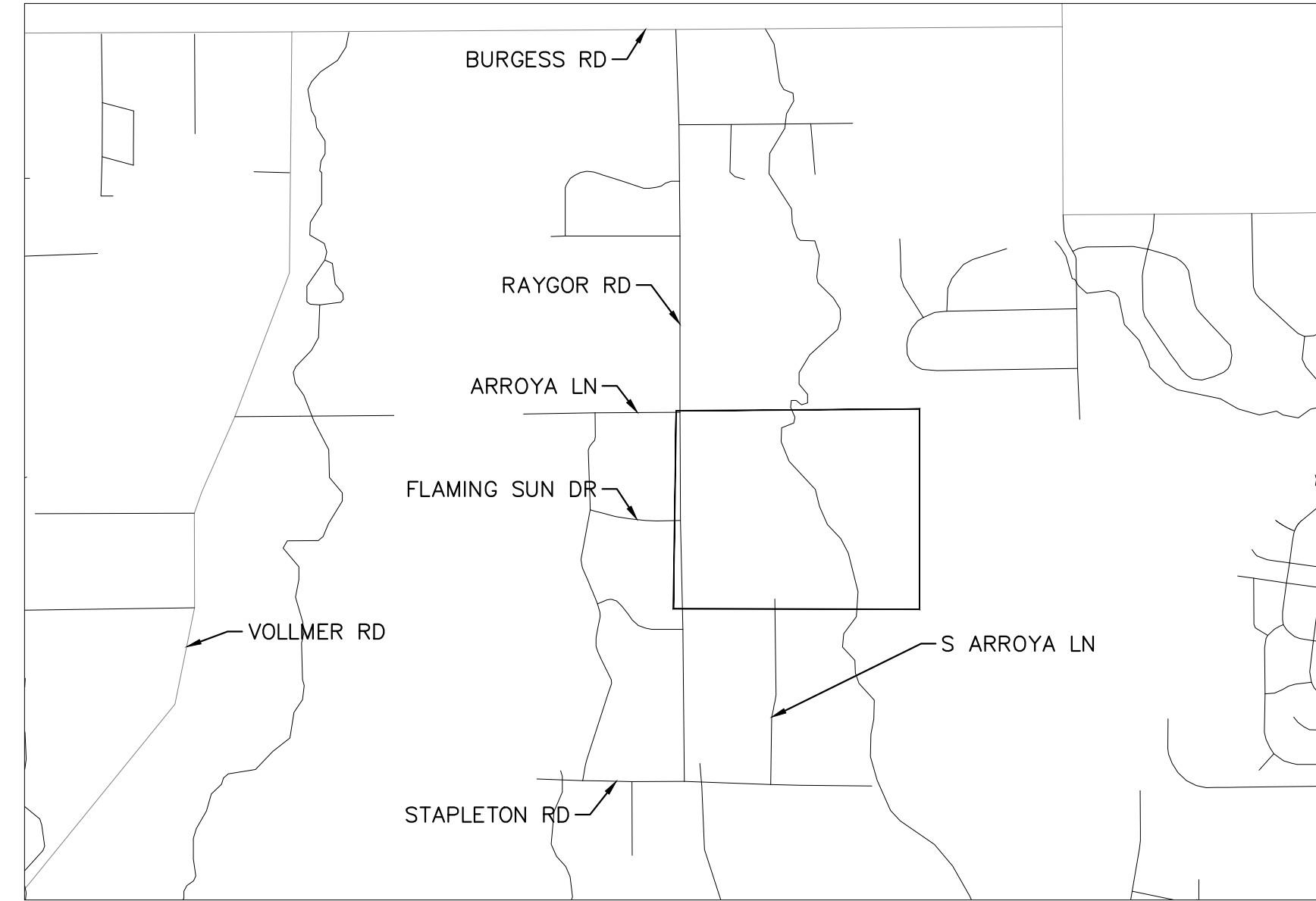


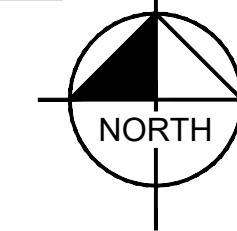
EAGLEVIEW REGIONAL DRAINAGE IMPROVEMENTS CONSTRUCTION DOCUMENTS

A PORTION OF THE NORTHWEST ONE-QUARTER (N.W.1/4) OF SECTION 26
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.
COUNTY OF EL PASO, STATE OF COLORADO

SHEET INDEX	
SHEET NO.	SHEET TITLE
C2.0	COVER SHEET
C2.1	NOTES, ABBREVIATIONS, & LEGEND
C2.2	TYPICAL SECTIONS
C2.3	OVERALL DRAINAGE IMPROVEMENTS
C2.4	HORIZONTAL CONTROL
C2.5	CHANNEL KEY MAP
C2.6	SOUTH CHANNEL PLAN AND PROFILE
C2.7	SOUTH CHANNEL PLAN AND PROFILE
C2.8	SOUTH CHANNEL PLAN AND PROFILE
C2.9	SOUTH CHANNEL PLAN AND PROFILE
C2.10	NORTH CHANNEL PLAN AND PROFILE
C2.11	NORTH CHANNEL PLAN AND PROFILE
C2.12	NORTH CHANNEL PLAN AND PROFILE
C2.13	DROP STRUCTURE KEY MAP
C2.14	DROP STRUCTURE DETAILS
C2.15	DROP STRUCTURE DETAILS
C2.16	DROP STRUCTURE DETAILS
C2.17	DROP STRUCTURE DETAILS
C2.18	DROP STRUCTURE DETAILS
C2.19	DROP STRUCTURE DETAILS
C2.20	GENERAL DETAILS
C2.21	GENERAL DETAILS
C2.22	SOUTH CHANNEL SECTIONS
C2.23	SOUTH CHANNEL SECTIONS
C2.24	SOUTH CHANNEL SECTIONS
C2.25	SOUTH CHANNEL SECTIONS
C2.26	NORTH CHANNEL SECTIONS
C2.27	NORTH CHANNEL SECTIONS
C2.28	NORTH CHANNEL SECTIONS
C2.29	NORTH CHANNEL SECTIONS
C2.30	END TREATMENT DETAIL
C2.31	SUB-REGIONAL POND GRADING
C2.32	SUB-REGIONAL POND DETAILS
C2.33	ROCK CHUTE DETAILS



VICINITY MAP
1" = 2000'



FLOODPLAIN NOTE

ACCORDING TO NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NUMBER 08041C0535G (MAP REVISED DECEMBER 7, 2018), THE SUBJECT PROPERTY IS LOCATED IN OTHER AREAS, ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

BENCHMARK

CONTROL POINTS AS SHOWN HEREON. ELEVATIONS ARE BASED ON CITY OF COLORADO SPRINGS FIMS MONUMENT F_65. PANEL POINTS 50 FOUND AT THE NW CORNER OF RAYGOR ROAD AND ARROYA LANE (EL=7281.39), AND 51 FOUND AT THE NW CORNER OF RAYGOR ROAD AND FLAMING SUN DRIVE (EL=7251.58). (DATUM: NGVD 29).

BASIS OF BEARINGS

ALL BEARINGS USED HEREIN ARE BASED ON AN ASSUMED BEARING S00°02'11"E (S00°02'11"E PER THE RECORDED DEED), A DISTANCE OF 2587.22 FEET (2587.32 FEET OF RECORD) BETWEEN A 2-1/2" ALUMINUM CAP STAMPED "PLS 4842" AT THE NORTHEAST CORNER OF THE NORTHWEST ONE-QUARTER CORNER OF SECTION 26 AND A 2" ALUMINUM CAP STAMPED "PLS 25968" AT THE CENTER ONE-QUARTER OF SAID SECTION 26.

LEGAL DESCRIPTION

A PORTION OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID NORTHWEST QUARTER OF SECTION 26, AS ACCEPTED AND USED IN THE PLATS OF MFY FARM SUBDIVISION AND PAINT BRUSH HILLS FILING NO. 3, RECORDED IN PLAT BOOK T-3 AT PAGE 93 AND IN PLAT BOOK U-3 AT PAGE 79, RESPECTIVELY, OF THE RECORDS OF SAID EL PASO COUNTY; THENCE S00°02'11"E, ALONG THE EAST LINE OF SAID NORTHWEST QUARTER OF SECTION 26, A DISTANCE OF 2587.22 FEET TO THE CENTER QUARTER CORNER OF SAID SECTION 26 (BASIS OF BEARINGS - ASSUMED); THENCE N89°28'49"W, A DISTANCE OF 978.75 FEET TO THE NORTHEAST CORNER OF LOT 30 OF STAPLETON ESTATES FILING NO. 1, AS RECORDED IN PLAT BOOK R-3 AT PAGE 76 OF THE RECORDS OF SAID EL PASO COUNTY; THENCE N89°31'16"W, ALONG THE BOUNDARY LINE OF SAID STAPLETON ESTATES FILING NO. 1, A DISTANCE OF 1063.31 FEET TO THE NORTHWEST CORNER OF LOT 8 OF SAID STAPLETON ESTATES FILING NO. 1; THENCE N00°26'14"W ALONG THE EAST LINE OF SAID STAPLETON ESTATES FILING NO. 1, A DISTANCE OF 2561.80 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHWEST QUARTER OF SECTION 26; THENCE N89°46'46"E, ALONG SAID NORTH LINE AND ALONG THE SOUTHERLY BOUNDARY LINE OF SAID MFY FARM SUBDIVISION AND THE SOUTHERLY LINE OF RODGWICK SUBDIVISION, RECORDED AT RECEPTION NO. 207712566 OF THE RECORDS OF SAID EL PASO COUNTY, A DISTANCE OF 2059.89 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 121.20 ACRES OF LAND, MORE OR LESS.

CONTACTS:

DEVELOPER:
PT EAGLEVIEW, LLC
1864 WOODMOOR DRIVE, SUITE 100
MONUMENT, CO 80132
TEL: (719) 476-0800
CONTACT: JOSEPH DESJARDIN

EL PASO COUNTY PLANNING DEPARTMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910

PLANNER/LANDSCAPE ARCHITECT:
NES, INC
619 N CASCADE AVENUE, SUITE 200
COLORADO SPRINGS, CO 80903
TEL: (719) 471-0073
EMAIL: ABARLOW@NESCOLORADO.COM
CONTACT: ANDREA BARLOW

PLANNING REVIEWER:
RYAN HOWSER
TEL: (719) 520-6313
EMAIL: RYANHOWSER@ELPASOCO.COM

ENGINEERING REVIEWER:
GILBERT LAFORCE
TEL: (719) 520-7945
EMAIL: GILBERTLAFORCE@ELPASOCO.COM

ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC.
2 NORTH NEVADA AVENUE, SUITE 300
COLORADO SPRINGS, CO 80903
TEL: (719) 352-9194
EMAIL: KEVIN.KOFFORD@KIMLEY-HORN.COM
CONTACT: KEVIN KOFFORD

COUNTY ENGINEER:
JOSHUA PALMER
TEL: (719) 520-6806
EMAIL: JOSHUAPALMER@ELPASOCO.COM

SURVEY:
RAMPART SURVEYS, LLC.
1050 TAMARAC PKWY
WOODLAND PARK, CO 80863
TEL: (719) 687-0920
CONTACT: RUSS WOOD

EPC PCD INSPECTIONS SUPERVISOR:
BRAD WALTERS
TEL: (719) 520-6819
EMAIL: BRADWALTERS@ELPASOCO.COM

FALCON FIRE DEPARTMENT:
AREA: FAL D2
FIRE CHIEF T. HARWIG
7030 OLD MERIDIAN ROAD
PAYTON, CO 80831
TEL: (719) 495-4050
EMAIL: FALCONFIRE@FALCONFIREPD.ORG

DEVELOPER'S/OWNER'S SIGNATURE BLOCK

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

OWNER SIGNATURE _____ DATE _____

ENGINEER'S SIGNATURE BLOCK

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

KEVIN KOFFORD, PE - KIMLEY-HORN AND ASSOCIATES, INC. DATE _____

EL PASO COUNTY

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT. FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

COUNTY ENGINEER/ECM ADMINISTRATOR _____ DATE _____

NO.	REVISION	BY	DATE	APPR.

2023 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 900
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: MJK
DRAWN BY: MJK
CHECKED BY: KKK
DATE: 03/03/2023

EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
COVER SHEET

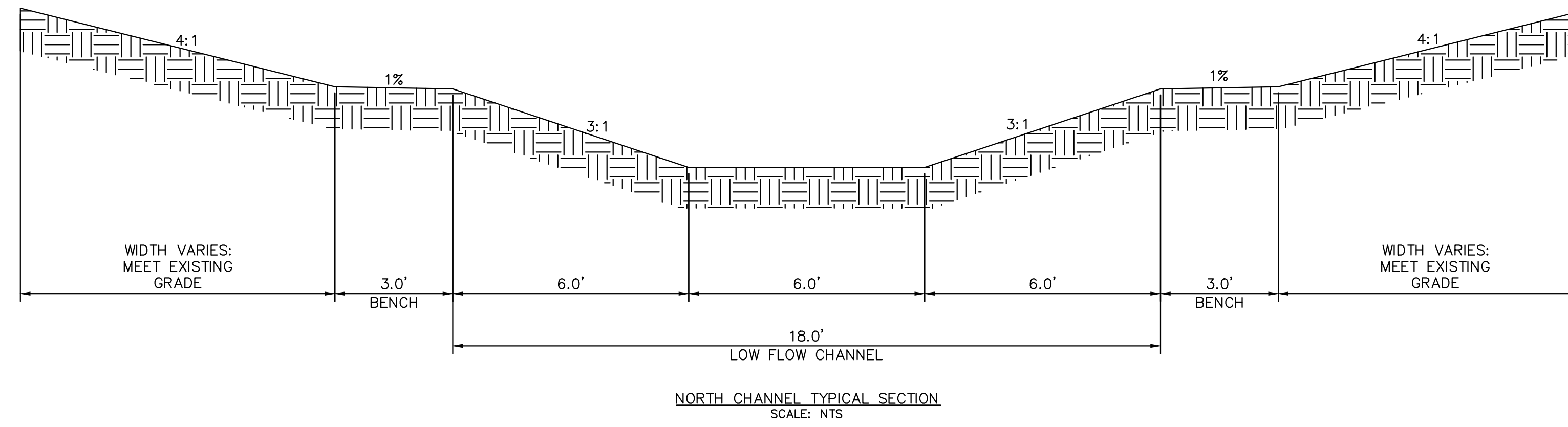
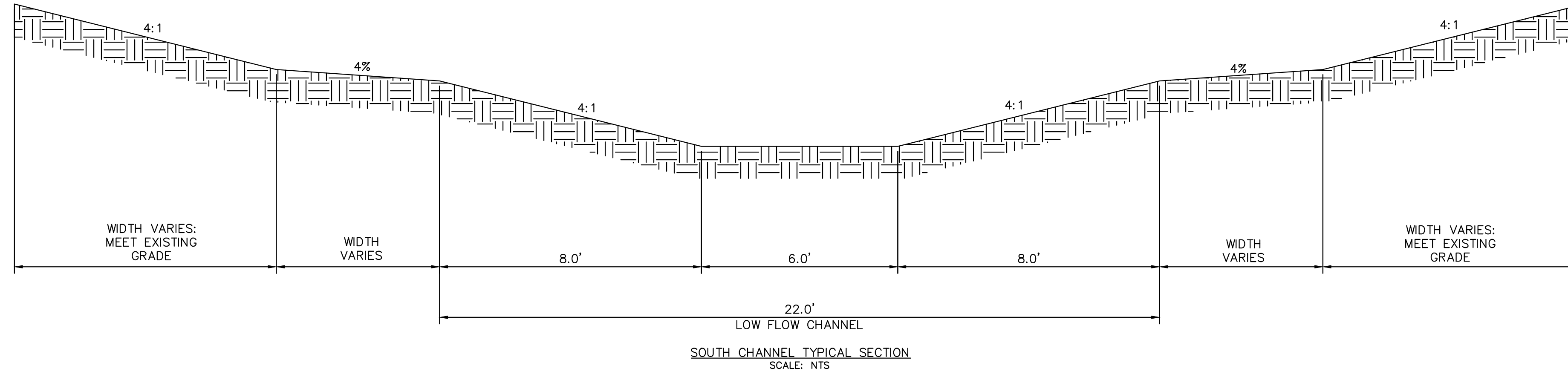
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PROJECT NO.
196106001

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 EL PASO COUNTY, COLORADO
 CONSTRUCTION DOCUMENTS
 TYPICAL SECTIONS

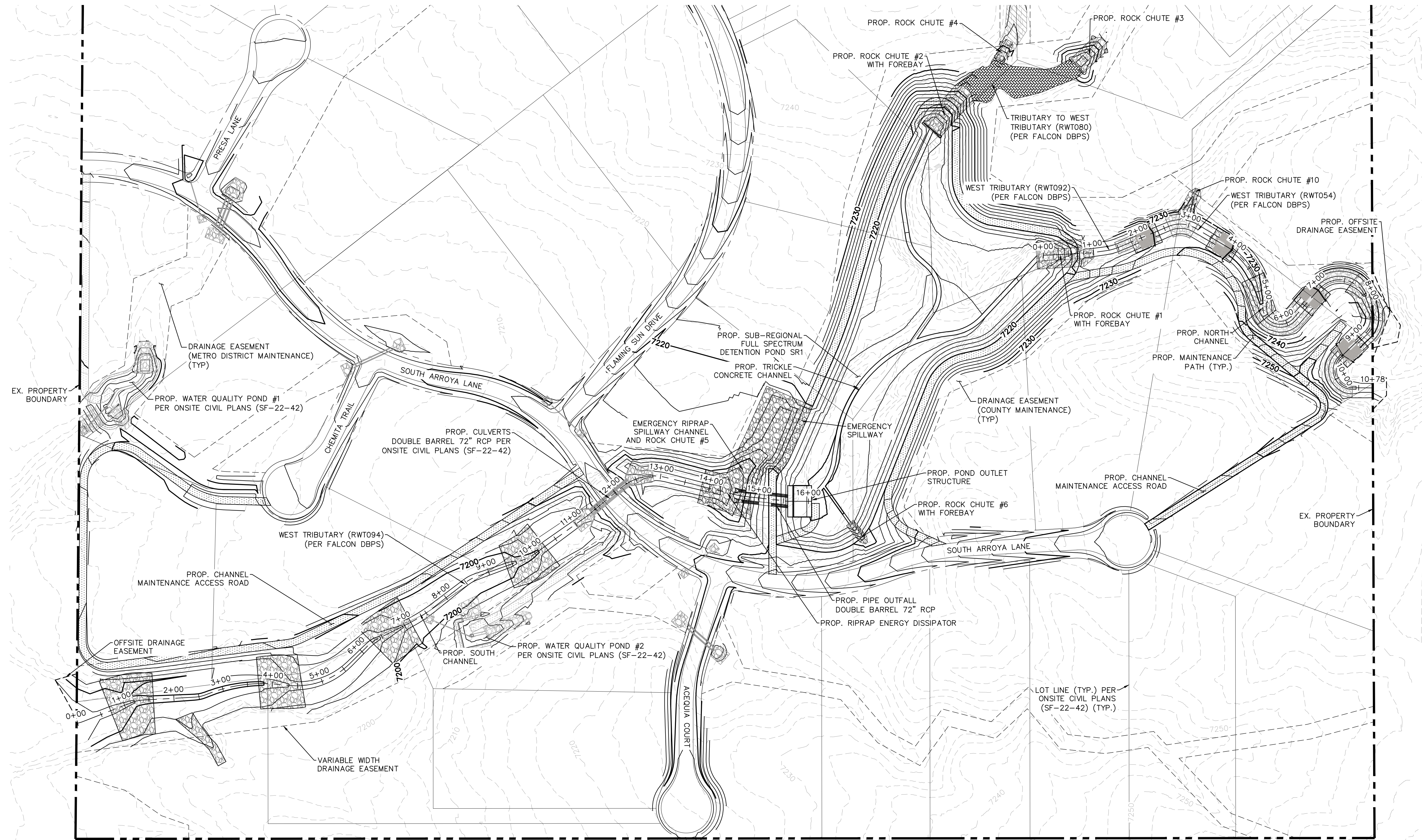
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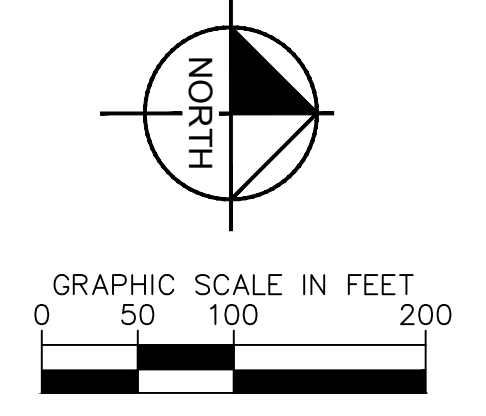
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LEGEND

- EXISTING PROPERTY BOUNDARY
- - - - - EXISTING MAJOR CONTOUR
- - - - - EXISTING MINOR CONTOUR
- XXXX PROPOSED MAJOR CONTOUR
- XXXX PROPOSED MINOR CONTOUR
- ▨ PROPOSED TRM MATTING
- ▨ PROPOSED RIPRAP
- ▨ PROPOSED STORM PIPE
- ▨ STORM PIPE PER ONSITE CIVIL PLANS



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**EAGLEVIEW
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 CONSTRUCTION DOCUMENTS
 OVERALL DRAINAGE IMPROVEMENTS**



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NORTH CHANNEL HORIZONTAL CONTROL
STATION 0+00 - STATION 10+78

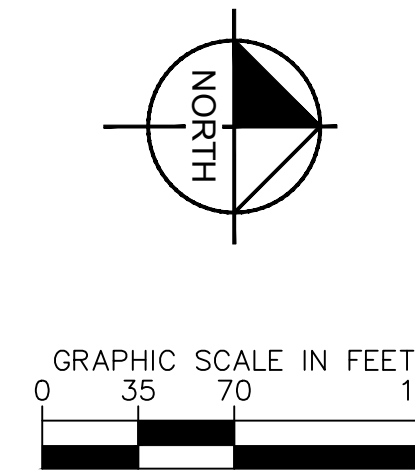
CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
1	72.00'	11.42'	N16°52'09"W	11.41'	9°05'25"	5.72'
2	72.00'	22.85'	N12°19'26"W	22.75'	18°10'50"	11.52'
3	72.00'	22.85'	N12°19'26"W	22.75'	18°10'50"	11.52'
4	300.00'	142.53'	N7°48'14"W	141.19'	27°13'14"	72.63'
5	150.00'	131.96'	N19°23'47"W	127.75'	50°24'19"	70.59'
6	72.00'	22.85'	N35°30'32"W	22.75'	18°10'50"	11.52'
7	300.00'	60.17'	N32°09'52"W	60.07'	11°29'32"	30.19'
8	72.00'	22.85'	N28°49'13"W	22.75'	18°10'50"	11.52'
9	72.00'	20.30'	N27°48'21"W	20.23'	16°09'06"	10.22'
10	100.00'	93.52'	N12°53'42"W	90.15'	53°34'58"	50.49'
11	110.00'	28.83'	N15°12'33"W	28.75'	15°01'08"	14.50'
12	60.00'	55.86'	N3°57'05"E	53.86'	53°20'24"	30.14'
13	130.00'	105.91'	N53°57'41"E	103.01'	46°40'48"	56.09'
14	35.00'	76.69'	N13°57'51"E	62.24'	125°32'32"	68.02'
15	55.00'	105.11'	N14°45'37"E	89.83'	109°29'46"	77.82'
16	40.00'	46.60'	S77°07'08"E	44.01'	66°44'45"	26.35'
17	35.00'	83.03'	N68°17'35"E	64.89'	135°55'20"	86.46'

LINE TABLE		
LINE	LENGTH	BEARING
1	103.55	N21°24'51.26"W
2	103.55	N31°14'01.26"W
3	4.18	N21°24'51.26"W
4	21.53	N5°48'22.36"E
5	52.69	N44°35'56.63"W
6	66.40	N26°25'06.64"W
7	83.22	N37°54'38.17"W
8	103.39	N19°43'48.17"W
9	132.63	N35°52'53.98"W
10	73.17	N39°41'11.16"W
11	4.20	N39°41'11.16"W
12	10.47	N39°41'11.16"W
13	153.50	N13°53'47.19"E
14	94.55	N6°30'44.51"E
15	48.00	N0°03'59.38"E
16	92.22	N2°54'48.25"W
17	31.65	N7°41'58.69"W

LINE TABLE		
LINE	LENGTH	BEARING
18	106.61	N22°43'06.62"W
19	67.64	N30°37'17.37"E
20	6.38	N30°37'17.37"E
21	3.01	N77°18'05.59"E
22	41.60	N76°44'06.39"E
23	79.87	N48°48'25.11"W
24	6.07	N39°59'16.31"W
25	29.08	N69°30'29.60"E
26	71.08	S43°44'45.06"E
27	40.74	N0°19'55.34"E



SOUTH CHANNEL HORIZONTAL CONTROL
STATION 0+00 - STATION 16+17



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CONSTRUCTION DOCUMENTS
HORIZONTAL CONTROL

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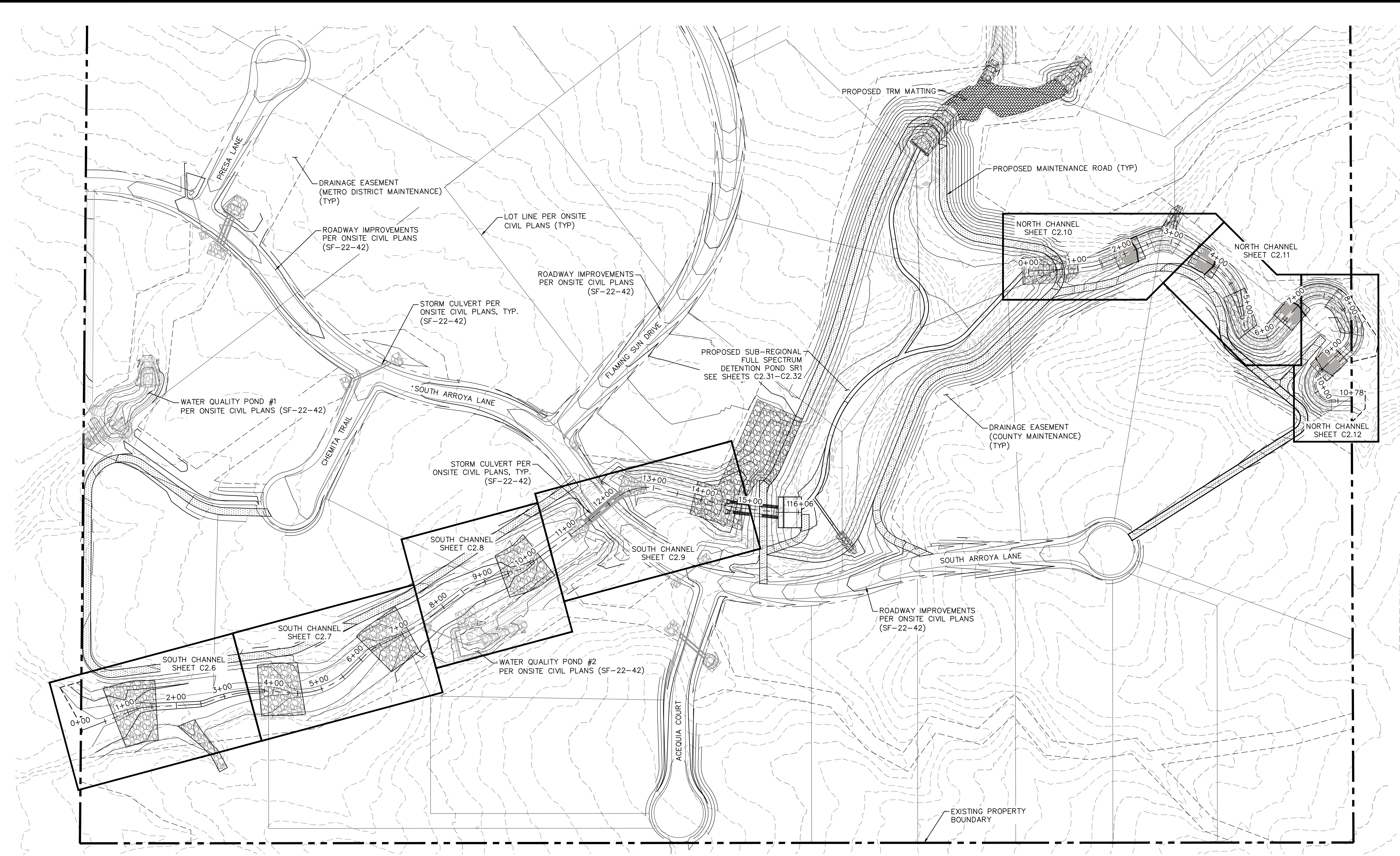
PROJECT NO.
196106001

SHEET

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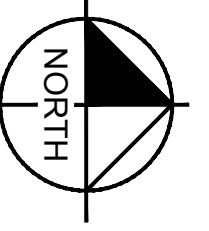
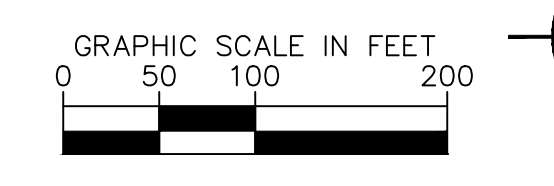
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 EL PASO COUNTY, COLORADO
 CONSTRUCTION DOCUMENTS
CHANNEL KEY MAP

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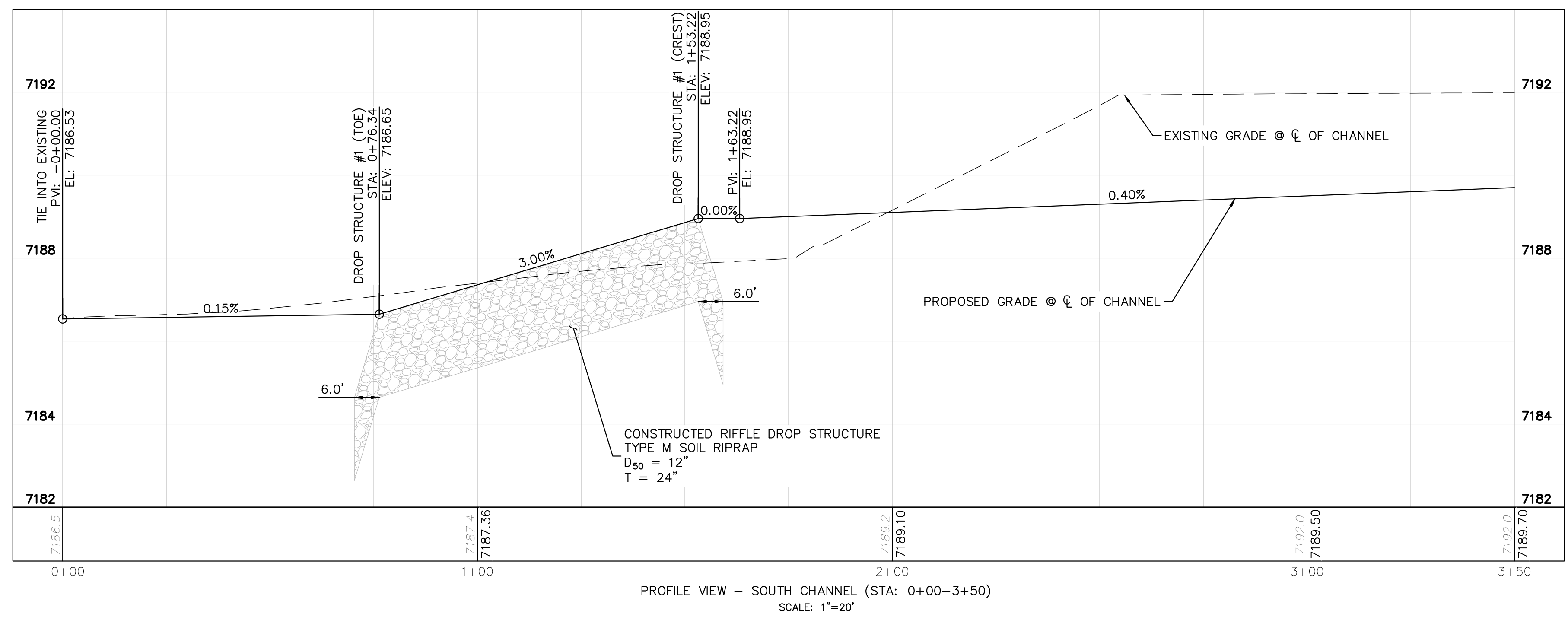
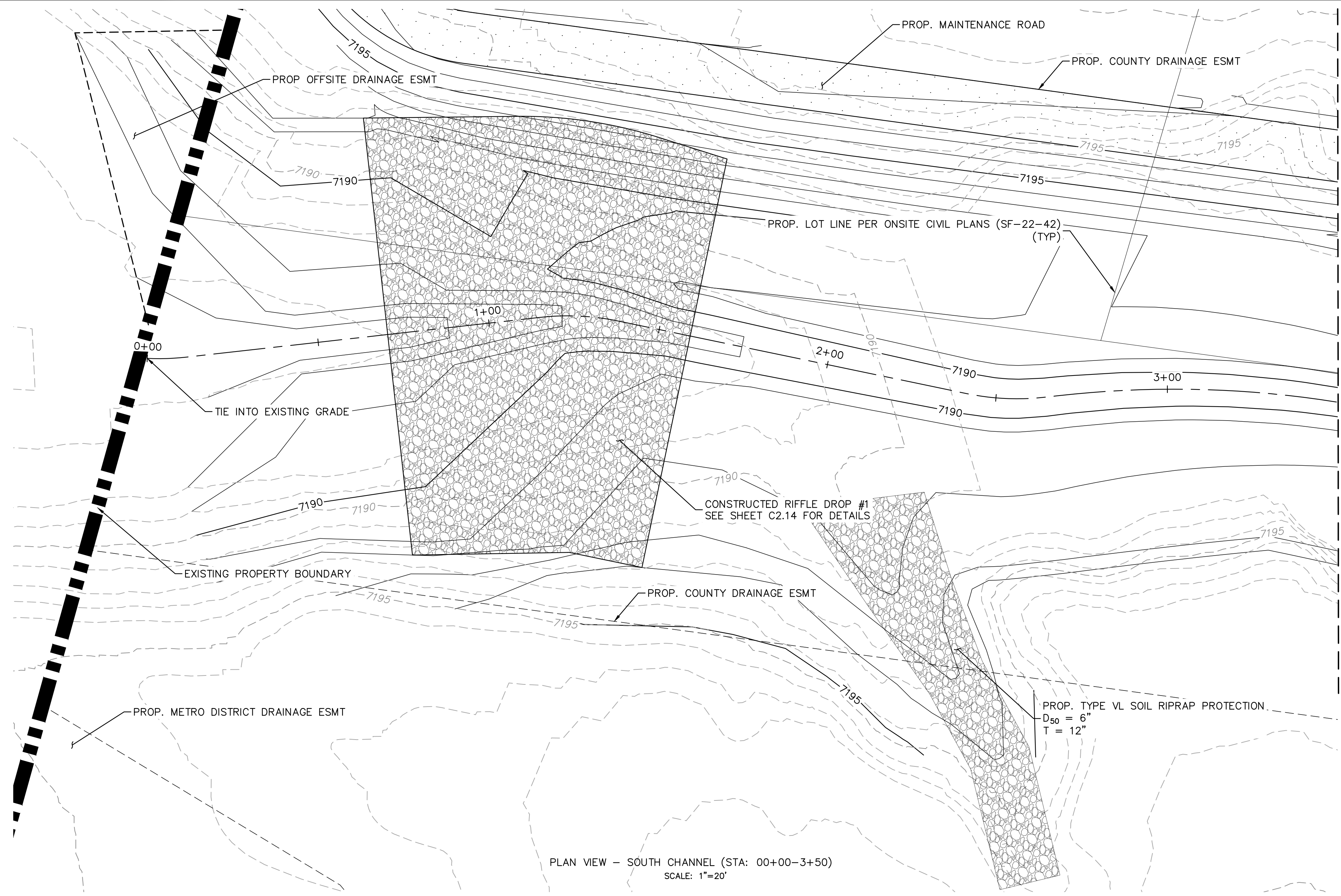
PROJECT NO.
 196106001
 SHEET
C2.5

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

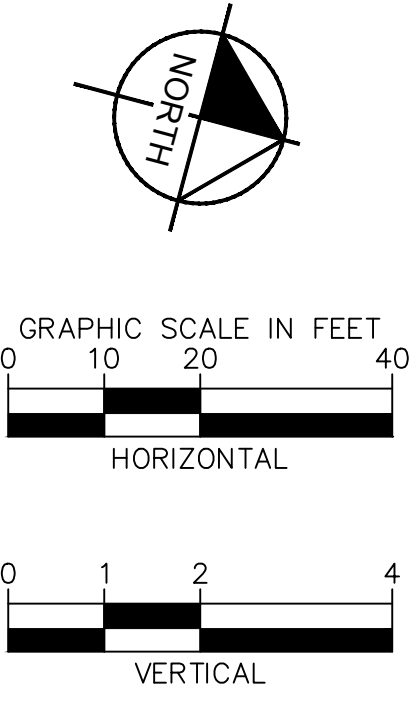
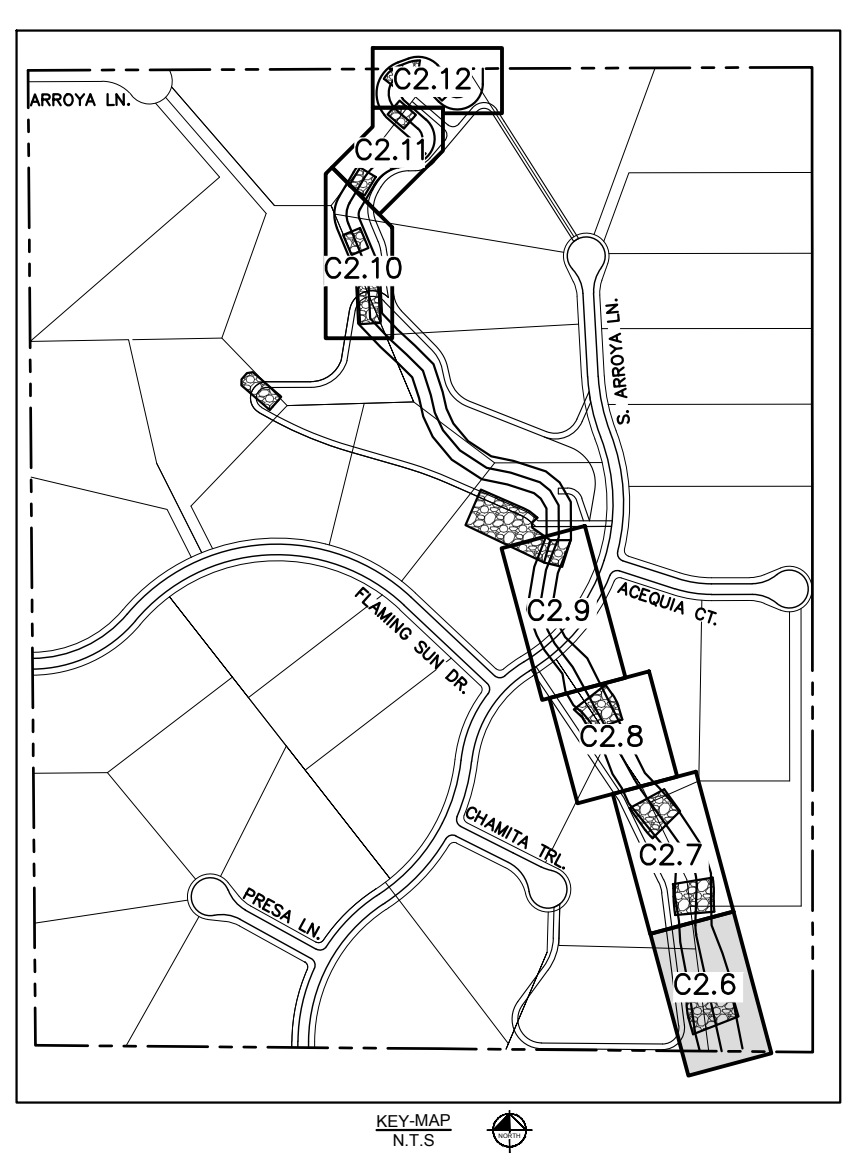
CALL UTILITY NOTIFICATION
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CALL 2-BUSINESS DAYS IN ADVANCE
 BEFORE YOU DIG, GRADE, OR EXCAVATE
 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES



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NOTES:
1. CHANNEL INVERT SHOWN IN PROFILE VIEW IS THE ELEVATION OF THE LOW FLOW CHANNEL.



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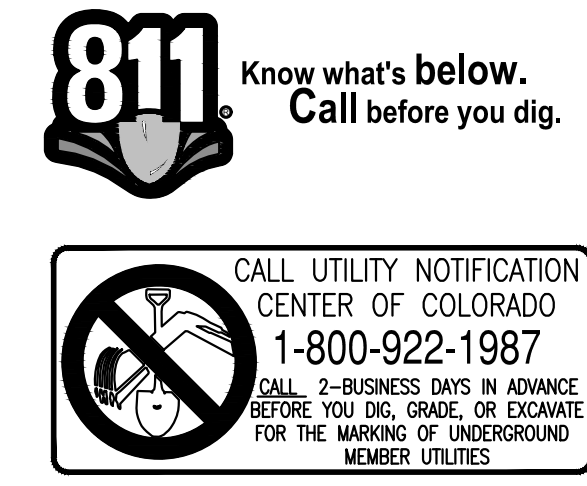
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EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
SOUTH CHANNEL PLAN AND PROFILE

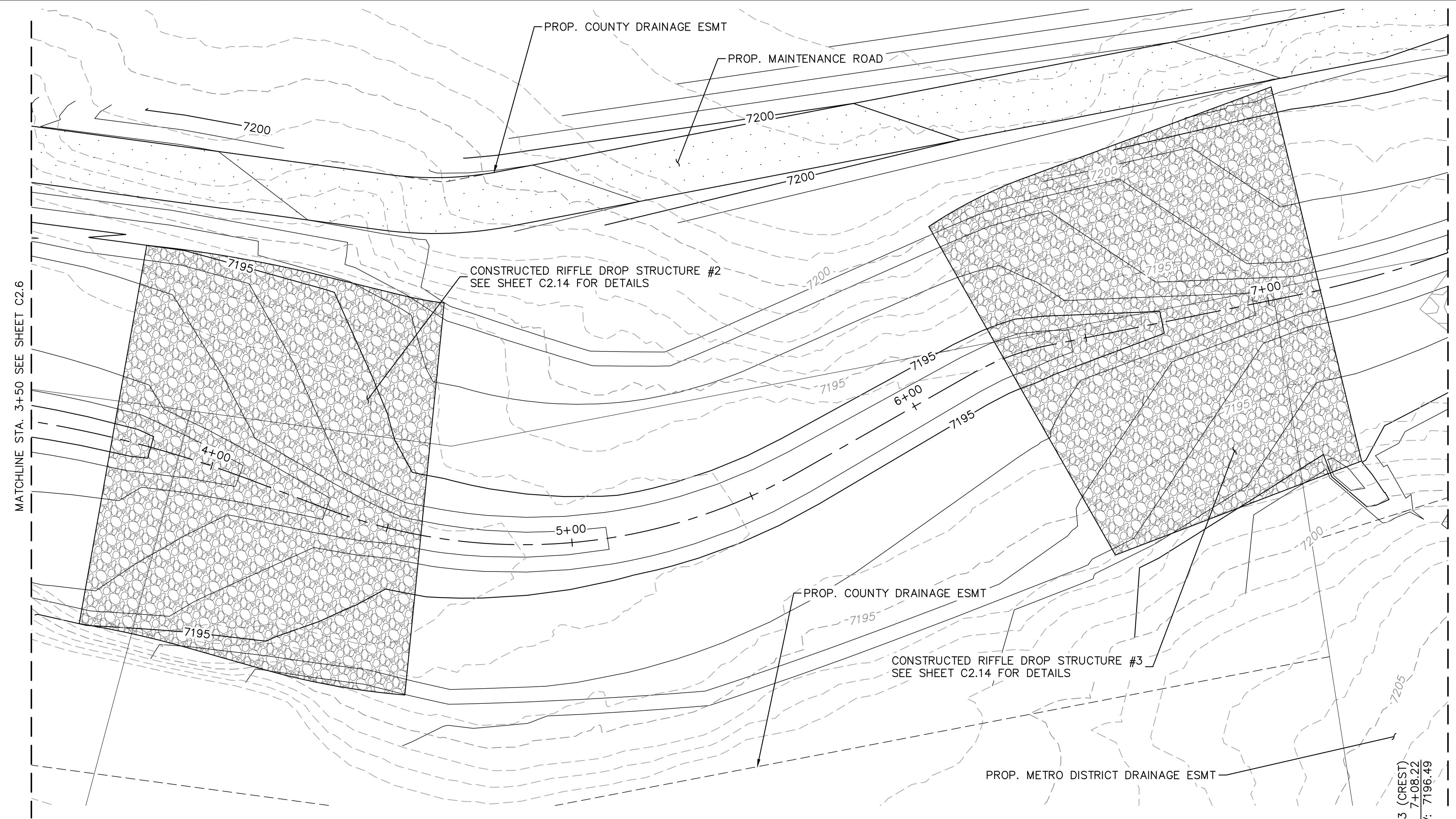
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196106001
SHEET

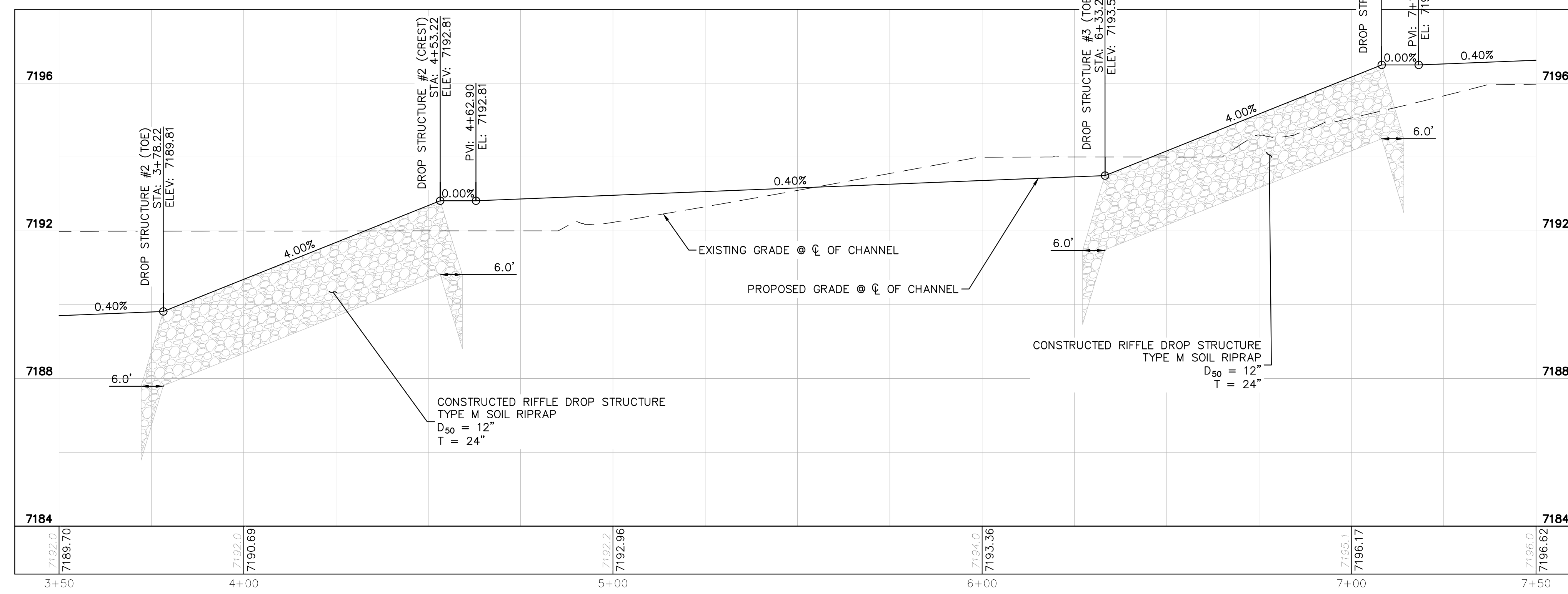
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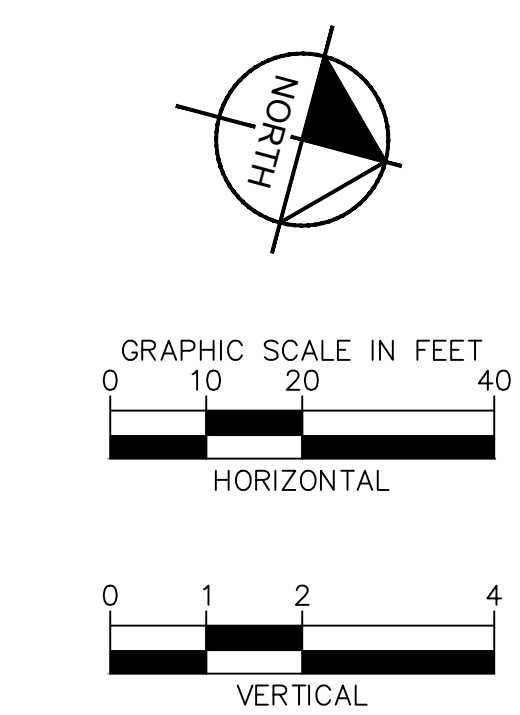
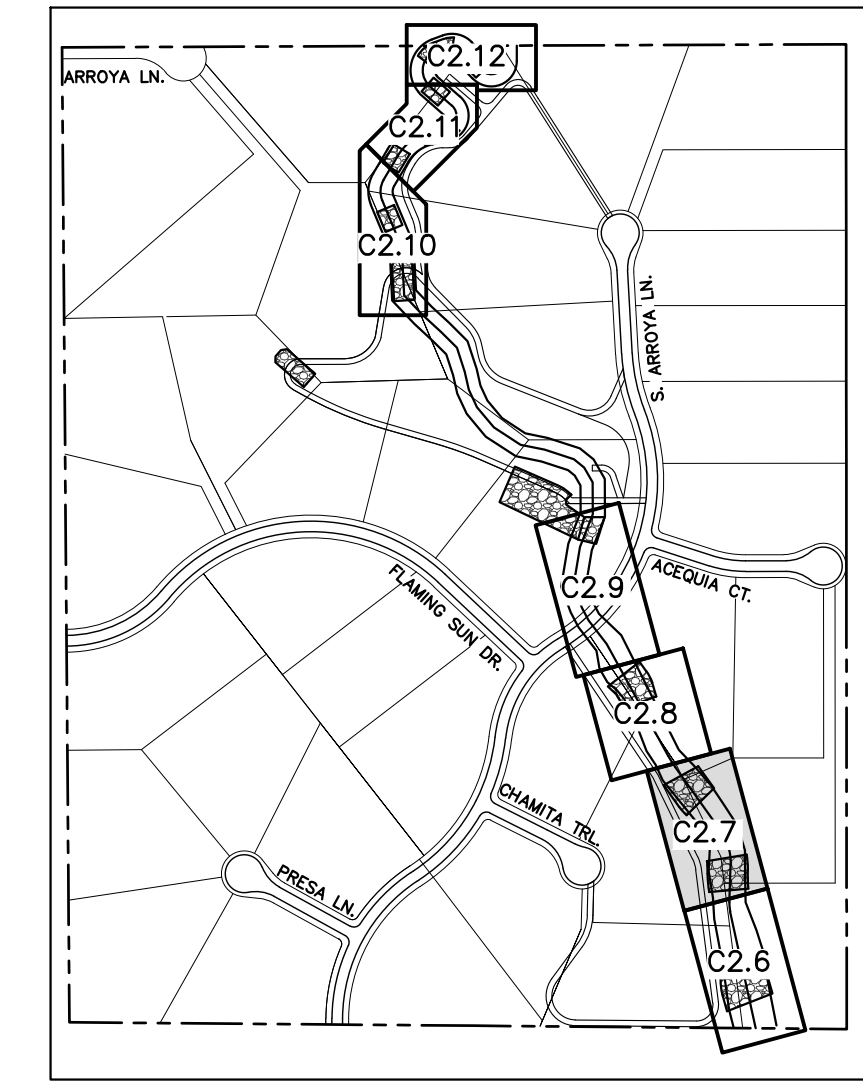
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PLAN VIEW - SOUTH CHANNEL (STA: 3+50-7+50)
SCALE: 1"=20'



PROFILE VIEW - SOUTH CHANNEL (STA: 3+50-7+50)
SCALE: 1"=20'



NOTES:
1. CHANNEL INVERT SHOWN IN PROFILE VIEW IS THE ELEVATION OF THE LOW FLOW CHANNEL.

