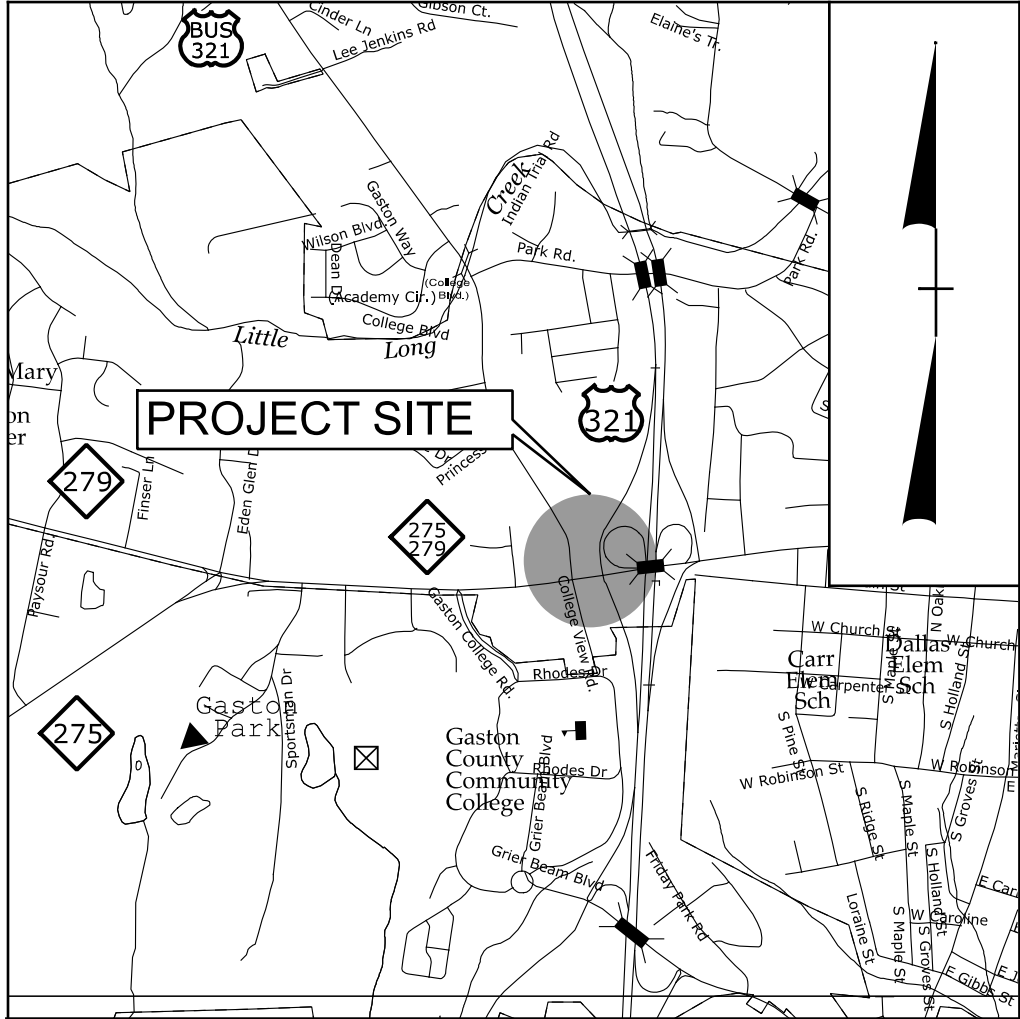


TIP PROJECT: HN-0027

CONTRACT:

See Sheet 1A For Index of Sheets



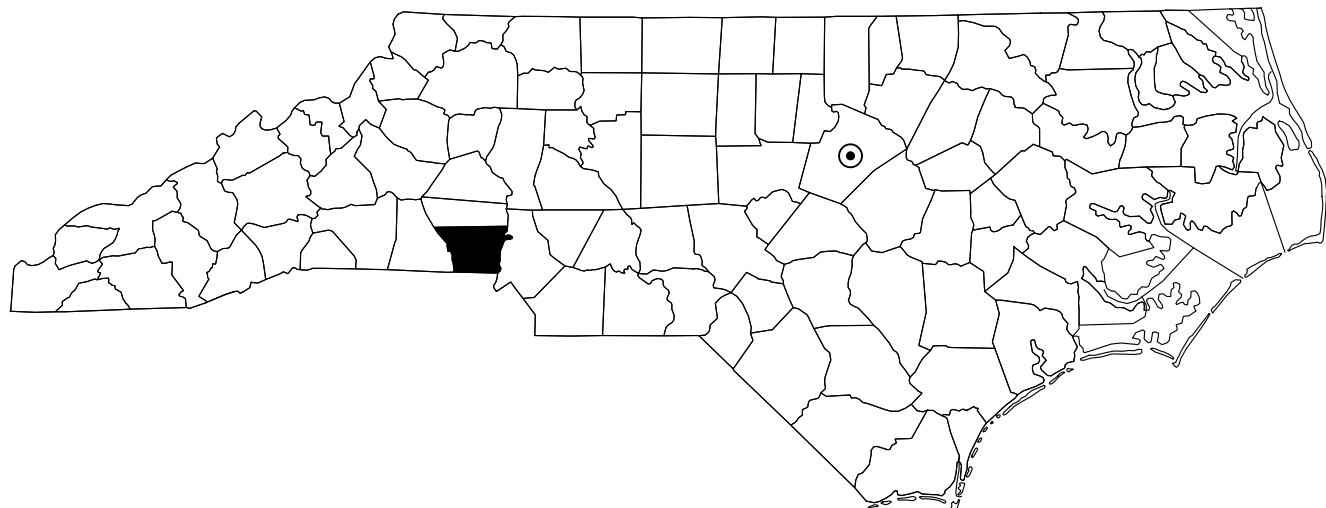
VICINITY MAP (NTS)

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

GASTON COUNTY

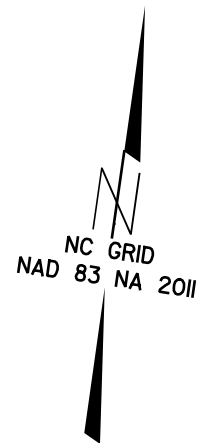
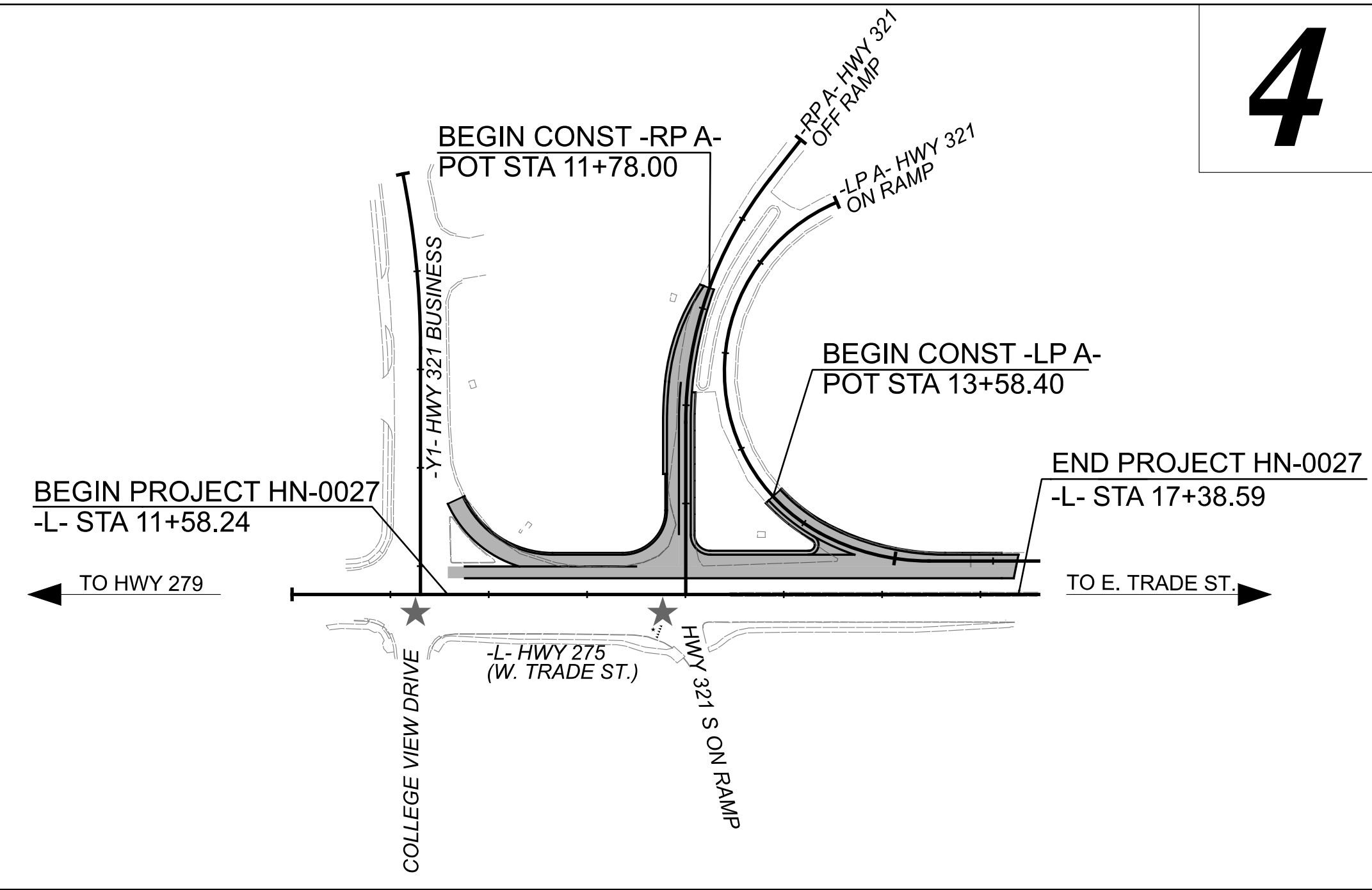
LOCATION: *NC 275 (W. TRADE ST.) FROM HWY 321
BUSINESS TO 321 SOUTH BOUND ON LOOP*

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



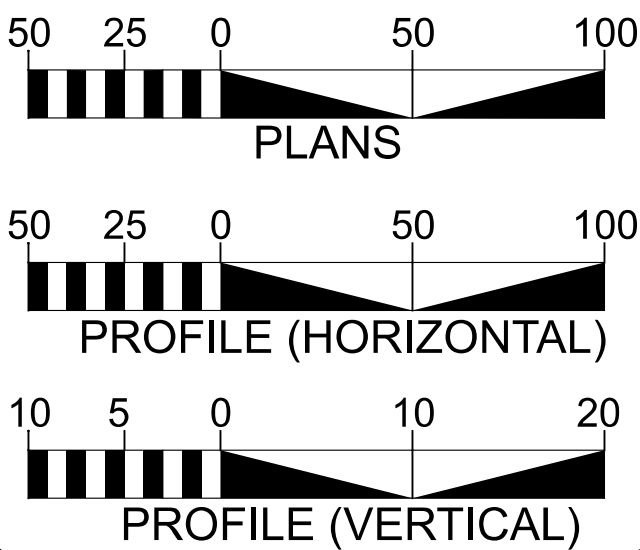
NCDOT CONTACT:
LEE A BRYSON, PE
LABRYSON@NCDOT.COM
980-552-4233

- NOTES:
1.) PROJECT IS WITHIN DALLAS MUNICIPAL LIMITS
2.) THIS PROJECT HAS FULL CONTROLLED ACCESS THROUGH INTERCHANGE



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2026 = 25,500
ADT 2046 = 45,500
V = 40 MPH

FUNC CLASS =
PRINCIPAL
ARTERIAL

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT HN-0027 = 0.110 MILES
TOTAL LENGTH OF TIP PROJECT HN-0027 = 0.110 MILES

PREPARED IN
THE OFFICE OF:



2024 STANDARD SPECIFICATIONS

LETTING DATE:
August 25, 2026

ALLISON C. JOHNSON, PE
PROJECT ENGINEER

BENJAMIN C. PICKERING II, PE
PROJECT DESIGN ENGINEER

LEE A. BRYSON, PE
NCDOT CONTACT

HYDRAULICS ENGINEER



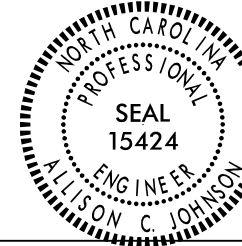
8/3/2026

DocuSigned by:
Benjamin C. Pickering

P.E.

SIGNATURE:

ROADWAY DESIGN ENGINEER

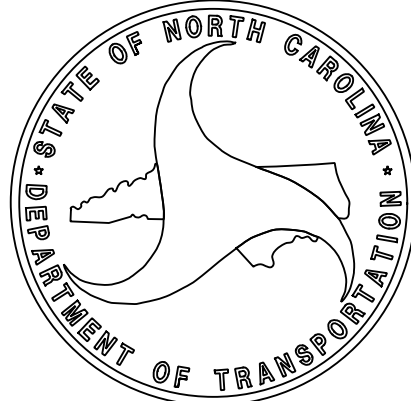


8/3/2026

DocuSigned by:
Allison C. Johnson

P.E.

SIGNATURE:



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	ROADWAY SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4 THRU 5	PLAN AND PROFILE SHEET
RW 2C-1	SURVEY CONTROL
TMP-1 THRU TMP-5	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
RF-1 THRU RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN-2	SIGNING PLANS
SIG-1 THRU SIG-2	SIGNAL PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1 THRU X-12	CROSS-SECTIONS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

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 II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement

DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain

GENERAL NOTES: 2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

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 II.

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

SUBSURFACE DRAINS:

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

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	

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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	
Permanent 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:

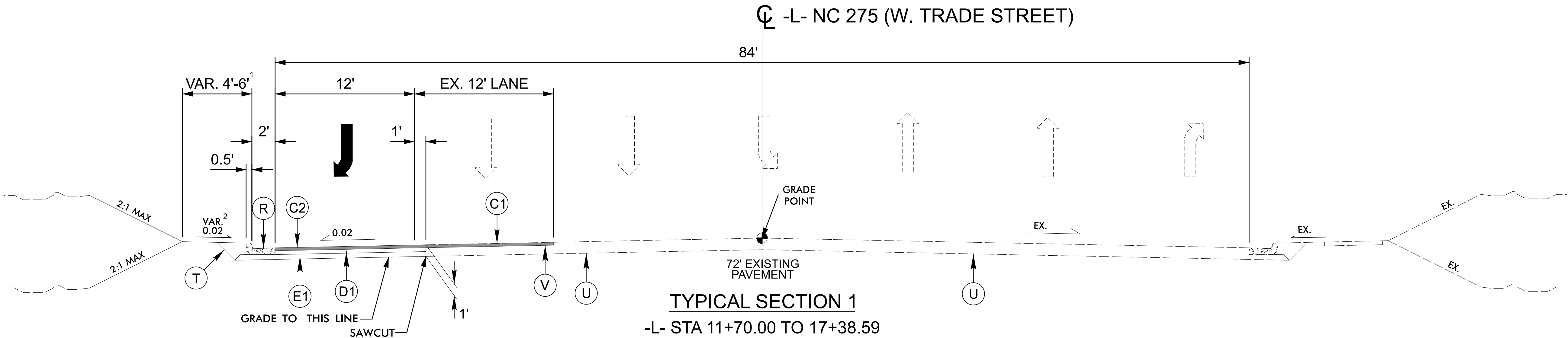
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	
U/G Gas Line (SUE - LOS C)*	
U/G Gas Line (SUE - LOS D)*	
Above Ground Gas Line	

SANITARY SEWER:

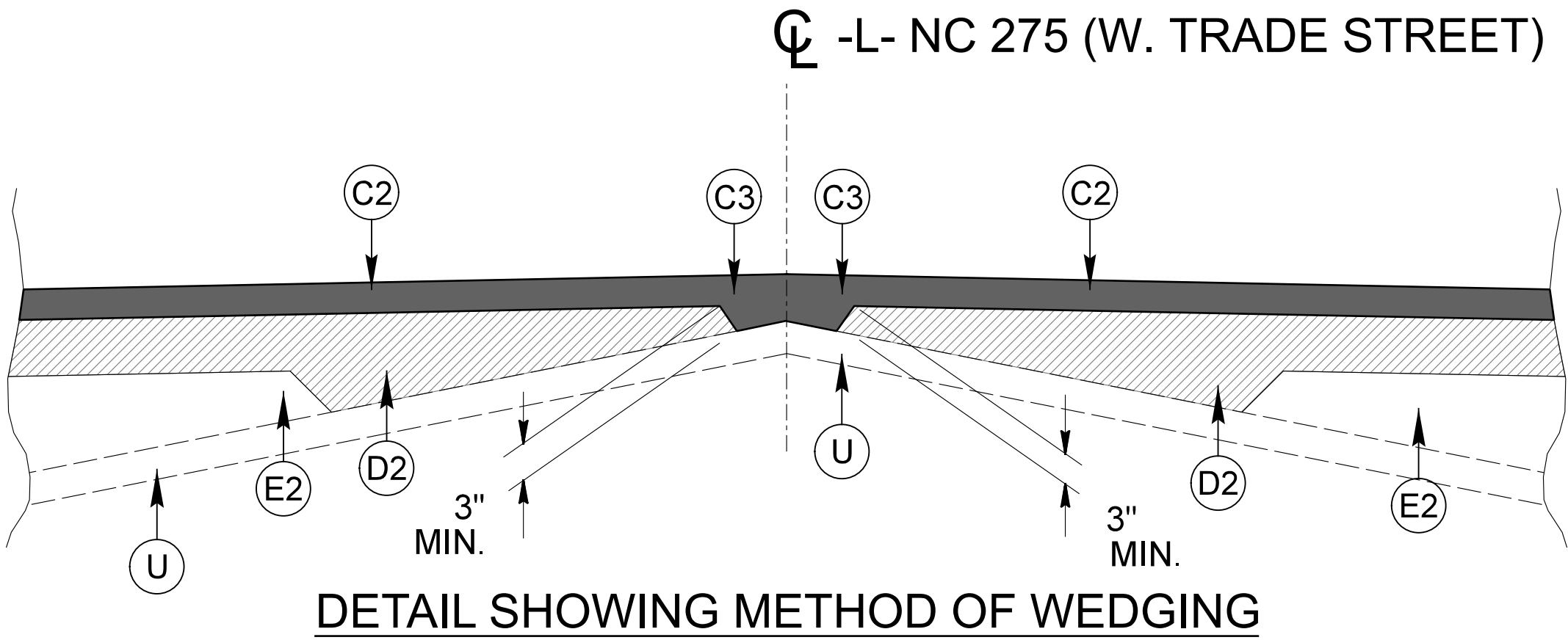
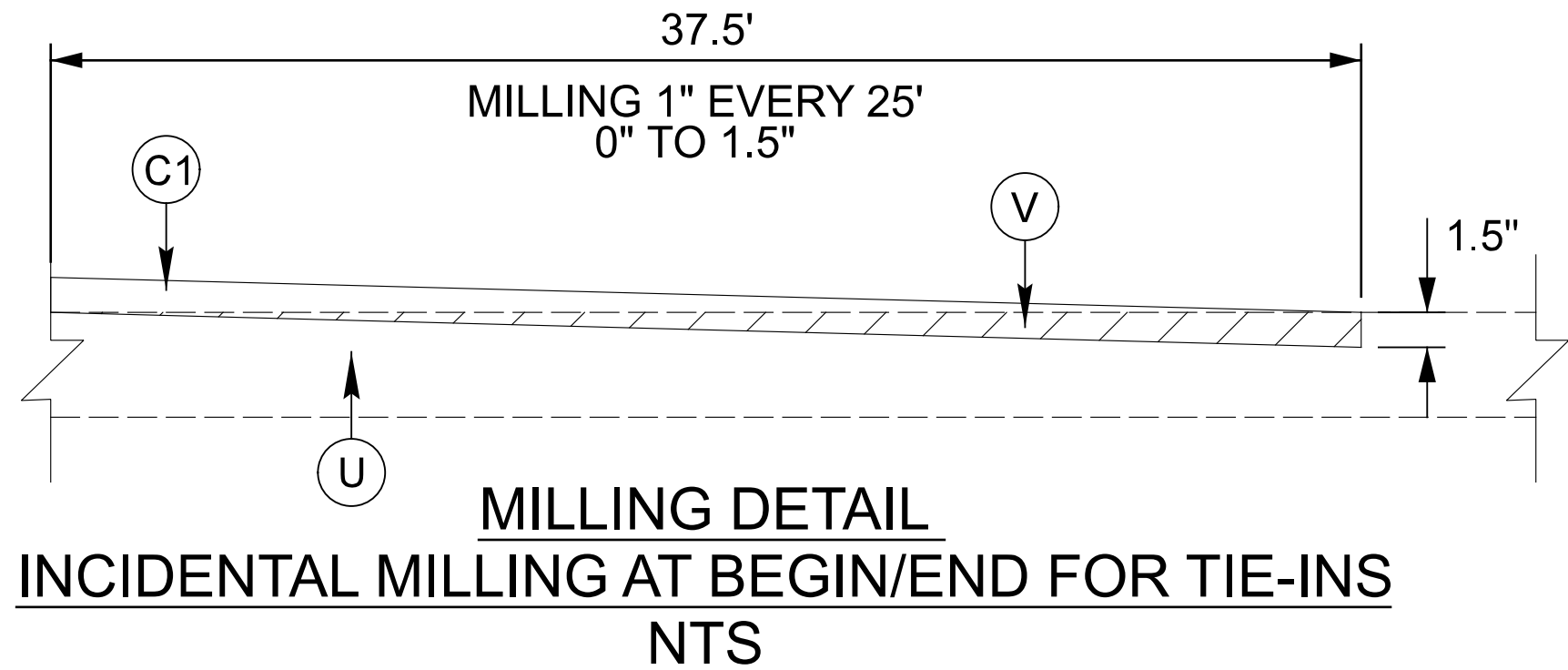
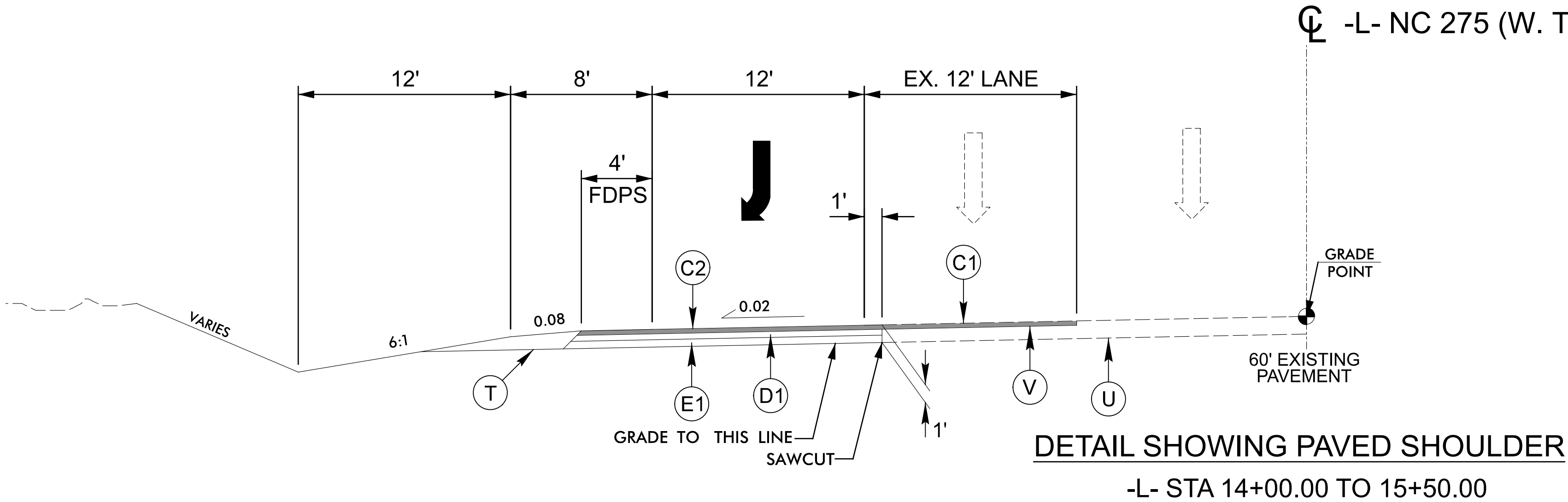
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE - LOS A)*	
SS Force Main Line (SUE - LOS B)*	
SS Force Main Line (SUE - LOS C)*	
SS Force Main Line (SUE - LOS D)*	

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	
Geoenviromental Boring	
Abandoned According to Utility Records	
End of Information	



- NOTES:
- 1.) 4' BERM FROM STA. STA. 13+32.26 TO STA. 14+00.00
 - 2.) 6:1 BERM SLOPE FROM STA. 17+05.00 TO STA. 17+15.00

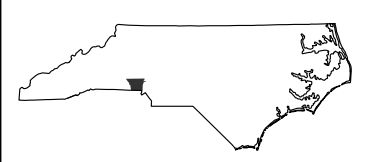


FINAL PAVEMENT SCHEDULE	
ITEM	DESCRIPTION
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.
C3	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD PER INCH. DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
D2	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD. PER INCH, DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YARD.
E2	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD. PER INCH, DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
R	PROP 2' 6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING VARIABLE DEPTH UP TO 1.5"

HN-0027

2A-I

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
GASTON COUNTY



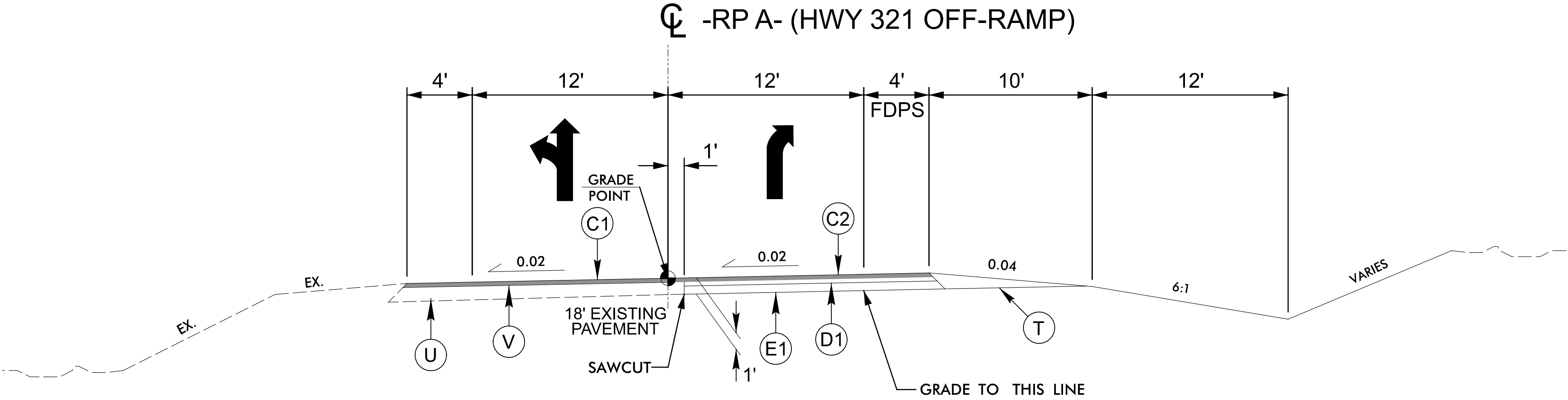
ROADWAY DESIGN
ENGINEER



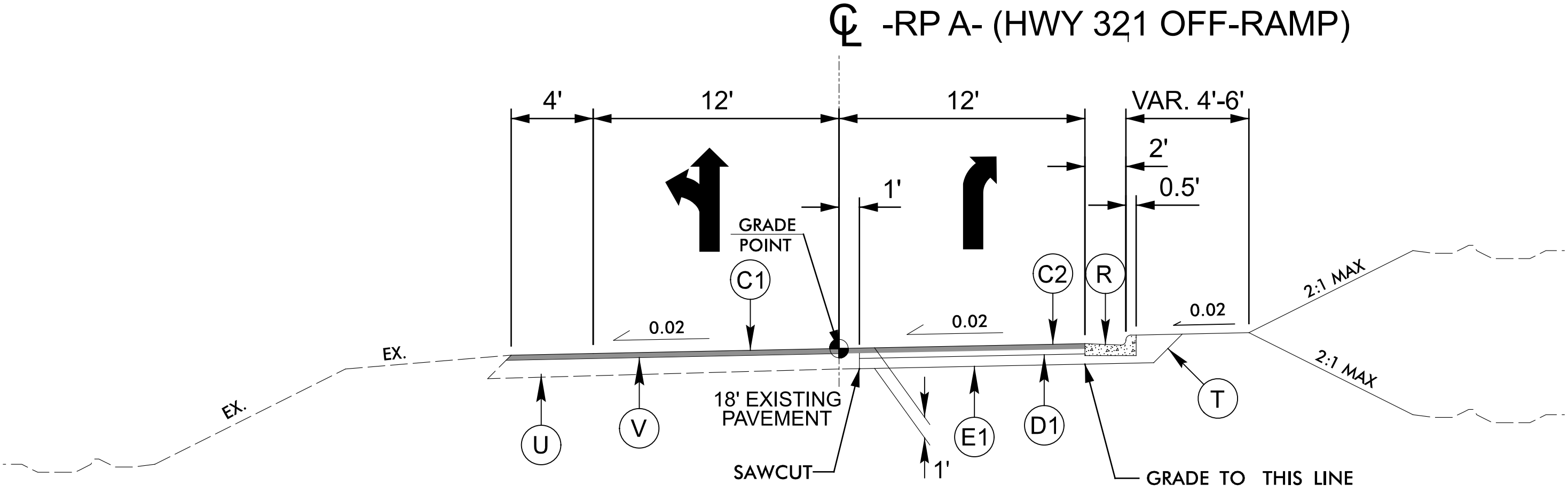
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AMERICAN
Engineering
Shaping the Future, Together

11525 N. Community House Road Suite 325
Charlotte, NC 28277 (704) 575-2418
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UNLESS ALL SIGNATURES COMPLETED

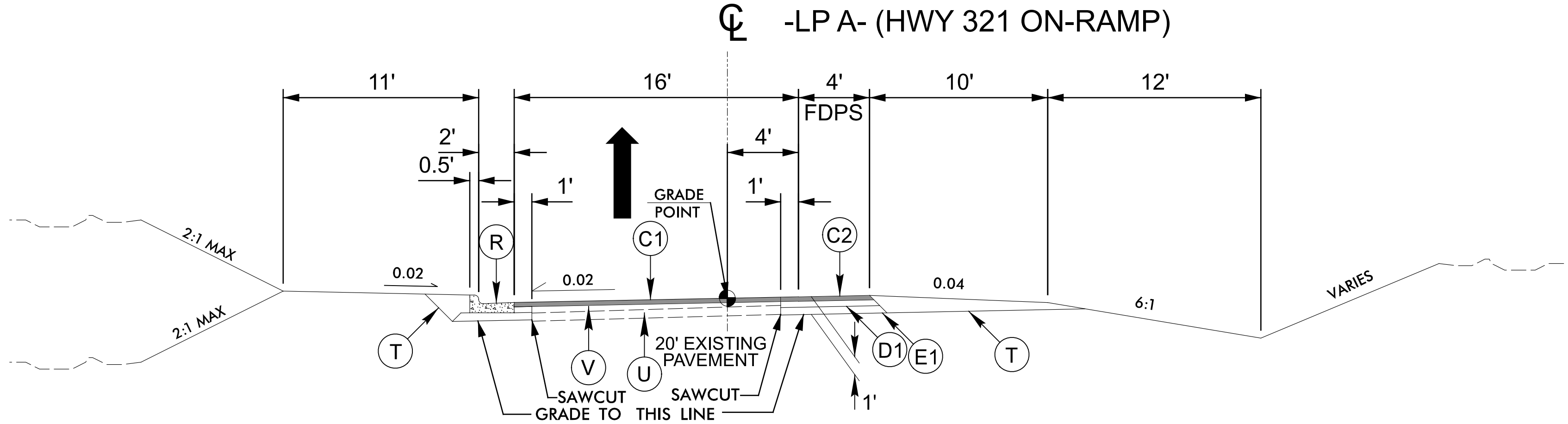
REVISIONS



TYPICAL SECTION 2
-RP A- STA 11+78.00 TO 14+63.97



DETAIL SHOWING CURB AND GUTTER
-RP A- STA 13+70.00 TO 14+63.97



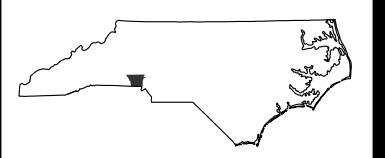
TYPICAL SECTION 3
-LP A- STA 13+58.40 TO 14+79.89

FINAL PAVEMENT SCHEDULE	
ITEM	DESCRIPTION
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.
C3	PROP. VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD PER INCH. DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
D2	PROP. VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD. PER INCH, DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YARD.
E2	PROP. VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD. PER INCH, DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
R	PROP 2' 6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING VARIABLE DEPTH UP TO 1.5"

HN-0027

2A-2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
GASTON COUNTY



ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER



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Charlotte, NC 28277 (704) 575-2418
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REVISIONS

11/14/23

COMPUTED BY:	MS	DATE: 5/15/26
CHECKED BY:	ACJ	DATE: 5/15/26

SUMMARY OF EARTHWORK (CY)

LINE	STATION	STATION	UNCL. EXCAVATION	UNSUIT. EXCAVATION	EMBANK. +15%	WASTE
-L-	11+58.24	17+38.59	353	189	9	344
-RP A-	11+78.00	14+92.47	501	65	89	412
-LP A-	13+58.40	15+34.85	106	54	18	88
	SUBTOTAL		960	308	116	844
	WASTE IN LIEU OF BORROW					0
	PROJECT TOTAL		960	308	116	844
	GRAND TOTAL		960			
	SAY		970			

CONTINGENCY ITEMS:
UNDERCUT EXCAVATION = 450 CY
GEOTEXTILE FOR SOIL STABILIZATION = 200 SY
SELECT GRANULAR MATERIAL = 200 CY
CLASS IV SUBGRADE STABILIZATION = 100 TONS
GEOTEXTILE FOR SUBGRADE STABILIZATION = 200 SY

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, AND CLEARING AND GRUBBING, WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING".

