STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

January 30, 2023

MEMORANDUM TO: Division Environmental and Construction Units

FROM: Michael A. Turchy, ECAP Group Leader
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Widening of Interstate 95 from Exit 13 (I-74) to Exit 22 (US 301) and Interchange Improvements at SR 1536 (Carthage Road), Robeson County, Division 6, **TIP: I-6064 and I-5879.**

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, Section 10 Rivers and Harbors Act	Individual Permit	December 31, 2028
NC Division of Water Resources Section 401 Water Quality Certification	Individual Certification No. 005300	December 31, 2028

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/

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

PROJECT COMMITMENTS

STIP Project No. I-6064
I-95 improvements from Exit 13 (I-74/US 74) to
Exit 22 (US 301 Fayetteville Road) in Lumberton
Robeson County
Federal Aid Project No. FA# 0095077
WBS Element 49067.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Division 6, Environmental Analysis Unit - Environmental Coordination and Permitting (ECAP), Environmental Policy Unit (EPU), Aesthetic Engineering Section

Section 7(a) of Wild and Scenic Rivers Act Compliance

The NCDOT will continue coordination with the National Park Service for the proposed replacement of Bridge Numbers 770146 and 770147 carrying I-95 across the Lumber River just south of Exit 19 in accordance with the Wild and Scenic Rivers Act as hydraulic and structural design continue through the development of final Roadway Design Plans. Appropriate measures to preserve and protect the Outstandingly Remarkable Values (ORVs) as defined for the Lumber River will be developed in coordination with the National Park Service for the bridge replacement when more detailed information is available for the bridge design including bent locations, pile types, and construction methodology. NCDOT will provide the Bridge Survey and Hydraulic Design Report, Structure Design Plans, and a Field Analysis performed by a Registered Landscape Architect to document the potential effect of the proposed structure on the Lumber River's Free-Flowing condition and the ORVs on which the segment of the Lumber River within the project limits gained its Scenic designation.

NCDOT has coordinated with the National Park Service concerning the Wild and Scenic Rivers Act Section 7(a) Determination for the Lumber River for project I-6064 and received a letter dated December 23, 2022 in which they concluded that the project is not likely to result in direct and adverse effects to the river's free flow, water quality or outstandingly remarkable value as defined by the Wild and Scenic Rivers Act.

Division 6, ECAP, EPU, Aesthetic Engineering Section

North Carolina Natural and Scenic Rivers Act of 1971 (G.S. 143B-135.140 through G.S. 143B-135.172)

The NCDOT will continue coordination with North Carolina Division of Parks and Recreation for the proposed replacement of Bridge Numbers 770146 and 770147 carrying I-95 across the Lumber River just south of Exit 19 in accordance with the North Carolina Natural and Scenic Rivers Act as hydraulic and structural design continue through the development of final Roadway Design Plans. Appropriate measures to preserve and protect the river management objectives specified in the Lumber River State Park Master Plan will be developed in coordination with the NC Division of Parks and Recreation for the bridge replacement when more detailed information is available for the bridge design including bent locations, pile types, and construction methodology. NCDOT will provide the Bridge Survey and Hydraulic Design Report, Structure

Design Plans, and a Field Analysis performed by a Registered Landscape Architect to document the potential effect of the proposed structure on the Lumber River's Water Flow, Public Access, and Environmental Quality characteristics on which the segment of the Lumber River within the project limits gained its Scenic designation.

NCDOT has coordinated with the National Park Service concerning the Wild and Scenic Rivers Act Section 7(a) Determination for the Lumber River for project I-6064 and received a letter dated December 23, 2022 in which they concluded that the project is not likely to result in direct and adverse effects to the river's free flow, water quality or outstandingly remarkable value as defined by the Wild and Scenic Rivers Act.

Division 6

Catawba Indian Nation Coordination

The Catawba Cultural Preservation Project had no immediate concerns, but requested notification if Native American artifacts and/or human remains are located during the ground disturbance phase of the project.

This commitment will be addressed during the Construction Phase. The Division Environmental Supervisor and the NCDOT Cultural Resources Unit shall be contacted if artifacts and/or human remains are located.

City of Lumberton and Other Local Stakeholder Coordination

The Division will continue appropriate coordination with the City of Lumberton and other relevant stakeholders as design for the project continues. Specific items for further coordination include the City's proposed flood gate project at VFW Road, potential realignments of VFW Road, Cox Road, and Hackett Street, corridor lighting considerations, potential for extension of the proposed multiuse path along Dawn Drive, and aesthetic considerations for the bridge carrying Carthage Road over I-95.

Completed. NCDOT has coordinated with the City of Lumberton.

Robeson County Work Zone Traffic Control Plan Coordination

The Division will coordinate directly with local school transportation officials in Robeson County in developing work zone traffic control plans to ensure accessibility of the Public Schools of Robeson County school bus garage along Kenric Drive is maintained throughout project construction.

This commitment will be addressed during construction.

Detour Routes and Signalization

Any additional impacts that may result from temporary signals, detour routes, or Intelligent Transportation System (ITS) improvements will be assessed in a separate environmental analysis as needed.

This commitment was addressed during design and continued through Construction as needed.

prior to all closures.

Division 6 and NCDOT Community Studies

Farmland Conversion

The NCDOT Project Engineers should coordinate completion of the NRCS farmland conversion form (Form CPA- 106 for corridor projects) and submission to NRCS for further evaluation upon completion of final design plans.

Completed. This commitment was addressed during design.

Division 6 and Integrated Mobility Division

Bicycle and Pedestrian Accommodations

The NCDOT Project Manager should coordinate with NCDOT Division of Bicycle and Pedestrian Transportation/Integrated Mobility Division (IMD) regarding the need for inclusion of pedestrian signals and/or other pedestrian facility enhancements. Additionally, if any other modifications are made to proposed bicycle or pedestrian facilities in final design, the NCDOT Project Manager should coordinate with NCDOT IMD to ensure compliance with the Complete Streets Policy.

Completed. This commitment was addressed during design.

NCDOT Hydraulics Unit

Floodplain Mapping Coordination

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 (dated April 22, 2013, modified February 5, 2015), or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Completed. This commitment was addressed during design.

NCDOT Hydraulics Unit

Stormwater Treatment

Areas potentially draining to the WS-IV, HQW classified waters should be looked at on a site by site basis for consideration of various treatment options, including hazardous spill basins, if directly discharging to waters of the US. Stormwater runoff must be addressed in accordance with the most recent version of the NCDOT BMP Toolbox. Sedimentation and erosion control must be addressed in accordance with the most recent version of the NC Division of Land Resources Sediment & Erosion Control Planning & Design Manual.

Completed. This commitment was addressed during design.

Division 6, NCDOT Lighting Unit, and NCDOT Design-Build Unit

FAA Coordination

Additional coordination and approvals are needed with the Federal Aviation Administration and Lumberton Airport due to the proximity of the project lighting and the Lumberton Airport. The Design-Build Team will complete any necessary coordination and approvals prior to construction of the project.

Completed. This commitment was addressed during design.

Division 6, NCDOT Design-Build Unit, Environmental Analysis Unit – Cultural Resources

Tree Protection

NCDOT, HPO, and FHWA agreed there will be no adverse effect to the Jennings Mill historic property with commitments for tree protection during construction. FHWA used HPO's concurrence on this effects finding to reach a de minimis finding under Section 4(f) of USDOT regulations. NCDOT will ensure the two trees in the northwest corner of the Jennings Mill historic property are protected through construction of the project.

This commitment will be completed during the Construction Phase. Tree Protection shall be provided by the Contractor.

Division 6, Environmental Analysis Unit – Traffic Noise & Air Quality

The Draft Traffic Noise Report (TNR) is currently under review by NCDOT and will be finalized by early 2021. When completed, the TNR will be uploaded to the project Connect NCDOT site.

This commitment will be completed during the Construction Phase. The Design Noise Report (DNR) will identify recommended noise barriers and any noise barriers that pass the balloting process will be constructed. The DNR is anticipated to be approved by Summer 2023.

COMMITMENTS FROM PERMITTING

Division 6 Construction, Environmental Analysis Unit – Cultural Resources

404 condition 18

National Historic Preservation Act (project commitments): NCDOT shall abide by all commitments identified in the letter regarding "NCDOT I-6064 Project, Section 106 Effect Findings" between the Federal Highway Administration and the NC Historic Preservation Office, dated December 3, 2020.

Division 6 Construction, ECAP, EPU, Roadside Environmental

404 condition 22

Wild and Scenic Commitments: NCDOT shall abide by all commitments identified in their letter to the National Park Service-Southeast Region dated October 4, 2022. This includes all attachments and appendices of the above referenced letter (Green Sheet Commitments, Boater Safety Signage, Typical Planting Species, etc.).

Division 6 Construction
National Park Service (NPS) Commitments

During construction, signs to warn paddlers will placed upstream and downstream of the work area. Buoys will be placed to guide paddlers through the work area. NCDOT reserves the right to close the river to paddle traffic for brief periods (e.g. setting of girders spanning the channel) to prioritize safety. A path to facilitate canoe portage will be provided when the river needs to be closed to paddlers for safety (Attachment G).

NCDOT Division 6: Paddler Warning Signs shall be installed by the Contractor up and downstream of the I-95 Lumber River Bridge at McNeils Bridge Access Area (located along Keuric Drive) and Stephens Municipal Park (located along Riverside Drive).

NCDOT will provide painted signage on the upstream and downstream faces of the new bridge. Upstream text – "LUMBER RIVER" "I-95 SOUTHBOUND"; Downstream text- "LUMBER RIVER" "I-95 NORTHBOUND" The Wild and Scenic River insignia will also be painted upstream and downstream (Attachment H).

The rip rap slope protection that will be needed near the meander bend will be planted with native live stakes to help naturalize the appearance of rock near the river channel (Attachment I).

NCDOT will stain the outside concrete surfaces of the bridge with a color that will reduce the visual starkness of the structure to recreational river paddlers. The color will be determined by a registered landscape architect.

DEPARTMENT OF THE ARMY PERMIT

Permittee: **North Carolina Department of Transportation, Attn: Michael Turchy**

Permit No. **SAW-2020-00940, STIP I-6064 and I-5879**
Issuing Office **CESAW-RGD**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: **To elevate vertical grade and widen existing I-95 to an eight-lane facility for approximately 7.95 miles from I-74 (Exit 13) to south of US 301/Fayetteville Road (Exit 22) in Robeson County, North Carolina. In addition, NCDOT also proposes to make interchange and roadway improvements at SR 1536 (Carthage Road). NCDOT has identified this project as STIP I-6064 and I-5879, respectively. Total permanent aquatic impacts associated with this project include 4.31 acres of wetland impacts, 1,017 linear feet (lf) of stream impacts, 0.297 acres of open water impacts. Temporary aquatic impacts are 0.243-acre of wetland impact, 353 lf of stream impact, 0.187-acre open water impact. Also included in the project are 1.81-acres of hand clearing in wetlands.**

Project Location: **Existing I-95 for approximately 7.95 miles from I-74 (Exit 13) to south of US 301/Fayetteville Road (Exit 22) in Robeson County, North Carolina. In addition, NCDOT also proposes to make interchange and roadway improvements at SR 1536 (Carthage Road). NCDOT has identified this project as STIP I-6064 and I-5879, respectively.**

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2028.** If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit, Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

DocuSigned by:
Michael Turchy
3CFF2BCF59604C1...

01/25/2023

NCDOT, Attn: Michael Turchy *DATE*

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

FOR THE DISTRICT COMMANDER

Monte Matthews

2023.01.25 14:58:01 -05'00'

FOR

Robert M. Burnham, LTC *DATE*

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) *(DATE)*

*U.S. GOVERNMENT PRINTING OFFICE: 1986 - 717-425

Special Conditions
Action ID SAW-2020-00940
STIP I-6064 and I-5879

Special Conditions:

#1. Work Limits: All work authorized by this permit shall be performed in strict compliance with the attached permit plans received with the permit application dated October 8, 2022, which are a part of this permit. The Permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the US Army Corps of Engineers prior to any active construction in waters or wetlands.

#2. Unauthorized Dredge or Fill: Except as authorized by this permit or any U.S. Army Corps of Engineers 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, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and waste activities connected with this project. In addition, 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, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

#3. Permit Distribution: The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, drawings and attachments shall be available at the project site during the construction and maintenance of this project.

#4. Pre-Construction Meeting: The Permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the U.S. Army Corps of Engineers, Raleigh Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The Permittee shall provide the Corps, Raleigh Field Office, NCDOT Project Manager, with a copy of the final permit plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The Permittee shall schedule the preconstruction meeting for a time frame when the Corps, NCDCM (if required), and NCDWR Project Managers can attend. The Permittee shall invite the Corps, NCDCM, and NCDWR Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those

individuals with ample opportunity to schedule and participate in the required meeting. The thirty (30) day requirement can be waived with the concurrence of the Corps.

#5. Notification of Construction Commencement and Completion: The Permittee shall notify the U.S. Army Corps of Engineers in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

#6. Reporting Address: All reports, documentation, and correspondence required by the conditions of this permit shall be submitted to the following: U.S. Army Corps of Engineers, Wilmington District Raleigh Regulatory Field Office, Attn: Mr. Eric Alsmeyer, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587, or eric.c.alsmeyer@usace.army.mil. The Permittee shall reference the following permit number, SAW-2018-00748, on all submittals.

#7. Permit Revocation: The Permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

#8. Reporting Violations: Violation of these permit conditions or violation of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act shall be reported to the Corps in writing and by telephone at: 919-817-1570 within 24 hours of the Permittee's discovery of the violation.

#9. Clean Fill: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, construction debris, metal and plastic products, and concrete block with exposed reinforcement bars. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source.

#10. Endangered Species Act: The Permittee shall implement all necessary measures to ensure the authorized activity does not kill, injure, capture, harass, or otherwise harm any federally-listed threatened or endangered species. While accomplishing the authorized work, if the Permittee discovers or observes an injured or dead threatened or endangered species, the U.S. Army Corps of Engineers, Wilmington District Raleigh Field Office, Attn: Mr. Eric Alsmeyer at 919-8171570, or eric.c.alsmeyer@usace.army.mil will be immediately notified to initiate the required Federal coordination.

#11. Northern Long-Eared Bat: The Wilmington District, Federal Highway Administration, U.S. Fish and Wildlife Service (USFWS), and the North Carolina Department of Transportation (NCDOT) have conducted programmatic Section 7(a)(2)

consultation for the Northern long-eared bat (NLEB) for NCDOT projects located in Divisions 1-8. The result of this programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS titled, “Programmatic Biological Opinion – Revised, NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8”, dated December 15, 2022. This PBO contains agreed upon conservation measures which would minimize take of NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. The USFWS has documented that no reasonable and prudent measures, nor terms and conditions, are necessary or appropriate to minimize the amount or extent of incidental take of NLEB caused by the Action; therefore, the incidental take statement does not provide reasonable and prudent measures for this species. Department of the Army (DA) authorization under general permit or standard permit (Individual Permit) is conditional upon the permittee’s compliance with applicable, agreed upon conservations measures of the PBO, which is incorporated by reference in this (choose one) *verification letter* *permit*. Failure to comply with the applicable conservation measures, where a take of the NLEB occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with this (choose one) *verification letter* *permit*. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO and the ESA. All PBOs can be found on our website at: https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/.

#12. Culverts:

a) Unless otherwise requested in the application and depicted on the approved permit plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert shall be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Culverts shall be designed and constructed in a manner that minimizes destabilization and head cutting.

b) Measures shall be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

c) The Permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include,

but are not limited to, channel instability, flooding, and/or stream bank erosion. The Permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the U.S. Army Corps of Engineers.

d) Culverts placed within wetlands must be installed in a manner that does not restrict the flows and circulation patterns of waters of the United States. Culverts placed across wetland fills purely for the purposes of equalizing surface water shall not be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

#13. Sediment and Erosion Control:

a) During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

b) No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit. This includes, but is not limited to, sediment control fences and other barriers intended to catch sediment losses.

c) The Permittee shall remove all sediment and erosion control measures placed in waters and/or wetlands, and shall restore natural grades on those areas, prior to project completion.

d) The Permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the “North Carolina Sediment and Erosion Control Planning and Design Manual” to ensure compliance with the appropriate turbidity water quality standard. Erosion and sediment control practices shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to ensure compliance with the appropriate turbidity water quality standards. 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 shall remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A, Article (4). Adequate sedimentation and erosion control measures shall be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources.

These measures shall be inspected and maintained regularly, especially following rainfall events. All fill material shall be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.

#14. Temporary Fills: Within thirty (30) days of the date of completing the authorized work, the Permittee shall remove all temporary fills in waters of the United States and restore the affected areas to pre-construction contours and elevations. The affected areas shall be re-vegetated with native, non-invasive vegetation as necessary to minimize erosion and ensure site stability.

#15. Borrow and Waste: To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent waters and wetlands, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used as borrow and/or waste sites associated with this project. The Permittee shall provide the U.S. Army Corps of Engineers with appropriate maps indicating the locations of proposed borrow and/or waste sites as soon as such information is available. The Permittee shall submit to the Corps site-specific information needed to ensure that borrow and/or waste sites comply with all applicable Federal requirements, to include compliance with the Endangered Species Act and the National Historic Preservation Act, such as surveys or correspondence with agencies (e.g., the USFWS, the NC-HPO, etc.). The required information shall also include the location of all aquatic features, if any, out to a distance of 400 feet beyond the nearest boundary of the site. The Permittee shall not approve any borrow and/or waste sites before receiving written confirmation from the Corps that the proposed site meets all Federal requirements, whether or not waters of the U.S., including wetlands, are located in the proposed borrow and/or waste site. All delineations of aquatic sites on borrow and/or waste sites shall be verified by the U.S. Army Corps of Engineers and shown on the approved reclamation plans. The Permittee shall ensure that all borrow and/or waste sites comply with Special Condition #2 of this permit. Additionally, the Permittee shall produce and maintain documentation of all borrow and waste sites associated with this project. This documentation will include data regarding soils, vegetation, hydrology, any delineation(s) of aquatic sites, and any jurisdictional determinations made by the Corps to clearly demonstrate compliance with Special Condition #2. All information will be available to the U.S. Army Corps of Engineers upon request. The Permittee shall require its contractors to complete and execute reclamation plans for each borrow and/or waste site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the U.S. Army Corps of Engineers within 30 days of the completion of the reclamation work.

#16. Mitigation: In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form.

Special Conditions
Action ID SAW-2020-00940
STIP I-6064 and I-5879

The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

#17. National Historic Preservation Act: While accomplishing the authorized work, if the Permittees discover any previously unknown cultural resources, the District Engineer will be immediately notified so that required coordination can be initiated with the North Carolina Division of Natural and Cultural Resources.

#18. National Historic Preservation Act (project commitments): NCDOT shall abide by all commitments identified in the letter regarding "NCDOT I-6064 Project, Section 106 Effects Findings" between the Federal Highway Administration and the NC Historic Preservation Office, dated December 3, 2020, copy attached.

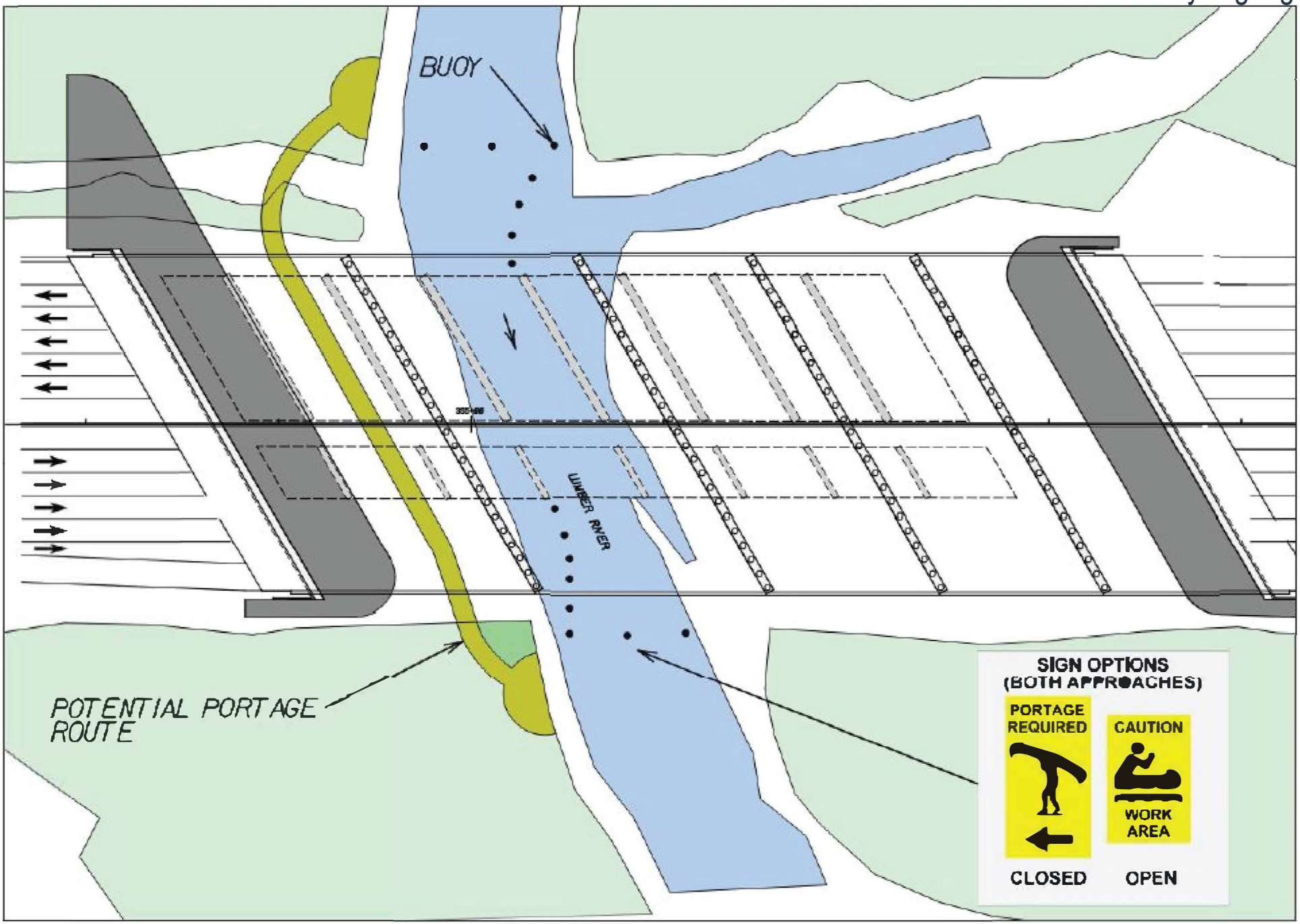
#19. Aquatic Life Movement: No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. All discharges of dredged or fill material within waters of the United States shall be designed and constructed, except as authorized as indirect impacts, to maintain low flows to sustain the movement of aquatic species.

#20. Prohibitions on Concrete: The Permittees shall take measures necessary to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with any water in or entering waters of the United States. Water inside coffer dams or casings that has been in contact with concrete shall only be returned to waters of the United States when it no longer poses a threat to aquatic organisms (concrete is set and cured).

#21. Water Contamination: All mechanized equipment shall 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 Permittees shall immediately report it to the N.C. Division of Water Resources at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act shall be followed.

#22. Wild and Scenic River Commitments: NCDOT shall abide by all commitments identified in their letter to the National Park Service-Southeast Region dated October 4, 2022. This includes all attachments and appendices of the above referenced letter (Green Sheet Commitments, Boater Safety Signage, Typical Planting Species, etc.).

ATTACHMENT G
Boater Safety Signage



Attachment H
Concept Signage

Project I-6064

Preliminary signage concepts.

River name and I-95 Southbound and I-95 Northbound to be painted on the upstream and downstream faces (respectively) of the I-95 Bridge over the Lumber River.

The Wild and Scenic River insignia will also be painted upstream and downstream.

Attachment I
Typical Planting Species

NCDOT Roadside Environmental Unit
I-6064 - Plant Material for Live Stakes and Bareroot Seedlings

Type 1: Live Stakes

Black Willow	*Salix nigra*
Buttonbush	*Cephalanthus occidentalis*

Type 2: Bareroot Seedlings

Baldcypress	*Taxodium distichum*
Overcup Oak	*Quercus lyrata*
Swamp Blackgum (Tupelo)	*Nyssa sylvatica* var. *biflora*
Water Tupelo	*Nyssa aquatica*
Overcup Oak	*Quercus lyrata*

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: NCDOT, Attn: Michael Turchy **Action ID:** SAW-2020-00940
Project Name: I-6064 and I-5879 **County:** Robeson

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*: **8-digit HUC and Basin:** 03040203, Lumber River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
926			4.31			

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements: **8-digit HUC and Basin:** 03040203, Lumber River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1852			8.62			

Mitigation Site Debited: NCDMS
(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

_____ _____
Signature of Sponsor's Authorized Representative **Date of Signature**

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ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

January 6, 2023

Mr. Jamie Lancaster
Environment Analysis Unit Head
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for the Proposed Widening of Interstate 95 and the Pavement Rehabilitation from I-74 (Exit 13) to South of US 301 (Exit 22) and I-95 / SR 1536 (Carthage Rd) Interchange Improvements in Robeson County, STIP I-6064 and I-5879, NCDWR Project No. 20221503.

Dear Mr. Lancaster:

Attached hereto is a copy of Certification No. 005300 issued to The North Carolina Department of Transportation (NCDOT) dated January 6, 2023.

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,
DocuSigned by:
Amy Chapman
9C9886312DCD474...

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

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Attachments

cc:

Monte Matthews, US Army Corps of Engineers, Wilmington Regulatory Field Office (via email)
Eric Alsmeyer, US Army Corps of Engineers, Wilmington Regulatory Field Office
Michael A. Turchy, NC Department of Transportation
Deanna Riffey, NC Department of Transportation
Gregory Price, Division 6 Environmental Officer
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Hannah Sprinkle, NC Division of Water Resources Wilmington Regional Office
File Copy

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401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 6.363 acres of jurisdictional wetlands, 1370 linear feet of jurisdictional streams and 0.484 acres of open water in Robeson County. The project shall be constructed pursuant to the application dated received October 28, 2022. The authorized impacts are as described below:

Stream Impacts in the Lumber River Basin

Site	Stream Name	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
3	Back Swamp	21*	---	21*	N/A
4	Jacob Branch	30	39	69	N/A
5	Jacob Branch	---	31	31	N/A
19	Lumber River	50	112	162	N/A
23	Meadow Branch	337	39	376	337
24	Fivemile Branch	509	91	600	509
28	Fivemile Branch	70*	---	70*	N/A
28	Fivemile Branch	---	41	41	N/A
Total		**1017**	**353**	**1370**	**846**

Total Stream Impact for Project: 1370 linear feet
(permanent impacts: 1017 lf)
*bank stabilization *

Wetland Impacts in the Lumber River Basin

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
1	---	---	---	0.002	---	0.002
2	0.003	---	---	0.040	---	0.043
6	0.049	---	0.148	0.148	---	0.345
7	0.010	---	0.009	0.039	---	0.058
8	0.538	---	---	0.232	---	0.770
8 *utilities	0.001	---	---	---	0.279	
9	0.066	---	0.018	---	---	0.084

10	0.124	---	0.001	0.149	---	0.274
10*utilities	0.005	---	---	---	0.560	
12	0.009	---	0.067	0.083	---	0.159
18	0.044	---	0.002	0.024	---	0.070
19	0.738	0.243	0.030	0.418	0.255	1.684
19*utilities	0.001	---	---	---	0.094	
20	0.043	---	---	0.014	---	0.057
21	---	---	---	0.016	0.005	0.021
21*utilities	---	---	---	---	0.070	
22	0.015	---	---	0.031	---	0.046
22*utilities	---	---	---	---	0.012	
24	0.369	---	0.256	0.230	---	0.855
24*utilities	---	---	---	---	0.037	
25	0.223	---	---	0.115	---	0.338
25*utilities	0.001	---	---	---	0.315	---
26	---	---	---	0.001	---	0.001
29 *utilities	---	---	---	---	0.182	
Total	**2.230**	**0.243**	**0.531**	**1.542**	**0.260**	**4.806**
Utility Total	**0.008**	**---**	**---**	**---**	**1.549**	**1.557**
Grand Total	**2.238**	**0.243**	**0.531**	**1.542**	**1.809**	**6.363**

Total Wetland Impact for Project: 6.363 acres * includes utilities*
(permanent impacts: 4.31 ac)

Open Water Impacts in the Lumber River Basin

Site	Permanent Fill in Open Waters (ac)	Temporary Fill in Open Waters (ac)	Total Fill in Open Waters (ac)
9	0.021	---	0.021
10	0.005	---	0.005
11	---	0.003	0.003
13	0.122	0.049	0.171

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14	0.051	0.014	0.065
15	0.051	0.006	0.057
16	0.007	0.001	0.008
17	0.040	0.039	0.079
27	---	0.075	0.075
Total	**0.297**	**0.187**	**0.484**

Total Open Water Impact for Project: 0.484 acres.
(permanent impacts: 0.297 ac)

The application provides adequate assurance that the discharge of fill material into the waters of the Lumber River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received October 28, 2022. Should your project change, you are required to 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 any additional wetland impacts 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, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).
For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

Condition(s) of Certification:

Project Specific Conditions

1. Compensatory mitigation for 846 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Division of Mitigation Service (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. The DMS has indicated in a letter dated October 26, 2022 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the DMS Mitigation Banking Instrument signed July 28, 2010.

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2. Compensatory mitigation for impacts to 4.31 acres of wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Division of Mitigation Services (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. DMS has indicated in a letter dated October 26, 2022 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with DMS's Mitigation Banking Instrument signed July 28, 2010.

General Conditions

3. 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.

4. 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)]

5. 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]

6. 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)]

7. 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]

8. 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)]

9. 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)]

10. 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)]

11. 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)]

12. 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.*

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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]

13. 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)]

14. 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)]

15. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02B .0201]

16. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000. Please note the extra protections for the sensitive watersheds.

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. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. [15A NCAC 02H .0506(b)(2)]

19. 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.) before entering the stream, 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)]

20. 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)

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21. 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)]

22. 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)

23. 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)]

24. 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)]

25. 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

26. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)

27. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed. [15A NCAC 02H.0506(b)(2)]

28. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams, shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]

29. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]

30. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]

31. 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 02B.0506(b)(2)]

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32. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]

33. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage. [15A NCAC 02H.0506(b)(2)]

34. Pipes and culverts used exclusively to maintain equilibrium in wetlands, where aquatic life passage is not a concern, shall not be buried. These pipes shall be installed at natural ground elevation.

35. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species. [15A NCAC 02H.0506(b)(2)]

36. Channel relocations shall be completed and stabilized, and approved on site by NCDWR staff, prior to diverting water into the new channel. Stream banks shall be matted with coir-fiber matting. Vegetation used for bank stabilization shall be limited to native riparian vegetation, and should include establishment of a vegetated buffer on both sides of the relocated channel to the maximum extent practical. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested. Once the stream has been turned into the new channel, it may be necessary to relocate stranded fish to the new channel to prevent fish kills. [15A NCAC 02H .0506(b)(3)

37. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)

38. 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]

39. 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)]

40. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with stream and pipe alignment at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)

41. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]

42. 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

DocuSign Envelope ID: 1A075857-AA9A-4A38-BEFA-2FBF3E0BB673

the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of $25,000.00 per day for each violation.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of $25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at http://www.ncoah.com/ or by calling the OAH Clerk's Office at (919) 431-3000.

A party filing a Petition must serve a copy of the Petition on:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 6th day of January 2023

DIVISION OF WATER RESOURCES

DocuSigned by:
Amy Chapman
9C9886312DCD474...

Richard E. Rogers, Jr., Director

WQC No. 005300

DocuSign Envelope ID: 1A075857-AA9A-4A38-BEFA-2FBF3E0BB673

NCDWR Project No.: _____ **County:** _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date:_____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____
Date _____

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

General Project Information

WBS Element:	49067.1.2,49067.1.3 & 53079.2.1	**TIP Number:**	I-6064/I-5879	**Project Type:**	Roadway Widening	**Date:**	9/28/2022
NCDOT Contact:	James J. Rerko			**Contractor / Designer:**	ICE of Carolinas, PLLC / William Stephens, PE		
Address:	NCDOT Highway Divison 6 P.O. Box 1150 Fayetteville, NC 28302			**Address:**	4905 Falls of Neuse Road Suite 125 Raleigh, NC 27609		
Phone:	910-364-0693			**Phone:**	984-255-0410		
Email:	jjrerko@ncdot.gov			**Email:**	william.stephens@ice-eng.com		
City/Town:	Lumberton			**County(ies):**	Robeson		
River Basin(s):	Lumber			**CAMA County?**	No		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	7.945 Mles	**Surrounding Land Use:**	Urban character along project corridor and a rural/residential character for areas outside of corridor				
	Proposed Project			**Existing Site**			
Project Built-Upon Area (ac.)	230.0	ac.		170.3	ac.		
Typical Cross Section Description:	Northbound Lanes - 4 @ 12' Lanes w/ Paved Shoulders & Median Barrier Wall Southbound Lanes - 4 @ 12' Lanes w/ Paved Shoulders & Median Barrier Wall			Northbound Lanes - 2 @ 12' Lanes w/ Paved Shoulders Southbound Lanes - 2 @ 12' Lanes w/ Paved Shoulders			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	107800	Year: 2041	Existing:	71800	Year:	2021

General Project Narrative:
(Description of Minimization of Water Quality Impacts)

The project consists of the widening of I-95 from I-74 (Exit 13) To South of US 301 (Exit 22) from 2 lanes in each direction to 4 lanes in each direction. Several grade separated bridges will be replaced along the project corridor. The proposed stormwater runoff from the roadway widening has been conveyed to roadside ditches and storm drainage systems that drain to existing outfalls. Stormwater management is accomplished with proposed grassed lined ditches that discharge stormwater as far away from the stream and wetlands as practical. Many of the proposed grassed lined ditches along the project would meet grass swale criteria, even though it is not required for this project.

Impact and Minimization Efforts: The project has been designed to minimize wetland and stream impacts along the corridor. Drainage has been designed so that outlets discharging into wetlands have non-erosive velocities to minimize disturbance to the wetlands. Fill slopes have been steepened to 3:1 in areas where wetlands and streams have been impacted by the project. Box culverts in the project area that convey jurisdictional streams have been buried a minimum of 1 foot and circular culverts have been buried 20% of their diameter so that they provide aquatic passage.

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

WBS Element: 49067.1.2,49067.1.3 & 53079.2.1 **TIP/Proj No.:** I-6064/I-5879 **County(ies):** Robeson

General Project Information

Waterbody Information

Surface Water Body (1):	Back Swamp		**NCDWR Stream Index No.:**	14-8-(2.5)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Back Swamp			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (2):	Fivemile Branch		**NCDWR Stream Index No.:**	14-12-6		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Fivemile Branch			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (3):	Jacob Branch		**NCDWR Stream Index No.:**	14-17		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Jacob Branch			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

WBS Element: 49067.1.2,49067.1.3 & 53079.2.1 **TIP No.:** I-6064/I-5879 **County(ies):** Robeson

Additional Waterbody Information

Surface Water Body (4):	Lumber River		**NCDWR Stream Index No.:**	14-(13)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	Federal Wild and Scenic Rivers					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Lumber River			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	Yes	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (5):	Meadow Branch		**NCDWR Stream Index No.:**	14-12-6-2		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Meadow Branch			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (6):	Saddletree Swamp		**NCDWR Stream Index No.:**	14-12		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species?	No	Comments:				
NRTR Stream ID:	Saddletree Swamp			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

09/08/99

TIP PROJECT: I-6064/I-5879

CONTRACT: C204596

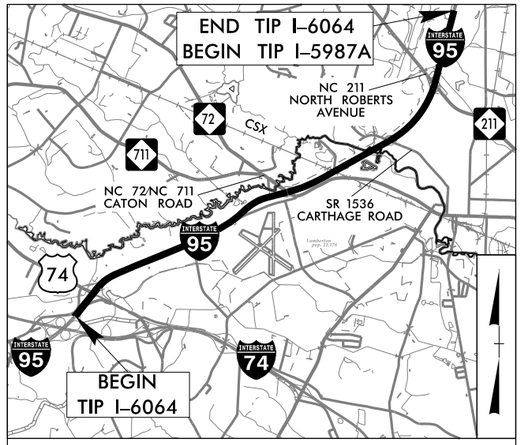
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PERMIT DRAWING
SHEET 1 OF 79

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-6064I-5879	3	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
49067.1.2, 49067.1.3, & 53079.2.1		PE
49067.2.5, 49067.2.6, & 53079.2.1		ROW
49067.2.5, & 49067.2.6		UTIL.
49067.3.1, 49067.3.2, & 49067.3.3		CONST.

ROBESON COUNTY

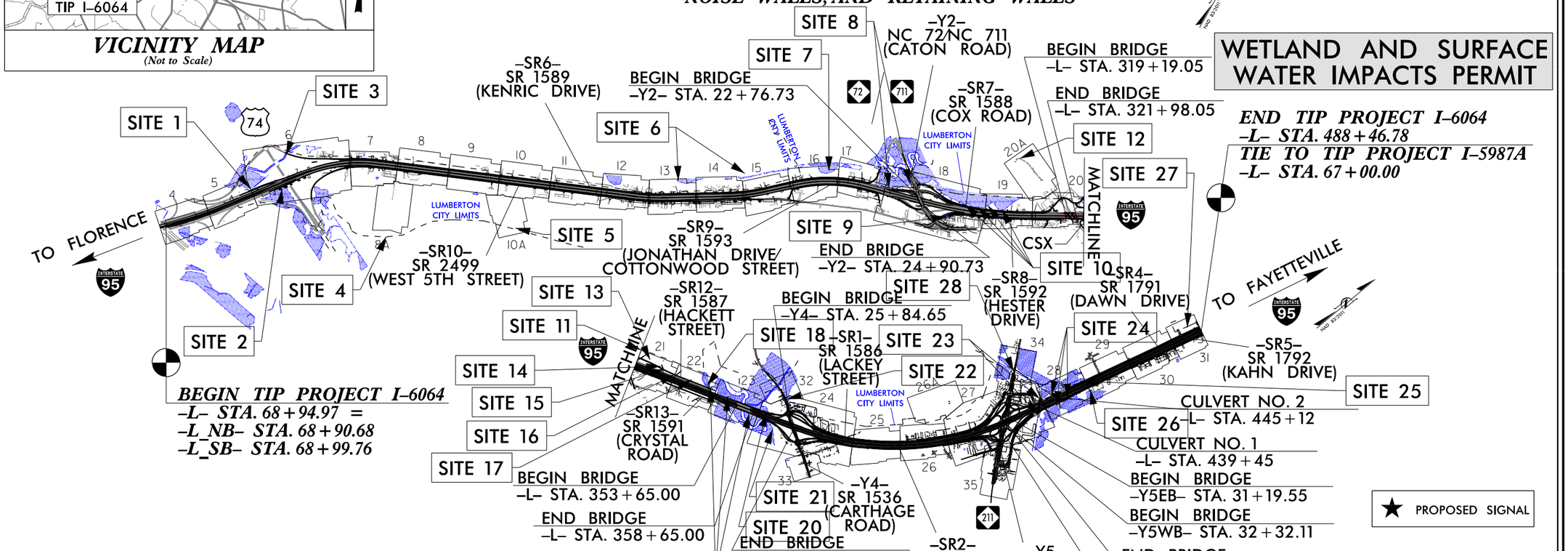


VICINITY MAP
(Not to Scale)

LOCATION: *I-95 WIDENING AND PAVEMENT REHABILITATION FROM I-74 (EXIT 13) TO SOUTH OF US 301 (EXIT 22) AND I-95/SR 1536 INTERCHANGE IMPROVEMENTS*

TYPE OF WORK: *GRADING, PAVING, DRAINAGE, CULVERTS, STRUCTURES PAVEMENT MARKINGS, SIGNING, SIGNALS, ITS, NOISE WALLS, AND RETAINING WALLS*

WETLAND AND SURFACE WATER IMPACTS PERMIT



BEGIN TIP PROJECT I-6064
–L– STA. 68+94.97 =
–L_NB– STA. 68+90.68
–L_SB– STA. 68+99.76

END TIP PROJECT I-6064
–L– STA. 488+46.78
TIE TO TIP PROJECT I-5987A
–L– STA. 67+00.00

★ PROPOSED SIGNAL

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF LUMBERTON.

THIS IS A FULL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

CLEARING AND GRUBBING ON THIS PROJECT WILL BE METHOD III.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 20 10 0 10 20

DESIGN DATA

ADT 2021 = 71,800
ADT 2041 = 107,800
K = 6.5%
D = 60 %
T = 14% *
V = 75 MPH
* TTST = 11% DUAL = 3%
FUNC CLASS = INTERSTATE STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-6064 = 7.783 MILES
LENGTH STRUCTURE TIP PROJECT I-6064 = 0.162 MILES
TOTAL LENGTH TIP PROJECT I-6064 = 7.945 MILES

Prepared In the Office of:
ICE of CAROLINAS, PLLC
ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-802-0333
License #: P-0995

Prepared for:
NCDOT DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 9/21/2021

LETTING DATE: 9/21/2021

BRIAN LUSK, PE
PROJECT ENGINEER

DAN DUFFIELD, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

8/2/2022
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USER: KAlford

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

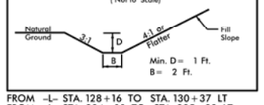
PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	2D-1
RW SHEET NO.	

