

Project Information Summary

Project Name: Kinston Drainage Improvements -CC **Last Update:** 11/28/2023

Project Number: PZ-23-00137

General Location: Located at the intersection of Kendall Pkwy and Sky Pond Dr.

Project Description:

Proposal to construct a storm sewer pipe under the UPRR and carry the drainage from Detention Pond #3 in the Kinston development to Detention Pond #6 on Centerra parcel 504 and then flow through existing storm infrastructure under Centerra Parkway to Centerra Regional Pond #2. Located at the intersection of Kendall Pkwy and Sky Pond Dr.

Existing Zoning: PUD-Planned Unit Development

Acreage of Site: 169.36

Existing Use: Vacant

Application Type:

Civil Construction Plans

Choose Type

Choose Type

☐ Neighborhood Notice and Comment Period Required

***Public Review Required:** ☒ None

☐ Variance ☐ Neighborhood Meeting ☐ Planning Commission Hearing ☐ City Council Hearing

** Contact the City Planner for specific hearing dates, times and locations if public review is required*

Use Type

☒ Use by Right (R)

☐ Limited Use (L)

☐ Adaptable Use (A)

☐ Conditional Use (C)

Contact Information:

Applicant

Name: Jeff Breidenbach

City Planner

Name: Jason Bradford

Phone: 970-962-2522

Email: Jason.Bradford@cityofloveland.org

Attachment (s): CCP's

The above information was current at the time of initial project submittal and is subject to change

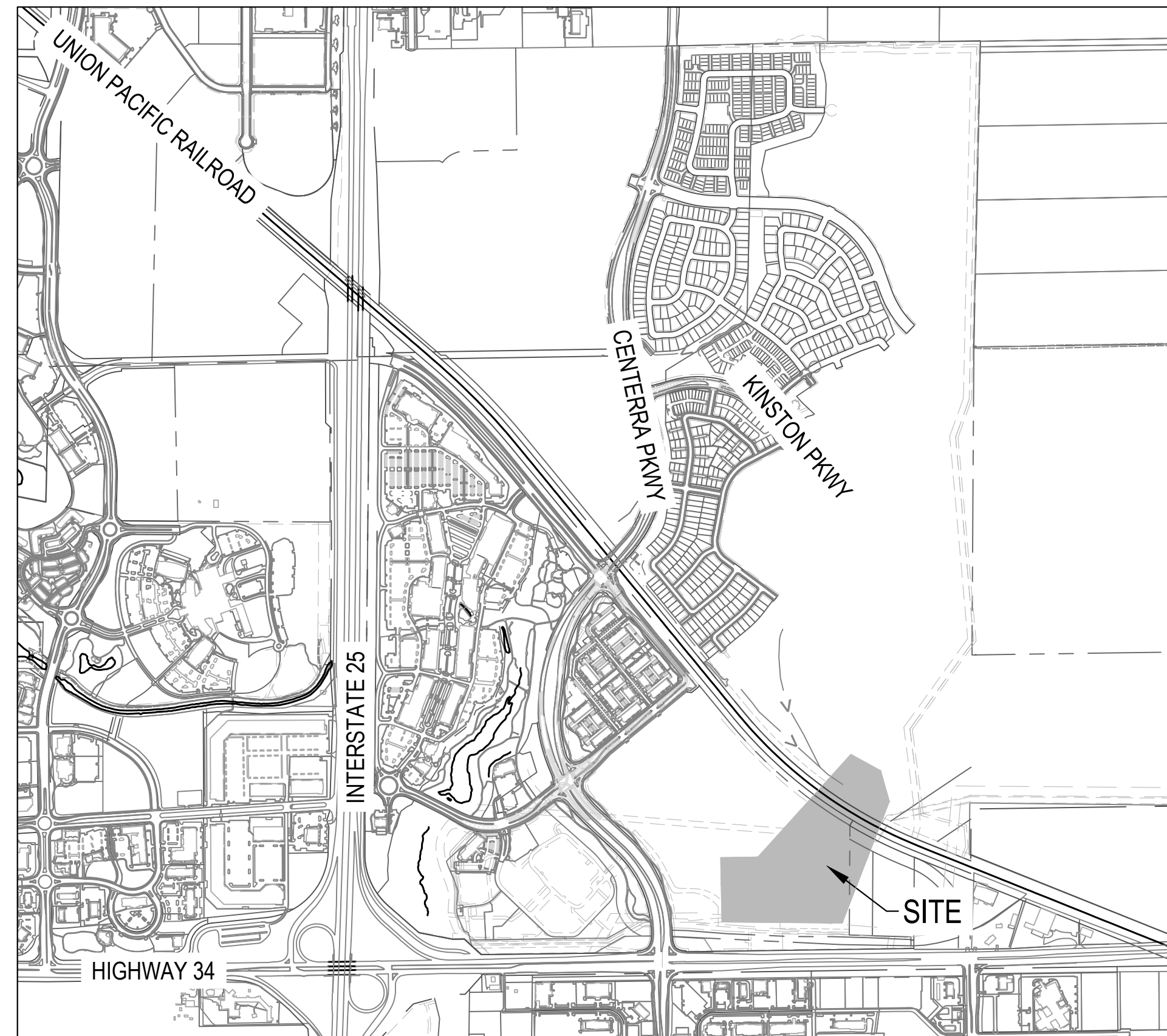
CIVIL CONSTRUCTION PLANS

KINSTON OFFSITE DRAINAGE IMPROVEMENTS

A PORTION OF SECTION 11, TOWNSHIP 5, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
CITY OF LOVELAND, COUNTY OF LARIMER, STATE OF COLORADO

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES
4	GENERAL NOTES
5	HORIZONTAL CONTROL PLAN
6	OVERALL UTILITY PLAN
7	STORM PLAN AND PROFILE
8	OVERALL GRADING
9	POND 6 GRADING
10	POND 3 GRADING
11	POND 3 OUTLET STRUCTURE DETAILS
12	POND 3 DETAILS
13	STORMWATER DETAILS
14	STORMWATER DETAILS
15	EROSION CONTROL PLAN - PHASE 1
16	EROSION CONTROL PLAN - PHASE 1
17	EROSION CONTROL PLAN - PHASE 2
18	EROSION CONTROL PLAN - PHASE 2
19	EROSION CONTROL DETAILS
20	EROSION CONTROL DETAILS
21	EROSION CONTROL DETAILS

DIRECTORY		
<u>OWNER/DEVELOPER</u> CENTERRA EAST DEVELOPMENT, LLC 2725 ROCKY MOUNTAIN AVE, STE 200 LOVELAND, CO 80538 (970) 776-4046 JEFF BREIDENBACH	<u>LANDSCAPE ARCHITECT</u>	<u>STORM DRAINAGE</u> CITY OF LOVELAND PUBLIC WORKS DEPARTMENT 500 EAST THIRD STREET LOVELAND, CO 80537 (970) 962-2771 SUZETTE SCHAFF, PE
<u>ENGINEER AND SURVEYOR</u> MERRICK & COMPANY 5970 GREENWOOD PLAZA BLVD GREENWOOD VILLAGE, CO. 80111 (303) 353-3617 GLORIA LEE, P.E. JACOB FRISCH, P.L.S.	<u>MUNICIPALITY</u> CITY OF LOVELAND DEVELOPMENT SERVICES DEPARTMENT 410 EAST FIFTH STREET LOVELAND, CO 80537 (970) 962-2522 NOREEN SMYTH	<u>WATER AND SANITATION</u> CITY OF LOVELAND WATER & POWER DEPARTMENT 200 NORTH WILSON AVENUE LOVELAND, CO 80537 (970) 962-3709 MELISSA MORIN, P.E.
<u>GOETECHNICAL ENGINEER</u>	<u>FIRE PROTECTION</u> LOVELAND FIRE AND RESCUE 410 EAST FIFTH STREET LOVELAND, CO 80537 (970) 962-2518 CARIE DANN, DEPUTY FIRE MARSHAL	<u>POWER</u> CITY OF LOVELAND WATER & POWER DEPARTMENT 200 NORTH WILSON AVENUE LOVELAND, CO 80537 (970) 962-3709 LUIS SANDOVAL



VICINITY MAP

$$1'' = 1000'$$


STORMWATER MANAGEMENT PLAN ADMINISTRATOR:

ADMINISTRATOR (PRIMARY) _____ SIGNATURE _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

PHONE _____

ADMINISTRATOR (SECONDARY) _____ SIGNATURE _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

PHONE _____

*UNTIL THE TIME THAT THE CONTRACTOR SELECTS A SWMP ADMINISTRATOR, JEFF BREIDENBACH OF CENTERRA METRO DISTRICT WILL SERVE AS THE TEMPORARY SWMP ADMINISTRATOR.

JEFF BREIDENBACH: 2725 ROCKY MOUNTAIN AVE, SUITE 200, LOVELAND, CO 80538
(970) 776-4046

REVIEWED BY:

CITY OF LOVELAND - TRANSPORTATION DIVISION

BY: _____ DATE _____

CITY OF LOVELAND - WATER/WASTEWATER ENGINEERING DIVISION

BY: _____ DATE _____

LOVELAND FIRE RESCUE AUTHORITY

BY: _____ DATE _____

CITY OF LOVELAND - ELECTRICAL ENGINEERING DIVISION

BY: _____ DATE _____

CITY OF LOVELAND - CURRENT PLANNING DIVISION

BY: _____ DATE _____

CITY OF LOVELAND - STORM DRAINAGE ENGINEERING DIVISION

BY: _____ DATE _____

THE CITY OF LOVELAND REVIEW CONSTITUTES COMPLIANCE WITH THE CITY'S DEVELOPMENT STANDARDS, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE CITY DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE ENGINEER OF RECORD.

THIS REVIEW DOES NOT CONSTITUTE REVIEW/APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. THESE PLANS ARE INTENDED TO BE FOR CITY REVIEW OF PUBLIC IMPROVEMENTS ADJACENT TO THE PROPERTY. CONSTRUCTION OF ON-SITE PRIVATE IMPROVEMENTS SHALL NOT COMMENCE UNTIL ALL REQUIRED TRAFFIC WORKSHEET OR STUDY(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), AND BUILDING PERMIT(S) ARE COMPLETE, APPROVED AND ON FILE WITH THE CITY OF LOVELAND.



Know what's **below**.
Call before you dig.

