



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

November 1, 2023

MEMORANDUM TO: Division Construction Units
Contract Standards and Development Unit

FROM:  Jason L Dilday ECAP Eastern Region Lead
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Replacement of Bridges 91 and 92 on US
70 over Southwest Prong Slocum Creek in Craven County, Division 2,
TIP: BR-0074.

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Regional General Permit 50	May 25, 2025
NC Division of Water Resources Section 401 Water Quality Certification	General Certification No. 4135 [RGP50]	May 25, 2025
NC Division of Coastal Management Coastal Area Management Act	CAMA Major Development Permit	NA

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:
https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/

PROJECT COMMITMENTS

STIP Project No. BR-0074
Replacement of Bridge Nos. 91 and 92 over
Southwest Prong Slocum Creek on US 70
Craven County
WBS Element 67074.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Project Management Unit

The NCDOT Project Manager will coordinate with NCDOT Work Zone Traffic Control and Integrated Mobility Division to evaluate the necessary level of bicycle/pedestrian access accommodation during construction.

Division 2 Construction

A construction moratorium will be in effect from February 15 to September 30 to protect the Anadromous Fish Spawning Area waters and Primary Nursey Areas upstream of the project.

The USCG must be notified at least 30 days in advance of the start of construction and any other work which may be an obstruction to navigation, so they may issue and update the information in the 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.

Construction activities will adhere to the guidelines outlined in Guidelines for Avoiding Impacts to the West Indian Manatee Precautionary Measures for Construction Activities in North Carolina Waters (2003 USFWS).

At no time during the project will the waterway be closed to navigation without the prior notification and approval of the USCG.

Hydraulics Unit

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of NCDOT's Memorandum of Agreement with the FMP or approval of a conditional Letter of Map revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

GeoEnvironmental Unit

A Phase 1 GeoEnvironmental Report will be complete prior to right-of-way acquisition.

COMMITMENTS FROM PERMITTING

NCDOT Division 2 Construction

CAMA condition #3: In accordance with commitments made by the permittee, four (4) temporary work bridges shall be utilized. To ensure the Southwest Prong of Slocum Creek has adequate passage, the temporary work bridges shall be constructed in phases. Only one (1) temporary work bridge shall be in place at a time, and no more than 50% of the stream channel shall be blocked at a given time, with the exception of the western work bridge in Phase I for Bridge 92, which will block approximately 58% of the stream channel while it is in use.

CAMA condition #4: During construction and demolition, the permittee shall make every attempt to allow the same navigation that is currently possible in the Southwest Prong of Slocum Creek. If this is not possible, then adequate notice shall be provided to the public that navigation will be limited during construction. The notice shall include an estimate of the amount of time that the limited navigation will occur.

NOTE: The permittee is strongly encouraged to coordinate with the N.C. Wildlife Resources Commission (WRC) to post an e-notice on the WRC website, and a sign at the WRC boat ramp, about the potential for temporary navigation closures.

CAMA condition #6: The entrance/exit for vehicles and pedestrians to the Slocum Creek Boating Access Area shall be maintained, and it shall not be used for staging or storage of project materials.

CAMA condition #23: The demolition plan for removal of the existing bridge structure shall be submitted to DCM for review and approval prior to commencement of the demolition activities.

Dilday, Jason L

From: Steffens, Thomas A CIV USARMY CESAW (USA) <Thomas.A.Steffens@usace.army.mil>
Sent: Monday, October 30, 2023 12:42 PM
To: Dilday, Jason L
Cc: Ward, Garcy; Lane, Stephen; Steffens, Thomas A CIV USARMY CESAW (USA)
Subject: [External] RE: BR-0074 Section 404 permit

CAUTION: External email. Do not click links or open attachments unless verified. Report suspicious emails with the Report Message button located on your Outlook menu bar on the Home tab.

Jason,

The Corps has reviewed the history of the project and the changes made to reduce the impacts that were originally proposed. It appears the overall permanent impacts were reduced by 0.003 acre and the temporary impacts increased by 0.13 acres. This increase is due to changing from a proposed rock causeway in open waters to a work bridge configuration that, while higher in numerical impacts, is much better suited for the ecological sensitivity of the landscape position.

The Corps has previously issued a GP-50 and finds this minimal change of impacts as acceptable and will not require formal modification or reissue of the existing permit. As such, you may consider this transmission as an in-field modification to the existing permit and approval of the proposed work as submitted. If your plans change or are modified, please contact this office.

Thomas A Steffens
Regulatory Project Manager
US Army Corps of Engineers
2407 West 5th Street
Washington, NC 27889
(910)-251-4615

We at the U.S. Army Corps of Engineers Regulatory Branch are committed to improving service to our customers. We would appreciate your feedback on how we are performing our duties. Our automated Customer Service Survey is located at:

<https://regulatory.ops.usace.army.mil/customer-service-survey/>

From: Dilday, Jason L <jldilday1@ncdot.gov>
Sent: Thursday, October 26, 2023 1:30 PM
To: Steffens, Thomas A CIV USARMY CESAW (USA) <Thomas.A.Steffens@usace.army.mil>
Cc: Riffey, Deanna <driffey@ncdot.gov>; Turchy, Michael A <maturchy@ncdot.gov>
Subject: [Non-DoD Source] BR-0074 Section 404 permit

Tom,
I wanted to check in with you to see what your thoughts on the current issued GP 50 for the project. After your issuance, design was changed from using a causeway for demolition and construction to work bridges. This changed the impacts slightly over what was originally presented. Below is a table of the changes that Deanna was able to put together.

Issued 404 Permit		Revised Impacts
Perm. Wetland	0.036 ac	0.039 ac
Temp Wetland	0.003 ac	0 ac
Perm. Open Water	0.04 ac	0.04 ac
Temp Open Water	0.07 ac	0.20 ac

The question is if we need a new/modified 404 from you for the project. We are currently holding the permit package and not distributing it until we know how to proceed with the 404 on this. So please let me know how we should proceed.

Thanks,
Jason

Jason L Dilday
ECAP Eastern Regional Team Lead
Environmental Analysis Unit
North Carolina Department of Transportation

919 707 6111 office
252 209 6570 mobile
jldilday1@ncdot.gov

1598 Mail Service Center (Mail)
Raleigh, NC 27699-1598
1000 Birch Ridge Drive (Delivery)
Raleigh, NC 27610



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

Action Id. **SAW-2022-01430** County: **Craven County** U.S.G.S. Quad: **Havelock**

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: **Michael Turchy**
North Carolina Department of Transportation
Address: **Environmental Analysis Unit**
Raleigh NC, 27699-1598

Telephone Number: *********

Size (acres) **5.0** Nearest Town **Havelock**

Nearest Waterway **Southwest Prong Slocum Creek** River Basin **Neuse**

USGS HUC **0302024** Coordinates Latitude: **34.891239**; Longitude: **-76.922501**

Location description: Bridges 91-92 over Slocum Creek, on US-70 in Havelock, Craven County, North Carolina.

Description of projects area and activity: Replace structurally deficient and functionally obsolete bridges on existing location utilizing an onsite detour. This verification authorizes 0.036 acres of permanent wetland impacts, 0.003 acres of temporary wetland impacts and 0.07 acres of temporary open water impacts and 0.04 acres of permanent open water impacts.

Applicable Law: Section 404 (Clean Water Act, 33 USC 1344);
 Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: **GP 50 - NCDOT - Bridge, Road Widening and Interchanges**

SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated March 31, 2023 Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

SAW-2022-01430

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Morehead City, NC, at (252) 808-2808.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Thomas Steffens at (910) 251-4615 or Thomas.A.Steffens@usace.army.mil.**

Corps Regulatory Official:  2023.05.08 15:10:33
-04'00' Date: **May 8, 2023**
Expiration Date of Verification: **May 25, 2025**

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 <https://regulatory.ops.usace.army.mil/customer-service-survey/>

Copy furnished:

SPECIAL CONDITIONS

1. 1. CONSTRUCTION PLANS: All work authorized by this permit must be performed in strict compliance with the attached plans dated originally 03-30-2023, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.

2.UNAUTHORIZED DREDGE OR FILL: Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.

3. MAINTAIN CIRCULATION AND FLOW OF WATERS: Except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.

4. DEVIATION FROM PERMITTED PLANS: The permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Mr. Tom Steffens Regulatory Field Office prior to any active construction in waters or wetlands.

5. WATER CONTAMINATION: All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

6. SILT-FENCING: The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

7. The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated November 6, 2020, contains agreed upon conservation measures for the NLEB. As noted in

the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Applicant: North Carolina Department of Transportation

Michael Turchy

Address: Environmental Analysis Unit

1598 Mail Service Center

Raleigh, NC, 27699-1598

Telephone Number: **
—

Size (acres) **5.0**

Nearest Town Havelock

Nearest Waterway Southwest Prong Slocum Creek

River Basin Neuse

USGS HUC 03020204 Coordinates Latitude: 34.891239; Longitude: -76.922501

Location description: Bridges 91-92 over Slocum Creek, on US-70 in Havelock, Craven County, North Carolina.

Indicate Which of the Following Apply:

A. Preliminary Determination

X There appear to be waters, including 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). 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.

— There appear to be waters, including 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). 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.

— There appear to be waters, including 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., including wetlands, 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 property subject to the permit requirements of 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.
- We recommend you have the waters of the U.S., including wetlands, 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 property have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, unless there is a change in law or our published regulations, may be relied upon for a period not to exceed five years from the date of this notification.
- 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 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 property which are subject to the permit requirements of Section 404 of the Clean Water Act (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.
- 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

SAW-2022-01430

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Copy Furnished:

Action ID Number: SAW-2022-01430

County: Craven County

Permittee: Michael Turchy
North Carolina Department of Transportation

Project Name: NCDOT/ BR-0074 / Bridges 91 and 92 on US 70 over S. Prong / Slocum Creek / Craven County

Date Verification Issued: May 8, 2023

Project Manager: Thomas Steffens

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: Thomas Steffens

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

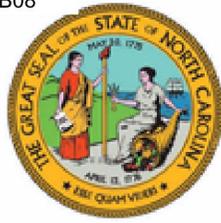
ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA
Environmental Quality

July 27, 2023
Craven County
NCDWR Project No. 20230481
TIP BR-0074

APPROVAL of 401 WATER QUALITY CERTIFICATION with ADDITIONAL CONDITIONS

Mr. Michael Turchy
Environmental Coordination and Permitting
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Mr. Turchy:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing Bridge Nos. 91 and 92 over Southwest Prong Slocum Creek on US 70 in Craven County:

Wetland Impacts in the Neuse River Basin

Site	Wetland Fill Permanent (ac)	Wetland Excavation (ac)	Wetland Hand Clearing (ac)	Total (ac)
1	--	--	0.002	0.002
2	-	0.007	0.006	0.013
3	0.007	--	0.020	0.027
4	0.014	0.002	0.030	0.046
5	0.006	--	0.010	0.016
Total	0.027	0.009	0.068	0.104

Stream and Open Water Impacts in the Neuse River Basin

Site	Stream Permanent (lf)	Stream Temporary (lf)	Open Water Permanent (ac)	Open Water Temporary (ac)
1	88	129	0.04	0.20
Total	217		0.24	

The project shall be constructed in accordance with your application dated received March 30, 2023 and revised permit drawings received July 21, 2023. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 4135. This certification corresponds to the Regional General Permit 201902350 issued by the Corps of Engineers. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed 1/10 acre, or total impacts



to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

Condition(s) of Certification:

1. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
2. Impacts to Neuse Riparian Buffers due to the bridge construction are 'deemed allowable' under 15A NCAC 2B .0714(1)(c), therefore a separate Buffer Authorization is not required.
3. The permittee will need to adhere to all appropriate in-water work moratoria (including the use of pile driving or vibration techniques) prescribed by the NC Wildlife Resources Commission, the National Marine Fisheries Service and the NC Division of Marine Fisheries. No in-water work is permitted between February 15 and September 30 of any year. In addition, the permittee shall conform to the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage" (May 12, 1997) at all times. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium.
4. Adherence to *The Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters* will be required throughout construction.
5. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
6. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
7. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
8. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
9. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
10. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
11. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
12. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
13. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506{b)(3) and (c)(3) and 15A NCAC 02B .0200]



- a. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.
 - b. All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
 - c. For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
 - d. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-1, WS-11, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watershed*. [15A NCAC 02H.0506(b)(3) and (c)(3); GC 4135]
14. Sediment and erosion control measures shall not be placed in wetlands or surface waters or within 5 feet of the top of bank without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]
 15. Erosion control matting in riparian areas shall not contain a plastic or nylon mesh grid which can impinge and entrap small animals. Matting should be secured in place by staples, stakes, or wherever possible live stakes of native trees. Riparian areas are defined as a distance 25 feet from top of stream bank. [15A NCAC 02B.0201]
 16. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands, stream beds, or banks, adjacent to or upstream and downstream of the above structures. All sediment and erosion control devices shall be removed from wetlands and waters and the natural grade restored within two (2) months of the date that the Division of Energy, Mining and Land Resources (DEMLR) or locally delegated program has released the specific area within the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]
 17. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
 18. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) where possible before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the North Carolina Department of Transportation Stormwater Best Management Practices Toolbox manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
 19. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H .0506(b)(3)]
 20. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H.0506(b)(2)]
 21. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H .0506(b)(3)]



22. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
23. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original streambed elevation and streambank contours are restored and maintained and shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)]
24. Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201]
25. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(2)]
26. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
27. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000.
28. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
29. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
30. The NCDOT will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the permit conditions and any potential issues at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
31. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete the "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
32. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.



The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Bill F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This letter completes the review of the Division of Water Resources under Section 401 of the Clean Water Act. If you have any questions, please contact Garcy Ward at (252)948-3917 or garcy.ward@deq.nc.gov.

Sincerely,
DocuSigned by:


4F4DD2F21EA846E...

Richard E. Rogers, Jr., Director
Division of Water Resources

Electronic copy only distribution:

Ton Steffens, US Army Corps of Engineers, Washington Field Office
Jay Johnson, Division 2 Environmental Officer
Chris Rivenbark, RK&K, crivenbark@rkk.com
Garcy Ward, NC Division of Water Resources Washington Regional Office
File Copy



Permit Class
NEW

Permit Number
110-23

STATE OF NORTH CAROLINA
Department of Environmental Quality
and
Coastal Resources Commission

Permit

for

Major Development in an Area of Environmental Concern
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1598

Authorizing development in Craven County at Southwest Prong Slocum Creek, Bridge Nos. 91 and 92 on US 70 as requested in the permittee's application dated 7/24/23, including the attached workplan drawings (34) as referenced in Condition No. 1 of this permit.

