

O'FALLON STATION INFRASTRUCTURE PLANS - PHASE 2

A TRACT OF LAND BEING PART OF SECTIONS 20 AND 29 AND PART OF LOTS 2, 3, 4, 5, 6, 8, 9, 10 & 11 OF "TREVEY'S SUBDIVISION" TOWNSHIP 47 NORTH, RANGE 3 EAST CITY OF O'FALLON, ST. CHARLES COUNTY MISSOURI

GENERAL NOTES

- Gas, Water and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm
- Underground utilities have been plotted from available information and therefore their locations must 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 grading or construction of improvements. The City of O'Fallon shall be contacted for utility locates under its maintenance responsibility. This may include water, sanitary, storm and traffic locates.
- Polyvinyl chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Sanitary sewer mains shall be a minimum 8" diameter pipe. Sanitary laterals shall be a minimum 6" diameter pipe.
- Storm Sewers 18" diameter or smaller shall be ASTM C-14.
- Storm Sewers 21" diameter or larger shall be ASTM C-76, Class II.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class II) unless noted otherwise on the plans.
- Joints shall be gasketed O-ring type.
- Brick shall not be used in the construction of storm sewer structures.
- Provide 5/8" dia. trash bar for all inlets.
- All filled places in paved State, County or City roads (Highways) shall be compacted to 90% of maximum density as determined by the "Standard Proctor Test AASHTO T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests shall be verified by a Soils Engineer.
- All filled places under buildings, proposed storm and sanitary sewer lines and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Note that the moisture content of the soil in fill areas is to correspond 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. Proof-rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
- All storm and sanitary trench backfills will be water jetted. All storm sewers, sanitary laterals and sanitary sewer mains crossing under roadways and/or pavement must have the proper rock backfill and to the required compaction.
- Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals. All existing and proposed monuments will be shown on the final record plat.
- No area shall be cleared without permission of the developer.
- All grade shall be within 0.2 feet more or less of those shown on the grading plan.
- No slope shall be greater than 3 (horizontal) to 1 (vertical).
- All graded areas that are to remain bare for over two (2) weeks are to be seeded and mulched.
- Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices," end of roadway markers mounted on two (2) pound "U" channel sign posts. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- All manhole and catch basin tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be staked. If normal face stakes fall in line with sewer construction the Engineer will set these stakes on a double off set. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one half feet (2-1/2').
- Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details. Hydrants shall meet all specifications and installation requirements of the local governing authority.
- All sanitary and storm sewers shall meet all specification and installation requirements of the local governing authority.

- All P.V.C. water pipe shall have a minimum pressure rating of PR-200 or SR-21.
- All P.V.C. sanitary sewer pipe to be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 7/10 the pipe diameter above the bottom of the pipe. Areas under new pavement shall be granular backfilled.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way Markers shall be reset at the completion of grading.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- This tract is served by:
 - O'FALLON FIRE PROTECTION DISTRICT
 - O'FALLON SANITARY SEWER
 - CUIVRE RIVER ELECTRIC CORP.
 - ST. CHARLES GAS COMPANY
 - O'FALLON WATER DEPARTMENT
- Developer must supply City construction inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
 - Maximum dry density.
 - Optimum moisture content.
 - Maximum and minimum allowable moisture content.
 - 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 AASHTO T-99, Method C" (A.S.T.M. D-698). Proctor type must be designated on document.
 - Curve must have at least 5 density points with moisture content and sample locations listed on document.
 - Specific gravity.
 - Natural moisture content.
 - Liquid limit.
 - 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.
- The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fence (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the Contractor 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 or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT.
- All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
- All water system extensions shall be in accordance with the City of O'Fallon Water Department Specifications.
- Brick shall not be used in the construction of storm sewer structures.
- The City of O'Fallon shall also be contacted for utility locates under its maintenance responsibility. This may include water, sanitary, storm and traffic locates.
- Rip-rap shown at flared ends will be evaluated in the field after installation for effectiveness and field modified, if necessary, to reduce erosion on and off site.
- Joints shall be gasketed O-ring type.
- Grades for entrances should not exceed 2% at walks, 4% from street and 10% overall. Typically 2% from back of curb through the right-of-way is desired.
- See Sanitary Sewer Detail Sheet No. 10 for Duckett Creek Sanitary District Construction Notes and details.
- Graded areas that are to remain bare for over 2 weeks shall be seeded and mulched. (DNR requirement)
- Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "Americans 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.

