 | $ - |
| Year 27 | $ 304,313.23 | $ 5,168,081.37 | Year 27 | $ - |
| Year 28 | $ 316,485.76 | $ 5,484,567.13 | Year 28 | $ - |
| Year 29 | $ 329,145.19 | $ 5,813,712.32 | Year 29 | $ - |
| Year 30 | $ 342,311.00 | $ 6,156,023.32 | Year 30 | $ - |
| Year 31 | $ 356,003.44 | $ 6,512,026.76 | Year 31 | $ - |
| Year 32 | $ 370,243.58 | $ 6,882,270.33 | Year 32 | $ - |
| Year 33 | $ 385,053.32 | $ 7,267,323.65 | Year 33 | $ - |
| Year 34 | $ 400,455.45 | $ 7,667,779.10 | Year 34 | $ - |
| Year 35 | $ 416,473.67 | $ 8,084,252.77 | Year 35 | $ - |
| Year 36 | $ 433,132.62 | $ 8,517,385.39 | Year 36 | $ - |
| Year 37 | $ 450,457.92 | $ 8,967,843.31 | Year 37 | $ - |
| Year 38 | $ 468,476.24 | $ 9,436,319.55 | Year 38 | $ - |
| Year 39 | $ 487,215.29 | $ 9,923,534.84 | Year 39 | $ - |
| Year 40 | $ 506,703.90 | $ 10,430,238.74 | Year 40 | $ - |

| | | Residential Sales Tax | | | | |
|---|---|---|---|---|---|---|
| | | Initial Amount | $ | 11,074.38 | | |
| | | Escalation Rate | | 4% | | |
| | | Tax Factor Increase | | 105% | | |
| Cumulative | | Period | Balance | | Cumulative | |
| $ | - | Year 1 | $ | 11,628.09 | $ | 11,628.09 |
| $ | - | Year 2 | $ | 12,093.22 | $ | 23,721.31 |
| $ | - | Year 3 | $ | 12,576.95 | $ | 36,298.26 |
| $ | - | Year 4 | $ | 13,080.02 | $ | 49,378.28 |
| $ | - | Year 5 | $ | 13,603.23 | $ | 62,981.51 |
| $ | - | Year 6 | $ | 14,147.35 | $ | 77,128.86 |
| $ | - | Year 7 | $ | 14,713.25 | $ | 91,842.11 |
| $ | - | Year 8 | $ | 15,301.78 | $ | 107,143.89 |
| $ | - | Year 9 | $ | 15,913.85 | $ | 123,057.74 |
| $ | - | Year 10 | $ | 16,550.40 | $ | 139,608.14 |
| $ | - | Year 11 | $ | 17,212.42 | $ | 156,820.56 |
| $ | - | Year 12 | $ | 17,900.92 | $ | 174,721.47 |
| $ | - | Year 13 | $ | 18,616.95 | $ | 193,338.43 |
| $ | - | Year 14 | $ | 19,361.63 | $ | 212,700.06 |
| $ | - | Year 15 | $ | 20,136.10 | $ | 232,836.15 |
| $ | - | Year 16 | $ | 20,941.54 | $ | 253,777.69 |
| $ | - | Year 17 | $ | 21,779.20 | $ | 275,556.90 |
| $ | - | Year 18 | $ | 22,650.37 | $ | 298,207.27 |
| $ | - | Year 19 | $ | 23,556.38 | $ | 321,763.65 |
| $ | - | Year 20 | $ | 24,498.64 | $ | 346,262.29 |
| $ | - | Year 21 | $ | 25,478.59 | $ | 371,740.87 |
| $ | - | Year 22 | $ | 26,497.73 | $ | 398,238.60 |
| $ | - | Year 23 | $ | 27,557.64 | $ | 425,796.24 |
| $ | - | Year 24 | $ | 28,659.94 | $ | 454,456.18 |
| $ | - | Year 25 | $ | 29,806.34 | $ | 484,262.53 |
| $ | - | Year 26 | $ | 30,998.59 | $ | 515,261.12 |
| $ | - | Year 27 | $ | 32,238.54 | $ | 547,499.66 |
| $ | - | Year 28 | $ | 33,528.08 | $ | 581,027.74 |
| $ | - | Year 29 | $ | 34,869.20 | $ | 615,896.94 |
| $ | - | Year 30 | $ | 36,263.97 | $ | 652,160.91 |
| $ | - | Year 31 | $ | 37,714.53 | $ | 689,875.44 |
| $ | - | Year 32 | $ | 39,223.11 | $ | 729,098.56 |
| $ | - | Year 33 | $ | 40,792.04 | $ | 769,890.59 |
| $ | - | Year 34 | $ | 42,423.72 | $ | 812,314.31 |
| $ | - | Year 35 | $ | 44,120.67 | $ | 856,434.98 |
| $ | - | Year 36 | $ | 45,885.49 | $ | 902,320.47 |
| $ | - | Year 37 | $ | 47,720.91 | $ | 950,041.38 |
| $ | - | Year 38 | $ | 49,629.75 | $ | 999,671.13 |
| $ | - | Year 39 | $ | 51,614.94 | $ | 1,051,286.07 |
| $ | - | Year 40 | $ | 53,679.54 | $ | 1,104,965.61 |

| Commercial Sales Tax | | | | Residential Personal Property Tax | | |
|---|---|---|---|---|---|---|
| Initial Amount | $ | - | | Initial Amount | $ | 28,022.99 |
| Escalation Rate | | 4% | | Escalation Rate | | 4% |
| Tax Factor Increase | | 105% | | Tax Factor Increase | | 105% |
| | | | | | | |
| Period | Balance | | Cumulative | Period | Balance | |
| Year 1 | $ | - | $ - | Year 1 | $ | 29,424.14 |
| Year 2 | $ | - | $ - | Year 2 | $ | 30,601.10 |
| Year 3 | $ | - | $ - | Year 3 | $ | 31,825.15 |
| Year 4 | $ | - | $ - | Year 4 | $ | 33,098.15 |
| Year 5 | $ | - | $ - | Year 5 | $ | 34,422.08 |
| Year 6 | $ | - | $ - | Year 6 | $ | 35,798.96 |
| Year 7 | $ | - | $ - | Year 7 | $ | 37,230.92 |
| Year 8 | $ | - | $ - | Year 8 | $ | 38,720.16 |
| Year 9 | $ | - | $ - | Year 9 | $ | 40,268.96 |
| Year 10 | $ | - | $ - | Year 10 | $ | 41,879.72 |
| Year 11 | $ | - | $ - | Year 11 | $ | 43,554.91 |
| Year 12 | $ | - | $ - | Year 12 | $ | 45,297.11 |
| Year 13 | $ | - | $ - | Year 13 | $ | 47,108.99 |
| Year 14 | $ | - | $ - | Year 14 | $ | 48,993.35 |
| Year 15 | $ | - | $ - | Year 15 | $ | 50,953.08 |
| Year 16 | $ | - | $ - | Year 16 | $ | 52,991.21 |
| Year 17 | $ | - | $ - | Year 17 | $ | 55,110.86 |
| Year 18 | $ | - | $ - | Year 18 | $ | 57,315.29 |
| Year 19 | $ | - | $ - | Year 19 | $ | 59,607.90 |
| Year 20 | $ | - | $ - | Year 20 | $ | 61,992.22 |
| Year 21 | $ | - | $ - | Year 21 | $ | 64,471.91 |
| Year 22 | $ | - | $ - | Year 22 | $ | 67,050.78 |
| Year 23 | $ | - | $ - | Year 23 | $ | 69,732.81 |
| Year 24 | $ | - | $ - | Year 24 | $ | 72,522.13 |
| Year 25 | $ | - | $ - | Year 25 | $ | 75,423.01 |
| Year 26 | $ | - | $ - | Year 26 | $ | 78,439.93 |
| Year 27 | $ | - | $ - | Year 27 | $ | 81,577.53 |
| Year 28 | $ | - | $ - | Year 28 | $ | 84,840.63 |
| Year 29 | $ | - | $ - | Year 29 | $ | 88,234.25 |
| Year 30 | $ | - | $ - | Year 30 | $ | 91,763.62 |
| Year 31 | $ | - | $ - | Year 31 | $ | 95,434.17 |
| Year 32 | $ | - | $ - | Year 32 | $ | 99,251.54 |
| Year 33 | $ | - | $ - | Year 33 | $ | 103,221.60 |
| Year 34 | $ | - | $ - | Year 34 | $ | 107,350.46 |
| Year 35 | $ | - | $ - | Year 35 | $ | 111,644.48 |
| Year 36 | $ | - | $ - | Year 36 | $ | 116,110.26 |
| Year 37 | $ | - | $ - | Year 37 | $ | 120,754.67 |
| Year 38 | $ | - | $ - | Year 38 | $ | 125,584.86 |
| Year 39 | $ | - | $ - | Year 39 | $ | 130,608.25 |
| Year 40 | $ | - | $ - | Year 40 | $ | 135,832.58 |

| Cumulative | Commercial Personal Property Tax | | | |
|---|---|---|---|---|
| | Initial Amount | $ - | | |
| | Escalation Rate | 4% | | |
| | Tax Factor Increase | 105% | | |
| Cumulative | Period | Balance | Cumulative | |
| $ 29,424.14 | Year 1 | $ - | $ | - |
| $ 60,025.24 | Year 2 | $ - | $ | - |
| $ 91,850.38 | Year 3 | $ - | $ | - |
| $ 124,948.53 | Year 4 | $ - | $ | - |
| $ 159,370.61 | Year 5 | $ - | $ | - |
| $ 195,169.57 | Year 6 | $ - | $ | - |
| $ 232,400.49 | Year 7 | $ - | $ | - |
| $ 271,120.65 | Year 8 | $ - | $ | - |
| $ 311,389.61 | Year 9 | $ - | $ | - |
| $ 353,269.33 | Year 10 | $ - | $ | - |
| $ 396,824.24 | Year 11 | $ - | $ | - |
| $ 442,121.35 | Year 12 | $ - | $ | - |
| $ 489,230.34 | Year 13 | $ - | $ | - |
| $ 538,223.69 | Year 14 | $ - | $ | - |
| $ 589,176.77 | Year 15 | $ - | $ | - |
| $ 642,167.98 | Year 16 | $ - | $ | - |
| $ 697,278.83 | Year 17 | $ - | $ | - |
| $ 754,594.12 | Year 18 | $ - | $ | - |
| $ 814,202.02 | Year 19 | $ - | $ | - |
| $ 876,194.24 | Year 20 | $ - | $ | - |
| $ 940,666.14 | Year 21 | $ - | $ | - |
| $ 1,007,716.93 | Year 22 | $ - | $ | - |
| $ 1,077,449.74 | Year 23 | $ - | $ | - |
| $ 1,149,971.86 | Year 24 | $ - | $ | - |
| $ 1,225,394.88 | Year 25 | $ - | $ | - |
| $ 1,303,834.81 | Year 26 | $ - | $ | - |
| $ 1,385,412.34 | Year 27 | $ - | $ | - |
| $ 1,470,252.96 | Year 28 | $ - | $ | - |
| $ 1,558,487.22 | Year 29 | $ - | $ | - |
| $ 1,650,250.84 | Year 30 | $ - | $ | - |
| $ 1,745,685.01 | Year 31 | $ - | $ | - |
| $ 1,844,936.55 | Year 32 | $ - | $ | - |
| $ 1,948,158.15 | Year 33 | $ - | $ | - |
| $ 2,055,508.61 | Year 34 | $ - | $ | - |
| $ 2,167,153.09 | Year 35 | $ - | $ | - |
| $ 2,283,263.35 | Year 36 | $ - | $ | - |
| $ 2,404,018.02 | Year 37 | $ - | $ | - |
| $ 2,529,602.88 | Year 38 | $ - | $ | - |
| $ 2,660,211.13 | Year 39 | $ - | $ | - |
| $ 2,796,043.71 | Year 40 | $ - | $ | - |

| Residential Use Tax | | | | Commercial Use Tax | | |
|---|---|---|---|---|---|---|
| Initial Amount | $ | 5,800.00 | | Initial Amount | $ | - |
| Escalation Rate | | 4% | | Escalation Rate | | 4% |
| Tax Factor Increase | | 105% | | Tax Factor Increase | | 105% |
| | | | | | | |
| Period | Balance | | Cumulative | Period | Balance | |
| Year 1 | $ | 6,090.00 | $ 6,090.00 | Year 1 | $ | - |
| Year 2 | $ | 6,333.60 | $ 12,423.60 | Year 2 | $ | - |
| Year 3 | $ | 6,586.94 | $ 19,010.54 | Year 3 | $ | - |
| Year 4 | $ | 6,850.42 | $ 25,860.97 | Year 4 | $ | - |
| Year 5 | $ | 7,124.44 | $ 32,985.40 | Year 5 | $ | - |
| Year 6 | $ | 7,409.42 | $ 40,394.82 | Year 6 | $ | - |
| Year 7 | $ | 7,705.79 | $ 48,100.61 | Year 7 | $ | - |
| Year 8 | $ | 8,014.02 | $ 56,114.64 | Year 8 | $ | - |
| Year 9 | $ | 8,334.59 | $ 64,449.22 | Year 9 | $ | - |
| Year 10 | $ | 8,667.97 | $ 73,117.19 | Year 10 | $ | - |
| Year 11 | $ | 9,014.69 | $ 82,131.88 | Year 11 | $ | - |
| Year 12 | $ | 9,375.28 | $ 91,507.16 | Year 12 | $ | - |
| Year 13 | $ | 9,750.29 | $ 101,257.44 | Year 13 | $ | - |
| Year 14 | $ | 10,140.30 | $ 111,397.74 | Year 14 | $ | - |
| Year 15 | $ | 10,545.91 | $ 121,943.65 | Year 15 | $ | - |
| Year 16 | $ | 10,967.75 | $ 132,911.39 | Year 16 | $ | - |
| Year 17 | $ | 11,406.46 | $ 144,317.85 | Year 17 | $ | - |
| Year 18 | $ | 11,862.71 | $ 156,180.56 | Year 18 | $ | - |
| Year 19 | $ | 12,337.22 | $ 168,517.79 | Year 19 | $ | - |
| Year 20 | $ | 12,830.71 | $ 181,348.50 | Year 20 | $ | - |
| Year 21 | $ | 13,343.94 | $ 194,692.44 | Year 21 | $ | - |
| Year 22 | $ | 13,877.70 | $ 208,570.14 | Year 22 | $ | - |
| Year 23 | $ | 14,432.81 | $ 223,002.94 | Year 23 | $ | - |
| Year 24 | $ | 15,010.12 | $ 238,013.06 | Year 24 | $ | - |
| Year 25 | $ | 15,610.52 | $ 253,623.58 | Year 25 | $ | - |
| Year 26 | $ | 16,234.94 | $ 269,858.52 | Year 26 | $ | - |
| Year 27 | $ | 16,884.34 | $ 286,742.87 | Year 27 | $ | - |
| Year 28 | $ | 17,559.71 | $ 304,302.58 | Year 28 | $ | - |
| Year 29 | $ | 18,262.10 | $ 322,564.68 | Year 29 | $ | - |
| Year 30 | $ | 18,992.59 | $ 341,557.27 | Year 30 | $ | - |
| Year 31 | $ | 19,752.29 | $ 361,309.56 | Year 31 | $ | - |
| Year 32 | $ | 20,542.38 | $ 381,851.94 | Year 32 | $ | - |
| Year 33 | $ | 21,364.08 | $ 403,216.02 | Year 33 | $ | - |
| Year 34 | $ | 22,218.64 | $ 425,434.66 | Year 34 | $ | - |
| Year 35 | $ | 23,107.39 | $ 448,542.05 | Year 35 | $ | - |
| Year 36 | $ | 24,031.68 | $ 472,573.73 | Year 36 | $ | - |
| Year 37 | $ | 24,992.95 | $ 497,566.68 | Year 37 | $ | - |
| Year 38 | $ | 25,992.67 | $ 523,559.35 | Year 38 | $ | - |
| Year 39 | $ | 27,032.37 | $ 550,591.72 | Year 39 | $ | - |
| Year 40 | $ | 28,113.67 | $ 578,705.39 | Year 40 | $ | - |

| Cumulative |
| --- |
| $ - |
| $ - |
| $ -

Infrastructure Cost - Concrete

| | | | | |
|---|---|---|---|---|
| Escalation Rate | 4% | | | |
| Yearly Cycle for Mainte | 40 | 25 | 10 | 5 |
| Unit Cost | $ 85 | $ 85 | $ 30 | $ 3,300 |
| Unit | SY | SY | LF | CLM |
| Roadway Unit Total | 33862 | 33862 | 32039 | 2.22 |
| Year | R&R | Spot Slab Rep. | Joint Repair | Crackseal |
| 1 | $ - | $ - | $ - | $ 7,619.04 |
| 2 | $ - | $ - | $ - | $ - |
| 3 | $ - | $ - | $ - | $ - |
| 4 | $ - | $ - | $ - | $ - |
| 5 | $ - | $ - | $ - | $ - |
| 6 | $ - | $ - | $ - | $ 9,269.73 |
| 7 | $ - | $ - | $ - | $ - |
| 8 | $ - | $ - | $ - | $ - |
| 9 | $ - | $ - | $ - | $ - |
| 10 | $ - | $ - | $ - | $ - |
| 11 | $ - | $ - | $ 73,983.95 | $ 11,278.04 |
| 12 | $ - | $ - | $ - | $ - |
| 13 | $ - | $ - | $ - | $ - |
| 14 | $ - | $ - | $ - | $ - |
| 15 | $ - | $ - | $ - | $ - |
| 16 | $ - | $ - | $ - | $ 13,721.46 |
| 17 | $ - | $ - | $ - | $ - |
| 18 | $ - | $ - | $ - | $ - |
| 19 | $ - | $ - | $ - | $ - |
| 20 | $ - | $ - | $ - | $ - |
| 21 | $ - | $ - | $ 109,514.31 | $ 16,694.25 |
| 22 | $ - | $ - | $ - | $ - |
| 23 | $ - | $ - | $ - | $ - |
| 24 | $ - | $ - | $ - | $ - |
| 25 | $ - | $ 5,601,353.78 | $ - | $ - |
| 26 | $ - | $ - | $ - | $ 20,311.11 |
| 27 | $ - | $ - | $ - | $ - |
| 28 | $ - | $ - | $ - | $ - |
| 29 | $ - | $ - | $ - | $ - |
| 30 | $ - | $ - | $ - | $ - |
| 31 | $ - | $ - | $ 162,107.93 | $ 24,711.58 |
| 32 | $ - | $ - | $ - | $ - |
| 33 | $ - | $ - | $ - | $ - |
| 34 | $ - | $ - | $ - | $ - |
| 35 | $ - | $ - | $ - | $ - |
| 36 | $ - | $ - | $ - | $ 30,065.41 |
| 37 | $ - | $ - | $ - | $ - |
| 38 | $ - | $ - | $ - | $ - |
| 39 | $ - | $ - | $ - | $ - |
| 40 | $ 13,818,796.88 | $ - | $ - | $ - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Infrastructure Cost - Asphalt | | |
| | | | | | Escalation Rate | | 4% |
| | 1 | | | | Yearly Cycle for Main | | 40 |
| $ | 1,291 | (based on 2023 costs) | | | Unit Cost | $ | 75 |
| | CLM | | | | Unit | | SY |
| | 2.22 | | | | Roadway Unit Total | | 33862 |
| | Snowplow | Balance | Cumulative | | Year | | R&R |
| $ | 2,980.40 | $ 10,599.44 | $ 10,599.44 | | 1 | $ | - |
| $ | 3,099.62 | $ 3,099.62 | $ 13,699.06 | | 2 | $ | - |
| $ | 3,223.60 | $ 3,223.60 | $ 16,922.66 | | 3 | $ | - |
| $ | 3,352.54 | $ 3,352.54 | $ 20,275.20 | | 4 | $ | - |
| $ | 3,486.65 | $ 3,486.65 | $ 23,761.85 | | 5 | $ | - |
| $ | 3,626.11 | $ 12,895.84 | $ 36,657.69 | | 6 | $ | - |
| $ | 3,771.16 | $ 3,771.16 | $ 40,428.84 | | 7 | $ | - |
| $ | 3,922.00 | $ 3,922.00 | $ 44,350.84 | | 8 | $ | - |
| $ | 4,078.88 | $ 4,078.88 | $ 48,429.73 | | 9 | $ | - |
| $ | 4,242.04 | $ 4,242.04 | $ 52,671.77 | | 10 | $ | - |
| $ | 4,411.72 | $ 89,673.71 | $ 142,345.47 | | 11 | $ | - |
| $ | 4,588.19 | $ 4,588.19 | $ 146,933.66 | | 12 | $ | - |
| $ | 4,771.72 | $ 4,771.72 | $ 151,705.37 | | 13 | $ | - |
| $ | 4,962.58 | $ 4,962.58 | $ 156,667.96 | | 14 | $ | - |
| $ | 5,161.09 | $ 5,161.09 | $ 161,829.05 | | 15 | $ | - |
| $ | 5,367.53 | $ 19,088.99 | $ 180,918.04 | | 16 | $ | - |
| $ | 5,582.23 | $ 5,582.23 | $ 186,500.27 | | 17 | $ | - |
| $ | 5,805.52 | $ 5,805.52 | $ 192,305.79 | | 18 | $ | - |
| $ | 6,037.74 | $ 6,037.74 | $ 198,343.54 | | 19 | $ | - |
| $ | 6,279.25 | $ 6,279.25 | $ 204,622.79 | | 20 | $ | - |
| $ | 6,530.42 | $ 132,738.99 | $ 337,361.78 | | 21 | $ | - |
| $ | 6,791.64 | $ 6,791.64 | $ 344,153.42 | | 22 | $ | - |
| $ | 7,063.31 | $ 7,063.31 | $ 351,216.72 | | 23 | $ | - |
| $ | 7,345.84 | $ 7,345.84 | $ 358,562.56 | | 24 | $ | - |
| $ | 7,639.67 | $ 5,608,993.46 | $ 5,967,556.02 | | 25 | $ | - |
| $ | 7,945.26 | $ 28,256.37 | $ 5,995,812.39 | | 26 | $ | - |
| $ | 8,263.07 | $ 8,263.07 | $ 6,004,075.46 | | 27 | $ | - |
| $ | 8,593.59 | $ 8,593.59 | $ 6,012,669.05 | | 28 | $ | - |
| $ | 8,937.33 | $ 8,937.33 | $ 6,021,606.38 | | 29 | $ | - |
| $ | 9,294.83 | $ 9,294.83 | $ 6,030,901.21 | | 30 | $ | - |
| $ | 9,666.62 | $ 196,486.13 | $ 6,227,387.34 | | 31 | $ | - |
| $ | 10,053.29 | $ 10,053.29 | $ 6,237,440.63 | | 32 | $ | - |
| $ | 10,455.42 | $ 10,455.42 | $ 6,247,896.04 | | 33 | $ | - |
| $ | 10,873.63 | $ 10,873.63 | $ 6,258,769.68 | | 34 | $ | - |
| $ | 11,308.58 | $ 11,308.58 | $ 6,270,078.26 | | 35 | $ | - |
| $ | 11,760.92 | $ 41,826.33 | $ 6,311,904.59 | | 36 | $ | - |
| $ | 12,231.36 | $ 12,231.36 | $ 6,324,135.95 | | 37 | $ | - |
| $ | 12,720.61 | $ 12,720.61 | $ 6,336,856.56 | | 38 | $ | - |
| $ | 13,229.44 | $ 13,229.44 | $ 6,350,086.00 | | 39 | $ | - |
| $ | 13,758.62 | $ 13,832,555.49 | $ 20,182,641.49 | | 40 | $ | 12,193,056.07 |

| | | | | | |
|---|---|---|---|---|---|
| 21 | 8 | 1 | | | |
| $ 20 | $ 5 | $ 1,291 | (based on 2023 costs) | | |
| SY | SY | CLM | | | |
| 33862 | 33862 | 2.22 | | | |
| M&O | Thin Overlay | Snowplow | Balance | Cumulative | |
| $ - | $ - | $ 2,980.40 | $ 2,980.40 | $ 2,980.40 | |
| $ - | $ - | $ 3,099.62 | $ 3,099.62 | $ 6,080.02 | |
| $ - | $ - | $ 3,223.60 | $ 3,223.60 | $ 9,303.62 | |
| $ - | $ - | $ 3,352.54 | $ 3,352.54 | $ 12,656.16 | |
| $ - | $ - | $ 3,486.65 | $ 3,486.65 | $ 16,142.81 | |
| $ - | $ - | $ 3,626.11 | $ 3,626.11 | $ 19,768.92 | |
| $ - | $ - | $ 3,771.16 | $ 3,771.16 | $ 23,540.07 | |
| $ - | $ 231,715.16 | $ 3,922.00 | $ 235,637.17 | $ 259,177.24 | |
| $ - | $ - | $ 4,078.88 | $ 4,078.88 | $ 263,256.12 | |
| $ - | $ - | $ 4,242.04 | $ 4,242.04 | $ 267,498.16 | |
| $ - | $ - | $ 4,411.72 | $ 4,411.72 | $ 271,909.88 | |
| $ - | $ - | $ 4,588.19 | $ 4,588.19 | $ 276,498.07 | |
| $ - | $ - | $ 4,771.72 | $ 4,771.72 | $ 281,269.78 | |
| $ - | $ - | $ 4,962.58 | $ 4,962.58 | $ 286,232.37 | |
| $ - | $ - | $ 5,161.09 | $ 5,161.09 | $ 291,393.46 | |
| $ - | $ 317,118.20 | $ 5,367.53 | $ 322,485.73 | $ 613,879.19 | |
| $ - | $ - | $ 5,582.23 | $ 5,582.23 | $ 619,461.42 | |
| $ - | $ - | $ 5,805.52 | $ 5,805.52 | $ 625,266.94 | |
| $ - | $ - | $ 6,037.74 | $ 6,037.74 | $ 631,304.69 | |
| $ - | $ - | $ 6,279.25 | $ 6,279.25 | $ 637,583.94 | |
| $ 1,543,291.12 | $ - | $ 6,530.42 | $ 1,549,821.54 | $ 2,187,405.48 | |
| $ - | $ - | $ 6,791.64 | $ 6,791.64 | $ 2,194,197.12 | |
| $ - | $ - | $ 7,063.31 | $ 7,063.31 | $ 2,201,260.42 | |
| $ - | $ 433,998.15 | $ 7,345.84 | $ 441,343.99 | $ 2,642,604.42 | |
| $ - | $ - | $ 7,639.67 | $ 7,639.67 | $ 2,650,244.09 | |
| $ - | $ - | $ 7,945.26 | $ 7,945.26 | $ 2,658,189.35 | |
| $ - | $ - | $ 8,263.07 | $ 8,263.07 | $ 2,666,452.41 | |
| $ - | $ - | $ 8,593.59 | $ 8,593.59 | $ 2,675,046.00 | |
| $ - | $ - | $ 8,937.33 | $ 8,937.33 | $ 2,683,983.34 | |
| $ - | $ - | $ 9,294.83 | $ 9,294.83 | $ 2,693,278.17 | |
| $ - | $ - | $ 9,666.62 | $ 9,666.62 | $ 2,702,944.79 | |
| $ - | $ 593,956.44 | $ 10,053.29 | $ 604,009.73 | $ 3,306,954.52 | |
| $ - | $ - | $ 10,455.42 | $ 10,455.42 | $ 3,317,409.93 | |
| $ - | $ - | $ 10,873.63 | $ 10,873.63 | $ 3,328,283.57 | |
| $ - | $ - | $ 11,308.58 | $ 11,308.58 | $ 3,339,592.15 | |
| $ - | $ - | $ 11,760.92 | $ 11,760.92 | $ 3,351,353.07 | |
| $ - | $ - | $ 12,231.36 | $ 12,231.36 | $ 3,363,584.43 | |
| $ - | $ - | $ 12,720.61 | $ 12,720.61 | $ 3,376,305.04 | |
| $ - | $ - | $ 13,229.44 | $ 13,229.44 | $ 3,389,534.48 | |
| $ - | $ - | $ 13,758.62 | $ 12,206,814.68 | $ 15,596,349.16 | |

| Storm Infrastructure Cost | | | | | | Police Service Cost | | |
|---|---|---|---|---|---|---|---|---|
| Escalation Rate | | 4% | | | | Equipment Amount | | |
| Yearly Cycle for Mai | | 1 | | | | Replacement Occurrence | | |
| Unit Cost | $ | 2,838 | | | | Escalation Rate | | |
| Unit | | LM | | | | Factor of Need | | |
| Roadway Unit Total | | 4.440 | | | | | | |
| Year | Maintenance Costs | | Cumulative | | | Year | Projected Salary | |
| 1 | $ | 12,600.00 | $ | 12,600.00 | | 1 | $ | 66,123.00 |
| 2 | $ | 13,104.00 | $ | 25,704.00 | | 2 | $ | 68,577.00 |
| 3 | $ | 13,628.16 | $ | 39,332.16 | | 3 | $ | 70,761.00 |
| 4 | $ | 14,173.29 | $ | 53,505.45 | | 4 | $ | 73,008.00 |
| 5 | $ | 14,740.22 | $ | 68,245.66 | | 5 | $ | 75,025.00 |
| 6 | $ | 15,329.83 | $ | 83,575.49 | | 6 | $ | 77,084.00 |
| 7 | $ | 15,943.02 | $ | 99,518.51 | | 7 | $ | 79,207.00 |
| 8 | $ | 16,580.74 | $ | 116,099.25 | | 8 | $ | 81,370.00 |
| 9 | $ | 17,243.97 | $ | 133,343.22 | | 9 | $ | 84,864.00 |
| 10 | $ | 17,933.73 | $ | 151,276.95 | | 10 | $ | 87,548.00 |
| 11 | $ | 18,651.08 | $ | 169,928.03 | | 11 | $ | 89,295.00 |
| 12 | $ | 19,397.12 | $ | 189,325.15 | | 12 | $ | 91,084.00 |
| 13 | $ | 20,173.01 | $ | 209,498.15 | | 13 | $ | 92,914.00 |
| 14 | $ | 20,979.93 | $ | 230,478.08 | | 14 | $ | 95,056.00 |
| 15 | $ | 21,819.12 | $ | 252,297.20 | | 15 | $ | 96,949.00 |
| 16 | $ | 22,691.89 | $ | 274,989.09 | | 16 | $ | 97,919.00 |
| 17 | $ | 23,599.56 | $ | 298,588.66 | | 17 | $ | 98,899.00 |
| 18 | $ | 24,543.55 | $ | 323,132.20 | | 18 | $ | 99,888.00 |
| 19 | $ | 25,525.29 | $ | 348,657.49 | | 19 | $ | 100,887.00 |
| 20 | $ | 26,546.30 | $ | 375,203.79 | | 20 | $ | 101,896.00 |
| 21 | $ | 27,608.15 | $ | 402,811.94 | | 21 | $ | 102,915.00 |
| 22 | $ | 28,712.48 | $ | 431,524.42 | | 22 | $ | 103,945.00 |
| 23 | $ | 29,860.98 | $ | 461,385.40 | | 23 | $ | 104,985.00 |
| 24 | $ | 31,055.42 | $ | 492,440.81 | | 24 | $ | 106,035.00 |
| 25 | $ | 32,297.63 | $ | 524,738.44 | | 25 | $ | 107,096.00 |
| 26 | $ | 33,589.54 | $ | 558,327.98 | | 26 | $ | 108,167.00 |
| 27 | $ | 34,933.12 | $ | 593,261.10 | | 27 | $ | 109,249.00 |
| 28 | $ | 36,330.44 | $ | 629,591.55 | | 28 | $ | 110,342.00 |
| 29 | $ | 37,783.66 | $ | 667,375.21 | | 29 | $ | 111,446.00 |
| 30 | $ | 39,295.01 | $ | 706,670.22 | | 30 | $ | 112,561.00 |
| 31 | $ | 40,866.81 | $ | 747,537.02 | | 31 | $ | 113,687.00 |
| 32 | $ | 42,501.48 | $ | 790,038.51 | | 32 | $ | 114,824.00 |
| 33 | $ | 44,201.54 | $ | 834,240.05 | | 33 | $ | 115,973.00 |
| 34 | $ | 45,969.60 | $ | 880,209.65 | | 34 | $ | 117,133.00 |
| 35 | $ | 47,808.39 | $ | 928,018.03 | | 35 | $ | 118,305.00 |
| 36 | $ | 49,720.72 | $ | 977,738.75 | | 36 | $ | 119,489.00 |
| 37 | $ | 51,709.55 | $ | 1,029,448.30 | | 37 | $ | 120,684.00 |
| 38 | $ | 53,777.93 | $ | 1,083,226.24 | | 38 | $ | 121,891.00 |
| 39 | $ | 55,929.05 | $ | 1,139,155.29 | | 39 | $ | 123,110.00 |
| 40 | $ | 58,166.21 | $ | 1,197,321.50 | | 40 | $ | 124,342.00 |

Code Enforcement Service Cost

| | |
|---|---|
| $ 47,000.00 | Equipment Amount |
| 3 | Replacement Occurrence |
| 4% | Escalation Rate |
| 0.1 | Factor of Need |

| Salary/Benefit Escal | Replacements | Cumulative | Year | Projected Salary |
|---|---|---|---|---|
| $ 9,258.00 | $ - | $ 9,258.00 | 1 | $ 48,028.00 |
| $ 9,601.00 | $ - | $ 18,859.00 | 2 | $ 49,949.12 |
| $ 9,907.00 | $ 5,083.52 | $ 33,849.52 | 3 | $ 51,947.08 |
| $ 10,222.00 | $ - | $ 44,071.52 | 4 | $ 54,024.97 |
| $ 10,504.00 | $ - | $ 54,575.52 | 5 | $ 56,185.97 |
| $ 10,792.00 | $ 5,718.27 | $ 71,085.79 | 6 | $ 58,433.41 |
| $ 11,089.00 | $ - | $ 82,174.79 | 7 | $ 60,770.74 |
| $ 11,392.00 | $ - | $ 93,566.79 | 8 | $ 63,201.57 |
| $ 11,881.00 | $ 6,432.27 | $ 111,880.06 | 9 | $ 65,729.63 |
| $ 12,257.00 | $ - | $ 124,137.06 | 10 | $ 68,358.82 |
| $ 12,502.00 | $ - | $ 136,639.06 | 11 | $ 71,093.17 |
| $ 12,752.00 | $ 7,235.43 | $ 156,626.50 | 12 | $ 72,031.00 |
| $ 13,008.00 | $ - | $ 169,634.50 | 13 | $ 72,751.31 |
| $ 13,308.00 | $ - | $ 182,942.50 | 14 | $ 73,478.82 |
| $ 13,573.00 | $ 8,138.88 | $ 204,654.38 | 15 | $ 74,213.61 |
| $ 13,709.00 | $ - | $ 218,363.38 | 16 | $ 74,955.75 |
| $ 13,846.00 | $ - | $ 232,209.38 | 17 | $ 75,705.30 |
| $ 13,985.00 | $ 9,155.13 | $ 255,349.51 | 18 | $ 76,462.36 |
| $ 14,125.00 | $ - | $ 269,474.51 | 19 | $ 77,226.98 |
| $ 14,266.00 | $ - | $ 283,740.51 | 20 | $ 77,999.25 |
| $ 14,409.00 | $ 10,298.28 | $ 308,447.79 | 21 | $ 78,779.24 |
| $ 14,553.00 | $ - | $ 323,000.79 | 22 | $ 79,567.04 |
| $ 14,698.00 | $ - | $ 337,698.79 | 23 | $ 80,362.71 |
| $ 14,845.00 | $ 11,584.16 | $ 364,127.95 | 24 | $ 81,166.33 |
| $ 14,994.00 | $ - | $ 379,121.95 | 25 | $ 81,978.00 |
| $ 15,144.00 | $ - | $ 394,265.95 | 26 | $ 82,797.78 |
| $ 15,295.00 | $ 13,030.61 | $ 422,591.56 | 27 | $ 83,625.75 |
| $ 15,448.00 | $ - | $ 438,039.56 | 28 | $ 84,462.01 |
| $ 15,603.00 | $ - | $ 453,642.56 | 29 | $ 85,306.63 |
| $ 15,759.00 | $ 14,657.66 | $ 484,059.22 | 30 | $ 86,159.70 |
| $ 15,917.00 | $ - | $ 499,976.22 | 31 | $ 87,021.30 |
| $ 16,076.00 | $ - | $ 516,052.22 | 32 | $ 87,891.51 |
| $ 16,237.00 | $ 16,487.88 | $ 548,777.10 | 33 | $ 88,770.42 |
| $ 16,399.00 | $ - | $ 565,176.10 | 34 | $ 89,658.13 |
| $ 16,563.00 | $ - | $ 581,739.10 | 35 | $ 90,554.71 |
| $ 16,729.00 | $ 18,546.62 | $ 617,014.71 | 36 | $ 91,460.26 |
| $ 16,896.00 | $ - | $ 633,910.71 | 37 | $ 92,374.86 |
| $ 17,065.00 | $ - | $ 650,975.71 | 38 | $ 93,298.61 |
| $ 17,236.00 | $ 20,862.42 | $ 689,074.14 | 39 | $ 94,231.59 |
| $ 17,408.00 | $ - | $ 706,482.14 | 40 | $ 95,173.91 |

| | |
|---|---|
| | $ 47,000.00 |
| | 5 |
| | 4% |
| | 0.1 |

| Salary/Benefit Escal | Replacements | Cumulative |
|---|---|---|
| $ 6,724.00 | $ - | $ 6,724.00 |
| $ 6,993.00 | $ - | $ 13,717.00 |
| $ 7,273.00 | $ - | $ 20,990.00 |
| $ 7,564.00 | $ - | $ 28,554.00 |
| $ 7,867.00 | $ 5,498.34 | $ 41,919.34 |
| $ 8,181.00 | $ - | $ 50,100.34 |
| $ 8,508.00 | $ - | $ 58,608.34 |
| $ 8,849.00 | $ - | $ 67,457.34 |
| $ 9,203.00 | $ - | $ 76,660.34 |
| $ 9,571.00 | $ 6,689.57 | $ 92,920.90 |
| $ 9,954.00 | $ - | $ 102,874.90 |
| $ 10,085.00 | $ - | $ 112,959.90 |
| $ 10,186.00 | $ - | $ 123,145.90 |
| $ 10,288.00 | $ - | $ 133,433.90 |
| $ 10,390.00 | $ 8,138.88 | $ 151,962.78 |
| $ 10,494.00 | $ - | $ 162,456.78 |
| $ 10,599.00 | $ - | $ 173,055.78 |
| $ 10,705.00 | $ - | $ 183,760.78 |
| $ 10,812.00 | $ - | $ 194,572.78 |
| $ 10,920.00 | $ 9,902.19 | $ 215,394.97 |
| $ 11,030.00 | $ - | $ 226,424.97 |
| $ 11,140.00 | $ - | $ 237,564.97 |
| $ 11,251.00 | $ - | $ 248,815.97 |
| $ 11,364.00 | $ - | $ 260,179.97 |
| $ 11,477.00 | $ 12,047.53 | $ 283,704.50 |
| $ 11,592.00 | $ - | $ 295,296.50 |
| $ 11,708.00 | $ - | $ 307,004.50 |
| $ 11,825.00 | $ - | $ 318,829.50 |
| $ 11,943.00 | $ - | $ 330,772.50 |
| $ 12,063.00 | $ 14,657.66 | $ 357,493.16 |
| $ 12,183.00 | $ - | $ 369,676.16 |
| $ 12,305.00 | $ - | $ 381,981.16 |
| $ 12,428.00 | $ - | $ 394,409.16 |
| $ 12,553.00 | $ - | $ 406,962.16 |
| $ 12,678.00 | $ 17,833.29 | $ 437,473.45 |
| $ 12,805.00 | $ - | $ 450,278.45 |
| $ 12,933.00 | $ - | $ 463,211.45 |
| $ 13,062.00 | $ - | $ 476,273.45 |
| $ 13,193.00 | $ - | $ 489,466.45 |
| $ 13,325.00 | $ 21,696.92 | $ 524,488.37 |

| | | |
|---|---|---|
| **O'Fallon Median Gross Household Income** | **$** | **125,000** |
| **Estimated Tax Percentage** | | **35%** |
| **O'Fallon Median Net Household Income** | **$** | **81,250** |

| **Budget Categories** | **% Allocation** | | **$ Total** |
|---|---|---|---|
| Housing | 30% | $ | 24,375 |
| Insurance | 15% | $ | 12,188 |
| Food | 15% | $ | 12,188 |
| Utilites | 8% | $ | 6,500 |
| Transportation | 12% | $ | 9,750 |
| Disposable | 20% | $ | 16,250 |
| Total | 100% | $ | 81,250 |

| | | | |
|---|---|---|---|
| Total Disposable Income | Food, Trans, Disp | $ | 38,188 |

| Year | Salt | | Liquids | | Fuel | | |
|---|---|---|---|---|---|---|---|
| | Tons | Approx $ | Gal | Approx $ | Miles | Est Gal | Approx $ |
| 15-'16 | 1,575 | $ 94,500 | 21,000 | $ 2,520 | 12,600 | 1,800 | $ 4,500 |
| 16-'17 | 3,081 | $ 184,883 | 30,000 | $ 3,900 | 30,277 | 4,325 | $ 10,813 |
| 17-'18 | 2,324 | $ 139,450 | 112,747 | $ 16,635 | 21,100 | 3,021 | $ 7,552 |
| 18-'19 | 5,095 | $ 305,727 | 87,436 | $ 11,893 | 51,200 | 7,304 | $ 18,260 |
| 19-'20 | 5,265 | $ 319,597 | 22,970 | $ 2,449 | 56,600 | 8,090 | $ 20,224 |
| 20 - '21 | 3,757 | $ 213,017 | 51,842 | $ 9,218 | 44,598 | 6,371 | $ 15,928 |
| 21 - '22 | 4,531 | $ 256,927 | 36,285 | $ 4,989 | 43,256 | 6,179 | $ 15,449 |
| 22 - '23 | 1,830 | $ 106,893 | 2,877 | $ 1,175 | 18,212 | 2,602 | $ 6,504 |

| Hours | | | | Yearly Totals |
|---|---|---|---|---|
| Events Total | Approx $ | Maint. Total | Approx $ | |
| 2218 | $ 62,104 | 2218 | $ 62,104 | $ 225,728 |
| 4070 | $ 89,296 | 4070 | $ 89,296 | $ 378,188 |
| 2065 | $ 45,307 | 2065 | $ 45,307 | $ 254,251 |
| 6249 | $ 152,362 | 6249 | $ 152,362 | $ 640,604 |
| 6031 | $ 128,460 | 6031 | $ 128,460 | $ 599,190 |
| 5268 | $ 95,824 | 5268 | $ 95,824 | $ 429,811 |
| 6294 | $ 108,272 | 6294 | $ 108,272 | $ 493,909 |
| 2587 | $ 58,391 | 2587 | $ 58,391 | $ 231,354 |
| | | | **Average** | **$ 406,629** |
| | | | **City Total CLM** | **315** |
| | | | **$/CLM** | **$ 1,291** |

| | | |
|---|---|---|
| **O'Fallon Total Commercial Square Footage** | | 5,000,000 sf |
| **Estimated Percentage of Sales Tax Producing Square Footage** | | 100% |
| **O'Fallon Net Commercial Square Footage** | | 5,000,000 sf |
| | | |
| **O'Fallon Estimated Total Sales Tax - SRIF (1/2%)** | $ | 8,000,000 |
| **O'Fallon Estimated Total Sales Tax (2%)** | $ | 32,000,000 |
| | | |
| **O'Fallon Estimated Commercial Sales Tax Generation ($/SF)** | $ | 6.40 /sf |

**Concrete Repair Evaluation Results**

| Year | Road | Replaced Slabs | Total Slabs | % | |
|---|---|---|---|---|---|
| 2022 | Loganberry Dr | 44 | 64 | | |
| 2022 | Loganberry Dr | 42 | 42 | | |
| 2022 | Loganberry Dr | 40 | 46 | | |
| 2022 | Loganberry Dr | 32 | 46 | | |
| 2022 | Dnasberry Creek Ct | 56 | 63 | | |
| 2022 | Loganberry Ct. | 69 | 88 | | |
| 2017/2022 | Riverbirch Dr. | 70 | 88 | | |
| | **Total** | **353** | **437** | **80.8%** | **Average** |
| | | | | | |
| 2015 | Long Wheat Dr, | 32 | 38 | | |
| 2017/2019 | Long Timber Dr. | 44 | 70 | | |
| 2015/2019 | Long Wheat Dr, | 29 | 38 | | |
| 2015/2019 | Star Buck Dr. | 56 | 78 | | |
| 2019 | Sprucefield Dr. | 45 | 80 | | |
| | **Total** | **206** | **304** | **67.8%** | **Average** |
| | | | | | |
| 2017/2021 | Dusty Rose Dr | 267 | 366 | | |
| 2021 | Moondance Dr | 29 | 40 | | |
| 2017/2021 | Moondance Dr | 41 | 72 | | |
| 2011/2021 | Sunshine Dr | 41 | 51 | | |
| 2011/2021 | Sunshine Dr | 45 | 52 | | |
| 2021 | Sunshine Dr | 28 | 38 | | |
| 2011/2021 | Sunshine Ct. | 45 | 49 | | |
| 2021 | Gazebo Ct | 50 | 55 | | |
| 2021 | Garden Images Ct | 53 | 64 | | |
| 2021 | Prairie Heritage Dr | 35 | 67 | | |
| | **Total** | **634** | **854** | **74.2%** | **Average** |
| | | | | | |
| 2019/2020 | Cypress Point Dr | 64 | 84 | | |
| 2020 | Cypress Point Dr | 96 | 96 | | |
| 2020/2021 | Cypress Point Dr | 152 | 263 | | |
| 2016/2019 | Midpoint Dr | 59 | 86 | | |
| 2019 | Midpoint Dr | 37 | 55 | | |
| 2019 | Midpoint Dr | 27 | 40 | | |
| 2019 | Midpoint Dr | 22 | 28 | | |
| 2019 | Midpoint Dr | 18 | 60 | | |
| 2020 | Green Briar Hills Dr | 109 | 144 | | |
| | **Total** | **584** | **856** | **68.2%** | **Average** |
| | | | | | |
| 2017/2021 | Baltusrol Dr | 70 | 78 | | |
| 2017/2021 | Baltusrol Dr | 42 | 53 | | |
| 2017 | Shelby Crest Ct | 66 | 86 | | |
| 2021 | Ivy Pojnt Dr | 51 | 76 | | |
| 2021 | Shelby Point Ct | 22 | 44 | | |
| | **Total** | **251** | **337** | **74.5%** | **Average** |

**Total Average 73.1%**

WENTZVILLE SCHOOL DISTRICT

Mr. Brian Bishop
*Superintendent*

Kimberly Boix
*Director of Transportation*

Date: February 13, 2026

To: Scott Loveless

Re: Caballo Farms Development

From: Kim Boix/Director of Transportation

Dear Scott:

I reviewed your submission of the Caballo Farms Development.

On behalf of the Wentzville School District, thank you for the opportunity to provide input concerning new developments within the District. In addition to monitoring the number of new homes within the District, we will also review street layouts to determine any implications for our Transportation Department. I would respectfully request that developers, builders, and potential home buyers be notified of our findings to prevent future problems.

We have included a list of significant points to keep in mind regarding growth within the District and the transportation of students. Specific comments or concerns about the particular developments can be found immediately following these general conditions.

Please be aware of the following general guidelines for school growth and transportation of public-school students:

1. The information provided at the end of this letter shows the elementary and secondary boundaries within which the developments currently exist. Home buyers should be aware, however, that due to the addition of new schools to absorb growth, attendance boundaries are subject to change.

2. While state officials require transportation of students living more than 3 ½ miles from the school, it is the current District policy to transport students living more than one mile from the school. Therefore, students living less than one mile from school are generally not eligible for bus transportation.

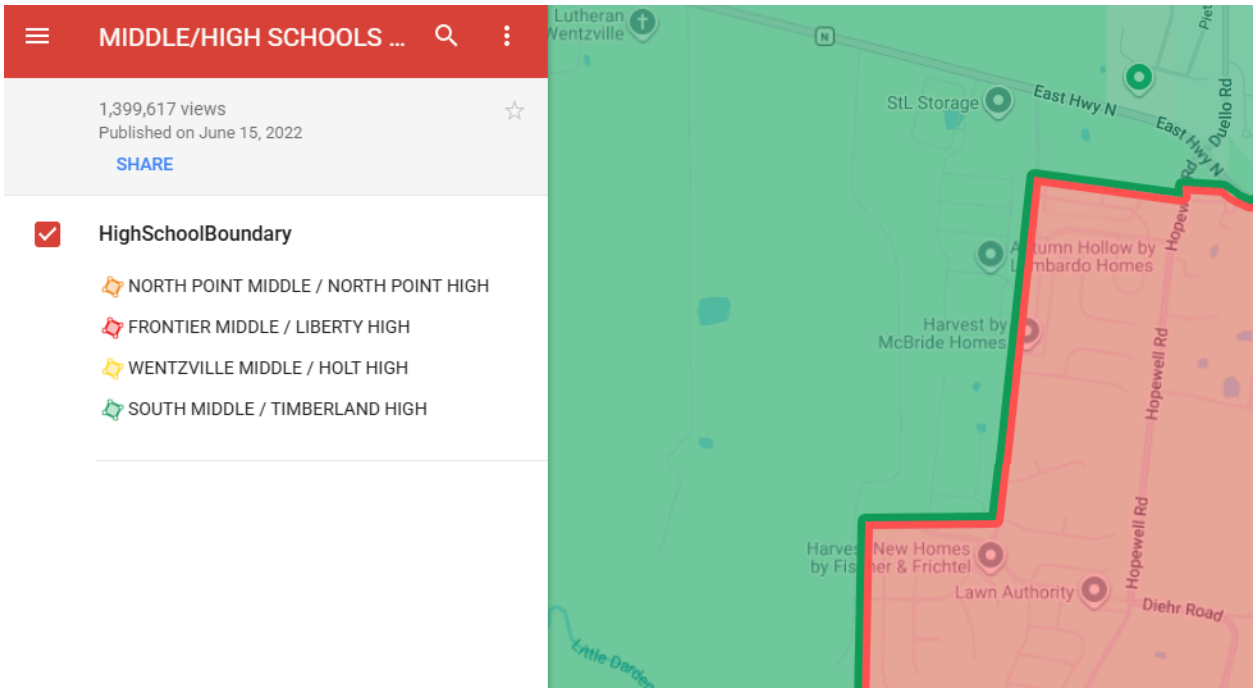
3. We request that developers and builders notify potential home buyers of any transportation restrictions before purchasing homes.

4. It is the policy of the District that buses not enter developments while homes are in the construction phase, due to difficulty in navigating around construction vehicles.

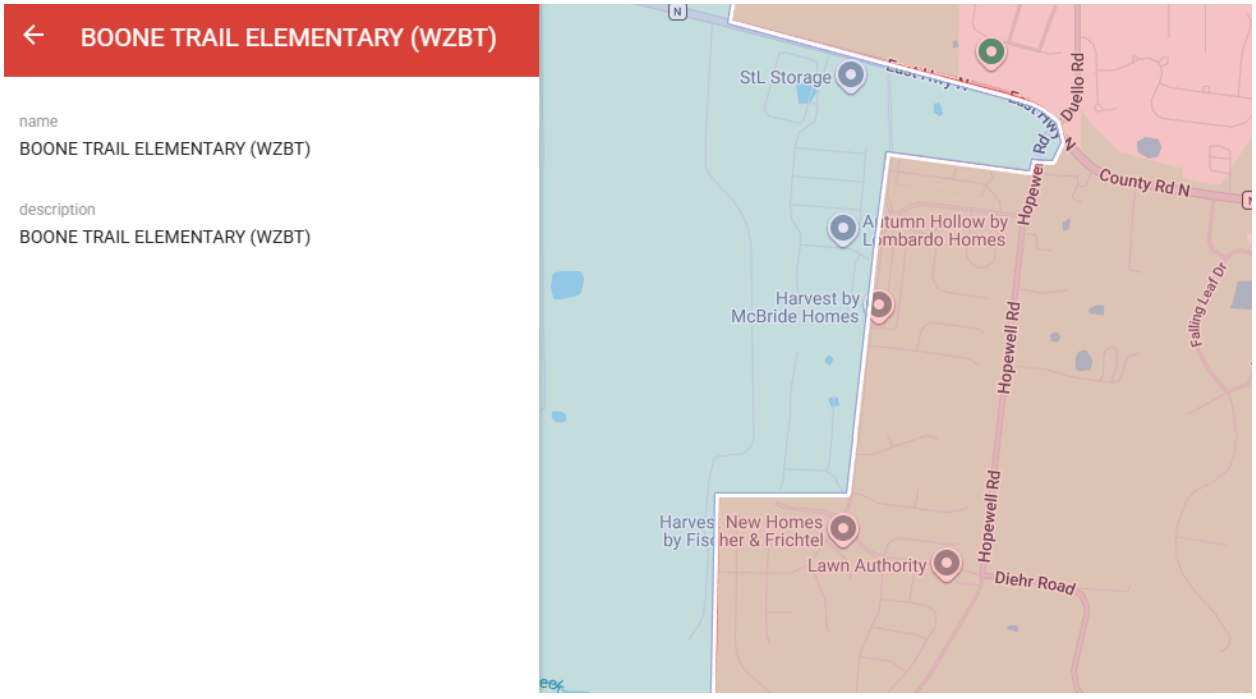
5. State transportation officials recommend buses do not enter cul-de-sacs or dead-end streets; however, in certain cases where this is necessary, the pavement radius of the cul-de-sac must be a minimum of 52 feet with no center islands.

The District is actively exploring redistricting options that could impact these attendance areas in the future.

SOUTH MIDDLE / TIMBERLAND HIGH




BOONE TRAIL ELEMENTARY (WZBT)



# Wentzville Fire Protection District

502 Luetkenhaus Blvd – Wentzville, Missouri 63385
Office: 636.332.9869 – Fax: 636.639.1364
www.wentzvillefire.org


January 29, 2026

McBride Homes
Lukas Virden
mailto:lvirden@mcbride-land.com

RE: Site plan review for McBride Homes, Caballo Farms

To Whom It May Concern:

WFPD has **approved** your submitted plans and added comments/conditions below.

1. Addresses are assigned by the St. Charles County address coordinator.

If you have any questions, please do not hesitate to call or email.

Sincerely yours,

Chris Cuddihee

Chris Cuddihee
Fire Marshal

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 2. a.**

**Meeting Date:** 05/07/2026
**Re:** Site Plan for 115 West 3rd Street
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a Site Plan for 115 West 3rd Street.

**Recommendation:**
Staff Report attached.

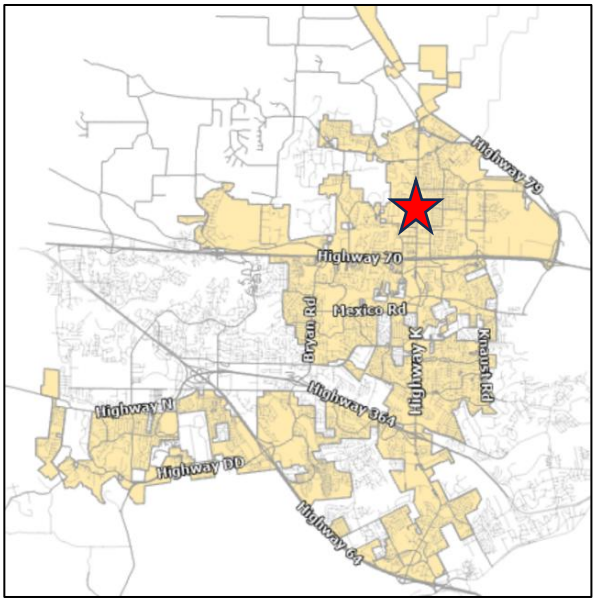
**Attachments**

Staff Report
Site Location Map
Property Owner Notification List
Site Plan

**O'Fallon Planning and Zoning Commission Meeting**
**O'Fallon Municipal Centre Council Chambers**
**100 North Main Street, O'Fallon, MO 63366**

## Project Summary:

| | |
|---|---|
| **Meeting Date:** | May 7, 2026 |
| **Case Number:** | 26-003364 |
| **Location of Subject Property:** | 115 W 3rd St.<br>123 W 2nd St.<br>222 W 3rd St. |
| **Action Requested:** | Approval of a Site Plan for parking lots. |
| **Recommendation:** | Approval |
| **Final Action:** | Planning and Zoning Commission |
| **Related Applications:** | None |
| **Staff Contact:** | Spencer Haeggberg, MPPA<br>shaeggberg@ofallonmo.gov<br>636-379-5486 |




## Applicant Summary:

| | |
|---|---|
| **Applicant:** | Paul Talimonchuk<br>City of O'Fallon<br>100 N Main St.<br>O'Fallon, MO 63366<br>ptalimonchuk@ofallonmo.gov |
| **Property Owner of Record:** | Archdiocese of St. Louis<br>20 Archbishop May Dr.<br>St. Louis, MO 63119<br>O'Fallon Knights of Columbus Council #2269<br>202 W 3rd St.<br>O'Fallon, MO 63366 |

## Subject Property Datum:

| | |
|---|---|
| **Current Zoning:** | R-3/Downtown Medium Density Residential and C-0/Downtown Office District |
| **Comprehensive Plan Designation:** | The Comprehensive Plan's Future Land Use Map depicts these parcels as suitable for mixed and governmental/educational/religious uses. |
| **Proposed Use of Subject Property:** | As a result of the City's roundabout project at North Main Street and West 3rd Street, a portion of the parking lot at 115 West 3rd street needs to be relocated. The City of O'Fallon is proposing to relocate these spaces to new lots on Mary Street (123 W 2nd) and 222 W 3rd. The new lots will have 19 and 16 spaces respectively. Per the allowances of Section 400.163, the applicant is requesting |

| | | | |
|---|---|---|---|
| | a setback reduction to allow parking lot entrances to be closer to intersections than the 75 feet that is required by Code. | | |
| **115 W 3rd St. Adjacent Parcel Data:** | **North** | ROW | West Third Street |
| | **South** | R-3/Downtown | 203 North Main Street |
| | **East** | ROW | North Main Street |
| | **West** | ROW | Mary Street |
| **123 W 2nd St. Adjacent Parcel Data:** | **North** | ROW | West Third Street |
| | **South** | ROW | West Second Street |
| | **East** | ROW | Mary Street |
| | **West** | ROW | Lincoln Street |
| **222 W 3rd St. Adjacent Parcel Data:** | **North** | ROW | West Third Street |
| | **South** | R-3/Downtown | 223 W 2nd Street |
| | **East** | C-0/Downtown | 202 W 3rd Street |
| | **West** | ROW | Park Street |

**Site Development Details:**

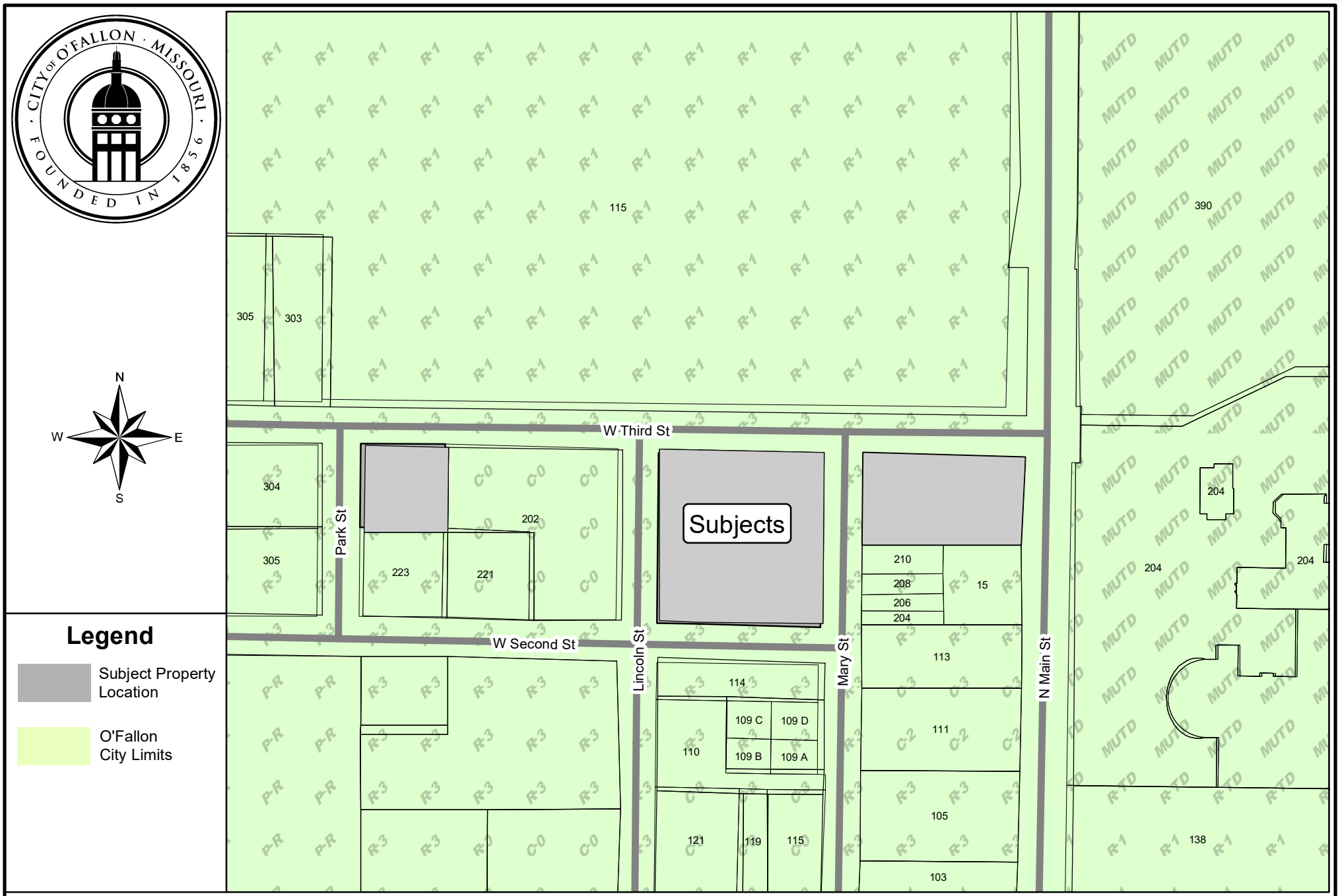
| | |
|---|---|
| **Access to Property:** | Access is provided via W 3rd Street and Mary Street. |
| **Landscape Plans:** | Provided. |

**The photograph shows the Public Meeting sign on the subject property.**



## Staff Recommendation:

| Staff is recommending **approval** of the Site Plan based on the following Findings and Conditions: | |
|---|---|
| **Findings:** | 1. As a result of the City's roundabout project at North Main Street and West 3rd Street, a portion of the parking lot at 115 West 3rd street needs to be relocated. The City of O'Fallon is proposing to relocate these spaces to new lots on Mary Street (123 W 2nd) and 222 W 3rd.<br>2. The use of the site complies with the standards required of properties zoned C-0/Downtown and R-3/Downtown. |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Construction Site Plan.<br>2. A Lot Consolidation Plat shall be required for 202 and 222 West Third Street. |




# 115 West 3rd Street
# 123 West 2nd Street
# 222 West 3rd Street

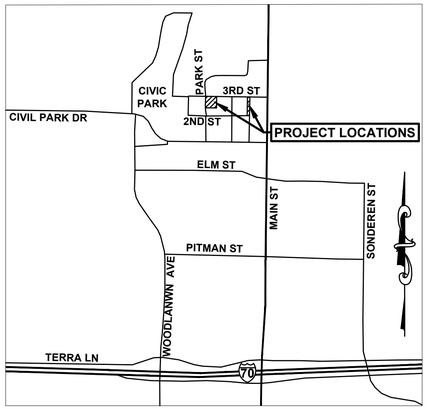
| Owner | SiteAddress | City_State_Zip |
|---|---|---|
| ST. MARYS INSTITUTE | 204 NORTH MAIN STREET | O'FALLON, MO 63366 |
| HL 2, LLC | 203 NORTH MAIN STREET | O'FALLON, MO 63366 |
| OLD HOUSE ON LINCOLN | 114 LINCOLN STREET | O'FALLON, MO 63366 |
| JOSHUA AND LAURA SILVERBERG | 221 WEST 2ND STREET | O'FALLON, MO 63366 |
| MICHAEL AND TINA BRIDGINS | 223 WEST 2ND STREET | O'FALLON, MO 63366 |
| JOSEPH AND DIANE REISS | 301 WEST 3RD STREET | O'FALLON, MO 63366 |

# CONSTRUCTION PLANS

# KOC AND MARY ST PARKING LOTS

## 3RD STREET, O'FALLON, MISSOURI

## ST. CHARLES COUNTY




LOCATION SKETCH
NOT TO SCALE

### UTILITIES

| | | |
|---|---|---|
| WATER & SEWER | CITY OF O'FALLON | (636) 379-7607 |
| ELECTRIC | AMEREN UE | (636) 639-8336 |
| GAS | SPIRE | (314) 330-5720 |
| TELEPHONE | MNA-BLUEBIRD<br>VERIZON | (314) 603-3399 |
| INTERNET | BRIGHTSPEED<br>PWSD #2 | |
| CABLE TV | CHARTER COMMUNICATIONS | (636) 262-0395 |
| MO ONE-CALL | | (800) DIG-RITE |

### ENGINEER / LAND SURVEYOR


THOUVENOT, WADE & MOERCHEN, INC.
MARSHA MALLER, P.E.
3701 S. LINDBERGH BOULEVARD
SUITE 100
ST. LOUIS, MO 63127
(314) 241-6300
MMALLER@twm-inc.com


### OWNER INFORMATION

ARCHDIOCESE OF ST. LOUIS
20 ARCHBISHOP MAY DR
ST. LOUIS, MO 63119

KNIGHTS OF COLUMBUS
HOME ASSOCIATION
202 W 3RD ST
O'FALLON, MO 63366

CITY OF O'FALLON, MO
100 NORTH MAIN ST
O'FALLON, MO 63366

### PROJECT CRITERIA

PRIOR TO COMMENCEMENT OF ANY WORK, OR ORDERING ANY MATERIALS, THE CONTRACTOR SHALL REVIEW ALL PLANS, SPECIFICATIONS, AND THE PROJECT SITE(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND ENGINEER WHO PREPARED THE PLANS OF ANY DISCREPANCIES THAT MAY REQUIRE MODIFICATION TO THESE PLANS OR OF ANY FIELD CONFLICTS.

SHOULD IT APPEAR THAT THE WORK TO BE PERFORMED OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY PRIOR TO COMMENCING WORK.

THESE PLANS AND SPECIFICATIONS ARE SUBJECT TO MODIFICATIONS DURING CONSTRUCTION WHEN CONDITIONS DEVELOP THAT WERE NOT APPARENT DURING THE DESIGN OF THE PLANS AND SPECIFICATIONS. ALL MODIFICATIONS MUST BE APPROVED BY ALL PERTINENT AGENCIES HAVING JURISDICTION OVER THIS PROJECT PRIOR TO CONSTRUCTION AN/OR IMPLEMENTATION OF PROPOSED CHANGES.

IN THE EVENT OF ANY DISCREPANCY BETWEEN ANY DRAWING OR ANY DRAWING AND SPECIFICATION AND FIGURES WRITTEN THEREON, THE CONTRACTOR SHALL NOTIFY ENGINEER FOR WRITTEN CLARIFICATION OF THE DISCREPANCY PRIOR TO COMMENCING THE WORK IN QUESTION. ONLY THOSE DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE UTILIZED FOR DETERMINATION OF LOCATION AND SIZES OF PROPOSED IMPROVEMENTS. DO NOT SCALE DRAWINGS.

### CONTRACTOR SAFETY RESPONSIBILITIES

THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROJECT SITE(S) CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE OWNER AND DESIGN PROFESSIONAL HARMLESS OF ANY AND ALL LIABILITY, REAL, OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

TWM, INC. SHALL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES IN CONNECTION WITH THE WORK.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING AND INSTALLING ANY AND ALL TRAFFIC BARRICADES, MARKERS, SIGNS, FLAGMEN, TRAFFIC POLICE, AND/OR OTHER FACILITIES AS MAY BE REQUIRED BY THE VARIOUS JURISDICTIONS HAVING AUTHORITY OVER THIS PROJECT TO PROTECT THE GENERAL PUBLIC. SIGNS AND PROTECTIVE DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO NOTIFY THE STATE AND LOCAL POLICE, EMERGENCY SERVICE AGENCIES, AMBULANCE SERVICES, AND FIRE DEPARTMENTS OF ANY PROPOSED TRAFFIC DIVERSIONS.

### BENCHMARKS

TWM POINT #200
SET IRON ROD W/ CAP
N 1084888.59, E 762523.02
ELEV. 513.53

TWM POINT #204
SET IRON ROD W/ CAP
N 1084757.96, E 762809.53
ELEV. 525.85

### F.E.M.A. CLASSIFICATION

THIS TRACT IS LOCATED IN ZONE X UNSHADED - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN BY THE F.E.M.A. PANEL #29183C0230G, DATED JANUARY 20, 2016.

### UTILITIES

ANY RELOCATION OF PUBLIC OR PRIVATE UTILITIES SHALL BE UNDERTAKEN IN ACCORDANCE WITH ALL REQUIREMENTS OF THE UTILITY COMPANY AND WITH REGARD TO THE REQUIRED FEES, BONDS, PERMITS, AGREEMENTS, WORKING CONDITIONS, SAFETY CERTIFICATIONS, ETC. OF SAID COMPANY OR JURISDICTION. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND JURISDICTIONS A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO ALLOW THE UTILITIES TO MARK THEIR SYSTEMS OR TO ALLOW THE PERTINENT JURISDICTIONS TIME TO COORDINATE THEIR STAFF, MATERIALS, AND EQUIPMENT TO CONDUCT INSPECTION.

ALL UTILITIES INCLUDING BUT NOT LIMITED TO FIRE HYDRANTS, VALVE PIT COVERS, VALVE BOXES, METER VAULTS, CURB STOP BOXES, FIRE OR POLICE CALL BOXES, TRAFFIC CONTROL SIGNALS OR OTHER UTILITY'S APPURTENANCES SHALL BE UN-OBSTRUCTED AND ACCESSIBLE DURING THE CONSTRUCTION PERIOD.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING OR INSTALLED UTILITIES OR STRUCTURES DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY OR JURISDICTION TO ENSURE APPROPRIATE REPAIR IS MADE IN ACCORDANCE WITH THE UTILITY OR JURISDICTIONS REQUIREMENTS. CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT EXISTING UTILITIES.

UTILITIES AND APPURTENANCES TO REMAIN IN THEIR PRESENT LOCATION SHALL BE ADJUSTED TO GRADE.

### UTILITY DISCLAIMER

THE TYPE, SIZE, AND LOCATION OF UTILITIES AS DELINEATED ON THESE DRAWINGS AND/OR CIVIL ENGINEERING DESIGN DOCUMENTS HAVE BEEN PLOTTED BY REVIEW OF AVAILABLE "AS-BUILT" OR RECORD DRAWINGS, FIELD SURVEY OF MISSOURI 811 MARKED UTILITIES, OR FIELD SURVEY OF ABOVE-GROUND SURFACE UTILITY FEATURES. THE OWNER AND ENGINEER HAVE NOT UNDERTAKEN ANY EXPLORATORY INVESTIGATIONS TO CONFIRM OR VERIFY THE UTILITY LOCATION SHOWN ON THESE DOCUMENTS. THEREFORE, THE UTILITIES EXACT LOCATION, SIZE, TYPE, AND FUNCTION MUST BE CONSIDERED APPROXIMATE AND FIELD VERIFICATION OF UTILITIES BY THE CONTRACTOR MUST BE UNDERTAKEN.

THE OWNER AND ENGINEER FURTHER DO NOT WARRANT THAT ALL UTILITIES HAVE BEEN ILLUSTRATED ON THESE DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTACTING MISSOURI 811 FOR ALL UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES FOR FIELD VERIFICATION OF ALL UTILITIES ON THE SITE PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DETERMINES THAT A SUBSTANTIAL DISCREPANCY EXISTS BETWEEN FIELD VERIFIED UTILITIES AND THOSE PRESENTED ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR CLARIFICATION AND PROJECT DIRECTION.

### GENERAL PROJECT SPECIFICATIONS

ALL WORK, INSTALLATION, PROCEDURES, MATERIALS, AND TESTING SHALL CONFORM TO THE FOLLOWING:

- MISSOURI DEPARTMENT OF TRANSPORTATION, MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
- MISSOURI DEPARTMENT OF TRANSPORTATION, MISSOURI STANDARD PLANS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
- MISSOURI DEPARTMENT OF NATURAL RESOURCES, LAND DISTURBANCE GENERAL PERMIT FOR SOIL EROSION AND SEDIMENT CONTROL.
- FHWA - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), LATEST EDITION.
- ALL STATE, MUNICIPAL, AND LOCAL UNITS OF GOVERNMENT REGULATIONS HAVING JURISDICTION OVER THE PROJECT

TO THE EXTENT IN WHICH ANY INCONSISTENCIES, OR DISCREPANCIES EXIST BETWEEN THE LISTED SPECIFICATION, STANDARD, CODES, OR GUIDELINES BY GOVERNING BODIES AND/OR THESE PLANS AND SPECIFICATIONS, THE MOST STRINGENT SPECIFICATION AND/OR STANDARD SHALL BE BINDING AND APPLICABLE.

THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL MISSOURI DNR STORM WATER PERMIT REQUIREMENTS FOR A LAND DISTURBANCE PERMIT, AND THE STORM WATER POLLUTION PREVENTION PLAN FOR THE PROJECT SITE.

WHERE SECTION OR SUB-SECTION SURVEY MONUMENTS ARE ENCOUNTERED, THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYING AGENT HAVE WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ALL ABANDONED UNDERGROUND STRUCTURES ENCOUNTERED SHALL BE REMOVED TO SUFFICIENT DEPTH TO ENABLE THE PERTINENT UTILITIES TO BE CONSTRUCTED.

ALL ITEMS DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR IN COMPLIANCE WITH ALL CITY, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL CONSTRUCTION MATERIALS AND DEBRIS RESULTING FROM THE CONSTRUCTION OPERATIONS.

ALL WORK, MATERIALS, AND INSTALLATION SHALL NOT BE DEEMED SATISFACTORY UNTIL SUCH TIME THAT APPROVAL IS OBTAINED FROM THE AGENCY HAVING JURISDICTION OVER THE PROJECT.

THE CONTRACTOR SHALL PROCEED AT HIS OWN RISK IN PERFORMING ANY WORK PRIOR TO VERIFYING OR RECEIVING ALL NECESSARY PERMITS.

### TITLE / RIGHT-OF-WAY DISCLAIMER

TWM DOES NOT WARRANT THAT THESE DOCUMENTS CONTAIN COMPLETE INFORMATION REGARDING EASEMENTS, RESERVATIONS, RESTRICTIONS, RIGHT-OF-WAY BUILDING LINE SETBACKS AND OTHER ENCUMBRANCES. FOR COMPLETE INFORMATION, A CERTIFIED TITLE REPORT, OPINION, OR COMMITMENT FOR TITLE INSURANCE SHOULD BE OBTAINED AND THOROUGHLY REVIEWED.

| NO. | DRAWING TITLE |
|---|---|
| C1 | COVER SHEET AND GENERAL NOTES |
| C2 | EXISTING CONDITIONS & DEMOLITION PLAN |
| C3 | SITE PLAN |
| C3.1 | 3RD ST PARKING LOT LAYOUT |
| C4 | GRADING & EROSION CONTROL PLAN |
| C5 | UTILITY PLAN |
| C6 | SITE DETAILS |

### ADDITIONAL NOTES

LAND DISTURBANCE SITES SHALL BE INSPECTED ON A REGULAR SCHEDULE AND WITHIN A REASONABLE TIME PERIOD (NOT TO EXCEED 48 HOURS) FOLLOWING HEAVY RAINS. REGULARLY SCHEDULED INSPECTIONS SHALL BE AT A MINIMUM OF ONCE PER WEEK. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITH SEVEN CALENDAR DAYS OF THE REPORT. CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON A MONTHLY BASIS IF REQUESTED.

SEE EROSION CONTROL PLANS AND SWPPP FOR ADDITIONAL INFORMATION REGARDING CONTRACTOR RESPONSIBILITIES FOR LAND DISTURBANCE AND EROSION CONTROL REQUIREMENTS.


TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES
ILLINOIS: SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI: ST. LOUIS, COLUMBIA
TENNESSEE: NASHVILLE, CHATTANOOGA

THOUVENOT, WADE & MOERCHEN, INC.
ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL




SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

COVER SHEET
AND GENERAL NOTES

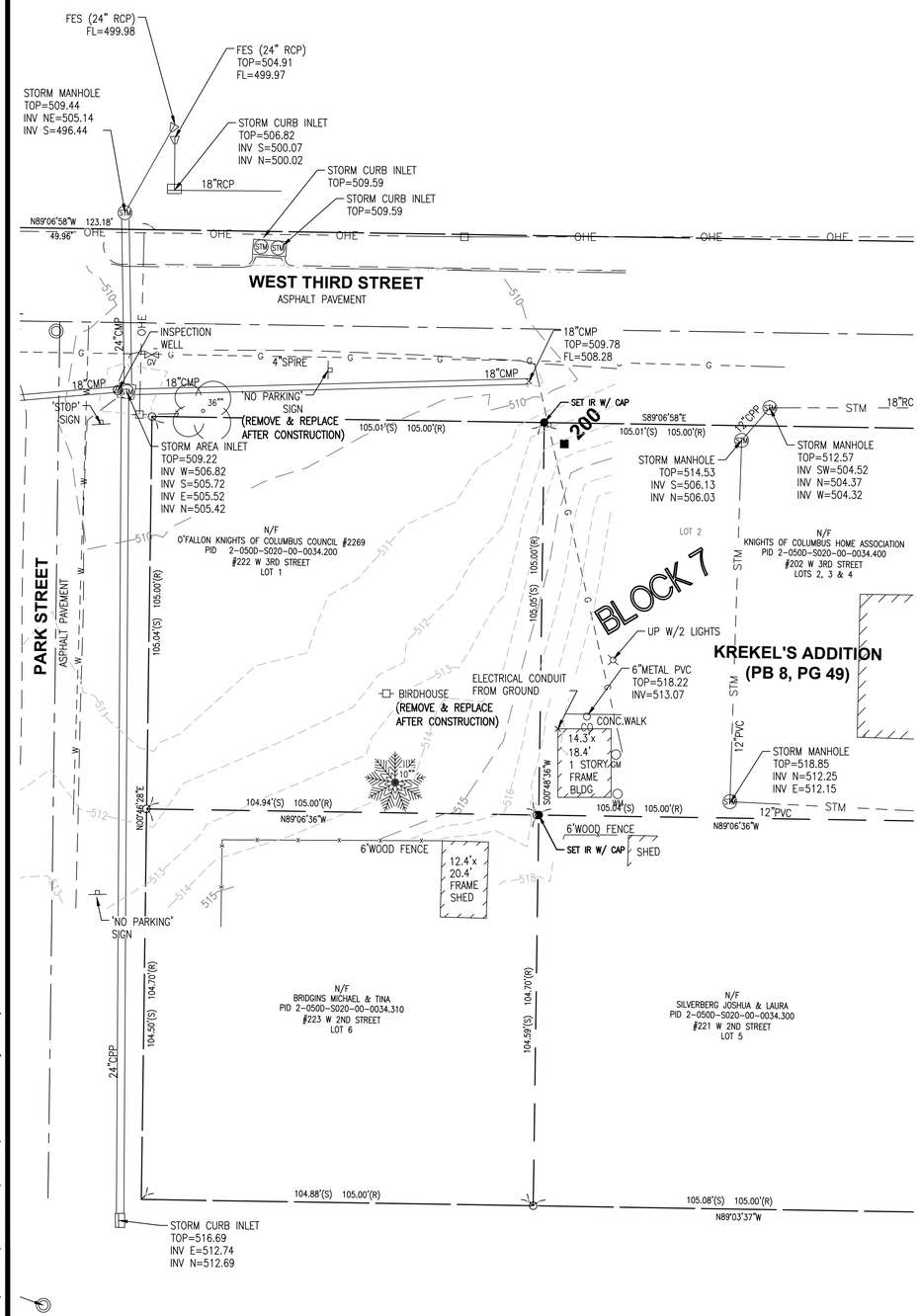
C1

P:\2022\221140.002\4 CADD - DWG\4.1 Comm\221140.002-PLANS.dwg Plotted By: bbrown

UTILITY DISCLAIMER

THE TYPE, SIZE, AND LOCATION OF UTILITIES AS DELINEATED IN THESE TOPOGRAPHIC LAND SURVEY DOCUMENTS AND/OR CIVIL ENGINEERING DESIGN DOCUMENTS HAVE BEEN DETERMINED BY REVIEW OF AVAILABLE EXISTING "AS-BUILT" OR RECORD DRAWINGS; FIELD SURVEY OF MISSOURI 811 MARKED UTILITIES; OR FIELD SURVEY OF ABOVE GROUND SURFACE UTILITY FEATURES. THE OWNER AND ENGINEER HAVE NOT UNDERTAKEN SUBSURFACE EXPLORATORY INVESTIGATIONS TO CONFIRM OR VERIFY THE UTILITIES SHOWN ON THESE DOCUMENTS, THEREFORE THEIR EXACT LOCATION, SIZE AND FUNCTION MUST BE CONSIDERED APPROXIMATE AND MUST BE FIELD CONFIRMED BY THE CONTRACTOR.

