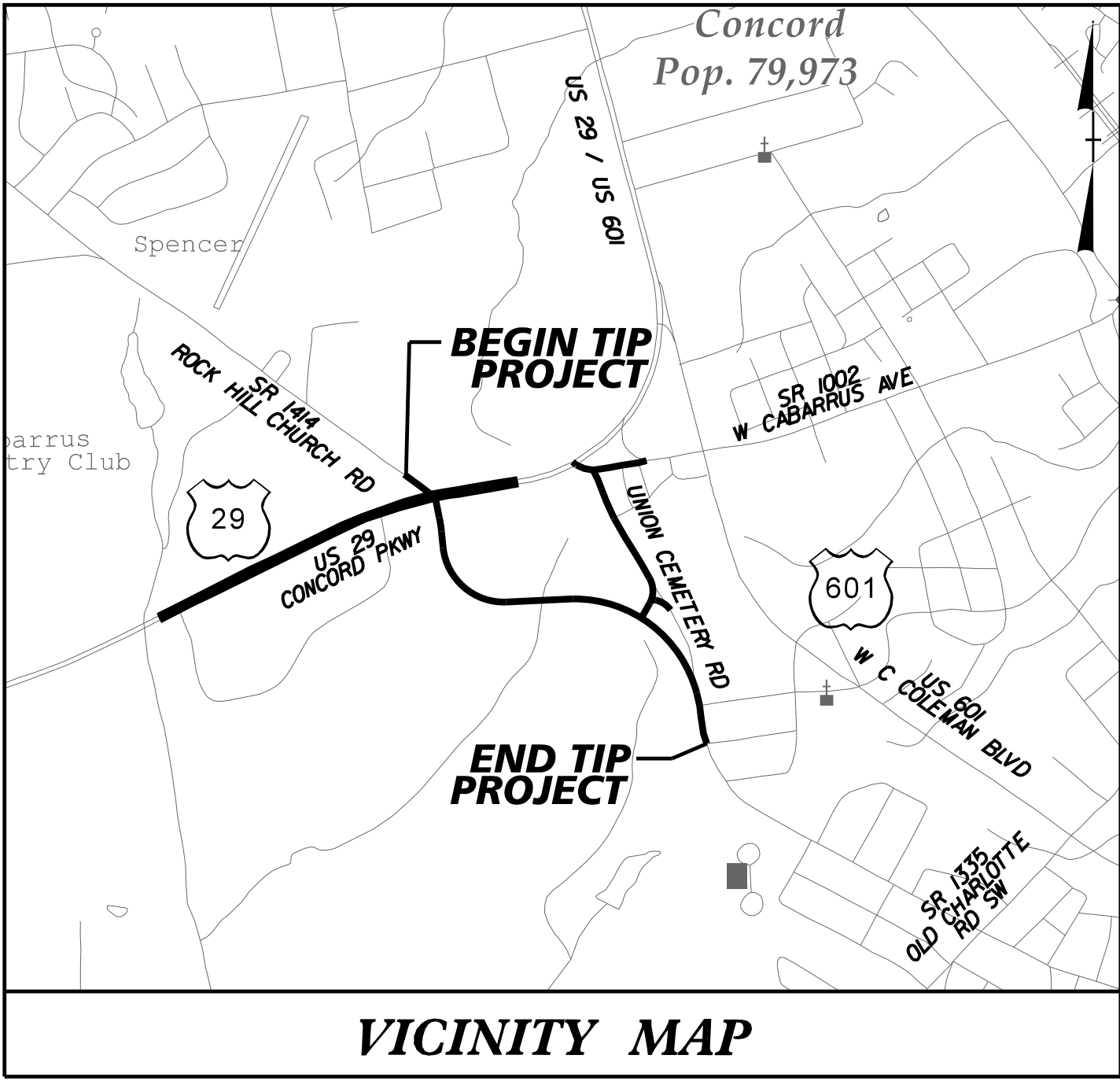


TIP PROJECT: U-5956

CONTRACT: C205117

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



VICINITY MAP

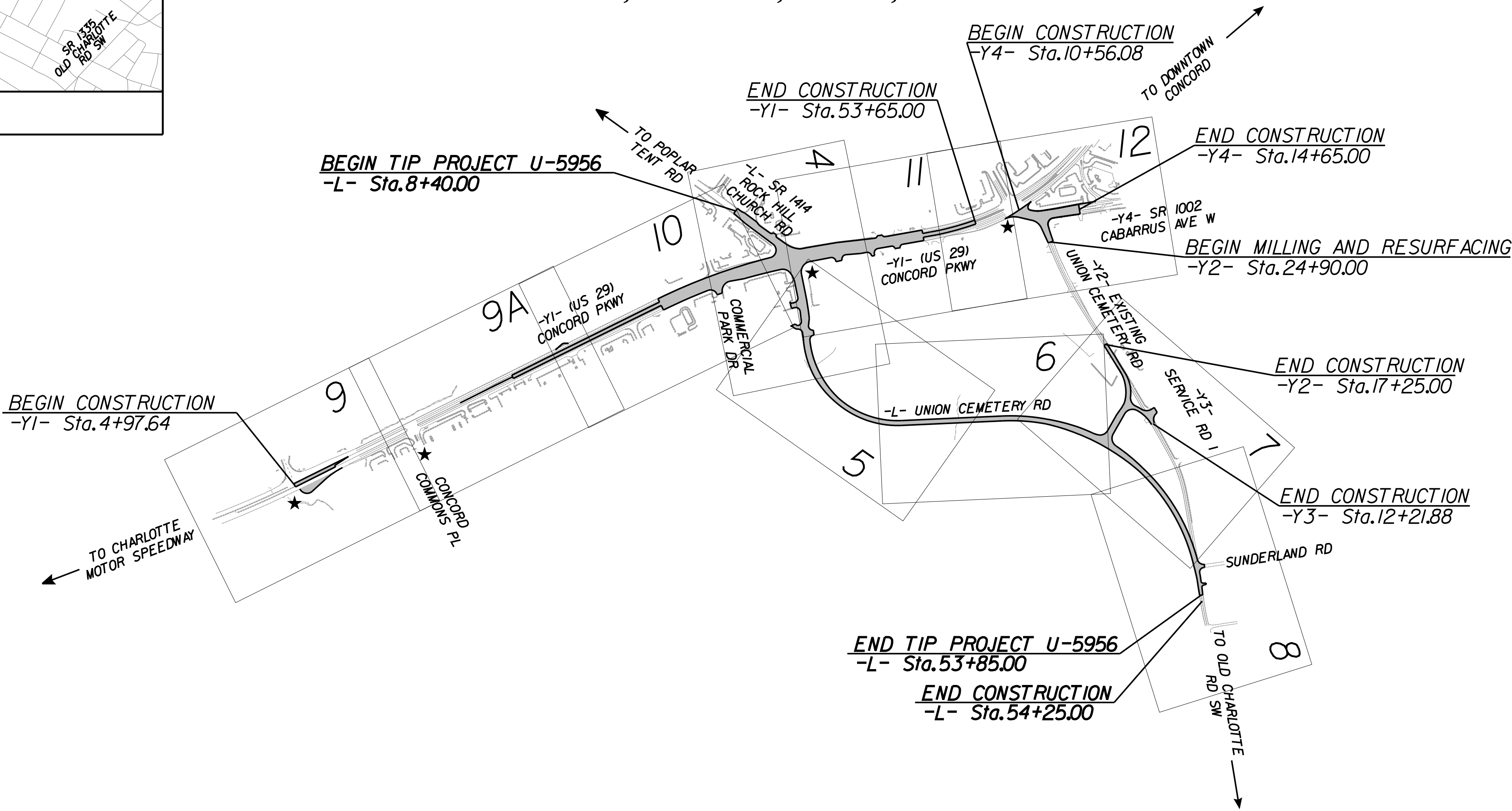
Note: Not to Scale

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CABARRUS COUNTY

LOCATION: US 29, REALIGN UNION CEMETERY ROAD TO INTERSECT US 29 AT SR 1414 (ROCK HILL CHURCH ROAD) AND CONSTRUCT IMPROVEMENTS ALONG US 29 FROM 0.6 MILE WEST OF SR 1414 (ROCK HILL CHURCH ROAD) TO JUST EAST OF SR 1414 (ROCK HILL CHURCH ROAD)

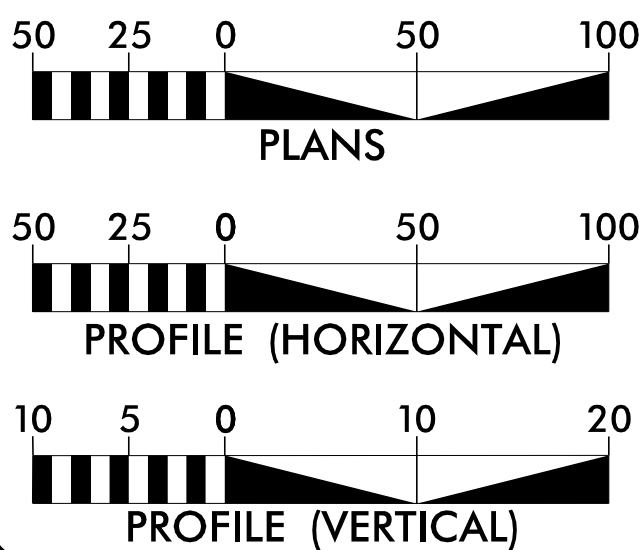
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND SIGNALS



★ TRAFFIC SIGNAL

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF CONCORD.

GRAPHIC SCALES



DESIGN DATA

AADT 2026 = 15,800
AADT 2046 = 19,300
K = 9%
D = 55%
T = 8%*
V = 40 MPH
CLASSIFICATION:
URBAN COLLECTOR
* 1% TTST 7% DUAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT U-5956 = 0.861 MILES
TOTAL LENGTH OF TIP PROJECT U-5956 = 0.861 MILES

PLANS PREPARED FOR THE NCDOT BY:

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 17, 2022

LETTING DATE:
JANUARY 20, 2026

Kimley»Horn

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

JASON D. LAWING, P.E.
PROJECT ENGINEER

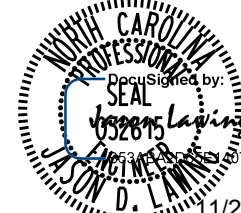
ANDREW J. WEEKS, E.I.
PROJECT DESIGN ENGINEER

TRAVIS PRESLAR, P.E.
PROJECT ENGINEER
NCDOT HIGHWAY DIVISION 10

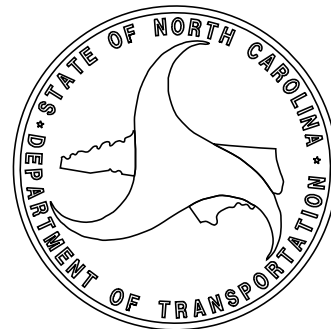
HYDRAULICS ENGINEER



SIGNATURE:
ROADWAY DESIGN ENGINEER



SIGNATURE:
P.E.



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5956	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46891.1.1	N/A	PE	
46891.2.1	N/A	ROW	
46891.2.2	N/A	UTILITIES	
46891.3.1	N/A	CONST	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

REVISIONS	

K:\CHL_PR\101036427 - U-5956 (Union Cemetery)\Roadway\Proj\U-5956_rdy_1stdgn

11/4/2025

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

Kimley»Horn

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

RIGHT-OF-WAY REV.

CONST. REV.

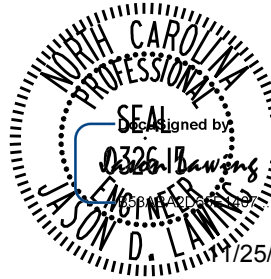
PROJECT REFERENCE NO.

U-5956

SHEET NO.

1A

ROADWAY DESIGN
ENGINEER



INDEX OF SHEETS

SHEET NUMBER	SHEET
I	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, LIST OF ROADWAY STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS SHEET
2A-1 THRU 2A-12	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND MISCELLANEOUS DETAILS
2B-1	INTERSECTION DETAIL SHEET
2C-1 THRU 2C-11	DETAIL SHEETS
2D-1	DRAINAGE DETAIL SHEET
3B-1 THRU 3B-2	ROADWAY SUMMARIES
3D-1 THRU 3D-5	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 12-RW	PLAN SHEETS
13 THRU 20	PROFILE SHEETS
RW1 THRU RW12	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-18	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-11	PAVEMENT MARKING PLANS
EC-1 THRU EC-21	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-20	SIGNING PLAN SHEETS
SIG-1.0 THRU SIG-7.2	SIGNAL PLANS
SCP-1 THRU SCP-4	SIGNAL COMMUNICATION PLANS
UC-1 THRU UC-15	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-10	UTILITIES BY OTHERS
X-1	CROSS-SECTION INDEX
X-1A THRU X-1B	CROSS-SECTION SUMMARY
X-2 THRU X-50	CROSS-SECTIONS

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 11.

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 RADIUS 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 RADIUS 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 MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE:

POWER - DUKE ENERGY (TRANSMISSION)
POWER - DUKE ENERGY (DISTRIBUTION)
POWER - CITY OF CONCORD (DISTRIBUTION)
COMM - WINDSTREAM
COMM - CENTURYLINK
COMM - SEGRA (SPIRIT)
COMM - SPECTRUM
COMM - VERIZON
COMM - AT&T (DISTRIBUTION)
COMM - GOOGLE
GAS - DOMINION ENERGY (DISTRIBUTION)

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

RIGHT-OF-WAY MARKERS:

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

CURB RAMPS

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

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

200.02 Method of Clearing - Method 11
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 1

DIVISION 6 - ASPHALT BASES AND PAVEMENTS

654.01 Pavement Repairs

DIVISION 8 - INCIDENTALS

806.01 Concrete Right-of-Way Marker
806.02 Granite Right-of-Way Marker
815.02 Subsurface Drain
838.01 Concrete Endwall for Single and Double Pipe Culverts - 15' thru 48" Pipe 90 Skew
838.11 Brick Endwall for Single and Double Pipe Culverts - 15' thru 48" 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
840.14 Concrete Drop Inlet - 12" thru 30" Pipe
840.15 Brick Drop Inlet - 12" thru 30" Pipe
840.16 Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17 Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.18 Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.24 Frames and Narrow Slot Sag Grates
840.25 Anchorage for Frames - Brick or Concrete or Precast
840.26 Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27 Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
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
840.34 Traffic Bearing Junction Box - for Use with Pipes 42" and Under
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
840.71 Concrete and Brick Pipe Plug
840.72 Pipe Collar
846.01 Concrete Curb, Gutter and Curb & Gutter
848.01 Concrete Sidewalk
848.02 Driveway Turnout - Radius Type
848.04 Street Turnout
848.06 Curb Ramp
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
876.04 Drainage Ditches with Class 'B' Rip Rap

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	

Kimley»Horn

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

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.
U-5956

SHEET NO.
2A-1

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

SEAL

DESIGNED BY
D. L. LAMM

CHECKED BY
D. L. LAMM

11/25/2025

SEAL

DESIGNED BY
D. L. LAMM

CHECKED BY
D. L. LAMM

11/25/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROPOSED APPROX 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S95C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROPOSED APPROX 3" ASPHALT CONCRETE SURFACE COURSE TYPE S95C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S95C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1.5" OR GREATER THAN 2" IN DEPTH.
D1	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I190C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I190C, 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. 3" ASPHALT CONCRETE BASE COURSE TYPE B250C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B250C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B250C, 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.
J1	PROPOSED 6" AGGREGATE BASE COURSE
J2	PROPOSED 8" AGGREGATE BASE COURSE
K1	PROPOSED CHEMICAL STABILIZATION, USE LIME STABILIZATION (METHOD-SLURRY) FOR 50% OF PROJECT AT A RATE OF 24 LBS. PER SQ. YD. AT 8" DEPTH OR CEMENT STABILIZATION FOR 50% OF PROJECT AT A RATE OF 56 LBS. PER SQ. YD. AT 7" DEPTH.
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 8" X 12" CONCRETE CURB
R3	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	PROPOSED 2'-6" CONCRETE SPILL CURB & GUTTER (SEE DETAIL 2C-1)
R5	PROPOSED 2'-0" CONCRETE CURB & GUTTER (SEE DETAIL 2C-9)
S	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 1.5" DEPTH
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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. 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. REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION.
6. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7. SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB, 2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

TYPICAL SECTION NO. 1

-L- STA 8+40.00 TO STA 12+82.45
*SEE PLAN VIEW & CROSS SECTIONS FOR LOCATIONS WHERE EXISTING CURB AND GUTTER WILL BE RETAINED

TYPICAL SECTION NO. 1A

-L- STA 9+96.90 TO 11+49.01

TYPICAL SECTION NO. 2

-L- STA 13+79.18 TO STA 14+00.00

MINIMUM SAWCUT DIMENSIONS

METHOD OF WEDGING

INCIDENTAL MILLING DETAIL

K:\CHL_PROJ\01036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/25/2025

Kimley»Horn

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

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-5956

SHEET NO.

2A-2

ROADWAY DESIGN
ENGINEER



PAVEMENT DESIGN
ENGINEER



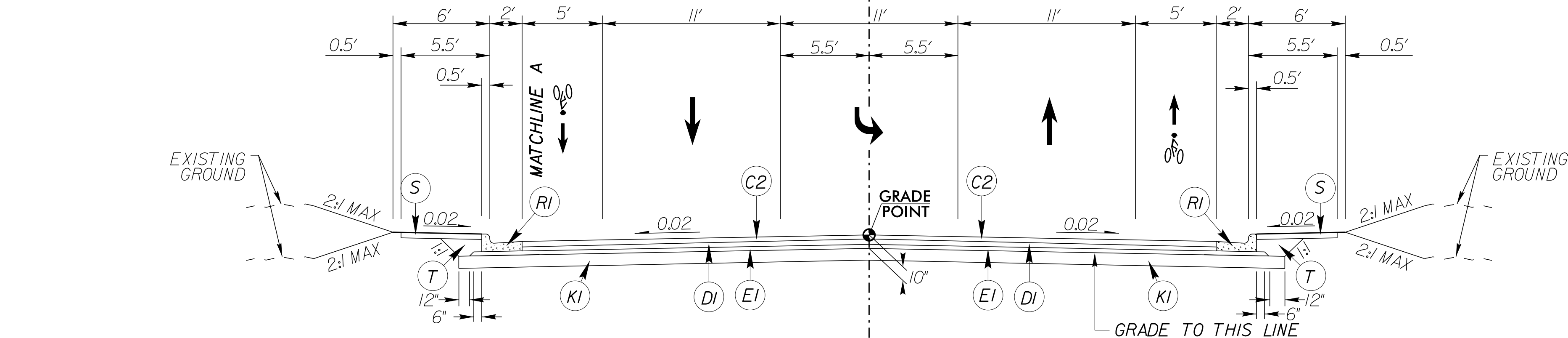
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

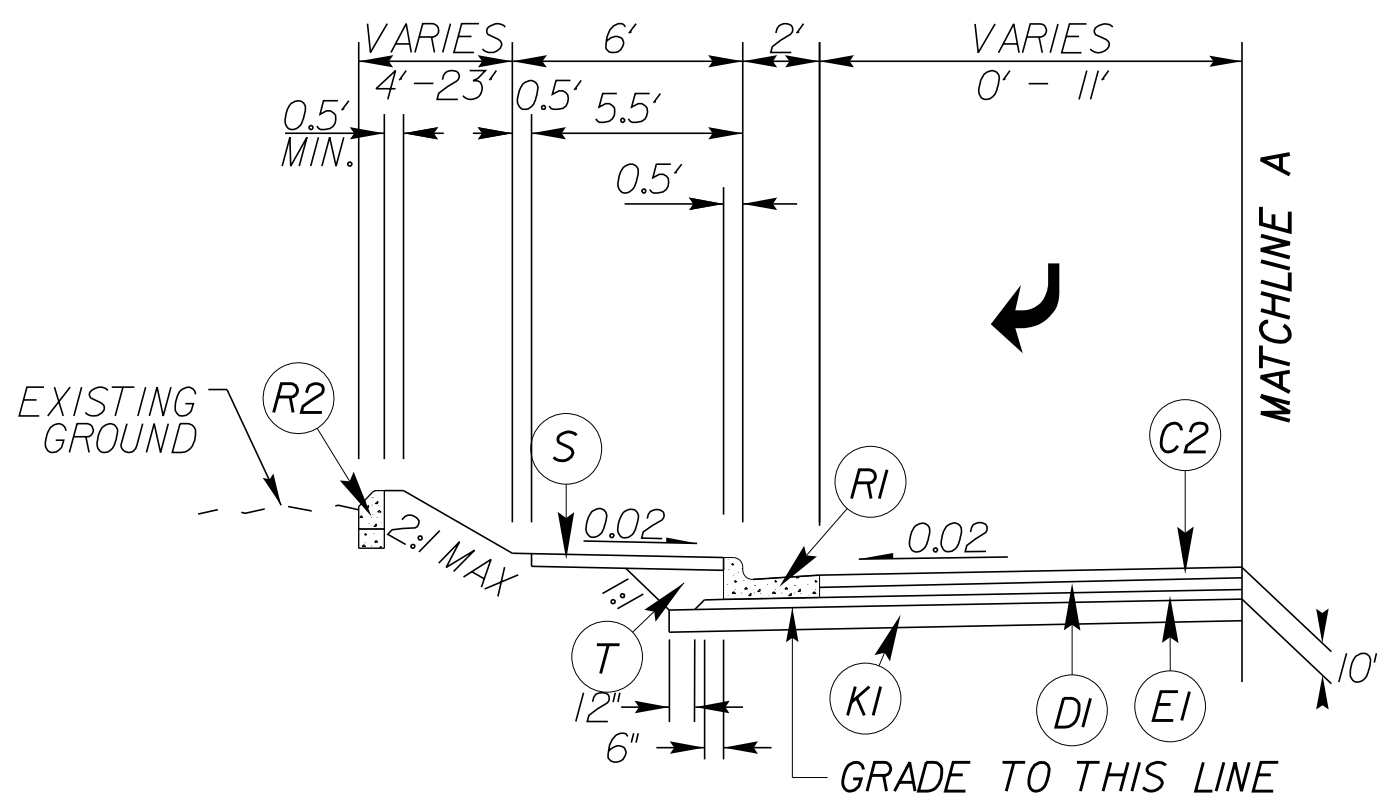
-L- UNION CEMETERY ROAD



TYPICAL SECTION NO. 3

-L- STA 14+00.00 TO STA 21+11.00

NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB
AND GUTTER DETAIL ON SHEET 2A-3