HN-0027
3B-I

REVISIONS

SUMMARY OF SUBSURFACE DRAINAGE

LINE	STATION	STATION	LOCATION LT/RT/CL	DRAIN TYPE UD/BD/SD	LF
CONTINGENCY				SD	200
				TOTAL LF:	200

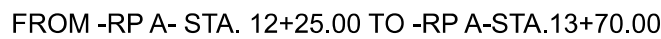
*UD = UNDERDRAIN
*BD = BLIND DRAIN
*SD = SUBSURFACE DRAIN

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	STATION	STATION	AGGREGATE TYPE* ASU(1/2)/ AST	AGGREGATE THICKNESS INCHES [8" FOR ASU(2)]	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TONS	GEOTEXTILE FOR SUBGRADE STABILIZATION SY	STABILIZER AGGREGATE TONS	CLASS IV AGGREGATE STABILIZATION TONS
CONTINGENCY			ASU(1)	12	100	100	200		
				TOTAL CY/TONS/SY:	100	100	200	0	0

*ASU(1/2) = AGGREGATE SUBGRADE (TYPE 1 OR 2)
*AST = AGGREGATE STABILIZATION
**TOTAL TONS OF "CLASS IV SUBGRADE STABILIZATION" AND TOTAL SQUARE YARDS OF "GEOTEXTILE FOR SUBGRADE STABILIZATION" ARE THE ONLY THE ESTIMATED QUANTITIES FOR ASU(1/2)/AST AND MAY ONLY REPRESENT A PORTION OF THE SUBGRADE STABILIZATION AND GEOTEXTILE QUANTITIES SHOWN IN THE ITEM SHEETS OF THE PROPOSAL.

REVISIONS



CUR DATA -LP A-
Plc 13+85.71
 $\Delta c = 128^{\circ}16'10.7''$ (LT)
D = $30^{\circ}38'22.0''$
Lc = 418.64
Tc = 385.71
R = 187
SE = EXIST

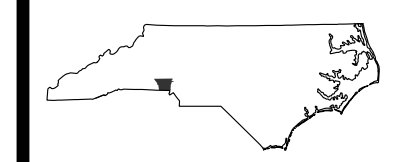
CUR DATA -LP A-
Plc 14+78.01
 $\Delta c = 28^{\circ}56'53.8''$ (LT)
D = $24^{\circ}54'38.5''$
Lc = 116.21
Tc = 59.37
R = 230
SE = EXIST

NOTES:
SEE SHEET 005 FOR PROFILE



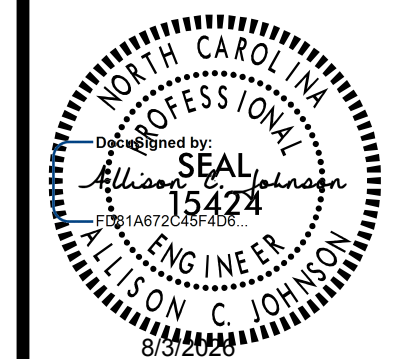
004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
GASTON COUNTY

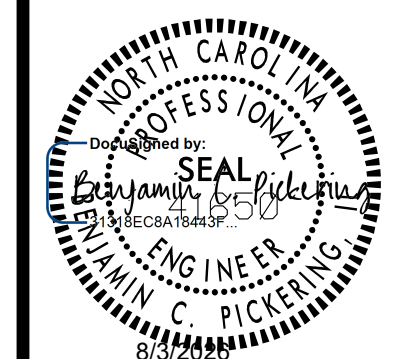


ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER



HYDRAULICS
ENGINEER

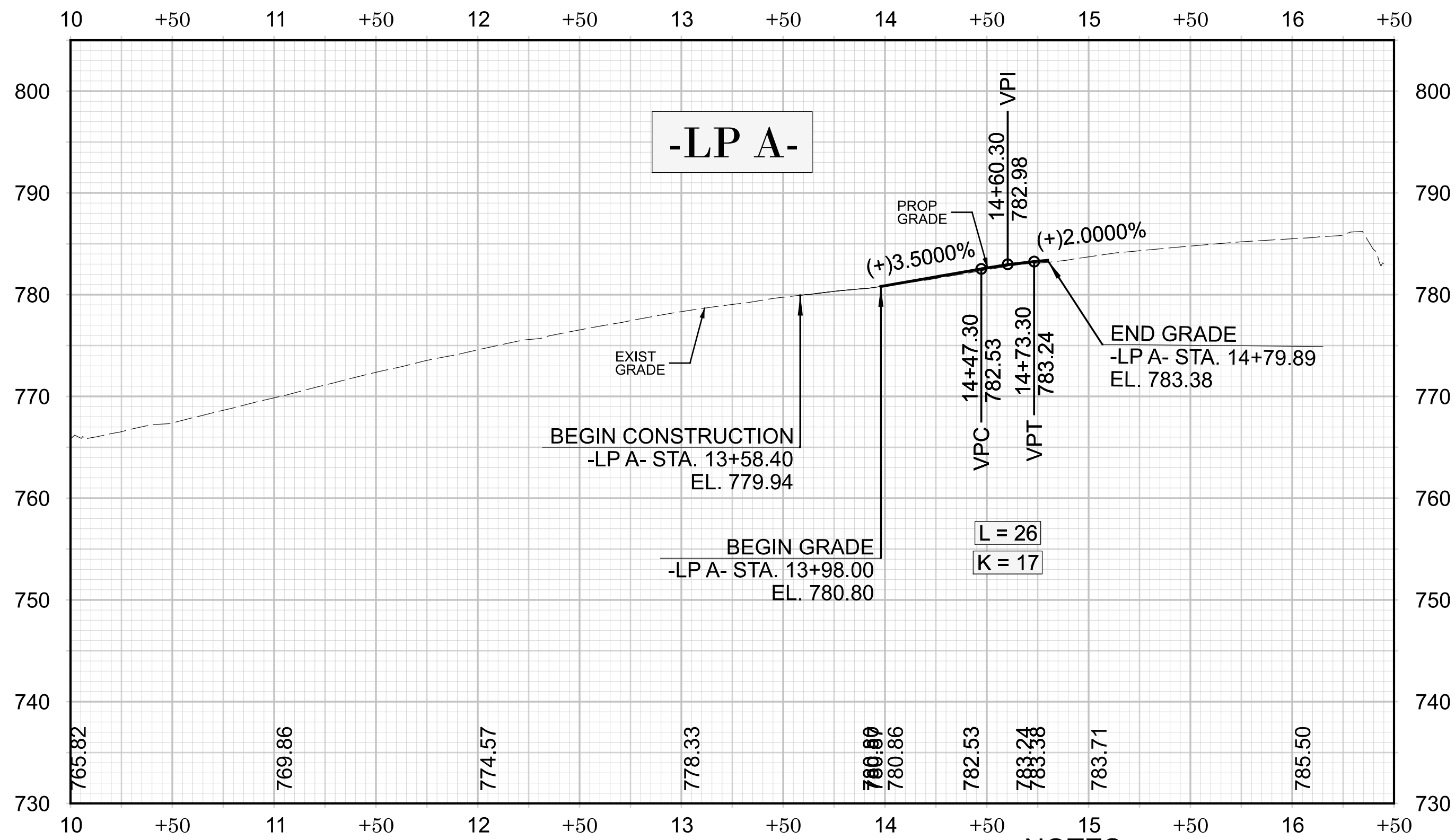
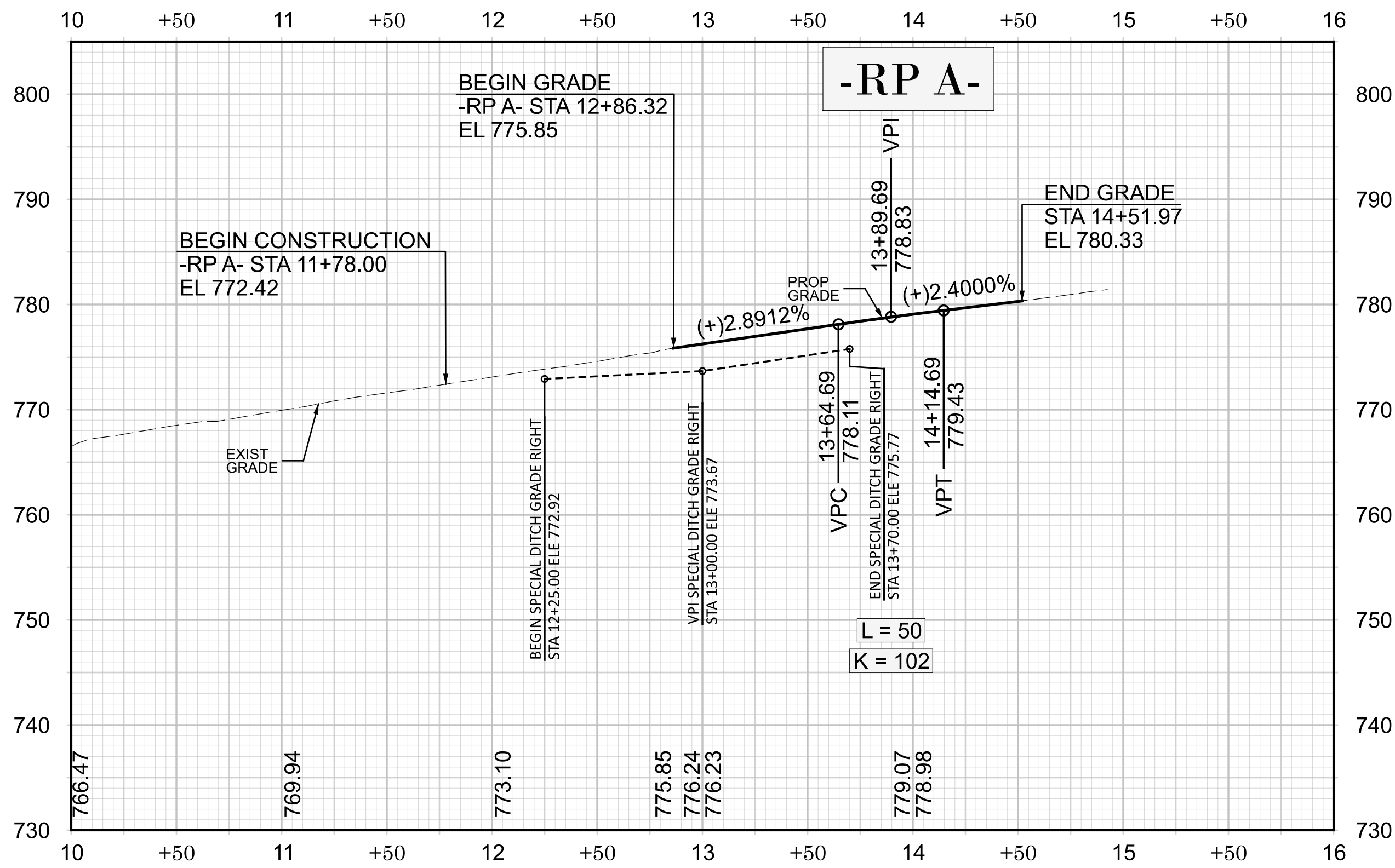
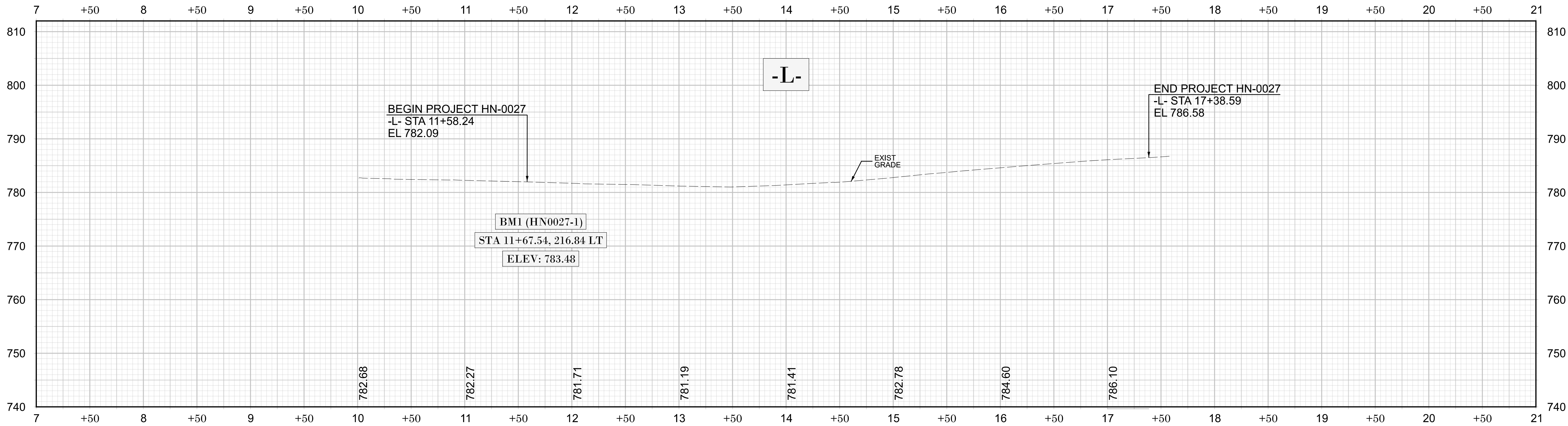


PREPARED BY



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DEVIATION



NOTES:
SEE SHEET 004 FOR PLAN

HN-0027

005

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
GASTON COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

DESIGNED BY
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
8/3/2018

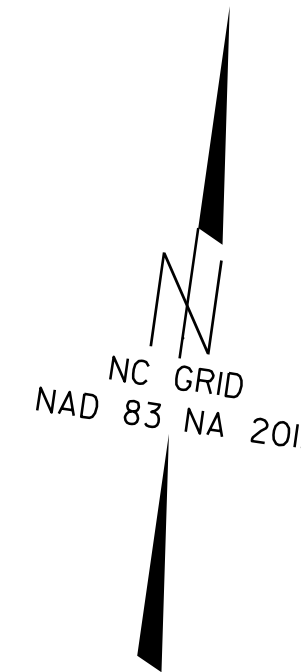
HYDRAULICS
ENGINEER

DESIGNED BY
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
8/3/2018

PREPARED BY
AMERICAN
Engineering
Shaping the Future, Together

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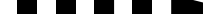
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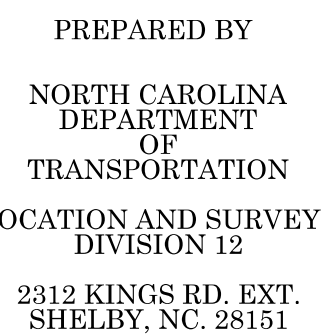
DocuSigned by:
Gavin D. Proffitt
282D412268164E7...

PROFESSIONAL LAND SURVEYOR L-5298

SCALE 1"=50'



50' 25' 0' 50' 100'



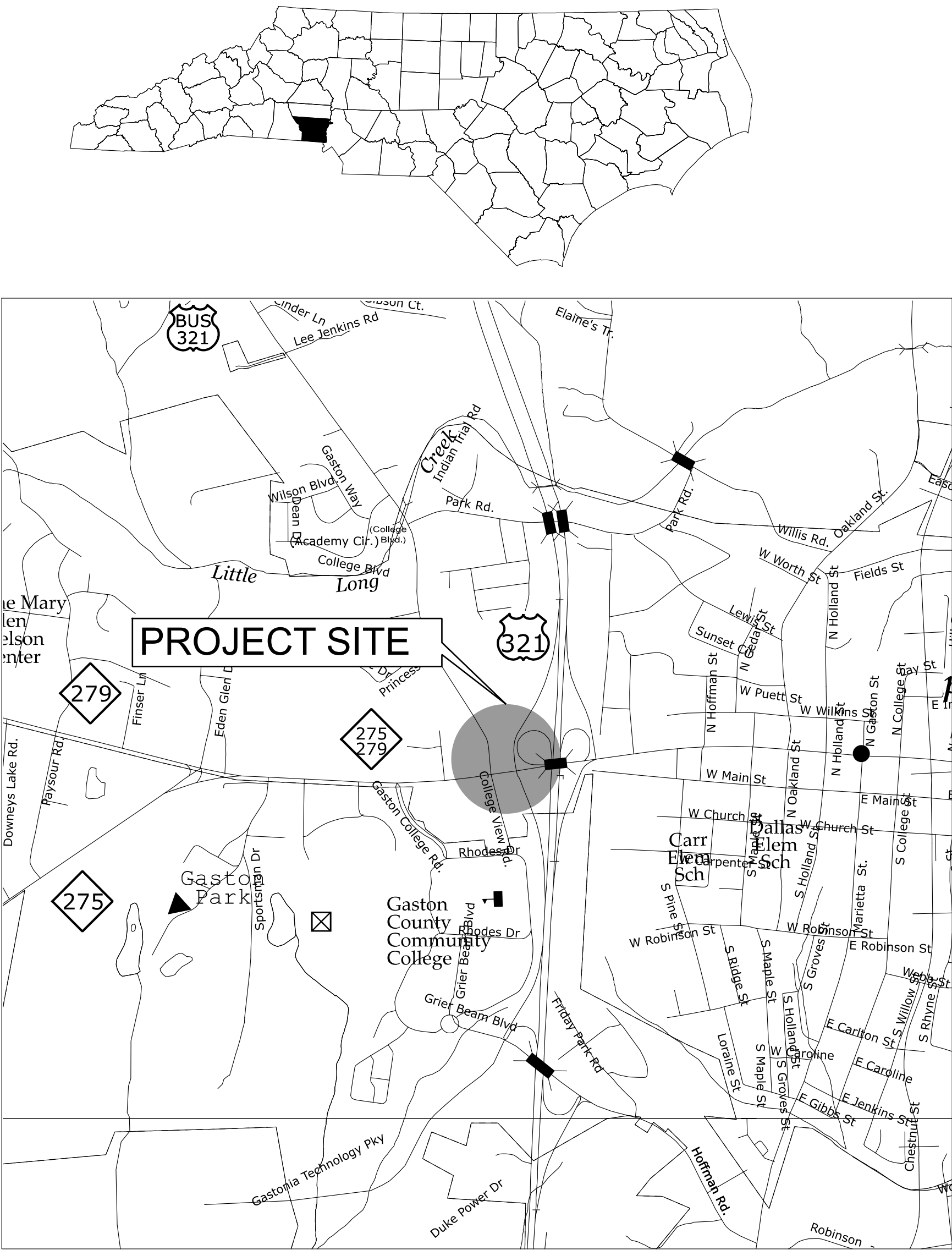
STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

GASTON COUNTY

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



VICINITY MAP (NTS)



WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

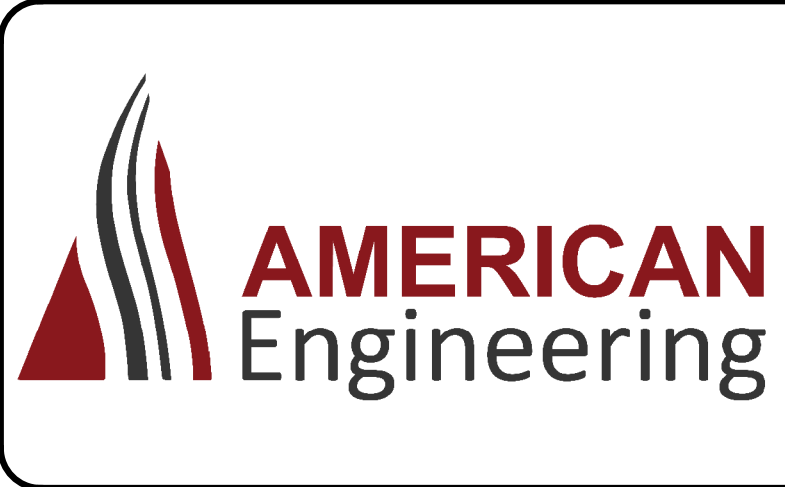
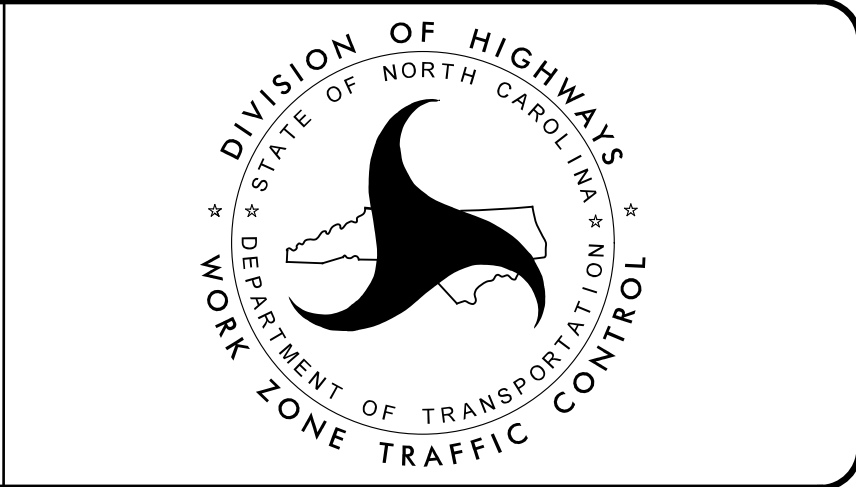
PLANS PREPARED BY:

ALLISON C. JOHNSON, P.E.
TRAFFIC CONTROL PROJECT ENGINEER

BENJAMIN C. PICKERING II, P.E.
TRAFFIC CONTROL PROJECT
DESIGN ENGINEER

NCDOT CONTACT:

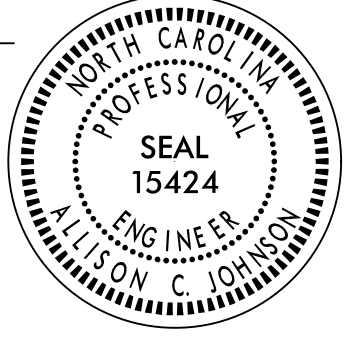
LEE A. BRYSON, P.E.
NCDOT CONTACT



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APPROVED: 
DATE: 8/3/2026

SEAL



INDEX OF SHEETS	
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	GENERAL NOTES
TMP-3	PHASING NOTES
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

TIP PROJECT: HN-0027

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

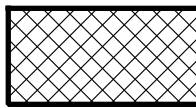
STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1150.01	FLAGGERS
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPs
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.17	PAVEMENT MARKINGS - SIDE-BY-SIDE/ADJACENT ON/OFF RAMPs
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)

 WORK AREA

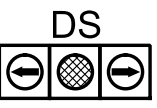
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 USER DEFINED (IF NEEDED)

 USER DEFINED (IF NEEDED)

SIGNALS

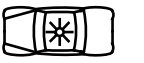
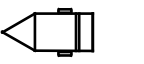
-  EXISTING
-  PROPOSED
-  TEMPORARY
-  PORTABLE

 DRIVEWAY SIGNAL

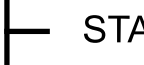
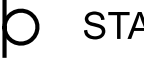
PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

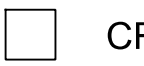
TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM  SKINNY DRUM  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

- T1

WHITE EDGE LINE (4")
- T2

WHITE SOLID LANE LINE (4")
- T3

10FT. WHITE SKIP (4")
- T4

3FT.-9FT./SP WHITE MINI-SKIP (4")
- T40

WHITE GORELINE (8")
- T61

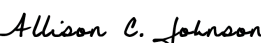
WHITE STOP BAR (24")
- T71

RIGHT TURN ARROW
- T72

STAIGHT ARROW
- T74

COMBO. RIGHT/STRAIGHT ARROW
- T76

COMBO. LEFT/RIGHT/STRAIGHT ARROW

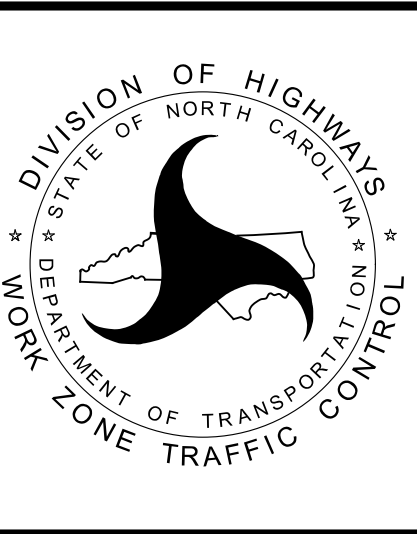
APPROVED: 

DATE: 8/3/2026

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ROADWAY STANDARD
DRAWINGS & LEGEND

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
NC 275	BETWEEN THE HOURS OF 6:00 AM TO 8:00 PM
US 321 BUS	BETWEEN THE HOURS OF 6:00 AM TO 8:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME	
NC 275	BETWEEN THE HOURS OF 6:00 AM TO 8:00 PM
US 321 BUS	BETWEEN THE HOURS OF 6:00 AM TO 8:00 PM

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 8:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 8:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL

- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTEDBY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- H) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- I) USE SEQUENTIAL FLASHING WARNING LIGHTS ON DRUMS USED FOR THE MERGING TAPERS OF NIGHTTIME LANE CLOSURES IN ACCORDANCE WITH SECTION 1140 IN THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- J) NOTIFY THE NCDOT STATEWIDE TRANSPORTATION OPERATIONS CENTER (STOC) AT 877-627-7862 APPROXIMATELY 30 MINUTES PRIOR TO INSTALLING AND WITHIN 15 MINUTES AFTER REMOVINGLANE CLOSURES ON INTERSTATES, FREEWAYS, CONTROLLED ACCESS FACILITIES, AND US ROUTES.
- K) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- L) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTINGPAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
- BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- M) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING"UNEVEN LANES" SIGNS (W8-11) 100 FEET IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- N) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- O) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FEET IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- R) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT,10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- S) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- T) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

- U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|-----------|---------|--------|
| NC 275 | Paint | N/A |
- V) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- W) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- X) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

RECOMMENDED STRATEGIES:

ALL WORK TO BE COMPLETED WITH TEMPORARY LANE CLOSURERS IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.02 WHILE ADHEARING TO DAY AND TIME RESTRICTIONS.

DESIGNED BY:
APPROVED: *Allison C. Johnson*
F081A872C45F4D8...

DATE: 8/3/2026

SEAL

PROFESSIONAL
SEAL
15424
ENGINEER
ALLISON C. JOHNSON

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TRAFFIC MANAGEMENT PLAN
GENERAL NOTES

DOCUMENT NOT CONSIDERED FINAL
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PROJ. REFERENCE NO.	SHEET NO.
HN-0027	TMP-3

PHASING NOTES

PHASE 1

STEP 1: USING ROADWAY STANDARD DRAWING NO. 1101.01 (SHEET 2 OF 3)
INSTALL WORK ZONE ADVANCE WARNING SIGNS AND INSTALL TEMPORARY
TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-4.

STEP 2: USE ROADWAY STANDARD DRAWING NO. 1101.02 (SHEET 3 OF 19) AND
FLAGGERS AS NEEDED TO COMPLETE THE FOLLOWING:

CONSTRUCT PROPOSED ROADWAY EXCLUDING FINAL SURFACE ON THE NORTH
SIDE OF NC 275:
-L- STA. 11+58± TO STA. -L- 16+78±

STEP 3: USE ROADWAY STANDARD DRAWING NO. 1101.02 (SHEET 10 OF 19 &
SHEETS 11 OF 19) AND FLAGGERS AS NEEDED TO COMPLETE THE
FOLLOWING:

CONSTRUCT PROPOSED ROADWAY EXCLUDING FINAL SURFACE:
-RPA- STA. 11+78± TO STA. -RPA- 14+64± (WEST SIDE OF RAMP)
-LPA- STA. 13+58± TO STA. -LPA- 14+80± (WEST SIDE OF RAMP)

PHASE 2

STEP 1: USE ROADWAY STANDARD DRAWING NO. 1101.02 (SHEET 10 OF 19 &
SHEETS 11 OF 19) AND FLAGGERS AS NEEDED TO COMPLETE THE
FOLLOWING:

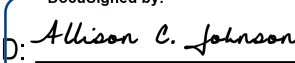
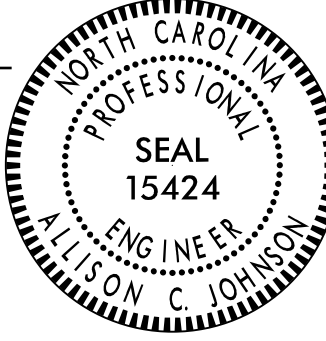
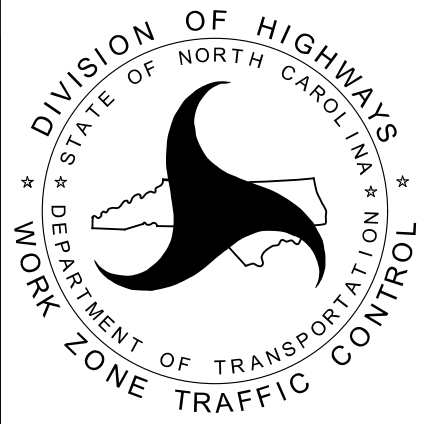
CONSTRUCT PROPOSED ROADWAY EXCLUDING FINAL SURFACE:
-RPA- STA. 11+78± TO STA. -RPA- 14+64± (EAST SIDE OF RAMP)
-LPA- STA. 13+58± TO STA. -LPA- 15+77± (EAST SIDE OF RAMP)

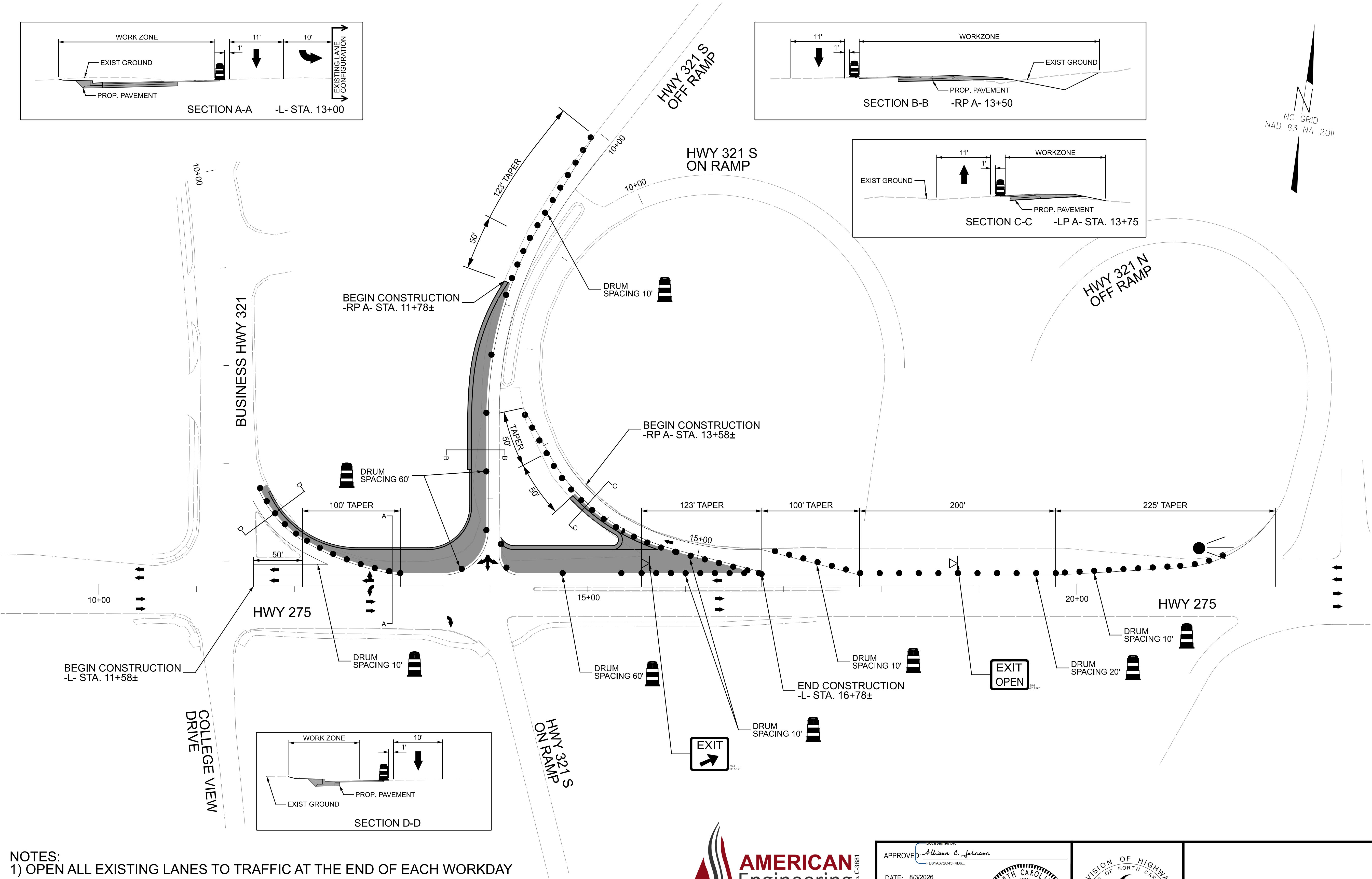
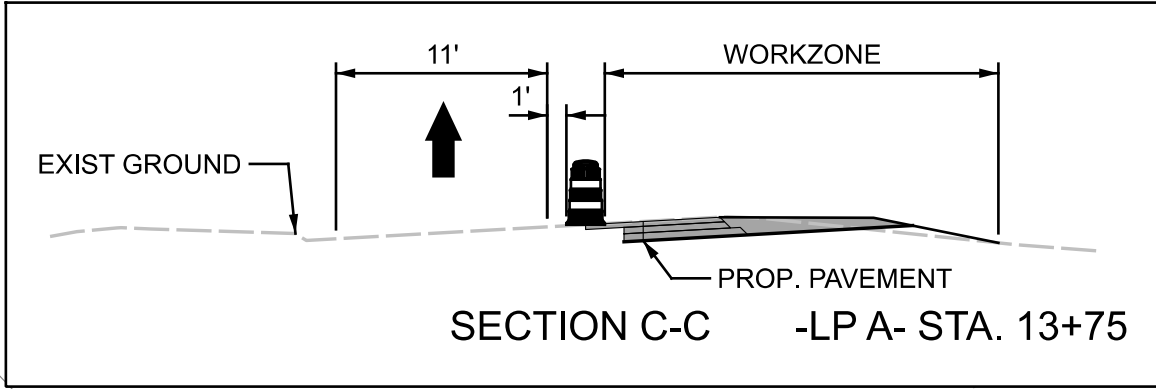
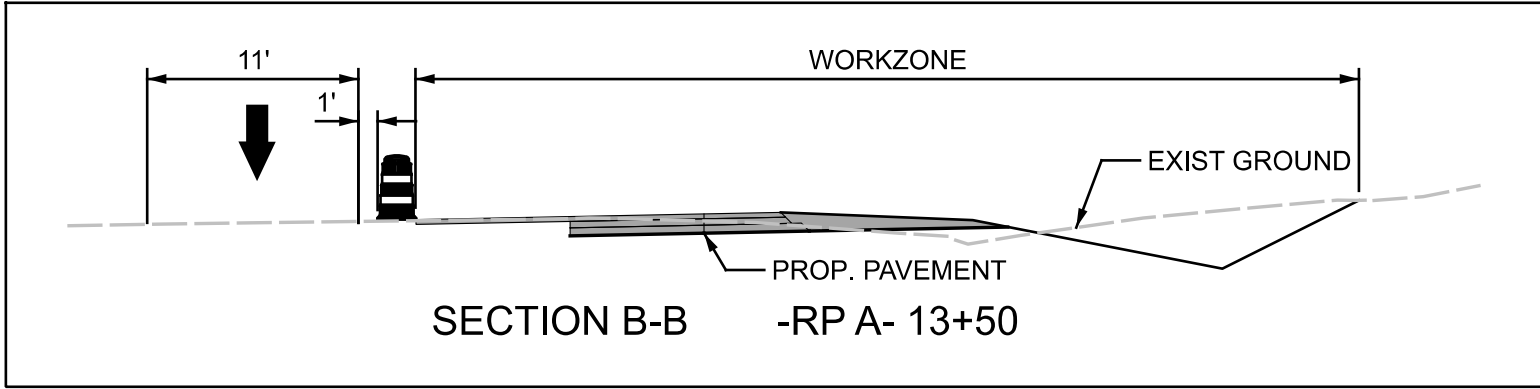
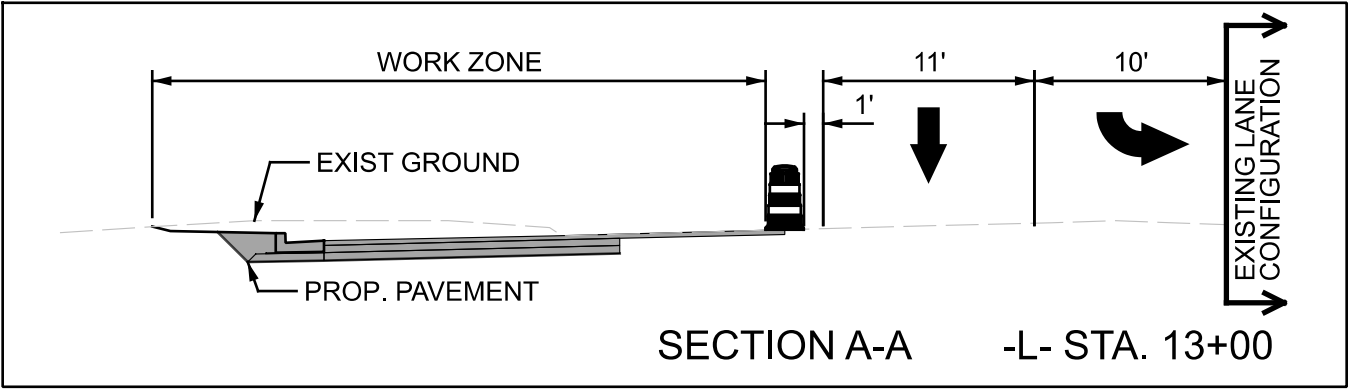
PHASE 3

STEP 1: USE ROADWAY STANDARD DRAWING NO. 1101.02 AND FLAGGERS AS NEEDED
TO COMPLETE THE FOLLOWING:

CONSTRUCT FINAL SURFACE, PLACE FINAL MARKINGS AND ADJUST
EXISTING SIGNAL.

REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN ALL LANES TO
TRAFFIC.

APPROVED:  FDB1A672C45F4D8... DATE: 8/3/2026 SEAL  DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		TRAFFIC MANAGEMENT PLAN PHASING NOTES
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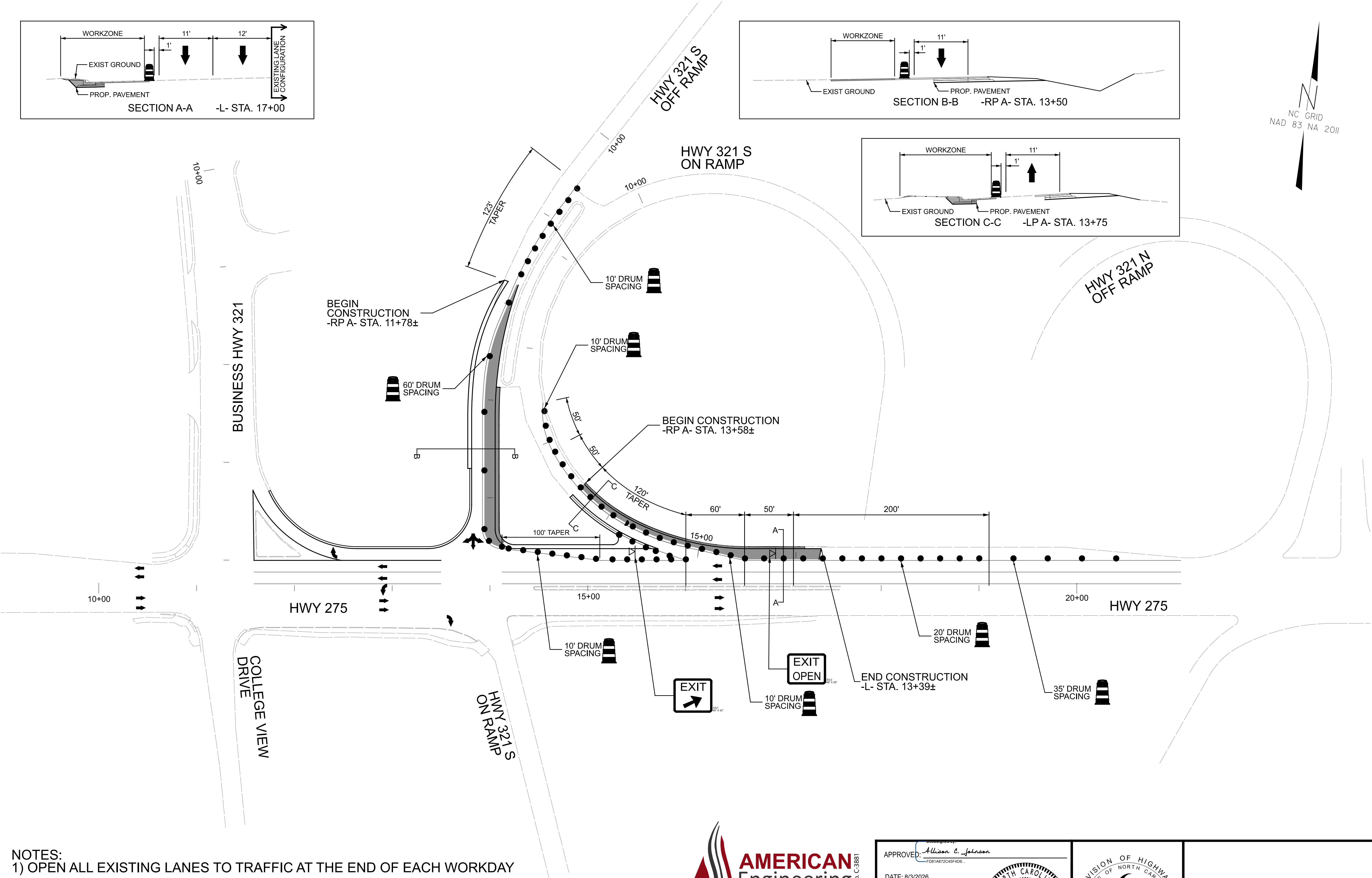
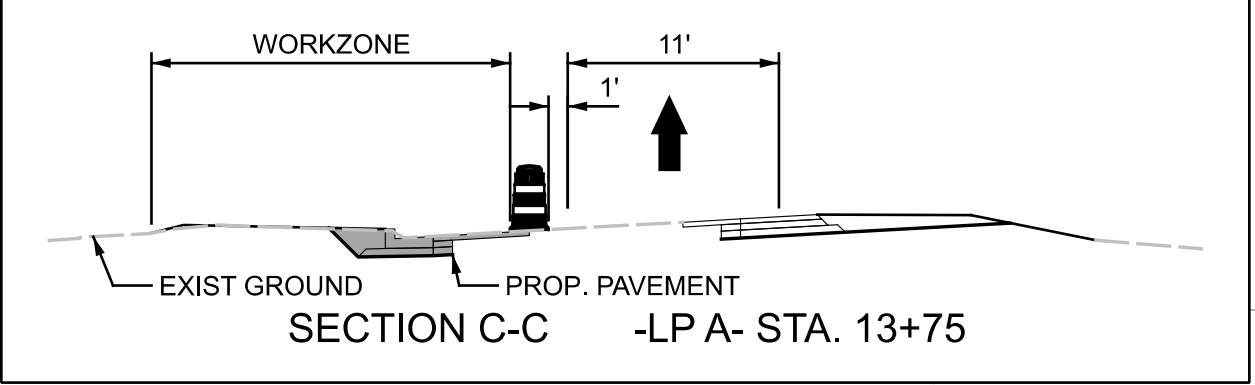
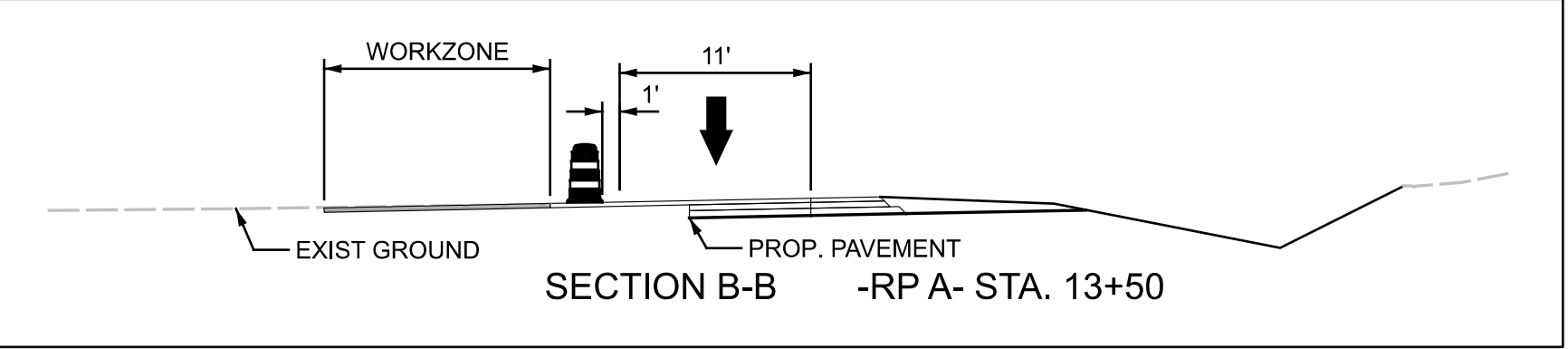
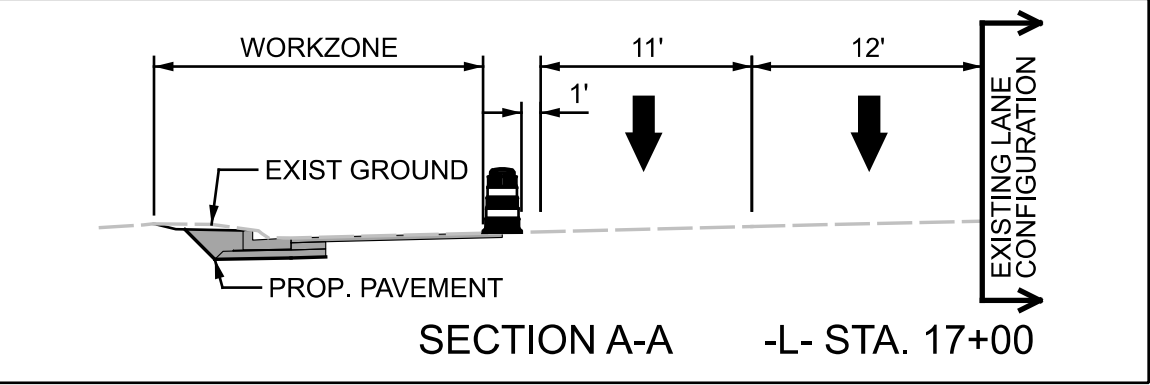
NOTES:
1) OPEN ALL EXISTING LANES TO TRAFFIC AT THE END OF EACH WORKDAY



APPROVED: <i>Allison C. Johnson</i>	DESIGNED BY: <i>Allison C. Johnson</i>
DATE: 8/3/2026	SEAL
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TRAFFIC MANAGEMENT PLAN
PHASE 1



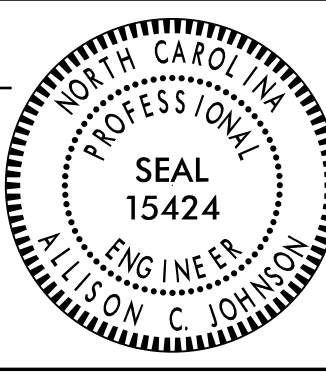
NOTES:
1) OPEN ALL EXISTING LANES TO TRAFFIC AT THE END OF EACH WORKDAY



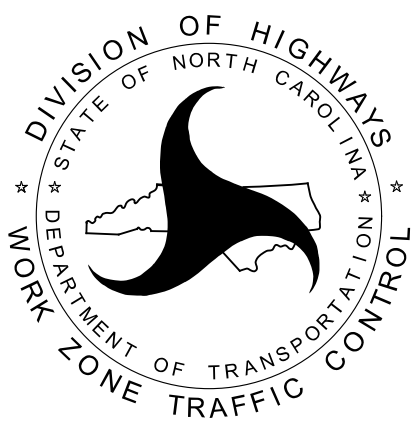
AMERICAN
Engineering
Shaping the Future, Together

11525 N. Community House Road I Suite 325
Charlotte, NC 28277 | 704.375.2438

APPROVED: 
DATE: 8/3/2026

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TRAFFIC MANAGEMENT PLAN
PHASE 2

REVISIONS

TIP PROJECT: HN-0027

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAVEMENT MARKING PLANS

GASTON COUNTY

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMPs
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS

PAVEMENT MARKING SCHEDULE

<u>THERMOPLASTIC (4", 90 MIL)</u>	<u>THERMOPLASTIC (24", 90 MIL)</u>	<u>THERMOPLASTIC (90 MIL)</u>
T1 WHITE EDGE LINE	T61 WHITE STOP BAR	T71 RIGHT TURN ARROW
T2 WHITE SOLID LANE LINE		T72 STRAIGHT ARROW
T3 10FT. WHITE SKIP		T73 COMBO. LEFT/STRAIGHT ARROW
T4 3FT.-9FT./SP WHITE MINI-SKIP		T74 COMBO. RIGHT/STRAIGHT ARROW
T10 YELLOW EDGE LINE		
<u>THERMOPLASTIC (8", 90 MIL)</u>		
T40 WHITE GORELINE		

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS: ASPHALT PAVEMENT DESIGN:

ROAD NAME	MARKING	MARKER
W. TRADE ST/ HWY 321 RAMPS	THERMOPLASTIC	RAISED
ALL OTHER ROADS	THERMOPLASTIC	NONE

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.
- E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF COLD APPLIED PLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS ON ASPHALT OR CONCRETE ROADWAYS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE COLD APPLIED PAY ITEM.
- F) TYPE III COLD APPLIED PLASTIC MAY BE USED IN LIEU OF TYPE II COLD APPLIED PLASTIC. IF TYPE III COLD APPLIED PLASTIC IS USED, IT SHALL BE PAID FOR USING THE TYPE II COLD APPLIED PLASTIC PAY ITEM.

INDEX

SHEET NO.	TITLE
PMP-1	PAVEMENT MARKING TITLE AND SCHEDULE SHEET, ROADWAY STANDARD DRAWINGS, GENERAL NOTES, AND SHEET INDEX
PMP-2	PAVEMENT MARKING PLANS

NCDOT CONTACT:

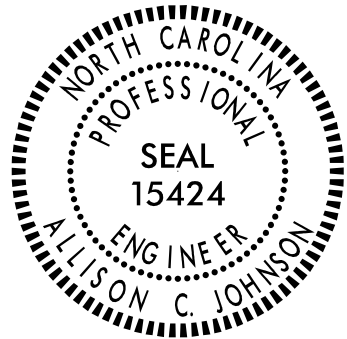
LEE A. BRYSON, PE
DIVISION 12 PROJECT ENGINEER

TIP NO.
HN-0027

SHEET NO.
PMP-1

Designed by:
APPROVED: Allison C. Johnson
F081A672C45FAD6...

DATE: 8/3/2026

SEAL


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

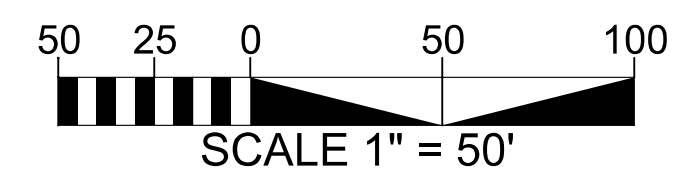
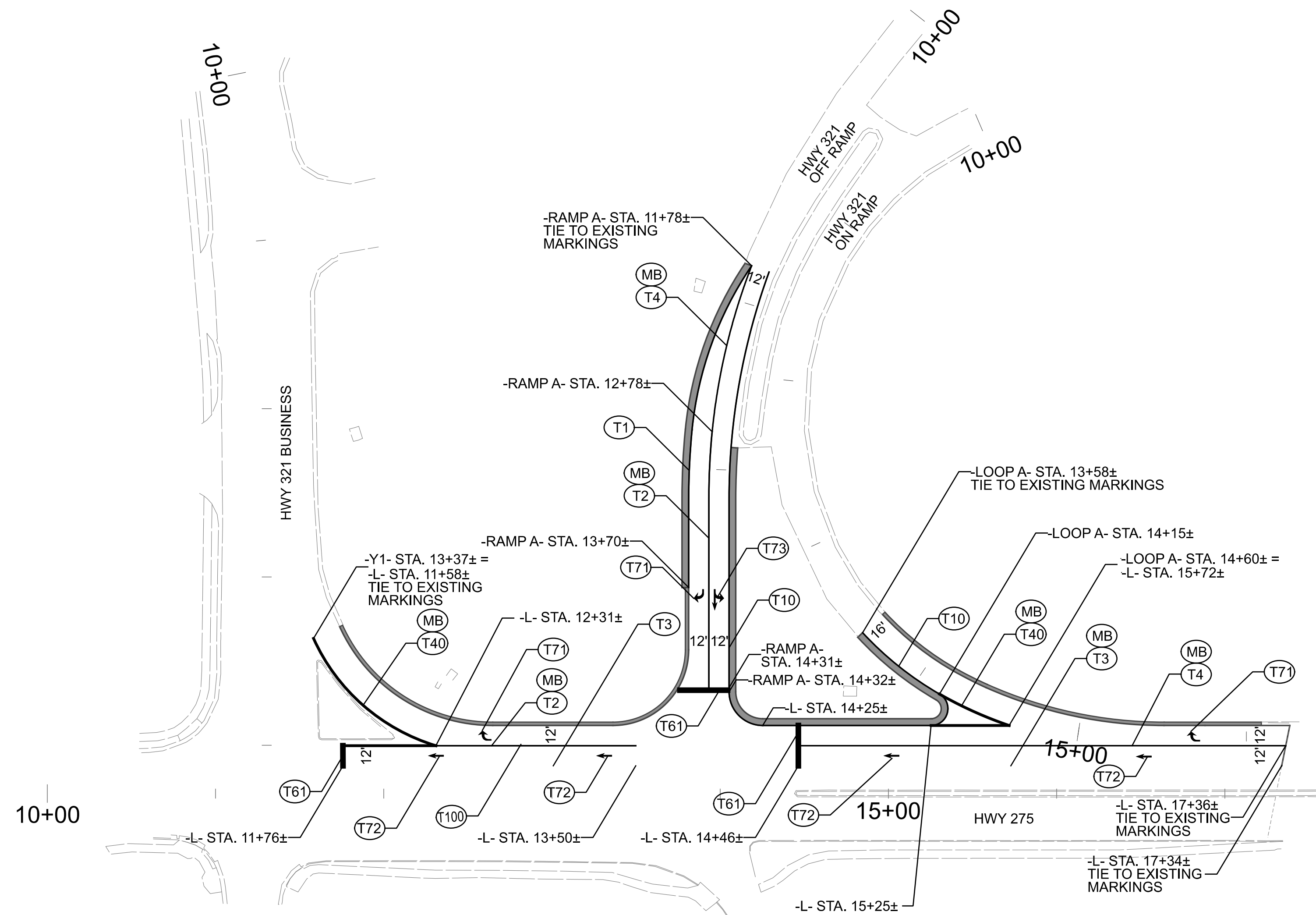


AMERICAN
Engineering

Shaping the Future, Together

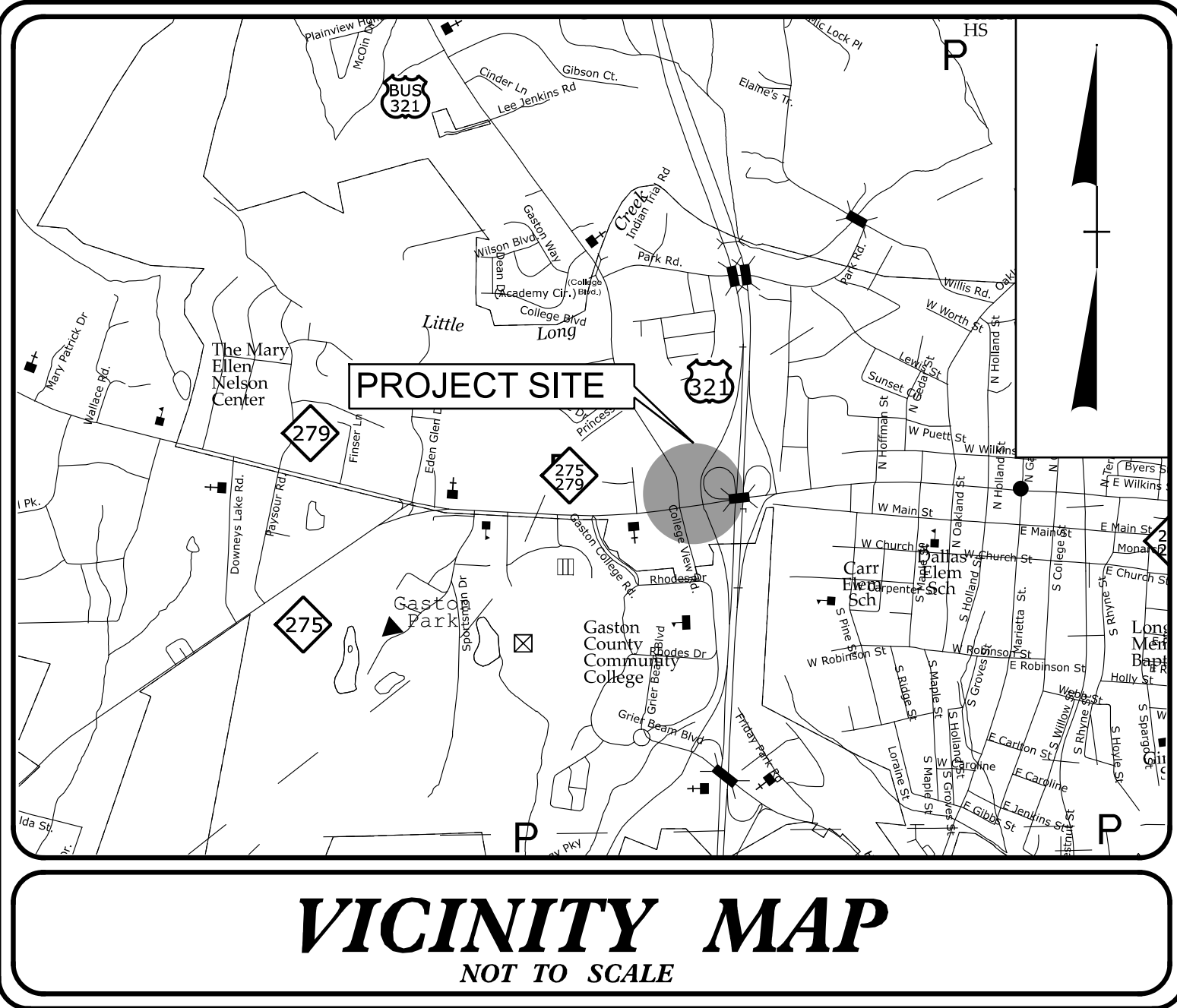
11525 N. Community House Road | Suite 325
Charlotte, NC 28277 | 704.375.2438





PAVEMENT MARKING PLAN

TIP PROJECT: HN-0027

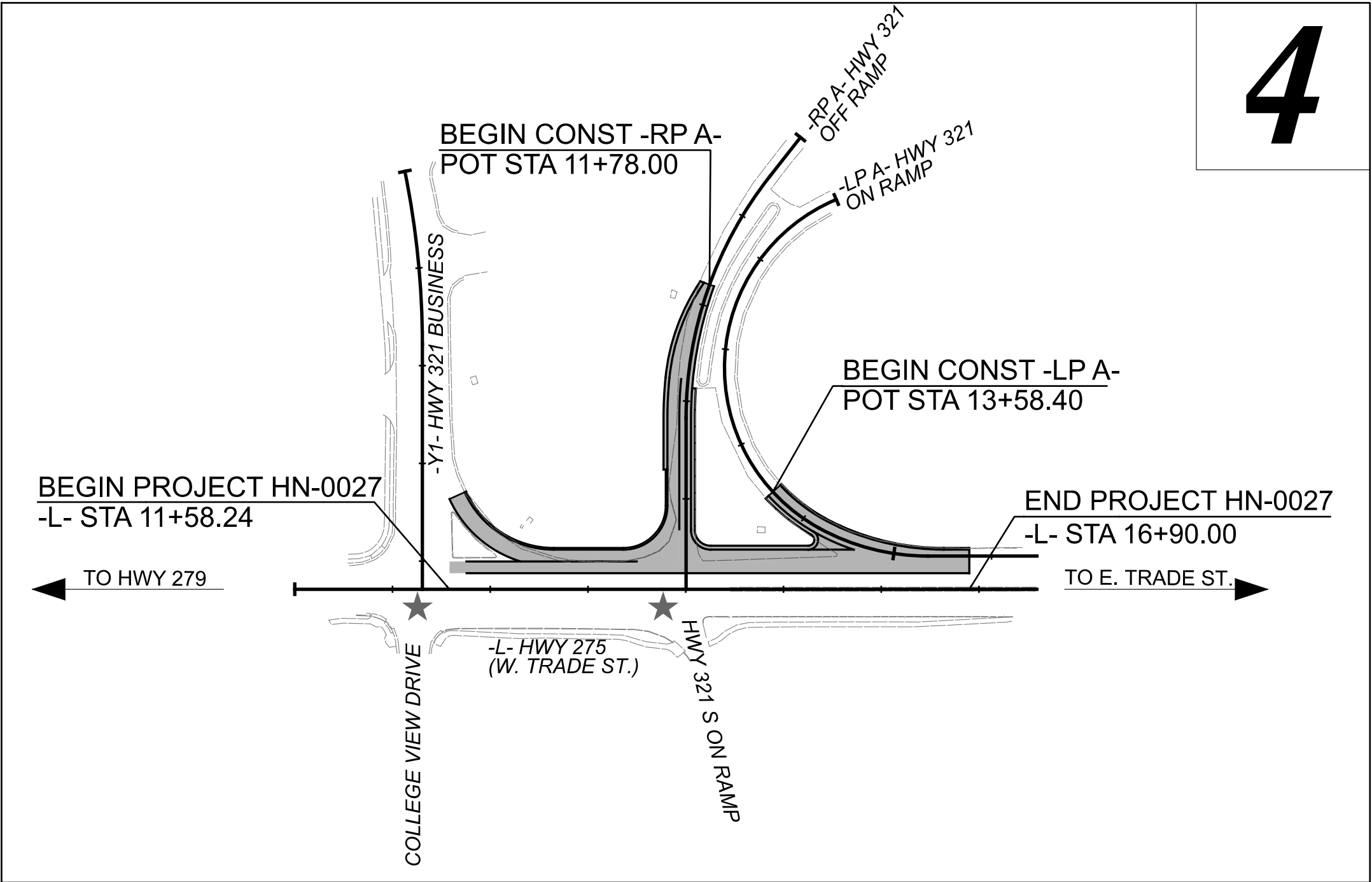


VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
GASTON COUNTY

LOCATION: NC 275 (W. TRADE ST.) FROM HWY 321
BUSINESS TO 321 SOUTH BOUND ON LOOP

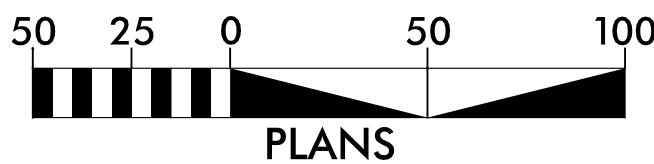
TYPE OF WORK: GRADING, PAVING, WIDENING,
SIGNALS AND DRAINAGE



4

THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.

GRAPHIC SCALE



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL STORMWATER CONSTRUCTION PERMIT
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY DIVISION OF ENERGY,
MINERAL, AND LAND RESOURCES.

