

REVISED TITLE TO INCLUDE
RETENTION BASIN.

OLDHAM VILLAGE

RETENTION BASIN, MASS GRADING, EROSION, AND SEDIMENT CONTROL PLANS

Section 7, Township 47 North, Range 31 West

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Tract Description

A tract of land being located in Sections 7 & 8, Township 47, Range 31, Lee's Summit, Jackson County Missouri, being more particularly described as follows:
Commencing at the East Quarter Corner of said Section 7, thence N87°41'40"W along the North line of said Section 7, a distance of 937.51 feet; thence S71°20'0"W, a distance of 41.88 feet to the Point of Beginning; thence N57°09'44"W, a distance of 458.00 feet; thence S22°26'55"W, a distance of 2068.05 feet; thence S87°33'04"E, a distance of 215.90 feet; thence N2°25'22"E, a distance of 555.23 feet; thence S88°17'49"E, a distance of 260.52 feet; thence S2°33'08"W, a distance of 221.84 feet; thence S87°48'02"E, a distance of 280.68 feet; thence S2°32'26"W, a distance of 303.63 feet; thence S88°04'40"E, a distance of 339.94 feet; thence S22°23'57"W, a distance of 37.99 feet; thence S87°48'18"E, a distance of 263.03 feet; thence S2°32'23"W, a distance of 493.69 feet; thence S22°3'15"W, a distance of 224.32 feet; thence S49°43'38"E, a distance of 34.42 feet; thence S88°29'59"E, a distance of 67.84 feet; thence N2°23'15"E, a distance of 12.78 feet; thence S87°50'25"E, a distance of 327.07 feet; thence N6°07'34"W, a distance of 1338.91 feet; thence N87°50'52"E, a distance of 62.60 feet; thence N2°3'19"E, a distance of 158.07; thence along a curve to the left tangent to the preceding course and having a radius of 1375.94 feet, an arc distance of 490.71 feet; thence N87°25'57"W, a distance of 74.50 feet; thence along a curve to the right tangent to the preceding course and having a radius of 250.00 feet, an arc distance of 183.56 feet; thence N43°39'15"W, a distance of 495.95 feet; thence N44°17'15"W, a distance of 122.21 feet; thence S45°42'45"W, a distance of 46.13 feet; thence S69°02'59"W, a distance of 78.09 feet; thence N52°34'07"W, a distance of 298.65 feet to the Point of Beginning.

GENERAL NOTES:

- 1 ~ ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- 2 ~ ALL REQUIRED EASEMENTS WITHIN THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR ON THE FINAL PLAT.
- 3 ~ ANY REQUIRED EASEMENT LOCATED OUTSIDE OF THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR BY SEPARATE INSTRUMENT PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
- 4 ~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.
- 5 ~ THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.
- 6 ~ THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND OBTAIN THE APPROPRIATE BLASTING PERMITS FOR A REQUIRED BLASTING. IF BLASTING IS ALLOWED, ALL BLASTING SHALL CONFORM TO STATE REGULATIONS AND LOCAL ORDINANCES.

UTILITY COMPANIES:

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

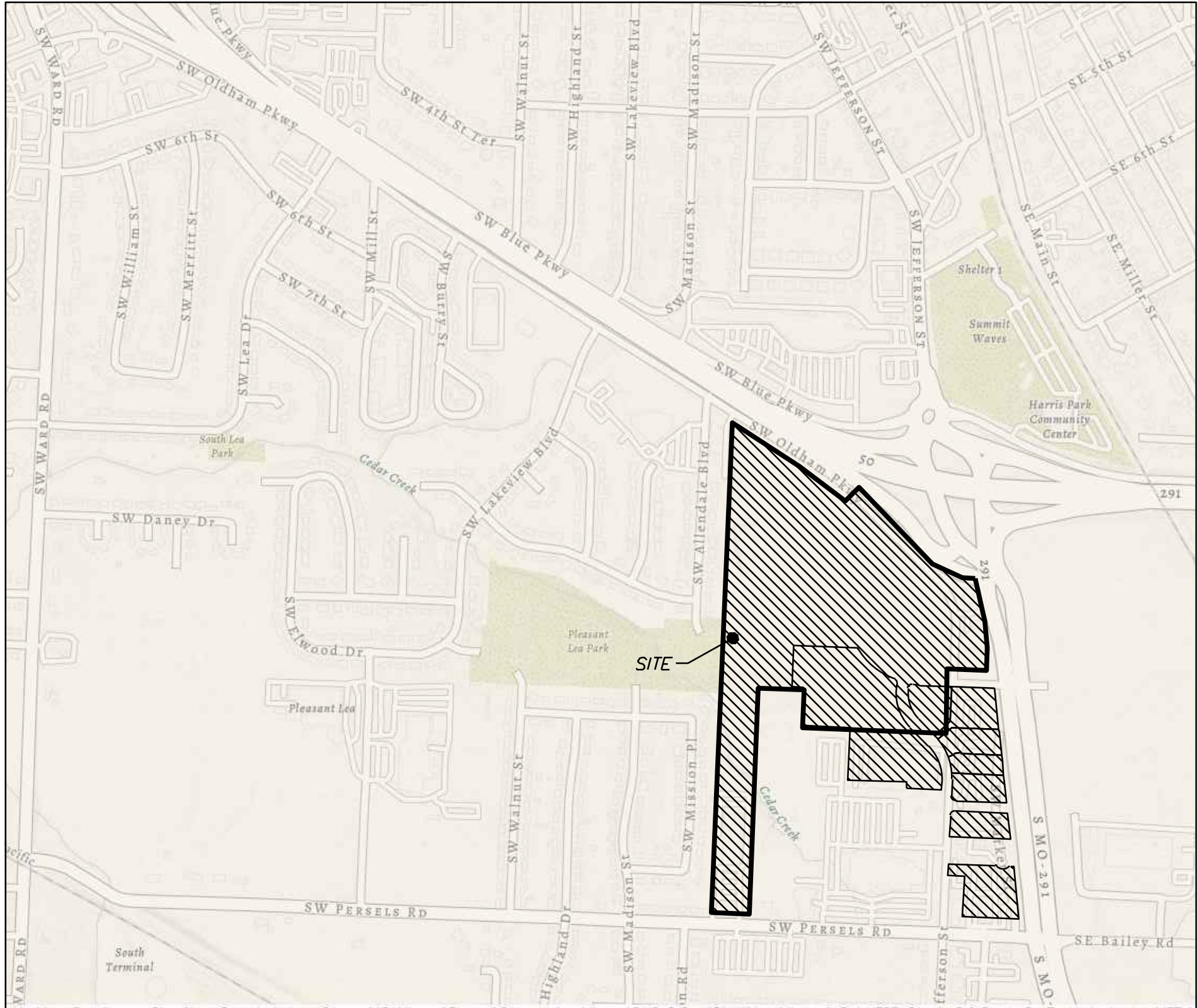
EVERGY ~ 298-1196
MISSOURI GAS ENERGY ~ 756-5261
SOUTHWESTERN BELL TELEPHONE ~ 761-5011
COMCAST CABLE ~ 795-1100
WILLIAMS PIPELINE ~ 422-6300
CITY OF LEE'S SUMMIT PUBLIC WORKS ~ 969-1800
CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
CITY OF LEE'S SUMMIT WATER UTILITIES ~ 969-1900
MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483

OIL - GAS WELLS

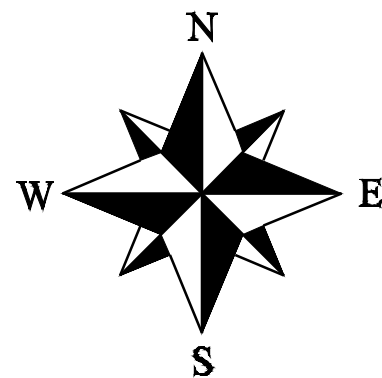
ACCORDING TO EDWARD ALTON MAY JR'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

FLOOD INFORMATION:

The property is located in Zone "X" areas outside the 100 year flood plain per FEMA Map 29095C0419G, dated January 20, 2017



Vicinity Map



SITE LOCATION MAP

Summary of Quantities:

ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
CLEARING, GRADING & GRUBBING	LS	1
SILT FENCE	FT	28,000.00
INLET PROTECTION	UNIT	82.00
SEEDING / MULCHING/ FERTILIZING	AC	60.37
FAIRCLOTH SKIMMER ASSEMBLY	UNIT	2.00
CONST. ENTRANCE	UNIT	2.00
60" HDPE END SECTION / TOE WALL	LS	6
24" HDPE END SECTION / TOE WALL	LS	1
FES TRASH GUARD	LS	3
60" HDPE	FT	211.56
24" HDPE	FT	44.55
DETENTION CONTROL STRUCTURE	EA	3
RIP RAP W/ FABRIC	CY	156

DEVELOPER:

Oldham Investors, LLC
David Olson
1700 132nd St, Suite 150
Phone: 314-413-3598

INDEX OF SHEETS:

- C.001 ~ COVER SHEET
- C.050 ~ ESC PHASE 1 - PRE CLEARING PLAN
- C.051 ~ ESC PHASE 2 - INITIAL AREA STABILIZATION PLAN
- C.052 ~ ESC PHASE 3 - FINAL RESTORATION PLAN
- C.053 ~ ESC - STANDARD DETAILS
- C.200 ~ GRADING PLAN
- C.210 ~ TEMPORARY SEDIMENT BASIN PLAN
- C.211 ~ RETENTION BASIN PLAN
- C.212 ~ RETENTION BASIN PLUNGE POOL & PLAN
- C.220 ~ RETAINING WALL PLAN
- C.221 ~ RETAINING WALL PLAN
- C.222 ~ RETAINING WALL PLAN
- C.300 ~ STORM PLAN & PROFILE

LEGEND:

- B/L ~ BUILDING SET-BACK
- C/A ~ COMMON AREA
- D/E ~ DRAINAGE EASEMENT
- FND. ~ FOUND
- L/E ~ LANDSCAPE EASEMENT
- L.N.A. ~ LIMITS OF NO ACCESS
- R/W ~ RIGHT OF WAY
- SAN ~ SANITARY SEWER LINE
- S/W ~ SIDEWALK
- U/E ~ UTILITY EASEMENT
- W ~ WATER LINE
- ST ~ STORM SEWER LINE

ENGINEER'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

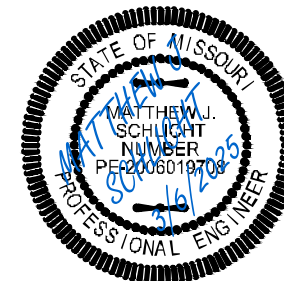


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-216
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project: OLDHAM VILLAGE
MARKETPLACE, LS MO
Issue Date: September 26, 2024

Cover Sheet
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

- REV. 2/7/2025
- REV. 3/6/2025



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



SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE

SF-1 SF-1

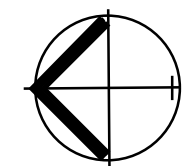
PHASE 2 SILT FENCE

SF-2 SF-2

INLET PROTECTION

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.

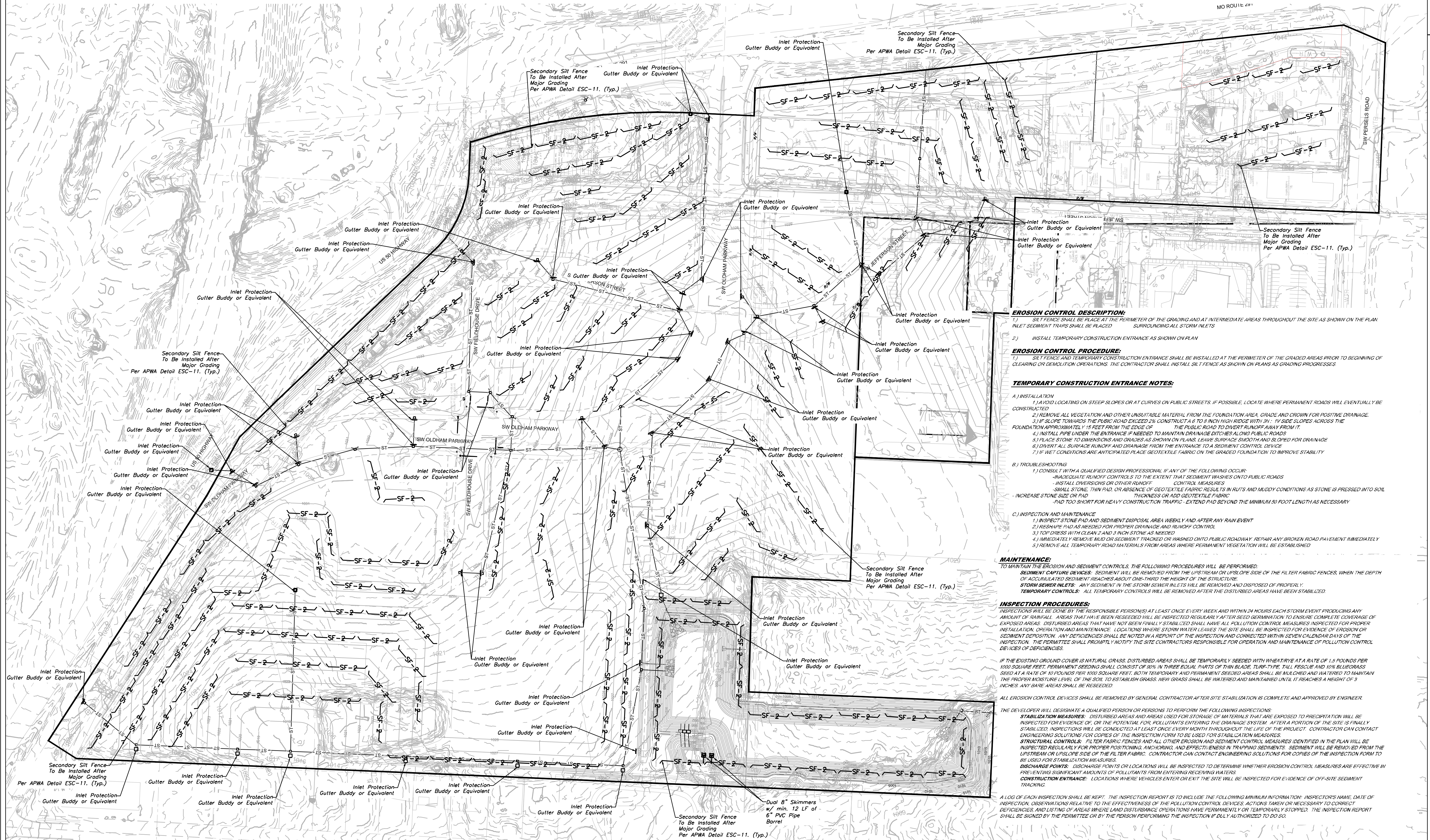
DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.



