



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:*

Onslow

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:

B-5626

WBS #*

45581.1.1

(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

1i. Is the project located within a NC DCM Area of Environmental Concern (AEC)? *

Yes No Unknown

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: *

jlilday@ncdot.gov

1c. Primary Contact Phone: *

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

1d. Who is applying for the permit? *

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

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 31 over Sandy Run Swamp on NC 50 (B-5626 Central)

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Maple Hill

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

Postal / Zip Code

State / Province / Region

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: *

34.638306
ex: 34.208504

Longitude: *

-77.616273
-77.796371

3. Surface Waters

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

Sandy Run Swamp

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

C, Sw

[Surface Water Lookup](#)

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

Cape Fear

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

030300070602

[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 agricultural fields and forested areas in stream floodplains.

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:

4.5

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

(intermittent and perennial)

400

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 86-foot, 5 span bridge with a 137-foot, 3 span bridge on the existing alignment using 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](#)

B-5626_Permit Package Wetland_20200210.pdf

2.18MB

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:

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

SAW-2017-00485

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

Name (if known): Rob Crowther

Agency/Consultant Company: Carolina Ecosystems, Inc.

Other:

5d. List the dates of the Corp jurisdiction determination or State determination if a determination was made by the Corps or DWR.

Preliminary jurisdictional determination issued by USACE on 4/24/2017.

5d1. Jurisdictional determination upload

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

final signed PJD tear sheetB 5626 Sandy Run Swamp NC 50.pdf

26.44KB

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 *
Site 1	Mech. Clearing	P	Bottomland Hardwood Forest	WI	Yes	Corps	0.008 (acres)
Site 2	Mech. Clearing	P	Bottomland Hardwood Forest	WH	Yes	Corps	0.002 (acres)
Site 4	Fill	P	Bottomland Hardwood Forest	WB	Yes	Corps	0.001 (acres)
Site 4	Excavation	P	Bottomland Hardwood Forest	WB	Yes	Corps	0.002 (acres)
Site 4	Mech. Clearing	P	Bottomland Hardwood Forest	WB	Yes	Corps	0.005 (acres)

2g. Total Temporary Wetland Impact

0.000

2g. Total Permanent Wetland Impact

0.018

2g. Total Wetland Impact

0.018

2h. Comments:

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Site # [*] (?)	4a1. Impact Reason	4b. Impact type [*] (?)	4c. Name of waterbody (?)	4d. Activity type [*]	4e. Waterbody type [*]	4f. Impact area [*]
Site 3	Bridge Piles	T	Sandy Run Swamp	Bridge	Tributary	0.01 (acres)

4g. Total temporary open water Impacts:

0.01

4g. Total permanent open water impacts:

0.00

4g. Total open water impacts:

0.01

4h. Comments:

Temporary impact to open water is 0.007 ac. for installation of bridge piers. Bridge piers will constitute 0.0003 ac. for 8 piers.

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.*

This bridge will be replaced on the existing alignment. The new bridge will have less bents in the water than the existing structure. 3:1 slopes will be constructed in wetlands. 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. Existing drainage patterns will be maintained to the extent practical and rip rap will be used at all drainage outlets. A note has been placed on the construction plans identifying the NCDMS Conservation Easement to ensure encroachment does not occur.

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 associated with this project are considered minimal and do not reach a threshold that would require mitigation.

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

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

If no, explain why:

Sandy Run Swamp is not within a protected buffer basin.

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 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 N/A

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

What Federal Agency is involved?

NOAA

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. Heritage Program database; USFWS-Raleigh Field Office website; biological surveys for protected species listed for Onslow County, which include American alligator, green sea turtle, hawksbill turtle, Kemp's ridley sea turtle, leatherback turtle, loggerhead turtle, piping plover, red-cockaded woodpecker, red knot, West Indian manatee, Cooley's meadowrue, golden sedge, pondberry, rough-leaved loosestrife and seabeach amaranth. All species received biological conclusions of "No Effect" with the exception of American alligator, Cooley's meadowrue, golden sedge and rough-leaved loosestrife. No biological conclusion is required for the American alligator due to its listing as Threatened (Due to Similarity of Appearance). Cooley's meadowrue, golden sedge and rough-leaved loosestrife have biological conclusions of "May Affect, Not Likely to Adversely Affect" due to numerous occurrences of the species within one mile of the project. Concurrence for the species was received from USFWS on 2/18/2020 It has been determined that the shortnose sturgeon and Atlantic sturgeon, species managed by NMFS, will not be affected by this project.

Consultation Documentation Upload

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

20200218_itr_USFWS_NCDOT_B-5626.pdf

33.53KB

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 EFH mapper

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/hpoweb/>)

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? *

SEPA 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

2/19/2020

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2017-00485 County: Onslow U.S.G.S. Quad: Haws Run

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Applicant: NCDOT Agent: Carolina Ecosystems
attn.: Tyler Stanton attn.: Greg Price
Address: 1598 Mail Service Center 3040 NC Hwy 42 W
Raleigh, NC 27699 Clayton, NC 27520

Size (acres) 4.55 Nearest Town Maple Hill
Nearest Waterway Sandy Run Swamp River Basin Cape Fear
USGS HUC 0303007 Coordinates Latitude: 34.6381
Longitude: -77.6162

Location description: The project (B-5626) is located along NC 50 at Bridge 31 where it crosses Sandy Run Swamp, Onslow County.