This permit, issued on October 6, 2023, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

TIP No. BR-0074, Replacement of Bridge Nos. 91 and 92

- 1) Unless specifically altered herein, all work authorized by this permit shall be carried out in accordance with the following attached workplan drawings:
Wetland and Surface Water Impacts (15 sheets): dated 7/17/23.
Buffer Impacts (2 sheets): 1 dated 7/17/23; and 1 dated 8/14/23
Roadway design drawings (17 sheets): 12 dated 8/11/22; 4 dated 8/12/22; and 1 dated 8/14/23.
- 2) In order to protect fisheries resources within the Southwest Prong of Slocum Creek, no in-water work shall be conducted from February 15 through September 30 of any year without prior approval of the N.C. Division of Coastal Management (DCM), in consultation with the appropriate resource agencies.

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

No expiration date, pursuant to GS 136-44.7B

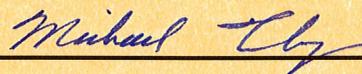
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DEQ and the Chair of the Coastal Resources Commission.



Braxton C. Davis, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

ADDITIONAL CONDITIONS

- 3) In accordance with commitments made by the permittee, four (4) temporary work bridges shall be utilized. To ensure the Southwest Prong of Slocum Creek has adequate passage, the temporary work bridges shall be constructed in phases. Only one (1) temporary work bridge shall be in place at a time, and no more than 50% of the stream channel shall be blocked at a given time, with the exception of the western work bridge in Phase I for Bridge 92, which will block approximately 58% of the stream channel while it is in use.
- 4) During construction and demolition, the permittee shall make every attempt to allow the same navigation that is currently possible in the Southwest Prong of Slocum Creek. If this is not possible, then adequate notice shall be provided to the public that navigation will be limited during construction. The notice shall include an estimate of the amount of time that the limited navigation will occur.

NOTE: The permittee is strongly encouraged to coordinate with the N.C. Wildlife Resources Commission (WRC) to post an e-notice on the WRC website, and a sign at the WRC boat ramp, about the potential for temporary navigation closures.

- 5) The low chord of the authorized temporary work bridges shall match or exceed the low chord of the existing bridge structures and shall not prevent navigation within the Southwest Prong of Slocum Creek.
- 6) The entrance/exit for vehicles and pedestrians to the Slocum Creek Boating Access Area shall be maintained, and it shall not be used for staging or storage of project materials.
- 7) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 8) No attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the authorized work following completion of construction.
- 9) No fill below normal water level is authorized underneath the temporary work bridges except for the footprint of the temporary work bridge pilings.
- 10) In accordance with commitments made by the permittee, bridge deck drains shall not be located over the open waters of the Southwest Prong of Slocum Creek and shall not cause erosion of adjacent wetlands.
- 11) The installation and removal of piles for the new bridges, existing bridges and temporary work bridges shall be accomplished by pile driving and/or the use of a vibratory hammer. Should the permittee and/or its contractor propose to utilize another type of pile installation or removal, such as jetting, additional authorization from DCM shall be required.
- 12) All construction and demolition access shall be through the use of the existing bridges, temporary work bridges, the partially constructed new bridges, barges, and/or existing high ground areas.

ADDITIONAL CONDITIONS

- 13) The existing bridges, including piles, and the temporary work bridges, as well as any remnant structures from previous bridges, shall be removed in their entirety within 90 days after they are no longer needed. However, if this timeframe occurs while the moratorium referenced in Condition No. 2 of this permit is in effect, then the structures referenced in this condition shall be removed in their entirety within 90 days of the moratorium end date.
- 14) In the event that a piling or other component breaks during removal and cannot be removed in its entirety, the piling or other component may be cut off flush with the bed of the water body, and DCM shall be notified of each occurrence within one working day.
- 15) Barges shall be utilized only in areas of sufficient depth such that the barges avoid contact with the bottom and do not rest on the bottom during periods of low tide.
- 16) No excavation or filling shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the areas indicated on the attached workplan drawings, without permit modification.
- 17) All fill material shall be clean and free of any pollutants except in trace quantities.
- 18) All excavated materials shall be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 19) Material excavated at the project site may be used in fill areas associated with the project once properly dewatered or shall be removed from the site and taken to a high ground location.
- 20) The temporary placement and/or double handling of any excavated or fill material within wetlands or waters of the State is not authorized.
- 21) The placement of riprap shall be limited to the areas as depicted on the attached workplan drawings. The riprap material shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete without exposed rebar, and it shall be clean and free from loose dirt or any pollutant except in trace quantities. It shall be of a size sufficient to prevent its movement from the approved alignment by wave action. If the riprap becomes dislodged from the approved alignment at any point in the future, the permittee shall immediately contact DCM to determine the appropriate course of action.
- 22) Uncured concrete or water that has been in contact with uncured concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.
- 23) The demolition plan for removal of the existing bridge structure shall be submitted to DCM for review and approval prior to commencement of the demolition activities.

ADDITIONAL CONDITIONS

- 24) All reasonable efforts shall be made to contain all debris and excess materials associated with the authorized activities, with the intent that materials/debris do not enter wetlands or waters of the State, even temporarily. Any waste materials or debris generated in the authorized activities, shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations are obtained from any relevant state, federal, or local authorities.

Impacts to Wetlands and Waters of the State

NOTE: This project will permanently impact approximately 0.04 acres of 404 Wetlands (0.03 acres due to permanent fill and <0.01 acres due to excavation). This project will temporarily impact approximately 0.07 acres of 404 Wetlands due to hand clearing. This project will permanently impact approximately 0.04 acres of surface waters, and will temporarily impact approximately 0.20 acres of surface waters.

- 25) Wetland areas to be temporarily impacted by hand clearing shall not be grubbed. There shall be no clearing of wetlands outside of the areas indicated for impacts on the attached workplan drawings without prior written approval from DCM.
- 26) Construction mats shall be utilized to support equipment within wetland areas to minimize temporary wetland impacts. The mats shall be removed immediately when they are no longer necessary.
- 27) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable.
- 28) Any voids in wetlands or shallow bottom habitat caused by the removal of the temporary work bridges shall be restored to the elevation of pre-existing conditions with suitable material. The permittee shall notify DCM's Transportation Field Representative in Morehead City to provide DCM with an opportunity to inspect the material for suitability prior to backfilling.

Utility Impacts

NOTE: DCM issued CAMA General Permit No. 78307 on January 10, 2023, authorizing relocation of utility lines for power, telecommunications, water and sewer.

- 29) Any utility work associated with this project that has not been previously authorized by CAMA General Permit No. 78307, shall require approval from DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.

ADDITIONAL CONDITIONS

Sedimentation and Erosion Control

- 30) This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and the N.C. Department of Transportation's (NCDOT's) Memorandum of Agreement with the N.C. Division of Energy, Mineral and Land Resources.
- 31) Turbidity curtains shall be used to isolate all in-water work areas from the adjacent waters of the Southwest Prong of Slocum Creek, including but not limited to pile installation, pile removal, and removal of remnant structures from previous bridges. The turbidity curtains shall encircle the immediate work area, however they shall not impede navigation, and shall be of sufficient length and effectiveness to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels.
- 32) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

General

- 33) In order to protect the endangered West Indian Manatee, *Trichechus manatus*, the permittee shall implement the U.S. Fish & Wildlife Service's Guidelines, and strictly adhere to all requirements therein. The guidelines can be found at <https://www.fws.gov/raleigh/pdfs/ManateeGuidelines2017.pdf>.
- 34) The permittee shall exercise all available precautions during construction, operation, and maintenance of the bridges and adjacent roadway to prevent waste from entering the adjacent waters and wetlands.
- 35) Development authorized by this permit shall only be conducted on lands owned by NCDOT and/or its right-of-ways and/or easements. Utility work associated with this project shall only be conducted on lands owned by the utility and/or its right-of-ways and/or easements.
- 36) If it is determined that additional permanent and/or temporary impacts are necessary that are not shown on the attached workplan drawings or described in the authorized permit application, a permit modification and/or additional authorization from DCM may be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification.
- 37) The permittee and/or their contractor shall contact the DCM Transportation Project Field Representative in Morehead City at (252) 515-5408 to request a preconstruction conference prior to project initiation.
- 38) The permittee shall install and maintain at their expense any signal lights or signals prescribed by the U.S. Coast Guard, through regulation or otherwise, on the authorized facilities. At a minimum, permanent reflectors should be attached to the structures in order to make them more visible during hours of darkness or inclement weather.

ADDITIONAL CONDITIONS

- 39) The N.C. Division of Water Resources (DWR) authorized the proposed project on 7/27/23 (DWR Project No. 20230481) under General Water Quality Certification No. 4135. Any violation of the Certification issued by DWR shall be considered a violation of this CAMA permit.

NOTE: This project is located within an area that is subject to the Neuse River Riparian Buffer rules administered by the N.C. Division of Water Resources.

NOTE: This project shall be constructed in accordance with the permittee's Stormwater Management Plan dated 12/9/21, and the provisions of the NCDOT's National Pollutant Discharge Elimination (NPDES) Stormwater Permit NCS000250, including the application requirements of the NCG01000.

NOTE: This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.

NOTE: The U.S. Army Corps of Engineers has assigned the proposed project COE Action ID No. SAW-2022-01430.

NOTE: An application processing fee of \$475 was received by DCM for this project. This fee also satisfied the Section 401 application processing fee requirements of DWR.

09/08/99

TIP PROJECT: BR-0074

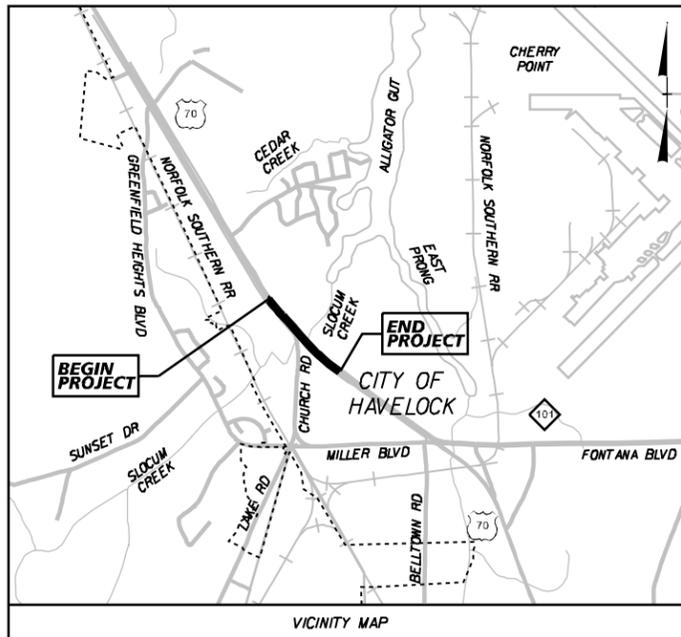
Revised 7/17/2023

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CRAVEN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0074	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67074.1.1		P.E.	
67074.2.1		RIGHT-OF-WAY	
67074.2.1		UTILITIES	

PERMIT DRAWING
SHEET 1 OF 17



RIGHT-OF-WAY
PLANS COMPLETE

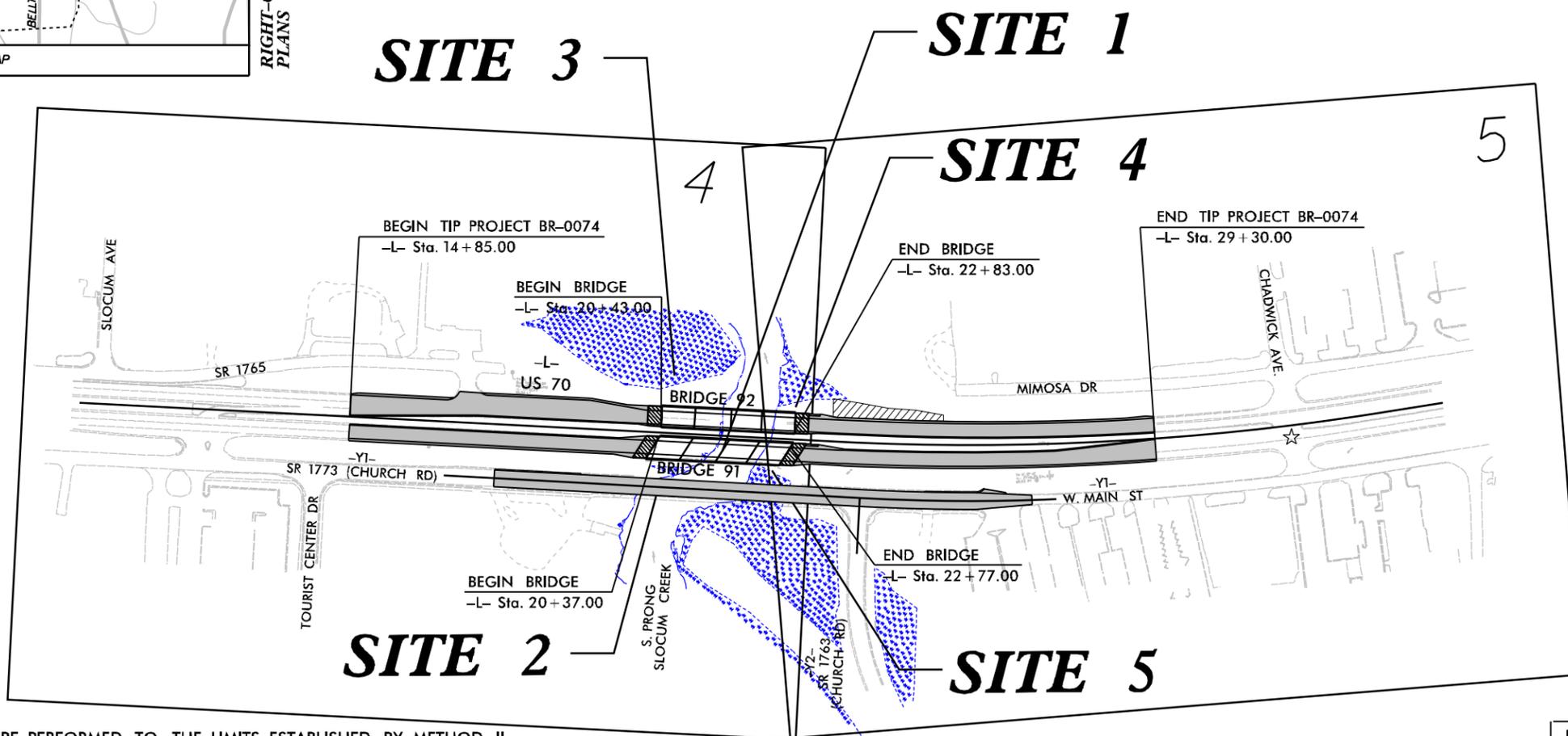
LOCATION: BRIDGES 240091 AND 240092 ON US 70 OVER S. PRONG SLOCUM CREEK
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT

JULY 2023



----- HAVELock CITY LIMIT



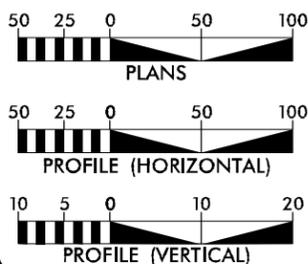
☆ EXIST TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF HAVELock

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

AADT 2024 = 31,100
 AADT 2044 = 33,700
 D = 55%
 K = 9%
 T = 4%*
 V = 45/55 MPH
 * (TTST 2% + DUAL 2%)
 FUNCTIONAL PRINCIPAL
 CLASSIFICATION: ARTERIAL
 STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0074 = 0.229 MILES
 LENGTH STRUCTURES TIP PROJECT BR-0074 = 0.045 MILES
 TOTAL LENGTH TIP PROJECT BR-0074 = 0.274 MILES

PLANS PREPARED FOR
THE NCDOT BY:

Kimley»Horn

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

FEBRUARY 7, 2023

LETTING DATE:

JANUARY 16, 2024

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

TYLER G. SPRING, P.E.
PROJECT DESIGN ENGINEER

KIM L. GILLESPIE, P.E.
PROJECT MANAGER
NCDOT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

SIGNATURE: _____
P.E.