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

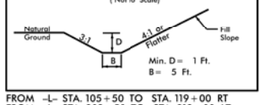
PERMIT DRAWING SHEET 2 OF 79

DETAIL A
SPECIAL LATERAL BASE DITCH
(Not to Scale)



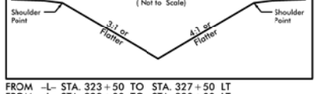
FROM –L– STA. 128+16 TO STA. 130+37 LT
FROM –L– STA. 234+00 TO STA. 235+89 LT
FROM –L– STA. 236+14 TO STA. 242+88 RT
FROM –L– STA. 274+00 TO STA. 276+00 RT
FROM –L– STA. 282+00 TO STA. 285+00 RT
FROM –SR6– STA. 24+88 TO STA. 26+85 LT
FROM –SR6– STA. 32+66 TO STA. 34+37 LT
FROM –SR6– STA. 34+37 TO STA. 34+97 LT
FROM –SR6– STA. 35+36 TO STA. 41+34 LT
FROM –SR6– STA. 41+34 TO STA. 47+15 LT
FROM –SR6– STA. 47+15 TO STA. 60+72 LT
FROM –SR6– STA. 80+06 TO STA. 84+66 LT
FROM –SR6– STA. 86+87 TO STA. 88+74 LT
FROM –SR6– STA. 106+88 TO STA. 109+14 LT
FROM –SR6– STA. 118+30 TO STA. 130+16 LT
FROM –SR6– STA. 156+00 TO STA. 159+77 LT
FROM –SR6– STA. 161+00 TO STA. 174+50 LT
FROM –SR7– STA. 32+50 TO STA. 34+00 LT
FROM –SR8– STA. 25+85 TO STA. 26+85 RT
FROM –SR8– STA. 33+80 TO STA. 36+00 RT
FROM –SR9– STA. 20+32 TO STA. 23+00 RT
FROM –SR9– STA. 23+07 TO STA. 27+72 RT
FROM –SR9– STA. 10+34 TO STA. 12+72 LT
FROM –SR9– STA. 13+60 TO STA. 17+81 RT
FROM –SR9– STA. 20+32 TO STA. 23+00 RT
FROM –SR9– STA. 23+07 TO STA. 38+00 RT
FROM –SR10– STA. 20+72 TO STA. 24+14 RT
FROM –SR10– STA. 31+55 TO STA. 34+12 RT
FROM –SR10– STA. 35+32 TO STA. 38+40 RT
FROM –SR10– STA. 44+19 TO STA. 56+43 RT
FROM –SR10– STA. 76+62 TO STA. 86+37 RT
FROM –SR10– STA. 91+88 TO STA. 96+33 RT
FROM –SR10– STA. 102+08 TO STA. 105+20 RT
FROM –SR10– STA. 105+30 TO STA. 109+45 RT
FROM –SR10– STA. 119+35 TO STA. 134+35 RT
FROM –SR10– STA. 135+58 TO STA. 139+90 RT
FROM –SR10– STA. 140+05 TO STA. 145+43 LT
FROM –SR12– STA. 10+40 TO STA. 16+00 LT
FROM –SR12– STA. 10+50 TO STA. 11+00 RT
FROM –SR13– STA. 15+88 TO STA. 17+85 RT
FROM –SR2– STA. 29+06 TO STA. 35+65 RT
FROM –Y2RPC– STA. 10+50 TO STA. 20+70 RT
FROM –Y2RPD– STA. 19+25 TO STA. 21+10 LT

DETAIL B
SPECIAL LATERAL BASE DITCH
(Not to Scale)



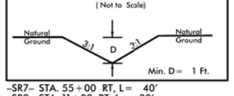
FROM –L– STA. 105+50 TO STA. 119+00 RT
FROM –L– STA. 302+50 TO STA. 312+00 LT
FROM –SR6– STA. 26+85 TO STA. 32+15 LT
FROM –SR6– STA. 60+72 TO STA. 80+06 LT
FROM –SR6– STA. 90+52 TO STA. 106+88 LT
FROM –SR6– STA. 137+15 TO STA. 141+85 LT
FROM –SR6– STA. 143+00 TO STA. 150+49 LT
FROM –SR6– STA. 150+54 TO STA. 155+77 LT
FROM –SR10– STA. 25+12 TO STA. 30+29 RT
FROM –SR10– STA. 38+80 TO STA. 44+19 RT
FROM –SR10– STA. 56+43 TO STA. 76+62 RT
FROM –SR10– STA. 96+33 TO STA. 102+08 RT
FROM –SR10– STA. 114+80 TO STA. 115+97 RT

DETAIL C
MEDIAN 'V' DITCH
(Not to Scale)



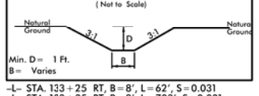
FROM –L– STA. 323+50 TO STA. 327+50 LT
FROM –L– STA. 328+00 TO STA. 330+00 LT
FROM –L– STA. 331+00 TO STA. 336+00 LT
FROM –L– STA. 339+50 TO STA. 346+05 LT
FROM –L– STA. 426+50 TO STA. 427+00 LT

DETAIL D
STANDARD 'V' DITCH
(Not to Scale)



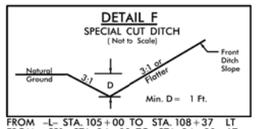
–SR7– STA. 55+00 RT, L= 40'
–SR9– STA. 11+00 RT, L= 30'
–SR9– STA. 11+00 RT, L= 30'
–Y4RPC– STA. 20+90 TO 21+96 RT, L= 106'

DETAIL E
STANDARD BASE DITCH
(Not to Scale)



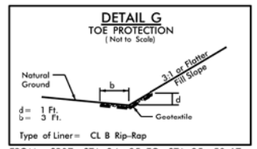
–L– STA. 133+25 RT, B=8', L=62', S=0.031
–L– STA. 133+35 RT, B=8', L=703', S=0.001
–L– STA. 135+16 RT, B=8', L=215', S=0.002
–SR1– STA. 32+50 LT, B=5', L=150', S=0.001
–SR1– STA. 37+50 LT, B=5', L=185', S=0.001
–SR6– STA. 102+58 LT, B=8', L=158', S=0.001
–SR6– STA. 118+30 LT, B=8', L=384', S=0.001
–SR6– STA. 137+15 LT, B=8', L=453', S=0.001
–SR6– STA. 172+00 RT, B=5', L=140', S=0.003
–SR7– STA. 39+75 TO 50+50 LT, B=5', L=1570', S=0.001
–SR7– STA. 50+25 LT, B=2', L=40', S=0.0148
–SR7– STA. 50+50 TO 52+50 RT, B=5', L=140', S=0.002
–SR10– STA. 66+19 RT, B=8', L=1278', S=0.0017
–SR12– STA. 29+00 LT, B=2', L=36', S=0.010
–Y1RPA– STA. 23+50 RT, B=3', L=70', S=0.02

DETAIL F
SPECIAL CUT DITCH
(Not to Scale)



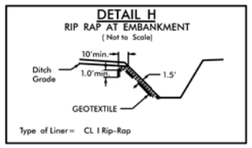
FROM –L– STA. 105+00 TO STA. 108+37 LT
FROM –SR1– STA. 24+00 TO STA. 24+90 LT
FROM –SR1– STA. 42+77 TO STA. 44+45 LT
FROM –SR2– STA. 37+67 TO STA. 39+75 RT
FROM –SR2– STA. 40+05 TO STA. 44+38 RT
FROM –SR2– STA. 44+82 TO STA. 47+00 RT
FROM –SR2– STA. 48+50 TO STA. 49+50 RT
FROM –SR4– STA. 16+58 TO STA. 18+50 LT
FROM –SR4– STA. 23+24 TO STA. 25+50 LT
FROM –SR4– STA. 37+77 TO STA. 40+40 LT
FROM –SR4– STA. 40+40 TO STA. 42+50 LT
FROM –SR4– STA. 47+65 TO STA. 50+75 LT
FROM –SR5– STA. 74+14 TO STA. 79+45 RT
FROM –Y5RPA– STA. 17+11 TO STA. 21+91 RT
FROM –SR8A– STA. 10+62 TO STA. 13+75 RT
FROM –SR10– STA. 140+55 TO STA. 145+77 RT
FROM –SR13– STA. 23+94 TO STA. 27+44 LT

DETAIL G
TOE PROTECTION
(Not to Scale)

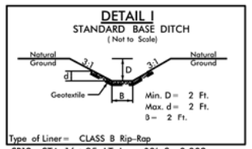


FROM –SR07– STA. 24+35 TO STA. 25+50 LT
FROM –SR07– STA. 26+20 TO STA. 28+38 LT
FROM –SR07– STA. 28+85 TO STA. 29+70 LT
FROM –Y2– STA. 17+65 TO STA. 19+05 RT
FROM –Y2RPB– STA. 11+30 TO STA. 16+85 LT
FROM –Y4– STA. 18+50 TO STA. 20+25 LT
FROM –Y4– STA. 18+50 TO STA. 20+25 LT
FROM –Y4RPB– STA. 13+45 TO STA. 14+53 LT

DETAIL H
RIP RAP AT EMBANKMENT
(Not to Scale)

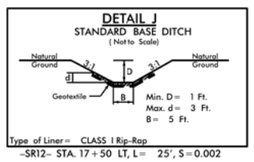


DETAIL I
STANDARD BASE DITCH
(Not to Scale)



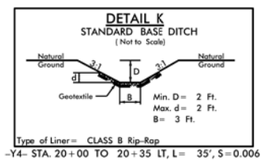
–SR12– STA. 16+85 LT, L= 30', S=0.002

DETAIL J
STANDARD BASE DITCH
(Not to Scale)



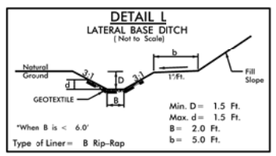
–SR12– STA. 17+50 LT, L= 25', S=0.002

DETAIL K
STANDARD BASE DITCH
(Not to Scale)

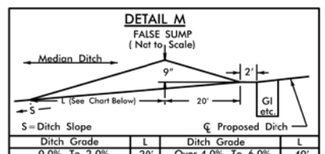


–Y4– STA. 20+00 TO 20+35 LT, L= 35', S=0.006

DETAIL L
LATERAL BASE DITCH
(Not to Scale)



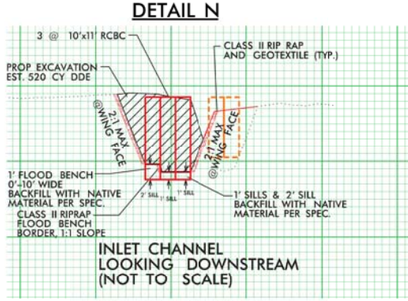
DETAIL M
FALSE SUMP
(Not to Scale)



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'

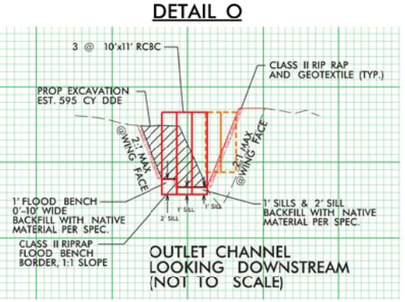
SEE PLANS FOR LOCATIONS

DETAIL N



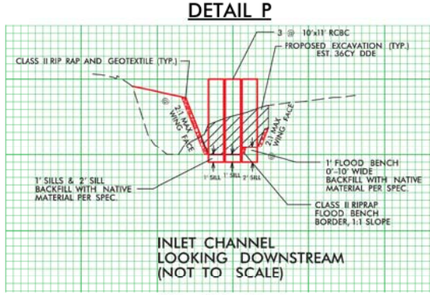
STA. –SR5– 30+00 RT

DETAIL O



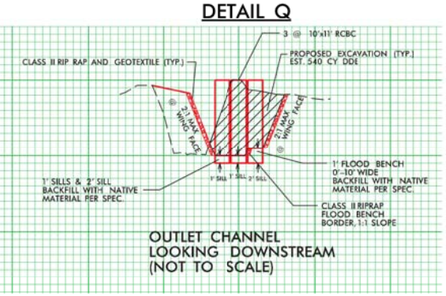
STA. –SR4– 19+48 LT

DETAIL P



STA. –SR5– 37+60 RT

DETAIL Q



STA. –SR4– 23+10 LT

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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC
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4505 Falls of Neuse Road, Suite 110
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Phone: 803-822-0333
License #: P-0999

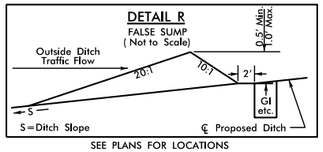
PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	2D-2
RW SHEET NO.	

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

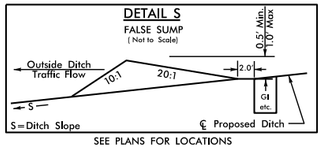
PERMIT DRAWING SHEET 3 OF 79

DETAIL R
FALSE SUMP
(Not to Scale)



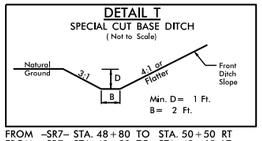
SEE PLANS FOR LOCATIONS

DETAIL S
FALSE SUMP
(Not to Scale)



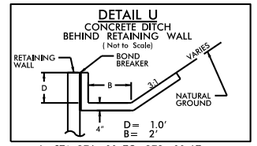
SEE PLANS FOR LOCATIONS

DETAIL T
SPECIAL CUT BASE DITCH
(Not to Scale)



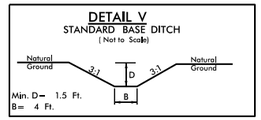
FROM –SR7– STA. 48+80 TO STA. 50+50 RT
FROM –SR7– STA. 48+50 TO STA. 49+65 LT
FROM –SR7– STA. 55+00 TO STA. 59+00 LT
FROM –SR8– STA. 20+28 TO STA. 20+60 RT
FROM –SR8– STA. 22+00 TO STA. 24+00 RT
FROM –SR8– STA. 36+00 TO STA. 38+00 RT
FROM –SR2– STA. 21+45 TO STA. 27+88 RT
FROM –SR2– STA. 35+65 TO STA. 37+62 RT
FROM –Y4RPC– STA. 16+06 TO STA. 16+50 RT
FROM –Y4RPB– STA. 16+00 TO STA. 17+00 LT

DETAIL U
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)



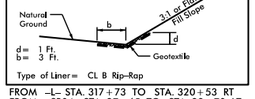
–L– STA. 276+00 TO 278+00 LT
–L– STA. 278+30 TO 279+00 RT
–L– STA. 279+00 TO 279+91 LT
–L– STA. 280+20 TO 281+46 RT
–L– STA. 315+70 TO 316+80 LT
–L– STA. 367+45 TO 368+70 LT
–L– STA. 369+39 TO 369+96 RT
–L– STA. 369+40 TO 369+96 LT
–L– STA. 370+73 TO 372+02 RT
–SR7– STA. 47+00 TO 48+78 RT

DETAIL V
STANDARD BASE DITCH
(Not to Scale)



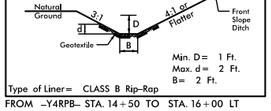
–L– STA. 317+60 RT, L=40', S=0.015
–SR7– STA. 31+40 LT, L=95', S=0.003

DETAIL W
TOE PROTECTION
(Not to Scale)



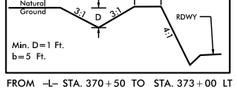
FROM –L– STA. 317+73 TO STA. 320+53 RT
FROM –SR04– STA. 27+65 TO STA. 29+70 LT
FROM –SR04– STA. 29+85 TO STA. 32+95 LT
FROM –SR05– STA. 32+65 TO STA. 36+21 RT

DETAIL X
SPECIAL CUT BASE DITCH
(Not to Scale)



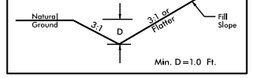
FROM –Y4RPB– STA. 14+50 TO STA. 16+00 LT

Y
BERM 'V' DITCH
(Not to Scale)



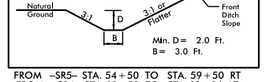
FROM –L– STA. 370+50 TO STA. 373+00 LT

DETAIL AA
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



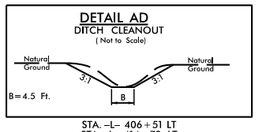
FROM –SR1– STA. 15+50 TO STA. 17+58 LT
FROM –SR1– STA. 18+35 TO STA. 19+40 LT
FROM –SR1– STA. 45+20 TO STA. 46+75 LT
FROM –Y5RPC– STA. 18+50 TO STA. 21+50 RT
FROM –SR5– STA. 30+16 TO STA. 32+65 RT

DETAIL AB
SPECIAL CUT BASE DITCH
(Not to Scale)



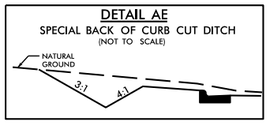
FROM –SR5– STA. 54+50 TO STA. 59+50 RT
FROM –SR4– STA. 18+50 TO STA. 19+26 LT

DETAIL AD
DITCH CLEANOUT
(Not to Scale)



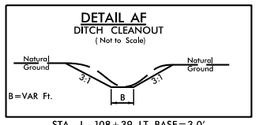
STA. –L– 406+51 LT
STA. –L– 414+72 LT

DETAIL AE
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



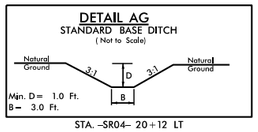
FROM –Y5– STA. 20+00 TO STA. 24+00 RT

DETAIL AF
DITCH CLEANOUT
(Not to Scale)



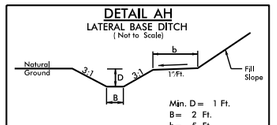
STA. –L– 108+39 LT, BASE=3.0'
STA. –L– 112+18 LT, BASE=5.0'
STA. –L– 253+80 LT, BASE=10.0'
STA. –SR01– 49+28 LT, BASE=4.5'
STA. –SR01– 57+29 LT, BASE=4.5'
STA. –SR04– 64+28 LT, BASE=10.0'
STA. –SR05– 41+10 RT, BASE=4.0'
STA. –SR09– 23+10 RT, BASE=10.0'
STA. –SR12– 28+40 LT, BASE=5.0'

DETAIL AG
STANDARD BASE DITCH
(Not to Scale)



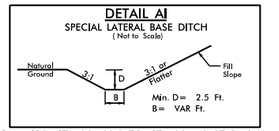
STA. –SR04– 20+12 LT

DETAIL AH
LATERAL BASE DITCH
(Not to Scale)



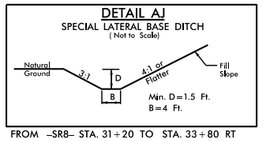
FROM –SR6– STA. 16+85 TO 23+00 RT
FROM –SR12– STA. 18+75 TO STA. 19+25 LT
FROM –SR12– STA. 20+25 TO STA. 21+00 LT
FROM –SR12– STA. 24+86 TO STA. 28+35 LT
FROM –SR12– STA. 31+87 TO STA. 32+90 LT
FROM –Y2RPD– STA. 19+35 TO STA. 21+50 RT
FROM –Y4– STA. 21+30 TO STA. 22+38 RT
FROM –Y4RPB– STA. 17+00 TO STA. 19+53 LT

DETAIL AI
SPECIAL LATERAL BASE DITCH
(Not to Scale)



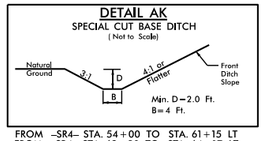
FROM –SR5– STA. 26+83.5 TO STA. 29+42 RT, B=3.0'
FROM –SR5– STA. 41+11 TO STA. 46+00 RT, B=4.0'
FROM –SR5– STA. 49+70 TO STA. 51+10 RT, B=4.0'

DETAIL AJ
SPECIAL LATERAL BASE DITCH
(Not to Scale)



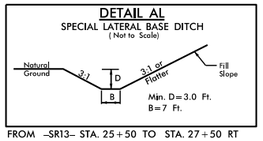
FROM –SR8– STA. 31+20 TO STA. 33+80 RT

DETAIL AK
SPECIAL CUT BASE DITCH
(Not to Scale)



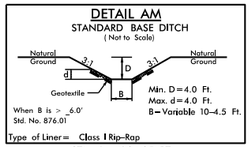
FROM –SR4– STA. 54+00 TO STA. 61+15 LT
FROM –SR4– STA. 62+30 TO STA. 64+17 LT
FROM –SR13– STA. 17+85 TO STA. 20+88 RT

DETAIL AL
SPECIAL LATERAL BASE DITCH
(Not to Scale)



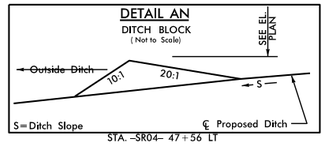
FROM –SR13– STA. 25+50 TO STA. 27+50 RT

DETAIL AM
STANDARD BASE DITCH
(Not to Scale)



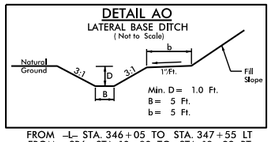
STA. –L– 406+35 RT

DETAIL AN
DITCH BLOCK
(Not to Scale)



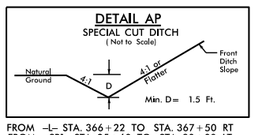
STA. –SR04– 47+56 LT

DETAIL AO
LATERAL BASE DITCH
(Not to Scale)



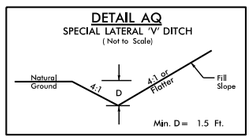
FROM –L– STA. 346+05 TO STA. 347+55 LT
FROM –SR6– STA. 10+80 TO STA. 13+22 RT
FROM –SR6– STA. 13+22 TO STA. 16+85 RT

DETAIL AP
SPECIAL CUT DITCH
(Not to Scale)



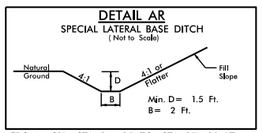
FROM –L– STA. 366+22 TO STA. 367+50 RT
FROM –SR1– STA. 25+60 TO STA. 30+00 LT
FROM –Y4RPC– STA. 16+06 TO STA. 22+00 LT
FROM –Y4RPA– STA. 20+68 TO STA. 22+17 RT
FROM –L– STA. 370+50 TO STA. 371+50 LT

DETAIL AQ
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



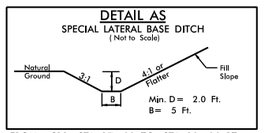
FROM –L– STA. 372+53 TO STA. 375+00 RT
FROM –SR1– STA. 30+00 TO STA. 32+70 LT
FROM –SR1– STA. 32+75 TO STA. 34+35 LT
FROM –SR1– STA. 37+44 TO STA. 42+00 LT

DETAIL AR
SPECIAL LATERAL BASE DITCH
(Not to Scale)



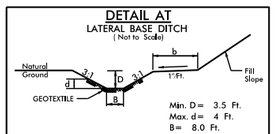
FROM –SR1– STA. 34+35 TO STA. 37+39 LT

DETAIL AS
SPECIAL LATERAL BASE DITCH
(Not to Scale)



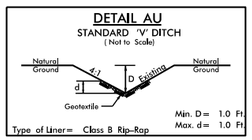
FROM –SR2– STA. 27+88 TO STA. 29+06 RT

DETAIL AT
LATERAL BASE DITCH
(Not to Scale)



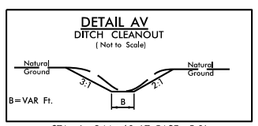
FROM –Y4RPB– STA. 13+80 TO STA. 14+50 LT

DETAIL AU
STANDARD 'V' DITCH
(Not to Scale)



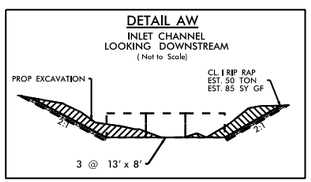
FROM –SR1– STA. 11+30 TO STA. 12+40 RT
(No Proposed Ditch Grade)

DETAIL AV
DITCH CLEANOUT
(Not to Scale)



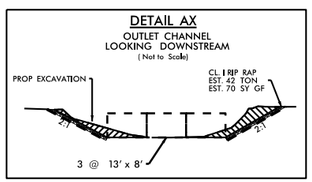
STA. –L– 244+60 LT, BASE=5.0'
STA. –SR09– 10+46 RT, BASE=6.0'

DETAIL AW
INLET CHANNEL
LOOKING DOWNSTREAM
(Not to Scale)



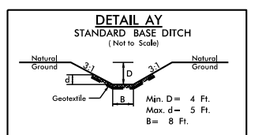
–Y5– STA. 18+50 LT

DETAIL AX
OUTLET CHANNEL
LOOKING DOWNSTREAM
(Not to Scale)



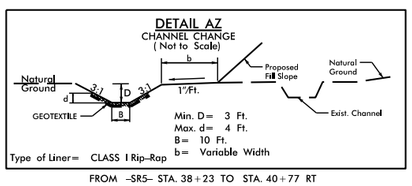
–Y5– STA. 18+06 RT

DETAIL AY
STANDARD BASE DITCH
(Not to Scale)



–SR10– 117+05 RT, B=8', L= 18', S=0.059
–Y4RPC– STA. 15+80 RT, L= 54', S=0.002

DETAIL AZ
CHANNEL CHANGE
(Not to Scale)



FROM –SR5– STA. 38+23 TO STA. 40+77 RT

8/2/2022
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User:kellford

8/17/99

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Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 4 OF 79

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

SITE 1

MATCHLINE –L– STA. 81+00.00 (SEE SHEET 4)

MATCHLINE –L– STA. 94+00.00 (SEE SHEET 6)

EXIST. R/W

SR 1207 HILLY BRANCH RD 31' BST

48" WW w/ISBW

GRASS

VEGETATION

ALFRED THOMPSON

3

SHALLOW 2GI IS NEEDED TO AVOID LONG DITCH INTO WETLANDS

CL I RIP RAP EST. 19 TONS EST. 30 SY GF

Q10 = 34.6 cfs
V10 = 1.3 fps

STANDARD 3' BASE DITCH SEE DETAIL E

SP. DET. 2GI-A

25+00

85+00

90+00

I-95 SB/US 301 SB 37' BST

I-95 NB/US 301 NB 37' BST

I-95 NB 37' BST

3' BST

30' BST

35' BST

23' BST

PROP. DOUBLE FACE CABLE GUIDERAIL

FIELD VISIT SHOWS A BOX DEPTH OF 3' (TOP APPEARS TO BE CORRECT & INV IS INCORRECT)

FIELD VERIFY LOCATION

ASSUMED

BL-37

EOI

CABLE

MTL

F

S

P

I60664-36

1 NCDOT

2 MARYLYN BRITT

FOR -L_SB- PROFILE SEE SHT.37
FOR -L_NB- PROFILE SEE SHT.37
FOR -YIRPA- PROFILE SEE SHT.54

$DATE$ $TIME$
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Matt.Harvey

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 5 OF 79

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

SITE 1

MATCHLINE –L– STA. 81+00.00 (SEE SHEET 4)

MATCHLINE –L– STA. 94+00.00 (SEE SHEET 6)

SR 1207 HILLY BRANCH RD 31' BST

I-95 SB/US 301 SB 37' BST

I-95 NB/US 301 NB 37' BST

EXIST. R/W

85+00

90+00

25+00

Q10 = 34.6 cfs
V10 = 1.3 fps

CL RIP RAP EST. 13 TONS EST. 30 SY OF

STANDARD 3' BASE DITCH SEE DETAIL E

SHALLOW 2GI IS NEEDED TO AVOID LONG DITCH INTO WETLANDS

SF DET 2GI-A

FIELD VISIT SHOWS A BOX DEPTH OF 3' (TOP APPEARS TO BE CORRECT & INV IS INCORRECT)

PROP. DOUBLE FACE CABLE GUIDERAIL

REMOVE 18" RCP-III

REMOVE 24" RCP-III

REMOVE 30" RCP-III

REMOVE 36" RCP-III

FLOWABLE FILL

PLUG

REMOVE 20' +/-

ASSUMED

18" RCP (PER PLANS) NOT FOUND IN THE FIELD

FIELD VERIFY LOCATION

REMOVE TRAFFIC BEARING SD COLLAR (PER PLANS)

2GI

2GI-A

2GI-D

FS

RETAIN

RETAIN 20' +/-

BL-37

I6064-36

1 NCDOT

2 MARYLYN BRITT

3 ALFRED THOMPSON

FOR -L_SB- PROFILE SEE SHT.37

FOR -L_NB- PROFILE SEE SHT.37

FOR -YIRPA- PROFILE SEE SHT.54

$DATE$ $TIME$
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M.Harvey

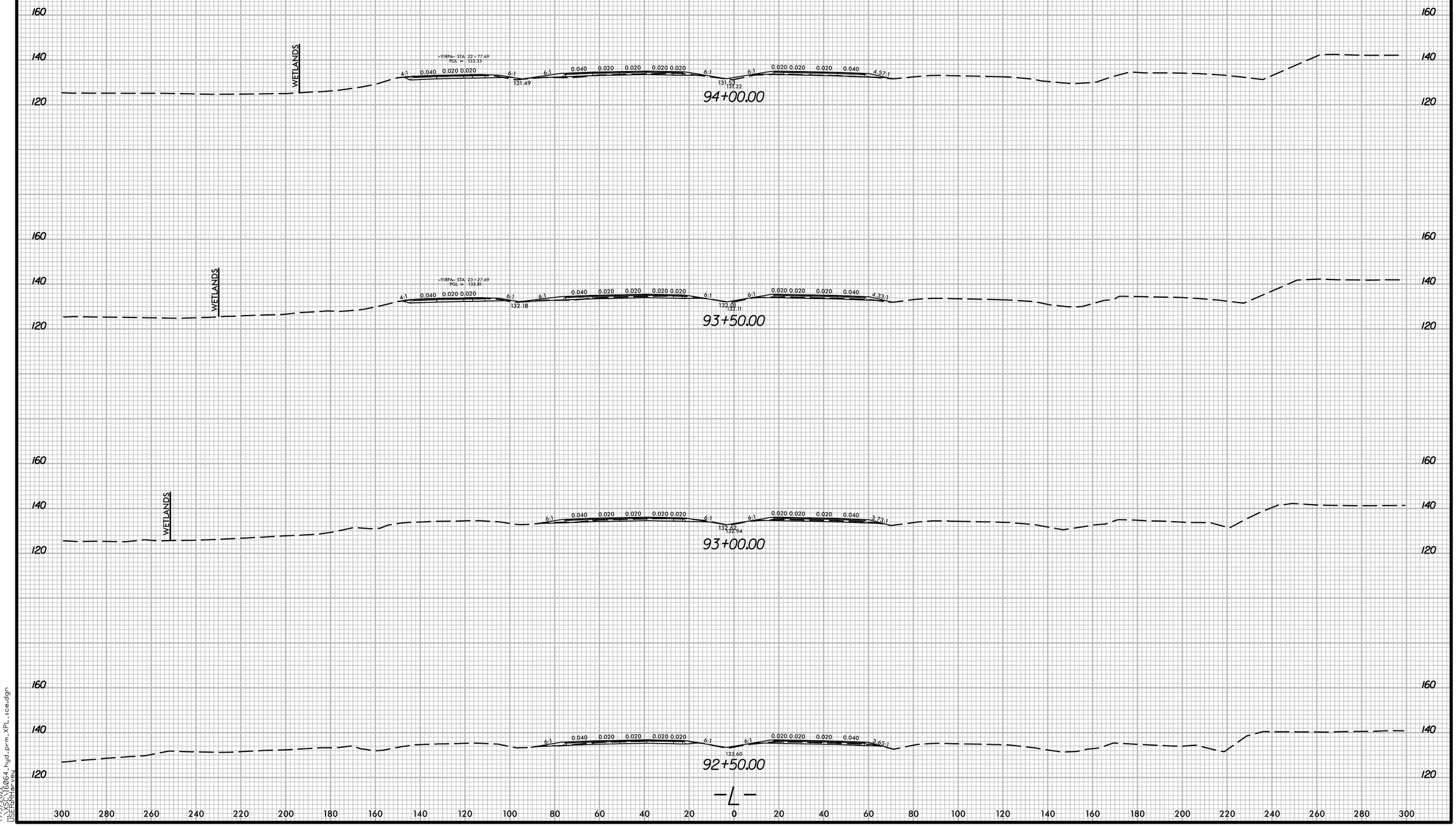
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-14

SITE 1

PERMIT DRAWING
SHEET 6 OF 79

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



7/13/2022
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USER:MHarvey

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PROJECT REFERENCE NO.	SHEET NO.
I-6084/I-5879	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

PERMIT DRAWING
SHEET 7 OF 79

F F FILL IN WETLAND

* * MECHANIZED CLEARING (GRUBBING)

S S SURFACE WATER IMPACTS

200' 0' 200'
GRAPHIC SCALE

SEE SHEET 10 OF 79 FOR ENLARGED VIEW

SITE 3

SEE SHEET 9 OF 79 FOR ENLARGED VIEW

SITE 2

MATCHLINE -L- STA. 94+00.00 (SEE SHEET 5)

MATCHLINE -L- STA. 122+00.00 (SEE SHEET 7)

FOR -LSB- PROFILE SEE SHT.38	FOR -L- PROFILE SEE SHT.39
FOR -YIRPA- PROFILE SEE SHT.54	FOR -SR6- PROFILE SEE SHT.80
FOR -YIRPD- PROFILE SEE SHT.54	FOR -SR10- PROFILE SEE SHT.90

NORTHBOUND R/W LABELED OFF -SR10- UNLESS NOTED OTHERWISE.

SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.

GRAPHIC SCALE
50 25 0 50 100
PLANS

DATE PLOTTED: 12-JUL-2021 11:48:54
FILE NAME: C:\Users\chrisgan\projects\projects\I-6084_I-5879\Roadway\Sheets\I6027-I-6084_RDY_PlanSheets-ICE.dgn

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 8 OF 79

NAD 83/2011

F F FILL IN WETLAND

* * MECHANIZED CLEARING (GRUBBING)

TS TS TEMPORARY SURFACE WATER IMPACTS

200' 0' 200'
GRAPHIC SCALE

SEE SHEET 9 OF 79 FOR ENLARGED VIEW

SITE 3

SITE 2

SEE SHEET 9 OF 79 FOR ENLARGED VIEW

MATCHLINE -L- STA. 94+00.00
(SEE SHEET 5)

MATCHLINE -L- STA. 122+00.00
(SEE SHEET 7)

Back Swamp

FOR -LSB- PROFILE SEE SHT.38	FOR -L- PROFILE SEE SHT.39
FOR -YIRPA- PROFILE SEE SHT.54	FOR -SR6- PROFILE SEE SHT.80
FOR -YIRPD- PROFILE SEE SHT.54	FOR -SR10- PROFILE SEE SHT.90

NORTHBOUND R/W LABELED OFF -SR10- UNLESS NOTED OTHERWISE.

SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.

GRAPHIC SCALE
50 25 0 50 100
PLANS

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FLOWABLE FILL

GRADE TO DRAIN

REMOVE

REMOVE

REMOVE

REMOVE
18" RCP–III

TB 2GI

TB 2GI

RETAIN

GRADE TO DRAIN

REMOVE

SP. DET. 2GI–A

30" RCP–III

36" RCP–III

24" RCP

REMOVE

15" RCP–IV

TB 2GI

TB 2GI

15" RCP–IV

TB 2GI

TB 2GI

18" RCP–IV

TB 2GI

18" RCP–III

SP. DET. TB 2GI
24" RCP–III

24" RCP–III

TB 2GI

15" RCP–III

18" RCP–III

TB 2GI

CL I RIP RAP
EST. 10 TONS
EST. 23 SY GF

100+00

100+00

105+00

15+00

20+00

TOP=130.29'
INV=126.02
INV=126.03

INV=125.04'
TOP=128.72'
INV=124.97'

INV=124.01'

BL-39

BY I-41

CONC BRIDGE DECK

CONC BARRIER WALL

CONC SHOULDER

SEAT ELEV= 150.33'

CABLE

GRASS

MTL

WLB

F

T FO

40' 0' 40'

GRAPHIC SCALE

NAD 83

SITE 2 ENLARGEMENT

PERMIT DRAWING SHEET 9 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

9/7/2022
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40′ 0′ 40′

GRAPHIC SCALE

SITE 3 ENLARGEMENT

PERMIT DRAWING SHEET 10 OF 79

S S SURFACE WATER IMPACTS

NAD 83

JS

Back Sw

BST BRIDGE DECK

WLB

SURFACE WATER IMPACTS

S

JS

Back Swamp

CL II RIP RAP
EST. 15 TONS
AT EMBANKMENT
SEE DETAIL H

LATERAL 5′ BASE DITCH

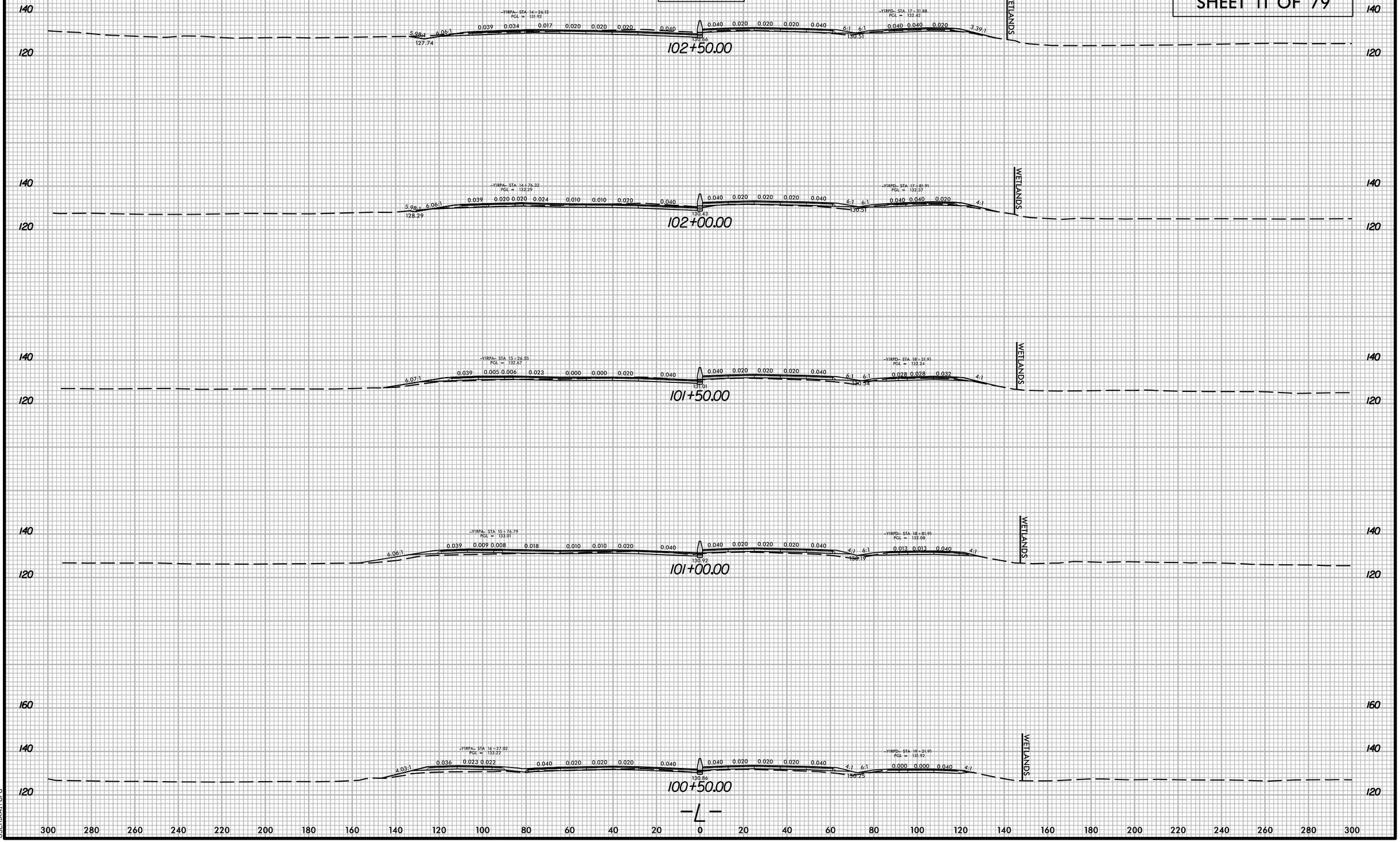
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-18

SITE 2

PERMIT DRAWING
SHEET 11 OF 79

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



8/2/2022
I:\ASD\16064_hyd-prm_XPL_ice.dgn
USERNAME

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	8A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING SHEET 12 OF 79

REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 8A

NAD 83

INSET "A"

410 CL I RIP RAP EST. 52 TONS EST. 100 SY GF

PDE

48" HW

18" CMP

REMOVE

TS

SS

NAD 83

SITE 4

MATCHLINE (SEE SHEETS 7 AND 8)

22 XMC PROPERTIES, LLC

2GI

36"

RETAIN EX. DITCH AND ADJUST AS NECESSARY

CL I RIP RAP EST. 30 TONS EST. 60 SY GF

410

SEE INSET "A"

STD. 8' BASE DITCH SEE DETAIL E

14 BHDNC,LLC

CLASS B RIP-RAP EST. 30 TONS EST. 60 SY GF

12" HDPE

INV=122.29'

INV=122.02'

INV=122.18'

INV=122.48'

INV=122.80'

INV=123.18'

R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE.

$DATE$ $TIME$
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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	8A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

S / S SURFACE WATER IMPACTS

TS / TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING SHEET 13 OF 79

REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 8A

SITE 4

INSET "A"

NAD 83

410

CL I RIP RAP
EST. 52 TONS
EST. 100 SY GF

PDE

48"

HW 48"

REMOVE

TS

ST

MATCHLINE
(SEE SHEETS 7 AND 8)

22
XMC PROPERTIES, LLC

36"

2GI

RETAIN EX. DITCH AND ADJUST AS NECESSARY

CL I RIP RAP
EST. 30 TONS
EST. 60 SY GF

14
BHDNC,LLC

STD. 8' BASE DITCH
SEE DETAIL E

SEE INSET "A"

CLASS B RIP RAP
EST. 30 TONS
EST. 60 SY GF

INV=122.29

INV=122.08

INV=122.20

INV=122.48

INV=122.80

INV=123.38

R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE.

