

Type II A Categorical Exclusion Action Classification Form

STIP Project No.	B-4593
WBS Element	38422.1.2
Federal Project No.	0055071

A. Project Description:

The proposed project involves replacing Bridge No. 38 on NC 55 over Trent Creek in Merritt, North Carolina. NC 55 is classified as a major collector, travels east-west through Pamlico County and serves as the primary Hurricane Evacuation Route in the area, connecting the coastal Town of Oriental with the destinations inland. The project is between SR 1322 (North Trent Road) and SR 1335 (Gibbtown Road) in Pamlico County. See Figure 1 and Figure 2 for vicinity map and project study area as well as the attached plan sheets. The project is included in the 2020-2029 State Transportation Improvement Program (STIP) and is federally funded.

B. Description of Need and Purpose:

The purpose of the proposed project is to replace a functionally obsolete bridge, which has previously been considered structurally deficient per past bridge inspection reports.

Bridge No. 38 is 145 feet long with a deck roadway width of 28 feet. The bridge has an asphalt wearing surface over a reinforced concrete floor on steel I-beams. The substructure consists of reinforced concrete caps and precast prestressed concrete (PPC) piles. The bridge was built in 1960.

NCDOT Bridge Management Unit - Bridge Inspection Report, dated March 10, 2021, indicates that Bridge No. 38 is not considered structurally deficient due to ratings on the deck, superstructure, and substructure condition being 5 or more out of 9. The bridge does not have a posted weight limit. However, the Bridge Inspection Report, dated September 2017, indicated that Bridge No. 38's substructure condition rated 4 out of 9. Maintenance was done to strengthen the substructure. With time, the bridge condition will continue to deteriorate and need additional maintenance to keep the bridge safe for motorists.

Bridge No. 38 is considered functionally obsolete due to its narrow width and cannot adequately service today's traffic. It has a clear roadway width of 28 feet. The replacement bridge will increase the width by 4 feet to a total roadway clearance of 32 feet to allow for bicycle use outside of the travel lanes. The project is located along an existing Regional Bicycle Route identified in the Pamlico Comprehensive Transportation Plan 2012 and Croatan Regional Cycle and Trails Plan. Increasing the width of the bridge will allow for safer mobility of bicyclists and motorist.

C. Categorical Exclusion Action Classification:

Type II(A)

This project qualifies as a Type II(A) CE due to 23 CFR 771.117(d)(13), which states, "(13) Actions described in paragraphs (c)(26), (c)(27), and (c)(28) of this section that do not meet the

constraints in paragraph (e) of this section”. Because none of the impact thresholds are met, this project qualifies as a Type II(A) and FHWA approval is not needed.

The constraints not met in 23 CFR 771.117(e)(1-6) that result in the processing of this Type II(A) CE under 23 CFR 771.117(d)(13), is due to the may affect, likely to adversely affect determination for the Northern long-eared bat (NLEB):

(3) A finding of “adverse effect” to historic properties under the National Historic Preservation Act, the use of a resource protected under 23 U.S.C. 138 or 49 U.S.C. 303 (section 4(f)) except for actions resulting in *de minimis* impacts, or a finding of “may affect, likely to adversely affect” threatened or endangered species or critical habitat under the Endangered Species Act.

D. Proposed Improvements:

The replacement structure will be a bridge approximately 160 feet long with a 32-foot clear deck width. The bridge will include two 12-foot lanes with 4-foot offsets on each side. The roadway grade of the new structure will be approximately the same as the existing structure.

The approaches will extend approximately 410 feet from the west end of the new bridge and 430 feet from the east end of the new bridge. The approaches will be widened to include a 32-foot pavement width, providing two 12-foot lanes and 4-foot paved shoulders on both sides.

The new bridge will be constructed on the current alignment with minimal changes to the approaching roadway. A temporary on-site detour, on the south side, will be utilized to maintain traffic during construction. The temporary on-site detour will be approximately 1,450 feet long (including a 140-foot temporary bridge) and will provide two 11-foot lanes, with 4-foot shoulders.

The roadway will be designed as a Rural Major Collector using American Association of State Highway and Transportation Officials (AASHTO) guidelines with a 60-mile per hour design speed. There are no design exceptions for this project.