JOB NO.: 120213.11	KINSTON OFFSITE DRAINAGE IMPROVEMENTS	DESIGN BY:	CALA			#	#	#	#
DATE: 10/13/2023		DRAWN BY:	CALA			#	#	#	#
SHEET: 1 OF 21		CHECKED BY:	GUBCUM			#	#	#	#
		APPROVED BY:	GL			#	#	#	#
	COVER					#	#	#	#
						#	#	#	#
						#	#	#	#
		REV	REVISION DESCRIPTION	DATE	DRWN	CHKD	APPR		

CITY OF LOVELAND GENERAL NOTES (CONTINUED)

21. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION AND AT AREAS WITH DISTURBED SOIL, ON- OR OFF-SITE, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE DEVELOPER, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING, TO MITIGATE EROSION, THE DEVELOPER SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3 - BEST MANAGEMENT PRACTICES, AS PUBLISHED BY THE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD).
22. THE DEVELOPER SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF THE WATER LINES AND DRY UTILITIES.
23. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS, UNLESS SPECIFICALLY APPROVED BY THE LOCAL ENTITY ENGINEER, AND NO SITE CONSTRUCTION ACTIVITIES ON SUNDAYS OR HOLIDAYS, UNLESS THERE IS PRIOR WRITTEN APPROVAL BY THE LOCAL ENTITY.
24. THE DESIGNER SHALL PROVIDE ON THE COVER SHEET THE LOCATION OF THE NEAREST SURVEY BENCHMARK FOR THIS PROJECT AS WELL AS THE BASIS OF BEARING. THE BENCHMARK SHALL BE ON THE CURRENT CITY APPROVED DATUM.
25. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
26. EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE DEVELOPER'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS.
27. OVERLOT GRADING CONSTRUCTION MUST COMPLY WITH THE STATE OF COLORADO PERMITTING PROCESS FOR "STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY." CONTACT THE COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT, WATER QUALITY CONTROL DIVISION, PHONE (303) 692-3500.
28. A STATE CONSTRUCTION DEWATERING WASTEWATER DISCHARGE PERMIT IS REQUIRED IF DEWATERING IS REQUIRED IN ORDER TO INSTALL UTILITIES OR BEFORE WATER IS DISCHARGED INTO A STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES.
29. THE DEVELOPER IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING ELEVATIONS OF ALL EXISTING SEWER MAINS, WATER MAINS, CURBS, GUTTERS AND OTHER UTILITIES AT THE POINTS OF CONNECTION SHOWN ON THE PLANS, AND AT ANY UTILITY CROSSINGS PRIOR TO INSTALLING ANY OF THE NEW IMPROVEMENTS. IF A CONFLICT EXISTS AND/OR A DESIGN MODIFICATION IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN. DESIGN MODIFICATION(S) MUST BE APPROVED BY THE LOCAL ENTITY PRIOR TO BEGINNING CONSTRUCTION.
30. AFTER ACCEPTANCE BY THE LOCAL ENTITY, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE.
31. THESE PUBLIC IMPROVEMENT CONSTRUCTION PLANS SHALL BE VALID FOR A PERIOD OF THREE YEARS FROM THE DATE OF APPROVAL BY THE LOCAL ENTITY ENGINEER. USE OF THESE PLANS AFTER THE EXPIRATION DATE WILL REQUIRE A NEW REVIEW AND APPROVAL PROCESS BY THE LOCAL ENTITY PRIOR TO COMMENCEMENT OF ANY WORK SHOWN IN THESE PLANS.
32. PAVING SHALL NOT START UNTIL A SOILS REPORT AND PAVEMENT DESIGN IS ACCEPTED BY THE LOCAL ENTITY ENGINEER AND SUBGRADE COMPACTION TESTS ARE TAKEN AND ACCEPTED BY THE LOCAL ENTITY ENGINEER.
33. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING SOILS TESTS WITHIN THE PUBLIC RIGHT-OF-WAY AFTER RIGHT OF WAY GRADING AND ALL UTILITY TRENCH WORK IS COMPLETE. IF THE FINAL SOILS/PAVEMENT DESIGN REPORT DOES NOT CORRESPOND WITH THE RESULTS OF THE ORIGINAL GEOTECHNICAL REPORT, THE DEVELOPER SHALL BE RESPONSIBLE FOR A RE-DESIGN OF THE SUBJECT PAVEMENT SECTION OR, THE DEVELOPER MAY USE THE LOCAL ENTITY'S DEFAULT PAVEMENT THICKNESS SECTION(S), REGARDLESS OF THE OPTION USED, ALL FINAL SOILS/PAVEMENT DESIGN REPORTS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER. THE FINAL REPORT SHALL BE SUBMITTED TO THE INSPECTOR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO PLACEMENT OF BASE AND ASPHALT. PLACEMENT OF BASE AND ASPHALT SHALL NOT OCCUR UNTIL THE ENGINEERING DIVISION APPROVES THE FINAL REPORT.
34. ALL ROAD CONSTRUCTION IN AREAS DESIGNATED AS WILD FIRE HAZARD AREAS SHALL BE DONE IN ACCORDANCE WITH THE CONSTRUCTION CRITERIA AS ESTABLISHED IN THE WILD FIRE HAZARD AREA MITIGATION REGULATIONS IN FORCE AT THE TIME OF FINAL PLAT APPROVAL.
35. PORTIONS OF LARIMER COUNTY ARE WITHIN OVERLAY DISTRICTS. THE LARIMER COUNTY FLOODPLAIN RESOLUTION SHOULD BE REFERRED TO FOR ADDITIONAL CRITERIA FOR ROADS WITHIN THESE DISTRICTS.
36. STANDARD HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT ALL "T" INTERSECTIONS.
37. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
38. THE LOCAL ENTITY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE STRUCTURES AND PIPES, FOR THE FOLLOWING PRIVATE STREETS: TRACTS A, B, C, D, E, F, G, H, I, J, K, L, M.
39. APPROVED VARIANCES ARE LISTED AS FOLLOWS: (PLAN SET MUST HAVE A LIST OF ALL APPLICABLE VARIANCES FOR THE PROJECT). IF THIS NOTE APPLIES, THEN THIS SPECIAL NOTE SHALL BE PLACED ON THE COVER SHEET OF THE CIVIL CONSTRUCTION PLANS.

STANDARD EROSION AND SEDIMENT CONTROL CONSTRUCTION PLAN NOTES

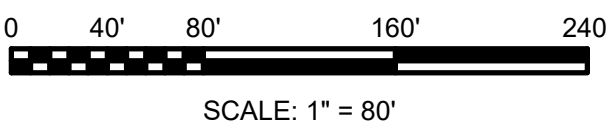
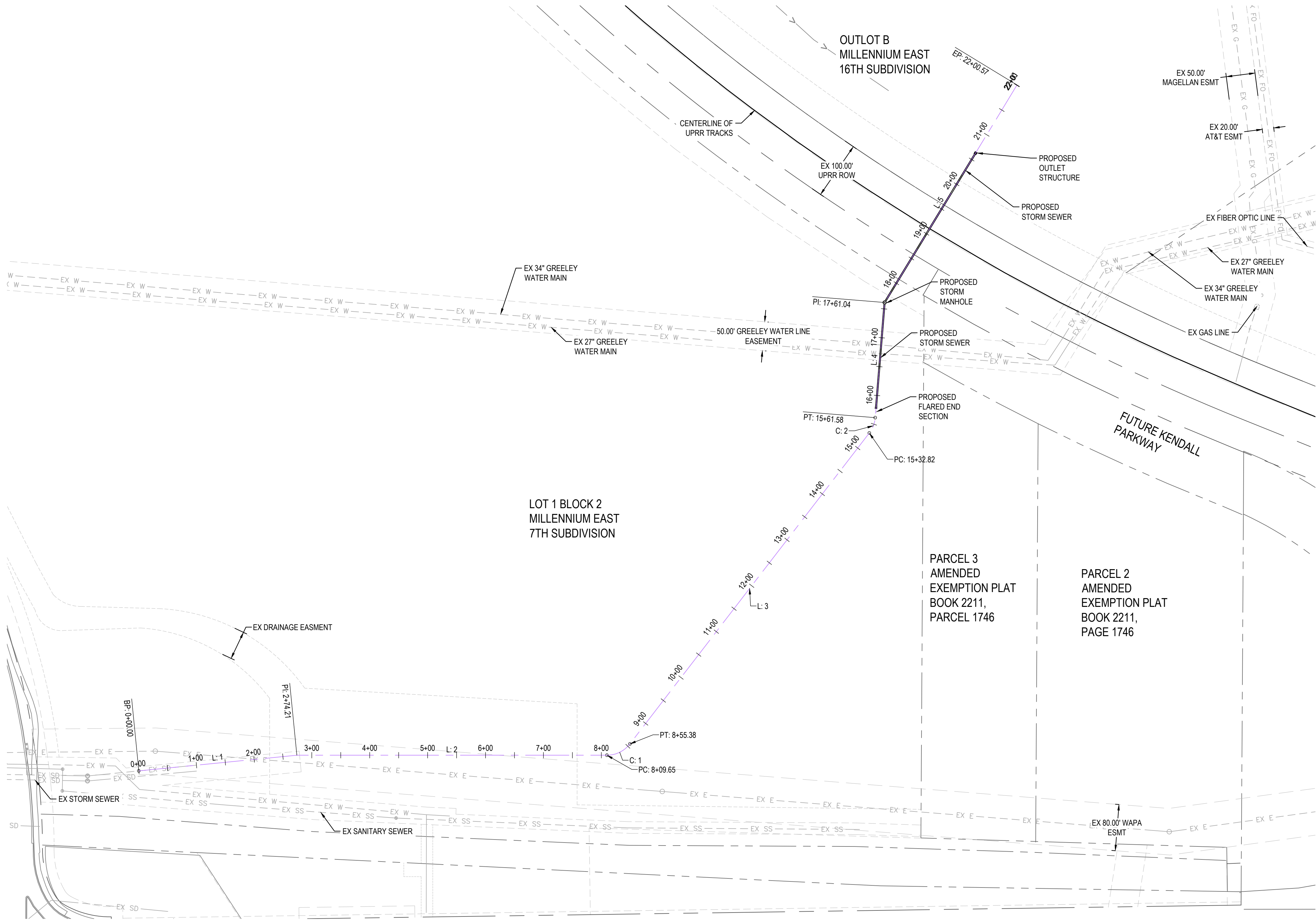
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|-------------------------------------|--------------|---------|----------------------|------|------|------|------|---|---|
| ON OFFSITE DRAINAGE
IMPROVEMENTS | DESIGN BY: | | # | # | # | # | # | # | # |
| | DRAWN BY: | CALA | # | # | # | # | # | # | # |
| | CHECKED BY: | CALA | # | # | # | # | # | # | # |
| | | GLBC/JM | # | # | # | # | # | # | # |
| | APPROVED BY: | GL | # | # | # | # | # | # | # |
| GENERAL NOTES | | | # | # | # | # | # | # | # |
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| | | | # | # | # | # | # | # | # |
| | | REV | REVISION DESCRIPTION | DATE | DRWN | CHKD | APPR | | |

File Location\\lmerick.com\\cas\\DEN\\Projects\\0213-00_CMD Kinston\\Projects\\xxxx-xx Kinston Master Drainage Update\\Design\\CDs\\Civil\\Horizontal Control Plan.dwg Plot Date: 10/17/2023 12:59 PM Last Saved By: CESAR LOYA

THIS AND ANY OTHER ELECTRONIC MEDIA CONTAINED HEREIN IS AN INSTRUMENT OF SERVICE PREPARED BY MERRICK AND COMPANY FOR A DEFINED PROJECT. IT IS NOT INTENDED OR REPRESENTED TO BE SUPPLIED FOR REUSE IN WHOLE OR IN PART ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE OF THIS INSTRUMENT OF SERVICE WITHOUT THE WRITTEN CONSENT OF MERRICK AND COMPANY SHALL BE AT THE USER'S SOLE RISK FOR THE UNAUTHORIZED USER WITHOUT LIABILITY TO MERRICK AND COMPANY.

