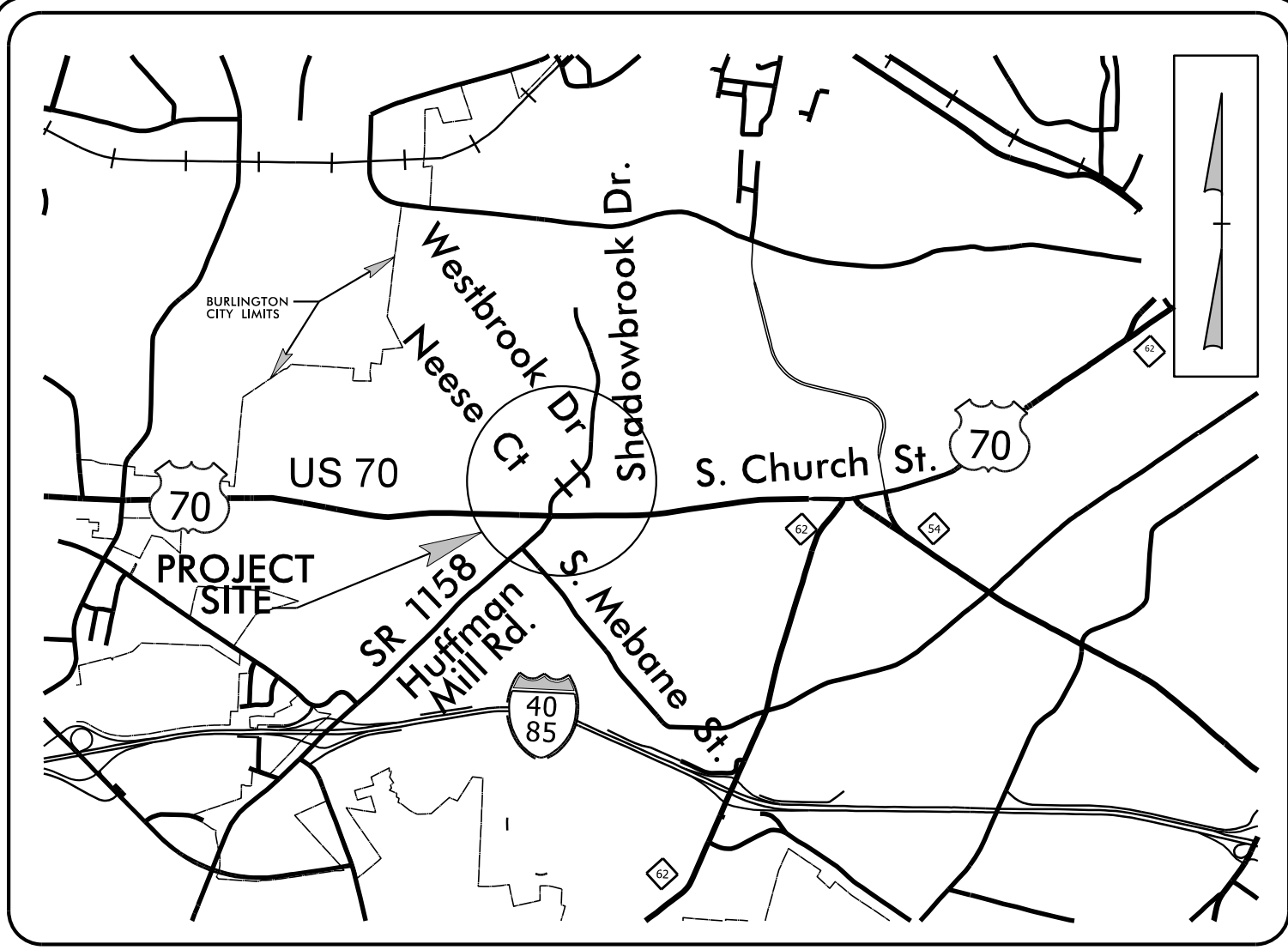


**TIP PROJECT: U-6011**



**VICINITY MAP**  
NOT TO SCALE

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  

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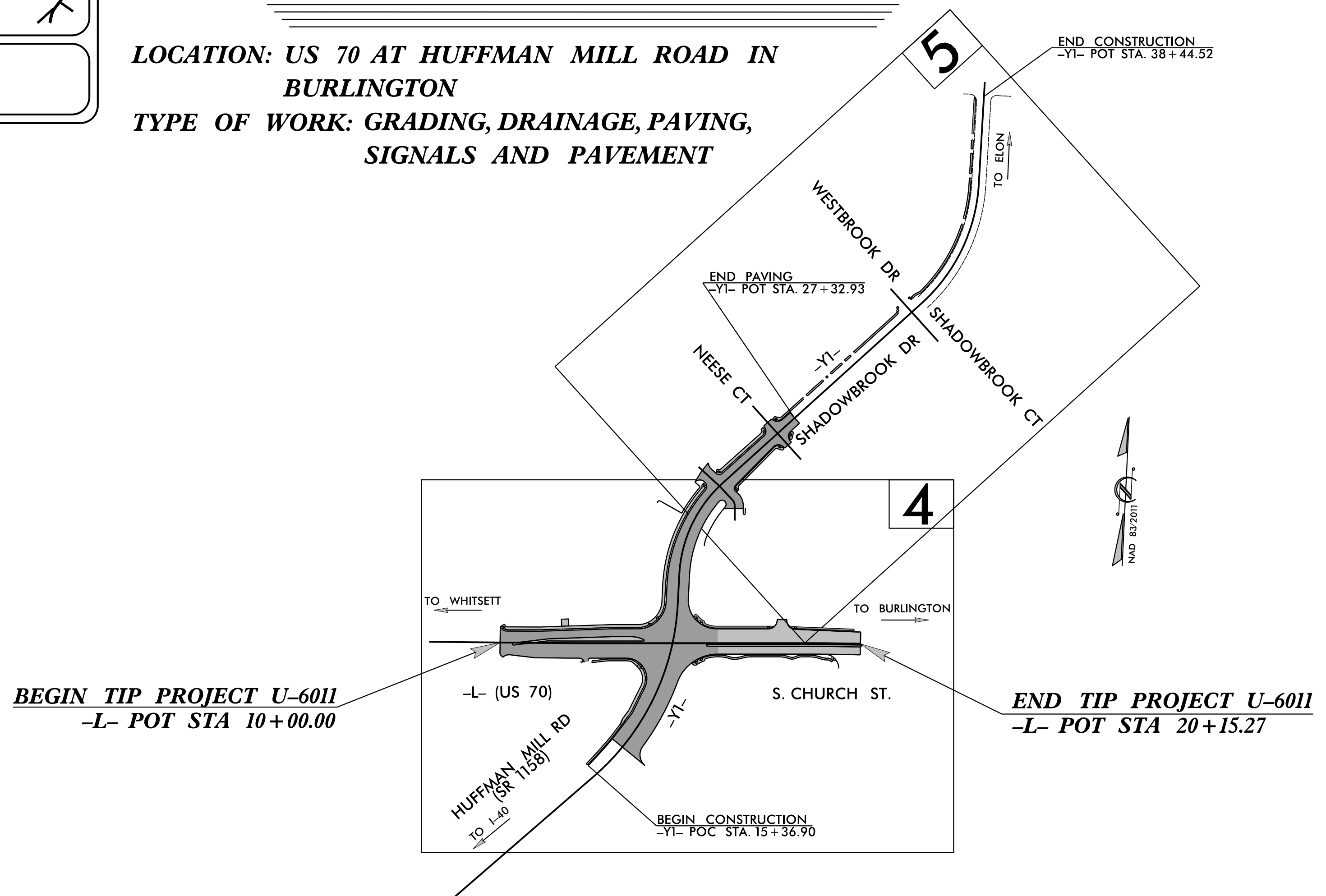
**PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL**  

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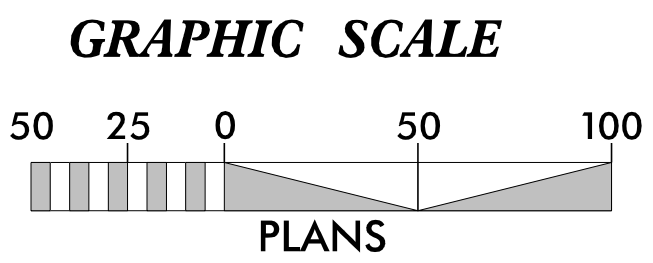
**ALAMANCE COUNTY**

**LOCATION: US 70 AT HUFFMAN MILL ROAD IN  
BURLINGTON**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING,  
SIGNALS AND PAVEMENT**



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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6011	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47146.1.1		PE	
47146.2.1		ROW/UTIL	
47146.3.1		CONST	



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:  
**SUNGATE DESIGN GROUP, P.A.**

905 JONES FRANKLIN ROAD  
RALEIGH, NORTH CAROLINA 27606  
TEL (919) 859-2243  
ENG FIRM LICENSE NO. C-890

**2024 STANDARD SPECIFICATIONS**

Designed by:  
**BRIAN N. ELAM, PE** **3195**  
NAME LEVEL III CERTIFICATION NO.