E. Special Project Information:

Schedule:

Construction is scheduled for July 19, 2022.

Costs:

Cost estimates for the project are as follows:

Right of Way Acquisition: \$ 596,000

Construction and Utilities: \$5,100,000

Total: \$5,696,000

Traffic:

The estimated traffic volumes on N.C. 55 within the project study area are as follows:

Average Daily Traffic (ADT) 2019 = 5,576 vehicles per day (VPD)

ADT 2040 = 8,600 VPD

Tractor Trailer Semi-truck (TTST) = 2%

Dual Axle Truck (Dual) = 7%

Pedestrian and Bicycle Accommodations:

The proposed project is located along an existing Regional Bicycle Route (around Pamlico Sound loop route) identified in both the Pamlico Comprehensive Transportation Plan and the Croatan Regional Bicycle and Trails Plan. The NCDOT Division of Bicycle and Pedestrian Transportation recommended minimum 5-foot offsets on both sides of the bridge, continuing as paved shoulders for at least 100 feet on either side of the bridge, as well as 54-inch bicycle safe railings. At the recommendation of NCDOT in April 2015, the offsets will be 4 feet on the bridge and bike safe railing, with 4-foot paved shoulders continuing beyond the bridge to provide adequate room for bicycle use.

Bridge Demolition:

Bridge No. 38 includes a substructure composed of PPC piles with reinforced concrete caps and a superstructure composed of an asphalt wearing surface over a reinforced concrete floor on steel I-beams. All remnant piles from the existing bridge or previous bridges will be removed from Trent Creek during construction of this project. In the event that a pile cannot be removed completely, the pile shall be cutoff at the mud line. Removal of the current bridge should be possible with no resulting debris in the water based on standard demolition practices.

Jurisdictional Impacts:

Coastal wetlands and a stream (Trent Creek) located in the project study area will be impacted by construction activities. The impacts reported below are included in the permit applications revised on March 25, 2019 and July 9, 2019.

Trent Creek

Temporary fill: <0.01 acre

Permanent fill: <0.01 acre

Permanent in existing channel: 8 feet

Temporary in existing channel: 13 feet

Wetlands

Temporary fill: 0.15 acre

Permanent fill: 0.09 acre

Hand clearing: 0.97 acre (0.32 acre + 0.65 acre for utilities)

Excavation: 0.02 acre for utilities

Buffers

Neuse River Riparian Buffer Rules apply to Trent Creek, wetlands and utility relocations. Impacts are allowable for road crossings and are totaled below.

Trent Creek :

Zone 1 : 1,796 ft²

Zone 2 : 1,253 ft²

Total : 3,049 ft²

Wetlands :

Zone 1 : 619 ft²

Zone 2 : 462 ft²

Total : 1,081 ft²

Utility Relocation :
Zone 1 : 2,092 ft²
Zone 2 : 1,392 ft²
Total : 3,484 ft²

US Coast Guard – Section 10 Navigable Waters:

Trent Creek is designated by the USACE as a Navigable Water under Section 10 of the Rivers and Harbors Act. On April 12, 2022, the US Coast Guard determined that a bridge permit is not required for this project. The project is placed in the Advance Approval category as per Title 33 Code of Federal Regulations Part 115.70. The Advance Approval determination is valid for five years.

Community Impacts:

The project will not displace any residences or businesses. Construction work occurs mostly within existing NCDOT right of way since the bridge will be replaced at its existing location. Rather than a 27-mile off-site detour, an on-site detour is proposed to the south side of the existing bridge. Per input from the Pamlico County School Transportation Director on April 8, 2022, there are eight school bus crossings of the bridge on a typical school day. Construction during the summer months, outside of the traditional school calendar, is preferable.

Environmental Justice and Limited English Proficiency:

The American Community Survey data from 2015-2019 was used to assess populations related to minority, poverty, and Limited English Proficiency (LEP). There are no block groups (BG) within the Demographic Study Area (DSA) that meet the criteria for minority populations over 50% or more than 10 percentage points above the county average. There is one block group (CT9502.01, BG 1) that meets the criteria for poverty levels over 25% or more than 5 percentage points over the county average. No block groups meet the US Department of Justice LEP Safe Harbor threshold within the DSA.

