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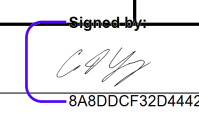


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TIP PROJECT: I-5964

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
GUILFORD COUNTY
DIVISION 7**

LOCATION: I-40I-85 BUS./SOUTH ELM-EUGENE INTERCHANGE IMPROVEMENTS

TIP NO. I-5964	SHEET NO. PMP-1
APPROVED: 	
DATE: 10/30/2025 7:17:00 AM EDT	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 <small>Johnson, Mirmiran, & Thompson, Inc. 4700 Falls of Neuse Rd, Suite 100, Raleigh, NC, 27609 License No: C-3097</small>	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR 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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE 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
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS

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:

ROAD NAME	MARKING	MARKER
ELM-EUGENE & RAMPS	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 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.

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE
PMP-2	PAVEMENT MARKING DETAIL

FINAL PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
THERMOPLASTIC	
T2	WHITE SOLID LANE LINE (4", 90 MIL)
T3	10 FT. WHITE SKIP (4", 90 MIL)
T4	3 FT. - 9 FT./SP WHITE MINISKIP (4", 90 MIL)
T10	YELLOW EDGELINE (4", 90 MIL)
T13	YELLOW DOUBLE CENTER (4", 90 MIL)
T42	YELLOW DIAGONAL (8", 90 MIL)
T44	3 FT. - 9 FT./SP WHITE MINISKIP (8", 90 MIL)
T46	WHITE CROSSWALK LINE (8", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
THERMOPLASTIC SYMBOL	
T70	LEFT TURN ARROW  (90 MIL)
T71	RIGHT TURN ARROW  (90 MIL)
T74	COMBO.STRAIGHT/RIGHT  (90 MIL)
T80	RAMP ARROW SYMBOL  (90 MIL)
T100	ALPHANUMERIC CHARACTER (90 MIL)

PLAN PREPARED BY: Johnson, Mirmiran, & Thompson, INC.

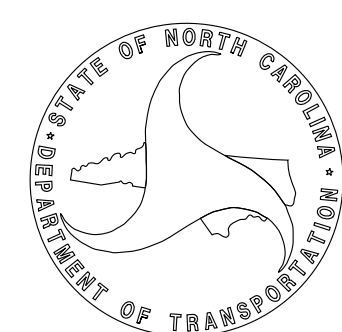
CHARLES YOUNG, PE, PMP	PROJECT ENGINEER
DANE FREDDE	PROJECT DESIGN ENGINEER

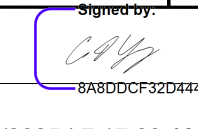




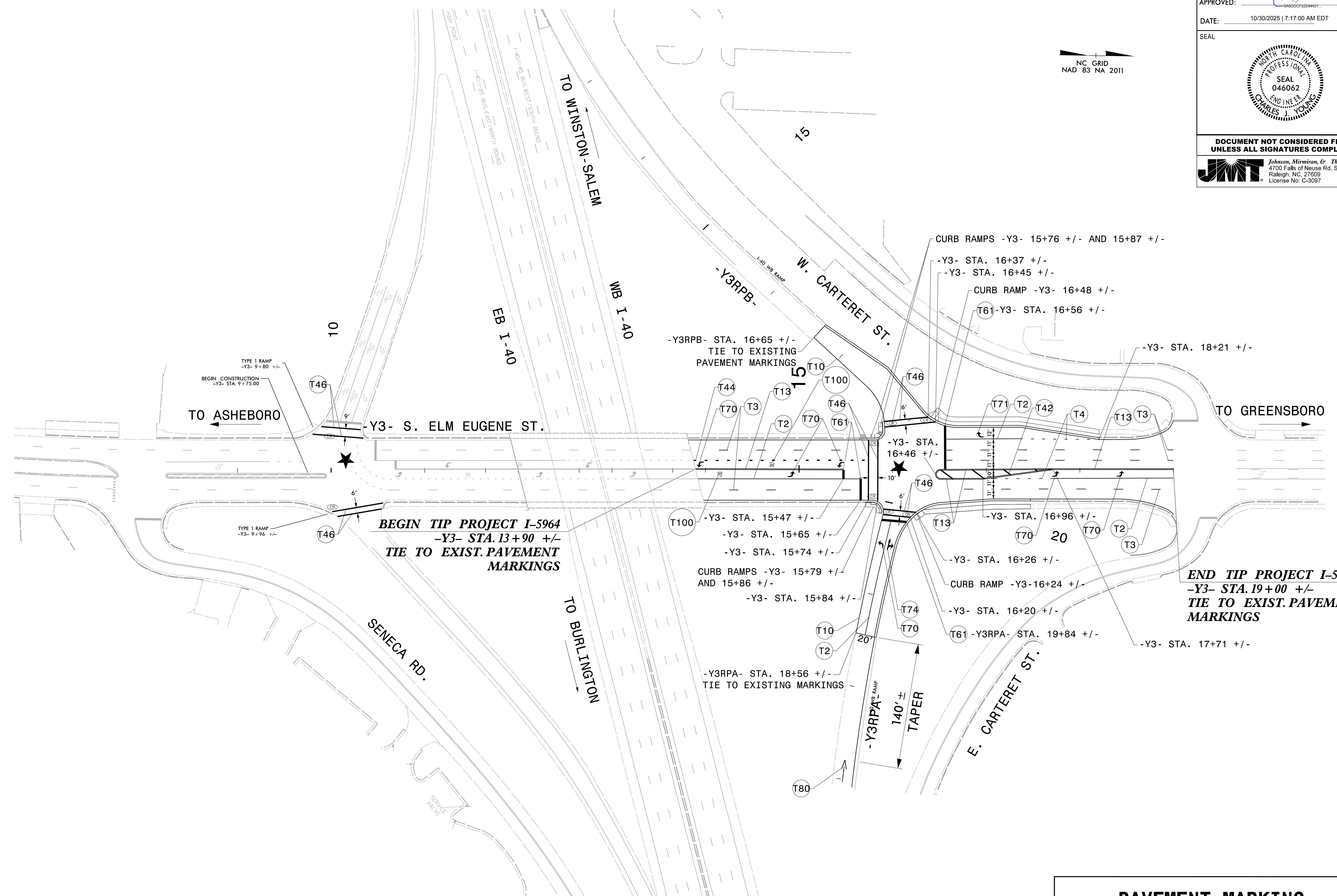
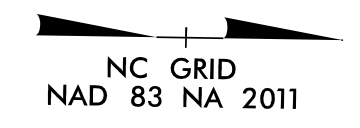
Prepared in the Office of:
JOHNSON, MIRMIAN, & THOMPSON, INC.
4700 Falls of Neuse Road, Suite 100,
Raleigh, NC, 27609
License No: C-3097

