



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

October 27, 2022

Addendum No. 1

RE: Contract # C204554

WBS # 46032.3.2

FEDERAL-AID NO. BRZ-2044(4)

Wake Counties (B-5318)

BRIDGE #126 OVER SMITH'S CREEK ON SR-2044 (LIGON MILL RD) IN WAKE FOREST

November 15, 2022 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Structures plans.

Sheet No.	Revision
S-1	Revised to show the temporary work bridge location.
S-3 (New)	"Pile and Drilled Pier Foundation Tables" plan sheet added.

Please void the above listed existing Sheet in your plans and staple the revised Sheet thereto. Staple New Sheet S-3 after existing Sheet S-2 in your plans.

The following revisions have been made to the proposal.

Page No.	Revision
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 10-27-2022".
Table of Contents	Revised to show "Mandatory Pre-Bid Conference" provision.
G-43 thru G-44	Project Special Provision entitled "Mandatory Pre-Bid Conference" provision added.
ST-1 thru ST-3	Unit Project Special Provision entitled STRUCTURES was revised. Structures provision entitled "CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STA. 19+73.00 -L-" was revised to add "Temporary Rock Causeway (Workpad)" section.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT
1591 MAIL SERVICE CENTER
RALEIGH, NC 27699-1591

Telephone: (919) 707-6900
Fax: (919) 250-4127
Customer Service: 1-877-368-4968

Location:
1020 BIRCH RIDGE DR.
RALEIGH, NC 27610

Website: www.ncdot.gov

Please void the above listed existing Pages in your proposal and staple the revised Pages thereto.

Staple New Pages G-43 thru G-44 after existing G-42 in your proposal.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

F81B6038A47A442...

Ronald E. Davenport, Jr., PE
State Contract Officer

RED/cms
Attachments

cc: Mr. Boyd Tharrington, PE
Mr. Brandon H. Jones, PE
Mr. Ken Kennedy, PE
Mr. Jon Weathersbee, PE
Mr. Mike Gwyn
Project File (2)

Mr. Forrest Dungan, PE
Ms. Jaci Kincaid
Ms. Penny Higgins
Ms. Lori Strickland

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No.1 DATED 10-27-2022

DATE AND TIME OF BID OPENING: **Nov 15, 2022 AT 02:00 PM**

CONTRACT ID C204554
WBS 46032.3.2

FEDERAL-AID NO. BRZ-2044(4)
COUNTY WAKE
T.I.P NO. B-5318
MILES 0.365
ROUTE NO. SR-2204
LOCATION BRIDGE #126 OVER SMITH'S CREEK ON SR-2044 (LIGON MILL RD) IN WAKE FOREST.

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

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MANDATORY PRE-BID CONFERENCE (Prequalifying To Bid):

(7-18-06) (Rev. 3-25-13)

SPD 01-300

In order for all prospective bidders to have an extensive knowledge of the project, all prospective bidders shall attend a mandatory pre-bid conference on November 3, 2022 at 9:00 a.m.

Chief Engineer's Conference Room
4809 Beryl Road
Raleigh, NC 27606

OR

Virtual Meeting on Microsoft Teams
Phone Number: [\(984\)-204-1487](tel:984-204-1487) Phone Conference ID: 923 896 159#

Microsoft Teams meeting:

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 296 783 335 25

Passcode: REk57M

[Download Teams](#) | [Join on the web](#)

Join with a video conferencing device

ncgov@m.webex.com

Video Conference ID: 114 834 772 2

[Alternate VTC instructions](#)

Please contact Cameron Richards at crichards@ncdot.gov at 919-835-8228 or Lisa Gilchrist at labullard-gilchrist@ncdot.gov at 919-317-4700 for any further questions.

The pre-bid conference will include a thorough discussion of the plans, contract pay items, special provisions, etc. Only bidders who have attended and properly registered at the above scheduled pre-bid conference and who have met all other prequalification requirements will be considered prequalified to bid on this project. A bid received from a bidder who has not attended and properly registered at the above scheduled pre-bid conference will not be accepted and considered for award.