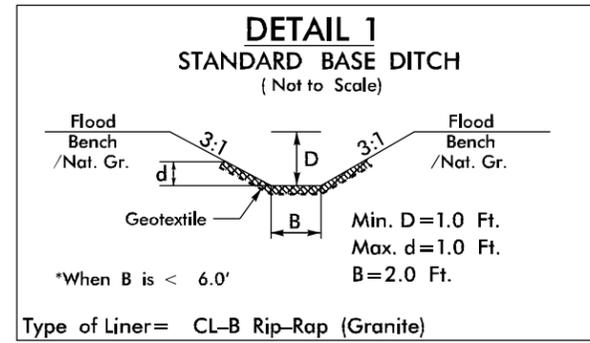


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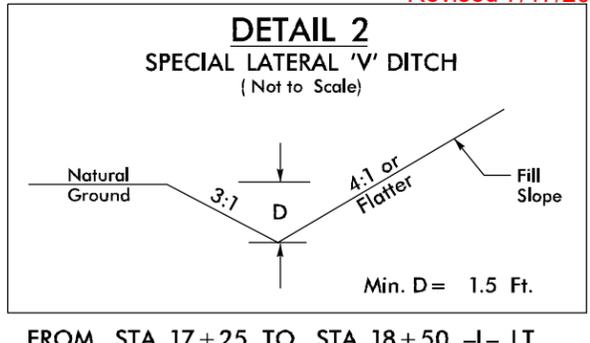
PROJECT REFERENCE NO. BR-0074	SHEET NO. 2D-1
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

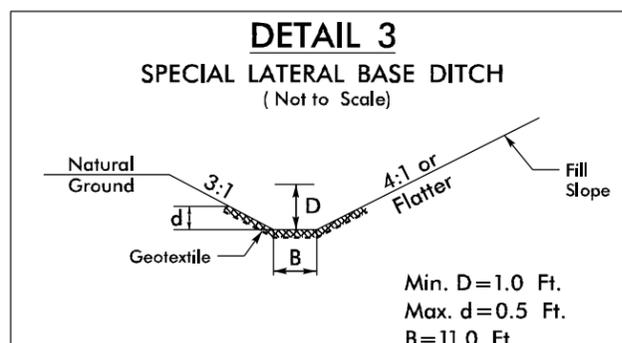
PERMIT DRAWING
 SHEET 2 OF 17



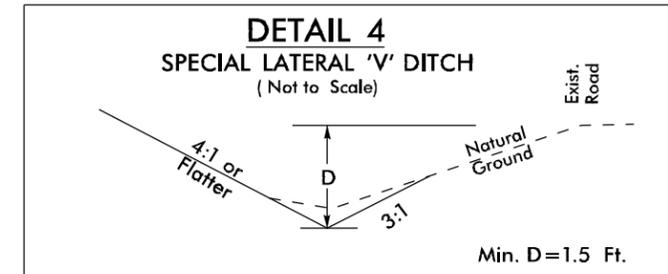
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 FROM STA. 16+32 TO STA. 16+73 -DETWB- RT.



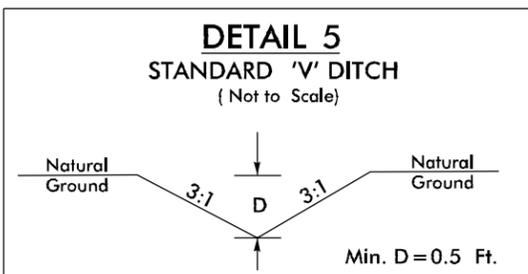
Revised 7/17/2023
 FROM STA. 17+25 TO STA. 18+50 -L- LT.



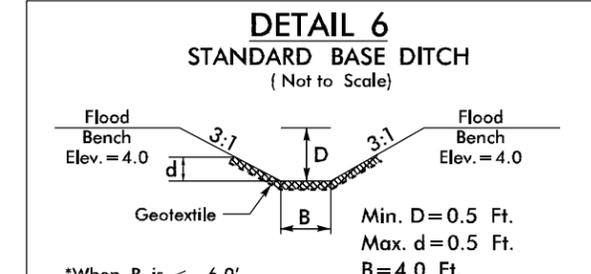
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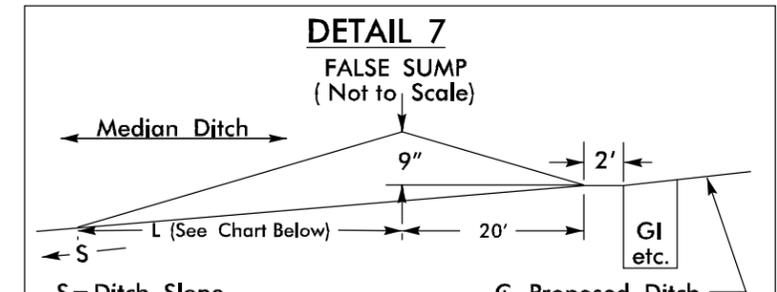
FROM STA. 18+50 TO STA. 19+00 -L- RT.
 FROM STA. 27+50 TO STA. 28+00 -L- RT.



AT STA. 23+22 -L- LT



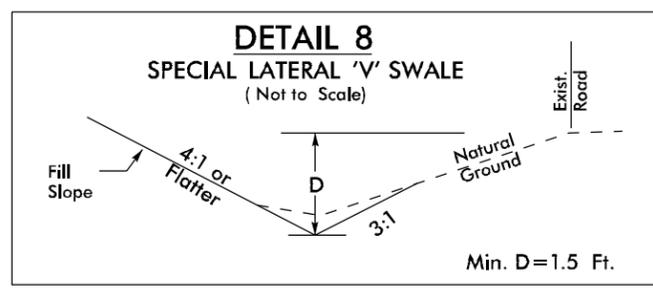
Type of Liner= CL-B Rip-Rap (Granite)
 FROM STA. 22+45 TO STA. 22+70 -L-



S = Ditch Slope C Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM STA. 18+83 TO STA. 19+23 -DETWB- LT. (S=1.0%)
 FROM STA. 20+13 TO STA. 20+53 -DETWB- LT. (S=1.0%)
 FROM STA. 15+07 TO STA. 15+47 -DETEB- LT. (S=2.0%)
 FROM STA. 16+30 TO STA. 16+70 -L- MEDIAN (S=1.5%)
 FROM STA. 16+30 TO STA. 16+70 -L- RT. (S=1.8%)
 FROM STA. 27+05 TO STA. 27+45 -L- MEDIAN (S=0.5%)



FROM STA. 19+00 TO STA. 19+50 -L- RT.
 FROM STA. 27+00 TO STA. 27+50 -L- RT.

REVISIONS

5/14/99

Revised 7/17/2023

SEE SHEET 4A-1D FOR SITE 1

LEGEND

-  FILL IN WETLAND
-  HAND CLEARING (NON-GRUBBING)
-  WETLAND EXCAVATION

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. SHEET NO.

BR-0074 4

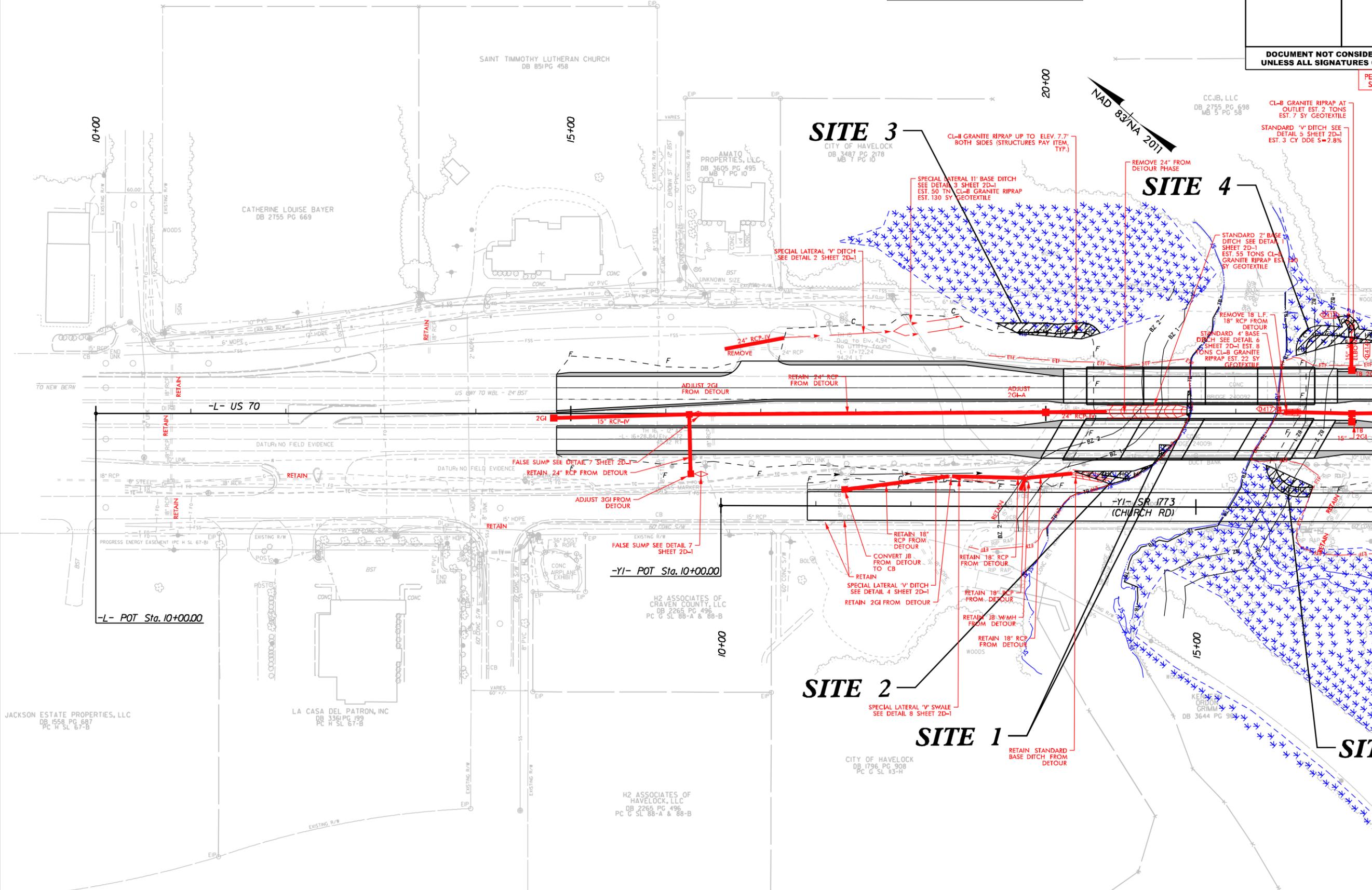
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

PERMIT DRAWING
SHEET 3 OF 17

REVISIONS

MATCHLINE -L- STA 23+50 (SEE SHEET 5)



\$DATE\$

5/14/99

Revised 7/17/2023

SEE SHEET 4A-4D FOR SITE 1

LEGEND

-  FILL IN WETLAND
-  HAND CLEARING (NON-GRUBBING)
-  WETLAND EXCAVATION

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

ROADWAY DESIGN ENGINEER
CONST. REV.

PROJECT REFERENCE NO. SHEET NO.

BR-0074 4

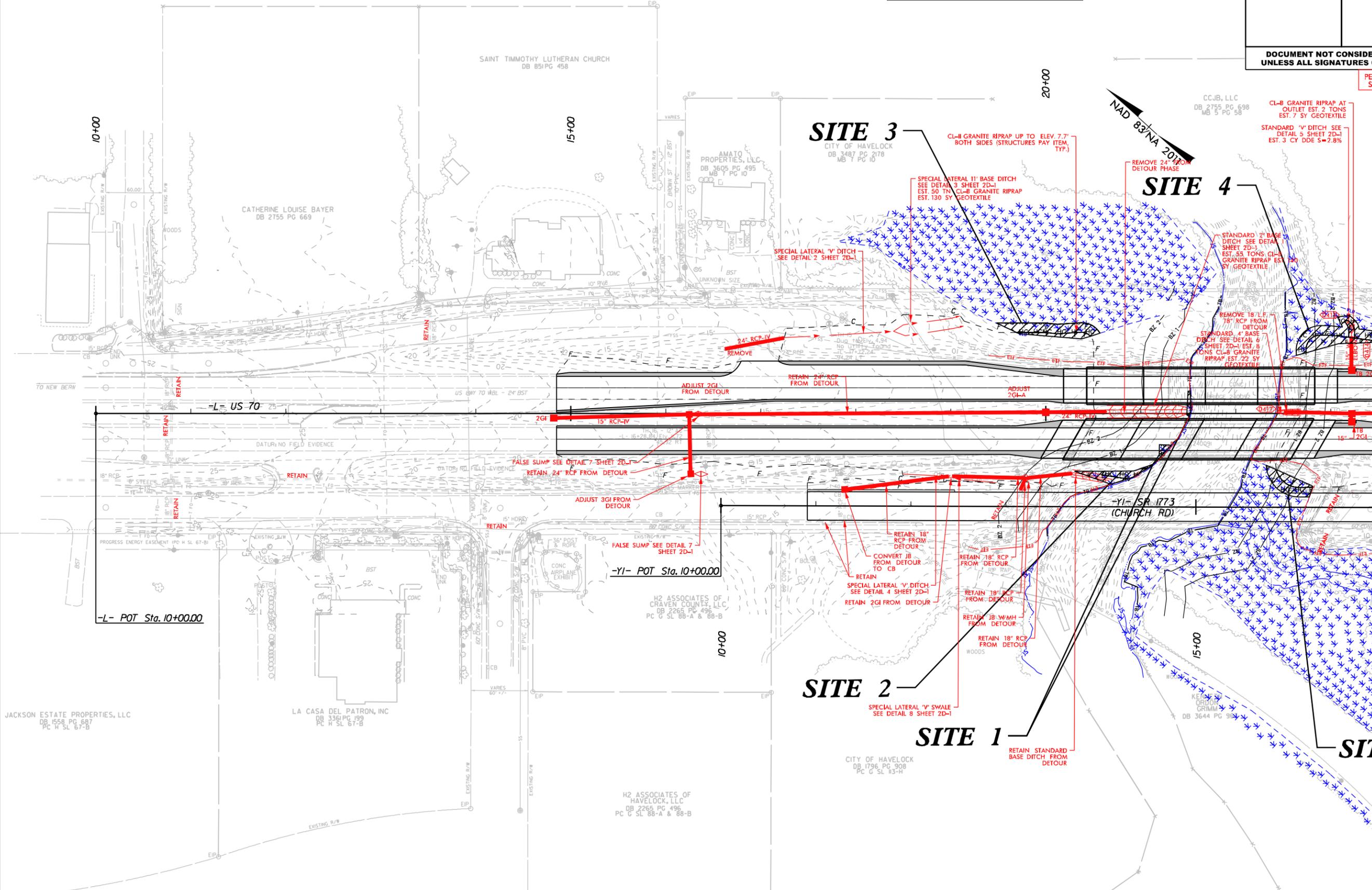
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 4 OF 17

