

Colbern Road Investments, Lots 1 & 2
STREET AND STORM CONSTRUCTION PLANS
Section 29, Township 48, Range 31
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

CONSTRUCTION AND DESIGN NOTES:

STREET & STORM SEWERS:

1 ~ STREET PAVEMENT SHALL CONSIST OF TYPE CG-1 AND CG-2 CURBS WITH PAVEMENT PER TABLE LS-2 OF THE LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL

RESIDENTIAL LOCAL STREET SEE BELOW FOR TYPICAL SECTION.

- OPTION 1) 4" TYPE 5-01 ASPHALT BASE AND 2" TYPE 5-01 ASPHALT SURFACE OVER A 6" MoDOT TYPE 5 BASE AND A SUBGRADE MIXTURE OF 6" FLY ASH STABILIZED SUBGRADE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
- OPTION 2) 4" TYPE 5-01 ASPHALT BASE AND 2" TYPE 5-01 ASPHALT SURFACE OVER 10" MoDOT TYPE 5 BASE OVERTOP A BIAXIAL GEOGRID PER THE CITY'S APPROVED PRODUCT LIST.

RESIDENTIAL COLLECTOR STREET FOR SW ARBORWALK BLVD SEE BELOW FOR TYPICAL SECTION.

- OPTION 1) 5.5" TYPE 5-01 ASPHALT BASE AND 2" TYPE 5-01 or 6-01 ASPHALT SURFACE OVER A 6" MoDOT TYPE 5 BASE AND A SUBGRADE MIXTURE OF 9" FLY ASH STABILIZED SUBGRADE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
- OPTION 2) 5.5" TYPE 5-01 ASPHALT BASE AND 2" TYPE 5-01 or 6-01 ASPHALT SURFACE OVER 12" MoDOT TYPE 5 BASE OVERTOP A BIAXIAL GEOGRID MEETING THE CITY'S APPROVED PRODUCT LIST.

2 ~ STORM SEWER PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) AS APPROVED BY CITY OF LEES SUMMIT DESIGN AND CONSTRUCTION MANUAL.

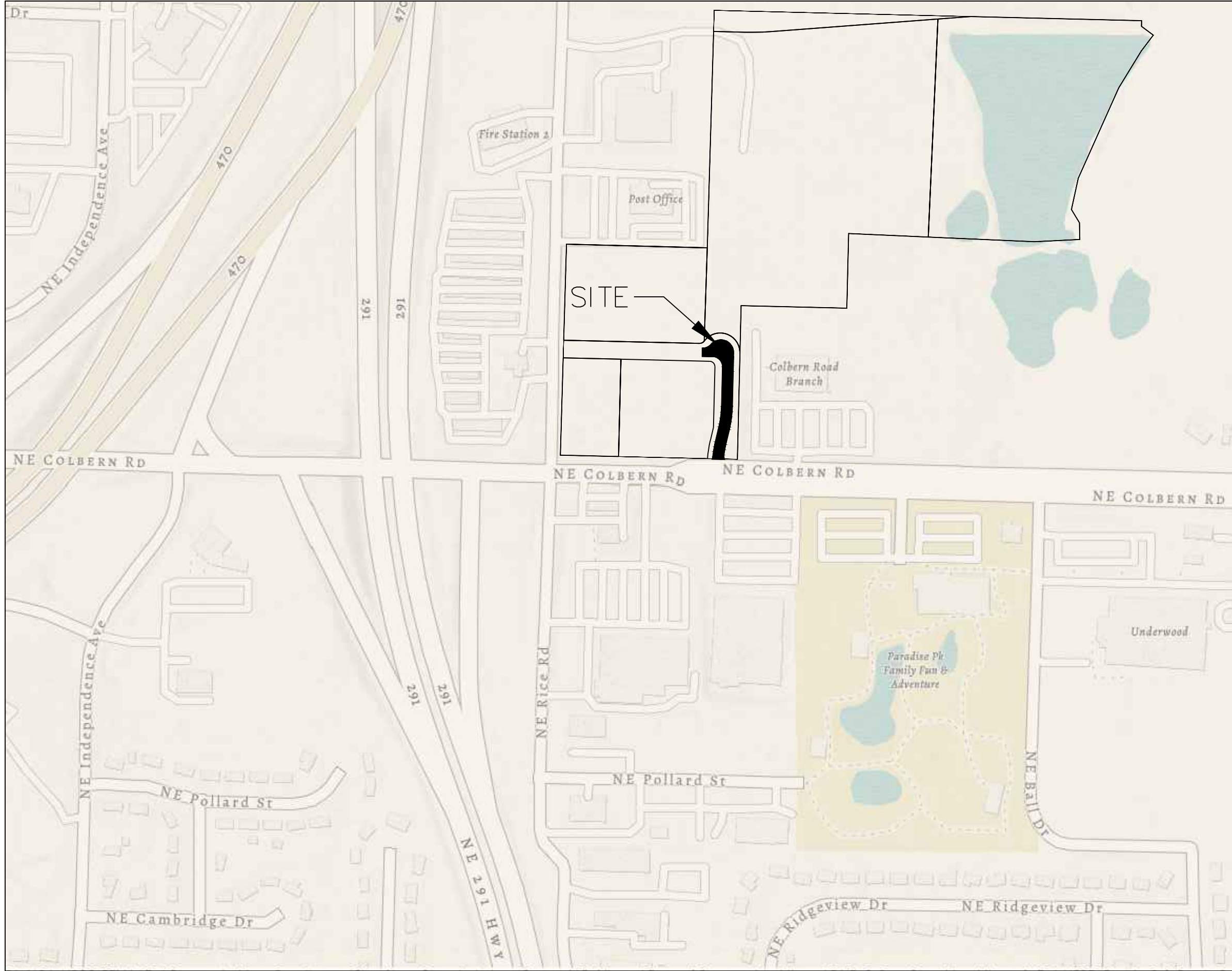
3 ~ JUNCTION BOXES SHALL BE PER CITY OF LEES SUMMIT STANDARD DRAWING NO. STM-3. FIELD INLETS SHALL BE PER CITY OF LEES SUMMIT STANDARD DRAWING STM-2. TOEWALLS SHALL BE PER CITY OF LEES SUMMIT DRAWING NO. STM-5. JUNCTION BOXES SHALL BE PER CITY OF LEES SUMMIT STM-3. ROCK LINING AND RIP RAP SHALL BE PER CITY OF LEES SUMMIT.

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 A FIELD ENGINEERING 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.

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 SUBJECT PROPERTY SURVEYED LIES WITHIN A FLOOD ZONE DESIGNATED ZONE (X). AREAS LOCATED OUTSIDE THE 100 YEAR FLOOD PLAIN, PER F.E.M.A. MAP, COMMUNITY PANEL NO. 2909SC0531G EFFECTIVE DATE: JANUARY 20, 2017.



SITE LOCATION MAP

Developer:
COLBERN ROAD INVESTORS LLC
1325 FAIR MARKET DR
WENTZVILLE, MO 63385

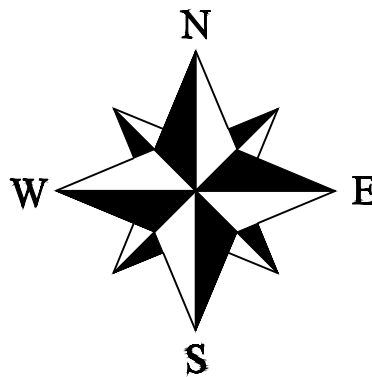
INDEX OF SHEETS:

- C.001 ~ STREET & STORM COVER SHEET
C.100 ~ SITE PLAN
C.101 ~ STREET SIGNAGE
C.102 ~ STREET SIGNAGE DETAIL
C.200 ~ GRADING PLAN
C.201 ~ SPOT ELEVATIONS
C.202 ~ STREET PLAN & PROFILE
C.203 ~ SIDEWALK AND INTERSECTION PLAN
C.300 ~ STORM SEWER GENERAL LAYOUT
C.301 ~ STORM SEWER PLAN & PROFILE

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



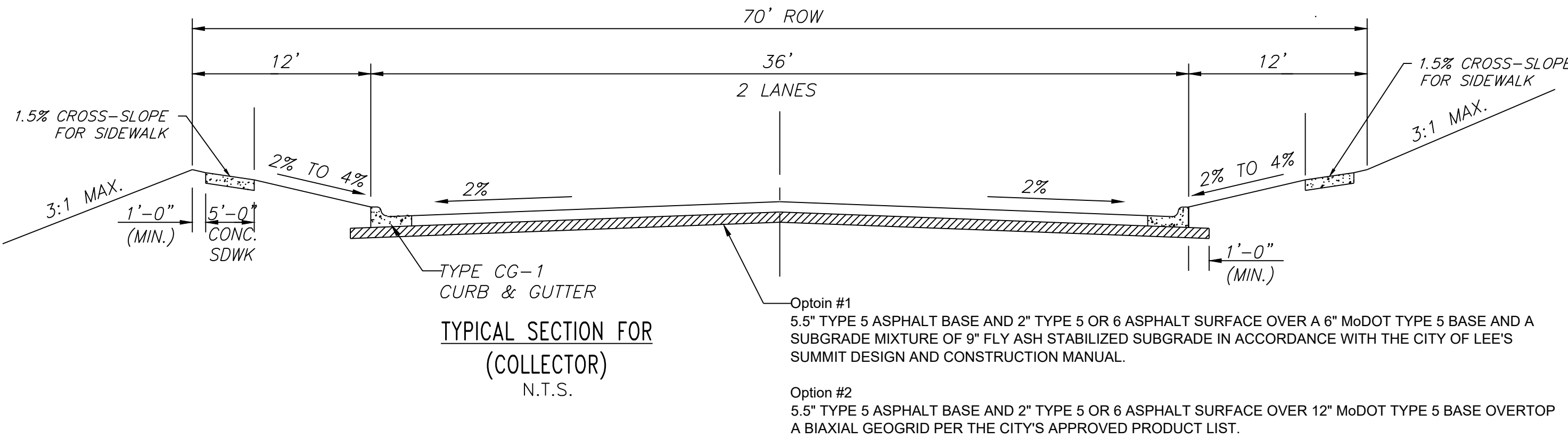
LEGEND:
B/L - BUILDING SET-BACK
C/A - COMMON AREA
D/E - DRAINAGE EASEMENT
FND. - FOUND
L/E - LANDSCAPE EASEMENT
L.N.A. - LIMITS OF NO ACCESS
R/W - RIGHT OF WAY
SAN - SANITARY SEWER LINE
S/W - SIDEWALK
U/E - UTILITY EASEMENT
W - WATER LINE
ST - STORM SEWER LINE

Summary of Quantities:

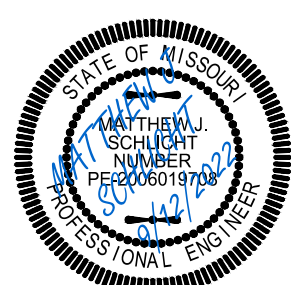
ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
ASPHALT PAVING	S.Y.	1,485.00
CURBING	FT	846.00
5' SIDEWALK	S.F.	3,515.00
MoDOT Type 5 Base	S.Y.	1,756.00
GEOGRID	S.Y.	1,756.00
ADA SIDEWALK RAMP	UNIT	3
STORM		
30" HDPE	FT	176.90
18" HDPE	FT	23.70
15" HDPE	FT	235.99
15" FLARED END-SECTION	UNIT	4
18" FLARED END-SECTION	UNIT	1
30" HDPE END SECTION / TOE WALL	LS	1.00
5' x 4' STORM CURB INLET	EA	4.00

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.



Street & Storm Cover Sheet
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



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

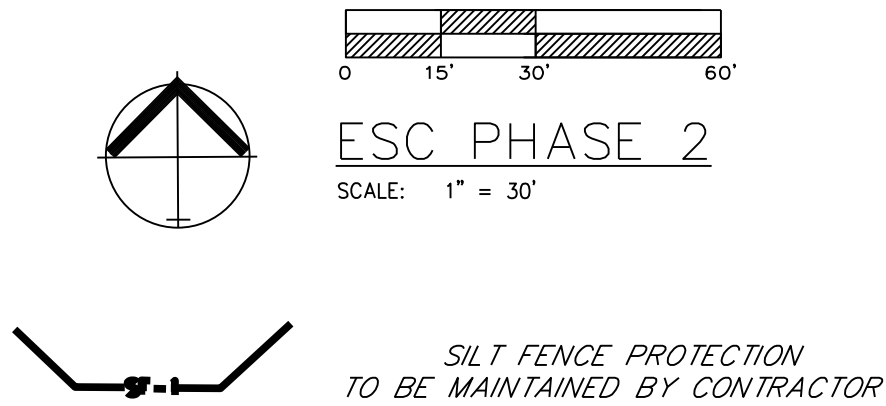
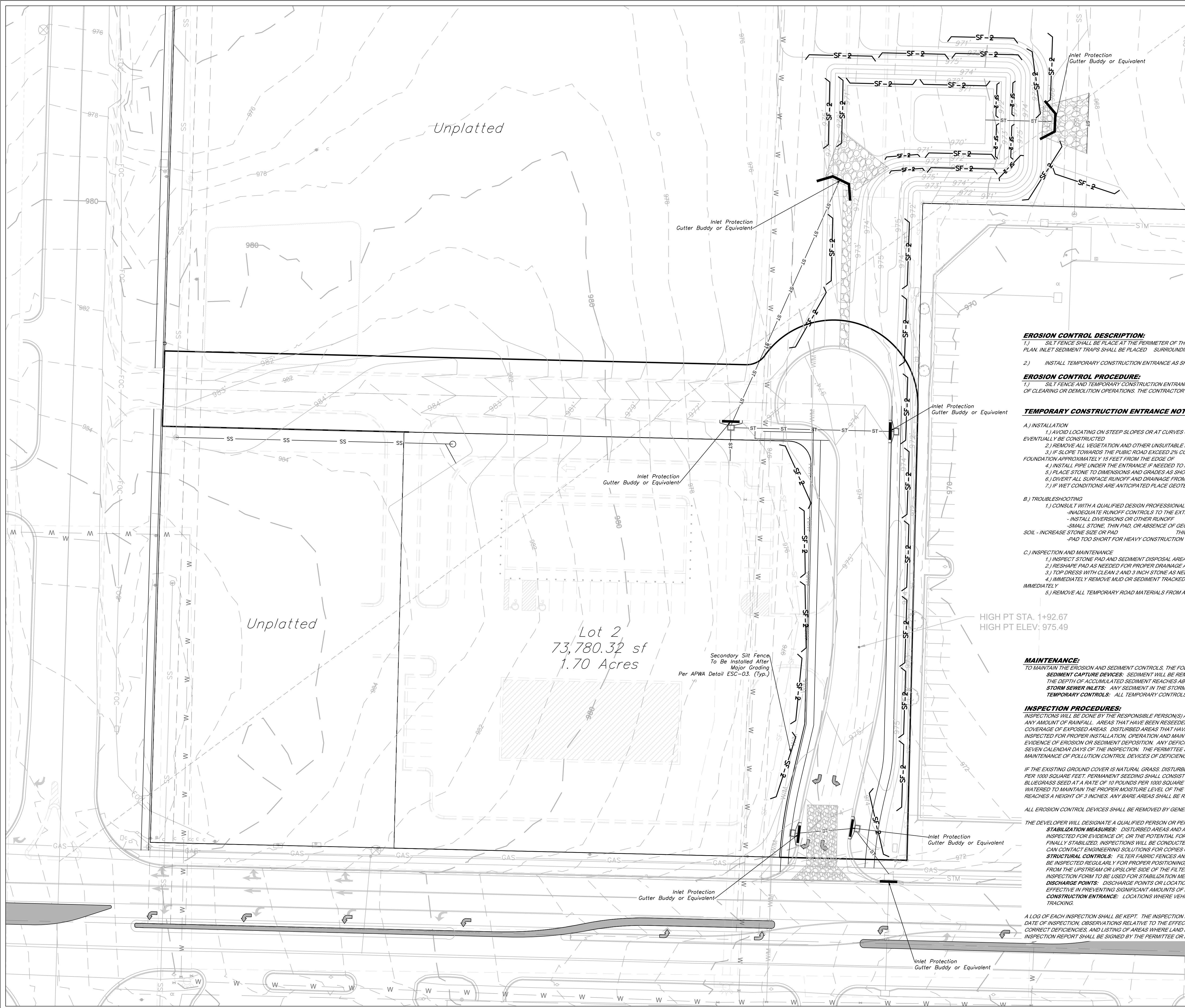
REVISIONS

C. 001

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS LEMO
Issue Date: September 12, 2022



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.