Attendance at the pre-bid conference will not meet the requirements of proper registration unless the individual attending has registered at the pre-bid conference in accordance with the following:

- (A) The individual has signed his name on the official roster no later than thirty (30) minutes after the above noted time for the beginning of the conference.
 - The Division staff will take the name, company, e-mail address and phone number of the individual's attending remotely. The names and their company name should be read aloud, and the meeting recorded.
- (B) The individual has written in the name and address of the company he or she represents.
- (C) Only one company has been shown as being represented by the individual attending.
- (D) The individual attending is an officer or permanent employee of the company they are representing.

Attendance at any prior pre-bid conference will not meet the requirement of this provision.

B-5318

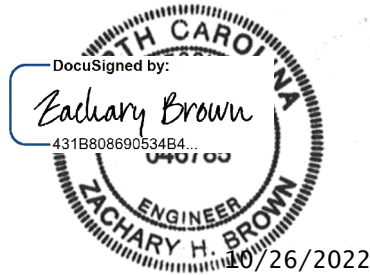
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Wake County

Project Special Provisions
Structures

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B-5318**ST-2****Wake County****CONSTRUCTION, MAINTENANCE AND REMOVAL
OF TEMPORARY ACCESS AT STATION 19+73.00 -L-****(12-12-13)****1.0 GENERAL**

Construct, maintain, and remove the temporary access required to provide the working area necessary for construction of the new bridge, construction of the temporary detour structure, or for the removal of an existing bridge, as applicable. Temporary access may involve the use of a rock causeway [workpad], a work bridge, or other methods; however, all types of temporary access are required to meet the requirements of all permits, the Standard Specifications, and this Special Provision.

2.0 TEMPORARY ROCK CAUSEWAY [WORKPAD]

At the contractor's option, construction of a temporary rock causeway [workpad] within the limits shown on the plans is permitted. Build the causeway [workpad] with Class II riprap topped by a layer of Class B riprap or as otherwise designated on the plans or approved by the Engineer. If desired, recycle the Class II riprap used in the causeway [workpad] for placement in the final riprap slope protection as directed by the Engineer. No payment will be made for recycled riprap as this material is considered incidental to the causeway [workpad] placement and removal. If this option is exercised, no adjustment in contract bid price will be allowed due to an underrun in the quantity of "Rip Rap Class II (2'-0" Thick)".

Completely remove all causeway [workpad] material including pipes and return the entire causeway [workpad] footprint to the original contours and elevations within 90 days of the completion of the deck slab or as otherwise required by permits.

For sites affected by moratoriums or restrictions on in-stream work: Do not construct or remove causeway [workpad] during the moratorium period shown on the permit. If the completion of the deck slab falls within the prohibitive dates for causeway [workpad] construction or removal, begin causeway [workpad] removal immediately following the prohibitive dates.

3.0 TEMPORARY WORK BRIDGE

At the contractor's option, construction of a temporary work bridge in lieu of the causeway(s) [workpad] is acceptable, provided the temporary work bridge satisfies all permits. Submit details of the temporary work bridge to the Engineer prior to constructing the work bridge to ensure conformance with the plans and all permits. Completely remove the temporary bridge prior to final acceptance or as otherwise required by the permits.

B-5318

ST-3

Wake County

4.0 BASIS OF PAYMENT

The lump sum price bid for “Construction, Maintenance and Removal of Temporary Access at Station 19+73.00 -L-” will be full compensation for the above work, or other methods of access, including all material, pipes, work bridge components, equipment, tools, labor, disposal, and incidentals necessary to complete the work.