PLANS REVIEWED BY: N.C.D.O.T SIGNING AND DELINEATION UNIT

JOSEPH E. HUMMER, PE SIGNING & DELINEATION PROJECT ENGINEER



TIP NO. I-5964	SHEET NO. PMP-2
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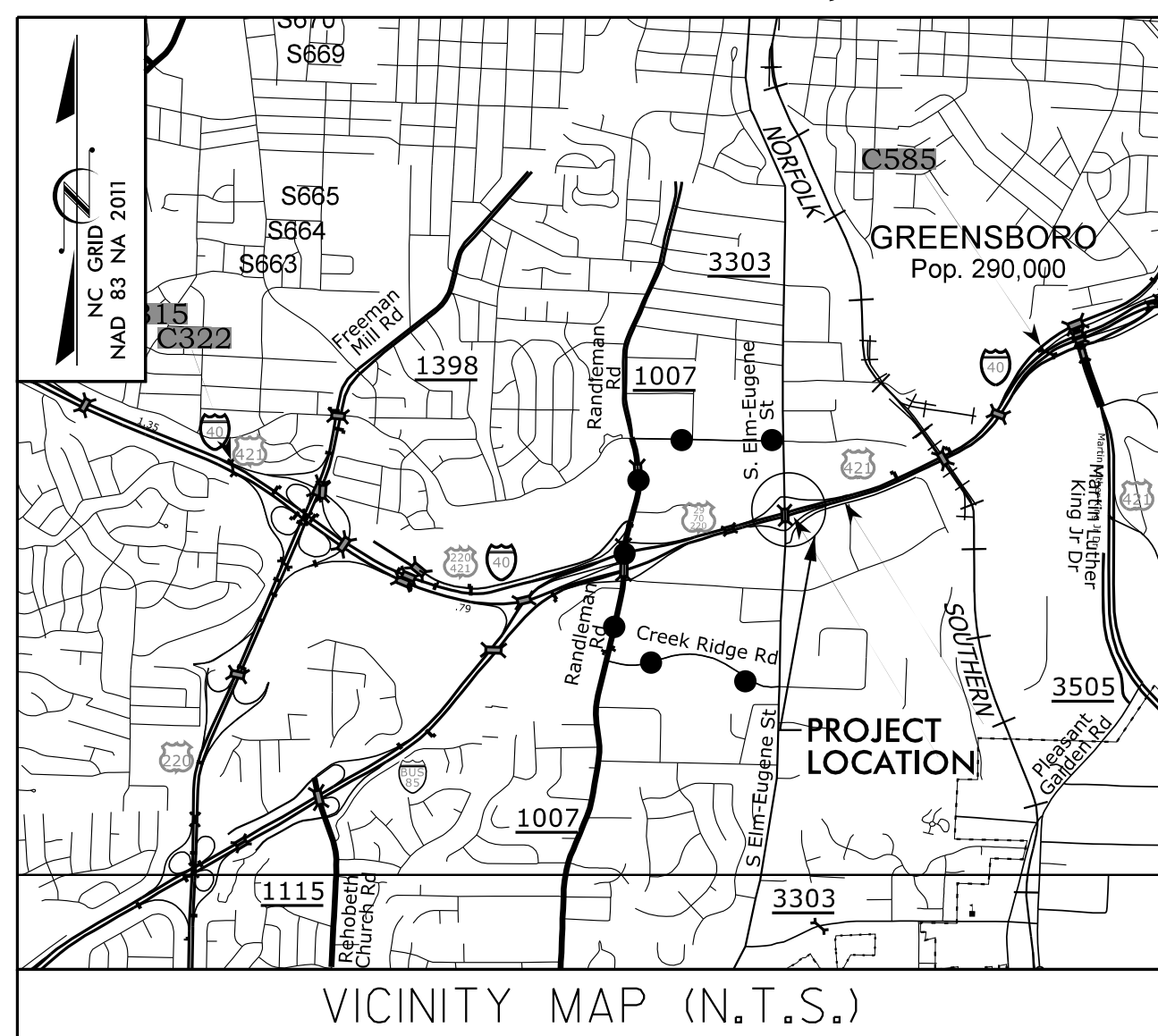
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**PAVEMENT MARKING
DETAIL**

TIP PROJECT: I-5964

CONTRACT: DG00491

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

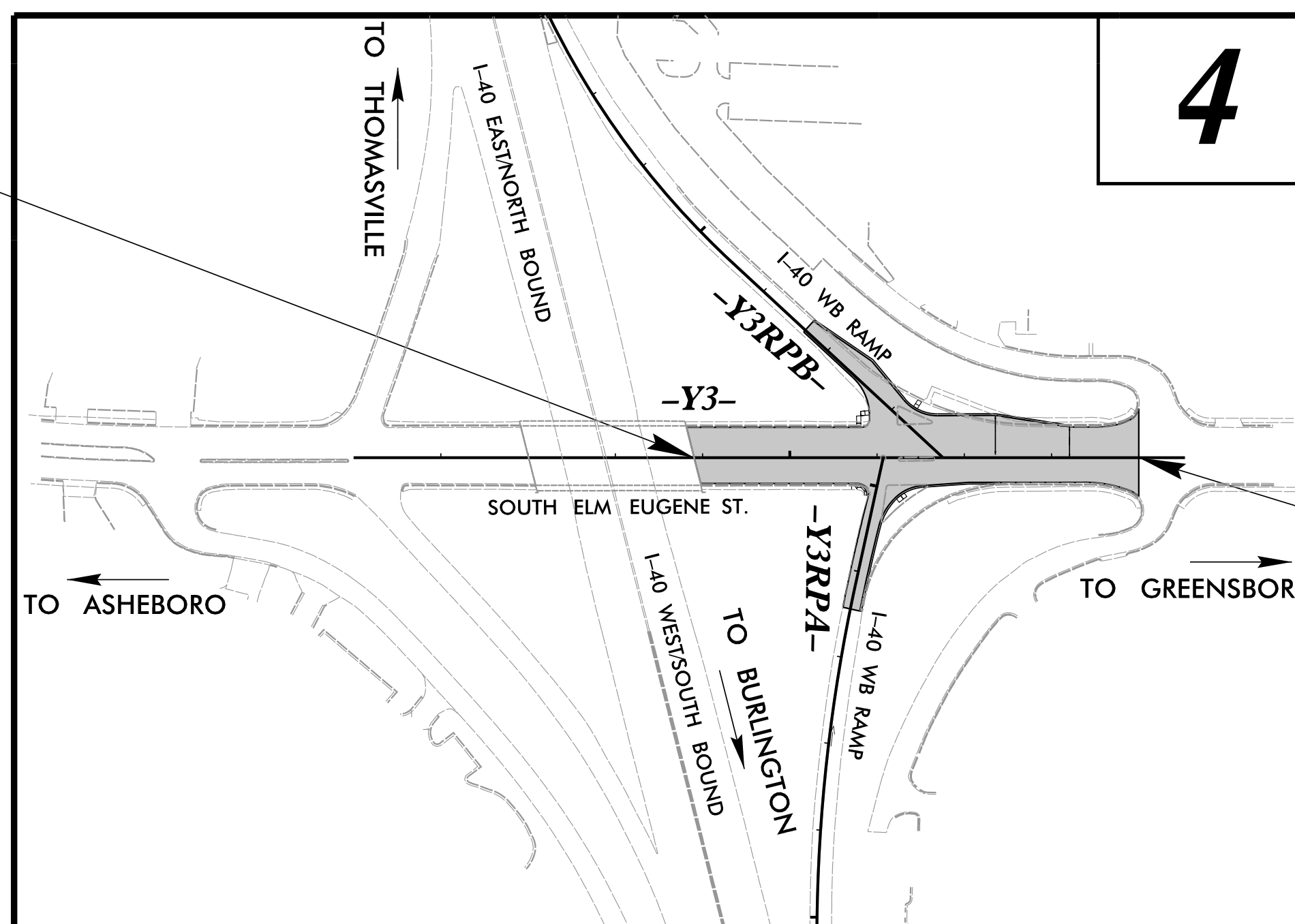


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
GUILFORD COUNTY

LOCATION: I-40 /I-85 BUS. SOUTH ELM-EUGENE INTERCHANGE IMPROVEMENTS
 TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5964	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45914.1.1	N/A	P.E.	
45914.2.1	N/A	R/W & UTILITIES	
45914.3.2	0040109	CONST.	

BEGIN TIP PROJECT I-5964
 -Y3- STA. 13 + 90.40



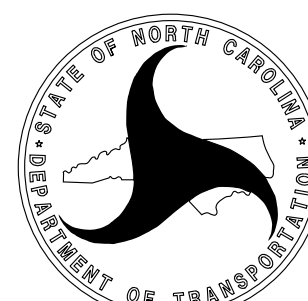
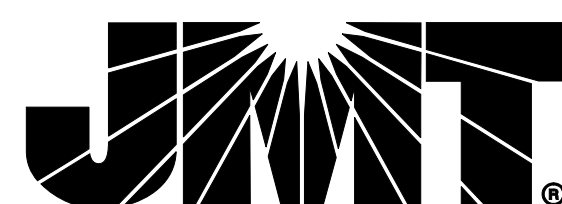
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 -Y3- STA. 19 + 00.00

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:
JOHNSON, MIRMIRAN, & THOMPSON
 4700 Falls of Nuese Rd., Suite 100,
 Raleigh, NC 26907

2024 STANDARD SPECIFICATIONS

Designed by:

OLIVIA SMITH
 NAME

4687
 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

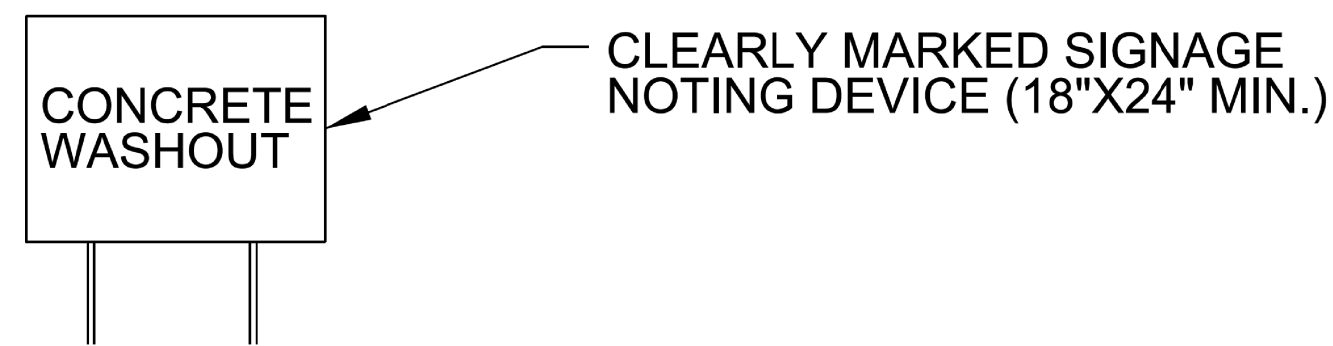
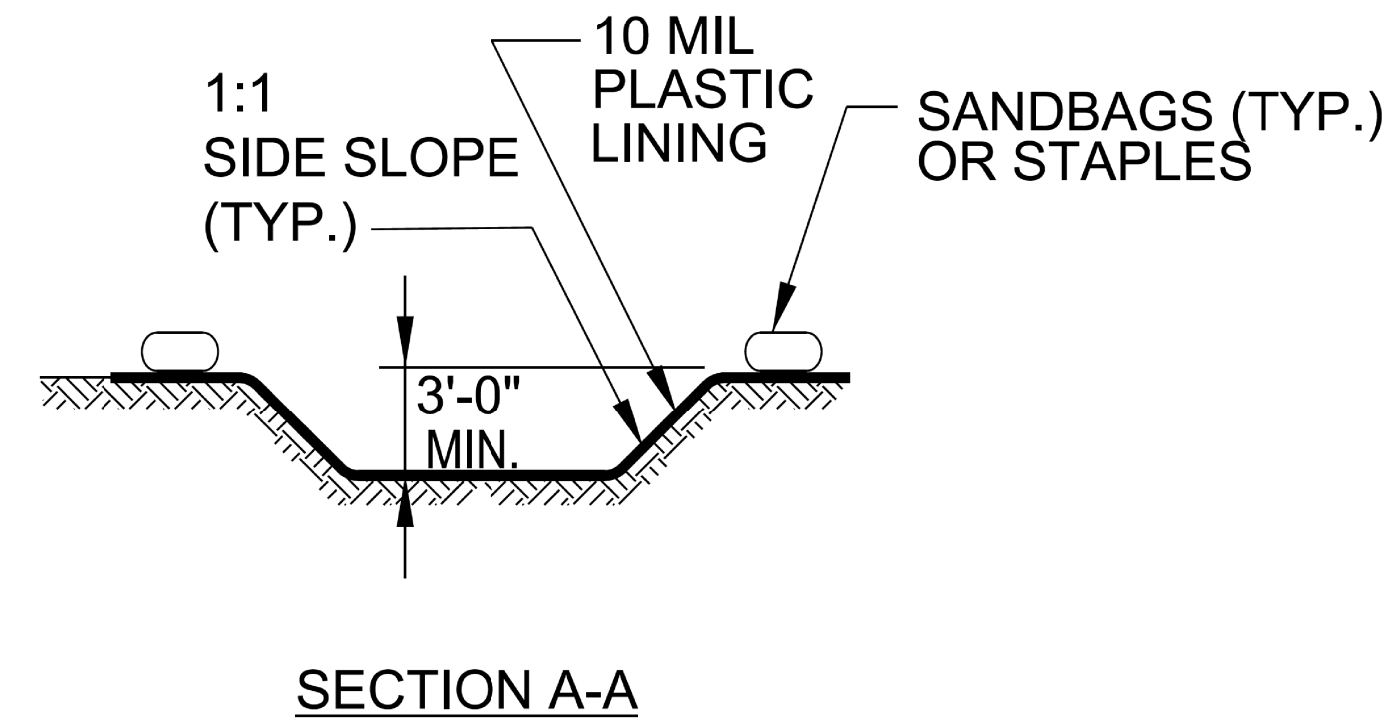
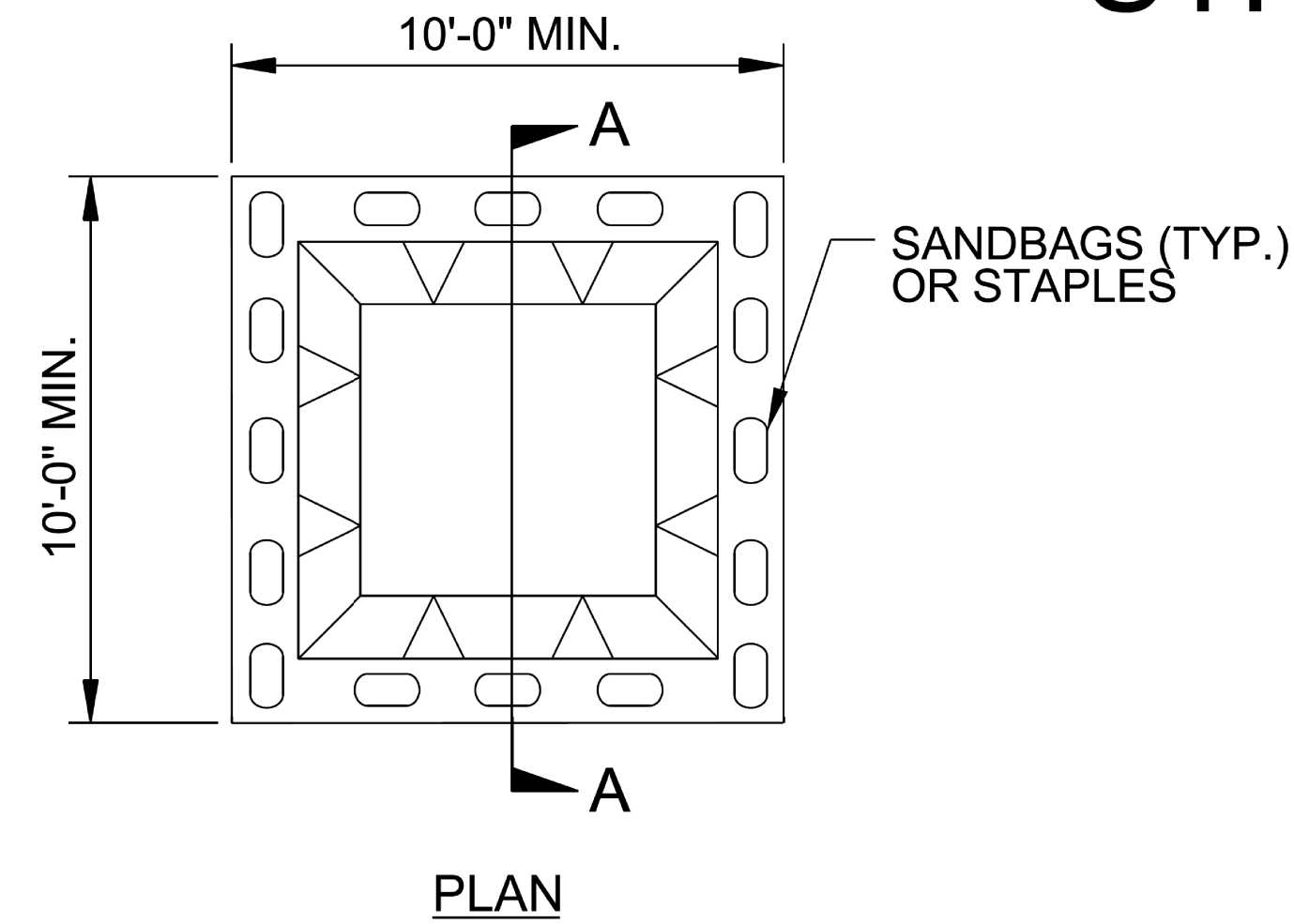
PROJECT REFERENCE NO. I-5964	SHEET NO. EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.02	Silt Fence Excelsior Wattle Break	
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

