# Royallsprings Plat 3 Lot 62 Drainage Improvements

A tract of land being Lot 62 of The Manors At Royallsprings Plat Three, as recorded in Plat Book 31, Page 292 of St. Charles County records St. Charles County, Missouri

# Improvement Plans

# ROYALLPRAIRIE CT FALLON PKWY ROYALLVALIEY WAY ROYALLSPRINGS PKWY LOCATION MAP N.T.S.

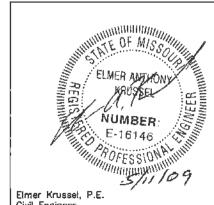
### DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	NOTES AND SPECIFICATIONS
3	NOTES AND SPECIFICATIONS
4	PLAN SHEET
5	PROFILES
6	DRAINAGE AREA MAP
7-8	CONSTRUCTION DETAILS
9	EROSION CONTROL PLAN

#### ENGINEERS AUTHENTICATION

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> PICKETT, RAY & SILVER, INC. MO LICENSE #000325



Civil Engineer License #E-16146

## **LEGEND**

(	GI. 30	Storm Structure	R.C.P.	Reinforced Concrete Pipe
=	<del>-</del>	Storm Sewer (Proposed)	T.B.R.	To Be Removed
=	-D	Storm Sewer (Existing)	T.B.R.&R	To Be Removed & Relocated
	18	Lot or Building Number	(TYP)	Typical
_		Existing Fence Line	Ų.I.P.	Use in Place
	_	Chiating Fatter Little	N.T.S.	Not To Scale
`		Existing Contour	τ	Top of Structure
~		Proposed Contour	FL	Flowline
,	A.I.	Area Inlet		Silt Fence
E	F.E.S.	Flored End Section		Fabric Drop
1	M.H.	Manhole		Temporary Construction Easement
(	C.P.	Concrete Pipe		
,	T.W.	Top of Wall		
E	B. <b>W</b> .	Bottom of Wall	Str	ucture Type
				/ - \

Total Flow

Hydraulic Grade Line

#### PROJECT BENCHMARK:

RM 66: ELEV. 581.74 Cross cut on the weet bolt of a fire hydrant located at the northeast corner of Mill Pond Drive and Spring Hill Drive.

#### SITE BENCHMARK:

ELEY. 667.65 Cut Cross at centerline-centerline intersection of Royallprairie Lane and Royallvalley Way

IMPROVEMENT PLANS 62 ROYALLSPRINGS PL

PROJECT # 08162.0FCL004

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#### **GENERAL NOTES**

- 1. 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.
- 2. ALL MANHOLE AND INLET TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.
- 3. ALL FILLED PLACES, INCLUDING TRENCH BACK FILLS, UNDER BUILDINGS, PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS, SHALL BE COMPACTED TO 90% MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 CDMPACTION TEST." (A.S.T.M.-D-1557). ALL FILLED PLACES WITHIN PUBLIC ROADWAYS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE "STANDARD PROCTOR TEST AASHTO T-99, METHOD C" (A.S.T.M.-D-698).
- 4. ALL TRENCH BACK FILLS UNDER PAVED AREAS SHALL BE GRANULAR BACK FILL, AND SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST." (A.S.T.M.-D-1557). ALL OTHER TRENCH BACK FILLS MAY BE EARTH MATERIAL (FREE OF LARGE CLODS OR STONES). ALL TRENCH BACK FILLS SHALL BE WATER JETTED.
- 5. NO AREA SHALL BE CLEARED WITHOUT THE PERMISSION OF THE PROJECT ENGINEER.
- 6. BRICK WILL NOT BE USED IN THE CONSTRUCTION OF SEWER STRUCTURES.
- 7. ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT BASE STRUCTURES ARE ALLOWED.
- 8. THE CITY OF O'FALLON SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION AND INSPECTION.
- 9. ALL EXISTING SITE IMPROVEMENTS DISTURBED, DAMAGED OR DESTROYED SHALL BE REPAIRED OR REPLACED TO CLOSELY MATCH PRE-CONSTRUCTION CONDITIONS.
- 10. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS OF THE CITY OF O'FALLON & MSD.
- 11. ALL STORM SEWER TRENCH BACK FILLS SHALL BE WATER JETTED. GRANULAR BACK FILL WILL BE USED UNDER PAVEMENT AREAS.
- 12. ADS PIPE FOR STORM SEWERS SHALL BE N-12 WT IB WATER-TIGHT PIPE WITH A MINIMUM DIAMETER OF 12". PIPE BEDDING SHALL BE PER MANUFACTURER'S AND CITY'S SPECIFICATIONS.
- 13. THE CONTRACTOR SHALL PREVENT ALL STORM, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEM. SILTATION CONTROL SHALL BE INSTALLED AS DIRECTED BY THE PROJECT ENGINEER.
- 14. ADS PIPE JOINTS SHALL BE INTEGRAL GASKETED BELL AND SPIGOT JOINTS.
- 15. EROSION CONTROL SHALL BE INSTALLED AS DIRECTED BY PROJECT ENGINEER.

