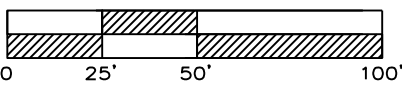
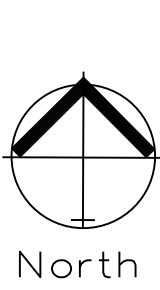
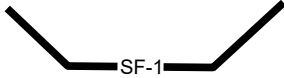


THE RIDGE AT WINTERSET SUMMIT
LOTS 1601-1605
STREET AND STORM CONSTRUCTION PLAN
Part of Section 2 & 3, Township 47 North, Range 32 West
Lee's Summit, Jackson County, Missouri



PRE CLEARING PLAN
SCALE: 1" = 50'

NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

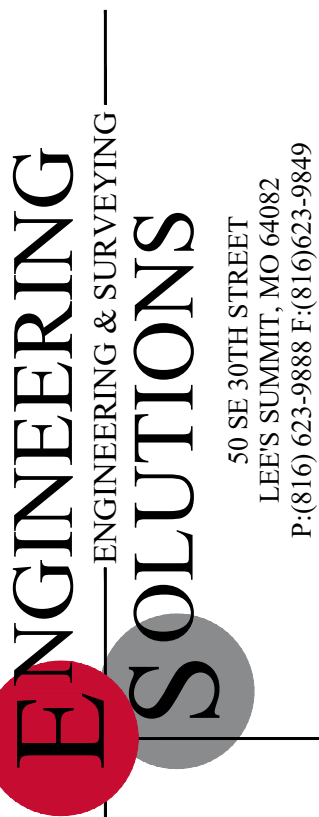


SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE	— SF-1 — SF-1 —
PHASE 2 SILT FENCE	— SF-2 — SF-2 —
INLET PROTECTION	—

DURING ALL PHASES OF CONSTRUCTION,
INACTIVE AREA STABILIZATION METHODS AS
DESCRIBED IN APWA SECTION 5111.3 SHALL BE
USED TO CONTROL EROSION AND SILTATION.

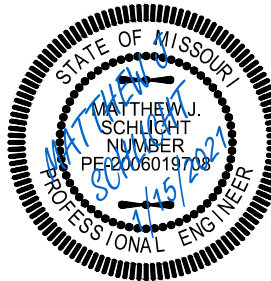


Professional Registration
Missouri
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Surveying 2005000519-D
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Engineering E-1695
Surveying LS-218
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Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

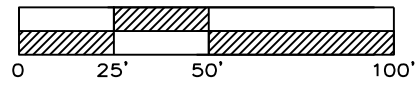
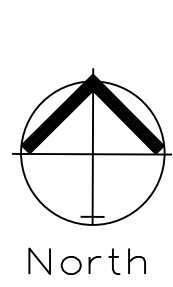
Project
Creek
Issue Date
December 3, 2020

ESC PHASE 1 - Pre Clearing Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

REVISIONS
REV. 1/15/2021



INACTIVE AREA STABELIZATION PLAN

SCALE: 1" = 50'

NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.



SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE

SF-1 SF-1

PHASE 2 SILT FENCE

SF-2 SF-2

INLET PROTECTION
GUTTER BUDDY OR EQUIVALENT



DURING ALL PHASES OF CONSTRUCTION,
INACTIVE AREA STABILIZATION METHODS AS
DESCRIBED IN APWA SECTION 5111.3 SHALL BE
USED TO CONTROL EROSION AND SILTATION.

MAINTENANCE:

TO MAINTAIN THE EROSION AND SEDIMENT CONTROLS, THE FOLLOWING PROCEDURES WILL BE PERFORMED:
SEDIMENT CAPTURE DEVICES: SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC FENCES. WHEN THE DEPTH OF ACCUMULATED SEDIMENT REACHES ABOUT ONE-THIRD THE HEIGHT OF THE STRUCTURE.
STORM SEWER INLETS: ANY SEDIMENT IN THE STORM SEWER INLETS WILL BE REMOVED AND DISPOSED OF PROPERLY.
TEMPORARY CONTROLS: ALL TEMPORARY CONTROLS WILL BE REMOVED AFTER THE DISTURBED AREAS HAVE BEEN STABILIZED.

INSPECTION PROCEDURES:

INSPECTIONS WILL BE DONE BY THE RESPONSIBLE PERSON(S) AT LEAST ONCE EVERY WEEK AND WITHIN 24 HOURS EACH STORM EVENT PRODUCING ANY AMOUNT OF RAINFALL. AREAS THAT HAVE BEEN RESEEDED WILL BE INSPECTED REGULARLY AFTER SEED GERMINATION TO ENSURE COMPLETE COVERAGE OF EXPOSED AREAS. DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED SHALL HAVE ALL POLLUTION CONTROL MEASURES INSPECTED FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE. LOCATIONS WHERE STORM WATER LEAVES THE SITE SHALL BE INSPECTED FOR EVIDENCE OF EROSION OR SEDIMENT DEPOSITION. ANY DEFICIENCIES SHALL BE NOTED IN A REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE INSPECTION. THE PERMITTEE SHALL PROMPTLY NOTIFY THE SITE CONTRACTORS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION CONTROL DEVICES OF DEFICIENCIES.

IF THE EXISTING GROUND COVER IS NATURAL GRASS, DISTURBED AREAS SHALL BE TEMPORARILY SEEDED WITH WHEAT/RYE AT A RATE OF 15 POUNDS PER 1000 SQUARE FEET. PERMANENT SEEDED SHALL CONSIST OF 90% IN THREE EQUAL PARTS OF THIN BLADE, TURF-TYPE, TALL FESCUE AND 10% BLUEGRASS SEED AT A RATE OF 10 POUNDS PER 1000 SQUARE FEET. BOTH TEMPORARY AND PERMANENT SEEDED AREAS SHALL BE MULCHED AND WATERED TO MAINTAIN THE PROPER MOISTURE LEVEL OF THE SOIL TO ESTABLISH GRASS. NEW GRASS SHALL BE WATERED AND MAINTAINED UNTIL IT REACHES A HEIGHT OF 3 INCHES. ANY BARE AREAS SHALL BE RESEED.

ALL EROSION CONTROL DEVICES SHALL BE REMOVED BY GENERAL CONTRACTOR AFTER SITE STABILIZATION IS COMPLETE AND APPROVED BY ENGINEER.

THE DEVELOPER WILL DESIGNATE A QUALIFIED PERSON OR PERSONS TO PERFORM THE FOLLOWING INSPECTIONS:
STABILIZATION MEASURES: DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION WILL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. AFTER A PORTION OF THE SITE IS FINALLY STABILIZED, INSPECTIONS WILL BE CONDUCTED AT LEAST ONCE EVERY MONTH THROUGHOUT THE LIFE OF THE PROJECT. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

STRUCTURAL CONTROLS: FILTER FABRIC FENCES AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN WILL BE INSPECTED REGULARLY FOR PROPER POSITIONING, ANCHORING, AND EFFECTIVENESS IN TRAPPING SEDIMENTS. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

DISCHARGE POINTS: DISCHARGE POINTS OR LOCATIONS WILL BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT AMOUNTS OF POLLUTANTS FROM ENTERING RECEIVING WATERS.

CONSTRUCTION ENTRANCE: LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE WILL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

A LOG OF EACH INSPECTION SHALL BE KEPT. THE INSPECTION REPORT IS TO INCLUDE THE FOLLOWING MINIMUM INFORMATION: INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS RELATIVE TO THE EFFECTIVENESS OF THE POLLUTION CONTROL DEVICES, ACTIONS TAKEN OR NECESSARY TO CORRECT DEFICIENCIES, AND LISTINGS OF AREAS WHERE LAND DISTURBANCE OPERATIONS HAVE PERMANENTLY OR TEMPORARILY STOPPED. THE INSPECTION REPORT SHALL BE SIGNED BY THE PERMITTEE OR BY THE PERSON PERFORMING THE INSPECTION IF DULY AUTHORIZED TO DO SO.

EROSION CONTROL DESCRIPTION:

- 1.) SILT FENCE SHALL BE PLACED AT THE PERIMETER OF THE GRADING AND AT INTERMEDIATE AREAS THROUGHOUT THE SITE AS SHOWN ON THE PLAN. INLET SEDIMENT TRAPS SHALL BE PLACED SURROUNDING ALL STORM INLETS
- 2.) INSTALL TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON PLAN

EROSION CONTROL PROCEDURE:

- 1.) SILT FENCE AND TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE PERIMETER OF THE GRADED AREAS PRIOR TO BEGINNING OF CLEARING OR DEMOLITION OPERATIONS. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLANS AS GRADING PROGRESSES.

TEMPORARY CONSTRUCTION ENTRANCE NOTES:

- A.) INSTALLATION
- 1.) AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC STREETS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED
 - 2.) REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE AND CROWN FOR POSITIVE DRAINAGE
 - 3.) IF SLOPE TOWARDS THE PUBIC ROAD EXCEED 2% CONSTRUCT A 6 TO 8 INCH HIGH RIDGE WITH 3H : 1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY FROM IT.
 - 4.) INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS
 - 5.) PLACE STONE TO DIMENSIONS AND GRADES AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE
 - 6.) DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE
 - 7.) IF WET CONDITIONS ARE ANTICIPATED PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY
- B.) TROUBLESHOOTING
- 1.) CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
 - INADEQUATE RUNOFF CONTROLS TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROADS
 - INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES
 - SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL - INCREASE STONE SIZE OR PAD THICKNESS OR ADD GEOTEXTILE FABRIC
 - PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC - EXTEND PAD BEYOND THE MINIMUM 50 FOOT LENGTH AS NECESSARY
- C.) INSPECTION AND MAINTENANCE
- 1.) INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER ANY RAIN EVENT
 - 2.) RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL
 - 3.) TOP DRESS WITH CLEAN 2 AND 3 INCH STONE AS NEEDED
 - 4.) IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADWAY. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY
 - 5.) REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED

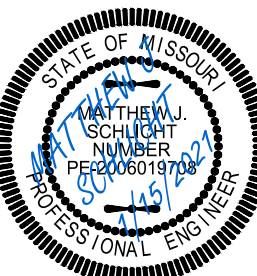


Professional Registration
Missouri
Engineering 2005002198-D
Surveying 2005006119-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
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The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project
Creek
Lead
December 2, 2020

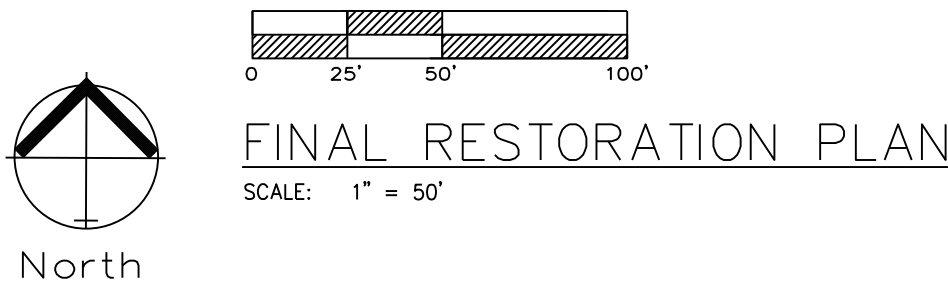
ESC PHASE 2 - Inactive Area Stabilization Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226

REVISIONS

REV. 1/15/2021



SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND		
PHASE 1 SILT FENCE	— SF-1 —	— SF-1 —
PHASE 2 SILT FENCE	— SF-2 —	— SF-2 —
INLET PROTECTION GUTTER BUDDY OR EQUIVALENT	—	

DURING ALL PHASES OF CONSTRUCTION,
INACTIVE AREA STABILIZATION METHODS AS
DESCRIBED IN APWA SECTION 5111.3 SHALL BE
USED TO CONTROL EROSION AND SILTATION.

NOTES: The Land Disturbance Plans indicates the Final placement of
erosion control devices. The contractor(s) may proceed with
construction prior to the final placement of these devices by providing
additional devices to control erosion on their items of work. These
devices shall be maintained until the final devices are in place.

SEED AND MULCH NOTES:

All areas disturbed by construction activities shall be seeded and
mulched. Seeding shall be done before the proposed seedbed
becomes eroded, crusted over, or dried out and shall not be done when
the ground is frozen, or covered with snow. The seed shall comply with
the requirements of the Missouri Seed Law and the Federal Seed Act.
Also, it shall contain no seed of any plant on the Federal Noxious Weed
List. Other weed seeds shall not exceed one percent by weight of mix.

Seed and Fertilizer Rate:
Mix I - Rye Grass / Blue Grass ----- 100 lbs. per Acre
Mix II - Tall Fescue / Blue Grass ----- 195 lbs. per Acre
Lime ----- 2000 lbs per Acre (50
lbs. per 1000 sq. ft.)
Fertilizer ----- 800 to 1200 lbs per
Acre (25 lbs per 1000 sq. ft.)

During the dates December 15th through May 31 ALL lime fertilizer,
seed and mulch shall be applied to finished slopes of disturbed areas.
During the months of June, July, October and November 1st through
December 15th, lime fertilizer, seed and mulch shall be applied at the
following rates:
Lime - 100% of specified quantity
Fertilizer - 75% of the specified quantity
Seed - 50% of the specified quantity
Mulch - 100% of the specified quantity

Mulch shall be Vegetative type, cereal straw from stalks of oats, rye, or
barley, or approved equal. The straw shall be free of prohibited weed
seed and relatively free of all other noxious and undesirable seed.
Mulch shall be applied at the rate of 2 tons per acre, (70 to 90 lbs per
1000 sq. ft.). Mulch shall be embedded by a mulch anchoring tool or
disk type roller having flat serrated disks spaced not more than 10
inches apart and cleaning scrapers shall be provided

ONCE SITE IS 90% VEGETATED ALL ESC DEVICES
SHALL BE REMOVED AND ANY DISTURBED AREAS
SHALL BE RESTORED

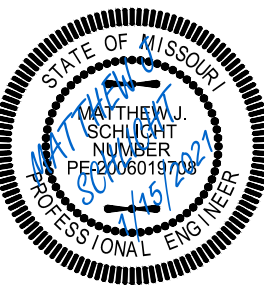


Professional Registration
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Surveying 2005000519-D
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Surveying LS-218
Oklahoma
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Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