Indicate Which of the Following Apply:

A. Preliminary Determination

- There are waters, including wetlands, on the above described project area, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction. **See attached map of record.**
- There are wetlands on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the waters, including wetlands, have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the waters, including wetlands, at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the U.S., including wetlands, on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- We recommend you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.
- The waters of the U.S., including wetlands, on your project area have been delineated and the delineation has been verified by the Corps. If you wish to have the delineation surveyed, the Corps can review and verify the survey upon

SAW-2017-00485

completion. Once verified, this survey will provide an accurate depiction of all areas subject to CWA and/or RHA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

- The waters of the U.S., including wetlands, have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are no waters of the U.S., to include wetlands, present on the above described project area which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Morehead City, NC, at (252) 808-2808 to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Brad Shaver at (910) 251-4611 or Brad.E.Shaver@usace.army.mil.**

C. Basis For Determination: *The subject area possess both an ordinary high water mark and exhibits wetland characteristic as described in the 1987 Corps Delineation Manual (and appropriate regional supplement).*

D. Remarks: The site was field verified on 1/18/2017.

Corps Regulatory Official: SHAVER.BRAD.E.1276601756
Digitally signed by SHAVER.BRAD.E.1276601756
 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SHAVER.BRAD.E.1276601756, Date: 2017.04.25 07:51:18 -0400

Date: **April 24, 2017** Expiration Date: **None**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Copy Furnished(electronic):

NCDOT-Division 3 attn: Mr. Mason Herndon
NCDEQ-DWR attn.: Ms. Joanne Steenhuis



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726



February 18, 2020

Philip S. Harris III, P.E.
NC Department of Transportation
Environmental Analysis Unit
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

This letter is in response to your letter of February 10, 2020 which provided the U.S. Fish and Wildlife Service (Service) with the biological conclusion of the North Carolina Department of Transportation that the replacement of Bridge No. 31 on NC 50 over Sandy Run Swamp in Onslow County (STIP No. B-5626) may affect, but is not likely to adversely affect the federally endangered Cooley's meadowrue (*Thalictrum cooleyi*), golden sedge (*Carex lutea*), and rough-leaved loosestrife (*Lysimachia asperulaefolia*). The following response is provided in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, a plant survey was conducted at the project site on June 13, 2019. Although all three of the aforementioned species are located nearby, the populations are located far enough away that they are unlikely to be affected. Based on the survey results and other available information, the Service concurs with your conclusion that the proposed action may affect, but is not likely to adversely affect Cooley's meadowrue, golden sedge, and rough-leaved loosestrife. We believe that the requirements of Section 7(a)(2) of the ESA have been satisfied. We remind you that obligations under Section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action.



The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,


for Pete Benjamin
Field Supervisor

Electronic copy:

Brad Shaver, USACE, Wilmington, NC
Deanna Riffey, NCDOT, Raleigh, NC
Chris Rivenbark, NCDOT, Raleigh, NC

		North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS					
(Version 2.08; Released April 2018)						Page 1 of 1	
WBS Element: 45581.3.1		TIP No.: B-5626		County(ies): Onslow			
General Project Information							
WBS Element:		45581.3.1		TIP Number: B-5626		Project Type: Bridge Replacement	Date: 10/31/2019
NCDOT Contact:		Jacquelyn Bowles, PE		Contractor / Designer:		Sungate Design Group, P.A.	
Address: 1000 Birch Ridge Dr. Raleigh, NC 27610 Phone: 919-707-6559 Email: jkbowles@ncdot.gov		City/Town: Maple Hill		County(ies): Onslow		Address: 905 Jones Franklin Road Raleigh, NC 27606	
						Phone: 919-710-8333	
						Email: jdalton@sungatedesign.com	
River Basin(s):		Cape Fear		CAMA County?		Yes	
Wetlands within Project Limits?		Yes					
Project Description							
Project Length (lin. miles or feet):		0.18		Surrounding Land Use:		Rural	
Proposed Project				Existing Site			
Project Built-Up Area (ac.)		0.7 ac.		0.5 ac.			
Typical Cross Section Description:		Paved 12' lanes with 6' shoulder section (9' shoulder with GR, 2' paved)			Paved 11' lanes with variable grass shoulder section		
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 1800		Year: 2040		Existing: 1217	
Year: 2020							
General Project Narrative: (Description of Minimization of Water Quality Impacts)		NCDOT Highway Division 3 proposes to replace Bridge #0031 on NC 50 over Sandy Run Swamp. The existing structure is 5@17' concrete deck on timber joists with timber caps and piles. The proposed structure is 1@45', 1@40', and 1@50' cored slab with 4' end bent caps. The existing bridge has deck drains, but the proposed bridge will direct deck/roadway runoff to 2GI's on the south end of the bridge. Existing drainage patterns have been maintained to the extent practical, and rip rap will be used at all drainage outlets to dissipate energy and reduce erosion.					
Waterbody Information							
Surface Water Body (1):		Sandy Run Swamp		NCDWR Stream Index No.:		18-74-33-2	
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C			
		Supplemental Classification:		Swamp Waters (Sw)			
Other Stream Classification:		None					
Impairments:		None					
Aquatic T&E Species?		Yes		Comments: No Effect as of August 2019			
NRTR Stream ID:		Sandy Run Swamp		Buffer Rules in Effect:		N/A	
Project Includes Bridge Spanning Water Body?		Yes		Deck Drains Discharge Over Buffer?		No	
Deck Drains Discharge Over Water Body?		No		(If yes, provide justification in the General Project Narrative)		Dissipator Pads Provided in Buffer?	
(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)	

