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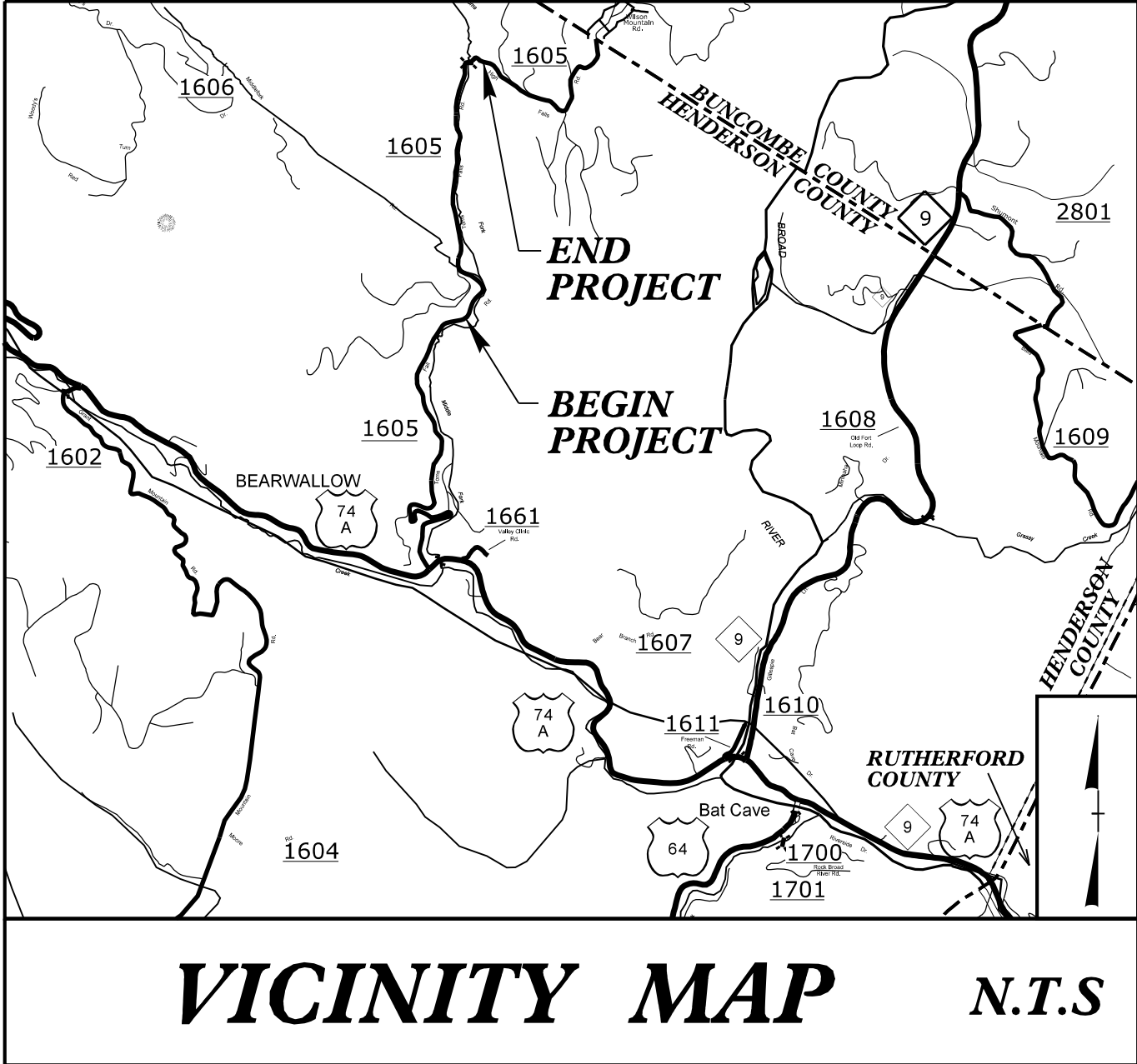
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CONTRACT: DN01123

WBS PROJECT: DF18314.2045377

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



VICINITY MAP N.T.S

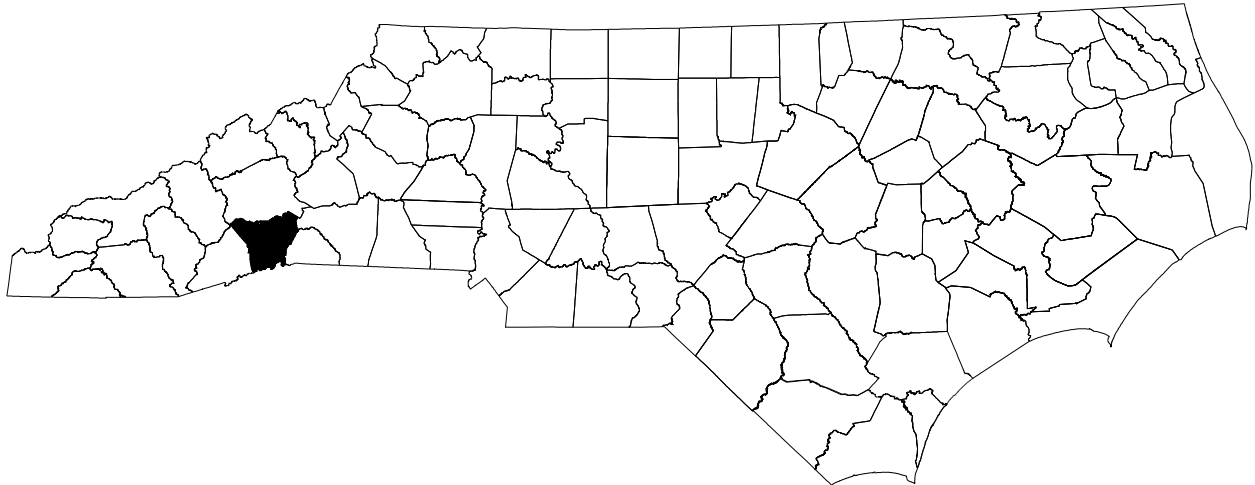
CONTRACT ROADWAY DESIGN PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

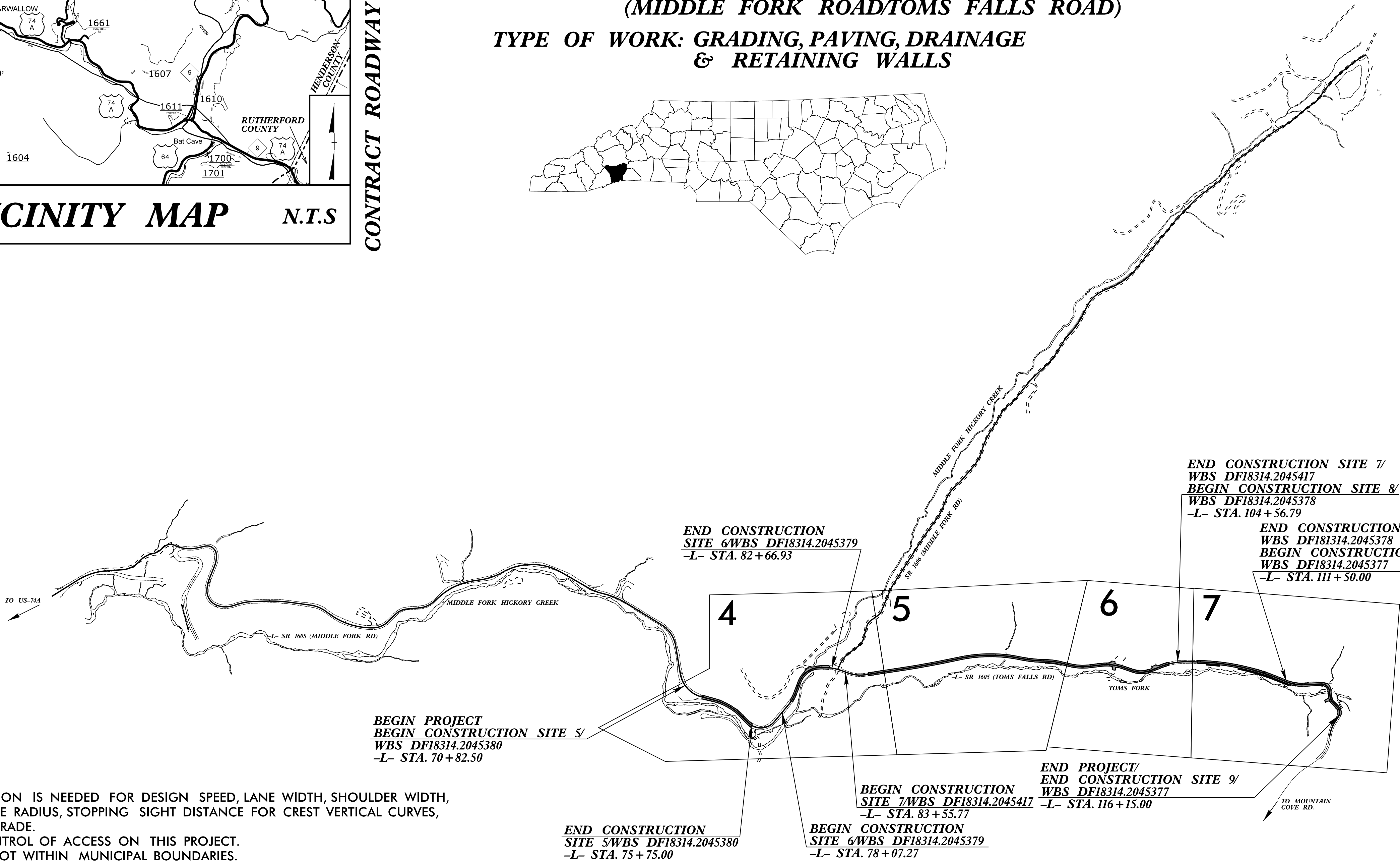
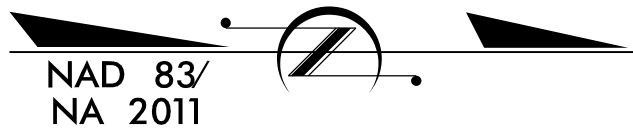
HENDERSON COUNTY

LOCATION: EMERGENCY DESIGN FOR SR 1605
(MIDDLE FORK ROAD/TOMS FALLS ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE
& RETAINING WALLS

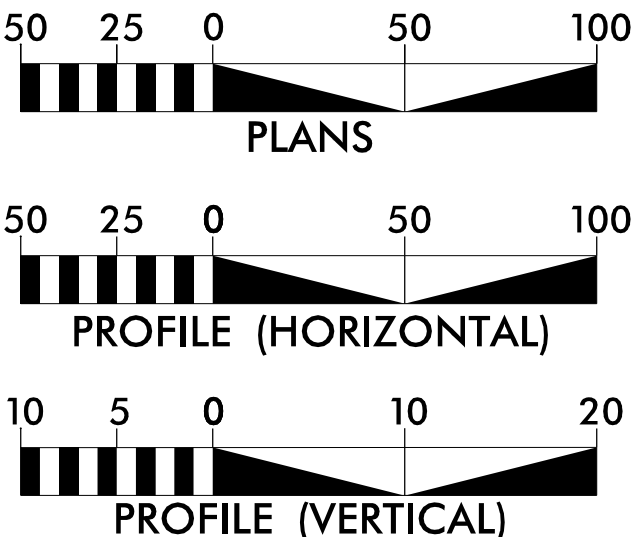


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DF18314.2045377	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
DF18314.2045380		PE, RW, UTIL., CONST.	
DF18314.2045379		PE, RW, UTIL., CONST.	
DF18314.2045417		PE, RW, UTIL., CONST.	
DF18314.2045378		PE, RW, UTIL., CONST.	
DF18314.2045377		PE, RW, UTIL., CONST.	



A DESIGN EXCEPTION IS NEEDED FOR DESIGN SPEED, LANE WIDTH, SHOULDER WIDTH, HORIZONTAL CURVE RADIUS, STOPPING SIGHT DISTANCE FOR CREST VERTICAL CURVES, AND MAXIMUM GRADE. THERE IS NO CONTROL OF ACCESS ON THIS PROJECT. THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES.

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 610
ADT 2045 = 780

V = 30 MPH

FUNC CLASS =
LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY WBS PROJECT = 0.858 MILES
DF18314.2045377

TOTAL LENGTH WBS PROJECT = 0.858 MILES
DF18314.2045377

PREPARED IN THE OFFICE OF:

RS&H

1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 22, 2025

LETTING DATE:
JULY 22, 2025

ALLISON DRAKE, PE
PROJECT ENGINEER

BROOKE PARKER, PE
JENNIFER STARNES, PE
PROJECT DESIGN ENGINEER

BARRY MOSTELLER
NCDOT CONTACT

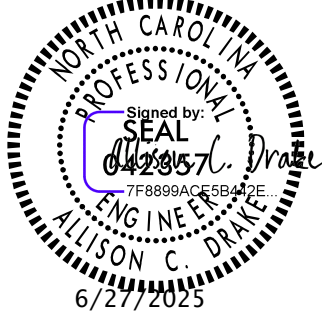
HYDRAULICS ENGINEER

6/11/2025
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

6/11/2025
SIGNATURE: P.E.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.		SHEET NO.	
DF18314.2045377		1A	
		ROADWAY DESIGN ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	GUARDRAIL PLACEMENT
2C-2	RAISED PAVEMENT MARKERS
2D-1 THRU 2D-2	METHOD OF PIPE INSTALLATION
3B-1 THRU 3B-5	EARTHWORK SUMMARY, SUMMARY OF PAVEMENT REMOVAL, EXPRESSWAY GUTTER SUMMARY, SUMMARY OF GUARDRAIL
3D-1 THRU 3D-5	DRAINAGE SUMMARY SHEETS
3G-1 THRU 3G-5	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 7	PLAN SHEETS
8 THRU 10	PROFILE SHEETS
RW01 THRU RWXX	RIGHT OF WAY SHEETS (TO BE DETERMINED)
TMP-1 THRU TMP-17	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-5	PAVEMENT MARKING PLANS
EC-1 THRU EC-11	EROSION CONTROL PLANS
RF-1 THRU RF-3	REFORESTATION PLANS
UO-1 THRU UO-5	UTILITIES BY OTHERS PLANS
X-1	CROSS SECTION INDEX
X-1A	CROSS SECTION SUMMARY
X-2 THRU X-26	CROSS SECTIONS
W-1 THRU W-14	WALL PLANS

GENERAL NOTES

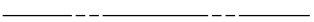
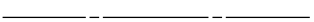
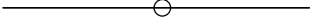
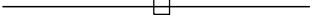
GENERAL NOTES:	2024 SPECIFICATIONS EFFECTIVE: 01-16-2024 REVISED:
GRADING AND SURFACING OR RESURFACING AND WIDENING:	THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE 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 11.
SUPERELEVATION:	ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.
SHOULDER CONSTRUCTION:	ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01
SIDE ROADS:	THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.
SUBSURFACE DRAINS:	SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.
GUARDRAIL:	THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.
TEMPORARY SHORING:	SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".
UTILITIES:	UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, AT&T, SPECTRUM ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.
RIGHT-OF-WAY MARKERS:	ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

STANDARD DRAWINGS

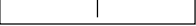
2024 ROADWAY ENGLISH STANDARD DRAWINGS	EFF. 01-16-2024 REV.
The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:	
STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method 11
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
275.01	Rock Plating
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 4, 5, 6, 7, 8, 9, 10, 11, and 12 of 13)
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method 1
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
850.01	Concrete Paved Ditches
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 5, 6, 7, 8, 9, 10, and 11 of 13)
862.02	Guardrail Installation
876.01	Rip Rap in Channels and Ditches
876.02	Guide for Rip Rap at Pipe Outlets

Note: Not to Scale

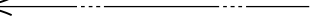
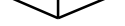
BOUNDARIES AND PROPERTY:

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

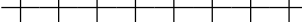
BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

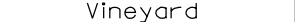
Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

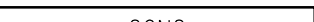
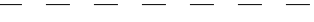
Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent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

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	
VEGETATION:	
Single Tree	
Single Shrub	
Hedge	

Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

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

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

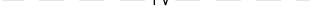
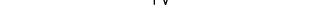
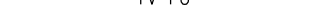
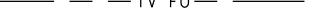
TELEPHONE:

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

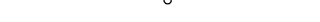
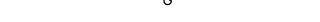
WATER:

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

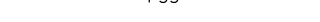
TV:

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

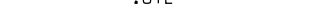
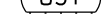
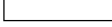
GAS:

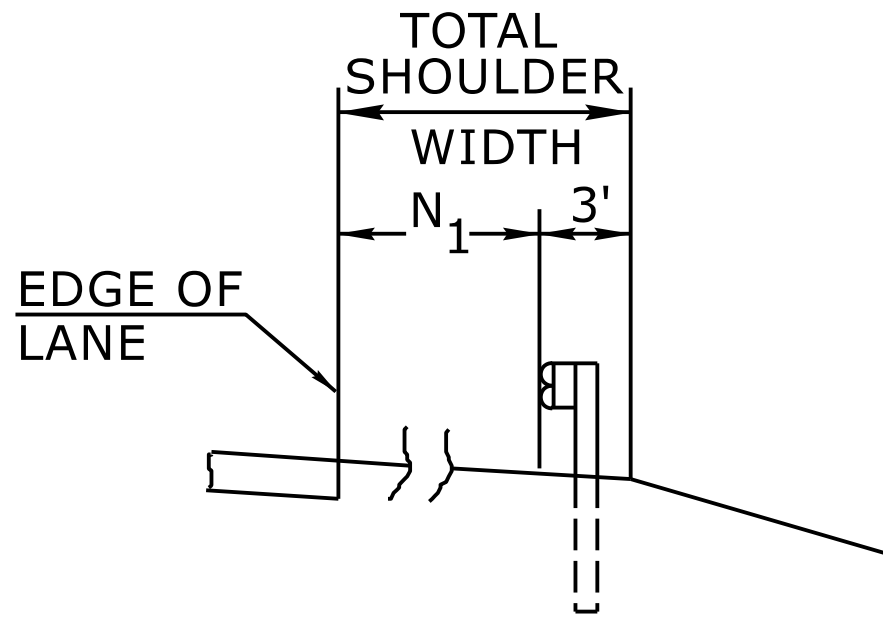
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE – LOS A)*	
U/G Gas Line (SUE – LOS B)*	
U/G Gas Line (SUE – LOS C)*	
U/G Gas Line (SUE – LOS D)*	
Above Ground Gas Line	

SANITARY SEWER:

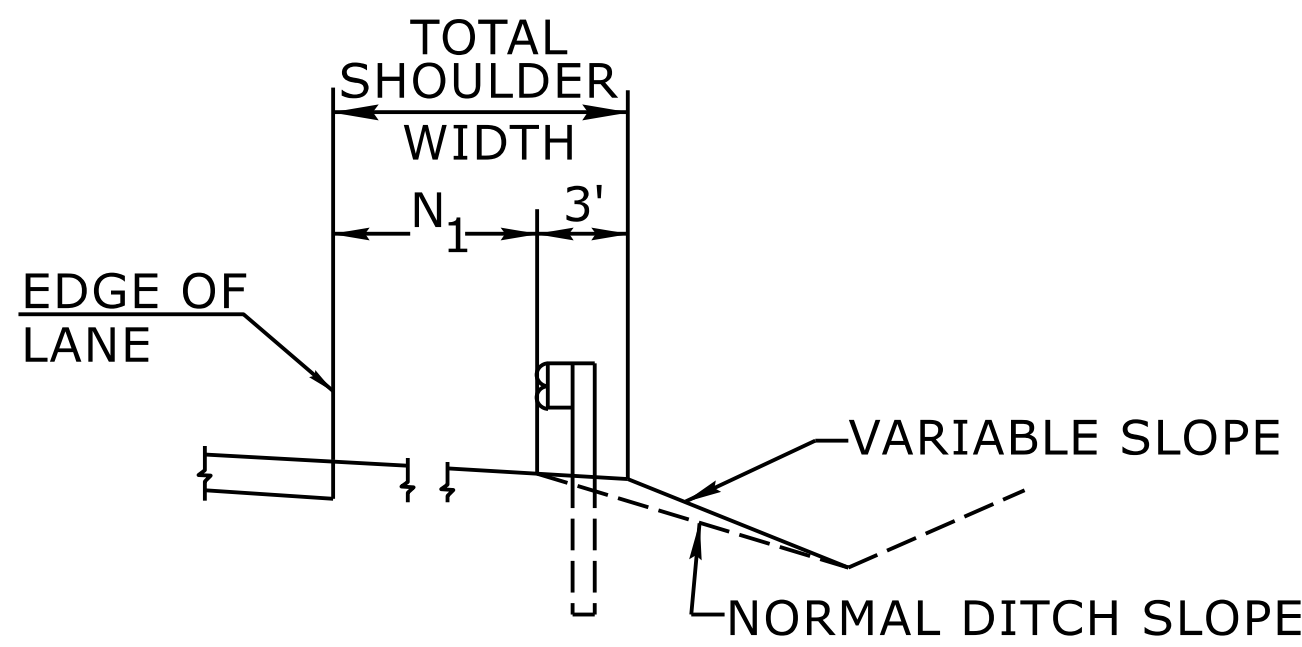
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE – LOS A)*	
SS Force Main Line (SUE – LOS B)*	
SS Force Main Line (SUE – LOS C)*	
SS Force Main Line (SUE – LOS D)*	

MISCELLANEOUS:

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

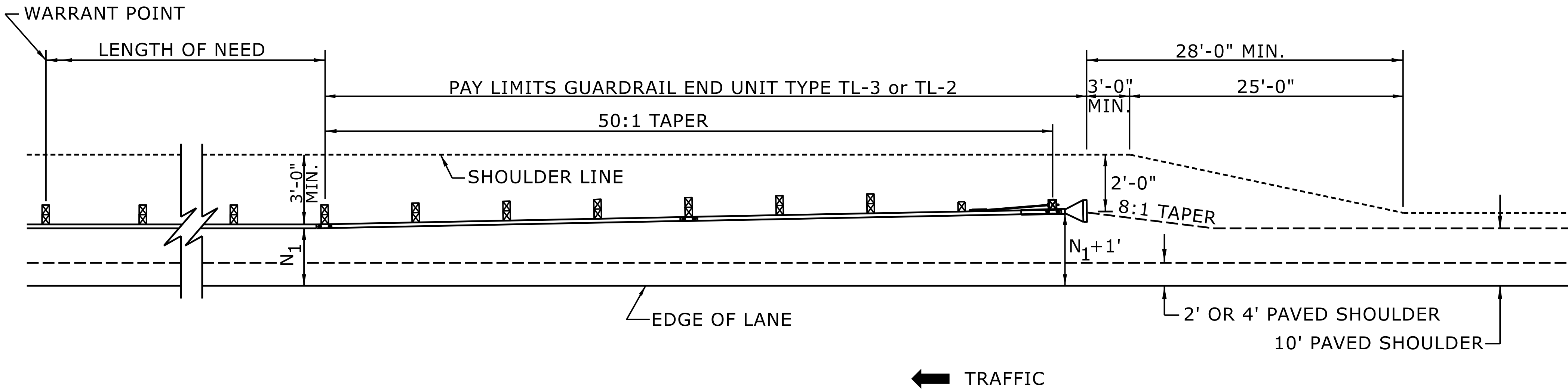


FILL SECTION



CUT SECTION

"N₁"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.