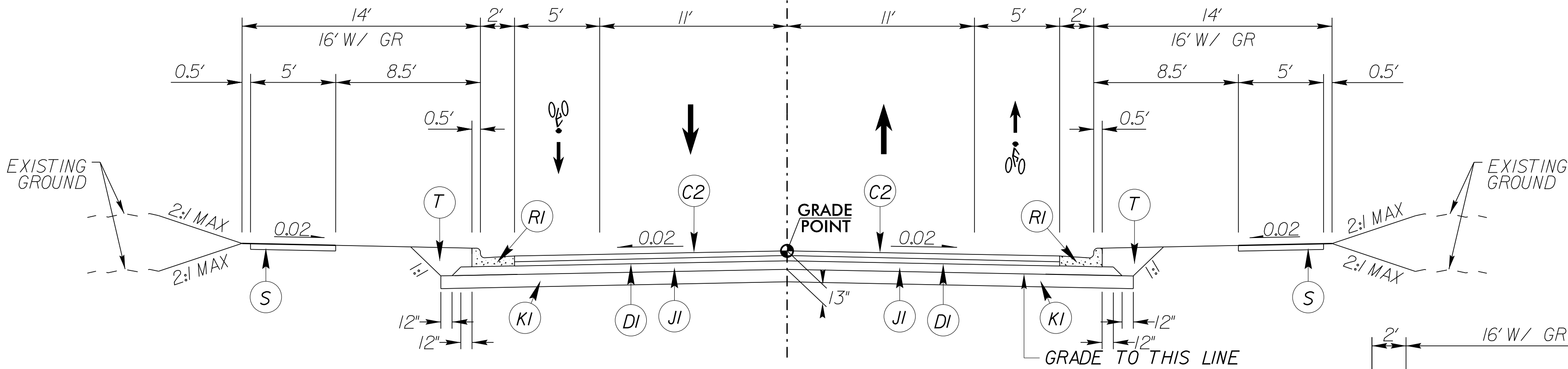
TYPICAL SECTION NO. 3A

-L- STA 14+10.00 TO STA 17+75.00

-L- STA 18+77.00 TO STA 19+20.00

NOTE: REFER TO 8" X 12" CONCRETE CURB AND GUTTER (R2)
SUMMARY ON SHEET 3B-2 FOR LOCATIONS

-L- UNION CEMETERY ROAD

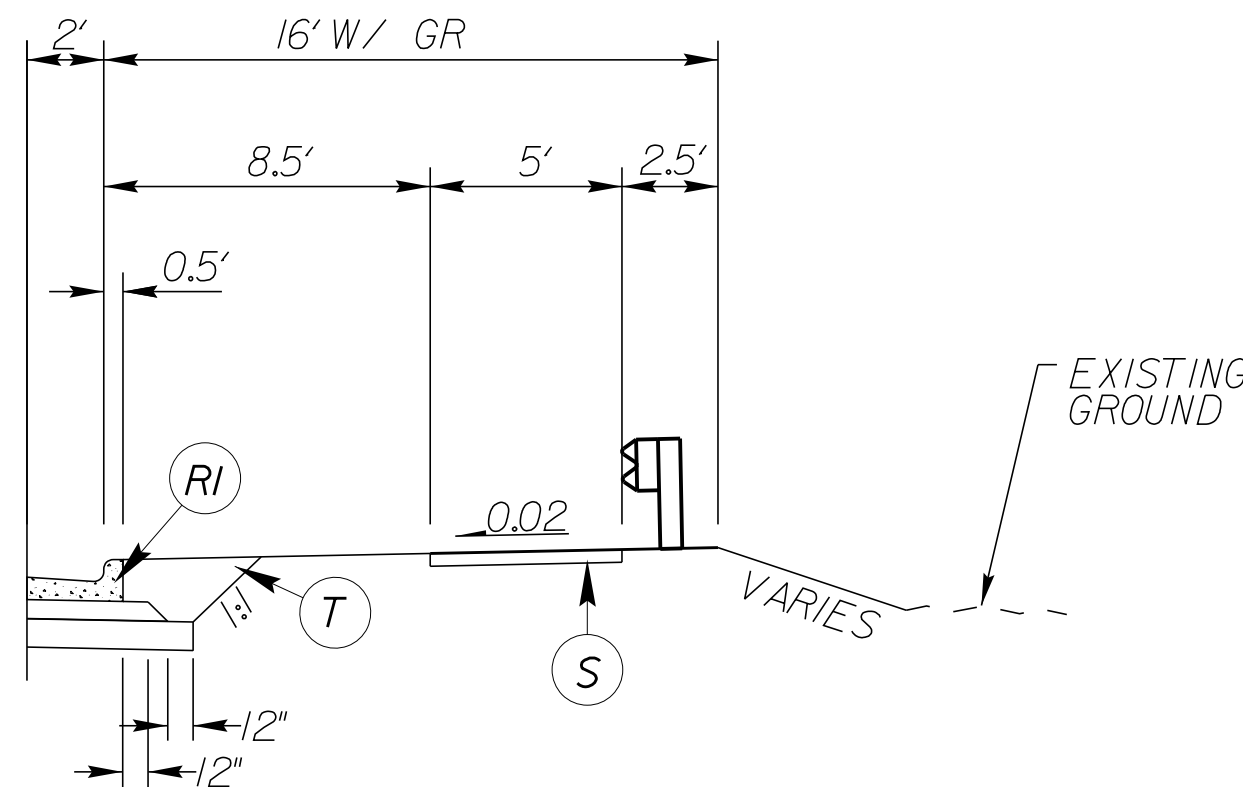


TYPICAL SECTION NO. 4

-L- STA 21+11.00 TO STA 31+25.00

-L- STA 32+50.00 TO STA 49+00.00

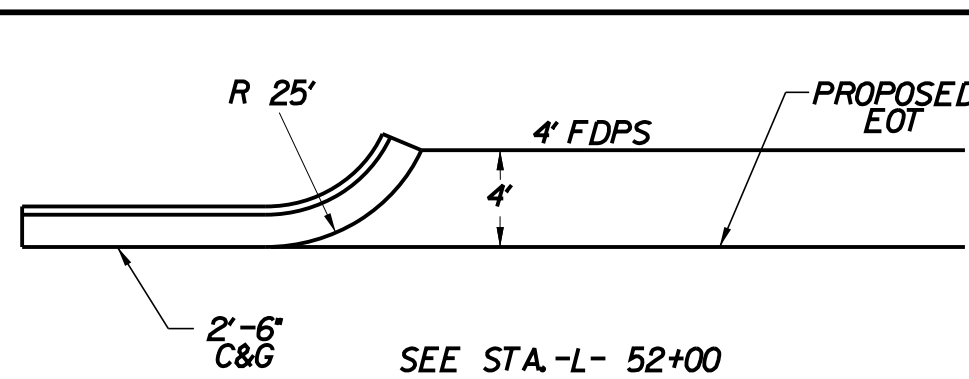
NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB
AND GUTTER DETAIL ON SHEET 2A-3



DETAIL FOR -L- 16' BERM WITH GUARDRAIL

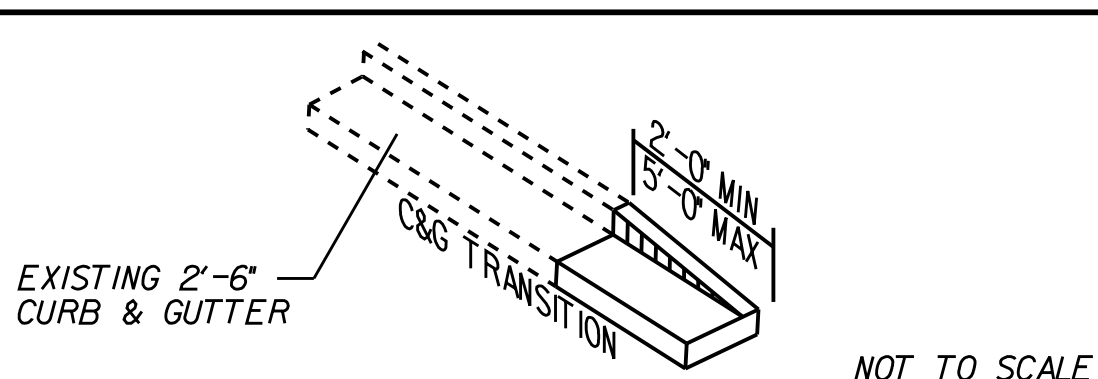
-L- RT STA 30+64.56 TO STA 32+71.44

-L- LT STA 30+16.56 TO STA 32+73.44



CURB RETURN DETAIL

SEE STA -L- 52+00



CURB & GUTTER TRANSITION

NOT TO SCALE

REVISIONS

K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

Kimley»Horn

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

RIGHT-OF-WAY REV.

CONST. REV.

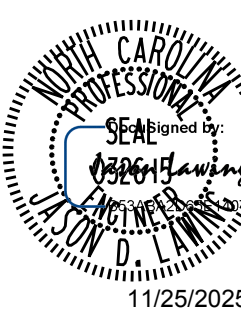
PROJECT REFERENCE NO.

U-5956

SHEET NO.

2A-3

ROADWAY DESIGN
ENGINEER



PAVEMENT DESIGN
ENGINEER

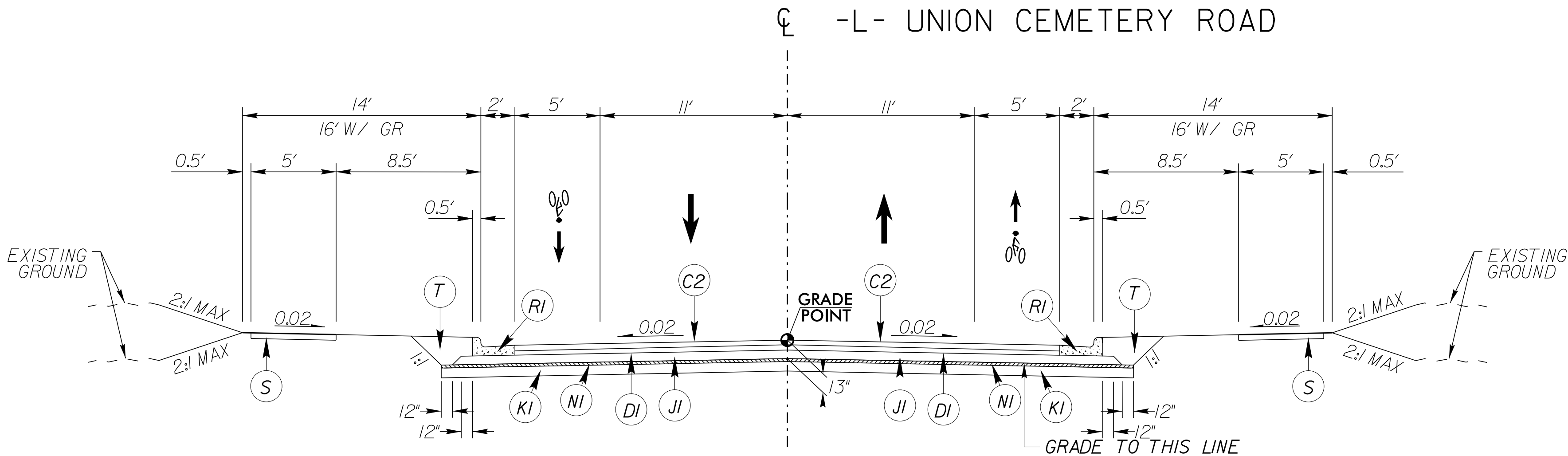


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

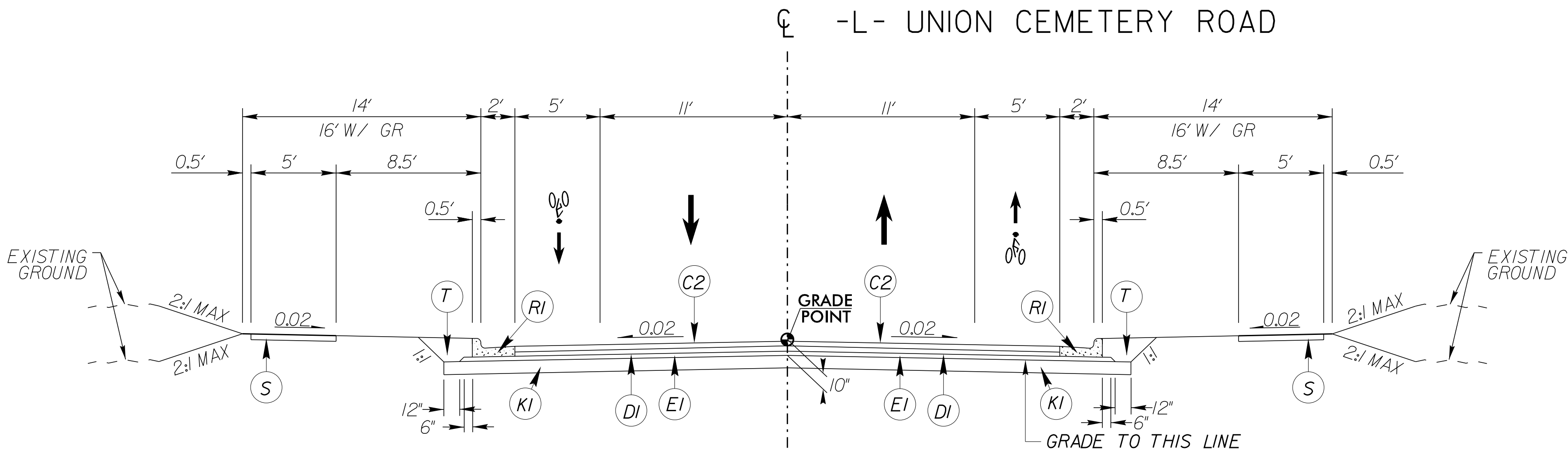
C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
NI	GEOTEXTILE FOR SUBGRADE STABILIZATION
RI	2'-6" CONCRETE CURB & GUTTER
R2	8' X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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. 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. REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7. SUMMARIES WITH LOCATIONS FOR 8' X 12" CONCRETE CURB, 2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.



TYPICAL SECTION NO. 5

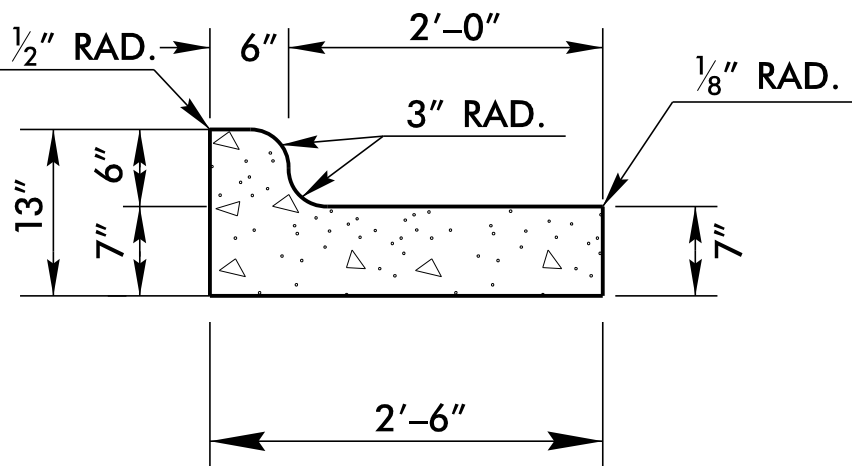
-L- STA 31+25.00 TO STA 32+50.00



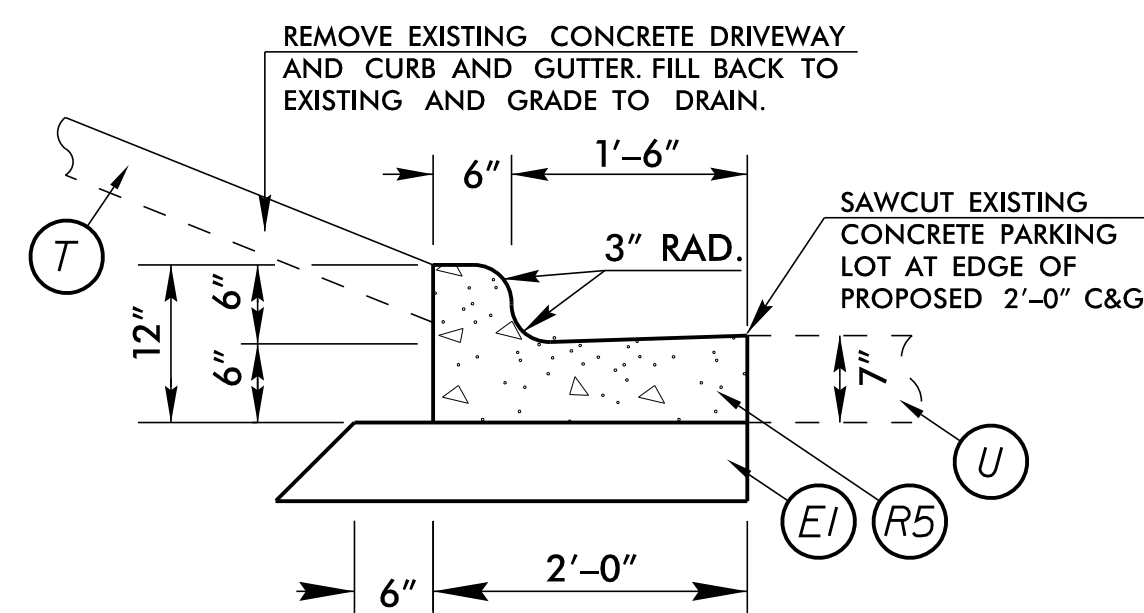
TYPICAL SECTION NO. 6

-L- STA 49+00.00 TO STA 51+75.00

NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB AND GUTTER DETAIL ON SHEET 2A-3



R4 MODIFIED 2'-6" CONCRETE SPILL CURB & GUTTER
-L- STA. 14+75.17 TO 18+03.00 LT
-L- STA. 21+11.00 TO 28+64.00 RT
-L- STA. 33+97.00 TO 41+17.53 LT
-L- STA. 42+22.85 TO 51+92.95 LT
-Y2- STA. 13+04.46 TO 15+54.00 RT



R5 2'-0" CONCRETE CURB & GUTTER DETAIL
-L- STA. 14+75.81 TO 15+18.53 RT

REVISIONS

K:\CHL_PROJ\01036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

REVISIONS

K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

Kimley»Horn

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

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-5956

SHEET NO.