REVISIONS

MATCHLINE -L- STA 23+50 (SEE SHEET 5)



\$DATE\$

5/14/99

Revised 7/17/2023

PHASE 1:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT WESTERN EXISTING BRIDGE #240092 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

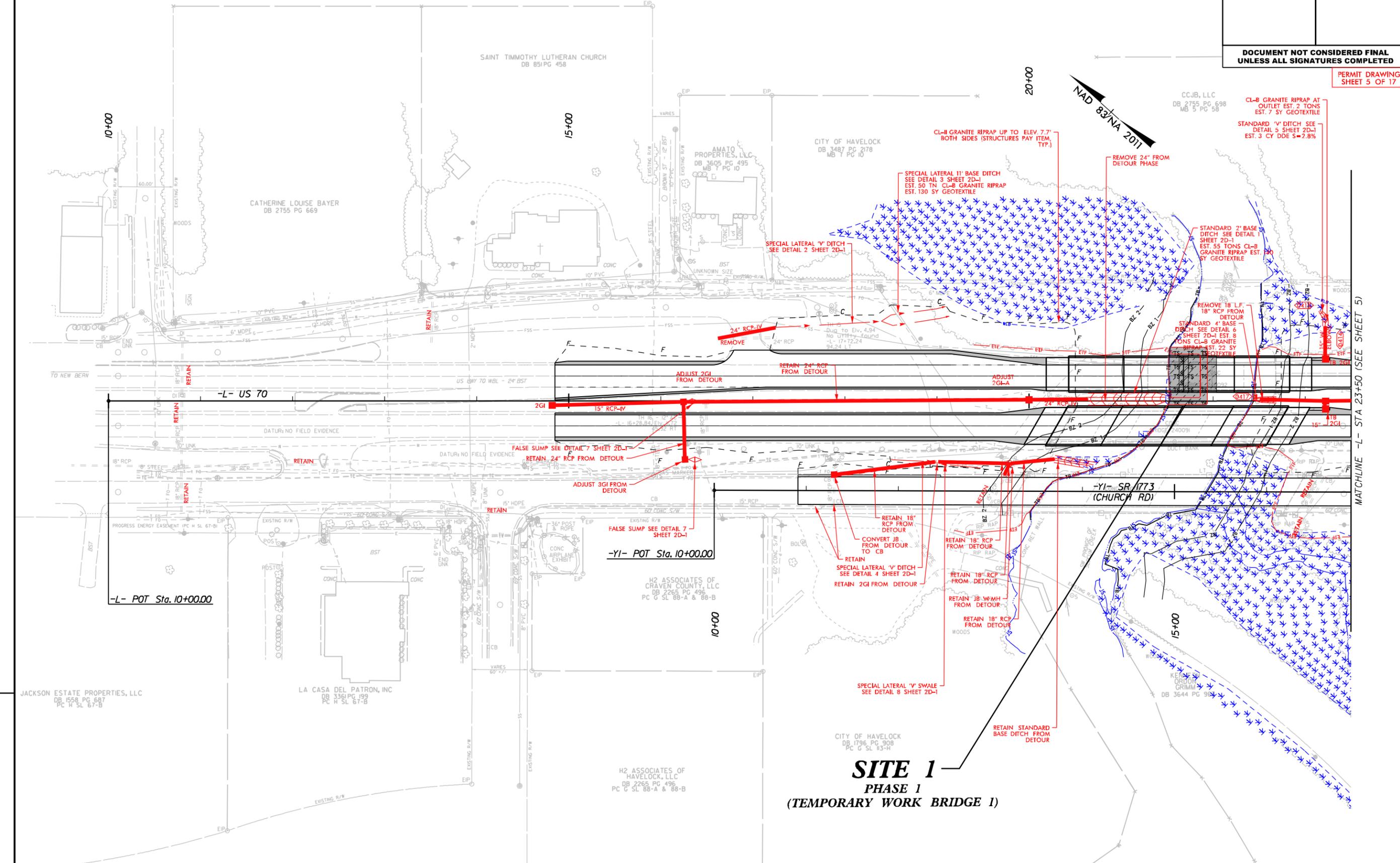
Kimley Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 4A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 5 OF 17

REVISIONS



SITE 1
PHASE 1
(TEMPORARY WORK BRIDGE 1)

MATCHLINE -L- STA 23+50 (SEE SHEET 5)

\$DATE\$

5/28/99

Revised 7/17/2023

PHASE 1:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT WESTERN EXISTING BRIDGE #240092 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

PERMIT DRAWING
SHEET 6 OF 17

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 6A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

LEGEND

SPECIAL DITCH	---
MEDIAN DITCH	---

40
30
20
10
0
-10
-20

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

 BM1 ELEVATION = 3.45
 N 422147 E 2622838
 -L- STATION 19+21.07 175.58' LEFT
 BENCHTIE SET IN 18" CYPRESS

BEGIN GRADE
 -LLT - STA 14+85.00
 ELEV = 19.82'
 MILL NOTCH TO KEY-IN
 TIE TO EXISTING PAVEMENT

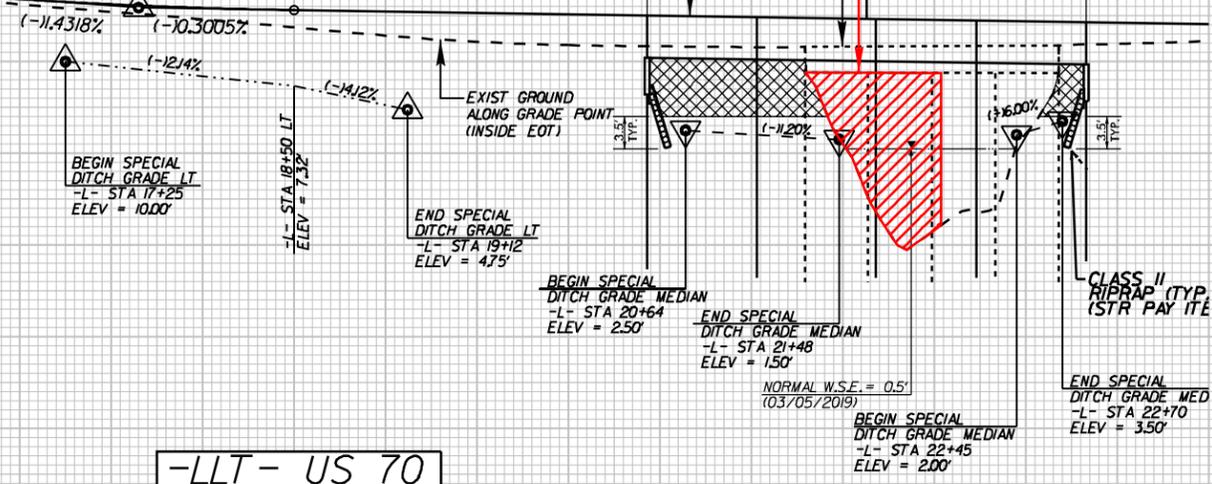
PI = 15+45.00
 EL = 19.02'
 VC = 120'
 K = 1218

PI = 17+65.00
 EL = 15.87'
 VC = 170'
 K = 150

SITE 1
PHASE 1
(TEMPORARY WORK BRIDGE 1)

-L- STA 21+63.00 LT
 1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
 TYPE III 45' PRESTRESSED
 CONCRETE GIRDER
 CL ELEV = 14.67'
 SKEW = 90°

END BRIDGE
 -L- STA 22+83 LT
 ELEV = 14.31'



EXCAVATION

20
10
0
-10
-20

12 13 14 15 16 17 18 19 20 21 22 23

-LLT - US 70

SEE SHEET NO.4 FOR -L- PLAN

\$FILE\$

\$DATE\$

40
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10
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-10
-20

BEGIN GRADE
 -LRT - STA 14+85.00
 ELEV = 19.65'
 MILL NOTCH TO KEY-IN
 TIE TO EXISTING PAVEMENT

PI = 17+37.00
 EL = 16.08'
 VC = 170'
 K = 152

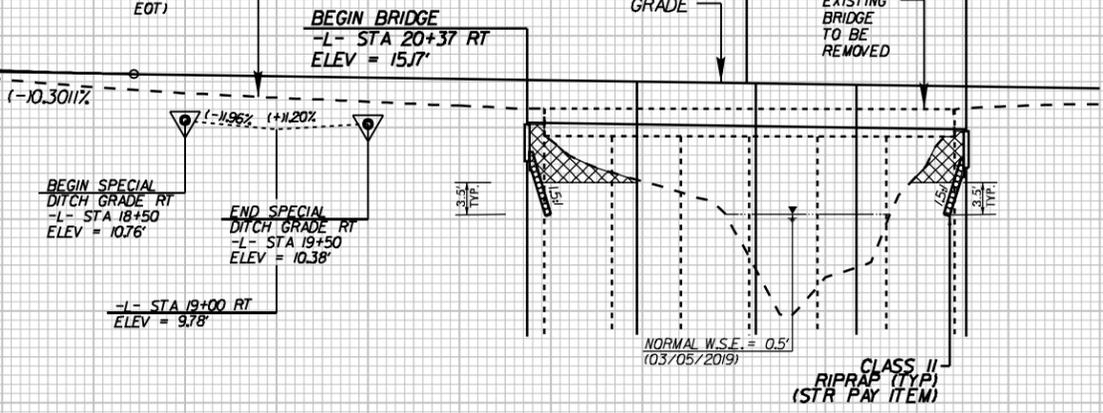
BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

 BM1 ELEVATION = 3.45
 N 422147 E 2622838
 -L- STATION 19+21.07 175.58' LEFT
 BENCHTIE SET IN 18" CYPRESS

-L- STA 21+57.00 RT
 1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
 TYPE III 45' PRESTRESSED
 CONCRETE GIRDER
 CL ELEV = 14.82'
 SKEW = 60°

END BRIDGE
 -L- STA 22+77 RT
 ELEV = 14.45'



NORMAL W.S.E. = 0.5'
 (03/05/2019)

12 13 14 15 16 17 18 19 20 21 22 23

-LRT - US 70

SEE SHEET NO.4 FOR -L- PLAN

20
10
0
-10
-20

5/14/99

Revised 7/17/2023

PHASE 2:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT EASTERN EXISTING BRIDGE #240092 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

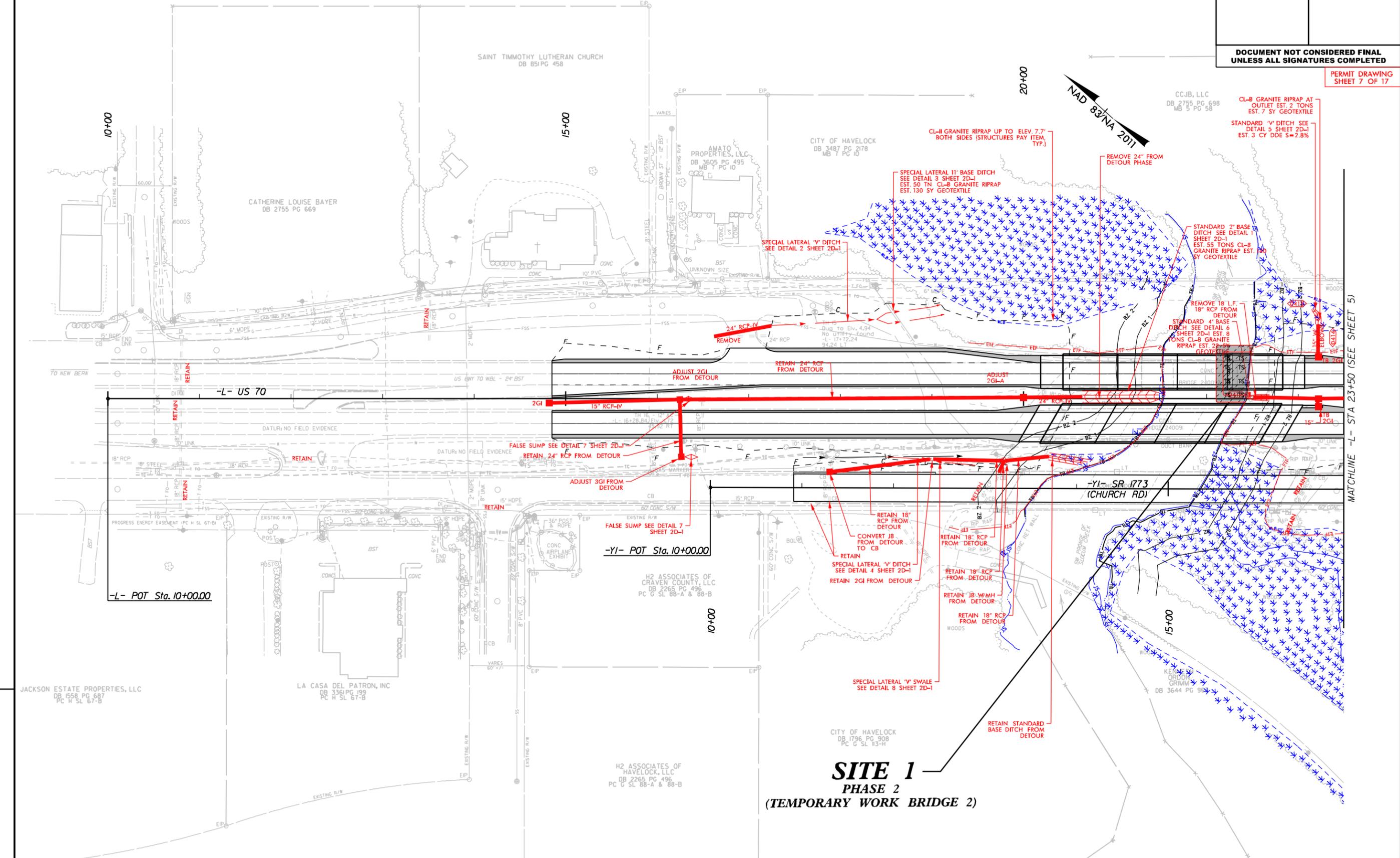
Kimley Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 4B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 7 OF 17