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Kevin Alford

8/17/99

$DATE$ $TIME$
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Kaitlord

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	10A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

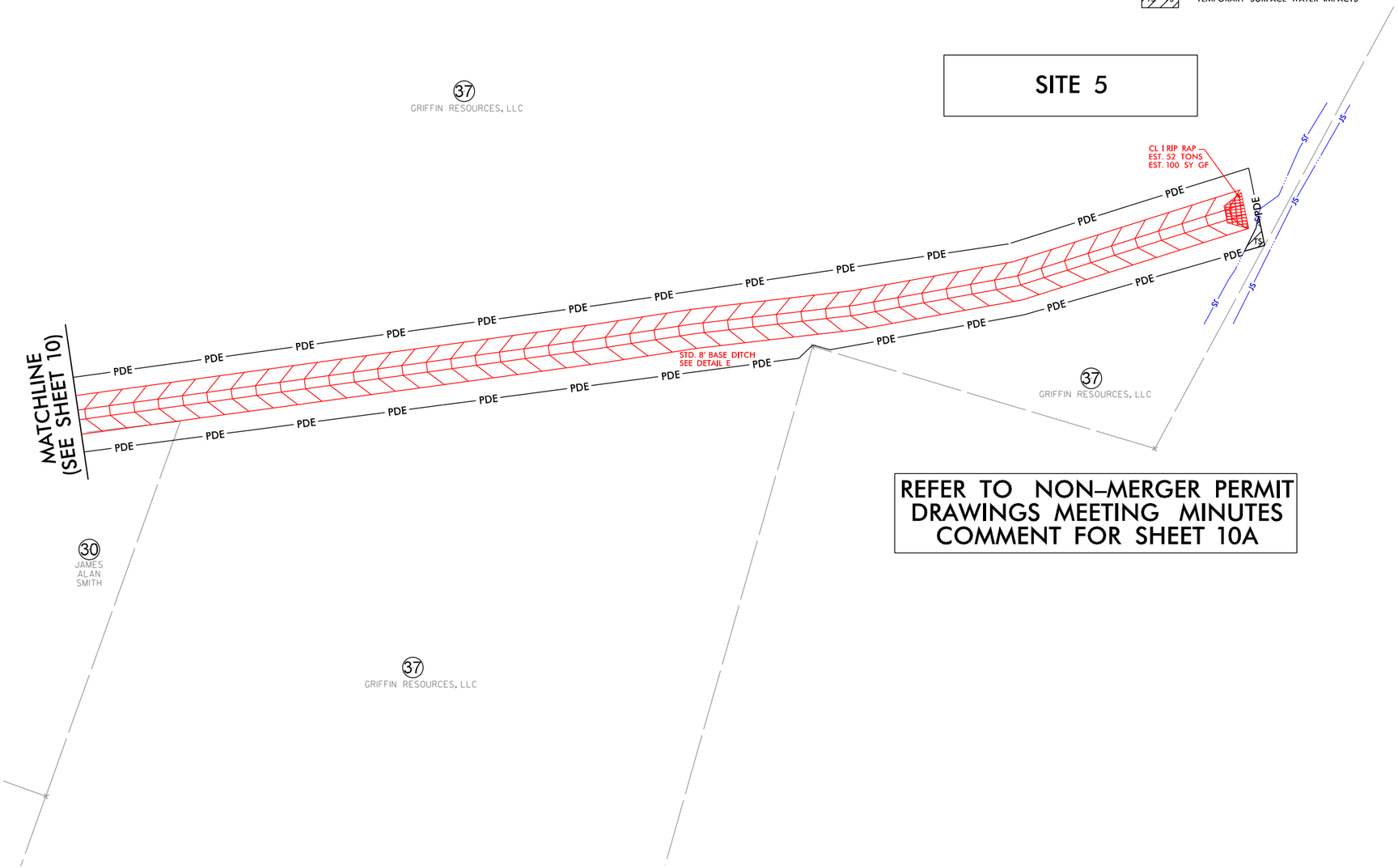
NAD 83

PERMIT DRAWING SHEET 14 OF 79

100' 0' 100'
GRAPHIC SCALE

TS TS TEMPORARY SURFACE WATER IMPACTS

SITE 5



REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 10A

50' 25' 0' 50' 100'

R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE.

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	10A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 15 OF 79

NAD 83

100' 0' 100'

GRAPHIC SCALE

TS TS TEMPORARY SURFACE WATER IMPACTS

SITE 5

CL I RIP RAP
EST. 57 TONS
EST. 100 SY GF

PDE

STD. 8'-BASE DITCH
SEE DETAIL E

TS

MATCHLINE (SEE SHEET 10)

37 GRIFFIN RESOURCES, LLC

30 JAMES ALAN SMITH

REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 10A

R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE.

$DATE$ $TIME$
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4505 Falls of Neuse Road. Suite 110
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Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 16 OF 79

SITE 6

WETLAND EXCAVATION

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 204+00.00 (SEE SHEET 12)

MATCHLINE -L- STA. 217+00.00 (SEE SHEET 14)

58 Q10=112.5 cfs V10=1.0 fps

59 I. S. LOCKLEAR HEIRS

60 BILLIE JO SANDERSON

61 BILLIE JO SANDERSON

62 ARLIS SIMPSON

63 ARLIS SIMPSON

64 BARBARA SIMPSON

65 FAITH DELIVERANCE CENTER OF TRUTH, INC.

54 JAMES H. ADAMS, JR

66 JOHN SMITH BARNES HEIRS

67 JOSE ARISTEO MEDINA

68 MAEZONIA MCCALLUM

69 NEIL ARCHIE TERRY

70 MICHAEL WASHINGTON

71 CLAUDIA PATTERSON

72 ARNELL JUNIOR MOORE

73 CITY OF LUMBERTON

74 K.M. BIGGS

75 MISSIONARY GOSPEL TABERNACLE

76 WELBERT HUNT

77 WELBERT HUNT

78 HS&D INVESTMENTS, INC

79 MOUNT HAVEN CHURCH

80 KAYSER-ROTH CORPORATION

FOR -L- PROFILE SEE SHT.43
NORTHBOUND R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE. FOR -SR6- PROFILE SEE SHT.83
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE. FOR -SRIO- PROFILE SEE SHT.93

$DATE$ $TIME$
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License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 17 OF 79

SITE 6

MECHANIZED CLEARING (GRUBBING)

FILL IN WETLAND

WETLAND EXCAVATION

100' 0' 100'

GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 204+00.00 (SEE SHEET 12)

MATCHLINE -L- STA. 217+00.00 (SEE SHEET 14)

	FOR -L- PROFILE SEE SHT.43
NORTHBOUND R/W LABELED OFF -SR10- UNLESS NOTED OTHERWISE.	FOR -SR6- PROFILE SEE SHT.83
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR10- PROFILE SEE SHT.93

$DATE$
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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 18 OF 79

NAD 83

WETLAND EXCAVATION
FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

SEE INSET "A"

INSET "A"

CL I RIP RAP
EST. 63 TONS
EST. 119 SY GF

Q10=244.7 cfs
V10=1.5 fps

SITE 6

MATCHLINE -L- STA. 230+00.00 (SEE SHEET 14)

MATCHLINE -L- STA. 243+00.00 (SEE SHEET 16)

87 JEFFERY JONES
86 JEFFREY D. JONES
88 RMC HOLDING INC
89 GIL MAC INC
90 AL-WHIT LLC
91 KATHERINE ATKINSON
80 KAYSER-ROTH CORPORATION
92 I-95 LUMBERTON TRANSFER LLC
93 HEAVARD OXENDINE

STD. 8' BASE DITCH SEE DETAIL E

CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF

CL I RIP RAP
EST. 48 TONS
EST. 89 SY GF

SP. LAT. 5' BASE DITCH SEE DETAIL B

CL B RIP RAP
EST. 5 TONS
EST. 14 SY GF

SP. LAT. 5' BASE DITCH SEE DETAIL B

36" DIP
GRADE TO DRAIN

Ductile Iron Valve

FLOWABLE FILL
PLUG
REMOVE HW

66" WELDED STEEL

18" WELDED STEEL

15" PP GRASS

18" PP

15" RCP-III

24" WELDED STEEL

SR 1589 KENRIC DR 24' BST

I-95 NB 38' BST

SR 2499 W 5TH ST 24' BST

MTL DOUBLE FACE GUARDRAIL

230+00
235+00
240+00
135+00
140+00
145+00

TB 2GI
TB JB w/MH
REMOVE TB JB w/MH
REMOVE BLIND JB

PLUG TIE C/A FENCE
PLUG TO RETAINING WALL

48" WW FENCE
GRADE TO DRAIN
24" WELDED STEEL

SP. LAT. 2' BASE DITCH SEE DETAIL A

SP. CUT V DITCH SEE DETAIL F

SP. LAT. 2' BASE DITCH SEE DETAIL A

STANDARD V DITCH SEE DETAIL D

CL I RIP RAP
EST. 3 TONS
EST. 7 SY GF

CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF

36" RCP

TIE FENCE TO RETAINING WALL

SP. DET. 2GI-A

RETAIN APPROX. LOC.

WATER LOGGED DI

RETAIN

COULDN'T LOCATE PIPE

UNT PIPE COULD BE HEARD TRICKLING DURING FIELD

-L- +11.45 EXIST. R/W

-L- +90.00 140.00 LT

NORTHBOUND R/W LABELED OFF -SR10- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.44	FOR -SR10- PROFILE SEE SHT.94
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR6- PROFILE SEE SHT.84	FOR -SR9- PROFILE SEE SHT.89

$DATE$
$TIME$
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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 19 OF 79

SITE 6

SEE INSET "A"

INSET "A"

WETLAND EXCAVATION
FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)

GRAPHIC SCALE 100' 0' 100'

NAD 83

MATCHLINE -L- STA. 230+00.00 (SEE SHEET 14)

MATCHLINE -L- STA. 243+00.00 (SEE SHEET 16)

NORTHBOUND R/W LABELED OFF -SRIO- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.44	FOR -SRIO- PROFILE SEE SHT.94
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR6- PROFILE SEE SHT.84	FOR -SR9- PROFILE SEE SHT.89

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 20 OF 79

SITE 7

WETLAND EXCAVATION
FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

MATCHLINE -L- STA. 243+00.00 (SEE SHEET 15)

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 17)

Q10=73.2 cfs
V10=8.8 fps

CL I RIP RAP EST. 33 TONS EST. 62 SY GF
CL I RIP RAP EST. 48 TONS EST. 89 SY GF
CL B RIP RAP EST. 8 TONS EST. 21 SY GF
CL B RIP RAP EST. 2 TONS EST. 7 SY GF
CL B RIP RAP EST. 3 TONS EST. 10 SY GF
CL I RIP RAP EST. 66 TONS EST. 248 SY GF
CL B RIP RAP EST. 20 TONS EST. 75 SY GF
CL B RIP RAP EST. 5 TONS EST. 14 SY GF
CL B RIP RAP EST. 3 TONS EST. 10 SY GF

5' BASE DITCH CLEANOUT SEE DETAIL AV
10' BASE DITCH CLEANOUT SEE DETAIL AF
6' BASE DITCH CLEANOUT SEE DETAIL AV

SP. LAT. 5' BASE DITCH SEE DETAIL B
SP. LAT. 2' BASE DITCH SEE DETAIL A

100 CHARLES MCNEILL
90 AL-WHIT LLC
101 CHARLES MCNEILL
96 CHARLES MCNEILL
95 SAMIN CORPORATION
93 HEYWARD EXENDINE
98 CLAYBOURN WALTERS
99 MACK WHITE INVESTMENTS INC

UNNAMED STREET

FOR -L- PROFILE SEE SHT.44	
NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -SR6- PROFILE SEE SHT.84
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 21 OF 79

SITE 7

WETLAND EXCAVATION

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

Q10 = 73.2 cfs
V10 = 6.8 fps

MATCHLINE -L- STA. 243+00.00 (SEE SHEET 15)

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 17)

NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -SR6- PROFILE SEE SHT.84
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89

FOR -L- PROFILE SEE SHT.44

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 22 OF 79

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 8

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 16)

MATCHLINE -L- STA. 269+00.00 (SEE SHEET 18)

99 MACK WHITE INVESTMENTS INC

103 MACK WHITE INVESTMENTS INC

104 MACK WHITE INVESTMENTS INC

105 CB OF EDENTON LLC

106 JHS ROBESON PROPERTIES LLC

107 OUTDOOR REALTY LLC

108 JEANNETTE MARTIN

109 HEIRS OF S.B. ATKINSON

111 THE CITY OF LUMBERTON

101 CHARLES MCNEILL

102 THE LUMBER RIVER CONSERVANCY

FOR -SR6- PROFILE SEE SHTS.84 THRU 85		
NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.45	FOR -Y2RPB- PROFILE SEE SHT.57
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89	FOR -Y2RPC- PROFILE SEE SHT.57

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 23 OF 79

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

SITE 8

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 16)

MATCHLINE -L- STA. 269+00.00 (SEE SHEET 18)

NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.45	FOR -Y2RPB- PROFILE SEE SHT.57
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89	FOR -Y2RPC- PROFILE SEE SHT.57

FOR -SR6- PROFILE SEE SHTS.84 THRU 85

$DATE$ $TIME$
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License # P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 24 OF 79

GRAPHIC SCALE 200' 0 200'

NAD 83

F F FILL IN WETLAND
S S SURFACE WATER IMPACTS
MECHANIZED CLEARING (GRUBBING)
E E WETLAND EXCAVATION

SITE 8

SITE 9

SITE 10

SEE SHEET 26 OF 79 FOR ENLARGED VIEW

SEE SHEET 28 OF 79 FOR ENLARGED VIEW

SEE SHEET 27 OF 79 FOR ENLARGED VIEW

MATCHLINE –L– STA. 269+00.00 (SEE SHEET 17)

MATCHLINE –L– STA. 297+00.00 (SEE SHEET 19)

CALLOUT LEGEND
(A) -Y2- PC Sta. 17+60.62
(B) -Y2RPA- POT Sta. 25+46.16 " -Y3- POC Sta. 21+12.99
(C) -Y2RPB- POT Sta. 21+71.50 " -Y2- PT Sta. 21+75.40
(D) -Y2- PT Sta. 26+63.20
(E) -SR10A- PT Sta. 14+86.15

PROPOSED SIGNAL

PAVEMENT REMOVAL

FOR -SR7- PROFILE SEE SHTS.85 THRU 86	FOR -L- PROFILE SEE SHTS.45 THRU 46
FOR -SR8- PROFILE SEE SHTS.87-88	FOR -Y2RPA- PROFILE SEE SHT.56
FOR -Y2- PROFILE SEE SHT.55	FOR -Y2RPB- PROFILE SEE SHT.57
FOR -SR10A- PROFILE SEE SHT.94	FOR -Y2RPC- PROFILE SEE SHTS.57
	FOR -Y2RPD- PROFILE SEE SHT.58

GRAPHIC SCALE
50 25 0 50 100
PLANS

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License # P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 25 OF 79

GRAPHIC SCALE 200' 0 200'

NAD 83

F F FILL IN WETLAND

S S SURFACE WATER IMPACTS

MECHANIZED CLEARING (GRUBBING)

E E WETLAND EXCAVATION

SITE 8

SITE 10

SITE 9

SEE SHEET 26 OF 79 FOR ENLARGED VIEW

SEE SHEET 28 OF 79 FOR ENLARGED VIEW

SEE SHEET 27 OF 79 FOR ENLARGED VIEW

MATCHLINE –L– STA. 269+00.00 (SEE SHEET 17)

MATCHLINE –L– STA. 297+00.00 (SEE SHEET 19)

CALLOUT LEGEND
(A) -Y2- PC Sta. 17+60.62
(B) -Y2RPA- POT Sta. 25+46.16 « -Y2- POC Sta. 21+12.99
(C) -Y2RPB- POT Sta. 21+71.50 « -Y2- POC Sta. 21+25.40
(D) -Y2- PT Sta. 26+63.20
(E) -SR10A- PT Sta. 14+86.15

PROPOSED SIGNAL

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS.45 THRU 46	
FOR -SR7- PROFILE SEE SHTS.85 THRU 86	FOR -Y2RPA- PROFILE SEE SHT.56
FOR -SR8- PROFILE SEE SHTS.87-88	FOR -Y2RPB- PROFILE SEE SHT.57
FOR -Y2- PROFILE SEE SHT.55	FOR -Y2RPC- PROFILE SEE SHTS.57
FOR -SR10A- PROFILE SEE SHT.94	FOR -Y2RPD- PROFILE SEE SHT.58

GRAPHIC SCALE
50 25 0 50 100
PLANS

ROUTE #10/#74
STATE PROJECT #'S 6.I064701, 6.I587901
F.A. PROJ. #'S NHPP-0074(121), NHPP-0074(122)

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102

THE LUMBER RIVER CONSERVANCY

WOODS

NAD 83

BILLBOARD

6.9 cfs
6 fps

PUE PUE PUE DUE PUE

RW CA

CL I RIP RAP
EST. 26 TONS
EST. 50 SY GF

CL B RIP RAP
EST. 1 TONS
EST. 5 SY GF

DUCKBILL

TOE PROTECTION
SEE DETAIL G

EXIST R/W

PROP. MON

MATCHLINE –L– STA. 269+00.00
(SEE SHEET 17)

REMOVE HW

PLUG

SURFACE WATER IMPACTS

48" WW

4" CONC HW

24" RCP

FLOWABLE FILL

REMOVE DI

270+00

TOP=125.09'
INV=[illegible]

PLUG

DI 15" RCP

TOP=125.17'
INV=116.04'

INV=113.06'

REMOVE 15"

48" WEL

CONC MEDIAN

15" GAAP W/ GASKET, ROD AND LUG CONNECTORS W/ 2 ELBOWS

2GI

2GI

15" RCP–III

15+00

TOE PROTECTION
SEE DETAIL G

CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF

REMOVE HW

PLUG

4' CONC HW

36" RCP–III

18" RCP

FS

2GI–A

PLUG

15" RCP–III

REMOVE DI

TB 2GI

REMOVE DI

FLOWABLE FILL

INV=119.30'

TB 2GI

40' 0' 40'

GRAPHIC SCALE

SITE 8 ENLARGEMENT

PERMIT DRAWING SHEET 26 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

SITE 9 ENLARGEMENT

GRAPHIC SCALE
40′ 0′ 40′

LAT. 2′ BASE DITCH
SEE DETAIL AH

SP. LAT. 2′
BASE DITCH
SEE DETAIL A

REMOVE CONCRETE DITCH
REMOVE HW
REMOVE
REMOVE CB
REMOVE HW
REMOVE
PLUG
REMOVE CB
REMOVE
PLUG
REMOVE
REMOVE
REMOVE
REMOVE DI
RETAIN
RETAIN DI
RETAIN SYSTEM
RETAIN CB

15″ WSP
42″ RCP–III
30″ RCP–III
24″ RCP–III
48″ RCP–III
15″ RCP–III
15″ RCP–III
CB 48″ RCP–III
CB
CB
CB
DI
DI
JB w/MH
JB w/MH
CL B RIP RAP
EST. 8 TONS
EST. 21 SY GF
FLOWABLE FILL
POSSIBLE
132
COLBY RESTAURANT LLC
ISBLK BUS
EXISTING R/W
BST
30″ CMP
24″ C&G
36″ BST
HW
CONC HW
RIP RAP
INV=126.06′
INV=114.59′
TOP=118.65′
INV=114.64′
INV=114.44′
INV=115.98′
INV=107.41′
4′ CONC HW
TOP=121.19′
INV=116.69′
CB TOP=121.37′
INV=118.37′
TOP=121.25′
INV=116.80′
INV=116.96′
INV=116.63′
INV=116.24′
INV=114.76′
TOP=127.20′
INV=115.18′
TOP=120.92′
INV=115.98′
TOP=118.
INV=115.9
15″ CAAP
W/GASKET,
OD AND LUG
ONNECTORS
1/2 ELBOWS
2GI
TBDI
10+00
20+00
TL
15
F
E
C
W
WD
RW
CA

PERMIT DRAWING
SHEET 27 OF 79

F F FILL IN WETLAND
S S SURFACE WATER IMPACTS
E E WETLAND EXCAVATION

NAD 83

40′ 0′ 40′
GRAPHIC SCALE

SITE 10 ENLARGEMENT

NAD 83

E. M. BRITT

WOODS

PUE DUE DUE DUE DUE DUE DUE DUE DUE PUE

TEMPORARY EXCAVATION DUE TO TRENCHLESS PIPE INSTALLATION

CL I RIP RAP
EST. 26 TONS
EST. 50 SY GF

DUCKBILL

PLUG

TOE PROTECTION SEE DETAIL G

CL B RIP RAP
EST. 3 TONS
EST. 10 SY GF

TEMPORARY EXCAVATION DUE TO TRENCHLESS PIPE INSTALLATION

TOE PROTECTION SEE DETAIL G

CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF

DUCKBILL

TOE PROTECTION SEE DETAIL G

FLOWABLE FILL

PLUG

5′ CONC HW
INV=111.36′
NOT BURIED

WELDED STEEL

REMOVE HW

25+00

EXISTING R/W

TV FO

SR 1588 COX RD 18" BST

REMOVE

REMOVE JB

PLUG

48" WW

GRASS

MTL

MOVE DI

TOP=118.19′
INV=111.71′

18" RCP JB PER PLANS

REMOVE PLUG REMOVE PLUG

FLOWABLE FILL

REMOVE DI

PLUG

REMOVE 15"

15" RCP DI

TOP=123.37′
INV=116.47′

TOP=124.20′
INV=116.38′

FLOWABLE FILL

FLOWABLE FILL

18" WELDED STEEL

36" WELDED STEEL

295+00

TB 2GI

TB 2GI

15" WELDED STEEL

TB 2GI

FLOWABLE FILL

REMOVE DI

PLUG

PLUG

TOP=116.83′
INV=113.74′
INV=113.76′

REMOVE OF 15" W

15" RCP-III

INV=112.78′

FLOWABLE FILL

PLUG

INV=113.31′

4 CONC HW

REMOVE HW

PLUG

48" WW

PERMIT DRAWING
SHEET 28 OF 79

F F FILL IN WETLAND

S S SURFACE WATER IMPACTS

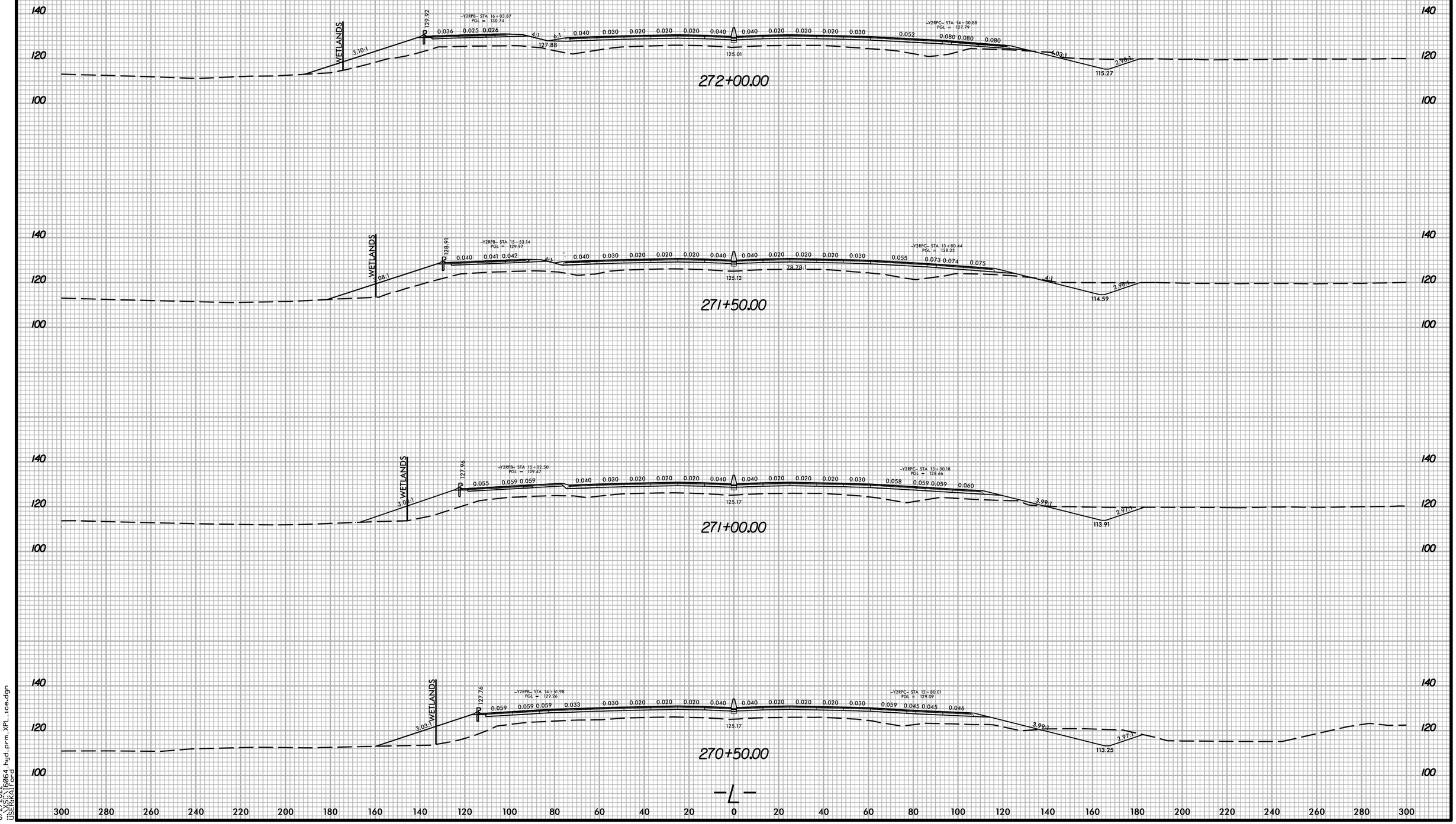
MECHANIZED CLEARING (GRUBBING)

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-91

SITE 8

PERMIT DRAWING
SHEET 29 OF 79



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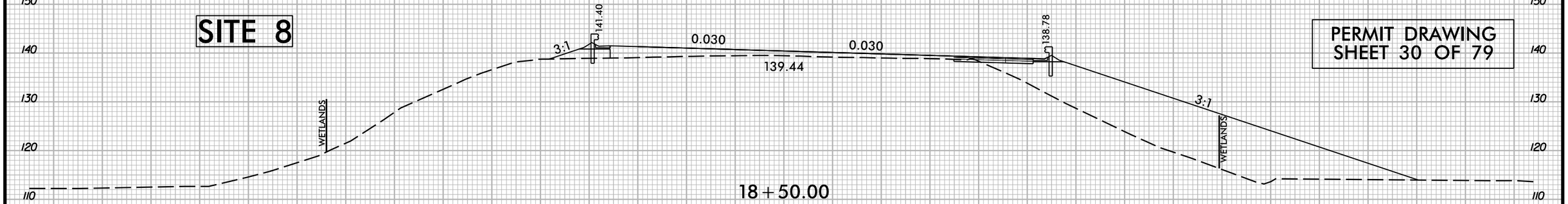
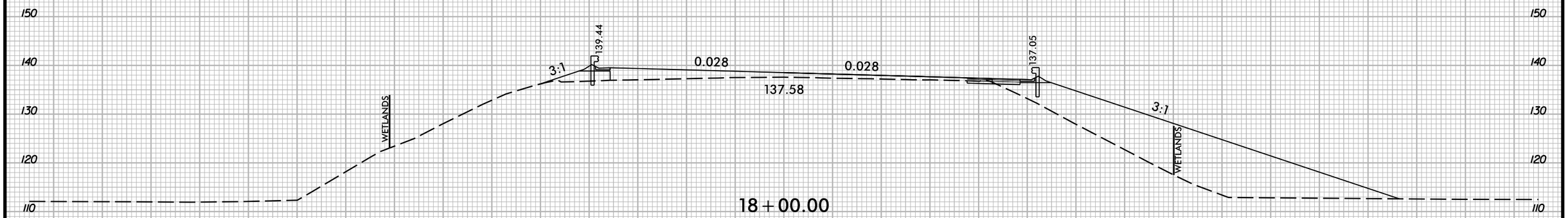
6/23/16

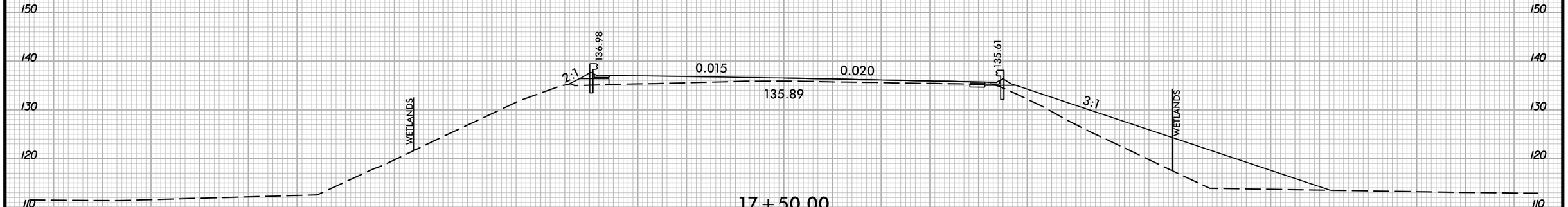
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-211

SITE 8

PERMIT DRAWING
SHEET 30 OF 79







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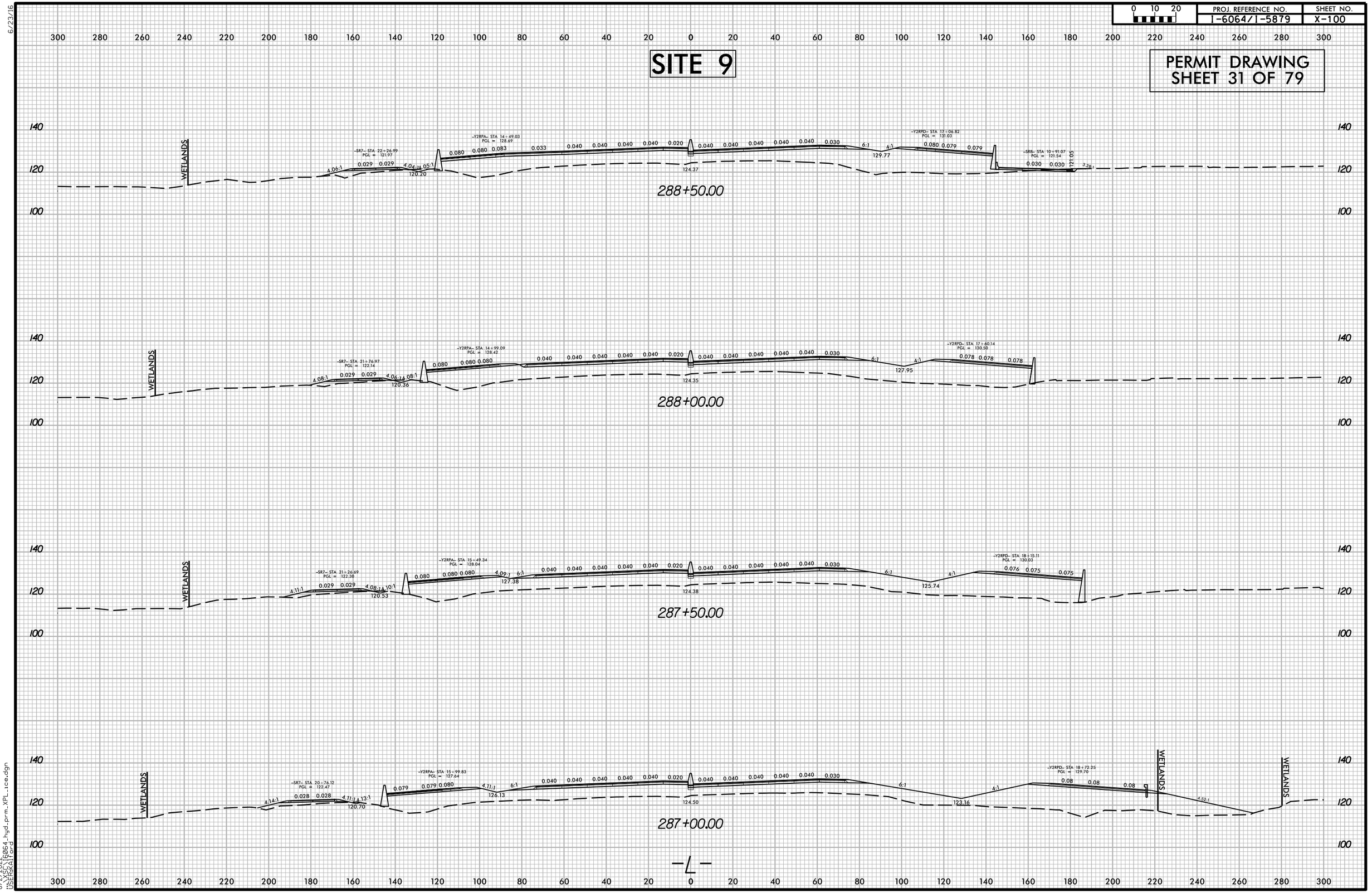
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-100

SITE 9

PERMIT DRAWING
SHEET 31 OF 79



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6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-102

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

SITE 10

PERMIT DRAWING
SHEET 32 OF 79

140
120
100

WETLANDS
4.0:1
–SR7– STA 26+24.06
PGL = 121.49
0.020 0.020
–Y2RPA– STA 10+50.73
PGL = 128.75
0.031 0.030 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.020 0.020 0.040
124.48
–Y2RPD– STA 13+00.12
PGL = 131.70
–SR8– STA 15+00.39
PGL = 118.99
0.020 0.020
118.67
DRIVEWAY

292+50.00

140
120
100

WETLANDS
4.0:1
–SR7– STA 25+74.41
PGL = 121.34
0.020 0.020
–Y2RPA– STA 11+00.54
PGL = 128.68
0.040 0.040 0.059 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.007 0.020 0.040
124.39
–Y2RPD– STA 13+50.51
PGL = 131.85
–SR8– STA 14+49.79
PGL = 118.93
0.020 0.020
118.61
4.0:1

292+00.00

140
120
100

WETLANDS
4.0:1
–SR7– STA 25+24.76
PGL = 121.22
0.020 0.020
–Y2RPA– STA 11+50.32
PGL = 128.53
0.040 0.040 0.081 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.005 0.020 0.020 0.040
124.30
–Y2RPD– STA 14+00.93
PGL = 132.00
–SR8– STA 13+99.15
PGL = 119.12
0.020 0.020
118.81
4.0:1

291+50.00

140
120
100

WETLANDS
4.0:1
–SR7– STA 24+75.14
PGL = 121.20
0.020 0.020
–Y2RPA– STA 12+00.08
PGL = 128.48
0.044 0.044 0.077 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.002 0.020 0.020 0.040
124.15
–Y2RPD– STA 14+51.40
PGL = 132.15
–SR8– STA 13+48.47
PGL = 119.58
0.020 0.020
119.27
DRIVEWAY

291+00.00

–L–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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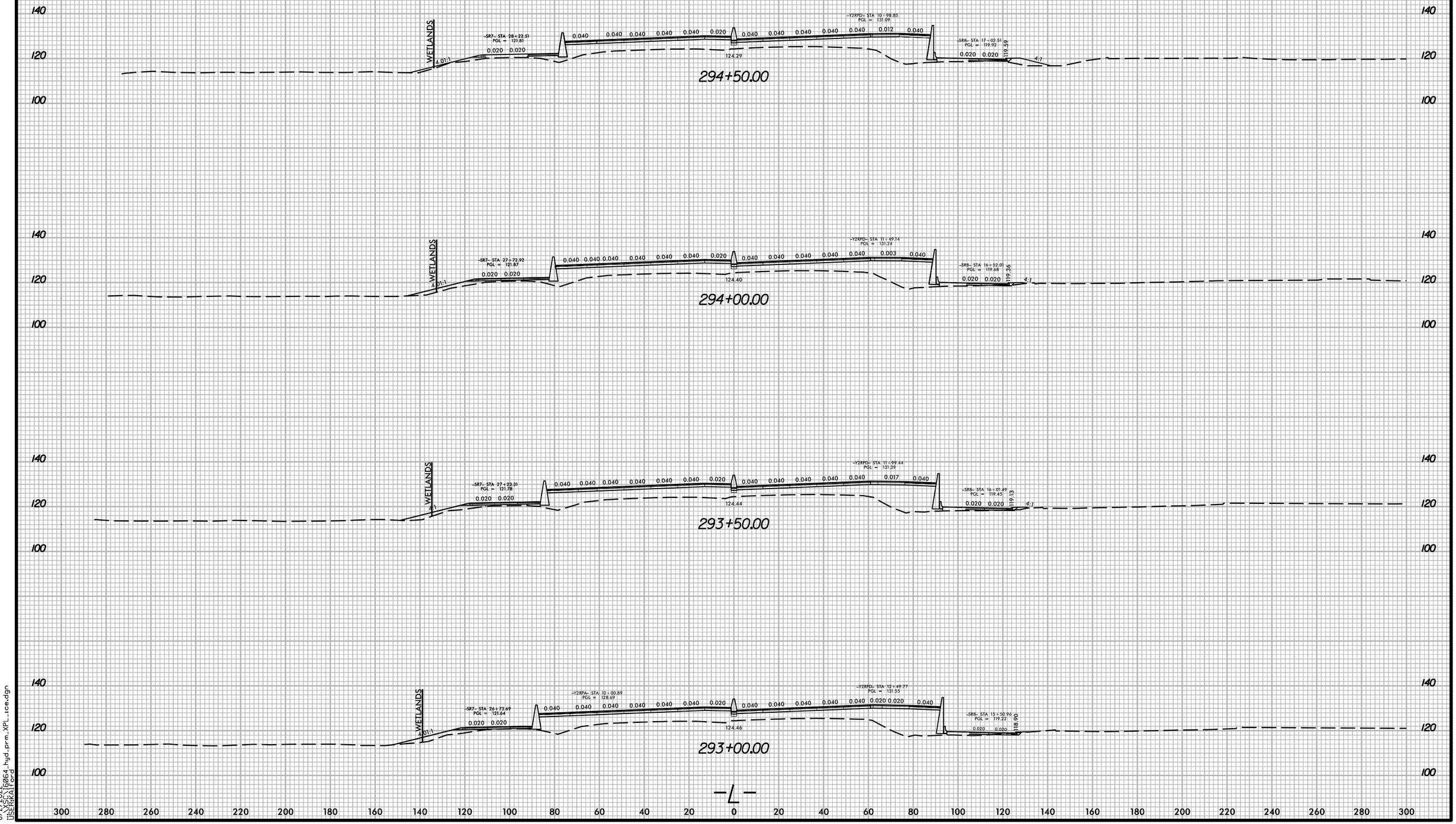
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-103

SITE 10

PERMIT DRAWING
SHEET 33 OF 79



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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

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4505 Falls of Neuse Road. Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 34 OF 79

NAD 83

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

SITE 10

MATCHLINE -L- STA. 297+00.00 (SEE SHEET 18)

MATCHLINE -L- STA. 310+00.00 (SEE SHEET 20)

Q10=15.7 cfs V10=1.6 fps

Q10=61.0 cfs V10=1.6 fps

CL I RIP RAP EST. 15 TONS EST. 30 SY GF

STD 4' BASE DITCH SEE DETAIL V

CL B RIP RAP EST. 8 TONS EST. 21 SY GF

CL I RIP RAP EST. 10 TONS EST. 23 SY GF

SP. LAT. 2' BASE DITCH SEE DETAIL A

TOE PROTECTION SEE DETAIL G

SP. LAT. 5' BASE DITCH SEE DETAIL B

SP. LAT. 4' BASE DITCH SEE DETAIL AJ

SP. CUT 2' BASE DITCH SEE DETAIL T

SP. LAT. 2' BASE DITCH SEE DETAIL A

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

BEVELED HW SEE SPECIAL DETAIL

LOCATE & REMOVE

RETAIN & ADJUST

140 D.D. KING FAMILY PROPERTIES LLC

141 HUBERT OXENDINE

142 JOHN VALADE

143 MARIYKA STANISLAVOVA

144

145 JOHN VALADE

146 MILDRED HUNT

147 K P FOODS INC

148 MARY LOUISE STEPHENS

149 MARY LOUISE STEPHENS

150 HORACE HARDIN

151 O'REILLY AUTOMOTIVE STORES INC

152 RALPH LOCKLEAR

153 K M BIGGS INCORPORATED

154 HEAVARD OXENDINE

THE SCHAFER COMPANY INC

SR 1588 COX RD (SR BST)

SR 1592 HESTER DR (SR BST)

NORTHBOUND R/W LABELED OFF -SR8- UNLESS NOTED OTHERWISE.		FOR -SR8- PROFILE SEE SHTS.87 THRU 88
SOUTHBOUND R/W LABELED OFF -SR7- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.46	FOR -SR7- PROFILE SEE SHT.86

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Matt.Harvey

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

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ICE of Carolinas, PLLC
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Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 35 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

NAD 83

100' 0' 100'
GRAPHIC SCALE

SITE 10

MATCHLINE -L- STA. 297+00.00 (SEE SHEET 18)

MATCHLINE -L- STA. 310+00.00 (SEE SHEET 20)

Q10=15.7 cfs V10=1.6 fps

Q10=61.0 cfs V10=1.6 fps

CL I RIP RAP EST. 15 TONS EST. 30 SY GF

CL B RIP RAP EST. 8 TONS EST. 21 SY GF

CL I RIP RAP EST. 10 TONS EST. 25 SY GF

STD 4' BASE DITCH SEE DETAIL V

SP. LAT. 2' BASE DITCH SEE DETAIL A

SP. LAT. 5' BASE DITCH SEE DETAIL B

SP. CUT 2' BASE DITCH SEE DETAIL T

SP. LAT. 4' BASE DITCH SEE DETAIL AJ

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

TOE PROTECTION SEE DETAIL G

BEVELED HW SEE SPECIAL DETAIL

SP. DET. TB 2GI-A

SP. DET. TB 2GI-A, 30" PP

LOCATE AND PLUG

LOCATE & REMOVE

RETAIN & ADJUST

FLOWABLE FILL

REMOVE FES

REMOVE DI

REMOVE HW

REMOVE

PLUG

DUCKBILL

EXIST. R/W

SR 1592 HESTER DR 20 BST

SR 1588 COX RD 19 BST

S.D. KANG-KAMRIN PROPERTIES, LLC

HUBERT OXENDINE

JOHN VALADE

THE SCHAFER COMPANY INC

MARIYKA STANISLAVOVA

MILDRED HUNT

MARY LOUISE STEPHENS

HORACE HARDIN

RALPH LOCKLEAR

K M BIGGS INCORPORATED

HEAVARD OXENDINE

K P FOODS INC

O'REILLY AUTOMOTIVE STORES INC

NORTHBOUND R/W LABELED OFF -SR8- UNLESS NOTED OTHERWISE.	FOR -SR8- PROFILE SEE SHTS.87 THRU 88
SOUTHBOUND R/W LABELED OFF -SR7- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.46 / FOR -SR7- PROFILE SEE SHT.86