0 50' 100' 200'

ESC PHASE 2

SCALE: 1" = 100'



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 PUBLIC 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

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 SEEDDED WITH WHEATGRASS AT A RATE OF 1.5 POUNDS PER 1000 SQUARE FEET. SEEDING SHALL COME WITHIN 14 DAYS OF THE DATE OF THE INSPECTION. THE FALL FESCUE AND 10% BLUEGRASS SEED AT A RATE OF 10 POUNDS PER 1000 SQUARE FEET. BOTH TEMPORARY AND PERMANENT SEEDING 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.

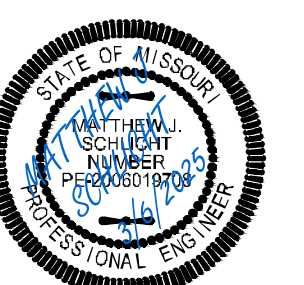
A LOG OF EACH INSPECTION SHALL BE KEPT. THE INSPECTION REPORT IS TO INCLUDE THE FOLLOWING MINIMUM INFORMATION: INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS RELATIVE TO THE EFFECTIVENESS OF THE POLLUTION CONTROL DEVICES, ACTIONS TAKEN OR NECESSARY TO CORRECT DEFICIENCIES, AND LISTING OF AREAS WHERE 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.

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-216
Oklahoma
Engineering 6284
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri

Project
MARKETPLACE
LSMO
Issue Date
September 26, 2024

ESC PHASE 2
Inactive Area Stabilization Plan
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 0006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

REV. 2/7/2025
REV. 3/6/2025

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

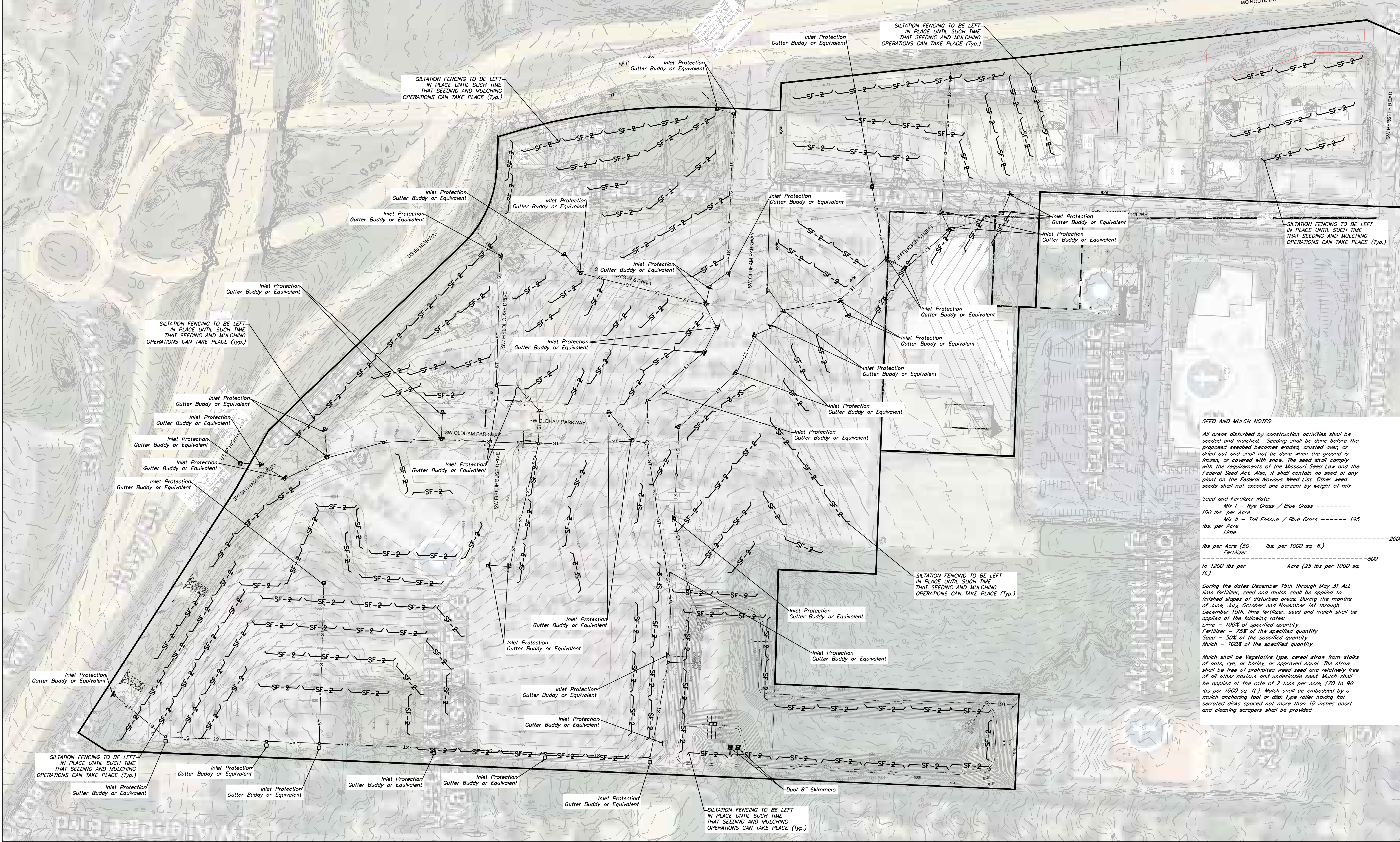
DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.

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

ESC PHASE FINAL
SCALE: 1" = 100'

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

lbs per Acre (50 lbs. per 1000 sq. ft.)
Fertilizer -----2000
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

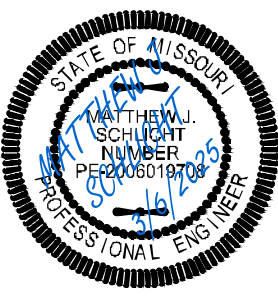


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Oldham Village
Lee's Summit, Jackson County, Missouri

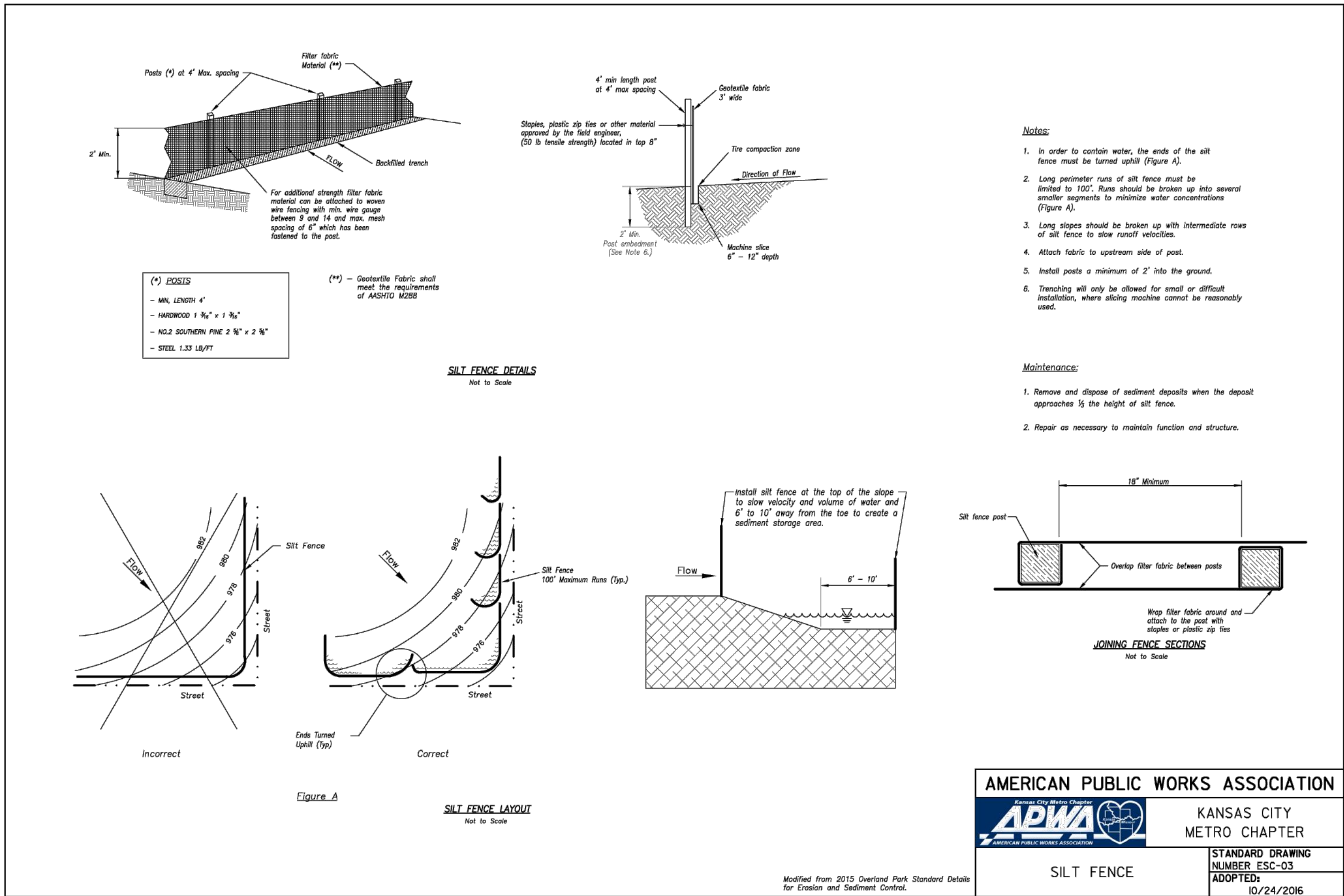
Project
MARKETPLACE
LSMO
Issue Date
September 26, 2024

ESC PHASE 3 - Final Restoration Plan
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri

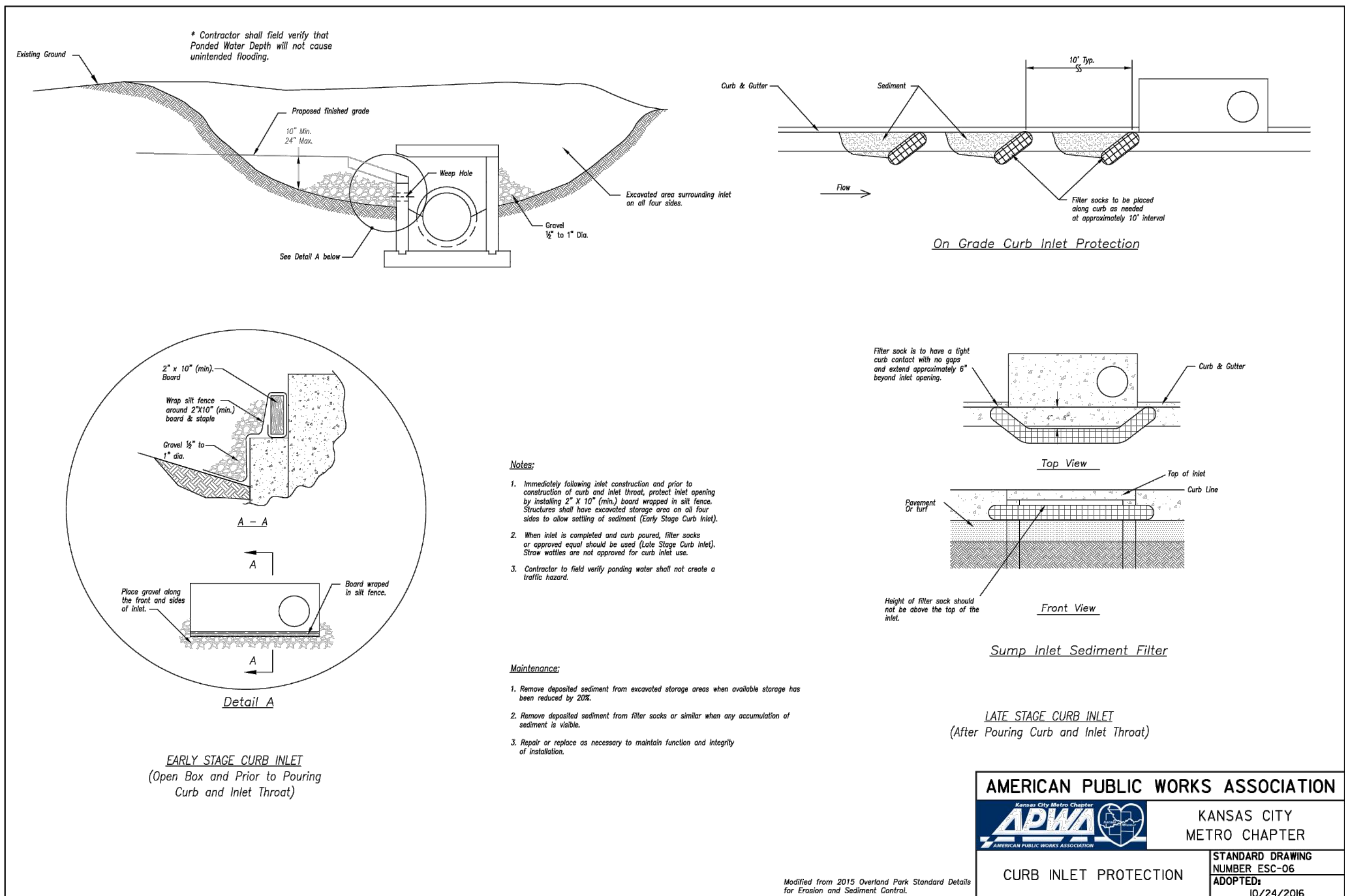
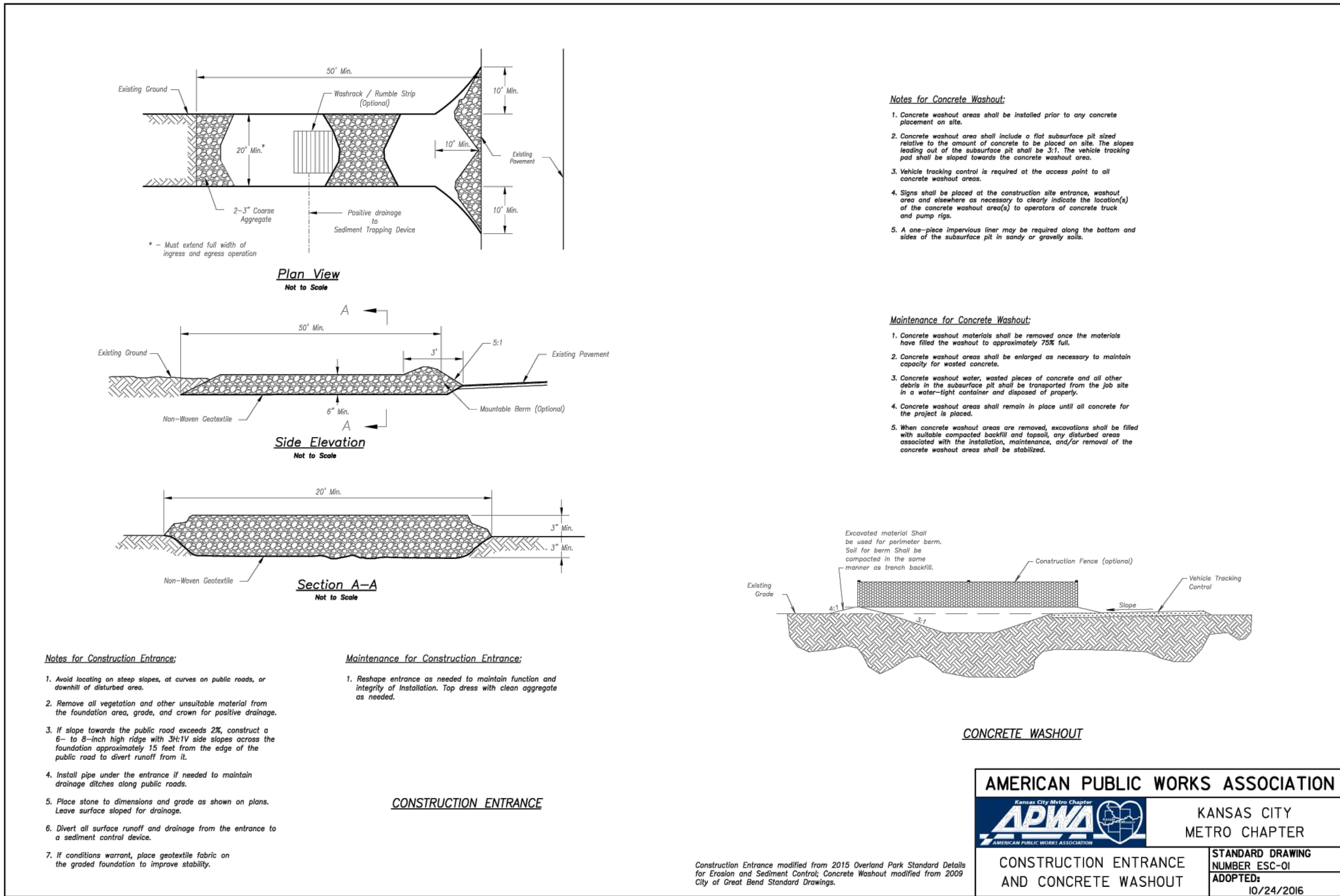


Matthew J. Schlicht
MO PE 000019708
KS PE 19071
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NE PE E-14335

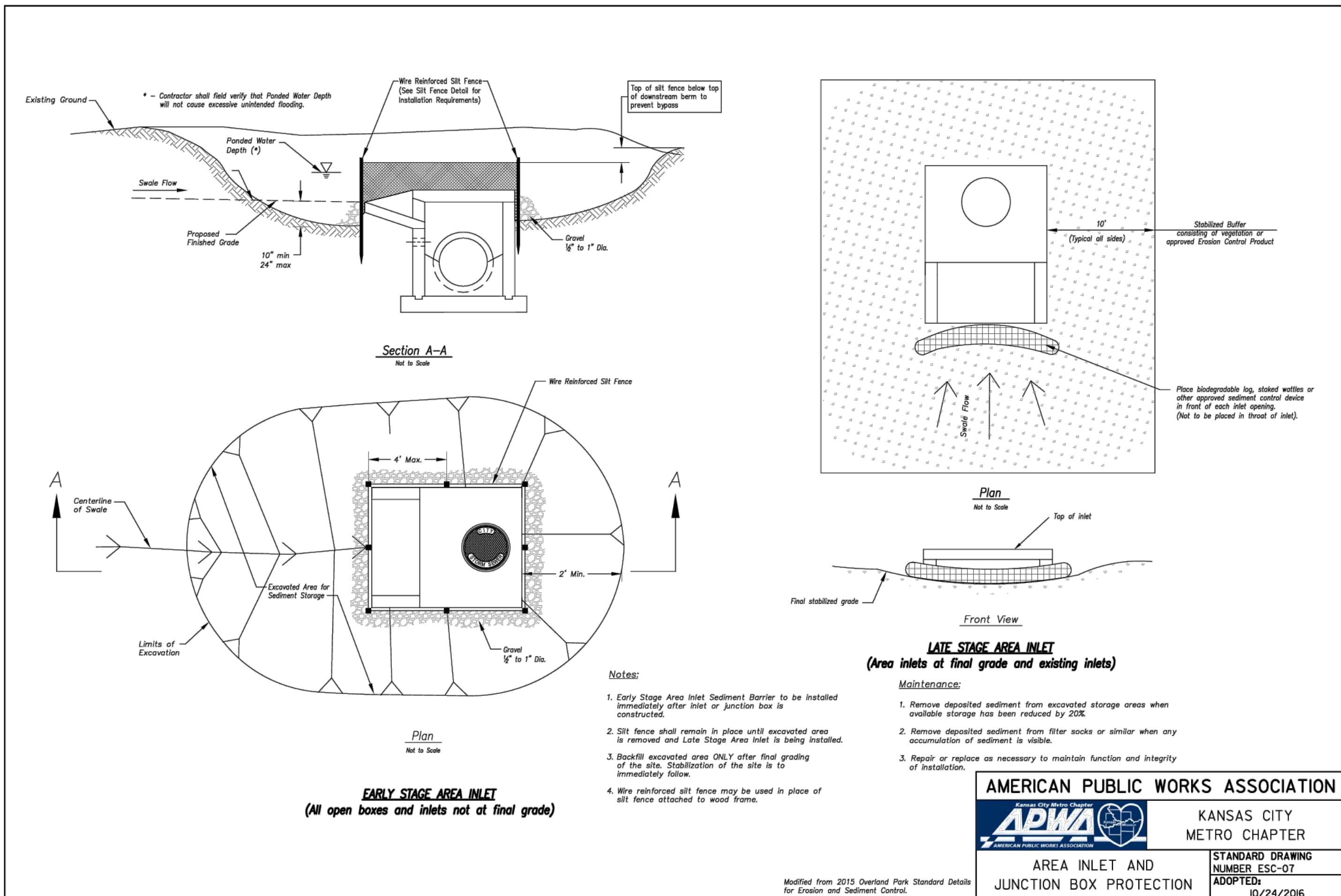
REVISIONS
REV. 2/7/2025
REV. 3/6/2025



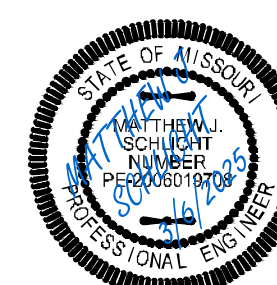
AMERICAN PUBLIC WORKS ASSOCIATION	
	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016



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



AMERICAN PUBLIC WORKS ASSOCIATION	
	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016

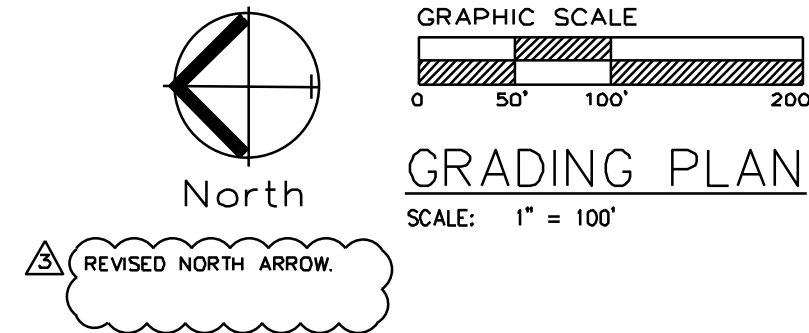
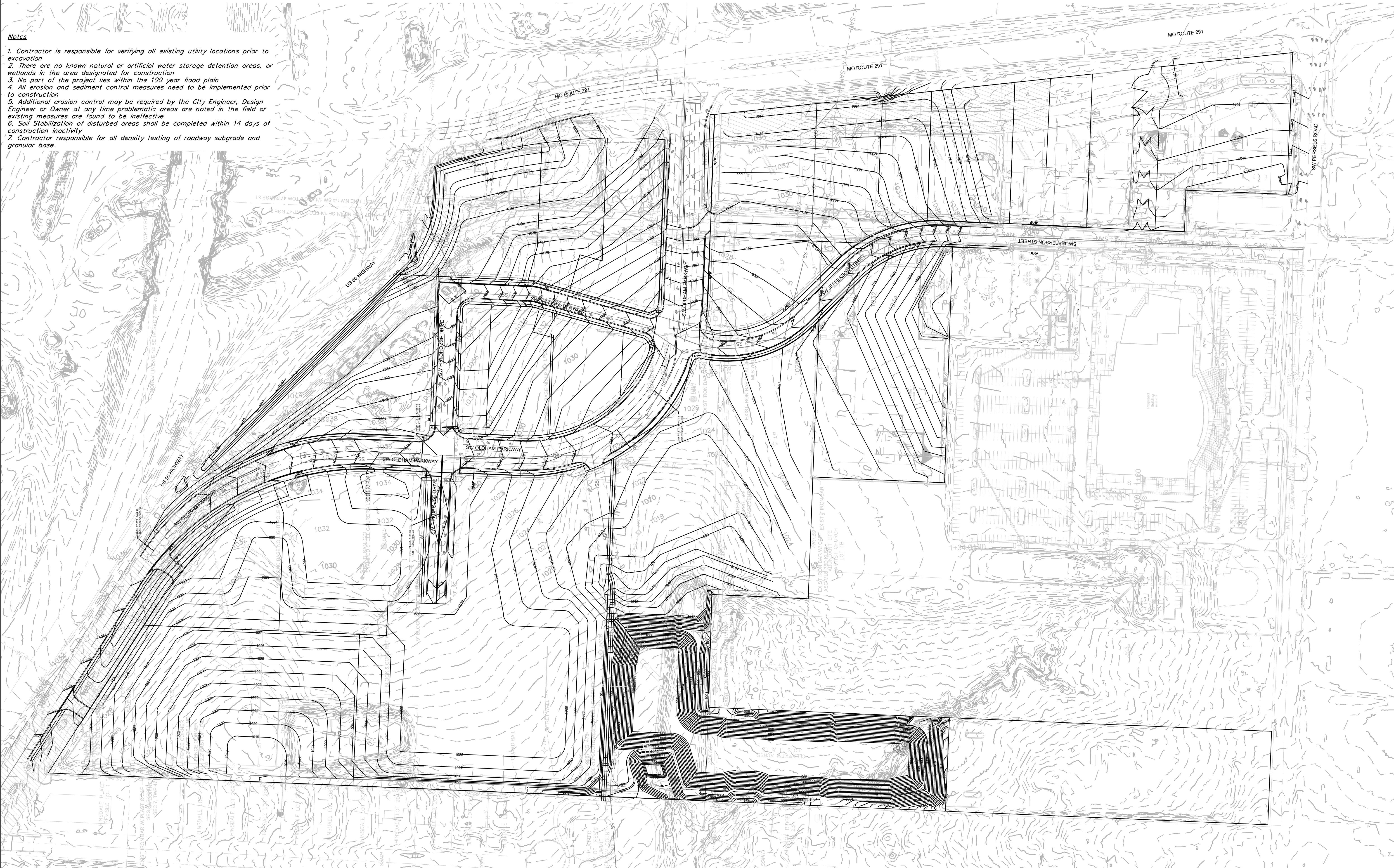


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 2/7/2025
REV. 3/6/2025

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.