STEEL REINFORCED ELASTOMERIC BEARINGS

(6-22-16)

The 2018 Standard Specifications shall be revised as follows:

In **Section 1079-2(A) – Elastomeric Bearings** add the following after the second paragraph:

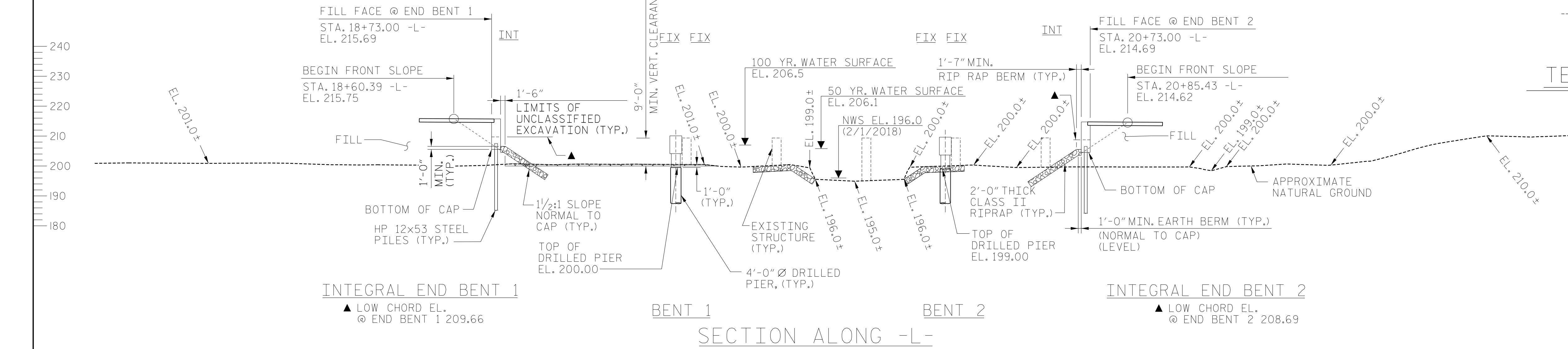
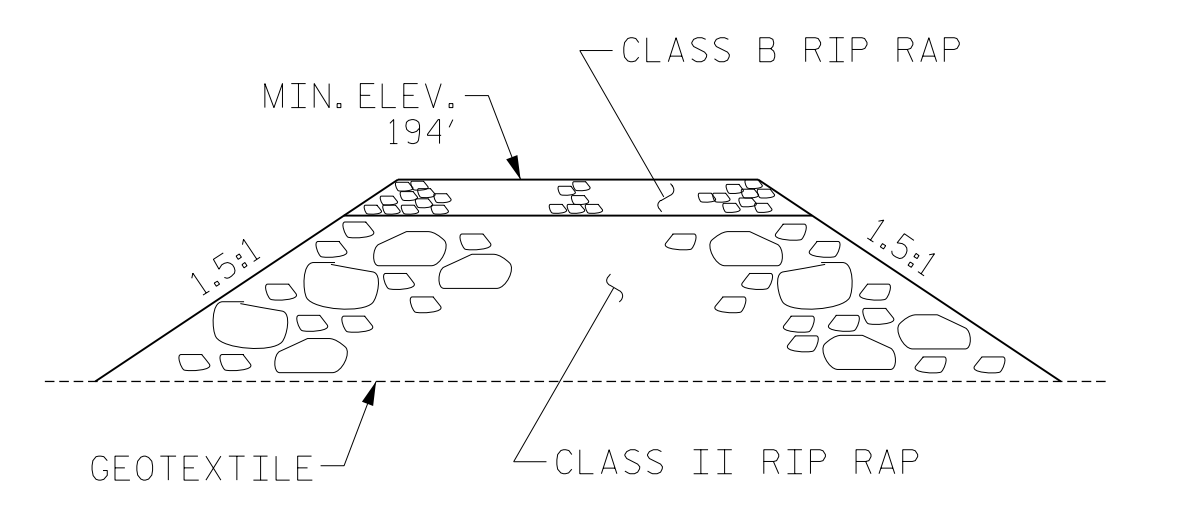
Internal holding pins are required for all shim plates when the contract plans indicate the structure contains the necessary corrosion protection for a corrosive site.

Repair laminated (reinforced) bearing pads utilizing external holding pins via vulcanization. Submit product data for repair material and a detailed application procedure to the Materials and Tests Unit for approval before use and annually thereafter.

