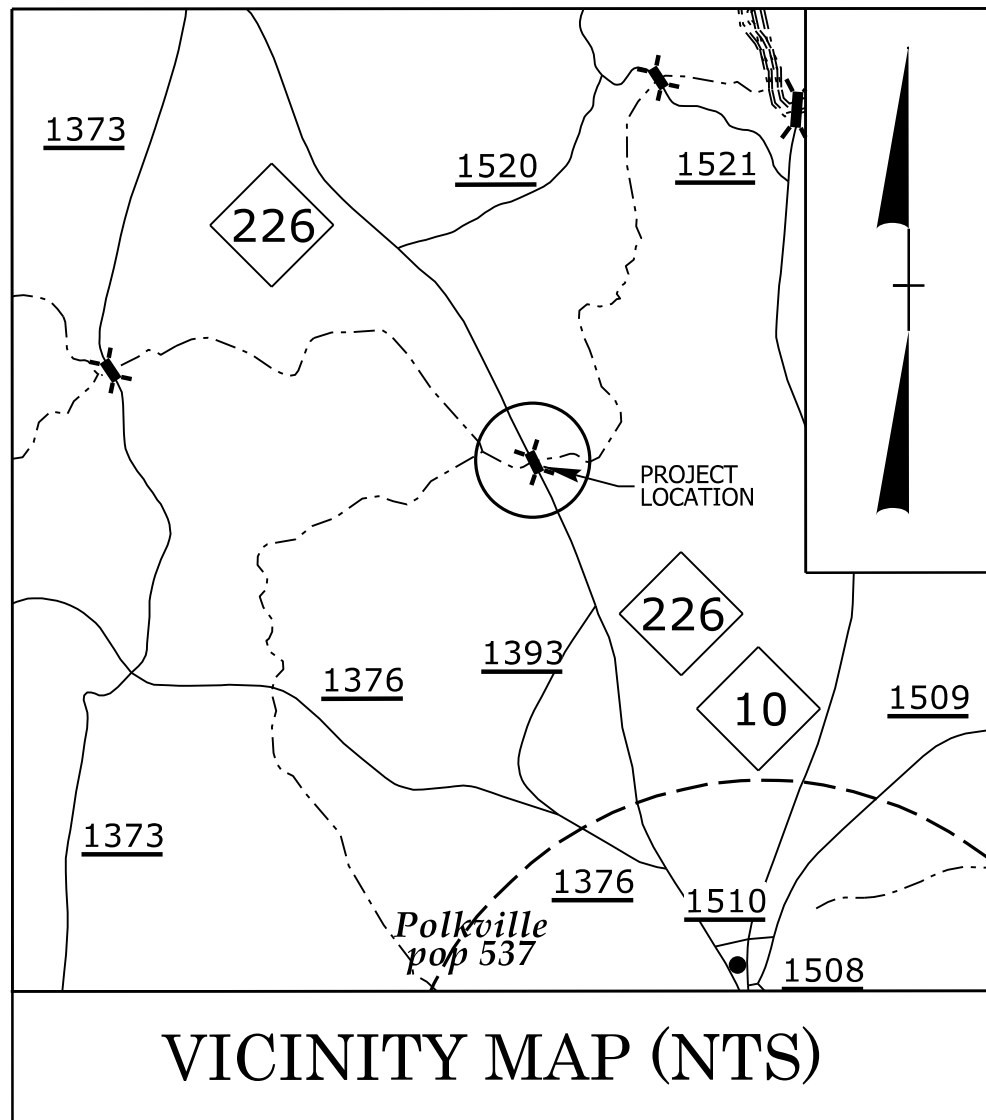


PROJECT: BP12.R002



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

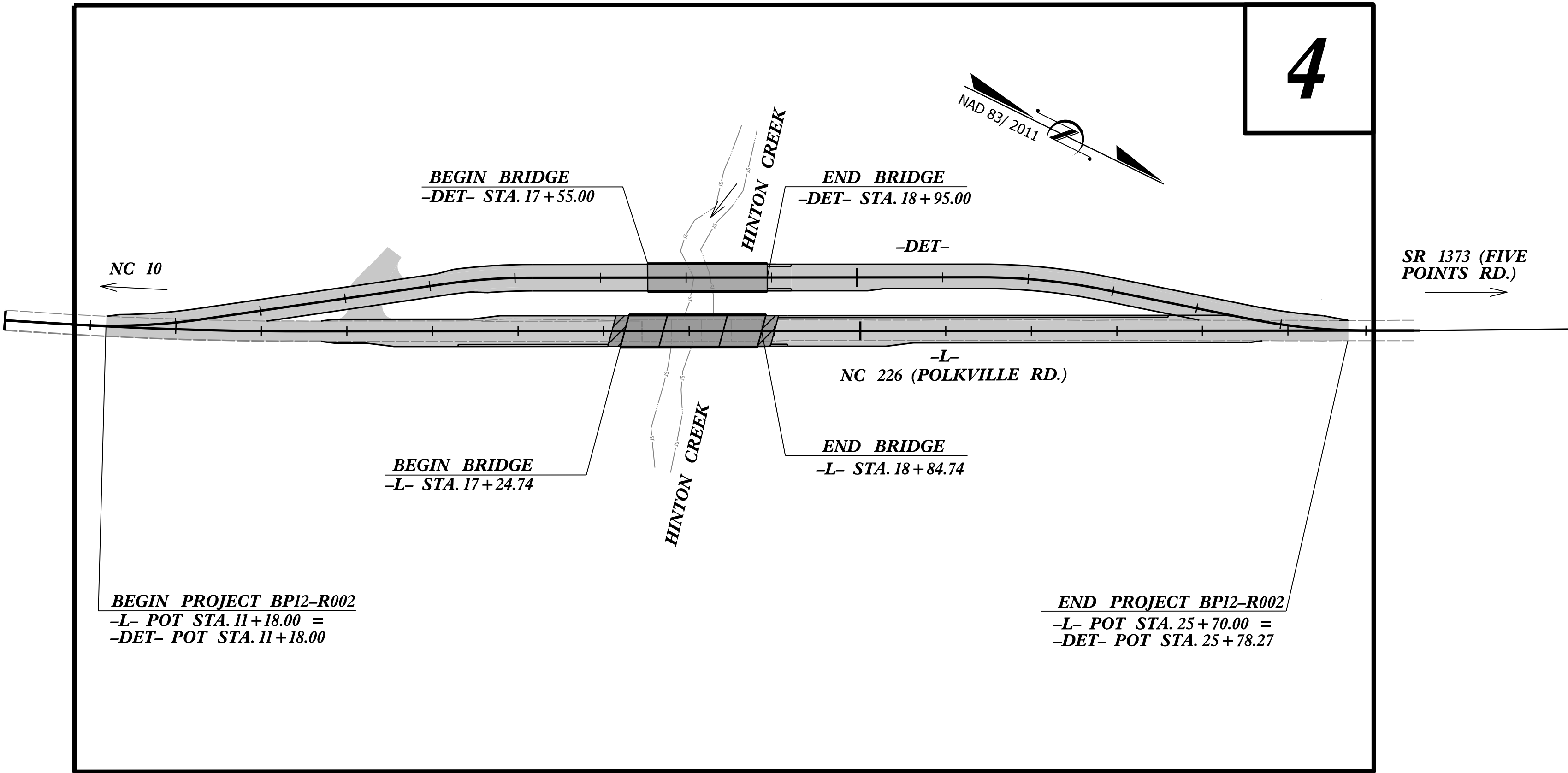
CLEVELAND COUNTY

LOCATION: *BRIDGE NO. 220075 OVER HINTON CREEK
ON NC 226 (POLKVILLE RD.)*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING
& STRUCTURE*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP12.R002	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

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.



1223 JONES FRANKLIN ROAD
RALEIGH, N.C. 27606
License No. F-2377
Bul: 919 851 8077
Fax: 919 851 8107

Prepared In the Office of:

WETHERILL ENGINEERING, INC.
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27606

Designed by:

KATIE ESTEP
NAME

4485

LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

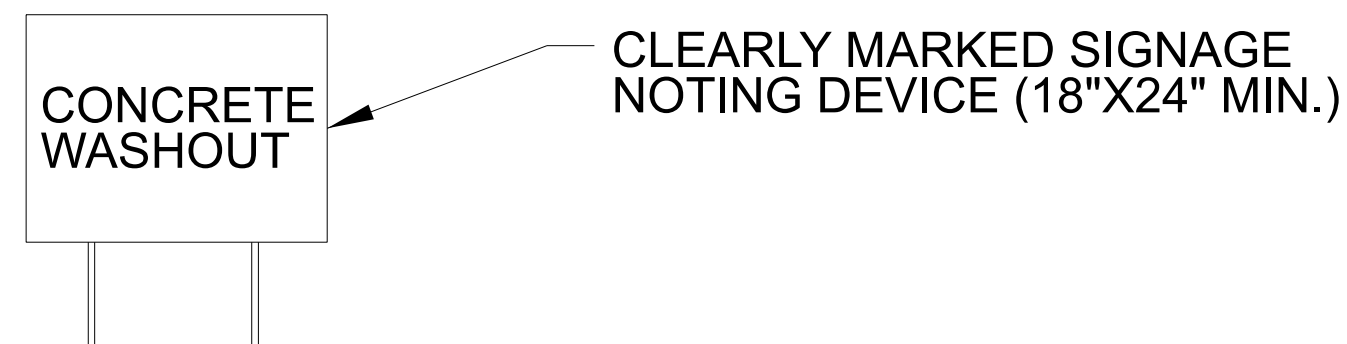
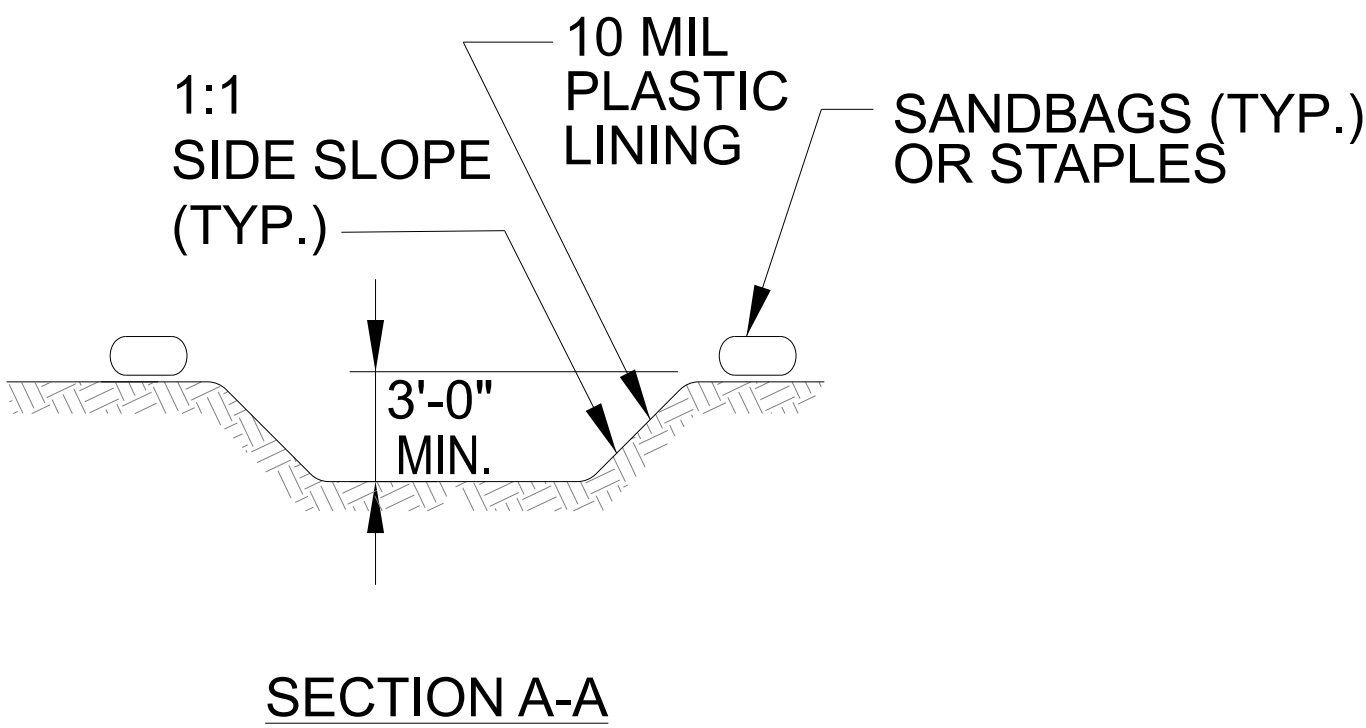
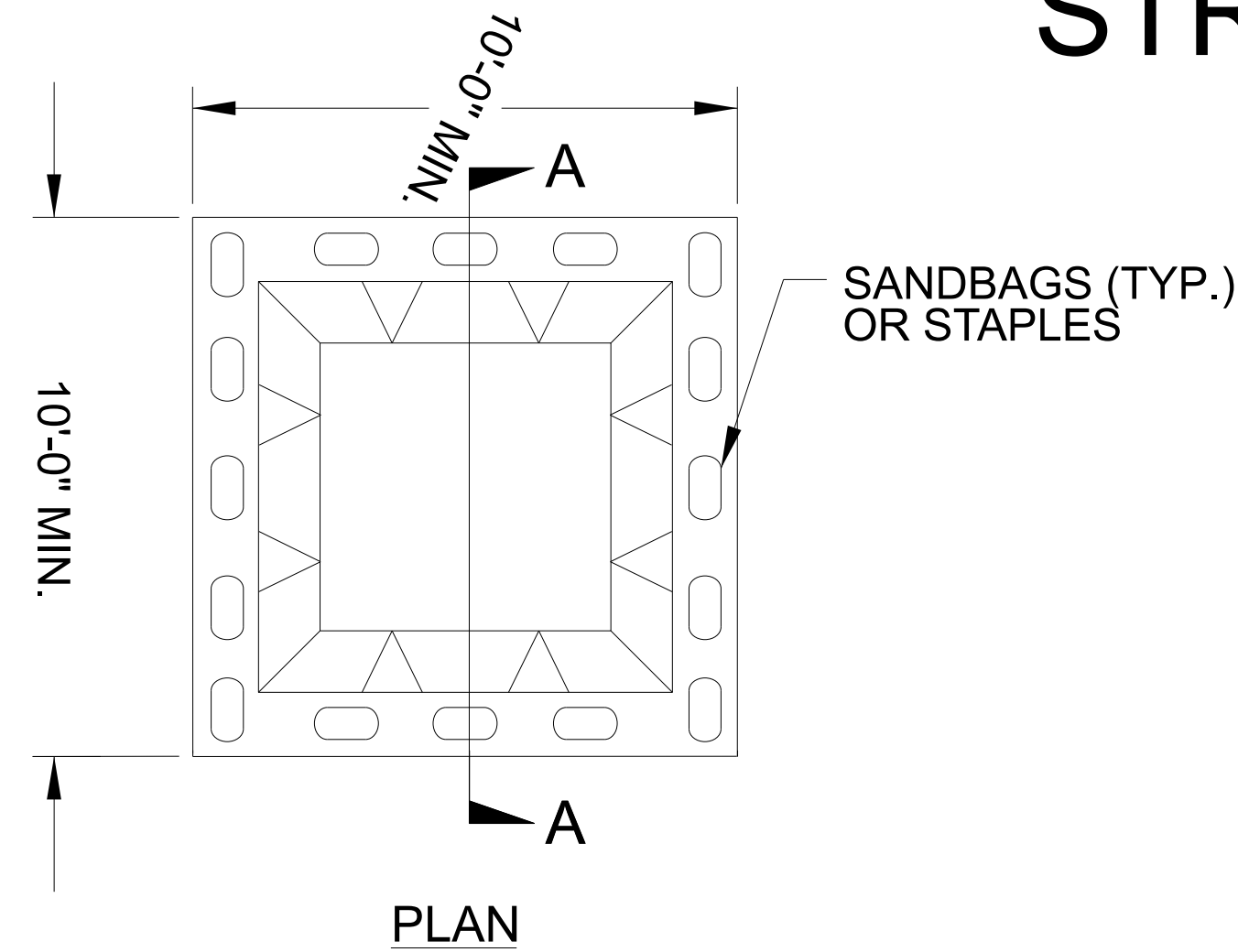
PROJECT REFERENCE NO.	SHEET NO.
BP12.R002	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