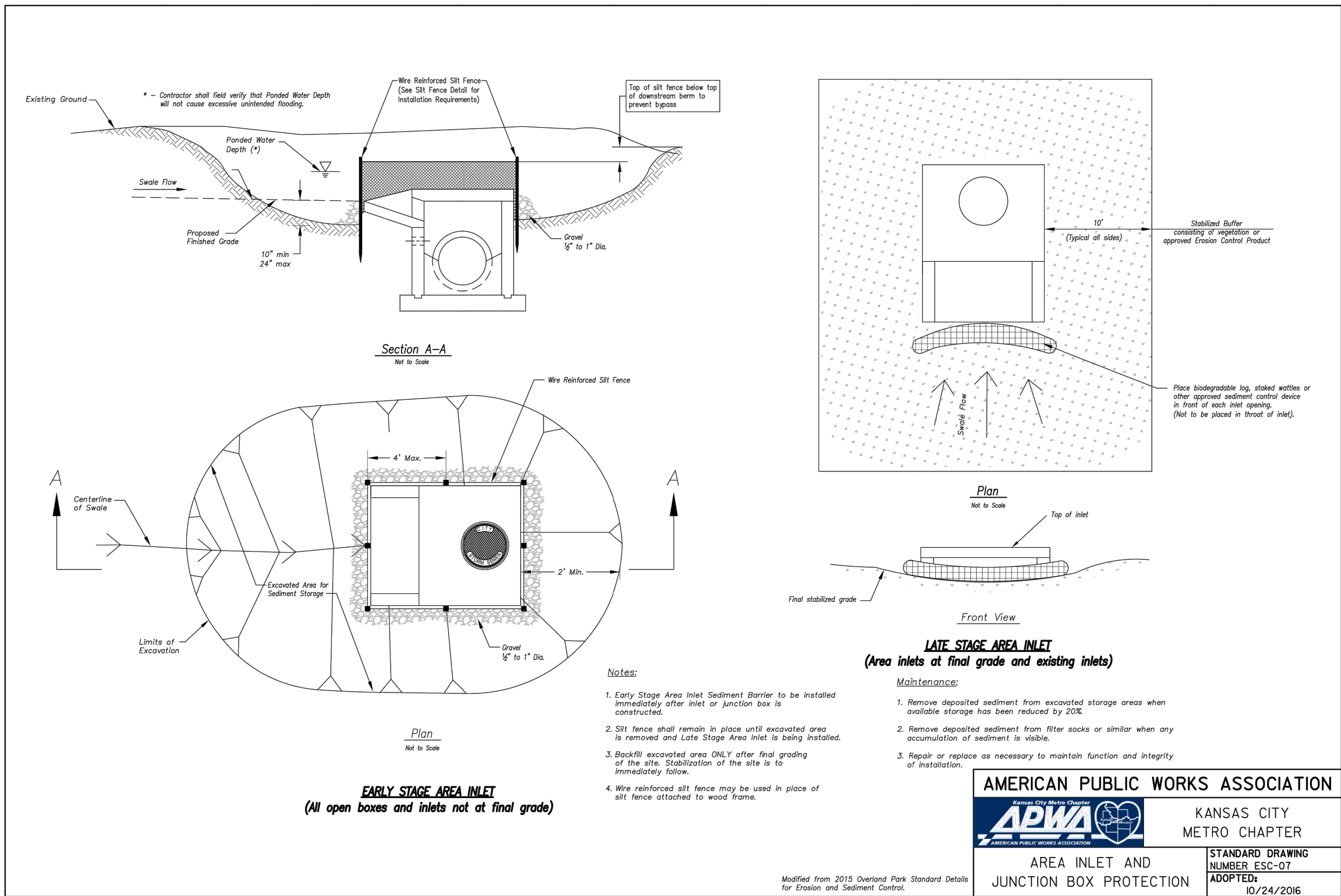
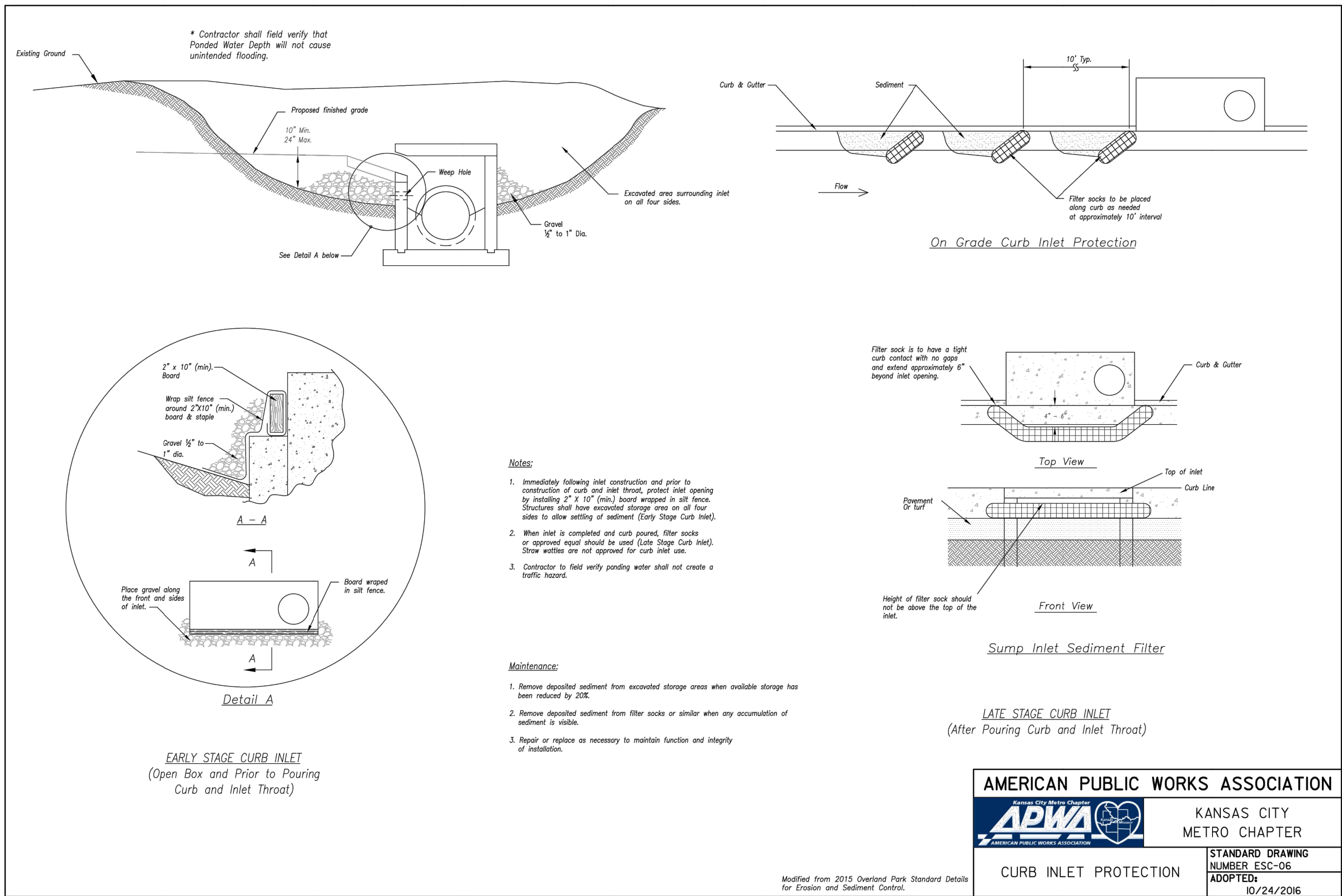
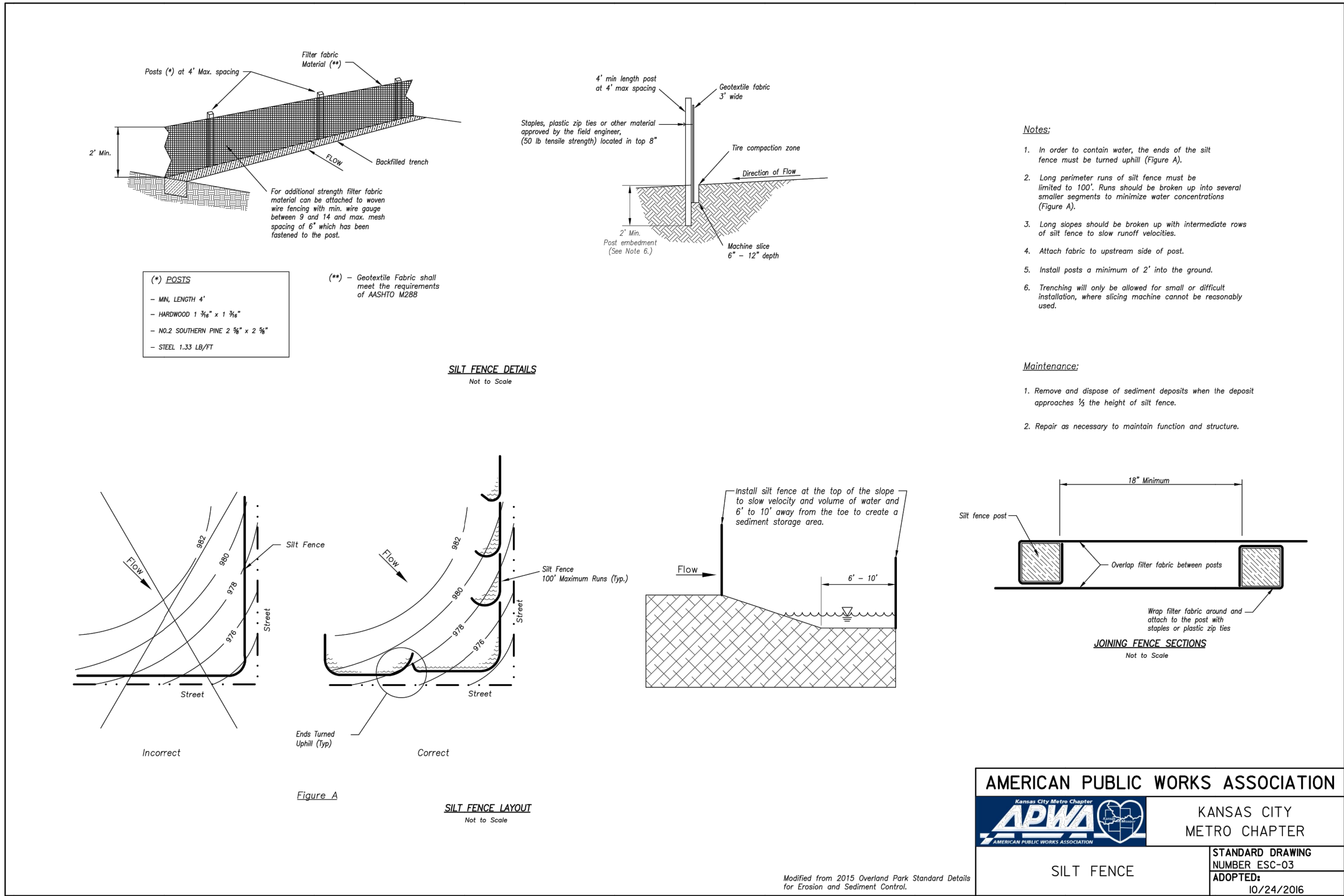
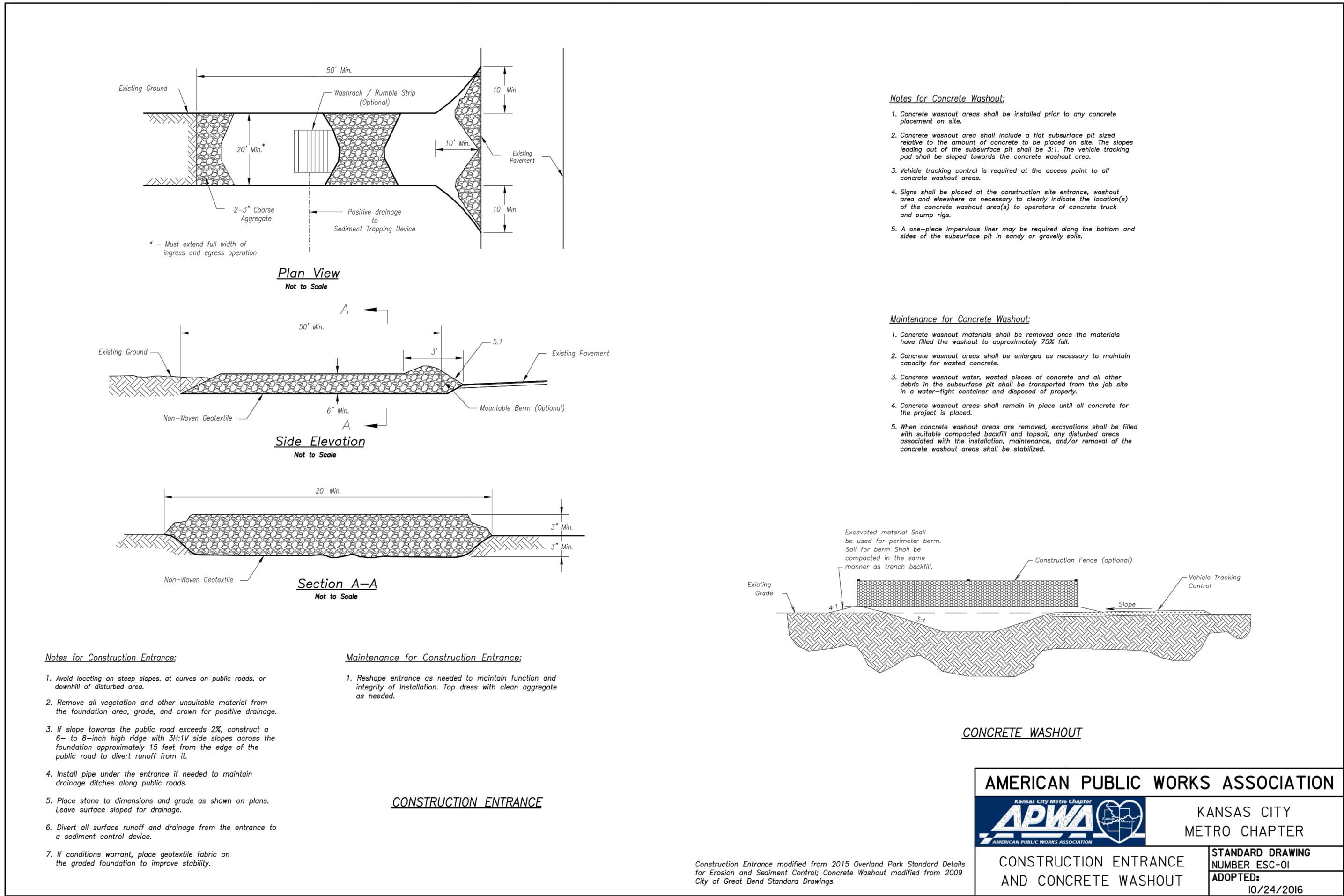
Project
Creek
Lead Date
December 3, 2020