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

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 15
862D01



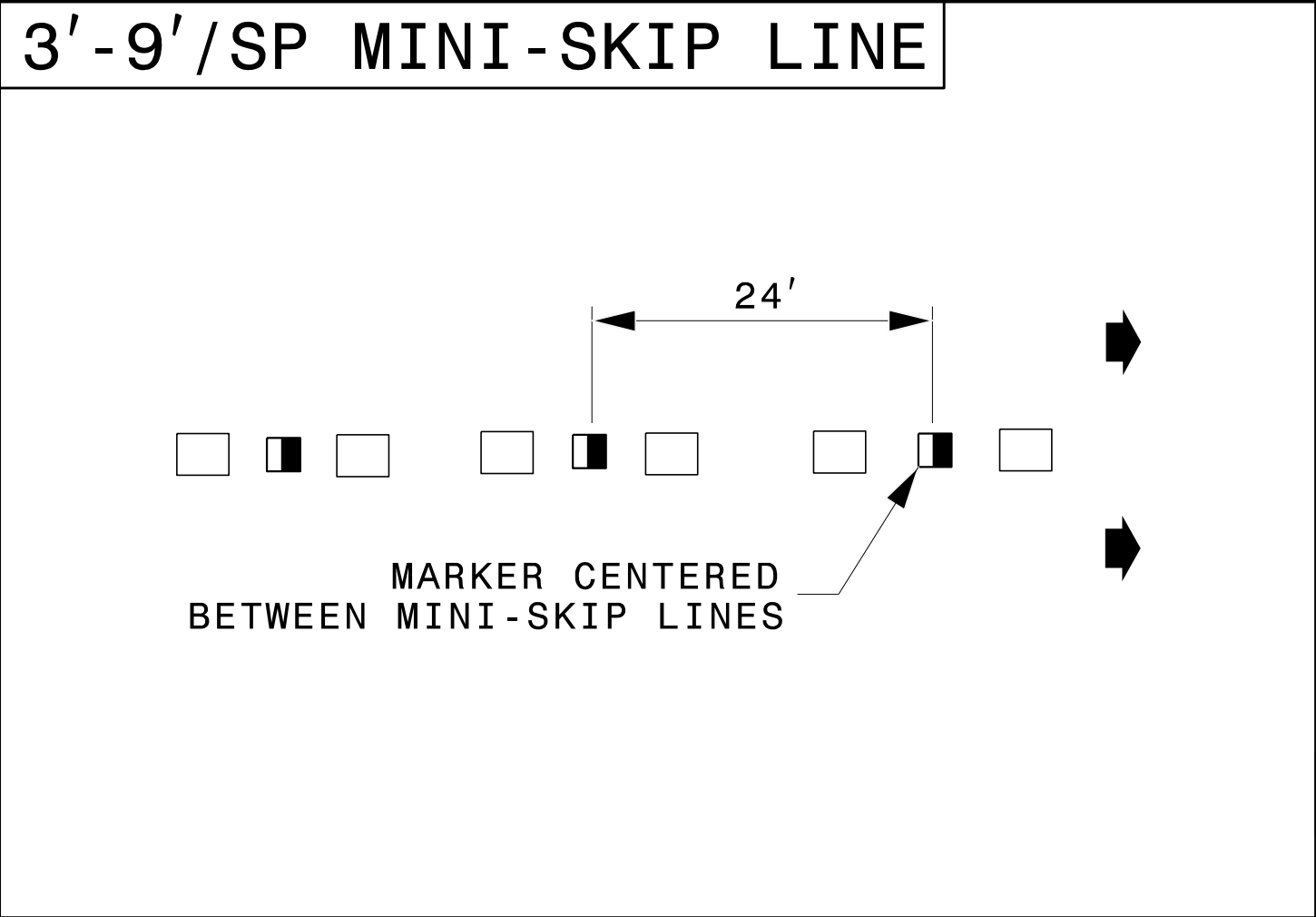
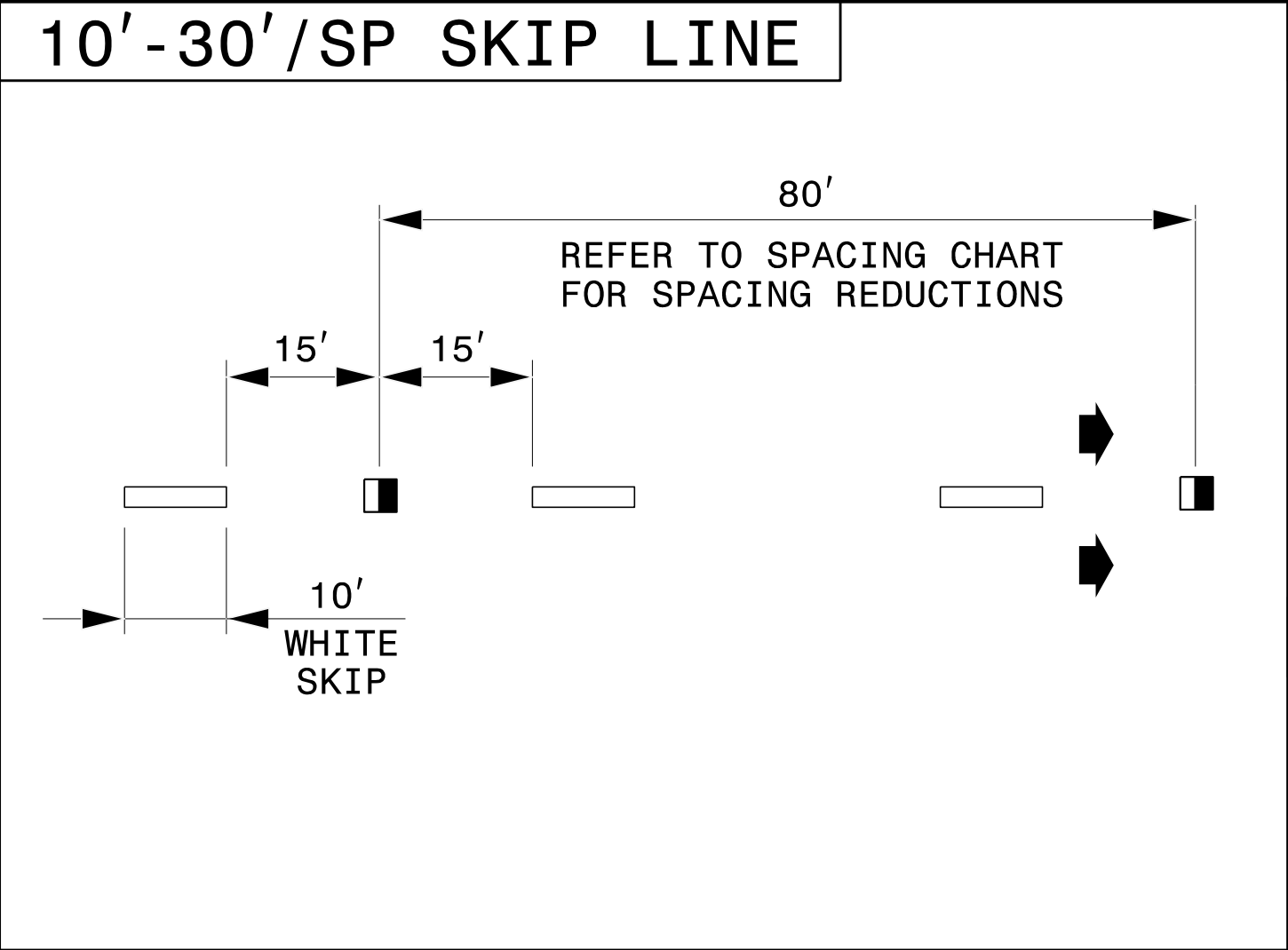
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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

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

SEE TITLE BLOCK

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MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC.:			

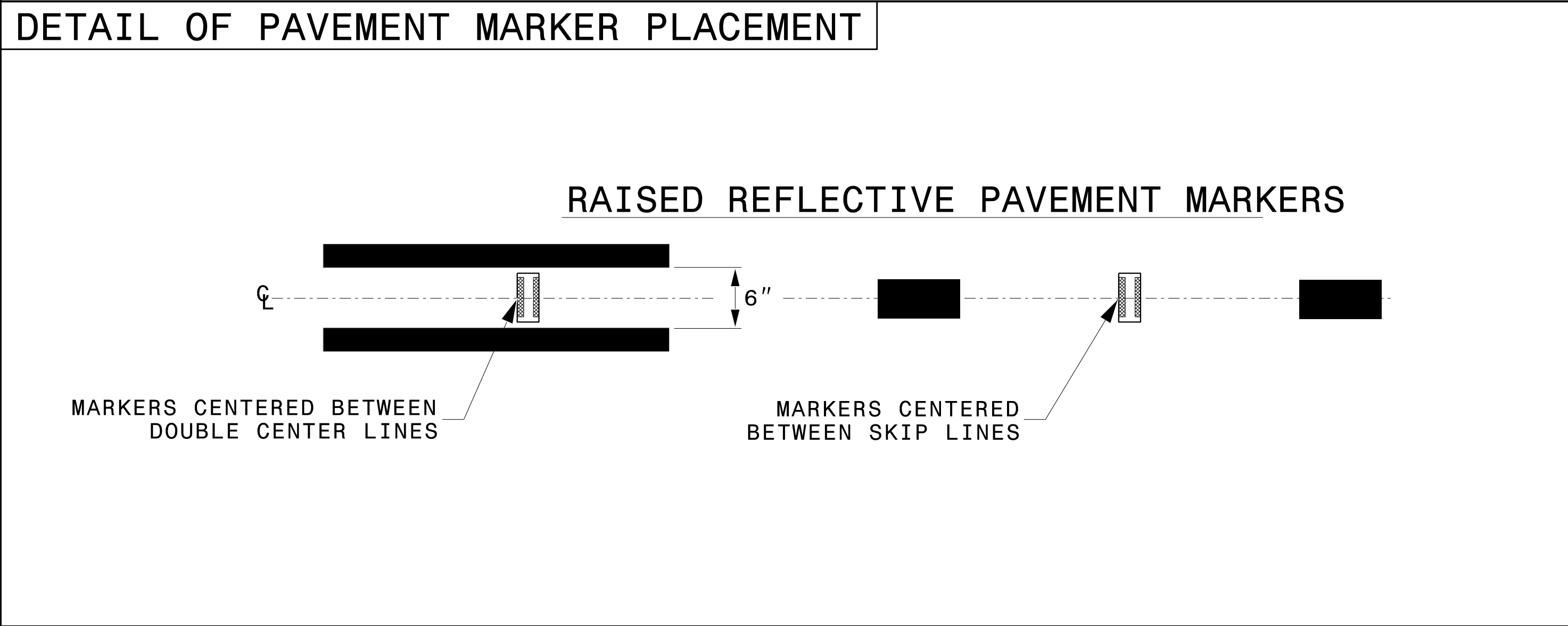
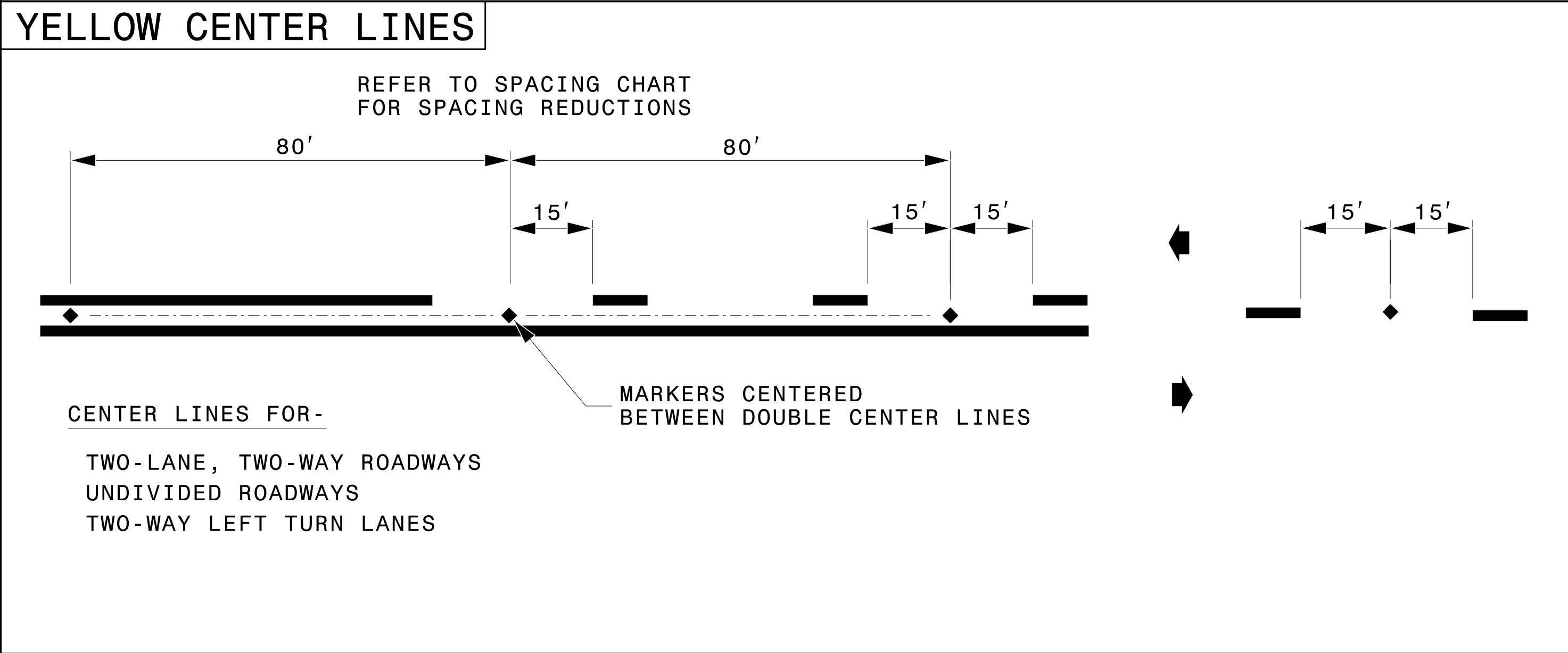
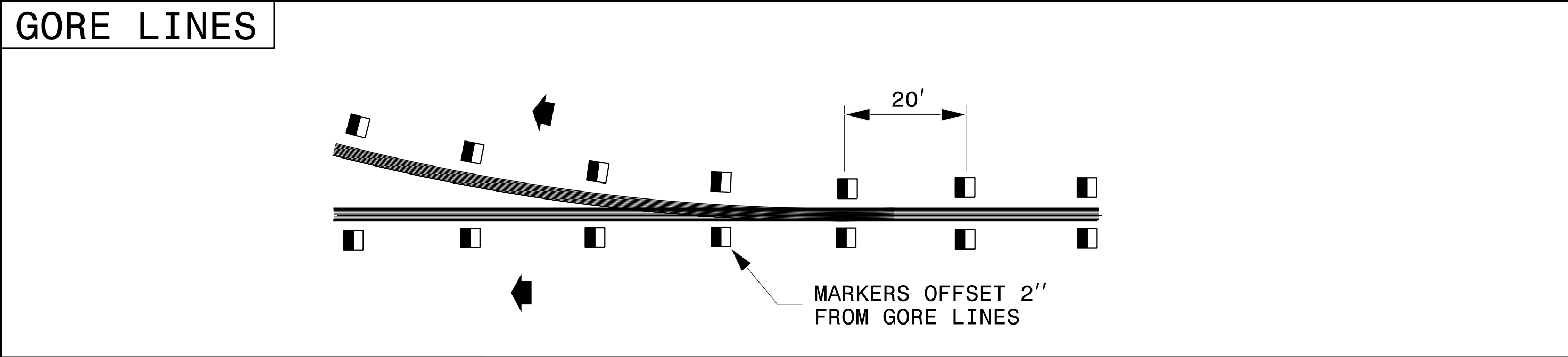


LEGEND

CRYSTAL/RED PAVEMENT MARKER

YELLOW/YELLOW PAVEMENT MARKER

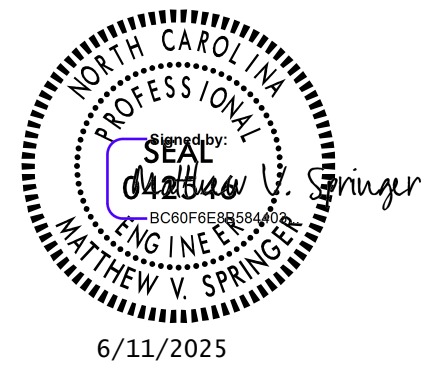
DIRECTION OF TRAFFIC FLOW



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

ROADWAY DETAIL DRAWING FOR
RAISED PAVEMENT MARKERS
INSTALLATION SPACING

SHEET 2 OF 3
1250D01



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

SEE TITLE BLOCK

ORIGINAL BY: M.V. SPRINGER DATE: 2-15-24
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

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

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

FLEXIBLE PIPE

SHEET 1 OF 2

300.01

TOP OF FILL

GROUND LINE

H

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

O.D. + 3'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

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

ROCK

O.D. + 3'

**ROCK FOUNDATION
PIPE IN TRENCH**

TOP OF FILL

GROUND LINE

H

TYPE 4a
GEOTEXTILE

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

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

O.D. + 3'

EARTH

UNSUITABLE MATERIAL FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

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

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

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

**ROCK FOUNDATION
PIPE ABOVE GROUND**

TOP OF FILL

GROUND LINE

H

MIN. O.D.

1:1

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

O.D. + 2'

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

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

UNSUITABLE MATERIAL FOUNDATION

GENERAL NOTES:

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

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

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

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

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

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

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

SPRINGLINE OF PIPE

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

UNDISTURBED EARTH MATERIAL

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



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

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

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

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01

Diagram showing a pipe in a trench with normal earth foundation. The pipe is surrounded by compacted backfill. Labels include: TOP OF FILL, GROUND LINE, H (fill height), I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', and COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL.

Diagram showing a pipe in a trench with a rock foundation. The pipe sits on a layer of rock. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', ROCK, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., and COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL.

Diagram showing a pipe in a trench with a suitable material foundation. The pipe sits on a layer of suitable material. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', EARTH, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., and COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL.

Diagram showing a pipe above ground with normal earth foundation. The pipe is surrounded by compacted backfill. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, and I.D. /6 MIN. NOT LESS THAN 6".

Diagram showing a pipe above ground with a rock foundation. The pipe sits on a layer of rock. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', TYPE 4a GEOTEXTILE, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, and I.D. /6 MIN. NOT LESS THAN 6".

Diagram showing a pipe above ground with a suitable material foundation. The pipe sits on a layer of suitable material. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', AS DIRECTED BY ENGINEER, TYPE 4a GEOTEXTILE, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, and I.D. /6 MIN. NOT LESS THAN 6".

GENERAL NOTES:

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

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

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

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

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

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

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

SPRINGLINE OF PIPE

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

UNDISTURBED EARTH MATERIAL

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

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

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

12/06/07

COMPUTED BY: RCM	DATE: 6/4/2025
CHECKED BY: BEP	DATE: 6/4/2025

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045380 (SITE 5)	3B-1

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 72+15.00	-L- 75 + 75.00	162	210	48	
SUBTOTALS:		162	210	48	
PROJECT TOTALS:		162	210	48	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				5	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		112	210	103	
SAY:		120		110	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)

EST 400 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)

EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)

EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ¹
-L-	72 + 15.00	75 + 75.00	CL	774.63
			TOTAL:	774.63
			SAY:	780

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

[illegible]

12/06/07

COMPUTED BY: RCM DATE: 6/4/2025
CHECKED BY: BEP DATE: 6/4/2025

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045379 (SITE 6)	3B-2

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 79+00.00	-L- 82+50.00	127	130	3	
SUBTOTALS:		127	130	3	
PROJECT TOTALS:		127	130	3	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				3	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		77	130	56	
SAY:		90		60	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)

EST 400 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)

EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)

EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ¹
-L-	79 + 00.00	80 + 10.00	CL	220.81
-L-	81 + 49.00	82 + 50.00	CL	227.52
			TOTAL:	448.33
			SAY:	450

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

[illegible]

12/06/07

COMPUTED BY: RCM	DATE: 6/4/2025
CHECKED BY: BEP	DATE: 6/4/2025

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045417 (SITE 7)	3B-3

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 85+00.00	-L- 104+00.00	874	2,196	1,322	
SUBTOTALS:		874	2,196	1,322	
PROJECT TOTALS:		874	2,196	1,322	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				69	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		824	2,196	1,441	
SAY:		870		1,520	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)
EST 950 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)
EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)
EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ²
-L-	85+00.00	87+40.00	CL	506.67
-L-	87+40.00	100+58.00	CL	1,757.33
-L-	100+58.00	102+08.00	CL	300.00
-L-	102+08.00	102+64.00	CL	56.00
			TOTAL:	2,620.00
			SAY:	2,620

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-3	CAT-1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

ANCHOR DEDUCTION
GREU TYPE TL-3: 2 @ 50' = 100'
CAT-1 : 2 @ 6.25' = 12.50'
GRAND TOTAL = 112.50'
ADDITIONAL GUARDRAIL POSTS = 10

SURVEY LINE	BEG. STA.	END STA.	LOCALITY
-L-	104 + 31.15	111 + 50.00	
			SUBT
			ANCHOR
			TO
			S

GUARDRAIL SUMMARY

[illegible]

12/06/07

COMPUTED BY: RCM DATE: 6/4/2025
CHECKED BY: BEP DATE: 6/4/2025

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2045377 (SITE 9)	3B-5

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 111 + 50.00	-L- 116 + 15.00	113	253	140	
SUBTOTALS:		113	253	140	
PROJECT TOTALS:		113	253	140	
LOSS DUE TO CLEARING & GRUBBING		-50		50	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				10	
WASTE IN LIEU OF BORROW					
GRAND TOTALS:		63	253	200	
SAY:		70		210	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY RS&H. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY CAROLINAS GEOTECHNICAL GROUP, PLLC (CG2)

EST 400 CY UNDERCUT EXCAVATION (PER GEOTECH RECOMMENDATIONS)

EST 100 CY SHALLOW UNDERCUT (PER GEOTECH RECOMMENDATIONS)

EST 200 TON CLASS IV SUBGRADE STABILIZATION (PER GEOTECH RECOMMENDATIONS)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ¹
-L-	114 + 30.00	115 + 10.00	CL	248.89
			TOTAL:	248.89
			SAY:	250

EXPRESSWAY GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L-	111 + 85.00	112 + 70.00	82
TOTAL:			82
SAY:			90

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

[illegible]

**FEDERAL NA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

[illegible]

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

[illegible]

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

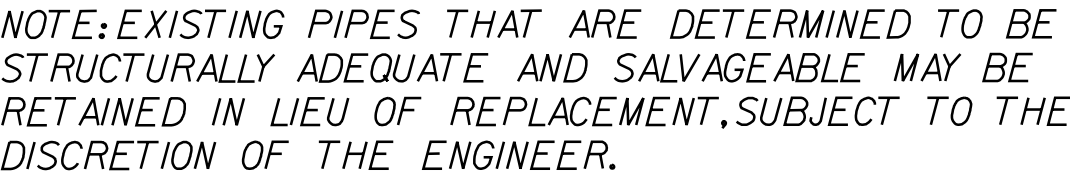
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COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045379 (SITE 6)		SHEET NO. 3G-2							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	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				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	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 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.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
CONTINGENCY								100							
							TOTAL SY:	100							
									*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.						

COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045417 (SITE 7)		SHEET NO. 3G-3							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	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				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	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 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.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
-L-	1.5:1	85+28	1.5:1	86+00	RT	1		50							
-L-	1.5:1	87+50	1.5:1	91+00	RT	1/2		800							
-L-	1.5:1	93+00	1.5:1	94+00	RT	2		600							
-L-	1.5:1	98+00	1.5:1	100+35	RT	2		950							
-L-	1.5:1	102+00	1.5:1	103+50	RT	2		500							
							TOTAL SY:	2900							
									*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.						

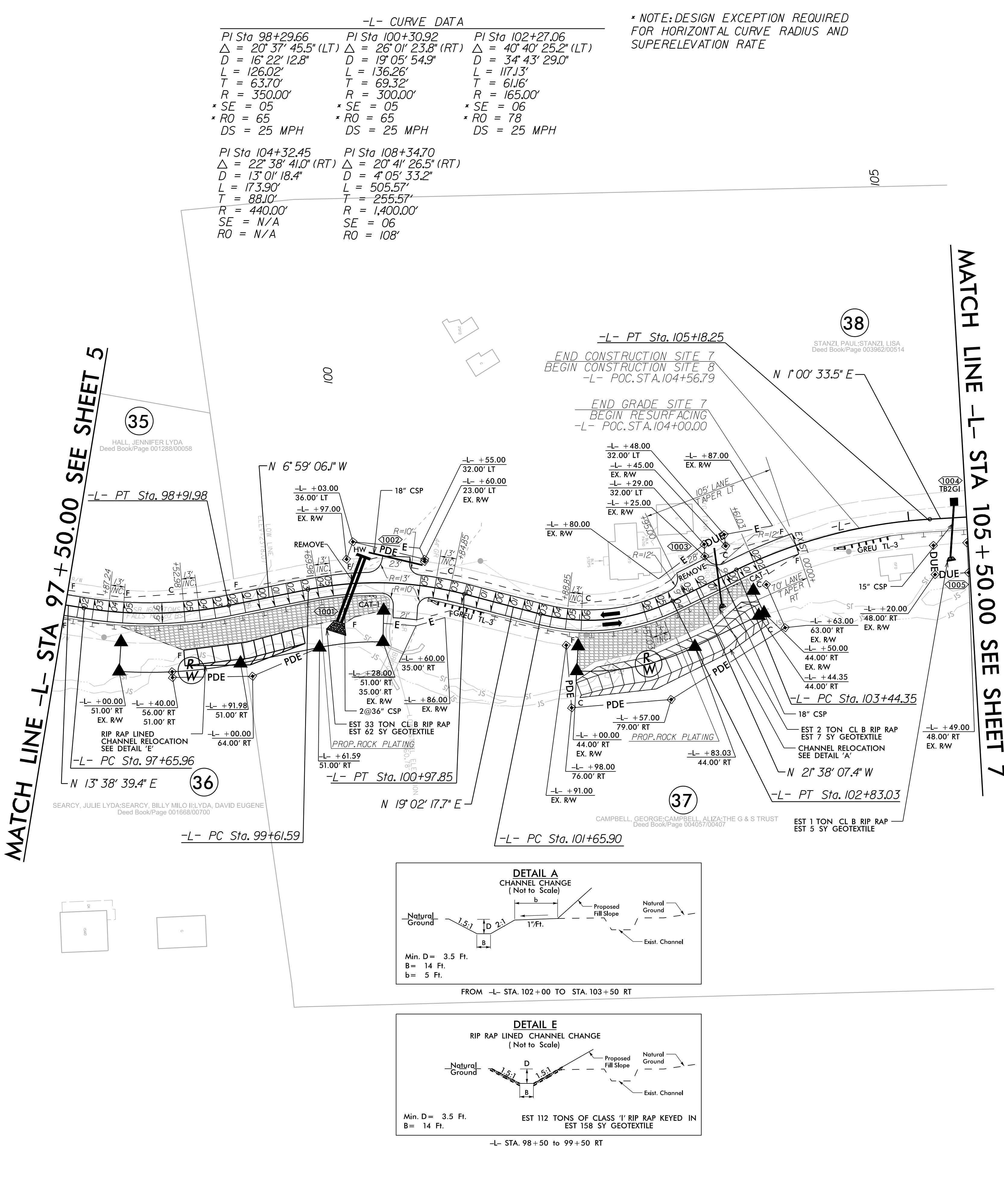
COMPUTED BY: PMP DATE: 06/04/2025 CHECKED BY: KND DATE: 06/04/2025		(9-17-24)				PROJECT NO. DF18314.2045378 (SITE 8)		SHEET NO. 3G-4							
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS															
SUMMARY OF SUBSURFACE DRAINAGE						SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION									
LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF	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				SD	200										
				TOTAL LF:	200				ASU	1	100	200	300		
									TOTAL CY/TONS/SY:		100	200**	300**	0	0
*UD = Underdrain *BD = Blind Drain *SD = Subsurface Drain						*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 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.									
SUMMARY OF ROCK PLATING															
LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY							
CONTINGENCY								100							
							TOTAL SY:	100							
*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.															

