



PAT McCrory
Governor

NICHOLAS J. TENNYSON
Secretary

November 29, 2016

Addendum No. 2

RE: Contract # C203875

WBS # 46478.3.1

STATE FUNDED

Tyrrell-Dare Counties (B-5936)

Bridge #7 Over Alligator River On US-64

December 20, 2016 Letting (Extended from November 15, 2016 Letting)

To Whom It May Concern:

Please note that the following new information has been posted on the web for this project.

- 1. contact information for the private company that currently has the contract to operate the bridge**
- 2. the bridge opening logs**
- 3. as-builts of the trestle spans**
- 4. 2014 Pile inspection report**
- 5. Pivot Pier 2015 Pile report**
- 6. Attendees list for Mandatory Pre-Bid and Site Visit**

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

The following revisions have been made to the plans:

Sheet No.	Revisions
Title Sheet	Revised to change the Letting Date to December 20, 2016
1-A	Description of the "Type Of Work" was revised to add "Cleaning and Painting Existing Bearings"
S-1	Total Bill of Material was revised to reflect the addition of the three new pay items and the quantity change to one existing pay item as mentioned below
S-2	Revised to reflect the new scope of work items
S-5	Revised to add two new general notes for "Epoxy Mortar Repairs" and "Cleaning and Painting of Existing Bearings"
S-9	Revised to add new note concerning "Access Holes"
S-16 thru S-37	Revised to reflect new repair types



S-381	Revised to reflect new items of “Epoxy Mortar Repair” and “Clean and Paint Existing Bearings”. New notes were added. One note revised to allow “Epoxy Mortar Repairs” in lieu of “Shotcrete Repairs”
S-382	Revised to reflect new item of “Epoxy Mortar Repair”. New notes were added. One note revised to allow “Epoxy Mortar Repairs” in lieu of “Shotcrete Repairs”
S-391	Changes were made to clarify pile jacket repair requirements
A-1	Note 4 under “Scope of Work” was changed to reflect the change in scope concerning the handrails. The handrails shall now be completely replaced
A-2	Note 3 was changed to reflect the change in scope concerning the handrails. The handrails shall now be completely replaced
A-9	Note 8 has been modified and the location of the septic tank access ladder has been specified
A-10	Note 2 has been added to specify type for access ladder for septic tank. In the plan view and Section B-B the callout of the access ladder location has been modified
S-1	Note 5 has been added to specify that all costs associated with the rest pier access system shall be included in the Control House renovations item
S-2	Note 4 has been changed to specify the machinery supports shall be made from ASTM A709 Grade 50 steel
E-39	Updated Note 2 for manufacturer’s recommendations for spacing on support rings. Added notes 3 and 4 for the messenger cable installation. Revised details and section views
E-45	Removed the reference to PVC coated conduit in Note 4. Corrected note numbers
M-3	Revised Note 5 to include the replacement of the track anchorage hardware

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads “Includes Addendum No. 2 Dated 11-29-16” and revised the let date to December 20, 2016
G-1	Revised the availability and completion dates within the project special provision entitled “Contract Time and Liquidated Damages”
G-2	Revised the second and third paragraph of the project special provision entitled Intermediate Contract Time Number 2 And Liquidated Damages”
G-3	Revised the completion date within the project special provision entitled “Intermediate Contract Time Number 3 and Liquidated Damages”
G-5	Revised the diesel fuel price within the project special provision entitled “Fuel Price Adjustment” and revised the percentages within the project special provision entitled “Schedule of Estimated Completion Progress”

Page No.	Revisions
R-5 and R-6	Revised the asphalt binder base price index and the date within the project special provision entitled "Price Adjustment-Asphalt Binder For Plant Mix"
BPS-1	Revised Table of Contents to reflect the addition of the two new project special provisions mentioned below
BPS-5	Revised language in second paragraph on this page within the project special provision entitled "Epoxy Overlay System-Mechanically Distributed"
BPS-19 THRU BPS-37	Added two new project special provisions entitled "Epoxy Mortar Repairs" and "Cleaning and Painting Existing Bearings with HRCSA"
New BPS-39	Revised the first paragraph on this page and added a paragraph within the project special provision entitled "Pile Jackets"
BPC-1	Revised Table of Contents to change "Cleaning and Painting of Handrails" to "Replacement of Handrails"
BPC-9 and BPC-10	Replaced the project special provision entitled "Cleaning and Painting of Handrails" with "Replacement of Handrails"
BPE-7	Revised paragraph "2. Under Section 1.0 Y Bridge Construction Operation" within the project special provision entitled "ELECTRICAL SUMMARY OF WORK" to clarify when the Contractor is to begin operational control of the movable span
BPE-31	Revised paragraphs 3 and 4 under section "B. Training" within the project special provision entitled "Operation and Maintenance Manuals, Training and As-Built Documentation"
BPE-35 and BPE-39	Revised paragraphs 1, 3, 4 and 5 under section "F. Medium Voltage Aerial Cables" and revised paragraph 1.b under the section "J. Generator" within the project special provision entitled "Utility Service, Medium Voltage Service, Automatic Transfer Switch and Generator" clarifying cables and generator
BPE-71	Revised paragraph C.2.b "Submarine Cables Testing" within the project special provision entitled "Submarine Cable" to include potential independent testing laboratories.
BPM-8	Revised paragraph A.2.a Independent Testing under Section "2.0 Materials" within the project special provision entitled "General Machinery" to indicate that costs associated with independent testing will be paid by the owner
BPM-28	Revised paragraph A.2.a. "Track Rail" in section "3.0 Construction Methods" of the project special provisions entitled "Stabilizing Machinery" to include replacement of track anchorage hardware
BPM-39	Revised paragraph A.3 General in section "1.0 Description" within the project special provision entitled "Auxiliary Operating System" to clarify the requirements for liability insurance.
BPP-2	Revised the second paragraph of the project special provision entitled "Concrete Restoration" under "Description" to add the words "center pivot pier"

On the item sheets the following pay items have been added or there quantity was changed:


<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
019-866400000-E-SP	Shotcrete Repairs	1,363.5 CF	938 CF
058-886000000-N-SP	Painting Containment For Bridge No. 7	NEW ITEM	Lump Sum
059-888200000-E-SP	Epoxy Mortar Repair	NEW ITEM	279 CF
060-889700000-N-SP	Cleaning and Painting Existing Bearings with HRCSA Bridge No. 7	NEW ITEM	2,198 EA

We are hereby providing you with a complete new proposal with the above noted changes included.

The contract will be prepared accordingly.

Please delete any EBS file you previously downloaded for this project and download the new EBS file listed for the December 20, 2016 letting. Please download the Expedite Addendum File and follow the instructions for applying the addendum to the file associated with the December 20, 2016 letting. Bid Express will not accept your bid unless the new EBS file associated with the December 20, 2016 letting with the EBS addendum applied is used.

Sincerely,

^{DS}

 R. A. Garris, PE
 Contract Officer

RAG/jag

cc: Mr. Lamar Sylvester, PE
 Mr. Jerry Jennings PE
 Mr. Rodger Rochelle, PE
 Mr. R.E. Davenport, PE
 Mr. Ken Kennedy, PE
 Ms. Jaci Kincaid
 Project File (2)

Mr. Ray Arnold, PE
 Ms. Theresa Canales, PE
 Ms. Marsha Sample
 Mr. Mike Gwyn
 Mr. Mitchell Dixon
 Ms. Penny Higgins
 Ms. Lori Strickland