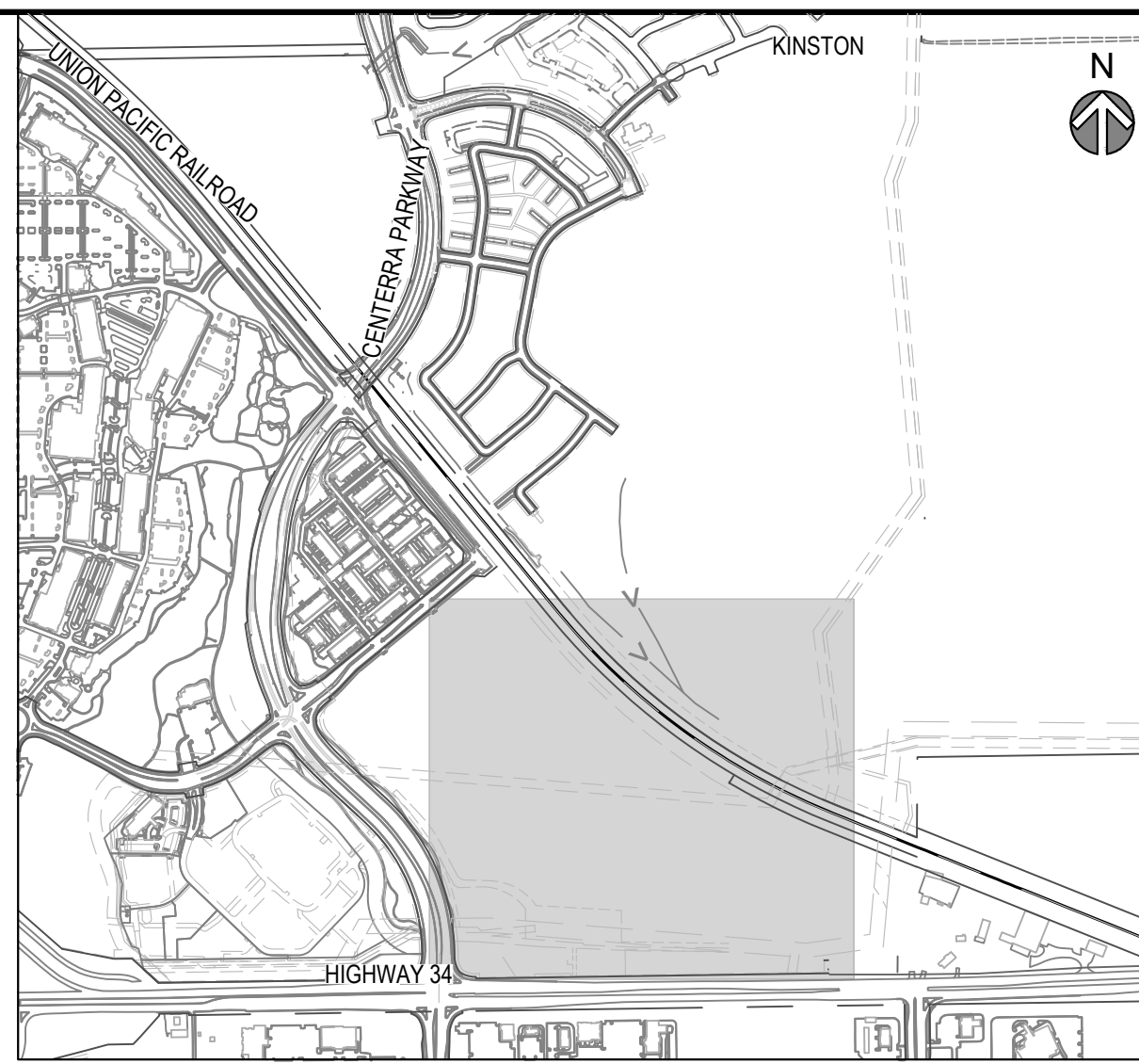
Line Table: Alignments					
Line #	Length	Direction	Start Point	End Point	
L: 5	439.532	N31° 20' 44.71"E	(3146297.7782,1393152.3601)	(3146526.4232,1393527.7396)	
L: 4	199.463	N04° 39' 25.83"E	(3146281.5831,1392953.5554)	(3146297.7782,1393152.3601)	
L: 3	677.448	N37° 36' 31.03"E	(3145857.9359,1392390.4292)	(3146271.3580,1392927.1018)	
L: 2	535.441	N90° 00' 00.00"E	(3145282.8854,1392370.9424)	(3145818.3260,1392370.9424)	
L: 1	274.214	N84° 20' 28.20"E	(3145010.0073,1392343.9036)	(3145282.8854,1392370.9424)	

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C: 2	50.000	28.756	N21° 07' 58.43"E	(3146271.3580,1392927.1018)	(3146281.5831,1392953.5554)
C: 1	50.000	45.720	N63° 48' 15.51"E	(3145818.3260,1392370.9424)	(3145857.9359,1392390.4292)



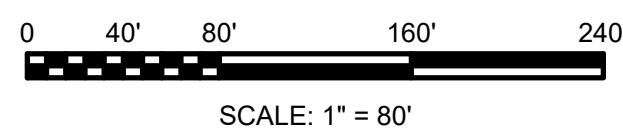
Know what's below.
Call before you dig.

PRELIMINARY
NOT FOR CONSTRUCTION

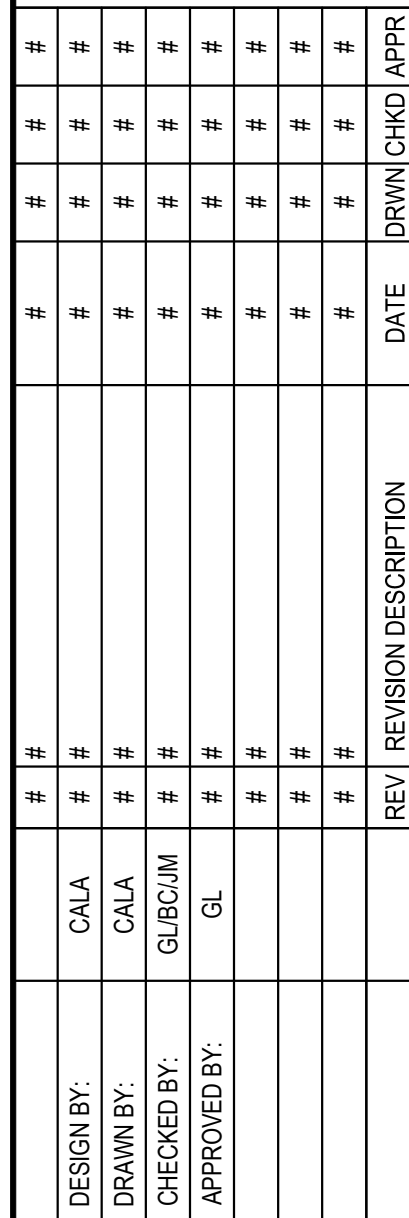


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KINSTON OFFSITE DRAINAGE IMPROVEMENTS

OVERALL UTILITY PLAN

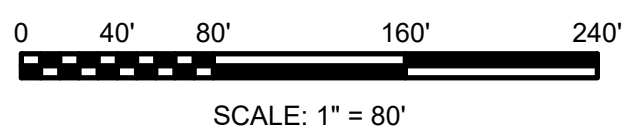
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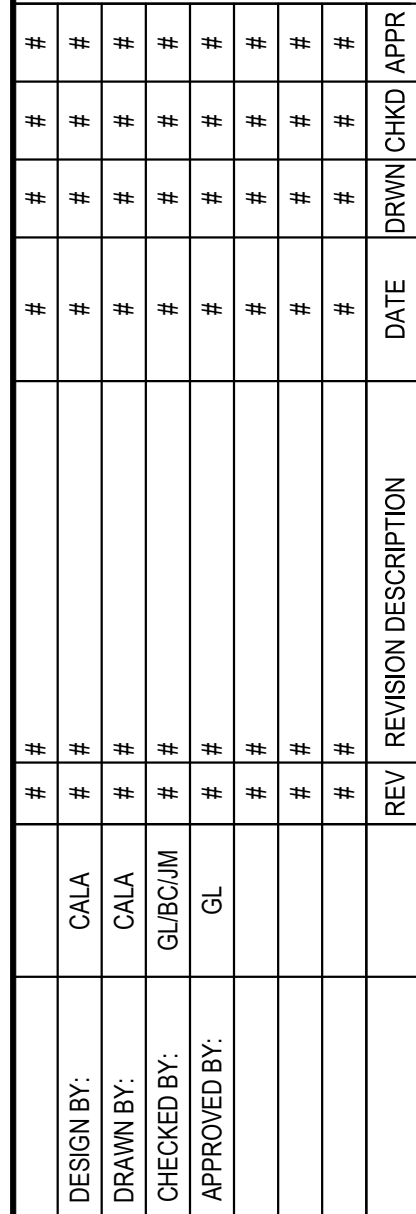
SHEET: 6 OF 21

Know what's **below**.
Call before you dig.

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PRELIMINARY
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KINSTON OFFSITE DRAINAGE IMPROVEMENTS