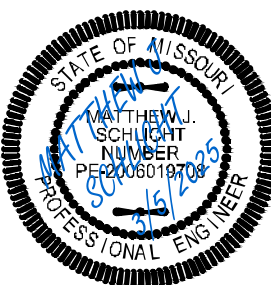
Master Drainage Plan 1 of 3:

Grading Plan
Construction Plans for:

Oldham Village
Lee's Summit, Jackson County, Missouri

Project:
MARKETPLACE
LSMO

Issue Date:
November 6, 2024

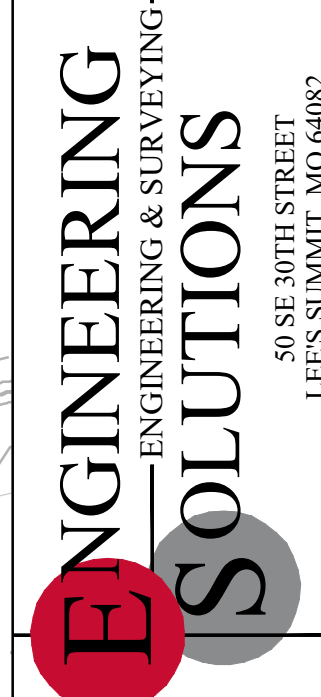


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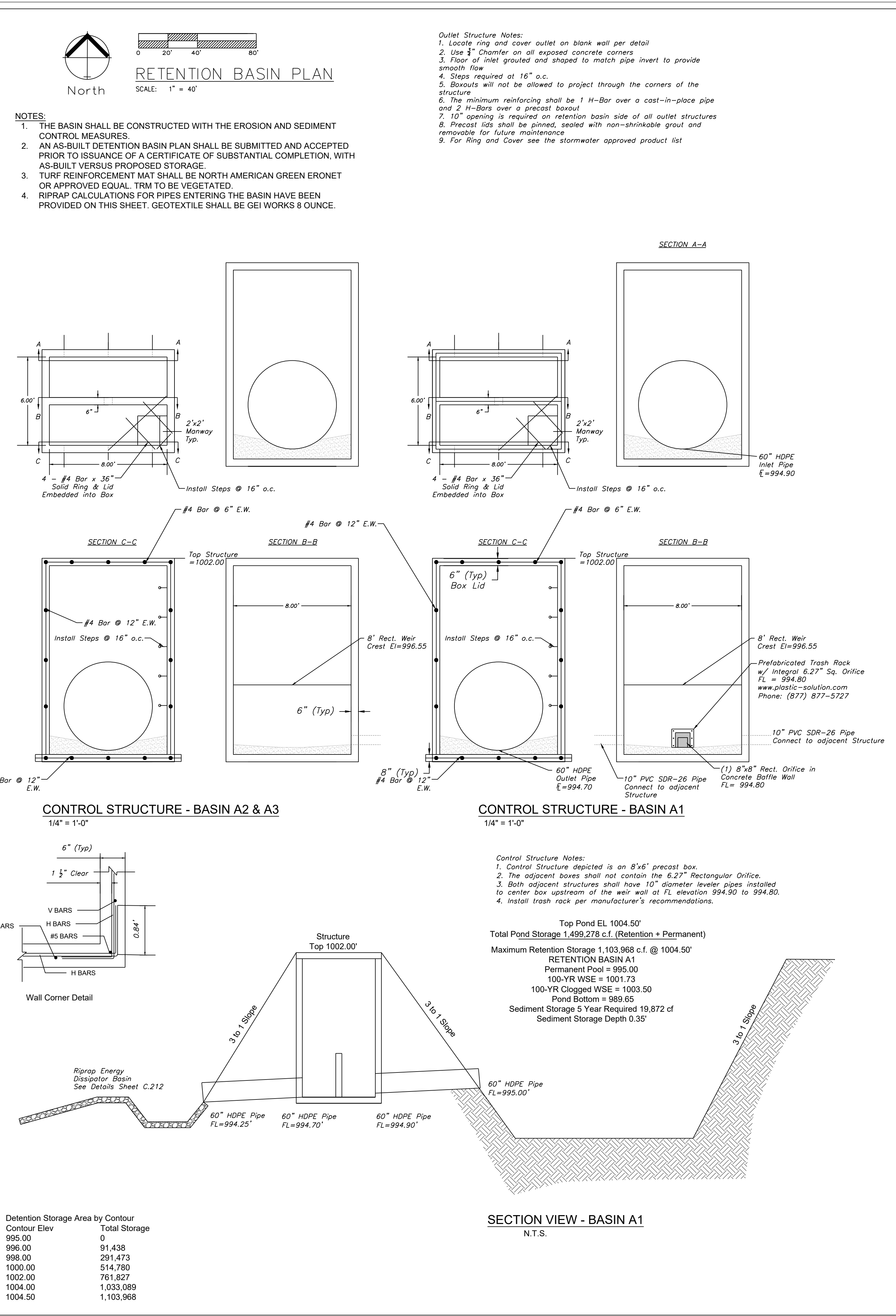
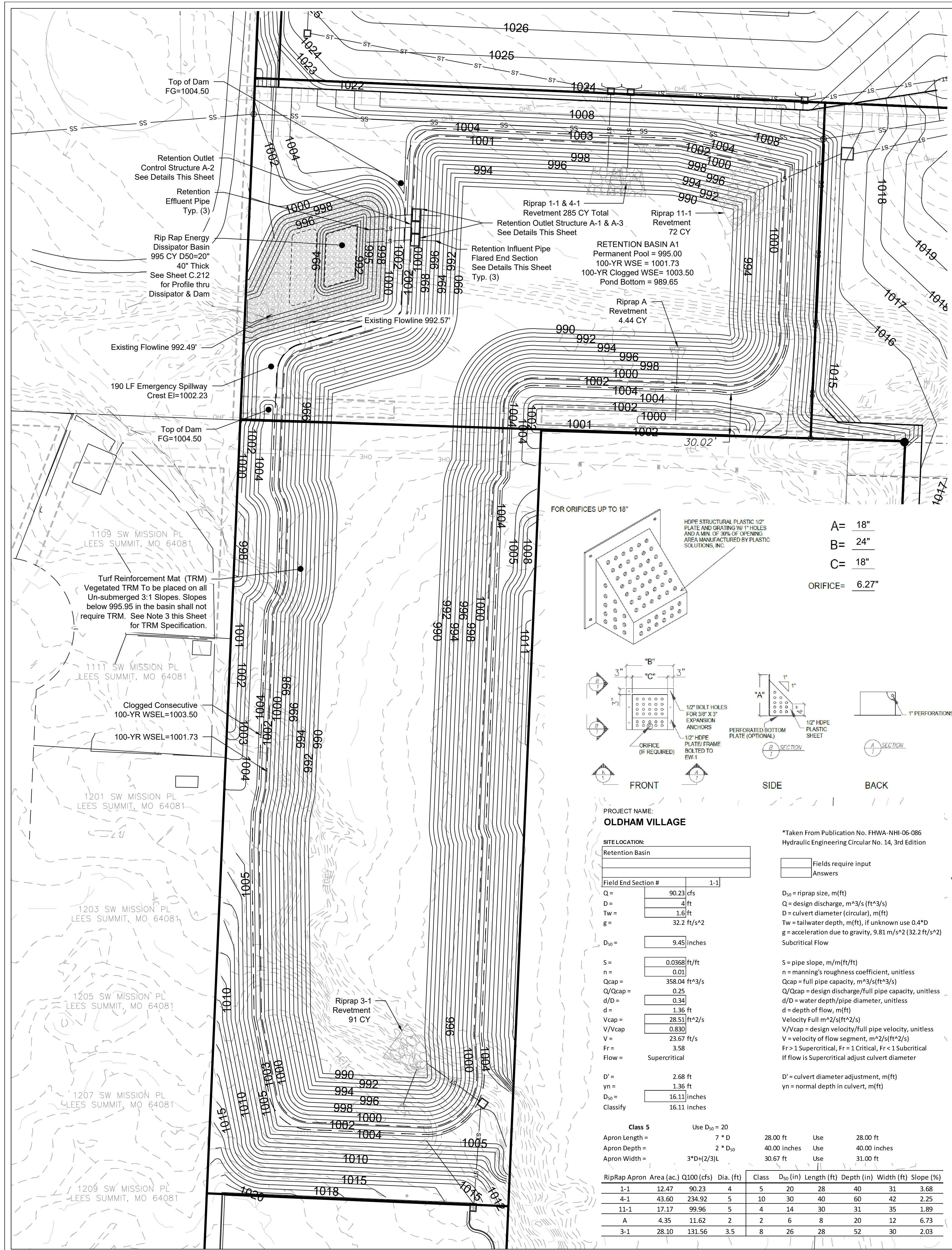
REVISIONS	
REV. 12/10/2024	
REV. 1/2/2025	
REV. 2/6/2025	
REV. 3/5/2025	

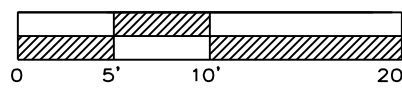
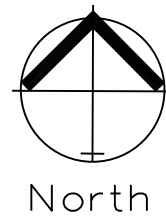
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Surveying 2005008318-D
Kansas
Engineering E-1695
Surveying LS-216
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Oldham Village
Lee's Summit, Jackson County, Missouri



50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849





ENERGY DISSIPATOR & RETENTION BASIN PROFILE VIEW

SCALE: 1" = 10'

Culvert Discharge

Q (cfs)	503.51 Q = Peak Discharge Rate (cfs)
D (ft)	6 D = culvert diameter (circular) (ft)
Tw (ft)	2.40 Tw = tailwater depth, (ft), if unknown use 0.4*D
S (ft/ft)	0.0141 S = pipe slope (ft/ft)
n	0.012 n = manning's roughness coefficient, unitless
Qcap (cfs)	545.26 Qcap = full pipe capacity (cfs)
Vo (Fr>1) (fps)	19.29 Supercritical use Manning's Velocity
Fr (Equivalent Brink Depth) =	1.79 Equivalent Depth (ye = (A/2)^0.5) where A = Brink Area
ye (ft)	3.61 ye = Equivalent Brink Depth (ft), ye = (A/2)^0.5
A (sf)	26.10 A = Brink Area (sf), A = Q/V
Select D50 Size	
D50 (ft)	1.67 D50 = Median Rock Size (ft)

Rip Rap Basin Envelope Design

$hs/ye = 0.86 * (D50/ye)^{-0.55} * (Vo/(g * ye)^{0.5}) - Co$

hs (ft)	3.44	Where:	hs = Dissipator Pool Depth (ft)
ye (ft)	3.61		ye = Equivalent Brink (Outlet) Depth (ft)
D50 (ft)	1.67		D50 = Median Rock Size (ft)
Co	1.4		Co = Tailwater Parameter

Tailwater Parameter, Co

Tw (ft)	1.62	Tw = yc
ye (ft)	3.61	
Tw/ye	0.45	
Tw/ye < 0.75	Co = 1.4	
0.75 < Tw/ye < 1.0	Co = 4 * (Tw/ye) - 1.6	
1.0 < Tw/ye	Co = 2.4	