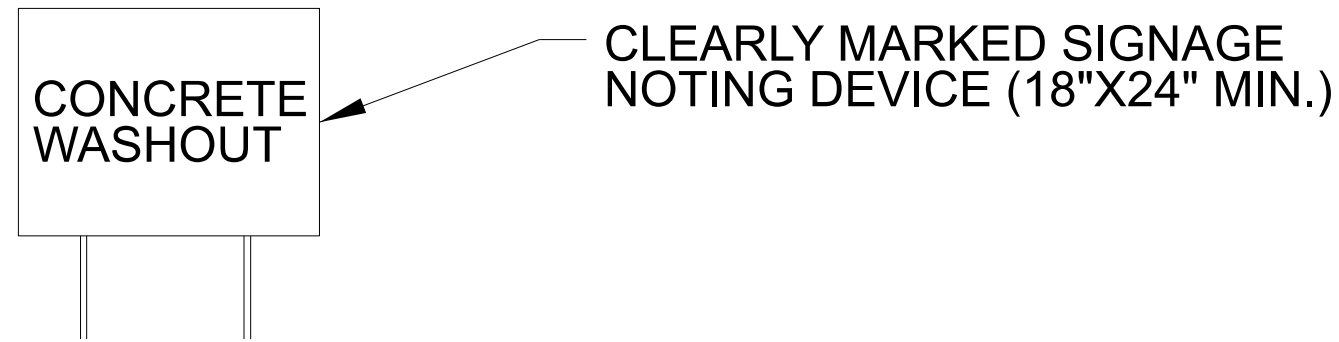
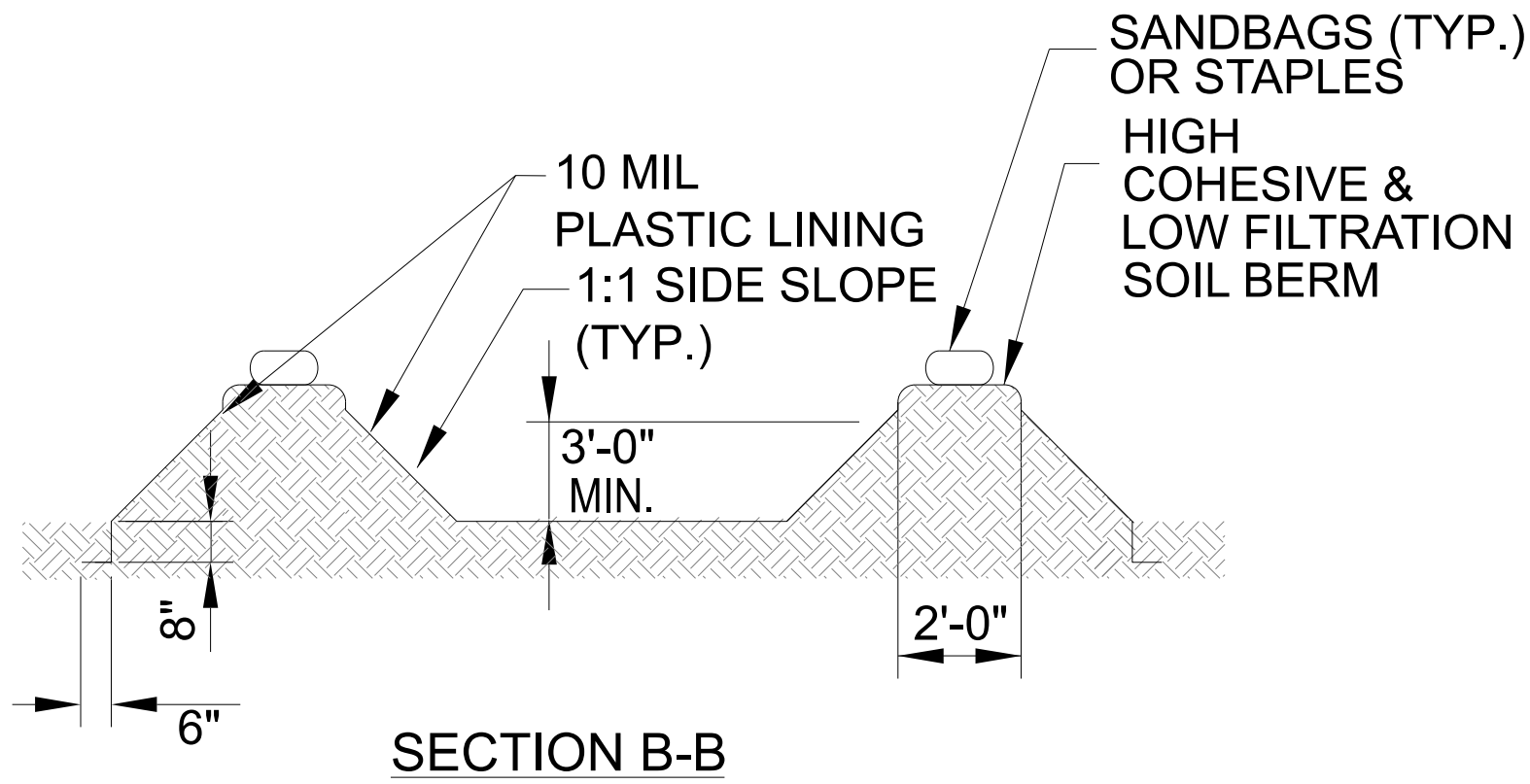
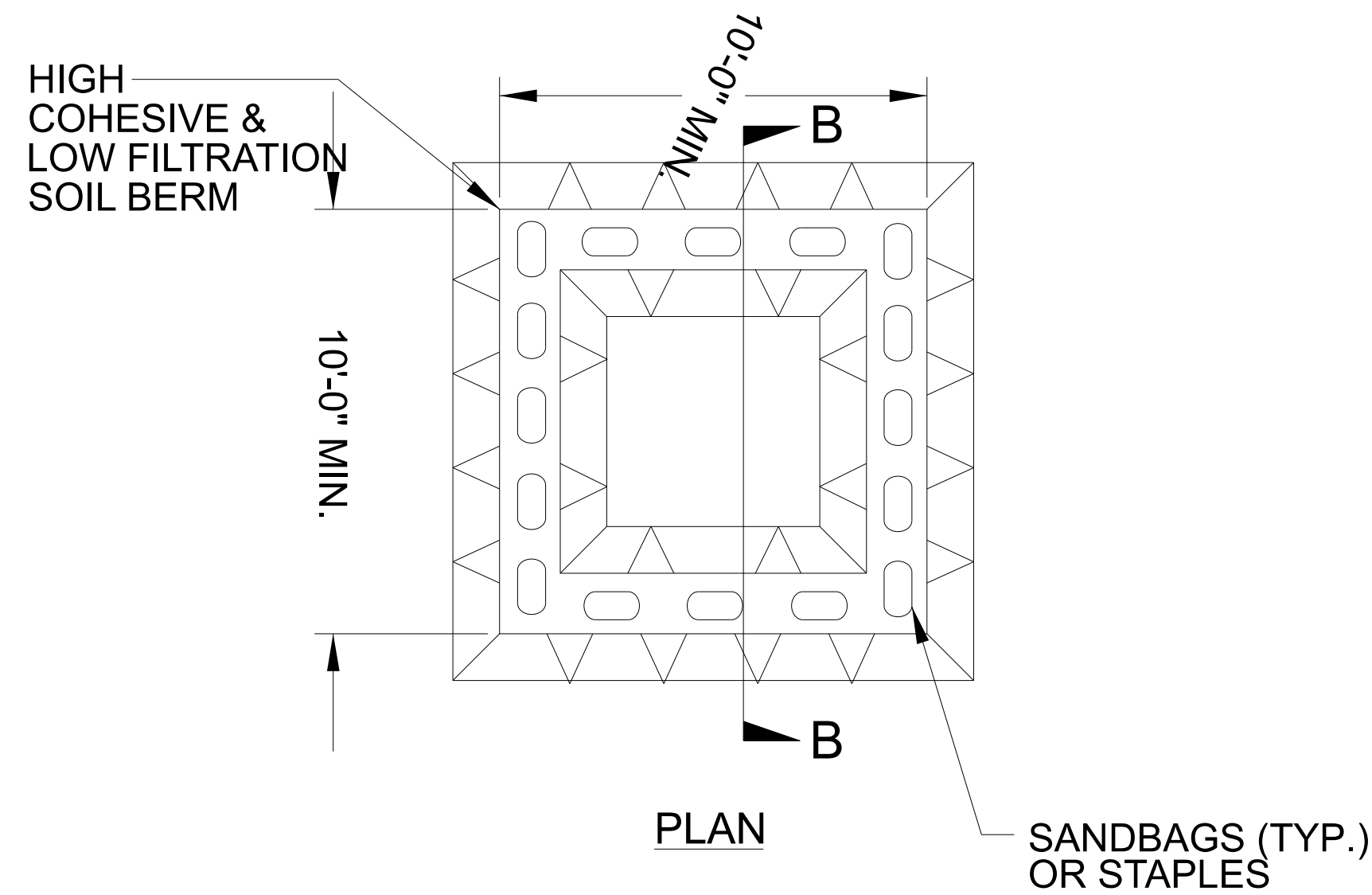
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
BP12.R002	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PROJECT REFERENCE NO.	SHEET NO.
<i>BP12.R002</i>	<i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING FOR EROSION CONTROL (SLOPES)

