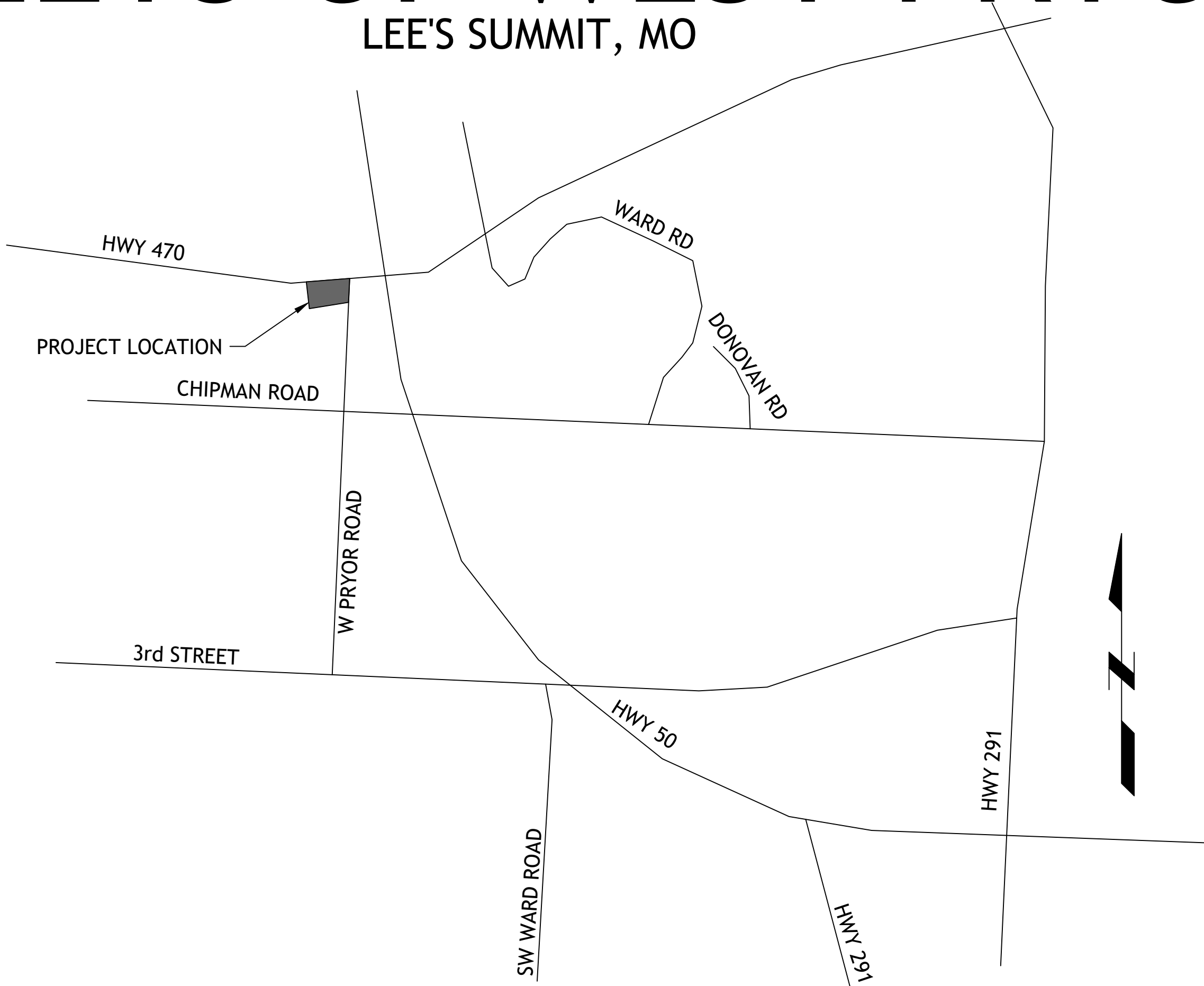


PRIVATE MASS GRADING &  
STORM SEWER PLANS  
FOR  
LOTS 11 &12  
STREETS OF WEST PRYOR

LEE'S SUMMIT, MO



LOCATION MAP

LEGAL DESCRIPTION:  
LOT 10, STREETS OF WEST PRYOR, LEE'S SUMMIT, JACKSON COUNTY MISSOURI  
LOT AREA 3.25 ACRES

ALL EXISTING TOPOGRAPHIC DATA AND INFRASTRUCTURE IMPROVEMENTS SHOWN BASED ON  
INFORMATION BY KAW VALLEY ENGINEERING

BENCHMARKS:  
#1 CHISELED "SQUARE" ON TOP OF CURB POINT OF INTERSECTION OF WEST PARK PARKING LOT AT EAST  
DRIVE ENTRANCE  
4.975.05

#2 CHISELED "SQUARE" ON NORTHWEST CORNER AREA INLET, 25' EAST OF CURB LINE AND ON-LINE WITH  
SOUTH CURB OF LOWENSTEIN DRIVE AT 90° BEND IN ROAD  
ELEVATION 970.98

- NOTES
1. THERE ARE NO GAS / OIL WELLS PER MDNR DATABASE OF OIL AND GAS PERMITS
  2. SITE IS LOCATED WITHIN FEMA ZONE X, AREAS OF MINIMAL FLOODING PER FEMA 29095C0416G DATED 1-20-17
  3. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH AN INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT 816-969-1200

UTILITIES  
Electric Service  
KCP&L  
Nathan Michael  
913-347-4310  
Nathan.michael@kcpl.com

Gas Service  
Spire  
Katie Darnell  
816-969-2247  
Katie.darnell@spireenergy.com

Water/Sanitary Sewer  
Water Utilities Department  
1200 SE Hamblen Road  
Lee's Summit, Mo 64081  
Jeff Thorn  
816-969-1900  
jeff.thorn@cityofls.net

Communication Service  
AT&T Carrie Cilke  
816-703-4386  
cc3527@att.com

Time Warner Cable  
Steve Baxter  
913-643-1928  
steve.baxter@charter.com

Comcast  
Ryan Alkire  
816-795-2218  
ryan.alkire@cable.comcast.com

Google Fiber  
Becky Davis  
913-725-8745  
rebeccadavis@google.com



UTILITY STATEMENT:  
THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

SAFETY NOTICE TO CONTRACTOR  
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY/DISCLAIMER  
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENEDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER SM ENGINEERING NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE SM ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION- NOTICE TO CONTRACTOR  
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SM Engineering  
5507 High Meadow Circle  
Manhattan Kansas, 66503  
smcivilengr@gmail.com  
785.341.9747

Drawings and/or Specifications are original proprietary work and property of the Engineer and intended specifically for this project. Use of items contained herein without consent of the Engineer is prohibited. Drawings illustrate best information available to the Engineer. Field verification of actual elements, conditions, and dimensions is required.

INDEX OF SHEETS

- C-1 COVER SHEET
- C-2 SITE PLAN
- C-3 GRADING PLAN
- C-4 EROSION CONTROL PLAN
- C-5 EROSION CONTROL DETAILS
- C-6 STORM LINE A PLAN AND PROFILE
- C-7 STORM LINE B PLAN AND PROFILE
- C-8 DETAILS