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



MATCH LINE -L- STA 97+50.00 SEE SHEET 5

MATCH LINE -L- STA 105+50.00 SEE SHEET 7



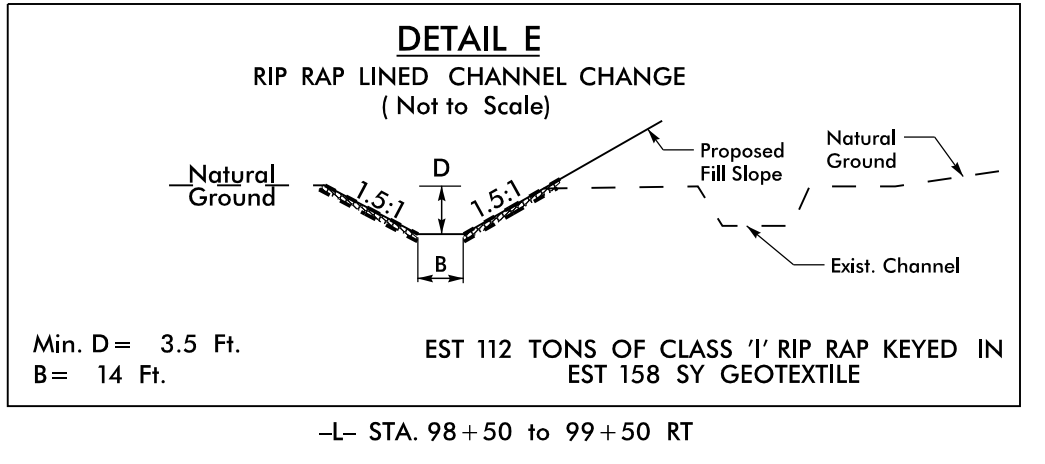
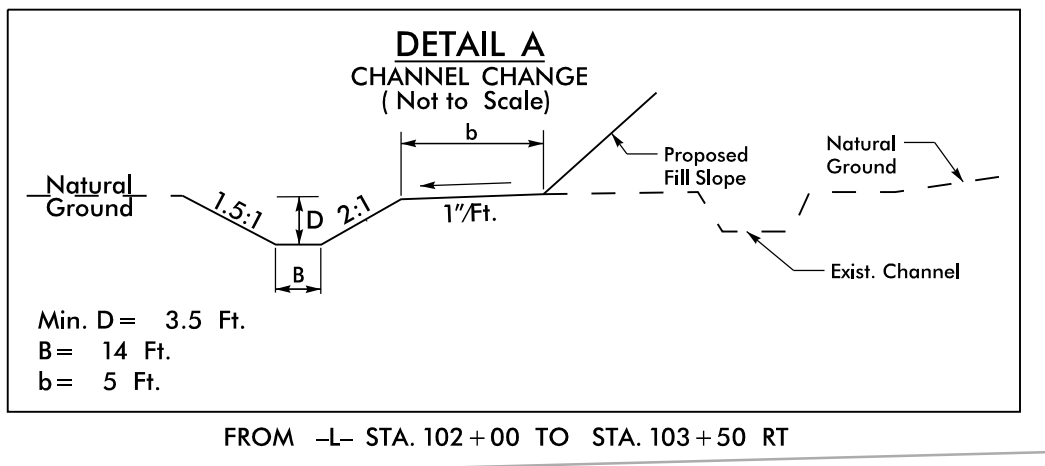
-L- CURVE DATA		
PI Sta 98+29.66 Δ = 20° 37' 45.5" (LT) D = 16° 22' 12.8" L = 126.02' T = 63.70' R = 350.00' SE = 05 RO = 65 DS = 25 MPH	PI Sta 100+30.92 Δ = 26° 01' 23.8" (RT) D = 19° 05' 54.9" L = 136.26' T = 69.32' R = 300.00' SE = 05 RO = 65 DS = 25 MPH	PI Sta 102+27.06 Δ = 40° 40' 25.2" (LT) D = 34° 43' 29.0" L = 117.13' T = 61.16' R = 165.00' SE = 06 RO = 78 DS = 25 MPH
PI Sta 104+32.45 Δ = 22° 38' 41.0" (RT) D = 13° 01' 18.4" L = 173.90' T = 88.10' R = 440.00' SE = N/A RO = N/A	PI Sta 108+34.70 Δ = 20° 41' 26.5" (RT) D = 4° 05' 33.2" L = 505.57' T = 255.57' R = 1,400.00' SE = 06 RO = 108'	

* NOTE: DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS AND SUPERELEVATION RATE



PROJECT REFERENCE NO. DF18314.2045417/ DF18314.2045378	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 000367 ALEXANDER R. VANCE 6/11/2025	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 000367 ALEXANDER R. VANCE 6/11/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



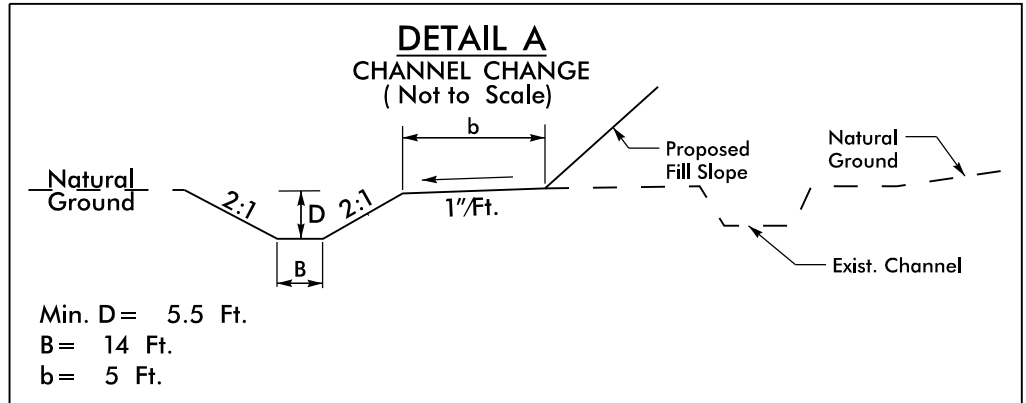
NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE DISCRETION OF THE ENGINEER.

FOR -L- PROFILE SEE SHEET 9

8/17/99

11-JUN-2025 09:34
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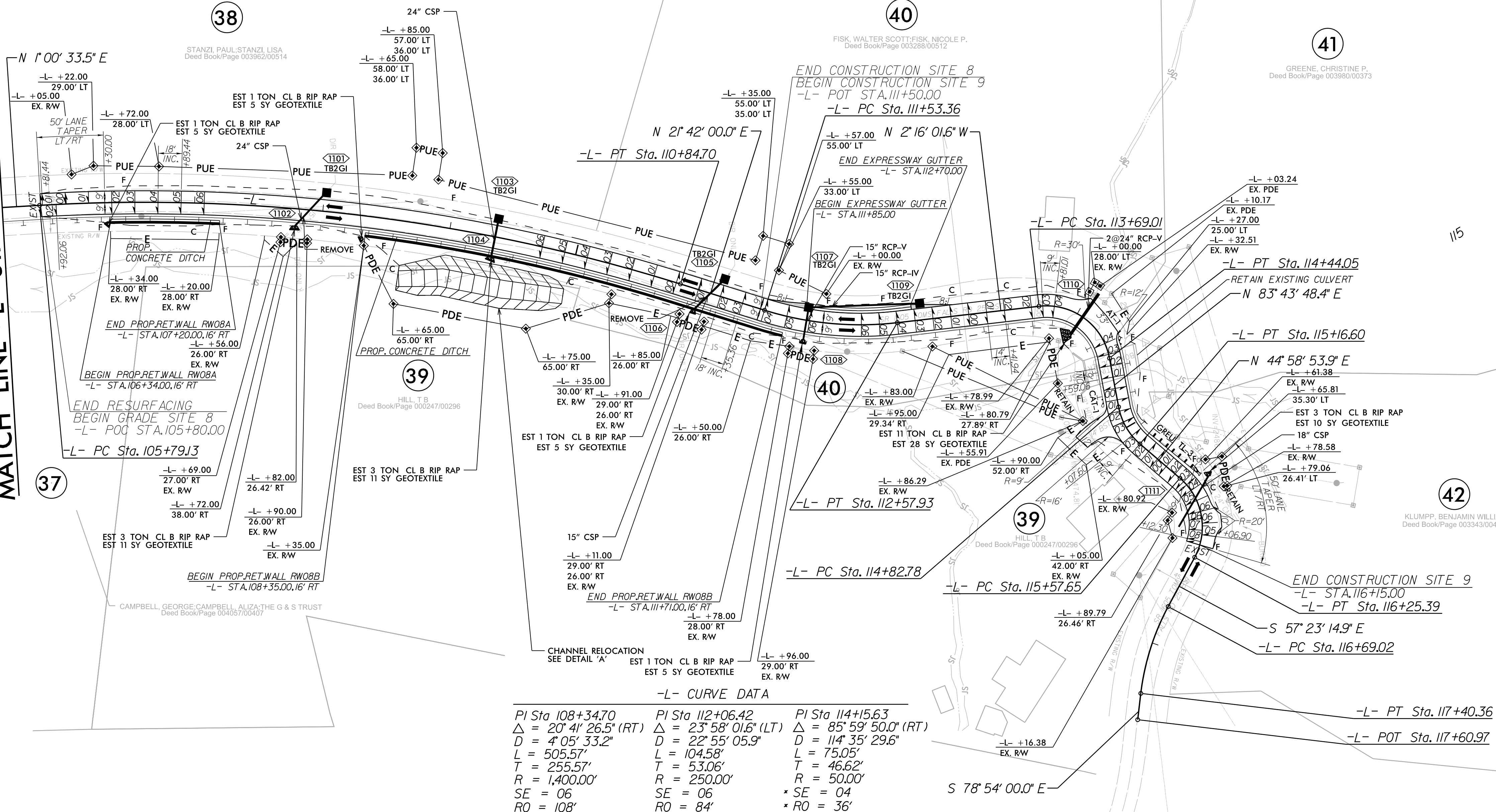
MATCH LINE -L- STA 105+50.00 SEE SHEET 6



NAD 83/NA 2011

PROJECT REFERENCE NO. DF18314.2045378/ DF18314.2045377		SHEET NO. 7
RW SHEET NO.		
ROADWAY DESIGN ENGINEER ALEXANDER C. DRAKE 6/11/2025	HYDRAULICS ENGINEER ALEXANDER R. VINTON 6/11/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



-L- CURVE DATA

PI Sta 108+34.70 Δ = 20° 41' 26.5" (RT) D = 4' 05' 33.2" L = 505.57' T = 255.57' R = 1,400.00' SE = 06 RO = 108'	PI Sta 112+06.42 Δ = 23° 58' 01.6" (LT) D = 22' 55' 05.9" L = 104.58' T = 53.06' R = 250.00' SE = 06 RO = 84'	PI Sta 114+15.63 Δ = 85° 59' 50.0" (RT) D = 114' 35' 29.6" L = 75.05' T = 46.62' R = 50.00' SE = 04 RO = 36' DS = <15 MPH
---	--	---

PI Sta 115+00.36 Δ = 38° 44' 54.5" (LT) D = 114' 35' 29.6" L = 33.81' T = 17.58' R = 50.00' SE = 03 RO = 27' DS = <15 MPH	PI Sta 115+97.87 Δ = 77° 37' 51.1" (RT) D = 114' 35' 29.6" L = 67.15' T = 40.22' R = 50.00' SE = 06 RO = 54' DS = <15 MPH	PI Sta 117+05.12 Δ = 21° 30' 45.1" (LT) D = 30' 09' 20.4" L = 71.34' T = 36.09' R = 190.00' SE = N/A RO = N/A
---	---	--

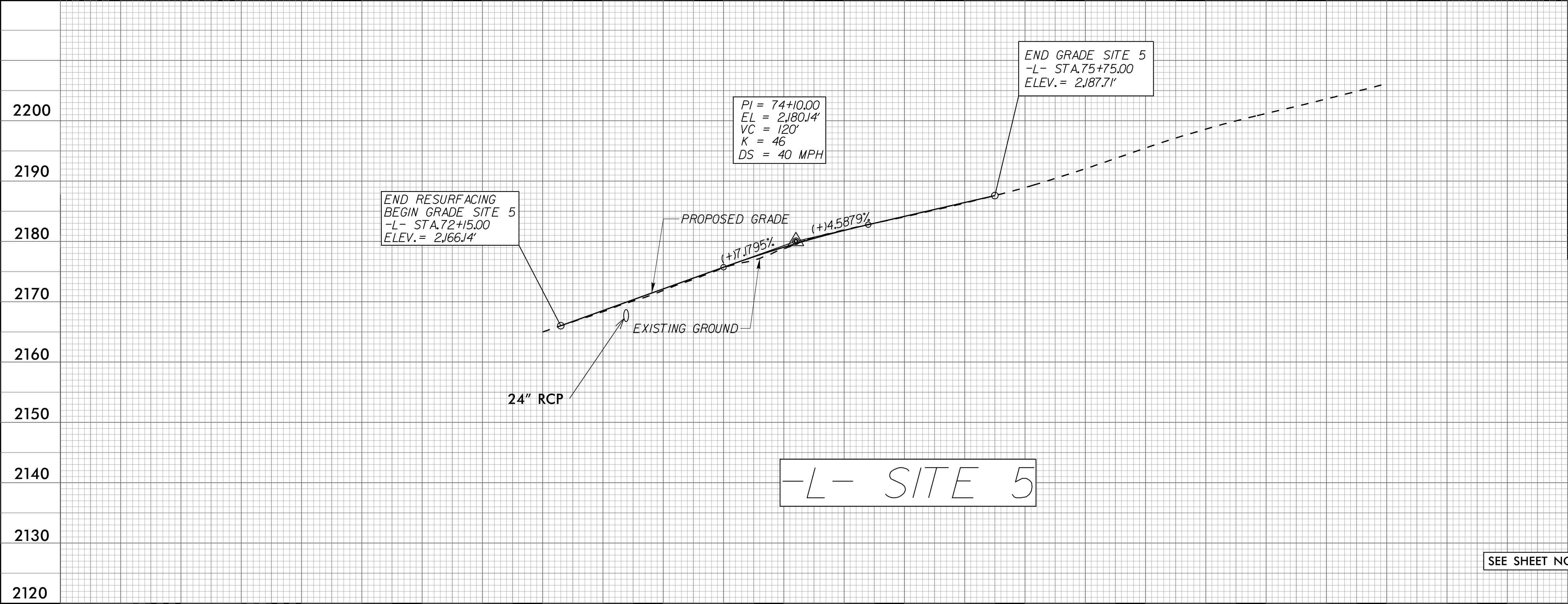
* NOTE: DESIGN EXCEPTION REQUIRED
FOR HORIZONTAL CURVE RADIUS AND
SUPERELEVATION RATE

NOTE: EXISTING PIPES THAT ARE DETERMINED TO BE
STRUCTURALLY ADEQUATE AND SALVAGEABLE MAY BE
RETAINED IN LIEU OF REPLACEMENT, SUBJECT TO THE
DISCRETION OF THE ENGINEER.

FOR -L- PROFILE SEE SHEET 10

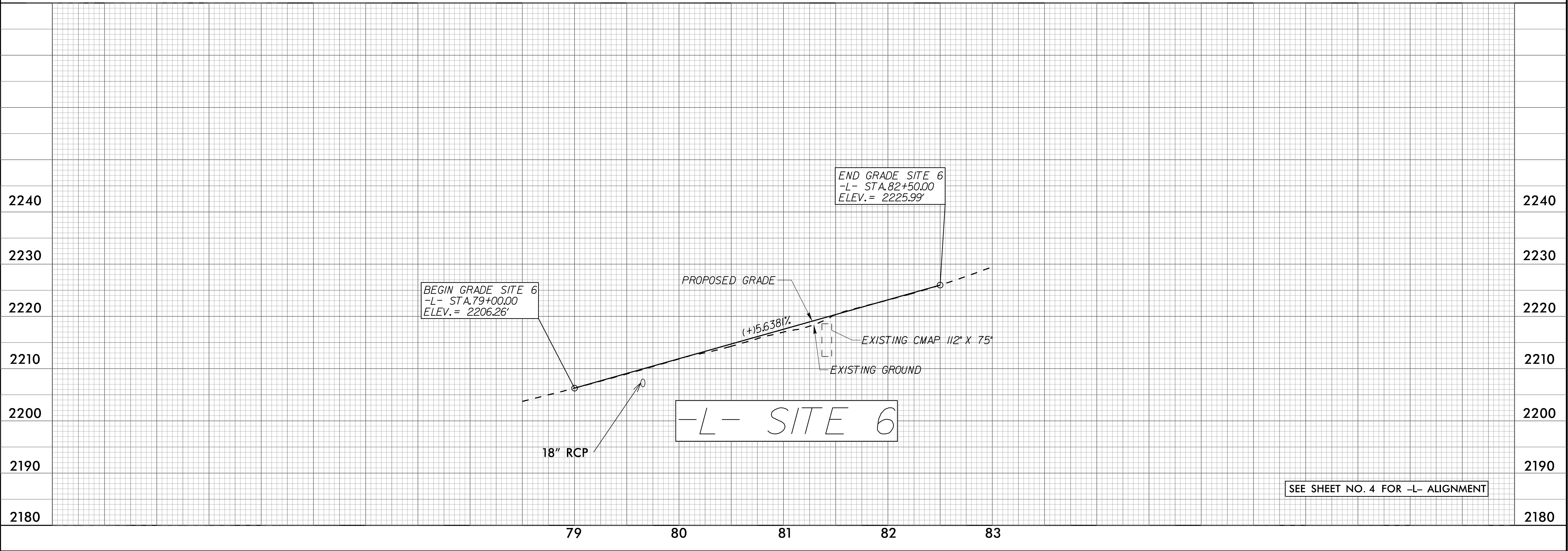
FOR WALLS RW08A, RW08B SEE SHEETS W-8 THRU W-14

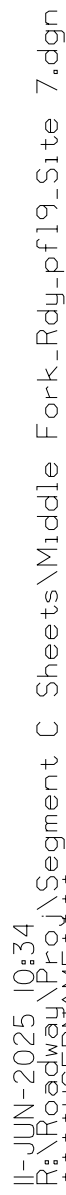
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PROJECT REFERENCE NO. DF18314.2045380 / DF18314.2045379		SHEET NO. 8
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No. F-0493		

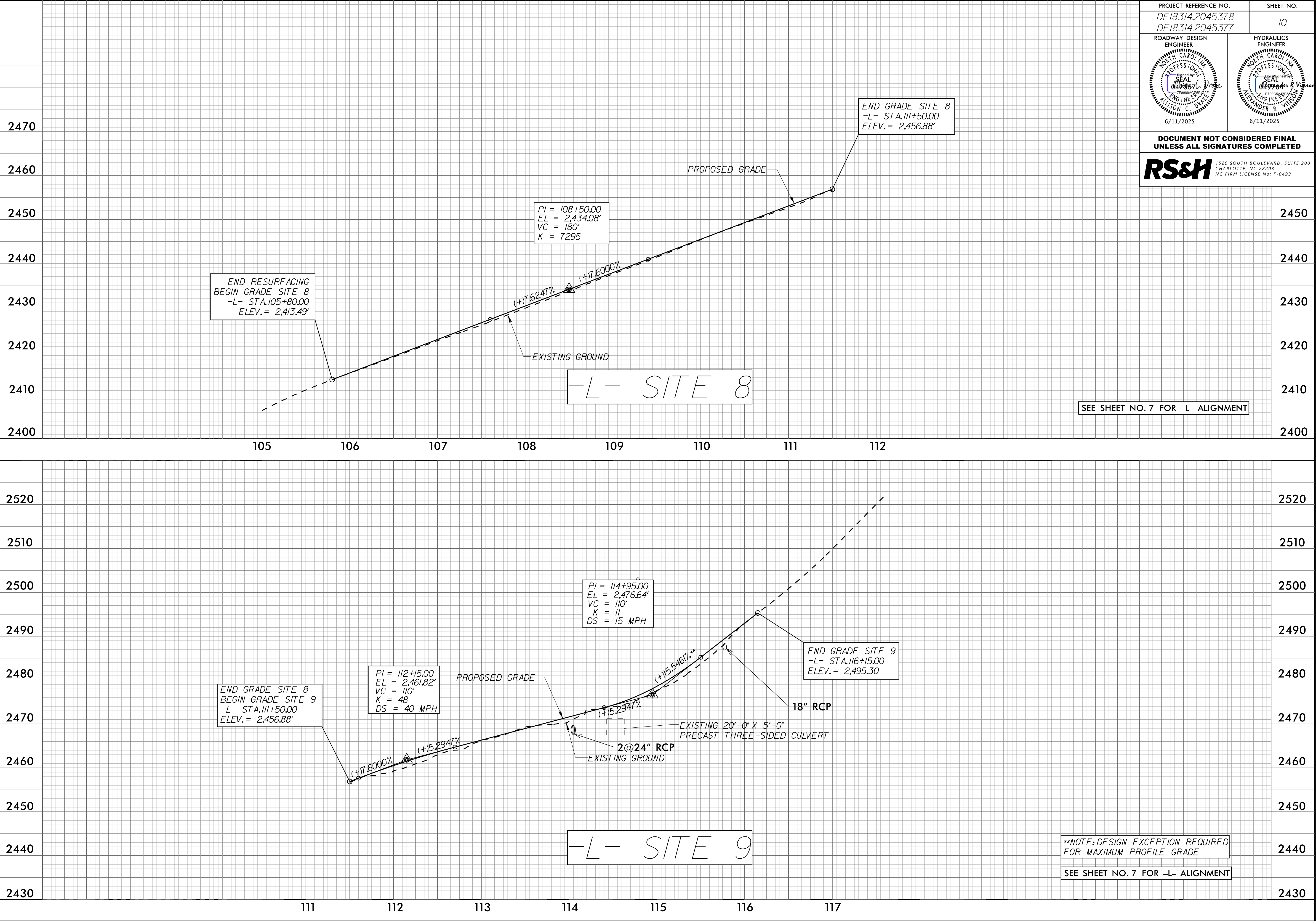
11 JUN 2025 15:26
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\$\$\$\$\$CPRNME\$\$\$\$\$

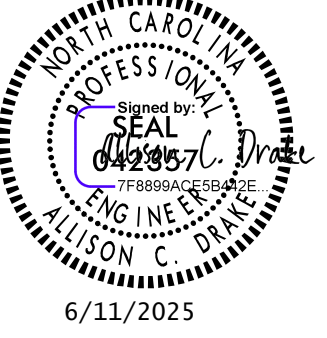
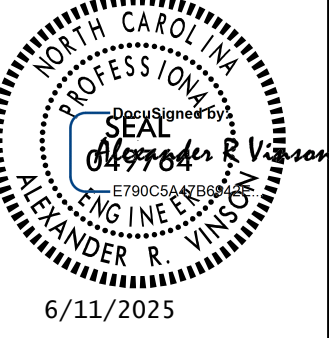




5/28/24

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\$\$\$S&B\PROJECTS\2025\034\Segment C Sheets\Middle Fork Rd\pfl10_Site 8_9.dgn



PROJECT REFERENCE NO. DF18314.2045378 DF18314.2045377		SHEET NO. 10
ROADWAY DESIGN ENGINEER  6/11/2025	HYDRAULICS ENGINEER  6/11/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493		

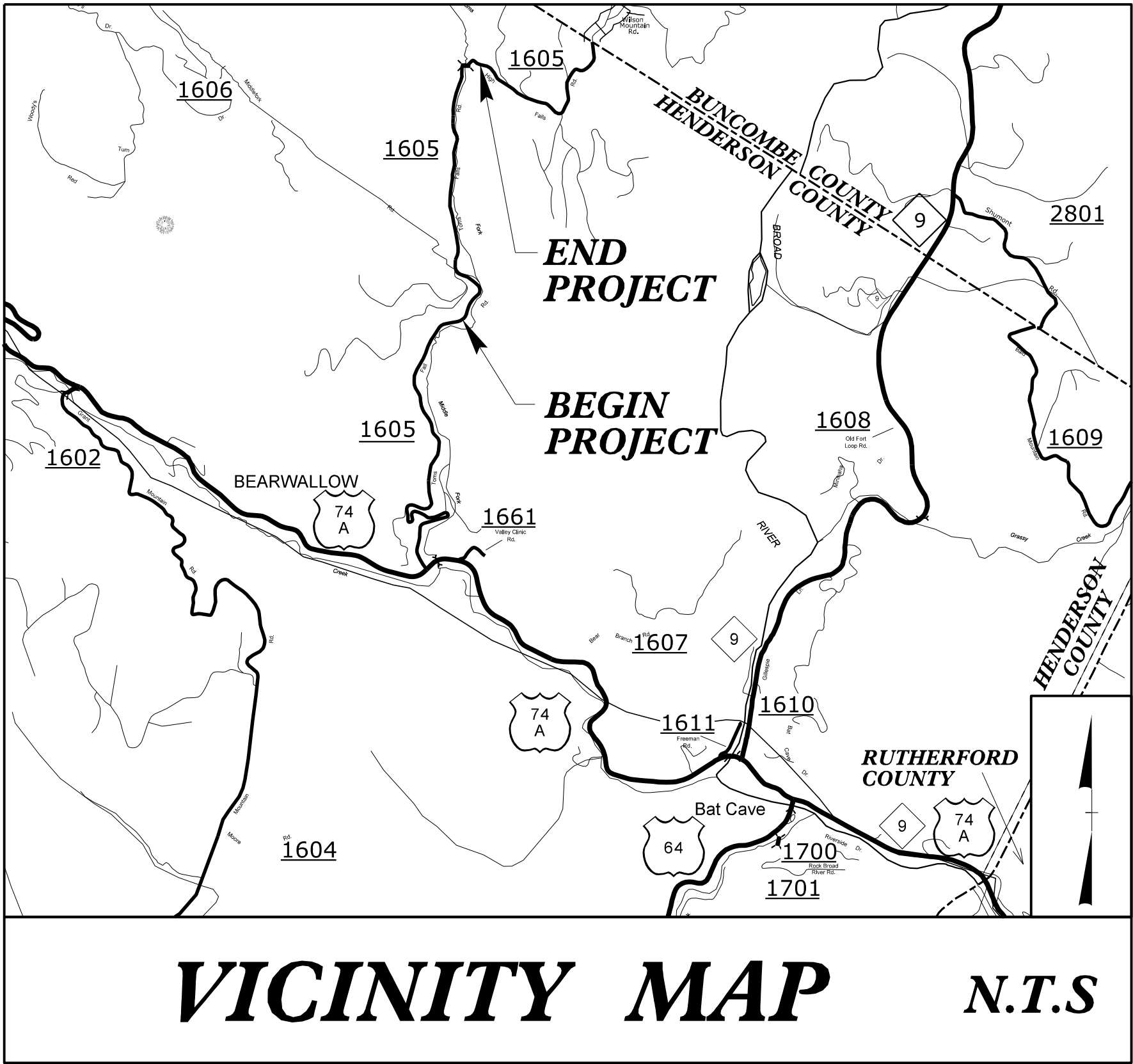
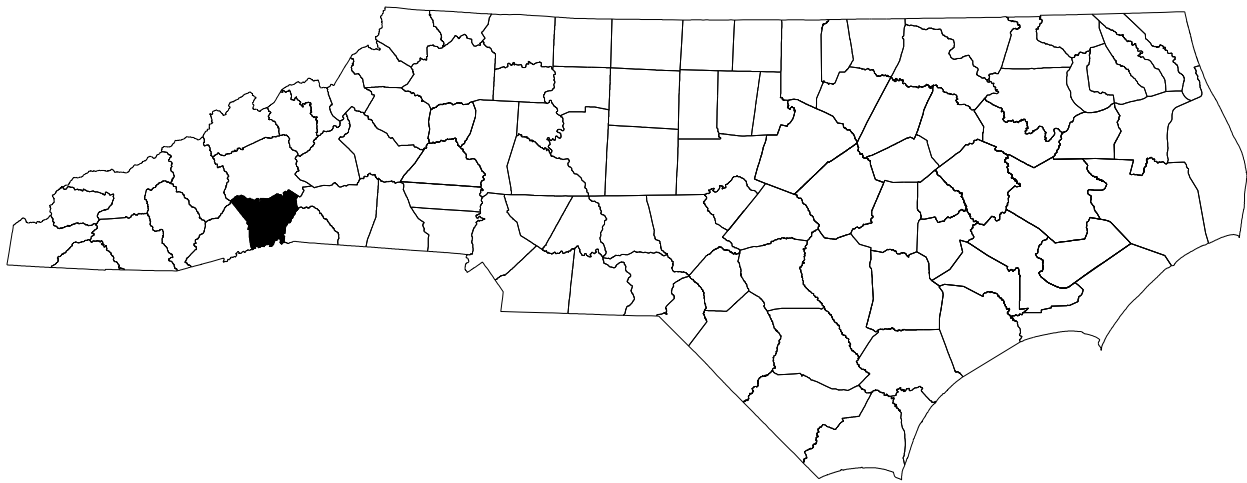
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