THE ENGINEER AND OWNER FURTHER DO NOT WARRANT THAT ALL UTILITIES HAVE BEEN ILLUSTRATED ON THESE DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTACTING MISSOURI 811 FOR FIELD VERIFICATION OF ALL UTILITIES ON THE SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF THE CONTRACTOR DETERMINES THAT SUBSTANTIAL DISCREPANCY EXISTS BETWEEN FIELD VERIFIED UTILITIES AND THESE PLANS WHICH WOULD SIGNIFICANTLY AFFECT THE FUNCTION, COST, OR PERFORMANCE OF THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND PROJECT DIRECTION.




SURVEY NOTES:

ALL BUILDINGS, SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN.

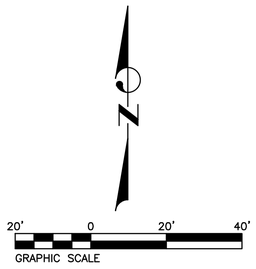
THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS DELINEATED IN THESE DOCUMENTS, HAVE BEEN DETERMINED BY FIELD SURVEY OF ABOVE GROUND SURFACE UTILITY FEATURES, AND MISSOURI-811 (TICKET NUMBER 260432949) MARKED UTILITIES. THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

| UTILITY NAME | UTILITY TYPE |
|---|---|
| AMEREN MISSOURI ELECTRIC | E |
| BRIGHTSPEED | T |
| CHARTER COMMUNICATIONS | E, FO, TV |
| CITY OF O'FALLON WATER & SEWER | S, SS, SL, TS, W |
| SPIRE MO EAST | G |

BASIS OF BEARINGS AND COORDINATES: ALL DISTANCES AND COORDINATES ARE GROUND (GRID SCALED) VALUES, REFERENCED TO MISSOURI STATE PLANE COORDINATE SYSTEM, EAST ZONE 2401.
STATION: MODOT OFALLON CORS ARP
CORS ID: MOOF
PID: DM4688
NORTHING: 324,131.153 (M)
EASTING: 232,983.488 (M)
TO CONVERT TO GRID, MULTIPLY BY A COMBINED SCALE FACTOR OF 0.99991807

PROJECT LOCATION:
LINEAR UNIT: US SURVEY FEET (SFT)
GEODETIC DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 (GEOID 18)
LATITUDE: N38 49'17.93136" NORTHING: 1088093.042 SFT
LONGITUDE: W90 41'57.72888" EASTING: 763408.059 SFT
HGT: 424.300 FT ELEV: 528.129 FT
CM SCALE FACTOR: 1.0000832323

| CONTROL POINT TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 200 | 1084888.591 | 762523.015 | 513.53 | SET IRON ROD W/CAP |
| 201 | 1084783.501 | 762372.449 | 512.63 | SET IRON ROD W/CAP |
| 202 | 1084608.415 | 762513.158 | 517.54 | SET IRON ROD W/CAP |
| 204 | 1084757.961 | 762809.528 | 525.85 | SET IRON ROD W/CAP |

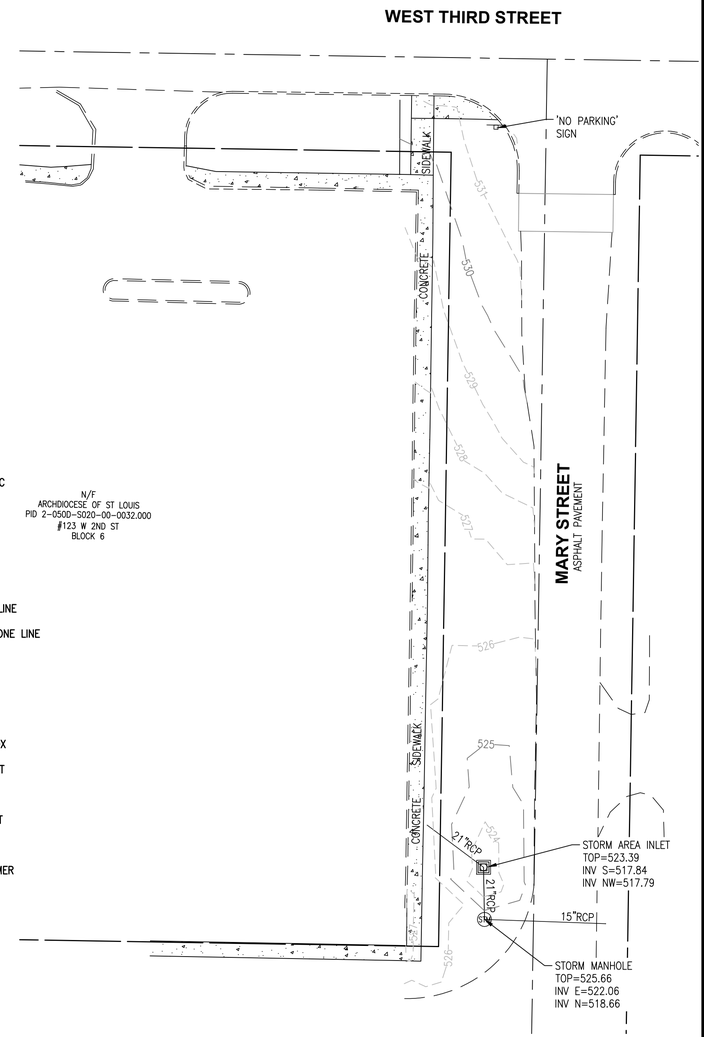



LINE LEGEND

- EXISTING EASEMENT
- EXISTING RIGHT OF WAY
- EXISTING BOUNDARY LINE
- EXISTING SETBACK
- EXISTING CONTOUR
- EXISTING CURB FLOW LINE
- EXISTING UNDERGROUND ELECTRIC (UE)
- EXISTING SANITARY SEWER LINE (SAN)
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE (W)
- EXISTING GAS LINE (G)
- EXISTING UNDERGROUND CABLE LINE (UC)
- EXISTING UNDERGROUND TELEPHONE LINE (UT)

SYMBOL LEGEND

- SANITARY – EXISTING MANHOLE
- STORM – EXISTING JUNCTION BOX (JB)
- STORM – EXISTING TYPE-M INLET
- WATER – EXISTING VALVE (WV)
- WATER – EXISTING FIRE HYDRANT
- TELE – EXISTING CABLE TV BOX (CABL)
- ELECTRIC – EXISTING TRANSFORMER (TR)





TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES
ILLINOIS: SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI: ST. LOUIS, COLUMBIA
TENNESSEE: NASHVILLE, CHATTANOOGA

THOUVENOT, WADE & MOERCHEN, INC.
ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

EXISTING CONDITIONS & DEMOLITION PLAN

C2

P:\2022\221140.002\4 CADD - DWG\4-1 Comm\221140.002-PLANS.dwg Plotted By: bbrown

## PARKING DATA

PROVIDED:

| | | |
|---|---|---|
| STANDARD PARKING SPACES (19' X 9') | PARK STREET | 16 SPACES |
| | MARY STREET | 19 SPACES |
| | 3RD & MAIN | 19 SPACES |

PARKING PROVIDED: 54 SPACES

PARKING AT 3RD AND MAIN STREET
PRIOR TO PROJECT = 53 SPACES

NOTE:

ALL RADIUS DIMENSIONS SHOWN ARE TO THE BACK OF THE CURB.

NO RETAINING WALLS ON PROJECT.

CONTRACTOR SHALL CONSTRUCT 6' PRIVACY FENSE 1' OFF OF THE PROPERTY LINE.

CONTRACTOR SHALL PLACE EVERGREEN TREES AT 20' MIN. ON CENTER AND STAGGERED 8' FROM ONE ROW TO THE NEXT.

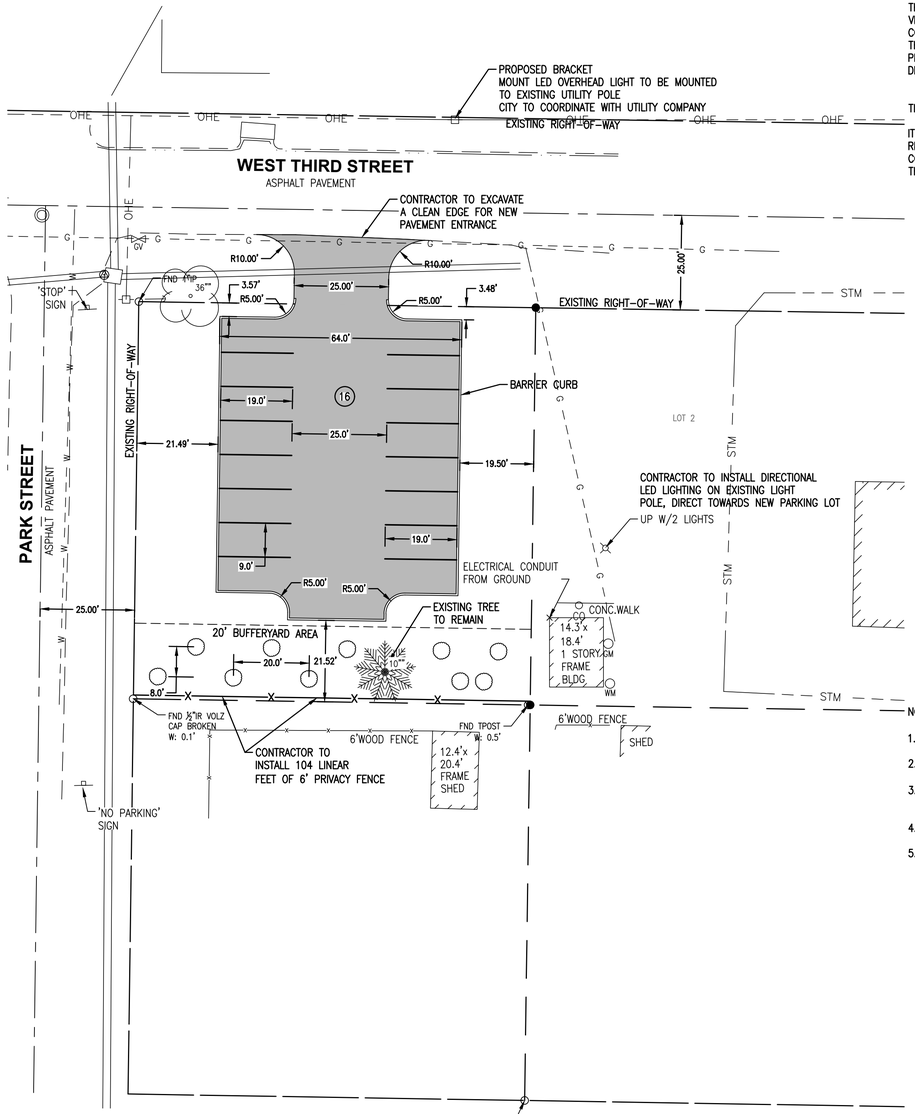
UTILITY DISCLAIMER

THE TYPE. SIZE, AND LOCATION OF UTILITIES AS DELINEATED IN THESE TOPOGRAPHIC LAND SURVEY DOCUMENTS AND/OR CIVIL ENGINEERING DESIGN DOCUMENTS HAVE BEEN DETERMINED BY REVIEW OF AVAILABLE EXISTING "AS-BUILT" OR RECORD DRAWINGS; FIELD SURVEY OF MISSOURI 811 MARKED UTILITIES; OR FIELD SURVEY OF ABOVE GROUND SURFACE UTILITY FEATURES. THE OWNER AND ENGINEER HAVE NOT UNDERTAKEN SUBSURFACE EXPLORATORY INVESTIGATIONS TO CONFIRM OR VERIFY THE UTILITIES SHOWN ON THESE DOCUMENTS, THEREFORE THEIR EXACT LOCATION, SIZE AND FUNCTION MUST BE CONSIDERED APPROXIMATE AND MUST BE FIELD CONFIRMED BY THE CONTRACTOR.

THE ENGINEER AND OWNER FURTHER DO NOT WARRANT THAT ALL UTILITIES HAVE BEEN ILLUSTRATED ON THESE DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTACTING MISSOURI 811 FOR FIELD VERIFICATION OF ALL UTILITIES ON THE SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF THE CONTRACTOR DETERMINES THAT SUBSTANTIAL DISCREPANCY EXISTS BETWEEN FIELD VERIFIED UTILITIES AND THESE PLANS WHICH WOULD SIGNIFICANTLY AFFECT THE FUNCTION, COST, OR PERFORMANCE OF THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND PROJECT DIRECTION.

TITLE DISCLAIMER

IT IS NOT WARRANTED THAT THESE DRAWINGS CONTAIN COMPLETE INFORMATION REGARDING EASEMENTS, RESERVATIONS, RESTRICTIONS, RIGHTS-OF-WAY, BUILDING LINE SETBACKS, AND OTHER ENCUMBRANCES. FOR COMPLETE INFORMATION, A TITLE OPINION OR COMMITMENT FOR TITLE INSURANCE SHOULD BE OBTAINED AND THOROUGHLY REVIEWED.




HATCH LEGEND

PROPOSED CONCRETE PAVEMENT

OR

PROPOSED STANDARD DUTY ASPHALT PAVEMENT

LINE LEGEND

- PROPOSED BOUNDARY LINE
- EXISTING EASEMENT
- EXISTING RIGHT OF WAY
- EXISTING BOUNDARY LINE
- EXISTING SETBACK

SYMBOL LEGEND

- STM — STORM – EXISTING MANHOLE
- JB — STORM – EXISTING JUNCTION BOX
- STORM – EXISTING STORM AREA INLET

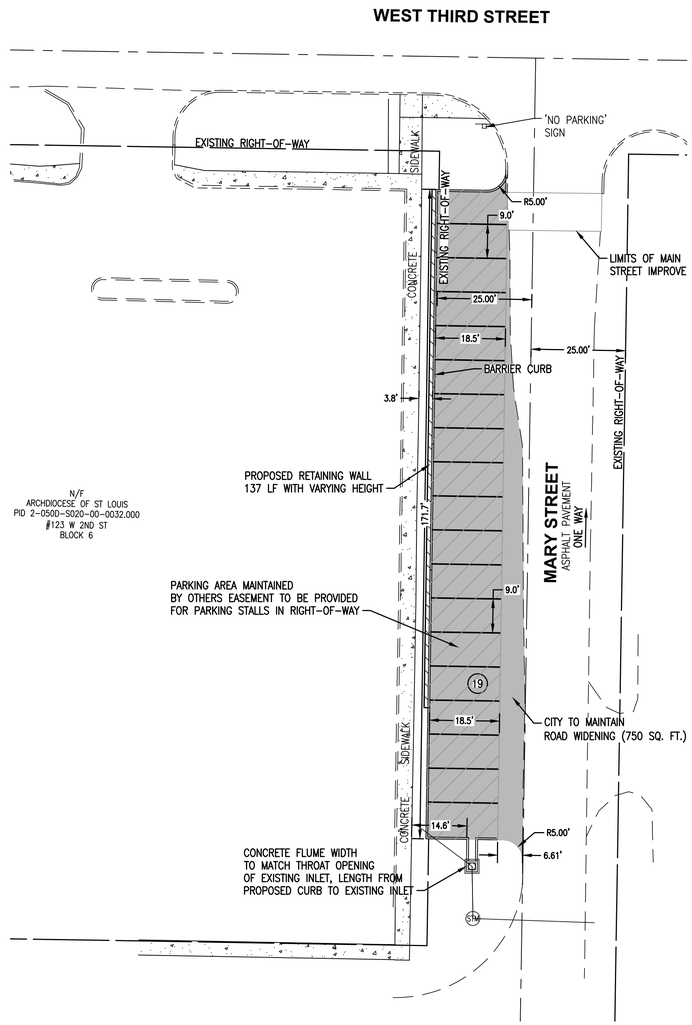
NOTES:

1. PLANTING AREA WILL BE APPROXIMATELY 20' WIDE.
2. THE BUFFER YARD SHALL CONSIST OF 10 EVERGREEN SHRUBS PER 100 LINEAR FEET.
3. THE EVERGREEN BUFFER MUST BE CAPABLE OF REACHING A MINIMUM HEIGHT OF 6' WITHIN 3 GROWING YEARS OF PLANTING.
4. EVERGREEN SHRUBS SHALL BE AT LEAST 3 FEET IN HEIGHT AT TIME OF PLANTING.
5. EVERGREEN SHRUBS:
   ILEX 'EMILY BRUNER' (EMILY BRUNER HOLLY)
   MYRICA CERIFERA (WAX MYRTLE)
   VIBURNUM AWABUKI 'CHINDO' (CHINDO VIBURNUM)
   JUNIPERUS VIRGINIANA (RED CEDAR)
   ILEX VOMITORIA (YAUPON HOLLY)

N

20' 0 20' 40'

GRAPHIC SCALE





TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES

ILLINOIS | SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI | ST. LOUIS, COLUMBIA
TENNESSEE | NASHVILLE, CHATTANOOGA

THOUVENOT, WADE & MOERCHEN, INC.
ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| △ | | |
| △ | | |
| △ | | |
| △ | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

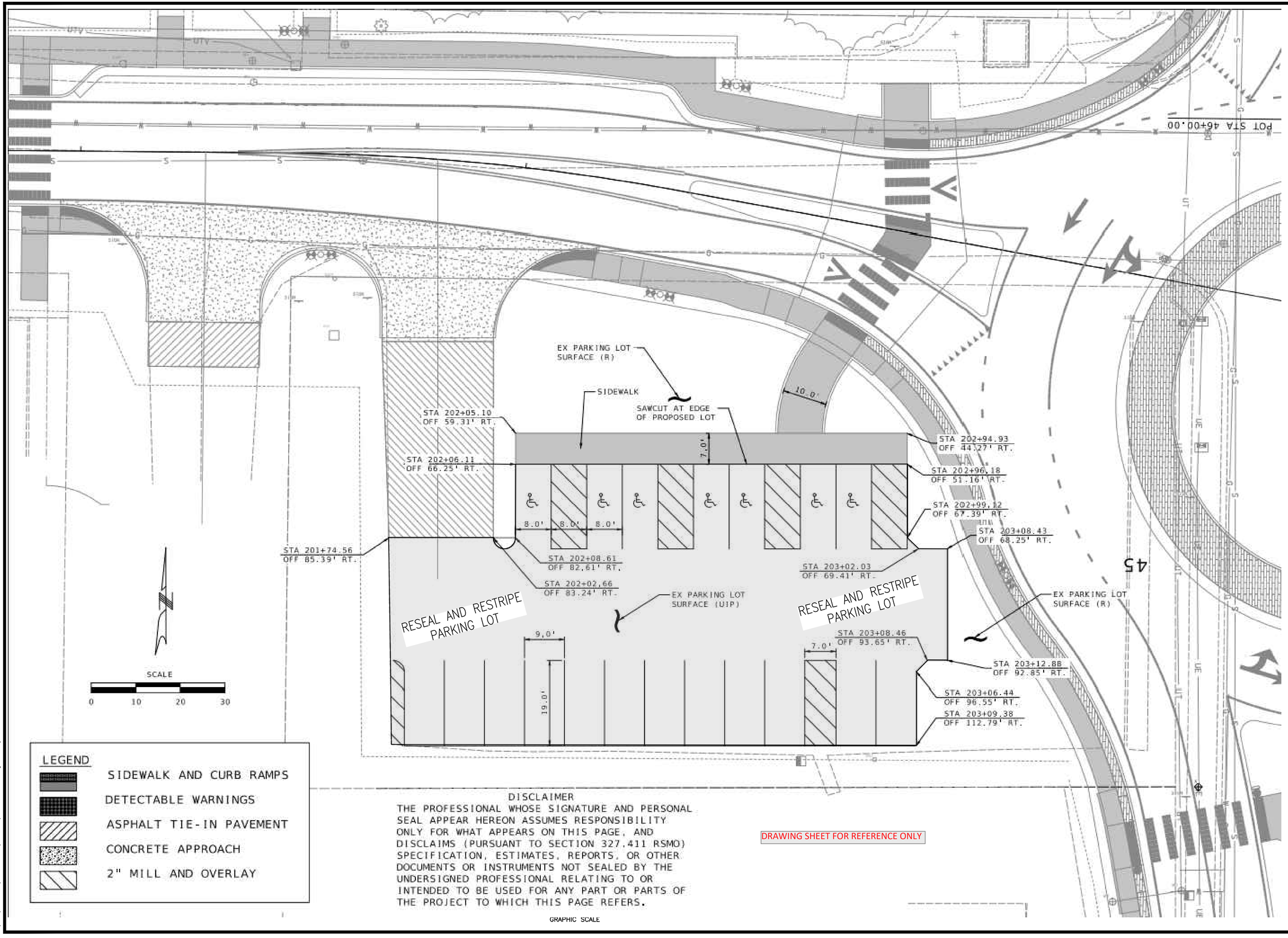
KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

SITE PLAN

C3

P:\2022\221140.002\4 CADD - DWG\4.1 Comm\221140.002-PLANS.dwg Plotted By: bbrown




DISCLAIMER

THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) SPECIFICATION, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

DRAWING SHEET FOR REFERENCE ONLY

GRAPHIC SCALE

P:\2022\221140.002\4 CADD - DWG\4.1 Comm\221140.002-PLANS.dwg Plotted By: bbrown


TWM

CONSULTING ◆ ENGINEERING
GEOSPATIAL ◆ SERVICES

ILLINOIS | SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI | ST. LOUIS, COLUMBIA
TENNESSEE | NASHVILLE, CHATTANOOGA

**THOUVENOT, WADE & MOERCHEN, INC.**

ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| △ | | |
| △ | | |
| △ | | |
| △ | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

3RD ST PARKING
LOT LAYOUT

**C3.1**

SF DENOTES SILT FENCE

ISP DENOTES INLET SEDIMENT PROTECTION

LIMITS OF DISTURBANCE

THE PRIMARY REQUIREMENT OF THE DNR PERMIT IS THE DEVELOPMENT AND IMPLEMENTATION OF A SWPPP WHICH INCORPORATES SITE SPECIFIC PRACTICES TO BEST MINIMIZE THE SOIL EXPOSURE, SOIL EROSION, AND THE DISCHARGE OF POLLUTANTS. THE CONTRACTOR, SHALL FULLY IMPLEMENT THE PROVISIONS OF THE SWPPP, INCLUDING THE EROSION CONTROL PLAN PROVIDED IN THESE PLANS, THROUGHOUT THE TERM OF THE LAND DISTURBANCE PROJECT.

THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THE SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.

THE CONTRACTOR SHALL AMEND AND UPDATE THE SWPPP AS APPROPRIATE DURING THE TERM OF LAND DISTURBANCE ACTIVITY.

THE CONTRACTOR SHALL NOT DISTURB ADJACENT PROPERTIES OUTSIDE THE SHOWN EASEMENTS THAT ARE NOT THE PROPERTY OF THE OWNER UNLESS WRITTEN AUTHORIZATION IS OBTAINED.

ALL PERIMETER SILT FENCE AND OFF-SITE INLET PROTECTION TO BE INSTALLED PRIOR TO ANY GRADING AND MAINTAINED UNTIL PAVEMENT IS PLACED AND VEGETATION IS ESTABLISHED, AS NECESSARY TO CONTROL EROSION OF BARE SOIL. OFFSITE INLET SEDIMENT PROTECTION TO BE INSTALLED PRIOR TO ANY GRADING.

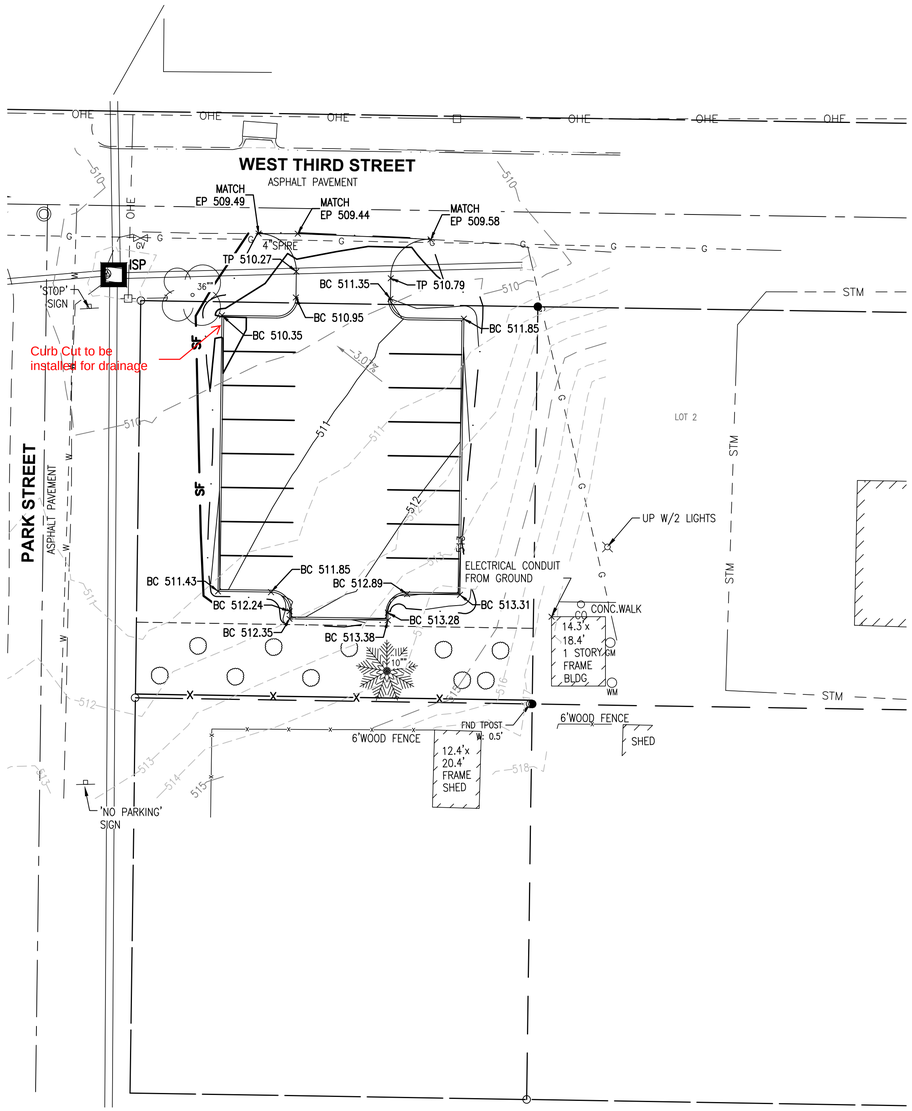
THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND THE STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.

EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.

ALL AREAS UPON REACHING FINAL GRADE SHALL BE BROUGHT TO FINAL SURFACE FINISH GRADE AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70% (MINIMUM) IS ESTABLISHED.

WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE INSTALLED AT 50' INTERVALS A 5' LENGTH AT 90 DEGREES TO THE MAIN LENGTH.

THE TOTAL DISTURBED AREA = ± 0.3 ACRES.




LINE LEGEND

PROPOSED BOUNDARY LINE

EXISTING EASEMENT

EXISTING RIGHT OF WAY

EXISTING BOUNDARY LINE

XXX PROPOSED CONTOUR

SYMBOL LEGEND

STM STORM – EXISTING MANHOLE

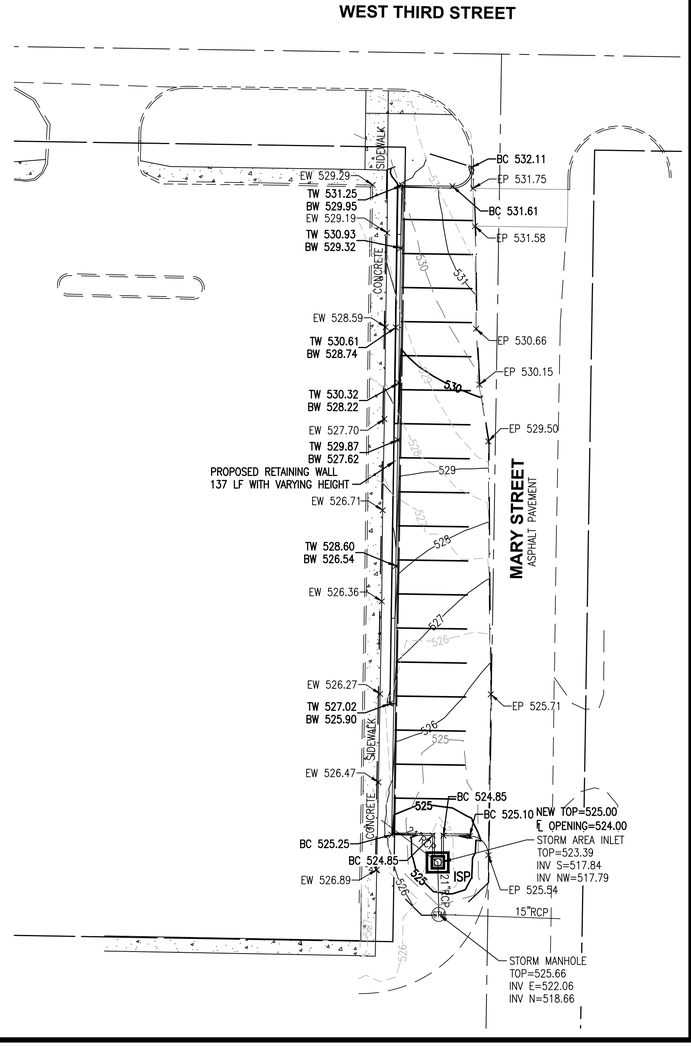
JB STORM – EXISTING JUNCTION BOX

STORM – EXISTING STORM AREA INLET

N

20' 0 20' 40'

GRAPHIC SCALE





TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES

ILLINOIS | SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI | ST. LOUIS, COLUMBIA
TENNESSEE | NASHVILLE, CHATTANOOGA

THOUVENOT, WADE & MOERCHEN, INC.
ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:

DATE SIGNED:

LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

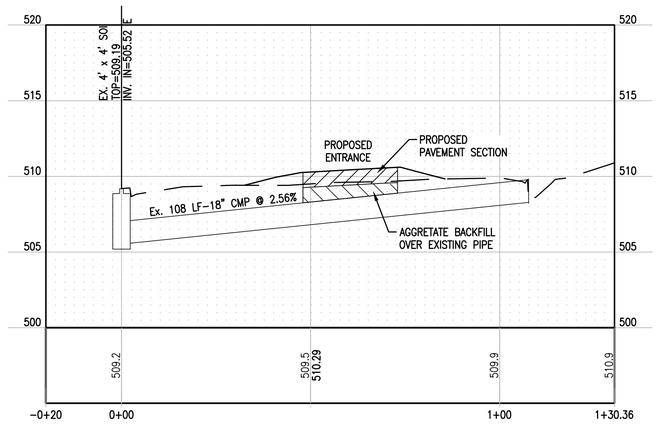
TITLE:

GRADING & EROSION CONTROL PLAN

C4

P:\2022\221140.002\4 CADD - DWG\4.1 Comm\221140.002-PLANS.dwg Plotted By: bbrown

## EXISTING STORM SEWER PARK ST (−0+20.00 – 1+30.36)




NOTES:

1. CONTRACTOR TO COORDINATE ELECTRICAL SERVICE WITH AMEREN UE.
2. CONTRACTOR TO COORDINATE GAS SERVICE WITH SPIRE.
3. CONTRACTOR TO COORDINATE TELEPHONE SERVICE WITH PROVIDER OF CHOICE.

UTILITY DISCLAIMER

THE TYPE, SIZE, AND LOCATION OF UTILITIES AS DELINEATED IN THESE TOPOGRAPHIC LAND SURVEY DOCUMENTS AND/OR CIVIL ENGINEERING DESIGN DOCUMENTS HAVE BEEN DETERMINED BY REVIEW OF AVAILABLE EXISTING "AS-BUILT" OR RECORD DRAWINGS; FIELD SURVEY OF MISSOURI 811 MARKED UTILITIES; OR FIELD SURVEY OF ABOVE GROUND SURFACE UTILITY FEATURES. THE OWNER AND ENGINEER HAVE NOT UNDERTAKEN SUBSURFACE EXPLORATORY INVESTIGATIONS TO CONFIRM OR VERIFY THE UTILITIES SHOWN ON THESE DOCUMENTS, THEREFORE THEIR EXACT LOCATION, SIZE AND FUNCTION MUST BE CONSIDERED APPROXIMATE AND MUST BE FIELD CONFIRMED BY THE CONTRACTOR.

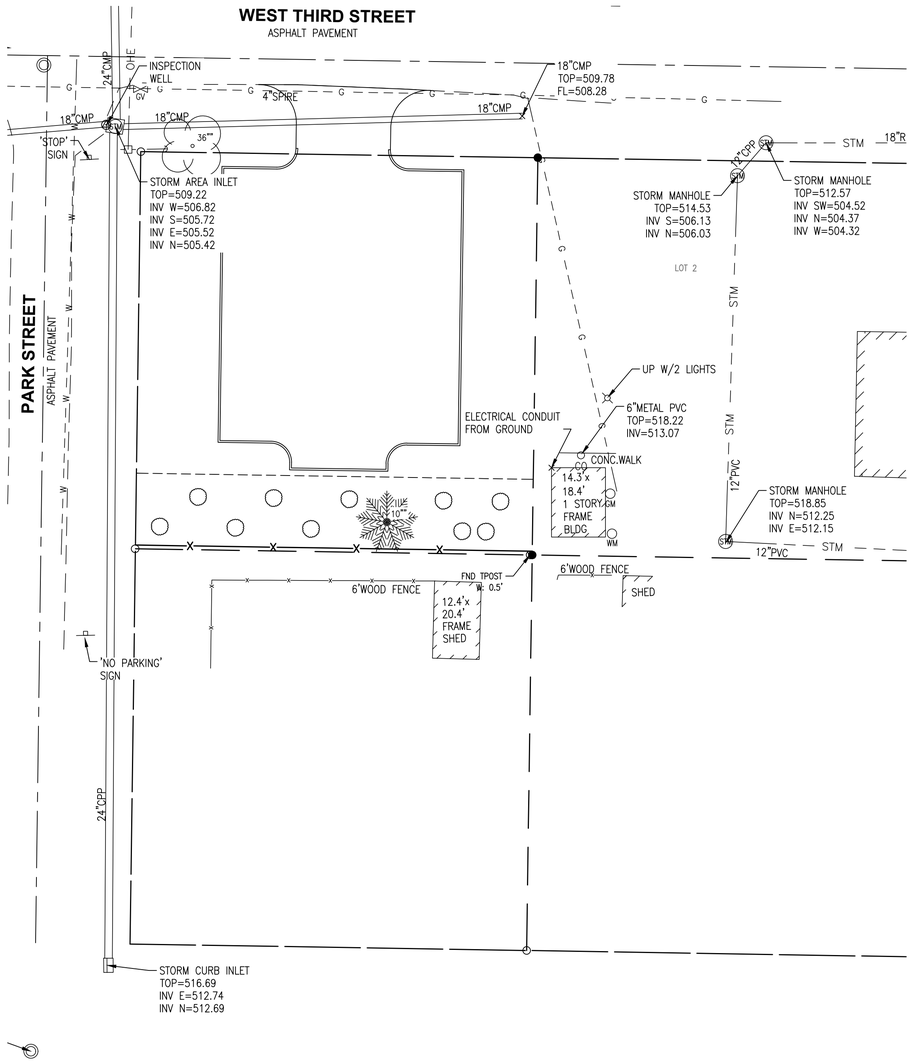
THE ENGINEER AND OWNER FURTHER DO NOT WARRANT THAT ALL UTILITIES HAVE BEEN ILLUSTRATED ON THESE DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTACTING MISSOURI 811 FOR FIELD VERIFICATION OF ALL UTILITIES ON THE SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF THE CONTRACTOR DETERMINES THAT SUBSTANTIAL DISCREPANCY EXISTS BETWEEN FIELD VERIFIED UTILITIES AND THESE PLANS WHICH WOULD SIGNIFICANTLY AFFECT THE FUNCTION, COST, OR PERFORMANCE OF THE PROJECT, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND PROJECT DIRECTION.

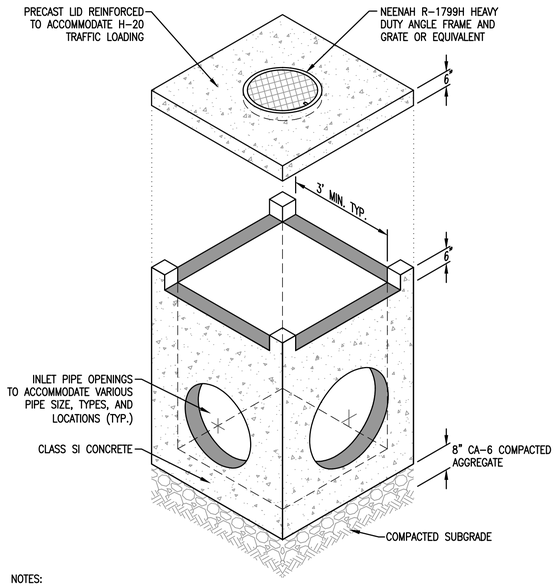
LINE LEGEND

- PROPOSED BOUNDARY LINE
- EXISTING EASEMENT
- EXISTING RIGHT OF WAY
- EXISTING BOUNDARY LINE
- EXISTING SETBACK

SYMBOL LEGEND

- STM — STORM – EXISTING MANHOLE
- STORM – EXISTING JUNCTION BOX
- STORM – EXISTING STORM AREA INLET

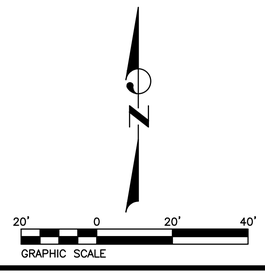


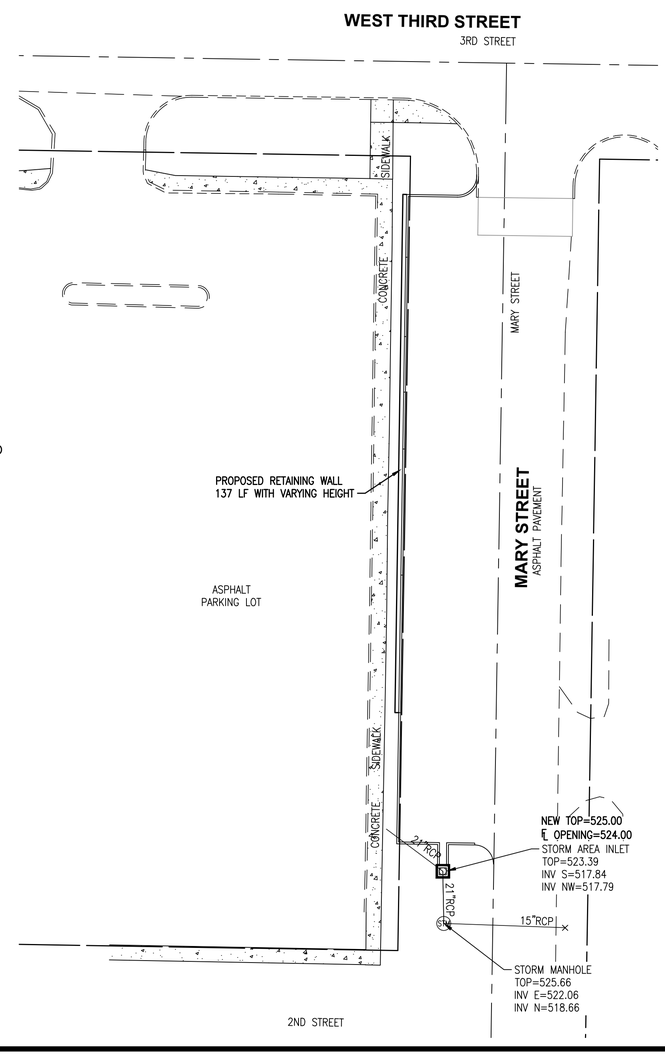




NOTES:

1. PRECAST OPEN THROAT INLETS SHALL CONFORM TO ASTM C-478.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL STORM SEWER STRUCTURES.
3. MINIMUM INSIDE DIMENSION OF OPEN THROAT INLETS SHALL BE 3' X 3'.
4. ALL INLETS SHALL HAVE A MINIMUM OF 6" BETWEEN OUTSIDE OF PIPE AND ADJACENT WALL OF STRUCTURE.
5. STORM SEWER PIPE TO BE SEALED WITH NON-SHRINK GROUT AT PIPE/INLET INTERFACE.

**OPEN THROAT INLET (4 - SIDES)**





TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES

| | |
|---|---|
| ILLINOIS | SWANSEA<br>COLUMBIA<br>GLEN CARBON<br>PEORIA<br>DECATUR |
| MISSOURI | ST. LOUIS<br>COLUMBIA |
| TENNESSEE | NASHVILLE<br>CHATTANOOGA |

**THOUVENOT, WADE & MOERCHEN, INC.**

ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM


| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| △ | | |
| △ | | |
| △ | | |
| △ | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

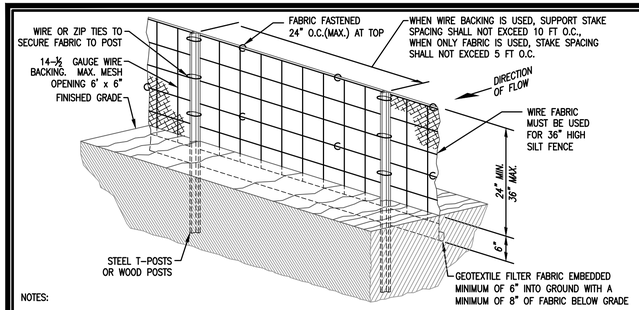
KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

UTILITY PLAN

**C5**

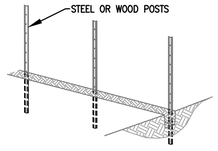
P:\2022\221140.002\4 CADD - DWG\4-1 Comm\221140.002-PLANS.dwg Plotted By: bbrown




NOTES:

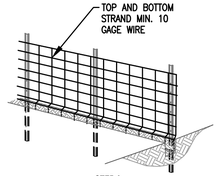
1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE GROUND COVER IS REMOVED WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE. A RUN OF SILT FENCE SHOULD FOLLOW THE CONTOUR AS CLOSE AS POSSIBLE WITH THE ENDS TURNED UPSLOPE TO POND WATER BEHIND THE FENCE.
2. THE SILT FENCE SHOULD BE BURIED AT LEAST 6" DEEP AND HAVE A TOTAL OF 8" OF FABRIC BELOW THE GROUND. THIS CAN BE ACCOMPLISHED WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH.
3. THE STAKES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE FABRIC. THE STAKES SHALL BE A MINIMUM OF 2" X 2" NOMINAL (1-1/2" X 1-1/2" ACTUAL) HARDWOOD STAKE OF SOUND QUALITY. WOOD POSTS SHALL BE A MINIMUM OF 6' IN HEIGHT. WIRE FABRIC SHALL BE FASTENED TO WOODEN POST WITH NOT LESS THAN #9 WIRE STAPLES 1-1/2' INCHES LONG. T-POSTS MAY BE SUBSTITUTED IF GROUND CONDITIONS REQUIRE. STEEL POSTS SHALL BE A MINIMUM OF 5' IN HEIGHT AND SHALL BE THE SELF FASTENER ANGLE STEEL TYPE.
4. WHERE TWO SILT FENCE SECTIONS ARE COMBINED INTO ONE RUN, THE END STAKES SHALL BE CONNECTED TOGETHER, NOT SIMPLY OVERLAPPED.
5. WIRE SHALL BE A MINIMUM OF 32 INCHES IN WIDTH AND SHALL BE 6" x 6".
6. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH. FABRIC THAT DETERIORATES TO SUCH EXTENT THAT ITS EFFECTIVENESS IS REDUCED SHALL BE REPLACED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.
7. CONTRACTOR SHALL REVIEW SILT FENCE PERIODICALLY AND AFTER EACH RAINFALL OCCURRENCE. ANY NECESSARY REPAIRS OR CLEAN-UP TO MAINTAIN THE EFFECTIVENESS OF THE DEVICE SHOULD BE MADE IMMEDIATELY.
8. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE 1) AN ADDITIONAL RUN OF SILT FENCE SHALL BE PLACED UPSTREAM, 2) THE LAYOUT OF THE FENCE SHALL BE CHANGED, 3) ACCUMULATED SEDIMENT SHALL BE REMOVED OR 4) OTHER PRACTICES SHOULD BE IMPLEMENTED.
9. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR ONCE STABILIZATION OR SUFFICIENT GROUND COVER IS ACHIEVED AS DIRECTED BY THE ENGINEER.

DRIVE STEEL POSTS 18" INTO THE GROUND @ 5' O.C. (w/WIRE BACK) OR 10' O.C. (w/o WIRE BACK) AND EXCAVATE A 6" x 6" TRENCH UPHILL ALONG THE LINE OF POSTS.



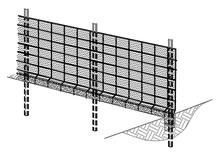

STEP 1

ATTACH WIRE FENCE TO POSTS AND EXTEND THE BOTTOM OF THE FENCE 6" INTO THE EXCAVATED TRENCH



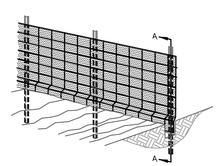

STEP 2

ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND THE BOTTOM OF THE FABRIC 8" MINIMUM INTO THE TRENCH



STEP 3

BACKFILL THE TRENCH AND COMPACT THE SOIL FIRMLY TO ANCHOR THE BOTTOM OF THE SILT FENCE. BURIED FABRIC SHOULD NOT BE VISIBLE.



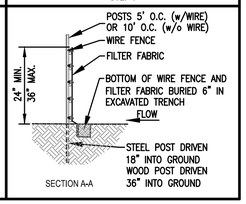

STEP 4

CRITERIA FOR USAGE:

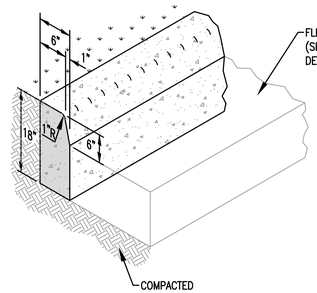
1. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUNOFF TO SILT FENCE SHALL BE AS FOLLOWS:

| PER CENT SLOPE | MAX. |
|---|---|
| SPACING (FT.) | |
| 25 | 50 |
| 20 | 75 |
| 15 | 125 |
| 10 | 175 |
| < 10 | 200 |

2. MAX. DRAINAGE AREA FOR FLOW TO SILT FENCE SHALL NOT EXCEED 0.5 ACRES PER 100 FT. OF FENCE.




## SILT FENCE




PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM OF 3,500 psi COMPRESSIVE STRENGTH AT 28 DAYS IN ACCORDANCE WITH ASTM C39.

SUBGRADE SHALL BE THOROUGHLY COMPACTED AT THE PROPER LINE AND GRADE TO 95% OF ASTM C698 MAXIMUM DENSITY PRIOR TO PLACEMENT OF THE CONCRETE. SUBGRADE SHALL BE MOISTENED JUST BEFORE THE CONCRETE IS TO BE PLACED.

WHEN SUB-GRADE IS DISTURBED, 6" OF CA-6 AGGREGATE SHALL BE COMPACTED BENEATH THE CURB TO 100% OF ASTM C698 MAXIMUM DENSITY.

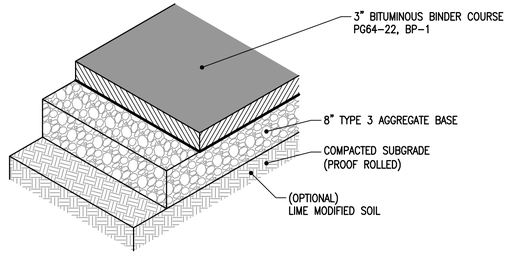
CONTRACTION JOINTS IN CONCRETE CURB SHALL BE A CONTINUATION OF THE JOINTS IN THE ADJACENT PORTLAND CEMENT CONCRETE PAVEMENT OR SPACED AT A MAXIMUM DISTANCE OF FIFTEEN (15) FEET. CONTRACTION JOINTS SHALL ALSO BE PROVIDED AT ALL RADIUS POINT LOCATIONS AT INTERSECTIONS, ISLANDS, ETC.

CONTRACTION JOINT SHALL BE CUT TO A DEPTH OF 2" AND TO A MAXIMUM WIDTH OF 1/8".

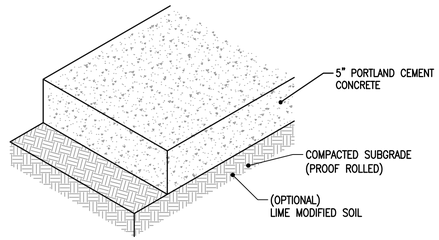
3/4" EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET. AT POINTS WHERE THE PROPOSED OF EXISTING SIDEWALK OR DRIVEWAY PAVEMENT OCCUPIES THE ENTIRE SPACE BETWEEN THE PROPOSED CURB AND AN ADJACENT BUILDING OR PERMANENT STRUCTURE, ONE (1) INCH PREFORMED EXPANSION JOINT SHALL BE PLACED BETWEEN THE SIDEWALK, BUILDING, OR DRIVEWAY PAVEMENT AND THE PROPOSED CURB. THE EXPANSION JOINT MATERIAL SHALL EXPAND THE ENTIRE DEPTH OF THE SIDEWALK, OR DRIVEWAY PAVEMENT, OR TO SUCH DEPTH AS WILL ALLOW ONE (1) INCH EXPANSION BETWEEN THE PROPOSED CURB AND ADJACENT SIDEWALK, BUILDING, OR DRIVEWAY PAVEMENT.

CONTRACTION JOINTS SHALL BE SEALED WITH POLYSULFIDE JOINT SEALANT.

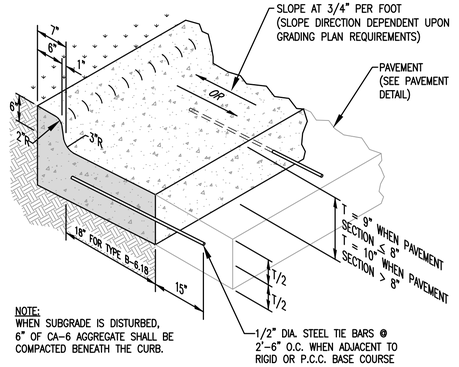
## BARRIER CURB ADJACENT TO FLEXIBLE PAVEMENT




## STANDARD HMA PAVEMENT




## 5" PCC PAVEMENT




NOTE:
WHEN SUBGRADE IS DISTURBED, 6" OF CA-6 AGGREGATE SHALL BE COMPACTED BENEATH THE CURB.

PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM OF 3,500 psi COMPRESSIVE STRENGTH AT 28 DAYS IN ACCORDANCE WITH ASTM C39.

SUBGRADE SHALL BE THOROUGHLY COMPACTED AT THE PROPER LINE AND GRADE TO 95% OF ASTM C698 MAXIMUM DENSITY PRIOR TO PLACEMENT OF THE CONCRETE. SUBGRADE SHALL BE MOISTENED JUST BEFORE THE CONCRETE IS TO BE PLACED.

WHEN SUB-GRADE IS DISTURBED, 6" OF CA-6 AGGREGATE SHALL BE COMPACTED BENEATH THE CURB AND GUTTER TO 100% OF ASTM C698 MAXIMUM DENSITY.

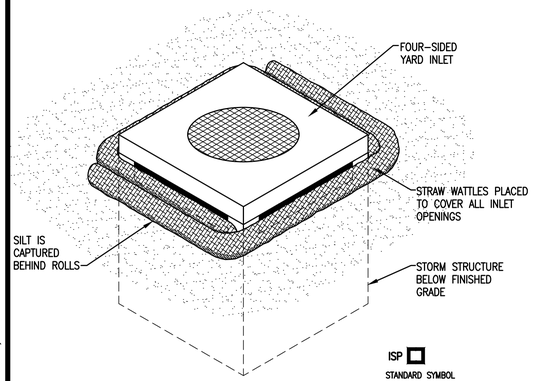
CONTRACTION JOINTS IN CONCRETE CURB AND GUTTER SHALL BE A CONTINUATION OF THE JOINTS IN THE ADJACENT PORTLAND CEMENT CONCRETE PAVEMENT OR SPACED AT A MAXIMUM DISTANCE OF FIFTEEN (15) FEET. CONTRACTION JOINTS SHALL ALSO BE PROVIDED AT ALL RADIUS POINT LOCATIONS AT INTERSECTIONS, ISLANDS, ETC.

CONTRACTION JOINT SHALL BE CUT TO A DEPTH EQUAL TO 1/3 THE THICKNESS OF THE GUTTER FLAG AND TO A MAXIMUM WIDTH OF 1/8".

3/4" EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET. AT POINTS WHERE THE PROPOSED OF EXISTING SIDEWALK OR DRIVEWAY PAVEMENT OCCUPIES THE ENTIRE SPACE BETWEEN THE PROPOSED CURB AND AN ADJACENT BUILDING OR PERMANENT STRUCTURE, ONE (1) INCH PREFORMED EXPANSION JOINT SHALL BE PLACED BETWEEN THE SIDEWALK, BUILDING, OR DRIVEWAY PAVEMENT AND THE PROPOSED CURB. THE EXPANSION JOINT MATERIAL SHALL EXPAND THE ENTIRE DEPTH OF THE SIDEWALK, OR DRIVEWAY PAVEMENT, OR TO SUCH DEPTH AS WILL ALLOW ONE (1) INCH EXPANSION BETWEEN THE PROPOSED CURB AND ADJACENT SIDEWALK, BUILDING, OR DRIVEWAY PAVEMENT.

CONTRACTION JOINTS SHALL BE SEALED WITH POLYSULFIDE JOINT SEALANT.

## COMBINATION CONCRETE CURB AND GUTTER B-6.18

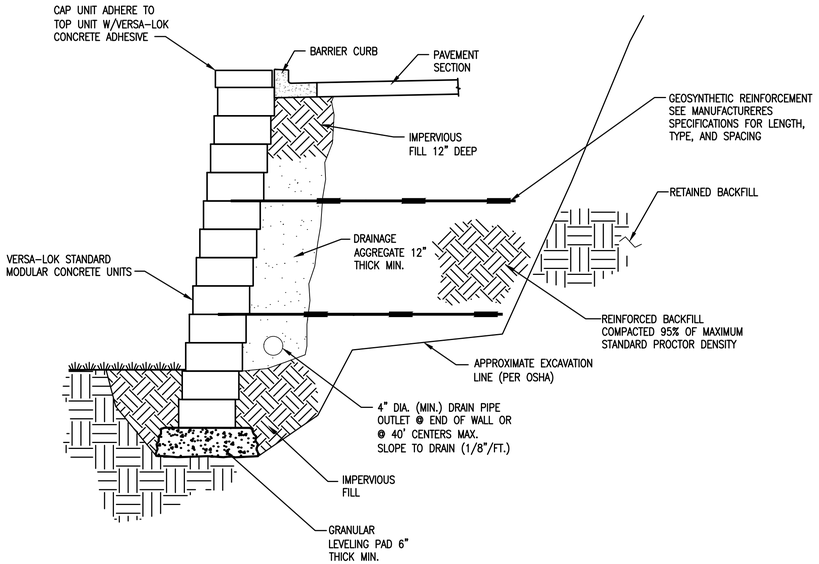



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. FIBER ROLLS SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT STORM EVENT TO CLEAR AND DISPOSE OF SEDIMENT AND DEBRIS.

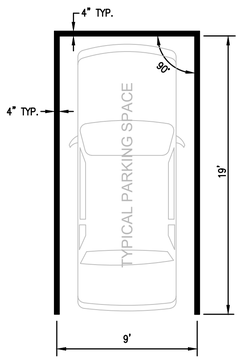
SPECIFICATIONS:

WATTLES SHALL BE A STRAW-FILLED TUBE OF FLEXIBLE NETTING MATERIAL. IT SHALL BE A MACHINE PRODUCED TUBE OF COMPACTED RICE STRAW THAT IS CERTIFIED WEED FREE FORAGE, BY A MANUFACTURER WHOSE PRINCIPAL BUSINESS IS WATTLE MANUFACTURING. THE NETTING SHALL CONSIST OF SEAMLESS, HIGH DENSITY POLYETHYLENE, AND ETHYL VINYL ACETATE AND CONTAIN ULTRAVIOLET LIGHT INHIBITORS. THE WATTLE SHALL HAVE A MINIMUM MASS PER UNIT WEIGHT OF 1.6 LBS./FT., A MINIMUM DIAMETER OF 8.0 – 9.0 INCHES, A MINIMUM NET STRAND THICKNESS OF 0.03 INCHES, A MINIMUM NET KNOT THICKNESS OF 0.055 INCHES AND A MINIMUM NETTING UNIT WEIGHT OF 0.35 OUNCES/FOOT. THE SEDIMENT RETENTION CAPACITY OF THE WATTLE SHALL BE 30 LBS/FOOT. FIBRE CONTENT SHALL BE 100 PERCENT CERTIFIED RICE STRAW WITH A MINIMUM LENGTH OF 3.0.

## AREA INLET SEDIMENT PROTECTION




## REINFORCED RETAINING WALL




NOTE:

PAVEMENT MARKING TO BE PAINTED UTILIZING WHITE PAINT CLOSELY MATCHING COLOR CHIP 37925 OF FEDERAL STANDARD 595b APPLIED AT 20-mil WET FILM THICKNESS.

ALL SURFACES TO BE PAINTED SHALL BE CLEAN, DRY, AND AIR BLASTED PRIOR TO PAINTING.

## PAVEMENT MARKING

TWM
CONSULTING ENGINEERING
GEOSPATIAL SERVICES
ILLINOIS: SWANSEA, COLUMBIA, GLEN CARBON, PEORIA, DECATUR
MISSOURI: ST. LOUIS, COLUMBIA
TENNESSEE: NASHVILLE, CHATTANOOGA

THOUVENOT, WADE & MOERCHEN, INC.
ST. LOUIS OFFICE
3701 S. LINDBERGH BLVD.,
SUITE 100
ST. LOUIS, MO 63127
(573) 442-6474
WWW.TWM-INC.COM

| PROF. LICENSE | NUMBER |
|---|---|
| IL. PROF. DESIGN FIRM | 184-001220 |
| IL. PROF. ENGR. CORP. | 62-035370 |
| IL. PROF. STR. ENGR. CORP. | 81-005202 |
| IL. PROF. LAND SURV. CORP. | 048-000029 |
| KS. PROF. ENGR. FACILITY | E-3256 |
| MO. PROF. ENGR. CORP. | 001528 |
| MO. LAND SURVEYING CORP. | 000346 |
| TN. PROF. ENGR. FIRM | 8974 |

SEAL

STATE OF MISSOURI
MARSHA J. MALLER
NUMBER PE-2000155348
PROFESSIONAL ENGINEER

SIGNATURE:
DATE SIGNED:
LICENSE EXPIRATION: 12/31/2026

ISSUED FOR CITY REVIEW
APRIL 27, 2026

| REV. | DATE | DESCRIPTION |
|---|---|---|
| △ | | |
| △ | | |
| △ | | |
| △ | | |

| | |
|---|---|
| DRAWN BY: | BAB |
| DESIGNED BY: | BAB |
| CHECKED BY: | MJM |
| APPROVED BY: | MJM |
| PROJECT NO: | T221140.002 |

PROJECT:

KOC AND MARY ST PARKING LOTS
3RD STREET
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

TITLE:

SITE DETAILS

C6

P:\2022\221140.002\4 CADD - DWG\4.1 Comm\221140.002-PLANS.dwg Plotted By: bbrown

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 3. a.**

**Meeting Date:** 05/07/2026
**Re:** Site Plan for Grading/Stockpile Plan
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development **Division:** Planning
**Agenda Category:** New Business

**Item:**

The applicant, Pate Projects, is requesting approval of a Grading Plan for property at the corner of North Main Street and Ashford Place Drive. The applicant is proposing to clear and grade approximately 0.25 acres of the property to allow for stockpiling of dirt for the adjacent property which is currently under construction at 1204 North Main Street. That development is a 13,300 square foot retail center with Domino's Pizza as one of the tenants.

Staff is recommending **approval** of this grading plan with the following condition.

1. Any trees cut down shall be removed from the site, and not piled on-site.

**Recommendation:**

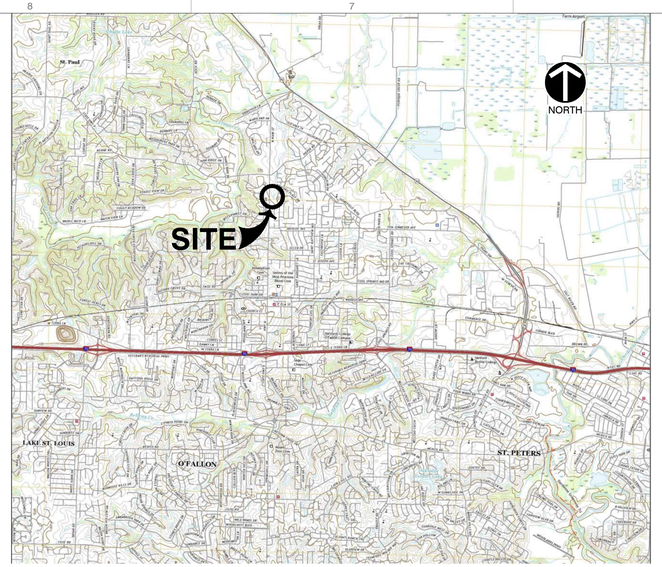
Staff recommends approval of the Grading/Stockpile Plan.

**Attachments**

Site Plan

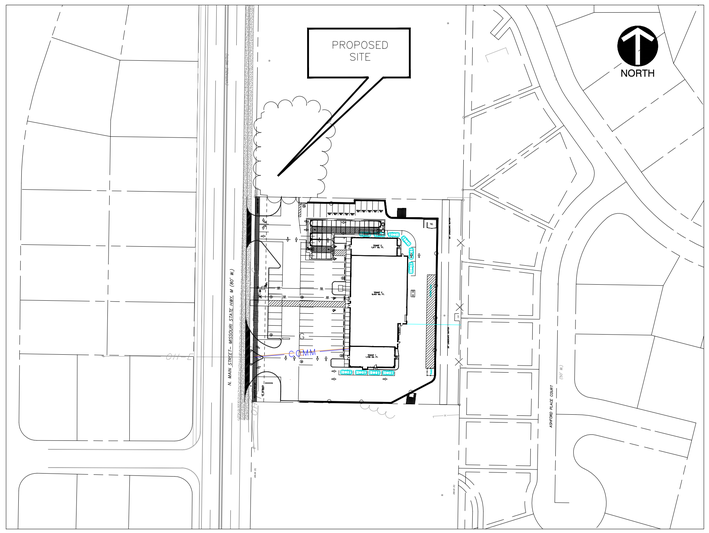
# STOCKPILE PLANS FOR
# North Main Properties

A Tract of Land Being a Part of Fractional Section 16, Township 47 North Range 3 East, City of O'Fallon, St. Charles, Missouri.




**SITE USGS AND VICINITY MAP**

U.S.G.S. 7.5 TOPOGRAPHIC MAP, "O'FALLON" QUADRANGLE, "MO", DATED "2021"
SCALE 1" = 4000'




**SITE MAP**

SCALE: 1"=100'

| SHEET INDEX | | |
|---|---|---|
| PAGE # | SHEET # | Sheet Description |
| 1 | C000 | COVER SHEET |
| 2 | C001 | NOTES |
| 3 | C100 | EXISITNG |
| 4 | C300 | GRADING PLAN |
| 5 | C900 | SWPPP PLAN |
| 6 | C901 | SWPPP DETAILS |

## Utility Contacts

**Sanitary Sewers**
City of O'Fallon
100 N. Main St.
O'Fallon, MO. 63366
Contact: 636-240-2000

**Water**
City of O'Fallon
100 N. Main St.
O'Fallon, MO. 63366
Contact: 636-240-2000

**Storm Sewer**
City of O'Fallon
100 N. Main St.
O'Fallon, MO. 63366
636-240-2000

**Electric**
Ameren Missouri
200 Callahan Road
Wentzville, MO. 63385
636-639-8312

**Gas**
Spire Gas
6400 Graham Road
St. Louis, MO. 63134
314-522-2297

**Telephone**
CenturyLink
1151 Century Tel Dr.
Wentzville, MO. 63385
636-332-7261

**Fire District**
O'Fallon Fire Protection District
111 Laura K Dr.
O'Fallon, MO. 63366
636-272-3493

## General Notes:

1. Gross Acreage of Subject Tract: 1.9 Acres (82,971 sq ft)
2. Parcel ID: 2-0041-5016-00-0009.1400000
3. Current Zoning of Subject Tract: R-4, Apartment House District
4. Proposed Zoning: C-2, General Business
5. Property Owner:
   North Main Properties LLC
   1833 Lake St. Louis Blvd.
   Lake Saint Louis, MO 63367
6. Proposed Development of Subject Tract:
   2 – Restaurants
   1 – General Retail
7. Pertinent Data:
   7.1. Min front yard Setback: 25 feet
   7.2. Min. Sideyard Setback: 15 feet adjacent to residential
   7.3. Min. Rearyard Setback: 10 feet adjacent to residential
   7.4. Landscaping Buffer (East) 20 feet
8. Utilities
   8.1. School District: Fort Zumwalt School District
   8.2. Water District: City of O'Fallon Water District
   8.3. Fire District: O'Fallon FPD
   8.4. Sewer District: City of O'Fallon Sewer District
   8.5. Gas Company: Spire Gas
   8.6. Electric Service: Ameren MO
   8.7. Telephone: CenturyLink
9. Per FIRM Flood Insurance Rate Map 29183C0230G dated January 20, 2016, none of this development is within FEMA Floodplain.
10. Perugue Creek Base Flood Elevation = 464.0'
11. Parking calculations
    Convenience Store w/o fuel: One (1) space per 250 sq. ft. of floor area
    9,960 sq. ft. * (1 space / 250 sq. ft.) = 40 PS
    Restaurants (carry-out and delivery): One (1) space per 250 sq. ft. of floor area
    3,380 sq. ft. * (1 space per 250 sq. ft.) = 14 PS
    54 PS Required
    Parking Provided: 43 parking spaces
    10 compact parking space
    4 ADA parking spaces including 4 van accessible spaces
    57 PS provided
12. Sanitary flow calculation:
    Restaurants (40 seats): 40 Units * 30 GPD / Unit = 1,200 GPD
    Retail Shops (1,625 sq. ft.): 1,625 Units * 0.2 GPD / Unit = 325 GPD
    Convenient Store (9,960 sq. ft.): 9,960 Units * 0.3 GPD / Unit = 2,988 GPD
    Total = 4,513 GPD
13. All sanitary sewers shall be constructed to the specifications of the City of O'Fallon.
14. The layout of all sanitary and storm sewers shown on this Plat are preliminary only. Final locations and design will be shown on the Improvement Plans submitted for review after approval of the Preliminary Plat. All sewers will be located in a 10' wide easement dedicated to the City of O'Fallon and the appropriate utility.
15. Grading and the handling of all storm water runoff and sitsation control will be per City of O'Fallon standards.
16. Street trees, landscaping in all common areas, street lights and sidewalks shall be private and approved by the City of O'Fallon.
17. Final location and design of proposed entry monument/signage shall be approved through the Planning Division via a subsequent and separate review & permitting process.
18. Proposed development does comply with the Land Use designation of the City of O'Fallon's Comprehensive Plan.
19. There are no pipelines within 500 feet of this site.
20. All signage shall be approved through Planning and Development via a separate permitting process
21. Lot Coverage
    Total Area: 82,971 sq ft
    Area of Pavement: 47,290 sq ft
    Area of Buildings: 14,965 sq ft
    Entire Lot Coverage: 62,255 / 82,971 = 75%

## TREE PRESERVATION

EXISTING TREE MASS = 47,790 SQ FT
TREE MASS REMAINING = 12,285 SQ FT
PERCENT OF TREE MASS PRESERVED = 25.7%

## CONDITIONAL USE PERMIT NOTE

DRIVE THRU ORDER FACILITY AND OTHER OUTDOOR SPEAKERS SHALL NOT PRODUCE ANY SOUND EXCEEDING 60 dB AT A STRAIGHT LINE DISTANCE OF 100 FEET OR GREATER OR AT ANY PROPERTY LINE ABUTTING A RESIDENTIAL USE, UP TO A HEIGHT OF EIGHT FEET ABOVE THE GROUND AT SUCH PROPERTY LINE.

## BENCHMARKS (NAVD88)

SOURCE BENCHMARK: MISSOURI GEOGRAPHIC REFERENCE SYSTEM, SC-53
NORTHING: 332550.094(M) EASTING: 231838.580(M)
GRID FACTOR = 0.9999201
ELEVATION = 142.0 (M) = 465.88 FEET
1 METER = 3.28083333 FEET

THE STATION AND AZIMUTH MARK ARE MISSOURI DNR GRS ALUMINUM DISKS STAMPED "SC-53 2000" AND "SC-43A 2000", EACH SET IN A 12 INCH DIAMETER CONCRETE MONUMENT ABOUT 30 INCHES LONG AND FLUSH WITH THE GROUND.

SITE BENCHMARK: NAIL SET IN POWER POLE 1' OFF GROUND LEVEL ON SOUTHEAST SIDE OF POWER POLE.
ELEV. = 499.68 FEET

* City of O'Fallon Construction work hours per City Ordinance 3429 as shown in Section 500.420 of the Municipal Code of the City of O'Fallon are as follows:

October 1 through May 31
7:00 A.M. To 7:00 P.M. Monday Through Sunday
June 1 Through September 30
6:00 A.M. To 8:00 P.M. Monday Through Friday
7:00 A.M. to 8:00 P.M. Saturday and Sunday

* The area of this phase of development is 1.9 acres
The area of land disturbance is 1.62 acres
Building setback information. Front 25 feet
Side 15 feet
Rear 10 feet
Landscape Buffering 20 feet

* The estimated sanitary flow in gallons per day is 4,513 GPD
* Tree preservation calculations

MISSOURI ONE CALL SYSTEM
811 or 1-800-344-7483
https://www.mo1call.com

## Conditions of Approval From Planning and Zoning

1. Clarify the labeling on the drive aisle stub to the property to the north and work with staff to provide additional separation between the nearest parking space and the drive aisle.
2. Provide approval from MDNR and Amry Corps of Engineers for enclosing the creek.
3. Stabilize the creek bank in the area of both the flared end sections.
4. Provide a sign at the southern access point onto North Main Street that identifies it as "NO TRUCK ACCESS"
5. A contribution equal to the cost of the addition of half of a roadway lane across the site's Main Street frontage shall be part of the Construction Site Plans.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY:_____ DATE_____
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

City of O'Fallon Standard Notes and Details - July 2019

**NORTH MAIN PROPERTIES**
COVER SHEET


Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.cecinc.com


**MBR MANAGEMENT**
**NORTH MAIN PROPERTIES**
**201 N. MAIN STREET, SUITE 300**
**ST. CHARLES, MO**

Revision Date: 4/20/2026

P+Z No.
Approval Date: 1/6/2022
Permit No.: 21-008100

Page No.
**C000**
SHEET 1 OF 6

P:\120-001\120-241\-CAD\Dwg\C100 - Stockpile Plans\120241-C100-C000.dwg(1 C000) LS(4/20/2026 - tschemsky) - LP: 4/20/2026 8:14 AM

## GENERAL NOTES

1. Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
2. Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
   2.1. Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre–cast truncated domes per pavement details.
3. Any proposed pavilions or playground areas will need a separate permit from the Building Division.
4. The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379–3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1–800–DIG–RITE. 1–800–344–7483
5. All proposed utilities and/or utility relocations shall be located underground.
6. All proposed fencing requires a separate permit through the Building Safety Division.
7. All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
8. (INTENTIONALLY OMITTED)
9. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
10. Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth. etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
11. Twenty–four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
12. The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
13. All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to confirm to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City inspectors.
14. City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.

## Grading Notes

1. Developer must supply City Construction Inspectors with an Engineer's soil reports prior to and during site grading. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
   1.1. Maximum dry density
   1.2. Optimum moisture content
   1.3. Maximum and minimum allowable moisture content
   1.4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T–180 Compaction Test" (A.S.T.M.–D–1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASSHTO T–99, Method C" (A.S.T.M.–D–698). Proctor type must be designated on document.
   1.5. Curve must have at least 5 density points with moisture content and sample locations listed on document
   1.6. Specific gravity
   1.7. Natural moisture content
   1.8. Liquid limit
   1.9. Plastic limit

   Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
2. All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T–180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T–99. Ensure the moisture content of the soil in fill areas corresponds to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill.
3. The surface of the fill shall be finished so it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
4. All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
5. When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site. Between permanent grass seeding periods, temporary cover shall be provided according to Missouri Department of Natural Resources Protecting Water Quality – a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.All finished grades (areas not to be disturbed by improvements) in excess of 20% slopes (5:1) shall be mulched and tacked at a rate of 100 pounds per 1000 square feet when seeded.
6. No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
7. All low places whether on site or off shall be graded to provide drainage with temporary ditches.
8. Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.
9. (INTENTIONALLY OMITTED)
10. All trench back fills under paved areas shall be granular back fill, and compacted mechanically. All other trench back fills may be earth material (free of large clods, or stones) and compacted using either mechanical tamping or water jetting. Granular material and earth material associated with new construction outside of pavements may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe route on not greater than 7.5 foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than 10 feet will require multiple probes every 7.5 foot centers.
    10.1. Depth, Trench back fills less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet. Trench back fill greater than 8 feet in depth shall be probed to half the depth of the trench back fill but not greater than 8 feet.
    10.2. Equipment, The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
    10.3. Method, Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the trench without first saturating the trench.
    10.4. Surface Bridging, The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and arch over the trench rather than collapse and consolidate during the jetting process). The contractor shall break down the bridged areas using an appropriate method such as wheels or bucket of a backhoe. When surface crust is collapsed, the void shall be back filled with the same material used as trench back fill and re–jetted. Compaction of the materials within the sunken/jetted area shall be compacted such that no further surface subsidence occurs.
11. Site grading.
    11.1. Within City right–of–way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed every two hundred fifty (250) feet along the centerline for each lift.
    11.2. Outside of City right–of–way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed at two (2) foot vertical intervals and approximately every one thousand (1,000) cubic yards.
12. Access to the site from any other location other than the proposed construction entrance is strictly prohibited!

## Erosion Control Notes

1. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers and/or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT."
2. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one–quarter inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
3. Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with Missouri Department of Natural Resources Protecting Water Quality – a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.
4. This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines. (Ord. 5082, section 405.245)
5. Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage per square foot) Ord. 6496, Section 405.095

MISSOURI ONE CALL SYSTEM
811 or 1-800-344-7483
https://www.mo1call.com

City of O'Fallon Standard Notes and Details - July 2019

**NORTH MAIN PROPERTIES**
NOTES

CEC
Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.cecinc.com

MBR MANAGEMENT
NORTH MAIN PROPERTIES
201 N. MAIN STREET, SUITE 300
ST. CHARLES, MO

Revision Date: 4/20/2026

P+Z No.
Approval Date: 1/6/2022
Permit No.: 21-008100

Page No.
C001
SHEET 2 OF 6

P:\320-0001\320-2411-0400\Dwg\C002 - Stockpile Plans\320241-C002-C000.dwg(2 C001) (5/4/20/2026 - kschoenicke) - LP: 4/20/2026 8:14 AM

N/F
EARNEST D & MARY
A SMOTHERS

N/F
CERBERUS SFT
HOLDING II LP

N/F
REBECCA ZYKAN

N/F
JAMES D WALKER

N/F
MELISSA BRIANNE
ZATORSKI

STORM MANHOLE
TOP=498.35
FL=485.73 IN W.
FL=490.85 IN S.
FL=492.25 IN N.
FL=485.73 OUT E.

FL=484.30

GRATED INLET
TOP=491.91
FL=491.06 IN
FL=491.83 OUT

GRATED INLET
TOP=488.64
FL=483.6 IN
FL=483.54 OUT

CLEARING LIMITS
(0.25 ACRES)

N/F
PIEPER FAMILY PARTNERSHIP LP
4532-0409

TENANT 3
1,517 SQ. FT.

TENANT 2
9,453 SQ. FT.

TENANT 1
1,709 SQ. FT.

N/F
N. MAIN PROPERTIES LLC
2357/1066

LOT 1

N/F
JUSTIN B & CRYSTAL
M ERICSON

LOT 2

N/F
JAMES J MARTIN &
JENNIFER V SOINE

N/F
FKH SRF PR
B-HLD L

N/F
WILLIAM E &
FRANCINE G LEHMAN

LOT 4

N/F
DANIEL G & DAWN R
GRIFFIN

LOT 5

ASHFORD PLACE
P.B. 32, PG. 77

N/F
RICHARD J &
SHANNON M BRINEY

LOT 6

MAIN STREET- MISSOURI STATE HWY. M (80' W.)

S00°53'12"W

20' LANDSCAPE BUFFER

LOADING ZONE

TRANS

T.E.

6+25
6+00
4+00

COMPACT ONLY

MISSOURI
ONE CALL SYSTEM
811 or 1-800-344-7483
https://www.mo1call.com

NORTH

SCALE IN FEET
0 20 40

City of O'Fallon Standard Notes and Details - July 2019

# NORTH MAIN PROPERTIES
EXISITNG


CEC
Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.cecinc.com


MBR MANAGEMENT
NORTH MAIN PROPERTIES
201 N. MAIN STREET, SUITE 300
ST. CHARLES, MO

Revision Date: 4/20/2026

P+Z No.
Approval Date: 1/6/2022
Permit No.: 21-008100

Page No.
C100
SHEET 3 OF 6


P:\320-0001\320-241\-0400\Dwg\C402 - Stockpile Plans\320241-C402-C100.dwg[1 C100] 15:14 4/20/2026 - kschoenke - LP: 4/20/2026 8:14 AM

P:\320-000\320-241\-CADD\Dwg\CV02 - Stockpile Plans\320241-CV02-C300.dwg[4 C300] LS:(4/20/2026 - kschoenike) - LP: 4/20/2026 8:14 AM

MISSOURI ONE CALL SYSTEM
811 or 1-800-344-7483
https://www.mo1call.com

N/F MELISSA BRIANNE ZATORSKI

N/F JAMES D WALKER

N/F REBECCA ZYKAN

N/F GERBERDING ST HOLDING 1 LP

N/F EARNEST O & MARY A SMOTHERS

AIN STREET– MISSOURI STATE HWY. M (80' W.)

S00°53'42"W

GRATED INLET TOP=491.25 IN FL=485.54 OUT

GRATED INLET TOP=491.25 IN FL=485.54 OUT

STORM MANHOLE TOP=491.25 IN FL=485.73 IN W FL=485.73 IN N FL=485.73 OUT E

FL=484.30

TENANT 1 1,759 SQ. FT.

TENANT 2 9,453 SQ. FT.

TENANT 3 1,517 SQ. FT.

PIEPER FAMILY PARTNERSHIP LP 4532-0409

N/F

N. MAIN PROPERTIES 235/1066

LOADING ZONE

T.E.

