



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 3.03; Released June 1, 2026)

WBS Element: 44372.3.1 TIP/Proj No: I5719B_U5800 County(ies): Gaston Page 1 of 3

General Project Information

WBS Element:	44372.3.1	TIP Number:	I5719B_U5800	Project Type:	Roadway Widening	Date:	6/26/2026
NCDOT Contact:	Tamara Njegovan, P.E			Contractor / Designer:	Taylor Carter, P.E		
	Address:	NCDOT Alternative Delivery 1020 Birch Ridge Dr. Room # 16 Raleigh, NC 27610		Address:	555 Fayetteville St. Suite 900 Raleigh, NC 27601-3030 US		
	Phone:	(919)-707-6610		Phone:	(919) 232-6689		
	Email:	tmnjegovan@ncdot.gov		Email:	taylor.carter@hdrinc.com		
City/Town:	McAdenville			County(ies):	Gaston		
River Basin(s):	Catawba			CAMA County?	No		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	5.17	Surrounding Land Use:	High residential area, Suburban development, and Commercial development					
		Proposed Project	Existing Site					
Project Built-Up Area (ac.)	133.5	ac.	99.6	ac.				
Typical Cross Section Description:	8 12' lanes of median divided highway with open shoulders.			6 12' lanes of median divided highway with open shoulders				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	187,300	Year:	2045	Existing:	160,400	Year:	2025

General Project Narrative:
(Description of Minimization of Water Quality Impacts)

The project (I5719-U5800) widens Interstate 85 in Gaston county to accommodate larger traffic volumes. The project will construct approximately 4.68 miles of 4 lane divided travel along Interstate 85. The project includes a crossing of the the South Fork Catawba River which requires the implementation of deck drains. The project also includes 15 additional Jurisdiction stream crossings, which will require stream relocation, channel improvements, and bank stabilization at the majority of the sites. Stormwater runoff is captured by drop inlets, catch basins, and drainage ditches on either side of the interstate. The stormwater then navigates the drainage system and drains to the South Fork Catawba River, Catawba River, and various other unnamed tributaries.

Water quality impact minimization measures along the project include:

1. Removal/plugging of existing bridge deck drains over the South Fork Catawba River and providing riprap pads for erosion prevention at new deck drain locations.
2. Utilizing sheet flow from grassed roadway shoulders where feasible.
3. Use of grass-lined ditches where practicable and riprap lined ditches to reduce erosion.
4. Embedment of riprap in stream channels to reduce erosive velocities at streams.
5. Discharge of closed drainage systems to ditches prior to entering jurisdictional features where possible.
6. Stabilizing stream banks at crosspipes with 2:1 slopes and riprap to reduce erosion.
7. Sills used in crosspipe at stream SK to promote natural channel bottom.



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WBS Element: 44372.3.1
 TIP/Proj No.: I5719B_U5800
 County(ies): Gaston
 Page 2 **of** 3

General Project Information

Waterbody Information

Surface Water Body (1):	South Fork Catawba River		NCDWR Stream Index No.:	11-129-(15.5)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply V (WS-V)		
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species Habitat?	No	Comments:			
NRTR Stream ID:	SQ		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	No
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (2):	UT to South Fork Catawba River		NCDWR Stream Index No.:	11-129-15.5	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply V (WS-V)		
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species Habitat?	No	Comments:			
NRTR Stream ID:	ST, SW, SP, SBI, SBH, SR, SS, SL, SM, SN, SO, SBR		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (3):	UT at Belmont Abbey College		NCDWR Stream Index No.:	11-123-(1)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply IV (WS-IV)		
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species Habitat?	No	Comments:			
NRTR Stream ID:	SK, SI, SJ		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					



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(Version 3.03; Released June 1, 2026)

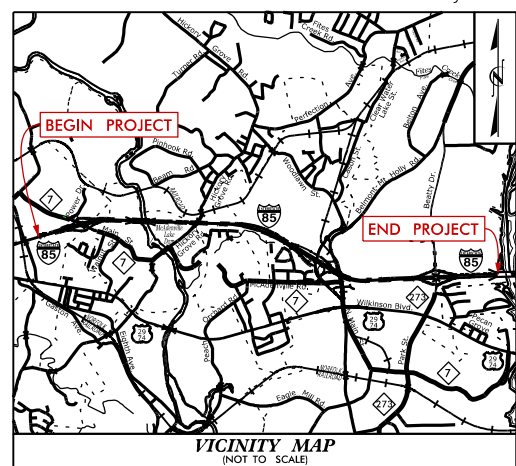
WBS Element: 44372.3.1 **TIP No.:** I5719B_U5800 **County(ies):** Gaston **Page** 3 **of** 3

Additional Waterbody Information

Surface Water Body (4):	UT to Catawba River		NCDWR Stream Index No.:	11-(122)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply IV (WS-IV)		
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species Habitat?	No	Comments:			
NRTR Stream ID:	SBS		Buffer Rules in Effect:		
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					
Surface Water Body (5):	UT to UT at Belmont Abbey College		NCDWR Stream Index No.:	11-123-(1)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply IV (WS-IV)		
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species Habitat?	No	Comments:			
NRTR Stream ID:	SCF		Buffer Rules in Effect:		N/A
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

09/08/99

See Sheet 1A-1 For Conventional Plan Sheet Symbols



VICINITY MAP (NOT TO SCALE)

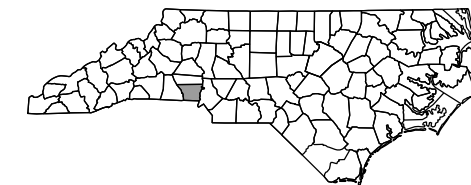
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GASTON COUNTY

LOCATION: I-85 WIDENING FROM NC 7 (MCADENVILLE ROAD - EXIT 23) TO EAST OF NC 273 (BEATTY DRIVE - EXIT 27). INCLUDES U-5800 INTERSECTION IMPROVEMENTS AT NC 7 (MAIN ST) AND US 29/74 (WILKERSON BLVD).

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

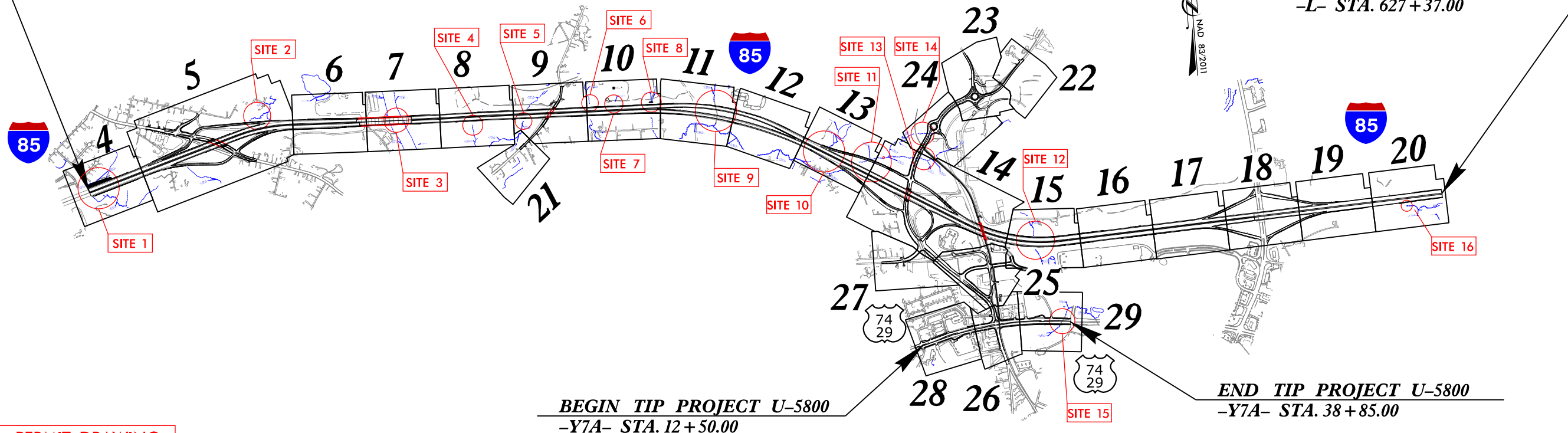
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N.C.	I-5719B /U-5800	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50135.3.GV	FUTR085		
44372.3.1	4437201		



WETLAND & STREAM IMPACTS
SUBMITTED: 06-24-2026

BEGIN TIP PROJECT I-5719B
-L- STA. 381+00.00

END TIP PROJECT I-5719B
-L- STA. 627+37.00



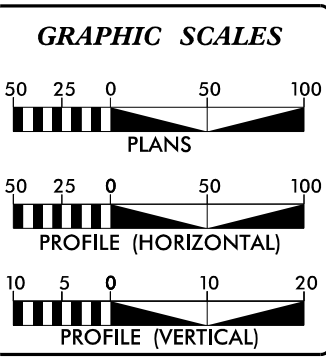
PERMIT DRAWING SHEET 1 OF 49

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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CONTRACT: C205001 TIP PROJECT: I-5719B /U-5800



DESIGN DATA

ADT 2025 =	160,400
ADT 2045 =	191,100
K =	7 %
D =	55 %
T =	15 % *
V =	65 MPH
*TTST =	12% DUAL = 3%
FUNC CLASS =	INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY I-5719B =	4.492 MILES
LENGTH STRUCTURES I-5719B =	0.174 MILES *
TOTAL LENGTH TIP PROJECT I-5719B =	4.666 MILES
LENGTH ROADWAY U-5800 =	0.499 MILES
TOTAL LENGTH TIP PROJECT U-5800 =	0.499 MILES

* LENGTH BASED ON LT BRIDGES

NCDOT CONTACT: TAMARA NJEGOVAN, P.E.
ALTERNATIVE DELIVERY PROJECT ENGINEER

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 300, Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 24, 2025

LETTING DATE:
JUNE 24, 2025

lane

WILL MOODY, P.E.
PROJECT ENGINEER

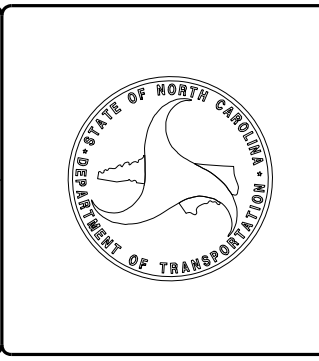
CASEY HARRIS, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

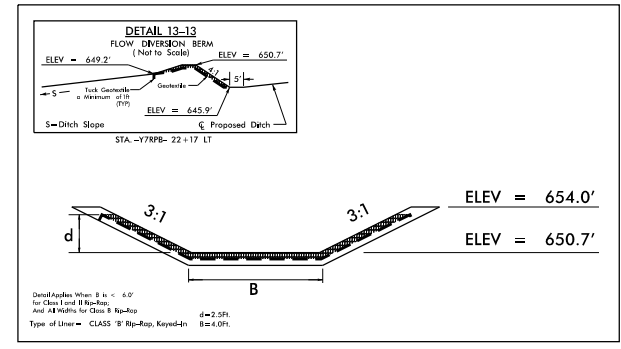
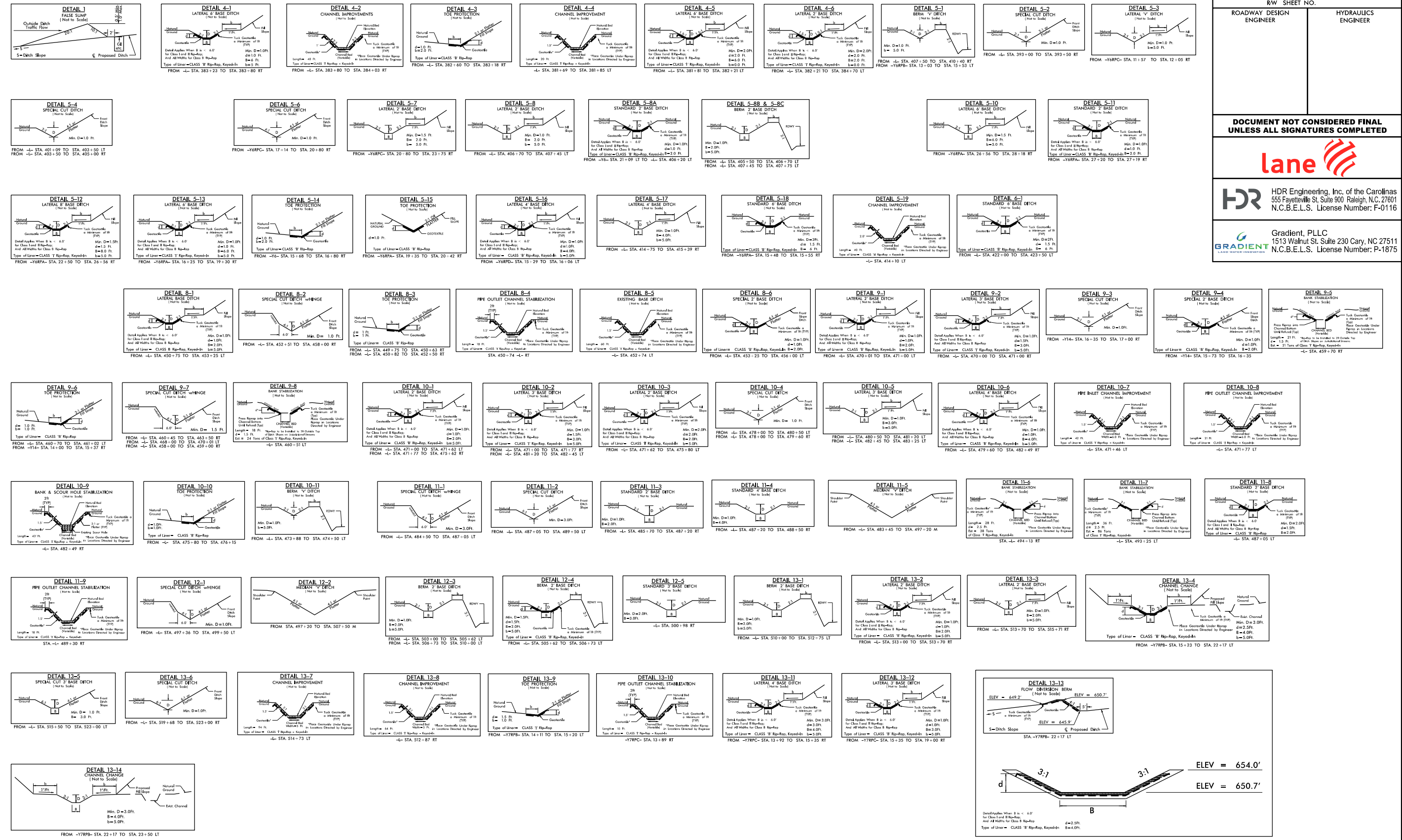


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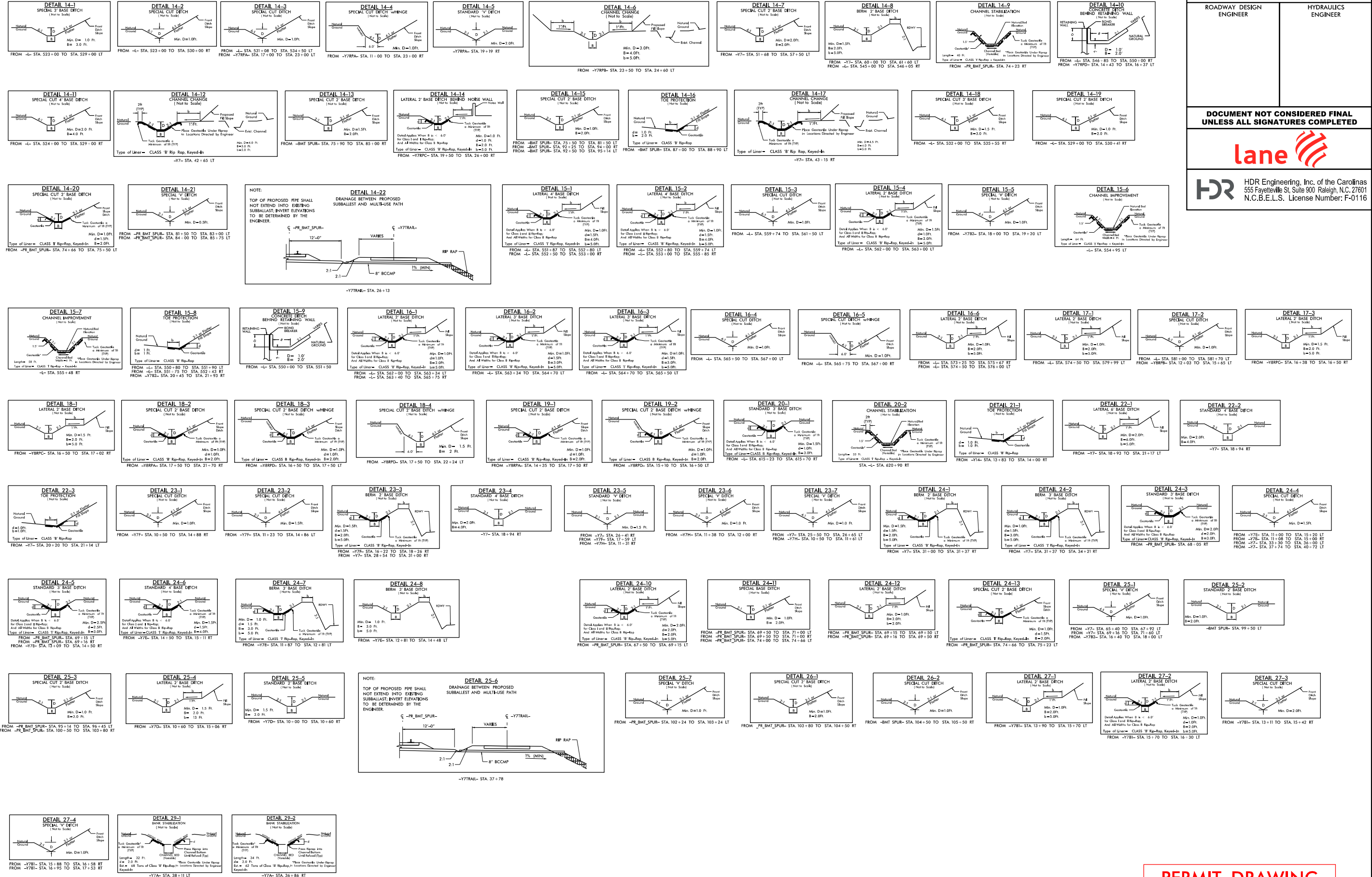
HDR HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St., Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

GRADIENT Gradient, PLLC
 1513 Walnut St. Suite 230 Cary, NC 27511
 N.C.B.E.L.S. License Number: P-1875



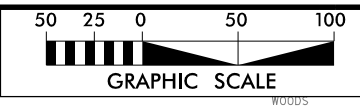
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REVISIONS



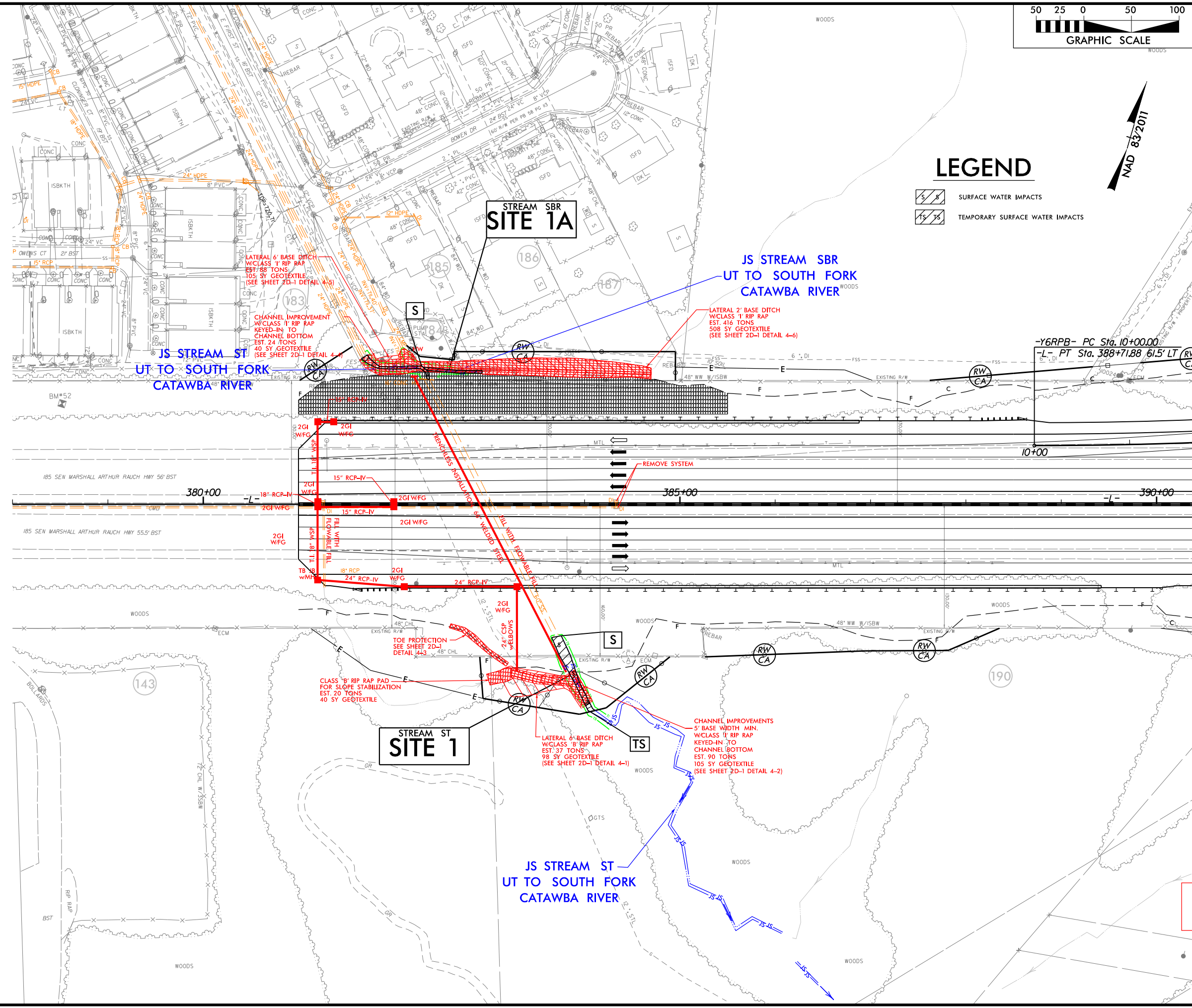
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 1513 Walnut St, Suite 230 Cary, NC 27511
 N.C.B.E.L.S. License Number: P-1875



LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

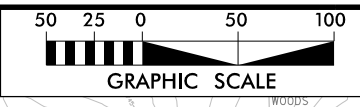


MATCHLINE -L- STA. 391 + 00, SEE SHEET 5

PERMIT DRAWING
SHEET 4 OF 49

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REVISIONS



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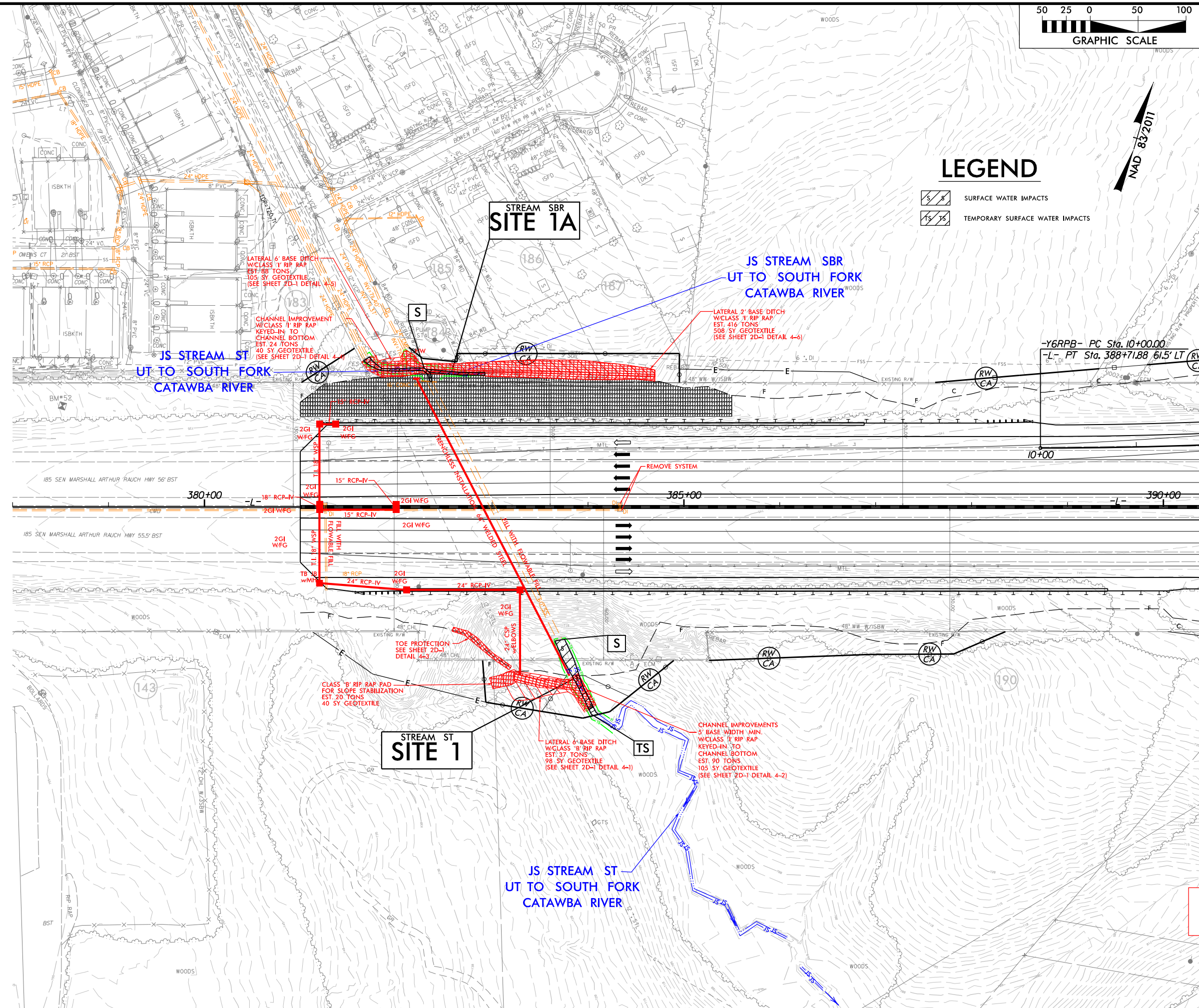


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 N.C.B.E.L.S. License Number: F-0116

Gradient, PLLC
 1513 Walnut St. Suite 230 Cary, NC 27511
 N.C.B.E.L.S. License Number: P-1875