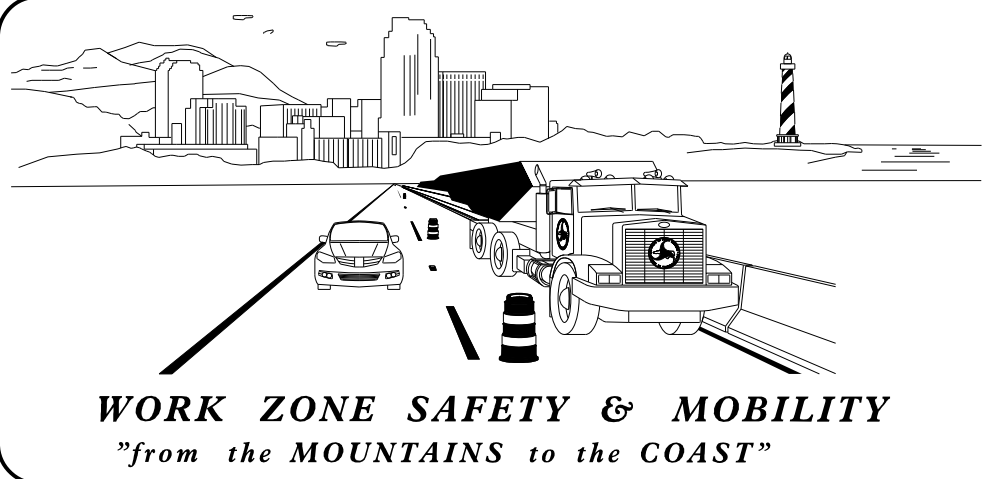
HENDERSON COUNTY

LOCATION: *EMERGENCY DESIGN FOR SR 1605*
(MIDDLE FORK ROAD/TOMS FALLS ROAD)

TITLE OF WORK: *GRADING, PAVING, DRAINAGE*
& RETAINING WALLS



VICINITY MAP N.T.S



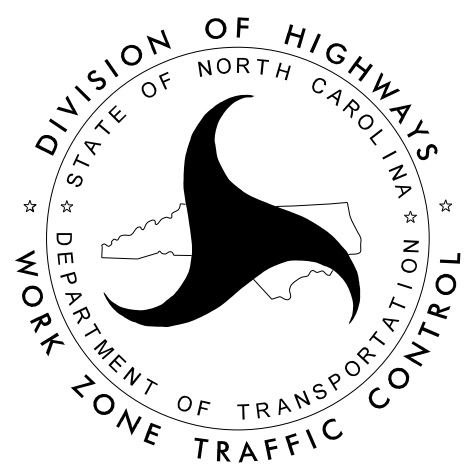
PLANS PREPARED BY:

ALLISON C. DRAKE, PE
PROJECT ENGINEER

REBECCA E. WRIGHT, PE
NIKI E. AVGERINOS, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT:

BARRY MOSTELLER
PROJECT ENGINEER

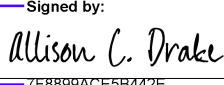


INDEX OF SHEETS

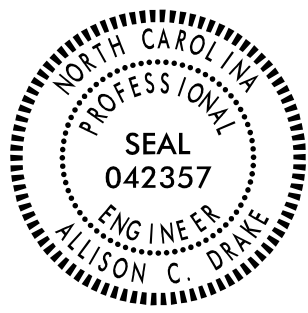
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND , AND MANAGEMENT STRATEGIES
TMP-1B	SITES LAYOUT SHEET
TMP-2	TRANSPORTATION OPERATIONS PLAN: GENERAL NOTES
TMP-3 THRU 3A	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 THRU 5	TEMPORARY TRAFFIC CONTROL SITE 5 DETAILS
TMP-6 THRU 8	TEMPORARY TRAFFIC CONTROL SITE 6 DETAILS
TMP-9 THRU 14	TEMPORARY TRAFFIC CONTROL SITE 7 DETAILS
TMP-15 THRU 17	TEMPORARY TRAFFIC CONTROL SITE 8 AND SITE 9 DETAILS

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APPROVED: 
DATE: 6/27/2025

SEAL



SHEET NO.
TMP-1

WBS PROJECT: DF18314.2045377

CONTRACT: DN01123

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED J ANUARY 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
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
LANE SHIFTS OR CLOSURES
ONE-LANE, TWO WAY OPERATION (FLAGGING)
ONE-LANE, TWO WAY OPERATION (SIGNALIZED)
NIGHT WORK

WORK ZONE SAFETY & MOBILITY STRATEGIES:
AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADS)

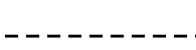
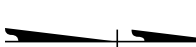
CORRIDOR / NETWORK MANAGEMENT STRATEGIES:
STREET / INTERSECTION IMPROVEMENTS
COORDINATION WITH ADJACENT CONSTRUCTION SITE(S)

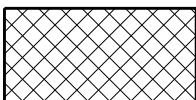
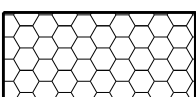
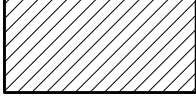
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PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045377	TMP - 1A

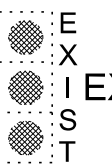
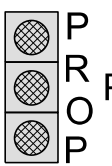
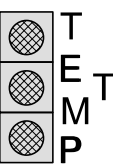
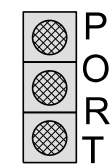
LEGEND

GENERAL

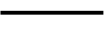
-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)

-  WORK AREA
-  GRAVEL REMOVAL
-  TEMPORARY GRAVEL
-  TEMPORARY ASPHALT PAVEMENT

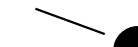
SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY
-  PORTABLE

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

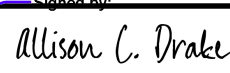
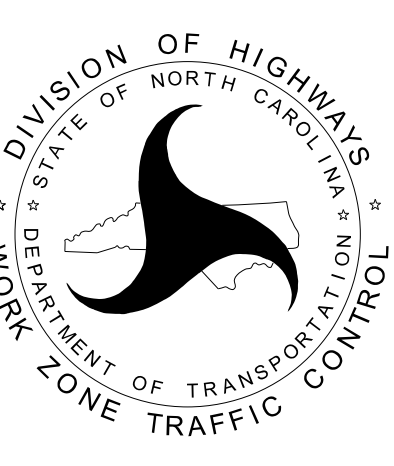
PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS
- 
- 

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED:  DATE: 6/27/2025 SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	 	ROADWAY STANDARD DRAWINGS, LEGEND, AND MANAGEMENT STRATEGIES
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PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045377	TMP-1B

ROADWAY SHEET

PSH-4

PSH-5

PSH-6

PSH-7

TMP SHEET

TMP-4 THRU TMP-8

TMP-9, TMP-11, TMP-13

TMP-10, TMP-12, TMP-14

TMP-15 THRU TMP-17

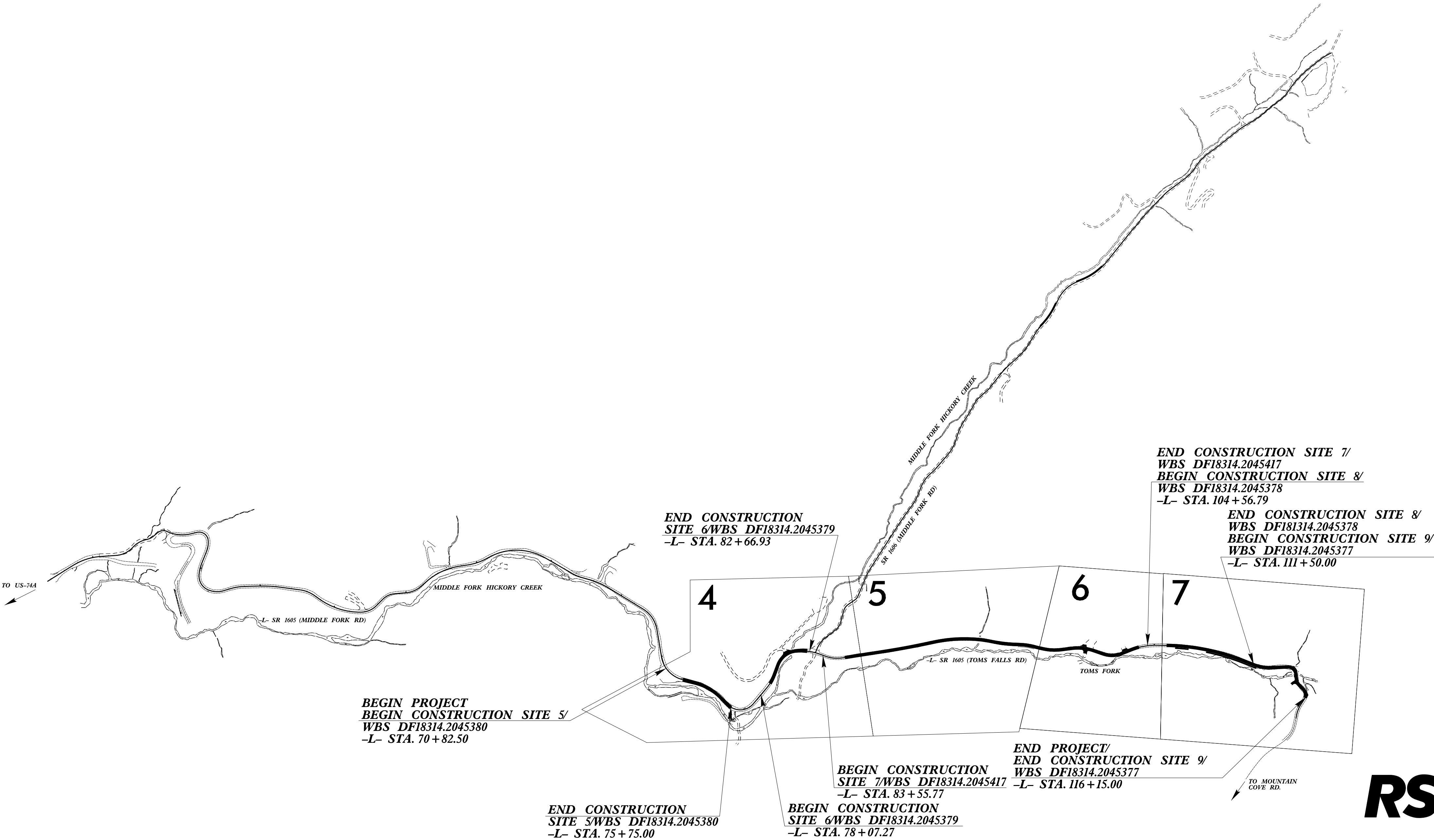
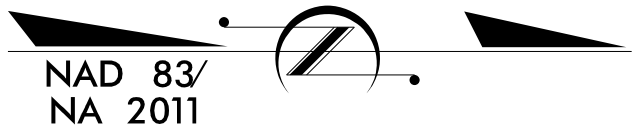
PHASE

SITE 5 PHASE I THRU PHASE II, SITE 6 PHASE I THRU PHASE III

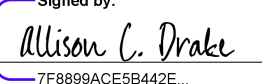
SITE 7 PHASE I THRU PHASE III

SITE 7 PHASE I THRU PHASE III

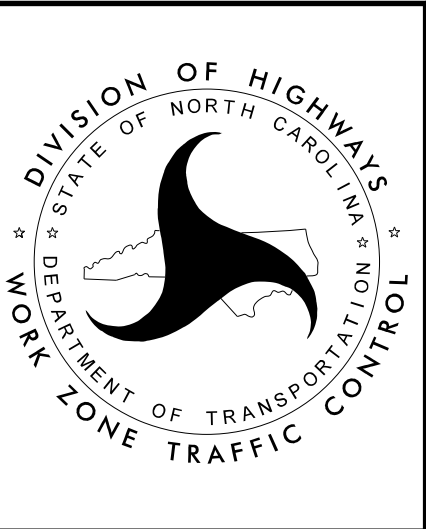
SITES 8 & 9 PHASE I THRU PHASE III



RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

APPROVED: 
DATE: 6/11/2025
SEAL

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SITES LAYOUT
SHEET

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 UNDESIRE 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
ALL ROADS	MONDAY THRU FRIDAY 7:00 AM TO 8:00 AM AND 5:00 PM TO 6:00 PM

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

ROAD NAME
ALL ROADS
HOLIDAY
1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR’S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 4:00 P.M. JANUARY 2ND. IF NEW YEAR’S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 4:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 4:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 4:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 4:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 4:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 4:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 4:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) 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.
- D) 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.
- E) 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.
- F) 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 DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) 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.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ALL ROADS.
- 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) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT 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.

L) 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) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

N) 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.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

Q) 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.

PAVEMENT MARKINGS AND MARKERS

R) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

S) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY’S OPERATION.

MISCELLANEOUS

T) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

U) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY’S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 FT AND 400 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

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APPROVED: 6/27/2025 SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	Signature by: Allison C. Drake 7F88B8AC5B442E PROFESSIONAL SEAL 042357 ENGINEER ALLISON C. DRAKE DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	GENERAL NOTES
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PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045377	TMP -3

NOTES: -RSD REFERS TO ROADWAY STANDARD DRAWINGS.
-ALL PROPOSED ASPHALT ROADWAY CONSTRUCTION IS UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE NOTED.
-MAINTAIN ALL DRIVEWAY ACCESS DURING CONSTRUCTION.

PHASING NOTES

SITE 5

PHASE I

STEP 1

USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS.

STEP 2

USING RSD 1101.02 (SHEET 1 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG LT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING GUARDRAIL AND DRAINAGE ALONG RT OF -L- (MIDDLE FORK RD).
SEE SHEET TMP-4

-L- STA. 70+83± RT TO -L- STA. 75+75± RT

PHASE II

USING RSD 1101.02 (SHEET 1 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG RT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING DRAINAGE ALONG LT OF -L- (MIDDLE FORK RD). SEE SHEET TMP-5

-L- STA. 70+83± LT TO -L- STA. 75+75± LT

PHASE III

USING RSD 1101.02 (SHEET 1 OF 19), PLACE FINAL LAYER OF SURFACE COURSE, FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS. THEN REMOVE ALL TRAFFIC CONTROL DEVICES, AND OPEN -L- (MIDDLE FORK RD) TO FINAL TRAFFIC PATTERN.

SITE 6

PHASE I

STEP 1

USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS.

STEP 2

USING RSD 1101.02 (SHEET 1 OF 19), INSTALL TEMPORARY GRAVEL ALONG LT OF -L- (MIDDLE FORK RD). SEE SHEET TMP-6

-L- STA. 79+19± LT TO -L- STA. 80+83± LT
-L- STA. 81+49± LT TO -L- STA. 81+96± LT

PHASE II

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG LT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING GUARDRAIL, AND DRAINAGE ALONG RT OF -L- (MIDDLE FORK RD).
SEE SHEET TMP-7

-L- STA. 78+07± RT TO -L- STA. 82+67± RT

PHASE III

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG RT OF -L- (MIDDLE FORK RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING DRAINAGE, GUARDRAIL, AND TEMPORARY GRAVEL REMOVAL ALONG LT OF -L- (MIDDLE FORK RD). SEE SHEET TMP-8

-L- STA. 78+07± LT TO -L- STA. 82+67± LT

PHASE IV

USING RSD 1101.02 (SHEET 17 OF 19), PLACE FINAL LAYER OF SURFACE COURSE, FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS. THEN REMOVE ALL TRAFFIC CONTROL DEVICES, AND OPEN -L- (MIDDLE FORK RD) TO FINAL TRAFFIC PATTERN.

SITE 7

PHASE I

STEP 1

USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS.

STEP 2

USING RSD 1101.02 (SHEET 1 OF 19), INSTALL TEMPORARY GRAVEL ALONG LT OF -L- (TOMS FALLS RD). SEE SHEETS TMP-9 & TMP-10

-L- STA. 84+43± LT TO -L- STA. 100+12± LT
-L- STA. 100+93± LT TO -L- STA. 101+64± LT
-L- STA. 103+28± LT TO -L- STA. 104+35± LT

PHASE II

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG LT OF -L- (TOMS FALLS RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING GUARDRAIL, RETAINING WALL REPAIRS, AND DRAINAGE ALONG RT OF -L- (TOMS FALLS RD). SEE SHEETS TMP-11 & TMP-12

-L- STA. 83+56± RT TO -L- STA. 104+57± RT

PHASE III

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG RT OF -L- (TOMS FALLS RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING DRAINAGE AND TEMPORARY GRAVEL REMOVAL ALONG LT OF -L- (TOMS FALLS RD). SEE SHEETS TMP-13 & TMP-14

-L- STA. 83+56± LT TO -L- STA. 104+57± LT

PHASE IV

USING RSD 1101.02 (SHEET 17 OF 19), PLACE FINAL LAYER OF SURFACE COURSE, FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS. THEN REMOVE ALL TRAFFIC CONTROL DEVICES, AND OPEN -L- (TOMS FALLS RD) TO FINAL TRAFFIC PATTERN.

6/11/2025
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APPROVED:

Signed by:

Allison C. Drake

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DATE: 6/11/2025

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

SEAL
042357
ENGINEER
ALLISON C. DRAKE

PHASING
NOTES

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045377	TMP-3A

PHASING NOTES

SITE 8 & 9

PHASE I

STEP 1

USING RSD 1101.01 (SHEET 3 OF 3), INSTALL ALL ADVANCED WORK ZONE WARNING SIGNS.

STEP 2

USING RSD 1101.02 (SHEET 1 OF 19), INSTALL TEMPORARY GRAVEL ALONG LT OF -L- (TOMS FALLS RD). SEE SHEET TMP-15

- L- STA. 105+38± LT TO -L- STA. 109+68± LT
- L- STA. 110+10± LT TO -L- STA. 112+71± LT
- L- STA. 113+65± LT TO -L- STA. 113+87± LT
- L- STA. 114+98± LT TO -L- STA. 115+29± LT

PHASE II

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG LT OF -L- (TOMS FALLS RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING GUARDRAIL, DRAINAGE AND RETAINING WALLS ALONG RT OF -L- (TOMS FALLS RD). SEE SHEET TMP-16

- L- STA. 104+57± RT TO -L- STA. 116+15± RT

PHASE III

USING RSD 1101.02 (SHEET 17 OF 19), SHIFT TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ALONG RT OF -L- (TOMS FALLS RD) AND CONSTRUCT PROPOSED ROADWAY INCLUDING DRAINAGE, GUARDRAIL, EXPRESSWAY GUTTER, AND TEMPORARY GRAVEL REMOVAL ALONG LT OF -L- (TOMS FALLS RD). SEE SHEET TMP-17

- L- STA. 104+57± LT TO -L- STA. 116+15± LT
- L- STA. 111+85± LT TO -L- STA. 112+70± LT (EXPRESSWAY GUTTER)

PHASE IV

USING RSD 1101.02 (SHEET 17 OF 19), PLACE FINAL LAYER OF SURFACE COURSE, FINAL MARKINGS AND MARKERS ON ALL ROADWAYS WITHIN THE PROJECT LIMITS. THEN REMOVE ALL TRAFFIC CONTROL DEVICES, AND OPEN -L- (TOMS FALLS RD) TO FINAL TRAFFIC PATTERN.

6/11/2025
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DATE: 6/11/2025

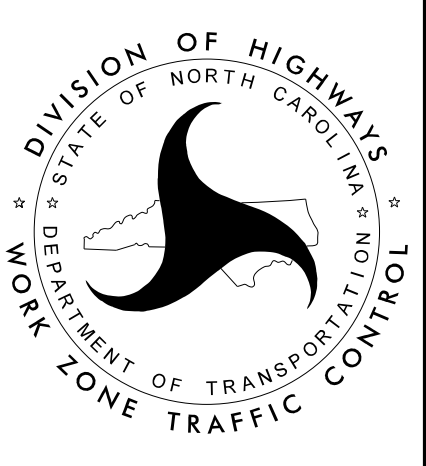
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Alison C. Drake
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NORTH CAROLINA
PROFESSIONAL
SEAL
042357
ENGINEER
ALISON C. DRAKE

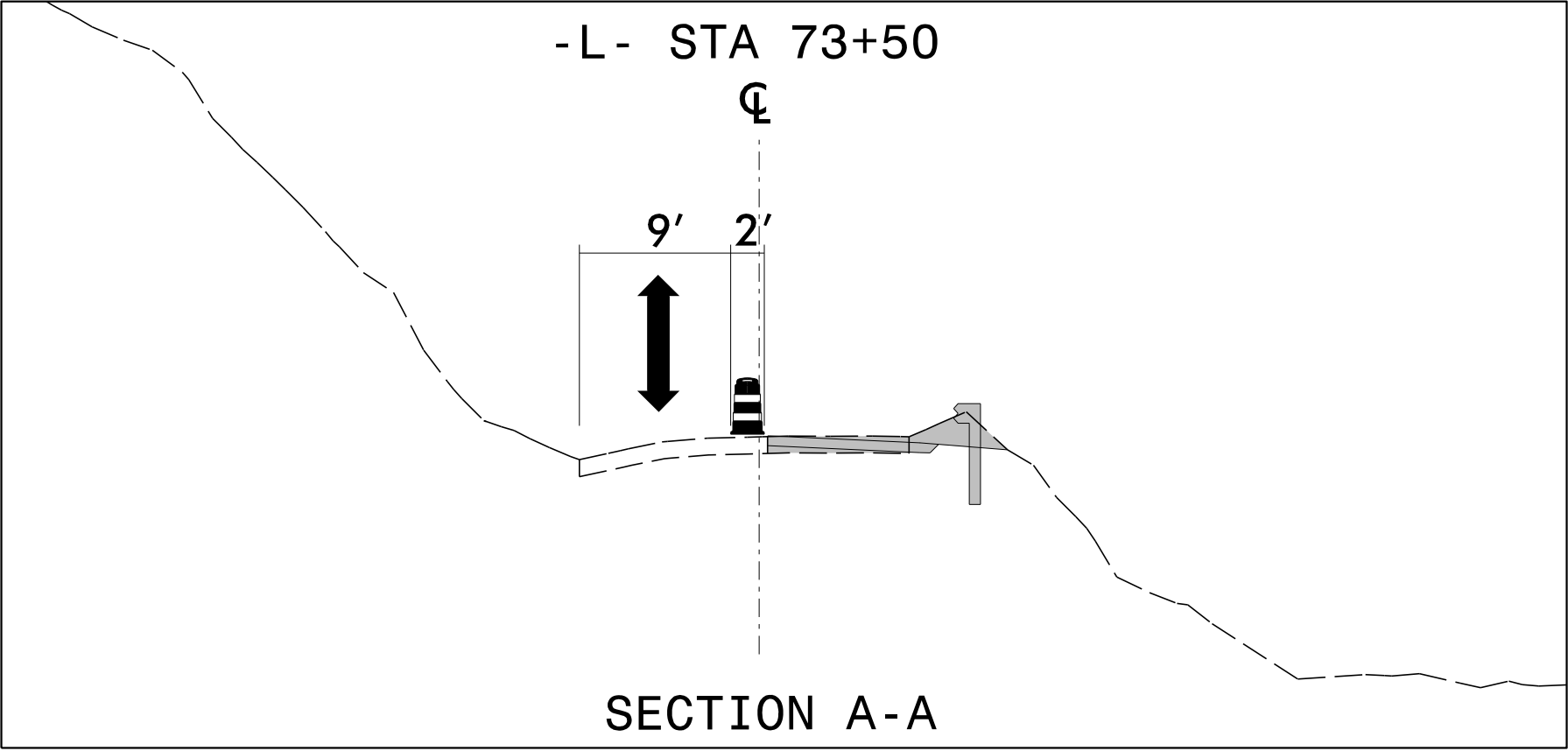
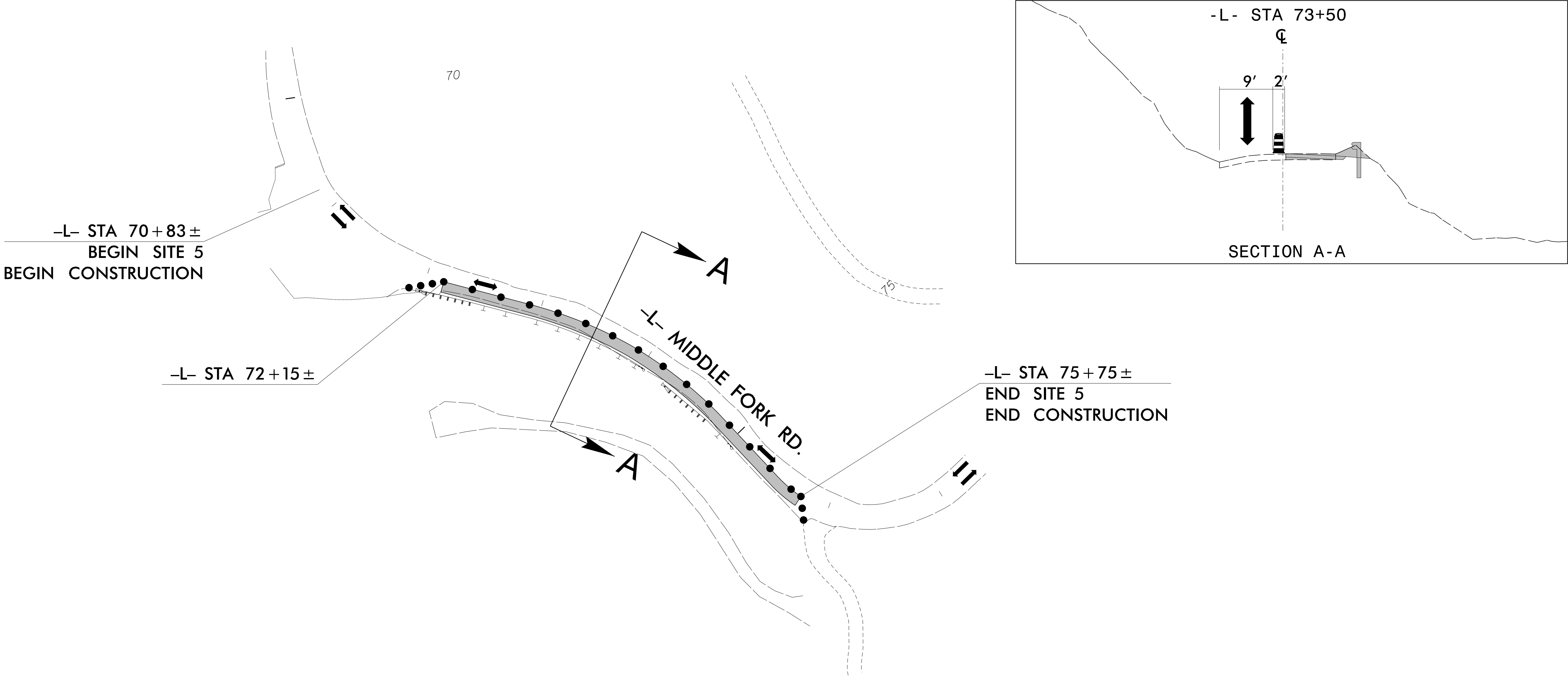
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WORK ZONE TRAFFIC CONTROL