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.

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 WHEATRYE AT A RATE OF 1.5 POUNDS PER 1000 SQUARE FEET. PERMANENT SEEDING SHALL CONSIST OF 80% 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 SEEDDED 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 RESEEDDED.

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 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.

ESC PHASE 2
Inactive Area Stabilization Plan
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



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

REVISIONS

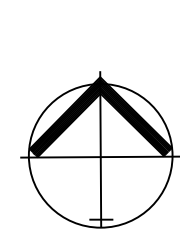
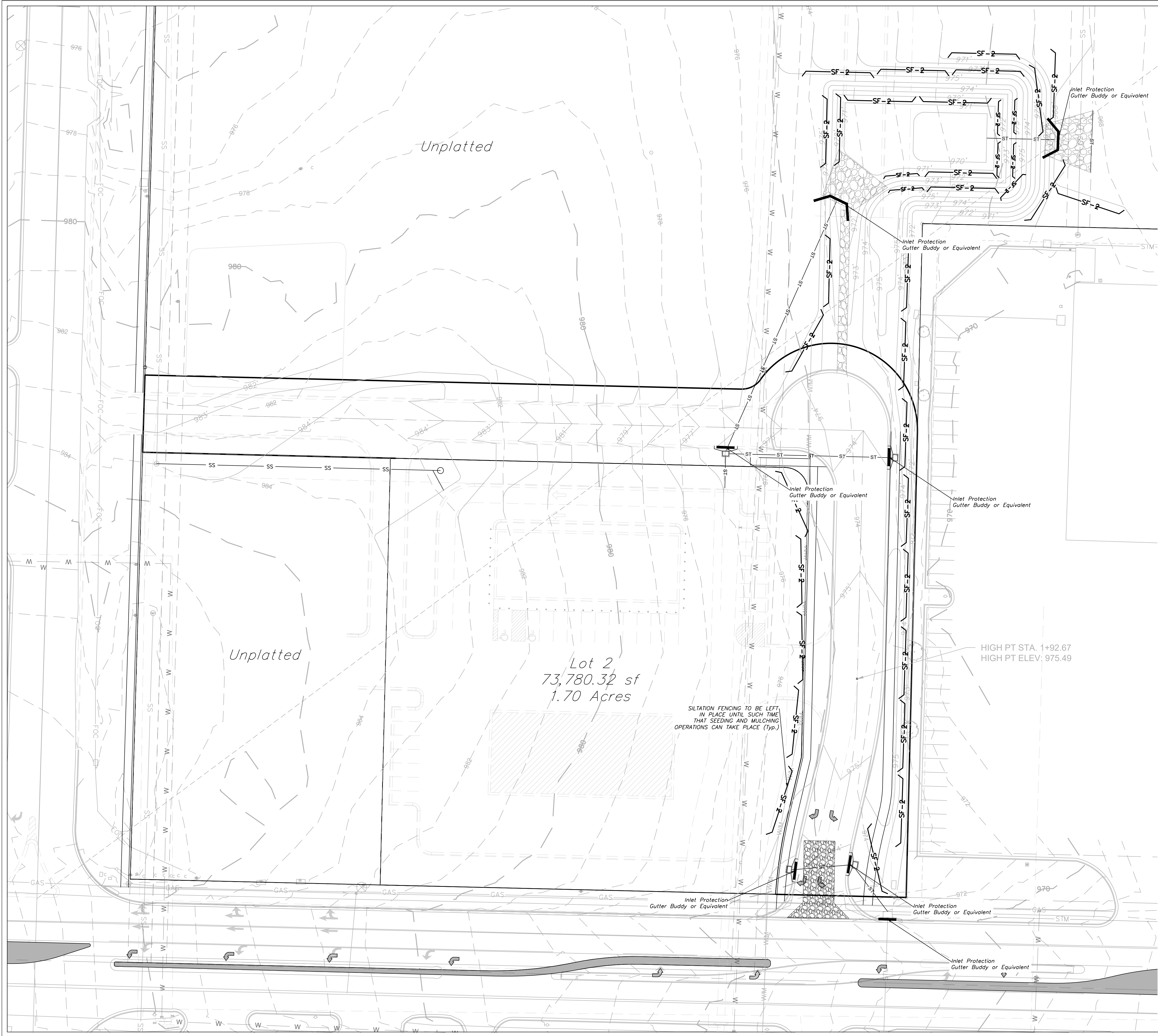
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Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS LEMO
Issue Date: September 12, 2022

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6284
Nebraska
Engineering CA2821

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



ESC PHASE FINAL

SCALE: 1" = 30'



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.

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:

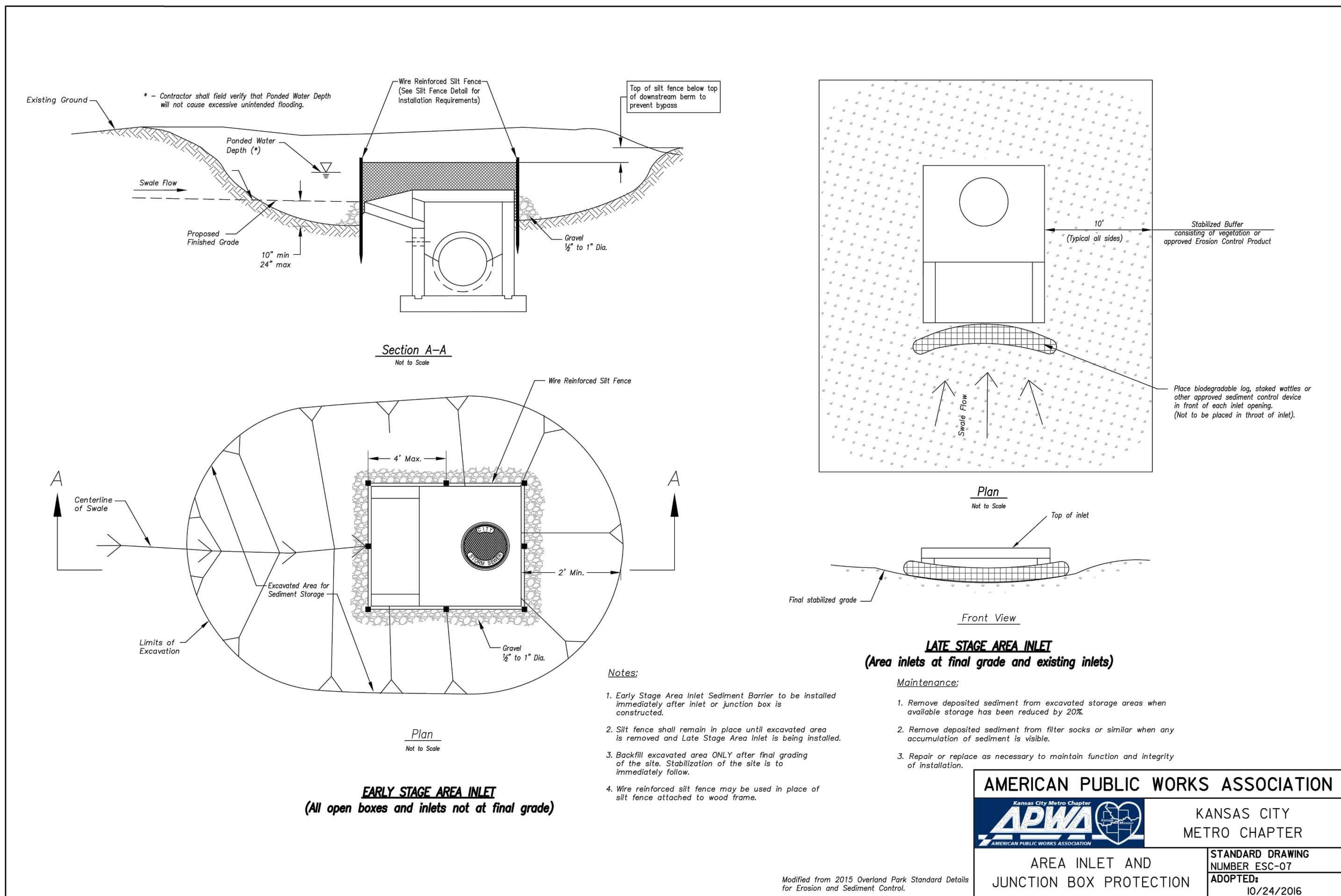
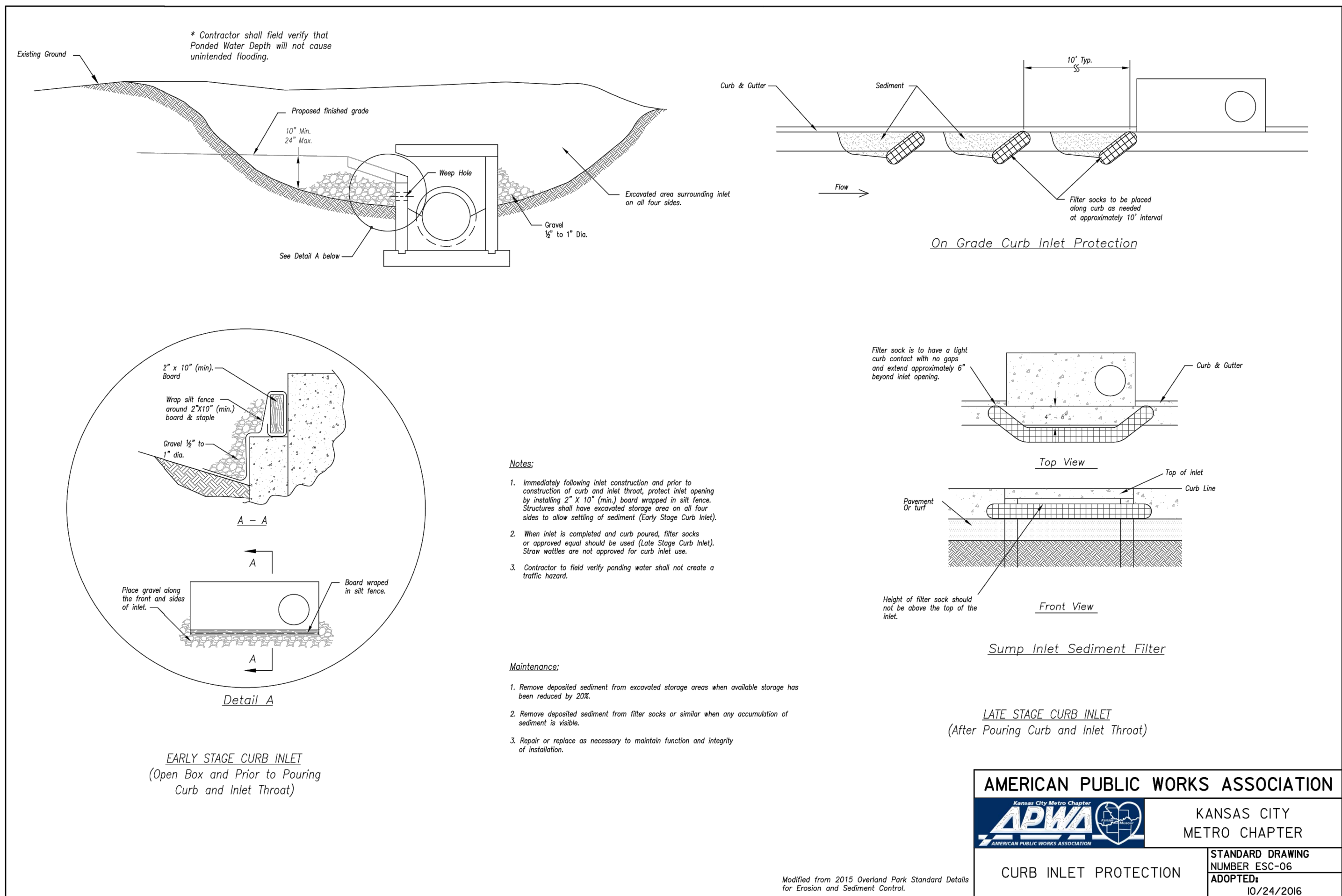
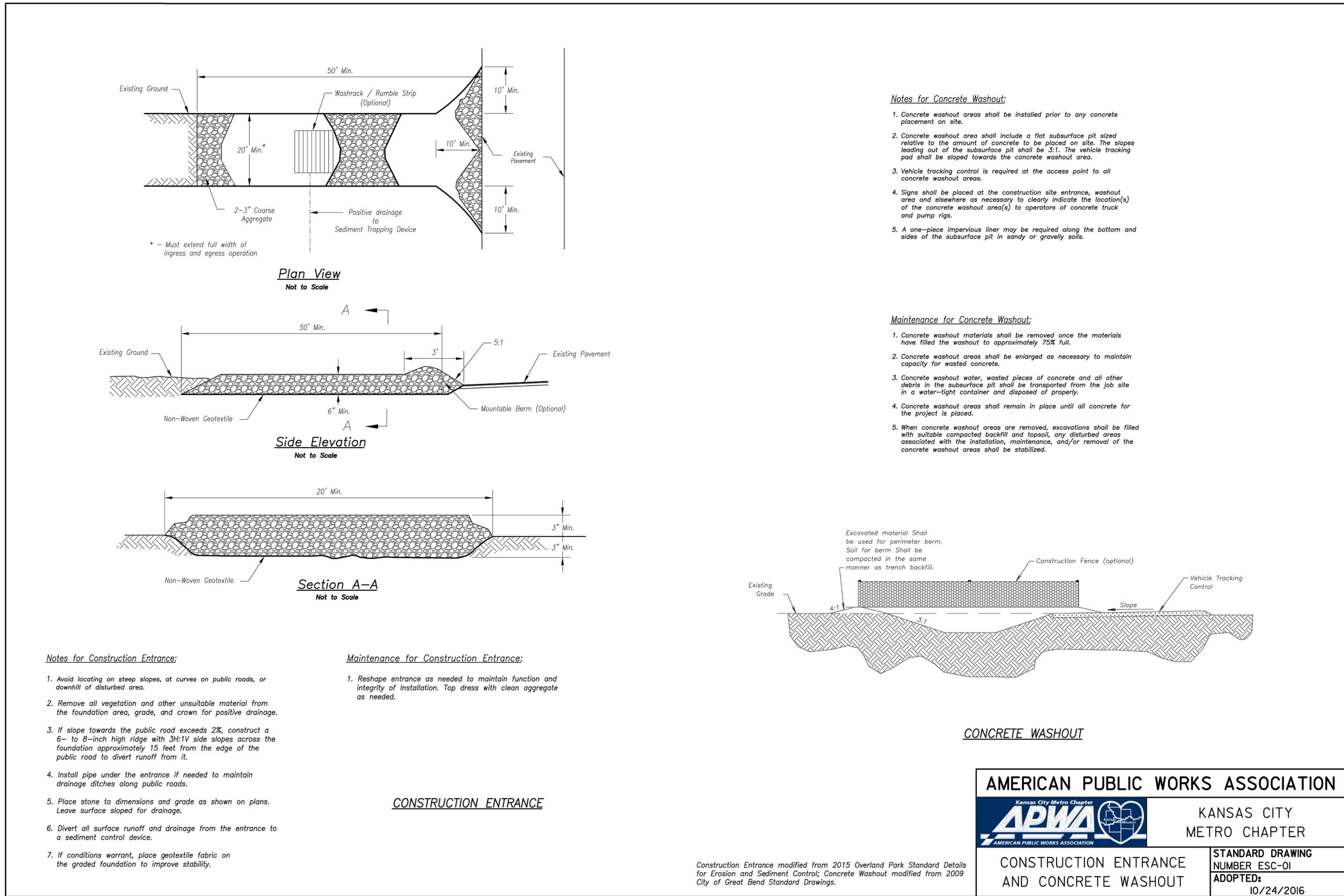
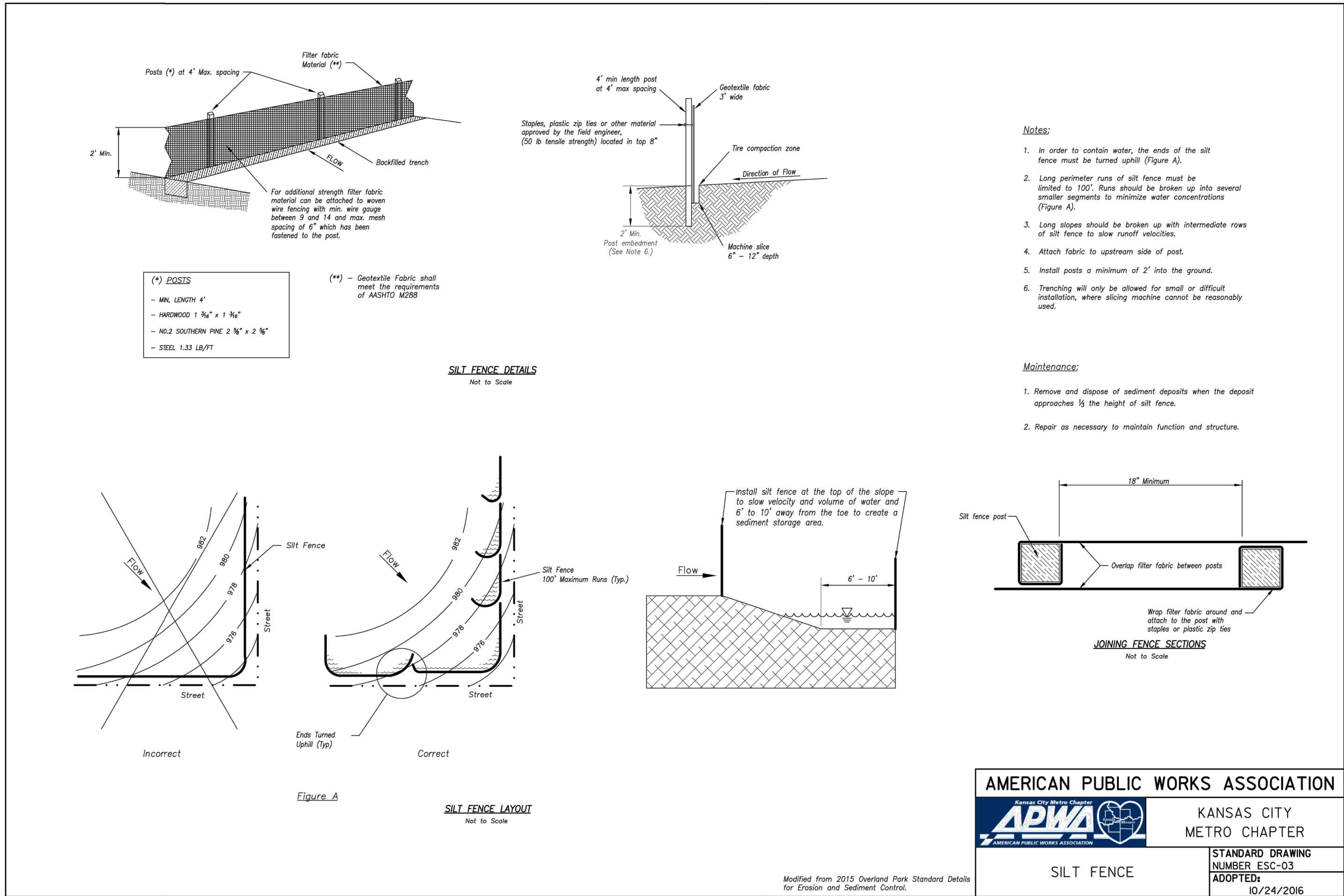
Mix I - Rye Grass / Blue Grass -----
100 lbs. per Acre
Mix II - Tall Fescue / Blue Grass ----- 195
lbs. per Acre
Lime