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CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

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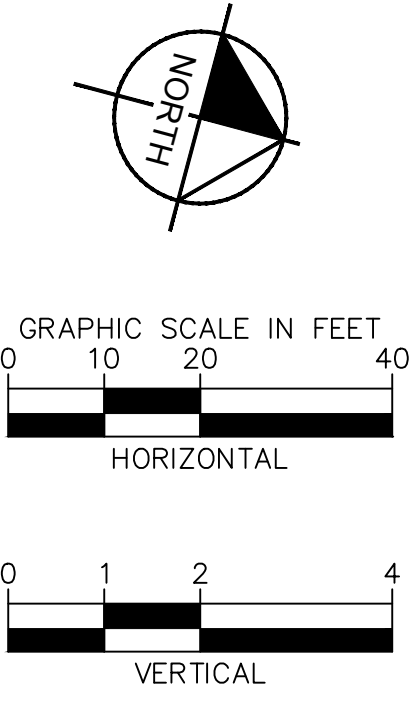
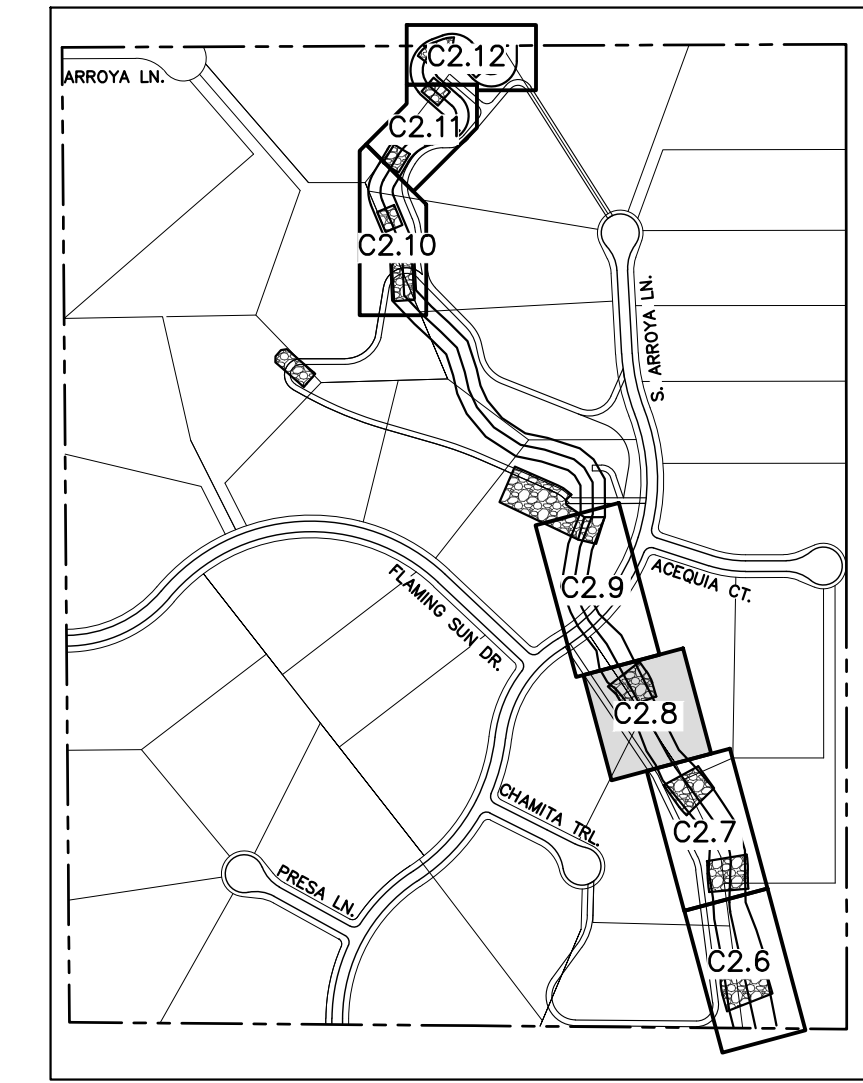
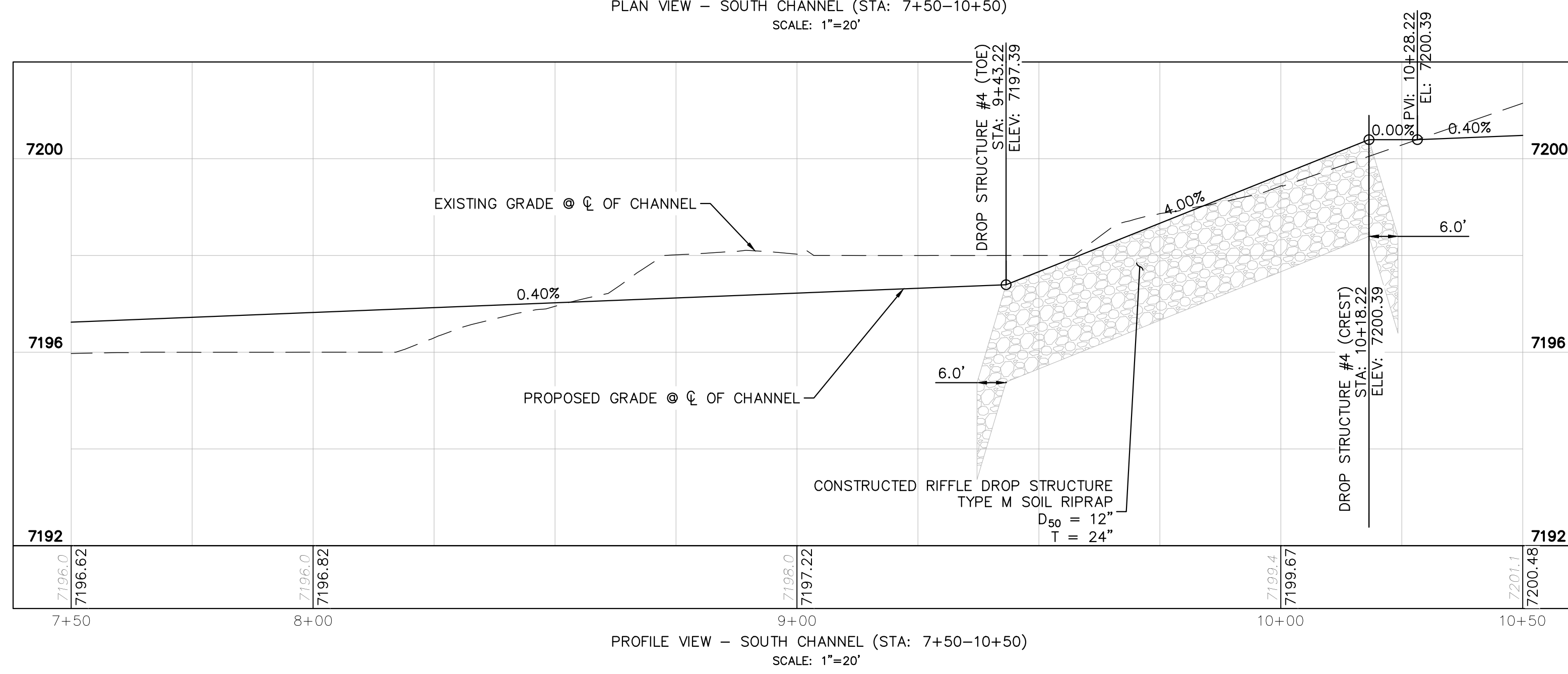
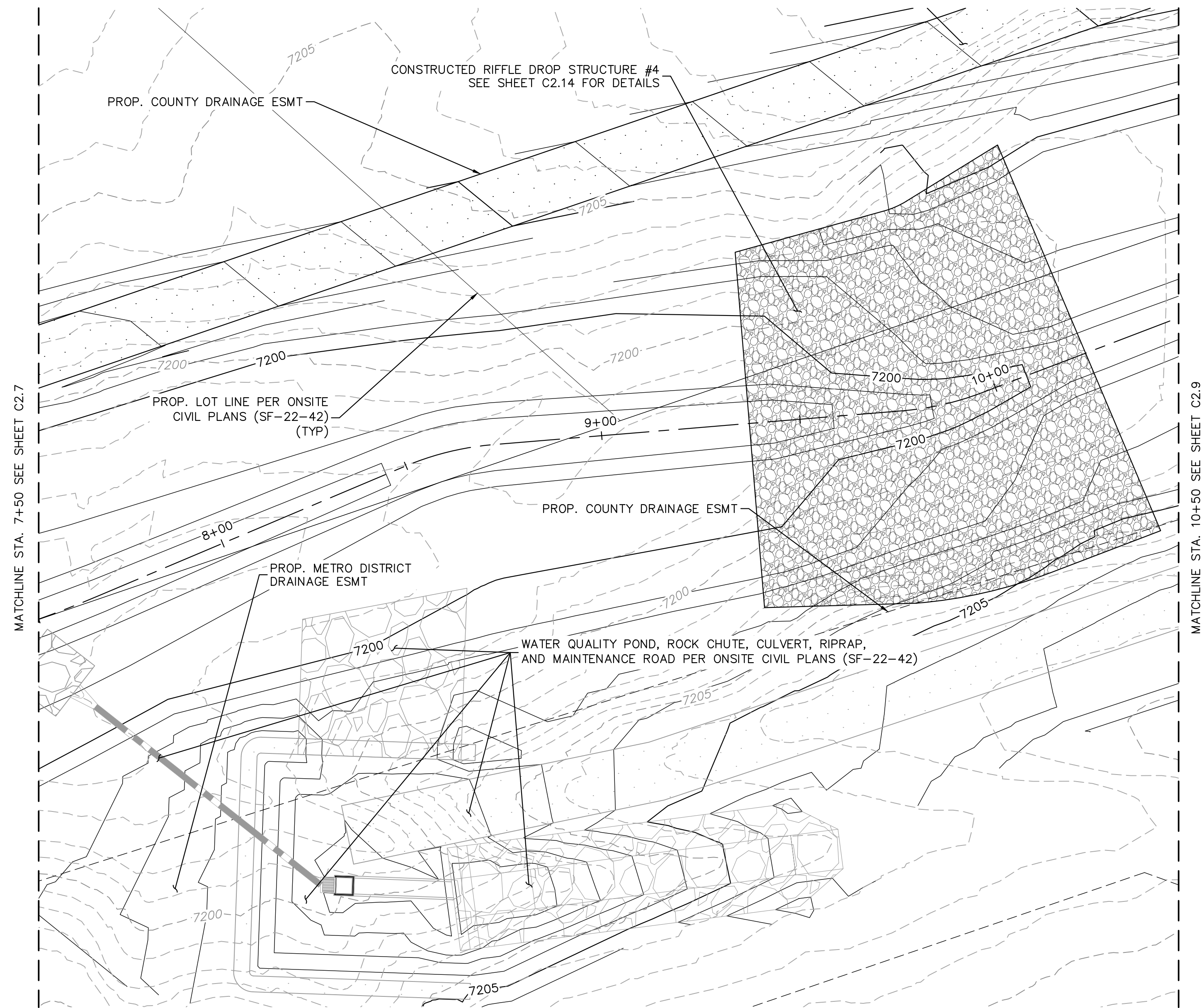
EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
SOUTH CHANNEL PLAN AND PROFILE

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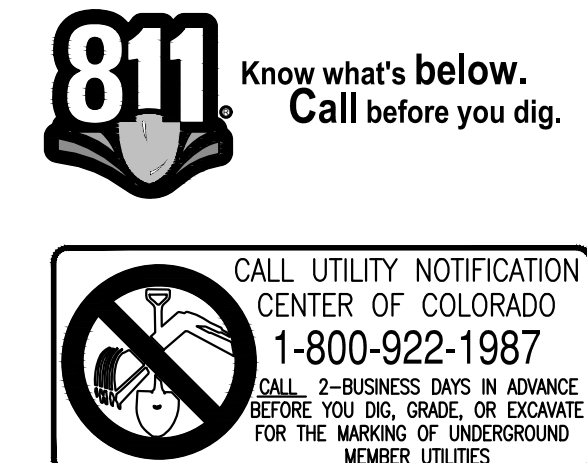
PROJECT NO.
196106001
SHEET

C2.7

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NOTES:
1. CHANNEL INVERT SHOWN IN PROFILE VIEW IS THE ELEVATION OF THE LOW FLOW CHANNEL.



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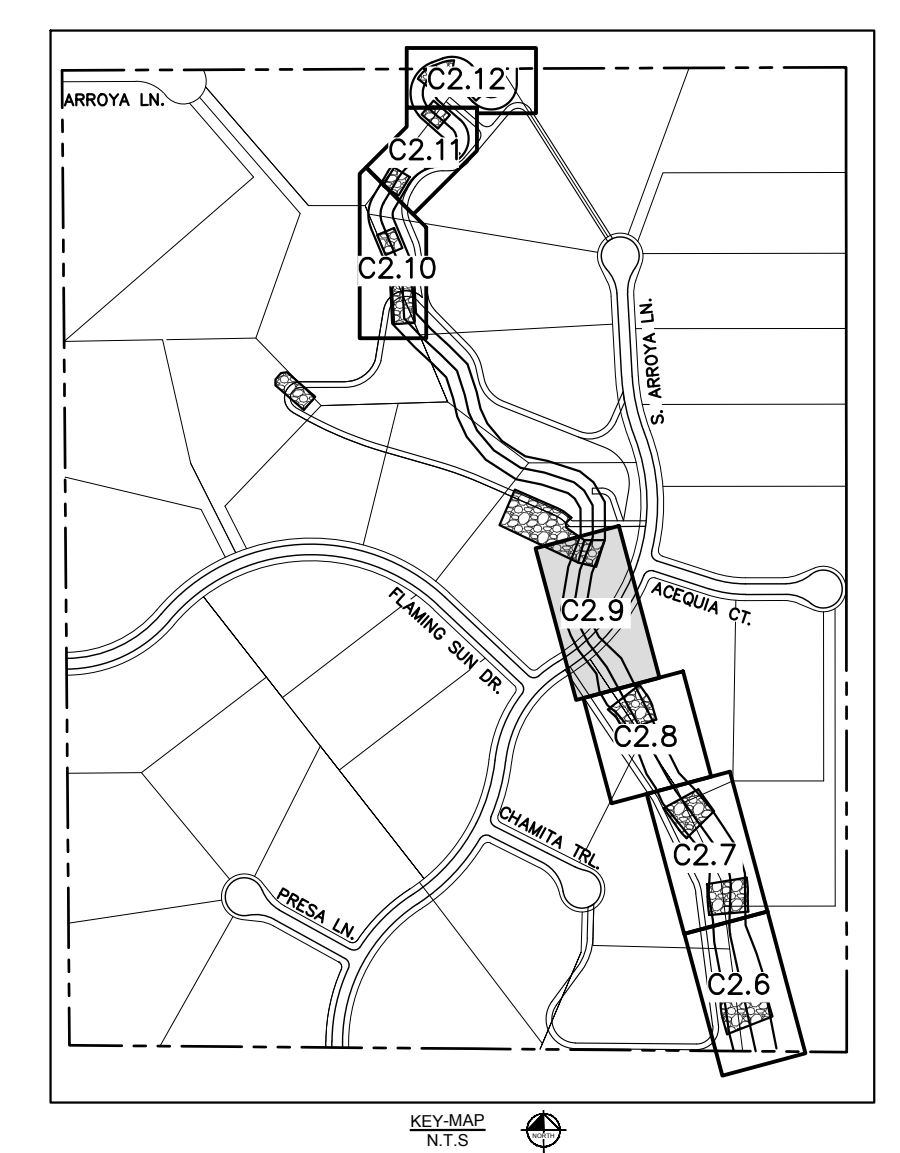
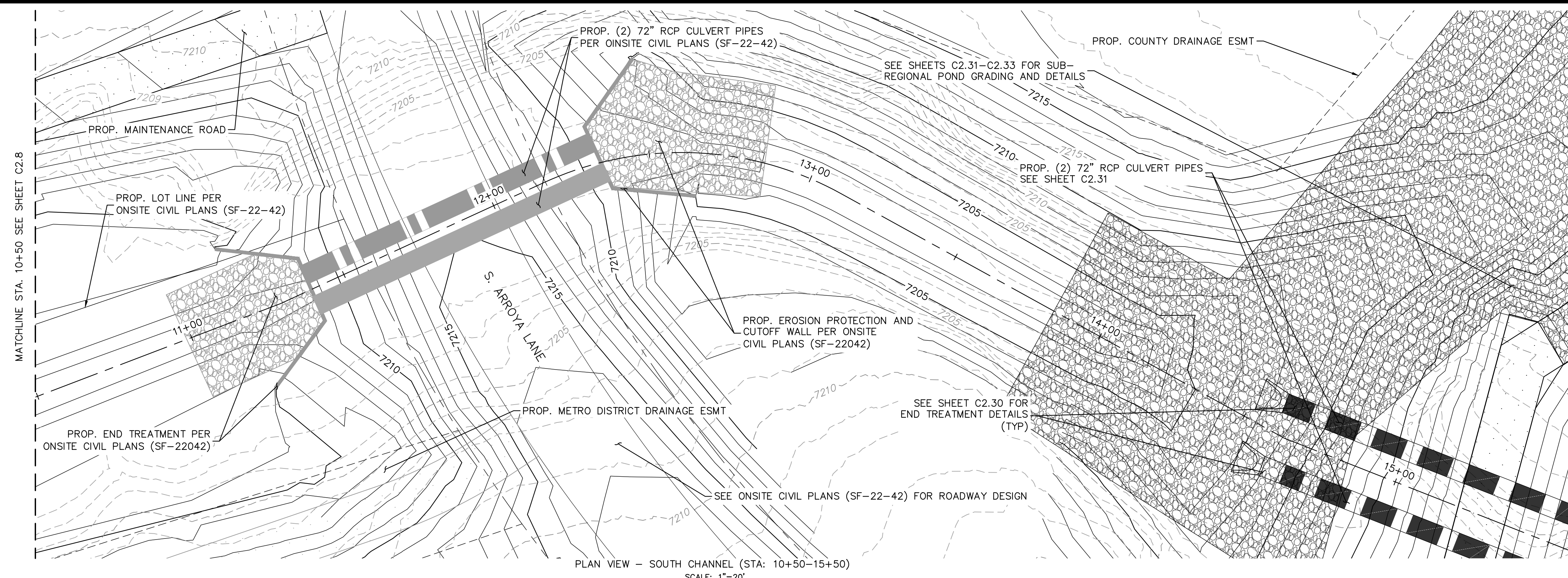
DESIGNED BY: MJK
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DATE: 03/03/2023

EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
SOUTH CHANNEL PLAN AND PROFILE

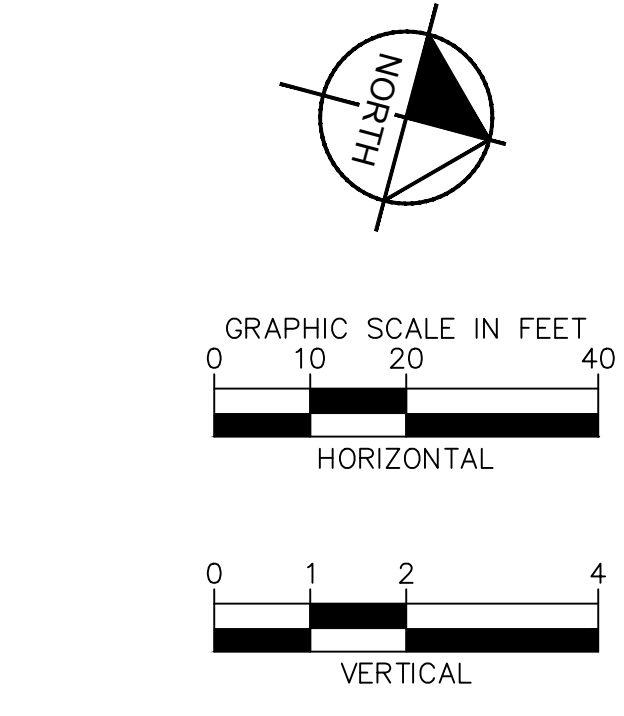
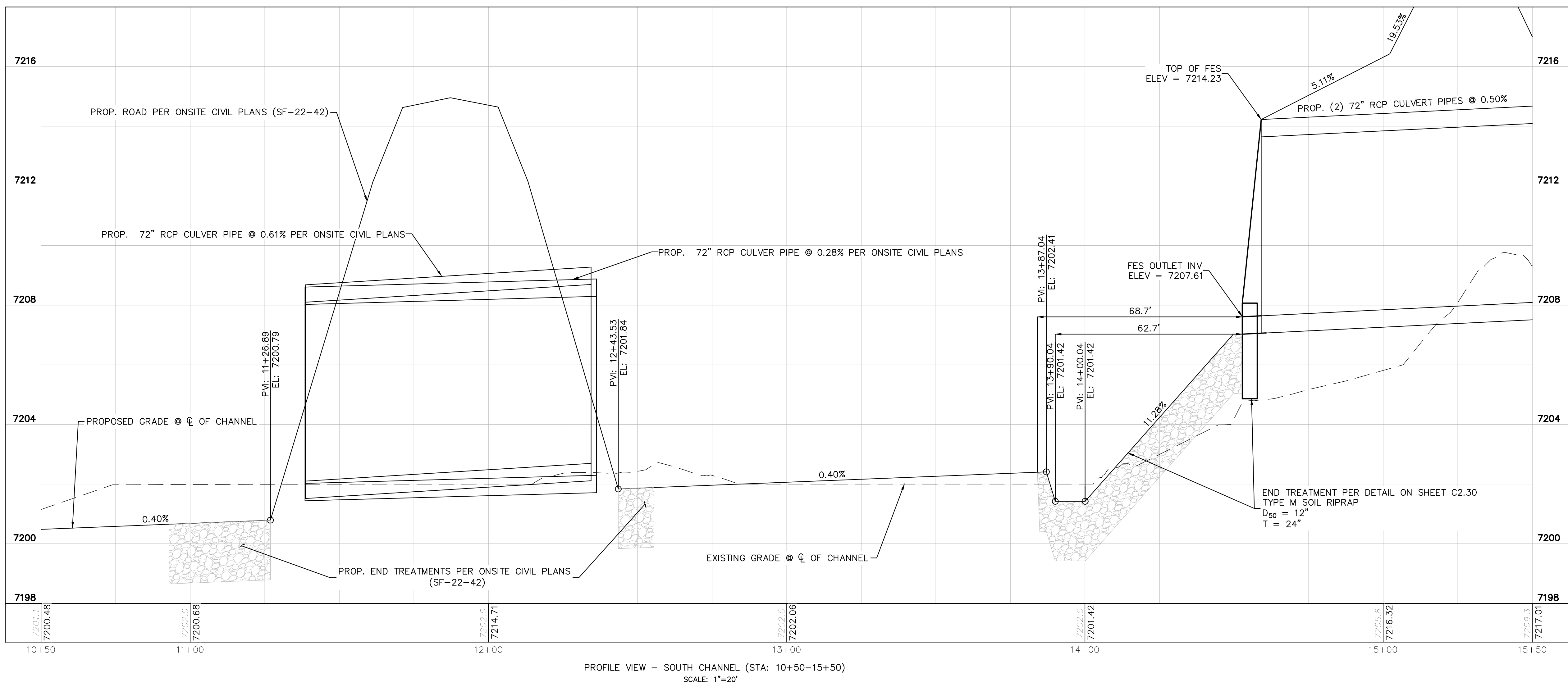
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C2.8

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CONSTRUCTION DOCUMENTS
SOUTH CHANNEL PLAN AND PROFILE

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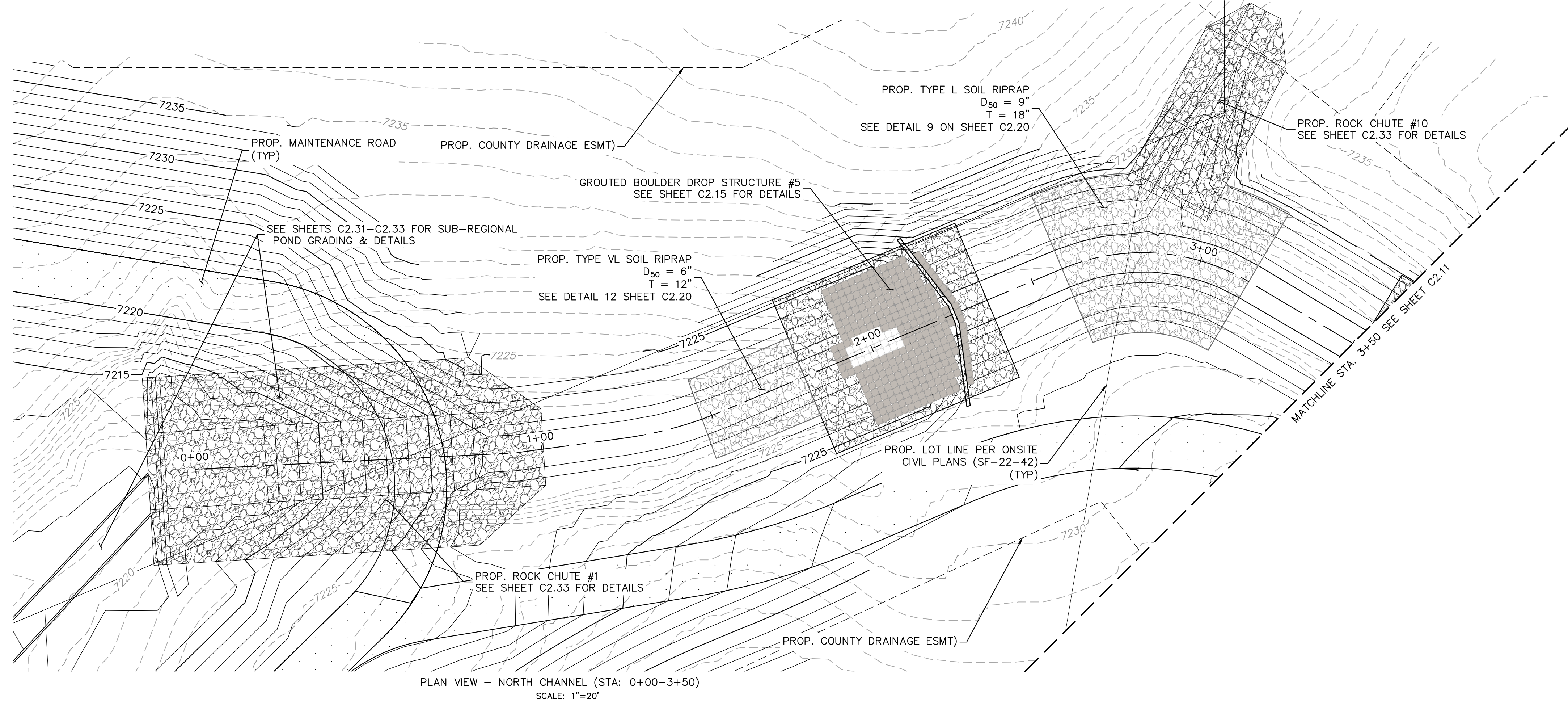
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196106001

SHEET
C2.9

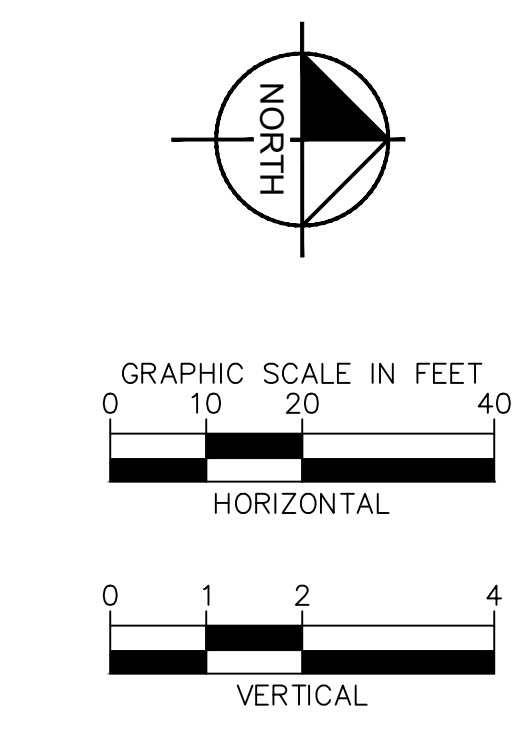
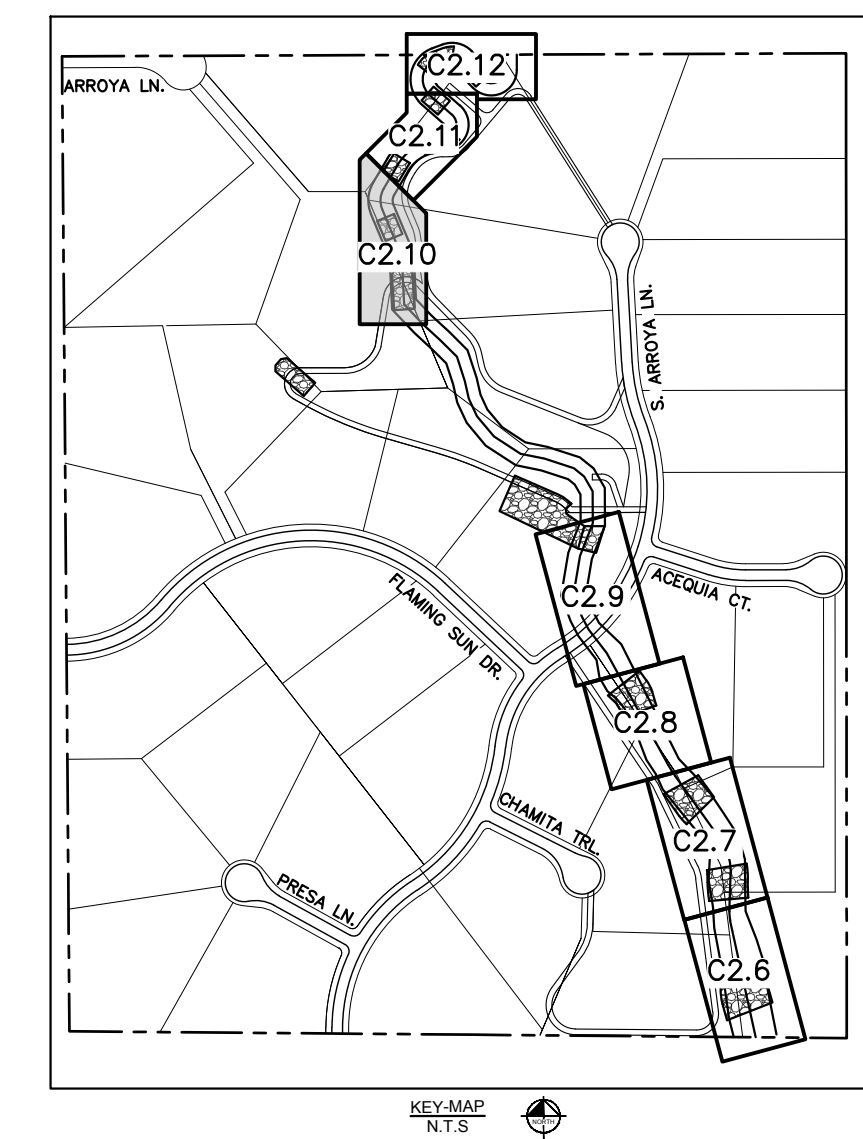
811 Know what's below.
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CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES

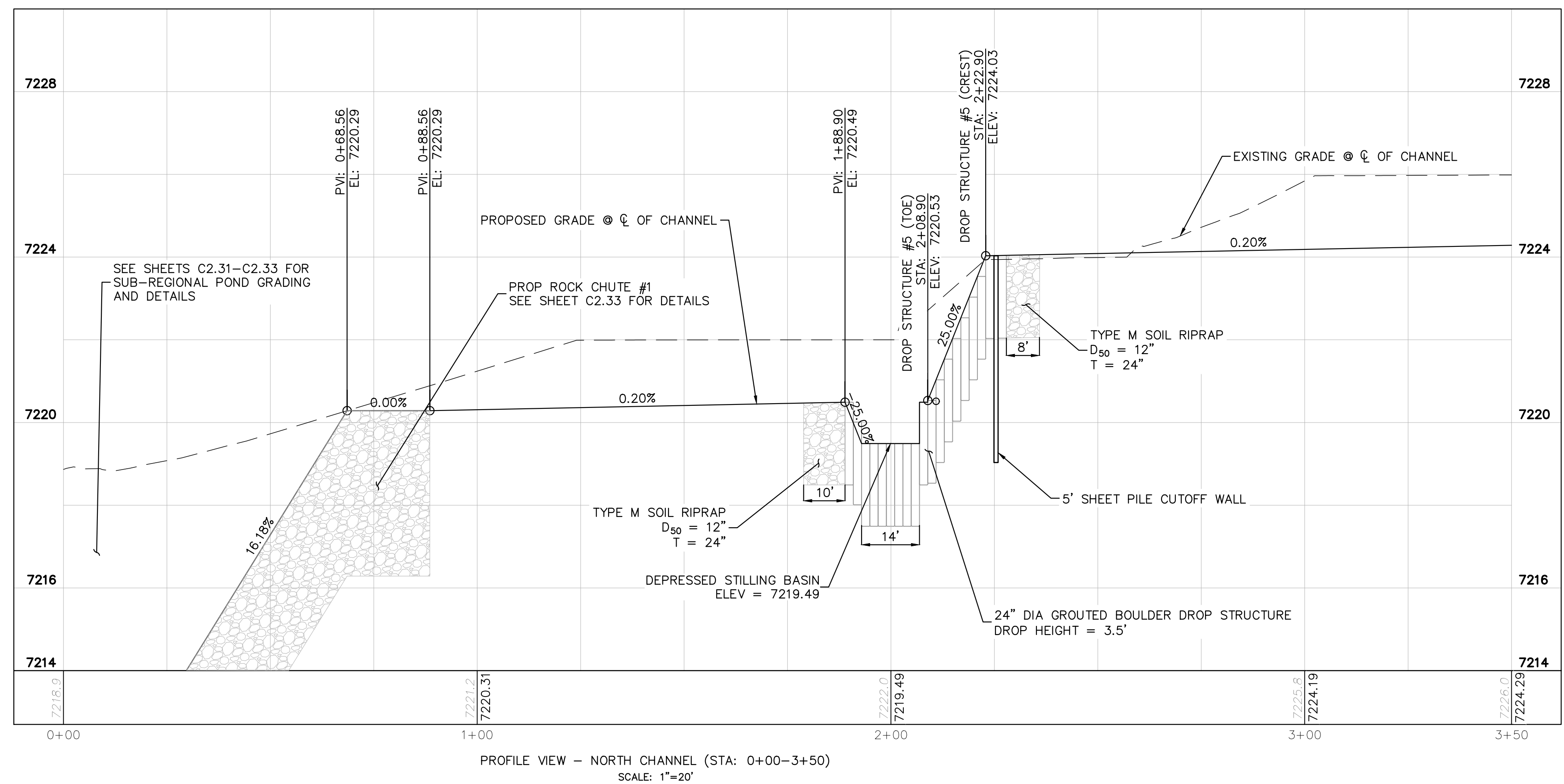
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PLAN VIEW - NORTH CHANNEL (STA: 0+00-3+50)
SCALE: 1"=20'



NOTES:
1. CHANNEL INVERT SHOWN IN PROFILE VIEW IS THE ELEVATION OF THE LOW FLOW CHANNEL.



PROFILE VIEW - NORTH CHANNEL (STA: 0+00-3+50)
SCALE: 1"=20'

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

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

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EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
NORTH CHANNEL PLAN AND PROFILE

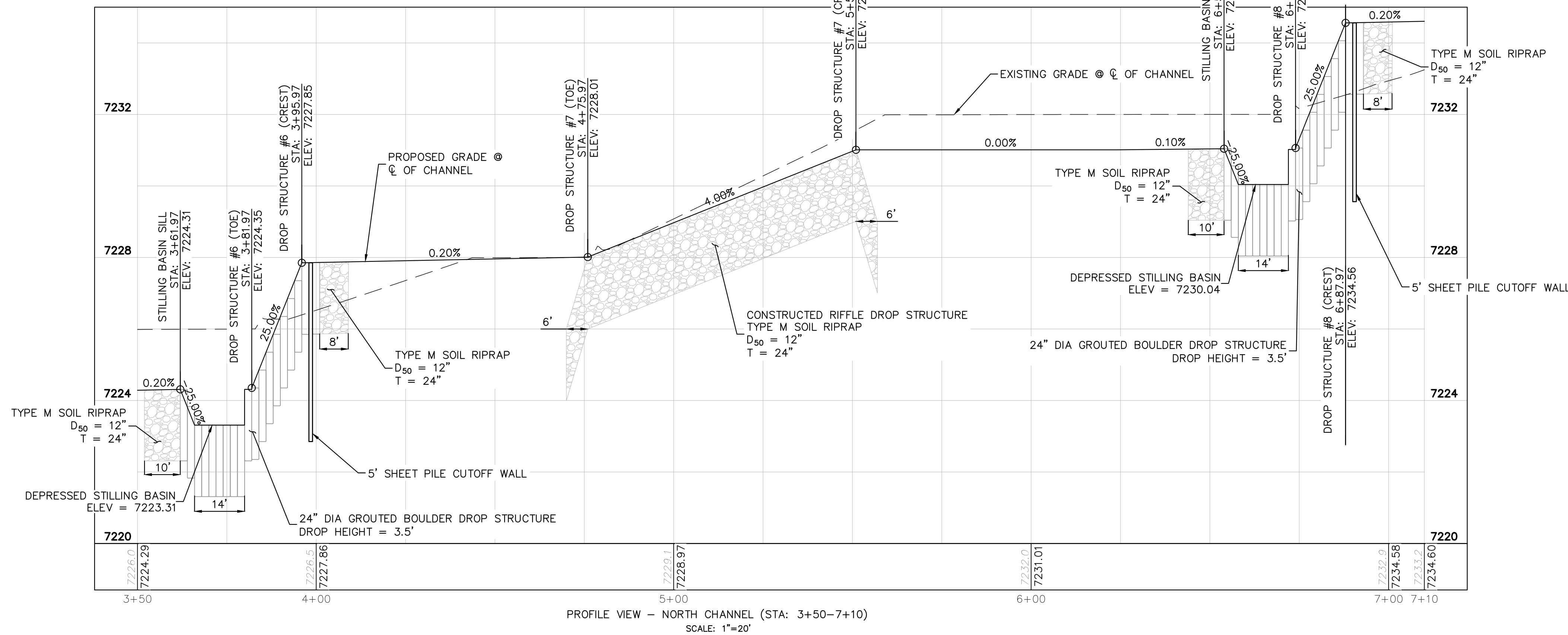
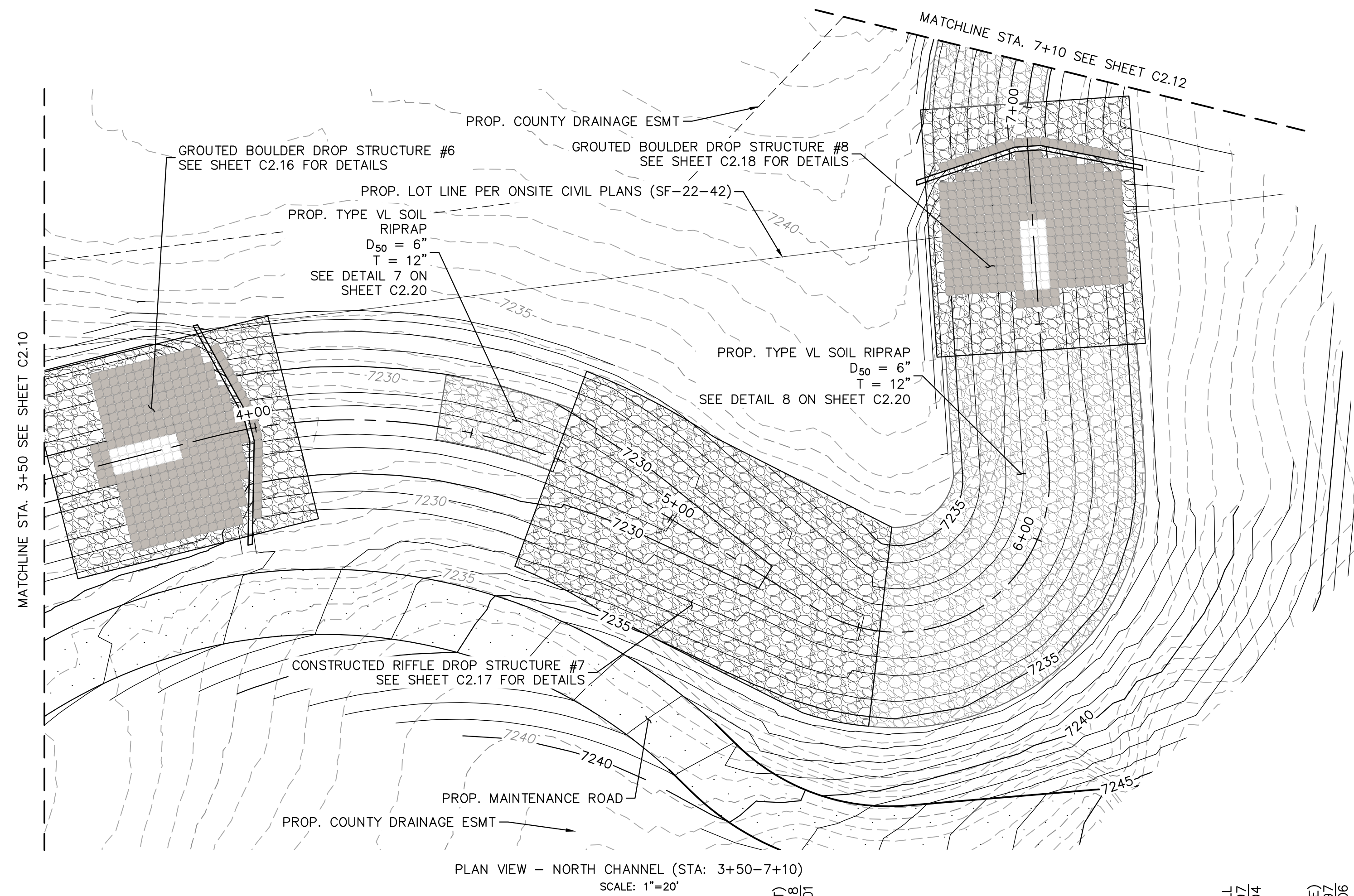
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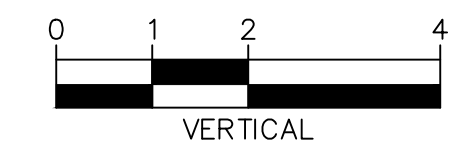
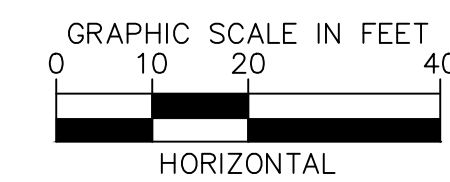
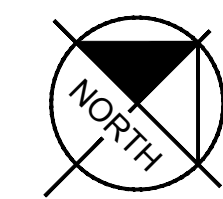
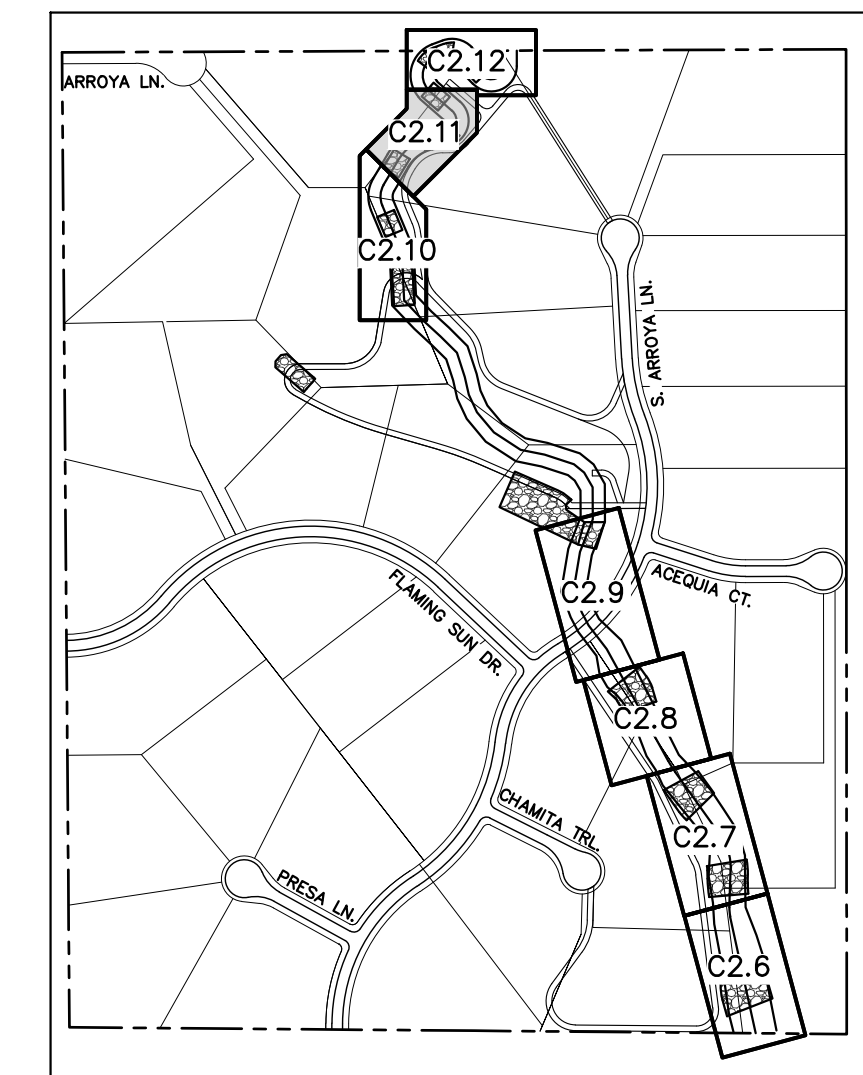
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NOTES:
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NORTH CHANNEL PLAN AND PROFILE

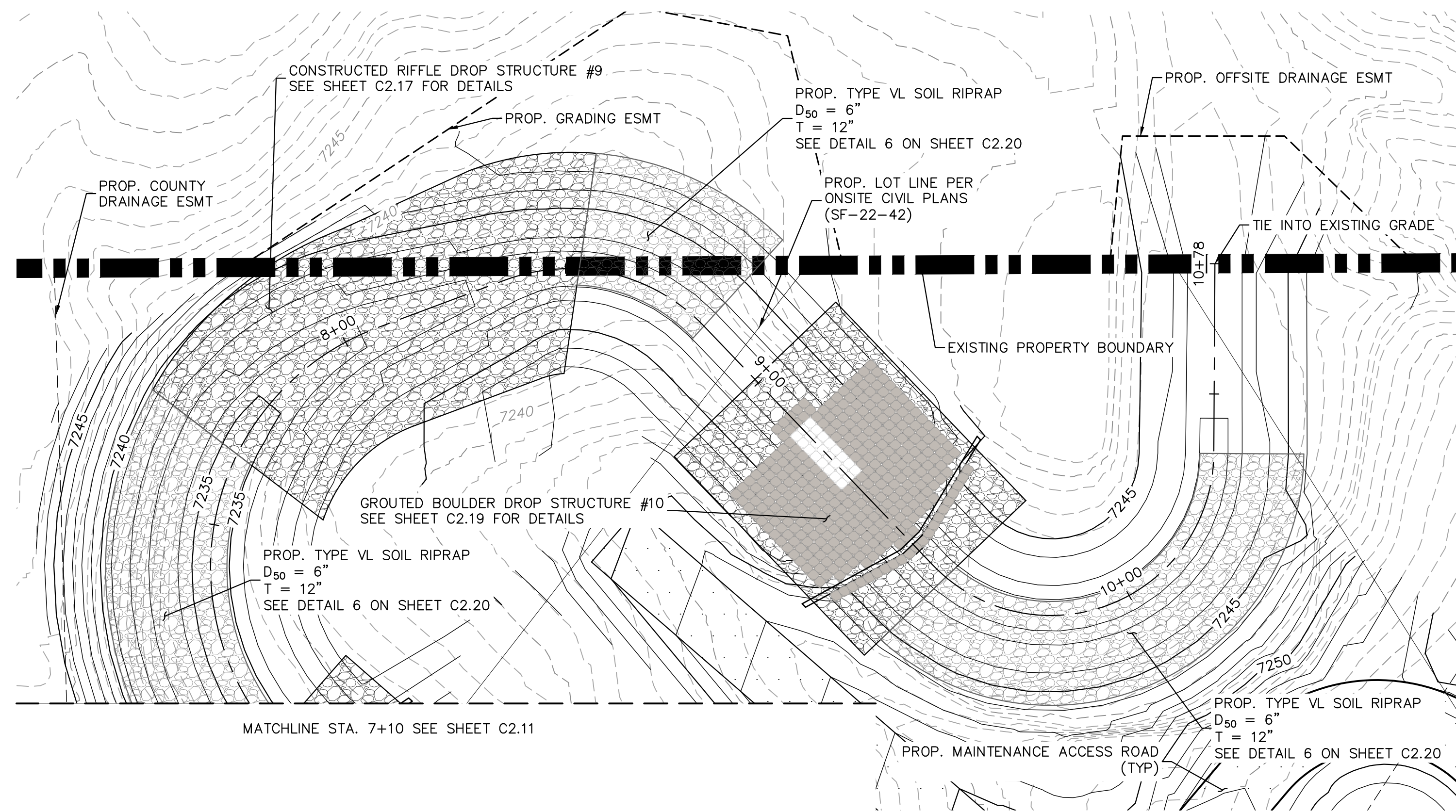
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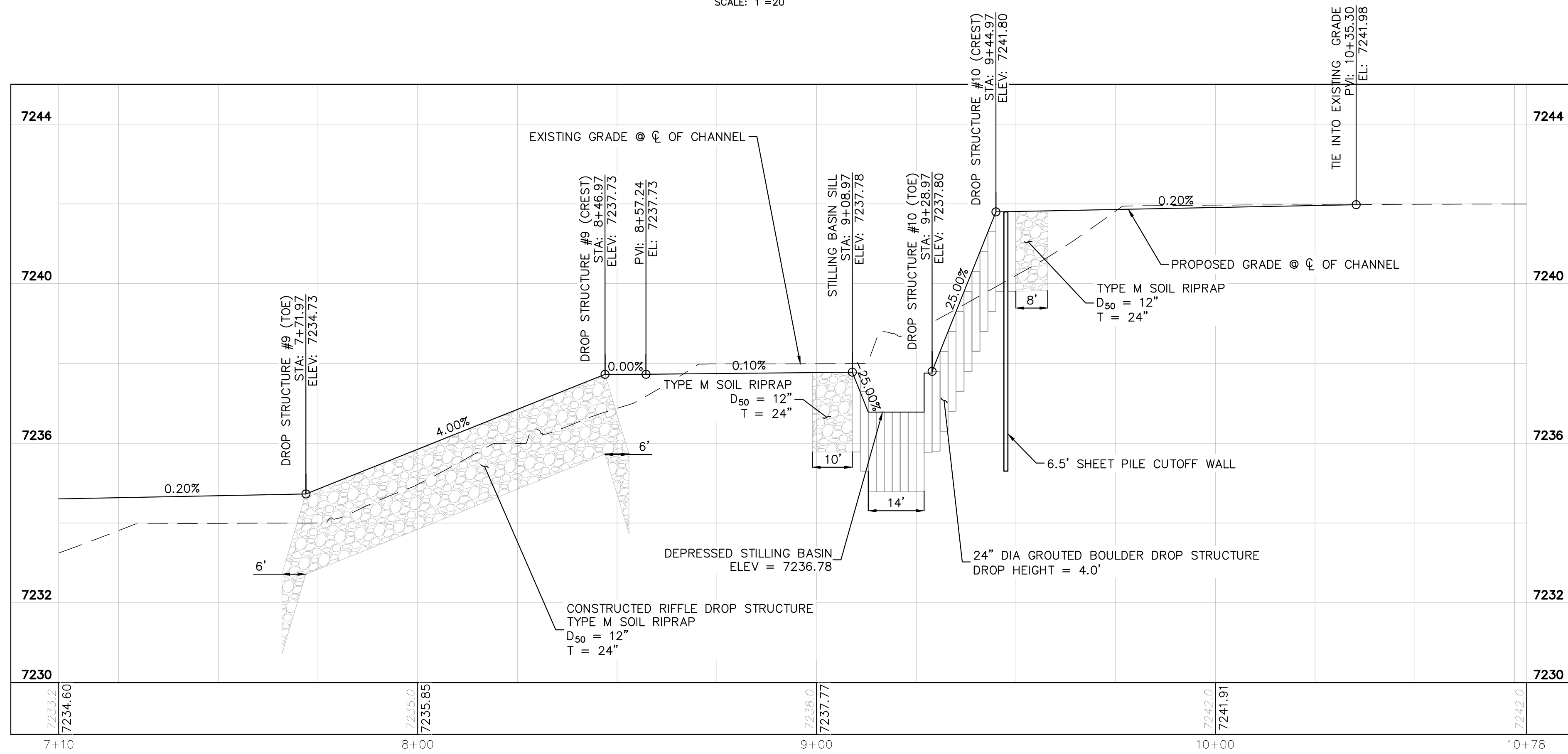
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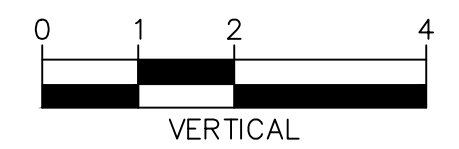
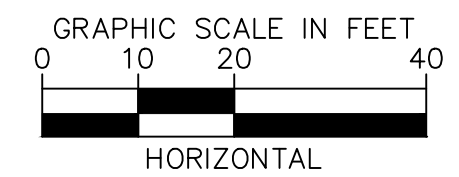
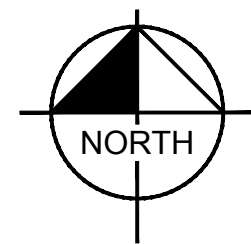
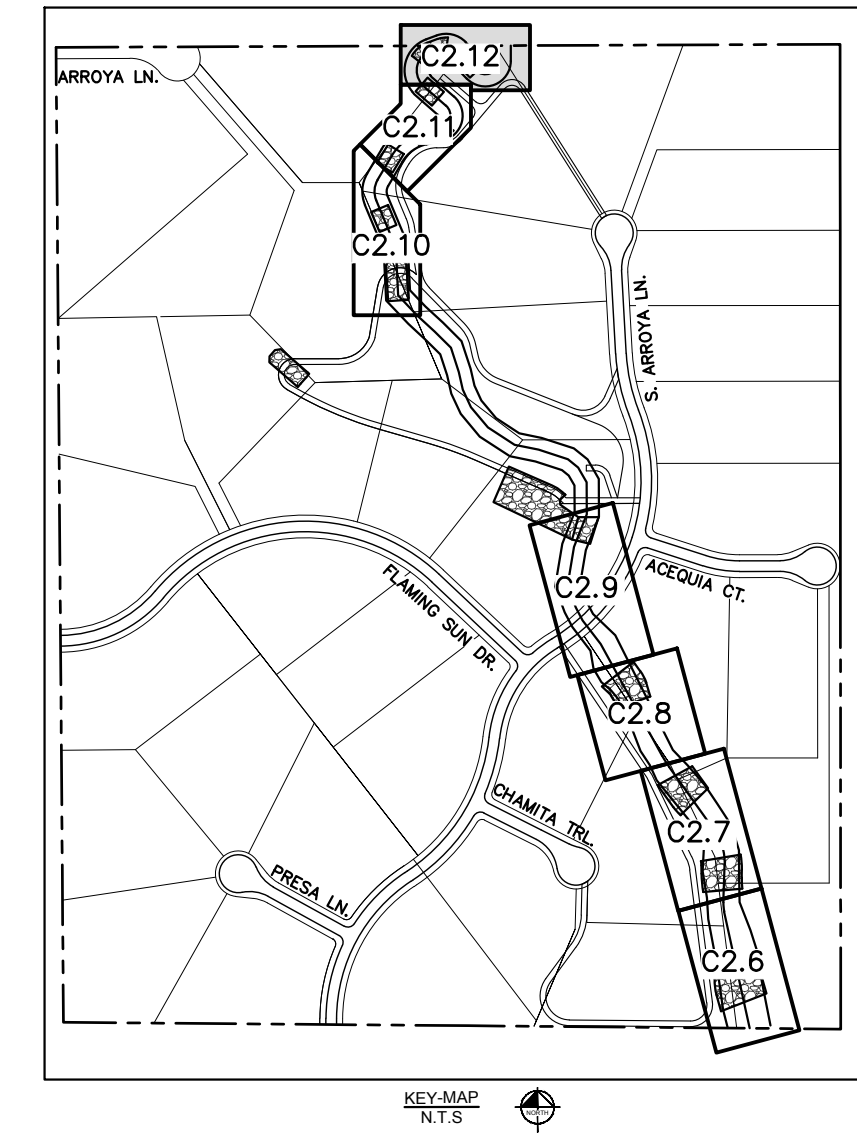
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PLAN VIEW - NORTH CHANNEL (STA: 7+10-10+76)
SCALE: 1"=20'