Submitted 2/11/2020

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ONSLOW COUNTY

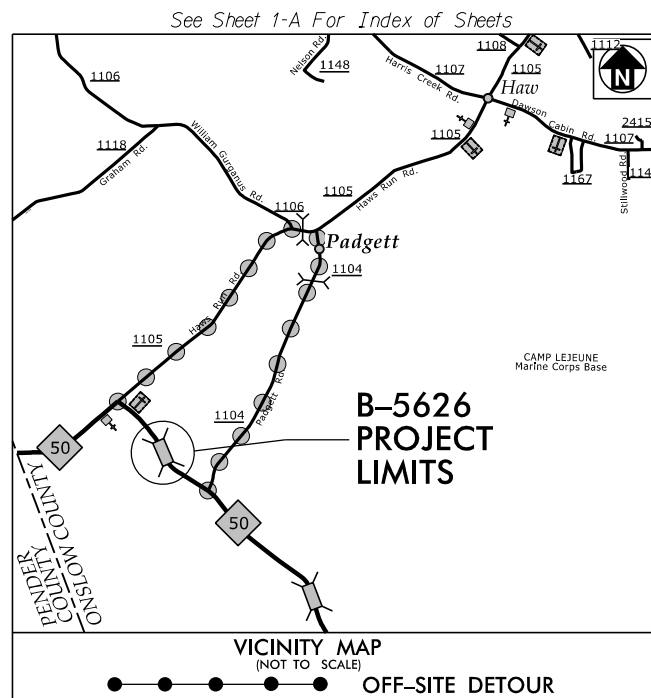
LOCATION: BRIDGE NO. 31 OVER SANDY RUN SWAMP
ON NC 50

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

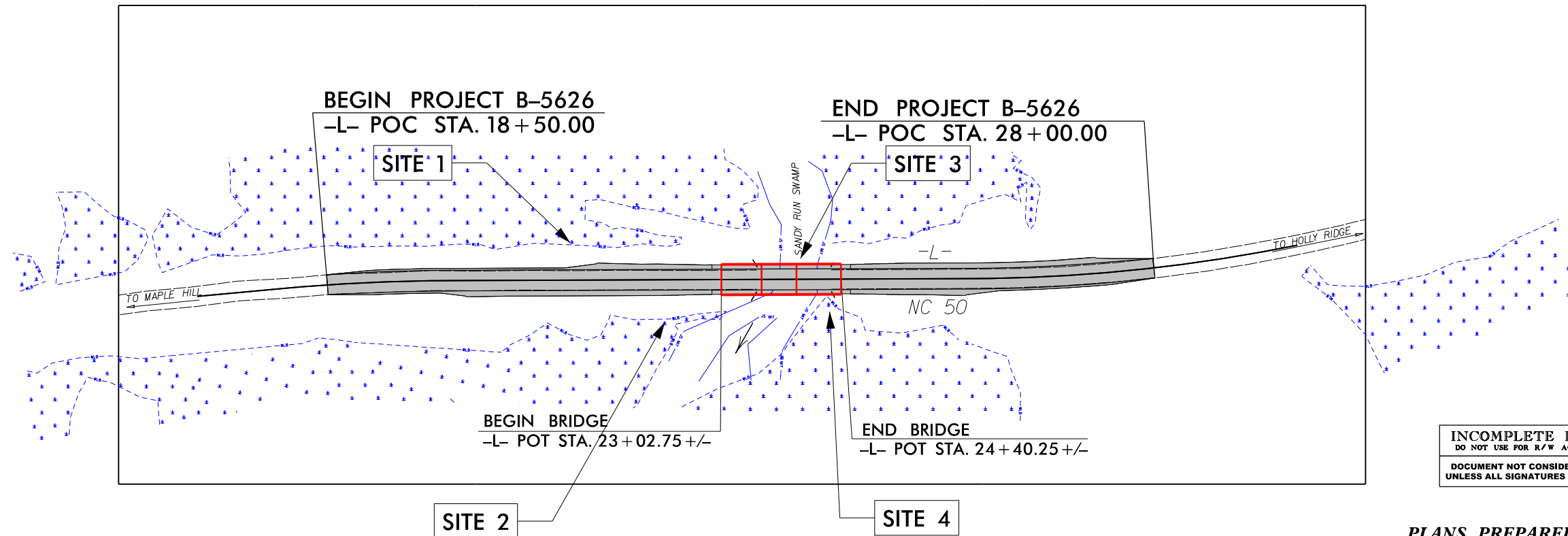
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5626	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45581.1.1		P.E.	
45581.2.1		R/W, UTL	
45581.3.1		CONST.	

PERMIT DRAWING
SHEET 1 OF 8

PROJECT: B-5626



WETLAND AND SURFACE WATER IMPACTS PERMIT



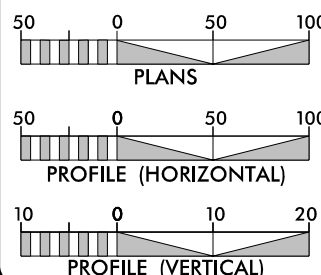
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PLANS PREPARED BY:

SEMPSON ENGINEERS & ASSOCIATES
5640 Dillard Drive
Suite 200
Cary, NC 27518
(919) 852-0468
(919) 852-0598 (Fax)
www.simpsonengr.com
LICENSE NO. C-2521

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

GRAPHIC SCALES



DESIGN DATA

ADT 2020 1217
ADT 2040 = 1800
K = 9 %
D = 55 %
T = 6 %*
V = 60 MPH
* TTST = 2% DUAL 4%
SUB REGIONAL TIER
MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT = 0.154 MILES
LENGTH STRUCTURE TIP PROJECT = 0.026 MILES
TOTAL LENGTH TIP PROJECT = 0.180 MILES

PLANS PREPARED FOR NCDOT BY:

M M
MOTT MACDONALD
2018 STANDARD SPECIFICATIONS

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL: (919) 855-2243
ENG FIRM LICENSE NO. C-490

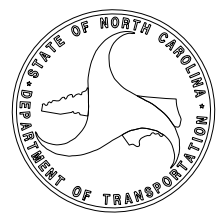
RIGHT OF WAY DATE:
JULY 5, 2019

LETTING DATE:
MAY 19, 2020

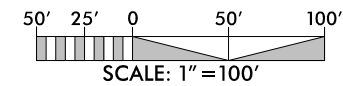
Michael Pekarek, PE
PROJECT ENGINEER
Joshua G. Dalton, PE
HYDRAULIC ENGINEER
David Stutts, PE
NCDOT BRIDGE PROGRAM MANAGER