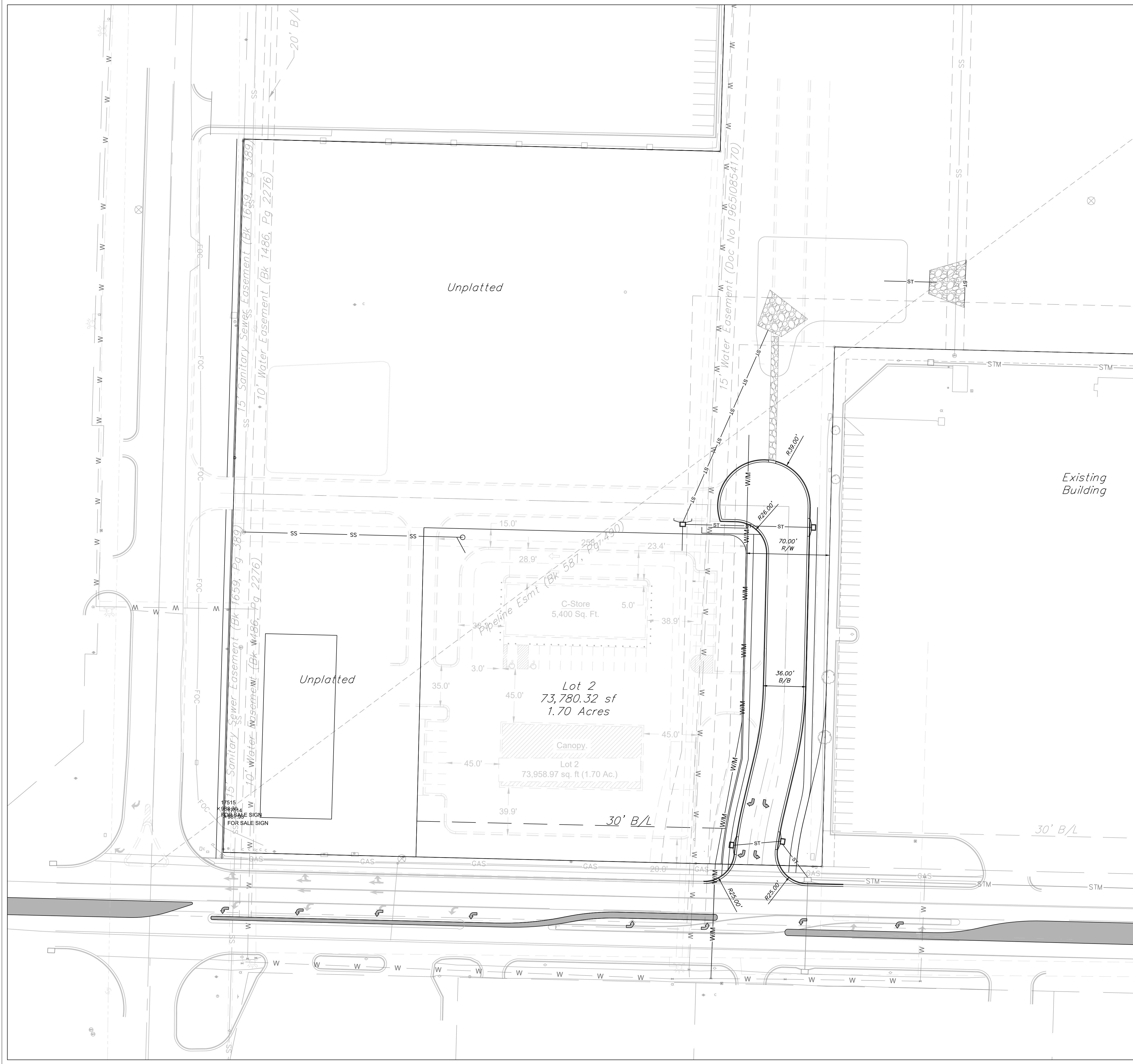
-----2000
lbs per Acre (50 lbs. per 1000 sq. ft.)
Fertilizer
-----800
to 1200 lbs per Acre (25 lbs per 1000 sq. ft.)

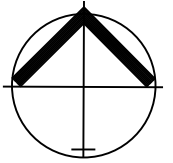
During the dates December 15th through May 31 ALL lime fertilizer, seed and mulch shall be applied to finished slopes of disturbed areas. During the months of June, July, October and November 1st through December 15th, lime fertilizer, seed and mulch shall be applied at the following rates:
Lime - 100%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

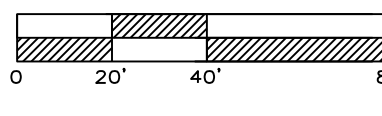
ONCE SITE IS 90% VEGETATED ALL ESC DEVICES SHALL BE REMOVED AND ANY DISTURBED AREAS SHALL BE RESTORED







North



0 20' 40' 80'

SITE PLAN

SCALE: 1" = 40'

ENGINEERING SOLUTIONS

ENGINEERING & SURVEYING

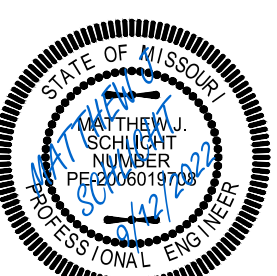
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
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Surveying LS-218
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Nebraska
Engineering CA2821

Site Plan
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

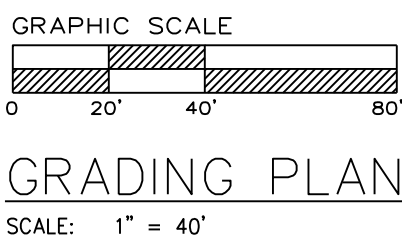
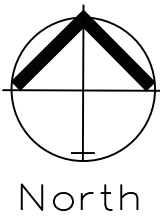
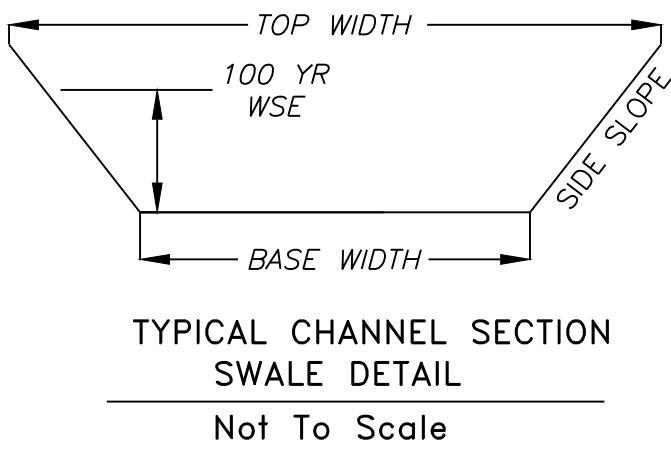
Project: COLBERN ROAD INVESTMENTS L&MO
Issue Date: September 12, 2022