PHASING
NOTES

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DF18314.2045380	TMP-4



6/12/2025
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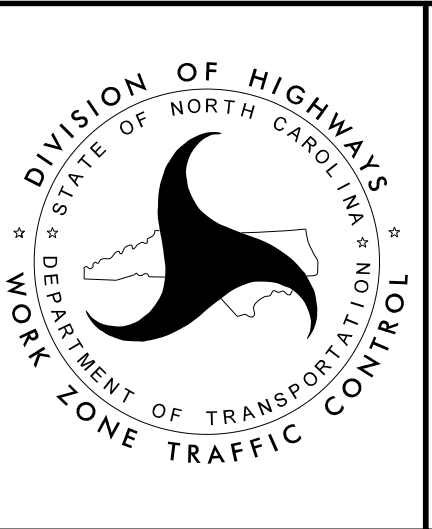
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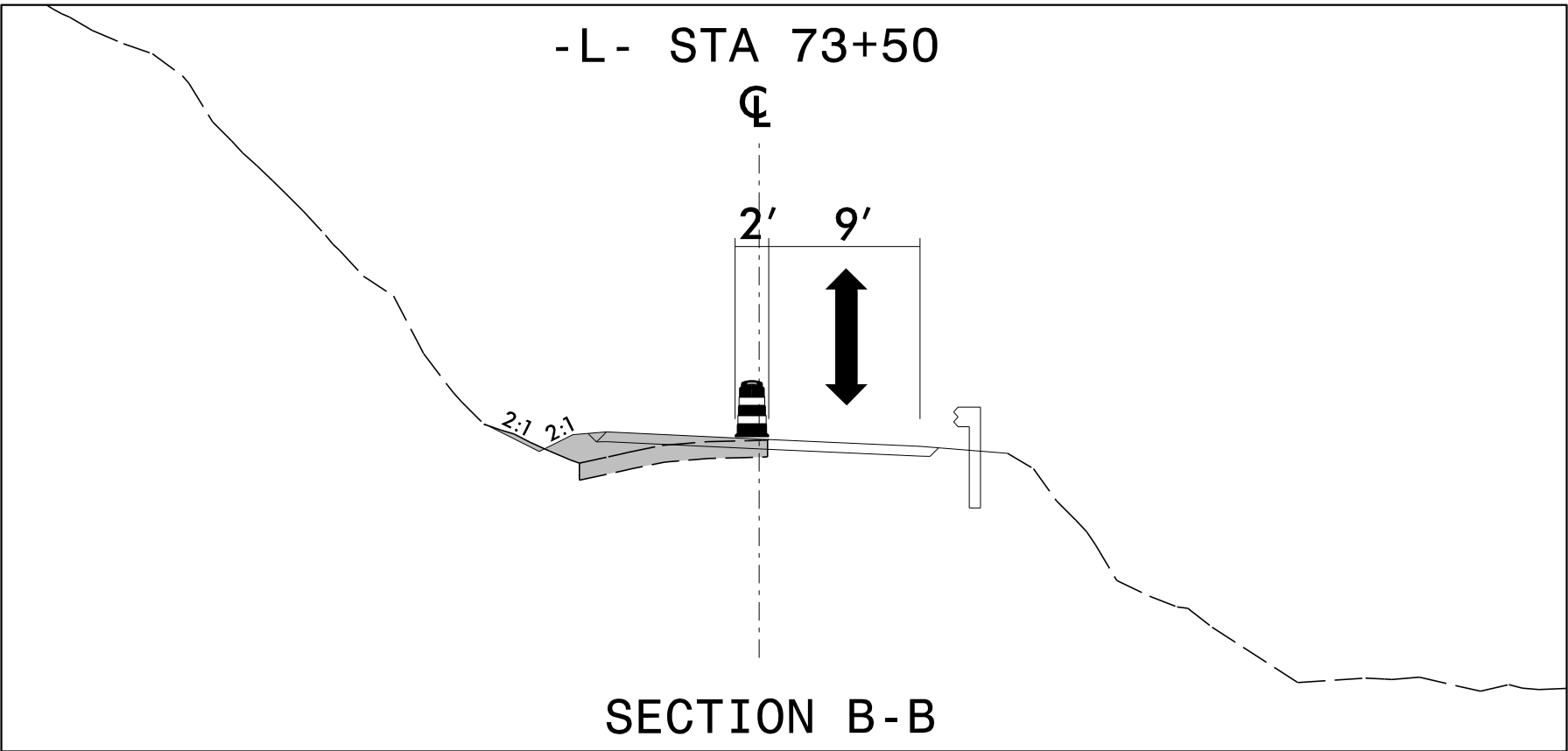
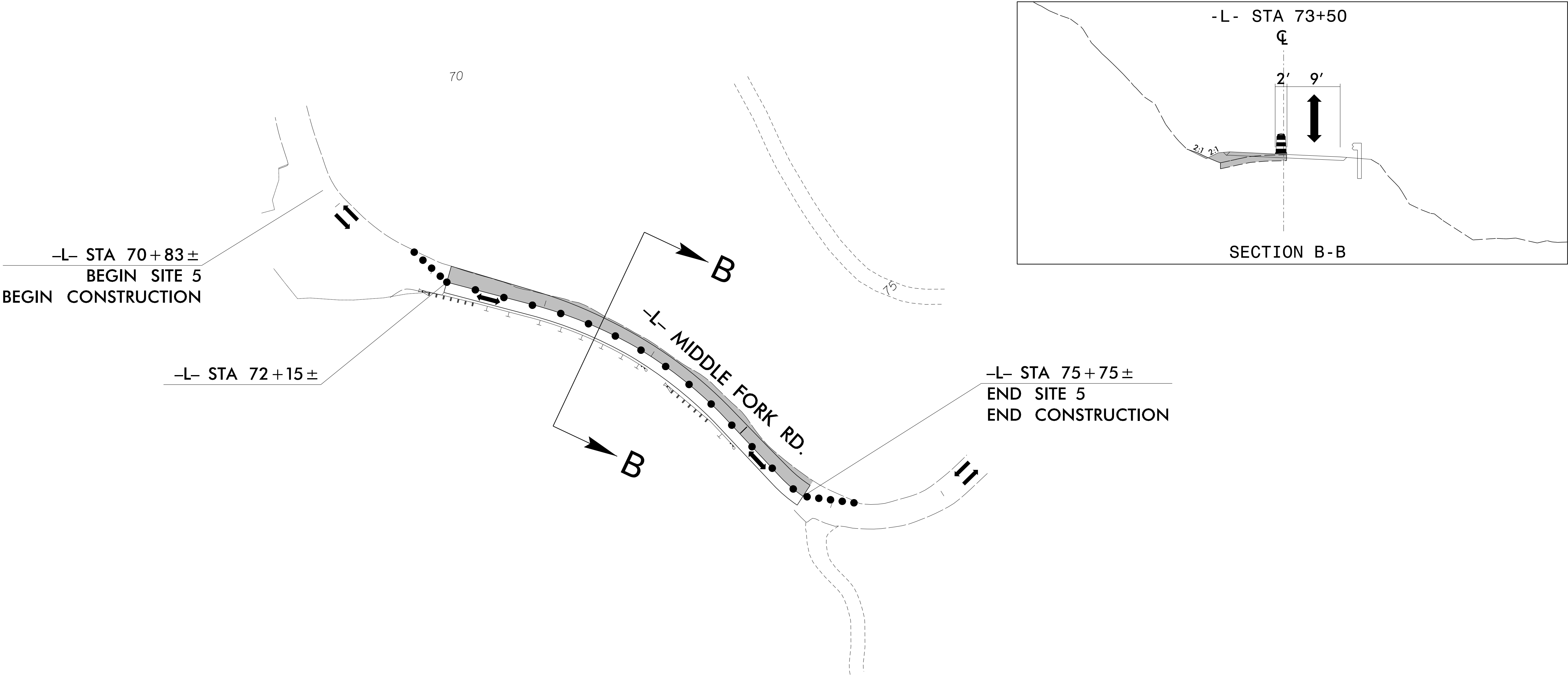
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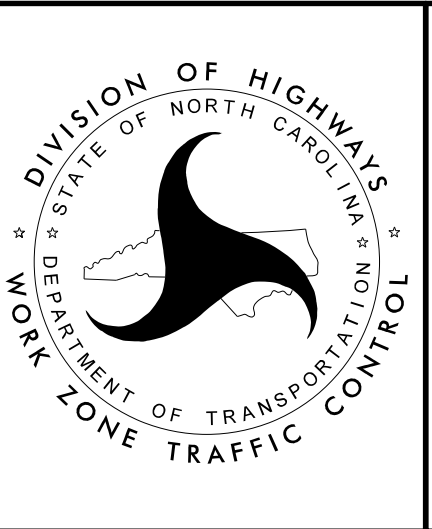
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PHASE I**

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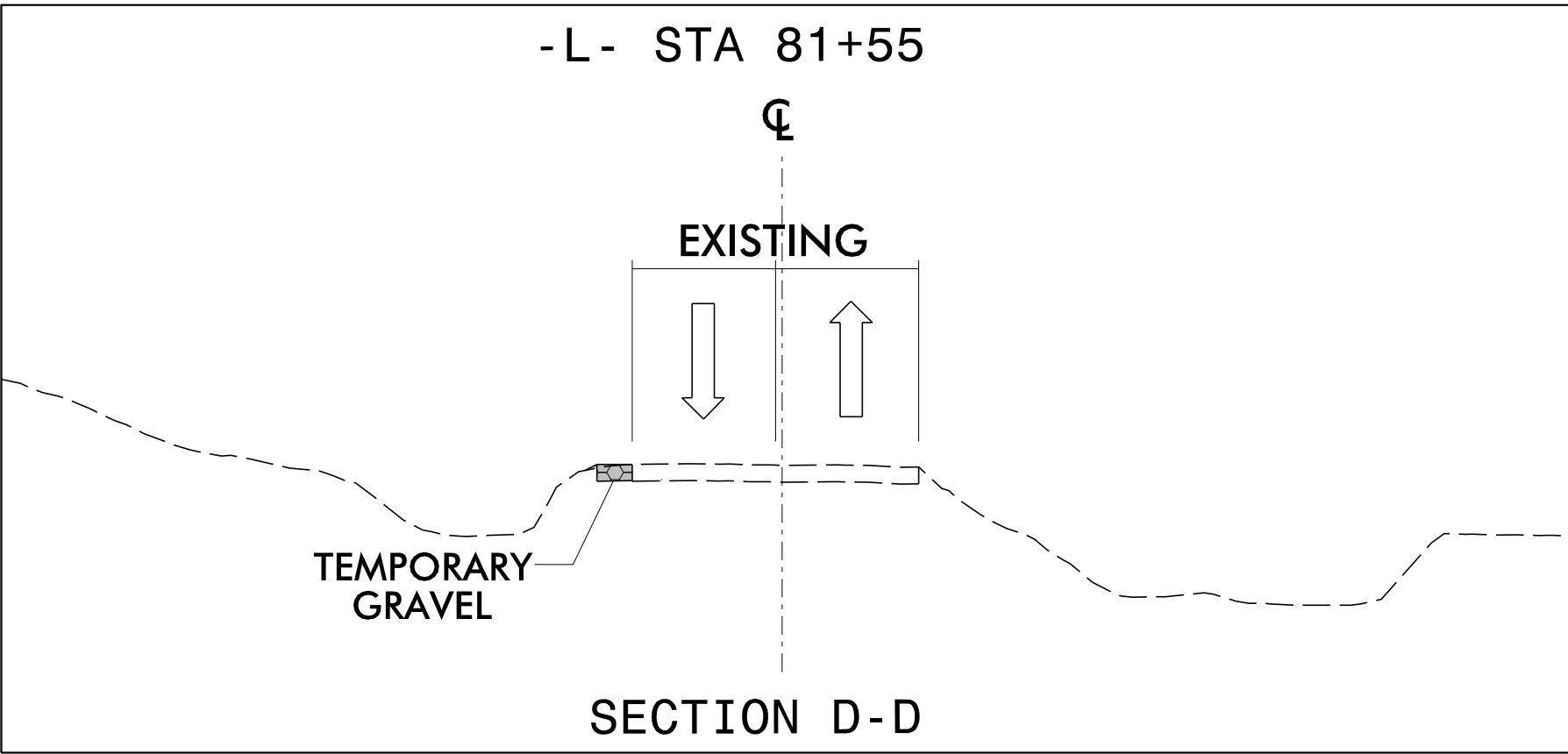
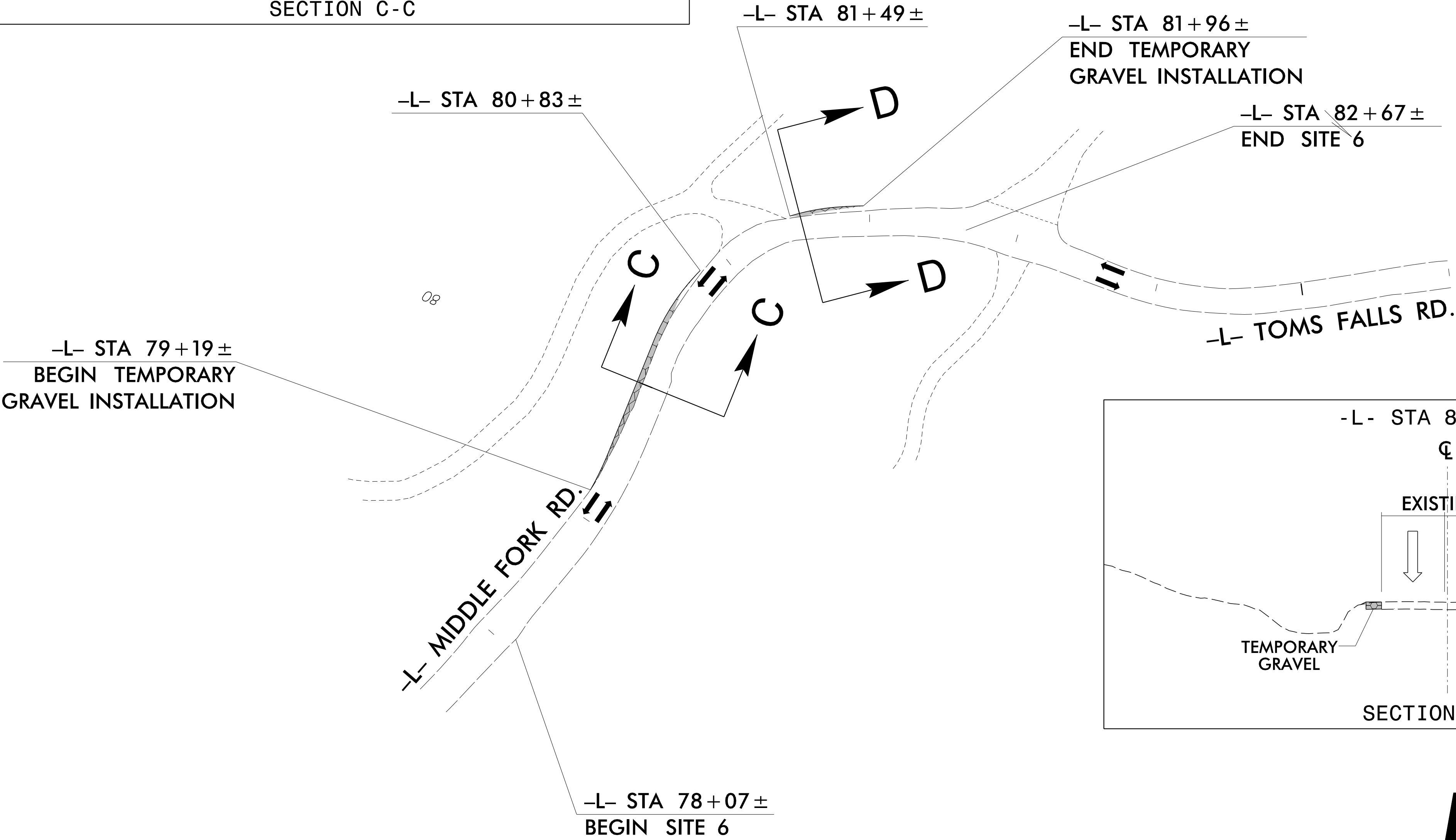
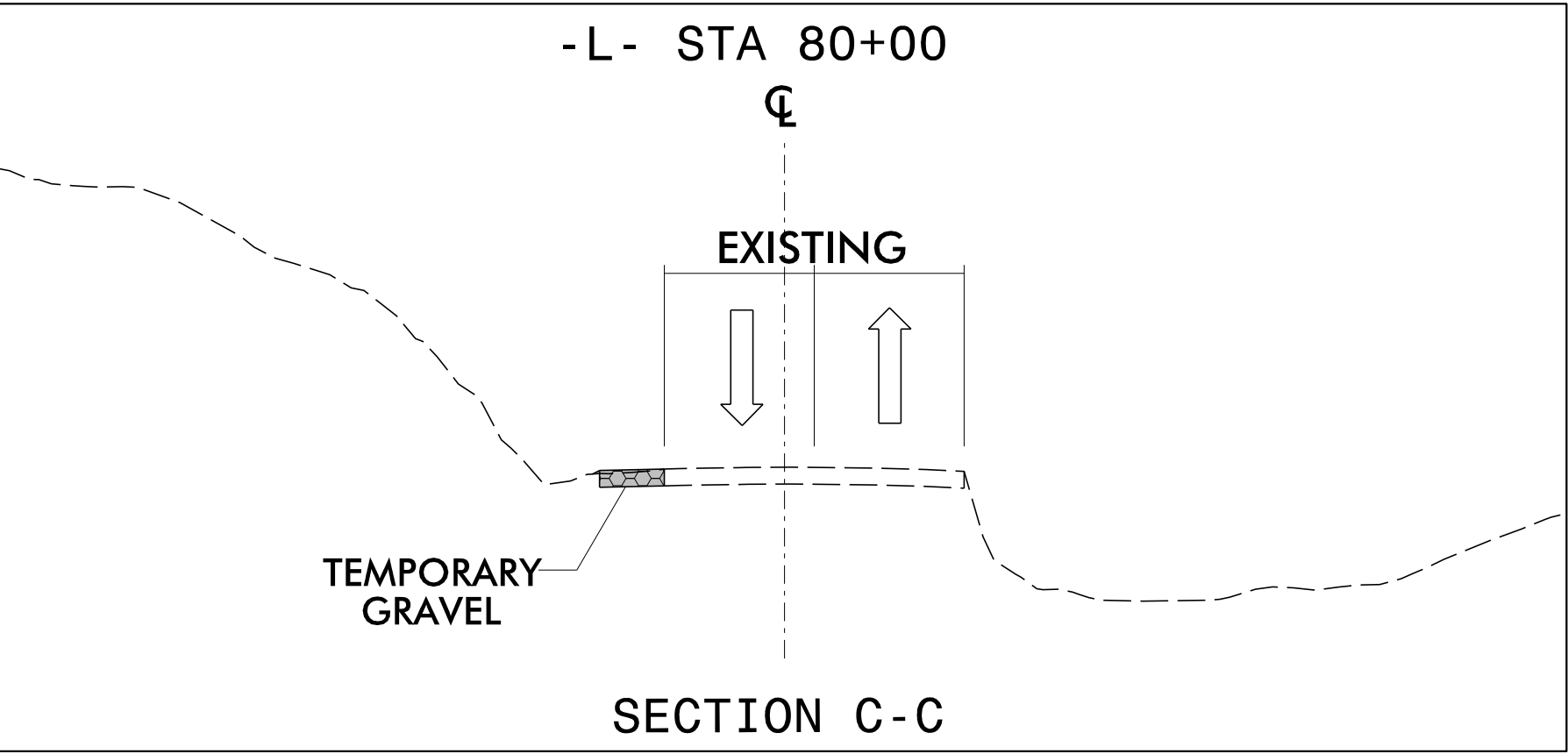
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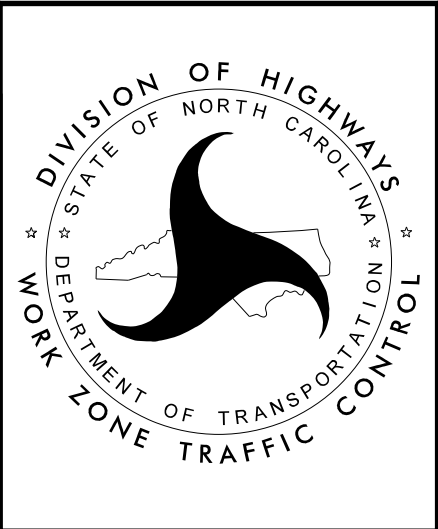
SITE 5
PHASE II

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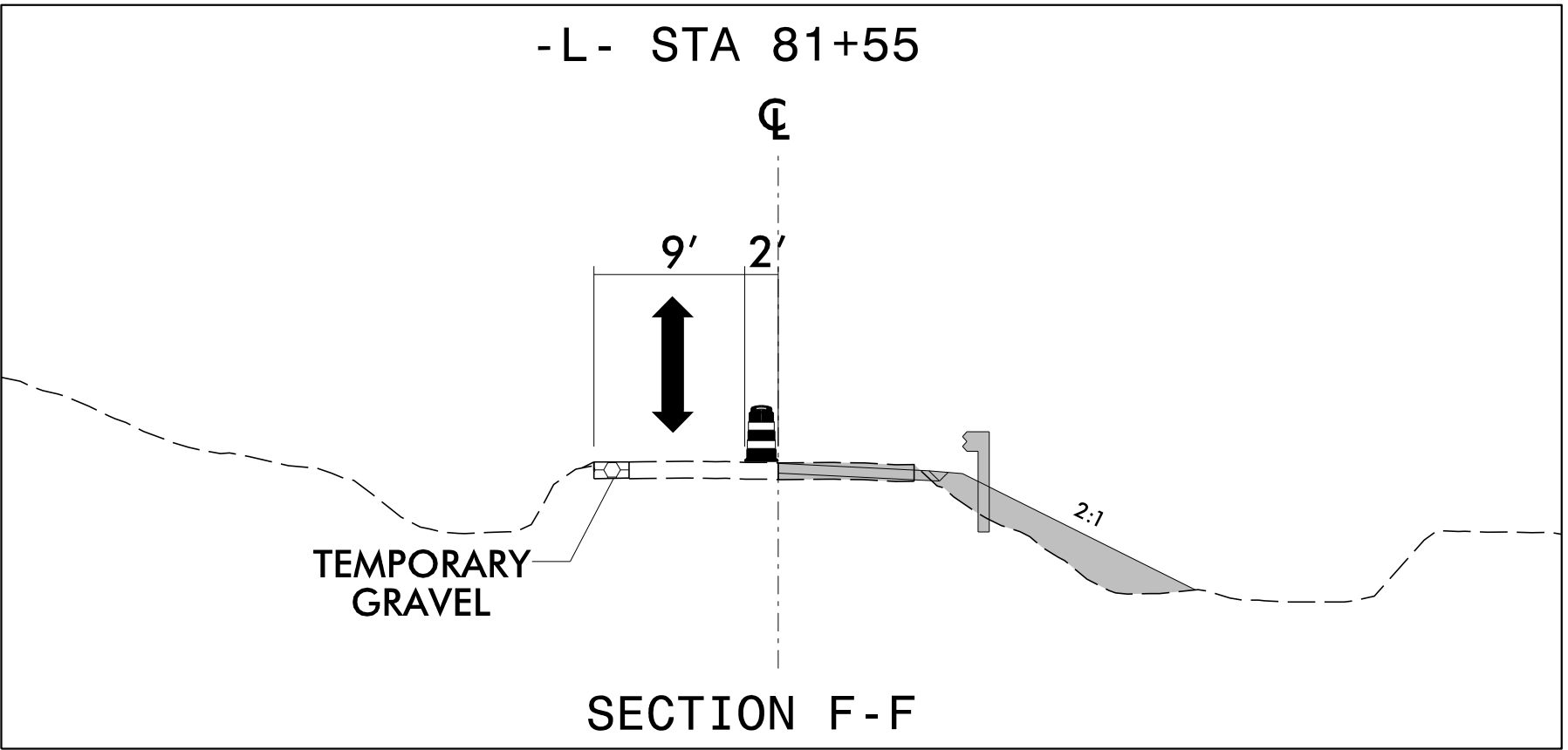
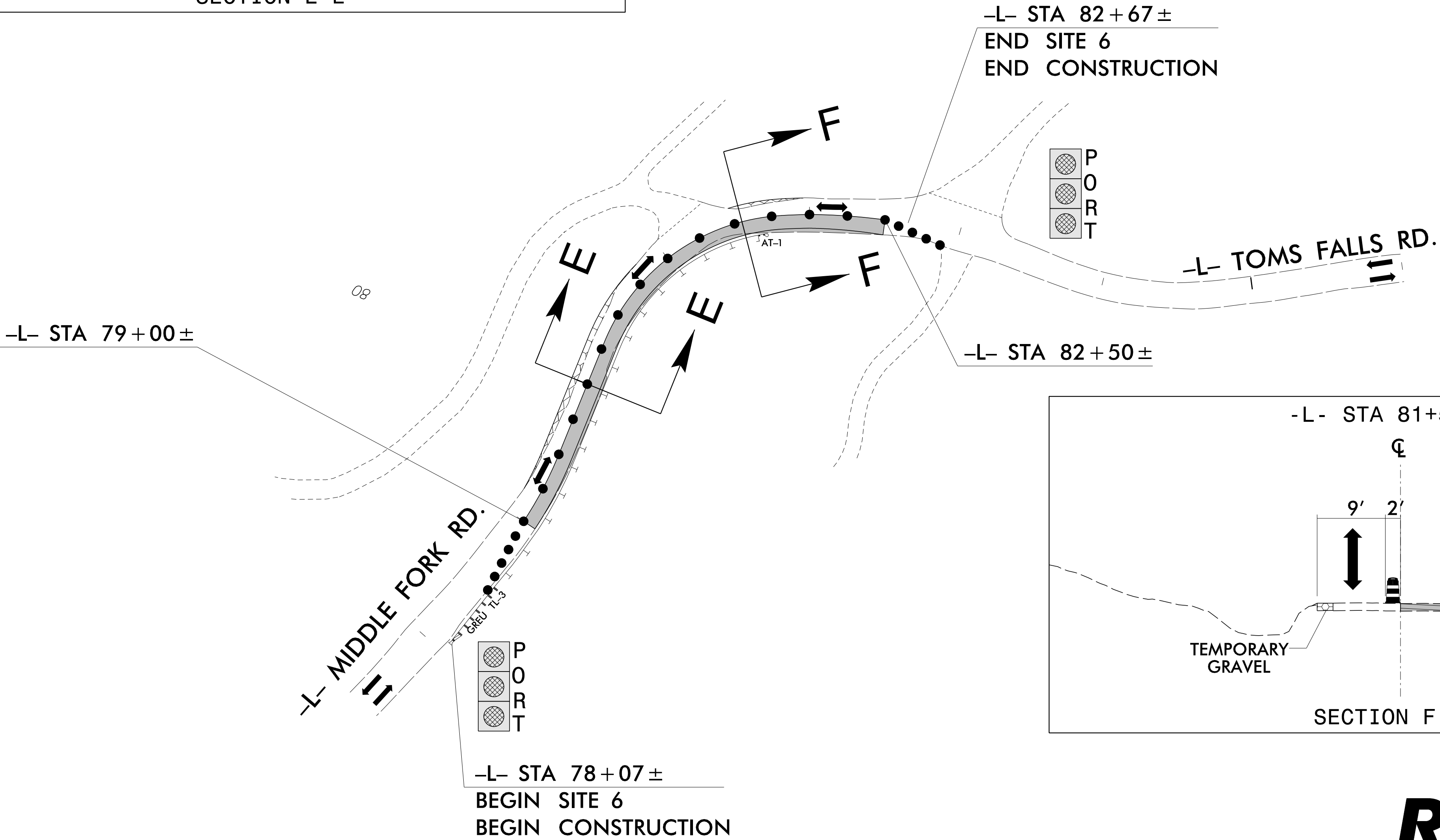
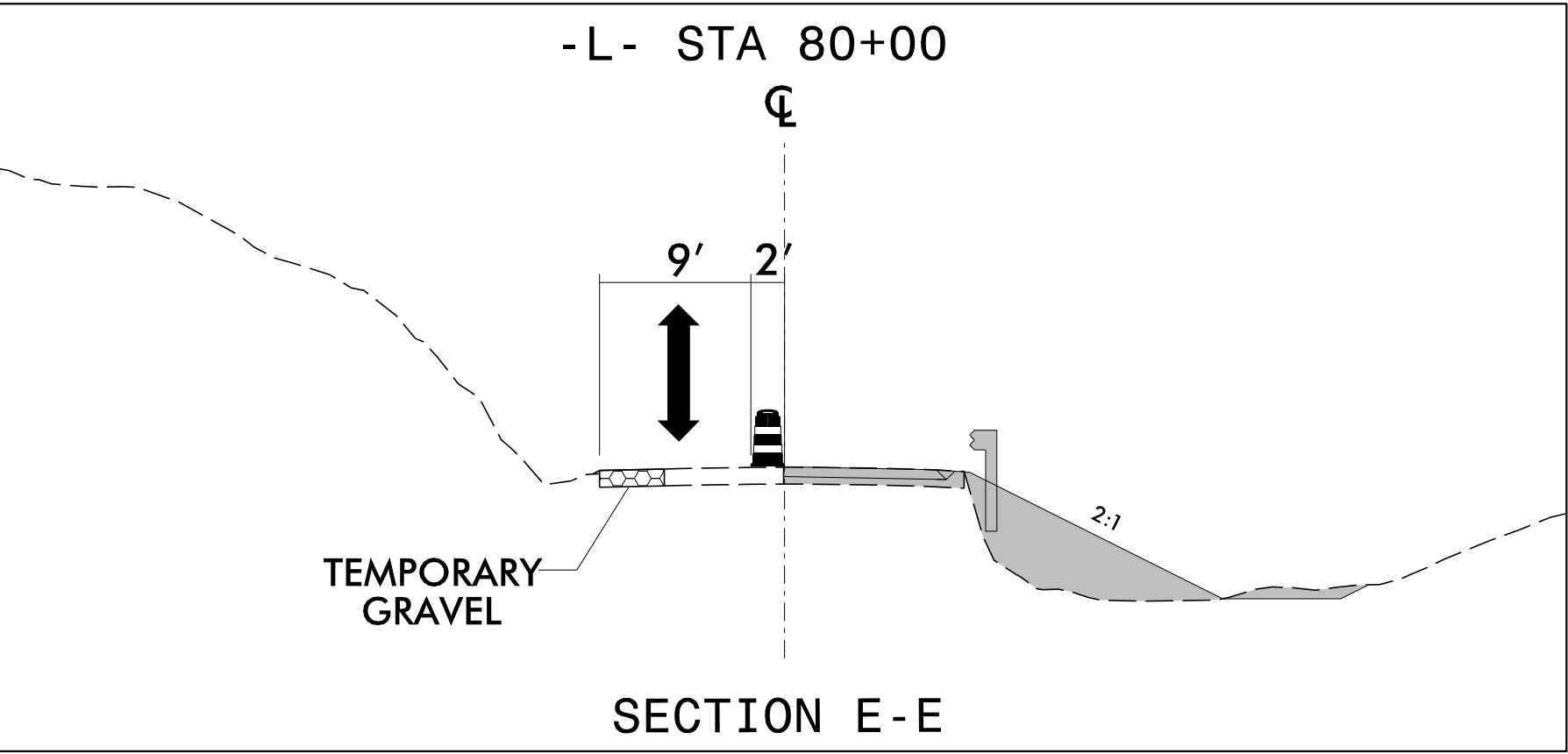
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SITE 6
PHASE I