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS



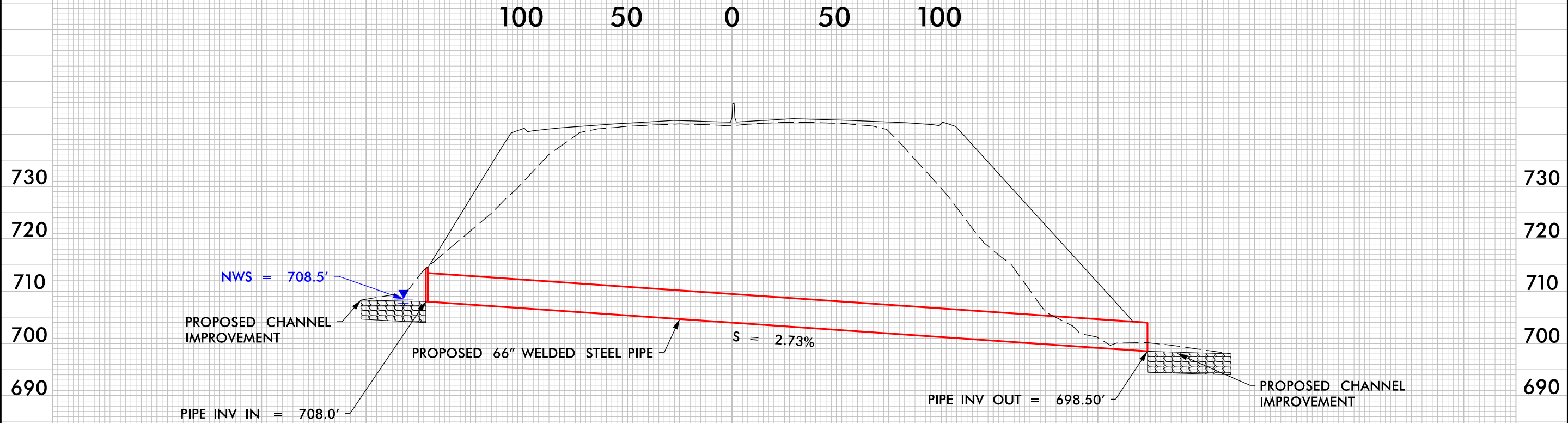
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PERMIT DRAWING
 SHEET 5 OF 49

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
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PROFILE ALONG 66" WSP – SITE #1



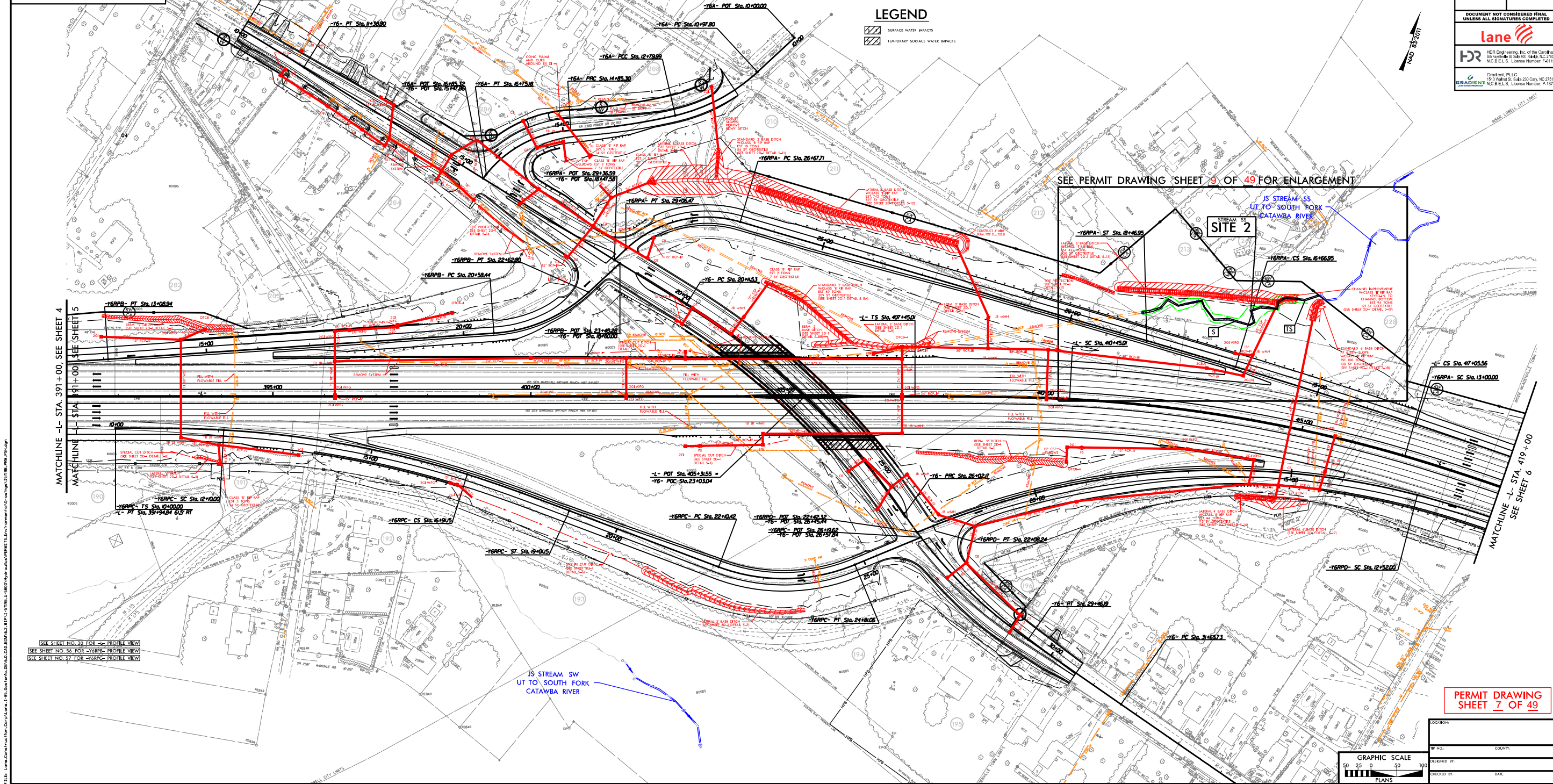
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**PERMIT DRAWING
SHEET 6 OF 49**

NO.	REVISIONS

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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SEE PERMIT DRAWING SHEET 9 OF 49 FOR ENLARGEMENT

SITE 2

PERMIT DRAWING SHEET 7 OF 49

SEE SHEET NO. 30 FOR -C- PROFILE VIEW
SEE SHEET NO. 56 FOR -Y6RPS- PROFILE VIEW
SEE SHEET NO. 57 FOR -Y6RPS- PROFILE VIEW

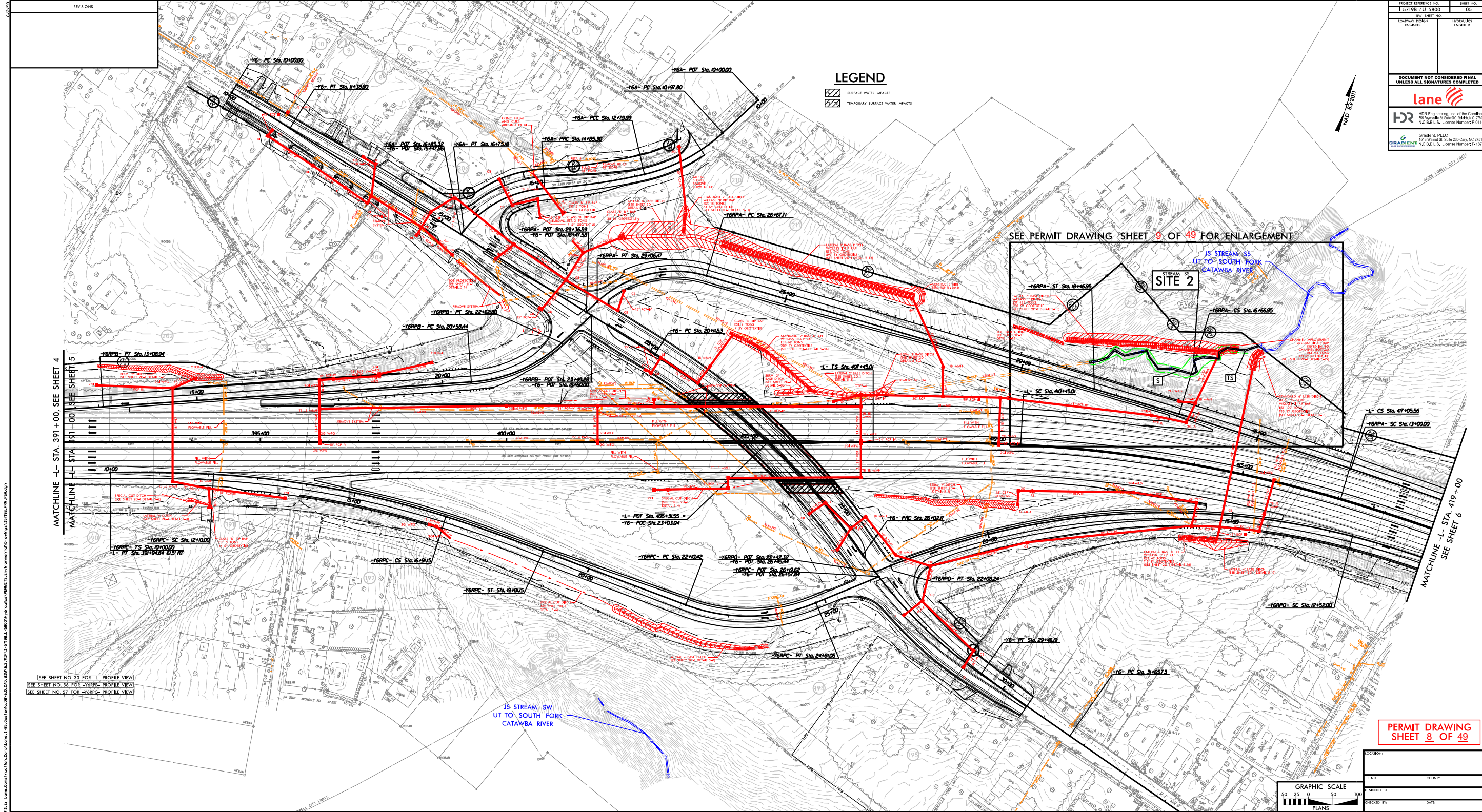
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GRAPHIC SCALE
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PLANS

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COUNTY:	
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NO.	REVISIONS

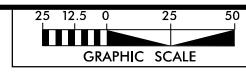
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PERMIT DRAWING SHEET 8 OF 49

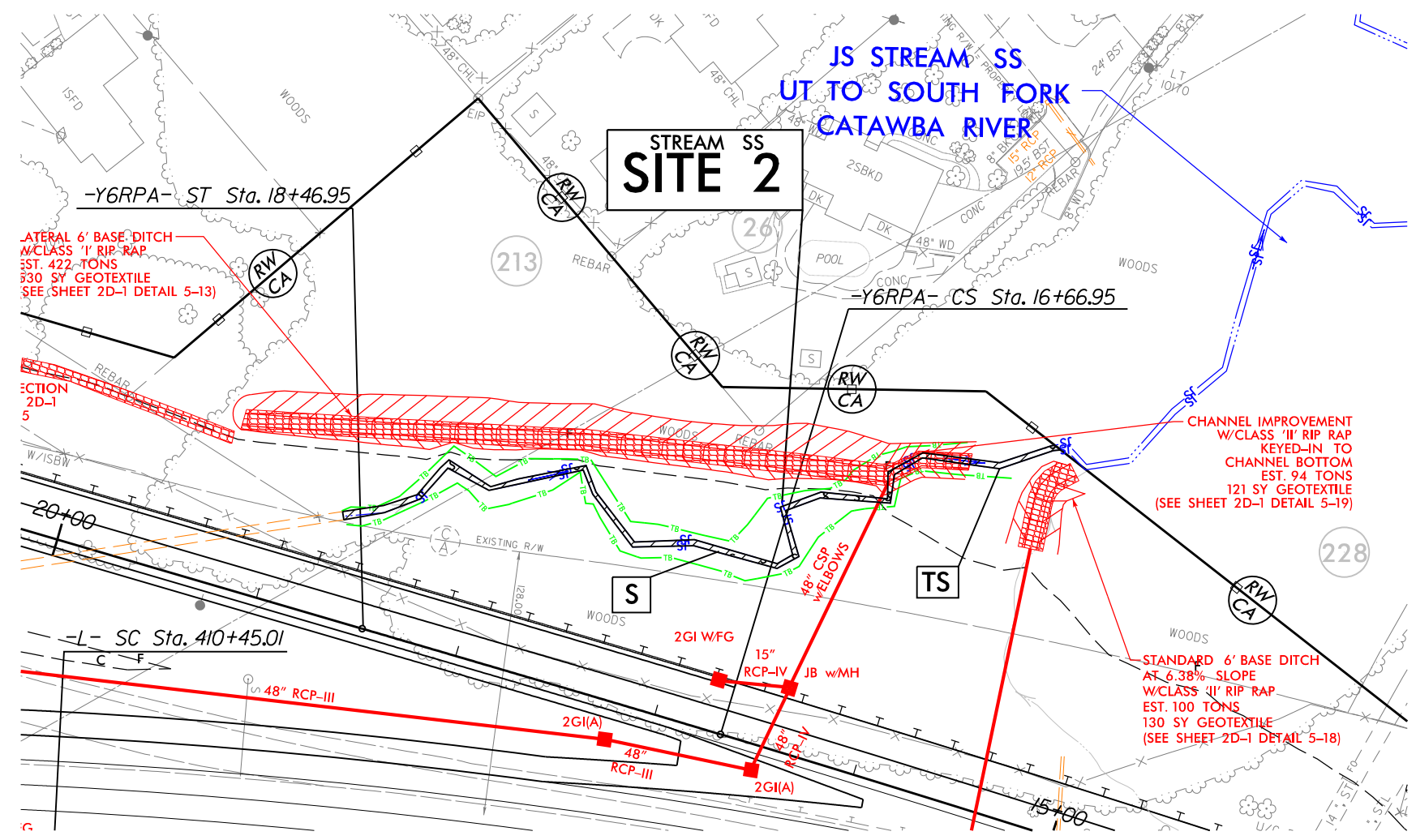
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HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

NAD 83/2011



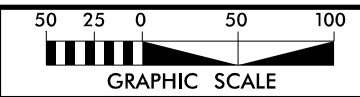
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- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

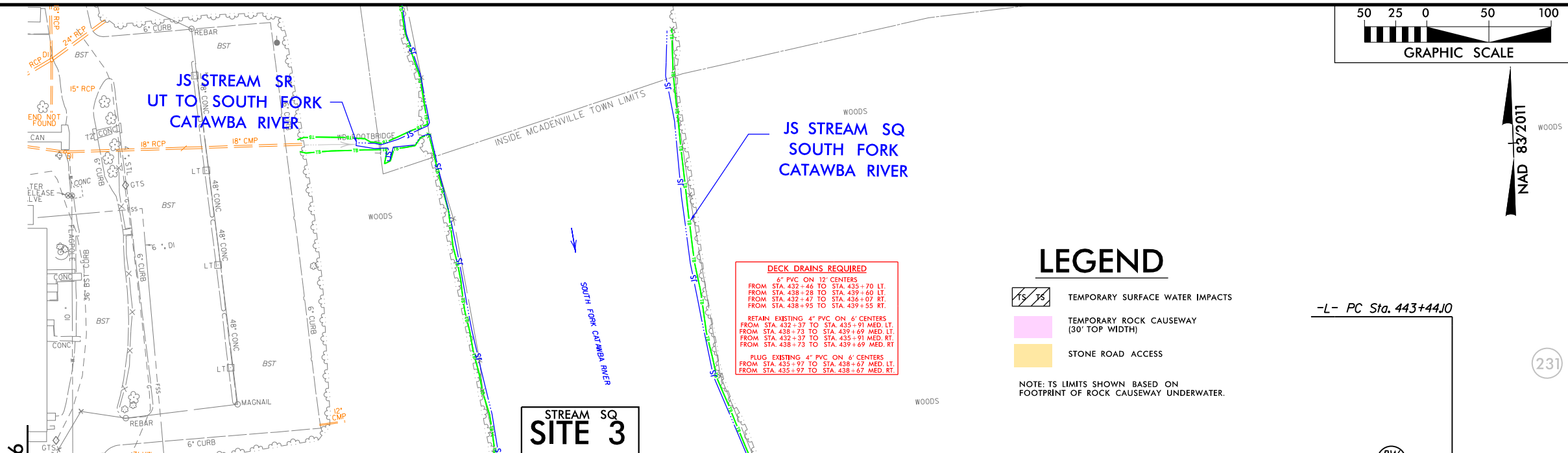
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SEE SHEET NO. 56 FOR -Y6RPA- PROFILE VIEW
SEE SHEET NO. 57 FOR -Y6RPC- PROFILE VIEW

**PERMIT DRAWING
SHEET 9 OF 49**

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 REVISIONS



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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



DECK DRAINS REQUIRED

6" PVC ON 12" CENTERS
FROM STA. 432+46 TO STA. 435+70 LT.
FROM STA. 438+28 TO STA. 439+60 LT.
FROM STA. 432+47 TO STA. 436+07 RT.
FROM STA. 438+95 TO STA. 439+55 RT.

RETAIN EXISTING 4" PVC ON 6" CENTERS
FROM STA. 432+37 TO STA. 435+91 MED. LT.
FROM STA. 438+73 TO STA. 439+69 MED. LT.
FROM STA. 432+37 TO STA. 435+91 MED. RT.
FROM STA. 438+73 TO STA. 439+69 MED. RT.

PLUG EXISTING 4" PVC ON 6" CENTERS
FROM STA. 435+97 TO STA. 438+67 MED. LT.
FROM STA. 435+97 TO STA. 438+67 MED. RT.

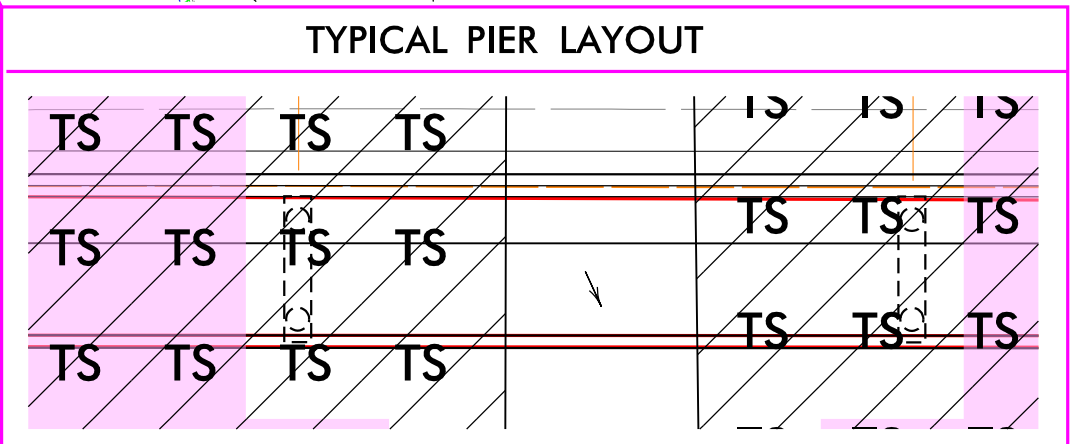
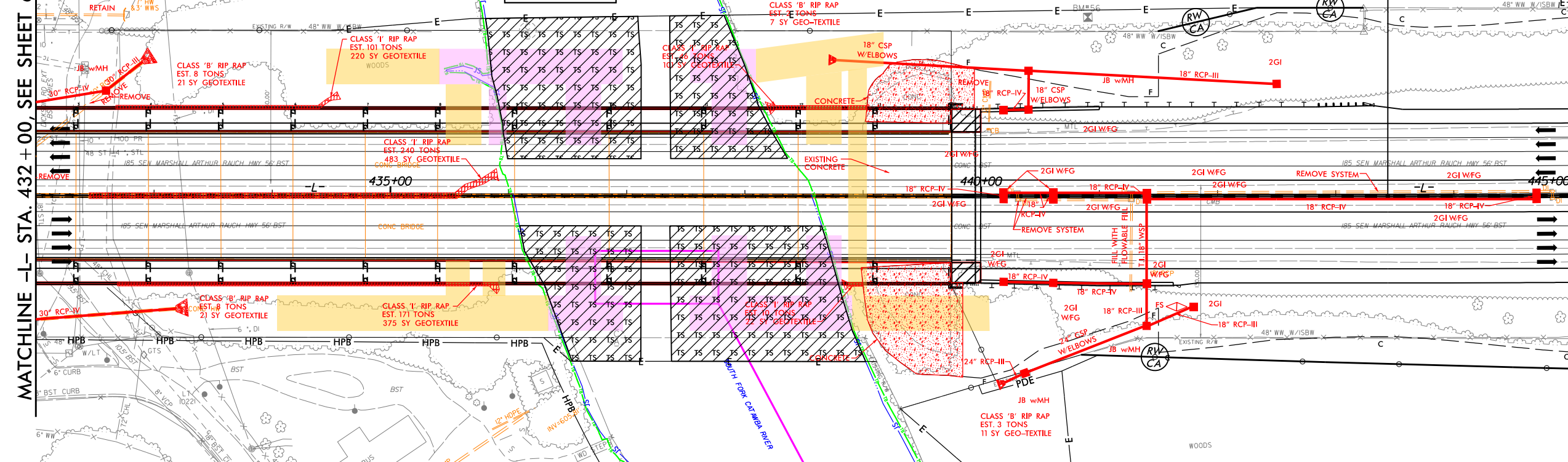
LEGEND

- TEMPORARY SURFACE WATER IMPACTS
 - TEMPORARY ROCK CAUSEWAY (30' TOP WIDTH)
 - STONE ROAD ACCESS
- NOTE: TS LIMITS SHOWN BASED ON FOOTPRINT OF ROCK CAUSEWAY UNDERWATER.

STREAM SQ SITE 3

MATCHLINE -L- STA. 432 + 00, SEE SHEET 6

MATCHLINE -L- STA. 445 + 00, SEE SHEET 8



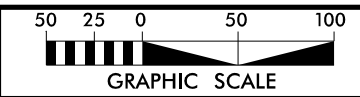
NOTE: SEE WETLAND IMPACT SUMMARY FOR PERMANENT IMPACT VALUES DUE TO PROPOSED PIERS

SEE SHEET NO. 35 FOR -L- PROFILE VIEW

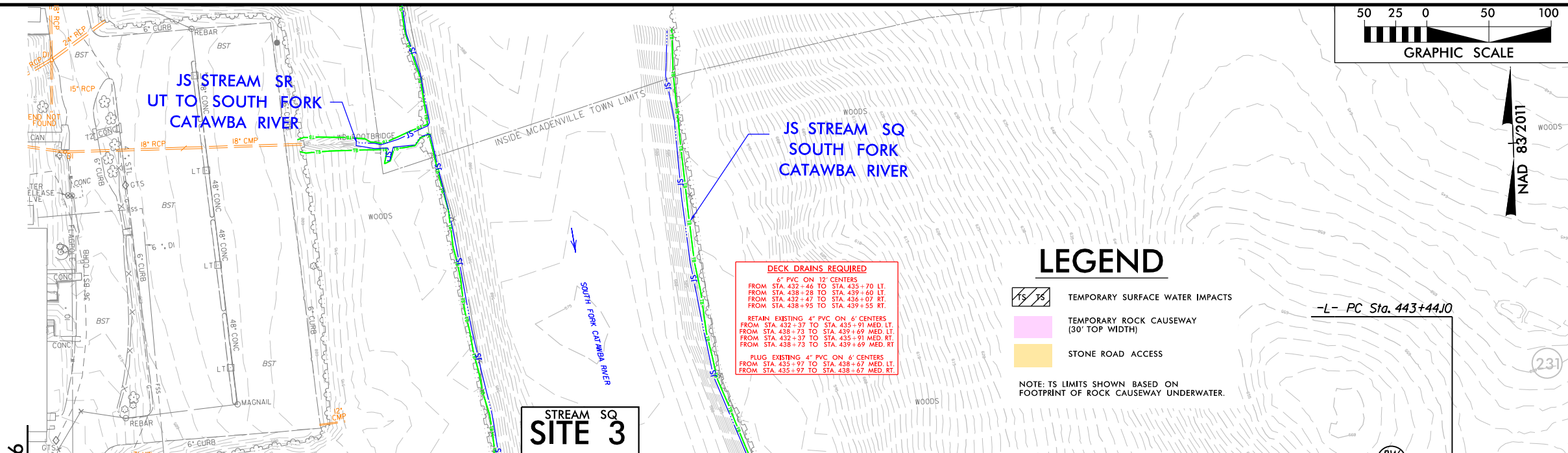
**PERMIT DRAWING
SHEET 10 OF 49**

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REVISIONS



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



DECK DRAINS REQUIRED

6" PVC ON 12" CENTERS
FROM STA. 432+46 TO STA. 433+70 LT.
FROM STA. 438+28 TO STA. 439+60 LT.
FROM STA. 432+47 TO STA. 436+07 RT.
FROM STA. 438+95 TO STA. 439+55 RT.

RETAIN EXISTING 4" PVC ON 6" CENTERS
FROM STA. 432+37 TO STA. 435+91 MED. LT.
FROM STA. 438+73 TO STA. 439+69 MED. LT.
FROM STA. 432+37 TO STA. 435+91 MED. RT.
FROM STA. 438+73 TO STA. 439+69 MED. RT.

PLUG EXISTING 4" PVC ON 6" CENTERS
FROM STA. 435+97 TO STA. 438+67 MED. LT.
FROM STA. 435+97 TO STA. 438+67 MED. RT.

