



Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits
(along with corresponding Water Quality Certifications)

September 29, 2018 Ver 3

Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.

Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.

Below is a link to the online help file.

<https://edocs.deq.nc.gov/WaterResources/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf>

A. Processing Information

County (or Counties) where the project is located: *

Halifax

Is this project a public transportation project? *

Yes No

This is any publicly funded by municipal, state or federal funds road, rail, airport transportation project.

Is this a NCDOT Project? *

Yes No

(NCDOT only) T.I.P. or state project number:

BR-0113

WBS # *

48822.1.1

(for NCDOT use only)

1a. Type(s) of approval sought from the Corps: *

- Section 404 Permit (wetlands, streams and waters, Clean Water Act)
 Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

1b. What type(s) of permit(s) do you wish to seek authorization? *

- Nationwide Permit (NWP)
 Regional General Permit (RGP)
 Standard (IP)

This form may be used to initiate the standard/individual permit process with the Corps. Please contact your Corps representative concerning submittals for standard permits. All required items that are not provided in the E-PCN can be added to the miscellaneous upload area located at the bottom of this form.

1c. Has the NWP or GP number been verified by the Corps? *

Yes No

Nationwide Permit (NWP) Number:

03 - Maintenance

NWP Numbers (for multiple NWPS):

List all NW numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR: *

check all that apply

- 401 Water Quality Certification - Regular
 Non-404 Jurisdictional General Permit
 Individual Permit
 401 Water Quality Certification - Express
 Riparian Buffer Authorization

1e. Is this notification solely for the record because written approval is not required?

*

For the record only for DWR 401 Certification:

Yes No

For the record only for Corps Permit:

Yes No

1f. Is this an after-the-fact permit application? *

Yes No

1g. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts?

If so, attach the acceptance letter from mitigation bank or in-lieu fee program

Yes No

Acceptance Letter Attachment

Click the upload button or drag and drop files here to attach document

FILETYPE MUST BE PDF

1h. Is the project located in any of NC's twenty coastal counties? *

Yes No

1j. Is the project located in a designated trout watershed? *

Yes No

Link to trout information: <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx>

B. Applicant Information

1a. Who is the Primary Contact? *

NCDOT

1b. Primary Contact Email: *

jjdilday@ncdot.gov

1c. Primary Contact Phone: *

(xxx)xxx-xxxx
(919)707-6111

1d. Who is applying for the permit? *

Owner (Check all that apply) Applicant (other than owner)

1e. Is there an Agent/Consultant for this project? *

Yes No

2. Owner Information

2a. Name(s) on recorded deed: *

NCDOT

2b. Deed book and page no.:

2c. Responsible party:

(for Corporations)

2d. Address *

Street Address

1000 Birch Ridge Drive

Address Line 2

City

Raleigh

Postal / Zip Code

27610

State / Province / Region

NC

Country

USA

2e. Telephone Number: *

(xxx)xxx-xxxx

(919)707-6000

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: *

pharris@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project: *

Bridge 115 over Rocky Swamp on SR1601 (BR-0113 Central)

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Brinkleyville

2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: *

36.293723
ex: 34.208504

Longitude: *

-77.813893
-77.796371

3. Surface Waters

3a. Name of the nearest body of water to proposed project: *

Rocky Swamp

3b. Water Resources Classification of nearest receiving water: *

C;NSW

[Surface Water Lookup](#)

3c. What river basin(s) is your project located in? *

Tar-Pamlico

3d. Please provide the 12-digit HUC in which the project is located. *

030201020502

[River Basin Lookup](#)

4. Project Description and History

4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: *

Land use in the project vicinity consists primarily of forested communities and agricultural fields interspersed with low-density residential sites.

4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? *

Yes No Unknown

4d. Attach an 8 1/2 X 11 excerpt from the most recent version of the USGS topographic map indicating the location of the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

4e. Attach an 8 1/2 X 11 excerpt from the most recent version of the published County NRCS Soil Survey map depicting the project site. (for DWR)

[Click the upload button or drag and drop files here to attach document](#)

File type must be pdf

4f. List the total estimated acreage of all existing wetlands on the property:

3.5

4g. List the total estimated linear feet of all existing streams on the property:

(intermittent and perennial)

550

4h. Explain the purpose of the proposed project: *

The purpose of this project is to replace a structurally deficient bridge.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: *

This project involves replacing the existing 4 span, 68-foot bridge with a 2 span, 90-foot bridge on the existing alignment. Traffic will be maintained on an off-site detour. Standard road building equipment, such as trucks, dozers and cranes will be used.

4j. Please upload project drawings for the proposed project.

[Click the upload button or drag and drop files here to attach document](#)

BR-0113_Buffer Drawings_20191029.pdf

1.03MB

BR-0113_Permit Drawings_20191029.pdf

2.14MB

File type must be pdf

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? *

Yes

No

Unknown

Comments:

A preliminary JD package was sent to the agencies on 5/6/19. Written verification not received as of yet.

5b. If the Corps made a jurisdictional determination, what type of determination was made? *

Preliminary Approved Not Verified Unknown N/A

Corps AID Number:

Example: SAW-2017-99999

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known): James Mason
Agency/Consultant Company: Three Oaks Engineering
Other:

5d1. Jurisdictional determination upload

Click the upload button or drag and drop files here to attach document
File type must be PDF

6. Future Project Plans

6a. Is this a phased project? *

Yes No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

D. Proposed Impacts Inventory

1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

Wetlands Streams-tributaries Buffers
 Open Waters Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

"W." will be used in the table below to represent the word "wetland".

2a. Site # * (?)	2a1 Reason * (?)	2b. Impact type * (?)	2c. Type of W. *	2d. W. name *	2e. Forested *	2f. Type of Jurisdiction * (?)	2g. Impact area *
1	Mechanized Clearing	P	Bottomland Hardwood Forest	WB	Yes	Corps	0.020 (acres)
1	Fill	P	Bottomland Hardwood Forest	WB	Yes	Corps	0.009 (acres)

2g. Total Temporary Wetland Impact

0.000

2g. Total Permanent Wetland Impact

0.029

2g. Total Wetland Impact

0.029

2h. Comments:

Handclearing in wetlands on the northwest side of bridge (WA/WB) will account for 0.02 acre. There will be <0.01 acre of Temporary Fill in the Hand Clearing areas for Erosion Control.

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.
"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact * (?)	3b. Impact type *	3c. Type of impact *	3d. S. name *	3e. Stream Type * (?)	3f. Type of Jurisdiction *	3g. S. width *	3h. Impact length *
S1	Impervious dike	Temporary	Dewatering	Rocky Swamp	Perennial	Both	45 Average (feet)	45 (linear feet)

** All Perennial or Intermittent streams must be verified by DWR or delegated local government.

3i. Total jurisdictional ditch impact in square feet:

0

3i. Total permanent stream impacts:

0

3i. Total temporary stream impacts:

45

3i. Total stream and ditch impacts:

45

3j. Comments:

An impervious dike will be used to encapsulate the area for the construction of the interior bent.

6. Buffer Impacts (for DWR)

If project will impact a protected riparian buffer, then complete the chart below. Individually list all buffer impacts below.

6a. Project is in which protect basin(s)? *

Check all that apply.

- Neuse
- Catawba
- Goose Creek
- Other
- Tar-Pamlico
- Randleman
- Jordan Lake

6b. Impact Type* (?)	6c. Per or Temp* (?)	6d. Stream name*	6e. Buffer mitigation required?*	6f. Zone 1 impact*	6g. Zone 2 impact*
1-Bridge-Allowable	P	Rocky Swamp	No	963 <small>(square feet)</small>	31 <small>(square feet)</small>
2-Road Crossing-Allowable	P	Rocky Swamp	No	1,003 <small>(square feet)</small>	1,259 <small>(square feet)</small>

6h. Total buffer impacts:

	Zone 1	Zone 2
Total Temporary impacts:	0.00	0.00

	Zone 1	Zone 2
Total Permanent impacts:	1,966.00	1,290.00

	Zone 1	Zone 2
Total combined buffer impacts:	1,966.00	1,290.00

6i. Comments:

Supporting Documentation - i.e. Impact Maps, Plan Sheet, etc.