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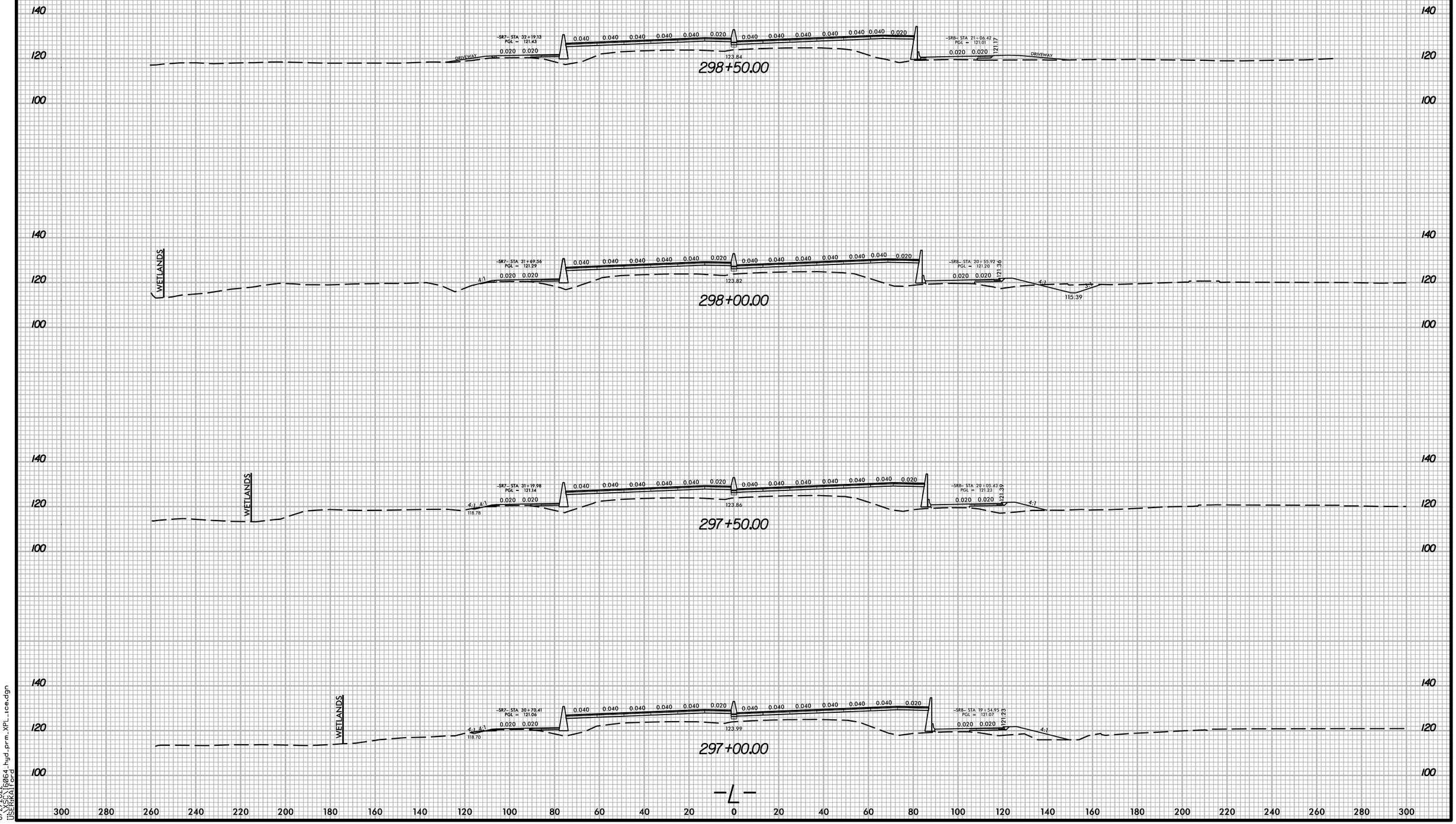
MHarvey

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-105

SITE 10

PERMIT DRAWING
SHEET 36 OF 79



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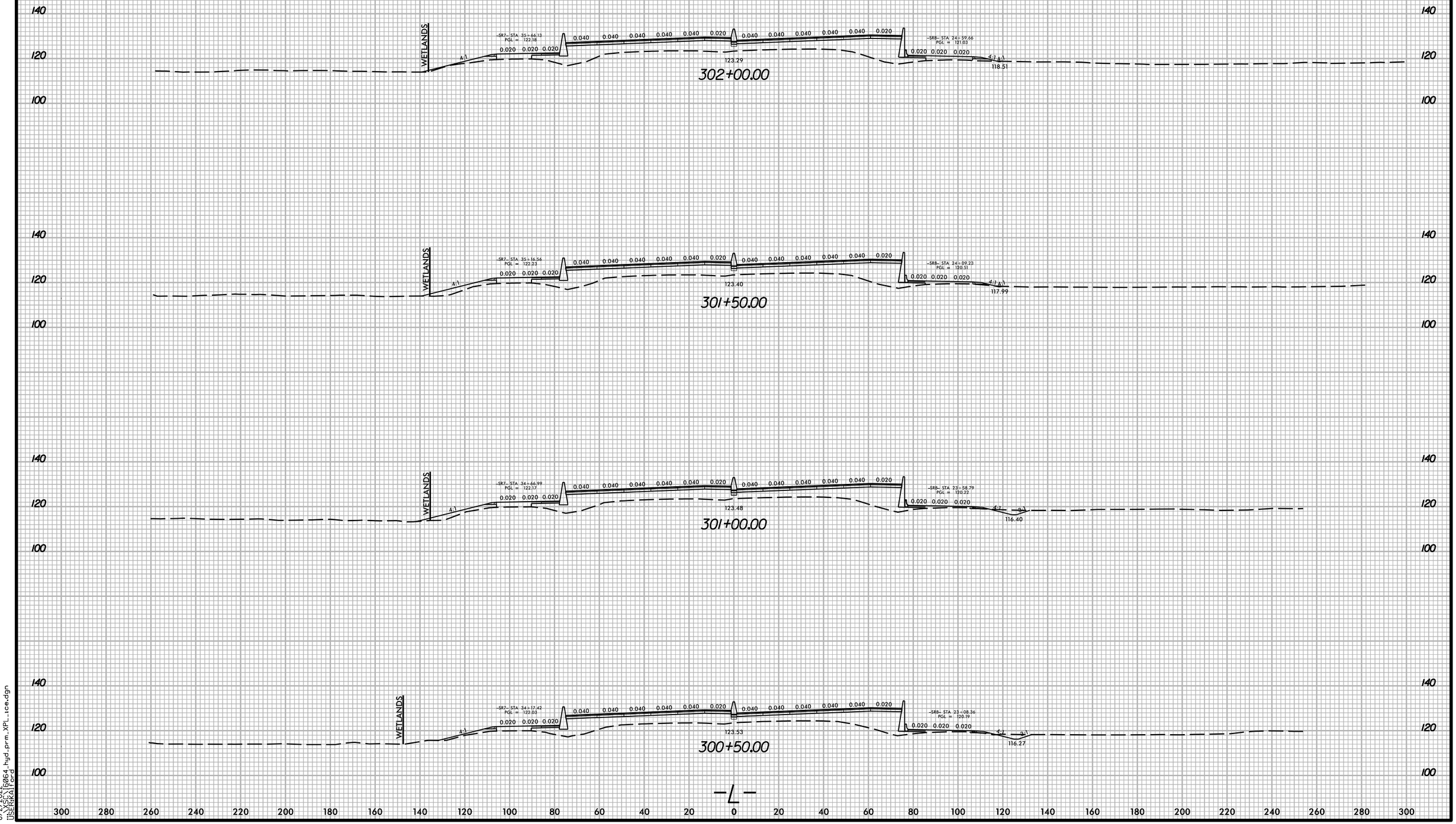
USER:KAlford

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-107

SITE 10

PERMIT DRAWING
SHEET 37 OF 79



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PERMIT DRAWING SHEET 38 OF 79

FLATIRON UNITED INFRASTRUCTURE GROUP

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ICE of Carolinas, PLLC
4505 Falls of Neuse Road. Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TS TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'
GRAPHIC SCALE

NAD 83

MATCHLINE (SEE SHEET 20A)

MATCHLINE –L– STA. 310+00.00 (SEE SHEET 19)

MATCHLINE –L– STA. 324+00.00 (SEE SHEET 21)

SEE INSET "A" –SR7– STA. 59+00.00

INSET "A" –SR7– STA. 59+00.00

SITE 11

POND

RETAIN

TEMPORARY SURFACE WATER IMPACTS

60+00

55+00

50+00

45+00

40+00

35+00

310+00

315+00

320+00

MILE POST 295

157 HUBERT OXENDINE

158 APRIL OXENDINE

159 OMNISOURCE SOUTHEAST LLC

160 OMNISOURCE SOUTHEAST LLC

161 OMNISOURCE SOUTHEAST LLC

162 H. DOBBS OXENDINE

163 ROBESON COUNTY

164 THE SHAFER COMPANY INC

165

166 WEST LUMBERTON CHURCH

167 SPARTAN LLC

168 FREEMAN ADVERTISING CO

169 FREEMAN INVESTMENTS

146 MILDRED HUNT

154 HEAVARD OXENDINE

155 H. DOBBS OXENDINE

156

CL I RIP RAP EST. 15 TONS EST. 30 SY GF

CL B RIP RAP EST. 3 TONS EST. 11 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

STD. 5' BASE DITCH SEE DETAIL E

CL I RIP RAP EST. 33 TONS EST. 62 SY GF

STD. 2' BASE DITCH SEE DETAIL E

CL B RIP RAP EST. 2 TONS EST. 7 SY GF

REMOVE DI

STD. 5' BASE DITCH SEE DETAIL E

CL I RIP RAP EST. 33 TONS EST. 62 SY GF

DUCKBILL

LAT. 2' BASE DITCH SEE DETAIL L

CL B RIP RAP EST. 2 TONS EST. 7 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

SP. 2' BASE CUT DITCH SEE DETAIL T

SP. 2' BASE CUT DITCH SEE DETAIL T

STD. V DITCH SEE DETAIL D

SP. 2' BASE CUT DITCH SEE DETAIL T

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

SP. LAT. 2' BASE DITCH SEE DETAIL A

SP. LAT. 2' BASE DITCH SEE DETAIL A

GRADE TO DRAIN

MEDIAN V DITCH SEE DETAIL C

CL I RIP RAP EST. 40 TONS EST. 75 SY GF

DUCKBILLS

SP. LAT. 5' BASE DITCH SEE DETAIL B

2' BASE CONC. DITCH BEHIND RETAINING WALL SEE DETAIL U

TIE CA FENCE IN TO WALL

FLOWABLE FILL

REMOVE HW

PLUG

REMOVE DI

SP. LAT. 2' BASE DITCH SEE DETAIL A

BEVELED HW SEE SPECIAL DETAIL

SP. CUT 2' BASE DITCH SEE DETAIL T

SP. CUT 'V' DITCH SEE DETAIL F

STD. 4' BASE DITCH SEE DETAIL V

PROPOSED DRAINAGE INTERIOR TO AND AROUND FLOODGATE TO BE PROVIDED BY OTHERS

TOE PROTECTION SEE DETAIL W

LOCATE & FLOWABLE FILL

COULDN'T LOCATE PIPE

18" RCP-III

15" RCP-III

18" WELDED STEEL

15" WELDED STEEL

48" WW FENCE

TB 2GI

PDE

TDE

PUE

DUE

EXIST. R/W

CALLOUT LEGEND	
(A)	-SR7- PC Sta. 46+48.52
(B)	-SR7- PC Sta. 51+96.77
(C)	-SR7- PRC Sta. 55+44.30
(D)	-SRI2- POT Sta. 10+00.00 = -SR7- POC Sta. 57+31.96
(E)	-SRI2- PC Sta. 10+23.77
(F)	-SR8A- POT Sta. 10+00.00 = -SR8- POC Sta. 36+76.30
(G)	-SR8A- POT Sta. 13+86.95

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHT. 47

FOR -SR8A- PROFILE SEE SHT. 88

FOR -SR8- PROFILE SEE SHT. 88

FOR -SRI2- PROFILE SEE SHT. 95

FOR -SRI3- PROFILE SEE SHT. 96

FOR -SR7- PROFILE SEE SHTS. 86 THRU 87

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8/17/99

TS TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING SHEET 39 OF 79

FLATIRON UNITED INFRASTRUCTURE GROUP

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Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE (SEE SHEET 20A)

SEE INSET "A" -SR7- STA. 59+00.00

INSET "A" -SR7- STA. 59+00.00

SITE 11

POND

TEMPORARY SURFACE WATER IMPACTS

RETAIN

MATCHLINE -L- STA. 310+00.00 (SEE SHEET 19)

MATCHLINE -L- STA. 324+00.00 (SEE SHEET 21)

OMNISOURCE SOUTHEAST LLC

SPARTAN LLC

HUBERT OXENDINE

APRIL OXENDINE

MILDRED HUNT

H. DOBBS OXENDINE

HEAVARD OXENDINE

ROBESON COUNTY

THE SHAFER COMPANY INC

WEST LUMBERTON CHURCH

FREEMAN ADVERTISING CO

FREEMAN INVESTMENTS

PAVEMENT REMOVAL	FOR -L- PROFILE SEE SHT.47	FOR -SR8A- PROFILE SEE SHT.88	FOR -SR8- PROFILE SEE SHT.88	FOR -SRI2- PROFILE SEE SHT.95

CALLOUT LEGEND	
(A)	-SR7- PC Sta. 46+48.52
(B)	-SR7- PC Sta. 51+96.77
(C)	-SR7- PRC Sta. 55+44.30
(D)	-SRI2- POT Sta. 10+00.00 = -SR7- POC Sta. 57+31.96
(E)	-SRI2- PC Sta. 10+23.77
(F)	-SR8A- POT Sta. 10+00.00 = -SR8- POC Sta. 36+76.30
(G)	-SR8A- POT Sta. 13+86.95

FOR -SRI3- PROFILE SEE SHT.96

FOR -SR7- PROFILE SEE SHTS.86 THRU 87

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Matt Harvey

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP
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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	20A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 40 OF 79

NAD 83

WETLAND EXCAVATION

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

SPARTAN LLC

167

EXIST. R/W

SITE 12

EXIST. R/W

EXISTING R/W

CONC

CONC. WALL

CONC. WALL

FULL OF SEDIMENT

CL I RIP RAP
EST. 44 TONS
EST. 88 SY GF

Q10 = 76.4 cfs
V10 = 1.5 fps

PDE

WLB

STD. 5' BASE DITCH
SEE DETAIL E

409

ALEX STANTON

160

OMNISOURCE SOUTHEAST LLC

INGRE'

MATCHLINE
(SEE SHEET 20)

REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 20A

$DATE$ $TIME$
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KAlford

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FLATIRON UNITED INFRASTRUCTURE GROUP

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Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	20A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 41 OF 79

NAD 83

WETLAND EXCAVATION

FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

SITE 12

SPARTAN LLC

167

EXIST. R/W

EXISTING R/W

CL I RIP RAP
EST. 44 TONS
EST. 88 SY GF

Q10=76.4 cfs
V10=1.5 fps

PDE

WLB

STD. 5' BASE DITCH
SEE DETAIL E

409

ALEX STANTON

160

OMNISOURCE SOUTHEAST LLC

CONC. MEDIAN

CONC. CURB & GUTTER

CONC. APRON

FULL DEPTH SEDIMENT

INGRE'

MATCHLINE
(SEE SHEET 20)

REFER TO NON-MERGER PERMIT DRAWINGS MEETING MINUTES COMMENT FOR SHEET 20A

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FLATIRON UNITED INFRASTRUCTURE GROUP

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4505 Falls of Neuse Road. Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 42 OF 79

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

TEMPORARY SURFACE WATER IMPACTS

SITE 13

SITE 14

SITE 15

SITE 16

POND

STD. 2' BASE DITCH w/CL B RIP RAP SEE DETAIL I EST. 25 TONS EST. 90 SY GF

CL B RIP RAP EST. 5 TONS EST. 16 SY GF

STD. 5' BASE DITCH w/CL I RIP RAP SEE DETAIL J EST. 45 TONS EST. 102 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

DUCKBILL VALVE

LAT. 2' BASE DITCH SEE DETAIL AH

SP. LAT. 2' BASE DITCH SEE DETAIL A

TOE PROTECTION SEE DETAIL G

MEDIAN V DITCH SEE DETAIL C

24" WELDED STEEL

18" WELDED STEEL

2GI-D

2GI

15"

18" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

168 FREEMAN ADVERTISING CO

169 FREEMAN INVESTMENTS

170 FREEMAN ADVERTISING COMPANY

15+00

20+00

25+00

325+00

330+00

335+00

EXIST.R/W

EXISTING R/W

MATCHLINE -L- STA. 324+00.00 (SEE SHEET 20)

MATCHLINE -L- STA. 335+00.00 (SEE SHEET 22)

NORTHBOUND R/W LABELED OFF -SRI3- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.47
SOUTHBOUND R/W LABELED OFF -SRI2- UNLESS NOTED OTHERWISE.	FOR -SRI2- PROFILE SEE SHT.95
	FOR -SRI3- PROFILE SEE SHT.96

$DATE$ $TIME$
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Matt Harvey

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road. Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 43 OF 79

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

MATCHLINE –L– STA. 324+00.00 (SEE SHEET 20)

MATCHLINE –L– STA. 335+00.00 (SEE SHEET 22)

SITE 13 SITE 14 SITE 15 SITE 16

TEMPORARY SURFACE WATER IMPACTS

POND

STD. 2' BASE DITCH w/CL B RIP RAP SEE DETAIL I EST. 25 TONS EST. 90 SY GF

STD. 5' BASE DITCH w/CL I RIP RAP SEE DETAIL J EST. 45 TONS EST. 102 SY GF

EST. 5 TONS EST. 16 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

SP. LAT. 2' BASE DITCH SEE DETAIL A

TOE PROTECTION SEE DETAIL G

DUCKBILL VALVE

LAT. 2' BASE DITCH SEE DETAIL AH

MEDIAN V DITCH SEE DETAIL C

168 FREEMAN ADVERTISING CO

169 FREEMAN INVESTMENTS

170 FREEMAN ADVERTISING COMPANY

EXIST. R/W

24" WELDED STEEL

18" WELDED STEEL

2GI-D

18" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

FLOWABLE FILL

REMOVE HW

PLUG JB W/MH

48" WW FENCE

LOCATE & PLUG

REMOVE DI

325+00

330+00

335+00

20+00

25+00

15+00

TB 2GI

18" RCP-III

15" PP

15" RCP-III

REMOVE CB

REMOVE JB

APPROX LOCATION OF EXISTING PIPES SHOWN ON CITY OF LUMBERTON SURVEY LOCATE, PLUG AND FLOWABLE FILL

LOCATE & FLOWABLE FILL

LOCATE & REMOVE

SP. CUT 4' BASE DITCH SEE DETAIL AK

SP. CUT 'V' DITCH SEE DETAIL F

CL B RIP RAP EST. 7 TONS EST. 7 SY GF

RIP RAP UNDER PIPE

CONC. MEDIAN BARRIER WALL

SHOULDER BERM DITCH

ISMTL BUS

48" CHL GATE

PROPANE TANKS

CELL TOWER

SEWER MANHOLE

FIRE STATION

NORTHBOUND R/W LABELED OFF -SRI3- UNLESS NOTED OTHERWISE. | FOR -L- PROFILE SEE SHT.47

SOUTHBOUND R/W LABELED OFF -SRI2- UNLESS NOTED OTHERWISE. | FOR -SRI2- PROFILE SEE SHT.95 | FOR -SRI3- PROFILE SEE SHT.96

$DATE$ $TIME$
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MHarvey

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 44 OF 79

E / E WETLAND EXCAVATION
F / F FILL IN WETLAND
S / S SURFACE WATER IMPACTS
TS / TS TEMPORARY SURFACE WATER IMPACTS
* * * MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

MATCHLINE –L– STA. 335+00.00
(SEE SHEET 21)

MATCHLINE –L– STA. 347+00.00
(SEE SHEET 23)

SITE 17

SITE 18

POND

POND

171
THE CITY OF LUMBERTON

170
FREEMAN ADVERTISING COMPANY

172
N.C. STATE HIGHWAY AND PUBLIC WORKS COMMISSION

169
FREEMAN INVESTMENTS

174
STATE HIGHWAY AND PUBLIC WORKS COMMISSION

175
CITY OF LUMBERTON

BM• 15

CL B RIP RAP
EST. 3 TONS
EST. 10 SY GF

CL I RIP RAP
EST. 48 TONS
EST. 89 SY GF

CL I RIP RAP
EST. 20 TONS
EST. 39 SY GF

CL B RIP RAP
EST. 5 TONS
EST. 14 SY GF

CL B RIP RAP
EST. 8 TONS
EST. 21 SY GF

LAT. 2' BASE DITCH
SEE DETAIL AH

LAT. 5' BASE DITCH
SEE DETAIL AO

SP. CUT 'V' DITCH
SEE DETAIL F

SP. LAT. 7' BASE DITCH
SEE DETAIL AL

3' BASE CLEANOUT
SEE DETAIL AF

DUCKBILL

TOP PROTECTION
SEE DETAIL AC

Q10=1.2 cfs
V10=1.4 fps

25+00 30+00 35+00 335+00 340+00 345+00

EXIST. R/W

2GI 18" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

2GI-D

FS

JB w/MH

MEDIAN V DITCH SEE DETAIL C

FLOWABLE FILL

PLUG

REMOVE DI

REMOVE FES

18" WELDED STEEL

18" RCP-III

15" RCP-IV

24" RCP-III

24" RCP-IV

30" RCP-III

TB 2GI

15" PP

48" WW

48" WW & ISBW

64" BST

SR 1591 CRYSTAL RD 19' BST

SR 1587 HACKETT ST EAST

I95 SBL VARIABLE WIDTH BST

I95 NBL VARIABLE WIDTH BST

CONC MEDIAN BARRIER WALL

FROM PLANS-95 NB 48' BST

COULDN'T LOCATE OUTLET

VEGETATION

WOODS

30" WD

BILL BOARD

RETAIN

SP. DET. TB JB w/MH (DROP STRUCTURE)

NORTHBOUND R/W LABELED OFF -SRI3- UNLESS NOTED OTHERWISE. FOR -L- PROFILE SEE SHT.48

SOUTHBOUND R/W LABELED OFF -SRI2- UNLESS NOTED OTHERWISE. FOR -SRI2- PROFILE SEE SHT.95 FOR -SRI3- PROFILE SEE SHT.96

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MHarvey

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FLATIRON UNITED INFRASTRUCTURE GROUP

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PERMIT DRAWING SHEET 45 OF 79

E / E WETLAND EXCAVATION
F / F FILL IN WETLAND
S / S SURFACE WATER IMPACTS
TS / TS TEMPORARY SURFACE WATER IMPACTS
* * * MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 17

SITE 18

MATCHLINE –L– STA. 335+00.00
(SEE SHEET 21)

MATCHLINE –L– STA. 347+00.00
(SEE SHEET 23)

THE CITY OF LUMBERTON

FREEMAN ADVERTISING COMPANY

FREEMAN INVESTMENTS

STATE HIGHWAY AND PUBLIC WORKS COMMISSION

CITY OF LUMBERTON

SR 1591 CRYSTAL RD

I95 SBL VARIABLE WIDTH BST

I95 NBL VARIABLE WIDTH BST

CONC. MEDIAN BARRIER WALL

SR 1587 HACKETT

POND

Q10=1.2 cfs
V10=1.4 fps

BM•15

NORTHBOUND R/W LABELED OFF -SRI3- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.48
SOUTHBOUND R/W LABELED OFF -SRI2- UNLESS NOTED OTHERWISE.	FOR -SRI2- PROFILE SEE SHT.95 / FOR -SRI3- PROFILE SEE SHT.96

$DATE$ $TIME$
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Matt Harvey

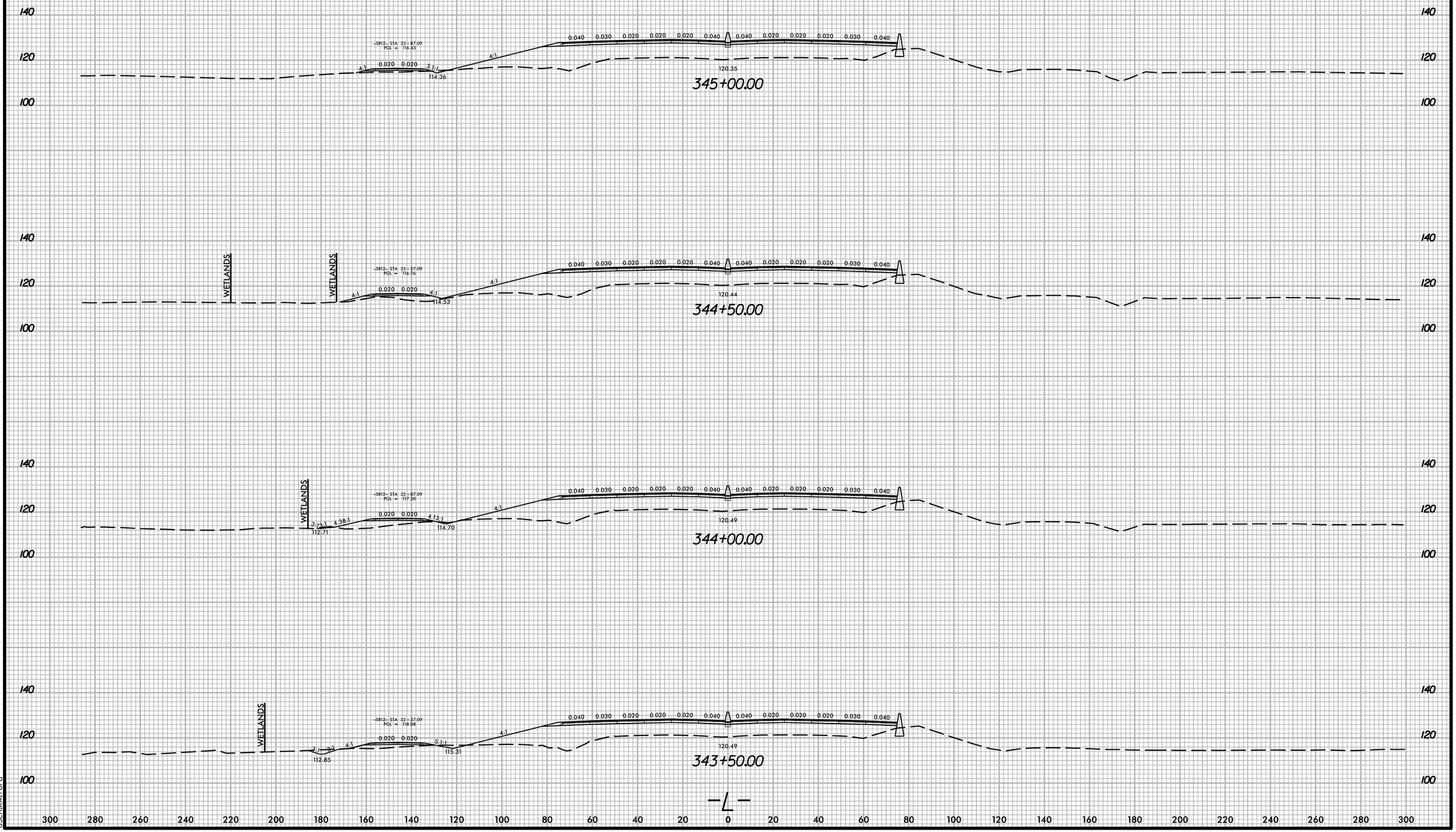
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-132

SITE 18

PERMIT DRAWING
SHEET 46 OF 79

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 47 OF 79

100' 0' 100'
GRAPHIC SCALE

F F FILL IN WETLAND
C * * S MECHANIZED CLEARING (GRUBBING)
E E WETLAND EXCAVATION
HC HC HAND CLEARING (NON-GRUBBING)
S S SURFACE WATER IMPACTS
TS TS TEMPORARY SURFACE WATER IMPACTS
T T TEMPORARY FILL IN WETLAND

MATCHLINE -L- STA. 347+00.00 (SEE SHEET 22)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 24)

SITE 19

SITE 19

SITE 19

SITE 19

Lumber River

Saddletree Swamp Canal

173 THE CITY OF LUMBERTON
176 THE CITY OF LUMBERTON
172 STATE HIGHWAY AND PUBLIC WORKS COMMISSION
178 THE LUMBER RIVER CONSERVANCY
177 THE LUMBER RIVER CONSERVANCY
179 JAMES N. BRITT III
181 THE LUMBER RIVER CONSERVANCY
182 THE LUMBER RIVER CONSERVANCY
183 JAMES N. BRITT III
175 CITY OF LUMBERTON

CL I RIP RAP EST. 11 TONS EST. 22 SY GF
CL I RIP RAP EST. 1 TONS EST. 5 SY GF
CL II RIP RAP ROCK PLATING
CAT. 5' BASE DITCH SEE DETAIL AD
Q10=1.2 cfs V10=2.4 fps
15" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS
EST. 2 TONS EST. 7 SY GF
+60.00 150.00 LT
15" CAAP W/GASKET ROD AND LUG CONNECTORS W/2 ELBOWS
TEMP PROP WW FENCE TO BRIDGE
EXIST. R/W
WOODS
LUMBER RIVER
WALL SCOUR COUNTERMEASURE
25' WATER AND SEWER DISPOSAL EASEMENT DB 46 PG 49
48' R/W & ISBA
CL I RIP RAP
REMOVE
PLUG
FLOWABLE FILL
BERM GUTTER
TOP=120.65' INV=117.07'
REMOVE DI
TB 2GI
15" RCP-III
TOP=121.67' INV=118.08'
23' BST
195 SBL VARIABLE WIDTH BST
350+00
355+00
STRUCTURE EXCAVATION
BRIDGE #147
CONC
BRIDGE SEAT=119.50'
15" PP
18" WELDED STEEL
24" WELDED STEEL
360+00
TOP=120.52'
15" RCP-III
TOP=121.82' INV=119.24'
195 NBL VARIABLE WIDTH 24' BST
8' BST
MTL
5' BST
REMOVE CONCRETE DITCH
WALL SCOUR COUNTERMEASURE
THE RIVER WALK 8' BST
TERMINUS UNKNOWN
SP. DET. TB JB w/MH (DROP STRUCTURE)
CL I RIP RAP EST. 48 TONS EST. 89 SY GF
36" CMP REMOVE
66'
HW
INV=111.25'
PUE
9' GR
10' GR
8' GR
JS HORNET

NORTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. | FOR -L- PROFILE SEE SHT.48

SOUTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. | FOR -Y4RPB- PROFILE SEE SHT.61

$DATE$ $TIME$
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Kevin Alford

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP	ICE of CAROLINAS, PLLC	ICE of Carolinas, PLLC 4505 Falls of Neuse Road, Suite 110 Raleigh, North Carolina 27609 Phone: 803-822-0333 License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 48 OF 79

F F	FILL IN WETLAND
* *	MECHANIZED CLEARING (GRUBBING)
E E	WETLAND EXCAVATION
HC HC	HAND CLEARING (NON-GRUBBING)
S S	SURFACE WATER IMPACTS
TS TS	TEMPORARY SURFACE WATER IMPACTS
T T	TEMPORARY FILL IN WETLAND

100' 0' 100'
GRAPHIC SCALE

MATCHLINE -L- STA. 347+00.00 (SEE SHEET 22)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 24)

SITE 19

SITE 19

SITE 19

SITE 19

Lumber River

Saddletree Swamp

THE CITY OF LUMBERTON

STATE HIGHWAY AND PUBLIC WORKS COMMISSION

THE LUMBER RIVER CONSERVANCY

JAMES N BRITT III

CL I RIP RAP EST. 11 TONS EST. 22 SY GF

CL I RIP RAP EST. 4 TONS EST. 5 SY GF

CL II RIP RAP ROCK PLATING

CAT. 5 BASE DITCH SEE DETAIL AD

Q10=1.2 cfs V10=1.4 fps

15" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

EST 2 TONS EST. 7 SY GF

160.00 150.00 LT

TIE PROP WW FENCE TO BRIDGE

WALL SCOUR COUNTERMEASURE

EXIST. R/W

REMOVE DI

FLOWABLE FILL

PLUG

TB 2GI

15" RCP-III

15" WELDED STEEL

18" WELDED STEEL

REMOVE CONCRETE DITCH

STRUCTURE EXCAVATION

CONC. BRIDGE #47

BRIDGE SEAT=119.5

I95 SBL VARIABLE WIDTH BST

I95 NBL VARIABLE WIDTH 24' BST

THE RIVER WALK 8' BST

SP. DET. TB JB WMH (DROP STRUCTURE)

CL I RIP RAP EST. 48 TONS EST. 87 SY GF

PUE

WOODS

NORTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.48
SOUTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE.	FOR -Y4RPB- PROFILE SEE SHT.61

$DATE$ $TIME$
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Kevin.Alford

5/28/99

BM#15 ELEVATION = 117.97'
-L- STATION 341+62.2, 324.5' RIGHT

FLATIRON UNITED INFRASTRUCTURE GROUP

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PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	48
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 49 OF 79

-L-

PI = 333+20.00
EL = 131.16'
VC = 560'
K = 220
DS = 75 MPH

PROP. GRADE

(-)0.3000%

(-) 0.4400%

END MED.'V' DITCH
STA.336+00.00 LT
ELEV.= 117.52

EXIST. GROUND

24"WS EQUILIZER PIPE

BEGIN MED.'V' DITCH
STA.339+50.00 LT
ELEV.= 115.93

(-) 0.3175%

DITCH PI
STA.340+13.00 LT
ELEV.= 115.73

(+) 0.4599%

DITCH PI
STA.341+50.00 LT
ELEV.= 116.36

(-) 0.3000%

DITCH PI
STA.343+00.00 LT
ELEV.= 115.91

PI = 343+70.00
EL = 128.01'
VC = 280'
K = 234
DS = 80 MPH

(-)0.3000%

(+)0.8986%

(-) 1.2100%

DITCH PI
STA.344+00.00 LT
ELEV.= 114.70

(-) 0.3415%

DITCH PI
STA.346+05.00 LT
ELEV.= 114.00

(-) 1.6667%

(-) 1.6667%

END MED.'V' DITCH
BEGIN LAT.5' BASE DITCH
STA.346+50.00 LT
ELEV.= 113.25

FOR -L- PLAN SEE SHT.22

-L-

SITE 19

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 15,200	CFS
DESIGN FREQUENCY	= 100	YRS
DESIGN HW ELEVATION	= 124.8	FT
BASE DISCHARGE	= 15,200	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 124.8	FT
OVERTOPPING DISCHARGE	= n/a	CFS
OVERTOPPING FREQUENCY	= n/a	YRS
OVERTOPPING ELEVATION	= 131.20	FT

PI = 356+60.00
EL = 139.60'
VC = 840'
K = 364
DS = 75 MPH

(+)0.8986%

(-)1.4120%

BEGIN BRIDGE
-L- STA.353+65.00

END BRIDGE
-L- STA.358+65.00

PROP. GRADE

(+)0.8986%

EXIST. GROUND

(-) 1.6667%

END LAT.5' BASE DITCH
STA.347+55.00 LT
ELEV.= 111.5

UNCLASS. STRUCTURAL EXCAVATION

RIP RAP CLASS II (24" THICK TYP)

NWS ~ EL. 109

RIP RAP CLASS II (24" THICK TYP)

RIGHT DITCH - - - - - -

LEFT DITCH —·—·—·—

FOR -L- PLAN SEE SHT.23

9/1/2022
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6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-136

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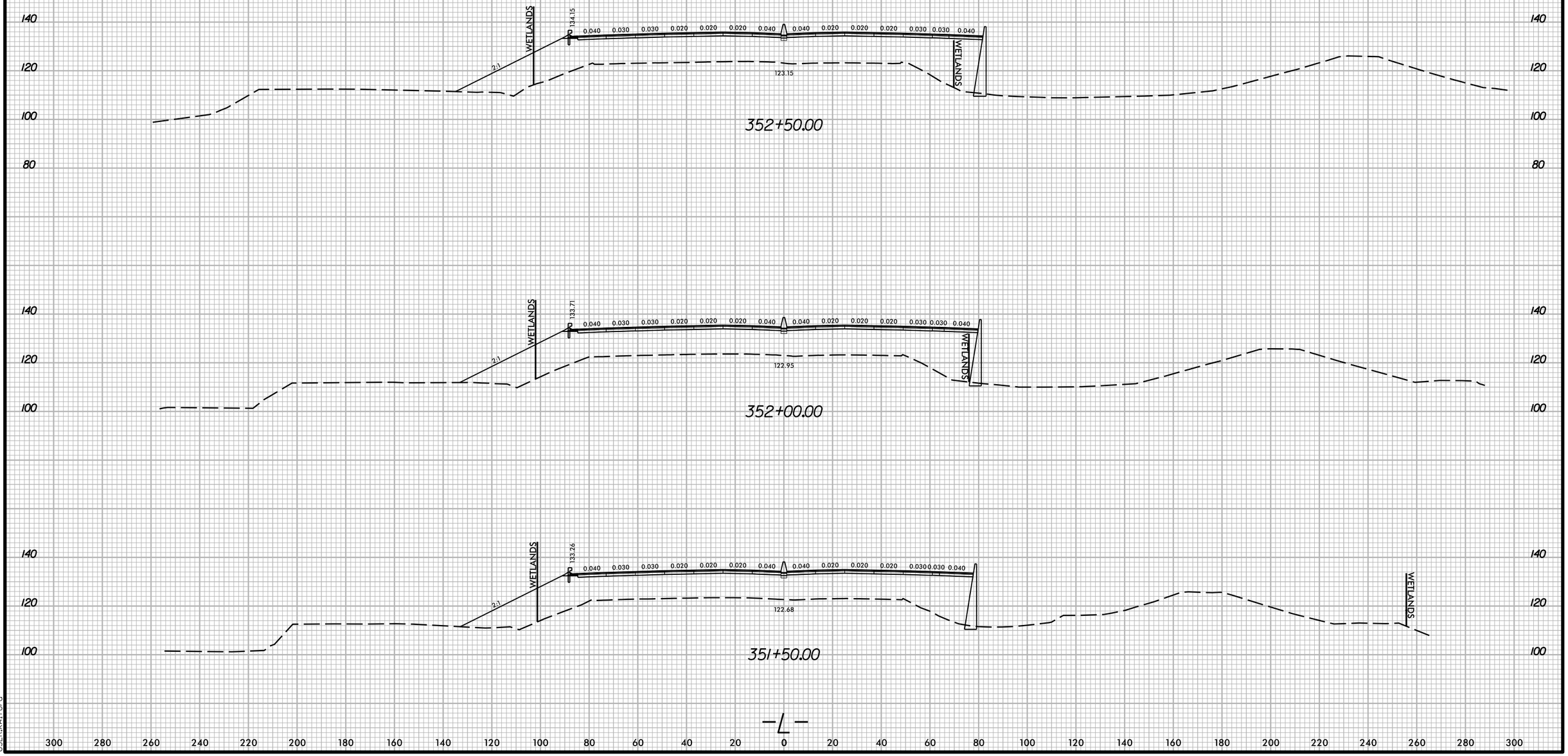
SITE 19

PERMIT DRAWING
SHEET 50 OF 79



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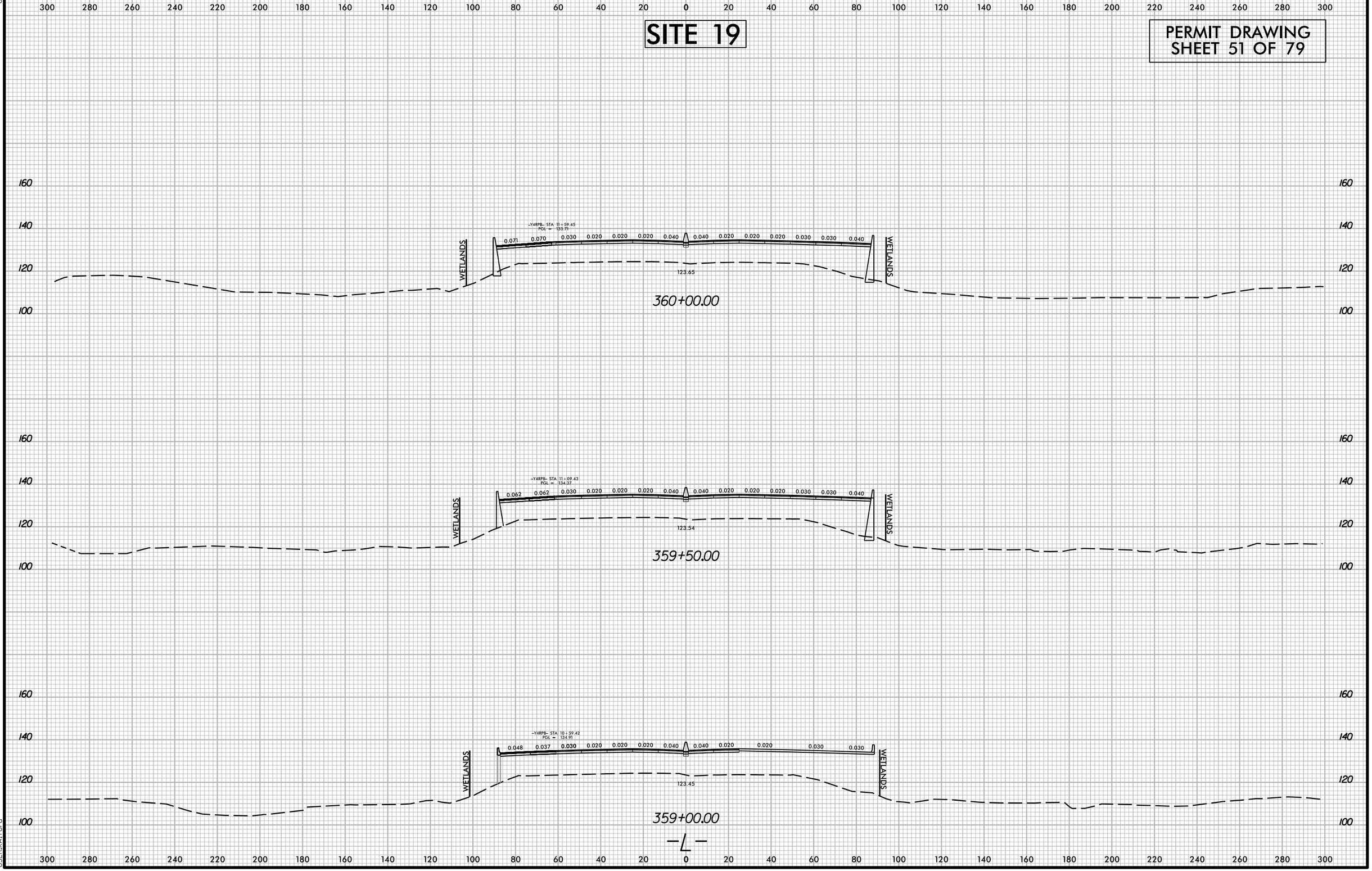
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-141

SITE 19

PERMIT DRAWING
SHEET 51 OF 79



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USER:KAlford

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ICE of Carolinas, PLLC
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Phone: 803-452-0222
License #: P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 52 OF 79

F F FILL IN WETLAND

* * MECHANIZED CLEARING (GRUBBING)

RALEIGH

GRAPHIC SCALE 200' 0' 200'

SITE 20

SITE 21

SITE 22

MATCHLINE -Y4- STA. 19+00.00 (SEE SHEET 32)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 23)

MATCHLINE -L- STA. 387+00.00 (SEE SHEET 25)

MATCHLINE -Y4- STA. 35+00.00 (SEE SHEET 33)

SEE SHEET 55 OF 79 FOR ENLARGED VIEW

SEE SHEET 54 OF 79 FOR ENLARGED VIEW

Lumber River

CALLOUT LEGEND	
A	-SR1- POT Sta. 10+00.00 = -Y4- POT Sta. 23+42.49
B	-RAB1- POC Sta. 20+00.00 = -RAB1- POC Sta. 23+58.14
C	-SR1- PC Sta. 10+94.22
D	-Y4RPC- PT Sta. 22+50.79
E	-Y4RPC- POT Sta. 22+67.33
F	-SR2- POT Sta. 10+00.00 = -Y4- POT Sta. 37+76.45
G	-RAB2- POC Sta. 10+00.00 = -RAB2- POT Sta. 33+58.14

