PROJECT REFERENCE NO.	SHEET NO.
44414	1

DIVISION DESIGN CONSTRUCT ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 030995 ENGINEER CHRISTOPHER B. SMITHERMAN

DocuSigned by: Chris Smitherman
EA7926E3CDA446A...
8/24/2015

BASELINE DATA

DESC.	NORTH	EAST	ELEVATION	EL STATION	OFFSET
44414-1	882903.0910	1705431.5580	946.94	OUTSIDE PROJECT LIMITS	
44414-2	882458.4670	1706213.2740	937.82	OUTSIDE PROJECT LIMITS	
BL-3	882244.4530	1706633.1460	950.23	12+37.82	24.57' RT

BENCHMARK DATA

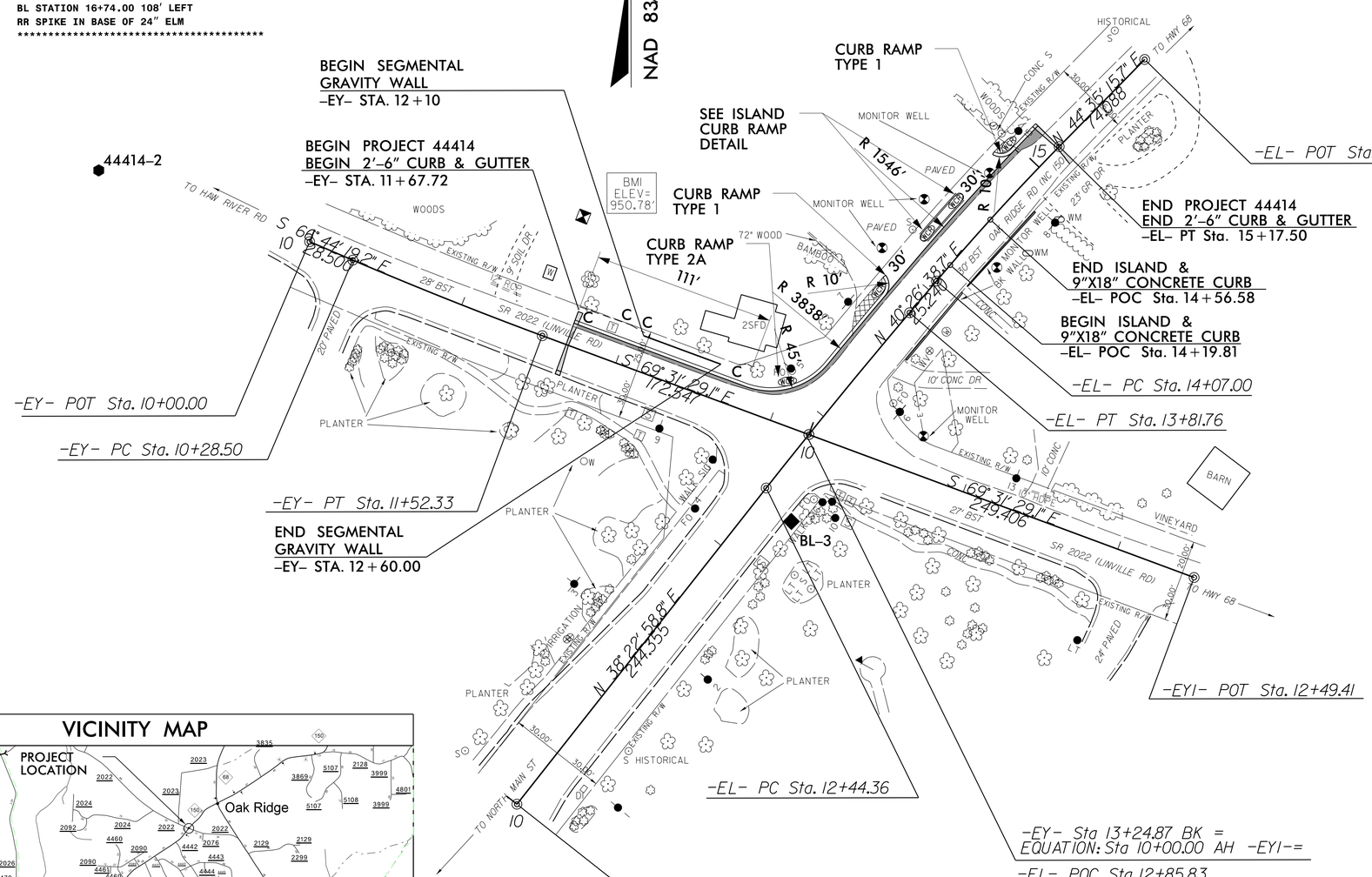
****
BM1 ELEVATION = 950.78'
N 882430 E 1706507
BL STATION 16+74.00 108' LEFT
RR SPIKE IN BASE OF 24" ELM
****

NAD 83/2011

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "44414-2"
WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 882458.4670(ft) EASTING: 1706213.2740(ft)
ELEVATION: 937.82(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999613649
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

20' 0' 20' 40'
10'
(ENGLISH)

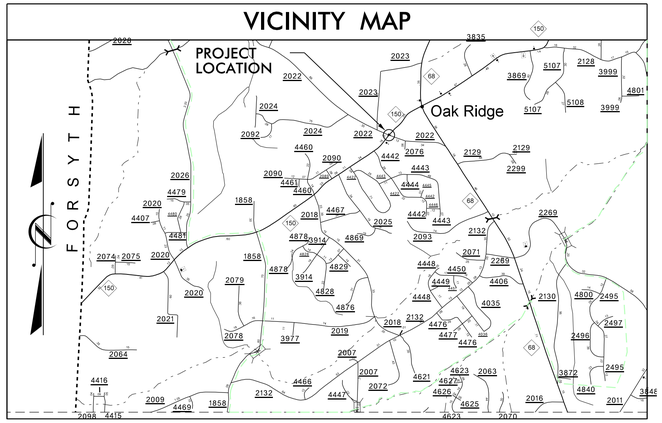


-EL- CUR1
PI Sta 13+13.06
△ = 2° 03' 39.8" (RT)
D = 1° 30' 00.0"
L = 137.40'
T = 68.71'
R = 3,819.72'

-EL- CUR2
PI Sta 14+62.27
△ = 4° 08' 37.0" (RT)
D = 3° 45' 00.0"
L = 110.50'
T = 55.27'
R = 1,527.89'