Click the upload button or drag and drop files here to attach document

File must be PDF

E. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project: *

The bridge will be replaced on the existing alignment. There will be no direct discharge into Rocky Swamp. See stormwater management plan for additional minimization measures.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques: *

An offsite detour will be used during construction. NCDOT's Design Standards in Sensitive Watersheds will be employed.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?

- Yes
- No

2b. If this project DOES NOT require Compensatory Mitigation, explain why:

Impacts to streams and wetlands are deemed to be minimal and compensatory mitigation is not proposed.

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS website.

F. Stormwater Management and Diffuse Flow Plan (required by DWR)



*** Recent changes to the stormwater rules have required updates to this section. ***

1. Diffuse Flow Plan

1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?

Yes No

1b. All buffer impacts and high ground impacts require diffuse flow or other form of stormwater treatment. If the project is subject to a state implemented riparian buffer protection program, include a plan that fully documents how diffuse flow will be maintained.

All Stormwater Control Measures (SCM)s must be designed in accordance with the [NC Stormwater Design Manual](#). Associated supplement forms and other documentation shall be provided.

What type of SCM are you providing?

- Level Spreader
 Vegetated Conveyance (lower SHWT)
 Wetland Swale (higher SHWT)
 Other SCM that removes minimum 30% nitrogen
 Proposed project will not create concentrated stormwater flow through the buffer
(check all that apply)

For a list of options to meet the diffuse flow requirements, click [here](#).

Diffuse Flow Documentation

Click the upload button or drag and drop files here to attach document
File type must be PDF

2. Stormwater Management Plan

2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250? *

Yes No

Comments:

G. Supplementary Information



1. Environmental Documentation

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? *

Yes No

1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)? *

Yes No

1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) *

Yes No

NEPA or SEPA Final Approval Letter

Click the upload button or drag and drop files here to attach document
FILETYPE MUST BE PDF

2. Violations (DWR Requirement)

2a. Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)? *

Yes No

3. Cumulative Impacts (DWR Requirement)

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? *

Yes No

3b. If you answered "no," provide a short narrative description.

Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

4. Sewage Disposal (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? *

Yes No NA

5. Endangered Species and Designated Critical Habitat (Corps Requirement)

5a. Will this project occur in or near an area with federally protected species or habitat? *

Yes No

5b. Have you checked with the USFWS concerning Endangered Species Act impacts? *

Yes No

5c. If yes, indicate the USFWS Field Office you have contacted.

Raleigh

5d. Is another Federal agency involved? *

Yes No Unknown

5e. Is this a DOT project located within Division's 1-8? *

Yes No

5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? *

N.C. Natural Heritage Program database; USFWS-Raleigh Field Office website; biological surveys for protected species listed for Halifax County, which include Tar River spiny mussel, yellow lance, Dwarf wedgemussel, red-cockaded woodpecker. The red-cockaded woodpecker and yellow lance received biological conclusions of "No Effect". The Tar River spiny mussel and dwarf wedgemussel received a biological conclusions of "May Affect, Not Likely to Adversely Affect" due to suitable habitat and known populations nearby. Concurrence from USFWS was received on 10/24/2019 for these species (see attached).

Consultation Documentation Upload

[Click the upload button or drag and drop files here to attach document](#)

20191024_ltr_USFWS_NCDOT_BR-0113.pdf

43.43KB

[File type must be PDF](#)

6. Essential Fish Habitat (Corps Requirement)

6a. Will this project occur in or near an area designated as an Essential Fish Habitat? *

Yes No

6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? *

NMFS County Index

7. Historic or Prehistoric Cultural Resources (Corps Requirement)

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: <http://gis.ncdcr.gov/hpweb/>)

7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)? *

Yes No

7b. What data sources did you use to determine whether your site would impact historic or archeological resources? *

NEPA documentation

7c. Historic or Prehistoric Information Upload

[Click the upload button or drag and drop files here to attach document](#)

[File must be PDF](#)

8. Flood Zone Designation (Corps Requirement)

Link to the FEMA Floodplain Maps: <https://msc.fema.gov/portal/search>

8a. Will this project occur in a FEMA-designated 100-year floodplain? *

Yes No

8b. If yes, explain how project meets FEMA requirements:

NCDOT Hydraulics Unit coordination with FEMA

8c. What source(s) did you use to make the floodplain determination? *

FEMA maps

Miscellaneous

Comments

Miscellaneous attachments not previously requested.

[Click the upload button or drag and drop files here to attach document](#)

[File must be PDF or KMZ](#)

Signature

*

By checking the box and signing below, I certify that:

- I have given true, accurate, and complete information on this form;
- I agree that submission of this PCN form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the PCN form.

Full Name:*

Mack Christopher Rivenbark, III

Signature



Mack C. Rivenbark III

Date

11/7/2019



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 48822.1.1 TIP No.: BR-0113 County(ies): Halifax Page 1 of 1

General Project Information

WBS Element:	48822.1.1	TIP Number:	BR-0113	Project Type:	Bridge Replacement	Date:	10/9/2019
NCDOT Contact:	Chad Coggins		Contractor / Designer:	Wetherill Engineering, Inc. / Ana Passman, PE CFM			
Address:	Highway Division 4		Address:	1223 Jones Franklin Rd.			
	509 Ward Blvd. PO Box 3165			Raleigh, NC 27606			
	Wilson, 27895						
Phone:	(252)-640-6427		Phone:	919-851-8077			
Email:	tcoggins@ncdot.gov		Email:	apassman@wetherilleng.com			
City/Town:	Brinkleyville, NC		County(ies):	Halifax			
River Basin(s):	Tar-Pamlico		CAMA County?	No			
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	0.112 mi.	Surrounding Land Use:	Rural, Wooded, Agricultural				
Project Built-Up Area (ac.)		Proposed Project			Existing Site		
		0.4 ac.			0.3 ac.		
Typical Cross Section Description:	(2) 10' lanes with grassed shoulders and up to 6.42' shoulders with guardrail. 6.42' shoulders are variable width paved.			(2) 10' lanes with grassed shoulders			

Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	340	Year:	2019	Existing:		Year:	
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General Project Narrative:
(Description of Minimization of Water Quality Impacts)

Replace Bridge No. 115 over Rocky Swamp on SR 1601(Sledge Road). Use 1@35', 1@55' of 21" Cored Slab with 4'-0" deep caps. A TB 2GI will outlet on the downstream side of the bridge with 15" pipe with 2 elbows onto a Class B riprap pad. No deck drains will be required.

Consider planning minimum measures:

- Maximizing shoulder section: Done to the maximum extent possible as allowed by roadway design standards.
- Minimizing roadway side slopes: Done to the maximum extent possible as allowed by roadway design standards.
- Assessing and minimizing the impacts of stormwater runoff to environmentally sensitive areas: The runoff from 2GI will be dissipated by the Class B riprap pad at the pipe outlet.
- Promoting sensitive intersection of streams: Project contains a single stream without intersections.

Consider design minimum measures:

- Providing adequate ground cover: Done to the maximum extent possible.
- Stabilizing slopes: Provided Class II keyed in riprap for sloping abutment scour protection. Also Class II riprap under the bridge up to first existing bent for overbank stabilization, as requested per Division DEO.
- Providing adequate energy dissipation: Done to the maximum extent possible.
- Preserving natural features: Impacts to stream are minimized to the maximum extent practicable.
- Maximizing vegetative conveyance: Done to the maximum extent possible.
- Encouraging diffuse flow: The stream receives minimal concentrated runoff. Class B riprap pad at the outlet of TB 2GI.
- Minimizing direct discharge from bridges: No deck drains are used on the project. The runoff from TB 2GI does not directly discharge into stream.