		FOR -L- PROFILE SEE SHT. 49
FOR -SR1- PROFILE SEE SHT. 69	FOR -Y4- PROFILE SEE SHT. 59	FOR -Y4RPB- PROFILE SEE SHT. 61
FOR -SR2- PROFILE SEE SHTS. 71 THRU 72	FOR -RAB1- PROFILE SEE SHT. 60	FOR -Y4RPC- PROFILE SEE SHT. 62
FOR -Y4RPA- PROFILE SEE SHTS. 60 THRU 61	FOR -RAB2- PROFILE SEE SHT. 60	FOR -Y4RPD- PROFILE SEE SHT. 62

GRAPHIC SCALE
50 25 0 50 100
PLANS

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ICE of Carolinas, PLLC
4525 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 833-423-2423
License #: P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 53 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

GRAPHIC SCALE 200' 0' 200'

SITE 20

SITE 21

SITE 22

MATCHLINE -Y4- STA. 19+00.00 (SEE SHEET 32)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 23)

MATCHLINE -L- STA. 387+00.00 (SEE SHEET 25)

MATCHLINE -Y4- STA. 35+00.00 (SEE SHEET 39)

SEE SHEET 55 OF 79 FOR ENLARGED VIEW

SEE SHEET 54 OF 79 FOR ENLARGED VIEW

Lumber River

CALLOUT LEGEND
Ⓐ -SR1- POT Sta. 10+70.00 = -Y4- POT Sta. 23+42.49
Ⓑ -RAB1- POC Sta. 20+00.00 = -RAB1- POT Sta. 23+58.14
Ⓒ -SR1- PC Sta. 10+94.22
Ⓓ -Y4RPC- PT Sta. 22+50.79
Ⓔ -Y4RPC- POT Sta. 22+67.33
Ⓕ -SR2- POT Sta. 10+50.00 = -Y4- POT Sta. 31+76.42
Ⓖ -RAB2- POC Sta. 10+00.00 = -RAB2- POT Sta. 33+58.14

FOR -SR1- PROFILE SEE SHT.69	FOR -Y4- PROFILE SEE SHT.59	FOR -L- PROFILE SEE SHT.49
		FOR -Y4RPB- PROFILE SEE SHT.61
FOR -SR2- PROFILE SEE SHTS.71 THRU 72	FOR -RAB1- PROFILE SEE SHT.60	FOR -Y4RPC- PROFILE SEE SHT.62
FOR -Y4RPA- PROFILE SEE SHTS.60 THRU 61	FOR -RAB2- PROFILE SEE SHT.60	FOR -Y4RPD- PROFILE SEE SHT.62

GRAPHIC SCALE
50 25 0 50 100
PLANS

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SITE 21

SITE 20

SITE 20 & SITE 21
ENLARGEMENT

PERMIT DRAWING
SHEET 54 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

GRAPHIC SCALE
0' 40' 80'

Q10=70.4 cfs
V10=1.9 fps

SP. CUT 2' BASE DITCH
SEE DETAIL T

REMOVE CONCRETE DITCH

54" RCP-III

15" RCP-IV

TB 2GI

2GI-A

FS

365+00

15+00

REMOVE

PLUG

FLOWABLE FILL

15" WELDED STEEL

LOCATE & REMOVE
TRENCHLESS INSTALLATION
48" WELDED STEEL

SP DET. TB 2GI-A

30" PP

24" PP

SE DITCH RAP

PDE

DUE

WLB

JS

GRAVEL

I95 SBL VARIABLE WIDTH BST

I95 NBL VARIABLE WIDTH BST

TERMINUS UNKNOWN

48" WW & ISBW

MTL

UNDER GROWTH

EIP TO RW 0.13'

NAD 83

Q10=22.2 cfs
V10=1.9 fps

STD. 3' BASE DITCH
W/CL B RIP RAP
SEE DETAIL K

TOE PROTECTION
SEE DETAIL G

DUE

REMOVE

30" RCP-III

DI

REMOVE

8" RCP

RETAIN

REMOVE
DI

REMOVE
CB

LOCATE &
REMOVE JB

RETAIN

RETAIN
CB

24"
RCP-III

PUE

EXIST. R/W

TDF

RW

INV=124.20'

INV=131.90'
INV (SE)=125.87'
INV (NW)=125.86'

TOP=132.48'
INV (SE)=127.36'
INV (NW)=127.29'

POSSIBLE BURIED
JUNCTION BOX

PUTL

218

ISBLK/BLDG
(BUS)

CORPORATION
CORPORATION

4-ISL'S
4 GAS PUMPS
U/MTL CANOPY

60" CLK

BST

30" C&G

54" CONC

W/LT

141

135

133

134

132

131

144

INV A=129.67'
INV B=129.67'
POSSIBLY ABANDONED

12" VCP

15" RCP-III

CB

DI

-SR1-
+36.01
50.00 RT

-Y4-
+15
130.00

CA

REMOVE

PLUG

FLOWABLE
FILL

48" WW
FENCE

48" WW & ISBW

18" RCP-III

20+00

25+00

CR

F

W

6" CONC CURB

GRASS

EXIST. R/W

CONC

15" RCP-IV

15" RCP-III

END FENCE

2-ISL'S
2 GAS PUMPS
U/MTL CANOPY

PHONE BOOTH

136
W/LT

130
W/LT

40' 0' 40'

GRAPHIC SCALE

SITE 22 ENLARGEMENT

PERMIT DRAWING
SHEET 55 OF 79

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

9/17/2025
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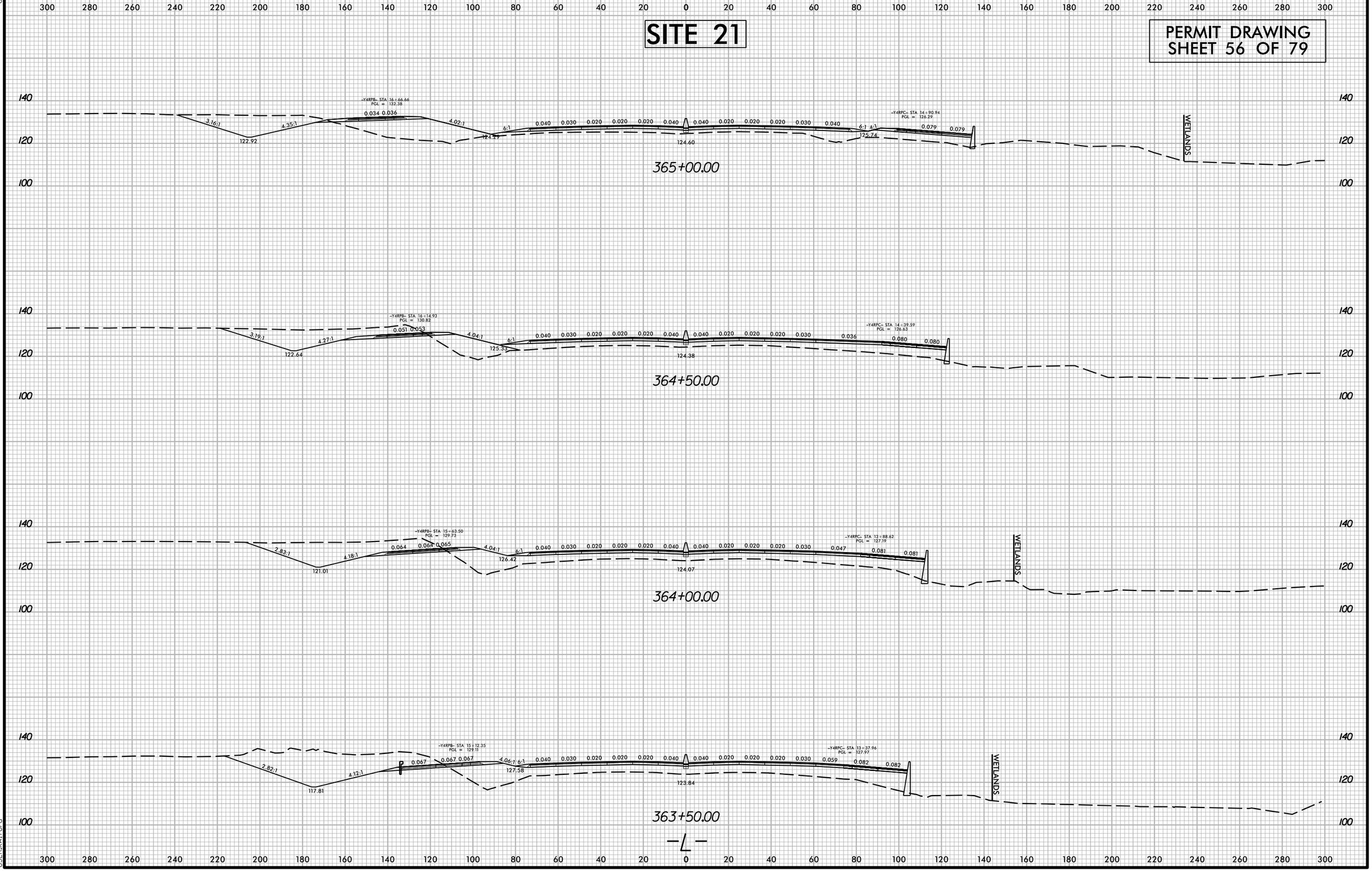
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-144

SITE 21

PERMIT DRAWING
SHEET 56 OF 79



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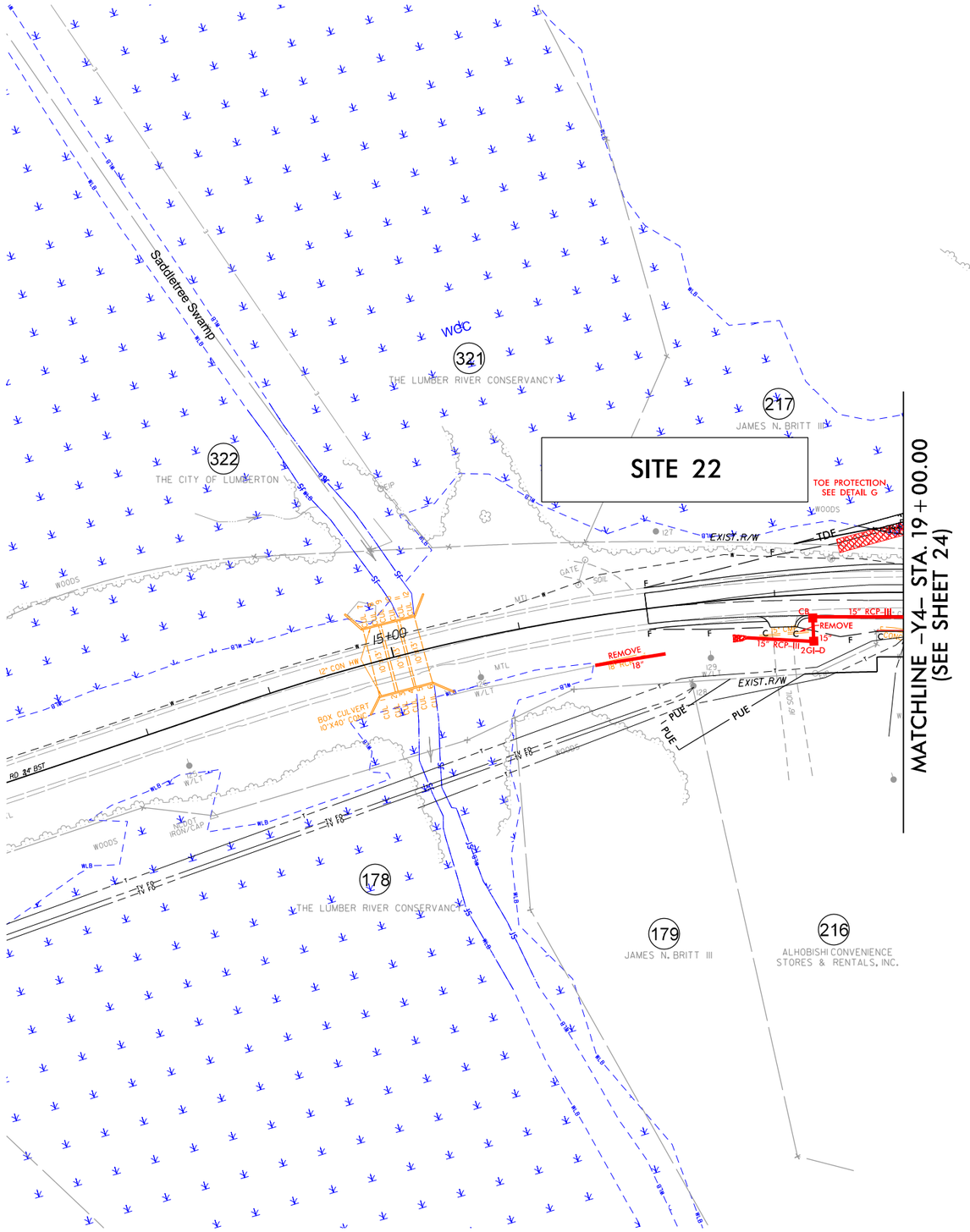
8/17/99



FLATIRON UNITED INFRASTRUCTURE GROUP	ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road. Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

S S SURFACE WATER IMPACTS
TS TS TEMPORARY SURFACE WATER IMPACTS
F F FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 57 OF 79

R/W LABELED OFF -Y4- UNLESS NOTED OTHERWISE. | *FOR -Y4- PROFILE SEE SHT.59*

$DATE$ $TIME$
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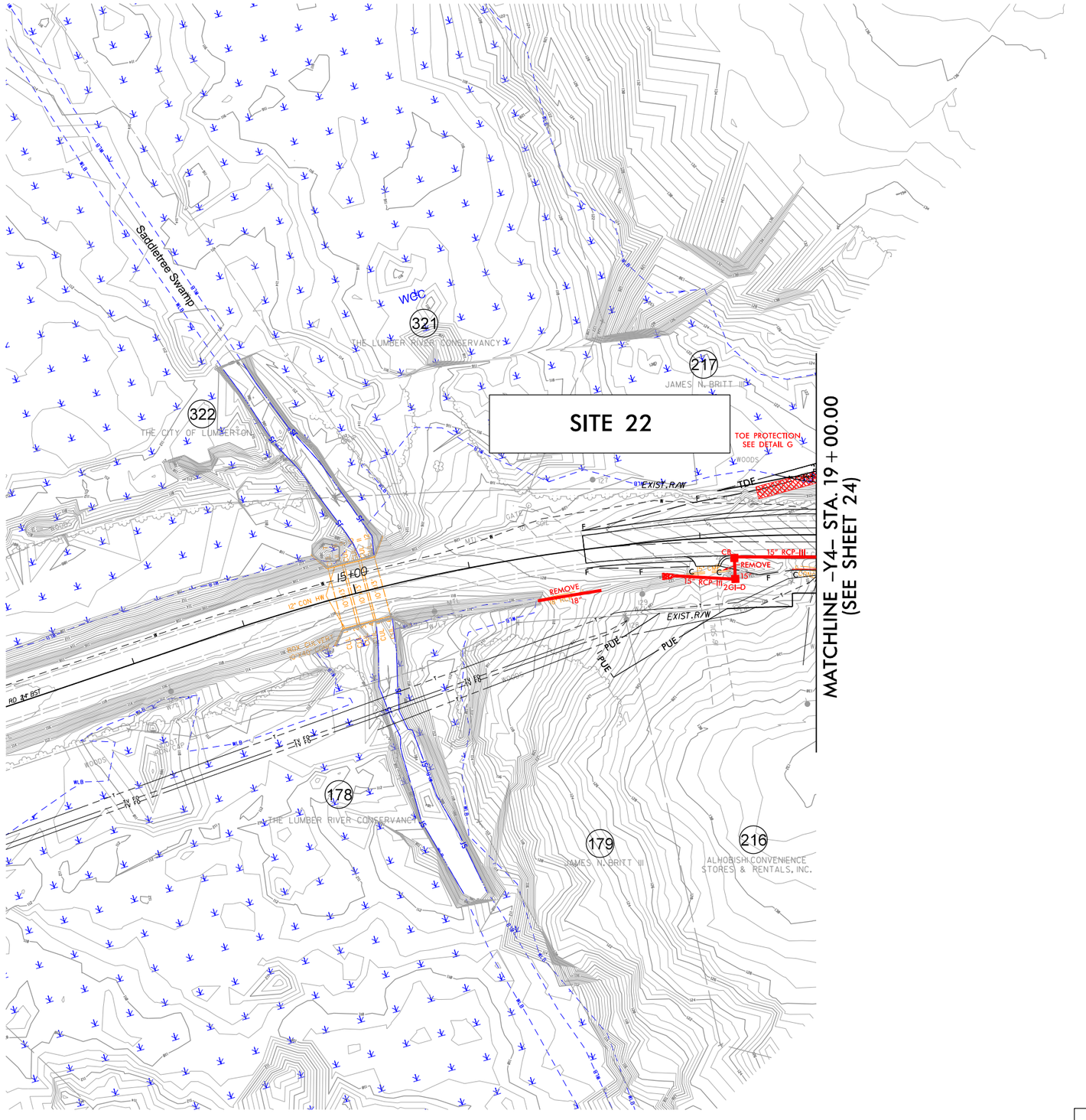
MHarvey

8/17/99



MATCHLINE -Y4- STA. 19+00.00
(SEE SHEET 24)

FLATIRON UNITED INFRASTRUCTURE GROUP	ICE of CAROLINAS, PLLC	ICE of Carolinas, PLLC 4505 Falls of Neuse Road. Suite 110 Raleigh, North Carolina 27609 Phone: 803-822-0333 License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

S S SURFACE WATER IMPACTS

TS TS TEMPORARY SURFACE WATER IMPACTS

F F FILL IN WETLAND

MECHANIZED CLEARING (GRUBBING)

100' 0' 100'

GRAPHIC SCALE

PERMIT DRAWING SHEET 58 OF 79

R/W LABELED OFF -Y4- UNLESS NOTED OTHERWISE. | FOR -Y4- PROFILE SEE SHT.59

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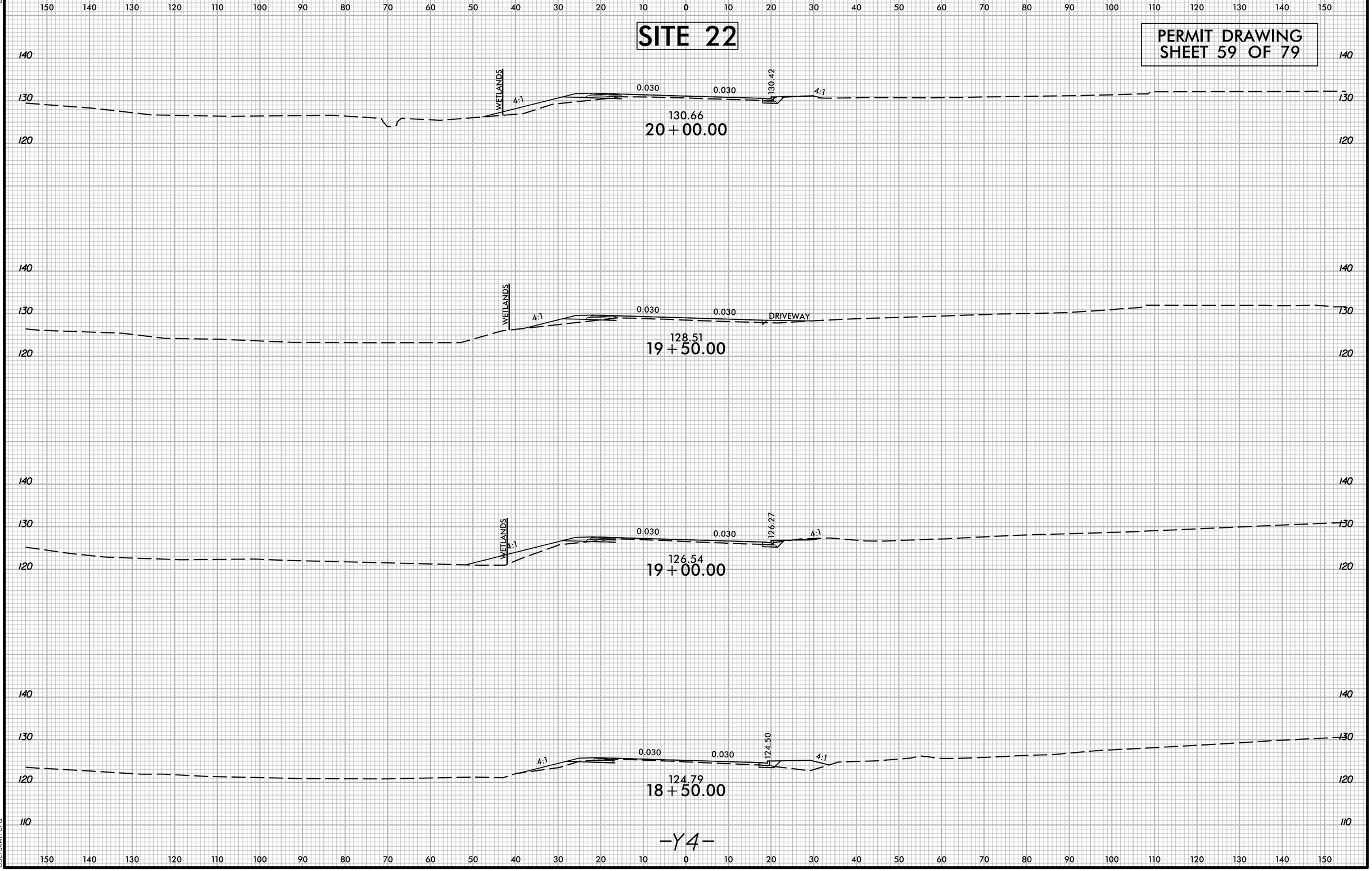
Matt Harvey

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-238

SITE 22

PERMIT DRAWING
SHEET 59 OF 79



-Y4-

8/2/2022
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USER:KAlford

GRAPHIC SCALE 200' 0' 200'

S S SURFACE WATER IMPACTS

TS TS TEMPORARY SURFACE WATER IMPACTS

F F FILL IN WETLAND

PROPOSED SIGNAL

PERMIT DRAWING
SHEET 60 OF 79

FLATIRON UNITED

Wetherill Engineering, Inc.
1882 Lewis Road • Unit 1
Stone Mountain, Georgia 30088
Phone: 770.879.0077
License #: PE-001277

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE (SEE SHEET 26A)

MATCHLINE -SR1- STA. 75+30.00 (SEE SHEET 34)

MATCHLINE -Y5- STA. 26+00.00 (SEE SHEET 34)

MATCHLINE -SR4- STA. 13+00.00 (SEE SHEET 34)

MATCHLINE -L- STA. 413+00.00 (SEE SHEET 26)

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 28)

MATCHLINE -SR2- STA. 64+00.00 (SEE SHEET 35)

MATCHLINE -SR3- STA. 17+00.00 (SEE SHEET 35)

MATCHLINE -Y5- STA. 39+00.00 (SEE SHEET 35)

MATCHLINE -SR5- STA. 18+00.00 (SEE SHEET 35)

SITE 23

SEE SHEET 62 OF 79 FOR ENLARGED VIEW

FOR -L- PROFILE SEE SHTS.51 THRU 52	FOR -SR3- PROFILE SEE SHT.73	FOR -Y5- PROFILE SEE SHT.63
FOR -SR1- PROFILE SEE SHTS.70 THRU 71	FOR -SR4- PROFILE SEE SHT.74	FOR -Y5SPA- PROFILE SEE SHT.68
FOR -SR2- PROFILE SEE SHTS.72 THRU 73	FOR -Y5RPA- PROFILE SEE SHT.65	FOR -Y5SPB- PROFILE SEE SHT.68
FOR -SR5- PROFILE SEE SHTS.76 THRU 77	FOR -Y5RPC- PROFILE SEE SHT.66	FOR -Y5SPC- PROFILE SEE SHT.68
FOR -Y5RPB- PROFILE SEE SHTS.65 THRU 66	FOR -Y5RPD- PROFILE SEE SHT.67	FOR -Y5SPD- PROFILE SEE SHT.68

GRAPHIC SCALE 50 25 0 50 100 PLANS

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6/2/2026 8:27:08 AM EDT

GRAPHIC SCALE 200' 0' 200'

S S SURFACE WATER IMPACTS

TS TS TEMPORARY SURFACE WATER IMPACTS

F F FILL IN WETLAND

PROPOSED SIGNAL

PERMIT DRAWING
SHEET 61 OF 79

FLATIRON UNITED

Wetherill Engineering, Inc.
1882 Jones Road • Suite 100
Stone Mountain, Georgia 30083
Phone 770.879.0077
License #2940

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE (SEE SHEET 26A)

MATCHLINE -SR1- STA. 75+30.00 (SEE SHEET 34)

MATCHLINE -YS- STA. 26+00.00 (SEE SHEET 34)

MATCHLINE -SR4- STA. 13+00.00 (SEE SHEET 34)

MATCHLINE -L- STA. 413+00.00 (SEE SHEET 26)

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 28)

MATCHLINE -SR2- STA. 64+00.00 (SEE SHEET 35)

MATCHLINE -SR3- STA. 17+00.00 (SEE SHEET 35)

MATCHLINE -YS- STA. 39+00.00 (SEE SHEET 35)

MATCHLINE -SR5- STA. 18+00.00 (SEE SHEET 35)

SITE 23

SITE 23

SEE SHEET 82 OF 79 FOR ENLARGED VIEW

FOR -L- PROFILE SEE SHTS.51 THRU 52	FOR -SR3- PROFILE SEE SHT.73	FOR -Y5- PROFILE SEE SHT.63
FOR -SR1- PROFILE SEE SHTS.70 THRU 71	FOR -SR4- PROFILE SEE SHT.74	FOR -Y5SPA- PROFILE SEE SHT.68
FOR -SR2- PROFILE SEE SHTS.72 THRU 73	FOR -Y5RPA- PROFILE SEE SHT.65	FOR -Y5SPB- PROFILE SEE SHT.68
FOR -SR5- PROFILE SEE SHTS.76 THRU 77	FOR -Y5RPC- PROFILE SEE SHT.66	FOR -Y5SPC- PROFILE SEE SHT.68
FOR -Y5RPB- PROFILE SEE SHTS.65 THRU 66	FOR -Y5RPD- PROFILE SEE SHT.67	FOR -Y5SPD- PROFILE SEE SHT.68

GRAPHIC SCALE 50 25 0 50 100 PLANS

ROUTE STATE PROJECT REFERENCE NO. SHEET NO.

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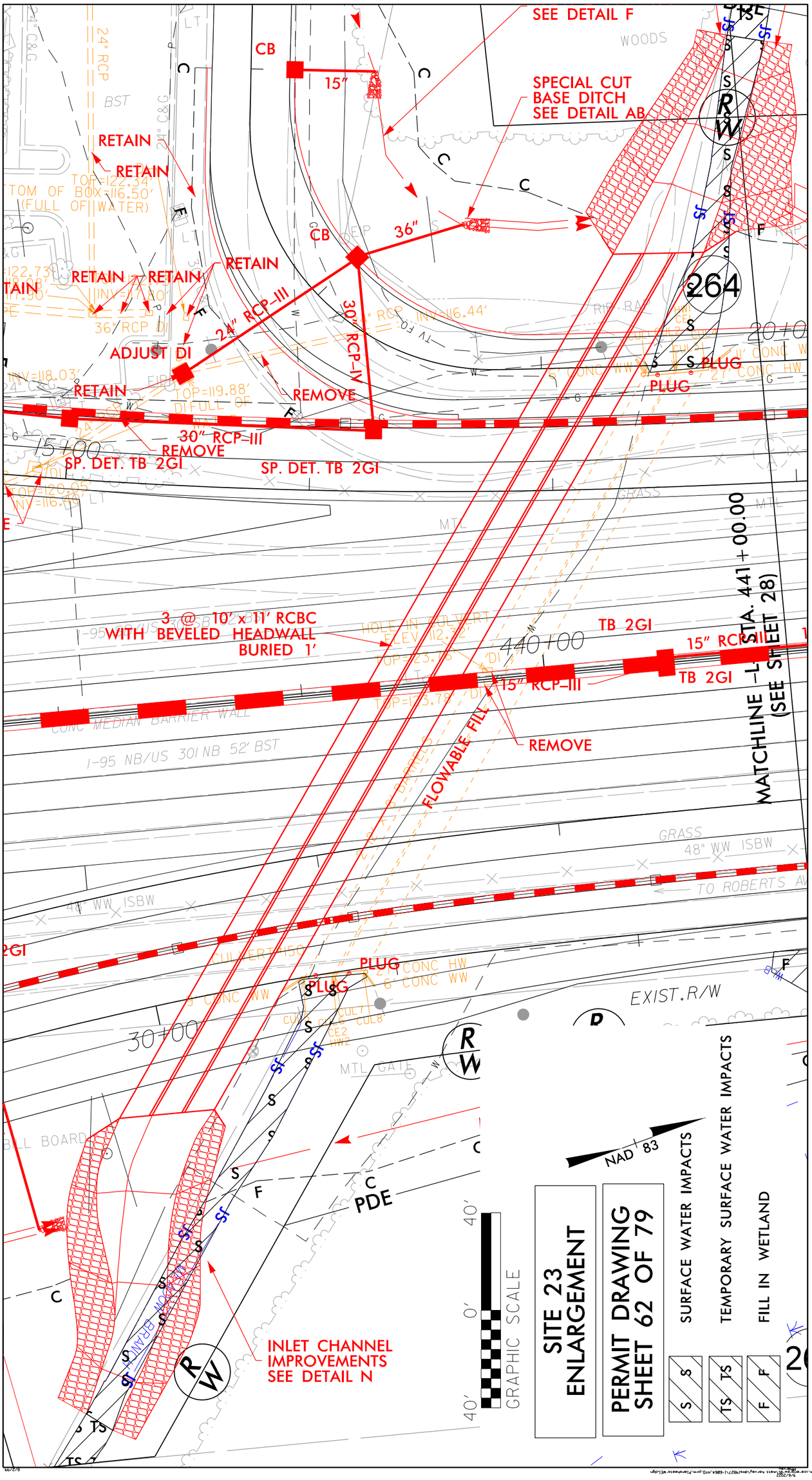

SEE DETAIL F
SPECIAL CUT
BASE DITCH
SEE DETAIL AB
CB
15″
36″
RETAIN
RETAIN
RETAIN
RETAIN
RETAIN
ADJUST DI
24″ RCP-III
30″ RCP-IV
REMOVE
30″ RCP-III
REMOVE
SP. DET. TB 2GI
SP. DET. TB 2GI
PLUG
PLUG
264
15+00
30+00
440+00
3 @ 10′ x 11′ RCBC
WITH BEVELED HEADWALL
BURIED 1′
TB 2GI
15″ RCP-III
TB 2GI
15″ RCP-III
REMOVE
FLOWABLE FILL
MATCHLINE –L– STA. 441+00.00
(SEE SHEET 28)
I-95 NB/US 301 NB 52′ BST
CONC MEDIAN BARRIER WALL
GRASS
48″ WW ISBW
TO ROBERTS
EXIST.R/W
PDE
INLET CHANNEL
IMPROVEMENTS
SEE DETAIL N
NAD 83
GRAPHIC SCALE
40′
0′
40′
SITE 23
ENLARGEMENT
PERMIT DRAWING
SHEET 62 OF 79
SURFACE WATER IMPACTS
TEMPORARY SURFACE WATER IMPACTS
FILL IN WETLAND

5/14/99

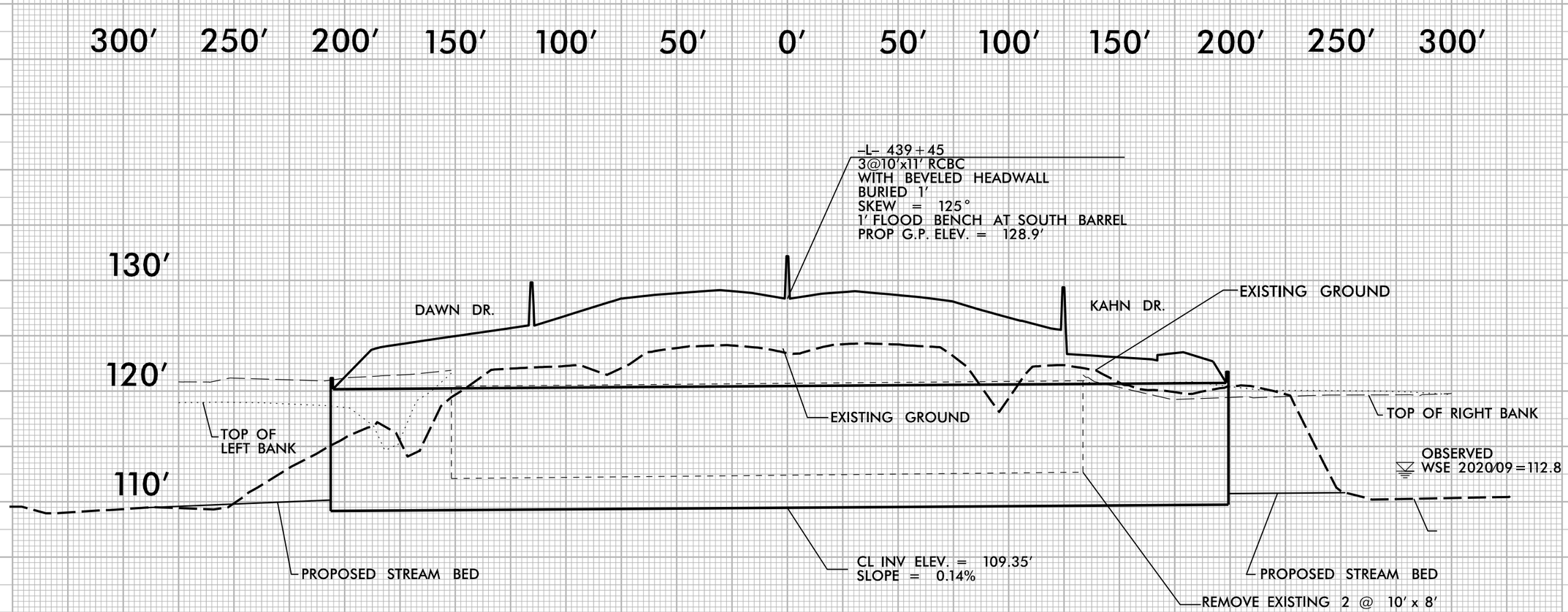
PERMIT DRAWING
SHEET 63 OF 79

PROJECT REFERENCE NO.	SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SITE 23
MEADOW BRANCH



PROFILE ALONG STRUCTURE

9/1/2022
11:58:32
I:\SEB\Hydr_dgn\
2024_hyd_prm_meadow branch profile.dgn

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PERMIT DRAWING SHEET 64 OF 79

WETLAND EXCAVATION
FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)
SURFACE WATER IMPACTS
TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 24

SITE 25

SITE 24

SITE 24

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 27)

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 29)

CITY OF LUMBERTON

FRENCH FAMILY PROPERTIES

CHARLES MCNEIL

SOUTHERN NATIONAL BANK

Meadow Branch

Fivemile Branch

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL Q

SPECIAL CUT DITCH SEE DETAIL F

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 60 TONS EST 130 SY GT

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 90 TONS EST 200 SY GT

TOE PROTECTION SEE DETAIL W W/CL B RIPRAP EST 100 TONS EST 140 SY GT

INLET CHANNEL IMPROVEMENTS SEE DETAIL P

CHANNEL CHANGE SEE DETAIL AZ DDE = 1800 CY

CLASS I RIP RAP BANK STABILIZATION CL I RR 424 TNS GEO 720 SY

CLASS I RIP RAP BANK STABILIZATION CL I RR 322 TNS GEO 545 SY

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

3 @ 10' x 11' RCBC WITH BEVELED HEADWALL BURIED 1'

N 17° 06' 28.0" E

N 14° 47' 28.0" E

SR4 DAWN DR

Y5RPA, S 17° 06' 28.0" W

SR5 KAHN DR

-L- I-95

FOR -SR4- PROFILE SEE SHT.74	FOR -L- PROFILE SEE SHT.52
FOR -Y5RPA- PROFILE SEE SHT.65	FOR -SR5- PROFILE SEE SHT.77

$DATE$ $TIME$
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Kevin Alford

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 65 OF 79

NAD 83

WETLAND EXCAVATION
FILL IN WETLAND
MECHANIZED CLEARING (GRUBBING)
SURFACE WATER IMPACTS
TEMPORARY SURFACE WATER IMPACTS

GRAPHIC SCALE 100' 0' 100'

SITE 24

SITE 25

SITE 24

SITE 24

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 27)

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 29)

Meadow Branch

Fivemile Branch

CITY OF LUMBERTON

FRENCH FAMILY PROPERTIES

CHARLES MCNEIL

SOUTHERN NATIONAL BANK

SR4 DAWN DR

SR5 KAHN DR

-L- I-95

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL Q

SPECIAL CUT DITCH SEE DETAIL F

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 60 TONS EST 130 SY GT

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 90 TONS EST 200 SY GT

TOE PROTECTION SEE DETAIL W W/CL B RIPRAP EST 100 TONS EST 140 SY GT

INLET CHANNEL IMPROVEMENTS SEE DETAIL P

CHANNEL CHANGE SEE DETAIL AZ DDE = 1800 CY

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

CLASS I RIP RAP BANK STABILIZATION CL I RR 424 TNS GEO 720 SY

CLASS I RIP RAP BANK STABILIZATION CL I RR 322 TNS GEO 545 SY

3 @ 10' x 11' RCBC WITH BEVELED HEADWALL BURIED 1'

FOR -SR4- PROFILE SEE SHT.74	FOR -L- PROFILE SEE SHT.52
FOR -Y5RPA- PROFILE SEE SHT.65	FOR -SR5- PROFILE SEE SHT.77

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Kevin.Alford

5/14/99

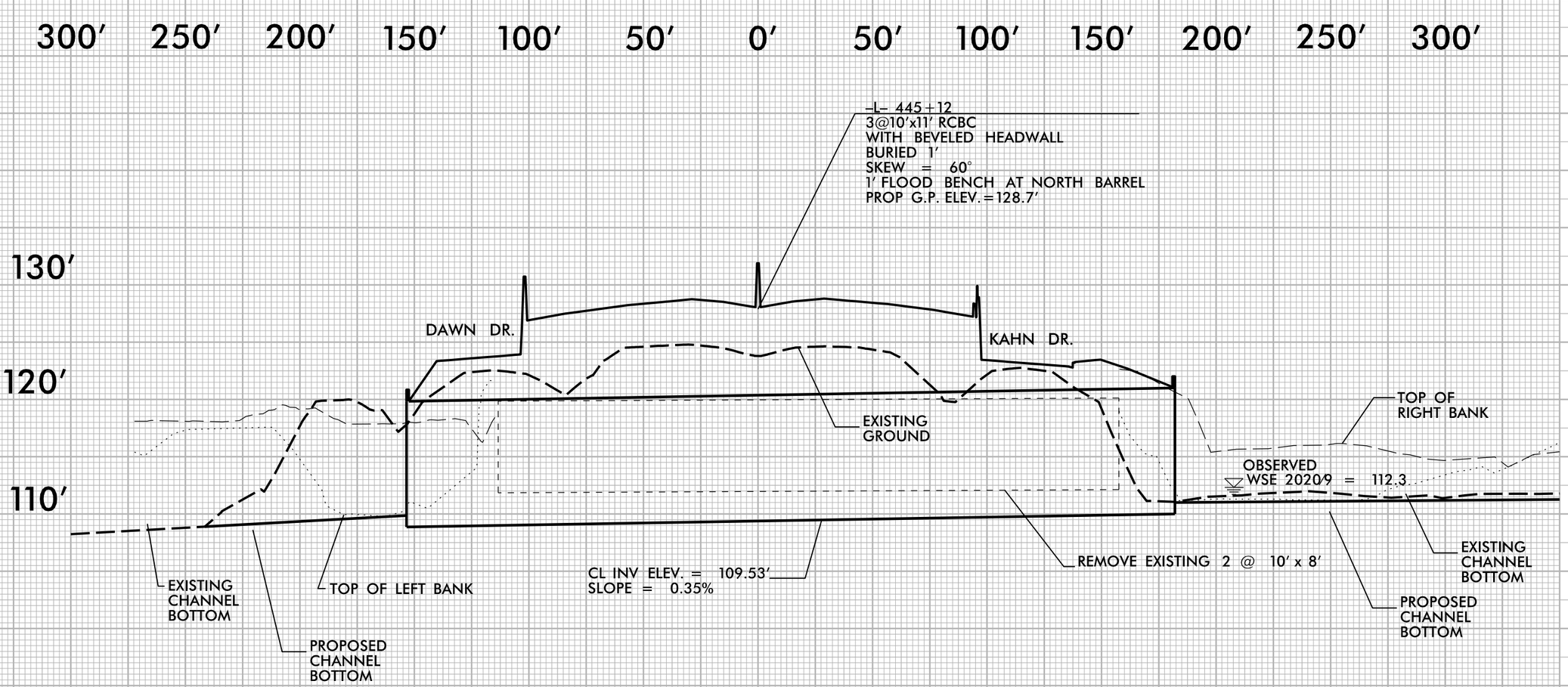
PERMIT DRAWING
SHEET 66 OF 79

PROJECT REFERENCE NO.	SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SITE 24
FIVEMILE BRANCH



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8/23/99

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	I-6064/I-5879	X-186

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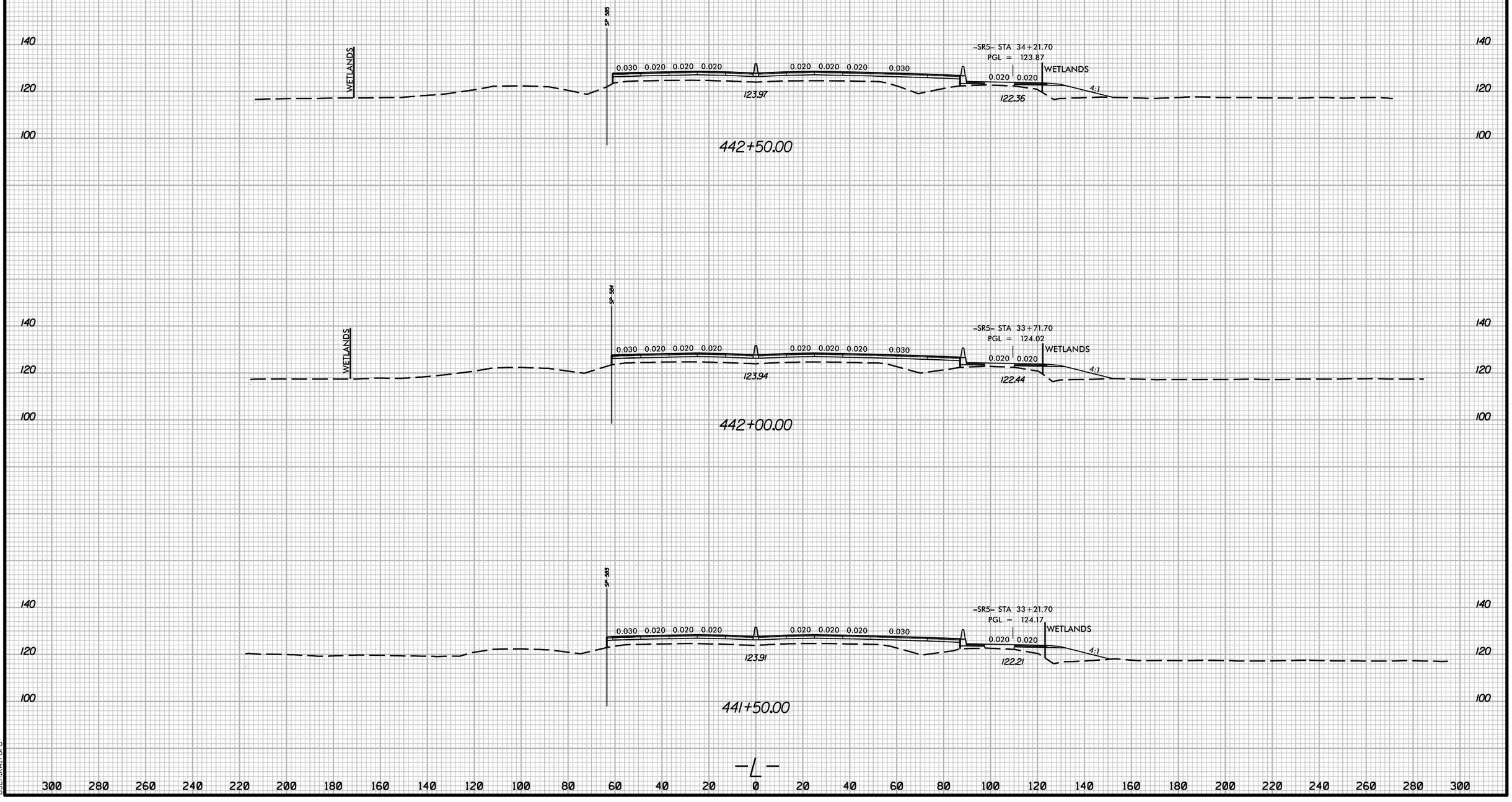
SITE 24