#### **TECHNICAL SPECIFICATIONS**

Construction access to the site: Access to the site for all equipment and materials shall be from Royallprairie Ct. between lots 62 and 63. The contractor should avoid using the driveway on Lot 62 for access. If the driveway is damaged by construction equipment, damaged areas shall be replaced at the contractor's expense by removing and replacing full slabs. Saw cutting and replacing partial slabs shall not be allowed.

<u>Sewer Construction</u>: All storm sewer construction and materials shall meet the requirements of the Metropolitan St. Louis Sewer District and the City of O'Fallon, Missouri. Bedding for ADS N-12 storm sewer pipe shall meet the manufacturer's recommendation (see ADS pipe bedding detail).

Special precautions shall be taken to protect trees near inlets AI 4 and AI 6. The radius of the Tree Protection Zone (TPZ) should be, at a minimum, 12-15 times the Diameter at Brest Height (DBH) of the tree and should be protected with construction fencing staked at regular intervals. (For example: An 8" tree should have a TPZ with an 8-10 foot radius from its trunk). Construction traffic, soil disturbance, and stockpiling of materials are not to be allowed within the TPZ. If work occurs within the drip line of the protected tree the lower limbs may need to be pruned and the fine roots may need to be protected. Lower limbs should be pruned approximately 3 feet above the minimum clearance of construction equipment. A layer of mulch 6 – 12 inches deep, % inch plywood, or 4 – 6 inches of gravel over a geotextile fabric covering the surface of fine roots can protect from mechanical damage and soil compaction. Fine root protection, even mulch, should be removed after construction to prevent suffocation and death of the fine root system. During excavation, if roots over one inch are encountered they shall be root pruned rather than crushed or torn. Air or water pressurized excavation systems, careful mechanical, and or hand excavation and commercial root pruning equipment can provide adequate root care. Trench excavation shall be done with the backhoe on the southwest (downhill) side of the inlet.

The modular block wall on the northeast side of the above ground pool on lot 62 shall be removed and replaced as necessary to construct the storm sewer system. The blocks from the existing wall shall be stockpiled by the contractor for use in rebuilding the wall. If the blocks from the existing wall are damaged, the contractor shall remove the wall completely and replace the wall with new blocks. The use of a mix of new and old blocks shall not be allowed.

<u>Site Restoration:</u> All construction materials and debris shall be removed from the site. Any existing improvements that are damaged by construction shall be repaired or replaced to the satisfaction of the City of O'Fallon. Existing fences that are removed to facilitate construction shall be restored to their preconstruction condition.

Where noted on the plans the existing vegetation shall be stripped, all erosion ditches shall be filled with topsoil and compacted, the area fertilized and seeded, and the area covered with a coconut fiber erosion control blanket. The fertilizer shall be applied at a rate of: Nitrogen – 30 lbs/acre, Phosphate – 30 lbs/acre, and Potassium – 30 lbs/acre. Seed shall be tall Fescue applied at a rate of 15 lbs/acre and Brome applied at a rate of 10 lbs/acre. The erosion control blanket shall be North American Green C125BN or approved equal.

All other disturbed areas shall be sodded.

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PICKETT, RAY & SILVER, INC MO LICENSE #000325



Elmer Krussel, P.E. Civil Engineer License #E--16146 CIVIL ENGINEERING, LAND BUTNETNIG,
AND NATURAL RESOURCES BERINGES

BI: Poters

823 Mid Rhopes Mid Drive

825 Mid Rhopes

825 Mid Rhopes

825 Mid Rhopes

827 W. Hwy

827 W. Hwy

IMPROVEMENT PLANS
LOT 62 ROYALLSPRINGS PLAT
Prepared For:
City of O'Fallon City of O'Fallon Committy Development D