Waterbody Information

Surface Water Body (1):	Rocky Swamp		NCDWR Stream Index No.:	28-79-28-(0.3)			
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class C				
	Supplemental Classification:		Nutrient Sensitive Waters (NSW)				
Other Stream Classification:	None						
Impairments:	None						
Threatened/Endangered Species?	No		Comments:				
NRTR Stream ID:				Buffer Rules in Effect:	Tar-Pamlico		
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?			
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)							

09/06/99

See Sheet 1-A For Index of Sheets
 See Sheet 1-B For Conventional Symbols
 See Sheet RW02C-1 TO RW02C-2 For Survey Control Sheets

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

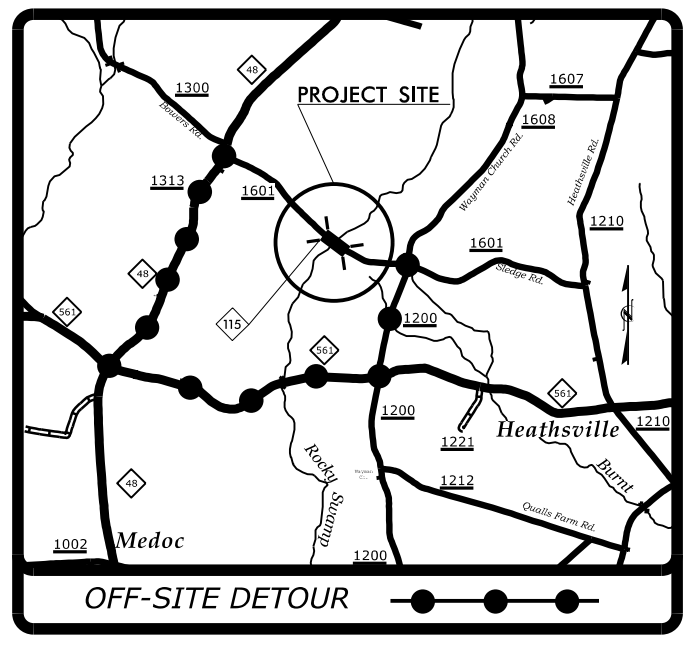
HALIFAX COUNTY

**LOCATION: BRIDGE NO. 41015 OVER ROCKY SWAMP
 ON SR 1601 (SLEDGE RD.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT

PROJECT: BR-0113

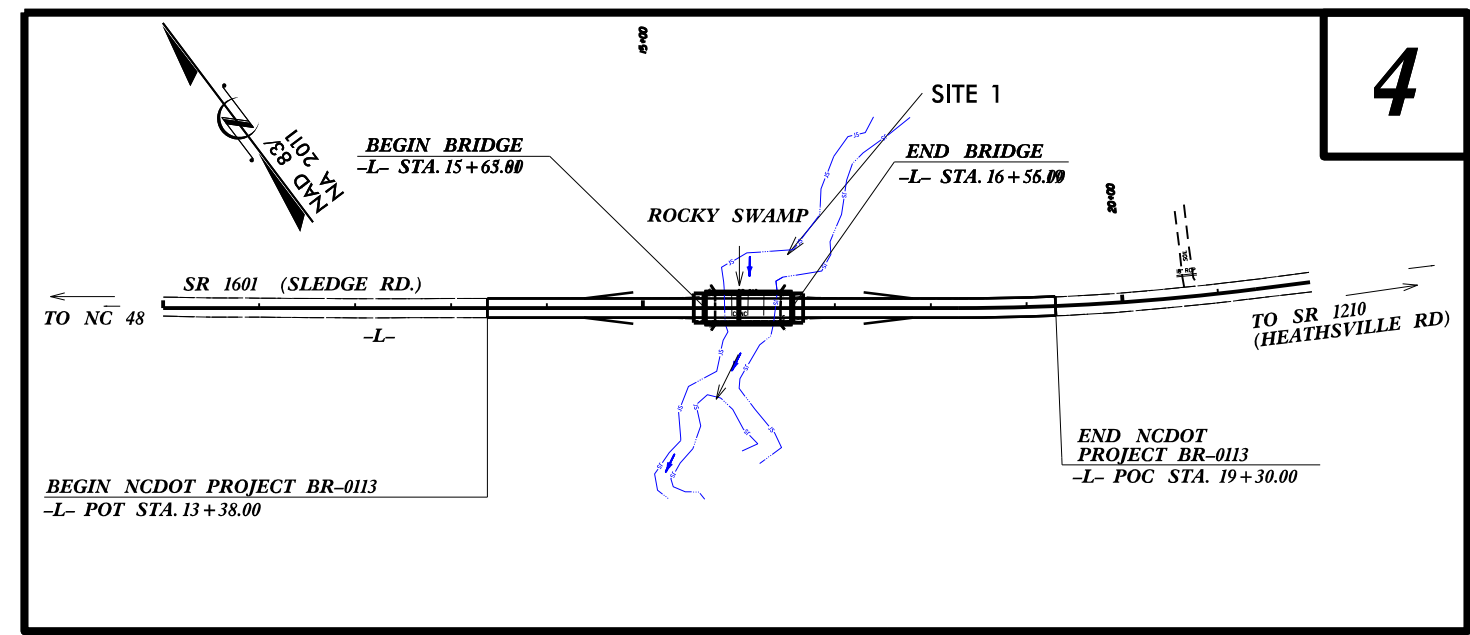


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0113	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48822.1.1		PE	
48822.2.1		ROW, UTIL.	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107			
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION			

BRIDGE #41015

**PERMIT DRAWING
 SHEET 1 OF 6**

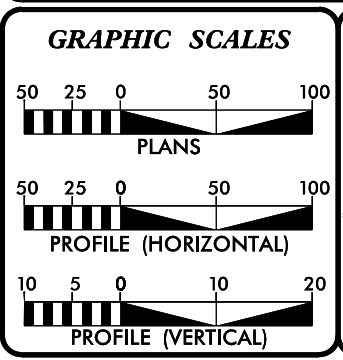
NO DECK DRAINS



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
 THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA
 ADT 2019 = 340

T = 6 % *
 V = 55 MPH

* (TTST = 3% +
 DUAL = 3%)
 FUNC CLASS =
 RURAL LOCAL
 SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT BR-0113 =	0.095 MILES
LENGTH STRUCTURE PROJECT BR-0113 =	0.017 MILES
TOTAL LENGTH PROJECT BR-0113 =	0.112 MILES

NCDOT CONTACT: DAVID STUTTS, PE
 PROJECT ENGINEER - PEP/PROGRAM MGT.

Prepared for:
**DIVISION OF HIGHWAYS
 STRUCTURES MANAGEMENT UNIT**
 1000 BIRCH RIDGE DRIVE RALEIGH NC, 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 24, 2019

LETTING DATE: JUNE 16, 2020

EDWARD G. WETHERILL, PE
 PROJECT ENGINEER

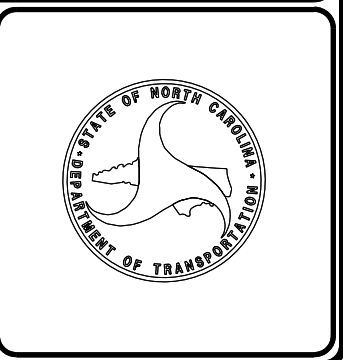
GREG S. PURVIS, PE
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

 SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

 SIGNATURE: _____ P.E.

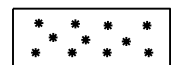


\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DDN\$\$\$\$\$
 \$\$\$SERNAME\$\$\$\$\$

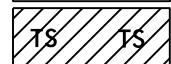
30' 0' 30'