Site Plan
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

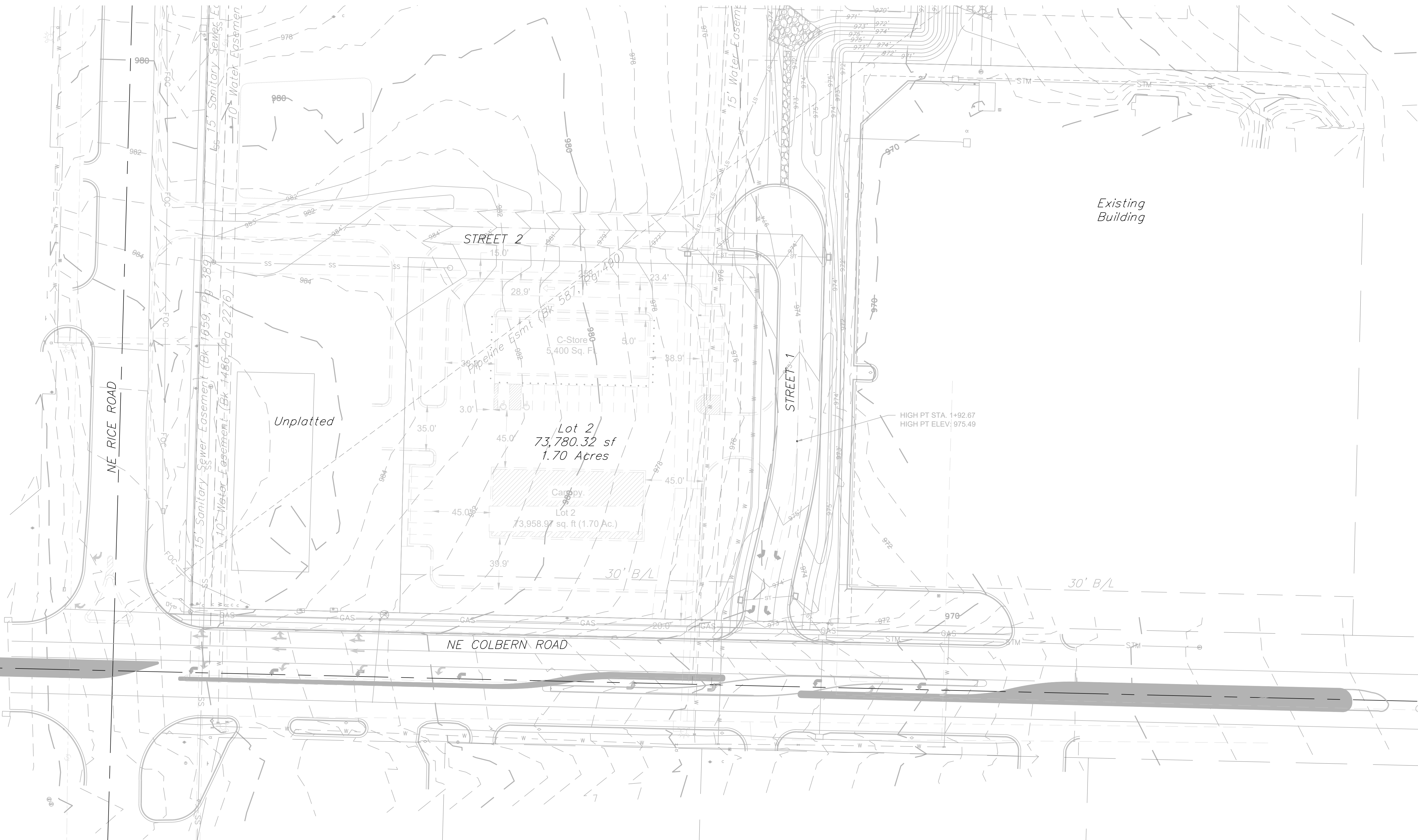


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS



NOTE: Swale sections extend the entire length between upstream and downstream structures with the exception of a transition at each structure. The minimum swale depth shall be 6" over the 100-year water surface elevation.

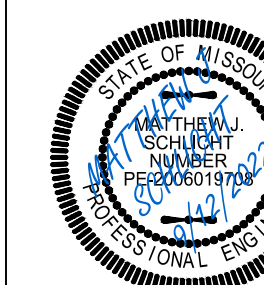


Master Drainage Plan 1 of 3:
Grading Plan
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS L&M
Issue Date: September 12, 2022

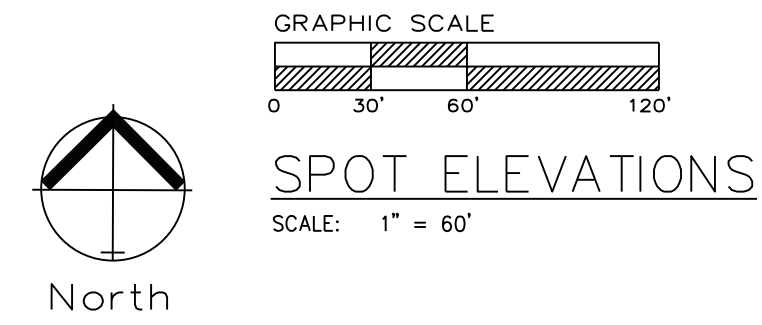
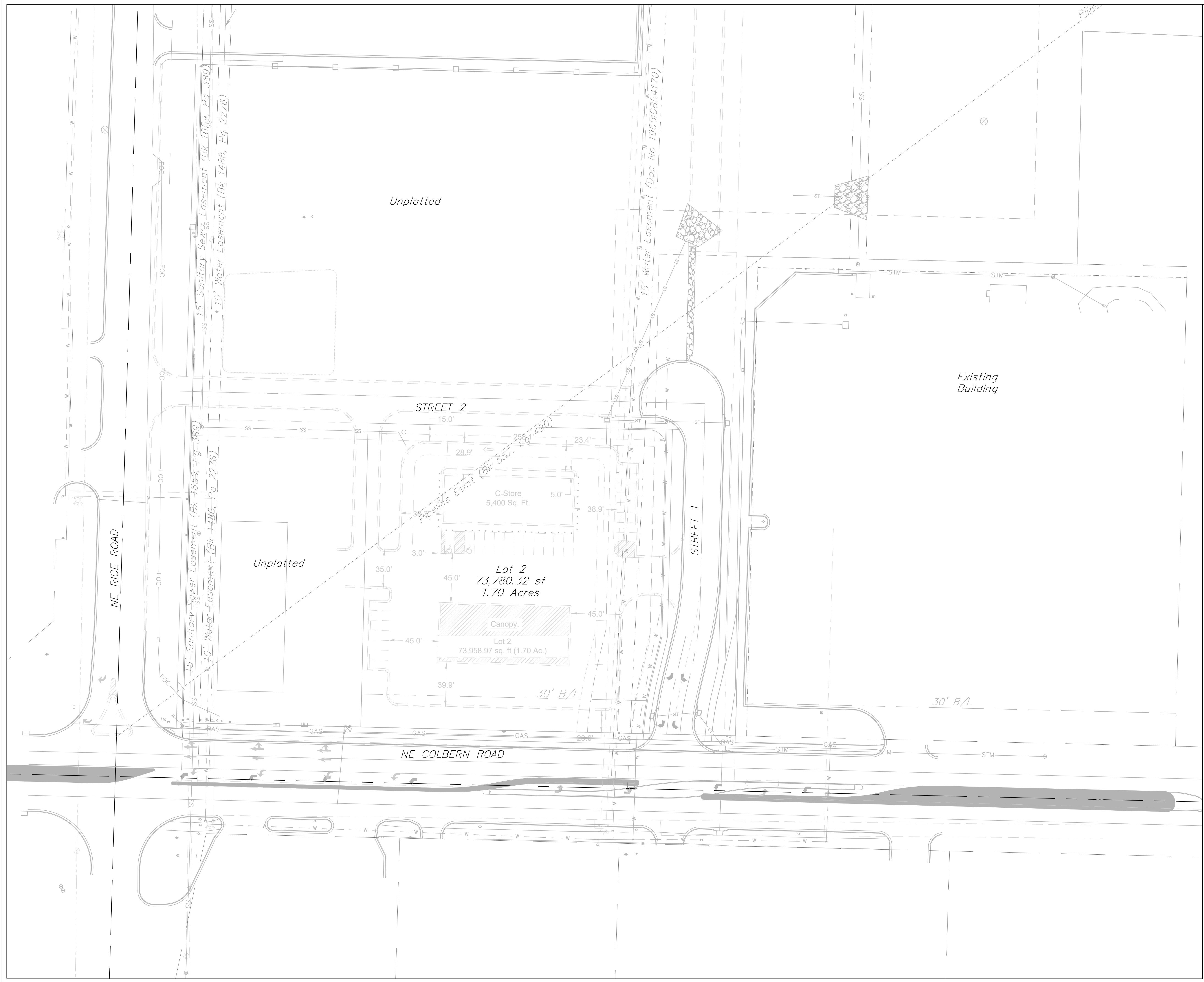
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

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REVISIONS

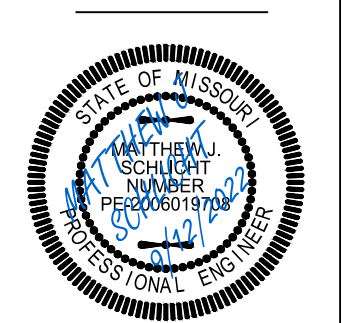


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
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Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Colbern Road Investments
Lee's Summit, Jackson County, Missouri

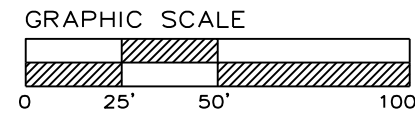
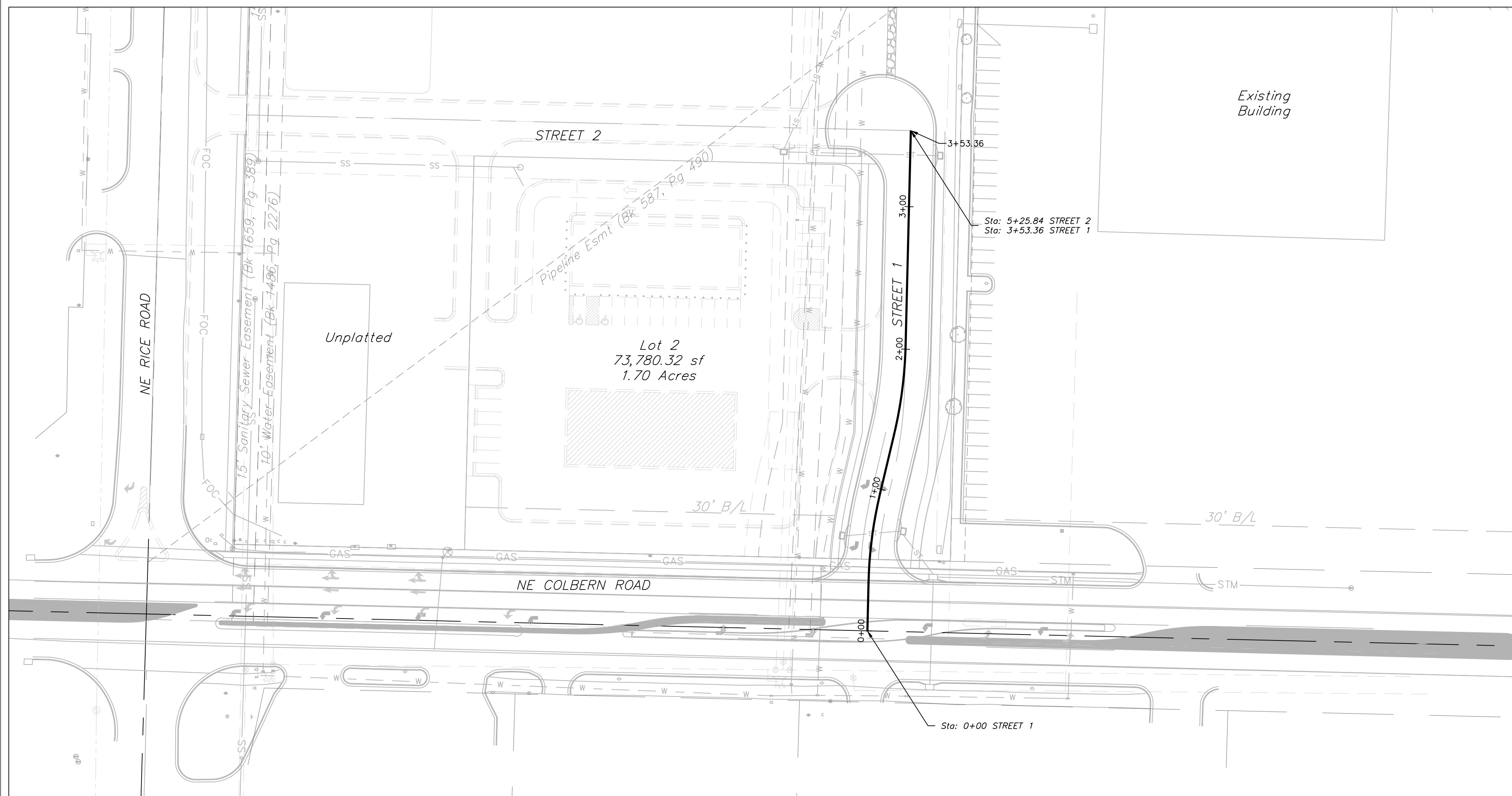
Project: COLBERN ROAD INVESTMENTS LMO
Issue Date: September 12, 2022

Master Drainage Plan 2 of 3:
Spot Elevations
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



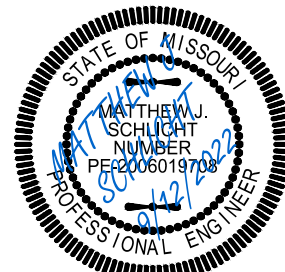
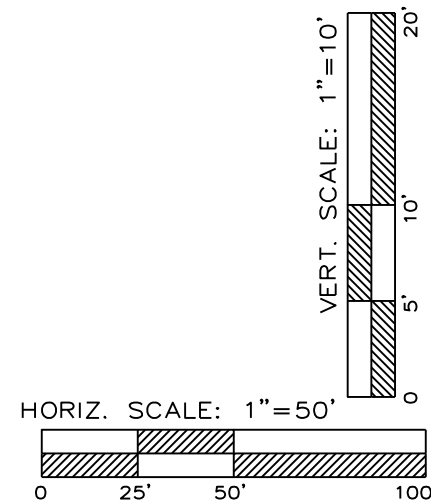
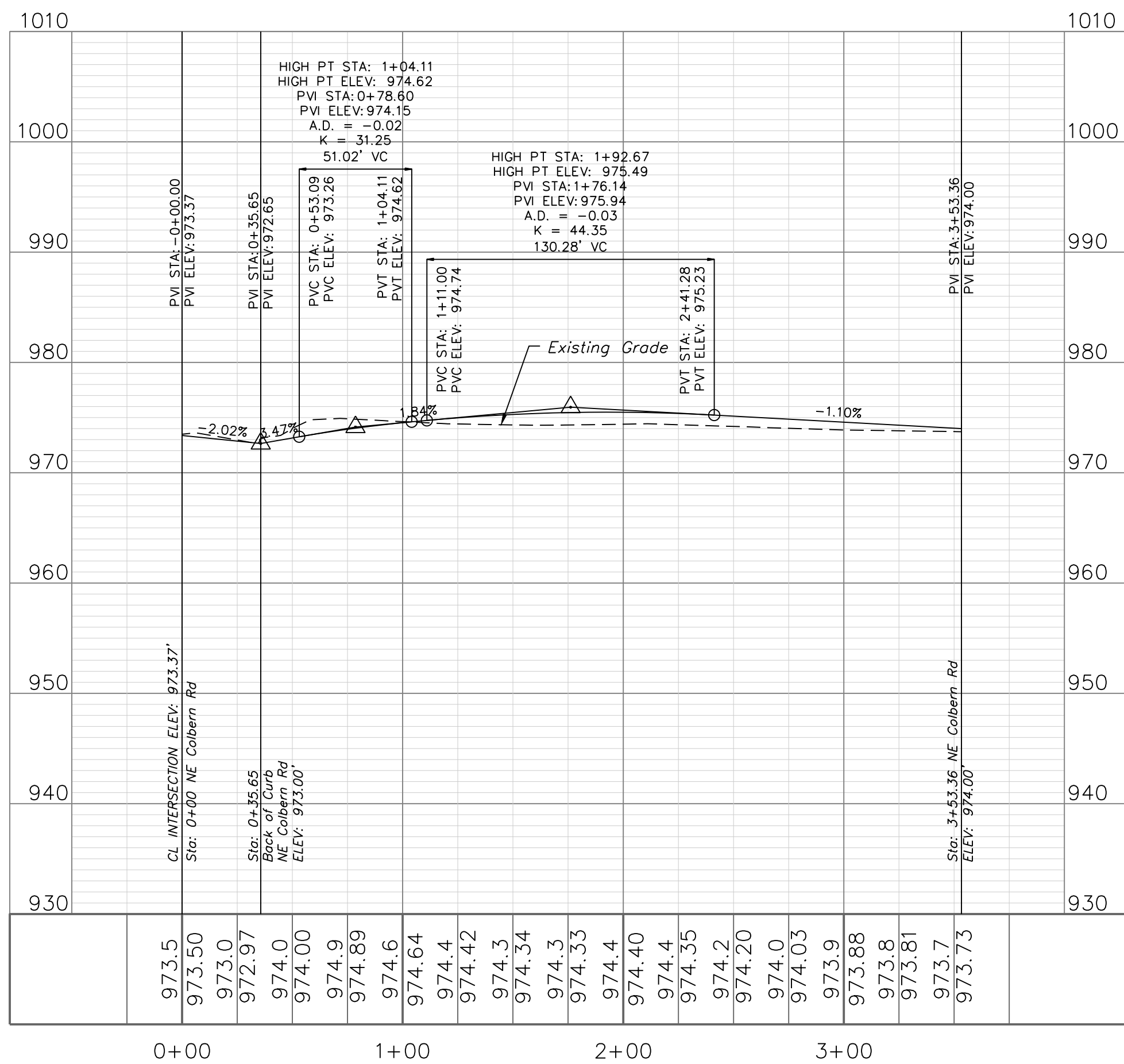
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STREET PLAN & PROFILE
SCALE: 1" = 50'

