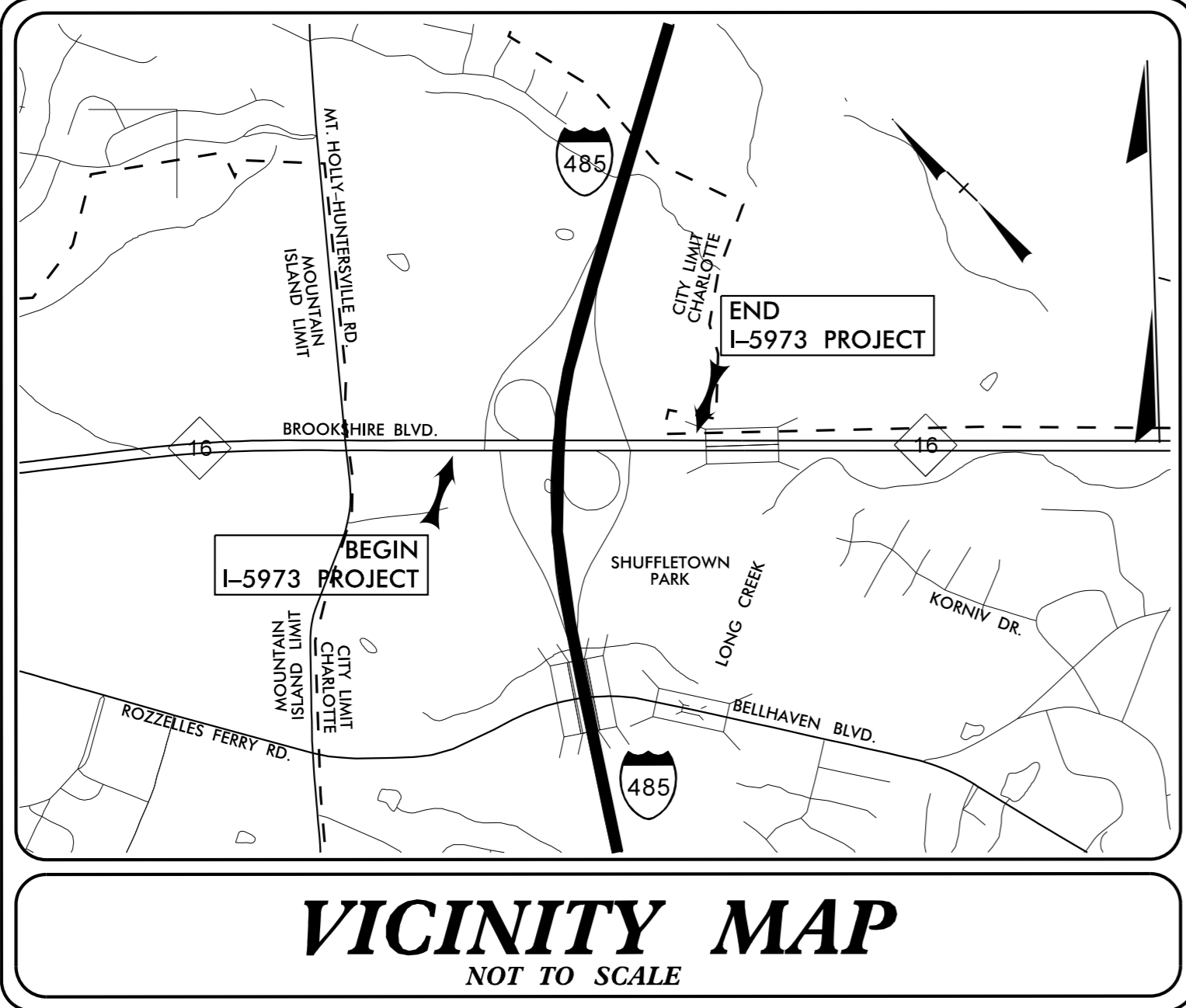


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**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.**

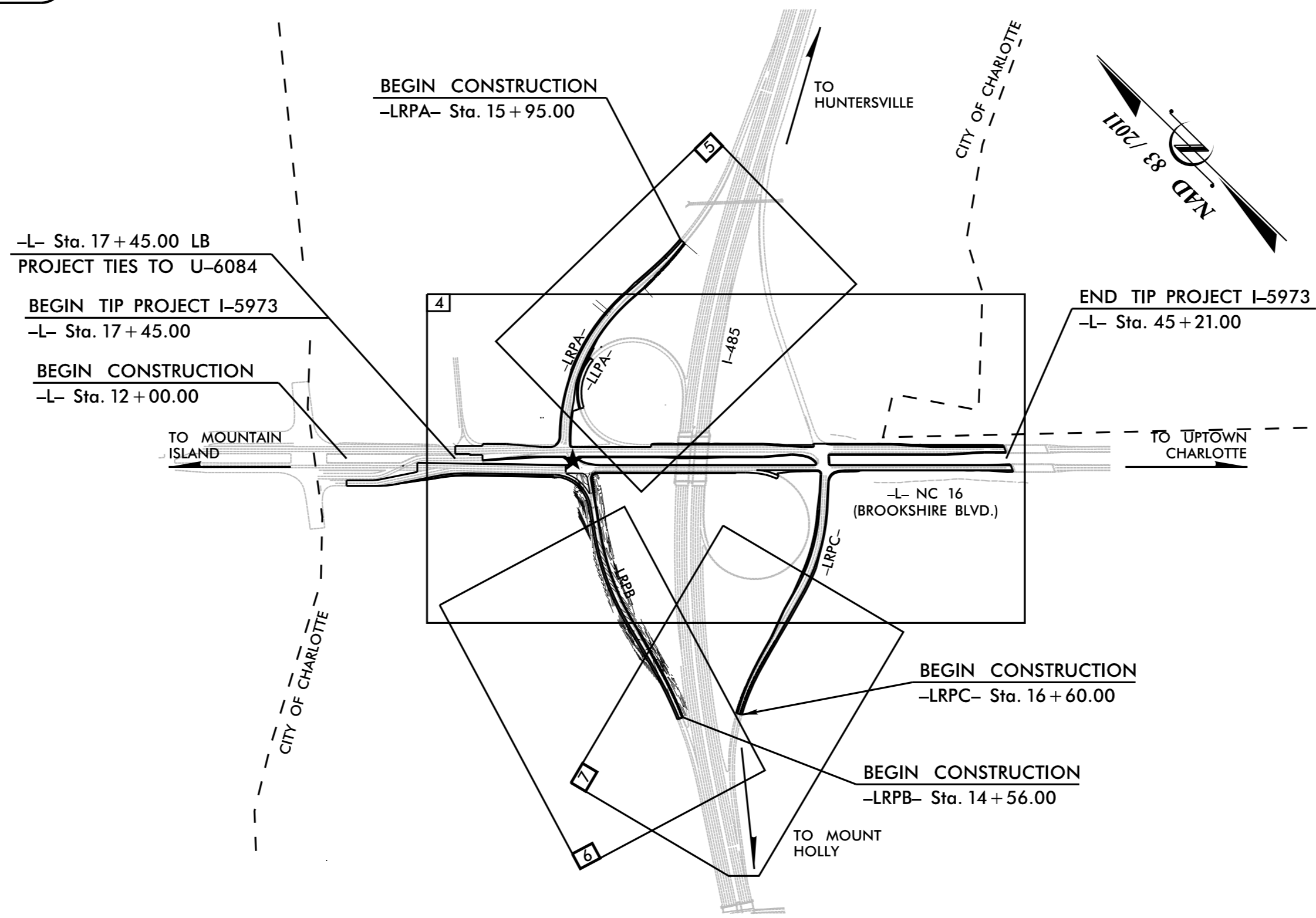
TIP PROJECT: I-5973



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

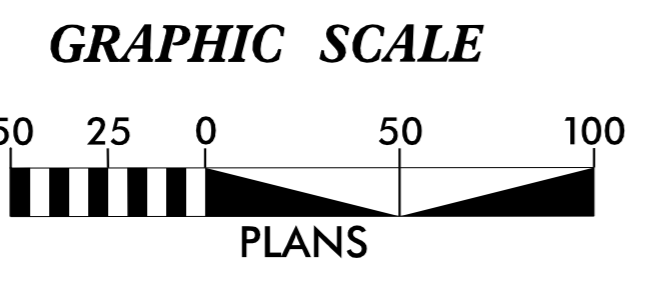


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5973	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44990.1.1		P.E.	

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)

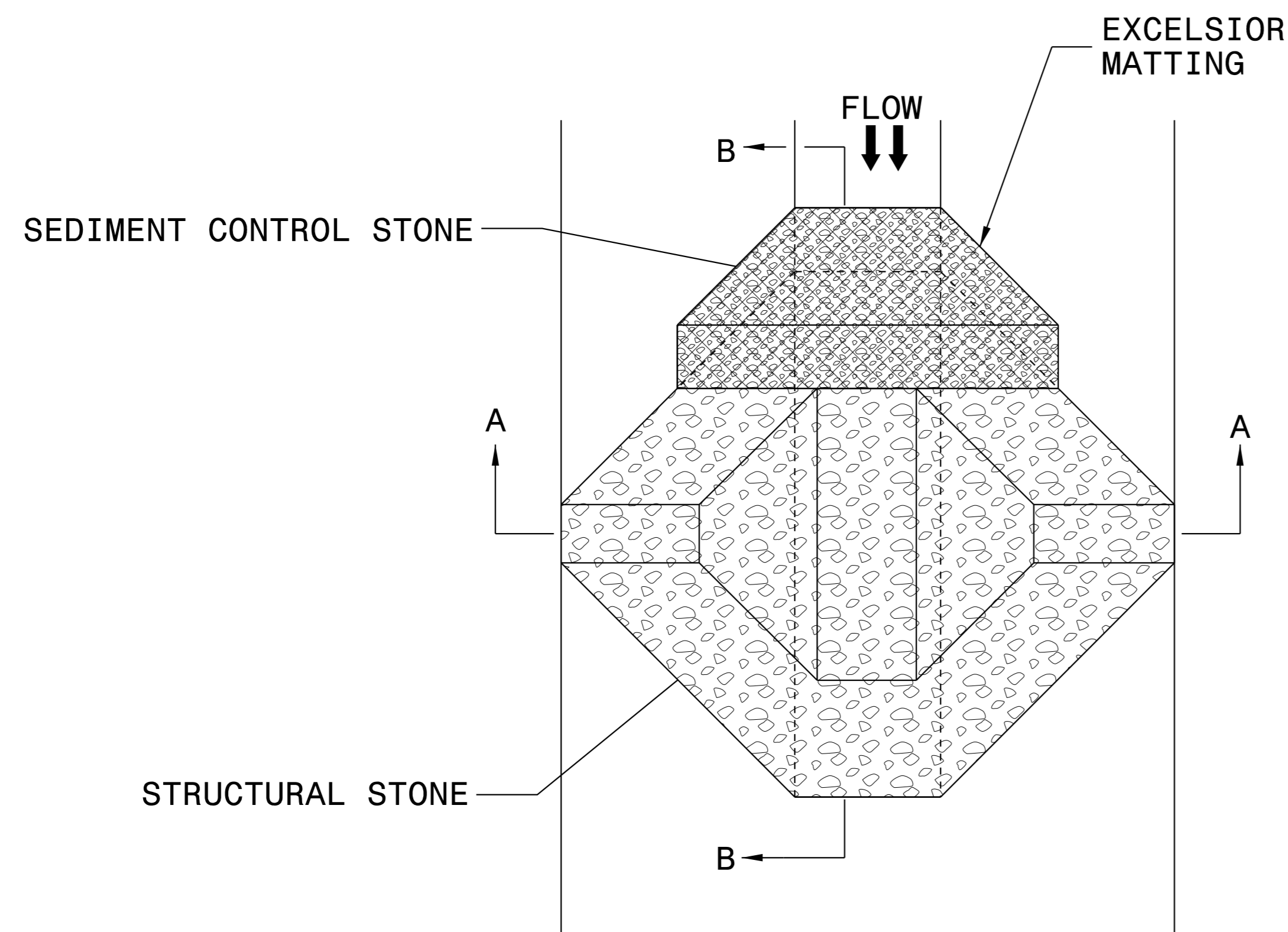
NOTES:

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

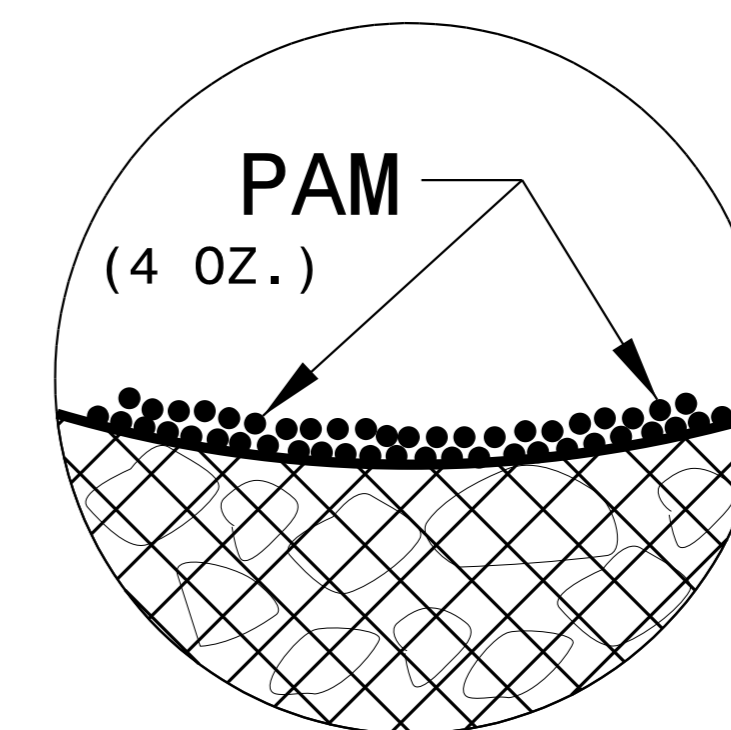
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

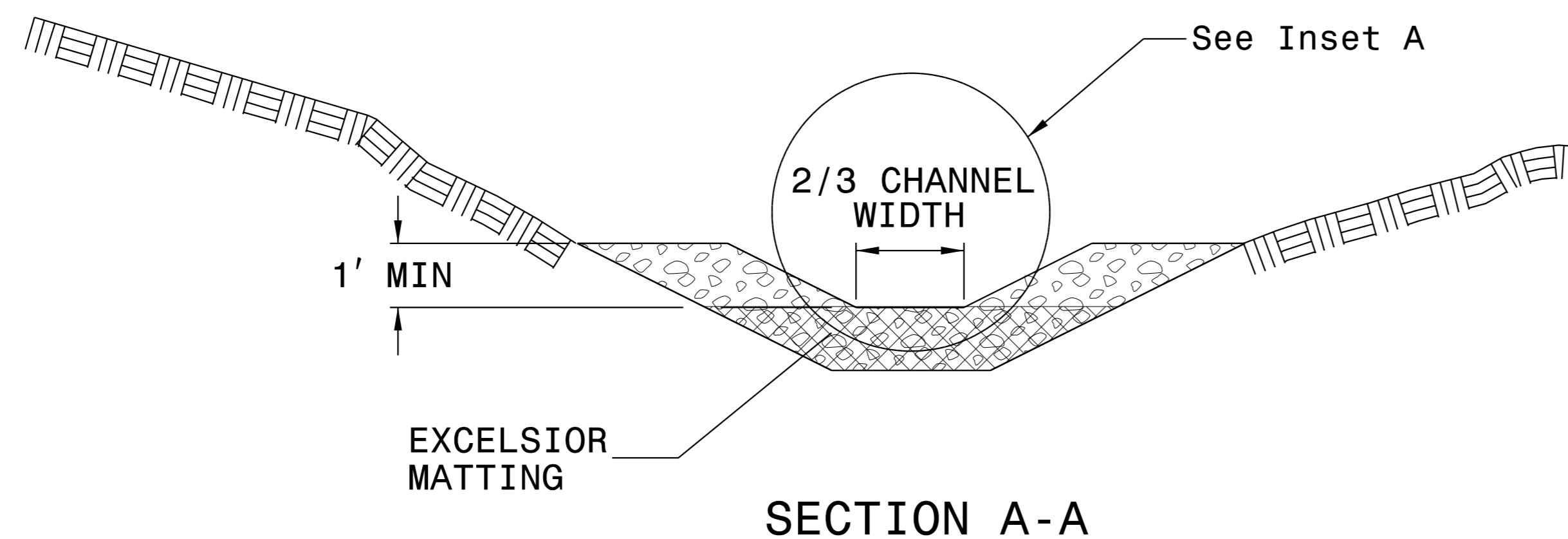
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



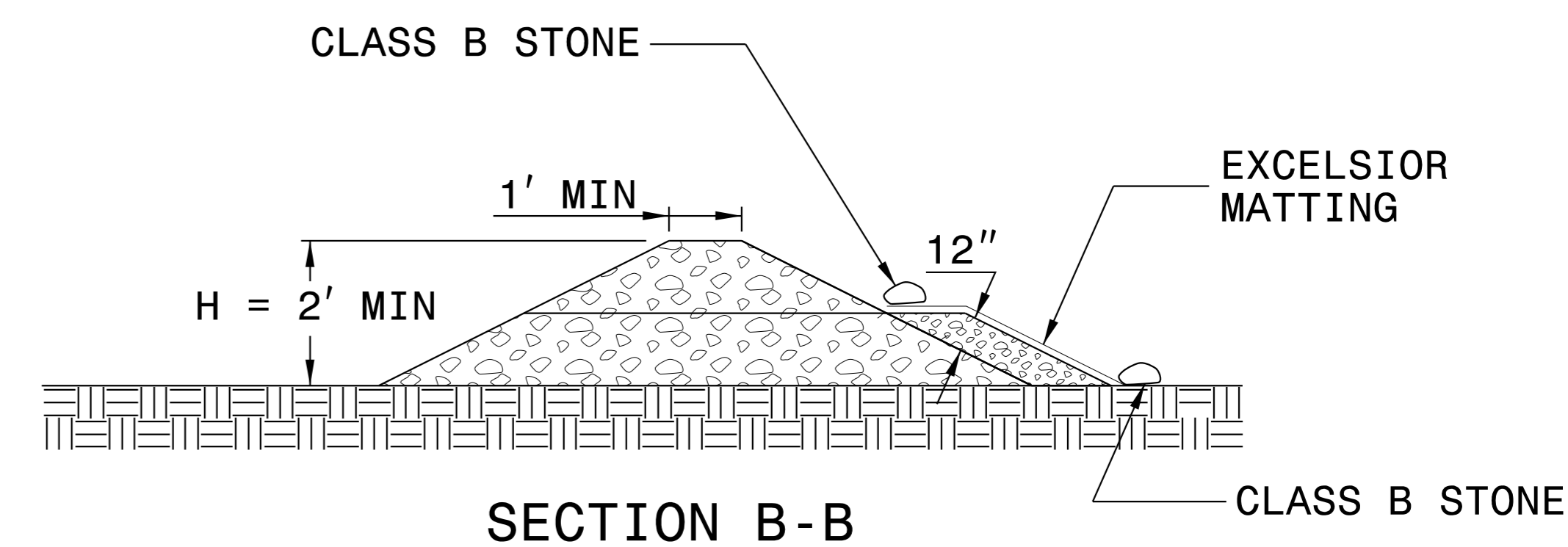
PLAN



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)
DITCHES					
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
DITCHES SUBTOTAL					4,115

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SLOPES					
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
SLOPES SUBTOTAL					3,172
MATTING TO BE INSTALLED ON DITCHES*					4,115
MATTING TO BE INSTALLED ON SLOPES*					3,172
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					11,438
TOTAL					18,725
SAY					18,800
* 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.

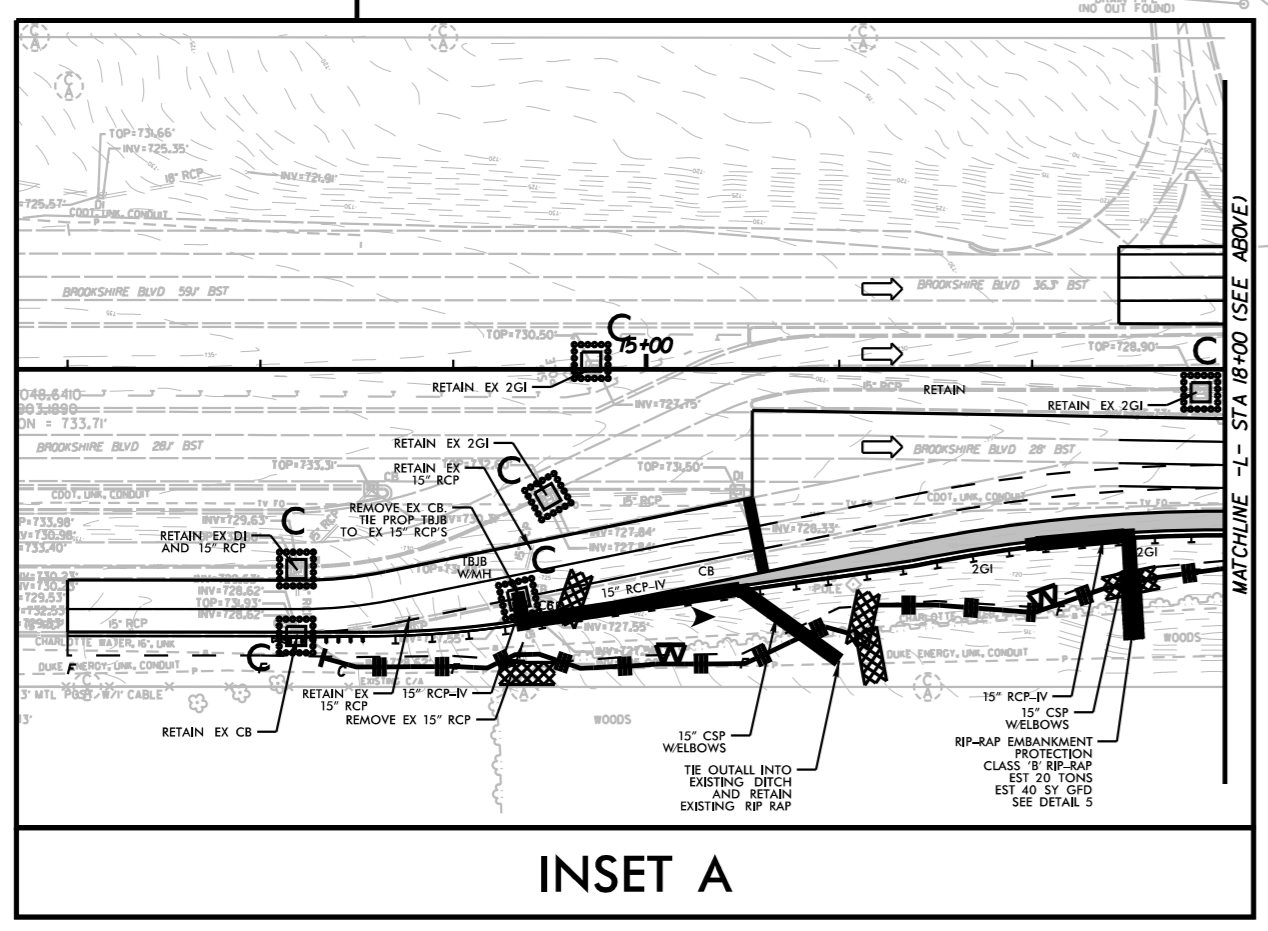
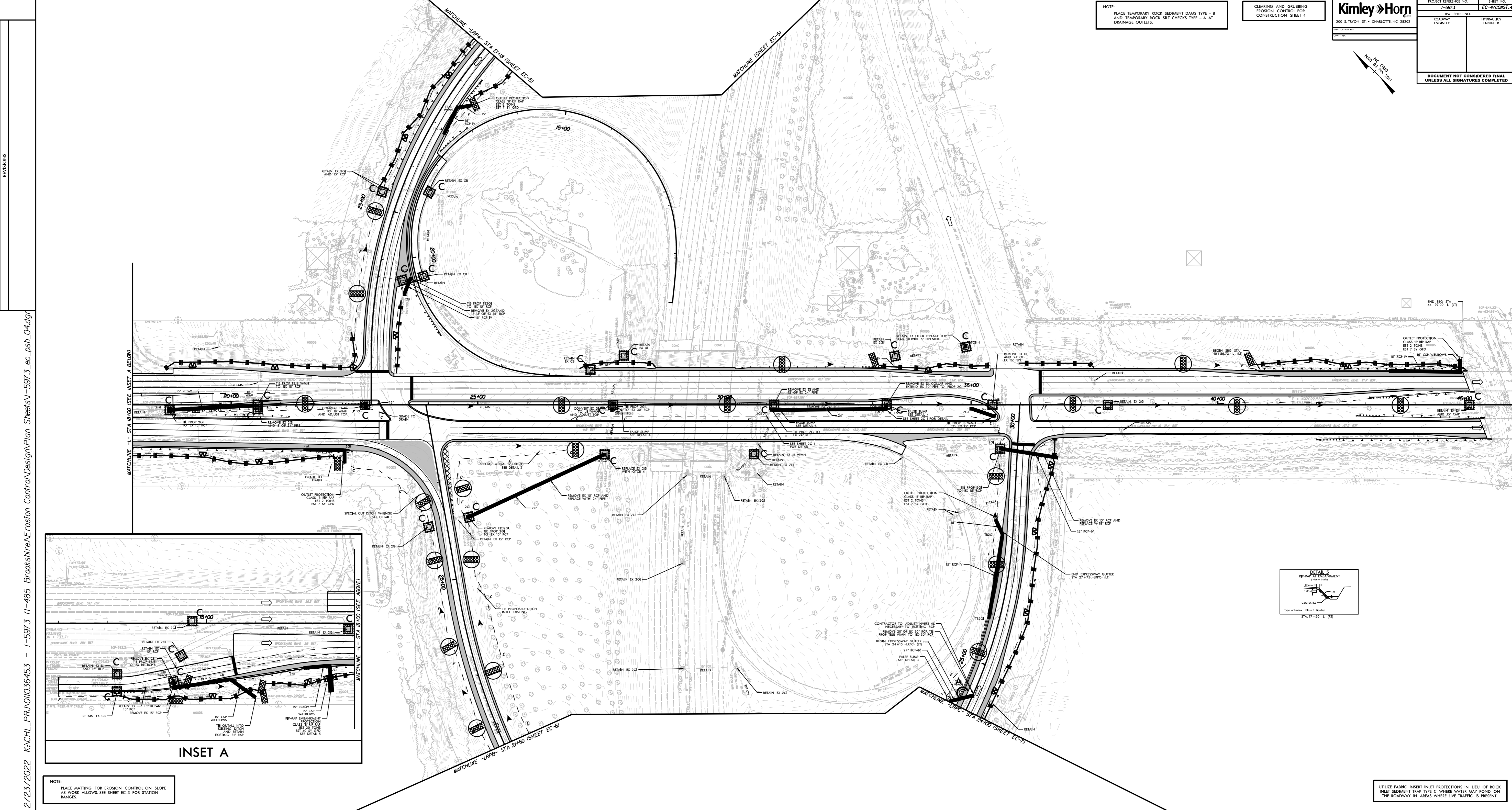
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

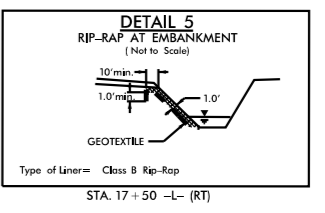
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

AND NO. 100, 2011



INSET A

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



DETAIL 5
SEDIMENT DAM

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)

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

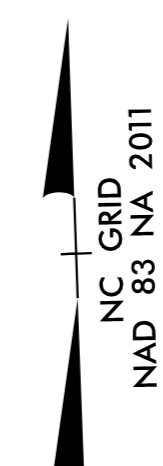
Kimley » Horn

200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
1-5973	EC-5/CONST.5
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY ENGINEER	HYDRAULICS ENGINEER

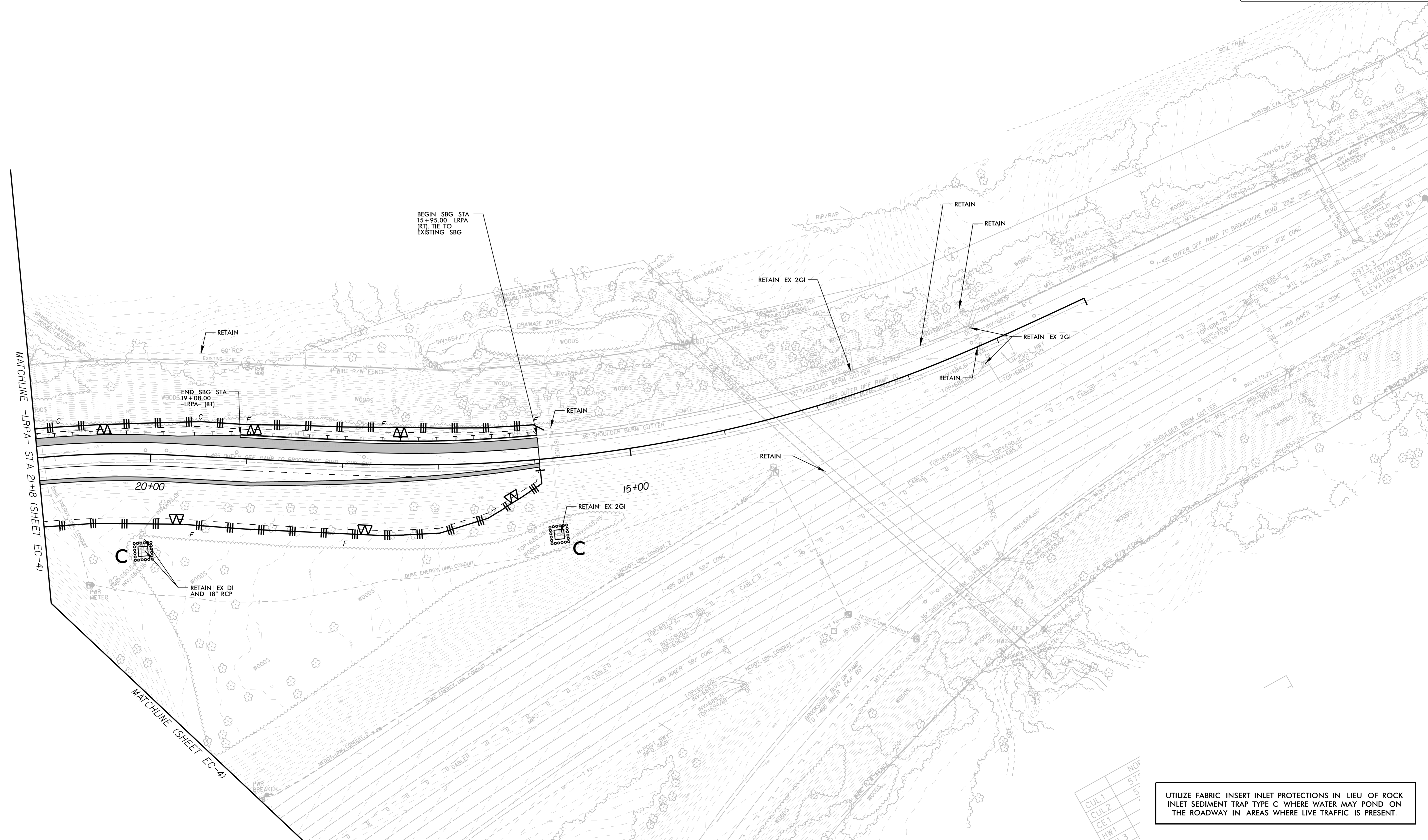
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



REVISIONS

K:\CHL_P\01036453 - 1-5973 (1-485 Brookshire)Erosion Control\DesignPlan Sheets\1-5973.ec.psh_05.dgn

2/23/2022



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

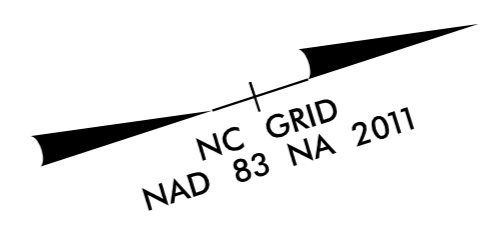
UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

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

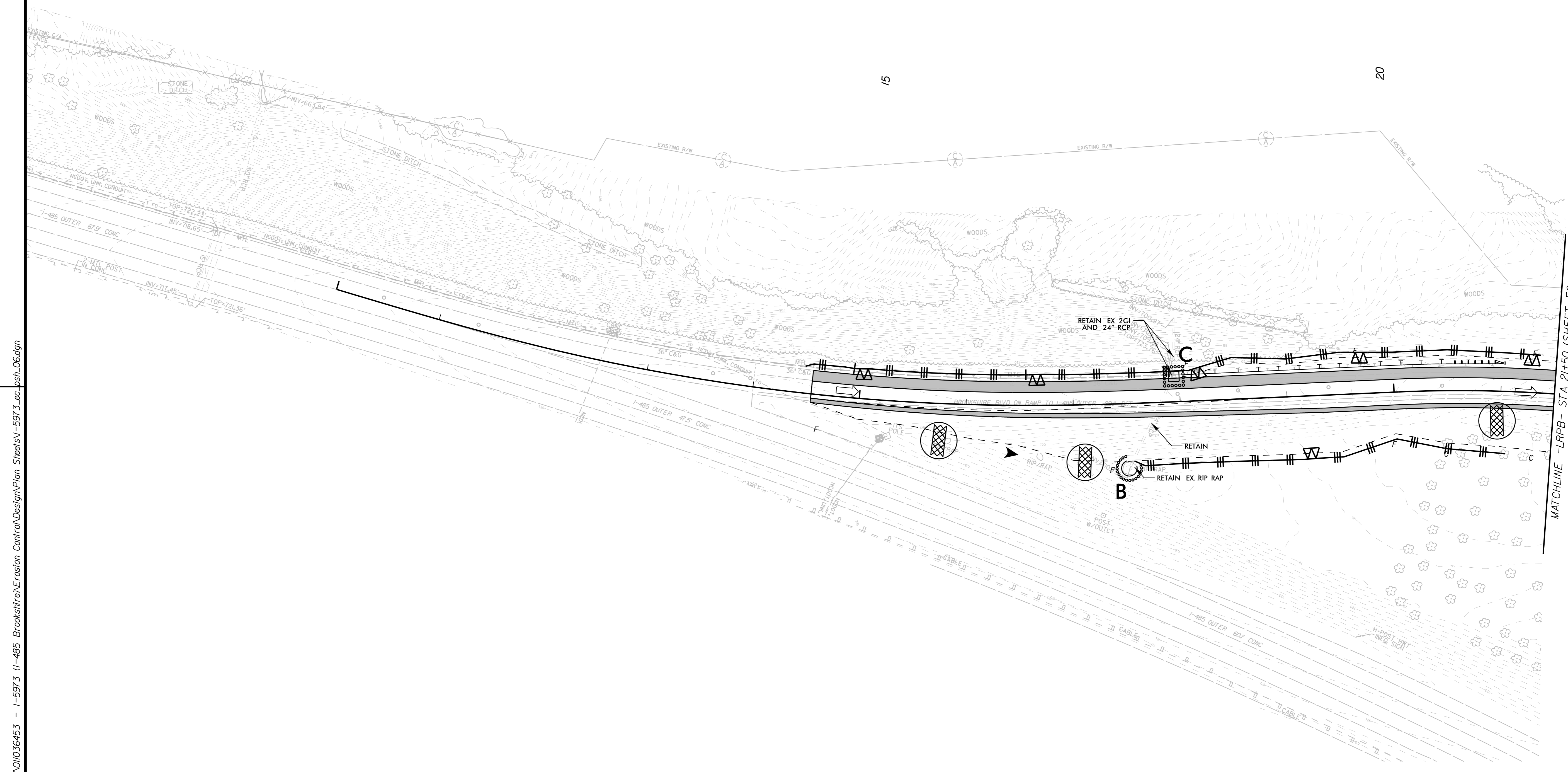
Kimley»Horn
 200 S. TRYON ST. • CHARLOTTE, NC 28202
 RIGHT-OF-WAY REV.
 CONST. REV.

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

MATCHLINE -LRPB- STA 21+50 (SHEET EC-4)

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.
1-5973	EC-7/CONST.7
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY ENGINEER	ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

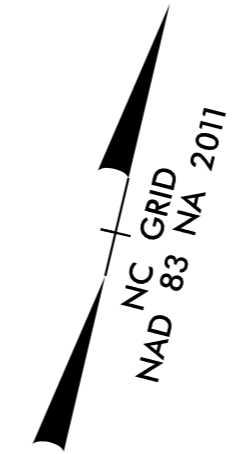
Kimley » Horn

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.

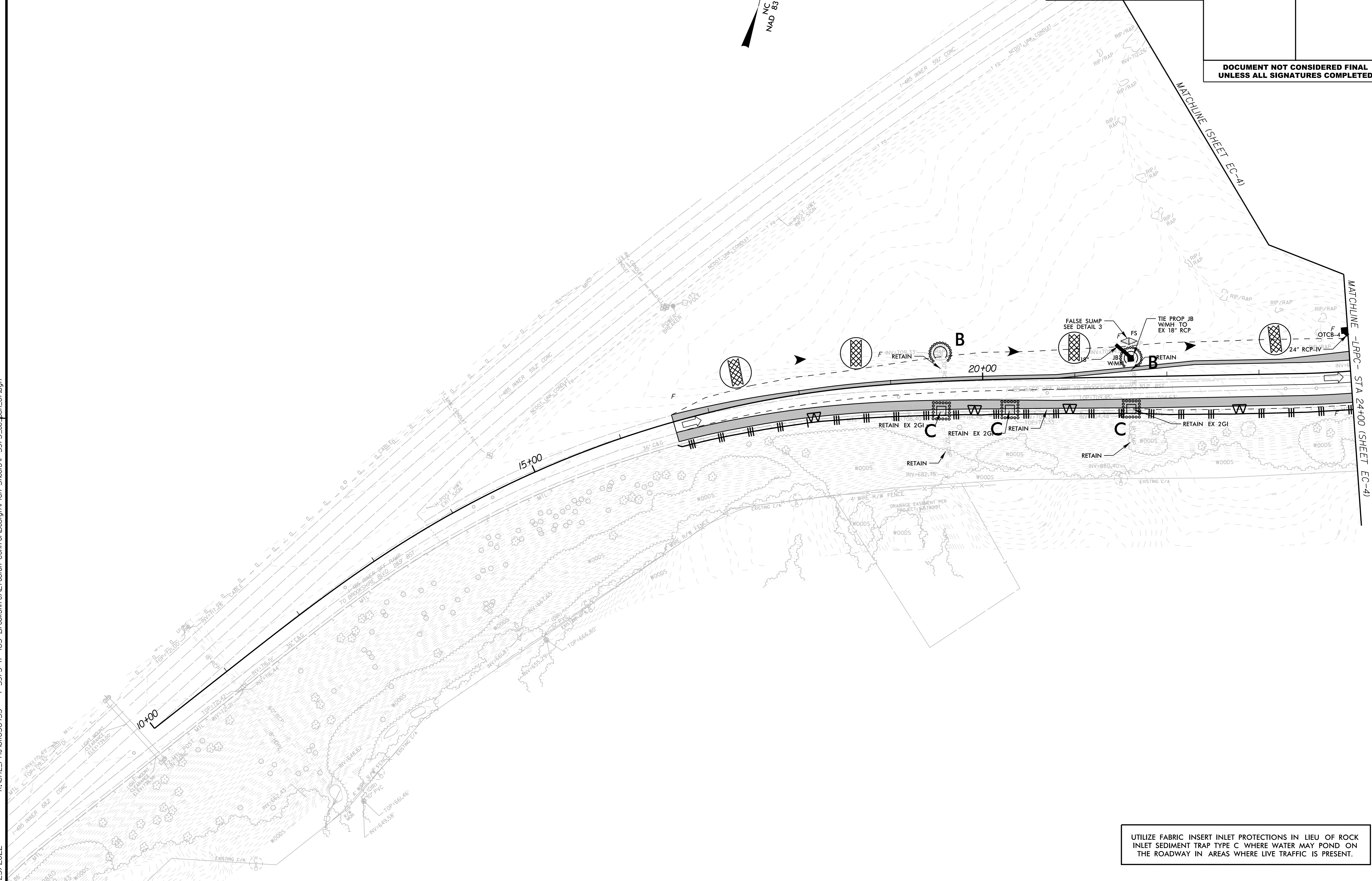
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7



REVISIONS

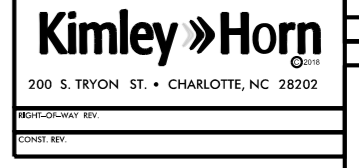
K:\CHL_PRR\01036453 - 1-5973 11-485 Brookshire Erosion Control\DesignPlan Sheets\1-5973.ec.psh_07.dgn

2/23/2022



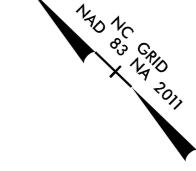
UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK
INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON
THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 4



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

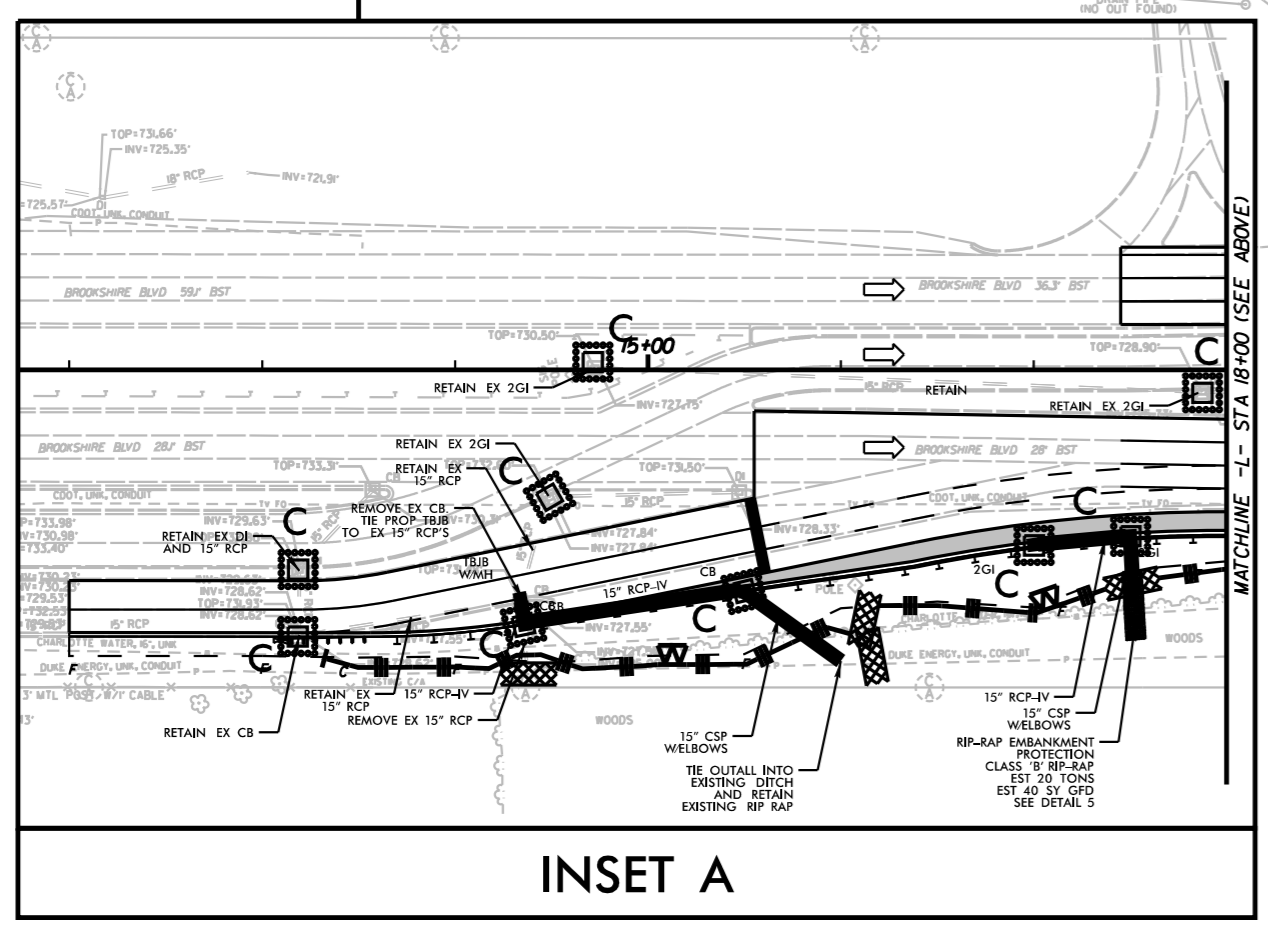


Place Matting for Erosion Control
on Slope as Work Allows.
-LRPA- Sta. 22+50 to Sta. 24+00 RT

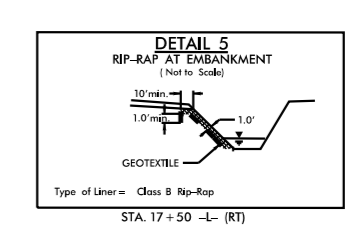
Place Matting for Erosion Control
on Slope as Work Allows.
-L U6804- Sta. 20+50 to Sta. 21+00 M

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 FILTER 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_06.dwg

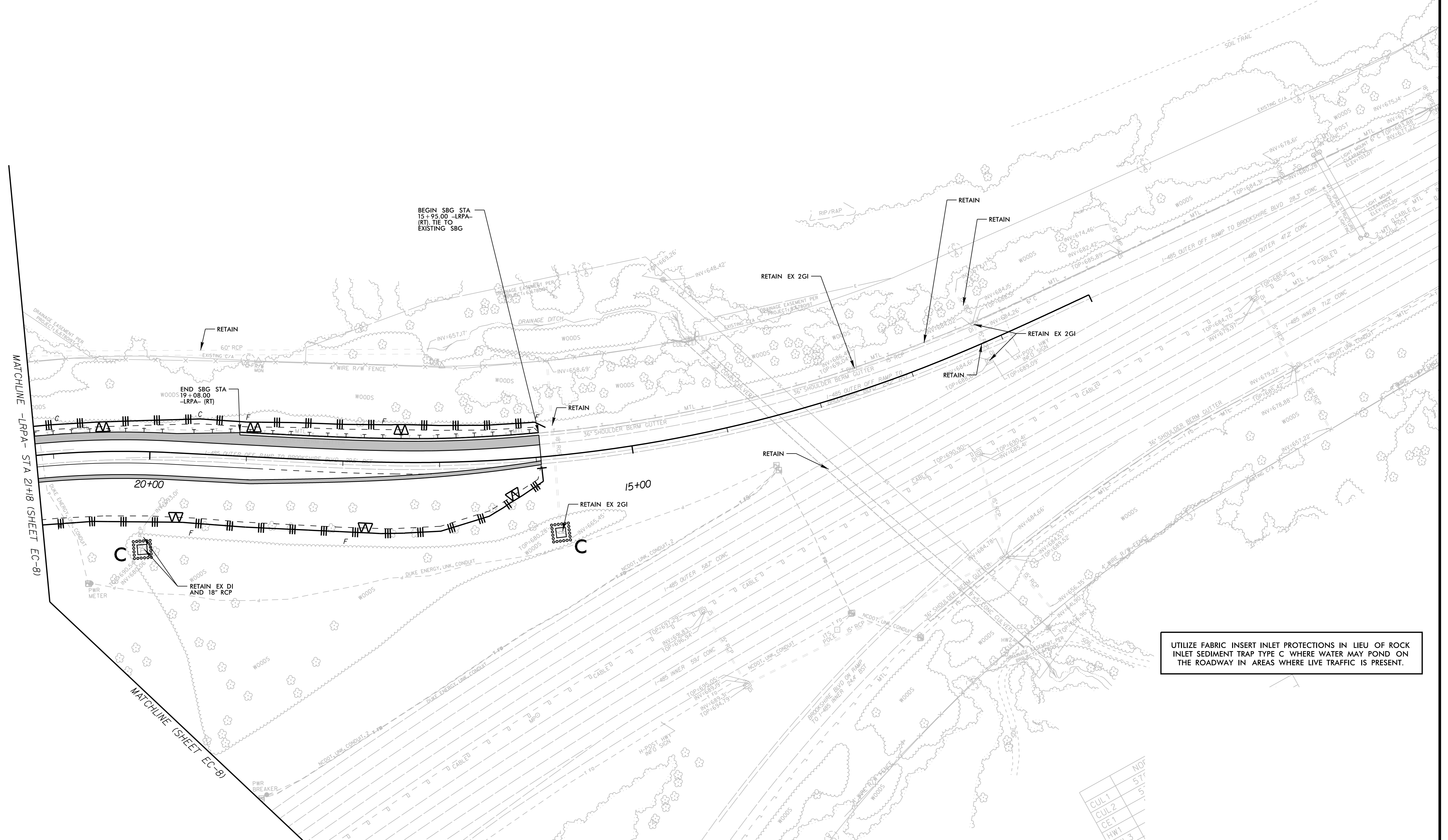
REVISIONS



REVISIONS

K:\CHL_PRA\01036453 - 1-5973 (1-485 Brookshire Erosion Control Design Plan Sheets V-5973.ec)sh-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.

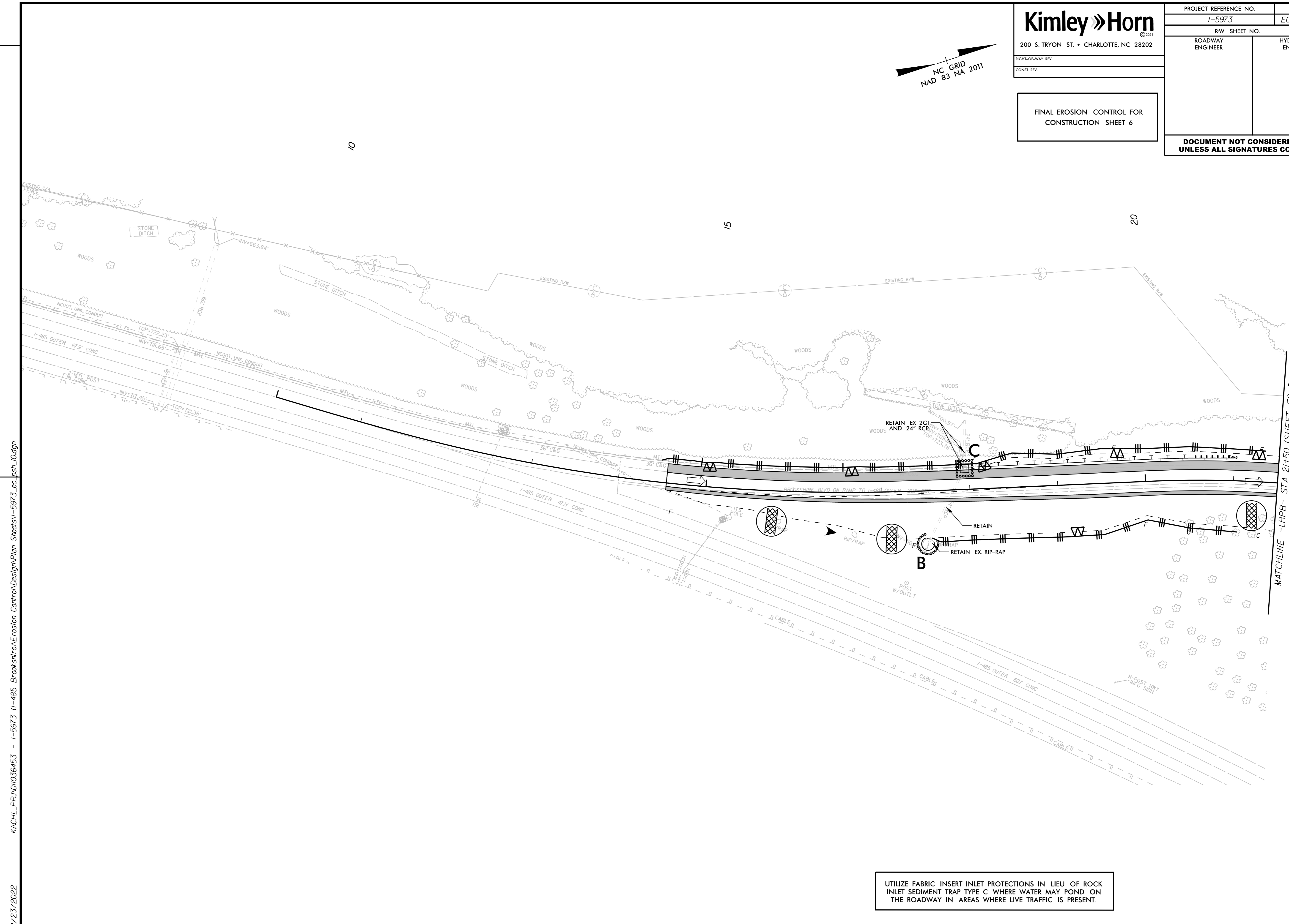
CUL 1	NOF
CUL 2	574
CE 1	5
HW 1	
HW 3	

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.

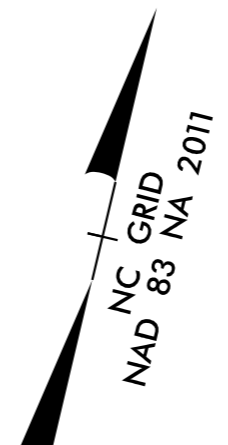
K:\CHL_PR\01036453 - I-5973 (I-485 Brookshire)Erosion Control\DesignPlan Sheets\I-5973.ec.psh_0.dgn

2/23/2022

MATCHLINE -LRPB- STA 21+50 (SHEET EC-8)

REVISIONS

2/23/2022 K:\CHL_P\01036453 - I-5973 I-485 Brookshire Erosion Control\DesignPlan Sheets\I-5973.ec.dsh_lldgn



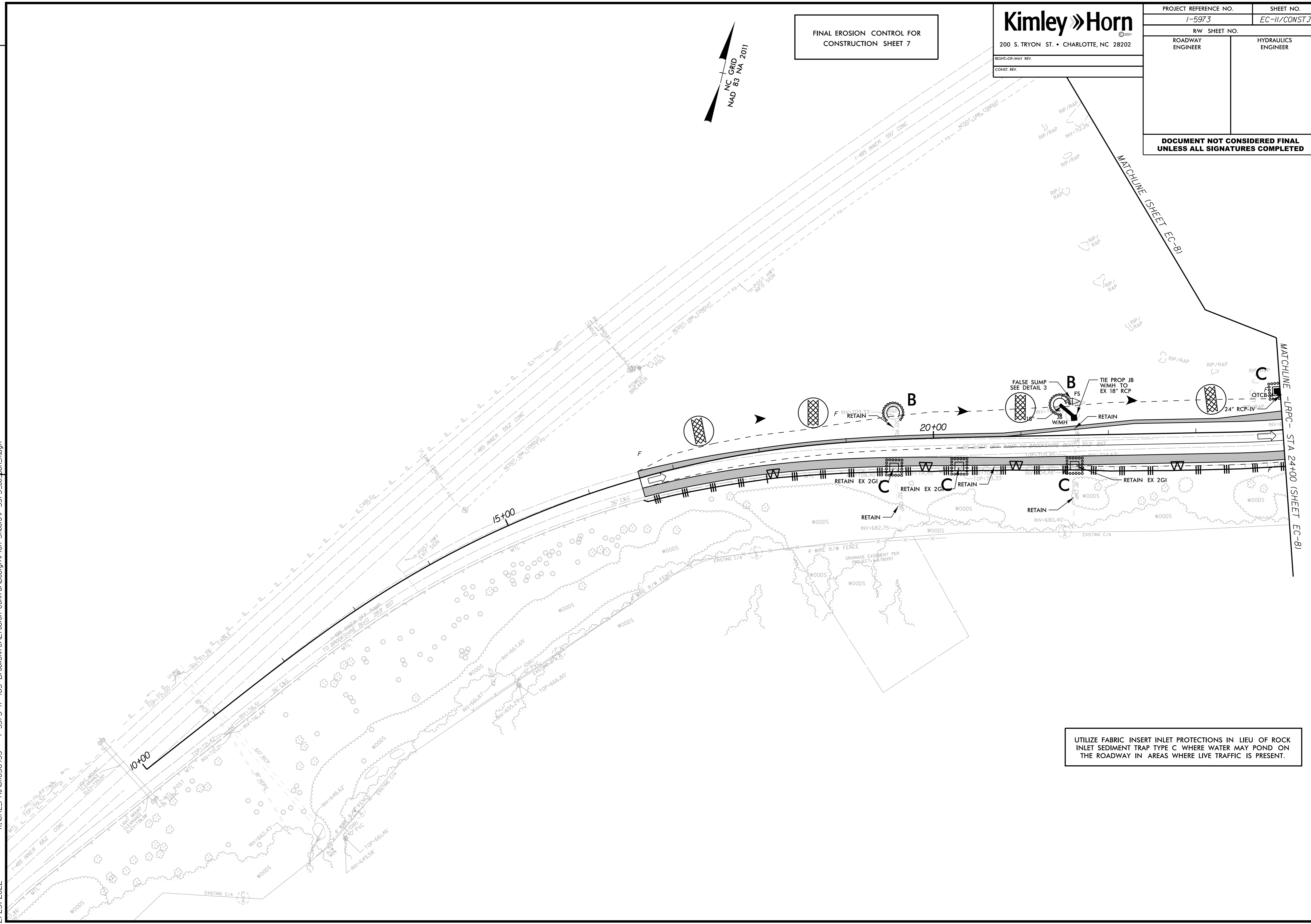
FINAL EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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	HYDRAULICS 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.