20' LANDSCAPE BUFFER

20' LANDSCAPE BUFFER

ASHFORD PLACE P.B. 32, PG. 77

LOT 6

N/F RICHARD L & SHANNON M BRNEY

LOT 5

N/F DANIEL G & DAWN R GRIFFIN

LOT 4

N/F WILLIAM E & FRANCINE G LEHMAN

N/F FKH SRF PR B-HLD L

LOT 2

N/F JAMES J MARTIN & JENNIFER Y SONE

LOT 1

N/F JUSTIN M & CRYSTAL M ERICSON

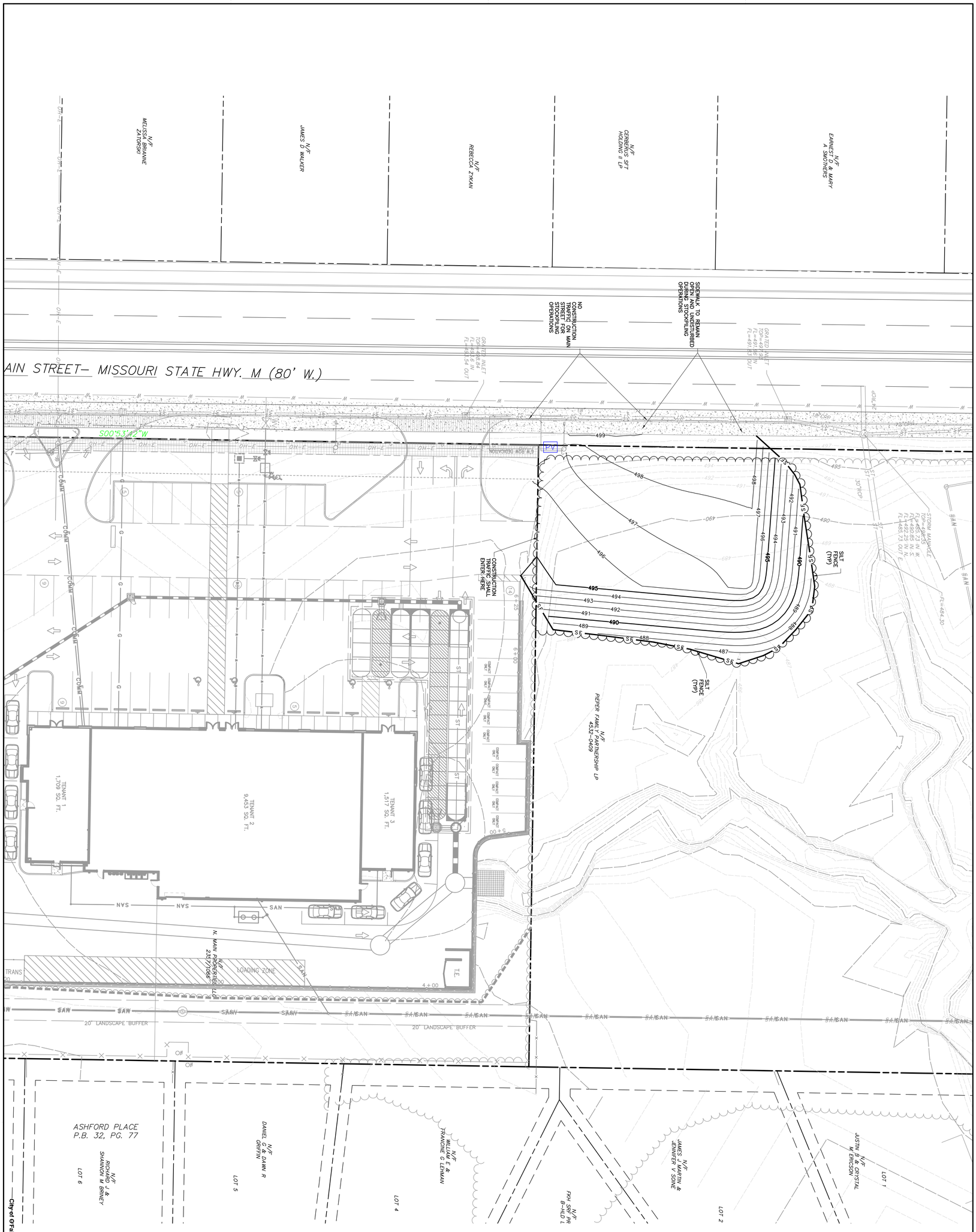
NORTH

SCALE IN FEET
0 20 40

City of O'Fallon Standard Notes and Details - July 2019

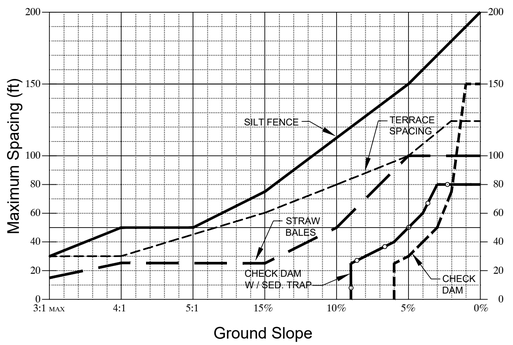
| | | | |
|---|---|---|---|
| Page No. C300 SHEET 4 OF 6 | P-Z No. Approval Date: 1/6/2022 Permit No: 21-00800 | MBR MANAGEMENT<br>NORTH MAIN PROPERTIES<br>201 N. MAIN STREET, SUITE 300<br>ST. CHARLES, MO<br>Revision Date: 4/20/2026 | Civil & Environmental Consultants, Inc.<br>3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301<br>314-656-4566 · 866-250-3679<br>www.cecinc.com |

# NORTH MAIN PROPERTIES
GRADING PLAN




City of O'Fallon Standard Notes and Details - July 2019

| | | | |
|---|---|---|---|
| **Page No.** C900 SHEET 5 OF 6 | **P-Z No.** **Approval Date: 1/6/2022** **Permit No: 21-00800** | **MBR MANAGEMENT**<br>**NORTH MAIN PROPERTIES**<br>**201 N. MAIN STREET, SUITE 300**<br>**ST. CHARLES, MO**<br>**Revision Date: 4/20/2026** | **Civil & Environmental Consultants, Inc.**<br>3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301<br>314-656-4566 · 866-250-3679<br>www.cecinc.com | **NORTH MAIN PROPERTIES**<br>**SWPPP PLAN** |

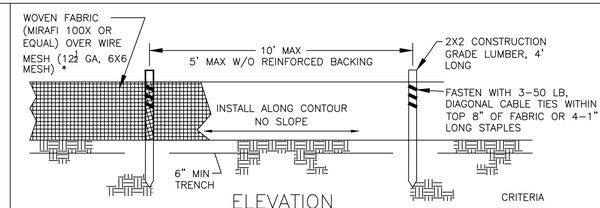



DESIGN CRITERIA

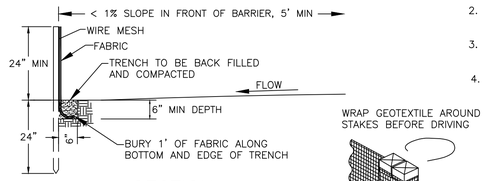
1. SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
2. STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
3. REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
4. TERRACING INCLUDES LOGS, WATTLES & FILTER SOCKS.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**SPACING CHART FOR ESC DEVICES**




ELEVATION




SECTION

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.



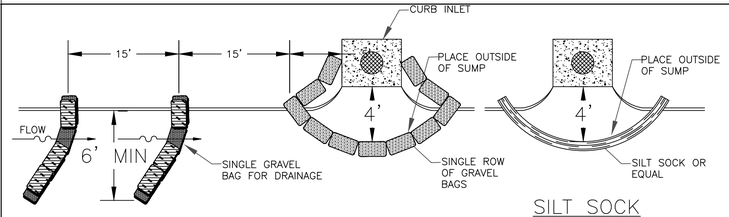

JOINING SECTIONS OF SILT FENCE

CRITERIA

1. SILT FENCE SHALL BE 24 INCHES HIGH.
2. SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
3. GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
4. WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

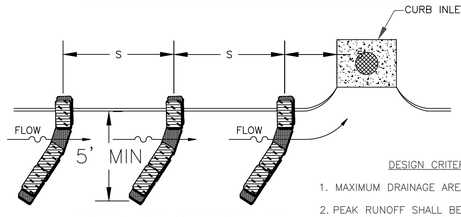
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**SILT FENCE INSTALLATION SHEET FLOW (ONLY)**




TRAP PLACEMENT AT LOW POINT

SILT SOCK (ALTERNATIVE)




TRAP PLACEMENT AT INTERMEDIATE INLET

SPACING OF TRAPS

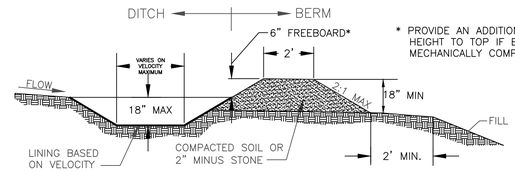
| GUTTER SLOPE | S |
|---|---|
| LOW PT | 15' |
| 1% | 20' |
| 2% | 15' |
| 3% MAX. | 10' |

DESIGN CRITERIA

1. MAXIMUM DRAINAGE AREA – 1 ACRE.
2. PEAK RUNOFF SHALL BE ≤2 CFS BASED ON THE 6-MONTH STORM.
3. STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

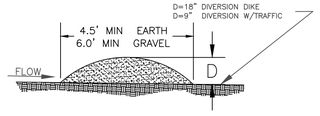
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**CURB INLET PROTECTION**




* PROVIDE AN ADDITIONAL 4" OF HEIGHT TO TOP IF BERM IS NOT MECHANICALLY COMPACTED.

DIVERSION BERM



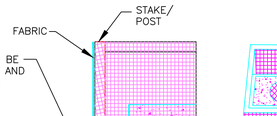

DIVERSION DIKE

DESIGN CRITERIA

1. DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
2. DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
3. CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20Min. STORM.
4. MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
5. SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY EROSIVE AREAS.
6. CHANNELS SHALL BE PROTECTED USING APPROPRIATE CHANNEL LINERS.
7. CHANNEL OUTLETS MUST BE STABILIZED.
8. STORM SEWERS MAY BE USED IN LIEU OF OPEN CHANNELS.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**DIVERSION BERMS + DIKES**

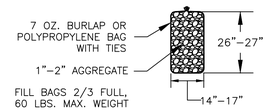



CROSS SECTION




PROFILE

SAND BAG OR GRAVEL BAG CHECK DAM




GRAVEL BAG

NOTE:
1. CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
2. *SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.*

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**CHECK DAMS**

LEVEL CENTER SECTION, WITH 12" RISE ON BOTH SIDES TO CAUSE FLOW OVER, NOT AROUND, CHECK DAM




CROSS SECTION




PROFILE

ROCK CHECK DAM



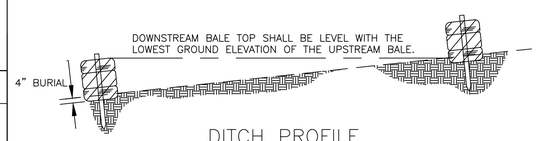

TRAPEZOIDAL DITCH V-DITCH

CRITERIA FOR LOW CONCENTRATED FLOWS

1. DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
2. INSTALL TWO STAKES PER BALE.
3. BALES WILL BE TRENCHED 4" DEEP INTO EARTH.
4. MAXIMUM CHANNEL SLOPE OF 3%.
5. SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSIVE AREAS.

CHECK DAM SPACING

| Ditch Slope | Maximum Spacing |
|---|---|
| 3% | 50% |
| 2% | 75% |



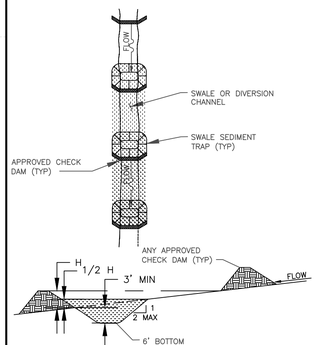

DITCH PROFILE

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

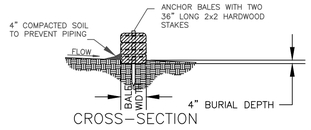
**STRAW BALE CHECK DAM**

CRITERIA

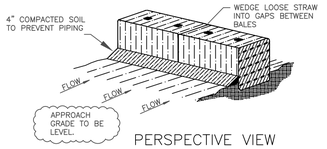
1. EXCAVATE TRENCH THE WIDTH OF THE BALE AT LEAST 4 INCHES DEEP AND LONG ENOUGH THAT THE END BALES ARE SOMEWHAT UPSLOPE.
2. REFER TO STRAW BALE CHECK DAM DETAIL FOR SPACING AND STRAW BALE USES AS DITCH CHECKS.
3. UPSLOPE FACE OF BALE MUST BE AT LEAST 5' FROM A DISTURBED EMBANKMENT.




DITCH PROFILE



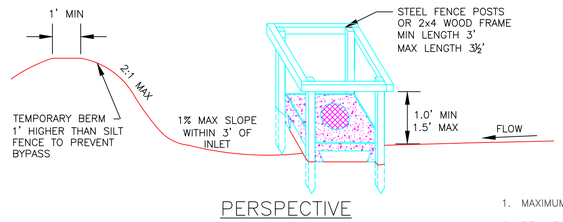

CROSS-SECTION




PERSPECTIVE VIEW

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION**




PERSPECTIVE




ELEVATION

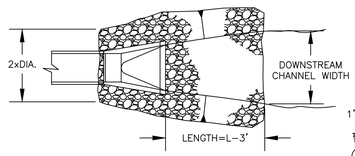
DESIGN CRITERIA

1. MAXIMUM DRAINAGE AREA – 1 ACRE.
2. PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
3. OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FILTR FENCE™.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

**AREA INLET PROTECTION FABRIC DROP**

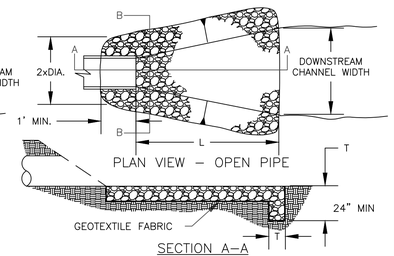
DATE: **MARCH 2008** | DRAWING **ESC-14**




PLAN VIEW
W/FLARED END SECTION

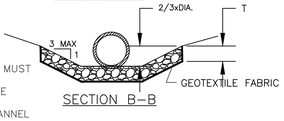
| PIPE SIZE | RIPRAP SIZE & APRON DIMENSION | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | VELOCITY < 5 FPS | | | | VELOCITY < 10 FPS | | | |
| | ROCK SIZE | | APRON DIM | | ROCK SIZE | | APRON DIM | |
| | d50 | dMAX | T | L | d50 | dMAX | T | L |
| (inch) | (inch) | (inch) | (inch) | (ft) | (inch) | (inch) | (inch) | (ft) |
| 12 | 5 | 9 | 15 | 12 | 5 | 9 | 15 | 16 |
| 15 | 5 | 9 | 15 | 14 | 5 | 9 | 15 | 18 |
| 18-24 | 5 | 9 | 15 | 16 | 9 | 14 | 24 | 20 |
| 27-30 | 5 | 9 | 15 | 18 | 9 | 14 | 24 | 22 |
| 36-42 | 9 | 14 | 24 | 22 | 12 | 18 | 27 | 26 |
| 48-54 | 9 | 14 | 24 | 26 | 12 | 18 | 27 | 30 |
| 60-66 | 12 | 18 | 27 | 34 | 15 | 24 | 30 | 38 |
| 72-84 | 15 | 24 | 30 | 42 | 15 | 24 | 30 | 46 |
| 96 | 18 | 27 | 30 | 50 | 18 | 27 | 30 | 54 |

d50 – NOMINAL DIAMETER
dMAX – MAXIMUM DIAMETER
T – THICKNESS
L – LENGTH




PLAN VIEW – OPEN PIPE

SECTION A–A




SECTION B–B

DESIGN CRITERIA

1. FROUDE NUMBER MUST BE ≤ 2.50.
2. USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
3. BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
4. ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

**TEMPORARY OUTLET PIPE DISCHARGE PROTECTION**

**City of O'Fallon Standard Notes and Details - July 2019**

**NORTH MAIN PROPERTIES**
**SWPPP DETAILS**


CEC
Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.cecinc.com


**MBR MANAGEMENT**
**NORTH MAIN PROPERTIES**
**201 N. MAIN STREET, SUITE 300**
**ST. CHARLES, MO**

**Revision Date: 4/20/2026**

**P+Z No.**
**Approval Date: 1/6/2022**
**Permit No.: 21-008100**

**Page No.**
**C901**

SHEET 6 OF 6

P:\320-000\320-2411-DA01\Dwg\CVSD - Stockpile Plans\320241-DA02-C900.dwg[6 C901] LS(4/20/2026 - kschoenke) - LP: 4/20/2026 8:14 AM

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 4. a.**

**Meeting Date:** 05/07/2026
**Re:** Extension of Site Plan approval for Scooter's Coffee at Lot 4 Shady Creek Commercial
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is an extension of approval for a Site Plan for Scooter's Coffee at Lot 4 Shady Creek Commercial.

**Recommendation:**
Staff Report is attached.

**Attachments**

Staff Report
Site Location Map
Site Plan
Elevations
Photometric Plan

**O'FALLON PLANNING AND ZONING COMMISSION MEETING**
**O'FALLON MUNICIPAL CENTRE BOARD CHAMBERS**
**100 NORTH MAIN STREET O'FALLON, MISSOURI 63366**

The below project was approved by the Planning and Zoning Commission on July 3, 2026. The approval is nearing expiration so the applicant is requesting a one year extension. The applicant has stated that the delay is due to some difficulty in securing tenants for the other commercial spaces in the building, but that has been resolved.

| Meeting Date | Case Number |
|---|---|
| May 7, 2025 | 25-005752 |

**Applicant Summary:**

| | |
|---|---|
| **Location of Subject Property:** | Shady Creek Commercial Lot 4 |
| **Action Requested:** | Approval of a Site Plan for a multi-tenant retail building with a drive-through. |
| **Applicant and Engineer:** | Larry Walker<br>Bax Engineering<br>221 Point West Blvd.<br>St. Charles, MO 63301<br>(636) 928-5552<br>lwalker@baxengineering.com |
| **Contract Purchaser:** | 3 Kings Properties<br>9768 West Nova Ave.<br>Littleton, CO 80127<br>941-387-6964 |

**Subject Property Datum**:

| | | | | |
|---|---|---|---|---|
| **Parcel Size:** | 1.36 acres | | **Current Zoning:** | C-2/General Business District |
| **Comprehensive Plan Designation:** | The Comprehensive Plan's Future Land Use Map depicts this parcel as suitable for mixed uses. | | | |
| **Proposed Use of Subject Property:** | This property is currently vacant. The applicant is proposing to construct a 7,633 sq. ft. multi-tenant building. One of the end cap units will be a 1,768 sq. ft. Scooters drive-through coffee restaurant. There will be no indoor seating.<br><br>A Conditional Use Permit has been applied for in conjunction with the Site Plan application. | | | |
| **Adjacent Parcel Data** | **North** | C-2 | Shady Creek retention pond | |
| | **South** | ROW | W Willow Nest Ln. | |
| | **East** | ROW | Lake Saint Louis Blvd. | |
| | **West** | C-2 | Shady Creek Commercial Lot 3 | |

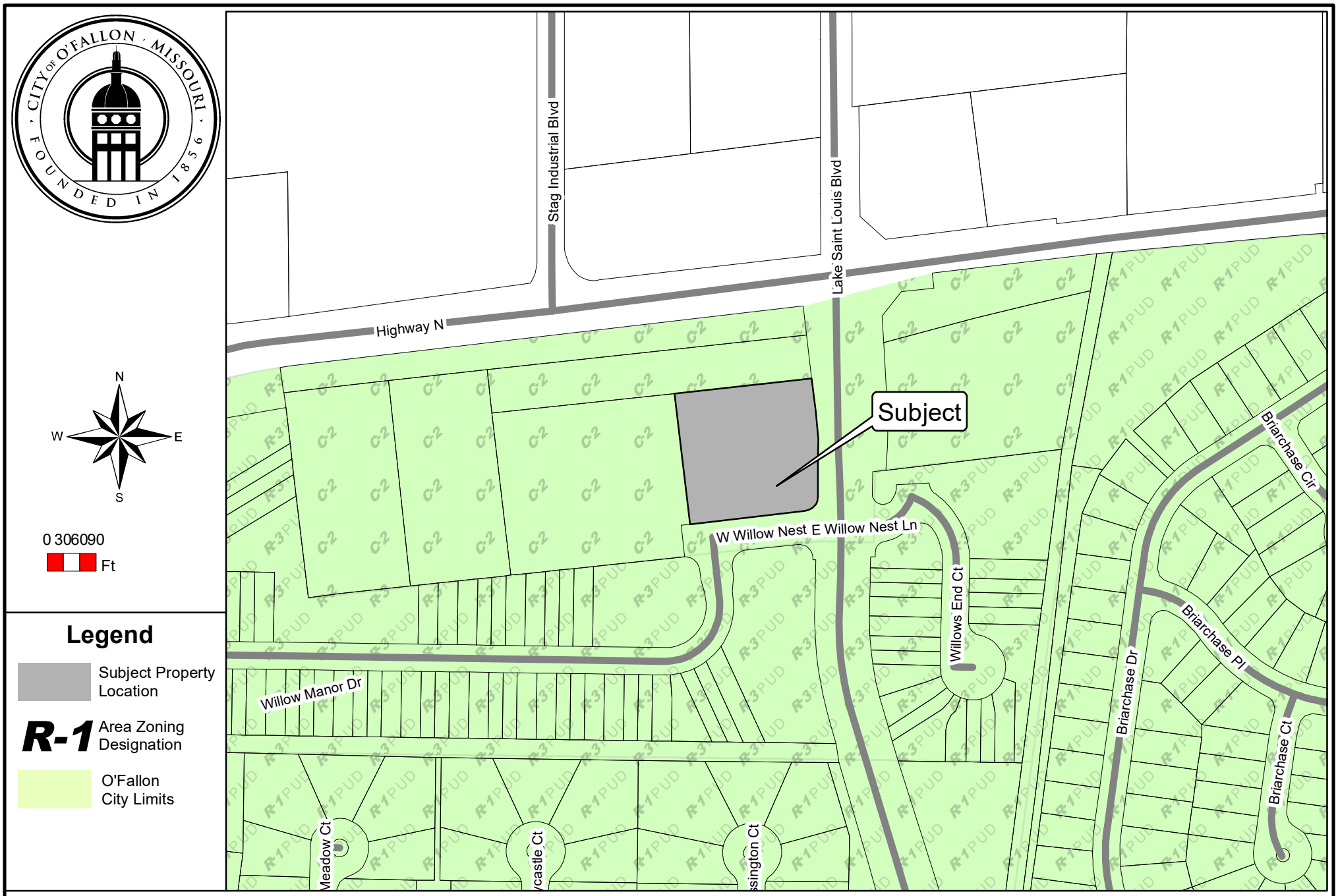
**Site Development Details:**

| | | | | |
|---|---|---|---|---|
| **Lot Coverage:** | **Building Area:** | 7,633 sq. ft. | **% of Total Site** | 13% |
| | **Paved Surfaces:** | 37,709 sq. ft. | **% of Total Site** | 63% |

| | | | | |
|---|---|---|---|---|
| | **Green Spaces:** | 14,072 sq. ft. | **% of Total Site** | 24% |
| **Access to Property:** | Access is provided via West Willow Nest Ln. | | | |
| **Required Parking:** | Restaurant Drive-Through:<br>1 space per 250 square feet of floor area.<br>1768+269 (patio)/250=<br>**9** spaces required<br><br>Speculative Retail:<br>5.5 spaces per 1,000 sq. ft.<br>5,865/1000*5.5=<br>**33** spaces required<br><br>**42** total required spaces | **Proposed Parking:** | **52** parking spaces provided<br><br>**3** ADA parking spaces provided<br><br>**55** total spaces provided | |
| **Storm Water Detention:** | Existing via regional detention. | | | |
| **Landscape Plans:** | Provided. | | | |
| **Tree Preservation:** | No trees are to be removed with this plan. | | | |
| **Building Detail:** | **Building Height:** | 25'6" | | |
| | **Building Elevations:** | Building elevations have been provided. | | |
| **Photometric:** | Provided. Staff has placed a comment regarding this below. | | | |

**Staff Recommendation:**

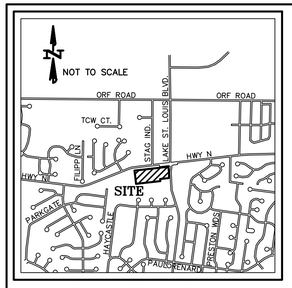
| Staff recommends that the Commission **approve** the Site Plan based upon the following findings and conditions: | |
|---|---|
| **Findings:** | 1. The use of the site complies with the standards required of properties zoned C-2.<br>2. It does not appear that this use will have negative impacts on the surrounding properties. |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Construction Site Plan.<br>2. Provide a revised photometric plan.<br>3. Provide Fire District, MDNR, Sanitary, Water District approval.<br>4. Provide CC&Rs for shared private infrastructure. |



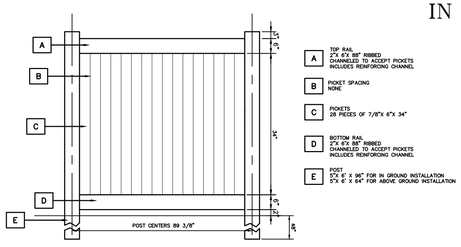

# Lot 4 of Shady Creek Commercial

# A SITE PLAN FOR
# *SCOOTER'S COFFEE*

ALL OF LOT 4 OF "SHADY CREEK COMMERCIAL"
IN FRACTIONAL SECTION 9 AND U.S. SURVEY 931,
TOWNSHIP 46 NORTH, RANGE 2 EAST
OF THE FIFTH PRINCIPAL MERIDIAN
CITY OF O'FALLON
ST. CHARLES COUNTY, MISSOURI

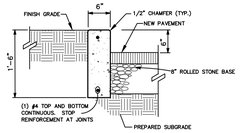



## Location Map



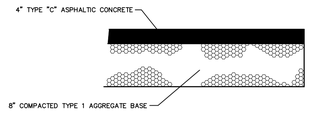

4' HIGH SIGHT PROOF VINYL PRIVACY FENCE
NOT TO SCALE

NOTE: COLOR TO COORDINATE WITH BUILDING



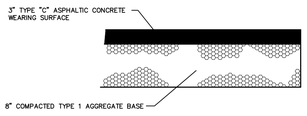

CONCRETE CURB DETAIL
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEXT AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS



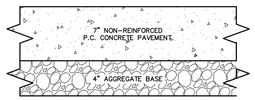

ASPHALT PAVEMENT DRIVE AISLE DETAIL
NOT TO SCALE

■ THE ASPHALT SURFACE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY.



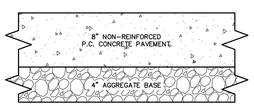

ASPHALT PAVEMENT DETAIL
NOT TO SCALE

■ THE ASPHALT SURFACE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY.



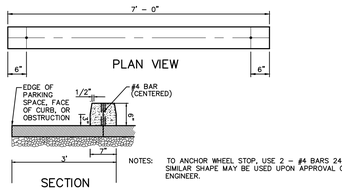

7" CONCRETE PAVEMENT DETAIL
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEXT AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS



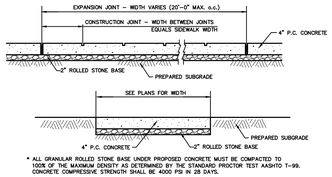

8" CONCRETE PAVEMENT DETAIL
(TRASH ENCLOSURE PAD)
NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEXT AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS




NOTES: TO ANCHOR WHEEL STOP, USE 2 - #4 BARS 24" LONG SIMILAR SHAPE MAY BE USED UPON APPROVAL OF THE ENGINEER.

PRECAST CONCRETE WHEELSTOP




* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE

## Legend

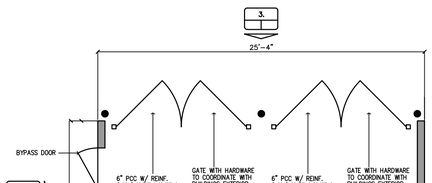
| | | | |
|---|---|---|---|
| 600.00 | EXISTING LABELS | | EXIST. SINGLE CURB INLET |
| 600.00 | PROPOSED LABELS | | EXIST. AREA INLET |
| CI | SINGLE CURB INLET | | EXIST. GRATE INLET |
| DCI | DOUBLE CURB INLET | | PROPOSED SINGLE CURB INLET |
| AI | AREA INLET | | PROPOSED AREA INLET |
| DAI | DOUBLE AREA INLET | | PROPOSED GRATE INLET |
| GI | GRATE INLET | | EXIST. SANITARY MANHOLE |
| DGI | DOUBLE GRATE INLET | | EXIST. STORM MANHOLE |
| MH | MANHOLE | | PROPOSED MANHOLE |
| FE | FLARED END SECTION | | POWER POLE |
| EP | END PIPE | | GUY WIRE |
| CP | CONCRETE PIPE | | LIGHT STANDARD |
| RCP | REINFORCED CONCRETE PIPE | | FIRE HYDRANT |
| CMP | CORRUGATED METAL PIPE | | WATER METER |
| CPP | CORRUGATED PLASTIC PIPE | | WATER VALVE |
| PVC | POLY VINYL CHLORIDE (PLASTIC) | | GAS VALVE |
| CO | CLEAN OUT | | TELEPHONE MANHOLE |
| | DRAINAGE SWALE | | FIBER OPTIC MARKER |
| STM | EXISTING STORM SEWER | | AC UNIT |
| SAN | EXISTING SANITARY SEWER | | TELEPHONE CABLE PEDESTAL |
| W | EXISTING WATER LINE | | ELECTRIC METER |
| FO | EXISTING FIBER OPTIC LINE | | CLEANOUT |
| GAS | EXISTING GAS LINE | | MAILBOX |
| UGE | EXISTING UNDERGROUND ELECTRIC | | SIGN |
| OHW | EXISTING OVERHEAD ELECTRIC | | TREE |
| CTV | EXISTING CABLE TV LINE | | |
| T | EXISTING TELEPHONE LINE | | |
| | PROPOSED STORM SEWER | | |
| | PROPOSED SANITARY SEWER | | |
| X | FENCE LINE | | |

## Benchmarks:

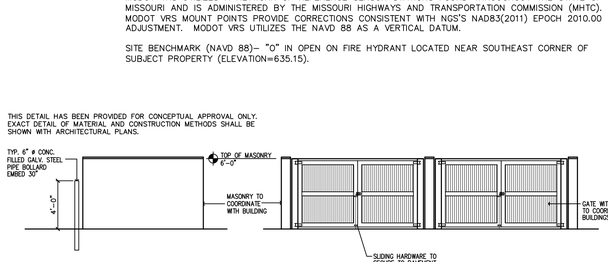
PROJECT ELEVATIONS UTILIZE THE NAVD 88 VERTICAL DATUM AND WERE GENERATED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSC5 DATA COLLECTOR AND ARE BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS.

REFERENCE BENCHMARK: THE ELEVATIONS SHOWN ON THIS DRAWING ARE REFERENCED FROM "THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS", COMMONLY KNOWN AS "MODOT VRS". MODOT VRS UTILIZES A NETWORK OF REFERENCE SENSOR STATIONS FOUND THROUGHOUT THE STATE OF MISSOURI AND IS ADMINISTERED BY THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION (MHTC). MODOT VRS MOUNT POINTS PROVIDE CORRECTIONS CONSISTENT WITH NGS'S NAD83(2011) EPOCH 2010.00 ADJUSTMENT. MODOT VRS UTILIZES THE NAVD 88 AS A VERTICAL DATUM.

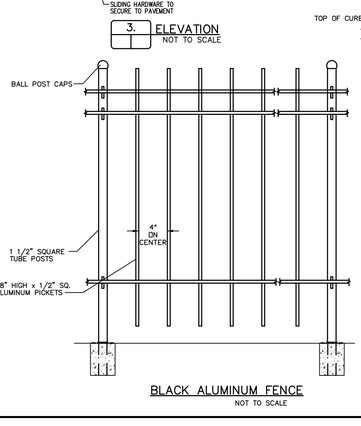
SITE BENCHMARK (NAVD 88)- "O" IN OPEN ON FIRE HYDRANT LOCATED NEAR SOUTHEAST CORNER OF SUBJECT PROPERTY (ELEVATION=635.15).




1. TRASH ENCLOSURE PLAN
NOT TO SCALE

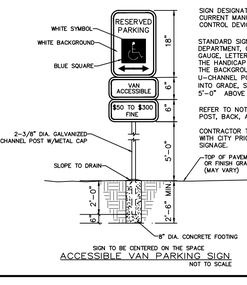



2. ELEVATION
NOT TO SCALE




3. ELEVATION
NOT TO SCALE

BLACK ALUMINUM FENCE
NOT TO SCALE



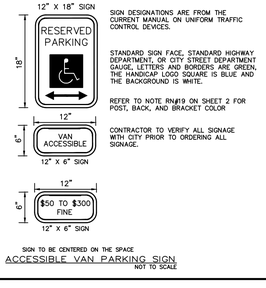

SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED U-CHANNEL POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-0" ABOVE FINISHED GRADE.

REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE VAN PARKING SIGN
NOT TO SCALE



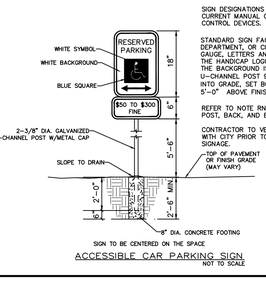

SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE.

REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE VAN PARKING SIGN
NOT TO SCALE



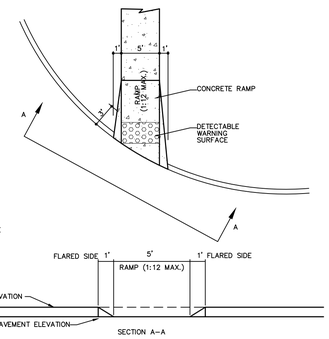

SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED U-CHANNEL POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-0" ABOVE FINISHED GRADE.

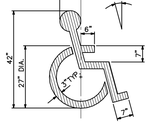
REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE CAR PARKING SIGN
NOT TO SCALE




HANDICAPPED RAMP WITH DETECTABLE WARNING DETAIL
NOT TO SCALE




PAINTED HANDICAPPED PARKING SYMBOL
NOT TO SCALE

## Utility Contacts

### Sanitary Sewers
Public Water Supply District No. 2
P.O. Box 967
O'Fallon, MO. 63366
636-561-3737

### Water
Public Water Supply District No. 2
P.O. Box 967
O'Fallon, MO. 63366
636-561-3737

### Storm Sewer
City of O'Fallon
100 N. Main St.
O'Fallon, MO. 63366
636-240-2000

### Electric
Cuivre River Electric Co.
P.O. Box 160
Troy, MO. 63379-0160
1-800-392-3709

### Gas
Spire Gas
6400 Graham Road
St. Louis, MO. 63134
314-522-2297

### Telephone
CenturyLink
1151 Century Tel Dr.
Wentzville, MO. 63385
636-332-7261

### Fire District
Wentzville Fire District
209 West Pearce Blvd.
Wentzville, MO. 63385

## Development Notes:

1. THIS PROPERTY IS REFERENCED IN THE ST. CHARLES COUNTY ASSESSOR'S OFFICE AS THE FOLLOWING PARCEL ID: 03-0010-C385-00-0001-0000000
2. AREA OF TRACT: 1.36 ACRES
3. PROPERTY OWNER: JOANNE GRIFFITH & GARY E. KOPADT REVOCABLE TRUST 1010 TRAILWYND DRIVE WENTZVILLE, MISSOURI 63385
4. PROPOSED USE: COFFEE SHOP/DRIVE-THRU (NO INSIDE DINING) SPECULATIVE RETAIL/MULTI-TENANT
5. EXISTING ZONING: C-2 GENERAL BUSINESS DISTRICT (CITY OF O'FALLON)
6. BUILDING SETBACKS: FRONT YARD = 25 FEET SIDE YARD = 0 FEET REAR YARD = 0 FEET BUILDING HEIGHT = 50 FEET MAX.
7. TO DETERMINE THE LOCATION OF FLOOD DESIGNATIONS AND BOUNDARIES, WE DETERMINED THE HORIZONTAL LOCATION OF THIS TRACT OF LAND BY SCALING THE FOLLOWING FLOOD INSURANCE RATE MAP (FIRM): ST. CHARLES COUNTY, MISSOURI AND INCORPORATED AREAS, MAP NUMBER 29183C0220G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2016.

   COMMUNITY: CITY OF O'FALLON
   NUMBER: 290316
   PANEL: 0220
   SUFFIX: G

   BY EXPRESS REFERENCE TO THIS MAP AND ITS LEGEND, THIS TRACT OF LAND IS INDICATED TO BE WITHIN THE FOLLOWING ZONES:

   - ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

   THE EVALUATION PROVIDED IN THIS NOTE IS RESTRICTED TO SIMPLY INDICATING THE APPARENT HORIZONTAL LOCATION OF THE PROPERTY WITH RESPECT TO THE FEATURES DISPLAYED ON THE MAP. NO FIELD STUDY OF THE DRAINAGE CHARACTERISTICS TO WHICH THIS PROPERTY MAY BE SUBJECT TO HAS BEEN CONDUCTED AND NO REPRESENTATION CONCERNING THE INSURABILITY OF THIS PROPERTY OR THE POTENTIAL SUSCEPTIBILITY OF THIS PROPERTY TO FLOODING HAS BEEN MADE. BAX ENGINEERING MAKES NO REPRESENTATION CONCERNING THE ACCURACY OF THE ABOVE REFERENCED FIRM MAP WHICH INCLUDES A NOTE THAT "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM. IT DOES NOT NECESSARILY IDENTIFY ALL AREA SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE.

   THIS FLOOD ZONE DETERMINATION AND THE FLOOD ZONE LIMITS SHOWN HEREON, IF ANY, WERE MADE USING FEMA INFORMATION WHICH WAS AVAILABLE ON THIS DATE.
8. SITE COVERAGE CALCULATIONS:
   TOTAL AREA OF LOT = 59,414 SQ. FT. (1.36 ACRES)
   BUILDING = 7,633 SQ. FT. = 13%
   PAVEMENT = 37,709 SQ. FT. = 63%
   GREEN SPACE = 14,072 SQ. FT. = 24%
9. PARKING CALCULATIONS:

   RESTAURANT DRIVE-THRU FACILITY
   1 SPACE PER 250 SQ. FT. FLOOR AREA
   (1,768 + 269)/250 SQ. FT. X 1 SPACE) = 9 SPACES REQUIRED

   SPECULATIVE RETAIL/MULTI-TENANT BUILDING
   5.5 SPACES PER 1,000 SQ. FT. FLOOR AREA
   5,865/1,000 SQ. FT. X 5.5 SPACES = 33 SPACES

   TOTAL PARKING REQUIRED = 42 SPACES
   TOTAL PARKING PROPOSED = 55 SPACES
10. BICYCLE PARKING CALCULATIONS:
    1 BICYCLE RACK SPACE PER 15 PARKING SPACES (MIN. 4 BICYCLE RACK SPACES PER BUILDING)
    55/15 PARKING SPACES X 1 SPACE

    TOTAL BICYCLE RACK SPACES REQUIRED = 4 SPACES
    TOTAL BICYCLE RACK SPACES PROVIDED = 4 SPACES
11. LOADING CALCULATIONS:
    1 LOADING SPACE FOR USE OVER 5,000 SQ. FT. GROSS FLOOR AREA AND 1 ADDITIONAL LOADING SPACE FOR EVERY ADDITIONAL 20,000 SQ. FT. GROSS FLOOR AREA

    1 LOADING SPACE +[[(7,633-5,000)/20,000 SQ. FT.] X 1 SPACE) = 1.13 LOADING SPACES

    REQUIRED LOADING SPACES = 2 LOADING SPACES
    PROVIDED LOADING SPACES = 2 LOADING SPACES
12. ALL SIGNS SHALL REQUIRE A SEPARATE PERMIT BY THE CITY OF O'FALLON.
13. ALL SITE LIGHTING SHOWN IS FOR PRESENTATION ONLY AND EXACT LOCATIONS WILL DEPEND UPON A LIGHTING LAYOUT BY A QUALIFIED LIGHTING CONSULTANT. PRIOR TO CONSTRUCTION SITE PLAN APPROVAL, A PHOTOMETRIC LIGHTING PLAN IN ACCORDANCE WITH THE CITY'S EXTERIOR LIGHTING STANDARDS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
14. ALL BUILDING MOUNTED LIGHTS SHALL BE A DECORATIVE DOWNCAST SHADOWBOX STYLE UNLESS OTHERWISE APPROVED BY THE PLANNING DEPARTMENT.
15. ESTIMATED SANITARY FLOW = 1,527 GPD.
16. ALL SANITARY SEWER LATERALS SHALL BE SCHEDULE 40 PVC.
17. ALL NEW UTILITIES SHALL BE LOCATED UNDERGROUND.
18. ALL HVAC AND MECHANICAL EQUIPMENT WHETHER ROOFTOP OR GROUND MOUNTED WILL BE SCREENED PER CITY OF O'FALLON ZONING CODE.
19. ALL CONSTRUCTION METHODS AND PRACTICES SHALL CONFORM WITH OSHA STANDARDS.
20. ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF O'FALLON STANDARDS.
21. DEVELOPMENT SHALL COMPLY WITH THE CITY OF O'FALLON CODE, ARTICLE XIII PERFORMANCE STANDARDS.
22. DEVELOPMENT SHALL COMPLY WITH THE CITY OF O'FALLON COMPREHENSIVE PLAN.
23. DETENTION IS PROVIDED BY PREVIOUS DEVELOPMENT.
24. DIFFERENTIAL RUN-OFF CALCULATIONS:
    1.04 ACRES INCREASED IMPERVIOUS AREA
    1.04 ACRE (4.77-2.29) = 2.58 CFS (INCREASE IN RUN-OFF)
25. THIS PLAN IS PRELIMINARY AND NOT FOR CONSTRUCTION.

## Sheet Index


C1 COVER SHEET
C2 SITE PLAN


CALL BEFORE YOU DIG! 1-800-DIG-RITE

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

A SITE PLAN FOR
*SCOOTER'S COFFEE*
*W. WILLOW NEST LANE*
*O'FALLON, ST. CHARLES COUNTY, MISSOURI 63385*

PREPARED FOR:
3 KINGS PROPERTIES
9768 WEST NOVA AVENUE
ELK GROVE, CA 95757
941-387-6964


ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| | |
|---|---|
| 06-16-25 | CITY COMMENTS |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than those authenticated by my seal.

STATE OF MISSOURI
LARRY DAVID WALKER
NUMBER
PE-2007020343
PROFESSIONAL ENGINEER
06/16/25

Larry D. Walker
Civil Engineer
Engineers License No. 2007020343

05-29-25 *DATE*
20-18154C *PROJECT NUMBER*
18154C PRE.DWG *FILE NAME*
RKC *DRAWN*
RKC LDW *DESIGNED CHECKED*

COVER SHEET

C-1

EXISTING RETENTION POND
COMMON GROUND A
"SHADY CREEK COMMERCIAL"
DOC# 2023R-020698

PROPERTY N/F
JOANNE GRIFFITH & GARY E. KOPADY REVOCABLE TRUSTS
PARCEL ID: 4-0037-D393-00-000A.0000000
CITY OF O'FALLON
ZONED: C-2

FLARED END
FLARED END
OUTFALL STRUCTURE
TOP=625.88
7' x 8" SLOT (W)=624.06
FL OUT=624.51
AREA INLET
TOP=627.62
N83°51'33"E 253.13'
CURB INLET W/SNOUT FOR WATER QUALITY
10' PARKING SETBACK
10'W EASEMENT PER 2023R-020698
CURB INLET W/SNOUT FOR WATER QUALITY
MONUMENT SIGN
25' BUILDING SETBACK
NEW SIDEWALK TO BE CONSTRUCTED BY OTHERS
EASEMENT PER 2023R-020698
10'W EASEMENT TO PUBLIC WATER SUPPLY DISTRICT NO. 2 2021R-003858
DIRECTIONAL SIGN
HEIGHT CLEARANCE BAR
DRIVE THRU ONLY
4' HIGH BLACK ALUMINUM FENCE
CONCRETE PAD FOR BIKE RACK
DO NOT ENTER
PATIO 269 SQ. FT.
MOA SIGN
MOA SIGN
CURB INLET TOP=625.13 FL=624.01
CONCRETE WALK FLUSH W/PAVEMENT
VAN ACCESSIBLE PARKING SIGN
ACCESSIBLE PARKING SIGN
LIGHT STANDARD (TYP)
36" RCP
GATEWAY
BRIGHTSPEED
SANITARY MANHOLE TOP=630.27 FL=622.9
CURB INLET TOP=629.96 FL=623.42
STORM MANHOLE TOP=629.79
LOT 3
"SHADY CREEK COMMERCIAL"
DOC# 2023R-020698

PROPERTY N/F
JOANNE GRIFFITH & GARY E. KOPADT REVOCABLE TRUSTS
PARCEL ID: 4-0067-D393-00-0003.0000000
CITY OF O'FALLON
ZONED: C-2

10' PARKING SETBACK
10'W EASEMENT PER 2023R-020698
SPECULATIVE RETAIL/MULTI-TENNANT
5,865 SQ. FT.
F.F.=633.40
SCOOTER'S COFFEE
1,768 SQ. FT.
F.F.=633.40
DRIVE-UP WINDOW
CONCRETE VERTICAL CURB
1' WIDE 6" CONCRETE VERTICAL CURB
GRATE INLET
6" CONCRETE VERTICAL CURB (TYP)
BACKFLOW PREVENTION
BUILDING MOUNTED LIGHT (TYP)
BOLLARD
SPEAKER POST
HVAC UNITS W/SIGHT-PROOF FENCE (TYP OF 2)
MENU BOARD
CLEANOUT
LIGHT STANDARD (TYP)
5' X 5.5' CONCRETE PAD
PASSIVE TRASH ENCLOSURE
12' X 35' LOADING SPACE (NOT STRIPED)
12' X 35' LOADING SPACE (NOT STRIPED)
GRATE INLET
GRATE INLET
6" PVC (SCHEDULE 40) SANITARY LATERAL @ 2% MIN.
WATER SERVICE (PRIVATE)
DIRECTIONAL SIGN
CURB INLET TOP=627.18 FL=625.67
10'W EASEMENT PER 2023R-020698
STORM SEWER EASEMENT 2023R-002306
LAKE SAINT LOUIS BOULEVARD (100' WIDE, PUBLIC) (ESTABLISHED PER P.B. 49, PG. 220)
SANITARY MANIFOLE TOP=629.18 FL IN (W)=614.72 FL=624.55
SANITARY MANHOLE TOP=629.92 FL IN (E)=623.88 FL=623.76
STORM MANHOLE TOP=629.07 FL=625.95
SANITARY MANHOLE TOP=629.79 FL=624.89
EASEMENT TO PUBLIC WATER SUPPLY DISTRICT NO. 2 2022R-057716
DETECTABLE WARNING (TYP)
10' PARKING SETBACK
10'W EASEMENT PER 2023R-020698
SANITARY SEWER EASEMENT 2023R-015001 2023R-038530
WATER METER
S83°52'09"W 214.55'
5'W. CONCRETE WALK
R=25.00'
L=35.99'
SIGHT TRIANGLE EASEMENT 2023R-020698
CURB INLET TOP=633.43 FL=625.63
ENTRANCE SHALL BE CONSTRUCTED PER CITY OF O'FALLON SPECIFICATIONS
NO ADA RAMP CONCRETE WALK FLUSH W/ PAVEMENT
CONNECT TO EX. 8" WATER MAIN PER PWSD NO. 2 SPECIFICATIONS
CONNECT TO EX. 8" SANITARY SEWER MAIN PER PWSD NO. 2 SPECIFICATIONS
TEMPORARY CONSTRUCTION EASEMENT TO KAPB, LLC 2022R-022043
WEST WILLOW NEST LANE
(60' WIDE, PUBLIC)
(ESTABLISHED BY DOCUMENT# 2023R-003194)
CONCRETE
CONCRETE CURB
CONCRETE WALK
10'W EASEMENT TO PUBLIC WATER SUPPLY DISTRICT NO. 2 2021R-003856 AND 2021R-003858
COMMON GROUND B
"THE WILLOWS"
DOC# 2023R-003194

PROPERTY N/F
WILLOWS O'FALLON THE LLC
PARCEL ID: 4-0067-D332-00-000B.0000000
CITY OF O'FALLON
ZONED: R-3 PUD
COMMON GROUND C
"THE WILLOWS"
DOC# 2023R-003194

PROPERTY N/F
WILLOWS O'FALLON THE LLC
PARCEL ID: 4-0067-D597-00-000C.0000000
CITY OF O'FALLON
ZONED: R-3 PUD
CURB INLET TOP=633.88 FL=626.17

NOTE: NO SLOPE TO EXCEED 3:1

GRAPHIC SCALE
20 0 10 20
( IN FEET )
1 inch = 20 ft.

LEGEND:
- 3" ASPHALT OVER 8" ROCK
- 4" ASPHALT OVER 8" ROCK
- 4" CONCRETE OVER 4" ROCK
- 7" CONCRETE OVER 4" ROCK
- 8" CONCRETE OVER 4" ROCK

MISSOURI ONE CALL SYSTEM, INC. 1-800-DIG-RITE (1-800-344-7483) STOP! CALL BEFORE YOU DIG!

CALL BEFORE YOU DIG!
1-800-DIG-RITE

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

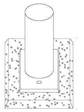
**U-Rack Bike Rack** **Model: 543-1054**
**Specifications** Page 1
thepark AND FACILITIES CATALOG



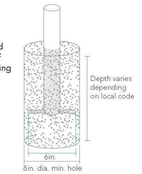
**Product Details:**

| | |
|---|---|
| Dimensions | Length 24" / Depth 1.9" / Height 36" *(46" In Ground)* / Mounting Plates 6" |
| Weight | Surface Mount: 19-lbs In-ground: 22-lbs |
| Styling | Contemporary |
| Capacity | Holds 2 Bikes |
| Finish | Durable baked-on powder coat or hot dipped galvanized |
| Construction | Standard-Duty 1.5" Schedule 40 Pipe (1.9" OD) Steel |

**Surface Mount:**
Bolts through bottom plate into pre-drilled concrete into ground anchors. Use appropriate length and size bolt for local requirements.

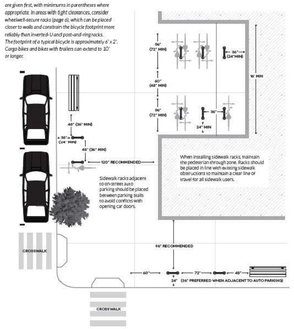


**In-ground Mount:**
Embedded in hole filled with concrete. Depth of the hole varies depending on local code.




## PLACEMENT

The following minimum spacing requirements apply to some common installations of fixtures like inverted-U or post-and-ring racks that park one bicycle roughly centered on each side of the rack. Recommended clearances are given first, with minimums in parentheses where appropriate. In areas with tight clearances, consider wheelwell-secure racks (page 6), which can be placed closer to walls and constrain the bicycle footprint more reliably than inverted-U and post-and-ring racks.
The footprint of a typical bicycle is approximately 6' x 2'. Cargo bikes and bikes with trailers can extend to 10' or longer.




BICYCLE RACK DETAIL
NOT TO SCALE
* BIKE RACK MUST BE IN ACCORDANCE WITH BIKE USA STANDARDS

A SITE PLAN FOR
*SCOOTER'S COFFEE*
*W. WILLOW NEST LANE*
*O'FALLON, ST. CHARLES COUNTY, MISSOURI 63385*

PREPARED FOR:
3 KINGS PROPERTIES
9768 WEST NOVA AVENUE
ELK GROVE, CA 95757
941-387-6964


*ENGINEERING PLANNING SURVEYING*
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718


Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144

*REVISIONS*

| | |
|---|---|
| 06-16-25 | CITY COMMENTS |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than those authenticated by my seal.

STATE OF MISSOURI
LARRY DAVID WALKER
NUMBER PE-2007020343
PROFESSIONAL ENGINEER
06/16/25

Larry D. Walker
Civil Engineer
Engineers License No. 2007020343

05-29-25
*DATE*
20-18154C
*PROJECT NUMBER*
18154C PRE.DWG
*FILE NAME*
RKC
*DRAWN*
RKC LDW
*DESIGNED CHECKED*

SITE PLAN

C-2

CORPORATE - APPROVED BY: _____ DATE: _____

# APPROVALS

FRANCHISEE - APPROVED BY: _____ DATE: _____




2 NORTH ELEVATION

SCALE: 1/8" = 1'-0"

EIFS STUCCO SYSTEM
COLOR: ALABASTER

CARBON LEDGESTONE
PANEL

FIBERON WILDWOOD
COMPOSITE GLADDING
COLOR: MULGA

DARK BRONZE
ALUMINIUM




1 EAST ELEVATION

SCALE: 1/8" = 1'-0"

DXU ARCHITECTS
15150 N. HAYDEN ROAD
SUITE 225
SCOTTSDALE, AZ 85260
P: 480.626.9502
dxuarch.com

SHADY CREEK SHELL BUILDING
MISSOURI

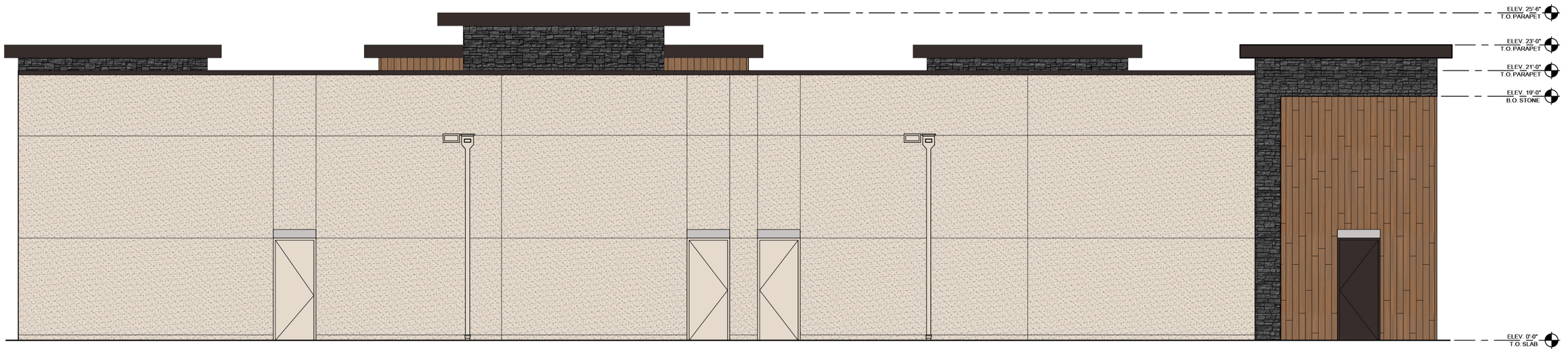
NOT FOR CONSTRUCTION

JOB NUMBER: 25-265
DATE: 05.29.25
DESIGNER: DP
LAYOUT NO:

CORPORATE - APPROVED BY: _____ DATE: _____

# APPROVALS

FRANCHISEE - APPROVED BY: _____ DATE: _____




4 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

EIFS STUCCO SYSTEM
COLOR: ALABASTER

CARBON LEDGESTONE
PANEL

FIBERON WILDWOOD
COMPOSITE GLADDING
COLOR: MULGA

DARK BRONZE
ALUMINIUM



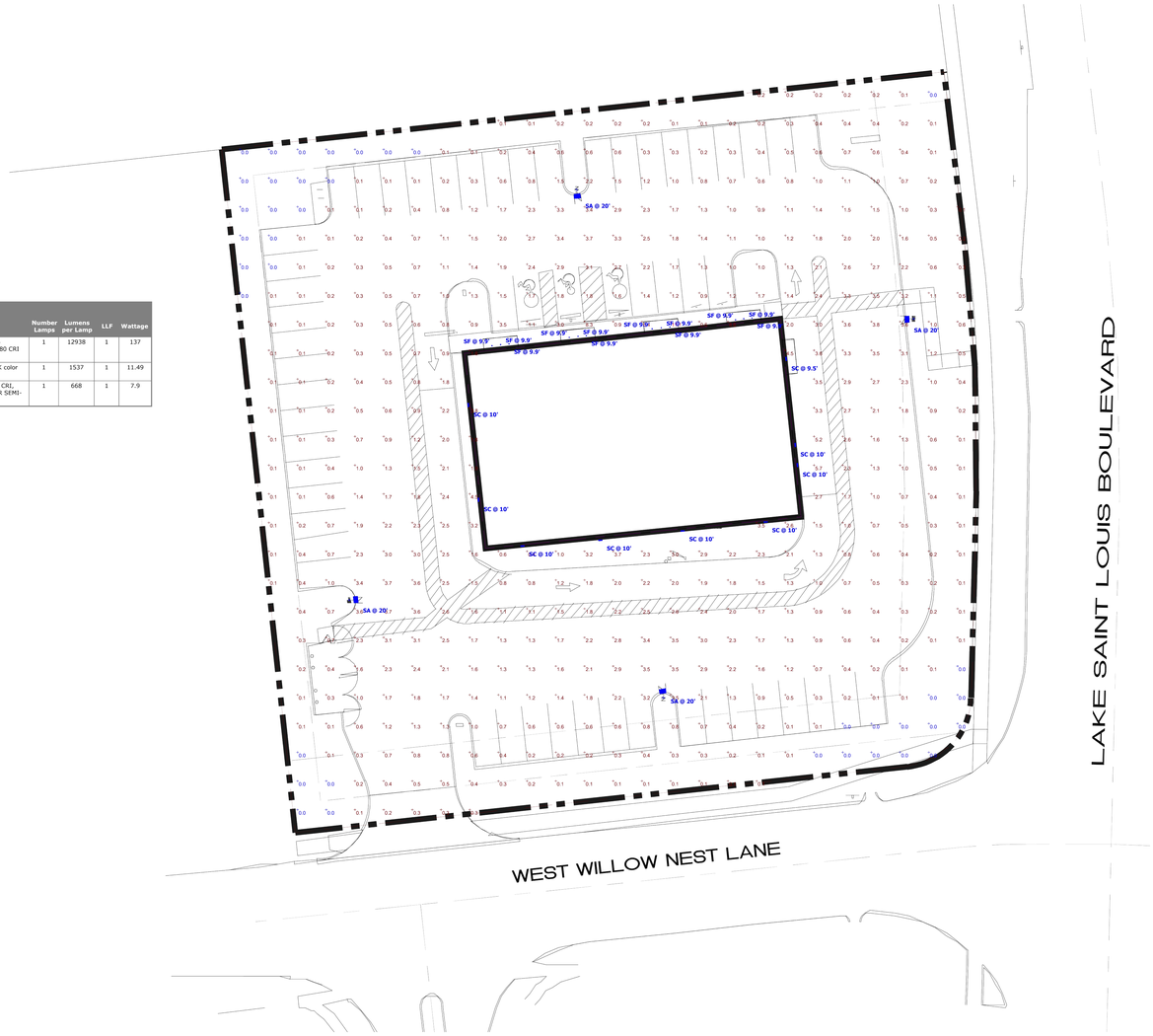

3 WEST ELEVATION
SCALE: 1/8" = 1'-0"

DXU ARCHITECTS
15150 N. HAYDEN ROAD
SUITE 225
SCOTTSDALE, AZ 85260
P: 480.626.9502
dxuarch.com

SHADY CREEK SHELL BUILDING
MISSOURI

NOT FOR CONSTRUCTION

JOB NUMBER: 25-265
DATE: 05.29.25
DESIGNER: DP
LAYOUT NO:




**Schedule**

| Symbol | Label | QTY | Catalog Number | Description | Number Lamps | Lumens per Lamp | LLF | Wattage |
|---|---|---|---|---|---|---|---|---|
| | SA | 4 | DSX0 LED P6 30K 80CRI T3M HS | D-Series Size 0 Area Luminaire P6 Performance Package 3000K CCT 80 CRI Type 3 Medium Houseside Shield | 1 | 12938 | 1 | 137 |
| | SC | 9 | WPX1 LED P1 30K Mvolt | WPX1 LED wallpack 1500lm 3000K color temperature 120-277 Volts | 1 | 1537 | 1 | 11.49 |
| | SF | 12 | EVO4 30/07 AR WD LSS | EVO 4IN ROUND DOWNLIGHT, 80 CRI, 3000K, 750LM, WIDE DIST, CLEAR SEMI-SPEC | 1 | 668 | 1 | 7.9 |

**Statistics**

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|---|---|---|---|---|---|
| Calc Zone #1 | + | 1.2 fc | 11.1 fc | 0.0 fc | N/A | N/A |

1 PHOTOMETRIC SITE PLAN

SCALE: 1" = 10'-0"

NORTH

GRAPHIC SCALE: 1" = 10'-0"

-10 0 10 20 40

PLOT DATE: 5/26/2025 6:07 PM PLOTTED BY: CMILL

DXU ARCHITECTS
15150 N. Hayden Road • Suite 225 • Scottsdale, Az. • 85260
P: 480 397 0050 • d x u a r c h . c o m

SHADY CREEK SHELL BUILDING

PROJECT ADDRESS:
8780 HIGHWAY N
O'FALLON, MO 63366

REVISIONS:

DXU JOB NUMBER:
25-265

DATE:
05.22.2025

SHEET TITLE & NUMBER

PHOTOMETRIC SITE PLAN

PH0.1

These documents are confidential and shall be in the possession of authorized individuals only. These documents are the exclusive property of DXU architects and shall not be copied or reproduced without written authorization.

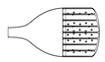


# D-Series Size 0
## LED Area Luminaire

d*series

### Specifications

**EPA:** 0.44 ft² (0.04 m²)
**Length:** 26.18" (665 mm)
**Width:** 14.06" (357 mm)
**Height H1:** 2.26" (57 mm)
**Height H2:** 7.46" (191 mm)
**Weight:** 23 lbs (10.4 kg)







Design Select options indicated by this color background.

Catalog Number: DSX0 LED
Notes:
Type: SA

Use the drop-down menus on this page to see additional options available.

### Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

## Ordering Information

**EXAMPLE:** DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

**DSX0 LED**

| Series | LEDs | Color temperature[1] | Color Rendering Index[1] | Distribution | Voltage | Mounting |
|---|---|---|---|---|---|---|
| DSX0 LED | **Forward optics**<br>P1 P5<br>P2 P6<br>P3 P7<br>P4<br>**Rotated optics**<br>P10[2] P12[2]<br>P11[2] P13[2] | (this section 70CRI only)<br>30K 3000K<br>40K 4000K<br>50K 5000K<br>27K 2700K<br>30K 3000K<br>35K 3500K<br>40K 4000K<br>50K 5000K | 70CRI<br>70CRI<br>70CRI<br>80CRI<br>80CRI<br>80CRI<br>80CRI | AFR Automotive front row<br>T1S Type I short<br>T2M Type II medium<br>T3M Type III medium<br>T3LG Type III low glare[3]<br>T4M Type IV medium<br>T4LG Type IV low glare[3]<br>T5FTM Forward throw medium<br>T5M Type V medium<br>T5LG Type V low glare<br>T5W Type V wide<br>BLC3 Type III backlight control[4]<br>BLC4 Type IV backlight control[4]<br>LCCO Left corner cutoff[4]<br>RCCO Right corner cutoff[4] | MVOLT (120V-277V)[5]<br>HVOLT (347V-480V)[5,6]<br>XVOLT (277V-480V)[5,7]<br>120 [5,8]<br>208 [5,8]<br>240 [5,8]<br>277 [5,8]<br>347 [5,8]<br>480 [5,8] | **Shipped included**<br>SPA Square pole mounting (4ft drilling, 3.5" min. SQ pole)<br>RPA Round pole mounting (4ft drilling, 3" min. RND pole)<br>SPA5 Square pole mounting (5ft drilling, 3" min. SQ pole)[9]<br>RPA5 Round pole mounting (5ft drilling, 3" min. RND pole)[9]<br>SPA5N Square narrow pole mounting (5ft drilling, 3" min. SQ pole)[9]<br>WBA Wall bracket[10]<br>MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)[11] |

| Control options | Other options | Finish (required) |
|---|---|---|
| **Shipped installed**<br>NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[12,13,14,15]<br>PIR High/low, motion/ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[12,14,15]<br>PER NEMA twist-lock receptacle only (controls ordered separately)[16]<br>PERS Five-pin receptacle only (controls ordered separately)[16] | PE#2 Seven-pin receptacle only (controls ordered separately)[16]<br>FAO Field adjustable output[17,18]<br>BL30 Bi-level switched dimming, 30%[18,19]<br>BL50 Bi-level switched dimming, 50%[18,19]<br>DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[16]<br>**Shipped installed**<br>HS Houseside shield (black finish standard)[20]<br>L90 Left rotated optics[1]<br>R90 Right rotated optics[1]<br>CCE Coastal Construction[21]<br>HA 50°C ambient operation[22]<br>BAA Buy American Act and/or Build America Buy America Qualified<br>SF Single fuse (120, 277, 347V)[23]<br>DF Double fuse (208, 240, 480V)[23]<br>**Shipped separately**<br>EGSR External Glare Shield (reversible, field install required, matches housing finish)<br>BOSR Bird Spikes (field install required) | DDBXD Dark Bronze<br>DBLXD Black<br>DNAXD Natural Aluminum<br>DWHXD White<br>DDBTXD Textured dark bronze<br>DBLBXD Textured black<br>DNATXD Textured natural aluminum<br>DWHGXD Textured white |


© 2011-2025 Acuity Brands Lighting, Inc. All rights reserved.


## Ordering Information

### Accessories

*Ordered and shipped separately.*

DLL127F 1.5 JU Photocell - SSL twist-lock (120-277V)[1]
DLL347F 1.5 CUL JU Photocell - SSL twist-lock (347V)[1]
DLL480F 1.5 CUL JU Photocell - SSL twist-lock (480V)[1]
DSHORT SBK Shorting cap[2]
DSHKS PW House-side shield (enter package number P1-7, P10-13 or P#)
DSERV PW (P#/SK) Round pole adapter (4ft drilling, specify finish)
DSSRV2 PW (P#/SK) Round pole adapter (4ft drilling (specify finish)
DSSRV3 PW (P#/SK) Square pole adapter (4ft drilling (specify finish)
DSXBSSB (P#/SK) External glare shield (specify finish)
DSXBOSB (P#/SK) Bird spike deterrent bracket (specify finish)

**NOTES**
1. Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2. 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3. T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4. HVOLT driver operates on any line voltage from 505-277V (50/60 Hz).
5. XVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6. Not available with any voltage between 277V and 480V (50/60 Hz).
7. XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8. XVOLT not available in packages P1, P2 or P10. XVOLT not available with fusing (SF or DF).
9. SPA5 and RPA5 for use with 4ft drilling only (Not for use with 4ft drilling).
10. WBA cannot be combined with Type 3 distributions plus photocell (P5PE, P6PE, P7PE).
11. MA adapter for 2 3/8" OD horizontal tenon. Must be ordered separately. Specify finish, nLight Air 2.
12. NLTAIR2 PIRHN not available with other controls including PIR, PE5, PER5, PERS, FAO, BL30, BL50 and DMG. NLTAIR2 PIRHN not available with P1, P2 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT. NLTAIR2 PIRHN not available with P1 using MVOLT.
13. Not available with NLTAIR2 PIRHN, PIR, PIRH, PER, PERH, FAO, BL30, BL50 and DMG. PIR not available with P1, P2 and P10 using HVOLT. PIR not available with P1 using MVOLT.
14. PER/PER5/PIR/PIRH not available with NLTAIR2, PIR, BL30, BL50. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See Photocontrols section on page 4.
15. FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PIRH, PE5, PER7, BL30, BL50, or DMG.
16. BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PERH, PER7, FAO and DMG. BL30 or BL50 must specify 120 or 277V.
17. Not available with NLTAIR2 PIRHN, PIR, PIRH, PE5, PER5, PER7, PERH, FAO or DMG.
18. Reference Motion Sensor Default Settings table on page 4 to see functionality.
19. Reference Controls Options table on page 4.
20. Not available with P1, P2, P3, P4, P10, P11, P12, T1S, T2M, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory, see Accessories information.
21. CCE option not available with option BS and EGSR. Contact Technical Support for availability.
22. Option HA not available with performance packages P6, P7, P12 and P13.
23. Single fuse (SF) requires 120V, 277V, 347V or 480V. Double fuse (DF) requires 208V or 240V. Not available with fusing (SF or DF). See Photocontrols Table on page 4.
24. Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

## Shield Accessories



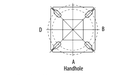
External Glare Shield (EGSR)

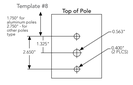


House Side Shield (HS)

## Drilling

**HANDHOLE ORIENTATION**
(from top of pole)




### Tenon Mounting Slipfitter

| Tenon O.D. | Mounting | Single Unit | 2 @ 180 | 2 @ 90 | 3 @ 90 | 3 @ 120 | 4 @ 90 |
|---|---|---|---|---|---|---|---|
| 2-3/8" | RPA | AS5-190 | AS5-280 | AS5-290 | AS5-390 | AS5-320 | AS5-490 |
| 2-7/8" | RPA | AST25-190 | AST25-280 | AST25-290 | AST25-390 | AST25-320 | AST25-490 |
| 4" | RPA | AST35-190 | AST35-280 | AST35-290 | AST35-390 | AST35-320 | AST35-490 |

| Mounting Option | Drilling Template | Single | 2 @ 180 | 2 @ 90 | 3 @ 90 | 3 @ 120 | 4 @ 90 |
|---|---|---|---|---|---|---|---|
| Head Location | | Side B | Side B & D | Side B & C | Side B, C & D | Round Pole Only | Side A, B, C & D |
| Drill Nomenclature | #8 | DM19AS | DM29AS | DM29AS | DM39AS | DM32AS | DM49AS |
| | | | | Minimum Acceptable Outside Pole Dimension | | | |
| SPA | #8 | 3.5" | 3.5" | 3.5" | 3.5" | | 3.5" |
| RPA | #8 | 3" | 3" | 3" | 3" | 3" | 3" |
| SPA5 | #5 | 3" | 3" | 3" | 3" | | 3" |
| RPA5 | #5 | 3" | 3" | 3" | 3" | 3" | 3" |
| SPA5N | #8 | 3" | 3" | 3" | 3" | | 3" |

### DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

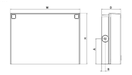
| Fixture Quantity & Mounting Configuration | Single DM19 | 2 @ 180 DM28 | 2 @ 90 DM29 | 3 @ 90 DM39 | 3 @ 120 DM32 | 4 @ 90 DM49 |
|---|---|---|---|---|---|---|
| Mounting Type | | | | | | |
| DSX0 with SPA | 0.44 | 0.88 | 0.96 | 1.58 | — | 1.16 |
| DSX0 with SPA5, SPA5N | 0.51 | 1.02 | 1.06 | 1.26 | — | 1.29 |
| DSX0 with RPA, RPA5 | 0.51 | 1.02 | 1.06 | 1.26 | 1.24 | 1.29 |
| DSX0 with WA | 0.64 | 1.28 | 1.24 | 1.67 | 1.70 | 1.93 |


© 2011-2025 Acuity Brands Lighting, Inc. All rights reserved.




# WPX LED
## Wall Packs

Specifications




Front View Side View

| Luminaire | Height (H) | Width (W) | Depth (D) | Side Conduit Location A | Side Conduit Location B | Weight |
|---|---|---|---|---|---|---|
| WPX1 | 8.1" (20.6 cm) | 11.1" (28.1 cm) | 3.2" (8.1 cm) | 4.8" (10.3 cm) | 0.6" (1.6 cm) | 6.1 lbs (2.8kg) |
| WPX2 | 9.1" (23.1 cm) | 12.3" (31.1 cm) | 4.1" (10.5 cm) | 4.5" (11.5 cm) | 0.7" (1.7 cm) | 8.2 lbs (3.7kg) |
| WPX3 | 9.5" (24.1 cm) | 13.0" (33.0 cm) | 5.5" (13.7 cm) | 4.4" (11.2 cm) | 0.7" (1.7 cm) | 11.0 lbs (5.0kg) |

Catalog Number: WPX1 LED
Notes:
Type: SC

Use the drop-down menus on this page to see additional options available.

### Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

## Ordering Information

**EXAMPLE:** WPX2 LED 40K MVOLT DDBXD

| Series | Color Temperature | Voltage | Options | Finish |
|---|---|---|---|---|
| WPX1 LED P1 1,550 Lumens, 11W[1]<br>WPX1 LED P2 2,900 Lumens, 24W<br>WPX2 LED 6,000 Lumens, 47W<br>WPX3 LED 9,200 Lumens, 69W | 30K 3000K<br>40K 4000K<br>50K 5000K | MVOLT 120V - 277V<br>347 347V[1] | (blank) None<br>E4WH Emergency battery backup, CEC compliant (4W, 0°C min)[2]<br>E14WC Emergency battery backup, CEC compliant (14W, -20°C min)[2]<br>PE Photocell[3] | DDBXD Dark bronze<br>DWHXD White<br>DBLXD Black<br>**Note: For other options, consult factory.** |

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

**NOTES**
1. All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package, which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection.
2. Not available with other WPX1 LED P1 40K MVOLT SPD6KV DDBXD
3. Battery pack options only available on WPX1 and WPX2
4. Battery pack options not available with 347V or PE options.

### FEATURES & SPECIFICATIONS

**INTENDED USE**
The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-to-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution. WPX is rated for -40°C to 40°C.

**CONSTRUCTION**
WPX features a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

**ELECTRICAL**
Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of L90 >50,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum 70 CRI. Class 1 electronic drivers have a power factor >90% and THD <20%. All luminaires have 6kV surge protection (Note: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection).
All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED drivers to adjust the lumen output (to dim the luminaire).

**INSTALLATION**
WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit wiring. A port on the back surface allows pole-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the optional terminal block compartment in all cases. WPX is only recommended for installations with LEDs facing downward.

**LISTINGS**
DLC Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

**WARRANTY**
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

## Performance Data

### Electrical Load

| Luminaire | Input Power (W) | 120V | 208V | 240V | 277V | 347V |
|---|---|---|---|---|---|---|
| WPX1 LED P1 | 11W | 0.09 | 0.05 | 0.05 | 0.04 | 0.03 |
| WPX1 LED P2 | 24W | 0.20 | 0.12 | 0.10 | 0.09 | 0.07 |
| WPX2 | 47W | 0.39 | 0.23 | 0.20 | 0.17 | 0.14 |
| WPX3 | 69W | 0.58 | 0.33 | 0.29 | 0.25 | 0.20 |

### Lumen Output

| Luminaire | Color Temperature | Lumen Output |
|---|---|---|
| WPX1 LED P1 | 3000K | 1,537 |
| | 4000K | 1,568 |
| | 5000K | 1,662 |
| WPX1 LED P2 | 3000K | 2,748 |
| | 4000K | 2,912 |
| | 5000K | 2,954 |
| WPX2 | 3000K | 5,719 |
| | 4000K | 5,896 |
| | 5000K | 6,201 |
| WPX3 | 3000K | 8,984 |
| | 4000K | 9,269 |
| | 5000K | 9,393 |

### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

| Ambient | Ambient | Lumen Multiplier |
|---|---|---|
| 0°C | 32°F | 1.05 |
| 5°C | 41°F | 1.04 |
| 10°C | 50°F | 1.03 |
| 15°C | 59°F | 1.02 |
| 20°C | 68°F | 1.01 |
| 25°C | 77°F | 1.00 |
| 30°C | 86°F | 0.99 |
| 35°C | 95°F | 0.98 |
| 40°C | 104°F | 0.97 |

### Projected LED Lumen Maintenance

Data references the extrapolated performance projections in a 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate L1F, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

| Operating Hours | 50,000 | 75,000 | 100,000 |
|---|---|---|---|
| Lumen Maintenance Factor | >0.94 | >0.92 | >0.90 |

### HID Replacement Guide

| Luminaire | Equivalent HID Lamp | WPX Input Power |
|---|---|---|
| WPX1 LED P1 | 100W | 11W |
| WPX1 LED P2 | 150W | 24W |
| WPX2 | 250W | 47W |
| WPX3 | 400W | 69W |

### Emergency Egress Battery Packs

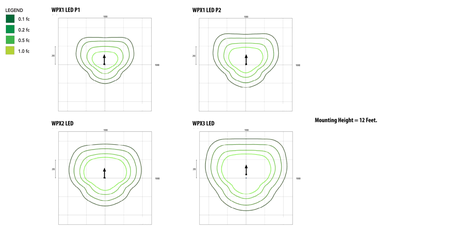
The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

| Battery Type | Minimum Temperature Rating | Power (Watts) | Control Option | Ordering Example |
|---|---|---|---|---|
| Standard | 0°C | 4W | E4WH | WPX2 LED 40K MVOLT **E4WH** DDBXD |
| Cold Weather | -20°C | 14W | E14WC | WPX2 LED 40K MVOLT **E14WC** DDBXD |

## Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards

LEGEND
0.1 fc
0.2 fc
0.5 fc
1.0 fc




**Mounting Height = 12 Feet.**


© 2020-2024 Acuity Brands Lighting, Inc. All rights reserved.


gotham® | E V O®
Multiple Layers of Light



Luminaire Type: SC
Catalog Number: EVO4

BAA BABA 66 (4" holes)

## General Illumination Surface Ceiling Cylinder 4"



OVERVIEW

### Feature Set

- Battening distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- Bounding Ray™ optical design
- 45° Cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM, 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location optional (WL) - covered ceiling required; IP66 optional - covered ceiling required
- Multiple recessed or surface j-box mounting configurations available
- 20 standard colors in textured and gloss finish; custom or RAL colors also available
- Field configurable surface junction box conduit covers available
- Completely integral emergency battery option available
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117:1995 Discomfort Glare in Interior Lighting. UGR FAQ

### Distribution




### Superior Performance

| Nominal Lumens | 250 | 500 | 750 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Delivered Lumens | 271 | 573 | 808 | 1001 | 1527 | 1994 | 2580 | 3110 | 3612 | 4120 | 4584 | 5045 |
| Wattage | 3.1 | 7.2 | 7.9 | 8.8 | 13.7 | 19.5 | 25.7 | 31.2 | 38.4 | 35.4 | 40.1 | 44.7 |
| Lumens per Watt | 87.4 | 79.6 | 102.3 | 113.8 | 111.5 | 102.3 | 100.4 | 99.7 | 94.1 | 116 | 114 | 113 |

### Coordinated Apertures I Multiple Layers of Light



General Illumination Layer I EVO



High Center Beam Layer I Incito



EVO + Incito — Multiple Layers of Light

COMPLEMENTARY SYSTEMS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Core | Downlight | Adjustable | Open Wallwash | Lensed Wallwash | Cylinder | Pinhole | Bevel | Hyperbolic | | | | |
| Healthcare | MRI | Surgical Suite | Patient Room | | | | | | | | | |
| Special Applications | Dynamic | Food Service | Vandal/Tamper | Clean Room | Shower | Steam Room | | | | | | |


GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com
© 2014-2024 Acuity Brands Lighting Inc. All Rights Reserved. Rev. 10/09/24 Specifications subject to change without notice.
The product images shown are for illustration purposes only and may not be an exact representation of the product.

gotham® | E V O®

4" General Illumination Surface Ceiling Cylinder

Luminaire Type: SC
Catalog Number: EVO4

ORDERING INFORMATION

**EXAMPLE: EV04SC 35/15 AR LSS NWD MVOLT E2! JBXCC DWHG**

| Series | Color Temperature | Lumens | Reflector Color | Reflector Finish | Distribution | Voltage |
|---|---|---|---|---|---|---|
| EV04SC EVO 4in Surface Ceiling Round Cylinder Open Downlight | 27/ 2700 K<br>30/ 3000 K<br>35/ 3500 K<br>40/ 4000 K<br>50/ 5000 K | 02 250 lumens<br>05 500 lumens<br>07 750 lumens<br>10 1000 lumens<br>15 1500 lumens<br>20 2000 lumens<br>25 2500 lumens<br>30 3000 lumens<br>35 3500 lumens<br>40 4000 lumens<br>45 4500 lumens<br>50 5000 lumens | AR Clear<br>PW Pewter<br>WTD Wheat<br>GR Gold<br>WHI[1] White-painted<br>BK[1] Black<br>WRAMF[1] White Anti-microbial<br>BZR[1] Dark Bronze painted<br>TRALTBD[1,2] Trim RAL # TBD (TBD for pricing only)<br>TCPC[1,2] Trim Custom Paint Color TBD (TBD for pricing only) | LSS Semi-specular<br>LD Matte-diffuse<br>LS Specular | MD Medium (0.8 s/mh)<br>MWD Medium wide (1.0 s/mh)<br>WD Wide (1.2 s/mh) | MVOLT 120V - 277V<br>120 120V<br>277 277V<br>347[3] 347V |

| Driver[4] | Mounting | Emergency Option |
|---|---|---|
| GZ10 0-10V driver dims to 10%<br>GZ1 0-10V driver dims to 1%<br>EZ10 eldoLED 0-10V ECODrive. Linear dimming to 10% min.<br>EZ1 eldoLED 0-10V ECODrive. Linear dimming to 1% min.<br>EZB eldoLED 0-10V SOLODrive. Logarithmic dimming to <1%.<br>EDA0[5] eldoLED SOLODrive DALI. Logarithmic dimming to <1%.<br>EDIM[5,6] eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min. 1000LM. Max. 4000LM.<br>ECOD[5] Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max. 4000LM.<br>ELV[4] Electronic line voltage (120V only) | JBX Integral driver, Recessed or Surface J-box<br>JBXCC Integral driver, Surface J-box with Conduit Covers<br>RGH[1] Recessed Gear Housing | (blank) No emergency options<br>EGW GW integral emergency battery, CA Title 20 compliant emergency battery pack with integral test switch. Only available with GZ10, GZ1 and ELV Drivers. Only for use with 500-2500 lumen options. Not available with 1500 lumen option.<br>E7WCP XITA® 7W Constant Power emergency battery. Only for use with 750-5000 lumen options (sidecar)<br>E10WCP XITA® 10W Constant Power, CA Title 20 compliant emergency battery pack with integral test switch. Only for use with 1000-5000 lumen options. (sidecar or RGH)<br>E10WCPR XITA® 10W Constant Power, CA Title 20 compliant emergency battery pack with remote test switch. (requires RGH)<br>E15WCP XITA® 15W Constant Power, CA Title 20 compliant emergency battery. Only for use with 1500-5000 lumen options. (sidecar)<br>GTD XITA® Generator Transfer Device. Specify 120V or 277V (requires RGH) |

| Control Interface[4] | Options | Architectural Colors - Powder Paint[1] | |
|---|---|---|---|
| (blank) No controls<br>NLT nLight® dimming pack. Specify 120V or 277V.<br>NLTER[1] nLight® dimming pack for fixtures on emergency circuit. Specify 120V or 277V.<br>NLTAIR2 nLight® AIR dimming pack. Specify 120V or 277V.<br>NLTAIRER2[1] nLight® AIR dimming pack for fixtures on emergency circuit. Specify 120V or 277V. | 90CRI High CRI (90+)<br>CP[1] Chicago Plenum. Specify 120V or 277V (requires RGH)<br>HA[2] High Ambient Option (40°C)<br>IP66[1] Lensed, IP66 rated<br>NBO[1] nLight Lumen Compensation<br>SF Single fuse. Specify 120V or 277V.<br>WL[1] Wet Location | DDB Gloss Dark Bronze<br>DBL Matte Black<br>DWH Gloss White<br>DMB Matte Medium Bronze<br>DNA Gloss Natural Aluminum<br>DSS Gloss Sandstone<br>DGC Gloss Charcoal Grey<br>DTG Gloss Tennis Green<br>DBR Gloss Bright Red<br>DSB Gloss Steel Blue | DDBT Textured Dark Bronze<br>DBLB Textured Black<br>DWHG Textured White<br>DBNH Textured Bronze<br>DNAT Textured Natural Aluminum<br>DSST Textured Sandstone<br>DSPD Textured Dark Grey<br>DSPC Textured Green<br>DSPH Textured Light Red<br>DWHAMF Gloss White with Anti-microbial finish<br>RALTBD Cylinder RAL # TBD (TBD for pricing only)<br>CPC Cylinder Custom Paint Color TBD (TBD for pricing only) |

**ACCESSORIES — order as separate catalog numbers (shipped separately)**

| | |
|---|---|
| GCOLORS KIT | Architectural colors chip kit, consisting of powder-coat and plated finishes |
| CYLJBXADPT 4SQ2OCT ___ | 4in Square J-box to 4in Octagonal J-box adaptor. Replace ___ with Architectural Color or PRM for primed ready for field painting |


GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com
© 2014-2024 Acuity Brands Lighting Inc. All Rights Reserved. Rev. 10/09/24 Specifications subject to change without notice.
The product images shown are for illustration purposes only and may not be an exact representation of the product.
gotham®

DXU ARCHITECTS
15150 N. Hayden Road • Suite 225 • Scottsdale, Az. • 85260
P: 480 397 0050 • d x u a r c h . c o m

SHADY CREEK SHELL BUILDING

EST. 1998 SCOOTER'S COFFEE

PROJECT ADDRESS:
8780 HIGHWAY N
O'FALLON, MO 63366

REVISIONS:

DXU JOB NUMBER:
25-265

DATE:
05.22.2025

SHEET TITLE & NUMBER

LIGHT FIXTURE SPECIFICATION SHEETS

PH0.2

These documents are confidential and shall be in the possession of authorized individuals only. These documents are the exclusive property of DxU architects and shall not be copied or reproduced without written authorization.