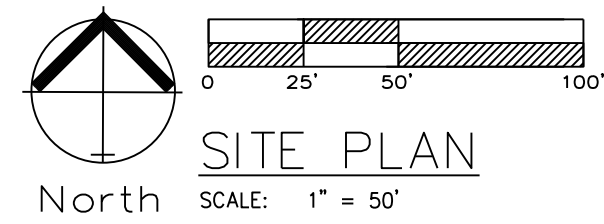
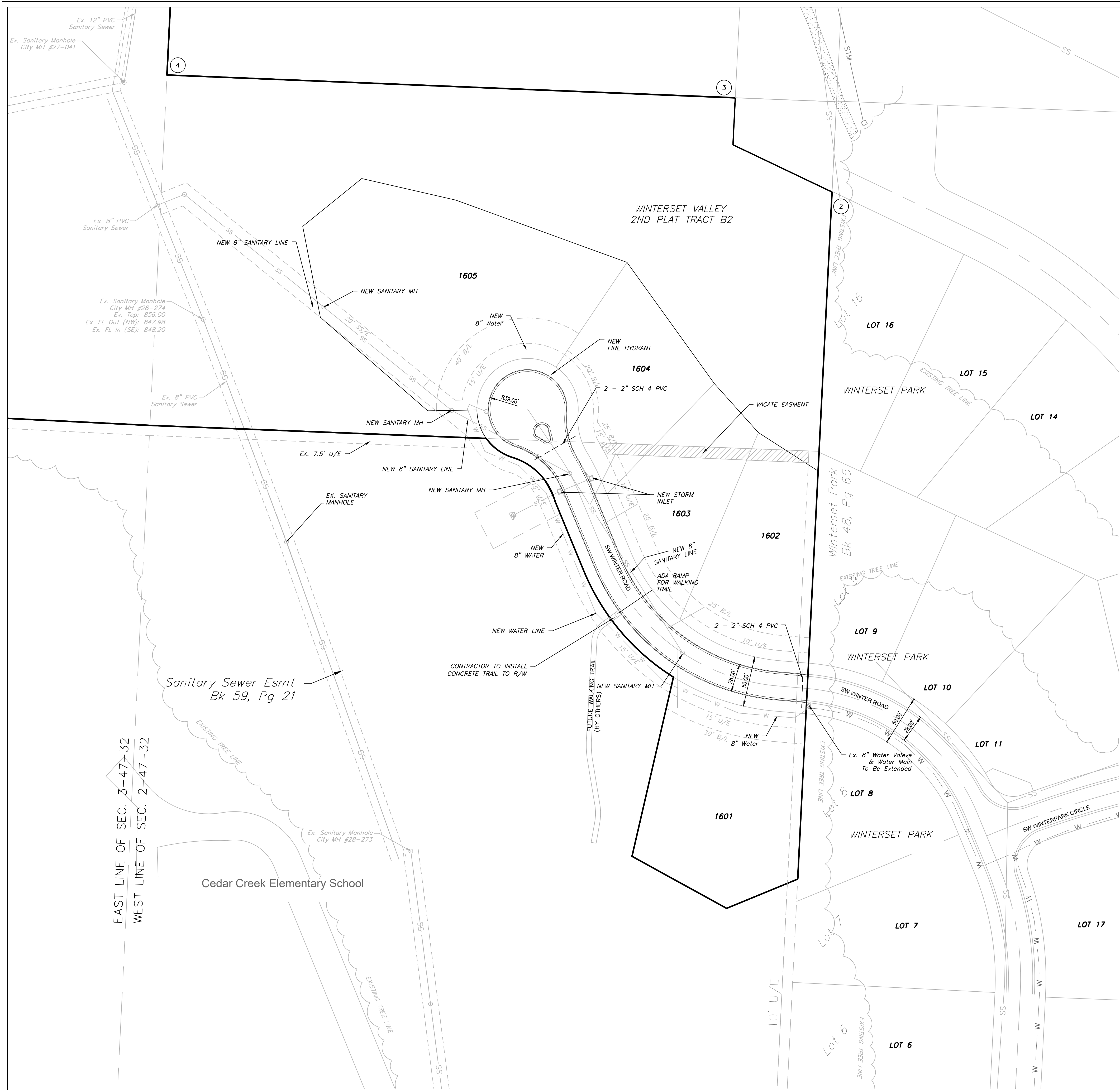
ESC PHASE 3 - Final Restoration Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

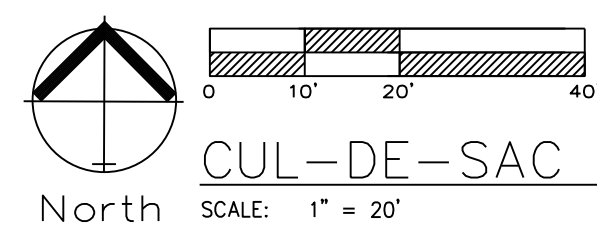
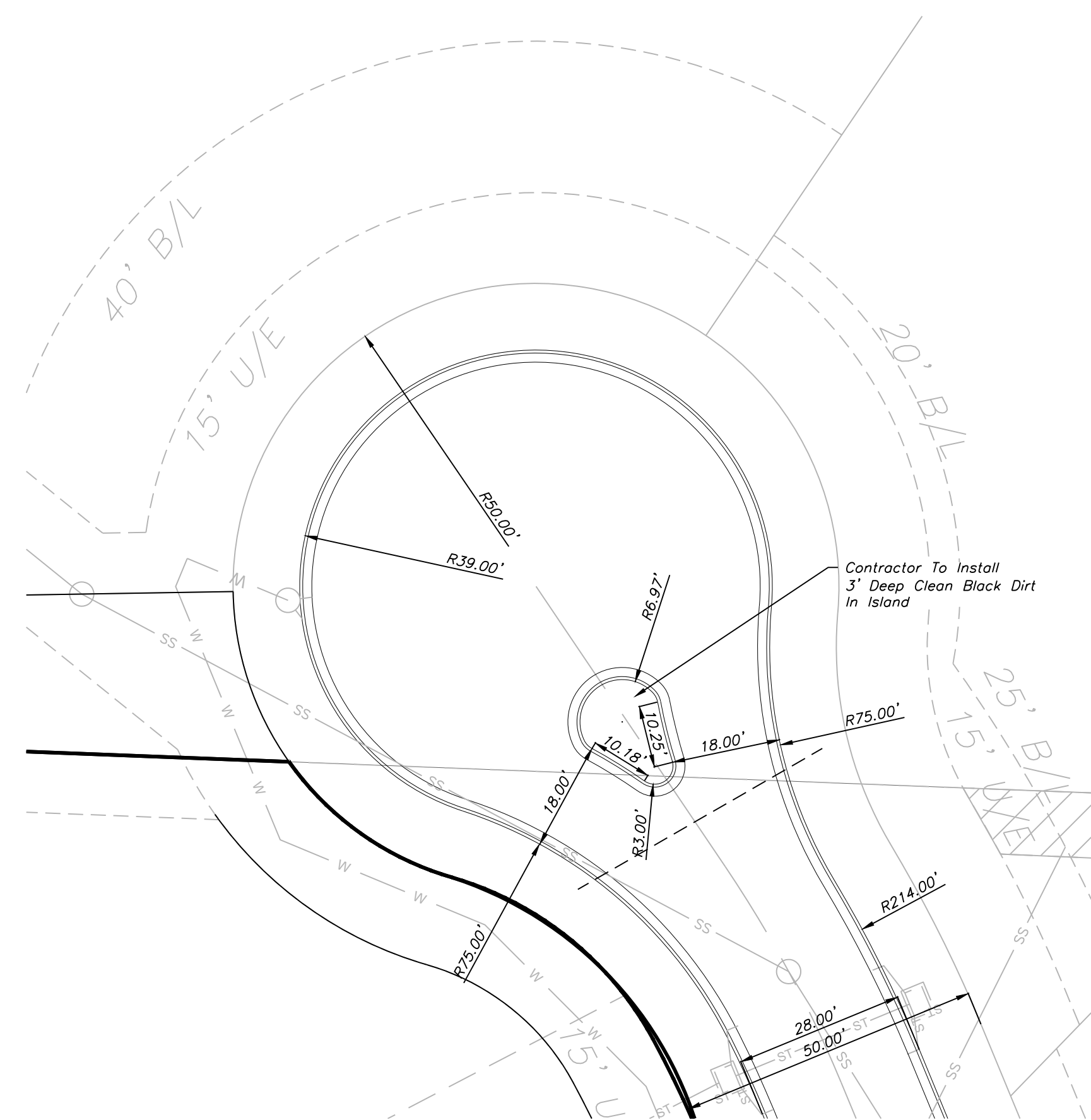
REVISIONS
REV. 1/15/2021





Notes:

1. Developer Will Enter Into An Agreement With City To Allow Cul-De-Sac.
2. No Sidewalk Will Be Installed With This Development.
3. Contractor to Install 550' of 2" SCH 40 PVC Conduit for Evergy.



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50 SE 30TH STREET
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The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project
Creek
December 3, 2020

Site Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

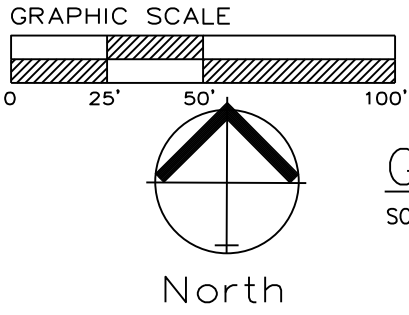
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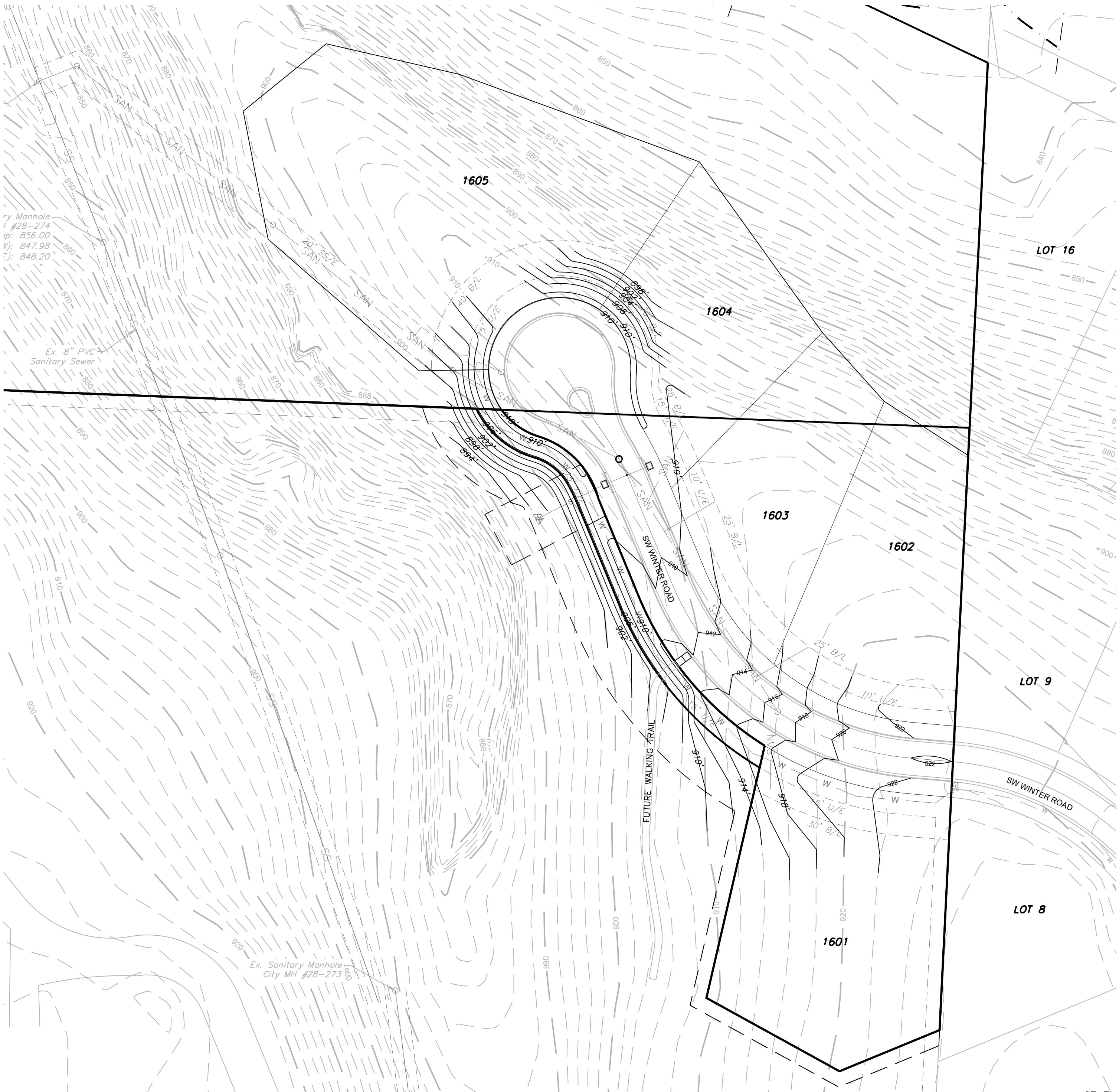
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Notes

1. Contractor is responsible for verifying all existing utility locations prior to excavation
2. There are no known natural or artificial water storage detention areas, or wetlands in the area designated for construction
3. No part of the project lies within the 100 year flood plain
4. All erosion and sediment control measures need to be implemented prior to construction
5. Additional erosion control may be required by the City Engineer, Design Engineer or Owner at any time problematic areas are noted in the field or existing measures are found to be ineffective
6. Soil Stabilization of disturbed areas shall be completed within 14 days of construction inactivity
7. Contractor responsible for all density testing of roadway subgrade and granular base.



GRADING PLAN
SCALE: 1" = 50'

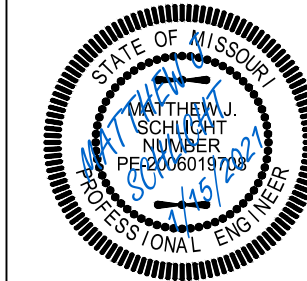


Master Drainage Plan 1 of 3:
Grading Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project:
Creek:
Issue Date:
December 3, 2020

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

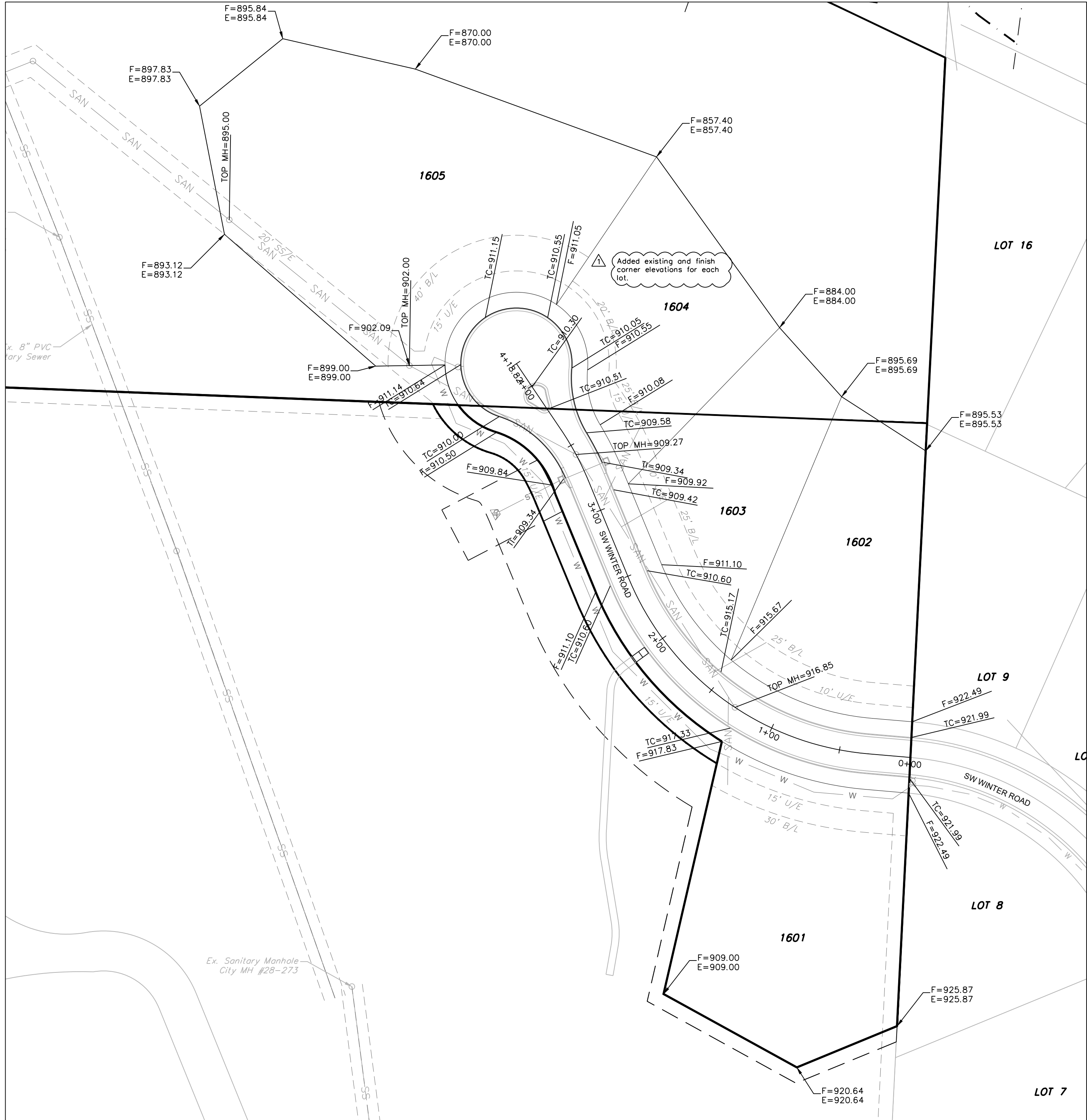
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OK PE 25526