POND 6 GRADING

JOB NO.: 120213.11

DATE: 10/13/2023

SHEET: 6 OF 21

FOR AND ON BEHALF OF MERRICK & COMPANY

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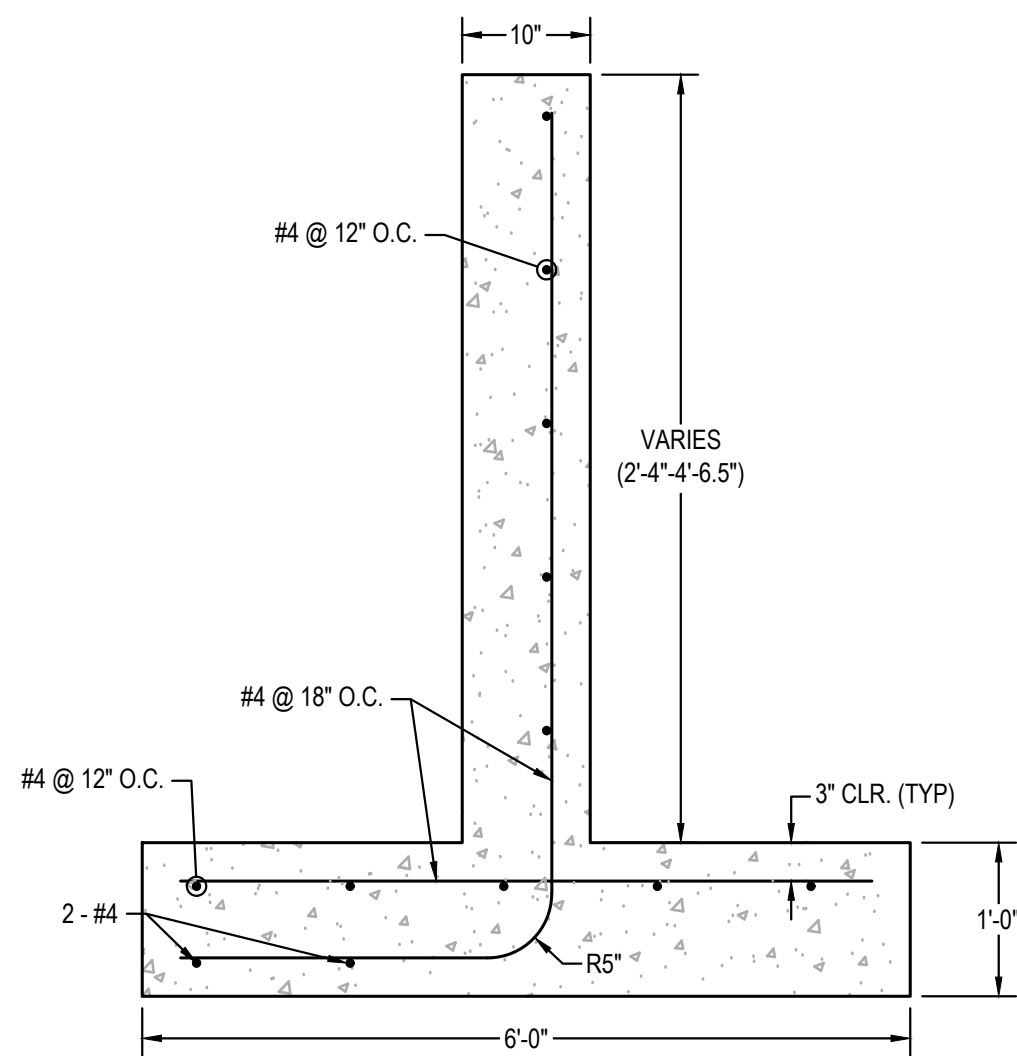
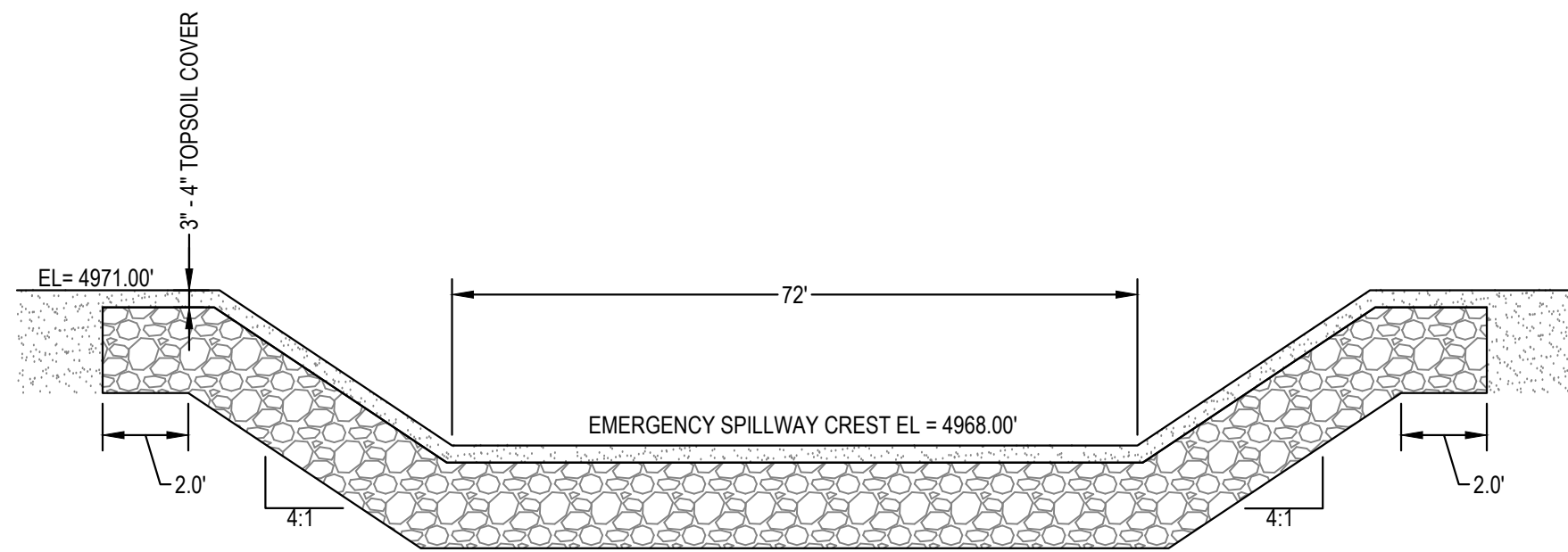
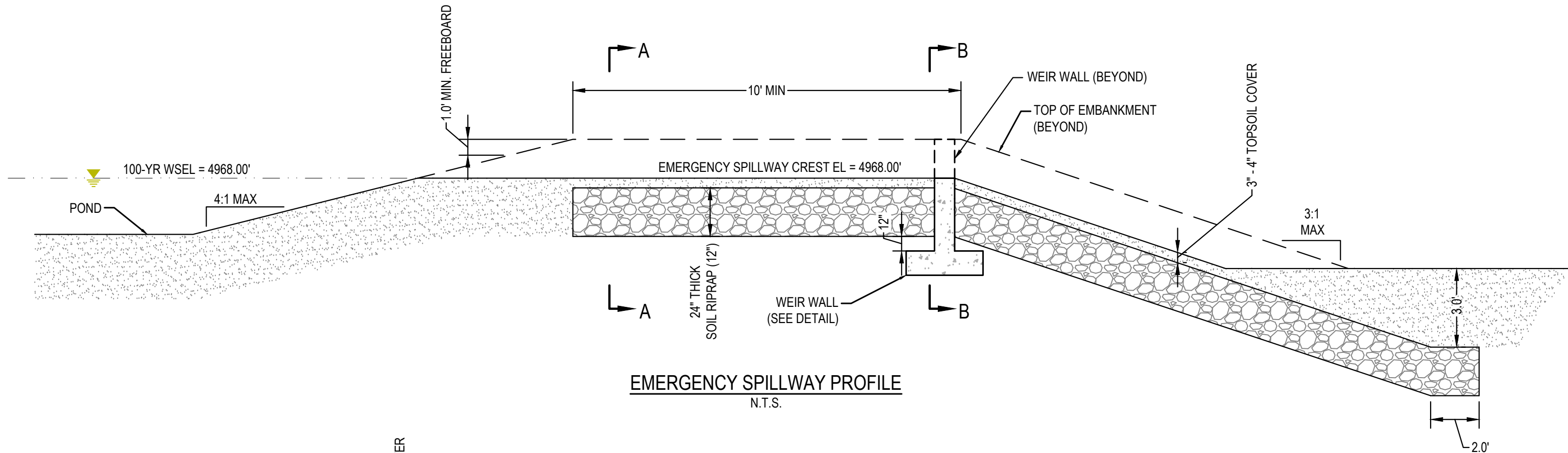


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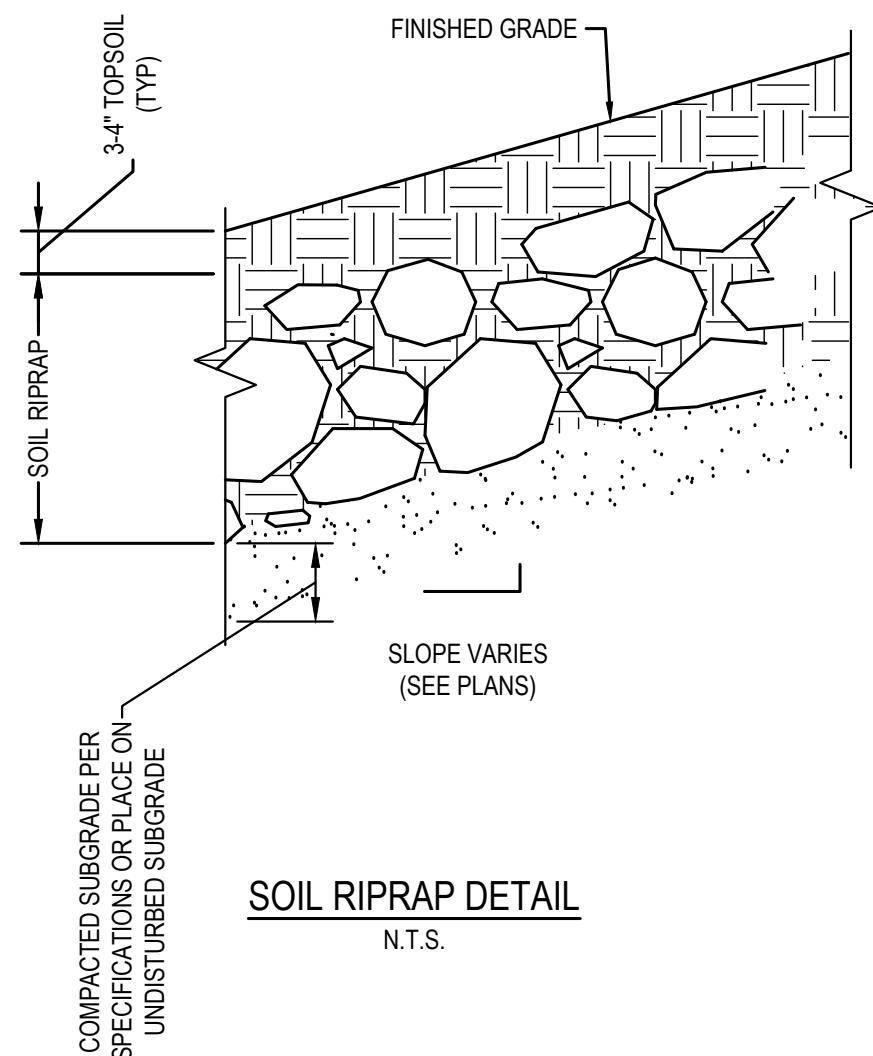
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File Location: \\merrick.com\cas\DEN\Projects\0213-00_CMD Kinston\Projects\xxxx-xxx Kinston Master Drainage Update\Design\CDs\Civil\Storm and EC Details.dwg Plot Date: 10/17/2023 1:01 PM Last Saved By: CONNER BURBA