PERMIT DRAWING
SHEET 67 OF 79



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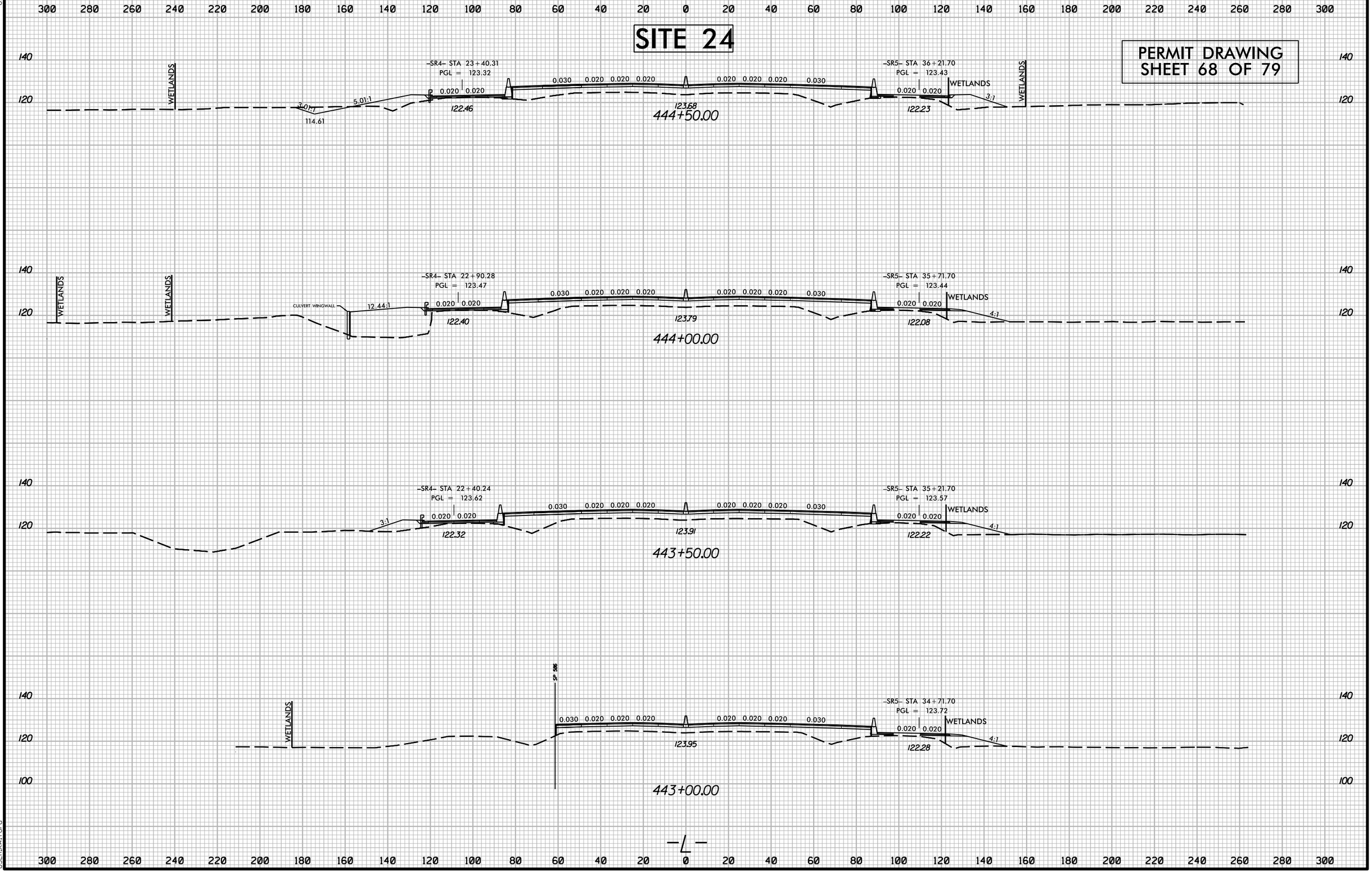
	I-6064/I-5879	X-187

SITE 24

PERMIT DRAWING
SHEET 68 OF 79



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8/23/99

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	I-6064/I-5879	X-188

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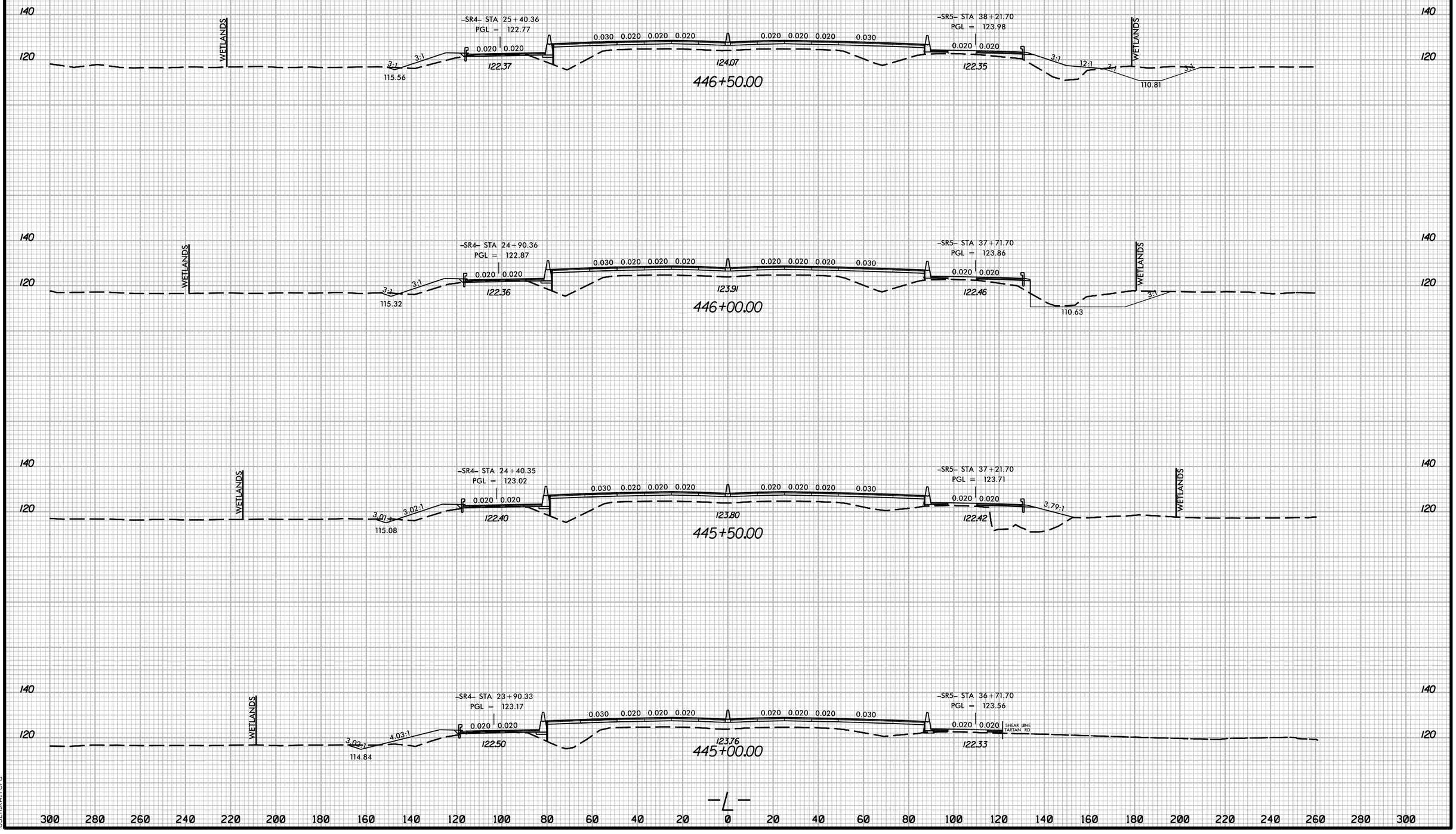
SITE 24

PERMIT DRAWING
SHEET 69 OF 79



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8/2/2022
I:\6064_hyd_prm_XPL_L-WEI.dgn
USER:KAITord

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-190

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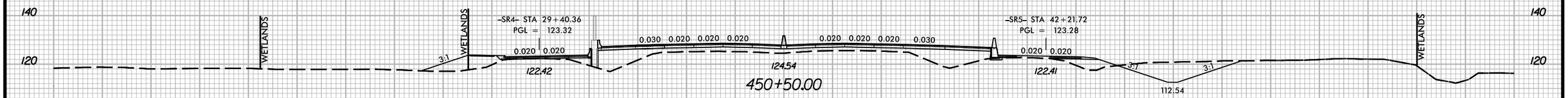
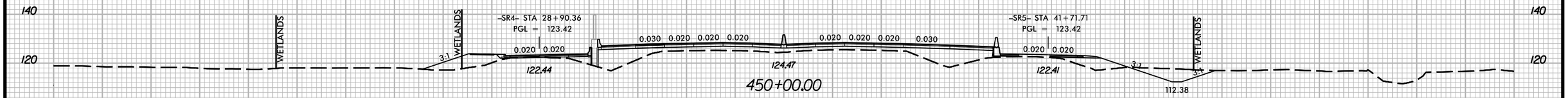
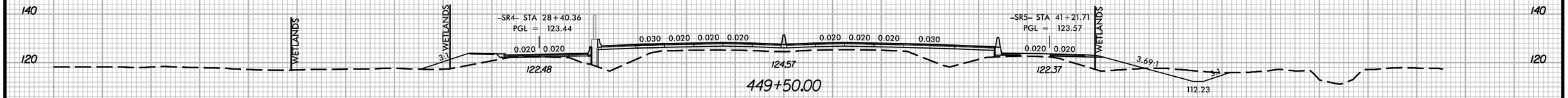
SITE 25

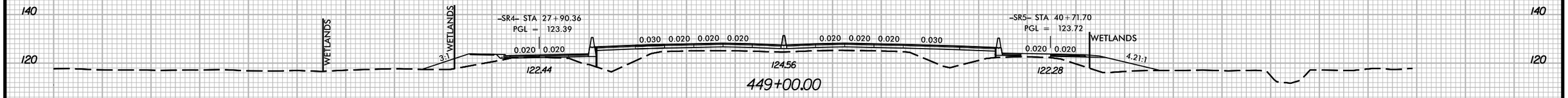
SITE 24

PERMIT DRAWING
SHEET 70 OF 79









–℄–

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

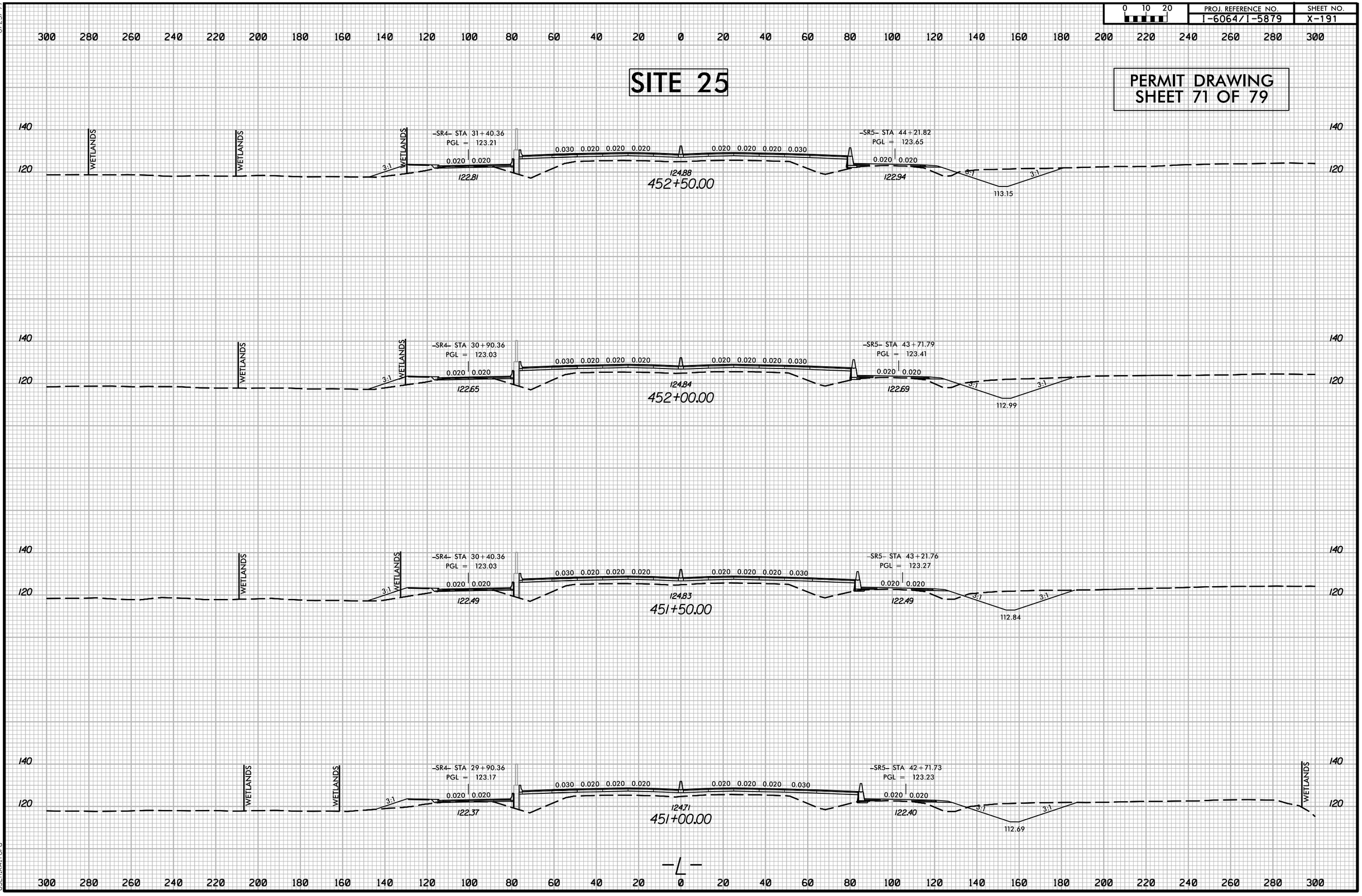
8/2/2022
I6064_hyd_prm_XPL_L-WEI.dgn
USER:KAITord

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-191

SITE 25

PERMIT DRAWING
SHEET 71 OF 79



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FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 72 OF 79

MECHANIZED CLEARING (GRUBBING)

FILL IN WETLAND

NAD 83

100' 0' 100'

GRAPHIC SCALE

MATCHLINE –L– STA. 454+00.00 (SEE SHEET 28)

MATCHLINE –L– STA. 467+00.00 (SEE SHEET 30)

405 FRENCH FAMILY PROPERTIES

406 FRENCH FAMILY PROPERTIES

273B CITY OF LUMBERTON

277 YUK HAN LIU

272 SOUTHERN NATIONAL BANK

278 KENT BALDWIN

279 STEVEN BRANCH

SITE 26

FOR -L- PROFILE SEE SHTS.52 THRU 53	FOR -SR4- PROFILE SEE SHTS.74 THRU 75
	FOR -SR5- PROFILE SEE SHTS.77 THRU 78

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Kalford

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FLATIRON UNITED INFRASTRUCTURE GROUP

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Wetherill Engineering, Inc.
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Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 73 OF 79

MECHANIZED CLEARING (GRUBBING)

FILL IN WETLAND

NAD 83

100' 0' 100'

GRAPHIC SCALE

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 28)

MATCHLINE -L- STA. 467+00.00 (SEE SHEET 30)

405 FRENCH FAMILY PROPERTIES

406 FRENCH FAMILY PROPERTIES

273B CITY OF LUMBERTON

277 YUK HAN LIU

272 SOUTHERN NATIONAL BANK

278 KENT BALDWIN

279 STEVEN BRANCH

SITE 26

EXIST. R/W

(CITY OF LUMBERTON) WELLINGTON DR 22' BST

SPECIAL CUT DITCH SEE DETAIL F

MECHANIZED CLEARING (GRUBBING)

FILL IN WETLAND

DUE PUE PDE TDE

15" RCP-IV 18" RCP-IV 30" RCP-III 36" RCP-III 42" RCP-III 48" RCP-III

TB 2GI TB 2GI-A TB JB w/MH

CB DI HW

REMOVE REMOVE DI REMOVE JB REMOVE 8 LF

PLUG FLOWABLE FILL FILL HOLE FILL EXISTING DITCH

RETAIN RETAIN DI

CL I RIP RAP EST. 26 TON EST. 30 SY GT

CL I RIP RAP EST. 26 TON EST. 50 SY GT

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL A1

SPECIAL CUT DITCH SEE DETAIL AB

NOTE: ELIMINATE CUT DITCH FROM 53+00 TO 53+80

45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00

I-95 SB/US 301 SB 47' BST

I-95 NB/US 301 NB 48' BST

SR 1792 KAHN DR 23' BST

DAWN DR 23' BST

TO US 301 FAYETTEVILLE RD

WELLINGTON DR 22' BST

WOODS

BST PARKING

ISF BUS

ISBK BUS

ISMTL BUS

METAL POST

WOODEN POST

CONC. MEDIAN BARRIER WALL

54" CONC

60" CONC

24" CSP

30' SIGN & LINE OMISSION EASEMENT PER MB 54 PG 173

30' TELECOMMUNICATIONS EASEMENT PER MB 51 PG 87

75' TAPER

FOR -L- PROFILE SEE SHTS.52 THRU 53	FOR -SR4- PROFILE SEE SHTS.74 THRU 75
	FOR -SR5- PROFILE SEE SHTS.77 THRU 78

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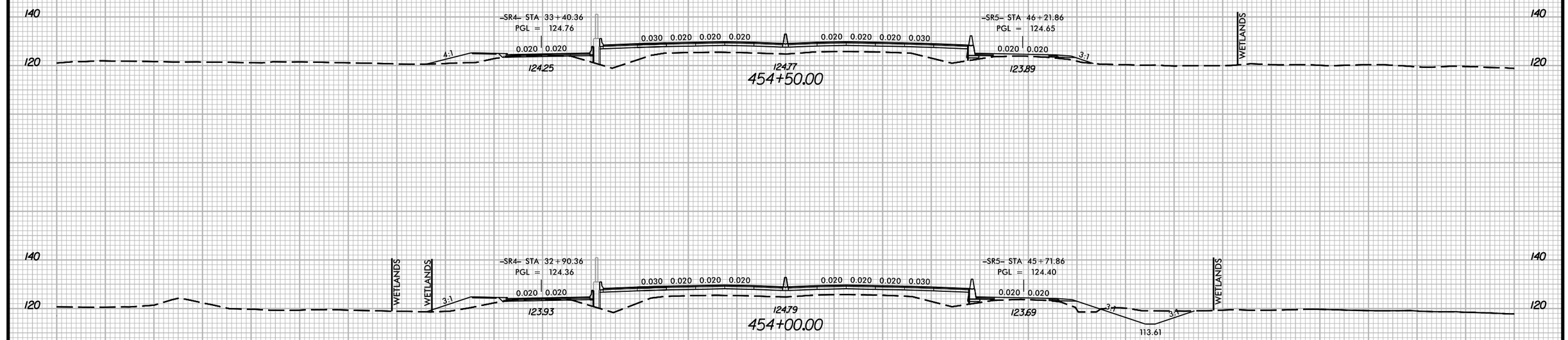
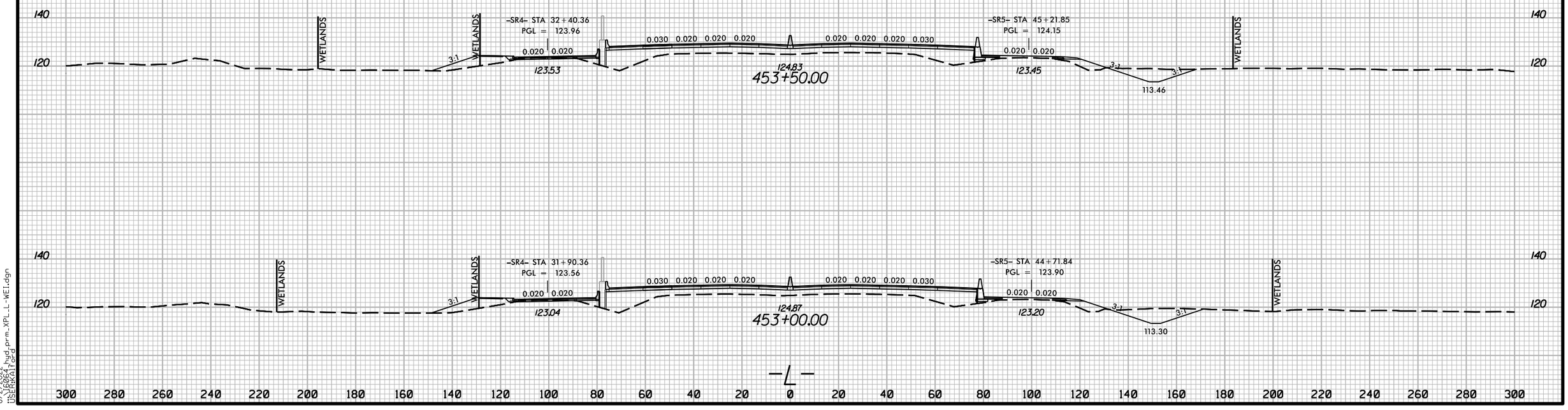
8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-192

SITE 26

PERMIT DRAWING
SHEET 74 OF 79





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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: P-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 75 OF 79

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 480+00.00
(SEE SHEET 30)

SITE 27

AIMEE M. BATSON 403

JOEY HUCKS
ATHENA HUCKS 402

FRENCH FAMILY PROPERTIES 286

FRENCH FAMILY PROPERTIES 293

SOUTHEASTERN REGIONAL MEDICAL CENTER

SPECIAL CUT BASE DITCH SEE DETAIL AK

DA=11 Ac
Q10=29 cfs
HW/D=1.13

DITCH CLEANOUT SEE DETAIL AF
10' BASE
3:1 SIDES
0.0% GRADE
DDE=325 CY

PROPOSED ROW TO BE PURCHASED UNDER NCDOT PROJECT I-5987A

PIPE OUTLET AND DITCH TO BE CONSTRUCTED UNDER PROJECT I-5987A.

PIPE OUTLET AND DITCH TO BE CONSTRUCTED UNDER PROJECT I-5987A.

500' TAPER LT & RT

N 14° 47' 28.0" E SR4 DAWN DR

SR5 KAHN DR

-L- I-95

-EL SBL-

-EL NBL-

485+00

60+00

65+00

75+00

80+00

212.19' TAPER RT

100' TAPER LT & RT

EXIST.R/W

0.16' R/W TO EIP

NOTE: EXCE CB AT SAME LOCATION AS BLIND JB AND CONNECT 6" PIPE FROM DI

RETAIN DI, DI GOES TO A BLIND JB

SPECIAL CUT DITCH SEE DETAIL F

BILL BOARD

STATE NC HIGHWAY PATROL

289 REENA PATEL

290 NOBLE INVSTMENT AND DEVELOPMENT LLC

LUMBERTON INVESTORS LLC

CASHMAN & HOBBES LLC

Per Records Possible Buried Manhole, Could Not Locate

FOR -L- PROFILE SEE SHT.53	FOR -SR4- PROFILE SEE SHTS.75 THRU 76
	FOR -SR5- PROFILE SEE SHTS.78 THRU 79

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$TIME$

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WetherIII Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 76 OF 79

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'
GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 480+00.00
(SEE SHEET 30)

SITE 27

AIMEE M. BATSON 403
JOEY HUCKS ATHENA HUCKS 402
40
286
FRENCH FAMILY PROPERTIES
293
FRENCH FAMILY PROPERTIES
SOUTHEASTERN REGIONAL MEDICAL CENTER
CITY OF LUMBERTON
EXIST. R/W
0.16' R/W TO EIP
WOODS
500' TAPER LT & RT
DA=11 Ac
Q10=29 cfs
HWD=1.13
SPECIAL CUT BASE DITCH SEE DETAIL AK
DITCH CLEANOUT SEE DETAIL AF 10' BASE 3:1 SIDES 0.0% GRADE DDE=325 CY
PROPOSED ROW TO BE PURCHASED UNDER NCDOT PROJECT I-5987A
PIPE OUTLET AND DITCH TO BE CONSTRUCTED UNDER PROJECT I-5987A
BILL BOARD
ATLANTIC EASEMENT
5' CONC FL
36" RCP
24" C&G
FOOT BRIDGE
GR WALK
REMOVE
REMOVE CB
30" RCP-III
15" RCP-IV
FLOWABLE FILL
PLUG
60+00
N 14° 47' 28.0" E
SR4 DAWN DR
65+00
SP. DET. TB 2GI
TB 2GI
15" RCP-III
24" RCP-III
18" RCP-III
-EL SBL-
-EL NBL-
-L- I-95
46+00
FLOWABLE FILL
REMOVE DI
BL 105
SR5 KAHN DR
75+00
80+00
EXIST. R/W
NOTE: PLACE CB AT SAME LOCATION AS BLIND SB AND CONNECT 6" PIPE FROM DI
RETAIN DI. DI GOES TO A BLIND SB
18" CONC
SPECIAL CUT DITCH SEE DETAIL F
212.19 TAPER RT
100' TAPER LT & RT
ISBK BUS
ISFBUS
BST PRAKING
SOIL/ GR
BLK WALL
RETENTION POND
CASHMAN & HOBBES LLC
15" RCP
Per Records Possible Buried Manhole, Could Not Locate
STATE NC HIGHWAY PATROL
289
REENA PATEL
LUMBERTON INVESTORS LLC
290
NOBLE INVSTMENT AND DEVELOPMENT LLC

FOR -SR4- PROFILE SEE SHTS.75 THRU 76
FOR -L- PROFILE SEE SHT.53 | FOR -SR5- PROFILE SEE SHTS.78 THRU 79

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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-4077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 77 OF 79

NAD 83

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

SITE 28

SITE 28

MATCHLINE -SR4- STA. 13+00.00 (SEE SHEET 27)

MATCHLINE -Y5- STA. 26+00.00 (SEE SHEET 27)

MATCHLINE -SR1- STA. 75+30.00 (SEE SHEET 27)

Y5 N ROBERTS AVE

SR4 DAWN DR

LACKEY ST

EXIST.R/W

INLET CHANNEL CL I RIP RAP EST. 50 TON EST. 85 SQ YD SEE DETAIL AW

CLEANOUT CULVERT 650 SY OF MATERIAL

OUTLET CHANNEL CL I RIP RAP EST. 42 TON EST. 70 SY GF SEE DETAIL AX

CULVERT #95 CL B RIP RAP EST 3 TON EST 10 SY GF

CL B RIP RAP EST 1 TON EST 5 SY GF

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL AE

340 CITY OF LUMBERTON

338 ASHAPURA LODGING LLC 2S STUCO MOTEL

262 BHARAT PATEL

263 1SBLK MOTEL

260 NEESHI CONSTRUCTION LLC

259 4SBLK MOTEL HARISH AMIN

339 EUGENE LOCKLEAR

217 JAMES N. BRITT III

337 ALBERTO FLORES

258 SHAH, AMIN & ZOTA PARTNERSHIP

FOR -SRI- PROFILE SEE SHT.71	
FOR -Y5- PROFILE SEE SHT.63	FOR -SR4- PROFILE SEE SHT.74

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Matt.Harvey

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

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1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 78 OF 79

NAD 83

S/S SURFACE WATER IMPACTS

TS/TS TEMPORARY SURFACE WATER IMPACTS

100' 0' 100'

GRAPHIC SCALE

SITE 28

SITE 28

MATCHLINE –SR4– STA. 13+00.00 (SEE SHEET 27)

MATCHLINE –Y5– STA. 26+00.00 (SEE SHEET 27)

MATCHLINE –SR1– STA. 75+30.00 (SEE SHEET 27)

FOR –SR1– PROFILE SEE SHT.71	
FOR –Y5– PROFILE SEE SHT.63	FOR –SR4– PROFILE SEE SHT.74

$DATE$
$TIME$
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Matt Harvey

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-Y1RPA- 22+85 Rt	Ditch				< 0.01						
2	-Y1RPD- 18+00 Lt	Pipe	< 0.01			0.04						
3	-SR06- 10+66 Rt	Bank Stabilization						< 0.01		21		
4	-L- 134+45 Rt	2@ 48" Pipe (PSH 8A)						< 0.01	0.02	30	39	
5	-L- 168+95 Rt	Ditch Cleanout (PSH 10A)							< 0.01		31	
6	-L- 212+15, 231+25 Lt	Ditch Cleanout	0.05		0.15	0.15						
7	-L- 253+65 Lt	Ditch Cleanout	0.01		< 0.01	0.04						
8	-L- 266+80 to 275+37 Lt	Roadway Fill	0.54			0.23		< 0.01				
9	-Y2RPD- 18+50 to 19+93 Rt	Roadway Fill	0.07		0.02			0.02				
10	-L- 290+55 to 302+66 Lt	Roadway Fill	0.12		< 0.01	0.15		< 0.01				
11	-SR7- 59+17 to 60+12 Rt.	Roadway Fill							< 0.01			
12	-L- 306+20 Lt	Ditch Cleanout (PSH 20A)	< 0.01		0.07	0.08						
13	-L- 323+70 to 329+00 Lt	Roadway Fill						0.12	0.05			
14	-SR12- 19+80	Roadway Fill						0.05	0.01			
15	-SR12- 20+53	Roadway Fill						0.05	< 0.01			
16	-SR12- 23+64	Roadway Fill						< 0.01	< 0.01			
17	-SR12- 28+34	Roadway Fill/Ditch Cleanout						0.04	0.04			
18	-SR12- 33+59	Roadway Fill	0.04		< 0.01	0.02						
19	-L- 347+48 to 361+20	Roadway Fill/Bridge	0.74	0.24	0.03	0.42	0.25	< 0.01	0.02	50	112	
20	-L- 361+66 to 362+99 Lt	Roadway Fill	0.04			0.01						
21	-Y4RPC- 13+98 to 15+73 Rt	Roadway Fill				0.02	< 0.01					
22	-Y4- 18+49 to 20+04 Lt	Roadway Fill	0.01			0.03						
23	-L- 440+00	Culvert						0.10	0.01	337	39	
24	-L- 440+81 to 450+15	Culvert	0.37		0.26	0.23		0.14	0.02	509	91	
25	-L- 448+66 to 454+07 Lt	Roadway Fill	0.22			0.11						
26	-L- 453+93 to 454+24 Rt	Roadway Fill				< 0.01						
27	-SR4- 65+25 Lt	Ditch Cleanout							0.07			
28	-Y5- 18+33	Bank Stabilization						< 0.01		70		
28	-Y5- 18+33	Culvert							0.08		41	
TOTALS*:			2.23	0.24	0.53	1.54	0.26	0.56	0.34	1017	353	0

*Rounded totals are sum of actual impacts

NOTES:

--Sites 8, 9, 10, 13, 14, 15, 16, 17 and 27 are surface waters verified as open water (ponds or jurisdictional ditches/tributaries).

--Site 10 Temporary Excavation in Wetlands due to Trenchless Pipe Installation = 0.07 ac

--Site 19 permanent bent impacts calculated using 3' width by the length of the bent within the JS feature.

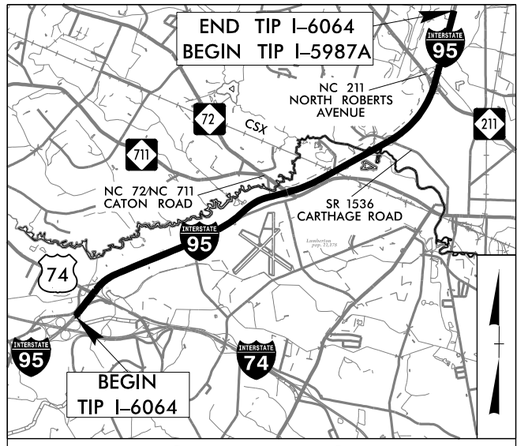
Revised 2018 Feb

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
9/28/2022
Robeson County
I-6064/I-5879
49067.1.2, 49067.1.3 & 53079.2.1
SHEET 79 OF 79

09/08/99

TIP PROJECT: I-6064/I-5879

CONTRACT: C204596



VICINITY MAP
(Not to Scale)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROBESON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-6064I-5879	3	

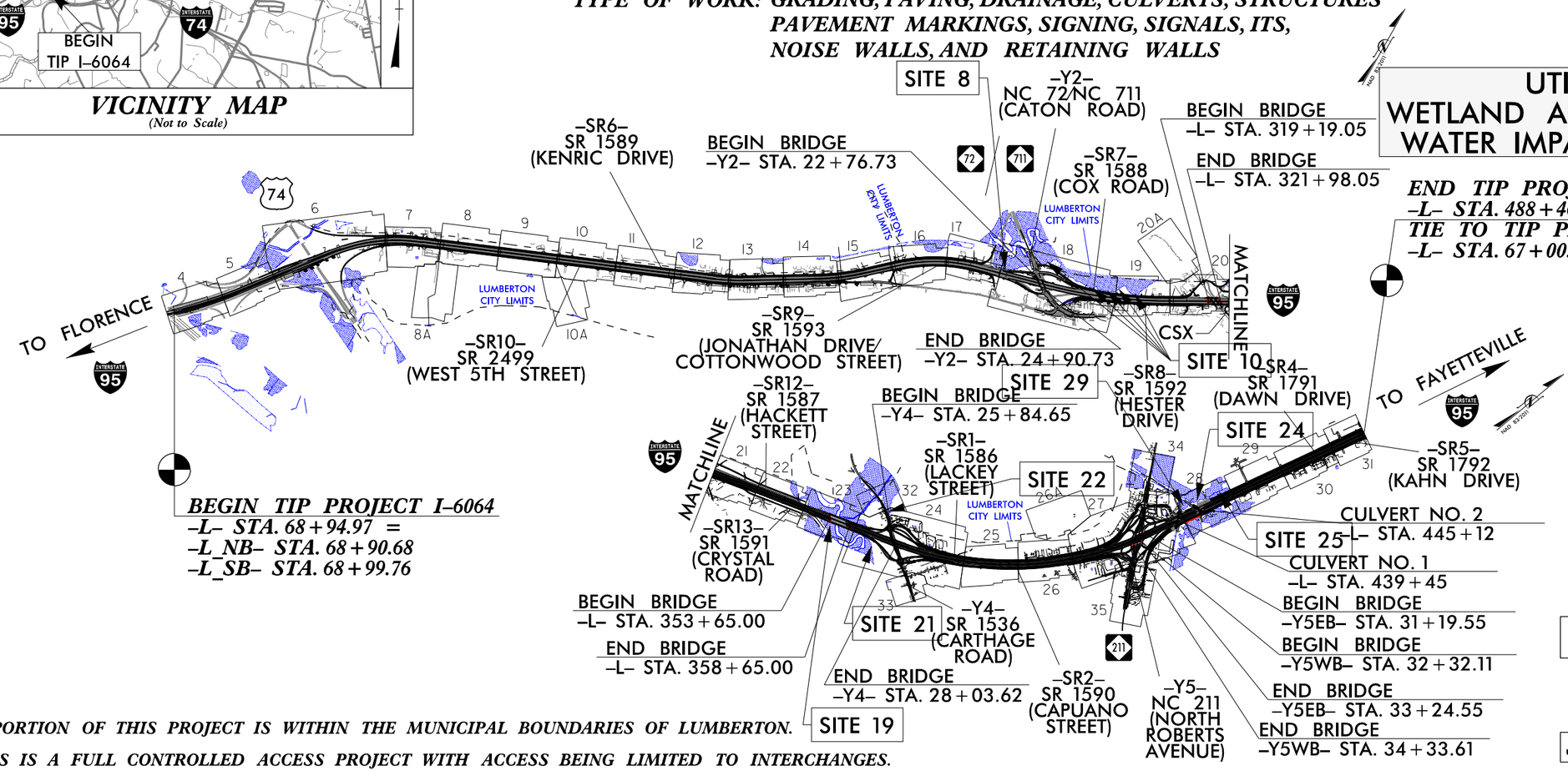
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
49067.1.2, 49067.1.3, & 53079.2.1		PE
49067.2.5, 49067.2.6, & 53079.2.1		ROW
49067.2.5, & 49067.2.6		UTIL.
49067.3.1, 49067.3.2, & 49067.3.3		CONST.

PERMIT DRAWING
SHEET 1 OF 38

LOCATION: I-95 WIDENING AND PAVEMENT REHABILITATION FROM I-74 (EXIT 13) TO SOUTH OF US 301 (EXIT 22) AND I-95/SR 1536 INTERCHANGE IMPROVEMENTS

TYPE OF WORK: GRADING, PAVING, DRAINAGE, CULVERTS, STRUCTURES PAVEMENT MARKINGS, SIGNING, SIGNALS, ITS, NOISE WALLS, AND RETAINING WALLS

UTILITY
WETLAND AND SURFACE
WATER IMPACTS PERMIT



END TIP PROJECT I-6064
-L- STA. 488+46.78
TIE TO TIP PROJECT I-5987A
-L- STA. 67+00.00

BEGIN TIP PROJECT I-6064
-L- STA. 68+94.97 =
-L_NB- STA. 68+90.68
-L_SB- STA. 68+99.76

★ PROPOSED SIGNAL

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF LUMBERTON.

THIS IS A FULL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 20 10 0 10 20

DESIGN DATA

ADT 2021 = 71,800
ADT 2041 = 107,800
K = 6.5%
D = 60 %
T = 14% *
V = 75 MPH
* TTST =11% DUAL =3%
FUNC CLASS =
INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-6064 = 7.783 MILES
LENGTH STRUCTURE TIP PROJECT I-6064 = 0.162 MILES
TOTAL LENGTH TIP PROJECT I-6064 = 7.945 MILES

Prepared In the Office of:
ICE of CAROLINAS, PLLC
ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-802-0333
License #: P-0995

Prepared for:
NCDOT
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 9/21/2021

LETTING DATE: 9/21/2021

BRIAN LUSK, PE
PROJECT ENGINEER

DAN DUFFIELD, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

9/6/2022
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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 2 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 8

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 16)

MATCHLINE -L- STA. 269+00.00 (SEE SHEET 18)

99 MACK WHITE INVESTMENTS INC

103 MACK WHITE INVESTMENTS INC

104 MACK WHITE INVESTMENTS INC

105 CB OF EDENTON LLC

106 JHS ROBESON PROPERTIES LLC

107 OUTDOOR REALTY LLC

108 JEANNETTE MARTIN

109 HEIRS OF S.B. ATKINSON

111 THE CITY OF LUMBERTON

101 CHARLES MCNEILL

102 THE LUMBER RIVER CONSERVANCY

SR6 KENRIC DR

SR9 JONATHAN DR

SR 1589 KENRIC DR 24' BST

SR 1593 JONATHAN DR 18' BST

I-95 SB 50' BST

I-95 NB 47' BST

CONC MEDIAN BARRIER WALL

MTL DOUBLE FACE GUIDERAIL

SP. LAT. 2' BASE DITCH SEE DETAIL A

STANDARD 5' BASE DITCH SEE DETAIL E

CL B RIP RAP EST. 2 TONS EST. 7 SY GF

CL B RIP RAP EST. 3 TONS EST. 10 SY GF

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

CL 1 RIP RAP EST. 29 TONS EST. 39 SY GF

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

DON'T LOCATE OUTLET

TOE PROTECTION EXIST.R/W SEE DETAIL G

EXIST.R/W

PROP O/H POW LINES

DUE

TDE

PDE

REMOVE

REMOVE HW

PLUG

FLOWABLE FILL

BEGIN PROP. 48" WW FENCE

BEVELED HW SEE SPECIAL DETAIL

18" WELDED STEEL

42" WELDED STEEL

E3 pole and circuit doesn't line up on E3's relocation plan

NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.45	FOR -Y2RPB- PROFILE SEE SHT.57
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89	FOR -Y2RPC- PROFILE SEE SHT.57

FOR -SR6- PROFILE SEE SHTS.84 THRU 85

$DATE$ $TIME$
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kalford

8/17/99

$DATE$ $TIME$
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Kevin.Alford

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 3 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 8

MATCHLINE -L- STA. 256+00.00 (SEE SHEET 16)

MATCHLINE -L- STA. 269+00.00 (SEE SHEET 18)

SR6 KENRIC DR

SR9 JONATHAN DR

SR 1589 KENRIC DR 24' BST

I-95 SB 50' BST

I-95 NB 47' BST

SR 1593 JONATHAN DR 18' BST

CHARLES MCNEILL

THE LUMBER RIVER CONSERVANCY

MACK WHITE INVESTMENTS

MACK WHITE INVESTMENTS INC

CB OF EDENTON LLC

OUTDOOR REALTY LLC

UHS ROBESON PROPERTIES LLC

JEANNETTE MARTIN

HEIRS OF S.B. ATKINSON

THE CITY OF LUMBERTON

E3 pole and circuit doesn't line up on E3's relocation plan

NORTHBOUND R/W LABELED OFF -SR9- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.45	FOR -Y2RPB- PROFILE SEE SHT.57
SOUTHBOUND R/W LABELED OFF -SR6- UNLESS NOTED OTHERWISE.	FOR -SR9- PROFILE SEE SHT.89	FOR -Y2RPC- PROFILE SEE SHT.57

FOR -SR6- PROFILE SEE SHTS.84 THRU 85

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ICE of Carolinas, PLLC
4525 Fally-N-Wood Road, Suite 110
Wake Forest, NC 27587
Phone: 919.453.0722
License # P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 4 OF 38

200' 0 200'
GRAPHIC SCALE

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

NAD 83

E1 Relocation
Remove Existing Str #197

E1 Relocation
Install New Str #197

E1 Relocation
Remove Existing Str #198

E1 Relocation

E1 Str #196

E3 Relocation

E2 Relocation

E1 Relocation
Install New Str #199

E1 Relocation
Remove Existing Str #199

E1 Relocation
Remove Existing Str #200

E1 Relocation
Install New Str #200

E1 Relocation
Remove Existing Str #201

E1 Relocation
Install New Str #201

SITE 8

SITE 10

SEE SHEET 6 OF 38 FOR ENLARGED VIEW

SEE SHEET 7 OF 38 FOR ENLARGED VIEW

SEE SHEET 8 OF 38 FOR ENLARGED VIEW

MATCHLINE –L– STA. 269+00.00
(SEE SHEET 17)

MATCHLINE –L– STA. 297+00.00
(SEE SHEET 19)

What is happening with this pole, circuit?