PLOT DATE: 9/26/2025 5:08 PM PLOTTED BY: CWALL

# City of O'Fallon, Missouri

## Memorandum

**Planning and Zoning Commission** **G. 5. a.**

**Meeting Date:** 05/07/2026
**Re:** Public Hearing for a Preliminary Plat for 507 Sonderen Street
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a Public Hearing for a Preliminary Plat for 507 Sonderen Street.

**Recommendation:**
To hold the Public Hearing to receive citizen input.

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 5. b.**

**Meeting Date:** 05/07/2026
**Re:** Preliminary Plat for 507 Sonderen Street
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a Preliminary Plat for 507 Sonderen Street, Stevenson Place.

**Recommendation:**
Staff Report is attached.

**Attachments**

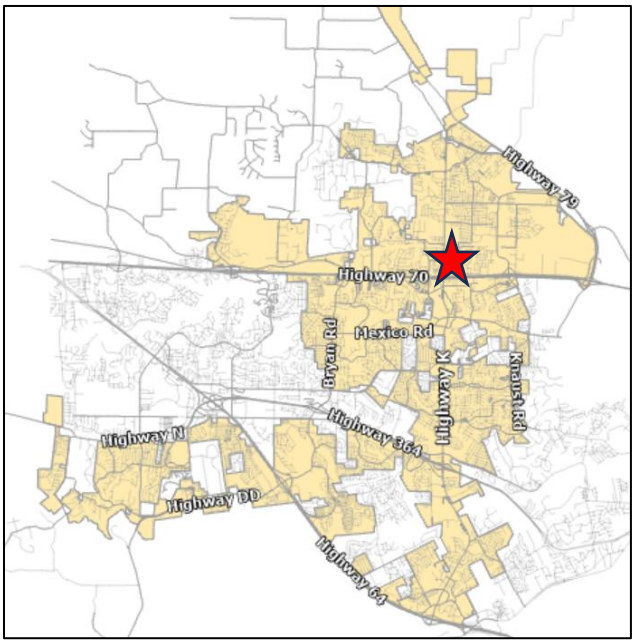
Staff Report
Site Location Map
Property Owner Notification List
Preliminary Plat
Elevations

**O'Fallon Planning and Zoning Commission Meeting**
**O'Fallon Municipal Centre Council Chambers**
**100 North Main Street, O'Fallon, MO 63366**

On January 8, 2026 the Planning and Zoning Commission denied the below request. The Rezoning and Conditional Use Permit were later approved by the City Council on March 26, 2026. Therefore, given the change in circumstances, the Site Plan and Preliminary Plat are back before the Commission to be reconsidered. Given that the Site Plan and Preliminary Plat conform with the requirements of the zoning district and have an approved Conditional Use Permit for the proposed use, staff is recommending approval.

## Project Summary:

| | |
|---|---|
| **Meeting Date:** | May 7, 2026 |
| **Case Number:** | 25-012715 |
| **Location of Subject Property:** | 507 Sonderen Street |
| **Action Requested:** | Approval of a Preliminary Plat for a subdivision consisting of 16 townhome lots. |
| **Recommendation:** | Approval |
| **Final Action:** | City Council |
| **Related Applications:** | Site Plan<br>Rezoning – To Council<br>Conditional Use – To Council |
| **Staff Contact:** | Spencer Haeggberg, MPPA<br>shaeggberg@ofallonmo.gov<br>636-379-5486 |




---

## Applicant Summary:

| | |
|---|---|
| **Applicant and Engineer:** | Jeff Simmons<br>Bax Engineering<br>221 Point West Boulevard<br>St. Charles, MO 63301<br>(636) 928-5552<br>jsimmons@baxengineering.com |
| **Property Owner of Record:** | Michael Schneider<br>811 N Main Street<br>O'Fallon, MO 63366 |

## Subject Property Datum:

| | | | | | |
|---|---|---|---|---|---|
| **Parcel Size:** | 1.85 acres | **Current Zoning:** | R-1/Downtown Overlay | **Proposed Zoning:** | C-0/Downtown Overlay |

| | | | |
|---|---|---|---|
| **Comprehensive Plan Designation:** | The Comprehensive Plan's Future Land Use Map depicts this parcel as suitable for mixed uses. | | |
| **Proposed Use of Subject Property:** | The applicant applied for a similar project in late 2025 that was withdrawn prior to the final vote at the City Council. This proposal subdivides each townhome lot allowing for the individual sale of each unit.<br><br>This property currently contains a single-family home. Over the past few years, the property owner has brought in a large amount of fill significantly altering the topography. The Engineer estimates that in parts of the property, up to 10 feet of fill was placed. This was done without the proper permits. Therefore, retroactive permits or corrective measures may be required prior to development.<br><br>The applicant is proposing to construct two eight-unit townhome buildings. As there is not direct public street access, this development cannot be zoned residential. City Code allows for commercially zoned buildings to be used for residential purposes with the approval of a Conditional Use Permit. An existing access easement to the site has not yet been located, however the applicant is actively working with the property owner of 409 Sonderen St. to ensure cross access to this site.<br><br>A Site Plan, Rexoning, and Conditional Use Permit have been applied for in conjunction with the Preliminary Plat application. | | |
| **Adjacent Parcel Data:** | **North** | R-1/Downtown and C-2/Downtown | 302-310 E Pitman Street |
| | **South** | C-2/Downtown | 509 Sonderen Street |
| | **East** | C-1/Downtown and C-2/Downtown | 403-409 Sonderen Street |
| | **West** | R-1/Downtown | St. Nicholas Ct. Subdivision |

## Preliminary Plat Component Details:

| | |
|---|---|
| **General Information:** | The applicant is requesting to subdivide the lot into 17 lots for a residential development. There will be 16 residential lots and one common ground lot.<br><br>The twelve interior unit lots are 1,264 sq. ft. and the four exterior unit lots are 1,738 sq. ft.<br><br>The size of the common ground lot has not been provided. |
| **Access to Property:** | All lots will be accessed via a private driveway on 409 Sonderen Street. The applicant is working with the property owner of this site to formalize an access easement agreement. |
| **Legal Description:** | Provided. |

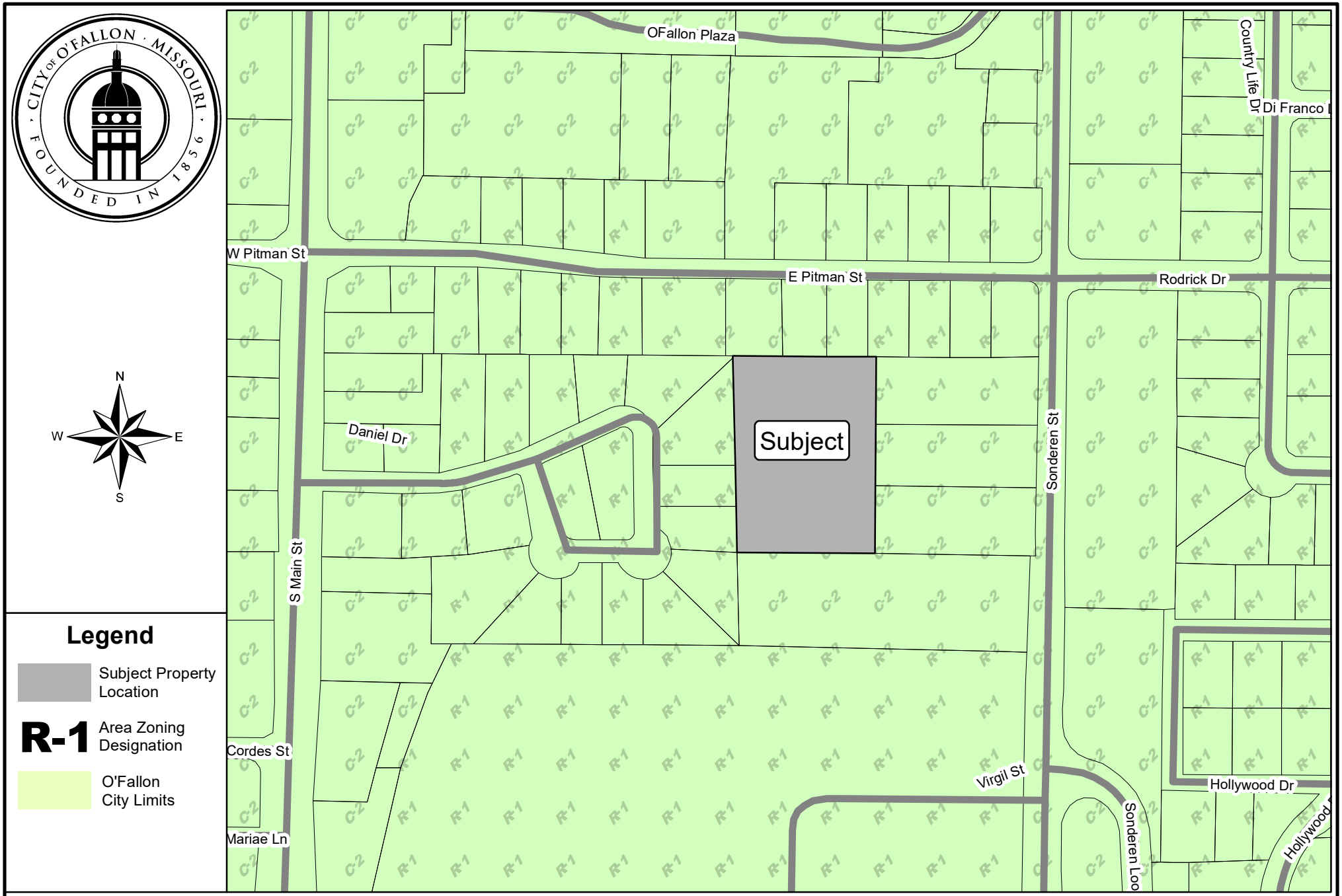
**The photograph shows the Public Meeting sign near the subject property.**




## Staff Recommendation:

| | |
|---|---|
| Staff recommends that the Commission **approve** the Preliminary Plat based upon the following findings and conditions: | |
| **Findings:** | 1. The proposed use at this location will contribute to and promote the public welfare and convenience of the public.<br>2. The use should not cause substantial injury to the value of other property in the neighborhood. |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Construction Site Plan.<br>2. Provide documentation showing how much fill was brought to this site and any grade changes. A Geotechnical Study shall be conducted to review the following items, including, but not limited to; the extent of the fill brought in, the compaction of the fill, the type of material used I the fill, and if any hazardous materials are present in the fill. This study shall be reviewed and approved by the City. Retroactive permits or corrective actions shall be required prior to construction as reviewed on the Construction Site Plans and Geotechnical Study. No permits for construction, further grading, or clearing will be issued |

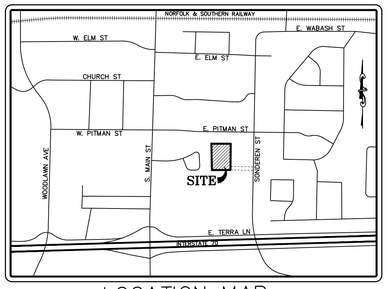
| | |
|---|---|
| | until the City has reviewed and approved the Geotechnical Study and any corrective actions have been completed to the satisfaction of the City.<br>3. Provide the size of the common ground lot.<br>4. Revise bufferyard calculations to accurately reflect the required number of trees. A fence is required when adjacent to residential uses.<br>5. Provide access easement from 409 Sonderen Street.<br>6. Provide Fire District, MDNR and school district approval.<br>7. Provide a photometric plan.<br>8. Provide USPS approval for the mail kiosk.<br>9. Provide the height of the structures.<br>10. Remove unapproved existing connections to 509 Sonderen Street.<br>11. Show proposed finished floor elevations.<br>12. Color code utilities.<br>13. Water Quality BMP must meet City Code.<br>14. Direct Basin Drainage away from adjoining backyards. Discharge needs to be angled to the west into the ditch area.<br>15. Verify size of main going to Daniel Dr. and provide easements for main.<br>16. Provide water drainage plan for private road off of Sonderen Street.<br>17. Retaining wall material shall comply with residential standards. |



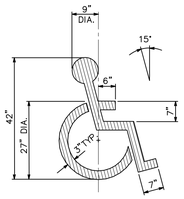

# 507 Sonderen Street

| Owner | SiteAddress | City_State_Zip |
|---|---|---|
| CENTRAL REORGANIZED SCHOOL DISTRICT #2 | 210 VIRGIL AVE | OFALLON MO, 63366 |
| CENTRAL REORGANIZED SCHOOL DISTRICT #2 | 110 VIRGIL ST | OFALLON MO, 63366 |
| SCHNEIDER MICHAEL | 507 SONDEREN ST | OFALLON MO, 63366 |
| SCHNEIDER MICHAEL | 811 N MAIN ST | OFALLON MO, 63366 |
| POWER BODY USA INC | 403 SONDEREN ST | OFALLON MO, 63366 |
| POWER BODY USA INC | 2931 STARGAZE DR | OFALLON MO, 63368 |
| WOLFE ENTERPRISES HOLDINGS LLC | 407 SONDEREN ST | OFALLON MO, 63366 |
| JDL23 LLC | 409 SONDEREN ST | OFALLON MO, 63366 |
| WILLIAMS GARY L*WILLIAMS THERESA K | 509 SONDEREN ST | OFALLON MO, 63366 |
| WILLIAMS GARY L*WILLIAMS THERESA K | 201 WILLIAMS ESTATES DR | OFALLON MO, 63366 |
| KOENEMAN STEPHEN P*KOENEMAN MARY K | 205 E PITMAN ST | OFALLON MO, 63366 |
| 212 CLUB OFALLON | 207 E PITMAN ST | OFALLON MO, 63366 |
| PRENOVOST NATHAN*PRENOVOST SARAH | 305 E PITMAN ST | OFALLON MO, 63366 |
| STEIN CHERI G*STEIN JEFFREY M | 307 E PITMAN ST | OFALLON MO, 63366 |
| STEIN CHERI G*STEIN JEFFREY M | 11 WINDCASTLE DR | ST CHARLES MO, 63304 |
| FOWLER LEONARD | 309 E PITMAN ST | OFALLON MO, 63366 |
| FOWLER LEONARD | 39888 SWEETBRIER CIRCLE | TEMECULA CA, 92591 |
| MORRISSEY JEFFREY | 311 E PITMAN ST | OFALLON MO, 63366 |
| KERN PROPERTIES LLC | 313 E PITMAN ST | OFALLON MO, 63366 |
| KERN PROPERTIES LLC | 3 ST MALO CT | LAKE ST LOUIS MO, 63367 |
| HIGGINS JAMES L II | 315 E PITMAN ST | OFALLON MO, 63366 |
| GILLHAM JD JR*GILLHAM NORMA L REVOC LIV TRUST | 316 E PITMAN ST | OFALLON MO, 63366 |
| GILLHAM JD JR*GILLHAM NORMA L REVOC LIV TRUST | 31 N OVERBROOK DR | ST CHARLES MO, 63301 |
| CODY JOSEPH M REVOCABLE TRUST | 314 E PITMAN ST | OFALLON MO, 63366 |
| CODY JOSEPH M REVOCABLE TRUST | 2720 DROSTE RD | ST CHARLES MO, 63301 |
| BARNABAS PROPERTIES LLC | 312 E PITMAN ST | OFALLON MO, 63366 |
| BARNABAS PROPERTIES LLC | 278 HWY D | HAWK POINT MO, 63349 |
| MYERS JESSICA E*MYERS TIMOTHY J | 310 E PITMAN ST | OFALLON MO, 63366 |
| SAEY ADAM J*BARRY LAUREN J | 306 E PITMAN ST | OFALLON MO, 63366 |
| WILLERS RICHARD D*WILLERS BARBARA A | 304 E PITMAN ST | OFALLON MO, 63366 |
| MAKER ENTERPRISES LLC | 302 E PITMAN ST | OFALLON MO, 63366 |
| MAKER ENTERPRISES LLC | 1 E ALLEN STE 200 | WENTZVILLE MO, 63385 |
| KREGER ANNA | 208 E PITMAN ST | OFALLON MO, 63366 |
| LUETKENHAUS | 206 E PITMAN ST | OFALLON MO, 63366 |
| ROGERS STEVEN | 204 E PITMAN ST | OFALLON MO, 63366 |
| ROGERS STEVEN | 1 GODAR CT | OFALLON MO, 63366 |
| DUNCAN ROY O*DUNCAN BETTY LOU | 28 DANIEL DR | OFALLON MO, 63366 |
| HOWARD CAROL J | 26 DANIEL DR | OFALLON MO, 63366 |
| WINKELMANN KELLY | 24 DANIEL DR | OFALLON MO, 63366 |
| WINKELMANN KELLY | 814 WOOLWICK CT | ST CHARLES MO, 63304 |
| MCGHEE GLENN E*MCGHEE VIVIAN S | 22 DANIEL DR | OFALLON MO, 63366 |
| LATHAM DYLAN | 20 DANIEL DR | OFALLON MO, 63366 |
| SCHULTE HERBERT M*SCHULTE DOROTHY | 18 DANIEL DR | OFALLON MO, 63366 |
| DIETRICH JUDY*DIETRICH ALLAN P | 16 DANIEL DR | OFALLON MO, 63366 |
| LUERDING GREG*LUERDING CORD | 14 DANIEL DR | OFALLON MO, 63366 |
| LUERDING GREG*LUERDING CORD | 65 CHAMPAGNE DR | LAKE ST LOUIS MO, 63367 |
| LIGHTFOOT MELISSA L | 12 DANIEL DR | OFALLON MO, 63366 |
| BRYANT PAUL T*SCHLIERMANN NICOLE M | 10 DANIEL DR | OFALLON MO, 63366 |
| MOORE GREGORY J | 34 DANIEL DR | OFALLON MO, 63366 |
| HOME SWEET HOME RENTALS LLC | 36 DANIEL DR | OFALLON MO, 63366 |
| HOME SWEET HOME RENTALS LLC | 636 WOODBRIAR LN | ST PETERS MO, 63376 |
| JEFFS EXTREME CARS & BODY SHOP LLC | 222 OFALLON PLZ | OFALLON MO, 63366 |

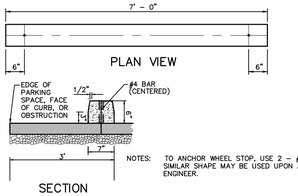
# A PRELIMINARY PLAT FOR
# *STEVENSON PLACE*
## A TRACT OF LAND BEING PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF FRACTIONAL SECTION 28 TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN CITY OF O'FALLON ST. CHARLES COUNTY, MISSOURI




LOCATION MAP
NOT TO SCALE



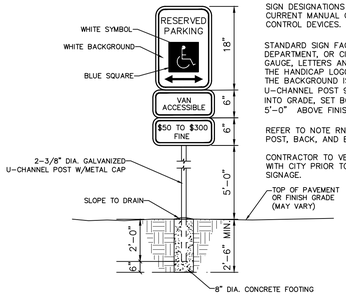

PAINTED HANDICAPPED
PARKING SYMBOL
NOT TO SCALE




SECTION

NOTES: TO ANCHOR WHEEL STOP, USE 2 – #4 BARS 24" LONG SIMILAR SHAPE MAY BE USED UPON APPROVAL OF THE ENGINEER.

PRECAST CONCRETE WHEELSTOP




SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED U-CHANNEL POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-0" ABOVE FINISHED GRADE.

REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE VAN PARKING SIGN
NOT TO SCALE



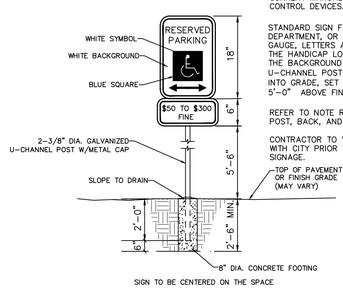

SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE.

REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE VAN PARKING SIGN
NOT TO SCALE



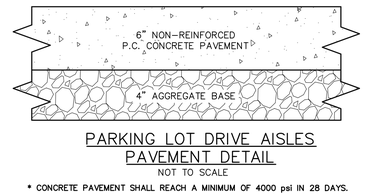

SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, GALVANIZED U-CHANNEL POST 9'-6" LONG, SET 2'-0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'-0" ABOVE FINISHED GRADE.

REFER TO NOTE RN#19 ON SHEET 2 FOR POST, BACK, AND BRACKET COLOR

CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

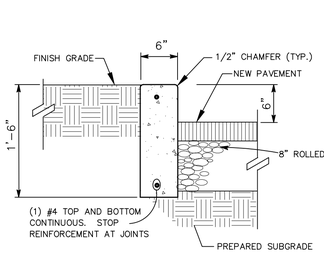
SIGN TO BE CENTERED ON THE SPACE
ACCESSIBLE CAR PARKING SIGN
NOT TO SCALE



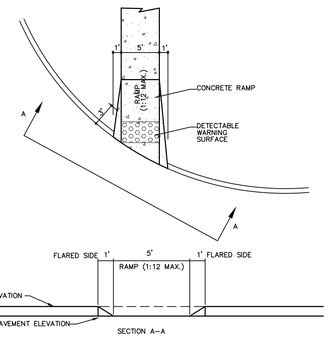

PARKING LOT DRIVE AISLES
PAVEMENT DETAIL
NOT TO SCALE

* CONCRETE PAVEMENT SHALL REACH A MINIMUM OF 4000 psi IN 28 DAYS.

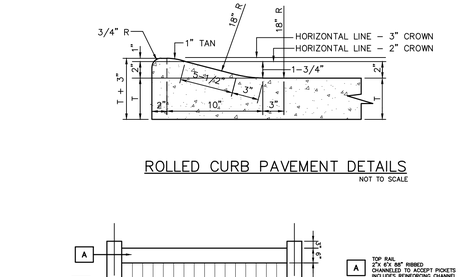
* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.



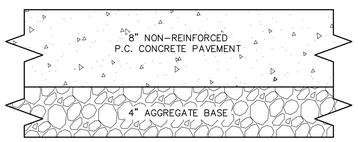

CONCRETE CURB DETAIL
NOT TO SCALE




HANDICAPPED RAMP WITH
DETECTABLE WARNING DETAIL
NOT TO SCALE



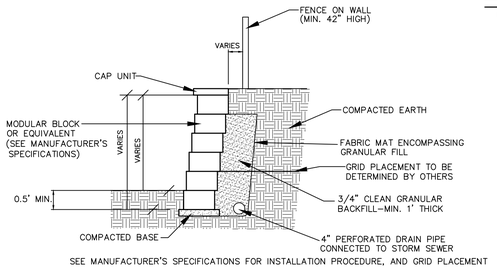

ROLLED CURB PAVEMENT DETAILS
NOT TO SCALE




TRASH ENCLOSURE PAVEMENT DETAIL
NOT TO SCALE

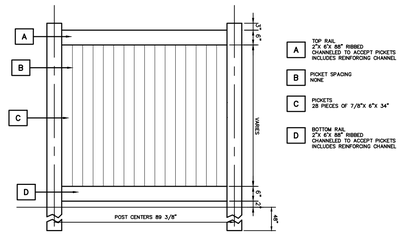
* CONCRETE PAVEMENT SHALL REACH A MINIMUM OF 4000 psi IN 28 DAYS.

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

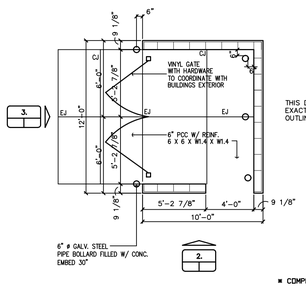



SEE MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION PROCEDURE, AND GRID PLACEMENT

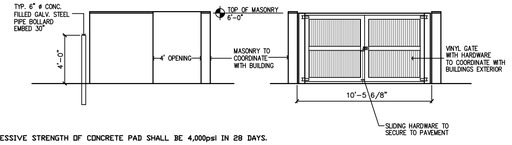
MODULAR BLOCK CONCRETE RETAINING WALL
(RETAINING WALL DESIGN BY OTHERS) NOT TO SCALE




SIGHT PROOF VINYL PRIVACY FENCE
NOT TO SCALE
NOTE: COLOR TO COORDINATE WITH BUILDING

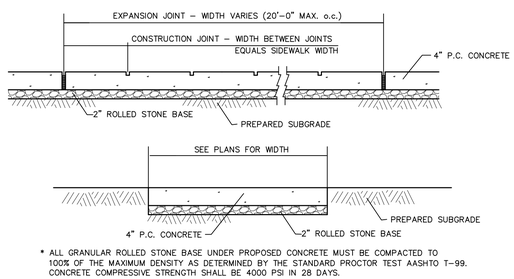



THIS DETAIL HAS BEEN PROVIDED FOR CONCEPTUAL APPROVAL ONLY. EXACT DETAIL OF MATERIAL AND CONSTRUCTION METHODS SHALL BE OUTLINES IN THE ARCHITECTURAL BUILDING PLANS.



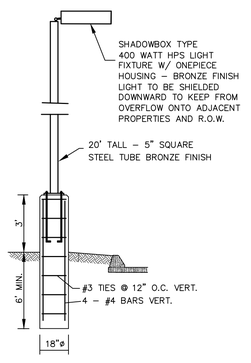

* COMPRESSIVE STRENGTH OF CONCRETE PAD SHALL BE 4,000psi IN 28 DAYS.

1. TRASH ENCLOSURE PLAN NOT TO SCALE
2. ELEVATION NOT TO SCALE
3. ELEVATION NOT TO SCALE




* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE




LIGHT POLE & BASE
NOT TO SCALE

## *DEVELOPMENT NOTES*

1. Site Area: 1.847 Acres
2. Existing Zoning: "R-1" Single Family Residential W/Downtown Overlay District (City of O'Fallon)
3. Proposed Zoning: "C-O", Office District W/Downtown Overlay District (City of O'Fallon)
4. Proposed Use: 16 Attached Units
5. Property Owner: Michael Schneider 811 N. Main Street O'Fallon, MO 63366
6. Setbacks for "C-O" Zoning:
   Front Yard: 25'
   Side Yard: 10'
   Rear Yard: 35'
   Building Height: 3 Stories or 50 feet
7. Downtown Overlay Flexible Design Allowances:
   Maximum 10 units/Acre
   Minimum of 20% Landscaped Green Space
   Vary Front Yard to 20' along South Property Line
   Vary Front Yard to 5' along Interior Lots
   Vary Side Yard to 0' for Attached Units
   Vary Lot Area to 1,264 s.f.
8. Site is served by:

| | | | |
|---|---|---|---|
| Gas: | Spire Energy<br>1999 Trade Center Drive East<br>St. Peters, MO 63376<br>314-575-0885 | Telephone: | CenturyLink<br>1151 CenturyTel Drive<br>P.O. Box 7551<br>Wentzville, MO 63385<br>636-332-7261 |
| Sewer: | City of O'Fallon<br>100 N. Main Street<br>O'Fallon, MO 63366<br>636-281-2858 | Fire District: | O'Fallon Fire District<br>111 Laura K Drive<br>O'Fallon, MO 63366<br>636-272-3493 |
| Electric: | Ameren UE<br>200 N. Callahan Rd.<br>Wentzville, MO 63021<br>636-639-8315 | School District: | Fort Zumwalt School District<br>110 Virgil Street<br>O'Fallon, MO 63366<br>636-272-6620 |
| Water: | City of O'Fallon<br>100 N. Main Street<br>O'Fallon, MO 63366<br>636-281-2858 | | |

9. Flood Plain Note: According to the Flood Insurance Rate Map of St. Charles, Missouri, Unincorporated Areas (Community – Panel Number 29183C0237G, dated January 20, 2016). This tract lies partially in Zone "X"-Other Areas (Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood) and partially within Zone "X" (Areas determined to be outside the 0.2% annual chance floodplain.)
10. Topographic & boundary information is per survey as compiled by Box Engineering.
11. All new lighting shall be downcast lights consistent with City of O'Fallon standards and specifications. A photometric plan shall be submitted with construction documents for review and approval.
12. All mechanical equipment will be rooftop units and will be screened per City of O'Fallon Zoning Code, Section 400.278.
13. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
14. All new utilities are to be located underground.
15. Site Coverage Calculations:
    Total Site = 1.847 Acres
    Buildings = 0.205 Acres (11.13%)
    Pavement = 0.519 Acres (28.12%)
    Greenspace = 1.123 Acres (60.75%)
16. Parking Calculations:
    One and one-half (1.5) spaces for efficiency and one (1) bedroom unit, plus one (1) additional space for each additional bedroom
    16 Units x 2.5 spaces = 40 spaces required (including 2 accessible)
    42 spaces proposed (including 6 accessible spaces)

    Loading Spaces Required:
    Uses having over 5,000 s.f. of gross floor area shall provide at least 1 off-street loading space. For every additional 20,000 s.f. of gross floor space, 1 additional loading space shall be provided.
    1,100 s.f. x 16 Units = 17,600 s.f. gross floor area
    17,600 s.f. – 5,000 s.f. = 12,600 s.f.
    1 space required
    1 space provided
17. Landscape Requirements:
    Not less than 6% of the interior parking lot shall be landscaped
    42 spaces X 270 s.f. = 11,340 s.f.
    11,340 x 6% = 680 s.f. Required
    Provided = 815 s.f.

    Landscape Buffer Requirements:
    20' Wide Buffer strip along West property line
    6' Vinyl fence to be provided with 2 plant units for every 100 L.F. of buffer required. 1 plant unit = 30 points
    Buffer strip length = 348.44 L.F.
    Area along strip to be landscaped = 210.72 L.F.
    210.72 L.F. / 100 L.F. = 2.10 x 60 = 126 points required
    13 trees @ 10 points each = 130 points provided

    50' Wide Buffer strip along North property line
    5 plant units for every 100 L.F. of buffer required.
    1 plant unit = 30 points
    Buffer strip length = 231.00 L.F.
    Area along strip to be landscaped = 76.10 L.F.
    76.10 L.F. / 100 L.F. = 0.76 x 150 = 114 points required
    12 trees @ 10 points each = 120 points provided

    Minimum of 20% of Greenspace to be Landscaped
    1.153 X 20% = 0.23 Acres
    0.23 Acres provided
18. Tree Preservation Calculations:
    Existing Trees = 1.20 Acres
    1.847 Acres / 15 trees per acres = 0.12 Acres
    1.20 X 20% = 0.24 Acres
    0.24 > 0.12 = 0.24 Acres to be preserved
    1.03 Acres To Be Removed
    0.24 Acres – 0.17 Acres Preserved = 0.07 Acres
    (Reforestation Rate of 15 trees/Acre)
    0.07 Acres / 15 trees per acres = 0.07 ~ 1 tree required
19. Differential Runoff Calculations:
    Site Area: 80,489.01 S.F. (1.847 Acres)
    Existing:
    Ex. Building & Pavement: 0.02 Acres @ 4.77 = 0.10cfs
    Ex. Grass: 1.83 Acres @ 2.29 = 4.19cfs
    Existing Total = 4.29cfs
    Proposed:
    Building & Pavement: 0.55 Acres @ 4.77 = 2.62cfs
    Gross & Pervious Pavement: 1.29 Acres @ 2.29 = 2.95cfs
    Proposed Total = 5.57cfs
    5.57cfs – 4.29cfs = 1.28cfs Increase in Runoff
    Detention Provided
20. Sanitary Sewage Flow Calculation:
    3.7 Persons x 100 Gallons per Person = 370 GPD
    370 GPD x 16 Units = 5,920 GPD
    Total Sewage Flow Generated for this permit = 5,920 GPD
21. Density Calculation:
    Total Site = 1.847 Acres
    16 Units / 1.847 Acres = 8.6 Units/Acre
22. Signage shall be permitted separately.
23. Site shall comply with Article XIII, Performance Standards.
24. Site shall comply with the City's Comprehensive Plan.
25. No slope is to exceed 3:1.
26. All lots are susceptible to street movement.
27. All sanitary laterals to be a minimum of 6" SDR 26.
28. Easements to City of O'Fallon for utilities will be shown on Record Plat.

A PRELIMINARY PLAT FOR
*STEVENSON PLACE*
*#507 SONDEREN STREET*
*CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366*

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


*ENGINEERING PLANNING SURVEYING*
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority Engineering #000655
Missouri State Certificate of Authority Surveying #000144


*REVISIONS*

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI JEFFREY B SIMMONS NUMBER PE-2007030831 PROFESSIONAL ENGINEER 12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

12/02/2025
*DATE*
25-19510
*PROJECT NUMBER*
19510pre.dwg
*FILE NAME*
CLM
*DRAWN*
CAW/JBS JBS
*DESIGNED CHECKED*

COVER SHEET

LOT 21
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
MAKER ENTERPRISES, LLC
D.B. 6519 PG. 3

302 EAST PITMAN STREET
ID#2-056B-4375-00-0021.0000000
ZONED: C-2

LOT 20
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
RICHARD D. WILLERS AND
BARBARA A. WILLERS
D.B. 1220 PG. 1178

304 EAST PITMAN STREET
ID#2-056B-4375-00-0020.0000000
ZONED: R-1

LOT 19
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
ADAM J SAEY AND
LAUREN J BARRY
D.B. 7240 PG. 693

306 EAST PITMAN STREET
ID#2-056B-4375-00-0019.0000000
ZONED: R-1

LOT 18
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
JESSICA E. MYERS AND
TIMOTHY J. MYERS
D.B. 6959 PG. 1765

310 EAST PITMAN STREET
ID#2-056B-4375-00-0018.0000000
ZONED: R-1

ZONE "X" OTHER AREAS

PROPOSED RIP-RAP BLANKET

S88°52'11"E 231.00'

10' PARKING SETBACK

CLEARING LIMITS (TYP)

35' REAR YARD SETBACK

50' LANDSCAPE BUFFER

LOT 5
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
KELLY WINKELMANN
D.B. 7249 PG. 1165

24 DANIEL DRIVE
ID#2-056B-4434-00-0005.0000000
ZONED: R-1

COMMON GROUND 'A'/
DETENTION BASIN

TW=549.0
BW=532.0

6" PERFORATED SCHEDULE 40 PVC OR SDR-35 UNDERDRAIN (TYP)

PROPOSED STORM SEWER (TYP)

RETAINING WALL (BY OTHERS)

4'H VINYL SIGHT-PROOF FENCE STARTS @ 4' WALL HEIGHT

TW=549.0
BW=532.0

REAR YARD SETBACK

BASIN ACCESS

LIGHT STANDARD (TYP)

CLEANOUT (TYP)

LOT 6
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
GLENN A. MCGHEE AND
VIVIAN S. MCGHEE
D.B. 2774 PG. 1708

22 DANIEL DRIVE
ID#2-056B-4434-00-0006.0000000
ZONED: R-1

6'H VINYL SIGHT-PROOF FENCE

348.44'

N01°07'49"E

81.5'

ECO-BRICK PERMEABLE PAVERS (SHADED)

91'

3" ROLLED CONCRETE CURB (TYP)

6" CONCRETE OVER 4" BASE

12' X 35' LOADING SPACE (NOT STRIPED)

CLEANOUT (TYP)

LIGHT STANDARD (TYP)

348.44'

S01°07'49"W

PROPOSED STORM SEWER (TYP)

CONCRETE PAD FOR BIKE RACK

R28'

FIRE HYDRANT

5' WIDE CONCRETE SIDEWALK (TYP)

APPROXIMATE LOCATION OF EX. 8" SANITARY LATERAL (TO BE FIELD LOCATED)

LOT 9

LOT 8

6" PERFORATED SCHEDULE 40 PVC OR SDR-35 UNDERDRAIN (TYP)

LOT 10
SANITARY LATERAL (TYP)

LOT 7

PROPOSED SANITARY MANHOLE

LOT 11
6" PERFORATED SCHEDULE 40 PVC OR SDR-35 UNDERDRAIN (TYP)

LOT 6

WATER METER (TYP)

LOT 7
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
DYLAN LATHAM
DOC NO. 2021R-059970

20 DANIEL DRIVE
ID#2-056B-4434-00-0007.0000000
ZONED: R-1

LOT 12

LOT 5

BUILDING LINE

5' BUILDING LINE

LOT 13

LOT 4

CONC. PAD FOR HVAC AND MECHANICAL UNITS TO BE SCREENED PER CITY REQUIREMENTS

LOT 14

WATER METER (TYP)

LOT 3

SANITARY LATERAL (TYP)

CLEARING LIMITS (TYP)

LOT 15

LOT 2

ACCESSIBLE SIGNAGE, STRIPING, AND SYMBOL PER ADA REQUIREMENTS (TYP)

ECO-BRICK PERMEABLE PAVERS (SHADED)

LOT 16

LOT 1

COVERED MAIL KIOSK

CLEANOUT (TYP)

LOT 8
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
HERBERT M. SCHULTE AND
DOROTHY SCHULTE
D.B. 320 PG. 509

18 DANIEL DRIVE
ID#2-056B-4434-00-0008.0000000
ZONED: R-1

CONCRETE PATIO (TYP)

38'

35' REAR YARD SETBACK

46.94'

6'H VINYL SIGHT-PROOF FENCE

20' FRONT YARD SETBACK

10' PARKING SETBACK

8" WATER MAIN (PRIVATE)

NO CURB

6" CONCRETE OVER 4" BASE

25'

CLEARING LIMITS (TYP)

S88°52'11"E 231.00'

10' X 12' TRASH ENCLOSURE W/SIDE ENTRY

LIGHT STANDARD (TYP)

RETAINING WALL (BY OTHERS)

FIRE HYDRANT

LOT 9
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
JUDY DIETRICH AND
ALLAN P. DIETRICH
D.B. 6822 PG. 2235

16 DANIEL DRIVE
ID#2-056B-4434-00-0009.0000000
ZONED: R-1

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

PROPERTY N/F
POWER BODY USA, INC.
D.B. 4355 PG. 1718

403 SONDEREN STREET
ID#2-056B-S028-00-0069.1000000
ZONED: C-1

PROPERTY N/F
WOLFE ENTERPRISES HOLDINGS LLC
DOC NO. 2021R-072484

407 SONDEREN STREET
ID#2-056B-S028-00-0069.0000000
ZONED: C-2

GRAPHIC SCALE

20 0 10 20

( IN FEET )
1 inch = 20 ft.

CLEARING LIMITS (TYP)

LOADING ZONE

19' 25' 19'

RELOCATED PARKING SPACES

9'

PROPOSED SIDEWALK EASEMENT

R5'

R10'

5' WIDE CONCRETE SIDEWALK

ACCESSIBLE RAMPS W/TRUNCATED DOMES

6" CONCRETE OVER 4" BASE

8" WATER MAIN (PRIVATE)

PROPOSED 5' WIDE UTILITY EASEMENT

PROPERTY N/F
JDL23, LLC
DOC NO. 2023R-050683

409 SONDEREN STREET
ID#2-056B-S028-00-0070.0000000
ZONED: C-2

PARKING SPACES TO BE REMOVED & RELOCATED

12.24'

13.62'

5' WIDE CONCRETE SIDEWALK

ACCESSIBLE RAMPS W/TRUNCATED DOMES

ISLAND TO BE REMOVED & REPLACED WITH CONCRETE PAVEMENT

8" WATER MAIN (PRIVATE)

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

SONDEREN STREET

SAN

**TYPICAL BUILDING**
2 STORY/8 UNITS

10' X 10' PATIO (TYP)

16' 16' 16' 16' 16' 16' 16' 16'

1,100 S.F. 1,100 S.F. 1,100 S.F. 1,100 S.F. 1,100 S.F. 1,100 S.F. 1,100 S.F. 1,100 S.F.

36' 32' 36' 32' 36' 32' 36' 32'

4' 4' 4' 4' 4' 4' 4' 4'

12' 12' 12' 12' 12' 12' 12' 12'

COVERED PORCH (TYP)

A PRELIMINARY PLAT FOR

# *STEVENSON PLACE*

*#507 SONDEREN STREET*

*CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366*

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


*ENGINEERING*
*PLANNING*
*SURVEYING*

221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


*REVISIONS*

| 12/15/25 | CITY COMMENTS |
|---|---|

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER
12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

12/02/2025
*DATE*

25-19510
*PROJECT NUMBER*

19510pre.dwg
*FILE NAME*

CLM
*DRAWN*

CAW/JBS JBS
*DESIGNED CHECKED*

SITE PLAN

LOT 21
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
MAKER ENTERPRISES, LLC
D.B. 6519 PG. 3

302 EAST PITMAN STREET
ID#2-056B-4375-00-0021.0000000
ZONED: C-2

LOT 20
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
RICHARD D. WILLERS AND
BARBARA A. WILLERS
D.B. 1220 PG. 1178

304 EAST PITMAN STREET
ID#2-056B-4375-00-0020.0000000
ZONED: R-1

LOT 19
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
ADAM J SAEY AND
LAUREN J BARRY
D.B. 7240 PG. 693

306 EAST PITMAN STREET
ID#2-056B-4375-00-0019.0000000
ZONED: R-1

LOT 18
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
JESSICA E. MYERS AND
TIMOTHY J. MYERS
D.B. 6959 PG. 1765

310 EAST PITMAN STREET
ID#2-056B-4375-00-0018.0000000
ZONED: R-1

PROPOSED RIP-RAP BLANKET

ZONE "A" (OTHER AREAS)

S88°52'11"E 231.00'

LOT 5
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
KELLY WINKELMANN
D.B. 7249 PG. 1165

24 DANIEL DRIVE
ID#2-056B-4434-00-0005.0000000
ZONED: R-1

10' PARKING SETBACK

CLEARING LIMITS (TYP)

GRADING LIMITS (TYP)

534 536 538 540

30' REAR YARD SETBACK

TOP OF BERM = 538.0

532 534 536 538 540 542 544 550

COMMON GROUND 'A'
DETENTION BASIN

TW=549.0
BW=532.0

TW=549.0
BW=532.0

6" PERFORATED SCHEDULE 40 PVC OR SDR-35 UNDERDRAIN (TYP)

PROPOSED STORM SEWER (TYP)

RETAINING WALL (BY OTHERS)

LOT 6
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
GLENN F. MCGHEE AND
VIVIAN S. MCGHEE
D.B. 2774 PG. 1708

22 DANIEL DRIVE
ID#2-056B-4434-00-0006.0000000
ZONED: R-1

BASIN ACCESS

548 550

CLEANOUT (TYP)

CLEANOUT (TYP)

CLEANOUT (TYP)

12' X 35' LOADING SPACE (NOT STRIPED)

CLEANOUT (TYP)

PROPOSED STORM SEWER (TYP)

N01°07'49"E 348.44'

552

LOT 9

LOT 10

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 8

LOT 7

LOT 6

LOT 5

LOT 4

LOT 3

LOT 2

LOT 1

6" PERFORATED SCHEDULE 40 PVC OR SDR-35 UNDERDRAIN (TYP)

10' PARKING SETBACK

REAR YARD SETBACK

S01°07'49"W 348.44'

FF VARIES FROM 553.0 TO 558.0

6' BUILDING LINE

NO1°07'49"E 348.44'

NO1°07'49"E 348.44'

FF VARIES FROM 553.0 TO 558.0

6' BUILDING LINE

S01°07'49"W 348.44'

SEE SITE PLAN FOR #409 SONDEREN STREET FOR OFFSITE PARKING INFORMATION.

PROPERTY N/F
POWER BODY USA, INC.
D.B. 4355 PG. 1718

403 SONDEREN STREET
ID#2-056B-5028-00-0069.1000000
ZONED: C-1

GRAPHIC SCALE

20 0 10 20

( IN FEET )
1 inch = 20 ft.

PROPERTY N/F
WOLFE ENTERPRISES HOLDINGS LLC
DOC NO. 2021R-072484

407 SONDEREN STREET
ID#2-056B-5028-00-0069.0000000
ZONED: C-2

LOT 7
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
DYLAN LATHAM
DOC NO. 2021R-059970

20 DANIEL DRIVE
ID#2-056B-4434-00-0007.0000000
ZONED: R-1

CLEARING LIMITS (TYP)

GRADING LIMITS (TYP)

554 556 558 560 562 564

LOT 8
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
HERBERT M. SCHULTE AND
DOROTHY SCHULTE
D.B. 320 PG. 509

18 DANIEL DRIVE
ID#2-056B-4434-00-0008.0000000
ZONED: R-1

CLEANOUT (TYP)

20' FRONT YARD SETBACK

10' PARKING SETBACK

CLEARING LIMITS (TYP)

S88°52'11"E 231.00'

RETAINING WALL (BY OTHERS)

LOT 9
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
JUDY DIETRICH AND
ALLAN P. DIETRICH
D.B. 6822 PG. 2235

16 DANIEL DRIVE
ID#2-056B-4434-00-0009.0000000
ZONED: R-1

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-5028-00-0071.0000000
ZONED: C-2

LOADING ZONE

PROPERTY N/F
JBL23, LLC
DOC NO. 2023R-050683

409 SONDEREN STREET
ID#2-056B-5028-00-0070.0000000
ZONED: C-2

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-5028-00-0071.0000000
ZONED: C-2

SONDEREN STREET

SAN SAN SAN SAN SAN

8"W 8"W 8"W 8"W 8"W 8"W 8"W 8"W

A PRELIMINARY PLAT FOR

# STEVENSON PLACE

## #507 SONDEREN STREET

## CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1407 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


ENGINEERING
PLANNING
SURVEYING

221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than those authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER

Jeffrey B. Simmons
Civil Engineer
2007030831

12/02/2025
DATE

25-19510
PROJECT NUMBER

19510pre.dwg
FILE NAME

CLM
DRAWN

CAW/JBS JBS
DESIGNED CHECKED

GRADING PLAN

LOT 21
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
MAKER ENTERPRISES, LLC
D.B. 6519 PG. 3

302 EAST PITMAN STREET
ID#2-056B-4375-00-0021.0000000
ZONED: C-2

LOT 20
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
RICHARD D. WILLERS AND
BARBARA A. WILLERS
D.B. 1220 PG. 1178

304 EAST PITMAN STREET
ID#2-056B-4375-00-0020.0000000
ZONED: R-1

LOT 19
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
ADAM J SAEY AND
LAUREN J BARRY
D.B. 7240 PG. 693

306 EAST PITMAN STREET
ID#2-056B-4375-00-0019.0000000
ZONED: R-1

LOT 18
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
JESSICA E. MYERS AND
TIMOTHY J. MYERS
D.B. 6950 PG. 1765

310 EAST PITMAN STREET
ID#2-056B-4375-00-0018.0000000
ZONED: R-1

LOT 5
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
KELLY WINKELMANN
D.B. 7249 PG. 1165

24 DANIEL DRIVE
ID#2-056B-4434-00-0005.0000000
ZONED: R-1

ZONE X OTHER AREAS

S88°52'11"E 231.00'

50' LANDSCAPE BUFFER

COMMON GROUND 'A'/
DETENTION BASIN

LOT 6
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
GLENN F. MCGHEE AND
VIVIAN S. MCGHEE
D.B. 2774 PG. 1708

22 DANIEL DRIVE
ID#2-056B-4434-00-0006.0000000
ZONED: R-1

PROPOSED 25'W
CROSS-ACCESS
EASEMENT
(CROSS-HATCHED)

12' X 35'
LOADING SPACE
(NOT STRIPED)

N01°07'49"E 348.44'

S01°07'49"W 348.44'

S88°52'11"E 79.00'

N88°52'11"W 79.00'

LOT 9
1,738 S.F.

LOT 8
1,738 S.F.

LOT 10
1,264 S.F.

LOT 7
1,264 S.F.

LOT 11
1,264 S.F.

LOT 6
1,264 S.F.

LOT 12
1,264 S.F.

LOT 5
1,264 S.F.

LOT 13
1,264 S.F.

LOT 4
1,264 S.F.

LOT 14
1,264 S.F.

LOT 3
1,264 S.F.

LOT 15
1,264 S.F.

LOT 2
1,264 S.F.

LOT 16
1,738 S.F.

LOT 1
1,738 S.F.

22.00'

16.00'

20' LANDSCAPE BUFFER

LOT 7
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
DYLAN LATHAM
DOC NO. 2021R-059970

20 DANIEL DRIVE
ID#2-056B-4434-00-0007.0000000
ZONED: R-1

LOT 8
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
HERBERT M. SCHULTE AND
DOROTHY SCHULTE
D.B. 320 PG. 509

18 DANIEL DRIVE
ID#2-056B-4434-00-0008.0000000
ZONED: R-1

LOT 9
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
JUDY DIETRICH AND
ALLAN P. DIETRICH
D.B. 6822 PG. 2235

16 DANIEL DRIVE
ID#2-056B-4434-00-0009.0000000
ZONED: R-1

S88°52'11"E 231.00'

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

PROPERTY N/F
POWER BODY USA, INC.
D.B. 4355 PG. 1718

403 SONDEREN STREET
ID#2-056B-S028-00-0069.1000000
ZONED: C-1

PROPERTY N/F
WOLFE ENTERPRISES HOLDINGS LLC
DOC NO. 2021R-072484

407 SONDEREN STREET
ID#2-056B-S028-00-0069.0000000
ZONED: C-2

LOADING ZONE

PROPERTY N/F
JDL23, LLC
DOC NO. 2023R-050683

409 SONDEREN STREET
ID#2-056B-S028-00-0070.0000000
ZONED: C-2

PROPOSED 25'W
CROSS-ACCESS
EASEMENT
(CROSS-HATCHED)

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

SONDEREN STREET

GRAPHIC SCALE

20 0 10 20

( IN FEET )
1 inch = 20 ft.

A PRELIMINARY PLAT FOR

# STEVENSON PLACE

## #507 SONDEREN STREET

## CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


ENGINEERING
PLANNING
SURVEYING

221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER
12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

12/02/2025
DATE

25-19510
PROJECT NUMBER

19510pre.dwg
FILE NAME

CLM
DRAWN

CAW/JBS JBS
DESIGNED CHECKED

LOT AREA PLAN

## LANDSCAPE LEGEND

| | | |
|---|---|---|
| QTY. (10) RED MAPLE | ACER RUBRUM | MINIMUM 2" CALIPER = 10 PTS (MATURE HEIGHT = 45 FT.) |
| QTY. (15) EASTERN WHITE PINE | PINUS STROBUS | MINIMUM 2" CALIPER = 10 PTS (MATURE HEIGHT = 45+ FT.) |
| QTY. (6) PINK PRINCESS CRABAPPLE | MALUS 'PINK PRINCESS' | MINIMUM 2" CALIPER (MATURE HEIGHT = 6-8 FT.) |
| QTY. (44) CHINESE JUNIPER | JUNIPERUS X PFITZERIANA 'SEA GREEN' | 18" MINIMUM (5 GALLON) (MATURE HEIGHT = 4-6 FT.) |

ALL TREES SHALL BE DECIDUOUS AT MIN. CALIPER MEASURED 1 FOOT ABOVE GRADE AT 2 INCHES.
LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER
ALL SHRUBS SHALL BE 5 GALLON CONTAINER AND NOT LESS THAN 18 INCHES IN HEIGHT.

GRAPHIC SCALE
20 0 10 20
( IN FEET )
1 inch = 20 ft.

LOT 21 "PALLARDY PARK" P.B. 5 PG. 44
PROPERTY N/F MAKER ENTERPRISES, LLC D.B. 6519 PG. 3
302 EAST PITMAN STREET ID#2-056B-4375-00-0021.0000000 ZONED: C-2

LOT 20 "PALLARDY PARK" P.B. 5 PG. 44
PROPERTY N/F RICHARD D. WILLERS AND BARBARA A. WILLERS D.B. 1220 PG. 1178
304 EAST PITMAN STREET ID#2-056B-4375-00-0020.0000000 ZONED: R-1

LOT 19 "PALLARDY PARK" P.B. 5 PG. 44
PROPERTY N/F ADAM J SAEY AND LAUREN J BARRY D.B. 7240 PG. 693
306 EAST PITMAN STREET ID#2-056B-4375-00-0019.0000000 ZONED: R-1

LOT 18 "PALLARDY PARK" P.B. 5 PG. 44
PROPERTY N/F JESSICA E. MYERS AND TIMOTHY J. MYERS D.B. 6959 PG. 1765
310 EAST PITMAN STREET ID#2-056B-4375-00-0018.0000000 ZONED: R-1

LOT 5 "ST NICHOLAS COURT" P.B. 6 PG. 21
PROPERTY N/F KELLY WINKELMEMANN D.B. 7249 PG. 1165
24 DANIEL DRIVE ID#2-056B-4434-00-0005.0000000 ZONED: R-1

LOT 6 "ST NICHOLAS COURT" P.B. 6 PG. 21
PROPERTY N/F GLENN E. MCGHEE AND VIVIAN S. MCGHEE D.B. 2774 PG. 1708
22 DANIEL DRIVE ID#2-056B-4434-00-0006.0000000 ZONED: R-1

LOT 7 "ST NICHOLAS COURT" P.B. 6 PG. 21
PROPERTY N/F DYLAN LATHAM DOC NO. 2021R-059970
20 DANIEL DRIVE ID#2-056B-4434-00-0007.0000000 ZONED: R-1

LOT 8 "ST NICHOLAS COURT" P.B. 6 PG. 21
PROPERTY N/F HERBERT M. SCHULTE AND DOROTHY SCHULTE D.B. 320 PG. 509
18 DANIEL DRIVE ID#2-056B-4434-00-0008.0000000 ZONED: R-1

LOT 9 "ST NICHOLAS COURT" P.B. 6 PG. 21
PROPERTY N/F JUDY DIETRICH AND ALLAN P. DIETRICH D.B. 6822 PG. 2235
16 DANIEL DRIVE ID#2-056B-4434-00-0009.0000000 ZONED: R-1

PROPERTY N/F POWER BODY USA, INC. D.B. 4355 PG. 1718
403 SONDEREN STREET ID#2-056B-S028-00-0069.1000000 ZONED: C-1

PROPERTY N/F WOLFE ENTERPRISES HOLDINGS LLC DOC NO. 2021R-072484
407 SONDEREN STREET ID#2-056B-S028-00-0069.0000000 ZONED: C-2

PROPERTY N/F JDL23, LLC DOC NO. 2023R-050683
409 SONDEREN STREET ID#2-056B-S028-00-0070.0000000 ZONED: C-2

PROPERTY N/F CARL L. WILLIAMS AND THERESA K. WILLIAMS D.B. 1269 PG. 530
509 SONDEREN STREET ID#2-056B-S028-00-0071.0000000 ZONED: C-2

PROPERTY N/F CARL L. WILLIAMS AND THERESA K. WILLIAMS D.B. 1269 PG. 530
509 SONDEREN STREET ID#2-056B-S028-00-0071.0000000 ZONED: C-2

SONDEREN STREET

ZONE X (OTHER AREAS)

S88°52'11"E 231.00'

10' PARKING SETBACK

CLEARING LIMITS (TYP)

35' REAR YARD SETBACK

TOP OF BERM = 538.0

50' LANDSCAPE BUFFER

COMMON GROUND 'A'/ DETENTION BASIN

TW=549.0 BW=532.0

RETAINING WALL (BY OTHERS)

PROPOSED 25'W CROSS-ACCESS EASEMENT (CROSS-HATCHED)

12' X 35' LOADING SPACE (NOT STRIPED)

N01°07'49"E 348.44'

S01°07'49"W 348.44'

LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
LOT 8
LOT 7
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1

10' PARKING SETBACK

20' LANDSCAPE BUFFER

5' BUILDING LINE

35' REAR YARD SETBACK

20' FRONT YARD SETBACK

10' PARKING SETBACK

S88°52'11"E 231.00'

RETAINING WALL (BY OTHERS)

LOADING ZONE

PROPOSED 25'W CROSS-ACCESS EASEMENT (CROSS-HATCHED)

8"W SAN

A PRELIMINARY PLAT FOR
# STEVENSON PLACE
## #507 SONDEREN STREET
## CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1407 N MAIN STREET
O'FALLON, MO 63366
636-577-2458


ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER
12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

12/02/2025
DATE
25-19510
PROJECT NUMBER
19510pre.dwg
FILE NAME
CLM
DRAWN
CAW/JBS JBS
DESIGNED CHECKED

LANDSCAPE PLAN

LOT 21
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
MAKER ENTERPRISES, LLC
D.B. 6519 PG. 3

302 EAST PITMAN STREET
ID#2-056B-4375-00-0021.0000000
ZONED: C-2

LOT 20
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
RICHARD D. WILLERS AND
BARBARA A. WILLERS
D.B. 1220 PG. 1178

304 EAST PITMAN STREET
ID#2-056B-4375-00-0020.0000000
ZONED: R-1

LOT 19
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
ADAM J SAEY AND
LAUREN J BARRY
D.B. 7240 PG. 693

306 EAST PITMAN STREET
ID#2-056B-4375-00-0019.0000000
ZONED: R-1

LOT 18
"PALLARDY PARK"
P.B. 5 PG. 44

PROPERTY N/F
JESSICA E. MYERS AND
TIMOTHY J. MYERS
D.B. 6959 PG. 1765

310 EAST PITMAN STREET
ID#2-056B-4375-00-0018.0000000
ZONED: R-1

LOT 5
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
KELLY WINKELMANN
D.B. 7249 PG. 1185

24 DANIEL DRIVE
ID#2-056B-4434-00-0005.0000000
ZONED: R-1

ZONE X (OTHER AREAS)

S88°52'11"E 231.00'

PROPERTY N/F
POWER BODY USA, INC.
D.B. 4355 PG. 1718

403 SONDEREN STREET
ID#2-056B-S028-00-0069.1000000
ZONED: C-1

GRAPHIC SCALE

20 0 10 20

( IN FEET )
1 inch = 20 ft.

LOT 6
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
GLENN F. MCGHEE AND
VIVIAN S. MCGHEE
D.B. 2774 PG. 1708

22 DANIEL DRIVE
ID#2-056B-4434-00-0006.0000000
ZONED: R-1

N01°07'49"E 348.44'

EXISTING TREELINE (TYP)

S01°07'49"W 348.44'

PROPERTY N/F
WOLFE ENTERPRISES HOLDINGS LLC
DOC NO. 2021R-072484

407 SONDEREN STREET
ID#2-056B-S028-00-0069.0000000
ZONED: C-2

EXISTING SANITARY LATERAL

LOT 7
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
DYLAN LATHAM
DOC NO. 2021R-059970

20 DANIEL DRIVE
ID#2-056B-4434-00-0007.0000000
ZONED: R-1

LOADING ZONE

PROPERTY N/F
JDL23, LLC
DOC NO. 2023R-050683

409 SONDEREN STREET
ID#2-056B-S028-00-0070.0000000
ZONED: C-2

EX HOUSE

LOT 8
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
HERBERT M. SCHULTE AND
DOROTHY SCHULTE
D.B. 320 PG. 509

18 DANIEL DRIVE
ID#2-056B-4434-00-0008.0000000
ZONED: R-1

S88°52'11"E 231.00'

GRAVEL

LOT 9
"ST NICHOLAS COURT"
P.B. 6 PG. 21

PROPERTY N/F
JUDY DIETRICH AND
ALLAN P. DIETRICH
D.B. 6822 PG. 2235

16 DANIEL DRIVE
ID#2-056B-4434-00-0009.0000000
ZONED: R-1

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

PROPERTY N/F
CARL L. WILLIAMS AND
THERESA K. WILLIAMS
D.B. 1269 PG. 530

509 SONDEREN STREET
ID#2-056B-S028-00-0071.0000000
ZONED: C-2

A PRELIMINARY PLAT FOR

# *STEVENSON PLACE*

*#507 SONDEREN STREET*

*CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366*

**PREPARED FOR:**
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


*ENGINEERING*
*PLANNING*
*SURVEYING*

**221 Point West Blvd.**
**St. Charles, MO 63301**
**636-928-5552**
**FAX 928-1718**

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


***REVISIONS***

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than those authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER
12/15/25

12/02/2025
***DATE***

25-19510
***PROJECT NUMBER***

19510pre.dwg
***FILE NAME***

CLM
***DRAWN***

CAW/JBS JBS
***DESIGNED CHECKED***

EXISTING CONDTITIONS

www.EcoBrick-BP.com

BUILDING PRODUCTS CORP.

ADVANCED PAVEMENT TECHNOLOGY

## Unique Shape, Extraordinary Quality

# The Eco-Brick™

Building Products Corp. & Advanced Pavement Technology presents a new shape in permeable pavers for use when implementing permeable interlocking concrete pavement, a superior paving solution that supports stormwater management and business growth.

See back side for more information.

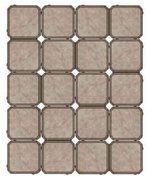
### Benefits of Eco-Brick™

- Meets pedestrian slip resistance standards from the Americans with Disabilities Act (ADA) Architectural Guidelines, as well as EPA stormwater requirements
- Provides smooth surfaces with minimal openings to make walking more comfortable
- Allows for rapid removal of stormwater through void openings
- Eliminates standing water for plazas and walkways without sloping
- Maximizes design flexibility by enabling a wide range of creative patterns
- Simplifies maintenance in climates with ice and snow
- LEED points under sustainable sites and material resource credits

### Eco-Brick™

Dimensions
Nom. 5" x 10" x 3"





Produced Locally

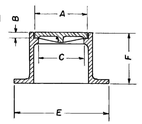
Building Products Corp. Office: 800.427.6282 Fax: 618.274.1060
www.BuildingProductsCorp.com



## R-1970 to R-1978 Series
**Lamphole/Monument/Inspection Frame, Solid Lid**

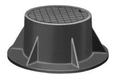
**Heavy Duty**

Furnished standard with as-cast bearing surfaces unless otherwise noted.






*Illustrating R-1978*



*Illustrating R-1976*

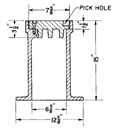
Dimensions in inches

| Catalog No. | A | B | C | E | F |
|---|---|---|---|---|---|
| | *Round* | | | | |
| R-1970 | 7 | 2 1/8 | 5 3/4 | 13 1/8 | 7 |
| R-1971 * | 8 | 3/4 | 6 1/2 | 10 1/2 | 10 |
| R-1973 | 7 1/2 | 3/4 | 6 1/2 | 13 1/4 | 7 |
| R-1973-1 | 7 3/4 | 3/4 | 6 3/4 | 13 1/4 | 7 |
| R-1973-A | 8 7/8 | 11/16 | 7 3/4 | 15 3/4 | 8 |
| R-1974-A | 9 | 1 | 8 | 16 | 6 1/2 |
| R-1975 | 9 1/2 | 1/2 | 8 1/2 | 20 | 11 |
| R-1975-A | 9 7/8 | 7/8 | 9 | 15 5/8 | 6 |
| R-1975-A2 | 10 | 1 | 9 | 16 | 8 |
| R-1975-A3 | 10 | 2 | 9 | 16 | 8 |
| R-1976 | 11 1/4 | 1 1/4 | 10 | 20 | 8 |
| R-1977 ** *** | 11 1/2 | 1 1/2 | 8 1/2 | 18 | 12 |
| | *Square* | | | | |
| R-1978 ** | 6 7/8 x 6 7/8 | 1 | 5 x 5 | 13 x 13 | 10 |
| R-1978-A3 | 7 7/8 x 7 7/8 | 7/8 | 6 1/2 x 6 1/2 | 16 1/2 x 16 1/2 | 6 7/8 |
| R-1978-A10 | 7 7/8 x 7 7/8 | 7/8 | 6 1/2 x 6 1/2 | 16 3/4 x 16 3/4 | 10 |
| R-1978-A15 | 7 7/8 x 7 7/8 | 7/8 | 6 5/8 x 6 5/8 | 17 1/4 x 17 1/4 | 15 |
| R-1979-B | 12 x 12 | 3/4 | 10 5/8 x 10 5/8 | 20 1/2 x 20 1/2 | 7 3/8 |

* Base consists of 4 bolting lugs for 1/2" bolt on 9-1/2" bolt circle instead of full flange.
** Furnished with machined horizontal bearing surfaces.
*** Lid bolted to frame.

## R-1978-A2
**Lamphole/Monument/Inspection Frame, Solid Lid**

**Heavy Duty**






CLICK HERE to return to the Table of Contents



PERVIOUS INTERLOCKING CONCRETE PAVEMENT

POWER WASHING, RESURFACING, AND THE USE OF SAND ABRASIVES FOR WINTER TIRE TRACKING ARE PROHIBITED.

CARE SHALL BE TAKEN DURING SNOW PLOWING.

PICP INFORMATION SIGN
(NOT TO SCALE)

NOTES:

1. STANDARD 18"X12"X0.080" ALUMINUM SIGN FACE WITH BLACK TEXT ON WHITE BACKGROUND GALVANIZED STEEL POST 9'-6" LONG.
2. SET BOTTOM OF SIGN 5'-0" ABOVE GRADE.
3. SET BOTTOM OF POST 3'-0" BELOW GRADE

| | |
|---|---|
| METROPOLITAN ST. LOUIS SEWER DISTRICT *DETAIL LIBRARY* | CATAGORY: PAVEMENT |
| DESCRIPTION PERVIOUS INTERLOCKING CONCRETE PAVEMENT (INFORMATION SIGN) | TITLE: PICP INFORMATION SIGN |
| 06/21/2010 | DRAWN BY: JTP |

## CLUSTER BOX UNIT (CBU)
## -ANCHORING METHODS-

CBU's must be level and mounted firmly in concrete, using one of the following methods.

1. The J-bolt method is the preferred method of installation of CBU's on concrete pads; however, the J-bolt pattern must be accurate with the CBU pedestal plate. When using J-bolts, in order to prevent any damage or accidents that could result from the exposed bolts, consideration should be given as to the time lapse between pouring the concrete and the actual installation. Expansion anchors must be installed in accordance with the manufacturer's instructions.
2. The use of anchor bolts for the installation of CBU's on concrete pads is also acceptable as long as the methods described below are followed.
   a. Hilti Kwik bolt II, 1/2" diameter X 5-1/2" overall length
      Catalog Number: 000-453-696, KB II 12-512
      Stainless Steel Catalog Number: 000-454-744
      Minimum embedment in concrete must be no less than 3-1/2"
   b. ITW Ramset Redhead Trublot, galvanized, 1/2" diameter X 7" overall length
   c. Rawl Stud, 1/2" diameter X 5 1/2" overall length, galvanized.
      Catalog Number: 7324
      Minimum embedment in concrete must be no less than 4"

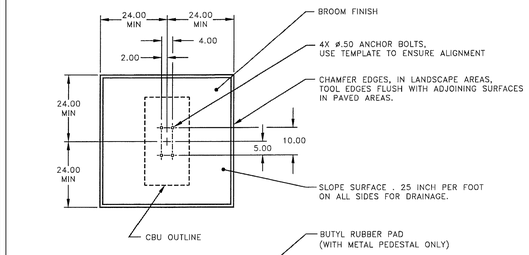
## CLUSTER BOX UNIT (CBU)
## -CONCRETE PAD REQUIREMENTS-

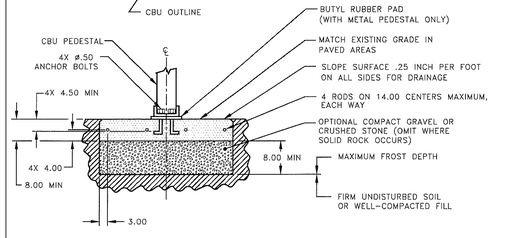
**- ALL FREE STANDING PADS MUST BE 8" THICK -**

| | | |
|---|---|---|
| **1 UNIT** | **SINGLE PAD** | **4' X 4'** |
| **2 UNITS** | **DOUBLE PAD** | **4' X 7'** |
| **3 UNITS** | **TRIPLE PAD** | **4' X 10'** |
| **4 UNITS** | **QUAD PAD** | **4' X 13'** |

*** **WHEN PLACING A PARCEL LOCKER AT ANY CBU LOCATION, INCREASE THE PAD SIZE BY AN ADDITIONAL 4' X 4'**** 

## USPS APPROVED SPECIFICATIONS – CONCRETE PAD (SINGLE UNIT)
(All measurements are in inches)




NOTES:

1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN – 6% MAX AIR ENTRAINMENT AND BE PLACED WITH A 3.50 – 4.50 SLUMP IN ACCORDANCE WITH ACI 301.
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.

**U-Rack Bike Rack** **Model: 543-1054**

**Specifications** Page 1

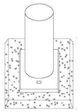
thepark AND FACILITIES CATALOG



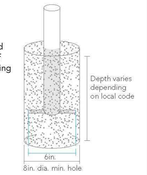
**Product Details:**

| | |
|---|---|
| Dimensions | Length 24" / Depth 1.9" / Height 36" *(46" In Ground)* / Mounting Plates 6" |
| Weight | Surface Mount: 19-lbs In-ground: 22-lbs |
| Styling | Contemporary |
| Capacity | Holds 2 Bikes |
| Finish | Durable baked-on powder coat or hot dipped galvanized |
| Construction | Standard-Duty 1.5" Schedule 40 Pipe (1.9" OD) Steel |

**Surface Mount:**
Bolts through bottom plate into pre-drilled concrete into ground anchors. Use appropriate length and size bolt for local requirements.

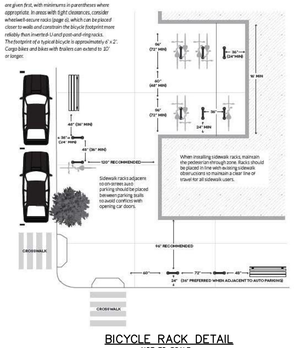


**In-ground Mount:**
Embedded in hole filled with concrete. Depth of the hole varies depending on local code.

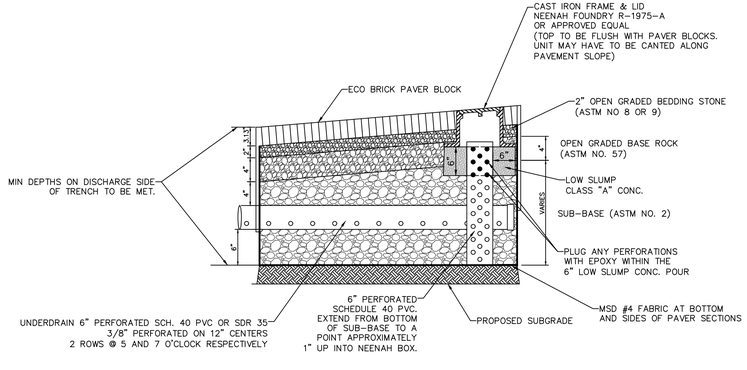



## PLACEMENT

The following minimum spacing requirements apply to some common installations of fixtures like inverted-U or post-and-ring racks that pass one bicycle roughly centered on each side of the rack. Recommended clearances are given first, with minimums in parentheses where appropriate. In areas with tight clearances, consider wheelwell-secure racks (page 9), which can be placed closer to walls and constrain the bicycle footprint more reliably than inverted-U and post-and-ring racks.
The footprint of a typical bicycle is approximately 6' x 2'. Cargo bikes and bikes with trailers can extend to 10' or longer.




BICYCLE RACK DETAIL
NOT TO SCALE
* BIKE RACK MUST BE IN ACCORDANCE WITH BIKE USA STANDARDS




TYPICAL PAVER SECTION
NO SCALE

ENGINEERS SEAL DOES NOT APPLY TO DETAILS ON THIS SHEET.

A PRELIMINARY PLAT FOR
*STEVENSON PLACE*
*#507 SONDEREN STREET*
*CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366*

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 N. MAIN STREET
O'FALLON, MO 63366
636-577-2458

*ENGINEERING PLANNING SURVEYING*
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority Engineering #000655
Missouri State Certificate of Authority Surveying #000144

*REVISIONS*

| 12/15/25 | CITY COMMENTS |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER 2007030831
PROFESSIONAL ENGINEER
12/02/2025

12/02/2025
*DATE*
25-19510
*PROJECT NUMBER*
19510pre.dwg
*FILE NAME*
CLM
*DRAWN*
CAW/JBS JBS
*DESIGNED CHECKED*

DETAILS









# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 5. c.**

**Meeting Date:** 05/07/2026
**Re:** Site Plan for 409 Sonderen Street
**From:** Tracy Coffman, Administrative Assistant for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a Site Plan for 409 Sonderen Street for a parking lot adjacent to Stevenson Place.

**Recommendation:**
Staff Report is attached.

**Attachments**

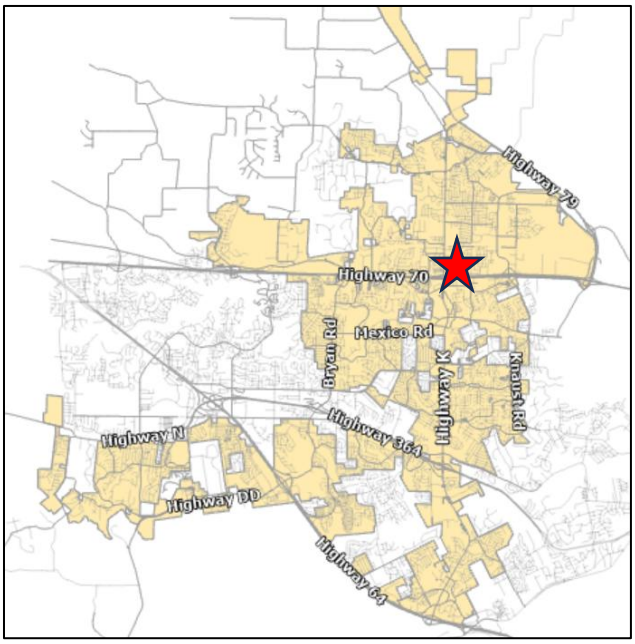
Staff Report
Site Location Map
Property Owner Notification List
Site Plan

**O'Fallon Planning and Zoning Commission Meeting**
**O'Fallon Municipal Centre Council Chambers**
**100 North Main Street, O'Fallon, MO 63366**

On January 8, 2026 the Planning and Zoning Commission denied the below request. The Rezoning and Conditional Use Permit were later approved by the City Council on March 26, 2026. Therefore, given the change in circumstances, the Site Plan and Preliminary Plat are back before the Commission to be reconsidered. Given that the Site Plan and Preliminary Plat conform with the requirements of the zoning district and have an approved Conditional Use Permit for the proposed use, staff is recommending approval.