HYDRAULICS ENGINEER

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



10/15/2019
B:5626_Hyd_prm_wet_psh_01.dgn
jnarvey

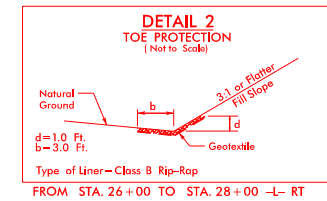
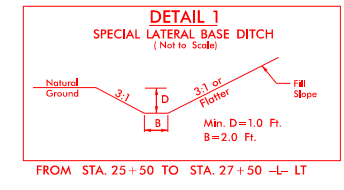
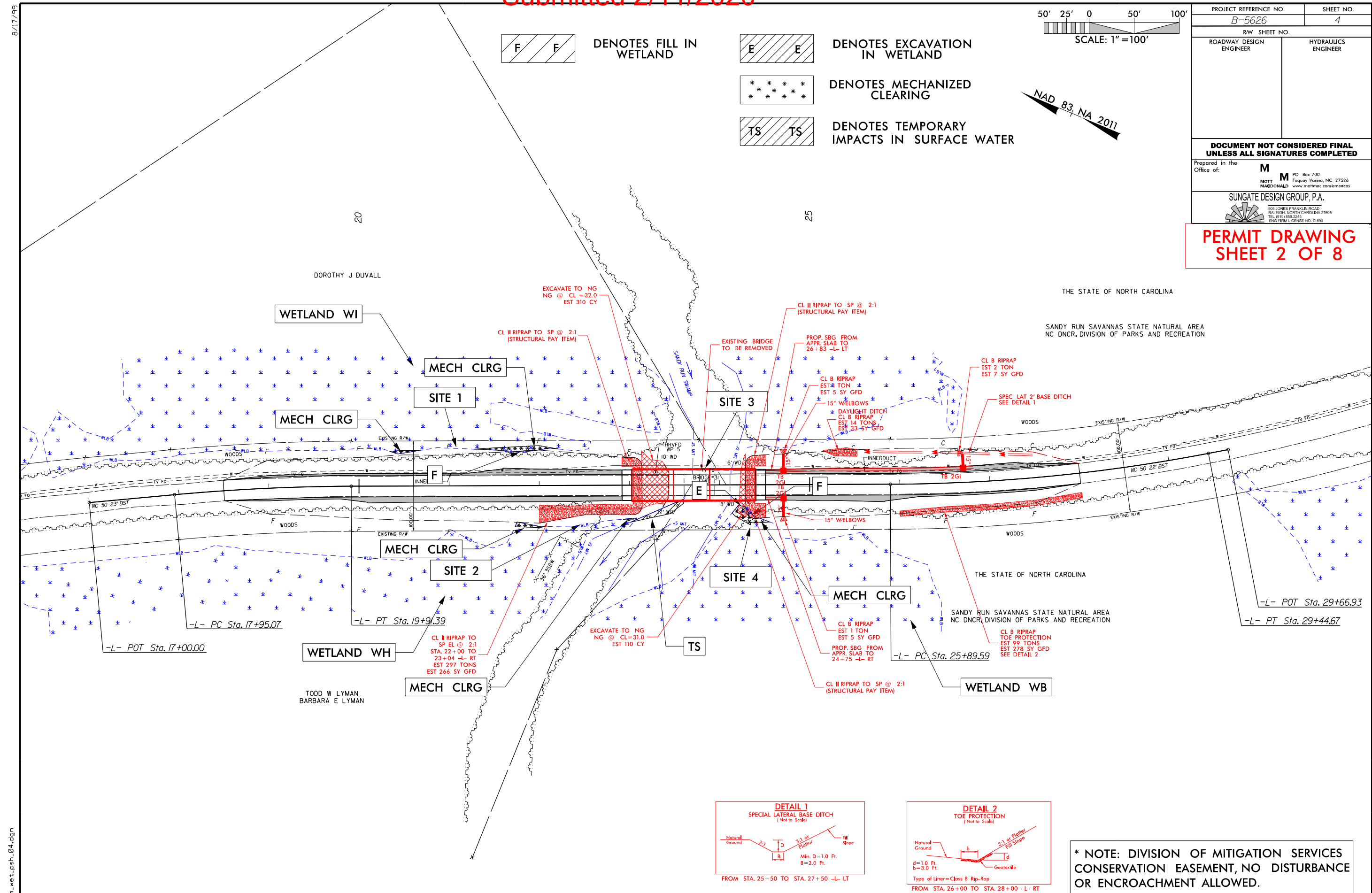


NAD 83, NA 2011

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

PROJECT REFERENCE NO. B-5626	SHEET NO. 4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	M MOTT MAGDONALD
	PO Box 700 Fuquay-Varina, NC 27526 www.mottmac.com/meritcas
SUNGATE DESIGN GROUP, P.A.	
300 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27605 TEL: 919.856.2241 ENG. FIRM LICENSE NO. C-890	

**PERMIT DRAWING
SHEET 2 OF 8**

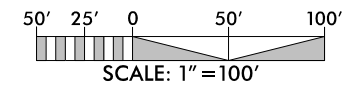


*** NOTE: DIVISION OF MITIGATION SERVICES CONSERVATION EASEMENT, NO DISTURBANCE OR ENCROACHMENT ALLOWED.**

*** NOTE: USE ROCK PLATING FROM -L- STA. 21+75 +/- TO STA. 22+90 +/-, RIGHT AND CARRY ROCK PLATING TO 2.5:1 (H:V) SLOPE. USE ROCK PLATING DETAIL NO. 1 OF ROADWAY STANDARD DRAWING NO. 275.01.**