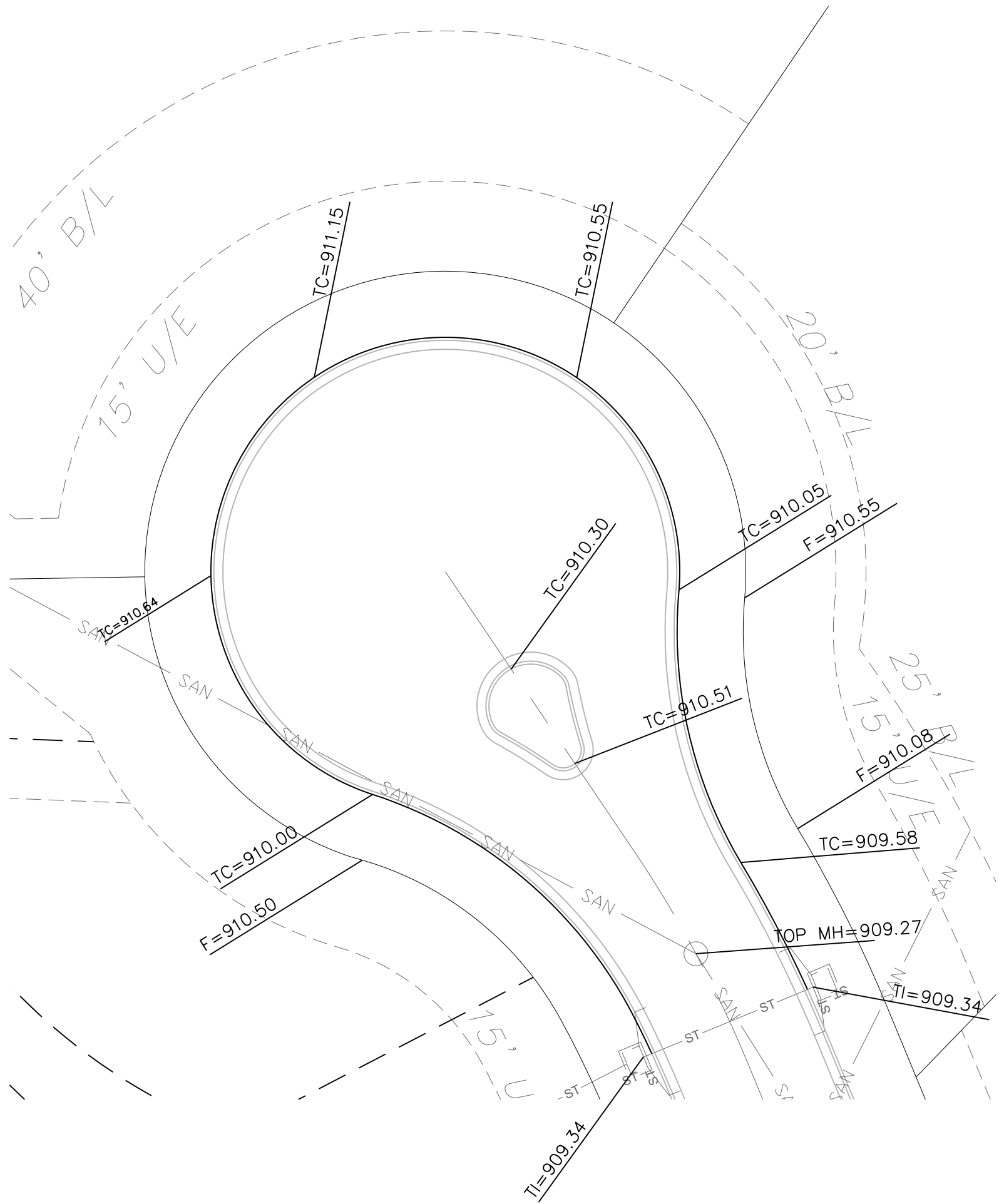
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REV. 1/15/2021

REV. 11-14-19



Lot Number	Basement Type	MBOE Lt. Front	MBOE Rt. Front	MBOE Lt. Rear	MBOE Rt. Rear
1601	Walkout	922.09	918.33	926.87	910.00
1602	Walkout	916.17	922.99	896.69	896.53
1603	Walkout	910.42	916.17	885.00	896.69
1604	Walkout	911.55	910.42	888.40	885.00
1605	Walkout	911.64	911.55	898.83	896.84

△ ADDED TABLE.



North
SCALE: 1" = 20'
CUL-DE-SAC DIMENSION PLAN

GRAPHIC SCALE
0 25' 50' 100'
SPOT ELEVATIONS
SCALE: 1" = 50'

Master Drainage Plan 2 of 3:
Spot Elevations
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project:
Creek
Issue Date:
December 3, 2020

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

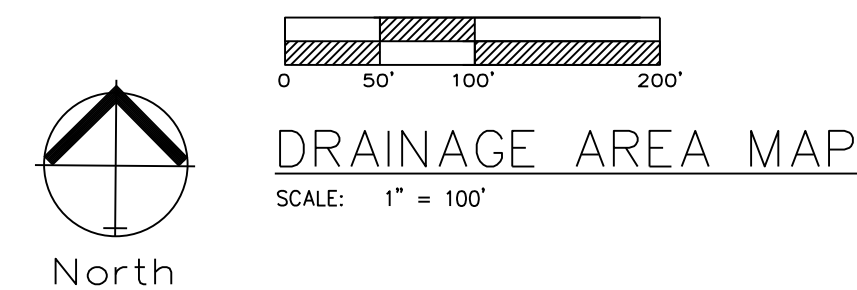
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Surveying LS-218
Oklahoma
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Nebraska
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REV. 11-14-19



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The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project: Winterset Cedar Creek

Master Drainage Map 3 of 3:
Drainage Area Map
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlich
MO PE 200601970
KS PE 19071
OK PE 25226

REVISIONS

1 REV. 1/15/2021

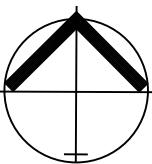
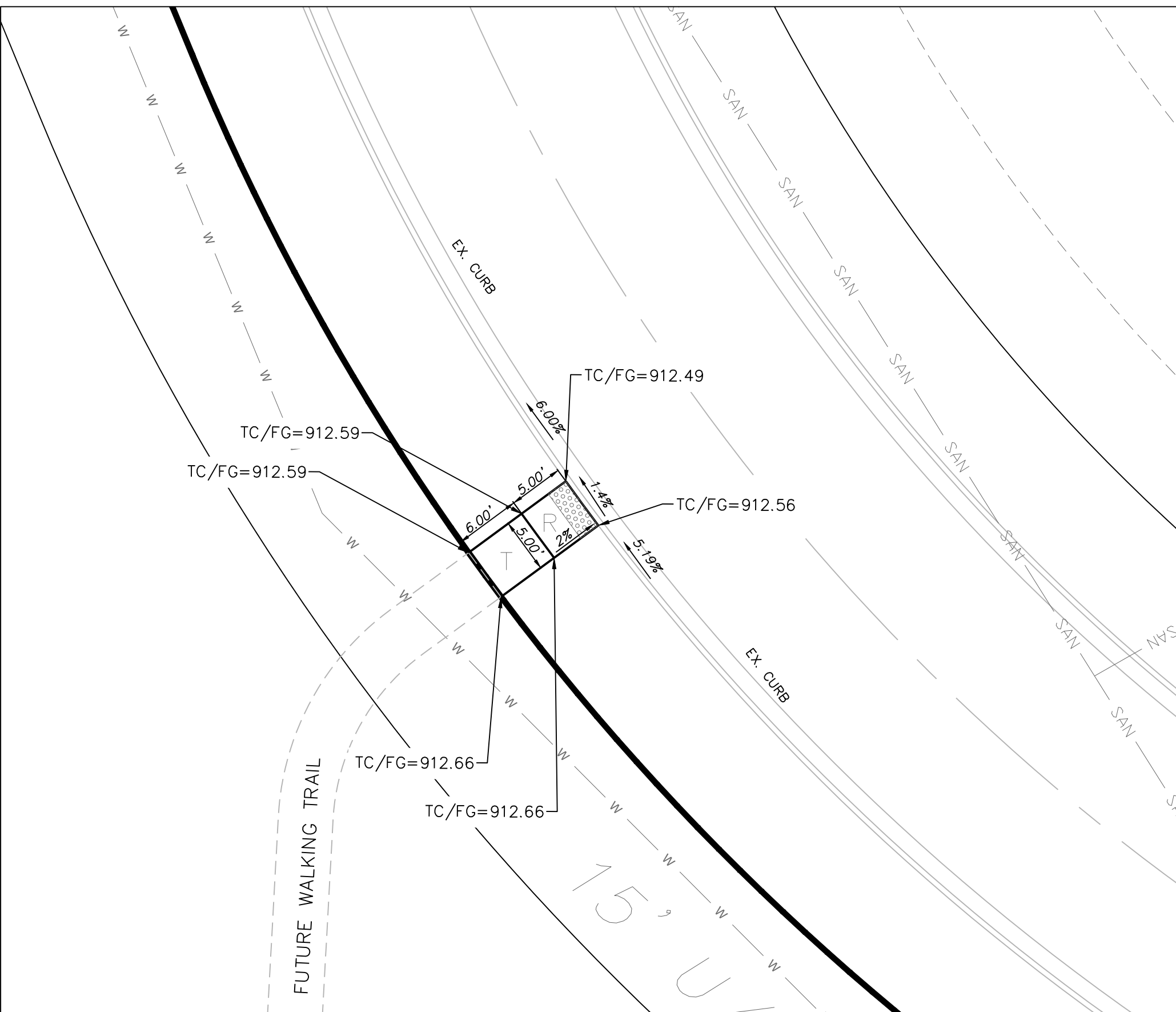
REV. 11-14-19

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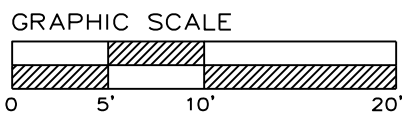
Drainage Area	Area Sq. Ft.	Area
1	10057.25	0.23
2	56598.12	1.30
3	16170.5	0.37
4	11883.94	0.27
5	20519.85	0.47
6	43928.99	1.01
7	37720.92	0.87
8	13781.71	0.32
9	16826.56	0.39
10	29334.69	0.67
11	44019.84	1.01
12	37589.96	0.86
13	12698.28	0.29
14	14547.61	0.33
15	8364.55	0.19
16	33381.6	0.77
17	9224.51	0.21
18	2238.05	0.05
19	24448.12	0.65
20	15039.79	0.35
21	11369.09	0.26
Detection	102259.96	2.35

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AREAS 19, 20 AND 21 ARE LOCATED IN THE RESERVE AT STONEY CREEK 4TH PLAT



North



SIDEWALK AND INTERSECTION PLAN

SCALE: 1" = 10'

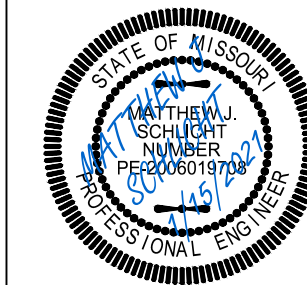


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Surveying 2005005119-D
Kansas
Engineering E-1685
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Oklahoma
Engineering 6254
Nebraska
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The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

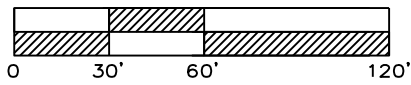
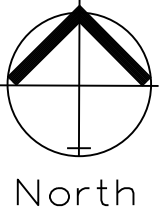
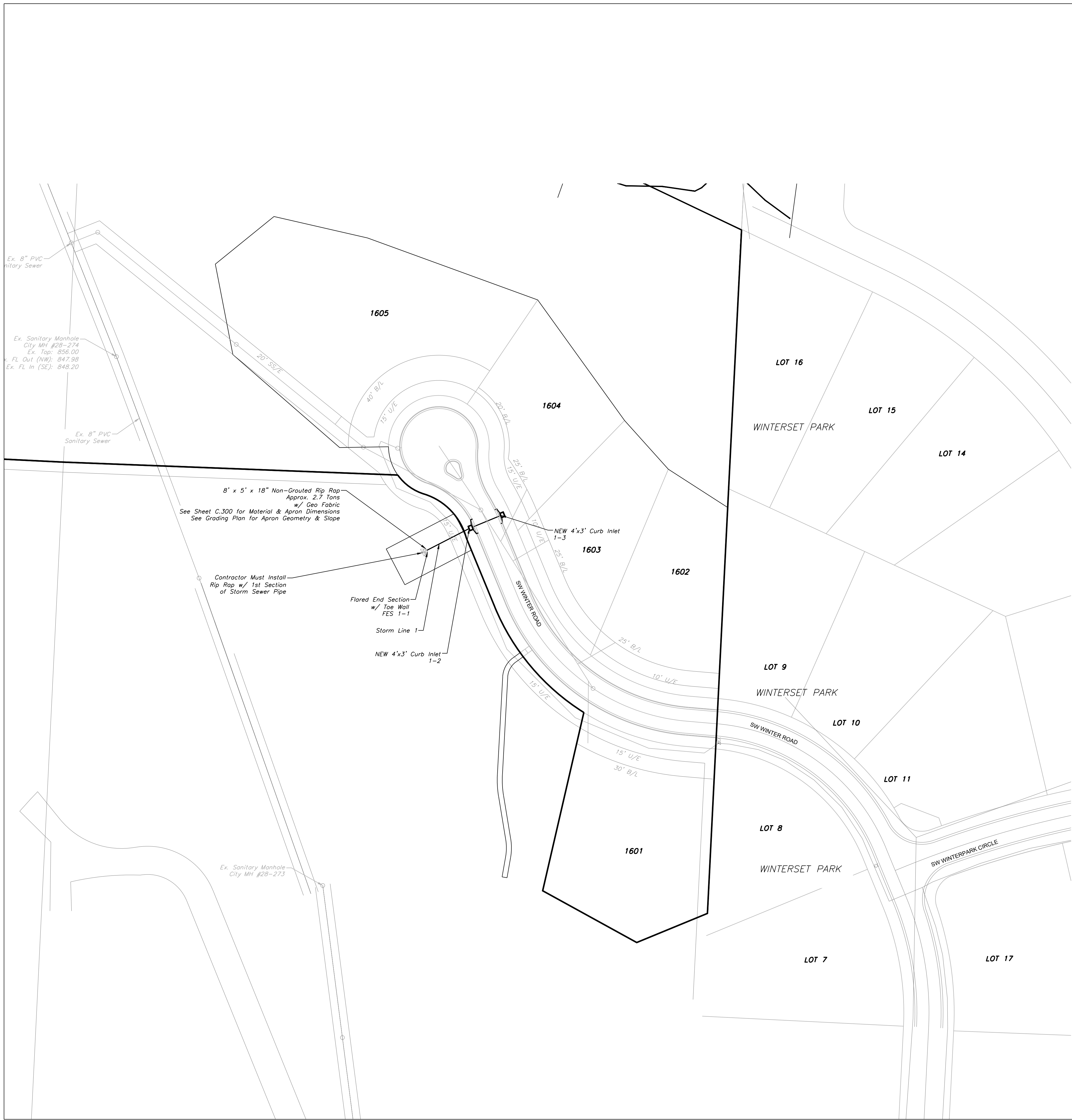
Project:
Creek
Issue Date:
December 3, 2020