REVISIONS



SITE 1
PHASE 2
(TEMPORARY WORK BRIDGE 2)

MATCHLINE -L- STA 23+50 (SEE SHEET 5)

\$DATE\$

5/28/99

Revised 7/17/2023

PHASE 2:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT EASTERN EXISTING BRIDGE #240092 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

PERMIT DRAWING
SHEET 8 OF 17

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

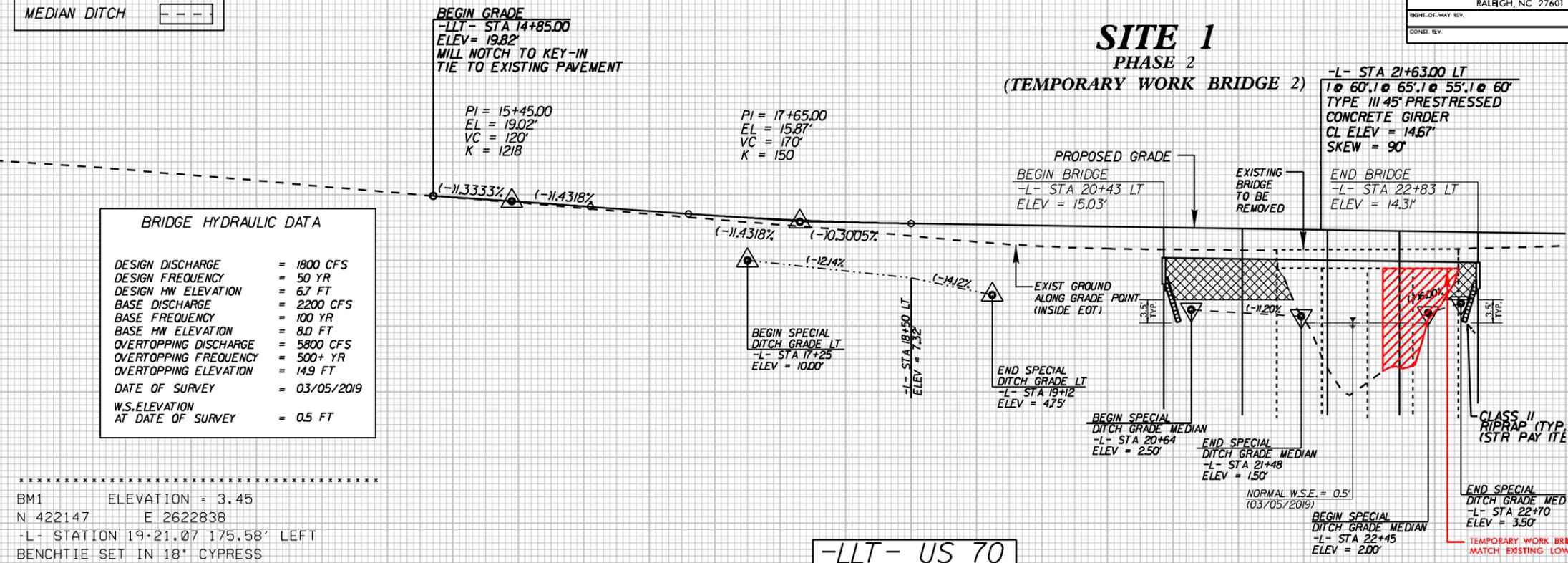
PROJECT REFERENCE NO. BR-0074	SHEET NO. 6B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

LEGEND

SPECIAL DITCH	---
MEDIAN DITCH	---

40
30
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10
0
-10
-20



EXCAVATION

20
10
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-10
-20

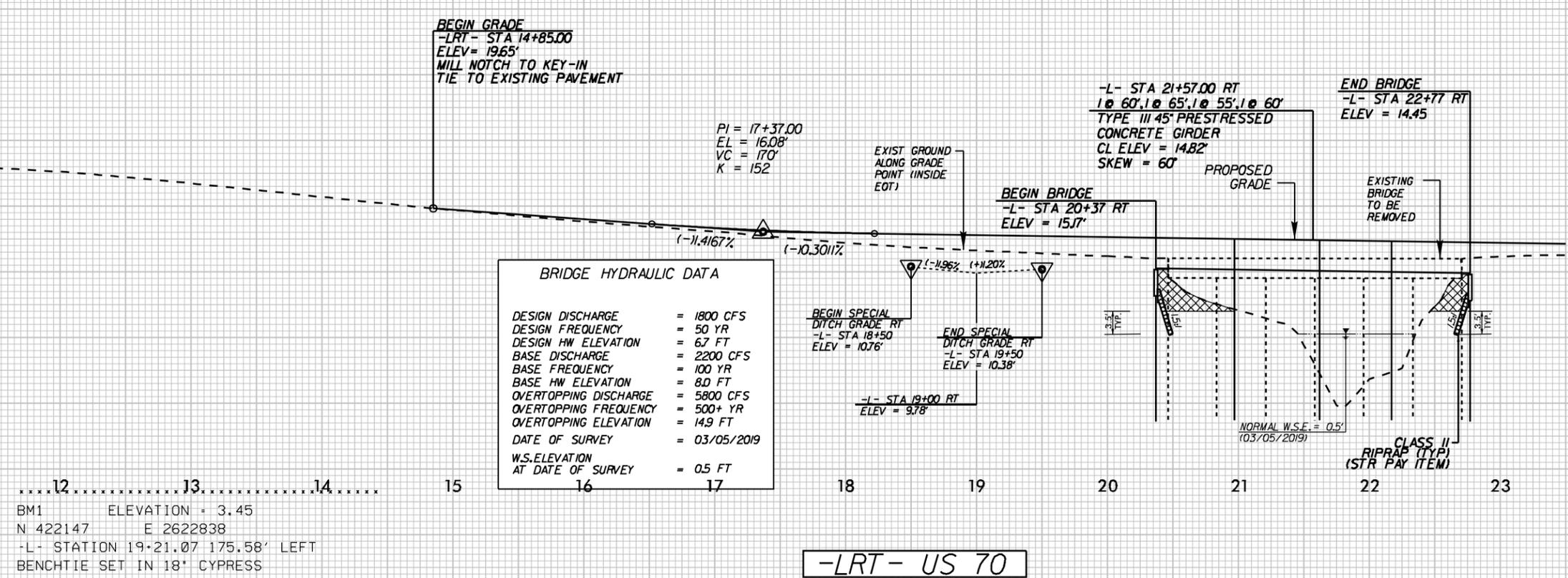
SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

\$FILE\$

\$DATE\$

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SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

5/14/99

Revised 7/17/2023

PHASE 3:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN. DECONSTRUCT WESTERN EXISTING BRIDGE #240091 PIERS. CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

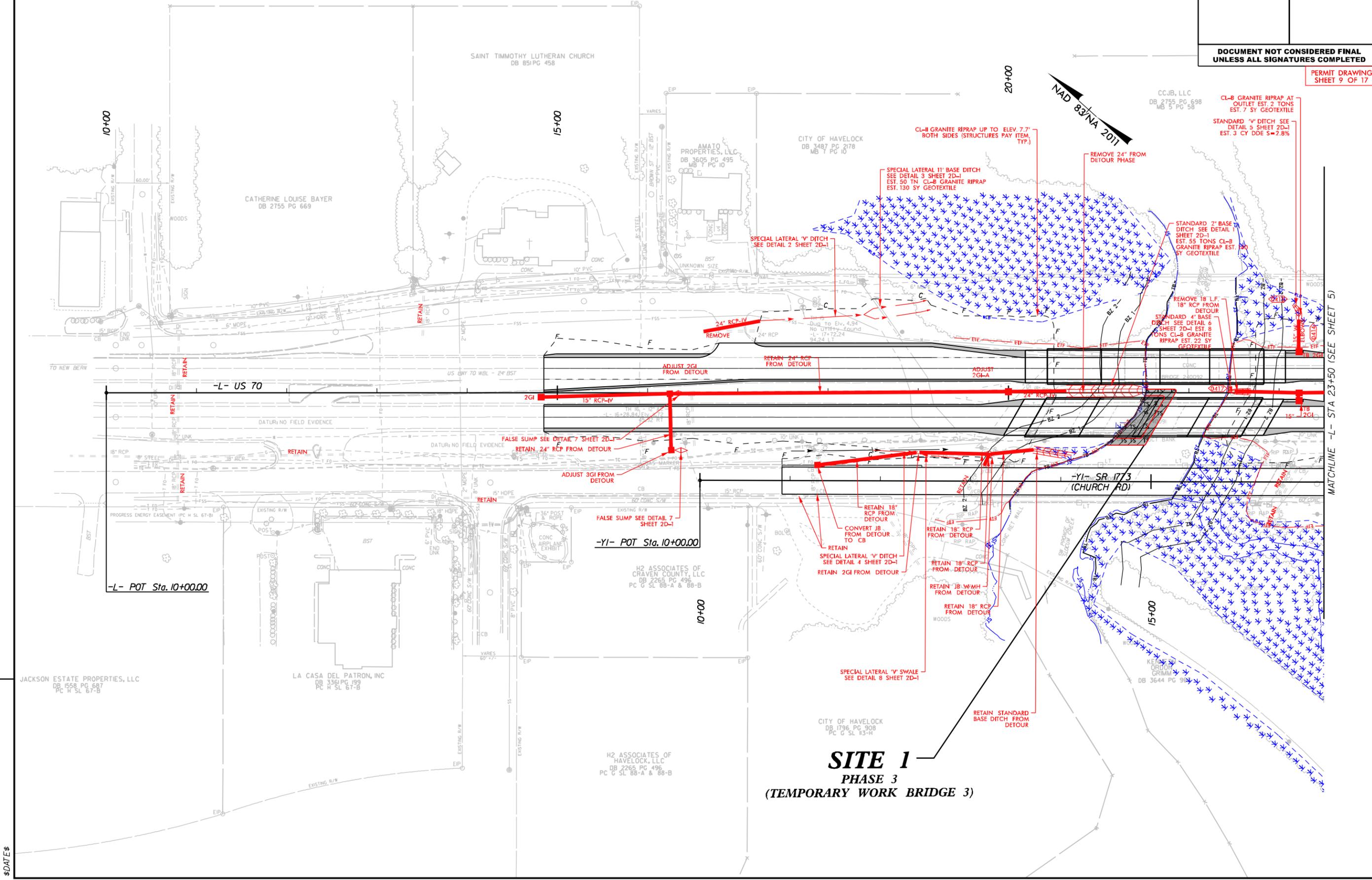
Kimley Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 4C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 9 OF 17

REVISIONS



SITE 1
PHASE 3
(TEMPORARY WORK BRIDGE 3)

MATCHLINE -L- STA 23+50 (SEE SHEET 5)

\$DATE\$

5/28/99

Revised 7/17/2023

PERMIT DRAWING
SHEET 10 OF 17

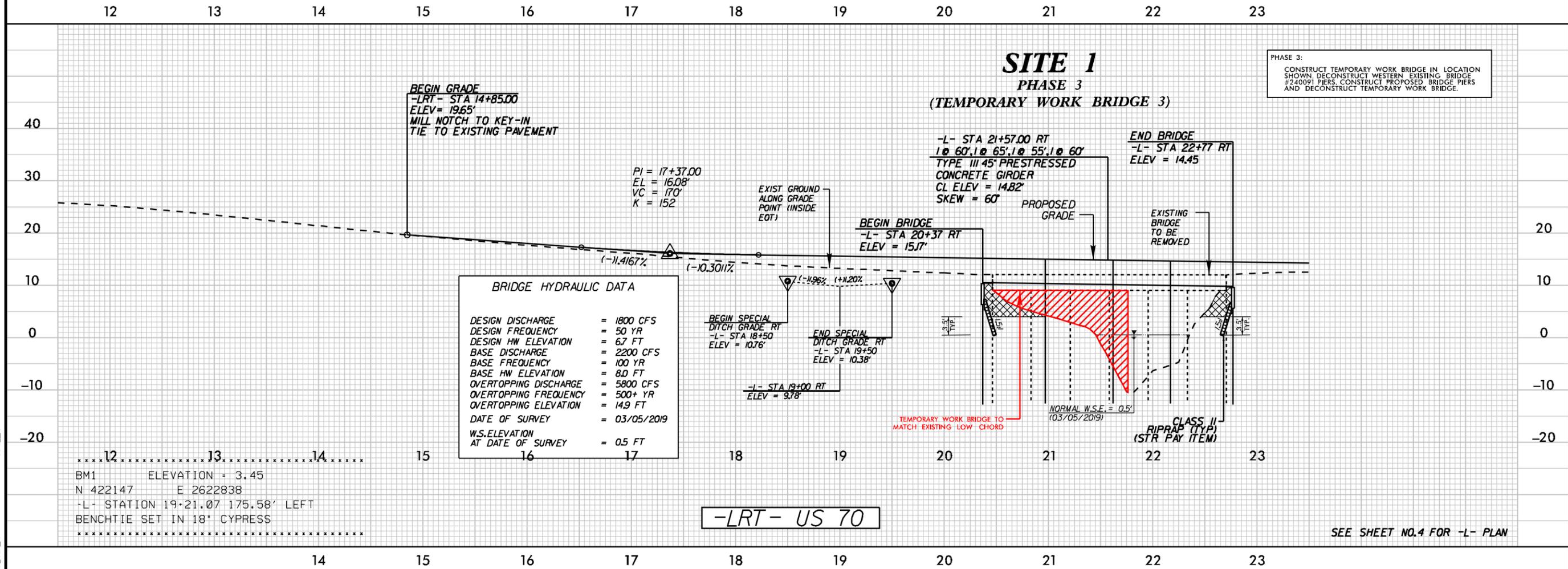
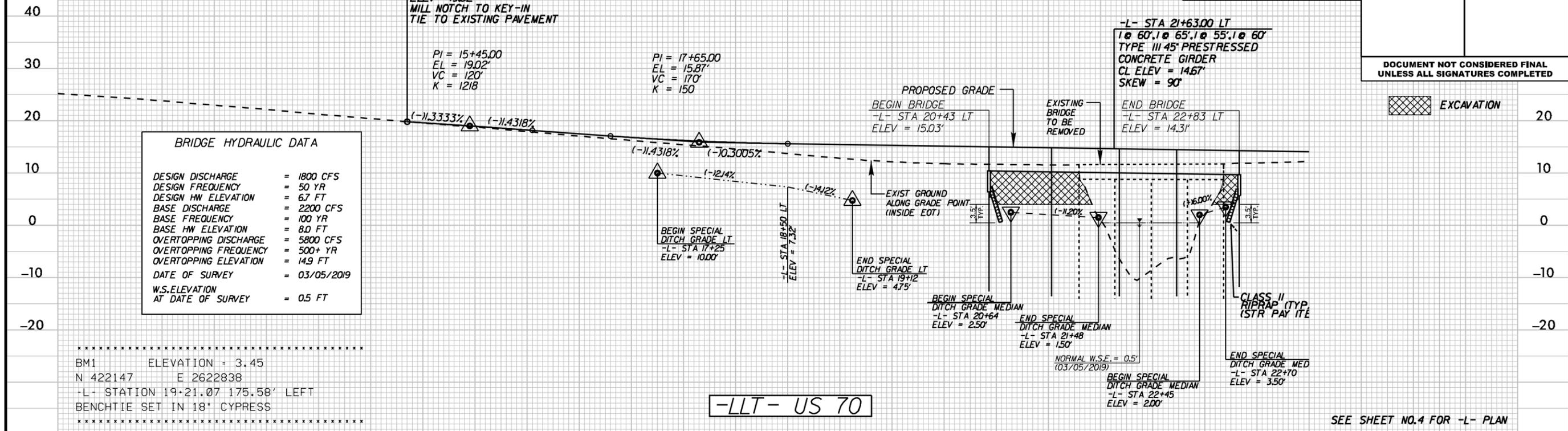
Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 6C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

