

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS

69A Hagood Avenue

Charleston, South Carolina 29403-5107

and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Office of Ocean and Coastal Resource Management

1362 McMillan Avenue, Suite 400

North Charleston, South Carolina 29405

REGULATORY DIVISION

Refer to: SAC-2018-00205

June 9, 2023

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

Mr. Cal Oyer

Charleston County

4045 Bridge View Drive, Ste C204

North Charleston, South Carolina 29405

for a permit to discharge fill material associated with existing roadway improvements and new roadway construction in waters associated with

Horlbeck Creek, Mill Creek, and Wagner Creek

located on SC 41 between US Highway 17 and the Wando River, Mt. Pleasant, Charleston County, South Carolina (Latitude: 32.8923 °, Longitude: -79.8134 °), Cainhoy Quad Sheet.

In order to give all interested parties an opportunity to express their views

N O T I C E

is hereby given that written statements regarding the proposed work will be received by the **Corps and SCDHEC** until

30 Days from the Date of this Notice,

from those interested in the activity and whose interests may be affected by the proposed work.

NOTE: This public notice and associated plans are available on the Corps' website at: <http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices> .

Applicant's Stated Purpose

According to the applicant, the purpose of the proposed project is to reduce traffic congestion within the SC 41 corridor to accommodate future traffic projections.

Project Description

The proposed work consists of discharging 25,500 cubic yards of fill material into a total of 6.27 acres of freshwater wetlands, 3.61 acres of tidal wetlands, and 0.10 acre of open waters. In addition to the discharge of fill material, 0.62 acre of freshwater wetland and 0.47 acre of tidal wetland would be mechanically cleared. Lastly, 0.96 acre of tidal wetland would be impacted for bridge construction access that would be reviewed for permit consideration by the United States Coast Guard.

In detail, fill material associated with widening and relocation of the existing roadway, construction of a new road (Laurel Hill Parkway), construction of a shared use path and sidewalk would impact a total of 6.23 acres of freshwater wetlands, 3.47 acres of tidal wetlands and 0.10 acre of open waters. Mechanized clearing associated with ground preparation for roadway construction would impact a total of 0.62 acre of freshwater wetland and 0.47 acre of tidal wetland. Lastly, rip-rap aprons to prevent scouring at culverts would impact a total of 0.05 acre of freshwater wetland and 0.11 acre of tidal wetlands. Please reference the following table for specific location and type of impacts:

Wetland No.	Sheet No.	Impact Type	Impact Size (acres)
1	22	FWP, FWC, FWA	0.63
3	3	FWP, FWC, FWA	0.02
5	4	FWP, FWC, FWA	1.41
6	5, 19	FWP, FWC	0.005
7	5	FWP, FWC	0.05
10	6	FWP, FWC, FWA	0.08
11	5, 6	CP, CC, CA, CBC	1.33
15	7	FWP, FWC	0.02
16	7, 8, 23	CP, CC, CA	0.91
20	11	CP, CC, CA	0.57
22	14	FWP, FWC	0.40
23	14, 15, 16	FWP, FWC	1.21
24	14, 15, 16	FWP, FWC	0.55
25	16	FWP, FWC	0.31
27	16, 17	FWP, FWC	0.28
28	17	CP, CC, CA, CBC	1.66
30	18	FWP, FWC	0.14
31	18, 19	CP, CC, CA	0.577

35	12	FWA	0.002
40	13	FWA	0.006
48	26	FWP, FWC, FWA	0.02
49	25, 26	FWP, FWC	1.30
50	25	FWP, FWC, FWA	0.08
55	23	FWP, FWC	0.16
56	7	FWP, FWC	0.24
Open Waters			
Open Waters No.	Sheet No.	Impact Type	Impact Size (acres)
1	22	OWP	0.057
2	22	OWP	0.047

*FWP = Freshwater Wetland Permanent Impact; FWC = Freshwater Clearing Impact; FWA = Freshwater Armoring Impact; OW = Open Water Impact; CP = Critical Area Permanent Impact; CC = Critical Area Clearing Impact; CA = Critical Area Armoring Impact; CBC = Critical Bridge Construction Access Impact

Avoidance and Minimization

The applicant has stated that the proposed project will avoid and/or minimize impacts to the aquatic environment by the use of bridges and strategic shifting of roadway segments to avoid impacts to waters of the United States. Additionally, incorporating increased roadway fill slopes (i.e. steeper) and reducing the length of pipes/culverts within wetlands to further minimize impacts. SCDOT requires 4:1 or 6:1 fill slopes depending on fill height; however, to minimize impacts to wetlands, 2:1 fill slopes would be implemented to reduce impacts and all culverts would be installed according to SCDOT specifications. Lastly, to reduce secondary impacts to waters of the United States, erosion and sediment best management practices including but limited to seeding of slopes, silt fences, and sediment basins would be utilized during construction.

Proposed Compensatory Mitigation

The applicant has proposed to mitigate for impacts to wetlands and/or waters of the United States by purchasing 84.88 freshwater wetland mitigation credits from the Caton Creek Mitigation Bank and 69.67 tidal wetland mitigation credits from the Point Farm Mitigation Bank.

South Carolina Department of Health and Environmental Control

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the certifying authority, South Carolina Department of Health and Environmental Control, in accordance with provisions of Section 401 of the Clean Water Act (CWA). The CWA Section 401 Certification Rule (Certification Rule, 40 CFR 121), effective September 11, 2020, requires certification, or waiver, for any license or permit that authorizes an activity that may result in a discharge. The scope of a CWA Section 401 Certification is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements. The applicant is responsible for requesting certification and providing required information to

the certifying authority. In accordance with Certification Rule part 121.12, the Corps will notify the U.S. Environmental Protection Agency Administrator when it has received a Department of the Army (DA) permit application and the related certification. The Administrator is responsible for determining if the discharge may affect water quality in a neighboring jurisdiction. The DA permit may not be issued pending the conclusion of the Administrator's determination of effects on neighboring jurisdictions.

The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

Essential Fish Habitat

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 4.08 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Endangered Species

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the project and based on the location of the project and available information, the following species may be present in the County(s) where the work will occur: American chaffseed (*Schwalbea americana*), Canbys dropwort (*Oxypolis canbyi*), Pondberry (*Lindera melisifolia*), Seabeach amaranth (*Amaranthus pumilus*), West Indian Manatee (*Trichechus manatus*), Northern long-eared bat (*Myotis septentrionalis*), Frosted flatwoods salamander (*Ambystoma cingulatum*), Green sea turtle (*Chelonia mydas*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Leatherback sea turtle (*Dermochelys coriacea*), Loggerhead sea turtle (*Caretta caretta*), Bachman's warbler (*Vermivora bachmani*), Eastern Black Rail (*Laterallus jamaicensis ssp.jamaicensis*), Piping plover (*Charadrius melodus*), Red-cockaded woodpecker (*Picoides borealis*), Red knot (*Calidris canutus rufa*), Wood stork (*Mycteria americana*), Atlantic sturgeon (*Acipenser oxyrhynchus oxyrhynchus*), Shortnose sturgeon (*Acipenser brevirostrum*), Fin whale (*Balaenoptera physalus*), North Atlantic right whale (*Eubalaena glacialis*), Sei whale (*Balaenoptera borealis*), Sperm whale (*Physeter macrocephalus*) and Humpback whale (*Megaptera*

novaeangliae).

Based on all information provided by the applicant and the most recently available information, the District Engineer has determined the following:

The project will have no effect on American chaffseed, Canby's dropwort, Pondberry, Seabeach amaranth, Green sea turtle, Kemp's Ridley sea turtle, Leatherback sea turtle, Loggerhead sea turtle, Bachman's warbler, Piping plover, Red Knot, Atlantic sturgeon, Shortnose sturgeon, Fin whale, North Atlantic right whale, Sei whale, Sperm whale, and Humpback whale and will not result in the destruction or adverse modification of designated or proposed critical habitat.

The project is not likely to adversely affect West Indian manatee, Northern long-eared bat, Frosted flatwoods salamander, Eastern black rail, Red-cockaded woodpecker, and Wood stork. or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on this determination.

This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity.

Cultural Resources

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with Section 106 of the NHPA, the District Engineer has reviewed the project area and examined all information provided by the applicant pertaining to the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(1)(1)), and has initially determined that historic properties, are present; moreover, these historic properties may be adversely affected by the undertaking. In the context of the SC 41 Corridor Improvements Project, an archaeological survey was conducted, leading to the identification of 11 newly discovered archaeological sites: 38CH2534-38CH2542, 38CH2571, and 38CH2674. Notably, the archaeological deposits associated with 38BK171, 38BK1621/38BK1810, 38CH648, 38CH649, 38CH2534-38CH2542, and 38CH2571 do not meet the eligibility criteria for listing on the National Register of Historic Places (NRHP) and do not require additional management actions. Conversely, site 38CH2674 is recommended for NRHP eligibility based on Criterion A, signifying its association with the Phillips Community Landscape (CL) and Historic District (HD), as well as Criterion D, indicating its significant informational potential. Furthermore, an architectural survey was undertaken encompassing the Phillips CL/HD and Seven Mile

CL/HD, both of which qualify as NRHP-eligible historic districts (HDs) and traditional cultural properties (TCPs). The survey also documented the Sweetgrass Basket Corridor, an NRHP-eligible TCP, and documented a total of 100 individual above-ground resources, including buildings/structures, cemeteries, and cultural landscape features. It is hereby acknowledged that the proposed SC 41 Corridor Improvements Project has the potential to yield adverse effects on the identified cultural resources.

This public notice serves to notify the State Historic Preservation Office that the Corps plans to initiate Section 106 consultation on these historic properties. Individuals or groups who would like to be consulting parties for the purposes of the NHPA should make such a request to the Corps in writing within 30 days of this public notice. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and other interested parties to provide any information they may have with regard to historic properties.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

Corps' Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

Solicitation of Public Comment

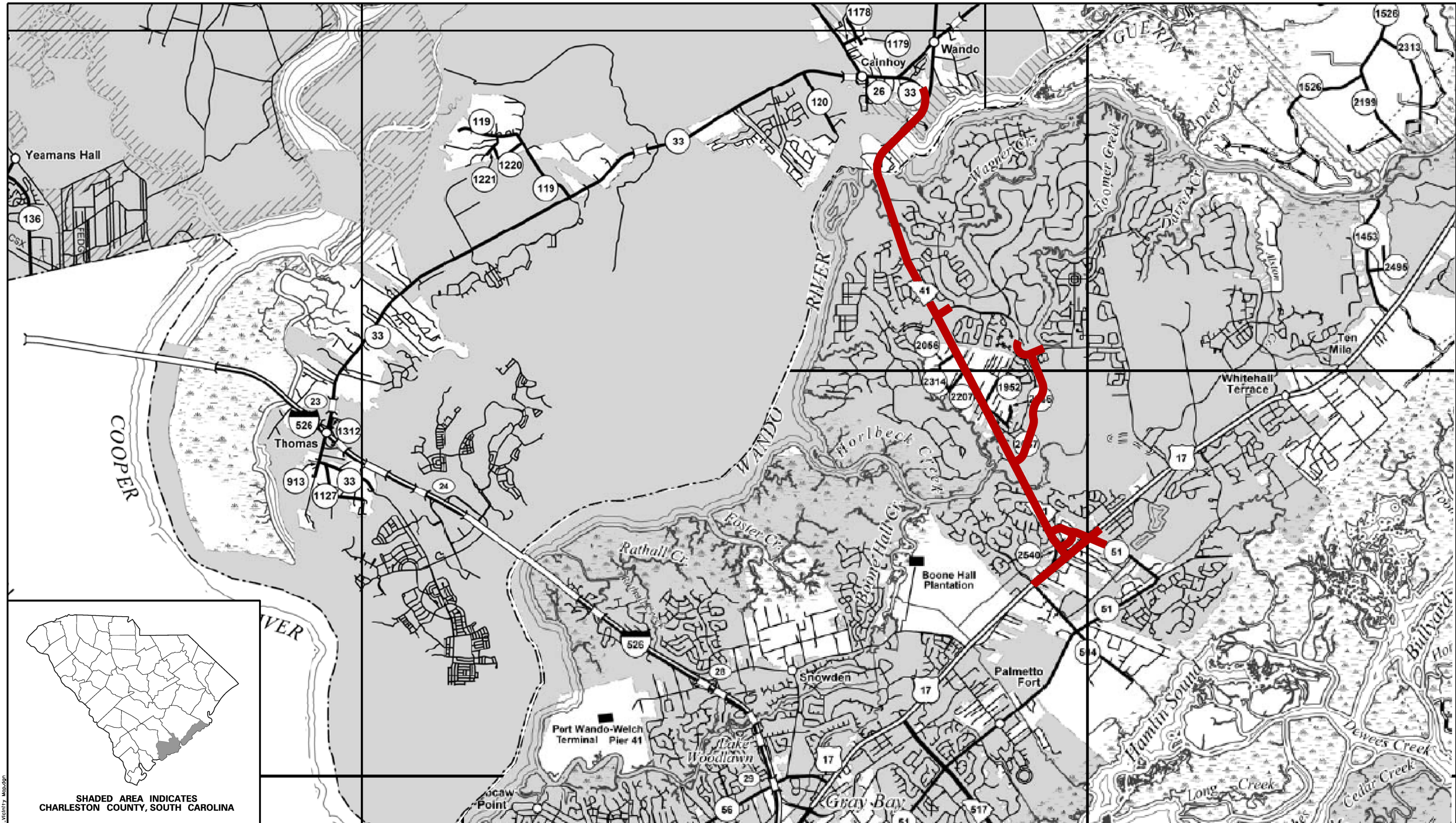
The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to

determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

Please submit comments in writing, identifying the project of interest by public notice/file number (SAC-2018-00205), to Jeremy.M.Kinney@usace.army.mil or the following address:

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A Hagood Avenue
Charleston, South Carolina 29403-5107**

If there are any questions concerning this public notice, please contact Jeremy M. Kinney, Project Manager, at (843) 714-4649, toll free at 1-866-329-8187, or by email at Jeremy.M.Kinney@usace.army.mil.



SHADED AREA INDICATES
CHARLESTON COUNTY, SOUTH CAROLINA



0 5,000 10,000

SCALE: 1" = 5,000'



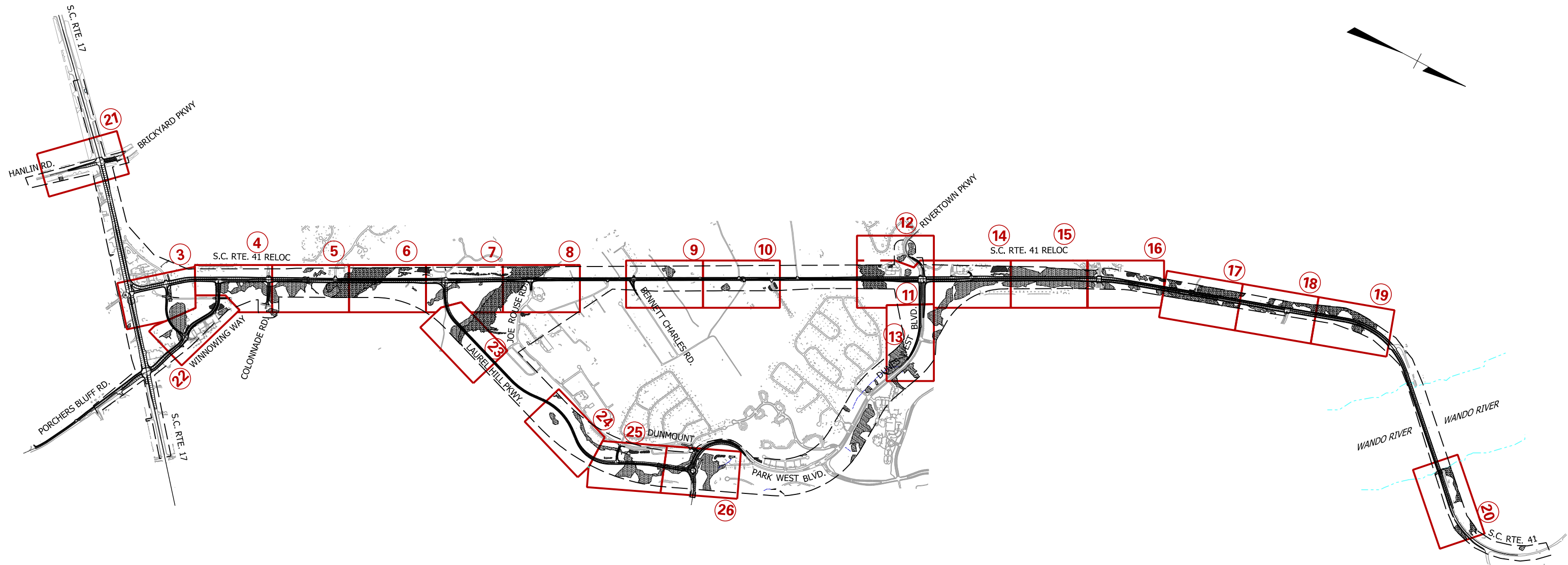
HDR Engineering Inc.
of the Carolinas
4400 Leeds Avenue, Suite 450
North Charleston, SC 29405
843.414.3700