STREET 1



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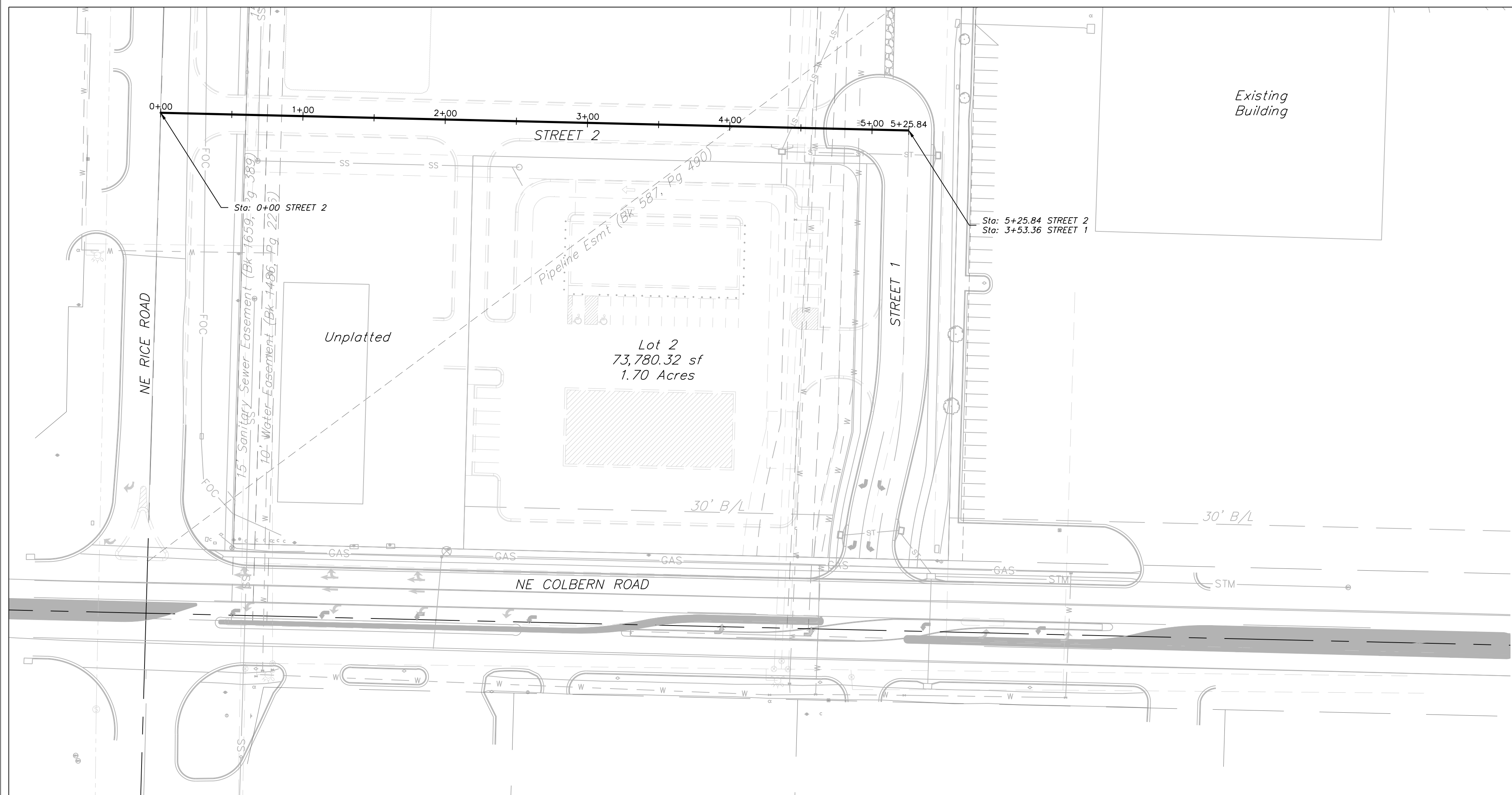
Street Plan and Profile
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project:
Colbern Road
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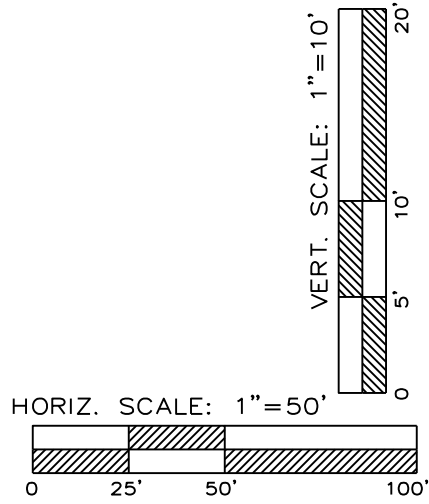
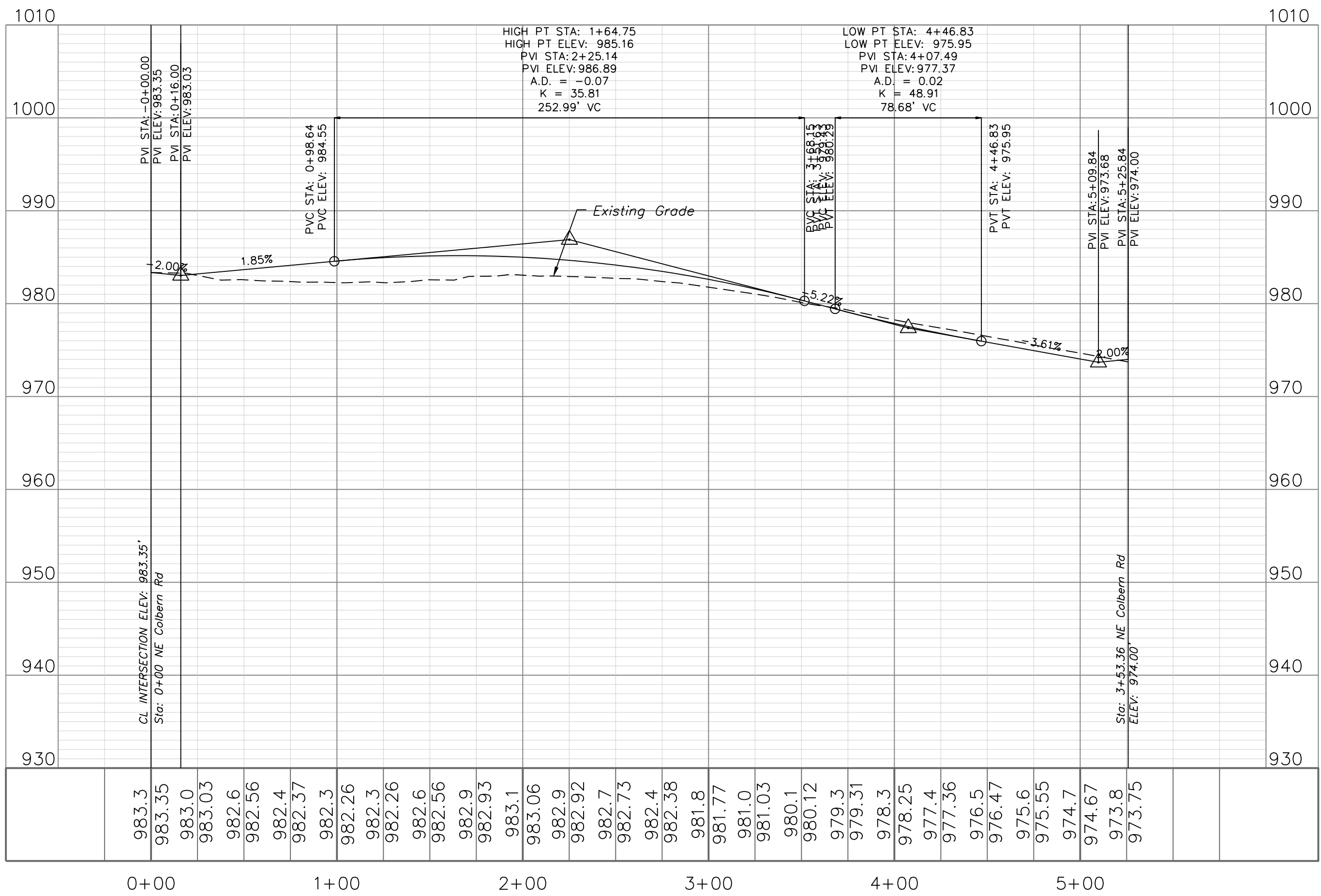
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Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
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Nebraska
Engineering CA2821

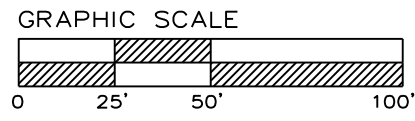
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LEE'S SUMMIT, MO 64082
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STREET 2



NOT FOR
CONSTRUCTION



STREET PLAN & PROFILE
SCALE: 1" = 50'

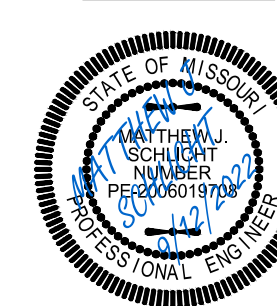
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Colbern Road Investments
Lee's Summit, Jackson County, Missouri

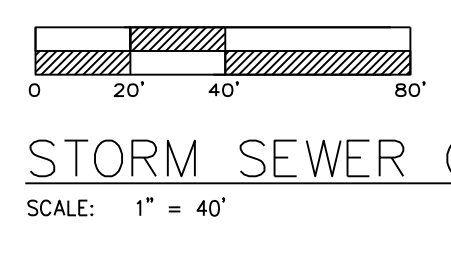
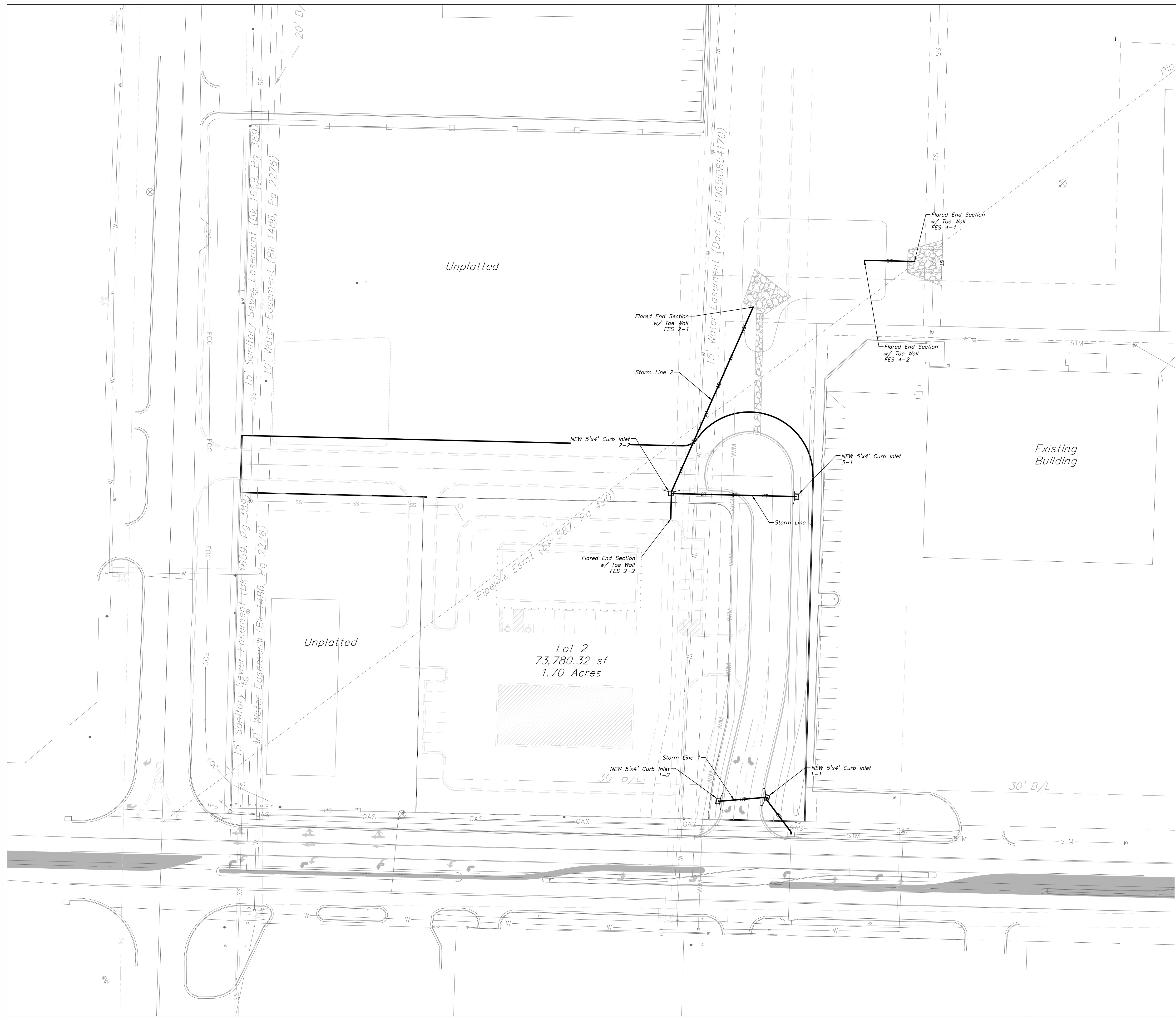
Project: COLBERN ROAD INVESTMENTS L&MO
Issue Date: September 12, 2022

Street Plan and Profile
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



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REVISIONS



STORM SEWER GENERAL LAYOUT

NOTE:

ALL STORM SEWER IS PUBLIC
UNLESS OTHERWISE NOTED.