-EY- CUR3
PI Sta 10+90.42
△ = 2° 47' 09.9" (LT)
D = 2° 15' 00.0"
L = 123.83'
T = 61.93'
R = 2,546.48'

VICINITY MAP



2012 ROADWAY STANDARD DRAWINGS

EFF. 01-17-12

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January 2012, are applicable to thisproject and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
846.01	Concrete Curb, Gutter and Curb & Gutter
848.05	Curb Ramp - Proposed Curb and Gutter
DIVISION 11 - WORK ZONE TRAFFIC CONTROL	
1101.01	Work Zone Warning Signs
1101.02	Temporary Lane Closures
1101.04	Temporary Shoulder Closures
1101.11	Traffic Control Design Tables
1110.01	Stationary Work Zone Signs
1110.02	Portable Work Zone Signs
1115.01	Flashing Arrow Boards
1130.01	Drums
1135.01	Cones
1150.01	Flagging Devices
1165.01	Work Vehicle Lighting Systems and TMA Delineation
1180.01	Skinny Drum
DIVISION 12 - PAVEMENT MARKINGS, MARKERS AND DELINEATION	

SEE PMP-1

REVISIONS

8/17/99

24-AUG-2015 13:55
S:\DOCS\3-Guilford\NC 150_SR2022_Linville Road\Roadway\Proj\44414_RDY_PSH4.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
44414	2

DIVISION DESIGN CONSTRUCT ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 030995 ENGINEER CHRISTOPHER B. SMITHERMAN

DocuSigned by: Chris Smitherman 8/24/2015

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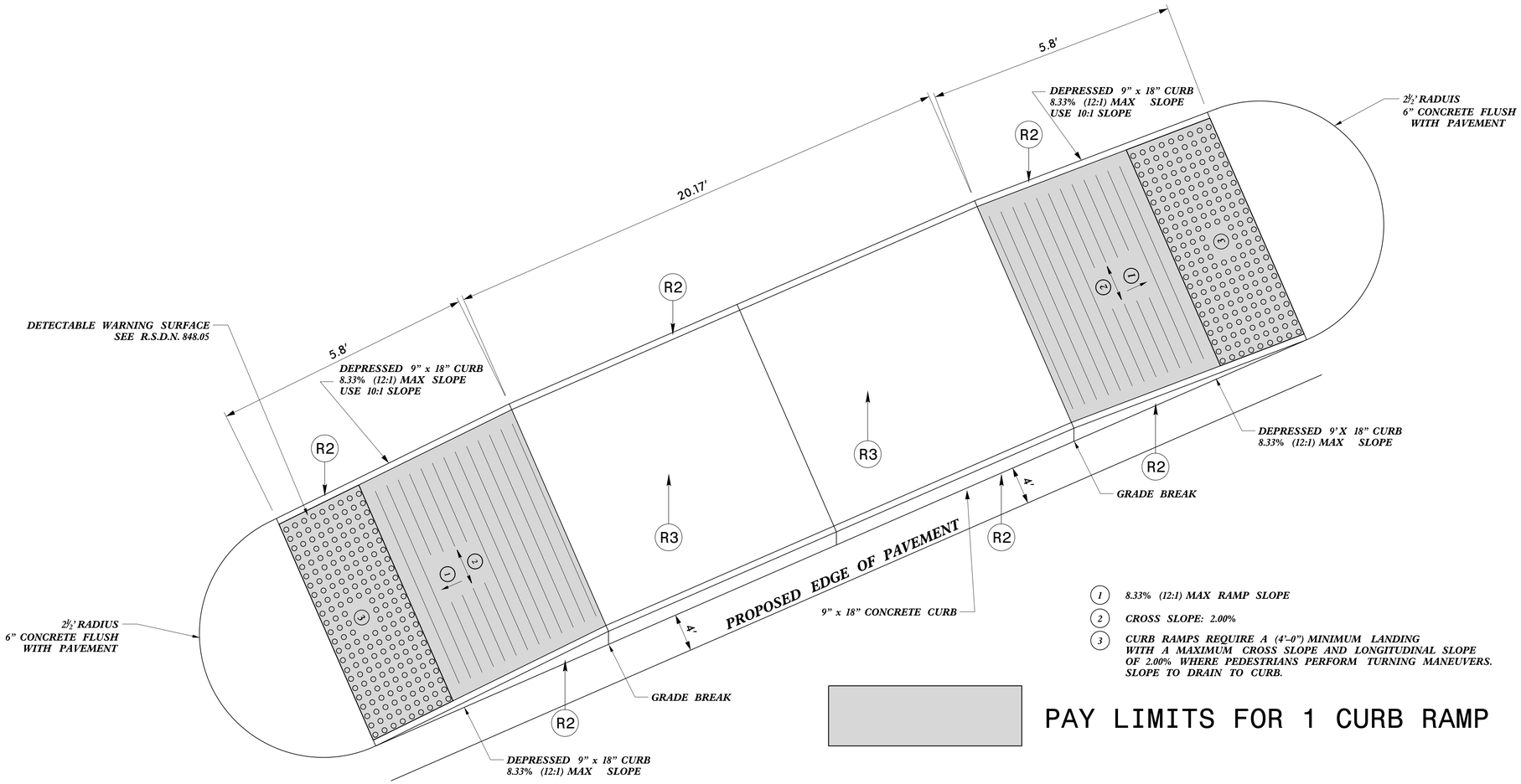
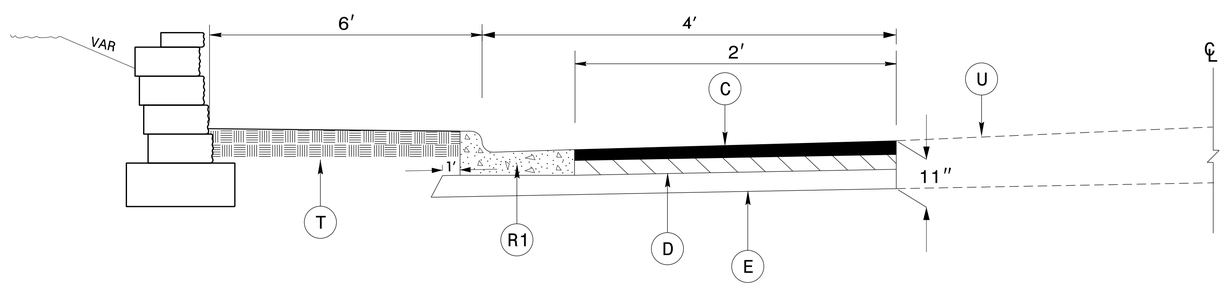