Sidewalk and
Intersection Plan
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

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STORM SEWER GENERAL LAYOUT

SCALE: 1" = 60'

EXAMPLE RIPRAP APRON CALCULATIONS

Field End Section #	1-1
Q =	4.44 cfs
D =	1.25 ft
Tw =	0.5 ft
g =	32.2 ft/s^2

D50 = 2.57 inches

S =	0.1324 ft/ft
n =	0.01
Qcap =	30.42 ft^3/s
Q/Qcap =	0.15
d/D =	0.25
d =	0.31 ft
Central <	71.34 deg
Aseg =	0.29 ft^2
V =	15.37 ft/s
Fr =	4.85
Flow =	Supercritical

D' =	0.78 ft
yn =	0.31 ft
D50 =	4.81 inches
Classify	4.81 inches

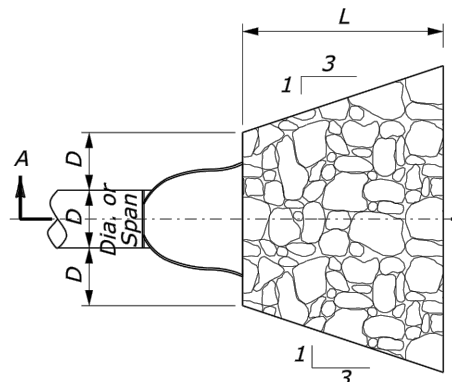
D50 = riprap size, m(ft)
Q = design discharge, m^3/s (ft^3/s)
D = culvert diameter (circular), m(ft)
Tw = tailwater depth, m(ft), if unknown use 0.4*D
g = acceleration due to gravity, 9.81 m/s^2 (32.2 ft/s^2)
Subcritical Flow

S = pipe slope, m(m/ft)/ft
n = manning's roughness coefficient, unitless
Qcap = full pipe capacity, m^3/s(ft^3/s)
Q/Qcap = design discharge/full pipe capacity, unitless
d/D = water depth/pipe diameter, unitless
d = depth of flow, m(ft)
lookup, degrees
lookup * pipe area, m^2(ft^2)
V = velocity of flow segment, m^2/s(ft^2/s)
Fr > 1 Supercritical, Fr = 1 Critical, Fr < 1 Subcritical
If flow is Supercritical adjust culvert diameter

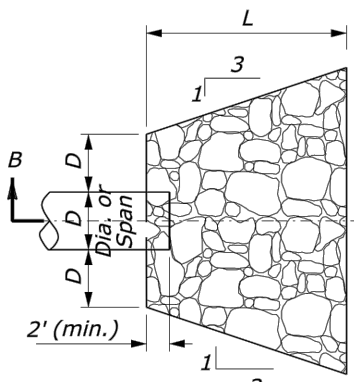
Class 1	Use D50 = 5				
Apron Length =	4 * D	5.00 ft	Use	5.00 ft	
Apron Depth =	3.5 * D50	17.50 inches	Use	18.00 inches	
Apron Width =	3*D+(2/3)L	7.08 ft	Use	8.00 ft	

RipRap Apron						
RipRap Apron Area (ac.)	Q100 (cfs)	Dia. (ft)	Class	D50 (in)	Length (ft)	Depth (in) Width (ft) Slope (%)
1-1	0.92	4.44	1.25	1	5	5 18 8 13.24

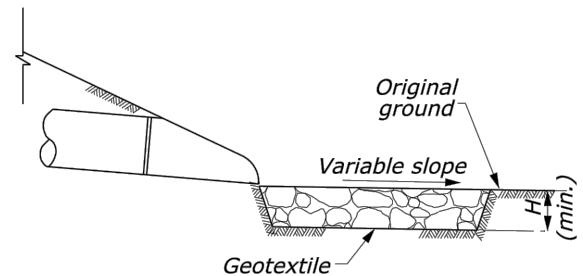
STANDARD RIPRAP APRON DETAIL



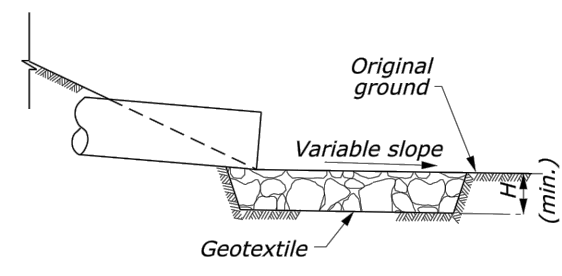
PLAN VIEW
CULVERT WITH STANDARD
END SECTION



PLAN VIEW
CULVERT WITHOUT STANDARD
END SECTION



SECTION A-A



SECTION B-B

- NOTES:
1. ALL RIPRAP APRONS SHALL CONFORM TO THE STANDARD CONFIGURATION SHOWN IN THE STANDARD DETAIL ABOVE UNLESS OTHERWISE NOTED. PLAN VIEW DIMENSIONS SHOWN SHALL BE MET OR EXCEEDED INCLUDING AREAS OF LONGITUDINAL AND/OR TRANSVERSE SLOPE.
 2. DIMENSIONS FOR EACH RIPRAP APRON AND ASSOCIATED RIPRAP ARE DETAILED IN THE TABLE ABOVE.
 3. WIDTH REFERS TO DIMENSION OPPOSITE PIPE AND DEPTH IS DIMENSION H.
 4. GEOTEXTILE SHALL BE "GEL WORKS 4 OUNCE" NON-WOVEN FILTER FABRIC DESIGNED FOR FILTRATION, STABILIZATION AND SEPARATION. WRAPPED CONTINUOUSLY ALONG THE SIDEWALLS AND BOTTOM OF THE PREPARED AREA OR SLOPE.
 - WATER FLOW = 120 GPM/SF
 - GRAB STRENGTH (MIN) = 400 N
 - PUNCTURE STRENGTH (MIN) = 178 N
 - TRAPEZOIDAL TEAR (MIN) = 133 N
 - ELONGATION (MIN) = 15%

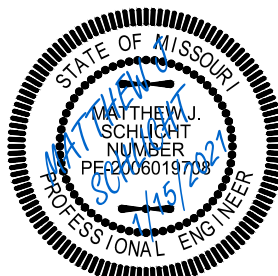


Professional Registration
Missouri
Engineering 2005002198-D
Surveying 2005000519-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

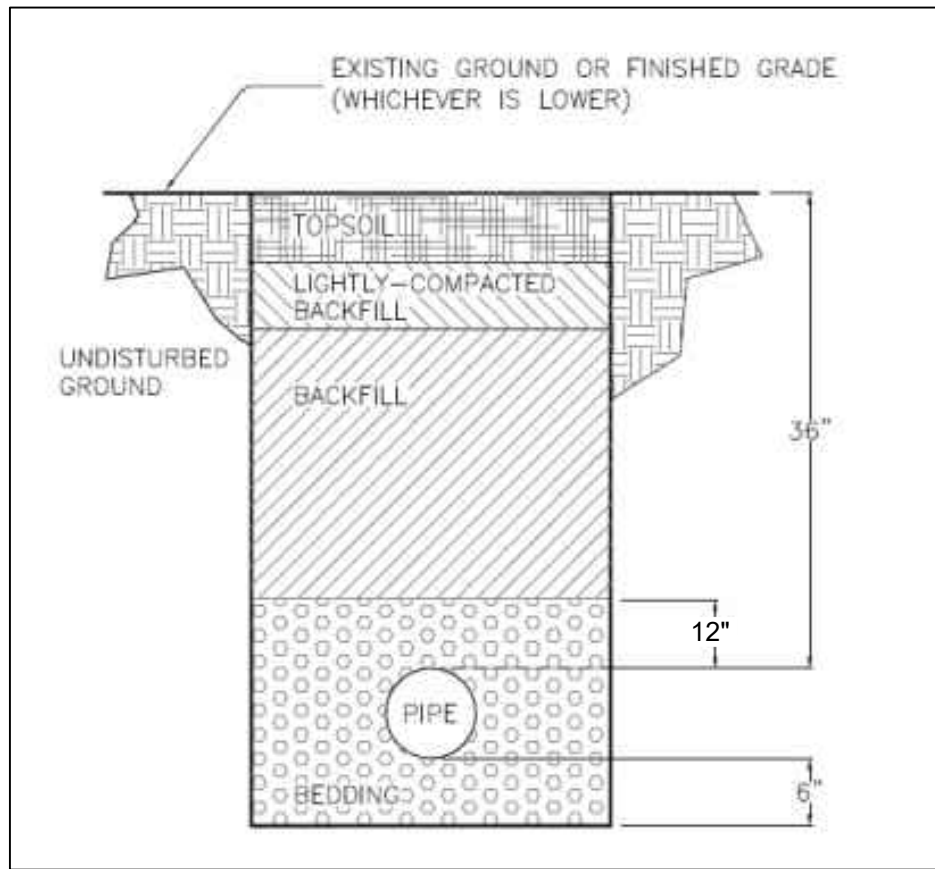
Project
Creek
Issue Date
December 1, 2020

