TIP PROJECT: U-6105

CONTRACT: C205095

SEE SHEET 1A FOR INDEX OF SHEETS
SEE SHEET 1B FOR CONVENTIONAL SYMBOLS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U–6105	1	

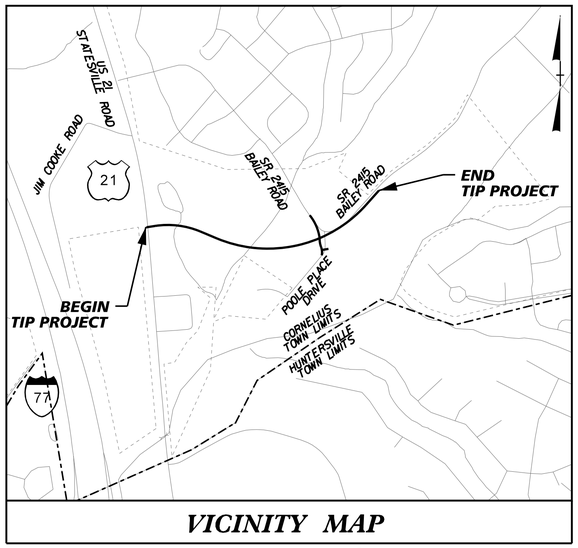
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48173.1.1	STBGDA–2415(001)	PE
48173.2.1	STBGDA–2415(001)	ROW, UTL
48173.3.1	STBGDA–2415(001)	CONST

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: SR 2415 (BAILEY ROAD) FROM POOLE PLACE DRIVE TO US 21 (STATESVILLE ROAD) IN CORNELIUS CONSTRUCT ROADWAY ON NEW LOCATION

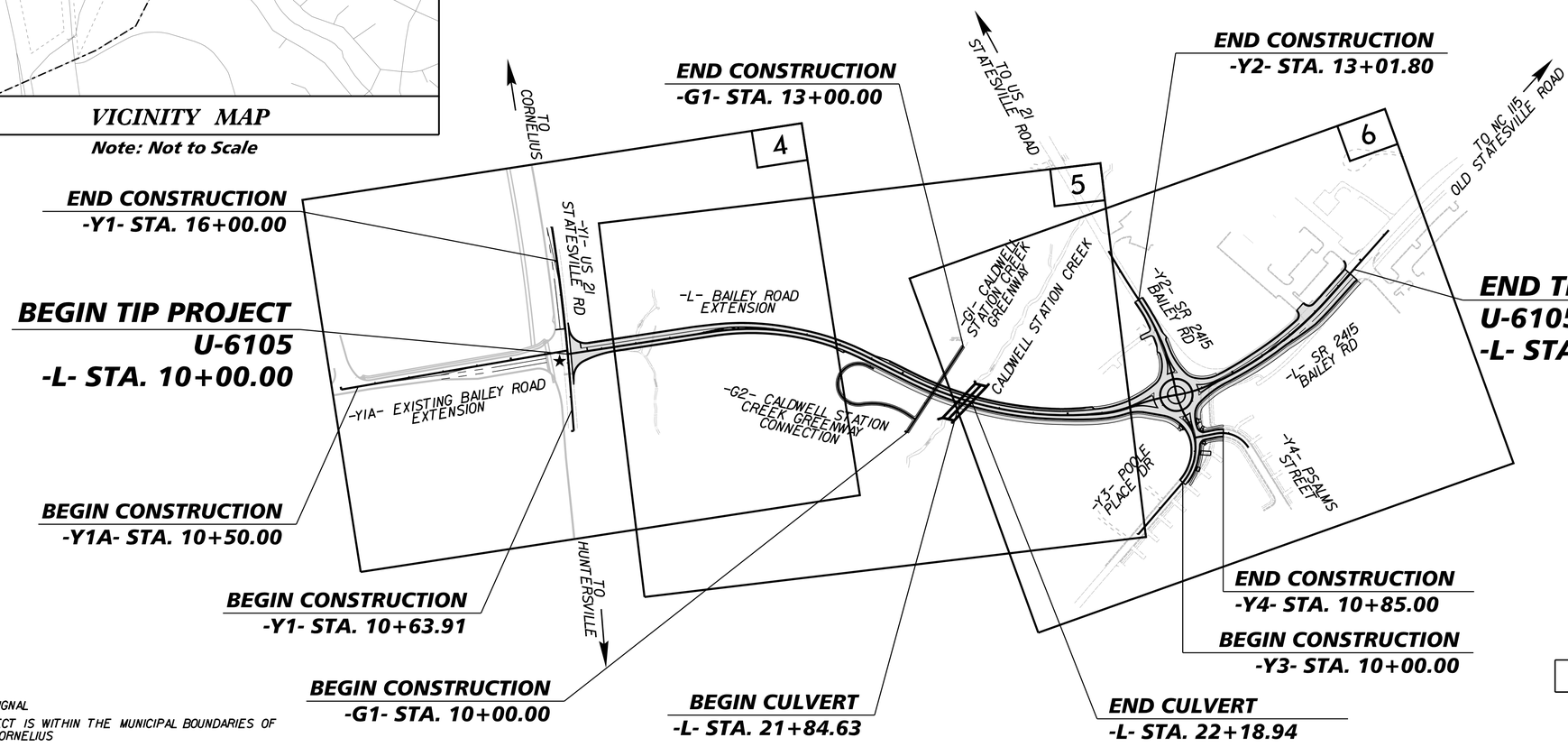
TYPE OF WORK: GRADING, DRAINAGE, CULVERT, AND PAVING



VICINITY MAP

Note: Not to Scale

NAD 83/
NA 2011



★ TRAFFIC SIGNAL
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF TOWN OF CORNELIUS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

AADT 2026	=	N/A
AADT 2046	=	5,100
K	=	4%
D	=	51%
T	=	3%*
V	=	40 MPH

CLASSIFICATION: MINOR COLLECTOR
* 2% TTST 1% DUAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U–6105 = 0.461 MILES
LENGTH STRUCTURE TIP PROJECT U–6105 = 0.006 MILES
TOTAL LENGTH TIP PROJECT U–6105 = 0.467 MILES

–L– USED TO CALCULATE PROJECT LENGTH

PLANS PREPARED FOR THE NCDOT BY:

Kimley»Horn
NC LICENSE #F-0102
200 SOUTH TRYON STREET, SUITE 200
CHARLOTTE, NORTH CAROLINA 28202
PHONE: (704) 333-5131

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 26, 2022

LETTING DATE:
FEBRUARY 17, 2026

JASON D. LAWING, P.E.
PROJECT ENGINEER

ANDREW WEEKS, E.I.T.
PROJECT DESIGN ENGINEER

YANWEI MA, P.E.
DM–STIP PROJECT MANAGER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032818 ENGINEER JASON D. LAWING
11/25/2025 *P.E.*
SIGNATURE:

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 032818 ENGINEER JASON D. LAWING
11/25/2025 *P.E.*
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

10/24/2025

K:\CHL_PROJ\0036528 – U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_1sht.dgn

REVISIONS

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

Kimley»Horn ©2025
200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 036528 ENGINEER JASON D. LAWS
11/25/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

GENERAL NOTES

GENERAL NOTES:

2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE :

POWER -ENERGY UNITED

TEL - AT&T

CATV - TDS TELECOM

GAS - DOMINION ENERGY

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06.

ROADWAY STANDARD DRAWINGS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

REV. EFF. 01-16-2024

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS	
700.01	Concrete Pavement Joints
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
838.27	Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
838.57	Reinforced Brick Endwall - for Single 60" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B'
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.06	Curb Ramp
848.07	Concrete Sidepath / Shared Use Path / Greenway Construction
852.01	Concrete Islands
852.06	Method for Placement of Drop Inlets in Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
876.01	Rip Rap in Channels and Ditches
876.02	Guide for Rip Rap at Pipe Outlets

PROJECT REFERENCE NO.	SHEET NO.
U-6105	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:

- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

UTILITIES:

** SUE – Subsurface Utility Engineering*
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- U/G Power Line Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE – LOS A)*
- U/G Water Line (SUE – LOS B)*
- U/G Water Line (SUE – LOS C)*
- U/G Water Line (SUE – LOS D)*
- Above Ground Water Line

TV:

- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE – LOS A)*
- U/G Gas Line (SUE – LOS B)*
- U/G Gas Line (SUE – LOS C)*
- U/G Gas Line (SUE – LOS D)*
- Above Ground Gas Line

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE – LOS A)*
- SS Force Main Line (SUE – LOS B)*
- SS Force Main Line (SUE – LOS C)*
- SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line (SUE – LOS B)*
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records
- End of Information

REVISIONS

10/24/2025 K:\CHL_PRJ\0II036528 - U-6105 (Bailey Rd Ext\Roadway\Proj\U-6105_rdy_1shdgn

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RIGHT-OF-WAY REV.
CONST. REV.

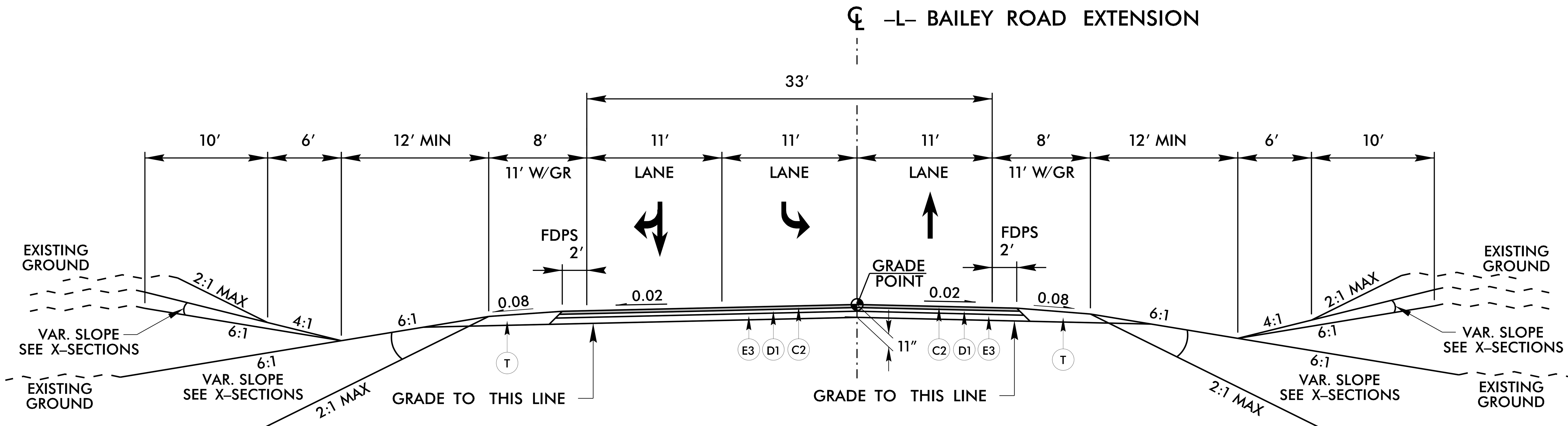
PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-1

ROADWAY DESIGN ENGINEER — 12/1/2025

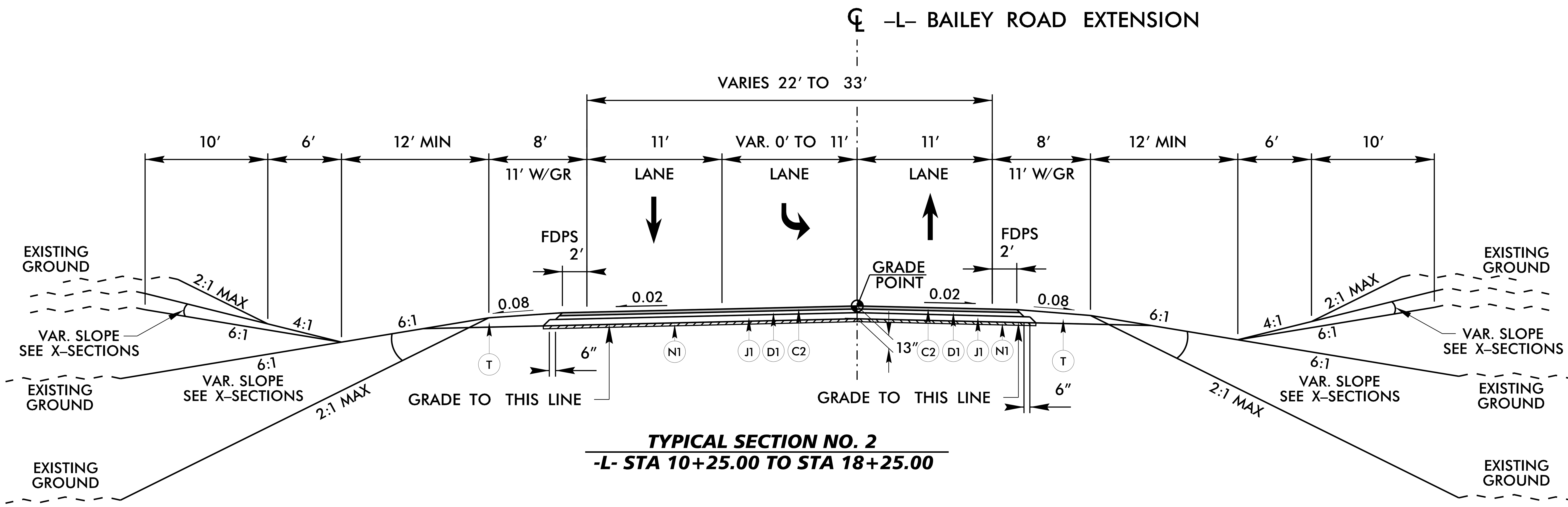
PAVEMENT DESIGN ENGINEER — 12/1/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



TYPICAL SECTION NO. 1
-L- STA 10+09.45 TO STA 10+25.00

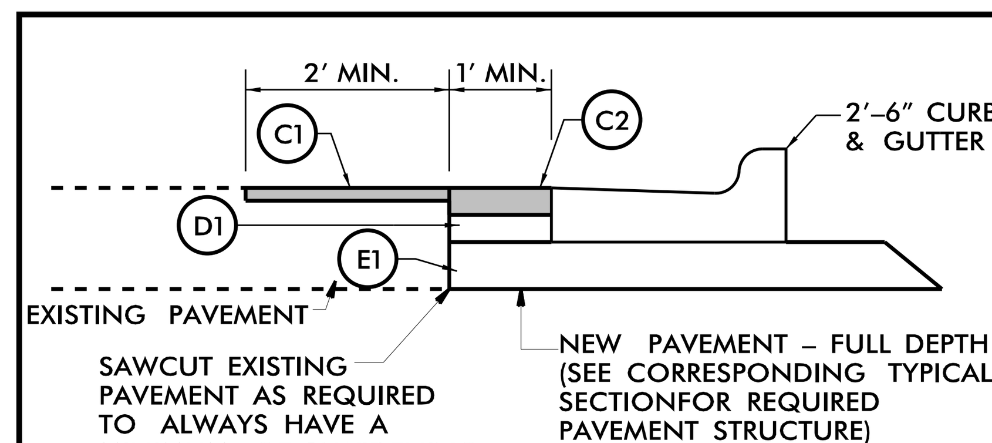


TYPICAL SECTION NO. 2
-L- STA 10+25.00 TO STA 18+25.00

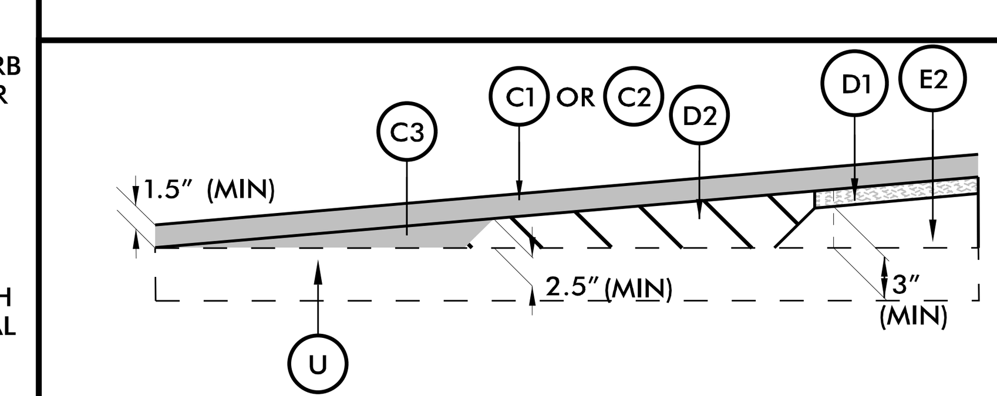
FINAL PAVEMENT SCHEDULE

A1	PROPOSED 12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE W/ REINFORCED WELDED WIRE MESH SIZE 4X4 W5.5 X W5.5 OR 6X6 W8.5 X W8.5 OR HEAVIER
A2	PROPOSED 12" TRUCK MOUNTABLE CONCRETE APRON W/BLACK TINT, CLASS AA
C1	PROPOSED APPROX 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROPOSED APPROX 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1.5" IN DEPTH.
C4	PROPOSED APPROX 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
D1	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
E1	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
E3	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
J1	PROPOSED 6" AGGREGATE BASE COURSE
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	PROPOSED 8" X 18" CONCRETE VERTICAL CURB
S	PROPOSED 4" CONCRETE SIDEWALK
S1	PROPOSED 4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

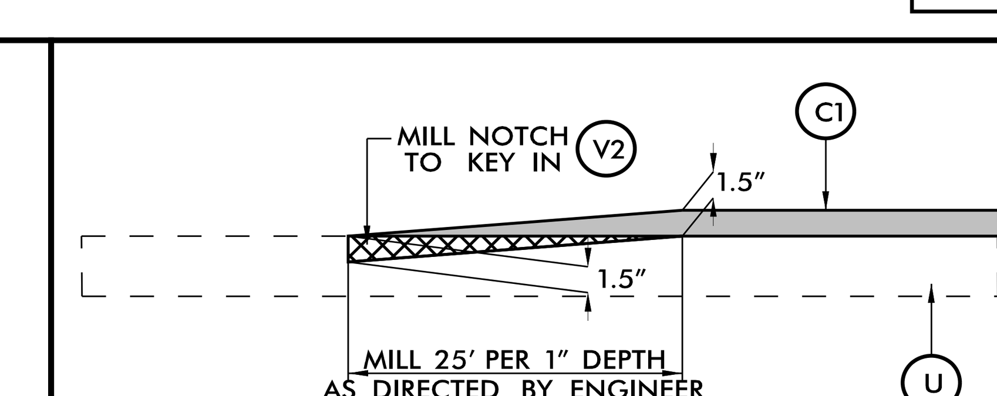
NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED



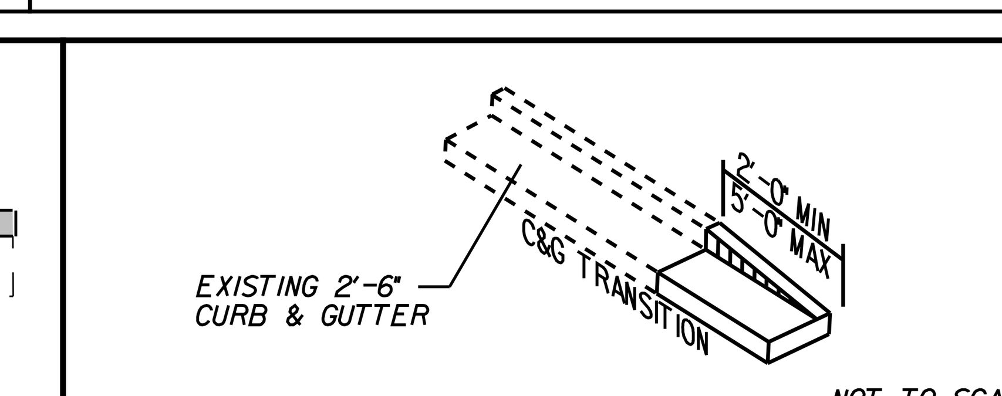
DETAIL SHOWING MINIMUM SAWCUT DIMENSIONS



DETAIL W SHOWING METHOD OF WEDGING



INCIDENTAL MILLING DETAIL



CURB AND GUTTER END TREATMENT

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12/1/2025

Docusign Envelope ID: D85E98D6-2CCF-4A61-880F-46833BE20E71

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200 S. TRYON ST. • CHARLOTTE, NC 28202

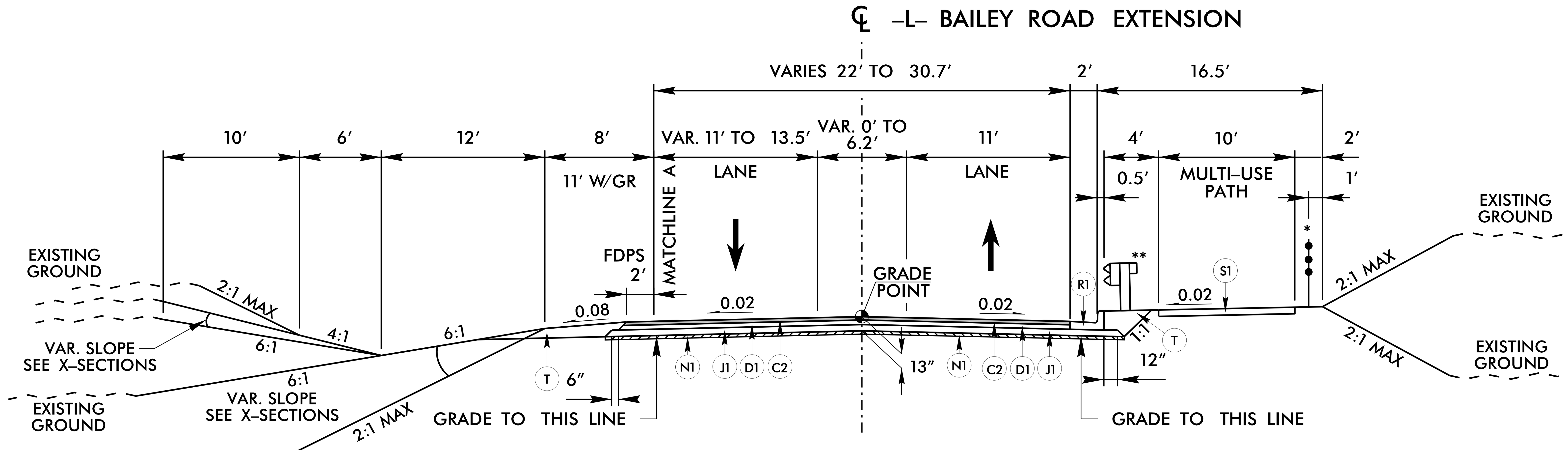
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-2