## Project Summary:

| | |
|---|---|
| **Meeting Date:** | May 7, 2026 |
| **Case Number:** | 25-012715 |
| **Location of Subject Property:** | 409 Sonderen Street |
| **Action Requested:** | Approval of a Site Plan for private drive and parking lot modifications. |
| **Recommendation:** | Approval |
| **Final Action:** | Planning and Zoning Commission |
| **Related Applications:** | Rezoning – To Council<br>Preliminary Plat – To Council<br>Conditional Use – To Council |
| **Staff Contact:** | Spencer Haeggberg, MPPA<br>shaeggberg@ofallonmo.gov<br>636-379-5486 |




## Applicant Summary:

| | |
|---|---|
| **Applicant and Engineer:** | Jeff Simmons<br>Bax Engineering<br>221 Point West Boulevard<br>St. Charles, MO 63301<br>(636) 928-5552<br>jsimmons@baxengineering.com |
| **Property Owner of Record:** | JDL 23 LLC<br>409 Sonderen St.<br>O'Fallon, MO 63366 |

## Subject Property Datum:

| | | | |
|---|---|---|---|
| **Parcel Size:** | 0.86 acre | **Current Zoning:** | C-2/General Business District with Downtown Overlay |

| | | | |
|---|---|---|---|
| **Comprehensive Plan Designation:** | The Comprehensive Plan's Future Land Use Map depicts this parcel as suitable for mixed uses. | | |
| **Proposed Use of Subject Property:** | The applicant applied for a similar project in late 2025 that was withdrawn prior to the final vote at the City Council. This proposal subdivides each townhome lot allowing for the individual sale of each unit.<br><br>This Site Plan is for the drive aisle and parking lot modifications at 409 Sonderen St. The expansion of the drive aisle necessitates the removal of six parking spaces. Twelve additional parking spaces are being built in a new parking lot on the west end of the property. The drive aisle is being expanded to 25' wide and will include a sidewalk that connects Sonderen St. to the proposed Stevenson Place subdivision.<br><br>A Rezoning, Preliminary Plat, and Conditional Use Permit have been applied for in conjunction with the Site Plan application. | | |
| **Adjacent Parcel Data** | **North** | C-2/Downtown | 407 Sonderen Street |
| | **South** | C-2/Downtown | 509 Sonderen Street |
| | **East** | ROW | Sonderen Street |
| | **West** | R-1/Downtown | 507 Sonderen Street (Stevenson Place) |

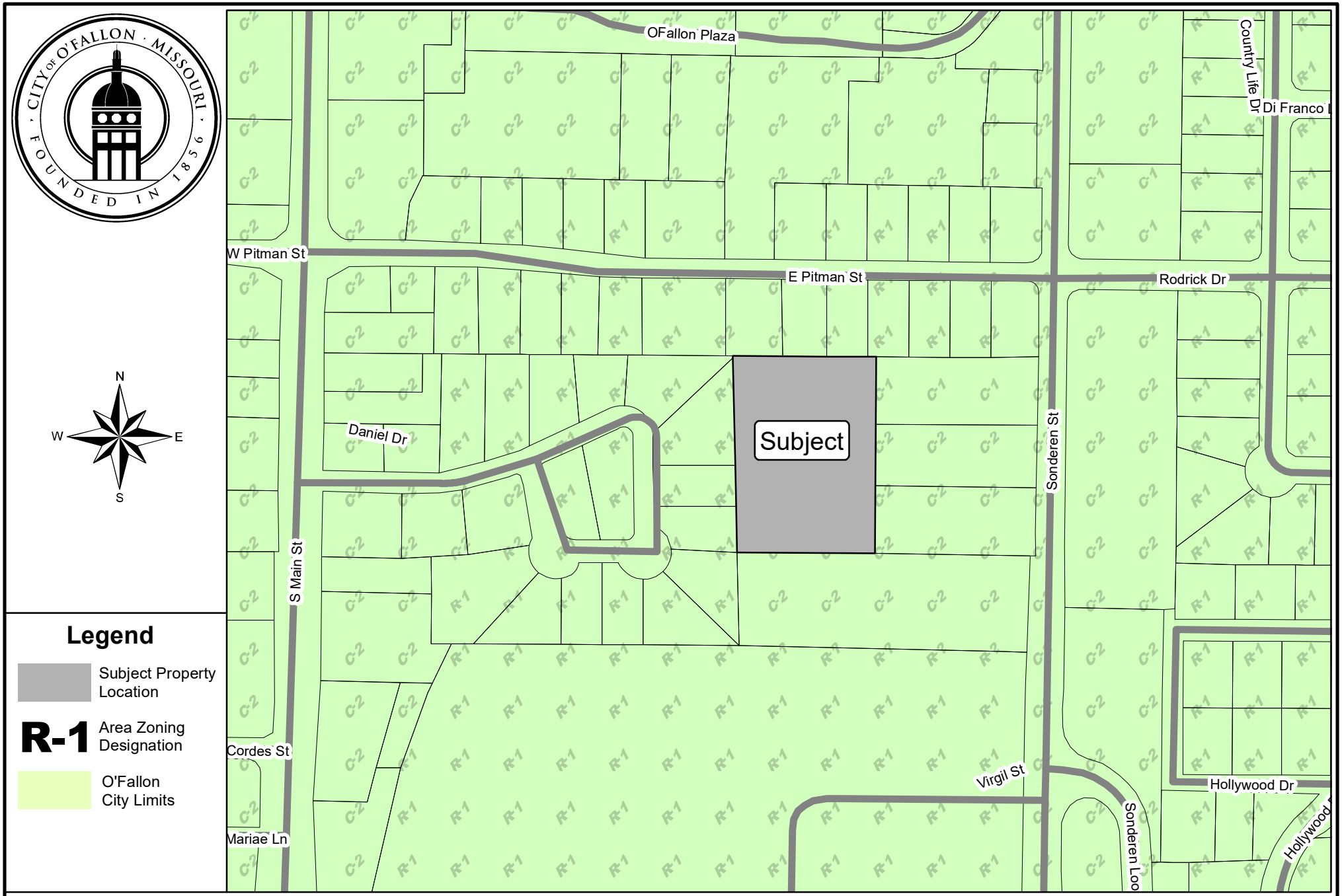
**Site Development Details:**

| | | | | | |
|---|---|---|---|---|---|
| **Lot Coverage:** | **Building Area:** | 3,049 sq. ft. | | **% of Total Site** | 8.42% |
| | **Paved Surfaces:** | 20,909 sq. ft. | | **% of Total Site** | 55.11% |
| | **Green Spaces:** | 13,504 sq. ft. | | **% of Total Site** | 36.47% |
| **Access to Property:** | Accessed via Sonderen St. The drive aisle will be used to access Stevenson Place. | | | | |
| **Required Parking:** | Offices: One (1) space per 300 sq. ft.<br><br>3,155/300=**11** spaces required | | **Proposed Parking:** | **19** parking spaces provided<br><br>**1** ADA parking spaces provided<br><br>**20** total spaces provided | |
| **Storm Water Detention:** | Existing. | | | | |
| **Landscape Plans:** | Provided | | | | |
| **Photometric:** | Not provided. Staff has placed a condition regarding this below. | | | | |

**Staff Recommendation:**

| | |
|---|---|
| Staff is recommending **approval** of the Site Plan based on the following findings and Conditions: | |
| **Findings:** | 1. The applicant has applied to rezone the adjacent property from R-1/Downtown to C-0/Downtown as well as for a CUP to allow residential dwellings in a non-residentially zoned structure. |

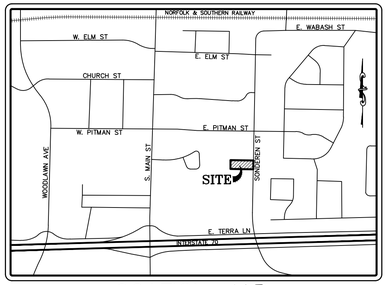
| | |
|---|---|
| | 2. The use of the site complies with the standards required of properties zoned C-2/Downtown.<br>3. It does not appear that this use will have negative impacts on the surrounding properties. |
| **Conditions:** | 1. This approval is conditional upon all applicable requirements provided within Title IV of the City's Municipal Code being addressed on the Construction Site Plan.<br>2. Provide a photometric plan.<br>3. Provide existing access easement from 409 Sonderen St. or work with property owner to create new legal permanent access.<br>4. Clarify what will happen to the area in which parking spaces are to be removed.<br>5. Provide approval letters from relevant non-City agencies. |



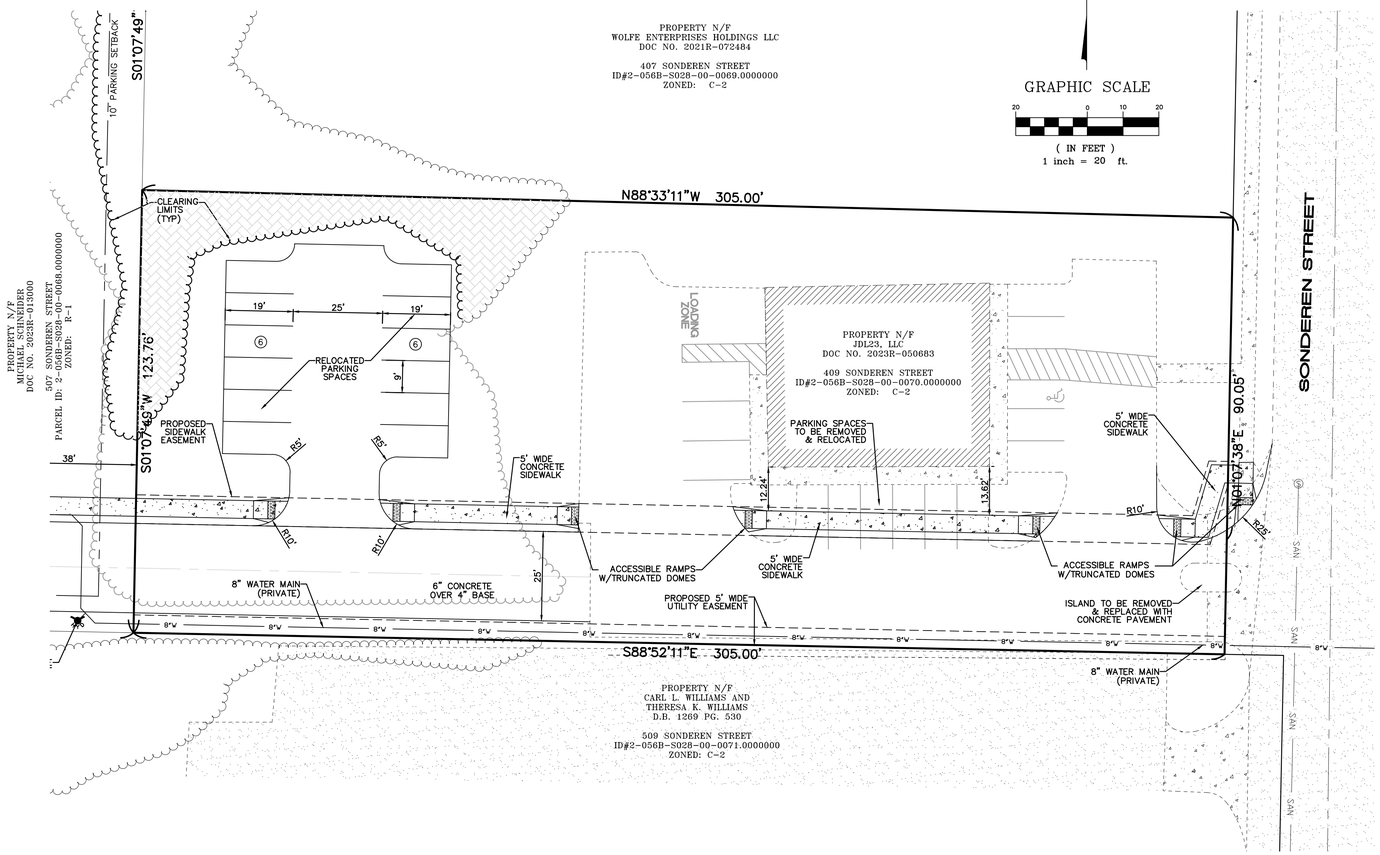

# 507 Sonderen Street

| Owner | SiteAddress | City_State_Zip |
|---|---|---|
| CENTRAL REORGANIZED SCHOOL DISTRICT #2 | 210 VIRGIL AVE | OFALLON MO, 63366 |
| CENTRAL REORGANIZED SCHOOL DISTRICT #2 | 110 VIRGIL ST | OFALLON MO, 63366 |
| SCHNEIDER MICHAEL | 507 SONDEREN ST | OFALLON MO, 63366 |
| SCHNEIDER MICHAEL | 811 N MAIN ST | OFALLON MO, 63366 |
| POWER BODY USA INC | 403 SONDEREN ST | OFALLON MO, 63366 |
| POWER BODY USA INC | 2931 STARGAZE DR | OFALLON MO, 63368 |
| WOLFE ENTERPRISES HOLDINGS LLC | 407 SONDEREN ST | OFALLON MO, 63366 |
| JDL23 LLC | 409 SONDEREN ST | OFALLON MO, 63366 |
| WILLIAMS GARY L*WILLIAMS THERESA K | 509 SONDEREN ST | OFALLON MO, 63366 |
| WILLIAMS GARY L*WILLIAMS THERESA K | 201 WILLIAMS ESTATES DR | OFALLON MO, 63366 |
| KOENEMAN STEPHEN P*KOENEMAN MARY K | 205 E PITMAN ST | OFALLON MO, 63366 |
| 212 CLUB OFALLON | 207 E PITMAN ST | OFALLON MO, 63366 |
| PRENOVOST NATHAN*PRENOVOST SARAH | 305 E PITMAN ST | OFALLON MO, 63366 |
| STEIN CHERI G*STEIN JEFFREY M | 307 E PITMAN ST | OFALLON MO, 63366 |
| STEIN CHERI G*STEIN JEFFREY M | 11 WINDCASTLE DR | ST CHARLES MO, 63304 |
| FOWLER LEONARD | 309 E PITMAN ST | OFALLON MO, 63366 |
| FOWLER LEONARD | 39888 SWEETBRIER CIRCLE | TEMECULA CA, 92591 |
| MORRISSEY JEFFREY | 311 E PITMAN ST | OFALLON MO, 63366 |
| KERN PROPERTIES LLC | 313 E PITMAN ST | OFALLON MO, 63366 |
| KERN PROPERTIES LLC | 3 ST MALO CT | LAKE ST LOUIS MO, 63367 |
| HIGGINS JAMES L II | 315 E PITMAN ST | OFALLON MO, 63366 |
| GILLHAM JD JR*GILLHAM NORMA L REVOC LIV TRUST | 316 E PITMAN ST | OFALLON MO, 63366 |
| GILLHAM JD JR*GILLHAM NORMA L REVOC LIV TRUST | 31 N OVERBROOK DR | ST CHARLES MO, 63301 |
| CODY JOSEPH M REVOCABLE TRUST | 314 E PITMAN ST | OFALLON MO, 63366 |
| CODY JOSEPH M REVOCABLE TRUST | 2720 DROSTE RD | ST CHARLES MO, 63301 |
| BARNABAS PROPERTIES LLC | 312 E PITMAN ST | OFALLON MO, 63366 |
| BARNABAS PROPERTIES LLC | 278 HWY D | HAWK POINT MO, 63349 |
| MYERS JESSICA E*MYERS TIMOTHY J | 310 E PITMAN ST | OFALLON MO, 63366 |
| SAEY ADAM J*BARRY LAUREN J | 306 E PITMAN ST | OFALLON MO, 63366 |
| WILLERS RICHARD D*WILLERS BARBARA A | 304 E PITMAN ST | OFALLON MO, 63366 |
| MAKER ENTERPRISES LLC | 302 E PITMAN ST | OFALLON MO, 63366 |
| MAKER ENTERPRISES LLC | 1 E ALLEN STE 200 | WENTZVILLE MO, 63385 |
| KREGER ANNA | 208 E PITMAN ST | OFALLON MO, 63366 |
| LUETKENHAUS | 206 E PITMAN ST | OFALLON MO, 63366 |
| ROGERS STEVEN | 204 E PITMAN ST | OFALLON MO, 63366 |
| ROGERS STEVEN | 1 GODAR CT | OFALLON MO, 63366 |
| DUNCAN ROY O*DUNCAN BETTY LOU | 28 DANIEL DR | OFALLON MO, 63366 |
| HOWARD CAROL J | 26 DANIEL DR | OFALLON MO, 63366 |
| WINKELMANN KELLY | 24 DANIEL DR | OFALLON MO, 63366 |
| WINKELMANN KELLY | 814 WOOLWICK CT | ST CHARLES MO, 63304 |
| MCGHEE GLENN E*MCGHEE VIVIAN S | 22 DANIEL DR | OFALLON MO, 63366 |
| LATHAM DYLAN | 20 DANIEL DR | OFALLON MO, 63366 |
| SCHULTE HERBERT M*SCHULTE DOROTHY | 18 DANIEL DR | OFALLON MO, 63366 |
| DIETRICH JUDY*DIETRICH ALLAN P | 16 DANIEL DR | OFALLON MO, 63366 |
| LUERDING GREG*LUERDING CORD | 14 DANIEL DR | OFALLON MO, 63366 |
| LUERDING GREG*LUERDING CORD | 65 CHAMPAGNE DR | LAKE ST LOUIS MO, 63367 |
| LIGHTFOOT MELISSA L | 12 DANIEL DR | OFALLON MO, 63366 |
| BRYANT PAUL T*SCHLIERMANN NICOLE M | 10 DANIEL DR | OFALLON MO, 63366 |
| MOORE GREGORY J | 34 DANIEL DR | OFALLON MO, 63366 |
| HOME SWEET HOME RENTALS LLC | 36 DANIEL DR | OFALLON MO, 63366 |
| HOME SWEET HOME RENTALS LLC | 636 WOODBRIAR LN | ST PETERS MO, 63376 |
| JEFFS EXTREME CARS & BODY SHOP LLC | 222 OFALLON PLZ | OFALLON MO, 63366 |

# A SITE PLAN FOR
# #409 SONDEREN STREET
## A TRACT OF LAND BEING PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF FRACTIONAL SECTION 28 TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN CITY OF O'FALLON ST. CHARLES COUNTY, MISSOURI




LOCATION MAP
NOT TO SCALE

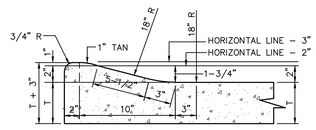



GRAPHIC SCALE
20 0 10 20
( IN FEET )
1 inch = 20 ft.

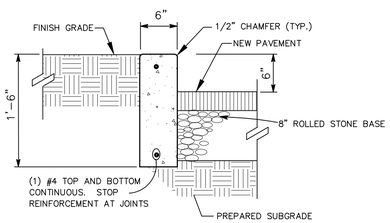
## DEVELOPMENT NOTES

1. Site Area: 0.86 Acres
2. Existing Zoning: "C-2" General Business District W/Downtown Overlay District (City of O'Fallon)
3. Existing Use: Contractor Services Office, No Outside Storage
4. Property Owner: JDL23, LLC 409 Sonderen Street O'Fallon, MO 63366
5. Developer: Ella Real Property Holdings, LLC 1467 N. Main Street O'Fallon, MO 63366
6. Setbacks for "C-2" Zoning:
   Front Yard: 25'
   Side Yard: 0' or 25' against Residential or Office District
   Rear Yard: 0' or 10' against Residential or Office District
   Building Height: 3 Stories or 50 feet
7. Site is served by:
   Gas: Spire Energy, 1999 Trade Center Drive East, St. Peters, MO 63376, 314-575-0885
   Telephone: CenturyLink, 1151 CenturyTel Drive, P.O. Box 7551, Wentzville, MO 63385, 636-332-7261
   Sewer: City of O'Fallon, 100 N. Main Street, O'Fallon, MO 63366, 636-281-2858
   Fire District: O'Fallon Fire District, 111 Laura K Drive, O'Fallon, MO 63366, 636-272-3493
   Electric: Ameren UE, 200 N. Callahan Rd. Wentzville, MO 63021, 636-639-8315
   School District: Fort Zumwalt School District, 110 Virgil Street, O'Fallon, MO 63366, 636-272-6620
   Water: City of O'Fallon, 100 N. Main Street, O'Fallon, MO 63366, 636-281-2858
8. Flood Plain Note: According to the Flood Insurance Rate Map of St. Charles, Missouri, Unincorporated Areas (Community – Panel Number 29183C0237G, dated January 20, 2016). This tract lies in Zone X (Areas determined to be outside the 0.2% annual chance floodplain.)
8. Topographic & boundary information is per survey as compiled by Box Engineering.
10. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
11. All new utilities are to be located underground.
12. Site Coverage Calculations:
    Total Site = 0.86 Acres
    Buildings = 0.07 Acres (8.42%)
    Pavement = 0.48 Acres (55.11%)
    Greenspace = 0.31 Acres (36.47%)
13. Parking Calculations:
    1 Space per 300 s.f. of Floor Area
    3,155 s.f. / 300 s.f. = 10.5 ~ 11 Spaces Required
    20 Spaces Provided (Including 1 Accessible Space)
14. Landscape Requirements:
    Not less than 6% of the NEW interior parking lot shall be landscaped
    20 spaces X 270 s.f. = 5,400 s.f.
    5,400 x 6% = 324 s.f. Required
    Provided = 358 s.f.

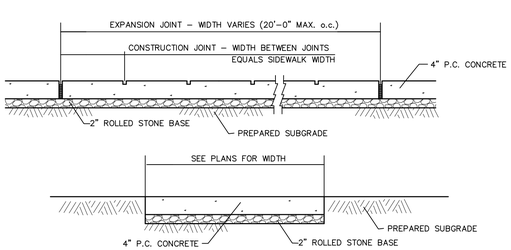
    Loading Spaces Required:
    Uses having over 5,000 s.f. of gross floor area shall provide at least 1 off-street loading space. For every additional 20,000 s.f. of gross floor space, 1 additional loading space shall be provided.
    3,155 s.f. gross floor area < 5,000 s.f.
    No space required, 1 existing space provided
15. Tree Preservation Calculations:
    Existing Trees = 0.26 Acres
    0.86 Acres / 15 trees per acres = 0.05 Acres
    0.26 X 20% = 0.05 Acres
    0.05 Acres To Be Preserved
    0.21 Acres To Be Removed
    0.05 Acres – 0.05 Acres Preserved = 0.0 Acres
16. Differential Runoff Calculations:
    Site Area: 37,488.68 S.F. (0.86 Acres)
    Existing:
    Ex. Building & Pavement: 0.357 Acres @ 4.77 = 1.70cfs
    Ex. Grass: 0.504 Acres @ 2.29 = 1.15cfs
    Existing Total = 2.85cfs
    Proposed:
    Building & Pavement: 0.547 Acres @ 4.77 = 2.61cfs
    Grass & Pervious Pavement: 0.314 Acres @ 2.29 = 0.72cfs
    Proposed Total = 3.33cfs
    3.33cfs – 2.85cfs = 0.48cfs Increase in Runoff
    No Detention Required.
17. Site shall comply with Article XIII, Performance Standards.
18. Site shall comply with the City's Comprehensive Plan.
19. No slope is to exceed 3:1.




ROLLED CURB PAVEMENT DETAILS
NOT TO SCALE

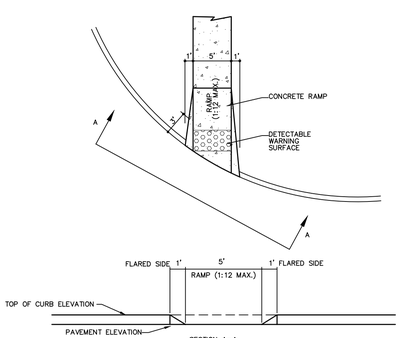



CONCRETE CURB DETAIL
NOT TO SCALE

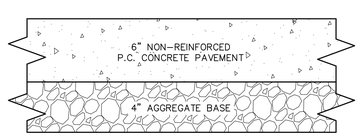



* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE




HANDICAPPED RAMP WITH DETECTABLE WARNING DETAIL
NOT TO SCALE




PARKING LOT PAVEMENT DETAIL
NOT TO SCALE

* CONCRETE PAVEMENT SHALL REACH A MINIMUM OF 4000 psi IN 28 DAYS.

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS.

A SITE PLAN FOR
#409 SONDEREN STREET
#409 SONDEREN STREET
CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| | |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

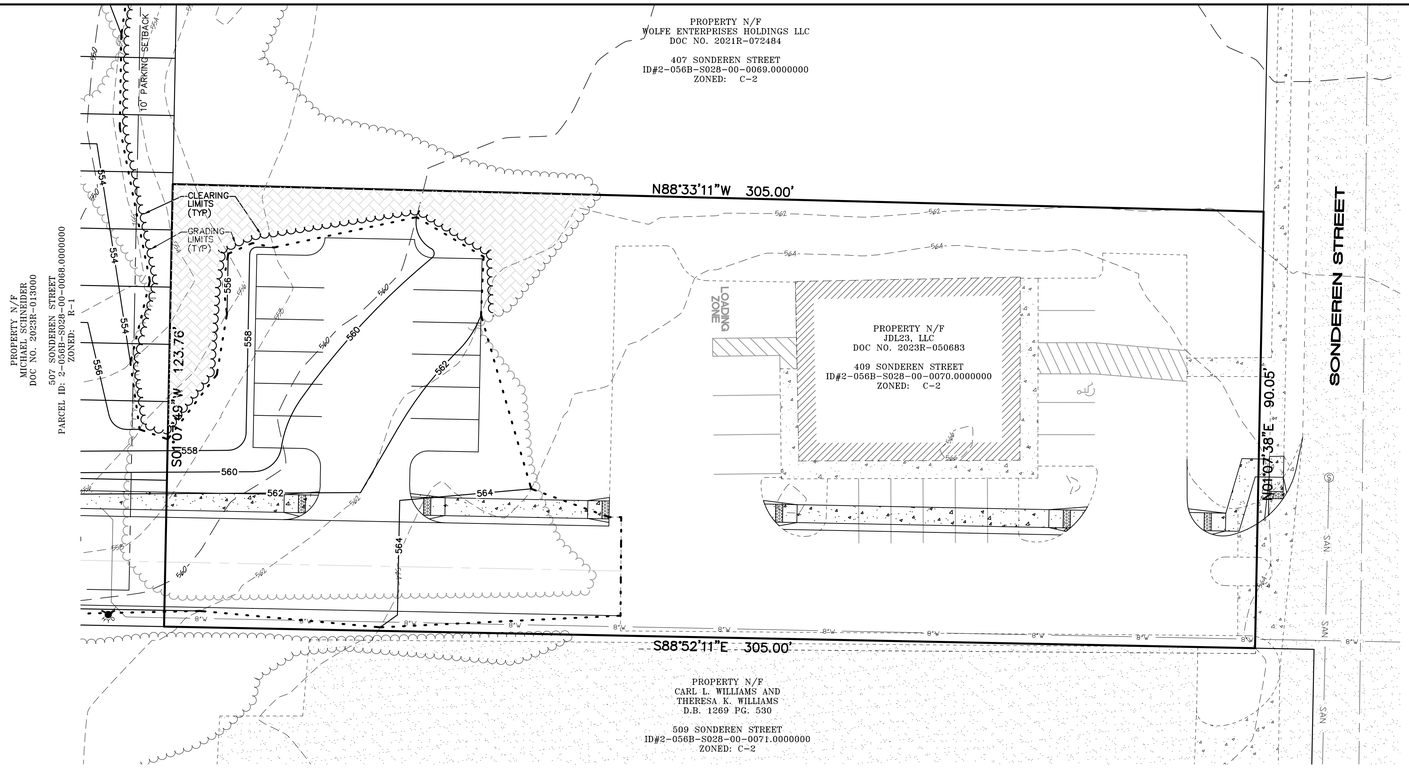
STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER 2007030831
PROFESSIONAL ENGINEER
12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

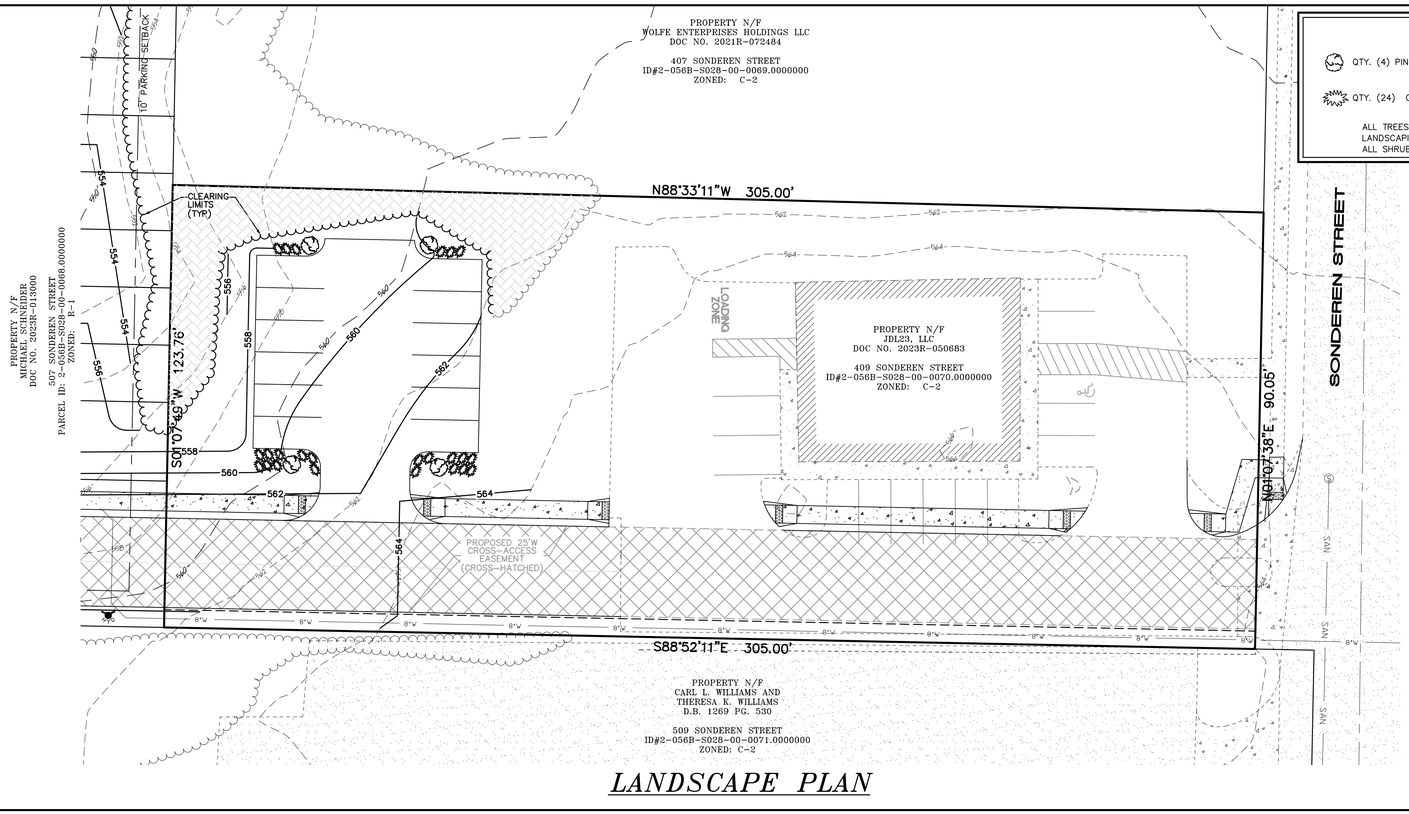
12/15/2025
DATE
25-19510
PROJECT NUMBER
19510pre.dwg
FILE NAME
CLM
DRAWN
CAW/JBS JBS
DESIGNED CHECKED

COVER SHEET/ SITE PLAN

1 of 2




## GRADING PLAN




### LANDSCAPE LEGEND

| | | |
|---|---|---|
| QTY. (4) PINK PRINCESS CRABAPPLE | MALUS 'PINK PRINCESS' | MINIMUM 2" CALIPER (MATURE HEIGHT = 6-8 FT.) |
| QTY. (24) CHINESE JUNIPER | JUNIPERUS X PFITZERIANA 'SEA GREEN' | 18" MINIMUM (5 GALLON) (MATURE HEIGHT = 4-6 FT.) |

ALL TREES SHALL BE DECIDUOUS AT MIN. CALIPER MEASURED 1 FOOT ABOVE GRADE AT 2 INCHES.
LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER
ALL SHRUBS SHALL BE 5 GALLON CONTAINER AND NOT LESS THAN 18 INCHES IN HEIGHT.

## LANDSCAPE PLAN

A SITE PLAN FOR
# #409 SONDEREN STREET
#409 SONDEREN STREET
CITY OF O'FALLON, ST. CHARLES COUNTY, MO 63366

PREPARED FOR:
ELLA REAL PROPERTY HOLDINGS, LLC
1467 NORTH MAIN STREET
O'FALLON, MO 63366
636-577-2458


ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

Box Engineering Company, Inc.
Missouri State Certificate of Authority
Engineering #000655
Missouri State Certificate of Authority
Surveying #000144


REVISIONS

| | |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

DISCLAIMER OF RESPONSIBILITY
I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than these authenticated by my seal.

STATE OF MISSOURI
JEFFREY B SIMMONS
NUMBER PE-2007030831
PROFESSIONAL ENGINEER
12/15/25

Jeffrey B. Simmons
Civil Engineer
2007030831

12/15/2025 DATE
25-19510 PROJECT NUMBER
19510pre.dwg FILE NAME
CLM DRAWN
CAW/JBS JBS DESIGNED CHECKED

GRADING PLAN/
LANDSCAPE
PLAN

# City of O'Fallon, Missouri

## Memorandum

**Planning and Zoning Commission** **G. 6. a.**

**Meeting Date:** 05/07/2026
**Re:** Nomination and election of the position of Vice Chairperson
**From:** Tracy Coffman, Administrative Assistant for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**

**Background:**

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **G. 6. b.**

**Meeting Date:** 05/07/2026

**Re:** Nomination and election of the position of Chairperson

**From:** Tracy Coffman, Administrative Assistant for Planning & Development

**Department:** Planning and Development

**Agenda Category:** New Business

---

**Item:**

**Background:**

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **H. 1.**

**Meeting Date:** 05/07/2026
**Re:** Consent Calendar
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
This is a request for a motion of recommendation to the City Council regarding the following items relating to easements, right-of-way, or other public facilities or interests of property provided on the Consent Calendar.

**Attachments**

Right of Way Conveyance Deed - Thornwood Apartments
Stormwater Management and Best Management Practices Facilities Maintenance Agreement - Texas Roadhouse Parking Lot Addition
Stormwater Management and Best Management Practices Facilities Maintenance Agreement - Harvest at Hopewell Phase 3
Acquisition of easements - Barrington - Country Life - Schrader Farm Estates
Utility Easement Dedication - Ameren Rebuild
Utility Easement Dedication - Ameren Rebuild

# City of O'Fallon, Missouri
# Memorandum

To : Planning and Zoning Commission, Mayor Bill Hennessy and City Council Members
Thru : Michael Snowden - City Administrator
Wade Montgomery - Director of Engineering
Todd Artz - Assistant Director of Engineering
David Woods - Director of Planning and Development
From : Jeannie Greenlee - Plan Reviewer
Date : March 30, 2026
Project : Thornwood Apartments (CSP24-000021)
Re : Right of Way Conveyance Deed

Please see the attached Right of Way Conveyance Deed for a portion of the median on Thornbury Crossing Drive that is now Common Ground for Thornbury Subdivision. This portion of the median is being abandoned and paved per City standards to allow access to Thornwood Apartments.

Space Above for Recorder's Use Only

**DOCUMENT COVER SHEET**

Date of Document: 18th of March, 2026

| | |
|---|---|
| Title of Document: | Right-of-Way Conveyance Deed |
| Grantor: | Thornbury Homeowners' Association |
| Grantor's Address: | c/o Sentry Management<br>7421 Mexico Road, Ste. 101<br>St. Peters, MO 63376 |
| Grantee: | City of O'Fallon, Missouri |
| Grantee's Address: | 100 North Main Street<br>O'Fallon, MO 63366 |
| Legal Description: | See Exhibit A |

NOTE: THE TERMS "GRANTOR" AND "GRANTEE" AS USED IN THIS COVER PAGE ARE FOR RECORDING AND INDEXING PURPOSES ONLY. THE INSTRUMENT ITSELF MAY REFER TO THE PARTIES BY OTHER DESIGNATIONS.

**After recording return to:**
Carmody MacDonald P.C.
Attn: Angela L. Drumm
120 S. Central Ave., Suite 1800
St. Louis, MO 63105

## RIGHT-OF-WAY CONVEYANCE DEED

**THIS RIGHT-OF-WAY CONVEYANCE DEED** (this "***Deed***") is made and entered into as of March 18, 2026, by and between THORNBURY HOMEOWNERS' ASSOCIATION, a Missouri nonprofit corporation ("***Grantor***"), and the CITY OF O'FALLON, MISSOURI, a Missouri municipal corporation ("***Grantee***").

**WITNESSETH**, that Grantor, for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration paid by Grantee, the receipt and sufficiency of which is hereby acknowledged by Grantor, does by these presents **DEDICATE, GRANT, BARGAIN AND SELL, CONVEY AND CONFIRM**, unto the Grantee, the following described real estate, situated in the City of O'Fallon, County of St. Charles, State of Missouri, to-wit:

See Exhibit A attached hereto and by this reference made a part hereof.

**TO HAVE AND TO HOLD** the same, together with all rights and appurtenances to the same belonging, unto the said Grantee, and its successors and assigns, for public use forever.

Grantor hereby covenants that Grantor shall and will **WARRANT** and **DEFEND** the title to the property unto Grantee and Grantee's successors and assigns forever, against the lawful claims of all persons claiming by, through, or under Grantor, but none other, excepting, however, the general taxes for the calendar year 2026 and thereafter, and special taxes becoming a lien after the date of this Deed.

**[SIGNATURE PAGE(S) TO FOLLOW]**

**COUNTERPART SIGNATURE PAGE TO**
**RIGHT-OF-WAY CONVEYANCE DEED**

IN WITNESS WHEREOF, the undersigned executed this Deed as of the date first above written.

Notice Address:

c/o Sentry Management
7421 Mexico Road, St. 101
St. Peters, MO 63376

THORNBURY HOMEOWNERS' ASSOCIATION

By: Dona Mitchell
Name: Dona Mitchell
Its: President

STATE OF MISSOURI )
) SS.
COUNTY OF ST. CHARLES )

On this 18th day of March, 2026 before me appeared Dona Mitchell, to me personally known, who, being by me duly sworn did say that he/she is the President of the Thornbury Homeowners' Association, a Missouri nonprofit corporation, and that said instrument was signed on behalf of said entity and said individual acknowledged said instrument to be the free act and deed of said entity.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid, the day and year first above written.

Notary Public

My commission expires:

MARC ANDREW CALDWELL
My Commission Expires
10-30-2027
NOTARY SEAL
St. Charles
County
Commission # 19264017
NOTARY PUBLIC - STATE OF MISSOURI

**COUNTERPART SIGNATURE PAGE TO**
**RIGHT-OF-WAY CONVEYANCE DEED**

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first above written.

Notice Address:

CITY OF O'FALLON, MISSOURI

_____

_____

_____

By:_____

Name:_____

Its:_____

STATE OF MISSOURI )
) SS.
COUNTY OF ST. CHARLES )

On this _____ day of _____, 2026 before me appeared _____, to me personally known, who, being by me duly sworn did say that he/she is the _____ of the City of O'Fallon, a Missouri municipal corporation, and that said instrument was signed on behalf of said entity and said individual acknowledged said instrument to be the free act and deed of said entity.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid, the day and year first above written.

_____
Notary Public

My commission expires:

GRANTEE'S ACKNOWLEDGMENT:

Comes now, the City of O'Fallon, Missouri, Grantee, and acknowledges the above Trustees' Deed, which conveys and dedicates certain roadways to the City.

Mayor

Attest:

City Clerk

STATE OF MISSOURI )
) SS
COUNTY OF )

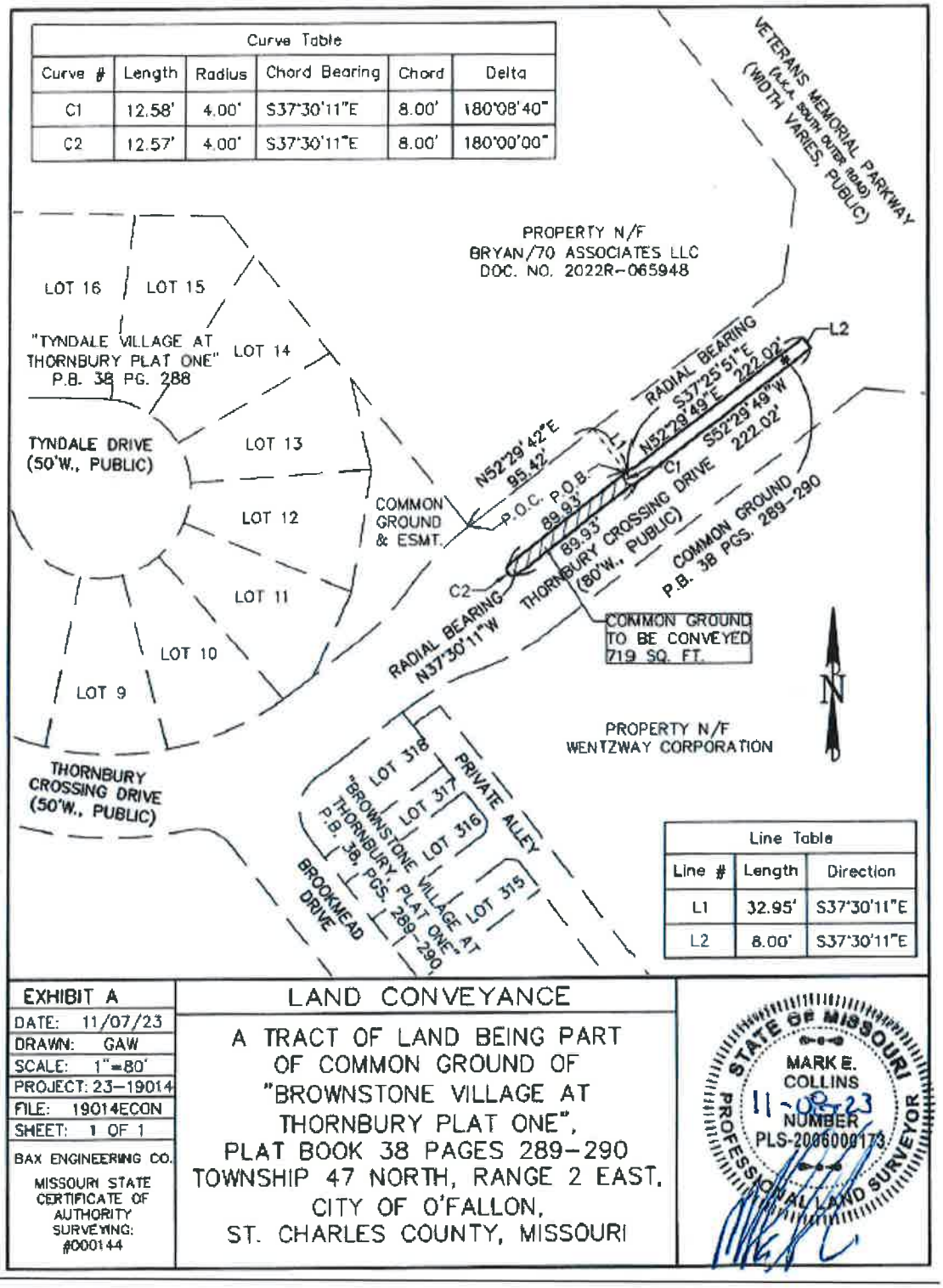
Now on this day of , 20 , personally appeared before me who stated that he/she is the Mayor of the City of O'Fallon, Missouri, and that he signed the above acknowledgement on behalf of the City by authority of its City Council.

In witness whereof, I have placed my hand and my official seal the day and year first above written.

Notary Public

My commission expires:

Exhibit A


Curve Table
Curve # | Length | Radius | Chord Bearing | Chord | Delta
C1 | 12.58' | 4.00' | S37°30'11"E | 8.00' | 180°08'40"
C2 | 12.57' | 4.00' | S37°30'11"E | 8.00' | 180°00'00"
VETERANS MEMORIAL PARKWAY (A.K.A. SOUTH OUTER ROAD) (WIDTH VARIES, PUBLIC)
PROPERTY N/F
BRYAN/70 ASSOCIATES LLC
DOC. NO. 2022R-065948
LOT 16
LOT 15
"TYNDALE VILLAGE AT THORNBURY PLAT ONE" P.B. 38 PG. 288
LOT 14
TYNDALE DRIVE (50'W., PUBLIC)
LOT 13
LOT 12
LOT 11
LOT 10
LOT 9
THORNBURY CROSSING DRIVE (50'W., PUBLIC)
COMMON GROUND & ESMT.
N52°29'42"E 95.42'
P.O.C.
P.O.B.
L1
C1
C2
RADIAL BEARING S37°25'51"E
222.02'
L2
N52°29'49"E
S52°29'49"W
222.02'
89.93'
89.93'
THORNBURY CROSSING DRIVE (80'W., PUBLIC)
COMMON GROUND P.B. 38 PGS. 289-290
RADIAL BEARING N37°30'11"W
COMMON GROUND TO BE CONVEYED 719 SQ. FT.
N
PROPERTY N/F
WENTZWAY CORPORATION
LOT 318
LOT 317
LOT 316
LOT 315
PRIVATE ALLEY
"BROWNSTONE VILLAGE AT THORNBURY, PLAT ONE" P.B. 38, PGS. 289-290
BROOKMEAD DRIVE
Line Table
Line # | Length | Direction
L1 | 32.95' | S37°30'11"E
L2 | 8.00' | S37°30'11"E
EXHIBIT A
DATE: 11/07/23
DRAWN: GAW
SCALE: 1"=80'
PROJECT: 23-19014
FILE: 19014ECON
SHEET: 1 OF 1
BAX ENGINEERING CO.
MISSOURI STATE CERTIFICATE OF AUTHORITY SURVEYING: #000144
LAND CONVEYANCE
A TRACT OF LAND BEING PART OF COMMON GROUND OF "BROWNSTONE VILLAGE AT THORNBURY PLAT ONE", PLAT BOOK 38 PAGES 289-290 TOWNSHIP 47 NORTH, RANGE 2 EAST, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI
STATE OF MISSOURI
MARK E. COLLINS
11-08-23
NUMBER PLS-2006000173
PROFESSIONAL LAND SURVEYOR

LAND DESCRIPTION
719 SQUARE FEET
NOVEMBER 07, 2023
BAX PROJECT NO. 23-19014
GAW

**COMMON GROUND TO BE CONVEYED**

A TRACT OF LAND BEING PART OF COMMON GROUND OF "BROWNSTONE VILLAGE AT THORNBURY PLAT ONE", A SUBDIVISION ACCORDING TO THE INSTRUMENT RECORDED IN PLAT BOOK 38 PAGES 289-290 OF THE ST. CHARLES COUNTY RECORDS, TOWNSHIP 47 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EASTERNMOST CORNER OF COMMON GROUND AND EASEMENT OF "TYNDALE VILLAGE AT THORNBURY PLAT ONE", A SUBDIVISION ACCORDING TO THE INSTRUMENT RECORDED IN PLAT BOOK 38 PAGE 288 OF SAID RECORDS, SAID POINT BEING ALSO THE SOUTHERNMOST CORNER OF PROPERTY CONVEYED TO BRYAN/70 ASSOCIATES, LLC BY DOCUMENT NO. 2022R-065948 OF SAID RECORDS; THENCE ALONG THE SOUTHEAST LINE OF BRYAN/70 ASSOCIATES, LLC PROPERTY, NORTH 52 DEGREES 29 MINUTES 42 SECONDS EAST 95.42 FEET TO A POINT; THENCE LEAVING THE SAID SOUTHEAST LINE OF BRYAN/70 ASSOCIATES, LLC PROPERTY, SOUTH 37 DEGREES 30 MINUTES 11 SECONDS EAST 32.95 FEET TO THE ACTUAL POINT OF BEGINNING OF THE DESCRIPTION HEREIN; THENCE ALONG A CURVE TO THE LEFT WHOSE RADIUS POINT BEARS SOUTH 37 DEGREES 25 MINUTES 51 SECONDS EAST 4.00 FEET FROM THE LAST MENTIONED POINT, AN ARC DISTANCE OF 12.58 FEET TO A POINT; THENCE SOUTH 52 DEGREES 29 MINUTES 49 SECONDS WEST 89.93 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT WHOSE RADIUS POINT BEARS NORTH 37 DEGREES 30 MINUTES 11 SECONDS WEST 4.00 FEET FROM THE LAST MENTIONED POINT, AN ARC DISTANCE OF 12.57 FEET TO A POINT; THENCE NORTH 52 DEGREES 29 MINUTES 49 SECONDS EAST 89.93 FEET TO THE POINT OF BEGINNING, CONTAINING 719 SQUARE FEET ACCORDING TO CALCULATIONS BY BAX ENGINEERING COMPANY DURING NOVEMBER, 2023.



# City of O'Fallon, Missouri
# Public Works Department
# Memorandum

Date: April 13, 2026
To: Planning & Zoning Commission, Mayor Bill Hennessy and City Council
From: Jeannie Greenlee - Plan Reviewer
Thru: Michael Snowden - City Administrator
Steve Bender - Managing Director of Public Works
David Woods - Director of Planning & Development
Wade Montgomery - Director of Engineering
Subject: Stormwater Management and Best Management Practices Facilities Maintenance Agreement For Texas Roadhouse Parking Lot Addition

This item is to be placed on the May 7, 2026 Planning & Zoning Commission and May 14, 2026 City Council Consent Calendars.

## BACKGROUND:
The Final Plan for the above-mentioned project was approved by the City Council on February 5, 2026.

## SUMMARY:
This maintenance agreement will ensure that the stormwater cleansing features on this site will be maintained by the property owner and follow the property forever.

## RECOMMENDATION:
Staff is recommending approval of the Stormwater Management and Best Management Practices Facilities Maintenance Agreement for Texas Roadhouse Parking Lot Addition.

Once approved, the document will be filed with the office of the Recorder of Deeds for St. Charles County.

(Space above this line reserved for Recorder of Deeds)

**STORMWATER MANAGEMENT and BEST MANAGEMENT PRACTICES FACILITIES MAINTENANCE AGREEMENT COVER PAGE**

Date:

Grantor:

Grantee: City of O'Fallon, Missouri
100 North Main
O'Fallon, Missouri 63366

Legal Description:

Address of Property, 8485 Mexico Road, O'Fallon, MO 63376
known as locator number St. Charles County Locator Number
and described as " Texas Roadhouse Parking Lot Addition ,
Township North, Range East, St. Charles County, Missouri."

# STORMWATER MANAGEMENT and BEST MANAGEMENT PRACTICES FACILITIES MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this_____ day of _____, 20_____ by and between Texas Roadhouse Holdings LLC, the Grantor hereinafter called the "Landowner", and the City of O'Fallon, Missouri, the Grantee hereinafter called the "City".

WITNESSETH, that
WHEREAS, the Landowner is the owner of certain real property generally described as (address) 8485 Mexico Road, O'Falllon Mo 63376. with a St. Charles County tax Map/Parcel Identification Number 2-0119-D225-00-0002.0000000, and as recorded by deed in the land records of St. Charles County, Missouri, Deed Book 2022R Page 020936, hereinafter called the "Property".

WHEREAS, the Landowner is proceeding to build on, develop or otherwise improve the property; and

WHEREAS, improvements are being made according to Site Plan/Subdivision Plan known as Texas Roadhouse Parking Lot Addition, hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City.

WHEREAS, the City and the Landowner, its successor and assigns, including any homeowners association, agree that the health, safety, and welfare of the residents of O'Fallon, Missouri require that on-site stormwater management / Best Management Practices (BMP) facilities be constructed and maintained on the Property; and

WHEREAS, the City requires per ordinance #5271 (City Code 405.247) that on-site stormwater management / BMP facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns, including any homeowners and or subdivision association.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. Initial Construction: The on-site stormwater management / BMP facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan and in accordance with City Ordinance.

2. Maintenance: The Landowner and its successors and assigns, including any homeowners and/or subdivision association, shall, at all times, adequately maintain the on site stormwater management / BMP facilities as approved for that development on the plan. The facilities to be maintained shall include all pipes and channels built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater.

Adequate maintenance is herein defined as good working condition so that these facilities are performing functions as designed, so that these facilities do not adversely affect other elements of the overall storm water system and so that these facilities comply with City Ordinance or other applicable law. Stormwater pipes marked on the plans as "private" are to be maintained by landowner. Storm pipes which are designated as "public" are not the responsibility of the landowner; however, landowner shall take no action to cause damage or adversely affect the public systems and, furthermore, landowner shall continue to maintain the "private" facilities so as not to adversely affect the "public" facilities.

3. Annual Inspections: The Landowner, its successors and assigns, shall inspect the stormwater management / BMP facility and submit an inspection report to the City's Stormwater Coordinator annually. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structure, retention/detention and pond areas, access roads, etc. Deficiencies shall be noted in the inspection report.

4. City Authorized to Enter Property: The Landowner hereby grants its consent to the City to enter upon the Property, from time to time, and to inspect the stormwater management / BMP facilities whenever the City deems necessary. The purpose of inspection is to follow-up on reported deficiencies, to verify the annual reports submitted by Landowner and/or to respond to citizen concerns or possible nuisance conditions. The City shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary.

5. Maintenance Schedule: The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the stormwater management / BMP facilities (including sediment and debris removal) is outlined on the approved plans or as part of this Agreement, the schedule will be followed. In addition to the actions outlined on the maintenance schedule, the Landowner and its successors and assigns shall take further action in order to keep the facilities in good working order; following the maintenance schedule, alone, will not relieve the Landowner of any responsibility to take further actions to ensure proper operation and maintenance of the facilities.

6. Failure to Maintain: In the event the Landowner, its successors and/or assigns, fails to maintain the stormwater management / BMP facilities in good working condition, the City will notify Landowner, its successors and/or assigns, of deficiencies by letter. The Landowner will have ten (10) days from the date of the letter to respond to the City with an adequate plan to make repairs. If adequate repairs are not made by Landowner in a timely manner, Landowner hereby consents and agrees that City may enter upon the Property and take whatever steps necessary to correct deficiencies identified in the inspection report; all costs of such repairs shall be billed to the Landowner, its successors and/or assigns. Landowner, its successors and/or assigns shall pay the bill as required by Section 7 of this Agreement. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner outside of any easement for the stormwater management / BMP facilities. It is expressly understood and

agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

7. Landowner to Reimburse City: In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner, its successors and assigns, shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder. In the event that the City must pursue any action to collect any delinquent payments, Landowner, its successors and assigns, the City shall be entitled to recover all of its collection costs and attorney fees.

8. Liability and Hold Harmless: This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless from any liability in the event the stormwater management / BMP facilities fail to operate properly.

9. Recording: This Agreement shall be recorded among the land records of St. Charles County, Missouri by the Landowner and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners and or subdivision association. This agreement shall be recorded with the record plat of any development that requires such a plat. If the development does not require that a plat be recorded it shall be recorded prior to approval of the construction plans for the development.

WITNESS t ollowing signatur s and seals:

LANDOWNER SIGNATURES:

Texas Roadhouse Holdings LLC

Company/Corporation/Partnership Name (seal)

BY: _____

Jeff Davis

(Type Name)

Senior Director Construction

(Type Title)

COUNTY OF Jefferson STATE OF KY

The foregoing Agreement was acknowledged before me by

Jeff Davis,

(Type Name)

On this 6th day of April, 2026, by

_____

Anna Campisano

NOTARY PUBLIC

My Commission Expires: 10/08/2029

ANNA MARIE CAMPISANO
NOTARY PUBLIC
Commonwealth of Kentucky
Commission # KYNP105556
My Commission Expires 10/08/2029

CITY SIGNATURES:

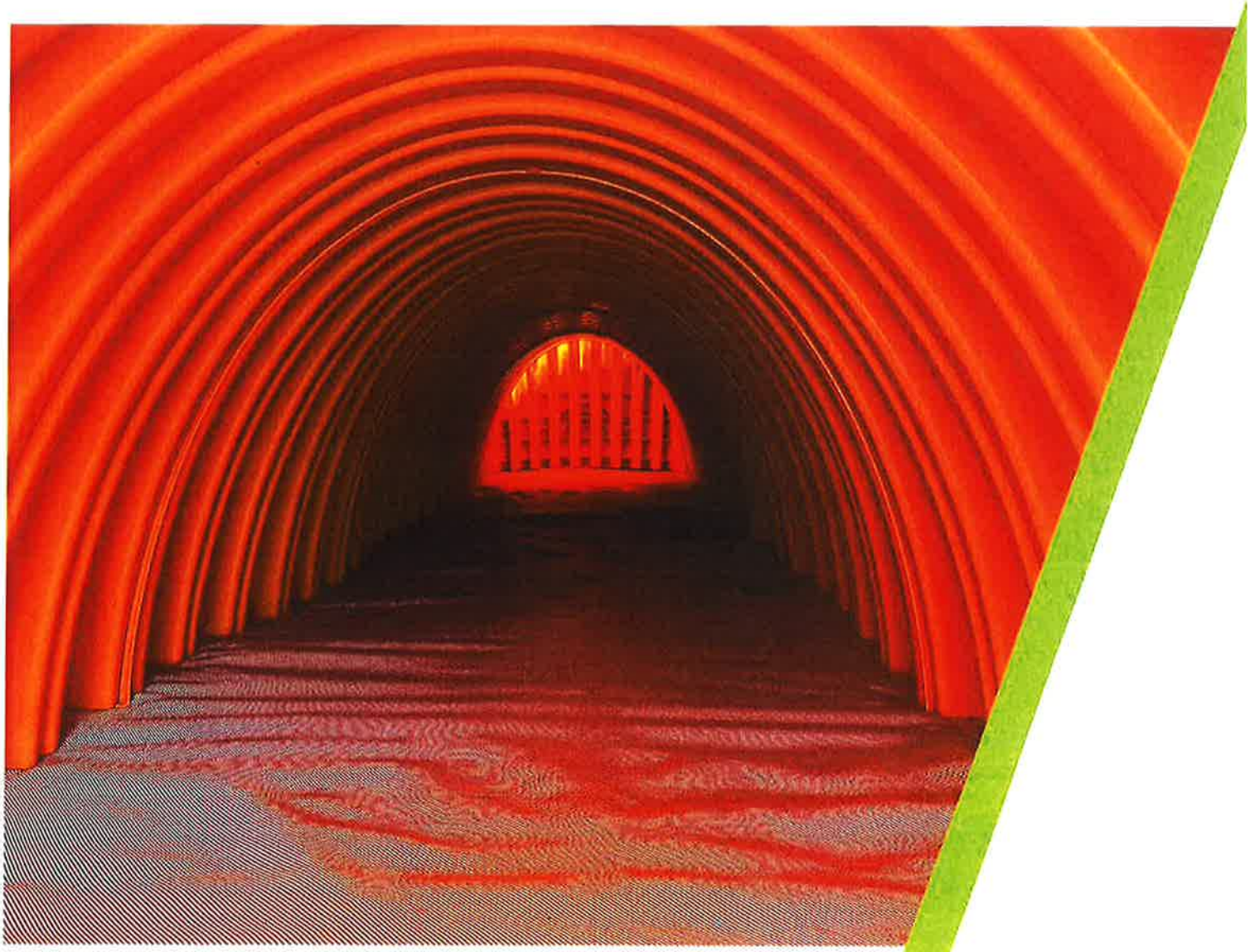
Passed by Consent of the City Council for the City of O'Fallon, Missouri,
This_____ Day of _____, 20____

BY:_____
City Administrator, Michael Snowden, City of O'Fallon

ATTEST:

_____
City Clerk, Bess Bacher, City of O'Fallon

# Isolator® Row Plus
## O&M Manual



ADS StormTech

# The Isolator® Row Plus

### Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS), Total Phosphorus (TP), Total Petroluem Hydrocarbons (TPH) and Total Nitrogen (TN) removal with easy access for inspection and maintenance.

### The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, DC-780, SC-800, MC-3500, MC-4500 or MC-7200 models, are lined with filter fabric and connected to a closely located manhole for easy access. The fabric lined chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers allow stormwater to flow vertically out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS Isolator Row and Plus fabric are placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row Plus Flamp™ is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end, or more difficult to remove and require confined space entry into the chamber area. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

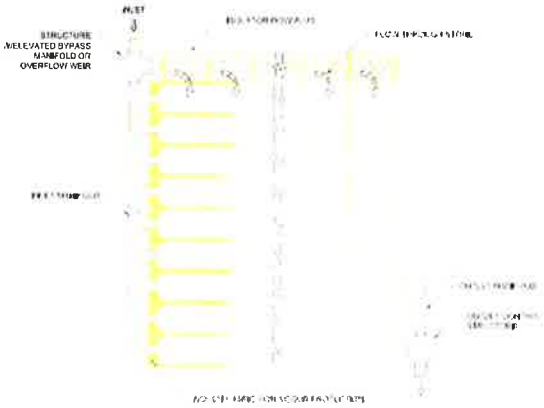
***Note:*** *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.*



**Looking down the Isolator Row Plus from the manhole opening, ADS Plus Fabric is shown between the chamber and stone base.**



**StormTech Isolator Row Plus with Overflow Structure (not to scale)**



# Isolator Row Plus Inspection/Maintenance

## Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

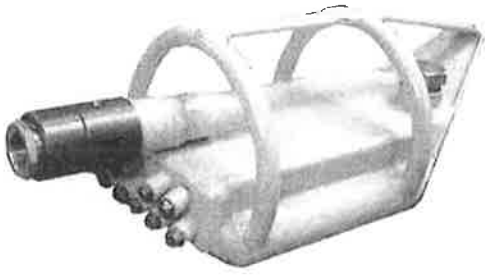
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3" (75 mm) throughout the length of the Isolator Row Plus, clean-out should be performed.

## Maintenance

The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entry.

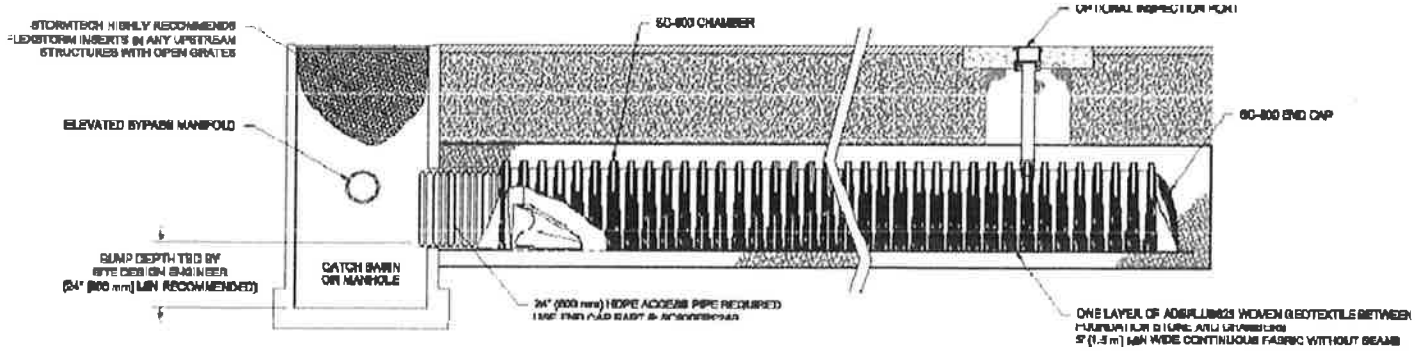
Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**








**StormTech Isolator Row Plus** *(not to scale)*



# Isolator Row Plus Step By Step Maintenance Procedures

**Step 1**

Inspect Isolator Row Plus for sediment.

A) Inspection ports (if present)
   i. Remove lid from floor box frame
   ii. Remove cap from inspection riser
   iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
   iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row Plus
   i. Remove cover from manhole at upstream end of Isolator Row Plus
   ii. Using a flashlight, inspect down Isolator Row Plus through outlet pipe
      1. Mirrors on poles or cameras may be used to avoid a confined space entry
      2. Follow OSHA regulations for confined space entry if entering manhole
   iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
   If not, proceed to Step 3.

**Step 2**

Clean out Isolator Row Plus using the JetVac process.

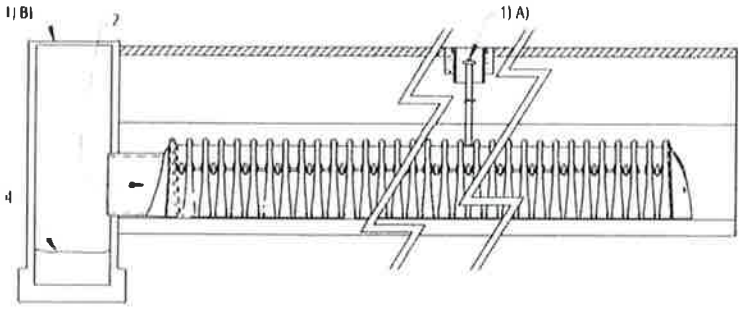
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

**Step 3**

Replace all caps, lids and covers, record observations and actions.

**Step 4**

Inspect & clean catch basins and manholes upstream of the StormTech system.




**Sample Maintenance Log**

| Date | Stadia Rod Readings | | Sediment Depth (1)-(2) | Observations/Actions | Inspector |
|---|---|---|---|---|---|
| | Fixed point to chamber bottom (1) | Fixed point to top of sediment (2) | | | |
| 3/15/11 | 6.3 ft | none | | New installation. Fixed point is CI frame at grade | DJM |
| 9/24/11 | | 6.2 | 0.1 ft | Some grit felt | SM |
| 6/20/13 | | 5.8 | 0.5 ft | Mucky feel, debris visible in manhole and in Isolator Row Plus, maintenance due | NV |
| 7/7/13 | 6.3 ft | | 0 | System jetted and vacuumed | DJM |

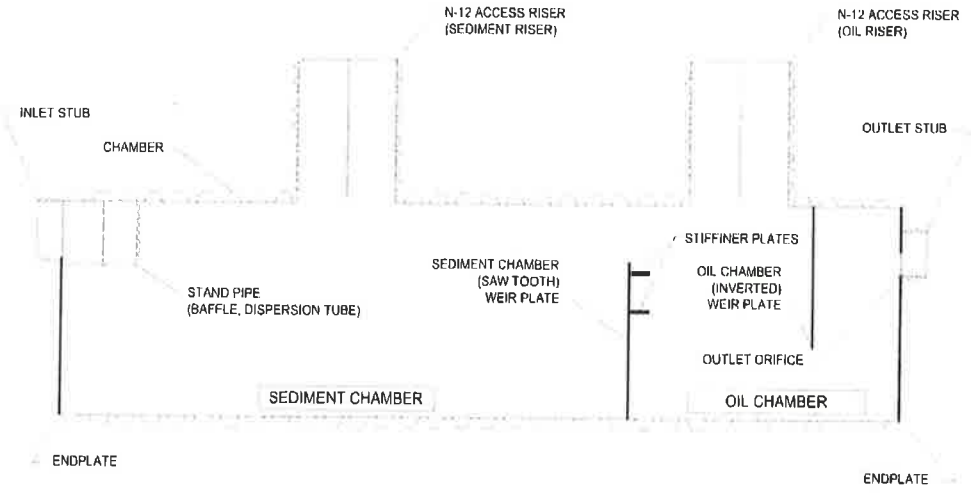

adspipe.com
800-821-6710


ADS StormTech

# Stormwater Quality Units
# Inspection & Maintenance

## Description/Basic Function

The ADS water quality unit harnesses the proven concepts utilized in municipal stormwater treatment systems and transforms it into a compact water quality unit. The unit is ideal for storm water applications including gas stations and fast food restaurants; this system gives you a highly effective BMP solution.




### Risers

The ADS Water Quality Unit consists of two risers. 24" (600 mm) risers are centered over sediment and oil chambers. These two risers provide access to the individual chambers of the Storm Water Quality Unit for maintenance and inspection. Entry into the water quality unit should be considered an OSHA confined space and appropriate guidelines should be followed.

- Orifice or restrictor plate clear
- Trash rack free of debris
- No structural damage

Surface Area

- No settlement above pipes
- No erosion near structures

## Maintenance Activities

Typical maintenance includes:

Debris Removal

- Remove debris from inlet grates
- Clean outlet structure and trash racks

Sediment Removal

- Use vacuum truck or jetting equipment
- Clean when sediment exceeds 6 inches or 25% of pipe diameter

Structural Repairs

- Repair cracked structures
- Address pipe collapse or settlement
- Consult licensed civil engineer if structural issues occur

## Safety Considerations

Underground stormwater systems may contain confined spaces.

Follow OSHA confined space regulations.

Use gas monitoring equipment.

Use traffic control when working in paved areas.

## Maintenance Overview

The purpose of maintaining a clean and obstruction free Water Quality Unit is to ensure intened performance. Excessive sediment or debris could reduce the efficiency of the system. A company specializing in such activities should perform inspection and maintenance of the Water Quality Unit.

**Inspection / Maintenance Frequency for the ADS Water Quality Unit**

- Inspected quarterly (4 times a year) and after major storm events.
- Cleaned (pumped and pressure washed) as indicated by the sediment level in Table 1, or annually.
- Site or surrounding site conditions may require more inspections and maintenance.

## Inspection

An inspection should be performed when the system is installed. This allows the owner to measure the invert prior to accumulation of sediment. This survey will allow the monitoring of sediment build-up without entering the system, thereby reducing the need for confined space entry. Documentation of pre-inspection data should be captured.

**Procedures**

1. Inspect the bypass structure for blockage. Inspect the diversion structure and weir for damage and sediment buildup. Any damage should be repaired and sediment should be removed as required.
2. Locate the Water Quality Unit risers, locate the risers. The risers will be 24" (600 mm) in diameter.
3. Remove the lid of each riser. It is recommend that this be done one at a time so an open riser is not left exposed during inspection or maintenance of the other risers.
4. In the 24" (60 mm) riser over the Sediment Chamber, inspect the amount of floatable debris. Then measure the sediment buildup with a measuring device such as a Sludge Judge®. Also inspect that the inlet pipe does not have any blockage. Blockage inspection is better suited after unit is vacuumed. Any confined space entry would be done through this riser and OSHA requirements must be followed.
5. In the 24" (600 mm) riser over the Oil Chamber, measure/inspect the oil depth.
6. Inspect structure and components for any damage.
7. Replace all riser lids.

## Maintenance

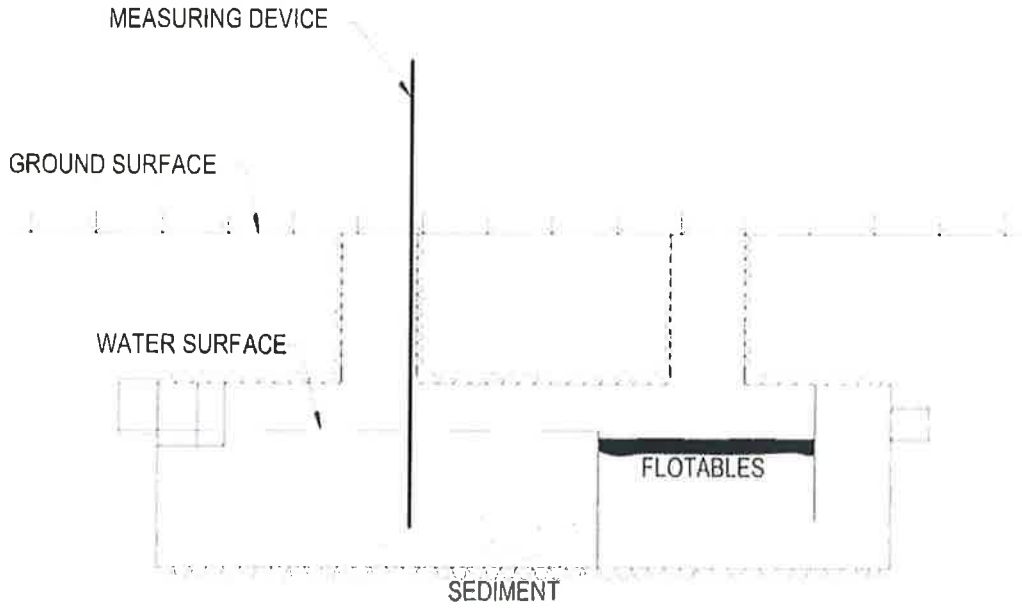
Cleaning should be performed if **sediment volume has reduced the storage area by 20% or if the depth of sediment has reached approximately 25% of the diameter of the structure (See Table 1 for cleanout depth information).** Furthermore, the system may need cleaning in the event a spill of a foreign substance enters the unit.

**Inspection Procedures (Measuring Sediment Depth)**

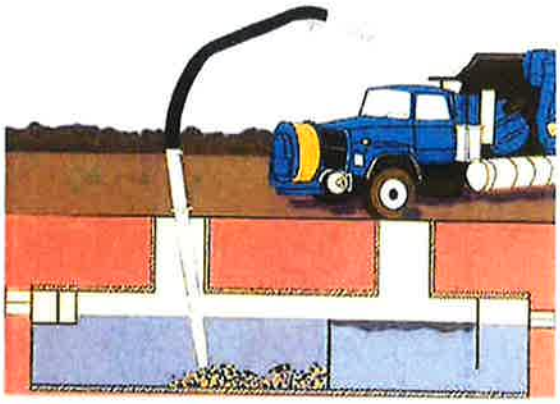
1. Lower measuring device into sediment riser of unit.
2. Read measurement at ground surface.
3. Subtract the current measurement reading from the distance between the ground surface to the invert of the SWQU (obtained when unit was first installed or is clean).
4. Compare calculated difference to the respective value in Table 1. If resulting value is equal to or greater than the respective value on the Table 1, maintenance shall be performed. The figure below illustrates the inspection procedure.

**Table 1**
**Sediment Depth at Cleanout**

| Model Number | Diameter in. (mm) | Sediment Depth in. (mm) |
|---|---|---|
| 3620WQ | 36 (900) | 9 (225) |
| 3640WQ | 36 (900) | 9 (225) |
| 4220WQ | 42 (1050) | 10 (250) |
| 4240WQ | 42 (1050) | 10 (250) |
| 4820WQ | 48 (1200) | 12 (300) |
| 4840WQ | 48 (1200) | 12 (300) |
| 6020WQ | 60 (1500) | 15 (375) |
| 6040WQ | 60 (1500) | 15 (375) |



**Cleaning Procedures**



1. Insert vacuum hose into bypass Structure and pump out. Inspect bypass Structure for any damage.
2. Insert vacuum hose into 24" (600 mm) riser and pump out the Sediment Chamber. Pressure wash this Chamber if needed. Inspect for any damage.
3. Insert vacuum hose into other 24" (600 mm) riser. This will pump out the Oil Chamber. Pressure wash this Chamber if needed.
4. Refill water quality unit with water. Inspect the inlet pipe for any blockage, the weir plate for damage, and for any structural damage.
5. Replace all riser lids.

The owner or operator is responsible for meeting all federal, state, and local laws and regulations during the maintenance and clean out operations.

**Material Disposal**

Owners are responsible for complying with all federal, state, and local regulations when disposing of material collected from the storm water quality unit. Water and sediment from cleanout procedures should not be dumped into sanitary sewer.

# Stormwater Underground Detention System

## Inspection Checklist

### Inlets

☐ Grates free of debris

☐ No excessive sediment buildup

☐ Structure not damaged

### Pipes

☐ No blockage observed

☐ No standing water after 72 hours

☐ No structural damage or deformation

### Manholes

☐ Covers secure and intact

☐ No structural cracking

☐ Ladder rungs in good condition

### Outlet Control Structure

☐ Orifice plate clear

☐ Trash rack free of debris

☐ Weir openings unobstructed

☐ Structure not damaged

### Surface Area

☐ No sinkholes or settlement above pipes

☐ No erosion around structures

☐ Access routes unobstructed

# Stormwater Underground Detention System

## Maintenance Log

| Date | Inspection Type | Observations | Maintenance Performed | Inspector |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# Isolator Row Plus Inspection/Maintenance

## Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

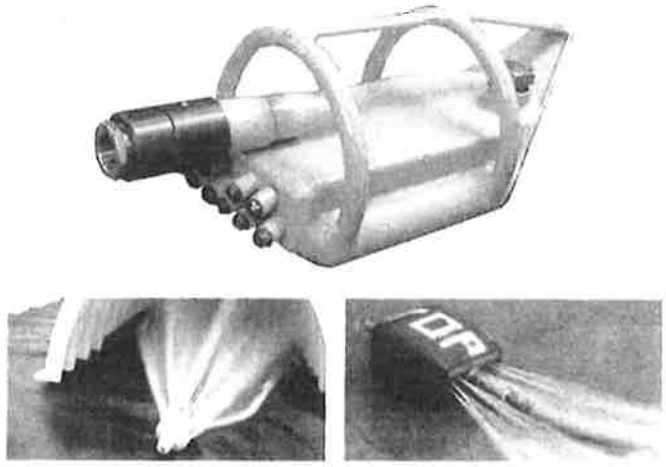
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3" (75 mm) throughout the length of the Isolator Row Plus, clean-out should be performed.

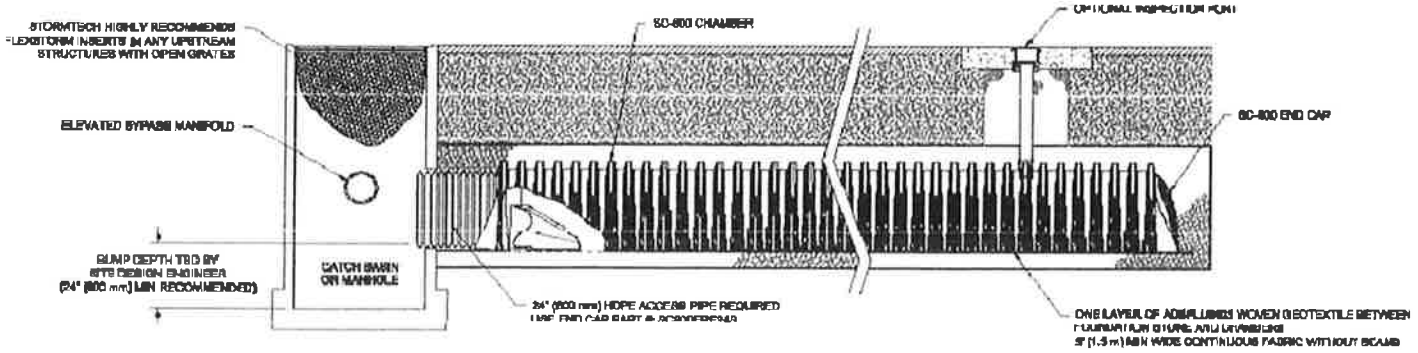
## Maintenance

The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entry.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**



**StormTech Isolator Row Plus** (*not to scale*)



# StormTech® Standard Limited Warranty

## STANDARD LIMITED WARRANTY OF STORMTECH LLC ("STORMTECH"): PRODUCTS

(A) This Limited Warranty applies solely to the StormTech chambers and end plates manufactured by StormTech and sold to the original purchaser (the "Purchaser"). The chambers and end plates are collectively referred to as the "Products."

(B) The structural integrity of the Products, when installed strictly in accordance with StormTech's written installation instructions at the time of installation, are warranted to the Purchaser against defective materials and workmanship for one (1) year from the date of purchase. Should a defect appear in the Limited Warranty period, the Purchaser shall provide StormTech with written notice of the alleged defect at StormTech's corporate headquarters within ten (10) days of the discovery of the defect. The notice shall describe the alleged defect in reasonable detail. StormTech agrees to supply replacements for those Products determined by StormTech to be defective and covered by this Limited Warranty. The supply of replacement products is the sole remedy of the Purchaser for breaches of this Limited Warranty. StormTech's liability specifically excludes the cost of removal and/or installation of the Products.

(C) THIS LIMITED WARRANTY IS EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCTS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

(D) This Limited Warranty only applies to the Products when the Products are installed in a single layer. UNDER NO CIRCUMSTANCES, SHALL THE PRODUCTS BE INSTALLED IN A MULTI-LAYER CONFIGURATION.

(E) No representative of StormTech has the authority to change this Limited Warranty in any manner or to extend this Limited Warranty. This Limited Warranty does not apply to any person other than to the Purchaser.

(F) Under no circumstances shall StormTech be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the Products, or the cost of other goods or services related to the purchase and installation of the Products. For this Limited Warranty to apply, the Products must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and StormTech's written installation instructions.

(G) THE LIMITED WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES. STORMTECH SHALL NOT BE LIABLE FOR PENALTIES OR LIQUIDATED DAMAGES, INCLUDING LOSS OF PRODUCTION AND PROFITS; LABOR AND MATERIALS; OVERHEAD COSTS; OR OTHER LOSS OR EXPENSE INCURRED BY THE PURCHASER OR ANY THIRD PARTY. SPECIFICALLY EXCLUDED FROM LIMITED WARRANTY COVERAGE ARE DAMAGE TO THE PRODUCTS ARISING FROM ORDINARY WEAR AND TEAR; ALTERATION, ACCIDENT, MISUSE, ABUSE OR NEGLECT; THE PRODUCTS BEING SUBJECTED TO VEHICLE TRAFFIC OR OTHER CONDITIONS WHICH ARE NOT PERMITTED BY STORMTECH'S WRITTEN SPECIFICATIONS OR INSTALLATION INSTRUCTIONS; FAILURE TO MAINTAIN THE MINIMUM GROUND COVERS SET FORTH IN THE INSTALLATION INSTRUCTIONS; THE PLACEMENT OF IMPROPER MATERIALS INTO THE PRODUCTS; FAILURE OF THE PRODUCTS DUE TO IMPROPER SITING OR IMPROPER SIZING; OR ANY OTHER EVENT NOT CAUSED BY STORMTECH. A PRODUCT ALSO IS EXCLUDED FROM LIMITED WARRANTY COVERAGE IF SUCH PRODUCT IS USED IN A PROJECT OR SYSTEM IN WHICH ANY GEOTEXTILE PRODUCTS OTHER THAN THOSE PROVIDED BY ADVANCED DRAINAGE SYSTEMS ARE USED. THIS LIMITED WARRANTY REPRESENTS STORMTECH'S SOLE LIABILITY TO THE PURCHASER FOR CLAIMS RELATED TO THE PRODUCTS, WHETHER THE CLAIM IS BASED UPON CONTRACT, TORT, OR OTHER LEGAL THEORY.

# StormTech® MC-7200 Chamber

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.



**Nominal Chamber Specifications**
(not to scale)

**Size (L x W x H)**
83" x 100" x 60"
2108 mm x 2540 mm x 1524 mm

**Chamber Storage**
175.9 ft³ (4.98 m³)

**Min. Installed Storage***
267.3 ft³ (7.57 m³)

**Weight**
202 lbs (91.6 kg)

**Shipping**
7 chambers/pallet
5 end caps/pallet
6 pallets/truck

*Assumes a minimum of 12" (300 mm) of stone above, 9" (230 mm) of stone below chambers, 9" (230 mm) of stone between chambers/ end caps and 40% stone porosity.