Revisions  
3-2-21 CITY COMMENTS  
6-8-21 PER CLIENT  
9-10-21 PER CLIENT

DEVELOPER

STREETS OF WEST PRYOR, LLC  
DAVID N. OLSON  
7200 W 133rd ST, SUITE 150  
CELL: OVERLAND PARK, KS 66213  
314-413-3598

ENGINEER

SM ENGINEERING  
SAM MALINOWSKY  
919 W STEWART RD  
COLUMBIA, MO. 65203  
785-641-9747

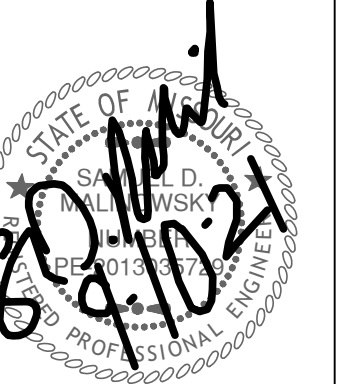


SAMUEL D. MALINOWSKY  
PROFESSIONAL ENGINEER

LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEE'S SUMMIT, MISSOURI

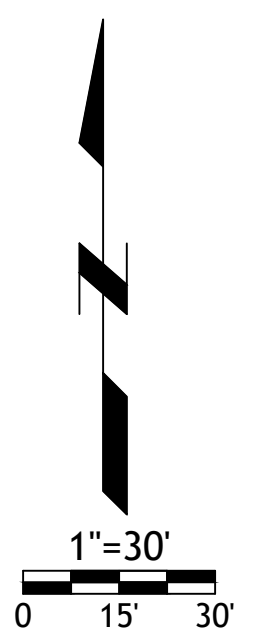
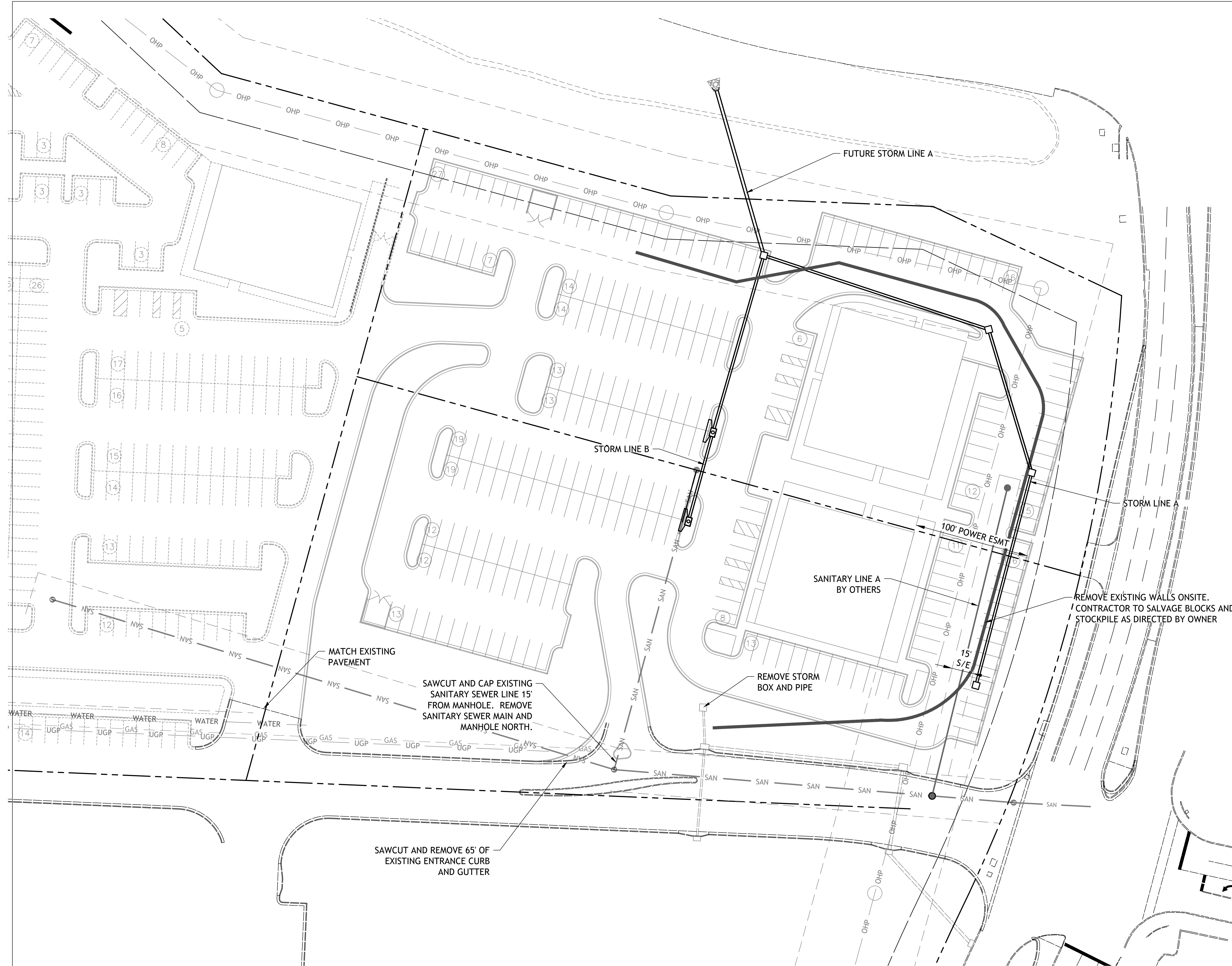
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C1.0  
Civil  
COVER SHEET  
permit  
26 JANUARY 2021





LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEE'S SUMMIT, MISSOURI

sheet  
C2.0  
Civil  
SITE PLAN  
permit  
26 JANUARY 2021

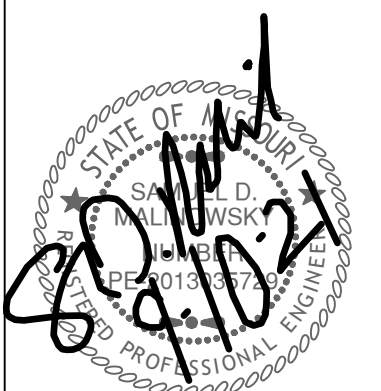






- GRADING NOTES:**
1. EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT ARCHITECTURAL PLANS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. FILL MATERIAL MAY INCLUDE ROCK FROM ON-SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE STONES ARE WELL DISTRIBUTED AND VOIDS ARE COMPLETELY FILLED WITH SMALLER STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 12 INCHES OF EMBANKMENT.
  2. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.
  3. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED. A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOF ROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.
  4. CONTRACTOR SHALL USE SILT FENCE OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.
  5. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
  6. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
  7. IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.
  8. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.
  9. ALL CONSTRUCTION TRAFFIC, TEMPORARY TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO REQUIREMENTS OF THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  10. SITE BEING ROUGH GRADED TO 12.5" BELOW FINISHED GRADE
  11. CONTRACTOR TO PLACE 8" LOW PERMEABILITY LVC FOR BUILDING PAD

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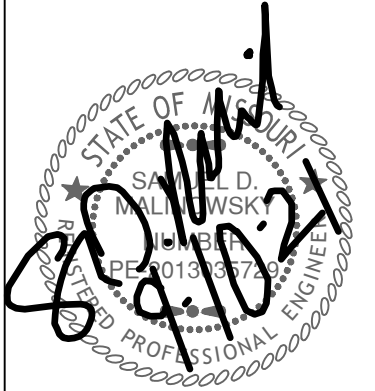


Revisions
3-2-21 CITY COMMENTS
6-8-21 PER CLIENT
9-10-21 PER CLIENT

LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEE'S SUMMIT, MISSOURI



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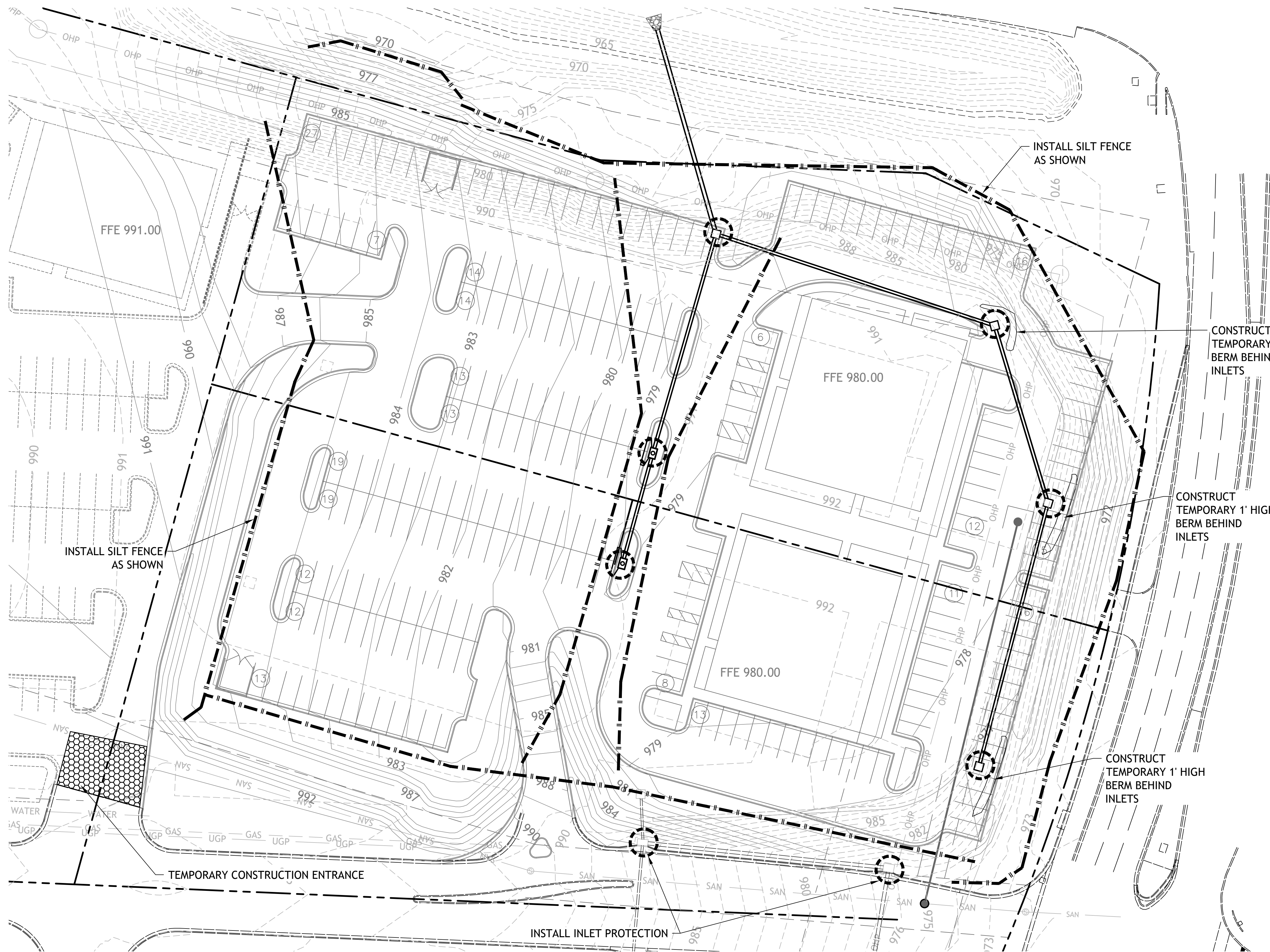
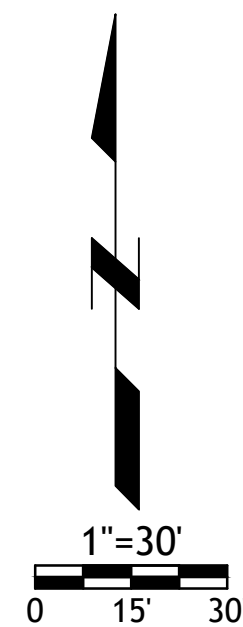
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LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEE'S SUMMIT, MISSOURI