No notably adverse community impacts are anticipated with this project and no Environmental Justice populations appear to be affected; thus, impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community, and no denial of benefit is expected. No disparate impacts are anticipated under Title VI and related statutes.

Cultural Resources:

Tribal Coordination: A coordination letter along with the results of the archaeological survey were mailed to the Catawba Indian Nation on May 3, 2022. No comments were received to date.

Historic Architecture: On May 9, 2022, the NCDOT Architectural Historian concluded the study for Historic Architecture and Landscapes with a finding of “No Survey Required.”

Archaeology: On April 1, 2015, and reconfirmed on April 28, 2022, the NCDOT Archaeologist concluded the archaeological survey and evaluation with a finding of “No National Register of Historic Places Eligible or Listed Archaeological Sites Present or Affected.”

Public Involvement:

On February 3, 2015, landowner notification letters were sent to all property owners affected directly by this project. Property owners were invited to comment. No comments were received.

Postcards were mailed to adjacent property owners on May 4, 2022 to solicit comments and concerns prior to construction. No comments were received to date.

Geoenvironmental Findings:

On May 17, 2018, the NCDOT GeoEnvironmental Unit determined that there are no known sites of environmental concern.

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)			
PROJECT IMPACT THRESHOLDS (FHWA signature required if any of the questions 1-7 are marked “Yes”.)			
		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any question 8-31 is checked “Yes” then additional information will be required for those questions in Section G.			
Other Considerations		Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Does the project impact Waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations for Type I and II Ground Disturbing Actions (continued)</u>		Yes	No
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F (ONLY for questions marked 'Yes'):

Response to Question #8:

In March 2015, the US Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) listed eight federally protected species for Pamlico County. Field surveys for each species and their habitat were completed in June 2015 and documented in the Natural Resources Technical Report (June 2015). Although some habitat for the federally endangered rough-leaved loosestrife (*Lysimachia asperulaefolia*) and red-cockaded woodpecker

(*Picoides borealis*) were determined to be suitable, no species were found. No habitat was found suitable for the Red knot (*Calidris canutus rufa*) and Kemp's ridley sea turtle (*Lepidochelys kempii*).

Recent field surveys in July 2021 also found habitat but no species for the rough-leaved loosestrife and bald eagle (*Haliaeetus leucocephalus*). No habitat was found for the red-cockaded woodpecker. Field surveys in May 2022 found that habitat is present for the Eastern black rail (*Laterallus jamaicensis spp. jamaicensis*), which was added to the USFWS threatened species list; however, no species were found. NCDOT determined that the biological conclusion for the black rail is **May Affect, Not Likely to Adversely Affect**.

The NC Natural Heritage Program dataset in April 2022 notes that Atlantic sturgeon and Shortnose sturgeon were found within one mile of the project study area. NCDOT determined that the biological conclusion for the sturgeon is **May Affect, Not Likely to Adversely Affect**. A construction moratorium for anadromous fish passage will be in effect from February 15 to June 30.

The USFWS has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the USACE, and NCDOT for the NLEB (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this programmatic covers Divisions 1-8, NLEBs are currently only known in 22 counties, but may potentially occur in 8 additional counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 current known/potential counties shown on Figure 2 of the PBO at this time. The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely Affect**. The PBO will ensure compliance with Section 7 of the Endangered Species Act for ten years (effective through December 31, 2030) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Pamlico County, where B-4593 is located.

The West Indian manatee (*Trichechus manatus*) has a biological conclusion of **May Affect, Not Likely to Adversely Affect**. Trent Creek within the study area is a large, brackish creek which flows into the Bay River. West Indian manatees may inhabit Trent Creek. A review of North Carolina Natural Heritage Program records dated January 2015 show that West Indian manatees have been documented within 1 mile of the study area. The NC Department of Transportation will adhere to recommendations listed in the USFWS publication *Guidelines for Avoiding Impacts to the West Indian Manatee – Precautionary Measures for Construction Activities in North Carolina Waters* (USFWS 2003) during construction. Adherence to these recommendations will minimize the likelihood of adverse effects to this species. For this reason, project implementation is not likely to adversely affect this species.