Checks

hs/D50	2.06
hs/D50 >= 2.0	Good
D50/ye	0.46
D50/ye >= 0.1	Good

Basin Dimensions

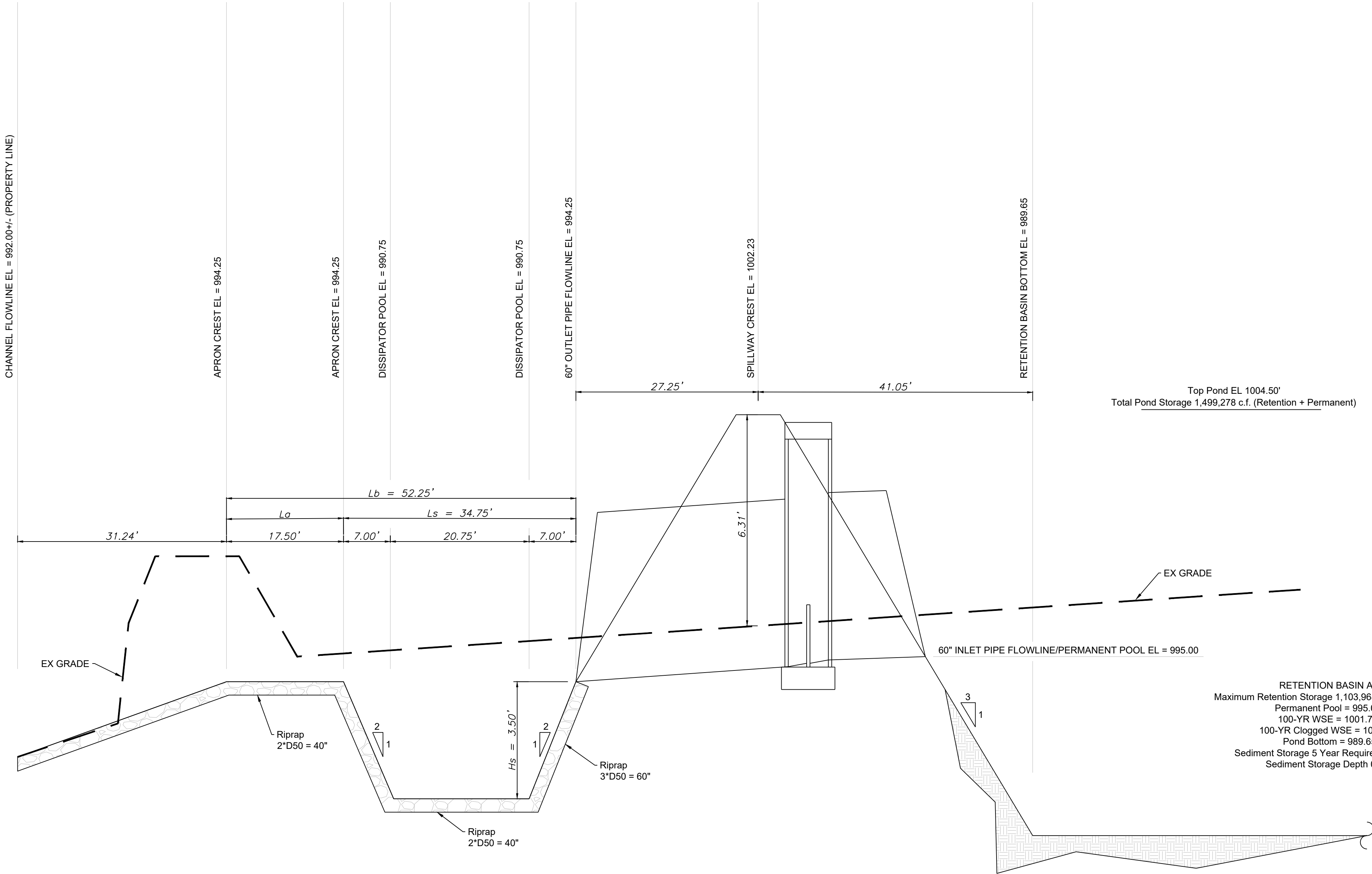
Ls (ft) = 10*hs	34.38	Length of Dissipating Pool (ft)
Ls > 3*Wo	18	Dissipating Pool Minimum Length (ft)
La (ft) = 5*hs	17.19	Length of Apron (ft)
La > Wo	6	Apron Minimum Length (ft)
Lb = Ls + La (ft)	51.57	Total Basin Length (ft)
Wb (ft)	40.38	Max Basin Width at Apron Termination (ft)

Critical Depth at Basin Exit, yc

$Q^2/2g = ((yc * (Wb + zyc))^3 / (Wb + 2zyc))$

Q^2/2g	7873	Left Side Eq
((yc * (Wb + zyc))^3 / (Wb + 2zyc))	7857	Right Side Eq
yc (ft)	1.620	Iterate yc Figure 10.1 -> yc = yb
Wb (ft)	40.38	
z	3	

Vc = Q/Ac (fps)	7.70
Shear, τ (psf)	0.94



RETENTION BASIN A1
Maximum Retention Storage 1,103,968 c.f. @ 1004.50'
Permanent Pool = 995.00
100-YR WSE = 1001.73
100-YR Clogged WSE = 1003.50
Pond Bottom = 989.65
Sediment Storage 5 Year Required 19,872 cf
Sediment Storage Depth 0.35'

ENERGY DISSIPATOR & RETENTION BASIN

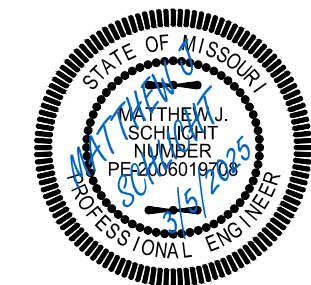
PROFILE VIEW

Construction Plans for:

Oldham Village
Lee's Summit, Jackson County, Missouri

Project:
MARKETPLACE,
LSMO

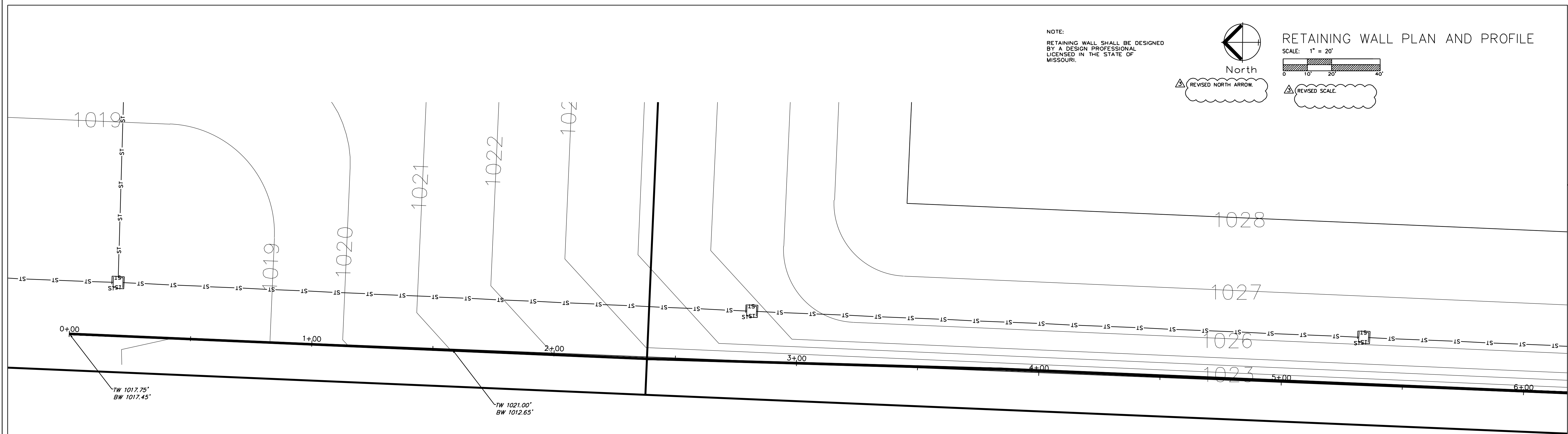
Issue Date:
November 6, 2024



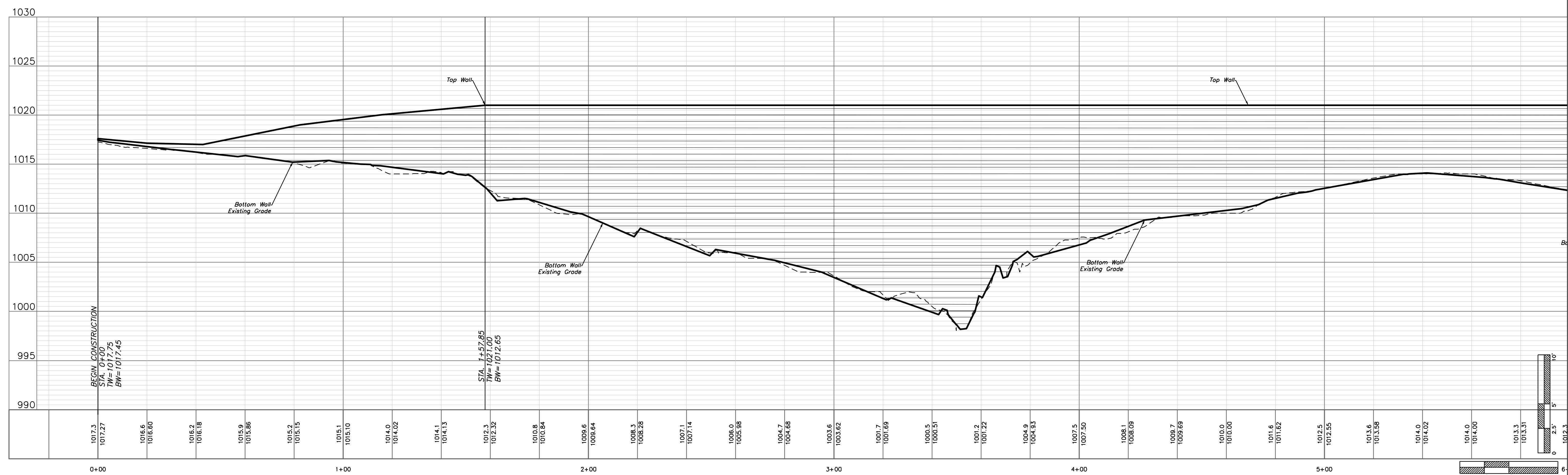
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/5/2025