DRAWN 0/2/23/08
CHECKED DATE 02/23/08
E.A.K. DATE 02/24/08
PROJECT # 08162.0PC.00P
TASK # 1 PILO

DEPROVEMENT PLANS
LOT 82 ROYALISPENGS
GENERAL NOTES
SHEET 2 OF 9

#### STORM SEWER NOTES

- 1. ALL STORM SEWER PIPE SHALL BE ADS N-12 WT 1B WATERTIGHT PIPE. REINFORCED CONCRETE PIPE, CLASS III MINIMUM, IS AN APPROVED ALTERNATE PIPE.
- 2. ALL STORM SEWER STRUCTURES WITHIN THE PROJECT SITE ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF O'FALLON STORMWATER MANAGEMENT CONSTRUCTION SPECIFICATIONS.
- 3. WATERTIGHT GASKET MEETING ASTM F477 SHALL BE USED AT ALL JOINTS FOR ADS PIPE.
- 4. "O" RING RUBBER GASKETED WATER TIGHT JOINTS SHALL BE USED FOR ALL CONCRETE PIPE REACHES.
- 5. A \$/8" TRASH BAR WILL BE INSTALLED AND CENTERED ACROSS ALL AREA INLET OPENINGS.
- 6. BRICK SHALL NOT BE USED IN THE CONSTRCTION OF STORM SEWER STRUCTURES.
- 7. CONNECTIONS AT ALL STORM SEWER STRUCTURES SHALL BE MADE WITH A-LOK JOINT OR EQUAL.
- 8. ALL STORM SEWER INLETS SHALL BE INSTALLED WITH A MARKER, BELOW IS THE RECOMMENDATIONS. THE CITY WILL ALLOW THE FOLLOWING MARKERS AND ADHESIVE PROCEDURES ONLY AS SHOWN IN THE TABLE BELOW OR AN APPROVED EQUAL. "PEEL AND STICK" ADHESIVE PADS WILL NOT BE ALLOWED.

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 <sup>11</sup>	EPOXY	STANDARD STYLE	NO DUMPING DRAINS TO STREAM (SD-W-CC)	WWW.DASMANUFACTURING.COM

- 9. 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 7.S 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.
  - a. DEPTH: TRENCH BACKFILL LESS THAN 8 FEET IN DEPTH SHALL BE PROBED TO A DEPTH EXTENDING TO HALF THE DEPTH OF THE TRENCH BACKFILL, BUT NOT LESS THAN 3 FEET. TRENCH BACKFILLGREATER THAN 8 FEET IN DEPTH SHALL BE PROBED TO HALF THE DEPTH OF THE TRENCH BACKFILL BUT NOT GREATER THAN 8 FEET.
  - b. EQUIPMENT: THE JETTING PROBE SHALL BE A METAL PIPE WITH AN EXTERIOR DIAMETER OF 1.5 TO 2 INCHES.
  - c. METHOD: JETTING SHALL BE PERFORMED FROM THE LOW SURFACE TOPOGRAPHIC POINT AND PROCEED TOWARD THE HIGH POINT, AND FROM THE BOTTOM OF THE TRENCH BACKFILL TOWARDS 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 DITCH WITHOUT FIRST SATURATING THE TRENCH.
  - d. SURFACE BRIDGING: THE CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF THE SURFACE BRIDGING (THE TENDENCY FOR THE UPPER BACKFILL CRUST TO ARCH OVER THE TRENCH RATHER THAN COLLAPSE AND CONSOLIDATE DURING THE JETTING PROCESS). THE CONTRACTOR SHALL BREAKDOWN THE BRIDGED AREAS USING AN APPROPRIATE METHOD SUCH AS WHEELS OR BUCKET OF A BACKHOE. WHEN THE SURFACE CRUST IS COLLAPSED, THE VOID SHALL BE BACKFILLED WITH THE SAME MATERIAL USED AS TRENCH BACKFILL AND RE-JETTED. COMPACTION OF THE MATERIALS WITHIN THE SUNKEN/JETTED AREA SHALL BE COMPACTED SUCH THAT NO FURTHER SURFACE SUBSIDENCE OCCURS.

#### **SILTATION CONTROL**

#### SILTATION CONTROL GENERAL NOTES

- INSTALLATION OF ALL PERIMETER SEDIMENT CONTROL SHALL BE IMPLEMENTED BEFORE ANY OTHER CONSTRUCTION BEGINS.
- 2. INSPECTION OF SILTATION CONTROL DEVICES SHALL TAKE PLACE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF ANY 0.5"/24 HOUR RAIN EVENT. ANY SILTATION CONTROL IN NEED OF REPAIR SHALL BE REPAIRED IMMEDIATELY.
- ALL SLOPES OR DRAINAGE CHANNELS, ONCE CONSTRUCTED TO FINAL GRADE SHALL BE SEEDED AND MULCHED PER SPECIFICATIONS WITHIN SEVEN (7) DAYS.
- AREA INLET FABRIC DROP SHALL BE INSTALLED IMMEDIATELY AROUND EACH STORM SEWER STRUCTURE ONCE FINAL
  CONSTRUCTION OF EACH INDIVIDUAL STRUCTURE IS COMPLETE.
- S. ALL SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

#### SILT FENCE SPECIFICATIONS

- 1. SILT FENCE SHALL BE WOVEN GEOTEXTILE FABRIC, MIRAFI 100X OR EQUAL.
- 2. FABRIC SHALL BE SUPPORTED BY METAL TEE POSTS WITH SPADE BASE SPACED ON 5' CENTERS WITH W6 X W6/10 X 10 GAGE WELDED WIRE FENCE.
- 3. FABRIC SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED A MINIMUM OF 6 INCHES DEEP FOR THE LENGTH OF THE FENCE. THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE FENCE. (SEE DETAIL)
- 4. FENCE HEIGHT SHALL BE A MINIMUM OF 4 FEET WITH THE FABRIC INSTALLED ON THE FENCE ON THE UPSTREAM SIDE.
- S. SILT FENCES SHALL BE USED ONLY ON SHEET FLOW CONDITIONS.