FOR -L- PROFILE, SEE SHEET 5

8/17/99
2/10/2020
B5626.dwg - prm.wet.psh_04.dgn

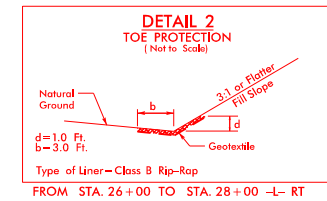
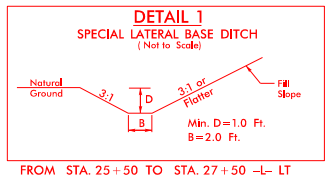
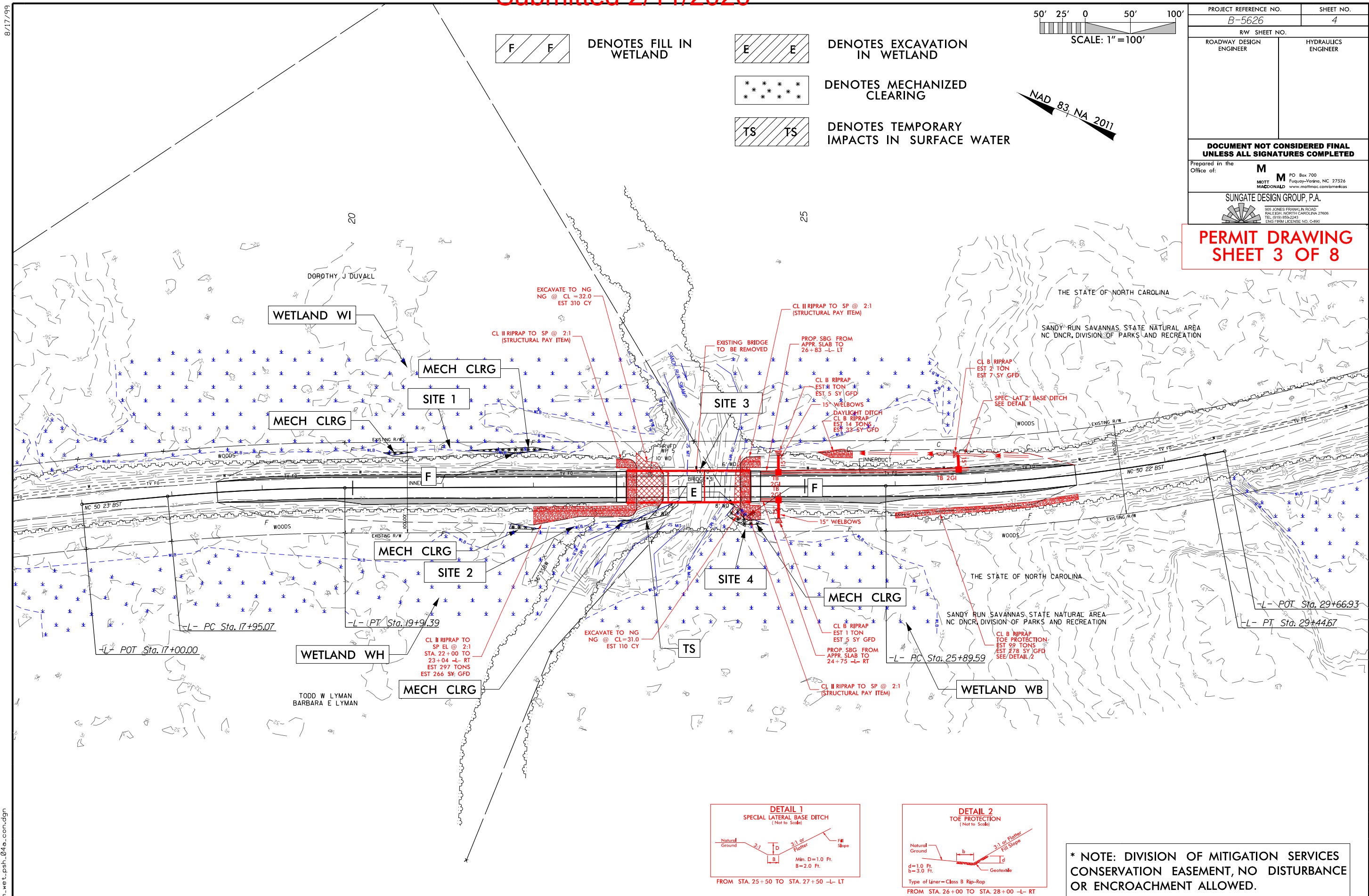


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R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	M MOTT MAGDONALD
	PO Box 700 Fuquay-Varina, NC 27526 www.mottmac.com/motmac
SUNGATE DESIGN GROUP, P.A.	
300 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27605 TEL: 919.856.2241 ENG FIRM LICENSE NO. C-890	

**PERMIT DRAWING
SHEET 3 OF 8**

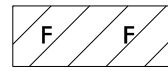


* NOTE: USE ROCK PLATING FROM -L- STA. 21+75 +/- TO STA. 22+90 +/-, RIGHT AND CARRY ROCK PLATING TO 2.5:1 (H:V) SLOPE. USE ROCK PLATING DETAIL NO. 1 OF ROADWAY STANDARD DRAWING NO. 275.01.

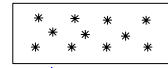
* NOTE: DIVISION OF MITIGATION SERVICES CONSERVATION EASEMENT, NO DISTURBANCE OR ENCROACHMENT ALLOWED.