- NOTES:
- Prior to Land Disturbance activities, the following shall occur:
    - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and pollution control plan;
    - Construct a stabilized entrance/parking/staging area;
    - Install perimeter controls and protect any existing stormwater inlets;
    - Request an initial inspection of the installed Phase I pollution control measures designated on the approved erosion and pollution control plan. Land disturbance work shall not proceed until there is a passed inspection
  - The site shall comply with all requirements of the MoDNR general requirements
    - Immediate initiation of temporary stabilization BMPs on disturbed areas where construction activities have temporarily ceased on that portion of the project site if construction activities will not resume for a period exceeding 14 calendar days. Temporary stabilization may include establishment of vegetation, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb the area. This stabilization must be completed within 14 calendar days;
    - Inspection of erosion and sediment control measures shall be performed to meet or exceed the minimum inspection frequency in the MoDNR General Permit. At a minimum, inspections shall be performed during all phases of construction at least once every 14 days and within 24 hours of each precipitation event.
    - An inspection log shall be maintained and shall be available for review by the regulatory authority;
    - The erosion and pollution control plan shall be routinely updated to show all modifications and amendments to the original plan. A copy of the erosion and pollution control plan shall be kept on site and made available for review by the regulatory authority.
  - Temporary seeding shall only be used for periods not to exceed 12 months. For final stabilization, temporary seeding shall only be used to establish vegetation outside the permanent seeding or sodding dates as specified in the Standard Specifications. Final stabilization requires a uniform perennial vegetative cover with a density of 70% over 100% of disturbed area.
  - Erosion and pollution control shall be provided for the duration of a project. All installed erosion and pollution control BMPs shall be maintained in a manner that preserves their effectiveness. If the City determines that the BMPs in place do not provide adequate erosion and pollution control at any time during the project, additional or alternate measures that provide effective control shall be required.
  - Concrete wash or rinse water from concrete mixing equipment. Tools and/or ready-mix trucks, etc. may not be discharged into or be allowed to run to any existing water body or portion of the storm water system. One or more locations for concrete washout will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place. Proper signage will be installed to direct users to the concrete washout. Concrete washouts must be handled prior to pouring any concrete.
  - Silt fences and sediment control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction. However, anticipated disturbance by utility construction shall not delay installation.
  - Required sediment basins and traps shall be installed as early as possible during mass grading. Sediment basins and traps shall be cleaned out when the sediment capacity has been reduced by 20% of its original design volume.
  - All manufactured BMPs such as erosion control blankets, TRMs, biodegradable logs, filter socks, synthetic sediment barriers and hydraulic erosion control shall be installed as directed by the manufacturer.
  - The above requirements are the responsibility of the permittee for the site. Responsibility may be transferred to another party by the permittee, but the permittee shall remain liable by the City of Lee's Summit if any of the above conditions are not met.

LEGEND

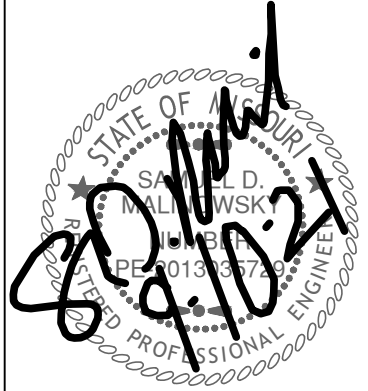
- || — || — SILT FENCE
- INLET PROTECTION
- TEMPORARY CONSTRUCTION ENTRANCE



- EROSION CONTROL PRACTICES AND SEQUENCE OF CONSTRUCTION ACTIVITIES  
THE PROJECT WILL BE CONSTRUCTED GENERALLY FOLLOWING THE SEQUENCE INDICATED BELOW.
- IMPLEMENT PRE-CONSTRUCTION EROSION CONTROL PLAN. THE FOLLOWING ARE INCLUDED:
    - INSTALL CONSTRUCTION VEHICLE ENTRY.
    - MARK AREAS TO REMAIN UNDISTURBED.
    - INSTALL DOWNHILL PERIMETER SEDIMENT CONTROL
  - DECONSTRUCT EXISTING MODULAR BLOCK RETAINING WALL
  - PERFORM SITE GRADING OPERATIONS. INSTALL INTERIM SILT FENCE AS GRADING PROGRESSES.
  - INSTALL STORM SEWER ALONG WITH INLET PROTECTION MEASURES.
  - ONCE GRADING OPERATIONS ARE COMPLETE SEED AND MULCH ENTIRE AREA DISTURBED AREA.
  - REMOVE PERIMETER SILT FENCE ONCE SITE IS STABILIZED. STORM SEWER INLET PROTECTION MEASURES TO REMAIN IN PLACE UNTIL FINAL SITE CONSTRUCTION PHASE.



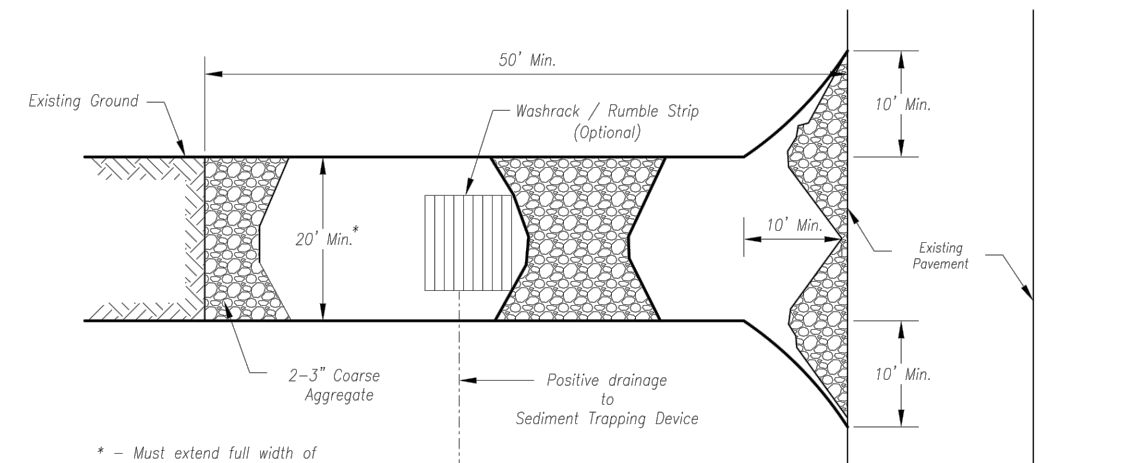
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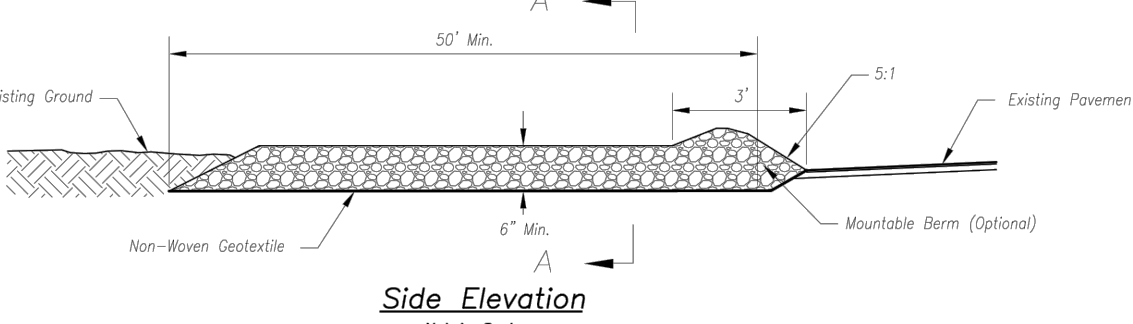
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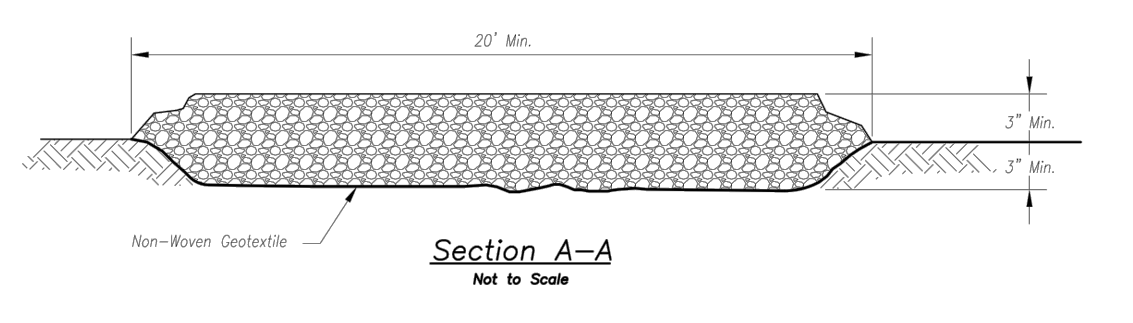
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Civil  
EROSION CONTROL  
DETAILS  
p 6 of 11  
28 JANUARY 2021