PROFILE VIEW - NORTH CHANNEL (STA: 7+10-10+76)
SCALE: 1"=20'



NOTES:
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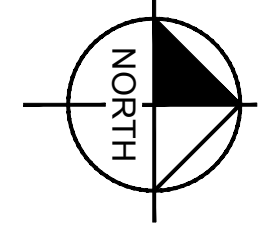
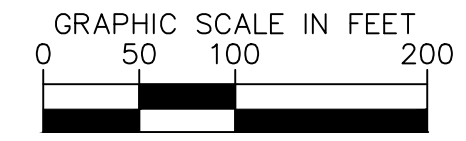
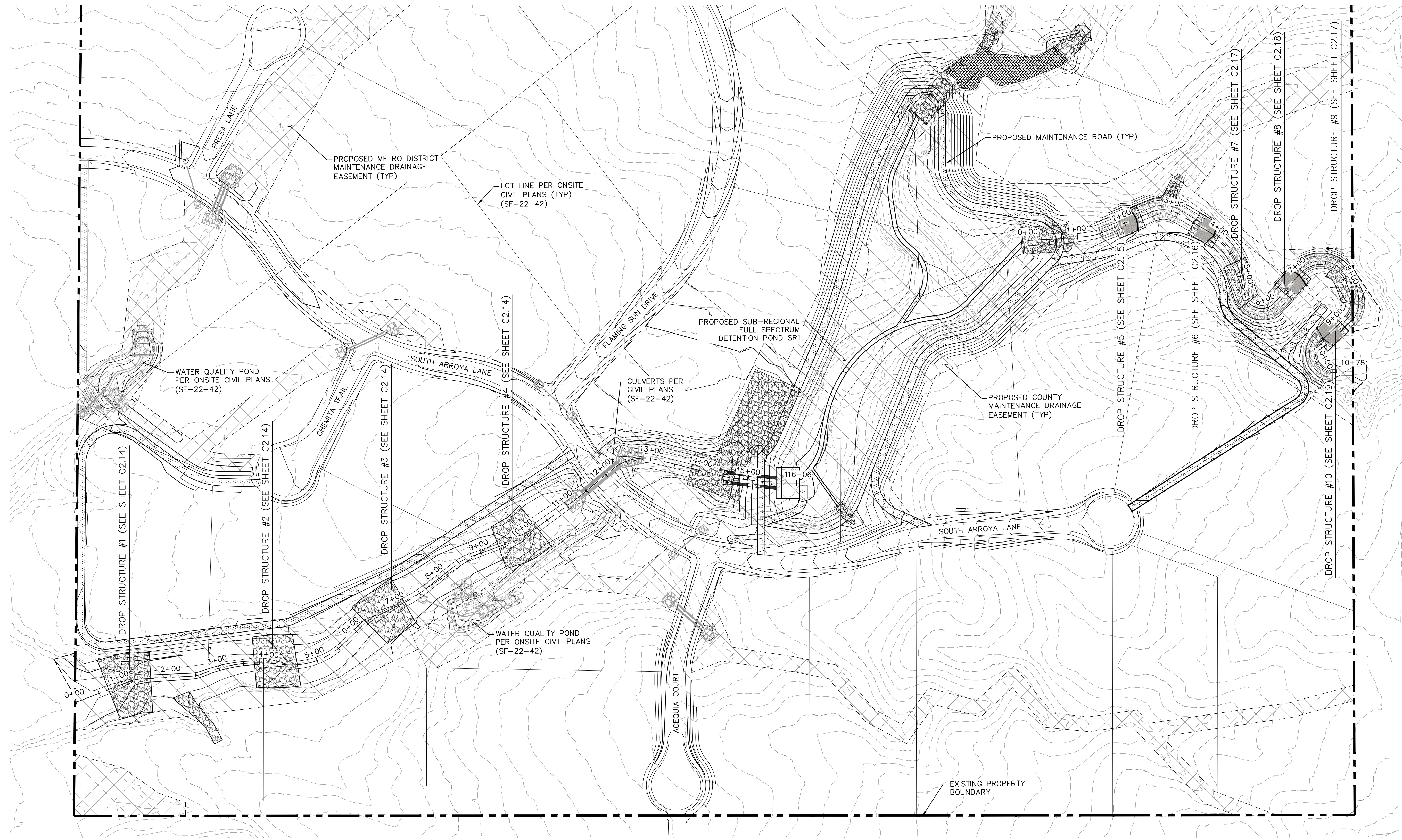
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CONSTRUCTION DOCUMENTS
NORTH CHANNEL PLAN AND PROFILE

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PROJECT NO.
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SHEET
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CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

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**EAGLEVIEW
 EL PASO COUNTY, COLORADO
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 DROP STRUCTURE KEY MAP**

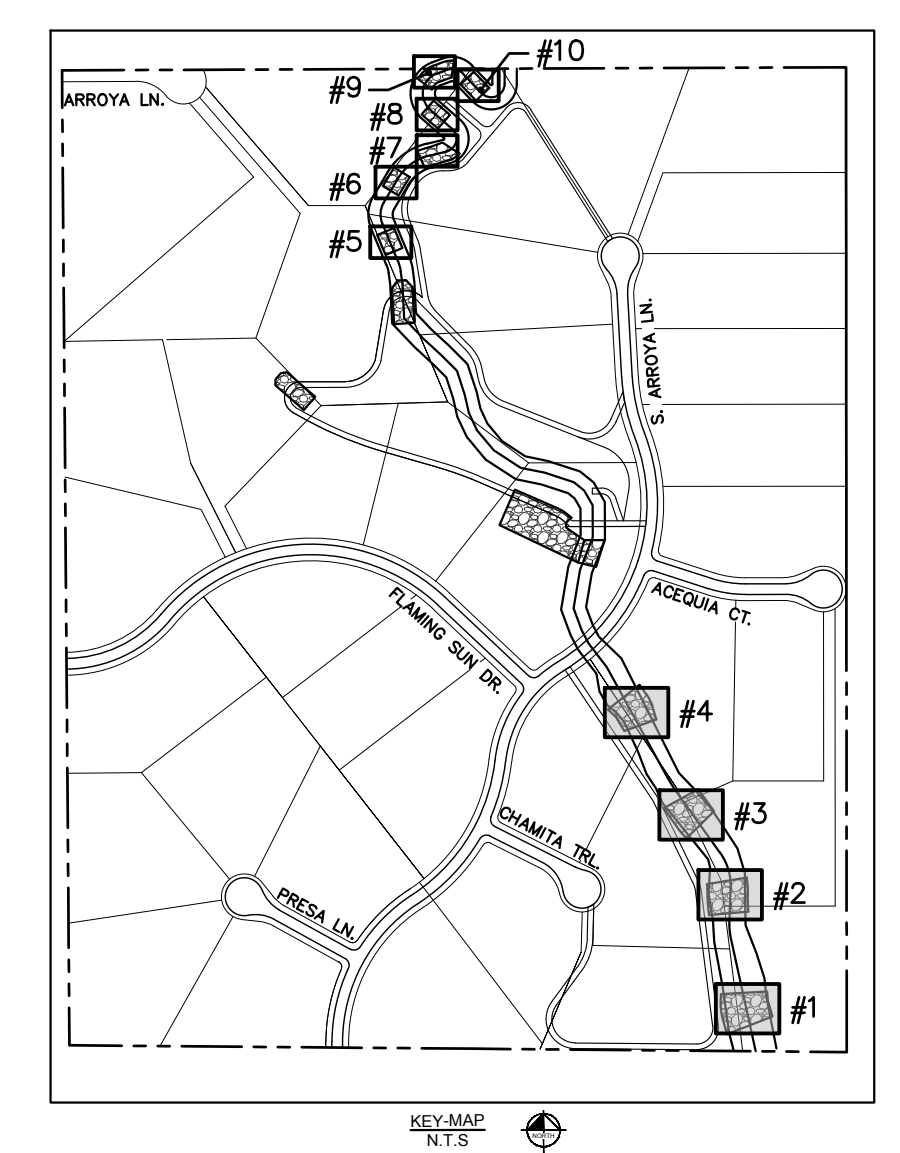
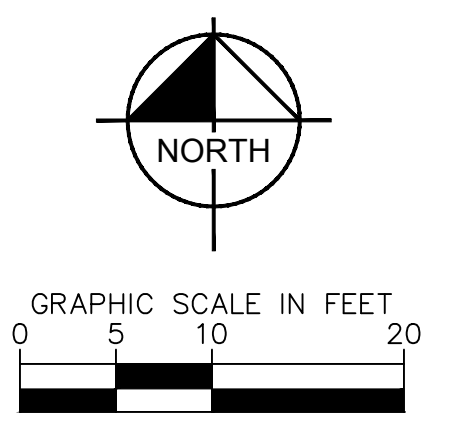
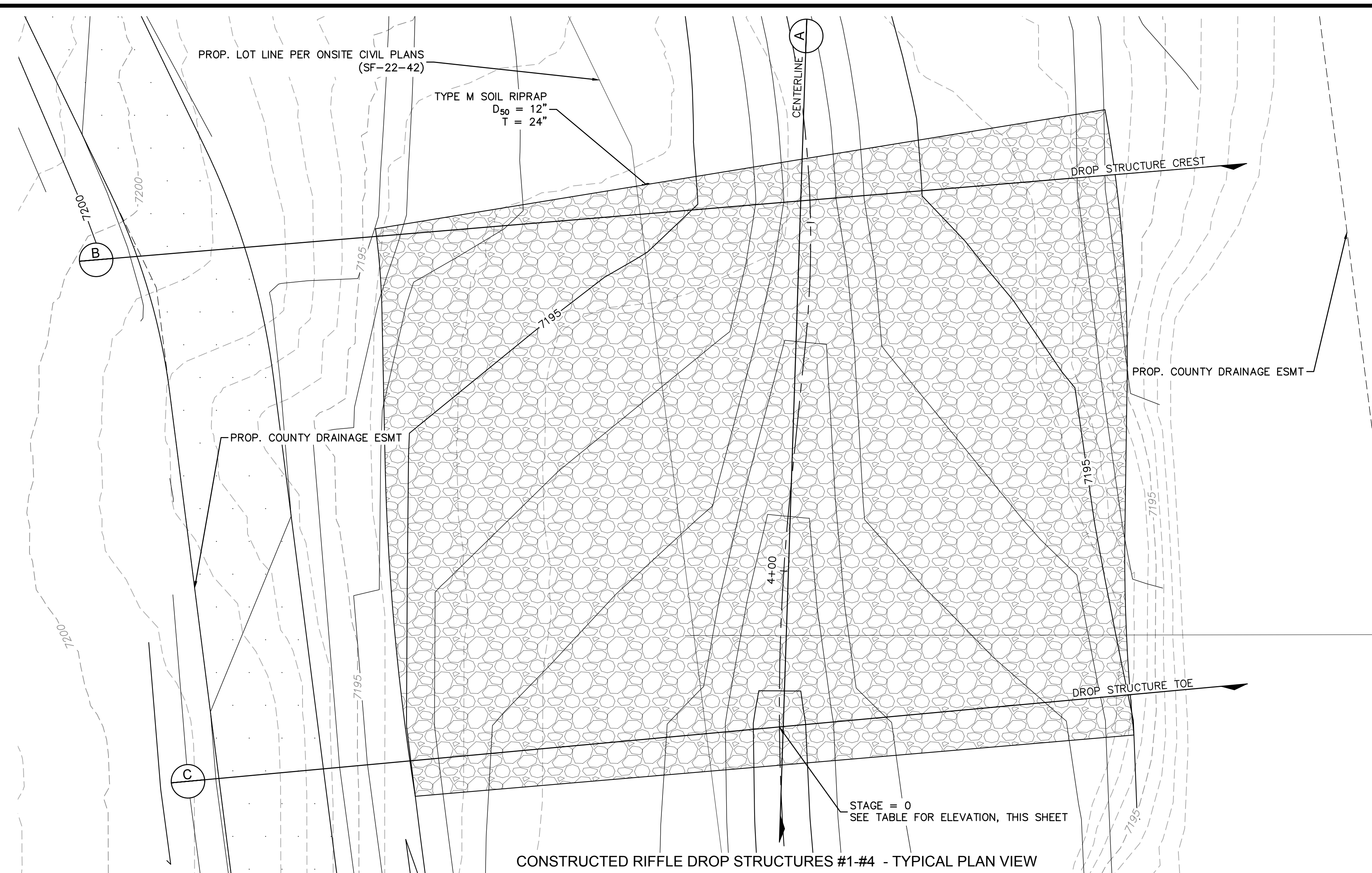
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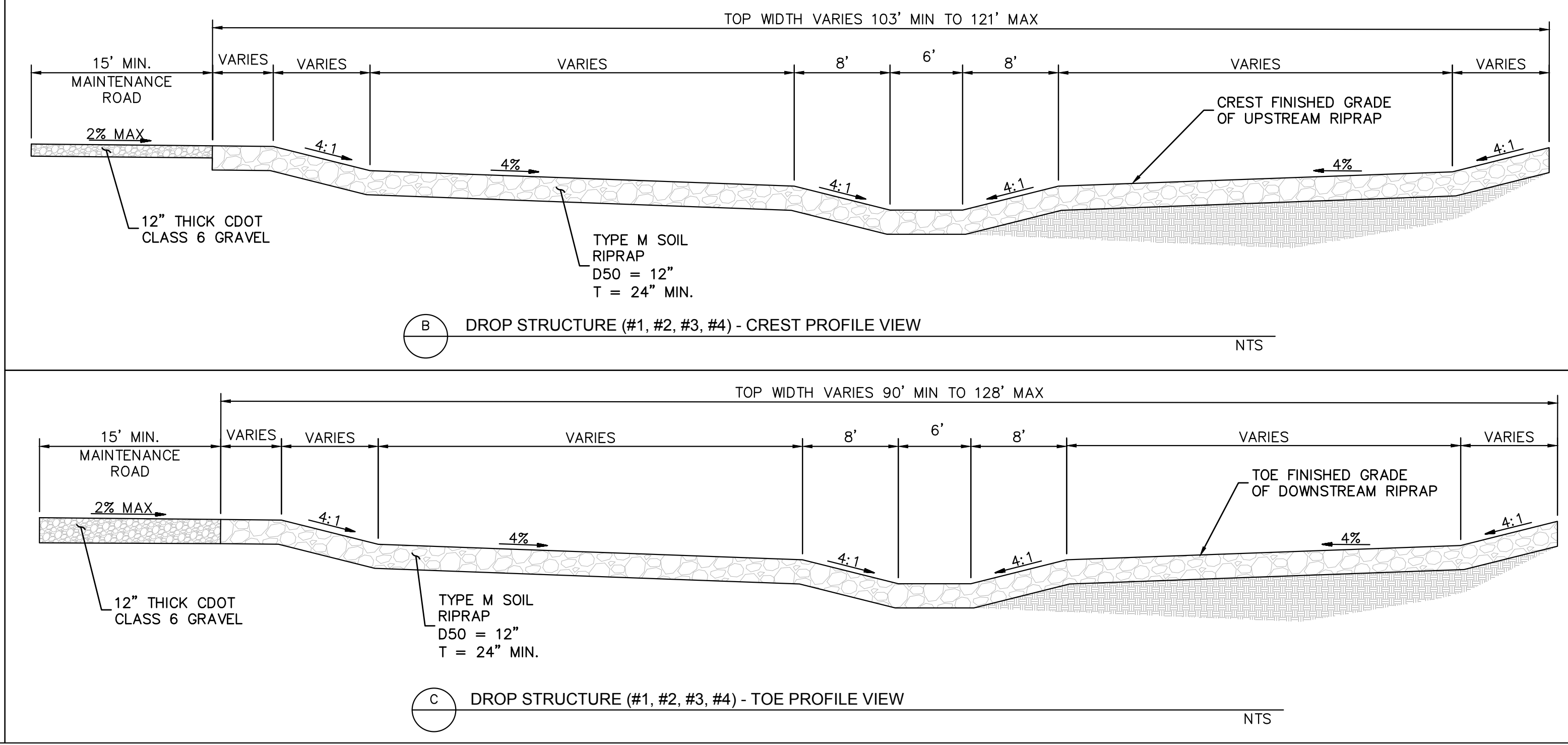
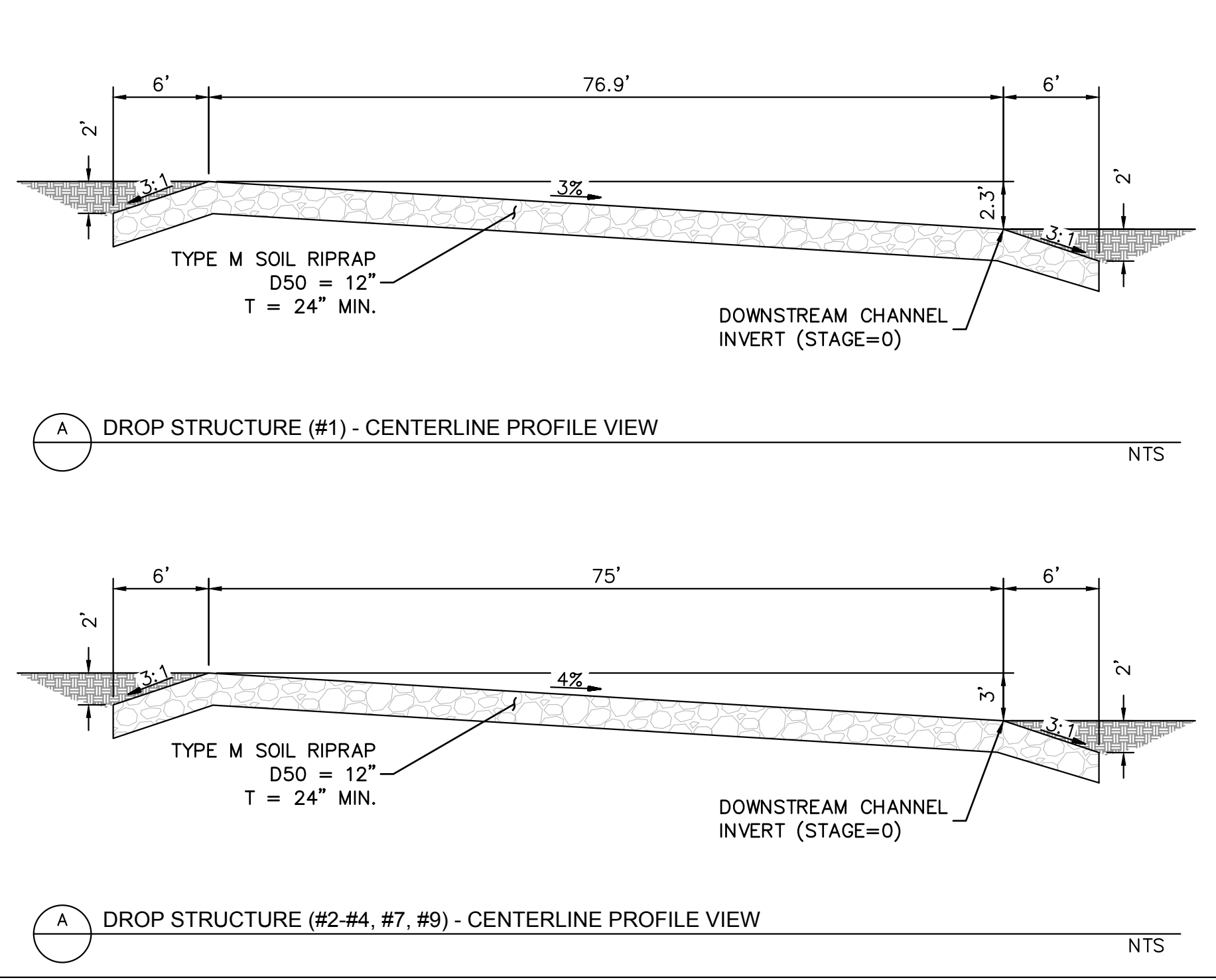
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DROP STRUCTURE STAGE ELEVATIONS	
NAME	ELEVATION
DROP STRUCTURE #1	7186.6
DROP STRUCTURE #2	7189.8
DROP STRUCTURE #3	7193.5
DROP STRUCTURE #4	7197.4

NOTE: STAGE=0 IS LOCATED AT THE TOE OF CHANNEL ALONG THE CENTER LINE ALIGNMENT. CONTRACTOR SHALL ENSURE ELEVATIONS ABOVE MATCH THE ELEVATIONS SHOWN ON PLAN AND PROFILE SHEETS

CONSTRUCTED RIFFLE DROP STRUCTURES #1-#4 - TYPICAL PLAN VIEW



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EAGLEVIEW
 EL PASO COUNTY, COLORADO
 CONSTRUCTION DOCUMENTS
DROP STRUCTURE DETAILS

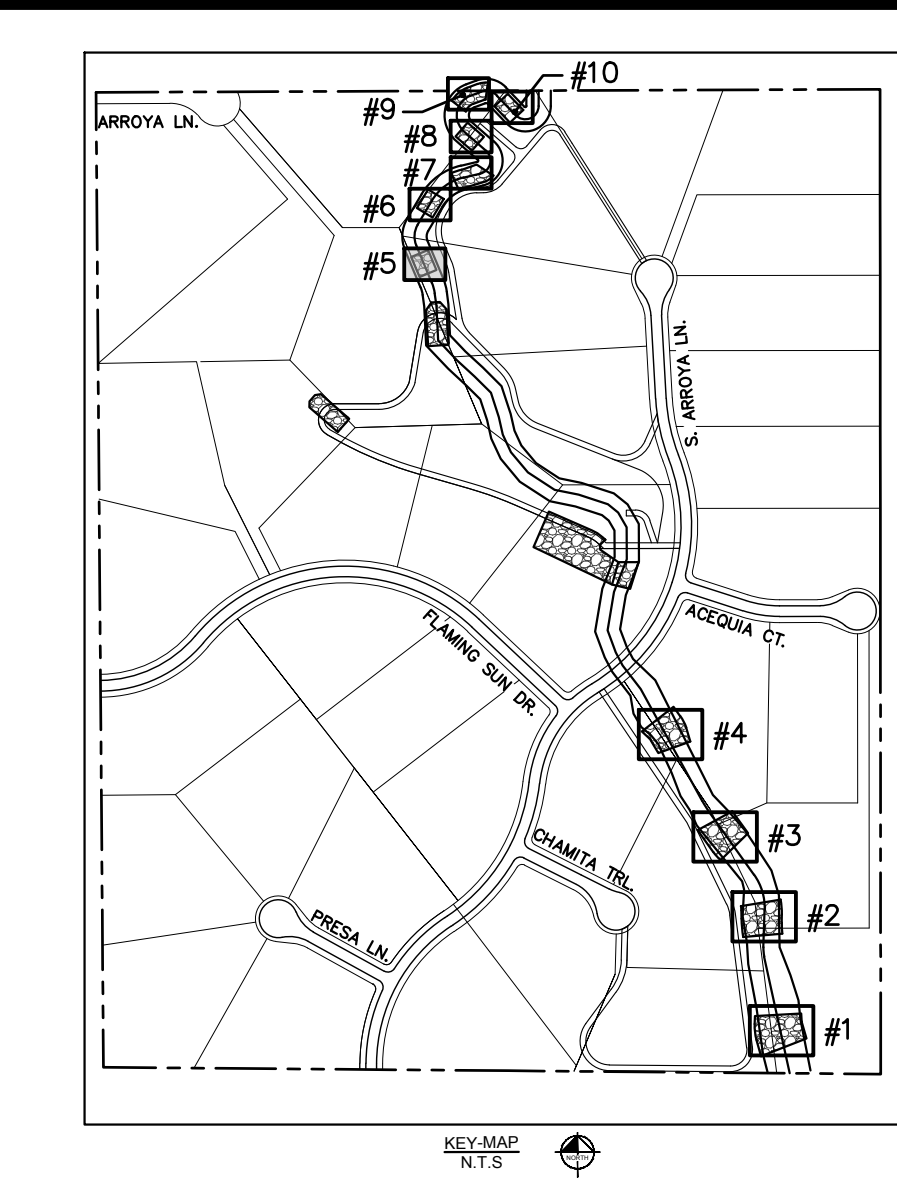
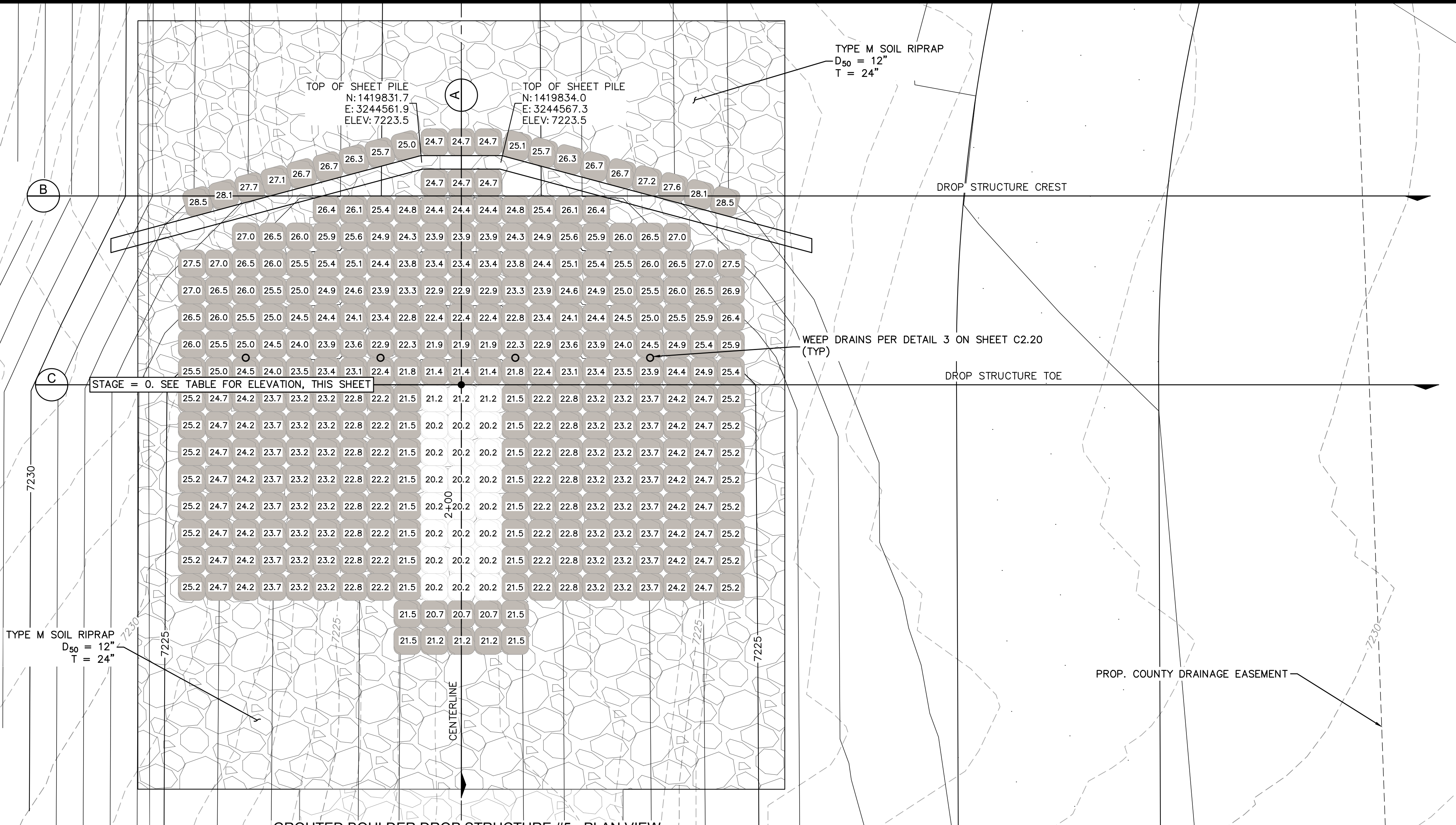
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PROJECT NO.
 196106001
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C2.14



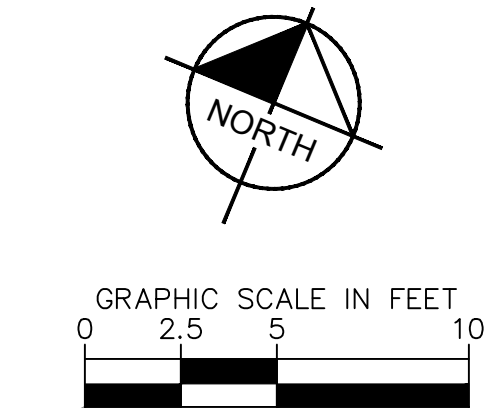
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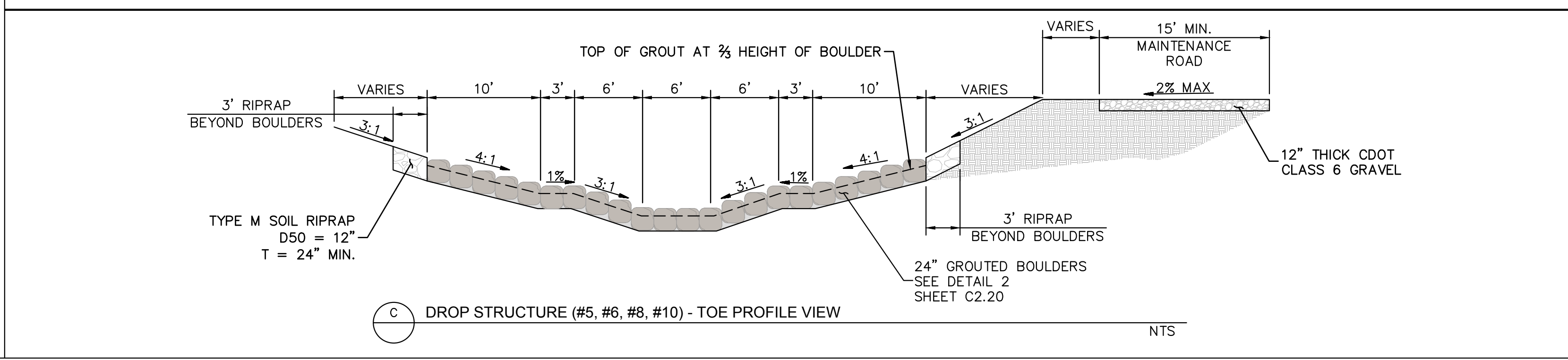
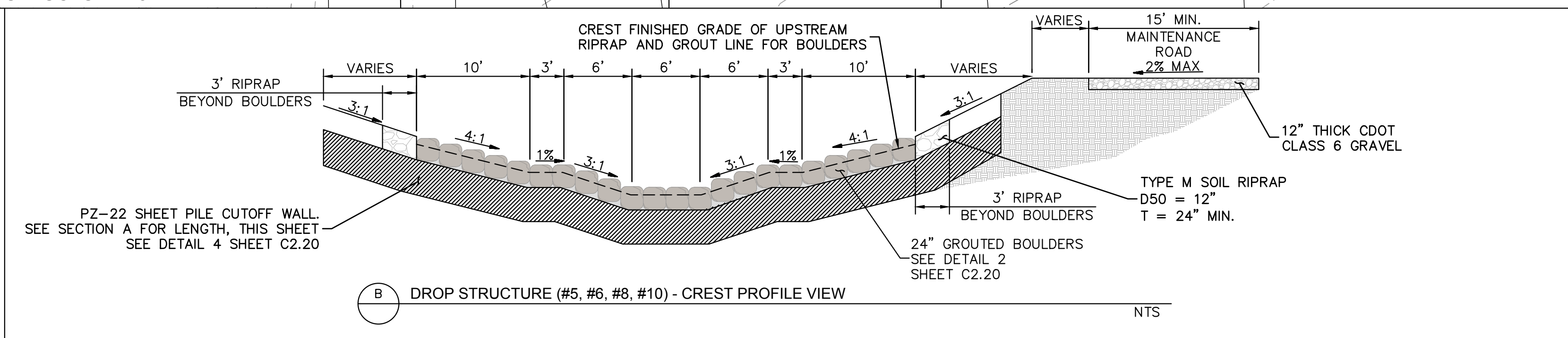
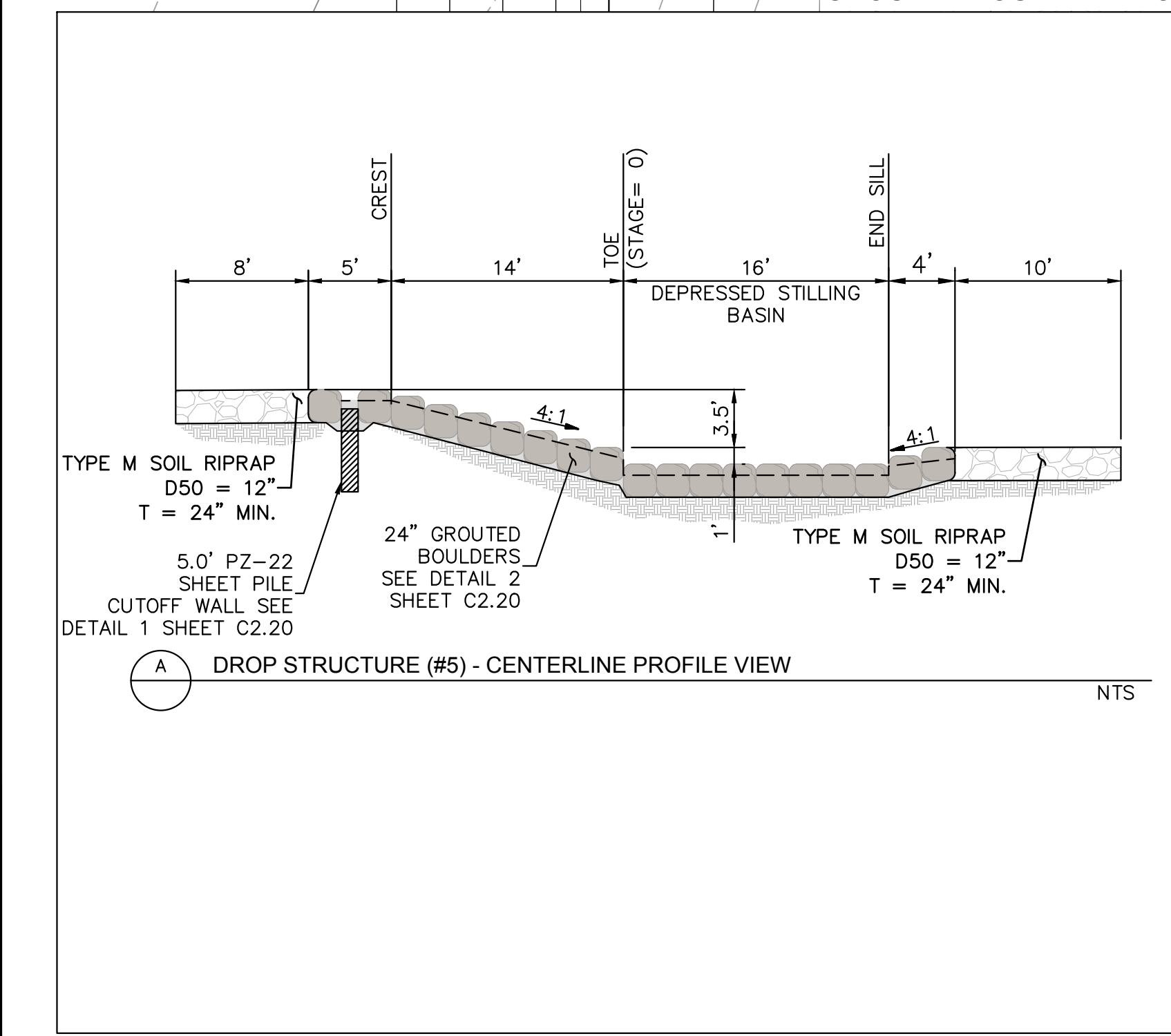
DROP STRUCTURE STAGE ELEVATIONS

NAME	ELEVATION
DROP STRUCTURE #5	7220.5

NOTE: STAGE=0 IS LOCATED AT THE TOE OF CHANNEL ALONG THE CENTER LINE ALIGNMENT AND REPRESENTS TOP OF GROUT ELEVATION. CONTRACTOR SHALL ENSURE ELEVATIONS ABOVE MATCH THE ELEVATIONS SHOWN ON PLAN AND PROFILE SHEETS



ELEVATION NOTE:
ADD 7200 TO ALL XX.X SPOT ELEVATION LABELS ON BOULDERS.



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REVISION _____

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EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
DROP STRUCTURE DETAILS

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196106001

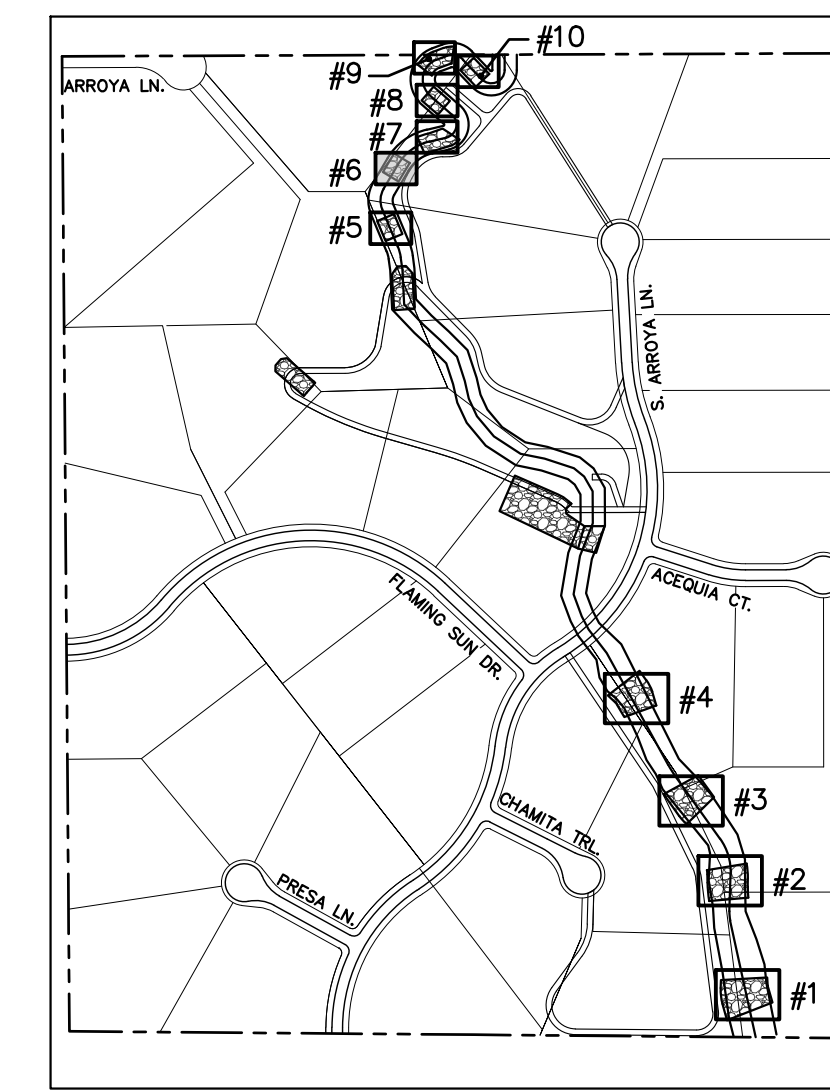
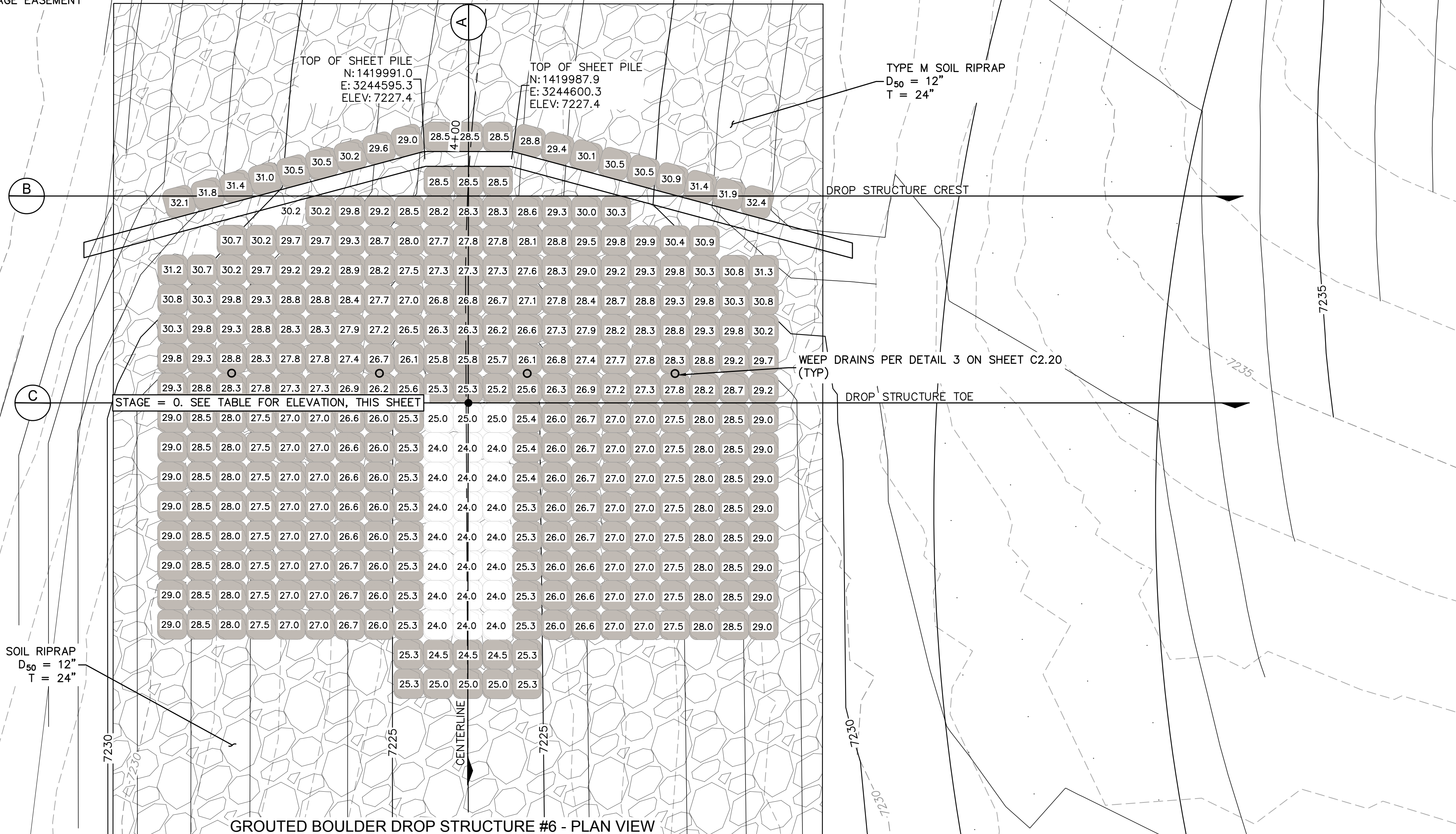
SHEET
C2.15

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

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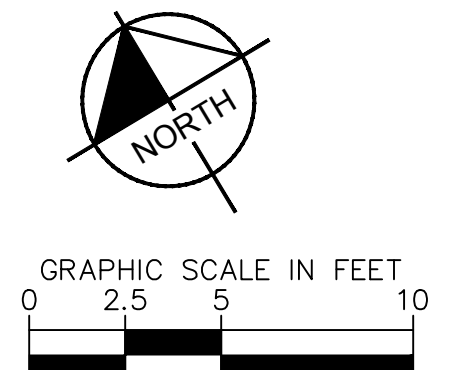
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PROP. COUNTY DRAINAGE EASEMENT

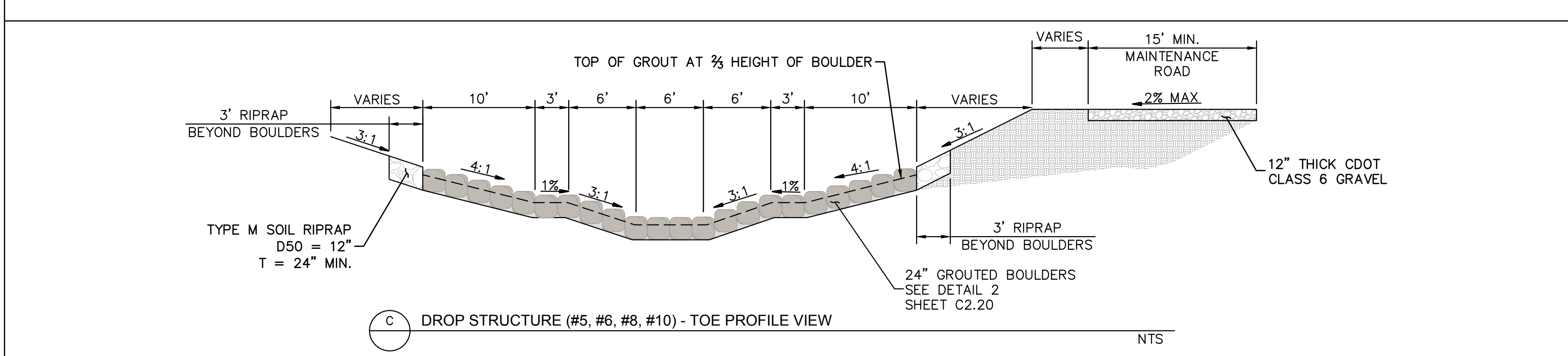
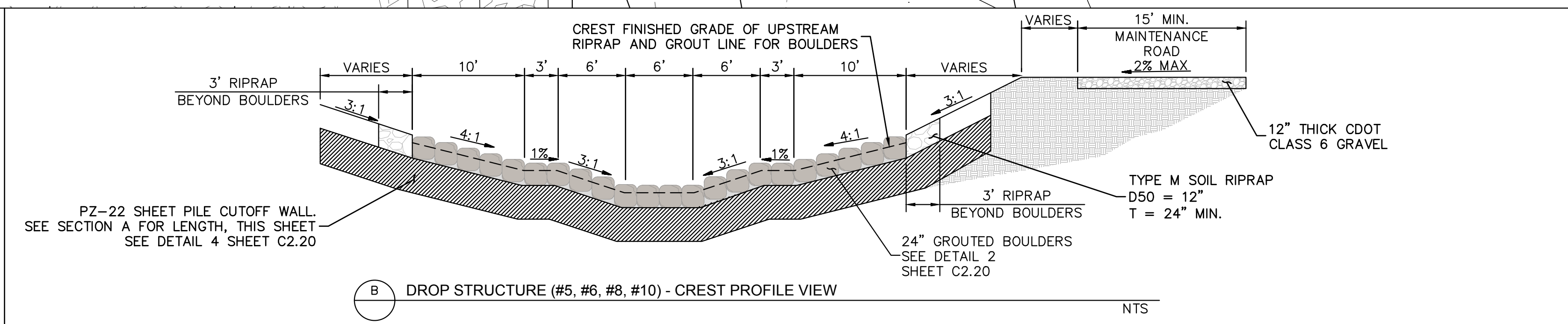
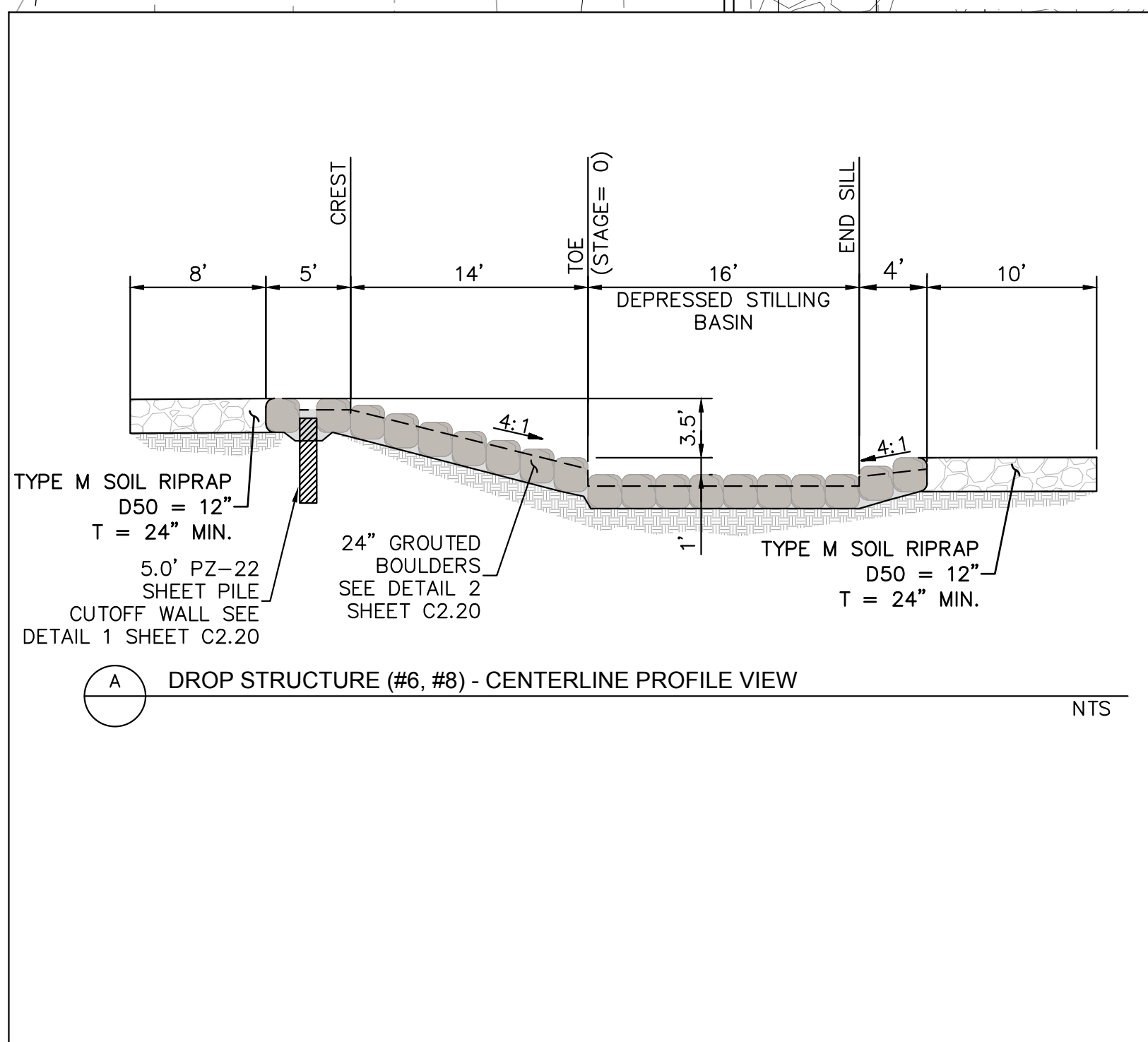


DROP STRUCTURE STAGE ELEVATIONS	
NAME	ELEVATION
DROP STRUCTURE #6	7224.4

NOTE: STAGE=0 IS LOCATED AT THE TOE OF CHANNEL ALONG THE CENTER LINE ALIGNMENT AND REPRESENTS TOP OF GROUT ELEVATION. CONTRACTOR SHALL ENSURE ELEVATIONS ABOVE MATCH THE ELEVATIONS SHOWN ON PLAN AND PROFILE SHEETS



ELEVATION NOTE:
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EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
DROP STRUCTURE DETAILS