Prepared In the Office of:



Designed by:

BENJAMIN C. PICCKERING II, P.E. 4564
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C.
Department of Transportation - Raleigh, N. C., dated January 2024
and the latest revision thereto are applicable to this project and by
reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
HN-0027	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

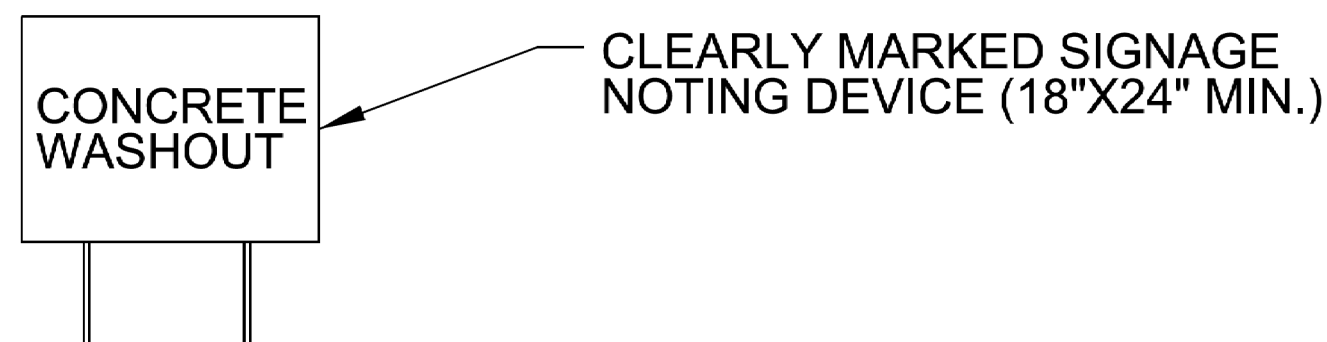
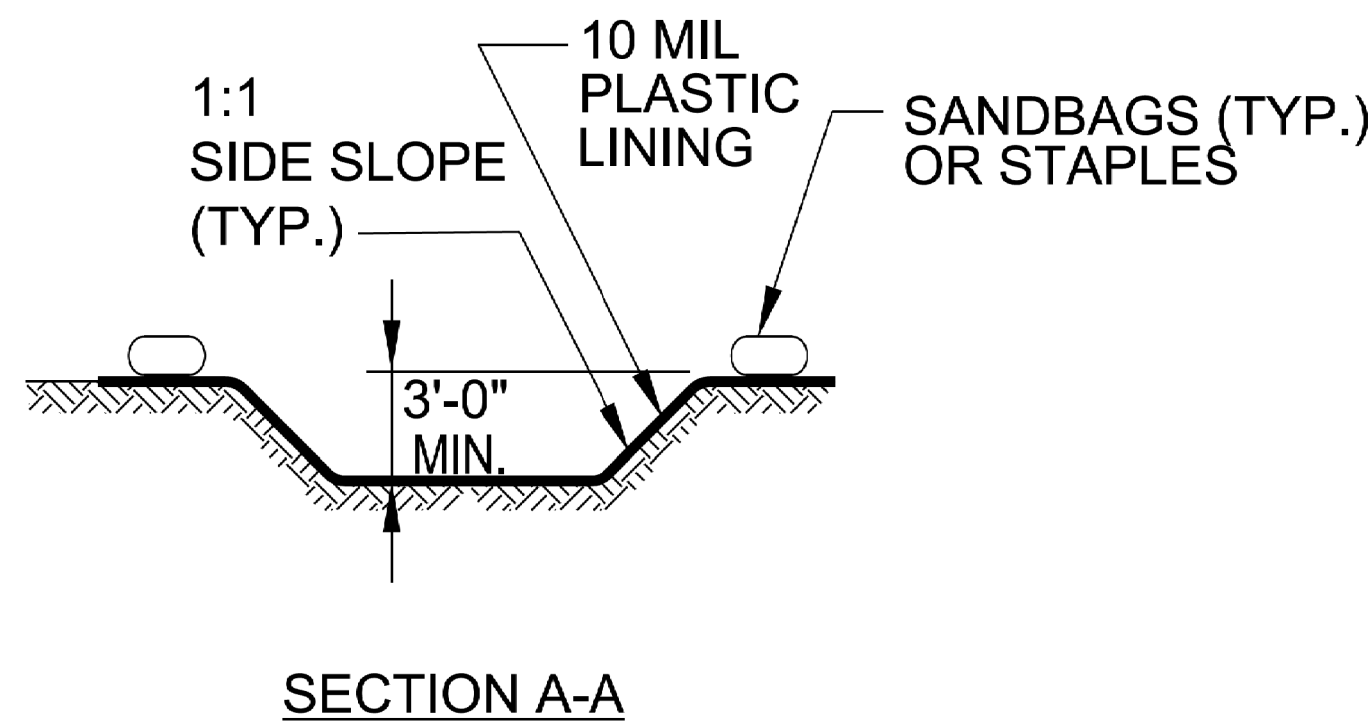
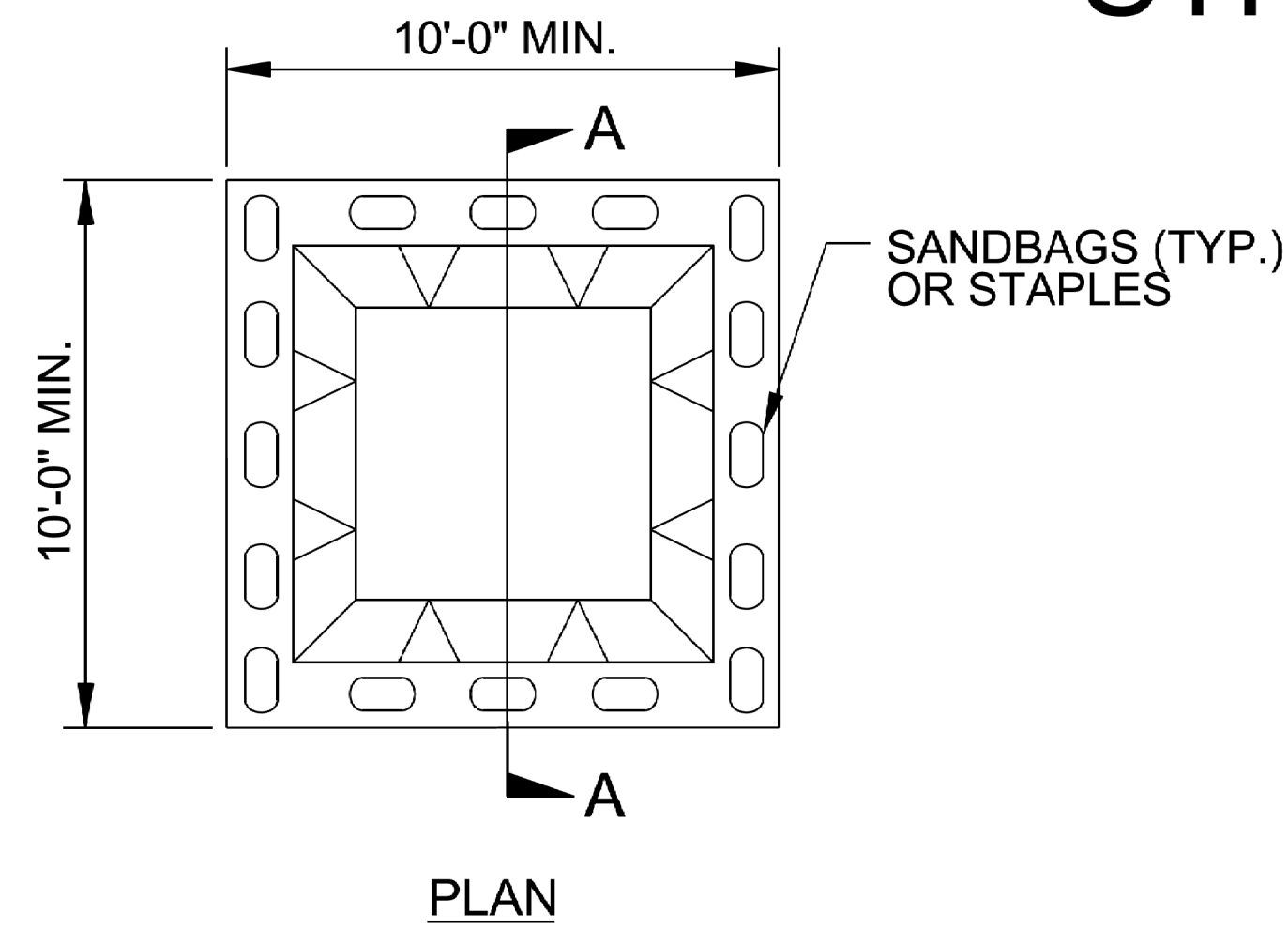
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.04	Stilling Basin	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	

Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	
1635.02	Rock Pipe Inlet Sediment Trap Type B	
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	
	Silt Fence Coir Fiber Wattle Break	
1636.03	Excelsior Wattle Barrier	
1636.03	Coir Fiber Wattle Barrier	

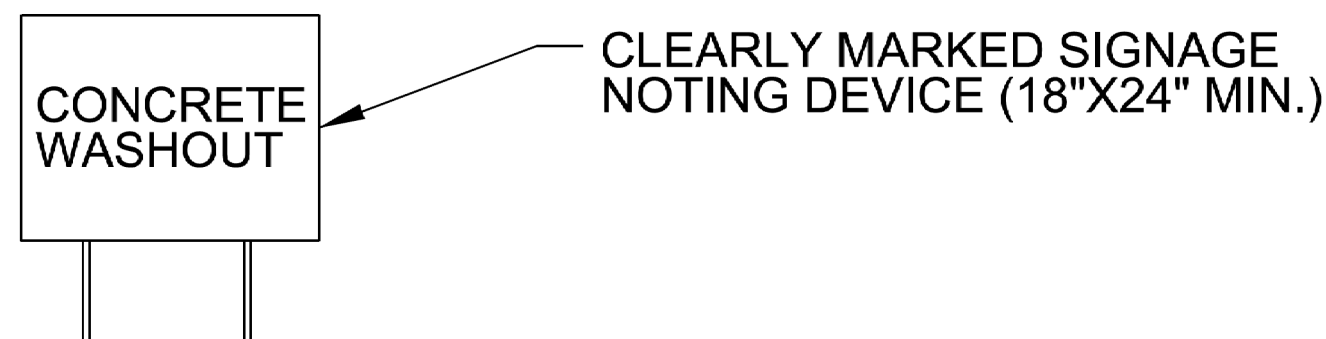
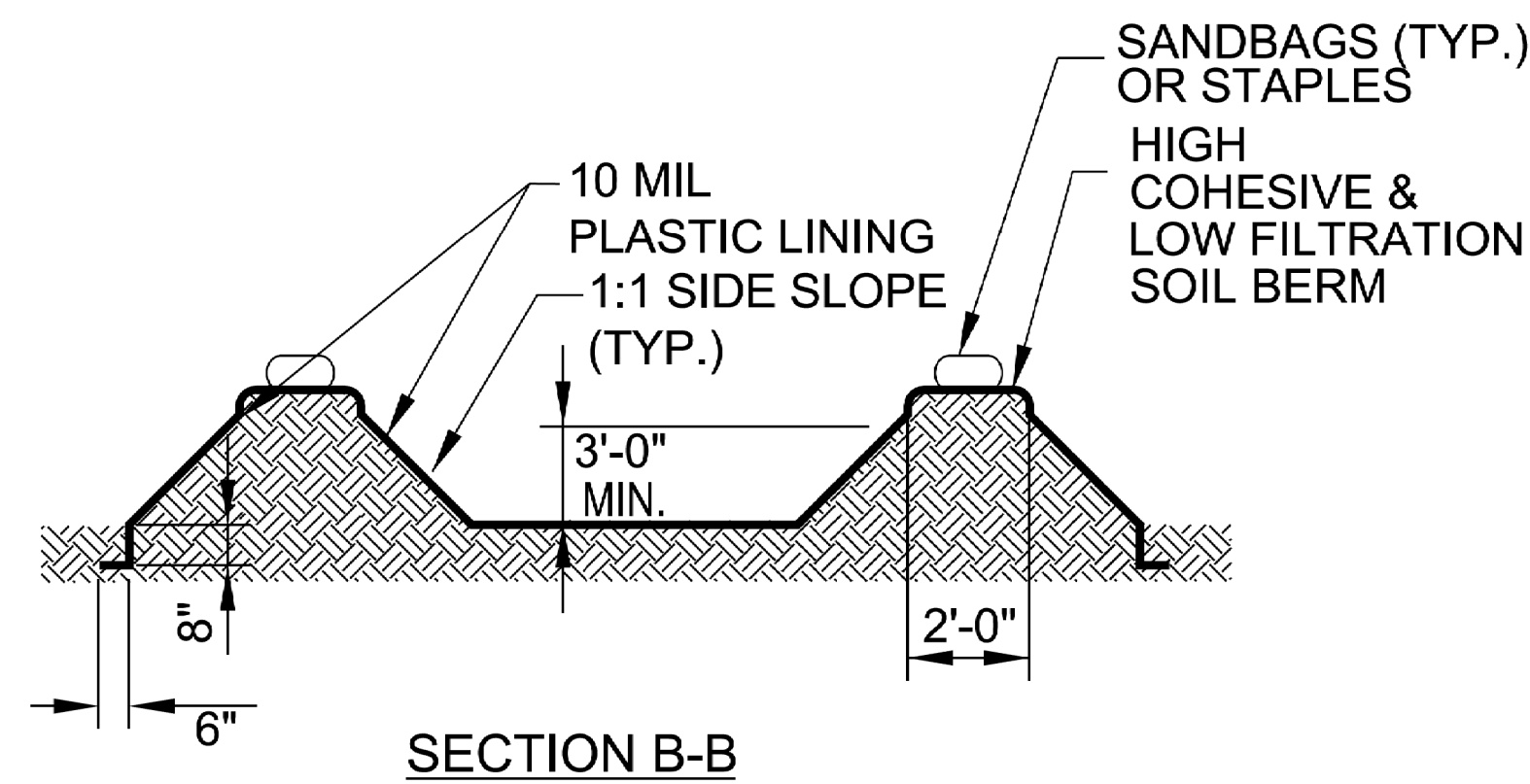
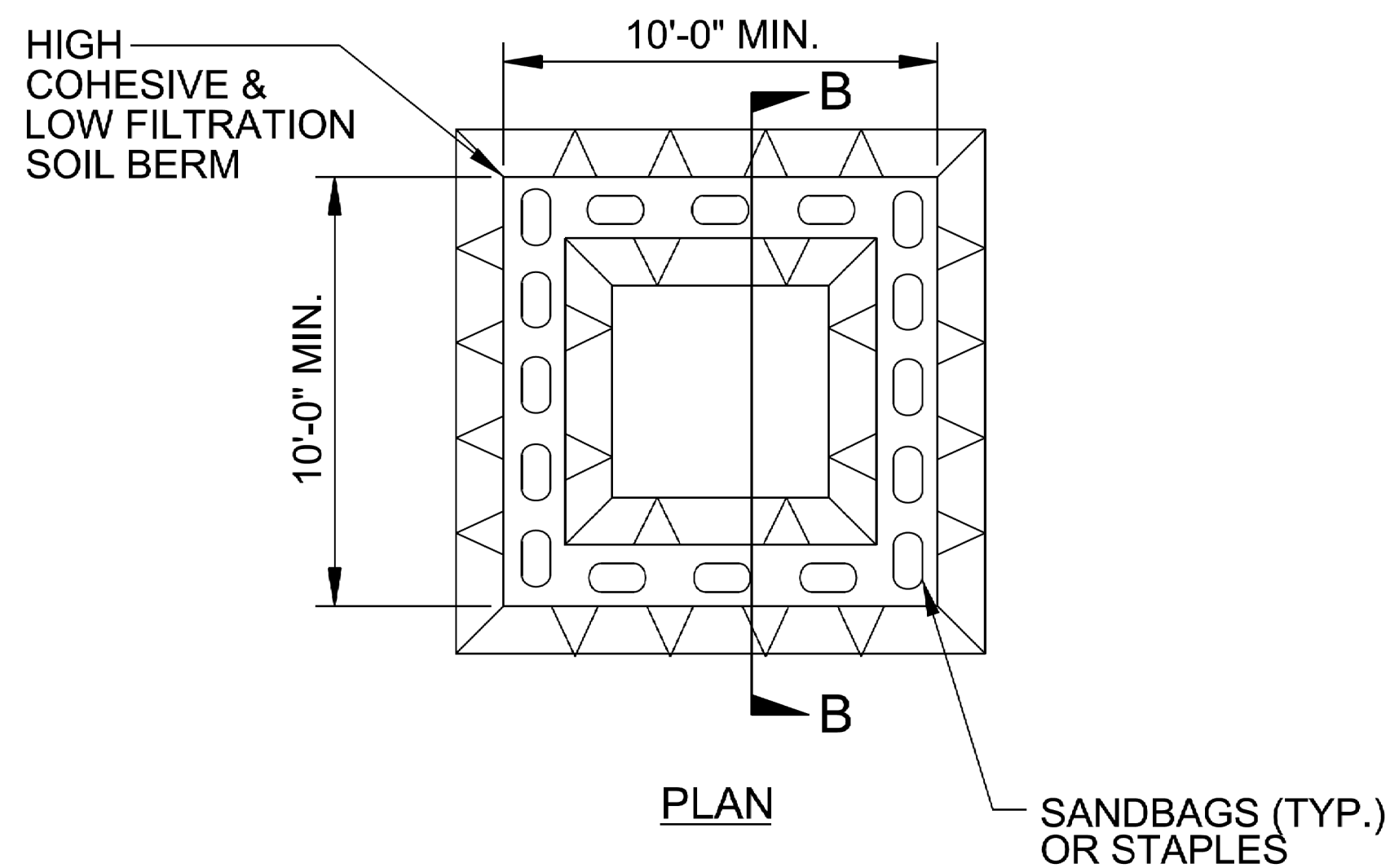
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
HN-0027	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

DL PERMANENT

	FROM	TO		
--	------	----	--	--

[illegible]

	FROM	TO		
--	------	----	--	--

[illegible]

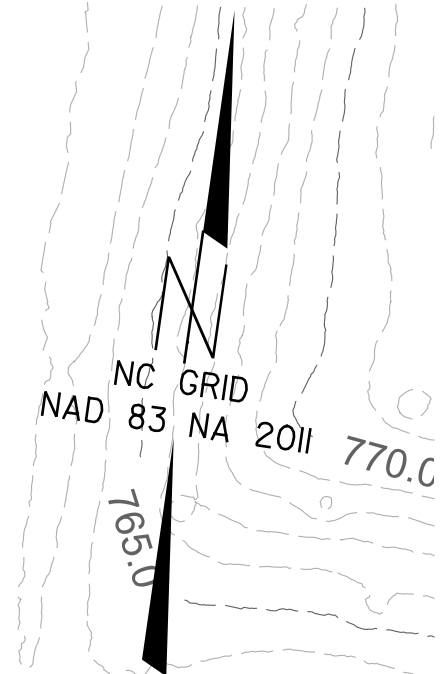
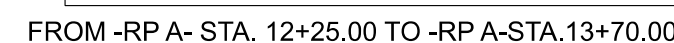
PROJECT REFERENCE NO.	SHEET NO.
HN-0027	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PROJECT REFERENCE NO.	SHEET NO.
HN-0027	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

HYDRAULIC
ENGINEER

PREPARED BY

Shaping the Future, Together ^{NC}
11525 N. Community House Road | Suite 325
Charlotte, NC 28277 | 704.375.2438

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS

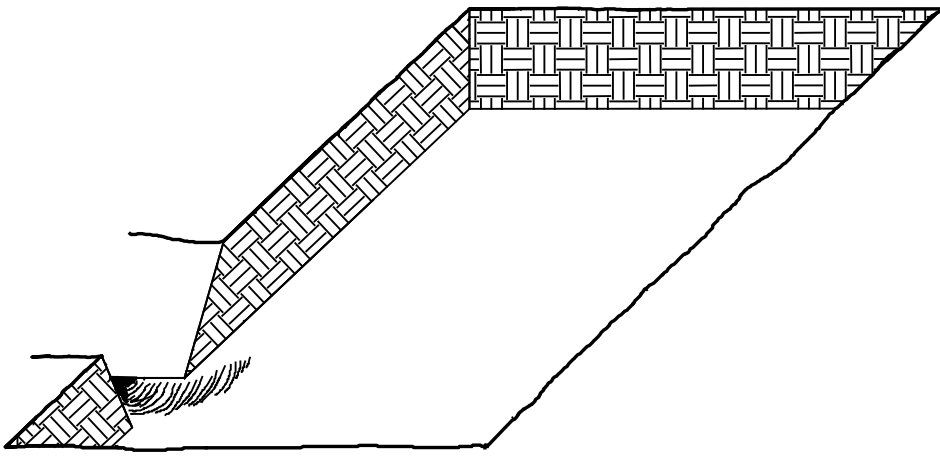
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UNLESS ALL SIGNATURES COMPLETE

REVISIONS

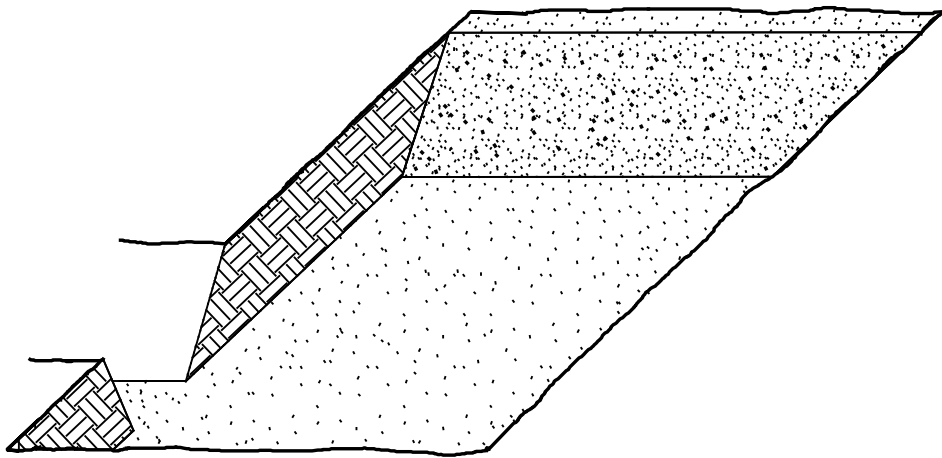
PLANTING DETAILS
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

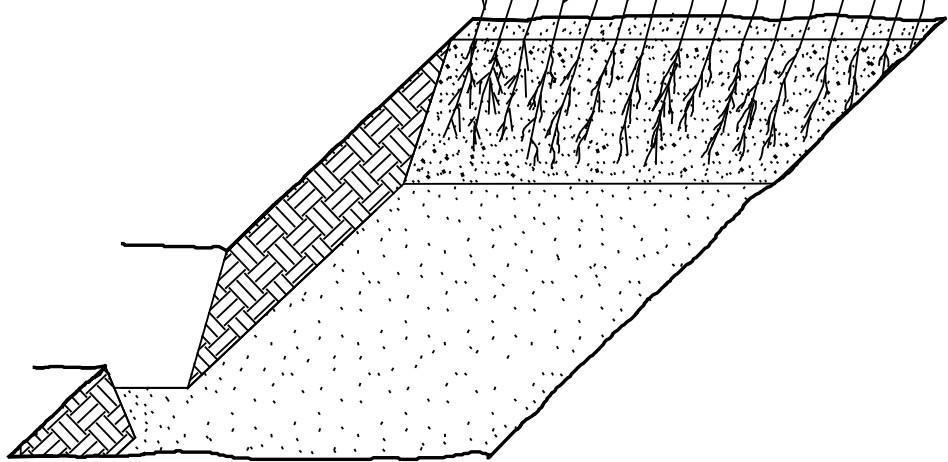
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



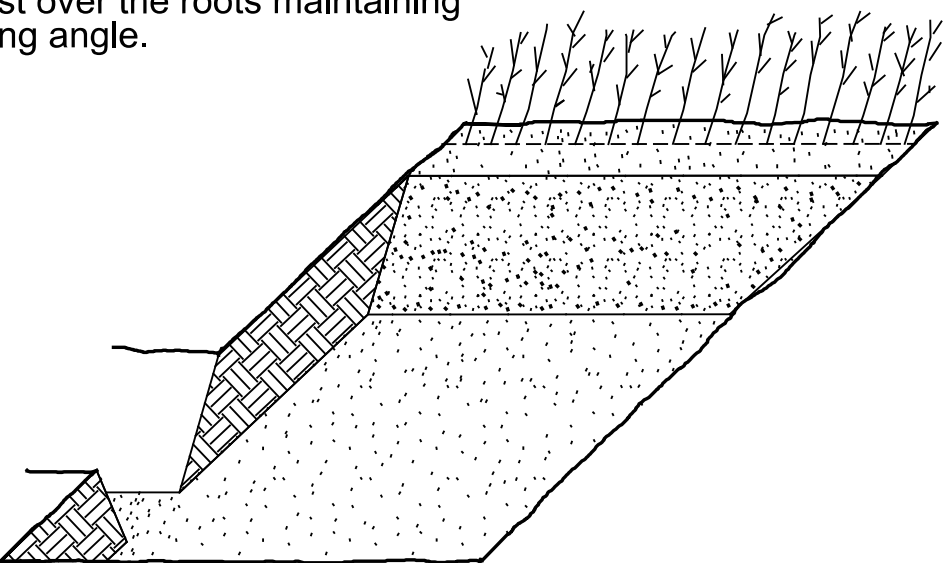
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

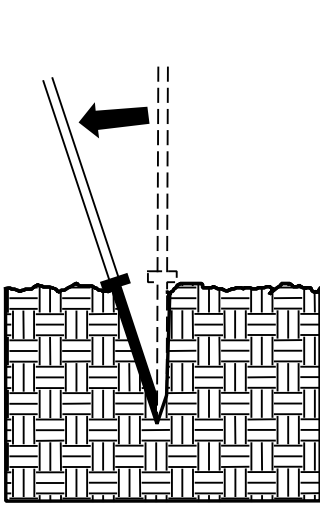


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

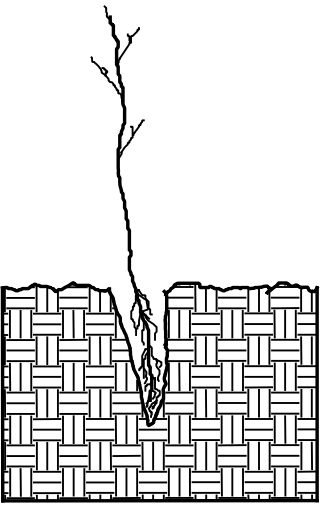


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

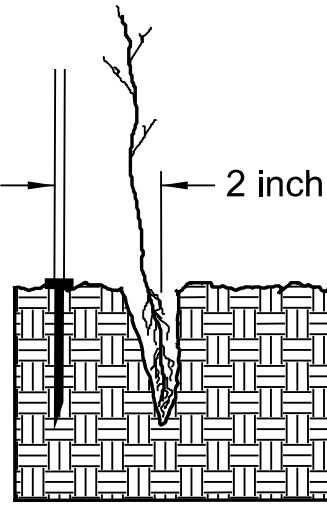
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



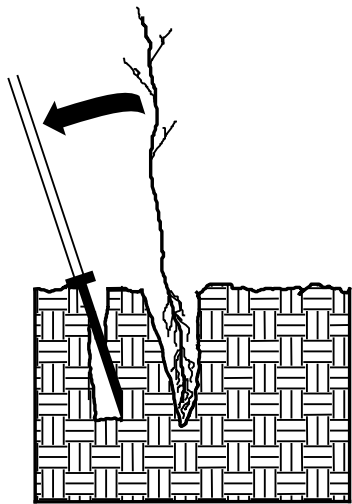
1. Insert planting bar as shown and pull handle toward planter.



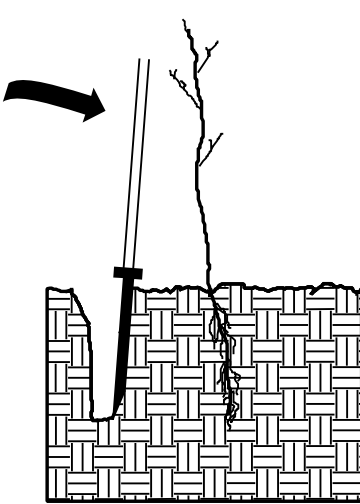
2. Remove planting bar and place seedling at correct depth.



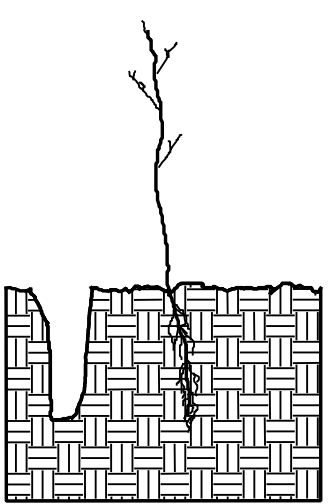
3. Insert planting bar 2 inches toward planter from seedling.



4. Pull handle of bar toward planter, firming soil at bottom.



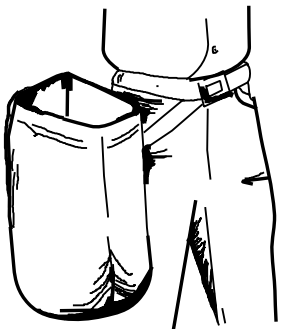
5. Push handle forward firming soil at top.



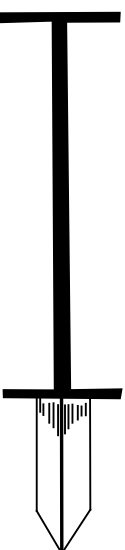
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

REFORESTATION

- ☐ TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

34% LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in - 18 in BR
33% PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in - 18 in BR
33% BETULA NIGRA	RIVER BIRCH	12 in - 18 in BR

TIP PROJECT: HN-0027

CONTRACT:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
GASTON COUNTY

LOCATION: NC 275 (W. TRADE ST.) FROM HWY 321 BUSINESS
TO 321 SOUTH BOUND ON LOOP

TIP NO.	SHEET NO.
HN-0027	SIGN-1
DocuSigned by: APPROVED: Allison C. Johnson FDB1A672C45F4D8.	
DATE: 8/3/2026	
SEAL	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS

SUMMARY OF QUANTITIES

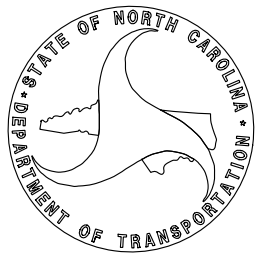
ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	195	LF
4116000000	904	SIGN RELOCATION, TYPE D	2	EA.
4116000000	904	SIGN RELOCATION, TYPE E	8	EA.
4116000000	904	SIGN RELOCATION, TYPE F	2	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET (NOTES, STANDARDS & QUANTITIES)
SIGN-2	SIGNING PLAN SHEETS

PLAN SUBMITTED TO: NCDOT

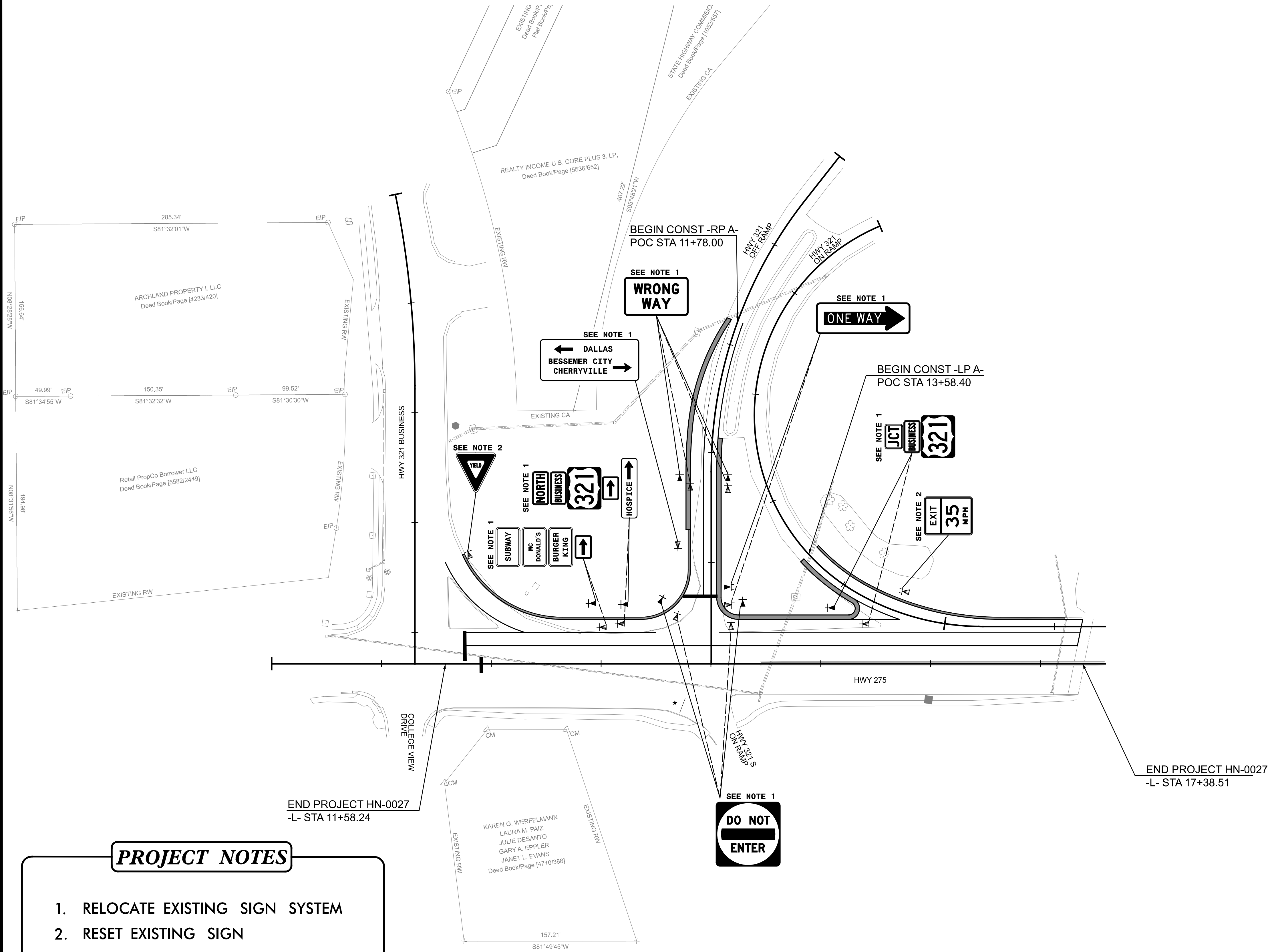
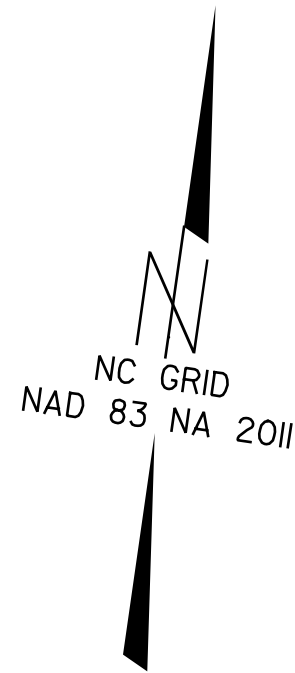
LEE A. BRYSON, PE
NCDOT CONTACT