**Roadway Standard Drawings**

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

1/8/2025 11:55:11 EC.dwg\_psh\_01.dwg  
Belam

# DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

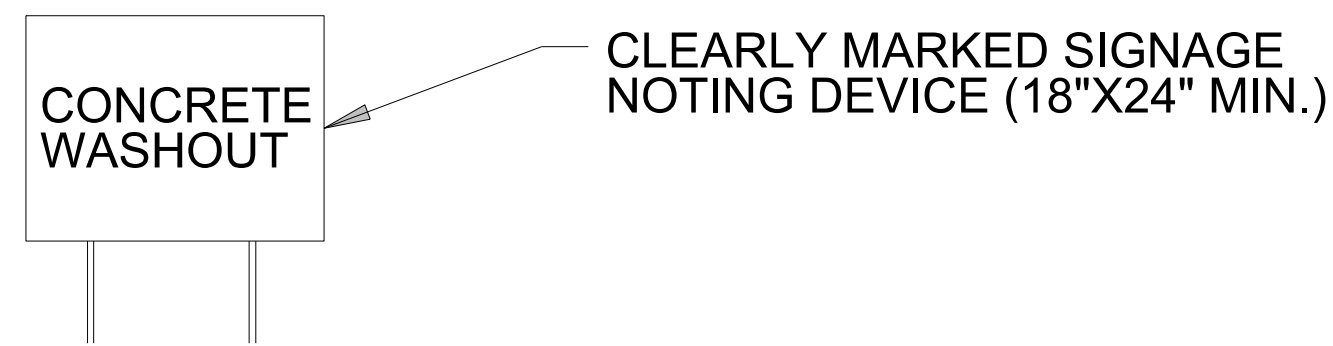
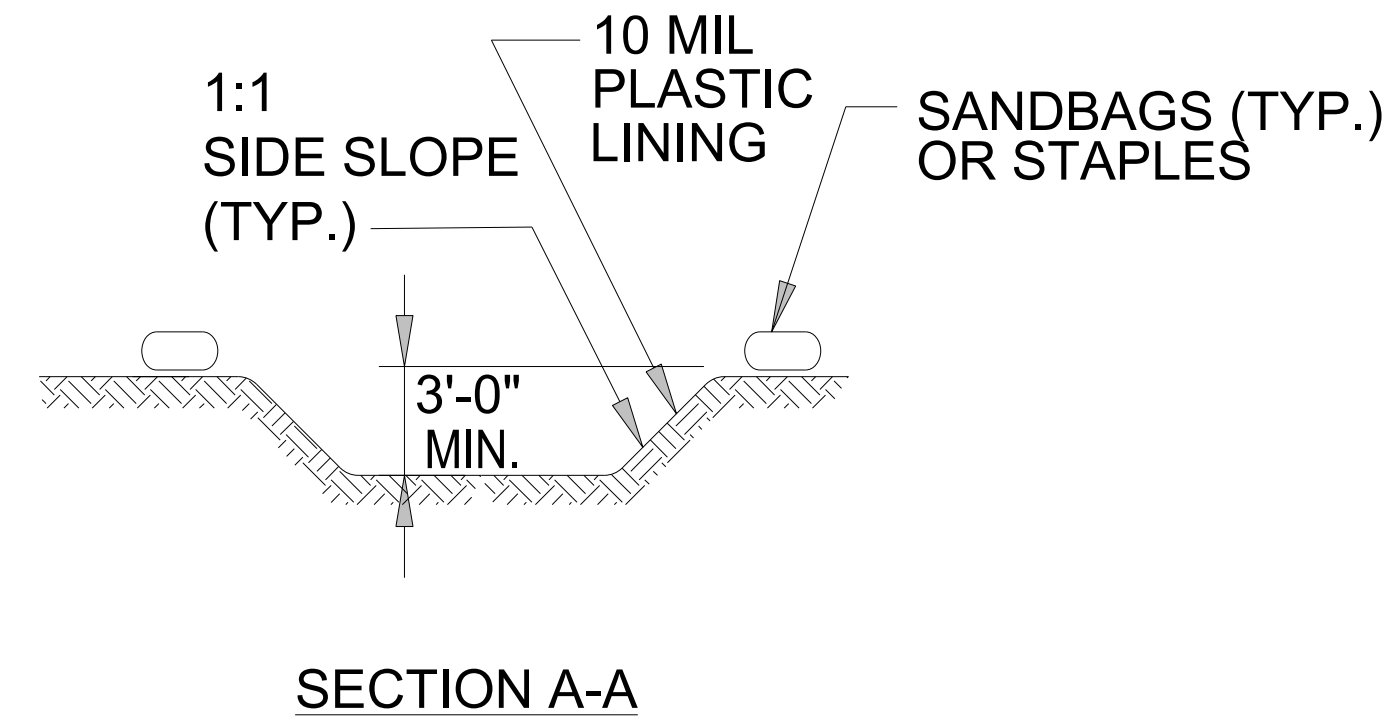
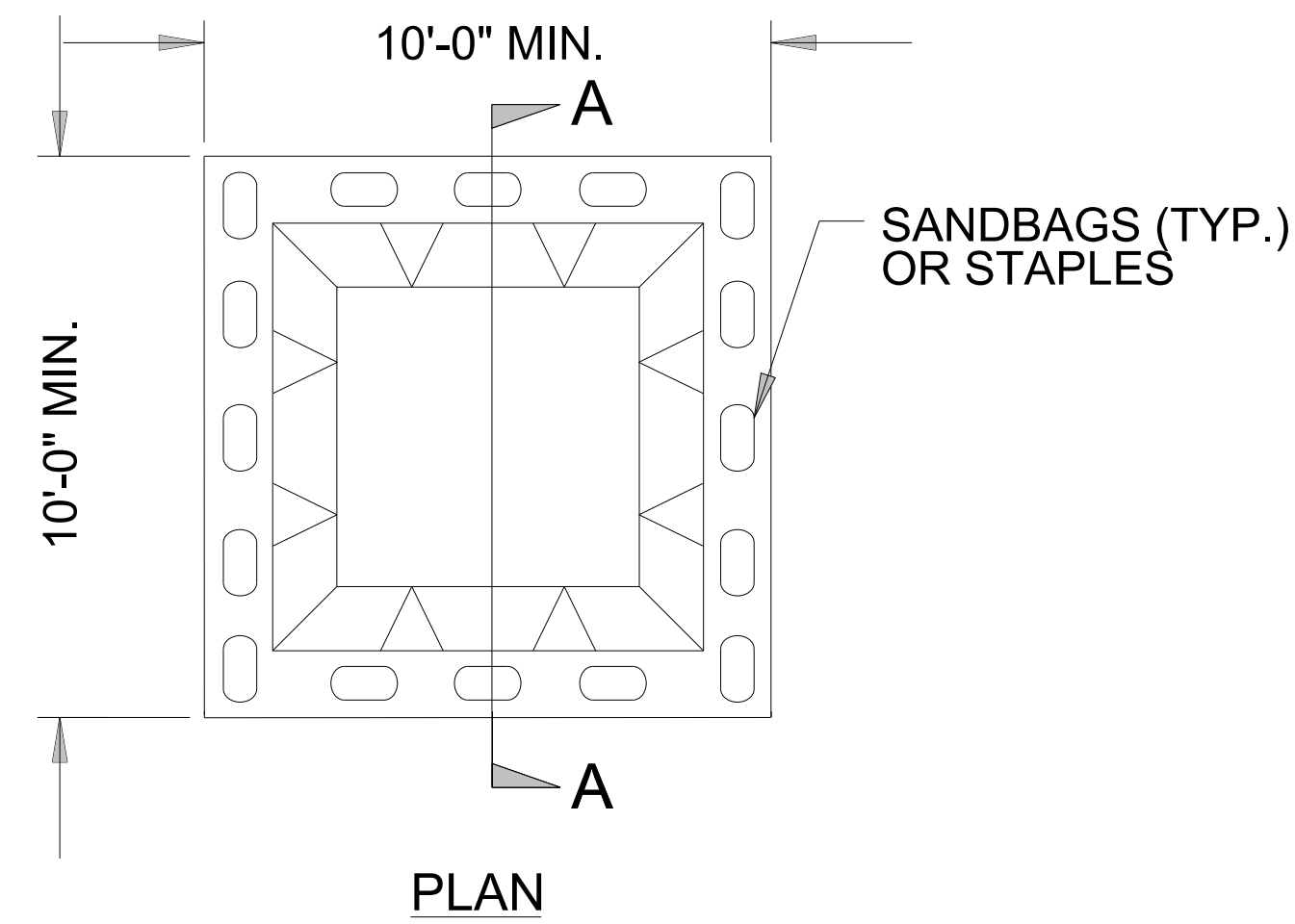
PROJECT REFERENCE NO. <i>U-6011</i>	SHEET NO. <i>EC-02</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

## 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				

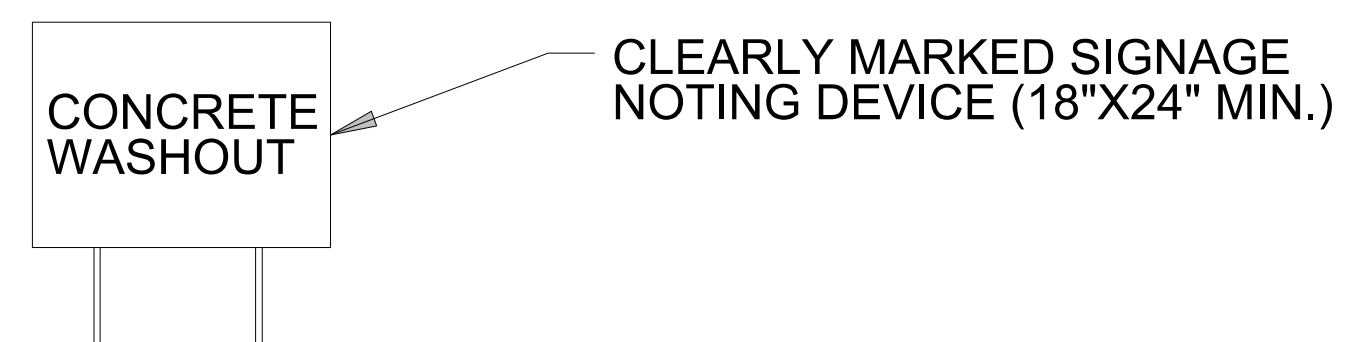
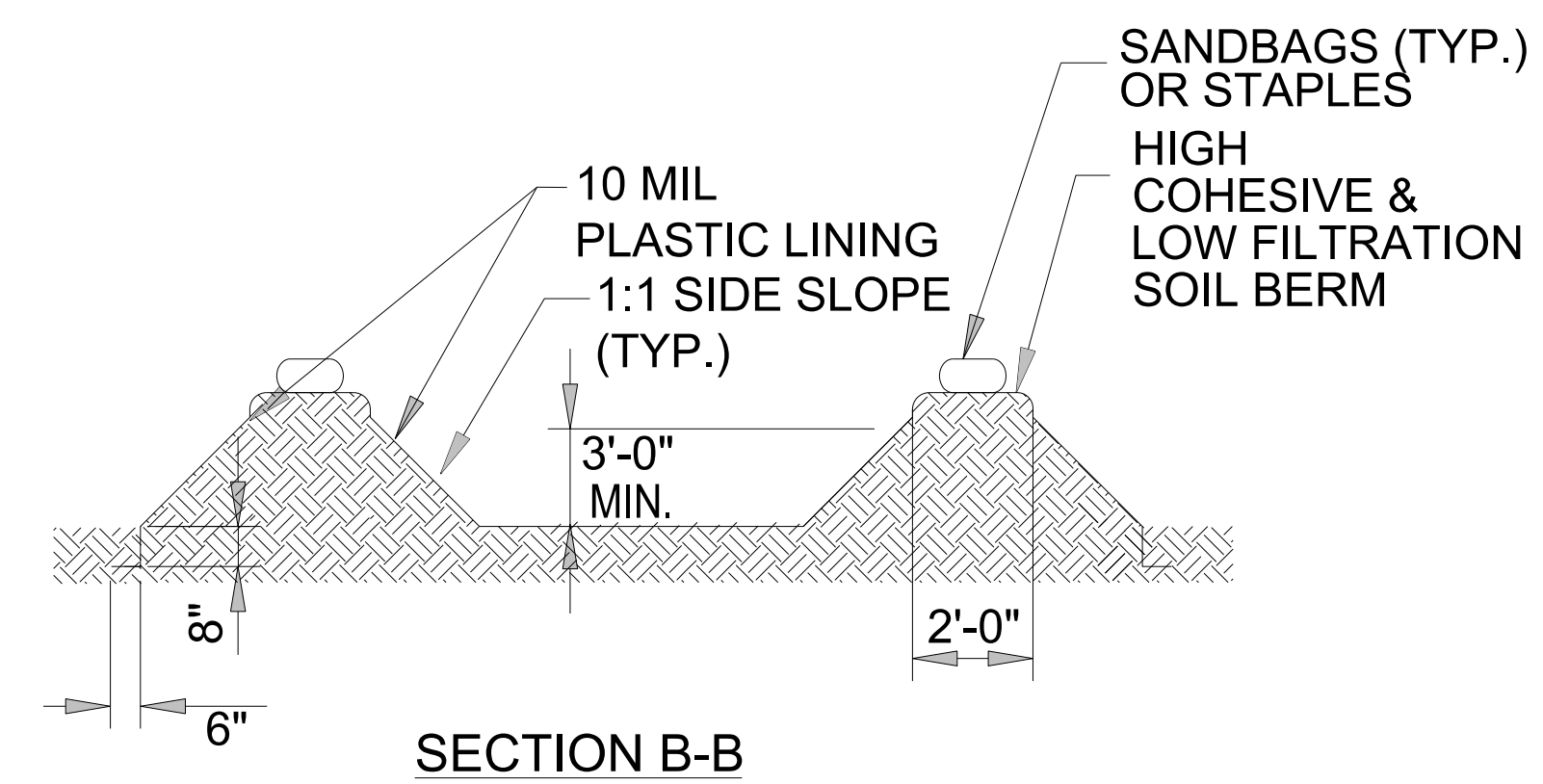
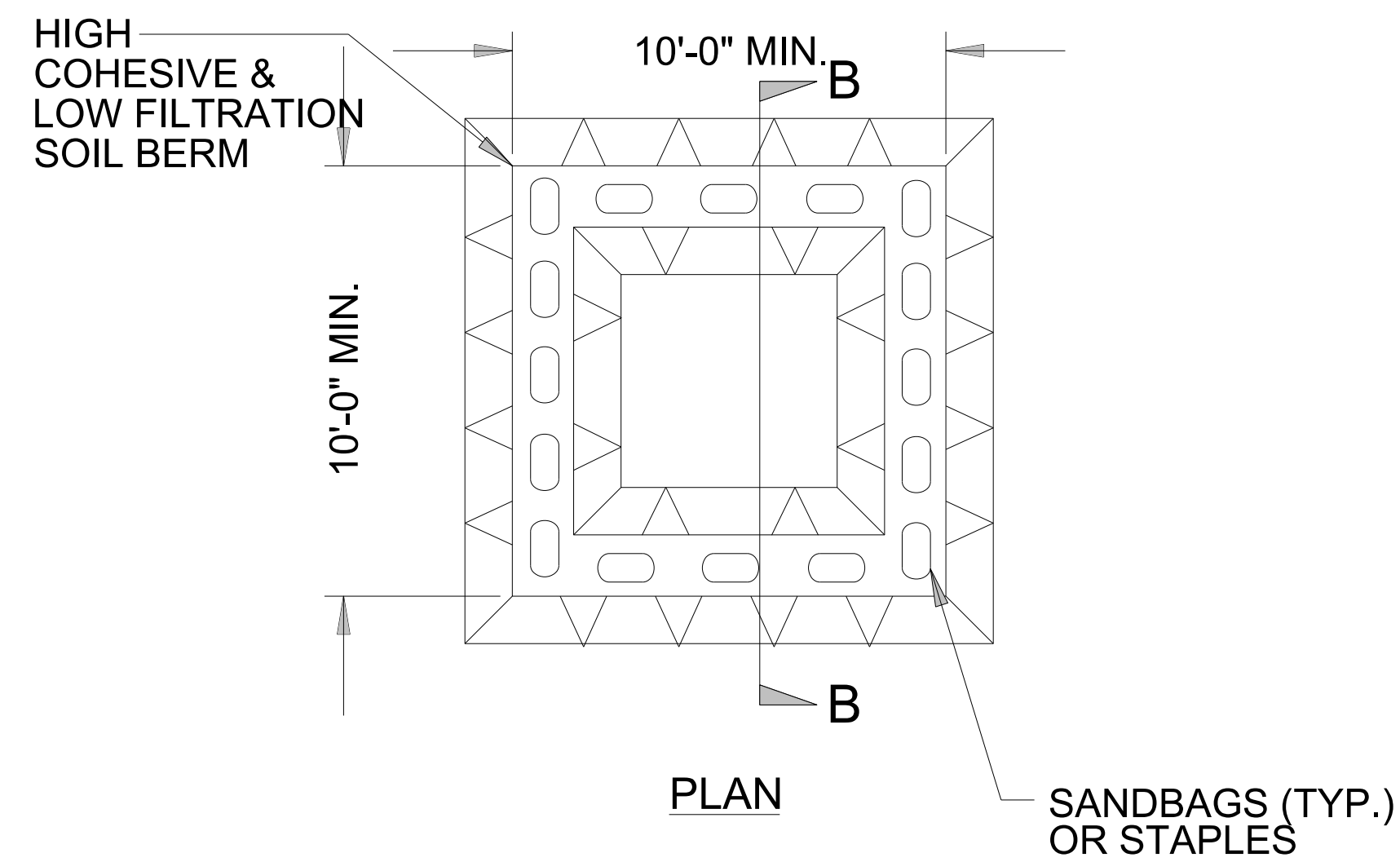
# ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO. <i>U-6011</i>	SHEET NO. <i>EC-02A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**BELOW GRADE WASHOUT STRUCTURE**  
NOT TO SCALE

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

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PROJECT REFERENCE NO. <i>U-6011</i>	SHEET NO. <i>EC-03</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

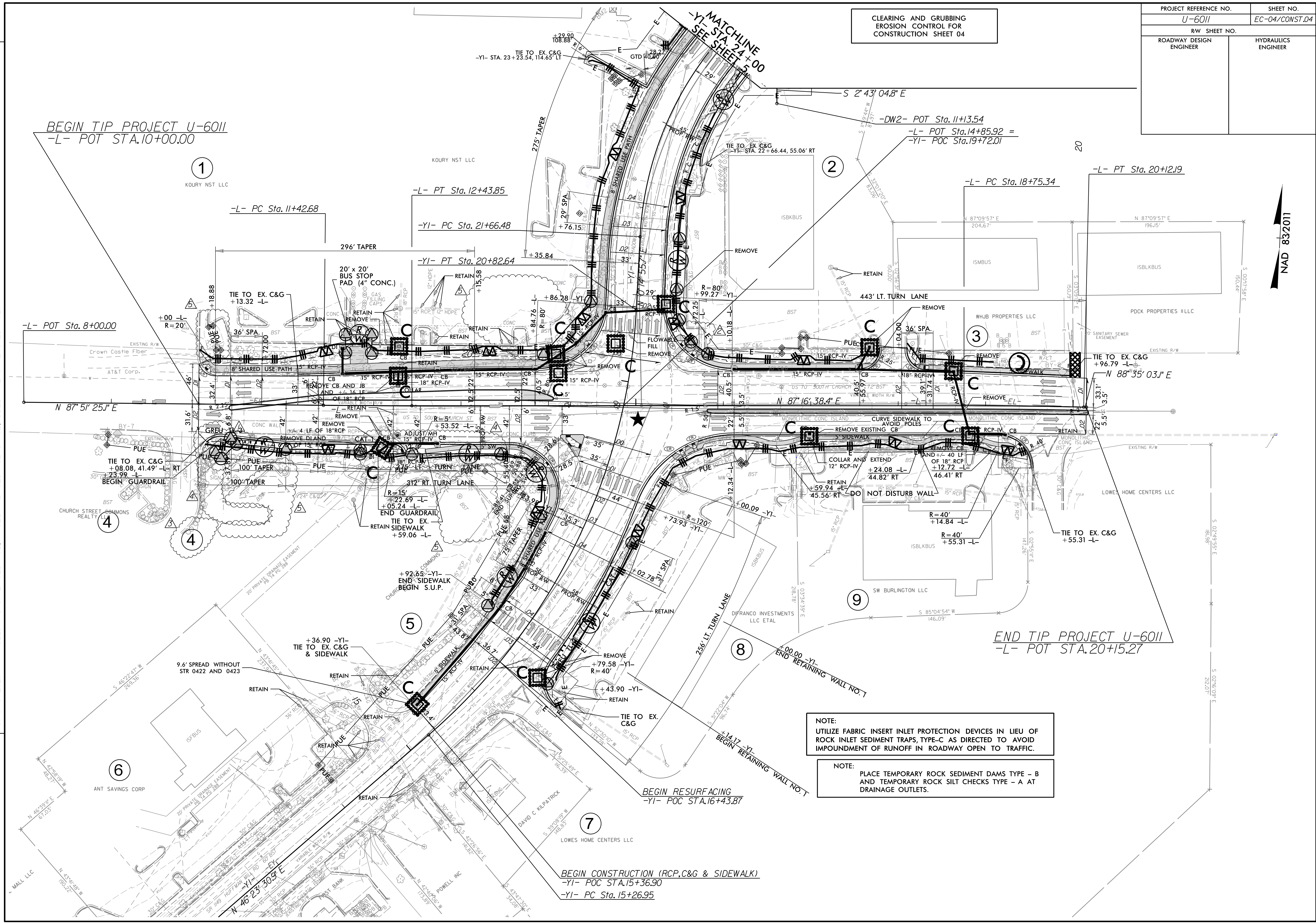
# ***SOIL STABILIZATION TIMEFRAMES***

<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



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04

PROJECT REFERENCE NO.	SHEET NO.
U-6011	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

1: 5/12/2021 - REVISED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT ON PARCELS 4 AND 5.  
 2: 03/16/2022 - REVISED RIGHT OF WAY ON PARCEL 2 TO AVOID WALGREENS SIGN.  
 3: 04/21/2022 - COMBINED HOLLY HILL MALL OUTPARCEL 5 TO PARCEL 4.  
 4: 11/09/2022 - REVISED RIGHT OF WAY ON PARCELS 4 & 5 DUE TO CHANGES IN FINAL SURVEY FILE.  
 5: 10/13/2023 - PARCELS 4 & 5-REVISED PUE, PARCEL 4-REVISED TCE & AUE-ADDED PUE & REMOVED PUE.

BEGIN TIP PROJECT U-6011  
-L- POT STA. 10+00.00

END TIP PROJECT U-6011  
-L- POT STA. 20+15.27

NOTE:  
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF  
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID  
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

BEGIN CONSTRUCTION (RCP, C&G & SIDEWALK)  
-YI- POC STA. 15+36.90  
-YI- PC STA. 15+26.95

BEGIN RESURFACING  
-YI- POC STA. 16+43.87

-L- PC Sta. 11+42.68

-L- PT Sta. 12+43.85

-YI- PC Sta. 21+66.48

-YI- PT Sta. 20+82.64

-L- PC Sta. 18+75.34

-L- PT Sta. 20+12.19

-DW2- POT Sta. 11+13.54  
-L- POT Sta. 14+85.92 =  
-YI- POC Sta. 19+72.01

-L- POT Sta. 8+00.00

TIE TO EX. C&G  
+96.79 -L-

TIE TO EX. C&G  
+55.31 -L-

+36.90 -YI-  
TIE TO EX. C&G  
& SIDEWALK

+79.58 -YI-  
R=40'

+43.90 -YI-  
RETAIN

TIE TO EX.  
C&G

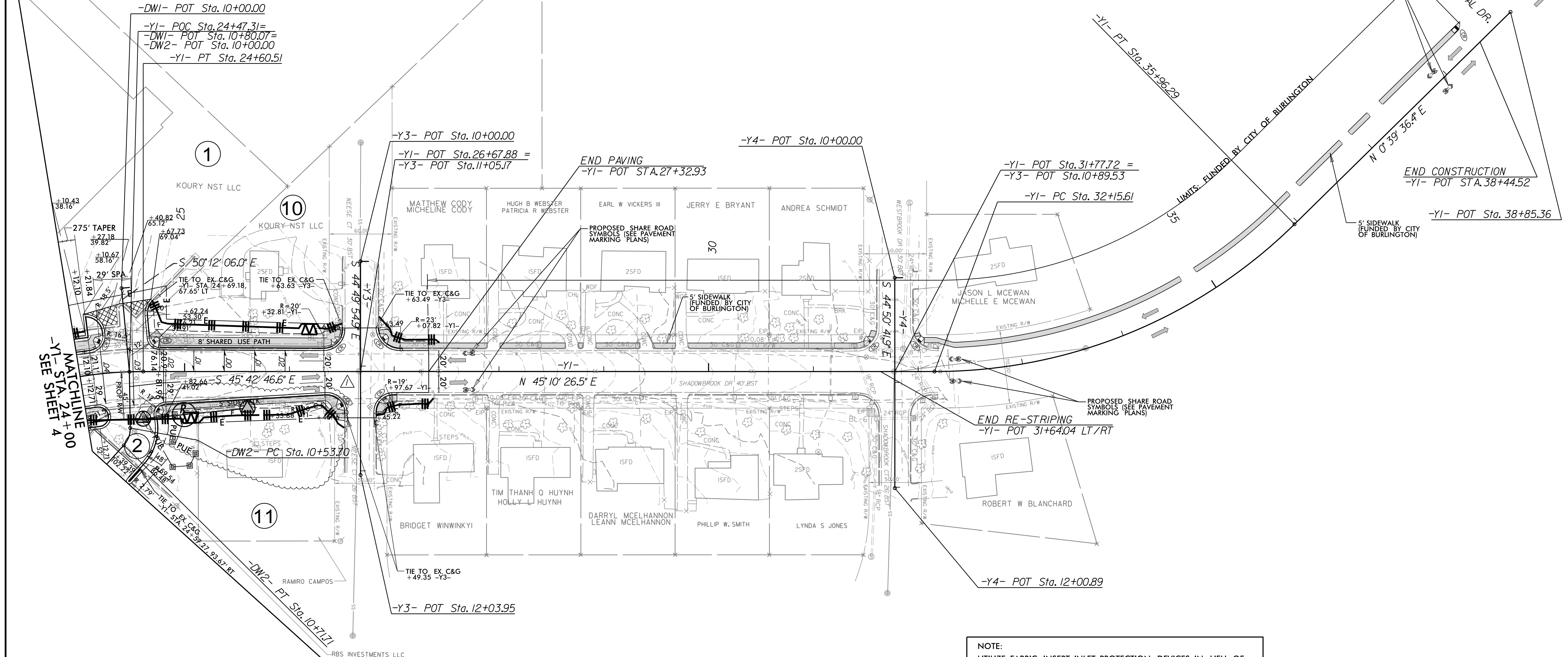
BEGIN RESURFACING  
-YI- POC STA. 16+43.87

BEGIN CONSTRUCTION (RCP, C&G & SIDEWALK)  
-YI- POC STA. 15+36.90  
-YI- PC STA. 15+26.95



CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 05

PROJECT REFERENCE NO.	SHEET NO.
U-6011	EC-05/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



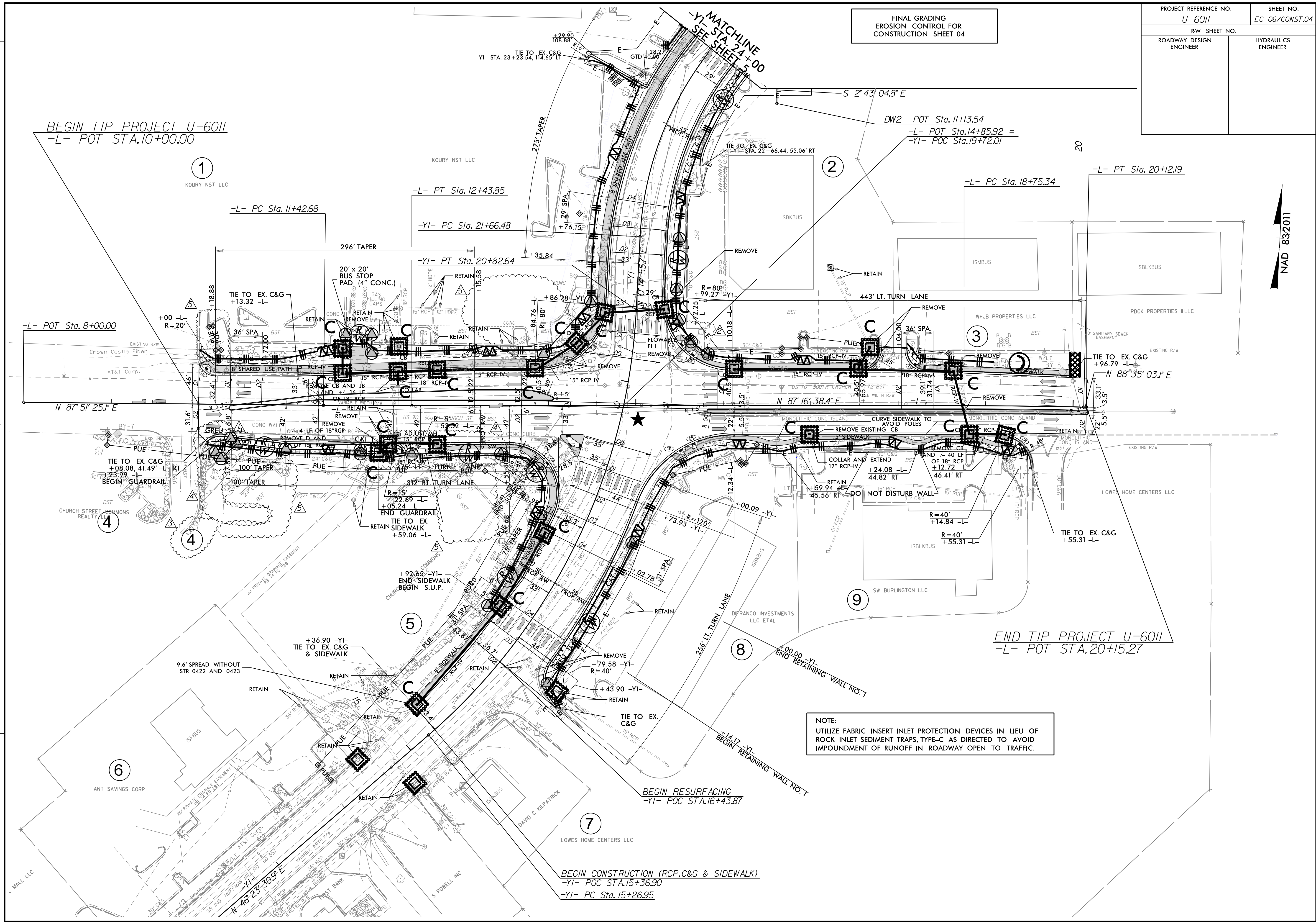
REVISIONS  
1:8/4/2022 - REVISED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT ON PARCEL 11.

- NOTE:  
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.
- NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
U-6011	EC-06/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04



REVISIONS

1: 5/12/2021 - REVISED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT ON PARCELS 4 AND 5.  
2: 03/16/2022 - REVISED RIGHT OF WAY ON PARCEL 2 TO AVOID WALGREENS SIGN.  
3: 04/21/2022 - COMBINED HOLLY HILL MALL OUTPARCEL 5 TO PARCEL 4.  
4: 11/09/2022 - REVISED RIGHT OF WAY ON PARCELS 4 & 5 DUE TO CHANGES IN FINAL SURVEY FILE.  
5: 10/13/2023 - PARCELS 4 & 5-REVISED PUE, PARCEL 1-REVISED TCE & AUE-ADDED PUE & REMOVED PUE.

NOTE:  
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF  
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID  
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

BEGIN TIP PROJECT U-6011  
-L- POT STA. 10+00.00

END TIP PROJECT U-6011  
-L- POT STA. 20+15.27

BEGIN CONSTRUCTION (RCP, C&G & SIDEWALK)  
-Y1- POC STA. 15+36.90  
-Y1- PC STA. 15+26.95

BEGIN RESURFACING  
-Y1- POC STA. 16+43.87

-L- POT STA. 8+00.00

-L- PC STA. 11+42.68

-L- PT STA. 12+43.85

-Y1- PC STA. 21+66.48

-Y1- PT STA. 20+82.64

-DW2- POT STA. 11+13.54

-L- POT STA. 14+85.92 =  
-Y1- POC STA. 19+72.01

-L- PC STA. 18+75.34

-L- PT STA. 20+12.19

TIE TO EX. C&G  
+96.79 -L-

N 88°35'03.1" E

TIE TO EX. C&G  
+55.31 -L-

+00 -L-  
R=20'

TIE TO EX. C&G  
+08.08, 41.49' -L-  
23.99' -L-

R=15'  
+22.69 -L-  
+05.24 -L-  
END GUARDRAIL  
TIE TO EX.  
SIDEWALK  
+59.06 -L-

+92.65 -Y1-  
END SIDEWALK  
BEGIN S.U.P.

+36.90 -Y1-  
TIE TO EX. C&G  
& SIDEWALK

REMOVE  
+79.58 -Y1-  
R=40'

+43.90 -Y1-  
RETAIN

TIE TO EX.  
C&G

+14.17 -Y1-  
BEGIN RETAINING WALL NO. 7

+00.00 -Y1-  
END RETAINING WALL NO. 7

BEGIN RESURFACING  
-Y1- POC STA. 16+43.87

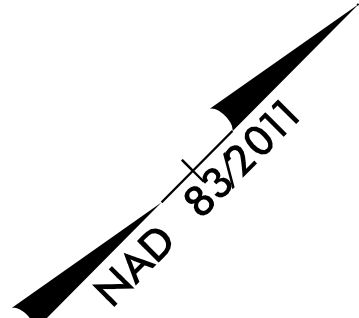
BEGIN CONSTRUCTION (RCP, C&G & SIDEWALK)  
-Y1- POC STA. 15+36.90  
-Y1- PC STA. 15+26.95

NAD 832011



FINAL GRADING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 05

PROJECT REFERENCE NO.	SHEET NO.
U-6011	EC-07/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS  
1:8/4/2022 - REVISED RIGHT OF WAY AND PERMANENT UTILITY EASEMENT ON PARCEL 11.

