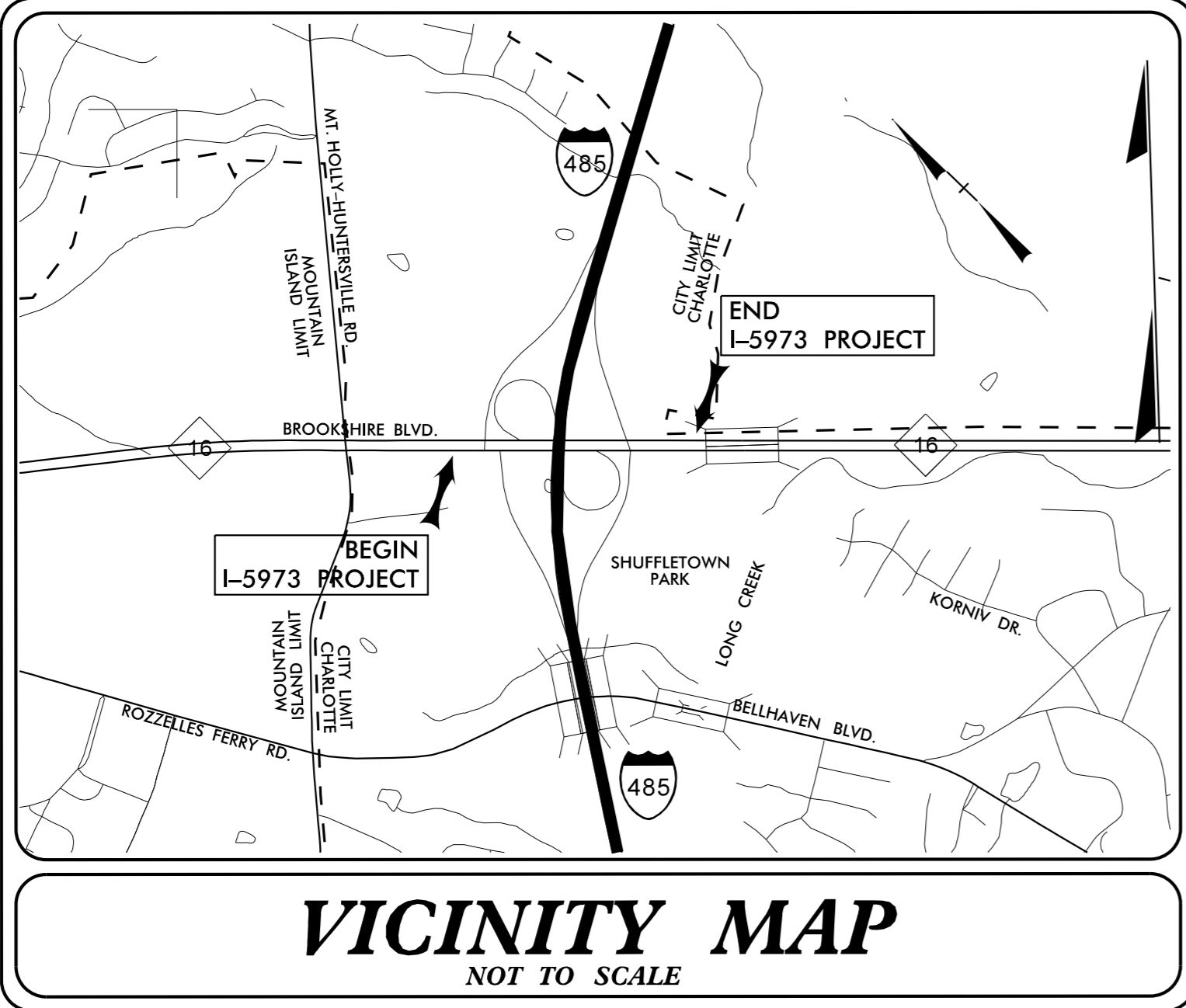


**This electronic collection of documents is provided  
for the convenience of the user  
and is Not a Certified Document –**

**The documents contained herein were originally issued  
and sealed by the individuals whose names and license  
numbers appear on each page, on the dates appearing  
with their signature on that page.**