Plan View  
Not to Scale



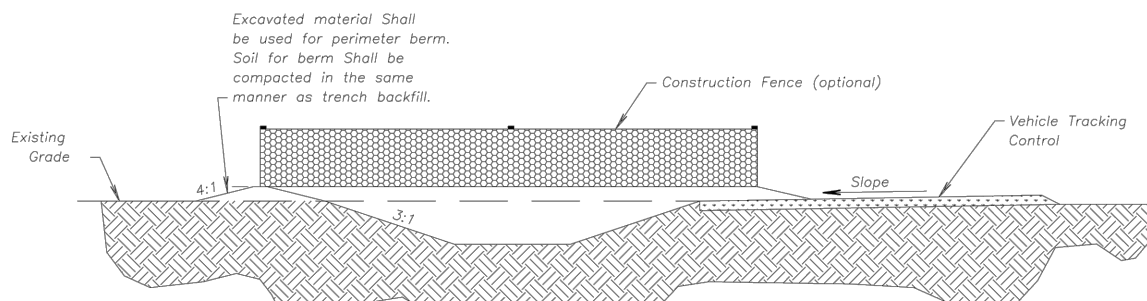
Side Elevation  
Not to Scale



Section A-A  
Not to Scale

- Notes for Concrete Washout:**
1. Concrete washout areas shall be installed prior to any concrete placement on site.
  2. Concrete washout areas shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
  3. Vehicle tracking control is required at the access point to all concrete washout areas.
  4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete trucks and pump rigs.
  5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

- Maintenance for Concrete Washout:**
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
  2. Concrete washout areas shall be enlarged as necessary to maintain capacity for washed concrete.
  3. Concrete washout water, washed pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
  4. Concrete washout areas shall remain in place until all concrete for the project is placed.
  5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topped, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION <b>APWA</b> KANSAS CITY METRO CHAPTER	
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01 ADOPTED: 10/24/2016

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

- Notes for Construction Entrance:**
1. Avoid locating on steep slopes, at curves on public roads, or downwind of disturbed area.
  2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
  3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
  4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
  5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
  6. Divert all surface runoff and drainage from the entrance to a sediment control device.
  7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

- Maintenance for Construction Entrance:**
1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

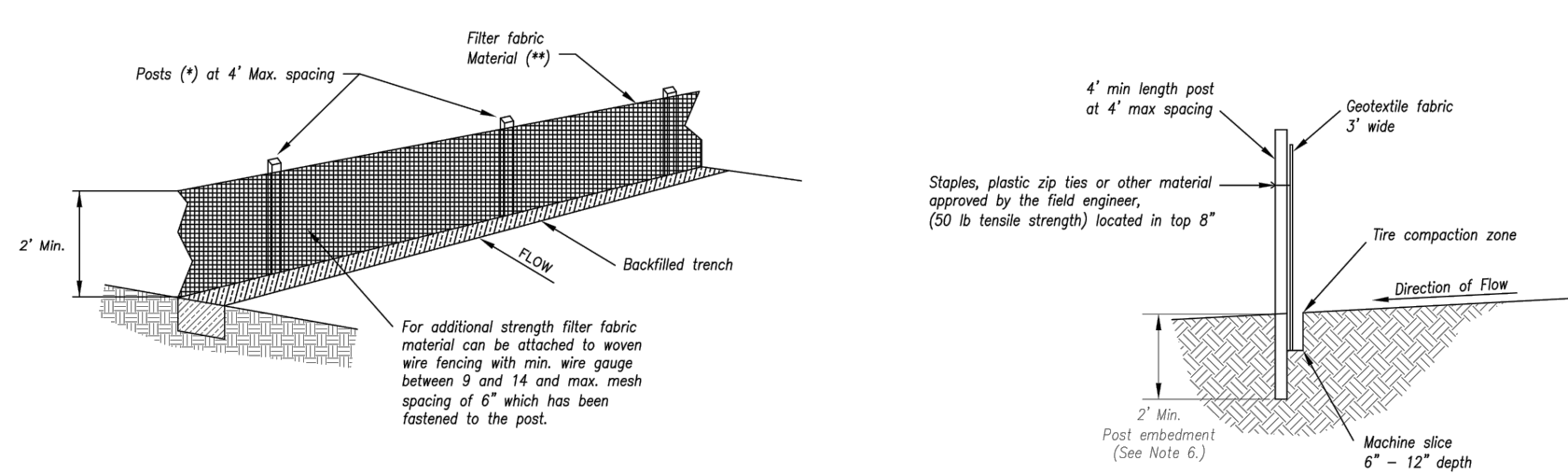
CONSTRUCTION ENTRANCE

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installations, where staking machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.



- (\*) POSTS**
- MIN. LENGTH 4'
  - HARDWOOD 1 3/4" x 1 3/4"
  - NO.2 SOUTHERN PINE 2 3/4" x 2 3/4"
  - STEEL 1.33 LB/FT

(\*\*) - Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS  
Not to Scale

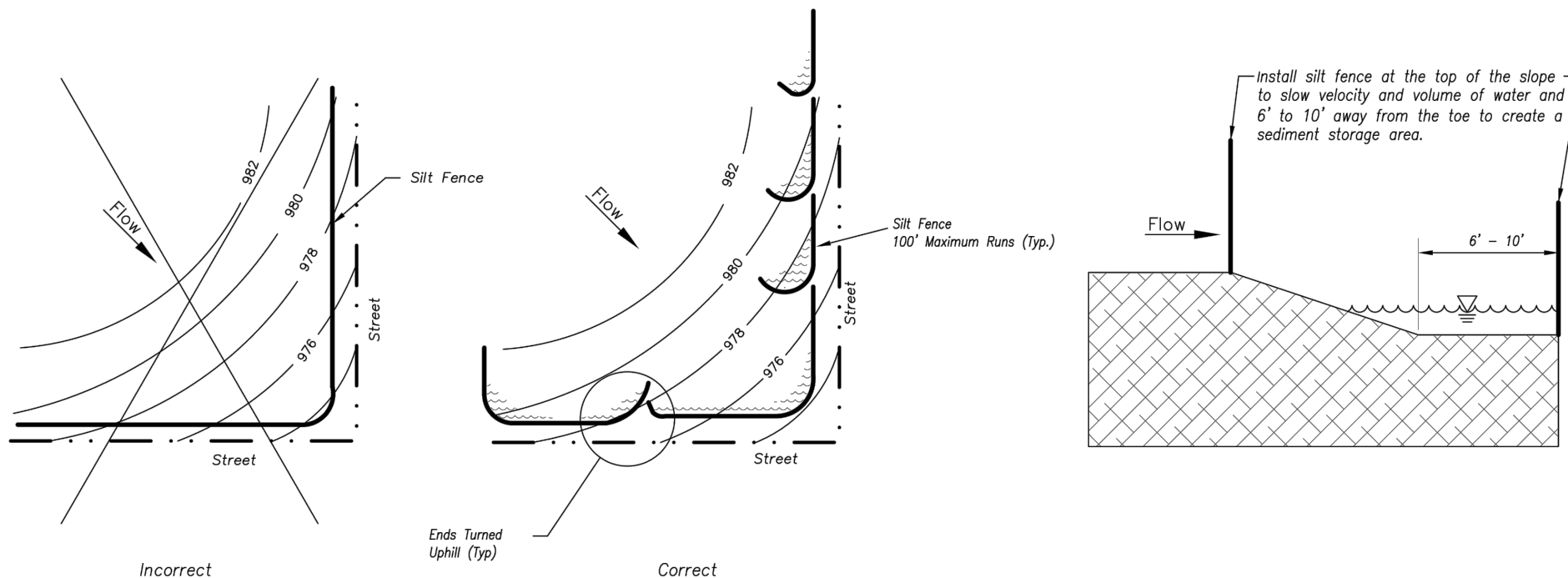
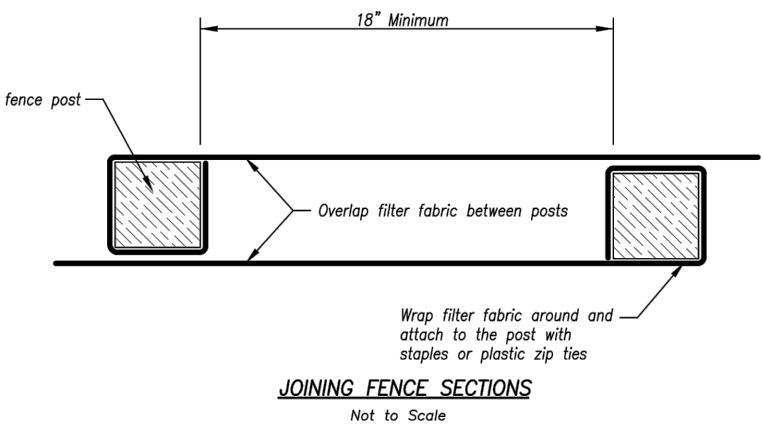