**Nominal End Cap Specifications**
(not to scale)

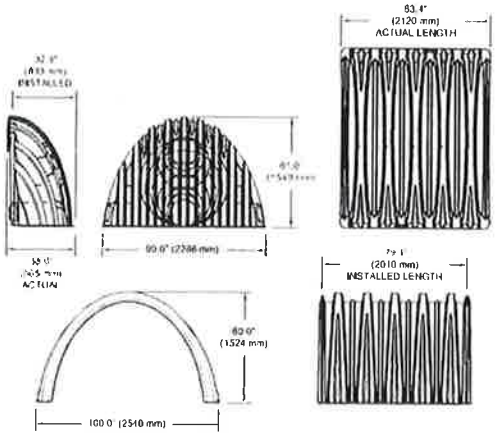
**Size (L x W x H)**
38" x 90" x 61"
965 mm x 2286 mm x 1549 mm

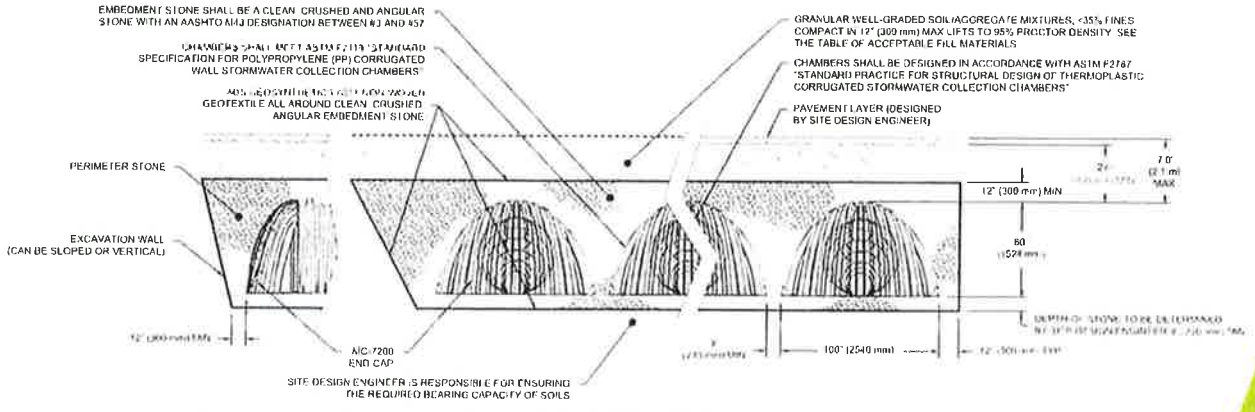
**End Cap Storage**
39.5 ft³ (1.12 m³)

**Min. Installed Storage***
115.3 ft³ (3.26 m³)

**Weight**
Nominal 90.0 lbs (40.8 kg)

*Assumes a minimum of 12" (300 mm) of stone above, 9" (230 mm) of stone below, 12" (300 mm) of stone perimeter, 9" (230 mm) of stone between chambers/end caps and 40% stone porosity.




*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm)

ADS StormTech

# StormTech MC-7200 Specifications

## Storage Volume Per Chamber

| | Bare Chamber Storage ft³ (m³) | Chamber and Stone Foundation Depth in. (mm) | | | |
|---|---|---|---|---|---|
| | | 9 in (230 mm) | 12 in (300 mm) | 15 in (375 mm) | 18 in (450 mm) |
| Chamber | 175.9 (4.98) | 267.3 (7.57) | 273.3 (7.74) | 279.3 (7.91) | 285.3 (8.08) |
| End Cap | 39.5 (1.12) | 115.3 (3.26) | 118.6 (3.36) | 121.9 (3.45) | 125.2 (3.54) |

**Note:** Assumes 9" (230 mm) row spacing, 40% stone porosity, 12" (300 mm) stone above and includes the bare chamber/end cap volume. End cap volume assumes 12" (300 mm) stone perimeter in front of end cap.

## Amount of Stone Per Chamber

| English Tons (yds³) | Stone Foundation Depth | | | |
|---|---|---|---|---|
| | 9 in | 12 in | 15 in | 18 in |
| Chamber | 12.1 (8.5) | 12.9 (9.0) | 13.6 (9.6) | 14.3 (10.1) |
| End Cap | 9.8 (7.0) | 10.2 (7.3) | 10.6 (7.6) | 11.1 (7.9) |
| **Metric Kilograms (m³)** | **230 mm** | **300 mm** | **375 mm** | **450 mm** |
| Chamber | 10977 (6.5) | 11703 (6.9) | 12338 (7.3) | 12973 (7.7) |
| End Cap | 8890 (5.3) | 9253 (5.5) | 9616 (5.8) | 10069 (6.0) |

**Note:** Assumes 12" (300 mm) of stone above and 9" (230 mm) row spacing and 12" (300 mm) of perimeter stone in front of end caps. 1 yd³ = 1.42 english tons.

## Volume Excavation Per Chamber yd³ (m³)

| | Stone Foundation Depth | | | |
|---|---|---|---|---|
| | 9 in (230 mm) | 12 in (300 mm) | 15 in (375mm) | 18 in (450 mm) |
| Chamber | 17.2 (13.2) | 17.7 (13.5) | 18.3 (14.0) | 18.8 (14.4) |
| End Cap | 9.7 (7.4) | 10.0 (7.6) | 10.3 (7.9) | 10.6 (8.1) |

**Note:** Assumes 9" (230 mm) of separation between chamber rows, 12" (300 mm) of perimeter in front of the end caps, and 24" (600 mm) of cover. The volume of excavation will vary as depth of cover increases.

ADS StormTech products, manufactured in accordance with ASTM F2418 or ASTMF2922, comply with all requirements in the Build America, Buy America (BABA) Act.

**Working on a project?**
**Visit us at adspipe.com/stormtech and utilize the Design Tool**

ADS StormTech

adspipe.com
800-821-6710

**The following pages are for contact information only for the City, it is not to be recorded.**

**Subject Property Information:**

Property Location (Address, if applicable):
8485 Mexico Road, O'Fallon, MO 63376

Name of Subdivision: Cedar Hill Acres Resubdivision
Plat Number: 2022R-020936

Name of Project on Construction
Plans: Texas Roadhouse Parking Lot Addition

Construction Permit Number:

**Contact Information (Please Type or Print):**

**Applicant:**
Name: GreenbergFarrow

Contact Person: Brandon Goldberg

Address: 8600 W Bryn Mawr Avenue, Suite 800N

City/State/Zip: Chicago, IL 60631

Phone: 224-764-0369
Fax: NA
E-mail: bgoldberg@greenbergfarrow.com

**Property Owner:**
Name: David and Anna Kelley

Contact Person: David and Anna Kelley

Address: 3 White Oak Lane

City/State/Zip: St. Peters, MO 63376-3651

Phone:
Fax: NA
E-mail:

**Contract Purchaser (if applicable):**
Name: Texas Roadhouse Holdings LLC

Contact Person: Alex Westcott

Address: 6040 Dutchmans Lane

City/State/Zip: Louisville, KY 40205

Phone: 417-230-5018
Fax: NA
E-mail: Alex.westcott@texasroadhouse.com

**Engineer:**
Name: GreenbergFarrow

Contact Person: Zach Michels

Address: 8600 W Bryn Mawr Avenue, Suite 800N

City/State/Zip: Chicago, IL 60631

Phone: 314-238-8539
Fax: NA
E-mail: zmichels@greenbergfarrow.com

# City of O'Fallon, Missouri
# Engineering Department
# Memorandum

Date: April 13, 2026
To: Planning & Zoning Commission, Mayor Bill Hennessy and City Council
From: Robert Copeland – Plan Reviewer
Subject: Stormwater Management and Best Management Practices Facilities Maintenance Agreement for Harvest at Hopewell Phase 3

This item is to be placed on the May 7, 2026 Planning & Zoning Commission and May 14, 2026 City Council Consent Calendars.

**BACKGROUND:**
The Final Plan for the above-mentioned project was approved by the Planning and Zoning Commission on November 4, 2021.

**SUMMARY:**
This maintenance agreement will ensure that all BMP's within Phase 3 of Harvest at Hopewell will be maintained by the Homeowners Association and follow the property forever.

**RECOMMENDATION:**
Staff is recommending approval of the Stormwater Management and Best Management Practices Facilities Maintenance Agreement for Harvest at Hopewell Phase 3.

Once approved, the owner will pick up the signed document and file with the office of the Recorder of Deeds for St. Charles County and provide the City of O'Fallon with the recorded deed book and page.

Space Above for Recorder's Use Only

# DOCUMENT COVER SHEET

| | |
|---|---|
| **TITLE OF DOCUMENT**: | STORMWATER MANAGEMENT and BEST MANAGEMENT PRACTICES FACILITES MAINTENANCE AGREEMENT |
| **DATE OF DOCUMENT:** | SEPTEMBER 5th, 2025 |
| **GRANTOR :**<br>**Mailing Address:** | **Harvest Hopewell, LLC**<br>17415 North Outer 40 Road<br>Chesterfield, MO 63005 |
| **GRANTEE :**<br>**Mailing Address:** | **City of O'Fallon, Missouri**<br>100 North Main<br>O'Fallon, MO 63366 |
| **LEGAL DESCRIPTION:** | **A tract of land being all of Lot B of "Hopewell Farm Subdivision" according to the Plat thereof recorded as Document Number 2020R-103703 of the St. Charles County, Missouri records, and a tract of land located in U.S. Survey 61 and Fractional Section 17, all located in Township 46 North, Range 2 East of the Fifth Principal Meridian, City of O'Fallon, St. Charles County, Missouri** |

# STORMWATER MANAGEMENT and BEST MANAGEMENT PRACTICES FACILITIES MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this 5th day of September, 2025 by and between Harvest Hopewell, LLC, the Grantor hereinafter called the "Landowner", and the City of O'Fallon, Missouri, the Grantee hereinafter called the "City".

WITNESSETH, that

WHEREAS, the Landowner is the owner of certain real property generally described as a tract of land being all of Lot B of "Hopewell Farm Subdivision" according to the Plat thereof recorded as Document Number 2020R-103703 of the St. Charles County, Missouri records, and a tract of land located in U.S. Survey 61 and Fractional Section 17, all located in Township 46 North, Range 2 East of the Fifth Principal Meridian, City of O'Fallon, St. Charles County, Missouri with St. Charles County tax Map/Parcel Identification Numbers of 4-0038-S008-00-0007.0000000, 4-0066-D175-00-0002.0000000, 4-0045-D174-00-0002.0000000, 4-0045-D175-00-0002.0000000, 4-0045-D027-00-000B.0000000 and 4-0071-D027-00-00B1.0000000 and as recorded by deed in the land records of St. Charles County, Missouri, Deed Book 2022R Page 048551, hereinafter called the "Property".

WHEREAS, the Landowner is proceeding to build on, develop or otherwise improve the property; and

WHEREAS, improvements are being made according to Site Plan/Subdivision Plan known as Harvest at Hopewell Phase 3, hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City.

WHEREAS, the City and the Landowner, its successor and assigns, including any homeowners association, agree that the health, safety, and welfare of the residents of O'Fallon, Missouri require that on-site stormwater management / Best Management Practices (BMP) facilities be constructed and maintained on the Property; and

WHEREAS, the City requires per ordinance #5271 (City Code 405.247) that on-site stormwater management / BMP facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns, including any homeowners and or subdivision association.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. Initial Construction: The on-site stormwater management / BMP facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan and in accordance with City Ordinance.

2. Maintenance: The Landowner and its successors and assigns, including any homeowners and/or subdivision association, shall, at all times, adequately maintain the on site stormwater management / BMP facilities as approved for that development on the plan. The facilities to be maintained shall include all pipes and channels built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater.

Adequate maintenance is herein defined as good working condition so that these facilities are performing functions as designed, so that these facilities do not adversely affect other elements of the overall storm water system and so that these facilities comply with City Ordinance or other applicable law. Stormwater pipes marked on the plans as "private" are to be maintained by landowner. Storm pipes which are designated as "public" are not the responsibility of the landowner; however, landowner shall take no action to cause damage or adversely affect the public systems and, furthermore, landowner shall continue to maintain the "private" facilities so as not to adversely affect the "public" facilities.

3. Annual Inspections: The Landowner, its successors and assigns, shall inspect the stormwater management / BMP facility and submit an inspection report to the City's Stormwater Coordinator annually. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structure, retention/detention and pond areas, access roads, etc. Deficiencies shall be noted in the inspection report.

4. City Authorized to Enter Property: The Landowner hereby grants its consent to the City to enter upon the Property, from time to time, and to inspect the stormwater management / BMP facilities whenever the City deems necessary. The purpose of inspection is to follow-up on reported deficiencies, to verify the annual reports submitted by Landowner and/or to respond to citizen concerns or possible nuisance conditions. The City shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary.

5. Maintenance Schedule: The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the stormwater management / BMP facilities (including sediment and debris removal) is outlined on the approved plans or as part of this Agreement, the schedule will be followed. In addition to the actions outlined on the maintenance schedule, the Landowner and its successors and assigns shall take further action in order to keep the facilities in good working order; following the maintenance schedule, alone, will not relieve the Landowner of any responsibility to take further actions to ensure proper operation and maintenance of the facilities.

6. Failure to Maintain: In the event the Landowner, its successors and/or assigns, fails to maintain the stormwater management / BMP facilities in good working condition, the City will notify Landowner, its successors and/or assigns, of deficiencies by letter. The Landowner will have ten (10) days from the date of the letter to respond to the City with an adequate plan to make repairs. If adequate repairs are not made by Landowner in a timely manner, Landowner hereby consents and agrees that City may enter upon the Property and take whatever steps necessary to correct deficiencies identified in the inspection report; all costs of such repairs shall be billed to the Landowner, its successors and/or assigns. Landowner, its successors and/or assigns shall pay the bill as required by Section 7 of this Agreement. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner outside of any easement for the stormwater management / BMP facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

7. Landowner to Reimburse City: In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner, its successors and assigns, shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder. In the event that the City must pursue any action to collect any delinquent payments, Landowner, its successors and assigns, the City shall be entitled to recover all of its collection costs and attorney fees.

8. Liability and Hold Harmless: This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless from any liability in the event the stormwater management / BMP facilities fail to operate properly.

9. Recording: This Agreement shall be recorded among the land records of St. Charles County, Missouri by the Landowner and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners and or subdivision association. This agreement shall be recorded with the record plat of any development that requires such a plat. If the development does not require that a plat be recorded it shall be recorded prior to approval of the construction plans for the development.

WITNESS the following signatures and seals:

LANDOWNER SIGNATURES:

Harvest Hopewell, LLC
Company/Corporation/Partnership Name ~~(seal)~~

BY: _____

Jeremy Roth
(Type Name)

Authorized Agent
(Type Title)

STATE OF Missouri

COUNTY OF St. Louis

The foregoing Agreement was acknowledged before me this 5th day of September, 2025, by Jeremy Roth, Authorized Agent of Harvest Hopewell, LLC

NOTARY PUBLIC Liz Rosario

My Commission Expires: 2/20/2026

LIZ ROSARIO
Notary Public - Notary Seal
St Louis County - State of Missouri
Commission Number 18965209
My Commission Expires Feb 20, 2026

CITY SIGNATURES:

Passed by Consent of the City Council for the City of O'Fallon, Missouri, This ____ Day of _____, 20_____

BY: _____
City Administrator, _____, City of O'Fallon

ATTEST:

_____
City Clerk, _____, City of O'Fallon

Approved as to Form:

_____ _____
City Attorney Date

THE STERLING CO.

# Harvest at Hopewell

## Phase 3

### STORMWATER MANAGEMENT FACILITIES: OPERATION AND MAINTENANCE MANUAL

***Prepared For:***

Harvest Hopewell LLC
17415 North Outer 40 Road
Chesterfield, MO 63005

***Date: October 2, 2025***

***Prepared By:***
**The Sterling Company**
**5055 New Baumgartner Road**
**St. Louis, Missouri 63129**
**Professional Engineers**
**MO State Certificate of Authority #001348**
**(314) 487-0440**

***Sterling Project No.:*** **20-09-237**

## TABLE OF CONTENTS


| | |
|---|---|
| Introduction | 3 |
| Maintenance and Operation Plan | 4-53 |
| | |
| Appendix | rear of report |
| BMP Location Map | A |
| Maintenance and Operation Procedures for HDS Unit | B |
| BMP Inspection Checklist | C |
| Plan Detail and Exhibits | D |

## INTRODUCTION:

Harvest is a large planned residential development located in the southwestern corner of the City of O'Fallon, St. Charles County, MO. The overall site stretches to State Highway N on its north side and is adjacent to Hopewell Road on its west side for approximately a mile and a half from Hopewell Roads intersection with State Highway N. A location map of the site is included on the following page. The overall property is approximately 267.5 acres and will ultimately include numerous villages of residential homes of varying styles and sizes, including single family lots as well as attached single family units. This particular issue of the O&M report pertains to Phase 3.

The overall development will ultimately include approximately 900 lots. Ultimately nine stormwater ponds, seven dry basins and 12 proprietary hydrodynamic separator storm sewer structures will be constructed/installed across the development. Phase 3 of the development includes two stormwater ponds, 2 hydrodynamic separators and one dry basin. These facilities have been installed in part to meet the City requirements for stormwater quality treatment and stormwater flood control management.

Stormwater Ponds constructed in the development provide all of the necessary regulatory requirements for stormwater treatment and control in one facility. The dry basins provide flood control management but are not considered to provide any substantial stormwater treatment and hydrodynamic vortex separator structures provide stormwater treatment but not flood control management. Therefore the dry basin and separator structures are installed in tandem to meet the City regulatory requirements. Maintenance of all facilities is critical to their longevity and operation. This report outlines the maintenance procedures for each type of facility and provides checklists for inspections of the facilities that are to be used to determine what if any maintenance procedures should be performed during over a typical yearlong period. The original owner of the development has entered into a maintenance agreement with the City of O'Fallon and the owner has transferred those requirements of the agreement to the Home Owners Association of the Harvest at Hopewell development. A copy of the executed agreement is included in Appendix C of this report.

## MAINTENANCE AND OPERATION PLAN

## MAINTENANCE MANUAL

INTRODUCTION:

In accordance with City of O'Fallon regulations, Harvest Hopewell, L.L.C., the owner, or its assigns., is responsible for inspecting and maintaining the stormwater BMP's as approved by the City. Research and experience have demonstrated that regular and thorough maintenance is necessary for Stormwater BMP's to perform effectively and reliably. They have also demonstrated that failure to perform such maintenance can lead to diminished performance, deterioration and failure, in addition to a range of health and safety problems including mosquito breeding, vermin, and the potential for drowning. This maintenance manual contains specific preventative and corrective maintenance tasks for the BMP's within this subdivision. The party responsible for maintenance of the BMP facilities must evaluate this plans effectiveness annually and if necessary make appropriate modifications to the plan.

The owner has recorded a "Maintenance Agreement" between themselves and the City of O'Fallon. This agreement states that the owner agrees to maintain the stormwater management facilities located on this property and sets forth penalties that may occur if this maintenance is not performed. The contact information for the responsible party is the same as follows for the selection of the stormwater manager.

SELECTION OF STORMWATER MANAGER:

The owner shall select a contact/representative that will be responsible for BMP maintenance. This person shall be referred to as the stormwater manager. The stormwater manager must be aware of the purpose of the BMP's and consequences of facility failure, particularly those failures caused by inadequate maintenance. The stormwater manager shall maintain a complete file including plans, reports, and maintenance and inspection logs.

CONTACT INFORMATION:

Harvest Hopewell, LLC
17415 North Outer 40 Road
Chesterfield, MO 63005
Contact may be reassigned by the directing trustee.

The responsible party will maintain all private stormwater facilities in good working order. Minimum maintenance of the private facilities shall include routine inspection, maintenance and removal of sediment, debris, oil and foreign material from the storm sewers, inlets and manholes; and routine inspection, maintenance and cleaning so that the operation and capacity of the stormwater facilities continues to function properly.

## STORMWATER MANAGEMENT BMP's:

Eight stormwater ponds, seven dry basins, one wet forebay and 12 hydrodynamic separator structures are a part of the overall stormwater management for the Harvest at Hopewell development. A map identifying the location of the facilities within Phase 3 of the development is included in Appendix A.

## STORMWATER PONDS:

Stormwater ponds are designed and constructed to contain and/or filter pollutants that flush off of the landscape. Without proper maintenance, nutrients such as nitrogen and phosphorus that are typically found in stormwater runoff can accumulate in stormwater ponds leading to degraded conditions such as low dissolved oxygen, algae blooms, unsightly conditions and odors. Homeowners adjacent to stormwater ponds sometimes complain about these issues. When nutrient concentrations exceed certain thresholds, the trophic state of the system can change. These excess nutrients are often the result of human actions. For example, the amount of fertilizer applied to lawns or the method for disposing of leaves and yard waste in residential and other developed land uses can affect nutrient loads delivered to ponds. Excess sediment from the watershed above can also accumulate in wet ponds. This sediment can smother the vegetation and clog any filtering structures in the BMPs thereby impacting the overall water quality effectiveness of the stormwater BMP. In addition, standing water in ponds can heat up during the summer months. This warmer water is later released into neighboring waters. Without proper maintenance, excess pollutants in ponds may actually become sources of water quality issues such as poor water color/clarity/odor, low dissolved oxygen leading to plant die off, and prevalence of algal blooms. When these stormwater BMPs are "flushed" during a large rain event, the excess nutrients causing these problems may be transferred to the receiving waterbody.

### Health and Safety Issues Concerning Ponds

*Waterfowl*

Geese and mallards may become undesirable year-round residents of a pond if structural complexity is not included in the pond design (i.e., features that limit large contiguous open water areas and open short grass loafing areas favored by these birds). Waterfowl that reside in vast numbers eat available grasses and emergent plants. Water quality in permanent pools often becomes degraded due to increased fecal coliform counts and nutrients from geese and duck droppings. Geese behavior can also be noisy during breeding seasons.

*Mosquitoes*

The public's concern that stormwater ponds generate large mosquito populations rivals their concern that good water quality be maintained. Sometimes the public will be correct in assuming that the source of local mosquitoes is a nearby pond. At other times, however, the problem may come from other sources or breeding habitats (either nearby or remote), and at times it may be a combination of both. Regardless, stormwater managers will have to deal with the public's perceptions concerning the origins of problematic numbers of mosquitoes. Stormwater managers should consider all possible locations that could be contributing to mosquito outbreaks. Mosquito population control also factors into many community health issues such as West Nile Virus. The proliferation of mosquitoes is usually an early indication that there is a maintenance problem. Mosquitoes reproduce by laying eggs in still pools of water or on mud or fallen leaves. A few inches of standing water such as found in dry pond depressions, voids in riprap linings, or other inconspicuous places can become mosquito-breeding areas. It is possible for mosquitoes to complete their life cycle in 7 to 10 days, with approximately half being spent in the aquatic stage. Therefore if a shallow pool is stagnant for only 4 to 5 days and no predator habitat is available, one generation of mosquitoes can be bred.

*Children's Safety Issues*

Standing water in permanent pools often causes public concern for children playing in and around the wet ponds. Depending upon the design of the structure, the banks could be steeply sloped which could increase the likelihood of children falling in. Often, fences or other impediments are required in order to deny access and this often reduces the aesthetic qualities of the structures.

## Maintenance Problems

Maintenance is necessary for a stormwater pond to operate as designed on a long-term basis. The pollutant removal, channel protection, and flood control capabilities of ponds will decrease if:

- Sediment accumulates reducing the storage volume,
- Debris blocks the outlet structure,
- Pipes or the riser are damaged,
- Invasive plants take over and out-compete the planted vegetation,
- Slope stabilizing vegetation is lost, or
- The structural integrity of the embankment, weir, or riser is compromised.

Pond maintenance activities range in terms of the level of effort and expertise required to perform them. Routine pond maintenance, such as mowing and removing debris or trash,

is needed multiple times each year, but can be performed by citizen volunteers. More significant maintenance such as removing accumulated sediment is needed less frequently, but requires more skilled labor and special equipment. Inspection and repair of critical structural features such as embankments and risers, needs to be performed by a qualified professional (e.g., structural engineer) who has experience in the construction, inspection, and repair of these features.

This manual identifies appropriate frequencies and skill levels needed for each maintenance activity to provide program managers and responsible parties with an understanding of the relative effort and expertise that may be required.

Stormwater managers and responsible parties need to recognize and understand that neglecting routine maintenance and inspection can lead to more serious problems that threaten public safety, impact water quality, and require more expensive corrective actions.

It should be noted that structural stability issues associated with embankments and pipes (e.g., earth, concrete and metal repairs) are not addressed in the manual. While earth, concrete and metal repairs are essential elements of stormwater pond maintenance, the assessment and design for repair of such items should be performed by a qualified structural or geotechnical engineer and are beyond the scope of this document. Where applicable, the importance of conducting a more thorough inspection of structural stability is called out in this manual. More detailed guidance on structural inspections and repairs for ponds can frequently be obtained from state dam safety agencies or local Natural Resources Conservation Service (NRCS) offices.

***Permanent Pool***

For stormwater ponds, a common maintenance issue is abnormally high or low permanent pool levels. Permanent pools are normally designed for a stable water surface elevation between storm events that will rise during and shortly after a significant rain event. Pond elevations should not dip appreciably below the specified level unless under extreme conditions, such as drought. Ponds used as an alternative water supply for irrigation or other reuse options are also an exception.

***Permanent Pools Too Low***

Permanent pools provide functions including aquatic habitat, water quality protection, and visual aesthetics. When pool levels drop too low, water quality is threatened by algal blooms and anoxic conditions, which can lead to fish kills and plant stress that in turn can undesirably reduce predation on mosquito larvae.

Pond facilities should keep their permanent pools at or near the elevation of the low flow orifice or weir. Low permanent pools that are not drought-induced are usually caused by leaks either (1) in the pond embankment/perimeter, (2) in the principal spillway, or (3) in the pond bottom.

Leaks within the facility embankment or through the bottom of the pond are often difficult to locate unless they are large or severe. Active dam leaks often produce a vortex, an unmistakable indication of a leak. Water may leak through sinkholes formed in pond bottoms or infiltrate through porous underlying soils. Leaks in the principal spillway riser are fairly easy to spot. Leaks in the barrel are harder to locate, as they require either manual entry or remote TV inspection. Broken or missing valves can also lead toward abnormally low water levels in ponds.

If the permanent pool becomes low during or immediately following construction, it can be a sign of poorly compacted berms or dams or damaged or leaking barrels and risers. All of these features should be inspected during and immediately following construction. A low pool may also signify that the water budget was miscalculated during design.

***Permanent Pools Too High***

A clogged low flow orifice is the most common reason for a higher than normal permanent pool level. Clogging is discussed in detail in the next section.

The high permanent pool disrupts the pond function by:

- Decreasing storage volume thereby reducing the ability to attenuate flood flows.
- Causing the flow velocity leaving the pond to be greater than the design release rates therefore increasing downstream channel erosion. Compromising water quality because runoff short-circuits1 the pond and enters the downstream channel without adequate residence time for quality treatment.
- Killing riparian trees by flooding their roots which are not normally submerged in the high pool.
- Compromising public access and safety when adjacent pathways and recreational use areas are flooded.
- Saturating areas designed to be outside the permanent pool potentially causing mosquito-breeding habitat to be created. (Basins should be designed so that pooling or ponding of water in isolated peripheral areas does not occur for more than 4 consecutive days.)

***Clogging***

Clogged low flow orifices and weirs represent the most frequent, persistent maintenance item common to all types of ponds. Serious impacts can easily be minimized through design and retrofit However, without frequent maintenance, even openings with trash racks can become clogged.

Clogging occurs when debris or sediment accumulates at riser/weir openings or outfalls, blocking the flow of water. Debris includes vegetative material such as dead plants, twigs, branches and leaves as well as litter and trash. Large storms can transport large amounts of debris. Vandalism and nuisance problems such as beavers contribute to clogging as well.

In addition to the permanent pool fluctuation problems noted above, clogged orifices can cause the following concerns:

- Obscuring the upstream slope of embankments, preventing adequate inspection.
- Blocking low flow openings causing overtopping of the embankment or dam in the event of a flood.
- Blocking underwater spillway inlets such as 'reverse slope' pipes once floating debris becomes waterlogged and sinks.

***Pipe Repairs***

Pipes and riser structures are designed to convey stormwater safely and at a controlled rate. If pipes or risers are damaged, these functions will be affected. Often, risers are made from the same materials as pipes, and therefore can be treated as such with respect to maintenance and repair.

Pipes through the embankment – the principal spillway and other utilities – are designed to be watertight. If damaged, pipes may leak water into the embankment through holes or separated joints. This can lead to piping of water along the pipe, which results in erosion and can lead to embankment failure.

Pipe damage can occur at any point in a pond lifecycle and can be caused by improper design, poor construction, inadequate maintenance, or wear and tear. While problems with design and construction are preventable, wear and tear is a wild card. Extreme storm events, chemical attack, abrasion, or other unforeseen circumstances may challenge the longevity of the design.

## Vegetation Management

Vegetation management involves sustaining the landscaping as designed and preventing the growth of unwanted species. There are three primary types of vegetation that require management and maintenance in stormwater ponds: turf and grasses, wetland plantings, and trees and forested areas.

### *Turf and Grasses*

Native and non-native grasses are the most common vegetative stabilization used in stormwater pond construction today for reasons of aesthetics, ease of maintenance, and price. The root system of any vegetative cover holds the surface soil in place and protects the slopes from wind and surface runoff erosion.

A regularly scheduled program of cutting and trimming of grass at facilities during the growing season will help to maintain a tightly knit turf and will also help prevent diseases, pests and the intrusion of weeds.

### *Wetland Plantings*

Native wetland plants promote biological uptake of pollutants (Figure 1.7). Though natural propagation is desirable, vegetation will still need to be managed to meet the design goals. Depending on the design of the system, vegetation harvesting3 and control of aquatic plants (such as cattails and phragmites) may be required.

### *Trees and Forested Areas*

Trees are often planted for aesthetic, stabilization, and temperature control reasons. They have to be maintained to prevent clogging of orifices with debris and the spread to unwanted areas.

Vegetation management is probably the most frequent maintenance activity that occurs in association with the upkeep of stormwater ponds. While the activity requires little expertise or special equipment, there are still important site conditions to be aware of in order to maintain a properly functioning stormwater pond. Examples of common vegetative problems include:

- Trees and brush with extensive woody root systems can destabilize dams, embankments, and side slopes due to the creation of seepage routes.
- Monolithic stands of cattails (Typha sp) and Common Reed (Phragmites australis) can take over shallow marsh wetlands and drainage swales, out-competing other useful native emergent plants that would otherwise establish more varied, mature marsh plant ecology. Nuisance aquatic

weeds are like any other pest; they are opportunistic and invasive. Small shallow ponds provide optimal conditions for their proliferation.

- Misunderstanding of which areas of a stormwater pond require mowing or management can lead to under or over management.
- Unseen areas may be neglected. For example, the downstream dam face of an embankment is the most commonly neglected and most critical area requiring regular clearing.
- Heavy pedestrian use, particularly along the top of dams and along pond edges can create patches of bare soil.
- Industrial pollutants can cause alteration in the chemical composition and pH of the discharge water, which, in turn, can affect plant growth even when the source of contamination is intermittent. Nutrients increase plant growth and acidic discharges can decrease vegetation.
- Un-maintained vegetation can obscure large portions of the dam, preventing adequate visual inspection and limiting access to the dam and surrounding areas. Access is critical in emergency situations.
- Excessive vegetation often provides habitat for rodents and burrowing animals. (See Nuisance and Health Issues.)
- Excessive vegetation can affect the flow rates through earthen spillways.

***Dredging and Muck Removal***

Sediment accumulates in stormwater ponds by design and eventually requires removal to maintain efficiency and safety (Figure 1.10). The maintenance interval for removing accumulated sediment will vary based on the design parameters.

Stormwater ponds and are frequently presumed to be 80% efficient in trapping total suspended solids. Sources of solid and semisolid wastes retained in a pond include:

- Soil loss from lawns and open areas
- Litter and yard waste
- Sand from winter sanding operations
- Natural leaf litter and down branches
- Grit from roofing shingles
- Atmospheric deposition wash off
- Construction sediments
- Erosion from upstream conveyance swales
- Asphalt grit

As sediment accumulation is expected, stormwater ponds should be designed with sediment forebays, pond drains, access for sediment removal, and a designated onsite disposal area. These considerations will reduce eventual costs of sediment removal, as

major cost items in dredging include dewatering, transport of sediment for off-site disposal, re-establishment of wetland communities, and
accessing the site.

***Ease of Access***

Access is needed to all parts of the stormwater treatment facility for inspection maintenance. Key access points include:

- Riser structure
- Embankments
- All outfalls and inlets
- Forebays and pond bottoms
- Aerators and electrical panels

Additionally, public access should be limited to only some pond components to prevent vandalism.

***Access for Regular Inspection and Maintenance:***

Frequent maintenance items usually involve small pieces of equipment such as mowers and light trucks. Access also involves facilitating inspector access to, into and through a stormwater pond to note items in need of repair. Figure 1.12 shows good maintenance access to a facility. Critical appurtenances should be easily and safely accessed for inspection and minor maintenance. Access must be provided to inspect for mosquito production and take appropriate actions when necessary.

Typical problems that impede maintenance access include:

- Inadequate or unsafe ingress to and egress from facility components
- Fencing that does not have gates.
- Pond risers installed without provision for access.
- Manhole blocked by debris.
- Air monitoring results that are unsafe.
- Steps/ladder that are missing, broken, unsecured, non-aligned, or under water.
- Trash racks or valves that are blocking safe access to riser.
- Heavy gratings and hatches
- Corroded locks
- Aerators that require special considerations, such as a boat or manual power disconnections.

***Infrequent Maintenance Access***

Less frequent maintenance items, such as dredging, will require site access for heavy equipment including backhoes, dump trucks, and vacuum trucks. Maintaining ingress and egress points for the facility at all times is wise in case emergency repairs are needed. Lack of a permanent access route necessitates the creation of a temporary route which may be disruptive to plant life and community aesthetics.

Access for major repairs is similar to construction access and involves protecting existing trees, pavement, utilities, and signage against damage while accessing the areas needing repair.

Many older stormwater ponds do not adequately provide stable access and staging areas for repair equipment. Older facilities typically include a designated ingress point, but they often suffer from one of the following shortfalls:

- There is no way to safely move equipment over existing curbs and pavement without damage.
- The slope of the access path is too steep, especially if wet.
- The path is not wide enough to accommodate heavy repair equipment.
- The path is overgrown with significant vegetation or has been planted with landscape quality material.
- Smaller structures such as decks and sheds are built in access areas (gardens and dump areas are also common).
- There is no legal access easement allowing for access from a public right-of-way to the facility; this can be a contentious issue if the only practical access is across land not owned by the pond owner.
- No staging or equipment area is available once heavy equipment is onsite (contractors often need material storage space and a place to securely park heavy equipment overnight).

***Vandalism protection:***

Vandalism protection involves common sense measures such as chaining and locking mechanical components (valves and security manhole accesses). It also includes the use of well-designed trash racks to discourage vandalism and reduce clogging. Although there are many passive options to keep people away from a facility, including screening with vegetation and locating the pond out of eyesight, the most common method of exclusion is fencing. Fences can be damaged by many factors, including vandalism and storm events. Timely repair will maintain the security of the site and reduce potential liability.

### *Nuisance Issues*

Rodents usually damage ponds through burrowing or dam building. Burrowing may jeopardize embankment stability for dams and berms; beaver dam building reduces live storage and creates clogging problems. The following animals routinely cause destruction to embankments and berms: groundhogs/woodchucks, muskrats, prairie dogs, badgers, pocket gophers and ground squirrels. Animal burrows can deteriorate the structural integrity of dams, embankments and slopes. Muskrats in particular will burrow tunnels up to 6 inches in diameter.

Beaver activity in urban areas usually results in tree and vegetation mortality, flooding from dam building that causes water to encroach into unwanted areas, and impairment of stormwater management facilities. Beaver activity can be either an aesthetic issue that detracts from the visual appeal of the community, or a property damage issue that poses liability concerns. Management options for beaver control include trapping, dam and lodge removal, and the use of beaver "baffles."

## Inspections

Long-term functioning of stormwater BMPs requires periodic inspections, routine maintenance, and corrective actions. Often the efforts of both community stakeholders and stormwater management professionals are necessary to insure the management practices are operating as they were intended.

Inspections help the stormwater manager monitor the safety, longevity, and effectiveness of these practices over time. This section outlines some tips for inspecting ponds, focusing on the inspection frequency, inspection checklists, documentation photographs, and repair item documentation.

### *Inspectors*

Ongoing post-construction inspections of stormwater ponds can be conducted by a variety of stakeholders including:

- Professional engineers and specialized contractors
- Municipal Inspectors and Maintenance Crews
- Commercial, Institutional, and Municipal Owners
- Concerned citizens and adjacent homeowners
- Homeowners Associations
- Property Managers

Property owners should reach an agreement with the property management, maintenance team or landscaping contractor to conduct frequent inspection and maintenance items such as mowing, checking for clogs, and debris removal. Clearly identify the expectations so that the landscaping design is preserved for optimal stormwater treatment.

Attentive landscapers, adjacent homeowners, and homeowner associations can be the first to identify potential problems. A homeowner checklist is included in Appendix C.

The range of experience needed to diagnose a problem during inspection is quantified below in Table 2.1. These skill levels are used to describe the inspection items in Table 2.2.

**Table 2.1: Inspection Skill Level Descriptions**

| Skill Level | Description |
|---|---|
| 0 | No special skills or prior experience required, but some basic training via manual, video, or other materials is necessary. |
| 1 | Inspector, maintenance crew member or citizen with prior experience with ponds |
| 2 | Inspector or contractor with extensive experience with pond maintenance issues |
| 3 | Professional engineering consultant |

***Inspection Frequency***

Ponds should ideally be inspected on a monthly basis for minor items, and annually for major inspection items, such as structural components. In reality, many communities are unable to inspect all of their ponds this frequently, and a more typical scenario is providing inspection once every three years. This less frequent full inspection can be supplemented with a routine inspection conducted by a property owner or contractor responsible for maintenance.

Table 2.2 shows the frequency timeline with typical inspection and maintenance items at these times. Inspection frequency may be refined by the maintenance history of the practice as generated by ground crews charged with maintenance and mowing, or other interested parties. The profile sheets referenced under maintenance items are provided in following section.

**Table 2.2: Typical Inspection/Maintenance Frequencies for Ponds**

| Frequency | Inspection Items (Skill Level) | Maintenance Items (Related Profile Sheet) |
|---|---|---|
| One time- After First Year | • Ensure that at least 50% of wetland plants survive (0)<br>• Check for invasive wetland plants (0) | • Replant wetland vegetation (See M-4 Vegetation Management) |
| Monthly to Quarterly of After Major Storms(>1") | • Inspect low flow orifices and other pipes for clogging (0)<br>• Check the permanent pool or dry pond area for floating debris, undesirable vegetation (0)<br>• Investigate the shoreline for erosion (0)<br>• Monitor wetland plant composition and health (0-1)<br>• Look for broken signs, locks, and other dangerous items (0) | • Mowing – minimum Spring and Fall (See M-4 Vegetation Management)<br>• Remove debris (M-2 Clogging)<br>• Repair undercut, eroded, and bare soil areas (See M-4 Vegetation Management) |
| Several Times per Hot/Warm Season | • Inspect stormwater ponds and stormwater wetlands for possible mosquito production (0-1) | • Inspect for mosquitoes (See M-8 Nuisance Issues) |
| Semi-annual to annual | • Monitor wetland plant composition and health (0-1)<br>• Identify invasive plants (0-1)<br>• Ensure mechanical components are functional (0-1) | • Setup a trash and debris clean-up day<br>• Remove invasive plants (See M-4 Vegetation Management)<br>• Harvest wetland plants (See M-4 Vegetation Management)<br>• Replant wetland vegetation (See M-4 Vegetation Management)<br>• Repair broken mechanical components if needed (See M-7 Mechanical Components) |
| Every 1 to 3 years | • Complete all routine inspection items above (0)<br>• Inspect riser, barrel, and embankment for damage (1-2)<br>• Inspect all pipes (2)<br>• Monitor sediment deposition in facility and forebay (2) | • Pipe and Riser Repair (See M-3 Pipe Repair)<br>• Complete forebay maintenance and sediment removal when needed (See M-5 Dredging and Muck Removal |

| | | |
|---|---|---|
| 2-7 years | • Monitor sediment deposition in facility and forebay (2) | • Complete forebay maintenance and sediment removal when needed (See M-5 Dredging and Muck Removal) |
| 5-25 years | • Remote television inspection of any hard to access piping (2-3) | • Sediment removal from main pond/wetland (See M-5 Dredging and Muck Removal)<br>• Pipe replacement if needed (See M 3 Pipe Repair) |

***Inspection Checklists***

A community should use standard inspection checklists to record the condition of all practices, and particularly those that need frequent maintenance. Most communities will find it easier to track maintenance electronically, using either a database or spreadsheet, rather than relying on paper files. Well-designed checklists can be integrated with these systems to prioritize maintenance, track performance over time, and relate design characteristics to particular problems. To effectively achieve these goals, the checklist should:

- Be quantitative, so that maintenance can be easily prioritized.
- Be very specific about possible problems to reduce subjectivity.
- Be concise with text particularly if integrated with a database, so that the checklist user will not be inundated with too much text.
- Link problems to specific actions.
- Where possible, track the function of the pond or wetland over time for future research and design.

Inspection checklists should also be grouped in the order the inspector would inspect the practice. For example, ponds should typically be inspected from downstream to upstream, so the investigation begins with the outfall channel. Sample checklists are presented in Appendix C.

***Documentation of Inspection Findings***

Inspectors should clearly identify the extent and location of problems identified during inspection. In addition to clearly describing problem areas on the checklists, inspectors should help repair crews locate repairs both at the site and on design plans.

***Immediate Concerns***

While all maintenance and inspection items are important, some maintenance concerns actually pose an immediate safety concern. Many of these are caused by missing or damaged elements that would normally prevent access by the public. Examples include missing manhole covers or trash racks, missing or damaged fencing that normally prevents access to a pond with steep side slopes, or a missing or damaged grate at a large inflow or outfall pipe. Another set of immediate pond repairs involve dam safety or flooding hazards. If a practice shows signs of embankment failure, or if an inspector is unsure, an appropriately qualified person or engineer should be called in to investigate the situation immediately. Similarly, cracks in a concrete riser that drains a large area may pose a dam safety threat.

***As-built Drawings***

The inspector should bring a copy of the as-built plan of the practice to mark potential corrections and problem areas on this plan. The marked up as-built plan should be stored either digitally or in a paper file system so that it can be brought out to confirm that maintenance was performed correctly on the follow- up inspection.

***Photographs***

Inspectors should take a core set of documentation photographs of practices being inspected. In addition, specific problem areas should be photo documented. A recommended set of core photographs for ponds include:

- Vehicle access points.
- Overview of practice.
- Overview of principal spillway structure.
- Upstream face of dam embankment.
- Downstream face of dam embankment.
- Outfall to practice and downstream outfall from practice.
- Emergency spillway (if applicable).

In addition, because of the large number of photographs that will likely be generated, a digital camera should be used when possible to allow photographs to be stored electronically. (In advanced database programs, these photographs can be retrieved digitally). Finally, photographs should be named using a standard convention. The photograph name should indicate the practice identification number, feature (or problem) being photographed, and date of photograph.

***Field Marking***

Inspectors can highlight key areas of concern with spray paint or other marker. This is particularly useful for problems that may otherwise be difficult to find by others. Marking should be used as discretely as possible. For example, only dots sprayed at the base of trees should be used to mark limits of clearing for vegetation removal.

## Routine Maintenance

In addition to routine inspection, routine maintenance needs to be performed to maintain the function of the control structure. Runoff treatment controls require specific maintenance activities at varying schedules. The cost and time commitment should be planned for all maintenance activities delegated to a responsible party, regardless of whether it is a contractor, local municipality, or community stakeholder. The typical routine maintenance activities and schedules for a stormwater pond include:

- Annual or as needed schedule
  - Cleaning and removing debris after major storm events (>2" rainfall)
  - Harvesting of vegetation when a 50% reduction in the original open water surface occurs
  - Repairing embankment and side slopes
  - Repairing control structure
- 5-Year cycle
  - Removing accumulated sediment from forebays or sediment storage areas when 60% of the original volume has been lost
- 20-Year cycle
  - Removing accumulated sediment from main cells of pond once 50% of the original volume has been lost

## Maintenance Activities

Along with routine maintenance, specific activities for maintaining stormwater ponds are detailed in the profile sheets in the following section, which are organized by the top eight maintenance concerns introduced earlier in this manual. Each profile sheet provides the following:

- Problems to Inspect For
- Corrective Actions
- Cautions and Safety Tips

In addition, a subjective rating of skill level is presented with many of the maintenance activities to aid the stormwater managers and responsible parties in understanding the severity of the problems described. Ratings and descriptions of the required skill levels can be found in Table 2.3 below.

**Table 2.3: Inspection Skill Level Descriptions**

| Skill Level | Description |
|---|---|
| 0 | No special skills or prior experience required, but some basic training via manual, video, or other materials is necessary. |
| 1 | Ordinary maintenance crew skill level |
| 2 | Contractor familiar with pond maintenance issues |
| 3 | Professional engineering consultant |

The following Maintenance profile sheets should be used by the stormwater managers when inspected the pond facilities as a guideline to determine what if any maintenance activities are needed at the time of the inspection and plan/schedule those activities accordingly.

# M-1 Permanent Pool

***Problems to Inspect For***

An important aspect of any pond inspection is having sufficient background information. In the absence of familiarity, a good set of as-built drawings can present a considerable amount of information about the way a pond was built and how it should function. Construction drawings or as-built drawings will include anticipated levels for permanent pools and sizes and locations of orifices.

The best tool for confirming pool elevation fluctuation is familiarity. Abnormally high or low levels are more likely to be noticed in a pond that has been frequently inspected at normal levels. Signs that the permanent pool is too high include:

- Water levels remain high for more than 2 or 3 days after a storm.
- Pond edges normally visible are covered in water and plant species normally above permanent pool are now immersed in water.

**Inspection Tip:**

*Stormwater ponds often have higher than normal water surface elevations after storm events, sometimes for a number of days. This is a normal part of the design. Consider the last significant rainfall event when determining your inspection schedule. Try to avoid examining permanent pool levels within 2 to 3 days of a significant rainstorm to give the facility time to discharge the runoff temporarily stored in the pond. Exceptions to this rule apply if vortexing or another problem that may be more apparent at higher stage is suspected.*

If a stormwater pond is well constructed, with an adequately sized and protected low flow orifice, it will only suffer from an abnormally high pool when outside forces act on it. Examples are clogging, vandalism (damaged riser or low flow valve being opened), or rodent activity. Signs that the permanent pool is too low include:

- Stain marks on the riser or flow control structure.
- Exposure of a non-vegetated pond bottom around the pool perimeter.

To review a dam embankment for possible seepage, look at the color of the vegetation as well as changes in the plant species present and their density, particularly in dry weather. These changes may indicate seepage or leaking on the downstream dam face. Embankment leaks on the downstream side of a berm or dam are usually easily discovered if the vegetative cover has been recently mowed and the slope is not too steep

(generally, 3H:1V or flatter). Leaks on the upstream dam face are usually impossible to locate visually, unless it is at the surface (such as a flooded animal burrow) or there is an active vortex. Slow leaks that are only apparent over long time periods are particularly difficult to observe and may require a dye test or complete pond dewatering. Often, inspections of stormwater ponds falsely report leaks during warm weather when droughts or improper water budget analysis may be the problem. This latter scenario makes a pond prone to frequent lowered pools due to natural evaporation.

***Corrective Actions***

Fixing the problems associated with permanent pool fluctuation can vary in difficulty, from relatively simple to complex and expensive. Regardless of the level of skill required for fixing the problem, only properly trained and authorized personnel should perform the maintenance. Table M1.1 includes a list of problems, potential solutions, a subjective analysis of problem classification, and an estimate of the skill level recommended to correct problems associated with permanent pool issues.

**Table M1.1: Permanent Pool Fluctuation Diagnoses**

| Finding | Solution | Classification | Level of Skill Recommended |
|---|---|---|---|
| Clogged Low Flow | Clear low flow, install trash rack if not present or inadequate. See M-2 – Clogging. | Minor maintenance | (0) See cautions in M-2 |
| Low flow or pond drain valve opened | Shut valve and lock shut with chain and lock. See M-2 – Clogging. | Minor maintenance | (0) See cautions in M-2 |
| Rodent activity (dams, lodges, burrows) | Fill burrows. See M-8 – Nuisance Issues | Minor to major repair | (1) |
| Leak in riser | Seal leak. See M-3 – Pipe Repairs. | Major repair | (2) |
| Leak in barrel | Seal leak. See M-3 – Pipe Repairs. | Major repair | (2) |
| Leak in upstream dam face or pond bottom | Drain remainder of permanent pool and install waterproof liner; dye test recommended. | Major repair | (2) |
| Leak or seepage in downstream dam face | Dye test recommended; seal leak source if found; liner may need to be installed and dam or principal spillway repair or replacement may be required depending on leak severity. | Major repair | (3) |
| Vortexing | Consider a call to civil authorities immediately as dam failure may be imminent and down stream evacuation may be necessary; do not attempt to repair without professional help. | Usually major repair | (3) |

Inspection frequency beyond typical annual inspection should be set by the pond maintenance history and/or its use. For example, ponds with chronic clogging due to beaver activity should be put on a more frequent inspection schedule.

***Cautions and Safety Tips***

Risers near the shore or located in the embankment are often easy to examine from the surface. Normal personal protection equipment (PPE) as defined by the U.S. Occupational Safety and Health Administration (OSHA) is sufficient to view from the top and photograph and/or measure with a drop tape. Risers located out in the permanent pool, or those with inaccessible tops (such as the typical round anti-vortex shell CMP riser) are more difficult and may require confined space entry and/or boat access. Similarly, barrels may require confined space entry to examine for leaks or to gain access to the riser itself; some barrels are too small for entry or are damaged or clogged. In these situations, remote TV inspection from either or both ends may be the only practical way to examine for leaks. However, if a leak in a riser or barrel is large and obvious, it may be easy to spot, particularly if it is a hole in a metal riser that now acts as a "low flow orifice".

# M-2 Clogging

***Problems to Inspect For***

External clogging can easily be identified through routine visual inspection. Clogging within low flow pipes and underdrains can be more difficult to find. A well functioning opening and trash rack should be clear of debris. Trash racks should show little or no corrosion and should be completely visible. Examine design or as-built records to determine which weir/orifice is supposed to set the permanent pool.

Record water surface elevations by leaving a stake or marker at a high water mark and recheck at regular intervals to determine if pond permanent pool levels are staying higher than designed for longer periods than expected following a rainfall event (see Profile Sheet M-1). If pool levels are higher than expected for long durations, then a clogged low flow pipe or orifice, or internal clogging of a low flow drain may be the problem.

***Corrective Actions***

Trash and debris removal should occur during the regularly scheduled inspection and maintenance to reduce the chance of outlet structures, trash racks, and other components becoming clogged and inoperable during storm events. Proper preventative maintenance includes removal of debris from pond bottoms, embankments and side slopes, perimeter areas, and access areas that can lead to clogging, as well as debris jams at outlet structures and trash racks.

Trash racks should be inspected, and any exposed steel should be brushed free of corrosion and coated or spray coated with protectant or water sealant.

Techniques for removing clogs depend on the accessibility and severity of the clog. They include:

- Manual removal of debris by hand or by machine
- Jetting, back flushing, or routing a clogged pipe. High velocity spray and hydraulic head pressure devices include high velocity jet cleaners, cleaning balls, and hinged disc cleaners.
- Sediment or muck removal around the low flow structure, to locate the opening and return it to design conditions. (See M-5 – Dredging and Muck Removal)
- A professional diver may be needed for deeply clogged facilities.
- Dewatering of facility via pumping or other means to reveal the source of clogging and allow access (if regulatory laws permit).

Disposal of debris and trash must comply with all local, county, state, and federal waste regulations. Only suitable disposal and recycling sites should be utilized.

***Cautions and Safety Tips***

Clearing clogged openings may be easy or difficult depending on access to the opening. If removing an obstruction or clog seems like it might be unsafe, it probably is - leave it to a qualified contractor. Clogged openings can cause dangerous headwater conditions behind the blocked orifice. In addition to the normal hazards associated with low flow maintenance (confined space entry, poor footing, and potential for sharp objects including syringes and glass), strong flow can be generated instantaneously.

If a facility has had deep backwater for a long period of time, sudden de-clogging may actually cause damage due to the slumping of un-vegetated, waterlogged slopes. Further, the downstream receiving swale, storm drain or stream may not be stable enough to withstand the instantaneous release of water. The released water will probably be silt laden, releasing a large amount of sediment, nutrients and possibly toxics. Employ a professional to conduct slow, safe draw-down and to remove any muck as required.

OSHA approved personal protection equipment will be needed and confined space entry may be required. See M-6 Access for additional riser and manhole access concerns.

# M-3 Pipe Repair

***Problems to Inspect For***

Pipes are the most challenging feature of ponds to thoroughly inspect. Repairs are often expensive and require specialized equipment. Table M3.1 presents a summary of maintenance concerns typical for different pipe materials. Following Table M3.1 are a number of inspection tips to inform an inspector or lay person about things to look for with respect to pipes when inspecting stormwater ponds:

**Table M3.1: Common Pipe Uses, Material, and Maintenance Concerns**

| Use | Most Common Material | Typical Maintenance Concerns |
|---|---|---|
| Principal Spillway or Barrel | Plastic and RCP | Scour damage, leaking joints, misaligned joints |
| Under drains, internal drains | PVC and HDPE | Filter media failure, crushing |
| Inlets | RCP | Blockages, frost heave, undercutting |
| Hydraulic Control | RCP, Plastic, Metal | Clogging, corrosion, vandalism |

Notes: RCP – Reinforced Concrete Pipe; PVC – Polyvinyl Chloride Pipe; HDPE-High Density Polyethylene Pipe; CSP-corrugated steel pipe

***Joint Tightness***

All pipe sections should abut evenly with little or no gap. In particular, no barrel should leak. Barrel pipes for ponds should not pass soil or water. Concrete bell and spigot pipe joints may have a gap up to the allowable dimension as described by local ordinance or as determined by the manufacturer. Joints are usually parged with high strength non-shrink grout, but this does not guarantee water tightness. The tongue and groove end sections of individual pipe sections should be free from damage, especially damage that exposes the underlying re- enforcing steel.

Plastic piping are used more commonly in recent decades and are usually limited to sizes under 36" in diameter, high density polyethylene pipe (HDPE) piping is usually installed in long sections without joints but polyvinyl chloride pipe (PVC) is usually installed with a rubber-coated bell and spigot connections similar to reinforced concrete pipe (RCP).

***Misalignment***

One of the most common causes for repair is pipe misalignment.
Misalignment is often apparent at or shortly after construction. Otherwise, alignment changes occur due to differential settlement, freeze-thaw cycles, or dynamic loads such as traffic.

***Staining and Calcification***

Rust stains inside RCP often indicate that acidic groundwater is leaching in through a crack or hole, slowly dissolving the steel rebar and precipitating it back into a form of ferrous oxide on the inside of the pipe. Once the anaerobic water comes in contact with the oxygen within the pipe interior the reaction occurs. These stains usually indicate that repairs should be made to the pipe to stop the water from infiltrating the pipe.

Calcification occurs when acidic water enters concrete cracks from the inside of the pipe, dissolving and reconstituting the hydrated Portland cement in the RCP (Figure M3.5). Calcification may or may not mean that a crack has breached the entire thickness of the pipe and adequate experience is necessary to determine when repairs are truly necessary.

***Root Intrusion***

Root intrusion into pipe systems is an especially difficult and damaging phenomenon but fortunately is relatively easy to observe. Roots typically enter loose pipe joints and can cause clogging by snagging debris. Willows (Salix sp.) are notorious for root intrusion.

By following the described pipe inspection tips above, the lay person or inspector can better understand the types of problems likely to be encountered during stormwater pond maintenance inspection. Once experience is gained in performing inspections, inspectors can foresee potential problems and plan preventive maintenance.

## Corrective Actions

Fixing pipe problems can be approached from two directions: repair or replacement. Different methods for pipe repair and replacement are presented below, as well as a recommended skill level. All involve the need for professional contractor or engineer assistance. Consult an engineer to determine the most appropriate technique.

Common pipe repair methods include:

- Joint Sealing: In the injection grouting method, RCP leaking joints and concrete cracks can be sealed with high strength non-shrink grout or epoxy. Holes are drilled all the way through the pipe to the soil beyond. The grout is injected to the other side where it reacts with groundwater and hardens. This method is often used for difficult access areas such as a buried concrete pipe barrel joints. OSHA confined space entry training may be required. CSP joints are similarly sealed, except polyurethane foam water stop material is injected. Recommended skill level (3).

- Another joint sealing method utilizes an inflatable packer inserted into a pipeline to span a leaking joint. Resin or grout is then injected into cracks and cavities until the joint is sealed, after which the packer is removed. This localized repair of pipes prevents leakage and further deterioration and may increase the structural strength of the pipeline. Recommended skill level (3).

- Invert Protection: This method involves protecting the lower segment of a corrugated metal pipe by lining it with a smooth bituminous or concrete material that completely fills the corrugations. This approach is intended to give resistance to scour/erosion and to improve flow. Recommended skill level (2).

- Chemical Stabilization: Chemical stabilization involves isolating a length of pipeline between two access points by sealing the access points. One or more compounds in solution are introduced into the pipe, and the surrounding ground produces a chemical reaction that forms a stable protective coating over cracks and cavities. Recommended skill level (3).

Pipe rehabilitation typically involves more intensive and comprehensive correction of pipe problems aimed at restoring or upgrading the performance of an existing pipe system. Often, rehabilitation is needed when there is major structural and/or hydraulic weakness. Common pipe rehabilitation methods, all involving the need for professional contractor or engineer assistance, include:

- Folded Liners: A PVC or HDPE liner is folded to reduce its cross sectional area. The liner is pulled into a failing pipe system and reverted to its original size using pressure and heat to form a tight fit with the host pipe wall. Recommended skill level (3).

- Cured-in-place pipe (CIPP): CIPP is a thin flexible tube of polymer or glass fiber fabric that is impregnated with thermoset resin and expanded by means of fluid pressure onto the inner wall of a defective pipeline before curing the resin to harden the material. Recommended skill level (3).

- Ferro-cement: Steel fabric mesh, usually in multiple layers, is fixed to the existing pipe, then covered in high strength grout. It is either placed in situ to form a structural lining (in large diameter pipes with human access) or pre-formed into segments for later installation. Recommended skill level (3).

- Pipe bursting: Also known as in-line expansion, this is a method by which the existing pipe is demolished and a new pipe is installed in its void. Recommended skill level (3).

- Pipe eating: A pipe replacement technique usually based on micro tunneling to excavate defective pipe with the surrounding soil as for a new installation. Recommended skill level (3).

- Pipe pulling: Method of replacing small diameter pipes where a new product pipe is attached to the existing pipe which is then pulled out of the ground. Recommended skill level (3).

- Slip-lining: Insertion of a new pipe by pulling or pushing it into the existing pipe and grouting the annular space. The new pipe may be continuous or a string of discrete pipe sections. The latter is also referred to as segmental slip-lining. Recommended skill level (3).

- Modified slip-lining: A range of techniques in which the liner is reduced in diameter before insertion into the carrier pipe, then restored to its original diameter, forming a close fit with the original pipe. Recommended skill level (3).

- Spray lining: A technique for applying a lining of cement mortar or resin by rotating a spray head, which is winched through the existing pipeline. Recommended skill level (3).

Table M3.2 summarizes the limitations of the different types of pipe rehabilitation methods mentioned above.

**Table M3.2: Limitations of common pipe rehabilitation methods**

| Method | Limitations |
|---|---|
| CIPP | • Bypass or diversion of flow required<br>• Curing can be difficult for long pipe segments<br>• Must allow adequate curing time<br>• Defective installation may be difficult to rectify<br>• Resin may clump together on bottom of pipe<br>• Reduces pipe diameter |
| Pipe Bursting | • Bypass or diversion of flow required<br>• Insertion pit required<br>• Percussive action can cause significant ground movement<br>• May not be suitable for all materials |
| Slip-lining | • Insertion pit required<br>• Reduces pipe diameter<br>• Not well suited for small diameter pipes |
| Modified Slip Lining | • Bypass or diversion of flow required<br>• Cross section may shrink or unfold after expansion<br>• Reduces pipe diameter<br>• Infiltration may occur between liner and host pipe unless sealed<br>• Liner may not provide adequate structural support |

**Cautions and Safety Tips**

Most stormwater pond pipe work can be visually inspected from a daylighted end or manhole access. However, some piping is difficult to inspect due to being buried, flooded, cramped, or deteriorated. In this case, inspection work should be left to qualified professionals who are versed in confined space entry and exit as defined and regulated by state and federal OSHA standards. Some piping is impossible to inspect manually (such as a 6-inch underdrain), and remote TV video inspection or complete unearthing are the only options.

# M-4 Vegetation Management

## Problems to Inspect For

Vegetation management is the most frequent type of maintenance conducted on stormwater ponds. In most instances, vegetation management is straightforward and does not require special expertise or equipment. However, if facilities have gone long periods of time without proper vegetation maintenance, then the level of effort and complexity of the activity can become significant.

Telltale signs of vegetative problems include the following:

Standing water and emergent plant growth where none should be present

- Monoculture vegetation in wetland
- Poor or spotty grass growth or completely bare areas (Figure M4.1)
- Soggy surfaces
- Excessive sedimentation at pond inlets or outfalls with corresponding emergent plant growth
- Limited visibility or access to the principal spillway or embankment areas due to vegetation
- Deep-rooted woody vegetation (trees and shrubs) on any areas of a dam
- Woody vegetation growing in riprap on slope areas meant for erosion protection
- Signs of seepage around any tree stumps or decaying root systems on embankment areas
- Changes in vegetative color, species or height due to possible groundwater or seepage problems
- Areas where local residents have been dumping yard waste
- Pond embankments with newly planted ornamental trees or shrubs not originally included in the design
- Damaged or torn erosion control matting (ECM)
- Ruts or erosion channels in vegetated swales or level spillways
- Tree or shrub growth in or around major pond appurtenances such as the principal spillway

## Corrective Actions

The following describe specific activities associated with maintaining the vegetation in and around stormwater ponds as well as the recommended skill level of the person performing the maintenance in parentheses (reference Table 2.3):

***Grass and Turf***

Consistent mowing and monitoring should control any unwanted vegetation. Typical mowing areas include pond bottoms (dry ponds), embankments, side slopes, perimeter areas, and access areas. The actual mowing requirements of an area should be tailored to the specific condition and grass type. Other actions to maintain grassed areas include de-thatching, soil conditioning, re-seeding, and periodic fertilization as necessary.

Most grass is hardiest when maintained as an upland meadow, cut no shorter than 6 to 8 inches. If a more manicured look is desired, special attention to the health of the turf is needed. Grass should not be cut below 4 inches. Typical mowing schedules for grass on embankments are at least twice during both the spring and fall growing seasons and once during the summer. Recommended skill level (0).

***Vegetated Buffer***

A 10-foot unmowed vegetated buffer around the perimeter of the pond (exclusive of the dam embankment) may be established to filter pollutants from adjacent properties and help prevent shoreline erosion. Areas set aside for pond access such as fishing can be secured with stone, timber wall or one of many commercially available plastic retaining wall products. Recommended skill level (0).

***Vegetation Harvesting***

In stormwater wetlands, vegetation harvesting may be required. To perform wetland harvesting, selected plant materials are tagged for removal by a qualified professional, then cut and hauled to a disposal location. Recommended skill level (1 - 2).

***Bare areas***

Vegetation can be established by any of five methods: mulching; allowing volunteer vegetation to become established; planting nursery vegetation; planting underground dormant parts of a plant; and seeding. Seeding can come in the form of broad-cast seeding, hydro-seeding or sodding. If the soil has become compacted, it will require aeration. Areas without grass or vegetation should be vigorously raked, backfilled if needed, and covered with topsoil. Disturbed areas should be seeded and mulched if necessary. A tall fescue grass seed is often recommended; however consult the local Natural Resources Conservation Service (NRCS) office for the best native mixes for the project location. Recommended skill level (0).

Bare or monoculture stormwater pond slopes and bottoms offer the best opportunities to enhance areas with native trees, shrubs, and groundcovers to help the water soak into the ground. Select species that need little fertilizer or pest control and are adapted to specific site conditions. Again, contact your local NRCS office for guidance.

***Unwanted vegetation***

Some vegetation, such as that on embankments, requires complete removal, including root masses, to ensure that it does not return; this is often best done with landscaping Brush HogsTM or small earthmoving equipment. Stump removal may also require tractor and chain. The removal of large trees may require the skills of a professional arborist. The use of herbicides should be avoided; however if deemed necessary, they must be applied by a state- licensed herbicide applicator. Recommended skill level range (0 - 2).

***Root removal***

Roots should be removed in the designated sections where root intrusion is a problem. To remove roots from a pipe, use mechanical devices such as rodding machines, bucket machines, and winches using root cutters and 'porcupines' or equipment such as high velocity jet cleaners. Chemical root treatment is available but discouraged and herbicides must be applied by licensed applicators. Roots should be removed from the embankment to prevent their decomposition within the embankment. Excavate to remove roots, then plug or cap root voids. Recommended skill level (2).

***Dumping areas***

Grass clippings, leaves, soil and trash are often dumped directly into storm drain inlets or stormwater ponds. Any of these items can lead to clogging, and leaves and grass clippings release bacteria, oxygen consuming materials, and nutrients. Removal is easy assuming a suitable disposal area or trash pickup location is available. Posting signage explaining the importance of not dumping will help dissuade the good intentioned. Signage may also advise natural lawn care to minimize the use of chemicals and pesticides. Recommended skill level (0).

***Inadequate drainage slopes***

To promote proper conveyance and to prevent standing water, conveyances to and from ponds should have a minimum slope of one to two percent. Inadequate slopes typically result in the conveyances filling with sediment and vegetation (Figure M4.6). Removal of muck and vegetation from conveyances can be accomplished with small equipment. See Section M-5 – Dredging and Muck Removal. Recommended skill level range (1 - 2).

## Cautions and Safety Tips

Although the removal of unwanted vegetation is not a professional skill, it is not without hazards. Possible hazards include cuts and scrapes from the brambles and thorns of species such as Multiflora Rose (Rosa multiflora) and Tear Thumb (Polygonum perfoliatum). Overgrown vegetation can also obscure ledges, burrows, drop-offs, stumps, and wasp nests.

# M-5 Dredging and Muck Removal

## Problems to Inspect For

The need for dredging may be indicated by sediment plumes or deltas at storm drain inlets that feed stormwater ponds, as most sediment falls to the pond floor quickly and within a short distance from storm drain inflow points. Alternatively, accumulated sediment can be measured through use of 1 a staff gauge.

The best way to determine if a pond needs dredging is to perform an as-built lake study, which involves taking field measurements to calculate the volume of water within a pond or lake. The survey is similar to a topographic measurement of the contours below the permanent pool surface of a pond. The end result of the survey is a two-dimensional map indicating depth contours at all locations within the permanent pool. As-built surveys indicate the amount of silt or muck that has accumulated within a pond or lake as compared to its original design volume; consequently, estimates of remaining stormwater pond life, dredging volumes and associated costs can be made. A pond that appears full may still have adequate volume for settling suspended solids and for meeting stormwater management design criteria purposes, yet the owner may wish to have the pond dredged for aesthetic value.

As-built surveys require use of level rods, electric distance measurement equipment (EDM), small watercraft, sediment probes or depth finders to gather pond depth information. Usually a staff person measures the pond depth while in a canoe or johnboat. On shore, another staff uses EDM equipment to determine distance and azimuth (angle) measurements to the test location. Existing volume measurements can be compared against design volumes to determine the amount of muck requiring removal. If no previous design records exist, the procedure is basically the same, but additional sediment depth probing must be done to measure muck levels.

Dredging needs for dry ponds are easier to identify. There may be a profusion of vegetation, particularly wetland species, at the bottom of the facility. Pilot channels may disappear due to the accumulation of sediment and trash. An obvious sign for quick action is a buried low flow opening. Sediment in a dry pond can also be measured with a preset staff gauge; but hand-taped or simple field surveys can also suffice.

## Corrective Actions

In smaller ponds, the pond water may be drawn down to a point where the residuals can begin to dry in place. After the material is dried, heavy equipment can remove the sediment from the bottom of the pond, a process referred to as mechanical dredging. Mechanical dredging may be accomplished with a standard or long reach backhoe, front end loader, dipper, bucket dredge, drag line or clamshell dredge. Care should be taken to minimize soil compaction around the pond that can be caused by the heavy machinery.

Where dredging cannot be accomplished mechanically from the shore, it may be necessary to remove sediment using hydraulic dredging methods. Larger ponds that cannot be drained are often de-mucked via hydraulic suction or with the use of draglines operated from barges. In ponds not large enough to warrant hydraulic dredging, mechanical dredge methods are used and removed material is de-watered to minimize trucking requirements and potential spilling.

Sediments from ponds are usually dewatered and then disposed of onsite or land filled. It is typical to spread this material out on a site for use as a soil amendment. Onsite disposal usually entails digging a pit, wasting the muck material, covering the pit with previously removed topsoil and planting the appropriate native plantings. Once a dredge area disposal site is established, it cannot be used for structural support or building foundations as long-term settlement will occur.

If on-site storage is not specified, sediment can typically be landfilled. Wet sediment is not accepted at many disposal sites; therefore, the material must be dewatered prior to disposal. This extra step adds to the cost and requires a location where wet material can be temporarily and safely placed to dry.

## Cautions and Safety Tips

Dredging and muck removal involve additional costs and safety considerations including proper disposal, confined space work, permitting and utility damage. This work is best left to general contractors and specialty maintenance companies with adequate training and bonding. The recommended skill level range for all dredging issues is (3)

# M-6 Access

## Problems to Inspect For

Inadequate access is typically discovered by inspectors or maintenance contractors who cannot enter a site or particular site features (e.g. risers). Inspectors should be cognizant of the types of equipment needed to maintain a stormwater pond, so they can note potential access issues. If potential access issues are noted up front, the maintenance contractor can be warned and can plan accordingly.

Risers and manhole access can be particularly challenging and dangerous, particularly when access steps are missing or no manhole access has been provided. In these cases, it is necessary to lower staff by winch once the atmosphere has been tested. Therefore, mandatory fall protection should be used when accessing risers or manholes.

If no manhole access is provided and water enters a riser through weirs or orifices that are too small to allow direct access, the riser may still be entered safely through the barrel (principal spillway) under certain conditions. Typical, safe barrel access is defined by the following conditions:

- Access is conducted by qualified confined space entry-trained staff (team of two with proper equipment). Figure M6.2: Missing manhole step.
- The barrel is open to daylight at both ends and no atmospheric dangers are present.
- The diameter of the barrel is 36 inches or greater.
- There is little to no tailwater making access unsafe, defined as blocking more than a third of the opening.

Given these conditions, the barrel may be crawled. Verbal contact should be kept with the crawler at all times. Each joint may be examined by hand for leaks and discontinuities. The inspector may enter the riser to inspect it once he or she has traversed the barrel.

## Corrective Actions

Many access issues are best addressed during the design of ponds. However, there are routine maintenance activities that will also be required. Most notably, it is important and advisable to maintain primary access features as they were designed. This typically involves removal of woody vegetation from access roads and the upkeep of gravel areas.

Risers with missing steps, manhole covers, or trash racks that present unsafe situations should also be repaired so that future access for inspection is not compromised.

In some cases, where major work needs to be performed, temporary construction access for large, heavy equipment will need to be provided. In these situations, special provisions should be taken to minimize impacts to adjacent areas, particularly if they are forested. Common tree protection measures include fencing that is sufficiently set off to provide protection of the critical root zone and protective sheathing.

Heavy vehicle access can also impact areas with paving, curbs, and decking. It may also compact unpaved soil. For the mutual protection of both the owner and contractor, these access points should be clearly marked or flagged and then photographed prior to equipment arrival onsite. Temporary pavement protection devices include:

- Steel sheeting
- Timbering and mats
- Stabilized stone and gravel construction accesses and mountable berms
- Unloading and 'walking' equipment in on rubber tires

If a fenced pond does not have vehicle gates large enough to accommodate heavy equipment, sections of fence will need to be temporarily removed to allow access.

## Cautions and Safety Tips

Mandatory fall protection should be used when accessing risers or manholes. Risers and manholes may be missing access steps, and lowering staff by winch may be required once the atmosphere has been tested.

# M-7 Mechanical Components

## Problems to Inspect For

Early identification of problems and speedy repair is important to ensure the maximum design life of mechanical components, most of which are metal. Signs of common mechanical failures include:

- Loose trash rack pieces
- Rust and corrosion
- Original lift lugs still in place for pre cast concrete structures
- Nicks and cuts in protective coatings
- Loose or corroded bolts
- Form nails and ties still present for cast-in-place concrete structures
- Corroded locks
- Pock marks
- Standing water
- Flaking

## Corrective Actions

Although most mechanical component maintenance is straightforward, it is usually out of the range of normal services provided by landscaping staff. Therefore, repairing and replacing these components should be left up to general contractors. For mechanical component problems external to confined spaces, the recommended maintenance skill level would be (1). For mechanical components in confined spaces, the recommended maintenance skill level would be (2).

***Rust-proofing***

Although some plastic, aluminum, or PVC appurtenances are available, most mechanical components are galvanized metal. Metal oxidization is an inherent maintenance concern in stormwater pond environments. Therefore, several methods of rust protection should be employed including painting with zinc-rich or galvanizing paint, coating with bituminous tar or rubber and using stainless steel. Water chemistry, temperature extremes, clogging, and vandalism will speed oxidization.

Repair work usually involves the removal of all rust with a wire brush to expose clean metal, if still present. Exposed metal is painted with a rust-proofing agent. Metal that has rusted through should be patch welded or replaced.

***Securing bolts***

Usually the bolts securing the metal to a concrete wall are the weakest metal components. An under-strength or under-protected bolt may meet temperature and shear stress extremes, as well as the concrete chemistry or other potential chemical attack. Often, bolts securing a trash rack or orifice plate fail long before the appurtenance fails. Once bolts have rusted through, they must be replaced. Usually the original drill hole has been compromised and a new drill hole must be made.

***Aerators***

Aerators will be wired to an outside electricity source and they will most likely have an air hose running out to the underwater diffuser head. Both types of lines (electrical and air) should be inspected for kinks, exposed wire, and dry rot and replaced as necessary.

Ponds having bubblers, aerators, fountains or diffusers may require specialty contractors or manufacturer representatives for repairing severe maintenance problems. Pump clogging, air hose deterioration or diffuser head clogging may be simple repair items, but an assessment of the difficulty must be made prior to making a judgment call about who is suited to perform the maintenance activity.

## Cautions and Safety Tips

The opening of valves is an inherently risky procedure, especially when in confined space conditions. There is a small potential that opening a valve may cause an uncontrolled quick release of ponded water, which will flood the access area. Therefore, it is critical that correct confined space procedures be adhered to and suitable removal gear (such as a winch and harness system) be employed for emergency retrieval of maintenance staff that may be momentarily overcome by water under high pressure flow, slick, or cold conditions.

Servicing of electrical components and welding repairs should be performed by professional contractors. Inherent wet conditions can pose safety threats to inexperienced inspectors and maintenance crews where electricity is involved. When inspecting electric-dependent mechanical components, power should be shut off prior to inspection and full body rubber coverage, including gloves, should be used.

# M-8 Nuisance Issues

## Animals

***Problems to Inspect For***

Animal burrows, dams, and dens can be significant maintenance issues associated with proper pond operation and structural stability.

Groundhog/woodchuck burrows will be above the permanent pool and are easier to spot than muskrat burrows, which are located both at and below the permanent pool. Overgrown dam embankments may be riddled with burrow complexes that are not visible to the eye until the brush has been cleared. Usually, if one burrow is found, more are present, as rodent burrowing complexes usually have several ingress/egress points.

Beaver dams and dens tend to be obvious in all but the most neglected stormwater ponds where damming may have been present for so long that the original appearance has been almost permanently altered.

Muskrats tend to be elusive but are occasionally visible. Groundhogs tend to be less shy and sometimes can be seen either feeding or loafing in grassy areas. Beavers are visible in relation to how comfortable they are with human presence. Another indication of rodent activity is the 'slide trail' located on slopes where rodents have created paths for commuting and dragging brush.

## Corrective Actions

Rodent management is a contentious issue with strong feelings both for and against the presence of these animals in a suburban setting. There are many types of measures that can be used to ensure that the animals will not continue to negatively impact the stormwater pond.

Existing burrows should be plugged by filling with material similar to the existing material and capped just below grade with a 50/50 mix of soil and concrete. If plugging of burrows does not discourage the animals from returning, further measures should be taken to either remove the animal population or make critical areas of the facility unattractive to them.

Management options for beaver control include complete tolerance, evaluation on a site-by-site basis, and complete removal. Beaver populations typically will only respond to trapping, dam and lodge removal, or the use of beaver "baffles". Beavers usually do not

remain in unsuitable areas. If their dams are breached and their lodges are damaged on a regular basis, the animals typically move on to another location. For instance, their lodges and dams may be removed by simple mechanical methods over two to three seasons. Once these structures are destroyed, regular maintenance of the facilities is often adequate to prevent their activity from becoming a future problem.

However, maintenance staff should be prepared for the displaced animals to be persistent in their efforts to maintain their dams and lodges. Monthly site checks are recommended to ensure that dams and lodgesare not rebuilt in the weeks after the initial removal. Once there is no evidence of recent beaver activity, normal less frequent maintenance usually suffices to keep the facility functioning properly.

If there can be no tolerance of beaver activity, then the parties responsible for beaver control must consider relocating or trapping the unwanted animals. It is important to keep in mind that whatever features make the community appealing to one beaver will also make the area desirable to other beavers. Once one animal or family is removed, the pond will likely be re-occupied by other beavers, as young males are forced to find their own habitat areas each spring. Animal specialists perform trapping. If removal or trapping is utilized as a management tool, expect to continue trapping the area on a regular (i.e., seasonal) basis to maintain the level of control desired by the community. There are two additional points to consider concerning trapping:

- Beaver relocation is much more expensive and challenging than straight trapping (killing beaver with standard beaver traps).
- The existence of jurisdictions willing to accept relocated beavers is limited.

The final option for minimizing the impact of beaver activity is the use of proprietary beaver baffles. The baffles do not eliminate the beaver impoundments, but are intended to minimize their size. The purpose of the baffle is to reduce the impact of rising water levels on real property (bridges, open areas, private property, pathways, etc.) by providing a manual method for changing the water level in the ponds (thus, making dam building more difficult).

## Waterfowl

***Problems to Inspect For***

Waterfowl damage usually takes the form of either reduced vegetative species due to overgrazing, or poor water quality due to high fecal coliform counts. Waterfowl issues usually involve the overpopulation of year-round duck and geese

populations (usually Canadian Geese, Branta canadensis). Geese and duck droppings on asphalt paths, pond side slopes, docks and cart ways are also easy aesthetic nuisances to spot.

## Corrective Actions

The following actions can control waterfowl impacts:

- Adding shoreline vegetation and no-mow zones.
- Using proprietary products for managing/discouraging waterfowl/goose populations
- Using trained canines to intimidate geese - Border Collies are the most common species used.
- Addling eggs - shaking the eggs of nesting geese to make the eggs nonviable while still allowing the female goose to perform her breeding duties.
- Introducing predators such as snapping turtles.

## Mosquitoes

***Problems to Inspect For***

Mosquito problems are usually brought to the attention of the maintenance authority by adjacent homeowners, or where organized mosquito control programs exist, by mosquito control or abatement districts. In some locations, the primary cause of a mosquito infestation may be a stormwater structure(s), but in other areas the primary cause may be natural or other man-made habitats. Sometimes, it will be both. Stormwater structures should be periodically checked to determine if there are excessive amounts of mosquitoes.

Stormwater ponds typically will not have mosquito production problems in a central pool that's 6-8 ft. deep, as long as it never dries out or becomes so depleted that water quality is impaired. A relatively large, deep pool helps promote and maintain aquatic predators of mosquito larvae (e.g. larvivorous fishes, dragonfly naiads, predacious diving beetles, water boatmen, backswimmers, salamander larvae). However, in some locations, even an abundance of natural predators may not be enough to control mosquito populations. A deep central pool also inhibits vegetation colonization within the pool, allowing wind to agitate the surface water, which discourages mosquito egg-laying. The primary areas of mosquito production are in the shallow aquatic bench areas that form the pond's periphery and margins. Fluctuation in the pond's water levels can cause isolated areas or pockets within the aquatic bench to cycle in a wet-dry-wet manner, creating conditions under which peripheral low spots, swales or potholes may become mosquito-rearing

habitats. Sites like these that have fluctuating water levels (i.e. wet-dry- wet) for extended periods of time can favor the production of floodwater or temporary water mosquito species, many of which can fly long distances.