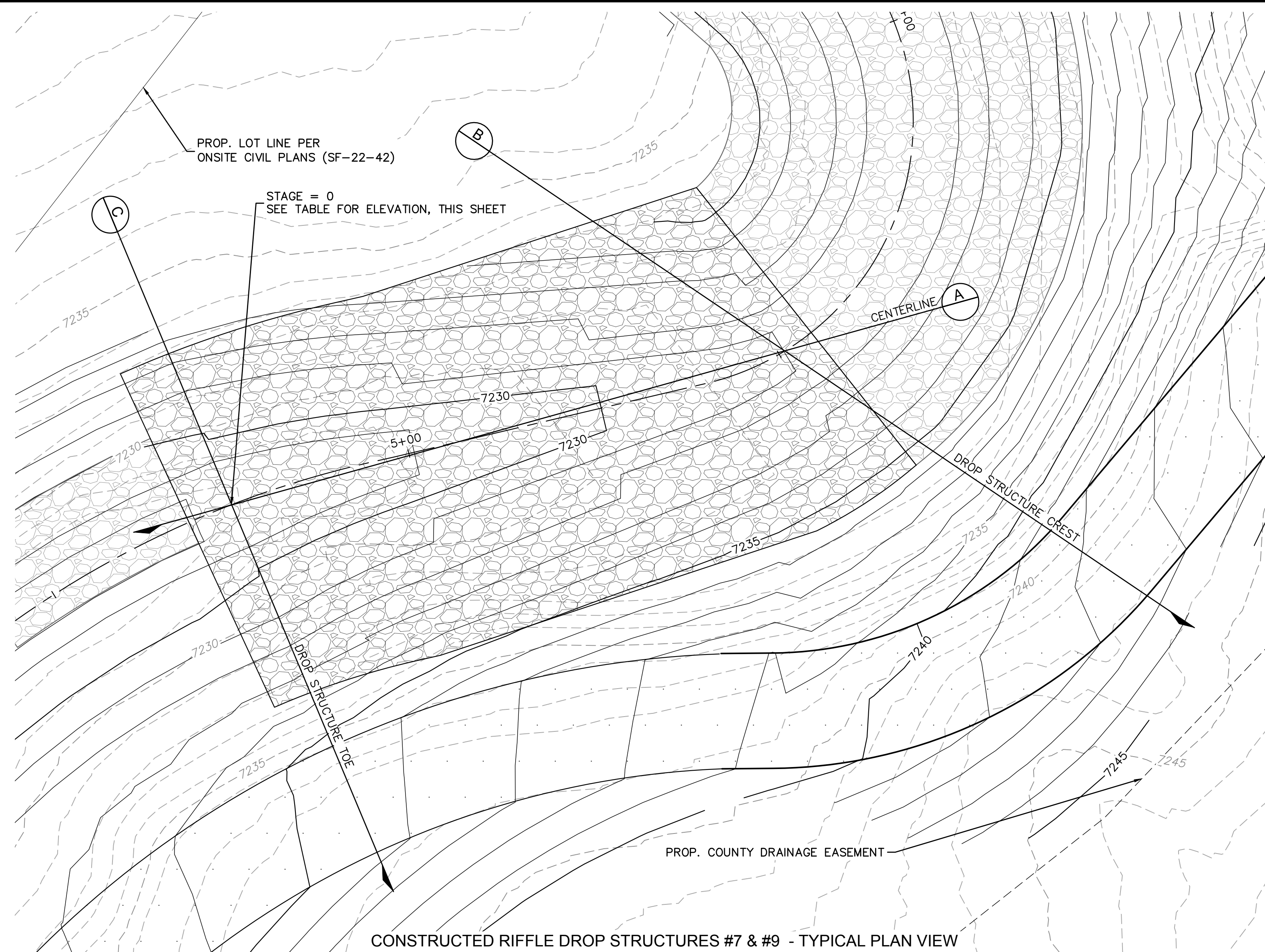
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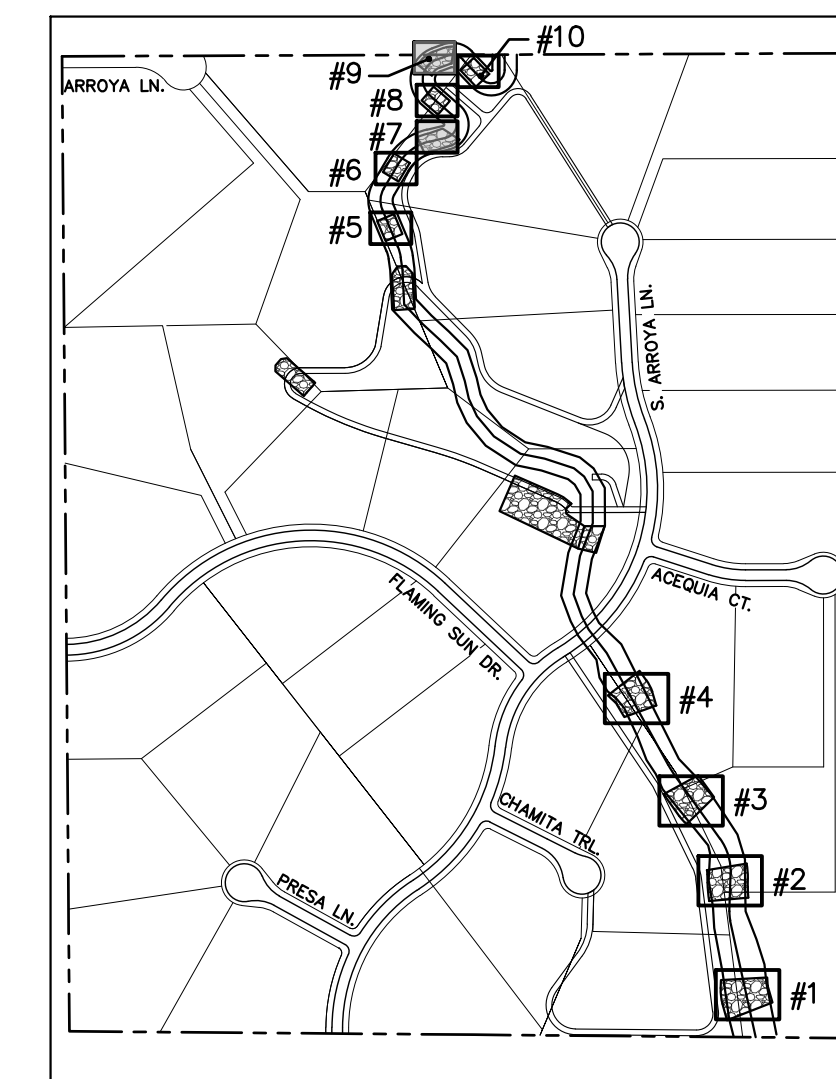
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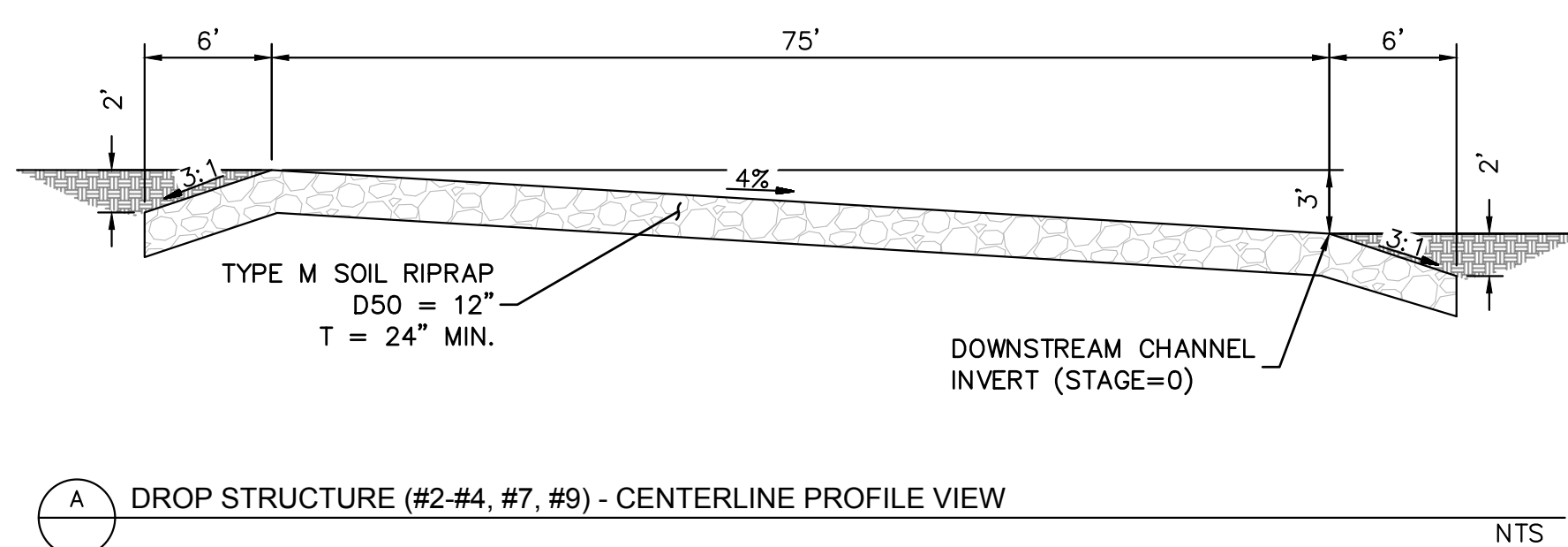
CONSTRUCTED RIFFLE DROP STRUCTURES #7 & #9 - TYPICAL PLAN VIEW



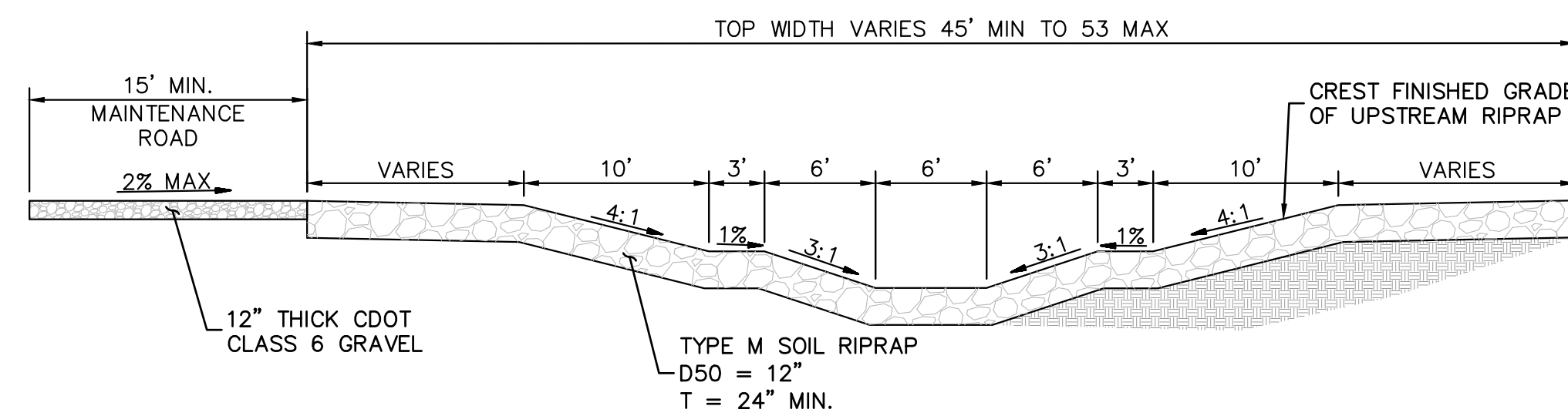
DROP STRUCTURE STAGE ELEVATIONS

NAME	ELEVATION
DROP STRUCTURE #7	7228.0
DROP STRUCTURE #9	7234.7

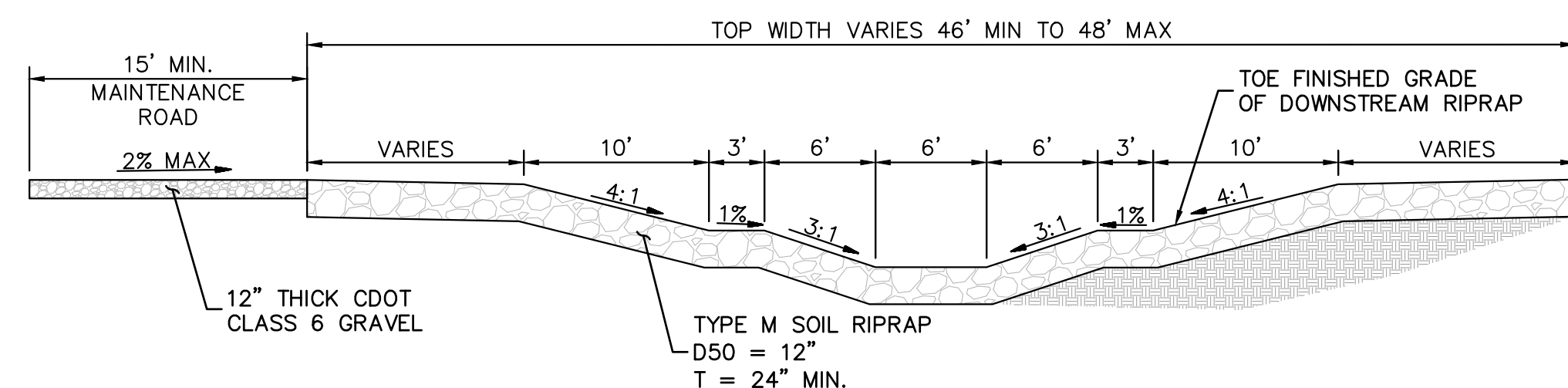
NOTE: STAGE=0 IS LOCATED AT THE TOE OF CHANNEL ALONG THE CENTER LINE ALIGNMENT. CONTRACTOR SHALL ENSURE ELEVATIONS ABOVE MATCH THE ELEVATIONS SHOWN ON PLAN AND PROFILE SHEETS



A DROP STRUCTURE (#2, #4, #7, #9) - CENTERLINE PROFILE VIEW



B DROP STRUCTURE (#7, #9) - CREST PROFILE VIEW



C DROP STRUCTURE (#7, #9) - TOE PROFILE VIEW



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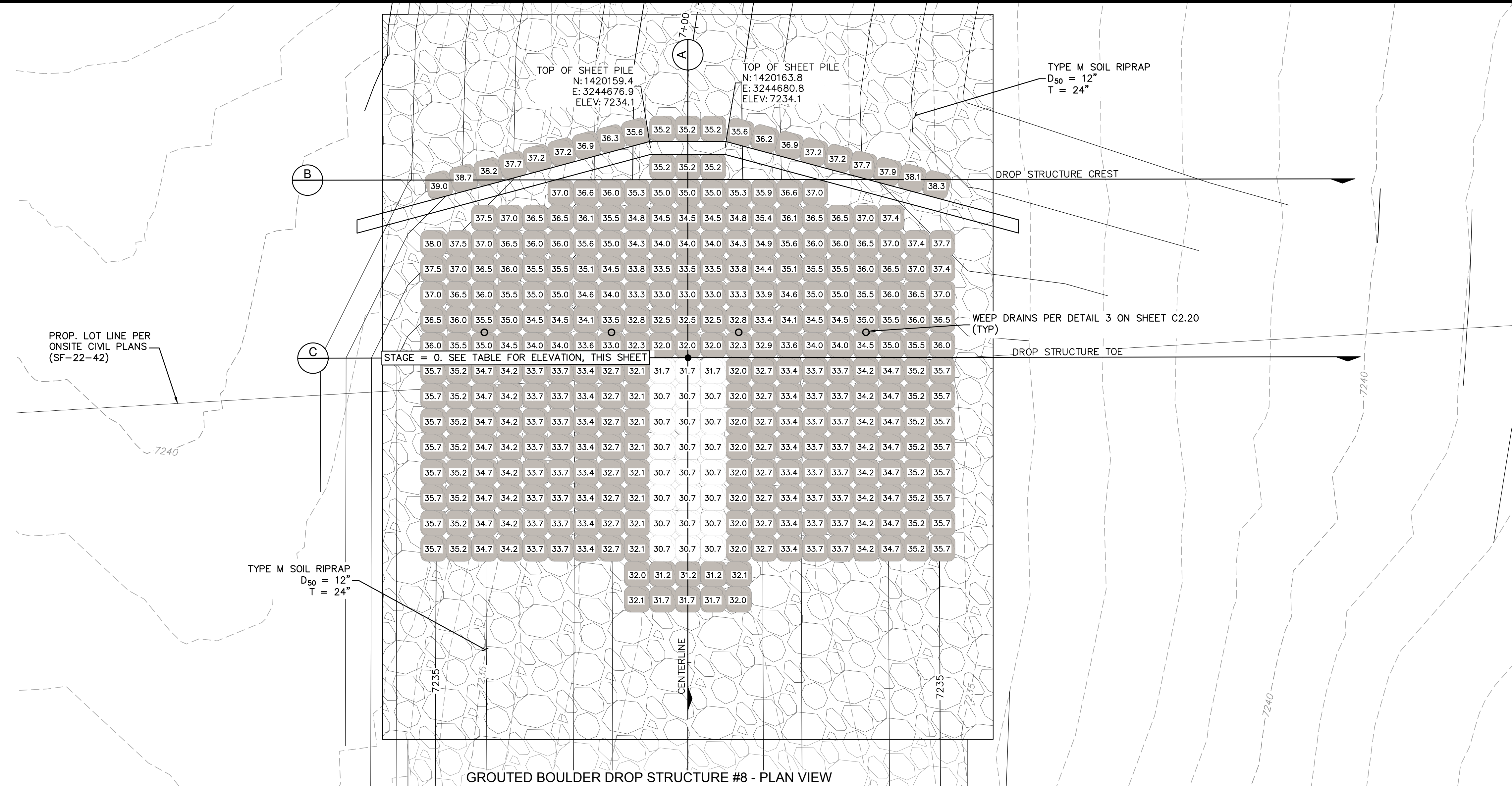
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PROJECT NO.
 196106001

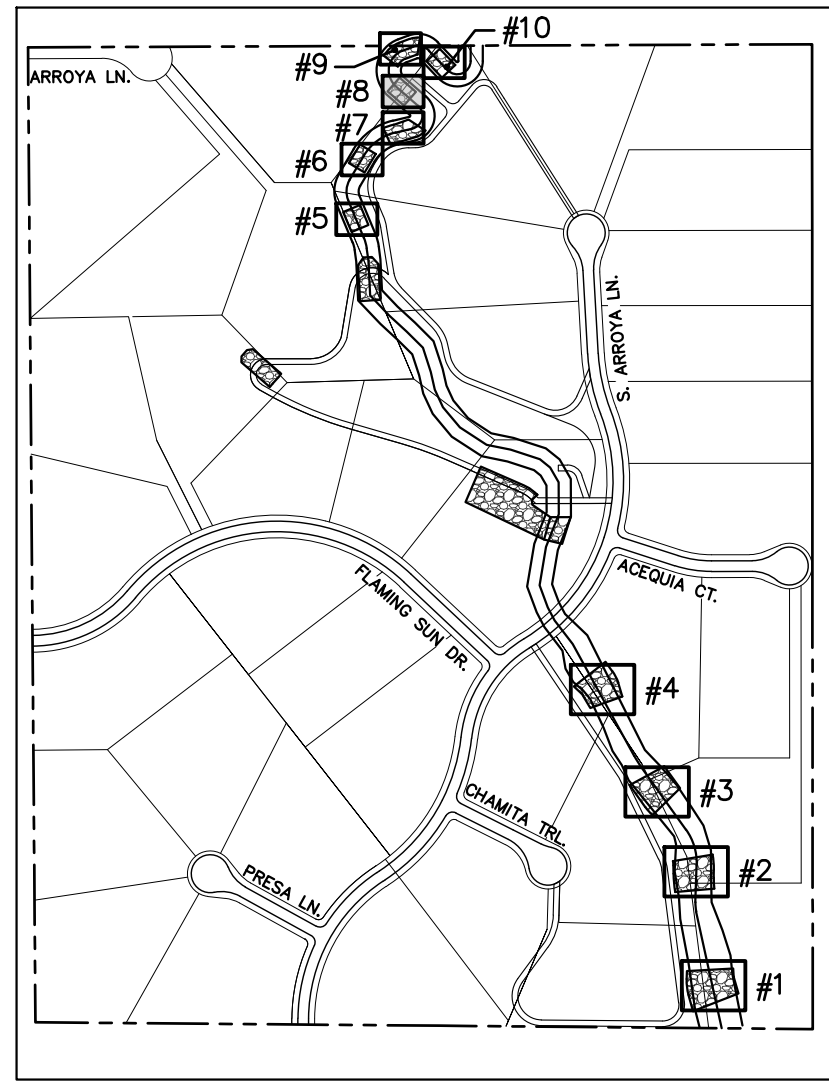
SHEET

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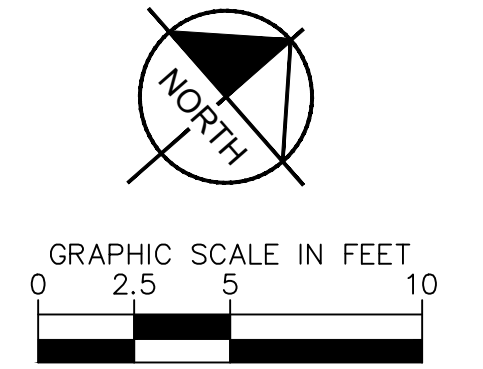
GRouted Boulder Drop Structure #8 - PLAN VIEW



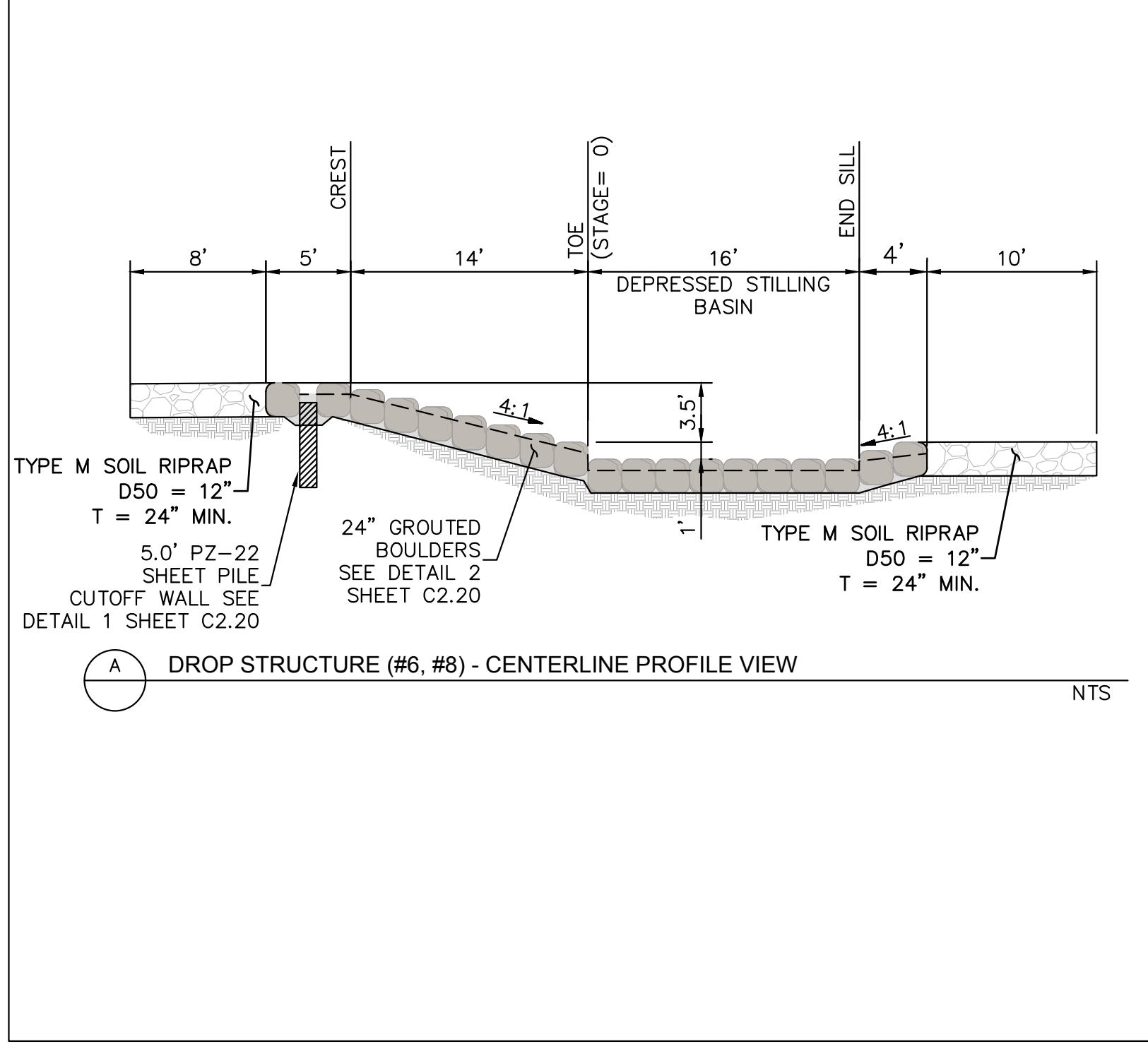
DROP STRUCTURE STAGE ELEVATIONS

NAME	ELEVATION
DROP STRUCTURE #8	7231.1

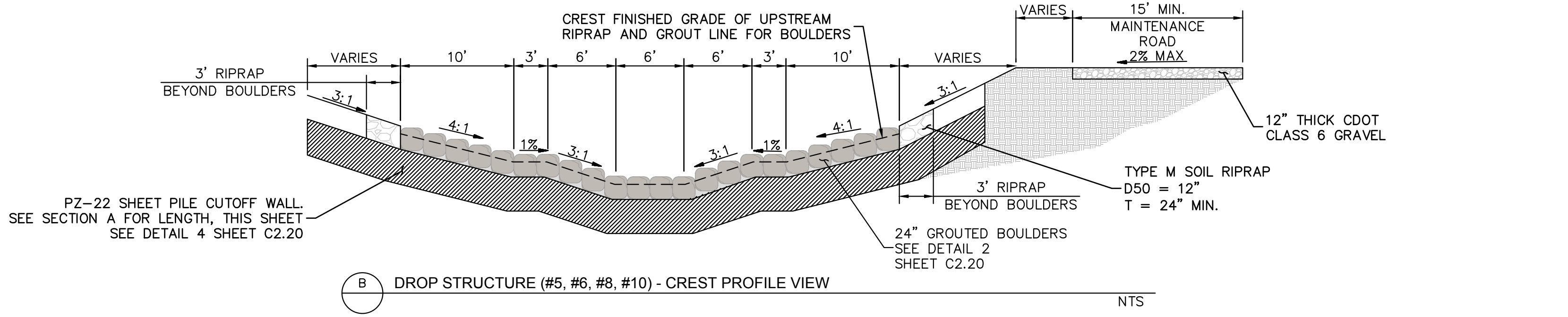
NOTE: STAGE=0 IS LOCATED AT THE TOE OF CHANNEL ALONG THE CENTER LINE ALIGNMENT AND REPRESENTS TOP OF GROUT ELEVATION. CONTRACTOR SHALL ENSURE ELEVATIONS ABOVE MATCH THE ELEVATIONS SHOWN ON PLAN AND PROFILE SHEETS



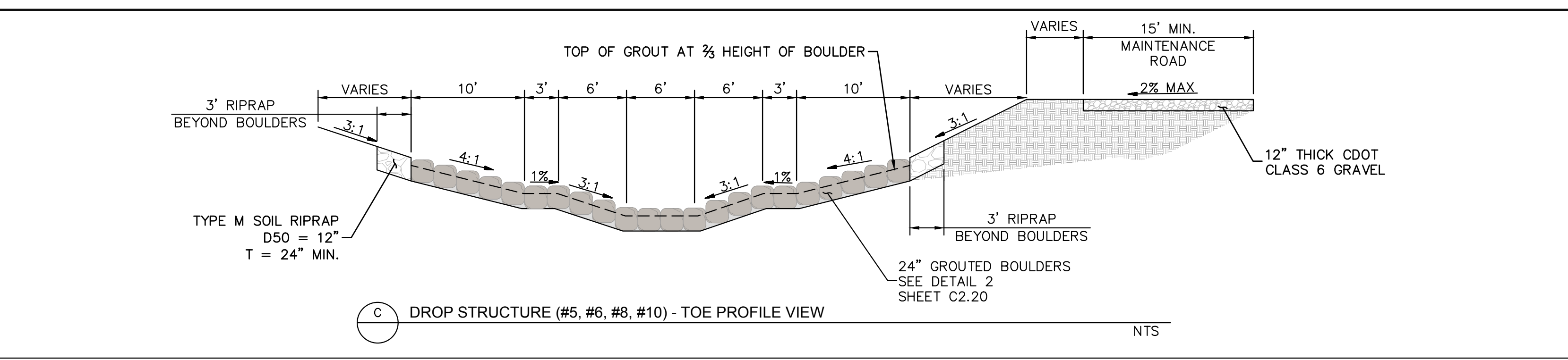
ELEVATION NOTE:
ADD 7200 TO ALL XX.X SPOT ELEVATION LABELS ON BOULDERS.



DROP STRUCTURE (#6, #8) - CENTERLINE PROFILE VIEW



DROP STRUCTURE (#5, #6, #8, #10) - CREST PROFILE VIEW



DROP STRUCTURE (#5, #6, #8, #10) - TOE PROFILE VIEW



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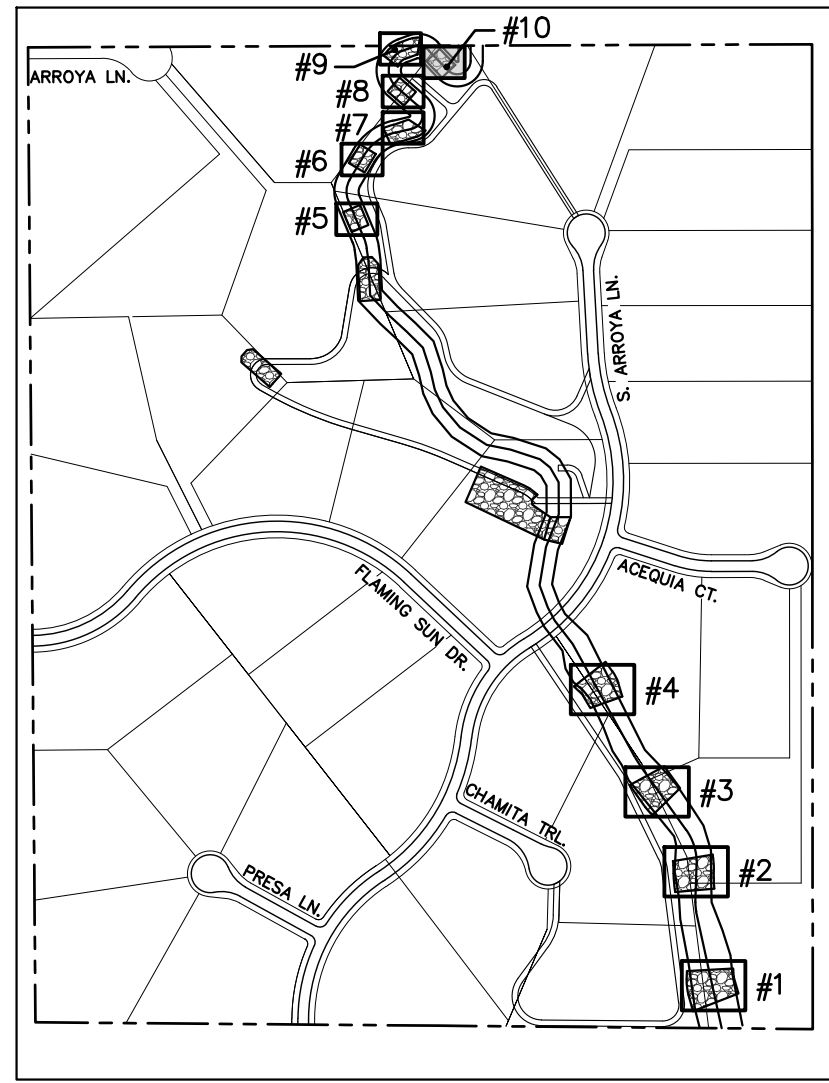
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
DROP STRUCTURE DETAILS

PROJECT NO.
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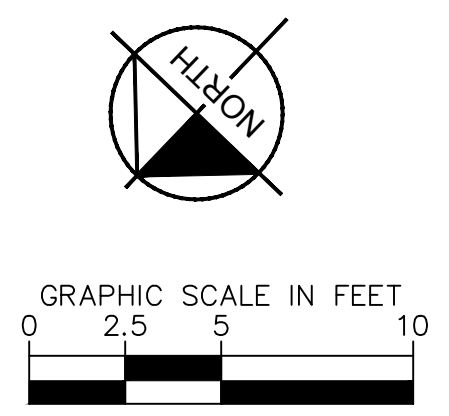
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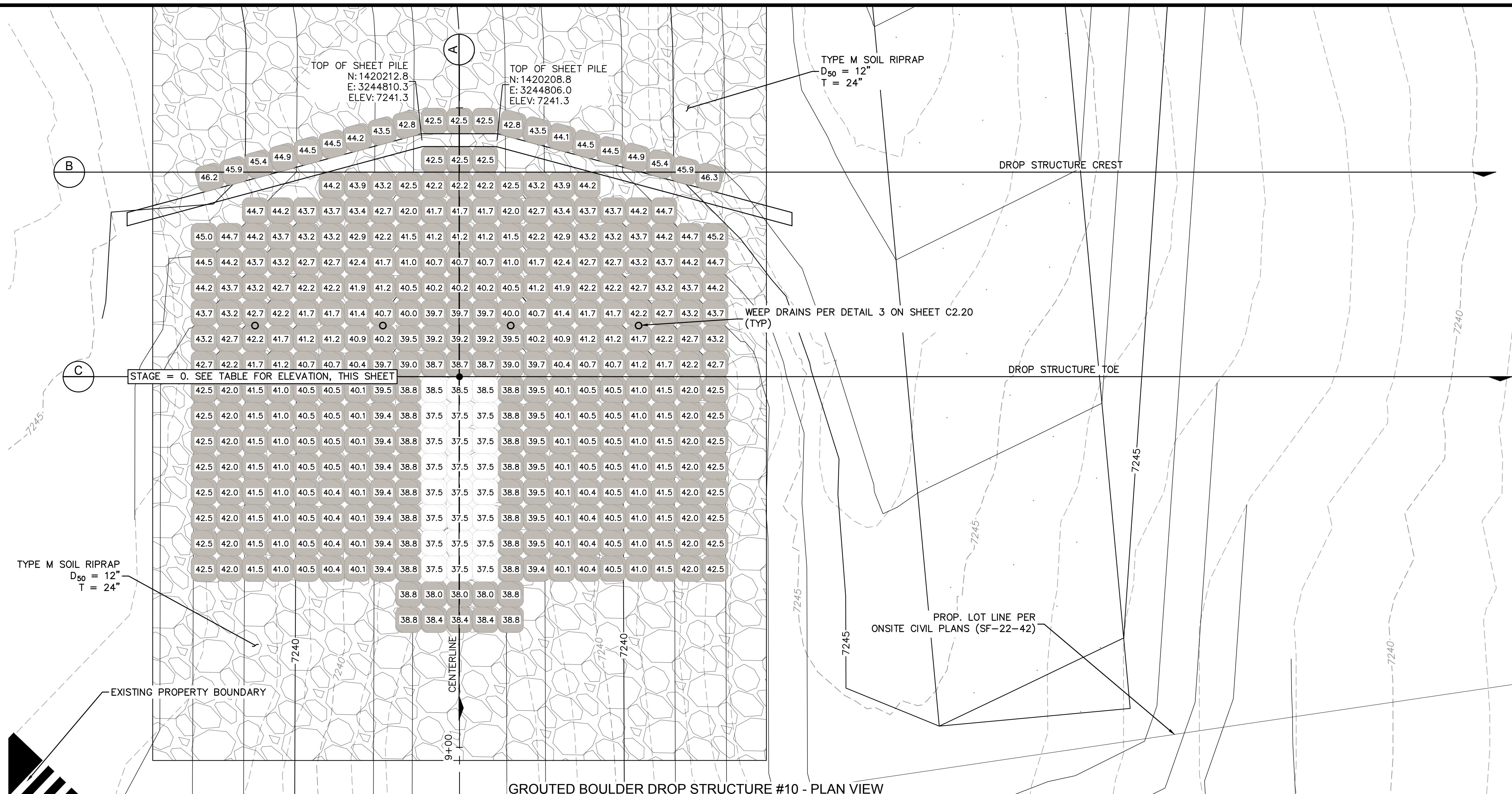


DROP STRUCTURE STAGE ELEVATIONS	
NAME	ELEVATION
DROP STRUCTURE #10	7237.8

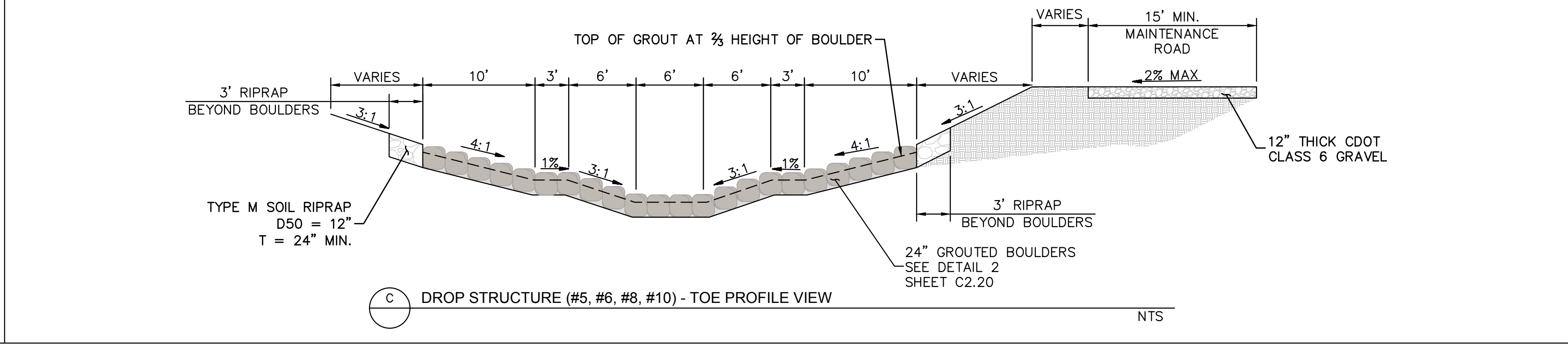
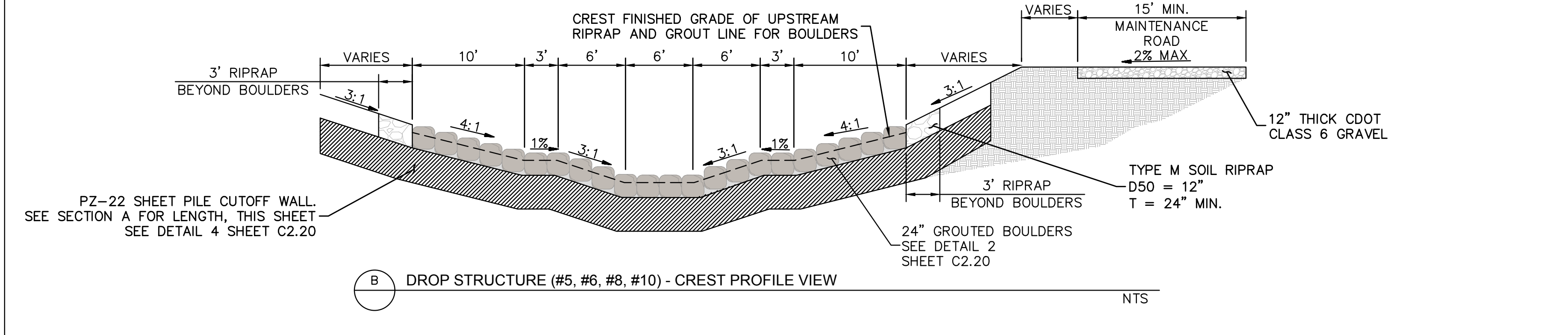
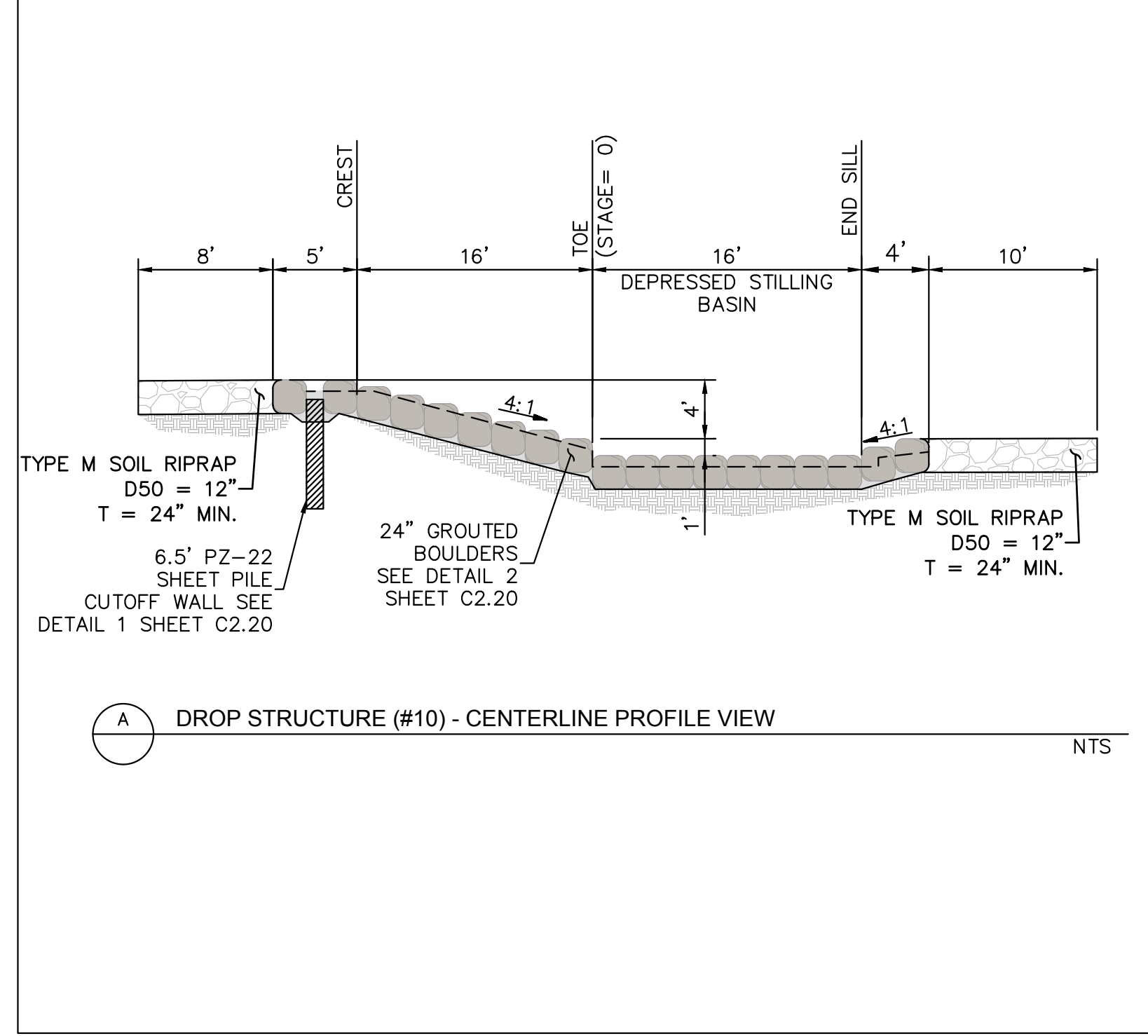
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ELEVATION NOTE:
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GRouted Boulder Drop Structure #10 - PLAN VIEW



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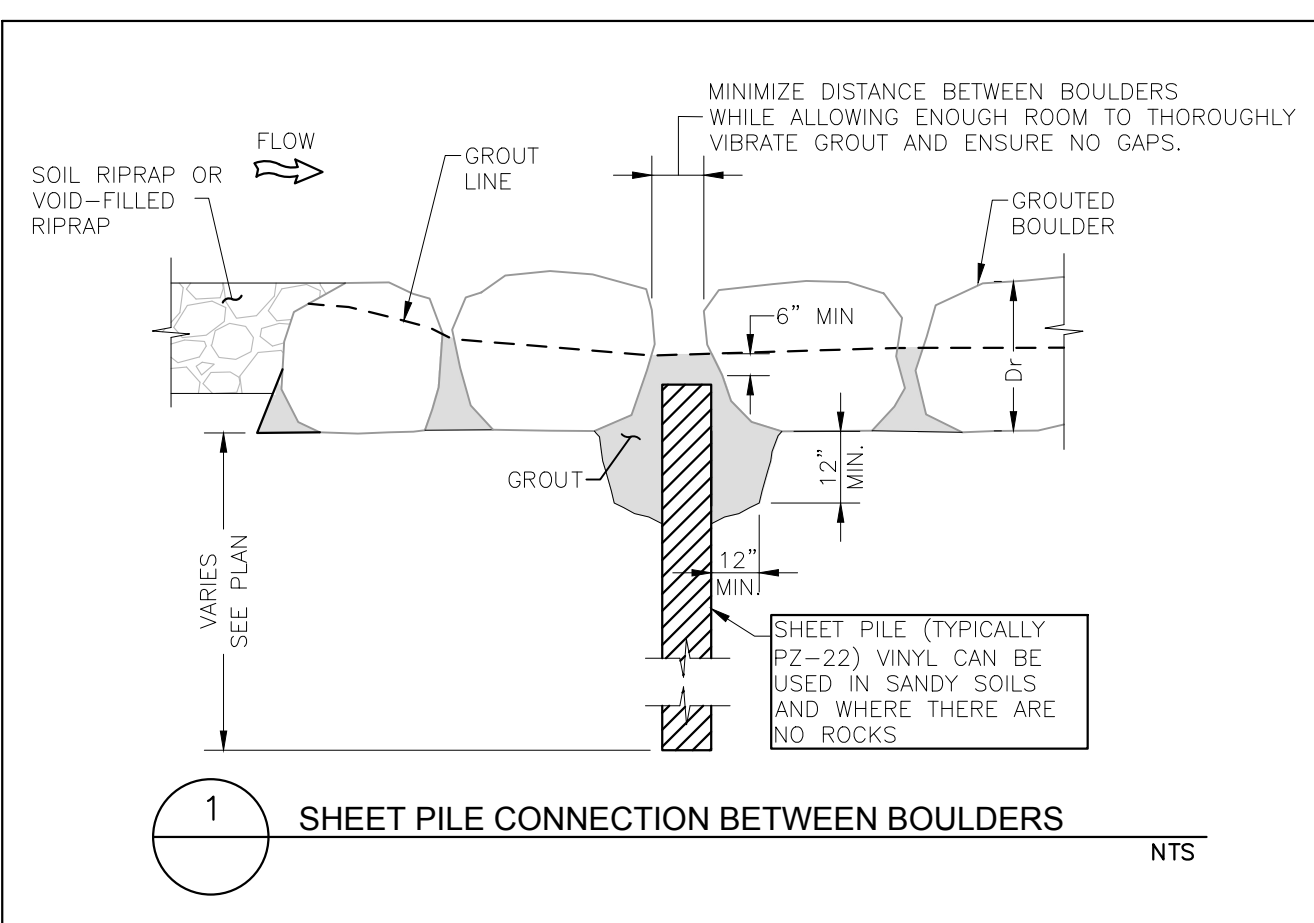
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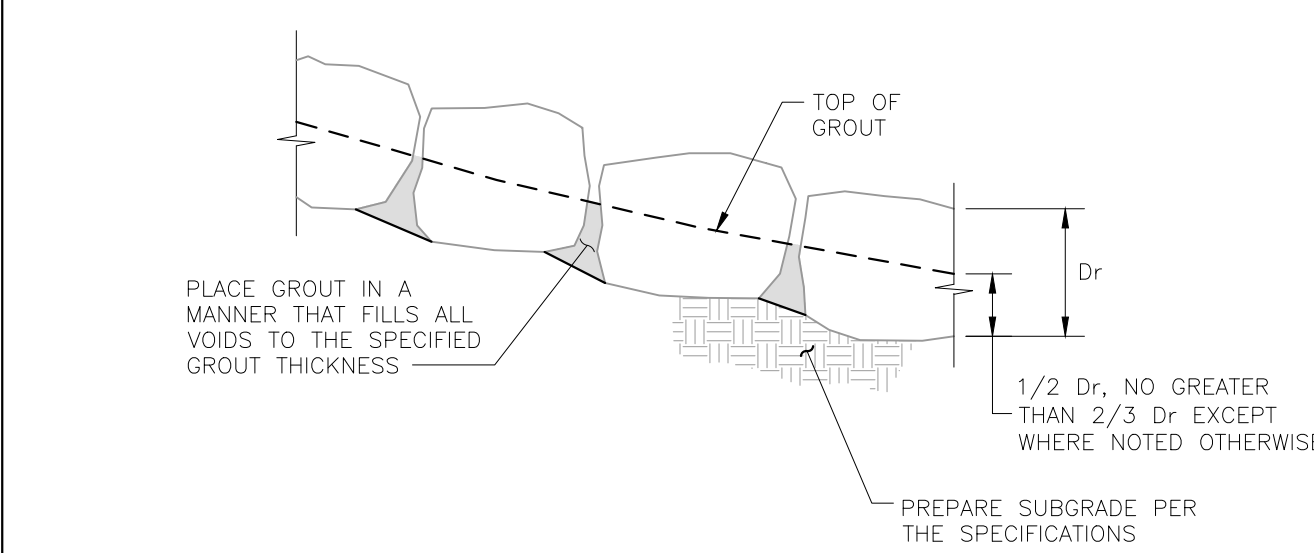
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811 Know what's below. Call before you dig.
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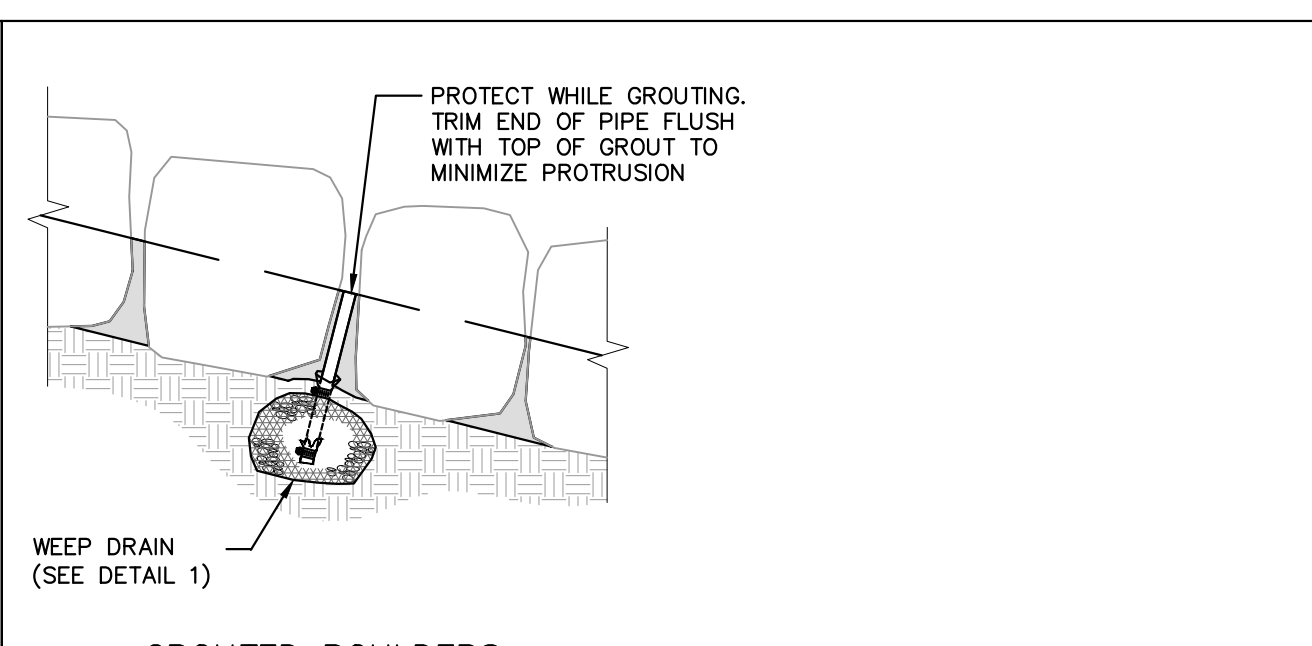


1 SHEET PILE CONNECTION BETWEEN BOULDERS NTS

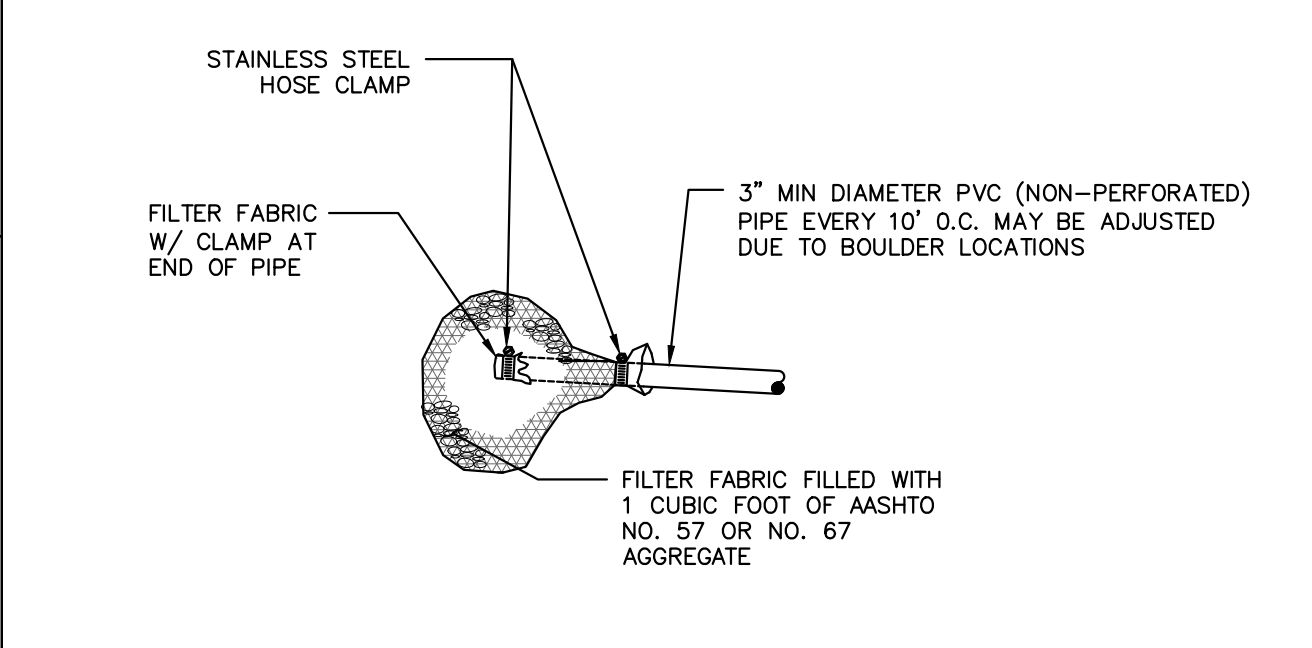


2 GROUDED BOULDER PLACEMENT DETAIL NTS

BOULDER PLACEMENT NOTES:
 1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY VIBRATE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF A 2X4 CAN BE USED AS A GUIDE TO CHECK MINIMUM SPACING.
 2. BEFORE GROUTING, CLEAN ALL DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING. AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION.
MATERIAL SPECIFICATIONS:
 1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI.
 2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE II PORTLAND CEMENT.
 3. A MAXIMUM OF 25% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT.
 4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/8-INCH ROCK (COARSE).
 5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES.
 6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%.
 7. TO CONTROL SHRINKAGE AND CRACKING, 1.5 POUNDS OF FIBERMESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT.
 8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT.
GROUT PLACEMENT SPECIFICATIONS:
 1. SPECIAL PROCEDURES SHALL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT.
 2. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE.
 3. FULL-DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS, WHILE VIBRATING GROUT INTO PLACE USING A PENCIL VIBRATOR.
 4. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH.
 5. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT.
 6. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309.