PROJECT: B-5936

CONTRACT: C203875



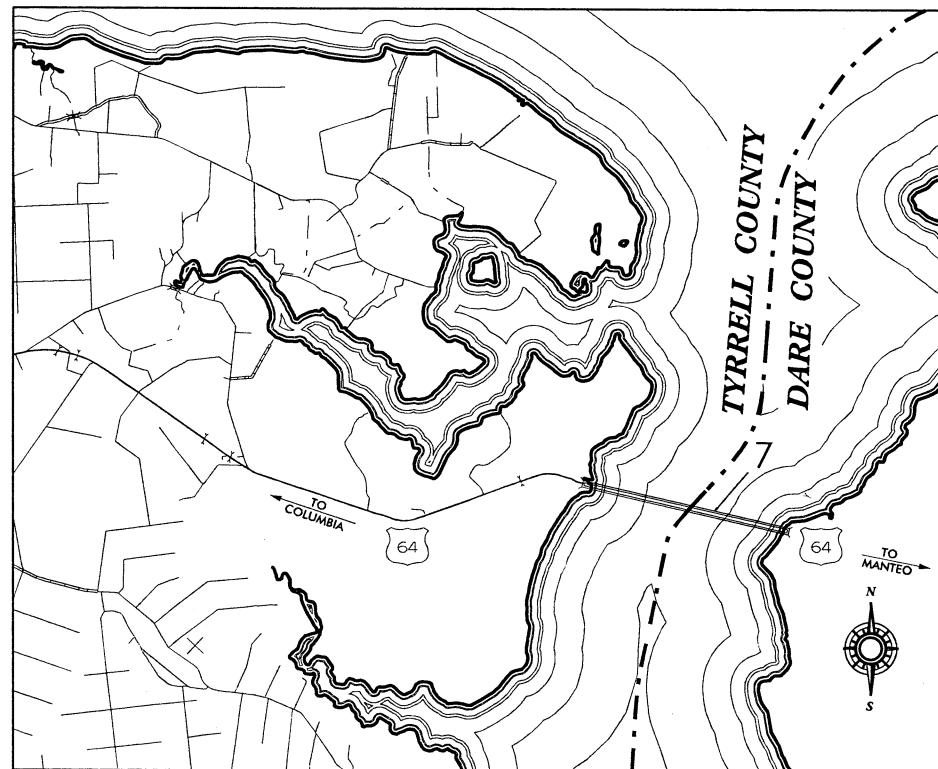
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TYRRELL AND DARE COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5936	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46478.1.1	---	P.E.	
46478.3.1	---	CONSTR.	

LOCATION: TYRRELL AND DARE COUNTIES:
BRIDGE #7 OVER ALLIGATOR RIVER ON US 64

TYPE OF WORK: BRIDGE PRESERVATION WITH EPOXY DECK OVERLAY, JOINT REPLACEMENT, CONCRETE SUPERSTRUCTURE & SUBSTRUCTURE REPAIR, CLEANING AND PAINTING EXISTING BEARINGS, PILE JACKETING REPAIR, PIVOT PIER PILE REPAIR AND MECHANICAL AND ELECTRICAL REHABILITATION OF SWING SPAN.



VICINITY MAP - TYRRELL & DARE CO.

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



DESIGN DATA

BRIDGE
#7 ADT 2011 = 3600

PROJECT LENGTH

BRIDGE
#7 = 2.828 MILE

Prepared In the Office of:
**DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**
STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610

MACK BAILEY, PE
PROJECT ENGINEER

2012 STANDARD SPECIFICATIONS

LETTING DATE:
DECEMBER 20, 2016



DocuSigned by:
Timothy M. Sherrill
12/10/2016
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TIMOTHY M. SHERRILL, PE
PROJECT DESIGN ENGINEER



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TYRRELL COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5936	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46478.1.1	—	P.E.	
46478.3.1	—	CONSTR.	

LOCATION: **TYRRELL COUNTY:**
BRIDGE #7 OVER ALLIGATOR RIVER ON US 64

TYPE OF WORK: **BRIDGE PRESERVATION WITH EPOXY DECK OVERLAY, JOINT REPLACEMENT, CONCRETE SUPERSTRUCTURE & SUBSTRUCTURE REPAIR, CLEANING AND PAINTING EXISTING BEARINGS, PILE JACKETING REPAIR, PIVOT PIER PILE REPAIR AND MECHANICAL AND ELECTRICAL REHABILITATION OF SWING SPAN.**

INDEX OF SHEETS

1
1A
S-1
S-2 THRU S-392
SN
SA-1 THRU SA-3
G-1 THRU M-23
TMP-1 THRU TMP-6
PMP-1 THRU PMP-2

TITLE SHEET
INDEX OF SHEETS
TOTAL BILL OF MATERIALS
STRUCTURAL PLANS - TYRRELL #7
STANDARD NOTES
PIVOT PIER PILE REPAIR PLANS
MECHANICAL AND ELECTRICAL PLANS
TRANSPORTATION MANAGEMENT PLANS
PAVEMENT MARKING PLANS

*** TOTAL BILL OF MATERIAL**

BRIDGE	MOBILIZATION	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	ASPHALT BINDER FOR PLANT MIX	Δ REINFORCING STEEL	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	PAINTING CONTAINMENT FOR BRIDGE NO. 7	BRIDGE JOINT REMOVAL	PILE JACKETS	REJACKETS	SILICONE JOINT SEALANT	EPOXY MORTAR REPAIR	CONCRETE DECK REPAIR FOR EPOXY OVERLAY	EPOXY OVERLAY SYSTEM-MECHANICALLY DISTRIBUTED	CLEANING AND PAINTING EXISTING BEARINGS WITH HRCSA BRIDGE NO. 7
	LUMP SUM	SO.YDS.	TONS	TONS	LBS.	CU. FT.	LIN. FT.	LS.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU. FT.	SO. FT.	SO. FT.	EA.
TYRRELL #7	LUMP SUM	267	22.5	1.5	10	938	98.1	LS.	9,429	7,013.5	438	9,489	279	473	387,507	2,198

* EXCLUDES BILL OF MATERIAL FOR PIVOT PIER PILE REPAIRS AND FOR MECHANICAL AND ELECTRICAL PLANS, SEE SHT'S SA-1 THRU SA-3 AND SHT'S G-1 THRU M-23.

Δ REINFORCING STEEL QUANTITY IS NOT ANTICIPATED, A TOKEN PAY ITEM IS INDICATED FOR PRICING PURPOSES, IN CASE UNANTICIPATED REPAIRS ARE ENCOUNTERED.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7



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Robbie Weisz 11/9/2016
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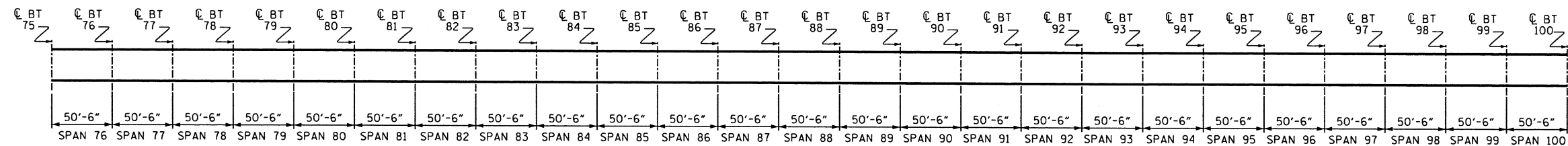
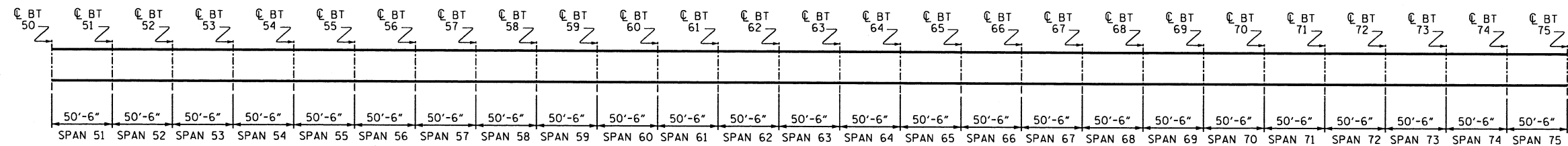
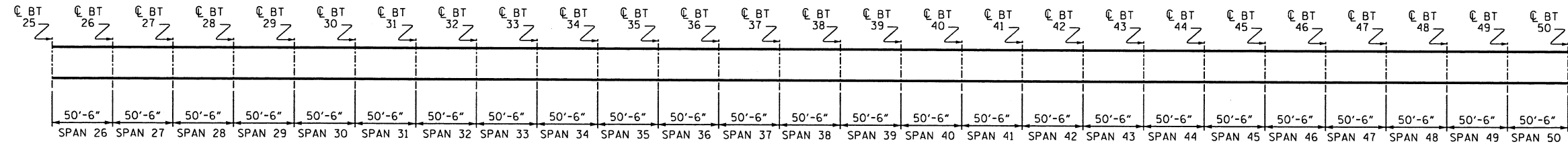
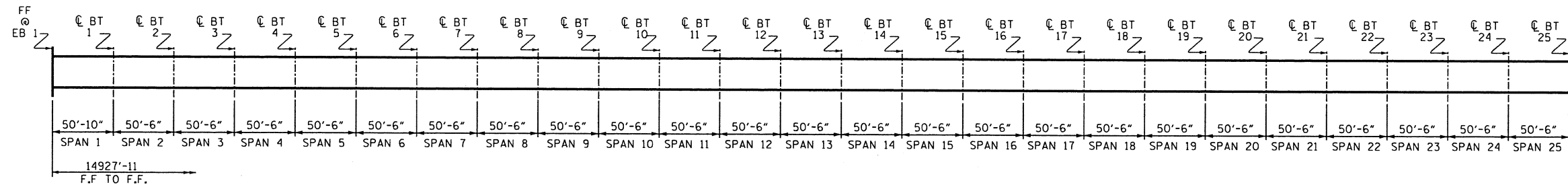
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 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TOTAL BILL OF MATERIAL