**This file or an individual page  
shall not be considered a certified document.**

**TIP PROJECT: I-5973**

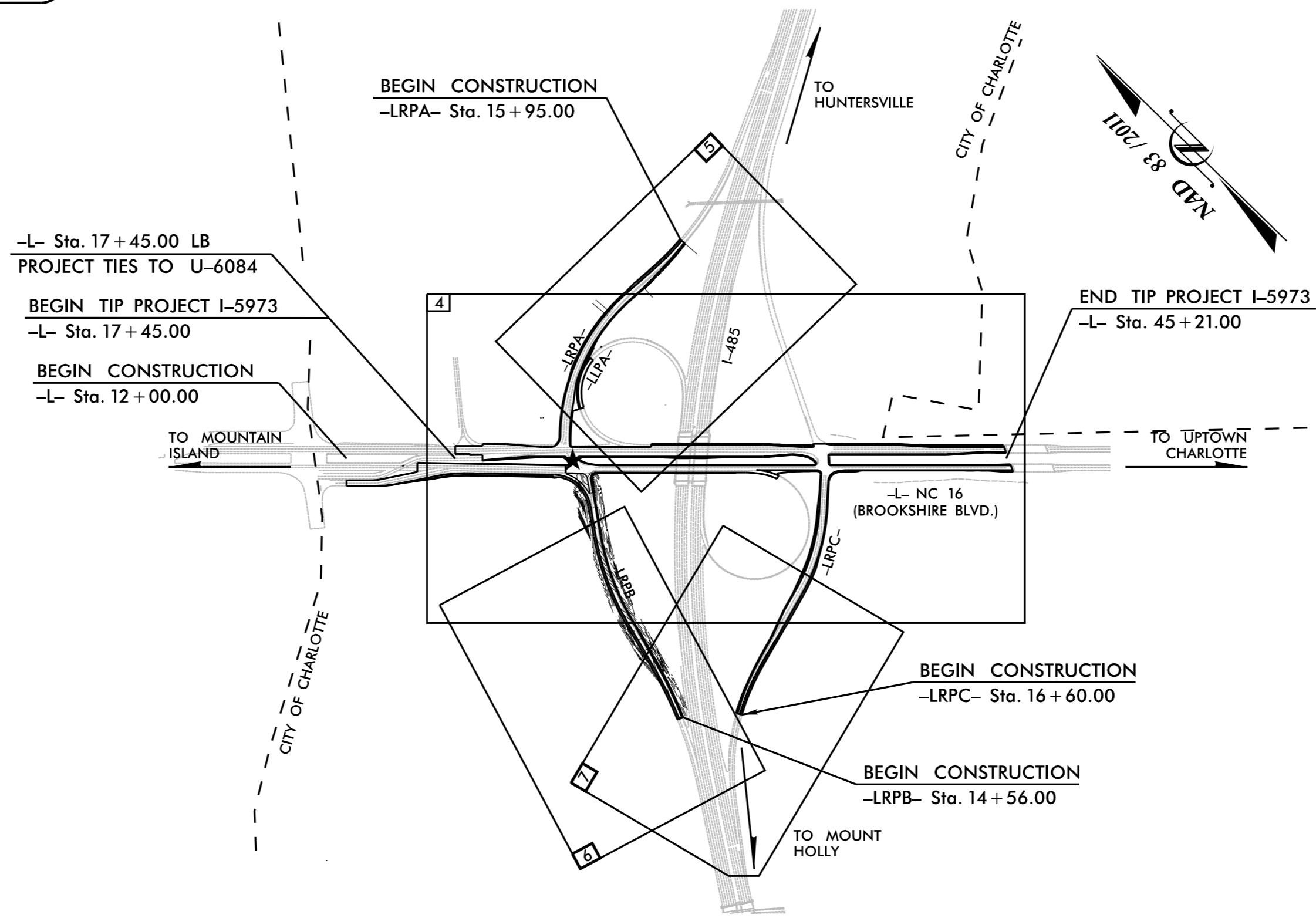


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL

**MECKLENBERG COUNTY**

LOCATION: NC 16 (BROOKSHIRE BLVD) AND NORTHERN I-485 INTERCHANGE

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

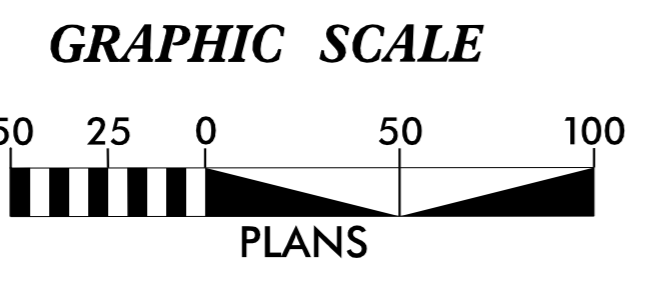


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5973	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44990.1.1		P.E.	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	P.E.	Symbol
1630.03	Temporary Silt Ditch		TD
1630.05	Temporary Diversion		TD
1605.01	Temporary Silt Fence		III III III
1606.01	Special Sediment Control Fence		III III III
1622.01	Temporary Berms and Slope Drains		III III III
1630.02	Silt Basin Type B		III III III
1633.01	Temporary Rock Silt Check Type-A		III III III
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)		III III III
1633.02	Temporary Rock Silt Check Type-B		III III III
	Wattle/Coir Fiber Wattle		III III III
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)		III III III
1634.01	Temporary Rock Sediment Dam Type-A		III III III
1634.02	Temporary Rock Sediment Dam Type-B		III III III
1635.01	Rock Pipe Inlet Sediment Trap Type-A		III III III
1635.02	Rock Pipe Inlet Sediment Trap Type-B		III III III
1630.04	Stilling Basin		III III III
1630.06	Special Stilling Basin		III III III
	Rock Inlet Sediment Trap:		
1632.01	Type A		III III III
1632.02	Type B		III III III
1632.03	Type C		III III III
	Skimmer Basin		III III III
	Tiered Skimmer Basin		III III III
	Infiltration Basin		III III III

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



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH  
THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000  
GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019  
AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF  
ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

**Kimley » Horn**

Prepared in the Office of:  
**Kimley-Horn**  
421 Fayetteville Street, Suite 600  
Raleigh, NC 27601

Designed by:  
**VANCE BLANTON** 3708  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings  
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1633.03 Temporary Rock Silt Check Type C
1630.02 Silt Basin Type 3	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	1640.01 Coir Fiber Jaffle
1631.01 Matting Installation	1645.01 Temporary Stream Crossing

PROJECT REFERENCE NO. 1-5973	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

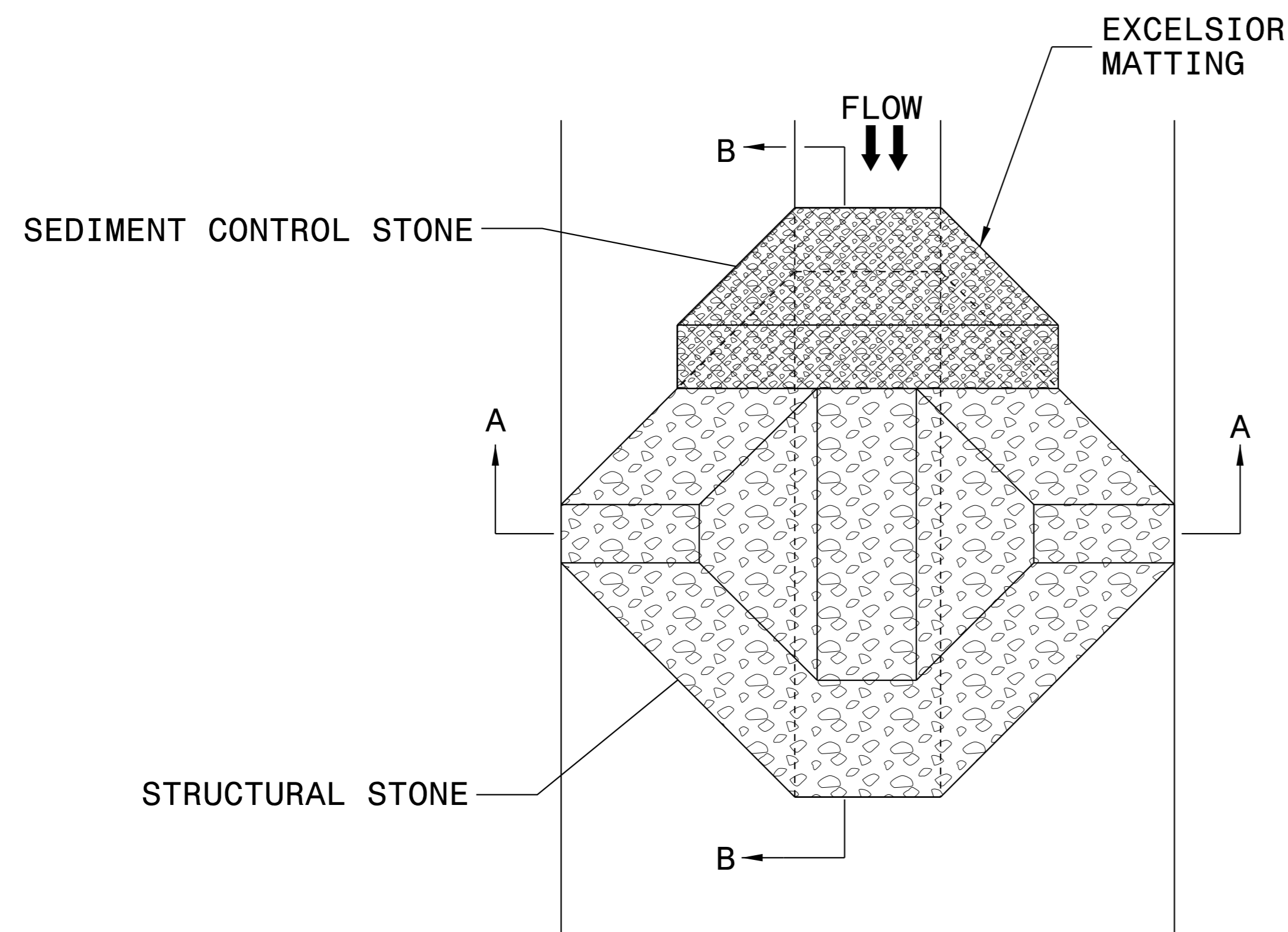
## NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

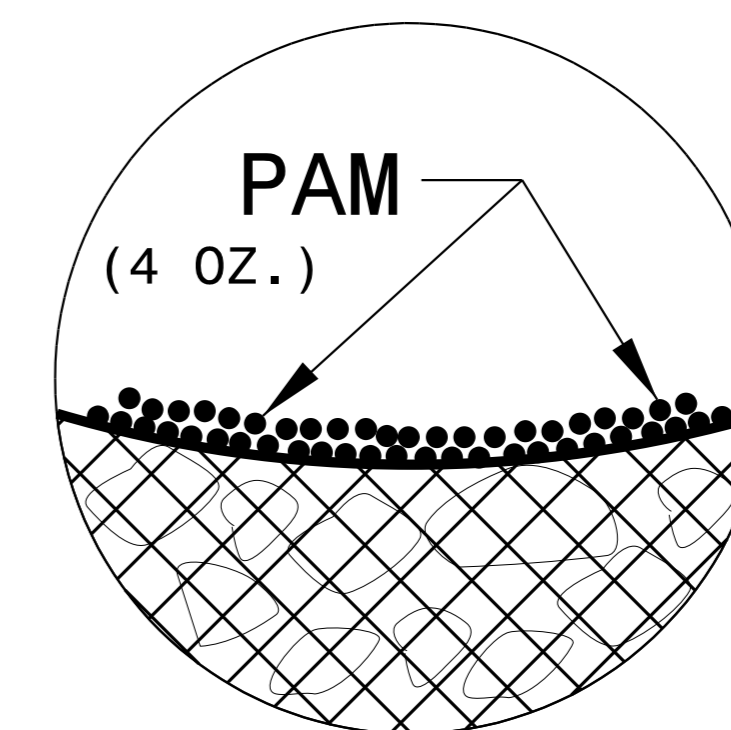
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

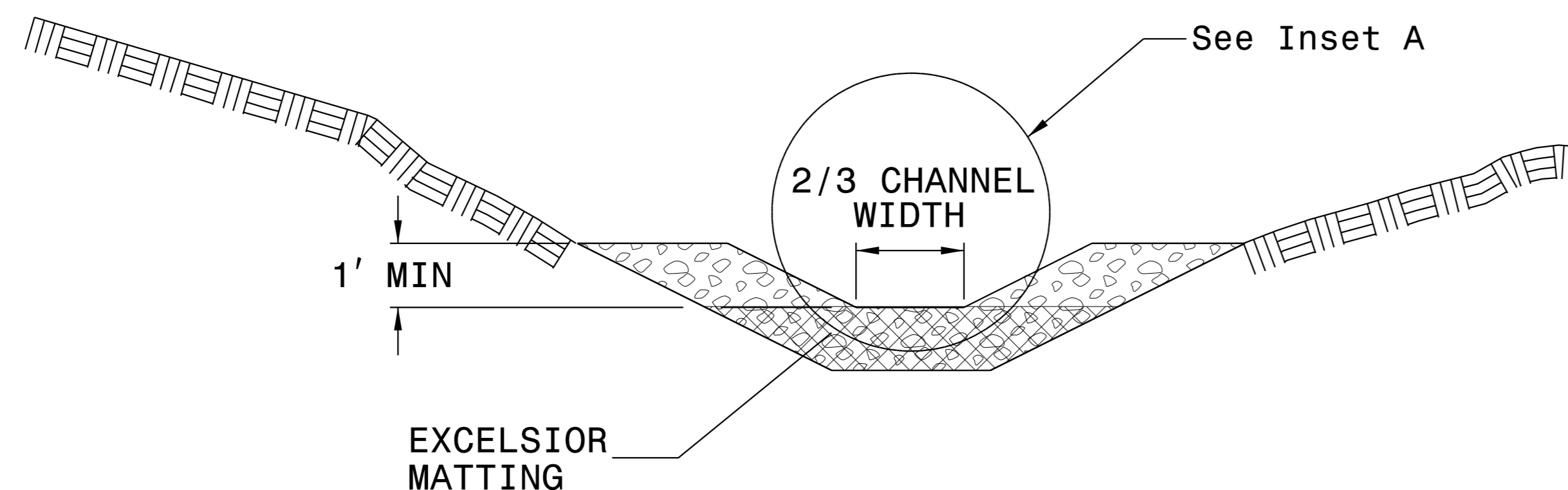
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



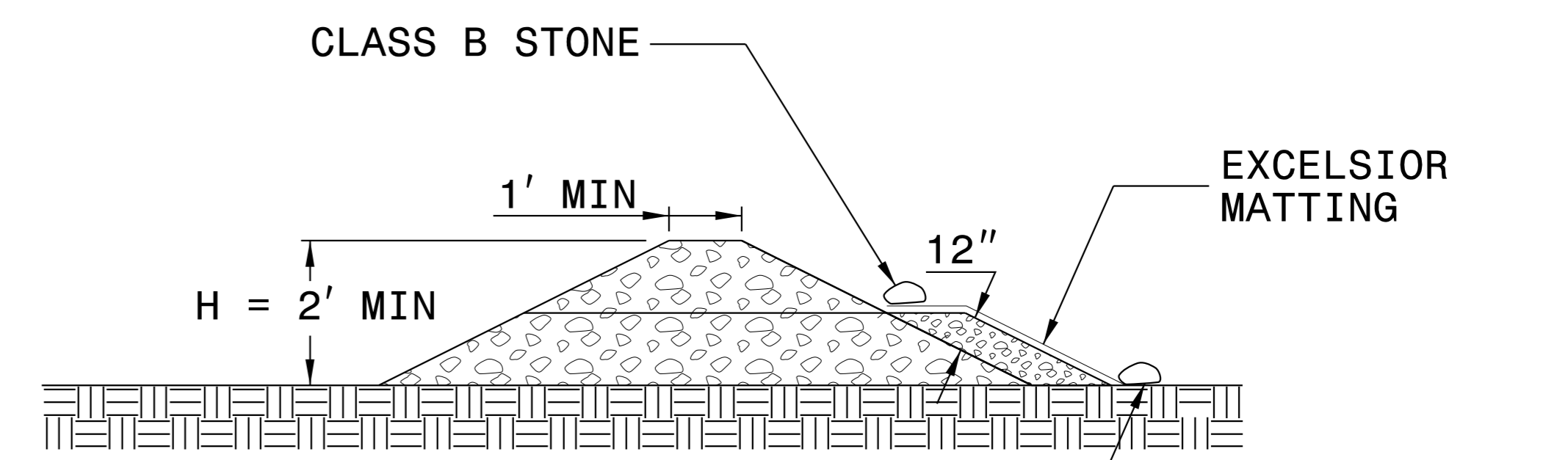
PLAN



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

REVISIONS

K:\CHL\PR\01036453 - 1-5973 (1-485 Brookshire)\Erosion Control\Design\Plan Sheets\1-5973.ec.dgn

2/23/2022

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

**SOIL STABILIZATION SUMMARY SHEET**

**MATTING FOR EROSION CONTROL (DITCHES)**

**MATTING FOR EROSION CONTROL (SLOPES)**

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<b>DITCHES</b>					
8	-L-	19+00	22+72	CL	750
8	-L-	24+00	27+72	CL	750
8	-L-	24+50	26+85	RT	400
8	-L-	27+72	30+96	CL	655
8	-L-	30+96	33+27	CL	465
8	-L-	32+27	35+00	CL	350
8, 10	-L-	20+50	24+50	RT	675
8, 10	-L-	26+50	27+00	LT	70
<b>DITCHES SUBTOTAL</b>					<b>4,115</b>

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<b>SLOPES</b>					
8	-L-	13+00	22+00	RT	2105
8	-L-	41+50	43+50	LT	269
8	-LU6084-	20+50	21+00	LT	102
8	-LRPA-	22+50	24+00	RT	217
10	-LRPB-	18+50	21+50	LT	479
<b>SLOPES SUBTOTAL</b>					<b>3,172</b>
<b>MATTING TO BE INSTALLED ON DITCHES*</b>					<b>4,115</b>
<b>MATTING TO BE INSTALLED ON SLOPES*</b>					<b>3,172</b>
<b>MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER</b>					<b>11,438</b>
<b>TOTAL</b>					<b>18,725</b>
<b>SAY</b>					<b>18,800</b>
* REFER TO FINAL CONSTRUCTION PHASE SHEETS FOR LOCATIONS OF MATTING					

REVISIONS

K:\CHL\PR\01036453 - I-5973 (I-485 Brookshire)\Erosion Control\Design\Plan Sheets\I-5973.ec.dgn 2/23/2022

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

# ***SOIL STABILIZATION TIMEFRAMES***

REVISIONS

K:\CHL\PR\01036453 - I-5973 (I-485 Brookshire)\Erosion Control\Design\Plan Sheets\I-5973.ec.dgn 2/23/2022

<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 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

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

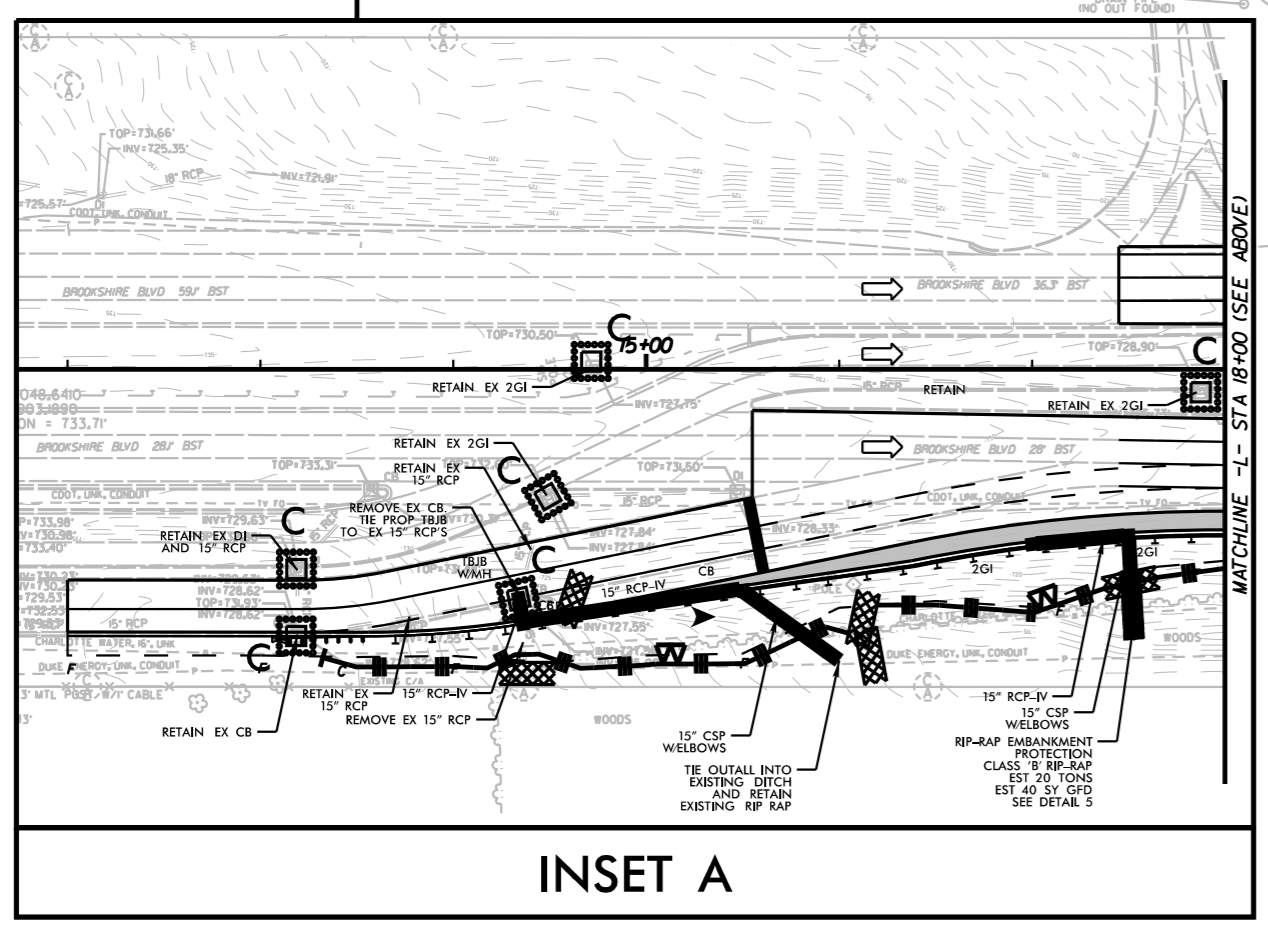
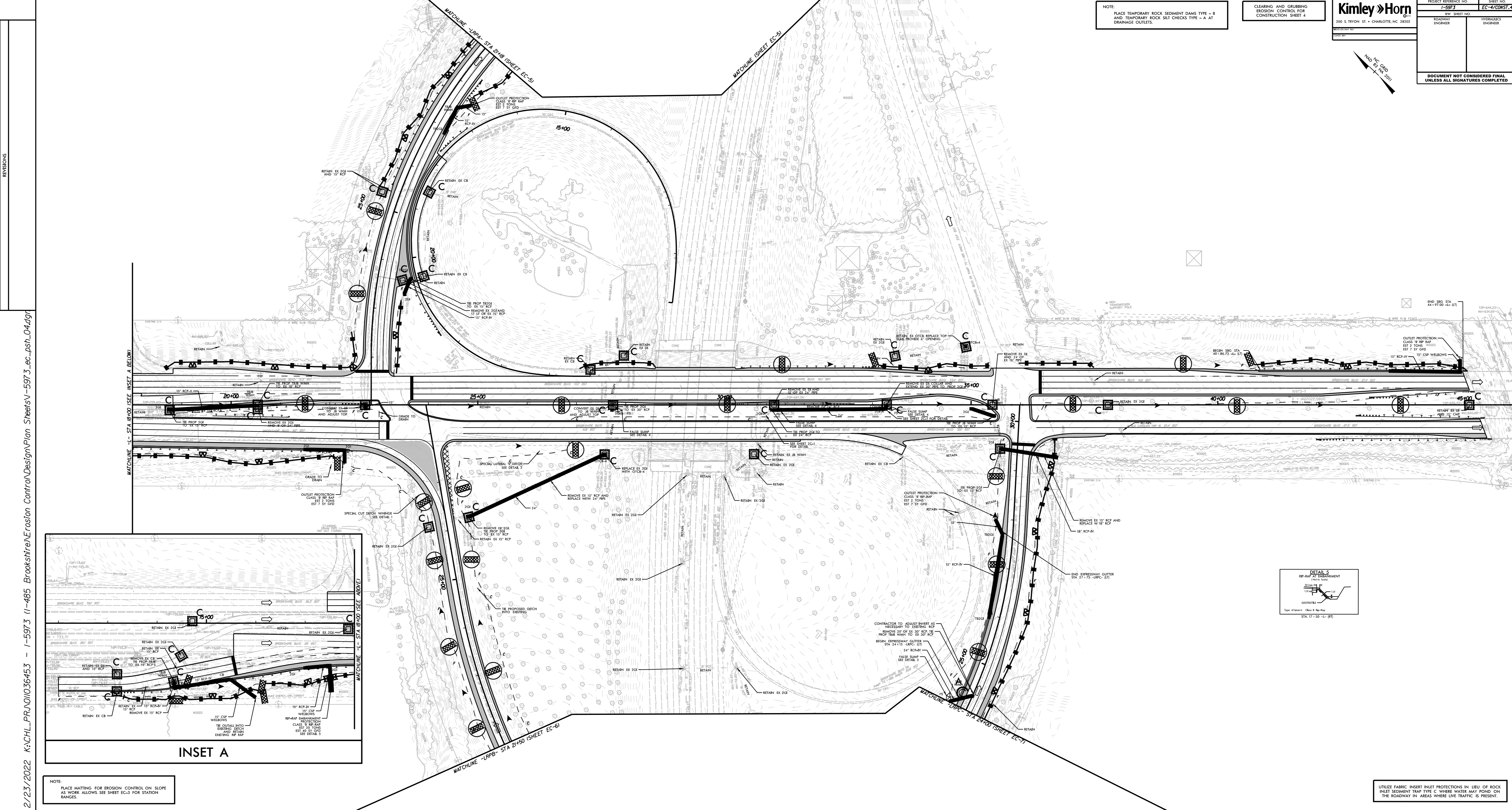
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

**Kimley Horn**  
300 S. TRYON ST. • CHARLOTTE, NC 28202

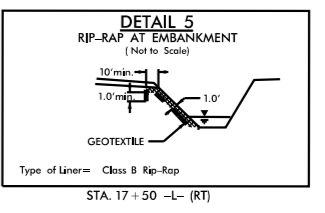
PROJECT REFERENCE NO.	SHEET NO.
1-5973	EC-4CONSTR.4
RAW SHEET NO.	
ROADWAY ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

AND NO. 100, 2011



NOTE:  
PLACE MATTING FOR EROSION CONTROL ON SLOPE  
AS WORK ALLOWS. SEE SHEET EC-3 FOR STATION  
RANGES.



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK  
INLET SEDIMENT TRAP TYPE C, WHERE WATER MAY POND ON  
THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

2/23/2022 K:\CHL\_PRA\01036453 - 1-5973 (1-485 BrookshireErosion ControlDesignPlan\_Sheets\1-5973\_ec\_psh\_04.dwg

REVISIONS

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

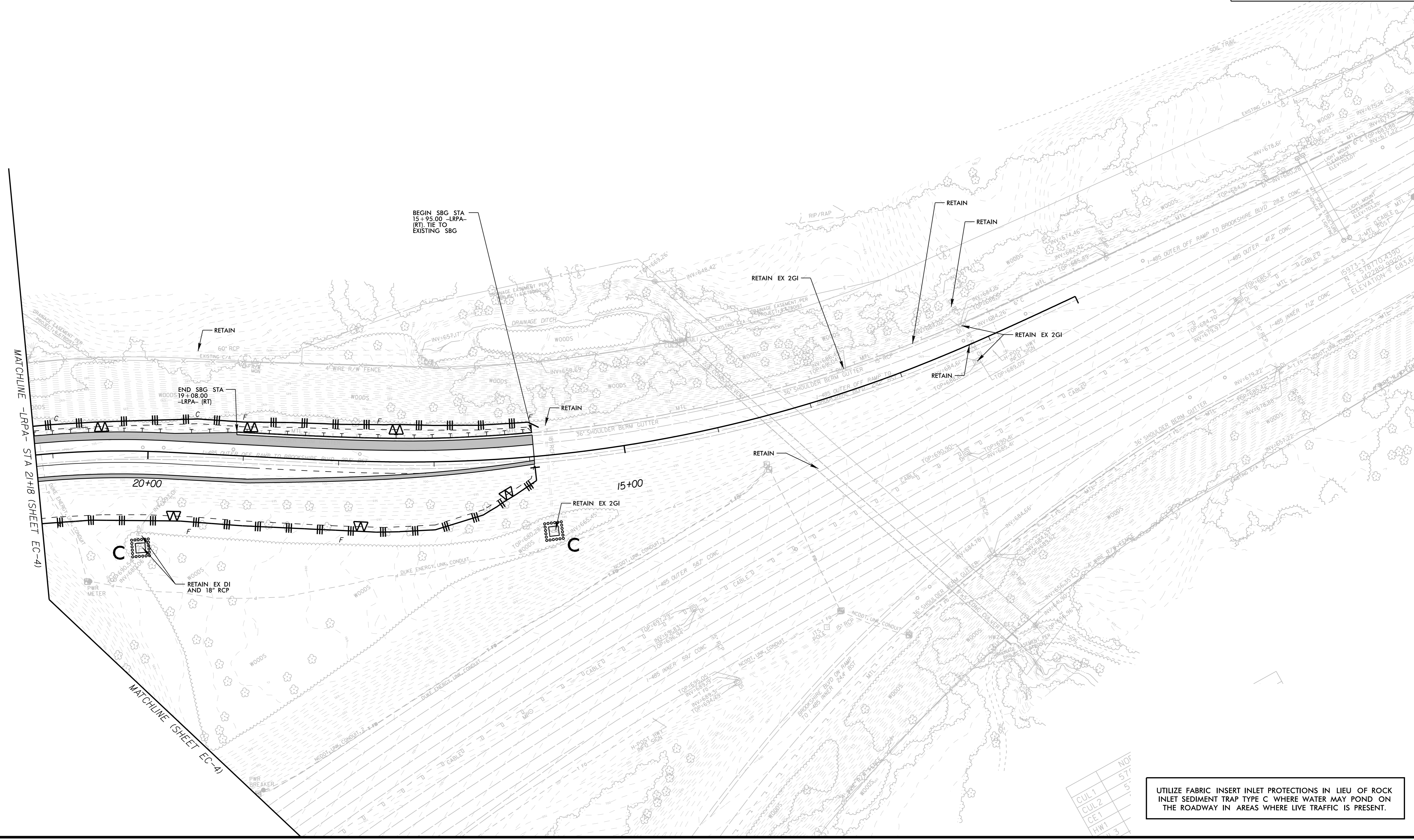
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 5



PROJECT REFERENCE NO. 1-5973		SHEET NO. EC-5/CONST.5	
RW SHEET NO. ROADWAY ENGINEER		HYDRAULICS ENGINEER	
200 S. TRYON ST. • CHARLOTTE, NC 28202			
RIGHT-OF-WAY REV. CONST. REV.			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

REVISIONS

K:\CHL\_P\01036453 - 1-5973 (1-485 Brookshire)Erosion Control\DesignPlan Sheets\1-5973.ec.psh\_05.dgn



CUL 1	NOF
CUL 2	574
CE 1	5
HW 1	
HW 3	

UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

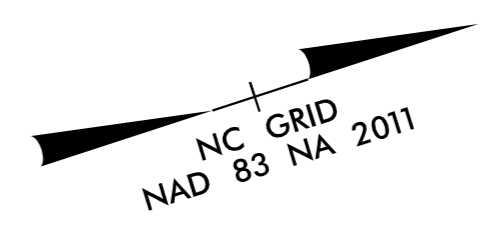
2/23/2022

PROJECT REFERENCE NO.	SHEET NO.
1-5973	EC-6/CONST 6
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

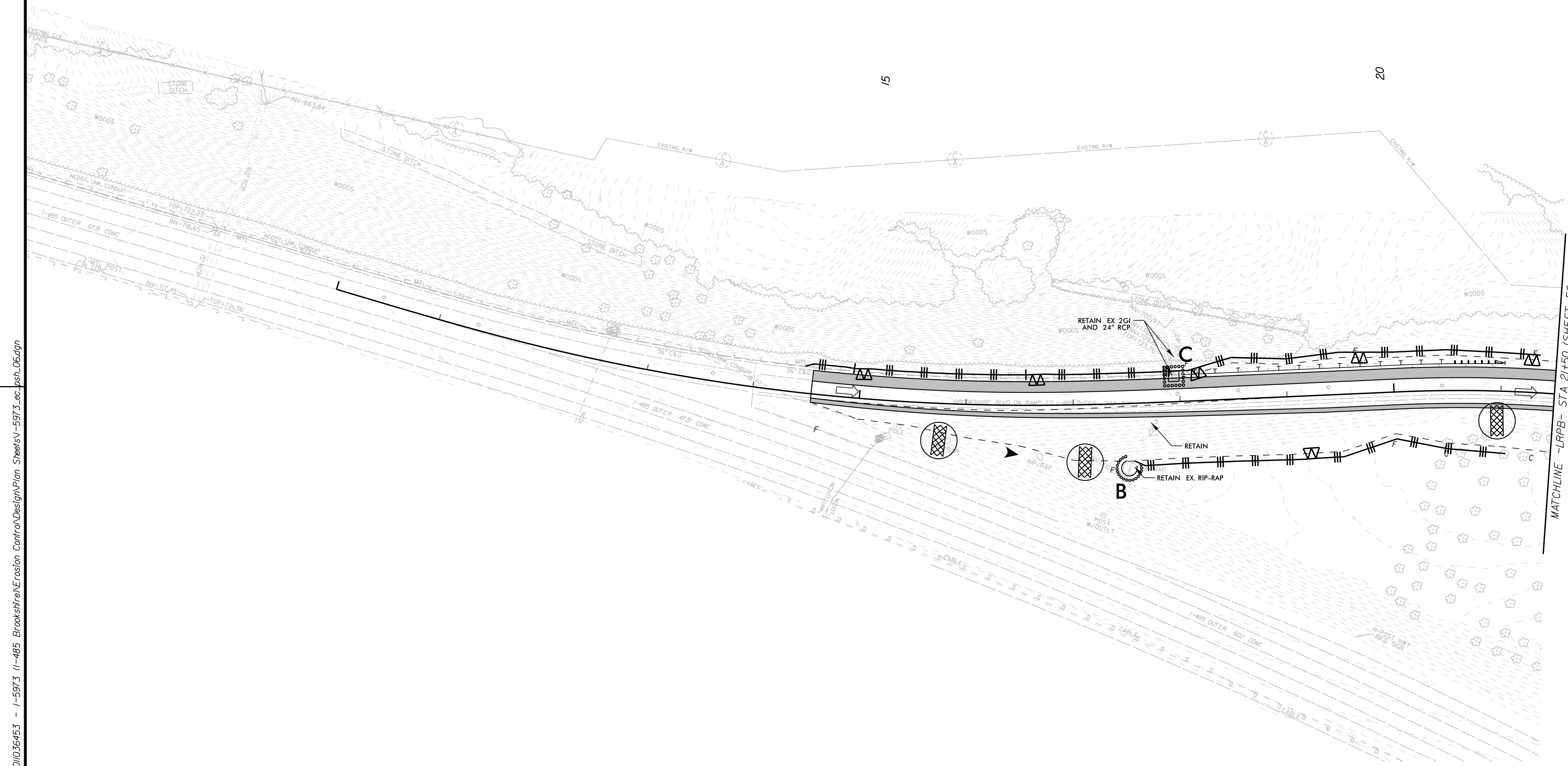
**Kimley»Horn**  
 200 S. TRYON ST. • CHARLOTTE, NC 28202  
 RIGHT-OF-WAY REV.  
 CONST. REV.

CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 6

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



REVISIONS



K:\CHL\_PRA\01036453 - 1-5973 1-485 Brookshire Erosion Control\DesignPlan Sheets\1-5973.ec.psh\_06.dgn

2/23/2022

UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.



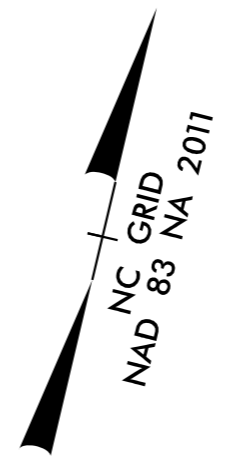
PROJECT REFERENCE NO.		SHEET NO.	
I-5973		EC-7/CONST.7	
R/W SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY ENGINEER			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

**Kimley Horn**  
 200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.  
 CONST. REV.

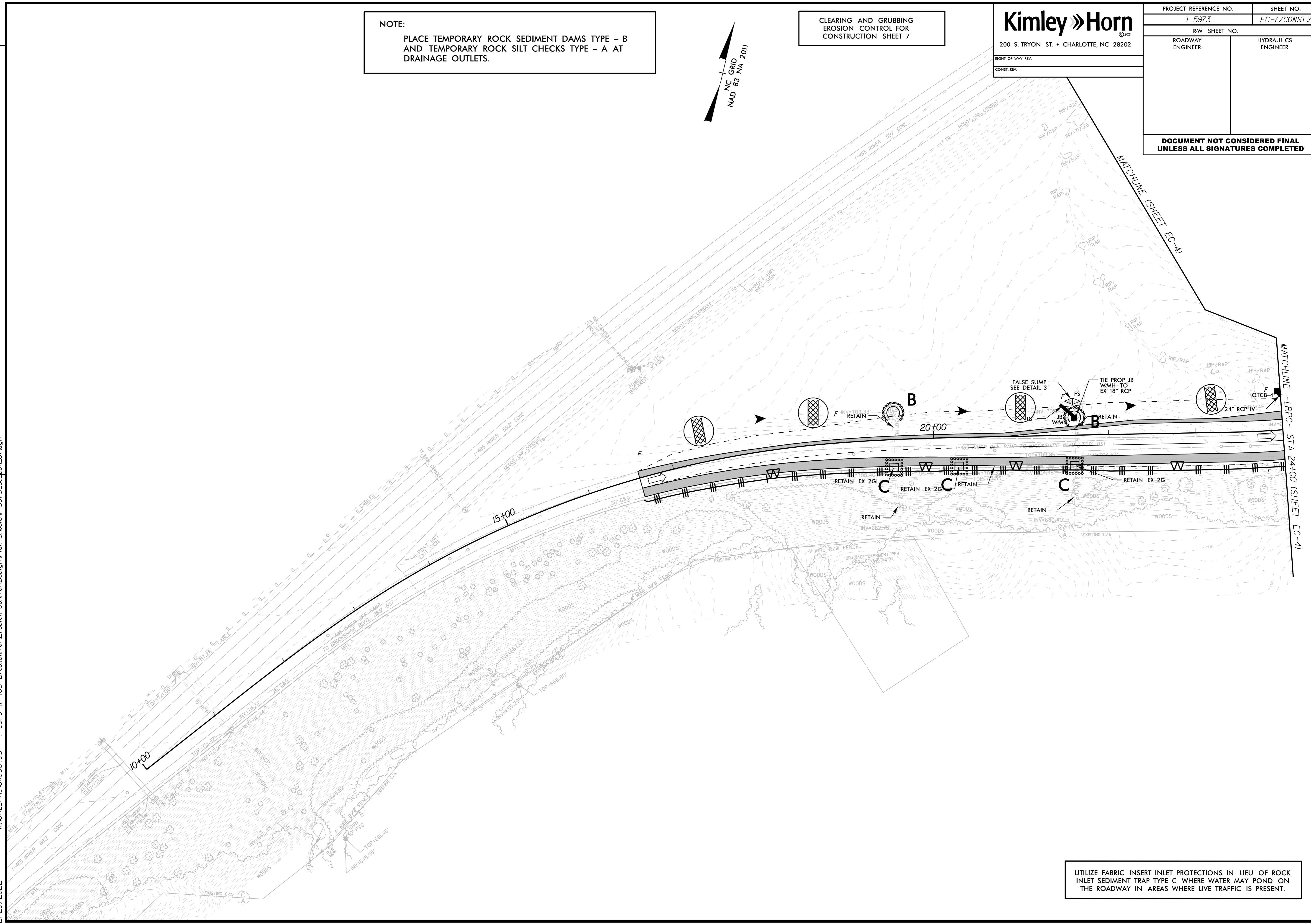
**NOTE:**  
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
 DRAINAGE OUTLETS.

CLEARING AND GRUBBING  
 EROSION CONTROL FOR  
 CONSTRUCTION SHEET 7



REVISIONS

K:\CHL\_PRR\01036453 - I-5973 (I-485 Brookshire)Erosion Control\DesignPlan Sheets\I-5973.ec.psh\_07.dgn



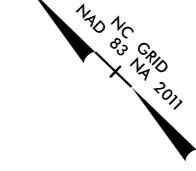
UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK  
 INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON  
 THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

2/23/2022

FINAL EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

**Kimley Horn**  
300 S. TRYON ST. • CHARLOTTE, NC 28202

PROJECT REFERENCE NO.	SHEET NO.
1-5973	EC-8/CONSTR-4
RAW SHEET NO.	
ROADWAY ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



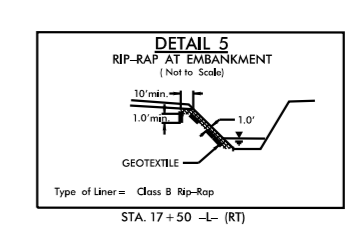
Place Matting for Erosion Control on Slope as Work Allows.  
-LRPA- Sta. 22+50 to Sta. 24+00 RT

Place Matting for Erosion Control on Slope as Work Allows.  
-L U6804- Sta. 20+50 to Sta. 21+00 M

Place Matting for Erosion Control on Slope as Work Allows.  
-L- Sta. 41+50 to Sta. 43+50 LT

Place Matting for Erosion Control on Slope as Work Allows.  
-L- Sta. 13+00 to Sta. 22+00 RT

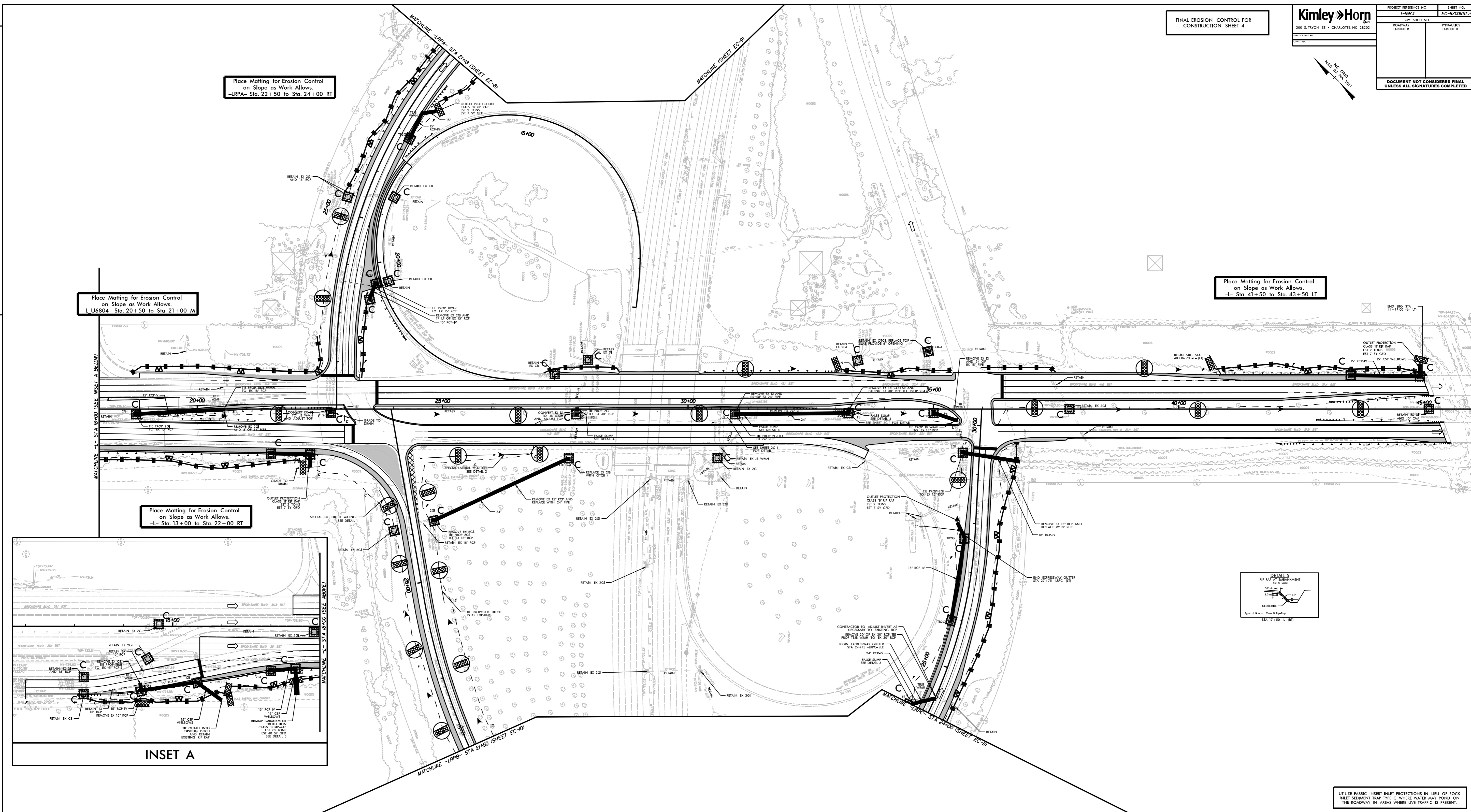
**INSET A**



UTILIZE FABRIC INSERT PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

2/23/2022 K:\CHL\_PRA\01036453 - 1-5973 (1-485 BrookshireErosion ControlDesignPlan\_Sheets\1-5973\_ec\_psh\_06.dwg

REVISIONS

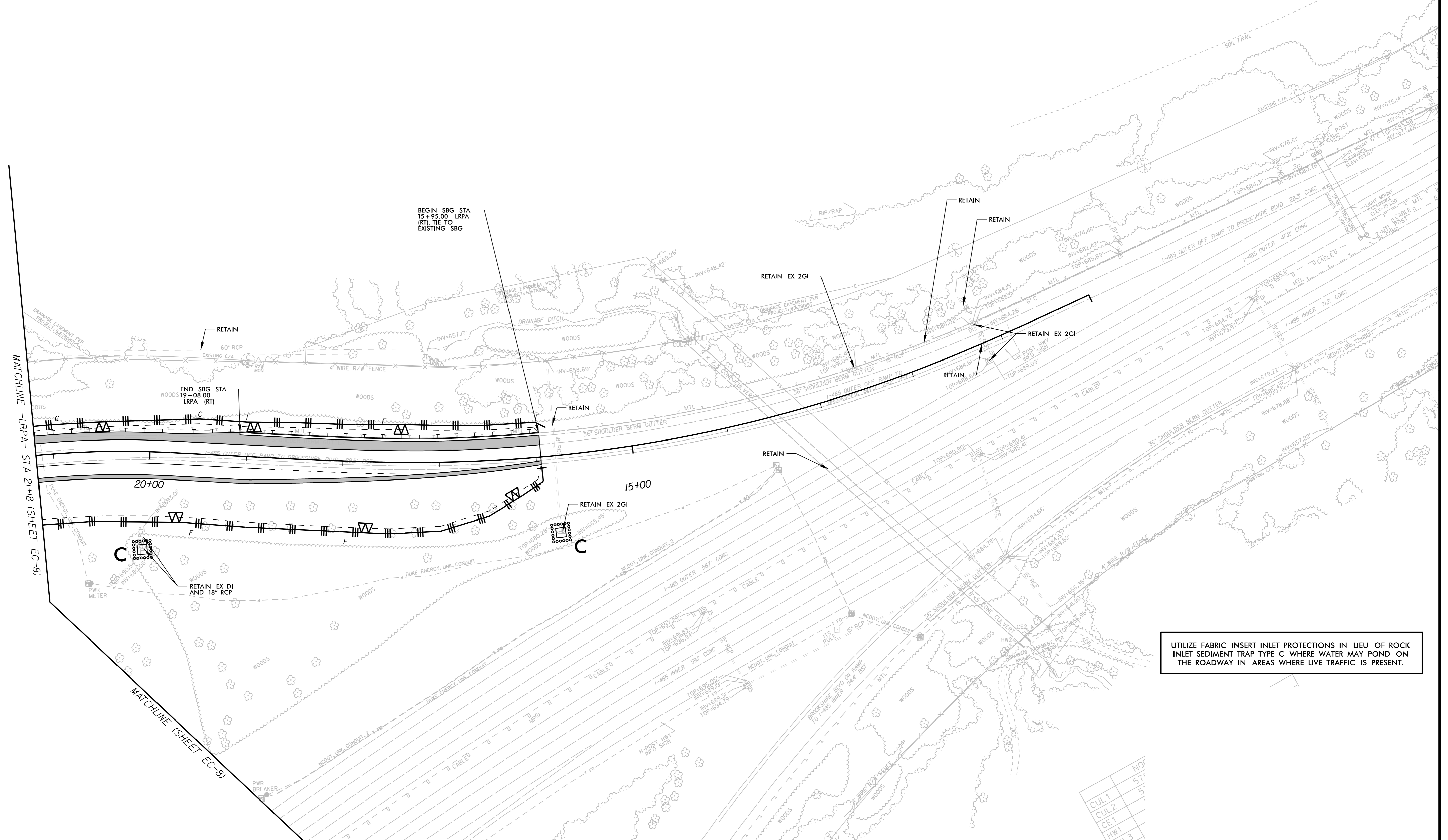




REVISIONS

K:\CHL\_P\01036453 - 1-5973 (1-485 Brookshire)Erosion Control\DesignPlan Sheets\1-5973.ec.psh\_09.dgn

2/23/2022



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

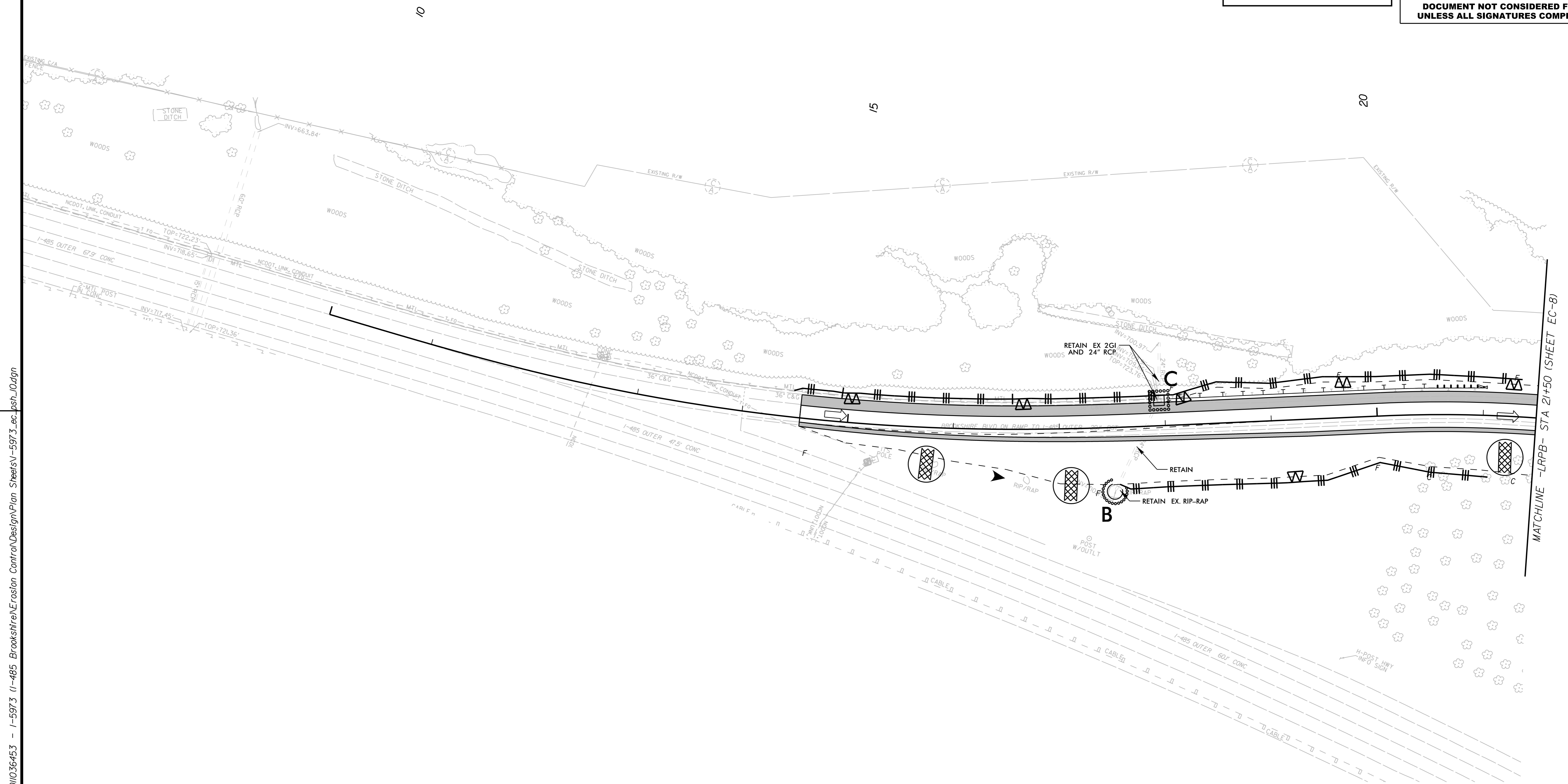
CUL 1	NOF
CUL 2	574
CE 1	5
HW 1	
HW 2	
HW 3	

FINAL EROSION CONTROL FOR  
CONSTRUCTION SHEET 6

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



REVISIONS



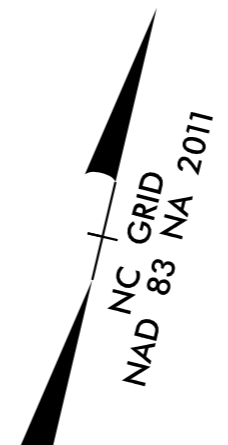
UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

K:\CHL\_PR\01036453 - 1-5973 1-485 Brookshire Erosion Control\DesignPlan Sheets\1-5973.ec.psh\_0.dgn

2/23/2022

REVISIONS

2/23/2022 K:\CHL\_P\01036453 - I-5973 I-485 Brookshire Erosion Control\DesignPlan Sheets\I-5973.ec.dsh\_lldgn



FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 7

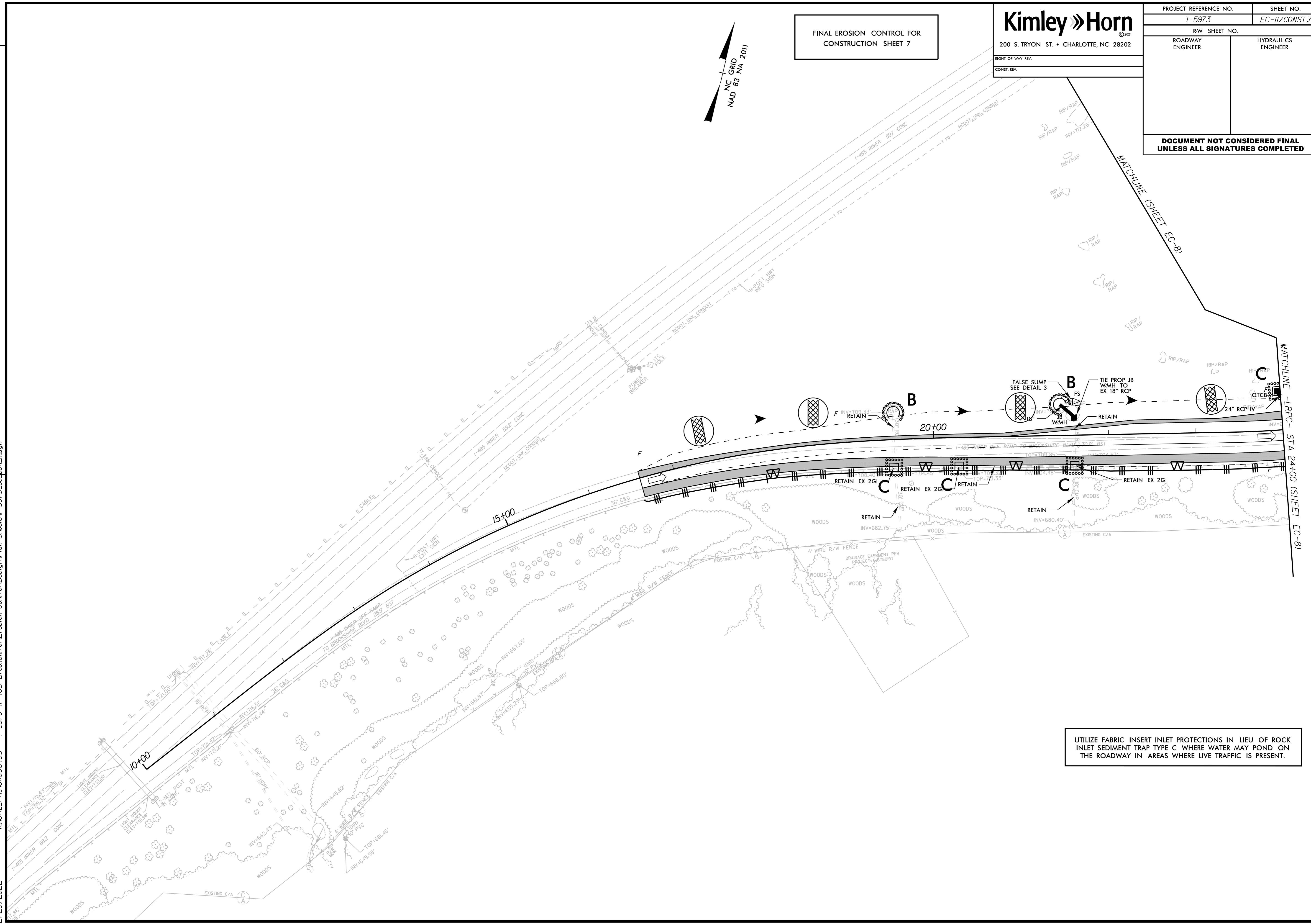
**Kimley Horn**

200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.  
CONST. REV.

PROJECT REFERENCE NO. I-5973	SHEET NO. EC-II/CONST.7
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY ENGINEER	

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.