Response to Question #9:

Trent Creek has been identified by the NC Wildlife Resource Commission (WRC) as anadromous fish habitat. As a result, a construction moratorium will be in effect from February 15 to June 30.

Response to Question #10:

Streamside riparian buffer zones along Trent Creek are protected under provisions of the Neuse River Buffer Rules administered by DWR.

Response to Question #17:

Two Coastal Area Management Act (CAMA) Areas of Environmental Concern (AEC) were identified in the study area. Trent Creek is a designated Public Trust Water, and CAMA coastal marsh is present. A CAMA Major permit from the North Carolina Division of Coastal Management (DCM) will be required for all impacts to designated AECs within the study area.

Response to Question #30:

A large portion of the study area contains unfarmable, mucky soils typical of a swampy ecosystem. However, on the edges of the study area, there are some prime farmland (if drained) and statewide important soils further away from the bridge location at Trent Creek. There are no Voluntary Agricultural Districts (VADs) in project study area. Right of way impacts would result in a minor amount of conversion of farmland soils to a non-farm use adjacent to the roadway.

A preliminary screening of farmland conversion impacts in the project area has been completed (NRCS Form AD-1006 for point projects) and a total score of 45 out of 160 points was calculated for the B-4593 project site. Since the total site assessment score does not exceed the 60-point threshold established by NRCS, farmland conversion impacts may be anticipated, but are not considered notable.

Project Commitments

Replacement of Bridge No. 38 on NC 55 over Trent Creek
Pamlico County, North Carolina
Project No. B-4593
WBS No. 38422.1.2
FA Project No. 0055071

Current status and updates to the project commitments are shown in *italics*.

Bicycle Route - Roadway Design Unit, Structures Management Unit, Bicycle and Pedestrian Division

The proposed project is located along an existing Regional Bicycle Route (around Pamlico Sound loop route) identified in both the Pamlico Comprehensive Transportation Plan 2012 and the Croatan Regional Bicycle and Trails Plan. The proposed project includes 4-foot, 8.5-inch offsets, between the outside of the travel lane and the bridge rail parapet, on the bridge structure. A variable width (4 to 8-foot) paved shoulder, which extends approximately 410 feet from the west end of the bridge and 430 feet from the east end of the bridge, also can accommodate bicycles. The structure will provide two-bar metal railing, as appropriate for bicycle use. *NCDOT agreed to accommodate 4-foot shoulders on the bridge for bicyclists.*

United States Coast Guard (USCG) Notification - Division 2 Construction Office

NCDOT must notify the USCG office at least 30 days in advance of the start of construction and any other work which may be an obstruction to navigation, so we may issue and update the information in our Local Notice to Mariners and monitor the project. The notice should include details of the project; dates and hours of operation; and vessels, barges and equipment to be used during the project.

At no time during the project will the waterway be closed to navigation without the prior notification and approval of the Coast Guard at (910) 772-2230. The lowest portion of the superstructure of the bridge across the waterway should clear the 100-year flood height elevation.

Neuse River Riparian Buffer Rules – Environmental Coordination and Permitting Unit

The Neuse River Buffer Rules apply to this project.

Construction Moratorium - Division 2 Construction Office

Trent Creek has been identified by the NC Wildlife Resources Commission as anadromous fish habitat. As a result, a construction moratorium will be in effect from February 15 to June 30 of any given year.

West Indian Manatee - Division 2 Construction Office

Suitable habitat for the West Indian manatee exists in the study area. A review of NCNHP records on May 10, 2022, indicates that there are known West Indian manatee occurrences within 1.0 mile of the study area. Construction activities will adhere to the recommendations outlined in *Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters* (2003 USFWS).

Bridge Removal - Division 2 Construction Office

All remnant piles from the existing bridge or any previous bridges will be removed from Trent Creek during construction. In the event that piles cannot be removed completely, the pile will be cut off at the mud line.

COMMITMENTS FROM PERMITTING

No new commitments were developed during permitting.