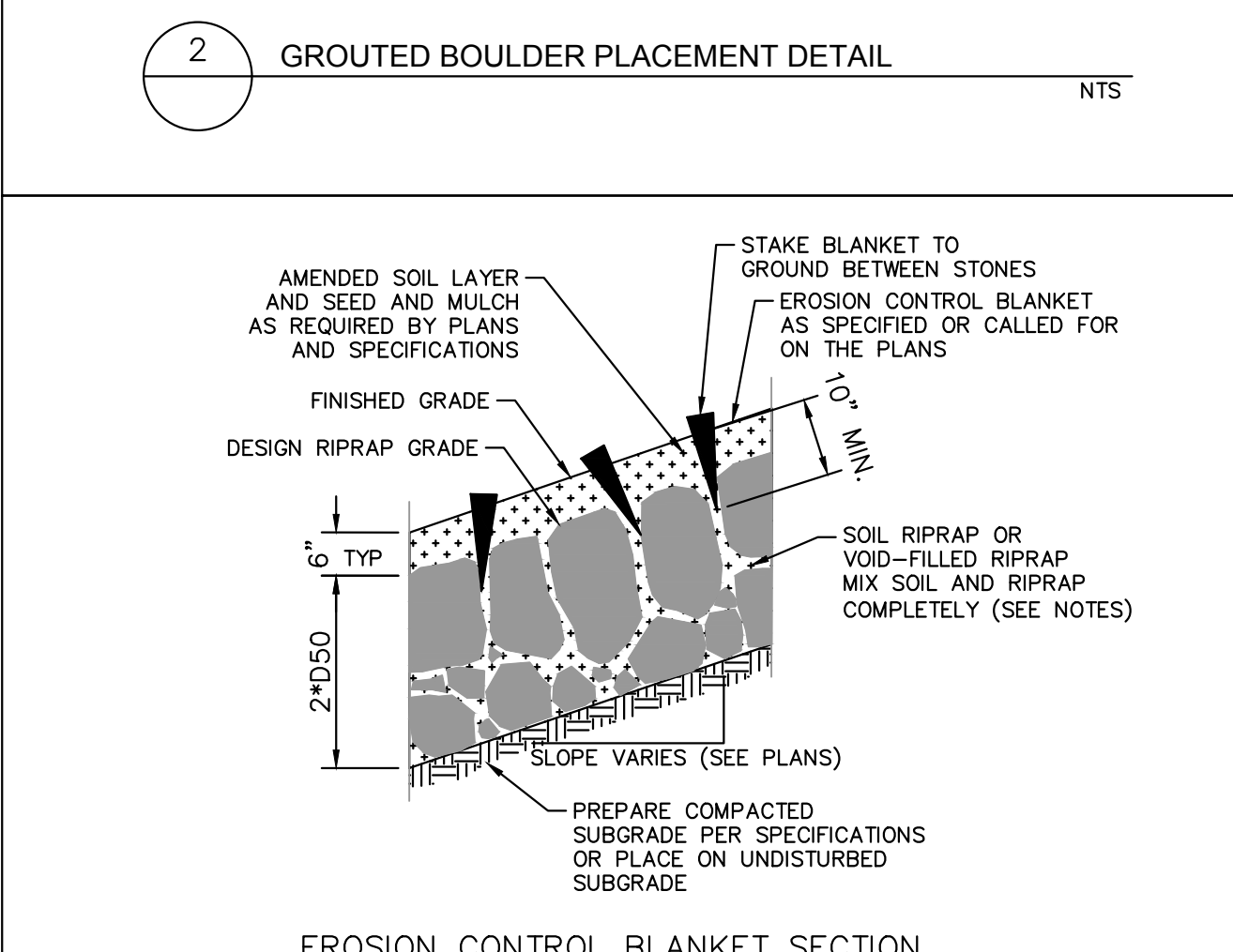


3 GROUDED BOULDERS



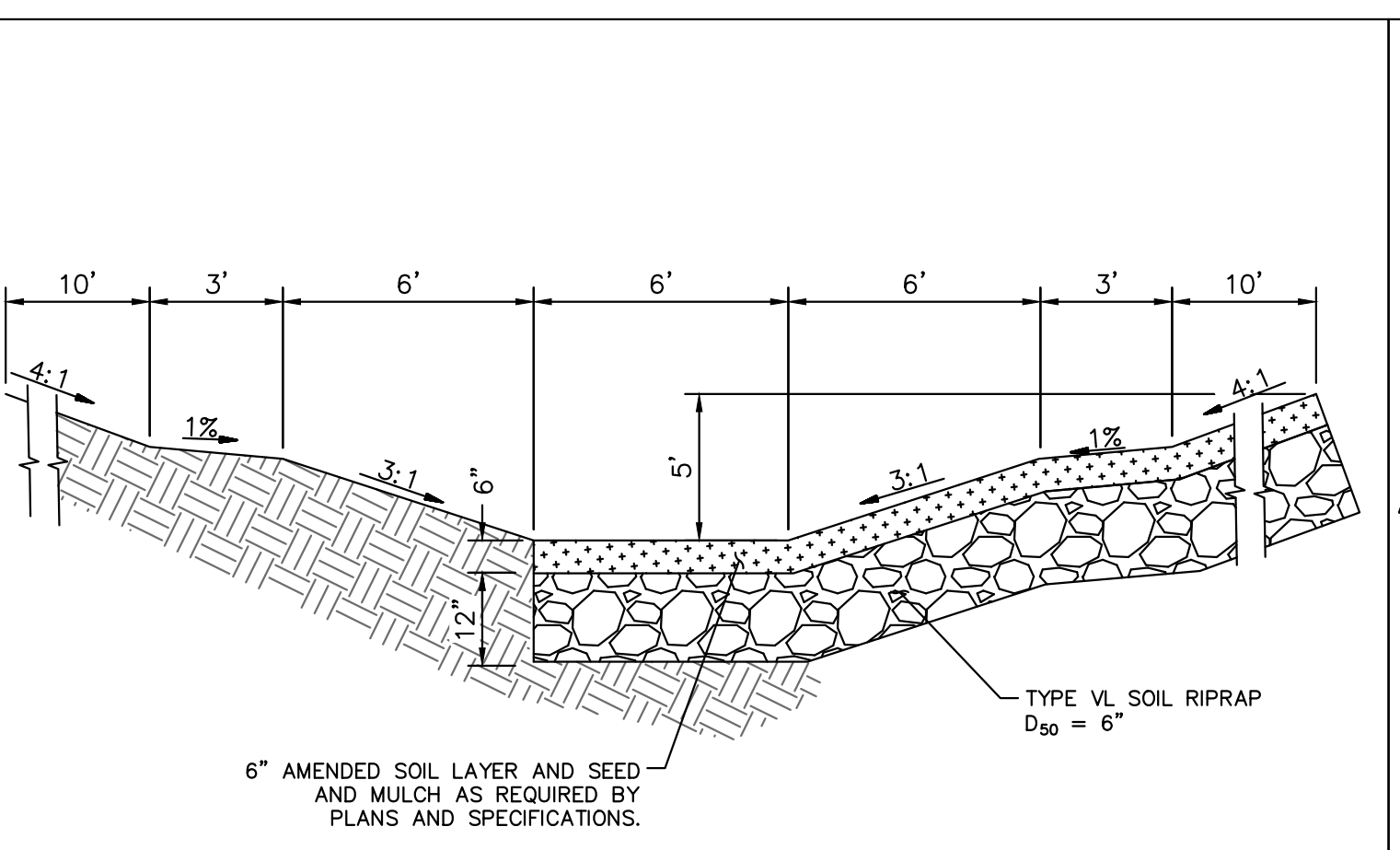
4 TYPICAL SHEET PILE CUT OFF WALL NTS

NOTE: INSTALL WEEP DRAINS FOR DROPS AND WALLS 5' AND GREATER AT 10' O.C. AT ELEVATIONS AND LOCATIONS SHOWN ON THE DRAWINGS

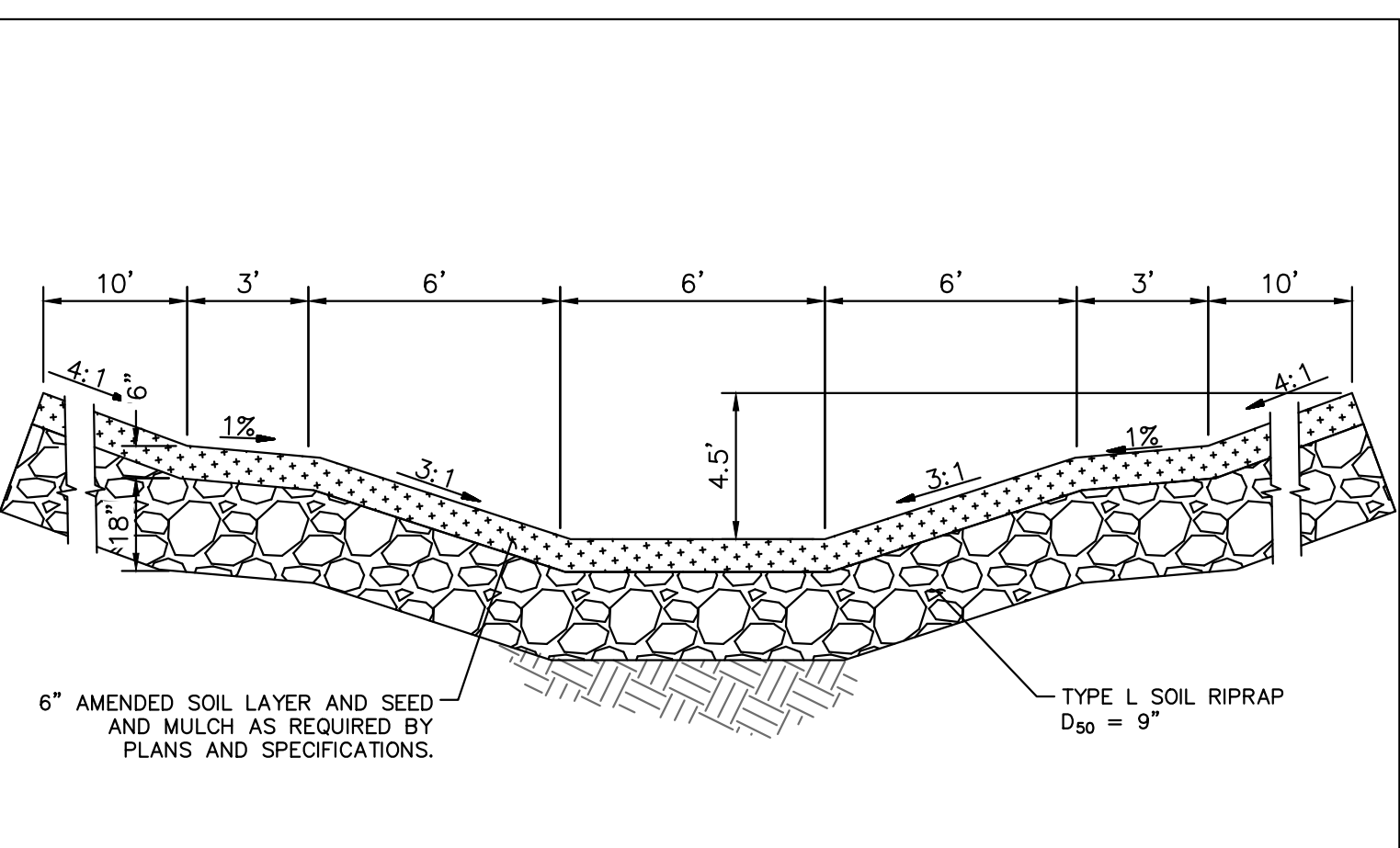


5 SOIL RIPRAP AND VOID-FILLED RIPRAP NTS

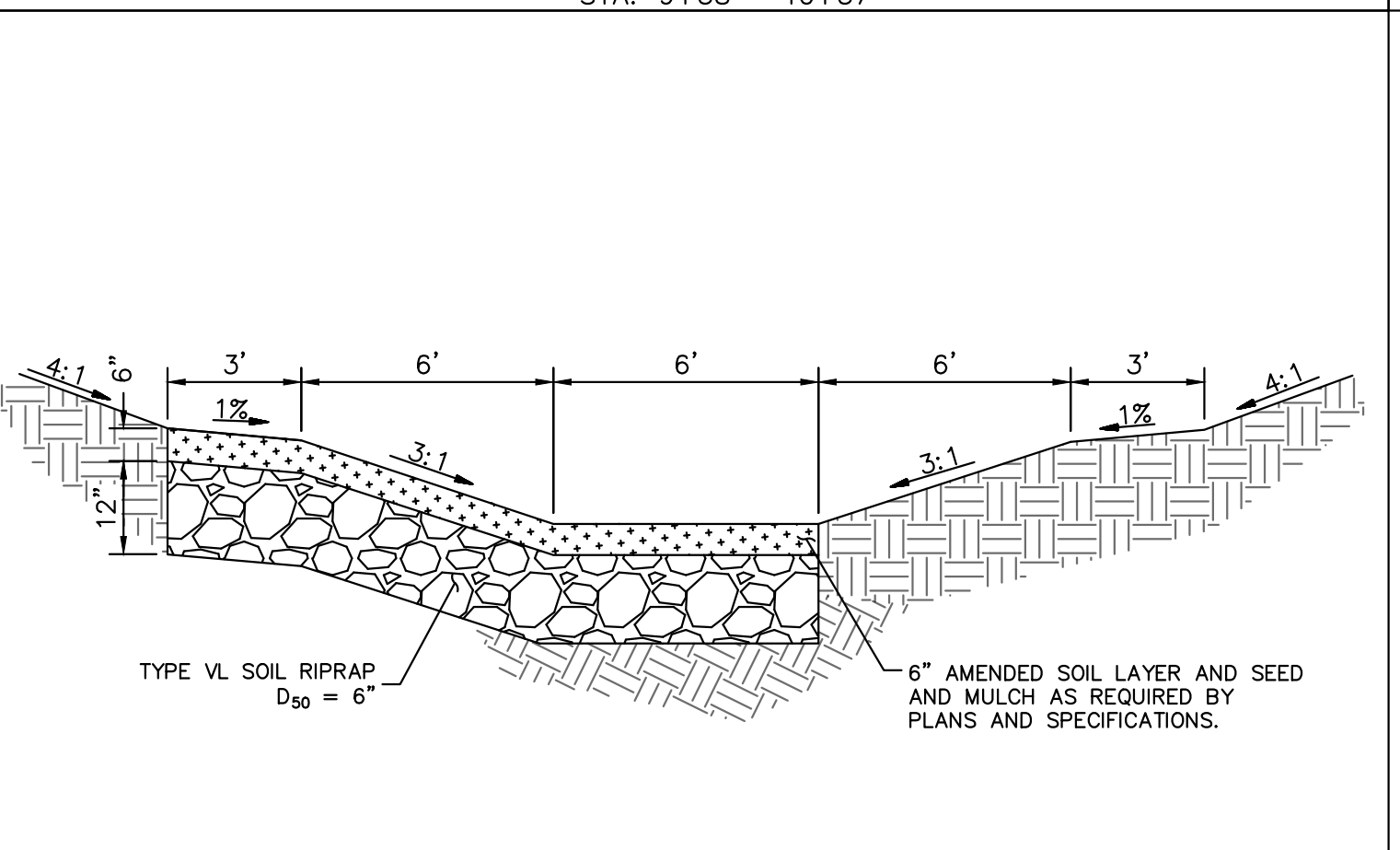
NOTES:
 1. SOIL RIPRAP DETAILS ARE APPLICABLE TO SLOPED AREAS. REFER TO THE SITE PLAN ACTUAL LOCATION AND LIMITS.
 2. MIX UNIFORMLY 65% RIPRAP BY VOLUME WITH 35% OF APPROVED SOIL BY VOLUME PRIOR TO PLACEMENT.
 3. PLACE STONE-SOIL MIX TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS AND GRADE. COMPACT AND LEVEL TO ELIMINATE ALL VOIDS AND ROCKS PROJECTING ABOVE DESIGN RIPRAP TOP GRADE.
 4. CRIMP OR TACKIFY MULCH OR USE APPROVED HYDROMULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
 5. FOR TOE PROTECTION SEE DETAIL 10 ON THIS SHEET.



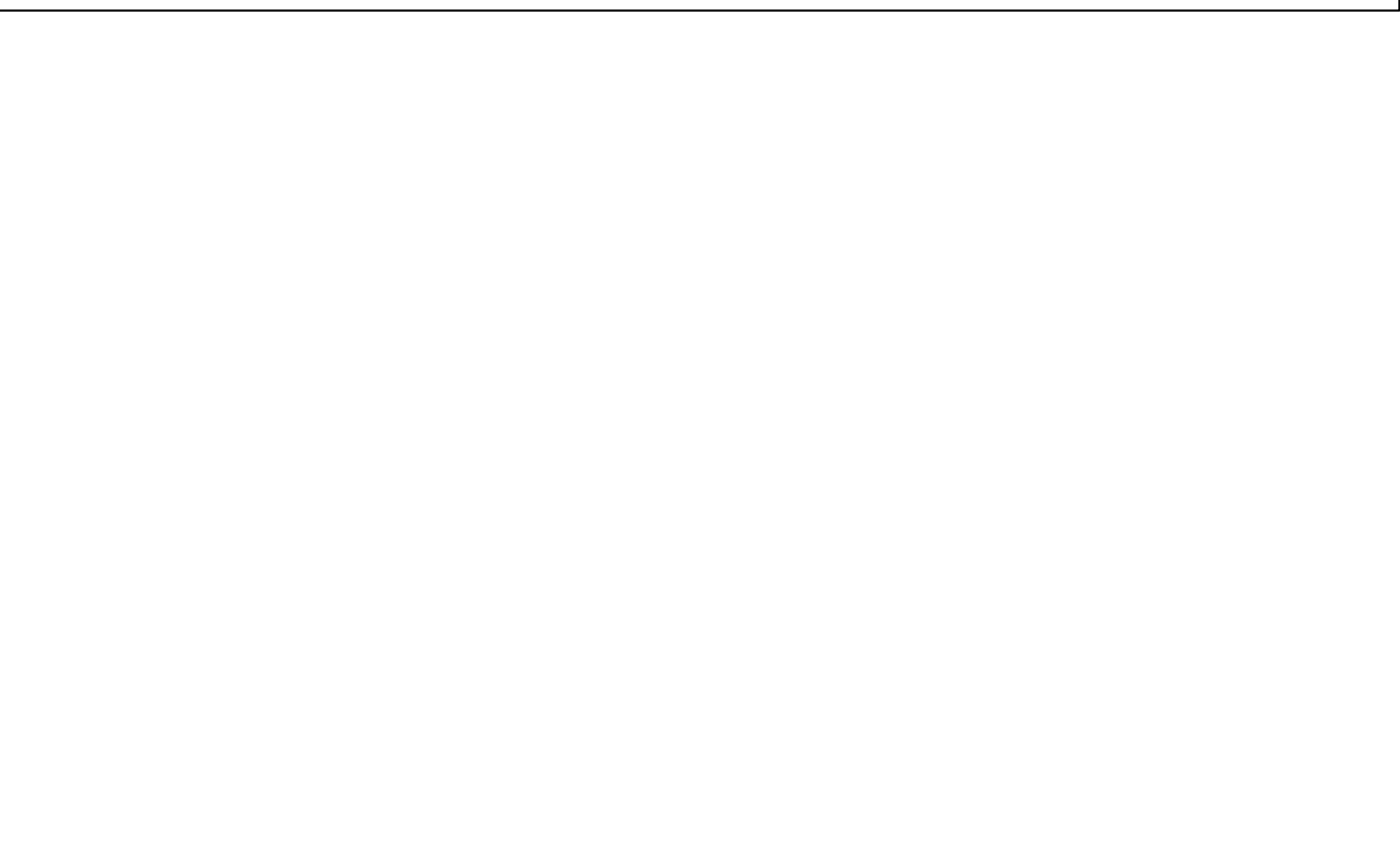
6 RIPRAP TOE PROTECTION - 1 NTS
 STA: 7+01 - 7+66
 STA: 8+52 - 8+83
 STA: 9+58 - 10+37



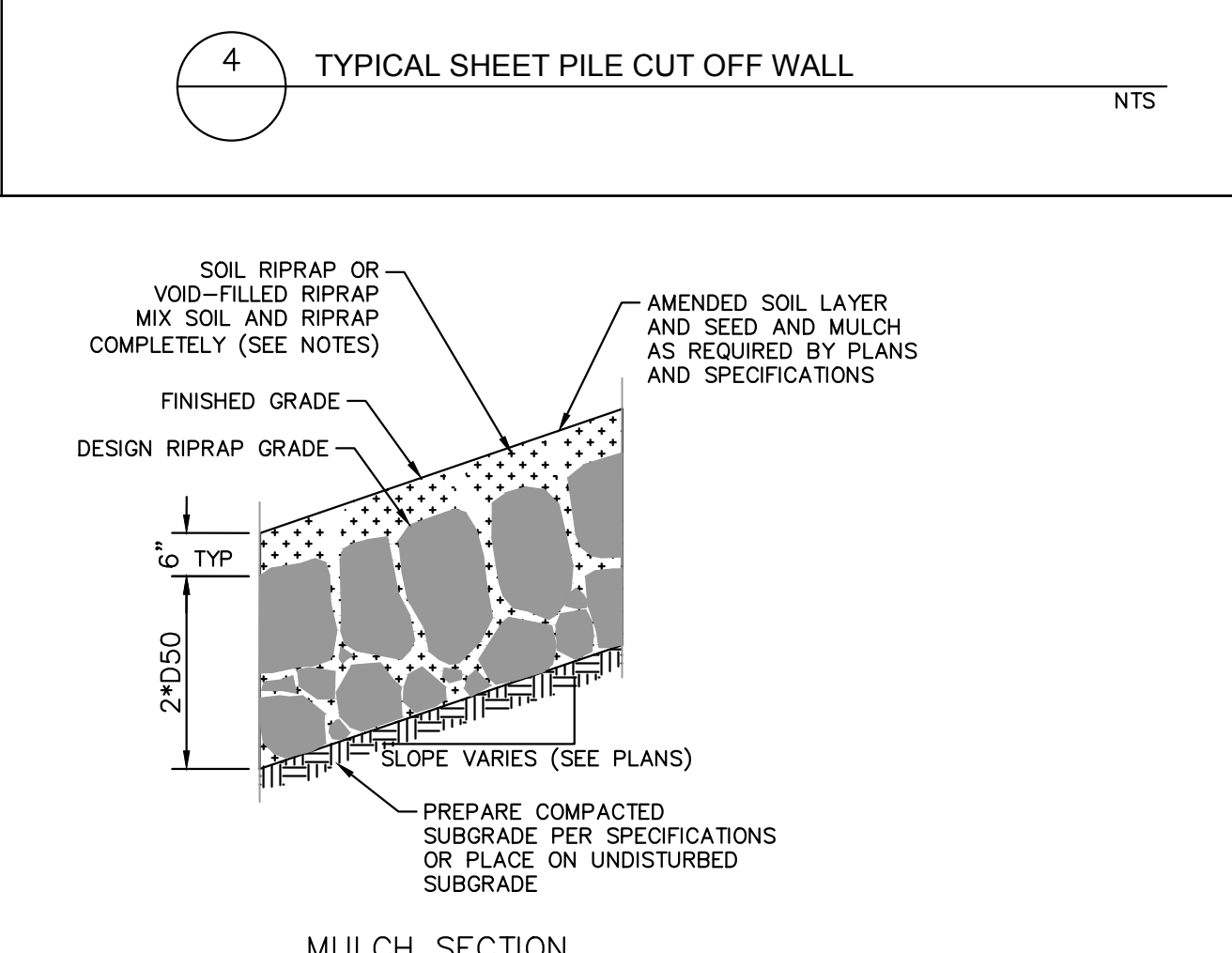
9 CHANNEL PROTECTION STA: 2+59 - 3+15 NTS



7 RIPRAP TOE PROTECTION - 2 NTS
 STA: 1+47 - 1+79
 STA: 4+42 - 4+70



8 CHANNEL PROTECTION STA: 5+57 - 6+44 NTS



6 RIPRAP TOE PROTECTION - 1 NTS
 STA: 7+01 - 7+66
 STA: 8+52 - 8+83
 STA: 9+58 - 10+37

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 Colorado Springs, Colorado 80903 (719) 453-0180

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TYPE M VOID-FILLED RIPRAP MIX DESCRIPTION

APPROXIMATE PROPORTIONS (LOADER BUCKETS)	MATERIAL TYPE	MATERIAL DESCRIPTION
5	RIPRAP	TYPE M RIPRAP (D50= 12 INCHES)
1	RIPRAP	TYPE L RIPRAP (D50= 9 INCHES)
3	VOID-FILLED MATERIAL	7-INCH MINUS CRUSHED ROCK SURGE (100% PASSING 7-INCH SIEVE, 80-100% PASSING 6-INCH SIEVE, 35-50% PASSING 3-INCH SIEVE, 10-20% PASSING 1.5-INCH SIEVE)
1	VOID-FILLED MATERIAL	2 TO 4-INCH COBBLE (ROUND WASHED RIVER ROCK THAT IS WELL-GRADED, 100% PASSING 6-INCH SIEVE, 35-50% PASSING 3-INCH SIEVE, 5-20% PASSING 2-INCH SIEVE)
1	VOID-FILLED MATERIAL	4-INCH MINUS PIT RUN SURGE (ROUND RIVER ROCK AND SAND, WELL GRADED, 90-100% PASSING 4-INCH SIEVE, 70-80% PASSING 1.5-INCH SIEVE, 40-60% PASSING 3/8-INCH SIEVE, 10-30% PASSING #16 SIEVE).
1.5	VOID-FILLED MATERIAL	TYPE II BEDDING
0.5	VOID-FILLED MATERIAL	NATIVE TOPSOIL
TOP LAYER	TOP DRESSING	ADDITIONAL 4 TO 12-INCH COBBLES (ROUND WASHED RIVER ROCK THAT IS WELL GRADED, 80-100% PASSING 12-INCH SIEVE, 35-50% PASSING 6-INCH SIEVE, 5-20% PASSING 4-INCH SIEVE) SHALL BE MIXED IN ON THE SURFACE OF THE VOID-FILLED RIPRAP (COVERING APPROXIMATELY 30% OF THE SURFACE) PRIOR TO COMPACTION OF THE VOID-FILLED RIPRAP. COBBLES SHALL BE FULLY EMBEDDED INTO THE MASS OF THE VOID-FILLED RIPRAP
NOTE: MIX PROPORTIONS ARE APPROXIMATE AND SUBJECT TO FIELD ADJUSTMENT BY THE ENGINEER OR OWNER		

10 VOID-FILLED RIPRAP MIX NOTES
NTS

VOID-FILLED RIPRAP REPLACEMENT NOTES:

- LABORATORY TEST CERTIFICATES AND GRADATIONS FOR ALL MATERIALS INCLUDED IN THE VOID-FILLED RIPRAP MIX SHALL BE SUBMITTED FOR REVIEW. FOR THE 7-INCH MINUS CRUSHED SURGE AND THE 4-INCH MINUS PIT RUN SURGE MATERIALS, PROVIDE SAMPLES IN 5-GALLON BUCKETS FOR REVIEW.
- THE GOAL OF MIXING IS TO FILL THE VOIDS OF THE BASE RIPRAP MATERIAL WITHOUT DISPLACING THE RIPRAP. THE INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL NEEDS TO REMAIN ESSENTIALLY THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT VOID-FILLED MATERIAL.
- THE SPECIFIED MIX PROPORTIONS ARE NOTED AS APPROXIMATE BECAUSE THE TWO SURGE MATERIALS VARY SOMEWHAT BETWEEN DIFFERENT SUPPLIERS AND VARIATIONS IN GRAVEL PITS. THE SURGE MATERIALS ARE ONLY PROCESSED THROUGH ONE SCREEN SIZE (7-INCH MINUS OR 4-INCH MINUS), SO THE GRADATIONS VARY. IT IS IMPORTANT THAT THE DESIGN ENGINEER IS ON-SITE DURING THE MIXING OPERATION TO MAKE ADJUSTMENTS TO THE PROPORTIONS IF NECESSARY. THE AMOUNT OF COBBLES IN THE 4-INCH MINUS PIT RUN SURGE MATERIAL DICTATES THE ADDITION OR REDUCTION IN THE AMOUNT OF 2 TO 4-INCH COBBLE MATERIAL.
- VOID-FILLED RIPRAP MATERIAL CAN BE CHALLENGING TO PLACE BECAUSE IT HAS A TENDENCY TO SEGREGATE. THE FINER SANDS AND GRAVELS TEND TO SEPARATE FROM THE LARGER RIPRAP. CONTRACTORS SHALL TAKE CARE TO MINIMIZE SEGREGATION WHEN HAULING THE MIXED MATERIAL FROM STOCKPILE TO THE INSTALLATION LOCATION.
- THE LOOSE MATERIAL IS TO BE PLACED IN A SINGLE LIFT OR SUFFICIENT HEIGHT SUCH THAT FINAL GRADE WILL BE ACHIEVED UPON COMPACTION. IN MOST CASES, SOME ADDITIONAL MIXING WITH A TRACK EXCAVATOR IS NEEDED AFTER THE INITIAL PLACEMENT TO MAKE SURE THAT VOID-FILLED RIPRAP CONSISTS PRIMARILY OF THE SMALLER VOID-FILL MATERIALS. THE GOAL IS TO COMPLETELY FILL THE RIPRAP VOIDS WITHOUT DISPLACING THE RIPRAP. IN SOME CASES, ADDITIONAL VOID-FILLING MAY BE NECESSARY AFTER THE VOID-FILLED RIPRAP HAS BEEN PLACED BECAUSE THE FINES HAVE A TENDENCY TO MIGRATE TO THE BOTTOM. IN THESE SITUATIONS, A 50/50 MIXTURE OF THE PIT RUN AND TYPE II BEDDING CAN BE SPRINKLED ON THE SURFACE AND WASHED IN WITH WATER USING A HIGH PRESSURE HOSE TO FILL ANY SMALL VOIDS THAT MAY EXIST BELOW THE SURFACE. OTHER THAN FILLING VOIDS THAT MAY EXTEND DOWN INTO THE VOID-FILLED RIPRAP, NOT MUCH OF THIS MATERIAL SHOULD BE LEFT ON THE SURFACE, AS IT WILL WASH AWAY DURING RUNOFF EVENTS.
- AFTER THE VOID-FILLED RIPRAP MATERIAL HAS BEEN LOOSELY PLACED (PRIOR TO COMPACTION), A TOP DRESSING OF THE LARGE COBBLES CAN BE MIXED IN ON THE SURFACE FOR A MORE NATURAL RIVER BED LOOK, IF DESIRED. THIS IS USUALLY DONE BY SPRINKLING COBBLES SUCH THAT THEY COVER APPROXIMATELY 30-PERCENT OF THE SURFACE.
- THE LAST STEP IS TO COMPACT THE LOOSELY PLACED VOID-FILLED RIPRAP MATERIAL. WATER CAN BE ADDED, IF NECESSARY, SO THAT THE MOISTURE CONTENT OF THE MIXTURE IS AT OPTIMUM CONDITIONS DURING THE COMPACTION PROCESS.
- IT IS IMPORTANT THAT THE FINISHED TOP ELEVATIONS OF THE VOID-FILLED RIPRAP LAYER CLOSELY MATCH DESIGN GRADES TO WITHIN A TOLERANCE OF 0.10 FEET. HAVING TIGHT ELEVATION TOLERANCES HELPS TO MINIMIZE DEVELOPMENT OF FLOW CONCENTRATIONS. IF THE COMPACTIONED MATERIAL ENDS UP BELOW FINAL GRADE, IT IS NOT ACCEPTABLE TO ALLOW PLACEMENT OF ONLY THE SMALLER VOID-FILLED MATERIAL OR ADDITIONAL TOP DRESSING COBBLES TO ACHIEVE FINAL GRADE. IN SUCH CASES IT IS NECESSARY TO ADD MORE STANDARD SIZE VOID-FILLED RIPRAP MATERIAL AND REMIX THE ENTIRE THICKNESS OF ROCK TO ACHIEVE THE DESIGN SECTION. CONTRACTOR SHALL INSTALL A TEST SECTION OF THE VOID-FILLED RIPRAP MATERIAL AT THE BEGINNING OF THE PROJECT FOR REVIEW AND APPROVAL BY THE DESIGN ENGINEER.