Figure A

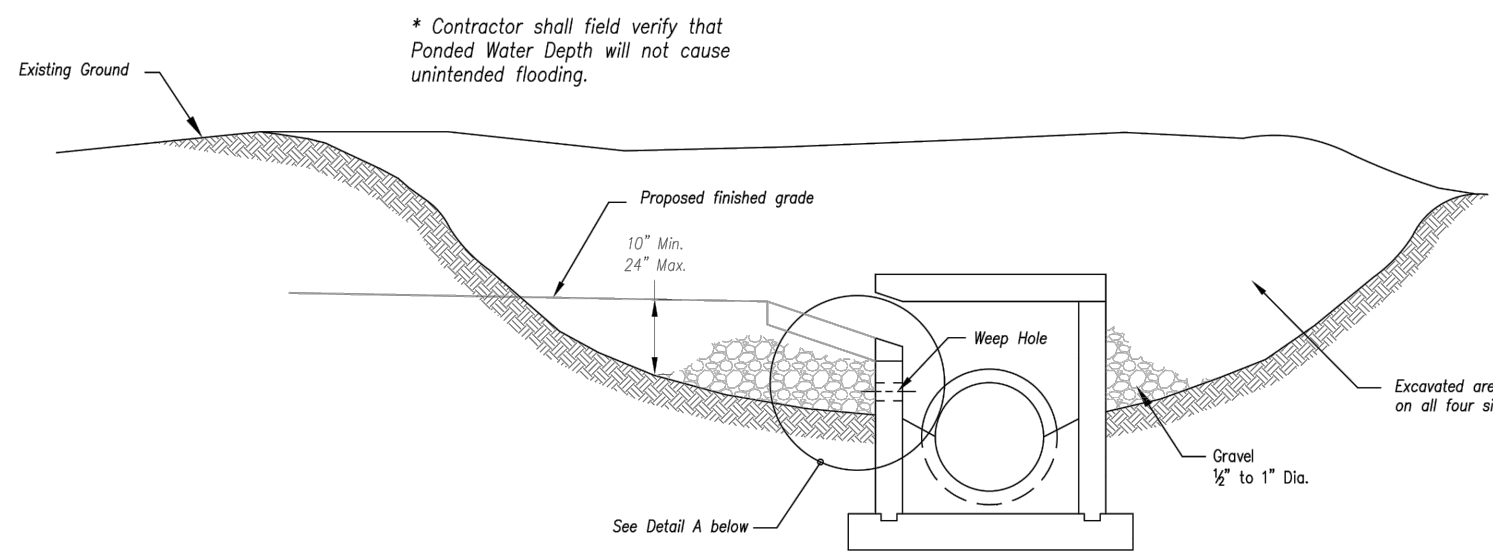
SILT FENCE LAYOUT  
Not to Scale



JOINING FENCE SECTIONS  
Not to Scale

AMERICAN PUBLIC WORKS ASSOCIATION <b>APWA</b> KANSAS CITY METRO CHAPTER	
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.



Detail A

EARLY STAGE CURB INLET  
(Open Box and Prior to Pouring Curb and Inlet Throat)

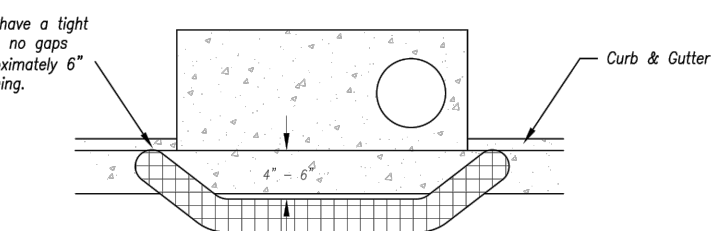
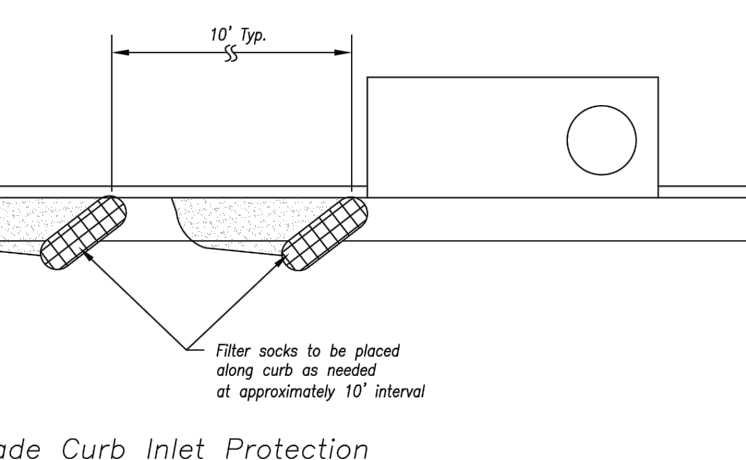
Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" x 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved repair should be used (Late Stage Curb Inlet). Stone weirs are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

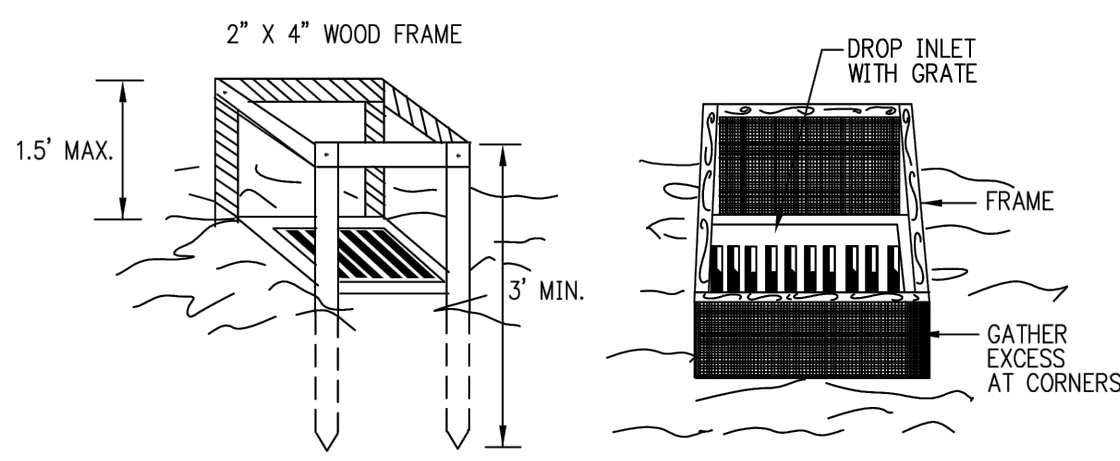


Sump Inlet Sediment Filter

LATE STAGE CURB INLET  
(After Pouring Curb and Inlet Throat)

AMERICAN PUBLIC WORKS ASSOCIATION <b>APWA</b> KANSAS CITY METRO CHAPTER	
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

SEDIMENT FENCE DROP INLET PROTECTION



ELEVATION OF STAKE AND FABRIC ORIENTATION

DETAIL A  
NOT TO SCALE

SEDIMENT FENCE DROP INLET PROTECTION NOTES:

A) CONSTRUCTION SPECIFICATIONS:

1. SEDIMENT FENCE SHALL CONFORM TO THE CONSTRUCTION SPECIFICATIONS FOR EXTRA STRENGTH FOUND IN THE TABLE BELOW AND SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID JOINTS.  
PHYSICAL PROPERTIES OF FABRIC IN SEDIMENT FENCE:

PHYSICAL PROPERTY	TEST	REQUIREMENTS
FILTERING EFFICIENCY	ASTM 5141	75%
TENSILE STRENGTH AT 20% (MAX.) ELONGATION*	ASTM 4632 AASHTO M288-96	EXTRA STRENGTH - 50 LBS./LINEAR INCH
FLOW RATE	ASTM 5141	0.2 GAL./SQ.FT./MINUTE**
ULTRAVIOLET RADIATION STABILITY %	ASTM D 4355	90%

\* REQUIREMENTS REDUCED BY 50% AFTER SIX MONTHS OF INSTALLATION.  
\*\* HIGH POROSITY FABRIC MADE BY BETTER SUITED FOR THIS DEVICE.
2. FOR STAKES, USE 2X4 WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
3. SPACE STAKES EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVE THEM INTO THE GROUND, APPROXIMATELY 18 INCHES DEEP.
4. TO PROVIDE NEEDED STABILITY TO THE INSTALLATION, FRAME WITH 2X4 WOOD STRIPS AROUND THE CREST OF THE OVERFLOW AREA AT A MAXIMUM OF 1.5 FEET ABOVE THE DROP INLET CREST.
5. PLACE THE BOTTOM 12 INCHES OF THE FABRIC IN A TRENCH AND BACKFILL THE TRENCH WITH 12-INCHES OF COMPACTED SOIL.
6. FASTEN FABRIC SECURELY BY STAPLES, OR WIRE IT TO THE STAKES AND FRAME. JOINTS MUST BE OVERLAPPED TO THE NEXT STAKE.
7. IT MAY BE NECESSARY TO BUILD A TEMPORARY DIKE ON THE DOWNSLOPE SIDE OF THE STRUCTURE TO PREVENT BYPASS FLOW.