Categorical Exclusion Approval:

STIP Project No.	<u>B-4593</u>
WBS Element	<u>38422.1.2</u>
Federal Project No.	<u>0055071</u>

Prepared By:

6/3/2022	DocuSigned by: <i>Elizabeth Workman</i>
<u>Date</u>	<u>336F686D2AF431...</u> Elizabeth Workman, Senior Transportation Planner Three Oaks Engineering

Prepared For:

NCDOT Structures Management Unit

Reviewed By:

6/6/2022	DocuSigned by: <i>Collin Mellor</i>
<u>Date</u>	<u>33883E5FFD0F44D3...</u> Collin Mellor NCDOT Environmental Policy Unit Eastern Team Lead

- Approved**
 - If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.
- Certified**
 - If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
 - If classified as Type III Categorical Exclusion.

6/6/2022	DocuSigned by: <i>Kevin Fischer</i>
<u>Date</u>	<u>ED19A18D98EC496...</u> Kevin Fischer, PE NCDOT SMU Assistant State Structures Engineer

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

<u>Date</u>	<u>N/A</u> for John F. Sullivan, III, PE, Division Administrator Federal Highway Administration
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NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS

**VICINITY MAP
REPLACE BRIDGE NO. 38
ON NC 55
OVER TRENT CREEK**

PAMLICO COUNTY
NORTH CAROLINA

County:	PAMLICO
Div: 2	STIP# B-4593
WBS:	38422.1.1
Date:	APRIL 2022

**Figure
1**



NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS

**STUDY AREA MAP
REPLACE BRIDGE NO. 38
ON NC 55
OVER TRENT CREEK**

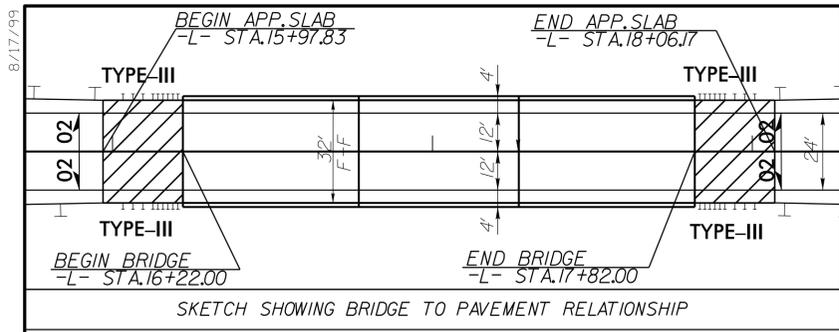
PAMLICO COUNTY
NORTH CAROLINA

County:	PAMLICO
Div: 2	STIP# B-4593
WBS:	38422.1.1
Date:	APRIL 2022

**Figure
2**

PROJECT REFERENCE NO. B-4593		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