2A-4

ROADWAY DESIGN
ENGINEER



PAVEMENT DESIGN
ENGINEER



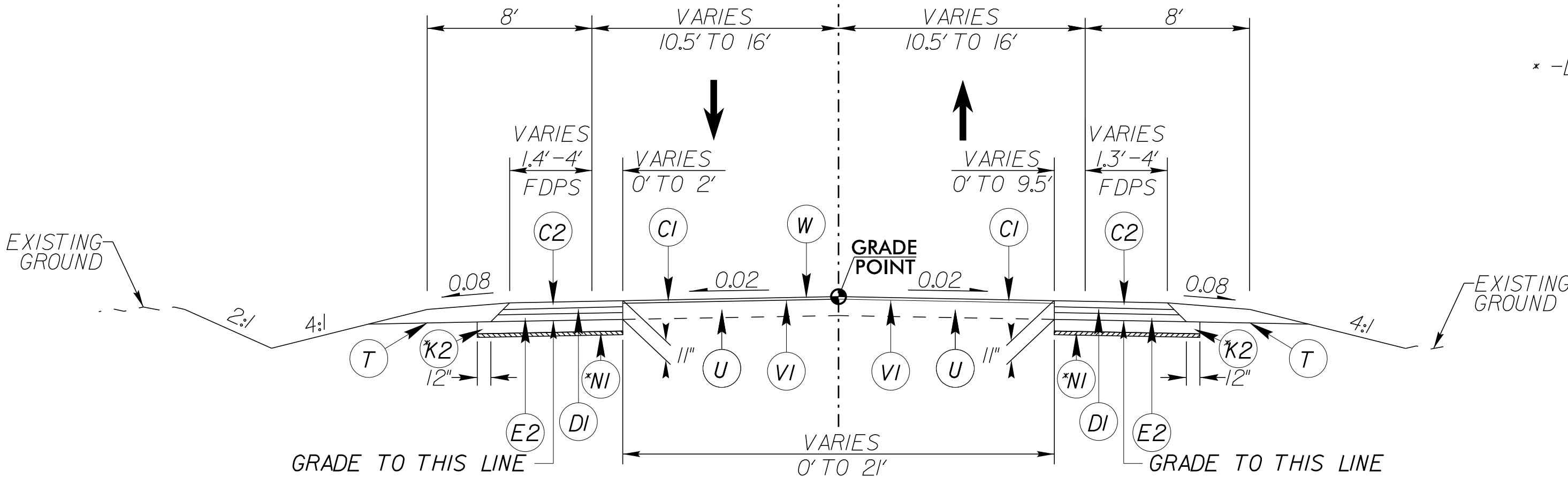
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8' X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4' CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8' X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

-L- UNION CEMETERY ROAD



TYPICAL SECTION NO. 7

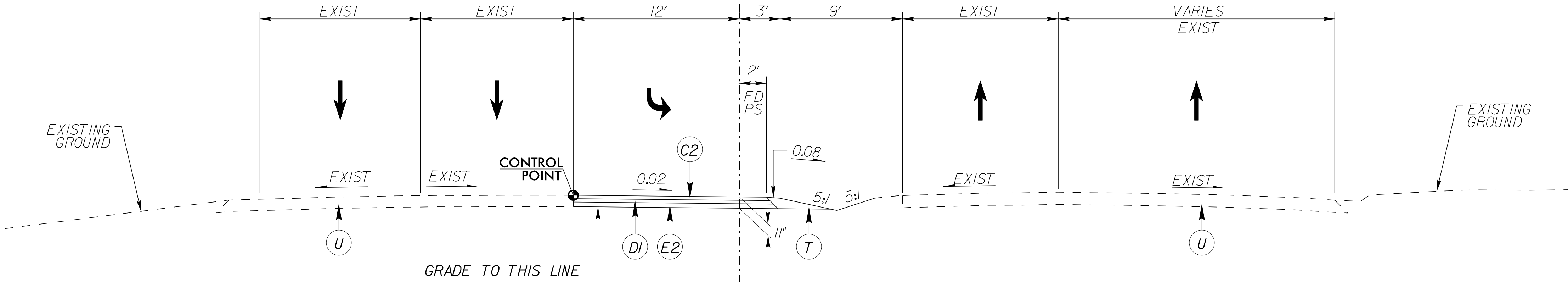
-L- STA 51+75.00 TO STA 53+85.00

NOTE:FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT
REQUIRED FROM -L- STA 51+75.00 TO STA 52+00.00

NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB
AND GUTTER DETAIL ON SHEET 2A-3

* -L- STA 51+75.00 TO STA 53+75.00

-YI- US 29 (CONCORD PARKWAY)



TYPICAL SECTION NO. 8

-YI- STA 17+50.00 TO STA 21+35.00

Kimley»Horn

© 2025

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

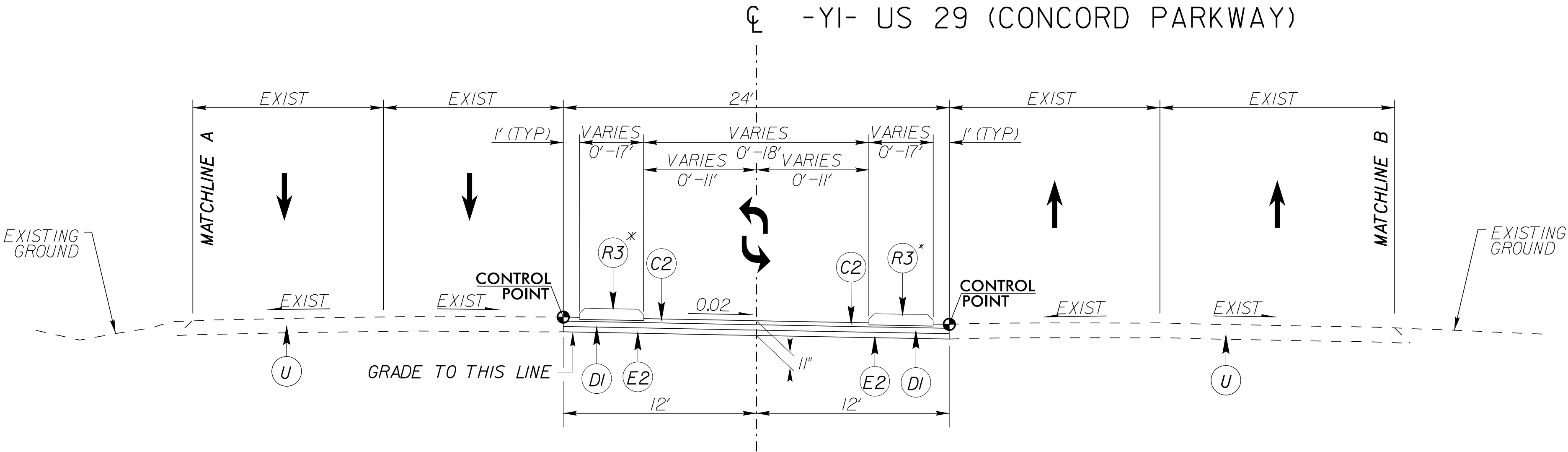
RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
U-5956	2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8' X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
W	WEDGING

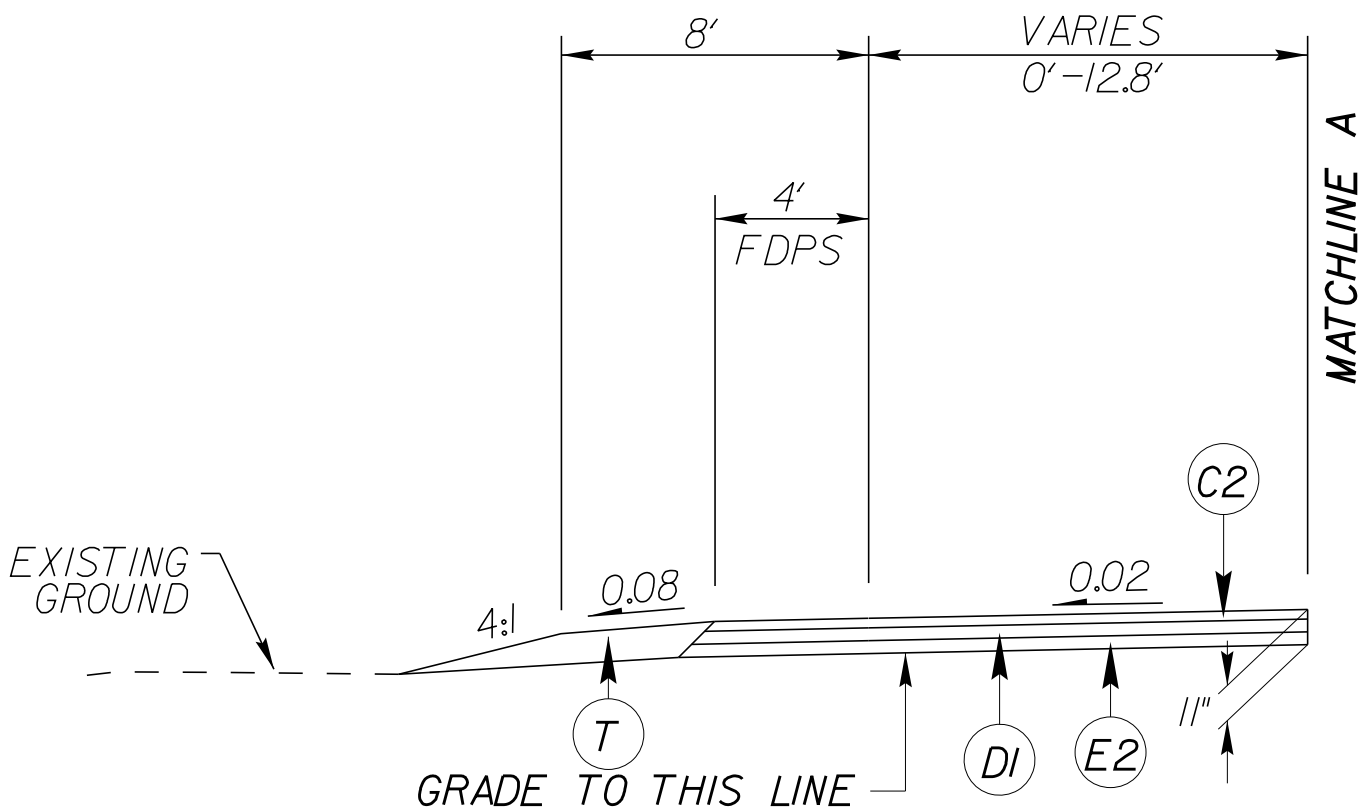
NOTES:
1.PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED
2.REFER TO PLAN SHEETS FOR VARIABLE WIDTHS
3.SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT TO PROVIDE 1' MIN.FULL DEPTH ASPHALT PAVEMENT.
4.FOR FILL OR CUT SLOPE HEIGHTS < 5',USE 4:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS 5' < 10',USE 3:1 SLOPES
FOR FILL OR CUT SLOPE HEIGHTS > 10',USE 2:1 SLOPES
5.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8' X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.



TYPICAL SECTION NO. 9

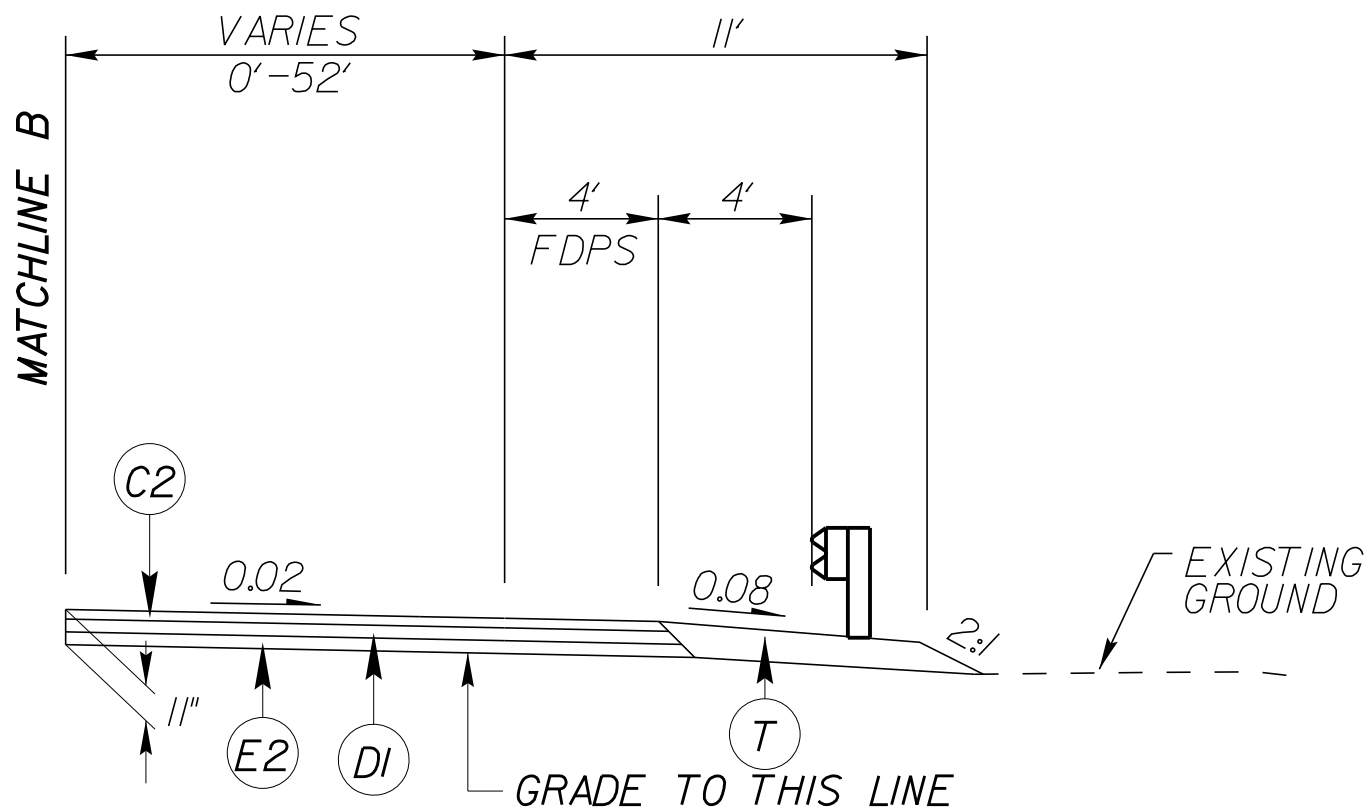
-Y1- STA 5+35.00 TO STA 9+36.31
-Y1- STA 21+35.00 TO STA 32+18.88
-Y1- STA 50+10.00 TO STA 53+65.00

*SEE PLAN VIEW & CROSS SECTIONS FOR
CONCRETE ISLAND WIDTH, LOCATION, & FOR
ROADWAY CROSS SLOPES



TYPICAL SECTION NO. 9A

-Y1- STA 24+72.79 TO STA 25+56.50



TYPICAL SECTION NO. 9B

-Y1- STA 5+55.02 TO STA 8+68.89

REVISIONS

K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025



REVISIONS

K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

Kimley»Horn

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

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-5956

SHEET NO.

2A-8

ROADWAY DESIGN
ENGINEER



PAVEMENT DESIGN
ENGINEER

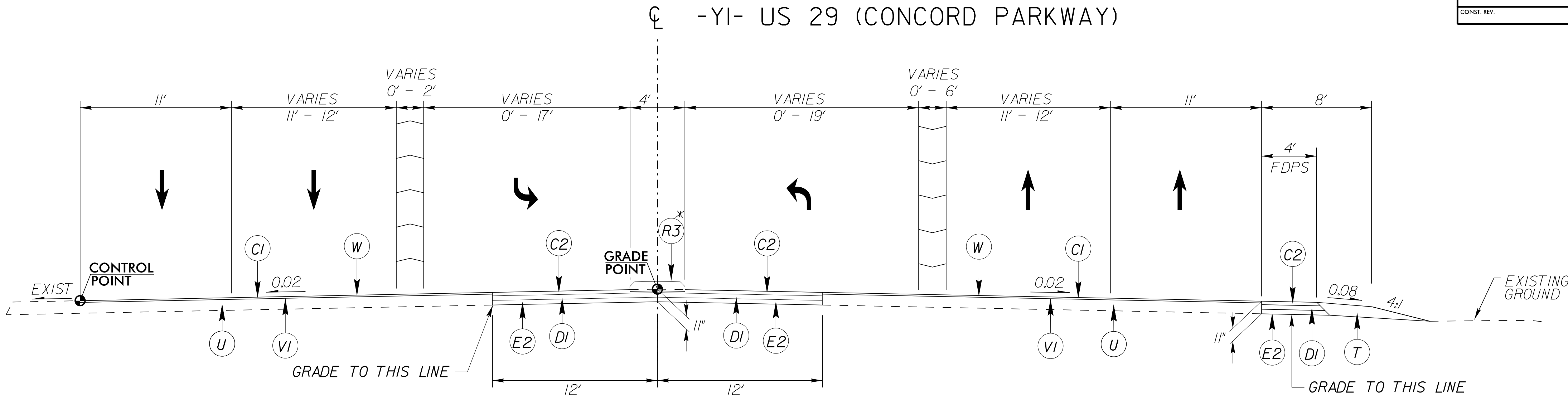


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

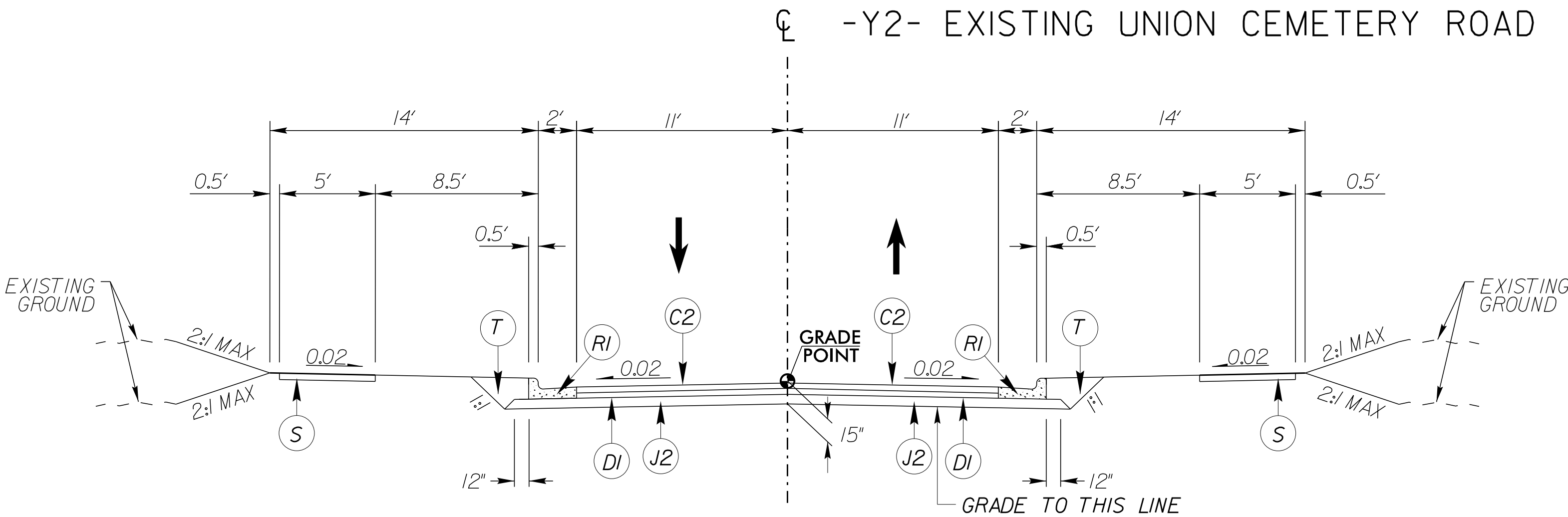
C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4' CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	1.5' MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5' - 3')
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.