PLAN PREPARED BY: AMERICAN ENGINEERING

ALLISON C. JOHNSON, PE PROJECT ENGINEER
BENJAMIN C. PICKERING II, PE PROJECT DESIGN ENGINEER



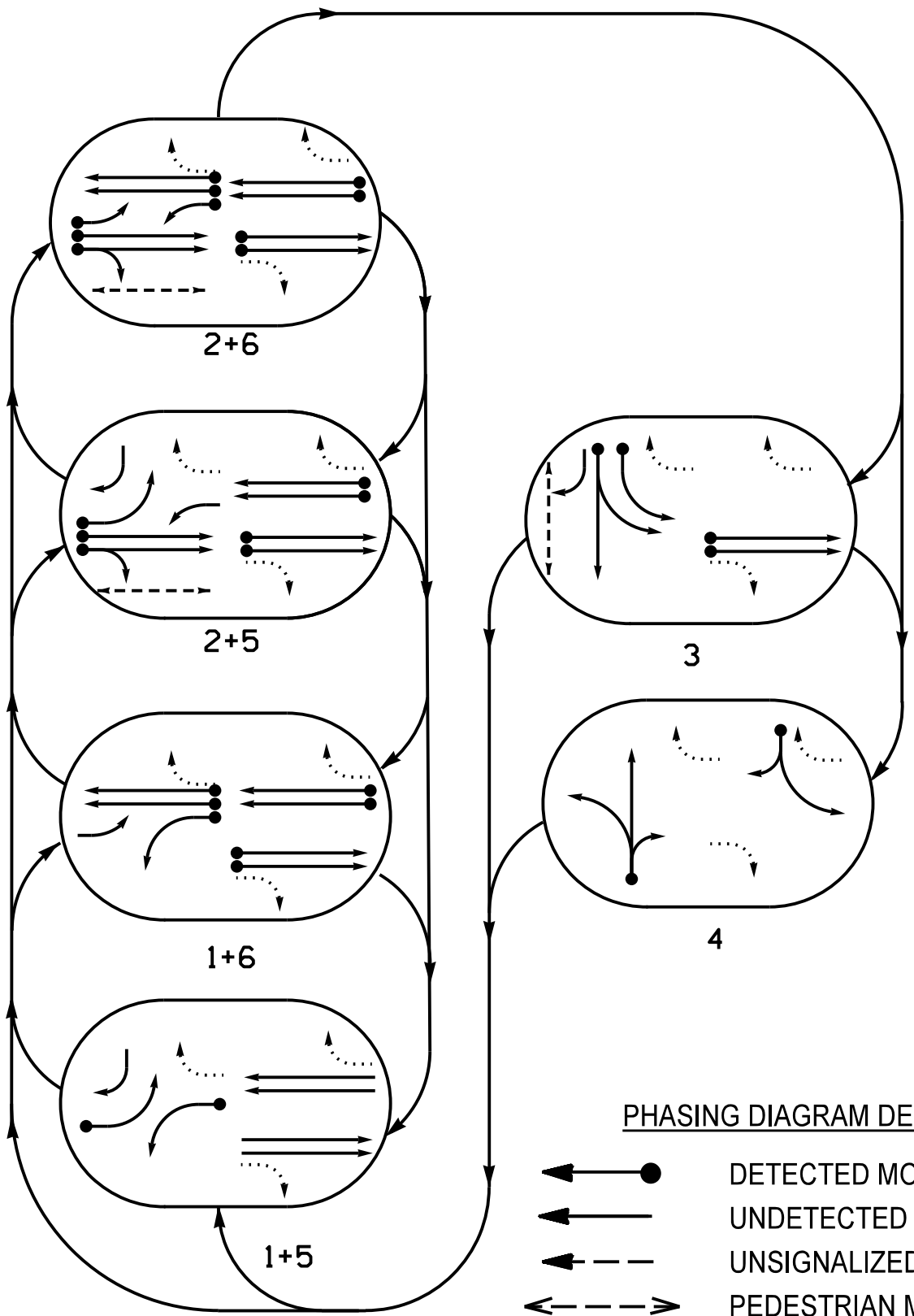


PROJECT NOTES

1. RELOCATE EXISTING SIGN SYSTEM
2. RESET EXISTING SIGN

EXISTING & PROPOSED SIGNS

DEFAULT PHASING DIAGRAM



DEFAULT PHASING
TABLE OF OPERATION

SIGNAL FACE	PHASE						
	1 + 5	1 + 6	2 + 5	2 + 6	3	4	FLASH
11	—	—	F	F	R	R	R
21, 22	R	R	G	G	R	R	R
23	↑	↑	↑	↑	↑	↑	↑
24	G	G	G	G	R	R	R
31	R	R	R	R	—	—	—
32	R	R	R	R	G	G	G
33	R	R	R	R	G	R	R
34	—	R	—	R	F	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
43	R	R	R	R	—	—	—
44	R	R	R	R	—	—	—
51	—	F	—	F	R	R	R
61, 62	R	G	R	G	R	R	R
63, 64	G	G	G	G	R	R	R
P21, P22	DW	DW	W	W	DW	DW	DRK
P31, P32	DW	DW	DW	DW	W	W	DRK

PHASING DIAGRAM DETECTION LEGEND

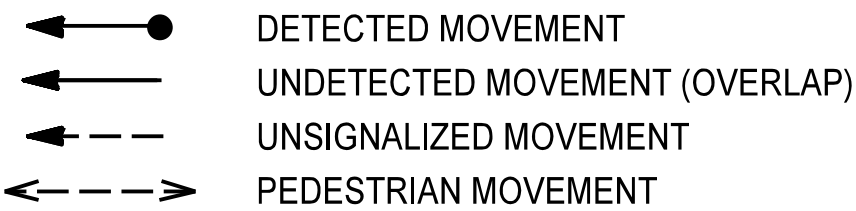


FIGURE 1

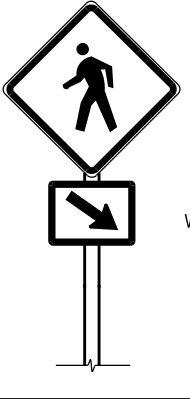
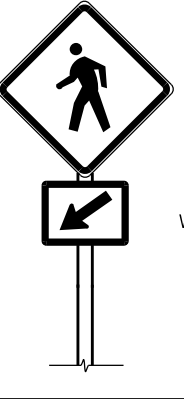


FIGURE 2



MAXTIME TIMING CHART

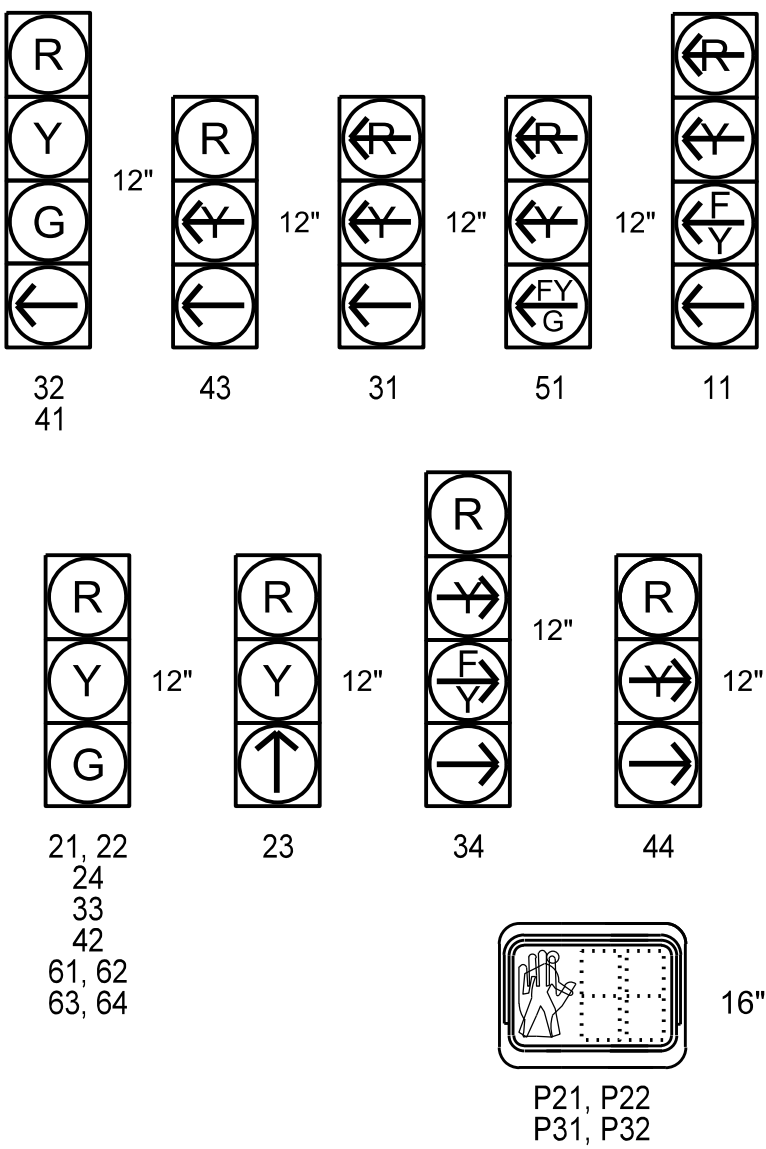
FEATURE	PHASE					
	1	2	3	4	5	6
Walk *	—	14	14	—	—	—
Ped Clear	—	9	16	—	—	—
Min Green *	7	10	7	7	7	10
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	15	45	25	25	25	45
Yellow Change	3.0	3.8	3.8	4.0	3.0	3.8
Red Clear	2.6	2.1	1.9	1.8	2.6	2.1
Added Initial *	—	—	—	—	—	—
Maximum Initial *	—	—	—	—	—	—
Time Before Reduction *	—	—	—	—	—	—
Time To Reduce *	—	—	—	—	—	—
Minimum Gap	—	—	—	—	—	—
Advance Walk	—	7	**	—	—	—
Non Lock Detector	X	—	X	X	X	—
Vehicle Recall	—	MIN RECALL	—	—	—	MIN RECALL
Dual Entry	—	—	—	—	—	—

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.
** See Note 8

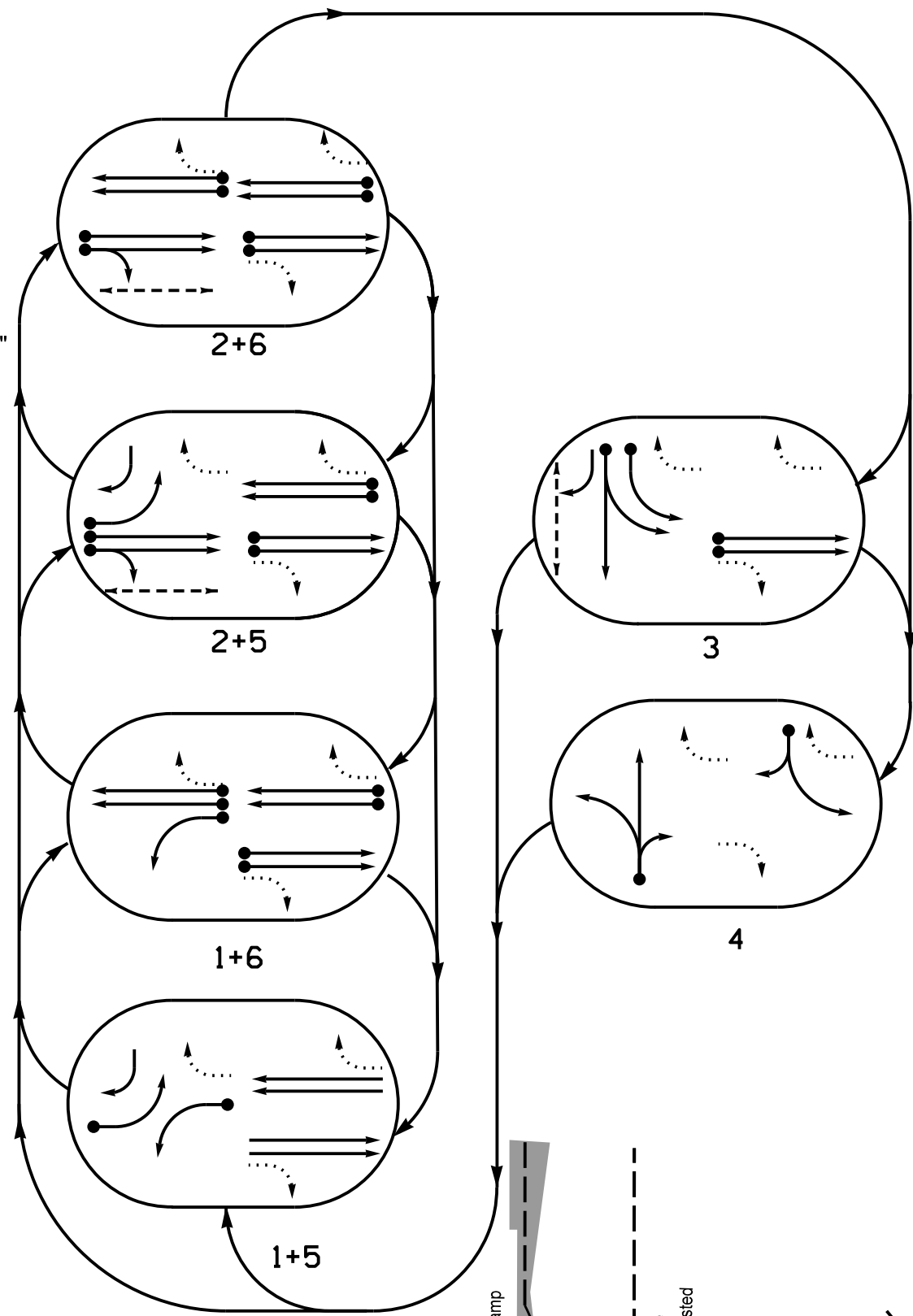
SIGNAL FACE I.D.

All Heads L.E.D.

= Bimodal Section



ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING
TABLE OF OPERATION

SIGNAL FACE	PHASE						
	1 + 5	1 + 6	2 + 5	2 + 6	3	4	FLASH
11	—	—	R	R	R	R	R
21, 22	R	R	G	G	R	R	R
23	↑	↑	↑	↑	↑	↑	↑
24	G	G	G	G	R	R	R
31	R	R	R	R	—	—	—
32	R	R	R	R	G	G	G
33	R	R	R	R	G	R	R
34	—	R	—	R	F	R	R
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
43	R	R	R	R	—	—	—
44	R	R	R	R	—	—	—
51	—	R	—	R	R	R	R
61, 62	R	G	R	G	R	R	R
63, 64	G	G	G	G	R	R	R
P21, P22	DW	DW	W	W	DW	DW	DRK
P31, P32	DW	DW	DW	DW	W	W	DRK

6-Phase
Fully Actuated
w/ Alternate Phasing
D12_14_DALLAS

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024, "Standard Specifications for Roads and Structures" dated January 2024, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <https://connect.ncdot.gov/resources/safety/Pages/TSMO-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- To provide a leading pedestrian interval on phase 3, program FYA head numbered 34 to delay for 7 seconds after the start of the phase 3 walk interval. See Electrical Details for Programming.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Master Asset #1123, Controller Asset #1426.

LEGEND

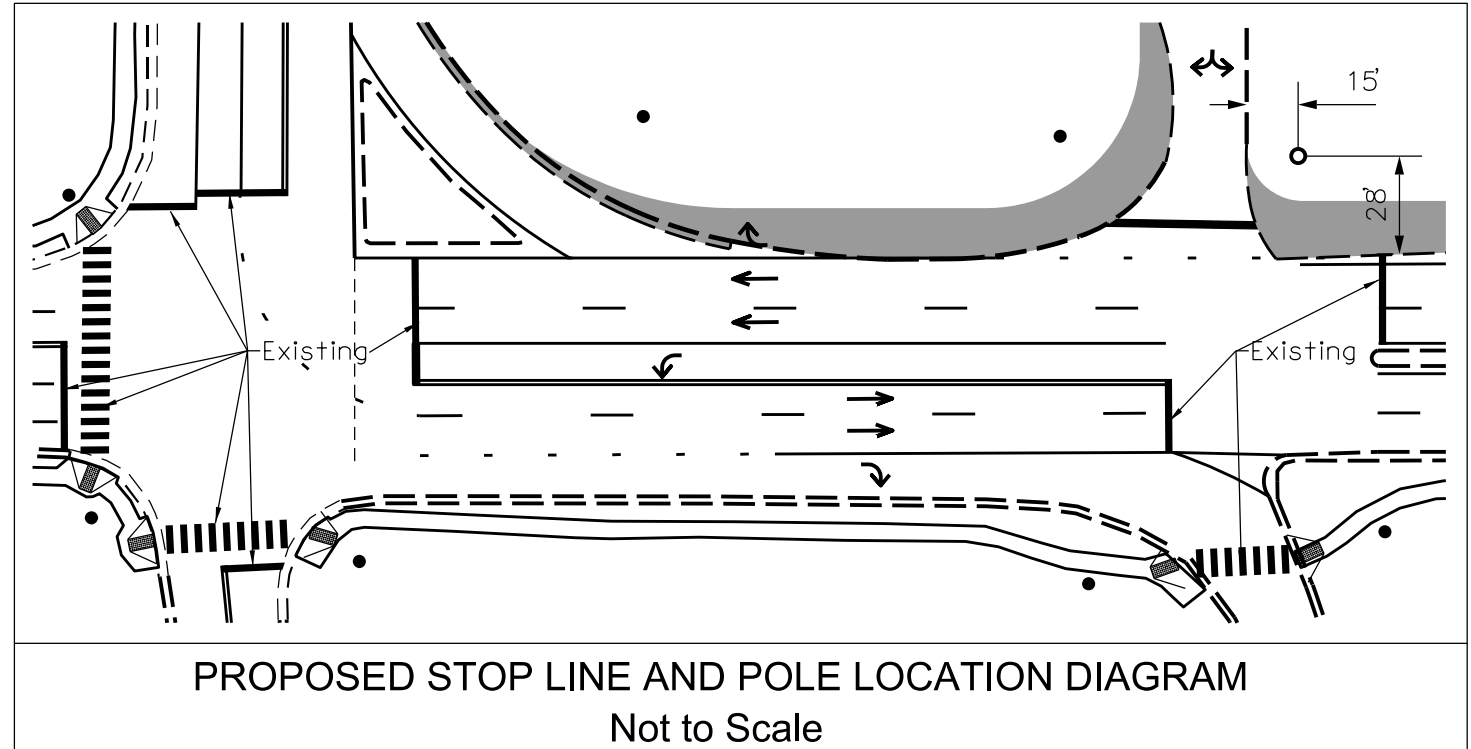
PROPOSED	EXISTING
	Traffic Signal Head
	Modified Signal Head
	Sign
	Pedestrian Signal Head With Push Button & Sign
	Signal Pole with Guy
	Signal Pole with Sidewalk Guy
	Inductive Loop Detector
	Non-Intrusive Detection Zone
	Controller & Cabinet
	Junction Box
	2-in Underground Conduit
	Directional Arrow
	Type I Pushbutton Post
	N/A
	Curb Ramp
	"YIELD" Sign (R1-2)
	No Left Turn Sign (R3-2)
	No Right Turn Sign (R3-1)
	Left "Turning Vehicles" Yield "To" Pedestrian Sign (R10-15L)
	Right "Turning Vehicles" Yield "To" Pedestrian Sign (R10-15R)
	Pedestrian Crossing Sign (W11-12)
	Diagonal Arrow Plaque (W16-7R) (See Figure 1)
	Diagonal Arrow Plaque (W16-7L) (See Figure 2)
	Construction Area
	N/A

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR		PROGRAMMING									
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND INITIAL	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	*	0	*	X	1	15.0**	—	X	—	X	*
2A, 2B	6X6	70	EXIST	—	2	—	—	X	—	X	—
2C	6X6	70	EXIST	—	2	—	—	X	—	X	—
2D	6X6	70	EXIST	—	2	—	—	X	—	X	—
3A	6X40	+5	EXIST	—	3	3.0	—	X	—	X	—
3B	6X40	+5	EXIST	—	3	—	—	X	—	X	—
3C	6X40	+5	EXIST	—	3	15.0	—	X	—	X	—
4A	6X40	+5	EXIST	—	4	5.0	—	X	—	X	—
4B	*	0	*	X	4	—	—	X	—	X	*
4C	*	0	*	X	4	15.0	—	X	—	X	*
5A	6X40	0	EXIST	—	5	15.0**	—	X	—	X	—
6A	*	70	*	X	6	—	—	X	—	X	*
6B	*	70	*	X	6	—	—	X	—	X	*
6C	*	70	*	X	6	—	—	X	—	X	*
6D	*	70	*	X	6	—	—	X	—	X	*

- * Microwave Detection Zone
- ** Reduce Delay to 3 seconds during Alternate Phasing Operation.
- # Disable Phase Call for loop during Alternate Phasing Operation.

PROPOSED STOP LINE AND POLE LOCATION DIAGRAM
Not to Scale



Signal Upgrade - Temporary Design

Project #: 240903

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NCBLS FIRM LICENSE NO. C-2822

Prepared for
TRANSPORTATION MOBILITY AND SAFETY DIVISION
STATE OF NORTH CAROLINA
Signal Design Section

750 N. Greenfield Pkwy, Garner, NC 27529

NC 275 - 279 (Dallas-Cherryville Hwy) at US 321
Business (Dallas-High Shoals Hwy) /
SR 1343 (College View Road)

Division 12 Gaston County Dallas

PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw

PREPARED BY: A. Okyere-Addo REVIEWED BY:

REVISIONS

INIT. DATE

SEAL

032117

SEAL

032117

SEAL

032117

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Sig. Inventory No. 12-14261

DocuSigned by:
J. Royal Hinshaw
7/29/2026

MAXTIME OVERLAP PROGRAMMING DETAIL
FOR DEFAULT PHASING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4	6	7
Type	FYA 4 - Section	Normal	FYA 4 - Section	FYA 4 - Section	Normal	Normal
Included Phases	2	5,6	6	3	1,2,3	5
Modifier Phases	1	-	5	5	-	-
Modifier Overlaps	-	-	-	-	-	-
Trail Green	0	0	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0	0.0	0.0
FYA Ped Delay	0.0	0.0	0.0	7.0	0.0	0.0

NOTE FYA
PED DELAY

MAXTIME OVERLAP PROGRAMMING DETAIL
FOR ALTERNATE PHASING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

In the table view of the web interface, right click on "Overlap" in the top left corner of the table. Copy the entire contents of Overlap Plan 1. Paste Overlap Plan 1 into Overlap Plan 2. Modify Overlap Plan 2 as shown below and save changes.

Overlap Plan 2

Overlap	1	2	3	4	6	7
Type	FYA 4 - Section	Normal	FYA 4 - Section	FYA 4 - Section	Normal	Normal
Included Phases	-	5,6	-	3	1,2,3	5
Modifier Phases	1	-	5	5	-	-
Modifier Overlaps	-	-	-	-	-	-
Trail Green	0	0	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0	0.0	0.0
FYA Ped Delay	0.0	0.0	0.0	7.0	0.0	0.0

NOTICE
INCLUDED
PHASE

NOTICE FYA
PED DELAY

PED DETECTOR PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Detector >Ped Det Plans

Web Interface
Home >Controller >Detector Configuration >Pedestrian Detector

Plan 1

Detector	Description	Call Phase	Call Overlap
2		2	0
4		4	0
6		6	0
8		3	0

NOTICE PED3
ASSIGNED
DETECTOR 8

MAXTIME ALTERNATE PHASING ACTIVATION DETAIL

To run alternate phasing, select a Pattern that is programmed to run Overlap Plan 2 and Detector Plan 2.
A Pattern can be selected through the scheduler or manually by changing the Operational Mode.

PHASING	OVERLAP PLAN	VEH DET PLAN
ACTIVE PLAN REQUIRED TO RUN DEFAULT PHASING	1	1
ACTIVE PLAN REQUIRED TO RUN ALTERNATE PHASING	2	2

ALTERNATE PHASING CHANGE SUMMARY

THE FOLLOWING IS A SUMMARY OF WHAT TAKES PLACE WHEN
OVERLAP PLAN 2 AND VEHICLE DETECTOR PLAN 2 ACTIVATE
TO CALL THE "ALTERNATE PHASING":

OVERLAP PLAN 2: Modifies overlap included phases
for heads 11 and 51 to run protected
turns only.

VEH DET PLAN 2: Disables phase 6 call on loop 1A
and reduces delay time for phase 1
call on loop 1A to 3.0 seconds.

Disables phase 2 call on loop 5A
and reduces delay time for phase 5
call on loop 5A to 3.0 seconds.

SPECIAL DETECTION IO MODULE PROGRAMMING

The Enhanced Out of Pavement Detection requires adjustments to the
IO Modules in use. Follow the programming instructions below to ensure
desired operation.

Front Panel
Main Menu >Controller >More >Advanced IO >IO Modules

Web Interface
Home >Controller >Advanced IO >Cabinet Configuration > IO Modules

IO Module	Type	Fault Response
1	Caltrans 332	Default
2	TS2 DR3 BIU	Default
3	TS2 DR4 BIU	Default
4	TS2 MMU	Default

Advanced Cabinet Options

☒ Disable TS2 Cabinet Alarms

MAXTIME ALTERNATE PHASING PATTERN
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Coordination >Patterns

Web Interface
Home >Controller >Coordination >Patterns

Pattern Parameters

Pattern	Veh Det Plan	Overlap Plan
*	2	2

* The Pattern number(s) are to be determined by
the Division and/or City Traffic Engineer.

MAXTIME DETECTOR PROGRAMMING DETAIL
FOR ALTERNATE PHASING LOOPS 1A & 5A

Front Panel
Main Menu >Controller >Detector >Veh Det Plans

Web Interface
Home >Controller >Detector Configuration >Vehicle Detectors

In the table view of web interface right click on "Detector" in
the top left corner of the table. Copy the entire contents of
Detector Plan 1. Paste Detector Plan 1 into Detector Plan 2.
Modify Detector Plan 2 as shown below and save changes.

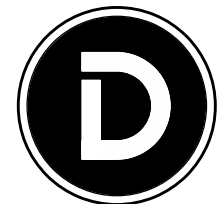
Plan 2

Detector	Call Phase	Delay
33	1	3.0
125	0	-

5A

Detector	Call Phase	Delay
15	5	3.0
31	0	-

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1426T
DESIGNED: July 2026
SEALED: July 29, 2026
REVISED: N/A

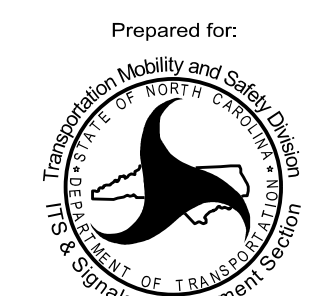


Project #: 240903

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Electrical Detail - Temporary Design - Sheet 2 of 3

Electrical and Programming Details For:	NC 275 - 279 (Dallas- Cherryville Hwy) at US 321 Business (Dallas-High Shoals Hwy) / SR 1343 (College View Road)	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Prepared for:  750 N. Greenfield Pkwy, Garner, NC 27529	Division 12 Gaston County Dallas PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw PREPARED BY: A. Okyere-Addo REVIEWED BY: REVISIONS INIT. DATE DocuSigned by: S. Royal Hinshaw 7/29/2026 SIGNATURE DATE SIG. INVENTORY NO. I2-14261	SEAL NORTH CAROLINA PROFESSIONAL SEAL 032117 ENGINEER ROYAL HINSHAW

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X		3
4	Phase Vehicle	4		X	X	4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Overlap	7		X	X	7
8	Phase Vehicle	8		X		8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	3				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

NOTICE OL7
ASSIGNED
TO CH. 7



NOTICE PED3
ASSIGNED
TO CH. 16



NOTE
FLASH
ALT

NOTE
FLASH
ALT

MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE
SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-3.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-2.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

LOGIC PROCESSOR PROGRAMMING

Front Panel
Main Menu >Controller >More >User Programs >Definition

Web Interface
Home >Controller >User Programs Configuration >User Programs definition

Program 1

Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
1	Veh Detector Call	125	is Module A input B ON	Number	2	Number	1	0.0	0.0

LOGIC STATEMENT DESCRIPTION

Statement 1 Description : Mirrors vehicle Detector 33 to vehicle detector 125

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1426T
DESIGNED: July 2026
SEALED: July 29, 2026
REVISED: N/A

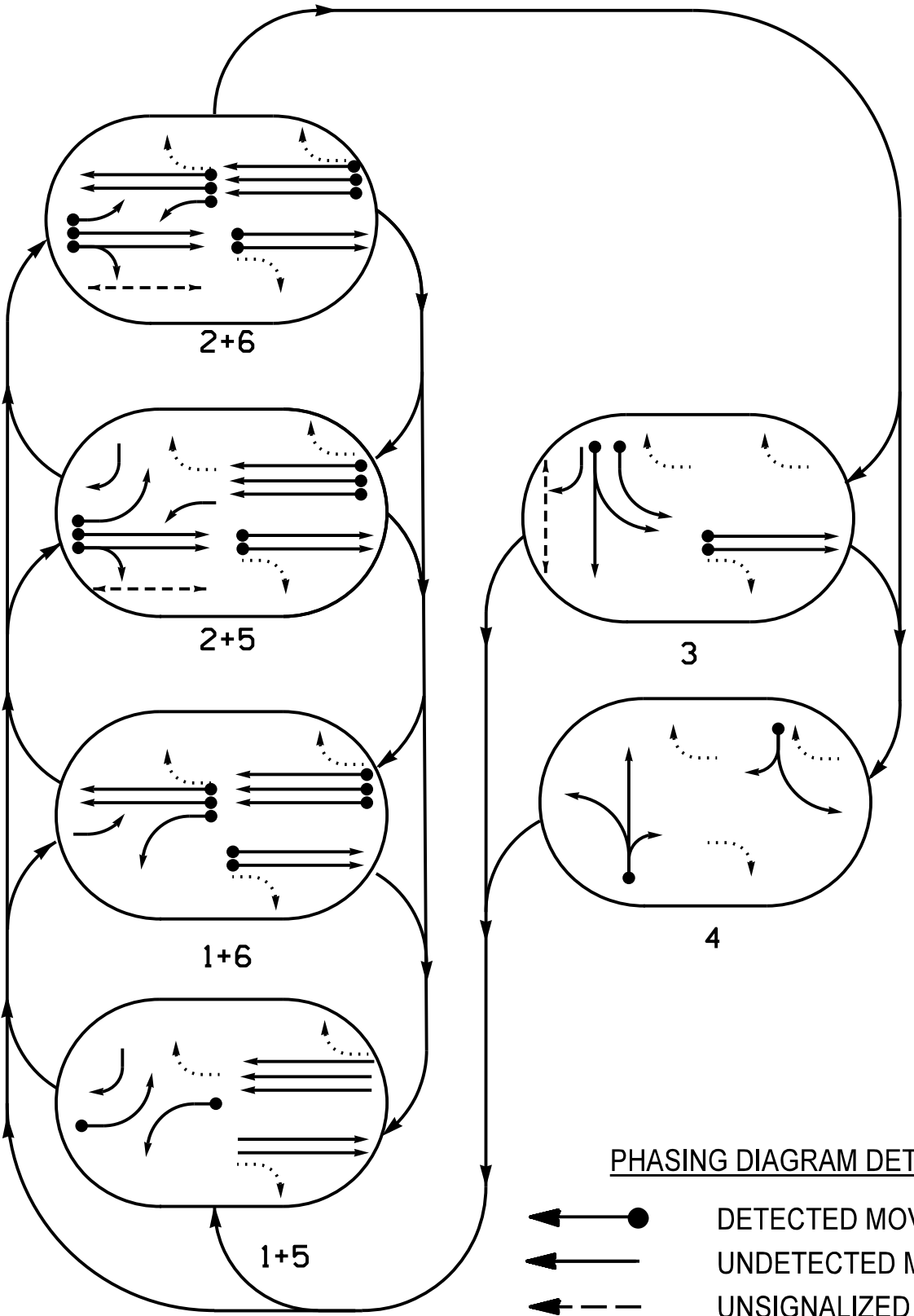
Project #: 240903

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Electrical Detail - Temporary Design - Sheet 3 of 3

Electrical and Programming Details For: Prepared for: 750 N. Greenfield Pkwy, Garner, NC 27529	NC 275 - 279 (Dallas-Cherryville Hwy) at US 321 Business (Dallas-High Shoals Hwy)/ SR 1343 (College View Road) Division 12 Gaston County Dallas PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw PREPARED BY: A. Okyere-Addo REVIEWED BY: <table><tr><th>REVISIONS</th><th>INIT.</th><th>DATE</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	REVISIONS	INIT.	DATE													DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL Signed by: <i>R. Hinshaw</i> 7/29/2026 SIGNATURE DATE SIG. INVENTORY NO. 12-14261
	REVISIONS	INIT.	DATE														

DEFAULT PHASING DIAGRAM



DEFAULT PHASING
TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	1 + 5	1 + 6	2 + 5	2 + 6	3	4	
11	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R
23	↑	↑	↑	↑	↑	↑	↑
24	G	G	G	G	G	R	R
31	←	←	←	←	←	←	←
32	←	←	←	←	←	←	←
33	R	R	R	R	G	R	R
34	←	←	←	←	←	←	←
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
43	←	←	←	←	←	←	←
44,45	R	R	R	R	←	←	←
51	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R
63,65	↑	↑	↑	↑	↑	↑	↑
64	G	G	G	G	R	R	R
P21,P22	DW	DW	W	W	DW	DRK	DRK
P31,P32	DW	DW	DW	DW	W	DW	DRK