Storm Sewer General Layout
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

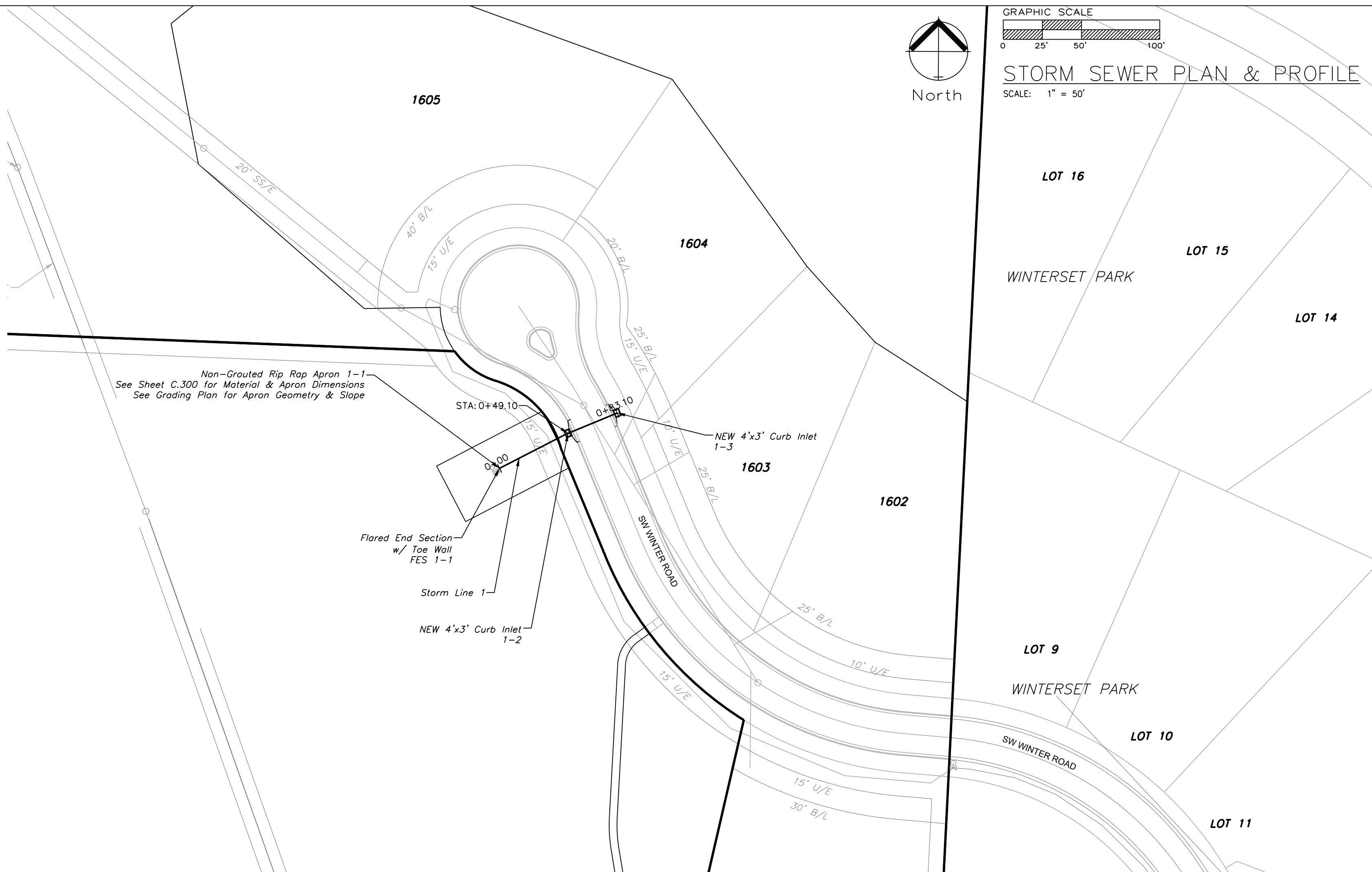


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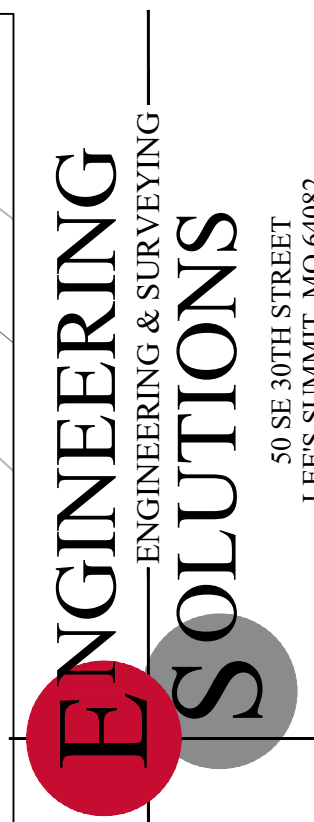
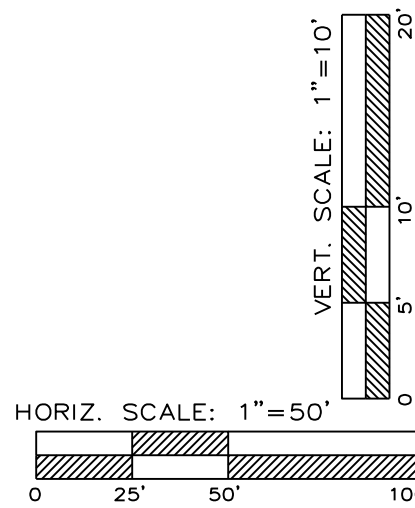
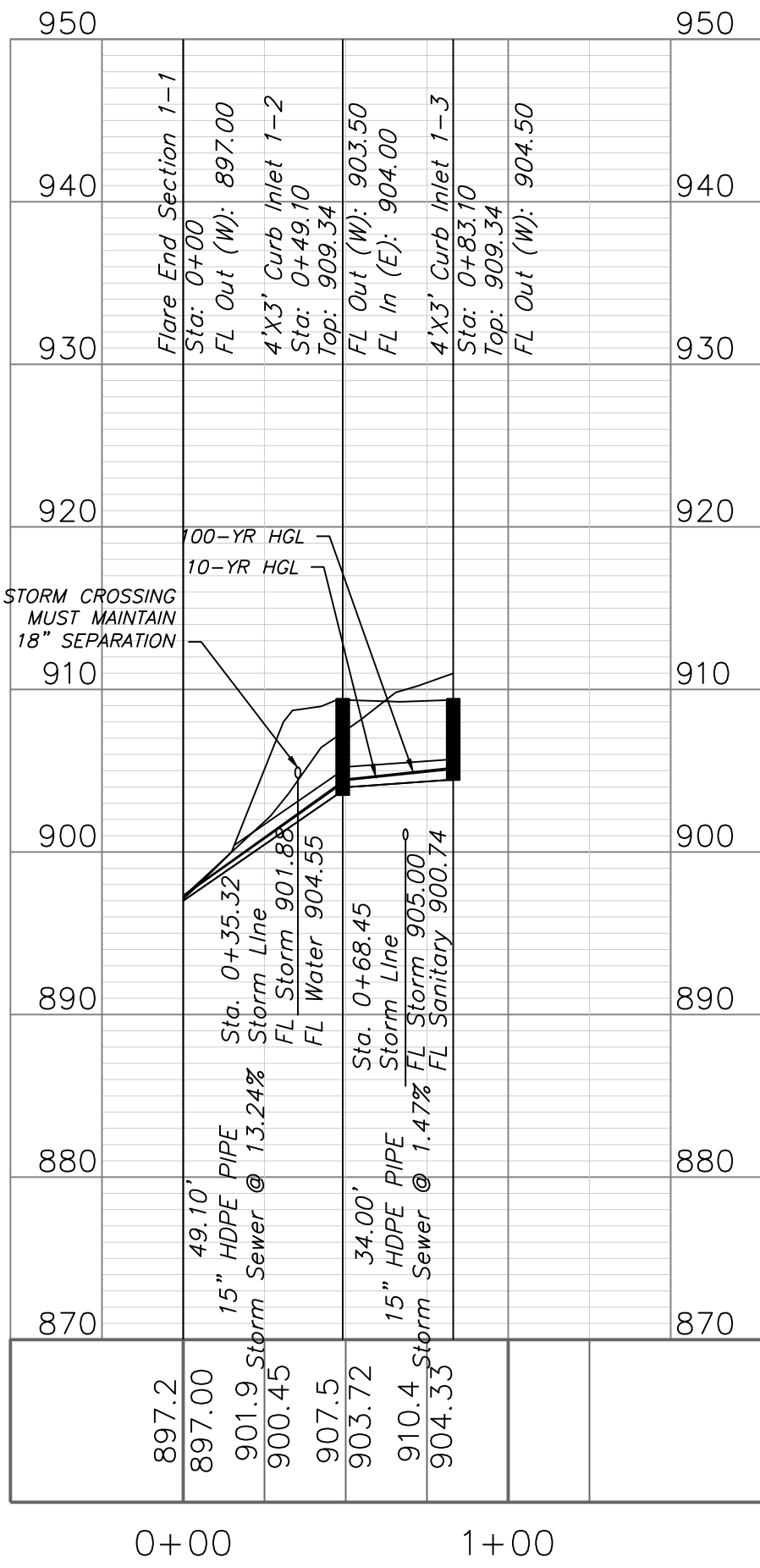
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TRENCH AND BACKFILL DETAIL
N.T.S.



STORM LINE 1

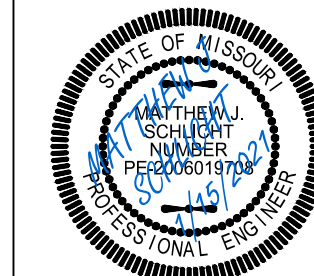


Professional Registration
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Oklahoma
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The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

Project
Creek
December 3, 2020

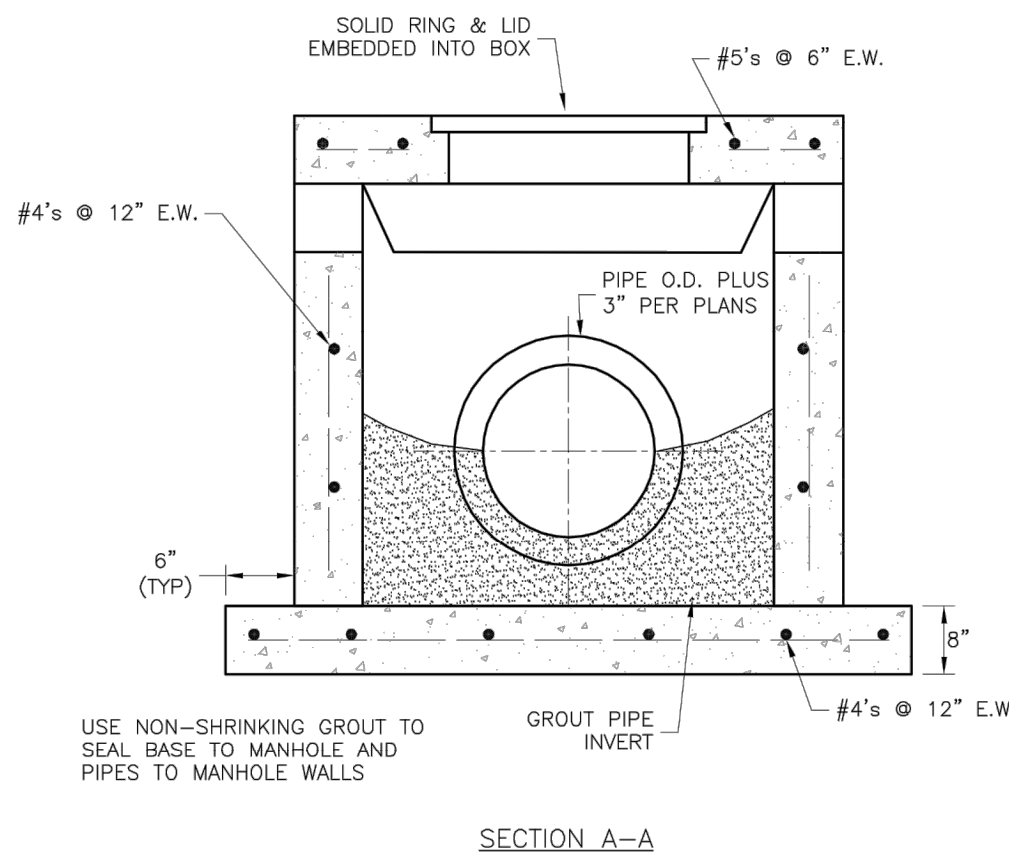
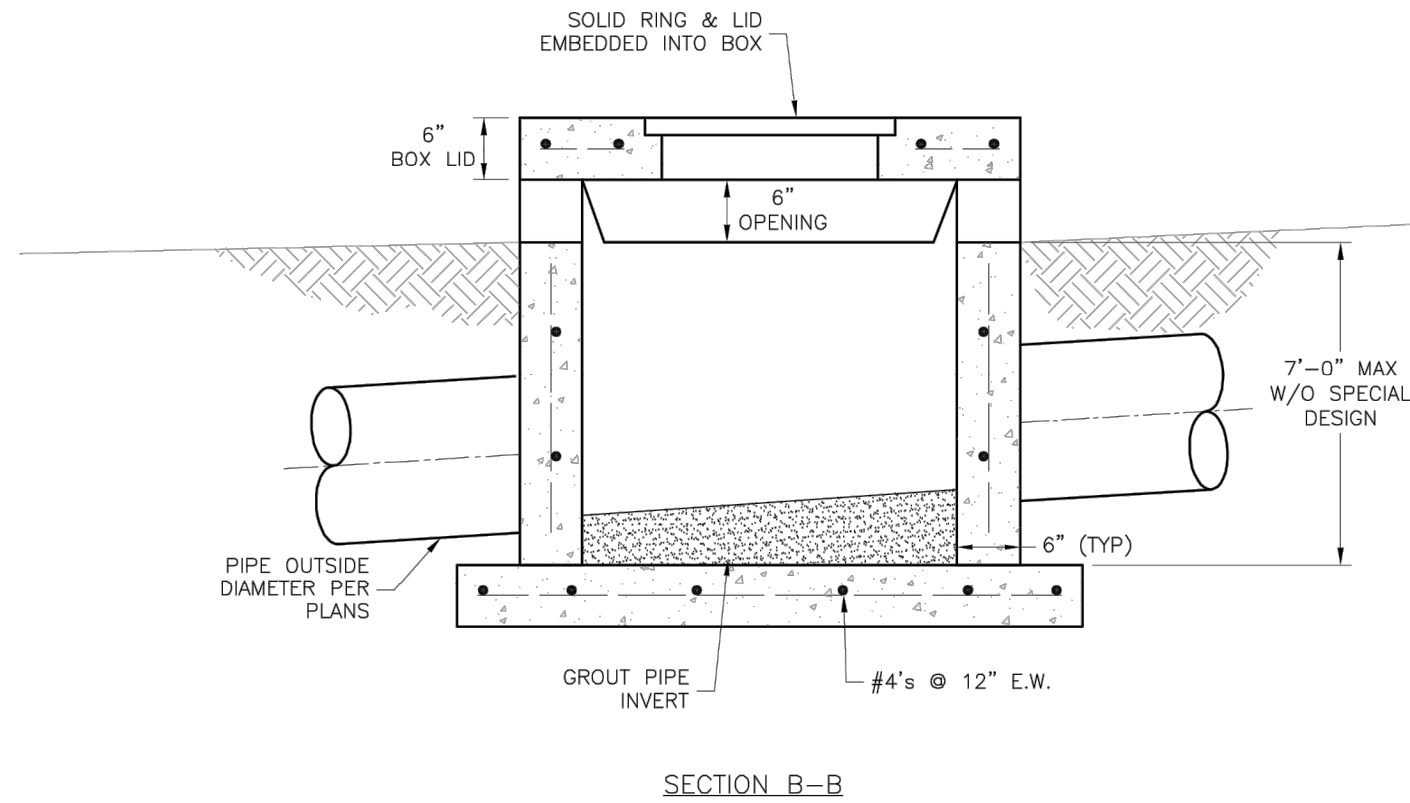
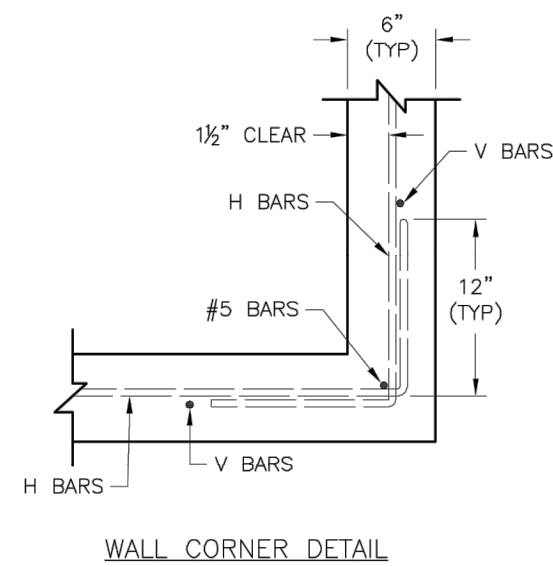
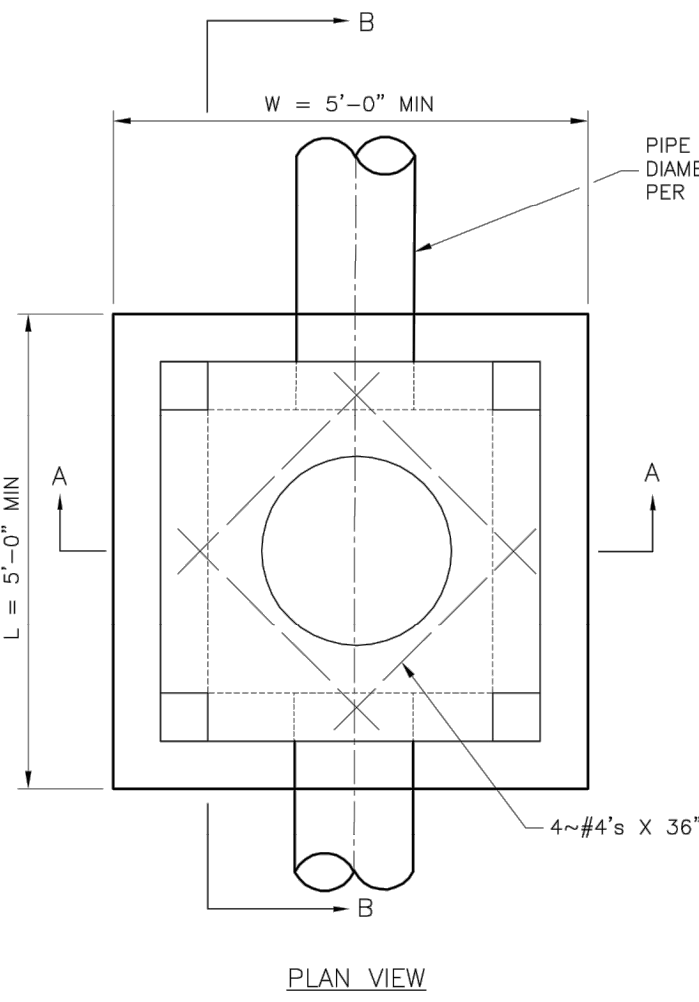
Storm Sewer Plan and Profile
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