GRAPHIC SCALE



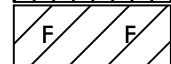
DENOTES MECHANIZED CLEARING



DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN SURFACE WATER



DENOTES FILL IN WETLAND



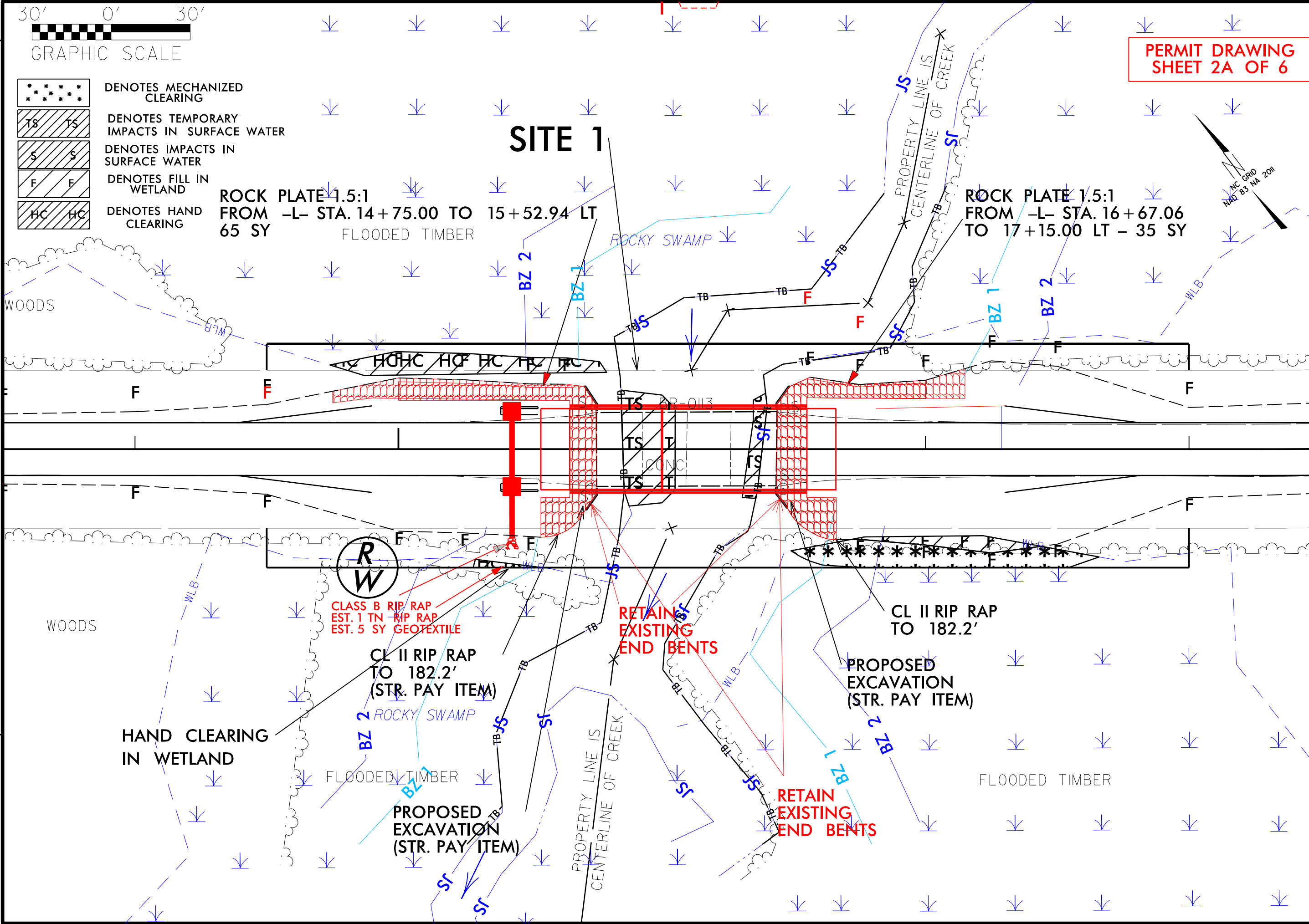
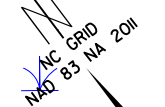
DENOTES HAND CLEARING

SITE 1

PERMIT DRAWING SHEET 2A OF 6

ROCK PLATE 1.5:1
FROM -L- STA. 14+75.00 TO 15+52.94 LT
65 SY FLOODED TIMBER

ROCK PLATE 1.5:1
FROM -L- STA. 16+67.06 TO 17+15.00 LT
- 35 SY



WOODS

WOODS

HAND CLEARING
IN WETLAND

CLASS B RIP RAP
EST. 1 TN RIP RAP
EST. 5 SY GEOTEXTILE

CL II RIP RAP
TO 182.2'
(STR. PAY ITEM)

PROPOSED
EXCAVATION
(STR. PAY ITEM)

RETAIN
EXISTING
END BENTS

RETAIN
EXISTING
END BENTS

PROPOSED
EXCAVATION
(STR. PAY ITEM)

CL II RIP RAP
TO 182.2'



PROPERTY LINE IS
CENTERLINE OF CREEK

PROPERTY LINE IS
CENTERLINE OF CREEK

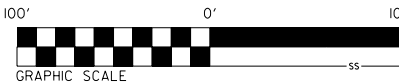
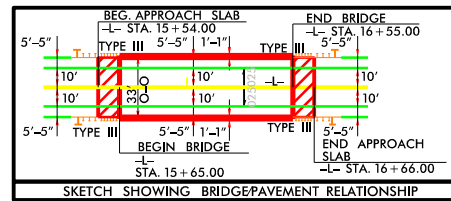
FLOODED TIMBER

FLOODED TIMBER

ROCKY SWAMP

ROCKY SWAMP

8/17/99



1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

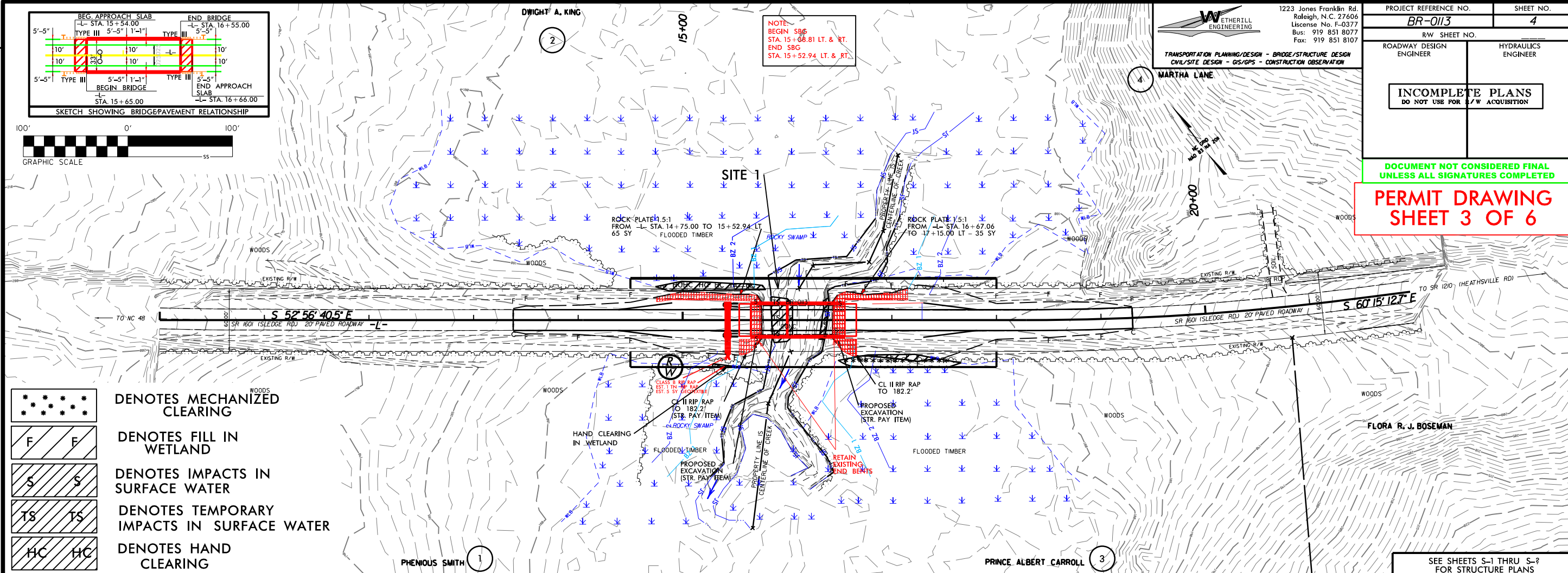
WETHERILL ENGINEERING

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO. BR-0113	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	