S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023



VICINITY MAP

SHEET 1 OF 33



DATE: 3/6/2023
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HDR Engineering Inc.
of the Carolinas
4400 Leeds Avenue, Suite 450
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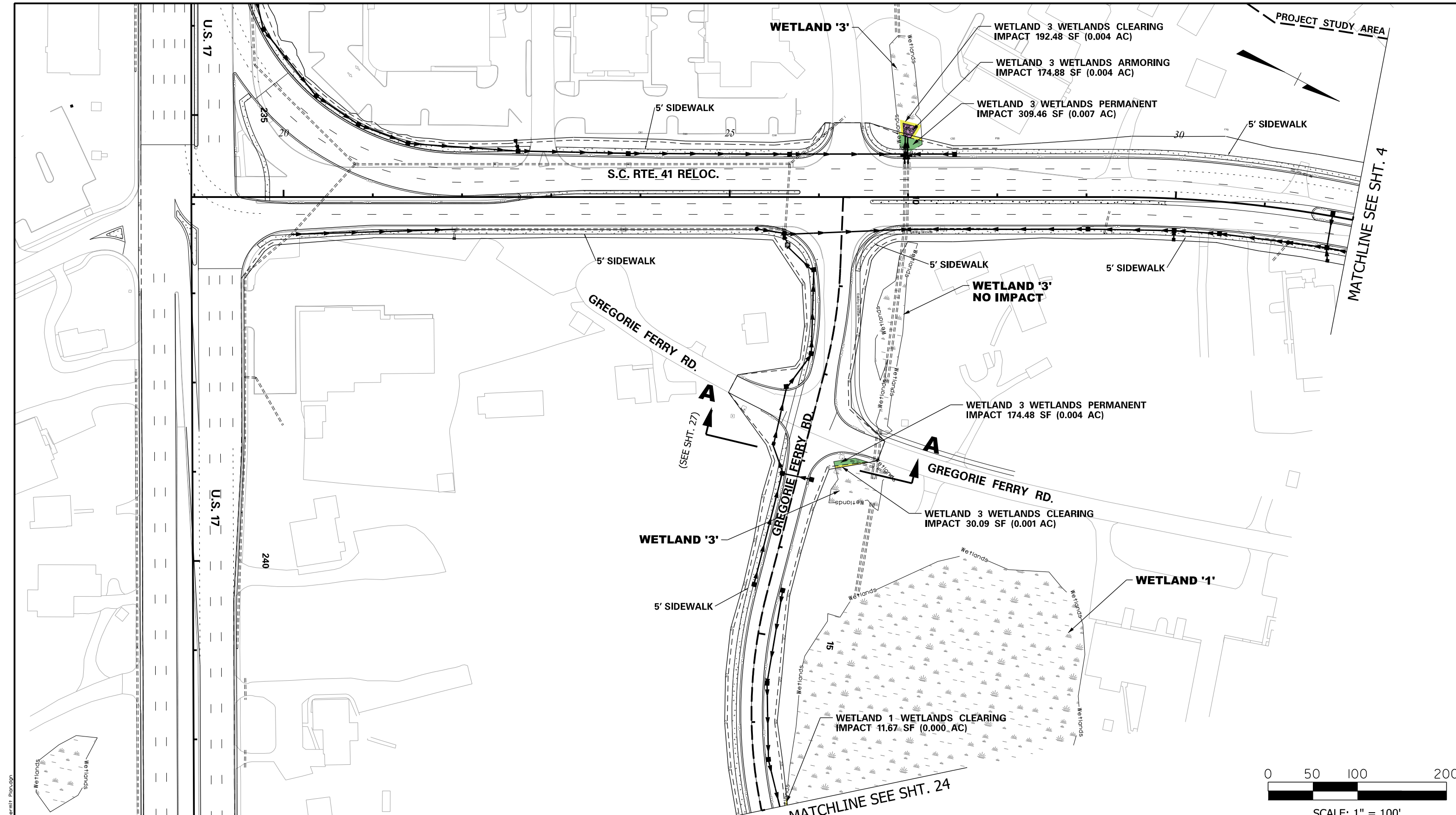
SCALE: NOT TO SCALE

S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023



INDEX/LAYOUT SHEET

SHEET 2 OF 33



DATE: 3/6/2023
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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS
IMPACT

NON-WETLAND WATERS
ARMORING IMPACT

NON-WETLAND WATERS
PIPE IMPACT

BRIDGE CONSTRUCTION
ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 483.94 SF (0.011 AC)

WETLAND CLEARING IMPACT = 234.24 SF (0.005 AC)

WETLAND ARMORING IMPACTS = 174.88 SF (0.004 AC)

WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)

WETLAND PIPE IMPACT = 0 LF

WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL PIPE IMPACT = 0 LF

HDR Engineering Inc
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S.C. 41 CORRIDOR IMPROVEMENTS

CHARLESTON COUNTY, S.C.

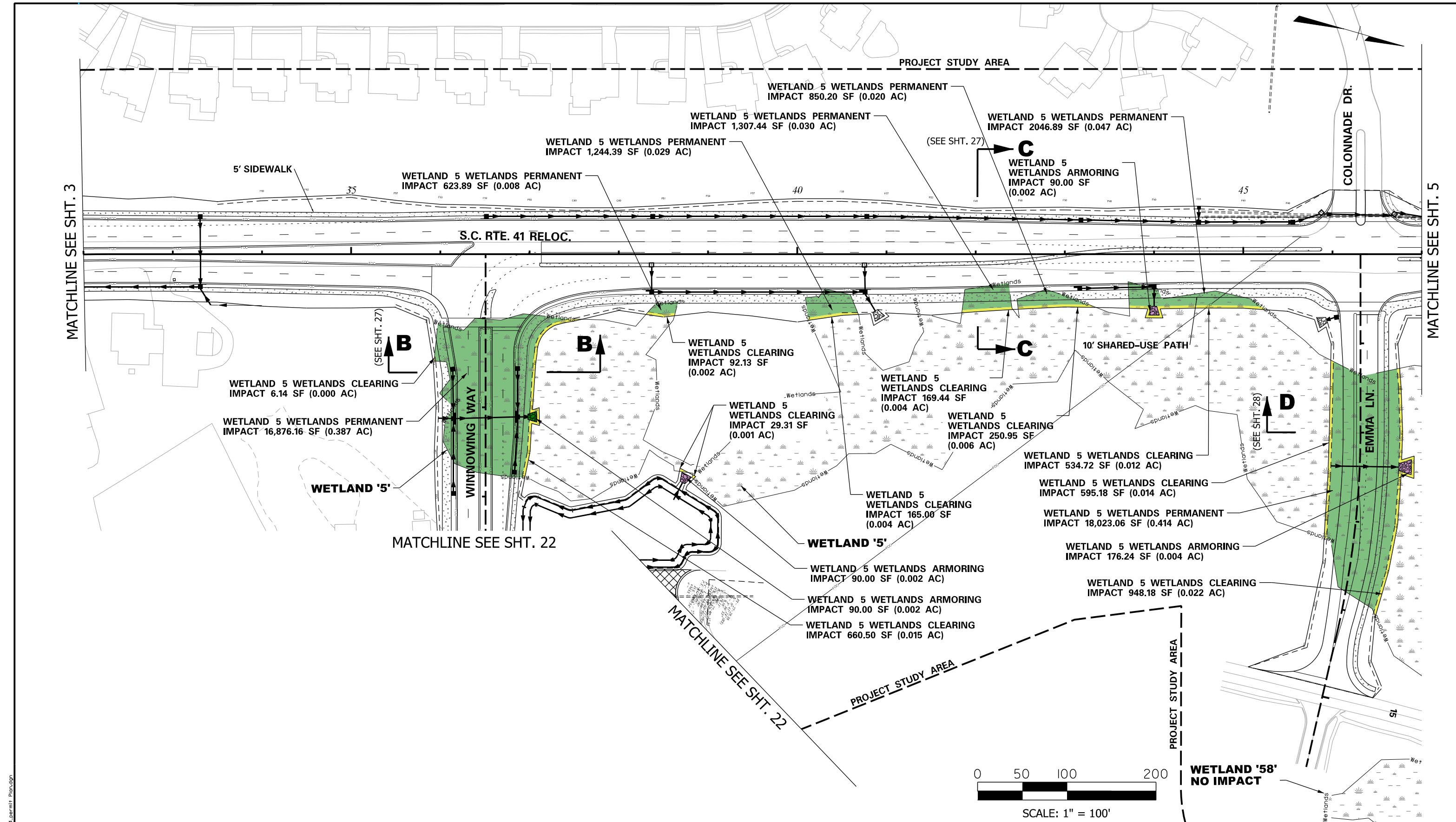
APPLICATION BY CHARLESTON COUNTY, S.C.

March 15, 2023

CHARLESTON
COUNTY
SOUTH CAROLINA

SHEET 3 OF 33

DATE: 3/16/2023
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LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS PIPE IMPACT		NON-WETLAND WATERS BRIDGE CONSTRUCTION ACCESS		
	PERMANENT IMPACT		ROADWAY		
	CLEARING IMPACT				

IMPACTS THIS SHEET

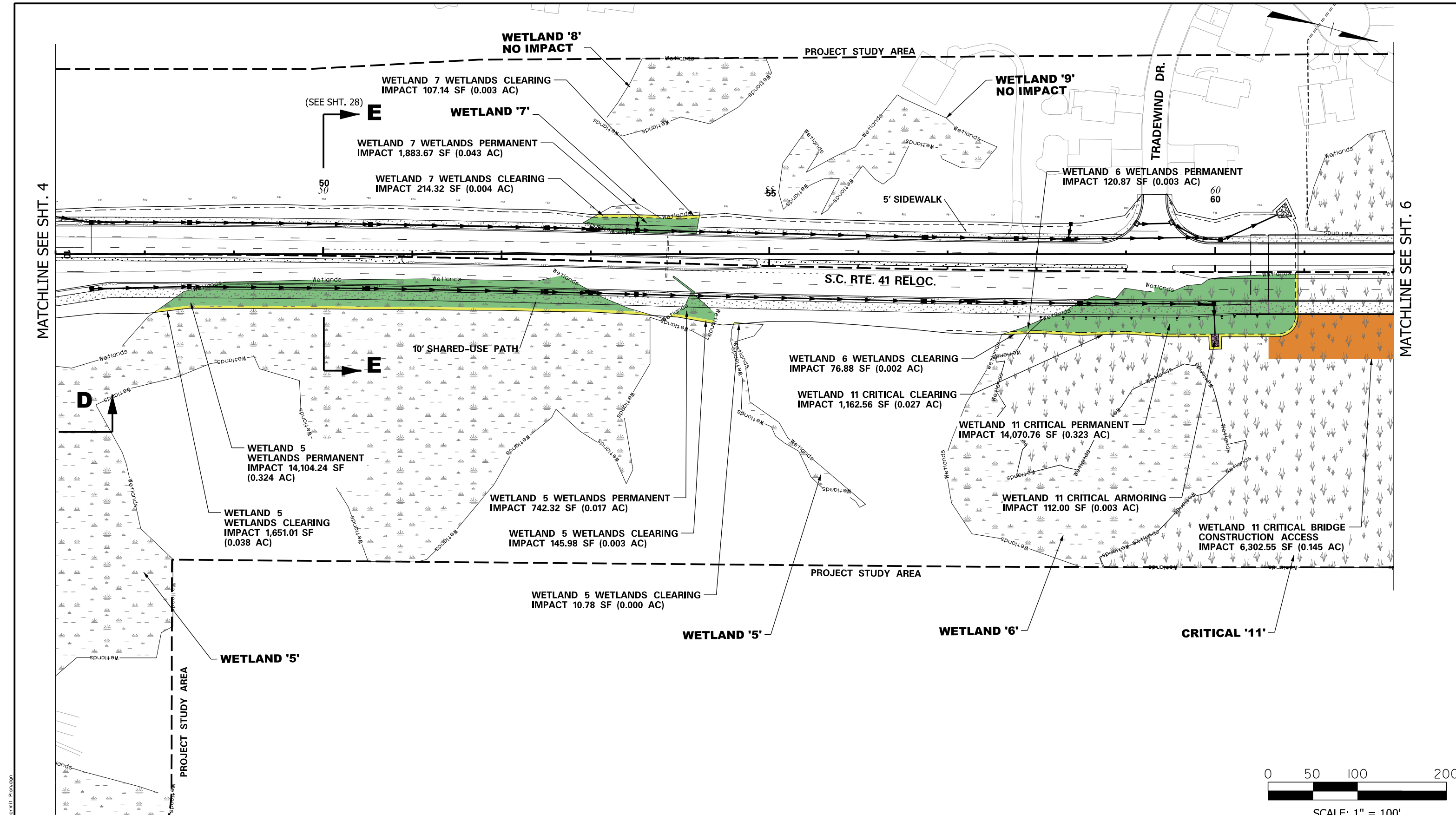
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WETLAND CLEARING IMPACT	= 3,451.55 SF (0.940 AC)
WETLAND ARMORING IMPACTS	= 446.24 SF (0.010 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF



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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023





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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS IMPACT

NON-WETLAND WATERS ARMORING IMPACT

NON-WETLAND WATERS PIPE IMPACT

BRIDGE CONSTRUCTION ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

LEGEND

IMPACTS THIS SHEET

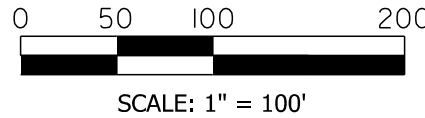
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WETLAND CLEARING IMPACT = 2,206.11 SF (0.051 AC)
WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)
WETLAND PIPE IMPACT = 0 LF
WETLAND CRITICAL PERMANENT IMPACTS = 14,070.76 SF (0.323 AC)
WETLAND CRITICAL CLEARING IMPACT = 1,162.56 SF (0.027 AC)
WETLAND CRITICAL ARMORING IMPACTS = 112.00 SF (0.003 AC)
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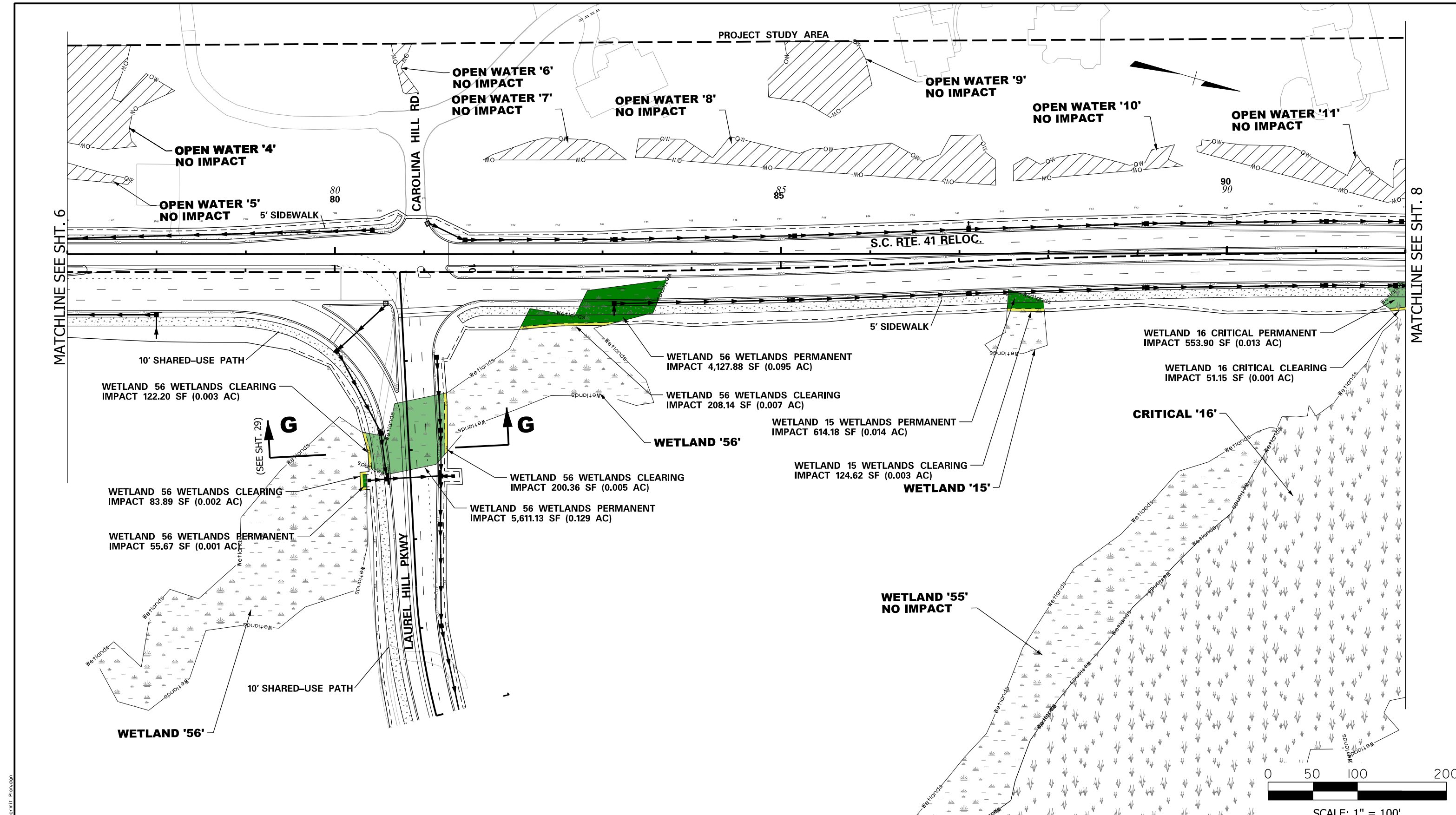
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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023