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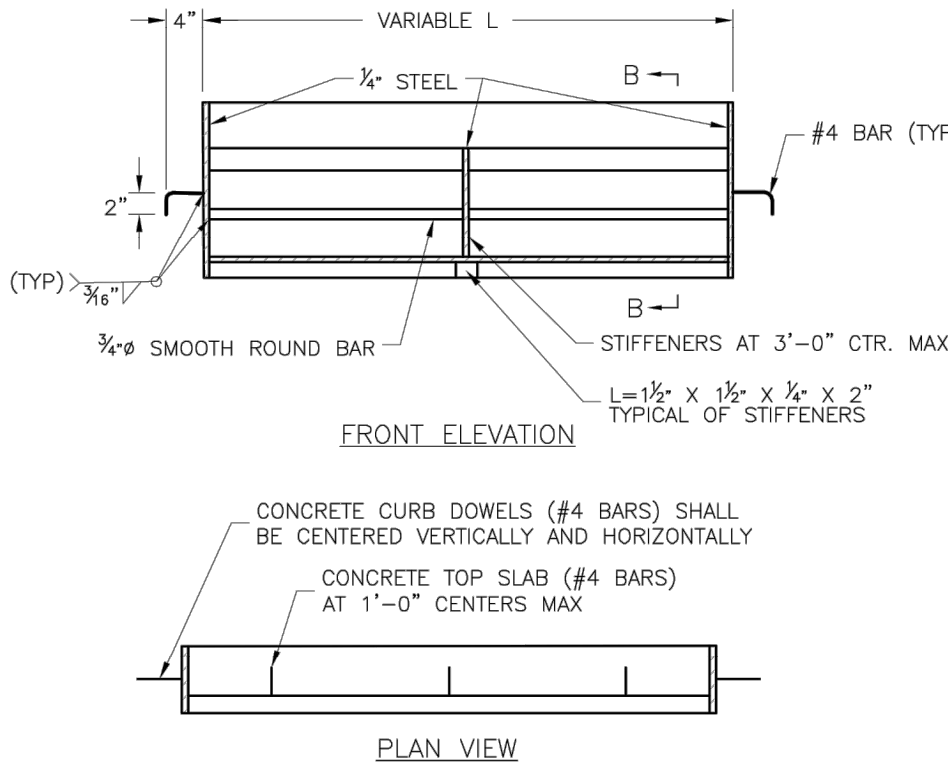
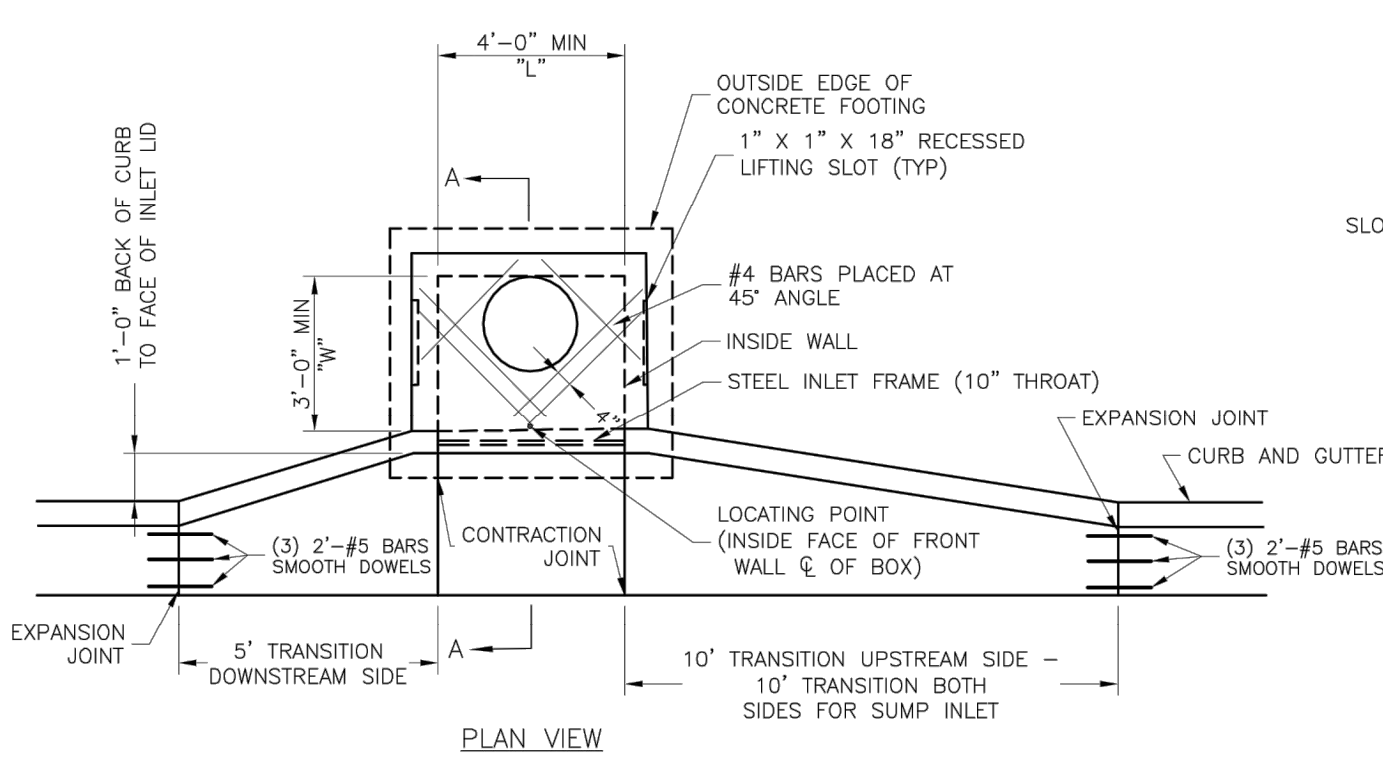
C. 301



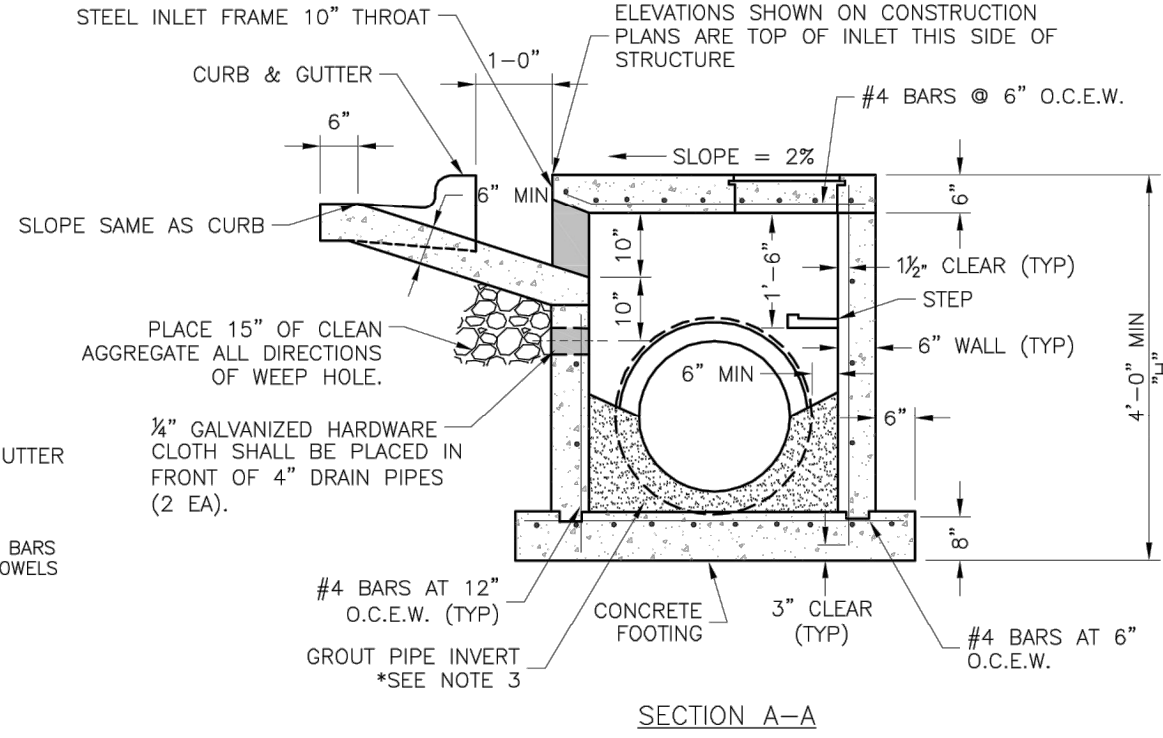
- GENERAL NOTES:
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
 2. USE $\frac{3}{4}$ " CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
 3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
 4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
 5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
 6. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
 7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
 8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
 9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64083

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
FIELD INLET DETAIL
STM-2



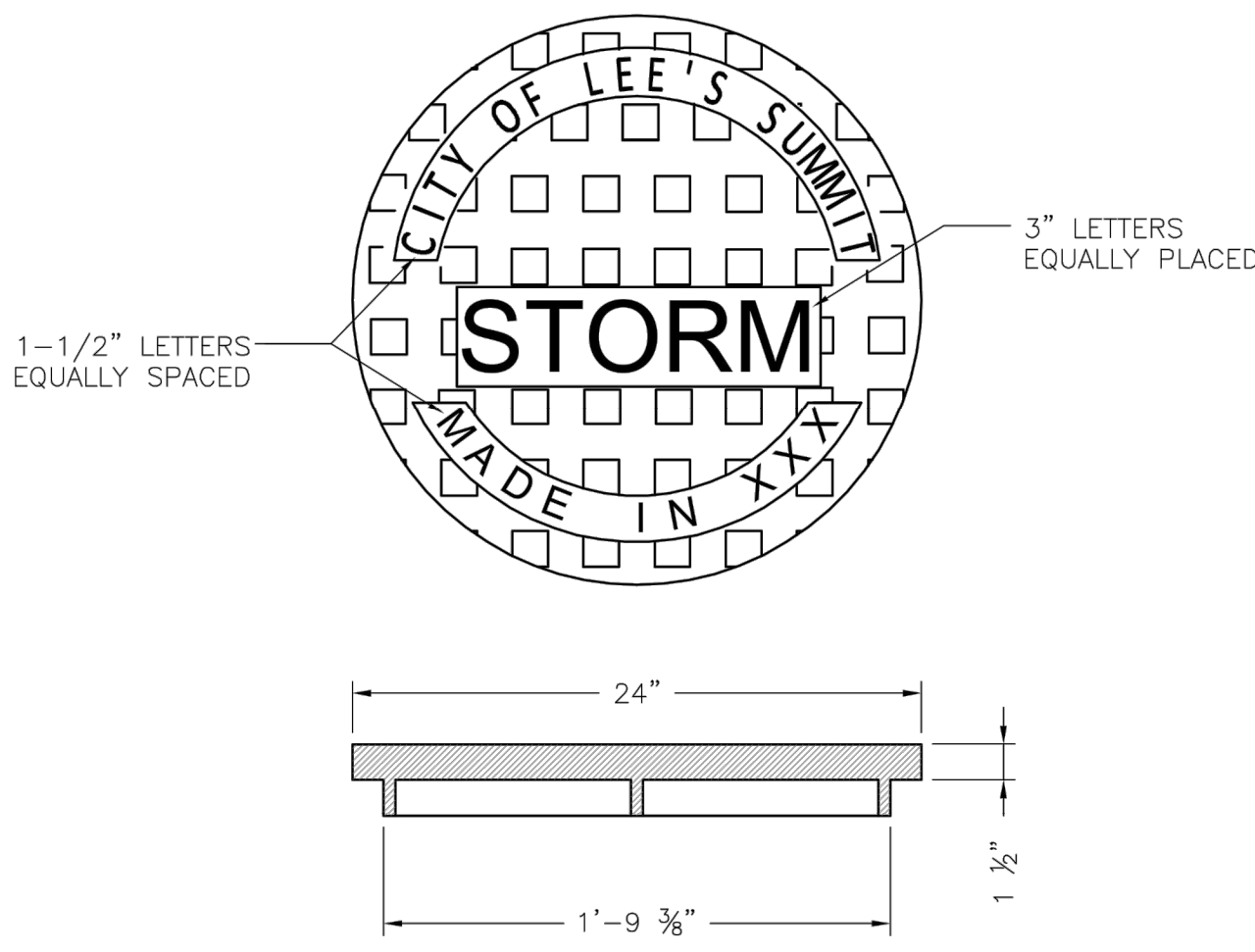
- STEEL FRAME NOTES:
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
 2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
 3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM-PRIME #37H-7B PRIMER (GRAY) OR EQUAL.



- GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
 2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
 3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
 4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
 5. STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
 6. BEVEL ALL EXPOSED EDGES WITH $\frac{3}{4}$ " CHAMFER OR 1" TOOLED EDGE.
 7. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
 8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
 9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON-SHRINKABLE GROUT
 10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
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STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB INLET DETAIL
STM-1