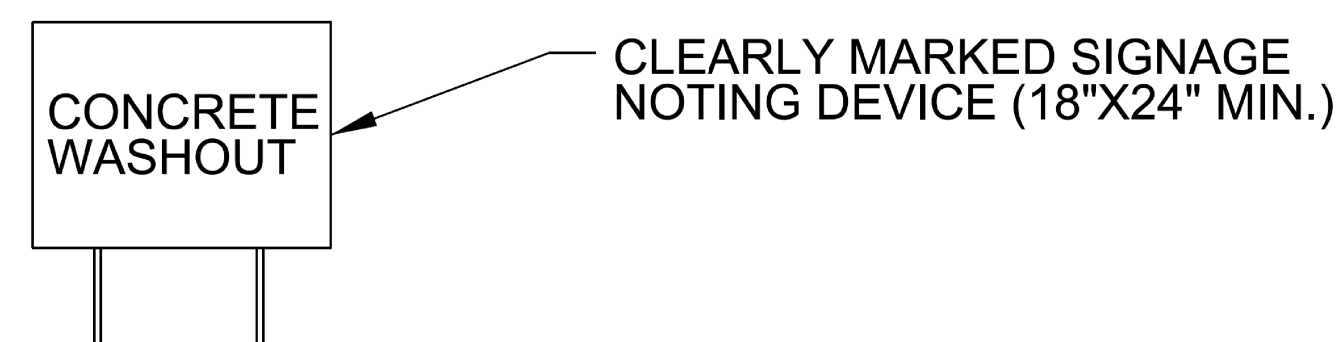
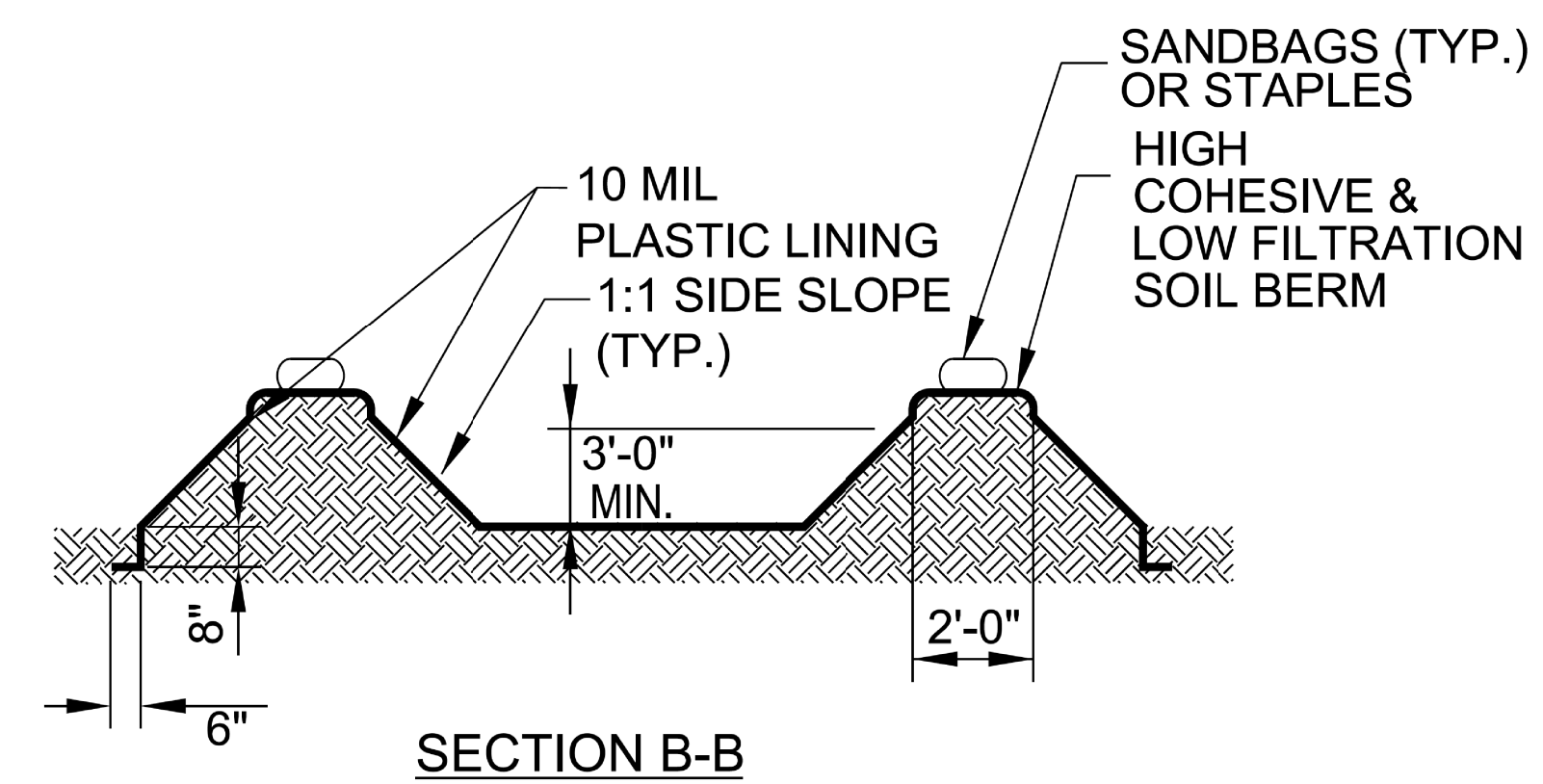
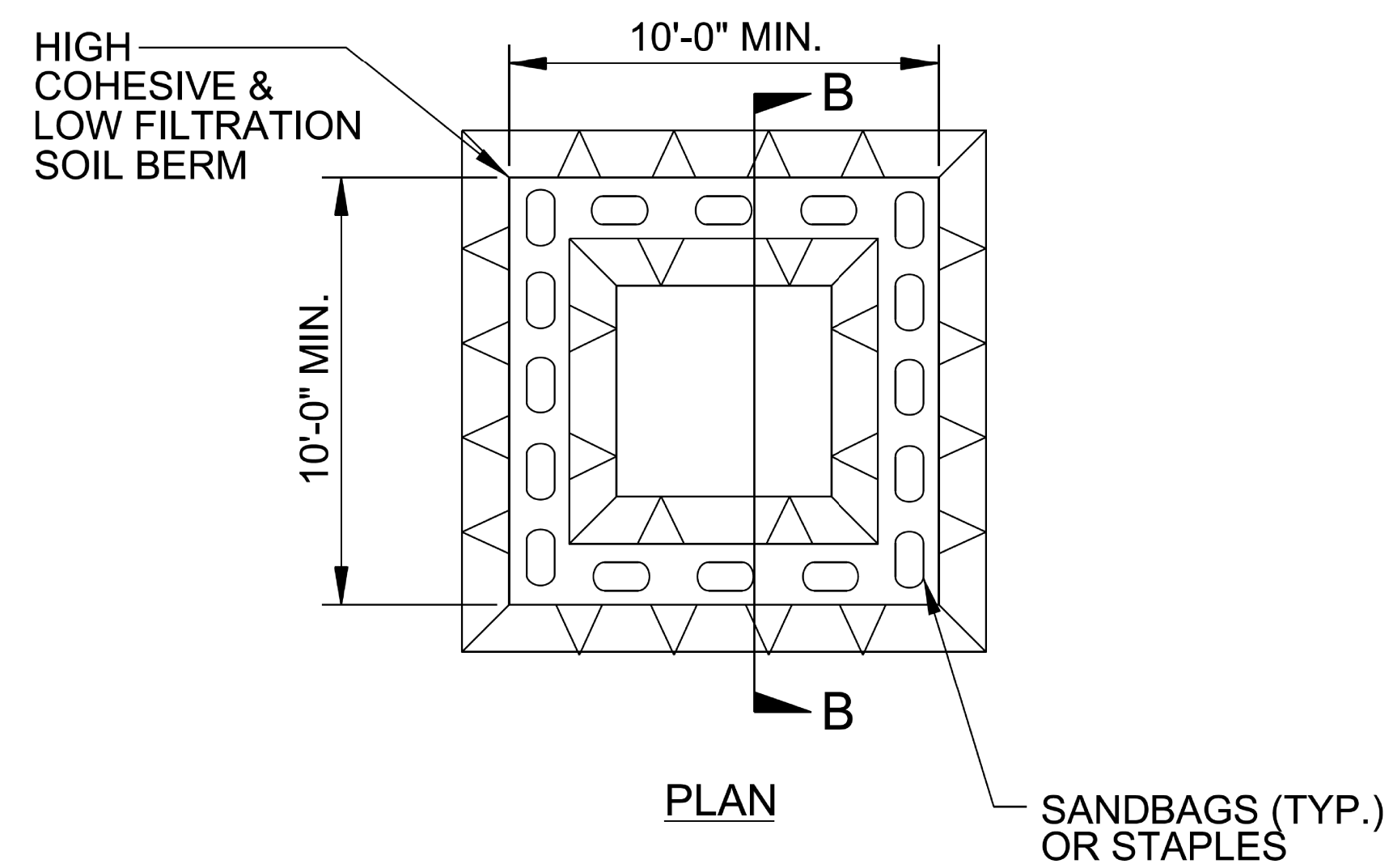
PROJECT REFERENCE NO.	SHEET NO.
1-5964	EC-2A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