ROADWAY DESIGN ENGINEER — 12/1/2025
PAVEMENT DESIGN ENGINEER — 12/1/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

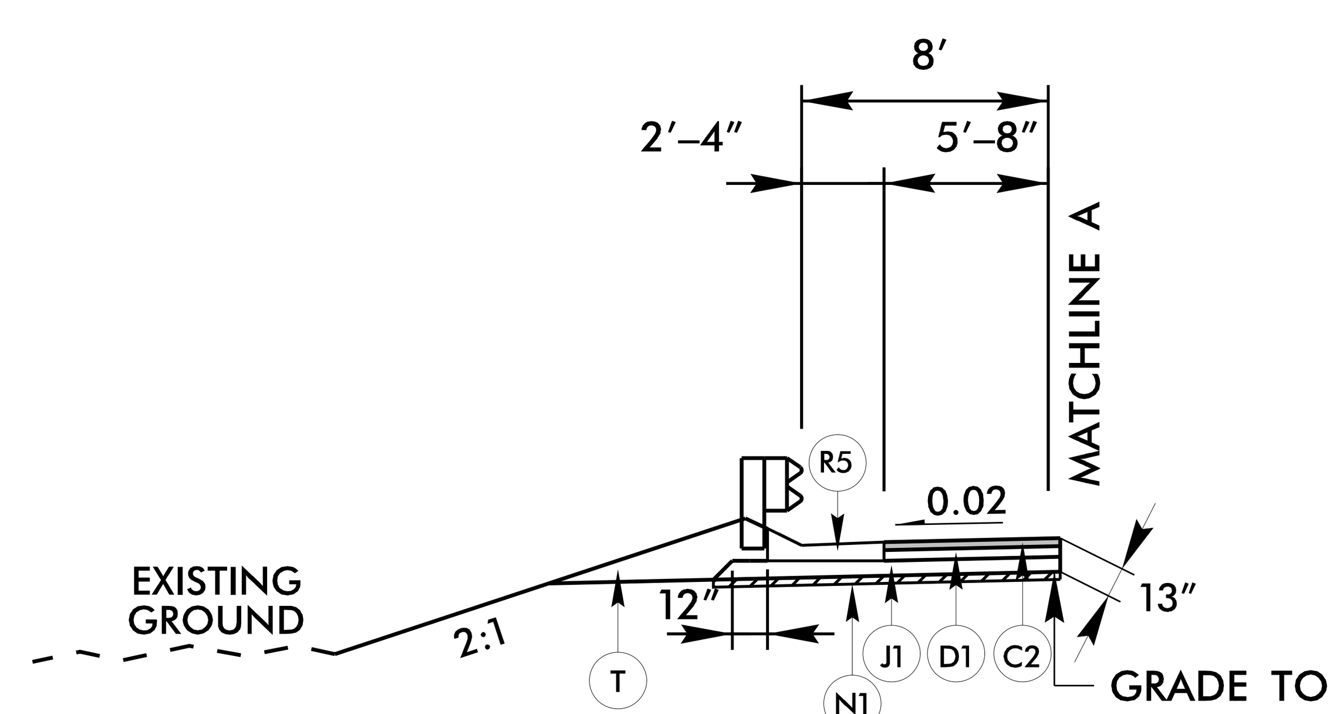
REVISIONS



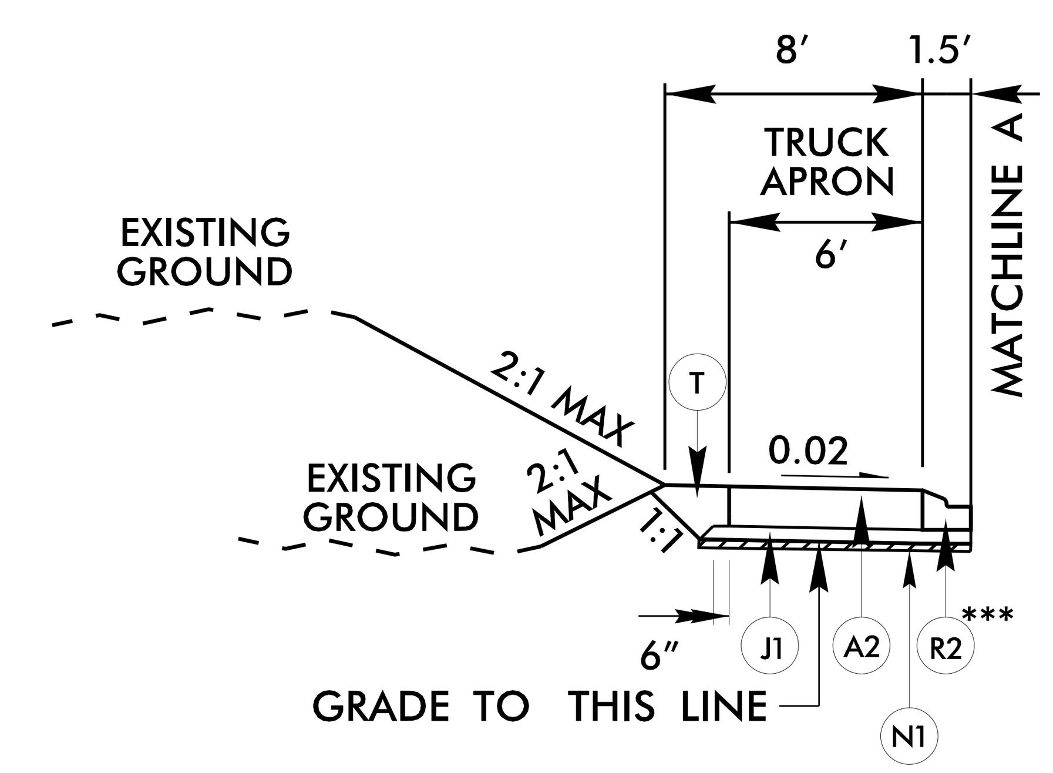
TYPICAL SECTION NO. 3
-L- STA 18+25.00 TO STA 26+50.00
NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB AND GUTTER DETAIL ON SHEET 2A-6

* BICYCLE PEDESTRIAN SAFETY RAIL
STA. 19+25.00 (RT) TO
STA. 25+65.00 (RT)

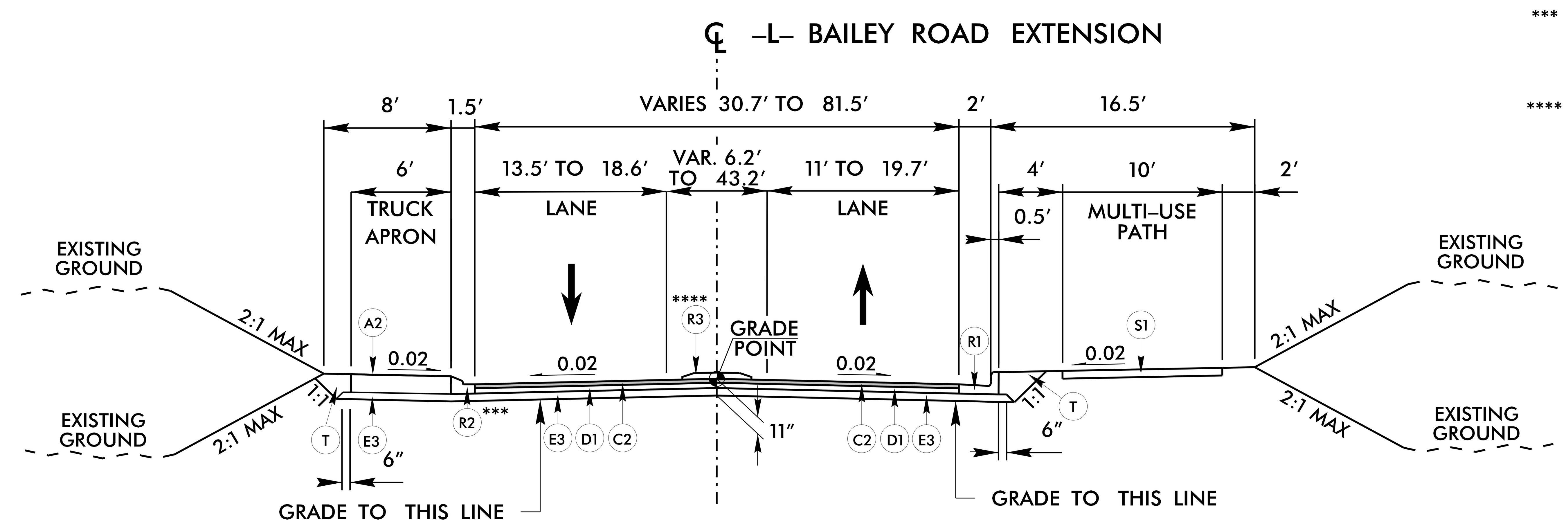
** PLACE APPROVED RUB RAILS IF SHARED-USE PATH/SIDEPATH IS LOCATED LESS THAN 4 FEET FROM POST (STD. 862.01, SHEET 12 OF 15)
STA. 19+00.00 (RT) TO
STA. 26+20.00 (RT)



TYPICAL SECTION NO. 3A
-L- STA 19+50.00 TO STA 25+82.85



TYPICAL SECTION NO. 3B
-L- STA 25+82.85 TO STA 26+50.00



TYPICAL SECTION NO. 4
-L- STA 26+50.00 TO STA 27+57.57

*** SEE TRUCK APRON TYPICAL SECTION DETAIL, AS SHOWN ON 2A-6 FOR STATION RANGES

**** WIDTH AND LOCATION OF 5" MONOLITHIC CONCRETE ISLAND VARIES AT ROUNDABOUT APPROACHES

FINAL PAVEMENT SCHEDULE

A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED

K:\CHL_PRJ\011036528 - U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_typ.dgn
12/1/2025

REVISIONS

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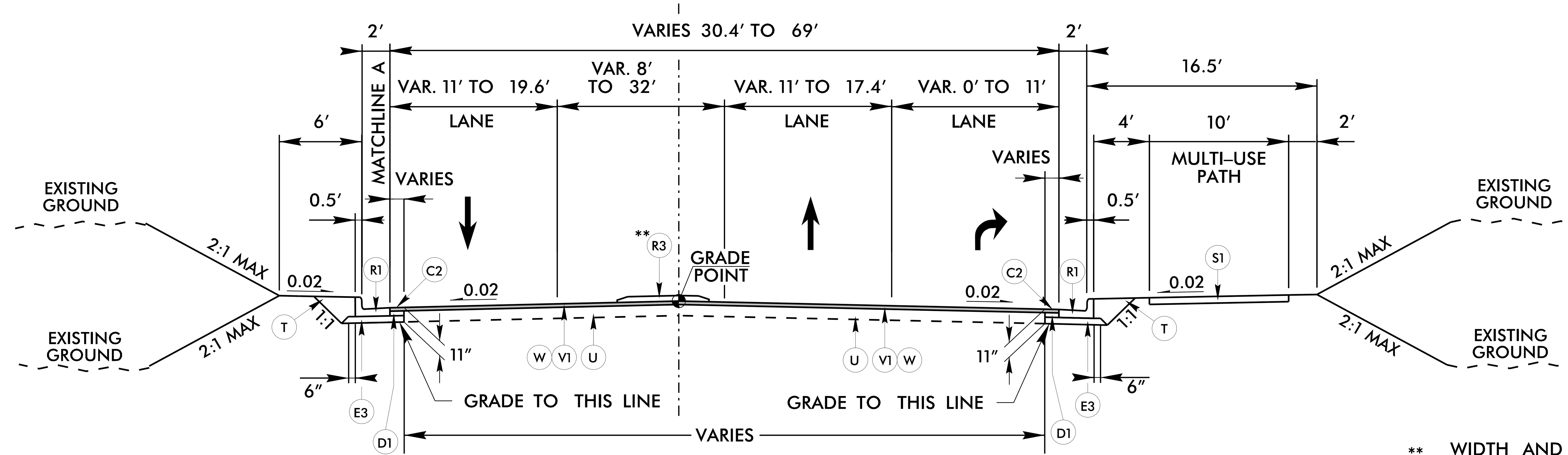
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-3

ROADWAY DESIGN ENGINEER — SEAL 032616, JASON D. LANNING, 12/1/2025

PAVEMENT DESIGN ENGINEER — SEAL 044690, ANDREW D. WARD, 12/1/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

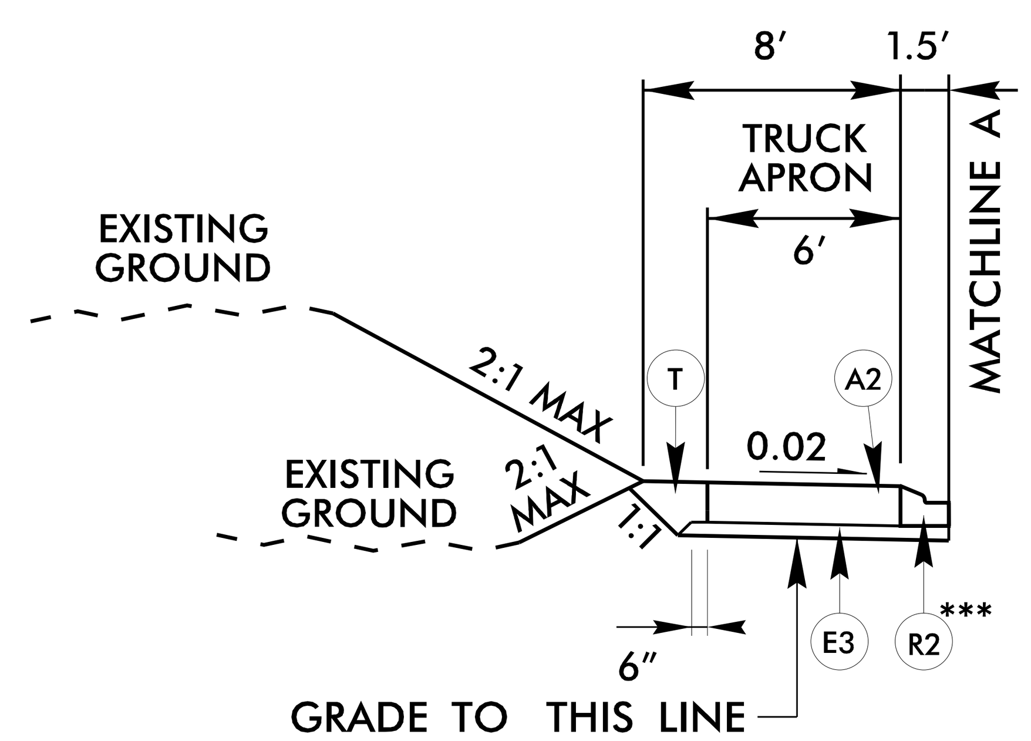


TYPICAL SECTION NO. 5
-L- STA 28+87.69 TO STA 31+75.00
-L- STA 32+42.00 TO STA 34+50.00

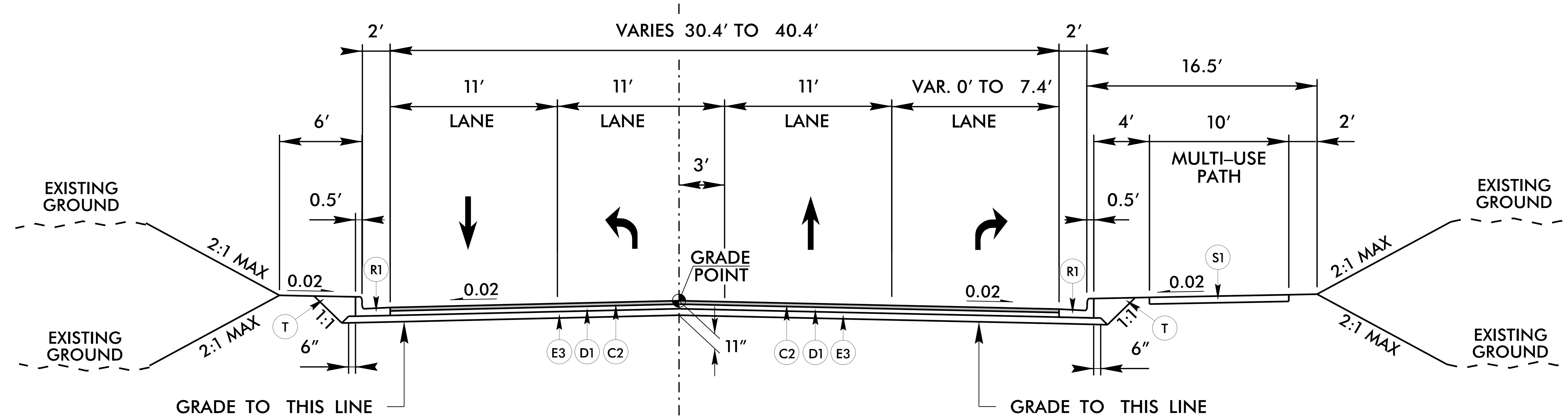
NOTE: EXISTING ROAD VARIABLE WIDTH, SEE CROSS SECTIONS

** WIDTH AND LOCATION OF 5" MONOLITHIC CONCRETE ISLAND VARIES AT ROUNDABOUT APPROACHES

*** SEE TRUCK APRON TYPICAL SECTION DETAIL, AS SHOWN ON 2A-6 FOR STATION RANGES



TYPICAL SECTION NO. 5A
-L- STA 28+87.69 TO STA 29+55.59



TYPICAL SECTION NO. 6
-L- STA 31+75.00 TO STA 32+42.00

FINAL PAVEMENT SCHEDULE

A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-4

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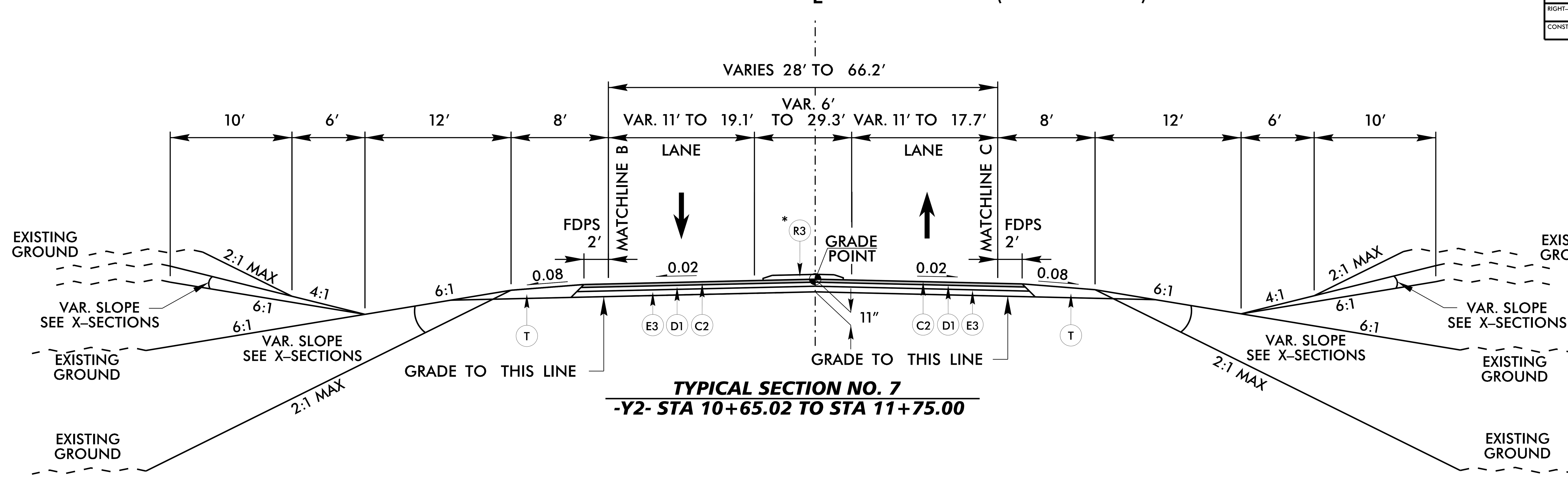
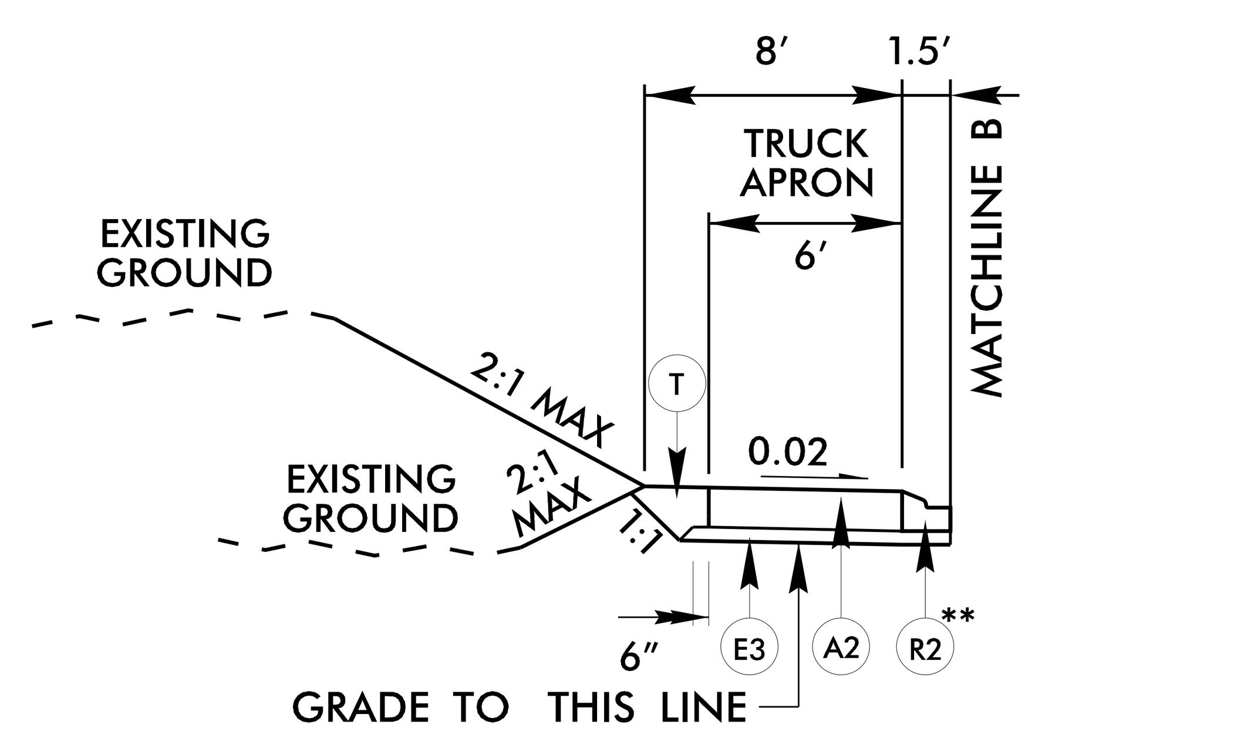
RIGHT-OF-WAY REV.
CONST. REV.