1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP

ISLAND CURB RAMP:

-EL- STA. 14+09.89 thru -EL- STA. 14+66.43



TYPICAL SECTION 1 (NTS)

-EY- STA. 11+68.00 TO -EY- STA. 12+78.48

-EL- STA. 13+26.32 TO -EL- STA. 15+17.50

NOTE: THE RETAINING WALL IS NOT TO BE PLACED ON -EL-

C	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 330 LBS. PER SQ. YD.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0X, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R1	PROPOSED 2' - 6" CONCRETE CURB & GUTTER
R2	PROPOSED 9" X 18" CONCRETE CURB.
R3	PROPOSED 4" CONCRETE ISLAND COVER.
T	EARTH
U	EXISTING PAVEMENT

6/2/99
24-AUG-2015 13:55
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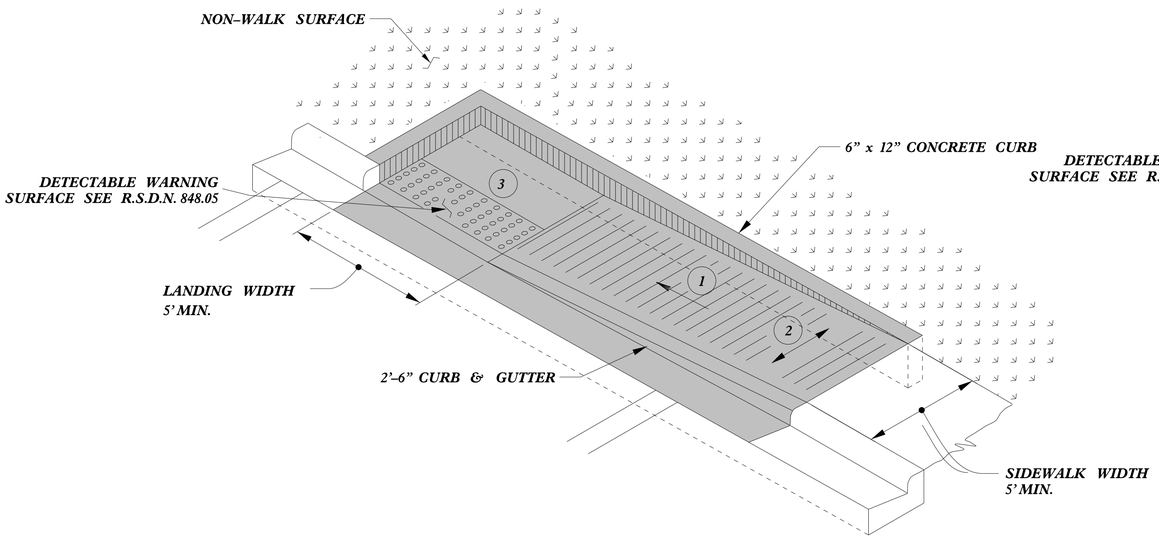
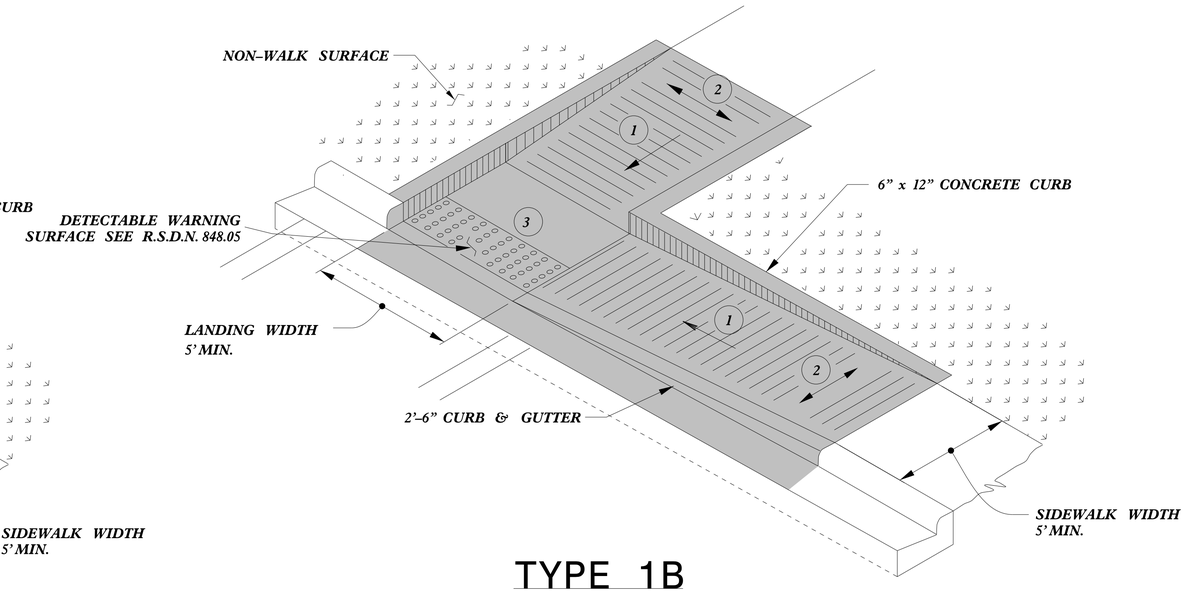
$$$$DGNFILE$$$$
NC 150_SR2022_Linville Road\Roadway\Proj\NC150_Rdg_PSH2.dgn