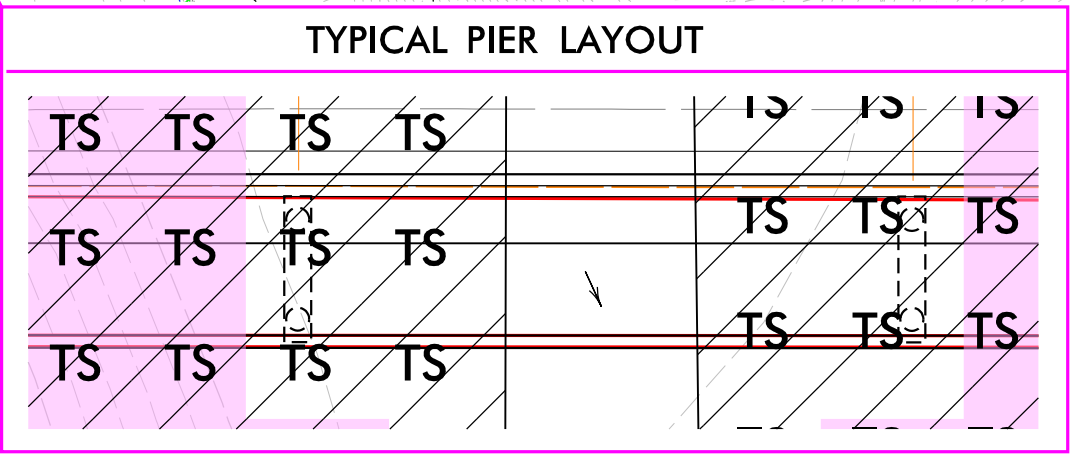
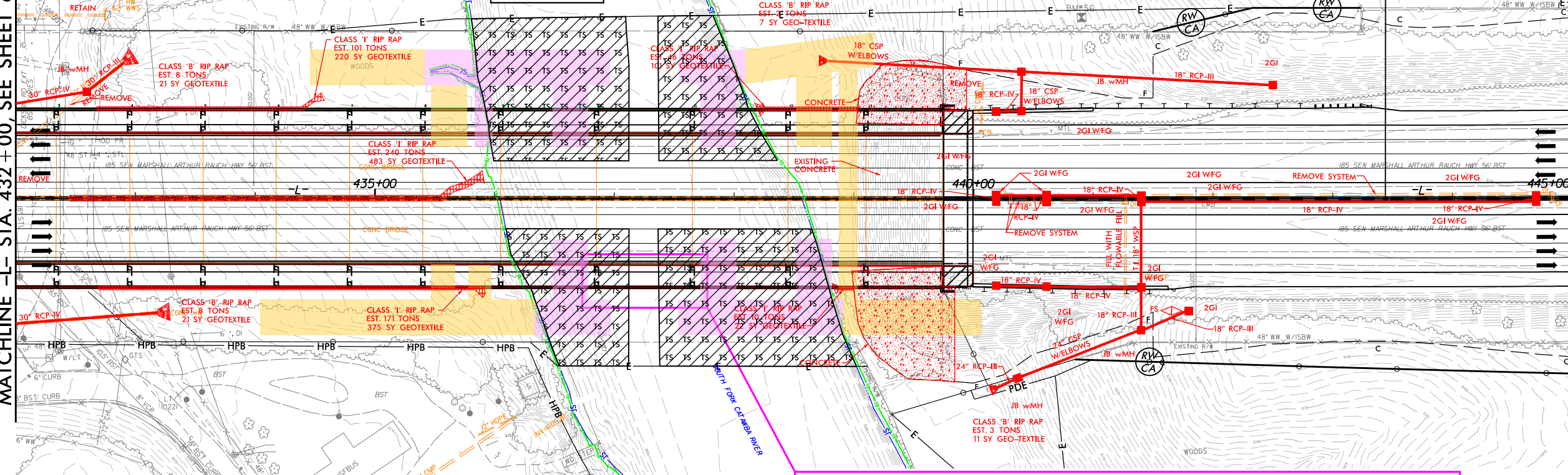
LEGEND

- TEMPORARY SURFACE WATER IMPACTS
 - TEMPORARY ROCK CAUSEWAY (30' TOP WIDTH)
 - STONE ROAD ACCESS
- NOTE: TS LIMITS SHOWN BASED ON FOOTPRINT OF ROCK CAUSEWAY UNDERWATER.

STREAM SQ SITE 3

MATCHLINE -L- STA. 432 + 00, SEE SHEET 6

MATCHLINE -L- STA. 445 + 00, SEE SHEET 8





NOTE: SEE WETLAND IMPACT SUMMARY FOR PERMANENT IMPACT VALUES DUE TO PROPOSED PIERS




SEE SHEET NO. 35 FOR -L- PROFILE VIEW

**PERMIT DRAWING
SHEET 11 OF 49**

PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
 FILE: Lane_Construction_Corp\lane_i-85_Gcstonia_DB\6.0_CAD_BITMAP\6.2_WIP\I-5719B_U-5800_Hydr\cadd\PERMITS_Environment\Drawings\I5719B_PRM_PSH.dgn
 PENTABLE: NCDOT_permits.CON.tbl
 TIME: 6/24/2026 10:41:47 AM
 REVISIONS

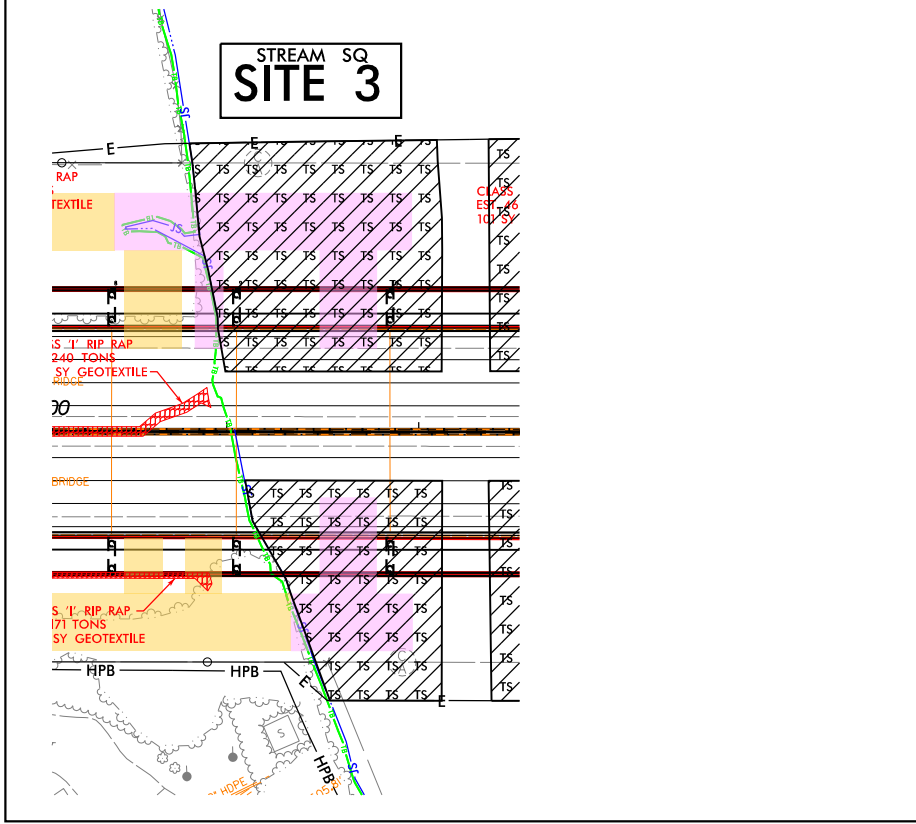
PROJECT REFERENCE NO.	SHEET NO.
L-5719B / U-5800	07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	
 HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	
50 25 0 50 100 GRAPHIC SCALE	

LEGEND

-  TEMPORARY SURFACE WATER IMPACTS
-  TEMPORARY ROCK CAUSEWAY
-  TEMPORARY STONE ROAD ACCESS

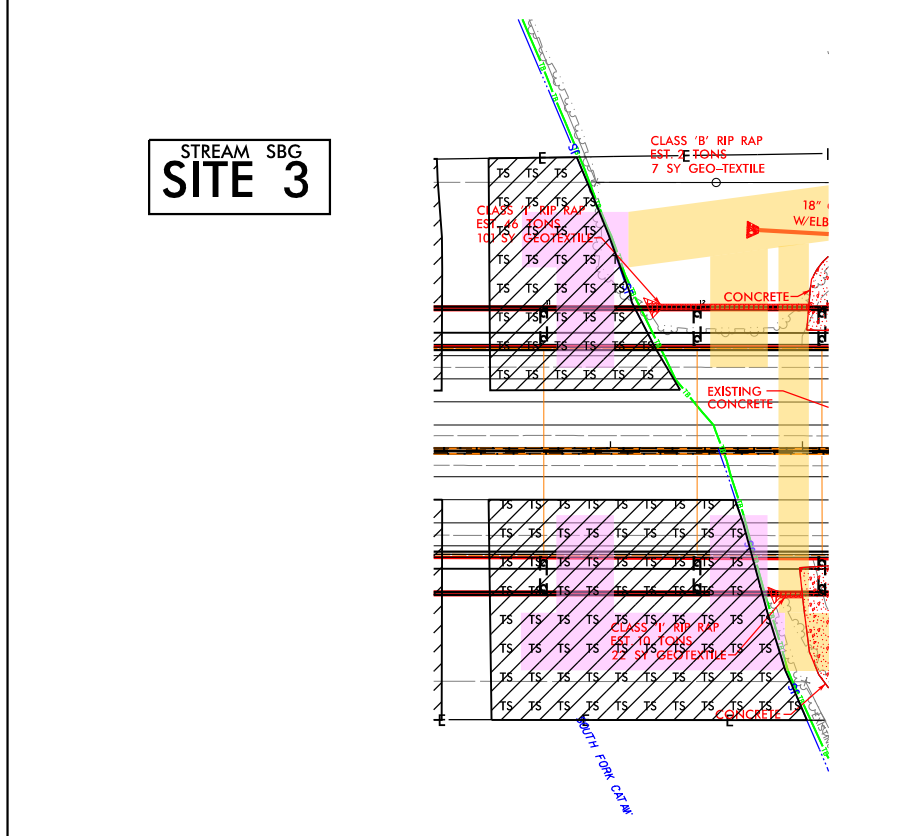


TEMPORARY ROCK CAUSEWAY – STAGE 1



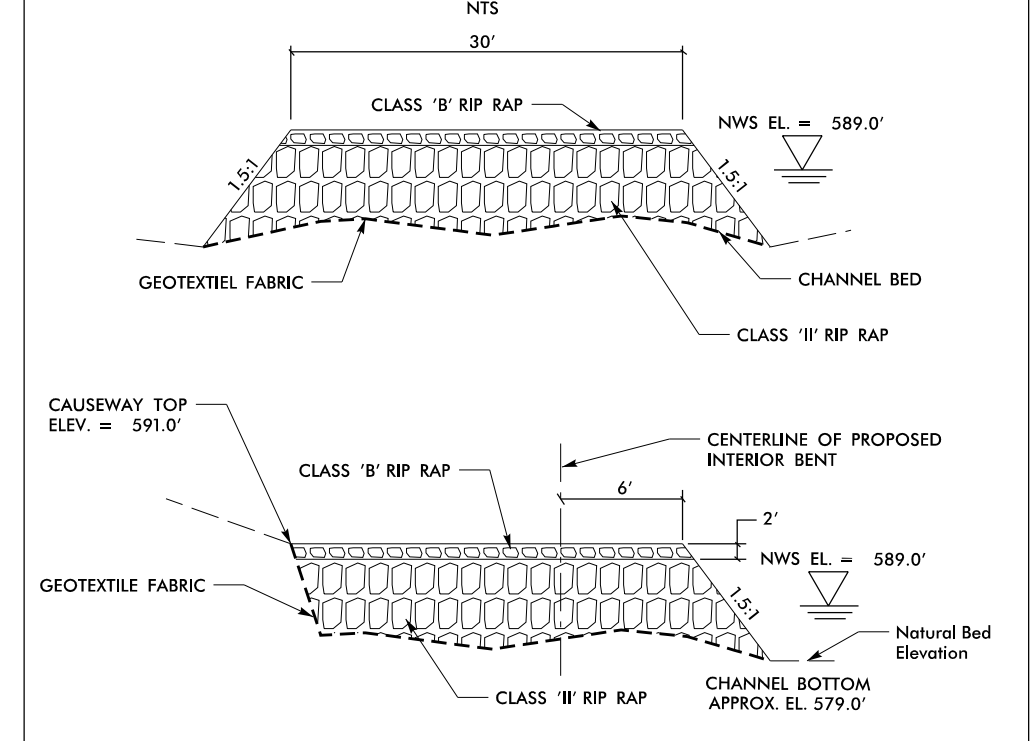
NOTE:
NO MORE THAN 50% OF THE RIVER
FLOW WILL BE CONSTRICTED BY THE TEMP
CAUSEWAYS.

TEMPORARY ROCK CAUSEWAY – STAGE 2



NOTE:
NO MORE THAN 50% OF THE RIVER
FLOW WILL BE CONSTRICTED BY THE TEMP
CAUSEWAYS.

ROCK CAUSEWAY DETAIL

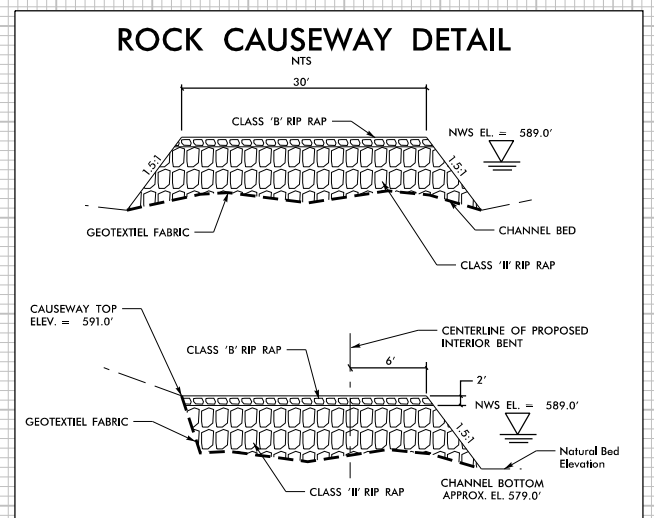
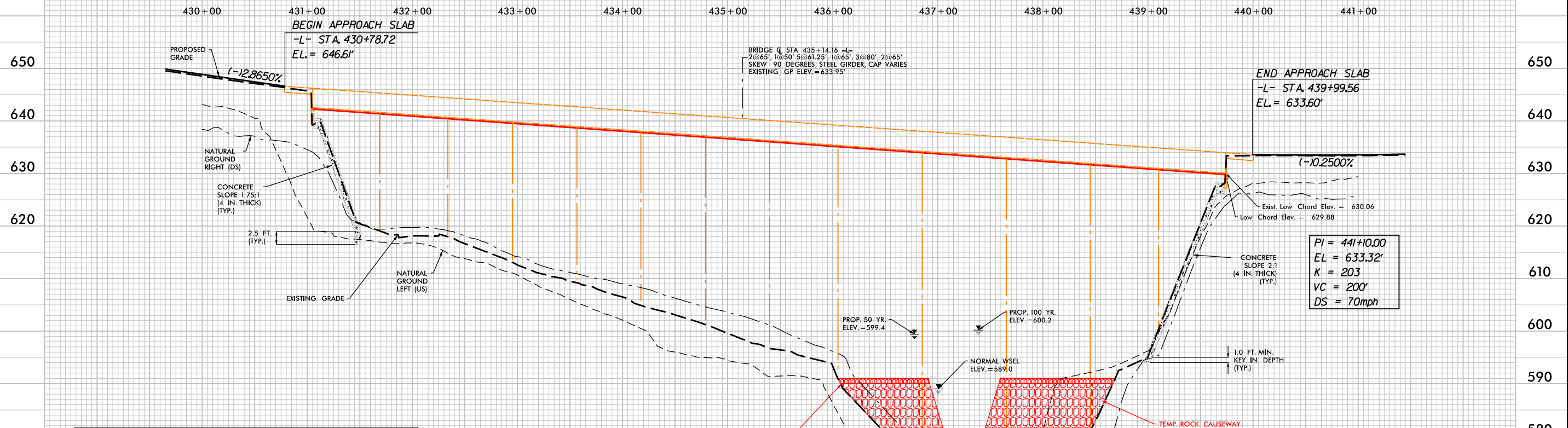


**PERMIT DRAWING
SHEET 12 OF 49**

PLOT DRIVER: NCDOT_permit_color_eng_100.plt
 USER: CMYERS
 FILE: Lone_Construction_Corp\Lane_I-85_Gcstonia_DB\6.0_CAD_BITMAP\6.2_WIP\I-5719B_U-5800_Hydr-aulics\PERMITS_Environment\Drawings\5719B_PRM_PSH.dgn
 PENTABLE: NCDOT_permits.NCON.tbl
 TIME: 10:35:57 AM
 DATE: 6/26/2026
 REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

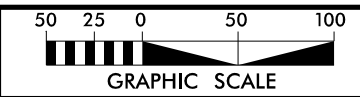
BRIDGE PROFILE VIEW-SITE 3



NOTES:
NO UPSTREAM OR DOWNSTREAM STRUCTURES THAT WERE IN PLACE AT THE TIME THIS PROJECT WAS DESIGNED WILL BE ADVERSELY IMPACTED BY THIS PROJECT.

PERMIT DRAWING
SHEET 13 OF 49

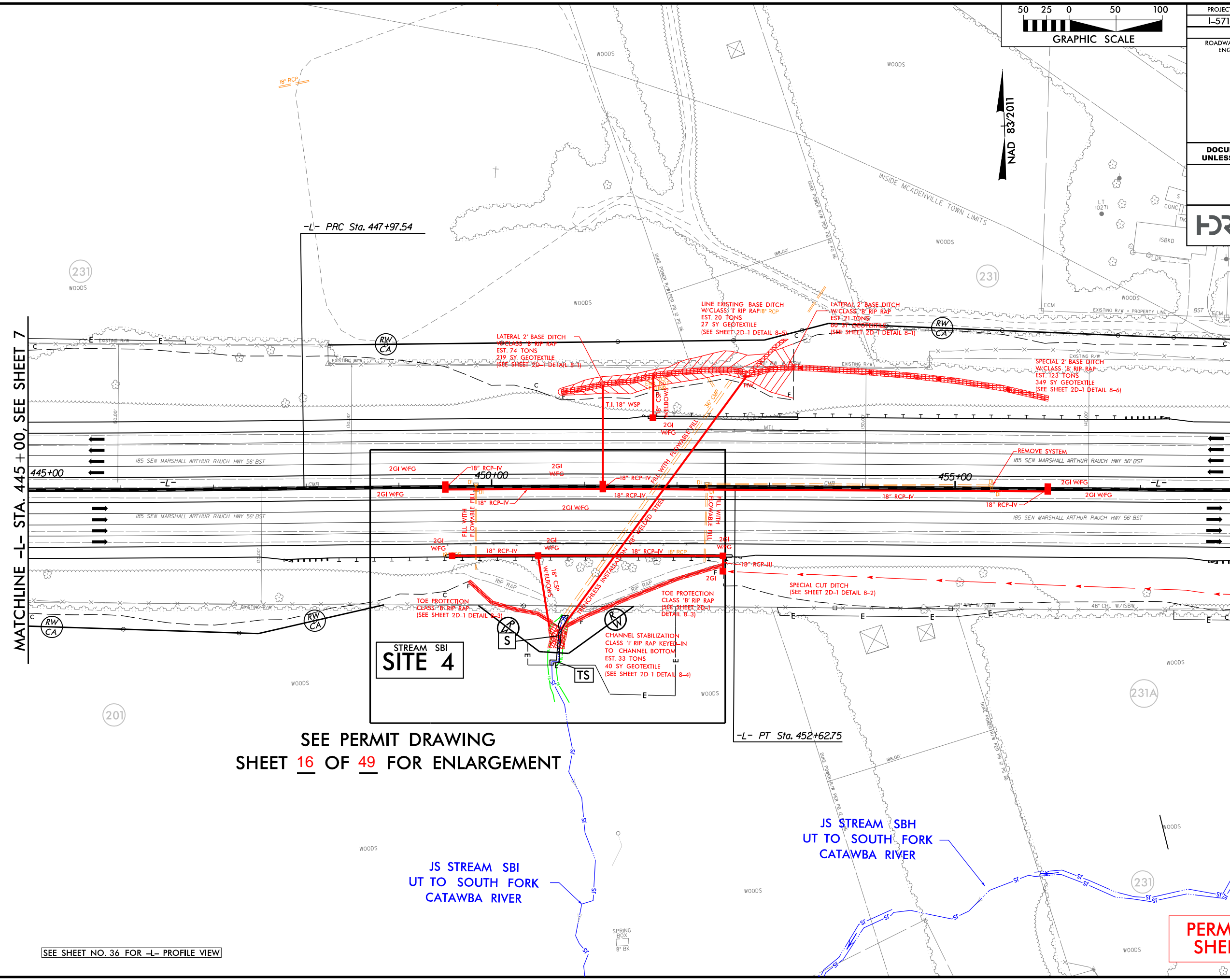
5/14/99
3:44:31 AM
25.15719B_South Fork Catemba River.185.BSR.dgn



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

MATCHLINE -L- STA. 445 + 00, SEE SHEET 7

MATCHLINE -L- STA. 458 + 00, SEE SHEET 9



SEE PERMIT DRAWING
SHEET 16 OF 49 FOR ENLARGEMENT

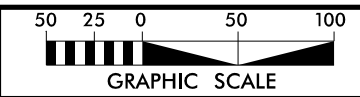
JS STREAM SBI
UT TO SOUTH FORK
CATAWBA RIVER

JS STREAM SBH
UT TO SOUTH FORK
CATAWBA RIVER

SEE SHEET NO. 36 FOR -L- PROFILE VIEW

PERMIT DRAWING
SHEET 14 OF 49

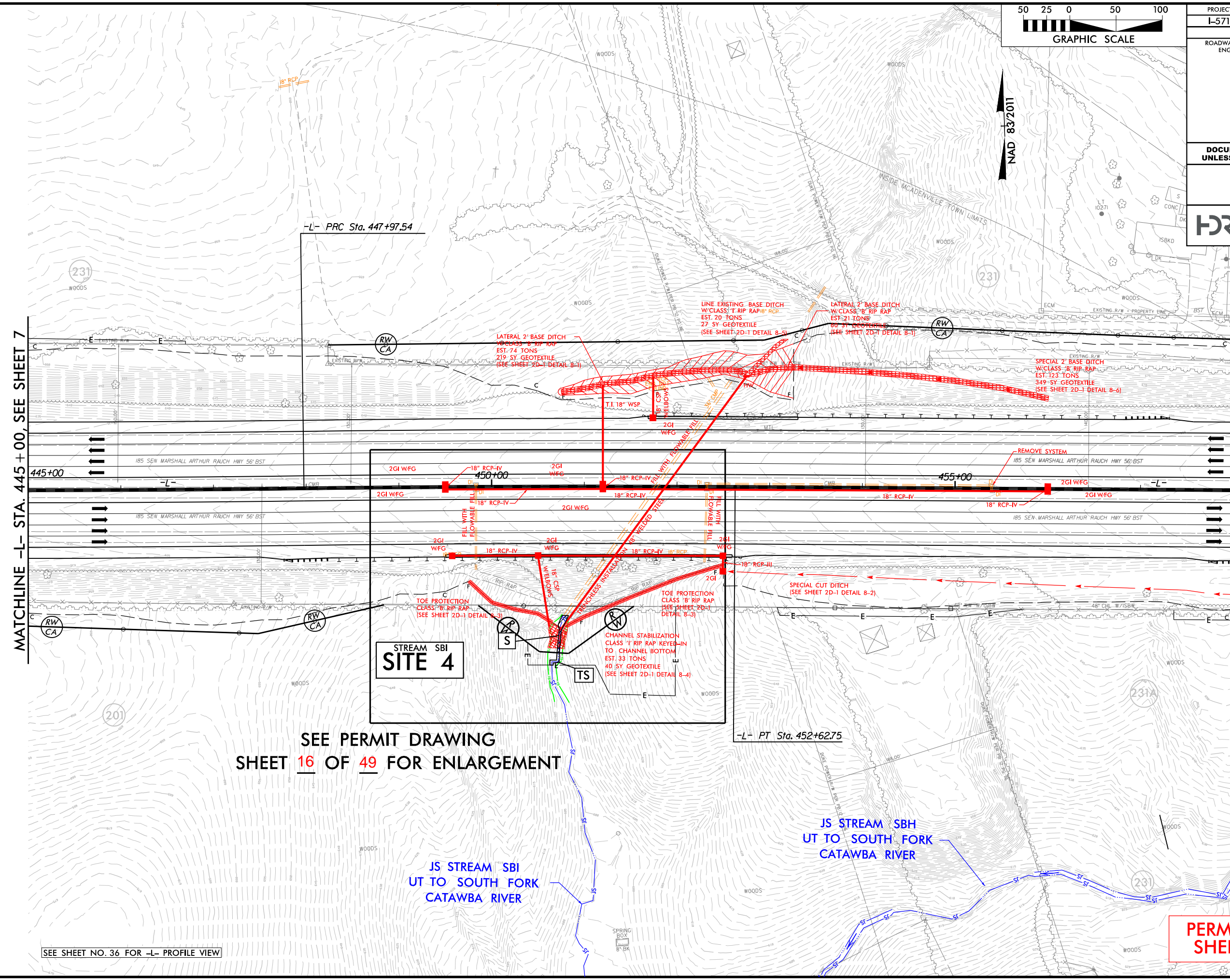
PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
 FILE: Lane_Construction_Corp\lane_1-85_Gcstonia_DB\6.0_CAD_BITMAP\6.2_WIP\1-5719B_U-5800\Hydraulics\PERMITS_Environment\Drawings\15719B_PRM_PSH.dgn
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 TIME: 6/23/2026 2:43:54 PM
 REVISIONS



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

MATCHLINE -L- STA. 445 + 00, SEE SHEET 7

MATCHLINE -L- STA. 458 + 00, SEE SHEET 9



SEE PERMIT DRAWING
SHEET 16 OF 49 FOR ENLARGEMENT

JS STREAM SBI
UT TO SOUTH FORK
CATAWBA RIVER

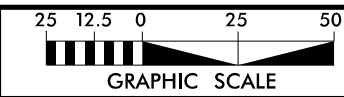
JS STREAM SBI
UT TO SOUTH FORK
CATAWBA RIVER