LEGEND

SPECIAL DITCH	---
MEDIAN DITCH	---



\$FILE\$

\$DATE\$

5/14/99

Revised 7/17/2023

PHASE 4:
CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT EASTERN EXISTING BRIDGE #240091 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

TEMPORARY WORK BRIDGE

LEGEND

- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

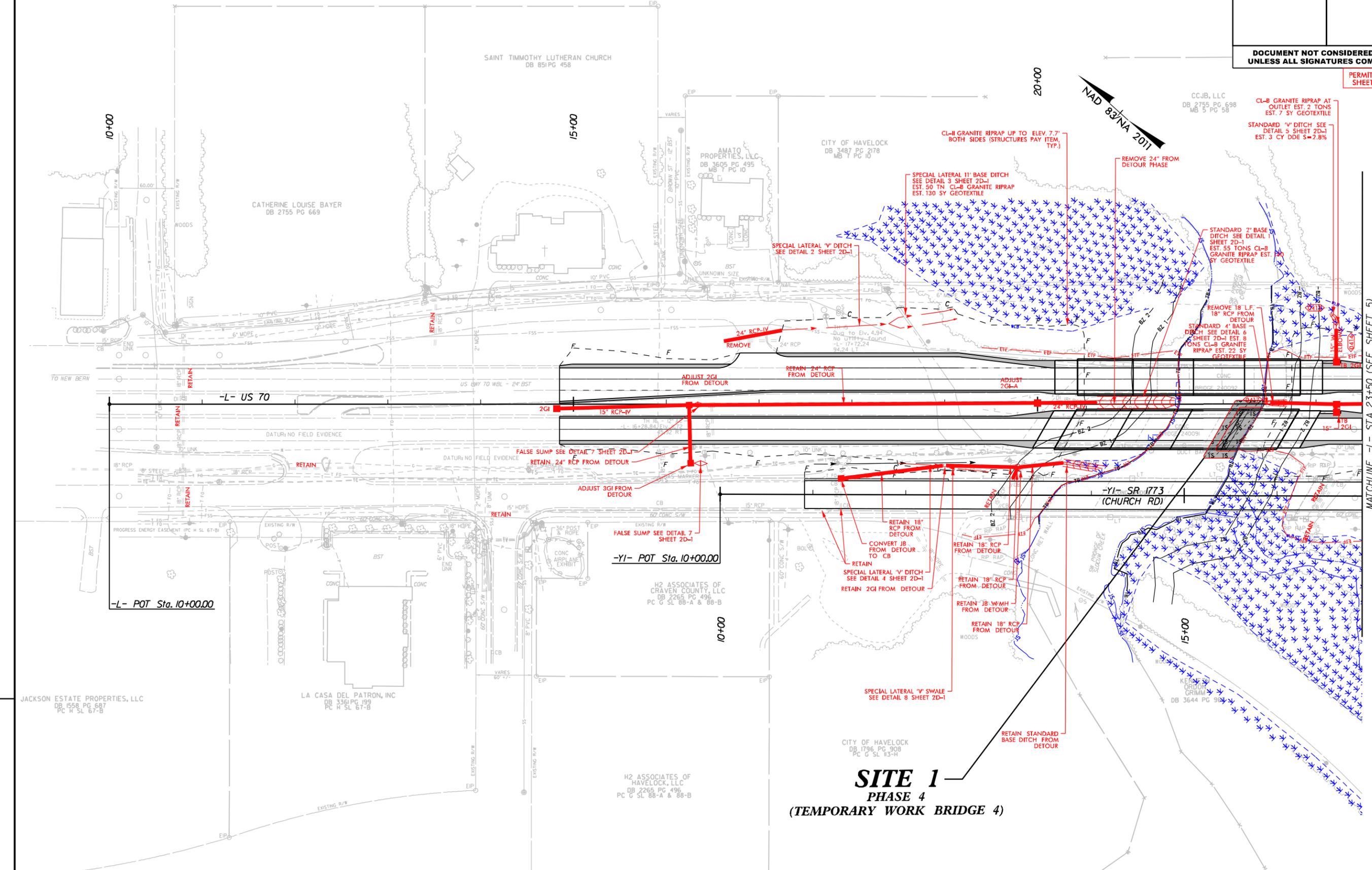
Kimley Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 4D
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PERMIT DRAWING
SHEET 11 OF 17

REVISIONS



MATCHLINE -L- STA 23+50 (SEE SHEET 5)

SITE 1
PHASE 4
(TEMPORARY WORK BRIDGE 4)

\$DATE\$

5/28/99

Revised 7/17/2023

PERMIT DRAWING
SHEET 12 OF 17

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074	SHEET NO. 6D
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

LEGEND

SPECIAL DITCH	---
MEDIAN DITCH	---

40
30
20
10
0
-10
-20

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

 BM1 ELEVATION = 3.45
 N 422147 E 2622838
 -L- STATION 19+21.07 175.58' LEFT
 BENCHTIE SET IN 18" CYPRESS

BEGIN GRADE
 -LLT - STA 14+85.00
 ELEV = 19.82'
 MILL NOTCH TO KEY-IN
 TIE TO EXISTING PAVEMENT

PI = 15+45.00
 EL = 19.02'
 VC = 120'
 K = 1218

PI = 17+65.00
 EL = 15.87'
 VC = 170'
 K = 150

-L- STA 21+63.00 LT
 1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
 TYPE III 45' PRESTRESSED
 CONCRETE GIRDER
 CL ELEV = 14.67'
 SKEW = 90'

PROPOSED GRADE
BEGIN BRIDGE
 -L- STA 20+43 LT
 ELEV = 15.03'

EXISTING BRIDGE TO BE REMOVED

END BRIDGE
 -L- STA 22+83 LT
 ELEV = 14.31'

(-11.4318%) (-11.4318%) (-10.3005%) (-12.14%) (-11.42%)

BEGIN SPECIAL DITCH GRADE LT
 -L- STA 17+25
 ELEV = 10.00'

-L- STA 18+50 LT
 ELEV = 7.52'

END SPECIAL DITCH GRADE LT
 -L- STA 19+12
 ELEV = 4.75'

BEGIN SPECIAL DITCH GRADE MEDIAN
 -L- STA 20+64
 ELEV = 2.50'

END SPECIAL DITCH GRADE MEDIAN
 -L- STA 21+48
 ELEV = 1.50'

NORMAL W.S.E. = 0.5'
(03/05/2019)

BEGIN SPECIAL DITCH GRADE MEDIAN
 -L- STA 22+45
 ELEV = 2.00'

END SPECIAL DITCH GRADE MED
 -L- STA 22+70
 ELEV = 3.50'

EXCAVATION

20
10
0
-10
-20

-LLT - US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

SITE 1 PHASE 4

(TEMPORARY WORK BRIDGE 4)

PHASE 4:
 CONSTRUCT TEMPORARY WORK BRIDGE IN LOCATION SHOWN, DECONSTRUCT EASTERN EXISTING BRIDGE #240091 PIERS, CONSTRUCT PROPOSED BRIDGE PIERS AND DECONSTRUCT TEMPORARY WORK BRIDGE.

40
30
20
10
0
-10
-20

BEGIN GRADE
 -LRT - STA 14+85.00
 ELEV = 19.65'
 MILL NOTCH TO KEY-IN
 TIE TO EXISTING PAVEMENT

PI = 17+37.00
 EL = 16.08'
 VC = 170'
 K = 152

-L- STA 21+57.00 RT
 1 @ 60', 1 @ 65', 1 @ 55', 1 @ 60'
 TYPE III 45' PRESTRESSED
 CONCRETE GIRDER
 CL ELEV = 14.82'
 SKEW = 60'

END BRIDGE
 -L- STA 22+77 RT
 ELEV = 14.45'

BEGIN BRIDGE
 -L- STA 20+37 RT
 ELEV = 15.17'

PROPOSED GRADE

EXISTING BRIDGE TO BE REMOVED

(-11.4167%) (-10.3011%) (-11.96%) (+11.20%)

BEGIN SPECIAL DITCH GRADE RT
 -L- STA 18+50
 ELEV = 10.76'

END SPECIAL DITCH GRADE RT
 -L- STA 19+50
 ELEV = 10.38'

-L- STA 19+00 RT
 ELEV = 9.78'

NORMAL W.S.E. = 0.5'
(03/05/2019)

CLASS II RIPRAP (TYP) (STR PAY ITEM)

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1800 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 6.7 FT
BASE DISCHARGE	= 2200 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 8.0 FT
OVERTOPPING DISCHARGE	= 5800 CFS
OVERTOPPING FREQUENCY	= 500+ YR
OVERTOPPING ELEVATION	= 14.9 FT
DATE OF SURVEY	= 03/05/2019
W.S.ELEVATION AT DATE OF SURVEY	= 0.5 FT

 BM1 ELEVATION = 3.45
 N 422147 E 2622838
 -L- STATION 19+21.07 175.58' LEFT
 BENCHTIE SET IN 18" CYPRESS

-LRT - US 70

SEE SHEET NO.4 FOR -L- PLAN

12 13 14 15 16 17 18 19 20 21 22 23

\$FILE\$

\$DATE\$

5/14/99

Revised 7/17/2023

LEGEND

HC HC HAND CLEARING (NON-GRUBBING)

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074 SHEET NO. 5

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

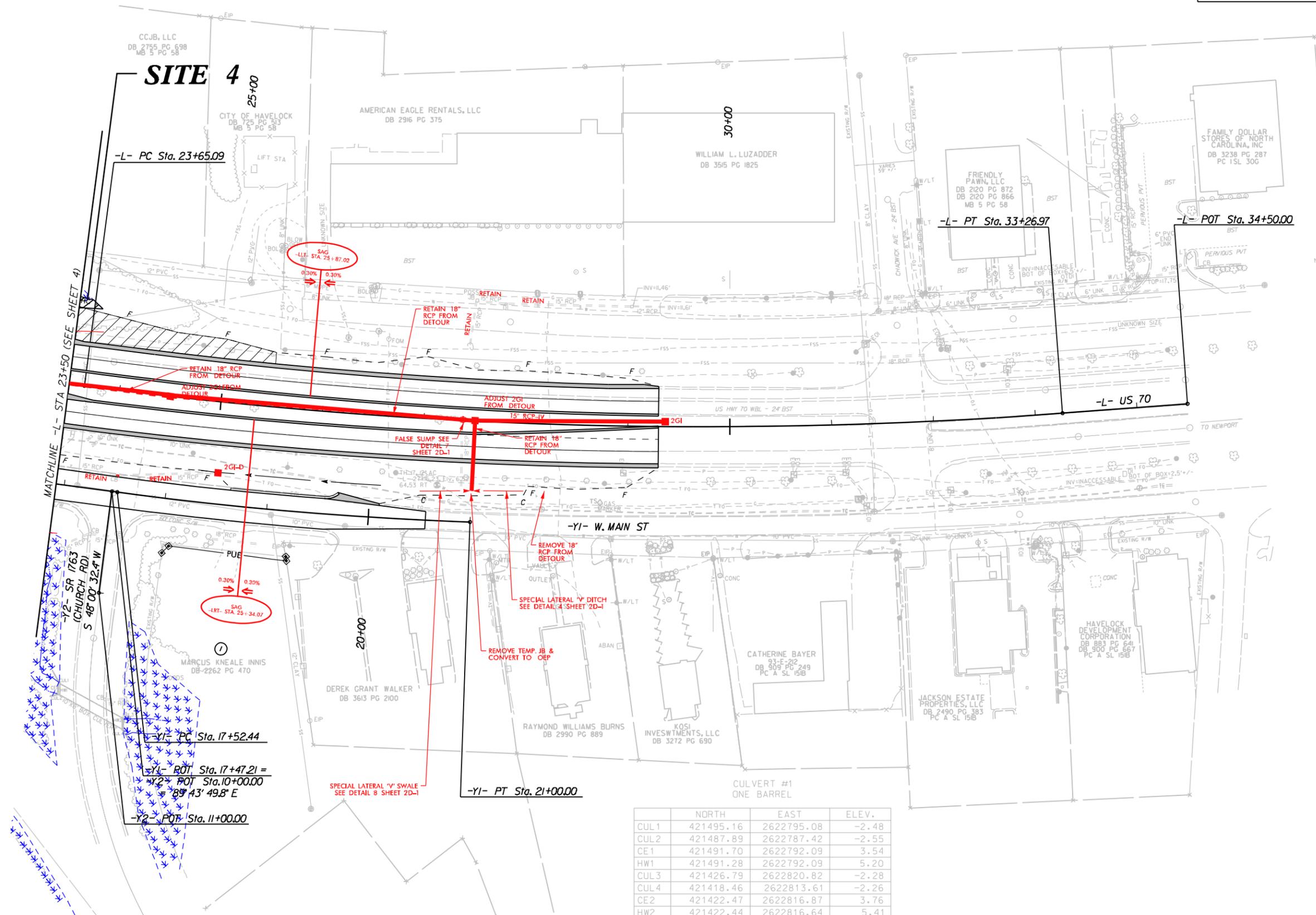
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 13 OF 17



REVISIONS

SITE 4



MATCHLINE -L- STA 23+50 (SEE SHEET 4)