CHARLESTON
COUNTY
SOUTH CAROLINA

SHEET 5 OF 33





DATE: 3/16/2023
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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS IMPACT

NON-WETLAND WATERS ARMORING IMPACT

NON-WETLAND WATERS PIPE IMPACT

BRIDGE CONSTRUCTION ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

LEGEND

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 10,962.76 SF (0.227 AC)

WETLAND CLEARING IMPACT = 790.36 SF (0.019 AC)

WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)

WETLAND PIPE IMPACT = 0 LF

WETLAND CRITICAL PERMANENT IMPACTS = 489.53 SF (0.011 AC)

WETLAND CRITICAL CLEARING IMPACT = 61.01 SF (0.001 AC)

WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL PIPE IMPACT = 0 LF

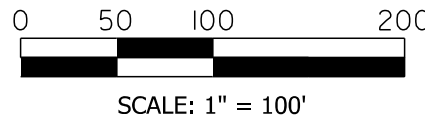
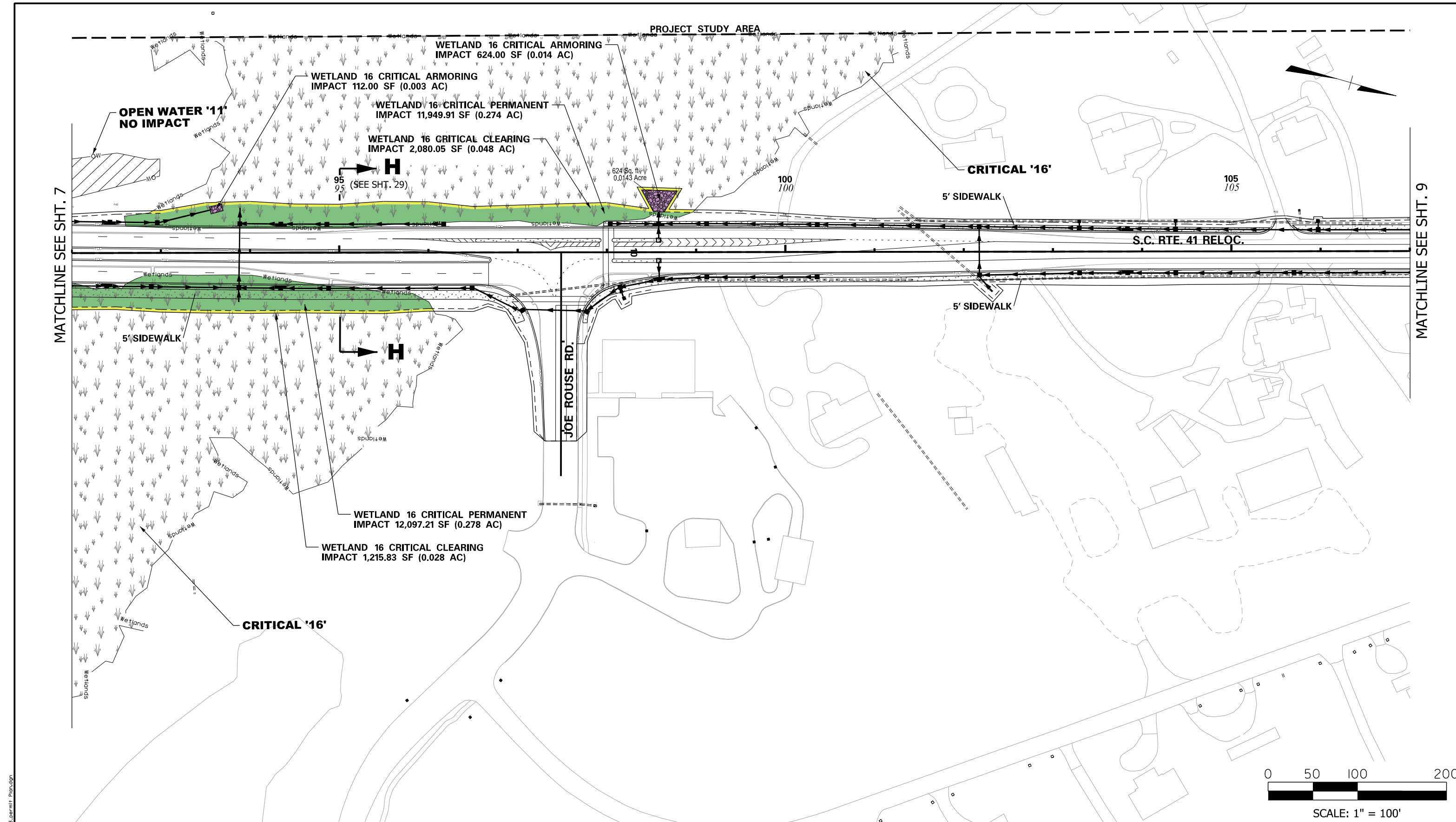
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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023

CHARLESTON COUNTY
SOUTH CAROLINA

SHEET 7 OF 33



LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
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WETLAND CRITICAL CLEARING IMPACT	= 3,295.88 SF (0.076 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 736 SF (0.017 AC)
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WETLAND CRITICAL PIPE IMPACT	= 0 LF



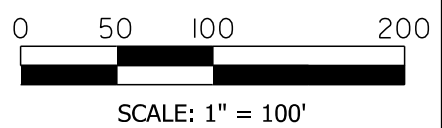
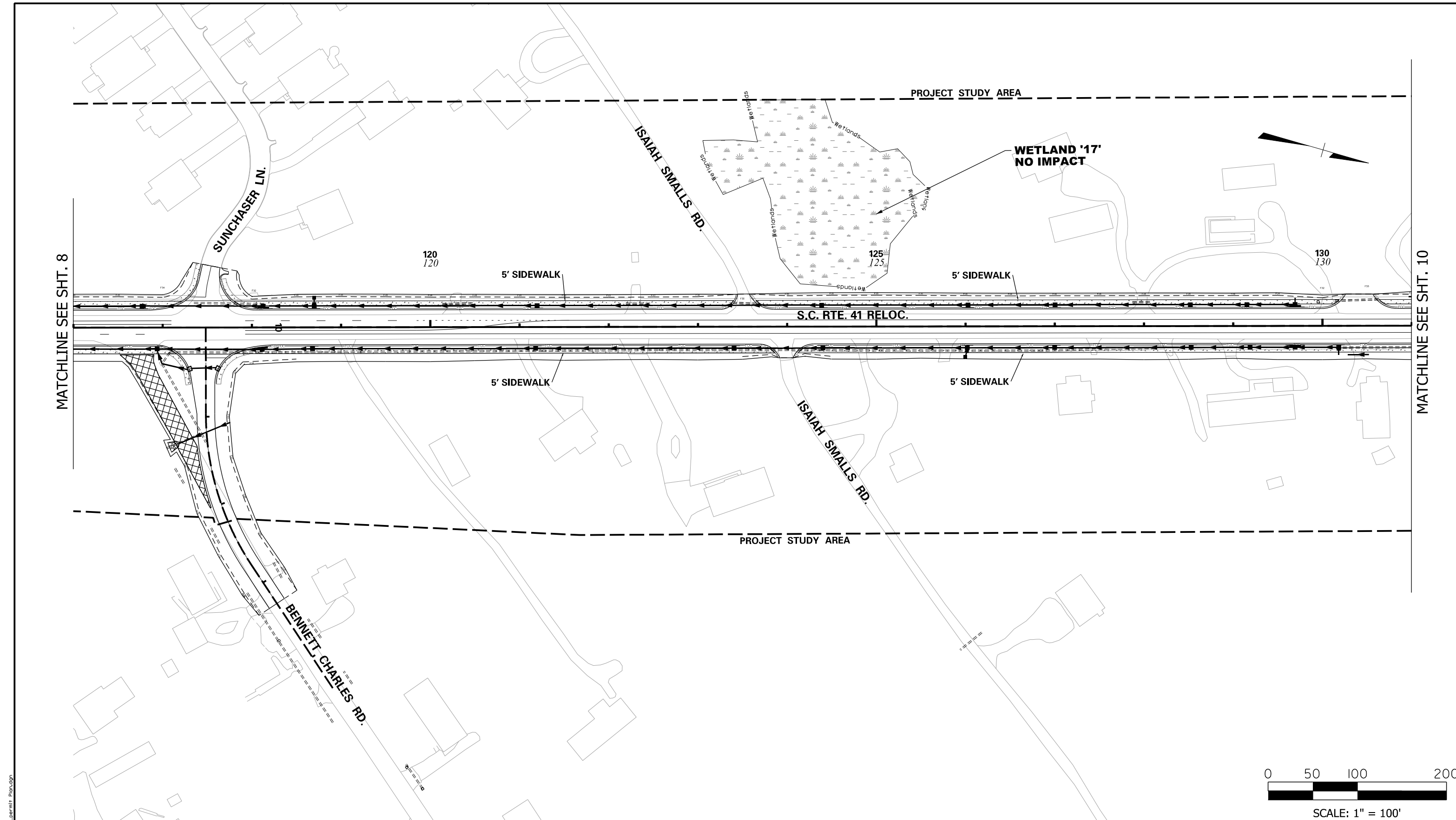
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4400 Leeds Avenue, Suite 450
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CRITICAL STREAM IMPACT = 51.60 LF

S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
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March 15, 2023

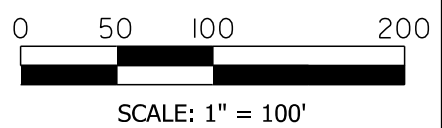
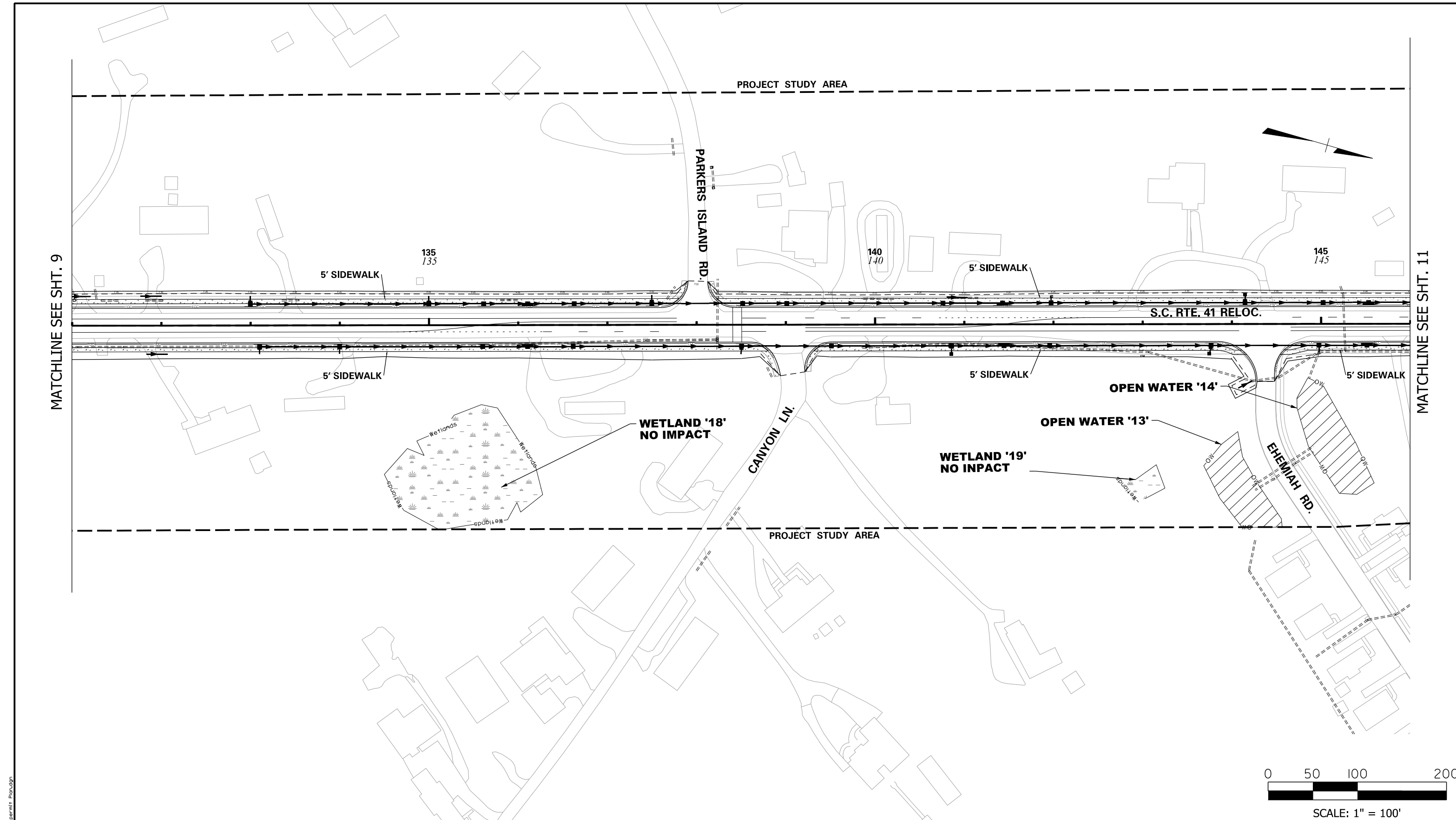


SHEET 8 OF 33



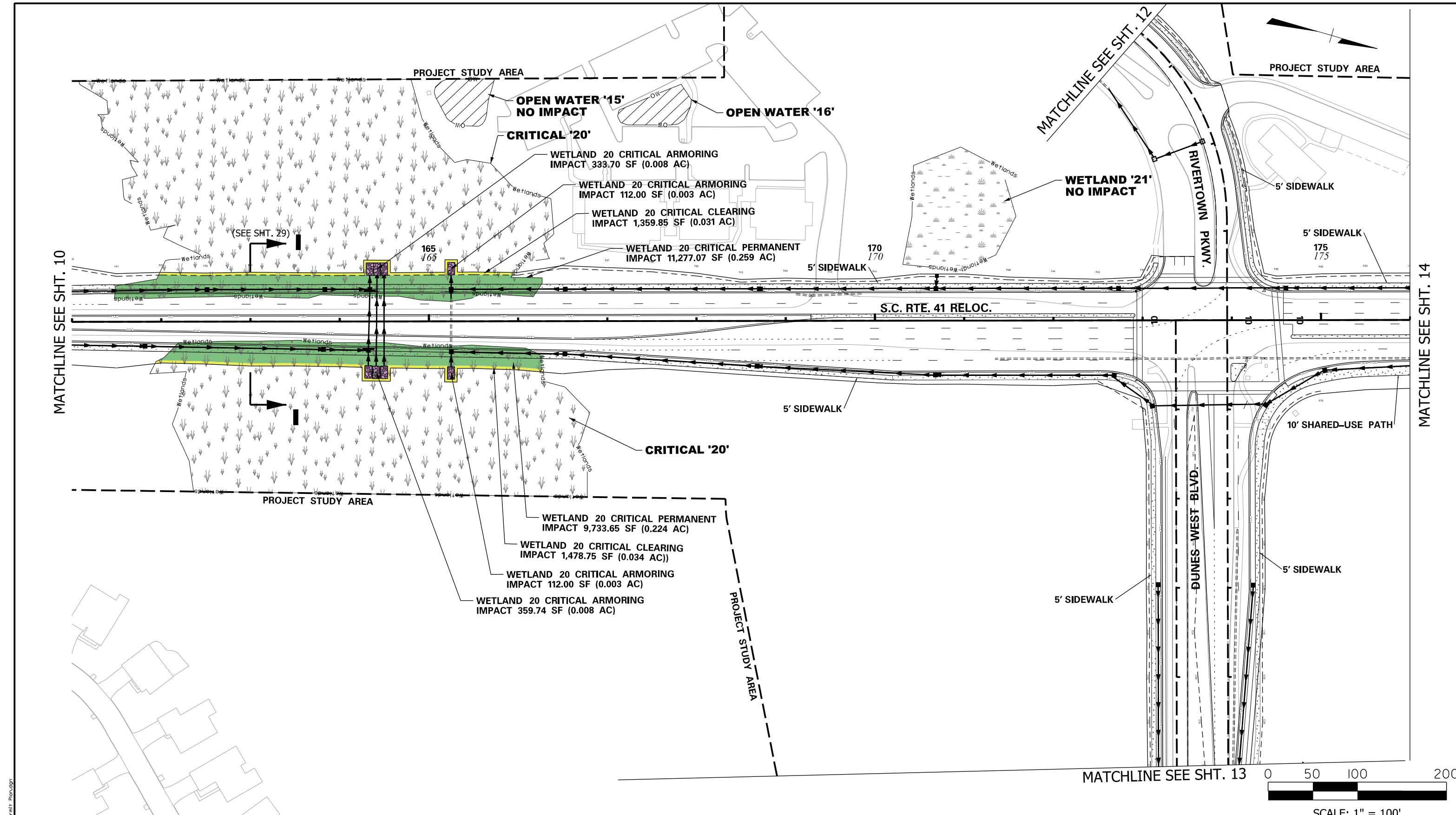
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LEGEND		IMPACTS THIS SHEET	 HDR Engineering Inc. of the Carolinas 4400 Leeds Avenue, Suite 450 North Charleston, SC 29405 843.414.3700	S.C. 41 CORRIDOR IMPROVEMENTS CHARLESTON COUNTY, S.C. APPLICATION BY CHARLESTON COUNTY, S.C. March 15, 2023	 CHARLESTON COUNTY SOUTH CAROLINA
 FRESHWATER WETLAND	 NON-WETLAND WATERS	WETLAND PERMANENT IMPACTS = 0 SF (0.000 AC)			
 CRITICAL WETLAND	 NON-WETLAND WATERS ARMORING IMPACT	WETLAND CLEARING IMPACT = 0 SF (0.000 AC)			
 NON-WETLAND WATERS	 NON-WETLAND WATERS PIPE IMPACT	WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)			
 PERMANENT IMPACT	 BRIDGE CONSTRUCTION ACCESS	WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)			
 CLEARING IMPACT	 ROADWAY	WETLAND PIPE IMPACT = 0 LF			
		WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL PIPE IMPACT = 0 LF			