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 CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

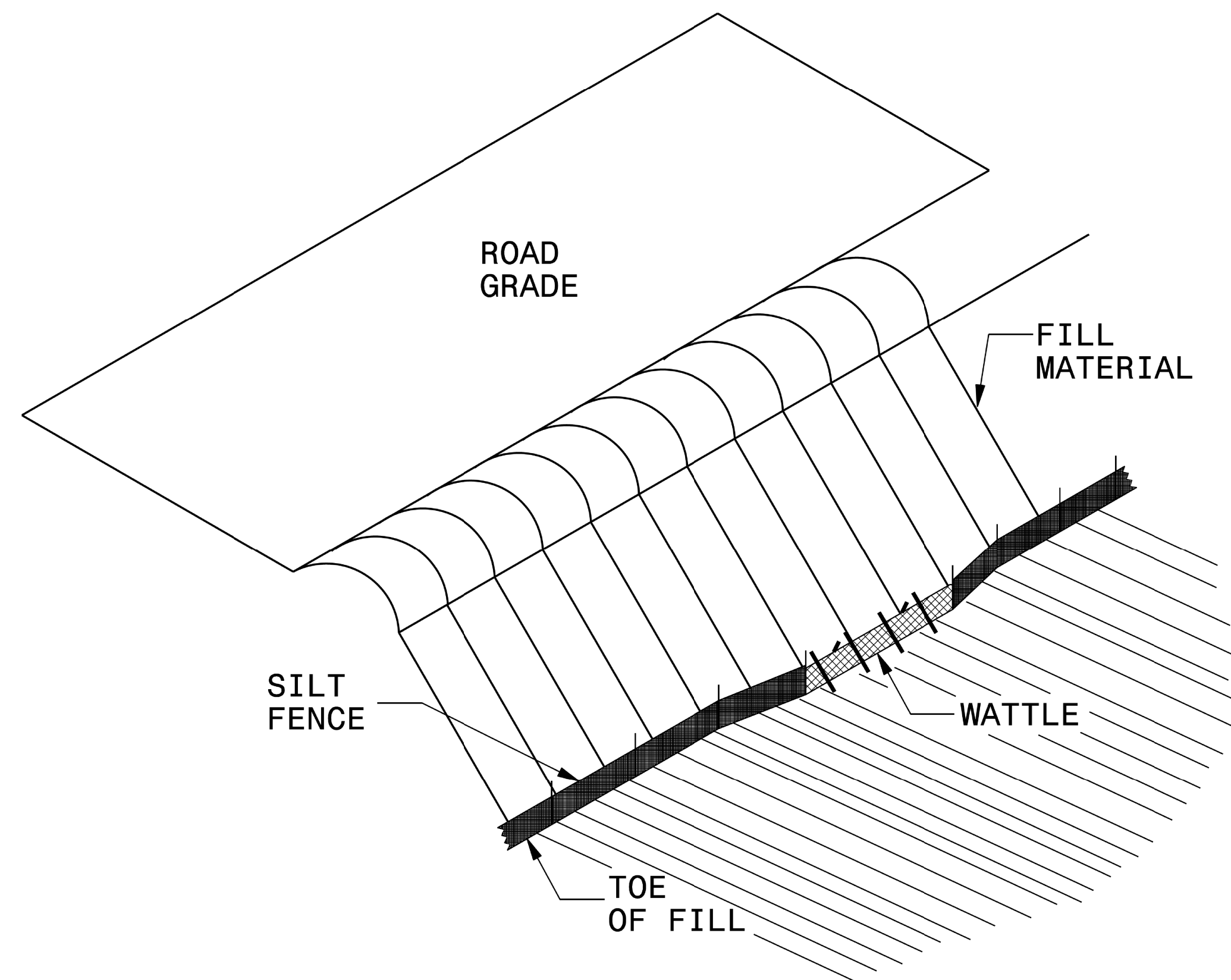


ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

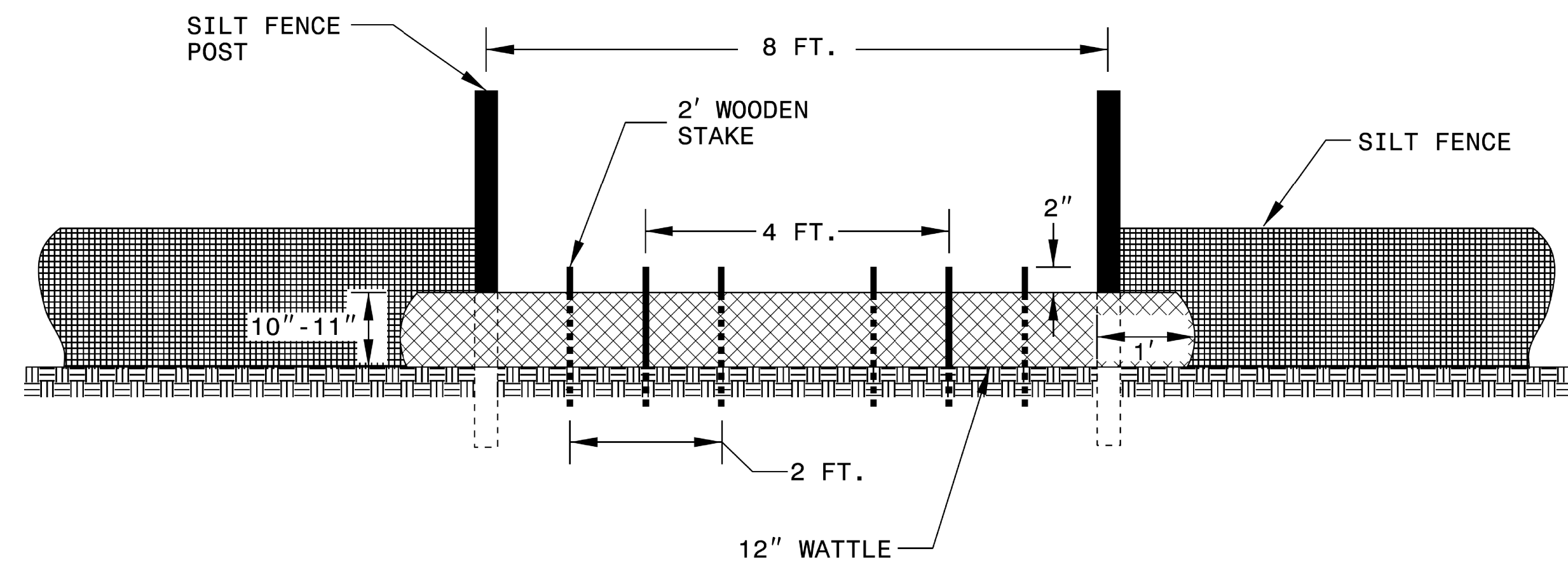
- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY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

PROJECT REFERENCE NO. 1-5964	SHEET NO. EC-2B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