FOR -L- PROFILE, SEE SHEET 5

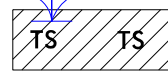
8/17/99
2/10/2020
B5626.dwg - prm.wet.psh_04a_con.dgn



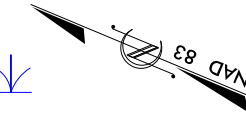
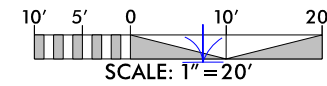
DENOTES FILL IN WETLAND



DENOTES MECHANIZED CLEARING

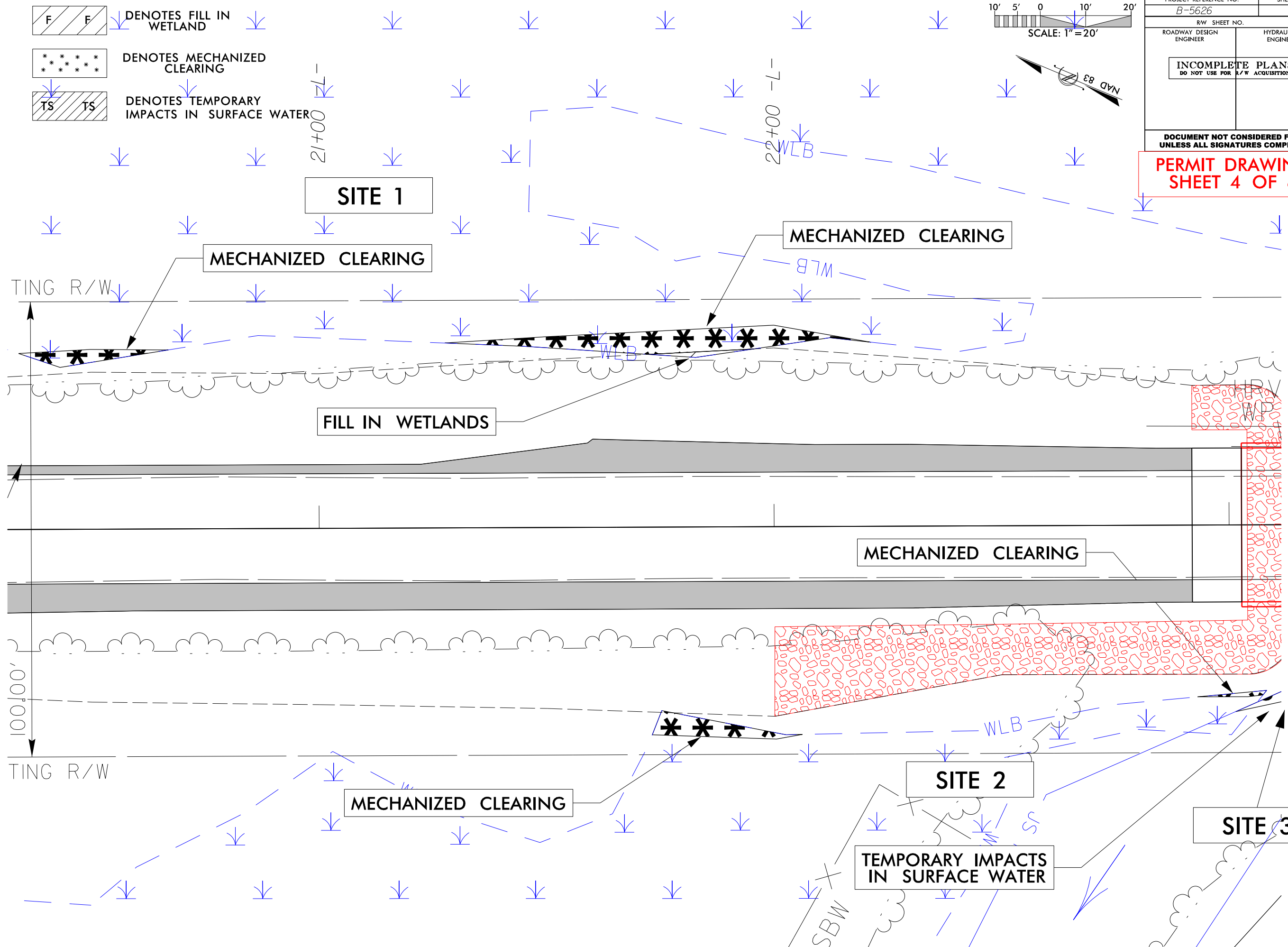


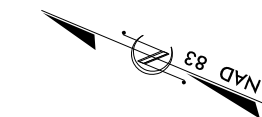
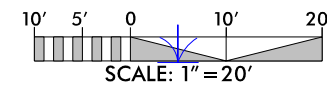
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PROJECT REFERENCE NO. B-5626	SHEET NO.
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	

