

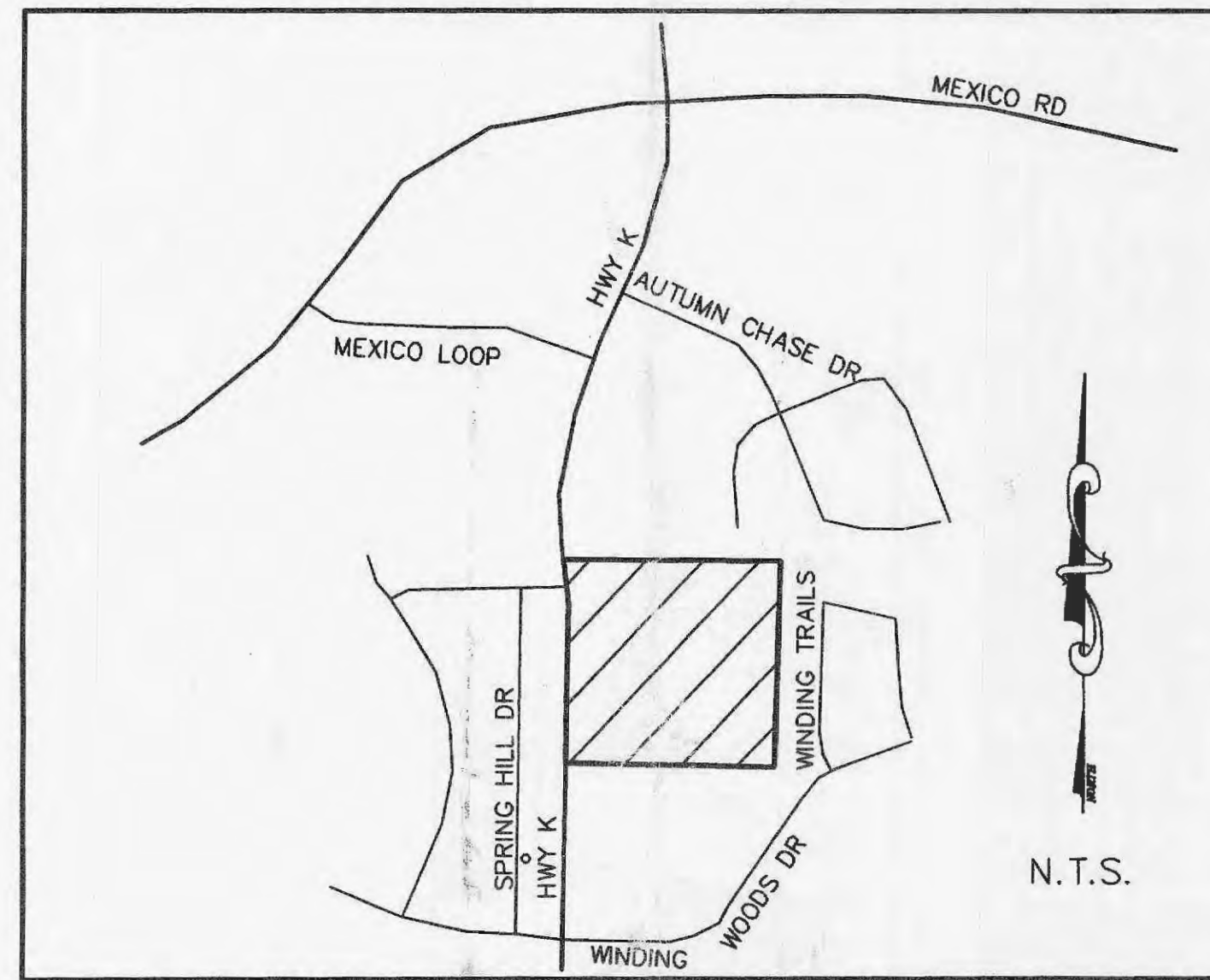
MEGAN CROSSING

A TRACT OF LAND BEING PART OF
FRACTIONAL SECTION 33,
TOWNSHIP 47 NORTH, RANGE 3 EAST,
ST. CHARLES COUNTY, MISSOURI

GRADING PLAN

CITY OF O'FALLON GENERAL NOTES

- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
- 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.
- Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
- Storm sewers 18" in diameter or smaller shall be ASTM C-14.
- Storm sewers 21" in 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 III) unless noted otherwise in the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.T.O. See plans for gauge.
- All filled places under proposed roads, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 95% 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 filled places 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. Ensure 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 earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.A.S.H.T.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a soils engineer.
- All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
- 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 location laterals.
- No area shall be cleared without the permission of the developer.
- All grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be steeper than 3' (horizontal) to 1' (vertical) sodded or 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 post. 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 curb inlet 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 face staked. If normal face stakes fall in line with sewer construction, the Engineer will set these stakes on a double offset. 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. Water mains shall have a minimum of 42" of cover.
- 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.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All PVC sanitary sewer pipe shall 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 12" above the top of the pipe.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way markers shall be re-set at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manholes top shall be set 0.2' higher than the proposed ground except in pavement areas.
- All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing.
- All sanitary service lines shall have a 6" diameter.
- Manhole frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1735 or Deeter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole. Minimum cover of 42" is required on all sanitary sewer mains.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on in the construction of sanitary or storm sewer structures.
- 5/8" diameter trash bars shall be provided for all inlets.
- Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, root-tar pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-41. Asphalt shall conform to the requirements of ASTM D-449. Coal-tar pitch shall conform to the requirements of ASTM D-450. Coating shall be 31 mils thickness.