[illegible]

EXCELSIOR MATTING FOR EROSION CONTROL (DITCHES)

[illegible]

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

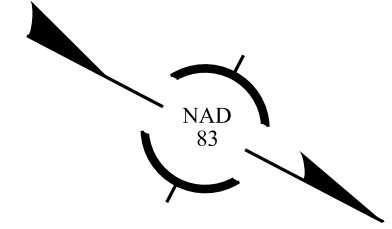
PROJECT REFERENCE NO.	SHEET NO.
BPI2.R002	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

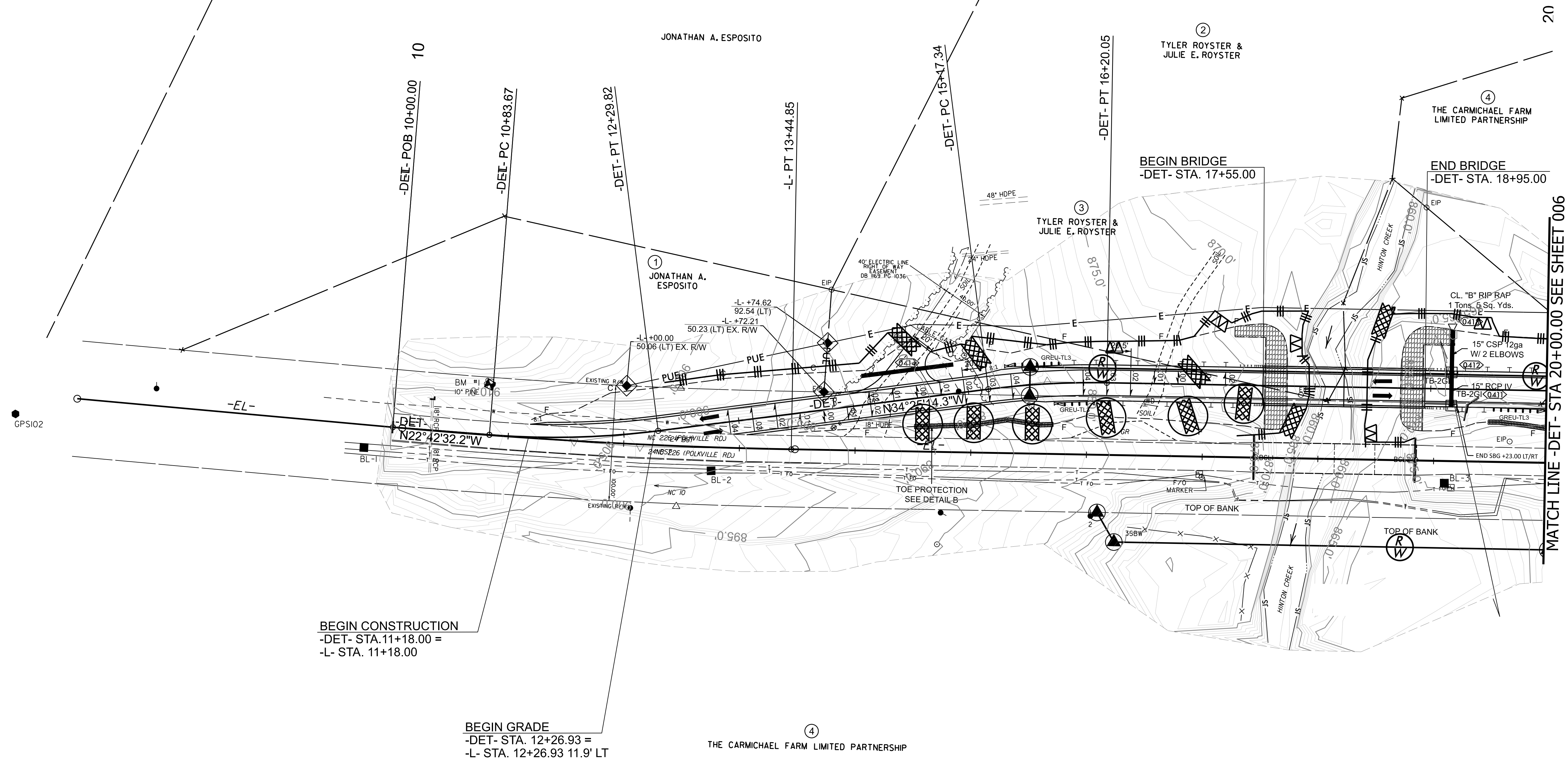
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10’ OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 TO 4:1	14 DAYS	7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