RETAINING WALL 1



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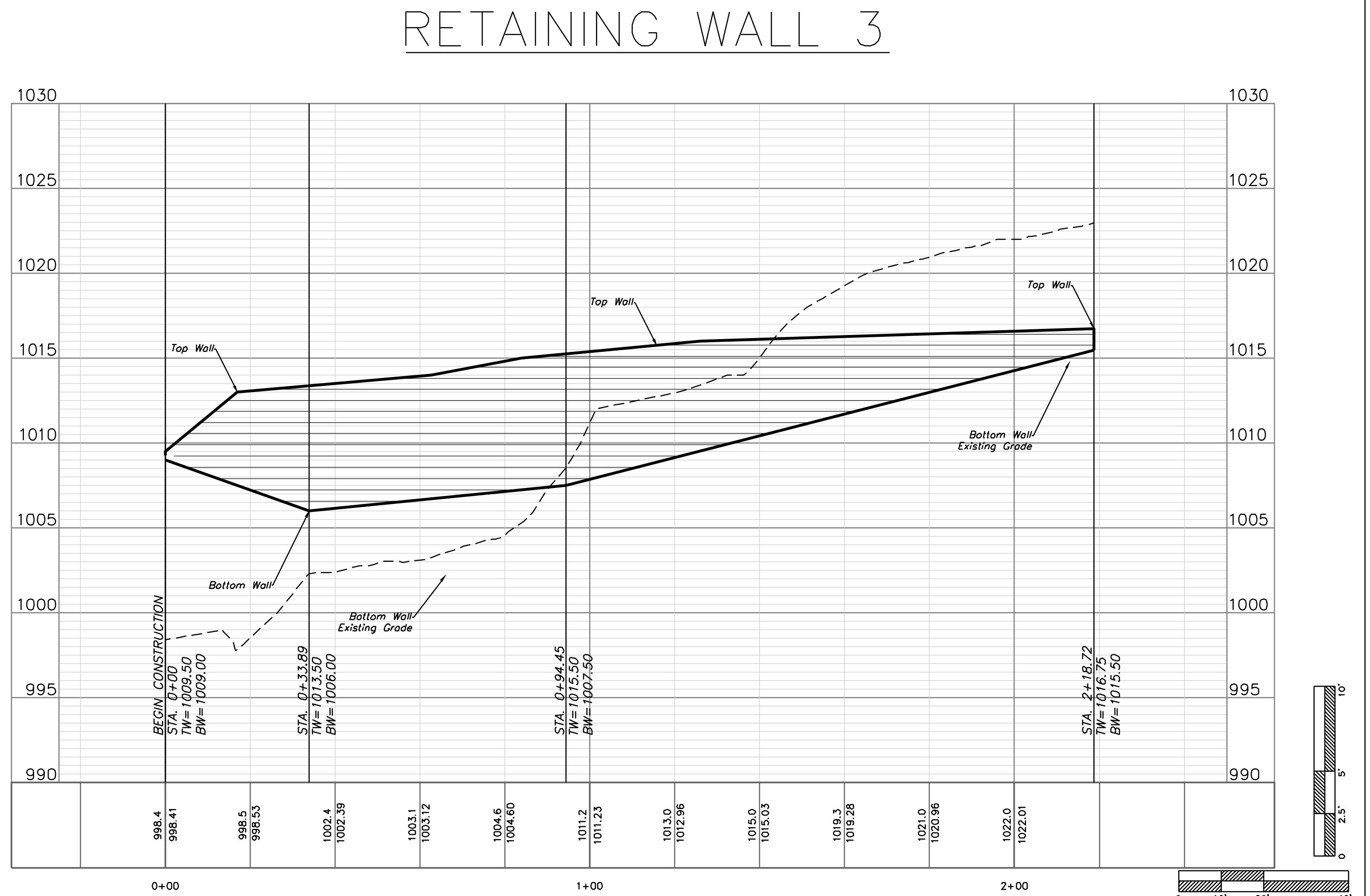
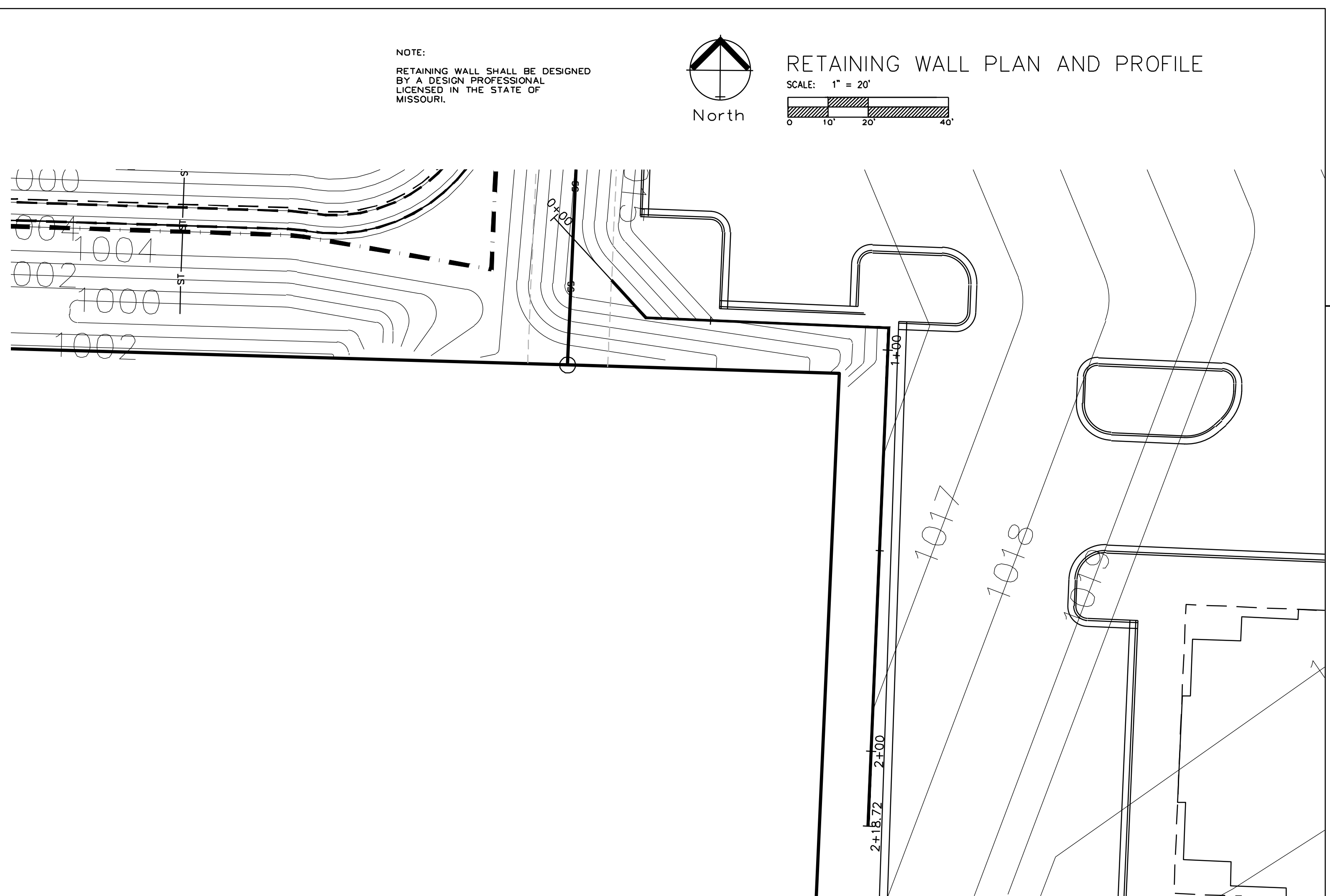
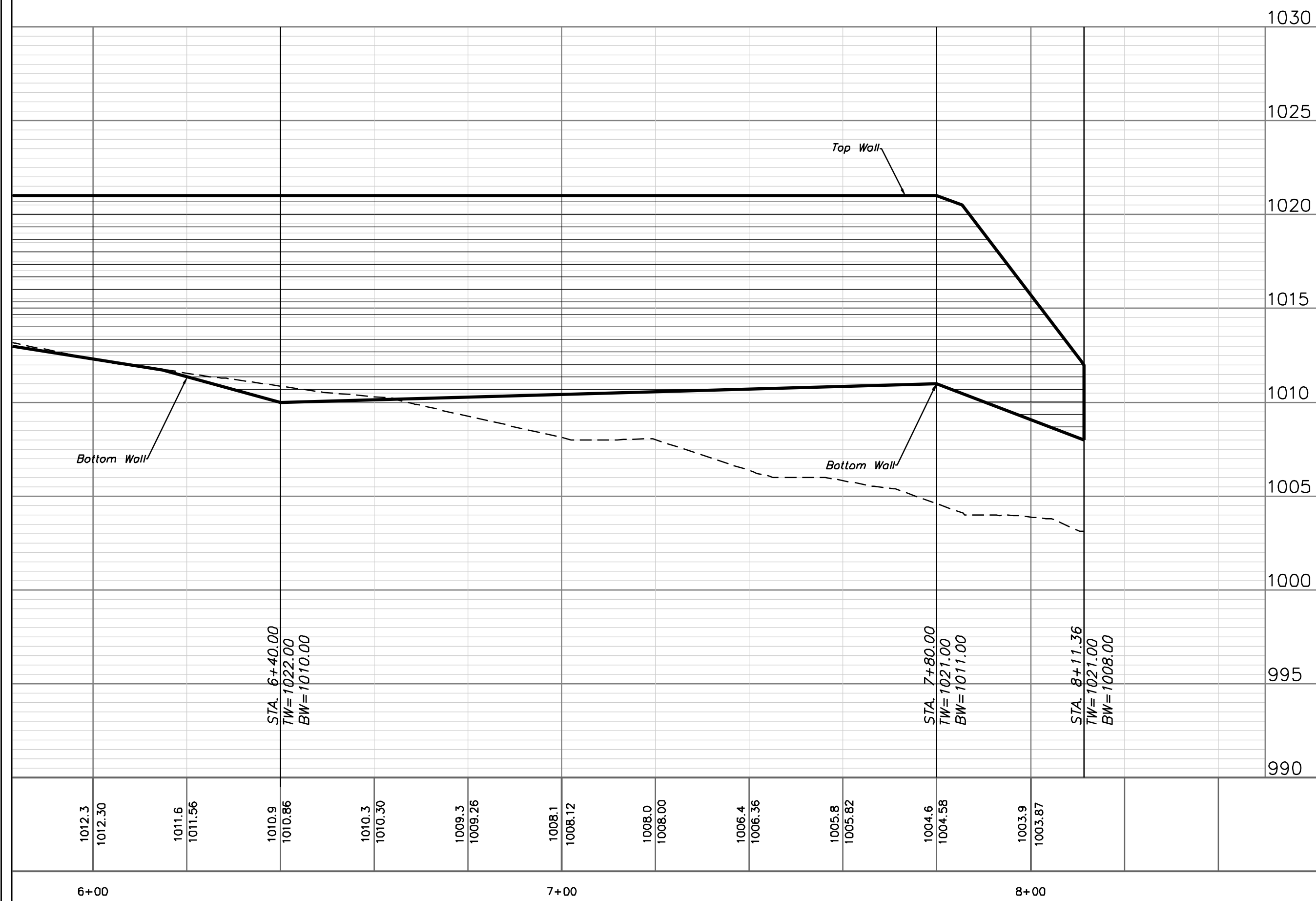
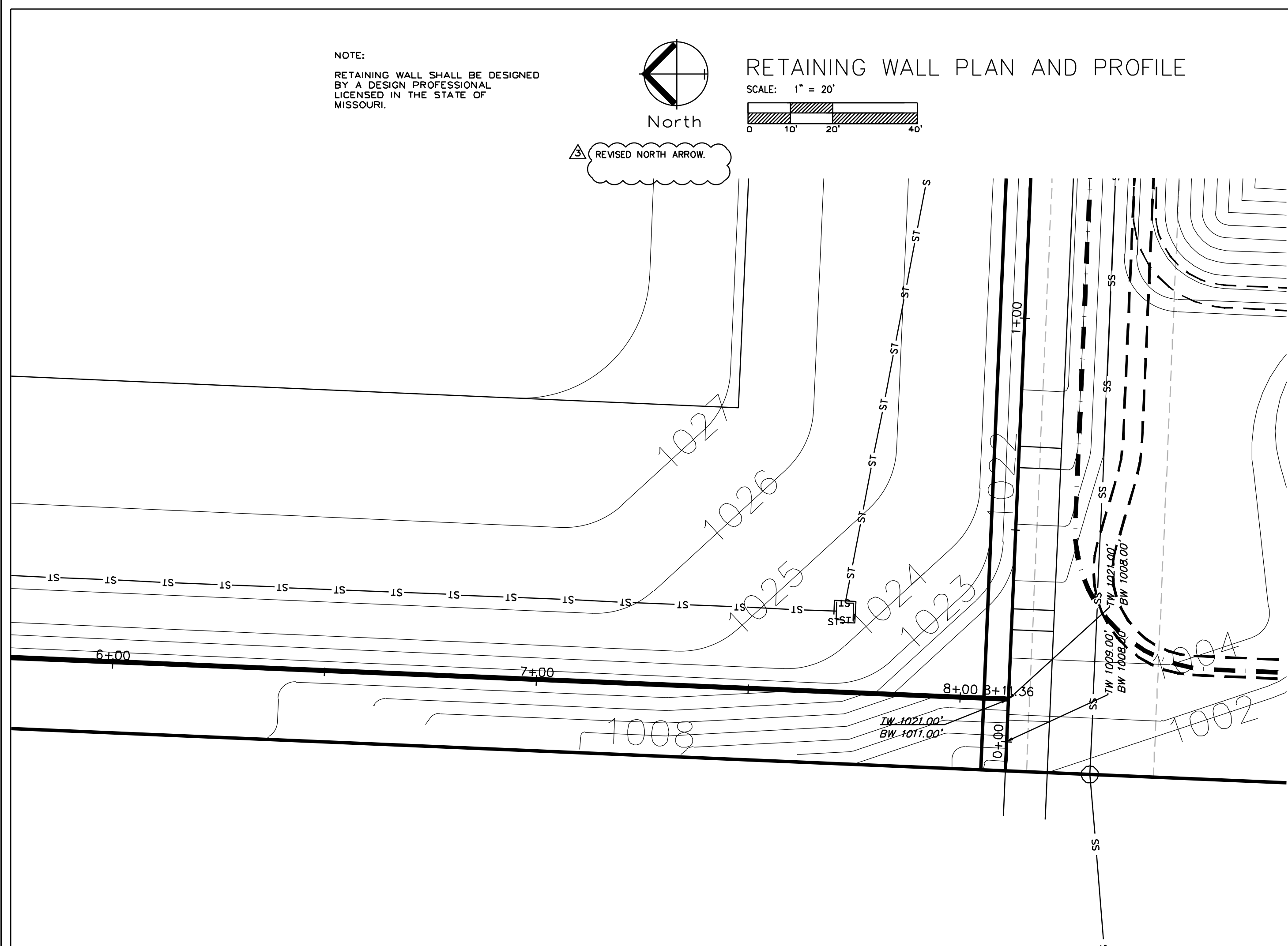
Project: Oldham Village
Mark: Lee's Summit, Jackson County, Missouri
Issue Date: November 5, 2024

Spot Elevations
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 12/10/2024
REV. 1/2/2025
REV. 2/6/2025
REV. 3/5/2025

C.220



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Project: MM
MARKETPLACE,
LSMO
Issue Date:
November 5, 2024

Spot Elevations
Construction Plans for:
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Lee's Summit, Jackson County, Missouri

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REV. 1/2/2025
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REV. 3/5/2025

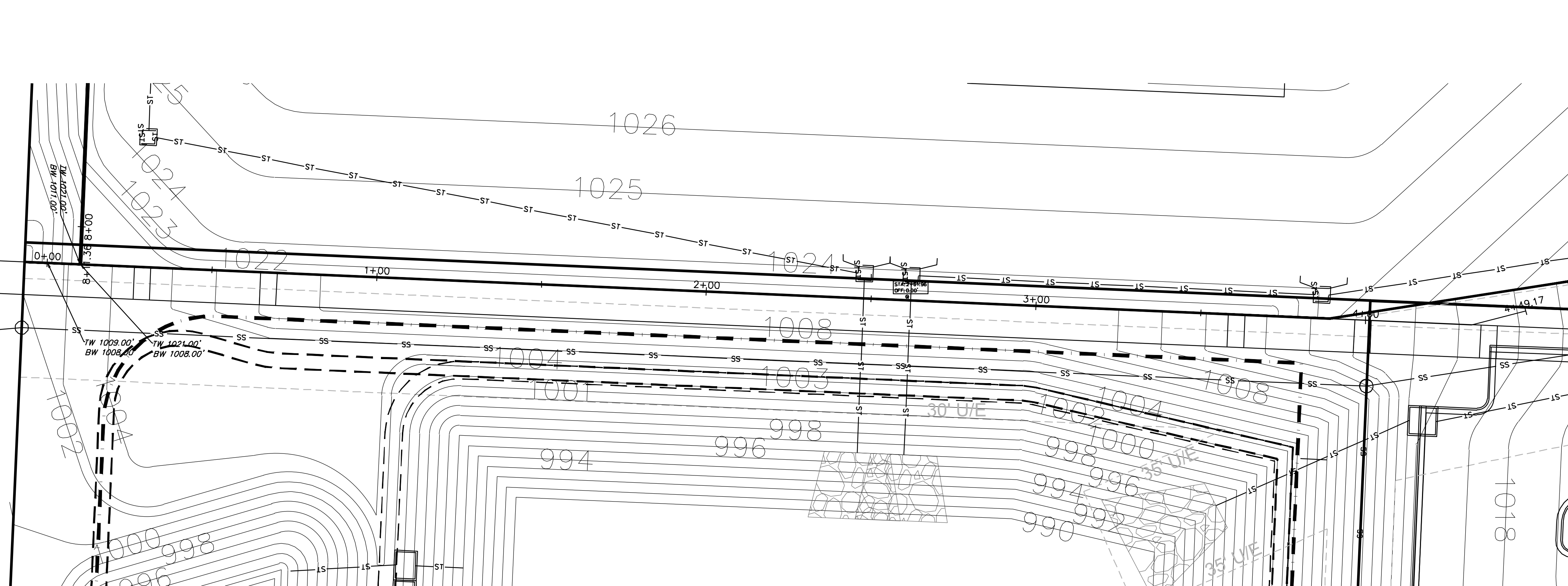
C. 221

NOTE:
RETAINING WALL SHALL BE DESIGNED
BY A DESIGN PROFESSIONAL
LICENSED IN THE STATE OF
MISSOURI.