PERMIT DRAWING
SHEET 4 OF 8

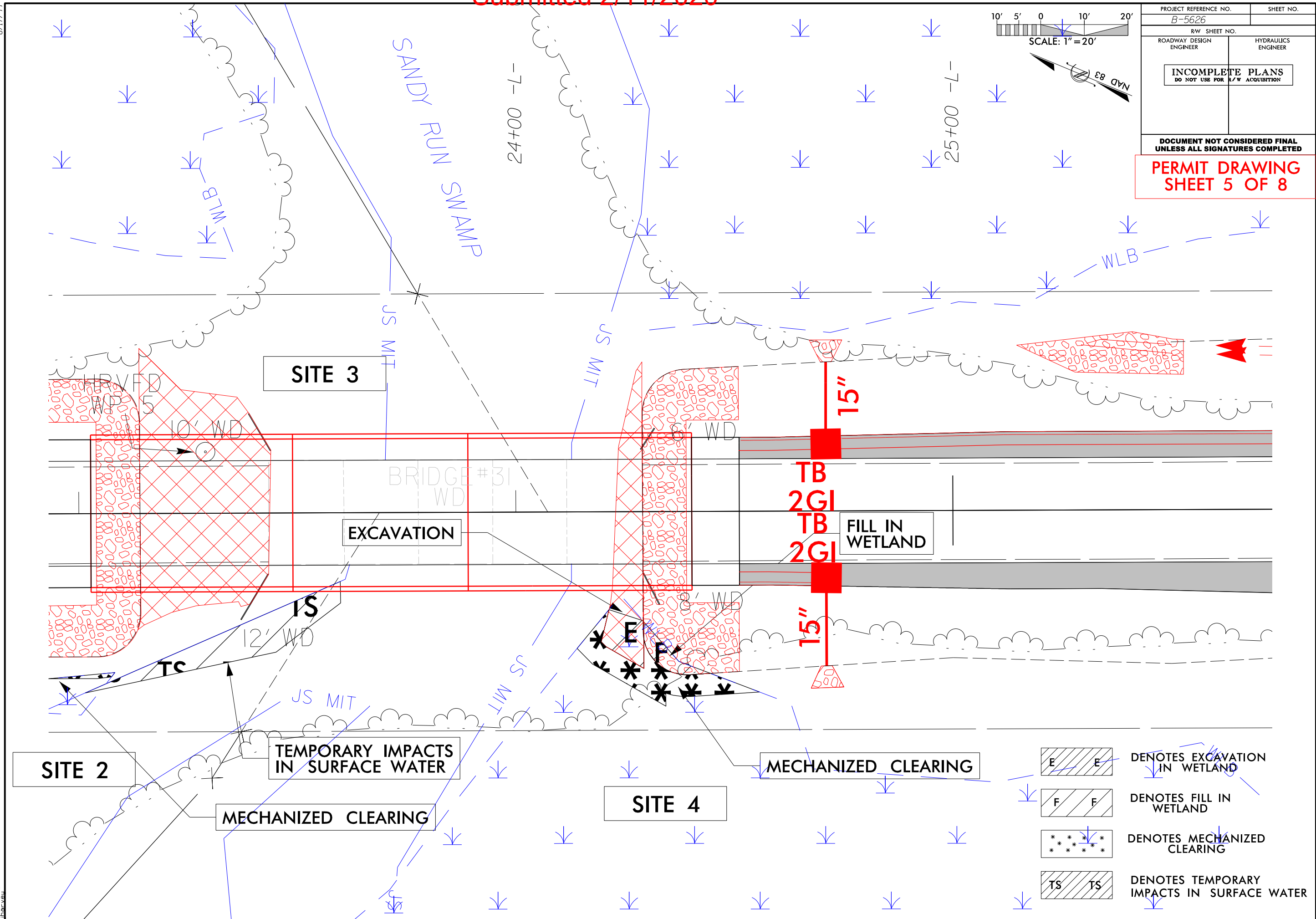




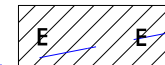
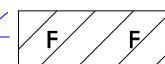

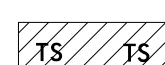
PROJECT REFERENCE NO. B-5626	SHEET NO.
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	

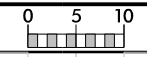
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 5 OF 8



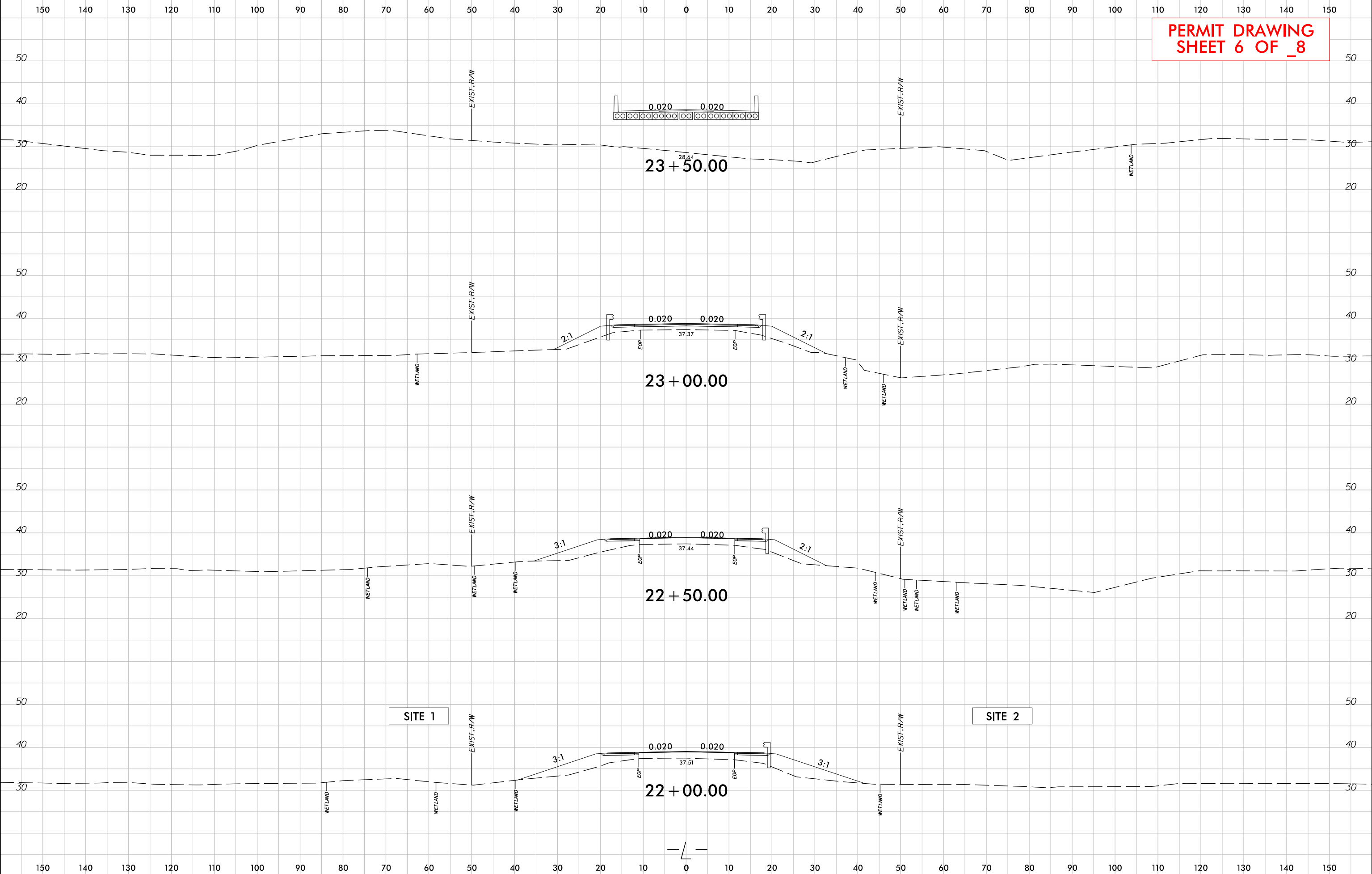
10/15/2019 8:52:56 AM C:\hid-prm-wet\psh_04c_View\inc.dgn