#### SILT FENCE MAINTENANCE

- 1. SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- 2. NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL, THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- 5. 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, SILTATION FABRIC FENCES (POSSIBLE METHODS OF CONTROL ARE DETAILED ON THE PLAN.) CONTROL SHALL COMMENCE WITH THE CLEARING OPERATION AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE CITY OF O'FALLON. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE ALL DESIGN AND IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT. THE CITY OF O'FALLON 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 SWALESS SHALL BE REMOVED AFTER EACH RAIN AND AFFECTED AREAS CLEANED TO THE SATISFACTION OF THE CITY OF O'FALLON.

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Elmer Krussel, P.E. Civil Engineer License #E−16146 PICKETT, RAY & SILVER INC.

CIVIL ENGINEERING, LAND SUFFEYING.

AND MATCHAL RESOURCES SERVICES

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St. Peters, MO 5327 W. Hwy 78, Suff.

Phone (535) 357-1211 Fax (523) 397-1104

IMPROVEMENT PLANS
LOT 62 ROYALLSPRINGS PLAT 3
Pepared For City of O'Fallon Community Development Department

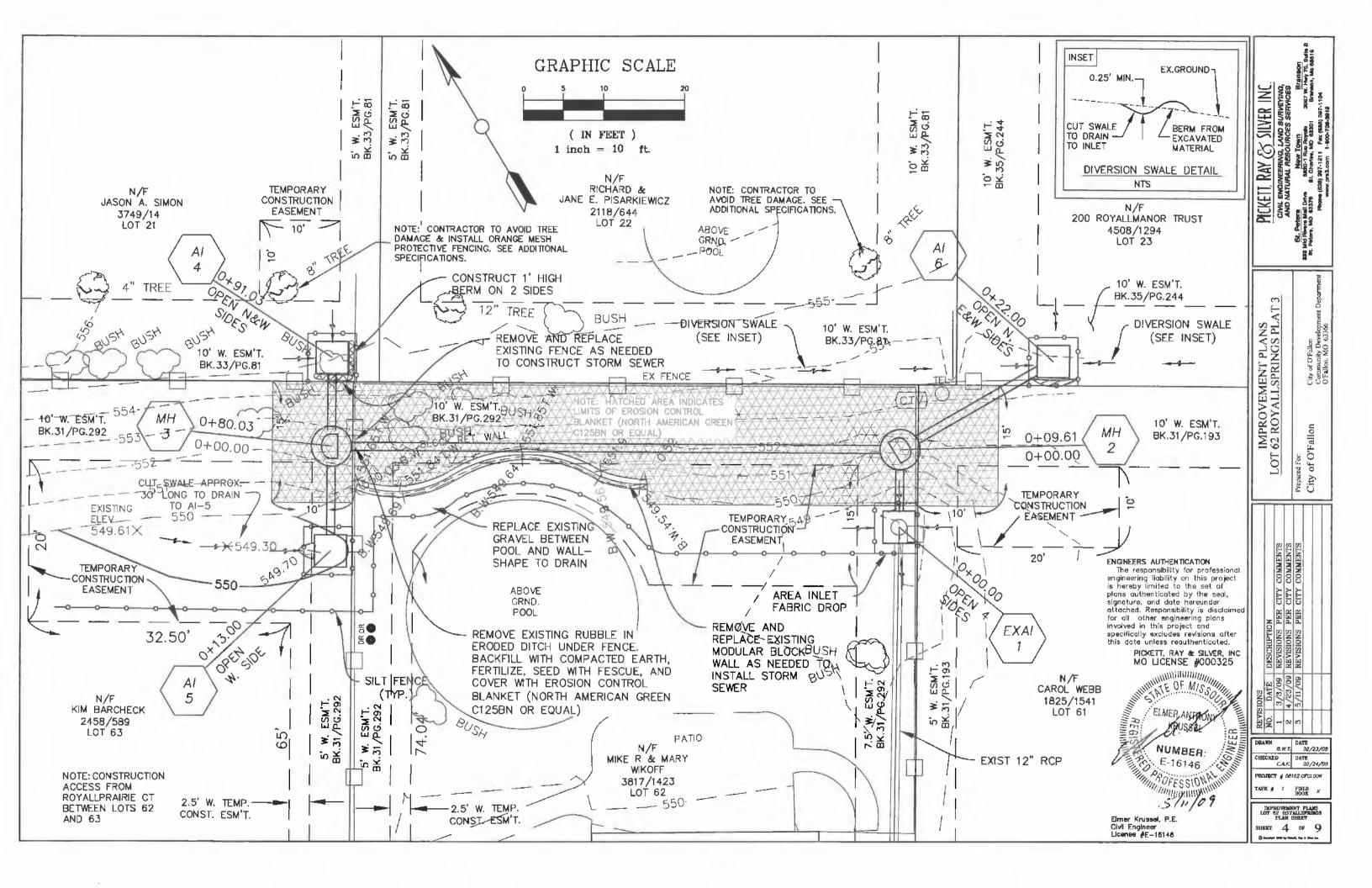
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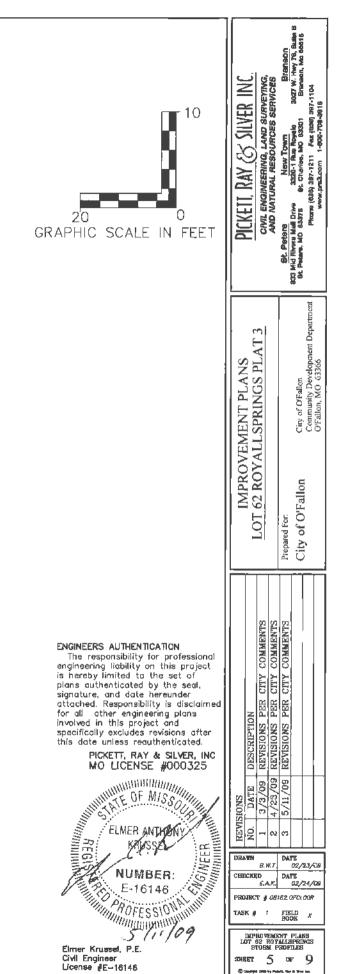
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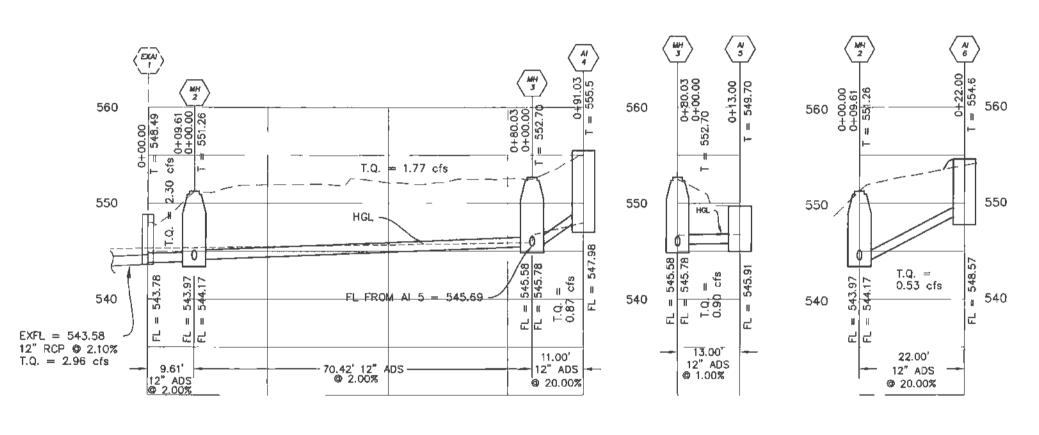
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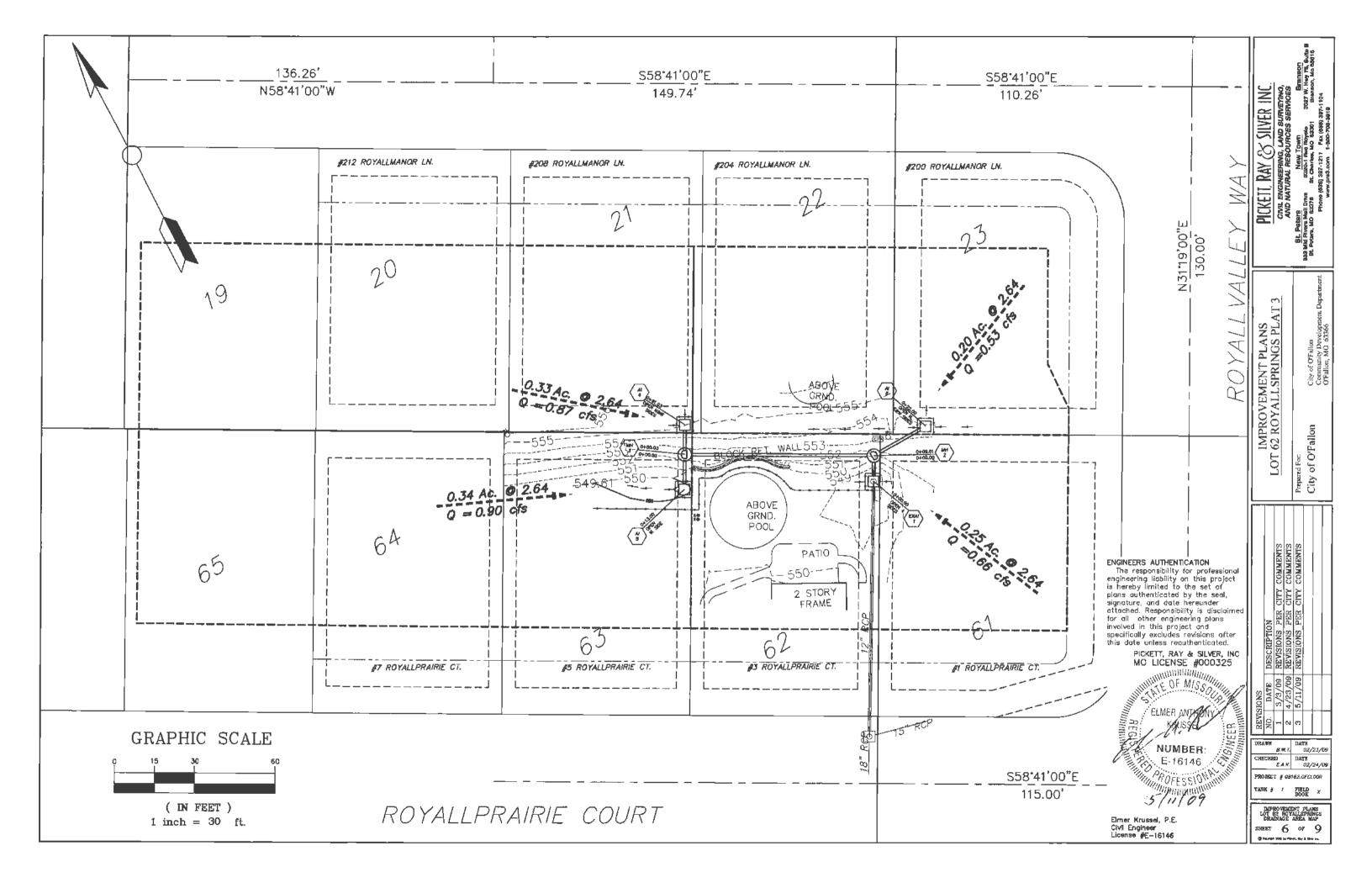
LOT 62 ROYALLSPRINGS
GENERAL NOTES
SHEET 3 OF 9