LEGEND		IMPACTS THIS SHEET	 HDR Engineering Inc. of the Carolinas 4400 Leeds Avenue, Suite 450 North Charleston, SC 29405 843.414.3700	S.C. 41 CORRIDOR IMPROVEMENTS CHARLESTON COUNTY, S.C. APPLICATION BY CHARLESTON COUNTY, S.C. March 15, 2023	 CHARLESTON COUNTY SOUTH CAROLINA
 FRESHWATER WETLAND	 NON-WETLAND WATERS IMPACT	WETLAND PERMANENT IMPACTS = 0 SF (0.000 AC)			
 CRITICAL WETLAND	 NON-WETLAND WATERS ARMORING IMPACT	WETLAND CLEARING IMPACT = 0 SF (0.000 AC)			
 NON-WETLAND WATERS	 NON-WETLAND WATERS PIPE IMPACT	WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)			
 PERMANENT IMPACT	 BRIDGE CONSTRUCTION ACCESS	WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)			
 CLEARING IMPACT	 ROADWAY	WETLAND PIPE IMPACT = 0 LF			
		WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL PIPE IMPACT = 0 LF			

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DATE: 3/16/2023
FILE: c:\pwworking\hdr\projects\2023\2423\SHT. 01_permit- Plan.dgn

FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS
ARMORING IMPACT

NON-WETLAND WATERS
PIPE IMPACT

BRIDGE CONSTRUCTION
ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

IMPACTS THIS SHEET	
WETLAND PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 21,010.72 SF (0.482 AC)
WETLAND CRITICAL CLEARING IMPACT	= 2,838.60 SF (0.065 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 917.44 SF (0.021 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF

HDR Engineering Inc.
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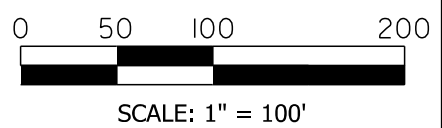
S.C. 41 CORRIDOR IMPROVEMENTS

CHARLESTON COUNTY, S.C.

APPLICATION BY CHARLESTON COUNTY, S.C.

March 15, 2023

SHEET 11 OF 33



LEGEND

- | | | |
|--------------------|------------------------------------|--------------------|
| FRESHWATER WETLAND | NON-WETLAND WATERS IMPACT | PAVEMENT REMOVAL |
| CRITICAL WETLAND | NON-WETLAND WATERS ARMORING IMPACT | PROJECT STUDY AREA |
| NON-WETLAND WATERS | NON-WETLAND WATERS PIPE IMPACT | |
| PERMANENT IMPACT | BRIDGE CONSTRUCTION ACCESS | |
| CLEARING IMPACT | ROADWAY | |

IMPACTS THIS SHEET

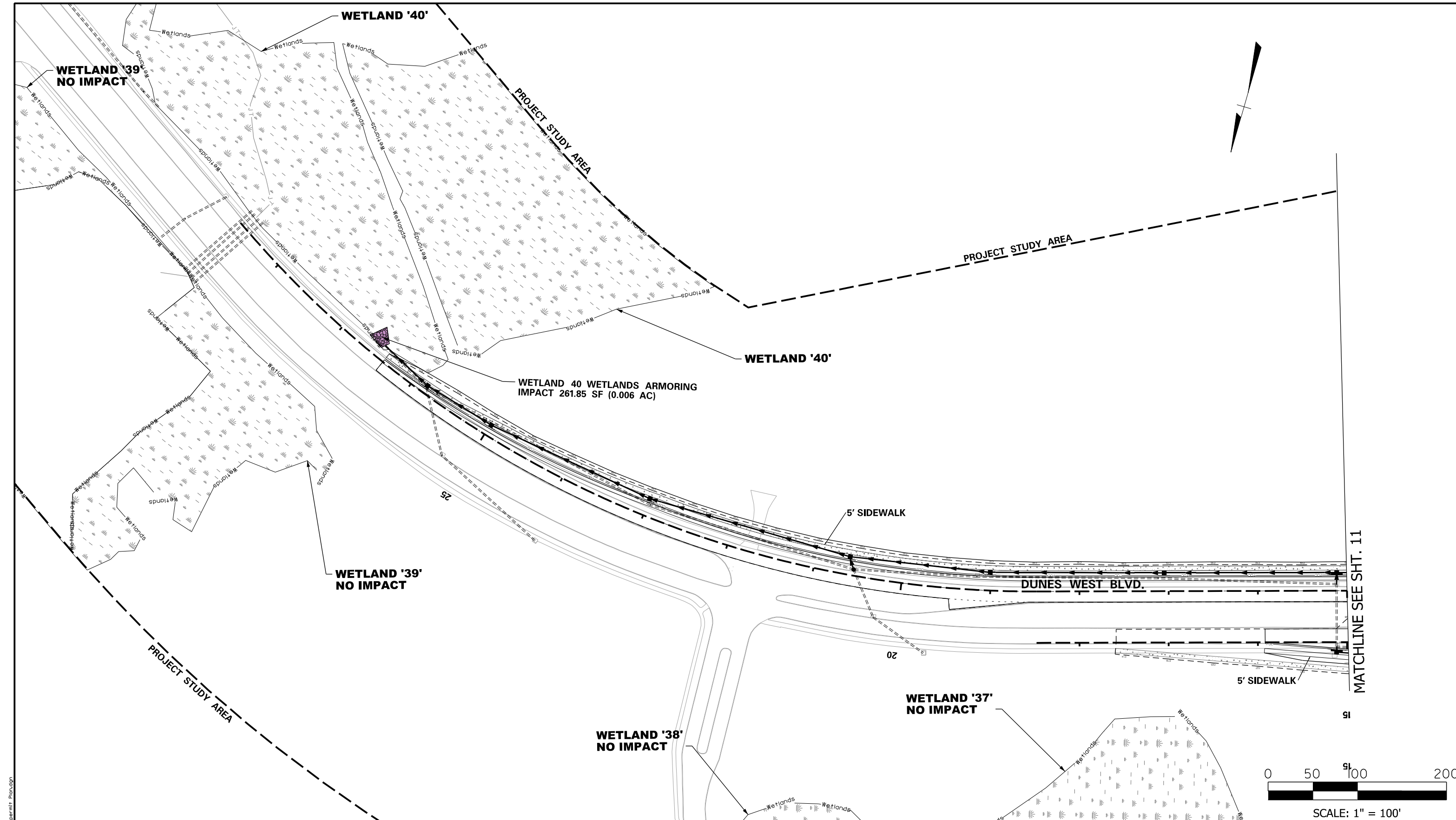
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| WETLAND PERMANENT IMPACTS | = 0 SF (0.000 AC) |
| WETLAND CLEARING IMPACT | = 0 SF (0.000 AC) |
| WETLAND ARMORING IMPACTS | = 88.12 SF (0.002 AC) |
| WETLAND OPEN WATERS IMPACT | = 0 SF (0.000 AC) |
| WETLAND PIPE IMPACT | = 0 LF |
| WETLAND CRITICAL PERMANENT IMPACTS | = 0 SF (0.000 AC) |
| WETLAND CRITICAL CLEARING IMPACT | = 0 SF (0.000 AC) |
| WETLAND CRITICAL ARMORING IMPACTS | = 0 SF (0.000 AC) |
| WETLAND CRITICAL CONST. ACCESS IMPACT | = 0 SF (0.000 AC) |
| WETLAND CRITICAL PIPE IMPACT | = 0 LF |



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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023





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LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

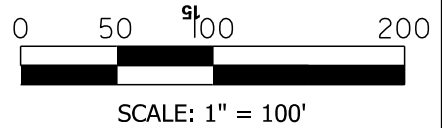
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WETLAND PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND ARMORING IMPACTS	= 261.85 SF (0.006 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF

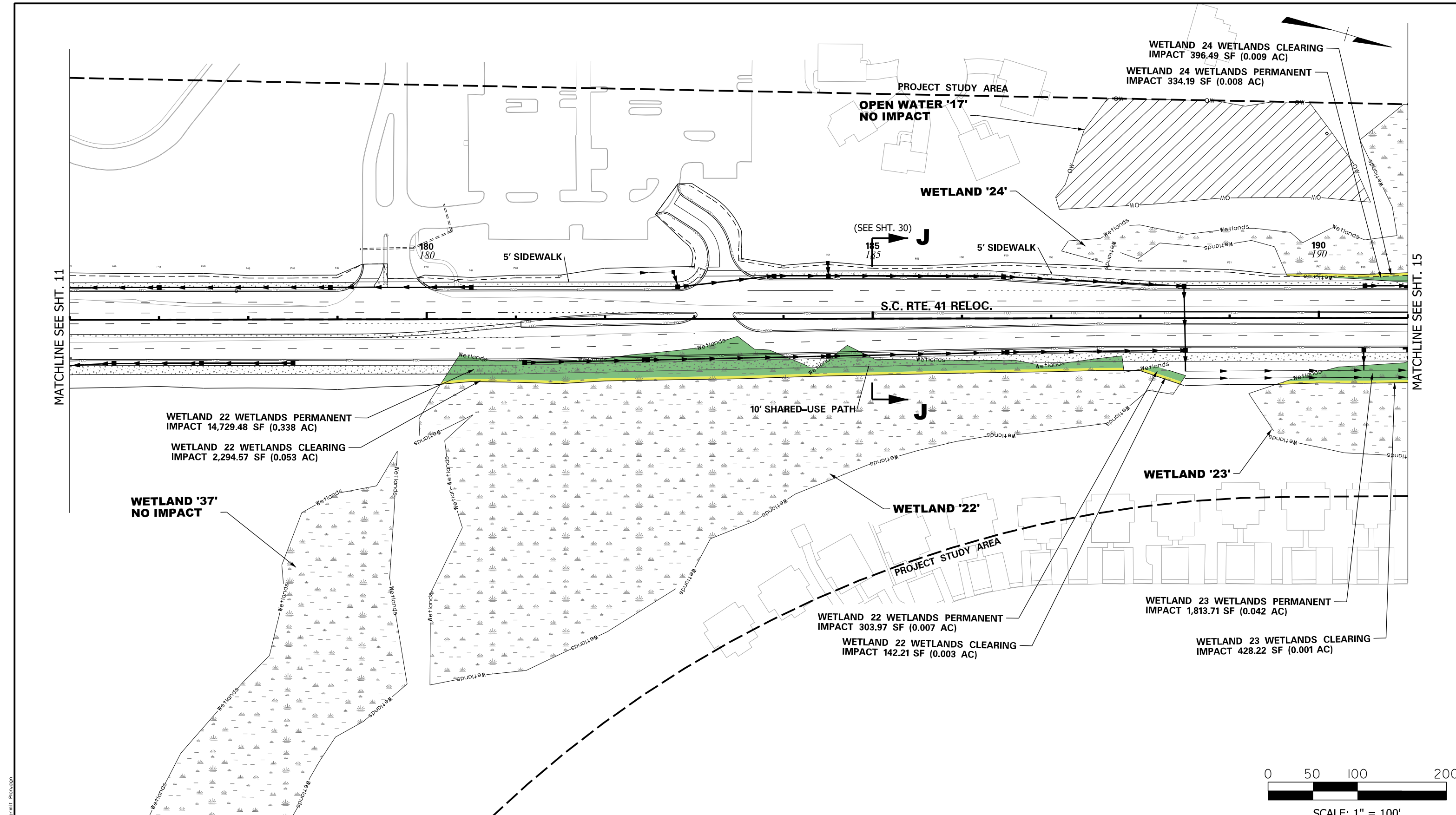
HDR Engineering Inc.
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North Charleston, SC 29405
843.414.3700

S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023

SHEET 13 OF 33





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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS
IMPACT

NON-WETLAND WATERS
ARMORING IMPACT

NON-WETLAND WATERS
PIPE IMPACT

BRIDGE CONSTRUCTION
ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

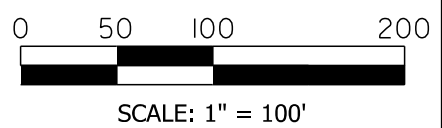
IMPACTS THIS SHEET	
WETLAND PERMANENT IMPACTS	= 17,181.35 SF (0.394 AC)
WETLAND CLEARING IMPACT	= 3,261.49 SF (0.078 AC)
WETLAND ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF

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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023

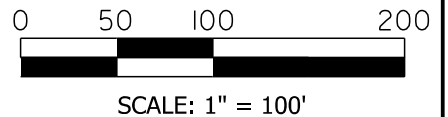
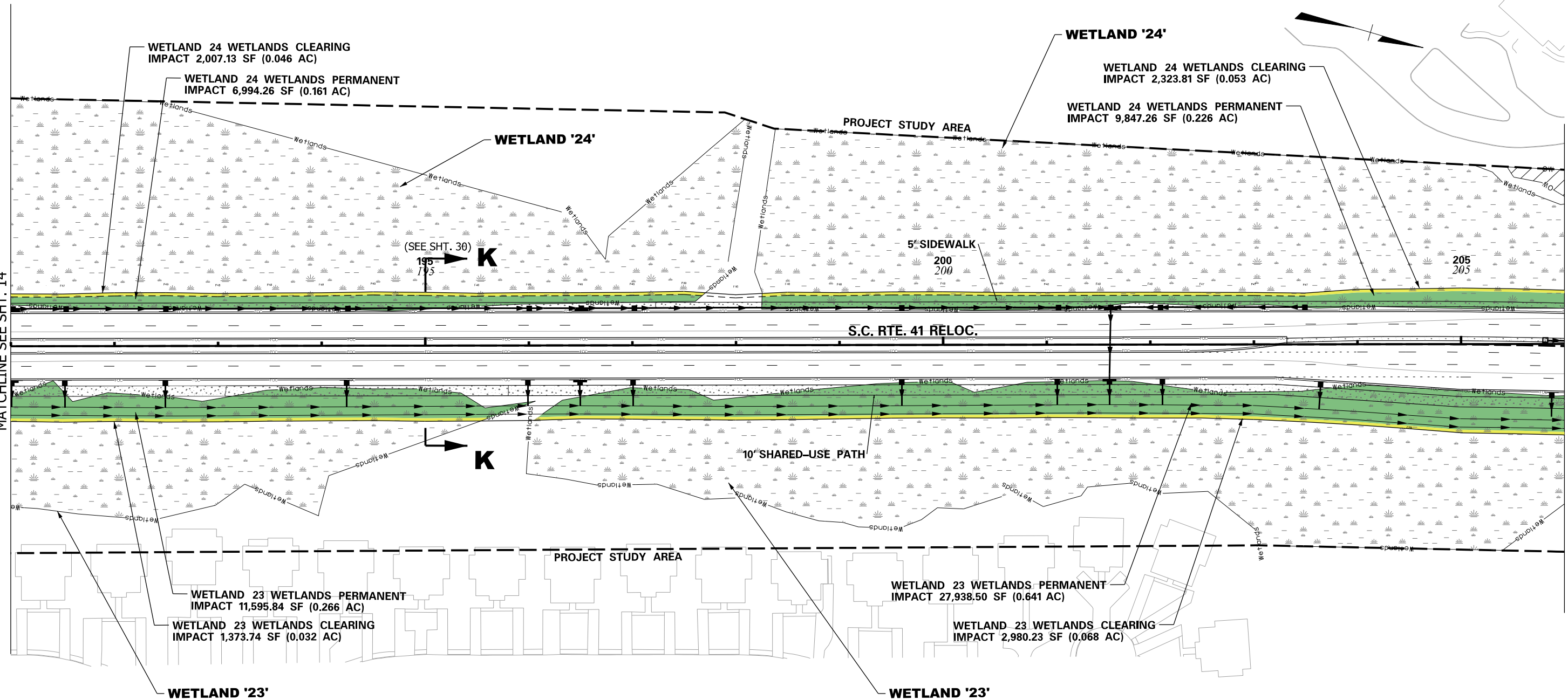
CHARLESTON
COUNTY
SOUTH CAROLINA