ROADWAY DESIGN ENGINEER — SEAL 032616 — 12/1/2025
PAVEMENT DESIGN ENGINEER — SEAL 044690 — 12/1/2025

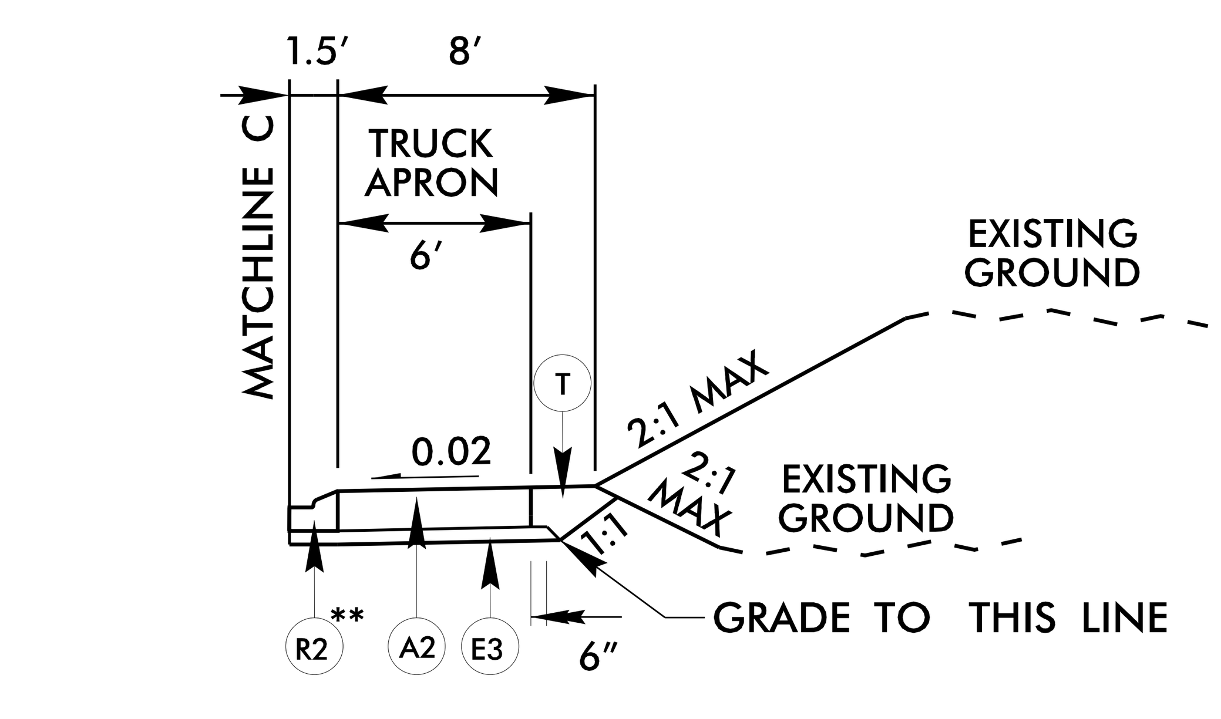
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL SECTION NO. 7
-Y2- STA 10+65.02 TO STA 11+75.00



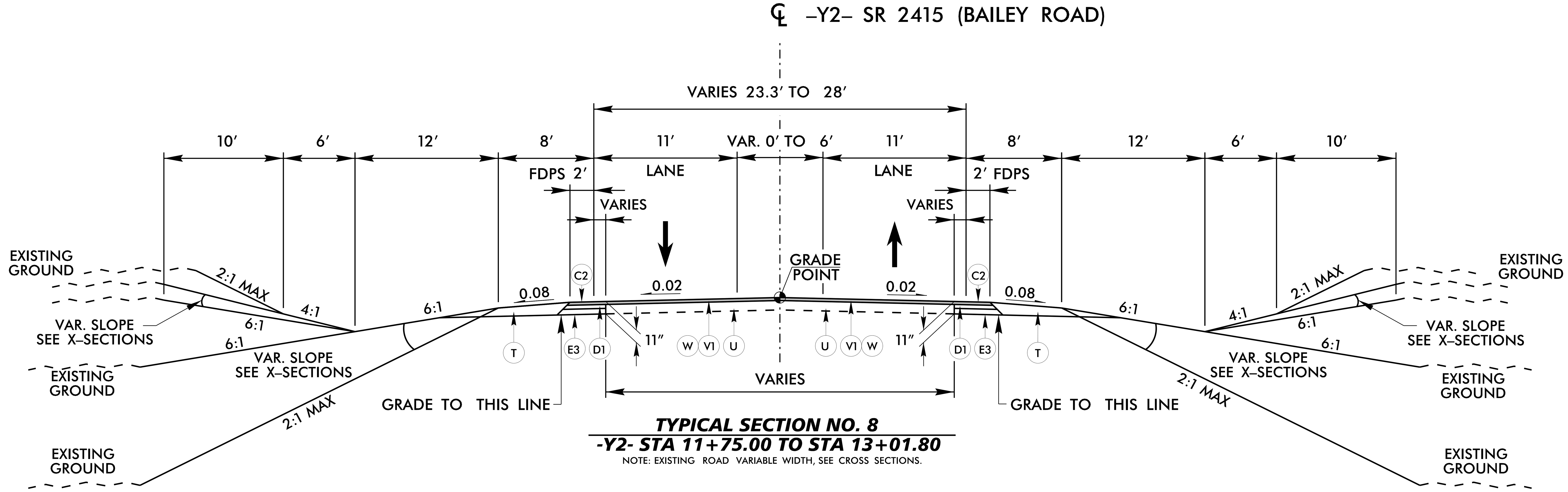
TYPICAL SECTION NO. 7A
-Y2- STA 10+65.02 TO STA 11+38.14



TYPICAL SECTION NO. 7B
-Y2- STA 10+65.02 TO STA 11+68.95

* WIDTH AND LOCATION OF 5" MONOLITHIC CONCRETE ISLAND VARIES AT ROUNDABOUT APPROACHES

** SEE TRUCK APRON TYPICAL SECTION DETAIL NO. 12B, AS SHOWN ON 2A-6 FOR STATION RANGES



TYPICAL SECTION NO. 8
-Y2- STA 11+75.00 TO STA 13+01.80
NOTE: EXISTING ROAD VARIABLE WIDTH, SEE CROSS SECTIONS.

FINAL PAVEMENT SCHEDULE

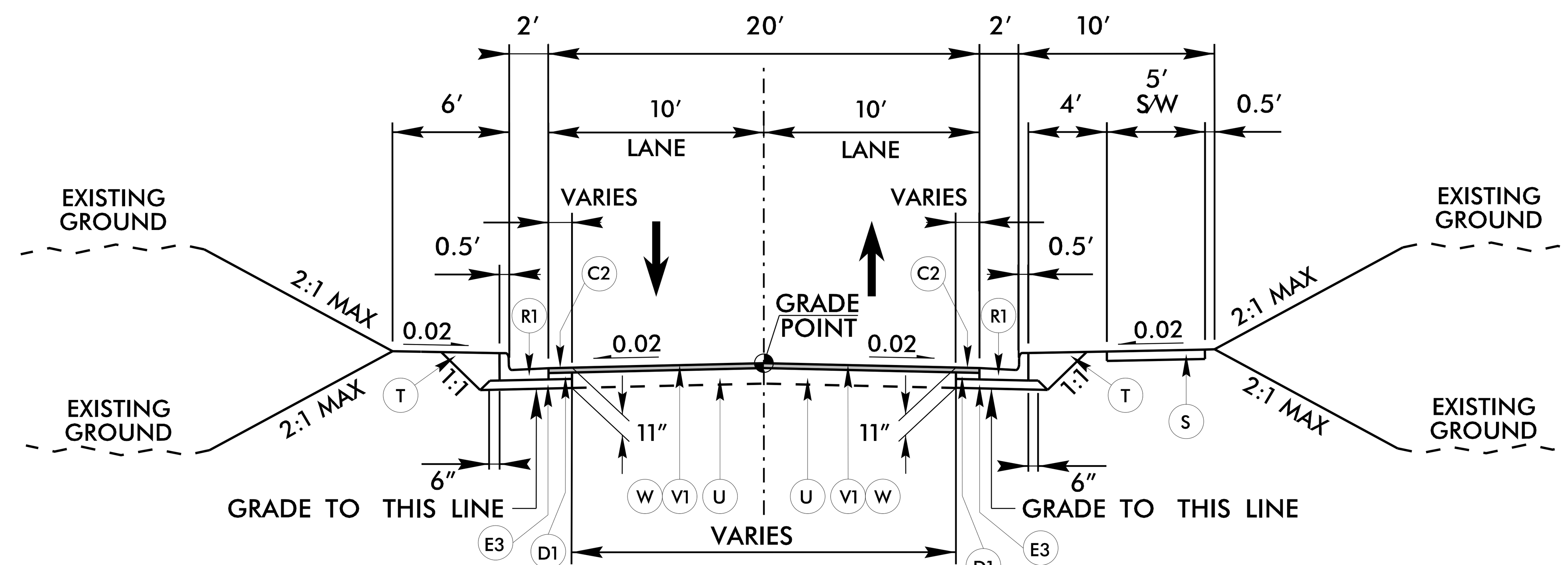
A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED

K:\CHL_PRJ\011036528 - U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_typ.dgn
12/1/2025

REVISIONS

℄ -Y3- POOLE PLACE DRIVE

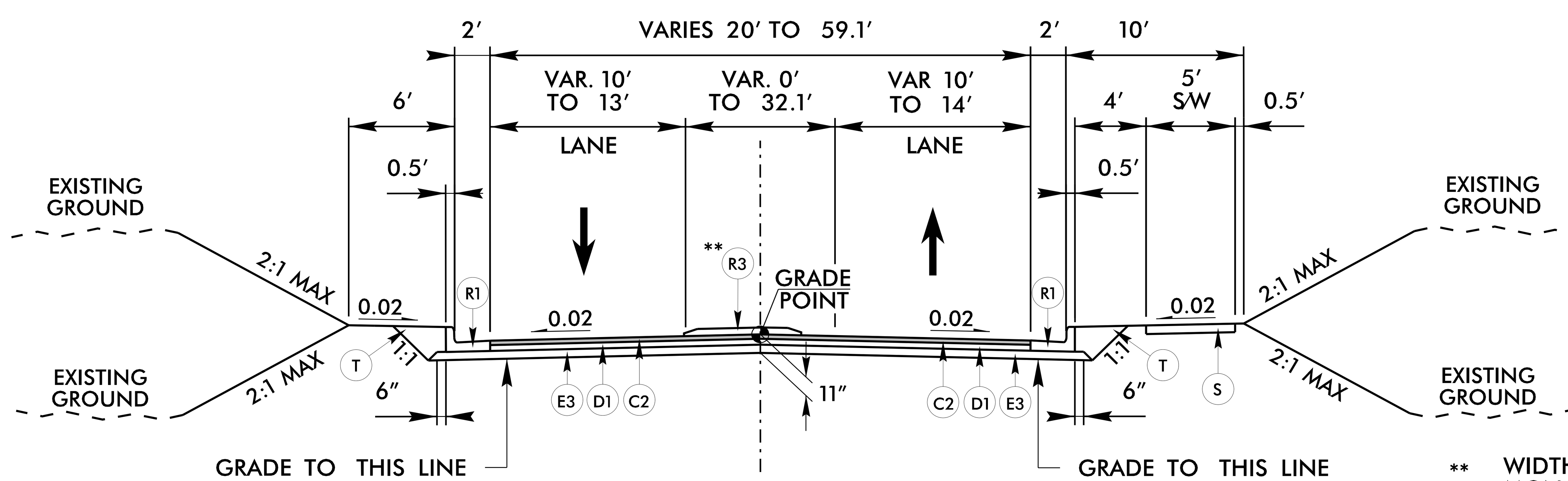


TYPICAL SECTION NO. 9

-Y3- STA 10+00.00 TO STA 10+86.31

NOTE: EXISTING ROAD VARIABLE WIDTH, SEE CROSS SECTIONS

℄ -Y3- POOLE PLACE DRIVE

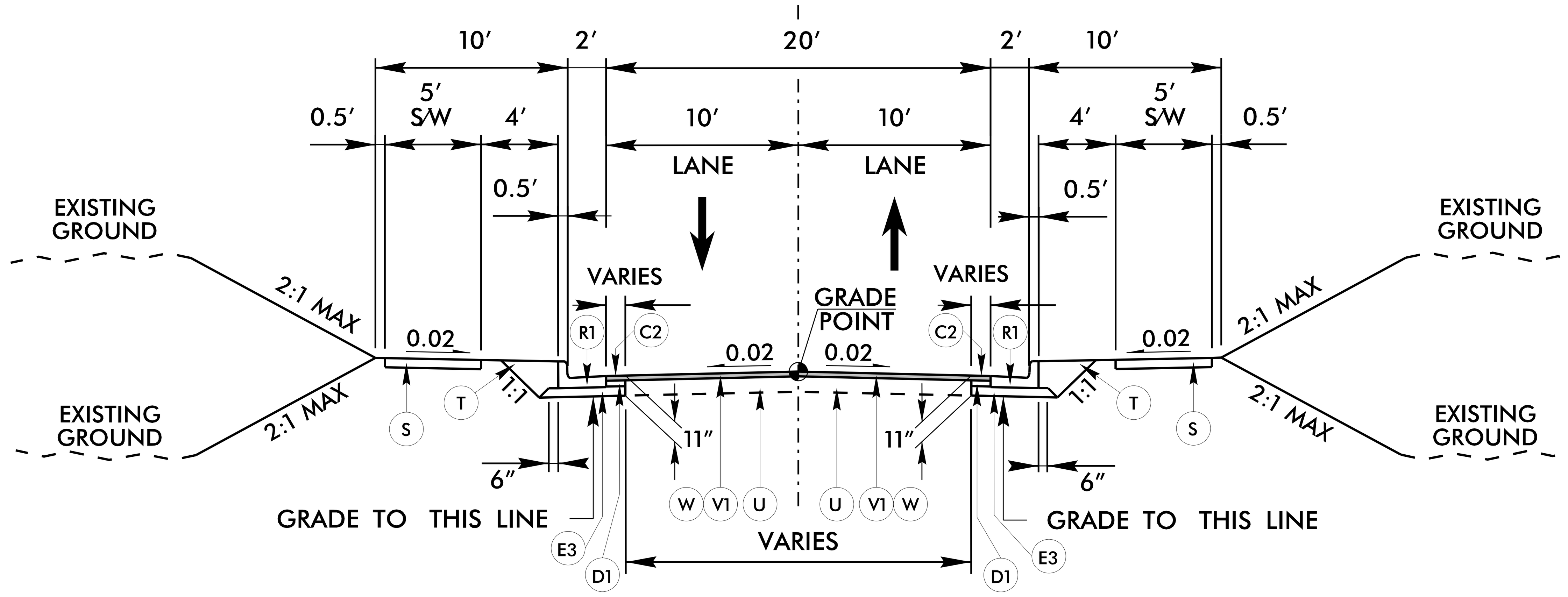


** WIDTH AND LOCATION OF 5" MONOLITHIC CONCRETE ISLAND VARIES AT ROUNDABOUT APPROACHES

TYPICAL SECTION NO. 10

-Y3- STA 10+86.31 TO STA 12+11.08

℄ -Y4- PSALMS STREET



TYPICAL SECTION NO. 11

-Y4- STA 10+13.58 TO STA 10+85.00

NOTE: EXISTING ROAD VARIABLE WIDTH, SEE CROSS SECTIONS

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RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-5

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
DocuSigned by: Jason Lawing 12/1/2025	DocuSigned by: Andrew D. Wargo 12/1/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FINAL PAVEMENT SCHEDULE

A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED

REVISIONS

*** SEE SHEETS 2B-1 AND 6 FOR WHEN R1 AND 10' MULTI-USE PATH APPLY OR WHEN R2 AND 6' TRUCK APRON APPLY.

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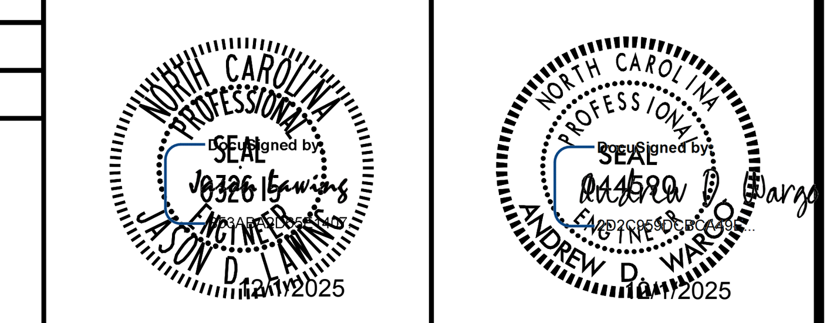
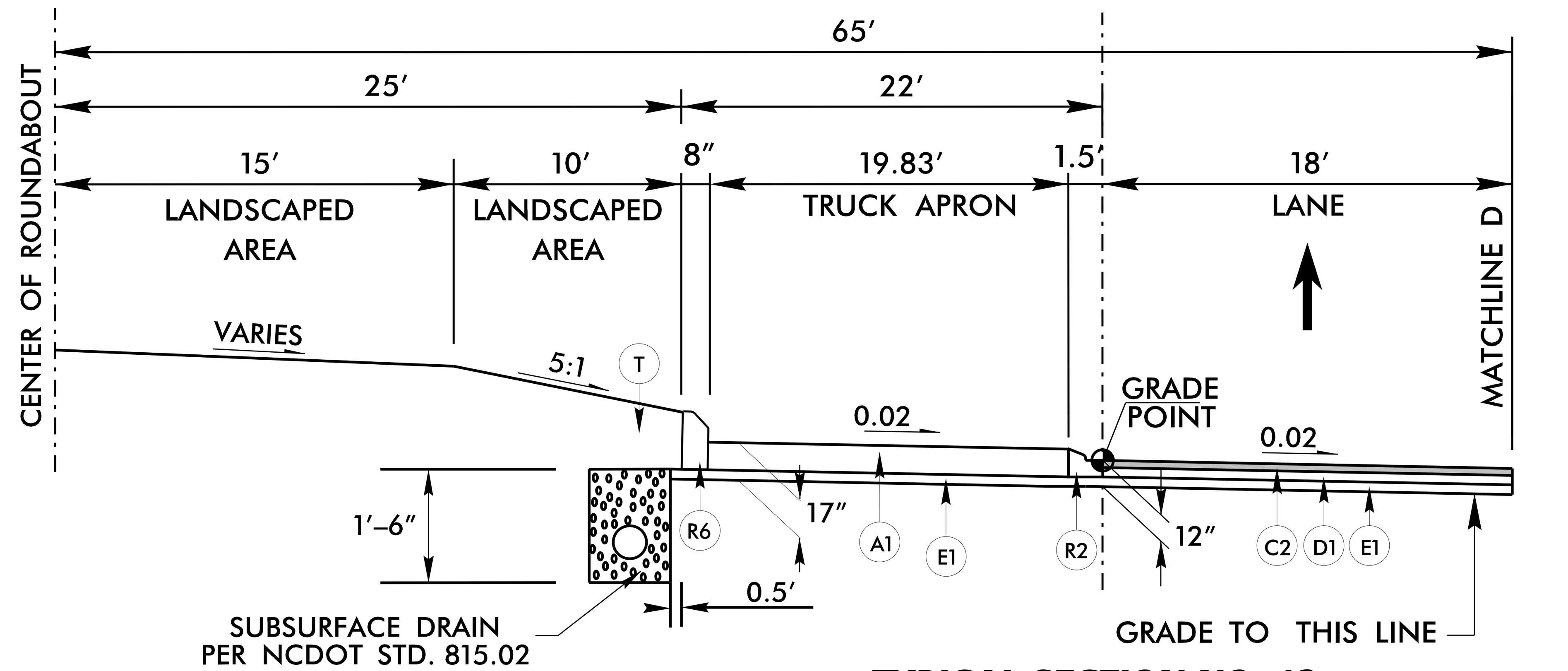
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2A-6

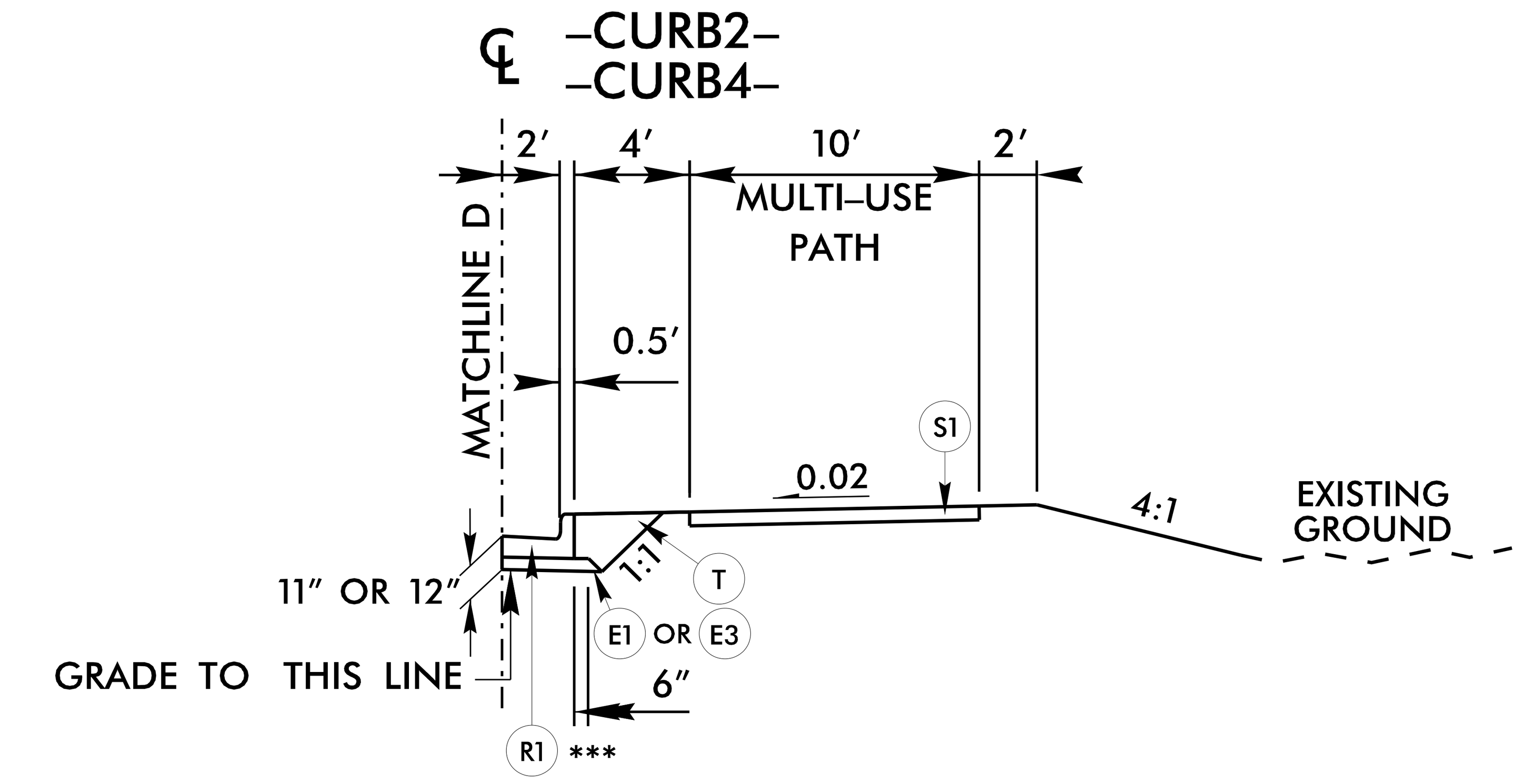
ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER



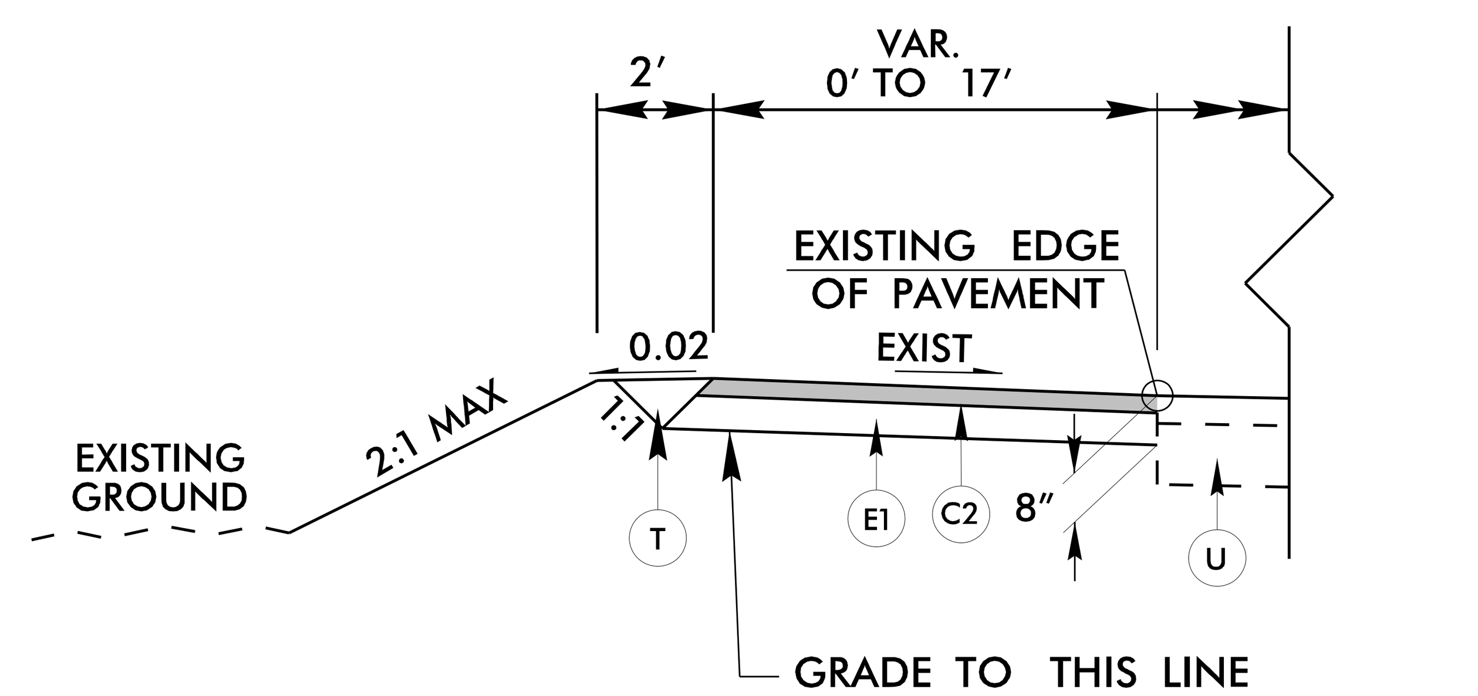
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



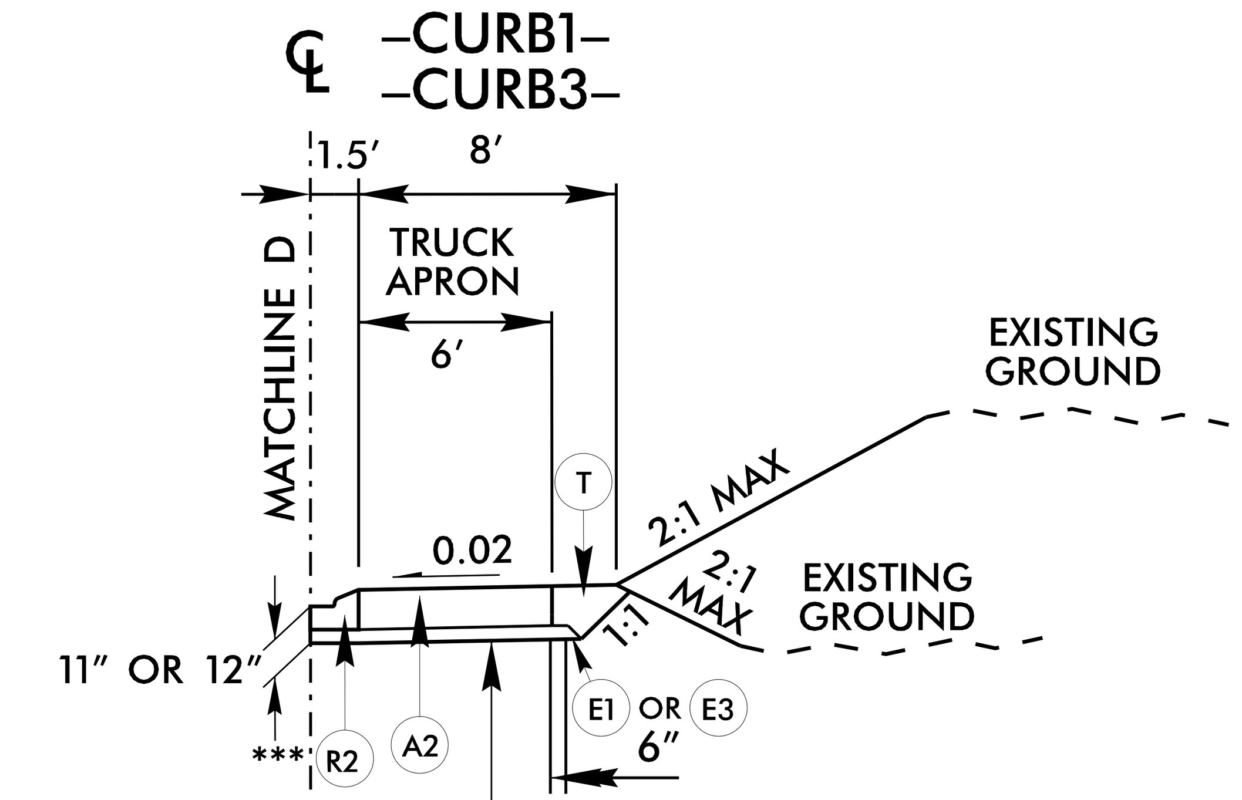
TYPICAL SECTION NO. 12
-RDBT- STA 10+00.00 TO STA 12+95.31



TYPICAL SECTION NO. 12A
-CURB2- STA 20+00.00 TO STA 23+26.84
-CURB4- STA 40+00.00 TO STA 41+80.45



TEMPORARY WIDENING DETAIL
-L- STA 29+09.92 TO STA 29+98.47 (RT)
NOTE: SEE TRAFFIC CONTROL PLANS



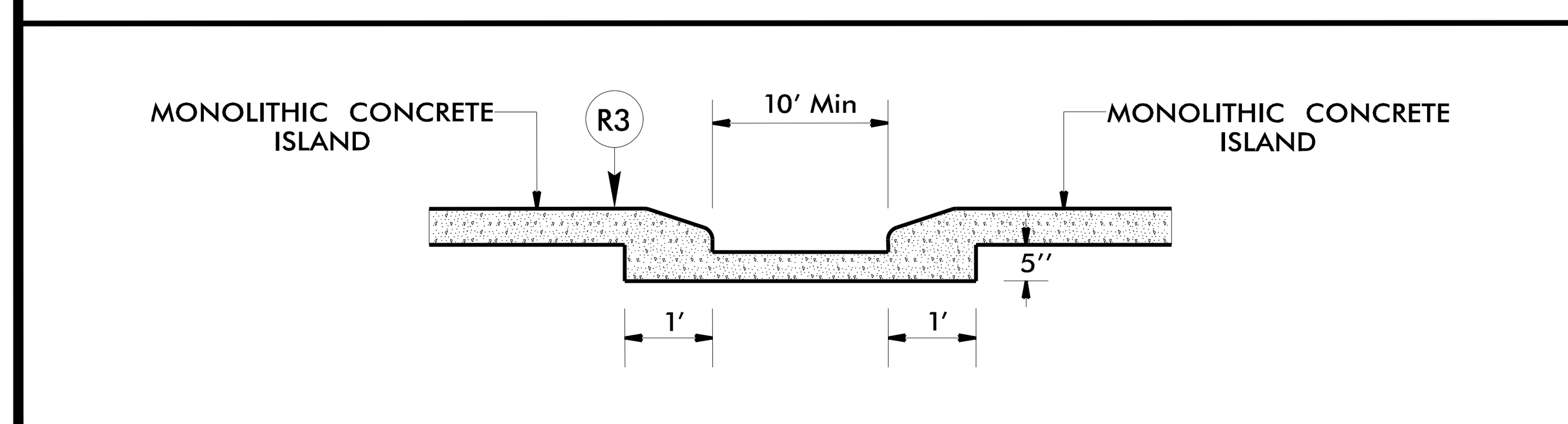
TYPICAL SECTION NO. 12B
-CURB1- STA 10+00.00 TO STA 12+84.24
-CURB3- STA 30+00.00 TO STA 32+27.55

NOTE: CURB ALIGNMENTS ARE PROVIDED FOR HORIZONTAL LOCATION OF CURB ONLY. VERTICAL DESIGN IS BASED OFF OF THE MAJOR ROADWAY ALIGNMENTS

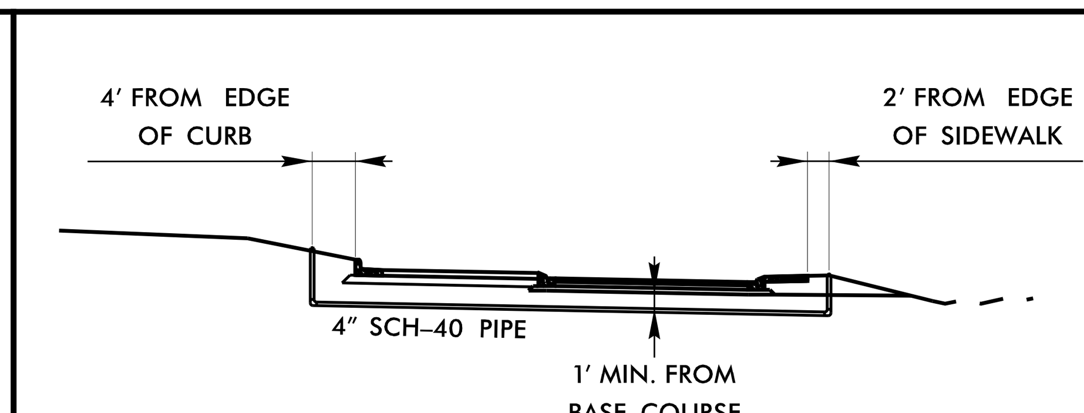
FINAL PAVEMENT SCHEDULE

A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

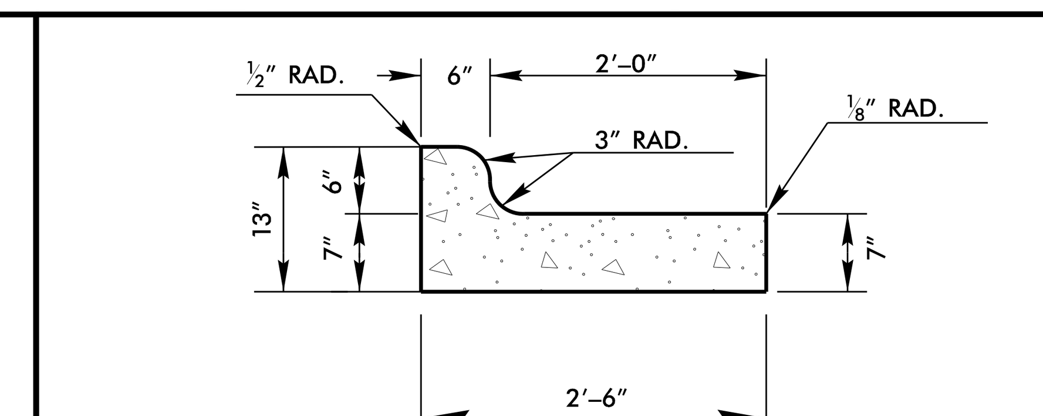
NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED



R3 MONOLITHIC CONCRETE ISLAND W RECESSED PED REFUGE DETAIL
USE AT CROSSWALK LOCATIONS AT ROUNDABOUT



PVC PIPE DETAIL
-RDBT- STA 10+95.00



R4 MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
-L- STA. 19+55.00 TO 26+28.20 RT

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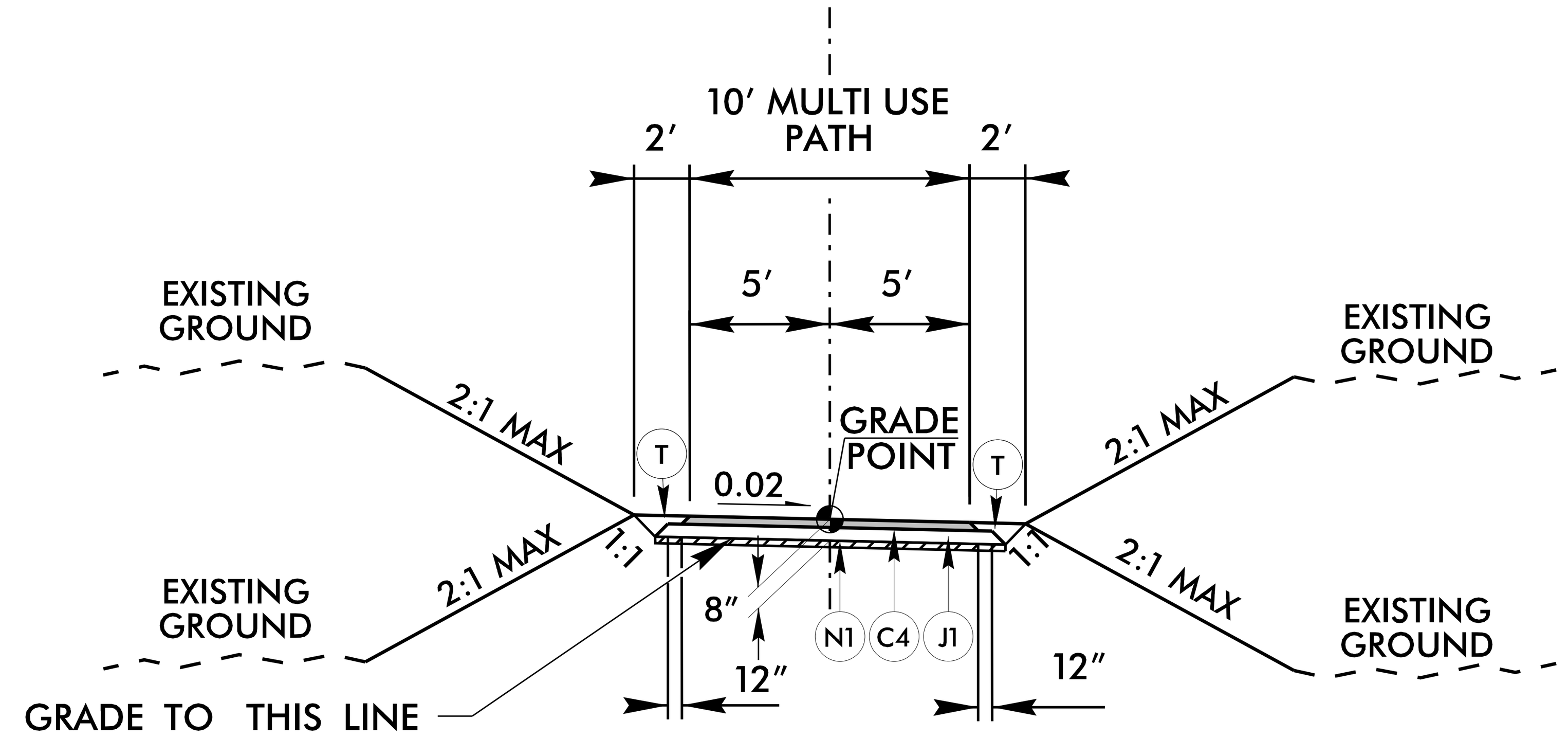
200 S. TRYON ST. • CHARLOTTE, NC 28202
RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. U-6105 | SHEET NO. 2A-7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