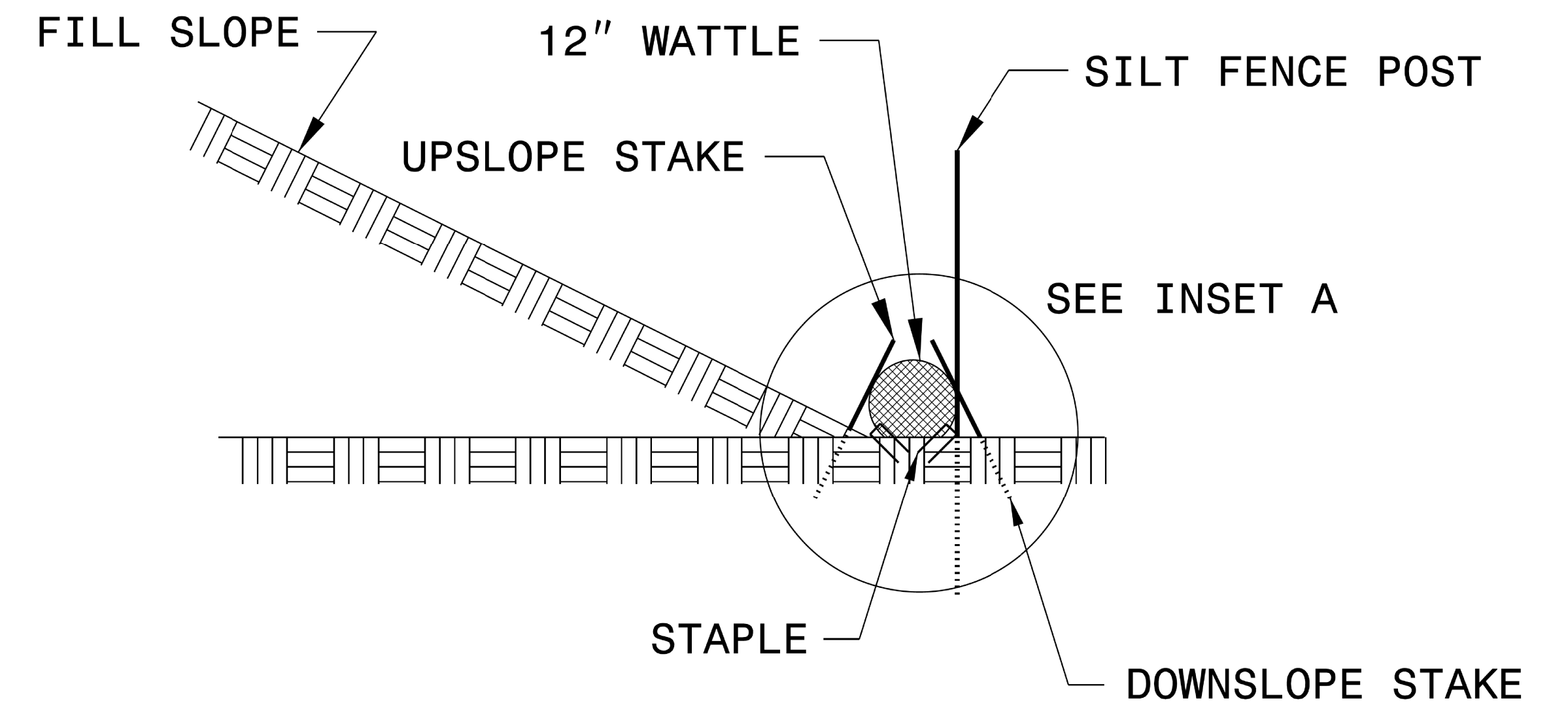
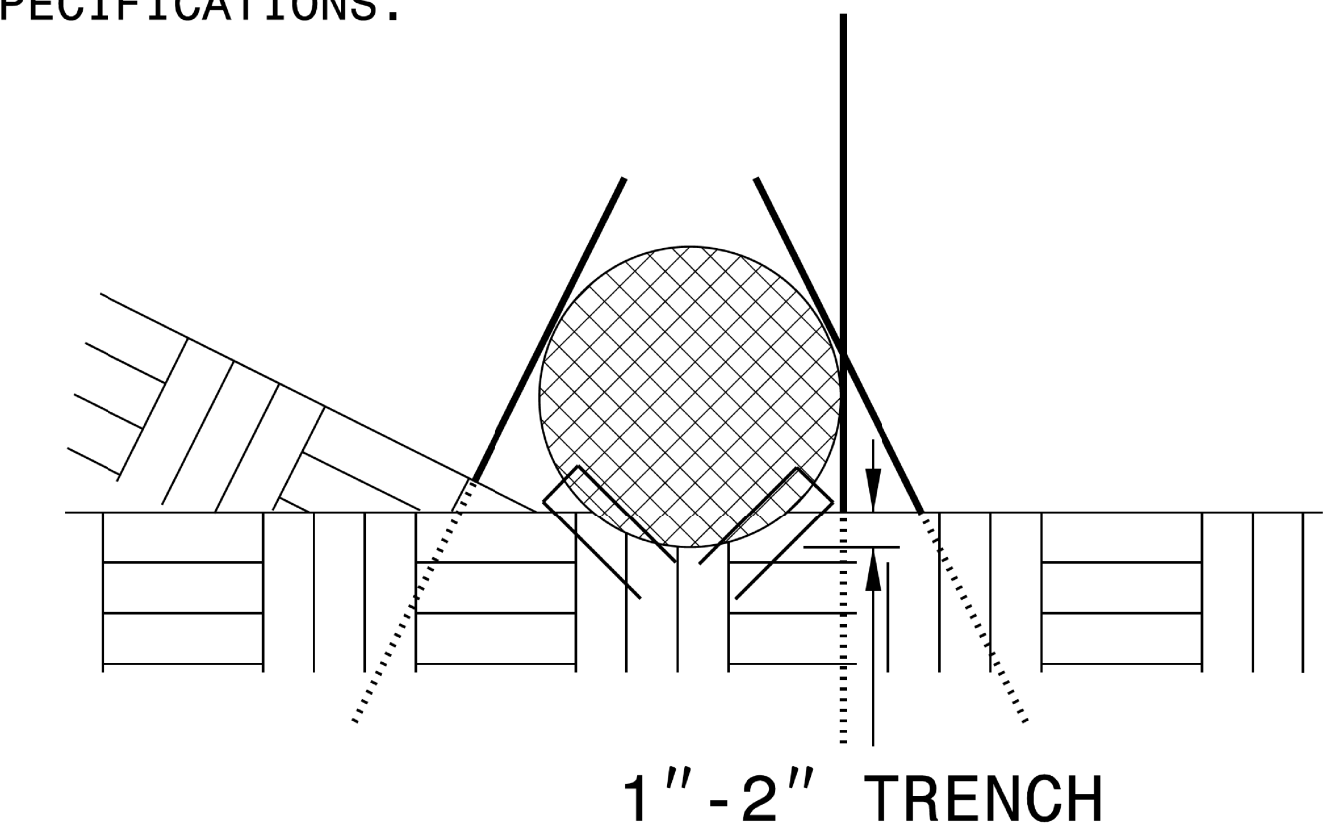


VIEW FROM SLOPE

NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 11 GAUGE STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 6" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A