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

FIGURE 1

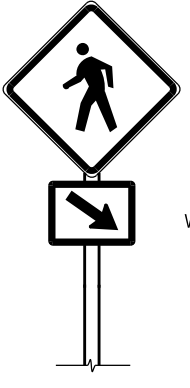
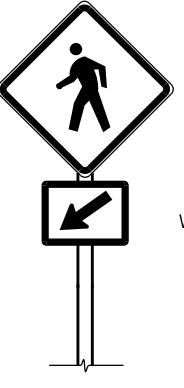
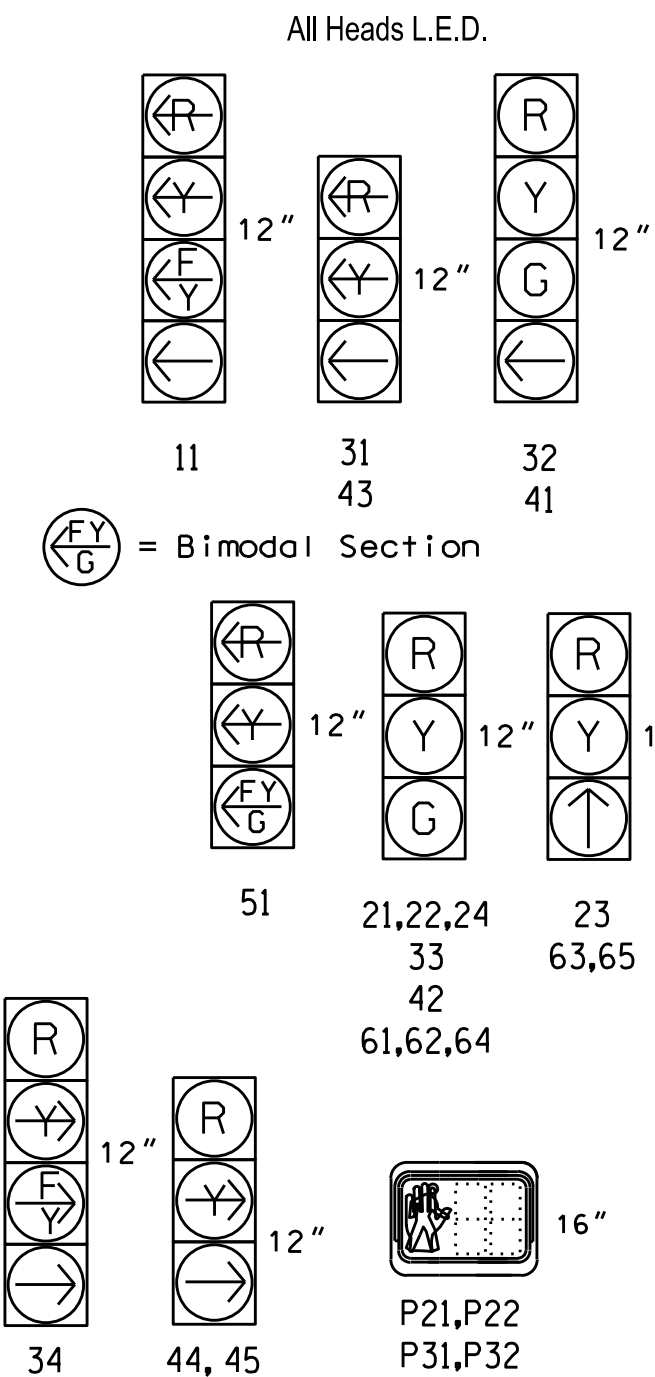


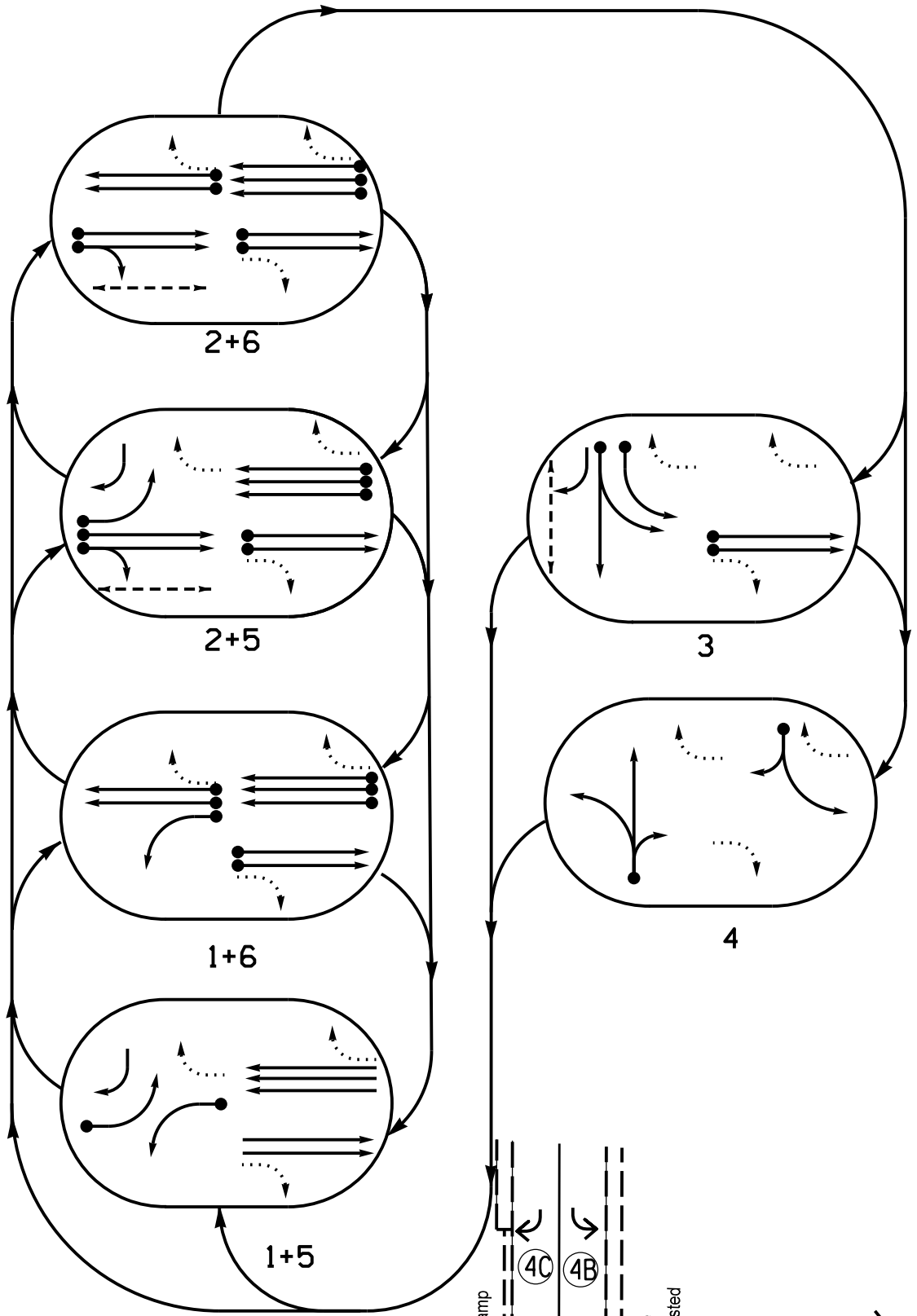
FIGURE 2



SIGNAL FACE I.D.



ALTERNATE PHASING DIAGRAM



ALTERNATE PHASING
TABLE OF OPERATION

SIGNAL FACE	PHASE						FLASH
	1 + 5	1 + 6	2 + 5	2 + 6	3	4	
11	←	←	←	←	←	←	←
21,22	R	R	G	G	R	R	R
23	↑	↑	↑	↑	↑	↑	↑
24	G	G	G	G	G	R	R
31	←	←	←	←	←	←	←
32	←	←	←	←	←	←	←
33	R	R	R	R	G	R	R
34	←	←	←	←	←	←	←
41	R	R	R	R	R	G	R
42	R	R	R	R	R	G	R
43	←	←	←	←	←	←	←
44,45	R	R	R	R	←	←	←
51	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R
63,65	↑	↑	↑	↑	R	R	R
64	G	G	G	G	R	R	R
P21,P22	DW	DW	W	W	DW	DRK	DRK
P31,P32	DW	DW	DW	DW	W	DW	DRK

6-Phase
Fully Actuated
w/ Alternate Phasing
D12_14_DALLAS

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024, "Standard Specifications for Roads and Structures" dated January 2024, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <https://connect.ncdot.gov/resources/safety/Pages/TSMO-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- To provide a leading pedestrian interval on phase 3, program FYA head numbered 34 to delay for 7 seconds after the start of the phase 3 walk interval. See Electrical Details for Programming.
- Repaint stop lines and/or crosswalks.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Master Asset #1123, Controller Asset #1426.

LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
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MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	3	4	5	6
Walk *	-	14	14	-	-	-
Ped Clear	-	9	16	-	-	-
Min Green *	7	10	7	7	7	10
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	15	45	25	25	25	45
Yellow Change	3.0	3.8	3.8	4.0	3.0	3.8
Red Clear	2.9	2.1	1.9	1.8	2.6	2.1
Added Initial *	-	-	-	-	-	-
Maximum Initial *	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-
Advance Walk	-	7	**	-	-	-
Non Lock Detector	X	-	X	X	X	-
Vehicle Recall	-	MIN RECALL	-	-	-	MIN RECALL
Dual Entry	-	-	-	-	-	-

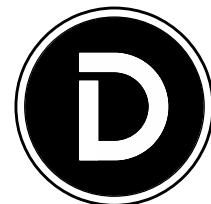
* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.
** See Note 8

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR		PROGRAMMING									
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	INITIAL	ADDED	NEW CARD
1A	*	0	*	X	1	15.0**	-	X	-	X	-
2A,2B	6X6	70	EXIST	-	2	-	-	X	-	X	-
2C	6X6	70	EXIST	-	2	-	-	X	-	X	-
2D	6X6	70	EXIST	-	2	-	-	X	-	X	-
3A	6X40	+5	EXIST	-	3	3.0	-	X	-	X	-
3B	6X40	+5	EXIST	-	3	-	-	X	-	X	-
3C	6X40	+5	EXIST	-	3	15.0	-	X	-	X	-
4A	6X40	+5	EXIST	-	4	5.0	-	X	-	X	-
4B	*	0	*	X	4	-	-	X	-	X	-
4C	*	0	*	X	4	15.0	-	X	-	X	-
5A	6X40	0	EXIST	-	5	15.0**	-	X	-	X	-
6A	*	70	*	X	6	-	-	X	-	X	-
6B	*	70	*	X	6	-	-	X	-	X	-
6C	*	70	*	X	6	-	-	X	-	X	-
6D	*	70	*	X	6	-	-	X	-	X	-
6E	*	70	*	X	6	-	-	X	-	X	-

* Microwave Detection Zone
** Reduce Delay to 3 seconds during Alternate Phasing Operation.
Disable Phase Call for loop during Alternate Phasing Operation.

Project #: 240903



HOME OFFICE:

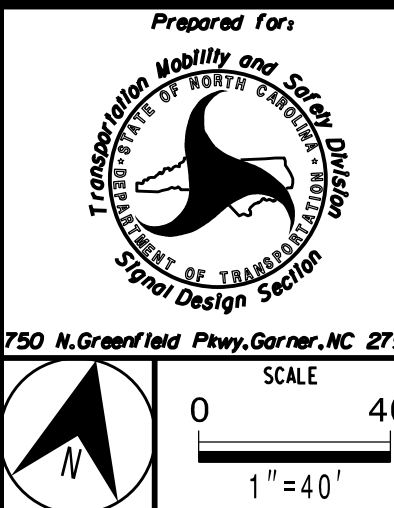
119 BROOKSTOWN AVENUE, SUITE PH1

WINSTON-SALEM, NC 27101

336.744.1636 www.davenportworld.com

NCBELS FIRM LICENSE NO. C-2822

Signal Upgrade



NC 275 - 279 (Dallas-Cherryville Hwy) at US 321
Business (Dallas-High Shoals Hwy) /
SR 1343 (College View Road)

Division 12 Gaston County Dallas

PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw

PREPARED BY: A. Okyere-Addo REVIEWED BY:

REVISIONS

INIT. DATE

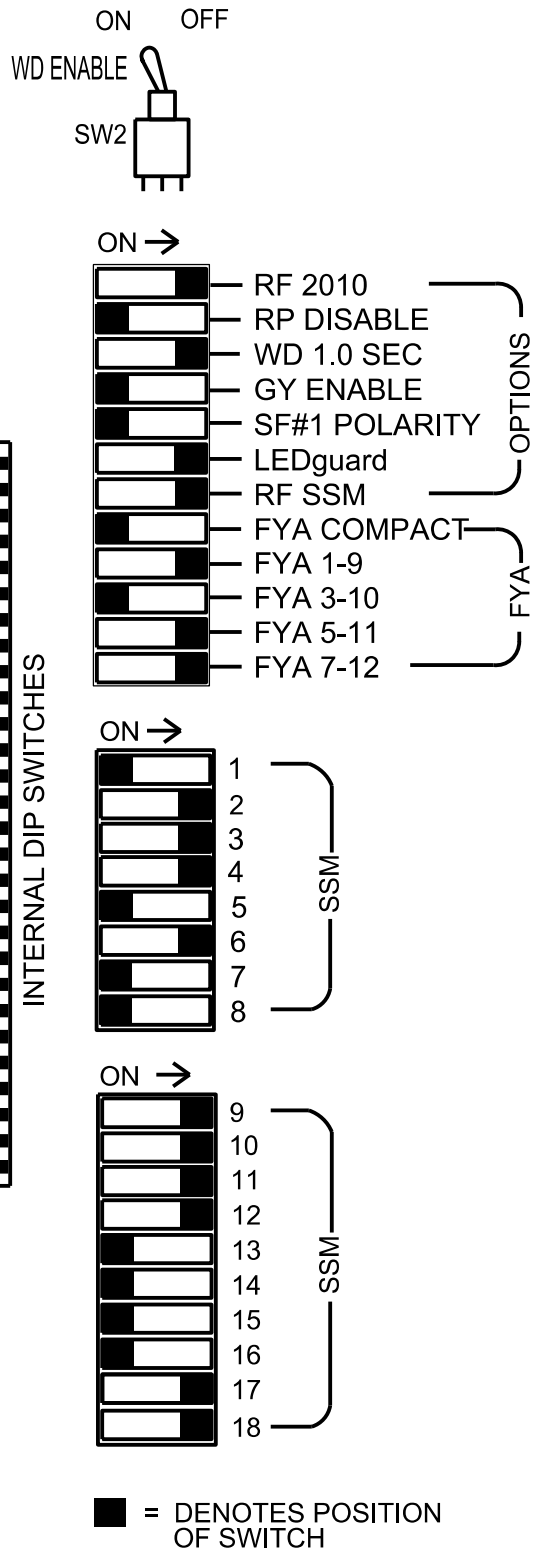
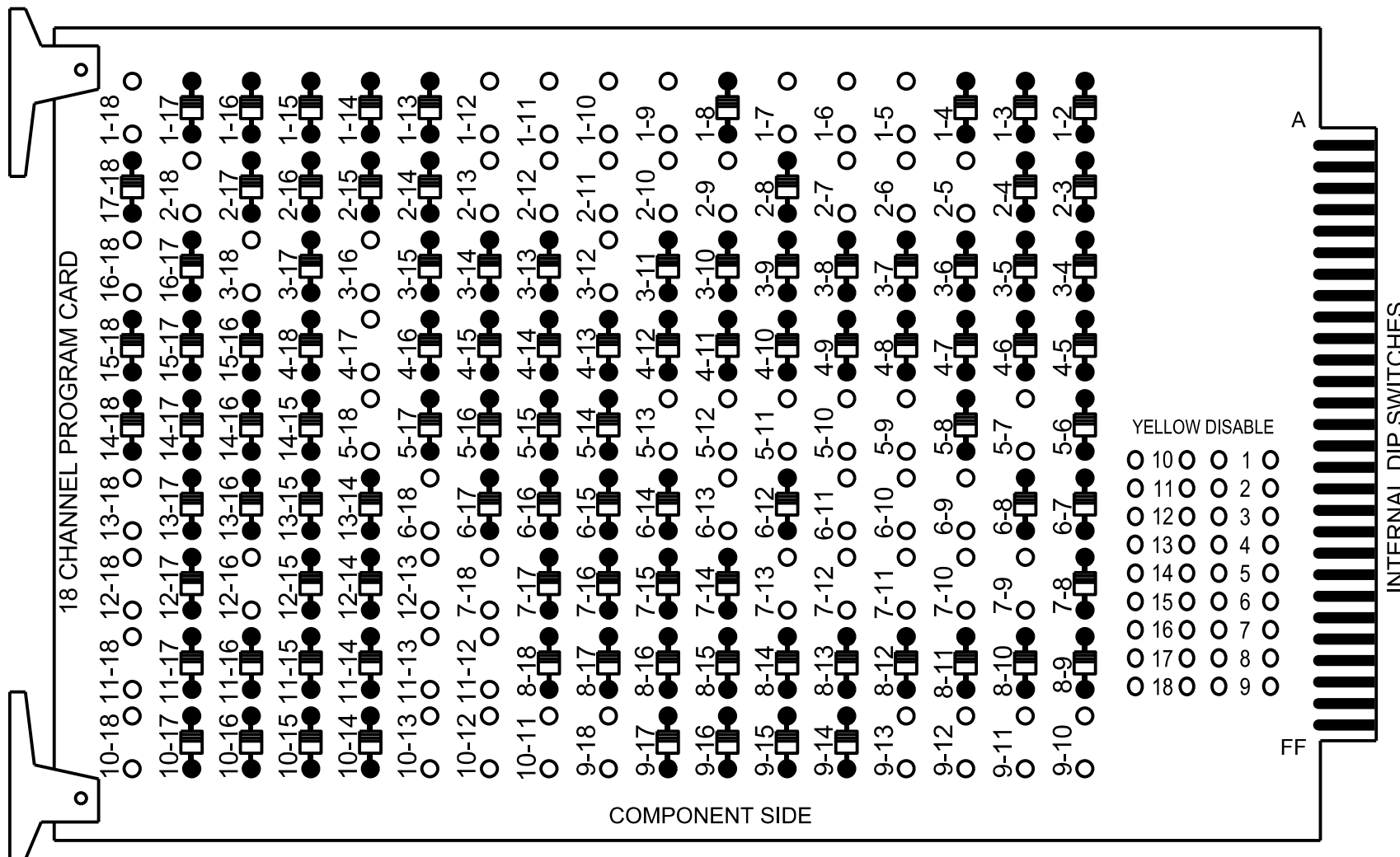
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



18 CHANNEL CONFLICT MONITOR
PROGRAMMING DETAIL

(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-7, 1-9, 1-10, 1-11, 1-12, 1-18, 2-5, 2-6, 2-7, 2-9, 2-10, 2-11, 2-12, 2-13, 2-18, 3-12, 3-16, 3-18, 4-17, 5-7, 5-9, 5-10, 5-11, 5-12, 5-13, 5-18, 6-9, 6-10, 6-11, 6-13, 6-18, 7-9, 7-10, 7-11, 7-12, 7-13, 7-18, 9-10, 9-11, 9-12, 9-13, 9-18, 10-11, 10-12, 10-13 ,10-18, 11-12, 11-13, 11-18, 12-13, 12-16, 12-18, 13-18, AND 16-18.

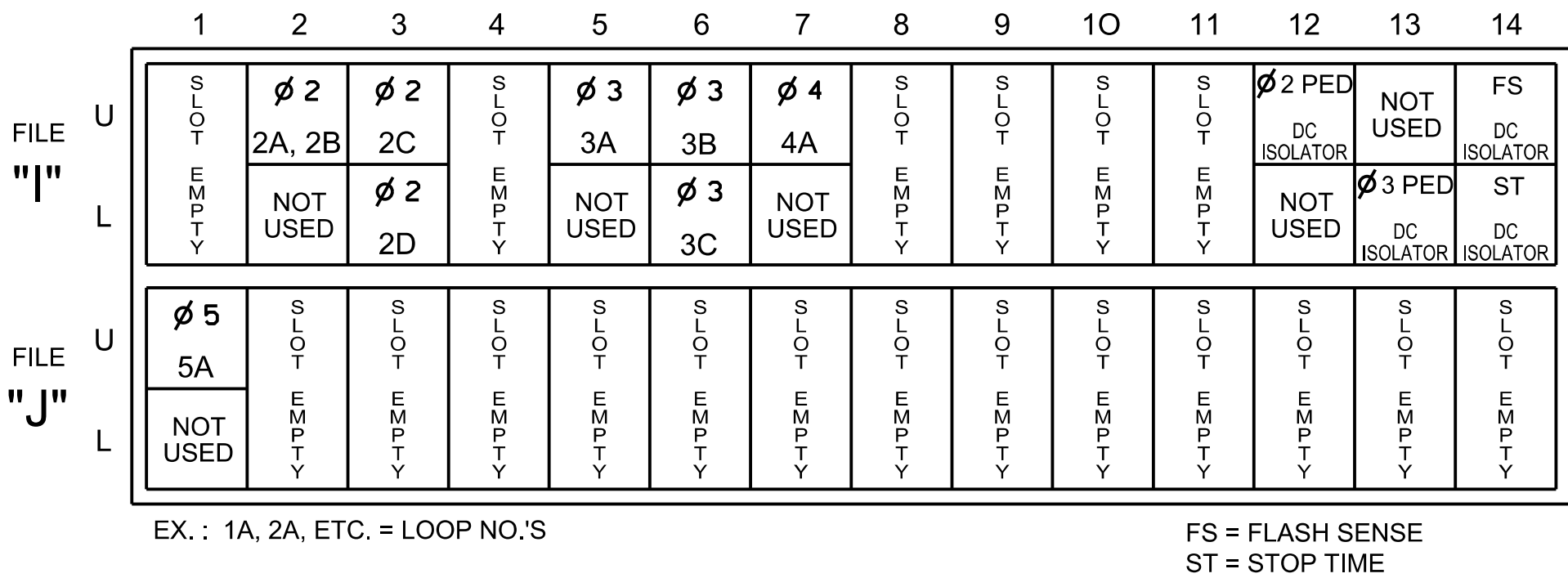


NOTES:

REMOVE JUMPERS AS SHOWN

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that the Red Enable is active at all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

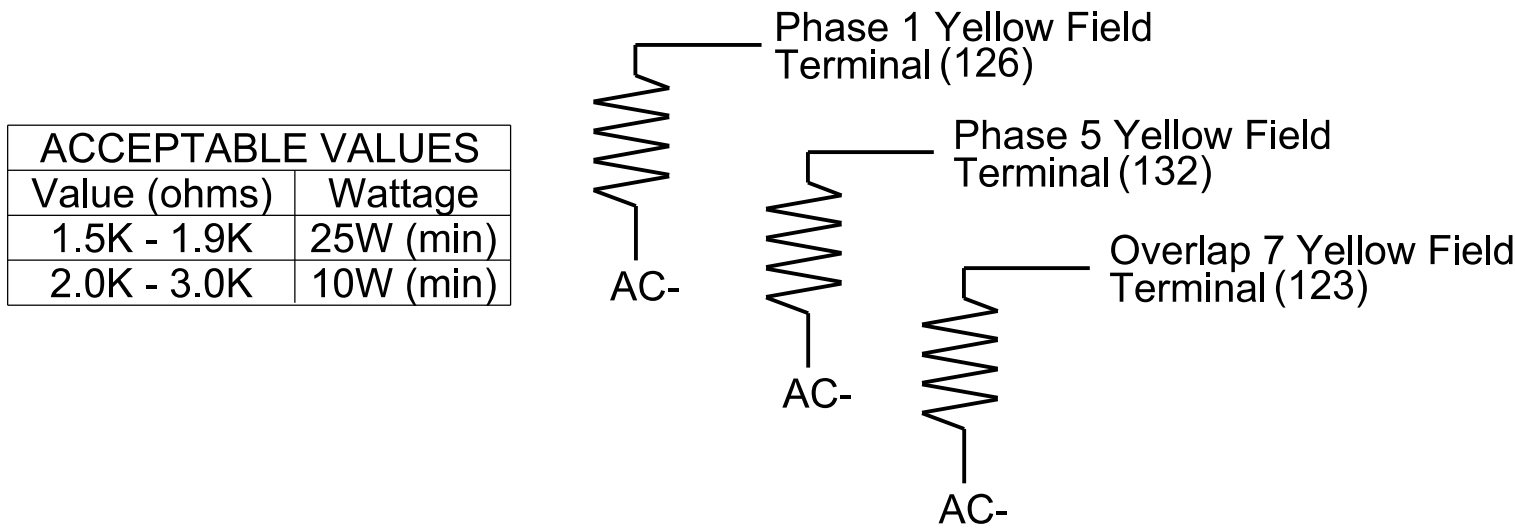
INPUT FILE POSITION LAYOUT
(front view)



SPECIAL DETECTOR NOTE

Install multizone microwave detection zones for vehicle detection for the detection zones 1A, 4A, 4C, 6A, 6B, 6C, 6D, and 6E as indicated on the signal plan. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

LOAD RESISTOR INSTALLATION DETAIL
(install resistors as shown)



ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program controller to start up in phase 2 Green No Walk and 6 Green No Walk.
- If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
- The cabinet and controller are part of the (D12_14_DALLAS) System.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S1,S2,S3,S4,S5,S7,S8,S10,S12,AUX S1, AUX S2,AUX S3,AUX S4,AUX S5,AUX S6
Phases Used.....1, 2, 2PED, 3, 3PED, 4, 5, 6
Overlap "1".....*
Overlap "2".....*
Overlap "3".....*
Overlap "4".....*
Overlap "5".....*
Overlap "6".....*
Overlap "7".....*
*See overlap programming detail on sheet 2

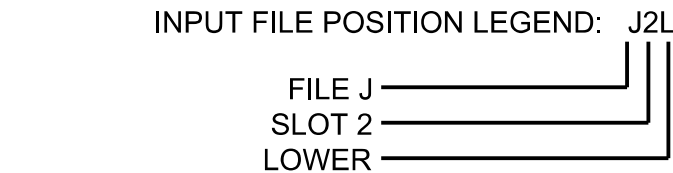
INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	-	-	-	*	33	★	1	15.0		X	X	
2A,2B	TB2-5,6	I2U	39	1	2	125	★	6		X	X	
2C	TB2-9,10	I3U	63	29	4	2			X		X	
2D	TB2-11,12	I3L	76	42	5	2			X		X	
3A	TB4-5,6	I5U	58	20	7	3	3.0		X		X	
3B	TB4-9,10	I6U	41	3	8	3			X		X	
3C	TB4-11,12	I6L	45	7	9	3	15.0		X		X	
4A	TB6-1,2	I7U	65	31	10	4	5.0		X		X	
4B	-	-	-	*	45	4			X		X	
4C	-	-	-	*	46	4	15.0		X		X	
5A	TB3-1,2	J1U	55	17	15	★	5	15.0		X	X	
6A	-	-	-	*	54	6			X		X	
6B	-	-	-	*	55	6			X		X	
6C	-	-	-	*	56	6			X		X	
6D	-	-	-	*	57	6			X		X	
6E	-	-	-	*	58	6			X		X	
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P31,P32	TB8-8,9	I13L	70	36	8	★	PED 3					

- ★ For the detectors to work as shown on the Signal Design Plan, see the Detector Programming Detail for Alternate Phasing on sheet 2.
* For Input Point numbers, see SDLC NON-INTRUSIVE DETECTION CHART this sheet.
** See Ped Detector Programming Detail on sheet 2 and Outpuy Channel Configuration on sheet 3 to assign the pushbuttons for phase 3 Ped.

SDLC NON-INTRUSIVE DETECTION CHART

Input Point	Detector Rack #3		Detector Rack #4	
	Det # (Index)	Detector Zone	Det # (Index)	Detector Zone
1	33	1A	49	NU
2	34	NU	50	NU
3	35	NU	51	NU
4	36	NU	52	NU
5	37	NU	53	NU
6	38	NU	54	6A
7	39	NU	55	6B
8	40	NU	56	6C
9	41	NU	57	6D
10	42	NU	58	6E
11	43	NU	59	NU
12	44	NU	60	NU
13	45	4B	61	NU
14	46	4C	62	NU
15	47	NU	63	NU
16	48	NU	64	NU

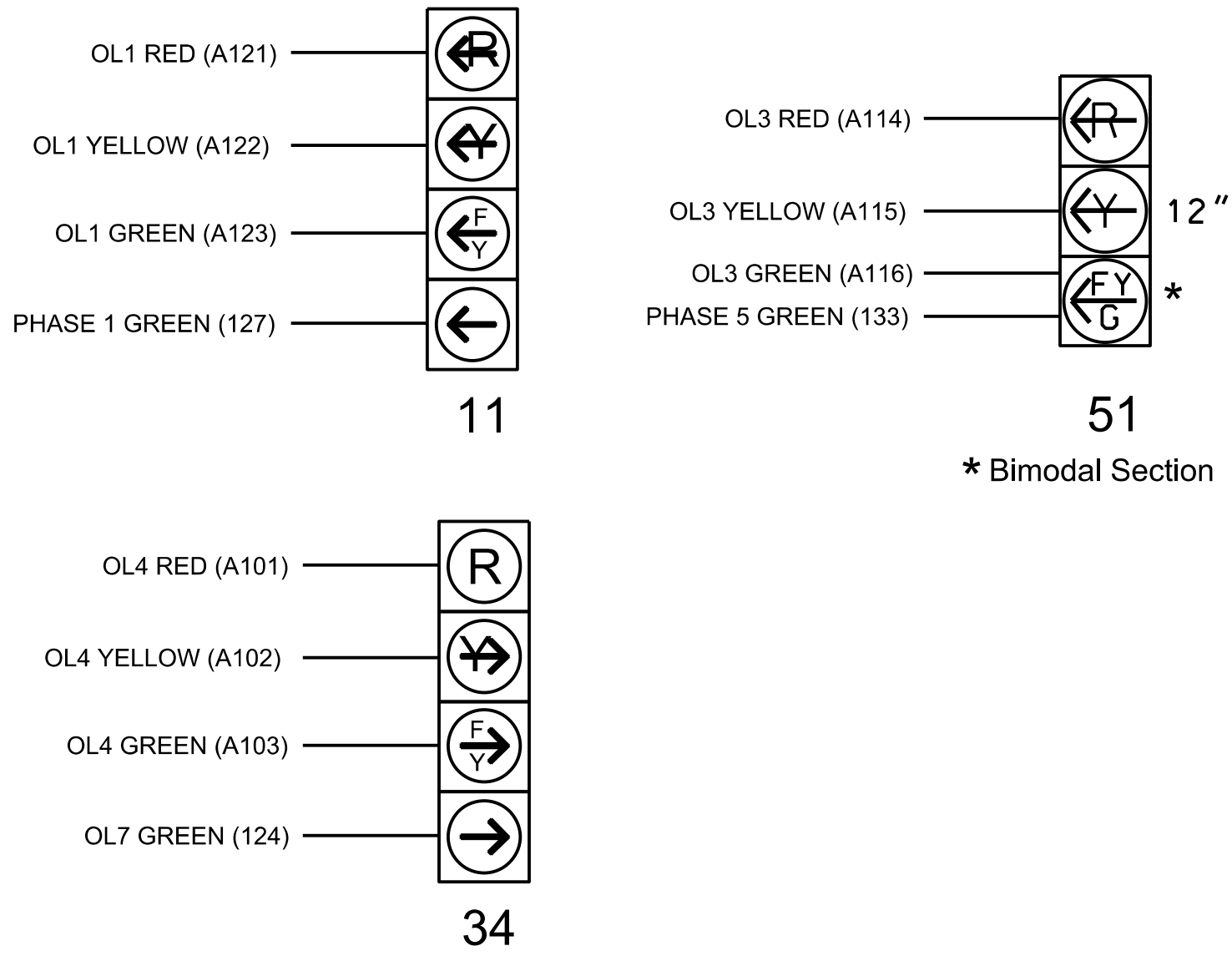


THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1426
DESIGNED: July 2026
SEALED: July 29, 2026
REVISED: N/A



FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

Electrical Detail - Sheet 1 of 3

Electrical and Programming Details For:

Prepared for:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 275 - 279 (Dallas-Cherryville Hwy) at US 321 Business (Dallas-High Shoals Hwy) / SR 1343 (College View Road)

Division 12 Gaston County Dallas

PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw

PREPARED BY: A. Okyere-Addo REVIEWED BY:

REVISIONS

INIT.

DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

SEAL 032117

SEAL 032117

DocuSigned by: 7/29/2026

SIGNATURE DATE

SIG. INVENTORY NO. 12-1426

MAXTIME OVERLAP PROGRAMMING DETAIL
FOR DEFAULT PHASING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	1	2	3	4	5	6	7
Type	FYA 4 - Section	Normal	FYA 4 - Section	FYA 4 - Section	Normal	Normal	Normal
Included Phases	2	5,6	6	3	4	1,2,3	5
Modifier Phases	1	-	5	5	-	-	-
Modifier Overlaps	-	-	-	-	-	-	-
Trail Green	0	0	0	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FYA Ped Delay	0.0	0.0	0.0	7.0	0.0	0.0	0.0

NOTE FYA
PED DELAY

MAXTIME OVERLAP PROGRAMMING DETAIL
FOR ALTERNATE PHASING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

In the table view of the web interface, right click on "Overlap" in the top left corner of the table. Copy the entire contents of Overlap Plan 1. Paste Overlap Plan 1 into Overlap Plan 2. Modify Overlap Plan 2 as shown below and save changes.

Overlap Plan 2

Overlap	1	2	3	4	5	6	7
Type	FYA 4 - Section	Normal	FYA 4 - Section	FYA 4 - Section	Normal	Normal	Normal
Included Phases	-	5,6	-	3	4	1,2,3	5
Modifier Phases	1	-	5	5	-	-	-
Modifier Overlaps	-	-	-	-	-	-	-
Trail Green	0	0	0	0	0	0	0
Trail Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FYA Ped Delay	0.0	0.0	0.0	7.0	0.0	0.0	0.0

NOTICE
INCLUDED
PHASE

NOTICE FYA
PED DELAY

PED DETECTOR PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Detector >Ped Det Plans

Web Interface
Home >Controller >Detector Configuration >Pedestrian Detector

Plan 1

Detector	Description	Call Phase	Call Overlap
2		2	0
4		4	0
6		6	0
8		3	0

NOTICE PED3
ASSIGNED
DETECTOR 8

MAXTIME ALTERNATE PHASING ACTIVATION DETAIL

To run alternate phasing, select a Pattern that is programmed to run Overlap Plan 2 and Detector Plan 2. A Pattern can be selected through the scheduler or manually by changing the Operational Mode.

PHASING	OVERLAP PLAN	VEH DET PLAN
ACTIVE PLAN REQUIRED TO <u>RUN DEFAULT PHASING</u>	1	1
ACTIVE PLAN REQUIRED TO <u>RUN ALTERNATE PHASING</u>	2	2

ALTERNATE PHASING CHANGE SUMMARY

THE FOLLOWING IS A SUMMARY OF WHAT TAKES PLACE WHEN OVERLAP PLAN 2 AND VEHICLE DETECTOR PLAN 2 ACTIVATE TO CALL THE "ALTERNATE PHASING":

OVERLAP PLAN 2: Modifies overlap included phases for heads 11 and 51 to run protected turns only.