FOR PROFILE, SEE SHEET 8
FOR ONSITE DETOUR, SEE SHEET 6



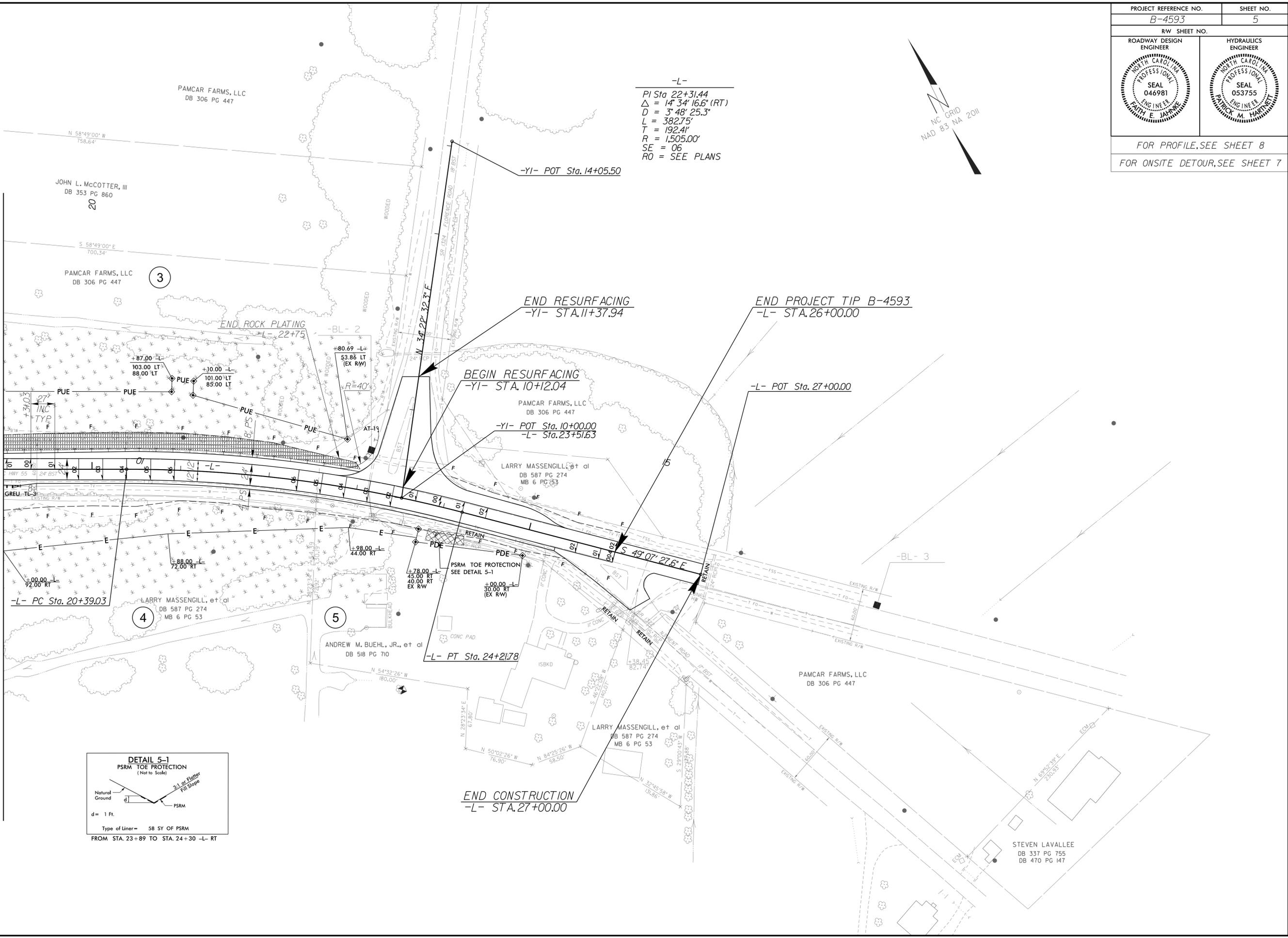
-L-
PI Sta 11+90.14
 $\Delta = 2' 46'' 17.6'' (LT)$
 $D = 0' 43'' 44.2''$
 $L = 380.21'$
 $T = 190.14'$
 $R = 7,860.00'$
SE = RC
RO = 54'



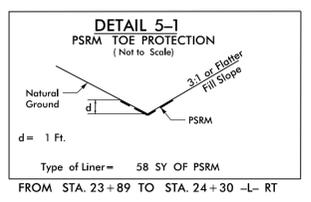
MATCHLINE -L- STA 19 + 00.00 (SEE SHEET 5)

PROJECT REFERENCE NO. <i>B-4593</i>	SHEET NO. <i>5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
FOR PROFILE, SEE SHEET 8	
FOR ONSITE DETOUR, SEE SHEET 7	

MATCHLINE -L- STA 19+00.00 (SEE SHEET 4)