CALLOUT LEGEND
(A) -Y2- PC Sta.17+60.62
(B) -Y2RPA- POT Sta.25+16.16 " -Y3- POC Sta.21+12.99
(C) -Y2RPB- POT Sta.21+71.50 " -Y2- POC Sta.21+23.40
(D) -Y2- PT Sta.26+63.20
(E) -SR10A- PT Sta.14+86.15

		FOR -L- PROFILE SEE SHTS.45 THRU 46
PROPOSED SIGNAL	FOR -SR7- PROFILE SEE SHTS.85 THRU 86	FOR -Y2RPA- PROFILE SEE SHT.56
PAVEMENT REMOVAL	FOR -SR8- PROFILE SEE SHTS.87-88	FOR -Y2RPB- PROFILE SEE SHT.57
	FOR -Y2- PROFILE SEE SHT.55	FOR -Y2RPC- PROFILE SEE SHTS.57
	FOR -SR10A- PROFILE SEE SHT.94	FOR -Y2RPD- PROFILE SEE SHT.58

GRAPHIC SCALE
50 25 0 50 100
PLANS

DESIGN BY: TJW/K
DRAWN BY: JJ
CHECKED BY: MM
DATE: 10/2/2023
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FLATIRON UNITED

ICE of CAROLINAS, PLLC
4525 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 919.422.0222
License # P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	18
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 5 OF 38

200' 0 200'
GRAPHIC SCALE

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

NAD 83

E1 Relocation
Remove Existing
Str #197

E1 Relocation
Install New
Str #197

E1 Relocation
Remove Existing
Str #198

E1 Relocation

E1 Str#196

E3 Relocation

E2 Relocation

E1 Relocation
Install New
Str #199

E1 Relocation
Remove Existing
Str #199

E1 Relocation
Remove Existing
Str #200

E1 Relocation
Install New
Str #200

E1 Relocation
Remove Existing
Str #201

E1 Relocation
Install New
Str #201

What is happening with this pole, circuit?

SITE 8

SITE 10

SEE SHEET 6 OF 38 FOR ENLARGED VIEW

SEE SHEET 7 OF 38 FOR ENLARGED VIEW

SEE SHEET 8 OF 38 FOR ENLARGED VIEW

MATCHLINE –L– STA. 269+00.00
(SEE SHEET 17)

MATCHLINE –L– STA. 297+00.00
(SEE SHEET 19)

NC 72/CATOR RD.

SR8 HESTER DR.

SR10 W.5TH ST.

SRT COX RD.

CALLOUT LEGEND	
A	-Y2- PC Sta.17+60.62
B	-Y2RPA- POT Sta.25+46.16 « -Y3- POC Sta.21+12.99
C	-Y2RPB- POT Sta.21+71.50 « -Y2- POC Sta.21+53.40
D	-Y2- PT Sta.26+63.20
E	-SR10A- PT Sta.14+86.15

PROPOSED SIGNAL

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS.45 THRU 46	
FOR -SR7- PROFILE SEE SHTS.85 THRU 86	FOR -Y2RPA- PROFILE SEE SHT.56
FOR -SR8- PROFILE SEE SHTS.87-88	FOR -Y2RPB- PROFILE SEE SHT.57
FOR -Y2- PROFILE SEE SHT.55	FOR -Y2RPC- PROFILE SEE SHTS.57
FOR -SR10A- PROFILE SEE SHT.94	FOR -Y2RPD- PROFILE SEE SHT.58

GRAPHIC SCALE
50 25 0 50 100
PLANS

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102

THE LUMBER RIVER CONSERVANCY

NAD 83

STANDARD 5' BASE DITCH SEE DETAIL E

PDE

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

12.6 SQUARE FEET (4' DIAMETER AROUND PO FILL IN WETLANDS

TOE PROTECTIO SEE DETAIL C

L B RIP RAP ST. 5 TONS ST. 14 SY GF

REMOVE HW

COULDN'T LOCATE OUTLET

CL I RIP RAP EST. 26 TONS EST. 50 SY GF

BILLBOARD

PUE

DUE

RW CA

PROP O/H POW LINES

REMOVE HW

DUCKBILL

CL I RIP RAP EST. 4 TONS EST. 5 SY GF

15" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

TOE PROTECTION SEE DETAIL G

EXIST. R/W

PROP. MON

DUCKBILL

CL I RIP RAP EST. 20 TONS EST. 39 SY GF

REMOVE HW

2GI

2GI

48" WW

15" RCP-III

15+00

PLUG

INV=113.33'

MATCHLINE –L– STA. 269 + 00.00 (SEE SHEET 17)

40' 0' 40'

GRAPHIC SCALE

FLOWABLE FILL

REMOVE DI

270+00

TOP=125.09'

INV=

PLUG

TOP=125.17'

INV=116.04'

INV=113.06'

15" RCP

PLUG

REMOVE 15"

48" WEL

ONC MEDIAN BARRIER WALL

ROW LINES

PROP

SITE 8 ENLARGEMENT

PERMIT DRAWING SHEET 6 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

0.8 SQUARE FEET
(1' DIAMETER AROUND GUY ANCHOR)
FILL IN WETLANDS

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

E3 has old relo would this be the correct pole to end/start

40' 0' 40'
GRAPHIC SCALE

SITE 10 ENLARGEMENT

PERMIT DRAWING SHEET 7 OF 38

12.6 SQUARE FEET
(4' DIAMETER AROUND POLE)
FILL IN WETLANDS

NAD 83

PUE
HC HC
WLB
PROP O/H POW LINES
TV FO
CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF
STEEL
INV=111.74'
PLUG
2GI
36" WELDED
18"
24" RCP
FLOWABLE FILL
15"
INV=111.91'
INV=111.79'
15" WELDED STEEL
15" PP
30" WELDED STEEL
REMOVE HW
GRADE TO DRAIN
REMOVE DI
TOP=120.66'
INV=113.38'
INV=113.59'
20+00
15+00
24' BST
48" WW
GRASS
5' CO
END OF 36" RCP NOW
TOP=I
INV=II
48" WELDED STE

12.6 SQUARE FEET
(4' DIAMETER AROUND POLE)
FILL IN WETLANDS
CL B RIP RAP
EST. 3 TONS
EST. 10 SY GF

CL I RIP RAP
EST. 15 TONS
EST. 30 SY GF

E2 & E3 Pole

NAD 83

DUE

PROP O/H POW LINES

TOE PROTECTION
SEE DETAIL G

BUCKBILL

F

WLB

EXISTING R/W

EXIST. R/W

W/L

TV FO

25+00

30+00

295+00

REMOVE HW

REMOVE JB

PLUG REMOVE

PLUG

FLOWABLE FILL

REMOVE HW

48" WW

SR 1588 COX RD 18' BST

GRASS

MTL

18" WELDED STEEL

36" WELDED STEEL

TB 2GI

TB JBw/MH

FLOWABLE FILL

REMOVE DI

15" WELDED STEEL

REMOVE 15'
OF 15" RCP

15" RCP-III

2GI

40' 0' 40'

GRAPHIC SCALE

SITE 10 ENLARGEMENT

PERMIT DRAWING SHEET 8 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

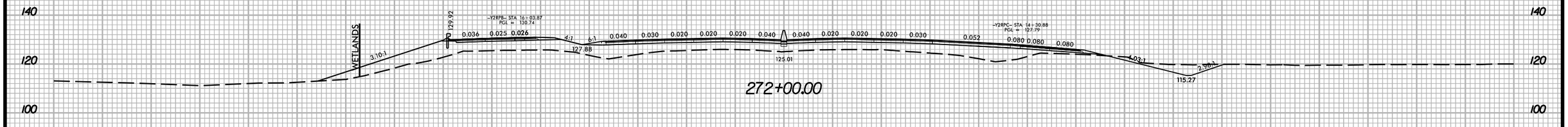
6/23/16

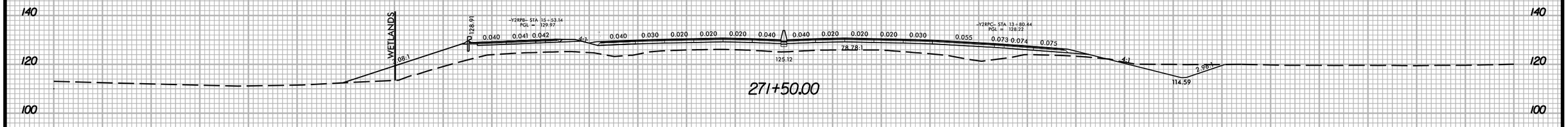
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-91

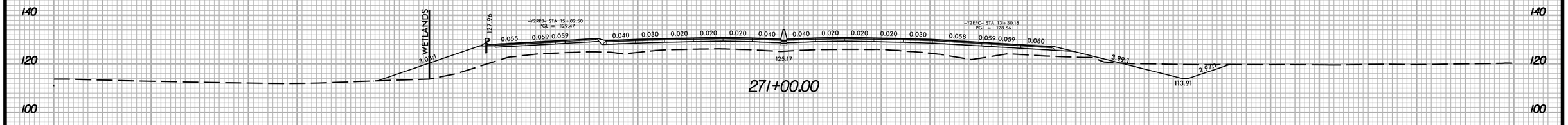
SITE 8

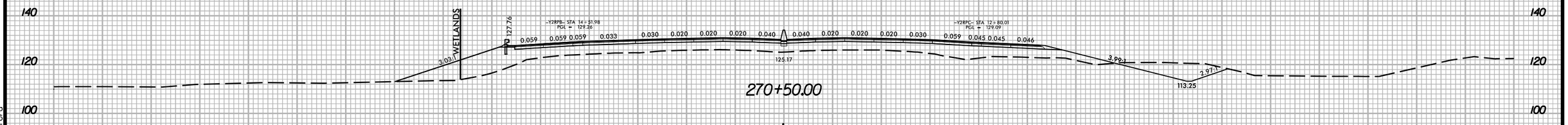
PERMIT DRAWING
SHEET 9 OF 38

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300









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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

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USER:KAIford
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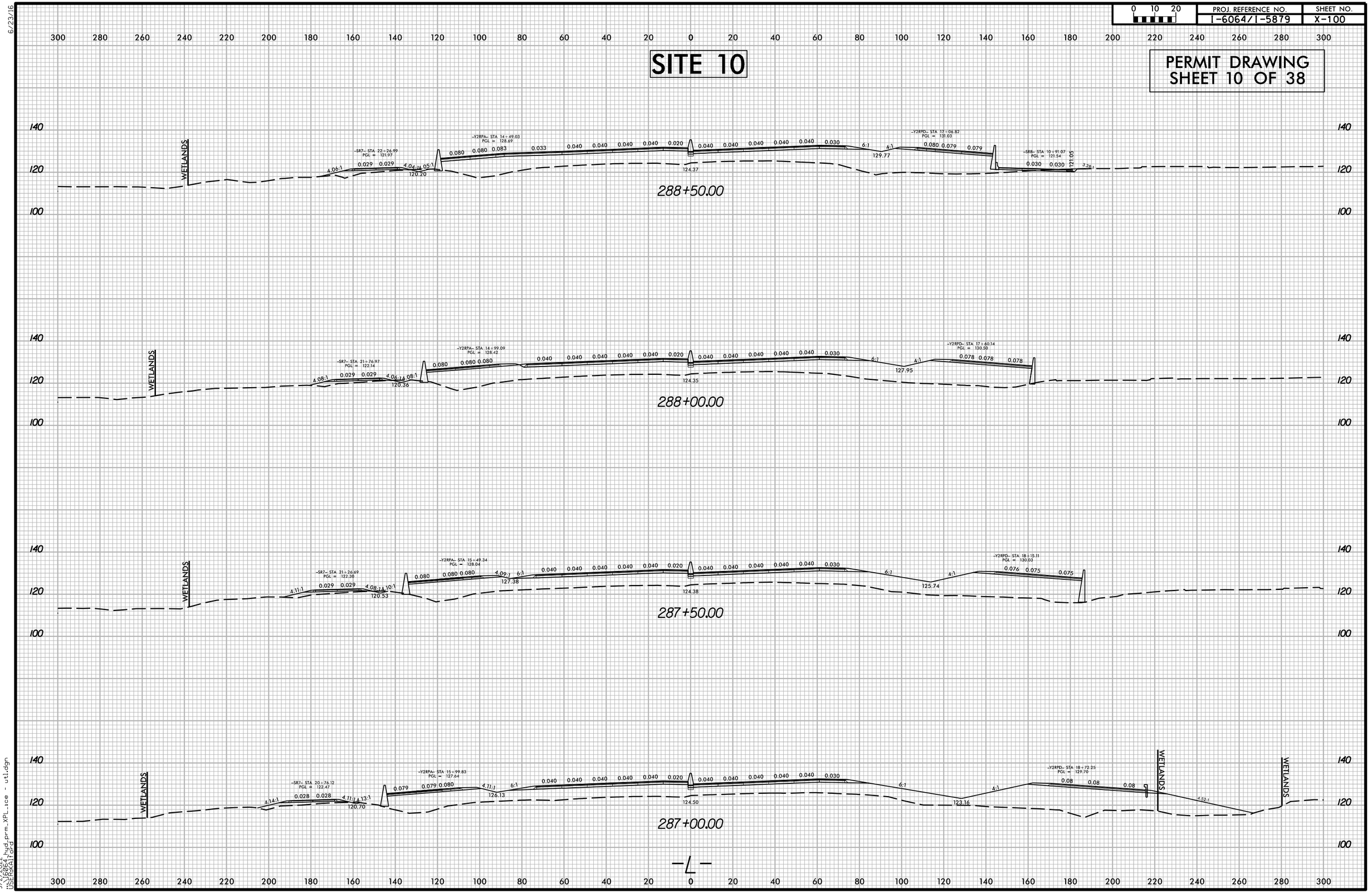
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-100

SITE 10

PERMIT DRAWING
SHEET 10 OF 38



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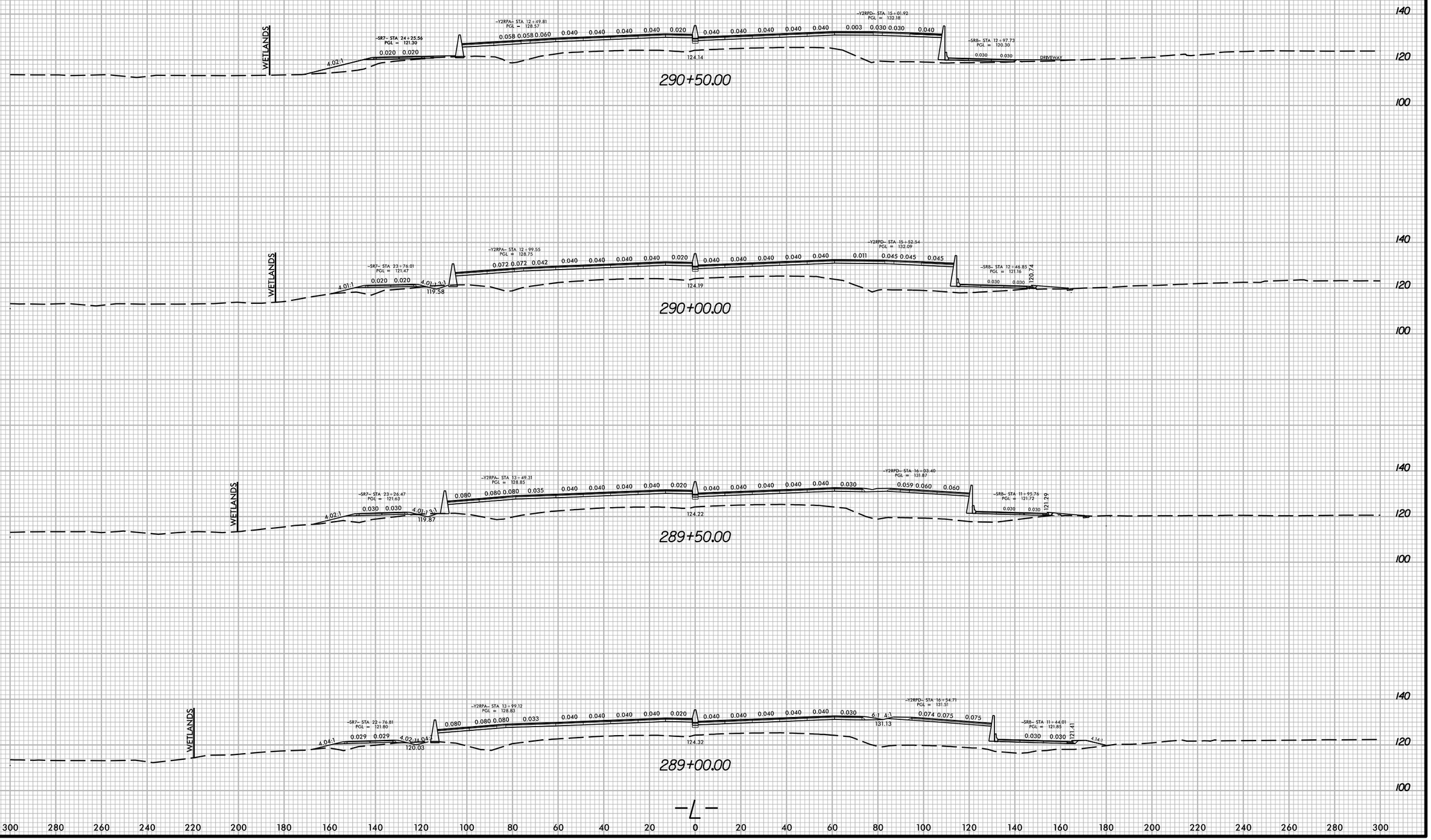
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-101

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

PERMIT DRAWING
SHEET 11 OF 38



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USER:KAITord

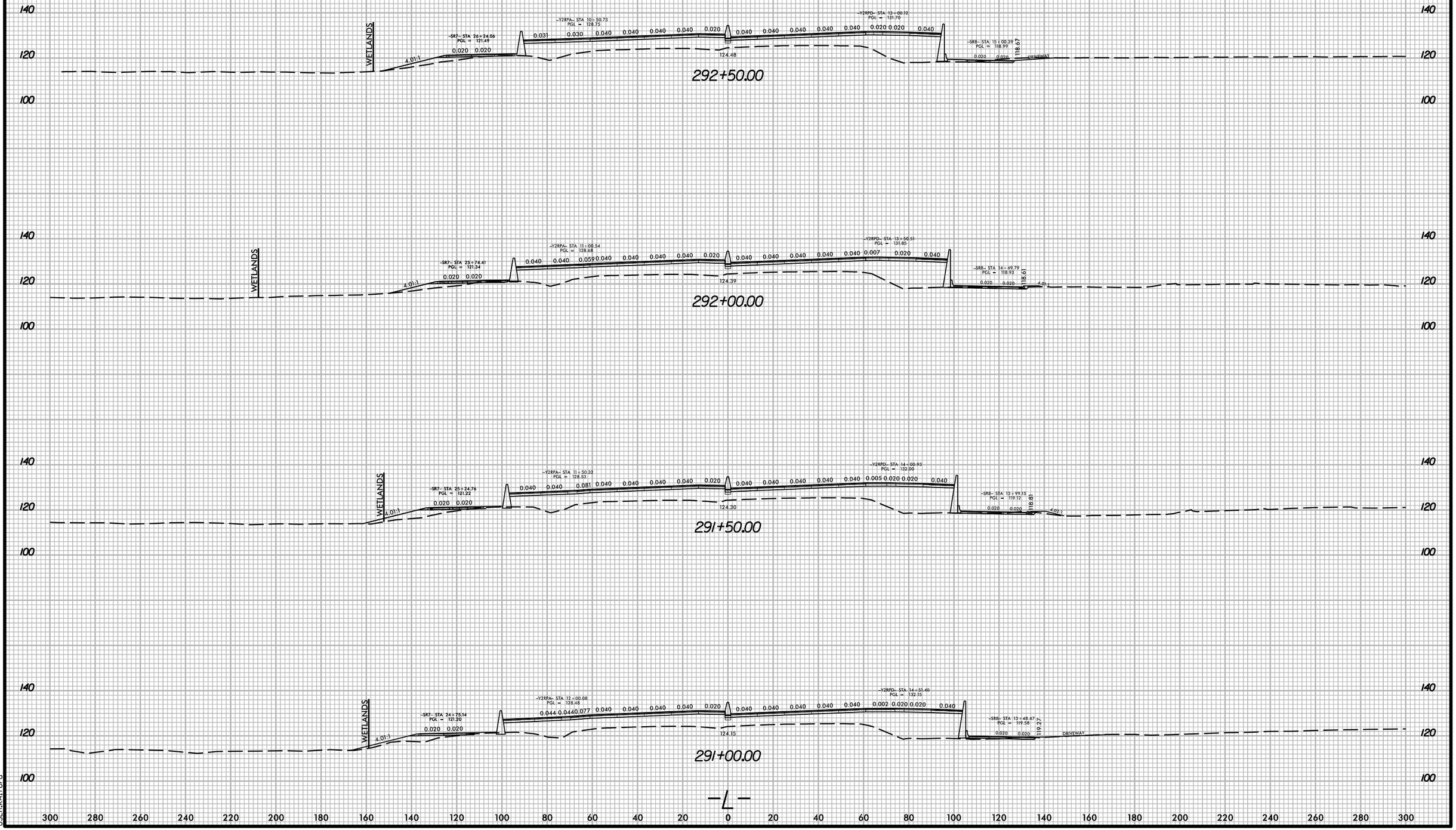
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-102

SITE 10

PERMIT DRAWING
SHEET 12 OF 38

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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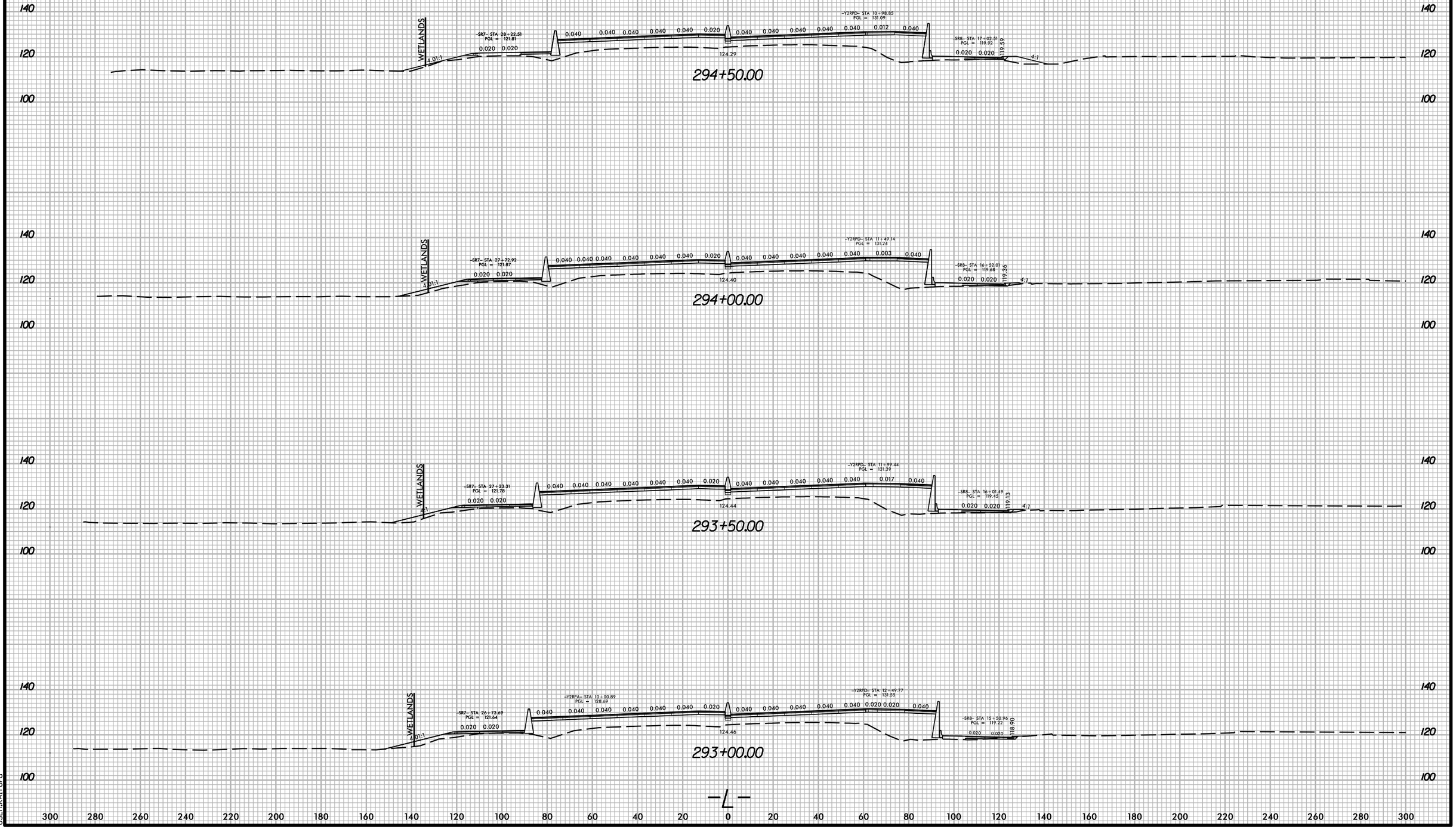
6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-103

SITE 10

PERMIT DRAWING
SHEET 13 OF 38

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



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USER:KAIford

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-104

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

PERMIT DRAWING
SHEET 14 OF 38

140
120
100

WETLANDS

-SR7- STA 30+20.84
PGL = 121.07

0.020 0.020 0.040 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.040 0.020

4:1 4:1
118.71

124.11

-SR8- STA 19+04.46
PGL = 120.84

0.020 0.020 121.00

4:1

296+50.00

140
120
100

WETLANDS

-SR7- STA 29+71.26
PGL = 121.17

0.020 0.020 0.040 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.040 0.020

4:1 4:1
118.81

124.17

-SR8- STA 18+53.97
PGL = 120.61

0.010 0.010 120.65

4:1

296+00.00

140
120
100

WETLANDS

-SR7- STA 29+21.69
PGL = 121.37

0.020 0.020 0.040 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.040 0.020

4:1
118.91

124.19

-SR8- STA 18+03.49
PGL = 120.38

0.016 0.016 120.50

DRIVEWAY

295+50.00

140
120
100

WETLANDS

-SR7- STA 28+72.10
PGL = 121.60

0.020 0.020 0.040 0.040 0.040 0.040 0.040 0.020 0.040 0.040 0.040 0.040 0.040 0.026 0.020

-Y2RPD- STA 10+48.57
PGL = 130.94

4.01:1
118.91

124.28

-SR8- STA 17+53.00
PGL = 120.15

0.020 0.020 119.85

4:1

295+00.00

-L-

140
120
100

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

9/2/2022
I-6064
USER:KAITord
I-6064_hyd_prm_XPL_ice - util.dgn

8/17/99

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Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 15 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

SITE 10

MATCHLINE -L- STA. 297+00.00 (SEE SHEET 18)

MATCHLINE -L- STA. 310+00.00 (SEE SHEET 20)

SR7 COX RD.

SR8 HESTER DR.

140 D.D. KING FAMILY PROPERTIES LLC

141 HUBERT OXENDINE

142 JOHN VALADE

143 MARIYKA STANISLAVOVA

144

145 JOHN VALADE

146 MILDRED HUNT

147 K P FOODS INC

148 MARY LOUISE STEPHENS

149 MARY LOUISE STEPHENS

150 HORACE HARDIN

151 O'REILLY AUTOMOTIVE STORES INC

152 RALPH LOCKLEAR

153 K M BIGGS INCORPORATED

154 HEAVARD OXENDINE

THE SCHAFER COMPANY INC

ISBK CHURCH

NORTHBOUND R/W LABELED OFF -SR8- UNLESS NOTED OTHERWISE.		FOR -SR8- PROFILE SEE SHTS.87 THRU 88
SOUTHBOUND R/W LABELED OFF -SR7- UNLESS NOTED OTHERWISE.	FOR -L- PROFILE SEE SHT.46	FOR -SR7- PROFILE SEE SHT.86

$DATE$ $TIME$
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KAlford

8/17/99

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ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 16 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'

GRAPHIC SCALE

NAD 83

SITE 10

MATCHLINE -L- STA. 297+00.00 (SEE SHEET 18)

MATCHLINE -L- STA. 310+00.00 (SEE SHEET 20)

SR7 COX RD.

SR8 HESTER DR.

CL I RIP RAP EST. 15 TONS EST. 30 SY GF

STD 4' BASE DITCH SEE DETAIL V

CL B RIP RAP EST. 8 TONS EST. 21 SY GF

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

CL I RIP RAP EST. 10 TONS EST. 23 SY GF

SP. LAT. 2' BASE DITCH SEE DETAIL A

TOE PROTECTION SEE DETAIL G

SP. LAT. 5' BASE DITCH SEE DETAIL B

SP. CUT 2' BASE DITCH SEE DETAIL T

SP. LAT. 4' BASE DITCH SEE DETAIL AJ

BEVELED HW SEE SPECIAL DETAIL

CL B RIP RAP EST. 5 TONS EST. 14 SY GF

FLOWABLE FILL

REMOVE HW

REMOVE FES

REMOVE DI

LOCATE AND PLUG

LOCATE & REMOVE

RETAIN & ADJUST

SP. DET. TB 2GI-A

SP. DET. TB 2GI-A 30" PP

24" WELDED STEEL

15" WELDED STEEL

18" WELDED STEEL

36" WELDED STEEL

48" WELDED STEEL

15" PP

18" PP

24" PP

30" PP

36" PP

48" PP

15" RCP

18" RCP

24" RCP

72" CMP

72" RCP

72" CMP-LOW

72" RCP-LOW

48" W.W.

TB 2GI

PLUG

PDE

TDE

DUE

DUCKBILL

HW

CB

F18"

RETAIN

EXIST. R/W

PROP O/H POW LINE

BILLY BOARD SIGN

WOODS

WETLAND

WLB

BM# 12

35+00

40+00

300+00

305+00

310+00

20+00

25+00

30+00

140 S.B. KING FAMILY PROPERTIES LLC

141 HUBERT OXENDINE

142 JOHN VALADE

143 MARIYKA STANISLAVOVA

144 JOHN VALADE

145 THE SCHAFER COMPANY INC

146 MILDRED HUNT

147 K P FOODS INC

148 MARY LOUISE STEPHENS

149 MARY LOUISE STEPHENS

150 HORACE MARDIN

151 O'REILLY AUTOMOTIVE STORES INC

152 RALPH LOCKLEAR

153 K M BIGGS INCORPORATED

154 HEAVARD OXENDINE

NORTHBOUND R/W LABELED OFF -SR8- UNLESS NOTED OTHERWISE. | FOR -SR8- PROFILE SEE SHTS.87 THRU 88

SOUTHBOUND R/W LABELED OFF -SR7- UNLESS NOTED OTHERWISE. | FOR -L- PROFILE SEE SHT.46 | FOR -SR7- PROFILE SEE SHT.86

$DATE$ $TIME$
c:\pwworkingdir\pw_ice-eng_com_ice-engrpw-01\kevin alford\dms22823\I-6064_Hyd_prm_Plansheets_ICE_contours.dgn
KEVIN Alford

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-107

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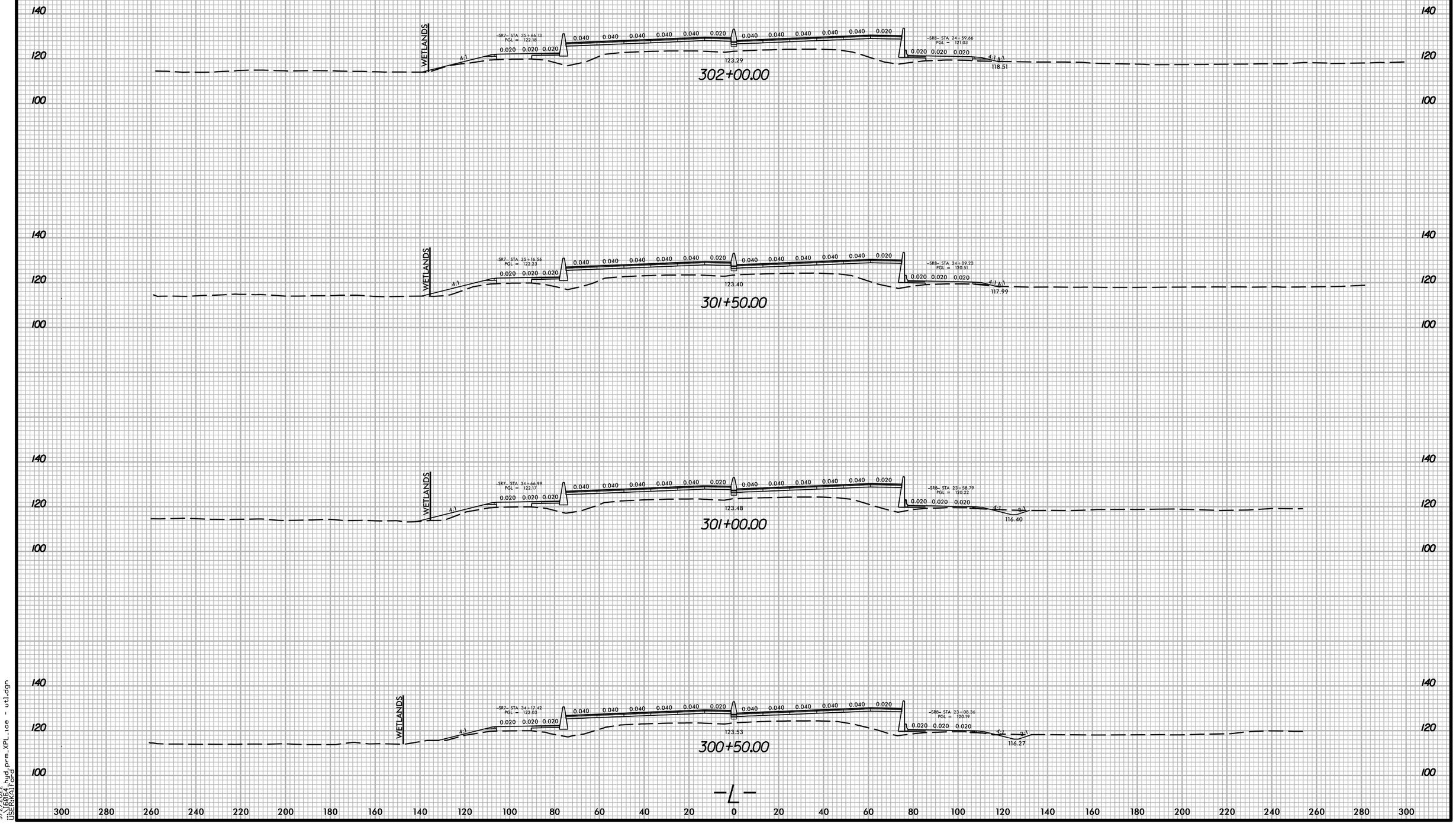
SITE 10

PERMIT DRAWING
SHEET 17 OF 38



9/2/2022
I-6064
USER:KAIford
I:\6064\hyd\prm_XPL.ice - util.dgn

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 18 OF 38

100' 0' 100'

GRAPHIC SCALE

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

MATCHLINE -L- STA. 347+00.00 (SEE SHEET 22)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 24)

Lumber River

Saddletree Swamp

THE CITY OF LUMBERTON (173, 176, 175)

STATE HIGHWAY AND PUBLIC WORKS COMMISSION (172, 174)

THE LUMBER RIVER CONSERVANCY (177, 178, 181, 182)

JAMES N. BRITT III (179, 183)

WOODS

LUMBER RIVER

EXIST. R/W

CL I RIP RAP EST. 11 TONS EST. 22 SY GF

CL I RIP RAP EST. 1 TONS EST. 5 SY GF

CL I RIP RAP EST. 2 TONS EST. 7 SY GF

CL II RIP RAP ROCK PLATING

LAT. 5' BASE DITCH SEE DETAIL AO

15" CAAP W/GASKET, ROD AND LUG CONNECTORS W/2 ELBOWS

TIE PROP WW FENCE TO BRIDGE

WALL SCOUR COUNTERMEASURE 48" RW & 15BK

25' WATER AND SEWER DISPOSAL EASEMENT DB 49 PG 49

REMOVE

REMOVE DI

TB 2GI

PLUG

FLOWABLE FILL

15" RCP-III

15" WELDED STEEL

18" WELDED STEEL

15" PP

24" PP

STRUCTURE EXCAVATION

REMOVE CONCRETE DITCH 12' CONC

SP. DET. TB JB wMH (DROP STRUCTURE)

CL I RIP RAP EST. 48 TONS EST. 89 SY GF

66" HW

45" CMP REMOVE

TERMINUS UNKNOWN

PROP O/H POW LINES

PROP U/G POW CONDUIT

PUE

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

0.8 SQUARE FEET (1' DIAMETER AROUND GUY ANCHOR) FILL IN WETLANDS

SITE 19

NORTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. FOR -L- PROFILE SEE SHT.48

SOUTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. FOR -Y4RPB- PROFILE SEE SHT.61

$DATE$ $TIME$
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KAlford

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4505 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 803-822-0333
License #: P-0999

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 19 OF 38

100' 0' 100'
GRAPHIC SCALE

F F FILL IN WETLAND
HC HC HAND CLEARING (NON-GRUBBING)

MATCHLINE -L- STA. 347+00.00 (SEE SHEET 22)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 24)

SITE 19

NORTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. | FOR -L- PROFILE SEE SHT.48

SOUTHBOUND R/W LABELED OFF -L- UNLESS NOTED OTHERWISE. | FOR -Y4RPB- PROFILE SEE SHT.61

$DATE$ $TIME$
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Kevin.Alford

6/23/16

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-136

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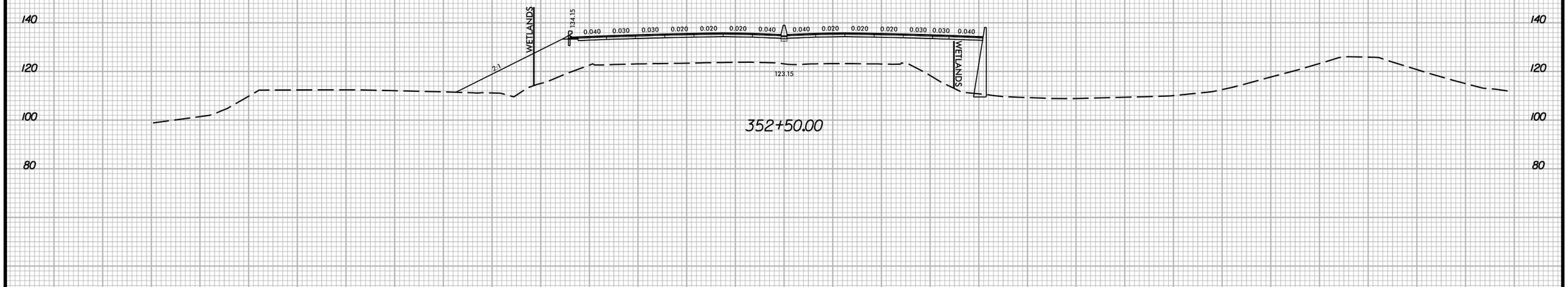
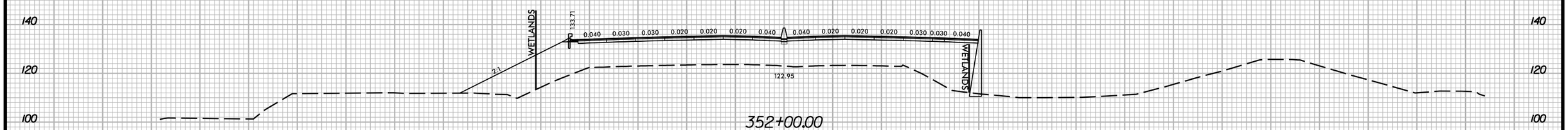
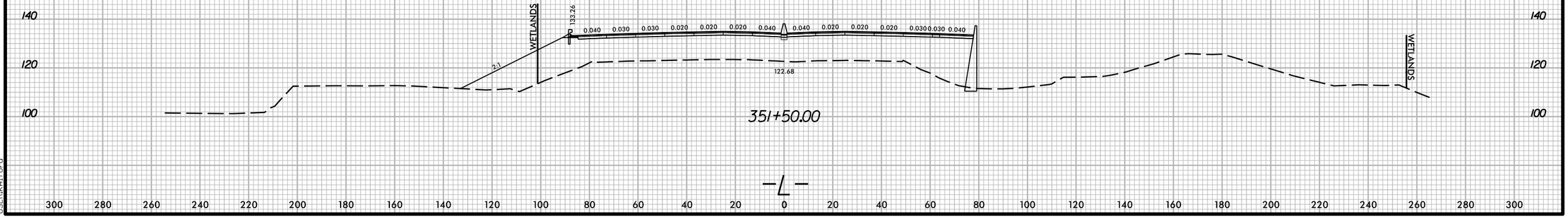
SITE 19