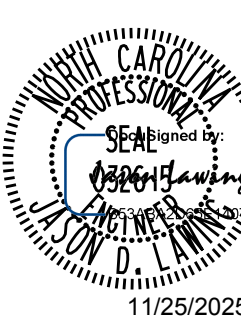
TYPICAL SECTION NO. 13

-Y1- STA 46+94.41 TO STA 50+10.00
*SEE PLAN VIEW & CROSS SECTIONS FOR
CONCRETE ISLAND WIDTH, LOCATION, & FOR
ROADWAY CROSS SLOPES



TYPICAL SECTION NO. 14

-Y2- STA 10+21.50 TO STA 12+00.00



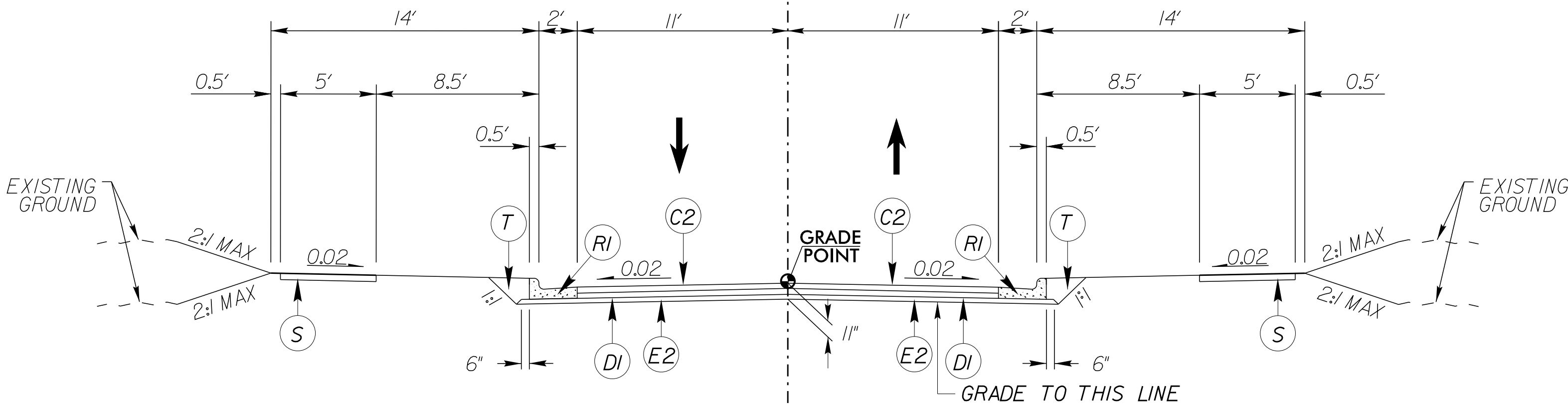
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

C1	1.5' S9.5C
C2	3" S9.5C
C3	VAR.DEPTH S9.5C
D1	4" I19.0C
D2	VAR.DEPTH I19.0C
E1	3" B25.0C
E2	4" B25.0C
E3	VAR.DEPTH B25.0C
J1	6" ABC
J2	8" ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

-Y2- EXISTING UNION CEMETERY ROAD

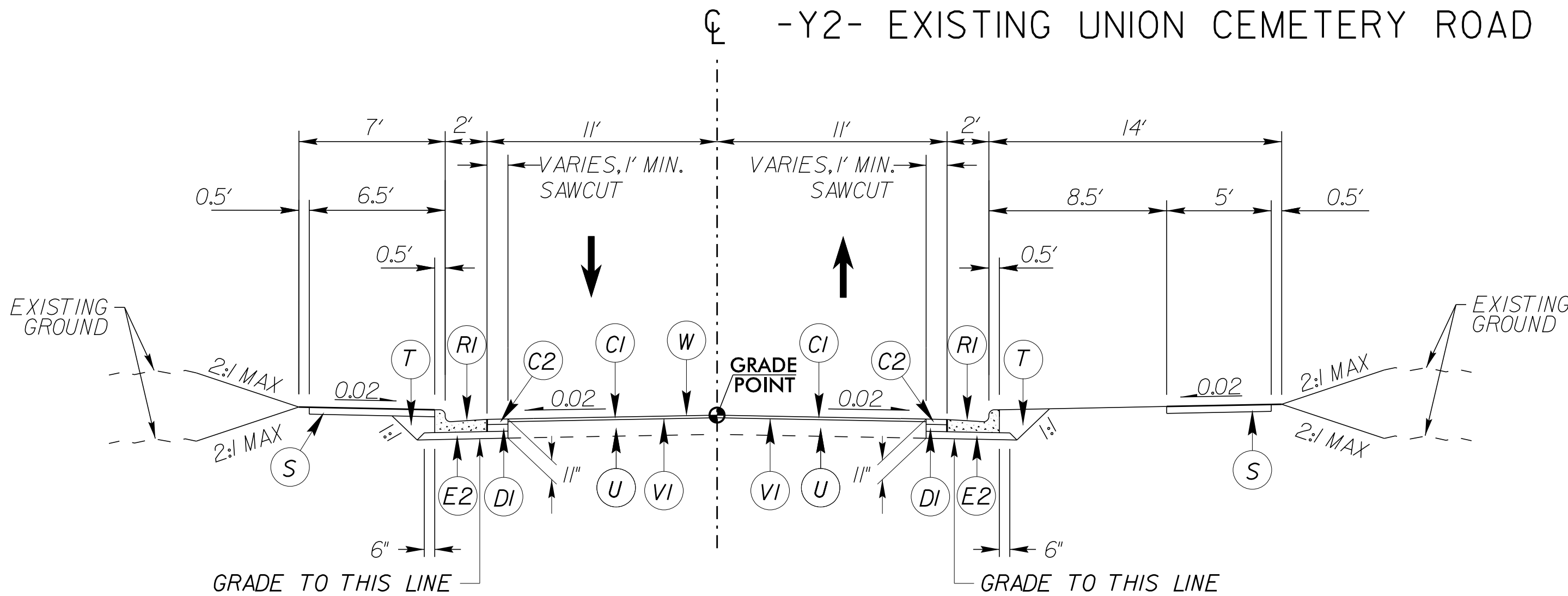


TYPICAL SECTION NO. 15

-Y2- STA 12+00.00 TO STA 15+08.48

NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB
AND GUTTER DETAIL ON SHEET 2A-3

-Y2- EXISTING UNION CEMETERY ROAD

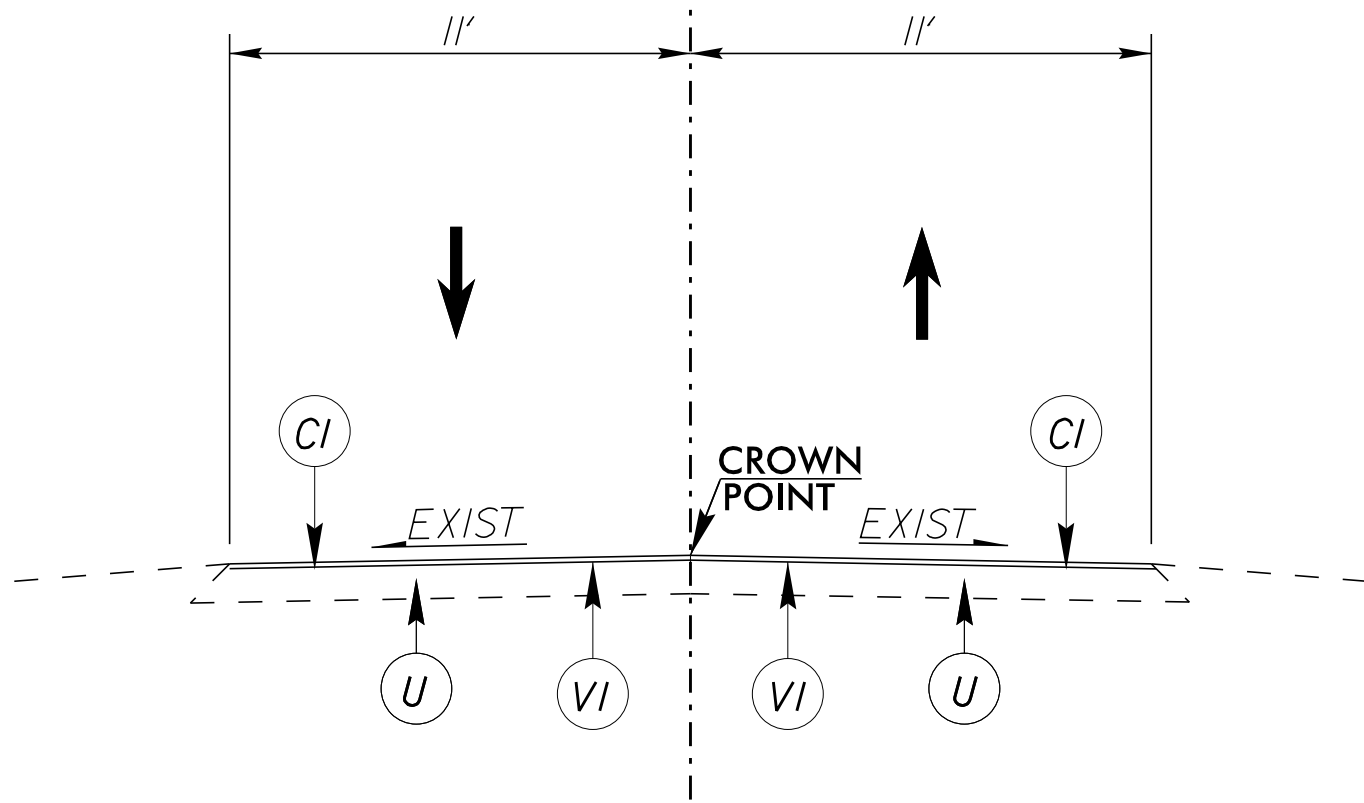


TYPICAL SECTION NO. 16

-Y2- STA 15+08.48 TO STA 16+22.00

NOTE: REFER TO R4 MODIFIED 2'-6" CONCRETE SPILL CURB
AND GUTTER DETAIL ON SHEET 2A-3

-Y2- EXISTING UNION
CEMETERY ROAD



TYPICAL SECTION NO. 17

-Y2- STA 16+22.00 TO STA 17+25.00

REVISIONS

K:\CHL_PRJ\01036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

Kimley»Horn

© 2025

NC LICENSE #F-0102

200 SOUTH TRYON STREET, SUITE 200

CHARLOTTE, NORTH CAROLINA 28202

PHONE: (704) 333-5131

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-5956

SHEET NO.

2A-10

ROADWAY DESIGN ENGINEER

SEAL

11/25/2025

PAVEMENT DESIGN ENGINEER

SEAL

11/25/2025

DOCUMENT NOT CONSIDERED FINAL

UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE	
(FINAL PAVEMENT DESIGN)	
C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
D1	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4' CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	1.5' MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

-Y2- EXISTING UNION CEMETERY ROAD

TYPICAL SECTION NO. 18

-Y2- STA 24+90.00 TO STA 26+40.63
*SEE PLAN VIEW & CROSS SECTIONS FOR
CONCRETE ISLAND WIDTH, LOCATION, & FOR
ROADWAY CROSS SLOPES

-Y3- SERVICE ROAD 1

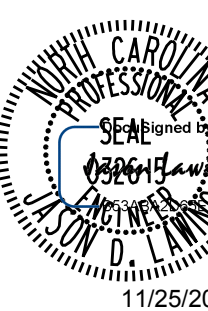
TYPICAL SECTION NO. 19

-Y3- STA 10+16.00 TO STA 11+22.00

REVISIONS

K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

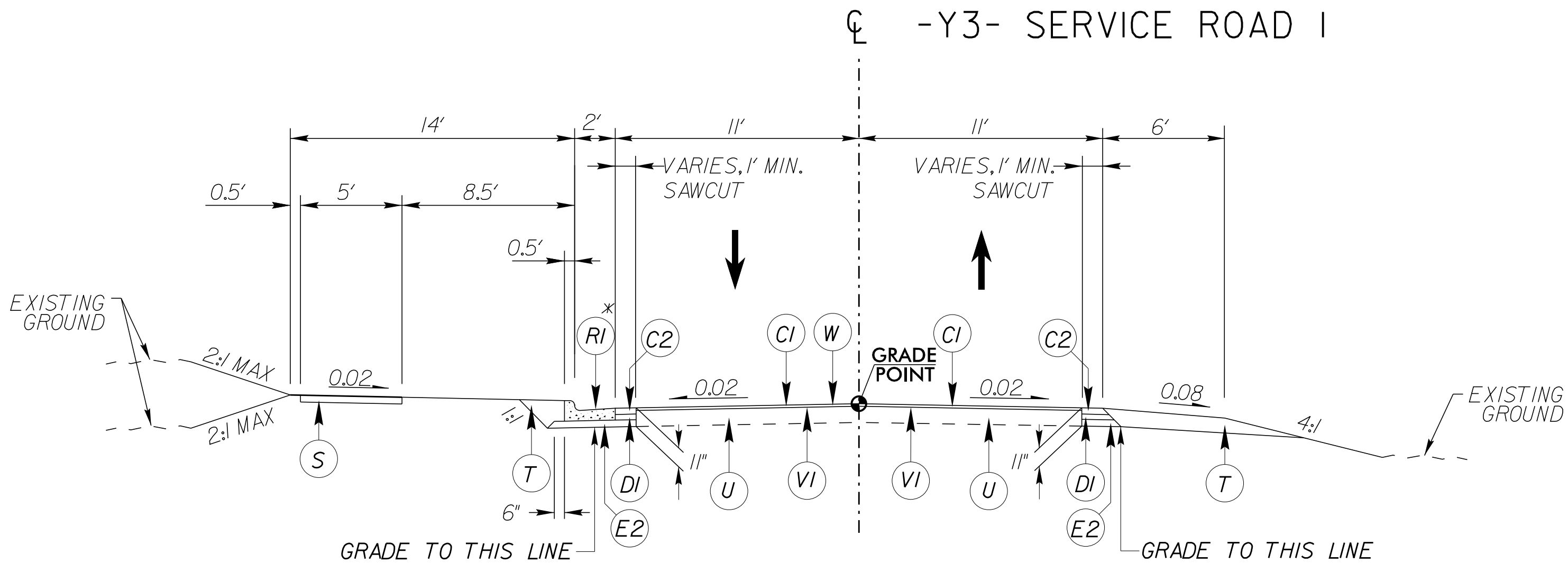


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

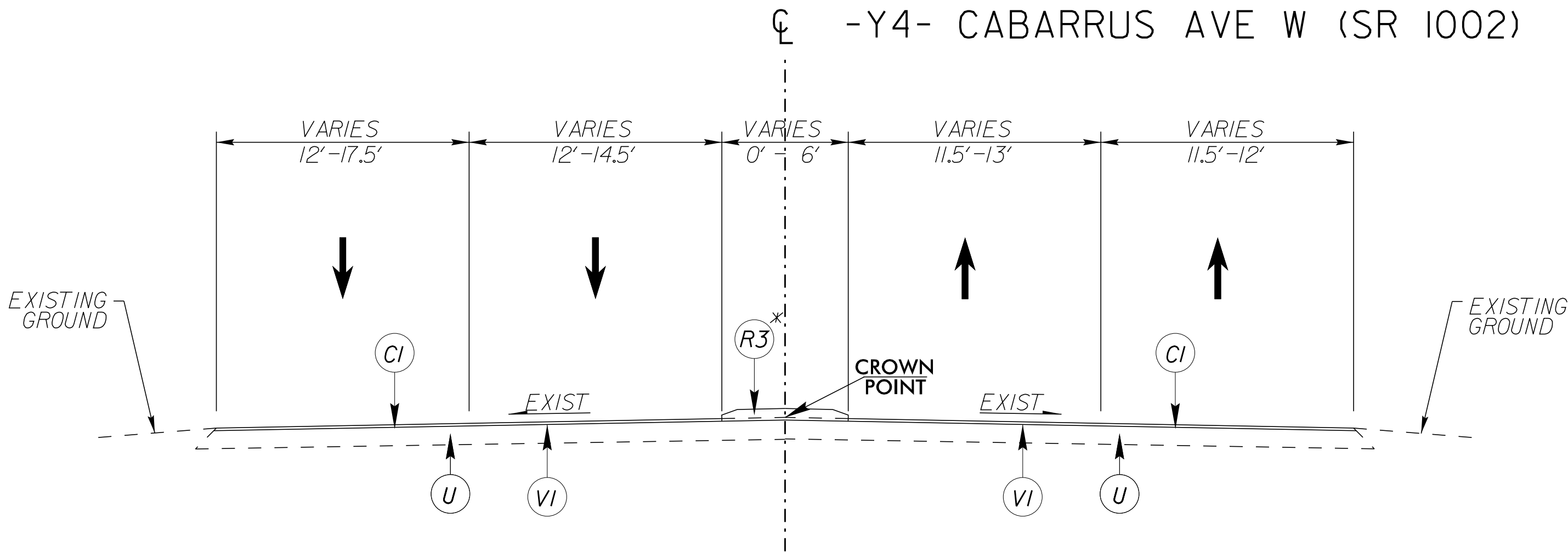
C1	1.5' S9.5C
C2	3' S9.5C
C3	VAR.DEPTH S9.5C
DI	4' I19.0C
D2	VAR.DEPTH I19.0C
E1	3' B25.0C
E2	4' B25.0C
E3	VAR.DEPTH B25.0C
J1	6' ABC
J2	8' ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS IV SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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.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.REFER TO OFFSETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
6.CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
7.SUMMARIES WITH LOCATIONS FOR 8" X 12" CONCRETE CURB,2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.



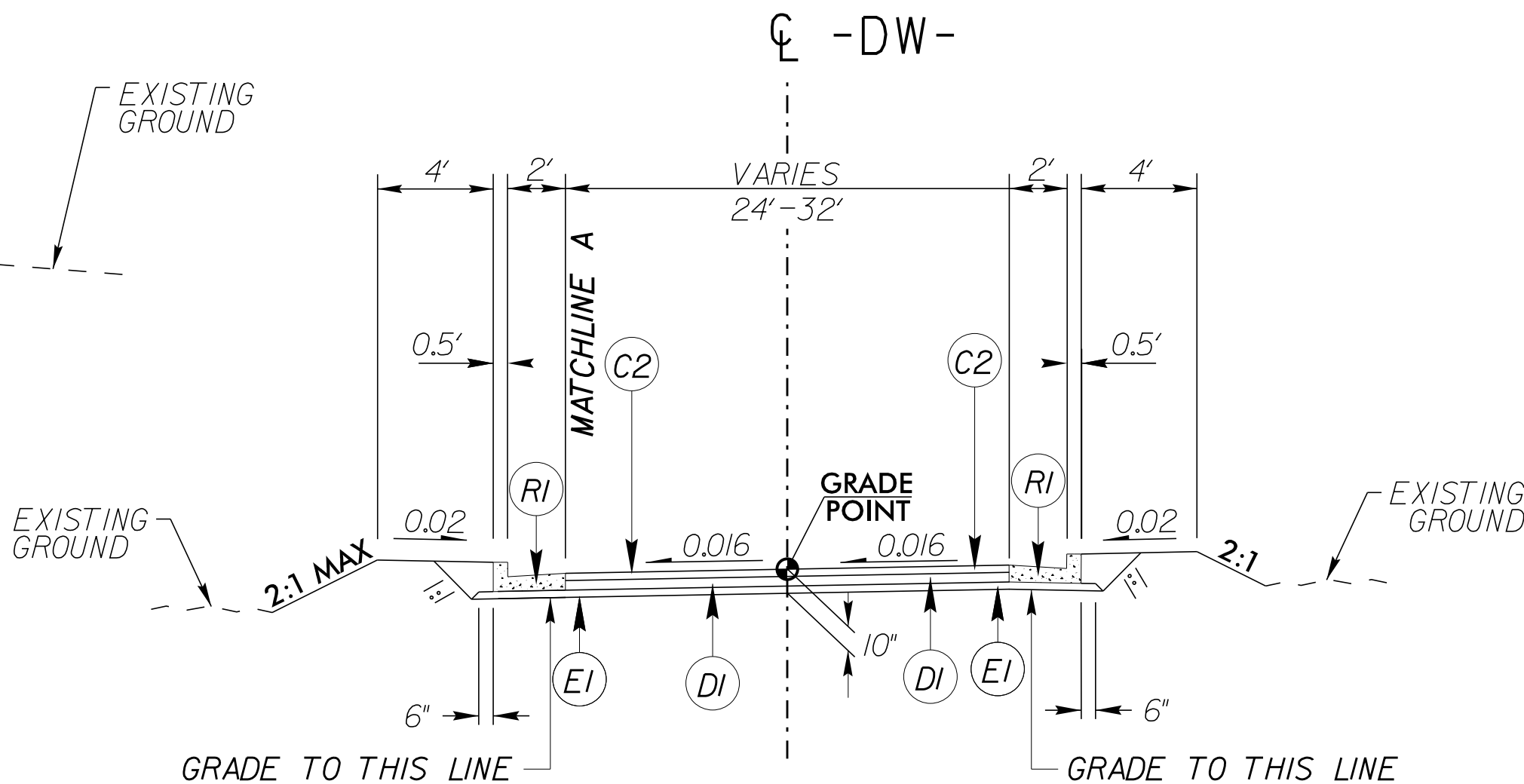
TYPICAL SECTION NO. 20

-Y3- STA 11+22.00 TO STA 12+21.88
*SEE PLAN VIEW & CROSS SECTIONS FOR
LOCATIONS WHERE EXISTING CURB AND
GUTTER WILL BE RETAINED



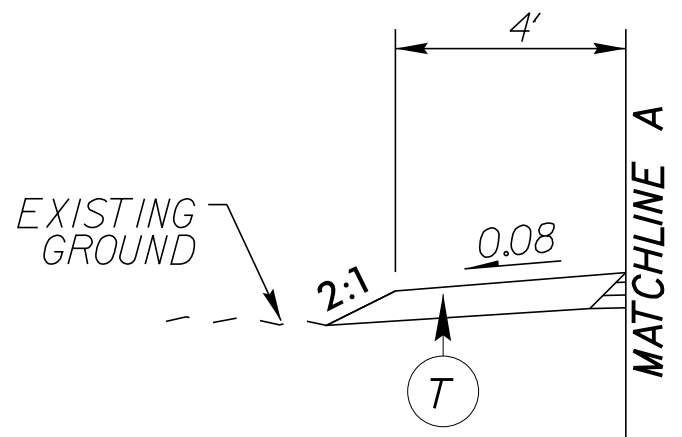
TYPICAL SECTION NO. 21

-Y4- STA 10+56.08 TO STA 14+65.00
*SEE PLAN VIEW & CROSS SECTIONS FOR
CONCRETE ISLAND WIDTH, LOCATION, & FOR
ROADWAY CROSS SLOPES