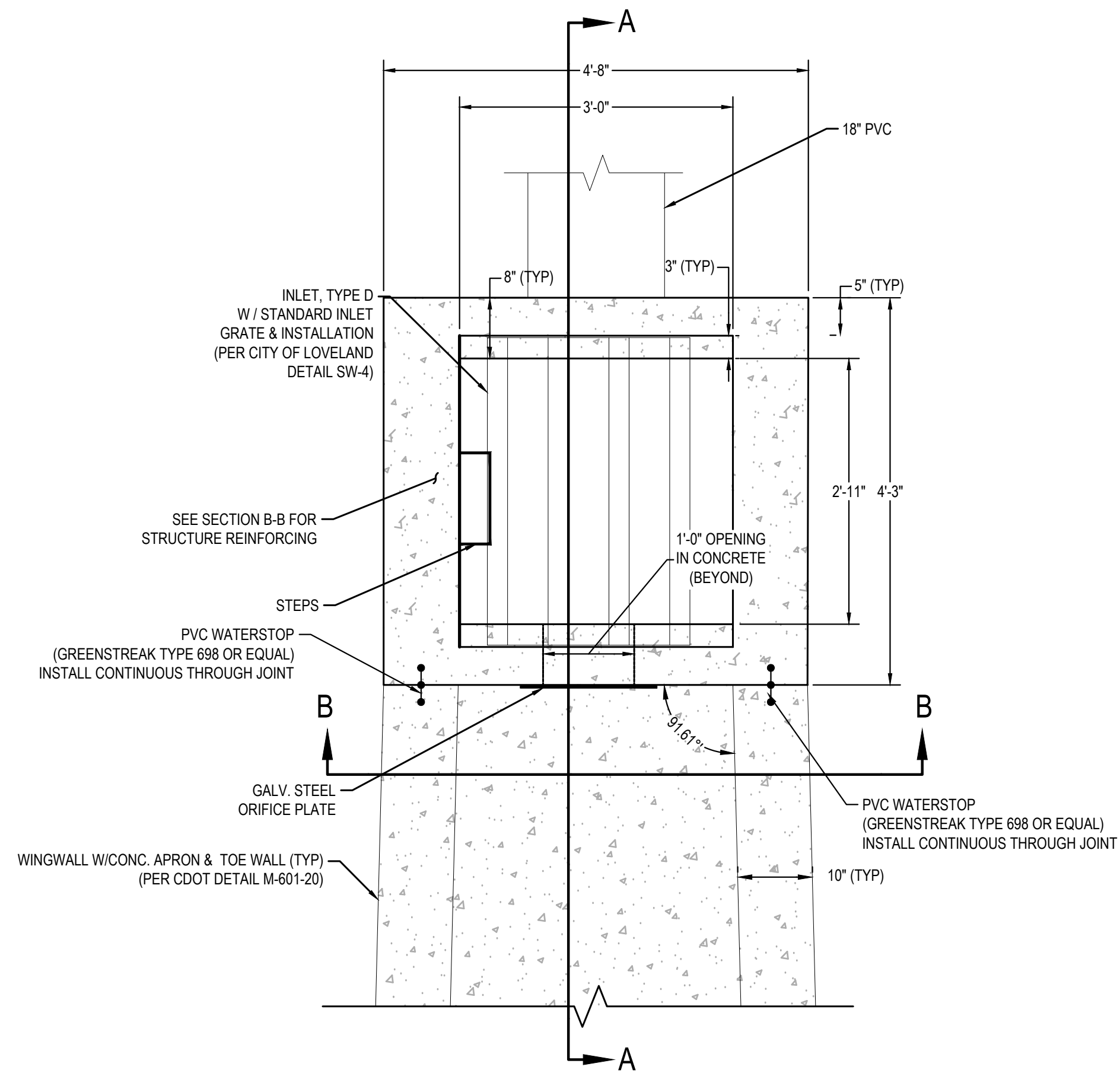


NOTE: WEIR WALL SHALL BE PAID FOR AS "CONCRETE CLASS B (WALL)"

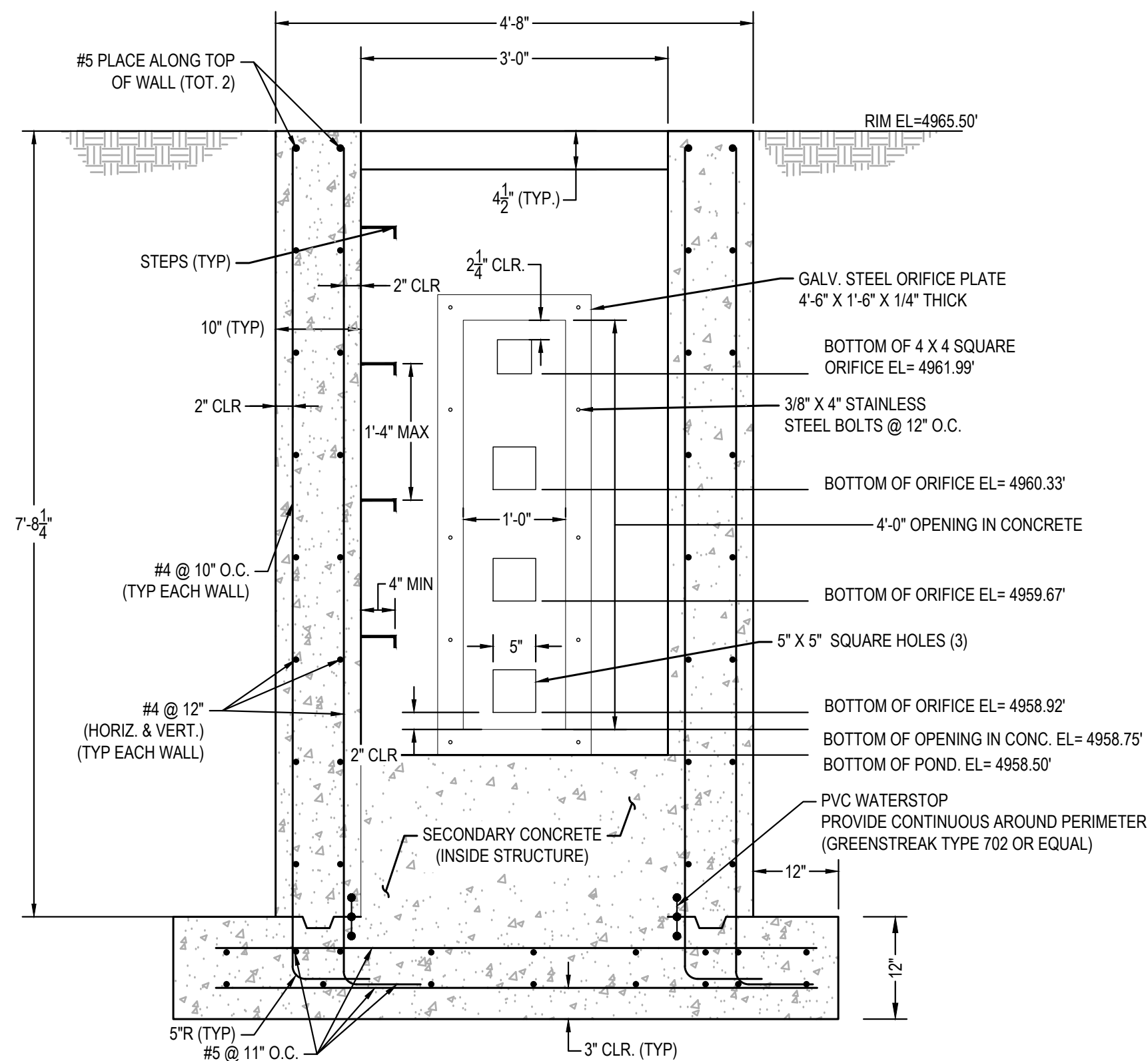
WEIR WALL
N.T.S.



SOIL RIPRAP DETAIL
N.T.S.



POND OUTLET STRUCTURE - PLAN VIEW
N.T.S.



POND OUTLET STRUCTURE - SECTION B-B
N.T.S.

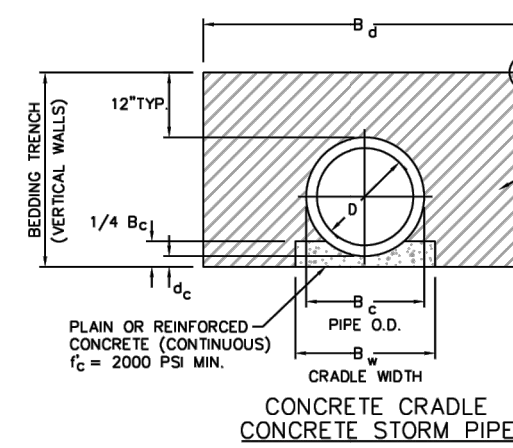
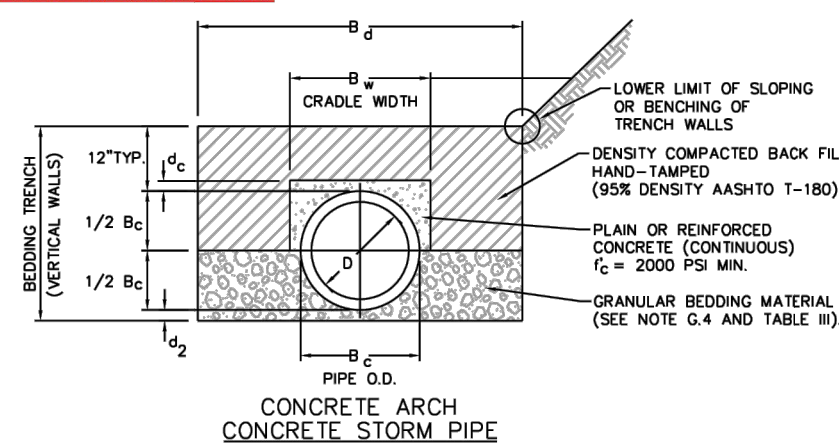
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CHECKED BY:	GL						
APPROVED BY:							

**KINSTON OFFSITE DRAINAGE
IMPROVEMENTS**

POND 3 DETAILS

ISSUED FOR REVIEW
FOR AND ON BEHALF OF MERRICK & COMPANY

CLASS "A" BEDDING REQUIREMENTS



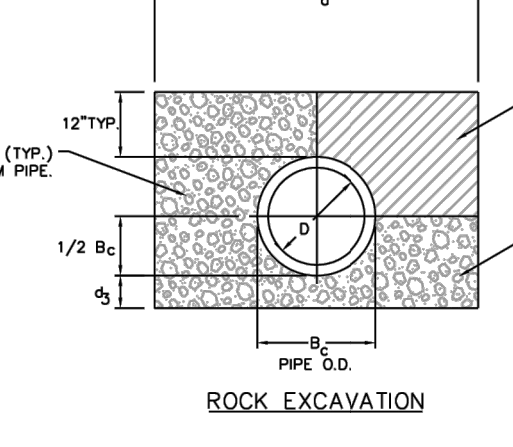
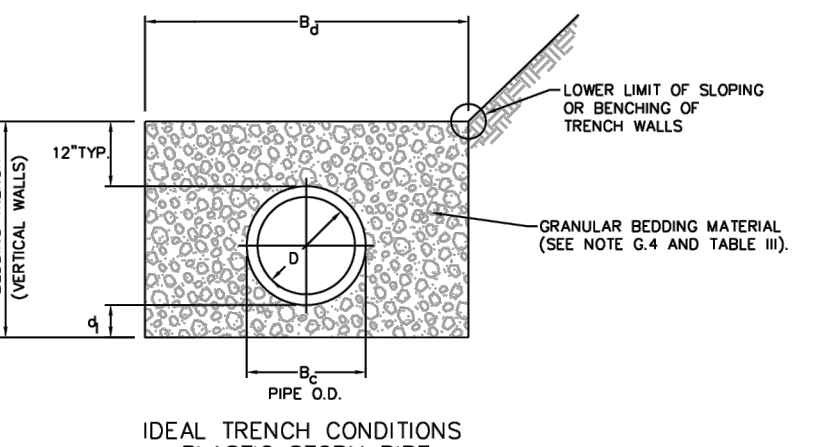
NOMINAL DIAMETER (D)	MINIMUM THICKNESS (d1) OF CRADLE (B1)	MIN. WIDTH OF CRADLE (B2)
18" TO 24"	4"	B2 = 8"
24" TO 30"	6"	B2 = 8"
30" TO 36"	8"	B2 = 8"
36" TO 42"	10"	1.25 B2
42" & LARGER	1 1/4"	1.25 B2

G1 = DEPTH OF BEDDING BELOW BOTTOM OF PIPE FOR CONCRETE CRADLE AND/OR DEPTH OF BEDDING ABOVE TOP OF PIPE FOR CONCRETE ARCH.