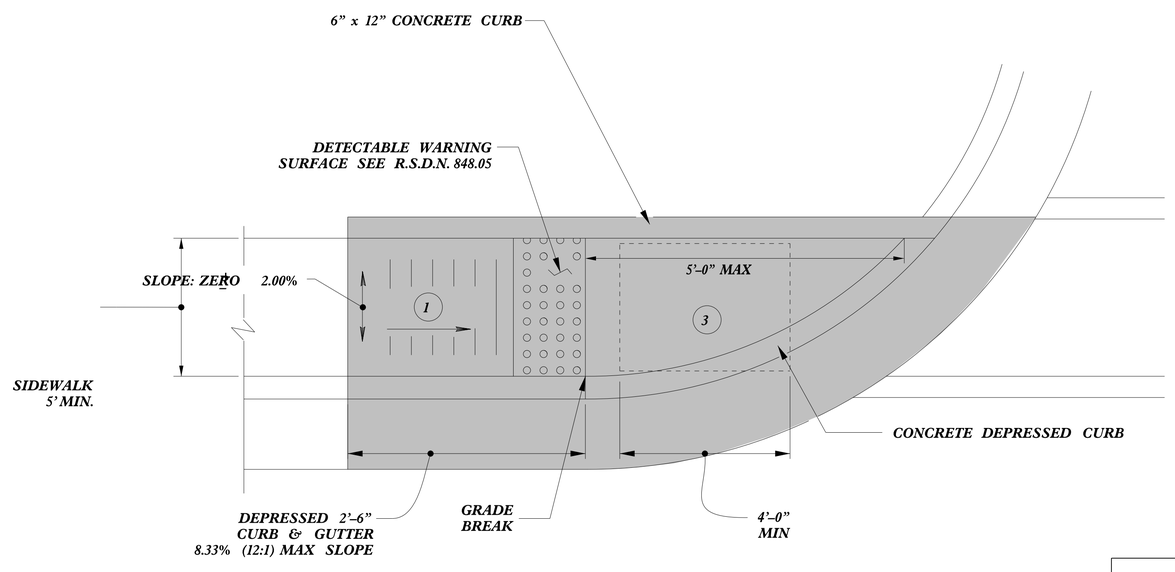
PROJECT REFERENCE NO.	SHEET NO.
44414	3



TYPE 1A



TYPE 1B



TYPE 1

PAY LIMITS FOR 1 CURB RAMP

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Jay S. Howerton

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

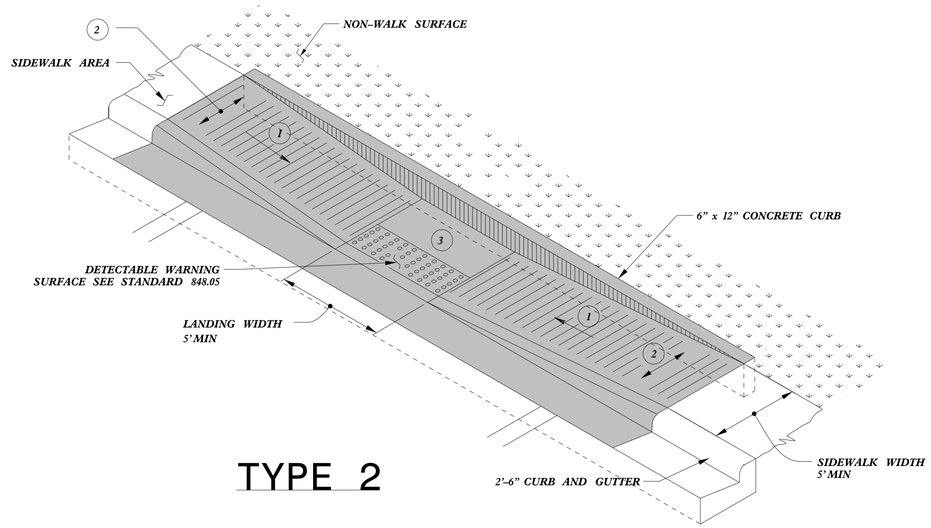
Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