TYPICAL SECTION NO. 22

-DW1- STA 10+21.58 TO 10+80.00
-DW2- STA 10+21.50 TO 11+04.00



TYPICAL SECTION NO. 22A

-DW2- STA 10+47.85 TO 11+04.00 LT

REVISIONS

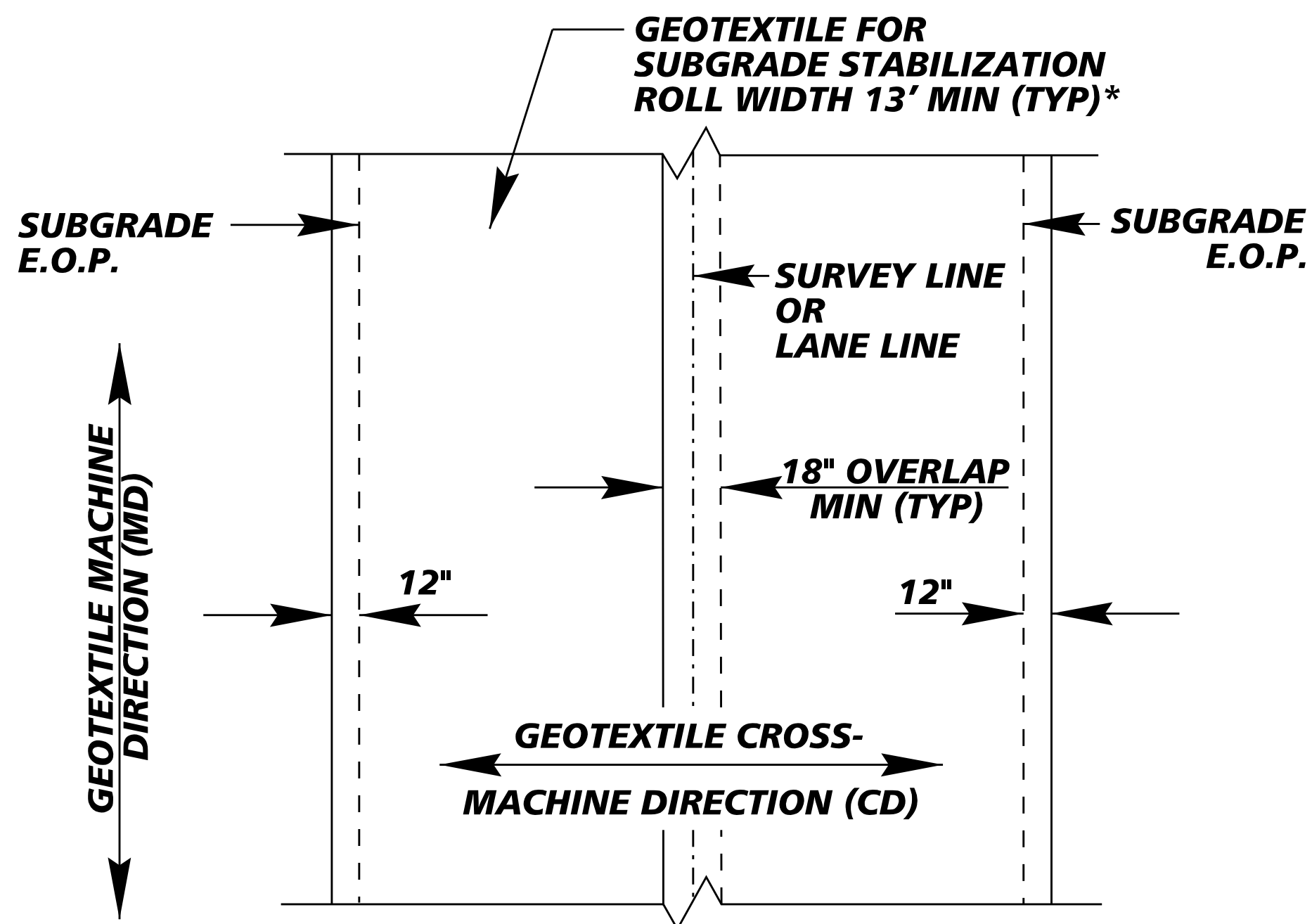
K:\CHL_PR\101036427 - U-5956 Union Cemetery\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

REVISIONS

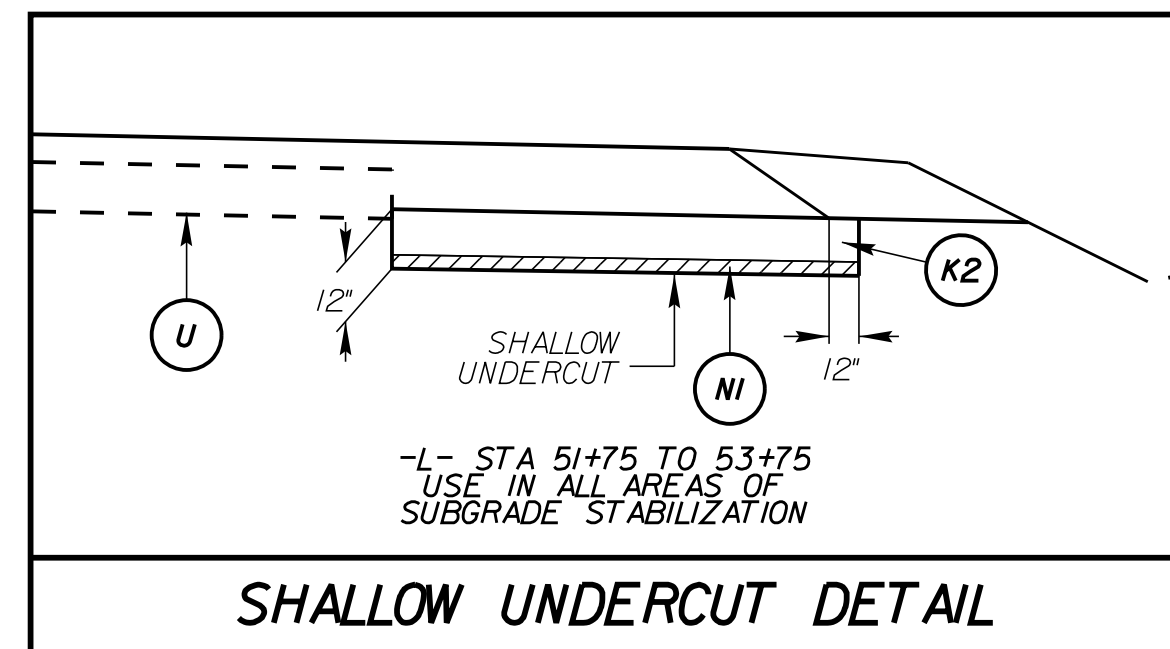
K:\CHL_PRJ\01036427 - U-5956 (Union Cemetery)\Roadway\Proj\U-5956_rdy_typ.dgn

11/5/2025

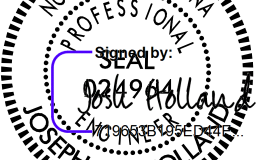


**GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT
(PLAN VIEW)
(100% COVERAGE REQUIRED)**

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



SHALLOW UNDERCUT DETAIL

 NC LICENSE #F-0102 200 SOUTH TRYON STREET, SUITE 200 CHARLOTTE, NORTH CAROLINA 28202 PHONE: (704) 333-5131	PROJECT REFERENCE NO. <u>U-5956</u>		SHEET NO. <u>2A-12</u>
	ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER	
	 11/25/2025	 11/25/2025	
RIGHT-OF-WAY REV. _____		CONST. REV. _____	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

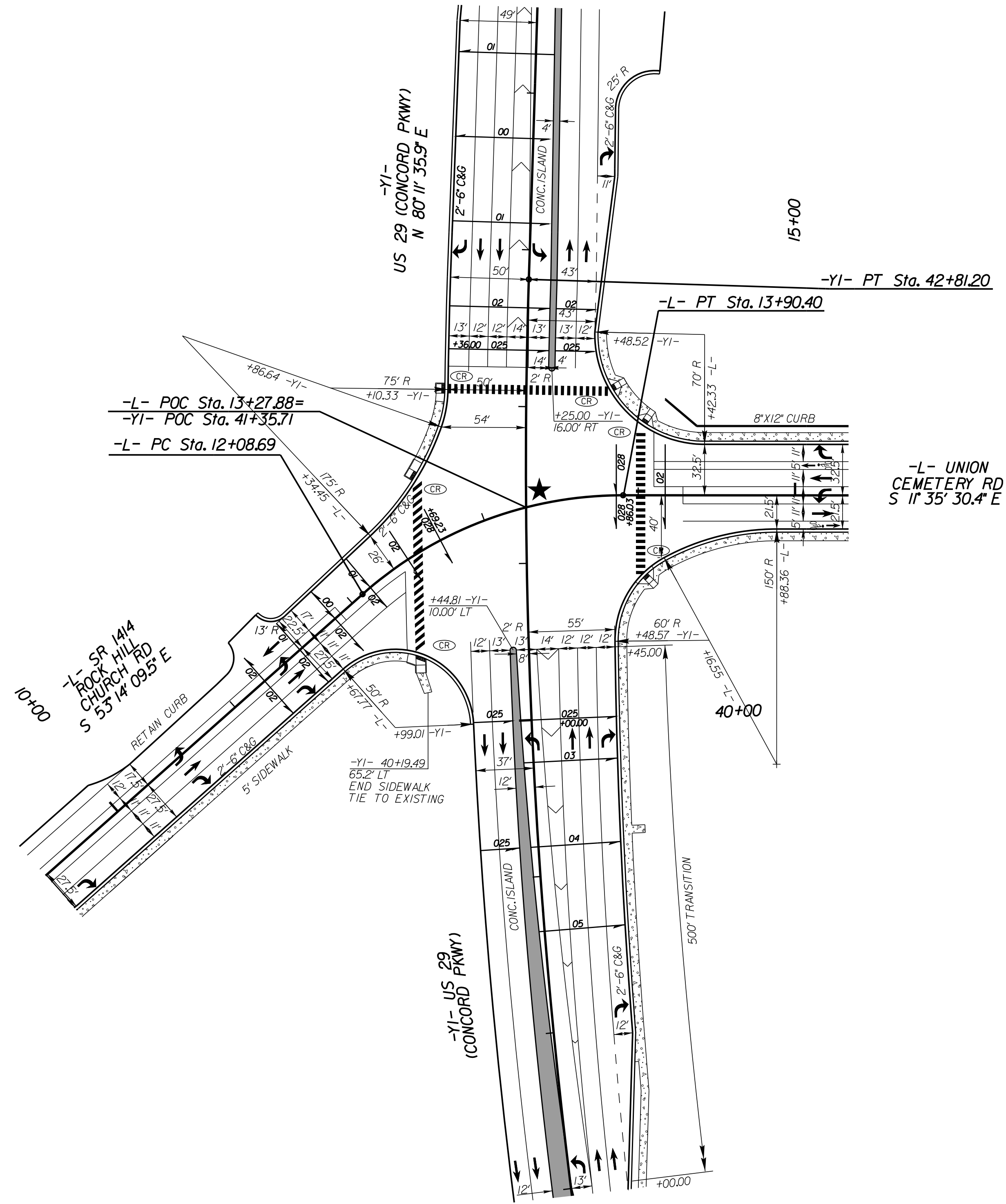
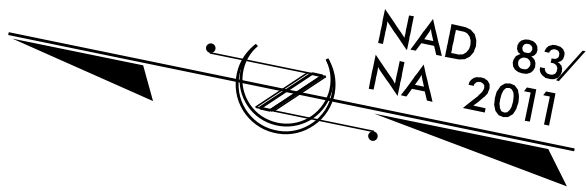
PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	1.5" S9.5C
C2	3" S9.5C
C3	VAR.DEPTH S9.5C
D1	4" I19.0C
D2	VAR.DEPTH I19.0C
E1	3" B25.0C
E2	4" B25.0C
E3	VAR.DEPTH B25.0C
J1	6" ABC
J2	8" ABC
K1	CHEMICAL STABILIZATION
K2	PROPOSED CLASS N SUBGRADE STABILIZATION
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB & GUTTER
R2	8" X 12" CONCRETE CURB
R3	5' MONOLITHIC CONCRETE ISLAND (KEYED IN)
R4	2'-6" CONCRETE SPILL CURB & GUTTER
R5	2'-0" CONCRETE CURB & GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	1.5" MILLING ASPHALT PAVEMENT
V2	INCIDENTAL MILLING
V3	PROFILE MILLING (1.5" - 3")
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. FOR FILL OR CUT SLOPE HEIGHTS < 5', USE 4:1 SLOPES
5. FOR FILL OR CUT SLOPE HEIGHTS 5' < 10', USE 3:1 SLOPES
6. FOR FILL OR CUT SLOPE HEIGHTS > 10', USE 2:1 SLOPES
7. RESETS AND ELEVATIONS PROVIDED IN CROSS SECTIONS FOR CONTROL POINT INFORMATION
8. CONSTRUCT ALL DRIVEWAYS TO LIMITS SHOWN ON PLANS AND WITH ASPHALT PAVEMENT UNLESS OTHERWISE NOTED.
9. SUMMARIES WITH LOCATIONS FOR 8" x 12" CONCRETE CURB, 2'-6" SPILL CURB & GUTTER AND 2'-0" CURB & GUTTER ARE INCLUDED ON SHEET 3B-2.

REVISIONS

2026 ADT	US-29 (CONCORD PKWY.)	US-29 K = 9% DIR = 55% TTST = 1% DUAL = 3%
2046 ADT		
	370 405	
ROCK HILL CHURCH RD.	141 145	158 193
	46 30	47 64
ROCK HILL	345 397	UNION CEMETERY RD.
K = 9%		K = 9%
DIR = 55%		DIR = 55%
TTST = 1%		TTST = 1%
DUAL = 4%	(CONCORD PKWY.)	DUAL = 7%



-L-/-Y1-
SEE SHEET NO.4 FOR PLAN

K:\CHL_PR\NO1036427 - U-5956 (Union Cemetery)\Roadway\Proj\U-5956_rdy_pst_L2B-1.dgn

10/14/2025

Kimley»Horn

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

RIGHT-OF-WAY REV.
CONST. REV.

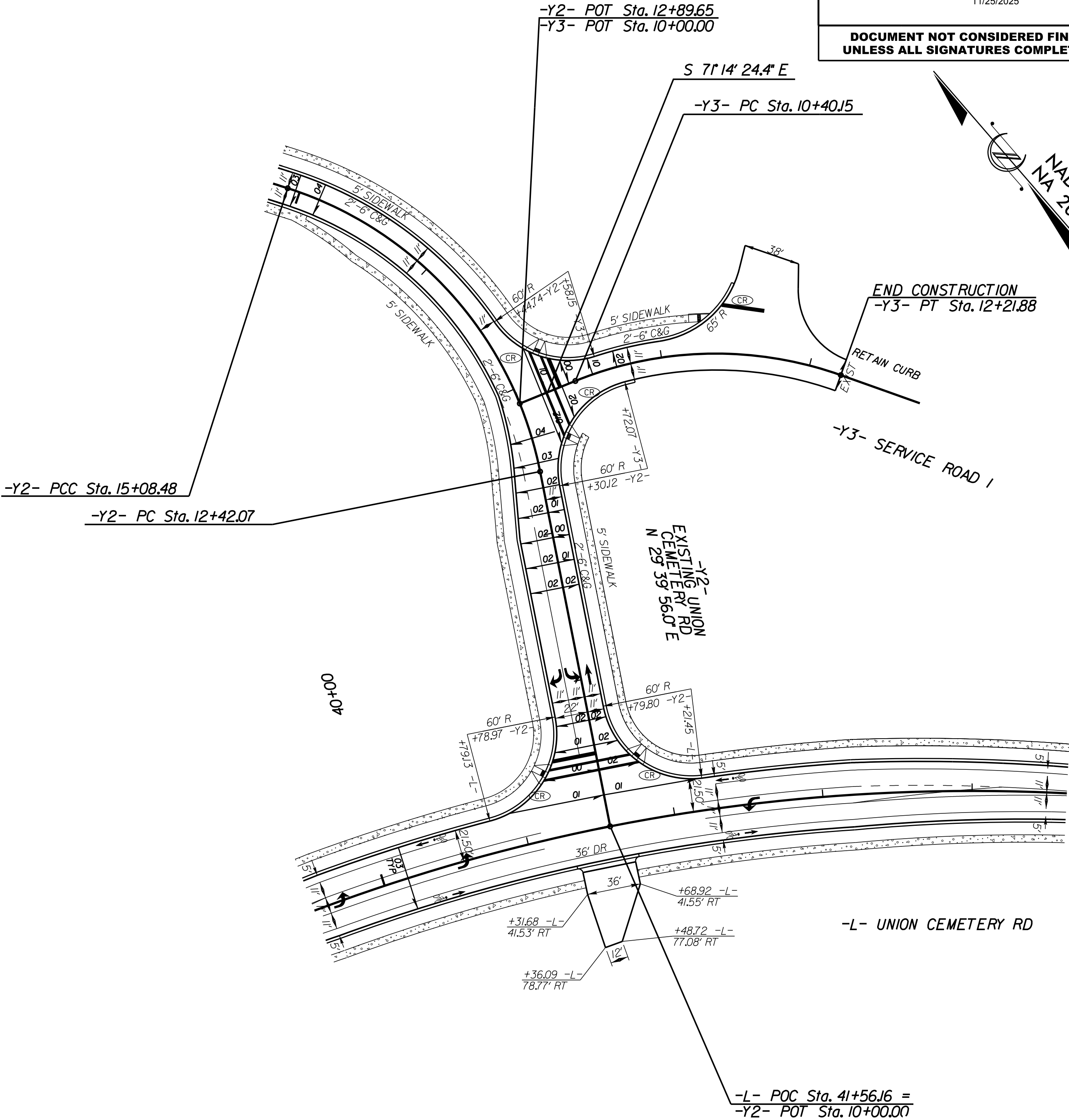
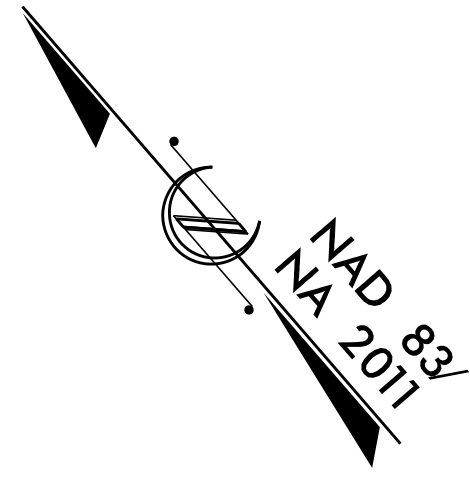
PROJECT REFERENCE NO.
U-5956