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SITE 6
PHASE II

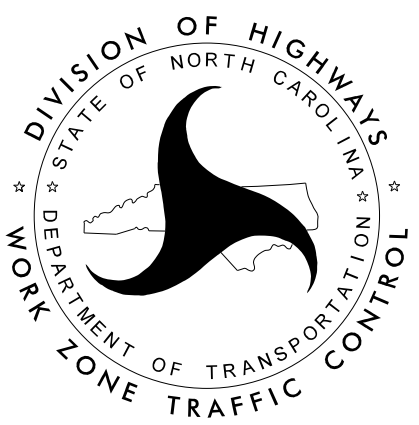
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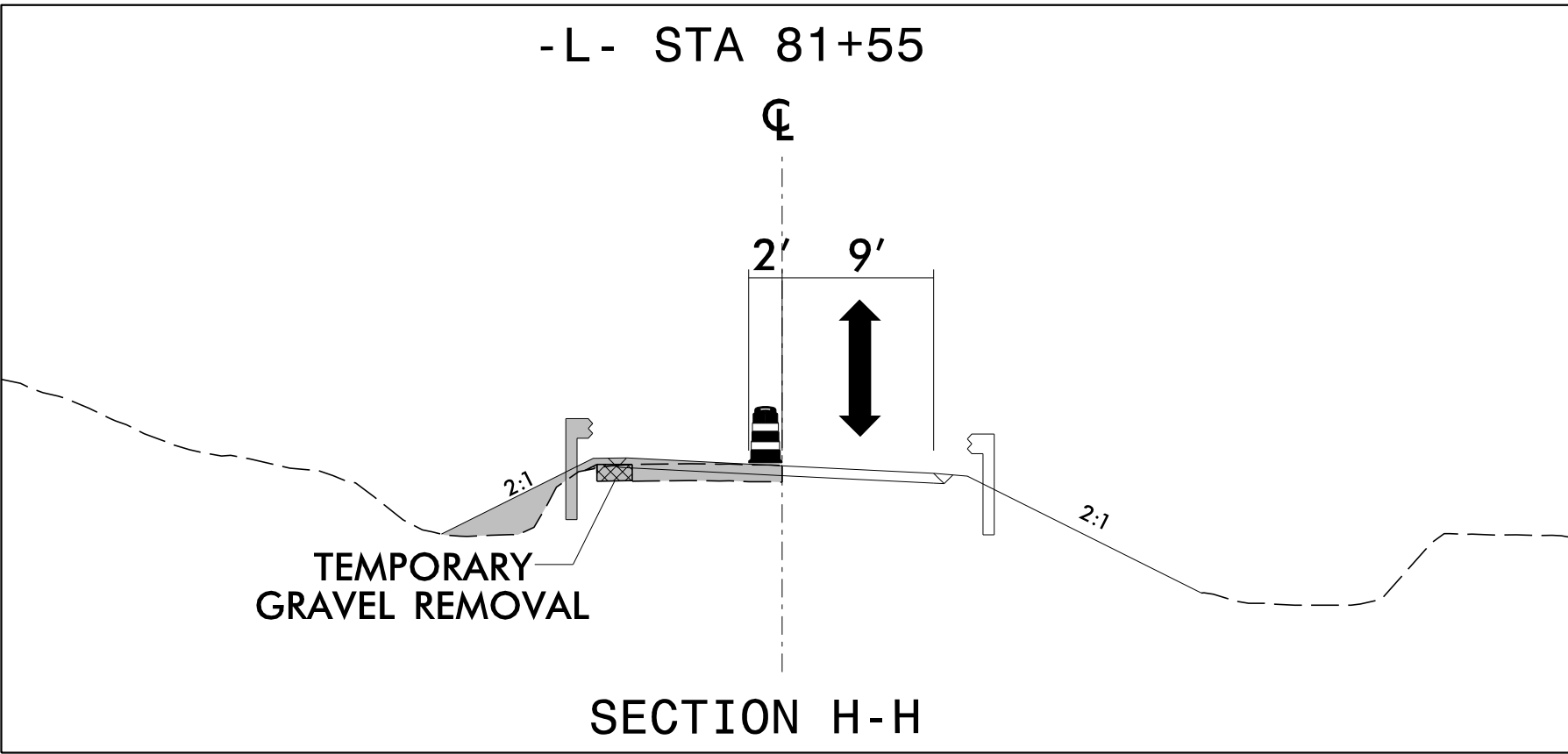
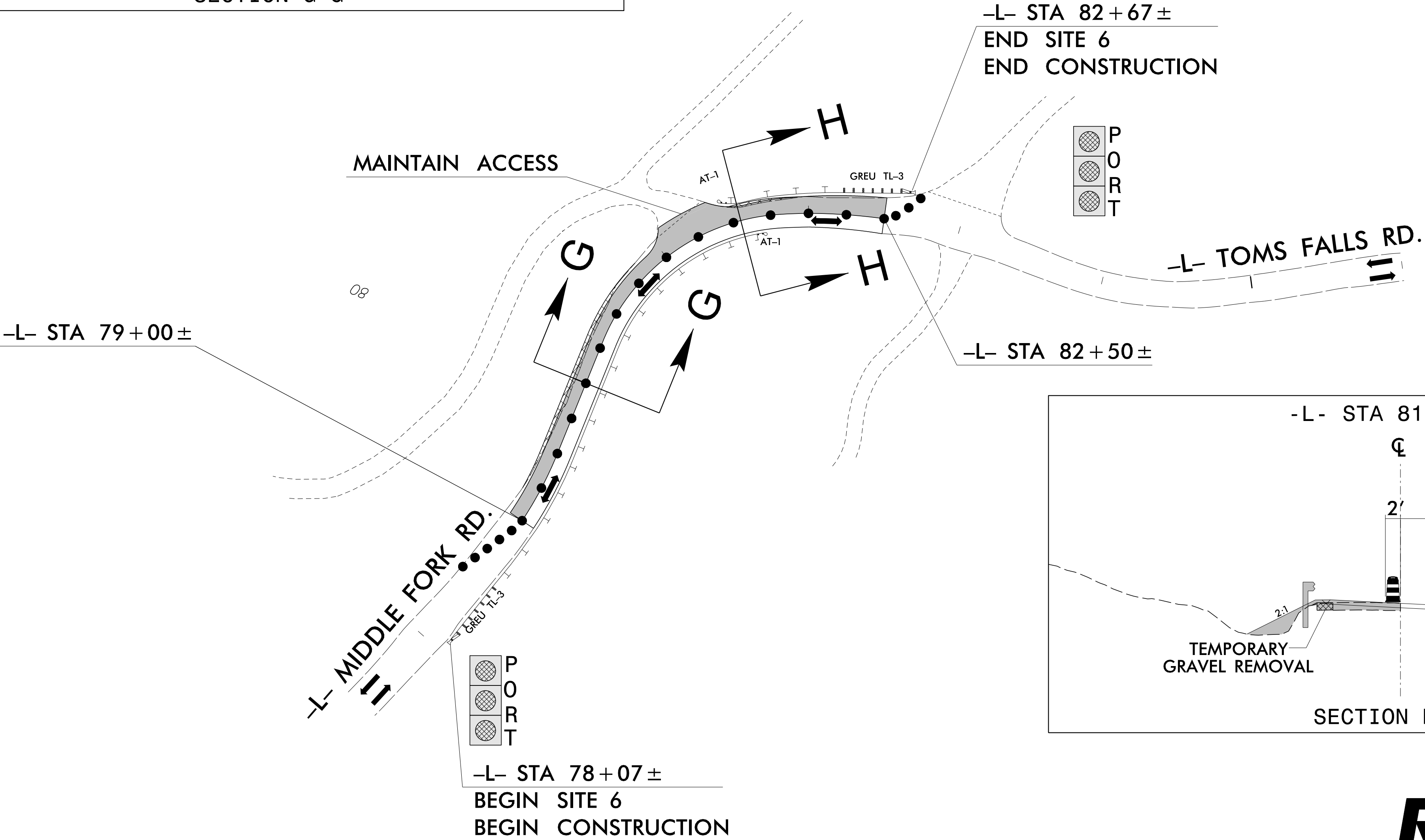
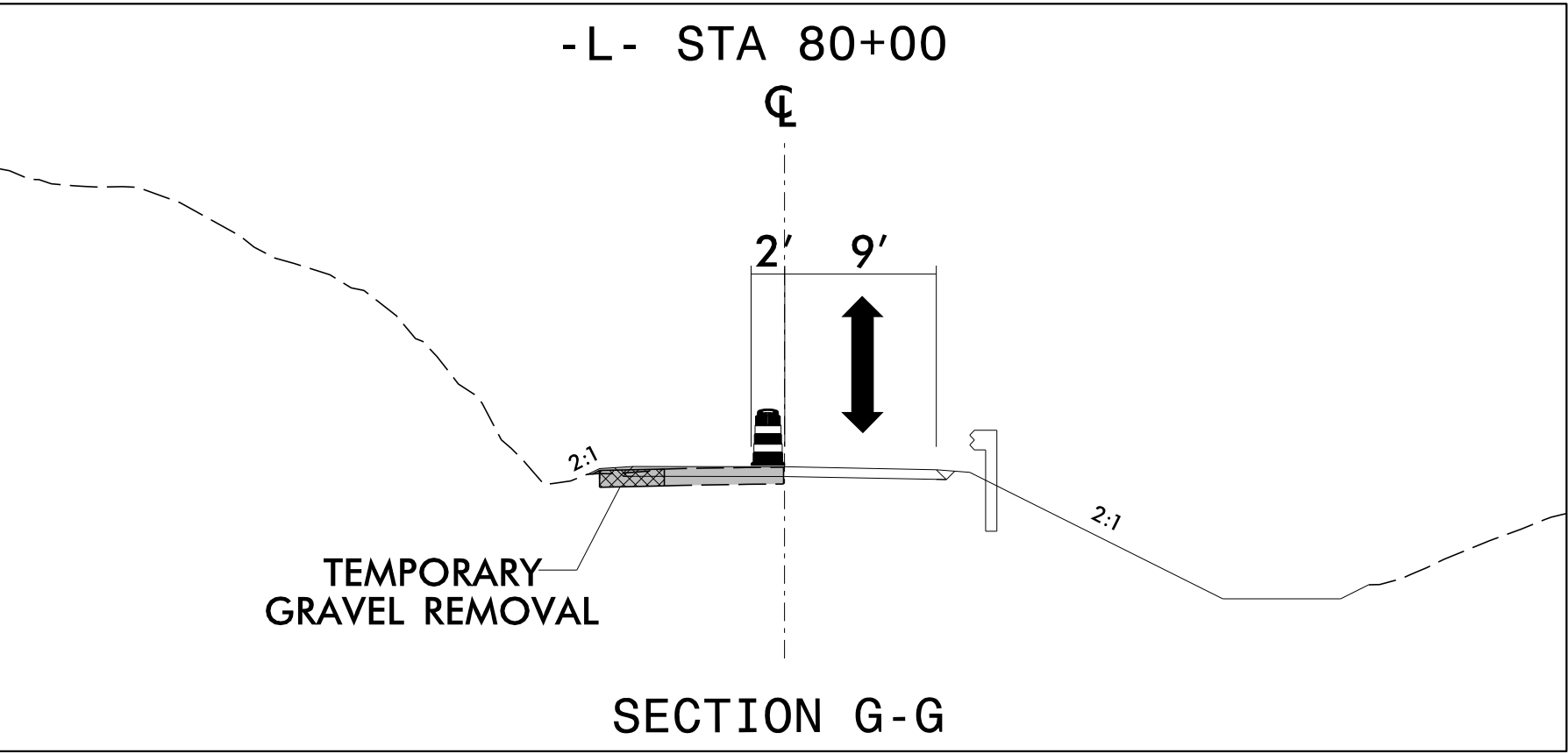
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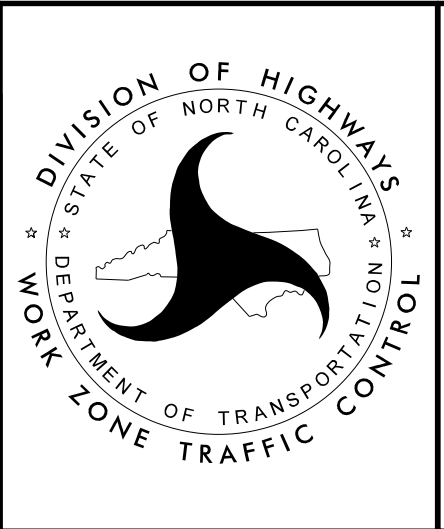


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DF18314.2045379	TMP - 8



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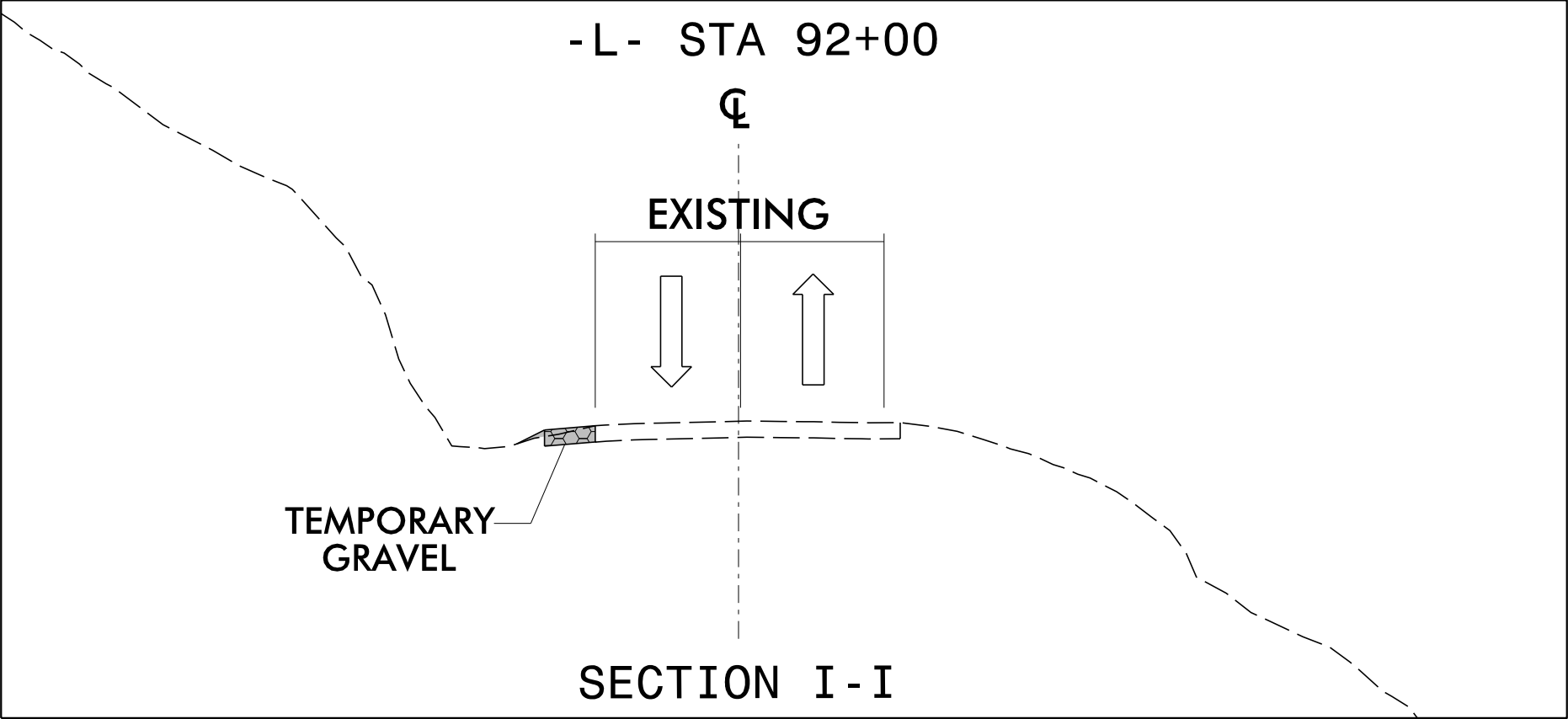
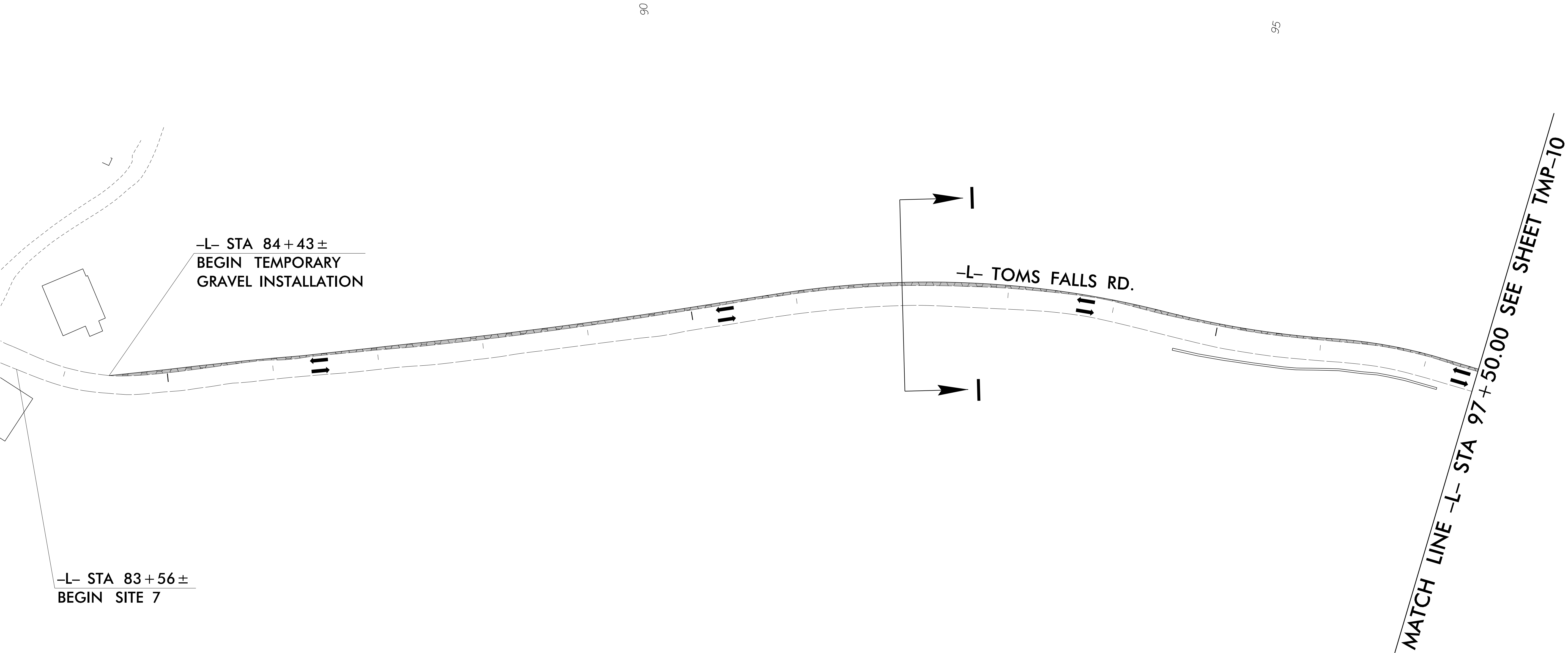
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SITE 6
PHASE III