$$$$SYSTIME$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

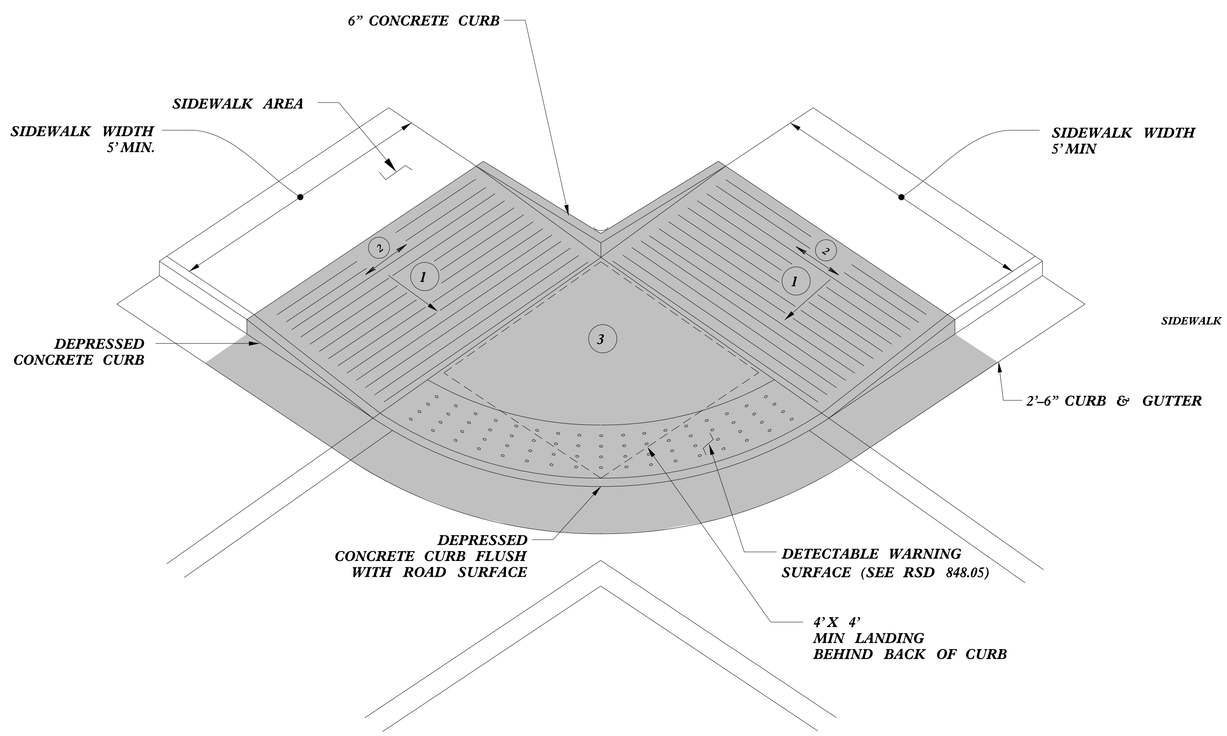
PROJECT REFERENCE NO.	SHEET NO.
44414	4



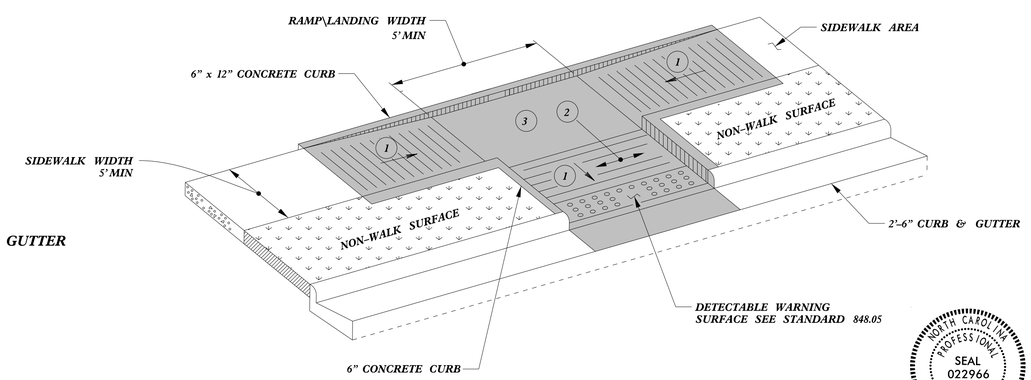
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A



TYPE 3

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Parallel Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

$$$$$$SYSTIME$$$$
$$$$$$USERNAME$$$$ $$$$$$DGNFILE$$$$

GEOTECHNICAL ENGINEER

SIGNATURE DATE

ENGINEER

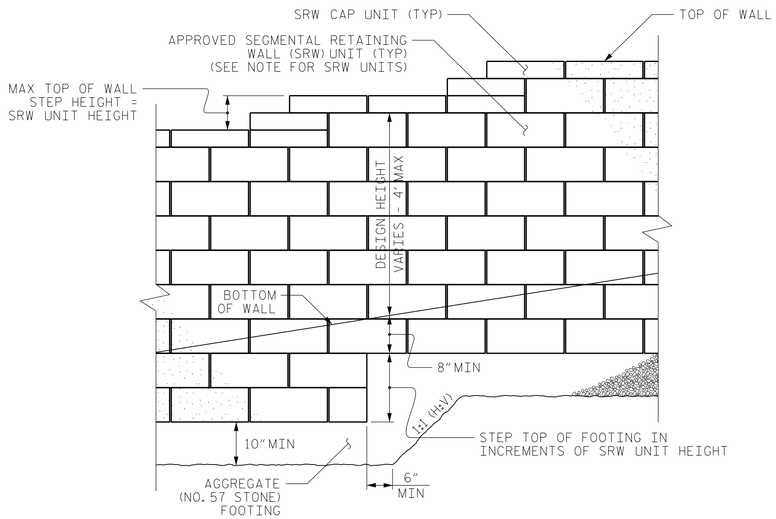
NORTH CAROLINA PROFESSIONAL SEAL 030995 ENGINEER CHRISTOPHER B. SMITHERMAN

DocuSigned by: Chris Smitherman

SIGNATURE DATE

EA7926E3CDA446A...

8/24/2015



STANDARD SEGMENTAL GRAVITY WALL - PARTIAL ELEVATION

NOTES:

FOR STANDARD SEGMENTAL GRAVITY RETAINING WALLS, SEE SEGMENTAL GRAVITY RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

DO NOT ATTACH FENCES OR HANDRAILS TO STANDARD SEGMENTAL GRAVITY WALLS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS FOR INTERSTATE HIGHWAY OR RAILROAD PROJECTS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN SURCHARGE LOADS WILL BE WITHIN 5'-6" OF THE BACK OF SRW CAP UNITS.

DO NOT USE STANDARD SEGMENTAL GRAVITY WALLS WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS BELOW WALLS.

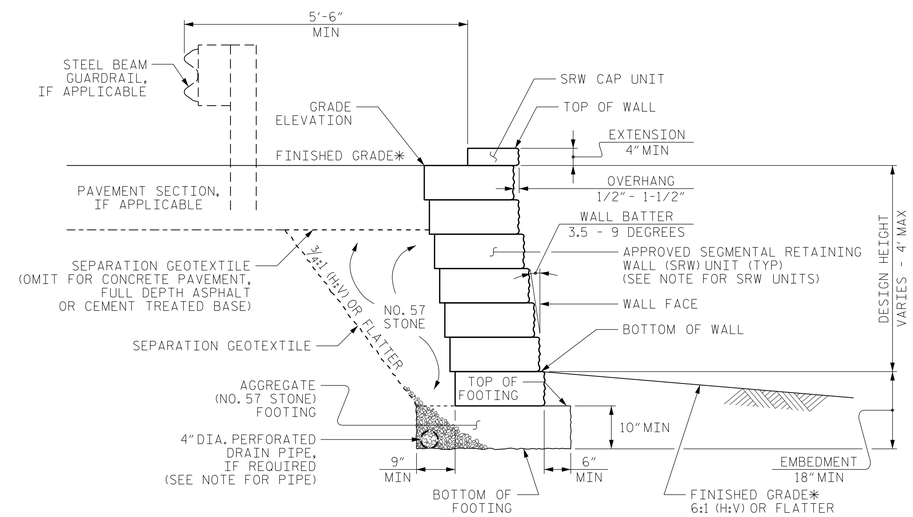
SEGMENTAL RETAINING WALL (SRW) UNITS ARE APPROVED FOR EITHER 2' OR 4' MAXIMUM DESIGN HEIGHTS. FOR DETAILS AND DIMENSIONS OF APPROVED SRW UNITS AND MAXIMUM DESIGN HEIGHTS, SEE connect.ncdot.gov/resources/Geological/Pages/Products.aspx

DO NOT MIX APPROVED SRW UNITS FROM DIFFERENT VENDORS ON THE SAME STANDARD SEGMENTAL GRAVITY WALL. USE THE SAME SIZE APPROVED SRW UNITS FOR EACH WALL SECTION.

BEFORE BEGINNING STANDARD SEGMENTAL GRAVITY WALL CONSTRUCTION, SURVEY WALL LOCATIONS AND SUBMIT WALL PROFILE VIEWS (WALL ENVELOPES) FOR REVIEW. FOR WALL ENVELOPES, INCLUDE BOTTOM OF WALL, EXISTING GROUND AND GRADE ELEVATIONS AND OTHER ELEVATIONS AS NEEDED AT INTERVALS OF 25' OR LESS ALONG WALLS. DO NOT START WALL CONSTRUCTION UNTIL WALL ENVELOPES ARE ACCEPTED.