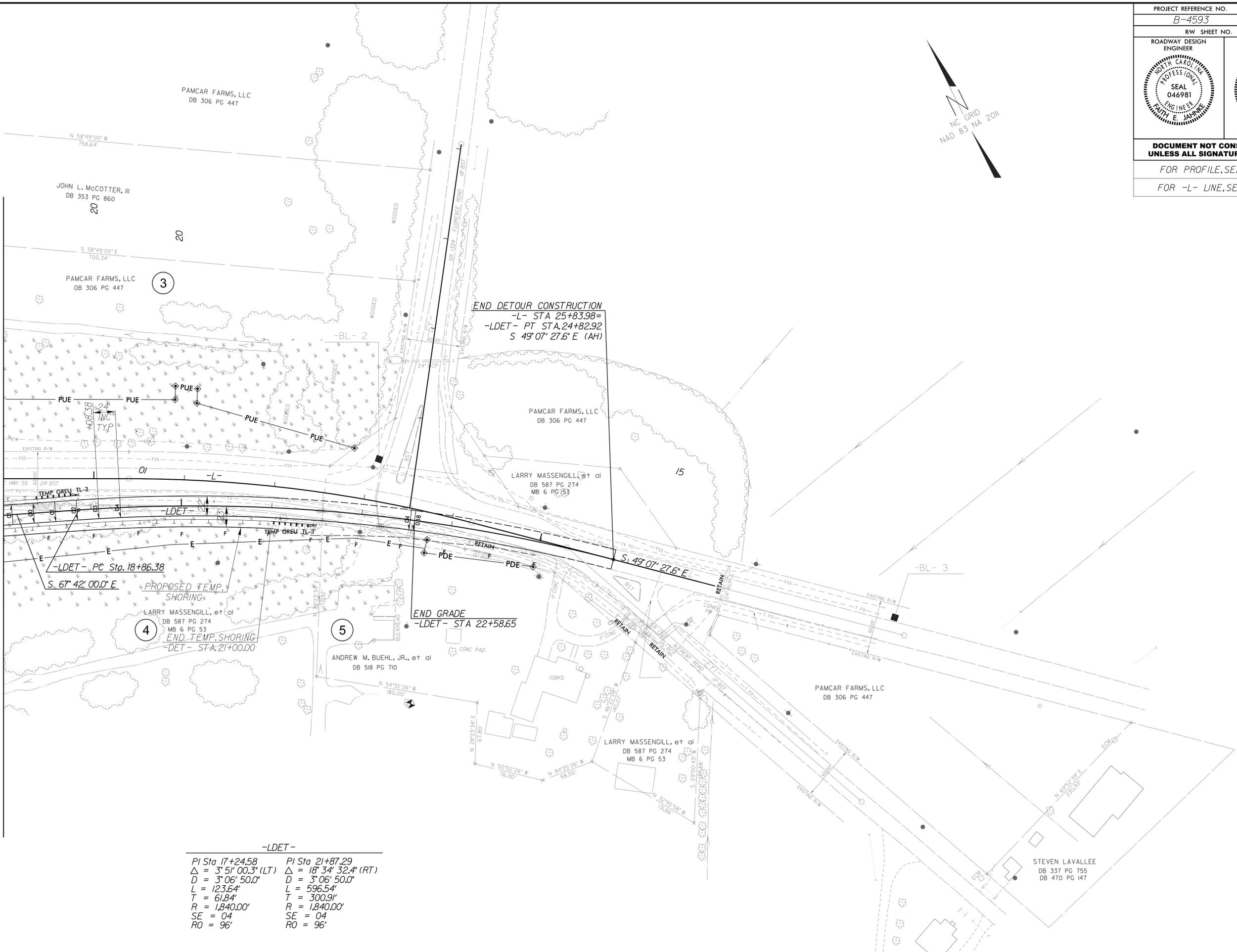
-L-
 PI Sta 22+31.44
 $\Delta = 14^{\circ}34'16.6"$ (RT)
 $D = 3^{\circ}48'25.3"$
 $L = 382.75'$
 $T = 192.41'$
 $R = 1,505.00'$
 $SE = 06$
 $RO = \text{SEE PLANS}$



8/17/99

PROJECT REFERENCE NO. B-4593	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
FOR PROFILE, SEE SHEET 9	
FOR -L- LINE, SEE SHEET 5	

MATCHLINE -L- STA 19 + 00.00 (SEE SHEET 6)



-LDET-	
PI Sta 17+24.58	PI Sta 21+87.29
$\Delta = 3^{\circ} 51' 00.3''$ (LT)	$\Delta = 18^{\circ} 34' 32.4''$ (RT)
$D = 3^{\circ} 06' 50.0''$	$D = 3^{\circ} 06' 50.0''$
$L = 123.64'$	$L = 596.54'$
$T = 61.84'$	$T = 300.91'$
$R = 1,840.00'$	$R = 1,840.00'$
$SE = 04'$	$SE = 04'$
$RO = 96'$	$RO = 96'$

25-APR-2022 11:27
235833_Roadsh..._det.dgn
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