SIDE VIEW

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

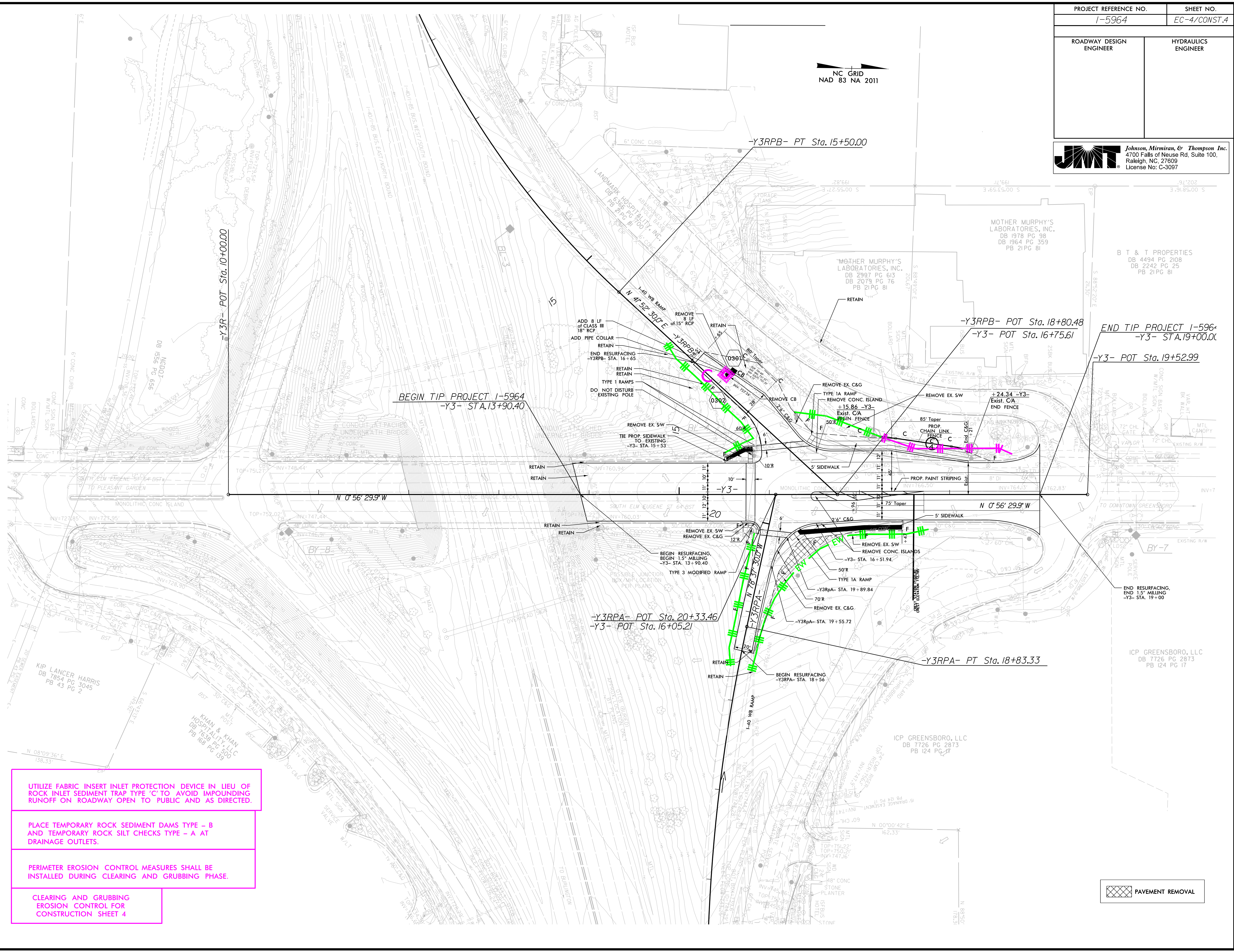
SOIL STABILIZATION TIMEFRAMES

<small>PROJECT REFERENCE NO.</small> I-5964	<small>SHEET NO.</small> EC-3B
<small>ROADWAY DESIGN ENGINEER</small>	<small>HYDRAULICS ENGINEER</small>
<small>Johnson, Mirman, & Thompson Inc. 4700 Falls of Neuse Rd, Suite 100, Raleigh, NC, 27609 License No: C-3097</small>	

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
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

PROJECT REFERENCE NO.	SHEET NO.
1-5964	EC-4/CONST.4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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NAD 83 NA 2011



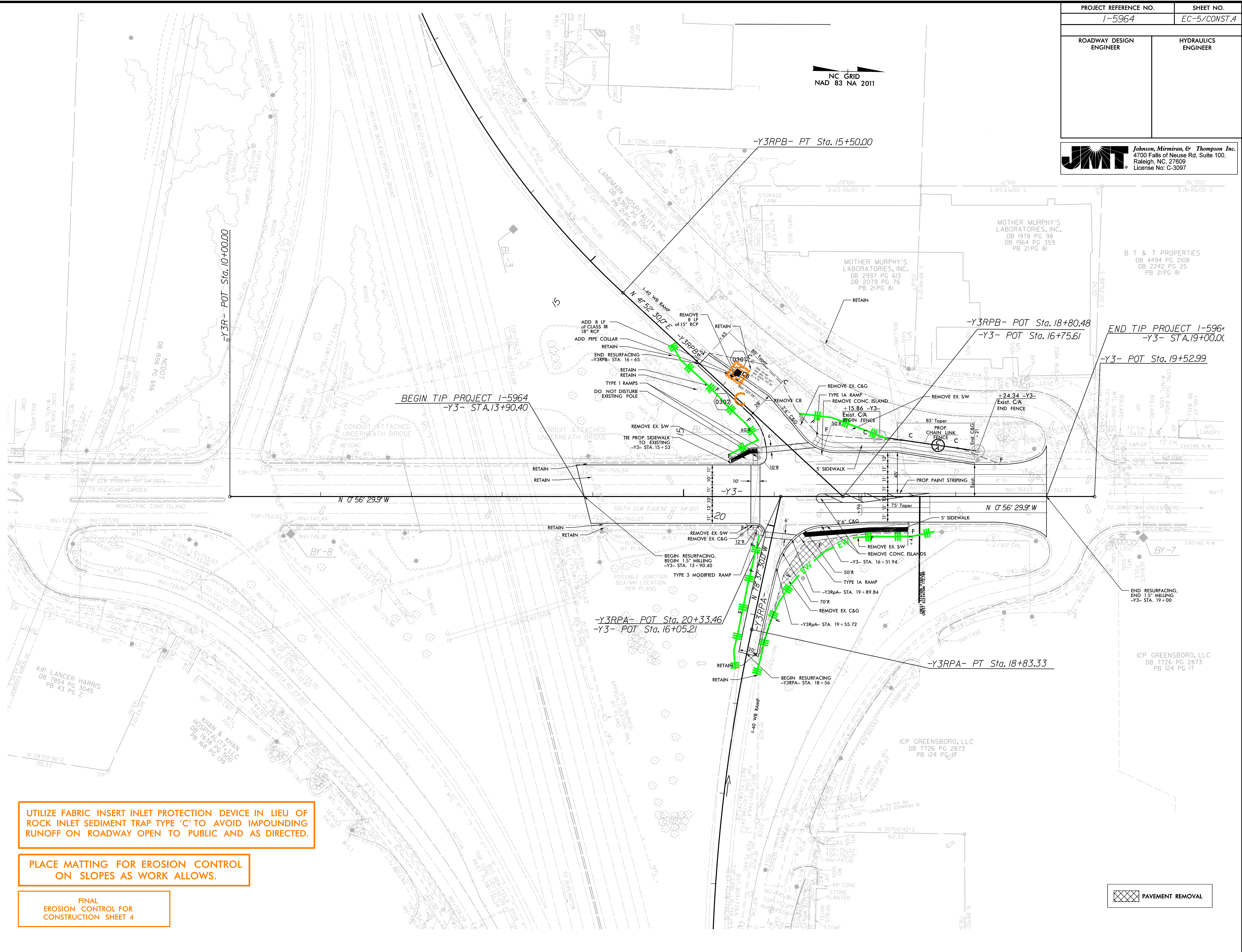
- UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE "C" TO AVOID IMPOUNDING RUNOFF ON ROADWAY OPEN TO PUBLIC AND AS DIRECTED.
- PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
- PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.
- CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

 PAVEMENT REMOVAL

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PROJECT REFERENCE NO.	SHEET NO.
1-5964	EC-5/CONST.4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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11/15/2024 11:58:54 AM



UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE 'C' TO AVOID IMPOUNDING RUNOFF ON ROADWAY OPEN TO PUBLIC AND AS DIRECTED.

PLACE MATTING FOR EROSION CONTROL ON SLOPES AS WORK ALLOWS.

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 4

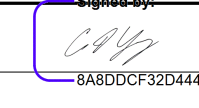


 PAVEMENT REMOVAL

PROJECT : I-5964

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
GUILFORD COUNTY**

LOCATION: I-40I-85 BUS./SOUTH ELM-EUGENE INTERCHANGE IMPROVEMENTS

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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
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- 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
- ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

SUMMARY OF QUANTITIES

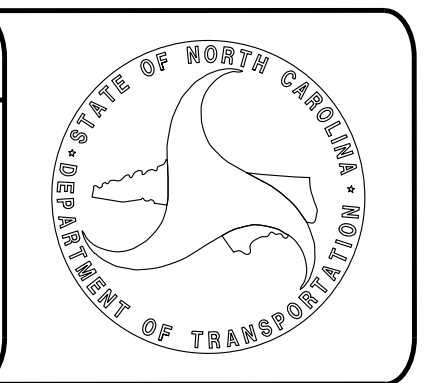
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DESC. NO.	SECT. NO.			
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4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE F	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	5	EA.
4238000000	907	DISPOSAL OF SIGN, D, E OR F	1	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	LIST OF ROADWAY STANDARD DRAWINGS GENERAL NOTES, AND SUMMARY OF QUANTITIES
SIGN-2	EXISTING SIGNING DETAIL
SIGN-3	PROPOSED SIGNING DETAIL