41. The City will allow the following markers and adhesive procedures only as shown in the table below. Peel and stick adhesive pads will not be allowed. Provide a marking on the storm sewer inlets.

| Manufacturer | Size | Adhesive | Style | Message (Part #) | Website |
|-------------------------|--------|----------|----------------|--|--|
| ACP International | 3 7/8" | Epoxy | Crystal Cap | No Dumping Drains To Waterways (SD-W-CC) | www.acpinternational.com |
| DAS Manufacturing, Inc. | 4" | Epoxy | Standard Style | No Dumping Drains To Stream (#SDS) | www.dasmanufacturing.com |

- All sign locations and sizes must be approved separately through the Planning Division. Note that sign locations are shown on the plans.
- All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by City and MoDOT). Signs designating street name shall be on the opposite side of the street from traffic control signs.
- All utilities will be located underground.
- The cutoff walls on FE's are 2' deep upstream, 3' deep downstream. (FE's shall be conc.)
- Provide rock backfill for all trenches within the 1 to 1 shear plan of the back of curb.
- Provide 5/8" diameter trash bar for all inlets. See sheet #11 for details.
- The site lies within Zone "X" Area of minimal flooding, per FIRM COMMUNITY MAP 2910316, Panel 0237 Suffix "E", effective date August 2, 1996.
- Developer will coordinate offsite work with the property owners.

LEGEND

| | | | |
|---|---------------------------|--------------------|------------------------------------|
| ● | Sanitary Sewer (Proposed) | C.P. | Concrete Pipe |
| ○ | Sanitary Sewer (Existing) | R.C.P. | Reinforced Concrete Pipe |
| ○ | Storm Sewer (Proposed) | C.M.P. | Corrugated Metal Pipe |
| ○ | Storm Sewer (Existing) | P.V.C. | Polyvinyl Chloride Pipe |
| ○ | Water Line and size | C.I.P. | Cast Iron Pipe |
| ○ | Tee and Valve | V.C.P. | Vitrified Clay Pipe |
| ○ | Fire Hydrant | E.P. | End Pipe |
| ○ | Cap | F.E. | Flared End Section |
| ○ | Existing Fence Line | C.O. | Clean Out |
| ○ | Existing Tree Line | V.T. | Vent Trap |
| ○ | Existing Contour | M.H. | Manhole |
| ○ | Proposed Contour | C.I. | Curb Inlet |
| ○ | Lot or Building Number | D.C.I. | Double Curb Inlet |
| ○ | Street Sign | A.I. | Area Inlet |
| ○ | Power Pole | D.A.I. | Double Area Inlet |
| ○ | Guy Wire | G.I. | Grate Inlet |
| ○ | Light Standard | C.C. | Concrete Collar |
| ○ | Gas Line | U.I.P. | Use in Place |
| ○ | Electric Line | T.B.R. | To Be Removed |
| ○ | Telephone Line | T.B.R.&R. | To Be Removed & Relocated/Replaced |
| ○ | Overhead Power Line | Set I.R. | Set Iron Rod with Cap |
| ○ | Gas Valve | C.M. | Concrete Monument |
| ○ | Gas Meter | O.I.P. | Old Iron Pipe |
| ○ | Water Valve | O.S.T. | Old Stone |
| ○ | Water Meter | O.I.R. | Old Iron Rod |
| ○ | Found Old Iron Pipe | Existing Stump | Existing Stump |
| ○ | Found Old Iron Rod | Existing Tree | Existing Tree |
| ○ | Found Old Stone | Existing Evergreen | Existing Evergreen |
| ○ | Benchmark | | |