VEH DET PLAN 2: Disables phase 6 call on loop 1A and reduces delay time for phase 1 call on loop 1A to 3 seconds.

Disables phase 2 call on loop 5A and reduces delay time for phase 5 call on loop 5A to 3 seconds.

SPECIAL DETECTION IO MODULE PROGRAMMING

The Enhanced Out of Pavement Detection requires adjustments to the IO Modules in use. Follow the programming instructions below to ensure desired operation.

Front Panel
Main Menu >Controller >More >Advanced IO >IO Modules

Web Interface
Home >Controller >Advanced IO >Cabinet Configuration > IO Modules

IO Module	Type	Fault Response
1	Caltrans 332	Default
2	TS2 DR3 BIU	Default
3	TS2 DR4 BIU	Default
4	TS2 MMU	Default

Advanced Cabinet Options

☒ Disable TS2 Cabinet Alarms

MAXTIME ALTERNATE PHASING PATTERN
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Coordination >Patterns

Web Interface
Home >Controller >Coordination >Patterns

Pattern Parameters

Pattern	Veh Det Plan	Overlap Plan
★	2	2

★ The Pattern number(s) are to be determined by the Division and/or City Traffic Engineer.

MAXTIME DETECTOR PROGRAMMING DETAIL
FOR ALTERNATE PHASING LOOPS 1A & 5A

Front Panel
Main Menu >Controller >Detector >Veh Det Plans

Web Interface
Home >Controller >Detector Configuration >Vehicle Detectors

In the table view of web interface right click on "Detector" in the top left corner of the table. Copy the entire contents of Detector Plan 1. Paste Detector Plan 1 into Detector Plan 2. Modify Detector Plan 2 as shown below and save changes.

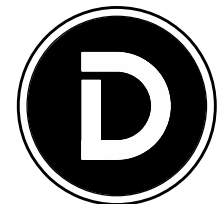
Plan 2

Detector	Call Phase	Delay
33	1	3.0
125	0	-

5A

Detector	Call Phase	Delay
15	5	3.0
31	0	-

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1426
DESIGNED: July 2026
SEALED: July 29, 2026
REVISED: N/A



Project #: 240903

DAVENPORT

HOME OFFICE:
119 BROOKSTOWN AVENUE, SUITE PH1
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Electrical Detail - Sheet 2 of 3

Electrical and Programming Details For:	NC 275 - 279 (Dallas- Cherryville Hwy) at US 321 Business (Dallas-High Shoals Hwy) / SR 1343 (College View Road)	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
Prepared for: 750 N. Greenfield Pkwy, Garner, NC 27529	Division 12 Gaston County Dallas PLAN DATE: July 2026 REVIEWED BY: R. Hinshaw PREPARED BY: A. Okyere-Addo REVIEWED BY: REVISIONS INIT. DATE DocuSigned by: St. Royal Hinshaw 7/29/2026 SIGNATURE DATE SIG. INVENTORY NO. 12-1426	SEAL NORTH CAROLINA PROFESSIONAL SEAL 032117 ENGINEER ROYAL HINSHAW

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

NOTICE OL7
ASSIGNED
TO CH. 7

NOTICE PED3
ASSIGNED
TO CH. 16

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X		3
4	Phase Vehicle	4		X	X	4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Overlap	7		X	X	7
8	Phase Vehicle	8		X		8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	3				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

NOTE
FLASH
ALT

NOTE
FLASH
ALT

MAXTIME STARTUP AND SOFTWARE FLASH
PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE
SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-3.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-2.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

LOGIC PROCESSOR PROGRAMMING

Front Panel
Main Menu >Controller >More >User Programs >Definition

Web Interface
Home >Controller >User Programs Configuration >User Programs definition

Program 1

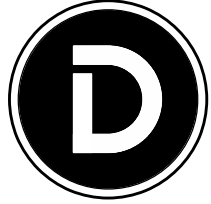
Statement	Result	Index	Operation	Parameter A	Index	Parameter B	Index	Delay	Ext
1	Veh Detector Call	125	is Module A input B ON	Number	2	Number	1	0.0	0.0

LOGIC STATEMENT DESCRIPTION

Statement 1 Description : Mirrors vehicle Detector 33 to vehicle detector 125

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1426
DESIGNED: June 2026
SEALED: July 29, 2026
REVISED: N/A

Project #: 240903



DAVENPORT

HOME OFFICE:

119 BROOKSTOWN AVENUE, SUITE PH1

WINSTON-SALEM, NC 27101

336.744.1636

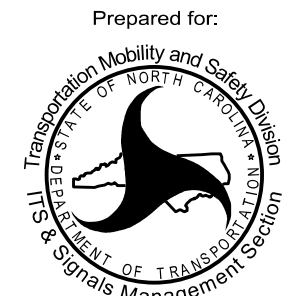
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NCBELS FIRM LICENSE NO. C-2522

Electrical Detail - Sheet 3 of 3

Electrical and Programming
Details For:

Prepared for:



750 N. Greenfield Pkwy, Garner, NC 27529

NC 275 - 279 (Dallas-Cherryville Hwy) at US 321 Business (Dallas-High Shoals Hwy) / SR 1343 (College View Road)

Division 12 Gaston County Dallas

PLAN DATE: July 2026

REVIEWED BY: R. Hinshaw

PREPARED BY: A. Okyere-Addo

REVIEWED BY:

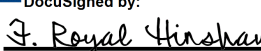
REVISIONS	INIT.	DATE

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SEAL



Signed by:



7/29/2026

SIGNATURE

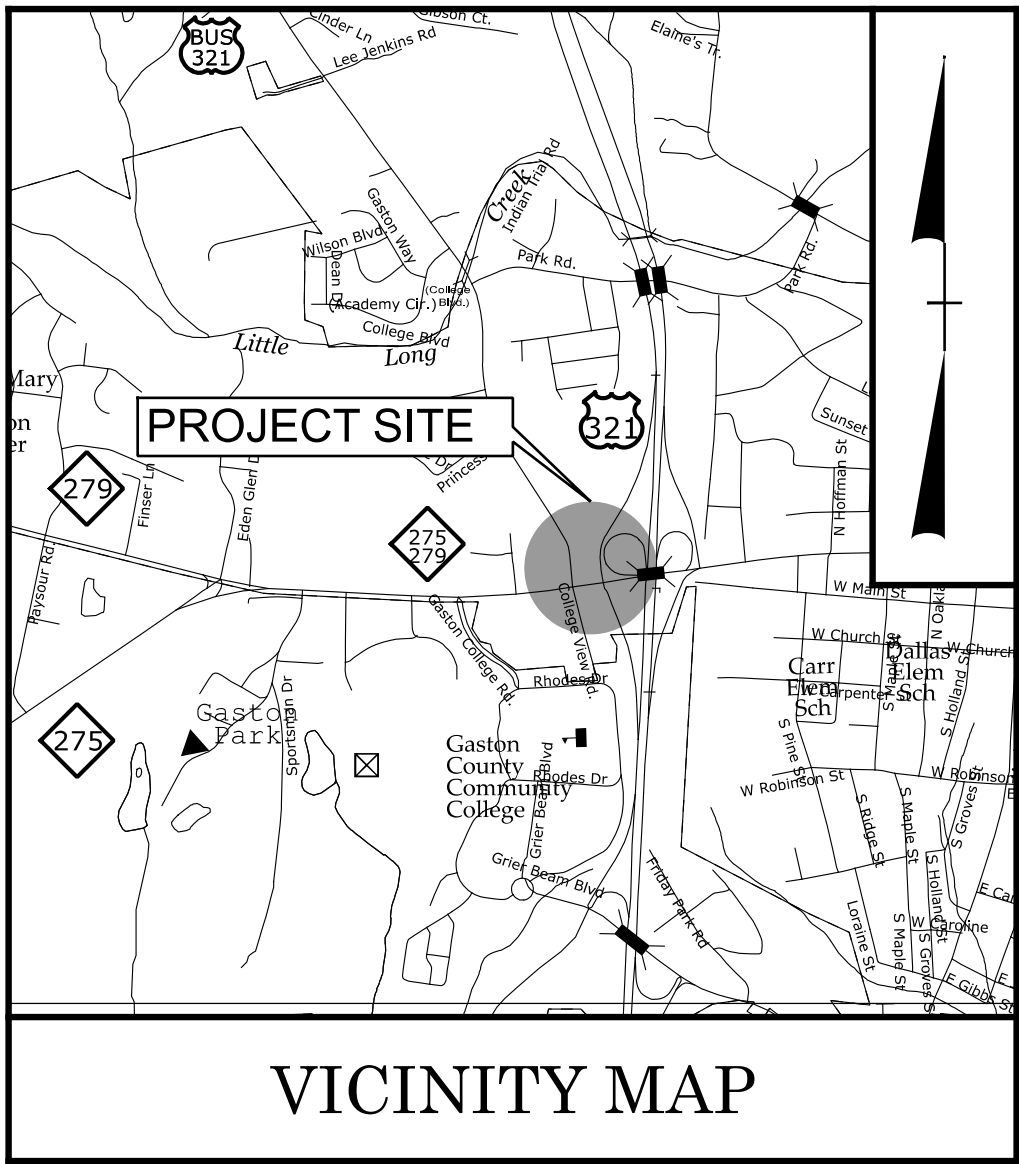
DATE

SIG. INVENTORY NO.

I2-1426

09/07/25

TIP PROJECT: HN-0027



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

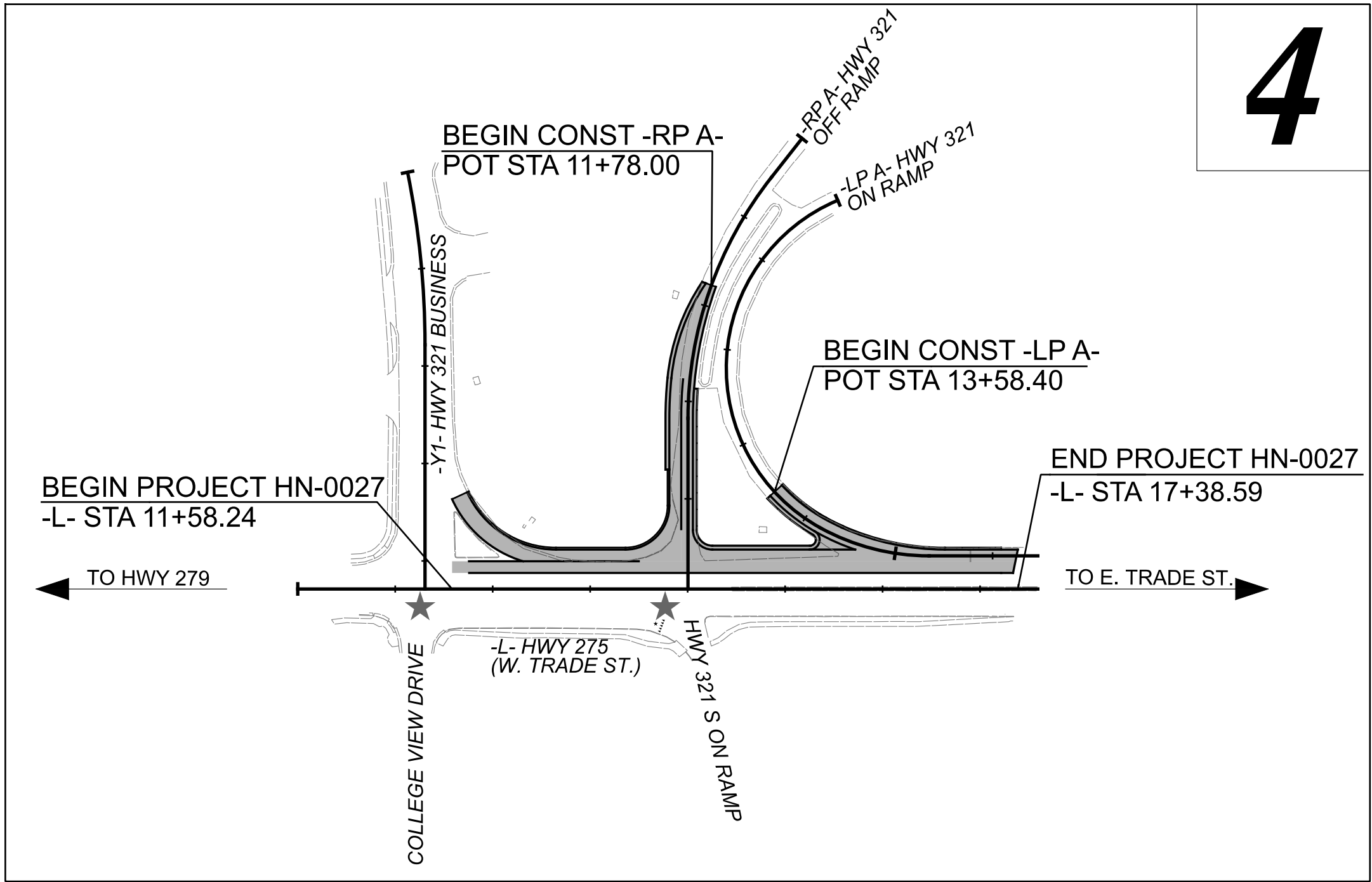
UTILITIES BY OTHERS PLANS
GASTON COUNTY

LOCATION: NC 275 (W. TRADE ST.) FROM HWY 321
BUSINESS TO 321 SOUTH BOUND ON LOOP

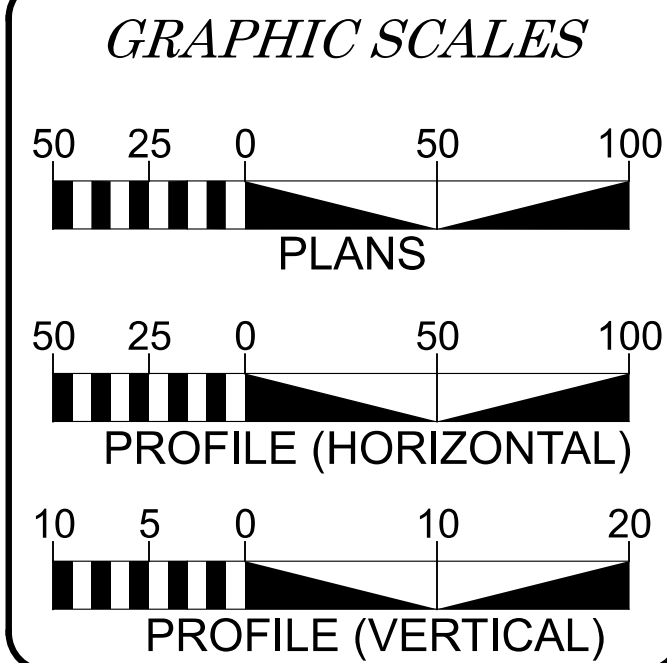
TYPE OF WORK: GRADING, PAVING, WIDENING,
SIGNALS AND DRAINAGE

T.I.P. NO.	SHEET NO.
HN-0027	00-1

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION



SHEET NO.:
UO-1
UC-2

INDEX OF SHEETS

DESCRIPTION
TITLE SHEET
UTILITY BY OTHERS SHEETS

UTILITY OWNERS WITH CONFLICTS

(A) AT&T

PREPARED IN THE OFFICE OF

AMERICAN Engineering

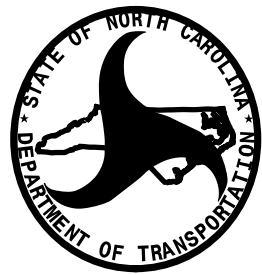
CONSULTANT INFO

11525 N. COMMUNITY HOUSE RD | SUITE 325
CHARLOTTE, NC 28277 | 704.375.2438

ALLISON C. JOHNSON, PE CONSULTANT CONTACT #1

BENJAMIN C. PICKRING II, PE CONSULTANT CONTACT #2

CONSULTANT CONTACT #3



DIVISION OF HIGHWAYS
UTILITIES UNIT

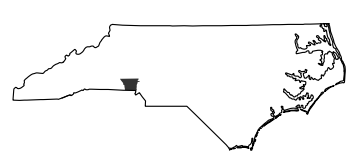
1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-7194

UTILITIES REGIONAL ENGINEER

UTILITIES ENGINEER

UTILITIES AREA COORDINATOR

UTILITIES COORDINATOR



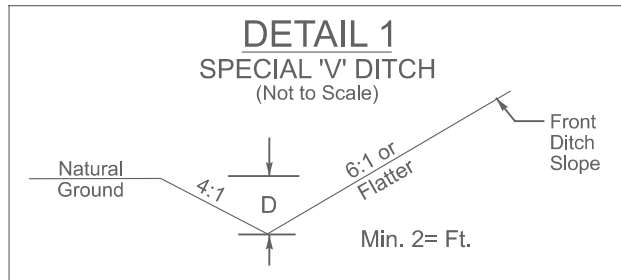
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

PREPARED BY

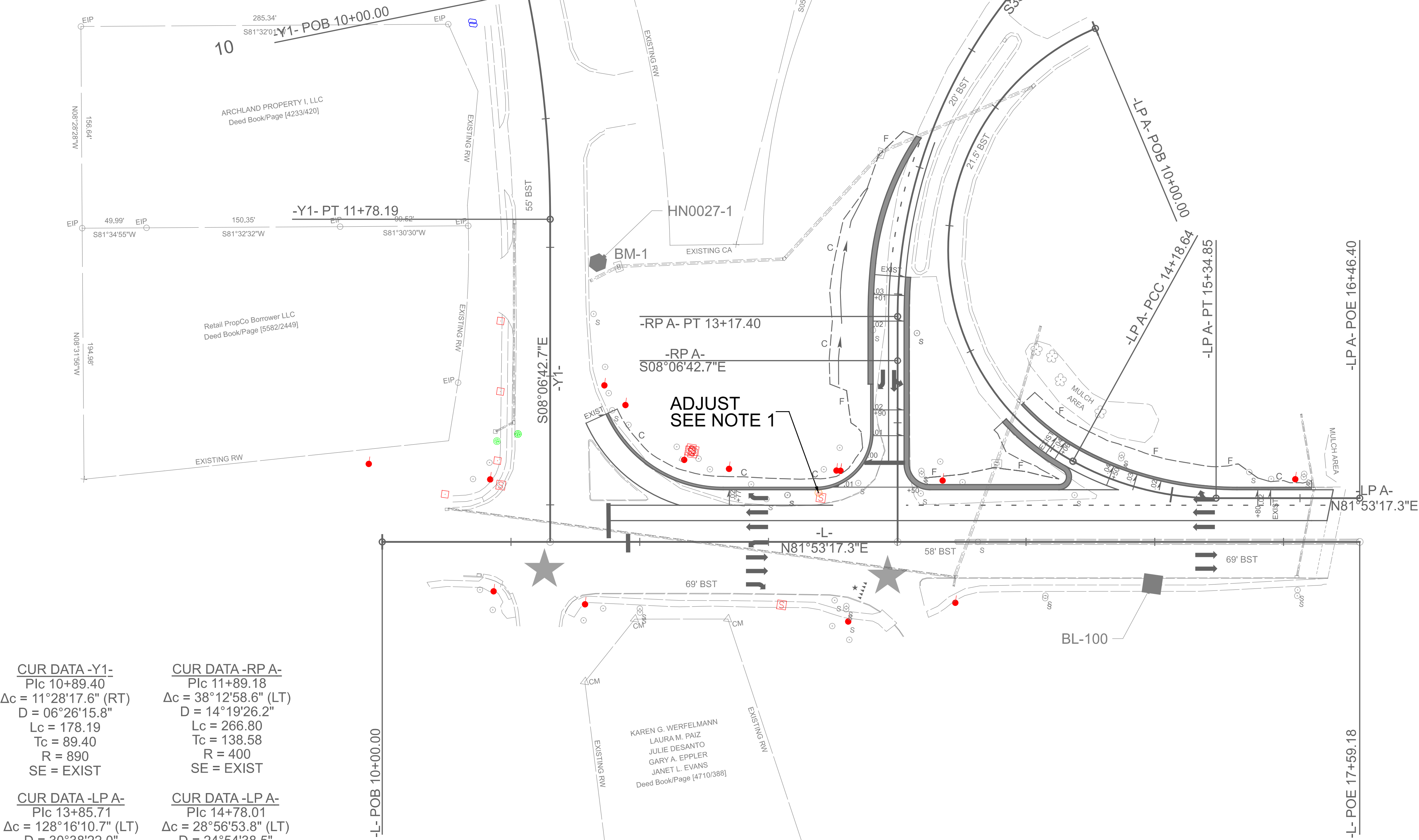


11525 N. Community House Road Suite 325
Charlotte, NC 28277 (704) 575-2418
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UNLESS ALL SIGNATURES COMPLETED

REVISIONS



FROM -RP A- STA. 12+25.00 TO -RP A-STA.13+70.00



CUR DATA -Y1-
Plc 10+89.40
 $\Delta c = 11^\circ 28' 17.6''$ (RT)
D = $06^\circ 26' 15.8''$
Lc = 178.19
Tc = 89.40
R = 890
SE = EXIST

CUR DATA -RP A-
Plc 11+89.18
 $\Delta c = 38^\circ 12' 58.6''$ (LT)
D = $14^\circ 19' 26.2''$
Lc = 266.80
Tc = 138.58
R = 400
SE = EXIST

CUR DATA -LP A-
Plc 13+85.71
 $\Delta c = 128^\circ 16' 10.7''$ (LT)
D = $30^\circ 38' 22.0''$
Lc = 418.64
Tc = 385.71
R = 187
SE = EXIST

CUR DATA -LP A-
Plc 14+78.01
 $\Delta c = 28^\circ 56' 53.8''$ (LT)
D = $24^\circ 54' 38.5''$
Lc = 116.21
Tc = 59.37
R = 230
SE = EXIST

NOTE:
1.) THE CONTRACTOR WILL NOTIFY AT&T IN WRITING THAT THEIR MANHOLE IS READY TO BE ADJUSTED. ONCE NOTIFIED THE CONTRACTOR WILL ALLOW AT&T 3 WEEKS TO ADJUST THEIR MANHOLE.

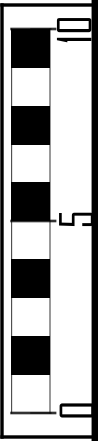


REVISED SIGNAL

HN-0027

CROSS SECTION INDEX

-L-	X-2 THROUGH X-6
-RP A-	X-7 THROUGH X-9
-LP A-	X-10 THROUGH X-12



X

001

HN-0027

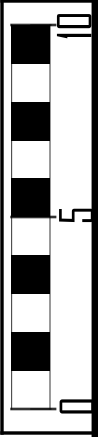
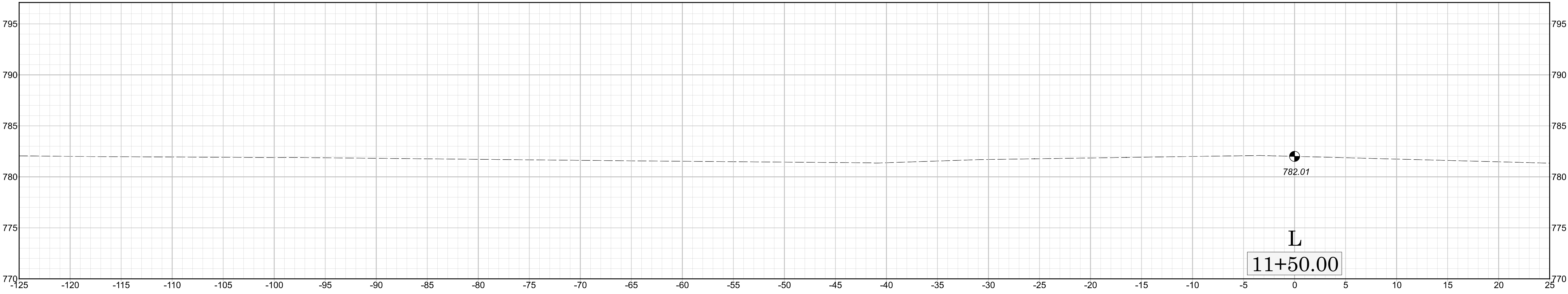
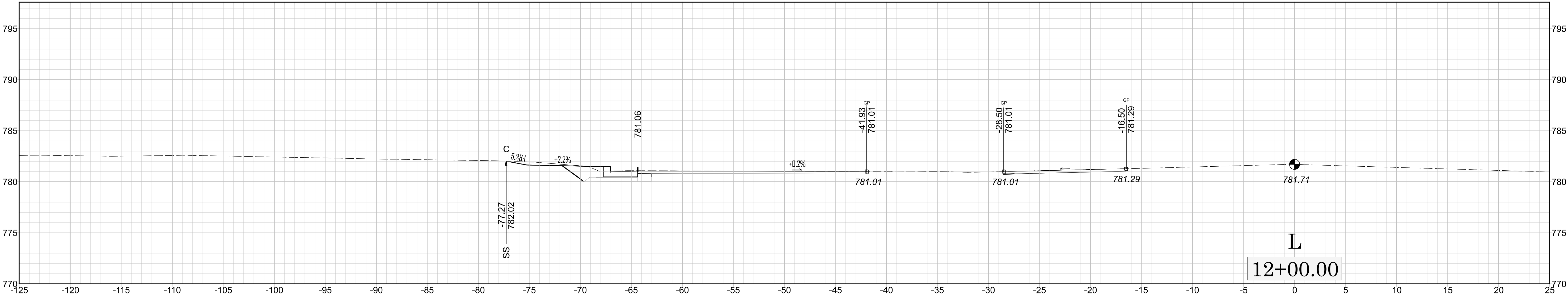
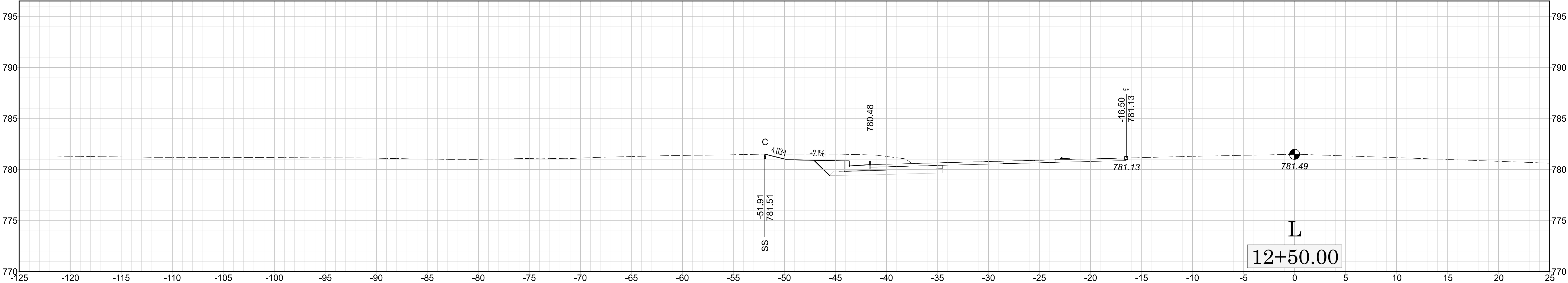
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, clear and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the lump sum price for "Grading"

CROSS-SECTION SUMMARY

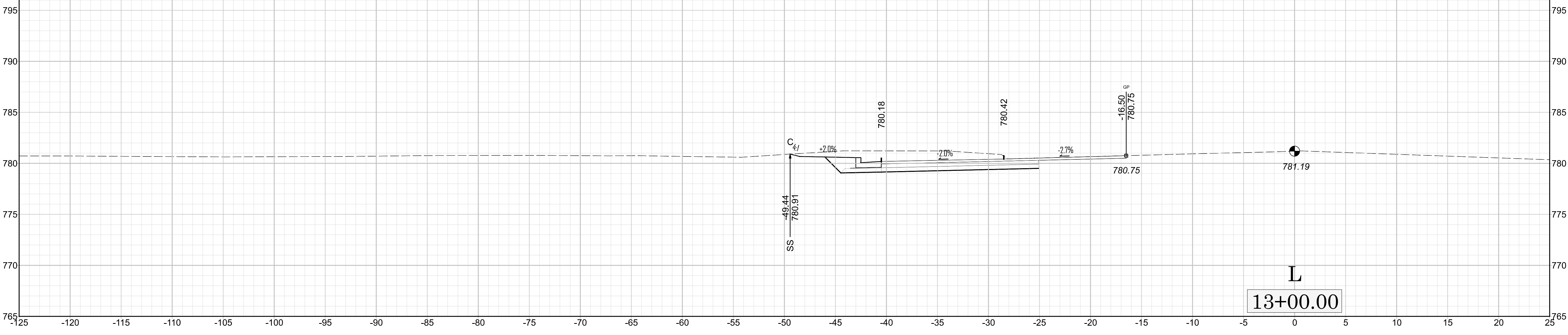
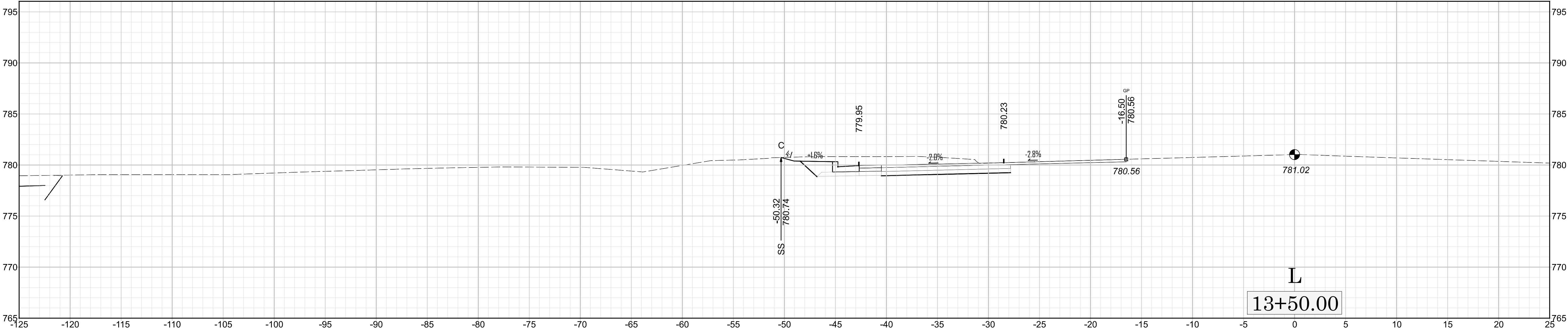
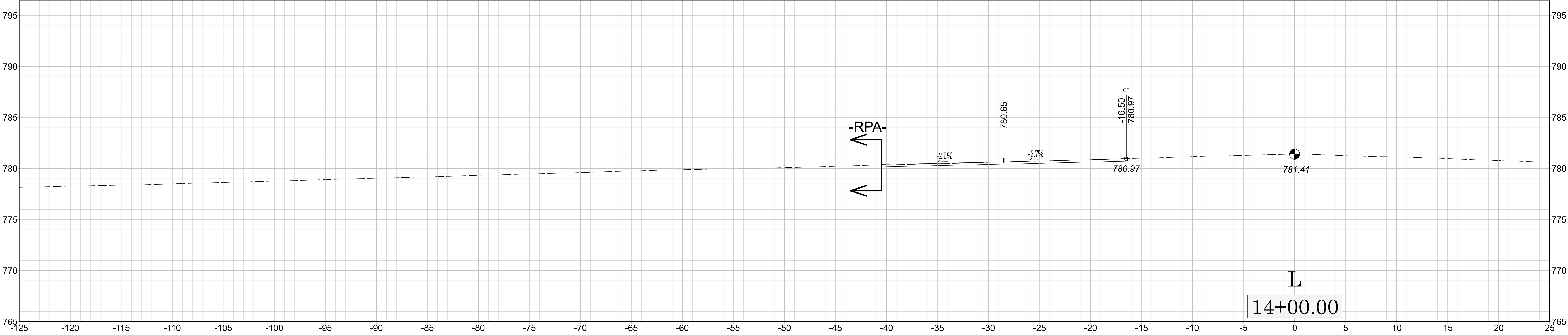
NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