SHEET 14 OF 33



MATCHLINE SEE SHT. 14

MATCHLINE SEE SHT. 16



LEGEND

- | | | |
|--------------------|------------------------------------|--------------------|
| FRESHWATER WETLAND | NON-WETLAND WATERS | PAVEMENT REMOVAL |
| CRITICAL WETLAND | NON-WETLAND WATERS ARMORING IMPACT | PROJECT STUDY AREA |
| NON-WETLAND WATERS | NON-WETLAND WATERS PIPE IMPACT | |
| PERMANENT IMPACT | BRIDGE CONSTRUCTION ACCESS | |
| CLEARING IMPACT | ROADWAY | |

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 56,375.86 SF (1.294 AC)
WETLAND CLEARING IMPACT = 8,684.91 SF (0.199 AC)
WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)
WETLAND PIPE IMPACT = 0 LF
WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT = 0 LF

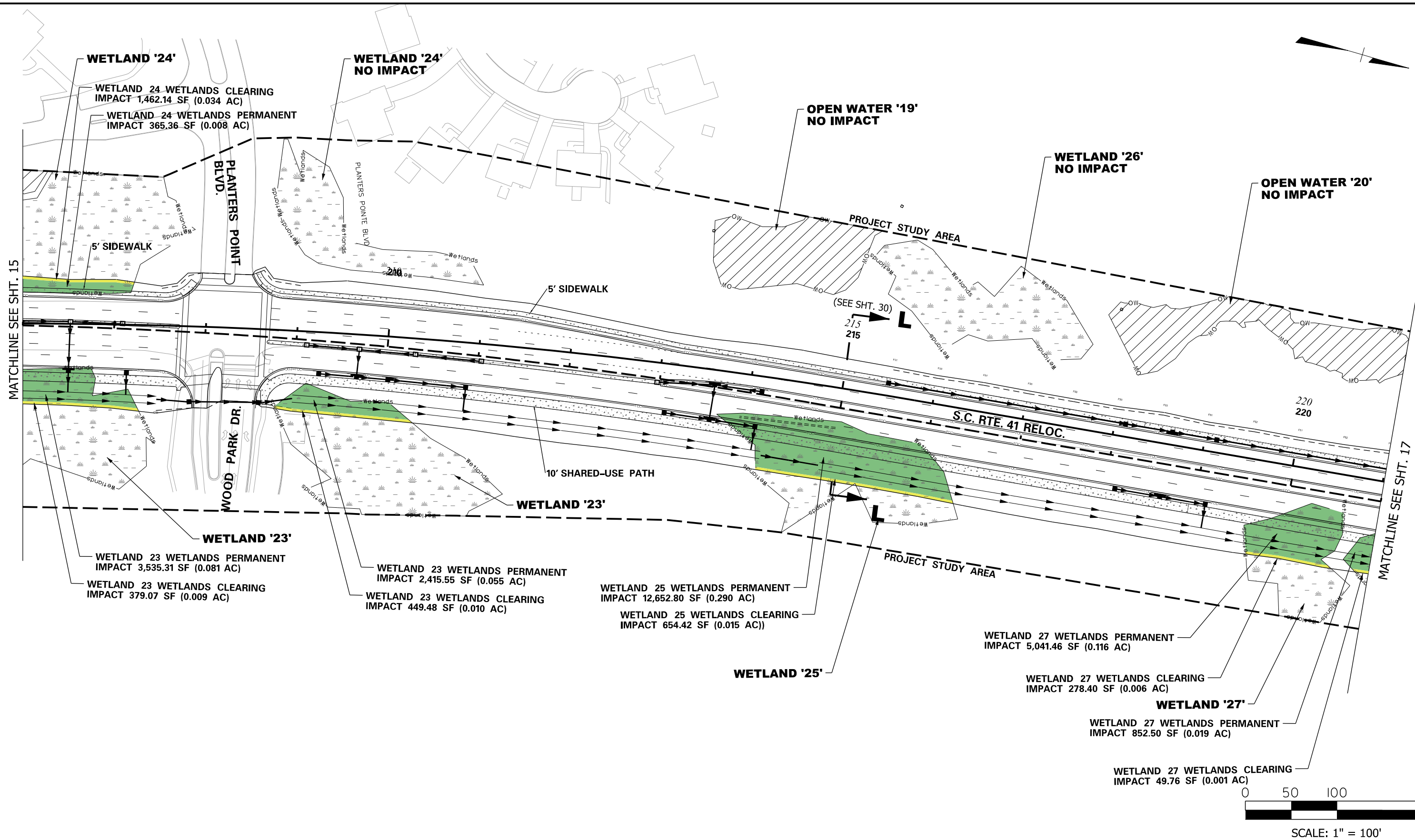


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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023



SHEET 15 OF 33



DATE: 3/16/2023
FILE: c:\pwworking\hdr\projects\423\423_SHT_06.dgn

LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

IMPACTS THIS SHEET	
WETLAND PERMANENT IMPACTS	= 24,862.98 SF (0.571 AC)
WETLAND CLEARING IMPACT	= 3,273.27 SF (0.078 AC)
WETLAND ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF



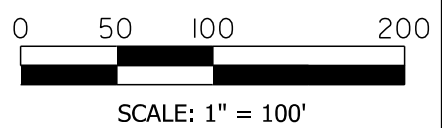
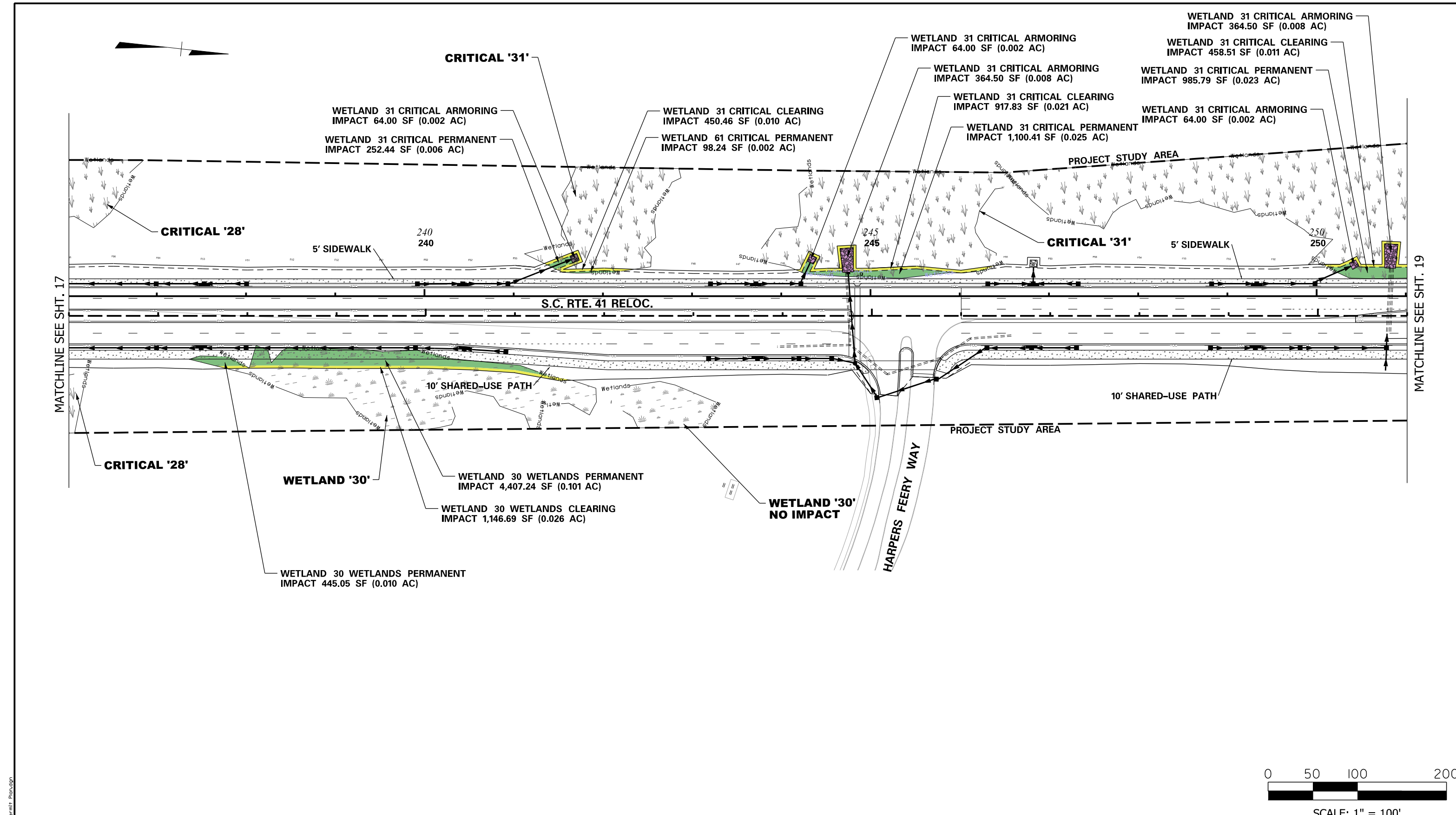
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North Charleston, SC 29405
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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023



CHARLESTON
COUNTY
SOUTH CAROLINA

SHEET 16 OF 33



LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 4,852.29 SF (0.111 AC)
WETLAND CLEARING IMPACT = 1,146.69 SF (0.026 AC)
WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)
WETLAND PIPE IMPACT = 0 LF
WETLAND CRITICAL PERMANENT IMPACTS = 2,436.88 SF (0.056 AC)
WETLAND CRITICAL CLEARING IMPACT = 1,826.80 SF (0.419 AC)
WETLAND CRITICAL ARMORING IMPACTS = 921 SF (0.021 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT = 0 LF

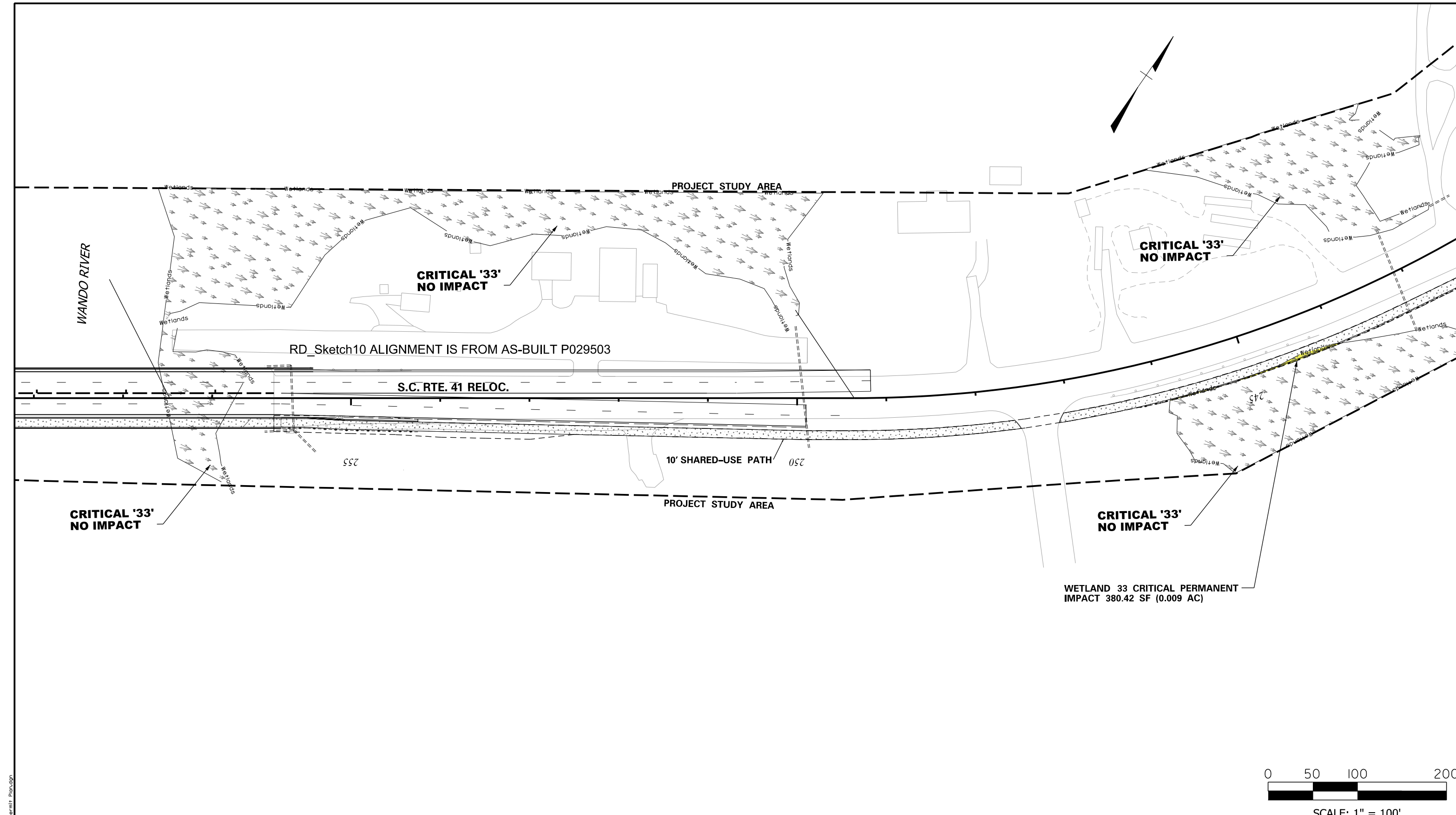
HDR HDR Engineering Inc. of the Carolinas
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North Charleston, SC 29405
843.414.3700

S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023

CHARLESTON COUNTY
SOUTH CAROLINA

SHEET 18 OF 33

DATE: 3/16/2023
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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS IMPACT

NON-WETLAND WATERS ARMORING IMPACT

NON-WETLAND WATERS PIPE IMPACT

BRIDGE CONSTRUCTION ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 0 SF (0.000 AC)

WETLAND CLEARING IMPACT = 0 SF (0.000 AC)

WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)

WETLAND PIPE IMPACT = 0 LF

WETLAND CRITICAL PERMANENT IMPACTS = 380.42 SF (0.009 AC)

WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL PIPE IMPACT = 0 LF

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S.C. 41 CORRIDOR IMPROVEMENTS

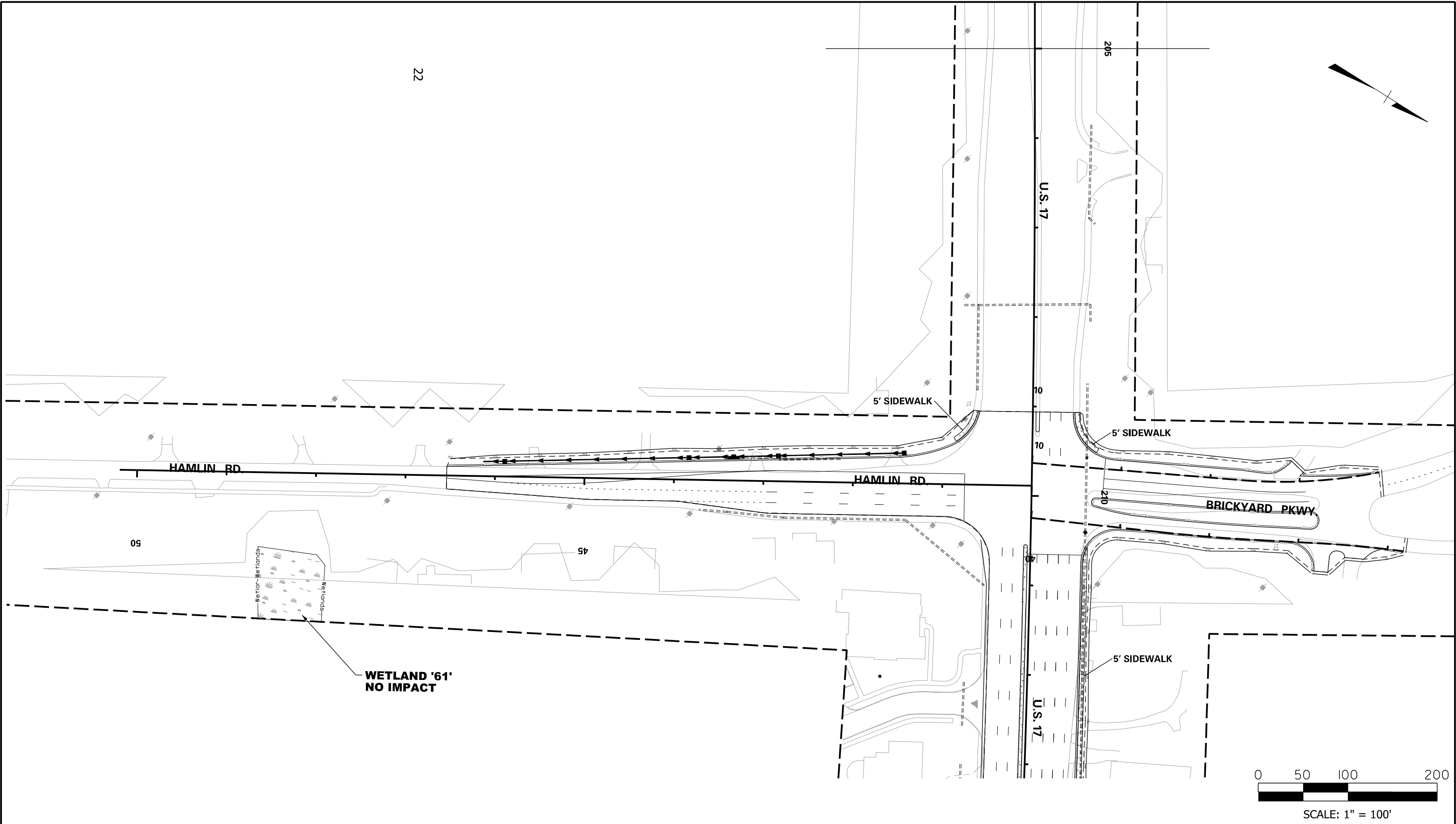
CHARLESTON COUNTY, S.C.