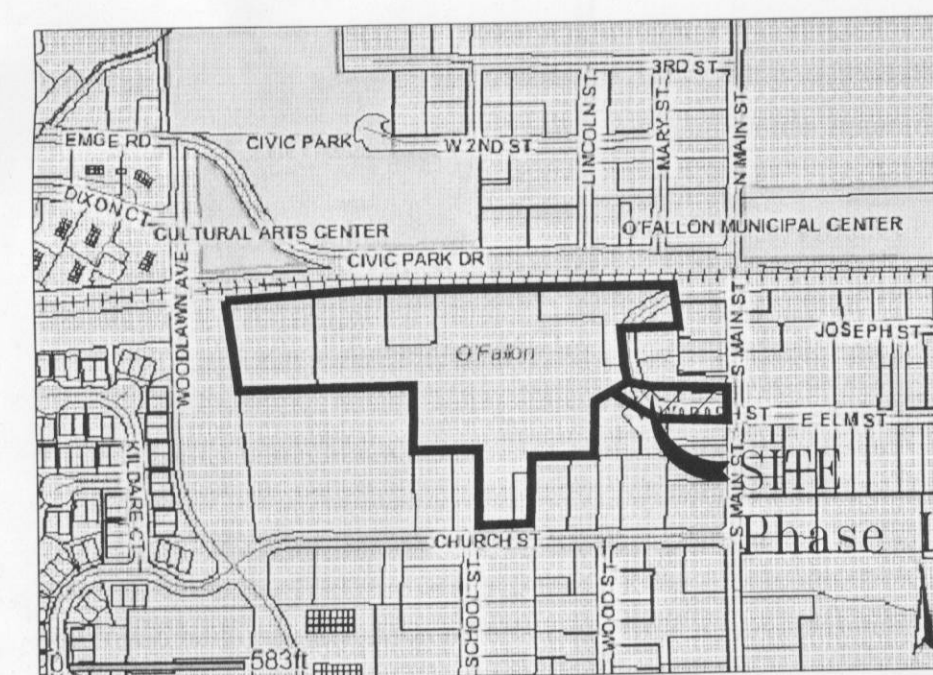
INDEX OF SHEETS

SHEET NO.

- 1
- 2
- 3
- 4
- 5

DESCRIPTION

COVER SHEET
SITE PLAN
GRADING PLAN, DA MAP
STREET PROFILES, WARPINGS,
TYP SECTIONS
CONSTRUCTION DETAILS



LOCATION MAP

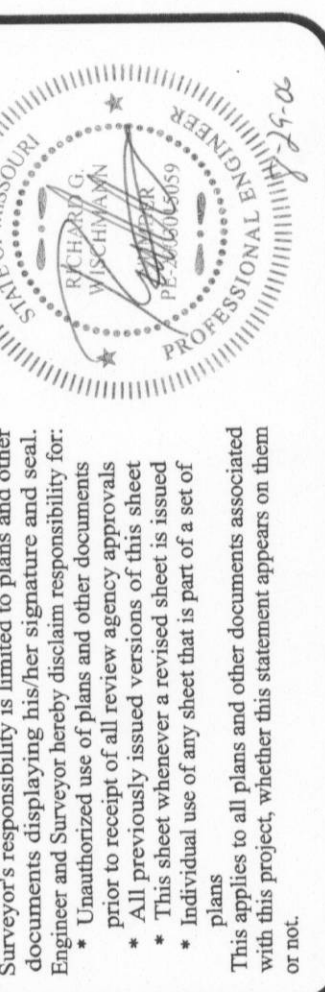
PROJECT BENCHMARK

USGS STANDARD TABLE STAMPED "F 149 1935" SET IN A 6" SQUARE CONCRETE MONUMENT 2.5" ABOVE THE GROUND, 46.5' NORTH OF THE CENTER OF THE MAIN TRACK OF THE NORFOLK & WESTERN RAILROAD, 9.3' EAST OF THE EAST EDGE OF THE CONCRETE SIDEWALK ALONG NORTH MAIN STREET IN O'FALLON MISSOURI. ELEVATION 542.80.

T.B.M. R.R. SPIKE IN POWER POLE AT SOUTHWEST PROPERTY CORNER OF WAYNE & MICHAEL G. MENNE PROPERTY ON NORTH SIDE OF CHURCH ST. ELEVATION 570.13

T.B.M. R.R. SPIKE IN POWER POLE NORTH OF THE CENTER OF THE MAIN TRACK OF THE NORFOLK & WESTERN RAILROAD ADJACENT TO THE NORTHWESTERN 1/2 OF THE O'FALLON STATION TRACT. ELEVATION 551.96

CITY OF O'FALLON
COMMUNITY DEVELOPMENT DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: *[Signature]* DATE: 9-5-06
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN



| No. | Date | Revision/Issue |
|-----|----------|---|
| 1 | 08-07-06 | Per City Comment Letter, dated 07/24/06 |
| 2 | 08-11-06 | Client/City Revisions |
| 3 | 08-29-06 | Per City Comment Letter, dated 08/23/06 |

O'Fallon Station Infrastructure Phase 2
Cover Sheet
Zavrados & Polk inc.
engineers & surveyors
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636-946-6555 • 636-449-0148 Fax • www.zavrados.com

Client
O'Fallon Station, LLC
412 Jungermann Road, Suite 140
St. Peters, MO 63376
636-449-7000
636-449-7000 Fax
6441 Hill Holman
wholman@agregrestate.com

| | |
|---|------------|
| City/County Job No: P & Z No. 2204.03 | |
| MSD P- BASEMAP | |
| Proj Manager R. Wischmann rich@zavrados.com | |
| CAD Filename 04126-infrastructure Ph2 2.dwg | Sheet 1 |
| Original Issue Date 06/13/06 | |
| Project No. 04126-D | |

File