SHEET NO.
2B-1

ROADWAY ENGINEER

11/25/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



-L-/-Y2- & -Y2-/-Y3-
SEE SHEET NO.7 FOR PLAN

LEGEND

CR

CURB RAMP

CONCRETE ISLAND

SIDEWALK

INTERSECTION DETAILS

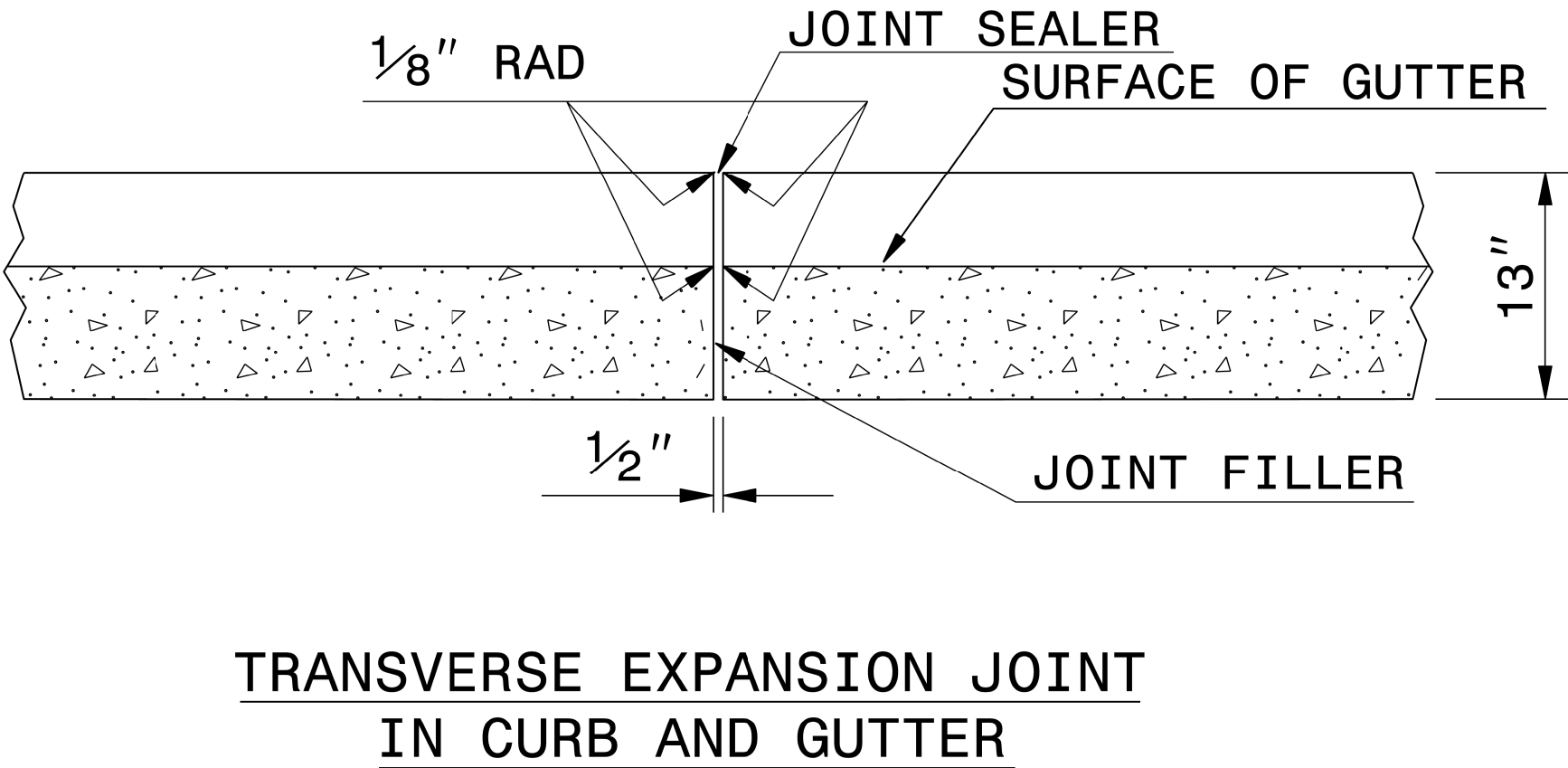
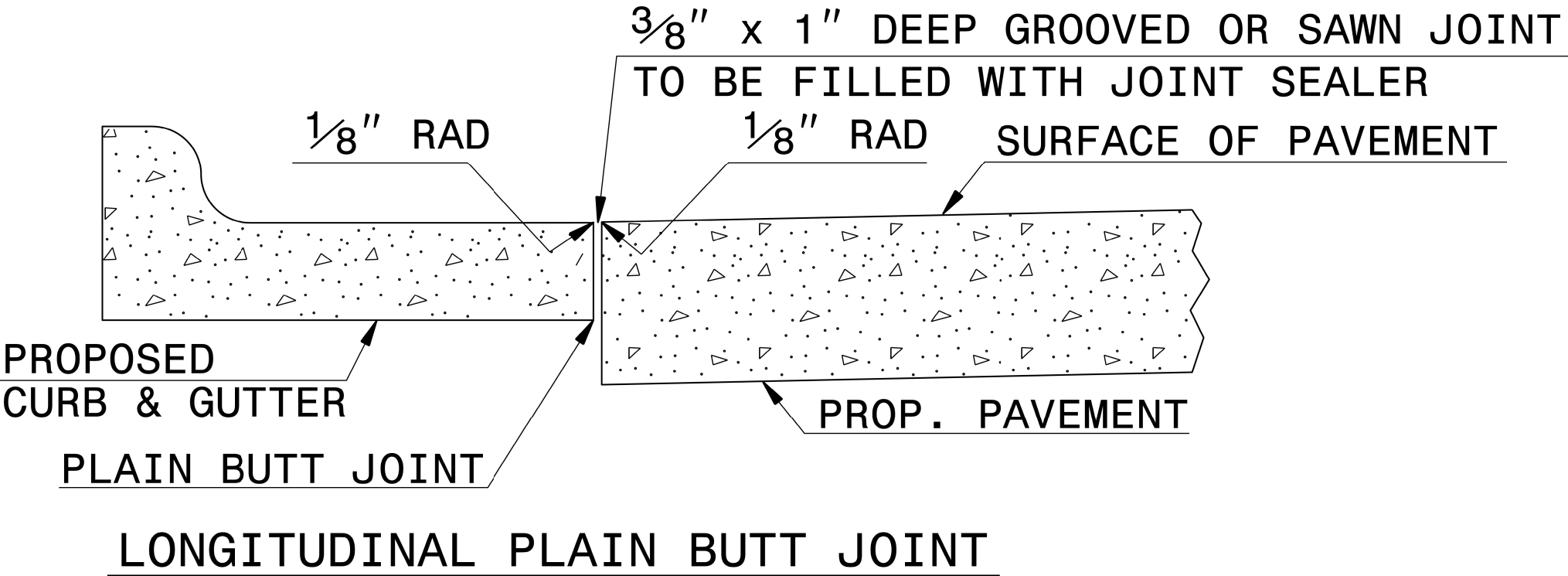
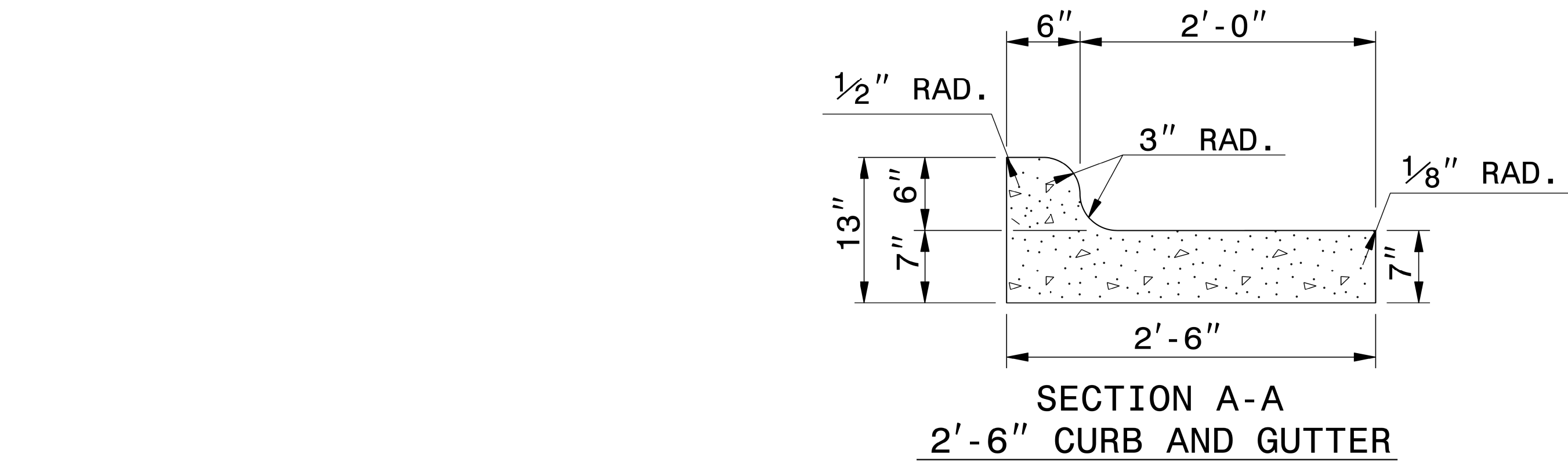
25 0 50

PROJECT REFERENCE NO.	SHEET NO.
U-5956	2C-1

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

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

SHEET 1 OF 1
846d01

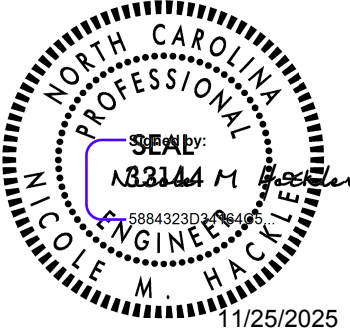


- GENERAL NOTES:
- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
 - JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
 - CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
 - CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1 1/2" DEEP.
 - FILL ALL CONSTRUCTION JOINTS, WITH JOINT FILLER AND SEALER.
 - SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

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

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

SHEET 1 OF 1
846d01



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SEE PLATE FOR TITLE	
ORIGINAL BY: E.E. WARD	DATE: MAY 1997
MODIFIED BY: K.A. KEMPF	DATE: MAR 2015
CHECKED BY:	DATE:
FILE SPEC.: kkempf\english\B5121_846d01.dgn	

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

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

SHEET 1 OF 2
300.01

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 3'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

ROCK

O.D. + 3'

**ROCK FOUNDATION
PIPE IN TRENCH**

TOP OF FILL

GROUND LINE

H

TYPE 4a
GEOTEXTILE

I.D. /6 MIN.
NOT LESS
THAN 6"

1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGR.

O.D. + 3'

UNSUITABLE MATERIAL FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

I.D. /6 MIN.
NOT LESS THAN 6"

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

I.D. /6 MIN.
NOT LESS THAN 6"

**ROCK FOUNDATION
PIPE ABOVE GROUND**

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

I.D. /6 MIN.
NOT LESS THAN 6"

1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGINEER

UNSUITABLE MATERIAL FOUNDATION

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.



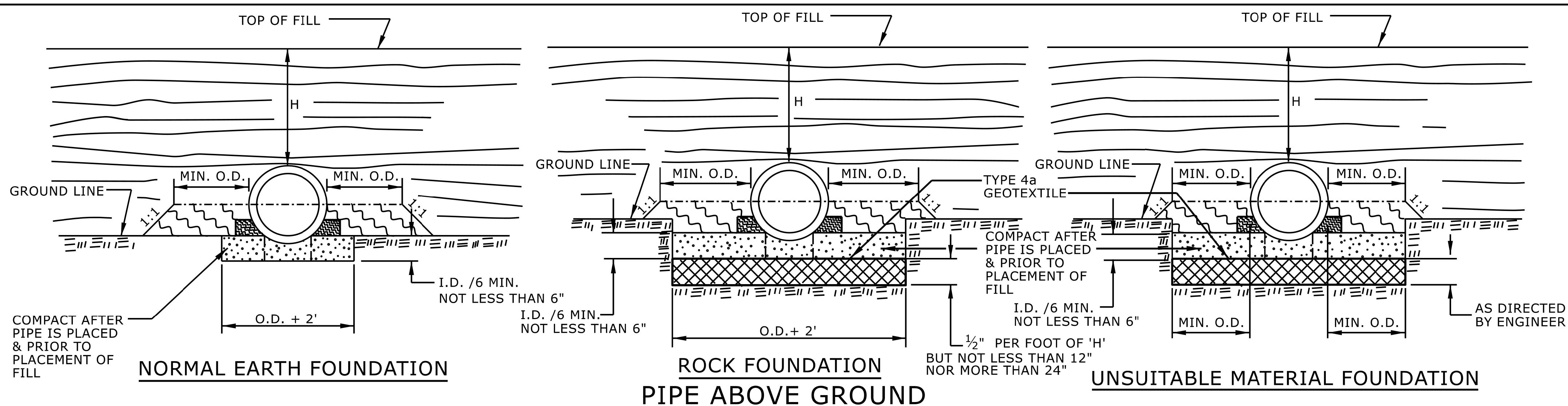
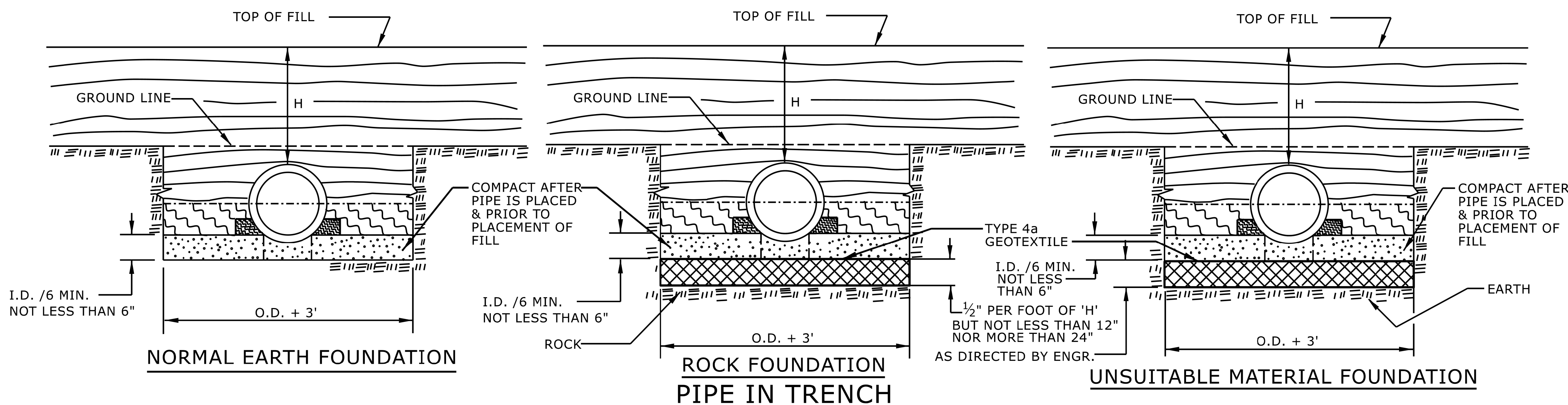
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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.:			



GENERAL NOTES:

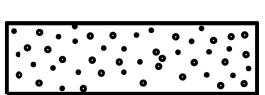
I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

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.

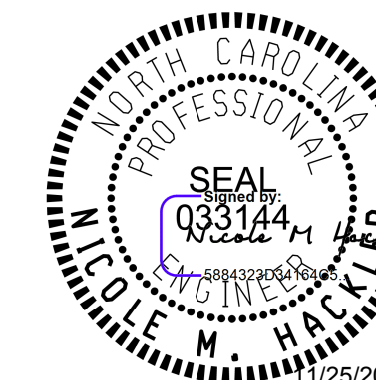
REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS
FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

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

ROADWAY DETAIL DRAWING FOR METHOD OF PIPE INSTALLATION RIGID PIPE

SHEET 2 OF 2
300.01



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
919-707-6950 FAX 919-250-4

SEE TITLE BLOCK

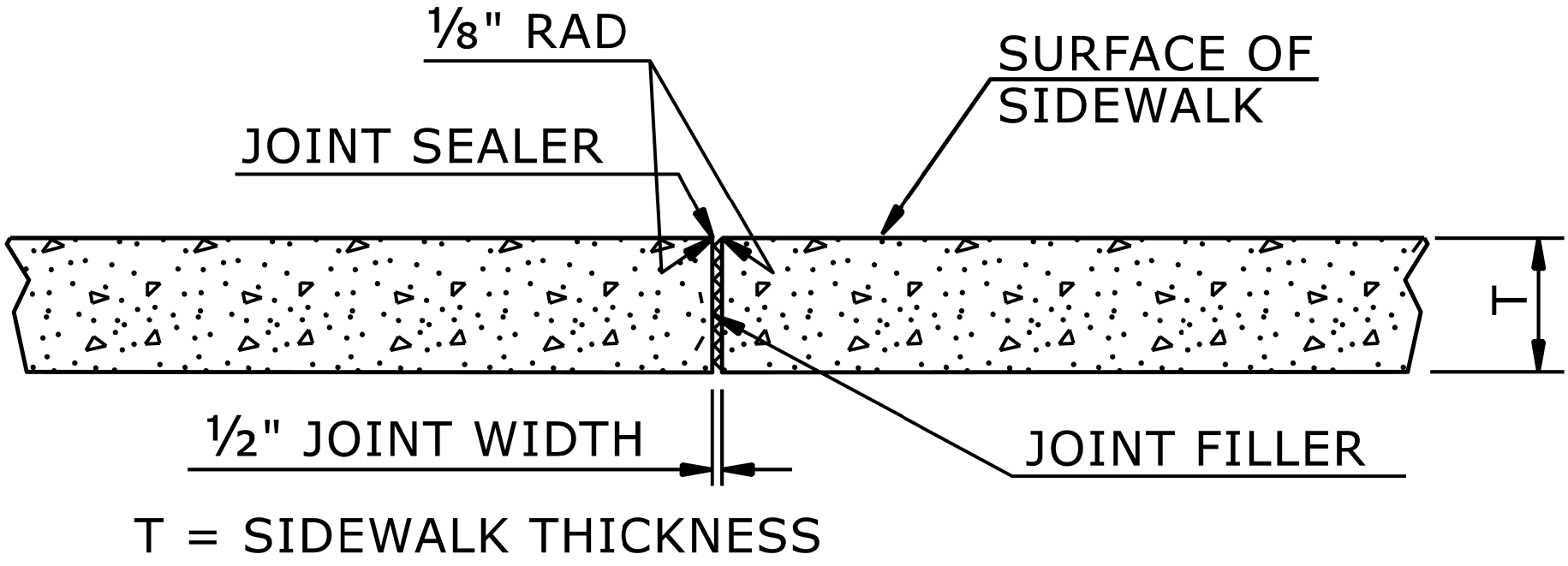
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

NOTES:

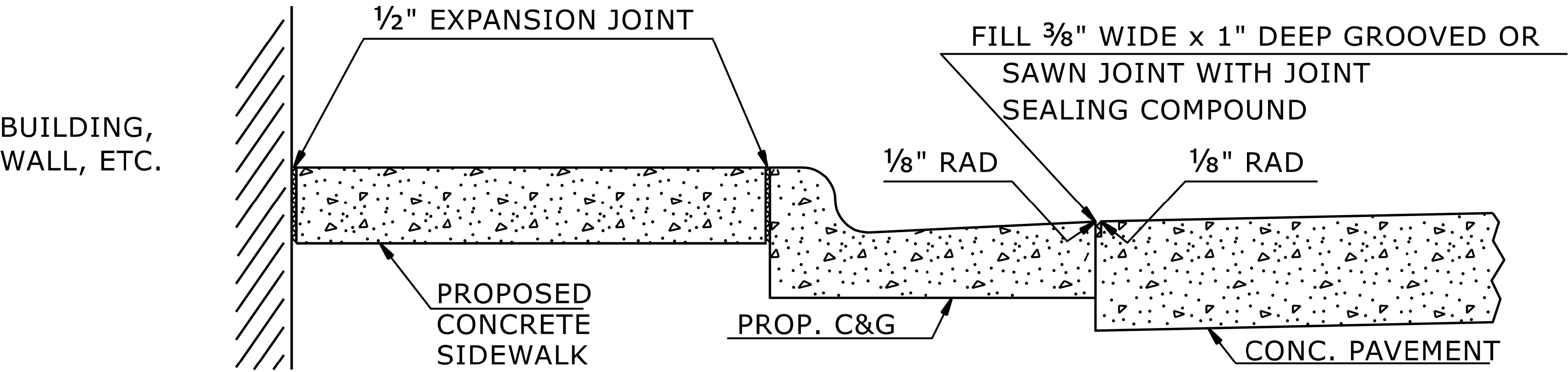
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" 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.