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DF18314.2045417	TMP-9

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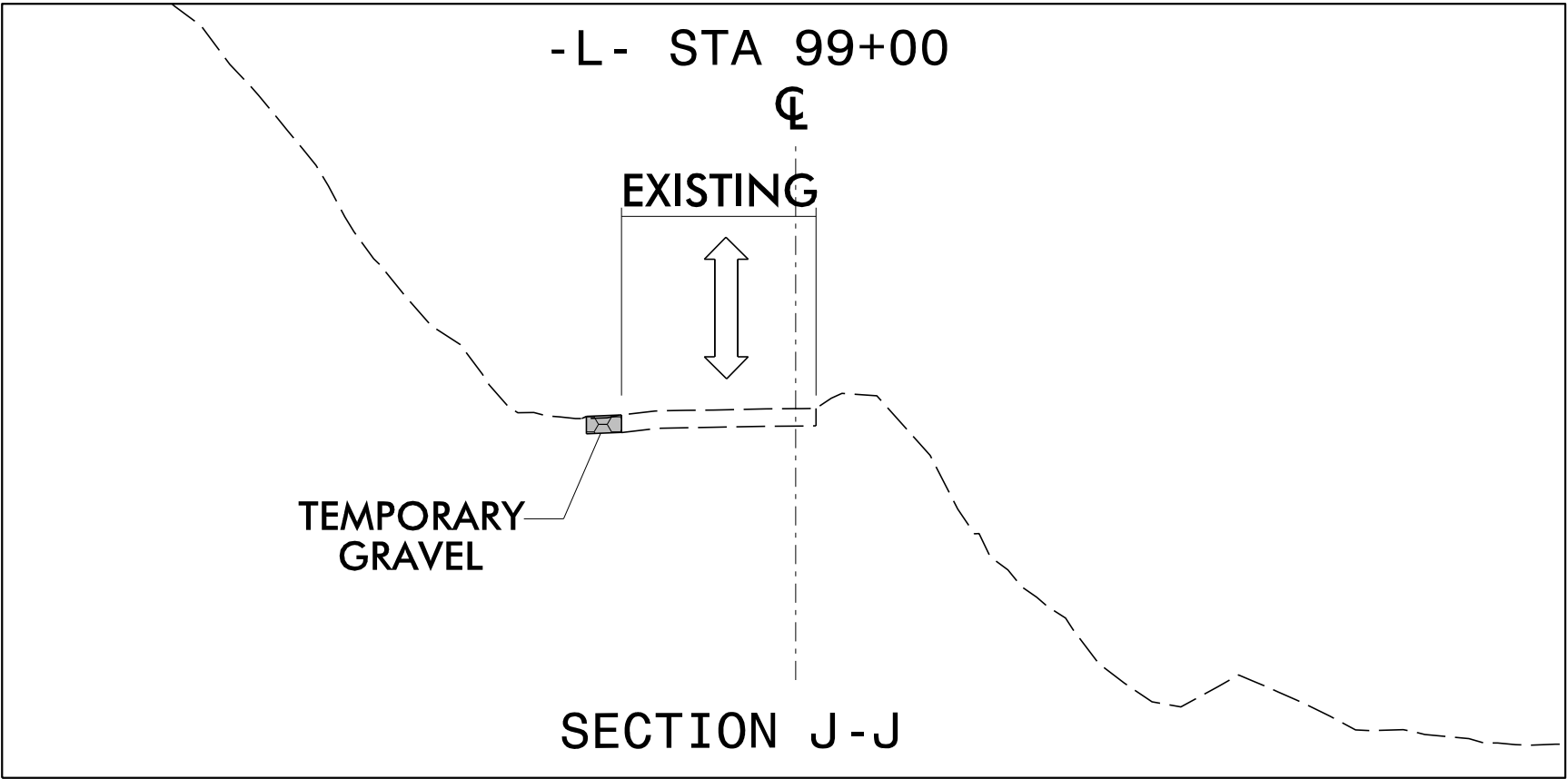
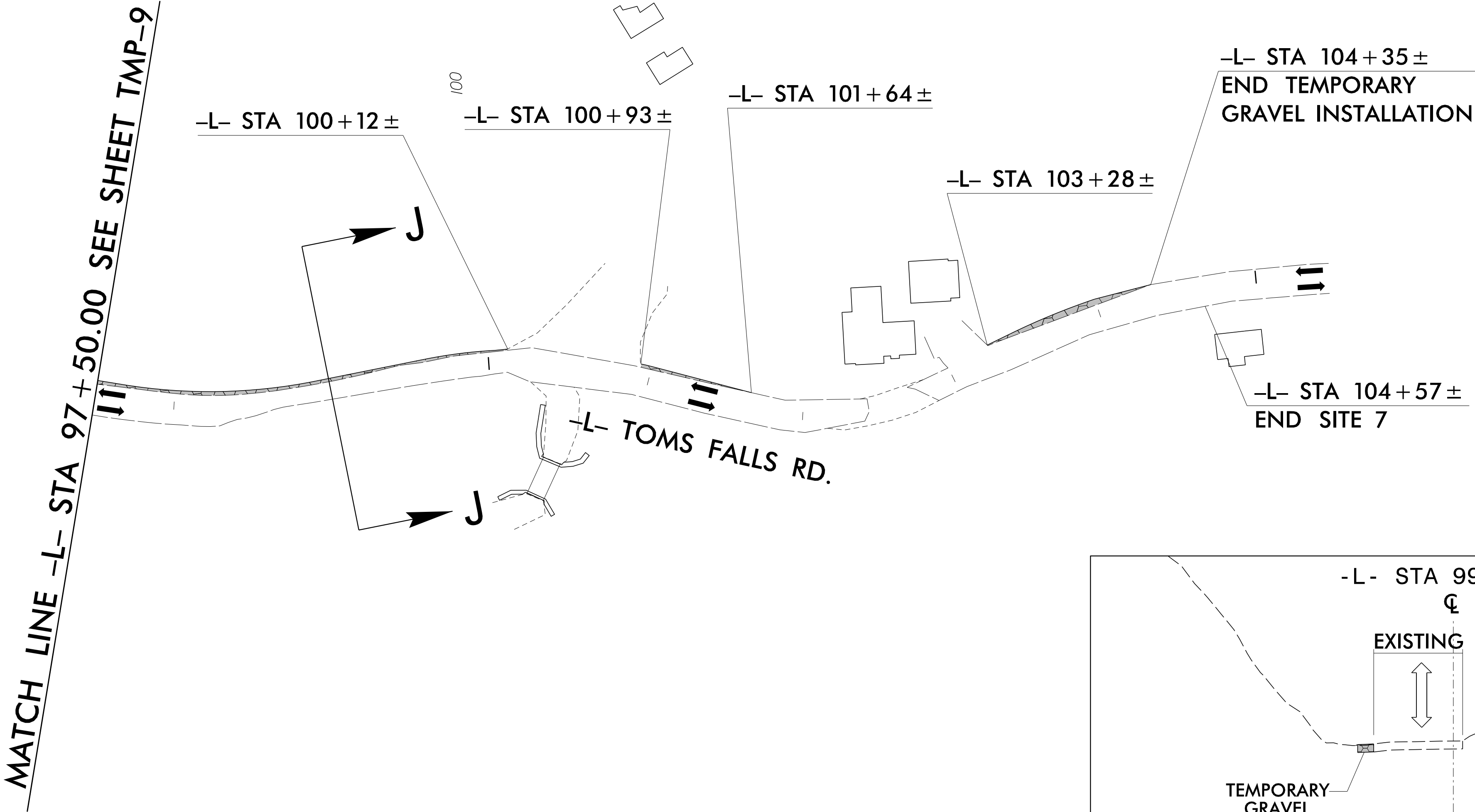
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SITE 7 PHASE I

PROJ. REFERENCE NO.	SHEET NO.
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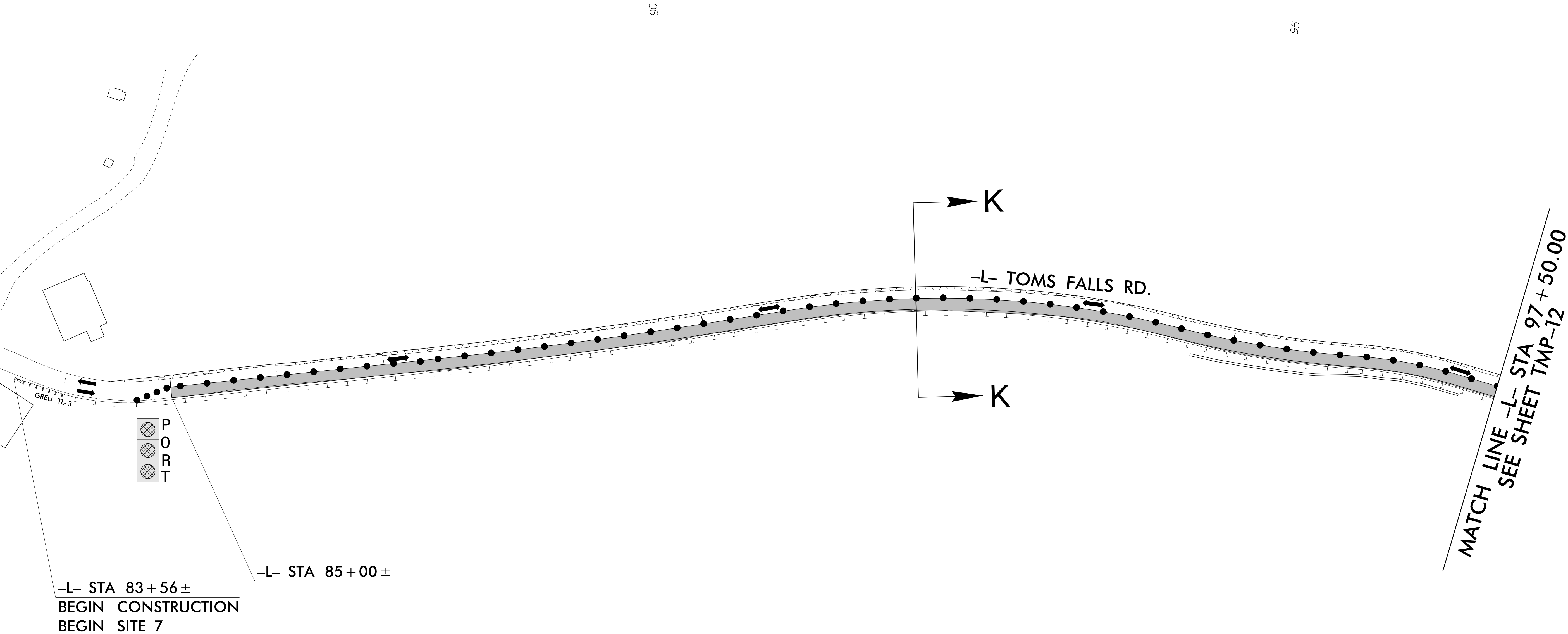
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SITE 7
PHASE I

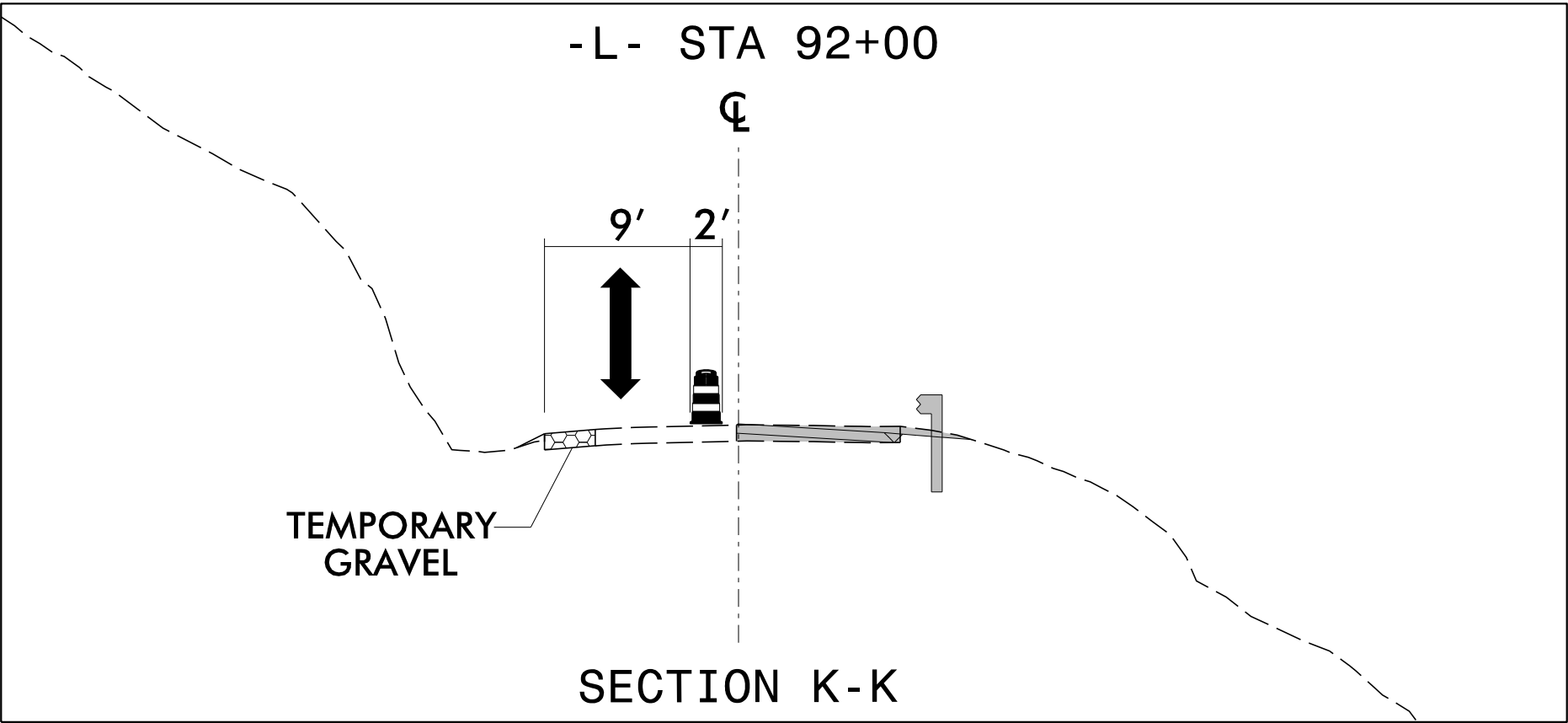
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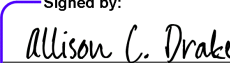


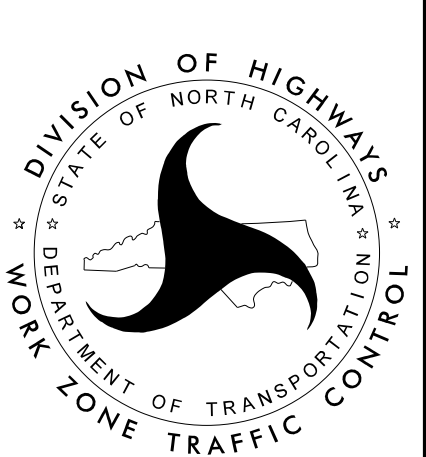
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BEGIN SITE 7

-L- STA 85+00±



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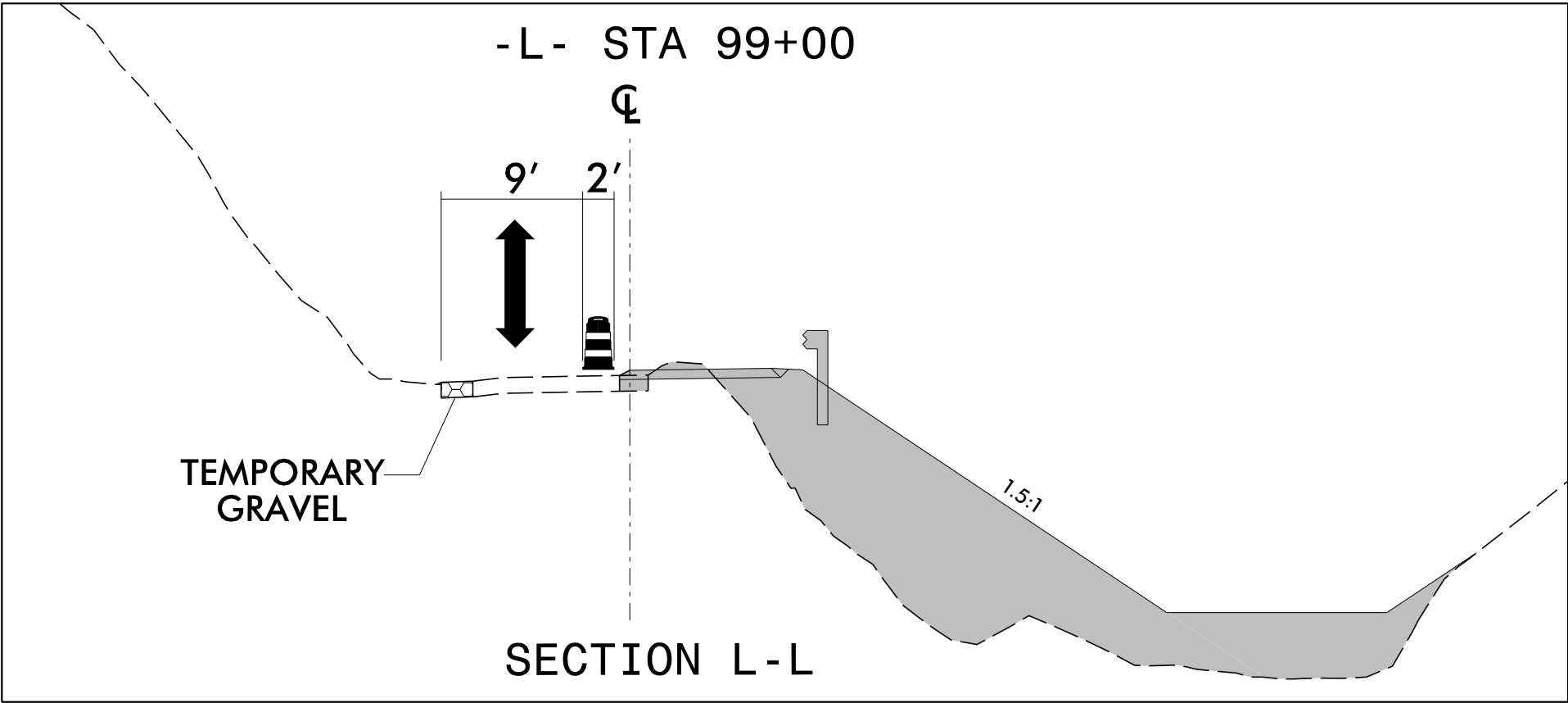
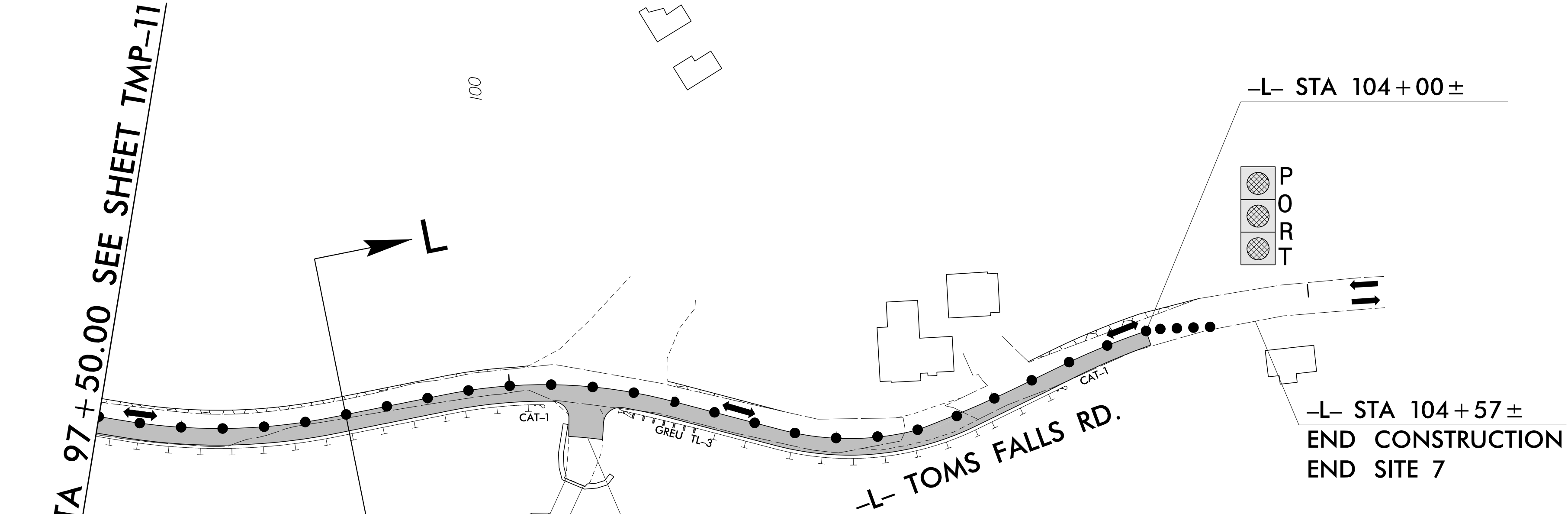
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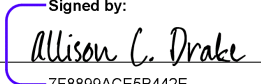
SITE 7
PHASE II

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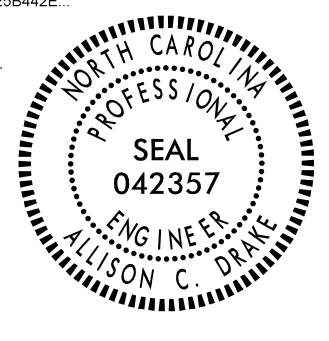
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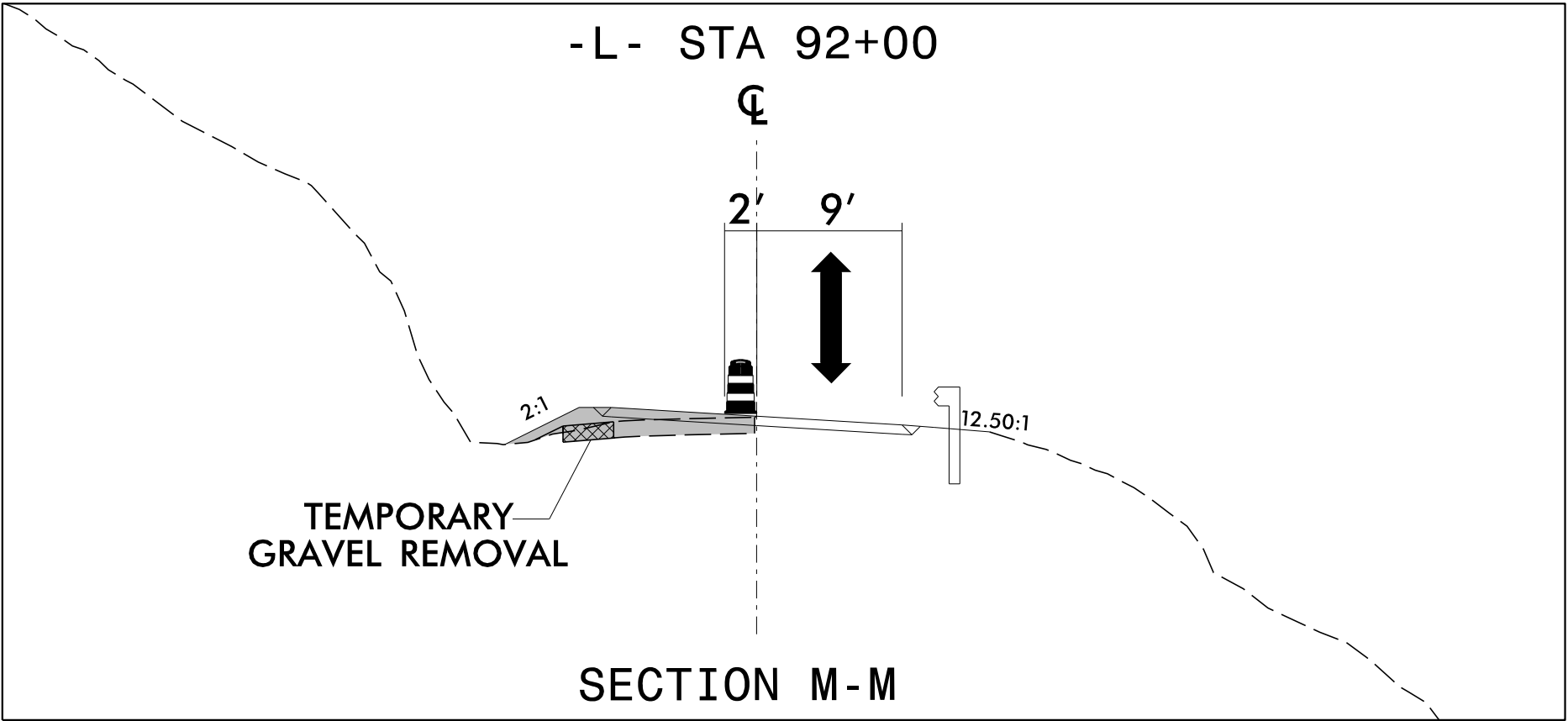
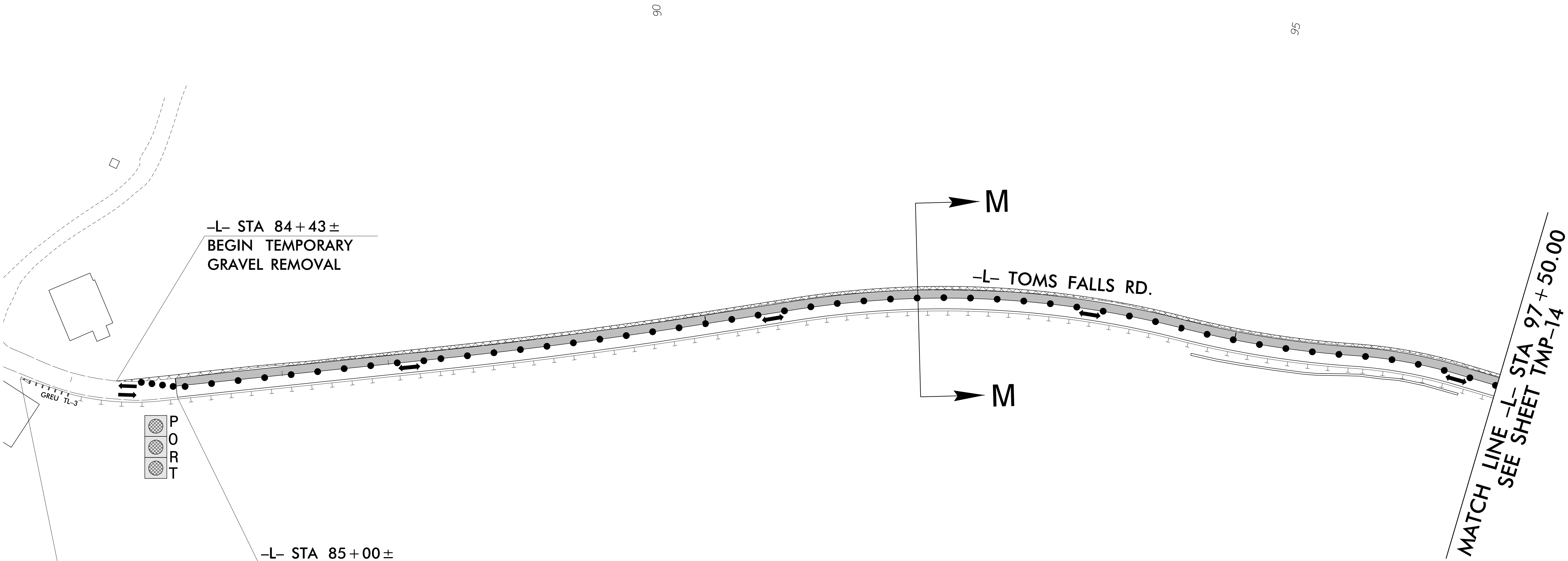
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SITE 7
PHASE II