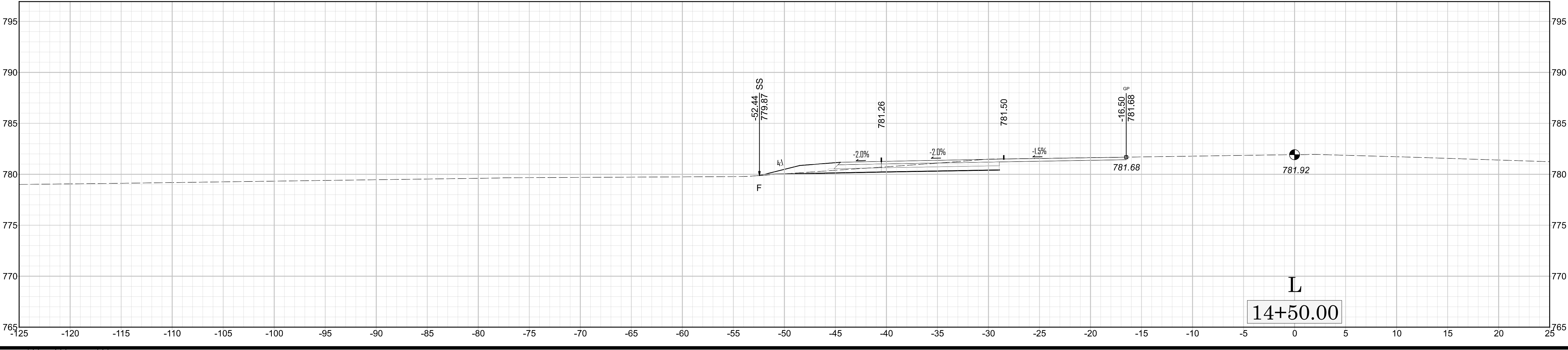
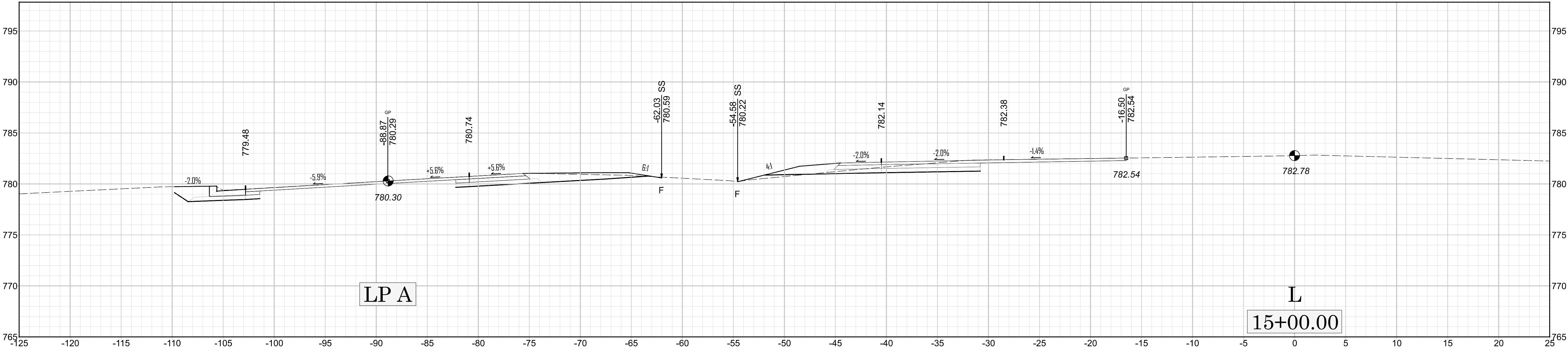
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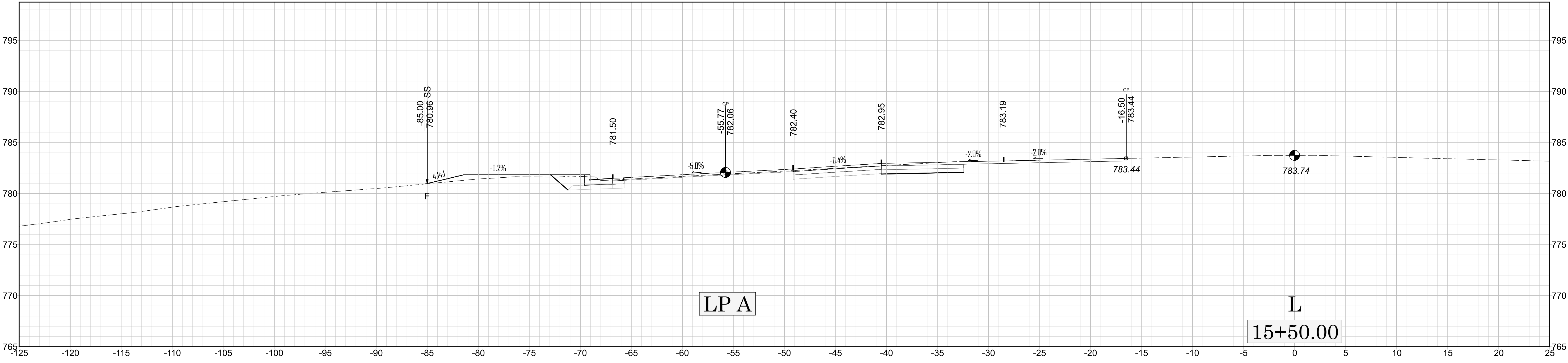
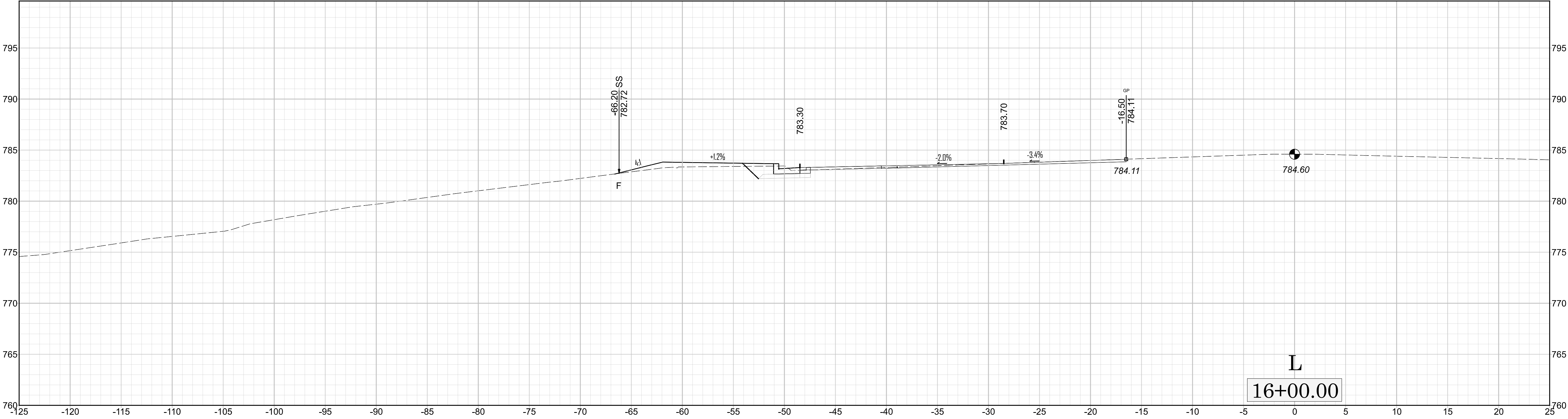


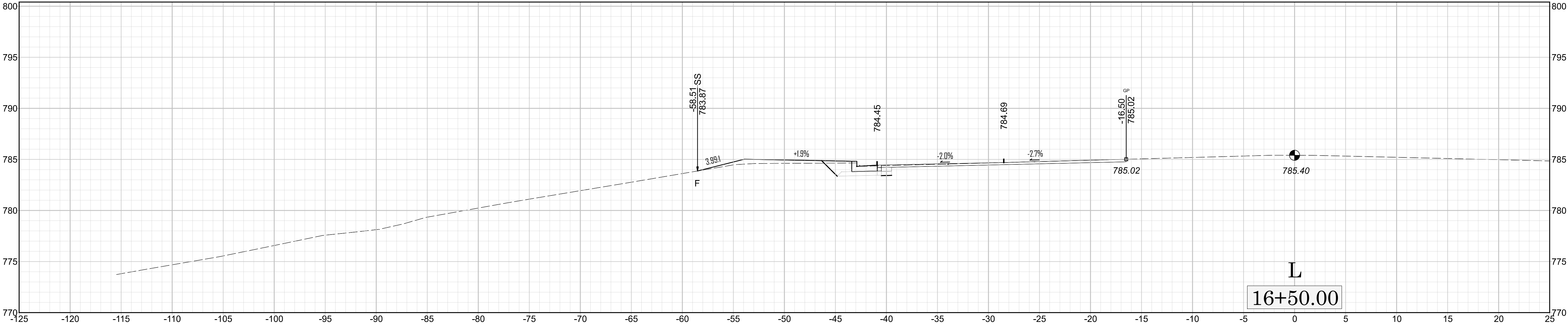
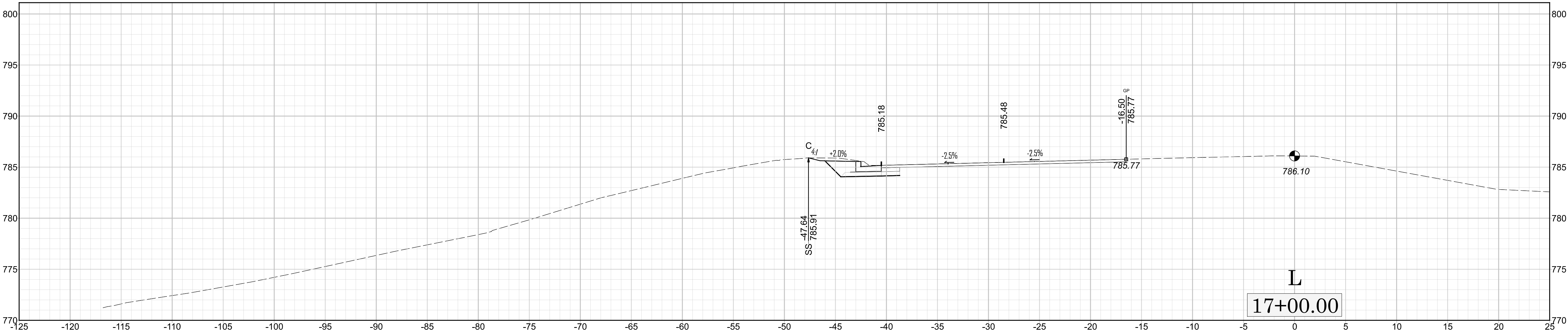
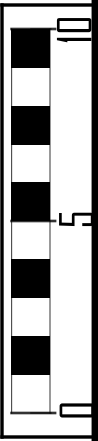
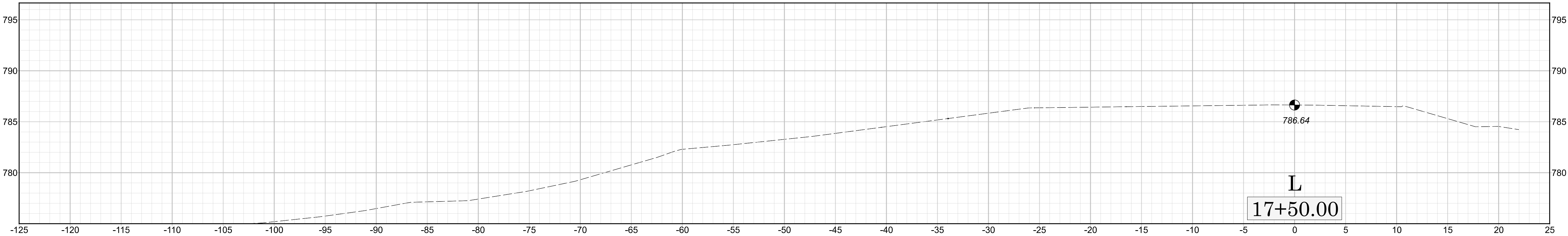
X 002

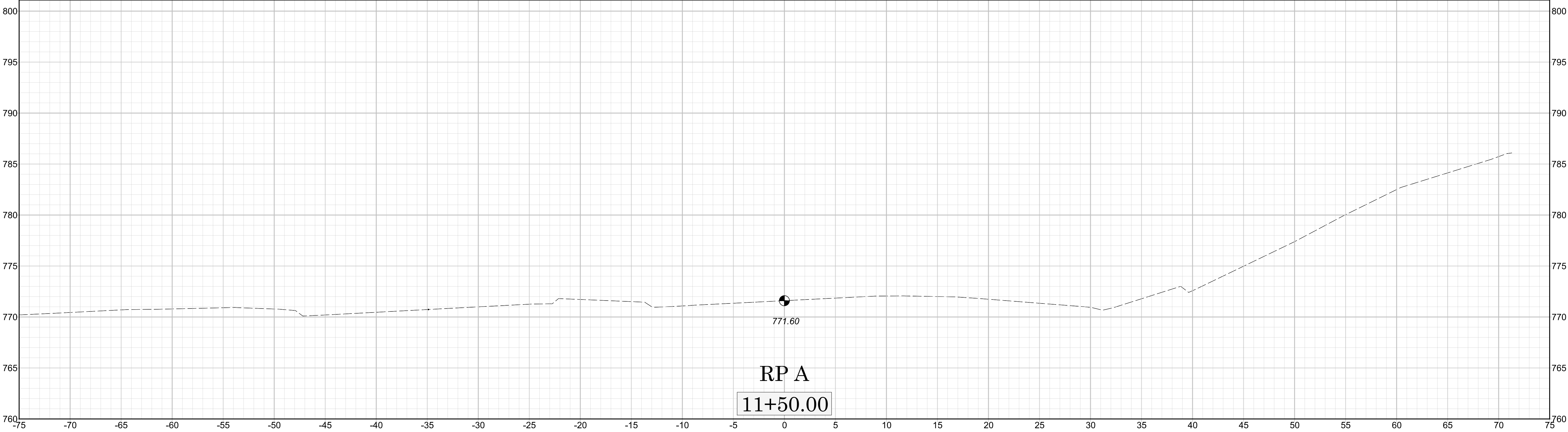
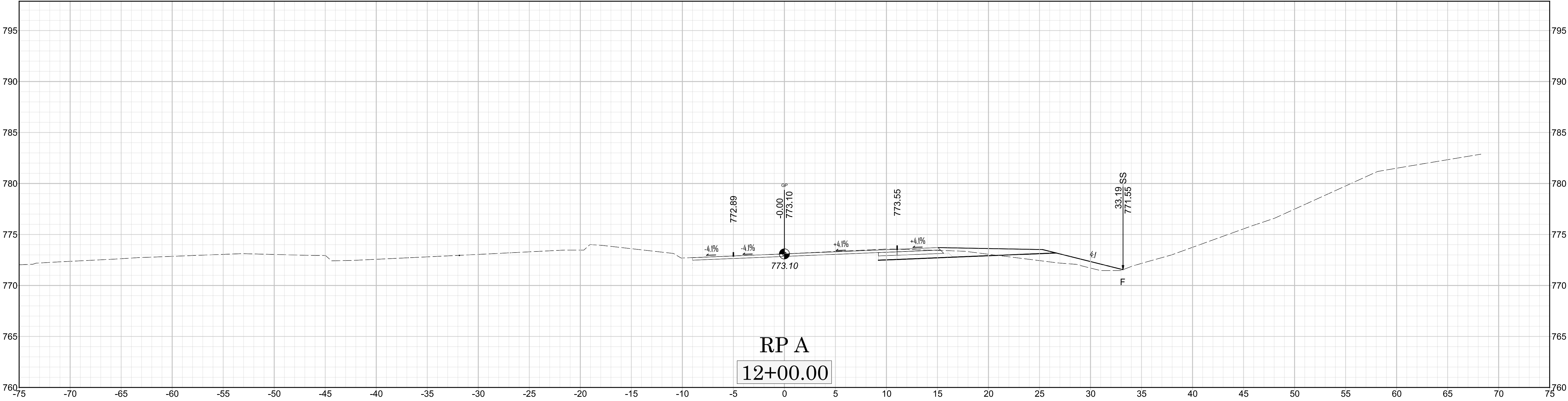
HN-0027

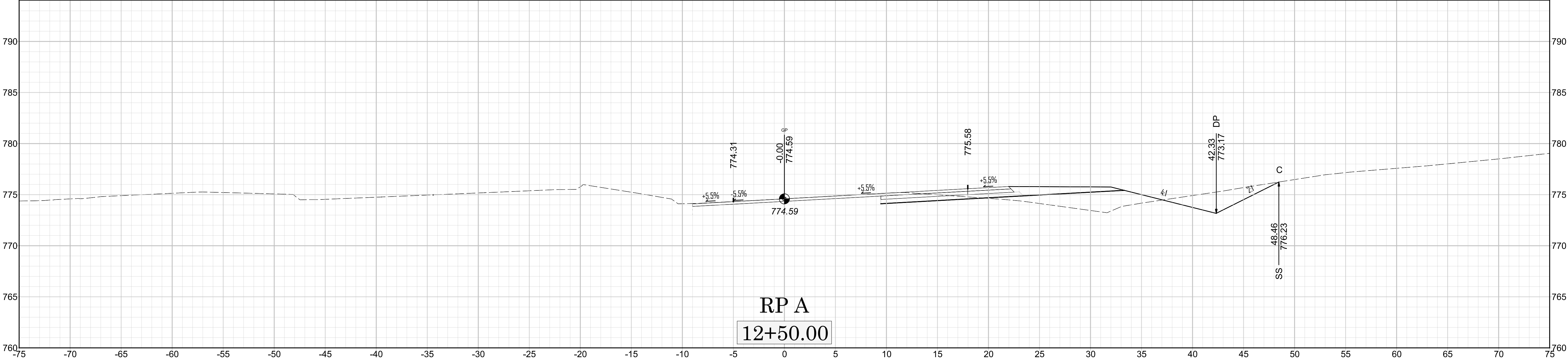
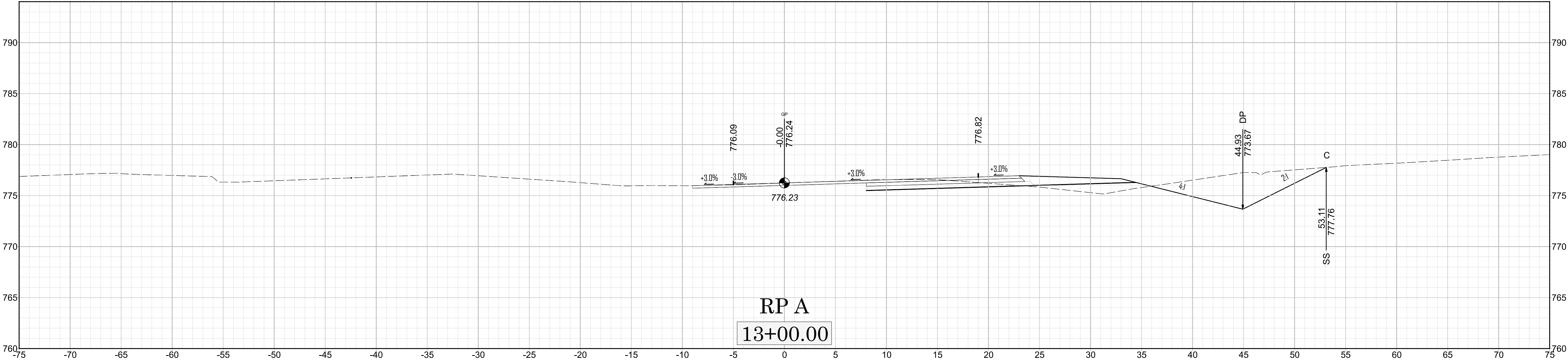


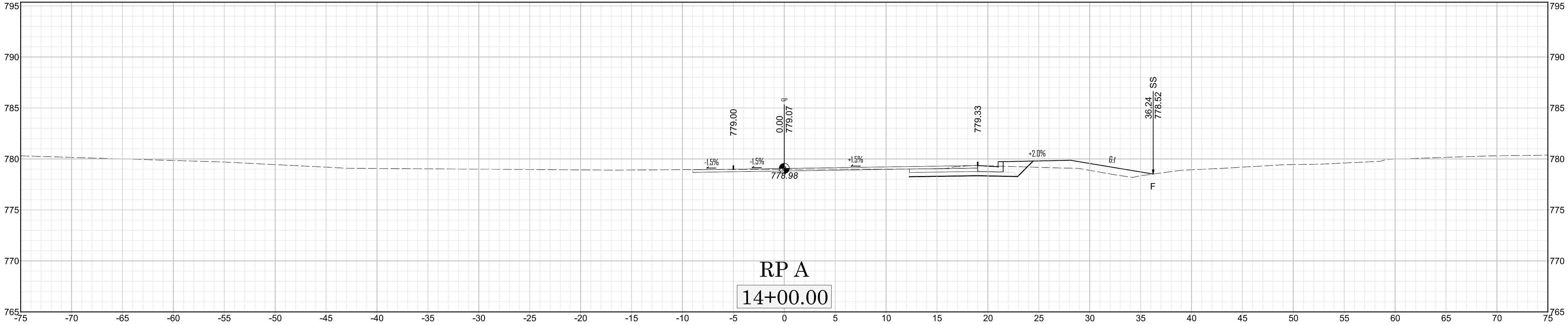
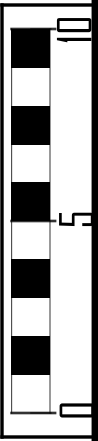




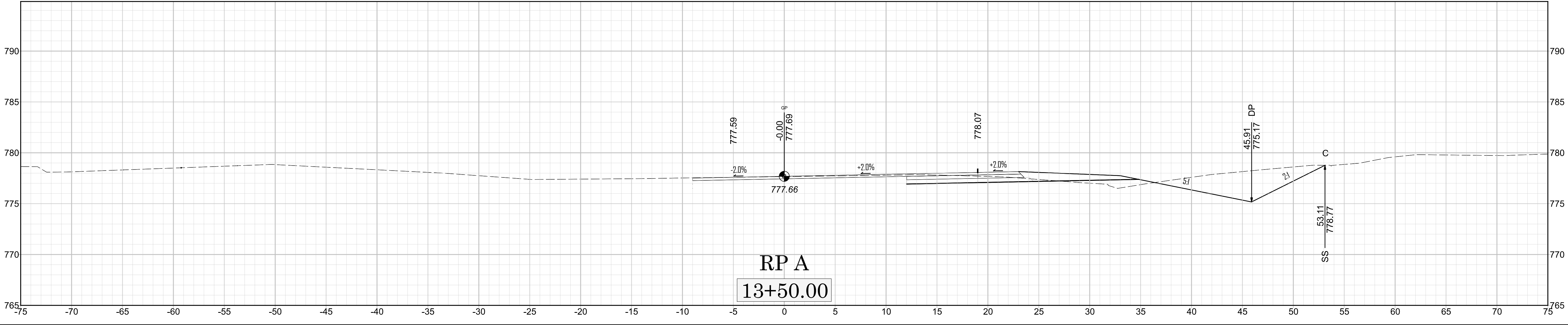




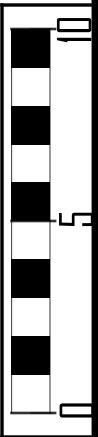
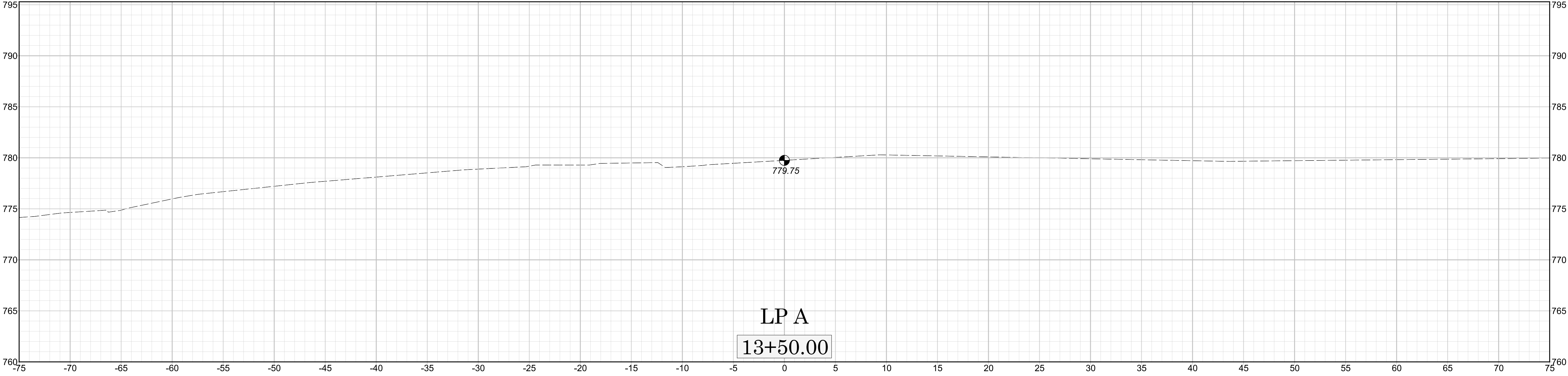
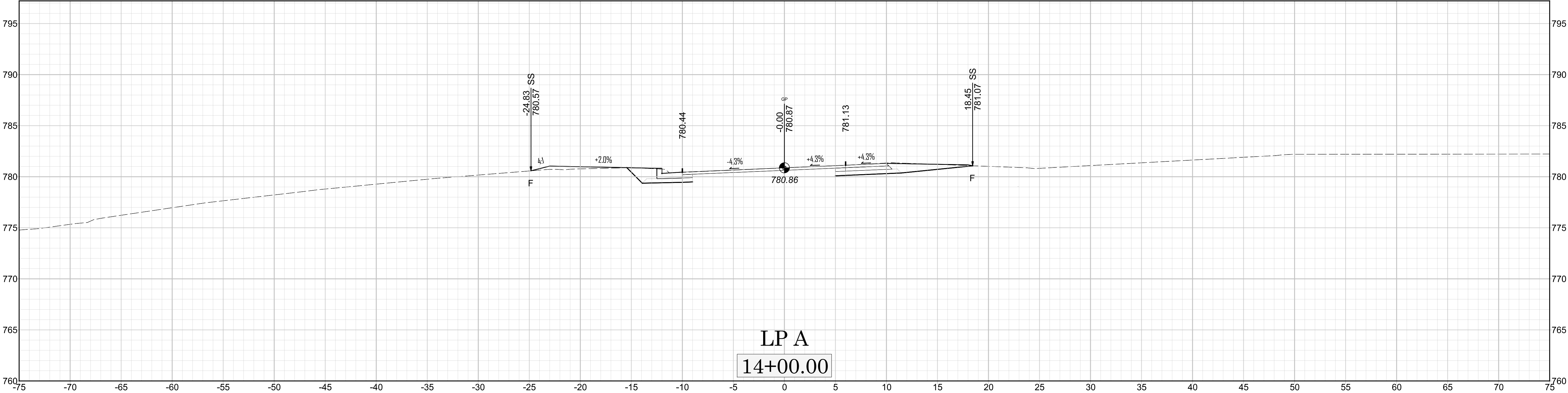




009
X

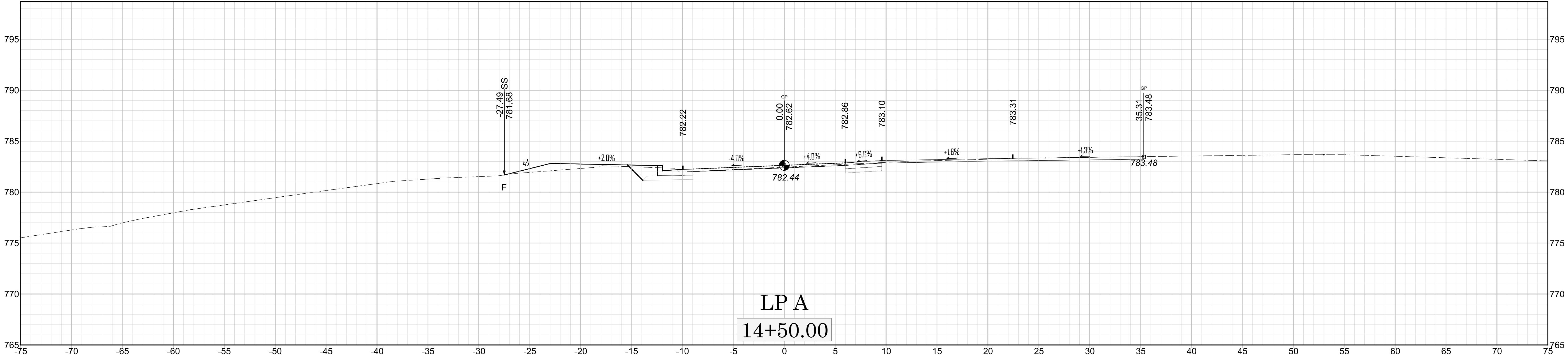
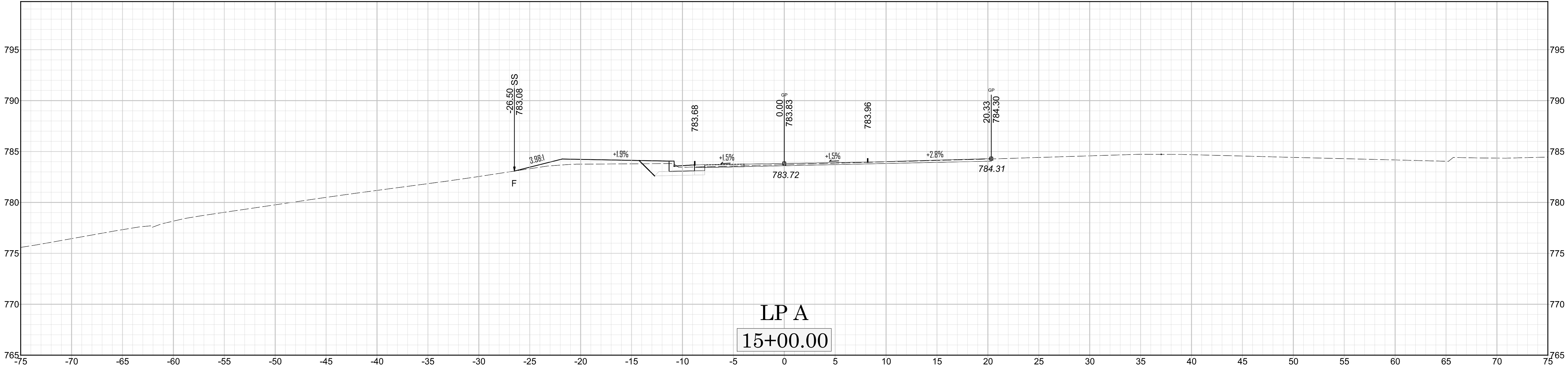


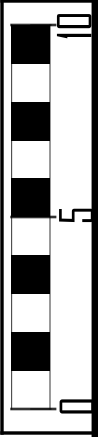
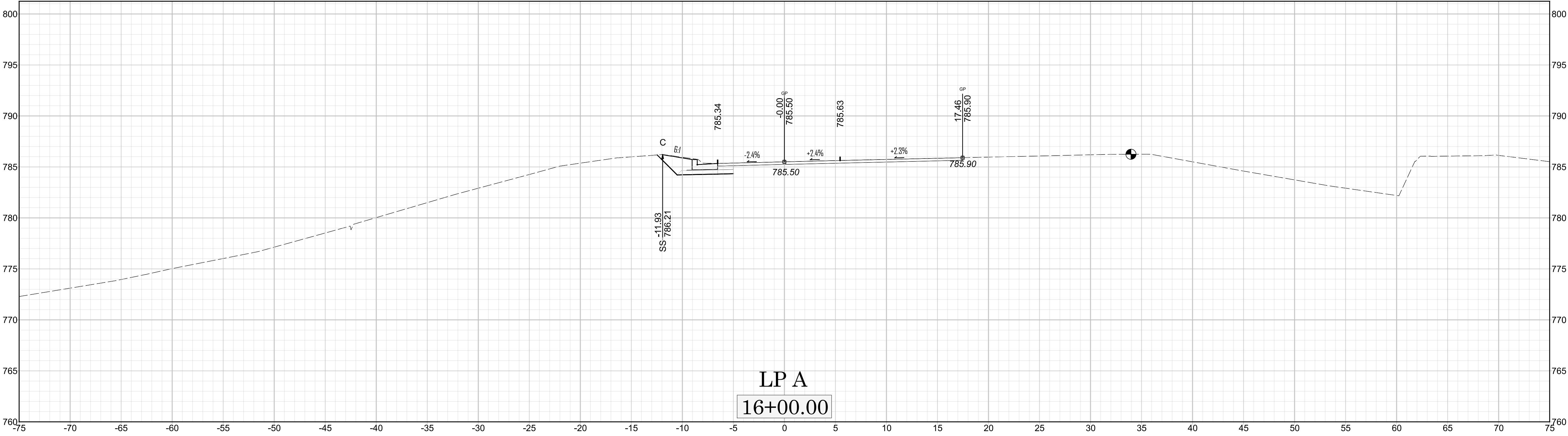
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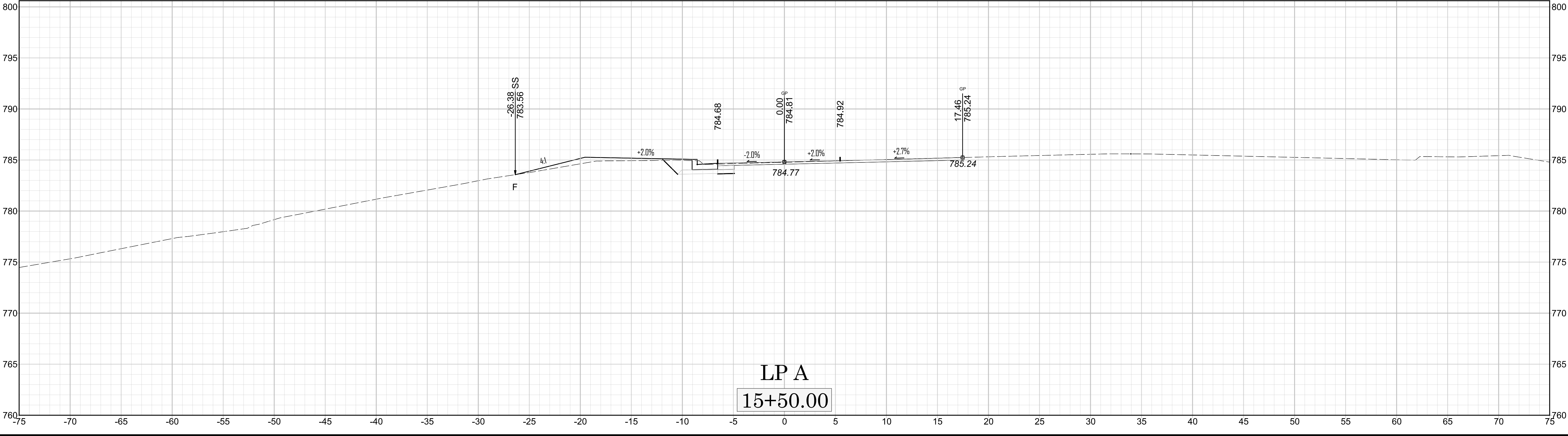
X 010

HN-0027





X 0/2



HN-0027