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1			3			TOTAL SHEETS
2			4			394

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DRAWN BY : S. T. SANDOR DATE : 06/2016
 CHECKED BY : R. N. WEISZ DATE : 06/2016



SCOPE OF WORK:

- REMOVE AND REPAIR UNSOUND CONCRETE ON BRIDGE DECK.
- REMOVE EXISTING BRIDGE DECK JOINT MATERIAL.
- INSTALL NEW SILICONE JOINT SEALS.
- PARTIALLY REMOVE BRIDGE DECK CONCRETE, USING SHOTBLAST METHOD.
- OVERLAY PREPARED BRIDGE DECK WITH EPOXY OVERLAY SYSTEM.
- EPOXY INJECTION OF CONCRETE CRACKS.
- PERFORM SHOTCRETE AND EPOXY MORTAR REPAIRS.
- CLEAN AND PAINT EXISTING BEARINGS WITH HRCSA.
- REPAIR PILES WITH NEW PILE JACKETS OR REJACKET PILES.
- REPAIR PIVOT PIER PILES.
- MECHANICAL AND ELECTRICAL REHABILITATION.
- MILL AND PAVE ASPHALT APPROACHES.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 1 OF 3



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Robbie Weisz
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11/9/2016

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE #7 ON US64
 OVER THE ALLIGATOR
 RIVER

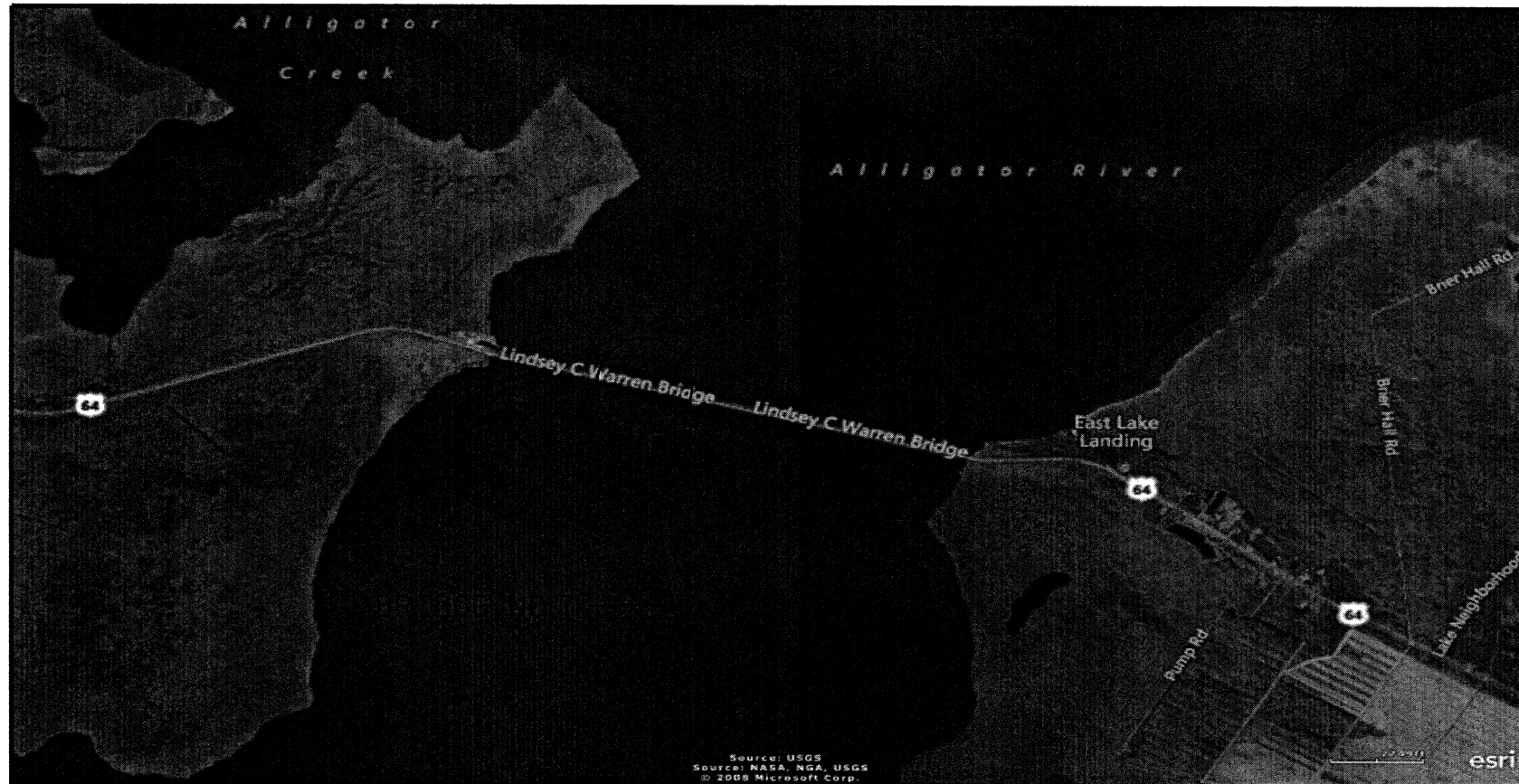
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING THE BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

GENERAL NOTES

- EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF DECK.
- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- ROADWAY MILLING IS INCLUDED TO ENSURE A SMOOTH TRANSITION ONTO THE BRIDGE FLOOR. DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL MILL AS REQUIRED TO PROVIDE A SMOOTH TRANSITION TO THE ROADWAY AT BOTH ENDS OF BRIDGE.
- LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG CENTERLINE OR EDGE OF TRAVEL LANES.
- FOR OVERLAY OF BRIDGE WITH EPOXY OVERLAY SYSTEM- MECHANICALLY DISTRIBUTED, SEE SPECIAL PROVISIONS.
- FOR CONCRETE DECK REPAIR FOR EPOXY OVERLAY, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.
- FOR CLEANING AND PAINTING OF EXISTING BEARINGS WITH HRCSA, SEE SPECIAL PROVISIONS.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.
- FOR PILE JACKETS, SEE SPECIAL PROVISIONS.
- FOR REJACKETS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR BRIDGE JOINT REMOVAL, SEE SPECIAL PROVISIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.
- FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.
- FOR SECURING VESSELS, SEE SPECIAL PROVISIONS.
- FOR MAINTENANCE OF WATER TRAFFIC, SEE SPECIAL PROVISIONS.
- FOR WORK IN, OVER, OR ADJACENT TO NAVIGABLE WATERS, SEE SPECIAL PROVISIONS.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7



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Robbie Weisz
 11/9/2016
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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**GENERAL DRAWING
 BRIDGE #7 ON US64
 OVER THE ALLIGATOR
 RIVER**

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 CHECKED BY : R. N. WEISZ DATE : 06/2016

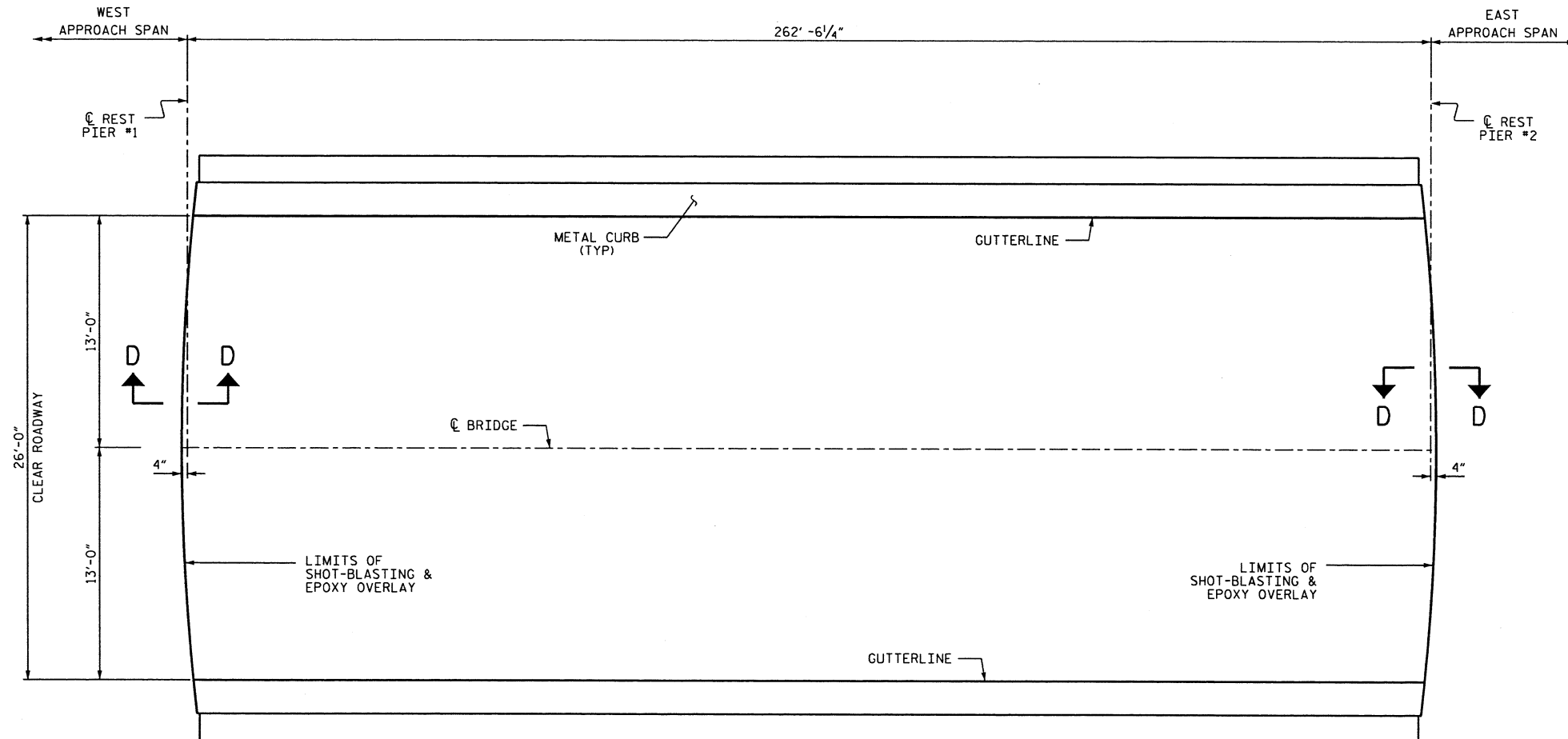
SUMMARY OF QUANTITIES

	ESTIMATE	ACTUAL
EPOXY OVERLAY SYSTEM- MECHANICALLY DISTRIBUTED	6823 SF	

NOTES:

FOR SECTION D-D, SEE SHEET S-11.

ACCESS HOLES FOR MANUAL OPERATION OF CAPSTAN AND WEDGE ANCHORS SHALL BE PERMANENTLY SEALED UPON COMPLETION OF MECHANICAL AND ELECTRICAL REHABILITATION OF SWING SPAN.



PLAN OF SWING SPAN

PROJECT NO. B-5936
TYRRELL COUNTY
 STATION: 7

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 SURFACE PREPARATION
 AND
 EPOXY OVERLAY



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Paul Bryant
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DRAWN BY : P.D. BRYANT DATE : 06-2016
 CHECKED BY : R. WEISZ DATE : 06-2016

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GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
1	DECK	20' FROM END BENT 1	5' X 20'		BOTTOM OF DECK	1
1	DECK	27' FROM END BENT 1	2.7' X 2.7'		BOTTOM OF DECK	2
1	DECK	32.5' FROM END BENT 1	3' X 2.8'		BOTTOM OF DECK	2
1	DECK	11' FROM END BENT 1	1.2' X 0.6'		BOTTOM OF DECK	2
1	DECK	9' FROM END BENT 1	1' X 0.5'		BOTTOM OF DECK	2
1	DECK	8' FROM END BENT 1	8' X 4'		BOTTOM OF DECK	2
1	DECK	11' FROM BENT 1	2' X 0.6'		BOTTOM OF DECK	3
1	DECK	15' FROM BENT 1	1' X 1.5'		BOTTOM OF DECK	3
1	END DIA.	@ BENT 1	5.5' X 0.7'		DIAPHRAGM	3
1	END DIA.	@ BENT 1	2.2' X 0.3'		DIAPHRAGM	2
1	END DIA.	@ BENT 1	5' X 1'		DIAPHRAGM	1
1	G-1	@ BENT 1	1' X 0.8'		* BOTTOM FLANGE & WEB	1
1	G-1	2' FROM BENT 1	1.7' X 1.7'		WEB	1
1	G-1	5' FROM BENT 1	2' X 1.2'		WEB	1
1	G-1	@ BENT 1	0.6' X 0.5'		* BOTTOM FLANGE & WEB	LT EXT
1	G-1	8' FROM BENT 1	2' X 1.3'		WEB	1
1	G-1	5' FROM END BENT 1	1.8' X 1.3'		WEB	LT EXT
1	G-1	13' FROM BENT 1	1.3' X 1.6'		WEB	1
1	G-1	17' FROM BENT 1	1.5' X 0.5'		WEB	1
1	G-1	1' FROM INTER. DIA.	1.3' X 1.3'		WEB	1
1	G-1	3.5' FROM INTER. DIA.	1.3' X 0.7'		WEB	1
1	G-1	3.5' FROM INTER. DIA.	0.8' X 0.8'		WEB	1
1	G-1	9' FROM INTER. DIA.	1.4' X 0.9'		WEB	1
1	G-1	@ END BENT 1	7' X 0.8'		* BOTTOM FLANGE	1
1	G-1	9' FROM INTER. DIA.	3' X 1.2'		WEB	1
1	G-2	@ BENT 1	0.6' X 0.5'		* BOTTOM FLANGE	2
1	G-2	@ BENT 1	2.5' X 0.8'		* BOTTOM FLANGE	1
1	G-2	2' FROM BENT 1	6.5' X 1.2'		WEB	1
1	G-2	17' FROM BENT 1	1' X 0.6'		WEB	1
1	G-2	@ END BENT 1	2.5' X 0.8'		* BOTTOM FLANGE	1
1	G-2	10' FROM END BENT 1	2.7' X 1.2'		WEB	1
1	G-2	@ BENT 1	1.8' X 1.2'		WEB	2
1	G-2	7' FROM INTER. DIA.	1.5' X 1.2'		WEB	2
1	G-2	11' FROM INTER. DIA.	1.2' X 0.7'		WEB	2
1	G-2	11' FROM END BENT 1	0.7' X 0.4'		WEB	2
1	G-2	2' FROM END BENT 1	0.9' X 0.7'		WEB	2
1	G-3	@ BENT 1	0.8' X 1.3'		* BOTTOM FLANGE & WEB	3
1	G-3	@ BENT 1	0.8' X 0.8'		WEB	2
1	G-3	2' FROM BENT 1	7.5' X 1.5'		WEB	3
1	G-3	2' FROM BENT 1	0.8' X 1.2'		WEB	2
1	G-3	2' FROM INTER. DIA.	1.2' X 1.2'		WEB	2
1	G-3	7' FROM INTER. DIA.	1.2' X 0.9'		WEB	2
1	G-3	10' FROM INTER. DIA.	1' X 1'		WEB	3
1	G-3	2' FROM INTER. DIA.	0.3' X 0.8'		* BOTTOM FLANGE	3
1	G-3	6' FROM INTER. DIA.	1.5' X 1'		WEB	3
1	G-3	8' FROM INTER. DIA.	1.5' X 1.2'		WEB	3
1	G-3	13' FROM END BENT 1	0.4' X 0.6'		* BOTTOM FLANGE	3
1	G-3	6.5' FROM END BENT 1	6.5' X 0.5'		* BOTTOM FLANGE	3
1	G-3	9' FROM END BENT 1	1' X 1.2'		WEB	2
1	G-4	@ BENT 1	0.8' X 0.7'		* BOTTOM FLANGE	RT EXT

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
1	G-4	@ BENT 1	0.4' X 0.7'		* BOTTOM FLANGE	3
1	G-4	2' FROM BENT 1	3' X 0.8'		WEB	2
1	G-4	8' FROM BENT 1	1.2' X 0.9'		WEB	3
1	G-4	@ BENT 1	1.5' X 1.2'		WEB	3
1	G-4	@ BENT 1	2' X 0.7'		WEB	RT EXT
1	G-4	@ END BENT 1	1' X 0.6'		WEB	RT EXT
1	G-4	10' FROM END BENT 1	2.5' X 1'		WEB	RT EXT
1	G-4	@ END BENT 1	10' X 1'		* BOTTOM FLANGE	RT EXT
1	G-4	3.5' FROM INTER. DIA.	0.4' X 1.2'		WEB	3
1	G-4	11' FROM END BENT 1	0.9' X 0.6'		* BOTTOM FLANGE	3
1	G-4	23' FROM BENT 1	0.6' X 0.8'		* BOTTOM FLANGE	3
1	G-4	3' FROM END BENT 1	1.3' X 1.2'		WEB	3
1	G-4	8' FROM END BENT 1	1.2' X 1'		WEB	RT EXT
1	G-4	9' FROM END BENT 1	1.8' X 1.2'		WEB	3

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
1	SHOTCRETE					
	GIRDERS	74.56	21.75			
	DIAPHRAGMS	9.51	4.76			
	DECK	151.61	75.81			
1	EPOXY MORTAR					
	GIRDERS	27.63	8.06			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

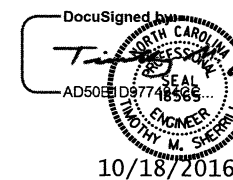
CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 1 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-16 TOTAL SHEETS 394



DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: T. SHERRILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
2	END DIA.	@ BENT 1	2.2' X 0.6'		DIAPHRAGM	3
2	G-1	@ BENT 2	2.2' X 1'		* BOTTOM FLANGE	2
2	G-1	@ BENT 2	1.5' X 1.2'		WEB	1
2	G-1	@ BENT 2	0.9' X 1'		* BOTTOM FLANGE	1
2	G-1	@ BENT 2	0.4' X 1.3'		* BOTTOM FLANGE & WEB	1
2	G-1	@ BENT 1	3.7' X 1.3'		* BOTTOM FLANGE	LT EXT
2	G-1	10' FROM BENT 2	3' X 0.4'		* BOTTOM FLANGE	1
2	G-1	2' FROM BENT 1	0.3' X 1.2'		WEB	1
2	G-1	2' FROM BENT 2	0.6' X 1.2'		WEB	1
2	G-2	@ BENT 2	0.9' X 1.3'		* BOTTOM FLANGE & WEB	2
2	G-2	@ BENT 2	1' X 1.8'		* BOTTOM FLANGE & WEB	2
2	G-2	2' FROM INTER. DIA.	0.8' X 0.7'		WEB	2
2	G-2	@ BENT 2	2' X 2'		WEB	2
2	G-2	@ BENT 2	2' X 2'		* BOTTOM FLANGE	1
2	G-2	@ BENT 2	10.5' X 1.2'		WEB	2
2	G-2	@ BENT 2	1.3' X 0.7'		* BOTTOM FLANGE	1
2	G-2	@ BENT 2	0.8' X 1.2'		WEB	1
2	G-2	10.5' FROM BENT 2	1.2' X 1.2'		WEB	1
2	G-2	7' FROM BENT 2	0.6' X 0.6'		* BOTTOM FLANGE	2
2	G-3	@ BENT 2	1.1' X 1'		* BOTTOM FLANGE	3
2	G-3	@ BENT 2	2' X 2'		WEB	3
2	G-3	@ BENT 1	2' X 2'		WEB	2
2	G-3	@ BENT 2	1.8' X 2'		* BOTTOM FLANGE	2
2	G-3	3' FROM INTER. DIA.	1.5' X 1.2'		WEB	2
2	G-3	@ BENT 2	1.6' X 1'		* BOTTOM FLANGE	2
2	G-3	@ BENT 2	1.1' X 1.3'		WEB	2
2	G-3	13' FROM BENT 1	13' X 3'		WEB	3
2	G-4	@ BENT 1	1.5' X 1'		WEB	RT EXT
2	G-4	@ BENT 2	0.8' X 1.2'		WEB	RT EXT
2	G-4	@ BENT 2	1' X 0.6'		WEB	3
2	G-4	@ BENT 1	50' X 2'		WEB	3
2	G-4	@ BENT 2	1.1' X 1.5'		* BOTTOM FLANGE	3
2	G-4	@ BENT 2	3' X 2'		WEB	3
2	G-4	2' FROM BENT 1	0.8' X 1.5'		WEB	RT EXT
2	G-4	6' FROM END BENT 1	0.5' X 1'		* BOTTOM FLANGE	RT EXT
2	G-4	8' FROM BENT 1	0.7' X 0.7'		* BOTTOM FLANGE	3
2	INTER. DIA.	25' FROM BENT 1	0.2' X 1.1'		DIAPHRAGM	3
2	INTER. DIA.	25' FROM BENT 1	1' X 0.4'		DIAPHRAGM	2

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
3	DECK	2' FROM BENT 2	3.2' X 3.3'		BOTTOM OF DECK	1
3	DECK	3' FROM BENT 2	2' X 2'		BOTTOM OF DECK	1
3	DECK	5' FROM BENT 2	2' X 0.8'		BOTTOM OF DECK	1
3	DECK	8' FROM BENT 2	2' X 2'		BOTTOM OF DECK	1
3	DECK	4' FROM BENT 2	1.2' X 0.8'		BOTTOM OF DECK	3
3	END DIA.	@ BENT 2	1.5' X 1'		DIAPHRAGM	1
3	END DIA.	@ BENT 2	0.8' X 1.2'		DIAPHRAGM	1
3	END DIA.	@ BENT 2	0.7' X 1.5'		DIAPHRAGM	1
3	END DIA.	@ BENT 2	4' X 0.6'		DIAPHRAGM	3
3	G-1	@ BENT 2	1.3' X 1'		WEB	LT EXT
3	G-1	@ BENT 2	1' X 0.6'		* BOTTOM FLANGE	1
3	G-1	@ BENT 2	1' X 0.2'		* BOTTOM FLANGE & WEB	1
3	G-1	10' FROM BENT 2	3.2' X 0.4'		* BOTTOM FLANGE	LT EXT
3	G-2	@ BENT 2	0.9' X 2'		* BOTTOM FLANGE & WEB	1
3	G-2	@ BENT 3	5' X 0.5'		* BOTTOM FLANGE	1
3	G-2	@ BENT 3	2' X 2'		WEB	1
3	G-2	@ BENT 3	1' X 1.3'		* BOTTOM FLANGE & WEB	2
3	G-2	@ BENT 2	11.5' X 1.2'		WEB	2
3	G-2	@ BENT 2	5' X 0.5'		* BOTTOM FLANGE	2
3	G-2	4' FROM INTER. DIA.	3.5' X 0.5'		* BOTTOM FLANGE	2
3	G-2	4' FROM BENT 3	2' X 1'		WEB	2
3	G-3	@ BENT 3	1.2' X 1.3'		* BOTTOM FLANGE & WEB	2
3	G-3	@ BENT 2	2.2' X 1'		* BOTTOM FLANGE	3
3	G-3	@ BENT 2	0.8' X 0.6'		* BOTTOM FLANGE	3
3	G-3	@ BENT 2	0.8' X 0.6'		* BOTTOM FLANGE	3
3	G-3	2' FROM BENT 2	8.3' X 1.2'		WEB	2
3	G-3	2' FROM BENT 3	0.9' X 1.2'		WEB	2
3	G-3	2.5' FROM BENT 2	3.7' X 1.2'		WEB	3
3	G-3	5' FROM BENT 2	4' X 0.8'		* BOTTOM FLANGE	2
3	G-3	9' FROM BENT 3	4.5' X 0.5'		* BOTTOM FLANGE	2
3	G-4	@ INTER. DIA.	4.5' X 0.8'		* BOTTOM FLANGE	3
3	G-4	@ BENT 2	1.7' X 1'		* BOTTOM FLANGE	RT EXT
3	G-4	@ BENT 2	4' X 1.2'		WEB	RT EXT
3	G-4	@ BENT 3	0.5' X 0.7'		* BOTTOM FLANGE	RT EXT
3	G-4	@ BENT 2	14' X 1.2'		WEB	3
3	G-4	@ BENT 2	17' X 1'		* BOTTOM FLANGE	3
3	G-4	2' FROM INTER. DIA.	6' X 0.8'		* BOTTOM FLANGE	3
3	G-4	5' FROM BENT 3	1.2' X 0.8'		WEB	3

REPAIR QUANTITY TABLE						
QUANTITIES						
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 2 & 3	SHOTCRETE					
	GIRDERS	242.07	70.60			
	DIAPHRAGMS	7.85	3.93			
	DECK	21.12	10.56			
EPOXY MORTAR		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
	GIRDERS	76.36	22.27			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

DRAWN BY : M.A. LEE DATE : 6/2016
 CHECKED BY : T. SHERRILL DATE : 6/2016
 DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

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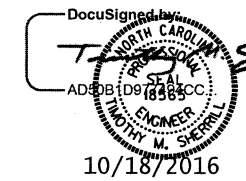
PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 2 OF 22

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-17
2			4			394



GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
4	G-1	2' FROM BENT 3	5' X 1.3'		WEB	1
4	G-2	@ BENT 4	8' X 0.8'		* BOTTOM FLANGE	1
4	G-2	@ BENT 4	0.8' X 10'		* BOTTOM FLANGE	1
4	G-2	@ BENT 3	3' X 0.8'		* BOTTOM FLANGE	1
4	G-2	@ BENT 3	1.8' X 1.3'		WEB	2
4	G-2	2' FROM BENT 3	3.5' X 1.3'		WEB	1
4	G-3	@ BENT 3	0.8' X 0.8'		* BOTTOM FLANGE	2
4	G-3	@ BENT 3	3.5' X 2.1'		WEB	2
4	G-3	@ BENT 3	1.8' X 1.2'		WEB	2
4	G-3	2' FROM BENT 4	6.3' X 1.3'		WEB	2
4	G-4	@ BENT 4	1' X 0.8'		* BOTTOM FLANGE	3
4	G-4	2' FROM BENT 3	6' X 1.3'		WEB	3
4	G-4	4' FROM BENT 3	0.9' X 1.8'		WEB	3
5	G-1	@ BENT 4	3' X 1.3'		* BOTTOM FLANGE & WEB	1
5	G-1	@ BENT 4	3' X 1.3'		* BOTTOM FLANGE & WEB	1
5	G-1	@ BENT 4	4.7' X 2.2'		WEB	1
5	G-2	@ BENT 5	1.1' X 1'		* BOTTOM FLANGE	1
5	G-2	2' FROM BENT 5	0.8' X 1.2'		WEB	1
5	G-2	6' FROM BENT 5	1.4' X 1.3'		WEB	2
5	G-3	@ BENT 4	0.7' X 0.6'		* BOTTOM FLANGE	2
5	G-3	@ BENT 4	1.2' X 0.7'		* BOTTOM FLANGE	3
5	G-3	13' FROM BENT 5	5.3' X 0.5'		* BOTTOM FLANGE	2
5	G-3	17' FROM BENT 4	4.7' X 0.4'		* BOTTOM FLANGE	3
5	G-3	2' FROM BENT 4	6' X 1.3'		WEB	2
5	G-3	4' FROM BENT 5	6.7' X 1.3'		WEB	2
5	G-4	@ BENT 4	1.2' X 0.7'		WEB	3
6	END DIA.	@ BENT 5	0.8' X 1.2'		DIAPHRAGM	3
6	G-1	@ BENT 5	1.2' X 0.7'		* BOTTOM FLANGE	1
6	G-2	2' FROM BENT 5	1' X 0.7'		WEB	1
6	G-3	1.5' FROM BENT 5	5.8' X 1.2'		WEB	3
6	G-3	4' FROM BENT 6	3.3' X 1.2'		WEB	2
6	G-4	@ BENT 5	0.6' X 0.6'		* BOTTOM FLANGE	RT EXT
6	G-4	@ BENT 6	0.8' X 0.8'		* BOTTOM FLANGE	3
6	G-4	3' FROM BENT 5	3.3' X 1.2'		WEB	3
7	G-3	@ BENT 6	1' X 0.6'		* BOTTOM FLANGE	3
8	G-1	@ BENT 7	1' X 0.6'		* BOTTOM FLANGE	1
8	G-2	@ BENT 7	1' X 0.6'		* BOTTOM FLANGE	1
8	G-4	@ BENT 7	1' X 0.6'		* BOTTOM FLANGE	3
9	G-2	@ BENT 8	1' X 0.6'		* BOTTOM FLANGE	1
9	G-2	3' FROM BENT 9	1.3' X 5.5'		WEB	1
10	G-1	@ BENT 10	1' X 0.6'		* BOTTOM FLANGE	1
10	G-3	3' FROM BENT 9	1.3' X 5'		WEB	2
10	G-3	@ BENT 10	0.8' X 3.5'		* BOTTOM FLANGE	3
11	G-1	@ BENT 11	1' X 0.6'		* BOTTOM FLANGE	1
11	G-2	@ BENT 10	1' X 0.6'		* BOTTOM FLANGE	2
11	G-2	@ BENT 11	0.5' X 0.5'		* BOTTOM FLANGE	2
11	G-2	@ BENT 11	0.5' X 0.5'		* BOTTOM FLANGE	1
11	G-3	@ BENT 11	1' X 0.6'		* BOTTOM FLANGE	3
12	G-2	@ BENT 11	1' X 0.6'		* BOTTOM FLANGE	1
12	G-2	@ BENT 12	1' X 0.6'		* BOTTOM FLANGE	1

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
13	G-2	@ BENT 12	0.3' X 1.5'		* BOTTOM FLANGE	1
13	G-2	@ BENT 13	0.5' X 0.3'		* BOTTOM FLANGE	2
13	G-3	@ BENT 13	0.5' X 0.7'		* BOTTOM FLANGE	3
13	G-3	@ BENT 13	0.5' X 0.7'		* BOTTOM FLANGE	2
13	G-4	@ BENT 12	1' X 0.6'		* BOTTOM FLANGE	3
14	G-1	@ BENT 13	1.5' X 0.6'		* BOTTOM FLANGE & WEB	LT EXT
14	G-2	10' FROM BENT 13	0.3' X 0.6'		* BOTTOM FLANGE	1
14	G-2	@ BENT 14	0.7' X 0.6'		* BOTTOM FLANGE	2
14	G-3	2' FROM BENT 13	1.8' X 0.7'		WEB	2
14	G-3	9' FROM BENT 13	2.7' X 0.6'		* BOTTOM FLANGE	2
14	G-3	@ BENT 14	1.8' X 0.7'		* BOTTOM FLANGE	2
14	G-3	@ BENT 14	0.7' X 0.6'		* BOTTOM FLANGE	3
14	G-3	@ BENT 14	0.3' X 1.5'		* BOTTOM FLANGE	2

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
4-14	SHOTCRETE					
	GIRDERS	101.47	29.60			
	DIAPHRAGMS	0.96	0.48			
	DECK	0.00	0.00			
EPOXY MORTAR		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
	GIRDERS	51.82	15.11			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

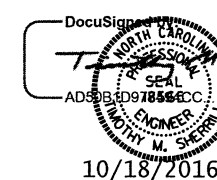
CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 3 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-18
					TOTAL SHEETS
					394



DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: T. SHERRILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
15	G-1	@ BENT 15	1' X 0.6'		* BOTTOM FLANGE	1
15	G-2	@ BENT 14	0.8' X 0.6'		* BOTTOM FLANGE	2
15	G-2	@ BENT 14	0.8' X 0.6'		* BOTTOM FLANGE & WEB	1
15	G-2	@ BENT 15	0.8' X 0.5'		WEB	1
15	G-2	4' FROM INTER. DIA.	3' X 0.6'		* BOTTOM FLANGE	1
15	G-3	@ BENT 14	0.7' X 1.5'		* BOTTOM FLANGE	2
15	G-3	@ BENT 15	1' X 0.6'		* BOTTOM FLANGE	3
15	G-3	@ BENT 15	0.5' X 0.6'		* BOTTOM FLANGE	2
15	G-3	@ BENT 15	0.3' X 1.5'		* BOTTOM FLANGE	2
16	G-1	@ BENT 15	1.5' X 0.5'		* BOTTOM FLANGE	LT EXT
16	G-1	@ BENT 15	0.8' X 0.4'		WEB	RT EXT
16	G-2	@ BENT 15	0.8' X 0.5'		* BOTTOM FLANGE	1
16	G-2	2' FROM BENT 15	0.8' X 0.3'		WEB	1
16	G-3	@ BENT 15	0.5' X 0.6'		* BOTTOM FLANGE	3
16	G-4	@ BENT 16	1' X 0.5'		* BOTTOM FLANGE	RT EXT
17	G-1	@ BENT 16	0.7' X 0.6'		* BOTTOM FLANGE	1
17	G-2	@ BENT 16	0.4' X 1.5'		* BOTTOM FLANGE	1
17	G-2	@ BENT 17	0.7' X 0.6'		* BOTTOM FLANGE	2
17	G-2	@ BENT 17	0.7' X 0.6'		* BOTTOM FLANGE	1
17	G-3	@ BENT 16	5.7' X 0.8'		* BOTTOM FLANGE	2
17	G-3	@ BENT 16	0.8' X 0.8'		WEB	2
17	G-3	@ BENT 17	0.7' X 0.6'		* BOTTOM FLANGE	3
17	G-4	2' FROM BENT 16	1.5' X 0.5'		* BOTTOM FLANGE	RT EXT
17	G-4	@ BENT 16	0.3' X 1.7'		* BOTTOM FLANGE	3
17	G-4	3.5' FROM INTER. DIA.	0.3' X 0.6'		* BOTTOM FLANGE	3
18	G-1	@ BENT 17	1' X 0.6'		* BOTTOM FLANGE	1
18	G-1	@ BENT 18	1' X 1.5'		* BOTTOM FLANGE	LT EXT
18	G-2	@ BENT 18	0.8' X 0.6'		* BOTTOM FLANGE	1
19	G-1	@ BENT 18	0.1' X 0.6'		* BOTTOM FLANGE	LT EXT
19	G-4	@ BENT 19	0.8' X 0.6'		* BOTTOM FLANGE	3
20	G-1	@ BENT 20	1.5' X 1.5'		* BOTTOM FLANGE & WEB	1
20	G-2	@ BENT 16	1' X 0.6'		* BOTTOM FLANGE	1
20	G-2	@ BENT 16	2.5' X 0.7'		* BOTTOM FLANGE	3
20	G-2	@ BENT 20	1.3' X 0.8'		* BOTTOM FLANGE	2
20	G-2	@ BENT 20	1' X 0.3'		* BOTTOM FLANGE	1
20	G-2	3.5' FROM INTER. DIA.	0.3' X 0.3'		WEB	2
20	G-3	@ BENT 16	1.3' X 0.6'		* BOTTOM FLANGE	2
20	G-3	@ BENT 20	0.7' X 0.6'		* BOTTOM FLANGE	3
20	G-3	@ BENT 20	0.7' X 0.6'		* BOTTOM FLANGE	2
20	G-3	@ BENT 20	1' X 1.5'		* BOTTOM FLANGE	2
20	G-4	@ BENT 20	2.7' X 0.8'		* BOTTOM FLANGE	RT EXT
20	G-4	@ BENT 20	1' X 0.7'		* BOTTOM FLANGE	3
21	G-1	@ BENT 20	0.8' X 0.8'		* BOTTOM FLANGE	1
21	G-1	@ BENT 20	2.3' X 0.8'		* BOTTOM FLANGE	LT EXT
21	G-2	@ BENT 20	0.5' X 1.5'		* BOTTOM FLANGE	1
21	G-2	@ BENT 20	3' X 9'		* BOTTOM FLANGE	1
21	G-2	@ BENT 21	1' X 0.8'		* BOTTOM FLANGE	1
21	G-3	@ BENT 20	1' X 0.6'		* BOTTOM FLANGE	3
21	G-3	@ BENT 20	2.5' X 1'		* BOTTOM FLANGE	2
21	G-4	@ BENT 20	1.5' X 0.6'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
21	G-4	@ BENT 21	2.5' X 0.6'		* BOTTOM FLANGE	RT EXT
21	G-4	@ BENT 21	0.6' X 0.6'		* BOTTOM FLANGE	3
22	G-1	@ BENT 21	2.5' X 0.8'		* BOTTOM FLANGE	1
22	G-2	@ BENT 21	0.8' X 0.6'		* BOTTOM FLANGE	2
22	G-2	@ BENT 21	4' X 0.5'		* BOTTOM FLANGE	2
22	G-2	@ BENT 21	0.7' X 0.6'		* BOTTOM FLANGE	1
22	G-2	@ BENT 22	0.6' X 1.5'		* BOTTOM FLANGE	1
22	G-2	@ BENT 22	0.8' X 0.6'		* BOTTOM FLANGE	1
23	G-1	@ BENT 22	1' X 0.6'		* BOTTOM FLANGE	1
23	G-2	@ BENT 23	0.7' X 0.6'		* BOTTOM FLANGE	1
23	G-3	@ BENT 23	0.7' X 0.6'		* BOTTOM FLANGE	2
23	G-4	@ BENT 23	0.5' X 0.6'		* BOTTOM FLANGE	RT EXT
23	G-4	@ BENT 23	6' X 0.6'		* BOTTOM FLANGE	3
24	G-1	@ BENT 23	0.7' X 0.5'		* BOTTOM FLANGE	1
24	G-1	@ BENT 24	1' X 0.6'		* BOTTOM FLANGE	LT EXT
24	G-2	@ BENT 23	0.5' X 0.5'		* BOTTOM FLANGE	1
24	G-2	@ BENT 24	0.8' X 0.6'		* BOTTOM FLANGE	2
24	G-3	@ BENT 23	2.3' X 0.8'		* BOTTOM FLANGE	2
24	G-3	@ BENT 24	0.7' X 0.6'		* BOTTOM FLANGE	2
24	G-4	@ BENT 23	0.5' X 0.6'		* BOTTOM FLANGE	3
25	G-2	1' FROM INTER. DIA.	0.5' X 0.3'		WEB	2
25	G-2	@ BENT 24	0.5' X 0.5'		* BOTTOM FLANGE	1
25	G-2	@ BENT 25	0.5' X 0.6'		* BOTTOM FLANGE	1
25	G-3	2' FROM INTER. DIA.	5' X 0.6'		* BOTTOM FLANGE	2
25	G-3	@ BENT 25	0.8' X 0.8'		* BOTTOM FLANGE	3
25	G-4	1' FROM INTER. DIA.	3' X 0.6'		* BOTTOM FLANGE	3
25	G-4	@ BENT 24	0.5' X 0.5'		* BOTTOM FLANGE	3
25	G-4	@ BENT 25	0.5' X 0.6'		* BOTTOM FLANGE	3
26	G-1	@ BENT 25	1.5' X 1.5'		* BOTTOM FLANGE & WEB	LT EXT
26	G-1	4.5' FROM INTER. DIA.	2' X 0.5'		* BOTTOM FLANGE	1
26	G-2	@ BENT 25	1.3' X .7'		* BOTTOM FLANGE	2
26	G-2	@ BENT 25	1.3' X 1.5'		* BOTTOM FLANGE & WEB	1
26	G-3	@ BENT 26	1' X 0.6'		* BOTTOM FLANGE	2
26	G-4	@ BENT 26	4.5' X 0.8'		* BOTTOM FLANGE	3
27	G-1	2.5' FROM INTER. DIA.	2' X 0.5'		* BOTTOM FLANGE	1
27	G-1	@ BENT 26	1' X 0.8'		* BOTTOM FLANGE	LT EXT
27	G-2	1.5' FROM INTER. DIA.	1.8' X 0.3'		WEB	1
27	G-3	@ BENT 26	4.5' X 1'		* BOTTOM FLANGE	2
27	G-3	@ BENT 27	9' X 0.6'		* BOTTOM FLANGE	2
27	G-3	@ BENT 27	1' X 1'		* BOTTOM FLANGE	3
27	G-4	@ BENT 26	4.5' X 1'		* BOTTOM FLANGE	3
27	G-4	@ BENT 27	3' X 0.5'		* BOTTOM FLANGE	RT EXT
28	G-1	@ BENT 27	0.5' X 0.6'		* BOTTOM FLANGE	1
28	G-1	@ BENT 27	3.5' X 0.6'		* BOTTOM FLANGE	LT EXT
28	G-2	@ BENT 28	0.6' X 0.6'		* BOTTOM FLANGE	1
28	G-2	@ BENT 28	4' X 0.8'		* BOTTOM FLANGE	1
28	G-3	@ BENT 27	5' X 0.6'		* BOTTOM FLANGE	2
28	G-4	@ BENT 28	1' X 0.6'		* BOTTOM FLANGE	3