TRANSVERSE EXPANSION JOINT
IN SIDEWALK

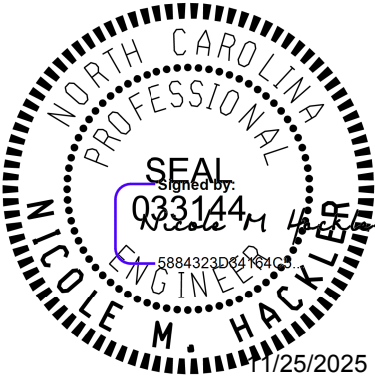


DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

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

ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK

SHEET 1 OF 1
848D01



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

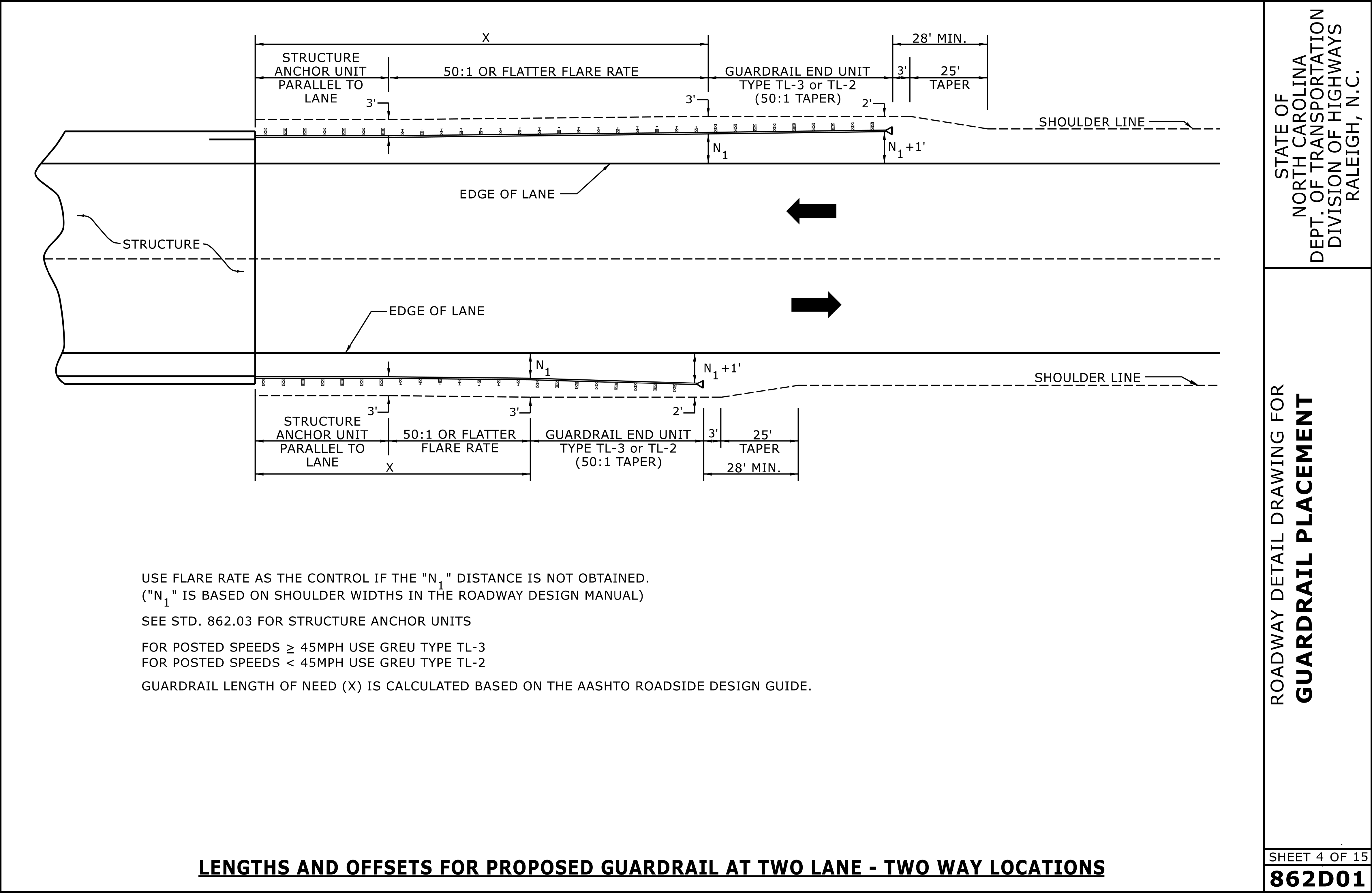
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

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

SEE TITLE BLOCK

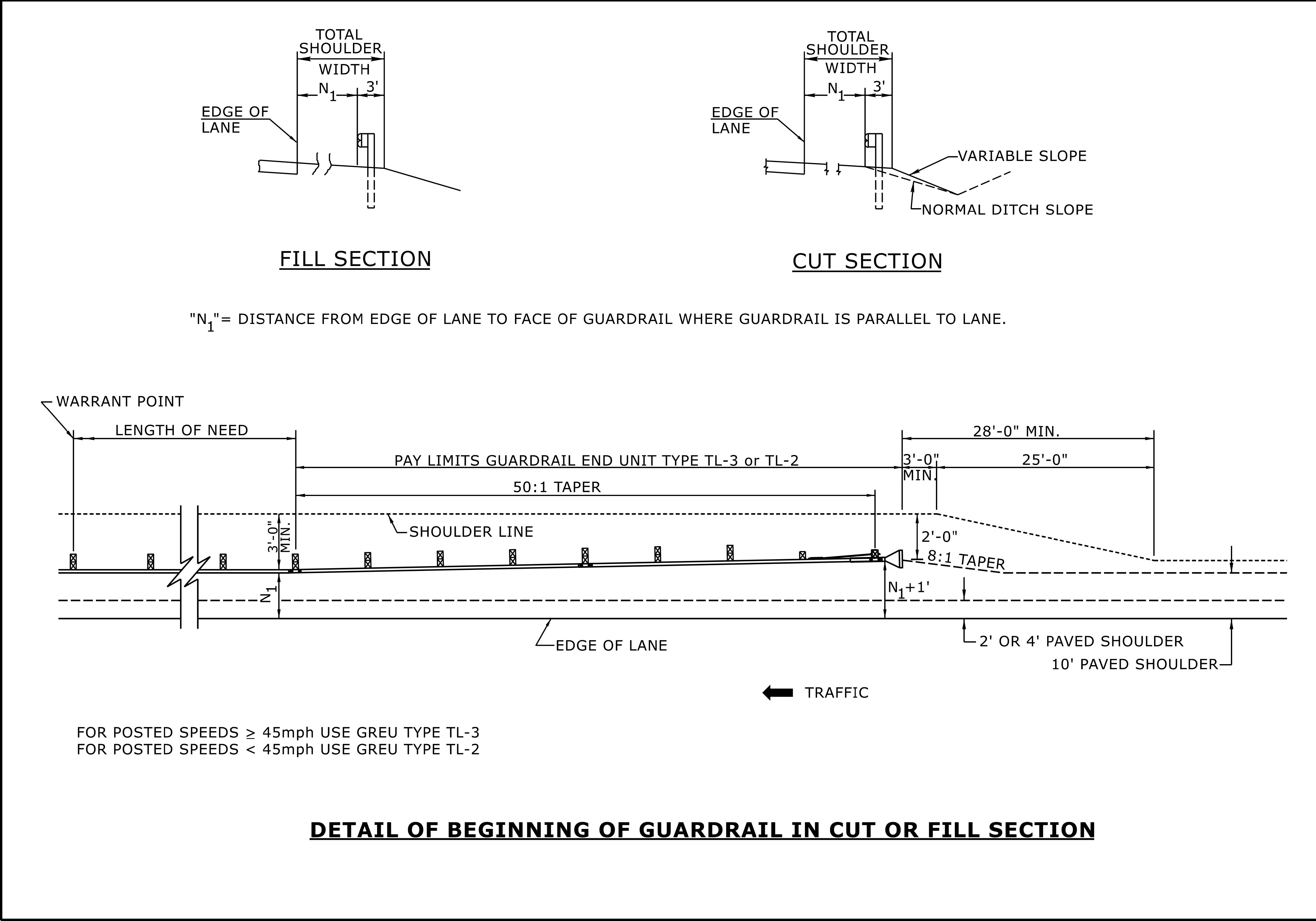
ORIGINAL BY:	S.CALHOUN	DATE:	7-25-2024
MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC:			

PROJECT REFERENCE NO.	SHEET NO.
U-5956	2C-5



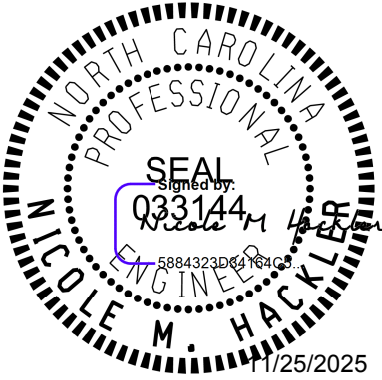
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT			
Office 919-707-6950		FAX 919-250-4119	
SEE TITLE BLOCK			
ORIGINAL BY:	<u>S.CALHOUN</u>	DATE:	<u>7-25-2024</u>
MODIFIED BY:	<u> </u>	DATE:	<u> </u>
CHECKED BY:	<u> </u>	DATE:	<u> </u>
FILE SPEC.:	<u> </u>		



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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT



SHEET 6 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.:	

PROJECT REFERENCE NO.	SHEET NO.
U-5956	2C-8

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 5 OF 9
862D02



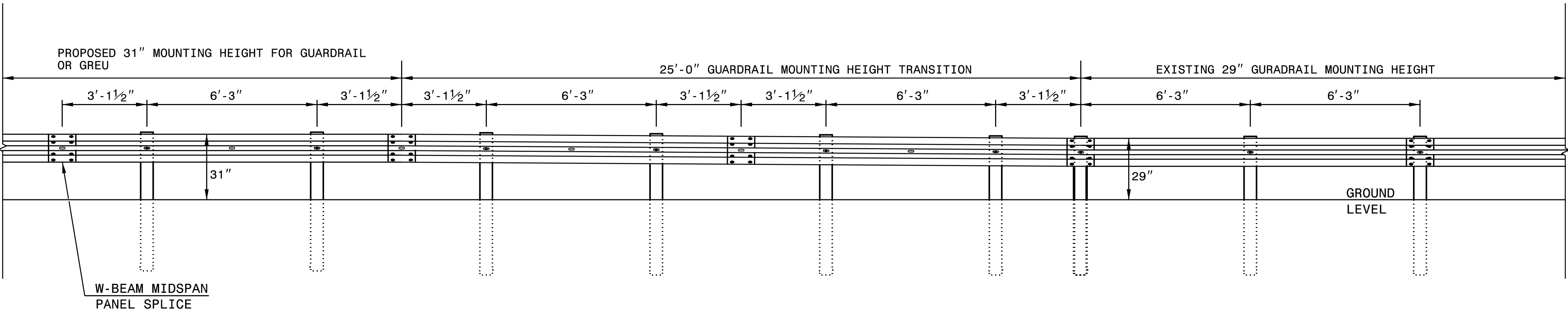
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-8950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: K. Aldridge	DATE: 02-25
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

**NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 29", USE AN ADDITIONAL 12'-6" LONG SECTION OF GUARDRAIL,
FOR EVERY 1" OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 31" GUARDRAIL.**



ELEVATION VIEW

TRANSITION FROM 29" TO 31" W-BEAM GUARDRAIL MOUNTING HEIGHT

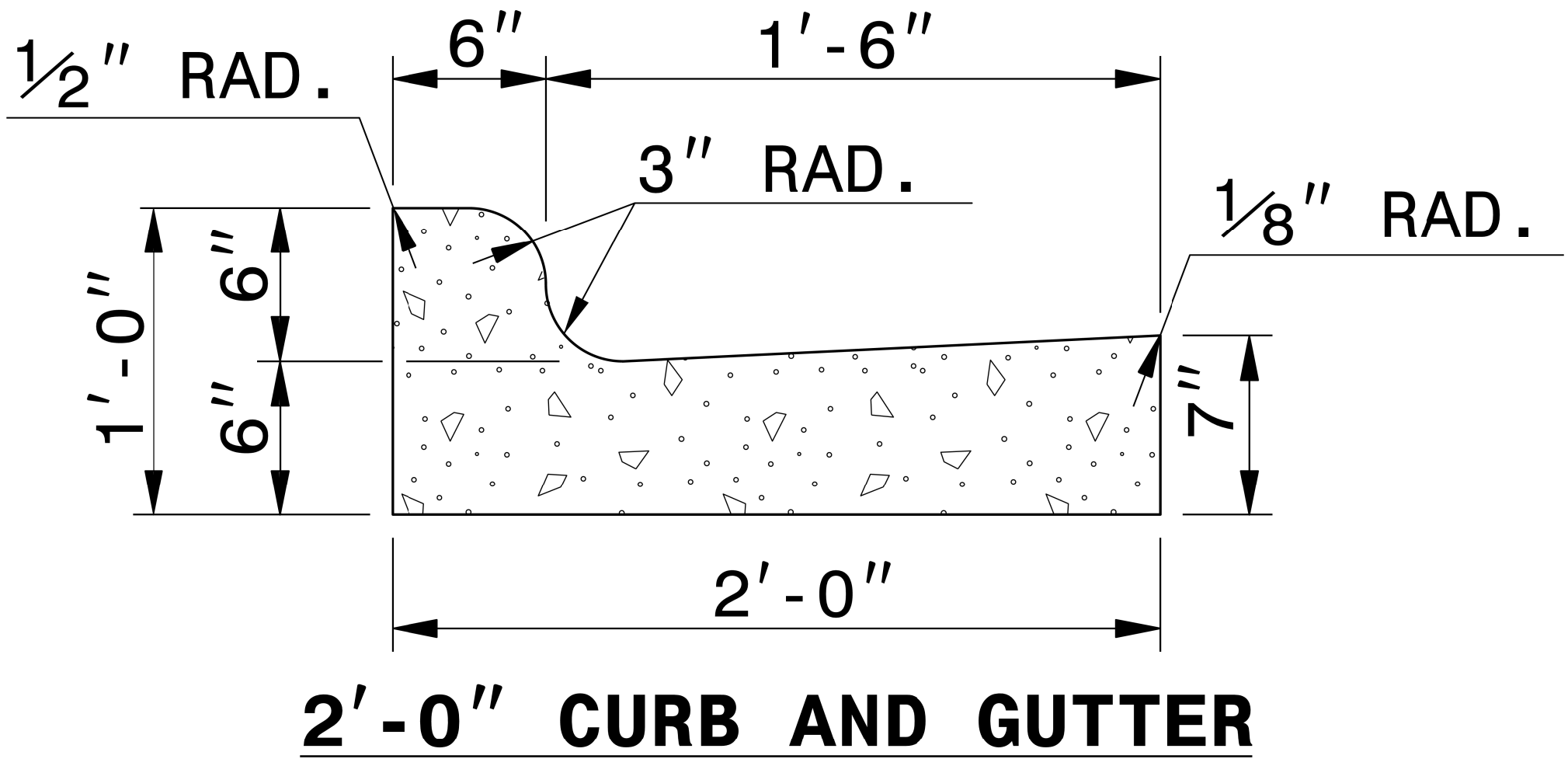
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

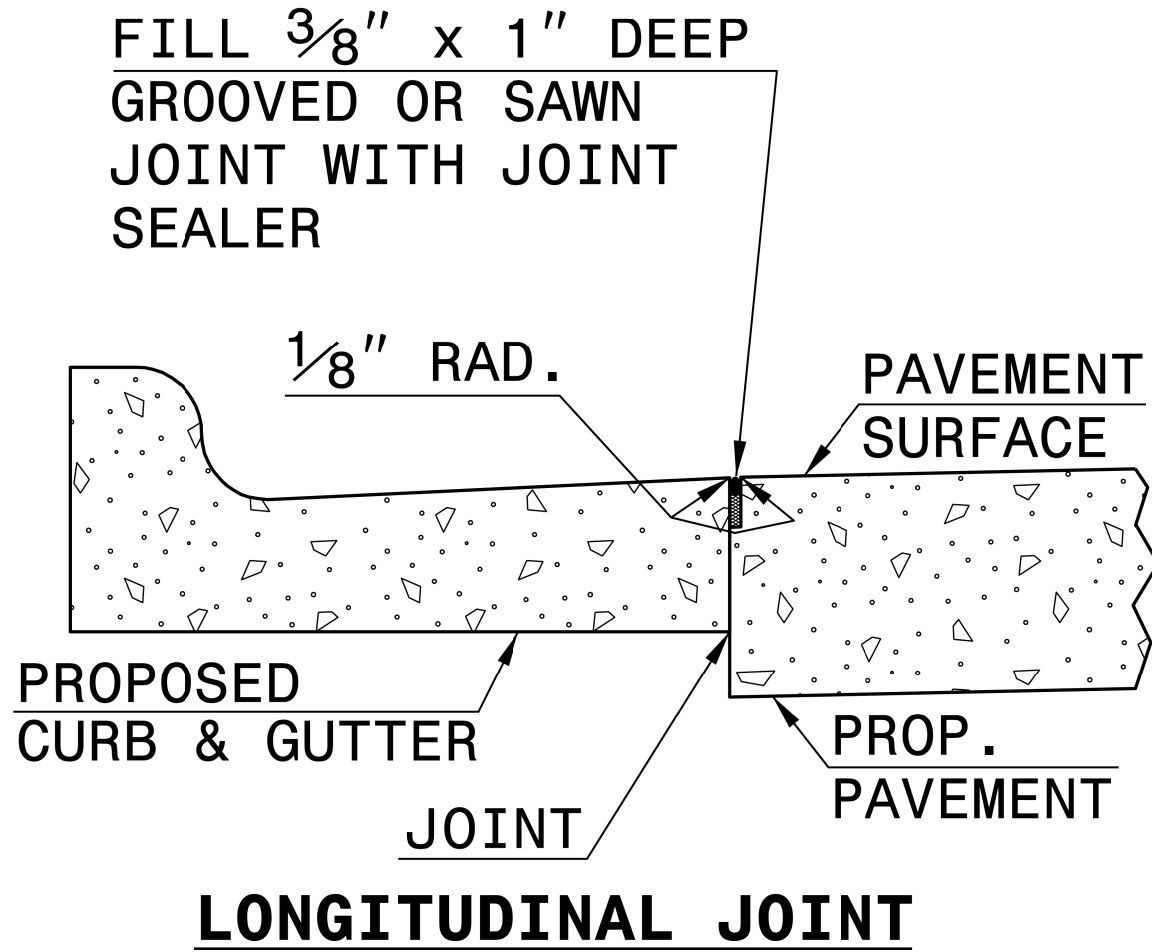
2'-0" CONCRETE CURB & GUTTER

SHEET 1 OF 3
846d01

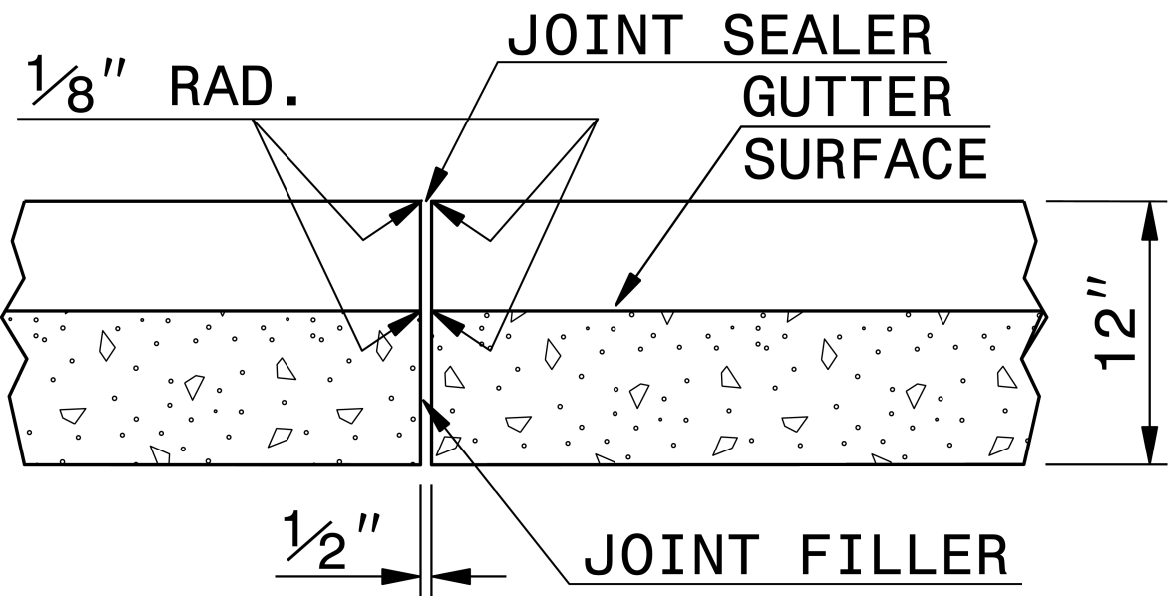
- GENERAL NOTES:
- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
 - JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
 - CONTRACTION 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.