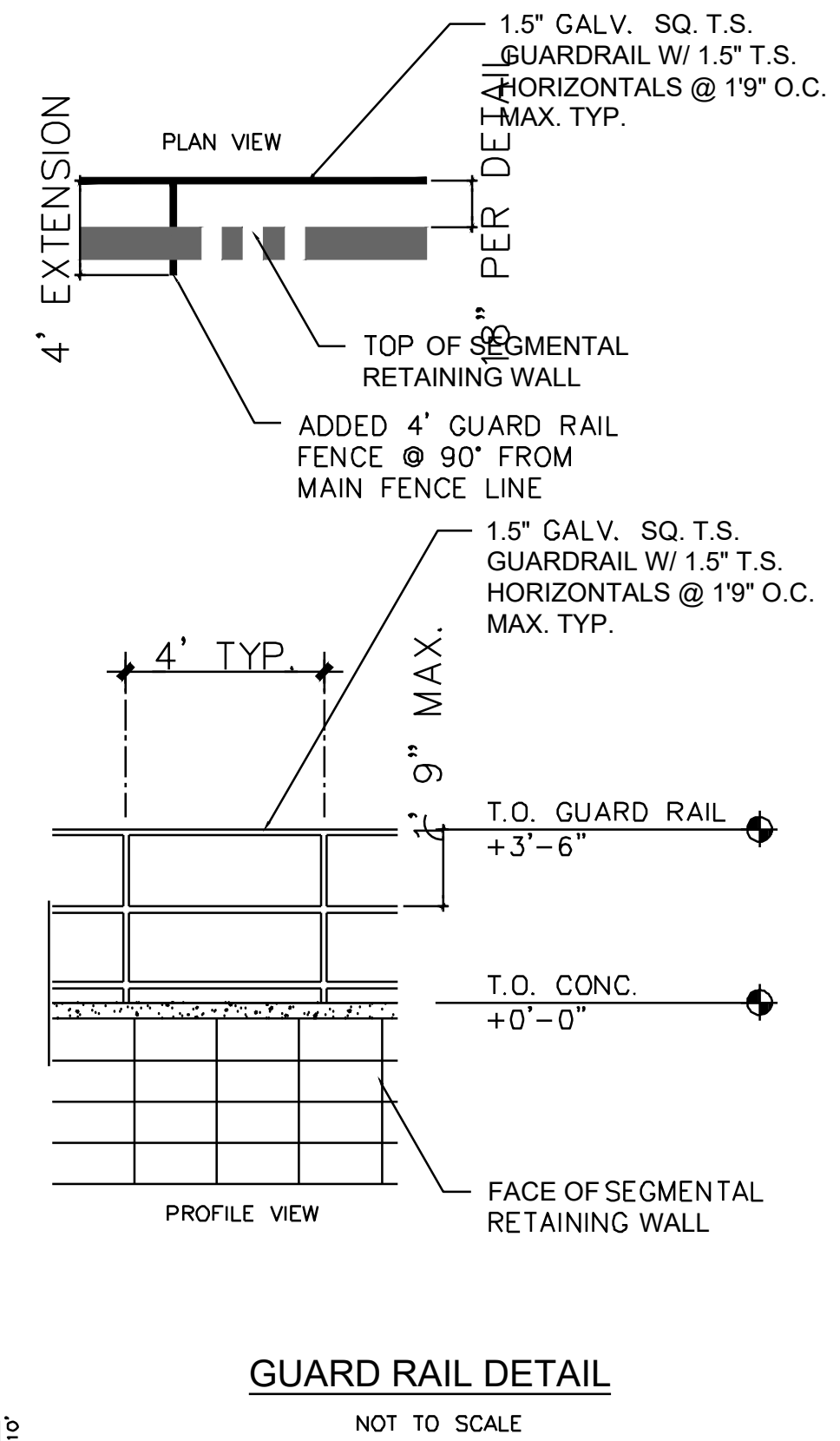
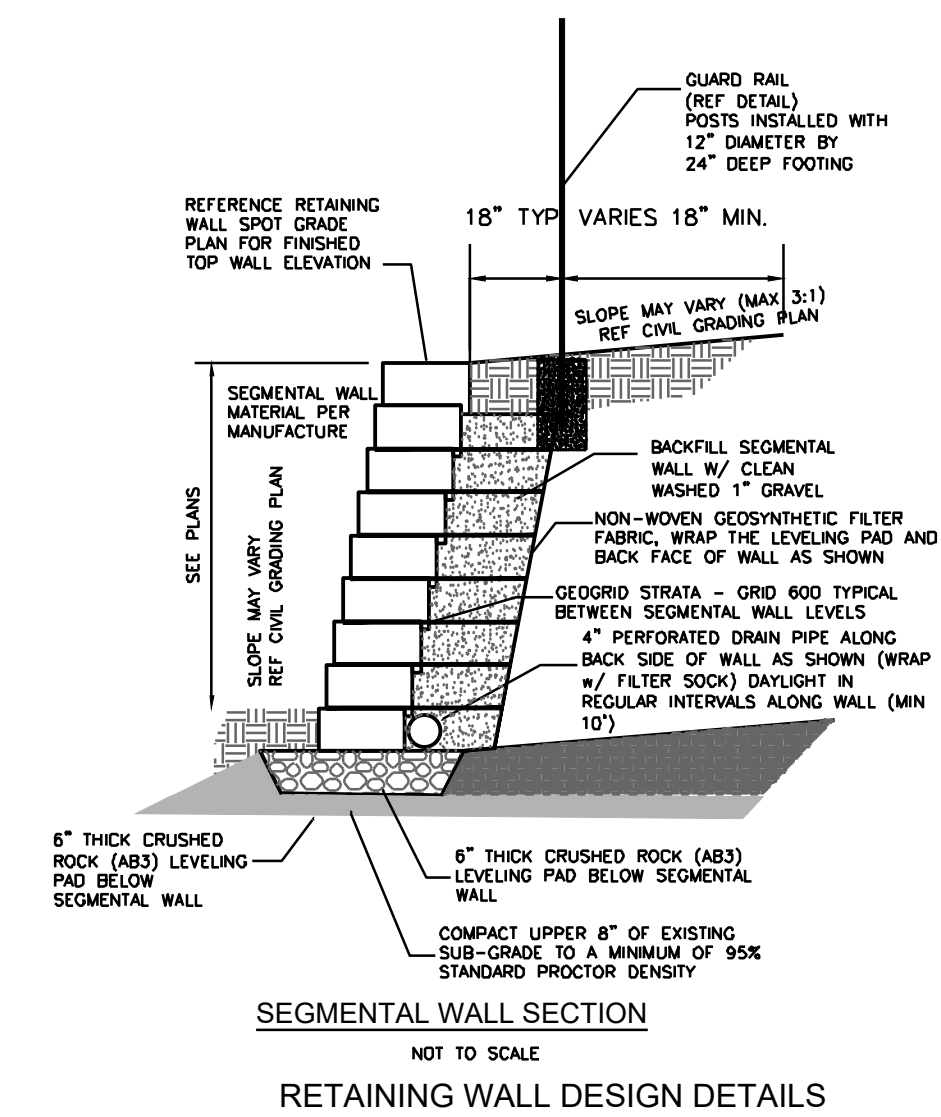
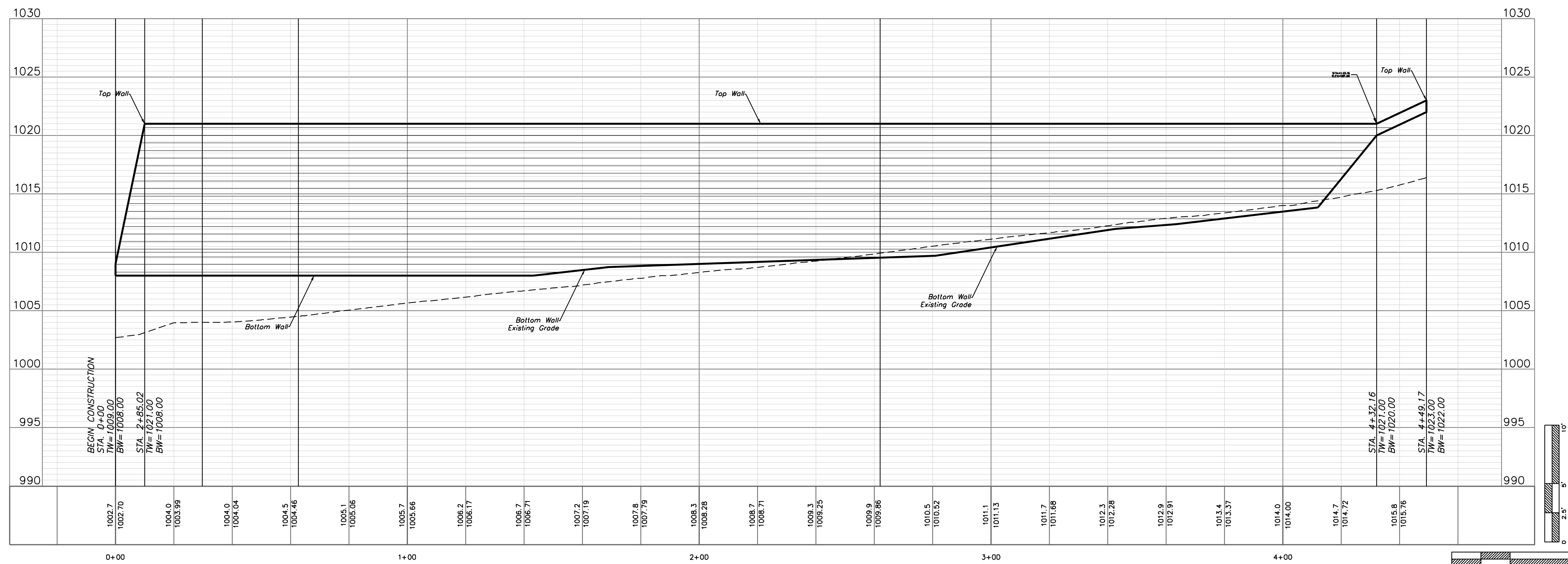


RETAINING WALL PLAN AND PROFILE

SCALE: 1" = 20'
0 10' 20' 40'