18+00 19+00 20+00 21+00 22+00

GRADE DATA -L-
 (-)6.500% Δ (+)0.500%
 P.I. STA. = 13+20.00
 ELEV. = 218.45'
 VC = 385'

GRADE DATA -L-
 (-)0.500% Δ (+)5.955%
 P.I. STA. = 24+60.00
 ELEV. = 212.75'
 VC = 415'



HYDRAULIC DATA

DESIGN DISCHARGE	= 5,370 CFS
FREQUENCY OF DESIGN FLOOD	= 50 YR.
DESIGN HIGH WATER ELEVATION	= 206.1
DRAINAGE AREA	= 21.4 SQ.MI.
BASE DISCHARGE (Q100)	= 5,970 CFS
BASE HIGH WATER ELEVATION	= 206.5

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 30,400 CFS
FREQUENCY OF OVERTOPPING FLOOD	= +500 YR.
OVERTOPPING FLOOD ELEVATION	= 217.0

CURVE DATA -L-

P.I. STA. = 13+71.03	P.I. STA. = 24+07.43
Δ = 19°03'10.3"(LT.)	Δ = 18°28'01.3"(RT.)
D = 6°01'52.1"	D = 6°11'14.8"
L = 315.91'	L = 298.46'
T = 159.43'	T = 150.54'
R = 950.00'	R = 926.00'