SEE SHEET NO. 36 FOR -L- PROFILE VIEW

PERMIT DRAWING
SHEET 15 OF 49

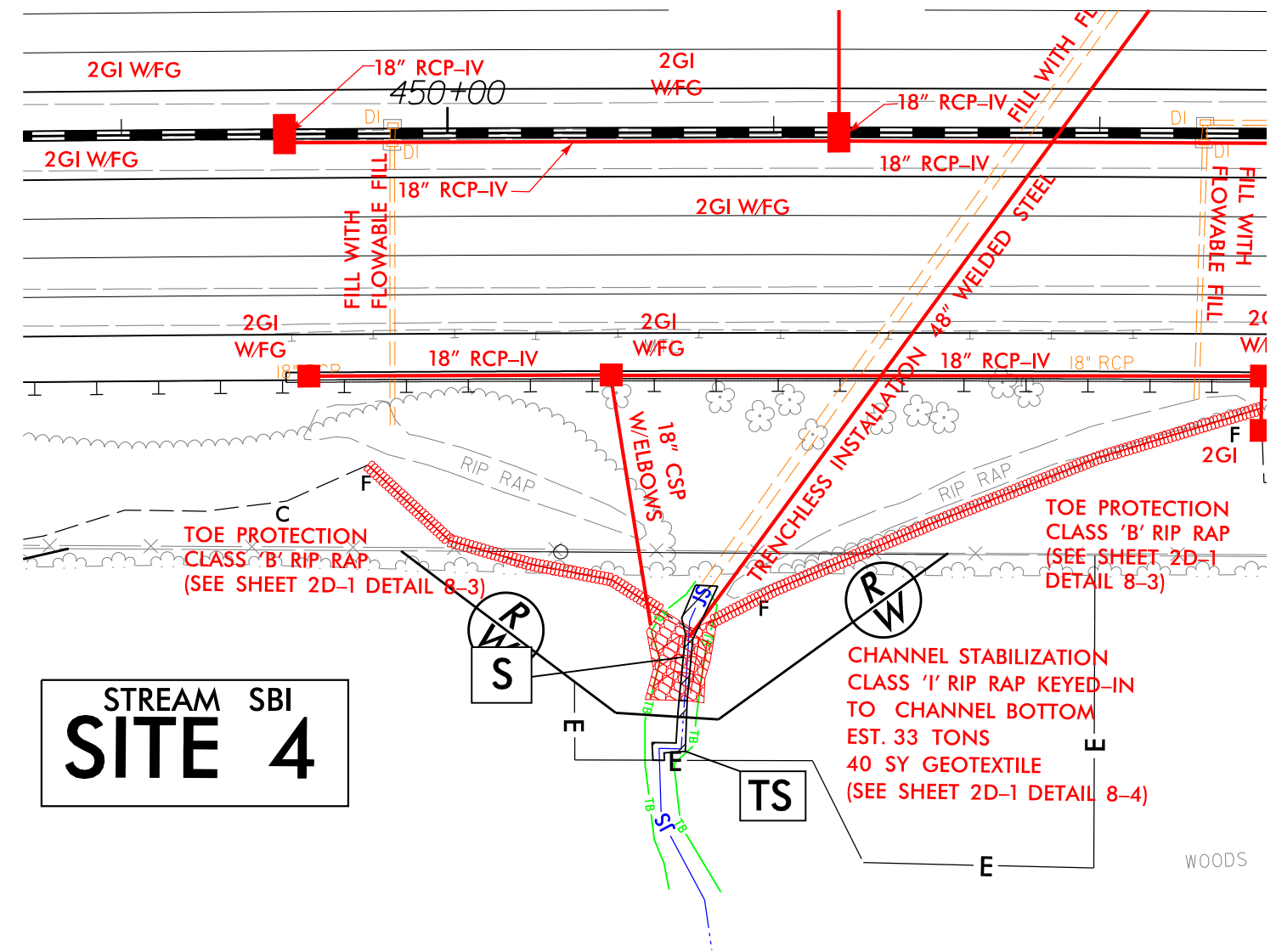
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 USER: CMYERS
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 TIME: 2:28:27 PM
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REVISIONS



NAD 83/2011

PROJECT REFERENCE NO. I-5719B / U-5800	SHEET NO. 08
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



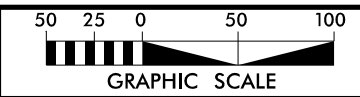
**STREAM SBI
SITE 4**

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

**PERMIT DRAWING
SHEET 16 OF 49**

PLOT DRIVER: NCDOT_pdf_color_eng_100.plt
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 DATE: 6/23/2026
 TIME: 2:44:43 PM
 REVISIONS



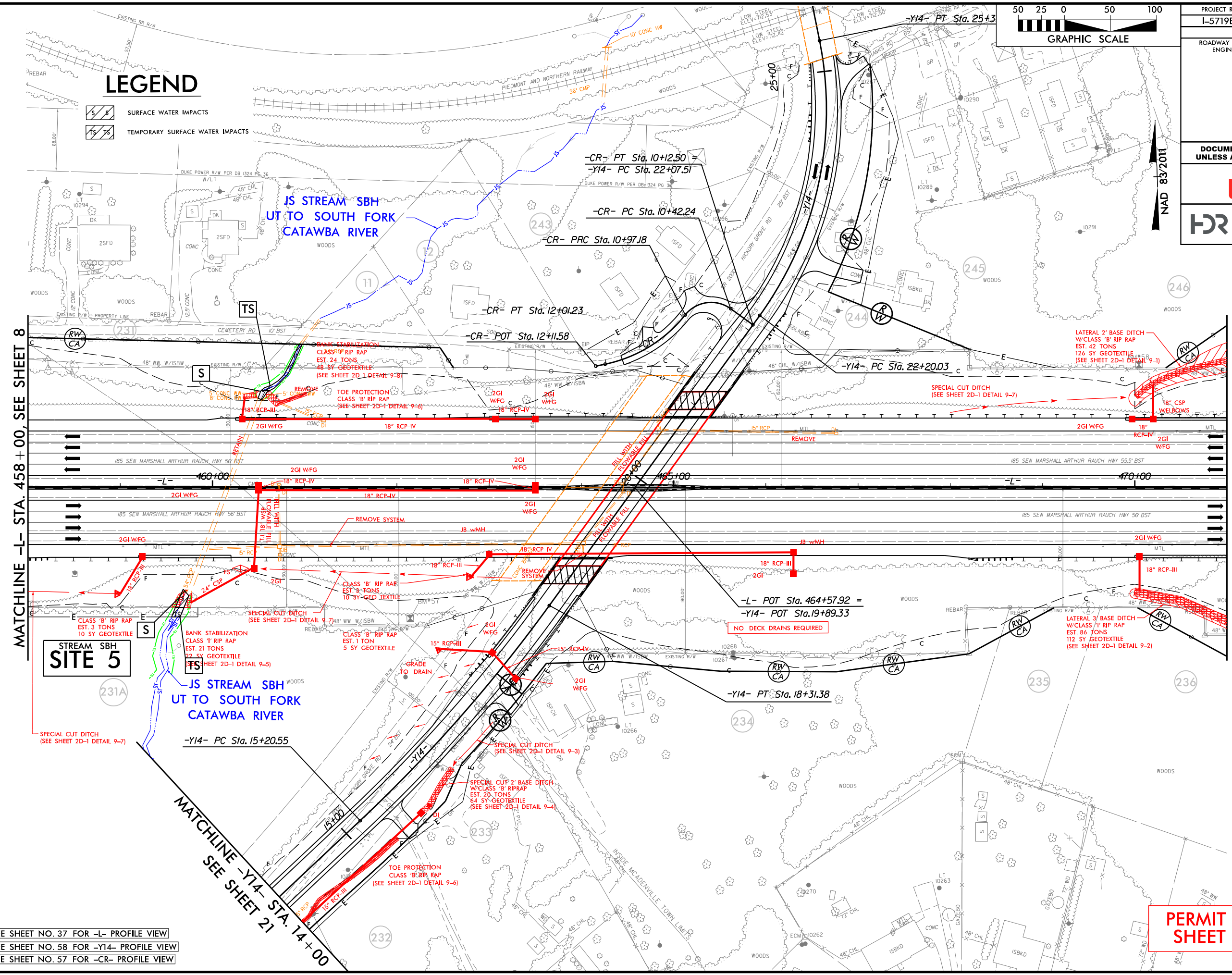
PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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555 Fayetteville St., Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS



SEE SHEET NO. 37 FOR -L- PROFILE VIEW
SEE SHEET NO. 58 FOR -Y14- PROFILE VIEW
SEE SHEET NO. 57 FOR -CR- PROFILE VIEW

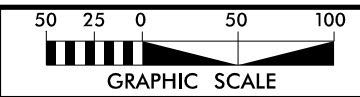
PERMIT DRAWING
SHEET 17 OF 49

PLOT DRIVER: NCDOT_color_eng_100.plt
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REVISIONS

MATCHLINE -L- STA. 458+00, SEE SHEET 8

MATCHLINE -L- STA. 471+00, SEE SHEET 10



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

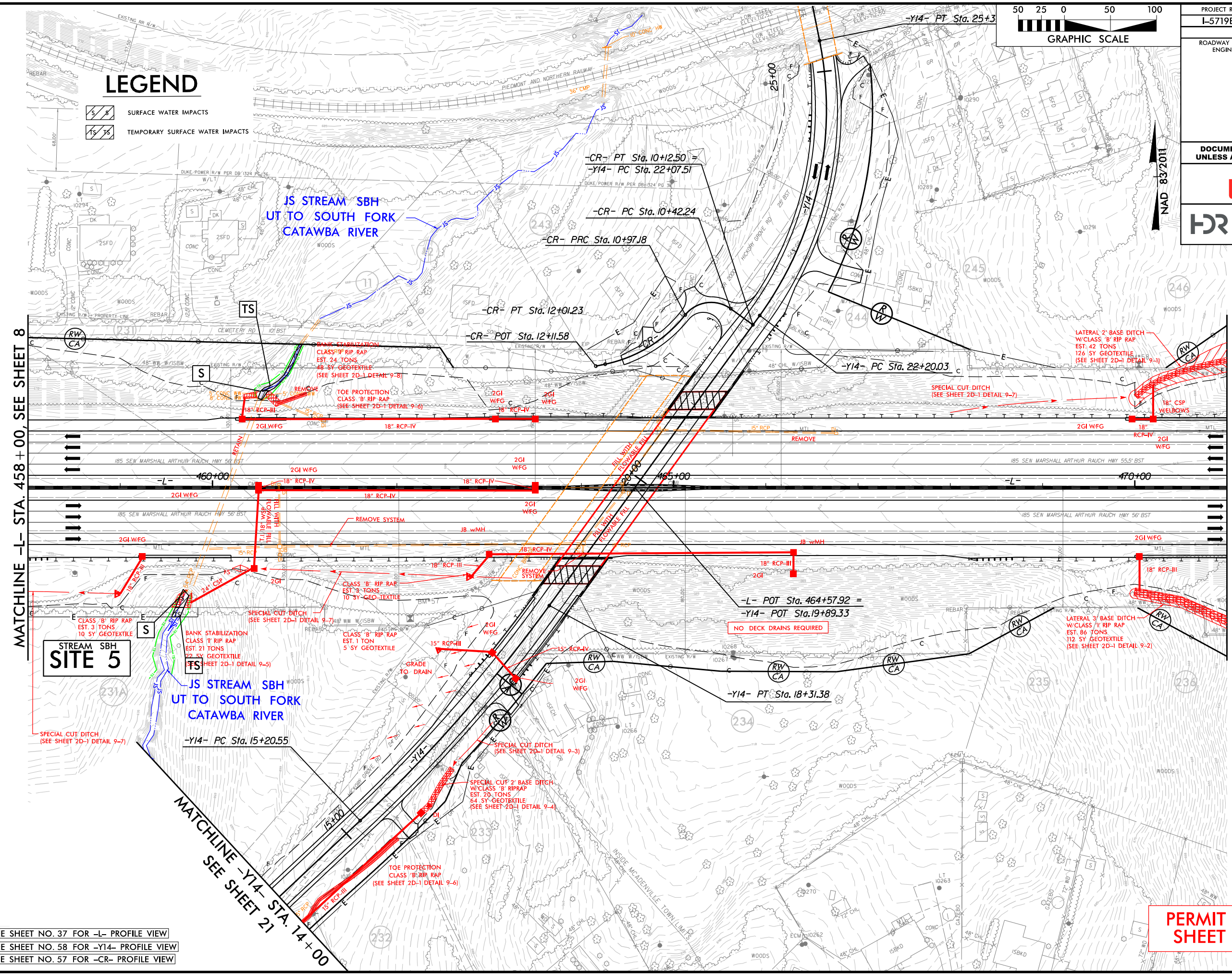
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



HDR HDR Engineering, Inc. of the Carolinas
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N.C.B.E.L.S. License Number: F-0116

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

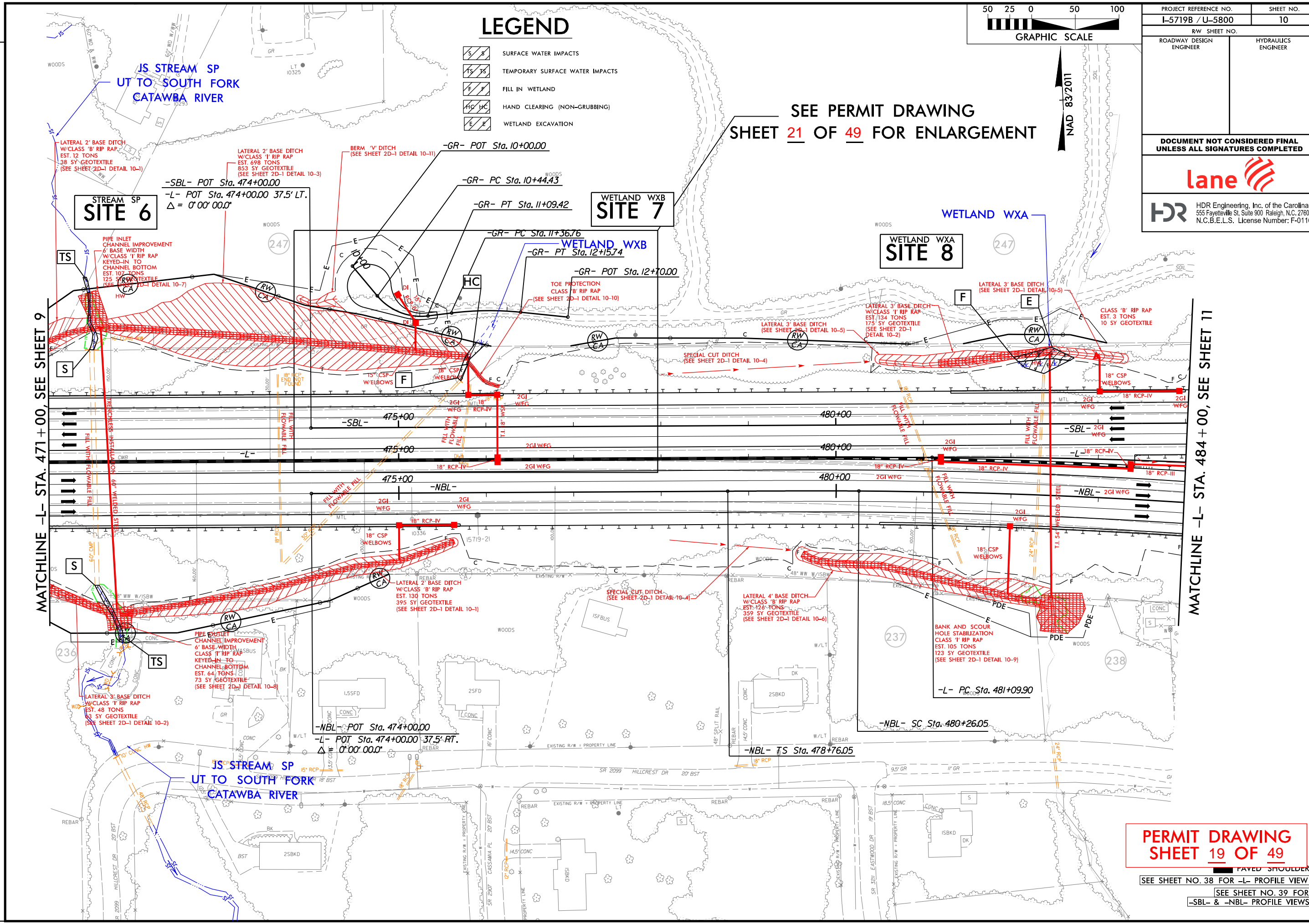


SEE SHEET NO. 37 FOR -L- PROFILE VIEW
SEE SHEET NO. 58 FOR -Y14- PROFILE VIEW
SEE SHEET NO. 57 FOR -CR- PROFILE VIEW

PERMIT DRAWING
SHEET 18 OF 49

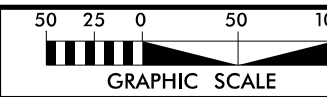
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 USER: CMYERS
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 PENTABLE: NCDOT_permits_color_eng_100.plt
 TIME: 6/23/2026 2:29:00 PM
 DATE: 6/23/2026
 REVISIONS

REVISIONS



LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS
- FILL IN WETLAND
- HAND CLEARING (NON-GRUBBING)
- WETLAND EXCAVATION



NAD 83/2011

SEE PERMIT DRAWING SHEET 21 OF 49 FOR ENLARGEMENT

PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
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MATCHLINE -L- STA. 471+00, SEE SHEET 9

MATCHLINE -L- STA. 484+00, SEE SHEET 11

JS STREAM SP
UT TO SOUTH FORK
CATAWBA RIVER

JS STREAM SP
UT TO SOUTH FORK
CATAWBA RIVER

STREAM SP
SITE 6

WETLAND WXB
SITE 7

WETLAND WXA
SITE 8

PERMIT DRAWING SHEET 19 OF 49

SEE SHEET NO. 38 FOR -L- PROFILE VIEW
SEE SHEET NO. 39 FOR -SBL- & -NBL- PROFILE VIEWS

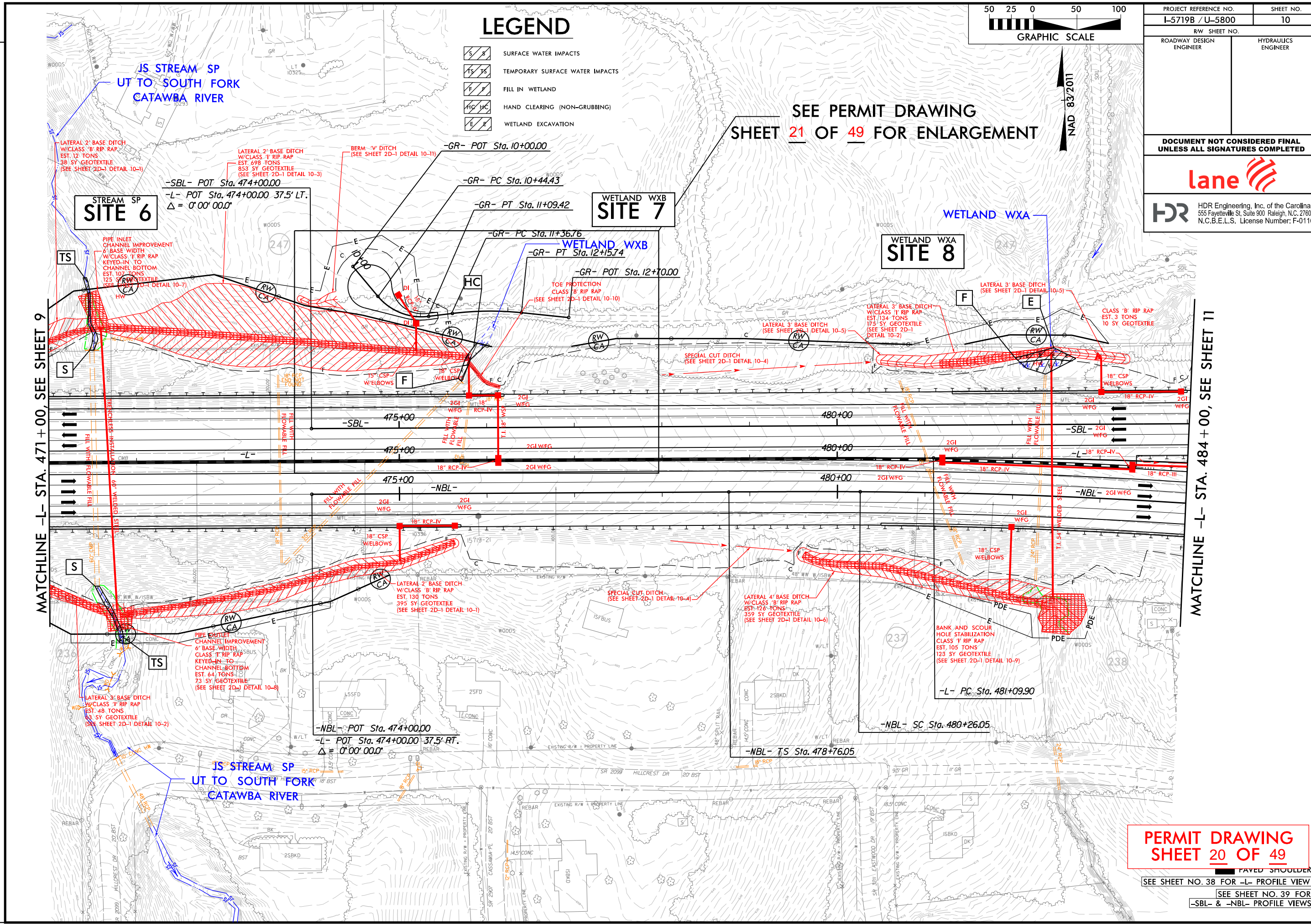
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REVISIONS

PENTABLE: NCDOT_permits_CON.tbl
 TIME: 14:09:29 PM

DATE: 6/26/2026

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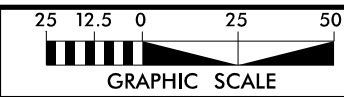


PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

PERMIT DRAWING SHEET 20 OF 49

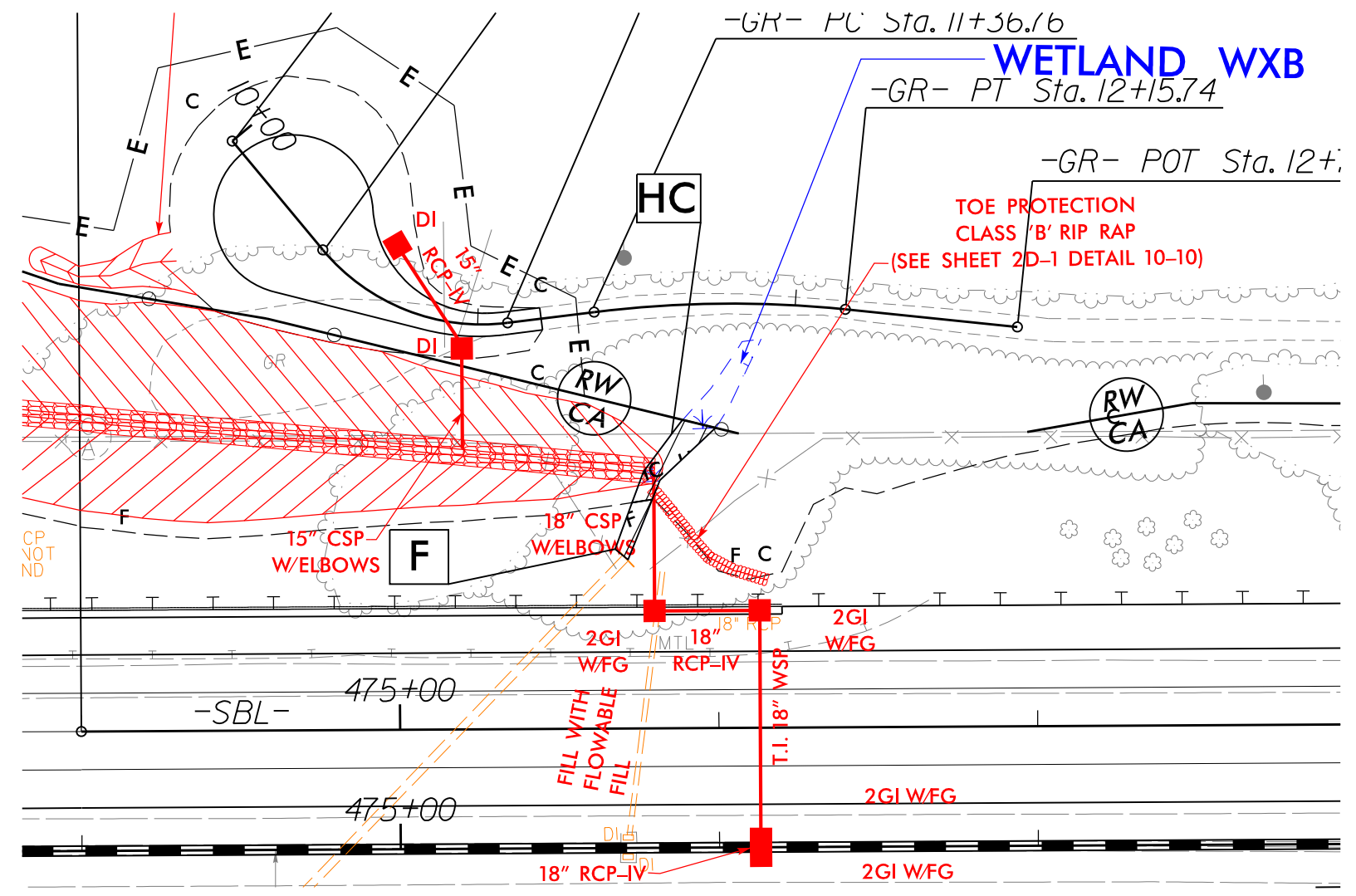
SEE SHEET NO. 38 FOR -L- PROFILE VIEW

SEE SHEET NO. 39 FOR -SBL- & -NBL- PROFILE VIEWS



PROJECT REFERENCE NO. I-5719B / U-5800	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
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NAD 83/2011



WETLAND WXB
SITE 7

LEGEND

- F F FILL IN WETLAND
- HC HC HAND CLEARING (NON-GRUBBING)

PERMIT DRAWING
SHEET 21 OF 49

PLOT DRIVER: NCDOT_permit_eng_100.plt
 USER: CMYERS
 DATE: 6/26/2026
 TIME: 1:13:05 PM
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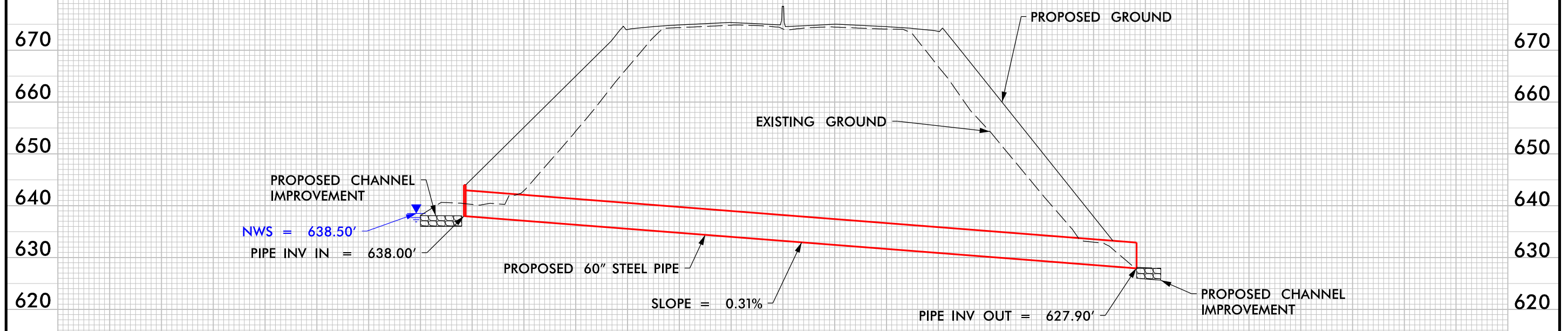
REVISIONS