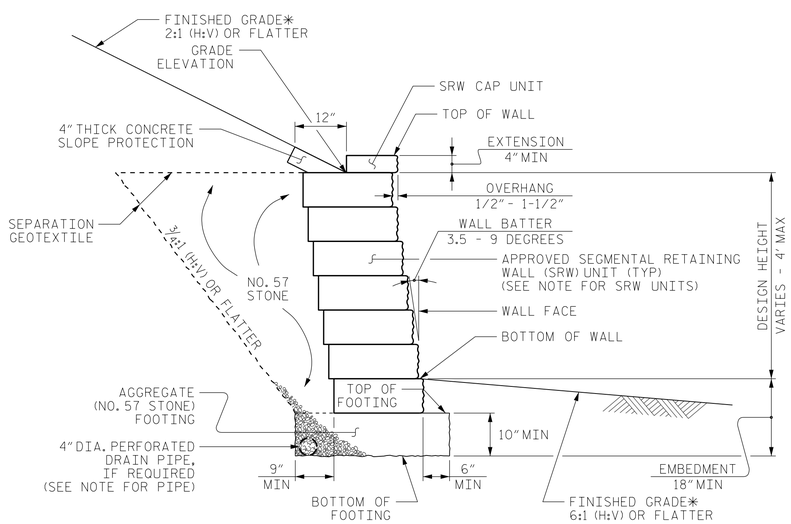
A DRAIN PIPE IS REQUIRED IF GROUNDWATER IS ABOVE BOTTOM OF FOOTINGS.

DO NOT PLACE NO. 57 STONE FOR FOOTINGS UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.



STANDARD SEGMENTAL GRAVITY WALL WITHOUT SLOPE

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.