-Y2- SR 1763 (CHURCH RD) S 48° 00' 32.4" W

-Y1- PC Sta. 17+52.44

-Y1- POT Sta. 17+47.21 =

-Y2- POT Sta. 10+00.00

= 89° 43' 49.8" E

-Y2- POT Sta. 11+00.00

	NORTH	EAST	ELEV.
CUL1	421495.16	2622795.08	-2.48
CUL2	421487.89	2622787.42	-2.55
CE1	421491.70	2622792.09	3.54
HW1	421491.28	2622792.09	5.20
CUL3	421426.79	2622820.82	-2.28
CUL4	421418.46	2622813.61	-2.26
CE2	421422.47	2622816.87	3.76
HW2	421422.44	2622816.64	5.41

\$DATE\$

5/14/99

Revised 7/17/2023



LEGEND

HC HC HAND CLEARING (NON-GRUBBING)

Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

PROJECT REFERENCE NO. BR-0074 SHEET NO. 5

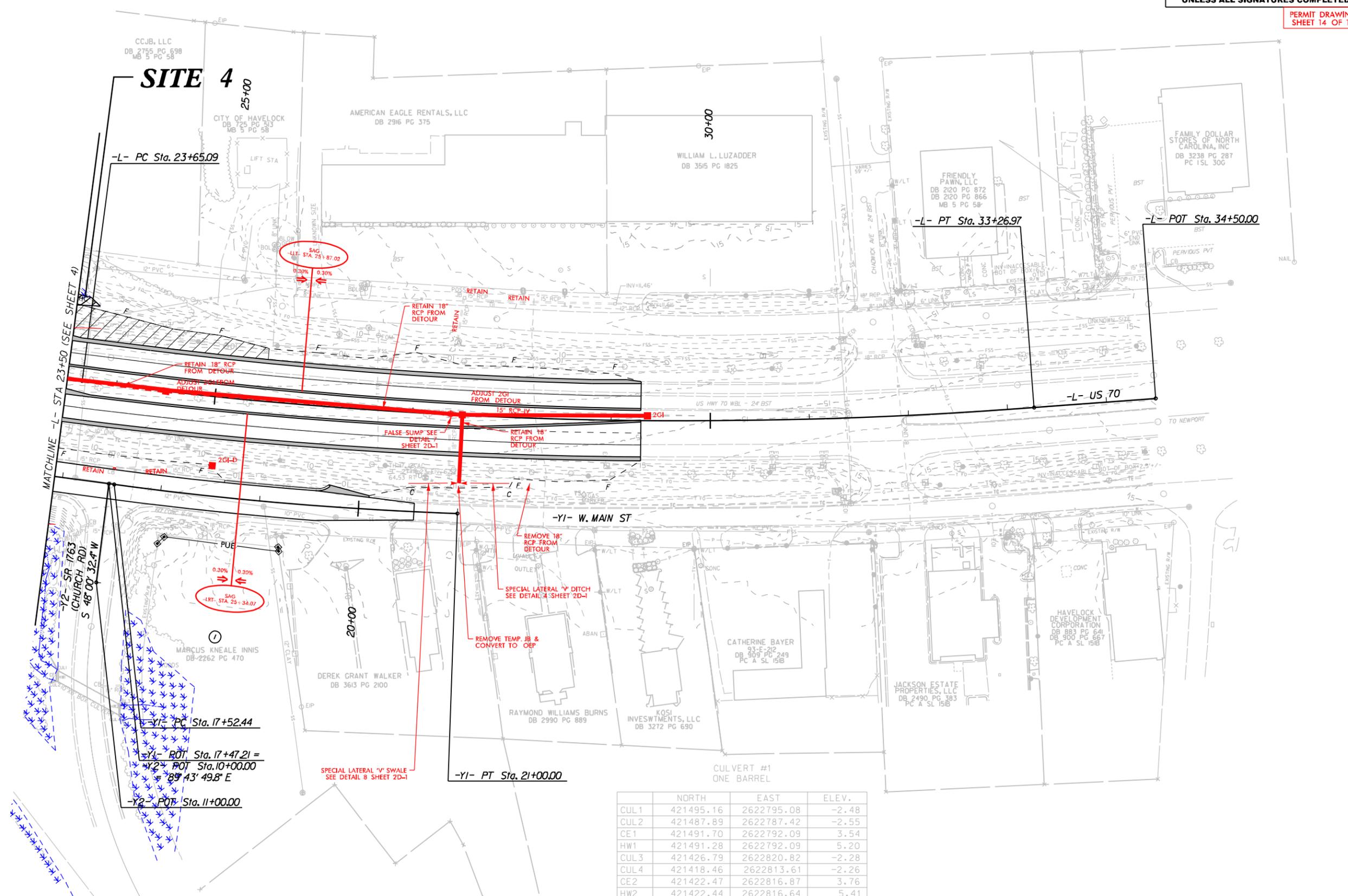
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 14 OF 17

REVISIONS

\$DATE\$



	NORTH	EAST	ELEV.
CUL1	421495.16	2622795.08	-2.48
CUL2	421487.89	2622787.42	-2.55
CE1	421491.70	2622792.09	3.54
HW1	421491.28	2622792.09	5.20
CUL3	421426.79	2622820.82	-2.28
CUL4	421418.46	2622813.61	-2.26
CE2	421422.47	2622816.87	3.76
HW2	421422.44	2622816.64	5.41

8/23/99

Revised 7/17/2023



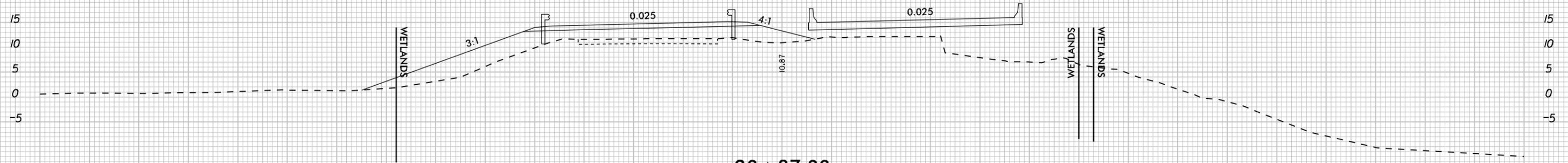
PROJ. REFERENCE NO.
BR-0074

SHEET NO.
X-4

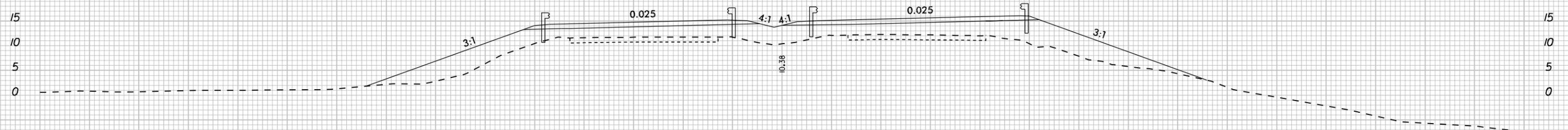
PERMIT DRAWING
SHEET 15 OF 17

SITE 3

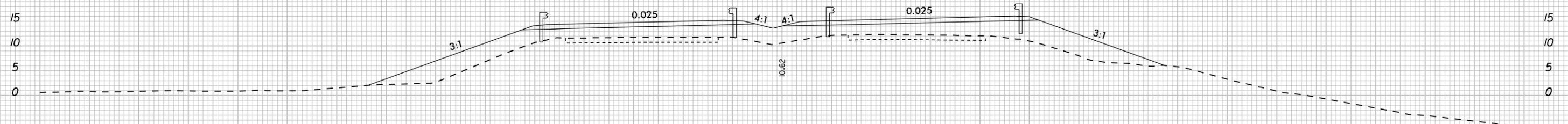
SITE 2



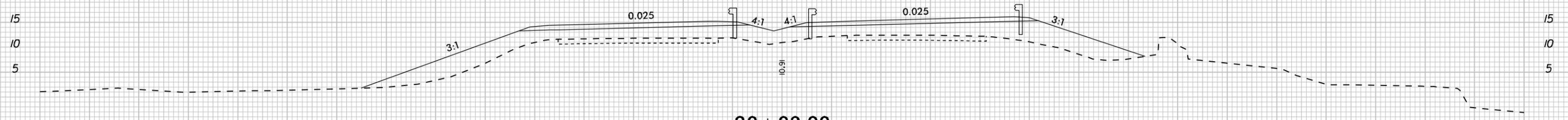
20+37.00



20+18.00



20+12.00



20+00.00

-L- US 70

\$DATE\$

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

Revised 7/17/2023

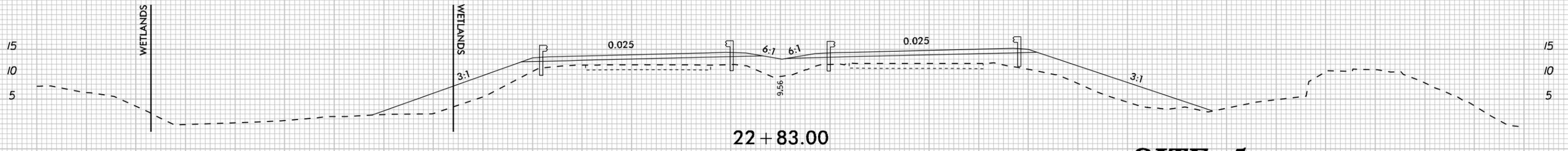


PROJ. REFERENCE NO.
BR-0074

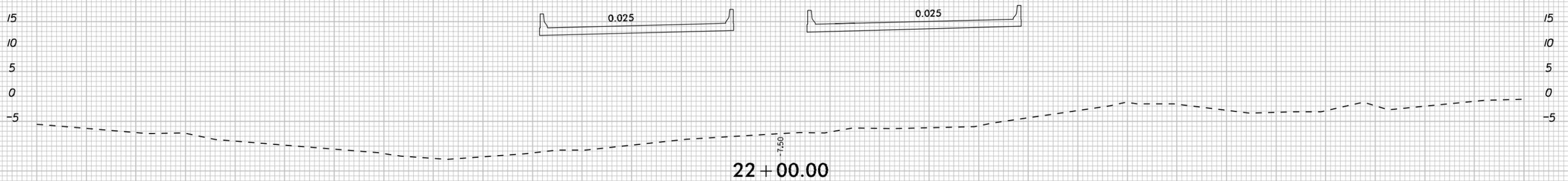
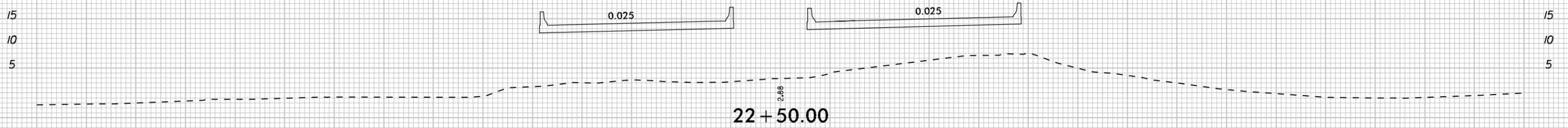
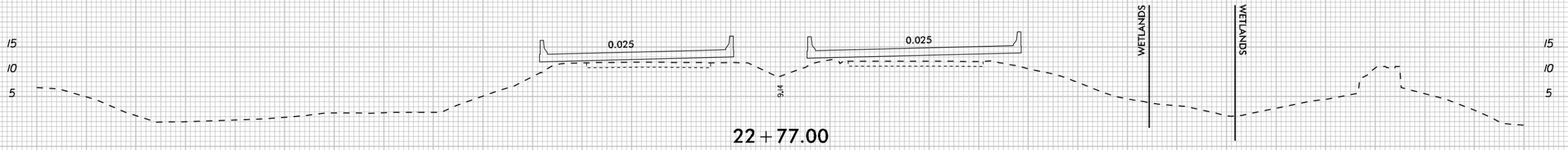
SHEET NO.
X-6

PERMIT DRAWING
SHEET 16 OF 17

SITE 4



SITE 5



-L- US 70

\$DATE\$

\$FILE\$

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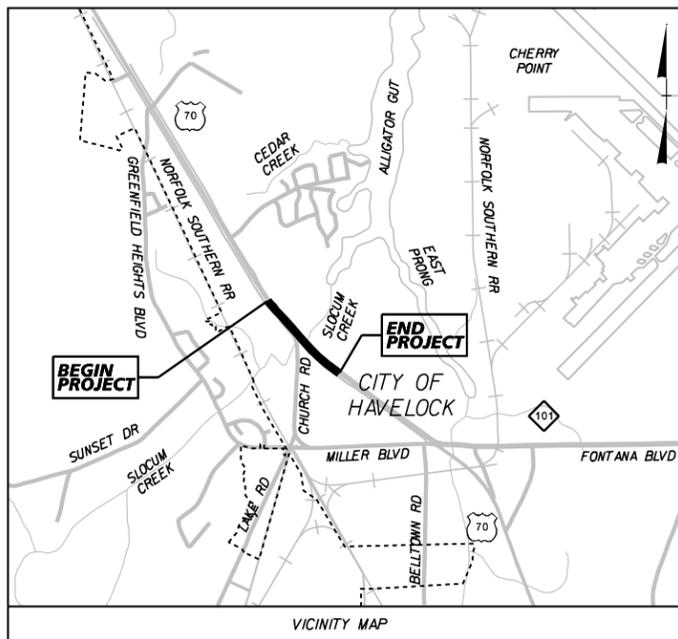
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CRAVEN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0074	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67074.1.1		P.E.	
67074.2.1		RIGHT-OF-WAY	
67074.2.1		UTILITIES	