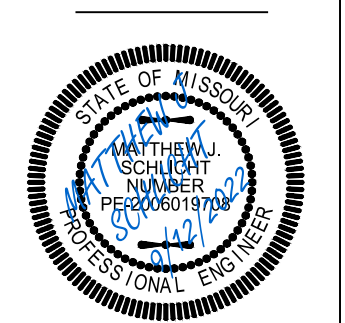


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Engineering CA2821

Storm Sewer General Layout
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

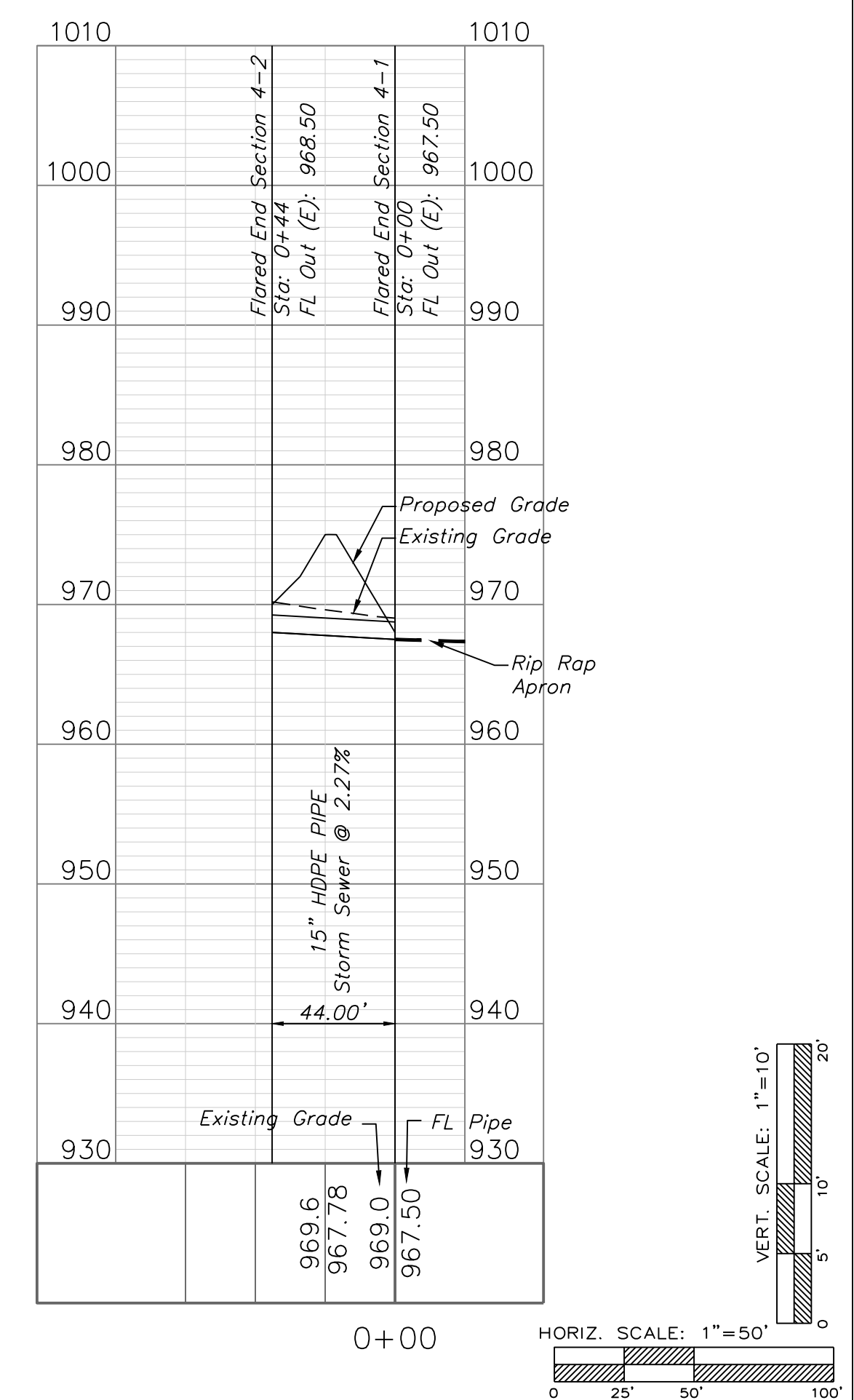
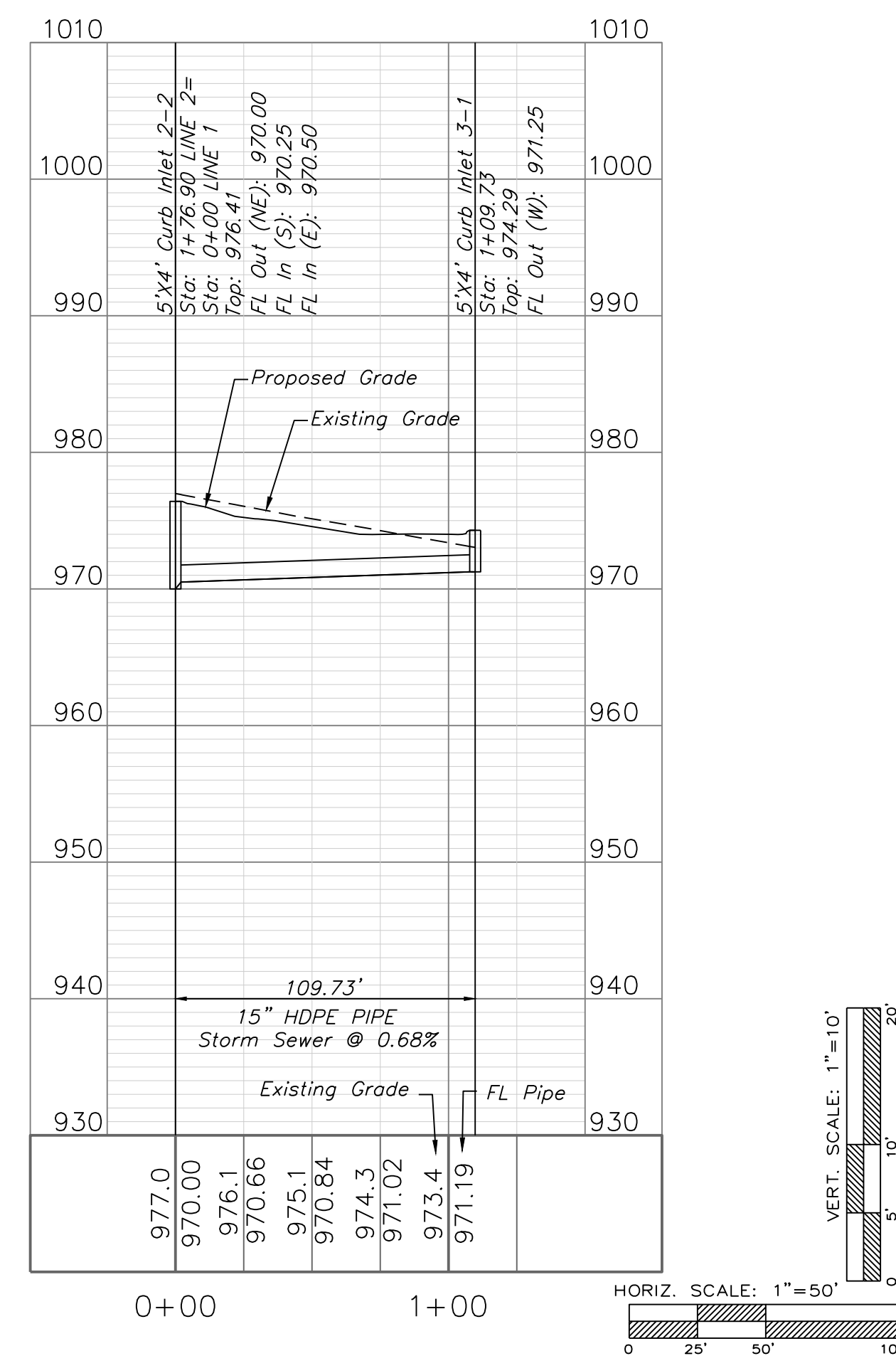