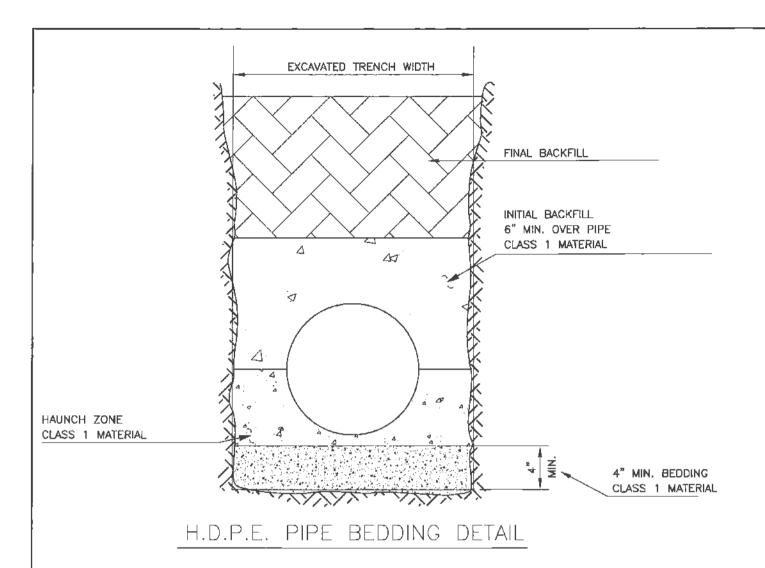
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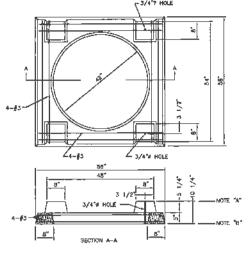




1. The use of High Density Polyethylene Corrugated pipe A.D.S N12 or equal will be permitted as and acceptable alternative to reinforced concrete pipe. Pipe shall meet A.S.T.M. D-2321 and AASHTO M-294-921. Concrete flared end sections and inlet structures shall be required. Pipe must have smooth interior wall and is not to be used inside the Public Right-of-Way.

All concrete pipe or HDPE pipe shall be installed with o-ring rubber type gaskets per M.S.D. Standard Construction Specifications or Manufacturer.