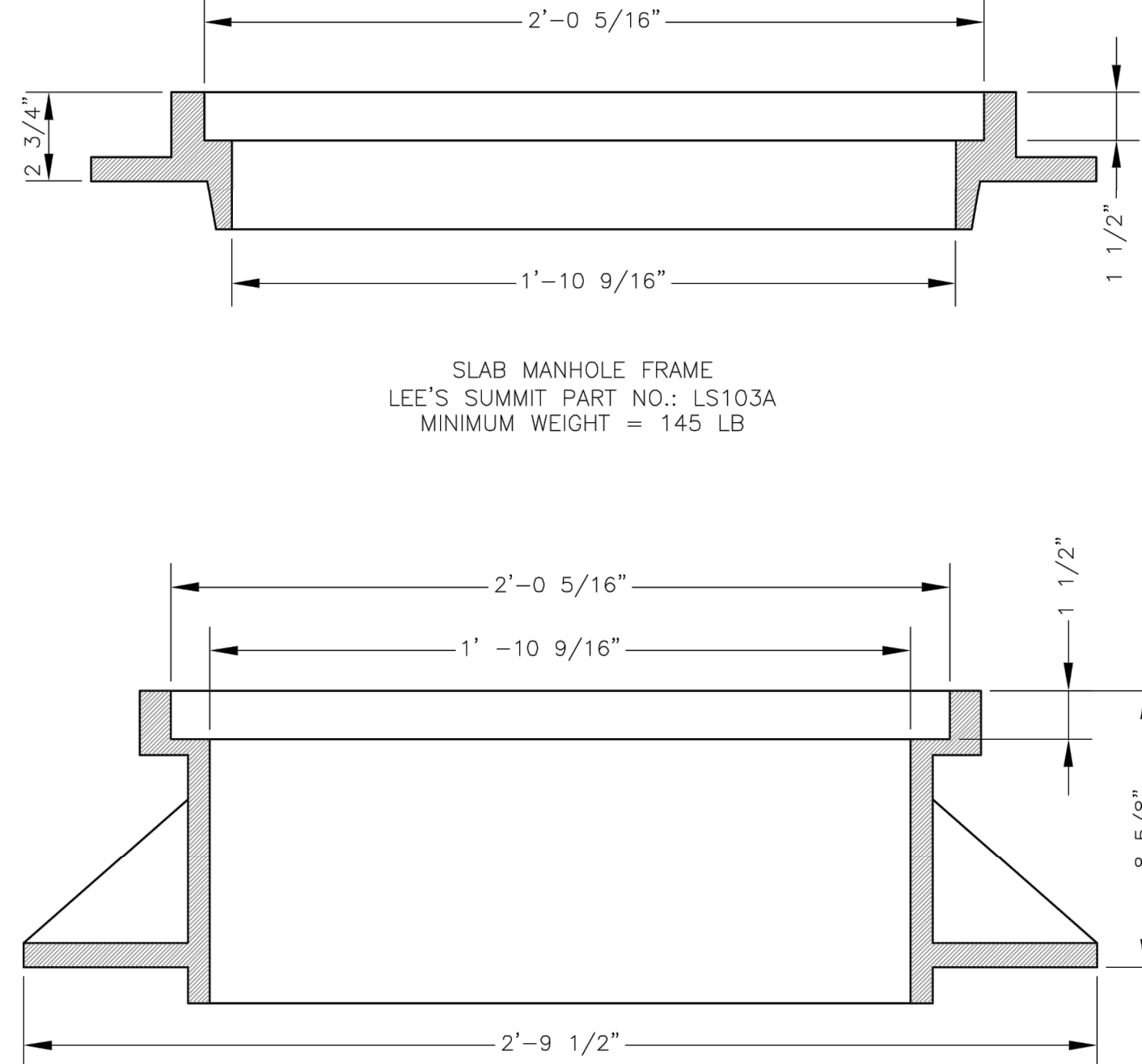


STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64083

STM-6

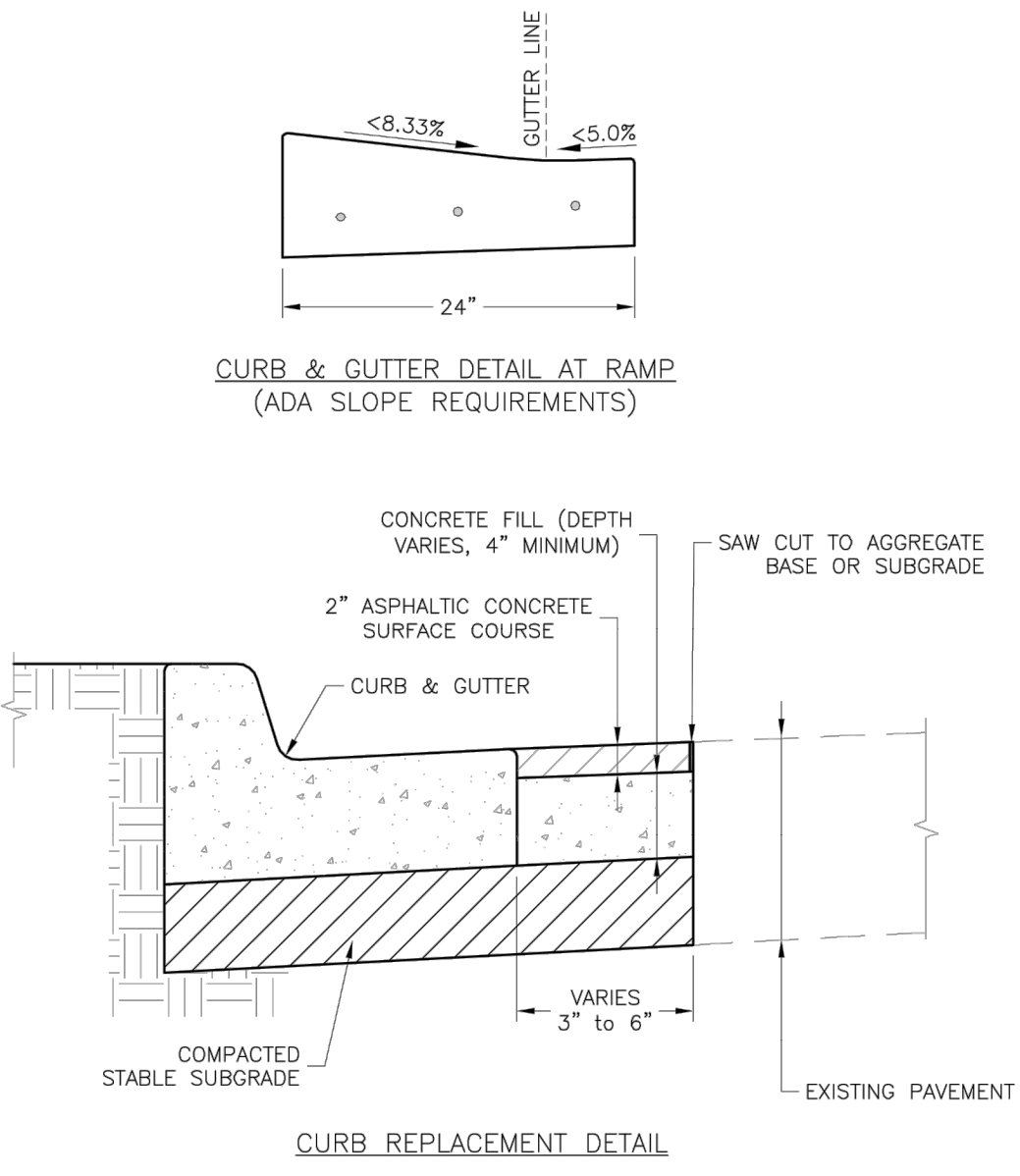
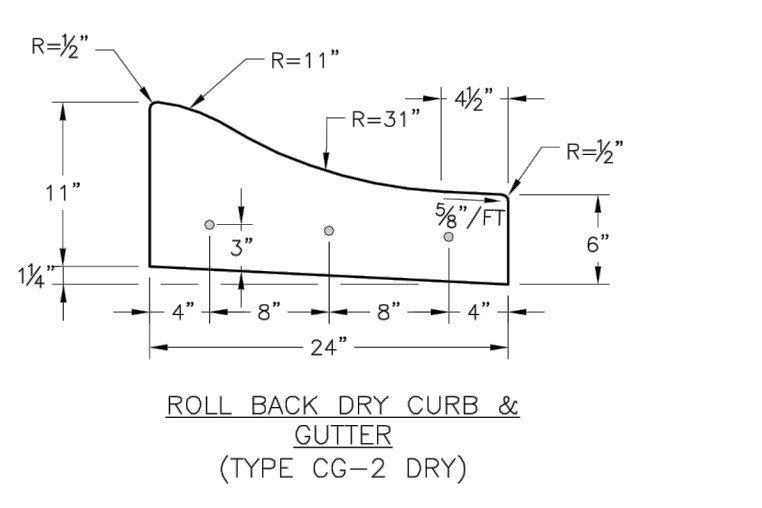
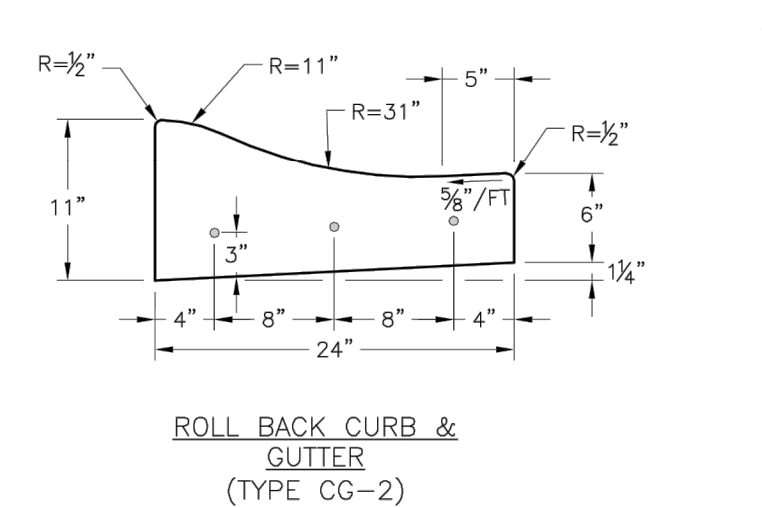
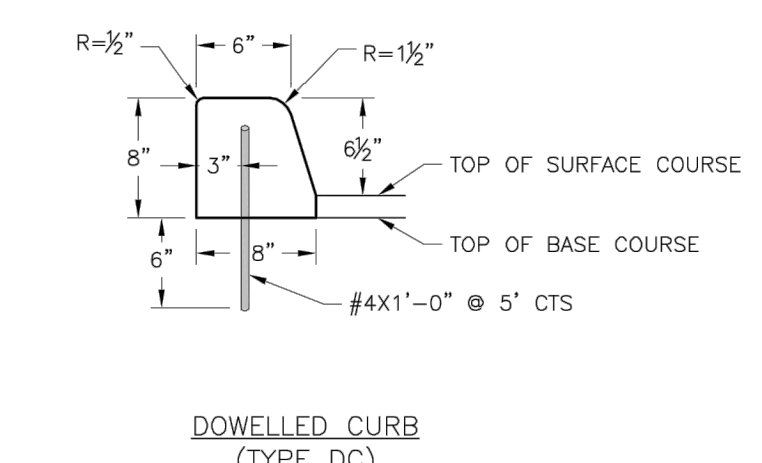
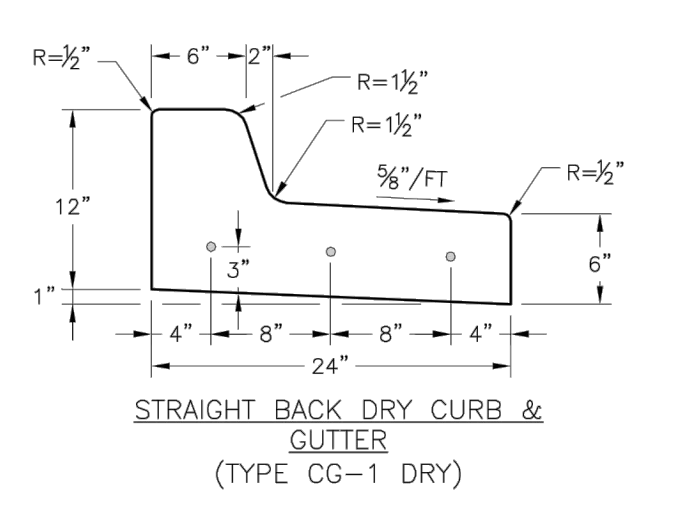
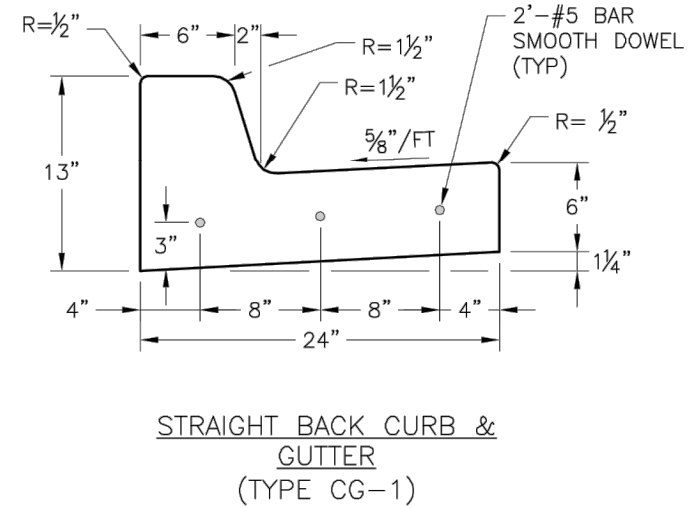
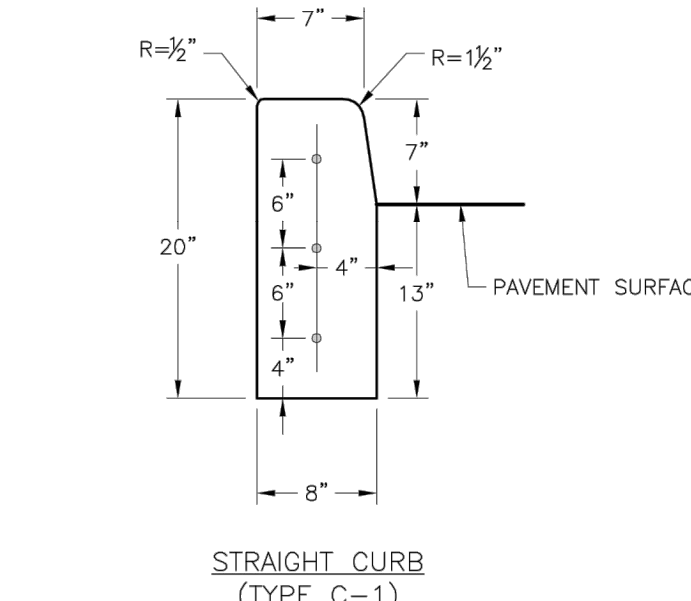


STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.



LEE'S SUMMIT MISSOURI
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STM-7



- GENERAL NOTES
1. $\frac{3}{4}$ " ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
 2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
 3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
 4. KCMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
 5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
 6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
 7. WHITE CURING COMPOUND SHALL BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

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STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL
GEN-4



Professional Registration
Missouri
Engineering 2005002188-D
Surveying 2005000518-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri

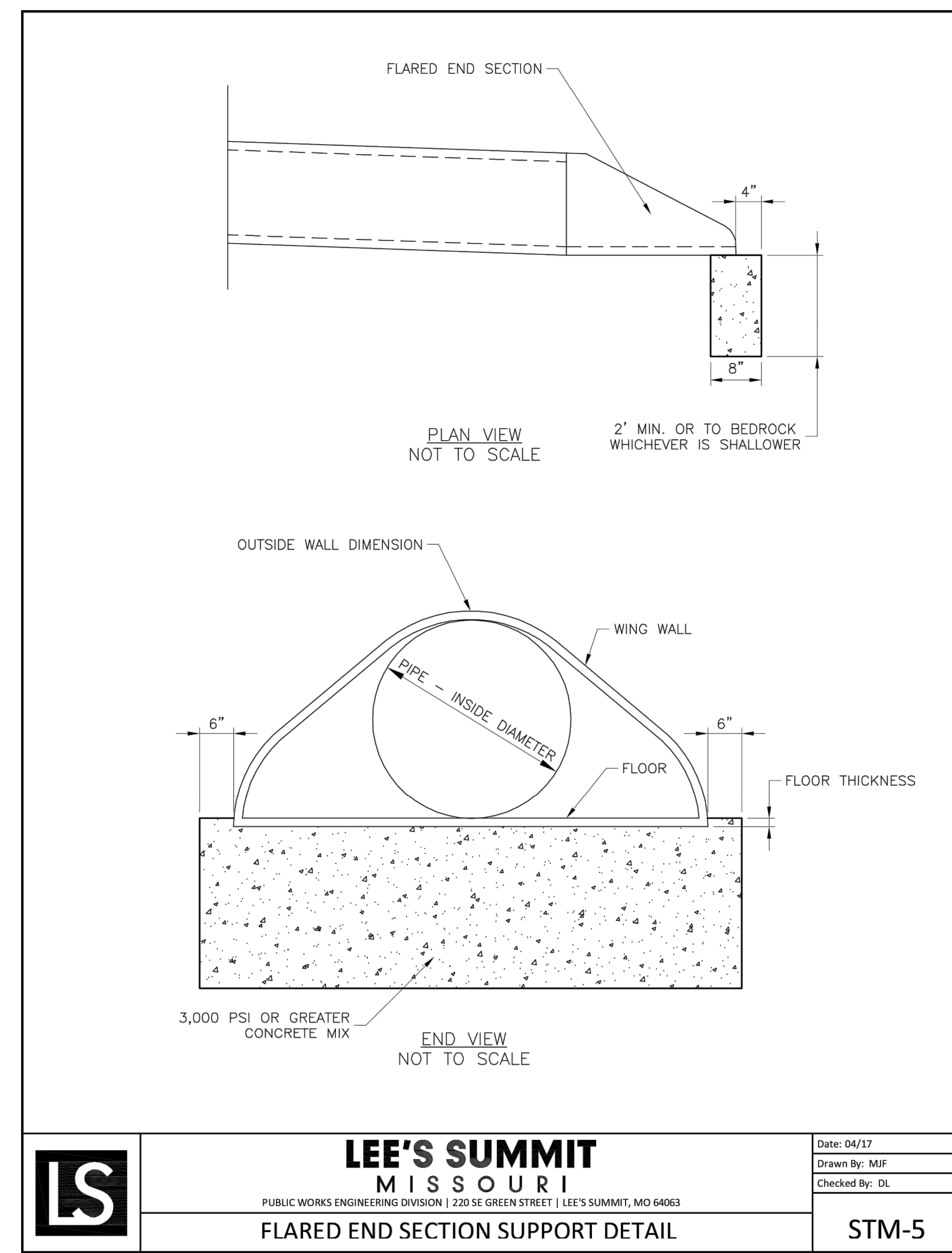
Project Engineer
Creek
Issue Date
December 3, 2020

Construction Details
Construction Plans for:
The Ridge at Winterset Summit
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 190071
OK PE 25226

REVISIONS
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ADDED STANDARD DETAILS.