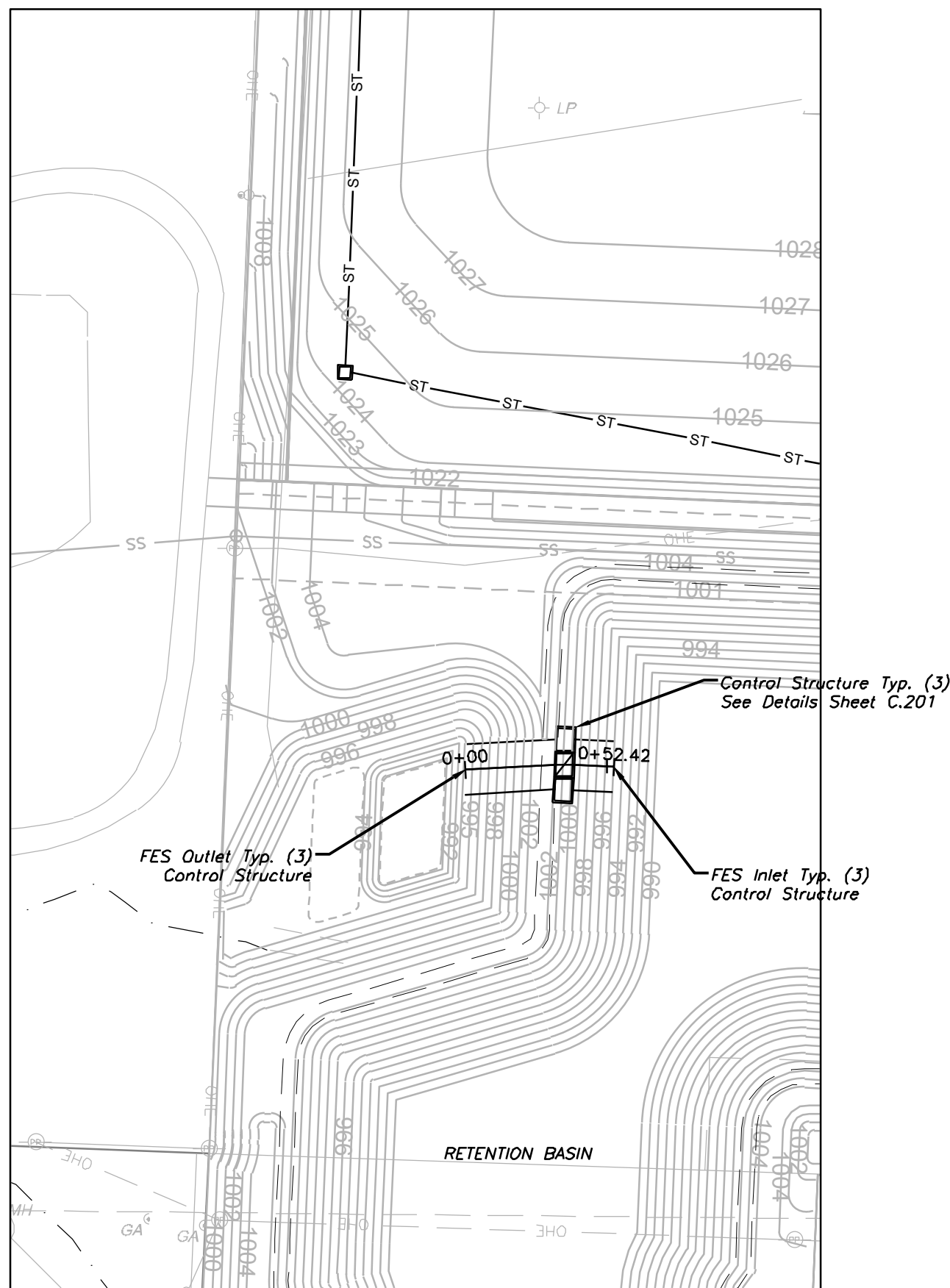
RETAINING WALL 2



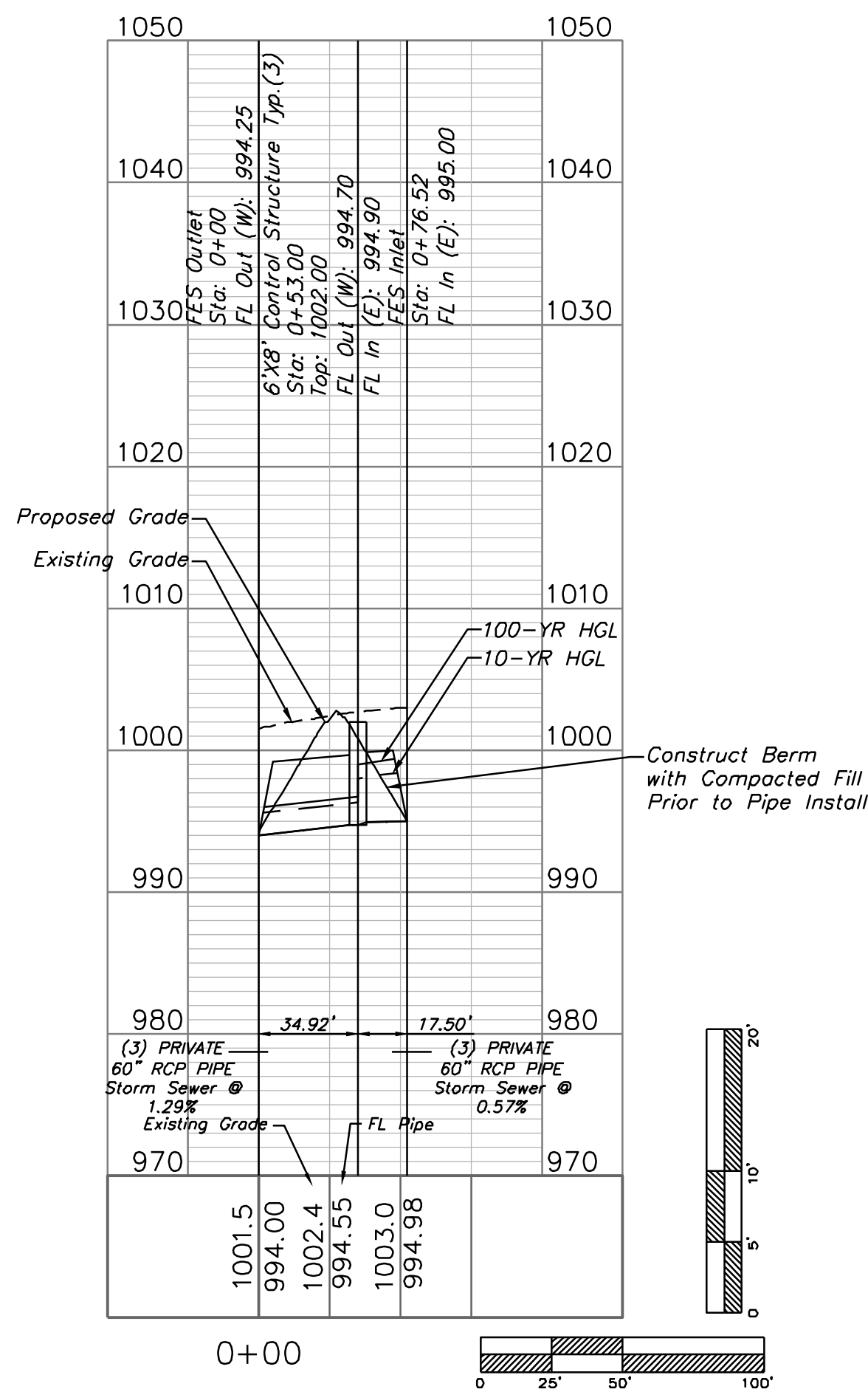


STORM SEWER PLAN AND PROFILE

SCALE: 1" = 50'

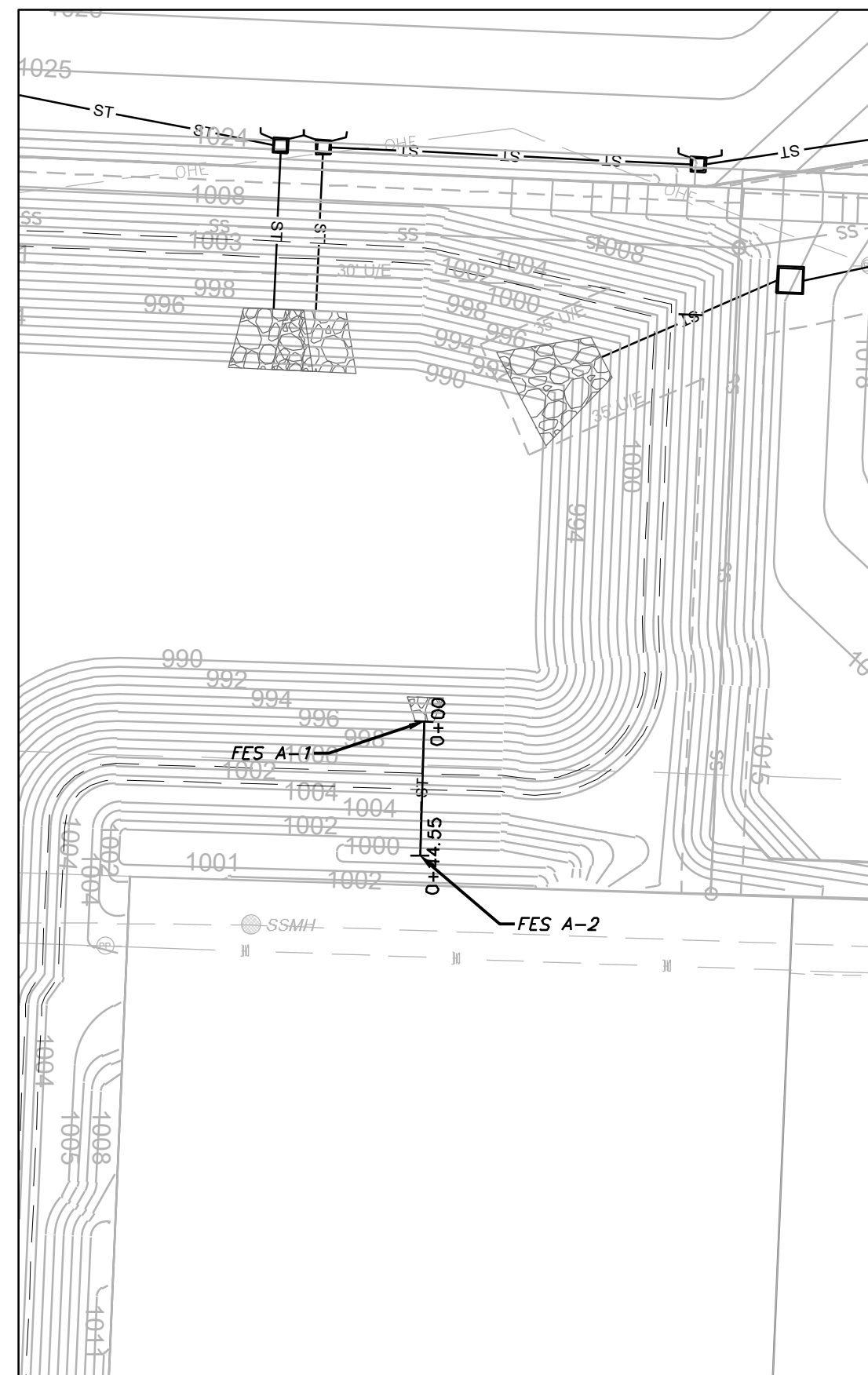


CONTROL STRUCTURE

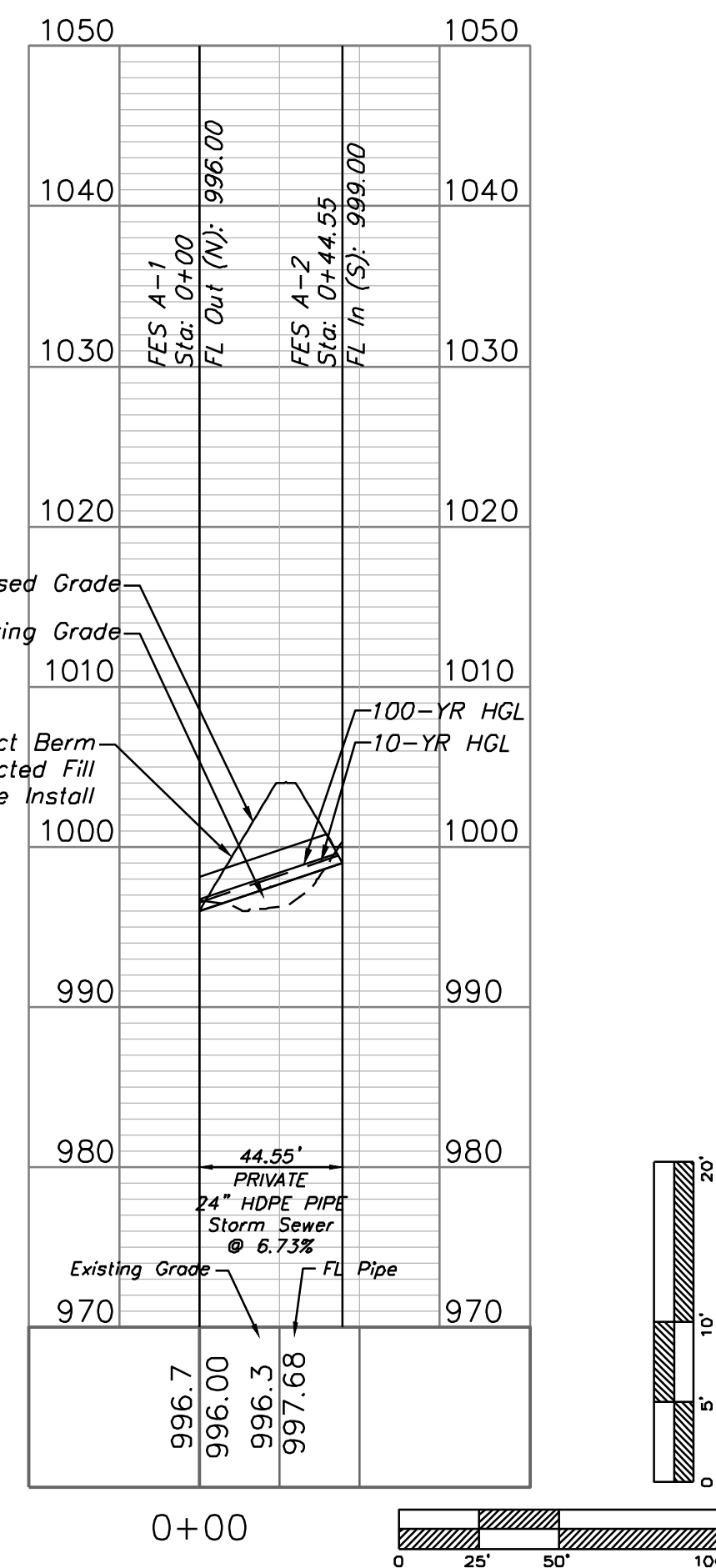


STORM SEWER PLAN AND PROFILE

SCALE: 1" = 50'



STORM LINE A

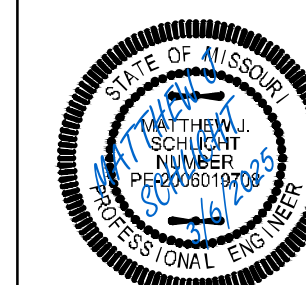


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Oldham Village
Lee's Summit, Jackson County, Missouri

Project:
MARKETPLACE,
LSMO
Issue Date:
September 26, 2024

Storm Sewer Plan and Profile
Construction Plans for:
Oldham Village
Lee's Summit, Jackson County, Missouri



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KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 2/7/2025
REV. 3/6/2025