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

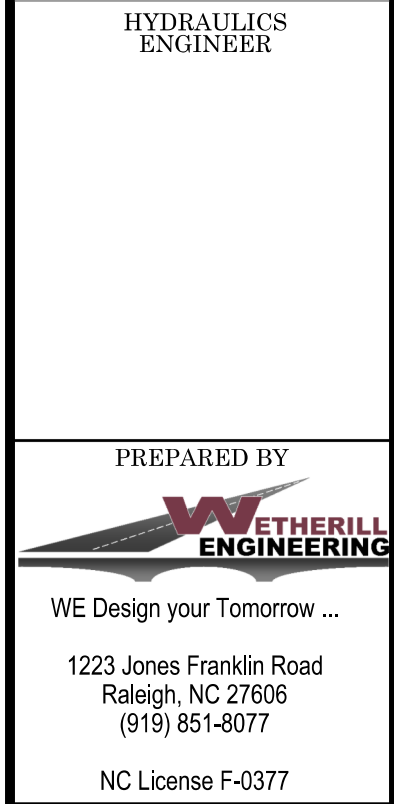
DETOUR



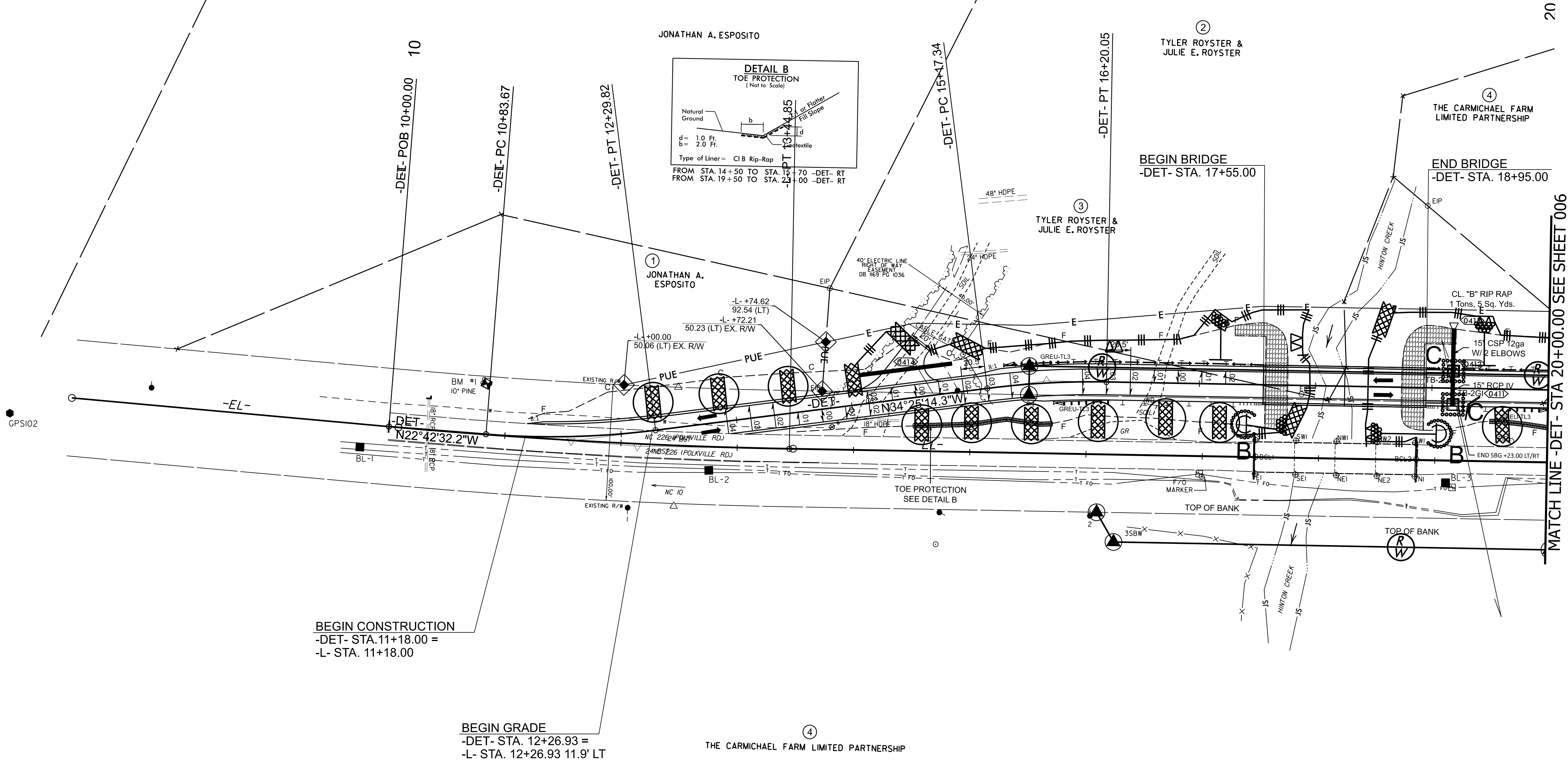
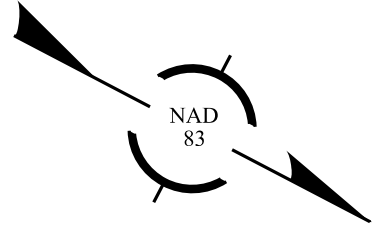
NC License F-0377



MATCH LINE - DET- STA 20+00.00 SEE SHEET 005



DETOUR



BPI2-R002

EC-6 CONST. 5

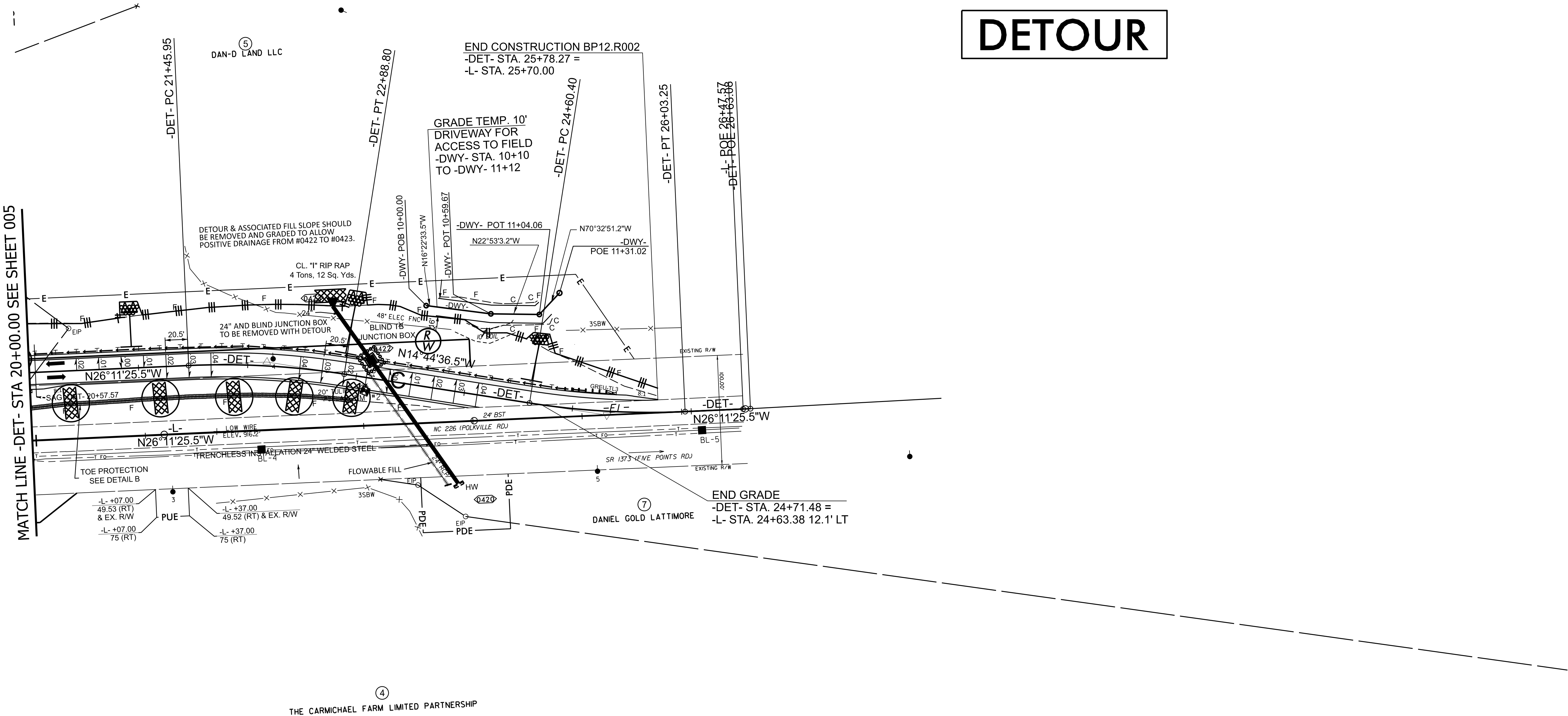
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
CLEVELAND COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