CLASS A NOTES:

1.1 THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR STRUCTURAL DESIGN OF THE CONCRETE CRADLE AND/OR CONCRETE ARCH.

CLASS "B" BEDDING REQUIREMENTS - GRANULAR BEDDING



PIPE SIZE - D"	d1	d2	d3
18" TO 30"	6"	3"	6"
30" TO 60"	8"	4"	8"
60" & LARGER	8"	8"	8"

B1 = PIPE O.D.

B2 = MINIMUM TRENCH WIDTH = PIPE O.D. + 16"

B3 = MAXIMUM TRENCH WIDTH = PIPE O.D. + 30"

D = PIPE I.D. (OR SPAN DIMENSION FOR ARCH OR ELLIPTICAL PIPES)

G1, G2, G3 = DEPTH OF BEDDING MATERIAL BELOW BOTTOM OF PIPE.

TABLE III	
* CLASS 67 GRADATION	
* ASTM C-33 OR ASTM D-448	
SIZE	% BY WEIGHT
3/4"	90 - 100
3/8"	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5

CLASS B NOTES:

2.1 BELL HOLES SHALL BE EXCAVATED AT ALL BELL AND SPOT JOINTS.

2.2 SUB DRAIN PIPE TO BE AN ACCEPTED PERFORATED PIPE CONFORMING TO APPLICABLE REQUIREMENTS OF THE SPECIFICATIONS.

2.3 BEDDING TRENCH BACK FILL TO BE COMPACTED TO 95% DENSITY, ASHTO 1-180.

GENERAL NOTES:
G.1 THESE DETAILS ARE TYPICAL FOR NORMAL CONDITIONS. FOR INSTALLATIONS OTHER THAN THESE (SUCH AS ENHANCEMENT, UNUSUAL OR UNSTABLE SOIL CONDITIONS OR TUNNEL INSTALLATIONS, ETC.) EXCAVATION, BEDDING AND BACK FILL REQUIREMENTS SHALL BE DETAILED ON THE CONSTRUCTION DRAWINGS.
G.2 ULTIMATE BACK FILL TYPES AND STRUCTURAL DESIGN OF PIPE OR CONDUIT SHALL BE BASED UPON B2 TO TRANSITION WIDTH AS SET FORTH IN THE AMERICAN CONCRETE PIPE ASSOCIATION DESIGN MANUAL.
G.3 FOR INSTALLATION OTHER THAN TYPICAL CONDITIONS, EXCAVATION, BEDDING AND STRUCTURAL REQUIREMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE REFERENCES NOTED (DESIGN AND CONSTRUCTION OF SANITARY AND STORM SEWERS MFCF MANUAL OF PRACTICE NO. 9, ASCE MANUAL ON ENGINEERING PRACTICE NO. 37, LATEST EDITION) AND AS ACCEPTED BY THE CITY.
G.4 GRANULAR BEDDING SHALL BE HAND TAMPED IN 6" LIFTS AND SHALL CONFORM TO ASTM C-22 OR ASTM D-448 GRADATION SIZE #67 (PER TECHNICAL SPECIFICATIONS, SECTION 02221 AND TABLE II ABOVE).

CITY OF LOVELAND
PUBLIC WORKS DEPT.
STORMWATER

TRENCHING & BEDDING (CLASS "A" & "B")
STORMWATER
CONSTRUCTION
DRAWINGS

APPROVED: KWG
DATE: 8/17/07
DRAWN BY: TBK

DRAWING
SW-1

CITY OF LOVELAND
PUBLIC WORKS DEPT.
STORMWATER

MANHOLES
STORMWATER
CONSTRUCTION
DRAWINGS

APPROVED: KWG
DATE: 8/17/07
DRAWN BY: TBK

DRAWING
SW-6

TABLE I
PIPE DIAMETER
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

TABLE II
MIN. BARREL DIAMETER (MIN)
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

TABLE III
PIPE DIAMETER
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

TABLE IV
PIPE DIAMETER
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

CITY OF LOVELAND
PUBLIC WORKS DEPT.
STORMWATER

MANHOLES
STORMWATER
CONSTRUCTION
DRAWINGS

APPROVED: KWG
DATE: 8/17/07
DRAWN BY: DLE

DRAWING
SW-7

TABLE I
PIPE DIAMETER
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

TABLE II
MIN. BARREL DIAMETER (MIN)
24" OR LESS
4"
6"
8"
10"
12"
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16"
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20"
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TABLE III
PIPE DIAMETER
24" OR LESS
4"
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TABLE IV
PIPE DIAMETER
24" OR LESS
4"
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CITY OF LOVELAND
PUBLIC WORKS DEPT.
STORMWATER

MANHOLES
STORMWATER
CONSTRUCTION
DRAWINGS

APPROVED: KWG
DATE: 10/22/20
DRAWN BY: DLE/SL

DRAWING
SW-9

TABLE I
PIPE DIAMETER
24" OR LESS
4"
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8"
10"
12"
14"
16"
18"
20"
22"
24"

TABLE II
MIN. BARREL DIAMETER (MIN)
24" OR LESS
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6"
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TABLE III
PIPE DIAMETER
24" OR LESS
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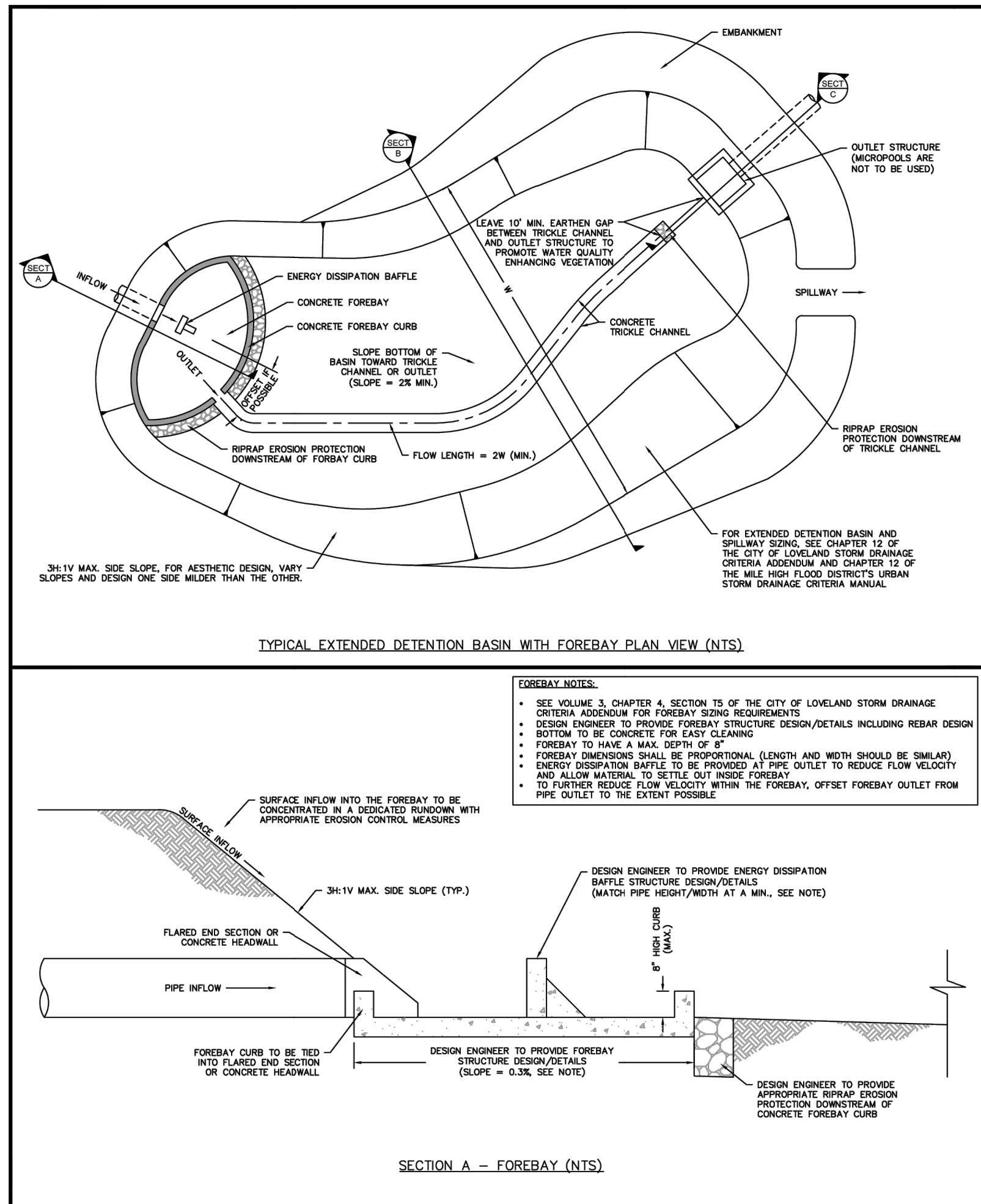
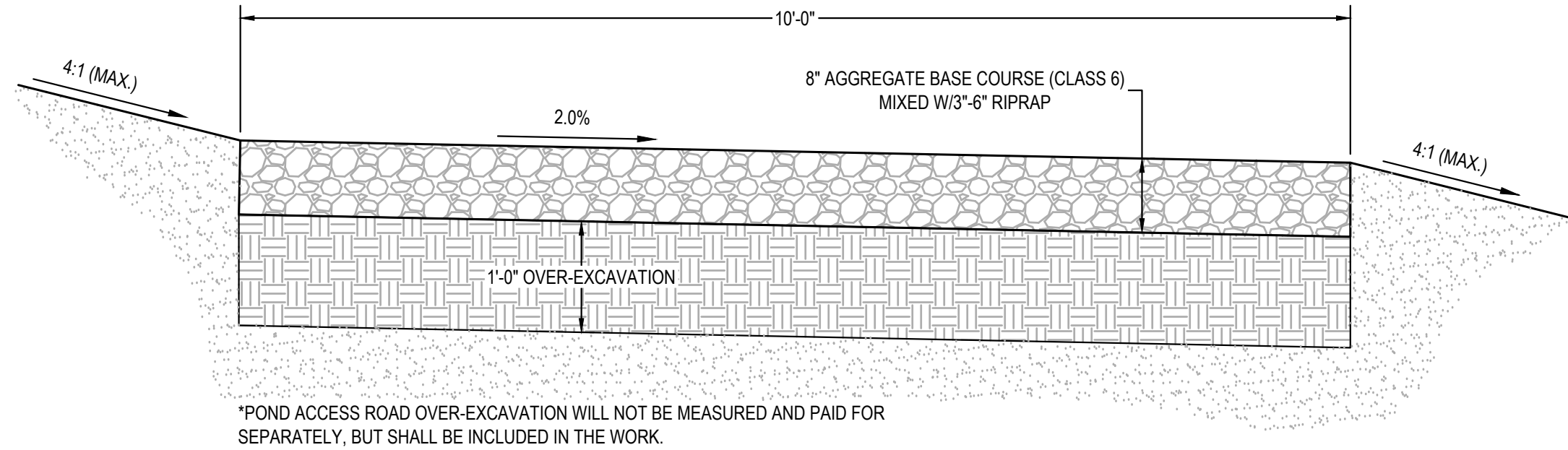
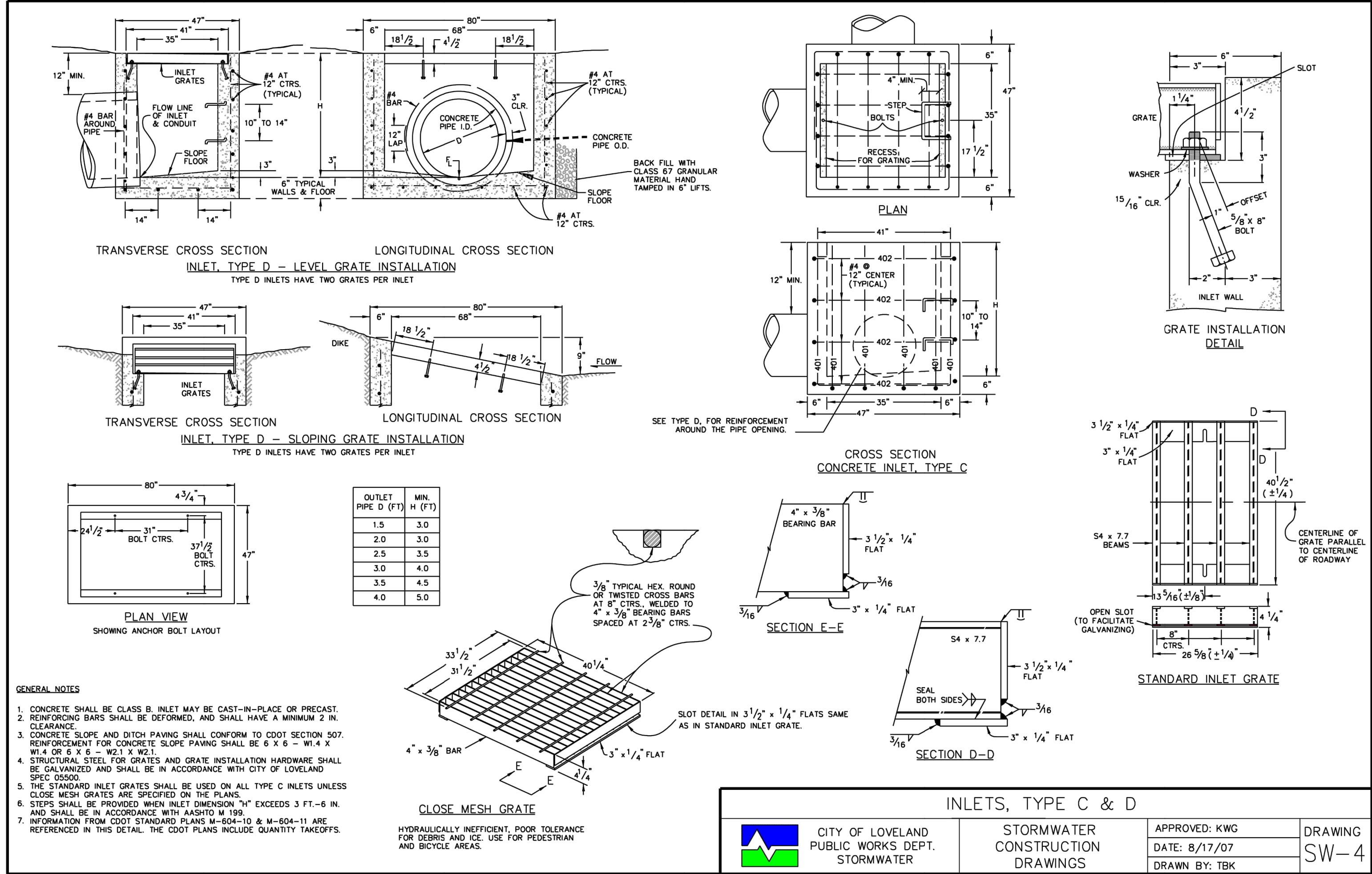
TABLE IV
PIPE DIAMETER
24" OR LESS
4"
6"
8"
10"
12"
14"
16"
18"
20"
22"
24"