STANDARD SEGMENTAL GRAVITY WALL WITH SLOPE

*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

PROJECT NO.: 44414

GUILFORD COUNTY

STATION: 12+10.00 thru 12+60.00

SHEET 1 OF 1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

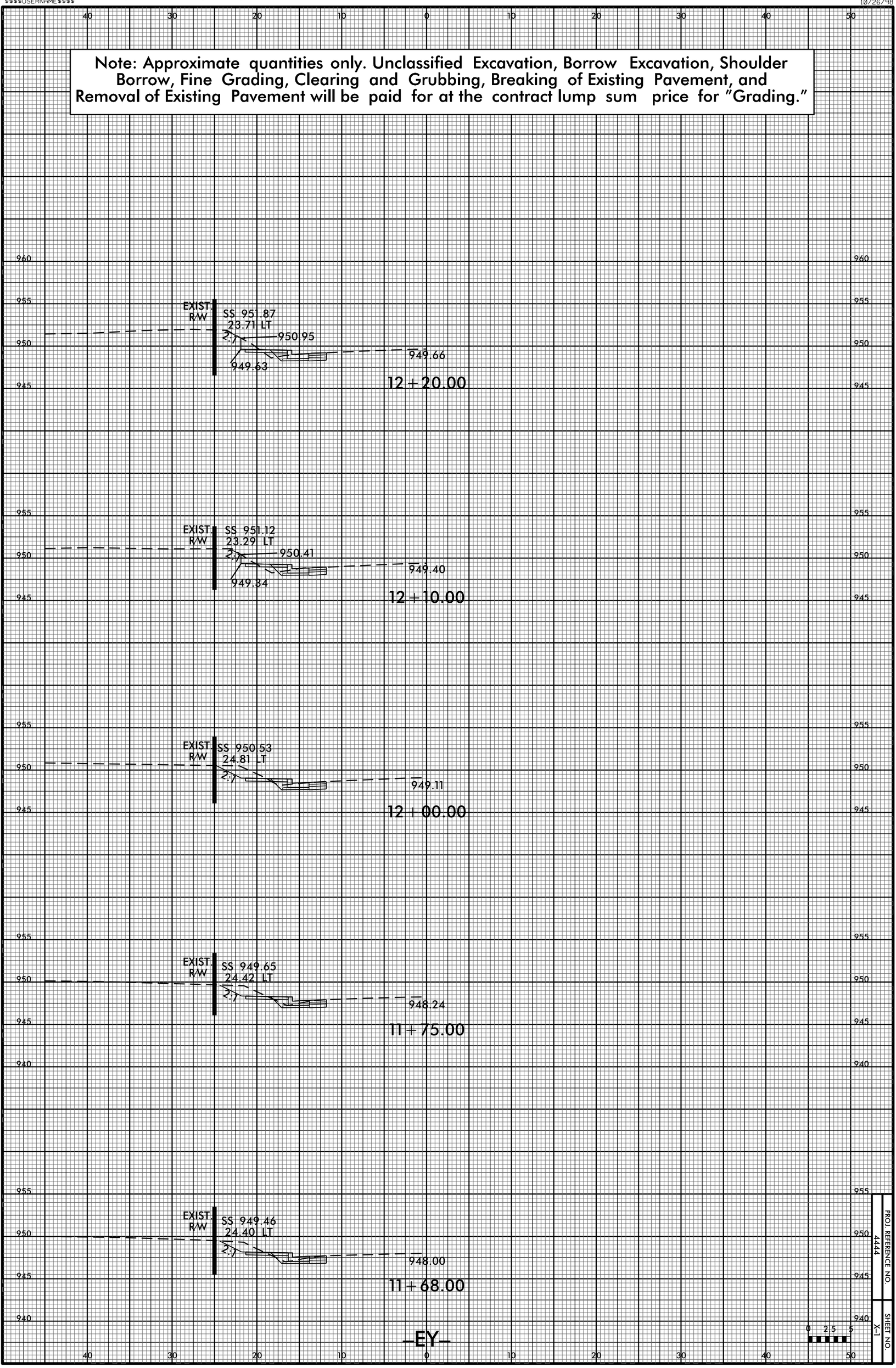
STANDARD DETAIL NO. 453.02

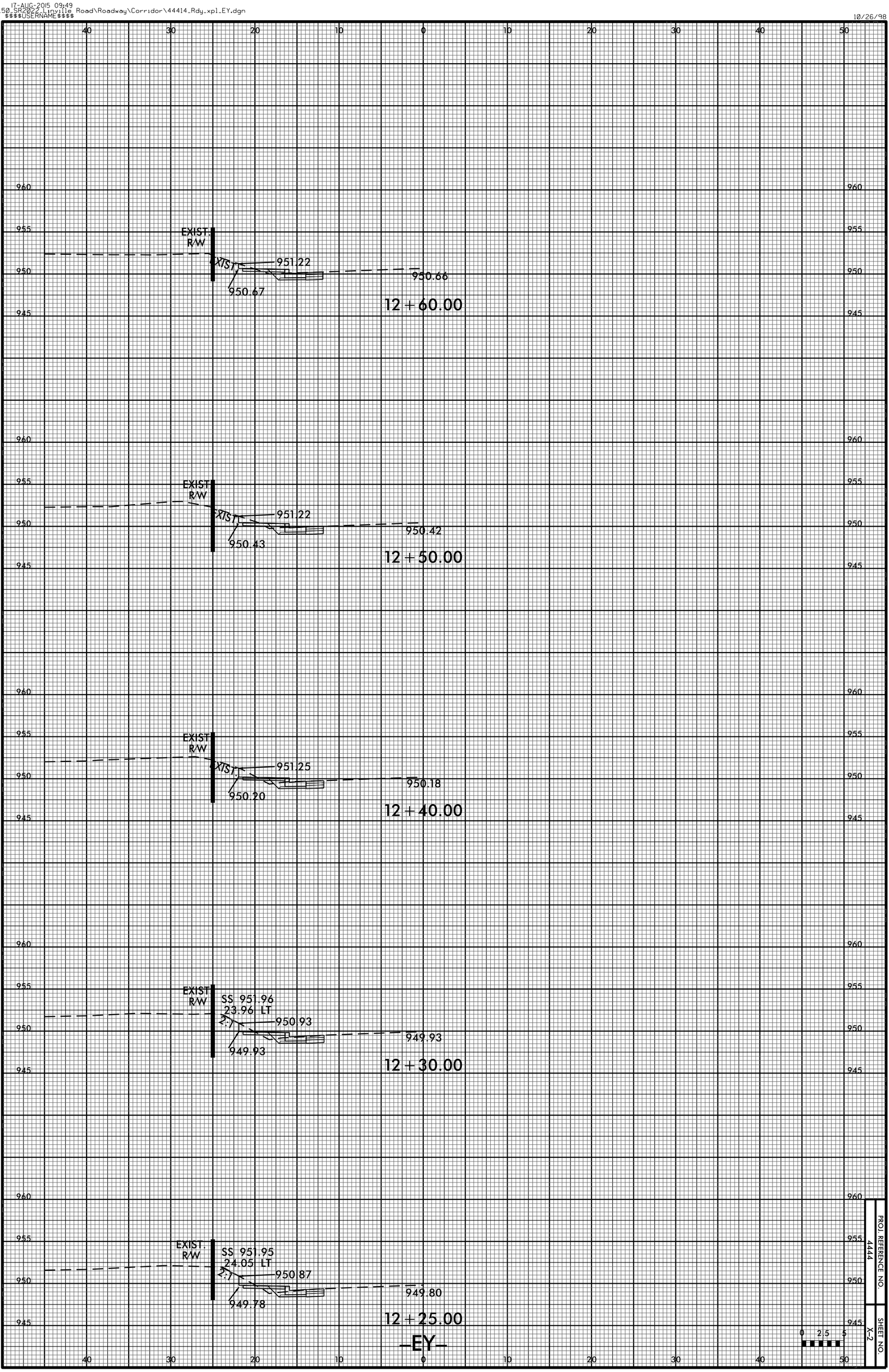
STANDARD SEGMENTAL GRAVITY RETAINING WALL

DATE: 3-17-15

SHEET NO. 5

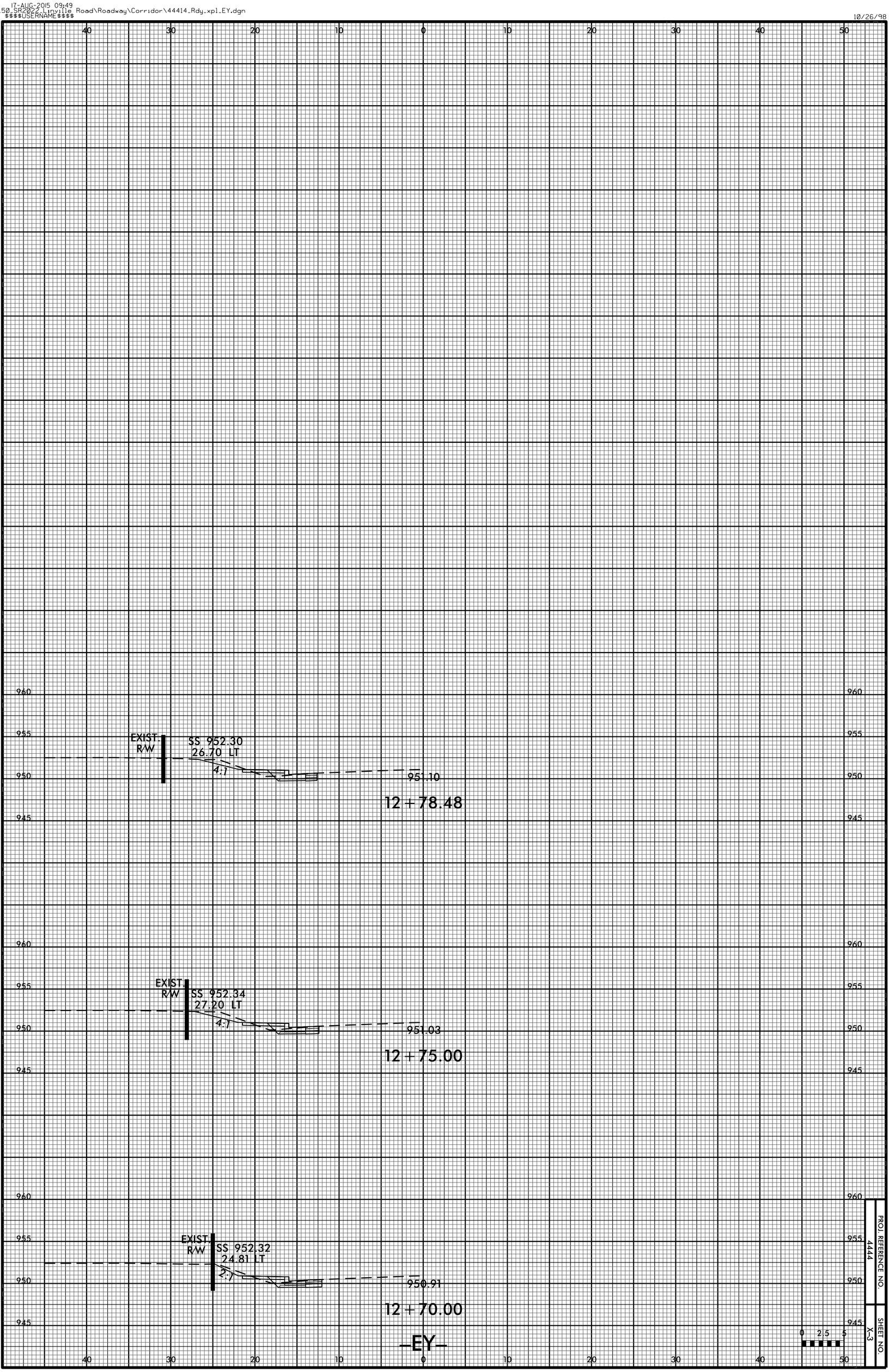
Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Shoulder Borrow, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."