BUFFER DRAWING
SHEET 1 OF 5

TIP PROJECT: BR-0074



RIGHT-OF-WAY
PLANS COMPLETE

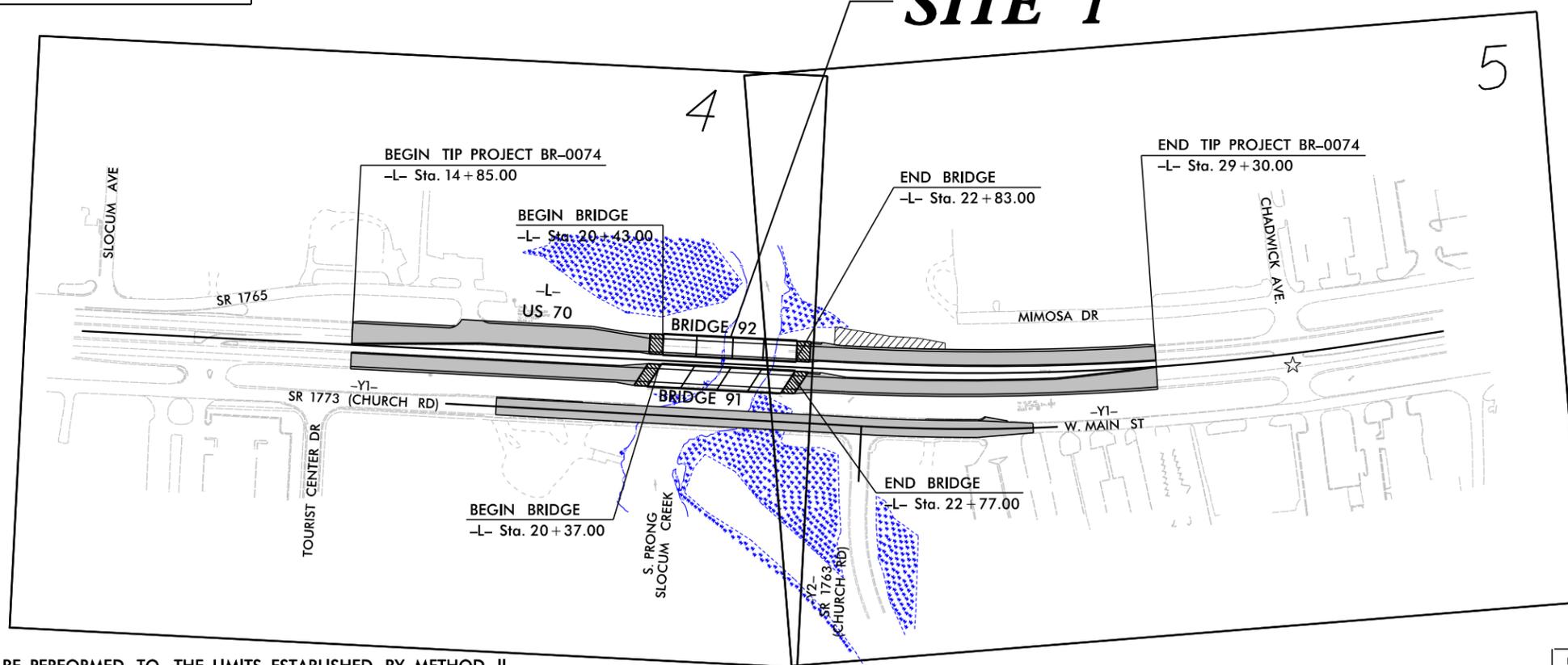
LOCATION: BRIDGES 240091 AND 240092 ON US 70 OVER S. PRONG SLOCUM CREEK
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

BUFFER IMPACTS PERMIT

AUGUST 2023



SITE 1



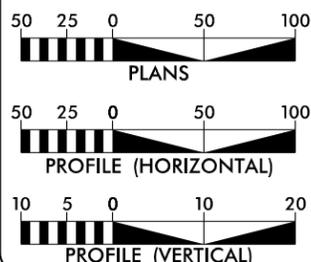
☆ EXIST TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF HAVELOCK

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

AADT 2024 = 31,100
AADT 2048 = 33,800
D = 55%
K = 9%
T = 4%*
V = 45/55 MPH
* (TTST 2% + DUAL 2%)
FUNCTIONAL PRINCIPAL
CLASSIFICATION: ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0074 = 0.229 MILES
LENGTH STRUCTURES TIP PROJECT BR-0074 = 0.045 MILES
TOTAL LENGTH TIP PROJECT BR-0074 = 0.274 MILES

PLANS PREPARED FOR
THE NCDOT BY:

Kimley»Horn

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

JANUARY 21, 2023

LETTING DATE:

JANUARY 16, 2024

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

TYLER G. SPRING, P.E.
PROJECT DESIGN ENGINEER

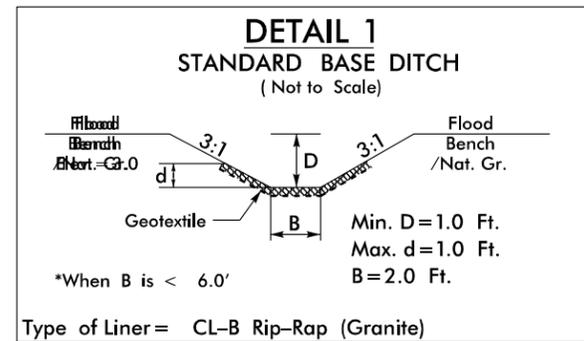
KIM UDIGIWE SPE, P.E.
PROJECT MANAGER
NCDOT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

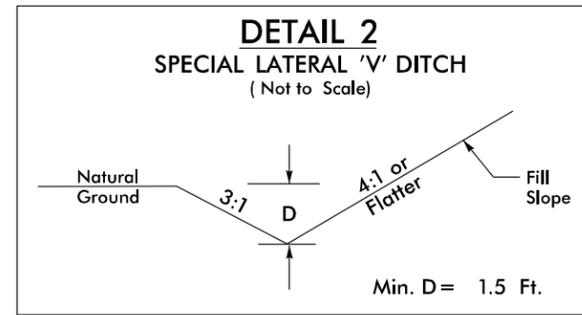
SIGNATURE: _____
P.E.



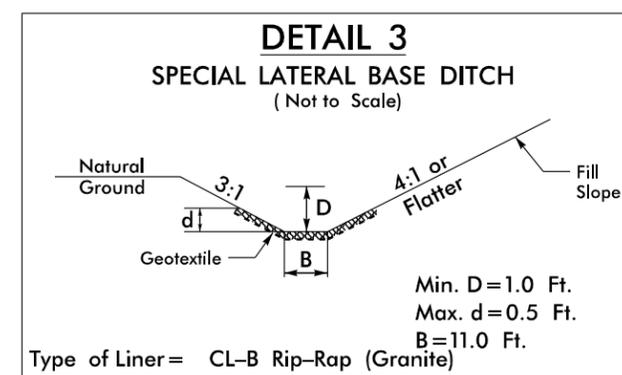


Type of Liner = CL-B Rip-Rap (Granite)

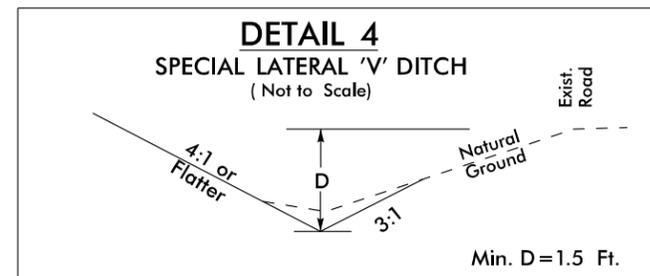
FROM STA. 20+64 TO STA. 21+48 -L- MEDIAN
FROM STA. 16+32 TO STA. 16+73 -DETWB- RT.



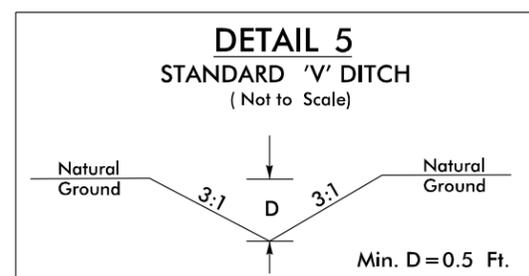
FROM STA. 17+25 TO STA. 18+50 -L- LT.



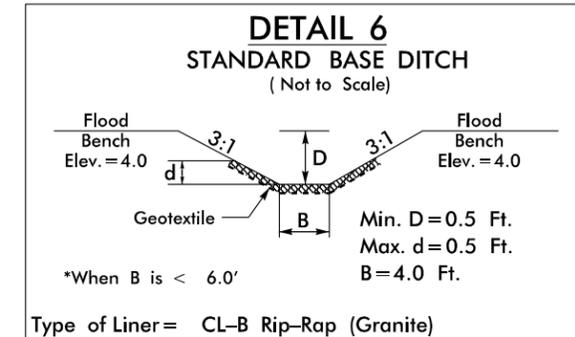
FROM STA. 18+50 TO STA. 19+12 -L- LT.



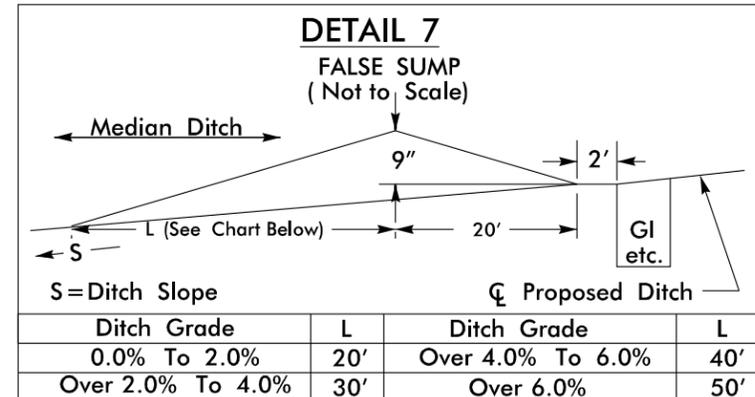
FROM STA. 18+50 TO STA. 19+00 -L- RT.
FROM STA. 27+50 TO STA. 28+00 -L- RT.



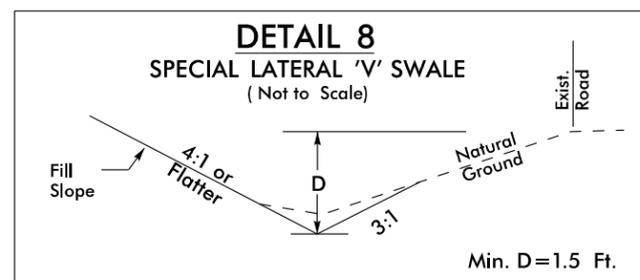
AT STA. 23+22 -L- LT



FROM STA. 22+45 TO STA. 22+70 -L-



FROM STA. 18+83 TO STA. 19+23 -DETWB- LT. (S=1.0%)
FROM STA. 20+13 TO STA. 20+53 -DETWB- LT. (S=1.0%)
FROM STA. 15+07 TO STA. 15+47 -DETEB- LT. (S=2.0%)
FROM STA. 16+30 TO STA. 16+70 -L- MEDIAN (S=1.5%)
FROM STA. 16+30 TO STA. 16+70 -L- RT. (S=1.8%)
FROM STA. 27+05 TO STA. 27+45 -L- MEDIAN (S=0.5%)



FROM STA. 19+00 TO STA. 19+50 -L- RT.
FROM STA. 27+00 TO STA. 27+50 -L- RT.

5/14/99

Revised 8/14/23

TEMPORARY WORK BRIDGE

LEGEND

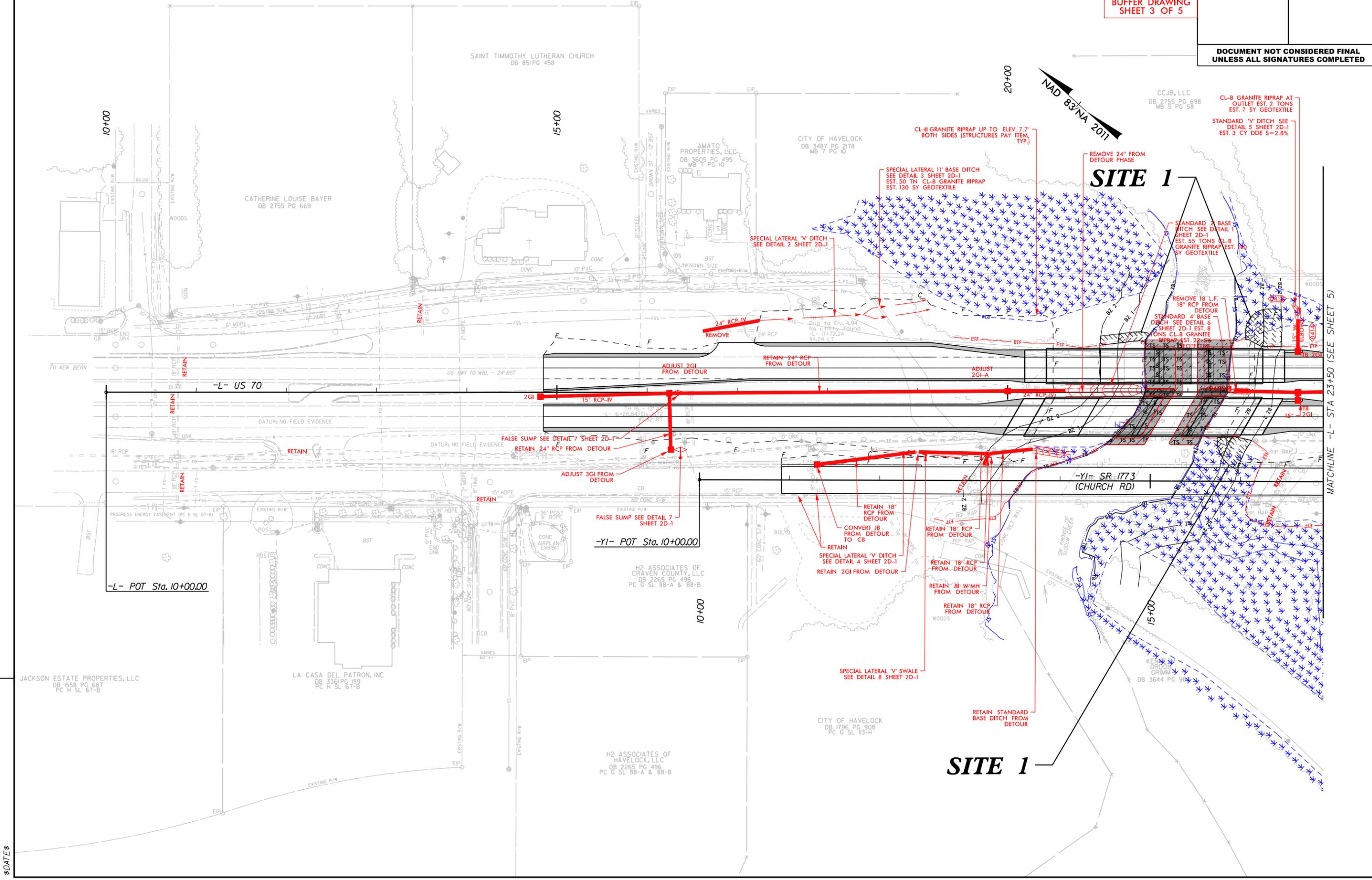
	ALLOWABLE IMPACTS ZONE 1
	ALLOWABLE IMPACTS ZONE 2

Kimley Horn
 421 FAYETTEVILLE STREET, SUITE 600
 RALEIGH, NC 27601
 ROADWAY DESIGN ENGINEER
 CONST. REV.

PROJECT REFERENCE NO. BR-0074	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

BUFFER DRAWING SHEET 3 OF 5

REVISIONS



MATCHLINE -L- STA 23+50 (SEE SHEET 5)

SITE 1

\$DATE\$

RIPARIAN BUFFER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	IMPACTS									BUFFER REPLACEMENT	
			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	-L-20+43 to -L- 22+83	TWO 240' BRIDGES		X		1140	1686	2826					
TOTALS*:						1140	1686	2826	0	0	0	0	0

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 8/14/2023
 CRAVEN COUNTY
 BR-0074

Revised 2018 Feb