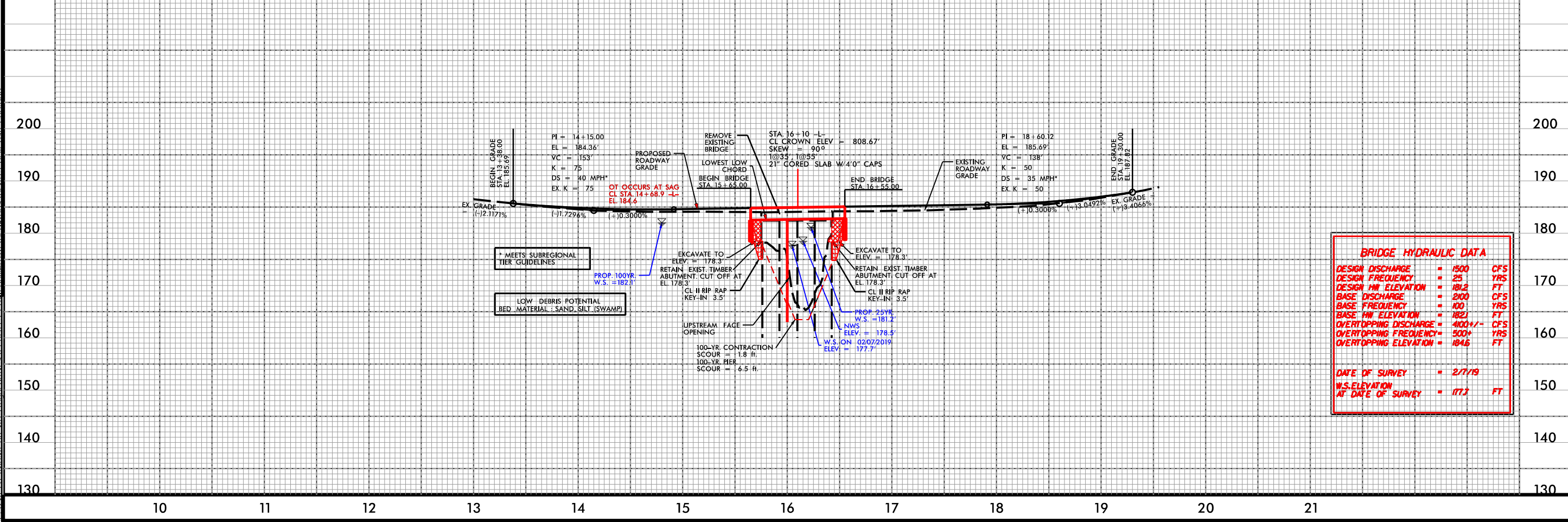
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 3 OF 6



- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES HAND CLEARING

SEE SHEETS S-1 THRU S-? FOR STRUCTURE PLANS



BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1500 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 181.2 FT
BASE DISCHARGE	= 2100 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 182.1 FT
OVERTOPPING DISCHARGE	= 400 +/- CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 184.6 FT
DATE OF SURVEY	= 2/7/19
W.S. ELEVATION AT DATE OF SURVEY	= 177.7 FT

REVISIONS

10/29/2019 9:43:45 AM
S:\Projects\191016_01_BR-0113\Hydraulics\PERMIT\191016_01_BR-0113\Hydraulics\191016_01_BR-0113.dwg

8/23/99



PROJ. REFERENCE NO.
BR-0113

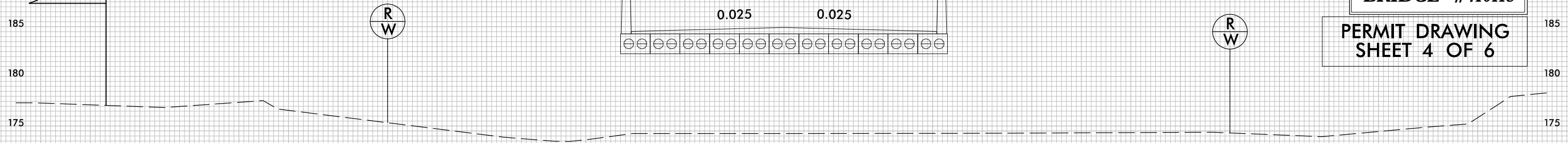
SHEET NO.
X-2

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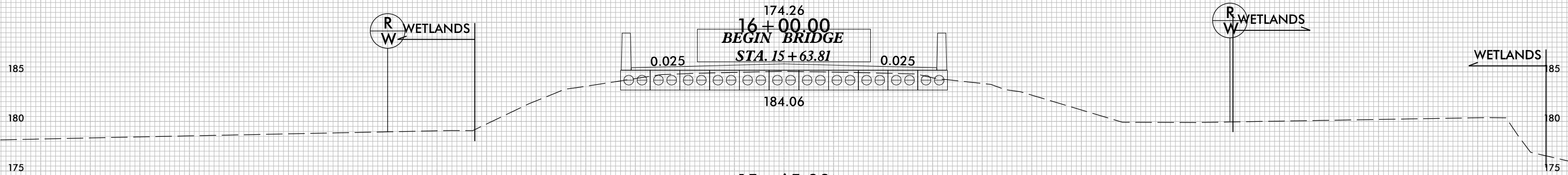
WETLANDS