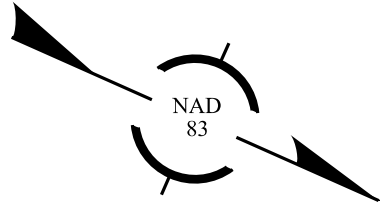
HYDRAULICS
ENGINEER

PREPARED BY

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DETOUR



BP12-R002

EC-7CONST. 6

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CLEVELAND COUNTY

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ENGINEER

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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:

PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

BP12-R002

EC-8 CONST. 4

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
CLEVELAND COUNTY



ROADWAY DESIGN UNIT
ENGINEER

HYDRAULICS
ENGINEER

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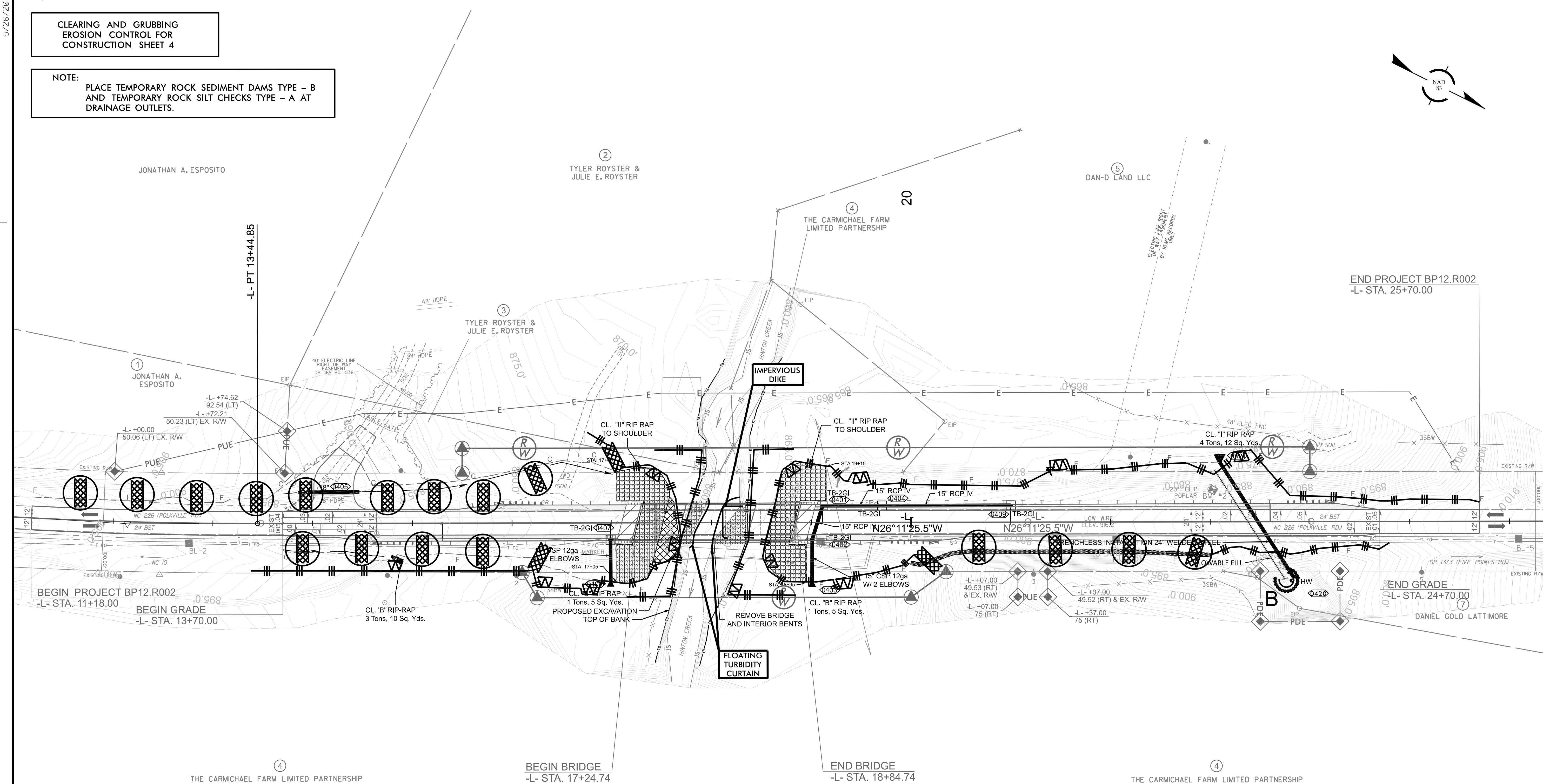


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FOR -L- PROFILE, SEE SHEET NO. 7
FOR -DWY2- PROFILE, SEE SHEET NO. 10
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-35



BP12-R002

EC-9 CONST. 4

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
CLEVELAND COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

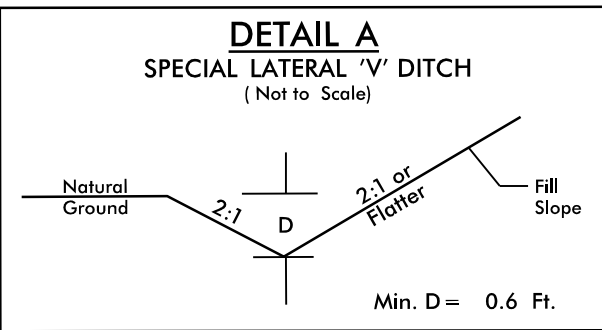
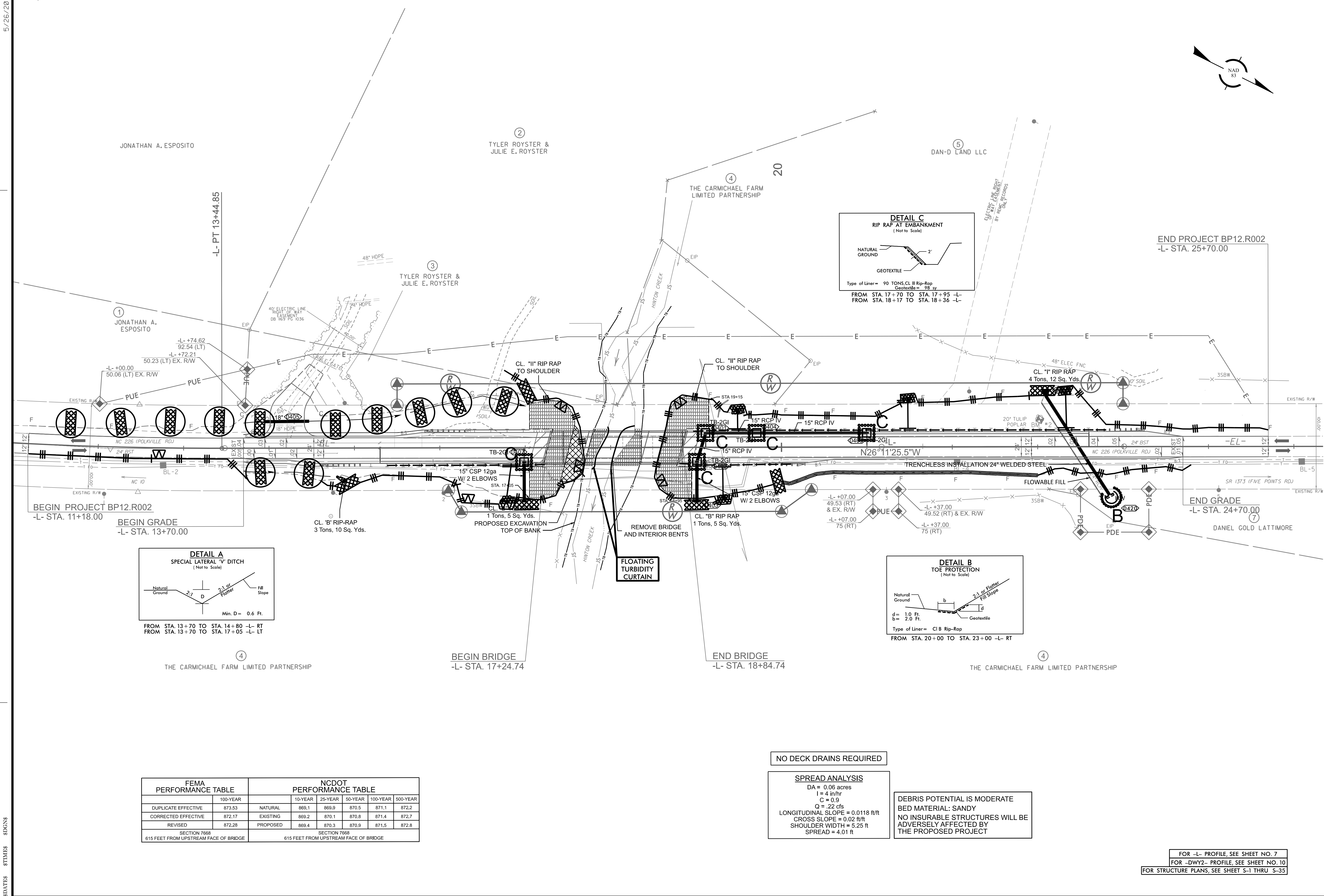
PREPARED BY

WETHERILL
ENGINEERING

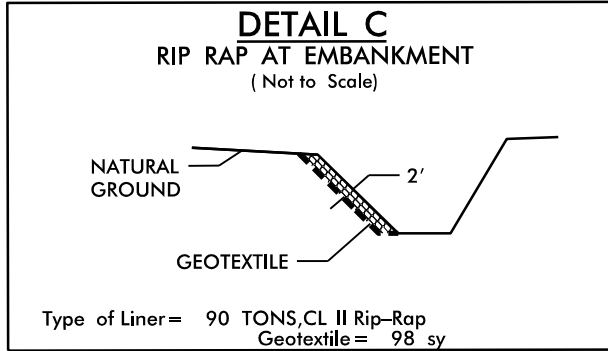
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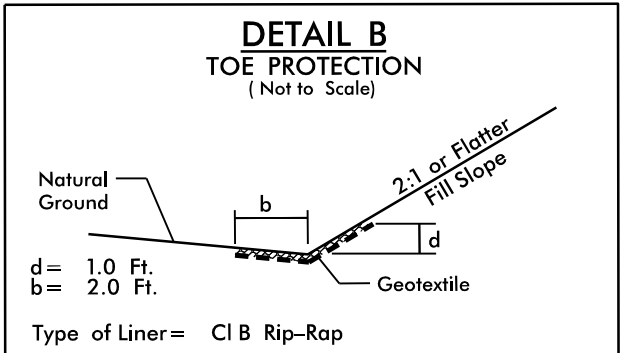
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FROM STA. 13+70 TO STA. 14+80 -L- RT
FROM STA. 13+70 TO STA. 17+05 -L- LT



Type of Liner = 90 TONS CL II Rip-Rap
Geotextile = 98 sy
FROM STA. 17+70 TO STA. 17+95 -L-
FROM STA. 18+17 TO STA. 18+36 -L-



Type of Liner = CL II Rip-Rap
FROM STA. 20+00 TO STA. 23+00 -L- RT

FEMA PERFORMANCE TABLE		NCDOT PERFORMANCE TABLE						
	100-YEAR	NATURAL	10-YEAR	25-YEAR	50-YEAR	100-YEAR	500-YEAR	
DUPLICATE EFFECTIVE	873.53		869.1	869.9	870.5	871.1	872.2	
CORRECTED EFFECTIVE	872.17	EXISTING	869.2	870.1	870.8	871.4	872.7	
REVISED	872.28	PROPOSED	869.4	870.3	870.9	871.5	872.8	
SECTION 7668 615 FEET FROM UPSTREAM FACE OF BRIDGE		SECTION 7668 615 FEET FROM UPSTREAM FACE OF BRIDGE						

NO DECK DRAINS REQUIRED

SPREAD ANALYSIS
DA = 0.06 acres
I = 4 in/hr
C = 0.9
Q = .22 cfs
LONGITUDINAL SLOPE = 0.0118 ft/ft
CROSS SLOPE = 0.02 ft/ft
SHOULDER WIDTH = 5.25 ft
SPREAD = 4.01 ft

DEBRIS POTENTIAL IS MODERATE
BED MATERIAL: SANDY
NO INSURABLE STRUCTURES WILL BE
ADVERSELY AFFECTED BY
THE PROPOSED PROJECT

FOR -L- PROFILE, SEE SHEET NO. 7
FOR -DWY2- PROFILE, SEE SHEET NO. 10
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-35