11 VOID-FILLED RIPRAP PLACEMENT NOTES
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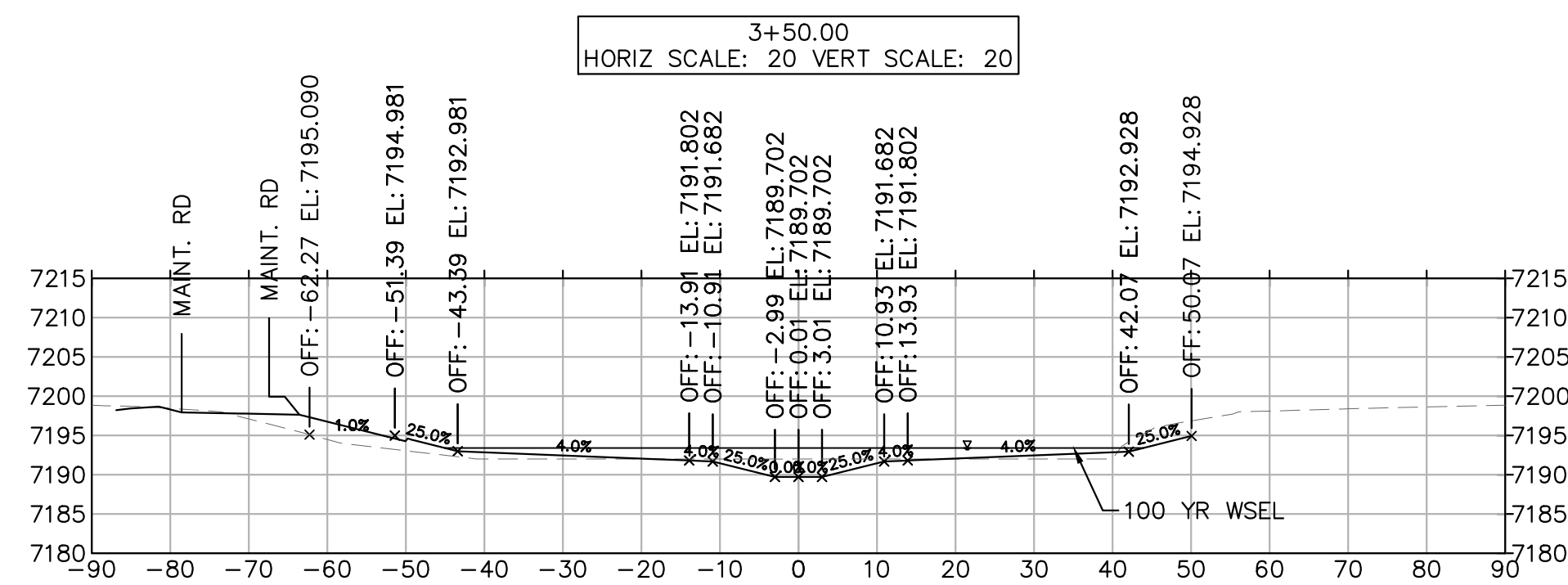
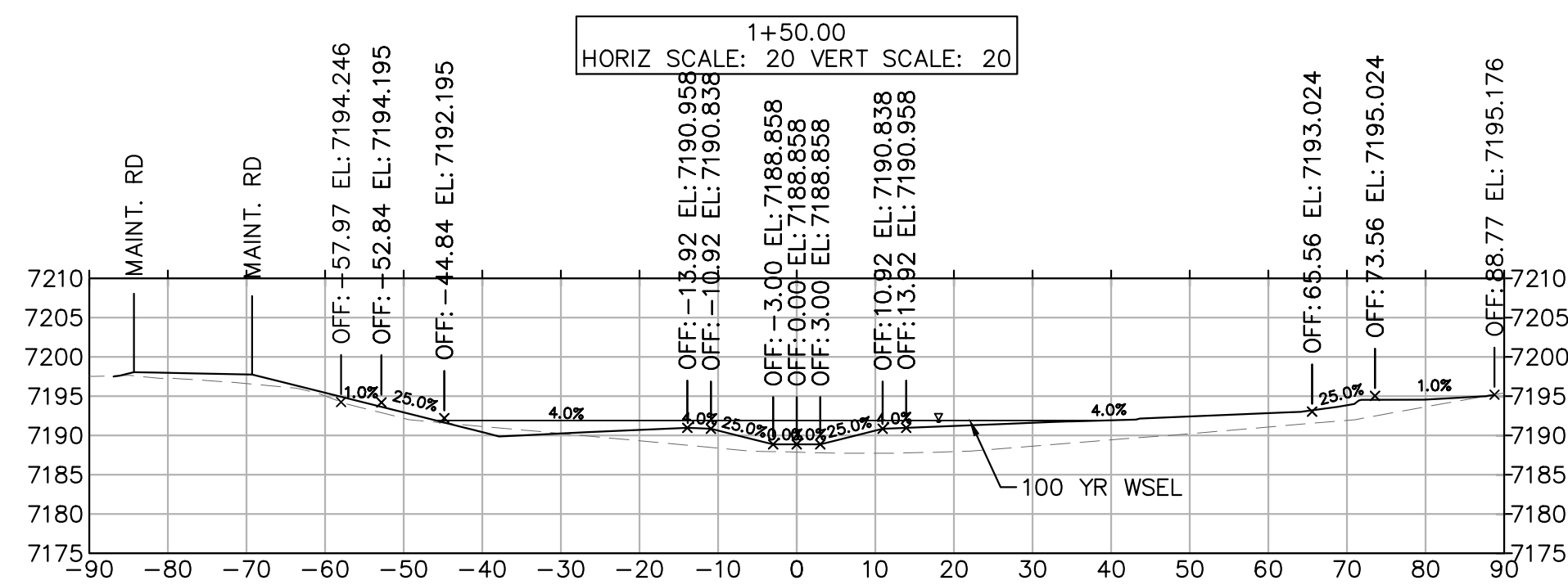
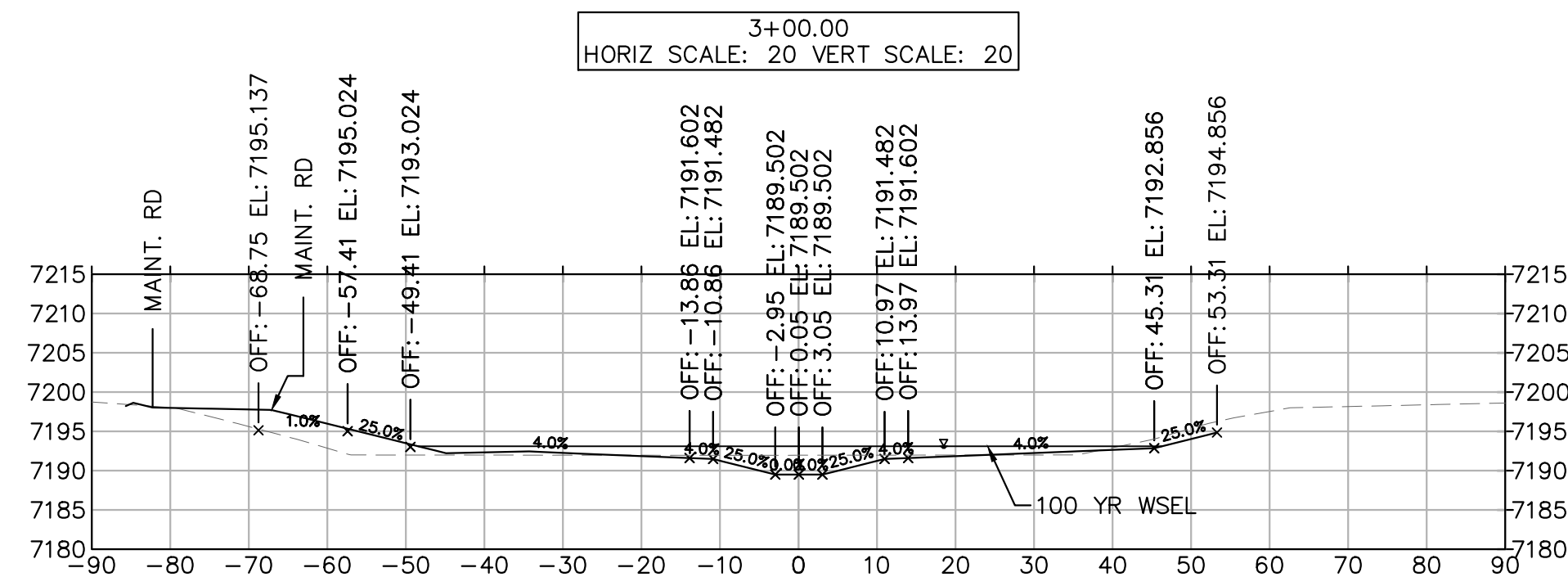
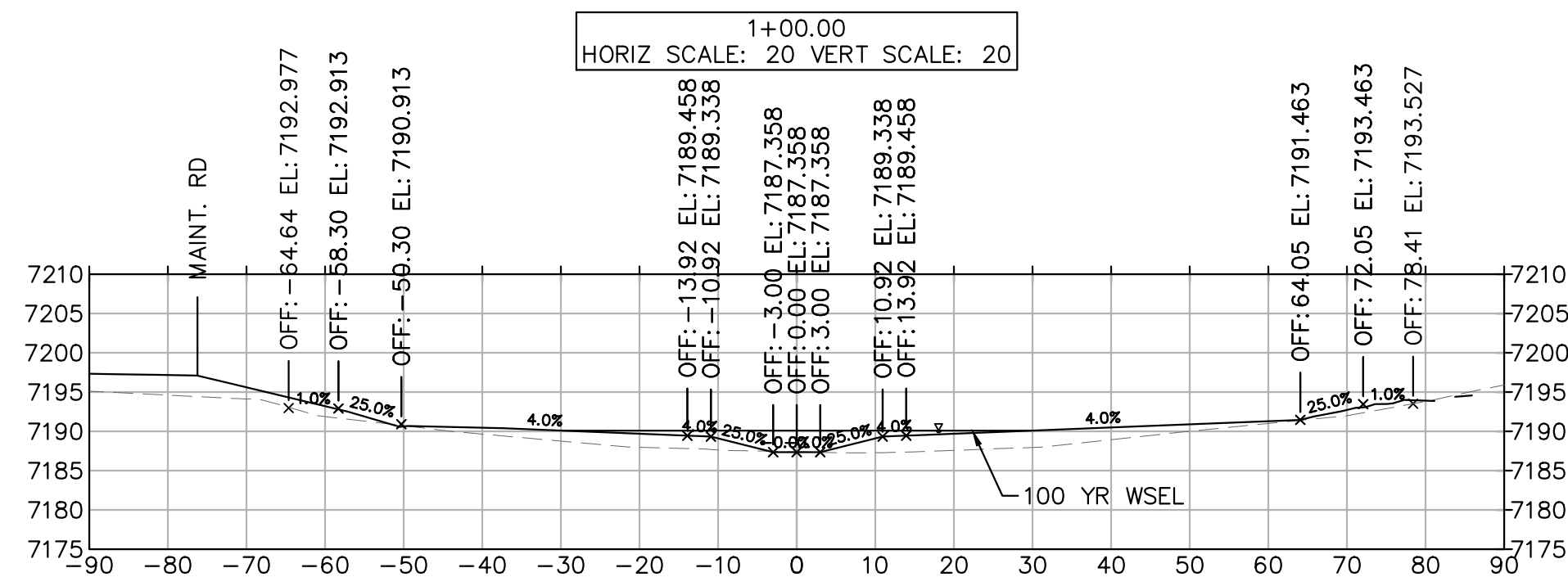
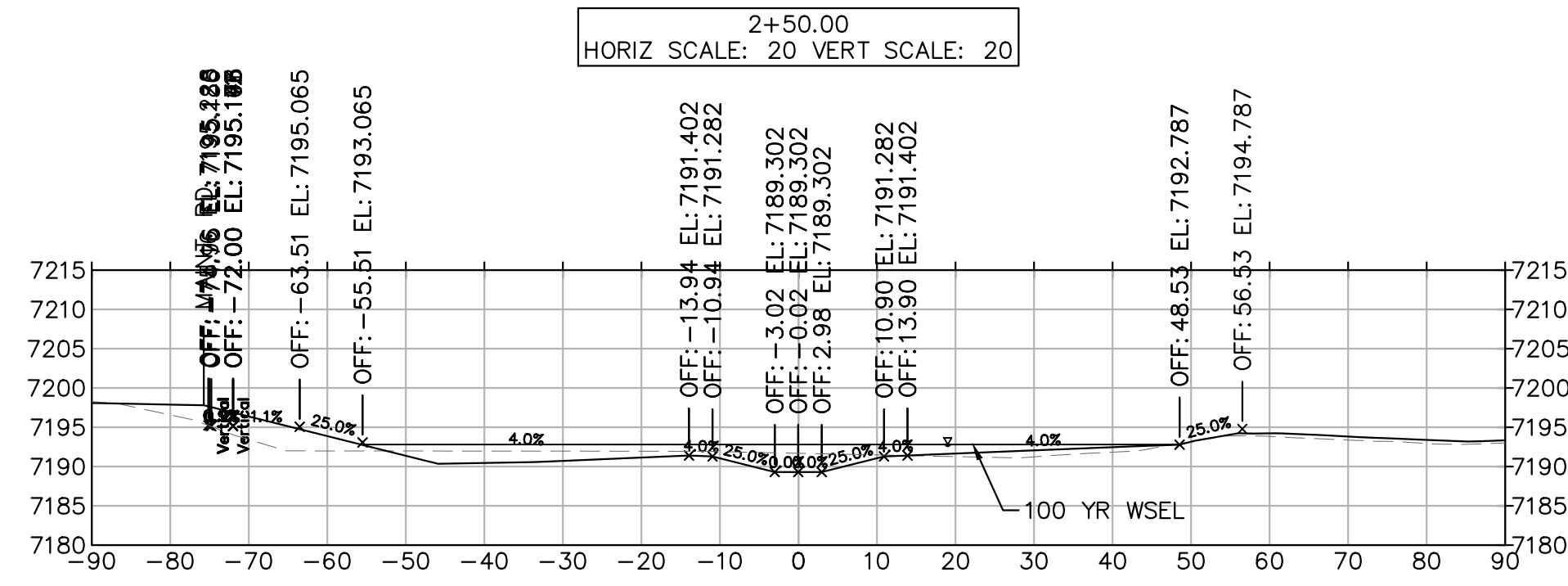
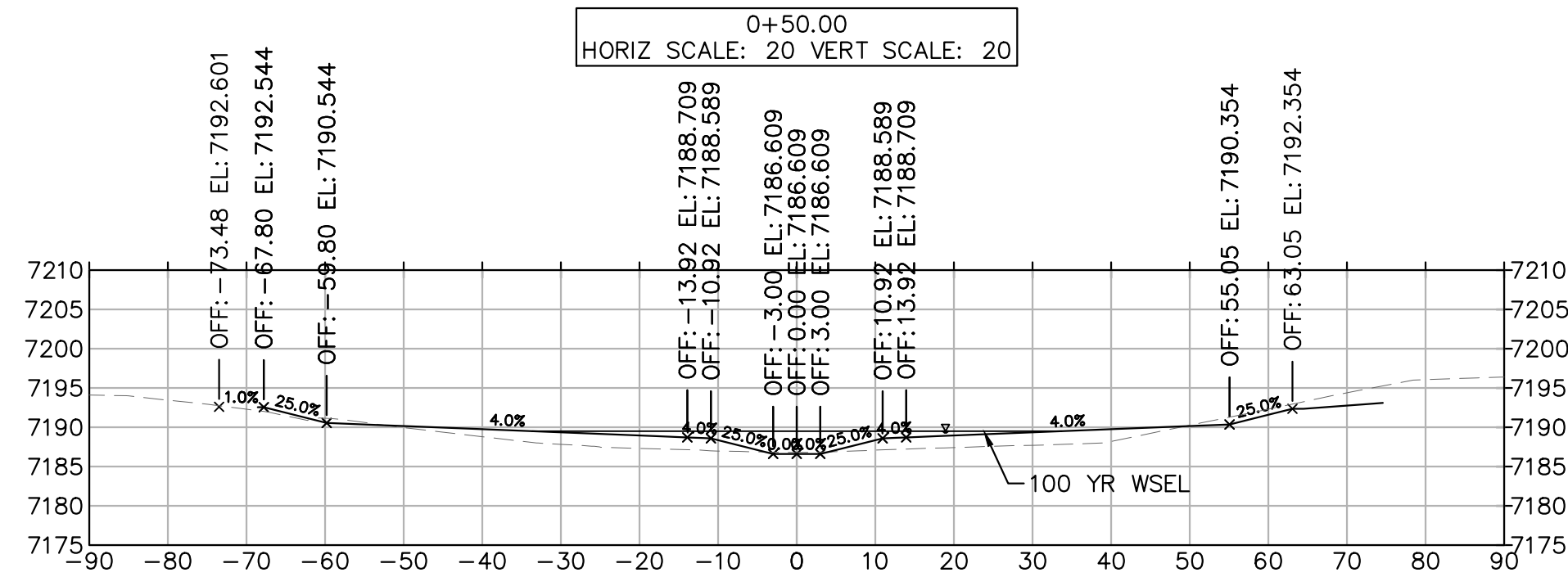
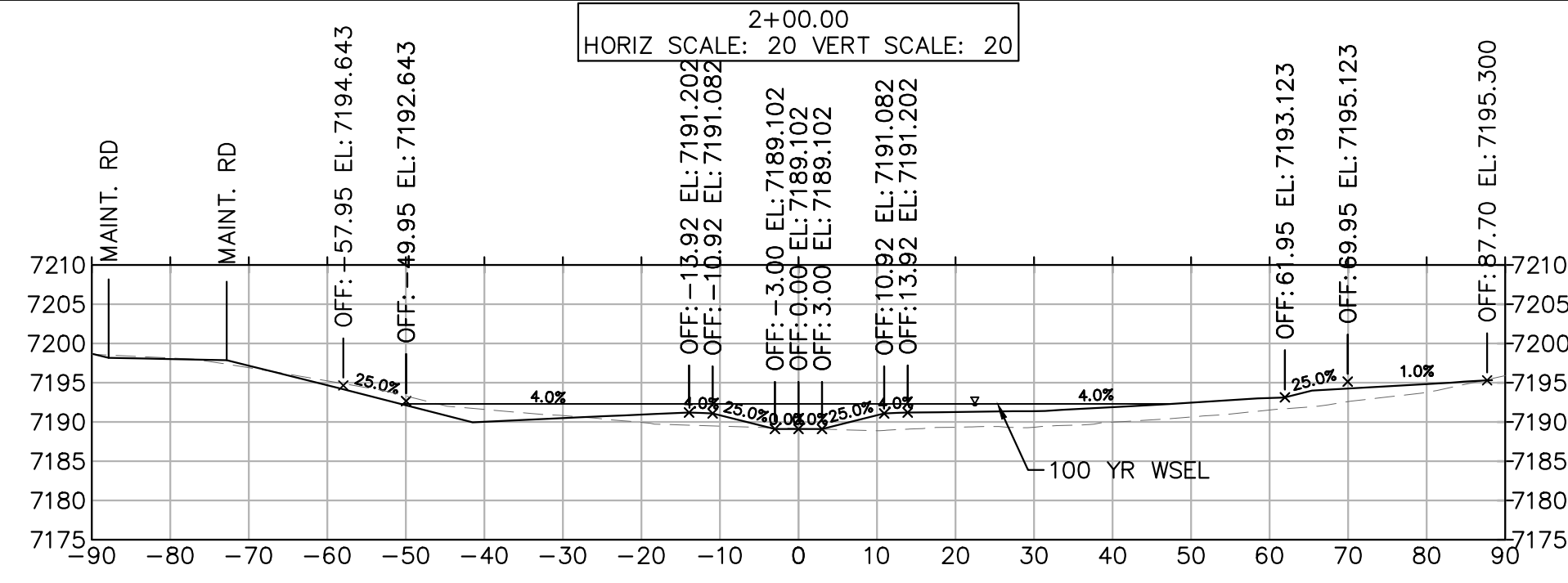
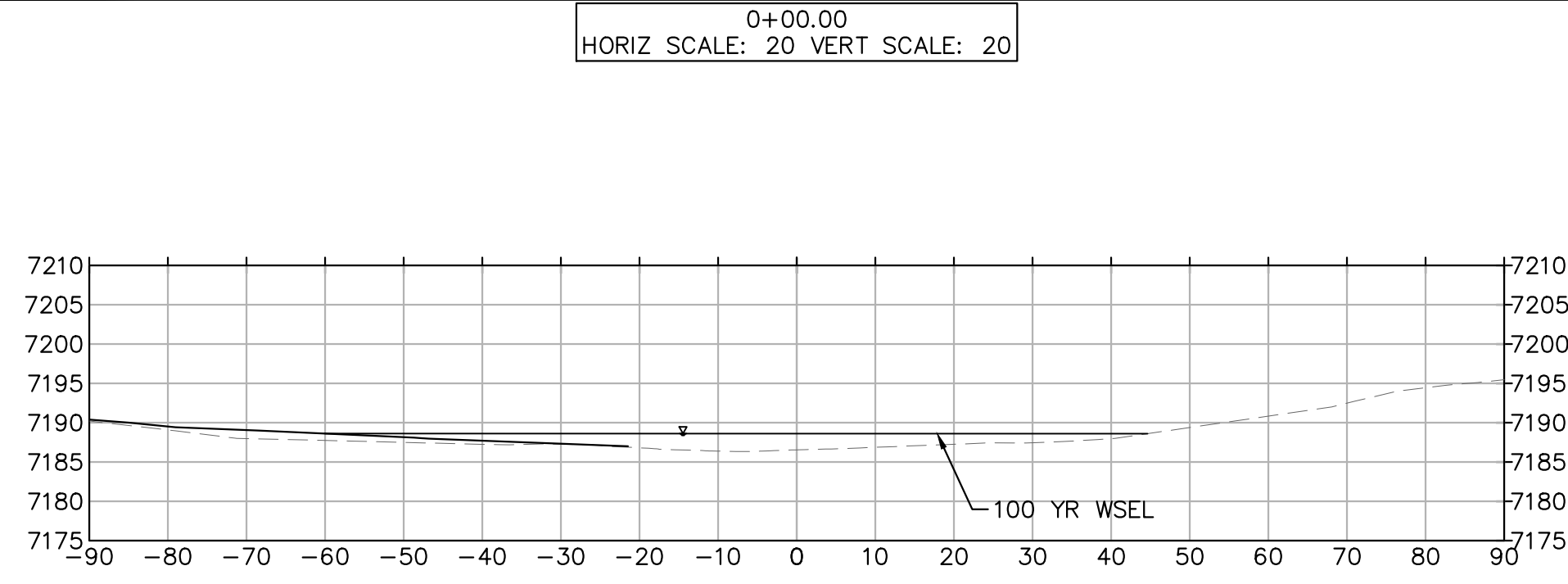
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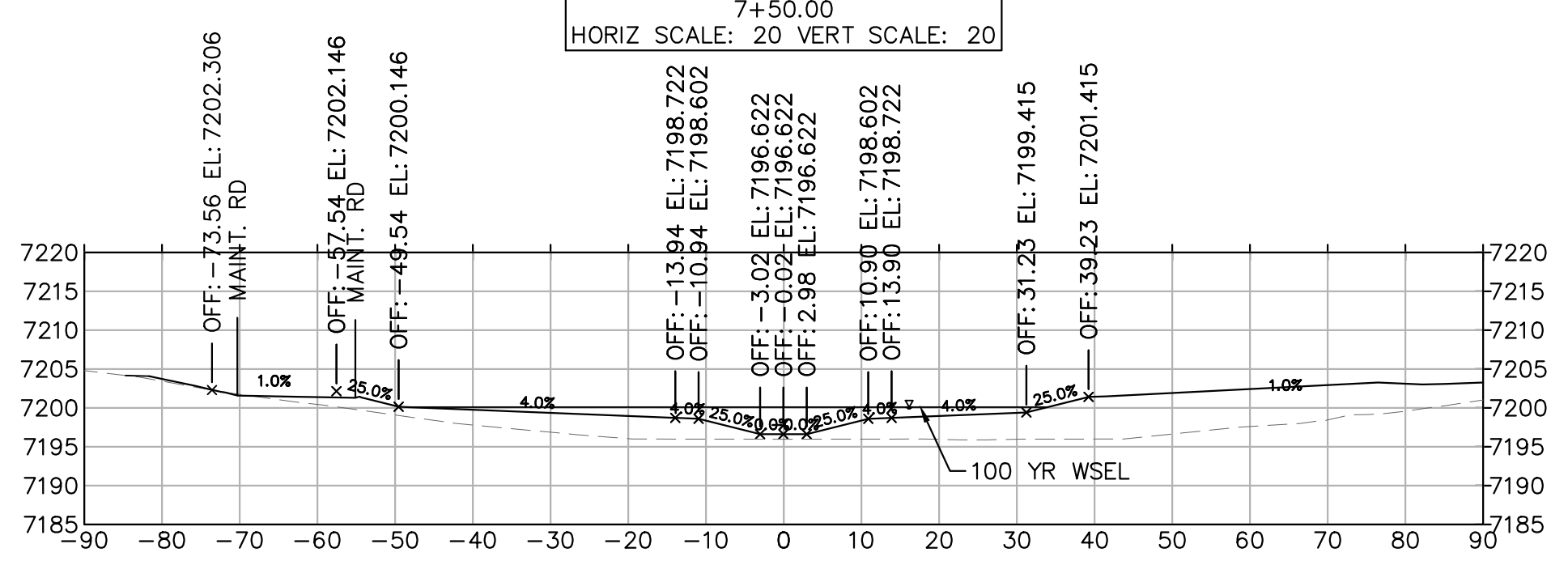
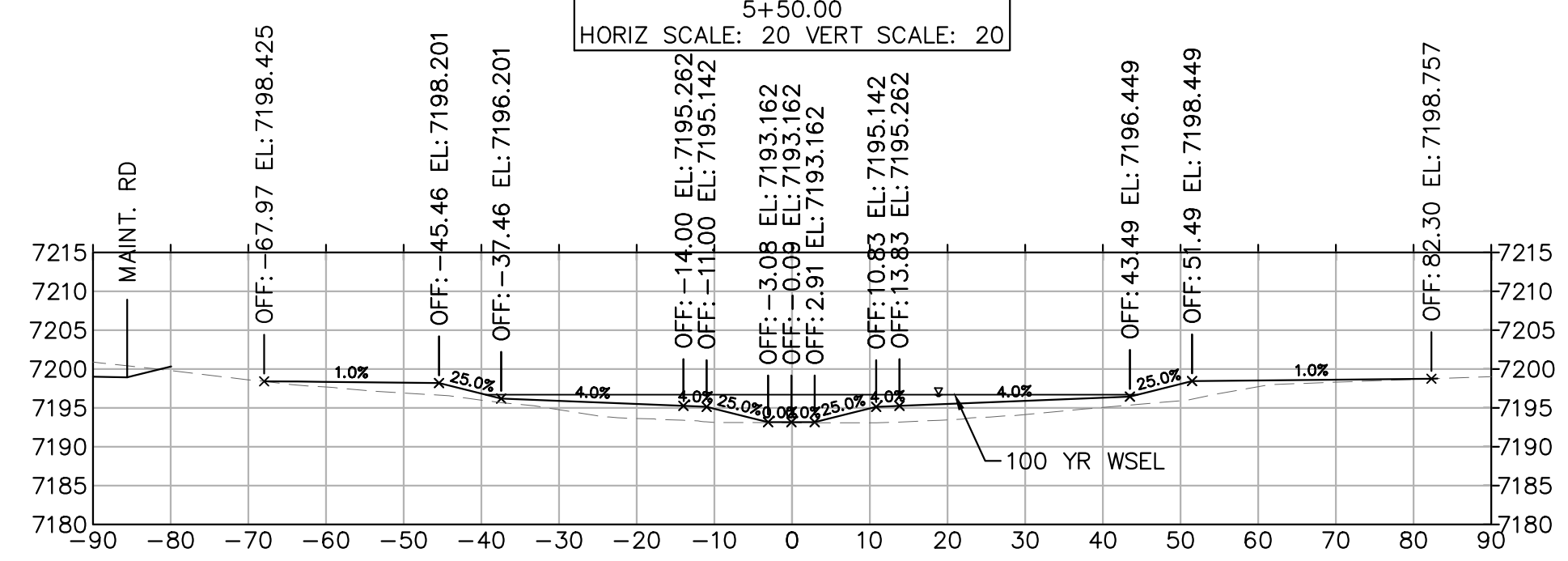
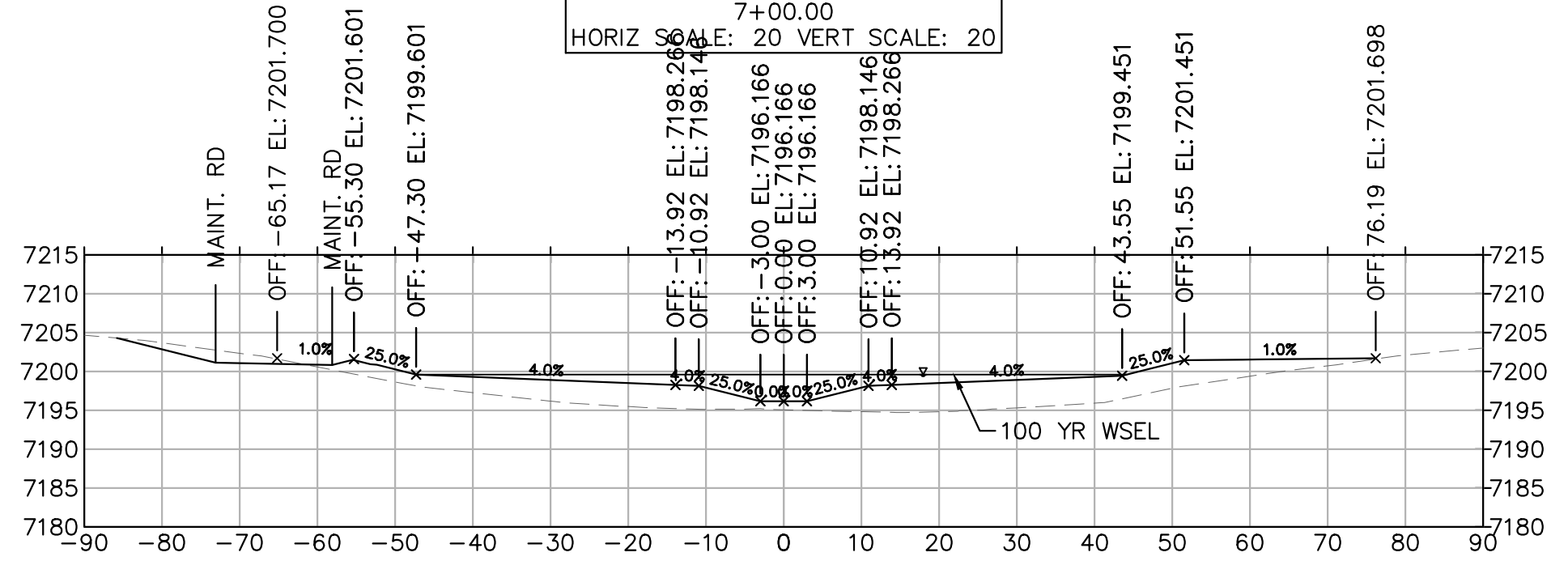
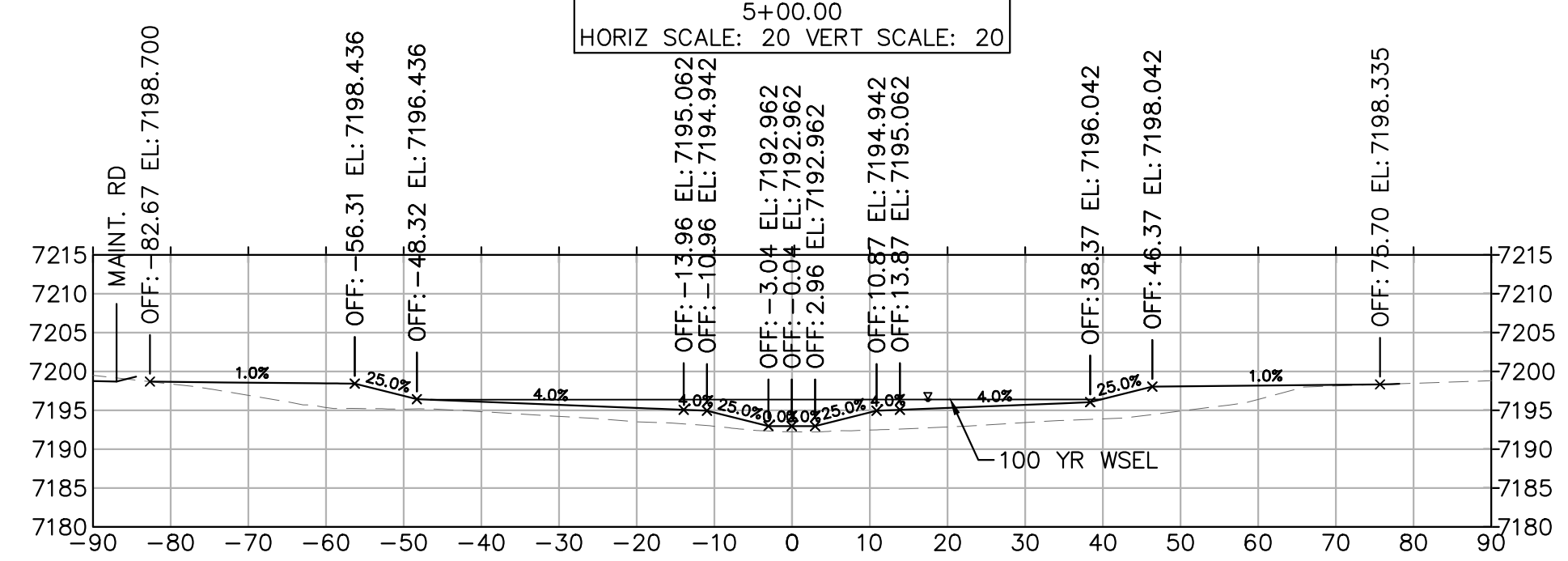
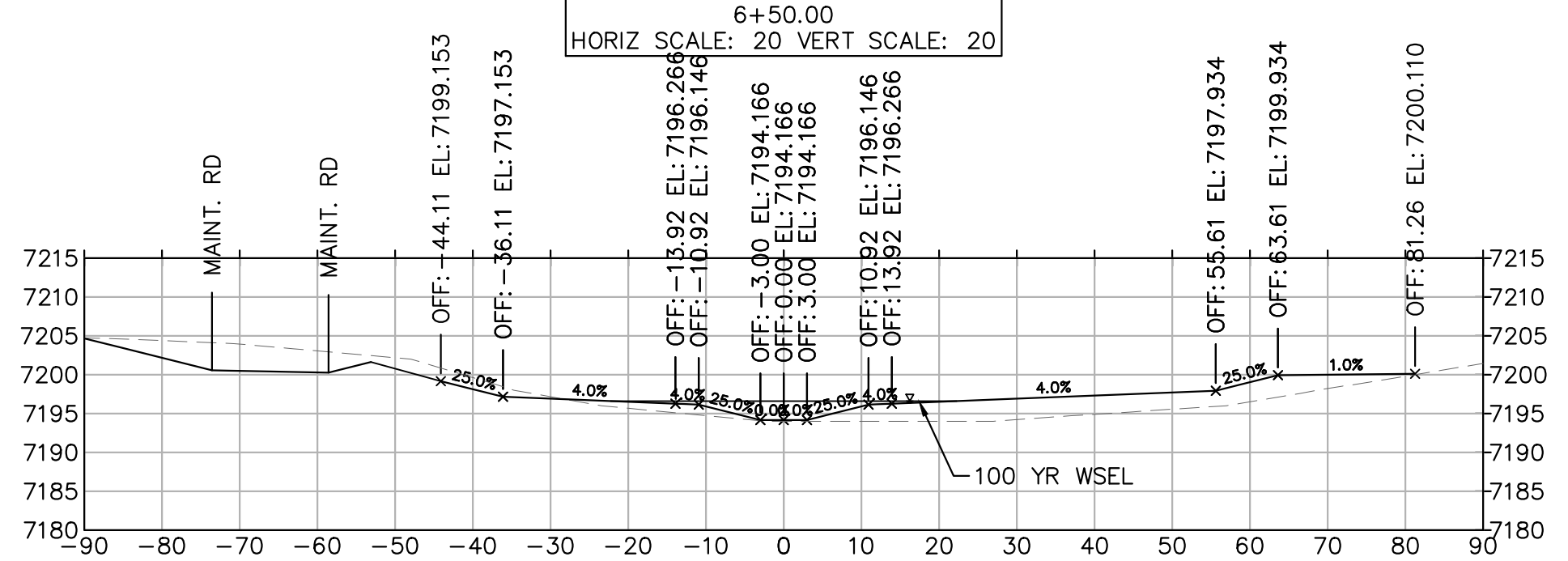
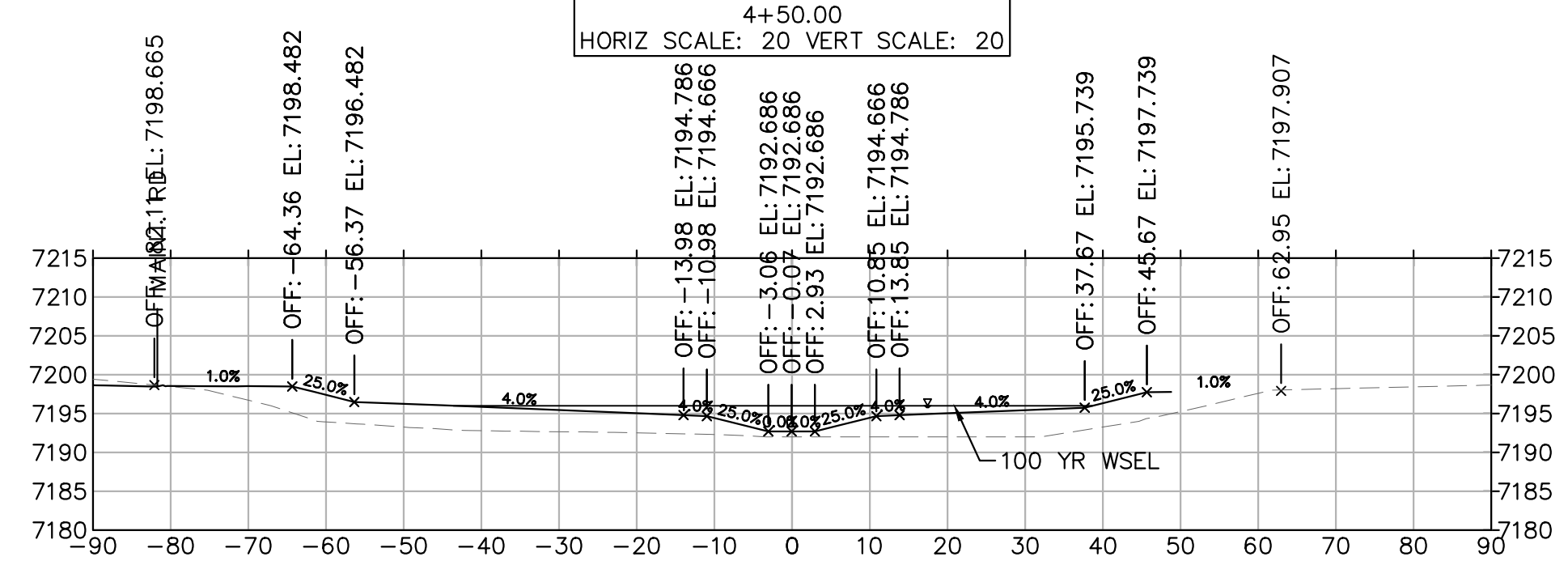
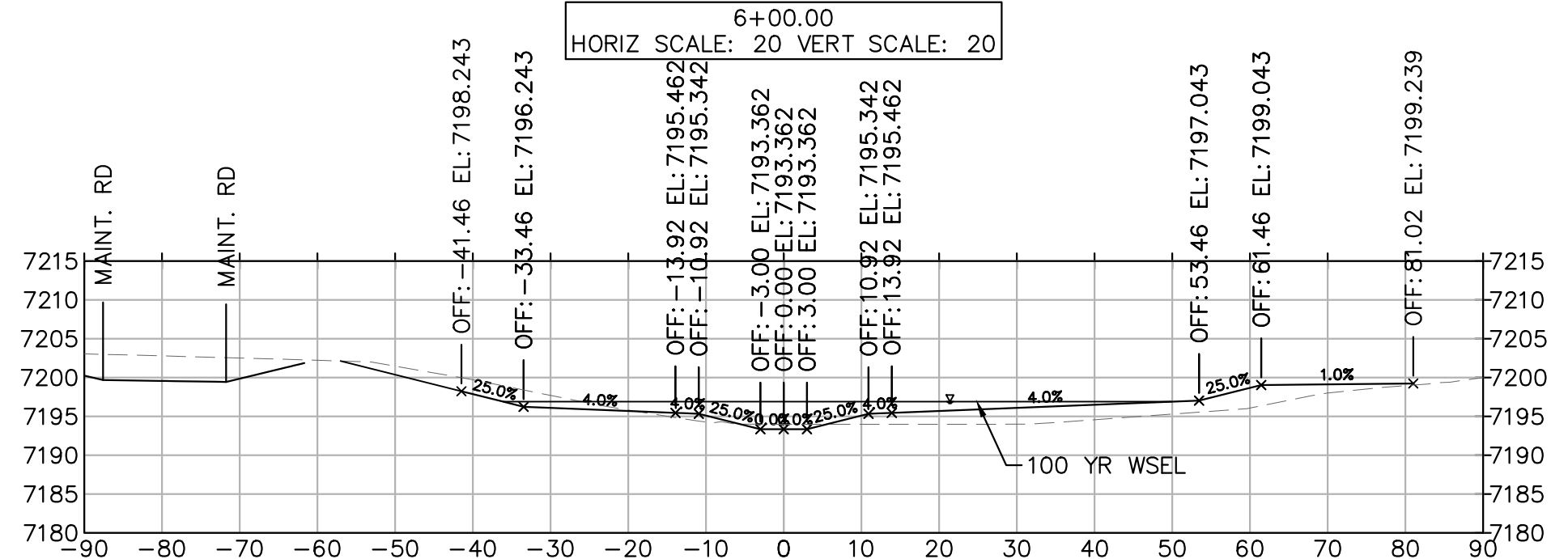
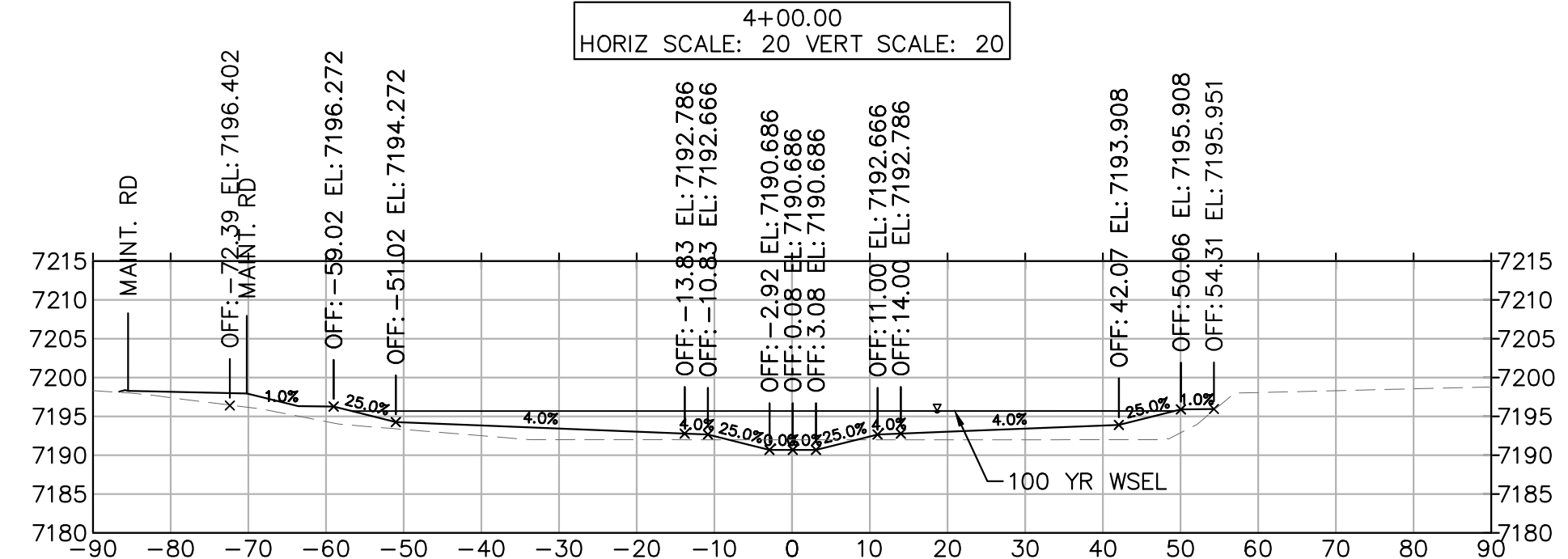
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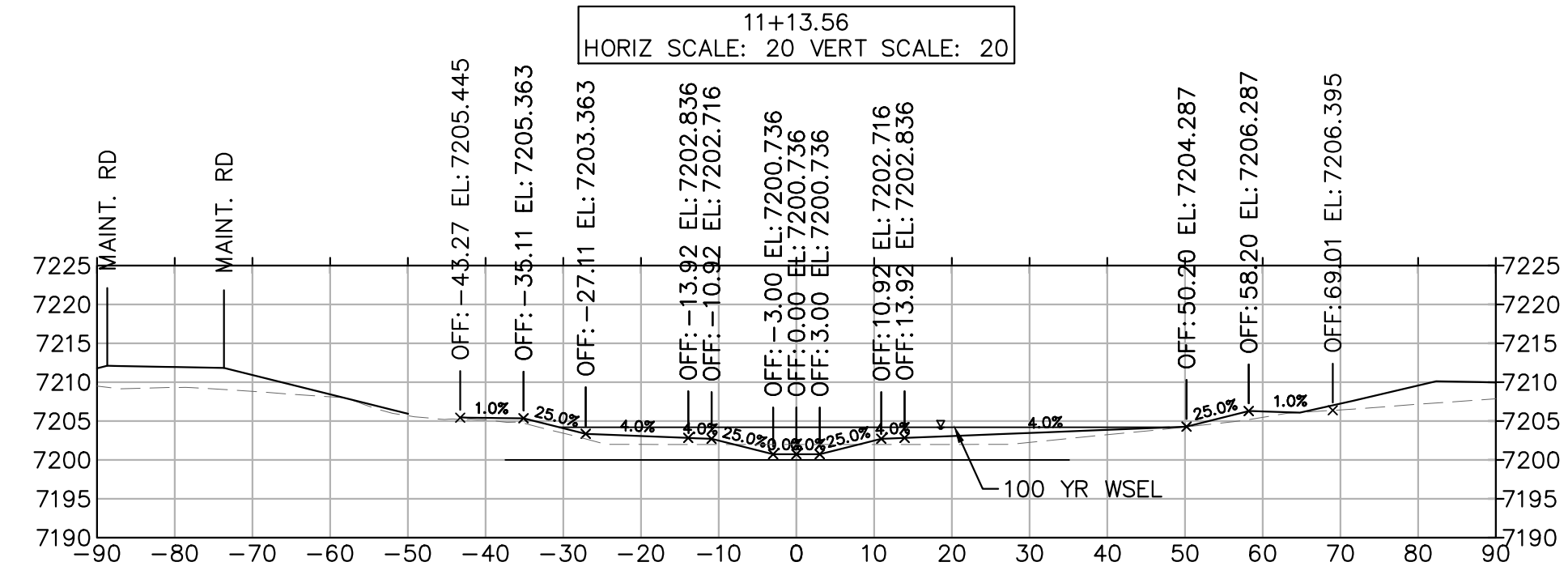
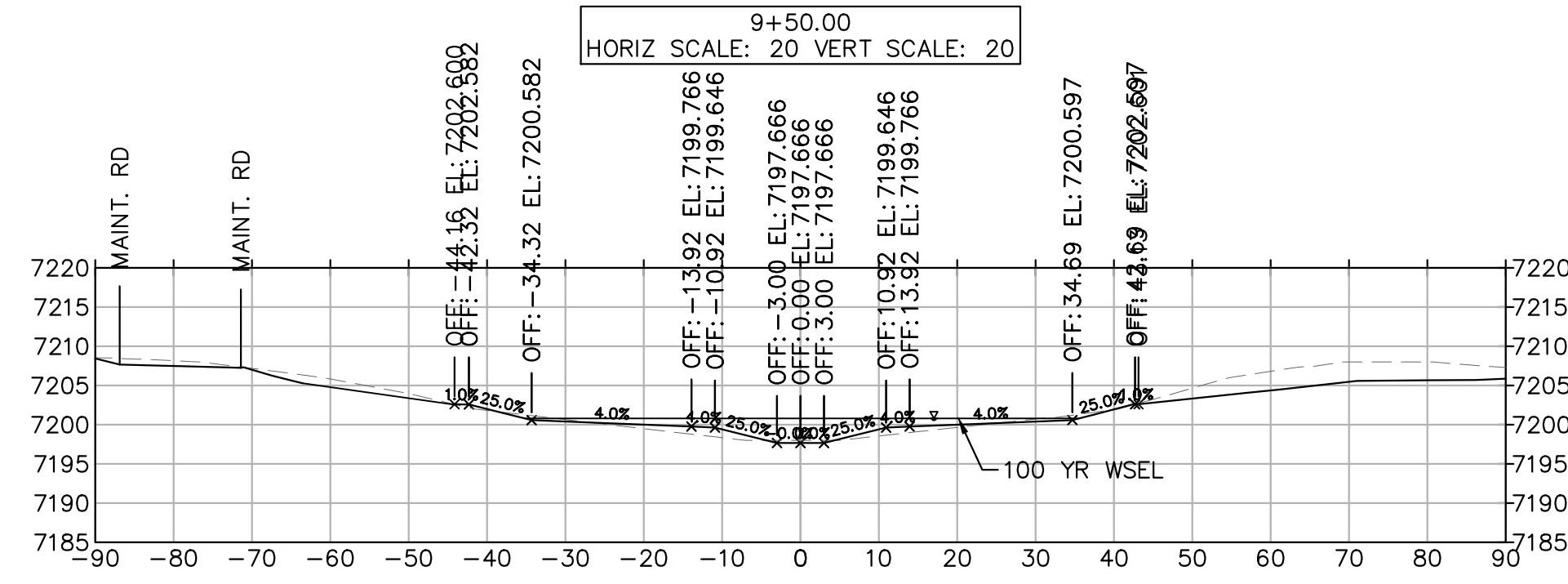
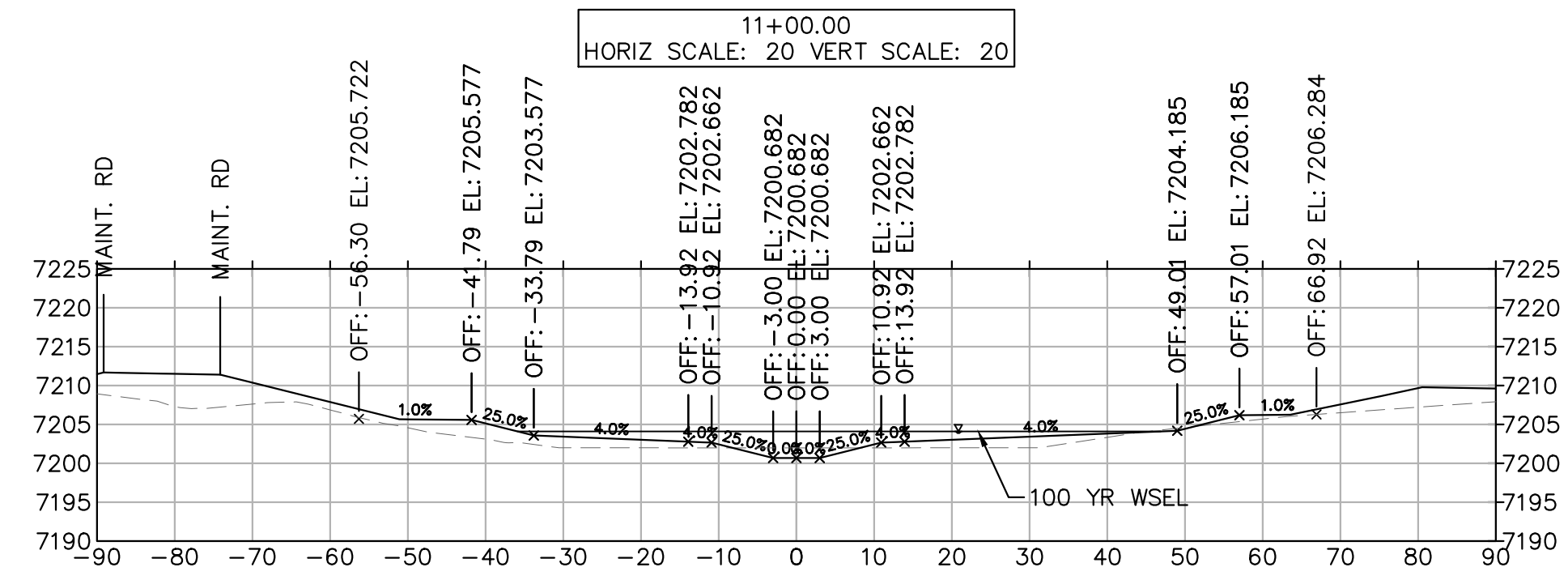
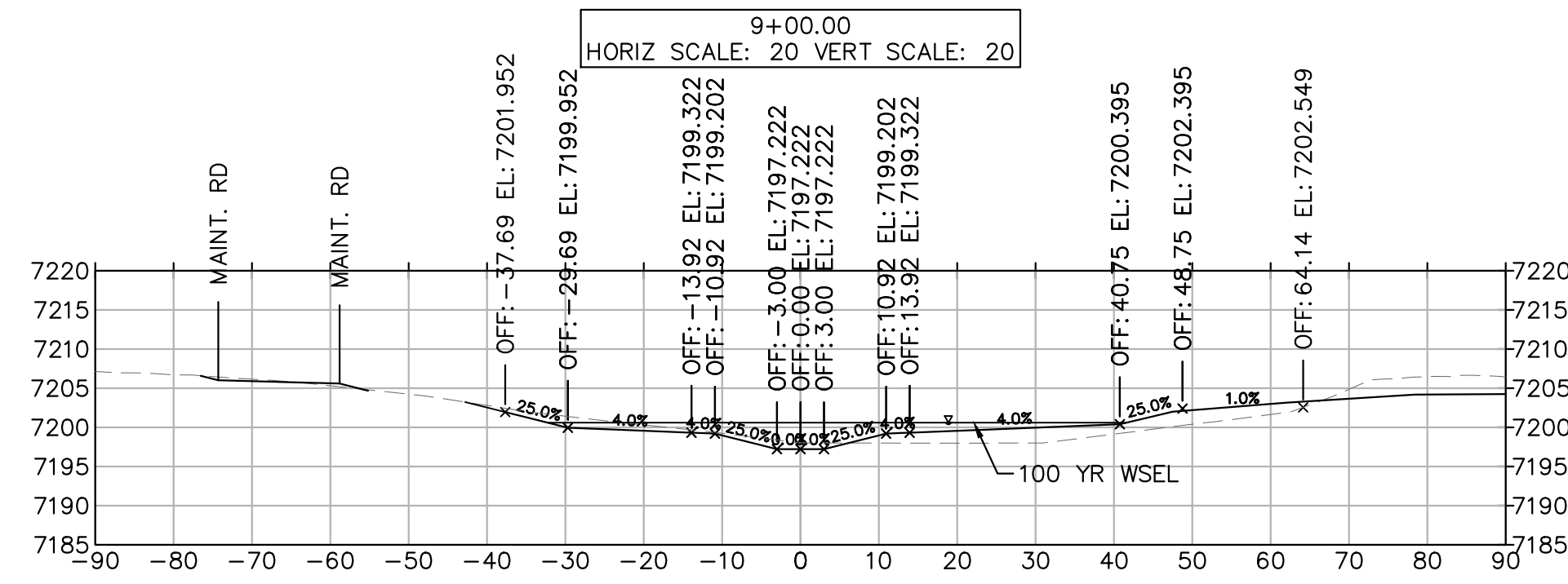
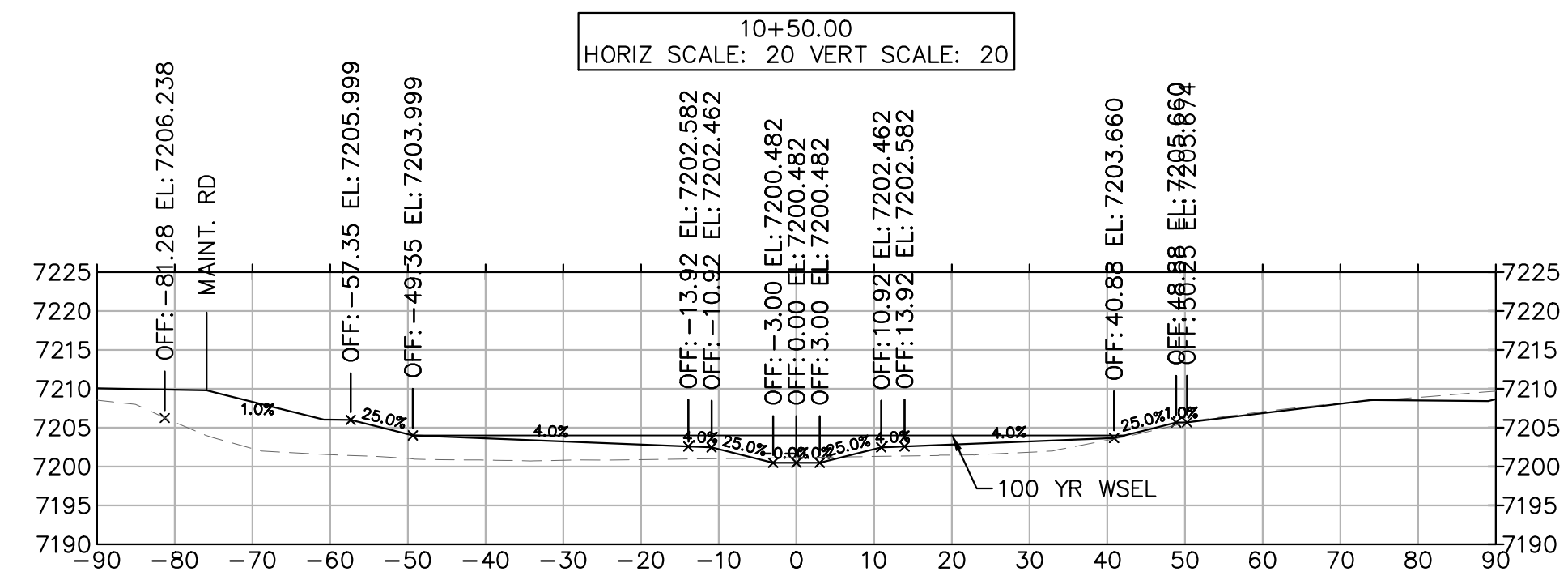
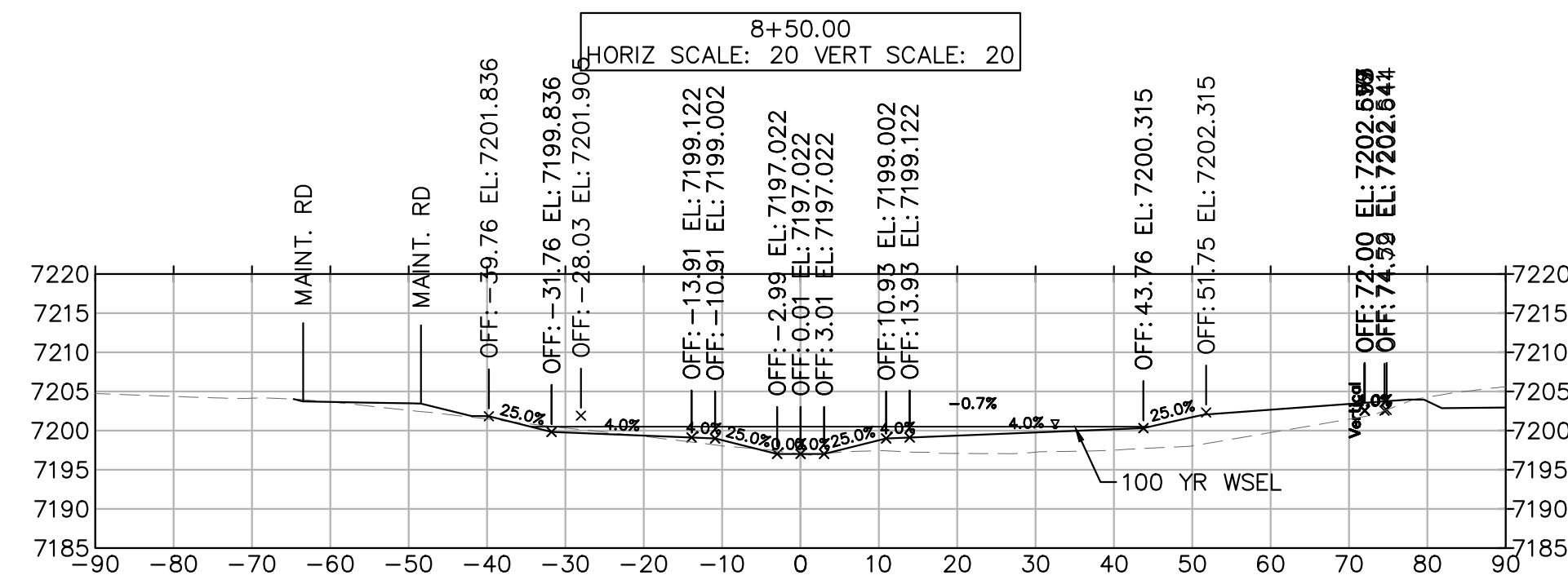
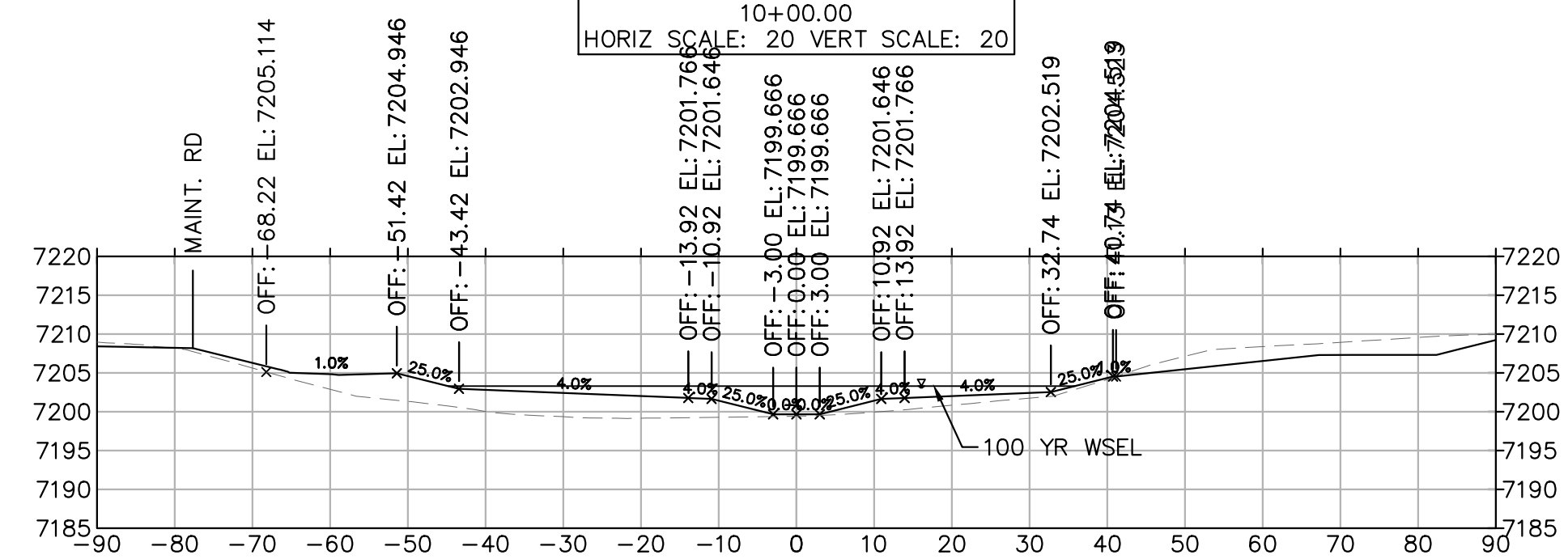
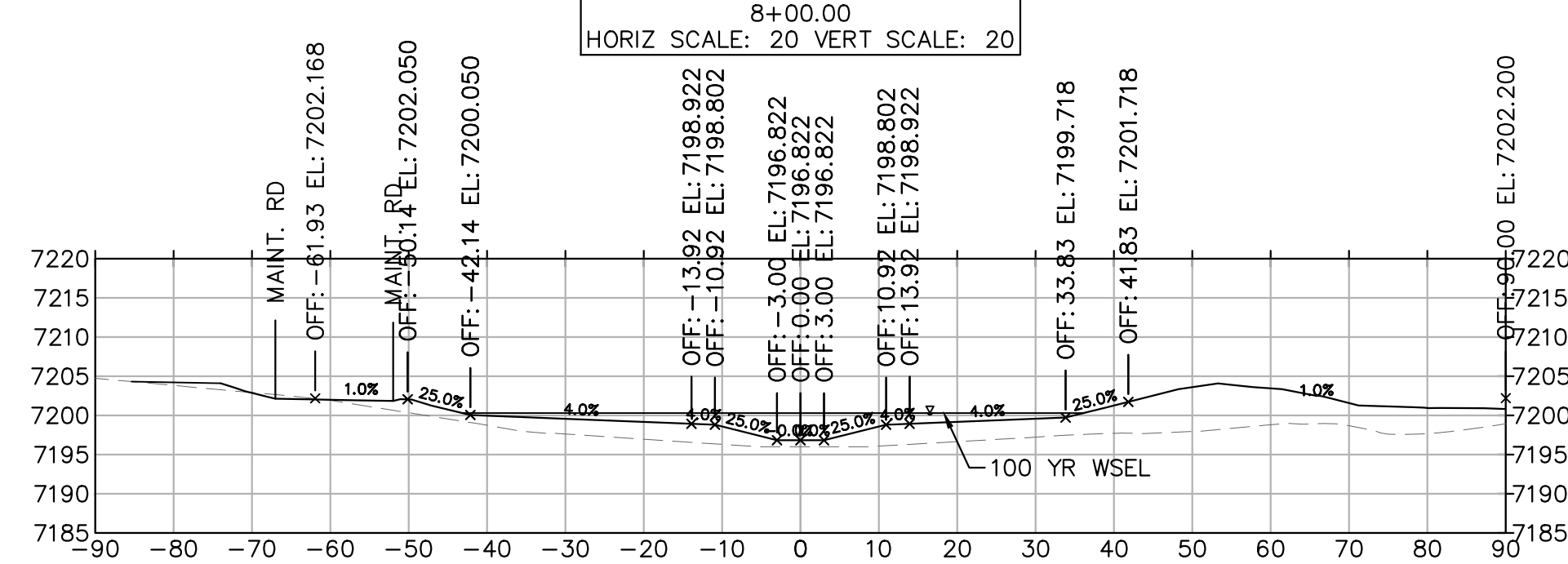
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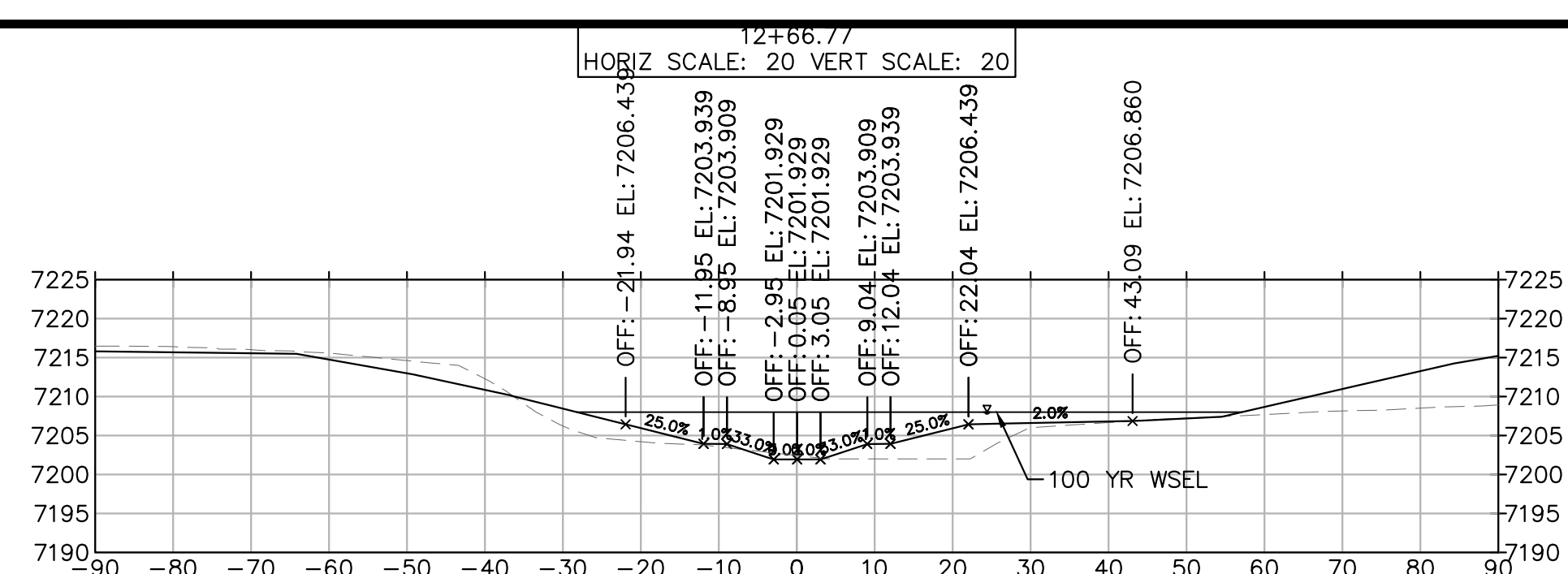
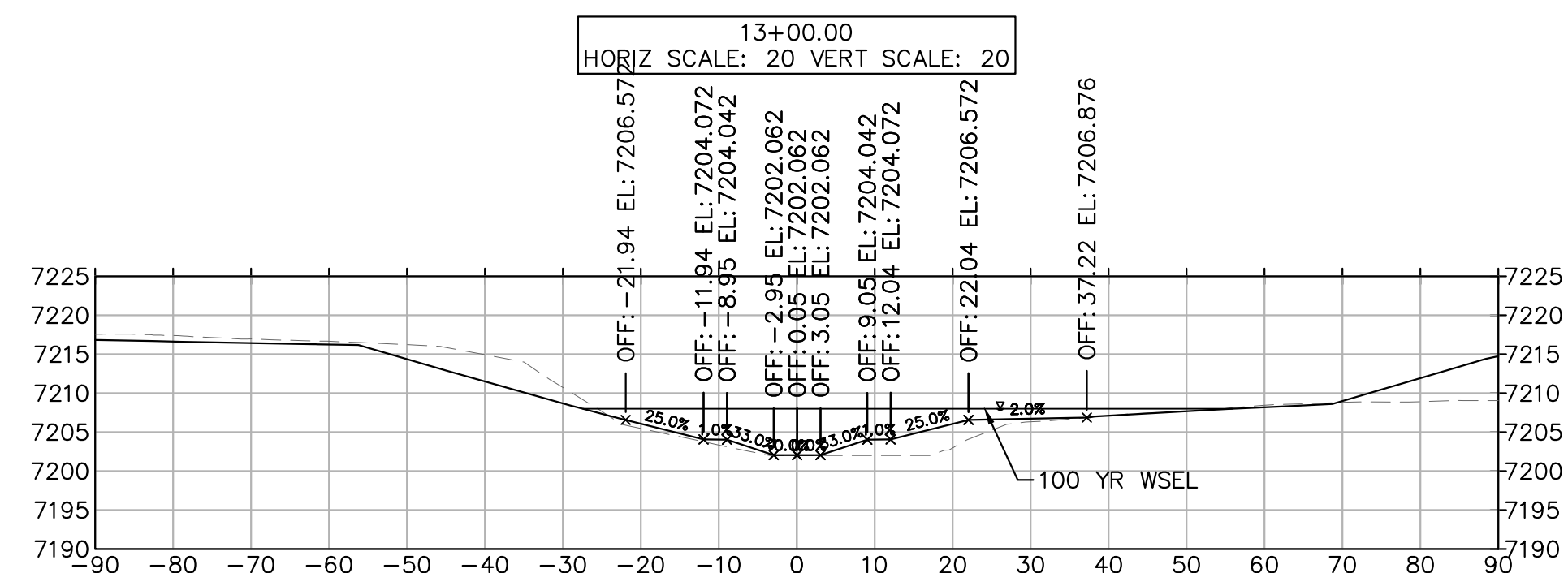
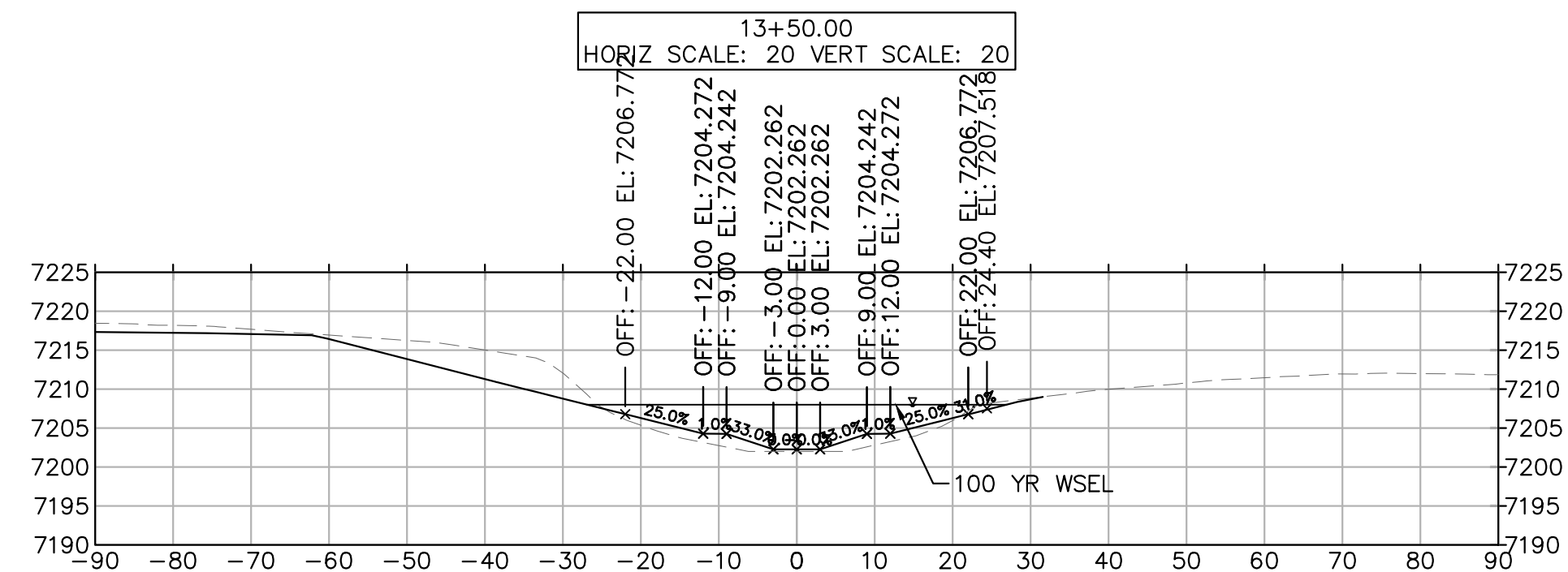
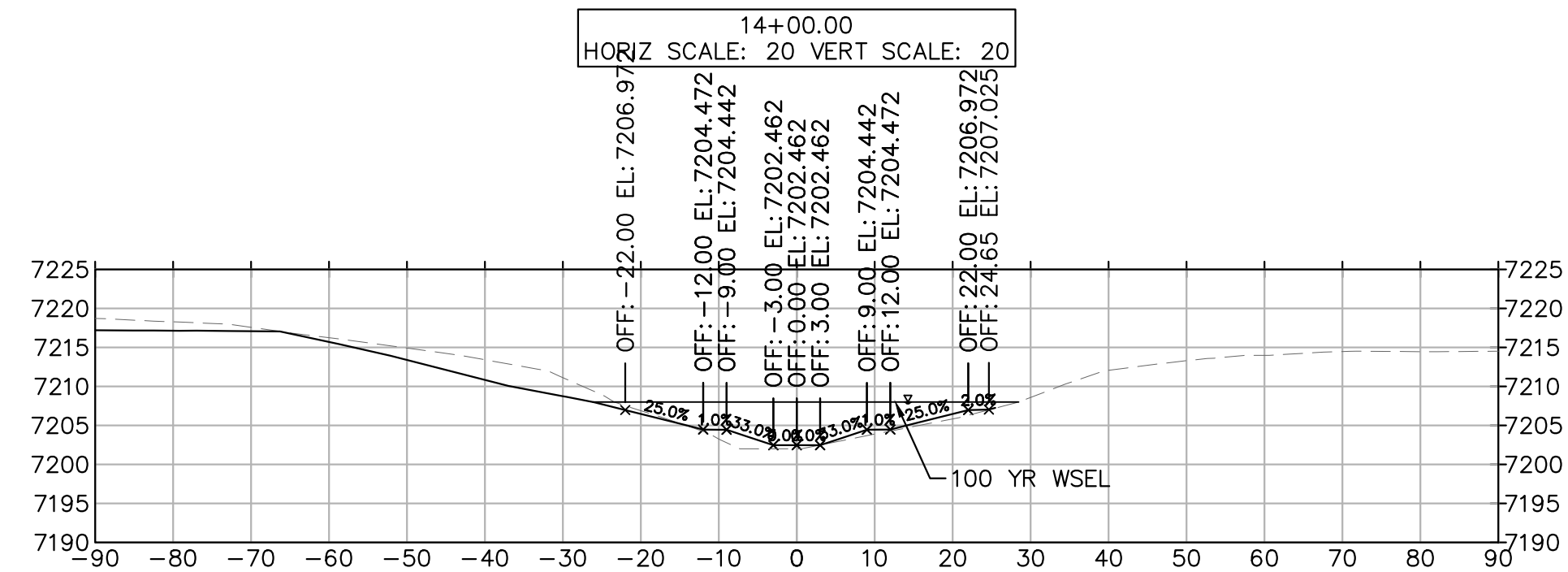
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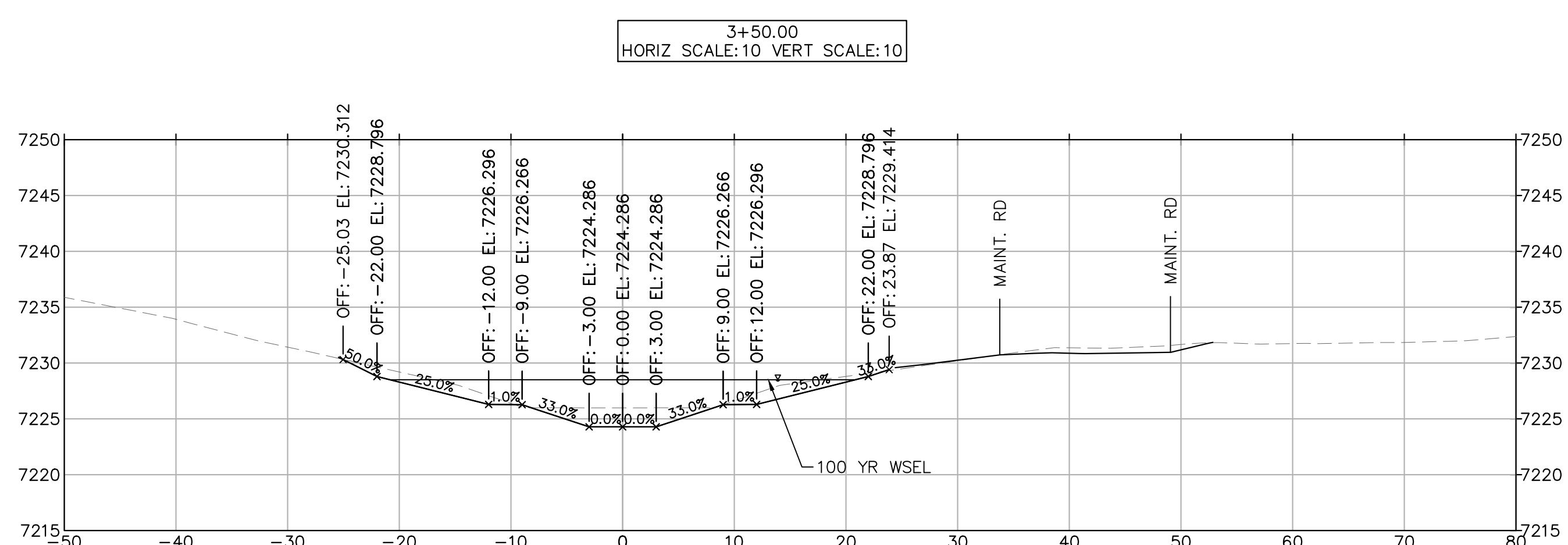
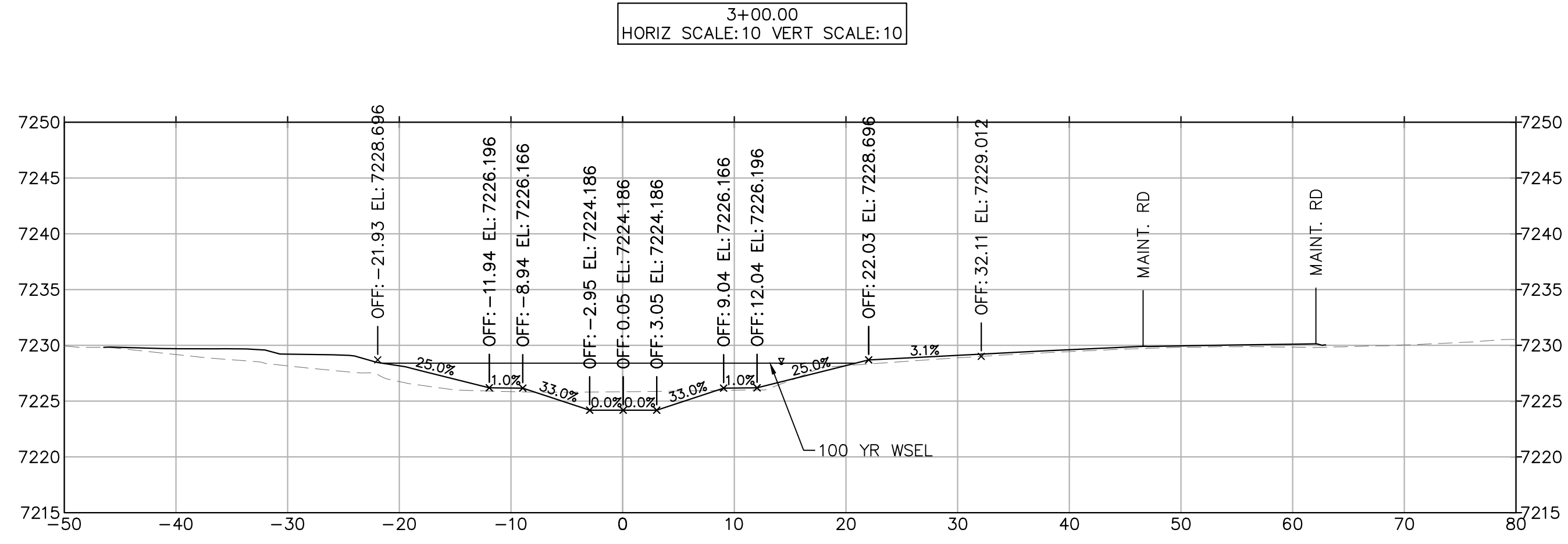
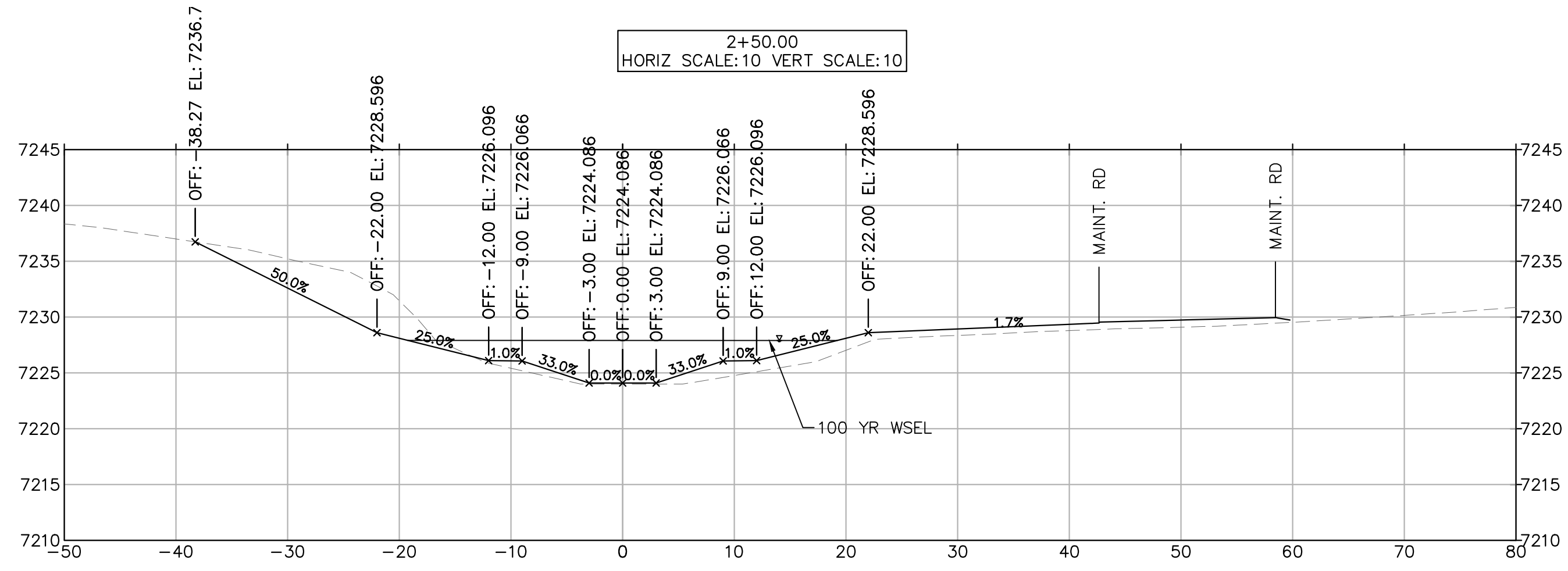
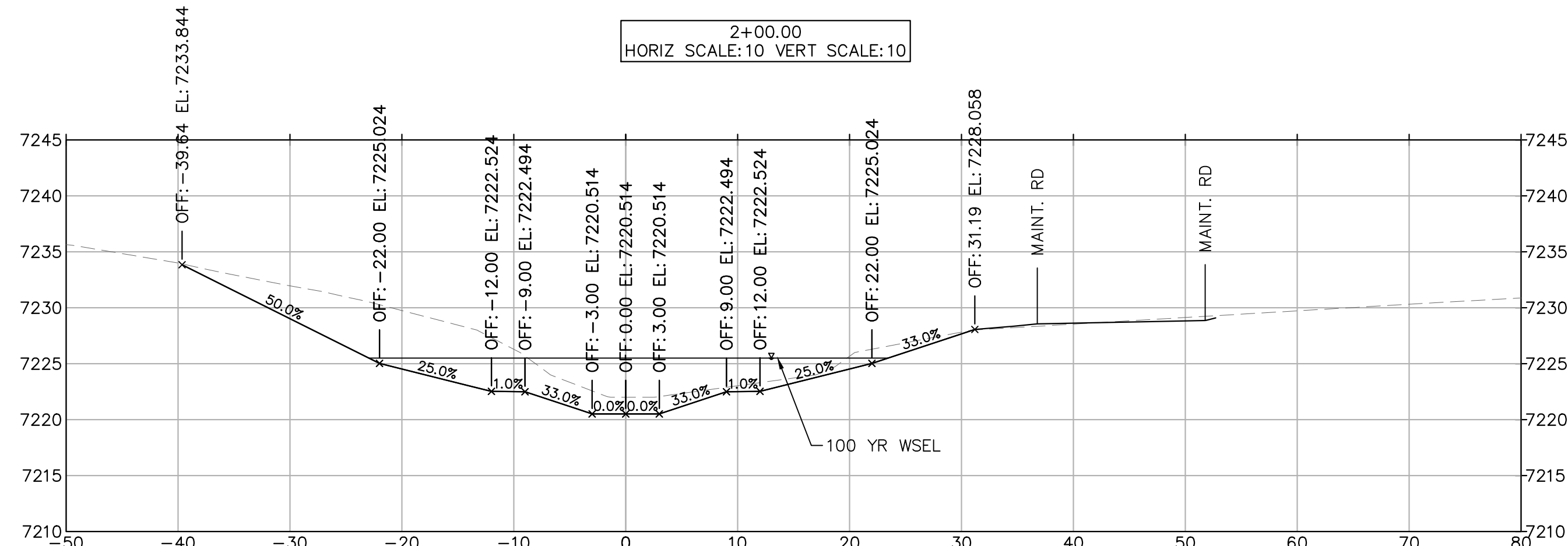
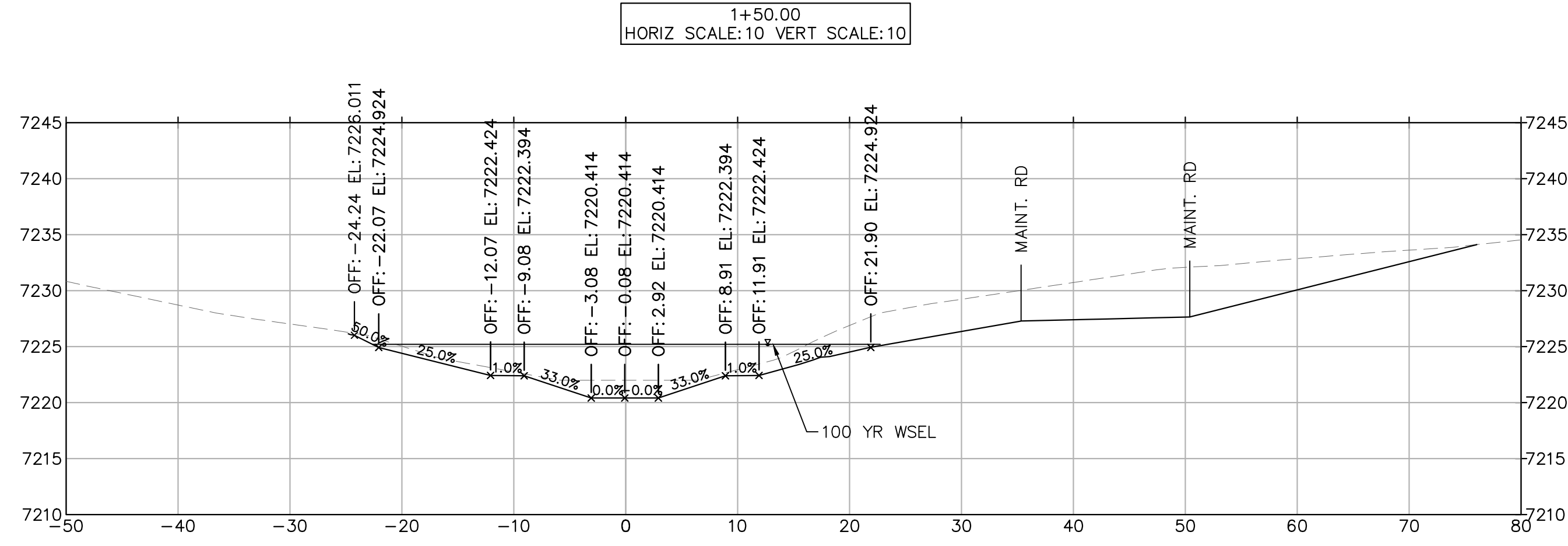
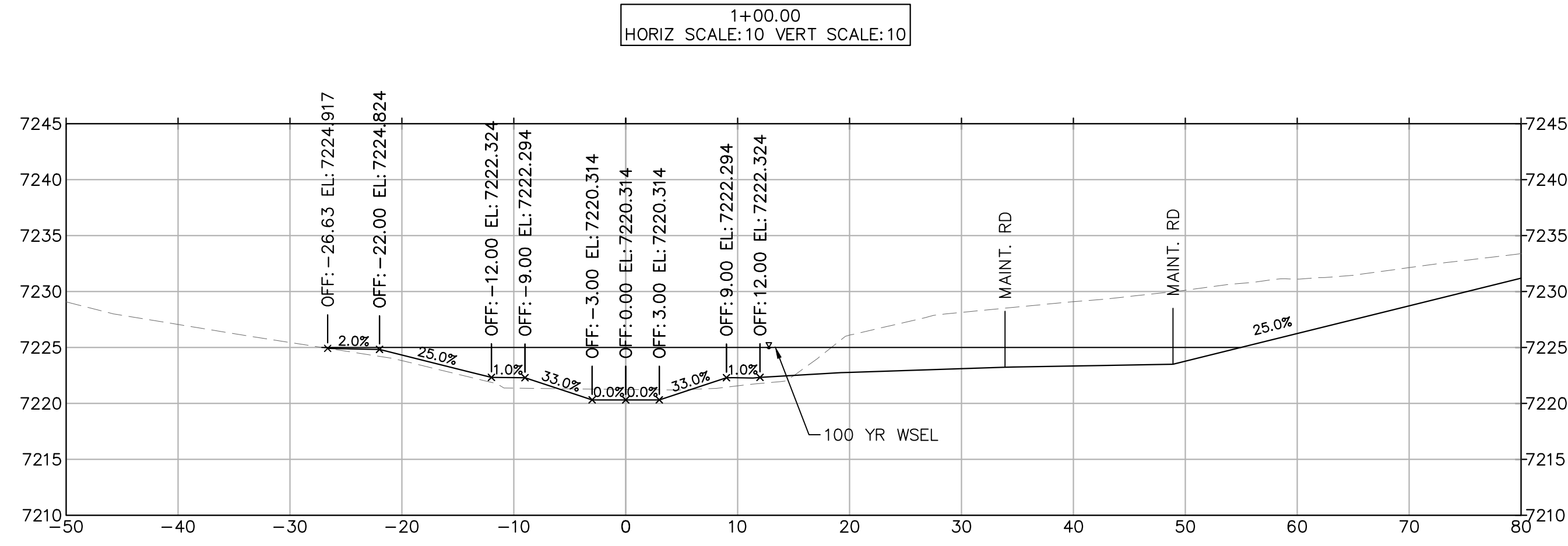
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Table with columns: NO., REVISION, BY, DATE, APPR.