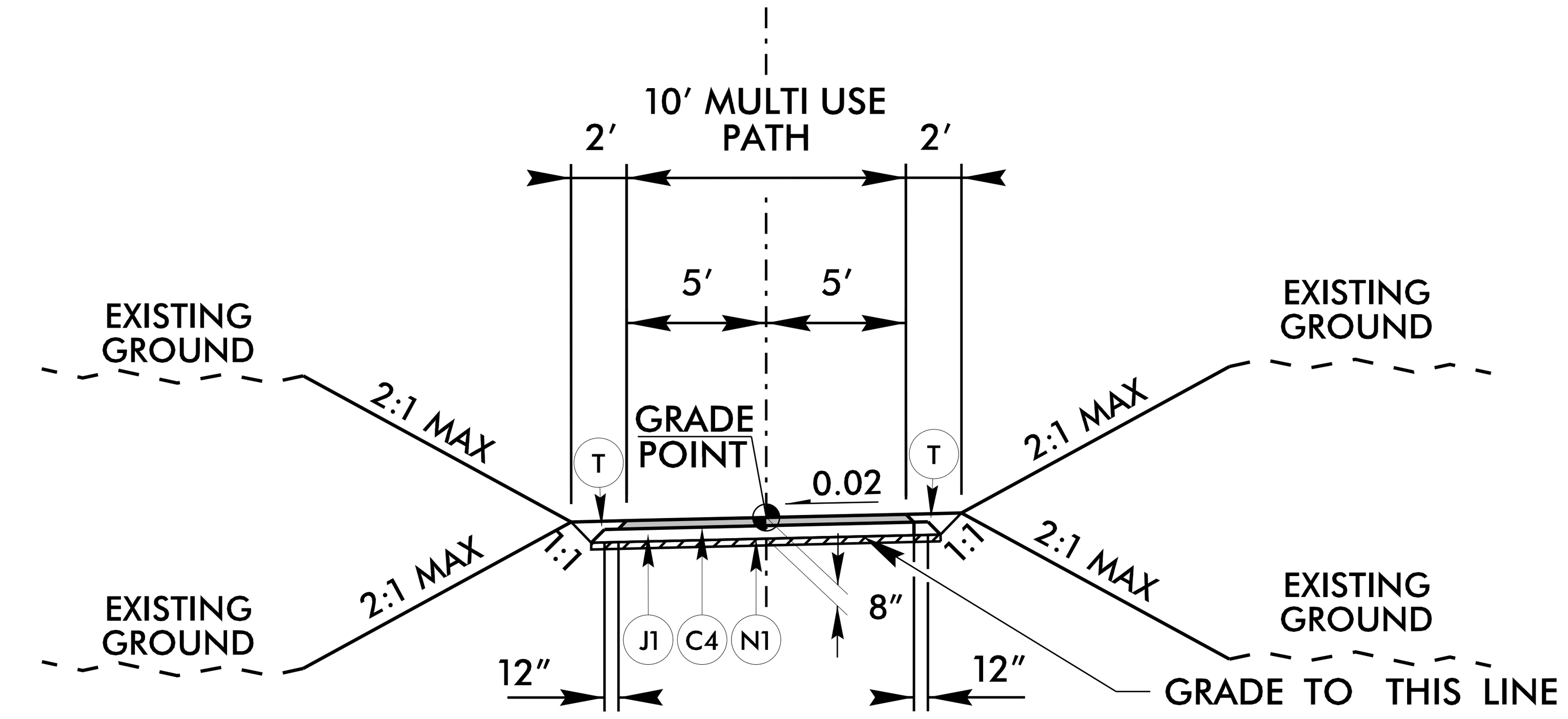
REVISIONS

℄ -G1- CALDWELL STATION CREEK GREENWAY

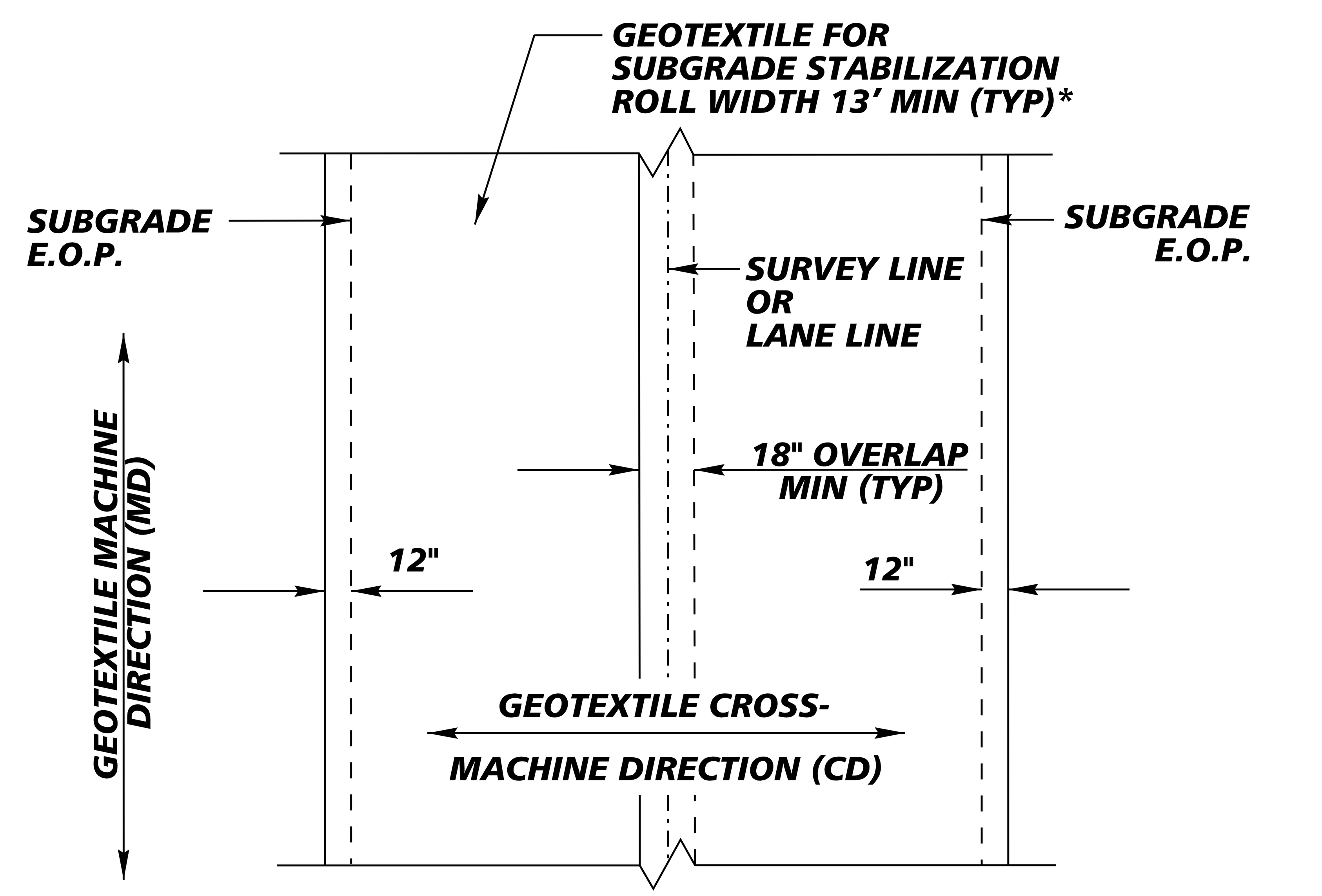


TYPICAL SECTION NO. 13
-G1- STA 10+00.00 TO STA 11+02.39
-G1- STA 11+83.39 TO STA 13+00.00

℄ -G2- CALDWELL STATION CREEK GREENWAY CONNECTION

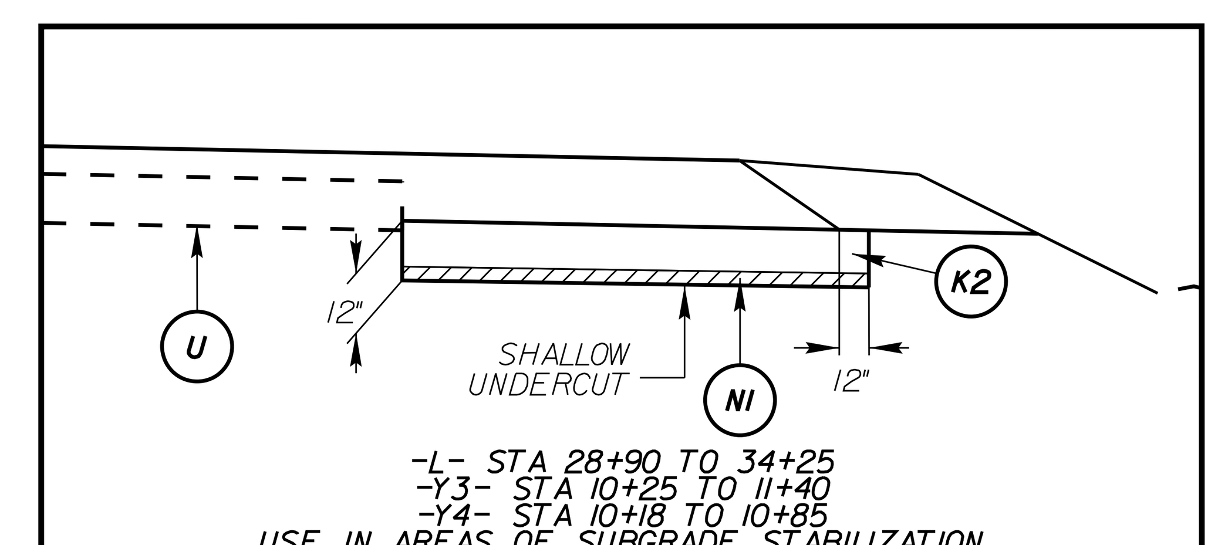


TYPICAL SECTION NO. 14
-G2- STA 10+05.00 TO STA 14+12.77



GEOTEXTILE FOR SUBGRADE STABLIIZATION PLACEMENT
(PLAN VIEW)
(100% COVERAGE REQUIRED)

****INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES***



DETAIL FOR SHALLOW UNDERCUT

FINAL PAVEMENT SCHEDULE

A1	12" TRUCK MOUNTABLE CONC. APRON, CLASS AA CONCRETE AND REINFORCED WELDED WIRE MESH
A2	12" CONCRETE TRUCK APRON W/BLACK TINT, CLASS AA
C1	1.5" S9.5B
C2	3.0" S9.5B
C3	VAR. DEPTH S9.5B
C4	2" S9.5B
D1	4" I19.0C
D2	VAR. DEPTH I19.0C
E1	5" B25.0C
E2	VAR. DEPTH B25.0C
E3	4" B25.0C
J1	6" ABC
K2	CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	1'-6" CONCRETE CURB & GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
R4	MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
R5	SHOULDER BERM GUTTER
R6	8" X 18" CONCRETE VERTICAL CURB
S	4" CONCRETE SIDEWALK
S1	4" CONCRETE MULTI-USE PATH
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING EXISTING PAVEMENT
V2	INCIDENTAL MILLING
W	WEDGING

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2. REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN FULL DEPTH ASPHALT PAVEMENT
4. THE FOLLOWING ARE FOR CURB AND GUTTER SECTIONS:
FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
5. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED

ROUNDABOUT GEOMETRY SHEET

Kimley»Horn ©2025
200 S. TRYON ST. • CHARLOTTE, NC 28202

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2B-1

RW SHEET NO.
RIGHT-OF-WAY REV.
CONST. REV.

ROADWAY ENGINEER — HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032615 JASON D. LAWING 11/25/2025 (both seals)

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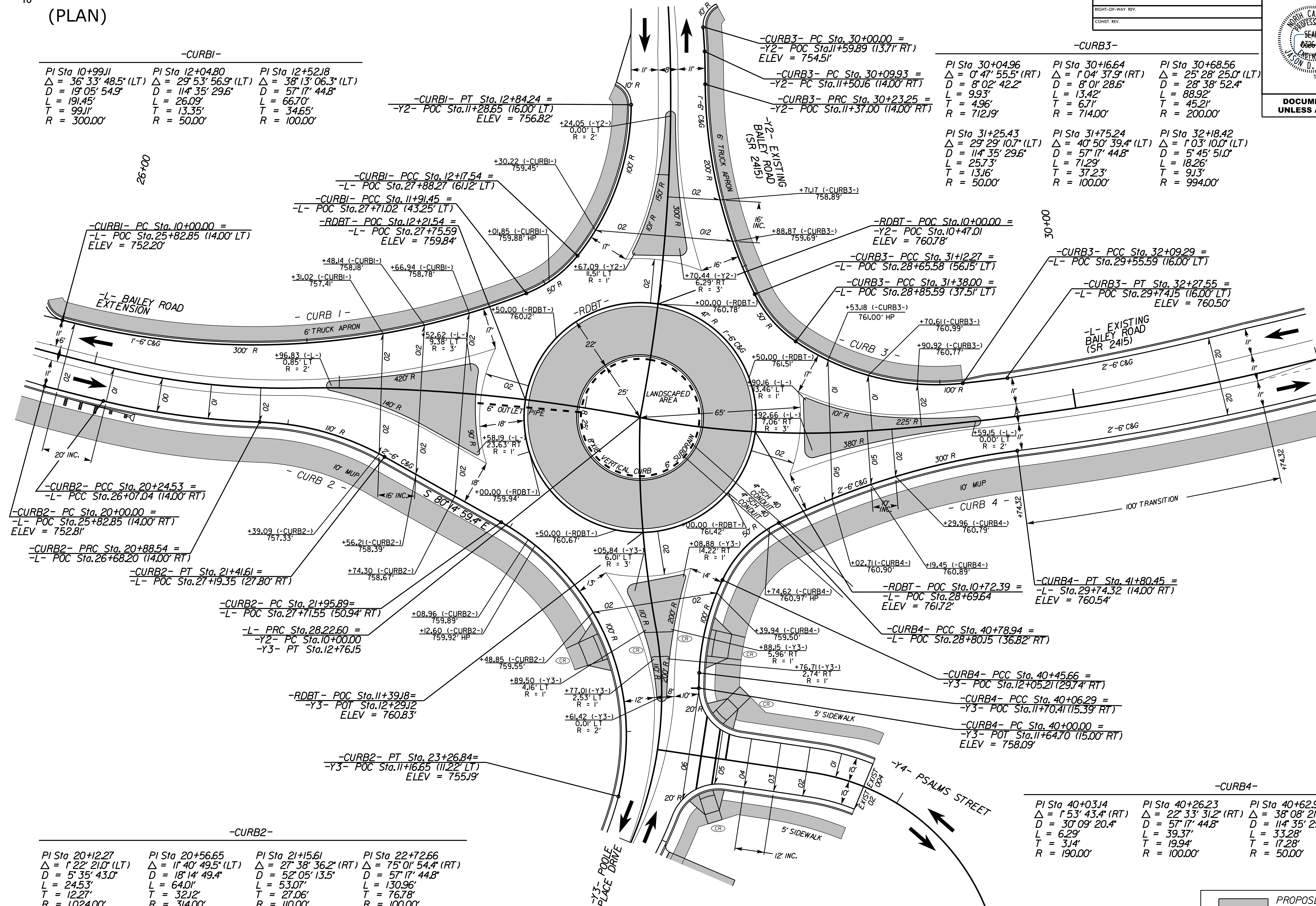
REVISIONS

20' 0' 20' 40' 10'

(PLAN)



-CURB1- PT Sta. 12+84.24 = -Y2- POC Sta.11+28.65 (16.00' LT) ELEV = 756.82'
-CURB1- PCC Sta. 12+17.54 = -L- POC Sta.27+88.27 (61.12' LT)
-CURB1- PCC Sta. 11+91.45 = -L- POC Sta.27+71.02 (43.25' LT)
-RDBT- POC Sta.12+21.54 = -L- POC Sta.27+75.59 ELEV = 759.84'
-CURB1- PC Sta. 10+00.00 = -L- POC Sta.25+82.85 (14.00' LT) ELEV = 752.20'
-L- BAILEY ROAD EXTENSION
- CURB 1 -
6' TRUCK APRON
-CURB3- PC Sta. 30+00.00 = -Y2- POC Sta.11+59.89 (13.71' RT) ELEV = 754.51'
-CURB3- PC Sta. 30+09.93 = -Y2- PC Sta.11+50.16 (14.00' RT)
-CURB3- PRC Sta. 30+23.25 = -Y2- POC Sta.11+37.00 (14.00' RT)
-Y2- EXISTING BAILEY ROAD (SR 2415)
-RDBT- POC Sta.10+00.00 = -Y2- POC Sta.10+47.01 ELEV = 760.78'
-CURB3- PCC Sta. 31+12.27 = -L- POC Sta.28+65.58 (56.15' LT)
-CURB3- PCC Sta. 31+38.00 = -L- POC Sta.28+85.59 (37.51' LT)
-CURB3- PCC Sta. 32+09.29 = -L- POC Sta.29+55.59 (16.00' LT)
-CURB3- PT Sta. 32+27.55 = -L- POC Sta.29+74.15 (16.00' LT) ELEV = 760.50'
-L- EXISTING BAILEY ROAD (SR 2415)
- CURB 3 -
-RDBT-
LANDSCAPED AREA
6" OUTLET PIPE
VERTICAL CURB
6" SUBDRAIN
4" SCH 40 CONDUIT
-CURB2- PCC Sta. 20+24.53 = -L- PCC Sta.26+07.04 (14.00' RT)
-CURB2- PC Sta. 20+00.00 = -L- POC Sta.25+82.85 (14.00' RT) ELEV = 752.81'
-CURB2- PRC Sta. 20+88.54 = -L- POC Sta.26+68.20 (14.00' RT)
-CURB2- PT Sta. 21+41.61 = -L- POC Sta.27+19.35 (27.80' RT)
-CURB2- PC Sta. 21+95.89= -L- POC Sta.27+71.55 (50.94' RT)
-L- PRC Sta.28.22.60 = -Y2- PC Sta.10+00.00 -Y3- PT Sta.12+76.15
-RDBT- POC Sta.11+39.18= -Y3- POT Sta.12+29.12 ELEV = 760.83'
-CURB2- PT Sta. 23+26.84= -Y3- POC Sta.11+16.65 (11.22' LT) ELEV = 755.19'
- CURB 2 -
S 80°14' 59.4" E
10' MUP
-RDBT- POC Sta.10+72.39 = -L- POC Sta.28+69.64 ELEV = 761.72'
-CURB4- PT Sta. 41+80.45 = -L- Sta.29+74.32 (14.00' RT) ELEV = 760.54'
-CURB4- PCC Sta. 40+78.94 = -L- POC Sta.28+80.15 (36.82' RT)
-CURB4- PCC Sta. 40+45.66 = -Y3- POC Sta.12+05.21 (29.74' RT)
-CURB4- PCC Sta. 40+06.29 = -Y3- POC Sta.11+70.41 (15.39' RT)
-CURB4- PC Sta. 40+00.00 = -Y3- POT Sta.11+64.70 (15.00' RT) ELEV = 758.09'
- CURB 4 -
100' TRANSITION
5' SIDEWALK
-Y4- PSALMS STREET
-Y3- POOLE PLACE DRIVE
NAD 83 NA 2011

-CURB1-

PI Sta 10+99.11	PI Sta 12+04.80	PI Sta 12+52.18
Δ = 36° 33' 48.5" (LT)	Δ = 29° 53' 56.9" (LT)	Δ = 38° 13' 06.3" (LT)
D = 19° 05' 54.9"	D = 114° 35' 29.6"	D = 57° 17' 44.8"
L = 191.45'	L = 26.09'	L = 66.70'
T = 99.11'	T = 13.35'	T = 34.65'
R = 300.00'	R = 50.00'	R = 100.00'

-CURB3-

PI Sta 30+04.96	PI Sta 30+16.64	PI Sta 30+68.56
Δ = 0° 47' 55.5" (RT)	Δ = 1° 04' 37.9" (RT)	Δ = 25° 28' 25.0" (LT)
D = 8° 02' 42.2"	D = 8° 01' 28.6"	D = 28° 38' 52.4"
L = 9.93'	L = 13.42'	L = 88.92'
T = 4.96'	T = 6.71'	T = 45.21'
R = 712.19'	R = 714.00'	R = 200.00'
PI Sta 31+25.43	PI Sta 31+75.24	PI Sta 32+18.42
Δ = 29° 29' 10.7" (LT)	Δ = 40° 50' 39.4" (LT)	Δ = 1° 03' 10.0" (LT)
D = 114° 35' 29.6"	D = 57° 17' 44.8"	D = 5° 45' 51.0"
L = 25.73'	L = 71.29'	L = 18.26'
T = 13.16'	T = 37.23'	T = 9.13'
R = 50.00'	R = 100.00'	R = 994.00'

-CURB2-

PI Sta 20+12.27	PI Sta 20+56.65	PI Sta 21+15.61	PI Sta 22+72.66
Δ = 1° 22' 21.0" (LT)	Δ = 11° 40' 49.5" (LT)	Δ = 27° 38' 36.2" (RT)	Δ = 75° 01' 54.4" (RT)
D = 5° 35' 43.0"	D = 18° 14' 49.4"	D = 52° 05' 13.5"	D = 57° 17' 44.8"
L = 24.53'	L = 64.01'	L = 53.07'	L = 130.96'
T = 12.27'	T = 32.12'	T = 27.06'	T = 76.78'
R = 1,024.00'	R = 314.00'	R = 110.00'	R = 100.00'

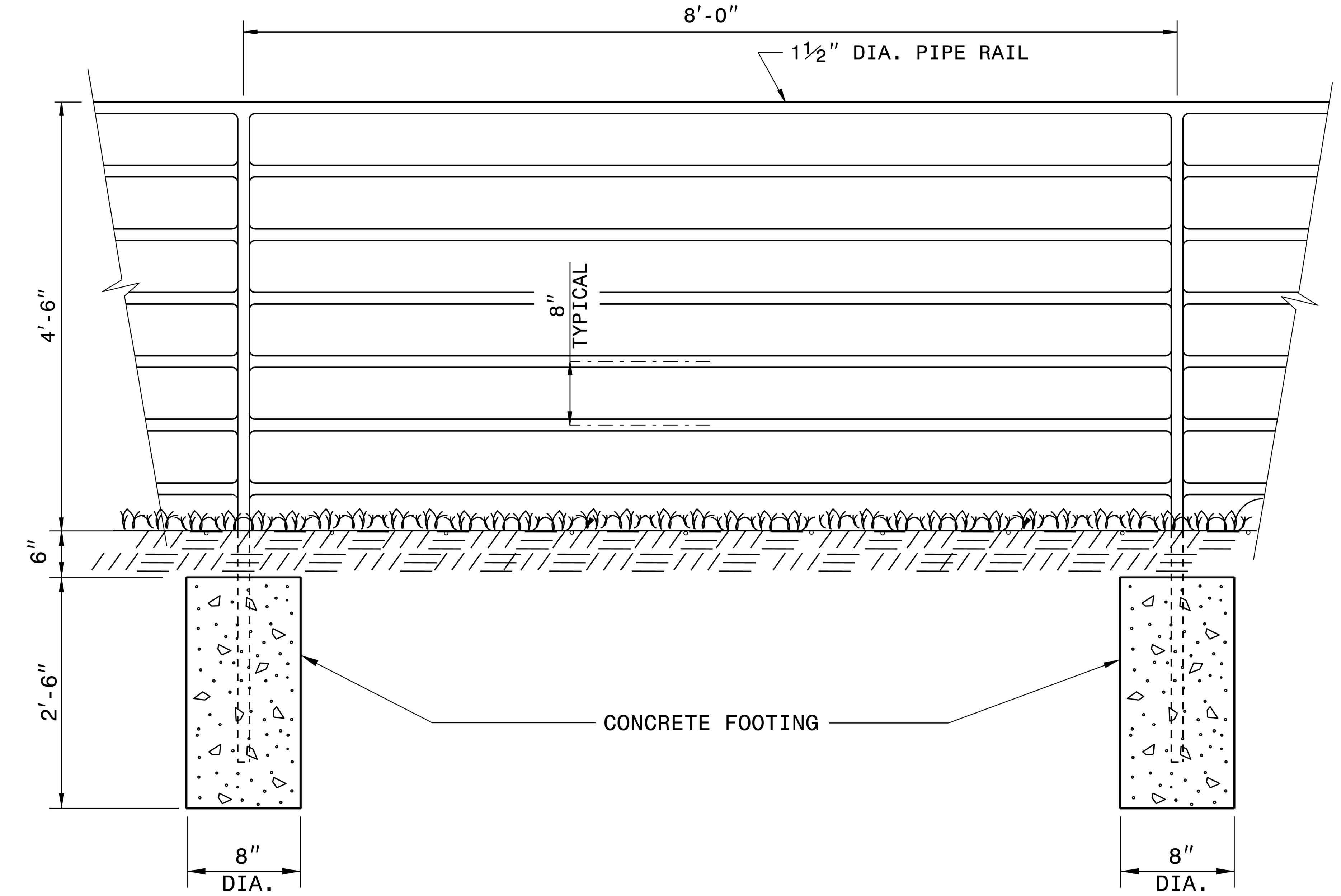
-CURB4-

PI Sta 40+03.14	PI Sta 40+26.23	PI Sta 40+62.94	PI Sta 41+30.18
Δ = 1° 53' 43.4" (RT)	Δ = 22° 33' 31.2" (RT)	Δ = 38° 08' 21.7" (RT)	Δ = 19° 23' 10.2" (RT)
D = 30° 09' 20.4"	D = 57° 17' 44.8"	D = 114° 35' 29.6"	D = 19° 05' 54.9"
L = 6.29'	L = 39.37'	L = 33.28'	L = 101.51'
T = 3.14'	T = 19.94'	T = 17.28'	T = 51.24'
R = 190.00'	R = 100.00'	R = 50.00'	R = 300.00'

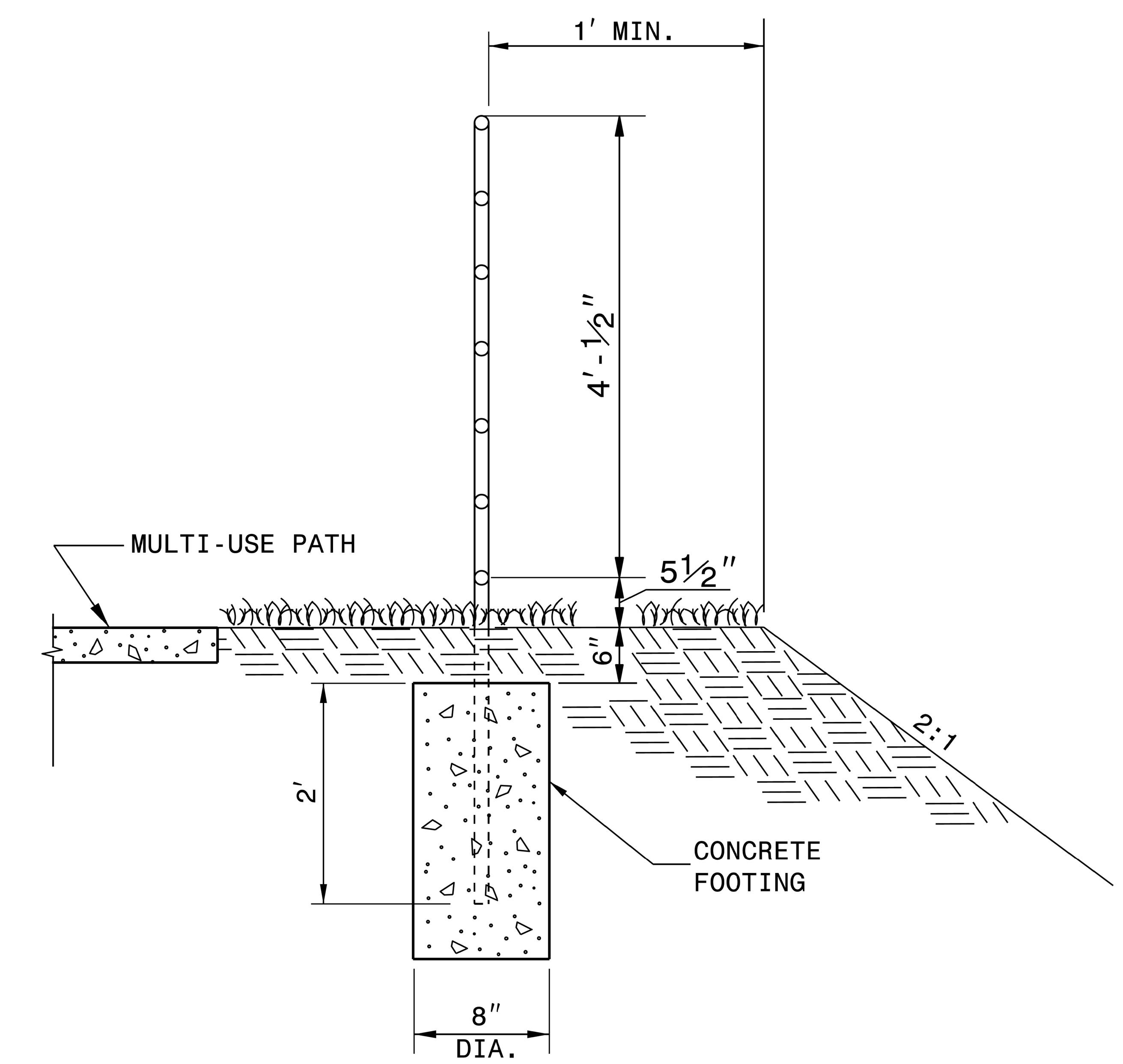
NOTE:
CURB ALIGNMENTS ARE PROVIDED FOR HORIZONTAL LOCATION OF CURB ONLY. VERTICAL DESIGN IS BASED OFF OF THE MAJOR ROADWAY ALIGNMENTS

PROPOSED CONCRETE MONOLITHIC ISLANDS, APRON, AND SIDEWALK

FOR -L- PROFILE, SEE SHEET 7
FOR -Y2-, -Y3-, -Y4-, AND ROUNDABOUT PROFILE, SEE SHEET 8



ELEVATION



SECTION VIEW

NOTES:

CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1½" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.