B) INSPECTION AND MAINTENANCE:

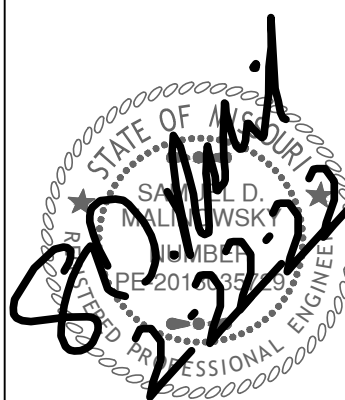
1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT OF 1/2 INCH OR GREATER AND REPAIRS MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

AMERICAN PUBLIC WORKS ASSOCIATION <b>APWA</b> KANSAS CITY METROPOLITAN CHAPTER	
SEDIMENT FENCE DROP INLET PROTECTION	STANDARD DRAWING NUMBER ESC-19 ADOPTED:

SOURCE: MODIFIED FROM VA. DCR, 1992



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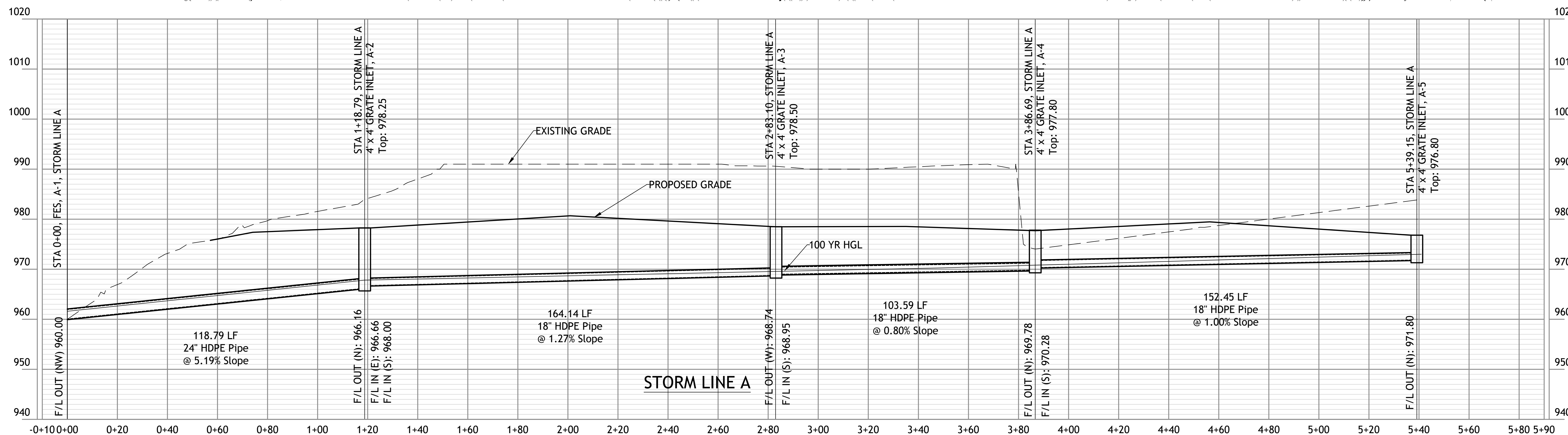
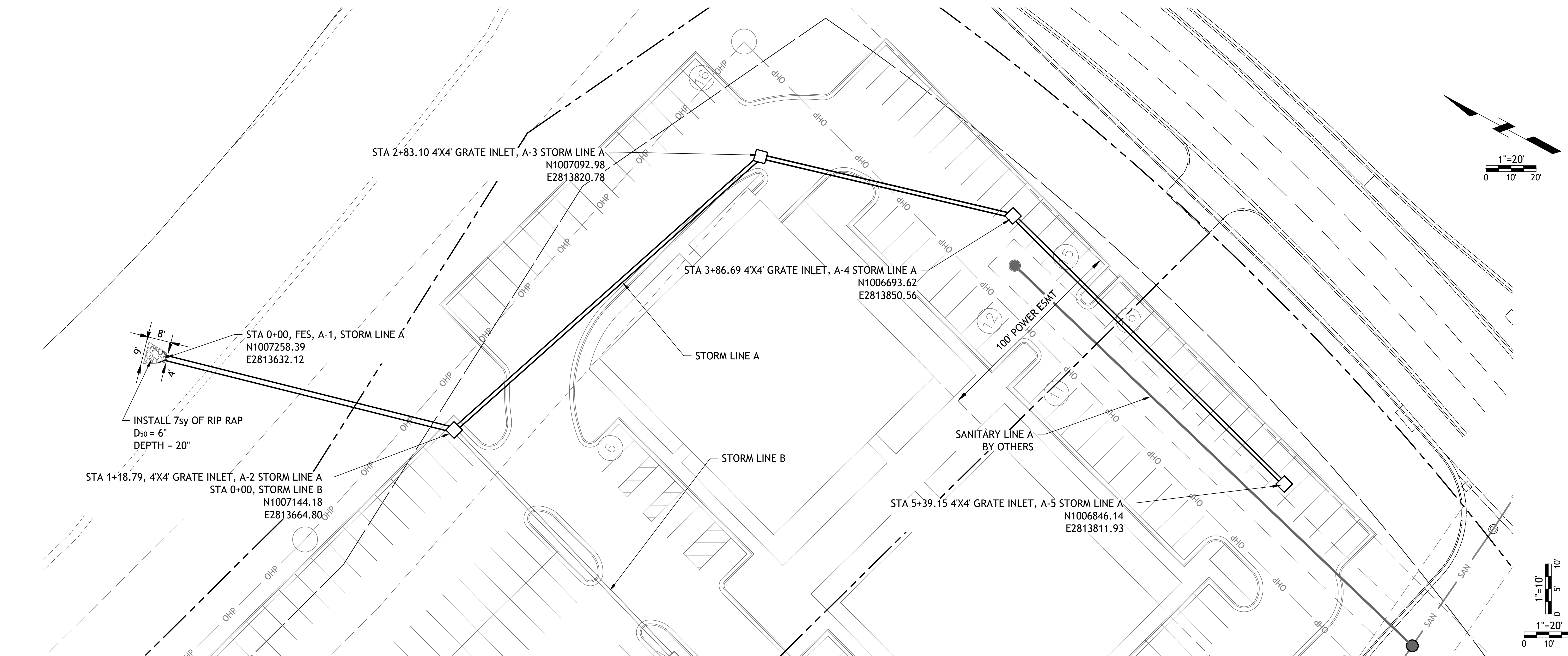