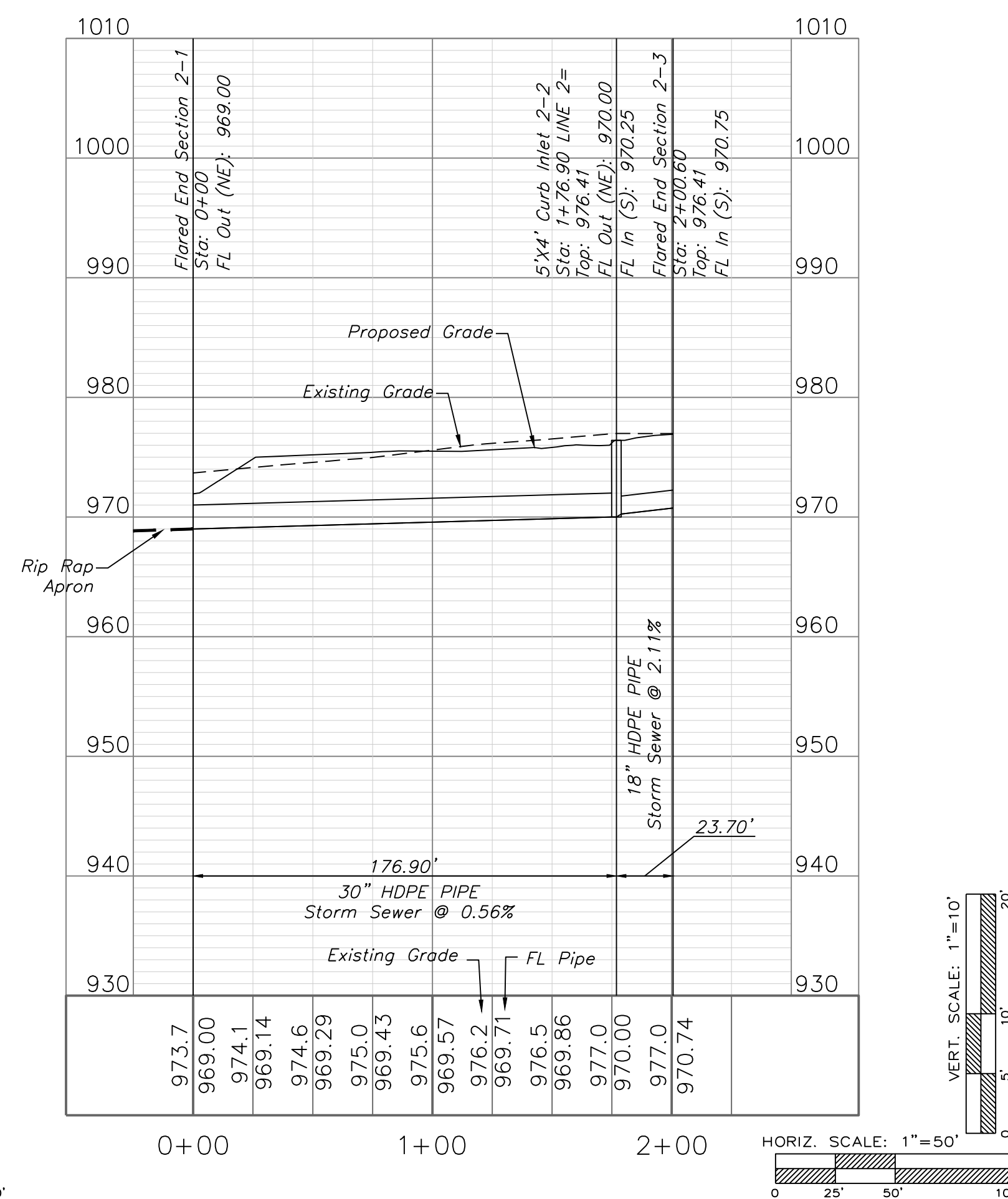
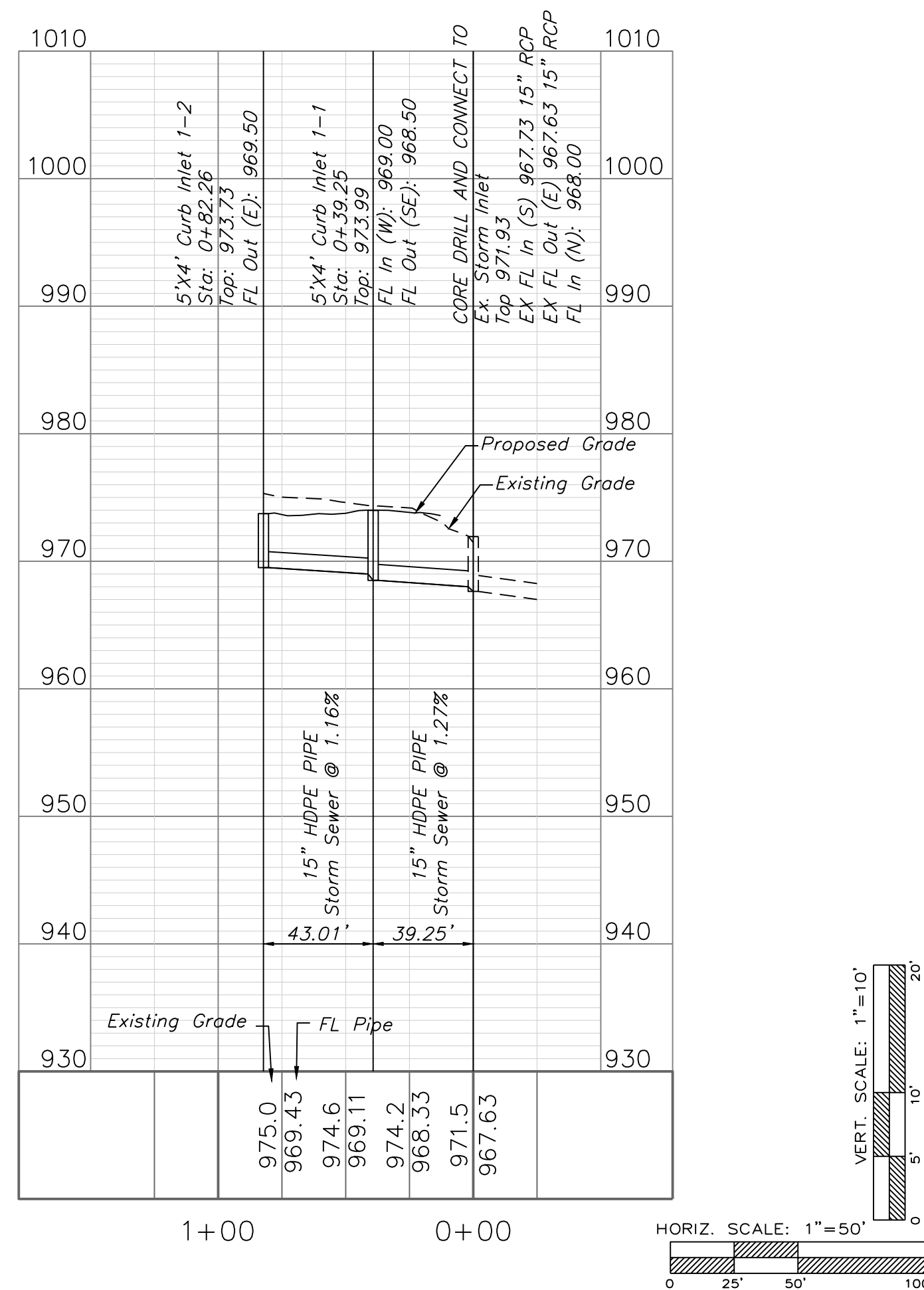
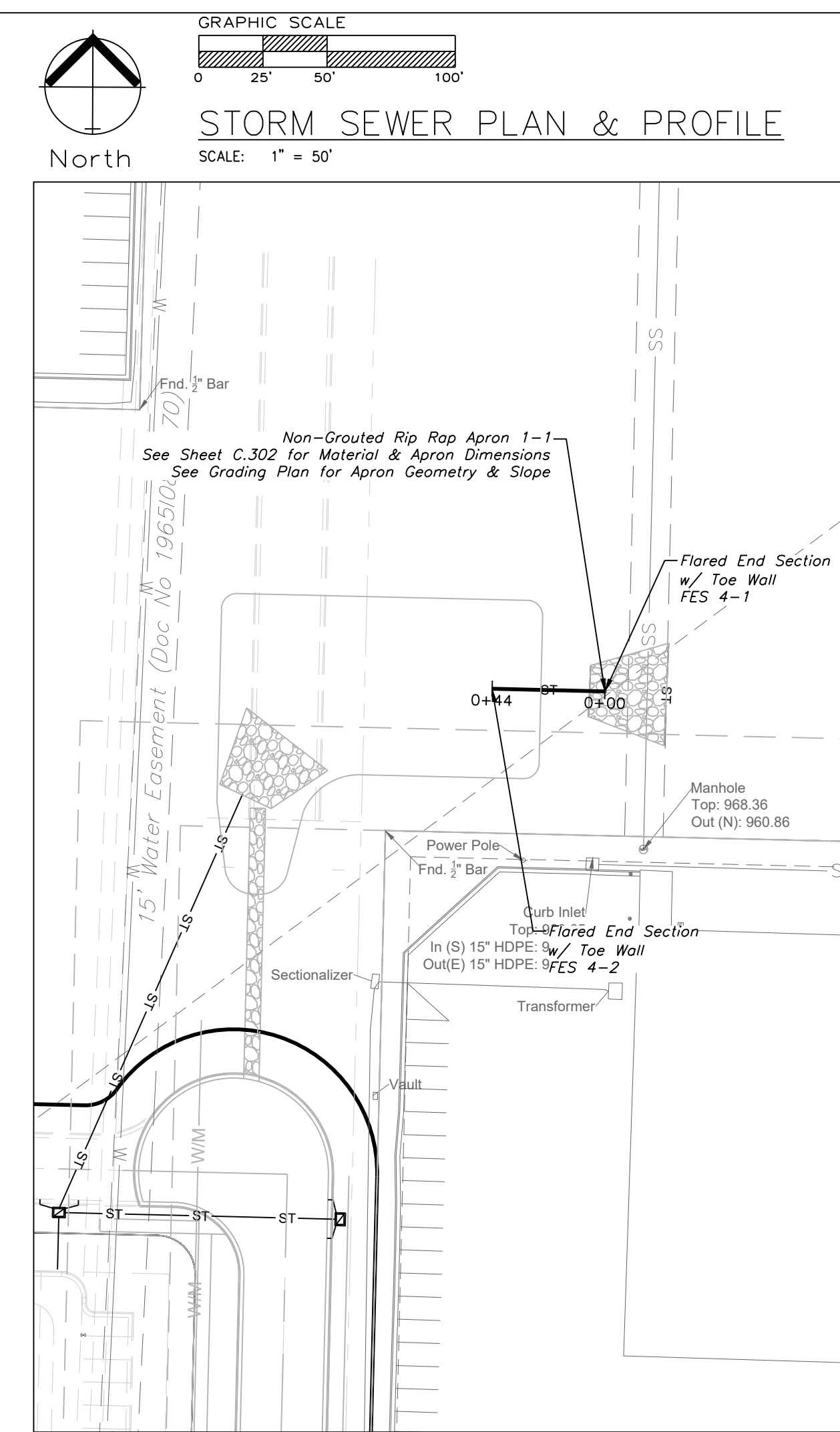
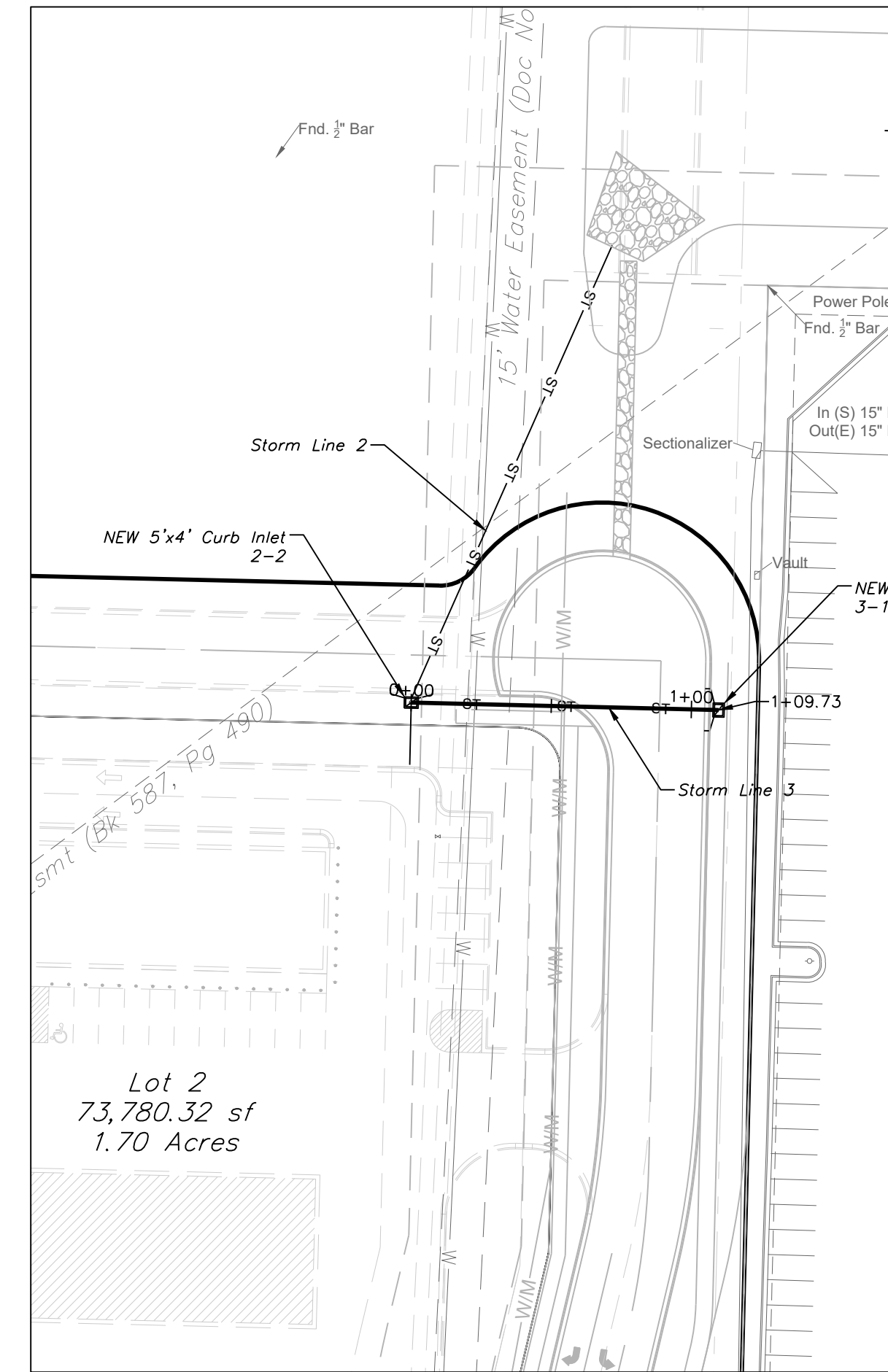
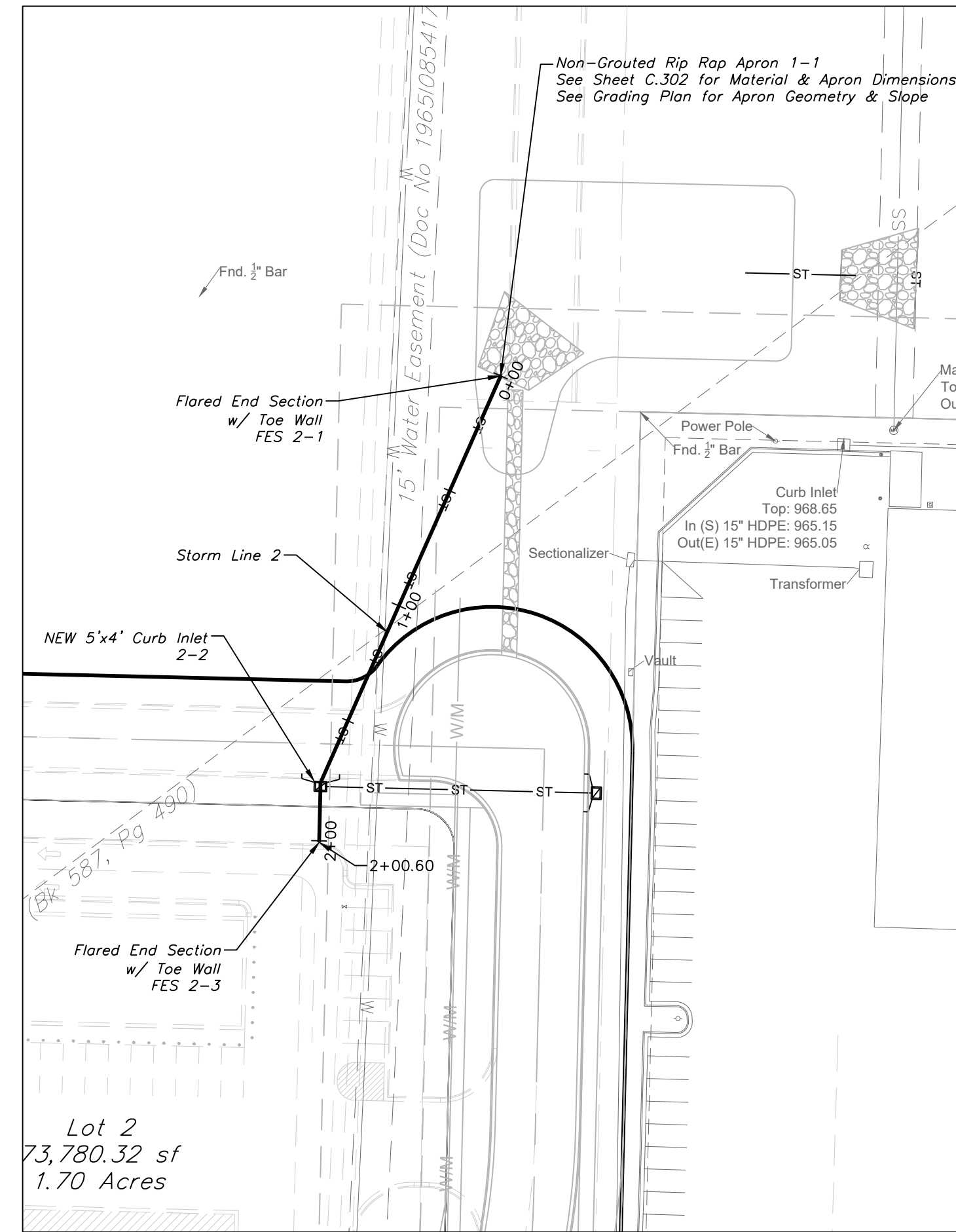
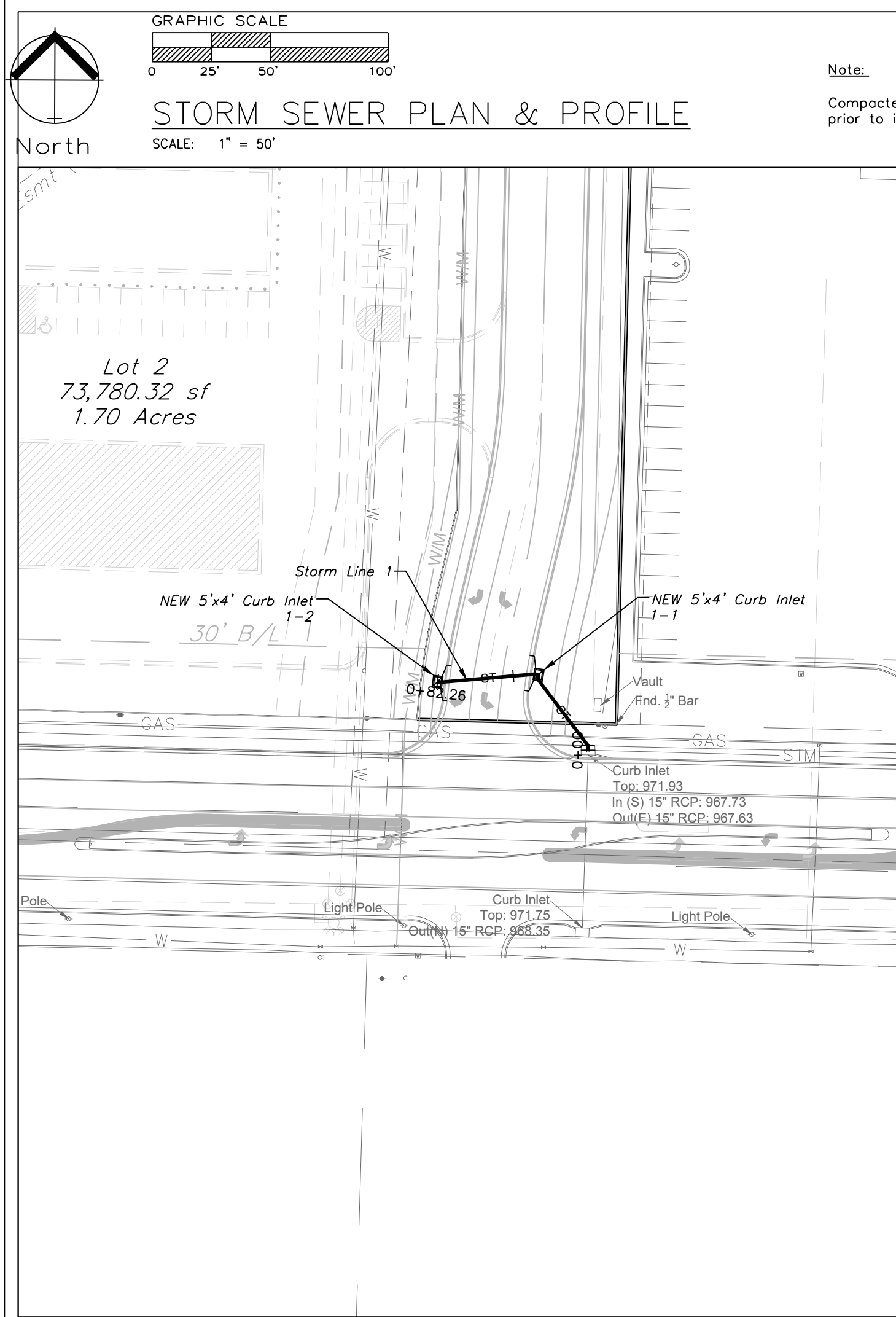
Project: COLBERN ROAD INVESTMENTS L&MO
Issue Date: September 12, 2022