Maintaining relatively high and stable water levels over the aquatic bench helps reduce floodwater mosquito populations. In many locations, however, (and for the best water quality functioning of the pond) it may be impossible to achieve or maintain such high water level stability. In some cases, thick mats of vegetation that cover aquatic and safety benches, emergent plants, submerged aquatic vegetation, or floating algae, can also promote mosquito production. Thick vegetation can inhibit access of mosquito predators to mosquito rearing sites, creating a refuge within the aquatic or safety benches where either permanent ("standing") water mosquitoes or more ephemeral floodwater mosquitoes can develop and emerge. As such, without unduly sacrificing water quality goals, the aquatic and safety benches should not be allowed to develop excessively thick screens or layers of aquatic vegetation. In some situations, mosquito production may still be high despite these precautions. Insecticides may need to be applied in limited quantities to control mosquito larvae.

## Corrective Actions

The most effective mosquito control program is one that eliminates potential breeding habitats. Most stagnant pools of water can be attractive to mosquitoes and the source of a large mosquito population. Ponded water such as open cans and bottles, debris and sediment accumulations, and areas of ground settlement provide ideal locations for mosquito breeding. A maintenance program dedicated to eliminating potential breeding areas is preferable to controlling flying mosquitoes.

Whenever excessive mosquito production is encountered in a stormwater structure, a state, county, or local mosquito control or abatement district should be contacted to request appropriate control actions. In areas where such organized mosquito control programs do not exist, contract with a private company for control actions. Alternatively, a knowledgeable homeowner or homeowner's association might be able to undertake some limited control actions on their own. Quite often, it might be a matter of contacting a local stormwater management agency to undertake needed or neglected maintenance activities within a stormwater structure.

Organized mosquito control or abatement districts typically provide comprehensive, integrated pest management remedies for addressing excessive mosquito production, involving source reduction, larviciding and adulticiding techniques. Private companies tend to be restricted to larviciding efforts, and wherever they might attempt some source reduction remedies in a stormwater structure, they should only do so in consultation with

the local stormwater management agency. Larvicide efforts target potential or actual breeding areas and treat them with insecticides that include bacterially-produced products, juvenile growth hormone mimics, and organophosphates. Adulticides that are applied to more widespread areas by aircraft or truck-mounted sprayers include organophosphates and synthetic pyrethroids and should be used only when source reduction or larviciding efforts are not working. Application of any pesticides must be in accordance with the requirements specified on the labels.

Seasonal stocking of predatory fish that eat mosquito larvae is also undertaken in many areas by mosquito control or abatement districts, relying upon mosquitofish (Gambusia spp.) in warmer climates, and on the black-striped topminnow (Notrophus fundulus), in colder climates. Private companies or homeowners should not undertake fish stocking on their own without first consulting with their state fish and wildlife management agency and/or their state nongame or natural heritage programs to be sure that such fish stocking is permissible and that all pertinent regulations are followed.

## Undesirable Plant Communities

***Problems to Inspect For***

Diverse plant communities support diverse and balanced aquatic communities that host beneficial species such as mosquito predators. Poorly maintained ponds are particularly susceptible to the establishment of undesirable plant communities that include monocultures and non-native invasive species. Aquatic plant species such as cattails and common reed are typical monocultures seen in ponds, and as previously mentioned cattail stands in particular can produce the very difficult to control Coquilletidia perturbans mosquito, an aggressive biter. Similarly, side slopes and embankments are susceptible to rapid colonization by non-natives such as multiflora rose, kudzu (southeastern states), purple loosestrife, and porcelain berry.

## Corrective Actions

Management of monolithic plant communities and weeds requires a long-term commitment to action to prevent large-scale problems. Mechanical and hand removal of monocultures such as cattails and common reed is often necessary in conjunction with replanting with other appropriate native emergent species. Algaecides and herbicides are often used to eradicate existing weed species. This method treats the problem as an ongoing maintenance issue and generally requires multiple treatments throughout the growing season. It is often the most effective method of maintaining the desired aesthetic standard for a pond.

Caution should be exercised in performing chemical applications in that some applications may have the desired affect of removing unwanted vegetation, but may increase toxic risks to other resident species. The removal of one weed species creates an opportunity for the growth of another. Once the initial weed is eliminated, the ecological niche previously occupied by the species becomes available to other opportunistic species. Note that multiple applications may be necessary to maintain the desired aesthetic standard for a stormwater pond.

Maintaining and/or planting upland buffer zones can help to reduce the introduction of nuisance plant species. Planting emergent vegetation may also reduce nuisance algae blooms and waterfowl access. These plants compete with the algae for the available nutrients stored in the pond substrate. As fewer nutrients are available for the algae, their prolific growth potential can be suppressed. Another vegetation management technique is through the establishment of buffer strips or "no mow areas" around the perimeter of stormwater wet ponds. These zones help intercept and filter nutrient laden runoff as well as stabilize pond banks. Therefore a mixture of plants with varying heights is recommended.

## Water Quality Degradation

***Problems to Inspect For***

Stormwater ponds are susceptible to poor water quality when upland land uses are highly urbanized, deliver large quantities of nutrients, or contain illicit discharges with high concentrations of bacteria and other pollutants. Pond designs with inefficient turn over (i.e., poor flow circulation) also contribute to water quality degradation. Common indications of poor water quality include an off color (e.g., bright green sheen from algae) or unpleasant odor (e.g., presence of bacteria). Poor water quality, including low dissolved oxygen and organic over-enrichment can also undesirably promote mosquito production by reducing mosquito predators and providing food for mosquito larvae.

## Corrective Actions

Maintaining water quality in stormwater ponds is challenging, as they are designed to retain constituents in stormwater that can degrade receiving waters. However, a number of water quality related fixes are noted below:

- ***Bacterial Improvements***

  Excessive sediments in a pond can contribute to algae problems. If sediment layers become anaerobic, harmful chemicals, noxious odors, and phosphorus can be released into the water column. These conditions can be minimized through the introduction of bacteria in the pond. The bacteria, in the presence of adequate

aeration, "digest" the muck layer without producing the harmful side effects, such as odor, associated with anaerobic decomposition. Through the reduction of available phosphorus, algae growth can be limited. Treatments usually start in early April and continue through September.

- ***Diffusers and surface aerators***

  Air can be introduced into the pond through various systems to facilitate biological decomposition of pond muck, de-stratify thermal layers in the water and improve the ecological health of the system. In general air promotes biological activity, which reduces the amount of available nutrients for algae.Diffusers use an air compressor and hoses to bring air into the water column of the pond. Diffuser systems are low maintenance and are often compared to aquarium compressors on a larger scale. They require annual maintenance and are not recommended for permanent pools less than eight feet deep.Aerators resemble fountains in their appearance. They require a motor mounted to an impeller or other type of agitator to "splash" the water. This physical action introduces air to the water. They should be removed from the pond in the late fall to prevent freeze damage and returned to the pond in the spring, after the last freeze. Trash, debris, algae, pond weeds and aquatic plants can bind up moving parts, causing excessive wear and generally cause motors to burn out prematurely. Because these aerators typically draw from the surface of the pond, they are generally not recommended for reducing algae bloom potential or increasing dissolved oxygen in the system, but may provide visual enhancement.

- ***Flocculants***

  Flocculants are chemicals applied to ponds to act indirectly on the algae through promotion of settling. The application of flocculates of buffered alum products to the water causes phosphorus and other materials suspended in the water column to settle. Removal of phosphorus from the water column limits the amount of this nutrient available to support algal growth. This works best when water clarity is greater than 24 inches. However, soils with excessive nutrients introduce phosphorous with every rain event and as a result, phosphorus levels are quickly recharged and the value of flocking the pond is minimized. The application of flocculants may require a permit. Therefore check with local authorities prior to application.

## Cautions and Safety Tips

Addressing nuisance issues has few associated safety hazards when appropriately trained individuals conduct the specific tasks (e.g., trapping, chemical application).

## STORMWATER DRY BASINS:

Dry detention ponds (also called dry basins, extended detention basins, detention ponds and extended detention ponds) are basins that detain stormwater for some minimum time (e.g., 24 hours) to allow particles and pollutants to settle and reduce peak flow rates. They do not have large permanent pools of water—unlike wet ponds—though they often have small pools at the inlet and outlet of the basin. Although dry detention ponds were once popular for flood control, they are less so now, given their limited ability to provide water quality treatment.

Dry detention ponds have traditionally been one of the most widely used stormwater controls. They are appropriate for detaining stormwater from large drainage areas (typically 10 or more acres).

***Pretreatment***

Removing coarse sediment particles from stormwater before they reach the large dry basin reduces its maintenance burden. Pretreatment features help settle out these particles. For a pond, the appropriate pretreatment feature is a sediment forebay, a small pool at the entrance to the basin (typically about 10 percent of the volume of water that the pond will treat for pollutant removal).

***Treatment***

Treatment design features enhance a stormwater control's ability to remove pollutants. To allow for enough settling time, the pond should be large enough to detain the volume of stormwater it treats for between 12 and 48 hours. Designing dry ponds with a high length-to-width ratio (i.e., at least 1.5:1) and incorporating other design features to maximize the flow path effectively increases the detention time in the system by keeping flow from short-circuiting the pond. Designing ponds with relatively flat side slopes can also help to lengthen the effective flow path. Last, as dry detention ponds alone do not provide a high degree of pollutant removal, adding filtration at the outlet improves water quality before discharging to receiving waters.

## Maintenance of Dry Detention Basins

### *Vegetation*

The pond areas have a ground cover of grass, which if properly maintained will prevent erosion of the embankment and provide an easy surface for inspection.

### *Re-Seeding*

Periodic re-seeding may be required to establish grass on areas where seed did not take or have been destroyed. Before seeding, fertilizer (12-12-12) should be applied at a minimum rate of 12 to 15 pounds per 1,000 SF. The seed should be evenly sown at a rate of three pounds per 1,000 SF. The seed should be covered with soil to the depth of approximately ¼". Immediately following the planting, the area should be mulched with straw.

### *Trees and Shrubs*

Trees, shrubs and other landscape vegetation should be permitted only as shown on the approved planting plan. The vegetation should be kept healthy and vibrant. If a tree or shrub dies it should be removed and replaced with another tree or shrub from the same species (see attached maintenance schedule). This is for vegetation planted to buffer the dry basin.

### *Mowing*

Grass mowing, brush cutting and removal of weed vegetation will be necessary for the proper maintenance of the areas. All area slopes and vegetation should be mowed when the grass exceeds 8" in height. Acceptable methods include the use of weed whips or power brush cutters and mowers.

### *Erosion*

Erosion occurs when the water concentrates causing failure of the vegetation or when vegetation dies and sets up the environment for rill erosion and eventually gullies from the stormwater runoff. The areas should be inspected. Proper care of vegetative areas that develop erosion is required to prevent more serious damage to the site. Rills and gullies should be filled with suitable soil compacted and then seeded. Methods described earlier on vegetation should be used to properly establish the grass surface. Where eroded areas are detected, the cause of the erosion should be addressed to prevent a continued maintenance problem. Frequently, problems result from the concentration of runoff to one point of the dry pond area instead of a uniform distribution of runoff. This can be corrected by reshaping, to more evenly distribute the runoff to areas not experiencing erosion problems.

***Rodent Control***

Generally in this urban environment, rodents are not a problem. Rodents such as groundhogs, muskrats and moles are attracted to moist, wet areas and can be quite dangerous\ to structural integrity and proper performance of the earthwork and drainage. Groundhogs and muskrats thrive on burrowing into the manmade earthwork, which become pathways for seepage. In the event that burrows are detected, the rodents should be dealt with by removal. See Nuisance Issues from the Wet Pond maintenance section for additional information.

***Trash and Debris***

Trash acts as a barrier to stormwater infiltration and attracts unwanted pests.
The dry pond area should be kept clear of debris such as loose bottles, cans, food containers and other forms of rubbish. The area should be cleared of debris as needed, but no less than monthly.

## Maintenance of Spillways and Control Structure

***Inspection of Pipes***

Pipes should be inspected thoroughly once a year. Conduits should
be visually inspected at the joints. Pipes should be inspected for proper alignment (sagging),elongation and displacement at joints, cracks, leaks, surface wear, loss of protective coating, corrosion and blocking. Problems with conduits most often occur at joints and special attention should be given to them during inspection. Joints should be checked for gaps caused by elongation or settlement and loss of joint filler material. Open joints can permit erosion of the earthwork and possibly the piping of soil material through the joints. A depression in the soil surface over the pipe may be signs that soil is being removed from around the pipe.

## Operation of Dry Basin

***Drainpipes***

Drainpipes should always be operable so that the water can be drawn down in the event of severe rain or for repairs or maintenance.

***Record Keeping***

Operation of the dry pond area should include recording of the following:

***Annual Inspection Reports*** A collection of written inspection reports should be kept on record. Inspection should be conducted annually. Copies should be provided to the City of O'Fallo Stormwater Management Section of the Engineering Department.

***Observations***

All observations should be recorded. Where periodic inspections are performed following significant rainfall, these inspections should be noted in a logbook.

***Maintenance***

Written records of maintenance and/or repairs should be recorded in a logbook.

***Sedimentation and Dredging***

Sedimentation from on-site and off-site soils will eventually result in the clogging of drainage conduits and will have to be removed. The frequency of this sediment removal can be reduced by ensuring that the site areas around the building be stabilized with a vegetative ground cover such that it restrains erosion. The removed material should be hauled offsite to a suitable landfill site or mounded somewhere on site and stabilized with a ground cover sufficient to restrain erosion.

## ADS Barracuda BMP Structure Maintenance

Numerous proprietary separator stormwater structures are present across the development providing stormwater runoff treatment. Specifically ADS Barracuda HDS water quality structures have been installed within the limits of Phase 3 of the development. For maintenance and operation of the Barracuda units refer to the procedures and guidelines provided by ADS. Copies of these guidelines are provided in Appendix B.

## Hazardous Waste

The following general guidance is based on the federal regulations, 40 CFR 262.11- Hazardous Waste Determination. (Note-regulations are subject to change in the future and this is offered only as general information available at this time.) The generator of the waste should determine if the waste is a special waste using the following method:

1. Determine if the waste is excluded from being a hazardous waste per 10 CSR 25-4.261(2)(A) and 40 CFR 261.4; then
2. Determine if the waste is listed as a hazardous waste per 10 CSR 25-4.261(2)(D) and 40 CFR 261 subpart D; then
3. Determine if the waste is a characteristic hazardous waste (i.e. ignitable, corrosive, reactive, or toxic). Consider the materials used or the processes used to generate the waste based on this knowledge, determine the appropriate testing and analysis in accordance with 10 CSR 25-4.261(2)(C) and 40 CFR 261 subpart C.

Testing for hazardous waste characteristics requires sampling at the point of generation. If the analyses detect any property characteristic of hazardous waste, you must manage the waste as a hazardous waste. It is very important to understand that hazardous waste remains a hazardous waste when diluted or stabilized, unless it is specifically excluded from the definition of hazardous after the process (40 CFR 261.3). You may not dilute hazardous waste solely for the purpose of rendering it non-hazardous, unless dilution is warranted in an emergency response situation or where the dilution is part of a hazardous waste treatment process regulation or exempted under 10 CSR 25-7 or 10 CSR 25-9. You may not dispose of regulated hazardous wastes in any sanitary, demolition, utility waste landfill in Missouri. The following information lists typical properties of characteristic hazardous waste. This is not a complete listing, but only a guideline to determine if a waste may be a characteristic hazardous waste.

Ignitability: Catches fire easily through friction, absorption or moisture or spontaneous chemical changes.
Corrosivity: pH<2.0 prpH>12.5
Reactivity: Wastes that are normally unstable, react violently with water, can explode or release poisonous gases.

Toxicity: TCLP, EPA Method 1311, any contaminates listed in Table 1 or 40 CFR 261.24 equal or greater than the listed concentration.

Once the waste is determined to be non-hazardous and contain no free liquids, you must request approval from the owner/operator to dispose of the special waste at the landfill by filling out and signing the generator's portion of the Special Waste Disposal Request Form. You must identify health hazards associated with the material, as well as any special shipping, handling or safety requirements. For example, note whether the material should be transported in covered containers or whether it is a respiratory hazard. The material Safety Data Sheet, if one exists for the material, lists some of this information. The completed Special Waste Disposal Request Form, along with appropriate test results and other pertinent information are then sent to the receiving landfill for the landfill owner or operator's review and signature prior to acceptance and disposal of the waste. Until a landfill accepts the water for disposal, it is the owner's responsibility to manage the waste in an environmentally sound manner. Free liquids must have pollutant components removed to or below regulatory thresholds before the free liquid may be discharged to the environment, or pretreatment or treatment facility, as and where allowable by the local authority or jurisdiction. Do not discharge the liquids or liquid slurry, captured by the cleaning and maintenance process into any storm or sanitary structures. Approved wastes shall be disposed of at the West Lake Quarry and Material Company landfill located at 13550 St. Charles Rock Road, Bridgeton, MO 63044, or approved equivalent.

## Annual Reporting

To ensure the maintenance of privately owned stormwater management facilities, the City requires an Annual BMP Maintenance Report to be submitted to the City's Stormwater Coordinator for these facilities. The Annual Report should provide documentation that maintenance was performed in accordance with the Stormwater Management Facilities Report submitted for your development and approved by the City for the above referenced project. The Annual Report typically consists of a completed inspection checklist and/or maintenance log, narrative description of corrective action measures taken, photographs, and any other documentation appropriate for demonstrating compliance with the BMP Maintenance Agreement and your Facilities Report. A City inspector will also periodically inspect the BMP. The Annual Report should be sent to:

City of O'Fallon
Stormwater Management Division
C/o City Stormwater Coordinator
100 North Main Street
O'Fallon, MO 63366

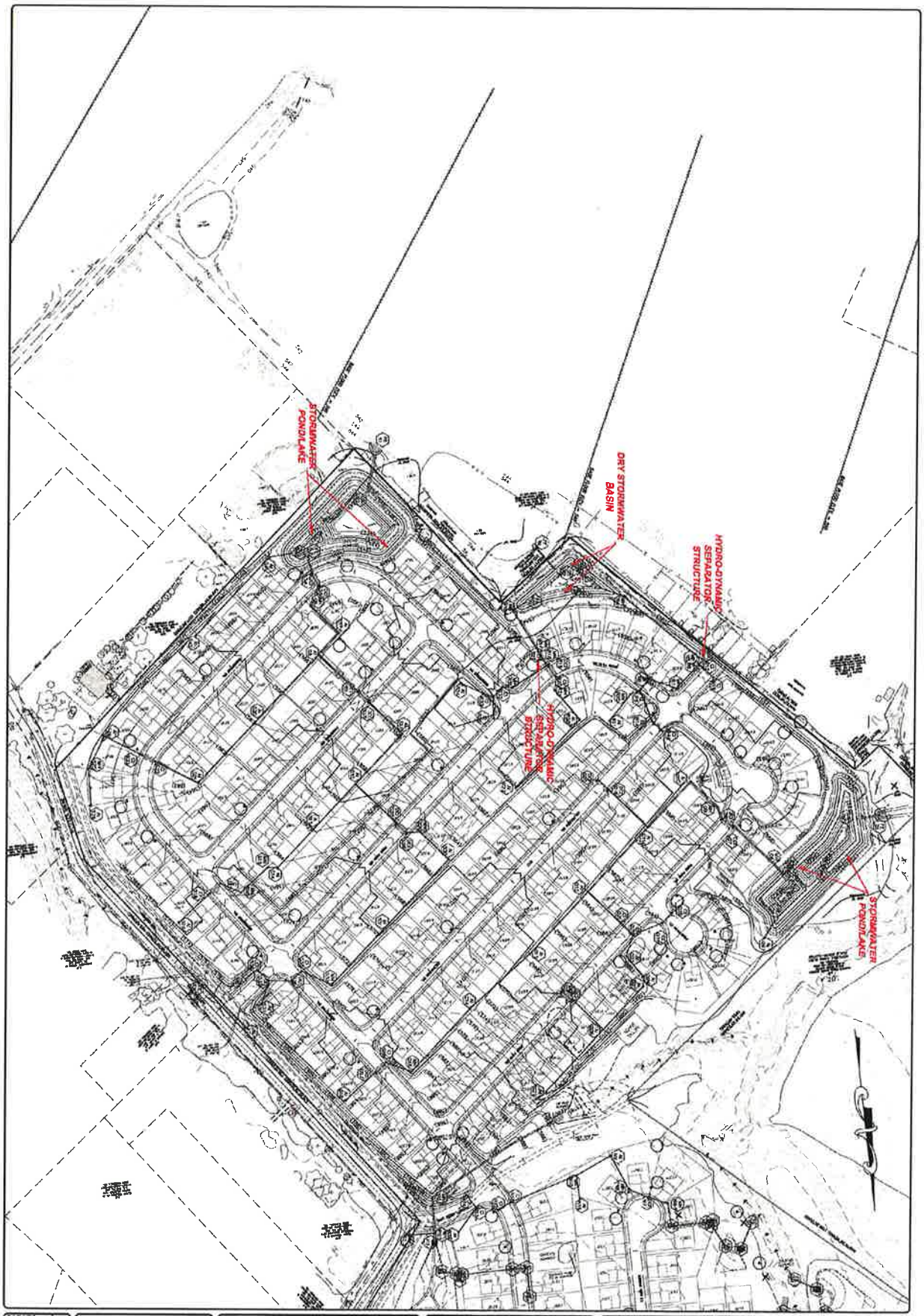
Alternatively the annual report can be e-mailed to the following e-mail address:

stormwater@ofallon.mo.us

Appendix

A

# BMP Location Map




| | | | | |
|---|---|---|---|---|
| Date: 08/07/2025 | Job No./File No.: 20-09-327 | *HARVEST AT HOPEWELL* *PHASE 3* | THE **STERLING** CO. ENGINEERS & SURVEYORS 5066 New Baumgartner Road St. Louis, Missouri 63129 Ph 314-487-0440 Fax 314-487-5944 www.sterling-eng-surv.com Corporate Certificate of Authority #001346 | *ELITE DEVELOPMENT SERVICES* 17415 NORTH OUTER 40 ROAD CHESTERFIELD, MO 63005 |
| Drawn: EXB | Checked: | BMP LOCATION MAP | | |
| Owner: | Date: | | | |

| NO. | REMARKS | DATE |
|---|---|---|
| 1 | | |

Appendix

# B

# Maintenance and Operation Procedures for HDS Unit

# Barracuda® Max & Barracuda Maintenance Guide

One of Barracuda's advantages is the ease of maintenance. Like any system that collects pollutants, the Barracuda must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes 2 to 4 hours, depending on the system's size, the captured material, and the vacuum truck's capacity.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified contractor.

## Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and then on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

## Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

ADS

adspipe.com
1-800-821-6710

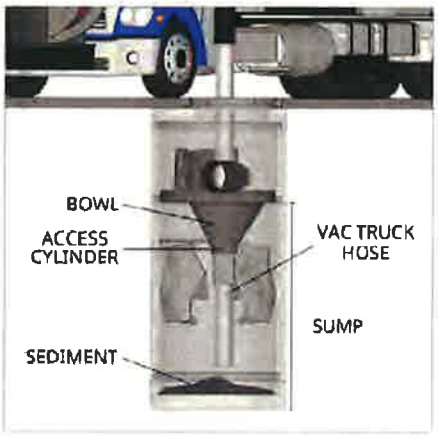
## Barracuda Storage Capacities

| Model | Manhole Diameter in. (mm) | Total System Volume Gallons (Liters) | Treatment Chamber Capacity Gallons (Liters) | Standard Sediment Capacity (20" depth) Yards³ (meters³) | NJDEP Sediment Capacity (50% of standard depth) Yards³ (meters³) |
|---|---|---|---|---|---|
| S3 | 36 (900) | 264 (999) | 212 (803) | 0.44 (0.34) | 0.22 (0.17) |
| S4 | 48 (1200) | 665 (2517) | 564 (2135) | 0.78 (0.60) | 0.39 (0.30) |
| S6 | 72 (1800) | 1497 (5667) | 1269 (4804) | 1.75 (1.34) | 0.88 (0.67) |
| S8 | 96 (2400) | 4196 (15884) | 3835 (14517) | 3.10 (2.37) | 1.55 (1.19) |

## Maintenance Instructions

1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are stored in the sump, below the bowl assembly visible from the surface. Access this area through the 8" (200 mm), 10" (250 mm), 15" (375 mm) or 20" (500 mm) diameter access cylinder.
2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See figure 1.
3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
5. Replace the manhole cover.
6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
   a. Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
   b. Some localities treat the pollutants as leachate. Check with local regulators about disposal requirements.
   c. Additional local regulations may apply to the maintenance procedure.

Figure 1




ADS Terms and Conditions of Sale are available on the ADS website, www.adspipe.com
The ADS logo, ADS Pipe and the Green Stripe are registered trademarks of Advanced Drainage Systems, Inc.
© 2022 Advanced Drainage Systems, Inc. 50010 08/22 CS

Appendix

C

# BMP Inspection Checklists

## STORMWATER POND / STORMWATER WETLAND CONSTRUCTION INSPECTION CHECKLIST

Date: Time:

Project:

Location:

Site Status (active, inactive, completed):

Inspector(s):

Type of Practice:

| | | | |
|---|---|---|---|
| ☐ | Micropool ED Pond | ☐ | Shallow Wetland |
| ☐ | Wet Pond | ☐ | Shallow ED Wetland |
| ☐ | Multiple Pond System | ☐ | Pond / Wetland System |
| ☐ | Pocket Pond | ☐ | Pocket Wetland |

| Construction Sequence | Satisfactory | Unsatisfactory | Comments |
|---|---|---|---|
| **I. Pre-Construction / Materials and Equipment** | | | |
| Pre-construction meeting | | | |
| Pipe and appurtenances on-site prior to construction and dimensions checked | | | |
| 1. Material (including protective coating, if specified) | | | |
| 2. Diameter | | | |
| 3. Dimensions of metal or pre-cast concrete riser | | | |
| 4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans | | | |
| 5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope | | | |
| 6. Number and dimensions of prefabricated anti-seep collars | | | |
| 7. Watertight connectors and gaskets | | | |
| 8. Outlet drain valve | | | |
| Project benchmark near pond site | | | |
| Equipment for temporary de-watering / sediment and erosion control | | | |
| **II. Subgrade Preparation** | | | |
| Area beneath embankment stripped of all vegetation, topsoil, and organic matter | | | |
| Core trench excavated and backfilled | | | |
| **III. Pipe Spillway Installation** | | | |
| Method of installation detailed on plans | | | |
| A. Bed preparation | | | |
| Installation trench excavated with specified side slopes | | | |
| Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation) | | | |
| Invert at proper elevation and grade | | | |

| Construction Sequence | Satisfactory | Unsatisfactory | Comments |
|---|---|---|---|
| B. Pipe placement | | | |
| Metal / plastic pipe | | | |
| 1. Watertight connectors and gaskets properly installed | | | |
| 2. Anti-seep collars properly spaced and having watertight connections to pipe | | | |
| 3. Backfill placed and tamped by hand under "haunches" of pipe | | | |
| 4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached | | | |
| Concrete pipe | | | |
| 1. Pipe set on blocks or concrete slab for pouring of low cradle | | | |
| 2. Pipe installed with rubber gasket joints with no spalling in gasket interface area | | | |
| 3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set | | | |
| 4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant | | | |
| 5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix | | | |
| 6. Upper half of anti-seep collar(s) formed with reinforcing steel set | | | |
| 7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary) | | | |
| 8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary. | | | |
| C. Backfilling | | | |
| Fill placed in maximum 8 inch lifts | | | |
| Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment | | | |
| **IV. Riser / Outlet Structure Installation** | | | |
| Riser located within embankment | | | |
| A. Metal riser | | | |
| Riser base excavated or formed on stable subgrade to design dimensions | | | |
| Set on blocks to design elevations and plumbed | | | |
| Reinforcing bars placed at right angles and projecting into sides of riser | | | |
| Concrete poured so as to fill inside of riser to invert of barrel | | | |
| B. Pre-cast concrete structure | | | |

| Construction Sequence | Satisfactory | Unsatisfactory | Comments |
|---|---|---|---|
| Dry and stable subgrade | | | |
| Riser base set to design elevation | | | |
| If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely | | | |
| Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway | | | |
| C. Poured concrete structure | | | |
| Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set | | | |
| Structure formed to design dimensions, with reinforcing steel set as per plan | | | |
| Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary) | | | |
| Forms stripped & inspected for honeycomb prior to backfilling; parge if necessary | | | |
| **V. Embankment Construction** | | | |
| Fill material | | | |
| Compaction | | | |
| Embankment | | | |
| 1. Fill placed in specified lifts and compacted with appropriate equipment | | | |
| 2. Constructed to design cross-section, side slopes and top width | | | |
| 3. Constructed to design elevation plus allowance for settlement | | | |
| **VI. Impounded Area Construction** | | | |
| Excavated / graded to design contours and side slopes | | | |
| Inlet pipes have adequate outfall protection | | | |
| Forebay(s) | | | |
| Pond benches | | | |
| **VII. Earth Emergency Spillway Construction** | | | |
| Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc. | | | |
| Excavated to proper cross-section, side slopes and bottom width | | | |
| Entrance channel, crest, and exit channel constructed to design grades and elevations | | | |
| **VIII. Outlet Protection** | | | |
| A. End section | | | |
| Securely in place and properly backfilled | | | |
| B. Endwall | | | |
| Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified | | | |

| Construction Sequence | Satisfactory | Unsatisfactory | Comments |
|---|---|---|---|
| Endwall formed to design dimensions with reinforcing steel set as per plan | | | |
| Concrete of an approved mix and vibrated into place (protected from freezing, if necessary) | | | |
| Forms stripped and structure inspected for honeycomb prior to backfilling; parge if necessary | | | |
| C. Riprap apron / channel | | | |
| Apron / channel excavated to design cross-section with proper transition to existing ground | | | |
| Filter fabric in place | | | |
| Stone sized as per plan and uniformly place at the thickness specified | | | |
| **IX. Vegetative Stabilization** | | | |
| Approved seed mixture or sod | | | |
| Proper surface preparation and required soil amendments | | | |
| Excelsior mat or other stabilization, as per plan | | | |
| **X. Miscellaneous** | | | |
| Drain for ponds having a permanent pool | | | |
| Trash rack / anti-vortex device secured to outlet structure | | | |
| Trash protection for low flow pipes, orifices, etc. | | | |
| Fencing (when required) | | | |
| Access road | | | |
| Set aside for clean-out maintenance | | | |

**Additional Comments:**

**Action to be Taken:**

No action necessary. Continue routine inspections.

Correct noted site deficiencies by

1st notice

2nd notice

Submit plan modifications as noted in written comments by

Notice to Comply issued

Final inspection, project completed

# POND / WETLAND MAINTENANCE INSPECTION FORM

Facility Number:_____ Date:_____ Time:_____

Subdivision Name:_____ Watershed:_____

Weather:_____ Inspector(s):_____

Date of Last Rainfall:_____ Amount:_____ Inches Streets:_____

Mapbook Location:_____ GPS Coordinates:_____

Property Classification: Residential • • Government • • Commercial • • Other:_____

**Type of Practice:** Wet Pond • • Dry Pond • • Micropool ED • • Multiple Pond System • • Pocket Pond • •

Shallow Wetland • • Shallow ED • • Pond/ Wetland • • Pocket Wetland • •

Confined • • Unconfined • • Barrel Size_____ As-built Plan Available? Yes • • No • •

Is Facility Inspectable? Yes • • No • • Why?_____ Comments Specific Location(s):_____

**Scoring Breakdown:**

**N/A = Not Applicable**
**N/I = Not Investigated**
**0 = Not a Problem**
**1 = Monitor (potential for future problem exists)**
**2 = Routine Maintenance Required**
**3 = Immediate Repair Necessary**

**Use open space in each section to further explain scoring as needed**

| | | | | | | |
|---|---|---|---|---|---|---|
| **1. Outfall Channel(s) from Pond** | | | | | | |
| Woody growth within 5' of outfall barrel | N/A | N/I | 0 | 1 | 2 | 3 |
| Outfall channel functioning | N/A | N/I | 0 | 1 | 2 | 3 |
| Manholes, Frames and Covers | N/A | N/I | 0 | 1 | 2 | 3 |
| Released water undercutting outlet | N/A | N/I | 0 | 1 | 2 | 3 |
| Erosion | N/A | N/I | 0 | 1 | 2 | 3 |
| Displaced rip rap | N/A | N/I | 0 | 1 | 2 | 3 |
| Excessive sediment deposits | N/A | N/I | 0 | 1 | 2 | 3 |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 |
| **2. Downstream Dam Bank** | | | | | | |
| Cracking, bulging, or sloughing of dam | N/A | N/I | 0 | 1 | 2 | 3 |
| Erosion and/or loss of dam material | N/A | N/I | 0 | 1 | 2 | 3 |
| Animal burrows | N/A | N/I | 0 | 1 | 2 | 3 |
| Soft spots or boggy areas | N/A | N/I | 0 | 1 | 2 | 3 |
| Woody growth or unauthorized plantings on dam | N/A | N/I | 0 | 1 | 2 | 3 |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 |
| **3. Upstream Dam Bank** | | | | | | |
| Cracking, bulging, or sloughing of dam | N/A | N/I | 0 | 1 | 2 | 3 |
| Erosion and/or loss of dam material | N/A | N/I | 0 | 1 | 2 | 3 |
| Animal Burrows | N/A | N/I | 0 | 1 | 2 | 3 |
| Soft spots or boggy areas | N/A | N/I | 0 | 1 | 2 | 3 |
| Woody growth or unauthorized plantings on dam | N/A | N/I | 0 | 1 | 2 | 3 |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 |

**N/A = Not Applicable**
**N/I = Not Investigated**
**0 = Not a Problem**
**1 = Monitor for Future Repairs**
**2 = Routine Repairs Needed**
**3 = Immediate Repair Needed**

| 4. Emergency Spillway | | | | | | |
|---|---|---|---|---|---|---|
| Woody growth or unauthorized plantings | N/A | N/I | 0 | 1 | 2 | 3 |
| Erosion or back cutting | N/A | N/I | 0 | 1 | 2 | 3 |
| Soft or boggy areas | N/A | N/I | 0 | 1 | 2 | 3 |
| Obstructions / debris | N/A | N/I | 0 | 1 | 2 | 3 |

| 5. Principal Spillway Built to Plans | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of Barrels:_____ Size:_____ | RCP | CMP | PVC | STEEL | or | MASONRY | (Circle One) | |
| Confined space entry permit required for entry into all riser and barrels | | | Entry Approved • • | | | Entry Denied • • | | |
| Minor spalling or parging (<1") | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Major spalling (exposed rebar) | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Joint failure | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Loss of joint material | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Leaking | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Corrosion | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Protective material deficient | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Misalignment or split seams / joints | N/A | N/I | 0 | 1 | 2 | 3 | | |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 | | |

| 6. Riser Built to Plans | | | | | | | |
|---|---|---|---|---|---|---|---|
| Size:_____ | CONC | CMP | or | MASONRY | | | (Circle One) |
| Minor spalling or parging (<1") | N/A | N/I | 0 | 1 | 2 | 3 | |
| Major spalling (exposed rebar) | N/A | N/I | 0 | 1 | 2 | 3 | |
| Joint failure | N/A | N/I | 0 | 1 | 2 | 3 | |
| Loss of joint material | N/A | N/I | 0 | 1 | 2 | 3 | |
| Leaking | N/A | N/I | 0 | 1 | 2 | 3 | |
| Manhole access and steps acceptable | N/A | N/I | 0 | 1 | 2 | 3 | |
| Corrosion | N/A | N/I | 0 | 1 | 2 | 3 | |
| Protective material deficient | N/A | N/I | 0 | 1 | 2 | 3 | |
| Misalignment or split seams / joints | N/A | N/I | 0 | 1 | 2 | 3 | |
| Anti-vortex device secure / acceptable | N/A | N/I | 0 | 1 | 2 | 3 | |
| Sediment Accumulation within riser | N/A | N/I | 0 | 1 | 2 | 3 | |
| Woody or vegetative growth within 25' of riser | N/A | N/I | 0 | 1 | 2 | 3 | |
| Safety Rebar/pipes in place | N/A | N/I | 0 | 1 | 2 | 3 | |
| Safety Rebar/pipes corroded | N/A | N/I | 0 | 1 | 2 | 3 | |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 | |

| 7. Low Flow Built to Plans | | | | | | |
|---|---|---|---|---|---|---|
| Orifice and/or trash rack obstructed | N/A | N/I | 0 | 1 | 2 | 3 |
| Trash Rack Corrosion | N/A | N/I | 0 | 1 | 2 | 3 |
| Other: | N/A | N/I | 0 | 1 | 2 | 3 |

| 8. Weir Trash Rack | | | | | | |
|---|---|---|---|---|---|---|
| Structurally sound | N/A | N/I | 0 | 1 | 2 | 3 |
| Debris removal necessary | N/A | N/I | 0 | 1 | 2 | 3 |
| Corrosion | N/A | N/I | 0 | 1 | 2 | 3 |

**N/A = Not Applicable**
**N/I = Not Investigated**
**0 = Not a Problem**
**1 = Monitor for Future Repairs**
**2 = Routine Repairs Needed**
**3 = Immediate Repair Needed**

| 16. Inflow Points | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of inflow pipes:_____ | Direction: N | | E | | W | S | |
| Endwalls, headwalls, end sections | N/A | N/I | 0 | 1 | 2 | 3 | |
| Outfall pipes | N/A | N/I | 0 | 1 | 2 | 3 | |
| Discharge undercutting outlet or displacing rip-rap | N/A | N/I | 0 | 1 | 2 | 3 | |
| Discharge water is causing outfall to erode | N/A | N/I | 0 | 1 | 2 | 3 | |
| Sediment accumulation | N/A | N/I | 0 | 1 | 2 | 3 | |
| **17. Wet Pond Vegetation** | | | | | | | |
| Invasive plants | N/A | N/I | 0 | 1 | 2 | 3 | |
| % cover_____ | | | | | | | |
| Vegetation matches landscape design plan | N/A | N/I | 0 | 1 | 2 | 3 | |
| Planting needed | N/A | N/I | 0 | 1 | 2 | 3 | |
| Shore erosion | N/A | N/I | 0 | 1 | 2 | 3 | |
| Coverage needs improvement | N/A | N/I | 0 | 1 | 2 | 3 | |
| **18. Pond Buffer** | | | | | | | |
| Encroachment by structures | N/A | N/I | 0 | 1 | 2 | 3 | |
| Clearing of vegetation | N/A | N/I | 0 | 1 | 2 | 3 | |
| Planting needed | N/A | N/I | 0 | 1 | 2 | 3 | |
| Predominant vegetation types: | Forested □ | | Shrubs □ | | Meadow □ | Maintained Grass □ | Other:_____ |
| **19. Special Structures** | | | | | | | |
| Manhole access (steps, ladders) | N/A | N/I | 0 | 1 | 2 | 3 | |
| Vehicular access | N/A | N/I | 0 | 1 | 2 | 3 | |
| Concrete/masonry condition | N/A | N/I | 0 | 1 | 2 | 3 | |
| Trash racks | N/A | N/I | 0 | 1 | 2 | 3 | |
| Elbows | N/A | N/I | 0 | 1 | 2 | 3 | |
| Sediment / trash removal | N/A | N/I | 0 | 1 | 2 | 3 | |
| Manhole lockable nuts | N/A | N/I | 0 | 1 | 2 | 3 | |
| **20. Miscellaneous** | | | | | | | |
| Encroachment in pond area and/or easement area | N/A | N/I | 0 | 1 | 2 | 3 | |
| Fence condition | N/A | N/I | 0 | 1 | 2 | 3 | |
| Safety signs | N/A | N/I | 0 | 1 | 2 | 3 | |
| Complaints from local residents | N/A | N/I | 0 | 1 | 2 | 3 | |
| Graffiti | N/A | N/I | 0 | 1 | 2 | 3 | |
| Public hazards | N/A | N/I | 0 | 1 | 2 | 3 | |
| Excessive mosquitoes | N/A | N/I | 0 | 1 | 2 | 3 | |
| Were any pad locks cut and replaced | | | No | | Yes | | How Many?_____ |

**N/A = Not Applicable**
**N/I = Not Investigated**
**0 = Not a Problem**
**1 = Monitor for Future Repairs**
**2 = Routine Repairs Needed**
**3 = Immediate Repair Needed**

**Overall Condition of Facility**

**Total number of concerns receiving a:** (1)_____ - Need Monitoring
(2)_____ - Routine Repair
(3)_____ - Immediate Repair Needed

**Inspector's Summary**

| Pictures | Clock/Degrees | Prin. Spill. Barrel Joints | Clock/Degrees |
|---|---|---|---|
| 1. | | 1. | |
| 2. | | 2. | |
| 3. | | 3. | |
| 4. | | 4. | |
| 5. | | 5. | |
| 6. | | 6. | |
| 7. | | 7. | |
| 8. | | 8. | |
| 9. | | 9. | |
| 10. | | 10. | |
| 11. | | 11. | |
| 12. | | 12. | |
| 13. | | 13. | |
| 14. | | 14. | |
| 15. | | 15. | |

N/A = Not Applicable
N/I = Not Investigated
0 = Not a Problem
1 = Monitor for Future Repairs
2 = Routine Repairs Needed
3 = Immediate Repair Needed

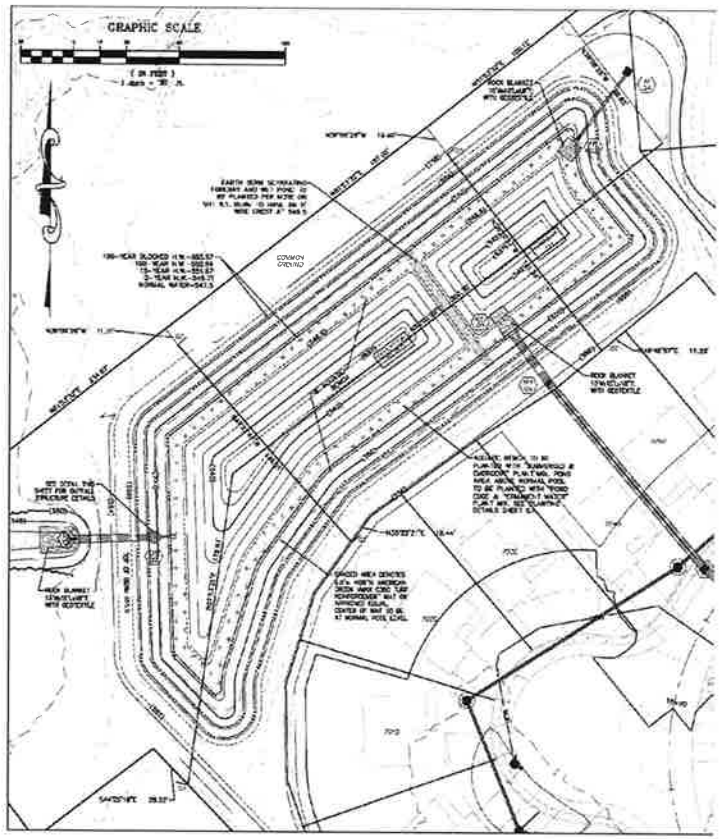
**Sketches, If Necessary:**

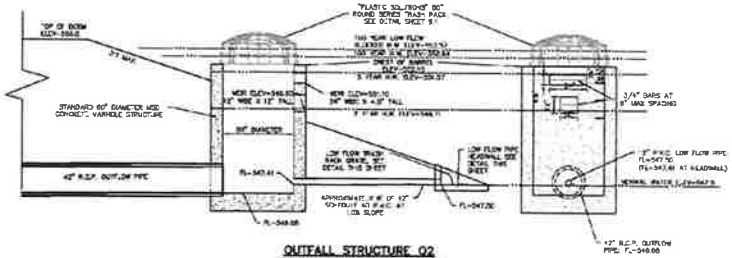
N/A = Not Applicable
N/I = Not Investigated
0 = Not a Problem
1 = Monitor for Future Repairs
2 = Routine Repairs Needed
3 = Immediate Repair Needed

Appendix

# D

# Plan Exhbits and Details

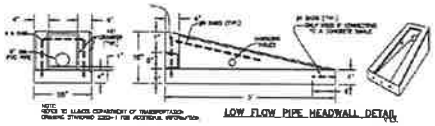


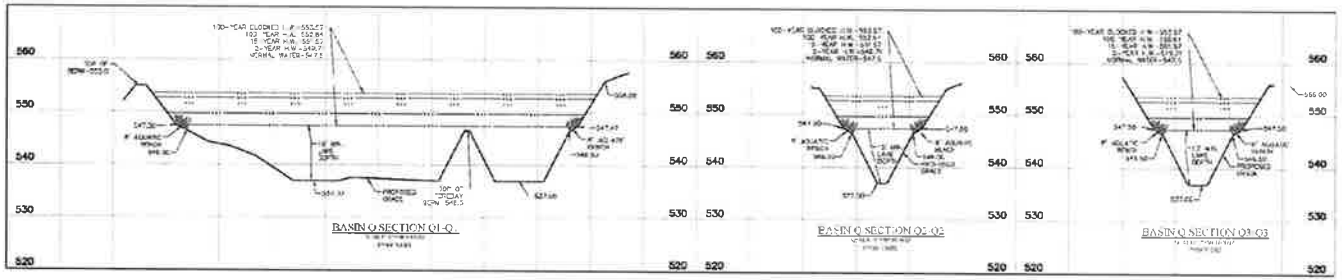
OUTFALL STRUCTURE O2
SIDE AND FRONT SECTION



LOW FLOW TRASH RACK DETAIL



LOW FLOW PIPE HEADWALL DETAIL




BASIN Q SECTION Q1-Q

BASIN Q SECTION Q2-Q2

BASIN Q SECTION Q3-Q3

PROJECT TITLE

HARVEST AT HOPEWELL

O'FALLON PHASE 3

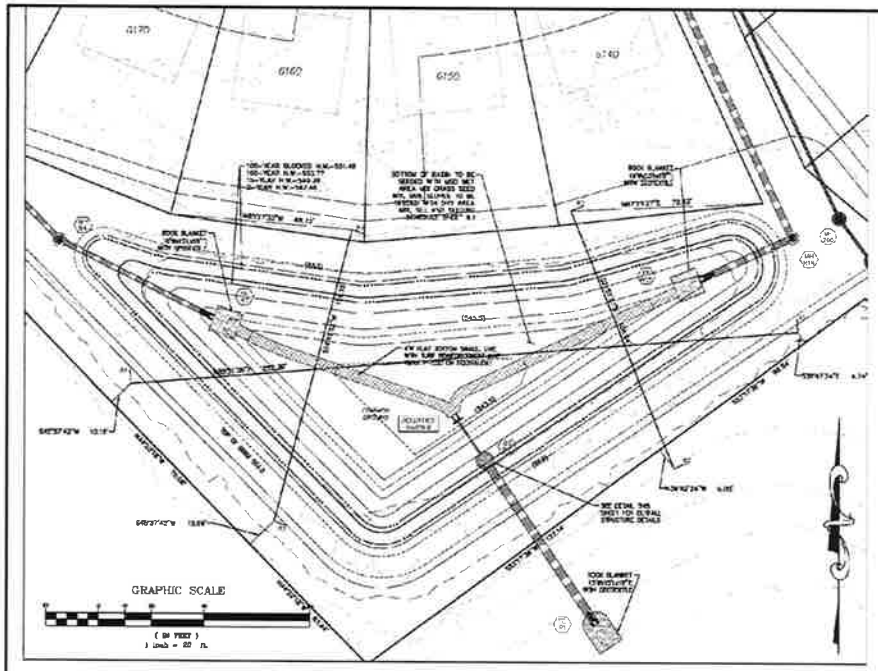
THE STERLING CO.
ENGINEERS & SURVEYORS

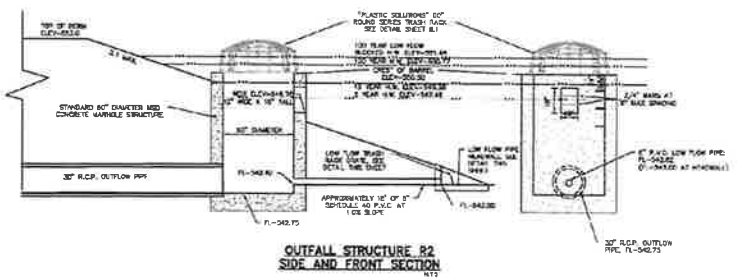
Dylan C. Bowling
License No. PE-2009043
Professional Engineer

HARVEST HOPEWELL, LLC
5001 New Baumgartner Road
St. Louis, Missouri 63129

RETENTION BASIN Q DETAILS

| | |
|---|---|
| P+Z No. | 21-004994 |
| City No. | 21-011444 |
| Date | 10-02-2025 |
| Job No. | 2109-527 |
| Page No. | 9.2 |



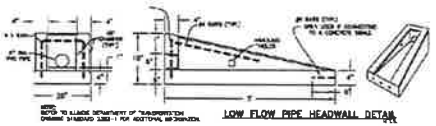

OUTFALL STRUCTURE R2
SIDE AND FRONT SECTION



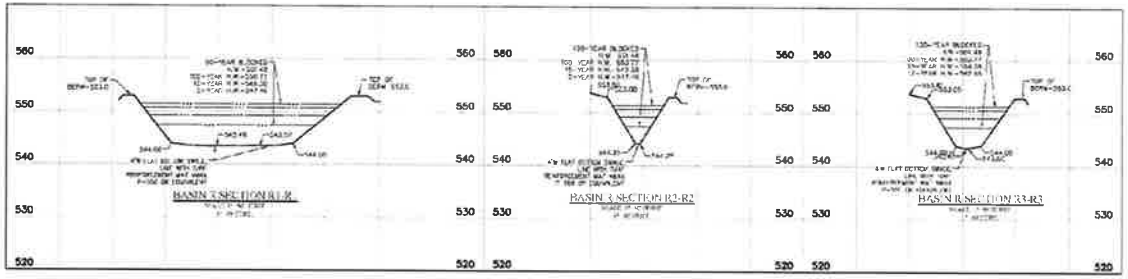
LOW FLOW TRASH RACK DETAIL



4' WIDE FLAT BOTTOM DITCH DETAIL



LOW FLOW PIPE HEADWALL DETAIL




BASIN 3 SECTION R1-R1

BASIN 3 SECTION R2-R2

BASIN 3 SECTION R3-R3

PROJECT TITLE

HARVEST AT HOPEWELL

O'FALLON PHASE 3

THE STERLING CO.
ENGINEERS & SURVEYORS
3456 Investigator Road
St. Louis, Missouri 63129
ph 314.487.0442 fax 314.487.0541
mail@sterlingeng.com
Corporate Certificate of Authority 001345

Drawn by:
Michael D. Beisiegel
License No. NE 2-2004
Professional Engineer

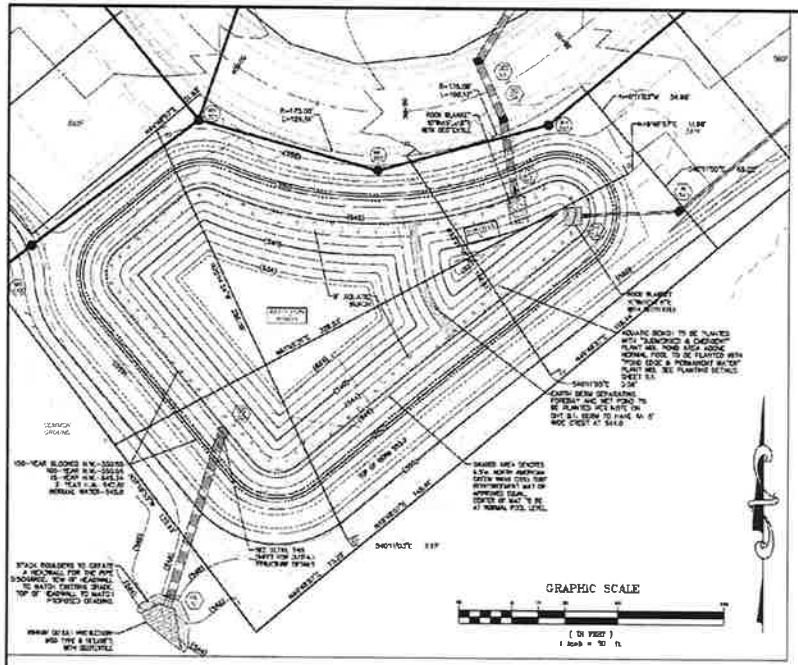
HARVEST HOPEWELL, LLC
5001 New Investigator Road
St. Louis, Missouri 63129

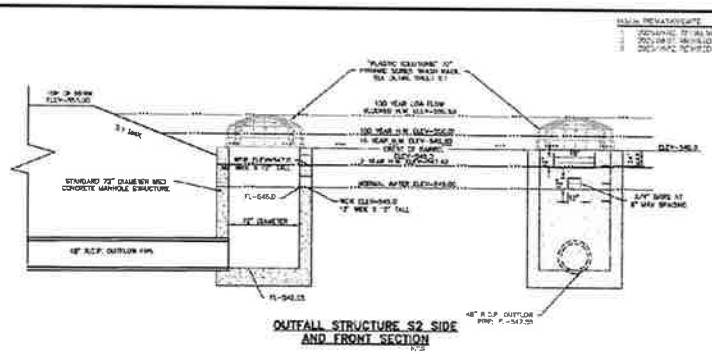
DETENTION BASIN R DETAILS

P+Z No. 21-004984
City No. 21-011444
Date: 12-02-2025
Job No. 22-09-327

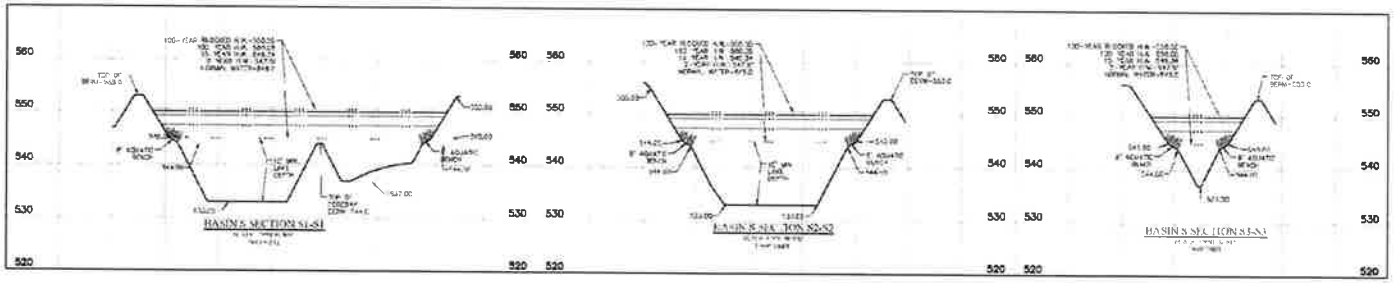
Page No.
9.3

BMP



OUTFALL STRUCTURE S2 SIDE AND FRONT SECTION




PROJECT TITLE

HARVEST AT HOPEWELL

OF ALL ON PHASE 3

THE STERLING CO.
ENGINEERS & SURVEYORS
5285 New Baumgarten Road
St. Louis, Missouri 63129
Ph 314.487.0900 Fax 314.487.0944
www.sterling-eng.com

Date: xx
Michael G. Boeding
License No. 2001 0 24523
Professional Engineer

HARVEST HOPEWELL LLC
6061 New Baumgarten Road
St. Louis, Missouri 63129

RETENTION BASIN S DETAILS

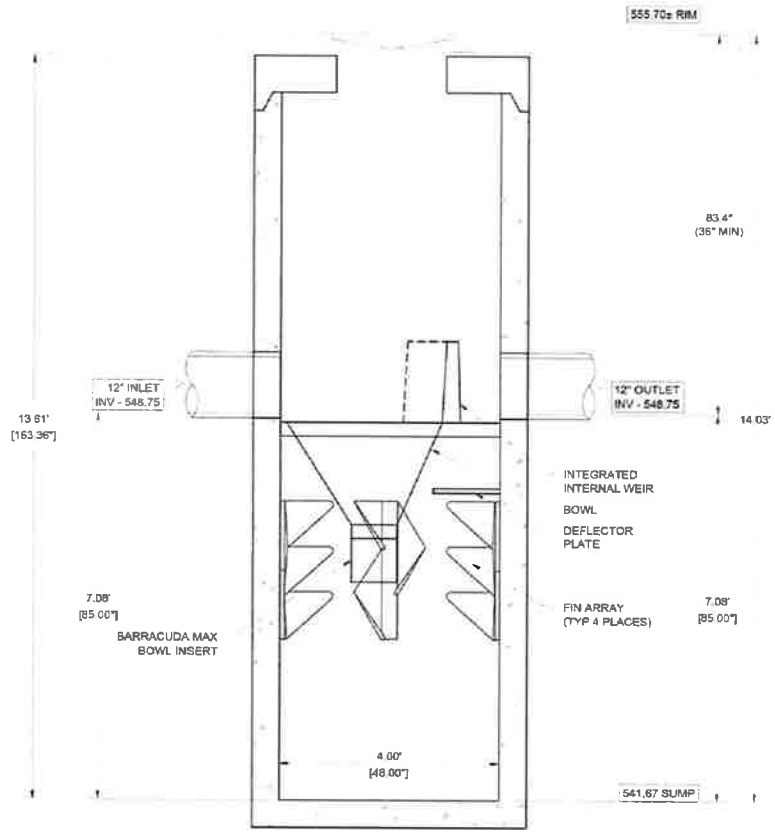
P+Z No. 21-004994
City No. 21-311444
Date: 10-12-2023
Job No. 20-09-927

Page No.
9.4

IMP

BARRACUDA MAX S4

| | |
|---|---|
| UNIT ID | R1 |
| PEAK FLOW RATE (CFS) | |
| TREATMENT FLOW RATE (CFS) | 1.52 |




**SECTION VIEW A-A**

SCALE : ½" = 1'

## PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

  -OR -

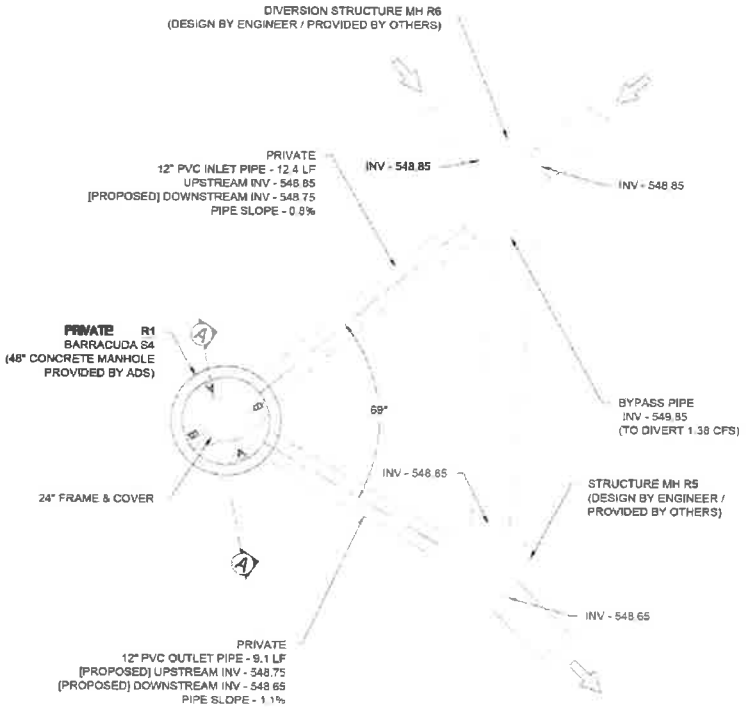
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH $d_{50}$=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

  -OR -

  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER PREVIOUS 2013 NJDEP/NJCAT HDS PROTOCOL.

## NOTE

- ALL CONNECTIONS TO BARRACUDA TO BE A-LOK CONNECTIONS.




**SITE SPECIFIC PLAN VIEW**

SCALE : 1" = 5'

HARVEST AT HOPEWELL
PHASE 3
WENTZVILLE, MO

| | |
|---|---|
| DATE | 05.16.25 |
| PROJECT # | S4705900 |
| DRAWN | PME |
| CHECKED | JPR |

| DATE | DWN | CHK |
|---|---|---|

**Barracuda Max**
Stormwater Separator

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026

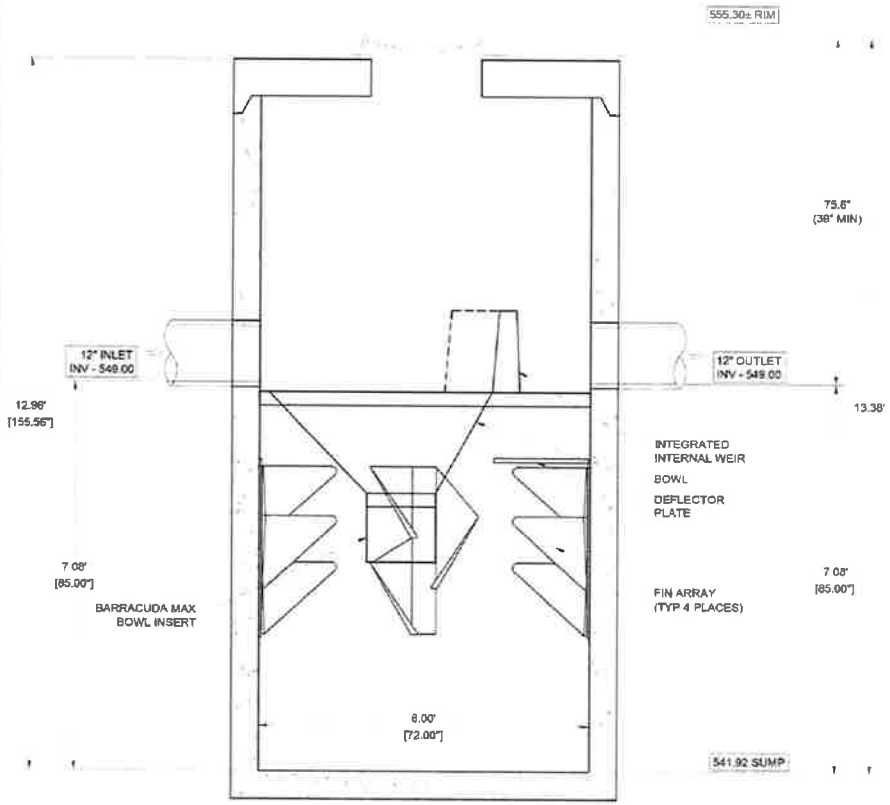
AS NOTED

SHEET 2 OF 3

THIS DRAWING AND DESIGN IS THE PROPERTY OF ADS AND SHALL NOT BE USED FOR ANY PROJECT EXCEPT THAT AUTHORIZED BY ADS. IT SHALL NOT BE REPRODUCED, COPIED OR LOANED IN WHOLE OR IN PART. IT IS TO BE RETURNED UPON DEMAND OR UPON COMPLETION OF THE USE FOR WHICH IT WAS LOANED. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ADS MUST CARRY THIS NOTICE IN FULL. COPYRIGHT 2019 ADS. ALL RIGHTS RESERVED.

**BARRACUDA MAX S6**

| | |
|---|---|
| UNIT ID | R2 |
| PEAK FLOW RATE (CFS) | |
| TREATMENT FLOW RATE (CFS) | 3.42 |




**SECTION VIEW A-A**
SCALE : ½" = 1'

**PRODUCT SPECIFICATIONS**

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

  -OR -

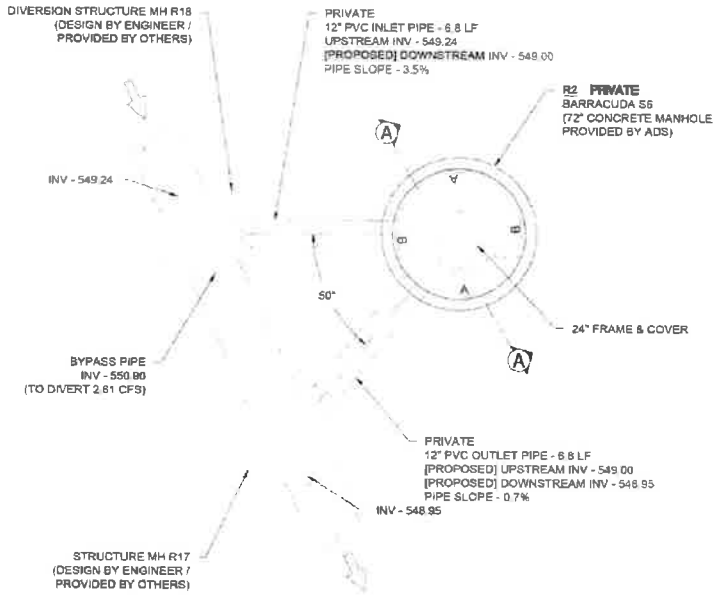
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH $d_{50}$=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

  -OR -

  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER PREVIOUS 2013 NJDEP/NJCAT HDS PROTOCOL.

**NOTE**

- ALL CONNECTIONS TO BARRACUDA TO BE A-LOK CONNECTIONS.




**SITE SPECIFIC PLAN VIEW**
SCALE : 1" = 5'

HARVEST AT HOPEWELL
PHASE 3
WENTZVILLE, MO

| DATE | DRAWN | CHECKED |
|---|---|---|
| 05-16-25 | PME | JPR |

PROJECT # 5470500

| DATE | DWN | CHK |
|---|---|---|

**Barracuda Max**
Stormwater Separator

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026

AS NOTED

SHEET 3 OF 3

THE DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS BY OTHERS AND / OR UNDER THE DIRECTION OF THE PROJECT OWNER'S AGENT. ADS HAS NOT PERFORMED ANY INDEPENDENT VERIFICATION OF SUCH INFORMATION AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SUCH INFORMATION. THE DRAWING IS INTENDED FOR USE IN BIDDING OR CONSTRUCTION ONLY WHEN PREPARED BY ADS AND SHALL NOT BE USED FOR ANY OTHER PURPOSE. THE DRAWING SHALL REMAIN THE PROPERTY OF ADS AND SHALL NOT BE REPRODUCED, PUBLISHED OR USED IN ANY WAY WITHOUT THE PERMISSION OF ADS. ADS ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, NOR FOR ANY FAILURE OF THE CONTRACTOR TO COMPLY WITH LAWS, RULES, REGULATIONS, ORDINANCES, CODES OR ORDERS APPLICABLE TO THE CONTRACTOR OR THE WORK. ADS IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, OR OF ANY OF ITS SUBCONTRACTORS, AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS OR ENTITIES PERFORMING PORTIONS OF THE WORK.

| Latin Name | Common Name | Height (feet) | Spacing (feet) | Seasonal Interest - Color and Months | J | F | M | A | M | J | J | A | S | O | N | D | Sun | Pt Sun | Pt Shade | Shade | Birds | Butterflies | Fall Color | Winter Interest | Salt tolerance | Aggressiveness | Silt tolerance | Ounces per Acre |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DRY AREA MIX** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Grasses/Sedges** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Andropogon ternarius | Splitbeard bluestem | 1-2 | 1.5 | silver | x | x | | | | | | | x | x | x | x | x | | | | x | | x | x | | L | L | 32 |
| Andropogon virginicus | Broomsedge | 1-2 | 1.5 | orange | | | | | | | | x | x | x | x | x | x | | | | x | | x | x | | M | L | 32 |
| Bouteloua curtipendula | Sideoats grama | 1-2 | 1 | tan | | | | | | | | | x | x | x | | x | | | | x | | | x | | L | L | 64 |
| Schizachyrium scoparium | Little bluestem | 2-3 | 1.5 | bronze | x | x | | | | | | x | x | x | x | x | x | | | | x | | x | x | M | L | L | 64 |
| Sporobolus heterolepis | Prairie dropseed | 2-3 | 1.5 | tan | | | | | | | | x | x | x | x | x | x | | | | x | | | x | | L | | 16 |
| **Forbs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asclepias tuberosa | Butterfly milkweed | 1-2 | 1.5 | orange | | | | | | x | x | x | | | | | x | | | | | x | | | V | M | | 32 |
| Aster oblongifolium | Aromatic aster | 1-3 | 1.5 | lavender | | | | | | | | x | x | | | | x | | | | x | x | | | | M | | 12 |
| Coreopsis lanceolata | Lanceleaf coreopsis | 1-2 | 1.5 | yellow | | | x | x | x | | | | | | | | x | x | | | | x | | | | L | | 20 |
| Echinacea pallida | Pale purple coneflower | 2-3 | 1.5 | violet | | | | | | x | x | | | | | | x | x | | | x | | | | | L | | 48 |
| Ratibida pinnata | Yellow/Grey coneflower | 3-5 | 1.5 | yellow | | | | | | x | x | x | | | | | x | x | | | x | x | | | M | H | L | 8 |
| Solidago nemoralis | Old field goldenrod | 4-6 | 1.5 | yellow | | | | | | | x | x | x | | | | x | x | | | x | | | | | L | L | 4 |
| Zizia aurea | Golden alexander | 1-3 | 1.5 | yellow | | | | x | x | | | | | | | | x | x | x | | | x | | | M | M | U | 32 |
| **Annuals (optional)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chamaecrista fasciculata | Partridge pea | 1-3 | 1 | yellow | | | | | | | x | x | x | | | | x | x | | | x | x | | | | | | 32 |
| Coreopsis tinctoria | Plains coreopsis | 2-4 | 1 | yellow | | | | | | x | x | x | x | | | | x | | | | | x | | | | | | 4 |
| Palafoxia callosa | Palafoxia | 2-3 | 2 | pink | | | | | | | | x | x | x | | | x | x | | | | | | | | | | 4 |
| Rudbeckia hirta | Black-eyed Susan | 2-3 | 1.5 | yellow | | | | | | x | x | x | x | | | | x | | | | | x | | | | | | 4 |
| **WET AREA MIX** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Grasses/Sedges** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carex annectans | Yellow fruited sedge | 2-3 | 1.5 | tan | | | | x | x | x | | | | | | | x | x | x | | x | | | x | | L | | 5 |
| Carex gravi | Bur sedge | 1-2 | 1.5 | tan | | | | x | x | x | | | | | | | | x | x | x | x | | | | | L | M | 64 |
| Carex muskingumensis | Palm sedge | 2-3 | 1.5 | tan | | | | x | x | x | x | x | | | | | x | x | x | x | x | | | x | | M | M | 8 |
| Carex shortiana | Short's sedge | 2 | 1.5 | bluish | | | | x | x | x | | | | | | | x | x | x | | x | | | x | | L | | 32 |
| Chasmanthium latifolium | River oats | 2-4 | 1.5 | green | | | | | | x | x | x | x | x | x | | | x | x | x | x | | x | x | | H | | 64 |
| Elymus virginicus | Virginia wild rye | 2-3 | 1.5 | yellow | | | x | x | x | | | | | | | | | | x | | x | x | | | | | | 32 |
| Panicum virgatum | Switchgrass | 3-6 | 2.5 | pink | x | x | | | | | x | x | x | x | x | x | x | x | x | | x | | x | | M | M | M | 16 |
| Scirpus atrovirens | Great green bullrush | 2-3 | 1.5 | green | | | | x | x | x | | | | | | | x | x | | | x | | | x | | L | | 4 |
| **Forbs** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asclepias incarnata | Marsh milkweed | 3-5 | 1.5 | pink | | | | | | | x | x | x | | | | x | x | | | | x | | | | M | | 16 |
| Chelone obliqua | Rose turtlehead | 3-4 | 2 | rose/purple | | | | | | | | | | | | | x | x | x | x | | | | | | M | | 2 |
| Eupatorium coelestinum | Mist flower; wild ageratum | 1-2 | 1.5 | lavender | | | | | | | | | | | | | x | x | | | | x | | | | M | H | 2 |
| Helenium autumnale | Sneezeweed | 3-4 | 2 | yellow | | | | | | | x | x | x | x | | | x | x | x | | x | x | | | M | M | | 4 |
| Iris virginica | Southern blueflag iris | 2-3 | 2 | blue | | | | | | | | | | | | | x | x | | | x | | | x | | M | M | 20 |
| Lobelia siphilitica | Blue lobelia | 2-3 | 1.5 | blue | | | | | | | | | | | | | x | x | x | | | | | | | M | | 2 |
| Ludwigia alternifolia | Seedbox | 2-3 | 1 | yellow | | | | | | x | x | x | | | | | x | x | x | | | | | | | | | 2 |
| Penstemon digitalis | Smooth beard-tongue | 2-3 | 1.5 | white | | | | x | x | | | | | | | | x | x | | | x | | | | | M | M | 2 |
| Physostegia virginiana | Obedient Plant | 2-3 | 1.5 | pink | | | | | | | x | x | x | | | | x | x | x | | x | x | | | | H | | 4 |
| Rudbeckia fulgida | Orange coneflower | 2 | 2 | yellow | | | | | | x | x | x | x | | | | x | x | | | | x | | x | | M | | 8 |
| **Annuals (optional)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bidens aristosa | Bur marigold | 3-6 | 1.5 | yellow | | | | | | | x | x | x | | | | x | | | | | x | | | | H | | 4 |

**Requirements**

Local Ecotype Rule: Plants of Missouri or Southern Illinois ecotype are required.

PLS means pure live seed; or seed that has been tested for purity and viability. This is done by most seed nurseries and should be included in your seed order.

Dry denotes an area above the 1 year ponding or bank flow elevation.

Wet denotes an area that is at or below the 1 year ponding or bank flow elevation.

Must use a minimum of 6 grass/sedge species and 6 forb species for each BMP. It is recommended that this list be provided to landscape contractors/buyers in case substitutions are required.

| Latin Name | Common Name | Submerged & Emergent (water depth in feet) | Pond Edge & Permanent Water | Over sand | Lower slopes & bioretention base | Upper slopes | Height (feet) | Spacing (feet) | Seasonal Interest - Color and Months J F M A M J J A S O N D | Sun | Pt Sun | Pt Shade | Shade | Dry | Medium | Wet | Birds | Butterflies | Fall Color | Winter Interest | Flood frequency tolerance | Flood height tolerance | Flood duration tolerance (days) | Salt tolerance | Aggressiveness | Silt tolerance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Grasses/Sedges** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carex annectens | Yellow fruited sedge | | x | | x | | 2-3 | 1.5 | tan | x | x | x | | | x | x | | | x | H | 12 | 3 | | L | | |
| Carex crayi | Bur sedge | | x | | x | | 1-2 | 1.5 | tan | | x | x | x | | x | x | | | | M | 12 | 2 | | L | | M |
| Carex crinita | Fringed sedge | | x | | x | | 2-3 | 1.5 | brown | x | x | x | | | x | x | | | | H | 12 | 3 | U | L | | |
| Carex muskingumensis | Palm sedge | | x | x | x | | 2-3 | 1.5 | tan | x | x | x | x | | x | x | | | | H | 12 | 3 | U | L | | |
| Carex vulpinoidea | Fox sedge | | x | | x | | 2-3 | 1.5 | tan | x | x | x | | | x | x | | | x | H | 24 | 3 | | M | | M |
| Juncus effusus | Soft rush | 0-1 | x | | | | 2-3 | 1.5 | green | x | x | | | | x | x | | | x | H | 24 | 3 | L | L | | |
| Scirpus atrovirens | Great green bulrush | | x | x | x | | 2-3 | 1.5 | green | x | x | | | | x | x | | | x | H | 24 | 3 | L | M | | M |
| Scirpus cyperinus* | Wool grass | | x | | | | 3-4 | 1.5 | orange | x | x | | | | x | x | | | x | M | 12 | 3 | | L | | |
| **Forbs** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asclepias incarnata | Marsh milkweed | | x | x | x | | 2-4 | 2 | pink | x | x | | | | x | x | | x | | M | 18 | 3 | M | M | | |
| Chelone obliqua | Rose turtlehead | | x | | x | | 3-4 | 2 | rose/purple | x | x | x | x | | x | x | | | | M | 12 | 1 | | M | | |
| Equisetum hyemale | Horsetail | | x | x | x | | 2-4 | 2.5 | green | x | x | x | | | x | x | | x | x | H | 36 | 5 | | H | | H |
| Helenium autumnale | Sneezeweed | | x | | x | | 3-4 | 2 | yellow | x | x | x | | | x | x | x | | | M | 18 | 3 | M | M | | |
| Hibiscus lasiocarpos | Rose mallow | | x | x | x | | 3-7 | 2.5 | white/pink | x | x | x | | | x | x | | x | | H | 36 | 5 | | M | | M |
| Iris fulva | Copper iris | | x | x | x | | 2-3 | 1.5 | copper | x | x | | | | x | x | | | | M | 12 | 1 | | M | | |
| Iris virginica | Southern blueflag iris | | x | | x | | 2-3 | 2 | blue | x | x | | | | | x | | | x | H | 36 | 4 | | M | | M |
| Lobelia cardinalis | Cardinal flower | | x | x | x | | 2-3 | 1.5 | red | x | x | x | x | | x | x | x | | | H | 18 | 5 | L | M | | U |
| Mimulus ringens* | Allegheny monkey flower | | x | x | x | | 1-2 | 1.5 | lavender | x | x | | | | x | x | | | | M | 24 | 1 | | M | | |
| Nymphaea odorata | Fragrant water lily | 1-5 | | | | | 1 | 10 | white | x | | | | | | x | | | | H | 36 | | | H | | |
| Pontederia cordata | Pickerel weed | 0-1 | x | | | | 1-2 | 2.5 | blue | x | x | x | | | | x | | | | M | 12 | 4 | L | L | | U |
| Sagittaria latifolia | Arrowleaf | 0-1 | x | | | | 1-4 | 2.5 | white | x | | | | | | x | x | | | M | 18 | 3 | M | M | | L |
| Saururus cernuus | Lizard tail | 0-1 | x | | | | 1-2 | 2.5 | white | x | x | x | x | | | x | | | | H | 24 | | | H | | |
| Thalia dealbata | Wild canna | 0-2 | x | | | | 4-7 | 5 | purple | x | | | | | | x | | | | H | 24 | | | M | | H |
| **Trees/Shrubs** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aesculus pavia | Red buckeye | | x | | x | | 10-20 | 15 | red | x | x | x | | | x | x | x | | | H | 18 | 2 | | L | | M |
| Cephalanthus occidentalis | Buttonbush | x | x | | x | | 5-10 | 7.5 | white | x | x | x | | | x | x | | x | | H | 36 | 7 | | M | | H |
| Quercus macrocarpa | Bur oak | | x | | x | x | 40-60 | 35 | green | x | x | x | | | x | x | | | x | H | 36 | 5 | H | L | | H |
| Taxodium distichum | Bald cypress | x | x | x | x | | 40-60 | 20 | orange | x | x | x | | | x | x | | x | x | H | 36 | 7 | | L | | H |

**Requirements**

Local Ecotype Rule: Plants of Missouri or Southern Illinois ecotype are required.

Must use a minimum of 5 grass/sedge species and 8 forb species for each BMP. It is recommended that this list be provided to landscape contractors/buyers in case substitutions are required.

Each species must consist of between 5% - 15% of the total plant count for each BMP.

Refer to Planting, Water, and Mulch Requirements for Stormwater BMP's for plant sizes and irrigation requirements

Biodegradable erosion blanket must be used on slopes greater than 10%.