- 2. In typical conditions the minimum trench width is determined by the size of the pipe and the ability to get compaction equipment between the pipe and the trench walls. The minimum trench width should not be less than the outside diameter plus 16 inches or the pipe outside diameter times 1.25 plus 12 inches; whichever is greater. High speed trenchers may enable satisfactory installation of pipe in narrower trenches. Poor insitu soil conditions such as peat, muck, running sands or expansive clays will require substantially wider backfill as well as deeper foundation and bedding. Trench width and foundation depth should be based on a thorough site investigation.
- 3. Backfill in the area up to the springline should be carefully placed and compacted to achieve a minimum E value of 1,000 psi as detailed in ASTM D2321. A minimum of 12" of backfill should be placed and compacted above the crown of the pipe.
- 4. Flexible pipe should never be installed in a concrete cradle, as done for rigid pipe in a Class A installation. This type of installation could create concentrated forces at the ends of the cradle when the pipe has deformed.
- 5. When H.D.P.E. pipe is used, pipe must meet ADS pro-link ultra joint specifications or equal, per ASHTO M294.

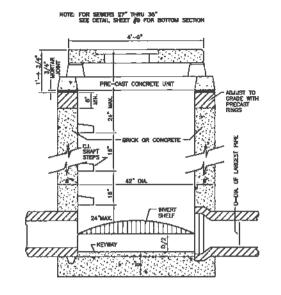


4000 P.SJ. CONCRETE REQUIRED

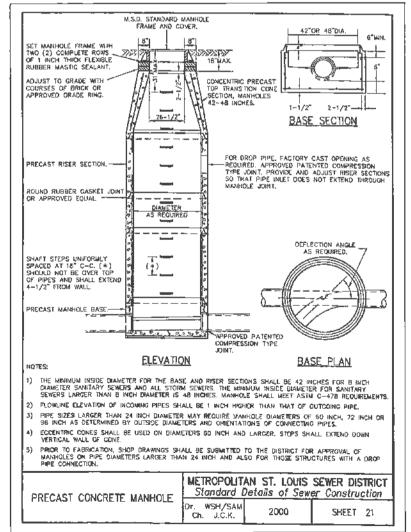
NOTES:
A SET STANDARD INLET STONE IN 3/4" NORTAR BED AND DOWEL WITH 5/8" CHA. 1"-0" LONG PINS AND GROUND RAYS TO FINAL GRADE WITH PRECEST COME. RINGS AND SET THE LIMIT TO BASE WITH 3/4" MORTAR BED.
SET THE LIMIT TO BASE WITH 3/4" MORTAR BED.
THE LIMIT TO BE USED WITH 3/4" MORTAR BED.

D. A 5/8" TRASH BAR WILL BE INSTALLED & CENTERED ACROSS ALL AREA/CURB INLET OPENINGS.

PRECAST CONCRETE UNIT FOR 4-WAY AREA INLET

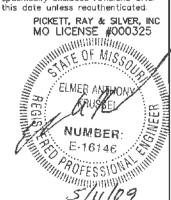


AREA INLET (12" THRU 24")



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IMPROVEMENT PLANS 62 ROYALLSPRINGS PL

LOT

of O'Fallon

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E.A.K.

DATE
02/23/09

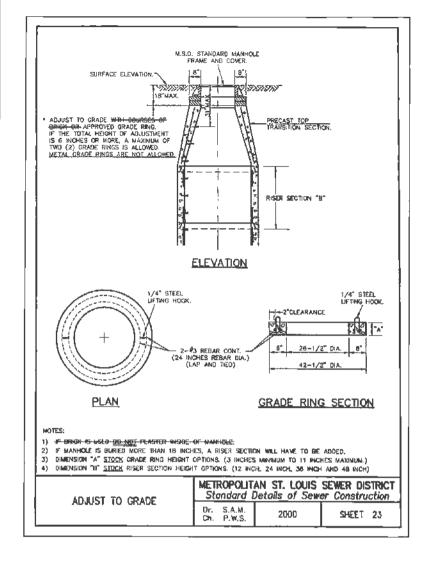
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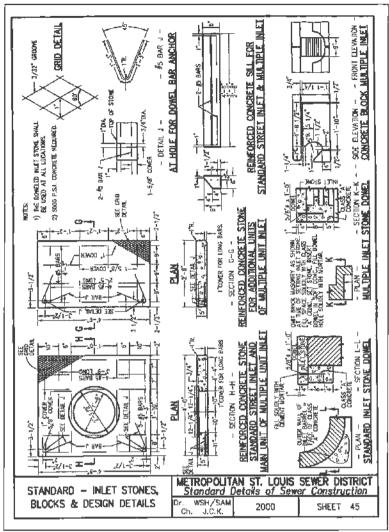
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IMPROVEMENT PLANS
LOT 82 ROYALLSPRINGS
CONSTRUCTION DETAILS
SHEET 7 OF 9