PLANS REVIEWED BY: N.C.D.O.T SIGNING AND DELINEATION UNIT

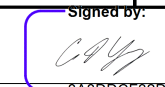


JOSEPH E. HUMMER, PE SIGNING & DELINEATION PROJECT ENGINEER



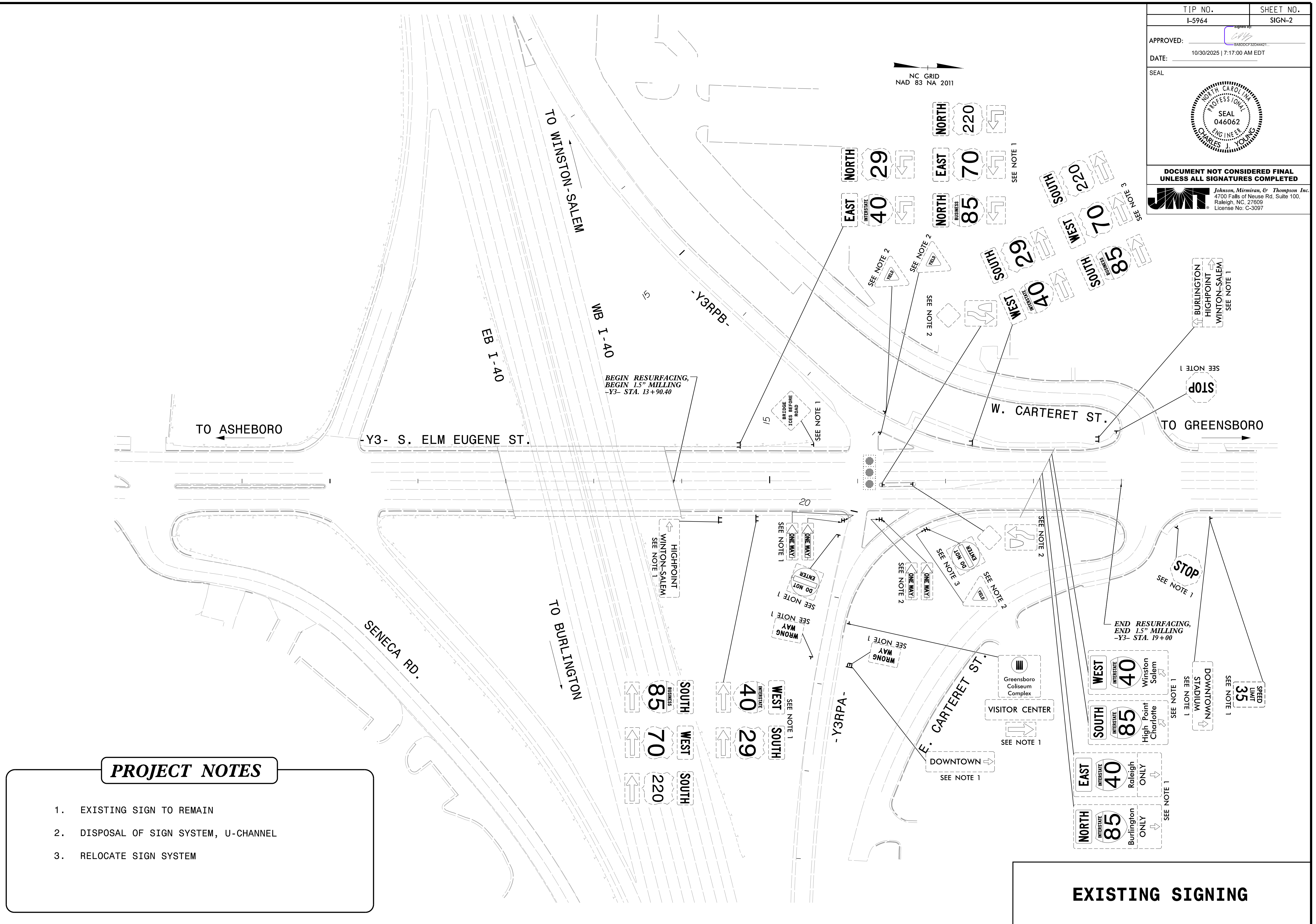
PLAN PREPARED BY: Johnson, Mirmiran, & Thompson, INC.

CHARLES YOUNG, PE, PMP PROJECT ENGINEER
DANE FREDDE PROJECT DESIGN ENGINEER


Prepared in the Office of:
JOHNSON, MIRMIRAN, & THOMPSON, INC.
4700 Falls of Neuse Road, Suite 100,
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TIP NO. I-5964	SHEET NO. SIGN-2
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PROJECT NOTES

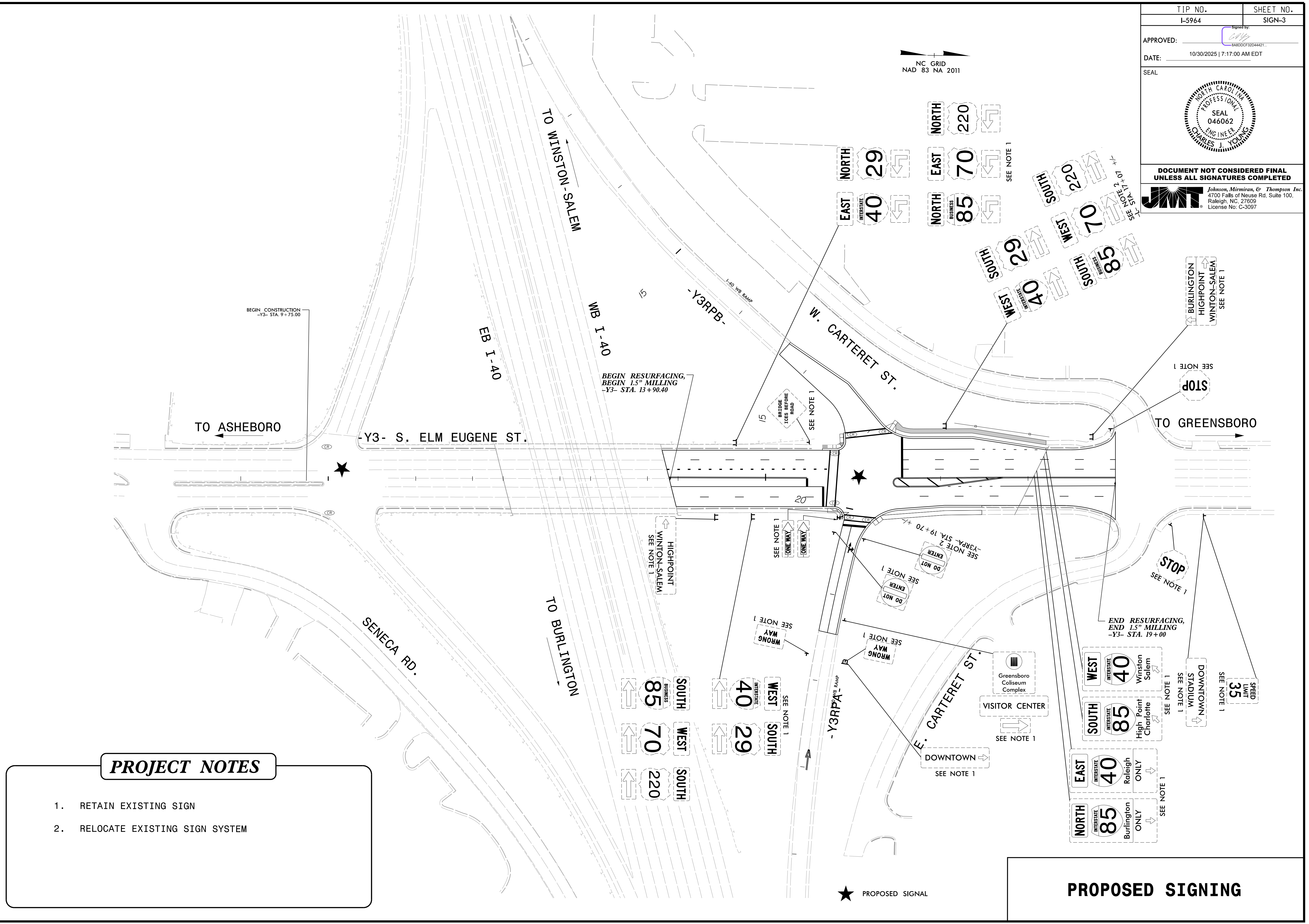
- EXISTING SIGN TO REMAIN
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- RELOCATE SIGN SYSTEM

EXISTING SIGNING

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TIP NO. I-5964	SHEET NO. SIGN-3
APPROVED: 	
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NC GRID
NAD 83 NA 2011



PROJECT NOTES

1. RETAIN EXISTING SIGN
2. RELOCATE EXISTING SIGN SYSTEM

PROPOSED SIGNING

6/11/2025 3:45:51 PM
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