Revisions  
3-2-21 CITY COMMENTS  
6-8-21 PER CLIENT  
9-10-21 PER CLIENT  
2-22-22 CITY COMMENTS

# LOTS 11 & 12 STREETS OF WEST PRYOR

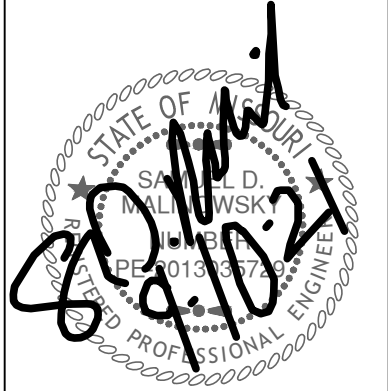
LEES SUMMIT, MISSOURI

sheet  
**C6.0**  
Civil  
STORM LINE A  
PLAN & PROFILE  
26 JANUARY 2021





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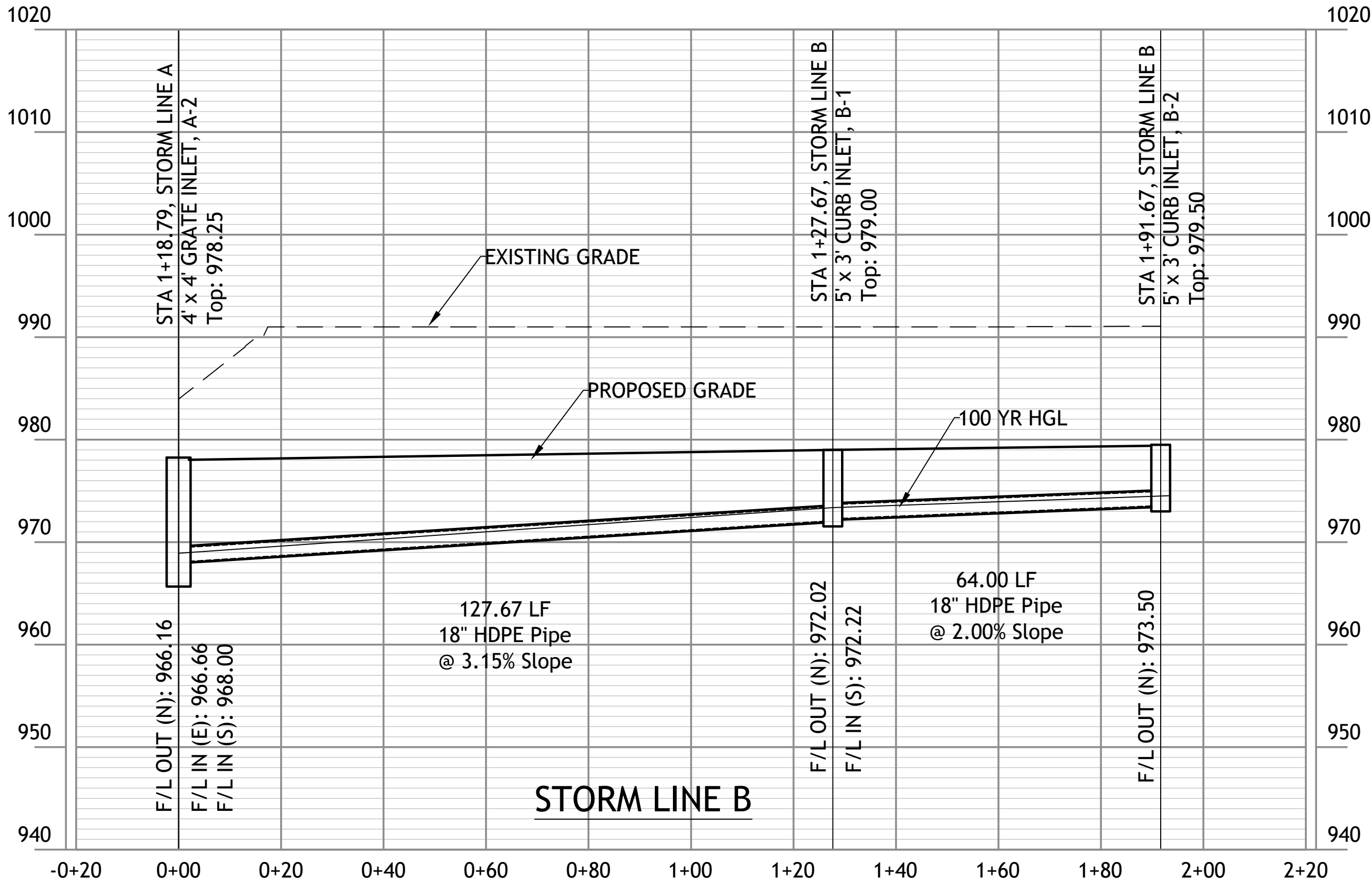
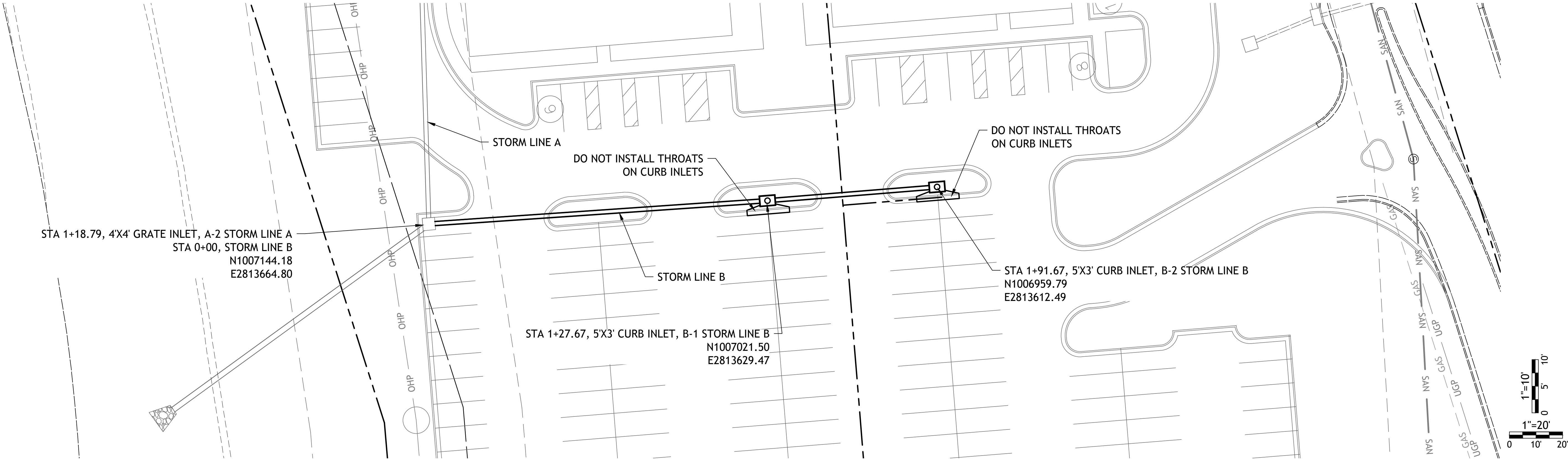
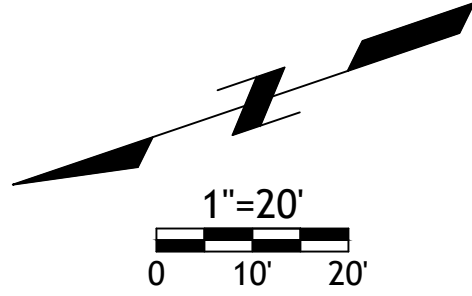


Revisions  
3-2-21 CITY COMMENTS  
6-8-21 PER CLIENT  
9-10-21 PER CLIENT

LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEE'S SUMMIT, MISSOURI

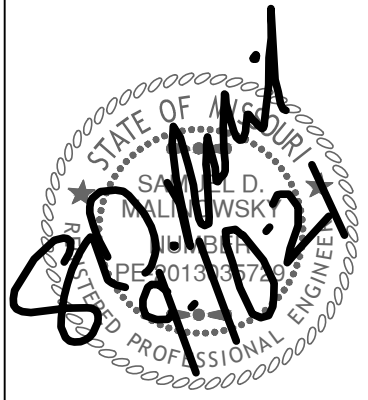
100 Year Storm Drainage Calculations

LineNo.	Line ID	ArealD	LineLength (ft)	DrainArea (ac)	RunoffCoeff (C)	IncrCxA	TcSystem (min)	iSyst (in/hr)	TotalRunoff (cfs)	FlowRate (cfs)	LineSize (in)	n-valuePipe	VelAve (ft/s)	Capac.Full (cfs)	InvertDn (ft)	InvertUp (ft)	HGLDn (ft)	HGLUp (ft)	nd/RimElev (ft)	RiprapD50 (in)	RiprapLength (ft)	RiprapVel (ft/s)	RiprapDepth (in)
1	A2 - A1	A2	119	0.79	1	0.79	6.3	5.09	22.17	22.17	24	0.012	11.21	55.02	960	966.16	960.98	967.67	976.25	6	8	3.97	20
2	A3 - A2	A3	229	0.61	1	0.61	5.7	5.22	7.36	7.36	18	0.012	4.91	11.38	966.66	968.95	968.48	969.99	974.5				
3	A4 - A3	A4	235	0.8	1	0.8	5	5.4	4.32	4.32	18	0.013	5.04	10.5	969.45	971.8	970.13	972.59	974.5				
4	B1 - A2	B1	128	0.92	1	0.92	5.3	5.31	11.47	11.47	18	0.013	8.73	18.61	968	972.02	968.9	973.32	976.5				
5	B2 - B1	B2	128	1.24	1	1.24	5	5.4	6.69	6.69	18	0.013	4.61	10.5	972.22	973.5	973.96	974.49	976.5				