BRIDGE #410115

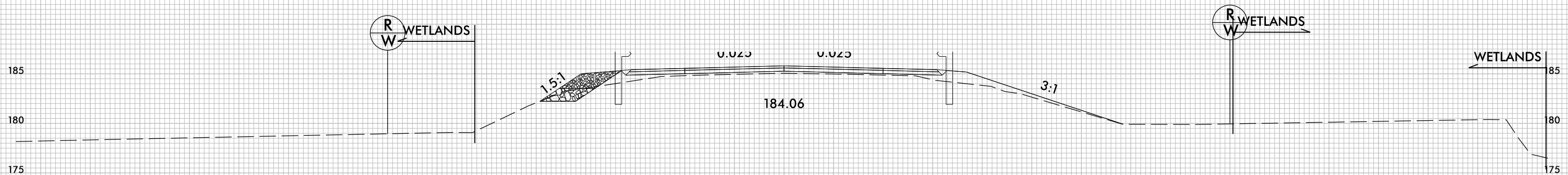
**PERMIT DRAWING
SHEET 4 OF 6**



174.26
16+00.00
BEGIN BRIDGE
STA. 15+63.81



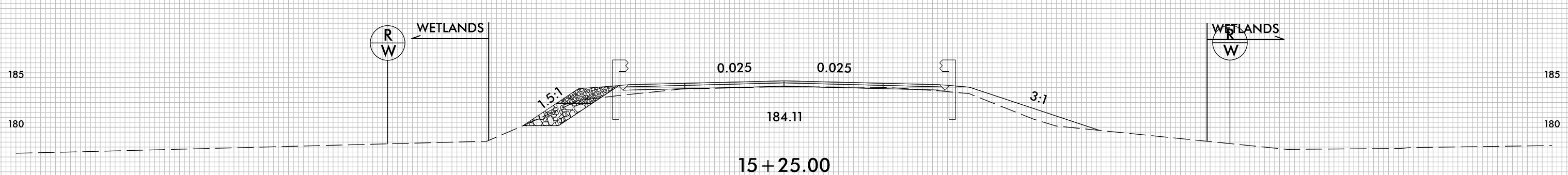
15+65.00



15+64.98



15+50.00



15+25.00

-L-

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

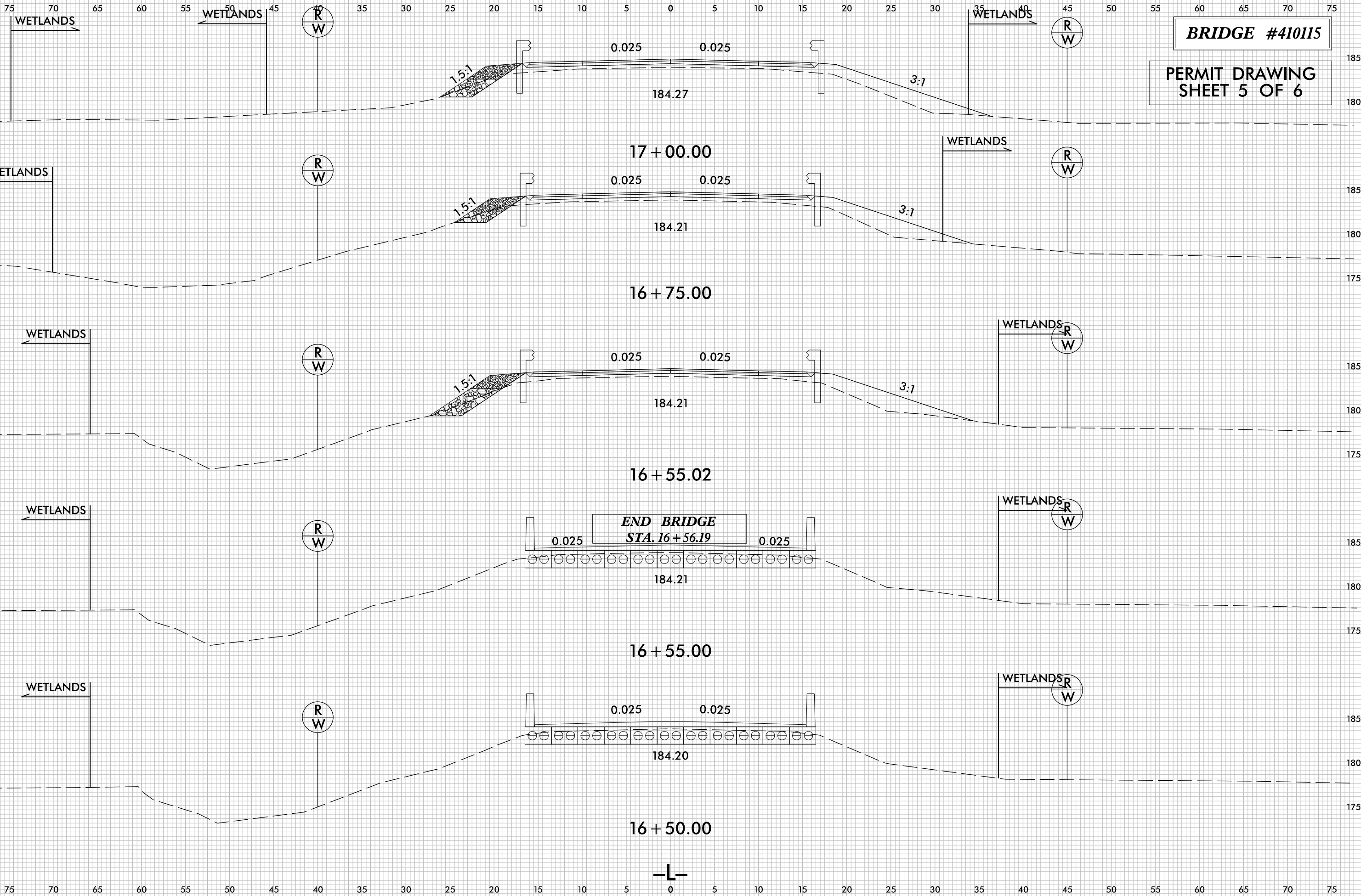
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USER: Pbrooks

8/23/99



PROJ. REFERENCE NO.
BR-0113

SHEET NO.
X-3



BRIDGE #410115

**PERMIT DRAWING
SHEET 5 OF 6**

**END BRIDGE
STA. 16+56.19**

10/28/2019 10:00 AM P:\19106.01 BR-0113\Hydraulics\PERMITS\Environmental\Drawings\BR-0113_RDY_XPL.dgn
USER: FROCKS

-L-

WETLAND PERMIT IMPACT 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	-L- 14+66 to 17+80	90' bridge	< 0.01			0.02	0.02		0.02			45	
TOTALS*:			< 0.01			0.02	0.02		0.02	0	45	0	

*Rounded totals are sum of actual impacts

NOTES:

<0.01 acre of Temporary Fill in the Hand Clearing areas for Erosion Control

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 10/29/2019
 HALIFAX CO.
 BR-0113
 SHEET 6 OF 6

09/06/19

See Sheet 1-A For Index of Sheets
 See Sheet 1-B For Conventional Symbols
 See Sheet BR-0113-0 TO-2R1W@2CS2rFrgrCSatvaySDeetsol Sheets

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

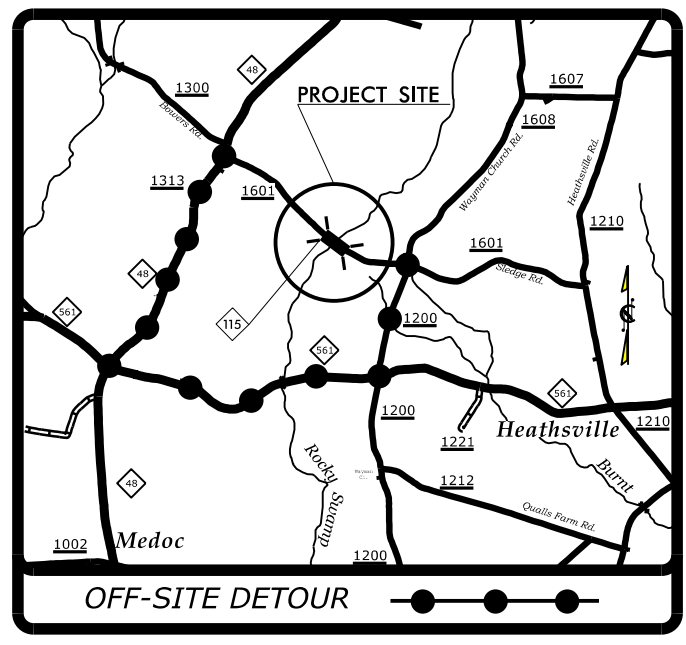
HALIFAX COUNTY

**LOCATION: BRIDGE NO. 41015 OVER ROCKY SWAMP
 ON SR 1601 (SLEDGE RD.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURE

BUFFER IMPACTS PERMIT

PROJECT: BR-0113

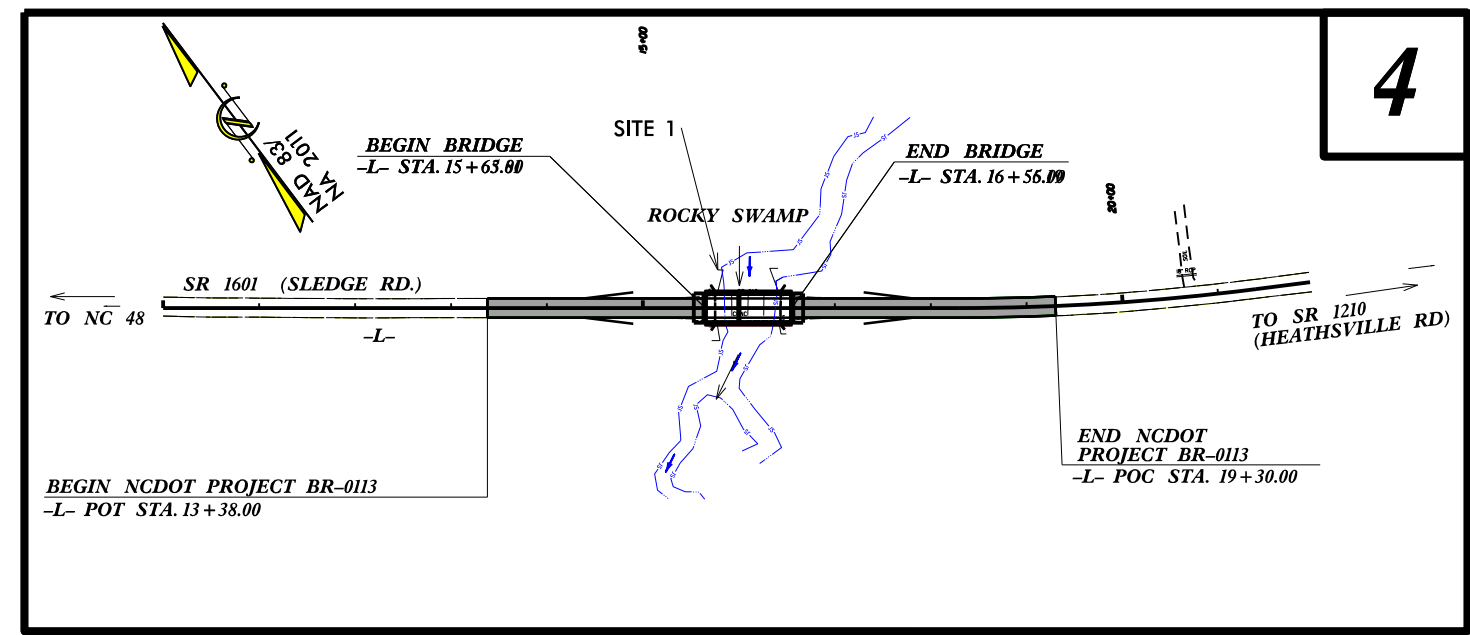


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0113	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48822.1.1		PE	
48822.2.1		ROW, UTIL.	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107			
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION			