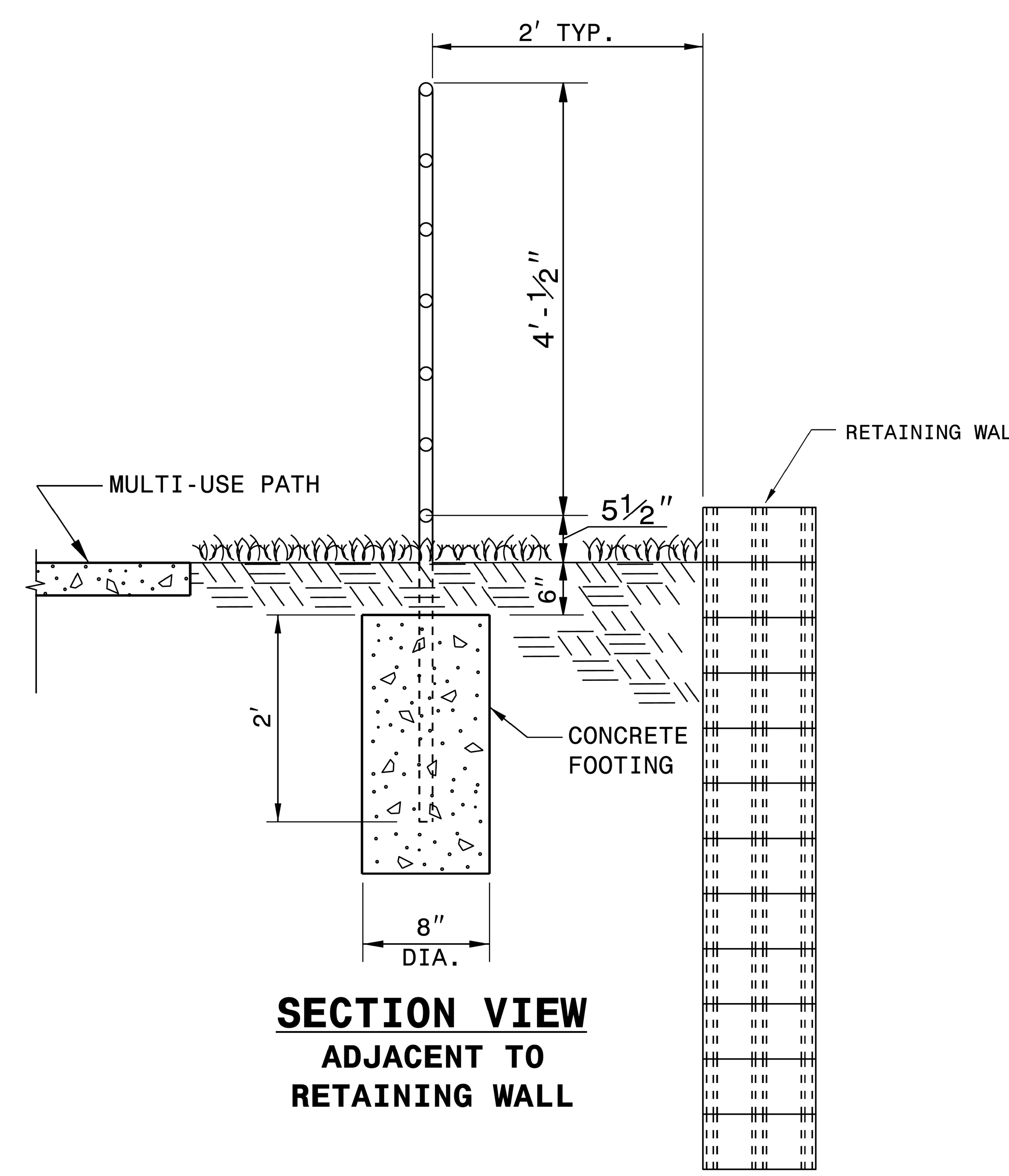
REPAIR GALVANIZING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 1076.

PAINT, IF REQUIRED BY THE ENGINEER, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 1080.

WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.

USE CLASS 'B' CONCRETE FOR HANDRAIL FOOTINGS.

PLACEMENT OF HANDRAIL IN RELATION TO SHOULDER BREAK POINT AND PATH MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.



SECTION VIEW
ADJACENT TO RETAINING WALL

11/25/2025

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Office 919-707-6950 FAX 919-250-4119

BICYCLE / PEDESTRIAN SAFETY RAIL

ORIGINAL BY: DATE:
MODIFIED BY: K.A. KEMPF DATE: 7-20-23
CHECKED BY: DATE:
FILE SPEC.: details\kkempf\english\safety rails 2024.dgn

STATE OF
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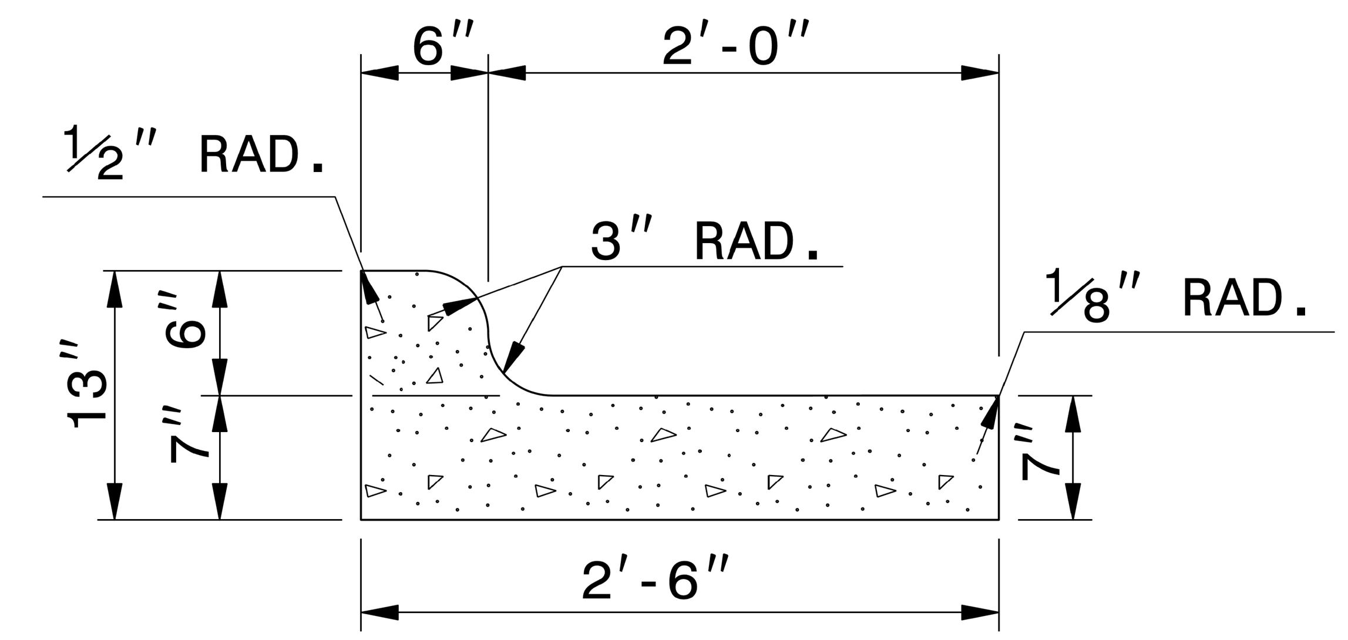
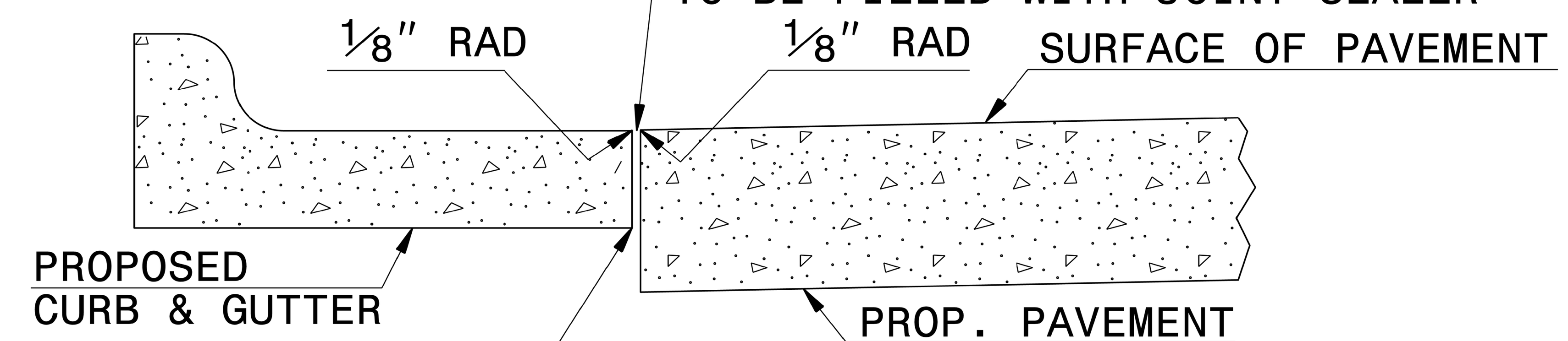
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

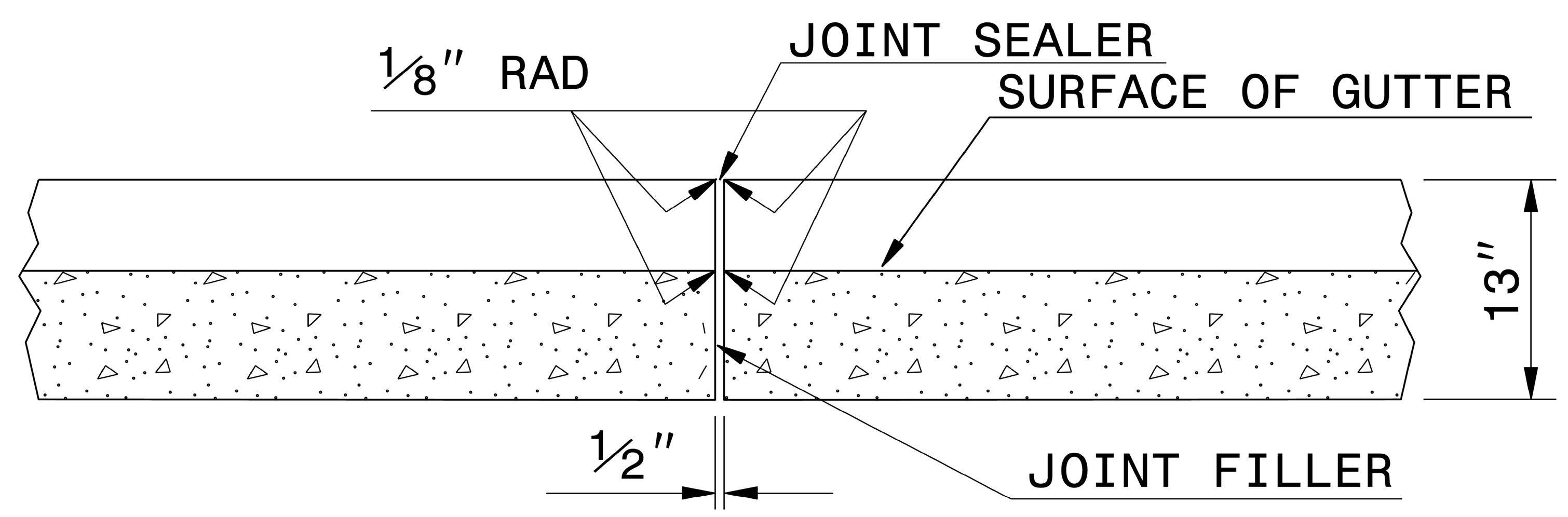
ENGLISH DETAIL DRAWING FOR
SPECIAL CURB & GUTTER 2'-6"



SECTION A-A
2'-6" CURB AND GUTTER



LONGITUDINAL PLAIN BUTT JOINT



TRANSVERSE EXPANSION JOINT
IN CURB AND GUTTER

GENERAL NOTES:

- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
- JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
- CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
- FILL ALL CONSTRUCTION JOINTS, WITH JOINT FILLER AND SEALER.
- SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

SHEET 1 OF 1
846d01

STATE OF
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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
SPECIAL CURB & GUTTER 2'-6"

SHEET 1 OF 1
846d01

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144 NICOLE M. HACKLER
11/25/2025

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ORIGINAL BY: E.E. WARD DATE: MAY 1997
MODIFIED BY: K.A. KEMPF DATE: MAR 2015
CHECKED BY: DATE:
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$$$$$$SYSTIME$$$$$
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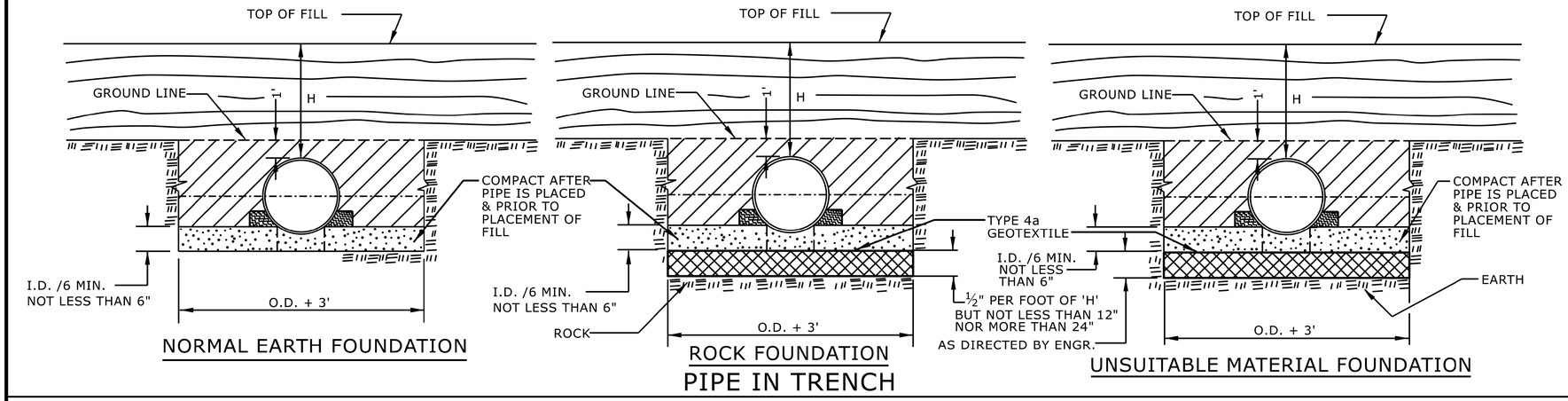
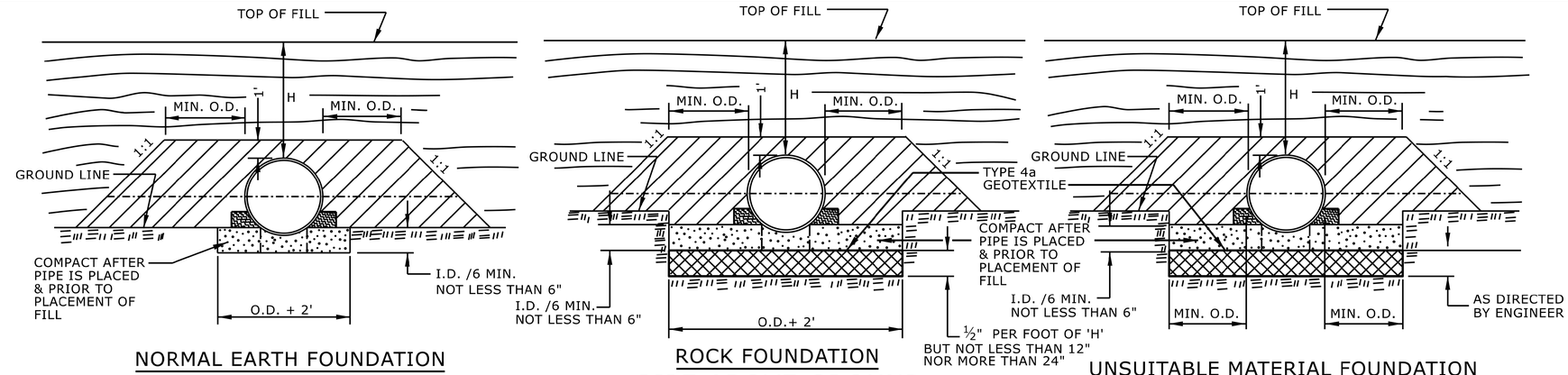
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-3





GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA
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RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

FLEXIBLE PIPE

SHEET 1 OF 2

300.01

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M HACKLER
11/25/2025

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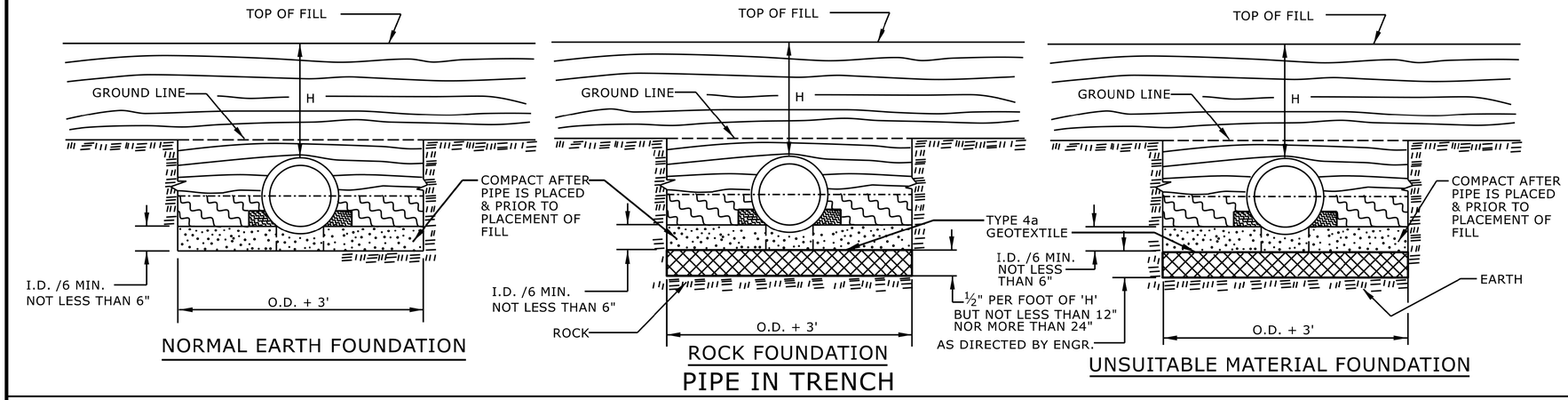
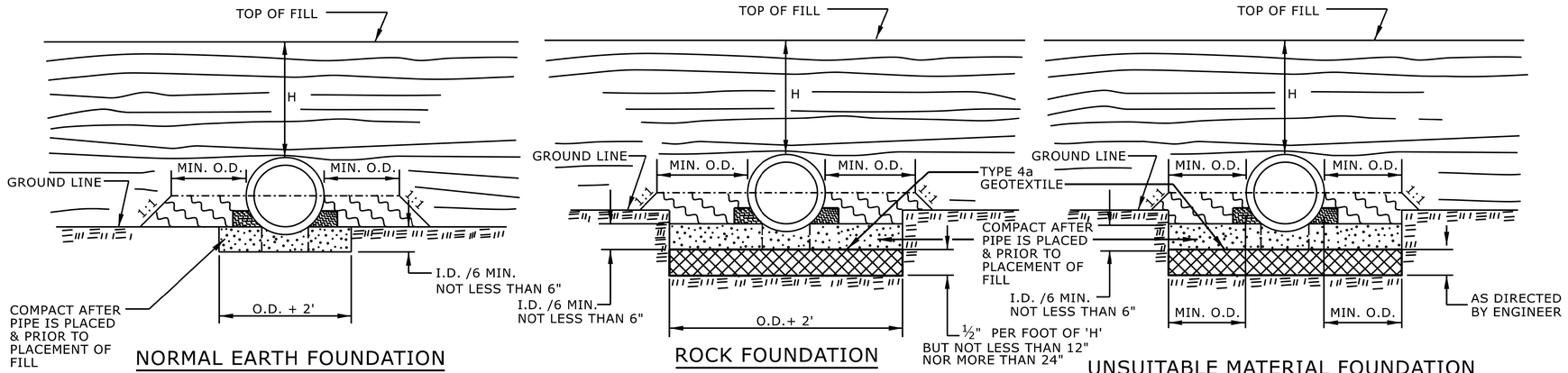
PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-4





GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

RIGID PIPE

SHEET 2 OF 2

300.01

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033144 NICOLE M. HACKLER
Nicole M Hackler
11/25/2025

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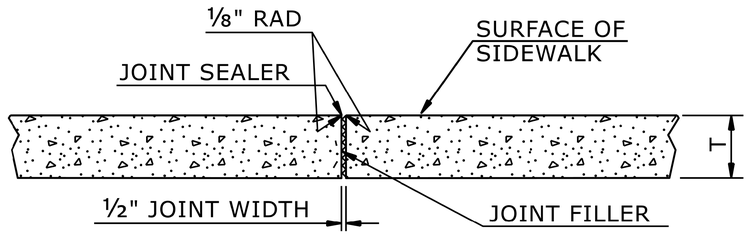
PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-5

NOTES:

CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

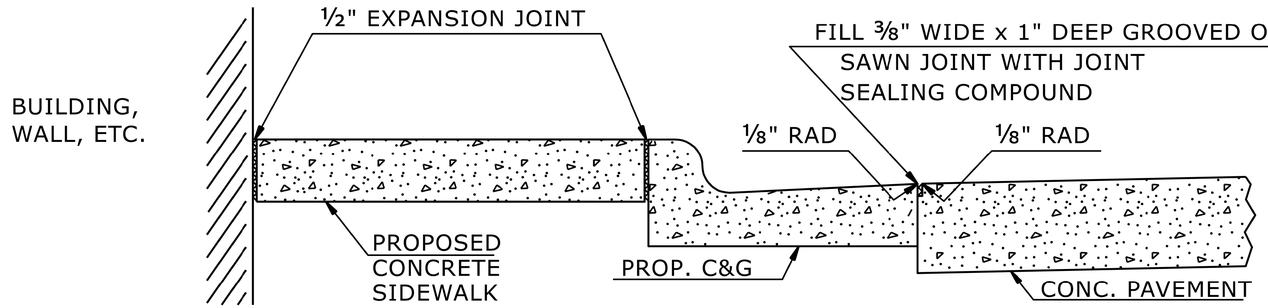
PLACE A GROOVE JOINT 1" DEEP WITH ⅛" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE ½" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



T = SIDEWALK THICKNESS

TRANSVERSE EXPANSION JOINT IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

STATE OF NORTH CAROLINA
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033144 NICOLE M. HACKNEY
11/25/2025

SHEET 1 OF 1

848D01

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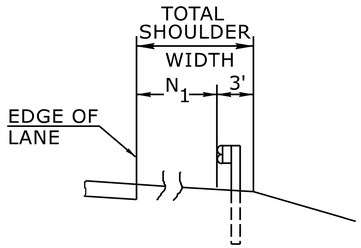
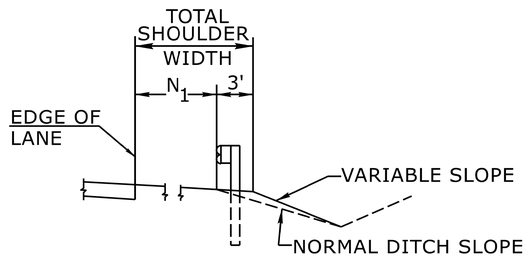
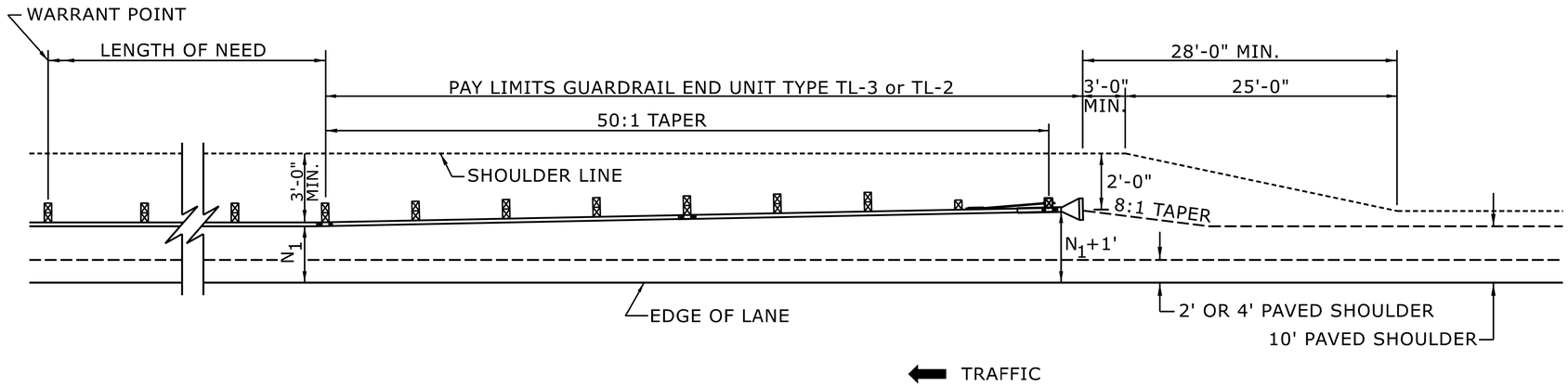


FILL SECTION



CUT SECTION

"N_1"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.



FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

STATE OF
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 15

862D01

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M. HACKLEY
11/25/2025

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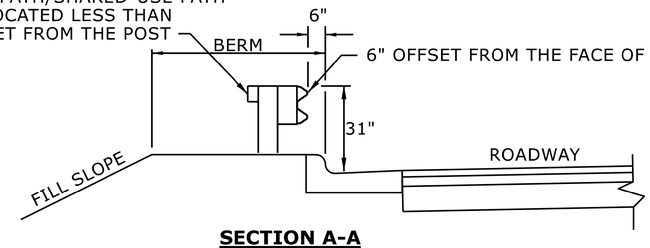
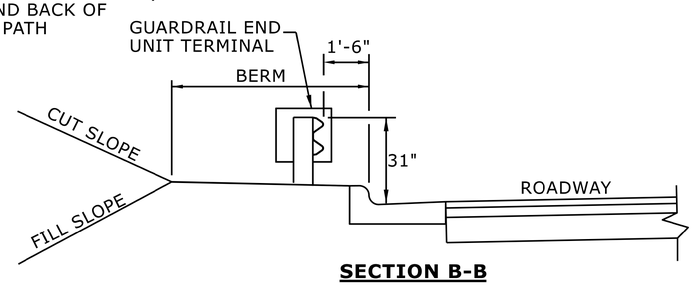
PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-7

PLACE APPROVED BICYCLE FRIENDLY RAILINGS, FENCE, OR RUB RAILS IF SIDEPATH/SHARED-USE PATH IS LOCATED LESS THAN 4 FEET FROM THE POST

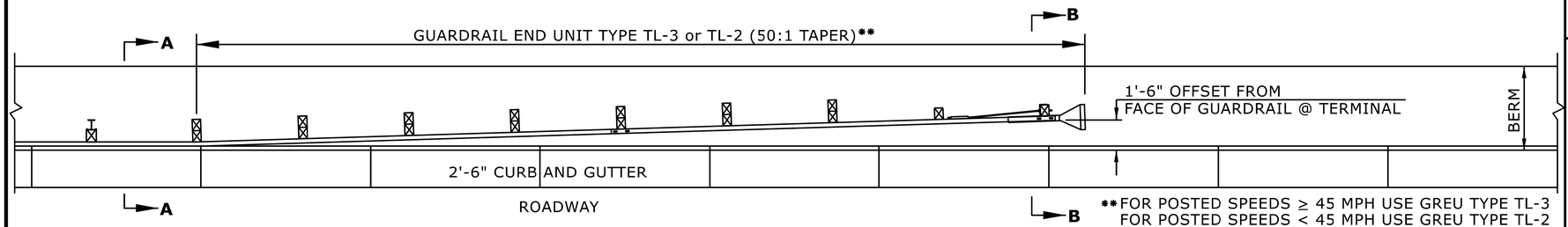
SEE THE ROADWAY DESIGN MANUAL (PART I CHAPTER 4 SECTION 4.14) FOR OFFSET DISTANCES FROM FACE OF GUARDRAIL AND BACK OF GUARDRAIL TO SIDEWALK OR SIDEPATH/SHARED-USE PATH



SECTION A-A



SECTION B-B



GUARDRAIL 6" FROM THE FACE OF CURB

** FOR POSTED SPEEDS ≥ 45 MPH USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45 MPH USE GREU TYPE TL-2

BICYCLE FRIENDLY RAILINGS, FENCE OR RUB RAIL SHOULD NOT BE PLACED WITHIN THE LIMITS OF THE STRUCTURAL ANCHOR OR END UNITS

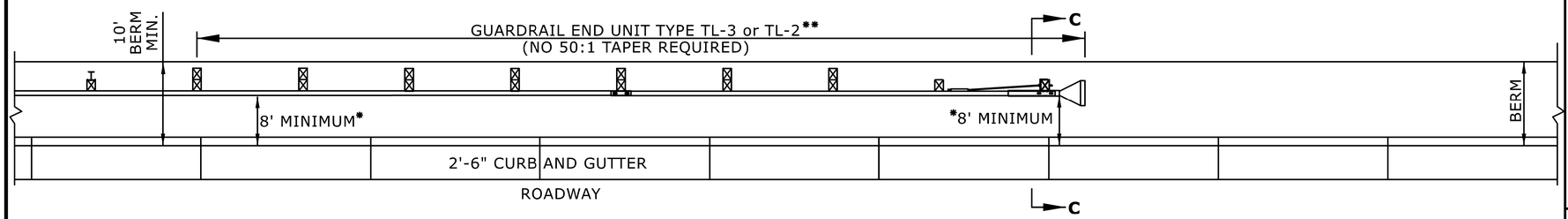
SECTION C-C

* FOR POSTED SPEED ≥ 40 MPH USE 13' MINIMUM OFFSET

SEE THE ROADWAY DESIGN MANUAL (PART I CHAPTER 4 SECTION 4.14) FOR OFFSET DISTANCES FROM FACE OF GUARDRAIL AND BACK OF GUARDRAIL TO SIDEWALK OR SIDEPATH/SHARED-USE PATH

** FOR POSTED SPEEDS ≥ 45 MPH USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45 MPH USE GREU TYPE TL-2

BICYCLE FRIENDLY RAILINGS, FENCE OR RUB RAIL SHOULD NOT BE PLACED WITHIN THE LIMITS OF THE STRUCTURAL ANCHOR OR END UNITS



GUARDRAIL 8' OR GREATER OFFSET FROM FACE OF CURB

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
GUARDRAIL TREATMENT AT CURB AND GUTTER

SEAL
033144
NORTH CAROLINA PROFESSIONAL ENGINEER
NICOLE M. HACKLER
11/25/2025

SHEET 12 OF 15
862D01

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

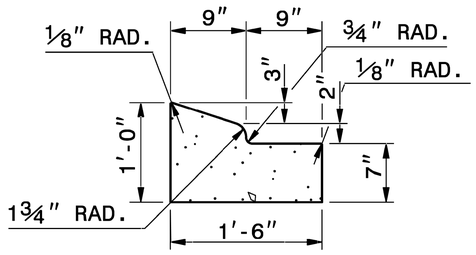
CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

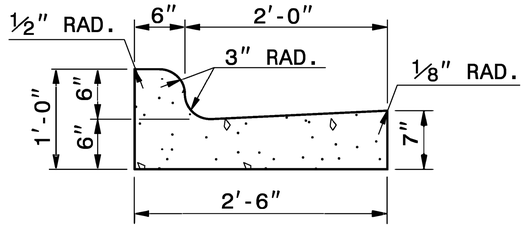
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-8



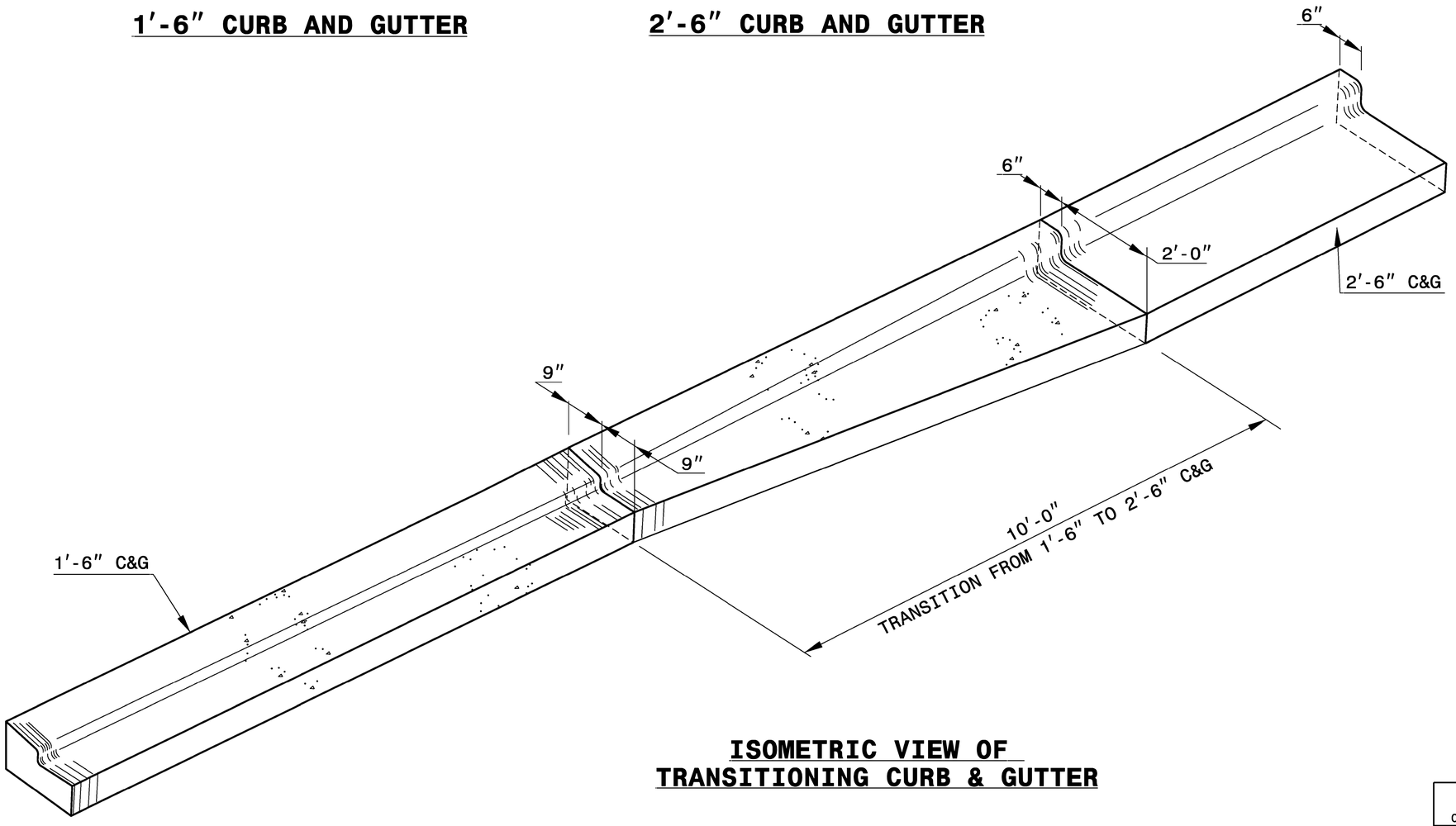
1'-6" CURB AND GUTTER



2'-6" CURB AND GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF TRANSITIONING CURB & GUTTER

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER

11/25/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

DETAIL OF 1'-6" TO 2'-6" CURB & GUTTER TRANSITION SECTION

ORIGINAL BY: T.S.SPELL DATE: MARCH 3,2000
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DS174:/usr/details/stand/cgtransit.dgn

Kimley»Horn ©2025
200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2C-9

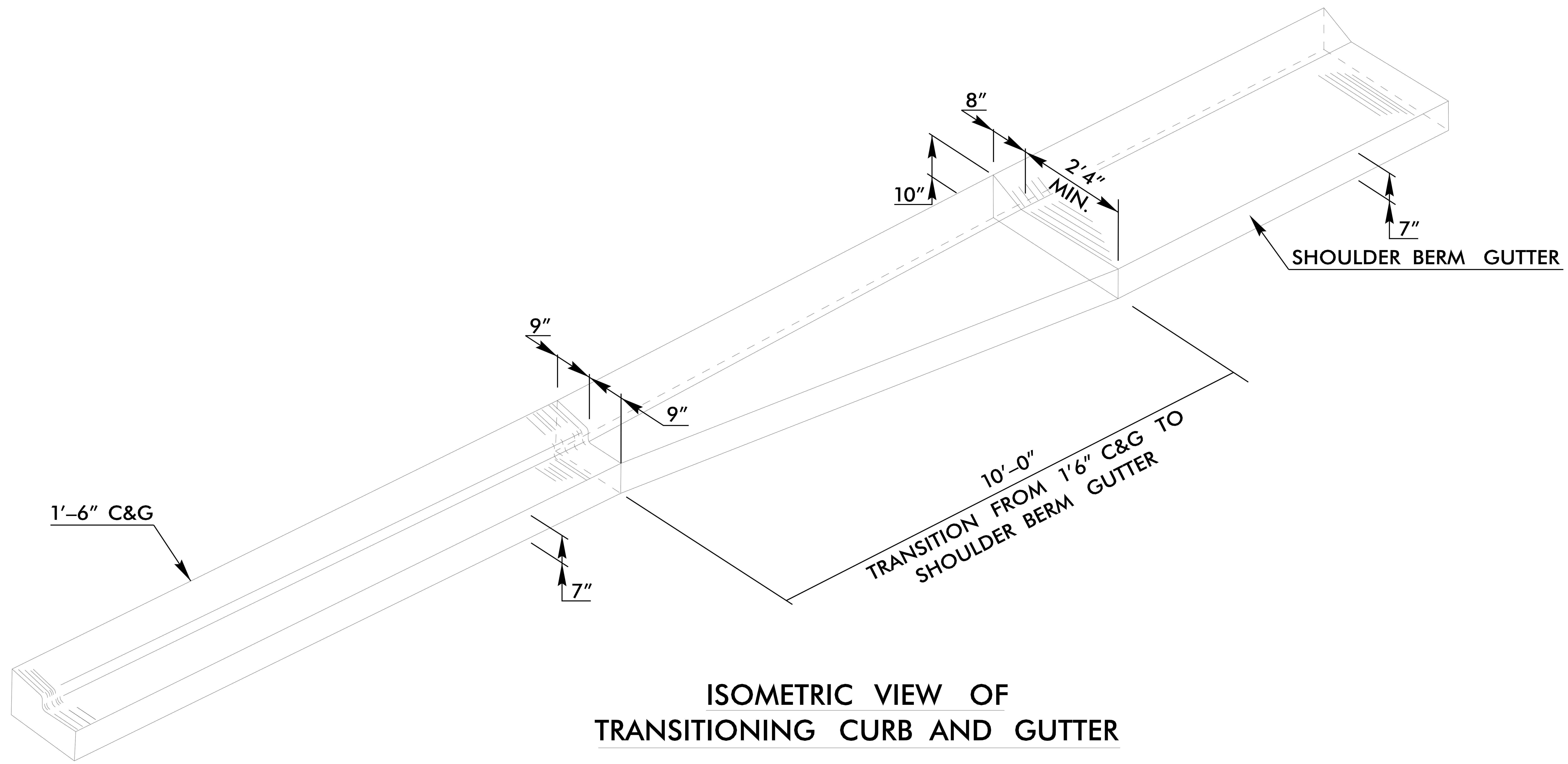
ROADWAY DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF TRANSITIONING CURB AND GUTTER

K:\CHL_PRJ\011036528 – U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_psh_2C-1.dgn

10/24/2025

DETAIL OF 1'-6" CURB & GUTTER TO SHOULDER BERM GUTTER TRANSITION SECTION

Docusign Envelope ID: B7758B81-8F28-4039-9827-A0AA3044BDC2

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-6105	2D-1

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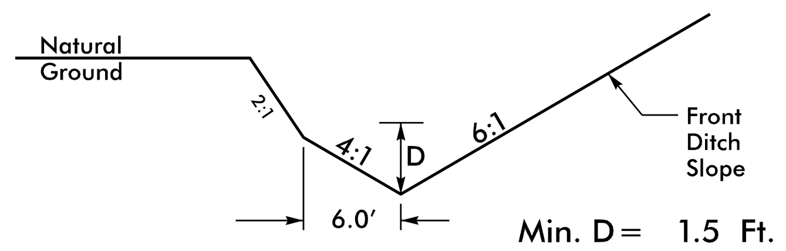
RIGHT-OF-WAY REV.
CONST. REV.