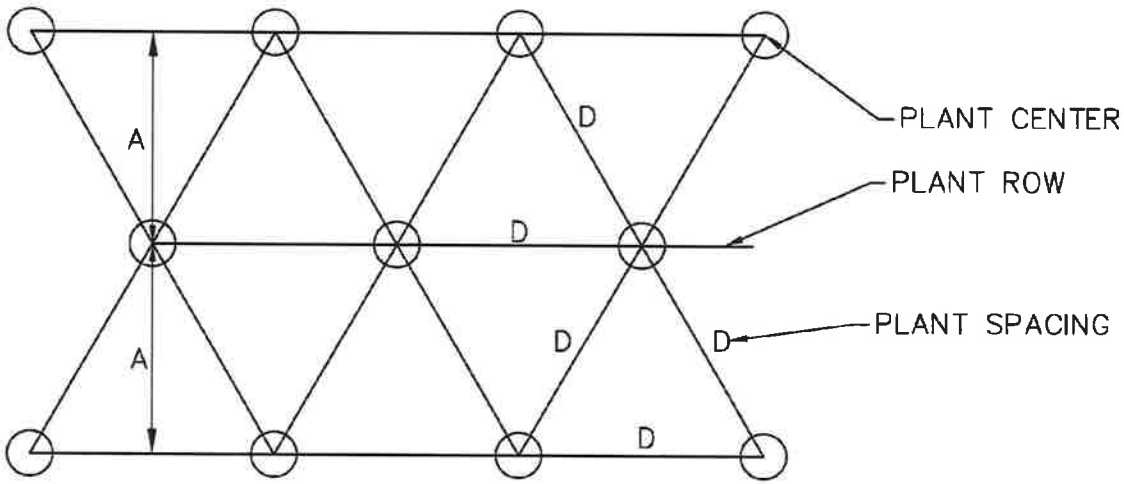
Erosion blankets must be coarse to allow varying leaf sizes (examples include Geojute, Curlex #1 and NorthAmerican Green S75 single net straw blanket, or equivalent)

*Experimental for practice and/or limited availability in commercial trade

## FOREBAY BERM PLANTINGS

AQUATIC PLANT SPECIES CAN INCLUDE BUT NOT LIMITED TO SOFT RUSH, HORSETAIL RUSH, WATER HYACINTH, WILD CANNA, ARROWLEAF,WATER LILY, PICKEREL WEED, BLUE FLAG IRIS, FANWORT OR A MIXTURE OF ANY OF THESE; SPECIMENS SHOULD BE PLANTED ON A 12" MAXIMUM SPACING GRID, 2 QUART MIN. PLANT CONTAINER SIZE

## PLANT SPACING DIAGRAM




## PLANT SPACING TABLE

| SPACING "D" | ROW "A" | NUMBER OF PLANTS/SQ.FT. |
|---|---|---|
| 30" | 26" | 0.160 |
| 24" | 20.8" | 0.25 |
| 18" | 15.6" | 0.450 |
| 15" | 13.0" | 0.640 |
| 12" | 10.4" | 1.00 |
| 10" | 8.66" | 1.44 |
| 8" | 6.93" | 2.25 |

# City of O'Fallon, Missouri

# Memorandum

Date: April 17, 2026

To: Planning and Zoning Commission

From: Steve Bender, Director of Public Works

CC:

Re: **Easements required for City sewer projects**

---

Please see the attached ordinance and plans that will be sent to the City Council for approval. There are 2 sewer projects that the City intends to construct and each will require the acquisition of easements. These projects are relief sewers to add capacity to the sanitary sewer system in areas that have had problems.

As required by City ordinance 405.065, these are to be submitted to the Planning and Zoning Commission and placed on the Consent Calendar prior to going to the City Council.

City Staff has reviewed this and recommends approval.

**BILL NO. _____** **ORDINANCE NO. _____**

---

**Sponsored by: Mayor or Council Members Names**

---

**AN ORDINANCE APPROVING THE PLANS FOR BARRINGTON AND COUNTRY LIFE RELIEF SEWERS; DECLARING THE PROJECT TO BE NECESSARY AND APPROPRIATE; AUTHORIZING ACQUISITION OF PROPERTY IN ASSOCIATION THEREWITH; AND AUTHORIZING CERTAIN OTHER ACTIONS.**

**WHEREAS,** the project is necessary to establish easements to allow for the construction of a relief sewer system in the Barrington, Country Life, and Schrader Farm Estates Subdivisions to add additional capacity during high flow events which can prevent and/or reduce sewer overflows into homes; and

**WHEREAS,** the City Council previously authorized design and engineering work for the improvements referenced herein to better serve O'Fallon residents in the future; and

**WHEREAS,** the City Council appropriated funds for this project in the current budget for the work contemplated herein;

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF O'FALLON, MISSOURI, AS FOLLOWS:**

**SECTION 1:** The City Council finds and declares that the public works project encompassed by the plans attached hereto as Exhibit A and incorporated herein by reference (the "Project") is necessary and in the public interest, and in furtherance of protecting and enhancing the public health, safety and welfare, and that the construction thereof is a proper exercise of governmental authority.

**SECTION 2:** The City Council hereby approves the Project and the plans referenced above for construction by the City of O'Fallon.

**SECTION 3:** The City Council also hereby authorizes the acquisition of all land, easements, and other interests necessary for the Project by purchase, donation, or through the use of eminent domain. The City Administrator, or his/her designee, is hereby authorized to execute all deeds, easements, conveyances and other documents necessary, desirable, convenient or prudent to acquire the property and interests described herein; and the City Attorney is authorized to file such actions and pursue such legal recourse as may be necessary, prudent or useful to acquire any and all property reasonably necessary to construct the Project in accordance with state law.

**SECTION 4:** The City Administrator and City staff are hereby authorized to perform all acts necessary, desirable, convenient or prudent to complete the project in substantial conformance with the approved plans.

**SECTION 5:** This Ordinance shall be in full force and effect from and after its passage and approval by the Mayor.

First Reading: _____

**BILL NO. _____** **ORDINANCE NO. _____**

Second Reading: _____

**PASSED BY THE CITY COUNCIL FOR THE CITY OF O'FALLON, MISSOURI, THIS DATE DAY OF MONTH, YEAR.**

_____
Presiding Officer

Attest:

_____
Bess Bacher, City Clerk

**APPROVED BY THE MAYOR FOR THE CITY OF O'FALLON, MISSOURI, THIS DATE DAY OF MONTH, YEAR.**

_____
Bill Hennessy, Mayor

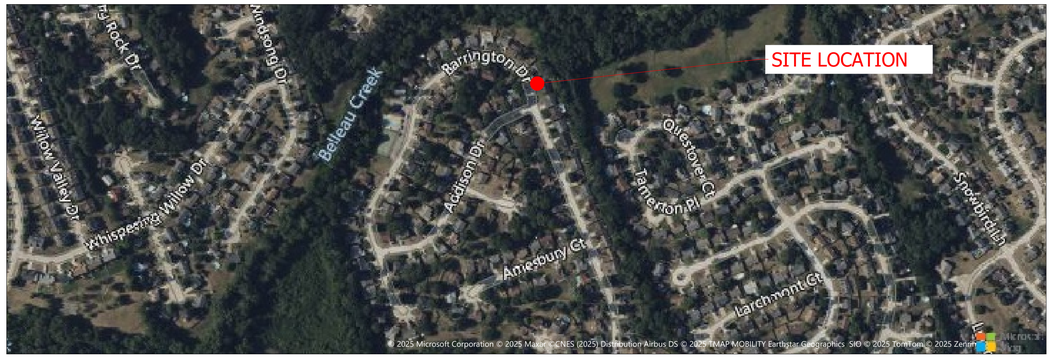
Attest:

_____
Bess Bacher, City Clerk

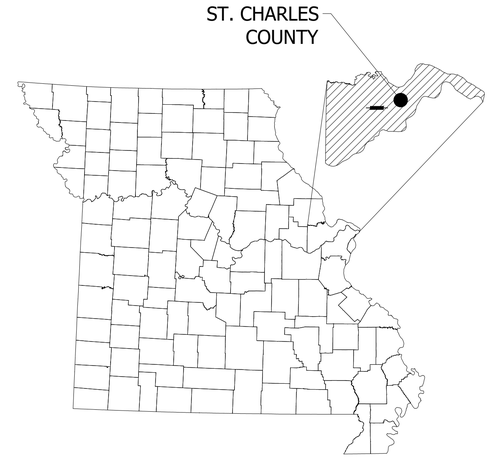
Approved as to Form:

_____
Kevin M. O'Keefe, City Attorney

# CITY OF O'FALLON
# BARRINGTON RELIEF SEWER
# BID NO. 24-101
# AUGUST 2025
# 90% DESIGN




NOT TO SCALE




PROJECT LOCATION SHOWN BY

SHEET INDEX

| SHEET NO. | SHEET TITLE |
|---|---|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES & LEGEND |
| 3 | BARRINGTON PLAN & PROFILE |

| UTILITY OWNERS | UTILITY | CONTACT PERSON |
|---|---|---|
| CITY OF O'FALLON | WASTE WATER, STORM WATER, DRINKING WATER | STEVE BENDER 636-379-5560 |
| AMEREN | ELECTRIC | SHAUN TALLEY 866-992-6619 |
| SPIRE ENERGY | GAS | NICK EGGERT 314-330-5720 |
| i3 | FIBER | DEVIN JOHNSON 314-725-3264 |

APPROVED: Allison Mannion  Date: 04/06/26

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |

SURVEYOR
BAX ENGINEERING PLANNING SURVEYING
221 POINT WEST BOULEVARD
ST. CHARLES, MO 63301
(636) 928-5552

LOCHMUELLER GROUP
820 S Main Street, Suite 207
St. Charles, Missouri 63301
PHONE: 314.621.3395
Contact: Allison Mannion, P.E.

**PROJECT NO. 522-1006-00W**

811 Know what's below. Call before you dig.

## CONTROL DATUM NOTES

1. THE HORIZONTAL COORDINATES WERE ESTABLISHED AND VERIFIED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSCS DATA COLLECTOR AND BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS, WHICH UTILIZES THE NAD83(2011) EPOCH 2010.00 GPS NETWORK.
2. FIELD CONTROL POINT 1 HAS A LATITUDE OF 38°47'42.16104"N AND LONGITUDE OF 90°41'04.50861"W.
3. PROJECT COORDINATES ARE MODIFIED "MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE" COORDINATES AND WERE GENERATED BY SCALING THE COORDINATES BY THE INVERSE OF SAID GRID FACTOR (1.0000816444) ABOUT FIELD CONTROL POINT 1. THE COORDINATES WERE THEN CONVERTED TO FEET BY MULTIPLYING THE METRIC VALUES BY 3.280833333 (39.37 INCHES PER METER/12 INCHES PER FOOT).
4. THE GEOID UTILIZED TO OBTAIN PROJECT COORDINATES IS G18.
5. TO THE BEST OF OUR KNOWLEDGE, THE MODIFIED MISSOURI STATE PLANE, EAST ZONE, COORDINATES MEET THE ACCURACY STANDARDS OF THE CURRENT MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS (20 CSR 2030-16.040) AS AN URBAN CLASS SURVEY.
6. PROJECT ELEVATIONS UTILIZE THE NAVD 88 VERTICAL DATUM AND WERE GENERATED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSCS DATA COLLECTOR AND ARE BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS.
7. REFERENCE BENCHMARK: THE ELEVATIONS SHOWN ON THIS DRAWING ARE REFERENCED FROM "THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS", COMMONLY KNOWN AS "MODOT VRS". MODOT VRS UTILIZES A NETWORK OF REFERENCE SENSOR STATIONS FOUND THROUGHOUT THE STATE OF MISSOURI AND IS ADMINISTERED BY THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION (MHTC). MODOT VRS MOUNT POINTS PROVIDE CORRECTIONS CONSISTENT WITH NGS'S NAD83(2011) EPOCH 2010.00 ADJUSTMENT. MODOT VRS UTILIZES THE NAVD 88 AS A VERTICAL DATUM.
8. SITE BENCHMARK #1 (NAVD 88)-PK NAIL SET IN ASPHALT PATH WEST OF BARRINGTON DRIVE AND IS LOCATED AS SHOWN HEREON (ELEVATION=483.89)
9. SITE BENCHMARK #2 (NAVD 88)-SET IRON ROD 17' WEST AND 24.5' NORTH OF THE INTERSECTION OF BARRINGTON DRIVE AND PEMBERTON DRIVE AND IS LOCATED AS SHOWN HEREON (ELEVATION=483.58)

## UNMANNED AIRCRAFT SYSTEM (DRONE) NOTES:

1. THIS DRAWING CONTAINS TOPOGRAPHIC FEATURES AND PLANIMETRIC FEATURES THAT WERE GENERATED USING AN UNMANNED AIRCRAFT SYSTEM (UAS), COMMONLY KNOWN AS "DRONE" TECHNOLOGY. THE DATA COLLECTED FROM THE UAS WAS COMPILED INTO A GEOREFERENCED ORTHOMOSAIC OF AERIAL PHOTOGRAPHS USING PIX4D PHOTOGRAMMETRY SOFTWARE. A DATA POINT CLOUD WAS GENERATED USING SAID PIX4D PHOTOGRAMMETRY SOFTWARE. A LIDAR POINT CLOUD WAS ALSO GENERATED USING SAID PIX4D SOFTWARE. SAID GEOREFERENCED ORTHOMOSAIC, DATA POINT CLOUD, AND LIDAR POINT CLOUD WERE THEN USED TO GENERATE THE TOPOGRAPHIC AND PLANIMETRIC FEATURES SHOWN HEREON.
2. THE TYPE OF UNMANNED AIRCRAFT SYSTEM (UAS) THAT WAS UTILIZED FOR DATA COLLECTION WAS A DJI M350 WITH ZENMUSE LIDAR MODULE.
3. THE TOPOGRAPHY AND PLANIMETRIC FEATURES GENERATED BY SAID UNMANNED AIRCRAFT SYSTEM (UAS) AND PIX4D SOFTWARE ARE SUBJECT TO THAT ERROR WHICH CONVENTIONAL SURVEY DATA COLLECTION METHODS WOULD DISCLOSE.
4. THE VERTICAL ACCURACY OF THE CONTOURS GENERATED WERE COMPARED TO AT LEAST 10 VERIFICATION CONTROL POINTS (VCP) TO ENSURE THE CONTOURS GENERATED MEET NATIONAL MAPPING ACCURACY STANDARDS (NMAS). TO ENSURE RESULTS MEET NMAS VERTICAL ACCURACY STANDARDS, 90% OF TESTED POINTS CHECKED WITHIN ONE HALF THE DESIGNATED CONTOUR INTERVAL AND 100% CHECKED WITHIN THE DESIGNATED CONTOUR INTERVAL.

## SURVEY GENERAL NOTES:

1. BASIS OF BEARINGS IS THE "MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE" (GRID NORTH).
2. ALL TIES SHOWN HEREON ARE PERPENDICULAR TO THE PROPERTY LINES TO WHICH THEY ARE TIED UNLESS NOTED OTHERWISE.
3. THIS PLAT DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY PURSUANT TO MISSOURI STANDARDS.
4. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING MEETS THE ACCURACY STANDARDS SET FORTH IN THE CURRENT MISSOURI STANDARDS (20 CSR 2030-16.040) AS AN URBAN CLASS SURVEY.
5. THE LOCATION OF ALL RIGHT OF WAY LINES, LOT LINES AND PROPERTY LINES SHOWN HEREON WERE DETERMINED USING RECORD DOCUMENTS AND A BEST FIT SOLUTION OVER FOUND MONUMENTATION.
6. TITLE COMMITMENTS, EASEMENT SEARCHES OR LETTER REPORTS FOR SUBJECT PROPERTY WAS NOT PROVIDED FOR OUR USE. PROPERTY MAY BE SUBJECT TO EASEMENTS, RIGHT OF WAY DEDICATIONS AND OTHER MATTERS OF RECORD.
7. THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON, ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

## SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT WE, BAX ENGINEERING COMPANY, HAVE DURING OCTOBER AND NOVEMBER, 2024, BY ORDER OF LOCHMUELLER GROUP, PREPARED A STRIP MAP OF "A TRACT OF LAND LOCATED IN THE NORTH HALF OF FRACTIONAL SECTION 28, TOWNSHIP 47 NORTH, RANGE 3 EAST, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI" AND THE RESULTS ARE SHOWN HEREON. THIS PLAT DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY PURSUANT TO MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS. THE PURPOSE OF THIS STRIP MAP IS TO PROVIDE A BASIS FROM WHICH LOCHMUELLER GROUP CAN PREPARE CONSTRUCTION PLANS FOR THE CITY OF O'FALLON PROJECT 24-101. WE ALSO CONDUCTED A TOPOGRAPHIC DRAWING OF SAID TRACT OF LAND AND THE RESULTS ARE SHOWN HEREON.

BAX ENGINEERING COMPANY, INC.
ANDY D. BECK
MISSOURI PROFESSIONAL LAND SURVEYOR #2015017835

## UTILITY NOTES:

1. THE UNDERGROUND UTILITIES SHOWN HEREON ARE TAKEN FROM UTILITY LOCATIONS AS CONTRACTED THROUGH DIGRITE AND MARKED IN THE FIELD BY VARIOUS UNDERGROUND UTILITY LOCATORS, INCLUDING USIC.
2. DIGRITE TICKET NUMBERS: #242920176, AND #242920177, (10/18/2024).
3. AMEREN MISSOURI ELECTRIC: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
4. I3 BROADBAND: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
5. BRIGHTSPEED: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
6. SPIRE MO EAST: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
7. CITY OF O'FALLON WATER & SEWER: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
8. CHARTER COMMUNICATIONS: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
9. ALL UTILITY MARKS FOUND IN THE FIELD WERE LOCATED BY THE SURVEYOR AND ARE SHOWN HEREON. THE SURVEYOR CLAIMS NO RESPONSIBILITY AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY MARKS.
10. UTILITIES ARE ALSO SHOWN HEREON FROM MAPS OBTAINED FROM CITY OF O'FALLON, I3 BROADBAND AND BRIGHTSPEED AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.
11. SITE IS SUBJECT TO PRIVATE UTILITY INSTALLATIONS. PRIVATE UTILITY INSTALLATIONS DO NOT APPEAR ON UTILITY BASE MAPS, NOR DO UTILITY LOCATORS MARK PRIVATE UTILITIES.

## O'FALLON GENERAL NOTES

1. Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
2. Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
   2.1. Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre-cast truncated domes per pavement details.
3. Any proposed pavilions or playground areas will need a separate permit from the Building Division.
4. The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483
5. All proposed utilities and/or utility relocations shall be located underground.
6. All proposed fencing requires a separate permit through the Building Safety Division.
7. All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
8. (INTENTIONALLY OMITTED)
9. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
10. Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth. etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
11. Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
12. The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
13. All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to confirm to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City inspectors.
14. City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.

## O'FALLON SANITARY SEWER NOTES

1. All sanitary sewer installation is to be in accordance with M.S.D. standards and specifications except as modified by the City of O'Fallon Ordinances.
2. Brick shall not be used in the construction of sanitary sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
3. Connections at all sanitary structures are to be made with A-Lock joint or equal
4. All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
5. All sanitary mains shall be a minimum of 8" diameter pipe.
6. All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar at each pipe joint. Sanitary line with a slope greater than 50% will require a special approved design as shown on detail sheet.
7. All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
8. All sanitary sewer mains must have a minimum of 42" cover.
9. When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
10. Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
11. The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
12. All sanitary sewer structures shall be waterproofed on the exterior in accordance to Missouri DNR specifications 10CSR-8.120 (7)(E).
13. All sanitary sewer pipe shall be SDR35 or equal. All sanitary sewer laterals shall be Schedule 40.
14. All sanitary sewer manholes and pipes will be tested to the following specifications. ASTM C1244, Standard testing method for Concrete Sewer Manhole by Negative Air Pressure (Vacuum), Latest revision ASTM F1417, Standard testing method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air, Latest revision.
15. Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

## O'FALLON EROSION CONTROL NOTES

1. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers and/or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT."
2. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-quarter inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
3. Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.
4. This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines. (Ord. 5082, section 405.245)
5. Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage per square foot) Ord. 6496, Section 405.095

## LEGEND

| | | | |
|---|---|---|---|
| S | SANITARY SEWER MANHOLE | | TREE |
| EB | ELECTRIC BOX | BM | BENCHMARK |
| TP | TELEPHONE CABLE PEDESTAL | | FOUND MONUMENT |
| EMTR | ELECTRIC METER | | SET MONUMENT |
| GMTR | GAS METER | L.A. | LANDSCAPED AREA |
| WMTR | WATER METER | | CONCRETE |
| | MAILBOX | | ASPHALT |
| | SIGN | | GRAVEL |
| | LIGHT STANDARD | FOC | FIBER OPTIC VAULT |
| FO | BURIED FIBER OPTIC | OHW | OVERHEAD UTILITIES |
| T | BURIED TELEPHONE | GAS | BURIED GAS |
| SAN | SANITARY SEWER | W | BURIED WATER |
| X | FENCE LINE | | |

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |

LOCHMUELLER GROUP
820 S Main Street, Suite 207
St. Charles, Missouri 63301
PHONE: 314.621.3395

STATE OF MISSOURI
ALLISON MANNION
NUMBER PE-2019029543
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Allison Mannion 04/06/26
Allison Mannion DATE

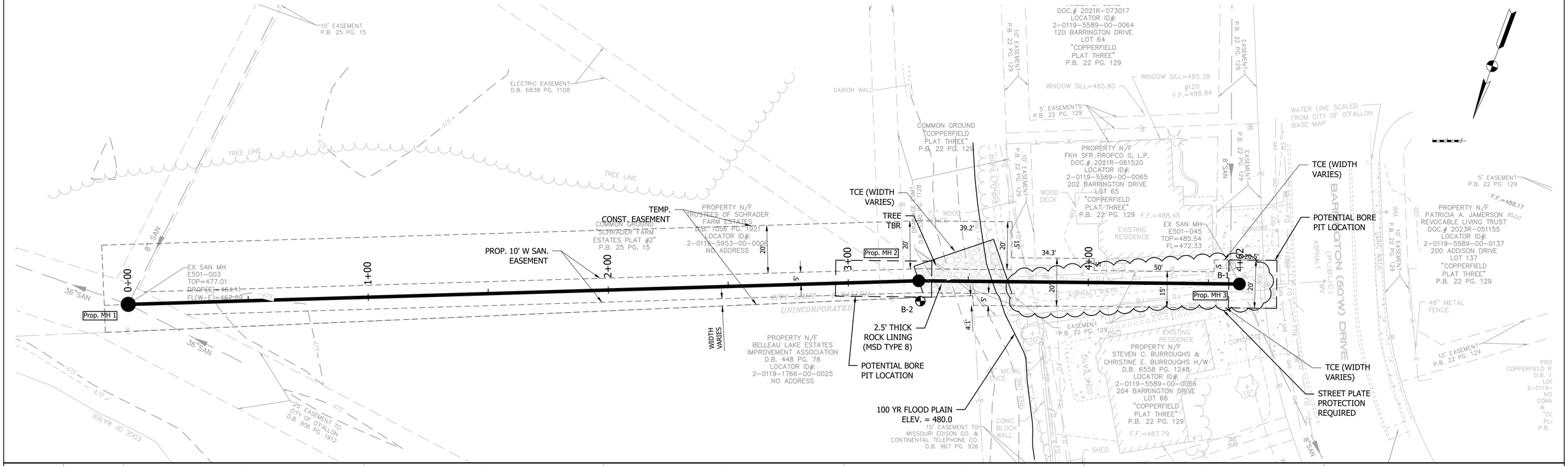
DESIGNED: PMH DRAWN: PMH
CHECKED: ALM CHECKED: 08/01/25

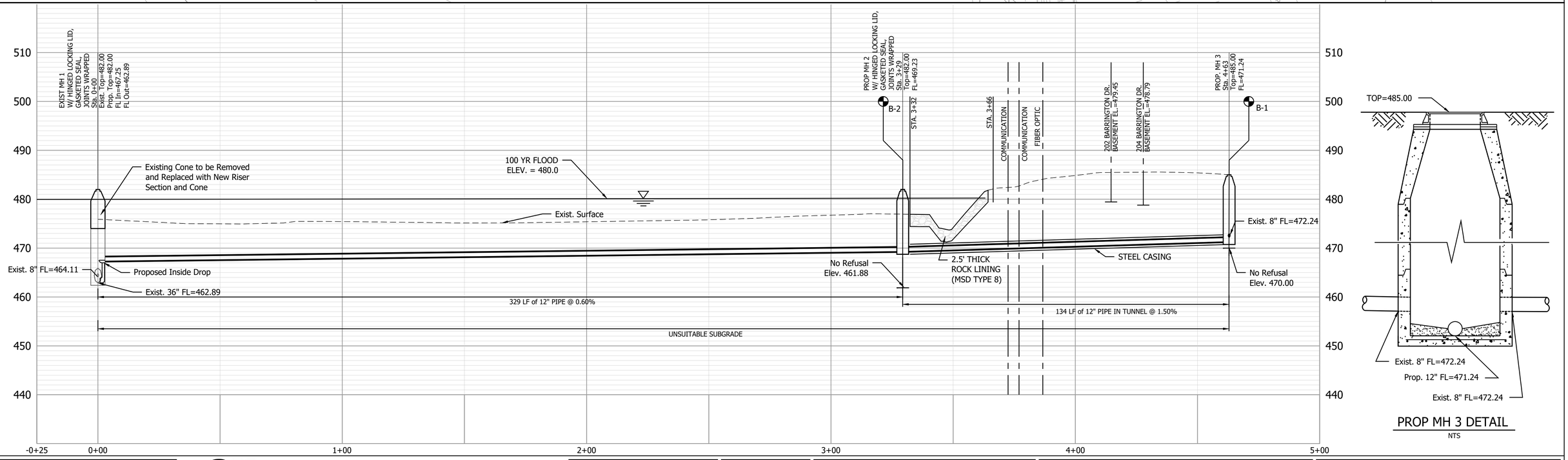
O'FALLON RELIEF SEWER
90% PLANS

GENERAL NOTES

| SCALE |
|---|
| N.A. |
| CONSULTANT PROJECT NUMBER |
| 524-0045 |
| SHEET |
| 2 of 3 |

Date: Apr 06, 2026, 4:04pm User Name: Paul.Henderson
File: \\loch.loc\root\Production\Files\2024\524-0045\CAD\PlanSet\Title Sheet Barrington.dwg







PROP MH 3 DETAIL

NTS

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |

811 Know what's below. Call before you dig.

LOCHMUELLER GROUP
399 South Spring Ave., Suite 208b
St. Louis, Missouri 63110
PHONE: 314.621.3395

RECOMMENDED FOR APPROVAL
Allison Mannion 04/06/26
DATE

| | | | |
|---|---|---|---|
| DESIGNED: | PMH | DRAWN: | PMH |
| CHECKED: | ALM | CHECKED: | 08/01/25 |

# O'FALLON RELIEF SEWER

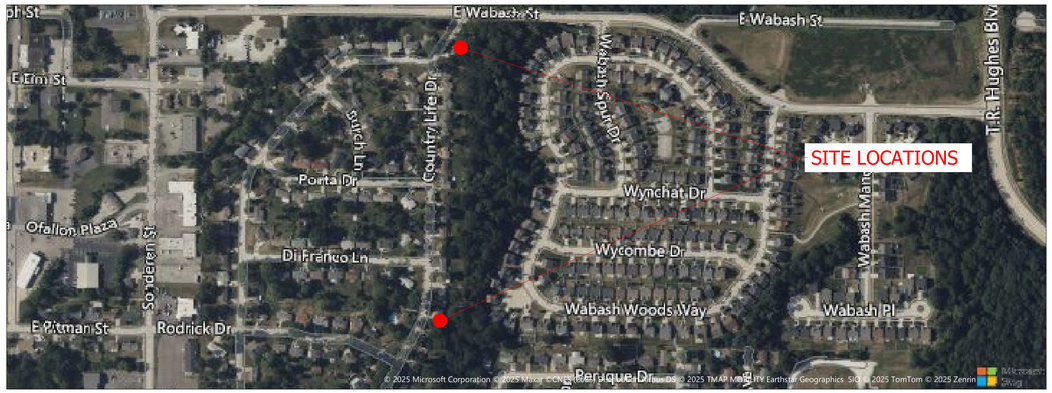
90% PLANS

# BARRINGTON RELIEF SEWER

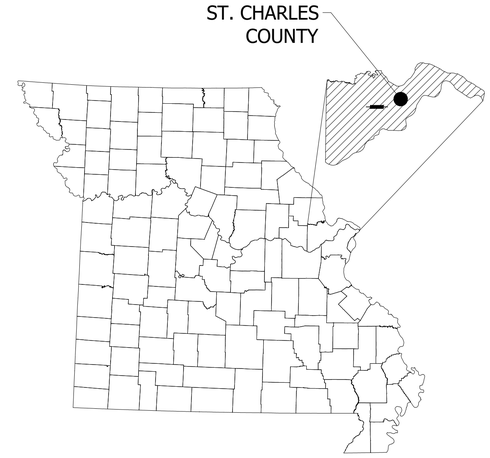
| |
|---|
| SCALE |
| 1" = 20' |
| CONSULTANT PROJECT NUMBER |
| 524-0045 |
| SHEET |
| 3 OF 3 |

Date: Apr 06, 2026, 4:04pm User Name: Paul.Henderson
File: X:\Production\Files\2024\524-0045\CAD\PlanSet\Barrington & Country Life 2 Plan & Profile.dwg

# CITY OF O'FALLON
# COUNTRY LIFE RELIEF SEWER
# BID NO. 24-101
# AUGUST 2025
# 90% DESIGN




NOT TO SCALE




PROJECT LOCATION SHOWN BY

| UTILITY OWNERS | UTILITY | CONTACT PERSON |
|---|---|---|
| CITY OF O'FALLON | WASTE WATER, STORM WATER, DRINKING WATER | STEVE BENDER 636-379-5560 |
| AMEREN | ELECTRIC | SHAUN TALLEY 866-992-6619 |
| SPIRE ENERGY | GAS | NICK EGGERT 314-330-5720 |
| i3 | Fiber | DEVIN JOHNSON 314-725-3264 |

SHEET INDEX


| SHEET NO. | SHEET TITLE |
|---|---|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES & LEGEND |
| 3 | COUNTRY LIFE #1 PLAN & PROFILE |
| 4 | COUNTRY LIFE #2 PLAN & PROFILE |


**PROJECT NO. 522-1006-00W**

811 Know what's below. Call before you dig.

APPROVED: Allison Mannion 04/06/26 Date:

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |


SURVEYOR
BAX ENGINEERING PLANNING SURVEYING
221 POINT WEST BOULEVARD
ST. CHARLES, MO 63301
(636) 928-5552

LOCHMUELLER GROUP
820 S Main Street, Suite 207
St. Charles, Missouri 63301
PHONE: 314.621.3395
Contact: Allison Mannion, P.E.

## CONTROL DATUM NOTES

1. THE HORIZONTAL COORDINATES WERE ESTABLISHED AND VERIFIED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSC5 DATA COLLECTOR AND BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS, WHICH UTILIZES THE NAD83(2011) EPOCH 2010.00 GPS NETWORK.
2. FIELD CONTROL POINT 1 HAS A LATITUDE OF 38°47'42.16104"N AND LONGITUDE OF 90°41'04.50861"W.
3. PROJECT COORDINATES ARE MODIFIED "MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE" COORDINATES AND WERE GENERATED BY SCALING THE COORDINATES BY THE INVERSE OF SAID GRID FACTOR (1.0000816444) ABOUT FIELD CONTROL POINT 1. THE COORDINATES WERE THEN CONVERTED TO FEET BY MULTIPLYING THE METRIC VALUES BY 3.280833333 (39.37 INCHES PER METER/12 INCHES PER FOOT).
4. THE GEOID UTILIZED TO OBTAIN PROJECT COORDINATES IS G18.
5. TO THE BEST OF OUR KNOWLEDGE, THE MODIFIED MISSOURI STATE PLANE, EAST ZONE, COORDINATES MEET THE ACCURACY STANDARDS OF THE CURRENT MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS (20 CSR 2030-16.040) AS AN URBAN CLASS SURVEY.
6. PROJECT ELEVATIONS UTILIZE THE NAVD 88 VERTICAL DATUM AND WERE GENERATED BY GPS OBSERVATIONS USING A CELLULAR EQUIPPED TRIMBLE R12 GNSS ROVER AND TRIMBLE TSC5 DATA COLLECTOR AND ARE BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS.
7. REFERENCE BENCHMARK: THE ELEVATIONS SHOWN ON THIS DRAWING ARE REFERENCED FROM "THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS", COMMONLY KNOWN AS "MODOT VRS". MODOT VRS UTILIZES A NETWORK OF REFERENCE SENSOR STATIONS FOUND THROUGHOUT THE STATE OF MISSOURI AND IS ADMINISTERED BY THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION (MHTC). MODOT VRS MOUNT POINTS PROVIDE CORRECTIONS CONSISTENT WITH NGS'S NAD83(2011) EPOCH 2010.00 ADJUSTMENT. MODOT VRS UTILIZES THE NAVD 88 AS A VERTICAL DATUM.
8. SITE BENCHMARK #1 (NAVD 88)-PK NAIL SET IN ASPHALT PATH WEST OF BARRINGTON DRIVE AND IS LOCATED AS SHOWN HEREON (ELEVATION=483.89)
9. SITE BENCHMARK #2 (NAVD 88)-SET IRON ROD 17' WEST AND 24.5' NORTH OF THE INTERSECTION OF BARRINGTON DRIVE AND PEMBERTON DRIVE AND IS LOCATED AS SHOWN HEREON (ELEVATION=483.58)

## UNMANNED AIRCRAFT SYSTEM (DRONE) NOTES:

1. THIS DRAWING CONTAINS TOPOGRAPHIC FEATURES AND PLANIMETRIC FEATURES THAT WERE GENERATED USING AN UNMANNED AIRCRAFT SYSTEM (UAS), COMMONLY KNOWN AS "DRONE" TECHNOLOGY. THE DATA COLLECTED FROM THE UAS WAS COMPILED INTO A **GEOREFERENCED ORTHOMOSAIC OF AERIAL PHOTOGRAPHS** USING PIX4D PHOTOGRAMMETRY SOFTWARE. A DATA POINT CLOUD WAS GENERATED USING SAID PIX4D PHOTOGRAMMETRY SOFTWARE. A LIDAR POINT CLOUD WAS ALSO GENERATED USING SAID PIX4D SOFTWARE. SAID **GEOREFERENCED ORTHOMOSAIC, DATA POINT CLOUD, AND LIDAR POINT CLOUD** WERE THEN USED TO GENERATE THE TOPOGRAPHIC AND PLANIMETRIC FEATURES SHOWN HEREON.
2. THE TYPE OF UNMANNED AIRCRAFT SYSTEM (UAS) THAT WAS UTILIZED FOR DATA COLLECTION WAS A DJI M350 WITH ZENMUSE LIDAR MODULE.
3. THE TOPOGRAPHY AND PLANIMETRIC FEATURES GENERATED BY SAID UNMANNED AIRCRAFT SYSTEM (UAS) AND PIX4D SOFTWARE ARE SUBJECT TO THAT ERROR WHICH CONVENTIONAL SURVEY DATA COLLECTION METHODS WOULD DISCLOSE.
4. THE VERTICAL ACCURACY OF THE CONTOURS GENERATED WERE COMPARED TO AT LEAST 10 VERIFICATION CONTROL POINTS (VCP) TO ENSURE THE CONTOURS GENERATED MEET NATIONAL MAPPING ACCURACY STANDARDS (NMAS). TO ENSURE RESULTS MEET NMAS VERTICAL ACCURACY STANDARDS, 90% OF TESTED POINTS CHECKED WITHIN ONE HALF THE DESIGNATED CONTOUR INTERVAL AND 100% CHECKED WITHIN THE DESIGNATED CONTOUR INTERVAL.

## SURVEY GENERAL NOTES:

1. BASIS OF BEARINGS IS THE "MISSOURI COORDINATE SYSTEM OF 1983, EAST ZONE" (GRID NORTH).
2. ALL TIES SHOWN HEREON ARE PERPENDICULAR TO THE PROPERTY LINES TO WHICH THEY ARE TIED UNLESS NOTED OTHERWISE.
3. THIS PLAT DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY PURSUANT TO MISSOURI STANDARDS.
4. TO THE BEST OF OUR KNOWLEDGE, THIS DRAWING MEETS THE ACCURACY STANDARDS SET FORTH IN THE CURRENT MISSOURI STANDARDS (20 CSR 2030-16.040) AS AN URBAN CLASS SURVEY.
5. THE LOCATION OF ALL RIGHT OF WAY LINES, LOT LINES AND PROPERTY LINES SHOWN HEREON WERE DETERMINED USING RECORD DOCUMENTS AND A BEST FIT SOLUTION OVER FOUND MONUMENTATION.
6. TITLE COMMITMENTS, EASEMENT SEARCHES OR LETTER REPORTS FOR SUBJECT PROPERTY WAS NOT PROVIDED FOR OUR USE. PROPERTY MAY BE SUBJECT TO EASEMENTS, RIGHT OF WAY DEDICATIONS AND OTHER MATTERS OF RECORD.
7. THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON, ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

## SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT WE, BAX ENGINEERING COMPANY, HAVE DURING OCTOBER AND NOVEMBER, 2024, BY ORDER OF LOCHMUELLER GROUP, PREPARED A STRIP MAP OF "A TRACT OF LAND LOCATED IN THE NORTH HALF OF FRACTIONAL SECTION 28, TOWNSHIP 47 NORTH, RANGE 3 EAST, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI" AND THE RESULTS ARE SHOWN HEREON. THIS PLAT DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY PURSUANT TO MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS. THE PURPOSE OF THIS STRIP MAP IS TO PROVIDE A BASIS FROM WHICH LOCHMUELLER GROUP CAN PREPARE CONSTRUCTION PLANS FOR THE CITY OF O'FALLON PROJECT 24-101. WE ALSO CONDUCTED A TOPOGRAPHIC DRAWING OF SAID TRACT OF LAND AND THE RESULTS ARE SHOWN HEREON.

BAX ENGINEERING COMPANY, INC.
ANDY D. BECK
MISSOURI PROFESSIONAL LAND SURVEYOR #2015017835

## UTILITY NOTES:

1. THE UNDERGROUND UTILITIES SHOWN HEREON ARE TAKEN FROM UTILITY LOCATIONS AS CONTRACTED THROUGH DIGRITE AND MARKED IN THE FIELD BY VARIOUS UNDERGROUND UTILITY LOCATORS, INCLUDING USIC.
2. DIGRITE TICKET NUMBERS: #242920176, AND #242920177, (10/18/2024).
3. AMEREN MISSOURI ELECTRIC: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
4. I3 BROADBAND: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
5. BRIGHTSPEED: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
6. SPIRE MO EAST: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
7. CITY OF O'FALLON WATER & SEWER: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
8. CHARTER COMMUNICATIONS: "MARKED" PER EMAIL MESSAGE FROM TICKETCHECK.
9. ALL UTILITY MARKS FOUND IN THE FIELD WERE LOCATED BY THE SURVEYOR AND ARE SHOWN HEREON. THE SURVEYOR CLAIMS NO RESPONSIBILITY AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY MARKS.
10. UTILITIES ARE ALSO SHOWN HEREON FROM MAPS OBTAINED FROM CITY OF O'FALLON, I3 BROADBAND AND BRIGHTSPEED AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.
11. SITE IS SUBJECT TO PRIVATE UTILITY INSTALLATIONS. PRIVATE UTILITY INSTALLATIONS DO NOT APPEAR ON UTILITY BASE MAPS, NOR DO UTILITY LOCATORS MARK PRIVATE UTILITIES.

## O'FALLON GENERAL NOTES

1. Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
2. Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
   2.1. Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre-cast truncated domes per pavement details.
3. Any proposed pavilions or playground areas will need a separate permit from the Building Division.
4. The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483
5. All proposed utilities and/or utility relocations shall be located underground.
6. All proposed fencing requires a separate permit through the Building Safety Division.
7. All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
8. (INTENTIONALLY OMITTED)
9. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
10. Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth. etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
11. Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
12. The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
13. All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to confirm to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City inspectors.
14. City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.

## O'FALLON SANITARY SEWER NOTES

1. All sanitary sewer installation is to be in accordance with M.S.D. standards and specifications except as modified by the City of O'Fallon Ordinances.
2. Brick shall not be used in the construction of sanitary sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
3. Connections at all sanitary structures are to be made with A-Lock joint or equal
4. All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
5. All sanitary mains shall be a minimum of 8" diameter pipe.
6. All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar at each pipe joint. Sanitary line with a slope greater than 50% will require a special approved design as shown on detail sheet.
7. All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
8. All sanitary sewer mains must have a minimum of 42" cover.
9. When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
10. Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
11. The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
12. All sanitary sewer structures shall be waterproofed on the exterior in accordance to Missouri DNR specifications 10CSR-8.120 (7)(E).
13. All sanitary sewer pipe shall be SDR35 or equal. All sanitary sewer laterals shall be Schedule 40.
14. All sanitary sewer manholes and pipes will be tested to the following specifications. ASTM C1244, Standard testing method for Concrete Sewer Manhole by Negative Air Pressure (Vacuum), Latest revision ASTM F1417, Standard testing method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air, Latest revision.
15. Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

## O'FALLON EROSION CONTROL NOTES

1. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers and/or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT."
2. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-quarter inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
3. Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.
4. This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines. (Ord. 5082, section 405.245)
5. Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage per square foot) Ord. 6496, Section 405.095

## LEGEND

| | | | |
|---|---|---|---|
| S | SANITARY SEWER MANHOLE | | TREE |
| EB | ELECTRIC BOX | BM | BENCHMARK |
| TP | TELEPHONE CABLE PEDESTAL | | FOUND MONUMENT |
| EMTR | ELECTRIC METER | | SET MONUMENT |
| GMTR | GAS METER | L.A. | LANDSCAPED AREA |
| WMTR | WATER METER | | CONCRETE |
| | MAILBOX | | ASPHALT |
| | SIGN | | GRAVEL |
| | LIGHT STANDARD | FOC | FIBER OPTIC VAULT |
| FO | BURIED FIBER OPTIC | OHW | OVERHEAD UTILITIES |
| T | BURIED TELEPHONE | GAS | BURIED GAS |
| SAN | SANITARY SEWER | W | BURIED WATER |
| X | FENCE LINE | | |

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |

LOCHMUELLER GROUP
820 S Main Street, Suite 207
St. Charles, Missouri 63301
PHONE: 314.621.3395

STATE OF MISSOURI — ALLISON MANNION — NUMBER PE-2019029543 — PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Allison Mannion 04/06/26
Allison Mannion DATE

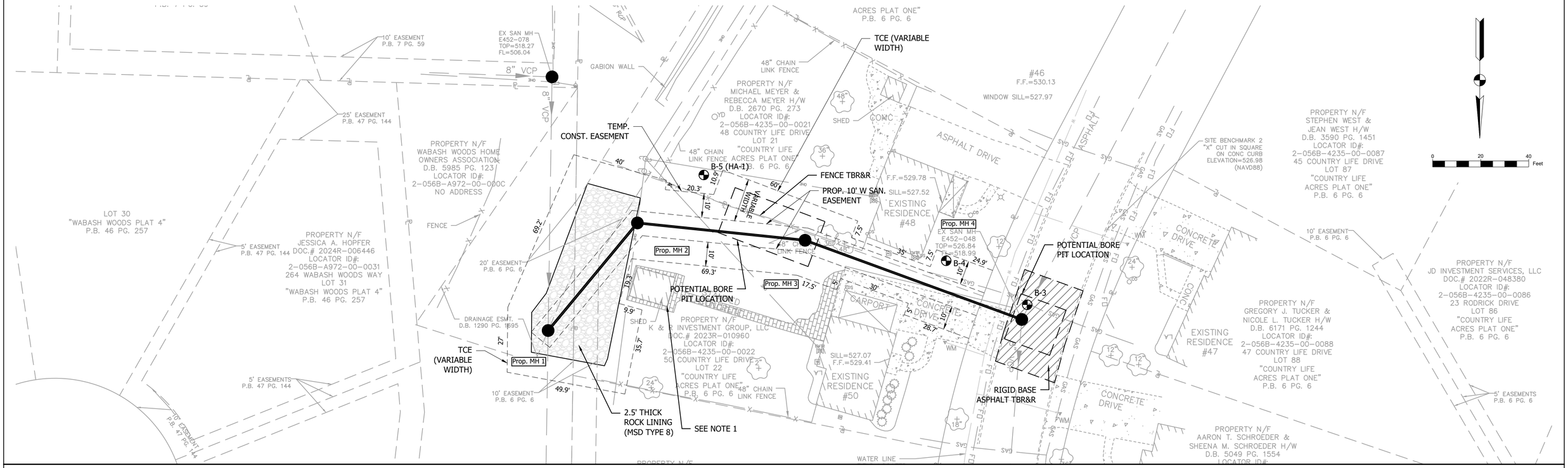
DESIGNED: PMH DRAWN: PMH
CHECKED: ALM CHECKED: 08/01/25

O'FALLON RELIEF SEWER
90% PLANS

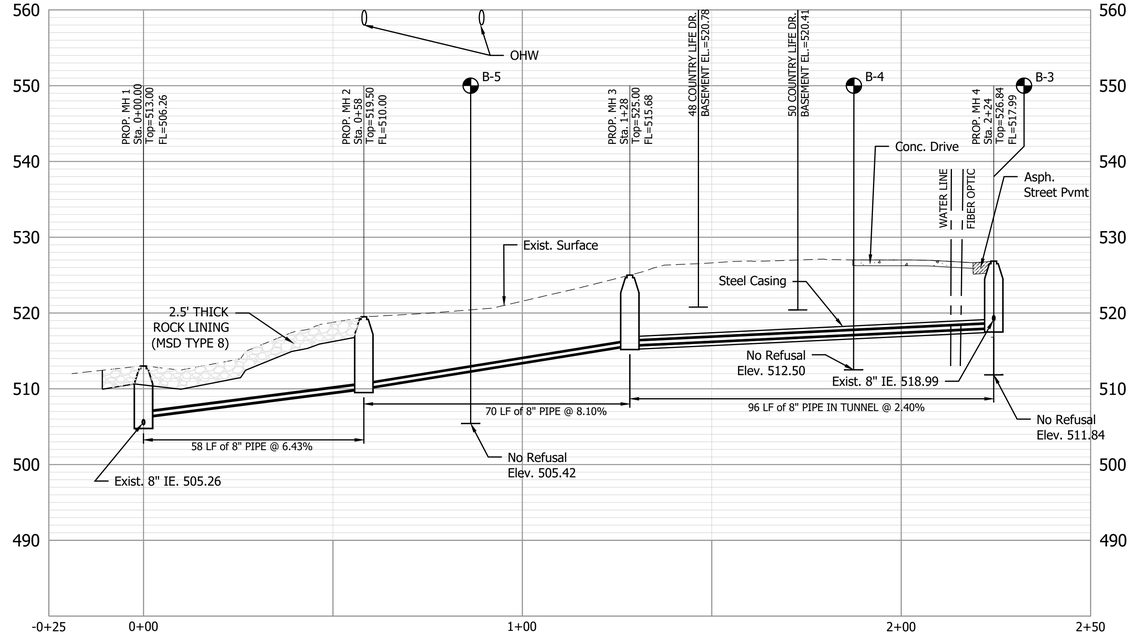
GENERAL NOTES

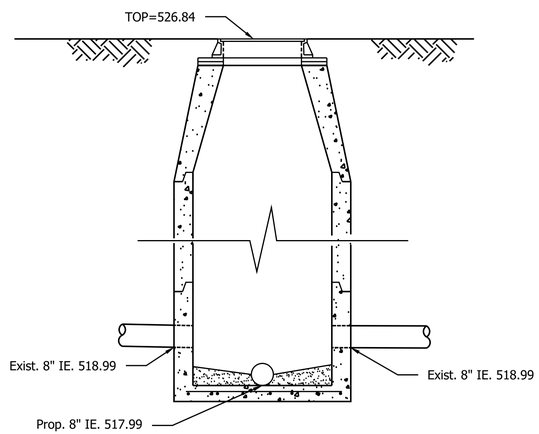
| SCALE |
|---|
| N.A. |
| CONSULTANT PROJECT NUMBER |
| 524-0045 |
| SHEET |
| 2 of 3 |

Date: Apr 06, 2026, 4:04pm User Name: Paul.Henderson
File: \\loch.loc\root\Production\Files\2024\524-0045\CAD\PlanSet\Title Sheet Country Life.dwg




NOTE: 1
CONTRACTOR TO CORRIDNATE WITH CITY TO DETERMINE IF SHED IS TO BE USED IN PLACE OR REMOVED.




PROP MH 4 DETAIL
NTS

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| ---- | 3 | ---- | AAM |
| | | | |
| | | | |

811 Know what's below. Call before you dig.

LOCHMUELLER GROUP
399 South Spring Ave., Suite 208b
St. Louis, Missouri 63110
PHONE: 314.621.3395

RECOMMENDED FOR APPROVAL — Allison Mannion — 04/06/26 DATE

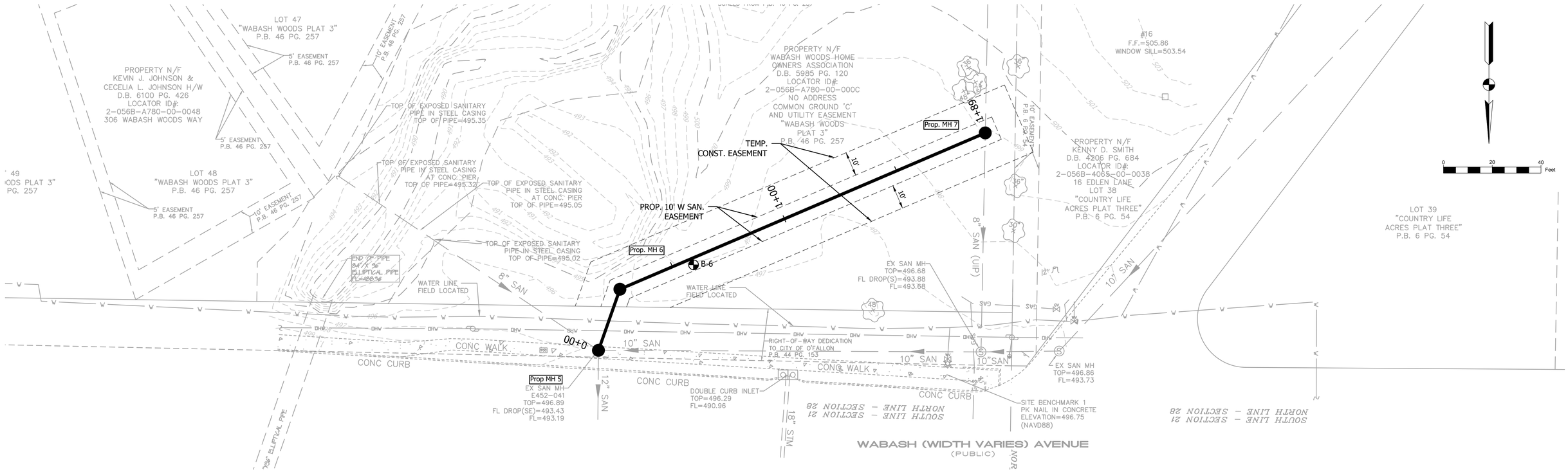
DESIGNED: PMH | DRAWN: PMH
CHECKED: ALM | CHECKED: 08/01/25

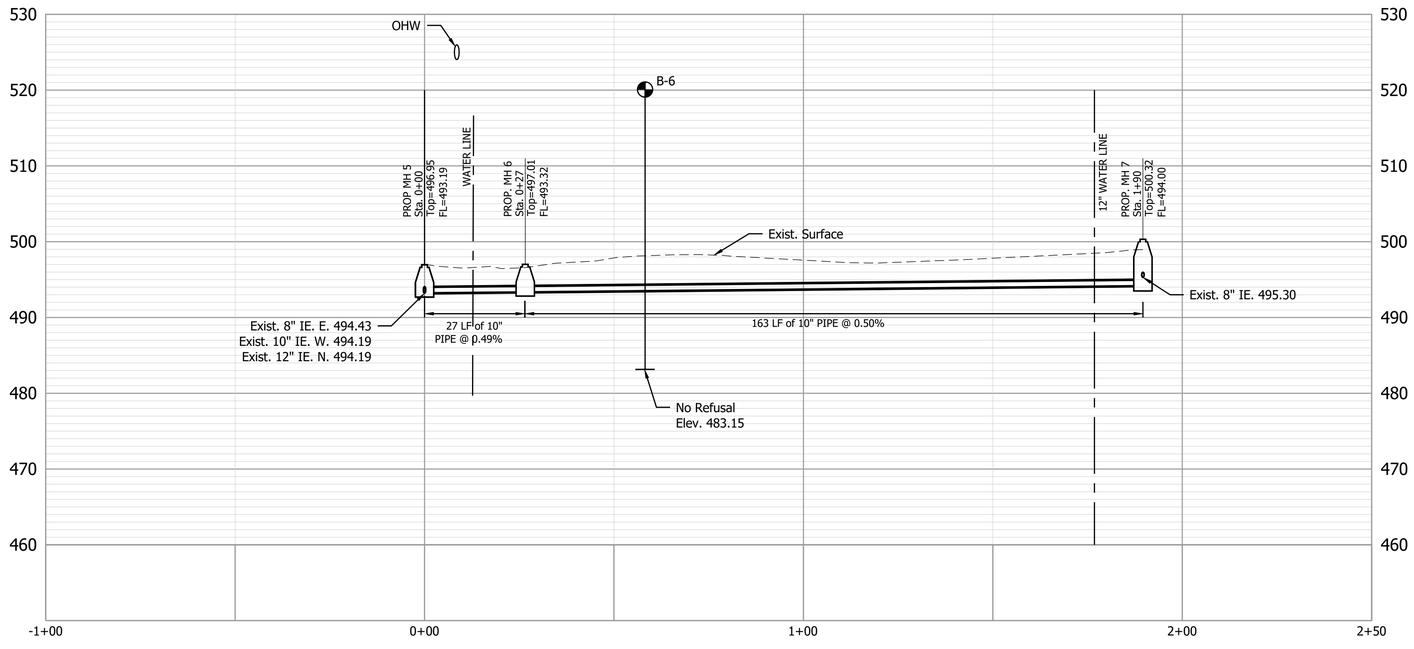
O'FALLON SEWER RELIEF
90% PLANS

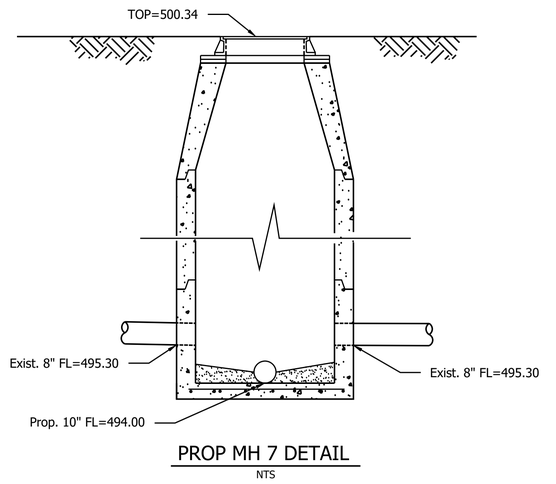
COUNTRY LIFE RELIEF SEWER #1

SCALE
1" = 20'
CONSULTANT PROJECT NUMBER
524-0045
SHEET
3 OF 4

Date: Apr 06, 2026, 4:04pm User Name: Paul.Henderson
File: X:\Production\Files\2024\524-0045\CAD\PlanSet\Country Life 1 Plan & Profile.dwg




PROP MH 7 DETAIL
NTS

| REVISIONS | | | |
|---|---|---|---|
| DATE | | REVISION | BY |
| 1/16/25 | 1 | 30% DESIGN | AAM |
| 8/1/25 | 2 | 90% DESIGN | AAM |
| | | | |
| | | | |
| | | | |

811 Know what's below. Call before you dig.

LOCHMUELLER GROUP
399 South Spring Ave., Suite 208b
St. Louis, Missouri 63110
PHONE: 314.621.3395

RECOMMENDED FOR APPROVAL
Allison Mannion 04/06/26
DATE

DESIGNED: PMH DRAWN: PMH
CHECKED: ALM CHECKED: 08/01/25

O'FALLON SEWER RELIEF
90% PLANS

COUNTRY LIFE RELIEF SEWER #2

| SCALE |
|---|
| 1" = 20' |
| CONSULTANT PROJECT NUMBER |
| 524-0045 |
| SHEET |
| 4 OF 4 |

Date: Apr 06, 2026, 4:04pm User Name: Paul.Henderson
File: X:\Production\Files\2024\524-0045\CAD\PlanSet\Barrington & Country Life 2 Plan & Profile.dwg

# City of O'Fallon, Missouri
# Memorandum

To : Planning and Zoning Commission, Mayor Bill Hennessy and City Council Members
Thru : Michael Snowden - City Administrator
Wade Montgomery - Director of Engineering
Todd Artz - Assistant Director of Engineering
David Woods - Director of Planning and Development
From : Jeannie Greenlee - Plan Reviewer
Date : April 29, 2026
Project : Ameren (Union Electric) Rebuild
Re : Utility Easement Dedication

Please see attached request for easement dedication. This easement is needed to insure access for construction and maintenance of electrical lines.

**REMS INFORMATION**
Agreement ID: UEC-202508-60126
Project ID: 79151

# EASEMENT

(Underground Electric)

610 S MAIN ST., O'FALLON, MO 63366
PARCEL NO. 2-056B-S028-00-0079.0000000

KNOW ALL MEN BY THESE PRESENTS, this _____ day of _____, 20____, that **CITY OF O'FALLON**, its successors and assigns, whether one or more and whether an individual, individuals, a corporation, or other legal entity (hereinafter "Grantor"), for and in consideration of the sum of One and No/100th Dollars ($1.00) and other valuable consideration in hand paid, the receipt of which is hereby acknowledged, does hereby grant unto **UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI**, a Missouri corporation, its successors and assigns (hereinafter "Grantee"), a perpetual easement (hereinafter "Easement") with the right, privilege, and authority of Grantee, its agents, contractors, and subcontractors to survey, stake, construct, reconstruct, replace, use, operate, maintain, patrol, inspect, protect, repair, relocate, modify, add to the number of, abandon or retire in place, and remove an electric and communication line or lines consisting of wires, cables, conduits, fixtures, appliances, and other appurtenances thereto, including above-ground transformers, cabinets, and pedestals (hereinafter individually and collectively "Facilities"), together with all rights and privileges for the exercise and enjoyment of the Easement rights and the authority to extend to any other party the right to use, pursuant to the provisions hereof, upon, over, across and under the following described land in Section 29, Township 47 North, Range 03 East, of the 5th Principal Meridian, in St. Charles County, State of Missouri, to-wit:

PROPERTY DESCRIPTION:
A parcel of ground in the Northwest Quarter of Section 28, Township 47 North, Range 3 East, St. Charles County, Missouri, said parcel being more particularly described as follows: Beginning at the point of intersection of the eastern line of Missouri State Highway "M", Main Street, as widened, by instrument recorded in Book 827 Page 1319,

St. Charles County Recorder's Office, with the northeastern line of a parcel of ground described in deed to the State of Missouri, recorded in Book 384 Page 511, St. Charles County Recorder's Office; thence in a generally northwardly direction along the eastern line of said Missouri State Highway "M", the following courses and distances: North 00 degrees 53 minutes 24 seconds East 8.50 feet, North 01 degrees 09 minutes 51 seconds East 32.01 feet, North 87 degrees 45 minutes 42 seconds West 5.50 feet and North 01 degrees 05 minutes 16 seconds East 153.32 feet, to the northern line of property described in deed to Socony Mobil Oil Company recorded in Book 434 Page 221, St. Charles County Recorder's Office; thence North 90 degrees 00 minutes East 113.05 feet along the northern line of said Mobil property to the western line of property described in deed to Socony Mobil Oil Company recorded in Book 434 Page 219, St. Charles County Recorder's Office; thence North 14 degrees 02 minutes 10 seconds East 82.46 feet along the said western line of the last said Socony Mobil Oil Property, to its northwestern corner; thence North 90 degrees 00 minutes East 45.10 feet along the northern line of the last said Socony Mobil Oil property, to its northeastern corner; thence South 13 degrees 02 minutes 30 seconds West 250.55 feet and South 41 degrees 35 minutes 50 seconds West 104.77 feet along the eastern line of the last said Socony Mobil Oil property, to the northeastern line of said State of Missouri property; thence North 73 degrees 20 minutes 53 seconds West 6.54 feet and North 43 degrees 21 minutes 34 seconds West 64.04 feet along the northeastern line of said State of Missouri property, to the eastern line of said Missouri State Highway "M", and the point of beginning.

Excepting therefrom the parcels acquired by the State of Missouri by instruments recorded in Book 248 Page 187; Book 384 Page 511; Book 372 Page 41 and Book 827 Page 1319 of the St. Charles County Records.

EASEMENT DESCRIPTION:
The westerly Five (5) feet of the above-described real estate abutting the East right-of-way line of South Main Street in O'Fallon Missouri.

The above-described Easement Area shown on "Exhibit A", attached hereto and made a part hereof (hereinafter "Easement Area").

Grantor also conveys the right of ingress and egress to and over the Easement Area and premises of Grantor adjoining the same, for all purposes herein stated, together with the right to trim, control the growth, cut and remove or cause to be removed at any time and from time to time, by any means, any and all brush, bushes, saplings, trees, roots, undergrowth, rock, over-hanging branches, and other obstructions upon, over, and under the surface of said Easement Area and of the premises of Grantor adjoining the same deemed by Grantee to interfere with the exercise and enjoyment of Grantee's rights hereunder, endanger the safety of the Facilities, or in order for Grantee to maintain compliance with the minimum clearance requirements of the National Electric Safety Code.

Grantee shall be responsible for actual damages (except the trimming, controlling of growth, cutting, and removal of trees and other vegetation) occurring as a result of the Grantee's exercise of the Easement rights hereinabove conveyed and shall reimburse the owner thereof for such loss or damages.

Grantor, for itself, its successors and assigns, does hereby warrant and covenant unto Grantee, (1) that Grantor is the owner of the Easement Area and has the full right and authority to grant this Easement, (2) that Grantee may quietly enjoy the Easement for the purposes herein stated, and (3) that Grantor will not create or permit any building or other obstruction or condition of any kind or character upon Grantor's premises that will interfere with the Grantee's exercise and enjoyment of the Easement rights hereinabove conveyed.

This Easement shall be governed by the laws of the State of Missouri.

IN WITNESS WHEREOF, the Grantor has hereunto caused this Easement to be executed on the date hereinabove written.

Grantor:

City of O'Fallon

By: _____

Name: _____

Title: _____

## ALL PURPOSE NOTARY ACKNOWLEDGMENT

STATE OF _____
COUNTY OF _____ } SS

On this _____ day of _____, 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared (print or type names):

_____ _____

to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she/they executed the same as his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

**Capacity Claimed By Signator(s)**

| | | | |
|---|---|---|---|
| ☐ Individual(s) | ☐ Corporate | ☐ Limited Liability Company | ☐ Partner(s) |
| ☐ Trustee(s) | Title(s) of Officer(s): | Member(s)/Manager(s): | ☐ Limited Partnership |
| ☐ Executor(s) | _____ | _____ | ☐ General Partnership |
| ☐ Administrator(s) | _____ | _____ | ☐ Other (Specify Below): |
| ☐ Attorney-In-Fact | _____ | _____ | _____ |
| ☐ Conservator(s) | _____ | _____ | _____ |
| ☐ Guardian(s) | _____ | _____ | _____ |

_____ _____
My Commission Expires Notary Public

Grantee:

Union Electric Company dba Ameren Missouri

By: Janice Wenzel

Name: Janice Wenzel

Title: Director, Real Estate

**ALL PURPOSE NOTARY ACKNOWLEDGMENT**

STATE OF **MISSOURI**
COUNTY OF _____
OR CITY OF St Louis } SS

On this 23 day of April, 2026 before me, the undersigned, a Notary Public in and for said State, personally appeared (print or type names of signatories):

Janice Wenzel

to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she/they executed the same as his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

**Capacity Claimed By Signator(s)**

| | | | |
|---|---|---|---|
| ☐ Individual(s) | ☒ Corporate | ☐ Limited Liability Company | ☐ Partner(s) |
| ☐ Trustee(s) | Title(s) of Officer(s): | Member(s)/Manager(s): | ☐ Limited Partnership |
| ☐ Executor(s) | Director, Real Estate | | ☐ General Partnership |
| ☐ Administrator(s) | | | ☐ Other (Specify Below): |
| ☐ Attorney-In-Fact | | | |
| ☐ Conservator(s) | | | |
| ☐ Guardian(s) | | | |

April 20, 2027
My Commission Expires

Notary Public

KATIE KRUEGER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: Apr. 20, 2027
Commission # 23660628

Prepared By: O.R. Colan, 3050 West Clay, Suite 200, St. Charles, MO 63301
Return To: O.R. Colan, Attn: Nick Knobbe, 3050 West Clay, Suite 200, St. Charles, MO 63301
CON
WO#: KB99782
Facility Name: Main St. O'Fallon
38.803768°N, 90.700010°W
04/06/2026

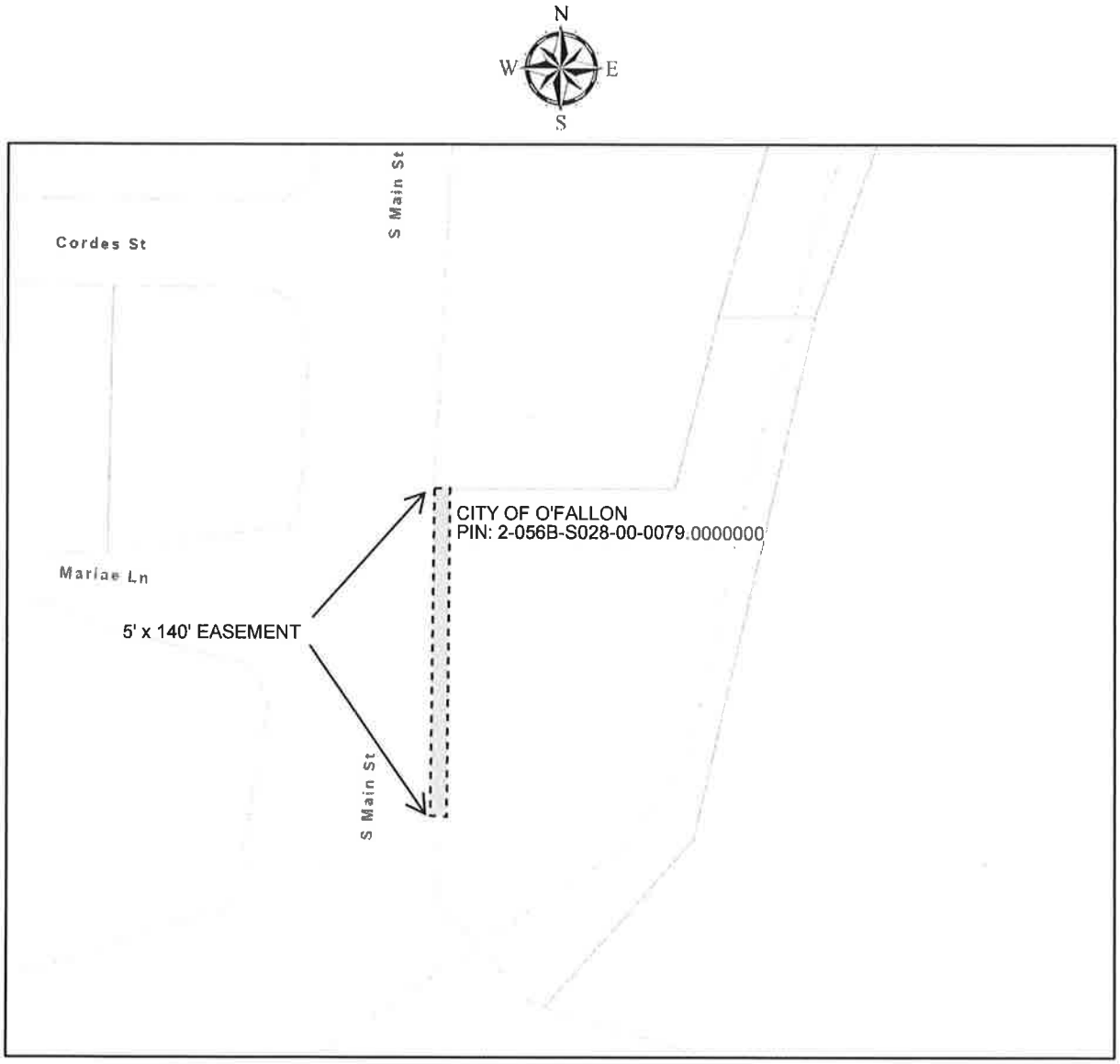
# Exhibit A

CITY OF O'FALLON MISSOURI

Section 29, Township 47 North, Range 3 East, 5th Principal Meridian, St. Charles County Missouri

Pin # 2-056B-S028-00-0079.0000000

5 x 140-Foot Electric Easement




NOTE: NOT TO SCALE

# City of O'Fallon, Missouri
# Memorandum

To : Planning and Zoning Commission, Mayor Bill Hennessy and City Council Members
Thru : Michael Snowden - City Administrator
Wade Montgomery - Director of Engineering
Todd Artz - Assistant Director of Engineering
David Woods - Director of Planning and Development
From : Jeannie Greenlee - Plan Reviewer
Date : April 29, 2026
Project : Ameren (Union Electric) Rebuild
Re : Utility Easement Dedication

Please see attached request for easement dedication. This easement is needed to insure access for construction and maintenance of electrical lines.

**REMS INFORMATION**

Agreement ID: UEC-202601-62571

Project ID: 82096

# EASEMENT

(Electric)

WEST TERRA LN., O'FALLON, MO 63366
PARCEL NO. 4-0052-0054-00-0020.0000000

KNOW ALL MEN BY THESE PRESENTS, this _____ day of _____, 20____, that **THE CITY OF O'FALLON, MISSOURI, A MUNICIPAL CORPORATION**, its successors and assigns, whether one or more and whether an individual, individuals, a corporation, or other legal entity (hereinafter "Grantor"), for and in consideration of the sum of One and No/100th Dollars ($1.00) and other valuable consideration in hand paid, the receipt of which is hereby acknowledged, does hereby grant unto **UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI**, a Missouri corporation, its successors and assigns (hereinafter "Grantee"), a perpetual easement (hereinafter "Easement") with the right, privilege, and authority of Grantee, its agents, contractors, and subcontractors to survey, stake, construct, reconstruct, replace, use, operate, maintain, patrol, inspect, protect, repair, relocate, modify, add to the number of and remove electric and communication line or lines consisting of poles, guys, anchors, wires, cables, conduits, fixtures, appliances and other appurtenances thereto, including transformers, cabinets, and pedestals (hereinafter individually and collectively "Facilities"), together with all rights and privileges for the exercise and enjoyment of the Easement rights and the authority to extend to any other party the right to use, pursuant to the provisions hereof, upon, over, across and under the following described land in U.S. Survey 54, Township 47 North, Range 02 East, of the 5th Principal Meridian, in St. Charles County, State of Missouri, to-wit

PROPERTY DESCRIPTION:

All of a tract of land located within U. S. Survey No. 54, Township 47 North, Range 2 East, described as follows: Beginning at the most Eastern corner of said U. S. Survey No. 54, a driven iron stake from which a Walnut Tree 24 inches in diameter bears North 80° West 30 links; thence along the line of said Survey No. 54, South 53° West 10.74 chains to an iron

stake driven on the Northern line of the Wabash Railroad Company right of way, thence along the Northern line of possession of said Wabash Railroad Company right of way, the following courses and distances, North 75° West 1.71 chains; North 68° 30' West 2.10 chains; North 63° 45' West 1.31 chains; North 67° 30' West 1.48 chains; North 62° West 0.48 chains; North 80° West 5.38 chains to a stake on the meander line of Peruque Creek; thence along said meander line North 37° West 6.59 chains to an iron stake; thence North 32° West 12.05 chains to an iron stake; thence North 66° 35' West, 8.613 chains to a stake at the South corner of a .436 acre parcel conveyed to Charles Claude Guthrie by deed dated February 16, 1929, recorded in Book 158 page 537 in the St. Charles County Recorder's Office; thence North 23° 22' West along the East line of said parcel conveyed to Guthrie 2.076 chains to the Northwest line of the 70 acre tract conveyed to Albinus L. Salfen and wife by deed dated July 20, 1939, recorded in Book 187, page 607 in said Recorder's Office; thence North 51° 9' East along said Northwest line 22 chains, more or less, to the Northeastern corner of said 70 acre tract in the Northeastern line of Survey 54; thence along said Northeastern line, South 37° East 39.10 chains to the place of beginning, being the tract surveyed by W. G. Van Cleve, Country Surveyor, May 12, 1939, except that part of said .436 acre parcel conveyed to Guthrie, included in said survey.

Including all fences, pumps, chlorinators and other equipment located on the above described real estate.

EASEMENT DESCRIPTION:
See Exhibit "A", attached hereto and made a part hereof (hereinafter "Easement Area").

Grantor also conveys the right of ingress and egress to and over the Easement Area and premises of Grantor adjoining the same, for all purposes herein stated, together with the right to trim, control the growth, cut and remove or cause to be removed at any time and from time to time, by any means, any and all brush, bushes, saplings, trees, roots, undergrowth, rock, over-hanging branches, and other obstructions upon, over, and under the surface of said Easement Area and of the premises of Grantor adjoining the same deemed by Grantee to interfere with the exercise and enjoyment of Grantee's rights hereunder, endanger the safety of the Facilities, or in order for Grantee to maintain compliance with the minimum clearance requirements of the National Electric Safety Code.

Grantee shall be responsible for actual damages (except the trimming, controlling of growth, cutting and removal of trees and other vegetation) occurring as a result of the Grantee's exercise of the Easement rights hereinabove conveyed and shall reimburse the owner thereof for such loss or damages.

Grantor, for itself, its successors and assigns, does hereby warrant and covenant unto Grantee, (1) that Grantor is the owner of the Easement Area and has the full right and authority to grant this Easement, (2) that Grantee may quietly enjoy the Easement for the purposes herein stated, and (3) that Grantor will not create or permit any building or other obstruction or condition of any kind or character upon Grantor's premises that will interfere with the Grantee's exercise and enjoyment of the Easement rights hereinabove conveyed.

This Easement shall be governed by the laws of the State of Missouri.

IN WITNESS WHEREOF, the Grantor has hereunto caused this Easement to be executed on the date hereinabove written.

SIGNATURE(S) ON FOLLOWING PAGE(S)

Grantor:

The City of O'Fallon, Missouri, a Municipal corporation

By: _____

Name: _____

Title: _____

**ALL PURPOSE NOTARY ACKNOWLEDGMENT**

STATE OF _____
COUNTY OF _____ } SS

On this _____ day of _____, 20____, before me, the undersigned, a Notary Public in and for said State, personally appeared (print or type names):

_____ _____

to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she/they executed the same as his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

**Capacity Claimed By Signator(s)**

| | | | |
|---|---|---|---|
| ☐ Individual(s) | ☐ Corporate | ☐ Limited Liability Company | ☐ Partner(s) |
| ☐ Trustee(s) | Title(s) of Officer(s): | Member(s)/Manager(s): | ☐ Limited Partnership |
| ☐ Executor(s) | _____ | _____ | ☐ General Partnership |
| ☐ Administrator(s) | _____ | _____ | ☐ Other (Specify Below): |
| ☐ Attorney-In-Fact | _____ | _____ | _____ |
| ☐ Conservator(s) | _____ | _____ | _____ |
| ☐ Guardian(s) | _____ | _____ | _____ |

_____ _____

My Commission Expires Notary Public

Grantee:

Union Electric Company dba Ameren Missouri

By: Janice Wenzel

Name: Janice Wenzel

Title: Director, Real Estate

**ALL PURPOSE NOTARY ACKNOWLEDGMENT**

STATE OF **MISSOURI**
COUNTY OF _____
OR CITY OF St Louis } SS

On this 20 day of April, 2026, before me, the undersigned, a Notary Public in and for said State, personally appeared (print or type names of signatories):

Janice Wenzel

to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she/they executed the same as his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

**Capacity Claimed By Signator(s)**

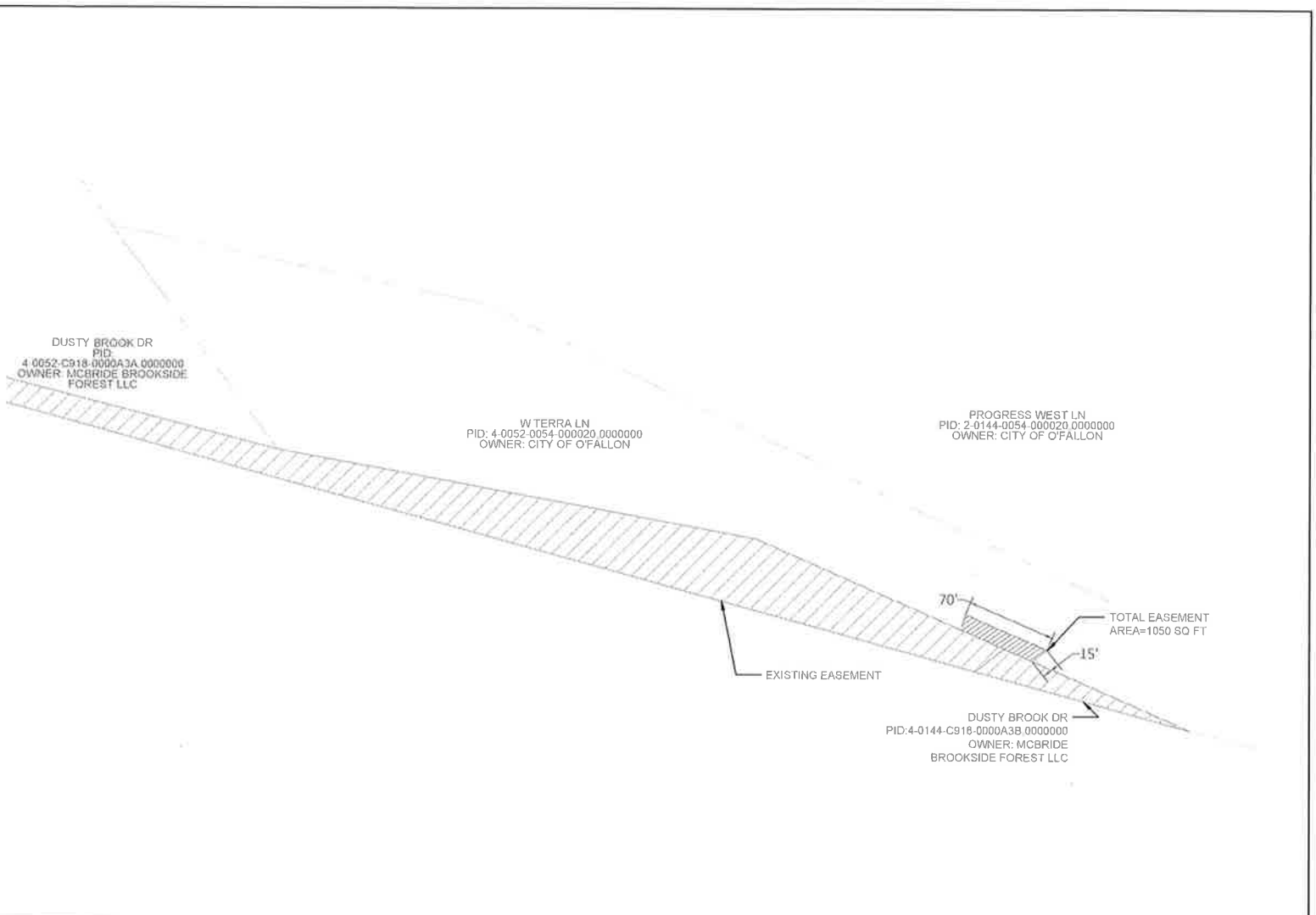
| | | | |
|---|---|---|---|
| ☐ Individual(s) | ☒ Corporate | ☐ Limited Liability Company | ☐ Partner(s) |
| ☐ Trustee(s) | Title(s) of Officer(s): | Member(s)/Manager(s): | ☐ Limited Partnership |
| ☐ Executor(s) | Director, Real Estate | | ☐ General Partnership |
| ☐ Administrator(s) | | | ☐ Other (Specify Below): |
| ☐ Attorney-In-Fact | | | |
| ☐ Conservator(s) | | | |
| ☐ Guardian(s) | | | |

April 20, 2027
My Commission Expires

Notary Public

KATIE KRUEGER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: Apr. 20, 2027
Commission # 23660628

Prepared By: O.R. Colan, 3050 W Clay, Suite 200, St. Charles, MO 63301
Return To: O.R. Colan, Attn: Ben Ridling, 3050 W Clay, Suite 200, St. Charles, MO 63301
CON
WO#: J0WMG
Facility Name: PTPR-73 RELO
38.807211N 090.761192W
04/06/2026




| WR # | PREFIX / VOLUME / PAGE | HIGHEST VOLTAGE | FEEDER | OPERATING CENTER APPROVAL | | |
|---|---|---|---|---|---|---|
| KA61804 | | 34KV | 661-073 | | SCALE: 1" =100' | N |
| CUSTOMER | | MUNICIPALITY | | WUNNENBERG GRID | | Ameren MISSOURI |
| CITY OF O'FALLON | | WENTZVILLE | | | | |
| LOCATION | | ESTIMATED BY | SHEET # | DRAWING DATE | | OPERATING CENTER |
| W TERRA LN | | KLZ | 1 | 12/16/2025 | | WENTZVILLE |

# City of O'Fallon, Missouri

# Memorandum

**Planning and Zoning Commission** **I. a.**

**Meeting Date:** 05/07/2026
**Re:** City Council Action Update
**From:** Tracy Coffman, Planning Specialist for Planning & Development
**Department:** Planning and Development
**Agenda Category:** New Business

**Item:**
The following action was taken at the April 23, 2026 City Council meeting:

- Rezoning of 811 North Main Street - approved
- Final Plan for Caballo Farms - denied
- Area Plan for the Villages at Springhurst - approved