FIELD ×

TASK # 1



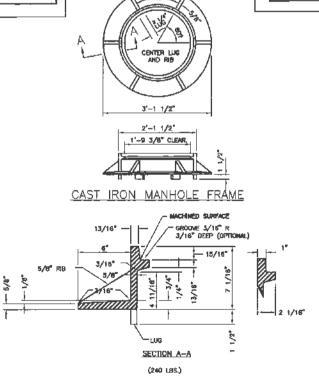


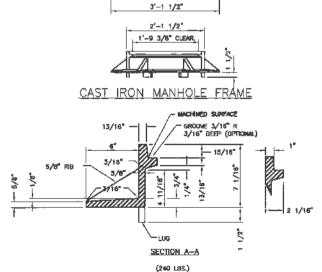
1/Z" GRADE 60 STEEL REINFORCEMENT ---

COPOLYMER POLYPROPYLENE PLASTIC MANHOLE STEP FOR

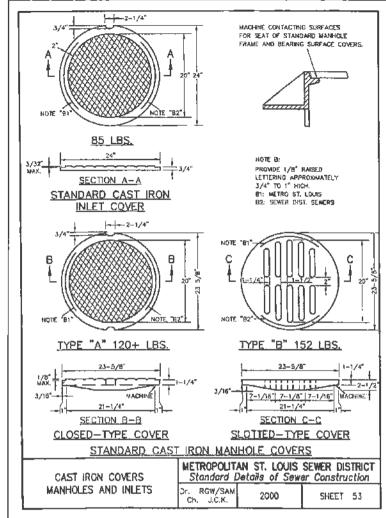
PRECAST MANHOLE

SECTION A-A





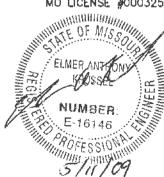
CAST IRON MANHOLE FRAME



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IMPROVEMENT PLANS LOT 62 ROYALLSPRINGS PLAT 3

of O'Fallon

City

N DATE S.W. I. 02/23/09 CHECKED DATE EAK 02/24/09 PROJECT # 08162.0FCI.00R TASK # FIELD X

SHEET 8 OF 9

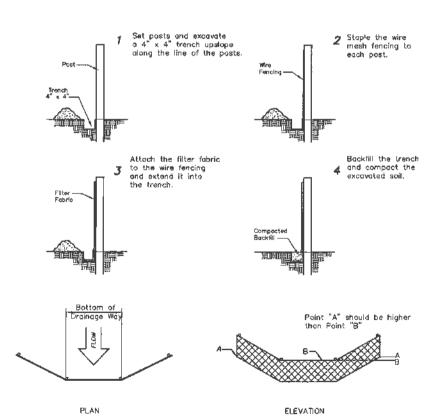
NOTE: ALL DISTURBED INLETS SHALL
BE PROTECTED WITH A FABRIC DROP
INLET PROTECTION.
ALL SEDIMENT FROM DISTURBED AREAS
SHALL BE CAPTURED BEFORE LEAVING THE
DISTURBED AREA BY EITHER SILT FENCE
PROTECTION OR STRAW BALE DITCH CHECKS AS
APPROPRIATE OR AS DIRECTED BY THE ENGINEER.

#### SYNTHETIC FILTER BARRIERS For Urban Development Sites

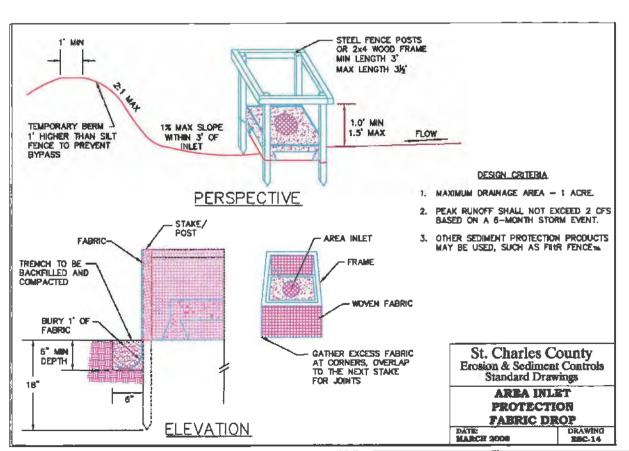
#### APPENDIX D

#### MAINTENANCE

- Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- Should the fabric decompose or became ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
- Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no langer required shall be dressed to conform with the existing grade, prepared and seeded.



Placement and Construction of a Synthetic Filter Barrier



IMPROVEMENT PLANS
62 ROYALL SPRINGS PLAT 3
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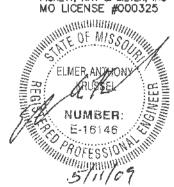
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ENGINEERS AUTHENTICATION

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.

PICKETT, RAY & SILVER, INC



Elmer Krussel, P.E. Civil Engineer License #E-16146 DRAWN B.W.T. 02/23/05
CHSCKED DATE 02/23/05
PROJECT \$ 06/42.0FCL00R

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DESCRIPTIO REVISIONS REVISIONS REVISIONS

IMPROVEMENT PLANS
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SHEET 9 OF 9

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TASK # J