PROJ. REFERENCE NO.
4444

SHEET NO.
X-2



PROJ. REFERENCE NO.
4444

SHEET NO.
X-3

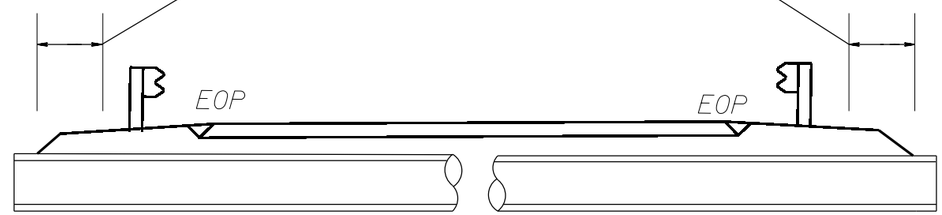
PROJECT REFERENCE NO.	SHEET NO.
44414	EC – 1

EROSION CONTROL DETAIL

NOTES: Less than 5' – 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

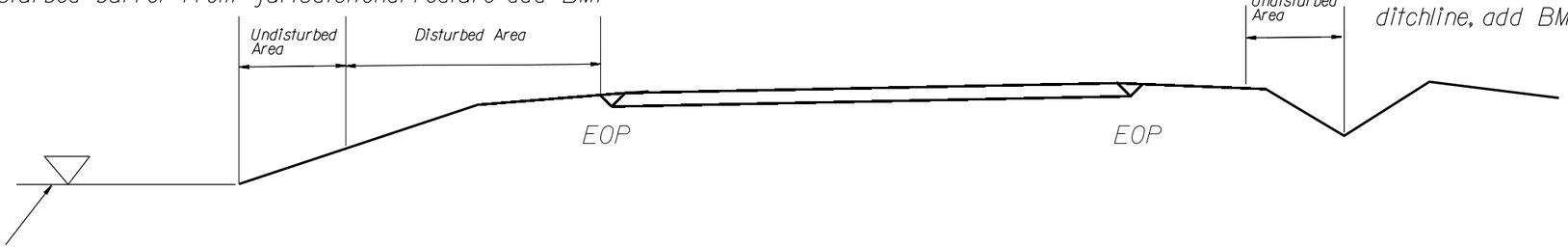
< 5' – 10' Undisturbed buffer add BMP



Pipe/Culvert

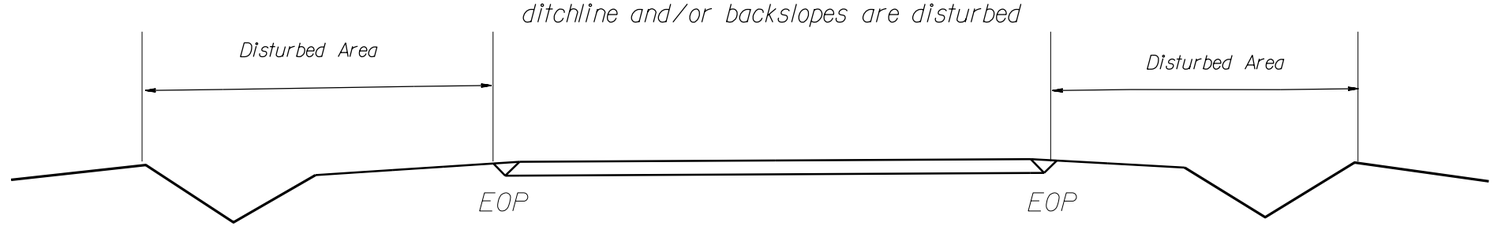
< 5' – 10' Undisturbed buffer from jurisdictional feature add BMP

< 5' – 10' Undisturbed buffer from ditchline, add BMP

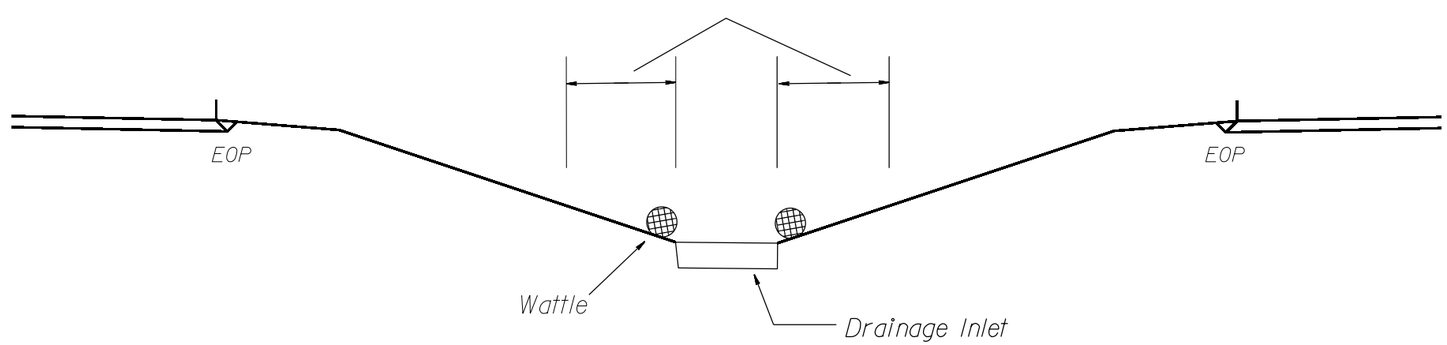


Jurisdictional Feature

Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



< 5' – 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE