



South Carolina
Department of Transportation

September 7, 2017

ESO Internal Guidance: 401/404 Permit Drawing Levels/Layers

In an effort to improve consistency and more accurately depict impacts to streams and wetlands on permit drawings ESO Permitting Division is implementing new standards for permit drawings. For all future permit applications permit drawings will rely on a reduced number of line levels from the roadway/bridge design file.

Specifically, SCDOT requires the following items (at minimum) to be depicted on permit drawings:

- Existing roadway
- Existing bridge
- Existing centerline
- Proposed roadway
- Proposed bridge
- Proposed centerline
- Roadway station numbers
- Proposed Bridge Construction Areas
- Bridge Plan/Profile
- Proposed Construction limits – areas of proposed cut/fill activities
- Clearing limits – area between NPDES line and construction limits; Bridge Construction Access areas
- Proposed pipes or culverts in wetlands/streams
- Proposed riprap in wetlands/streams
- Labeled cross sections – include label and stationing on the cross section sheet

ESO Permitting Coordinators must recognize that each project is unique and that additional items may be required to accurately depict the proposed impacts for a specific project.

A link to the SCDOT CADD Standards Manual is provided below. Pages 25-37 provide the level name and a short description. Additionally pages 215-220 provide Environmental specific standards.

http://www.dot.state.sc.us/doing/technicalPDFs/cadd/SCDOT_Roadway_Cadd_Manual.pdf

Examples of line levels that may be used to depict existing/proposed road or bridge features and levels used to determine impact locations:

- RD_PD_ALT1_TrvlWay
- RD_PD_BCA
- RD_PD_Bridge
- RD_PD_CstnLmt
- RD_PD_DR_ErosCtrl
- RD_HC_Data_Tic
- RD_EX_Bridge
- RD_EX_Conc
- RD_EX_RailRoad
- RD_EX_Road
- RD_HC_CI
- RD_PD_DR_Pipe

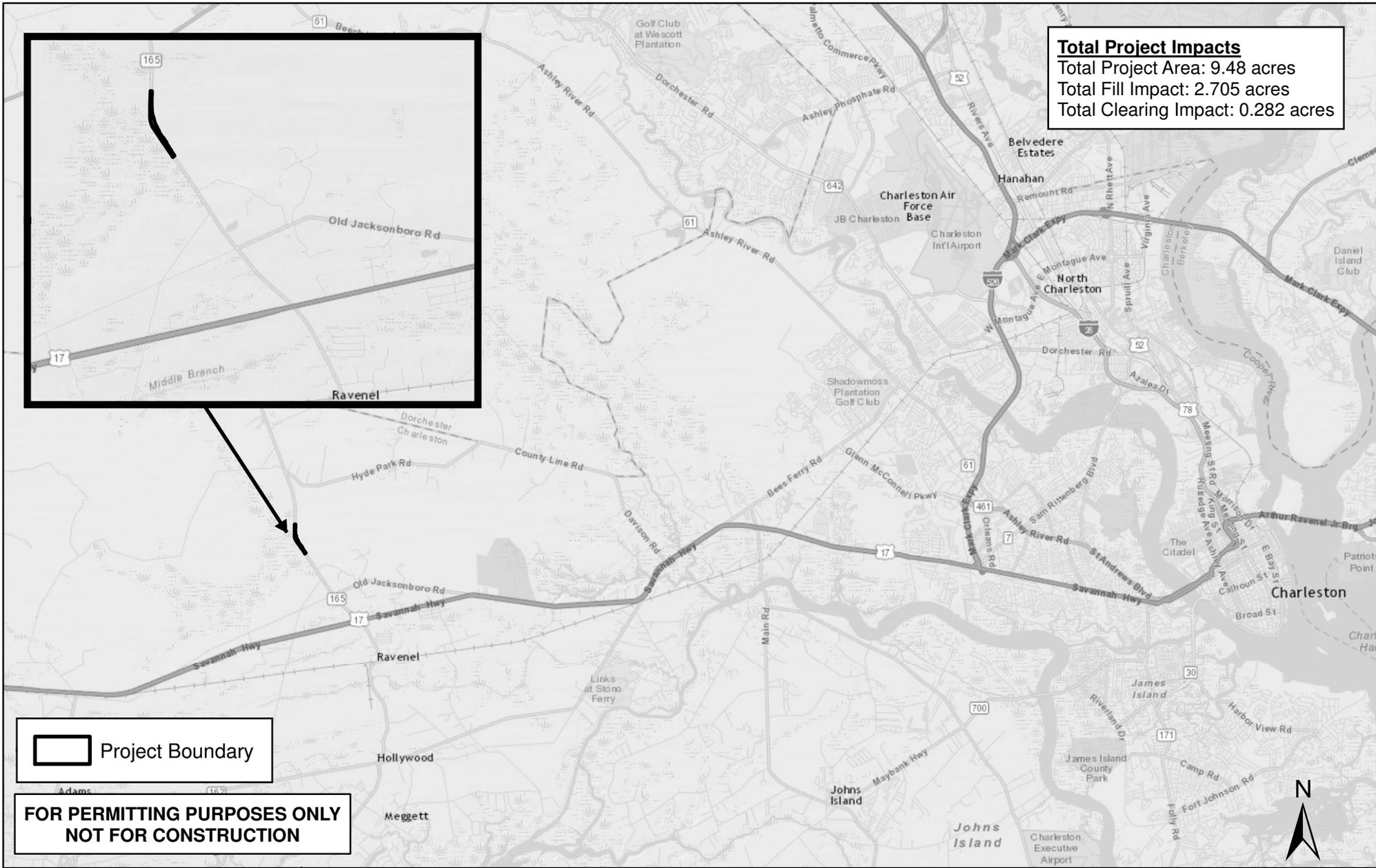


Example of Permit Drawings (1)

Post Office Box 191
955 Park Street
Columbia, SC 29202-0191



www.scdot.org
An Equal Opportunity
Affirmative Action Employer
855-GO-SCDOT (855-467-2368)



Total Project Impacts
 Total Project Area: 9.48 acres
 Total Fill Impact: 2.705 acres
 Total Clearing Impact: 0.282 acres

 Project Boundary

**FOR PERMITTING PURPOSES ONLY
 NOT FOR CONSTRUCTION**

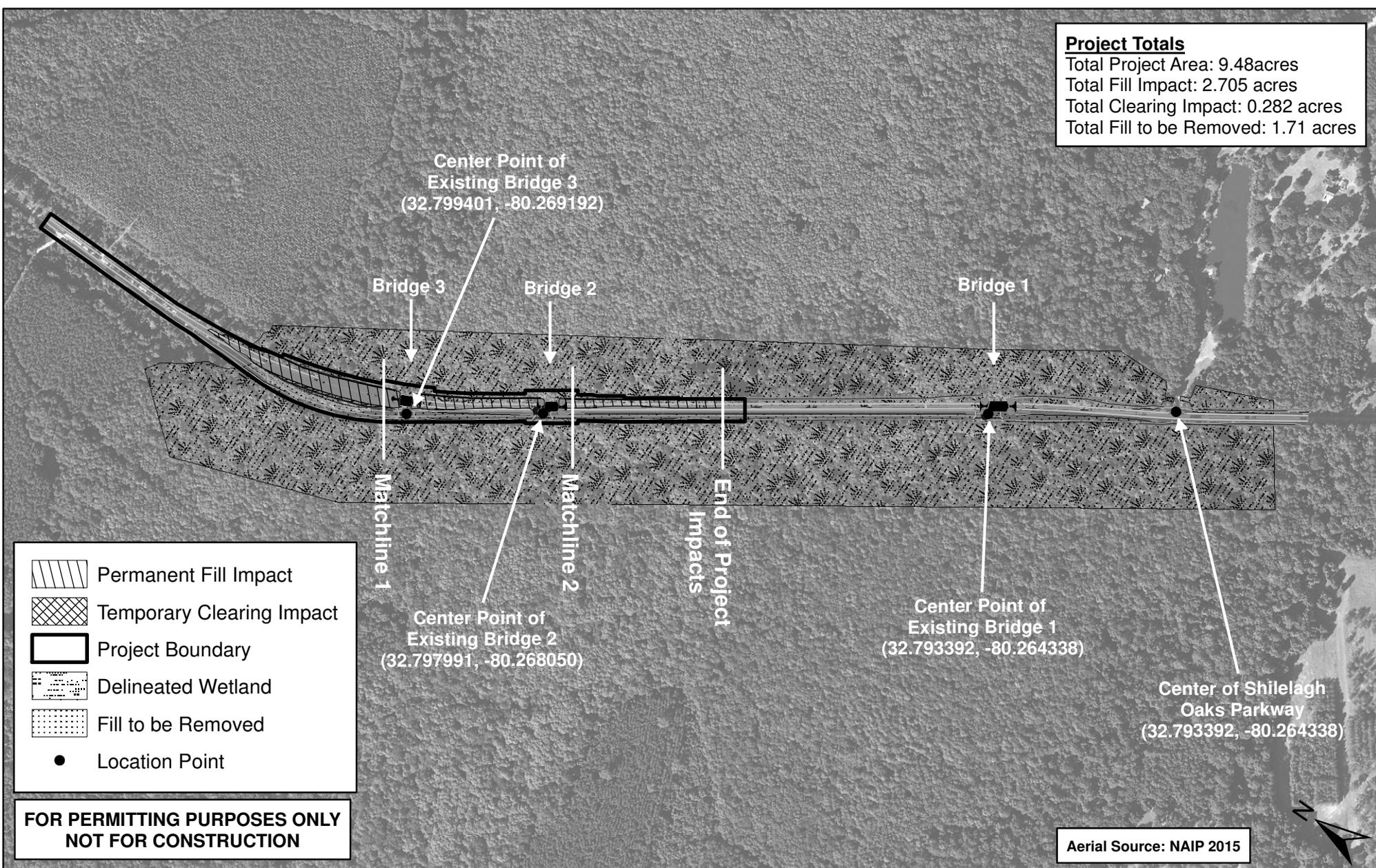


SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina



Map: Project Location
 SAC #: SCDOT
 Applicant: B. Crooks (CEG)
 Prepared by: B. Crooks (CEG)
 Map Date: 6/17/2016

Project Totals
 Total Project Area: 9.48 acres
 Total Fill Impact: 2.705 acres
 Total Clearing Impact: 0.282 acres
 Total Fill to be Removed: 1.71 acres



**FOR PERMITTING PURPOSES ONLY
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Aerial Source: NAIP 2015



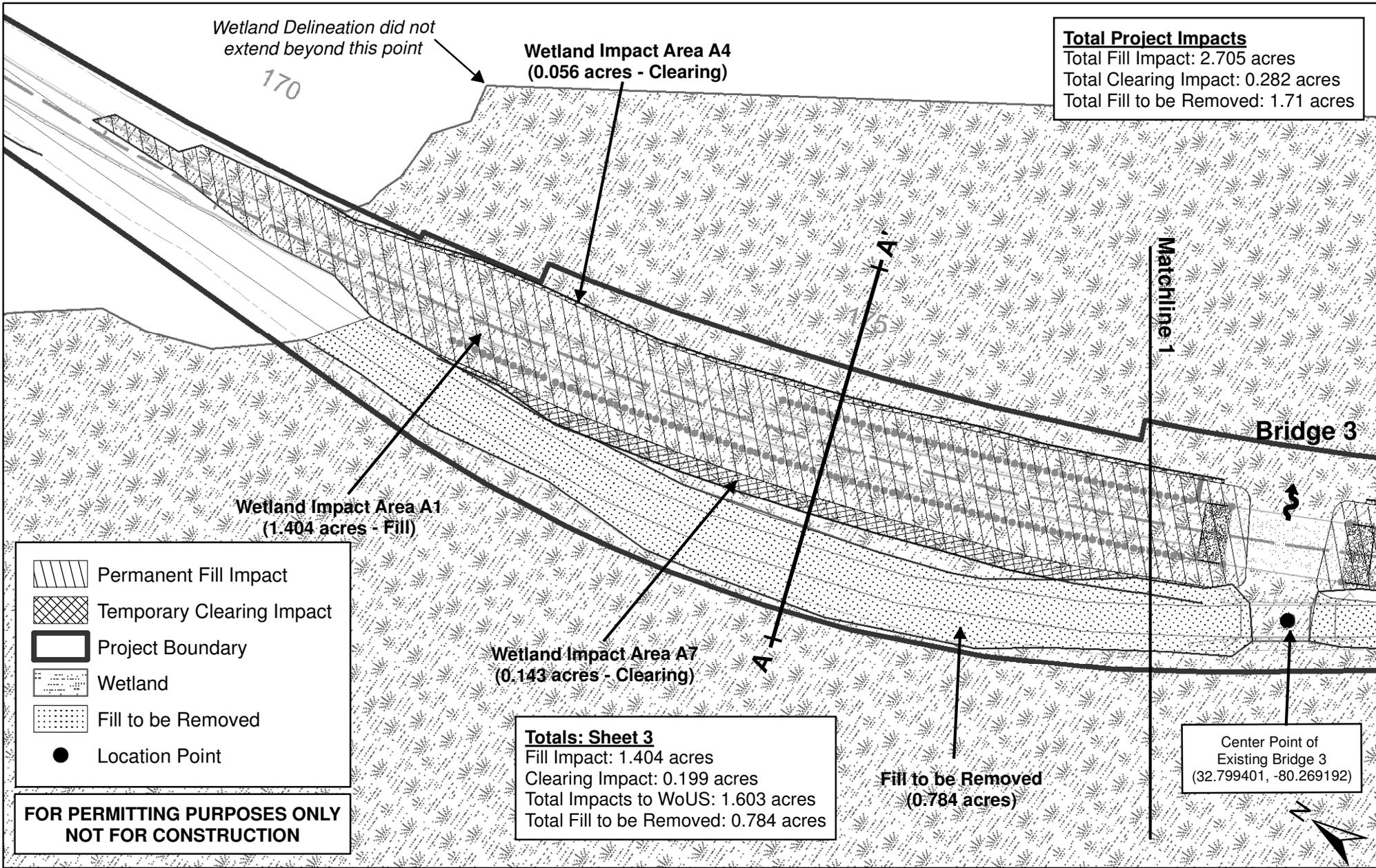
SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina

0 600 1,200 2,400 Feet

1 inch = 600 feet

Map: Project Overview
 SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 6/17/2016

Sheet No. 2 of 10



Total Project Impacts
 Total Fill Impact: 2.705 acres
 Total Clearing Impact: 0.282 acres
 Total Fill to be Removed: 1.71 acres

Wetland Delineation did not extend beyond this point

Wetland Impact Area A4
 (0.056 acres - Clearing)

Wetland Impact Area A1
 (1.404 acres - Fill)

Wetland Impact Area A7
 (0.143 acres - Clearing)

Fill to be Removed
 (0.784 acres)

Totals: Sheet 3
 Fill Impact: 1.404 acres
 Clearing Impact: 0.199 acres
 Total Impacts to WoUS: 1.603 acres
 Total Fill to be Removed: 0.784 acres

Center Point of Existing Bridge 3
 (32.799401, -80.269192)

-  Permanent Fill Impact
-  Temporary Clearing Impact
-  Project Boundary
-  Wetland
-  Fill to be Removed
-  Location Point

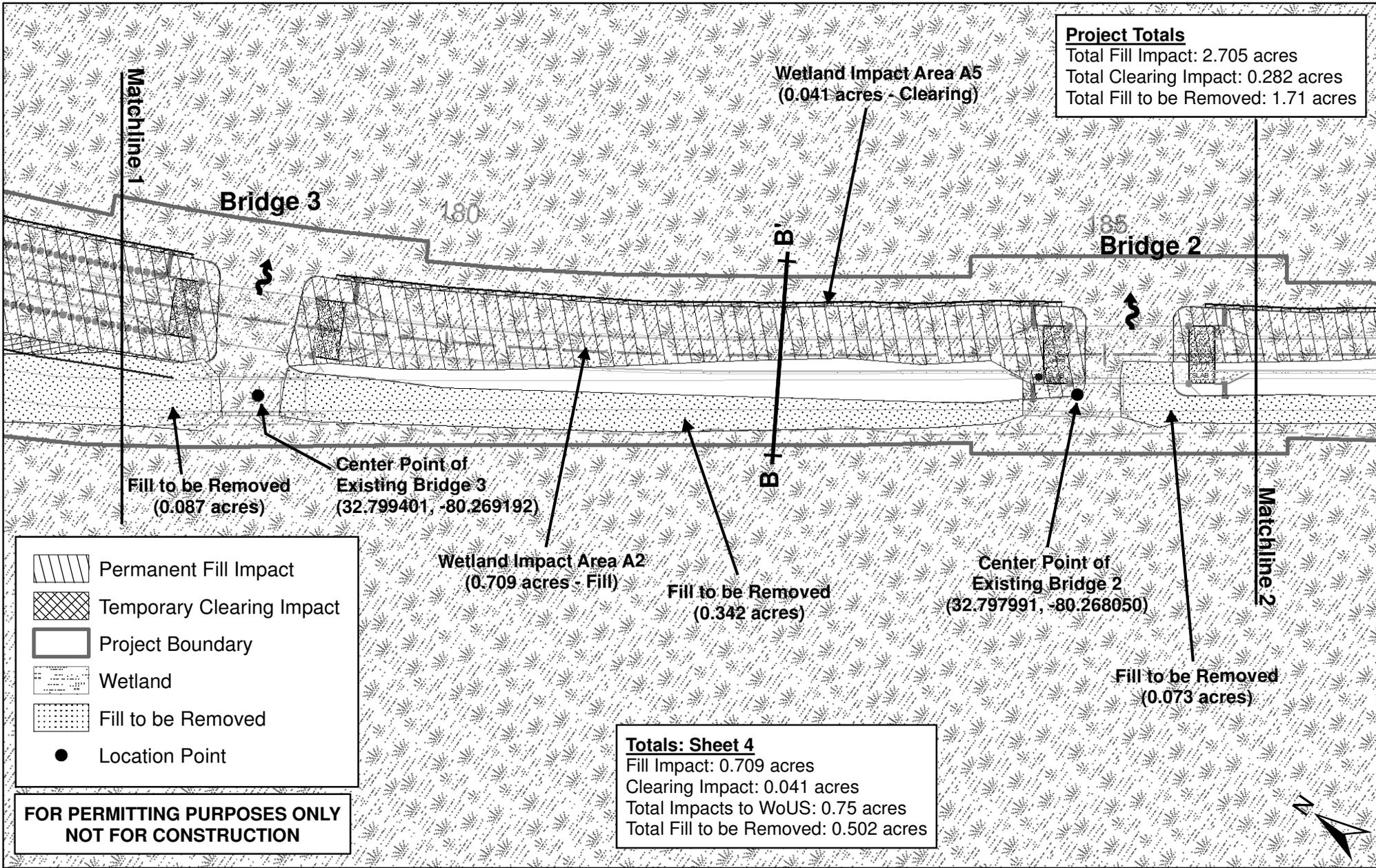
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SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina



1 inch = 100 feet

SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 6/17/2016



SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina



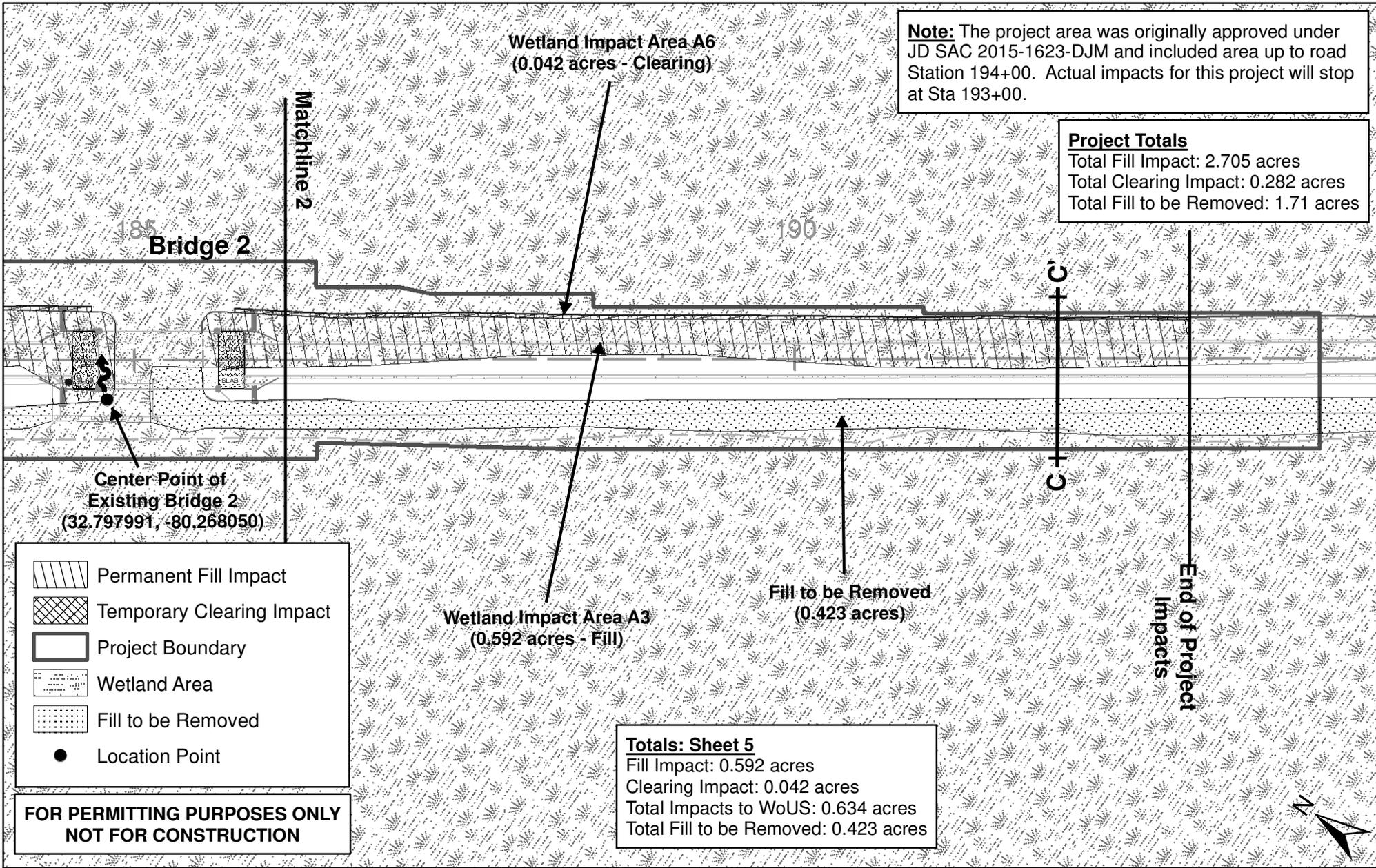
1 inch = 100 feet

SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 6/17/2016



Note: The project area was originally approved under JD SAC 2015-1623-DJM and included area up to road Station 194+00. Actual impacts for this project will stop at Sta 193+00.

Project Totals
 Total Fill Impact: 2.705 acres
 Total Clearing Impact: 0.282 acres
 Total Fill to be Removed: 1.71 acres



-  Permanent Fill Impact
-  Temporary Clearing Impact
-  Project Boundary
-  Wetland Area
-  Fill to be Removed
-  Location Point

**FOR PERMITTING PURPOSES ONLY
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Totals: Sheet 5
 Fill Impact: 0.592 acres
 Clearing Impact: 0.042 acres
 Total Impacts to WoUS: 0.634 acres
 Total Fill to be Removed: 0.423 acres



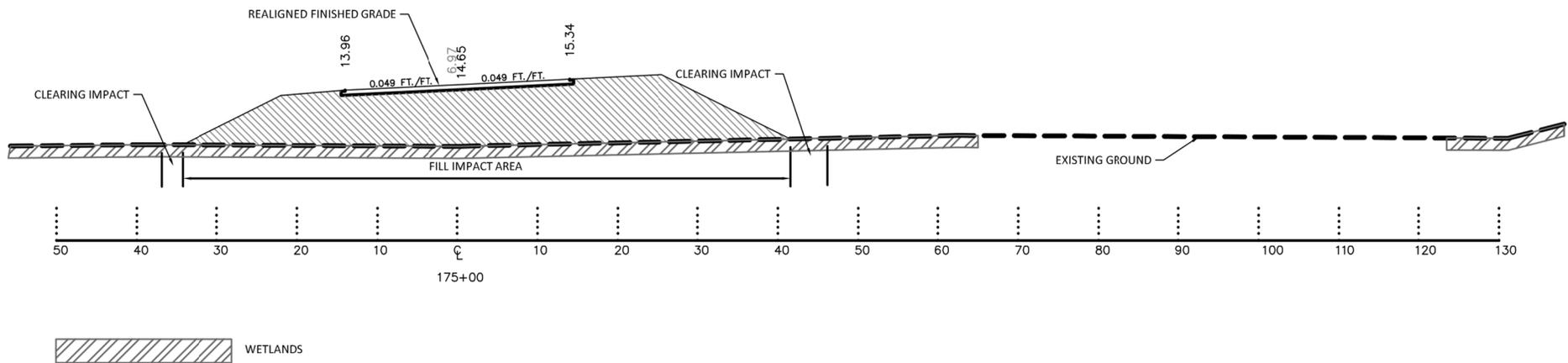
SC 165 Bridge Replacements over Caw Caw Swamp
SCDOT - Bridges 2 & 3
Charleston County, South Carolina

0 100 200 400

 Feet
 1 inch = 100 feet

SAC #: SCDOT
 Applicant: B. Crooks (CEG)
 Prepared by: 6/17/2016
 Map Date: 6/17/2016

Sheet No. 5 of 10

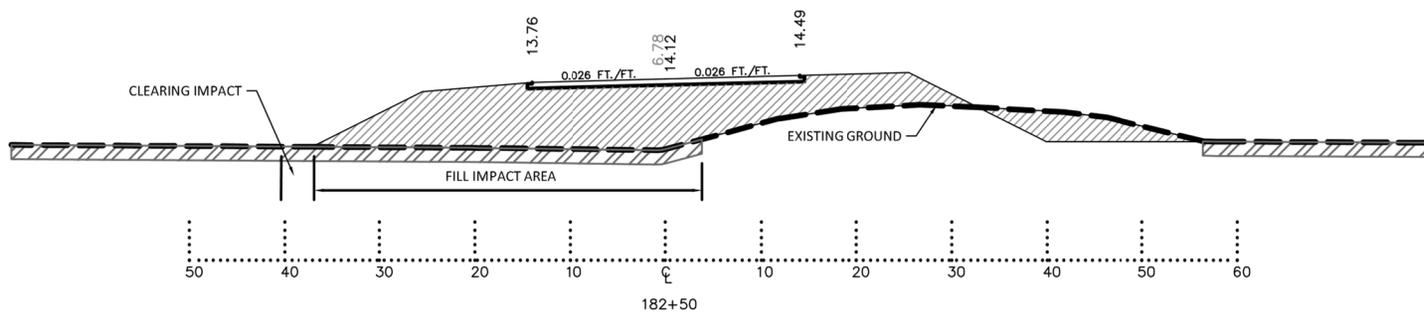


SC 165 Bridge Replacements over Caw Caw Swamp
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 Charleston County, South Carolina

WETLAND CROSS SECTION
 A-A'

SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 5/26/2016

Sheet No. 6 of 10



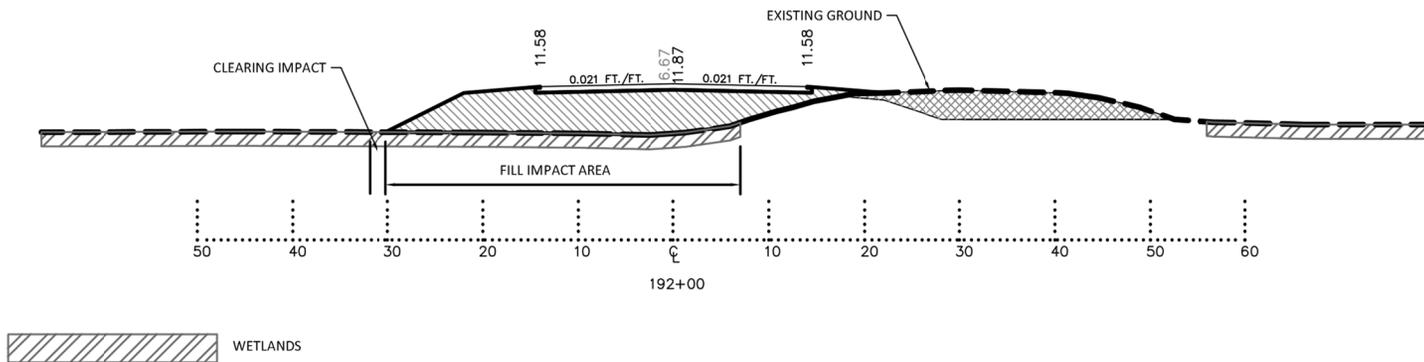
 WETLANDS



SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina

WETLAND CROSS SECTION
 B-B'

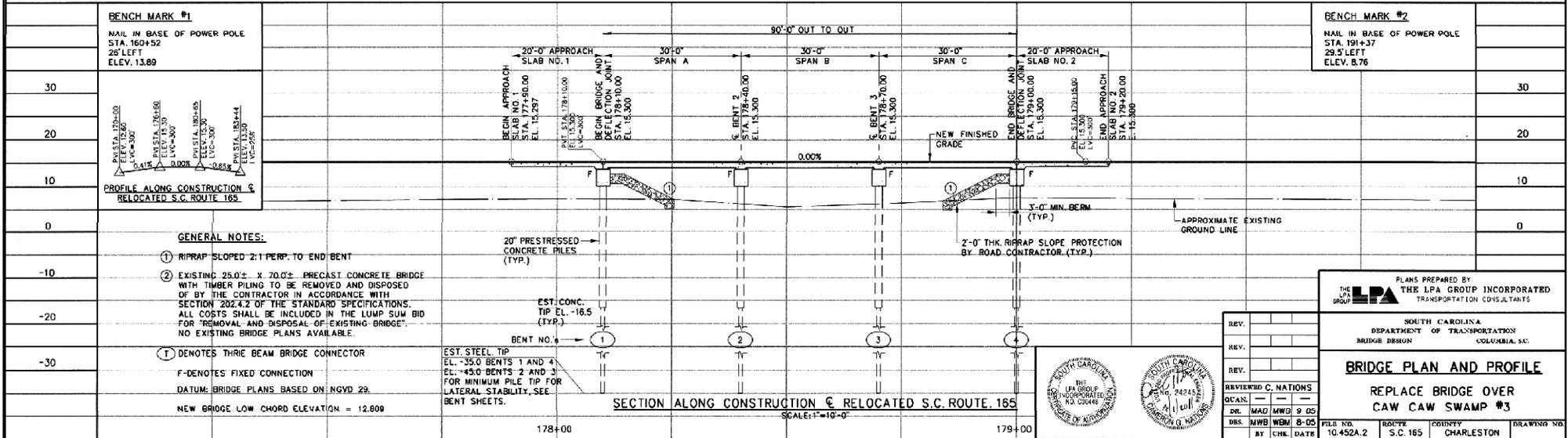
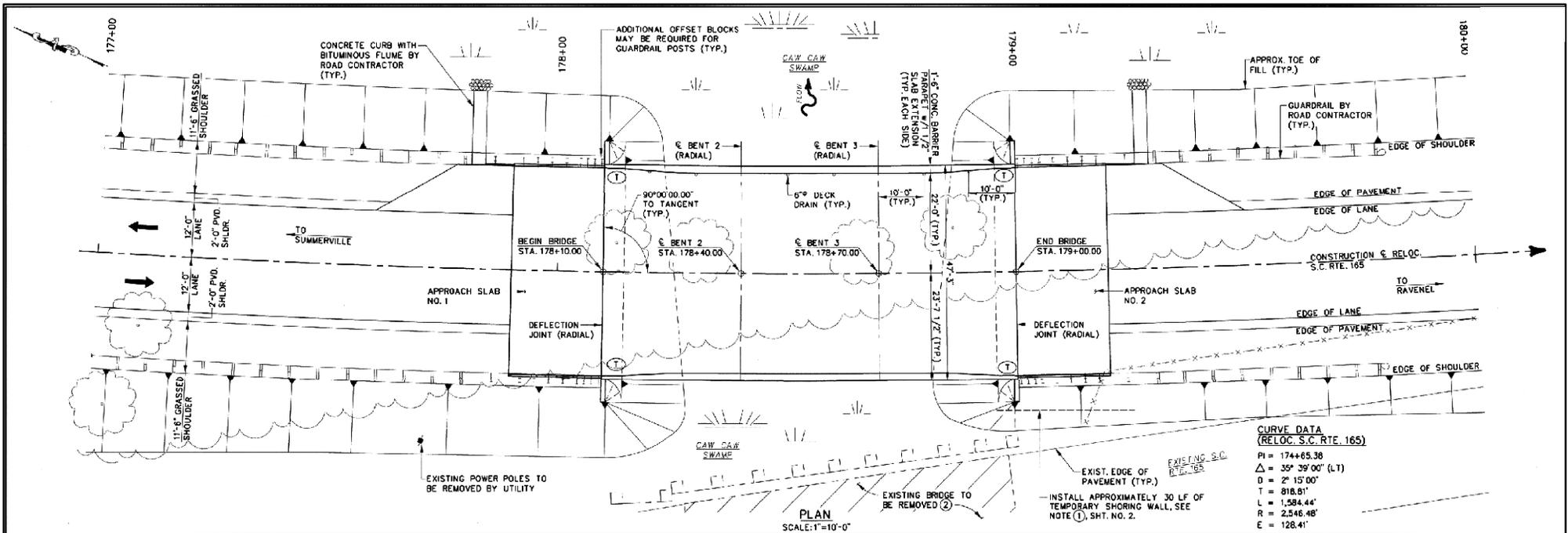
SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 5/26/2016



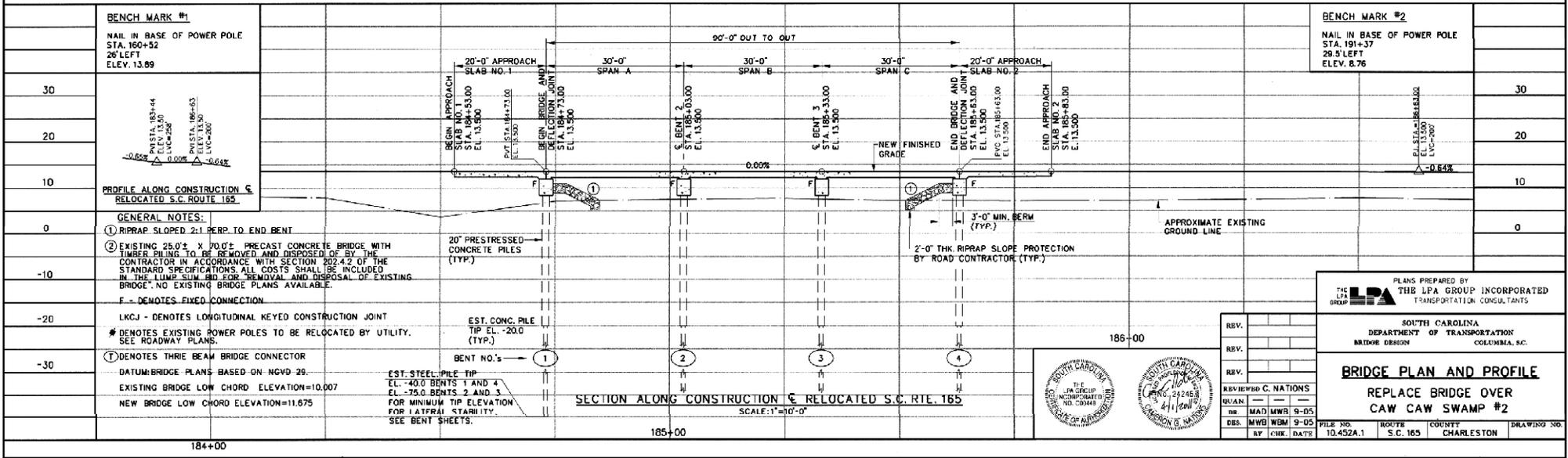
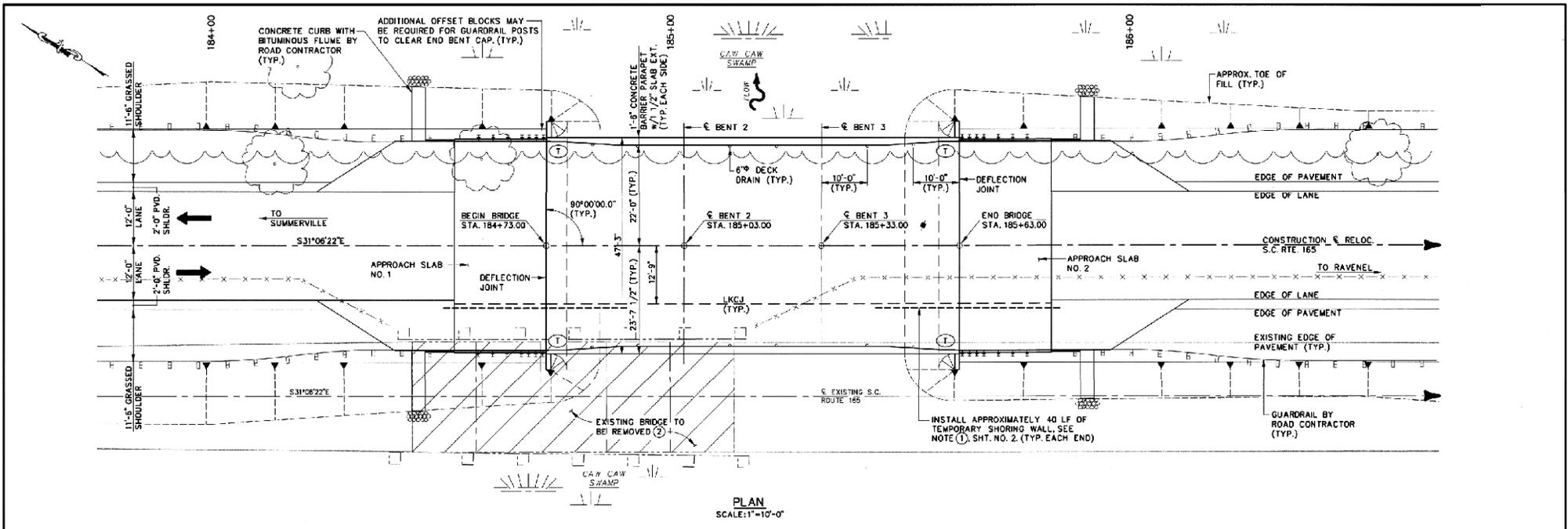
SC 165 Bridge Replacements over Caw Caw Swamp
 SCDOT - Bridges 2 & 3
 Charleston County, South Carolina

WETLAND CROSS SECTION
 C-C'

SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks (CEG)
 Map Date: 5/26/2016



	<h2 style="margin: 0;">SC 165 Bridge Replacements over Caw Caw Swamp</h2> <h3 style="margin: 0;">SCDOT - Bridges 2 & 3</h3> <h3 style="margin: 0;">Charleston County, South Carolina</h3>		SAC #: Applicant: SCDOT Prepared by: B. Crooks Map Date: 6/17/2016
	<h2 style="margin: 0;">Bridge 3 Plan and Profile Sheet</h2>		Sheet No. 9 of 10



BENCH MARK #1
NAIL IN BASE OF POWER POLE
STA. 184+52
26' LEFT
ELEV. 13.89

BENCH MARK #2
NAIL IN BASE OF POWER POLE
STA. 191+37
28.5' LEFT
ELEV. 8.76

PROFILE ALONG CONSTRUCTION & RELOCATED S.C. ROUTE 165

GENERAL NOTES:

- RIPRAP SLOPED 2:1 BERP. TO END BENT
- EXISTING 25.0' x 70.0' PRECAST CONCRETE BRIDGE WITH TIMBER PILING TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 202.4.2 OF THE STANDARD SPECIFICATIONS. ALL COSTS SHALL BE INCLUDED IN THE LUMP SUM BID FOR REMOVAL AND DISPOSAL OF EXISTING BRIDGE. NO EXISTING BRIDGE PLANS AVAILABLE.

F - DENOTES FIXED CONNECTION

LKJ - DENOTES LONGITUDINAL KEYED CONSTRUCTION JOINT

* DENOTES EXISTING POWER POLES TO BE RELOCATED BY UTILITY. SEE ROADWAY PLANS.

① DENOTES THREE BEAM BRIDGE CONNECTOR

DATUM: BRIDGE PLANS BASED ON NGVD 29.
EXISTING BRIDGE LOW CHORD ELEVATION=10.007
NEW BRIDGE LOW CHORD ELEVATION=11.675

EST. CONC. PILE TIP EL. -20.0 (TYP.)

BENT NO.'s → ① ② ③ ④

EST. STEEL PILE TIP EL. -40.0 BENTS 1 AND 4
EL. -75.0 BENTS 2 AND 3
FOR MINIMUM TIP ELEVATION FOR LATERAL STABILITY. SEE BENT SHEETS.

PLANS PREPARED BY
THE LPA GROUP
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN COLUMBIA, SC.

BRIDGE PLAN AND PROFILE
REPLACE BRIDGE OVER
CAW CAW SWAMP #2

REVIEWED C. NATIONS
DATE: 10/11/2016
BY: C. NATIONS

THE LPA GROUP INCORPORATED
NO. 23245
COLUMBIA, SOUTH CAROLINA

REVISIONS:

REV.	DATE	DESCRIPTION

DBS: MWB WDM 9-05 FILE NO. 10.452A.1 ROUTE S.C. 165 COUNTY CHARLESTON DRAWING NO. BY (CHK) DATE



SC 165 Bridge Replacements over Caw Caw Swamp
SCDOT - Bridges 2 & 3
Charleston County, South Carolina

Bridge 2 Plan and Profile Sheet

SAC #:
 Applicant: SCDOT
 Prepared by: B. Crooks
 Map Date: 6/17/2016

 Sheet No. 10 of 10