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE ALONG 60" WSP – SITE #6

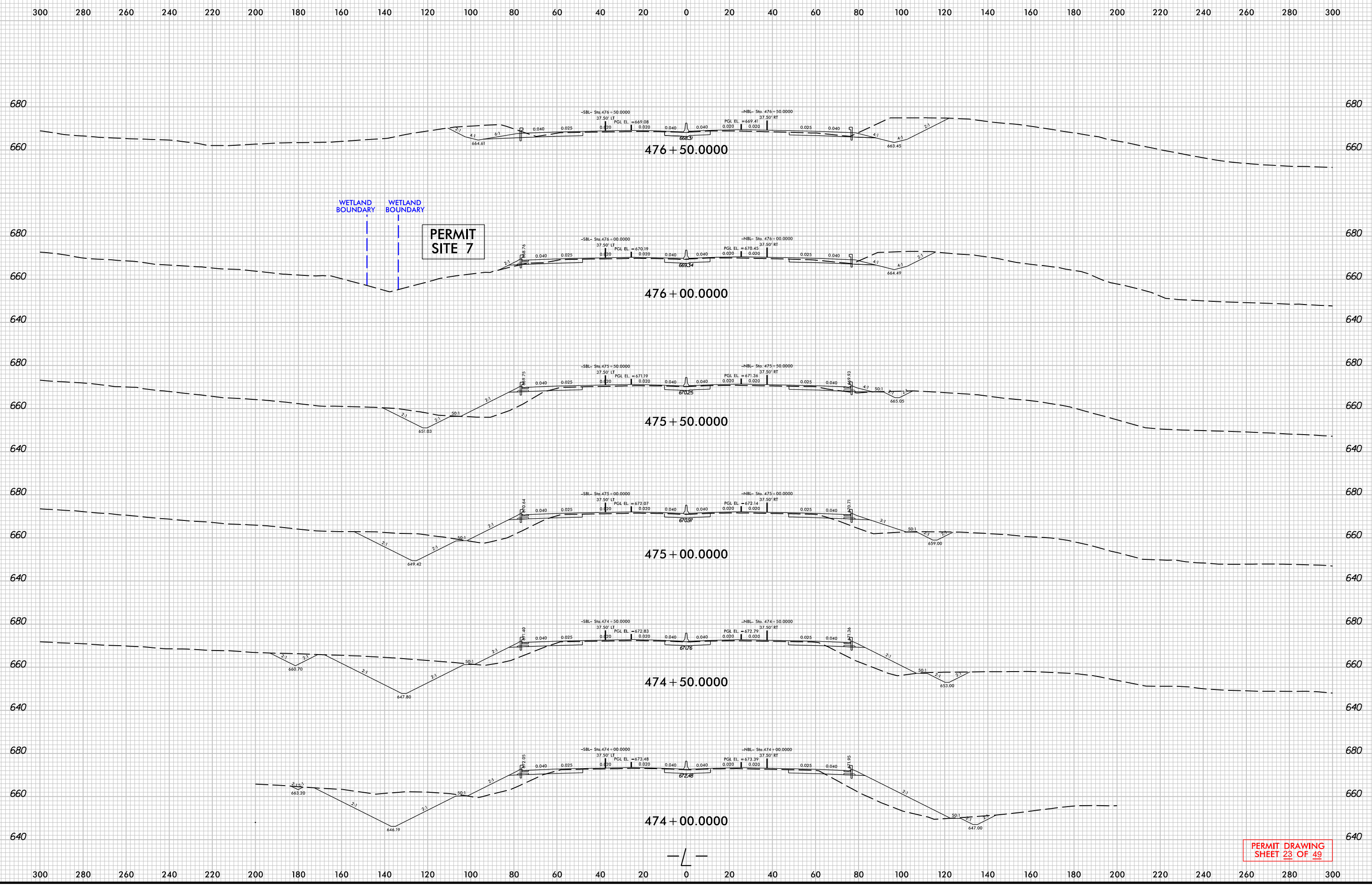
200 100 0 100 200



REVISIONS

PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: -USERNAME-
 FILE: I5719B_PRM_CSR_PSH.dgn
 PENTABLE: NCDOT_PFL_XSC.tbl
 DATE: 6/23/2026
 TIME: 9:13:32 AM

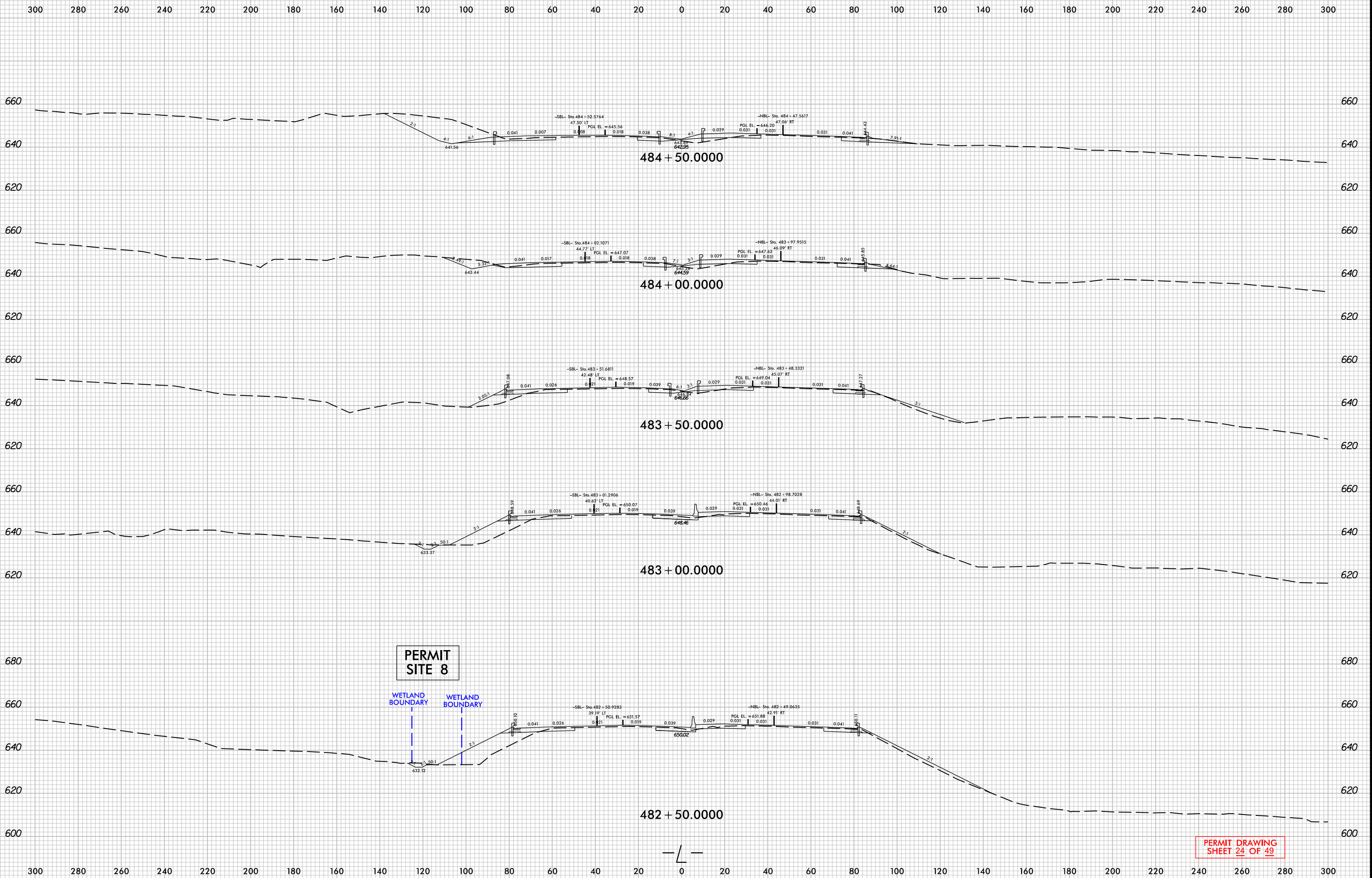
**PERMIT DRAWING
SHEET 22 OF 49**



10:05:49 AM
I:\5719B\U5800\PRM_XPL_L02.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

PERMIT DRAWING
SHEET 23 OF 49

6/23/16

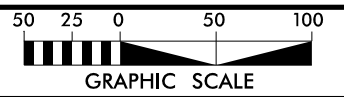


PERMIT SITE 8

WETLAND BOUNDARY WETLAND BOUNDARY

PERMIT DRAWING SHEET 24 OF 49

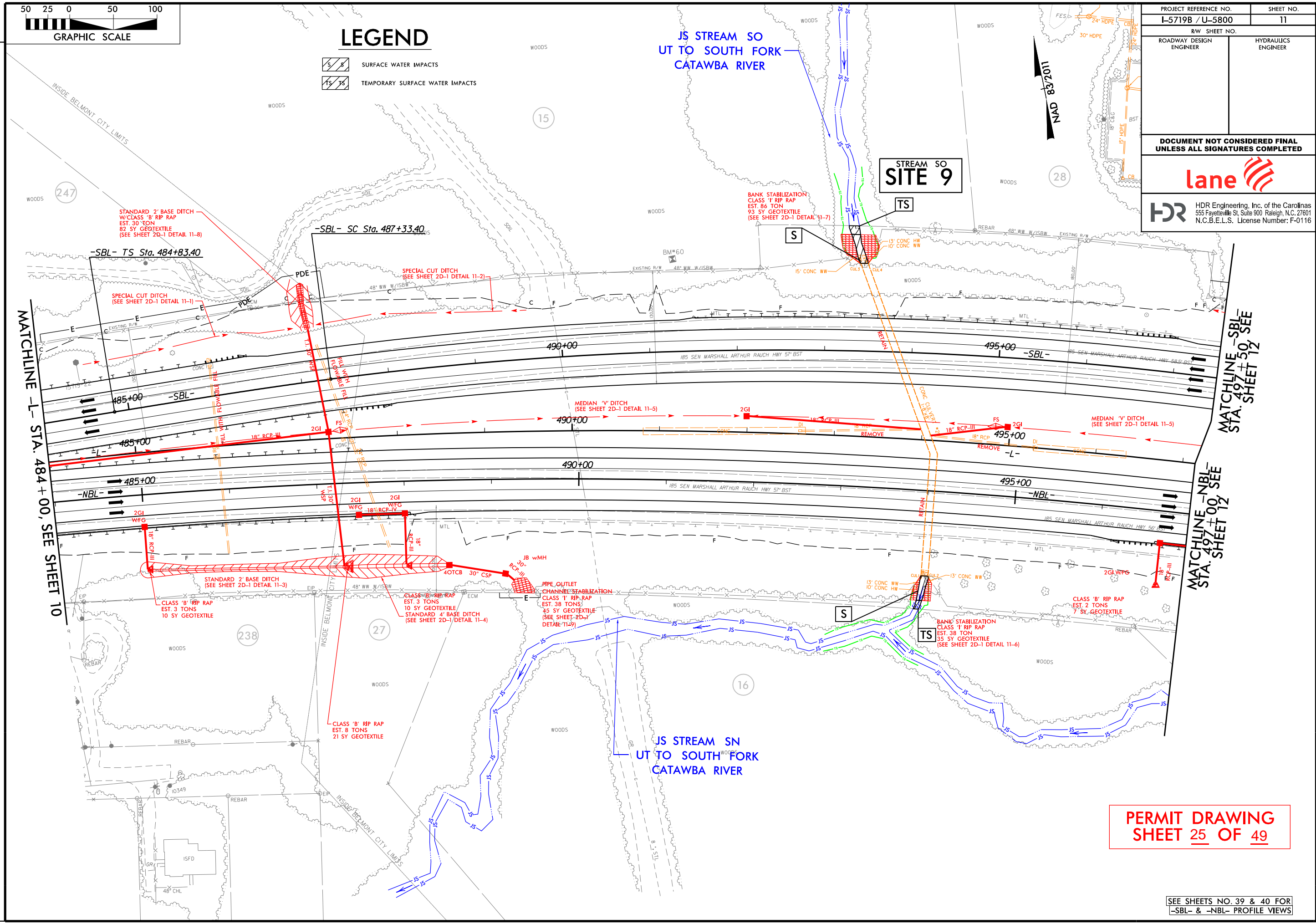
I:\06\52 AM 157\5719B U-5800 PRM_XPL_L02.dgn



LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

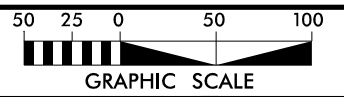
PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 11
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
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**PERMIT DRAWING
SHEET 25 OF 49**

SEE SHEETS NO. 39 & 40 FOR
-SBL- & -NBL- PROFILE VIEWS

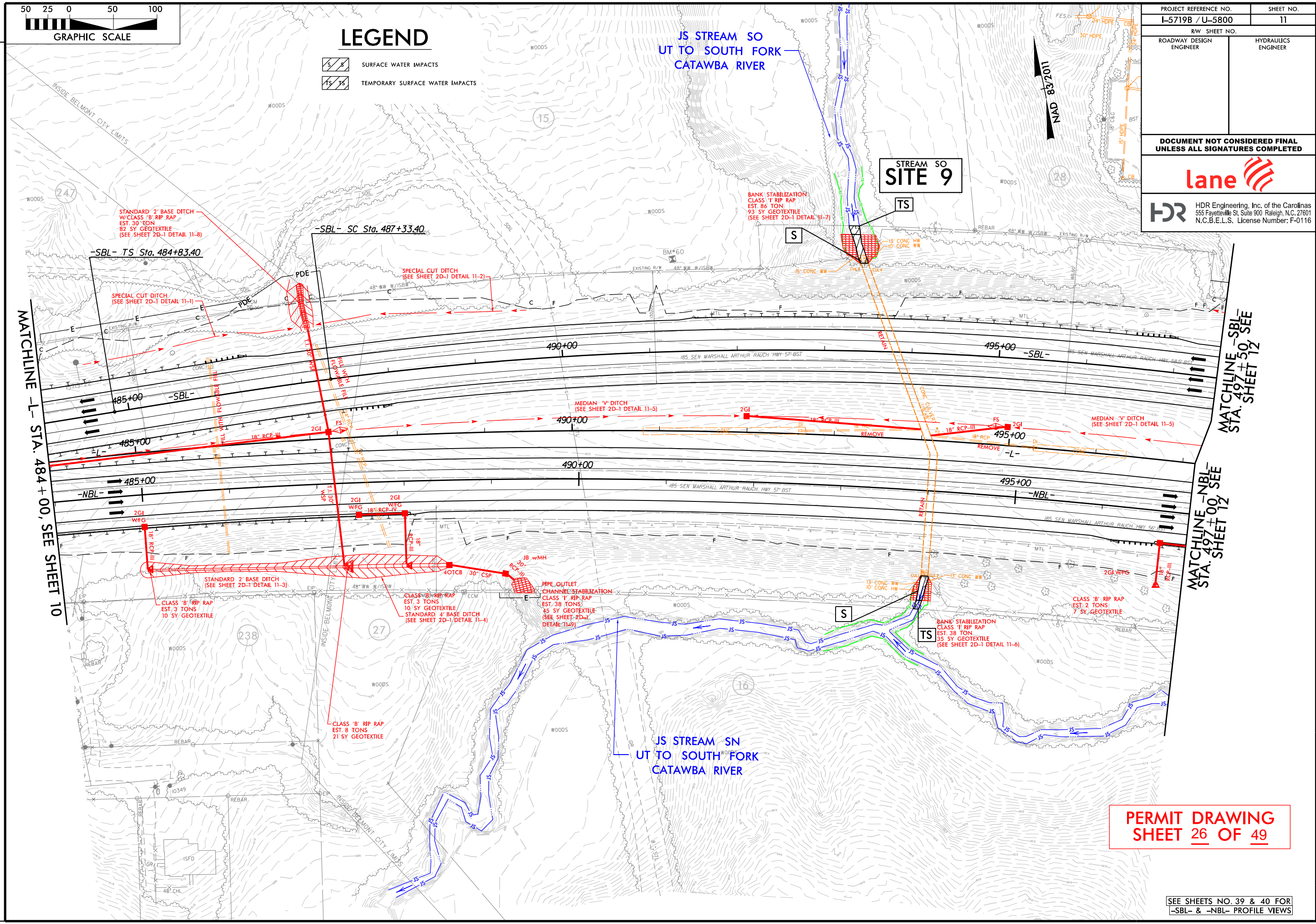
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LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 11
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
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MATCHLINE -L- STA. 484+00, SEE SHEET 10

MATCHLINE -SBL- STA. 497+50, SEE SHEET 12

MATCHLINE -NBL- STA. 497+00, SEE SHEET 12

**PERMIT DRAWING
SHEET 26 OF 49**

SEE SHEETS NO. 39 & 40 FOR
-SBL- & -NBL- PROFILE VIEWS

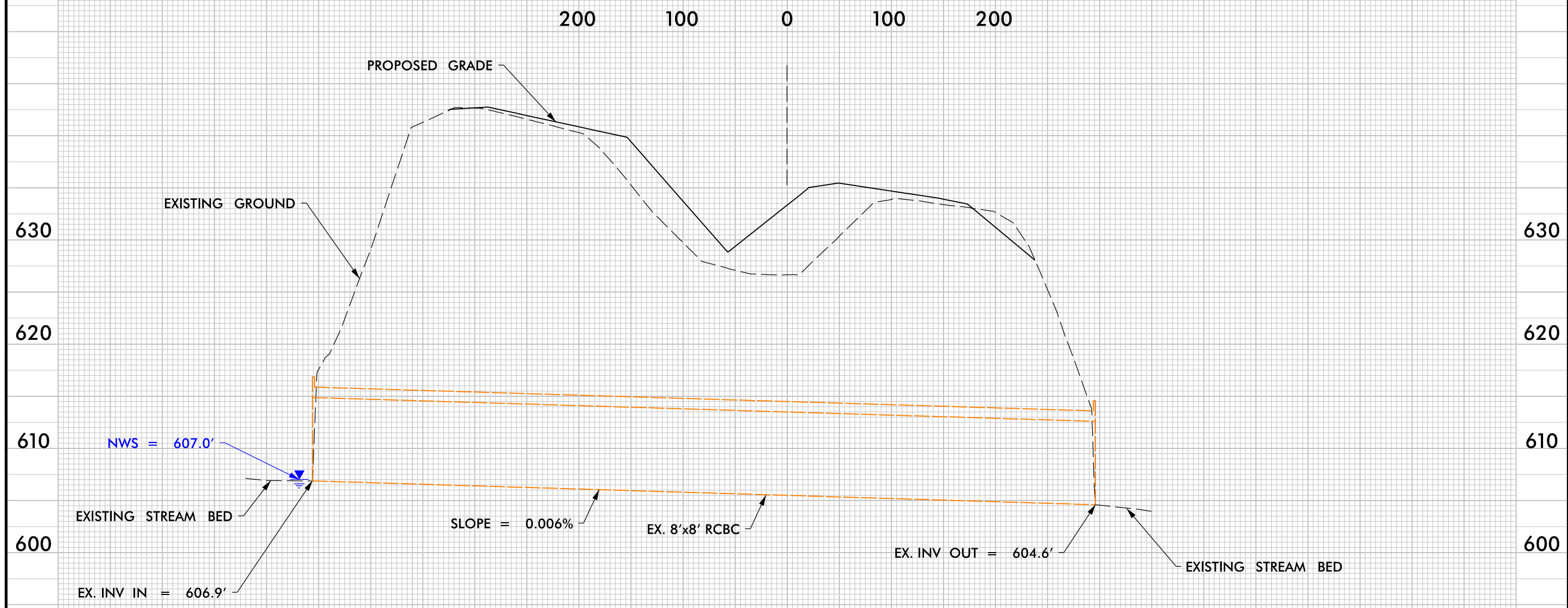
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REVISIONS

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE ALONG EX. 8x8 RCBC – SITE 9

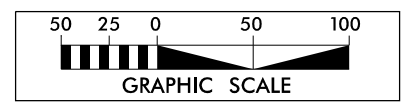


REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_100.plt
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 DATE: 6/23/2026
 TIME: 9:14:03 AM

**PERMIT DRAWING
SHEET 27 OF 49**

**PERMIT DRAWING
SHEET 29 OF 49**

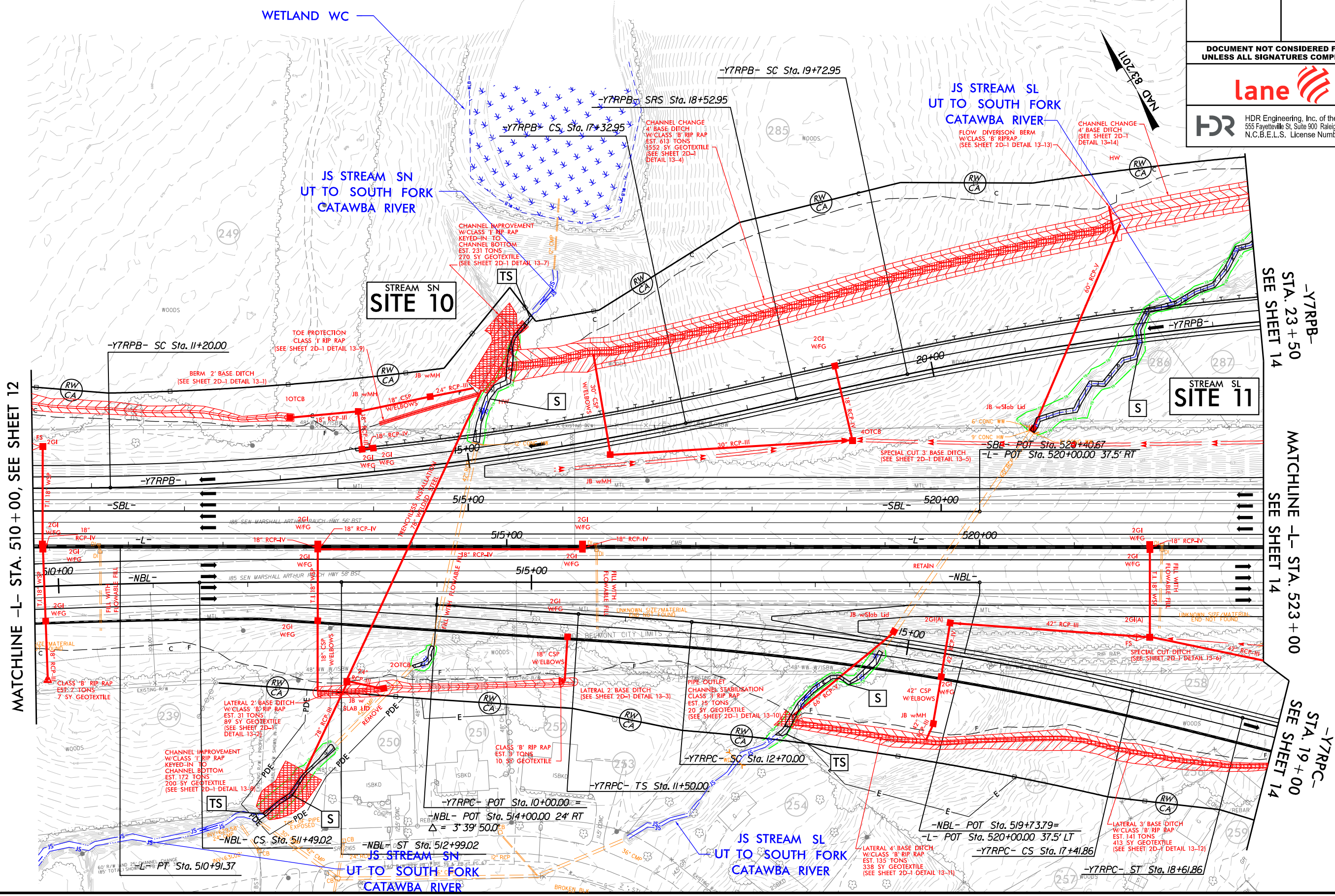


LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

SEE SHEETS NO. 41 & 42 FOR
-SBL- & -NBL- PROFILE VIEWS
SEE SHEET NO. 43 FOR -L- PROFILE VIEW
SEE SHEET NO. 63 FOR -Y7RPB- PROFILE VIEW
SEE SHEET NO. 64 FOR
-Y7RPC- PROFILE VIEW

PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



MATCHLINE -L- STA. 510 + 00, SEE SHEET 12

-Y7RPB-
STA. 23 + 50
SEE SHEET 14

MATCHLINE -L- STA. 523 + 00
SEE SHEET 14

-Y7RPC-
STA. 19 + 00
SEE SHEET 14

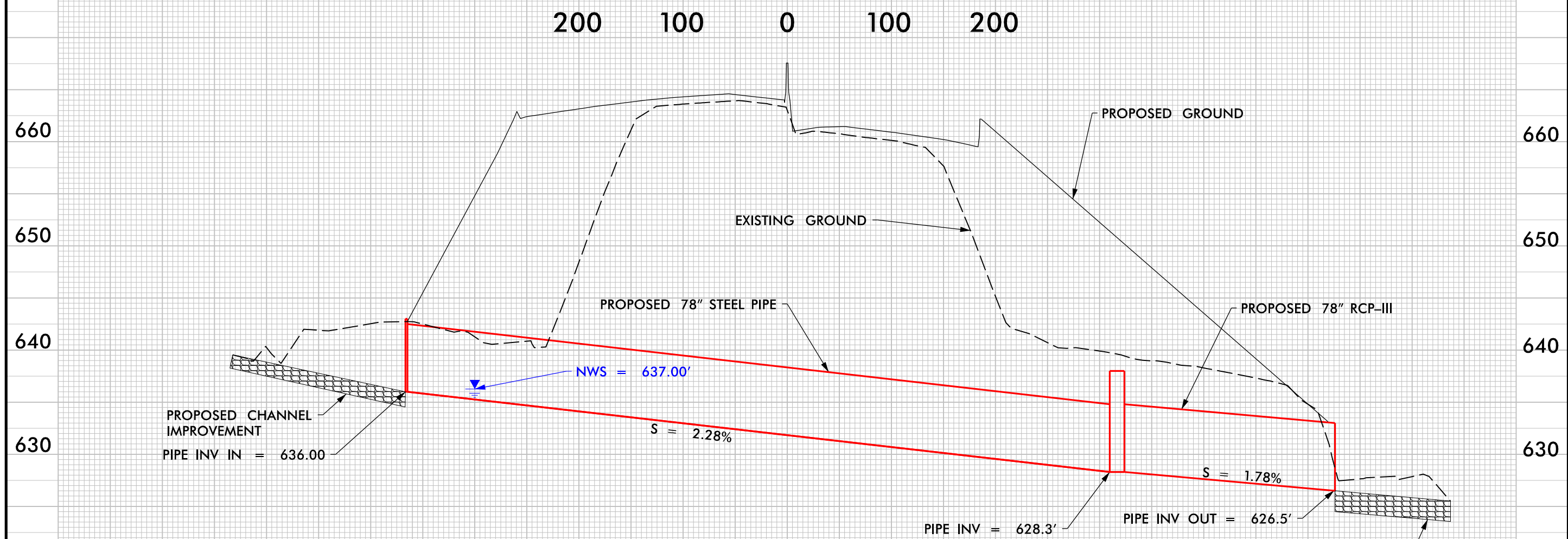
PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
 PENTABLE: NCDOT_permits.CON.tbl
 DATE: 6/23/2026
 TIME: 2:30:41 PM
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REVISIONS

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE ALONG 78" WELDED STEEL – SITE 10



REVISIONS

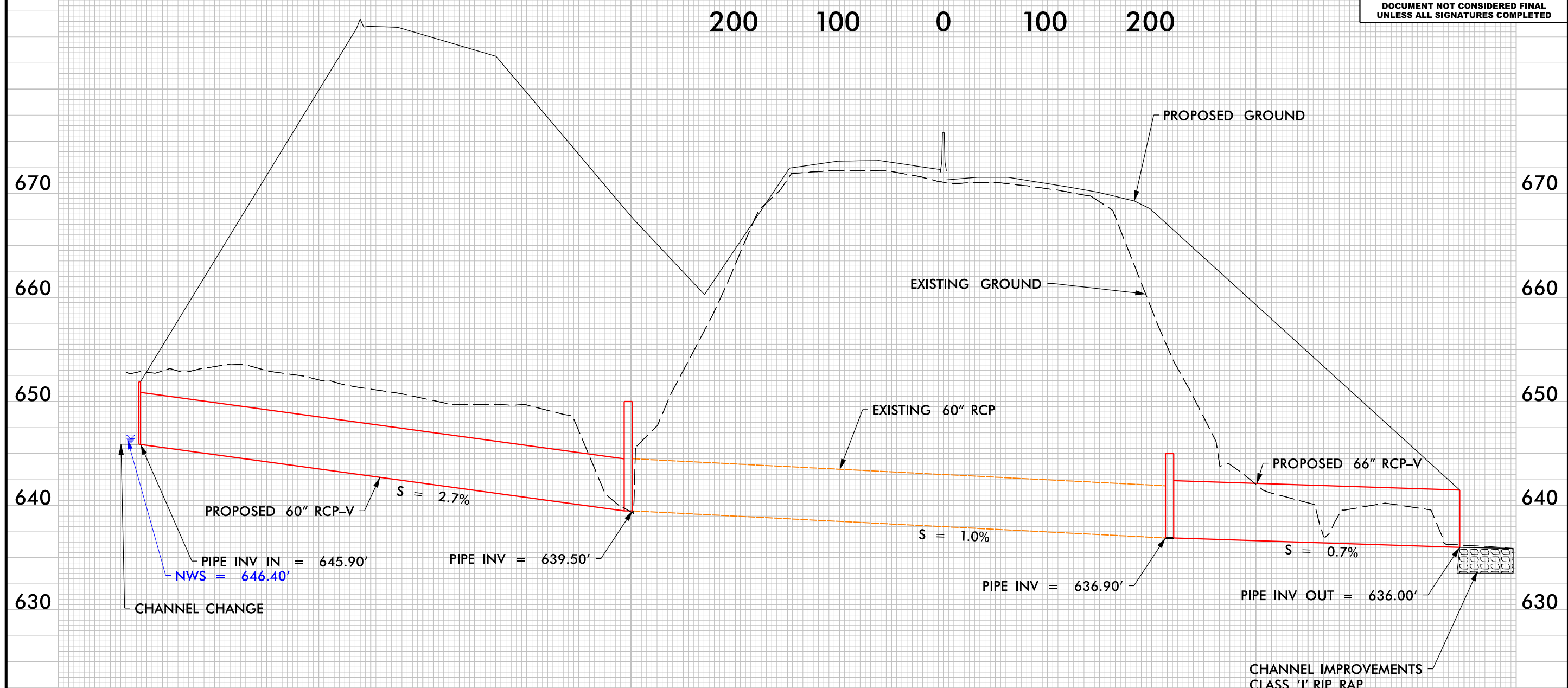
PLOT DRIVER: NCDOT_color_eng_100.plt
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 FILE: 157198_PRL_CSR_PSH.dgn
 DATE: 6/24/2026
 TIME: 9:44:27 AM

**PERMIT DRAWING
SHEET 30 OF 49**

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE ALONG 60"/66" PIPE – SITE #11

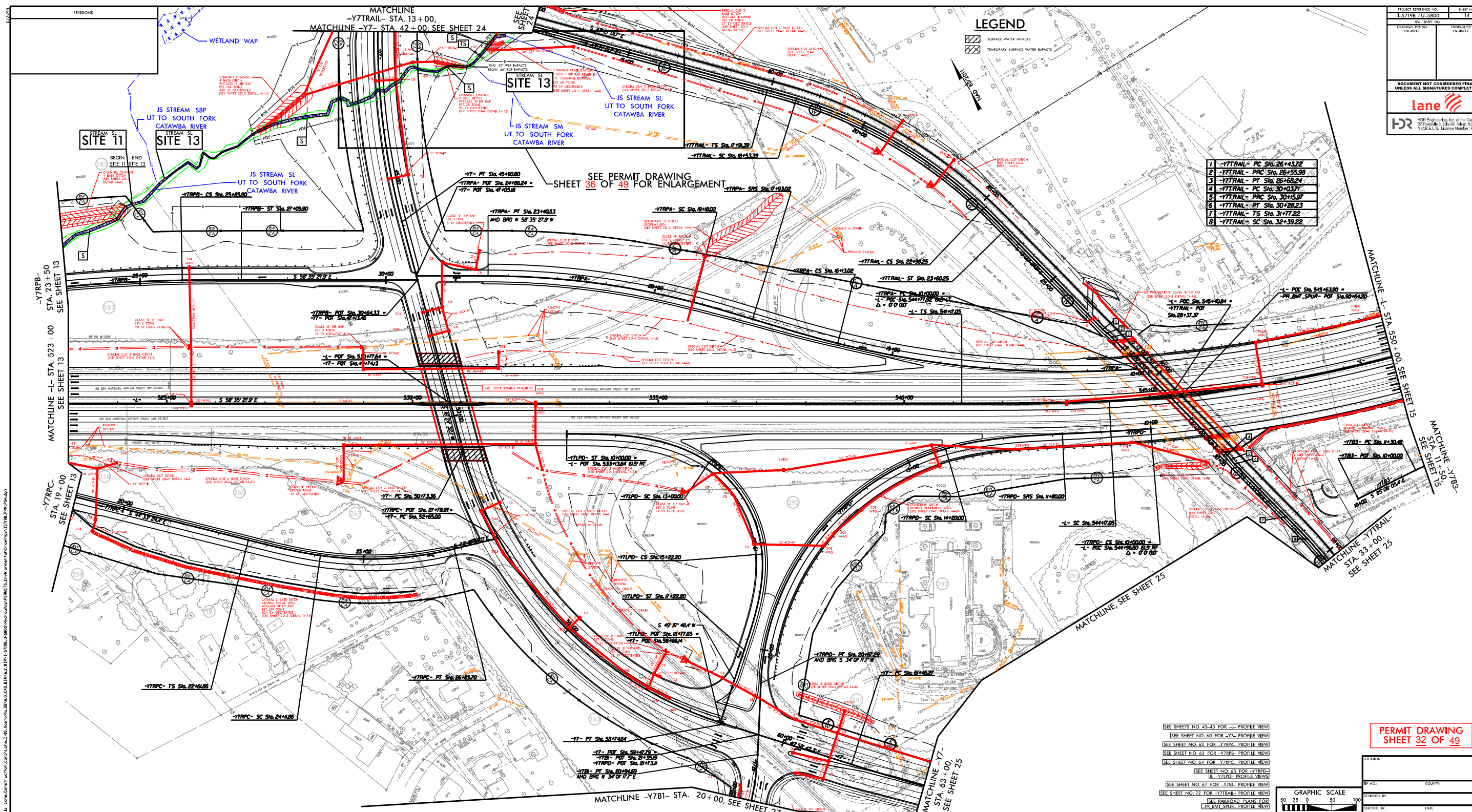
5/14/99



**PERMIT DRAWING
SHEET 31 OF 49**

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_100.plt PENTABLE: NCDOT_PFL_XSC.tbl
 USER: -USERNAME- DATE: 6/23/2026 TIME: 9:15:06 AM
 FILE: I5719B_PRL_CSR_PSH.dgn



REVISIONS

NO.	DATE	DESCRIPTION

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

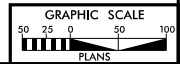
PROJECT REFERENCE NO.	SHEET NO.
I-5719B / LI-3800	14
ROADWAY DESIGN ENGINEER	PROJECT ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
<small>LANE Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 1000, Raleigh, N.C. 27601 N.C. REG. E.I.T.S. License Number: F-0119</small>	

- | | |
|---|-----------------------------|
| 1 | -Y7TRAIL- PC Sta. 26+43.72 |
| 2 | -Y7TRAIL- PRC Sta. 26+55.98 |
| 3 | -Y7TRAIL- PT Sta. 26+58.24 |
| 4 | -Y7TRAIL- PC Sta. 30+03.37 |
| 5 | -Y7TRAIL- PRC Sta. 30+15.67 |
| 6 | -Y7TRAIL- PT Sta. 30+28.23 |
| 7 | -Y7TRAIL- TS Sta. 31+77.22 |
| 8 | -Y7TRAIL- SC Sta. 32+39.22 |

SEE PERMIT DRAWING SHEET 36 OF 49 FOR ENLARGEMENT

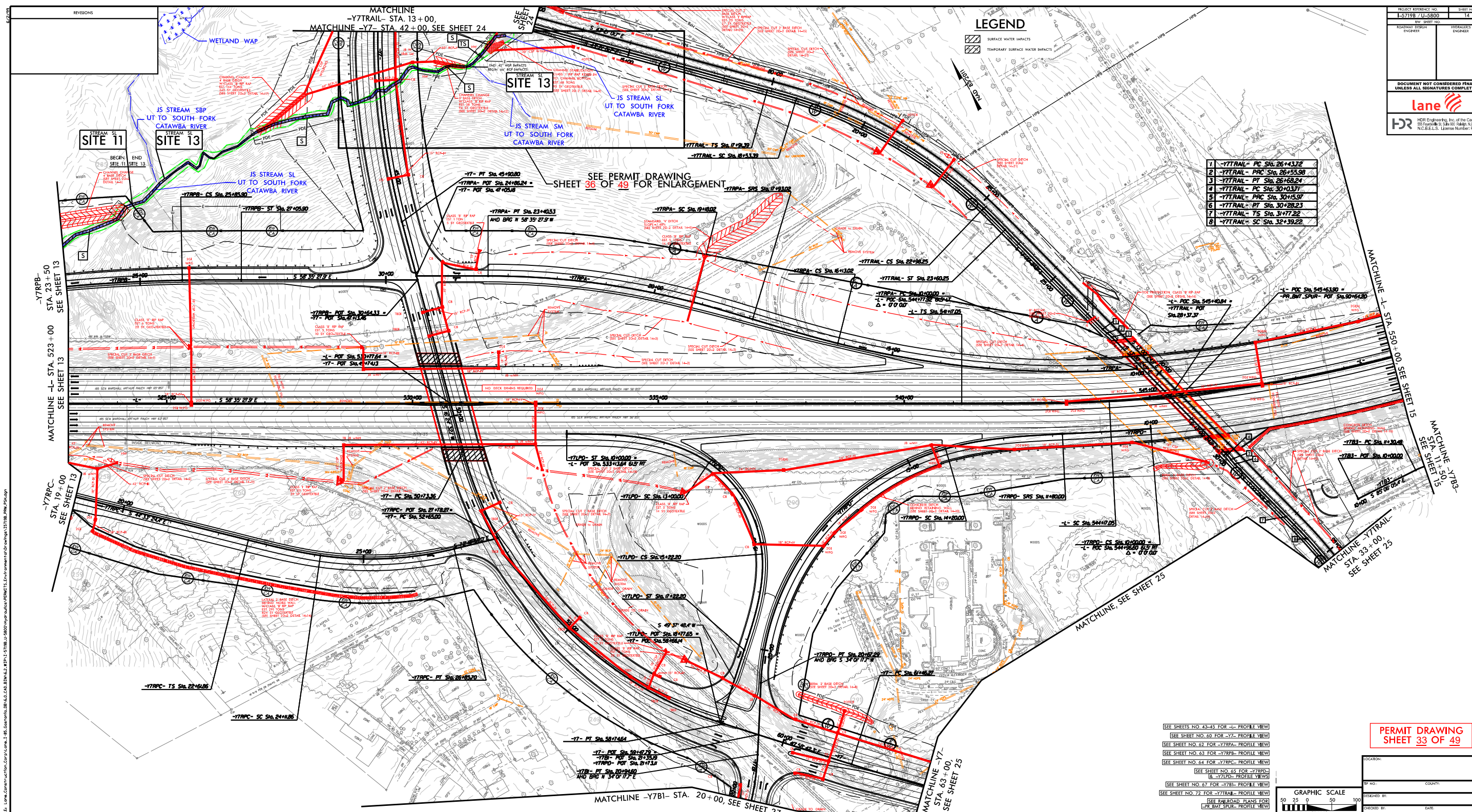
PERMIT DRAWING SHEET 32 OF 49

- SEE SHEETS NO. 43-45 FOR -L- PROFILE VIEW
- SEE SHEET NO. 60 FOR -Y7- PROFILE VIEW
- SEE SHEET NO. 62 FOR -Y7RPA- PROFILE VIEW
- SEE SHEET NO. 63 FOR -Y7RPS- PROFILE VIEW
- SEE SHEET NO. 64 FOR -Y7RPC- PROFILE VIEW
- SEE SHEET NO. 65 FOR -Y7RPL- PROFILE VIEW
- SEE SHEET NO. 67 FOR -Y7RBL- PROFILE VIEW
- SEE SHEET NO. 72 FOR -Y7TRAIL- PROFILE VIEW
- SEE RAILROAD PLANS FOR -PR- BMT- SUB- PROFILE VIEW



DATE:	COUNTY:
DESIGNED BY:	CHECKED BY:
DATE:	DATE:

PLOT: D:\PLOT\140201_1.dwg, user: jpl, 11/14/2014 10:04:11 AM
 USER: jpl
 DATE: 11/14/2014
 PLOT: 140201_1.dwg, user: jpl, 11/14/2014 10:04:11 AM
 PLOT: 140201_1.dwg, user: jpl, 11/14/2014 10:04:11 AM



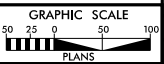
PROJECT REFERENCE NO.	SHEET NO.
I-5719B / U-5800	14
ROADWAY DESIGN ENGINEER	PROJECT ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
<small>HEAT Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 600, Raleigh, N.C. 27601 N.C. B.E.L.S. License Number: F-0119</small>	

1	-Y7TRAIL- PC Sta. 26+43.72
2	-Y7TRAIL- PRC Sta. 26+55.98
3	-Y7TRAIL- PT Sta. 26+68.24
4	-Y7TRAIL- PC Sta. 30+03.37
5	-Y7TRAIL- PRC Sta. 30+15.67
6	-Y7TRAIL- PT Sta. 30+28.23
7	-Y7TRAIL- TS Sta. 31+77.22
8	-Y7TRAIL- SC Sta. 32+39.22

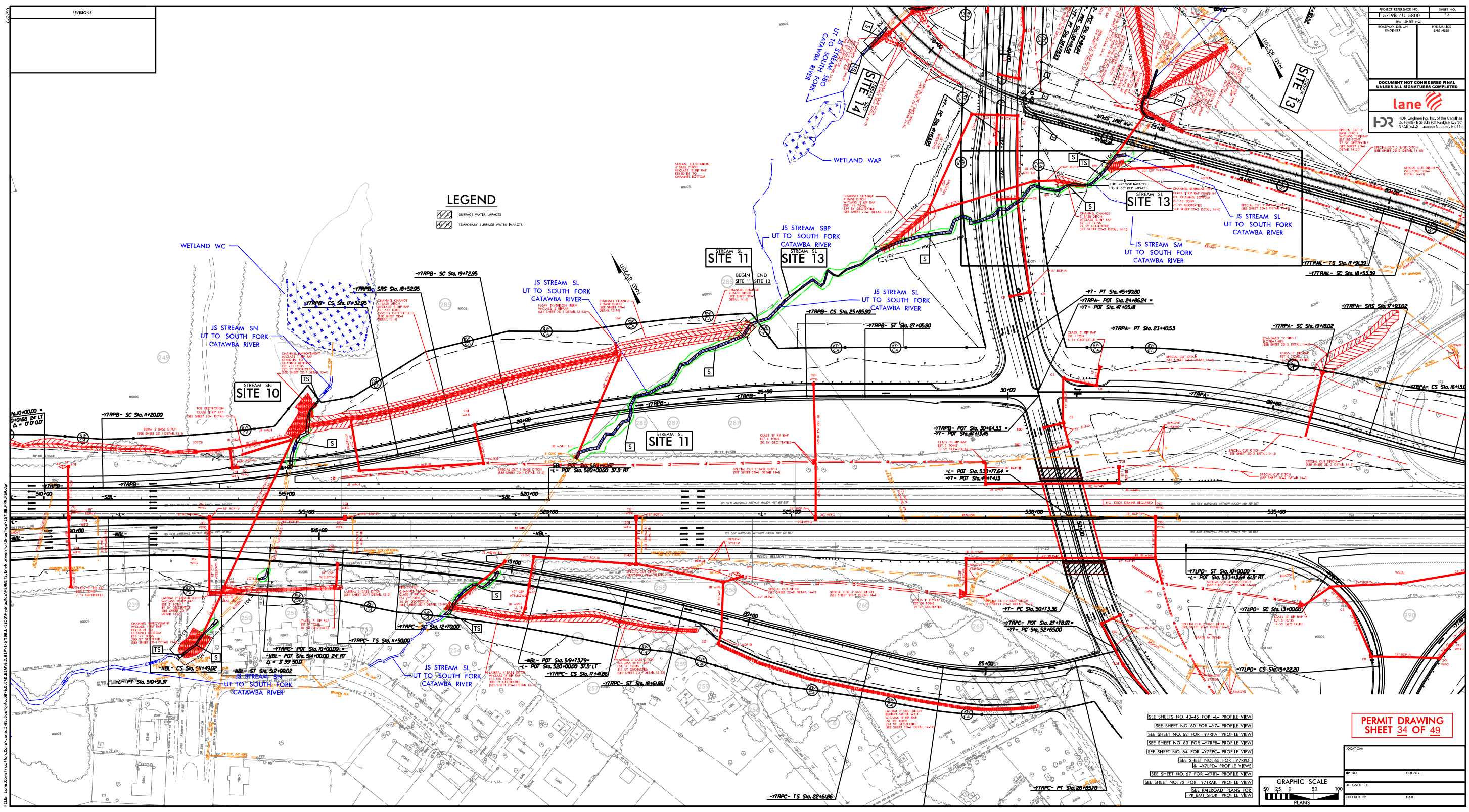
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 DATE: 11/14/14
 PLOT: 140201_1.dwg, user: jpl, 11/14/14, 1:58 PM
 USER: JPL
 DATE: 11/14/14
 PLOT: 140201_1.dwg, user: jpl, 11/14/14, 1:58 PM
 USER: JPL
 DATE: 11/14/14

SEE SHEETS NO. 43-45 FOR -L- PROFILE VIEW
 SEE SHEET NO. 60 FOR -Y7- PROFILE VIEW
 SEE SHEET NO. 62 FOR -Y7RPA- PROFILE VIEW
 SEE SHEET NO. 63 FOR -Y7RPS- PROFILE VIEW
 SEE SHEET NO. 64 FOR -Y7RPC- PROFILE VIEW
 SEE SHEET NO. 65 FOR -Y7RPL- PROFILE VIEW
 SEE SHEET NO. 67 FOR -Y7B- PROFILE VIEW
 SEE SHEET NO. 72 FOR -Y7TRAIL- PROFILE VIEW
 SEE RAILROAD PLANS FOR -PR- BMT SUB- PROFILE VIEW

PERMIT DRAWING
 SHEET 33 OF 49



LOCATION: _____
 COUNTY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 DATE: _____



NO.	REVISIONS

LEGEND

SURFACE WATER IMPACTS
 TEMPORARY SURFACE WATER IMPACTS

PROJECT REFERENCE NO. I-5719B / LI-3800	SHEET NO. 14
ROADWAY DESIGN ENGINEER	PROJECTIONS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
<small> HEST Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 600, Raleigh, N.C. 27601 N.C. P.E. License Number: F-0119 </small>	

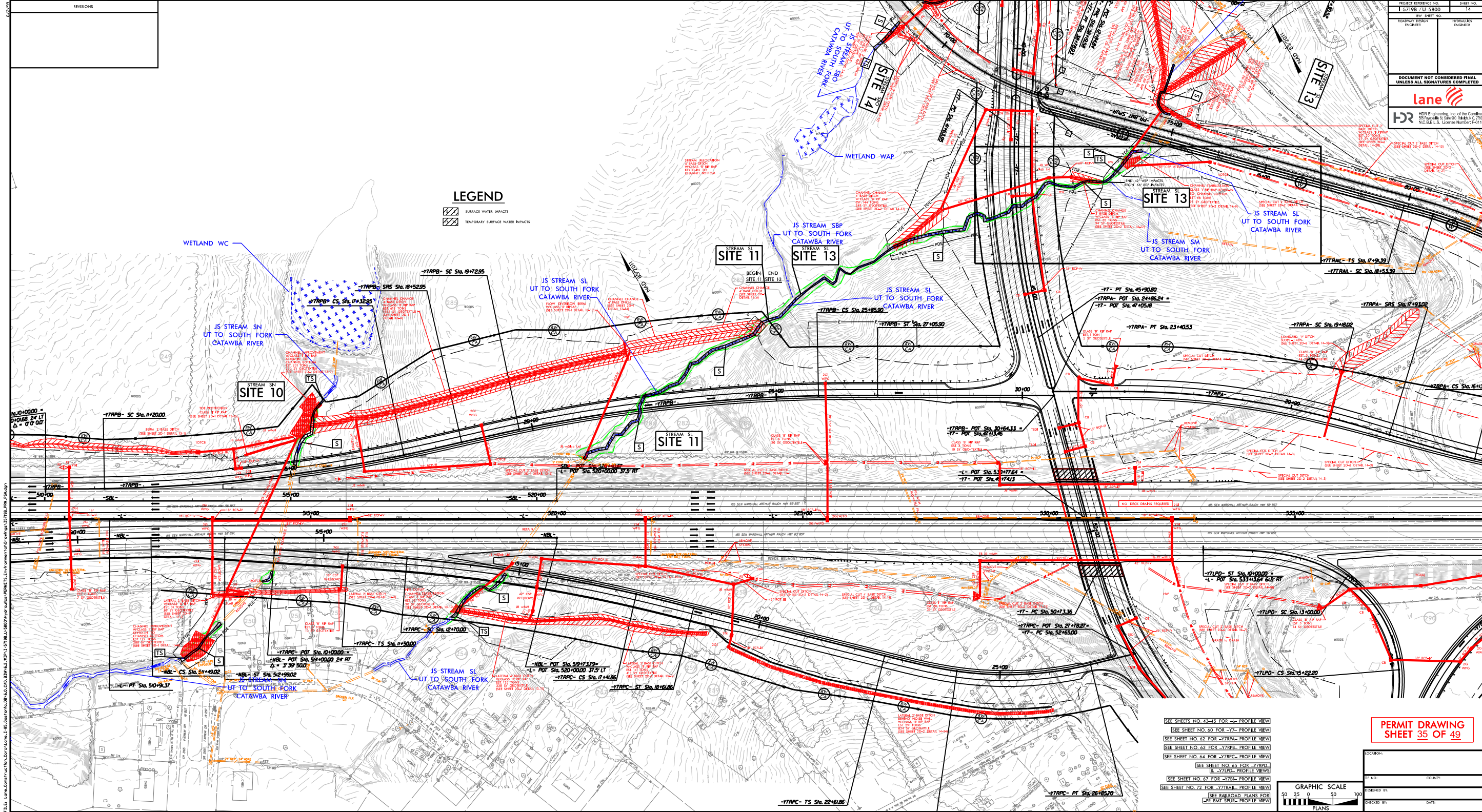
PLOT: D:\PLOT\14001_14001.dwg DATE: 10/27/2006
 USER: CHASEC C:\ProgramData\CadSoft\2006\bin\lisp\lispapp\lispapp.exe
 C:\ProgramData\CadSoft\2006\bin\lisp\lispapp\lispapp.exe

SEE SHEETS NO. 43-45 FOR -L- PROFILE VIEW
 SEE SHEET NO. 60 FOR -Y7- PROFILE VIEW
 SEE SHEET NO. 62 FOR -Y7PA- PROFILE VIEW
 SEE SHEET NO. 63 FOR -Y7PB- PROFILE VIEW
 SEE SHEET NO. 64 FOR -Y7PC- PROFILE VIEW
 SEE SHEET NO. 65 FOR -Y7PD- PROFILE VIEW
 SEE SHEET NO. 67 FOR -Y7B- PROFILE VIEW
 SEE SHEET NO. 72 FOR -Y7BA- PROFILE VIEW
 SEE RAILROAD PLANS FOR
 FOR RAIL SUBV- PROFILE VIEW

PERMIT DRAWING
SHEET 34 OF 49

GRAPHIC SCALE
 50 25 0 50 100
 PLANS

NO.	DESCRIPTION	DATE



LEGEND

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

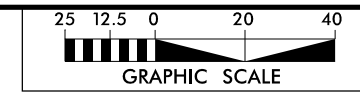
SEE SHEETS NO. 43-45 FOR -L- PROFILE VIEW
 SEE SHEET NO. 60 FOR -77- PROFILE VIEW
 SEE SHEET NO. 62 FOR -77RPA- PROFILE VIEW
 SEE SHEET NO. 63 FOR -77RPS- PROFILE VIEW
 SEE SHEET NO. 64 FOR -77RPC- PROFILE VIEW
 SEE SHEET NO. 65 FOR -77RPL- PROFILE VIEW
 SEE SHEET NO. 67 FOR -77R- PROFILE VIEW
 SEE SHEET NO. 72 FOR -77TRAL- PROFILE VIEW
 SEE RAILROAD PLANS FOR -R- RAIL SUBV.- PROFILE VIEW

**PERMIT DRAWING
SHEET 35 OF 49**

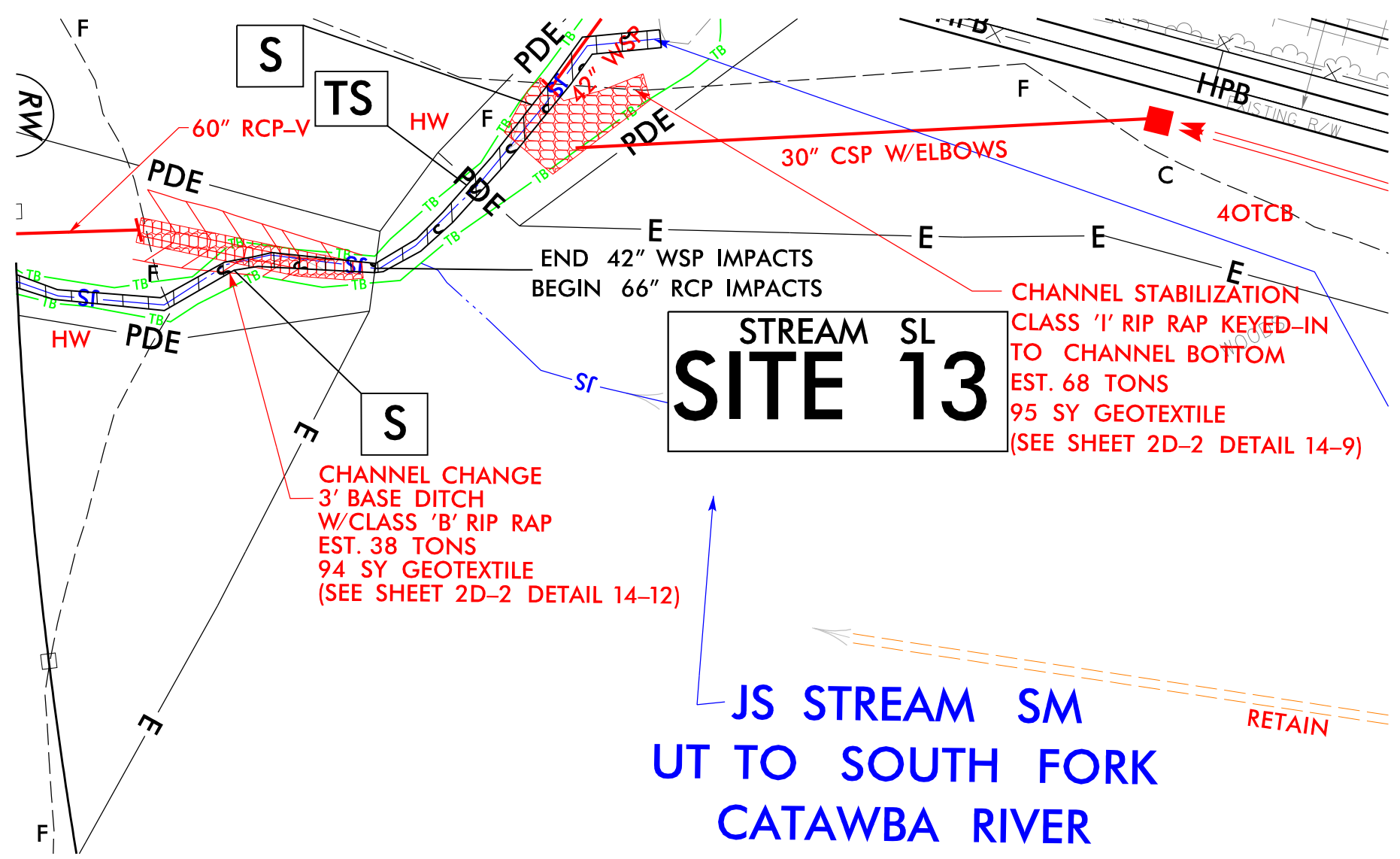
GRAPHIC SCALE
 0 25 50 100
 FEET
 PLANS

LOCATION: _____
 COUNTY: _____
 SHEET NO.: _____
 CHECKED BY: _____
 DATE: _____

PLOT: D:\PLOT\192017.dwg
 DATE: 6/27/2024
 USER: J:\Users\jason.d...
 PLOTTER: HP DesignJet 5000...
 PLOT SCALE: 1:1
 PLOT SHEET NO.: 35
 PLOT SHEET TOTAL: 49



PROJECT REFERENCE NO. I-5719B / U-5800	SHEET NO. 14
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



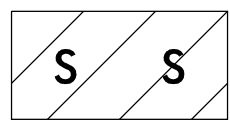
**STREAM SL
SITE 13**

CHANNEL STABILIZATION
CLASS 'I' RIP RAP KEYED-IN
TO CHANNEL BOTTOM
EST. 68 TONS
95 SY GEOTEXTILE
(SEE SHEET 2D-2 DETAIL 14-9)

CHANNEL CHANGE
3' BASE DITCH
W/CLASS 'B' RIP RAP
EST. 38 TONS
94 SY GEOTEXTILE
(SEE SHEET 2D-2 DETAIL 14-12)

JS STREAM SM
UT TO SOUTH FORK
CATAWBA RIVER

LEGEND



SURFACE WATER IMPACTS



TEMPORARY SURFACE WATER IMPACTS

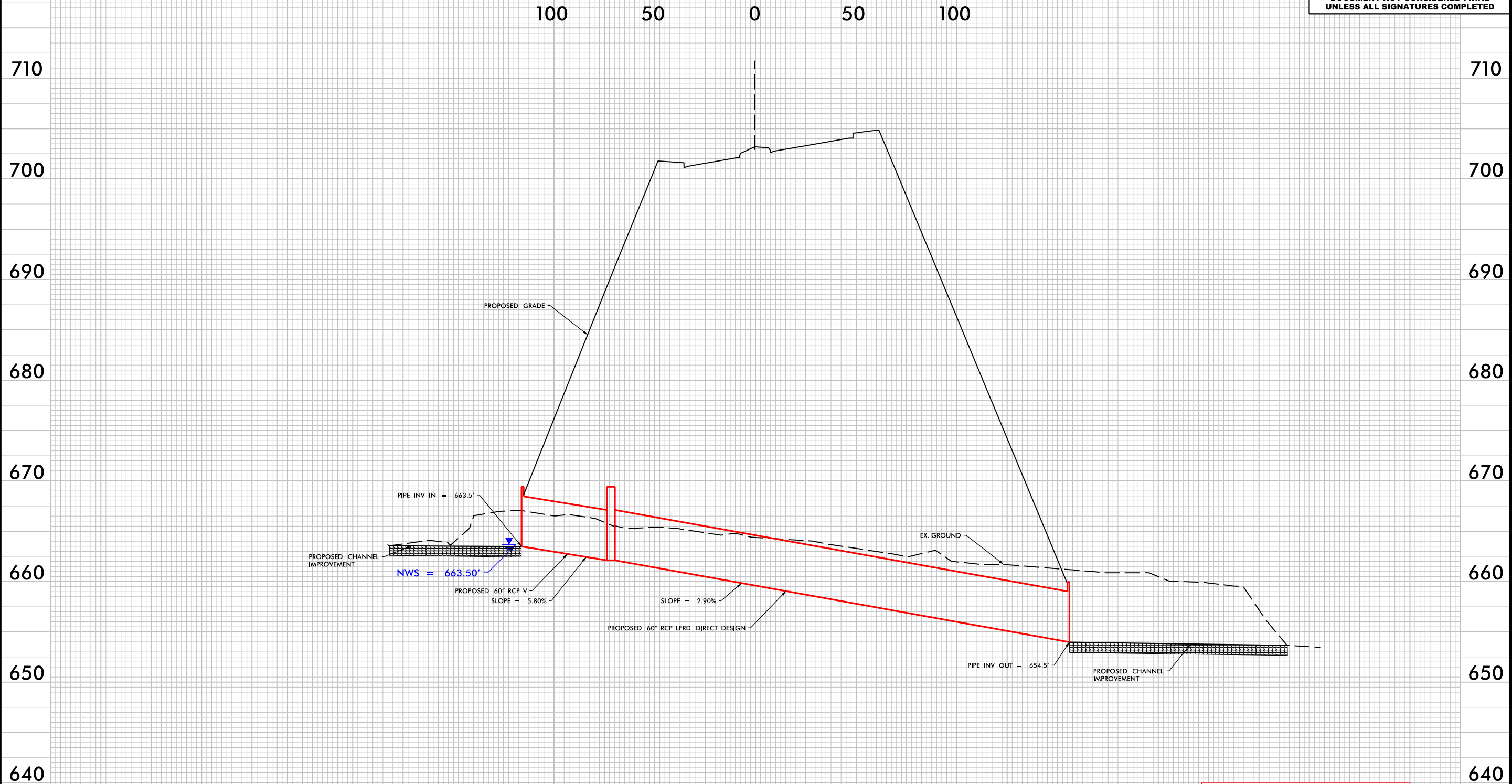
PERMIT DRAWING
SHEET 36 OF 49

PLOT DRIVER: NCDOT_permit_eng_100.plt
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 DATE: 6/23/2026
 REVISIONS

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

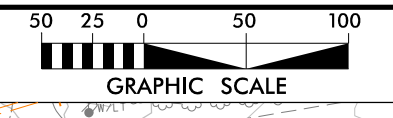
PROFILE ALONG 60" RCP-V – SITE 13



REVISIONS

PLOT DRIVER: NCDOT_color_eng_100.plt
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 FILE: 15719B_PRL_CSR_PSH.dgn
 DATE: 6/26/2026
 TIME: 2:47:12 PM

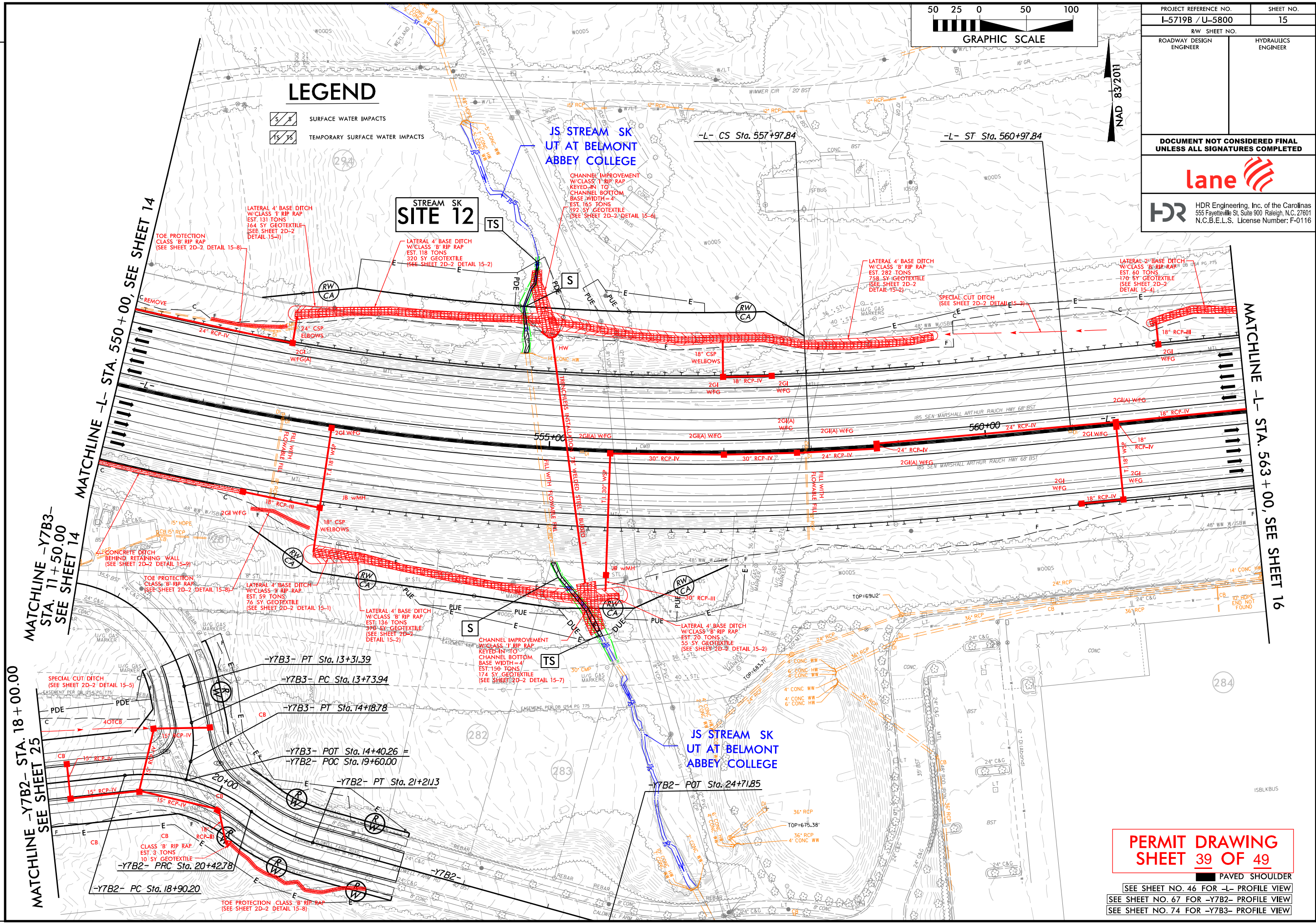
**PERMIT DRAWING
SHEET 37 OF 49**



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St., Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS



MATCHLINE -L- STA. 550+00, SEE SHEET 14
 MATCHLINE -Y7B3- STA. 11+50.00, SEE SHEET 14
 MATCHLINE -Y7B2- STA. 18+00.00, SEE SHEET 25

MATCHLINE -L- STA. 563+00, SEE SHEET 16

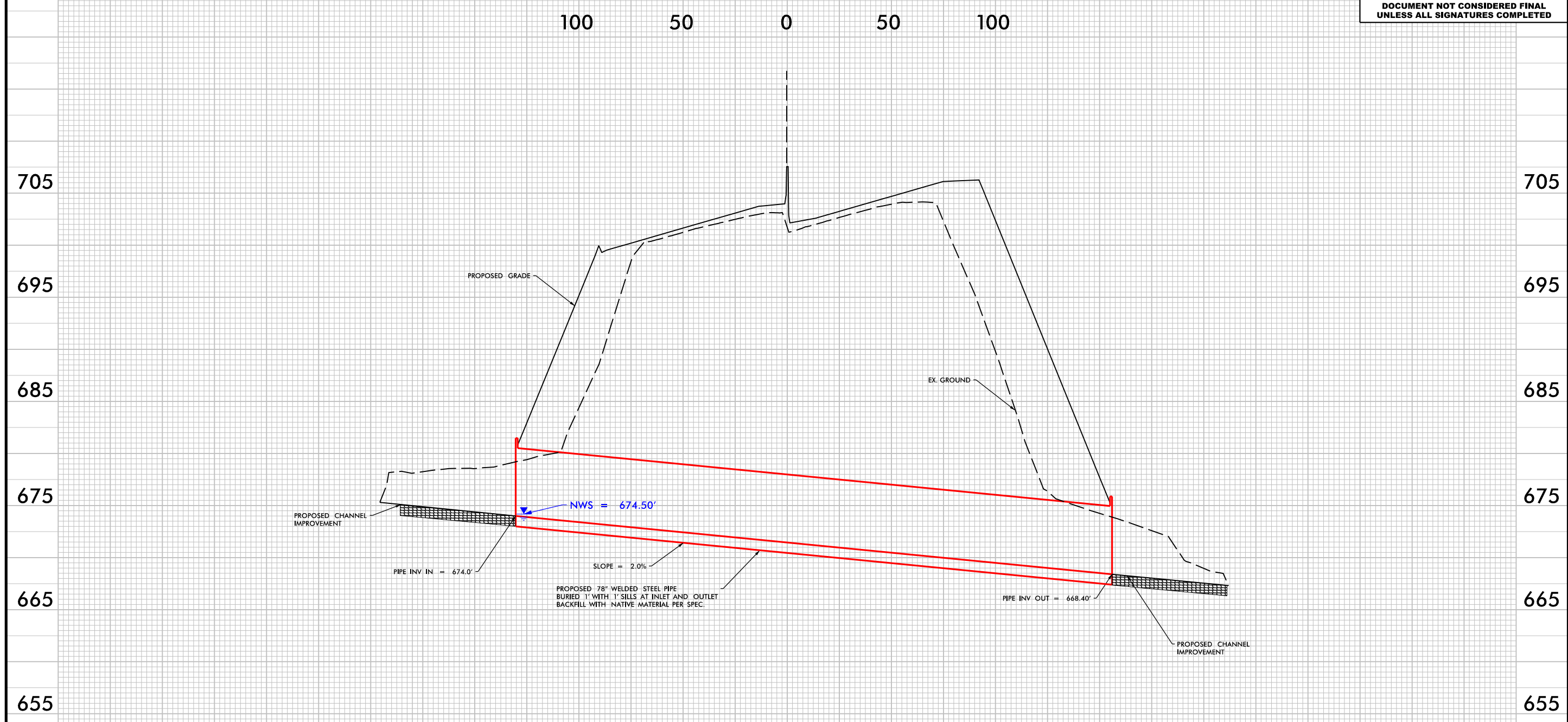
**PERMIT DRAWING
SHEET 39 OF 49**
 PAVED SHOULDER
 SEE SHEET NO. 46 FOR -L- PROFILE VIEW
 SEE SHEET NO. 67 FOR -Y7B2- PROFILE VIEW
 SEE SHEET NO. 74 FOR -Y7B3- PROFILE VIEW

PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
 FILE: Lane_Construction_Corp\lane_1-85_Gcstonia_DB\6.0_CAD_BITMAPS\PERMITS_Environment\Drawings\5719B_PRM_PSH.dgn
 PENTABLE: NCDOT_permits_CON.tbl
 DATE: 6/23/2026
 TIME: 2:32:24 PM
 REVISIONS

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

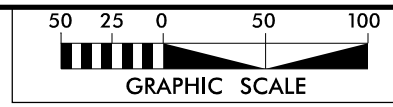
PROFILE ALONG 78" WSP PIPE – SITE 12



REVISIONS

PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: -USERNAME-
 FILE: 15719B_PRL_CSR_PSH.dgn
 DATE: 6/23/2026
 TIME: 9:15:37 AM

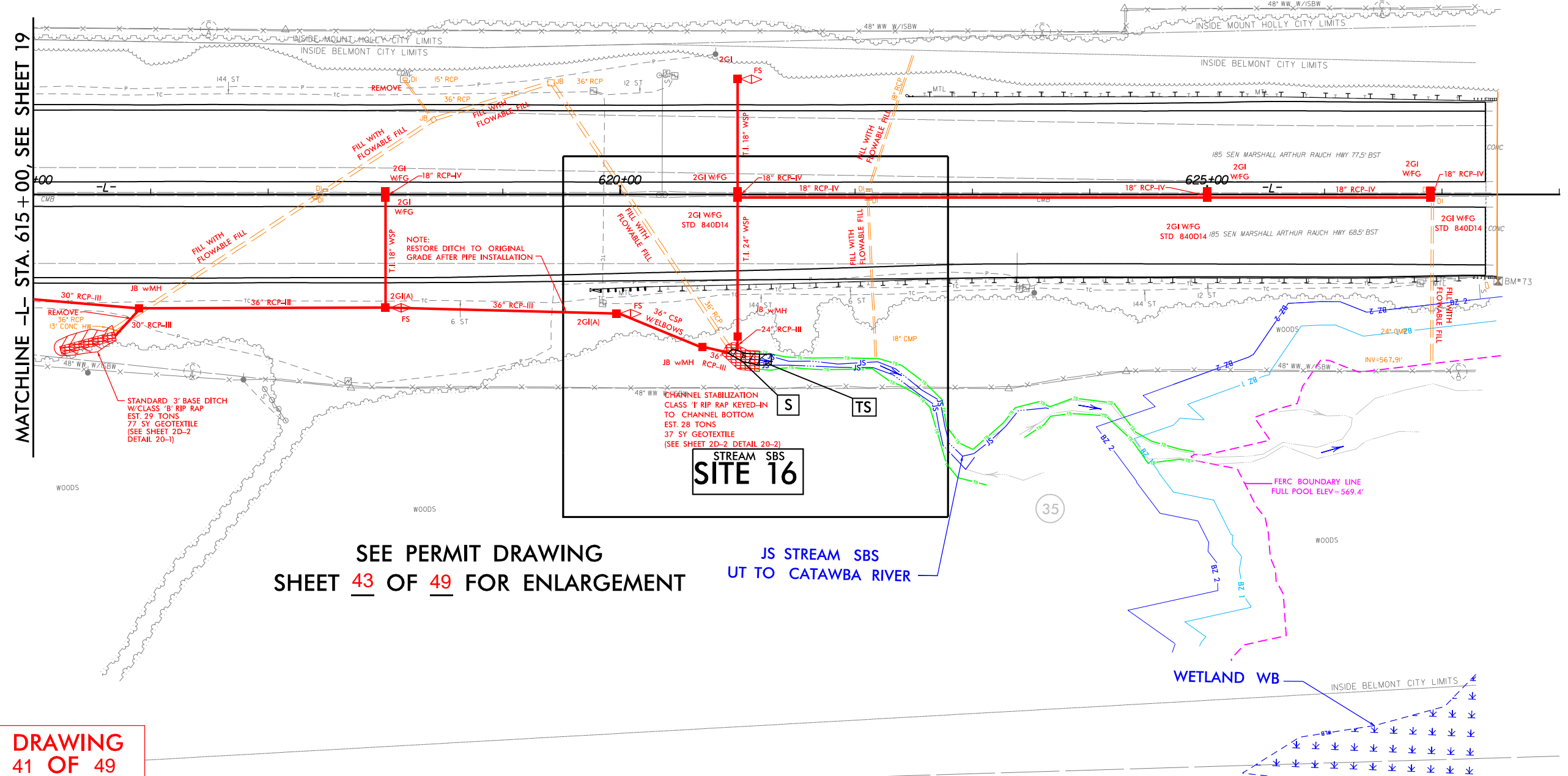
**PERMIT DRAWING
SHEET 40 OF 49**



LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

PROJECT REFERENCE NO. L-5719B / U-5800		SHEET NO. 20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116			



MATCHLINE -L- STA. 615 + 00, SEE SHEET 19

**SEE PERMIT DRAWING
SHEET 43 OF 49 FOR ENLARGEMENT**

**STREAM SBS
SITE 16**

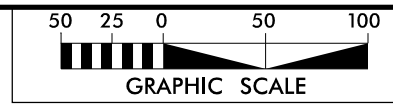
JS STREAM SBS
UT TO CATAWBA RIVER

WETLAND WB

PERMIT DRAWING
SHEET 41 OF 49

SEE SHEET NO. 51 FOR -L- PROFILE VIEW

PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
 FILE: Lane_Construction_Corp\Lane_I-85_Gastonia_DB\6.0_CAD_BITMAP\6.2_WIP\I-5719B_U-5800_Hydraulics\PERMITS_Environment\Drawings\15719B_PRM_PSH.dgn
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 TIME: 6/26/2026 2:43:38 PM
 REVISIONS



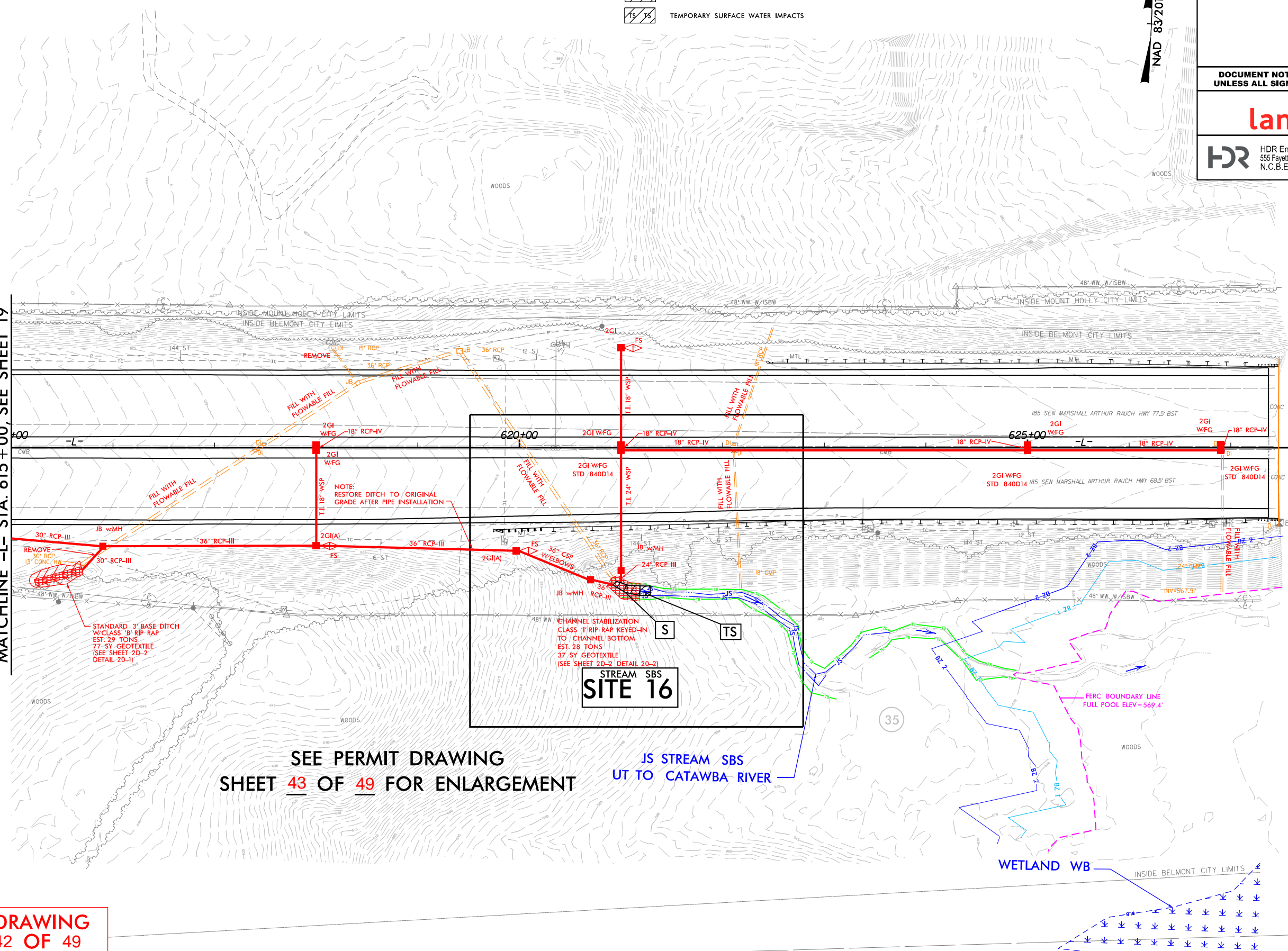
PROJECT REFERENCE NO. L-5719B / U-5800		SHEET NO. 20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116			

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS



MATCHLINE -L- STA. 615 + 00, SEE SHEET 19



SEE PERMIT DRAWING SHEET 43 OF 49 FOR ENLARGEMENT

STREAM SBS SITE 16

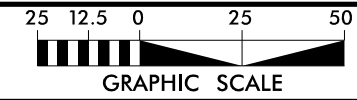
PERMIT DRAWING SHEET 42 OF 49

SEE SHEET NO. 51 FOR -L- PROFILE VIEW

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 USER: CMYERS
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 PENTABLE: NCDOT_permits.CON.tbl
 DATE: 6/26/2026
 TIME: 2:44:25 PM
 REVISIONS