Storm Sewer General Layout
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



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10-YR STRUCTURE																						
D.S. Str.	Str. No.	Area (ac)	InletTime (min)	Int. (in/hr)	RunoffCoeff. (C)	Q=CIA (cfs)	Q Carry-over (cfs)	QCaptured (cfs)	QBypassed (cfs)	JunctType	CurbHeight (in)	CurbLength (ft)	GutterSlope (ft/ft)	GutterWidth (ft)	CrossSlope, Sw (ft/ft)	CrossSlope, Sx (ft/ft)	InletDepth (ft)	BypassDepth (ft)	BypassSpread (ft)	GutterDepth (ft)	GutterSpread (ft)	Bypass Str.
EX CI	1-1	0.71	7.3	6.72	0.51	2.43	5.07	1.3	6.2	Curb	10	5	0.029	2	0.05	0.02	0.28	0.27	10.36	0.28	11.19	Offsite
1-1	1-2	0.4	6.4	6.95	0.51	1.42	0	1.42	0	Dp-Curb	6	8	Sag		0.02	0.02	0.15	n/a	n/a	0.15	7.58	Sag
1-2	1-3	0.36	7.6	6.65	0.51	1.22	0	1.22	0	Dp-Curb	6	8	Sag		0.02	0.02	0.14	n/a	n/a	0.14	6.85	Sag
1-3	1-4	0.42	7.9	6.57	0.51	1.41	0	1.41	0	Dp-Curb	6	8	Sag		0.02	0.02	0.15	n/a	n/a	0.15	7.54	Sag
1-4	1-5	0.1	5.6	7.17	0.51	0.37	0	0.21	0.16	Curb	10	5	0.054	2	0.05	0.02	0.09	0.07	1.37	0.09	1.88	Offsite
1-5	1-6	1.76	10.1	6.1	0.51	5.47	0	0.95	4.52	Curb	10	5	0.054	2	0.05	0.02	0.23	0.22	7.96	0.23	8.64	Offsite
1-3	2-1	0.41	7.8	6.6	0.51	1.38	0	0.68	0.7	Curb	10	5	0.01	2	0.05	0.02	0.2	0.16	4.93	0.2	6.83	4-1
2-1	2-2	0.48	6.3	6.98	0.51	1.71	1.9	1.15	2.46	Curb	10	5	0.01	2	0.05	0.02	0.27	0.24	8.8	0.27	10.32	4-2
2-2	2-3	0.85	7.2	6.74	0.51	2.92	0	1.02	1.9	Curb	10	5	0.01	2	0.05	0.02	0.25	0.22	7.87	0.25	9.46	2-2
1-1	3-1	0.27	6.5	6.92	0.51	0.95	0.61	0.58	0.99	Curb	10	5	0.029	2	0.05	0.02	0.17	0.15	4.47	0.17	5.65	Offsite
1-1	4-1	0.04	5.1	7.31	0.51	0.15	6.1	1.17	5.07	Curb	10	5	0.03	2	0.05	0.02	0.27	0.25	9.47	0.27	10.32	1-1
4-1	4-2	0.36	7.5	6.67	0.51	1.22	2.46	1.16	2.53	Curb	10	5	0.01	2	0.05	0.02	0.27	0.24	8.9	0.27	10.41	4-1
4-2	4-3	0.97	10	6.12	0.51	3.03	0	1.04	1.98	Curb	10	5	0.01	2	0.05	0.02	0.25	0.22	8.02	0.25	9.6	4-1
4-3	4-4	0.19	5.5	7.2	0.51	0.7	0.67	0.48	0.89	Curb	10	5	0.048	2	0.05	0.02	0.15	0.13	3.63	0.15	4.64	4-1
4-4	4-5	0.33	8.3	6.48	0.51	1.09	0	0.42	0.67	Curb	10	5	0.047	2	0.05	0.02	0.14	0.12	3.03	0.14	4.12	4-4
4-5	4-6	1	7.7	6.62	0.51	3.38	0	3.38	0	Dp-Curb	6	12	Sag		0.02	0.02	0.21	n/a	n/a	0.21	10.31	Sag
4-6	4-7	0.54	6.9	6.82	0.51	1.88	0	1.88	0	Dp-Curb	6	12	Sag		0.02	0.02	0.14	n/a	n/a	0.14	6.97	Sag
4-7	4-8	0.3	6.7	6.87	0.51	1.05	0	0.51	0.54	Curb	10	5	0.019	2	0.05	0.02	0.16	0.13	3.56	0.16	5.15	7-1
4-8	4-9	0.29	6.6	6.9	0.51	1.02	0	0.5	0.52	Curb	10	5	0.019	2	0.05	0.02	0.16	0.13	3.46	0.16	5.07	7-2
4-4	5-1	0.11	5.5	7.2	0.51	0.4	0.61	0.4	0.61	Curb	10	5	0.048	2	0.05	0.02	0.14	0.12	2.82	0.14	3.93	3-1
4-5	6-1	0.28	5.7	7.14	0.51	1.02	0	0.41	0.61	Curb	10	5	0.047	2	0.05	0.02	0.14	0.12	2.84	0.14	3.96	5-1
4-6	7-1	0.33	7.1	6.77	0.51	1.14	0.54	1.68	0	Curb	10	5	Sag	2	0.05	0.02	0.25	n/a	n/a	0.25	9.66	Sag
7-1	7-2	0.35	7.2	6.74	0.51	1.2	0.52	1.72	0	Curb	10	5	Sag	2	0.05	0.02	0.26	n/a	n/a	0.26	9.82	Sag
EX MH	EX CI	0.28	6.2	7	0.51	1	3.58	4.58	0	Curb	10	5	Sag	2	0.05	0.02	0.44	n/a	n/a	0.44	18.86	Sag
8-1	8-1	0.42	7	6.79	0.51	1.46	3.02	0.89	3.58	Curb	10	5	0.046	2	0.05	0.02	0.22	0.21	7.45	0.22	8.2	EX CI
8-1	8-2	1.19	8.9	6.35	0.51	3.85	0	0.83	3.02	Curb	10	5	0.046	2	0.05	0.02	0.21	0.2	6.9	0.21	7.69	8-1
8-1	9-1	1.62	8.4	6.46	0.51	5.34	0	5.34	0	Curb	10	5	Sag	2	0.05	0.02	0.48	n/a	n/a	0.48	20.87	Sag
EX CI	10-1	0.61	7.9	6.57	0.51	2.05	0	2.05	0	Dp-Curb	6	8	Sag		0.02	0.02	0.19	n/a	n/a	0.19	9.67	Sag
10-1	10-2	0.44	6	7.06	0.51	1.58	0	1.58	0	Dp-Curb	6	8	Sag		0.02	0.02	0.16	n/a	n/a	0.16	8.16	Sag
10-2	10-3	0.28	5.3	7.26	0.51	1.04	0	1.04	0	Dp-Curb	6	8	Sag		0.02	0.02	0.12	n/a	n/a	0.12	6.15	Sag
10-1	11-1	0.52	7.1	6.77	0.51	1.79	0	0.62	1.18	Curb	10	5	0.029	2	0.05	0.02	0.18	0.16	4.89	0.18	6.03	Offsite
11-1	11-2	0.07	5.3	7.26	0.51	0.26	2.59	0.73	2.13	Curb	10	5	0.042	2	0.05	0.02	0.2	0.18	5.99	0.2	6.86	Offsite
11-2	11-3	0.15	5.3	7.26	0.51	0.56	0	0.29	0.26	Curb	10	5	0.042	2	0.05	0.02	0.12	0.09	1.75	0.12	2.75	Offsite
11-3	11-4	1.09	9.4	6.24	0.51	3.47	0	0.88	2.59	Curb	10	5	0.029	2	0.05	0.02	0.22	0.2	7.15	0.22	8.12	11-1

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CULVERT WITH STANDARD END SECTION

PLAN VIEW

CULVERT WITHOUT STANDARD END SECTION

PLAN VIEW

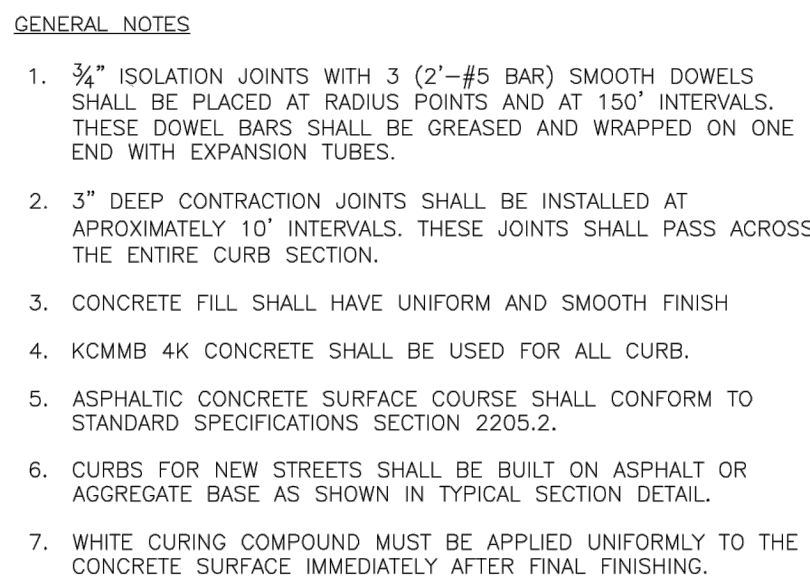
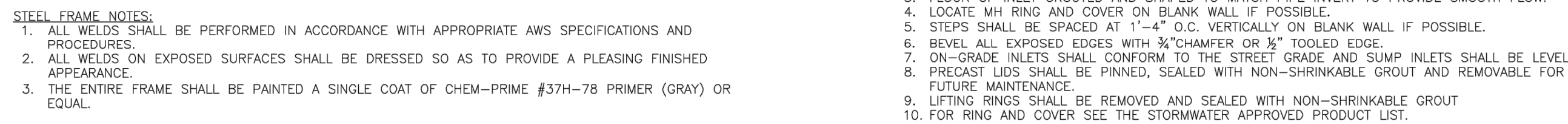
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SECTION A-A

CULVERT WITHOUT STANDARD END SECTION

SECTION A-A

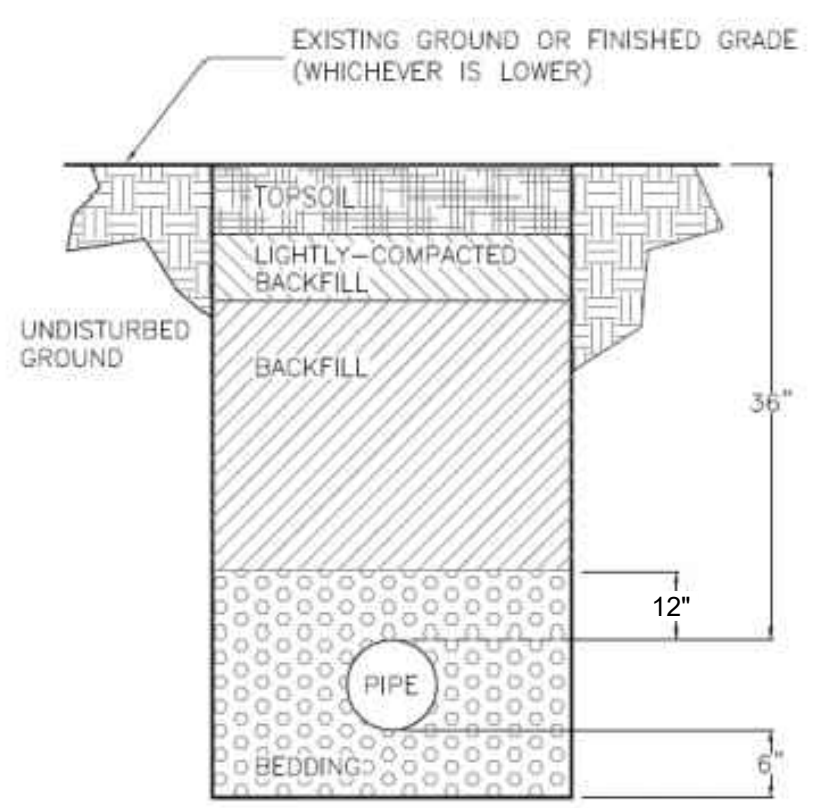
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TRENCH AND BACKFILL DETAIL
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