DESIGN BY:	CALA	CALA	GLEBUM	GL
DRAWN BY:	CALA	CALA	GLEBUM	GL
CHECKED BY:	CALA	CALA	GLEBUM	GL
APPROVED BY:	CALA	CALA	GLEBUM	GL
DATE:	10/17/2023	10/17/2023	10/17/2023	10/17/2023
REVISION DESCRIPTION				
REV				

KINSTON OFFSITE DRAINAGE IMPROVEMENTS

STORMWATER DETAILS





DESIGN BY:	CALA	DATE:	DRWN:	CHKD:	APPR:
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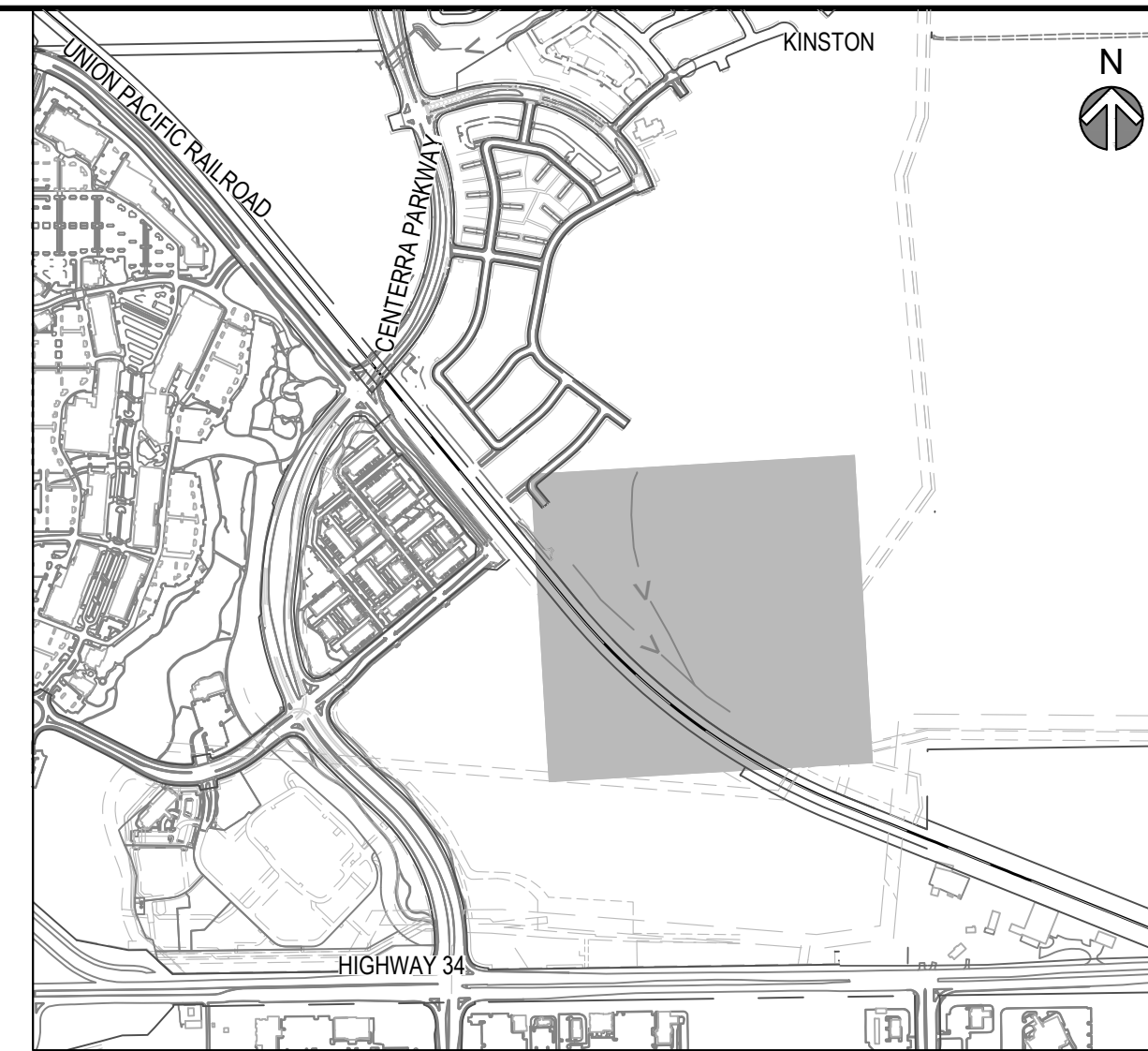
KINSTON OFFSITE DRAINAGE
IMPROVEMENTS

STORMWATER DETAILS

JOB NO.: 120213.11

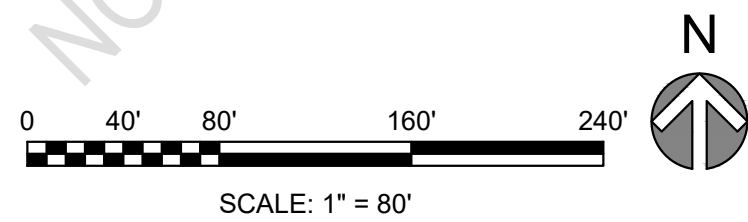
DATE: 10/13/2023

SHEET: 14 OF 21



	(SF)	SILT FENCE
	(SSA)	STABILIZED STAGING AREA
	(VTC)	VEHICLE TRACKING CONTROL
	(CWA)	CONCRETE WASHOUT AREA
	(ECB)	SLOPE PROTECTION CONTRACTOR TO TERRACE SLOPES USING A "TRACKED" VEHICLE RUN PERPENDICULAR TO SLOPE TO INHIBIT RILL/GULLY EROSION CONTRACTOR MAY USE OTHER WINDROW-TYPE METHOD AS APPROVED BY ENGINEER.
	(LOC)	LIMITS OF CONSTRUCTION
	(MU)	MULCHING
	(PS)	PERMANENT SEEDING

1. THE INITIAL BMP'S CONSIST OF SILT FENCE, AND VEHICLE TRACKING CONTROL.
2. THE INTERIM BMP'S CONSIST OF STABILIZED STAGING AREA, EROSION CONTROL BLANKET, AND CONCRETE WASHOUT AREAS.
3. THE FINAL BMP'S CONSIST OF SEEDING AND MULCHING.