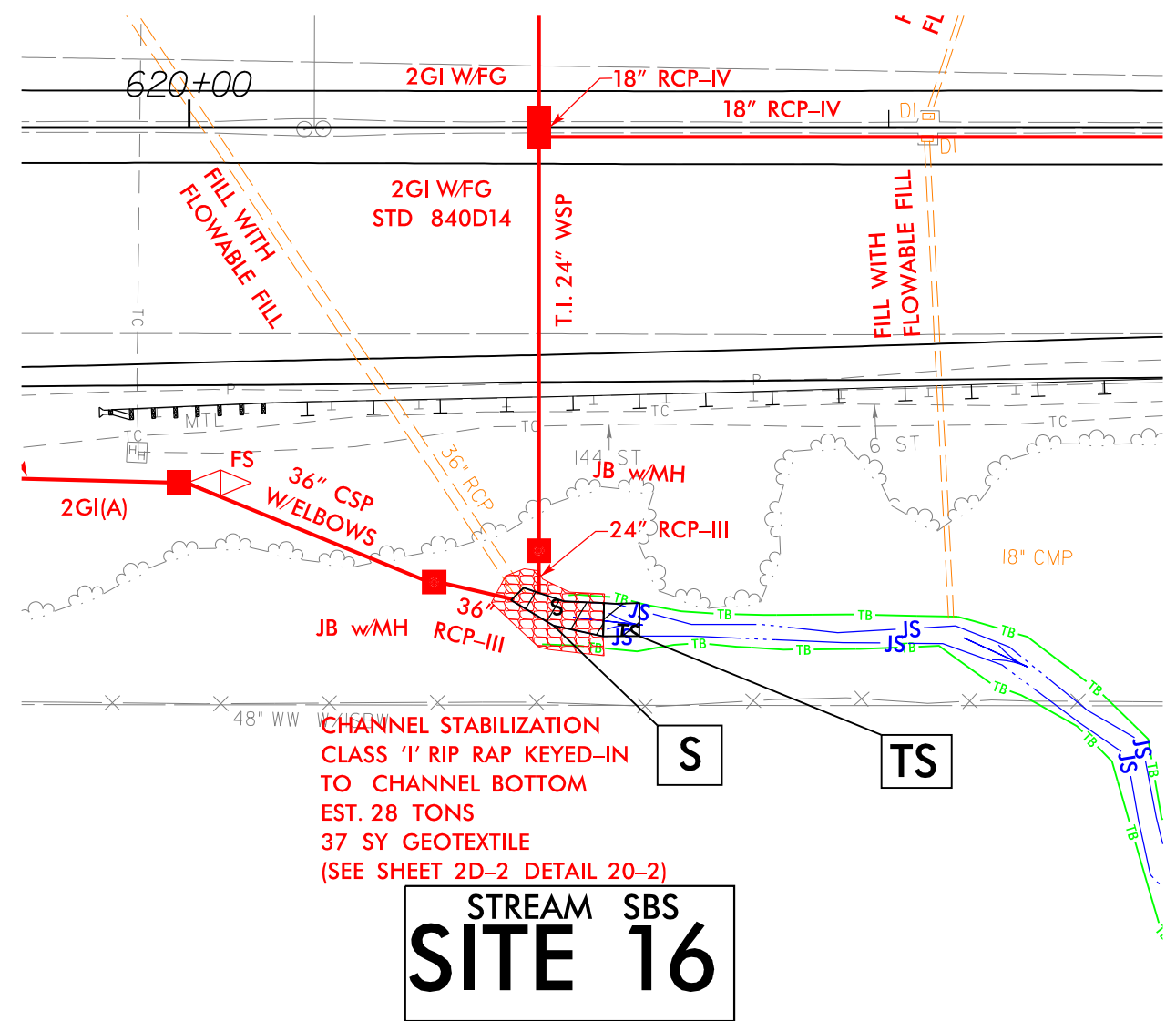
PLOT DRIVER: NCDOT_color_eng_100.plt
 USER: CMYERS
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REVISIONS



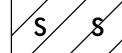
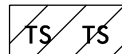
PROJECT REFERENCE NO. I-5719B / U-5800	SHEET NO. 20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

NAD 83/2011

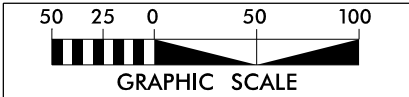
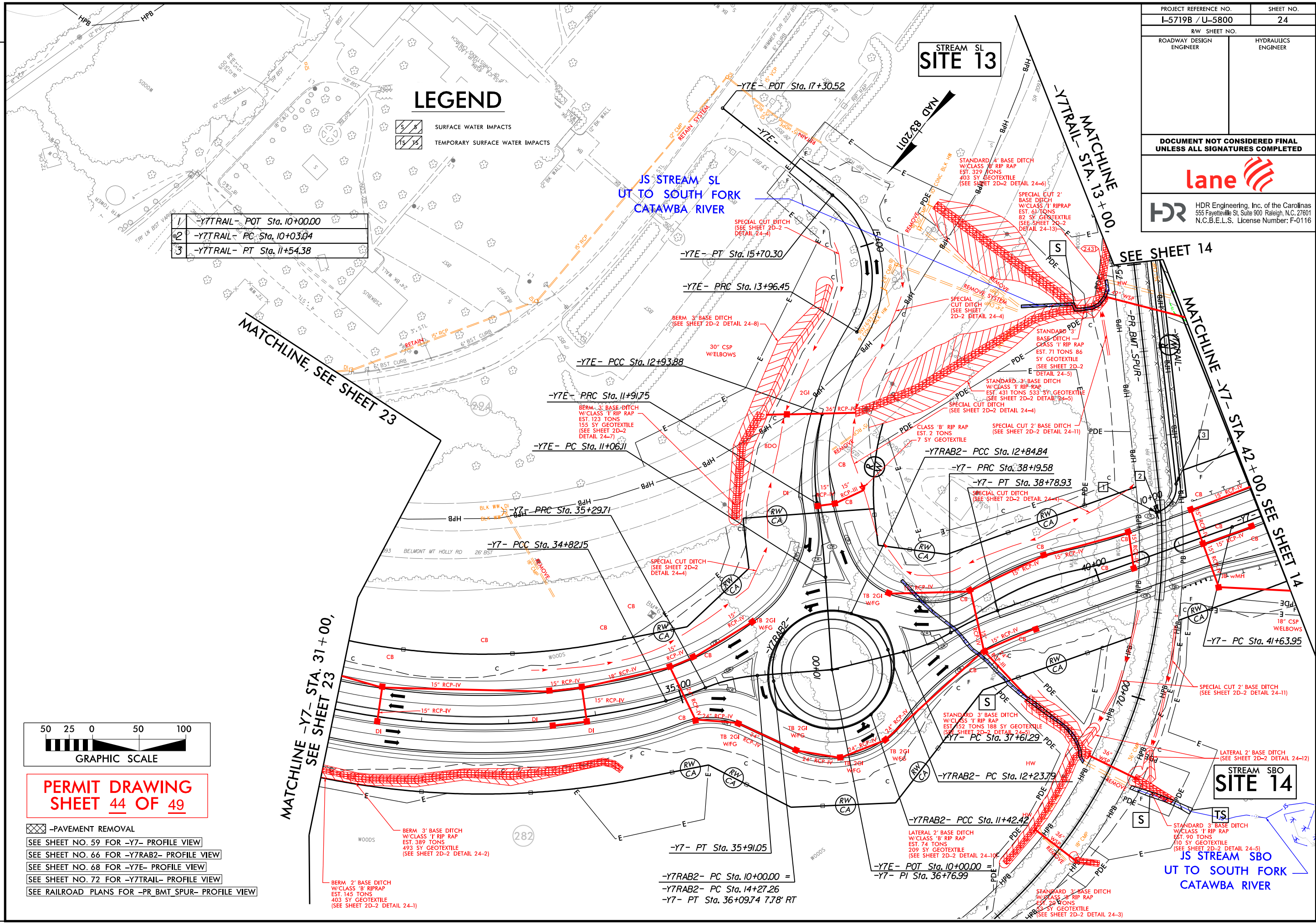


STREAM SBS
SITE 16

LEGEND

-  SURFACE WATER IMPACTS
-  TEMPORARY SURFACE WATER IMPACTS

PERMIT DRAWING
SHEET 43 OF 49



PERMIT DRAWING SHEET 44 OF 49

- PAVEMENT REMOVAL
- SEE SHEET NO. 59 FOR -Y7- PROFILE VIEW
- SEE SHEET NO. 66 FOR -Y7RAB2- PROFILE VIEW
- SEE SHEET NO. 68 FOR -Y7E- PROFILE VIEW
- SEE SHEET NO. 72 FOR -Y7TRAIL- PROFILE VIEW
- SEE RAILROAD PLANS FOR -PR BMT SPUR- PROFILE VIEW

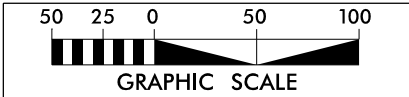
PLOT DRIVER: NCDOT_permit_eng_100.plt
 USER: CMYERS
 FILE: Lane_Construction_Corp\lane_1-85_Geotextiles\PERMITS_Environment\Drawings\15719B_Prm_PSh.dgn
 DATE: 6/26/2026
 TIME: 1:06:54 PM

PROJECT REFERENCE NO.	SHEET NO.
L-5719B / U-5800	24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

- | | |
|---|-----------------------------|
| 1 | -Y7TRAIL- POT Sta. 10+00.00 |
| 2 | -Y7TRAIL- PC Sta. 10+03.04 |
| 3 | -Y7TRAIL- PT Sta. 11+54.38 |



**PERMIT DRAWING
SHEET 45 OF 49**

- PAVEMENT REMOVAL
- SEE SHEET NO. 59 FOR -Y7- PROFILE VIEW
- SEE SHEET NO. 66 FOR -Y7RAB2- PROFILE VIEW
- SEE SHEET NO. 68 FOR -Y7E- PROFILE VIEW
- SEE SHEET NO. 72 FOR -Y7TRAIL- PROFILE VIEW
- SEE RAILROAD PLANS FOR -PR BMT SPUR- PROFILE VIEW

MATCHLINE, SEE SHEET 23

MATCHLINE -Y7- STA. 31+00, SEE SHEET 23

STREAM SL
SITE 13

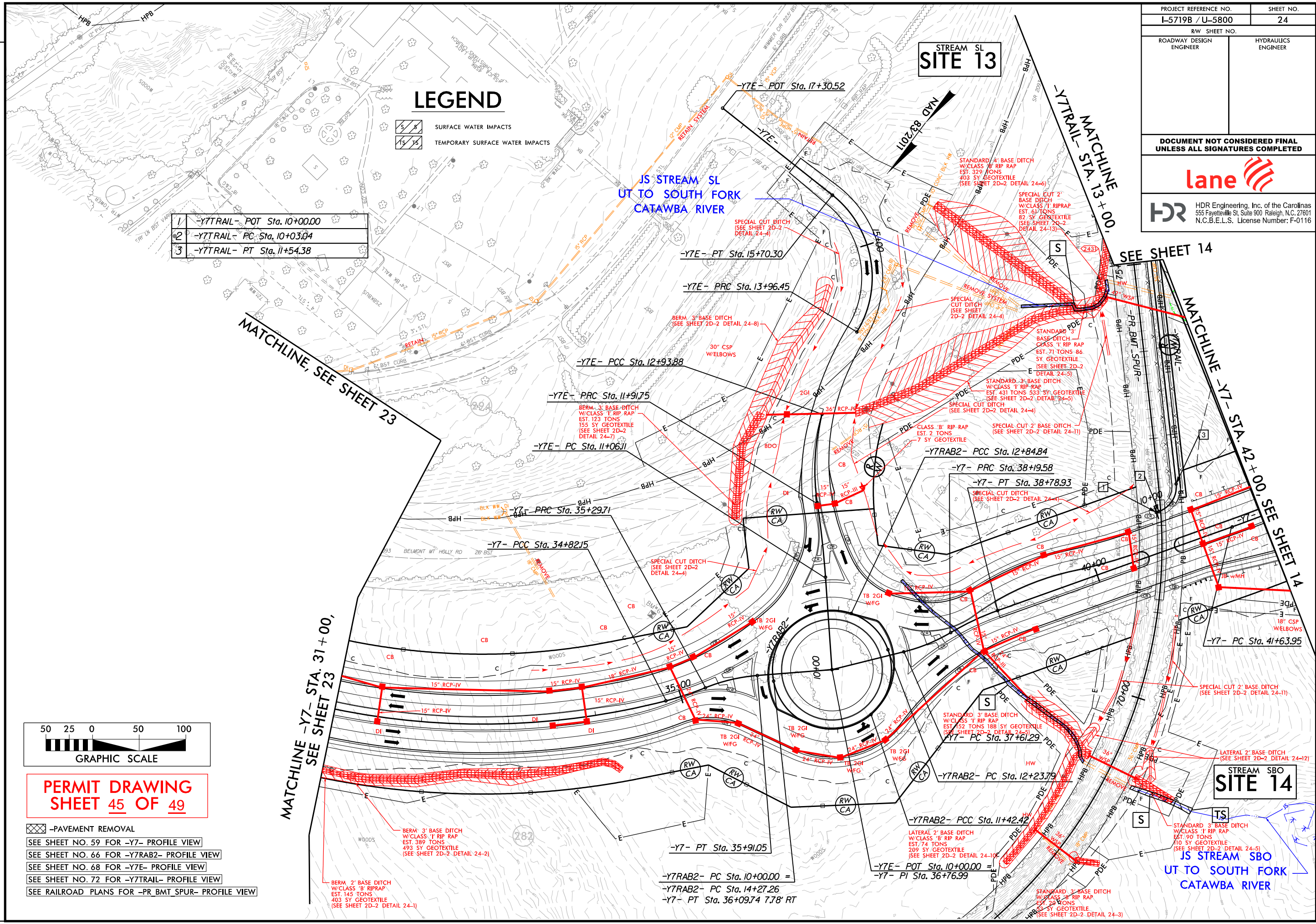
STREAM SBO
SITE 14

SEE SHEET 14

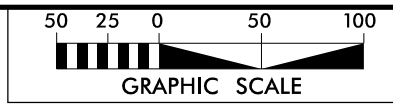
MATCHLINE -Y7- STA. 42+00, SEE SHEET 14

MATCHLINE STA. 13+00

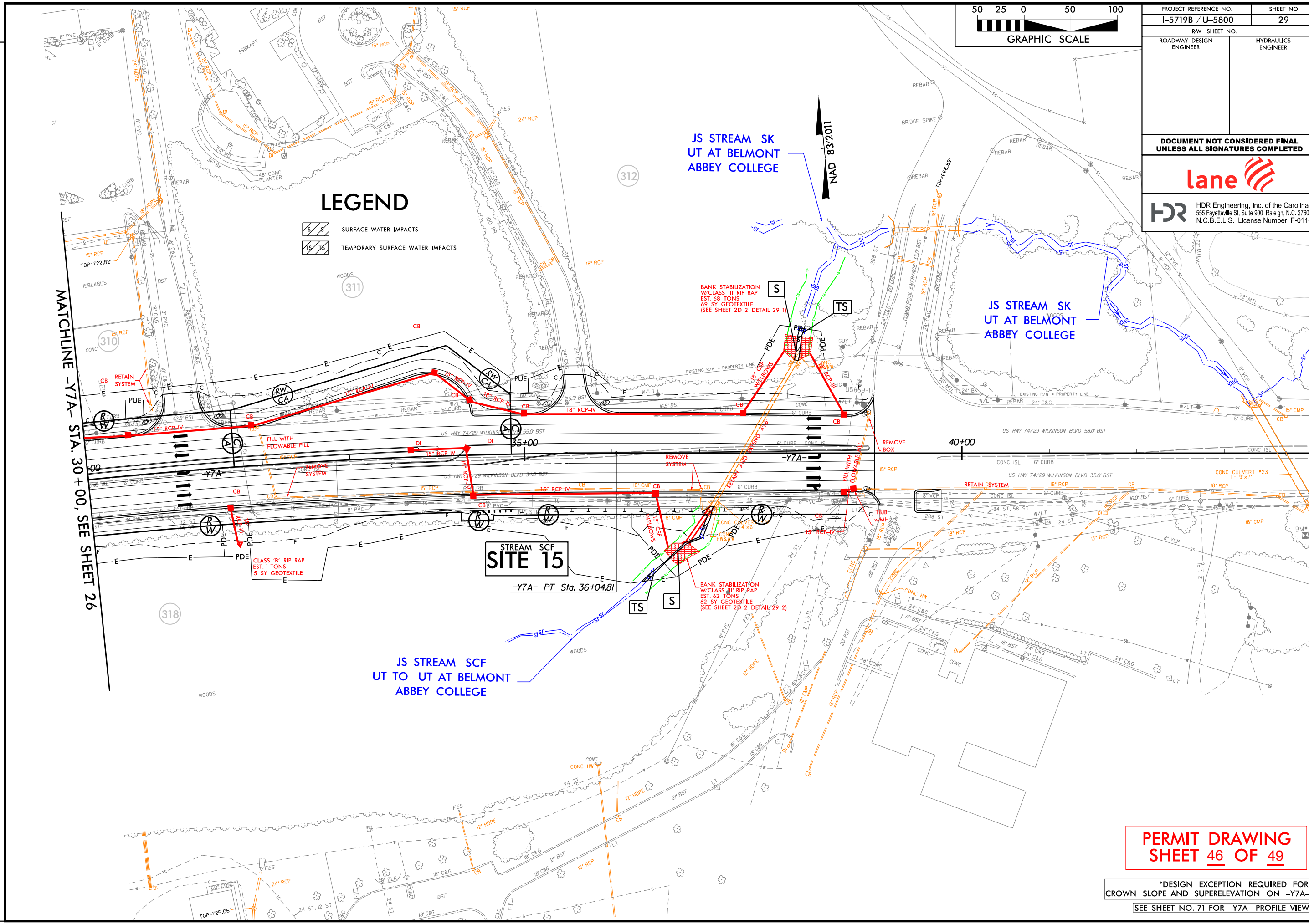
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 USER: CMYERS
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 DATE: 6/26/2026
 TIME: 1:08:08 PM
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REVISIONS



PROJECT REFERENCE NO. I-5719B / U-5800	SHEET NO. 29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



LEGEND

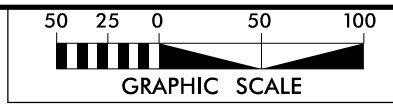
SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

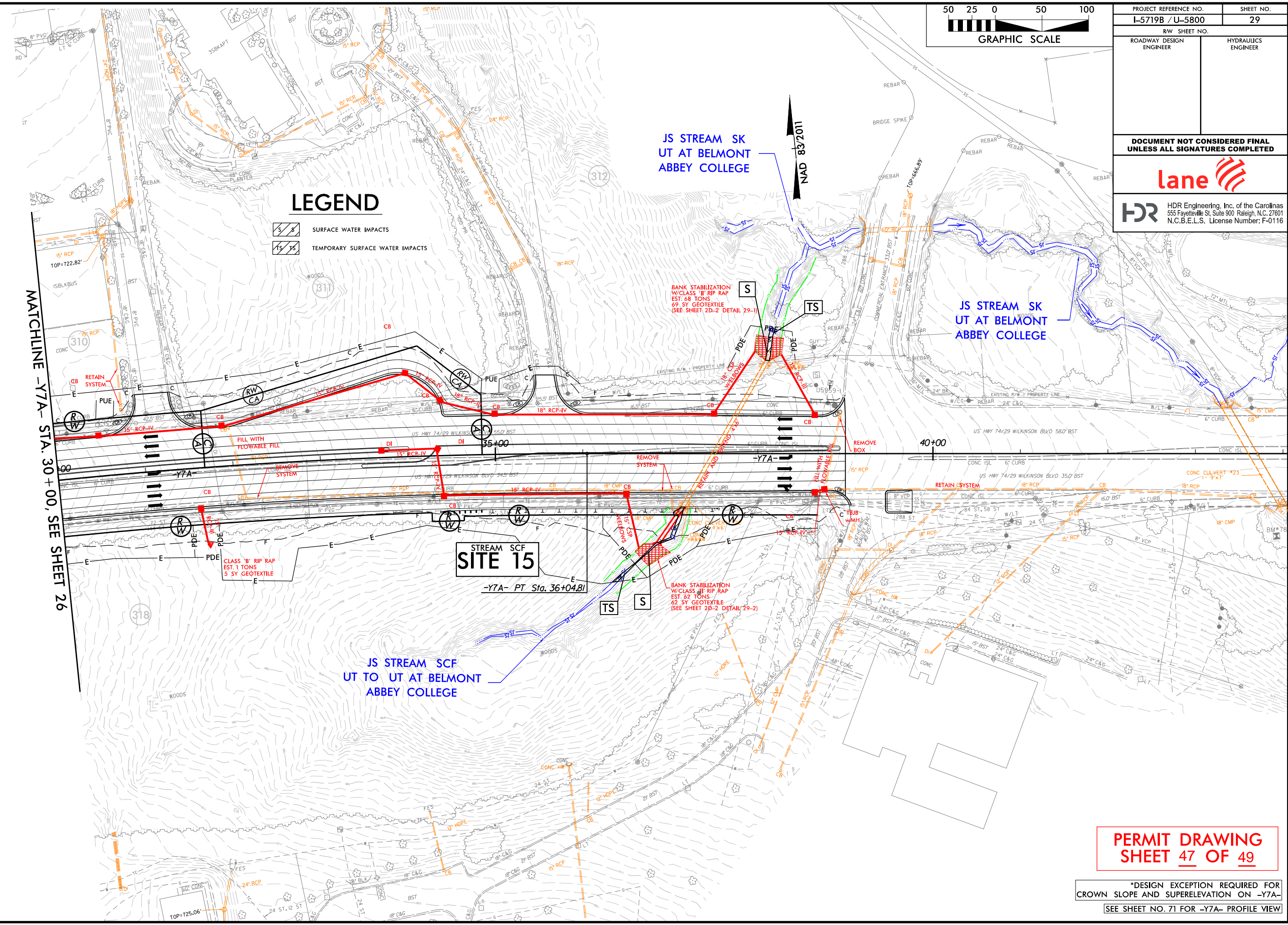
MATCHLINE -Y7A- STA. 30+00, SEE SHEET 26

PERMIT DRAWING
SHEET 46 OF 49

*DESIGN EXCEPTION REQUIRED FOR CROWN SLOPE AND SUPERELEVATION ON -Y7A-
SEE SHEET NO. 71 FOR -Y7A- PROFILE VIEW



PROJECT REFERENCE NO. L-5719B / U-5800	SHEET NO. 29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
HDR Engineering, Inc. of the Carolinas 555 Fayetteville St, Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116	



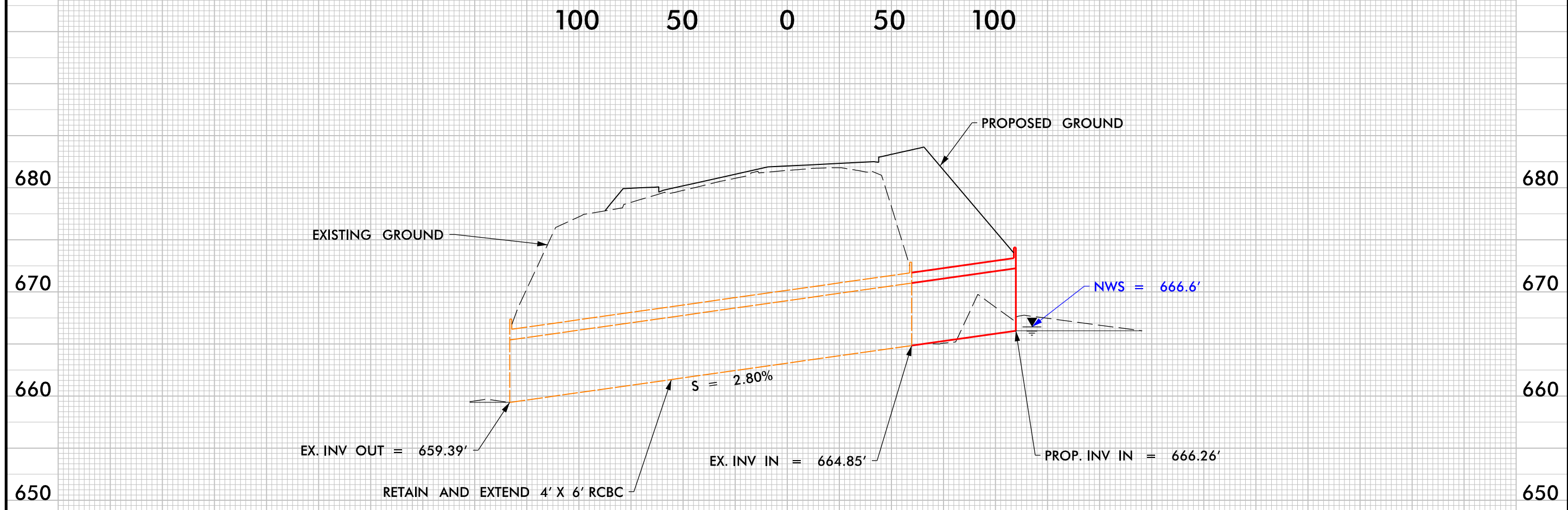
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 USER: CMYERS
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 TIME: 2:34:04 PM
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 USER: CMYERS
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*DESIGN EXCEPTION REQUIRED FOR CROWN SLOPE AND SUPERELEVATION ON -Y7A-
SEE SHEET NO. 71 FOR -Y7A- PROFILE VIEW

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE ALONG 4'X6' RCBC – SITE #15



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_100.plt
 USER: -USERNAME-
 FILE: 15719B_PRM_CSR_PSH.dgn
 PENTABLE: NCDOT_PFL_XSC.tbl
 DATE: 6/23/2026
 TIME: 9:16:08 AM

**PERMIT DRAWING
SHEET 48 OF 49**

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	383+00 -L-	(ST) - 66" WSP						0.01	< 0.01	78	9	
1A	383+00 -L-	(SBR) - 66" WSP						0.01		138		
2	413+00 -L- (LT)	(SS) -RDY FILL						0.02	< 0.01	384	43	
3	437+00 -L-	(SQ) - BRIDGE						0.04				
3	437+00 -L-	(SQ) - CAUSEWAY							1.12		253	
4	451+00 -L- (RT)	(SBI) - 48" WSP						< 0.01	< 0.01	37	24	
5	460+00 -L-	(SBH) - BANK STAB						< 0.01	< 0.01	28	76	
6	471+50 -L-	(SP) - 60" WSP						0.01	< 0.01	124	28	
7	476+00 -L- (LT)	(WXB) - 18" WSP	< 0.01				< 0.01					
8	482+00 -L- (LT)	(WXA) - 54" WSP	0.01		0.01							
9	494+00 -L-	(SO) - BANK STAB						0.01	< 0.01	63	20	
10	514+00 -L-	(SN) - 78" WSP						0.03	< 0.01	281	18	
11	520+00 -L-	(SL) -60/66" RCP						0.07	< 0.01	620	12	
12	555+00 -L-	(SK) - 78" WSP						0.02	< 0.01	194	16	
13	43+00 -Y7-	(SL) - 60" RCP						0.08		825		
13	74+50 - PR_BMT_SPUR	(SL) - 42" WSP						0.02		231		
14	38+00 -Y7-	(SBP) - 36" CSP						0.03	< 0.01	351	21	
15	37+50 - Y7A-	(SCF) - 4' x 6' RCBC						< 0.01	< 0.01	52	30	
15	37+50 -Y7A-	(SCF) - BANK STAB						< 0.01	< 0.01	53	19	
16	621+00 -L- (RT)	(SBS) - 36" RCP						< 0.01	< 0.01	26	10	
TOTALS*:			0.02		0.01		< 0.01	0.37	1.15	3485	580	0

*Rounded totals are sum of actual impacts

NOTES:

TEMPORARY ROCK CAUSEWAY ARE TO BE STAGED TO AVOID BLOCKING >50% OF CHANNEL FLOW AREA AT ANY ONE TIME

SITE 3: PERMANENT IMPACTS DUE TO PIERS

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
07/01/2026
Gaston County
I-5798