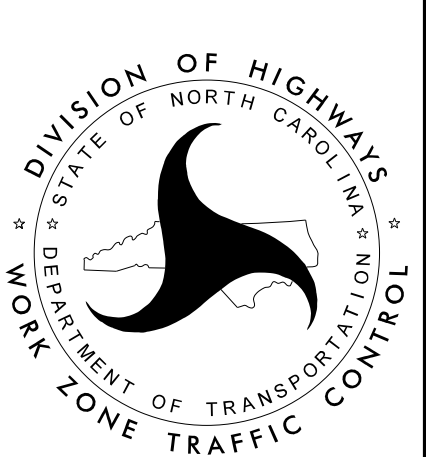
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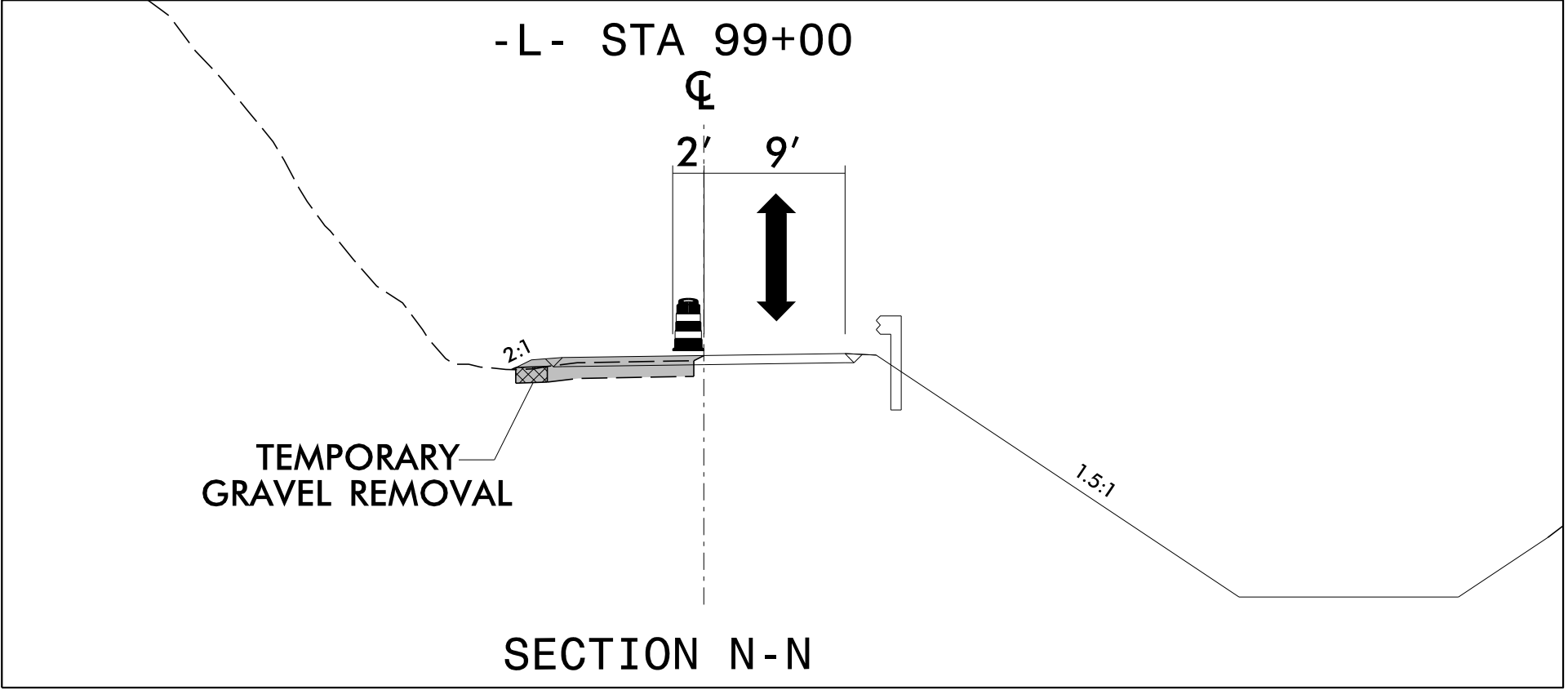
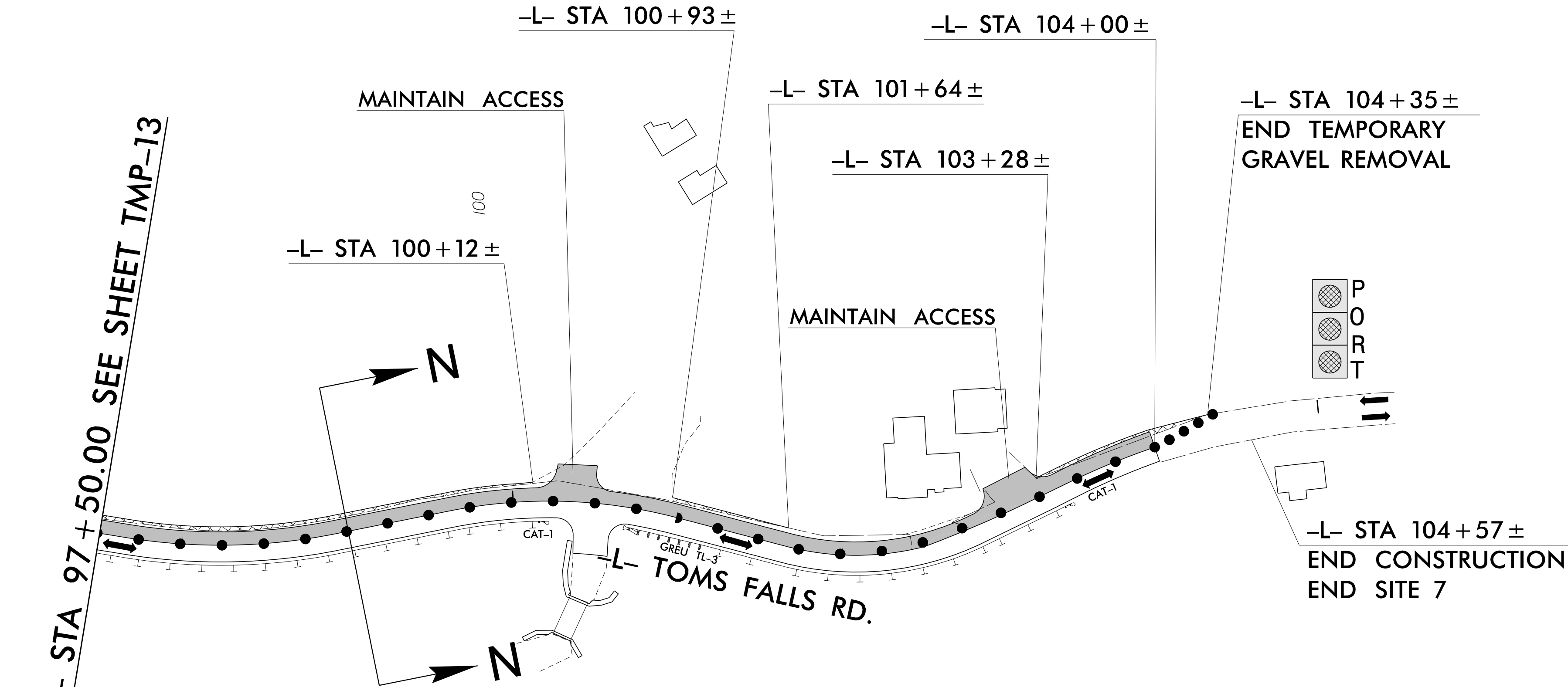


SITE 7
PHASE III

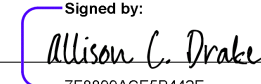
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DF18314.2045417	TMP - 14

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MATCH LINE -L- STA 97+50.00 SEE SHEET TMP-13



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SITE 7
PHASE III

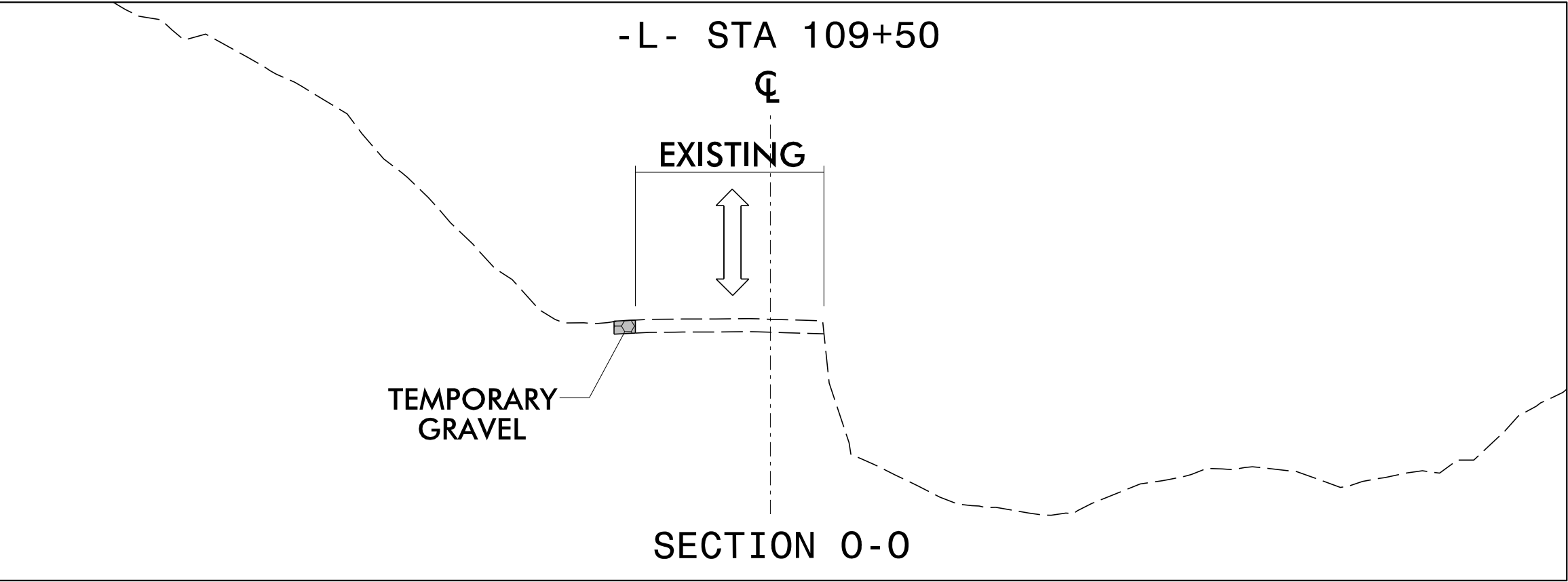
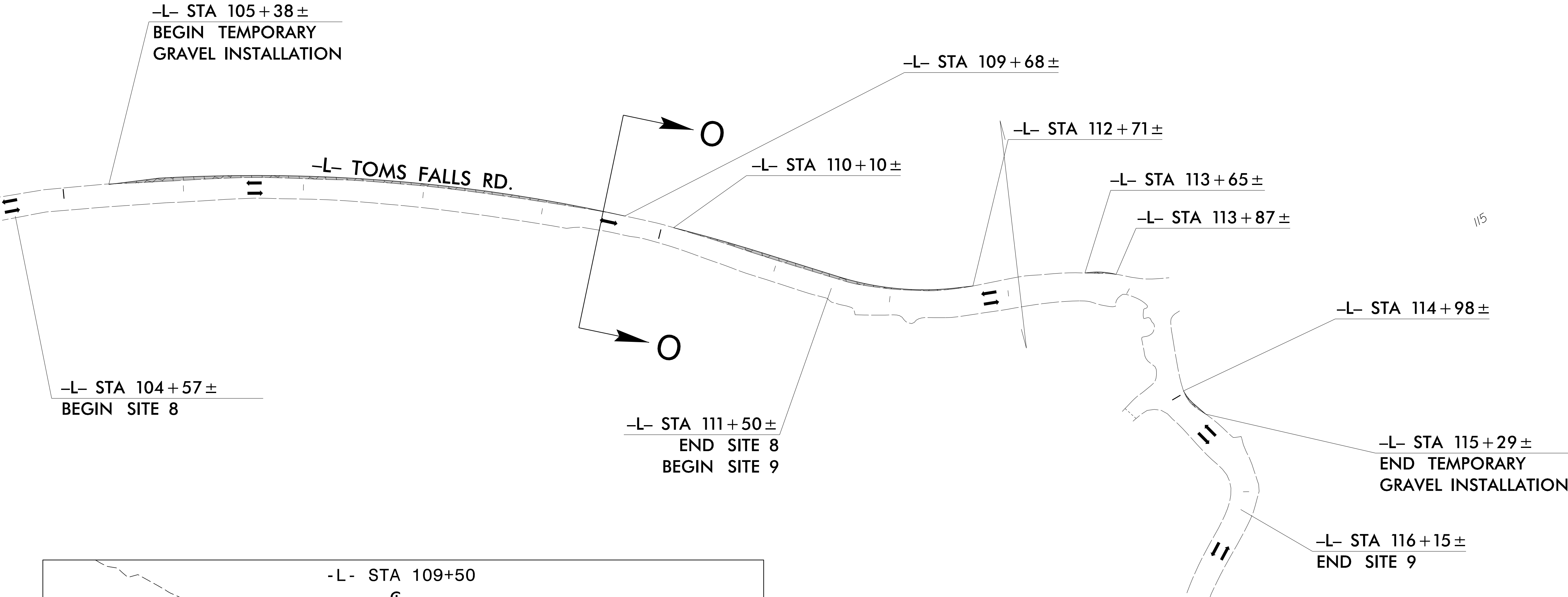
PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045378/ DF18314.2045377	TMP-15

NAD 83/NA 2011

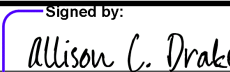
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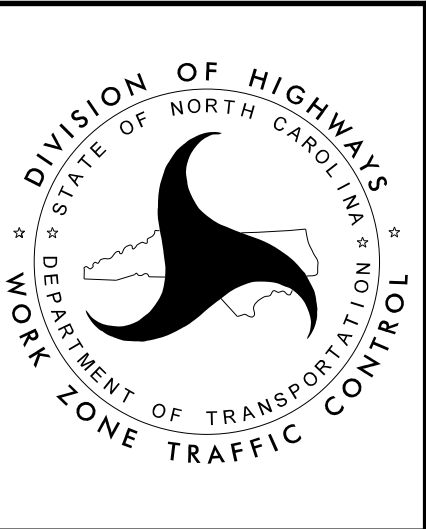
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

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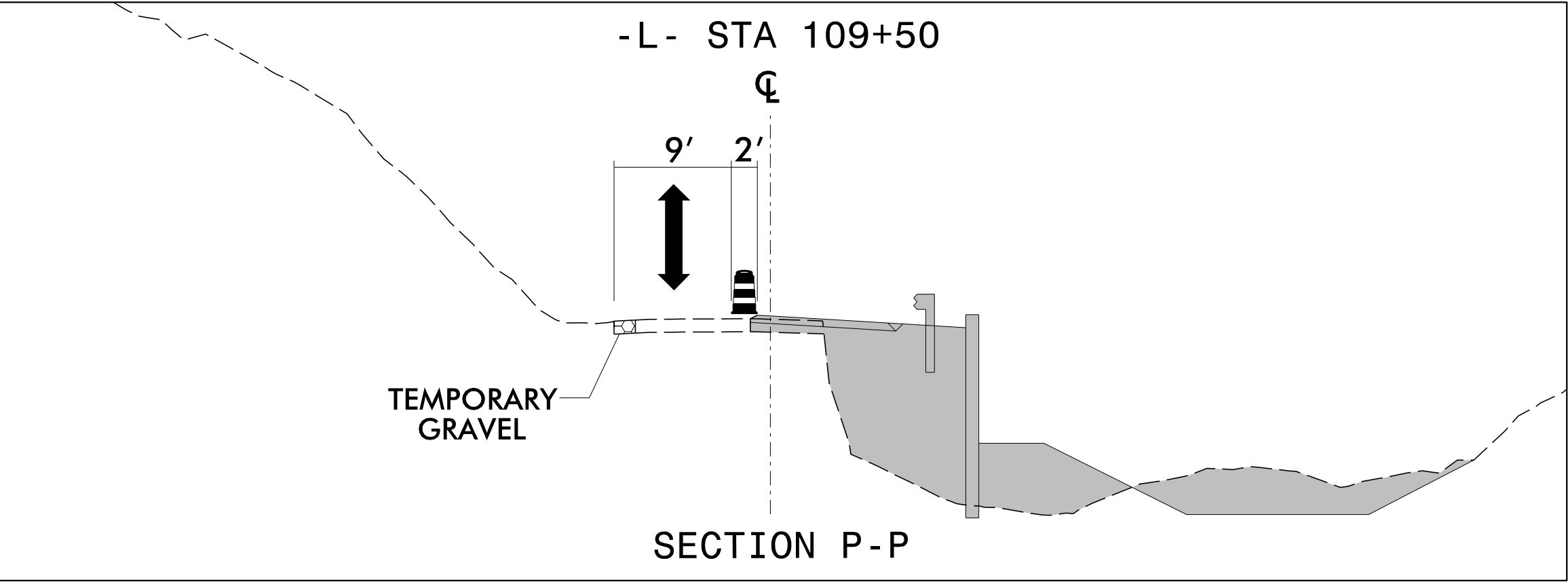
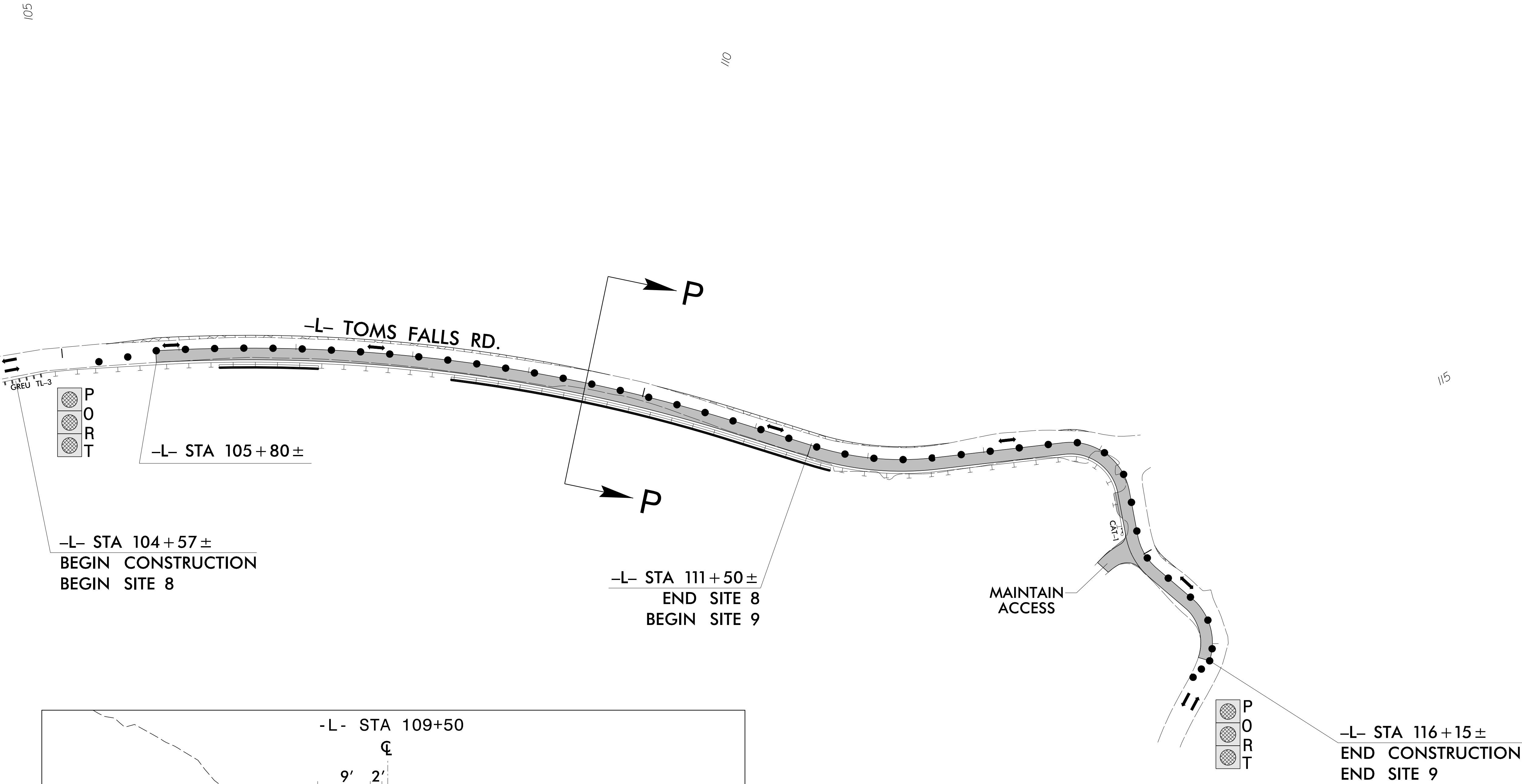
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SITES 8 & 9
PHASE I

PROJ. REFERENCE NO.	SHEET NO.
DF18314.2045378/ DF18314.2045377	TMP-16

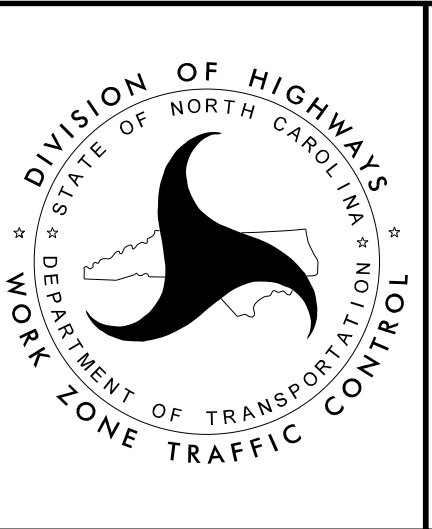
NAD 83/NA 2011



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SITES 8 & 9
PHASE II

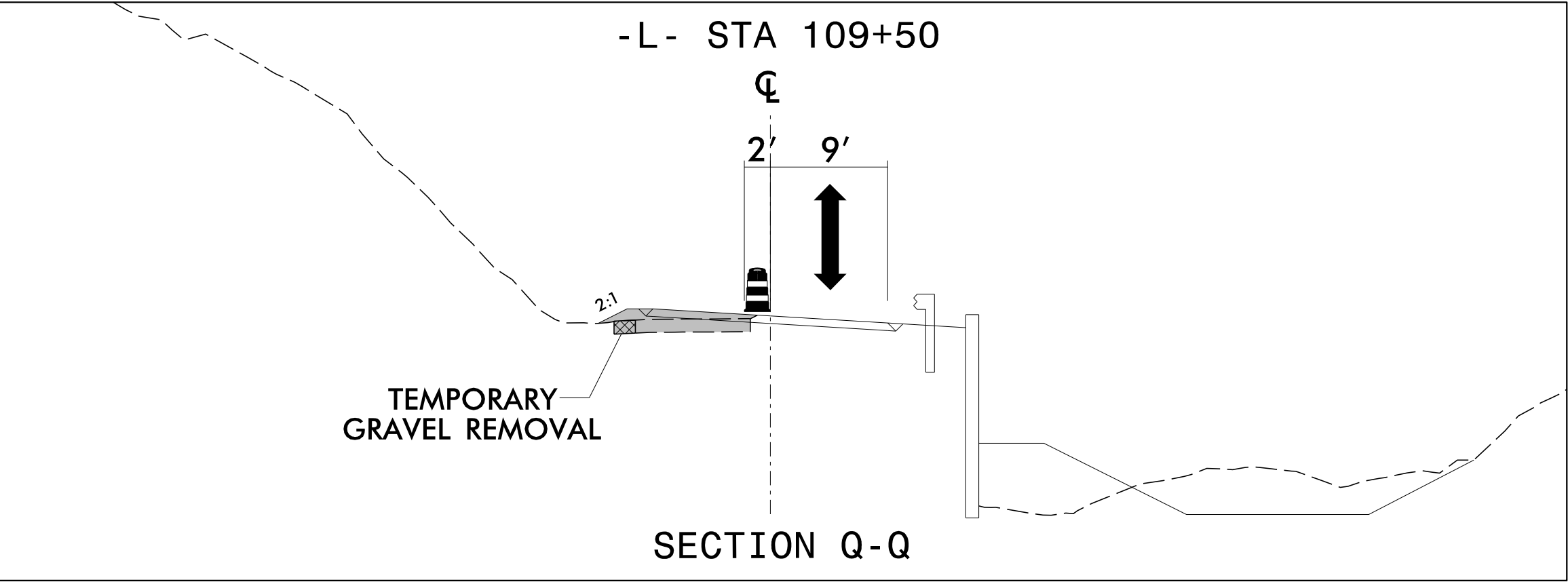
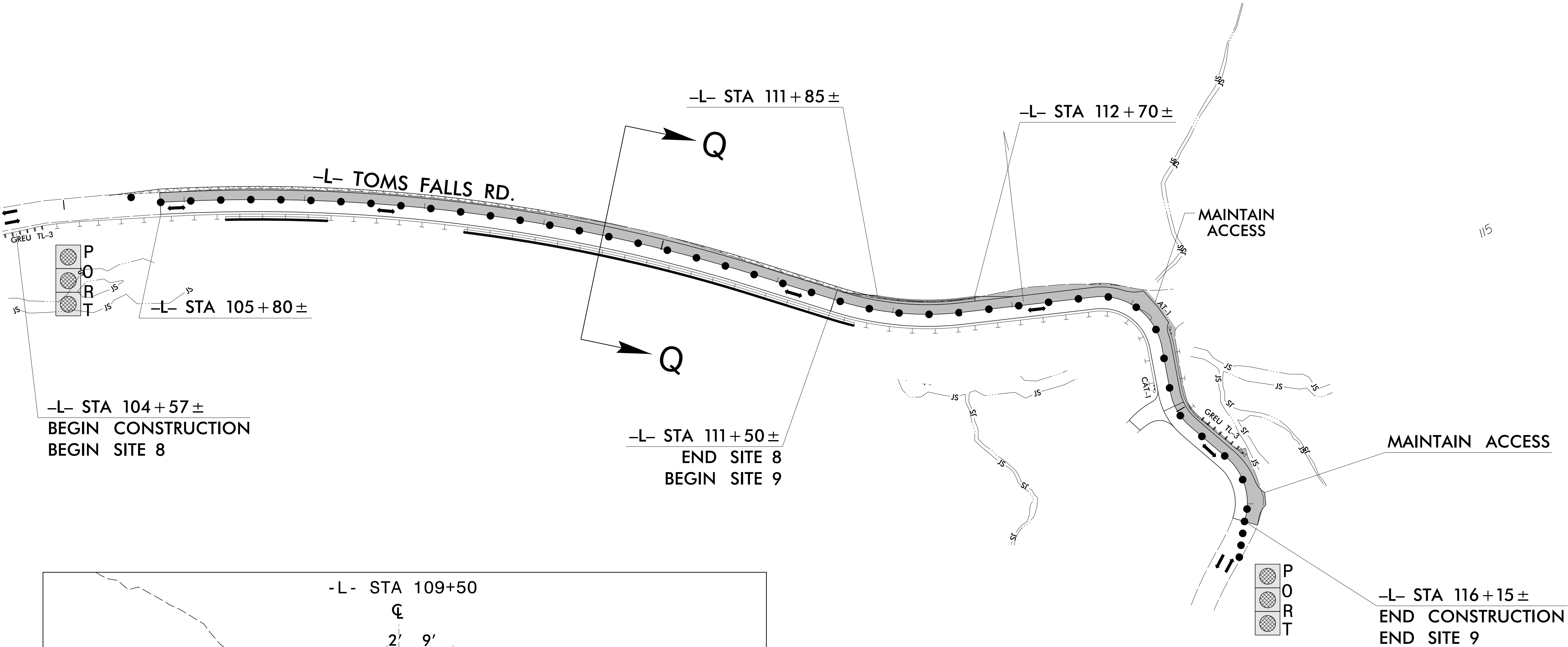
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DF18314.2045378/ DF18314.2045377	TMP-17

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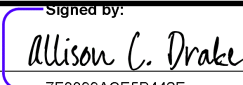
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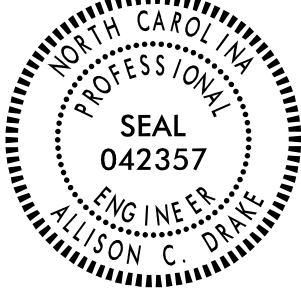
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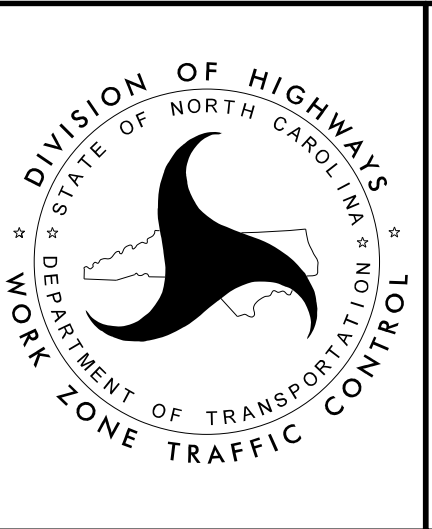
RS&H 1520 SOUTH BOULEVARD, SUITE 200
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NC FIRM LICENSE No: F-0493

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DATE: 6/11/2025

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SITES 8 & 9
PHASE III