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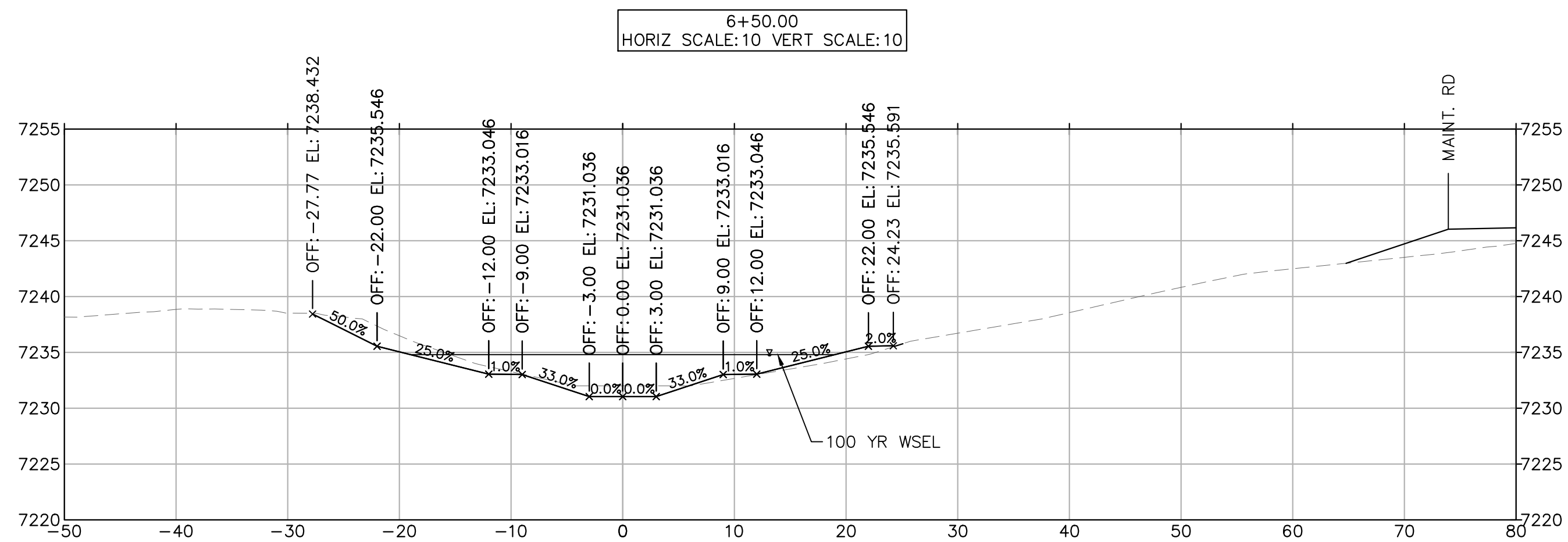
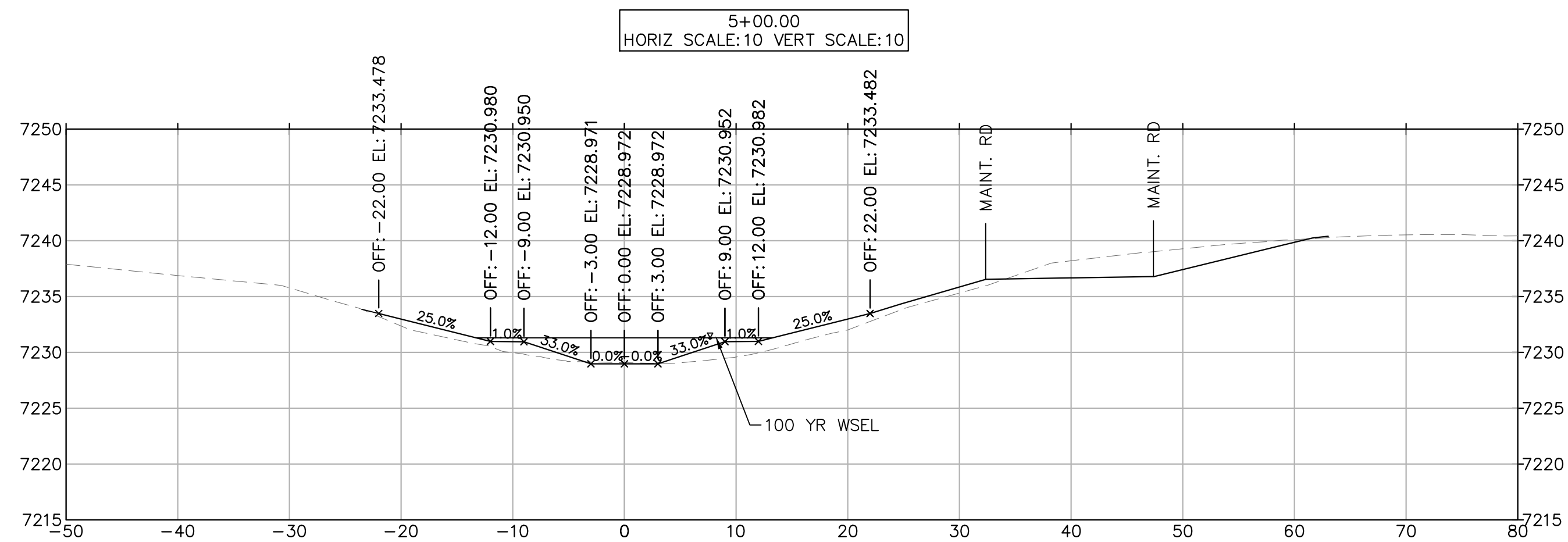
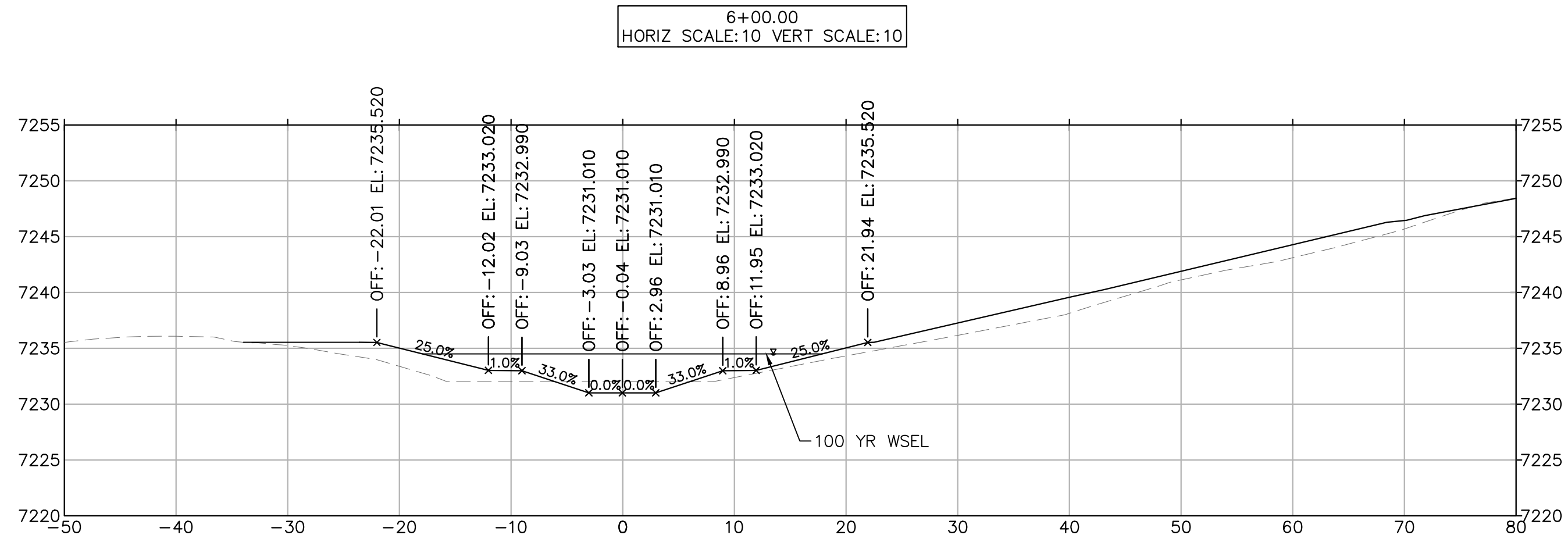
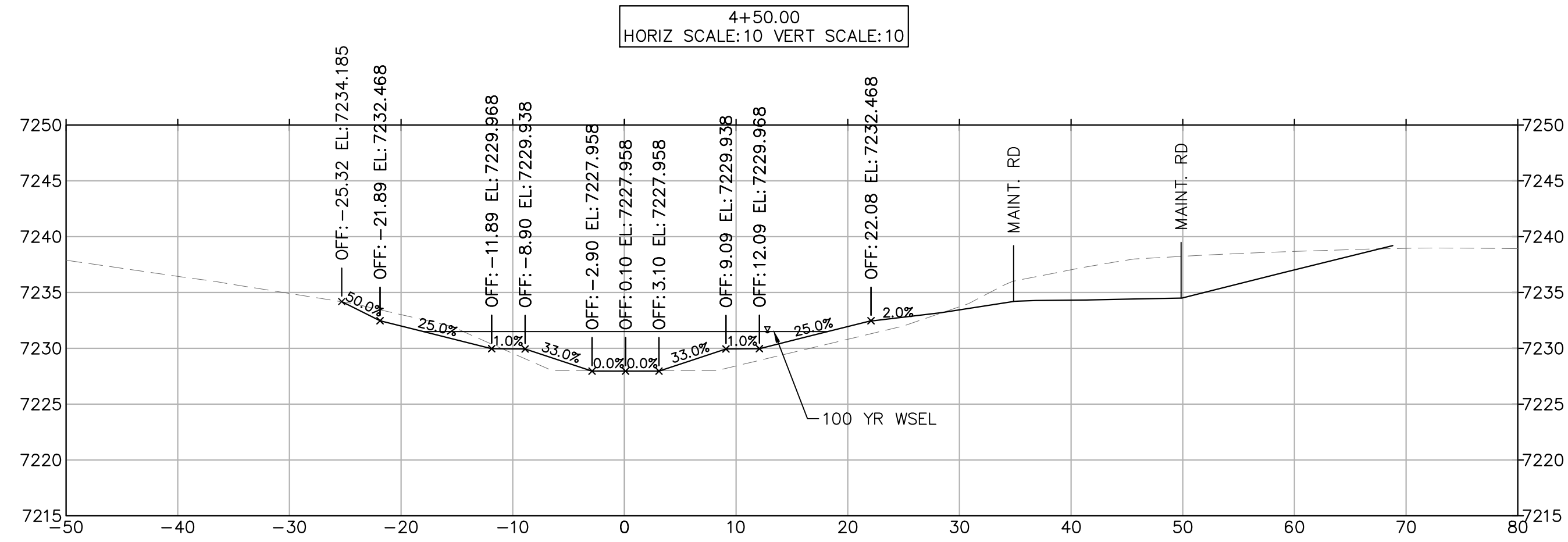
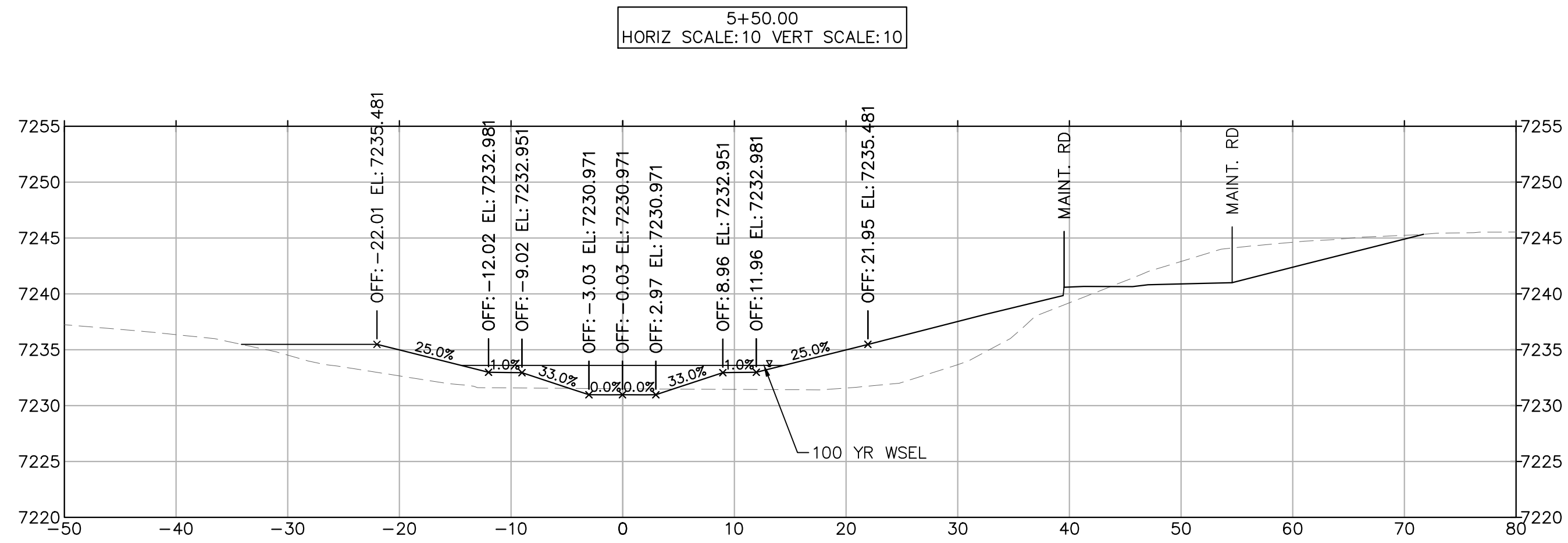
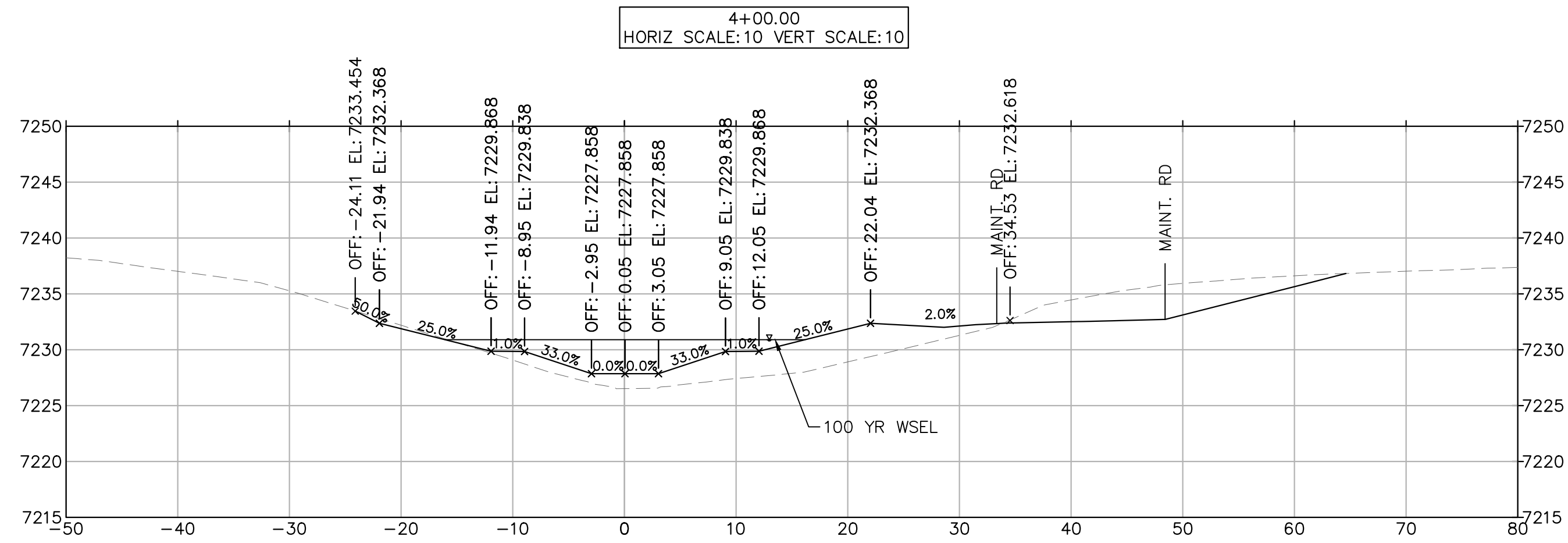
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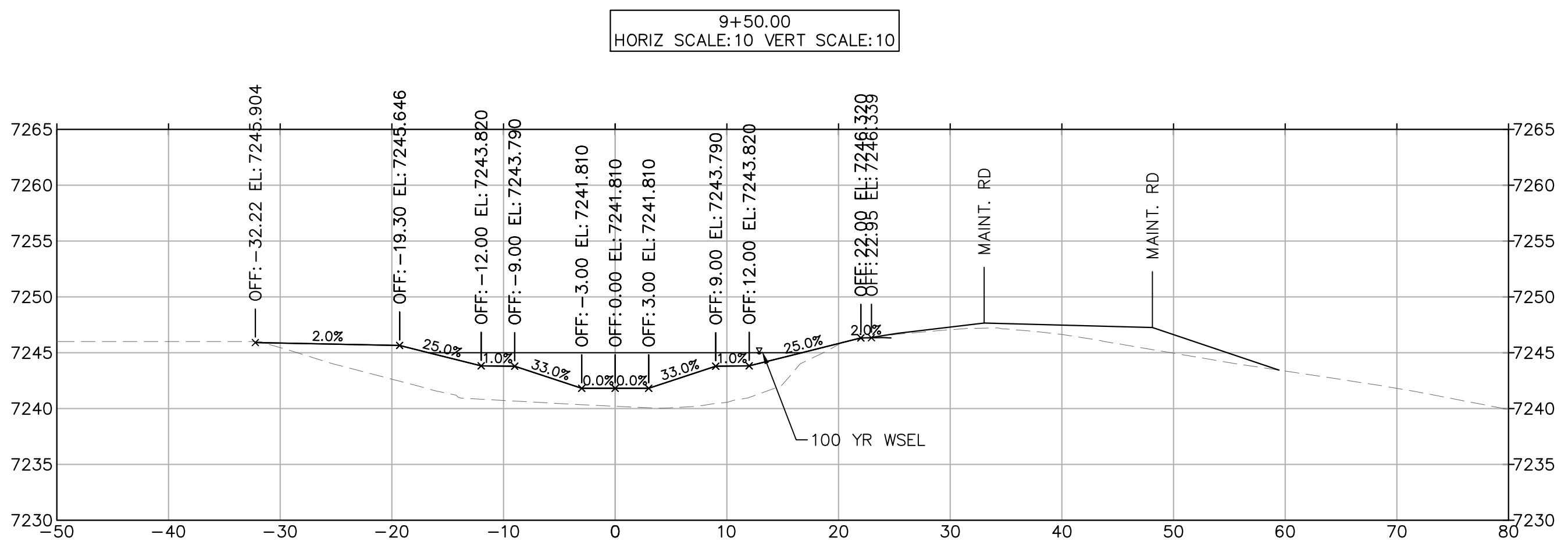
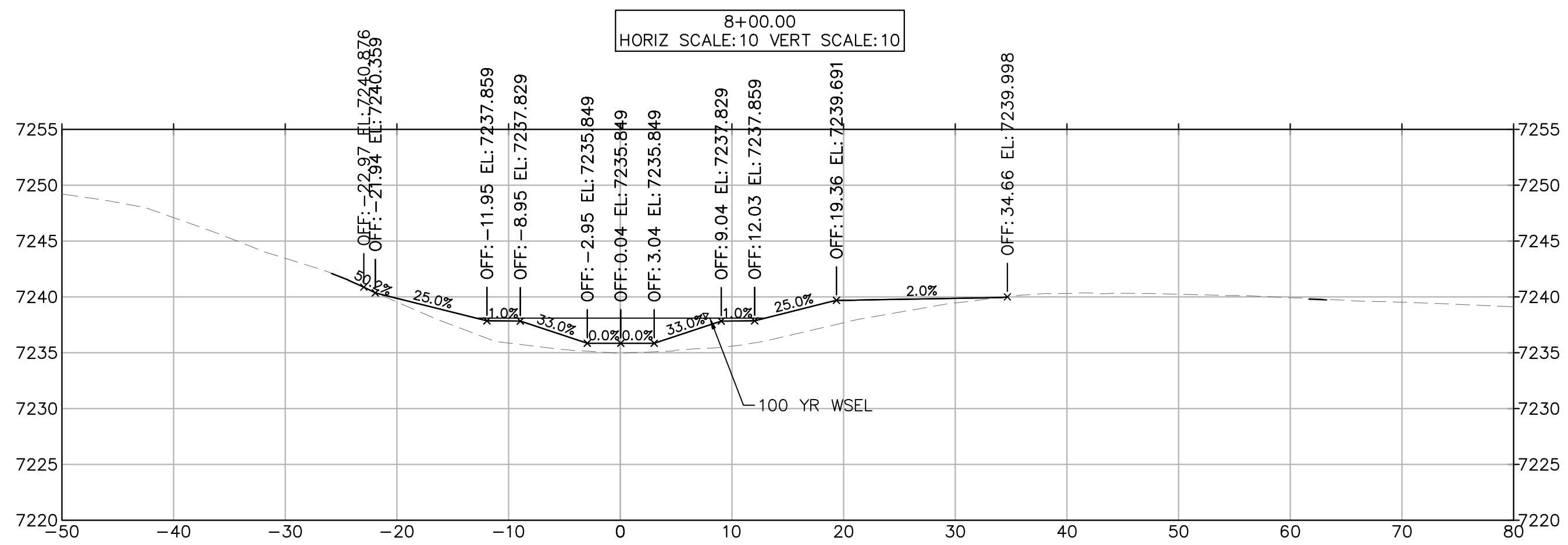
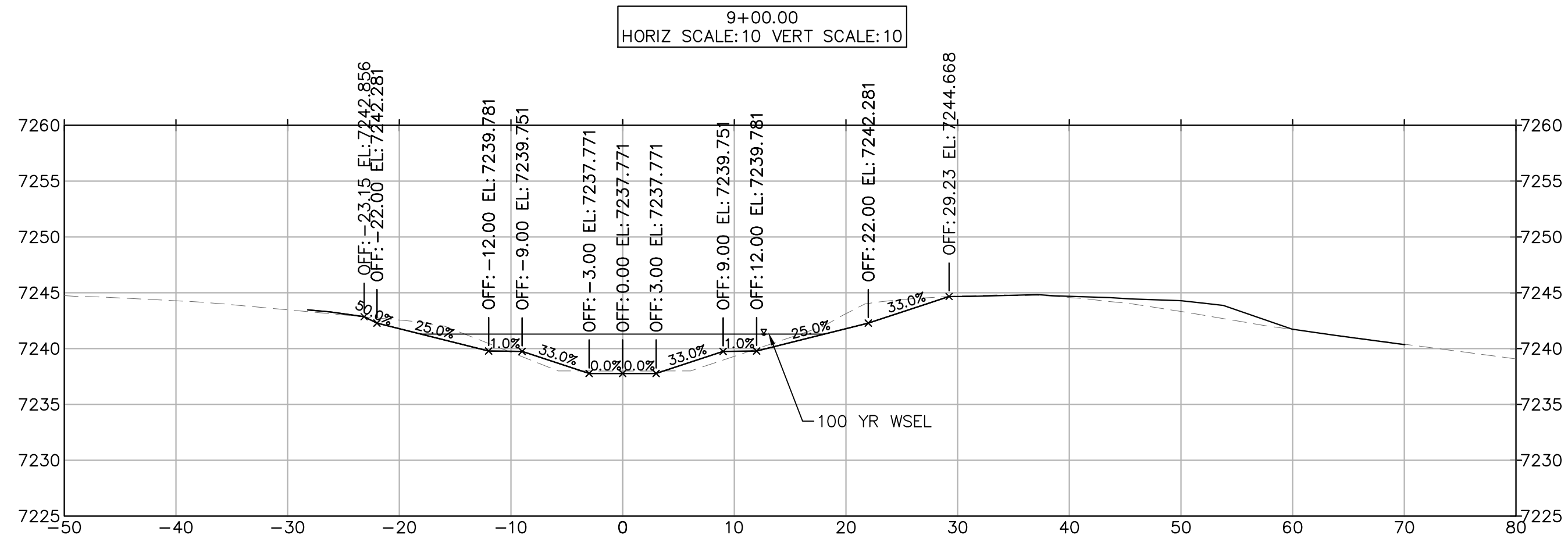
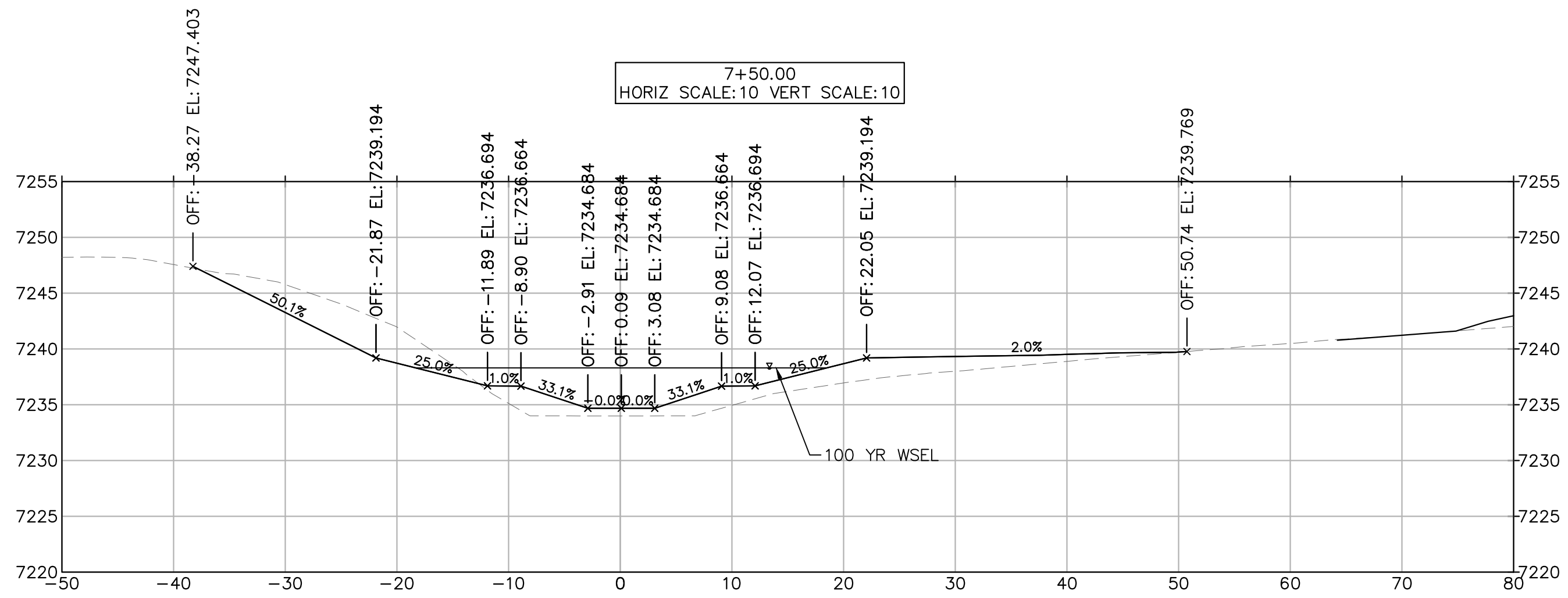
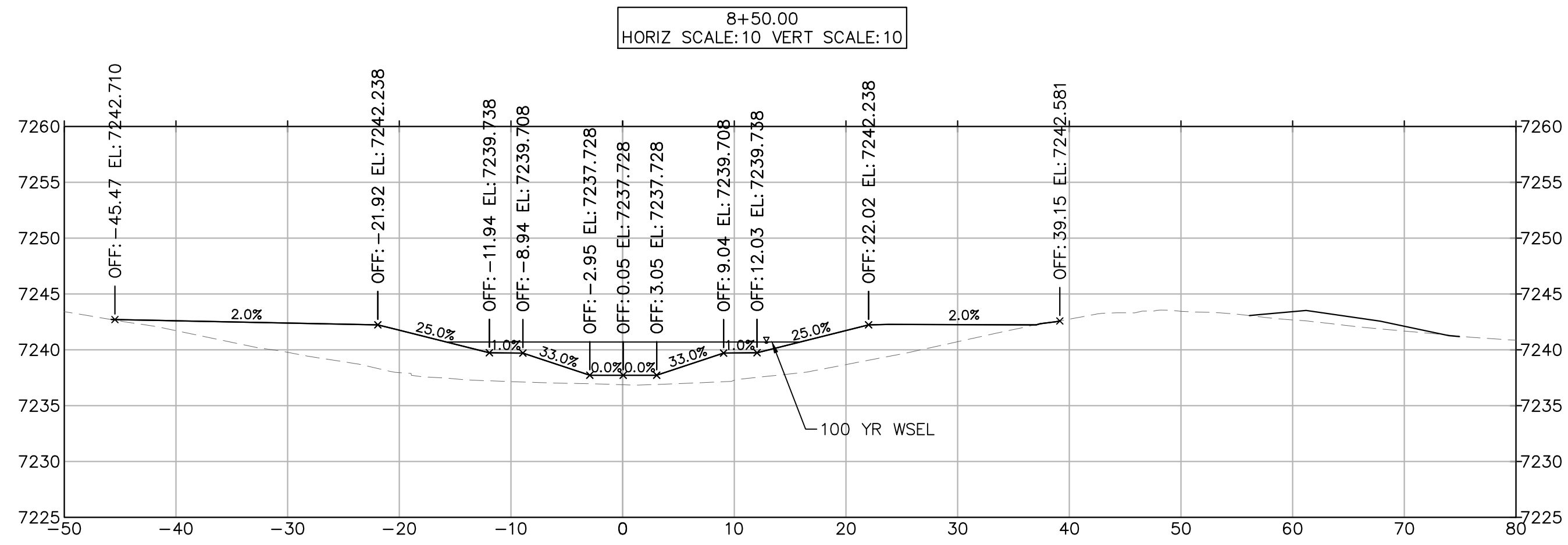
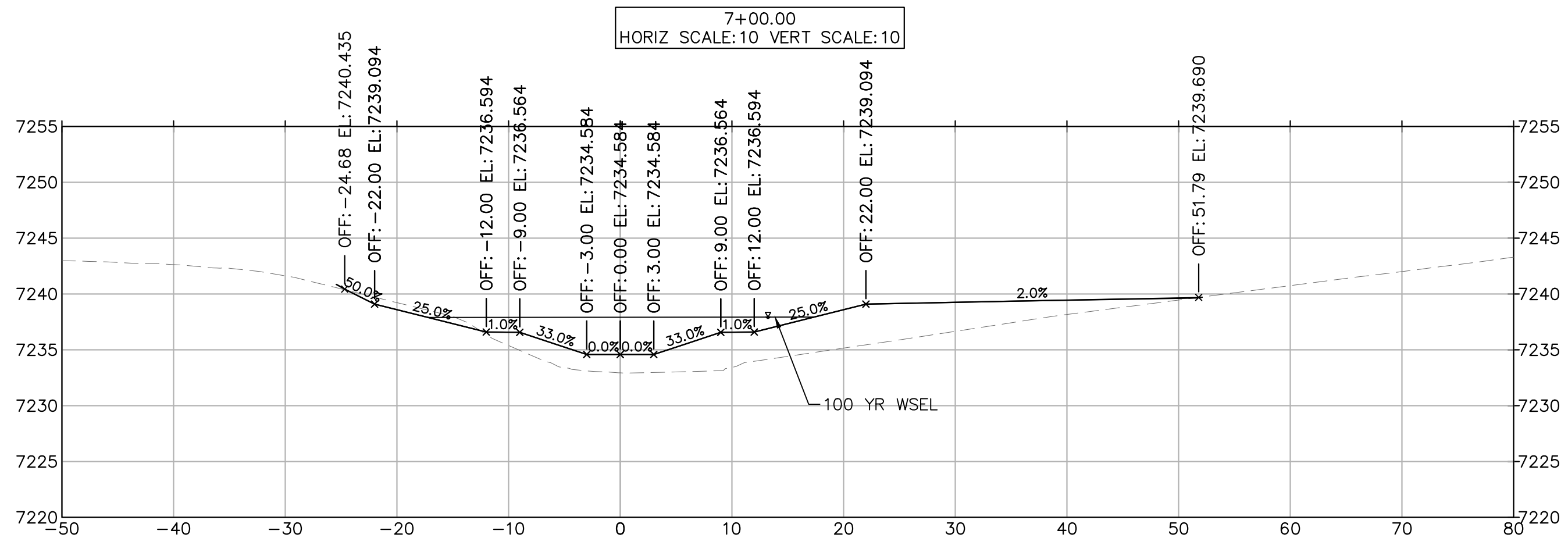
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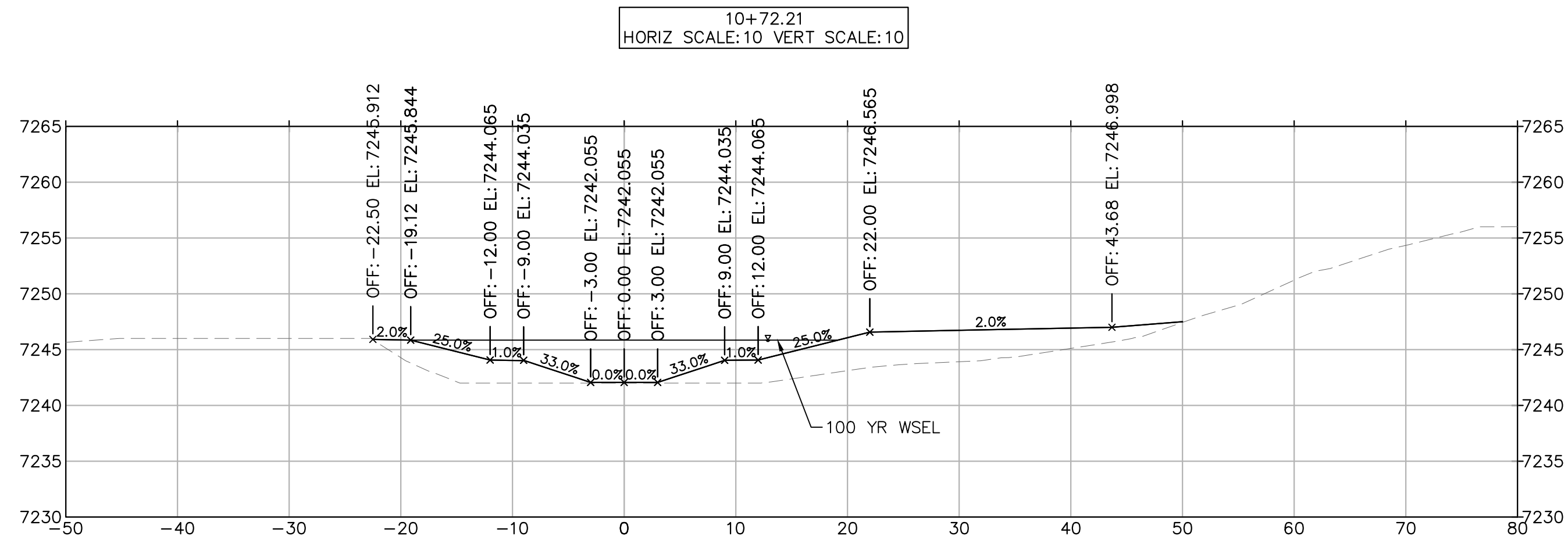
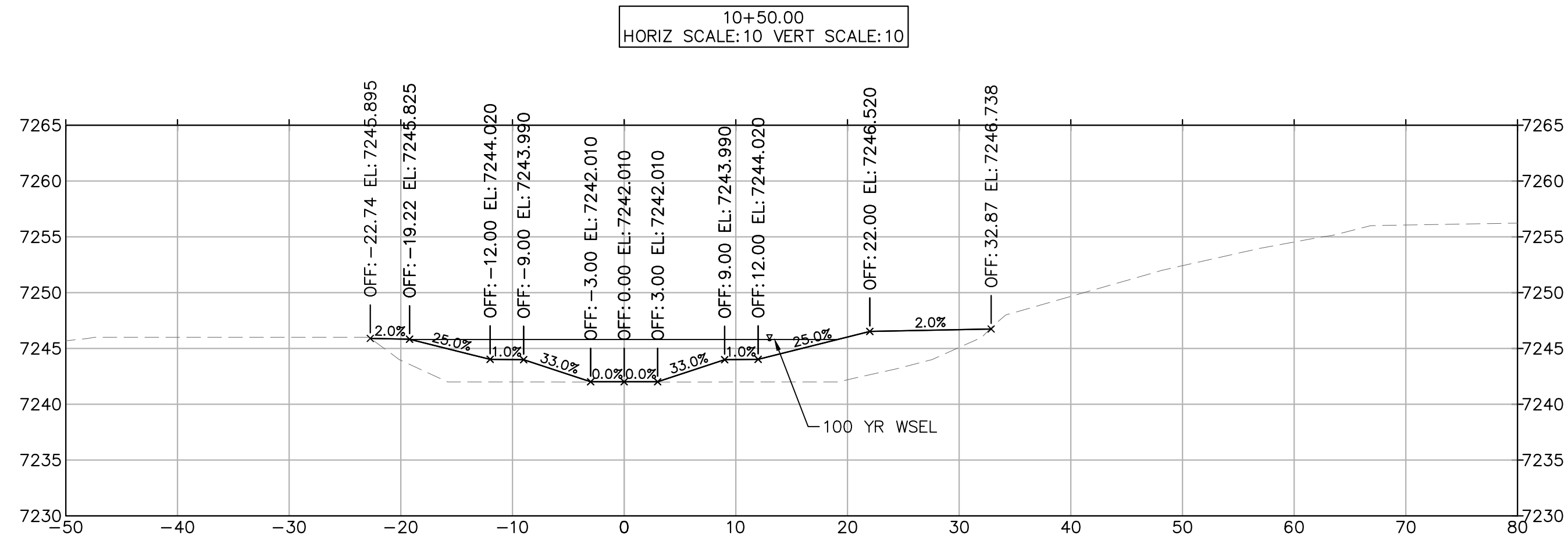
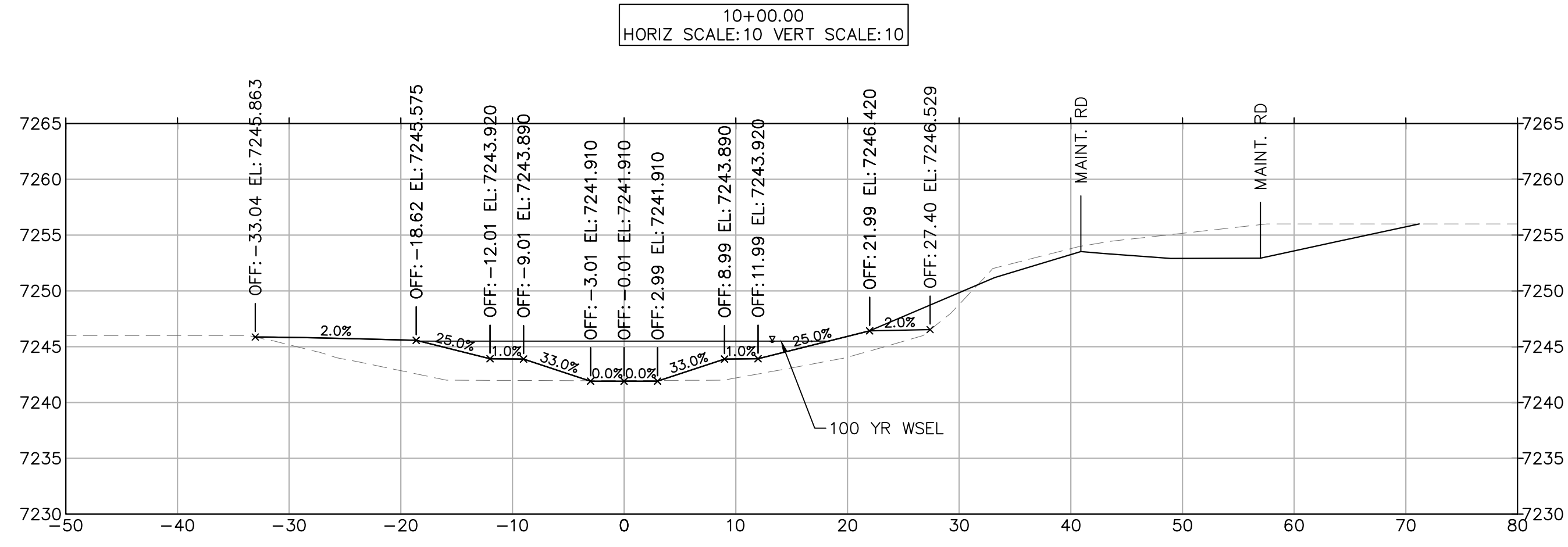
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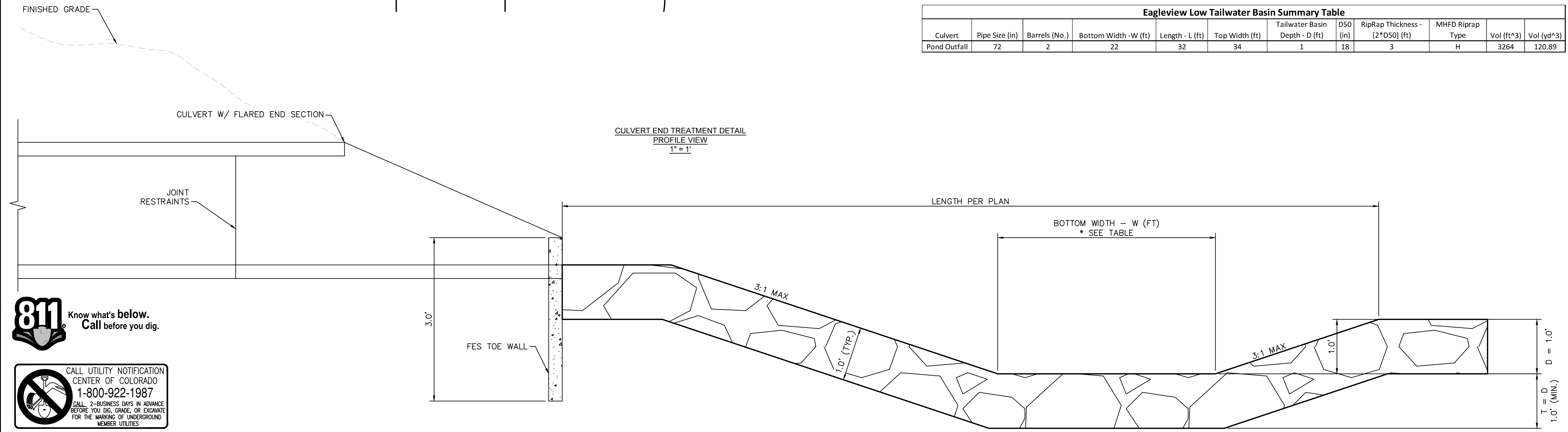
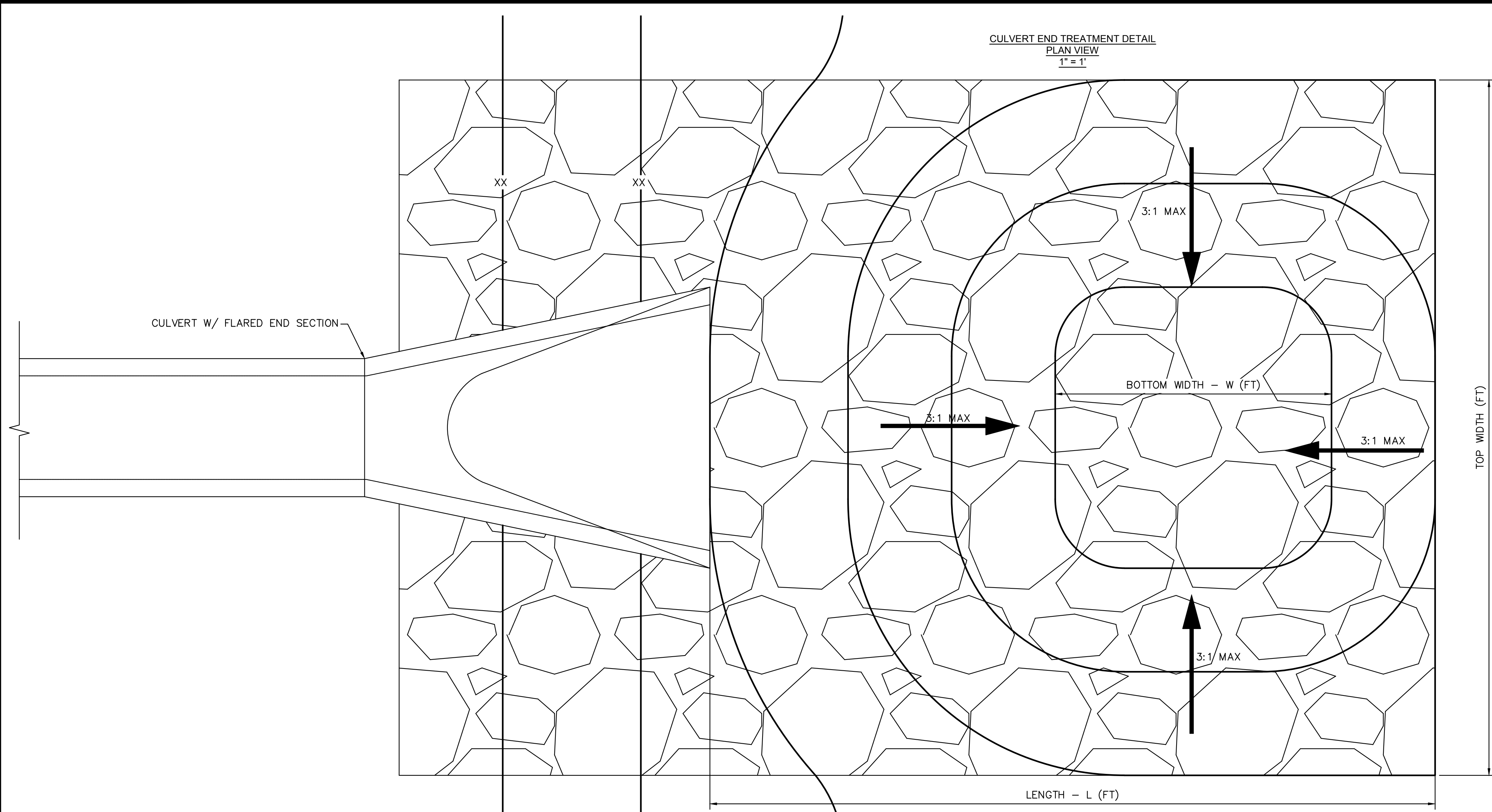
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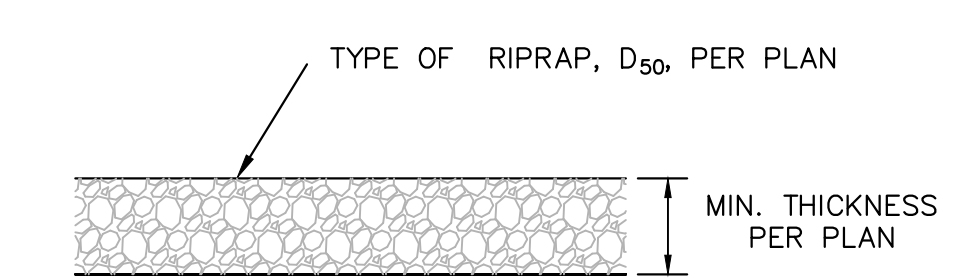
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1. D50 = MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT.
2. RIP RAP SHALL BE PER PLAN AND SHALL BE MIXED WITH 30% SOIL TO 70% RIP RAP.
3. RIP RAP SECTION THICKNESS SHALL BE 2.0 TIMES THE SPECIFIED MEAN PARTICLE SIZE (I.E. D50 X 2.0 MINIMUM) PER EOM SECTION 10.10.3.
4. ALL RIP RAP SHALL BE UNDERLAIN WITH GEOTEXTILE FILTER FABRIC FOR STABILIZATION.
5. RIP RAP SHALL WRAP AROUND AND EXTEND 2' MIN. BEHIND FLUME AND FLARED END SECTIONS.