APPLICATION BY CHARLESTON COUNTY, S.C.

March 15, 2023

CHARLESTON COUNTY
SOUTH CAROLINA

SHEET 20 OF 33



LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

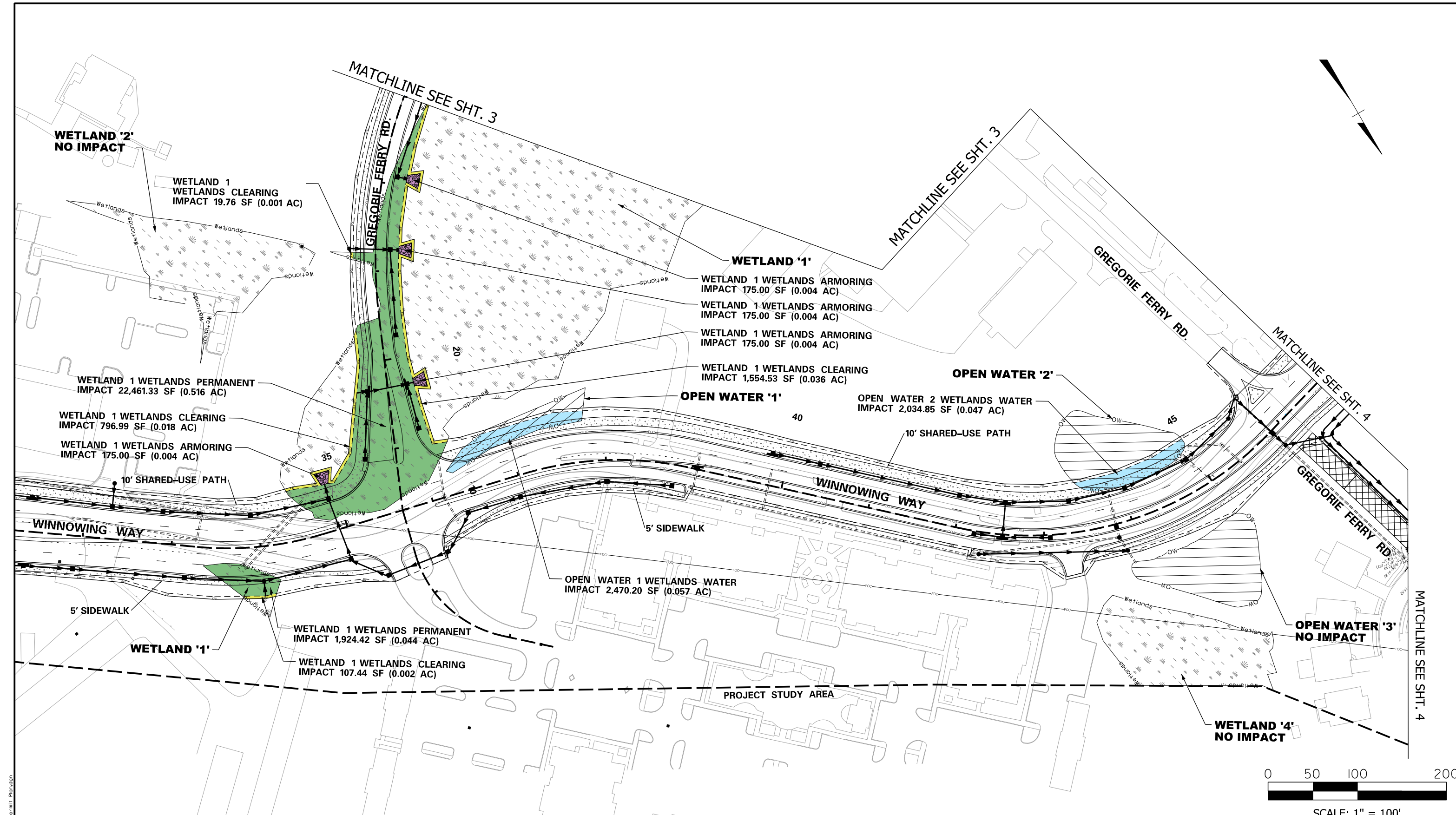
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WETLAND PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND OPEN WATERS IMPACT	= 0 SF (0.000 AC)
WETLAND PIPE IMPACT	= 0 LF
WETLAND CRITICAL PERMANENT IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS	= 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT	= 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT	= 0 LF

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S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
March 15, 2023





LEGEND

	FRESHWATER WETLAND		NON-WETLAND WATERS		PAVEMENT REMOVAL
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT		
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS		
	CLEARING IMPACT		ROADWAY		

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 24,385.75 SF (0.550 AC)

WETLAND CLEARING IMPACT = 2,478.71 SF (0.057 AC)

WETLAND ARMORING IMPACTS = 700.00 SF (0.016 AC)

WETLAND OPEN WATERS IMPACT = 4,505.05 SF (0.103 AC)

WETLAND PIPE IMPACT = 0 LF

WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL PIPE IMPACT = 0 LF

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S.C. 41 CORRIDOR IMPROVEMENTS

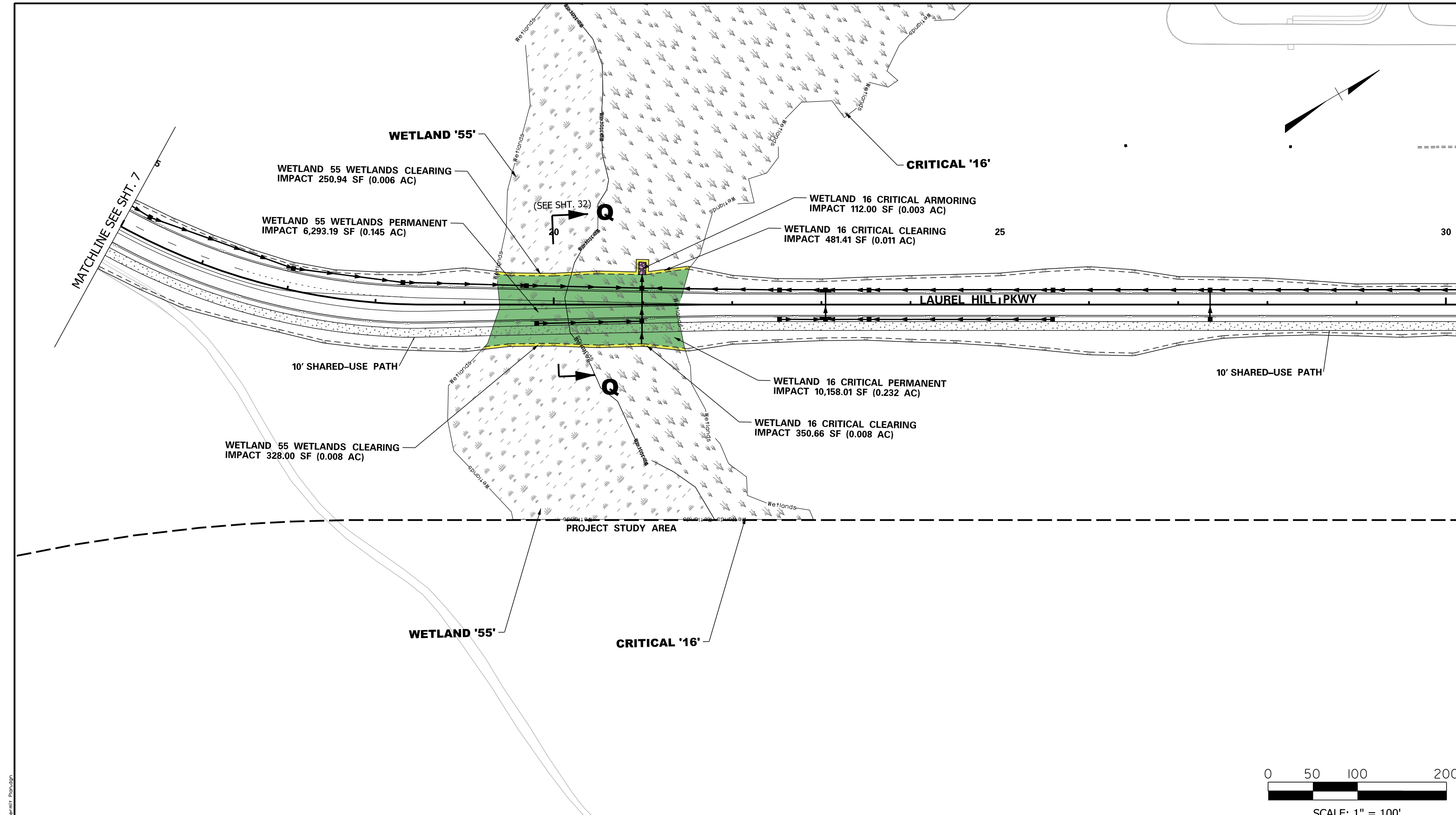
CHARLESTON COUNTY, S.C.

APPLICATION BY CHARLESTON COUNTY, S.C.

March 15, 2023

SHEET 22 OF 33

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DATE: 3/16/2023
FILE: c:\pwworking\hdr\projects\2023\2312\2312023\2312023.dwg
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FRESHWATER WETLAND

CRITICAL WETLAND

NON-WETLAND WATERS

PERMANENT IMPACT

CLEARING IMPACT

NON-WETLAND WATERS IMPACT

NON-WETLAND WATERS ARMORING IMPACT

NON-WETLAND WATERS PIPE IMPACT

BRIDGE CONSTRUCTION ACCESS

ROADWAY

PAVEMENT REMOVAL

PROJECT STUDY AREA

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 6,293.19 SF (0.145 AC)

WETLAND CLEARING IMPACT = 578.94 SF (0.013 AC)

WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)

WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)

WETLAND PIPE IMPACT = 0 LF

WETLAND CRITICAL PERMANENT IMPACTS = 10,158.01 SF (0.232 AC)

WETLAND CRITICAL CLEARING IMPACT = 832.07 SF (0.019 AC)

WETLAND CRITICAL ARMORING IMPACTS = 112 SF (0.003 AC)

WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)

WETLAND CRITICAL PIPE IMPACT = 0 LF

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S.C. 41 CORRIDOR IMPROVEMENTS

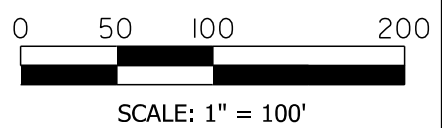
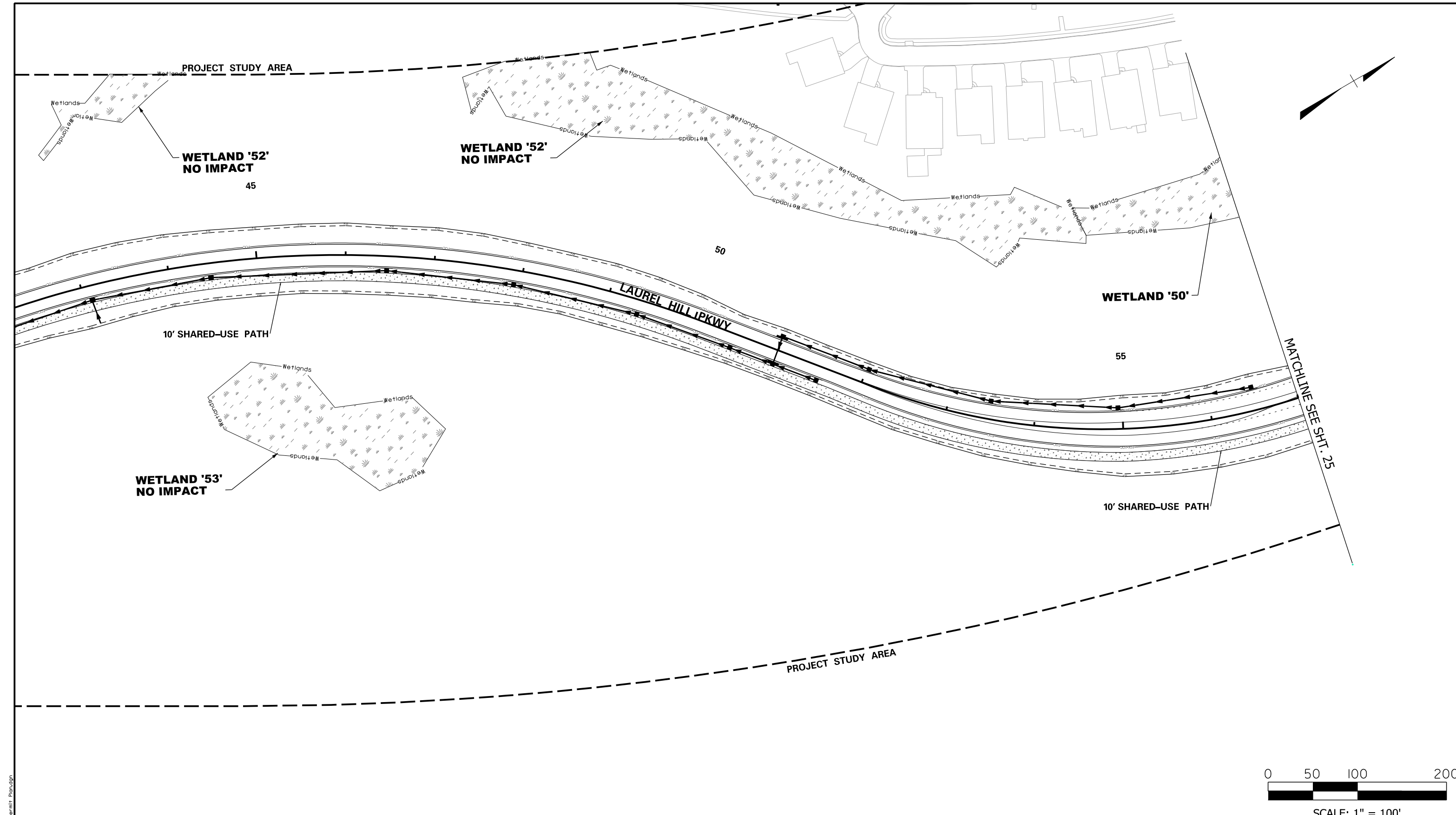
CHARLESTON COUNTY, S.C.

APPLICATION BY CHARLESTON COUNTY, S.C.