SECTION VIEW



LONGITUDINAL JOINT



**TRANSVERSE EXPANSION JOINT
IN CURB AND GUTTER**

SECTION VIEW OF JOINTS

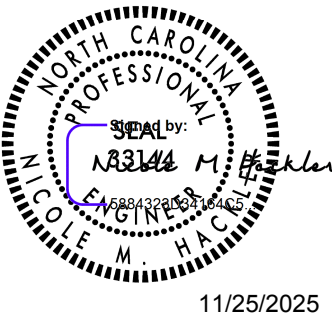
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

2'-0" CONCRETE CURB & GUTTER

SHEET 1 OF 3
846d01

\\-0CT-2018 10:32
S:\Contracts\Contract Details\Jhowerton\846d46 2ft C&G.dgn
Jhowerton HT USD-242595



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

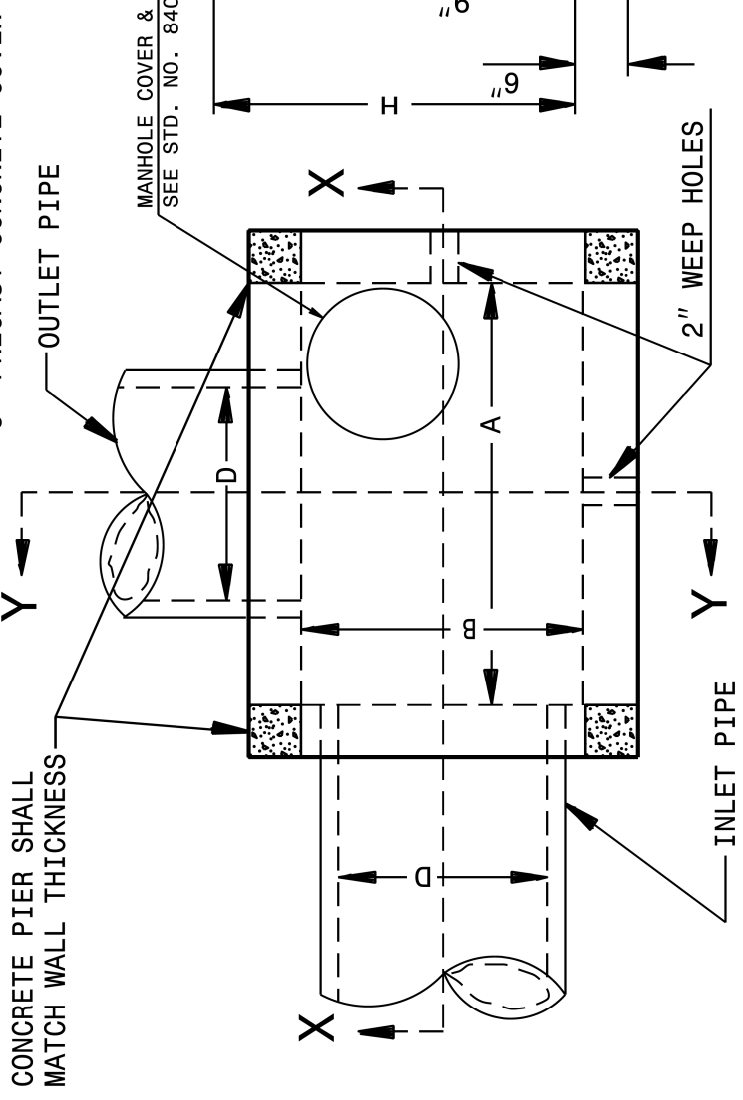
SEE TITLE BLOCK

ORIGINAL BY: kkempf DATE: 11/13/08
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: details\jhowerton\846d01 Modified SBG.dgn

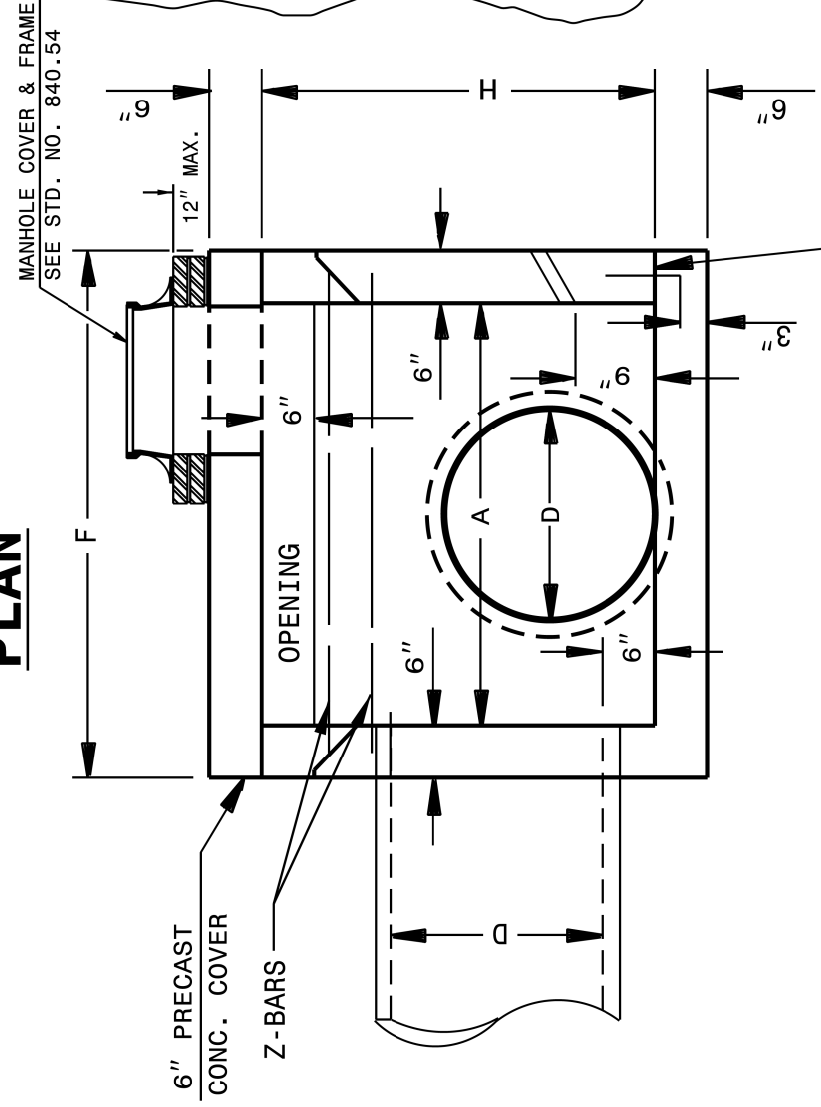
24-APR-2019, 07:24
S:\Contracts\Special Details\Howerton\840d04 3 or 4 side OTCB.dgn
Howerton At CSD-292595

5/14/99

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



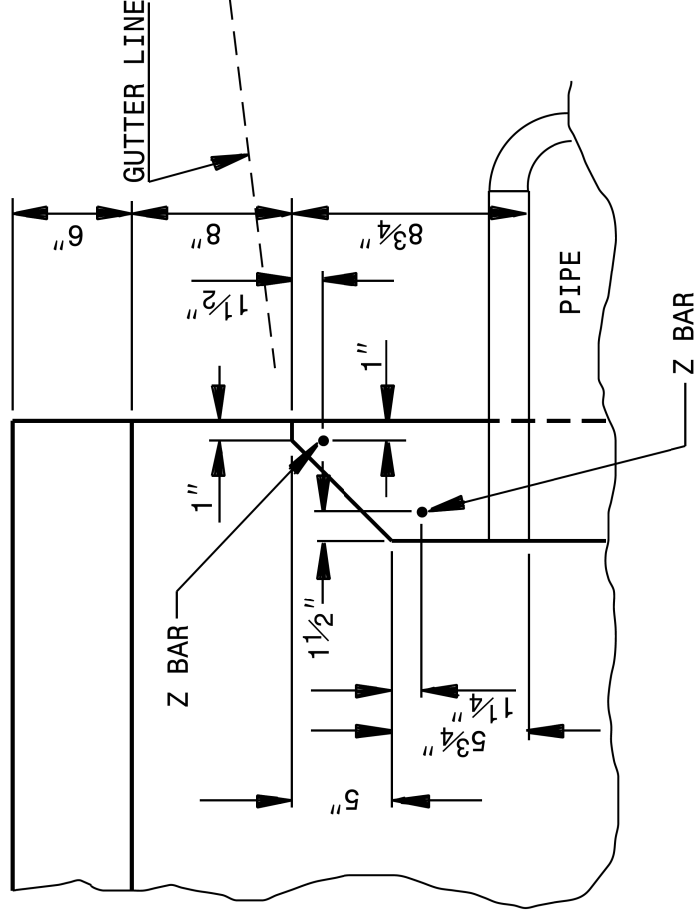
SECTION Y-Y



ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)
(MANHOLE OPTIONAL)

SHEET 1 OF 2
840D04

GENERAL NOTES:
ALL CATCH BASINS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 12" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH STD. 840.66.
ALL EXPOSED CORNERS TO BE CHAMFERED 1".
CLASS "B" CONCRETE TO BE USED THROUGHOUT.
2" PIPE WEEP HOLES TO BE PLACED AS DIRECTED BY ENGINEER.
THE 6" OPENING SHOWN MAY BE INCREASED TO 8" MAXIMUM IF DEEMED TO BE NECESSARY BY THE ENGINEER.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #5 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STD. DWG. 840.00.
A STONE BRAIN CONSISTING OF 1 CUBIC FOOT OF NO. 75M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT EACH WEEP HOLE.
FOR 8" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB.
OVER 8" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. QUANTITIES TO BE ADJUSTED ACCORDINGLY.
DIMENSIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.



PART SECTION Y-Y

SHOWING METHOD OF CONSTRUCTION FOR 6" OPENING

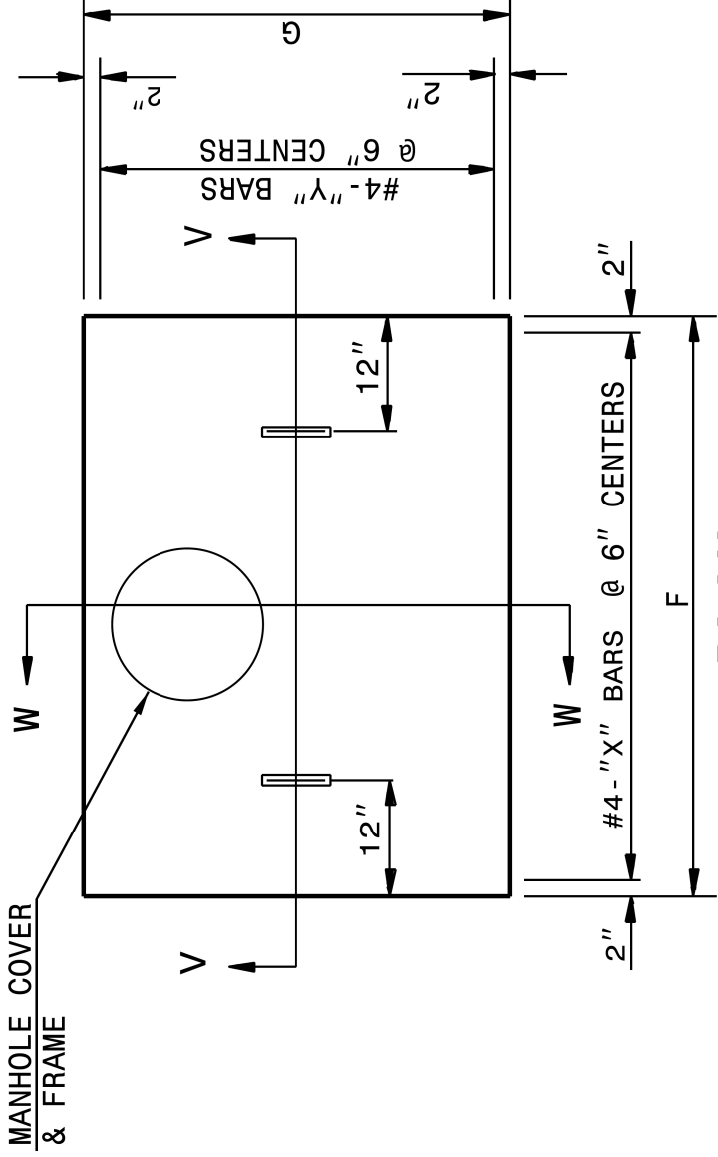
PART SECTION Y-Y

SHOWING METHOD OF CONSTRUCTION IF INCREASED OPENING IS USED

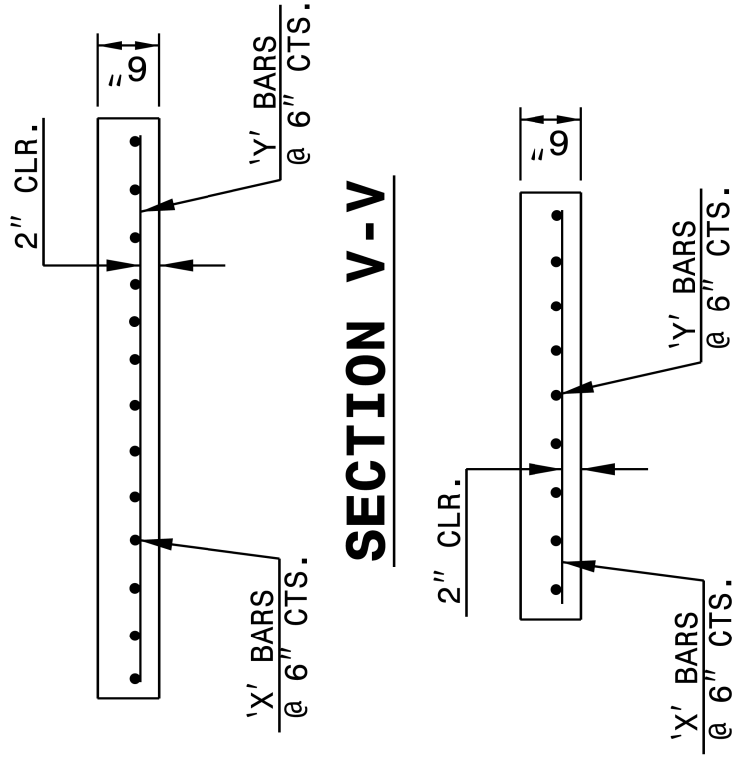
MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)									
DIMS. OF BOX & PIPE		REINFORCING		TOP & BOT SLAB DIMENSIONS		CU. YDS. CONC.		TOTAL QUANTITIES	
PIPE	SPAN	WIDTH	HEIGHT	BARS - X	BARS - Y	BARS - Z	IN BOX	BOX & SLABS	DED. ONE 6" THROAT OPENING
D	A	B	H	NO.	LENGTH	NO.	LENGTH	TOP SLAB (BOT. SLAB) (MULTIPLY BY LBS. REIN. YD. (MTH. H)	C.S. R. C. YD. ³
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	2	4'-3"	0.181	0.271
15"	3'-6"	2'-3"	2'-1"	4	3'-0"	2	4'-3"	0.181	0.271
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	2	4'-9"	0.226	0.340
24"	4'-0"	2'-8"	2'-10"	5	3'-5"	2	4'-9"	0.226	0.340
30"	4'-0"	3'-6"	3'-4"	5	4'-3"	9	4'-9"	0.278	0.417
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	0.340	0.510
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	0.407	0.611
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	0.444	0.666

SHEET 1 OF 2
840D04

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

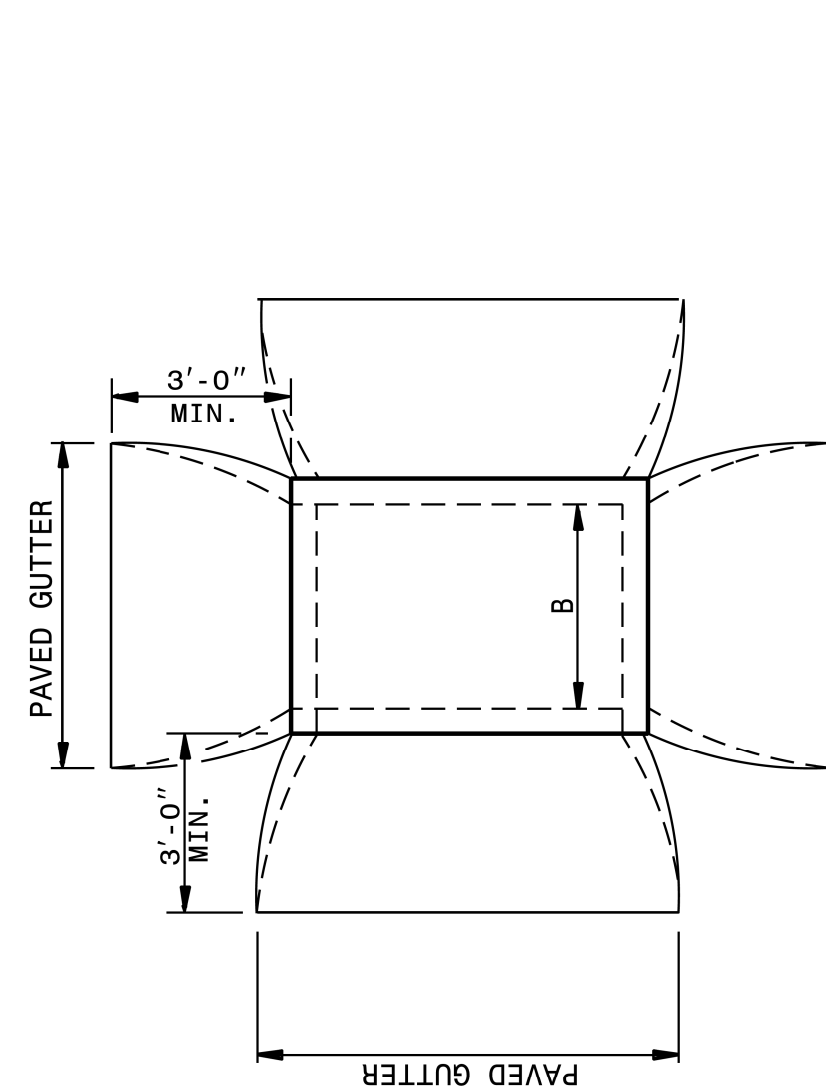


ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)
(MANHOLE OPTIONAL)

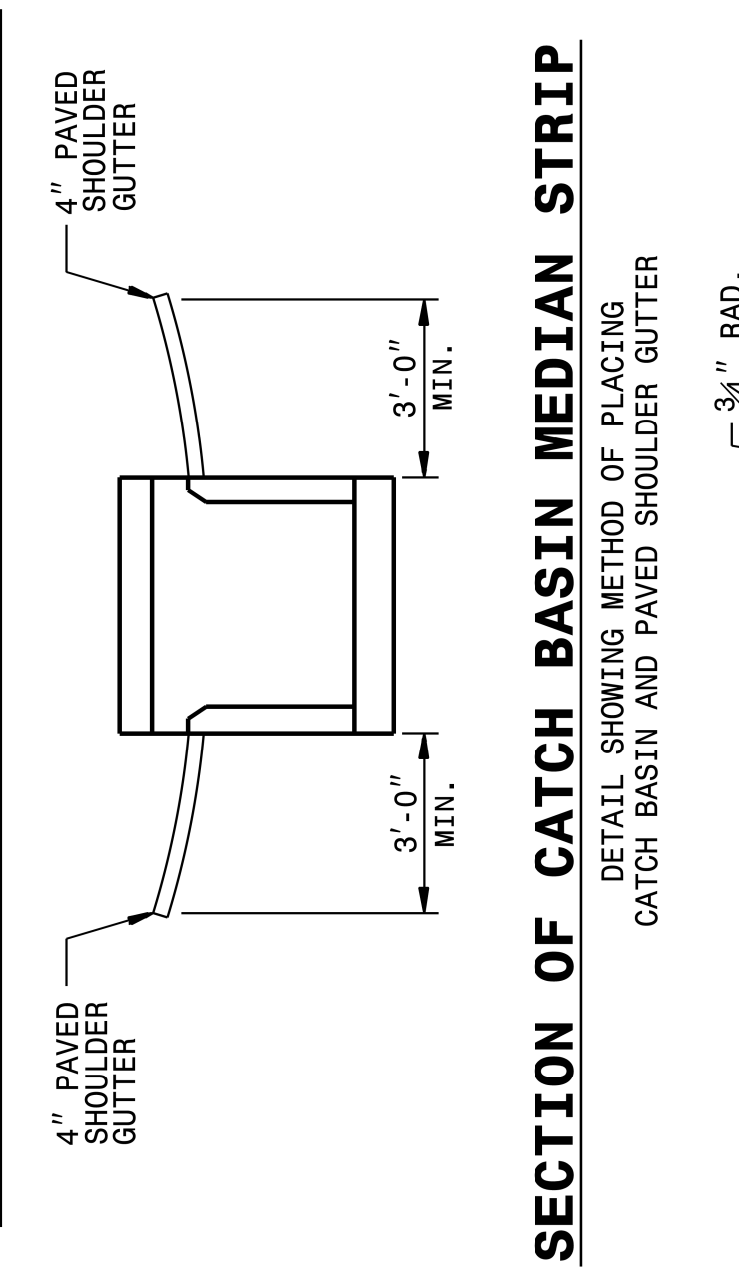


SHEET 2 OF 2
840D04

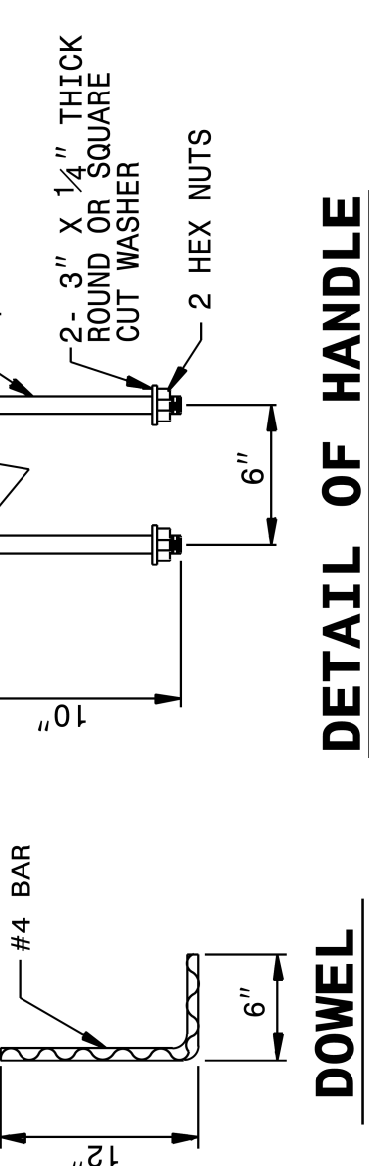
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.



ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)
(MANHOLE OPTIONAL)



DETAIL OF HANDLE

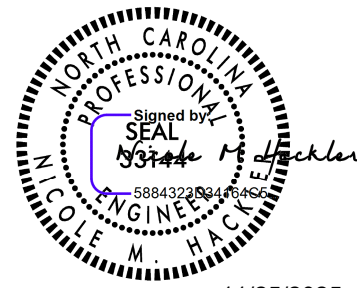


SEE PLATE FOR TITLE

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 07-03-2014
CHECKED BY: _____ DATE: _____
FILE SPEC.: details/nbritt/english/hydro/840d04.dgn

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

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



11/25/2025