TYPICAL RIPRAP SECTION DETAIL

Table 506-2

Pay Item	Stone Size d ₅₀ ¹ (Inches)	Percent of Material Smaller Than Typical Stone ²	Typical Stone Dimensions ³ (Inches)	Typical Stone Weight ⁴ (Pounds)
Riprap	VL	70-100	12	85
		50-70	9	35
		35-50	6	10
		2-10	2	0.4
Riprap	V	70-100	15	160
		50-70	12	85
		35-50	9	35
		2-10	3	1.3
Riprap	M	70-100	21	440
		50-70	18	275
		35-50	12	85
		2-10	4	3
Riprap	L	100	30	1280
		50-70	24	650
		35-50	18	275
		2-10	6	10
Riprap	LH	100	42	3500
		50-70	33	1700
		35-50	24	650
		2-10	9	35

¹d50 = nominal stone size
²based on typical rock mass
³equivalent spherical diameter
⁴based on a specific gravity = 2.5

Eagleview Low Tailwater Basin Summary Table

Culvert	Pipe Size (in)	Barrels (No.)	Bottom Width - W (ft)	Length - L (ft)	Top Width (ft)	Tailwater Basin Depth - D (ft)	D50 (in)	RipRap Thickness - [2*D50] (ft)	MHFD Riprap Type	Vol (ft ³)	Vol (yd ³)
Pond Outfall	72	2	22	32	34	1	18	3	H	3264	120.89

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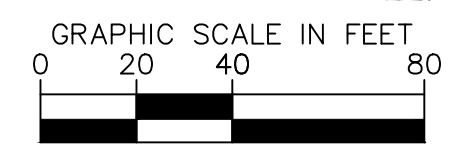
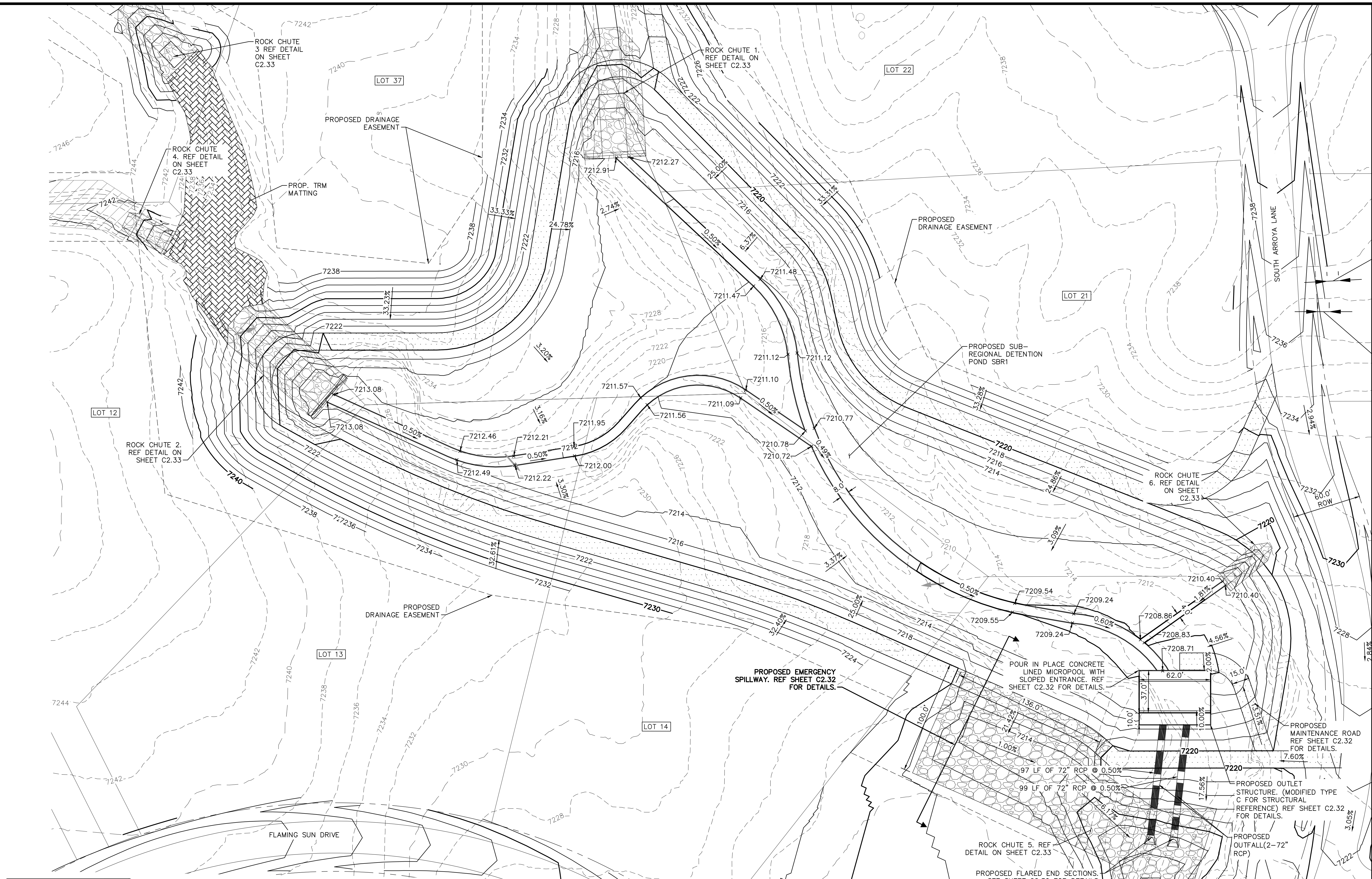
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 END TREATMENT DETAIL

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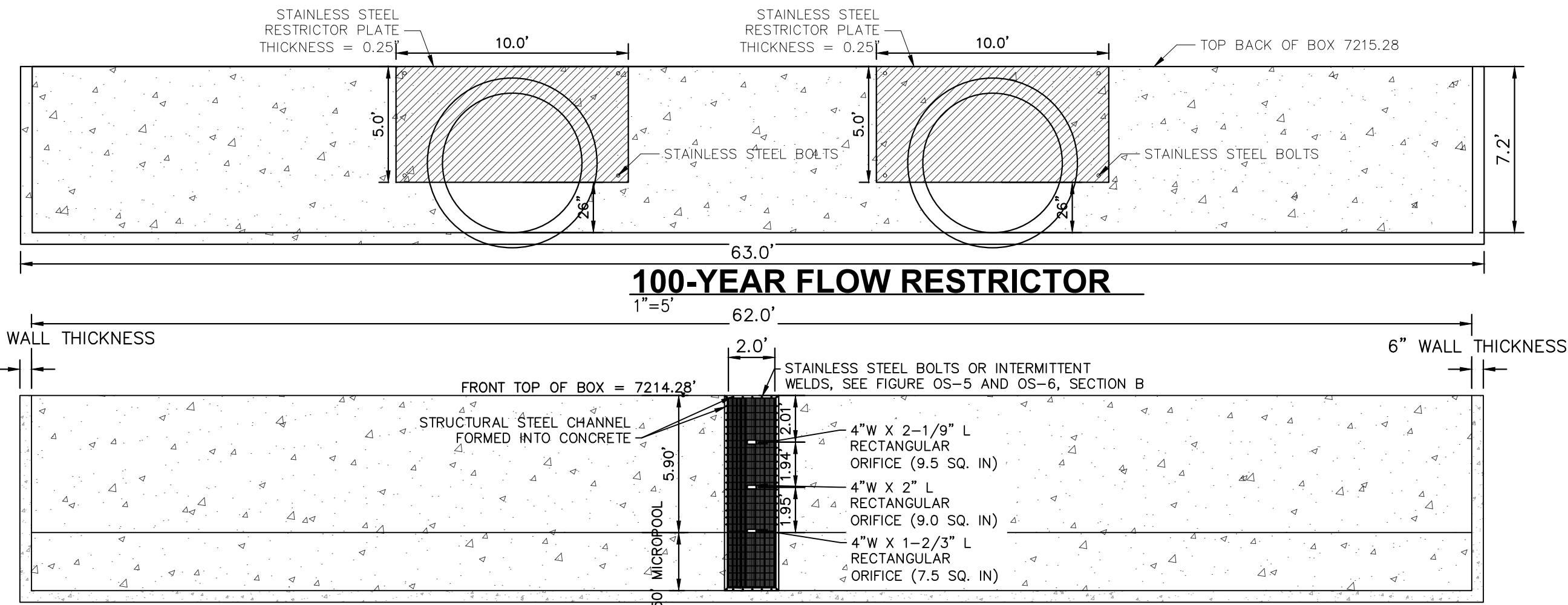
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ORIFICE PLATE AND TRASH RACK DETAIL
1"=5'

ORIFICE PLATE NOTES

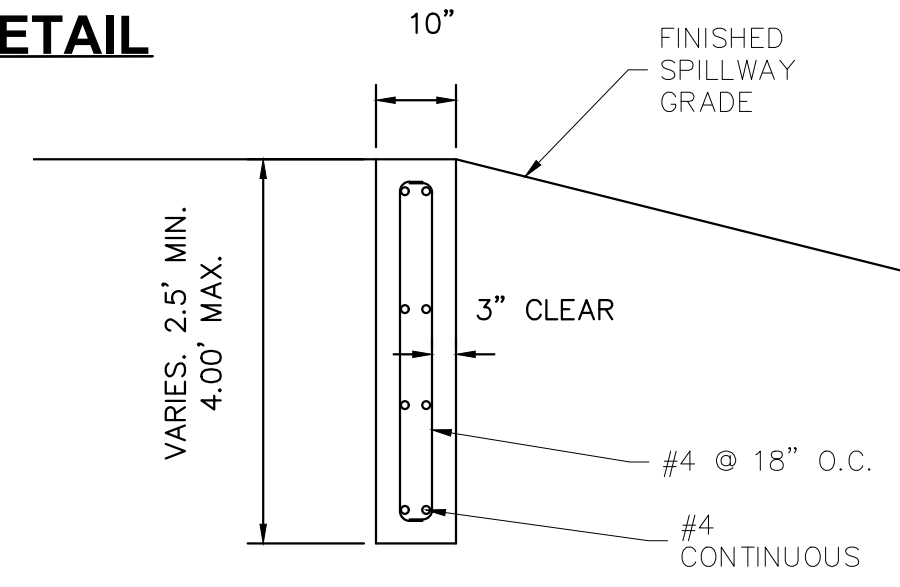
1. PROVIDE CONTINUOUS NEOPRENE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
2. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER, WITH A PLATE THICKNESS OF 0.25".

EURV AND WQCV TRASH RACKS

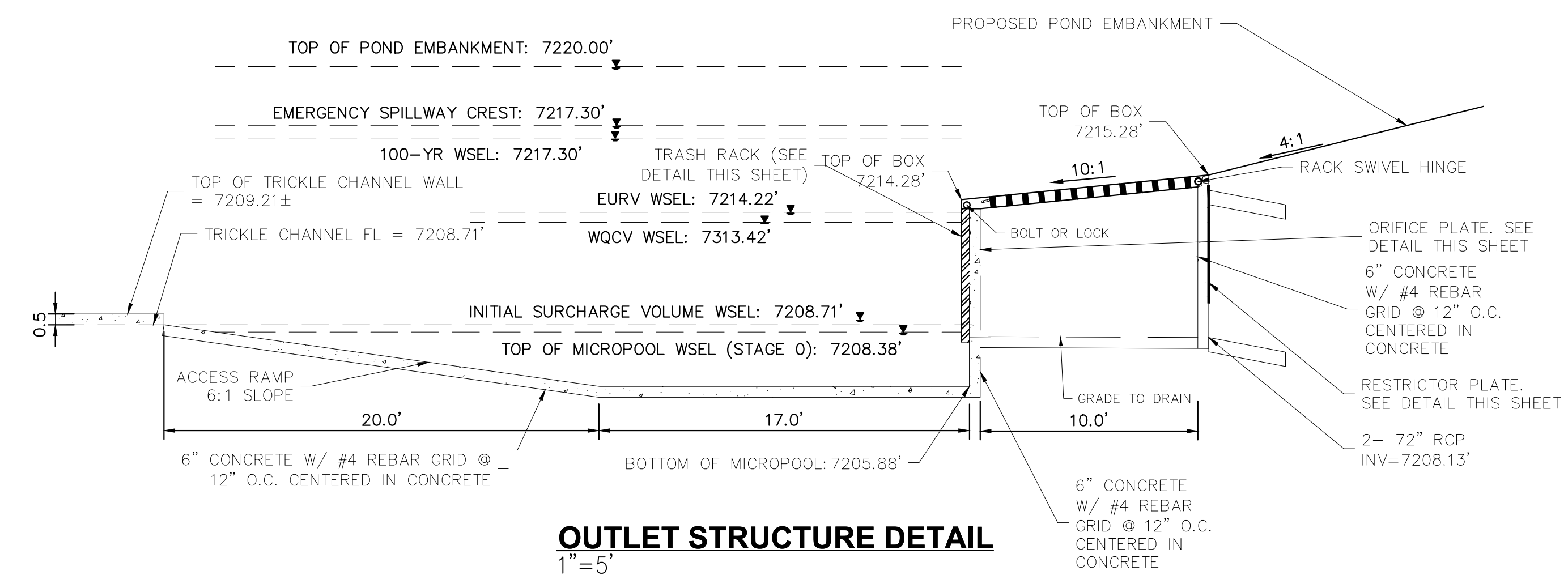
1. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. BAR GATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
3. TRASH RACK OPEN AREAS ARE FOR SPECIFIED TRASH RACK MATERIALS. TOTAL TRASH RACK SIZE MAY NEED TO BE ADJUSTED FOR MATERIALS HAVING DIFFERENT OPEN AREA/GROSS AREA RATIO (R VALUE).
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

OVERFLOW SAFETY GRATES

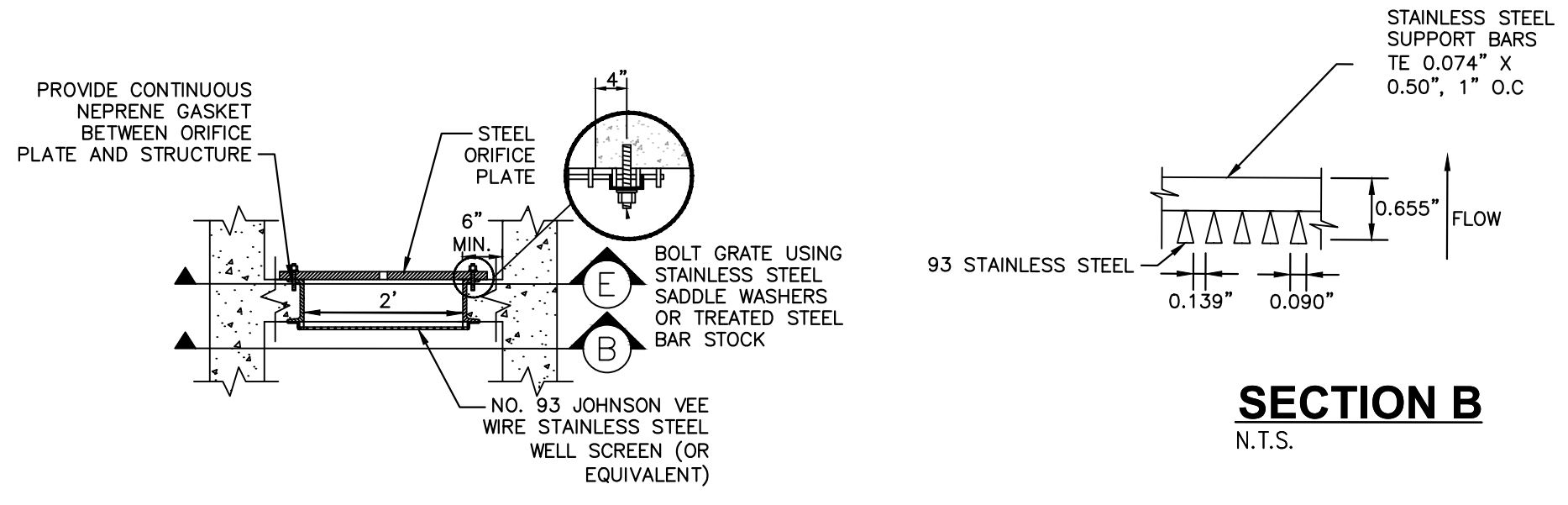
1. ALL SAFETY GRATES SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
2. SAFETY GRATES SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL GRATES SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
3. SAFETY GRATES SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
4. STRUCTURAL DESIGN OF SAFETY GRATES SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.



SECTION CREST WALL DETAIL
1"=2'

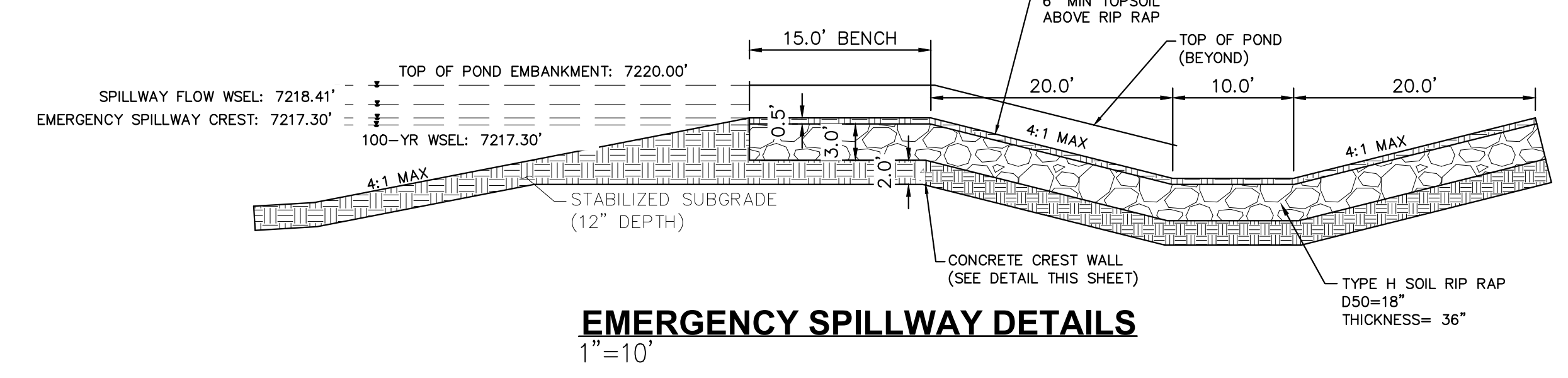


OUTLET STRUCTURE DETAIL
1"=5'

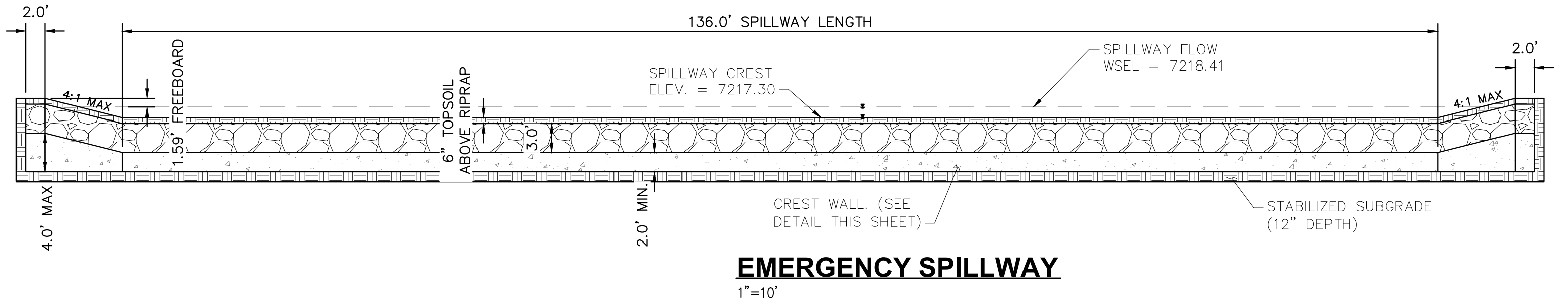


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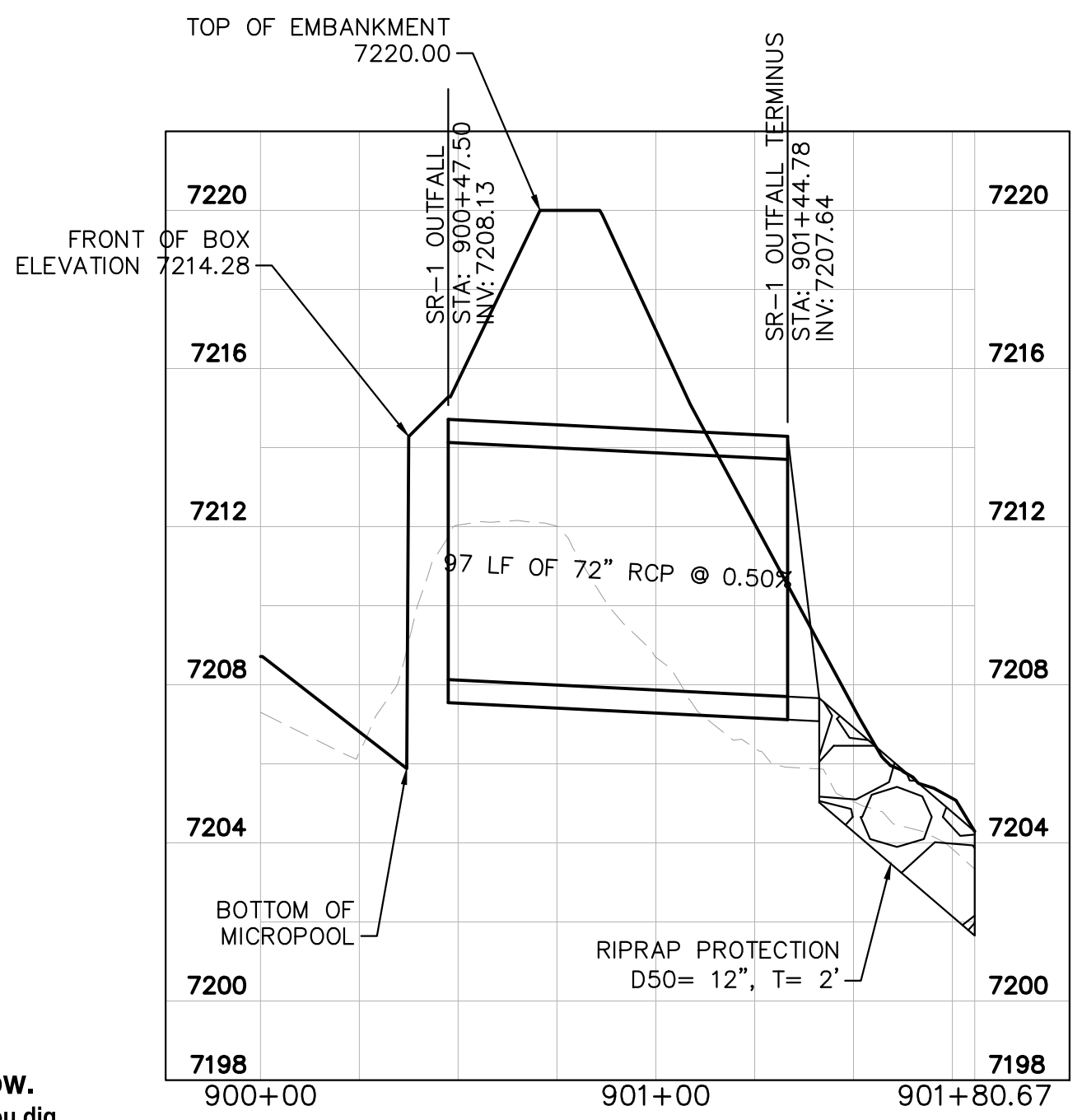
SECTION B
N.T.S.



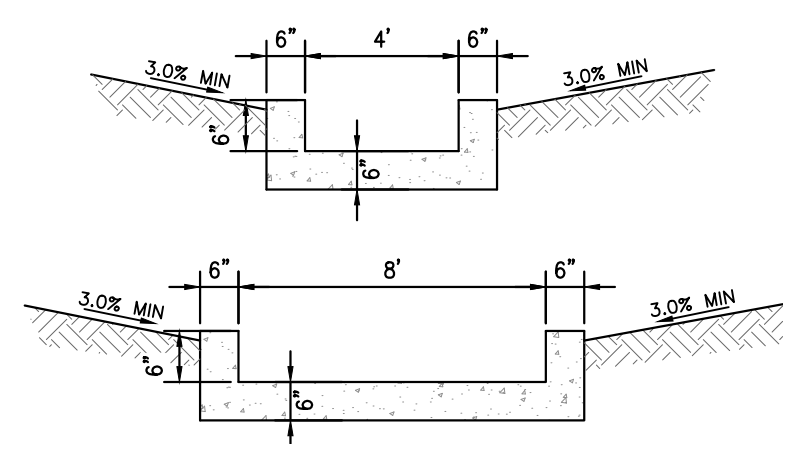
EMERGENCY SPILLWAY DETAILS
1"=10'



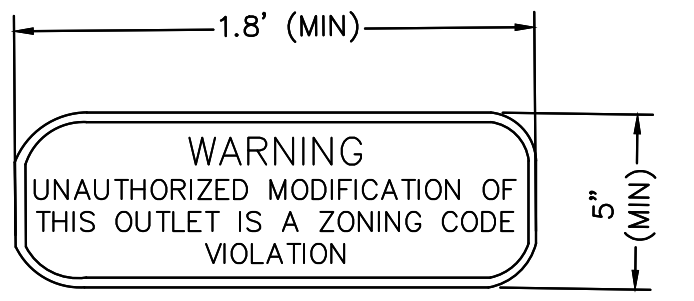
EMERGENCY SPILLWAY
1"=10'



SR-1 OUTFALL PROFILE (2)
1"=40'

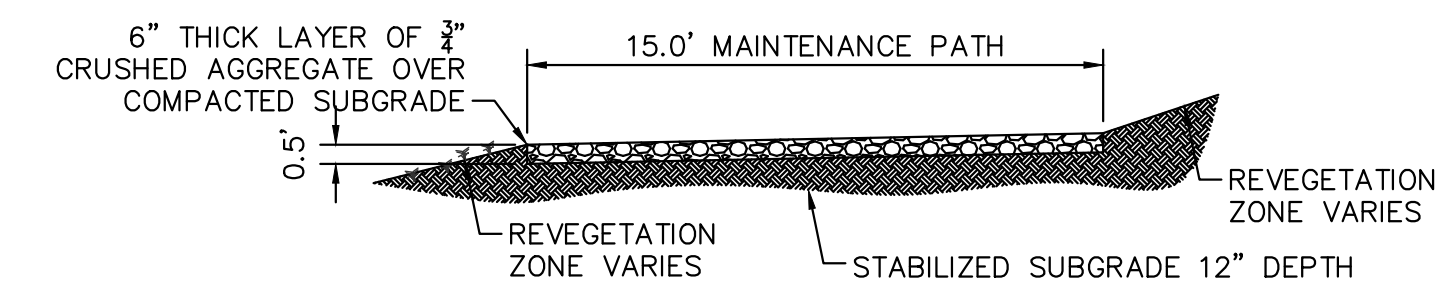


CONCRETE TRICKLE CHANNEL
1"=5'



OUTLET SIGNAGE
N.T.S.

- OUTLET SIGNAGE NOTES**
1. SIGN SHALL BE A MINIMUM OF 0.75 SQUARE FEET AND SHALL BE ATTACHED TO THE OUTLET OR POSTED NEARBY.



MAINTENANCE ROAD
1"=5'

- MAINTENANCE PATH NOTES**
1. MAINTENANCE PATH SHALL INCLUDE SUBGRADE PREPARATION, GRAVEL BASE, AND COMPACTION.



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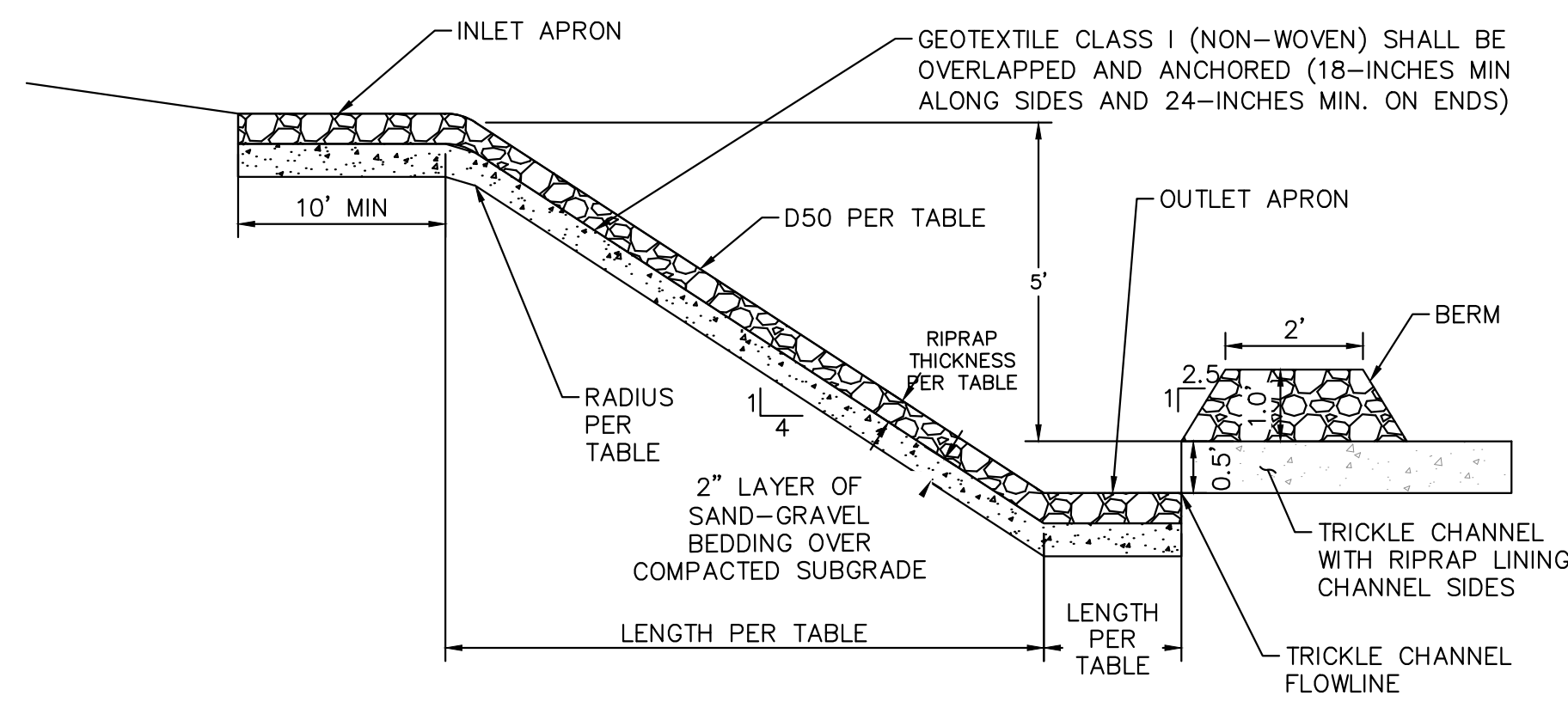
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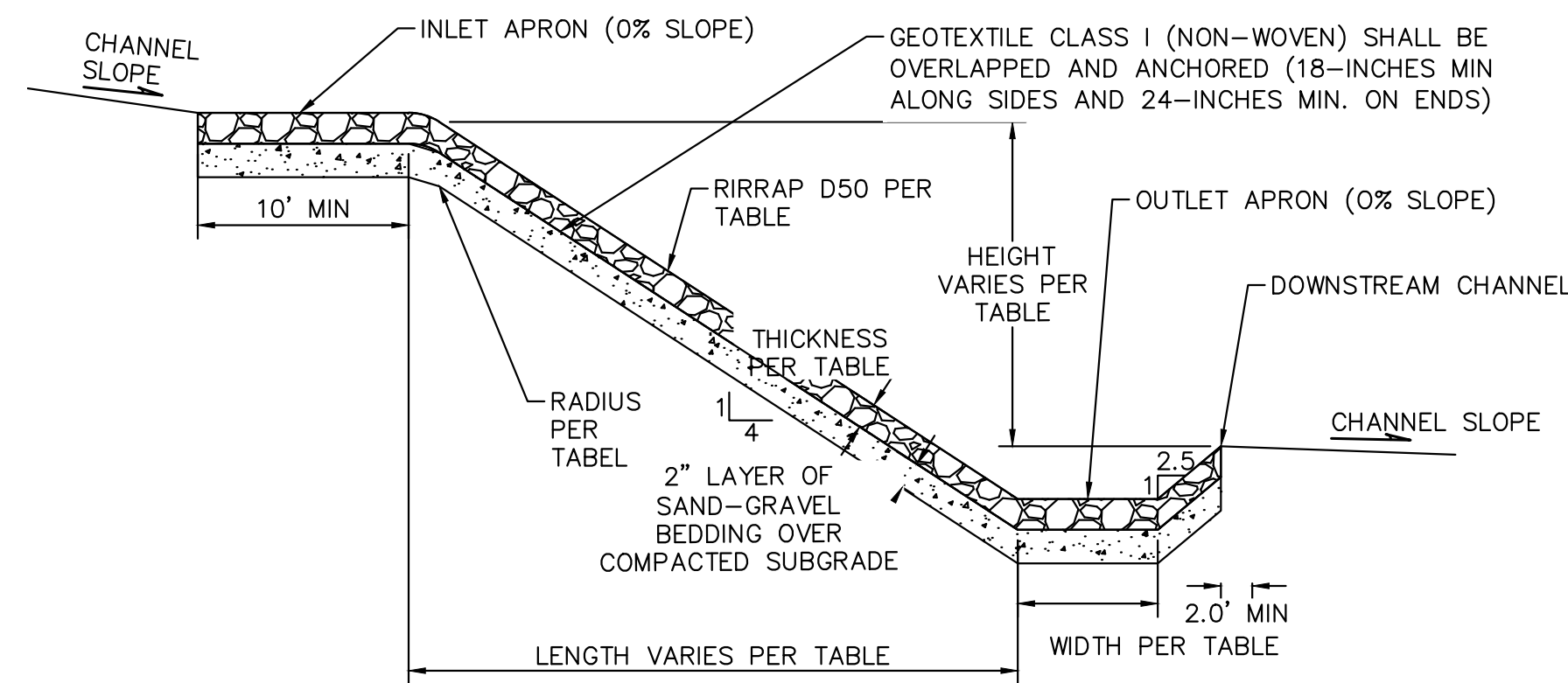
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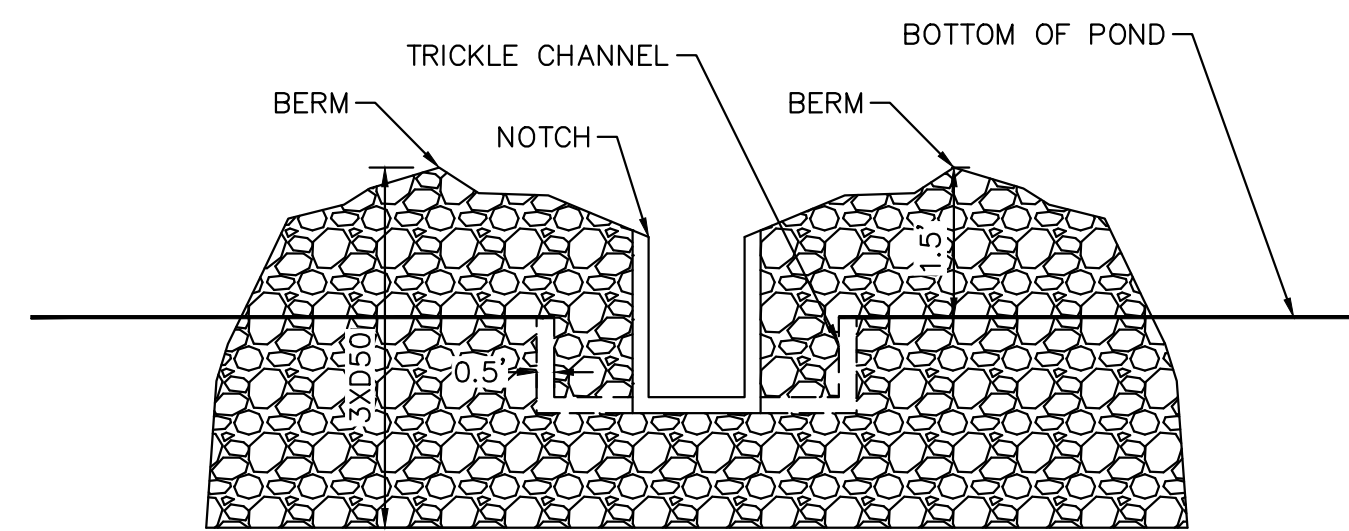
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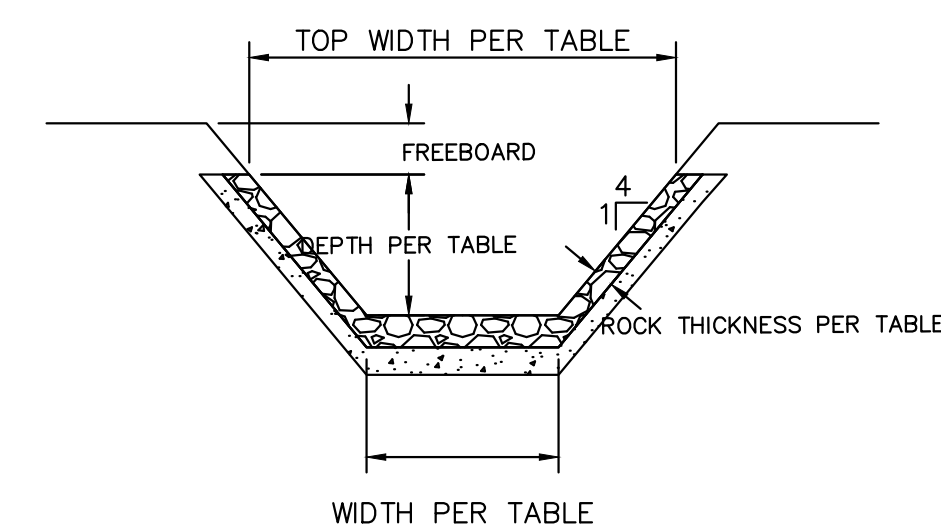
ROCK CHUTE PROFILE- CROSS SECTION -INTO POND/ FOREBAY APPLICATION
N.T.S.



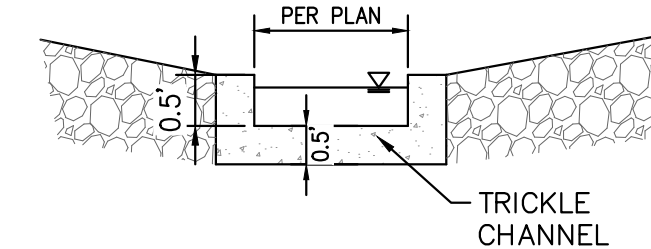
ROCK CHUTE PROFILE- CROSS SECTION
N.T.S.



ROCK CHUTE PROFILE- INTO POND/FOREBAY APPLICATION
N.T.S.



ROCK CHUTE PROFILE- CROSS SECTION 2
N.T.S.



ROCK CHUTE TO TRICKLE CHANNEL TRANSITION- INTO POND/FOREBAY APPLICATION
N.T.S.

Rock Chute ID	Rock Chute Location	Contributing Basins	Q100 Flow (cfs)	Upstream Inlet Apron Length (ft)	Drop (ft) (Inlet Apron to Outlet Apron)	Chute Length (ft)	Downstream Outlet Apron Length (ft)	Chute Width (ft)	D50 (in)	Rock Chute Thickness (in)	Radius (ft)	Rock Chute Depth* (ft)	Top Chute Width** (ft)
1	PB9	PB9(70%), OB6, OB7	415	20	9	45	29	22	24	48	67	4.0	54
2	PB8	PB8 (70%), OB5	128	10	17	68	18	22	18	36	50	2.5	42
3	PB8	PB8 (40%), OB5	120	12	8	40	19	14	18	36	50	3.0	38
4	PB8	PB8 (30%)	10	10	4	12	7	14	6	12	17	1.5	26
5	PB8	Undetained 100YR Pond Inflow	490	23	7	175	13	20	12	24	33	5.0	60
6	PB14	OB8, PB11, PB14 (10%)	85	11	7	64	15	10	18	36	50	3.0	34
10	P13	OB6 and PB9	91	12	8	32	19	10	18	36	34	2.5	30



NO.	REVISION	BY	DATE	APPR.

Kimley»Horn
2023 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 900
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: MJK
DRAWN BY: MJK
CHECKED BY: KKK
DATE: 03/03/2023

EAGLEVIEW
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
ROCK CHUTE DETAILS

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

PROJECT NO.
196106001

SHEET

C2.33

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