March 15, 2023

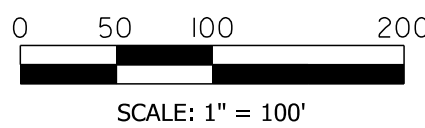
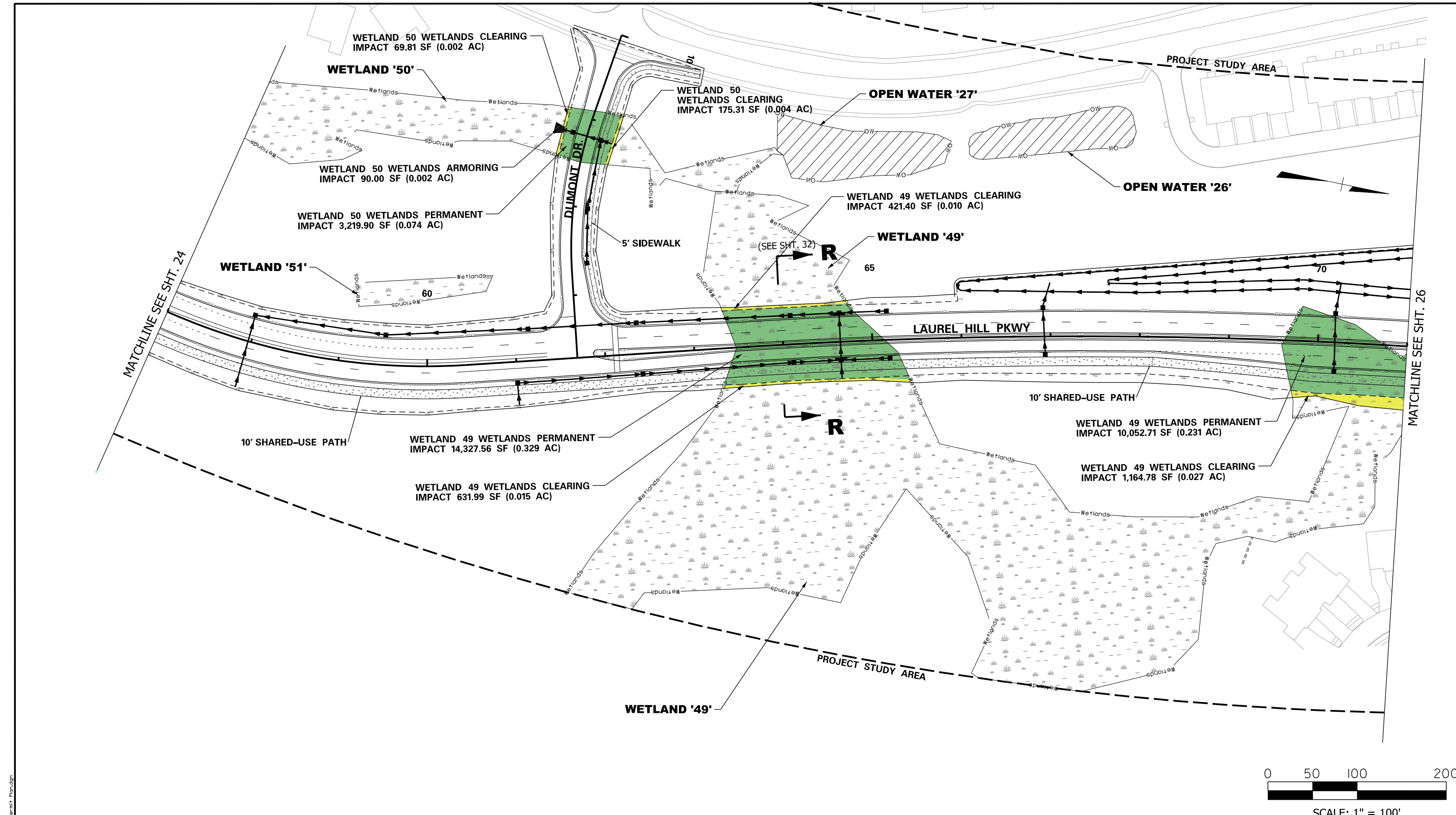
CHARLESTON COUNTY
SOUTH CAROLINA

SHEET 23 OF 33



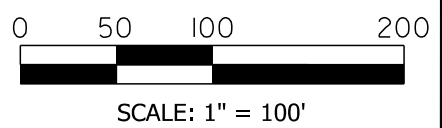
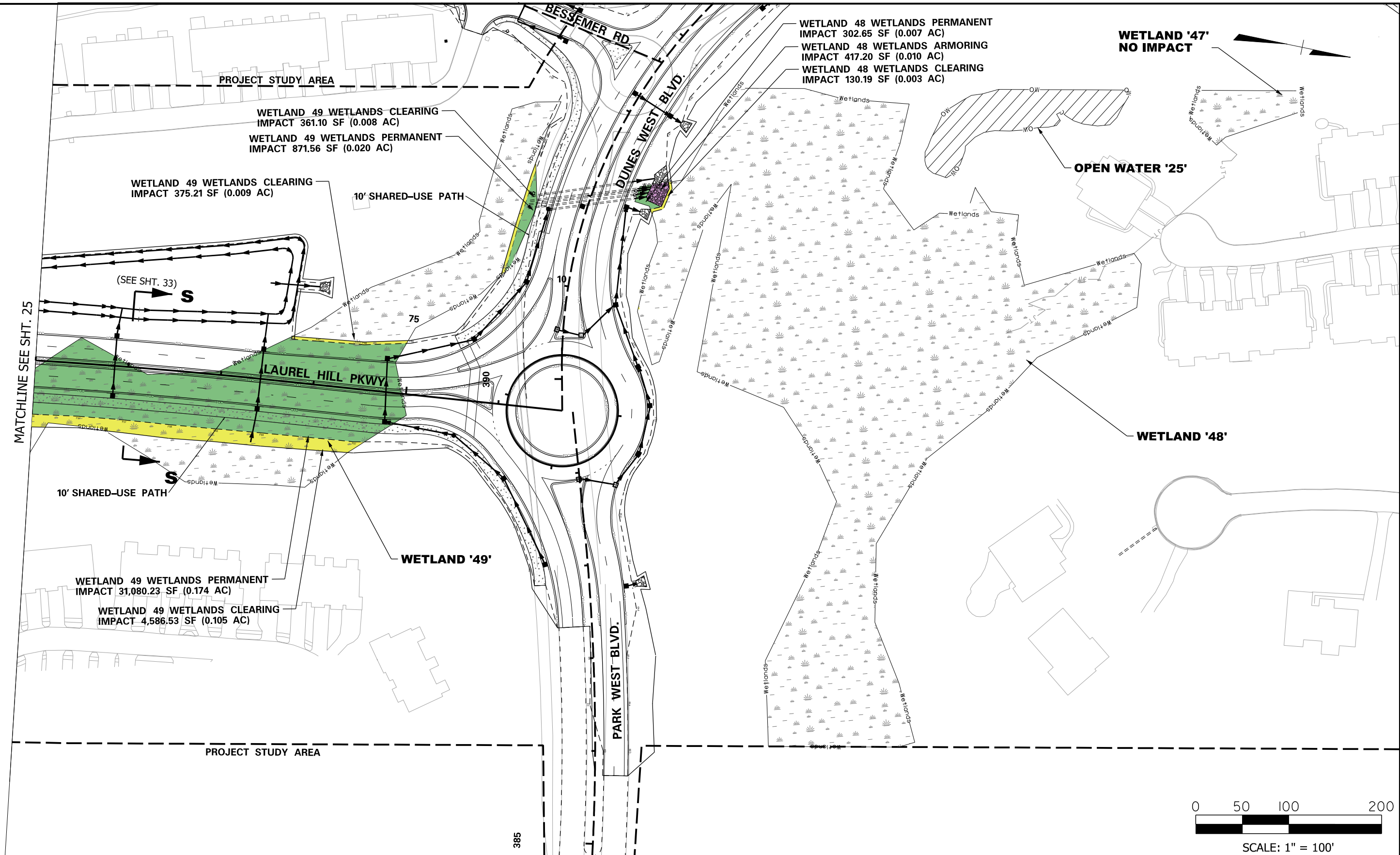
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LEGEND		IMPACTS THIS SHEET	 HDR Engineering Inc. of the Carolinas 4400 Leeds Avenue, Suite 450 North Charleston, SC 29405 843.414.3700	S.C. 41 CORRIDOR IMPROVEMENTS CHARLESTON COUNTY, S.C. APPLICATION BY CHARLESTON COUNTY, S.C. March 15, 2023	 CHARLESTON COUNTY SOUTH CAROLINA
 FRESHWATER WETLAND	 NON-WETLAND WATERS IMPACT	WETLAND PERMANENT IMPACTS = 0 SF (0.000 AC)			
 CRITICAL WETLAND	 NON-WETLAND WATERS ARMORING IMPACT	WETLAND CLEARING IMPACT = 0 SF (0.000 AC)			
 NON-WETLAND WATERS	 NON-WETLAND WATERS PIPE IMPACT	WETLAND ARMORING IMPACTS = 0 SF (0.000 AC)			
 PERMANENT IMPACT	 BRIDGE CONSTRUCTION ACCESS	WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)			
 CLEARING IMPACT	 ROADWAY	WETLAND PIPE IMPACT = 0 LF			
	 PROJECT STUDY AREA	WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)			
		WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)			
		WETLAND CRITICAL PIPE IMPACT = 0 LF			



LEGEND <table border="0"><tr><td></td><td>FRESHWATER WETLAND</td><td></td><td>NON-WETLAND WATERS IMPACT</td><td></td><td>PAVEMENT REMOVAL</td></tr><tr><td></td><td>CRITICAL WETLAND</td><td></td><td>NON-WETLAND WATERS ARMORING IMPACT</td><td></td><td>PROJECT STUDY AREA</td></tr><tr><td></td><td>NON-WETLAND WATERS</td><td></td><td>NON-WETLAND WATERS PIPE IMPACT</td><td></td><td></td></tr><tr><td></td><td>PERMANENT IMPACT</td><td></td><td>BRIDGE CONSTRUCTION ACCESS</td><td></td><td></td></tr><tr><td></td><td>CLEARING IMPACT</td><td></td><td>ROADWAY</td><td></td><td></td></tr></table>		FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL		CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA		NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT				PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS				CLEARING IMPACT		ROADWAY			IMPACTS THIS SHEET WETLAND PERMANENT IMPACTS = 27,600.17 SF (0.634 AC) WETLAND CLEARING IMPACT = 2,463.29 SF (0.058 AC) WETLAND ARMORING IMPACTS = 90.00 SF (0.002 AC) WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC) WETLAND PIPE IMPACT = 0 LF WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC) WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC) WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC) WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC) WETLAND CRITICAL PIPE IMPACT = 0 LF	S.C. 41 CORRIDOR IMPROVEMENTS CHARLESTON COUNTY, S.C. APPLICATION BY CHARLESTON COUNTY, S.C. March 15, 2023	 CHARLESTON COUNTY SOUTH CAROLINA SHEET 25 OF 33
	FRESHWATER WETLAND		NON-WETLAND WATERS IMPACT		PAVEMENT REMOVAL																												
	CRITICAL WETLAND		NON-WETLAND WATERS ARMORING IMPACT		PROJECT STUDY AREA																												
	NON-WETLAND WATERS		NON-WETLAND WATERS PIPE IMPACT																														
	PERMANENT IMPACT		BRIDGE CONSTRUCTION ACCESS																														
	CLEARING IMPACT		ROADWAY																														

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LEGEND

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|--------------------------------|------------------------------------|--------------------|
| FRESHWATER WETLAND | NON-WETLAND WATERS | PAVEMENT REMOVAL |
| CRITICAL WETLAND | NON-WETLAND WATERS ARMORING IMPACT | PROJECT STUDY AREA |
| NON-WETLAND WATERS PIPE IMPACT | BRIDGE CONSTRUCTION ACCESS | |
| PERMANENT IMPACT | ROADWAY | |
| CLEARING IMPACT 27 | | |

IMPACTS THIS SHEET

WETLAND PERMANENT IMPACTS = 32,254.44 SF (0.201 AC)
WETLAND CLEARING IMPACT = 5,456.03 SF (0.125 AC)
WETLAND ARMORING IMPACTS = 417.20 SF (0.010 AC)
WETLAND OPEN WATERS IMPACT = 0 SF (0.000 AC)
WETLAND PIPE IMPACT = 0 LF
WETLAND CRITICAL PERMANENT IMPACTS = 0 SF (0.000 AC)
WETLAND CRITICAL CLEARING IMPACT = 0 SF (0.000 AC)
WETLAND CRITICAL ARMORING IMPACTS = 0 SF (0.000 AC)
WETLAND CRITICAL CONST. ACCESS IMPACT = 0 SF (0.000 AC)
WETLAND CRITICAL PIPE IMPACT = 0 LF

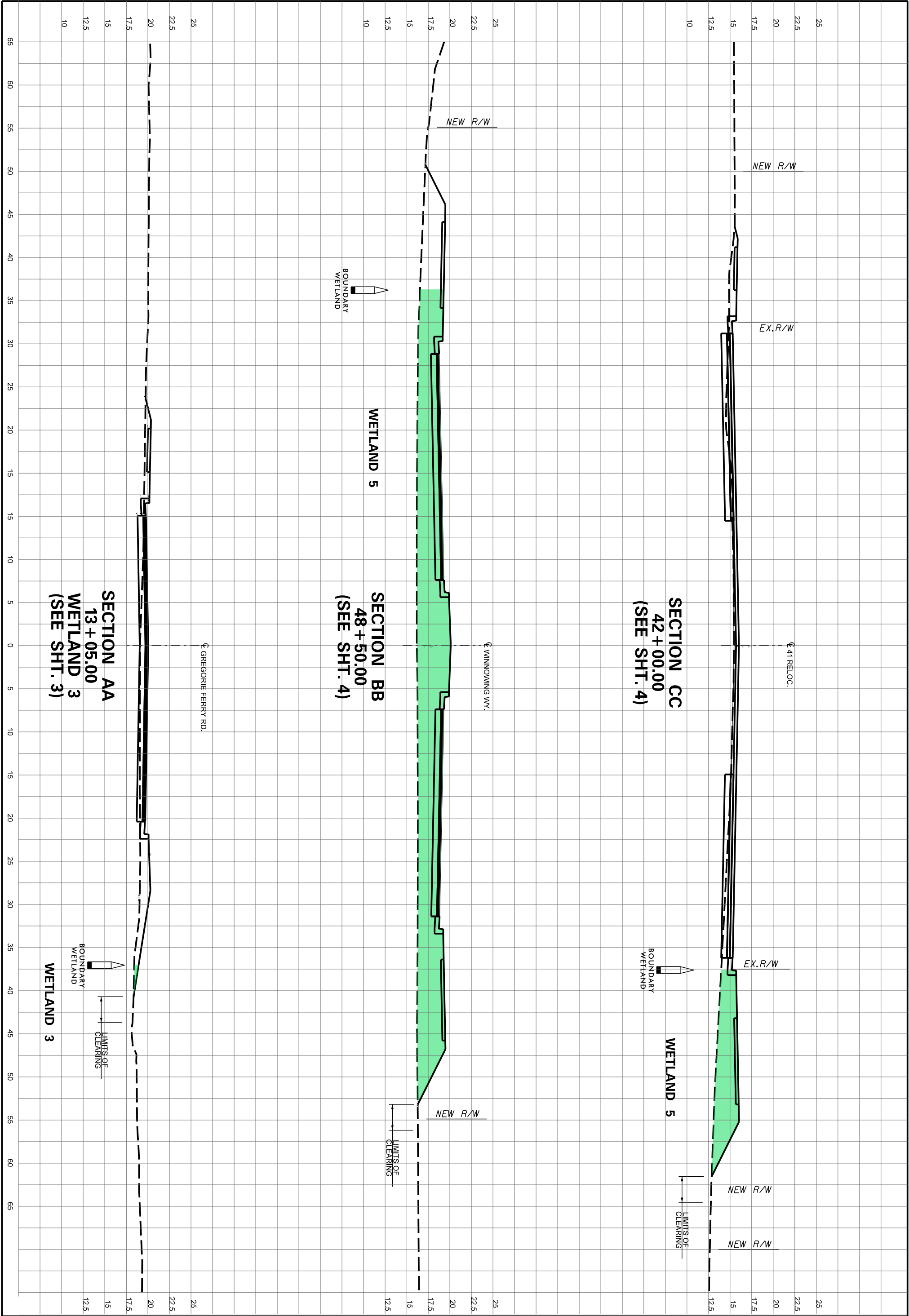


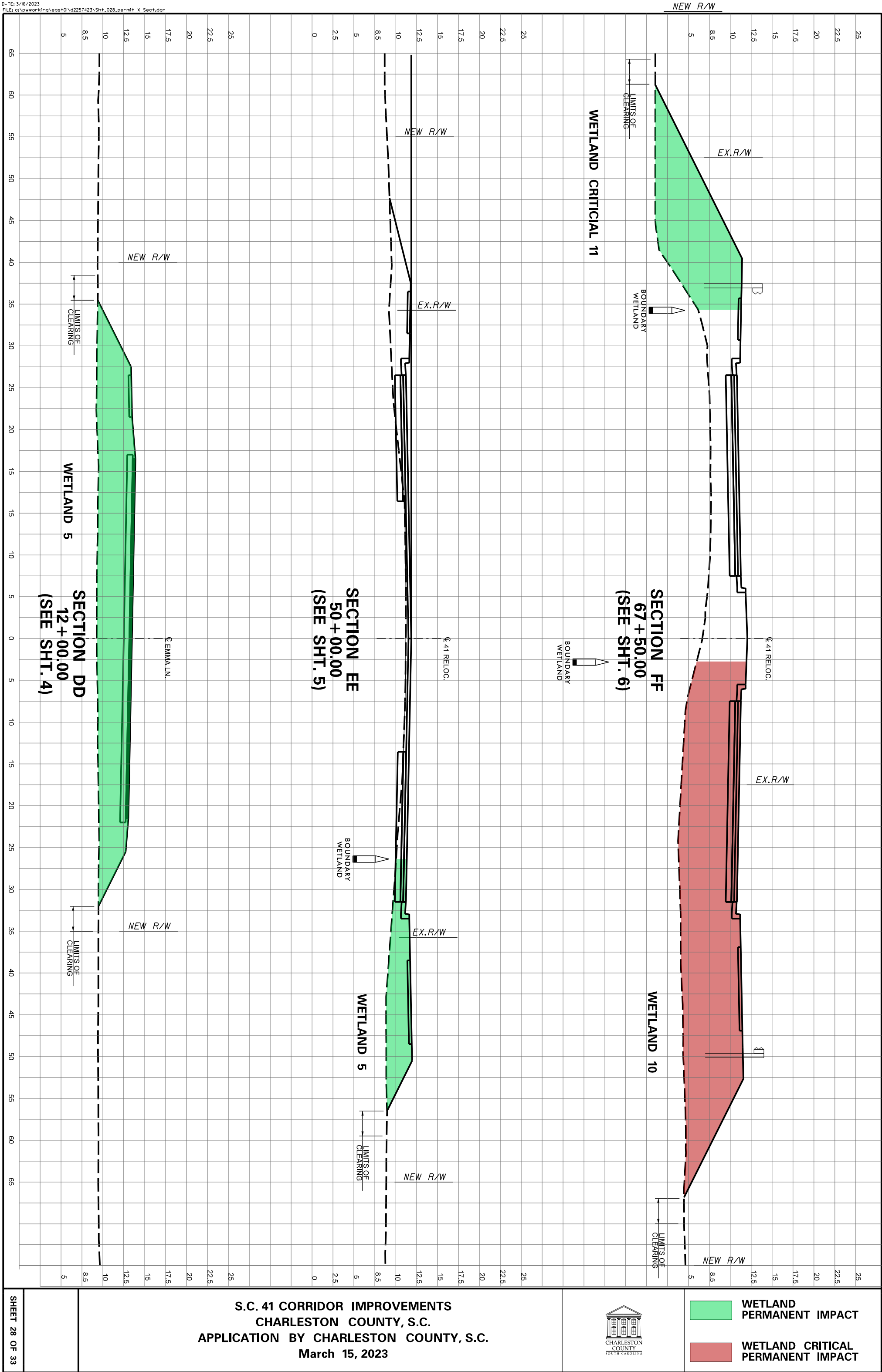
HDR Engineering Inc.
of the Carolinas
4400 Leeds Avenue, Suite 450
North Charleston, SC 29405
843.414.3700