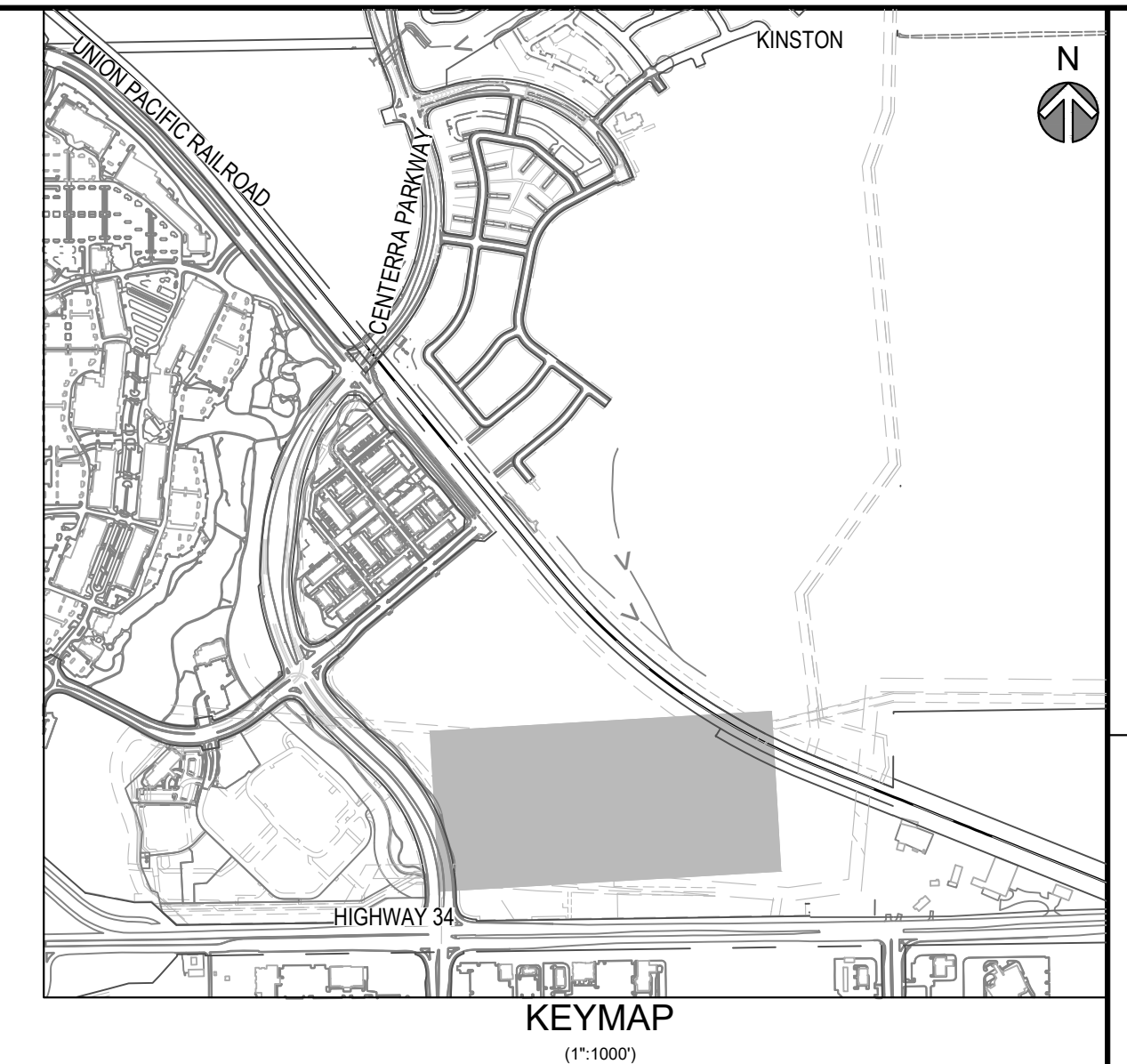
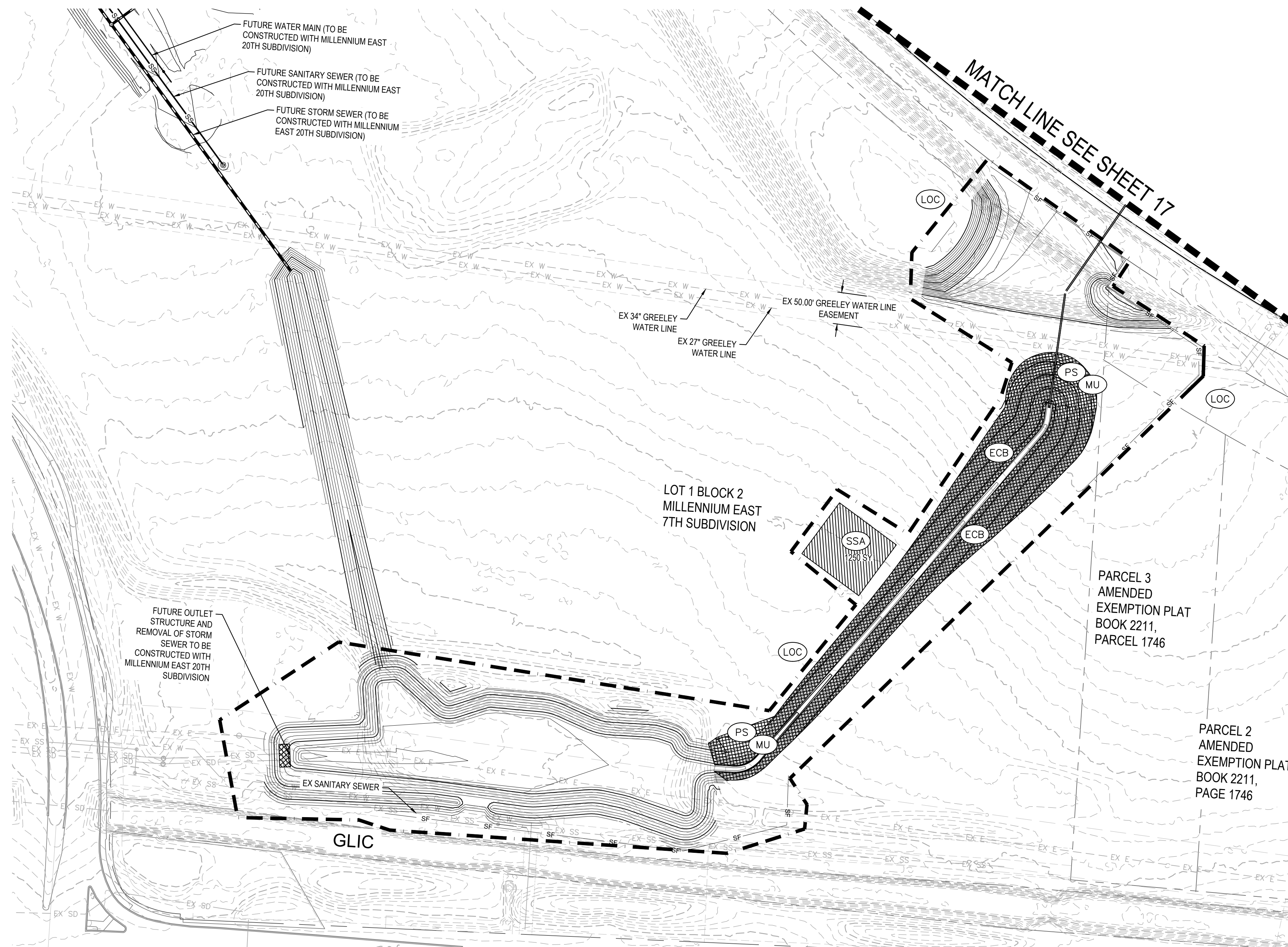


Know what's **below**.
Call before you dig.

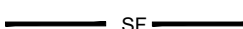
JOB NO.: 120213.11	KINSTON OFFSITE DRAINAGE IMPROVEMENTS										DESIGN BY:	CALA	#	#	#	#	#	#
DATE: 10/13/2023											DRAWN BY:	CALA	#	#	#	#	#	#
SHEET: 15 OF 21											CHECKED BY:	GLBC/JM	#	#	#	#	#	#
	APPROVED BY:	GL	#	#	#	#	#	#	#									
EROSION CONTROL PLAN - PHASE 1																		
											REV	REVISION DESCRIPTION	DATE	DRWN	CHKD	APPR		



File Location: \\merrick.com\CES\IDN\Projects\0213-00 CMD Kinston\Projects\XXXX-xx Kinston Master Drainage Update\Design\CDs\Civil\EC Plans 2.dwg Plot Date: 10/17/2023 1:02 PM Last Saved By: TSCARLETT

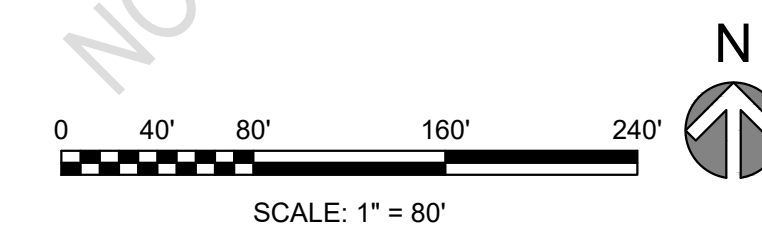


TEMPORARY BMP LEGEND:

- | | | |
|---|-------|--|
|  | (SF) | SILT FENCE |
|  | (SSA) | STABILIZED STAGING AREA |
|  | (VTC) | VEHICLE TRACKING CONTROL |
|  | (CWA) | CONCRETE WASHOUT AREA |
|  | (ECB) | SLOPE PROTECTION
CONTRACTOR TO TERRACE SLOPES USING A "TRACKED" VEHICLE,
RUN PERPENDICULAR TO SLOPE TO INHIBIT RILL/GULLY EROSION,
CONTRACTOR MAY USE OTHER WINDROW-TYPE METHOD AS
APPROVED BY ENGINEER. |
|  | (LOC) | LIMITS OF CONSTRUCTION |
| | (MU) | MULCHING |
| | (PS) | PERMANENT SEEDING |

NOTE:

1. THE INITIAL BMP'S CONSIST OF SILT FENCE, AND VEHICLE TRACKING CONTROL.
2. THE INTERIM BMP'S CONSIST OF STABILIZED STAGING AREA, EROSION CONTROL BLANKET, AND CONCRETE WASHOUT AREAS.
3. THE FINAL BMP'S CONSIST OF SEEDING AND MULCHING.



Know what's **below**.
Call before you dig.

JOB NO.: 120213.11	KINSTON OFFSITE DRAINAGE IMPROVEMENTS	DESIGN BY:		#	#	#	#	#	#
		DRAWN BY:	CALA	#	#	#	#	#	#
DATE: 10/13/2023	EROSION CONTROL PLAN - PHASE 2	CHECKED BY:	GLBCJUM	#	#	#	#	#	#
		APPROVED BY:	GL	#	#	#	#	#	#
SHEET: 18 OF 21	EROSION CONTROL PLAN - PHASE 2			#	#	#	#	#	#
				#	#	#	#	#	#
		REV	REVISION DESCRIPTION	DATE	DRWN	CHKD	APPR		

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