BRIDGE #41015

**BUFFER DRAWING
 SHEET 1 OF 4**

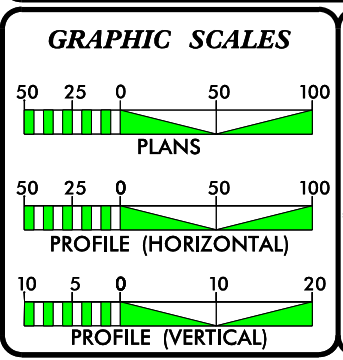
NO DECK DRAINS



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
 THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

**INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

CONTRACT:

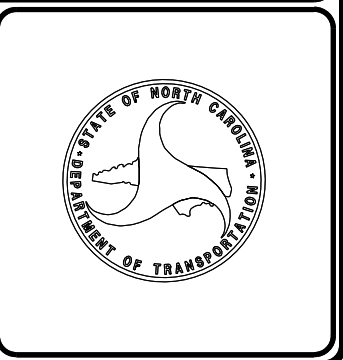


DESIGN DATA
 ADT 2019 = 340
 T = 6 % *
 V = 55 MPH
 * (TTST = 3% +
 DUAL = 3%)
 FUNC CLASS =
 RURAL LOCAL
 SUBREGIONAL TIER

PROJECT LENGTH	
LENGTH ROADWAY PROJECT BR-0113 =	0.095 MILES
LENGTH STRUCTURE PROJECT BR-0113 =	0.017 MILES
TOTAL LENGTH PROJECT BR-0113 =	0.112 MILES
NCDOT CONTACT: <u>DAVID STUTTS, PE</u> PROJECT ENGINEER - PEP/PROGRAM MGT.	

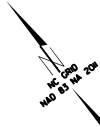
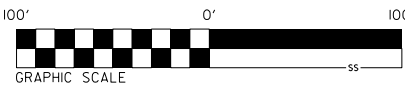
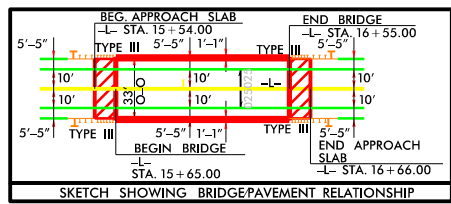
Prepared for: DIVISION OF HIGHWAYS STRUCTURES MANAGEMENT UNIT 1000 BIRCH RIDGE DRIVE RALEIGH NC, 27610	
2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: JULY 24, 2019	<u>EDWARD G. WETHERILL, PE</u> PROJECT ENGINEER
LETTING DATE: JUNE 16, 2020	<u>GREG S. PURVIS, PE</u> PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
 SIGNATURE: _____ P.E.
 ROADWAY DESIGN ENGINEER
 SIGNATURE: _____ P.E.



09/06/19 2:46:06 PM
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8/17/99



DWIGHT A. KING

2

15+00

NOTE:
 BEGIN SBG
 STA. 15+38.81 LT. & RT.
 END SBG
 STA. 15+52.94 LT. & RT.



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 Raleigh, N.C. 27606
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 Fax: 919 851 8107

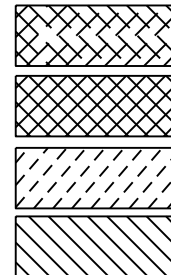
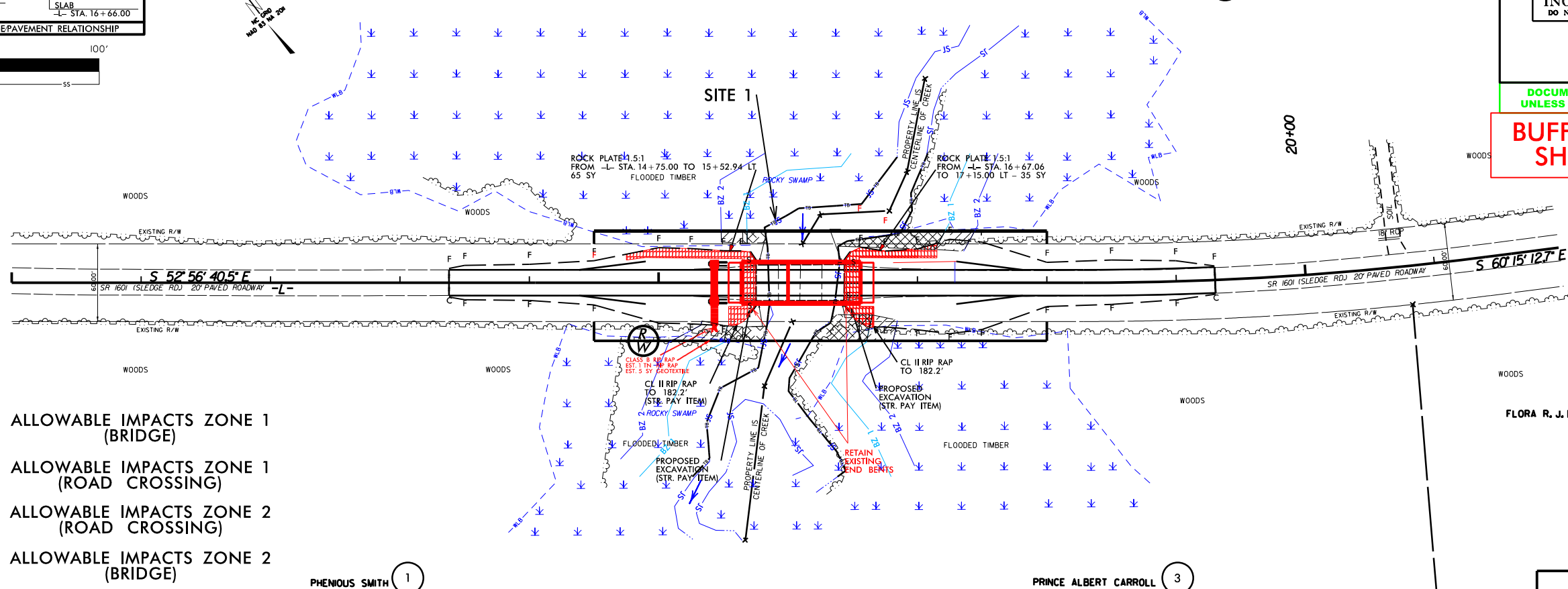
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

MARTHA LANE

PROJECT REFERENCE NO. BR-0113	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