- All concrete pipe or ADS N-12 pipe shall be installed with "O-Ring" Rubber type gaskets per M.S.D. standard construction specifications or manufacturer.
- 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 fences (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 silts or mud on new or existing pavement or 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.
- Developer must supply City construction inspectors with soils reports prior to or during site soil testing.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Owner shall provide a copy of the soils report to grading contractor. Contractor shall be responsible for adhering to all recommendations outlined in the soils report.



LOCATION MAP

DOUG BYRD P.R.'S
DEBBIE P.R.'S
JIM PROVINCE
R.G. ROSE
314 638-9255

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	GRADING PLAN
3	INTERIM GRADING/SILTATION PLAN
4	SILTATION/SEDIMENT CONTROL DETAILS

LEGEND

	Sanitary Sewer (Proposed)		R.C.P.	Reinforced Concrete Pipe
	Sanitary Sewer (Existing)		C.M.P.	Corrugated Metal Pipe
	Storm Sewer (Proposed)		C.I.P.	Cast Iron Pipe
	Storm Sewer (Existing)		P.V.C.	Polyvinyl Chloride
	Water Line & Size		V.C.P.	Vitrified Clay Pipe
	Existing water line			
	Tee & Valve		C.O.	Clean Out
	Hydrant		V.T.	Vent Trap
	Cap		T.B.R.	To Be Removed
	Lot or Building Number		T.B.R.&R	To Be Removed & Relocated
	Existing Fence Line		T.B.P.	To Be Protected
	Existing Tree Line		T.B.A.	To Be Abandoned
	Street Sign		B.C.	Base Of Curb
	Existing Contour		T.C.	Top Of Curb
	Proposed Contour		F.E.	Flared End Section
	Grouted Rip-Rap		E.P.	End Pipe
	End of Lateral		E.D.	Energy Dissipator
	Asphalt Pavement		M.H.	Manhole
	Concrete Pavement		C.P.	Concrete Pipe

BENCH MARKS

TBM: "M" in Mueller on fire hydrant east side of Highway K
333± south of the northwest corner of this site.

ELEVATION = 574.07

U.S.G.S. BENCHMARK: F-149, AT O'FALLON, ST. CHARLES COUNTY, ON THE WABASH RAILROAD, ONE BLOCK EAST OF THE STATION, IN THE SOUTHEAST CORNER OF THE ST. MARY INSTITUTE YARD, 40 FEET EAST OF THE CENTER OF A STREET CROSSING, AND 45 FEET NORTH OF THE CENTERLINE OF THE MAIN TRACK. A STANDARD DISK, STAMPED F 149 1935 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 INCHES ABOVE GROUND.

ELEVATION = 542.80

9-16-04
APPROVED

PICKETT RAY & SILVER

Civil Engineers
Planners
Land Surveyors

333 Mid Rivers Mall Dr.
St. Peters, MO 63376
397-1211 FAX 397-1104

PICKETT RAY & SILVER

333 Mid Rivers Mall Drive
St. Peters, MO 63376
Phone (636) 397-1211
Fax (636) 397-1104

CIVIL ENGINEERS
PLANNERS
LAND SURVEYORS

MEGAN CROSSING
MISSOURI STATE HIGHWAY K
O'FALLON, MISSOURI

Prepared For:
G. J. GREWE, INC.
9109 WALTON ROAD
ST. LOUIS, MO 63120
(314) 982-6670

REVISIONS NO.	DATE	DESCRIPTION
1	05-28-04	PER CITY OF O'FALLON

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.

ERIC SCOTT KIRCHNER
E-2001004618
Professional Engineer
Missouri

DRAWN D.STOSZ	DATE 04-27-04
CHECKED D.BYRD	DATE 04-27-04
PROJECT # 03043.G.J.G.R.00C	TASK # 1 FIELD BOOK

MEGAN CROSSING
COVER SHEET
SHEET 1 OF 4
FILE #2002.04
Copyright 2003 by Pickett, Ray & Silver Inc.

Const. Inspector