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



PROJ. REFERENCE NO.	SHEET NO.
B-5626	X-3

PERMIT DRAWING
SHEET 6 OF 8



5/14/99

PROJECT REFERENCE NO. B-5626	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of: M MOTT MACDONALD PO Box 700 Fuquay-Varina, NC 27526 www.mottmac.com/mackos	
SUNGATE DESIGN GROUP, P.A. 605 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27609 TEL (919) 856-2343 ENR PPM LICENSE NO. C-899	

PERMIT DRAWING SHEET 7 OF 8

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 2600	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 35.0	FT
BASE DISCHARGE	= 3100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 35.5	FT
OVERTOPPING DISCHARGE	= 5500	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 37.5	FT
DATE OF SURVEY	= 4/15/2016	
W.S. ELEVATION AT DATE OF SURVEY	= 30.1	FT

-L-

BENCH MARKS
 BM: TIE IN 18" OAK
 -L- STA 24+12.72 OFF 129.62'
 N=326089 E=2416119
 EL.= 33.53'

BEGIN GRADE
 -L- STA 19+00.00
 EL.= 37.76'

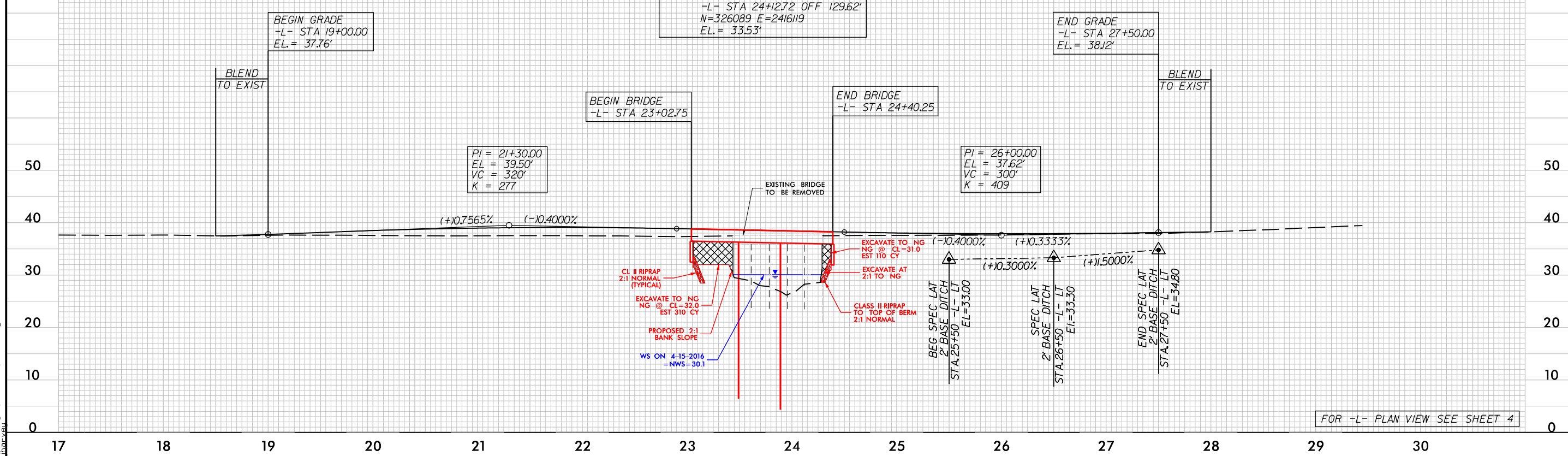
END GRADE
 -L- STA 27+50.00
 EL.= 38.12'

BEGIN BRIDGE
 -L- STA 23+02.75

END BRIDGE
 -L- STA 24+40.25

PI = 21+30.00
 EL = 39.50'
 VC = 320'
 K = 277

PI = 26+00.00
 EL = 37.62'
 VC = 300'
 K = 409



FOR -L- PLAN VIEW SEE SHEET 4

10/15/2018 08:56:06 hyd-prm-wet_05.dgn

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	20+34 to 22+21-L-LT	ROADWAY FILL				< 0.01						
2	21+73 to 23+08-L-RT	ROADWAY FILL				< 0.01						
3	23+89-L-	BRIDGE *						< 0.01				
4	24+13 to 24+53-L-RT	ROADWAY FILL	< 0.01		< 0.01	< 0.01						
TOTALS*:			< 0.01		< 0.01	0.02			< 0.01	0	0	0

*Rounded totals are sum of actual impacts

NOTES:

* 11 square feet (0.0003 ac) for 8 piers

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 REV 10-31-2019
 ONSLOW COUNTY
 B-5626
 45581.3.1