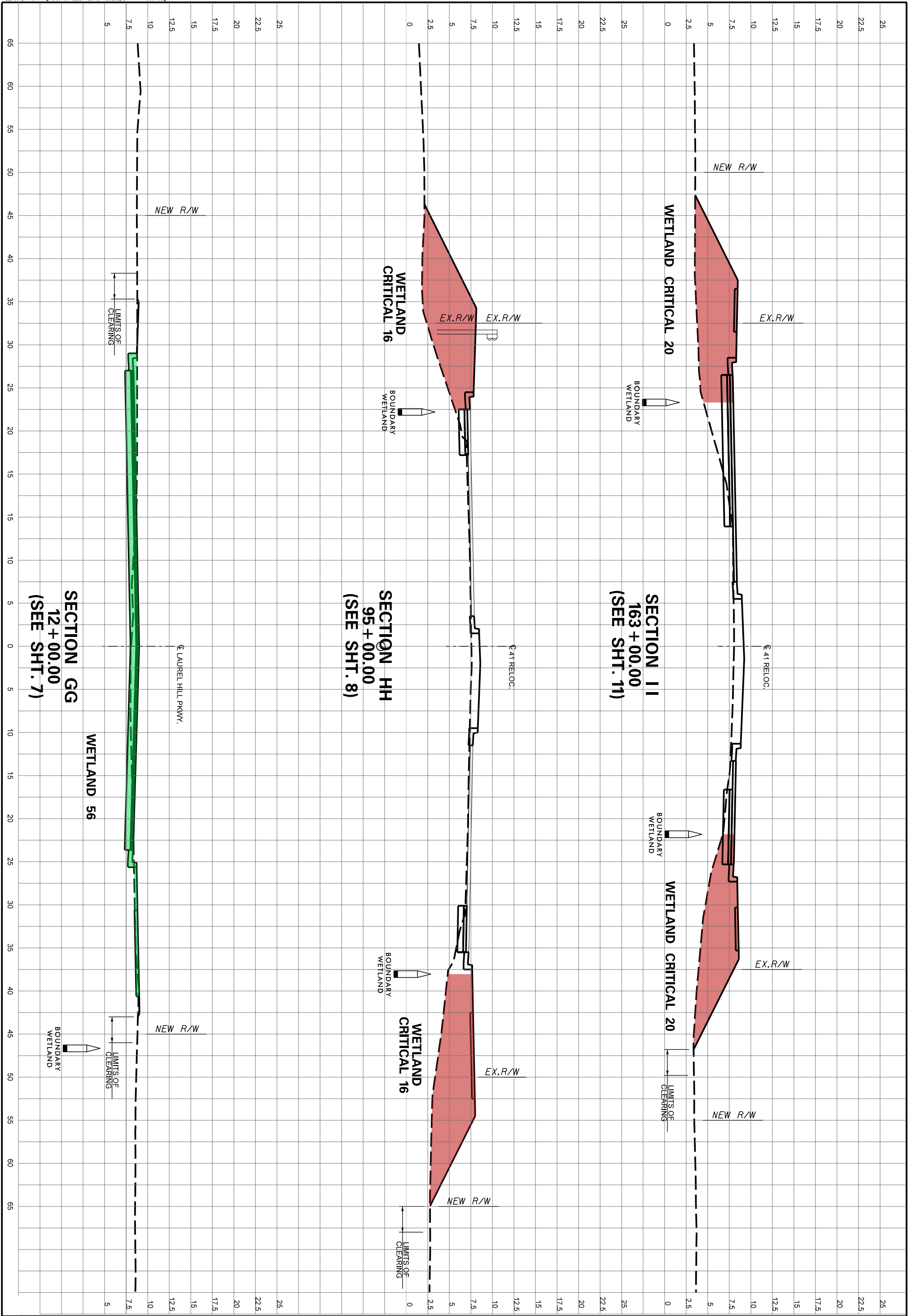
S.C. 41 CORRIDOR IMPROVEMENTS
CHARLESTON COUNTY, S.C.
APPLICATION BY CHARLESTON COUNTY, S.C.
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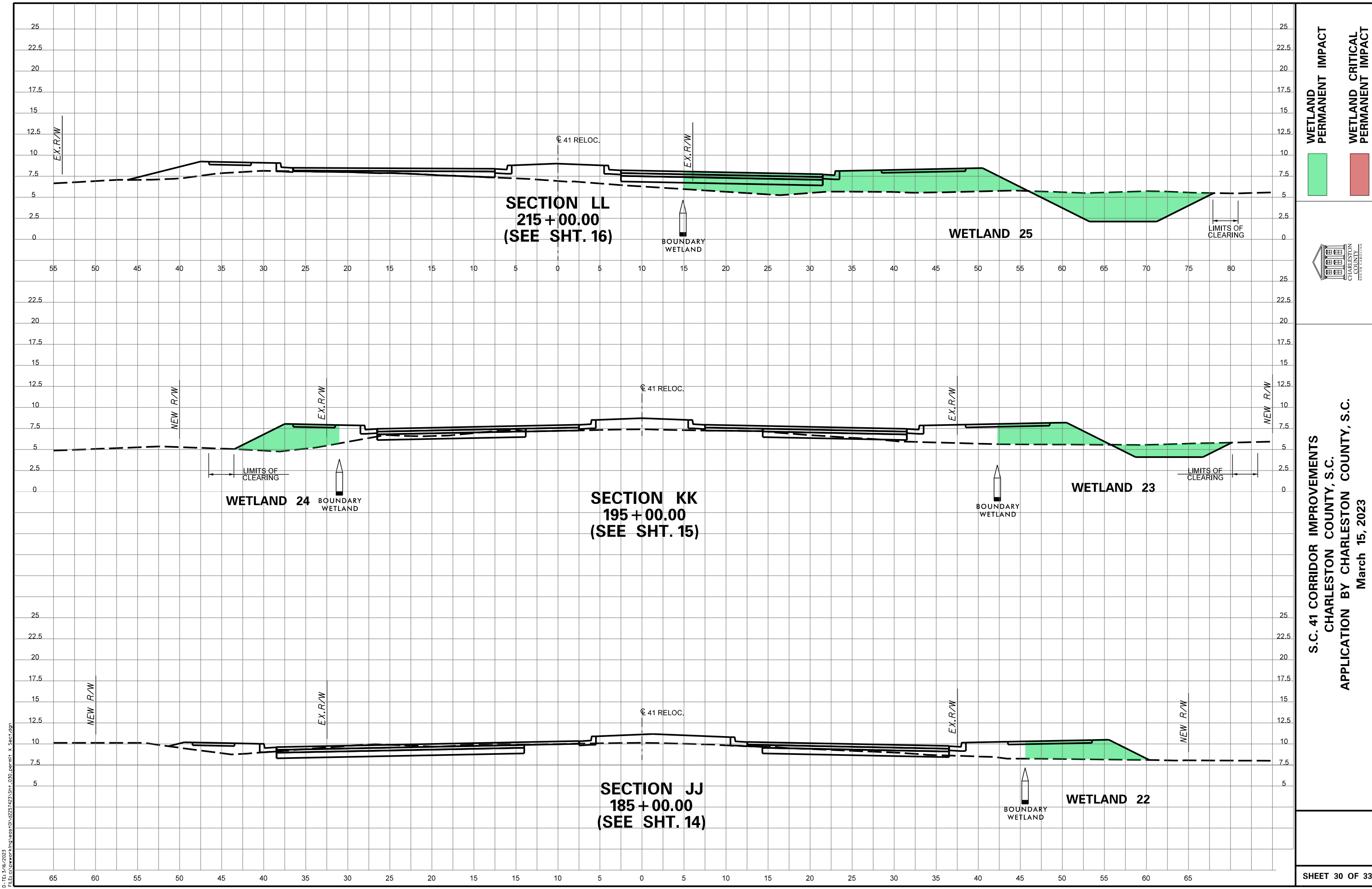


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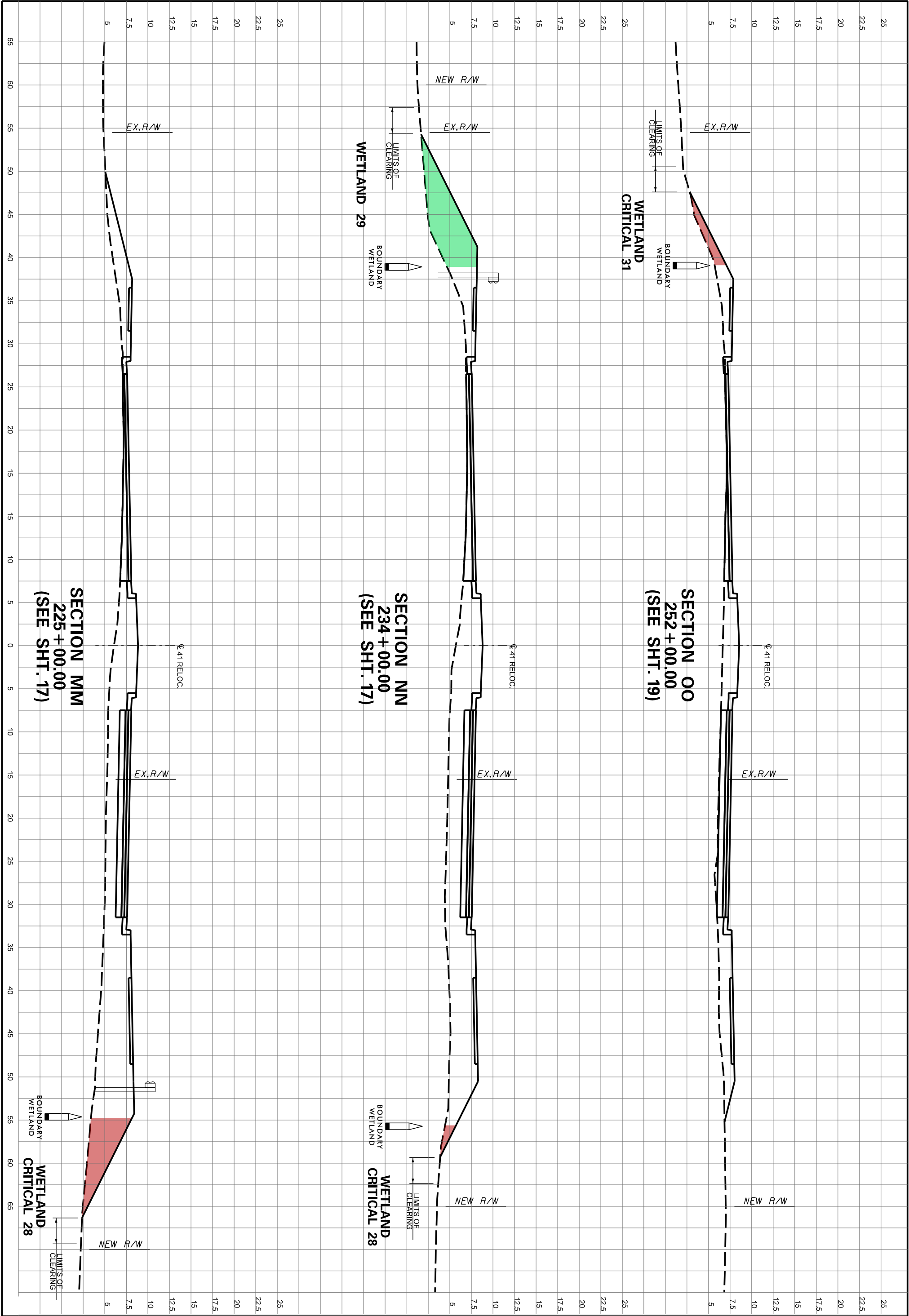


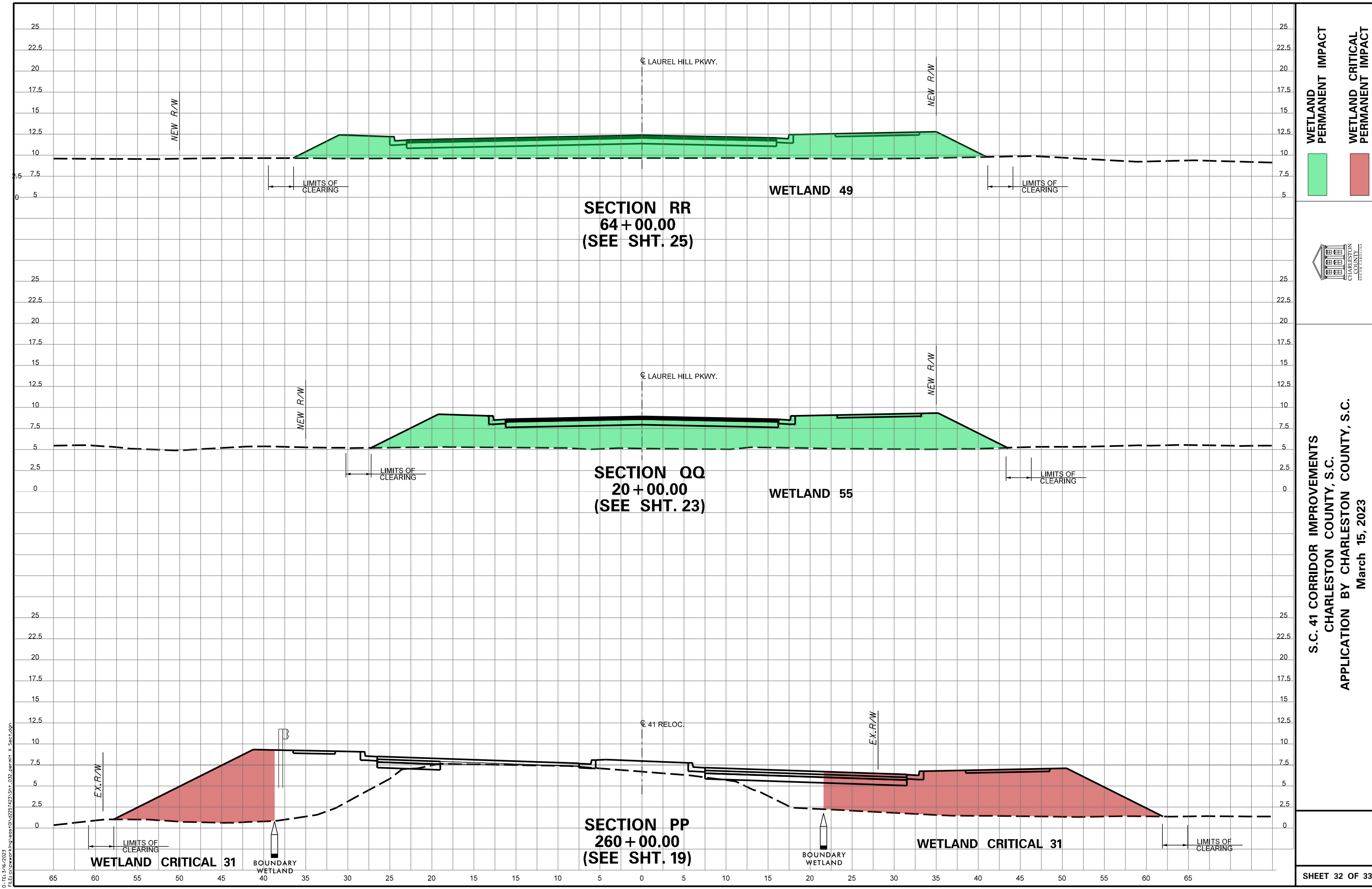


WETLAND PERMANENT IMPACT
WETLAND CRITICAL PERMANENT IMPACT



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WETLAND PERMANENT IMPACT
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