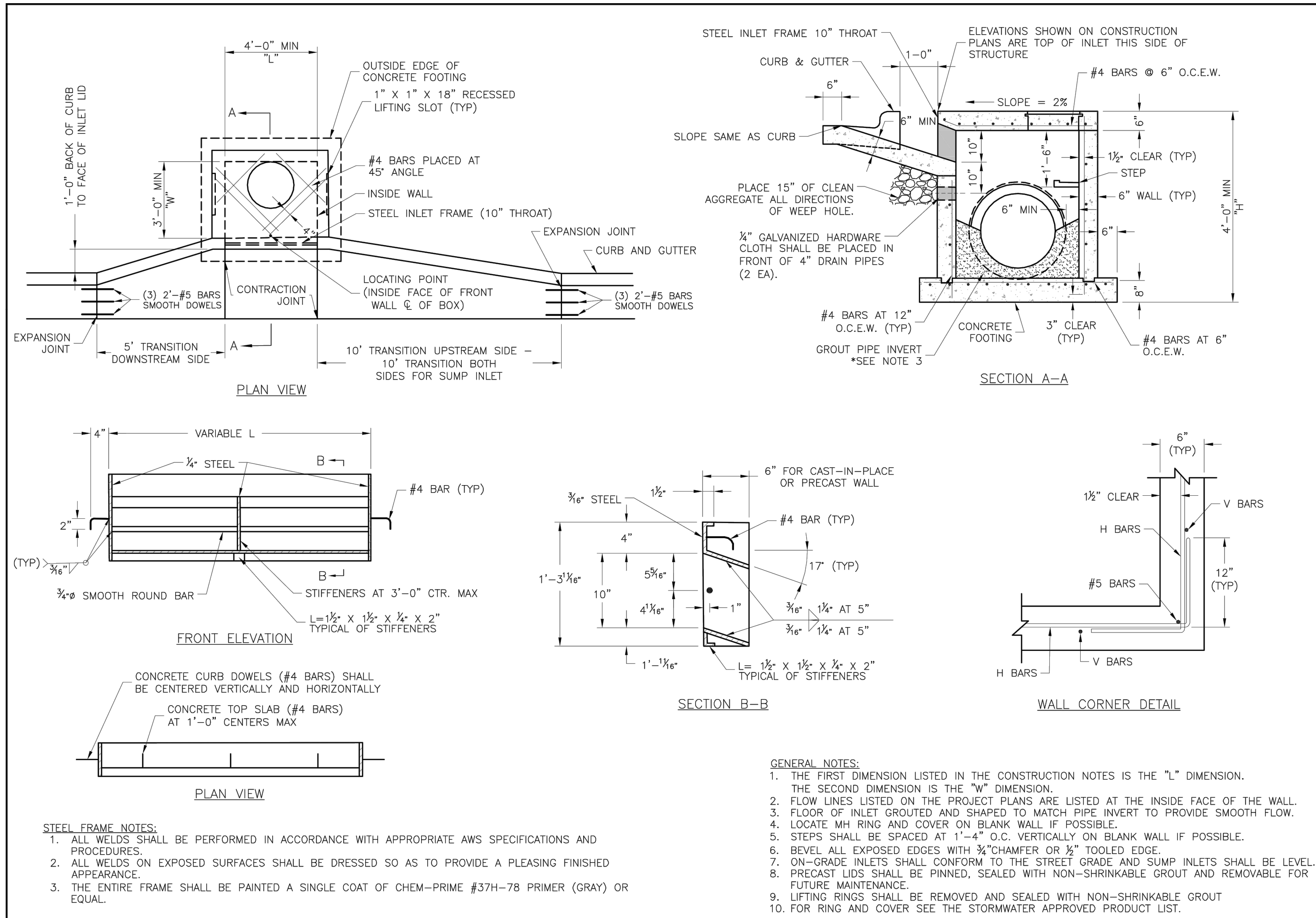


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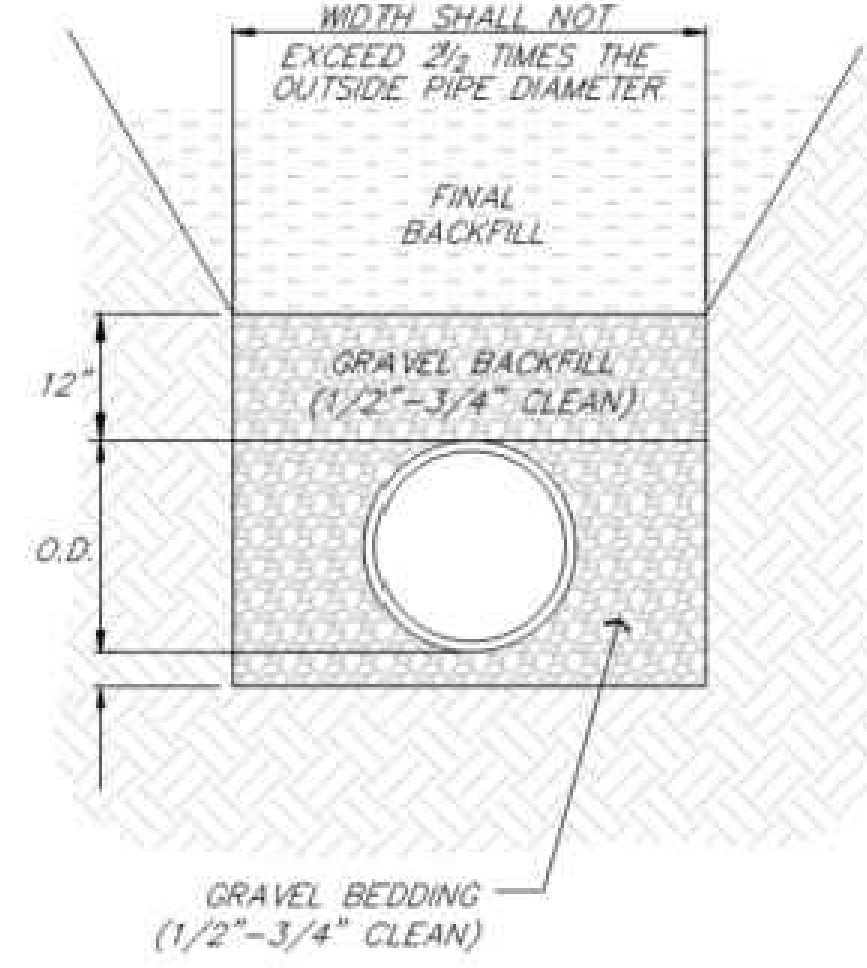


Revisions  
3-2-21 CITY COMMENTS  
6-8-21 PER CLIENT  
9-10-21 PER CLIENT

LOTS 11 & 12  
STREETS OF WEST PRYOR  
LEES SUMMIT, MISSOURI

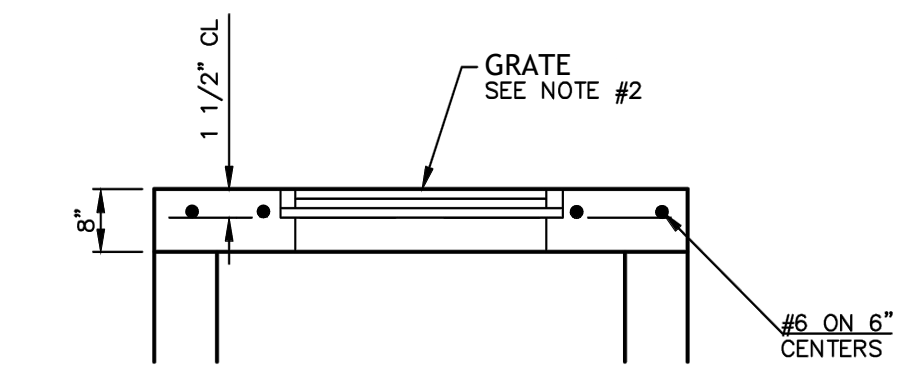


**BEDDING**  
1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS  
**INITIAL BACKFILL**  
-UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS  
1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS  
-UNDER OPEN AREAS  
1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS  
**FINAL BACKFILL**  
-UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS  
ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8". COMPACTED TO 95% OF STANDARD DENSITY PER ASTM D-698  
-UNDER OPEN AREAS  
ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8". COMPACTED TO 90% OF STANDARD DENSITY PER ASTM D-698



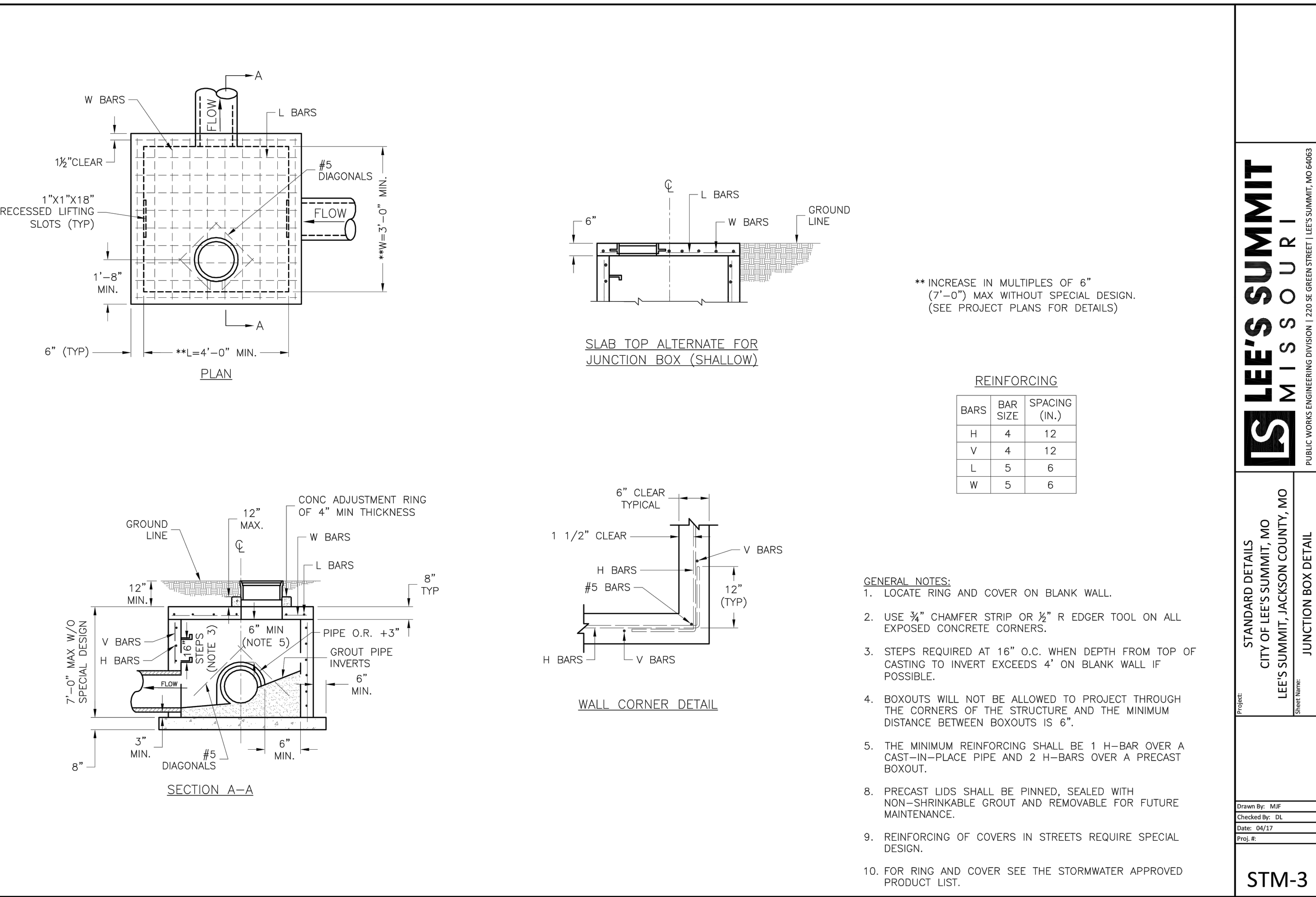
BEDDING DEPTH BELOW PIPE		
PIPE DIAMETER	IN SOIL	IN ROCK
24" AND LESS	4"	6"
27" THRU 60"	4"	9"

**PIPE BEDDING DETAIL**  
NOT TO SCALE



ALL CONCRETE: F'C = 3500 P.S.I.  
NOTE:  
1. L AND W BARS SHALL BE #606" CENTER  
2. GRATE - NEENAH R-6673-J

**ALTERNATE TOP TO STM-3  
GRATE INLET**



**LEE'S SUMMIT  
MISSOURI**  
PUBLIC WORKS ENGINEERING DIVISION | 220 S. GREEN STREET | LEES SUMMIT, MO 64063

STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
JUNCTION BOX DETAIL

Drawn By: MJP  
Checked By: DL  
Date: 04/21  
Proj. #: STM-3