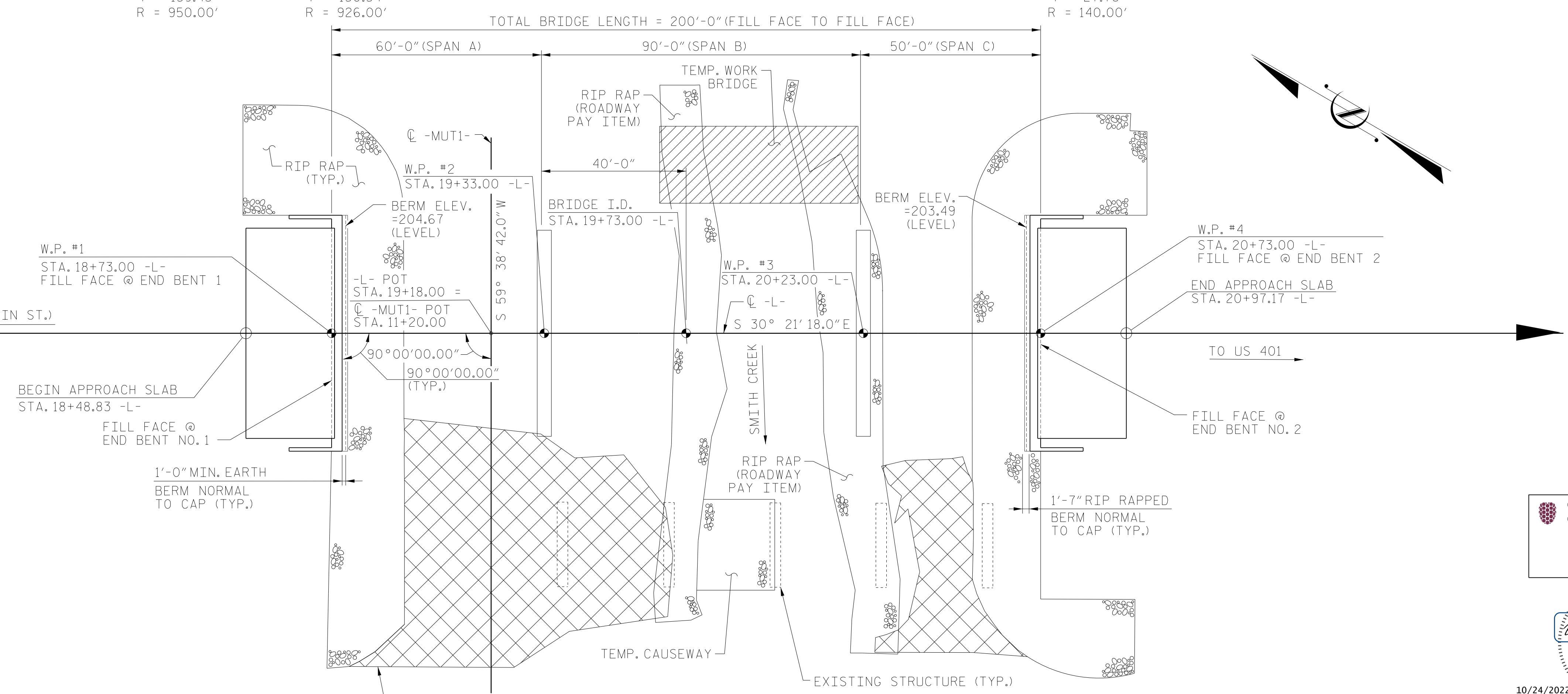
CURVE DATA -MUT1-

P.I. STA. = 9+71.28
Δ = 22°25'55.1"(RT.)
D = 40°55'32.0"
L = 54.81'
T = 27.76'
R = 140.00'

KEY

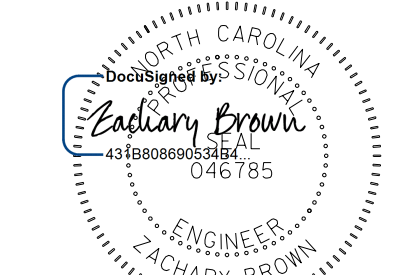
UNCLASSIFIED STRUCTURE EXCAVATION

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS



DRAWN BY: E. JONES DATE: JUNE 21
 CHECKED BY: P. O'NEILL DATE: JUNE 21
 DESIGN ENGINEER OF RECORD: Z. BROWN DATE: JUNE 21

Dewberry
 2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC COA No. F-0929



10/24/2022

PROJECT NO. B-5318
 WAKE COUNTY
 STATION: 19+73.00 -L-
 SHEET 1 OF 3 REPLACES BRIDGE NO. 910126

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 FOR BRIDGE ON SR 2044
 OVER SMITH CREEK
 BETWEEN SR 1114 AND US 401

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			41
2			4			41

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SUMMARY OF PILE INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #-# (e.g., "Bent 1, Piles 1-5")	Factored Resistance per Pile TONS	Pile Cut-Off (Top of Pile) Elevation FT	Estimated Pile Lenth per Pile FT	Scour Critical Elevation FT	Driven Piles			Predrilling for Piles*			Drilled-In Piles		
					Min Pile Tip (Tip No Higher Than) Elev FT	Required Driving Resistance (RDR)** per Pile TONS	Total Pile Redrives Quantity EACH	Predrilling Length per Pile Lin FT	Predrilling Elevation (Elev Not To Predrill Below) FT	Maximum Predrilling Dia INCHES	Pile Excavation (Bottom of Hole) Elev FT	Pile Exc Not In Soil per Pile Lin FT	Pile Exc In Soil per Pile Lin FT
End Bent 1, Piles 1-10	110	207.51	40			150							
End Bent 2, Piles 1-10	110	206.51	30			150							

*Predrilling for Piles is required for end bents/bents with a predrilling length and at the Contractor's option for end bents/bents with predrilling information but no predrilling length.

**RDR = $\frac{\text{Factored Resistance} + \text{Factored Downdrag Load} + \text{Factored Dead Load}}{\text{Dynamic Resistance Factor}} + \frac{\text{Nominal Downdrag Resistance} + \text{Nominal Scour Resistance}}{\text{Scour Resistance Factor}}$

PILE DESIGN INFORMATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #-# (e.g., "Bent 1, Piles 1-5")	Factored Axial Load per Pile TONS	Factored Downdrag Load per Pile TONS	Factored Dead Load* per Pile TONS	Dynamic Resistance Factor	Nominal Downdrag Resistance per Pile TONS	Nominal Scour Resistance per Pile TONS	Scour Resistance Factor (Default = 1.00)
End Bent 1, Piles 1-10	110			0.75			1.00
End Bent 2, Piles 1-10	110			0.75			1.00

*Factored Dead Load is factored weight of pile above the ground line.