BUFFER DRAWING
SHEET 2 OF 4

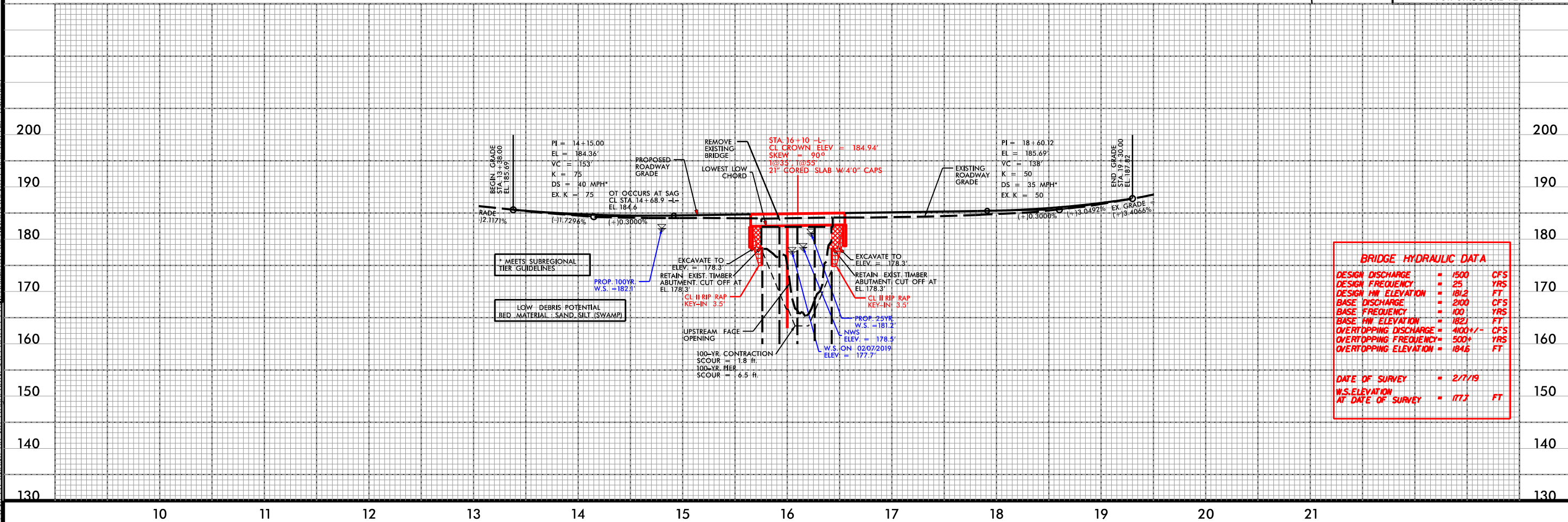


- ALLOWABLE IMPACTS ZONE 1 (BRIDGE)
- ALLOWABLE IMPACTS ZONE 1 (ROAD CROSSING)
- ALLOWABLE IMPACTS ZONE 2 (ROAD CROSSING)
- ALLOWABLE IMPACTS ZONE 2 (BRIDGE)

PHENOUS SMITH 1

PRINCE ALBERT CARROLL 3

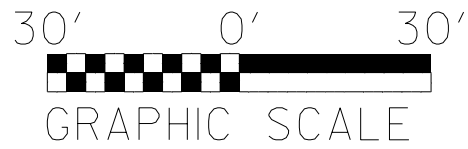
SEE SHEETS S-1 THRU S-? FOR STRUCTURE PLANS



BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1500 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 181.2 FT
BASE DISCHARGE	= 2100 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 182.1 FT
OVERTOPPING DISCHARGE	= 4100 +/- CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 184.6 FT
DATE OF SURVEY	= 2/7/19
W.S. ELEVATION AT DATE OF SURVEY	= 177.7 FT

REVISIONS

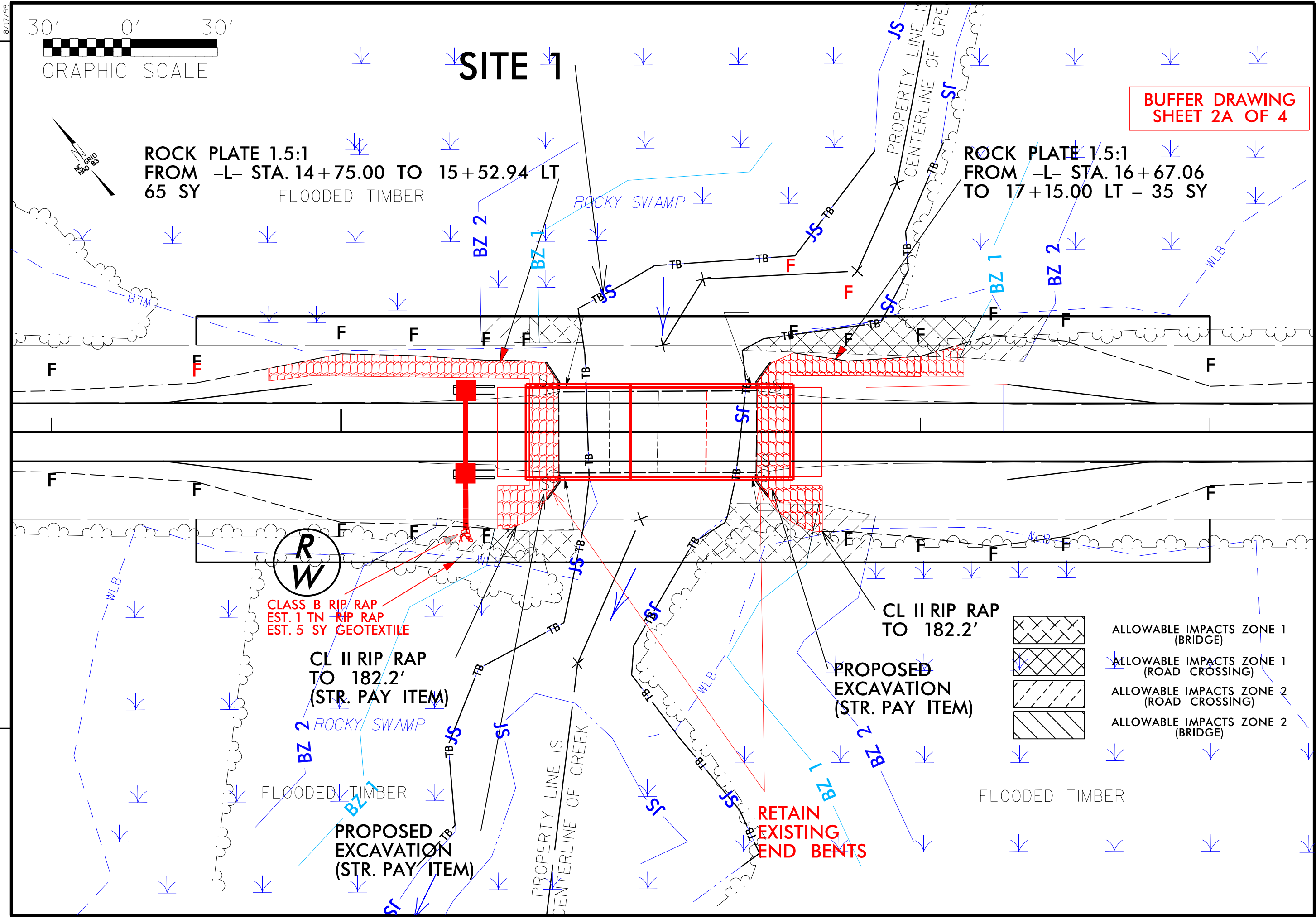
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 8/17/99



**BUFFER DRAWING
SHEET 2A OF 4**

ROCK PLATE 1.5:1
FROM -L- STA. 14+75.00 TO 15+52.94 LT
65 SY
FLOODED TIMBER

ROCK PLATE 1.5:1
FROM -L- STA. 16+67.06 TO 17+15.00 LT - 35 SY



CLASS B RIP RAP
EST. 1 TN RIP RAP
EST. 5 SY GEOTEXTILE

CL II RIP RAP
TO 182.2'
(STR. PAY ITEM)

CL II RIP RAP
TO 182.2'

**PROPOSED
EXCAVATION**
(STR. PAY ITEM)

**PROPOSED
EXCAVATION**
(STR. PAY ITEM)

**RETAIN
EXISTING
END BENTS**

	ALLOWABLE IMPACTS ZONE 1 (BRIDGE)
	ALLOWABLE IMPACTS ZONE 1 (ROAD CROSSING)
	ALLOWABLE IMPACTS ZONE 2 (ROAD CROSSING)
	ALLOWABLE IMPACTS ZONE 2 (BRIDGE)

8/17/98

BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE			ALLOWABLE			MITIGABLE			ZONE 1 (ft ²)	ZONE 2 (ft ²)
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)		
1	90' Bridge	-L- 15+53 to 16+66		X		963	31	994					
		-L- 15+33 to 17+36	X			1003	1259	2262					
TOTAL:						1966	1290	3256	0	0	0		

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

 Wayne County
 PROJECT: BRIDGE SF-950121

 10/29/2019
 SHEET 3 OF 4

WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)	WETLANDS IN BUFFERS	
		ZONE 1 (ft ²)	ZONE 2 (ft ²)
1	-L- 15+48 to 17+36	251	490
TOTAL:		251	490

N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS

 WAYNE COUNTY
 PROJECT: BRIDGE SF-950121

 10/29/2019
 SHEET 4 OF 4