PERMIT DRAWING
SHEET 20 OF 38







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-L-

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16064
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hyd_prm_XPL_ice - utl.dgn

FLATIRON UNITED

ICE of CAROLINAS, PLLC

ICE of Carolinas, PLLC
4525 Fally-N-Nevue Road, Suite 110
Raleigh, North Carolina 27609
Phone: 833-423-2423
License # P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 21 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

RALEIGH

200' 0' 200'
GRAPHIC SCALE

SITE 22

SITE 21

MATCHLINE -Y4- STA. 19+00.00 (SEE SHEET 32)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 23)

MATCHLINE -L- STA. 387+00.00 (SEE SHEET 25)

MATCHLINE -Y4- STA. 35+00.00 (SEE SHEET 33)

SEE SHEET 23 OF 38 FOR ENLARGED VIEW

SEE SHEET 24 OF 38 FOR ENLARGED VIEW

SR2 APLIANO ST

SR2 APLIANO ST

SRILAKEY ST

EXIST.R/W

Lumber River

CALLOUT LEGEND	
A	-SR1- POT Sta. 10+00.00 = -Y4- POT Sta. 23+42.49
B	-RAB1- POC Sta. 22+00.00 = -RAB1- POC Sta. 23+58.14
C	-SR1- PC Sta. 10+94.22
D	-Y4RPC- PT Sta. 22+50.79
E	-Y4RPC- POT Sta. 22+67.33
F	-SR2- POT Sta. 10+00.00 = -Y4- POT Sta. 37+76.45
G	-RAB2- POC Sta. 30+00.00 = -RAB2- POT Sta. 33+58.14

		FOR -L- PROFILE SEE SHT.49
FOR -SR1- PROFILE SEE SHT.69	FOR -Y4- PROFILE SEE SHT.59	FOR -Y4RPB- PROFILE SEE SHT.61
FOR -SR2- PROFILE SEE SHTS.71 THRU 72	FOR -RAB1- PROFILE SEE SHT.60	FOR -Y4RPC- PROFILE SEE SHT.62
FOR -Y4RPA- PROFILE SEE SHTS.60 THRU 61	FOR -RAB2- PROFILE SEE SHT.60	FOR -Y4RPD- PROFILE SEE SHT.62

GRAPHIC SCALE
50 25 0 50 100
PLANS

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RENEW 6/30/2025

FLATIRON UNITED

ICE of Carolinas, PLLC
4525 Falls of Neuse Road, Suite 110
Raleigh, North Carolina 27609
Phone: 833-423-2222
License #: P-0698

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 22 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

RAD 33

200' 0' 200'
GRAPHIC SCALE

SITE 22

SITE 21

MATCHLINE -Y4- STA. 19+00.00 (SEE SHEET 32)

MATCHLINE -L- STA. 360+00.00 (SEE SHEET 23)

MATCHLINE -Y4- STA. 35+00.00 (SEE SHEET 39)

MATCHLINE -L- STA. 387+00.00 (SEE SHEET 25)

SEE SHEET 23 OF 38 FOR ENLARGED VIEW

SEE SHEET 24 OF 38 FOR ENLARGED VIEW

SR2 CAPLAND ST

SR2 GRIFFITH RD

SR2 BRICKYARD RD

SR2 MACKEY ST

SR2 SHELLEY ST

Lumber River

CALLOUT LEGEND
Ⓐ -SRI- POT Sta. 10+70.00 = -Y4- POT Sta. 23+42.49
Ⓑ -RAB1- POC Sta. 20+00.00 = -RAB1- POC Sta. 23+58.14
Ⓒ -SRI- PC Sta. 10+94.22
Ⓓ -Y4RPC- PT Sta. 22+50.79
Ⓔ -Y4RPC- POT Sta. 22+67.33
Ⓕ -SR2- POT Sta. 10+50.00 = -Y4- POT Sta. 31+76.42
Ⓖ -RAB2- POC Sta. 10+00.00 = -RAB2- POT Sta. 33+58.14

FOR -SRI- PROFILE SEE SHT.69	FOR -Y4- PROFILE SEE SHT.59	FOR -L- PROFILE SEE SHT.49
FOR -SR2- PROFILE SEE SHTS.71 THRU 72	FOR -RAB1- PROFILE SEE SHT.60	FOR -Y4RPB- PROFILE SEE SHT.61
FOR -Y4RPA- PROFILE SEE SHTS.60 THRU 61	FOR -RAB2- PROFILE SEE SHT.60	FOR -Y4RPC- PROFILE SEE SHT.62
		FOR -Y4RPD- PROFILE SEE SHT.62

GRAPHIC SCALE
50 25 0 50 100
PLANS

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SITE 21
ENLARGEMENT

PERMIT DRAWING
SHEET 23 OF 38

40' 0' 40'
GRAPHIC SCALE

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

PLUG 15" WELDED STEEL

TB 2GI

FLOWABLE FILL

15" WELDED STEEL

18" RCP-IV

18" WELDED STEEL

SP. DET. TB 2GI-A

24" PP

30" PP

30" RCP-III

54" RCP-III

15" RCP-III

LOCATE & FILL

REMOVE

LOCATE & REMOVE

TRENCHLESS INSTALLATION
48" WELDED STEEL

REMOVE CONCRETE DITCH

3GI-A

2GI-A

SP. CUT V' DITCH C
SEE DETAIL AP

SP. CUT 2' BASE DITCH
SEE DETAIL T

STD. 8' BASE DITCH
W/CL I RIP RAP
SEE DETAIL AY

PROP U/G POW CONDUIT

PROP O/H POW LINES

PUE
12.6 SQUARE FEET
(4' DIAMETER AROUND POLE)
FILL IN WETLANDS

WALL SCOUR
COUNTERMEASURE

PDE

DUE

195 NBL VARIABLE WIDTH BST

TERMINUS UNKNOWN

15+00

NAD 83

NAD 83

0.8 SQUARE FEET (1' DIAMETER AROUND FILL IN WETLANDS

STD. 3' BASE DITCH W/CL B RIP RAP SEE DETAIL K

TOE PROTECTION SEE DETAIL G

DUE

DUE

HC

HC

RETAIN

REMOVE

REMOVE

REMOVE DI

REMOVE CB

LOCATE & REMOVE JB

RETAIN

RETAIN CB

REMOVE DI

REMOVE

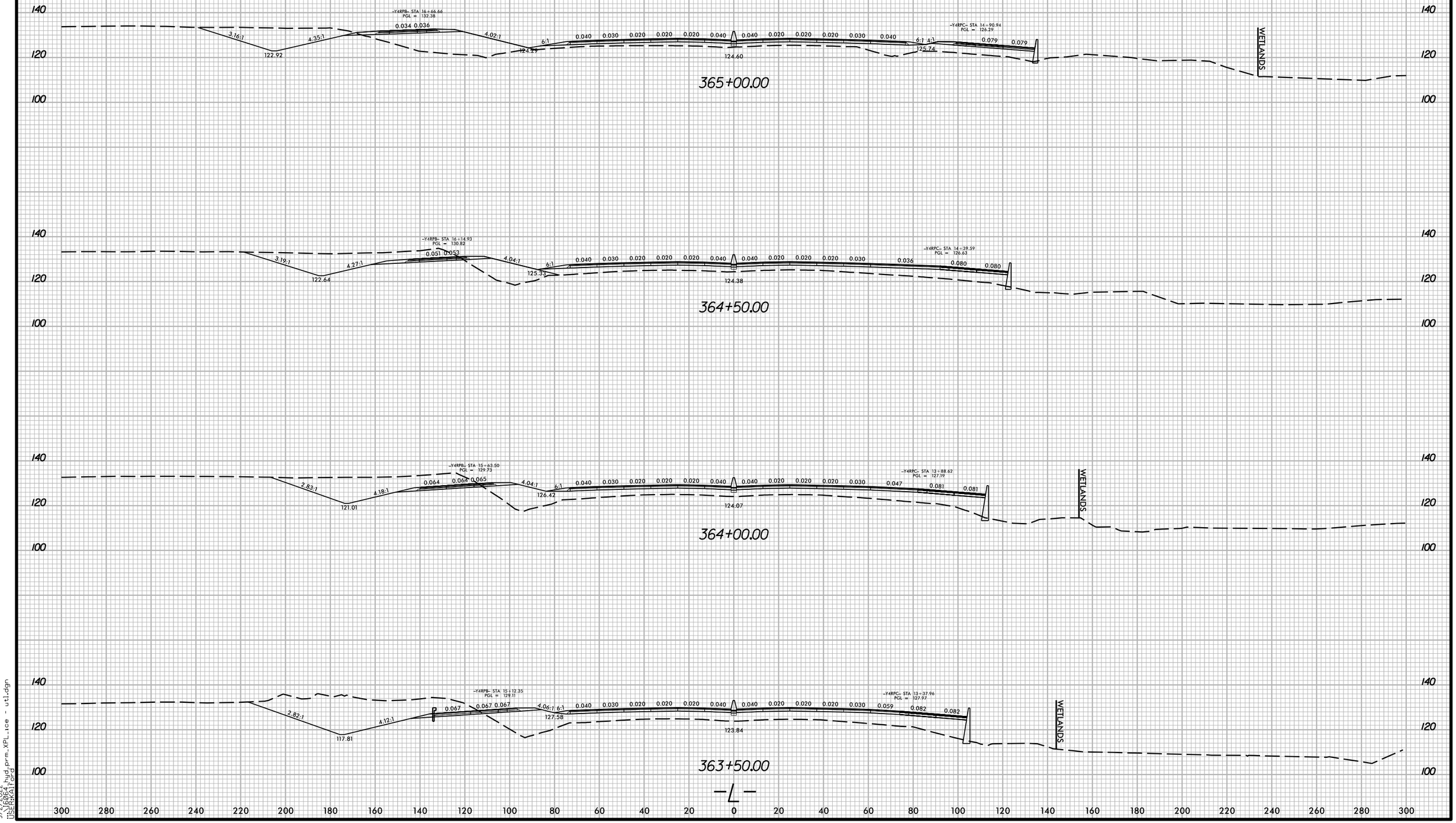
REMOVE

REMOVE

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-144

SITE 21

PERMIT DRAWING
SHEET 25 OF 38

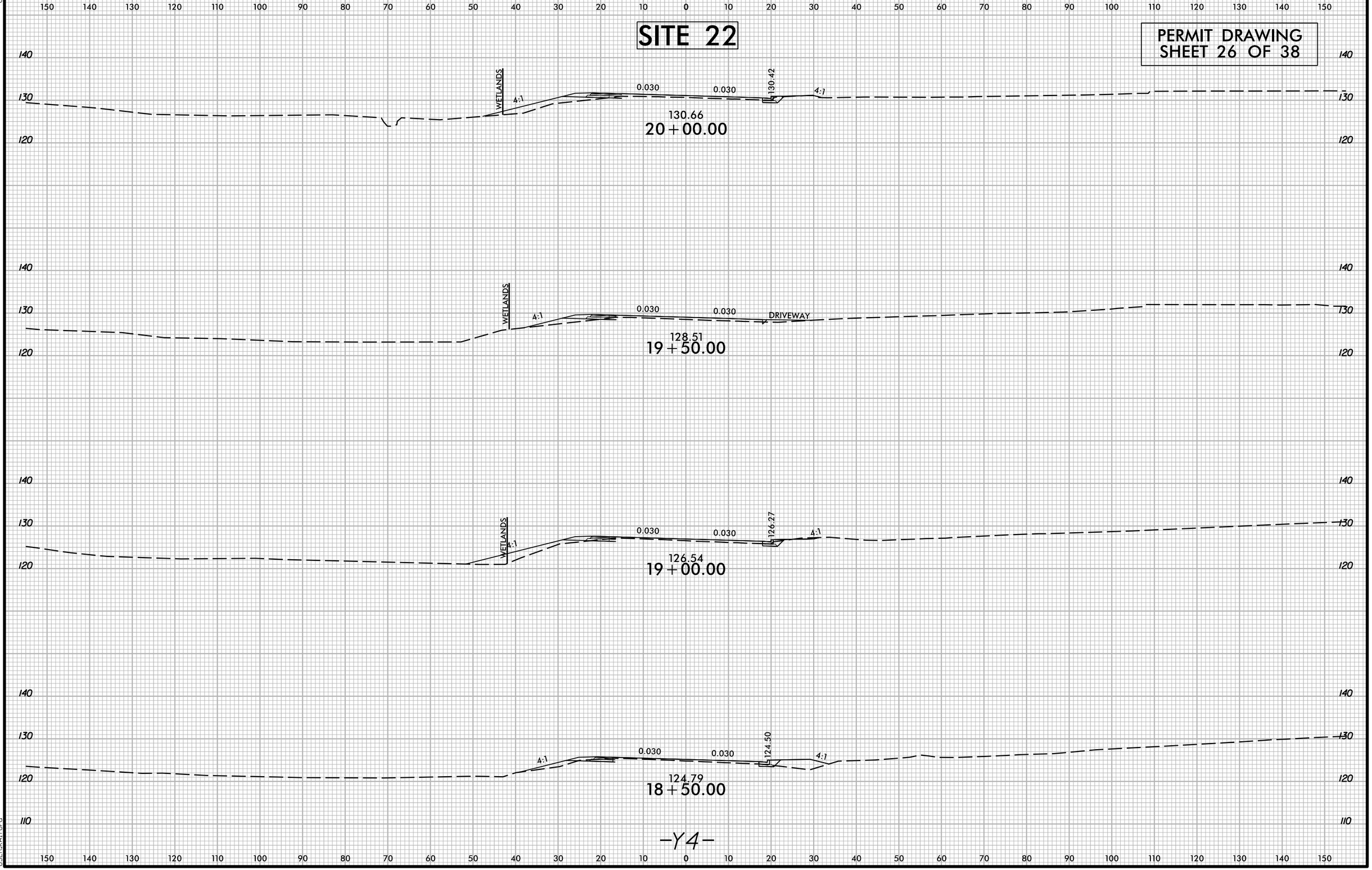


6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-238

SITE 22

PERMIT DRAWING
SHEET 26 OF 38



-Y4-

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USER:KAlford
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8/17/99

FILL IN WETLAND

HAND CLEARING (NON-GRUBBING)

100' 0' 100'

GRAPHIC SCALE

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 27 OF 38

NAD 83

SITE 29

SITE 24

SITE 25

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 27)

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 29)

Meadow Branch

CITY OF LUMBERTON

FRENCH FAMILY PROPERTIES

CHARLES MCNEIL

SOUTHERN NATIONAL BANK

Fivemile Branch

SR4 DAWN DR

SR5 KAHN DR

-L- I-95

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL Q

0.8 SQUARE FEET (1' DIAMETER AROUND GUY ANCHOR) FILL IN WETLANDS

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL F

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

TOE PROTECTION SEE DETAIL W W/CL B RIPRAP EST 100 TONS EST 148 SY GT

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 60 TONS EST 130 SY GT

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 90 TONS EST 200 SY GT

INLET CHANNEL IMPROVEMENTS SEE DETAIL P

CHANNEL CHANGE SEE DETAIL AZ DDE = 1800 CY

CLASS I RIP RAP BANK STABILIZATION CL I RR 424 TNS GEO 720 SY

CLASS I RIP RAP BANK STABILIZATION CL I RR 322 TNS GEO 545 SY

3 @ 10' x 11' RCBC WITH BEVELED HEADWALL BURIED 1'

ATT Relocation Replacement Cables will be placed on pole line.

FOR -SR4- PROFILE SEE SHT.74	FOR -L- PROFILE SEE SHT.52
FOR -Y5RPA- PROFILE SEE SHT.65	FOR -SR5- PROFILE SEE SHT.77

$DATE$ $TIME$
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Kevin Alford

8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 28 OF 38

F F FILL IN WETLAND

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 441+00.00 (SEE SHEET 27)

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 29)

SITE 29

SITE 24

SITE 25

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL Q

0.8 SQUARE FEET (1' DIAMETER AROUND GUY ANCHOR) FILL IN WETLANDS

12.6 SQUARE FEET (4' DIAMETER AROUND POLE) FILL IN WETLANDS

SPECIAL CUT DITCH SEE DETAIL F

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 60 TONS EST 130 SY GT

TOE PROTECTION SEE DETAIL G W/CL B RIPRAP EST 90 TONS EST 200 SY GT

TOE PROTECTION SEE DETAIL W W/CL B RIPRAP EST 100 TONS EST 148 SY GT

INLET CHANNEL IMPROVEMENTS SEE DETAIL P

CHANNEL CHANGE SEE DETAIL AZ DDE = 1800 CY

CLASS I RIP RAP BANK STABILIZATION CL I RR 424 TNS GEO 720 SY

CLASS I RIP RAP BANK STABILIZATION CL I RR 322 TNS GEO 545 SY

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

3 @ 10' x 11' RCBC WITH BEVELED HEADWALL BURIED 1'

ATT Relocation Replacement Cables will be placed on pole line.

SR4 DAWN DR

SR5 KAHN DR

-L- I-95

Fivemile Branch

Meadow Branch

CITY OF LUMBERTON

FRENCH FAMILY PROPERTIES

CHARLES MCNEIL

SOUTHERN NATIONAL BANK

FOR -SR4- PROFILE SEE SHT.74	FOR -L- PROFILE SEE SHT.52
FOR -Y5RPA- PROFILE SEE SHT.65	FOR -SR5- PROFILE SEE SHT.77

$DATE$ $TIME$
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Kevin Alford

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-186

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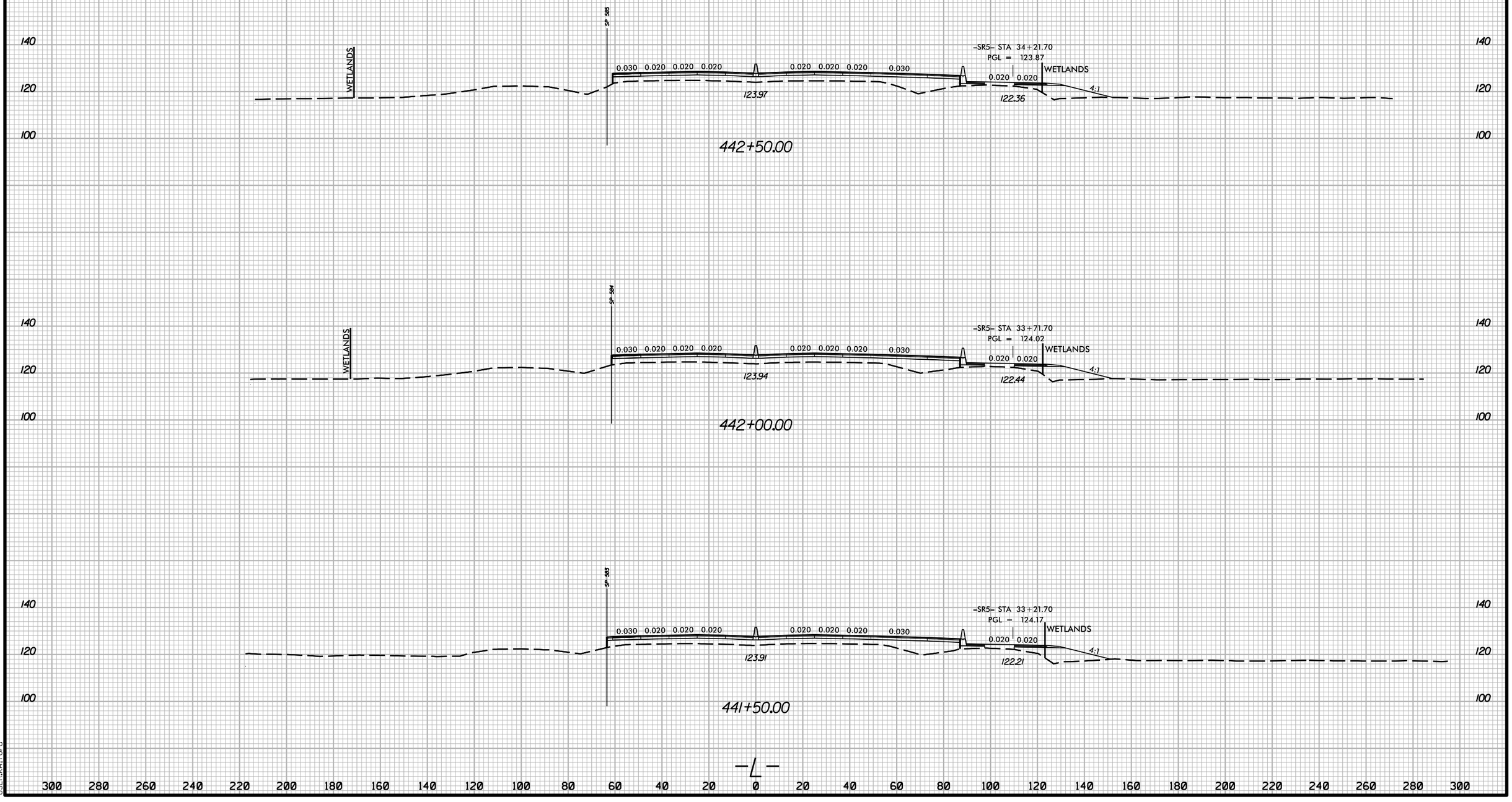
SITE 29

PERMIT DRAWING
SHEET 29 OF 38



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8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-187

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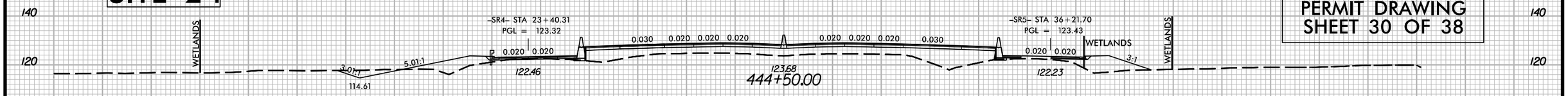
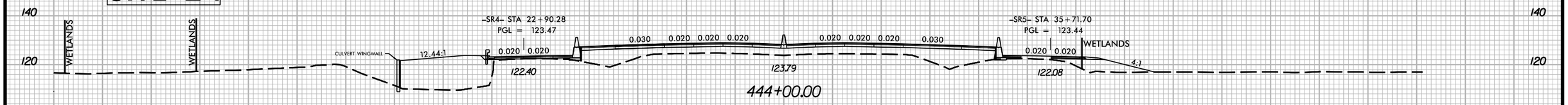
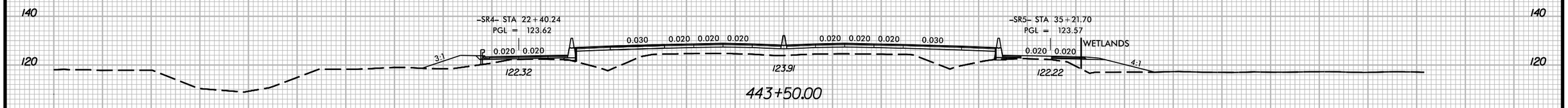
SITE 24



PERMIT DRAWING
SHEET 30 OF 38

SITE 24





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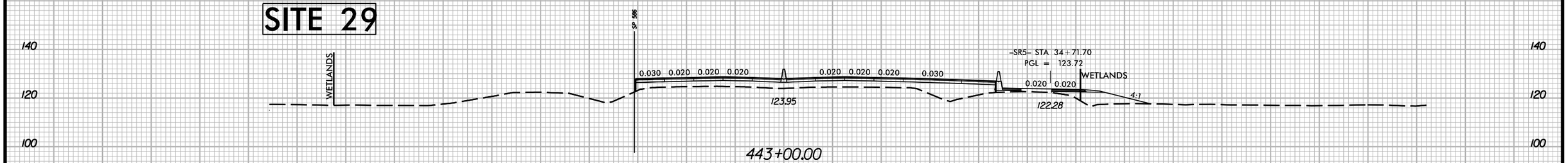

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9/2/2022
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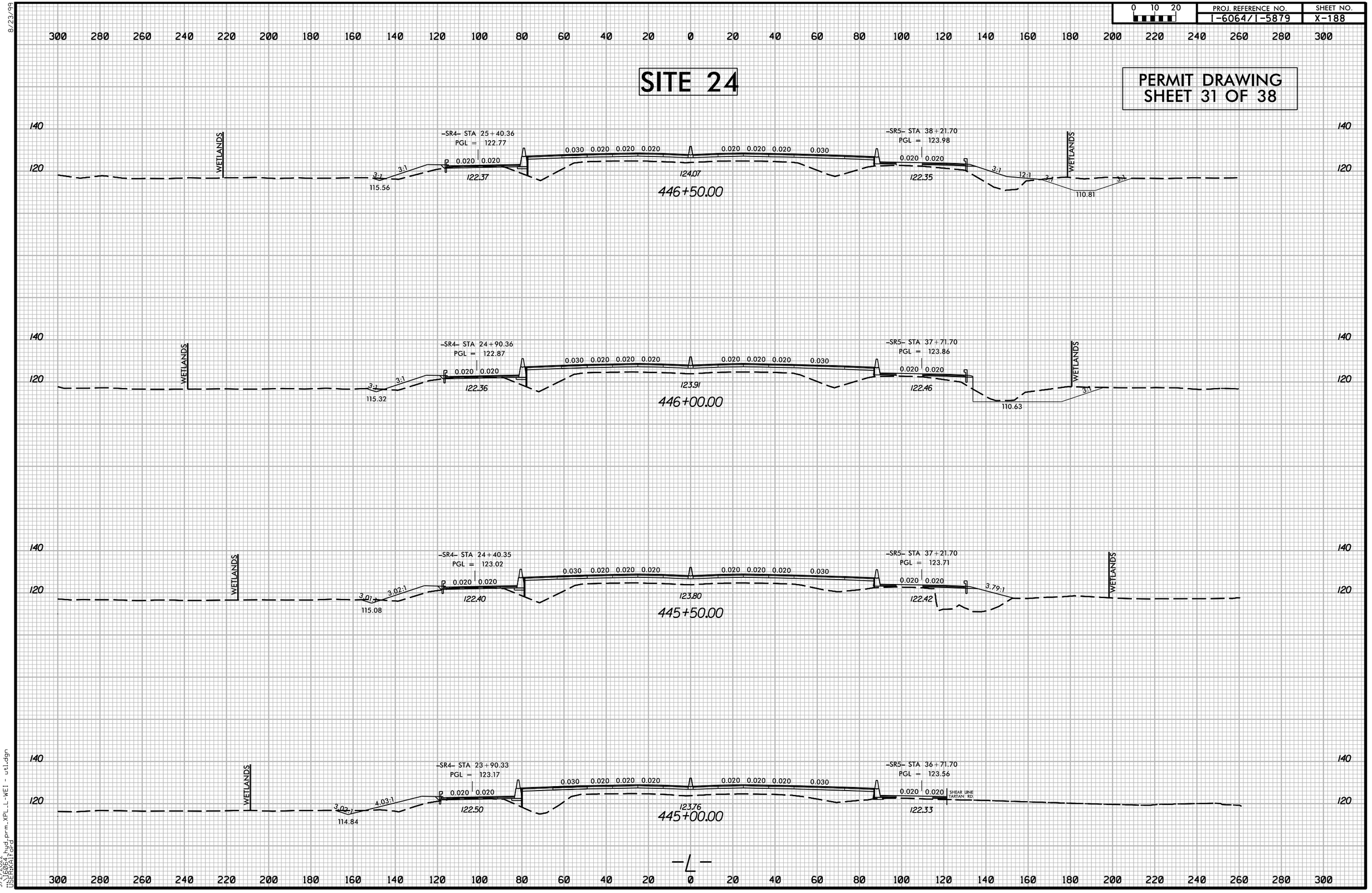
USER:KAITford

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-188

SITE 24

PERMIT DRAWING
SHEET 31 OF 38



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USER:KAITford

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-189

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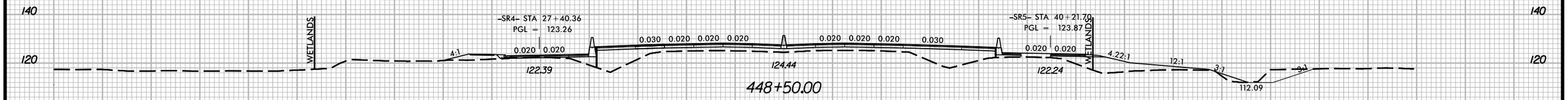
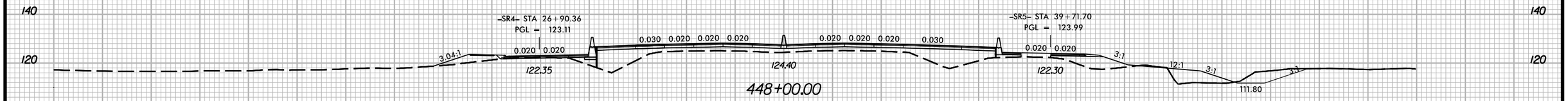
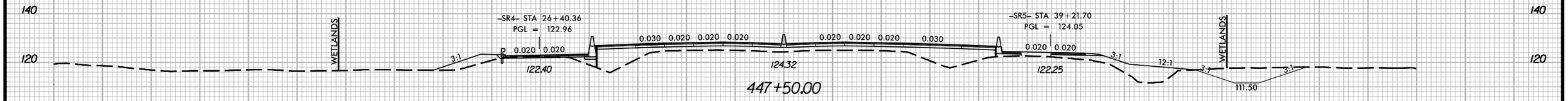
PERMIT DRAWING
SHEET 32 OF 38

SITE 25

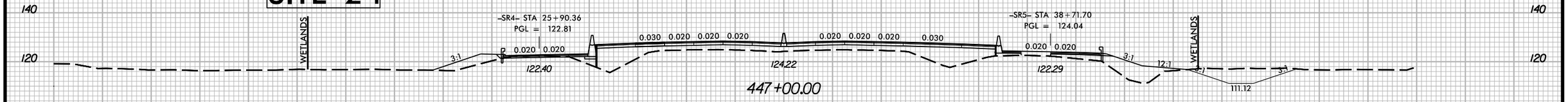




SITE 24



SITE 24



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USER:KAITford

8/23/99

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	I-6064/I-5879	X-190

SITE 25

PERMIT DRAWING
SHEET 33 OF 38

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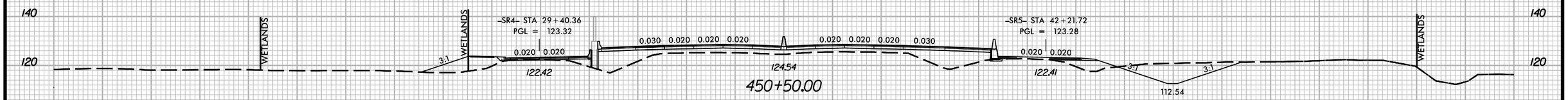

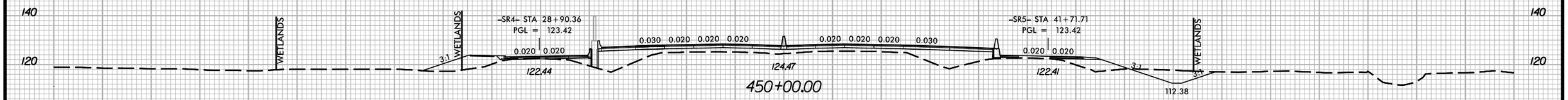

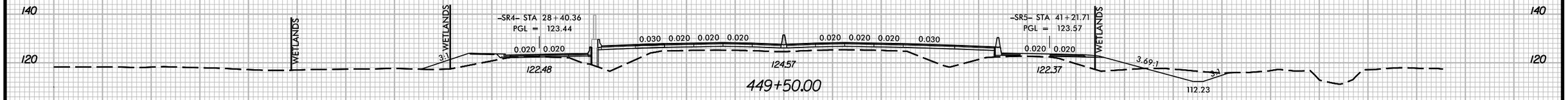

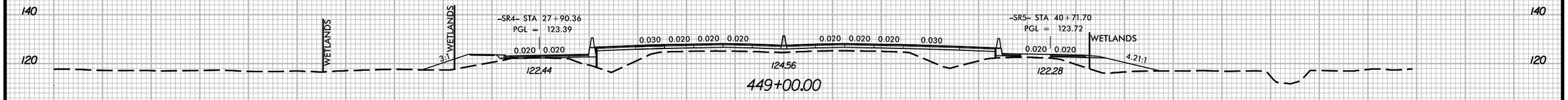

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9/2/2022
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USER:KAITford

8/23/99

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	I-6064/I-5879	X-191

SITE 25

PERMIT DRAWING
SHEET 34 OF 38

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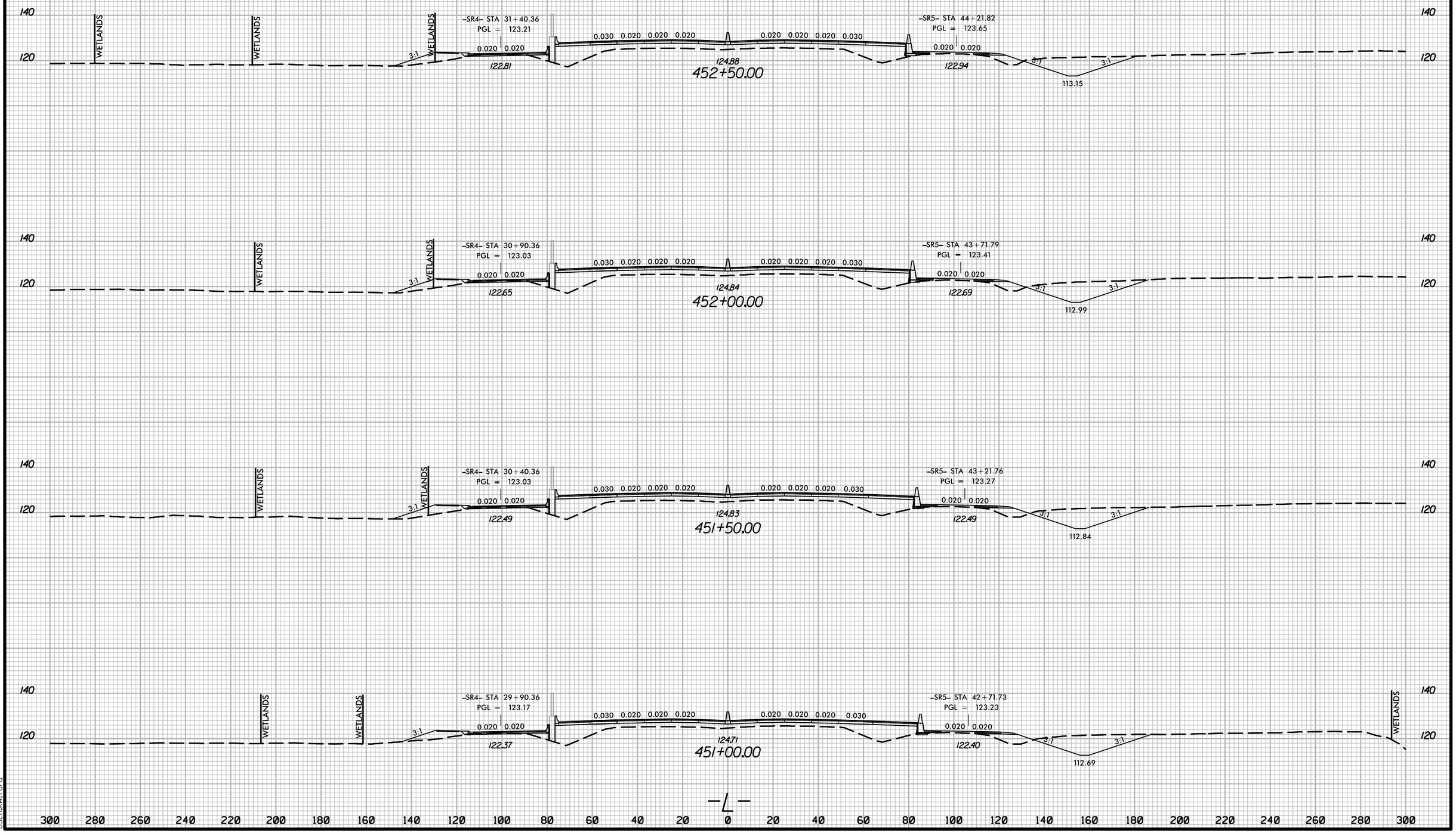

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9/2/2022
I-6064_hyd_prm_XPL_L-WEI - util.dgn
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8/17/99

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 35 OF 38

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 28)

MATCHLINE -L- STA. 467+00.00 (SEE SHEET 30)

SITE 25

405 FRENCH FAMILY PROPERTIES

406 FRENCH FAMILY PROPERTIES

273B CITY OF LUMBERTON

277 YUK HAN LIU

272 SOUTHERN NATIONAL BANK

278 KENT BALDWIN

279 STEVEN BRANCH

SR4 DAWN DR

SR5 KAHN DR

WELLINGTON DR (CITY OF LUMBERTON)

HAND CLEARING (NON-GRUBBING)

SPECIAL CUT DITCH SEE DETAIL F

NOTE: ELIMINATE CUT DITCH FROM 53+00 TO 53+80

FILL EXISTING DITCH

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

CL I RIP RAP EST. 26 TON EST. 50 SY GT

SPECIAL CUT BASE DITCH SEE DETAIL AB

75' TAPER

FOR -SR4- PROFILE SEE SHTS.74 THRU 75
FOR -L- PROFILE SEE SHTS.52 THRU 53	FOR -SR5- PROFILE SEE SHTS.77 THRU 78

$DATE$ $TIME$
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KAlford

FLATIRON UNITED INFRASTRUCTURE GROUP

WETHERILL ENGINEERING

Wetherill Engineering, Inc.
1223 Jones Franklin Road
Raleigh, North Carolina 27606
Phone: 919-851-8077
License #: F-0377

PROJECT REFERENCE NO.	SHEET NO.
I-6064/I-5879	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 36 OF 38

HC HC HAND CLEARING (NON-GRUBBING)

100' 0' 100'
GRAPHIC SCALE

NAD 83

SITE 25

MATCHLINE -L- STA. 454+00.00 (SEE SHEET 28)

MATCHLINE -L- STA. 467+00.00 (SEE SHEET 30)

405 FRENCH FAMILY PROPERTIES

406 FRENCH FAMILY PROPERTIES

273B CITY OF LUMBERTON

277 YUK HAN LIU

272 SOUTHERN NATIONAL BANK

278 KENT BALDWIN

279 STEVEN BRANCH

WELLINGTON DR (CITY OF LUMBERTON)

SR4 DAWN DR

SR5 KAHN DR

45+00 50+00 55+00 460+00 465+00

HAND CLEARING (NON-GRUBBING)

SPECIAL CUT DITCH SEE DETAIL F

NOTE: ELIMINATE CUT DITCH FROM 53+00 TO 53+80

FILL EXISTING DITCH

SPECIAL LATERAL 'BASE' DITCH SEE DETAIL AI

SPECIAL CUT BASE DITCH SEE DETAIL AB

CL I RIP RAP EST. 26 TON EST. 50 SY GT

FOR -SR4- PROFILE SEE SHTS.74 THRU 75

FOR -L- PROFILE SEE SHTS.52 THRU 53

FOR -SR5- PROFILE SEE SHTS.77 THRU 78

$DATE$ $TIME$
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8/23/99

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	I-6064/I-5879	X-192

SITE 25

PERMIT DRAWING
SHEET 37 OF 38

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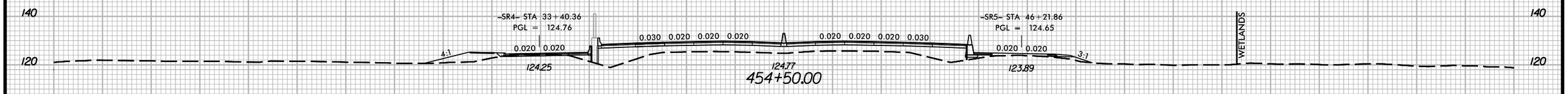

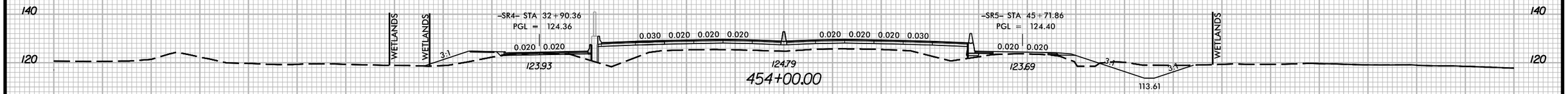

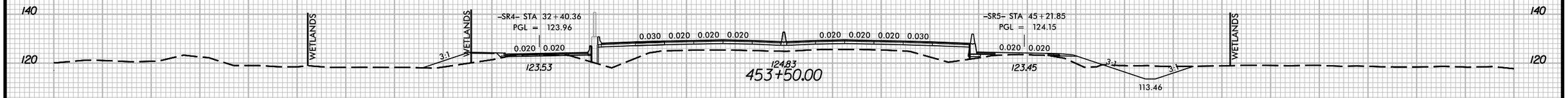

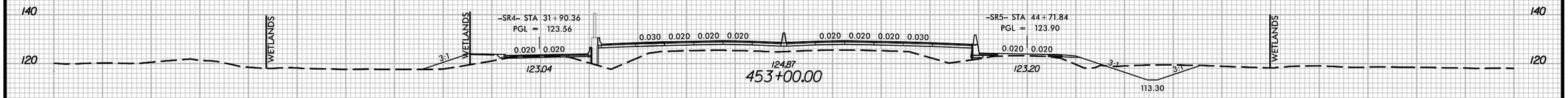

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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

9/2/2022
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USER:KAITord

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac) (See Notes)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
8	-L- 268+00 Lt	Utility (Power)	< 0.01				0.28					
10	-L- 277+72 to 302+68 Lt	Utility (Power)	< 0.01				0.56					
19	-L- 352+70 Rt	Utility (Power)	< 0.01				0.09					
21	-Y4RPC- 14+00 Rt	Utility (Power)	< 0.01				0.07					
22	-Y4- 19+70 Lt	Utility (Power)	< 0.01				0.01					
29	-L- 442+35 Lt	Utility (Power)	< 0.01				0.18					
24	-L- 443+85 to 447+62 Lt	Utility (Power)					0.04					
25	-L- 451+00 Lt	Utility (Power)	< 0.01				0.32					
TOTALS*:			< 0.01				1.55			0	0	0

*Rounded totals are sum of actual impacts

NOTES:
Permanent Fill In Wetlands is due to Power Pole and Guy Wire Anchors Placed in the Wetlands.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
10/18/2022
Robeson County
I-6064/I-5879
49067.1.2, 49067.1.3 & 53079.2.1
SHEET 38 OF 38