SUMMARY OF DRILLED PIER INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pier(s) #-# (e.g., "Bent 1, Piers 1-3")	Factored Resistance per Pier TONS	Minimum Pier Tip (Tip No Higher Than) Elevation FT	Required Tip Resistance per Pier TSF	Scour Critical Elevation FT	Minimum Drilled Pier Penetration Into Rock per Pier Lin FT	Drilled Pier Length per Pier Lin FT	Drilled Pier Length Not In Soil per Pier Lin FT	Drilled Pier Length In Soil per Pier Lin FT	Permanent Steel Casing Required? YES or MAYBE	Permanent Steel Casing Tip Elevation (Elev Not To Extend Casing Below) FT	Permanent Steel Casing Length* per Pier Lin FT
Bent 1, Piers 1-3	675	145.0	25	180	0.0	55.0	7.0	48.0			
Bent 2, Piers 1-3	675	155.0	20	181	0.0	44.0	11.0	33.0			

*Permanent Steel Casing Length equals the difference between the ground line or top of drilled pier elevation, whichever is higher, and the permanent casing tip elevation.

NOTES:

1. The Pile and Drilled Pier Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Jacob Wessell, P.E., NC PE 030395) on 08-10-2021.
2. Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number of driven piles, i.e., the number of piles with a Required Driving Resistance.
3. The Engineer will determine the need for CSL Testing when these items may be required.

SUMMARY OF PDA/PILE ORDER LENGTHS

(Blank entries indicate item is not applicable to structure)

Pile Driving Analyzer (PDA)				Pile Order Lengths	
End Bent/ Bent No	PDA Testing Required? YES or MAYBE	PDA Test Pile Length FT	Total PDA Testing Quantity EACH	End Bent/ Bent No(s)	Pile Order Length Basis* EST or PDA
End Bent 1, Piles 1-10	MAYBE	45	2		
End Bent 2, Piles 1-10	YES	35			

*EST = Pile order lengths from estimated pile lengths; PDA = Pile order lengths based on PDA testing. For groups of end bents/bents with pile order lengths based on PDA testing, the first end bent/bent no. listed for each group is the representative end bent/bent with the PDA.

SUMMARY OF PILE ACCESSORIES

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #-# (e.g., "Bent 1, Piles 1-5")	Pipe Pile Plates Required? YES or MAYBE	Steel Pile Points			Steel Pile Tips Required? YES
		Pipe Pile Cutting Shoes Required? YES	Pipe Pile Conical Points Required? YES	H-Pile Points Required? YES	
End Bent 1, Piles 1-10				YES	
End Bent 2, Piles 1-10				YES	
TOTAL QTY:				20	

SUMMARY OF DRILLED PIER TESTING

(Blank entries indicate item is not applicable to structure)


End Bent/ Bent No, Pier(s) #-# (e.g., "Bent 1, Piers 1-3")	Standard Penetration Test (SPT) Required? YES or MAYBE	Crosshole Sonic Logging (CSL) Required?*	Total CSL Tube Length (For All Tubes) per Pier Lin FT	Shaft Inspection Device (SID) Required? YES or MAYBE	Pile Integrity Test (PIT) Required? MAYBE
Bent 1, Piers 1-3	YES	MAYBE	226	YES	
Bent 2, Piers 1-3	YES	MAYBE	182	YES	
TOTAL QTY:		3	1224	6	

*CSL Tubes are required if CSL Testing is or may be required. The number of CSL Tubes per drilled pier is equal to one tube per foot of design pier diameter with at least 4 tubes per pier. The length of each CSL Tube is equal to the drilled pier length plus 1.5 ft.

PROJECT NO. B-5318

WAKE COUNTY

STATION: 19+73

	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH			
	PILE AND DRILLED PIER FOUNDATION TABLES			
DocuSigned by: <i>Zachary Brown</i> SIGNATURE	10/26/2022 DATE	REVISIONS		SHEET NO. S-3
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	NO. 1	BY: 3	DATE: 4	TOTAL SHEETS 41