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

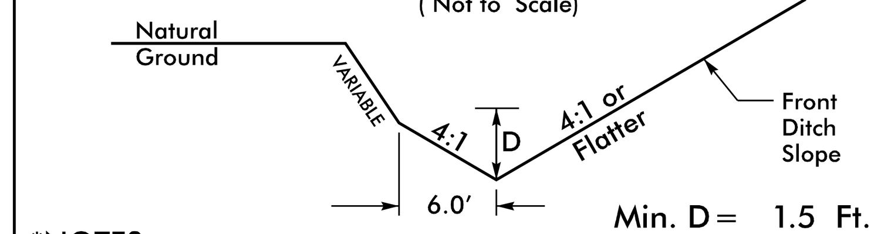
REVISIONS

DETAIL 1
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



FROM STA. 14+50 TO STA. 15+81 -L- (LT)

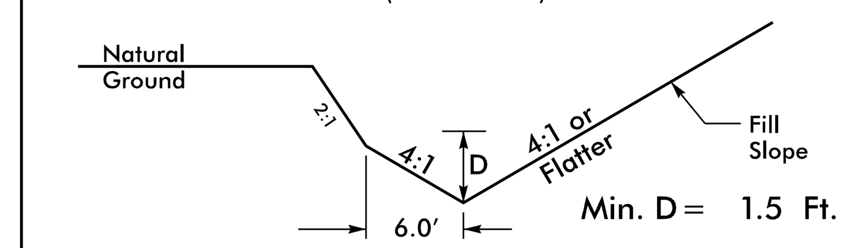
DETAIL 2
SPECIAL CUT GRASS SWALE w/HINGE
(Not to Scale)



*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

FROM STA. 14+00 TO STA. 14+50 -L- (LT)
FROM STA. 14+00 TO STA. 16+60 -L- (RT)
FROM STA. 17+00 TO STA. 17+50 -L- (LT)

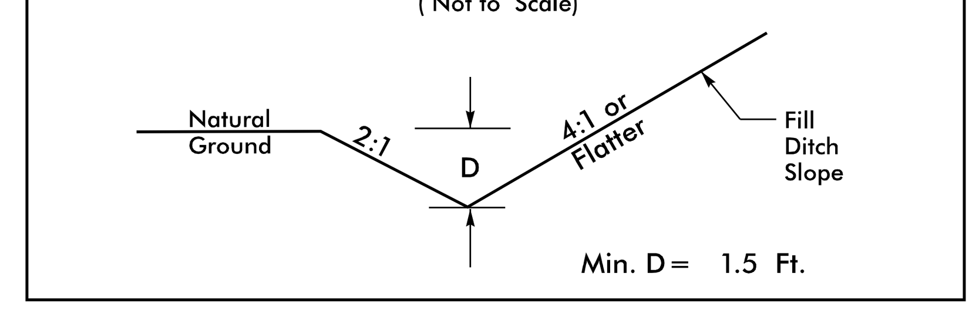
DETAIL 3
SPECIAL LATERAL 'V' GRASS SWALE w/HINGE
(Not to Scale)



*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

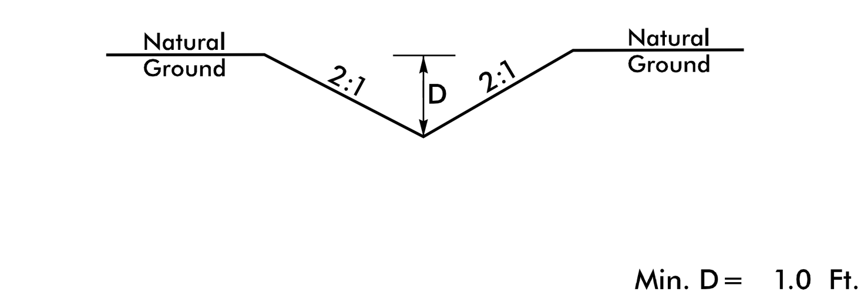
FROM STA. 15+81 TO STA. 17+00 -L- (LT)

DETAIL 4
SPECIAL 'V' DITCH
(Not to Scale)



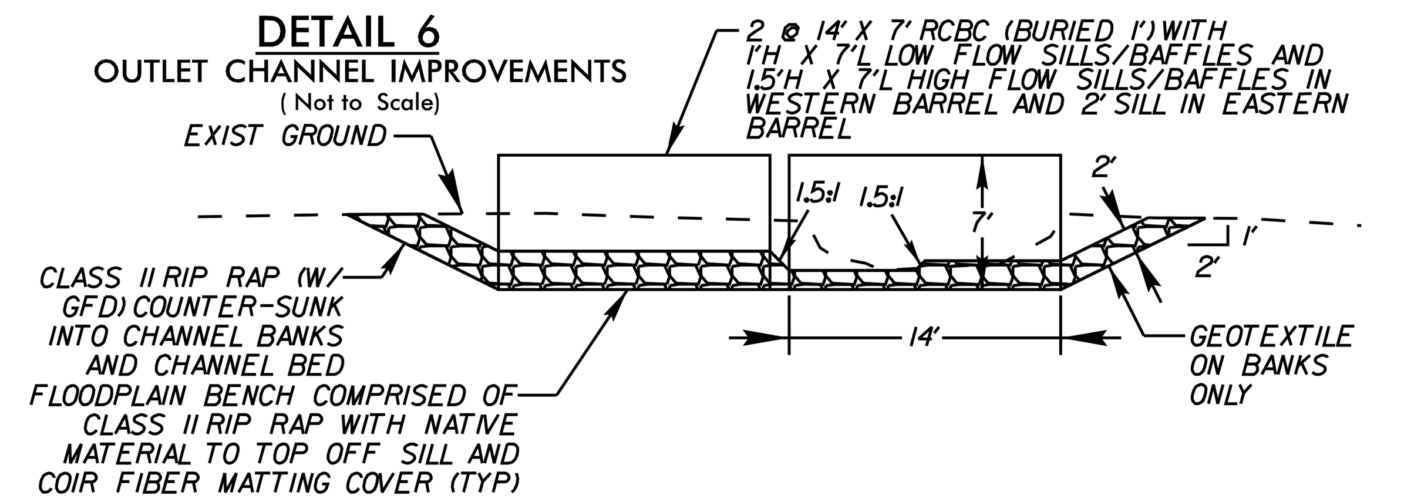
FROM STA. 13+38 TO STA. 14+00 -L- (LT)
FROM STA. 13+25 TO STA. 14+00 -L- (RT)
FROM STA. 10+19 TO STA. 12+00 -G2- (RT)
FROM STA. 29+50 TO STA. 30+87 -L- (LT)
FROM STA. 30+87 TO STA. 32+50 -L- (LT)
FROM STA. 11+50 TO STA. 13+00 -Y2- (LT)
FROM STA. 11+32 TO STA. 11+92 -Y2- (RT)
FROM STA. 12+50 TO STA. 13+00 -Y2- (RT)

DETAIL 5
STANDARD 'V' DITCH
(Not to Scale)



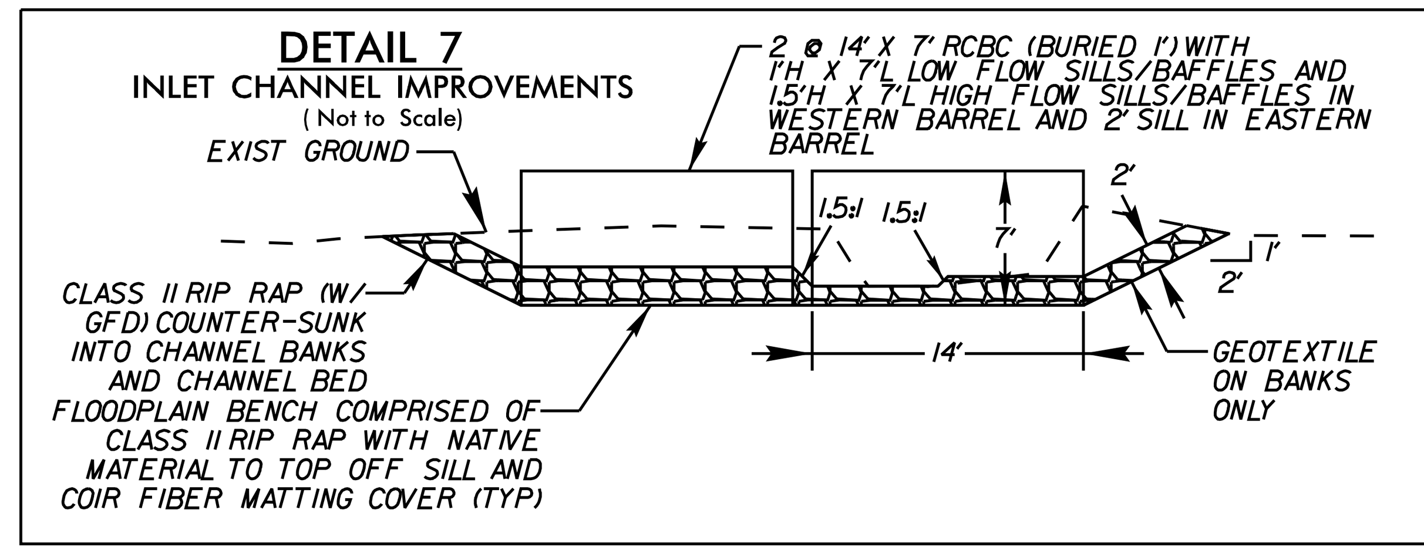
FROM STA. 21+10 TO STA. 21+57 -L- (RT)

DETAIL 6
OUTLET CHANNEL IMPROVEMENTS
(Not to Scale)



STA. 21+67 -L- (RT)

DETAIL 7
INLET CHANNEL IMPROVEMENTS
(Not to Scale)



STA. 22+39 -L- (LT)

DETAIL 8
(NOT TO SCALE)

SKEWED MULTI-BARREL CULVERT LOW FLOW CHANNEL, SILLS AND FLOOD PLAIN

*NOTES:

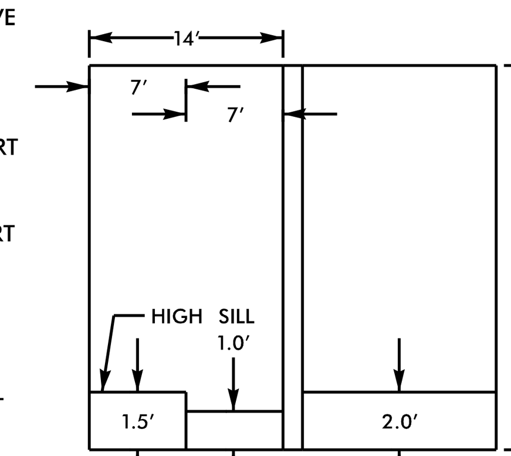
1) NATIVE MATERIAL BETWEEN SILLS/BAFFLES IN THE CULVERT SHALL PROVIDE A CONTINUOUS LOW FLOW CHANNEL. NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE THE STREAM OR FLOODPLAIN AT THE PROJECT SITE DURING CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAM BED MAY BE USED TO LINE THE LOW FLOW CULVERT BARREL. RIP-RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARREL(S). IF RIP-RAP IS USED TO LINE THE HIGH FLOW CULVERT BARREL(S), NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

2) SILLS/BAFFLES ARE TO BE 1.0 FT. WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.

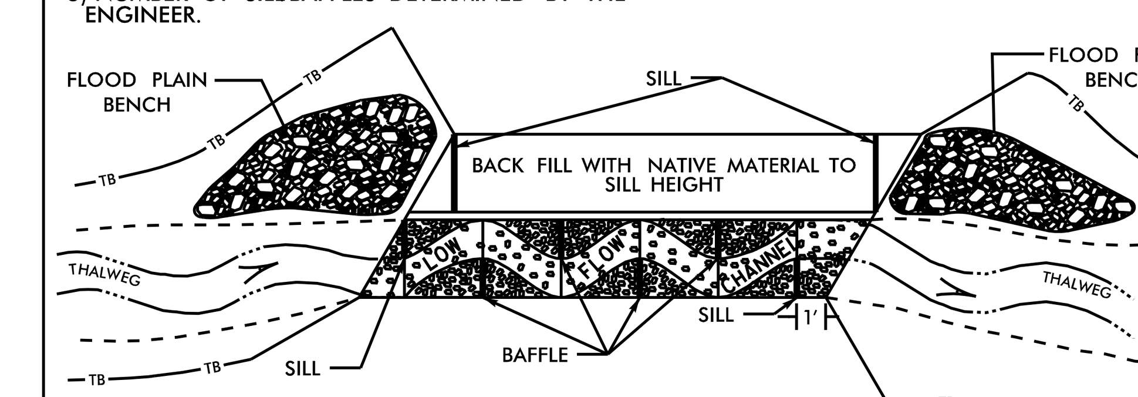
3) TOP OF LOW FLOW SILLS/BAFFLES SHOULD MATCH STREAM BED ELEVATION IN LOW FLOW CHANNEL OF STREAM. (THALWEG)

4) DO NOT SET ELEVATION OF HIGH SILL/BAFFLES ABOVE BANK FULL.

5) NUMBER OF SILL/BAFFLES DETERMINED BY THE ENGINEER.



SILLS AT INLET AND OUTLET



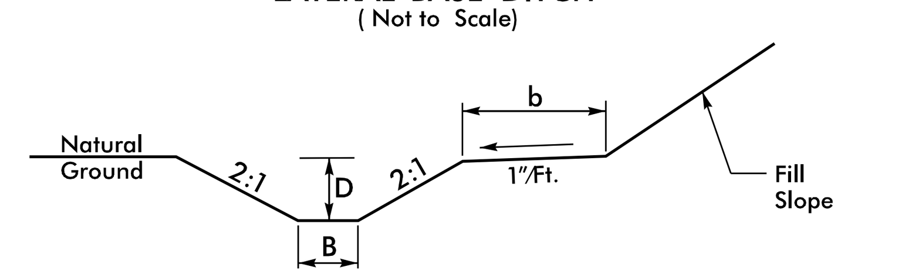
NUMBER OF BAFFLES = 4 ON 25 FT CENTERS FROM DOWNSTREAM SILL

PLAN VIEW

913

STA. 22+02 -L-

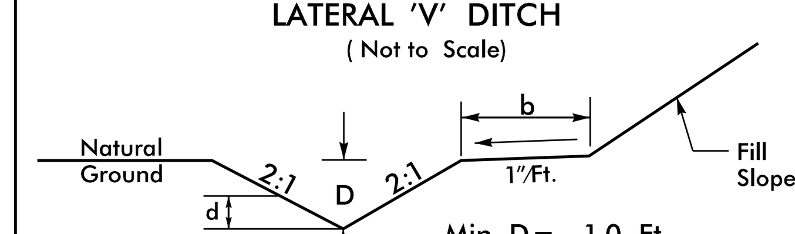
DETAIL 9
LATERAL BASE DITCH
(Not to Scale)



Min. D = 2.0 Ft.
B = 3.0 Ft.
b = 5.0 Ft.

FROM STA. 10+50 TO STA. 12+33 -L- (LT)

DETAIL 10
LATERAL 'V' DITCH
(Not to Scale)

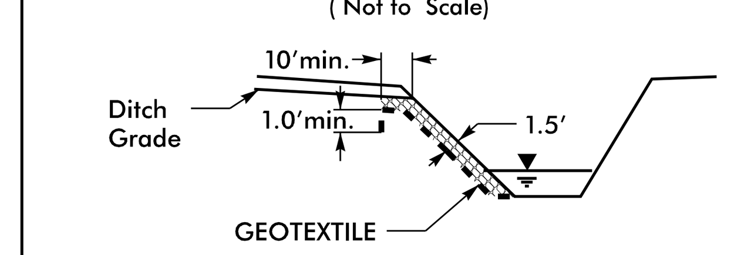


Type of Liner = PSRM

Min. D = 1.0 Ft.
d = 1.0 Ft.
b = 5.0 Ft.

FROM STA. 10+50 TO STA. 12+30 -L- (RT)
FROM STA. 12+37 TO STA. 13+25 -L- (RT)
FROM STA. 12+48 TO STA. 13+38 -L- (LT)

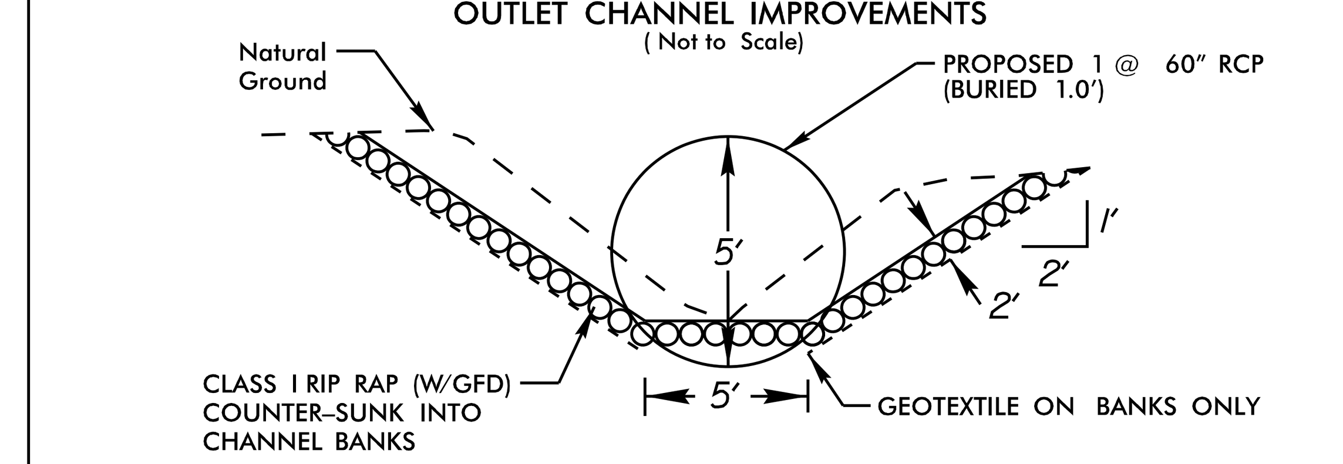
DETAIL 11
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = Class I Rip-Rap

STA. 12+33 -L- (LT)
STA. 12+48 -L- (LT)

DETAIL 12
OUTLET CHANNEL IMPROVEMENTS
(Not to Scale)



STA. 12+37 -L- (RT)

10/24/2025

COMPUTED BY: CLM DATE: 4/02/2025
CHECKED BY: JDL DATE: 4/02/2025

PROJECT REFERENCE NO.	SHEET NO.
U-6105	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT	BORROW	WASTE
PHASE 1						
-L-	10+09.45 TO 27+57.57	3314	2600	68388	65074	2600
-L-	29+09.92 TO 29+98.47	9		10	1	0
-Y2 LT-	10+65.02 TO 12+59.08	96		260	164	0
-Y2 RT-	10+65.02 TO 11+82.09	8		40	32	0
-Y3 LT-	10+00.00 TO 12+11.08	54	150	98	44	150
-Y3 RT-	10+57.02 TO 12+11.08	8	150	21	13	150
-G1-	10+00.00 TO 11+02.39	28		2	0	26
-G1-	11+83.39 TO 13+00.00	51		1	0	50
-G2-	10+05.00 TO 14+12.77	437		841	404	0
-RDBT-	10+00.00 TO 12+95.31	64		1624	1560	0
SUMMARY (PHASE 1)		4069	2900	71285	67292	2976
PHASE 2						
-L- LT	28+87.69 TO 34+50.00	348		263	0	85
-Y2- LT	12+59.08 TO 13+01.80	18		2	0	16
-Y2- RT	10+65.02 TO 13+01.80	62		51	0	11
-Y3- RT	10+00.00 TO 12+11.08	23		89	66	0
-Y4-	10+13.58 TO 10+85.00	35		55	20	0
SUMMARY (PHASE 2)		486	0	460	86	112
PHASE 3						
-L- RT	28+87.69 TO 34+50.00	172		531	359	0
SUMMARY (PHASE 3)		172	0	531	359	0
SUMMARY (PHASE1, PHASE2,PHASE3 AND PHASE4)		4727	2900	72276	67737	3088
MATERIAL FOR SHOULDER CONSTRUCTION				610	610	
UNDERCUT - CONTINGENCY			1150	1323	1323	1150
LOSS DUE TO CLEARING AND GRUBBING		-1140			1140	
PROJECT TOTAL		3587	4050	74209	70810	4238
EST 5% FOR REPLACING TOPSOIL ON BORROW PITS					3541	
GRAND TOTALS		3587	4050	74209	74351	4238
SAY		3600			74400	

***Unclassified excavation-acceptable, but not within the top 3 FT of embankment. 2,050 CY (-L- 13+90 to 15+25, -L- 28+90 to 34+25, -Y3-10+25 to 11+40 and -Y4- 10+18 to 10+85)**

EST. SHALLOW UNDERCUT	200 CY
EST. SHALLOW UNDERCUT BY STATIONS	1030 CY
TOTAL SHALLOW UNDERCUT	1230 CY

NOTE: EARTHWORK QUANTITES ARE CALCULATED BY KIMLEY-HORN. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE ESP ASSOCIATES, INC.

K:\CHL_PRJ\0I\036528 - U-6105 (Bailey Rd Ext\Roadway\Pro\NU-6105_rdy_sum.dgn
11/20/2025

COMPUTED BY: ACR DATE: 4/02/2025
CHECKED BY: AJS DATE: 4/02/2025

PROJECT REFERENCE NO.	SHEET NO.
U-6105	3B-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF GUARDRAIL

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.

G = GATING IMPACT ATTENUATOR TL-3 OR TL-2
NG = NON-GATING IMPACT ATTENUATOR TL-3 OR TL-2

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS							IMPACT ATTENUATOR		SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	TYPE III	B-77	GREU, TL-3	GREU, TL-2	CAT-1	AT-1	TYPE III SC	B-77 SC	G	NG				
Y1 RT/L RT	11+01.12	13+67.94	RT	375.00	56.00		11+52.00 (Y1)	13+00.00	8.00	11.00	50	25	1	1			1	1									
Y1 RT/L LT	13+50.82	13+93.00	LT	379.00	69.00		13+00.00	13+10.00 (Y1)	8.00	11.00	25	50	1	1			1	1									
L	18+28.50	26+20.00	RT	799.00			19+50.00	25+50.00	2.50	16.50	25	25	1	1				2									
L	19+16.25	26+74.25	LT	648.00			19+50.00	25+50.00	8.00	11.00	25	0	1	0				1	1								
Y1	10+64.00	13+14.00	RT																						250.00		
			SUBTOTAL	2201.00	125.00												2	5	1						250.00		
	LESS ANCHOR DEDUCTIONS																										
	GREU TL-2	5 @ 25'	=	125.00																							
	GREU TL-3	2 @ 50'	=	100.00																							
	C.A.T. - 1	1 @ 6.25'	=	6.25																							
			TOTAL	1969.75	125.00												2	5	1						250.00		
			SAY	1975.00	125.00												2	5	1						275.00		

ADDITIONAL GUARDRAIL POSTS = 10 EA

SUMMARY OF ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-Y2-	10+45	11+23	RT	252
-Y3-	10+62	11+95	RT	98
-L-	30+42	32+32	RT	191
-G1-	11+98	13+00	RT	60
TEMPORARY	PAVEMENT			
-L-	29+10	29+98	RT	24
			TOTAL:	625
			SAY:	630

SUMMARY OF CONCRETE PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-Y3-	10+14	10+48	RT	16
-Y3-	10+56	10+93	RT	26
-Y3-	11+00	11+19	RT	13
-Y3-	11+57	12+00	RT	42
-L-	30+41	30+67	RT	16
			TOTAL:	113
			SAY:	120

SUMMARY OF SHOULDER BERM GUTTER

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH LF
L	19+50.00	25+44.75	LT	596.28
			TOTAL:	596.28
			SAY:	600

SUMMARY OF 2'-6" SPILL CURB

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH LF
L	19+55.00	26+28.20	RT	685.77
			TOTAL:	685.77
			SAY:	690

SUMMARY OF 8" X 18" VERTICAL C&G

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH LF
RDBT	10+00.00	12+95.13	CL	158
			TOTAL:	158
			SAY:	160

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10/24/2025