REPAIR QUANTITY TABLE						
SPAN	REPAIR TYPE	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
15-28	SHOTCRETE					
	GIRDERS	2.38	0.69			
	DIAPHRAGMS	0.00	0.00			
	DECK	0.00	0.00			
15-28	EPOXY MORTAR					
	GIRDERS	129.05	37.64			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 4 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TOTAL SHEETS: 394

DocuSigned by:

10/18/2016

DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: T. SHERRILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
29	G-1	@ BENT 28	0.6' X 0.7'		* BOTTOM FLANGE	LT EXT
29	G-2	@ BENT 28	3.5' X 0.8'		* BOTTOM FLANGE	2
29	G-3	@ BENT 28	0.5' X 0.5'		* BOTTOM FLANGE	3
29	G-3	@ BENT 28	1.5' X 1.3'		* BOTTOM FLANGE	2
29	G-3	4' FROM INTER. DIA.	0.7' X 0.7'		* BOTTOM FLANGE	2
29	G-4	@ BENT 28	3.5' X 1'		* BOTTOM FLANGE	3
29	G-4	@ BENT 29	1' X 0.6'		* BOTTOM FLANGE	3
29	G-4	6.5' FROM INTER. DIA.	3' X 0.7'		* BOTTOM FLANGE	3
30	G-1	@ BENT 29	5' X 1.5'		* BOTTOM FLANGE	1
30	G-1	@ BENT 30	0.5' X 0.6'		* BOTTOM FLANGE	1
30	G-2	@ BENT 29	3' X 0.7'		* BOTTOM FLANGE	1
30	G-2	@ BENT 30	0.5' X 0.6'		* BOTTOM FLANGE	1
30	G-3	@ BENT 29	1' X 0.6'		* BOTTOM FLANGE	3
30	G-3	@ BENT 30	1' X 0.6'		* BOTTOM FLANGE	3
30	G-3	@ BENT 30	1' X 0.6'		* BOTTOM FLANGE	2
30	G-3	4' FROM INTER. DIA.	0.7' X 0.7'		* BOTTOM FLANGE	2
30	G-4	@ BENT 29	1' X 0.6'		* BOTTOM FLANGE	3
30	G-4	@ BENT 30	0.7' X 0.6'		* BOTTOM FLANGE	3
31	G-1	@ BENT 30	0.5' X 0.6'		* BOTTOM FLANGE	RT EXT
31	G-1	@ BENT 31	1' X 0.6'		* BOTTOM FLANGE	1
31	G-3	4' FROM INTER. DIA.	2.7' X 0.7'		* BOTTOM FLANGE	2
32	G-1	@ BENT 32	0.8' X 0.6'		* BOTTOM FLANGE	1
32	G-2	@ BENT 32	0.8' X 0.6'		* BOTTOM FLANGE	1
32	G-2	@ BENT 32	0.8' X 0.6'		* BOTTOM FLANGE	2
32	G-3	1' FROM INTER. DIA.	2.5' X 0.6'		* BOTTOM FLANGE	2
32	G-3	@ BENT 31	5.5' X 0.8'		* BOTTOM FLANGE	2
32	G-3	@ BENT 32	0.8' X 0.6'		* BOTTOM FLANGE	2
32	G-4	@ BENT 31	1' X 0.8'		* BOTTOM FLANGE	3
33	G-1	@ BENT 32	2.5' X 0.5'		* BOTTOM FLANGE	1
33	G-1	@ BENT 33	5' X 1'		* BOTTOM FLANGE	LT EXT
33	G-2	@ BENT 32	3.7' X 0.8'		* BOTTOM FLANGE	1
33	G-2	@ BENT 32	1' X 0.6'		* BOTTOM FLANGE	2
33	G-2	@ BENT 33	0.3' X 0.6'		* BOTTOM FLANGE	1
33	G-3	@ BENT 32	7.0' X 0.4'		* BOTTOM FLANGE	2
33	G-4	@ BENT 32	0.9' X 0.9'		* BOTTOM FLANGE	3
33	G-4	@ BENT 33	0.5' X 0.7'		* BOTTOM FLANGE	3
34	G-2	@ BENT 33	0.4' X 1.5'		* BOTTOM FLANGE	1
34	G-2	@ BENT 34	2.3' X 1'		* BOTTOM FLANGE	1
34	G-2	@ BENT 34	0.6' X 0.6'		* BOTTOM FLANGE	2
34	G-3	@ BENT 33	2.2' X 1.5'		* BOTTOM FLANGE	2
34	G-3	@ BENT 34	1.5' X 0.6'		* BOTTOM FLANGE	2
35	G-2	@ BENT 34	3.5' X 0.8'		* BOTTOM FLANGE	1
35	G-3	@ BENT 34	0.8' X 0.7'		* BOTTOM FLANGE	2
35	G-3	@ BENT 35	0.5' X 0.6'		* BOTTOM FLANGE	2
36	END DIA.	@ BENT 36	3.5' X 1'		DIAPHRAGM	3
36	G-1	@ BENT 35	1' X 1.5'		* BOTTOM FLANGE	LT EXT
36	G-1	@ BENT 35	0.6' X 0.6'		* BOTTOM FLANGE	1
36	G-1	@ BENT 36	1' X 0.4'		* BOTTOM FLANGE & WEB	LT EXT
36	G-2	@ BENT 35	0.5' X 0.1'		* BOTTOM FLANGE	1
36	G-2	@ BENT 35	0.9' X 0.6'		* BOTTOM FLANGE	1

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
36	G-3	@ BENT 35	5' X 0.6'		* BOTTOM FLANGE	3
36	G-3	@ BENT 35	3' X 1.3'		* BOTTOM FLANGE	2
36	G-3	@ BENT 35	1' X 0.8'		* BOTTOM FLANGE	3
36	G-3	7' FROM INTER. DIA.	3.8' X 0.5'		* BOTTOM FLANGE	2
36	G-4	@ BENT 35	1' X 0.4'		* BOTTOM FLANGE	3
36	G-4	@ BENT 35	1.5' X 0.8'		* BOTTOM FLANGE	3
37	G-1	@ BENT 36	0.8' X 0.6'		* BOTTOM FLANGE	1
37	G-1	@ BENT 37	2.8' X 0.6'		* BOTTOM FLANGE	1
37	G-2	@ BENT 37	0.8' X 0.6'		* BOTTOM FLANGE	1
37	G-3	@ BENT 36	5' X 0.5'		* BOTTOM FLANGE	2
37	G-3	@ BENT 36	0.6' X 0.6'		* BOTTOM FLANGE	3
37	G-3	14.5' FROM BENT 37	3' X 0.6'		* BOTTOM FLANGE	2
37	G-3	@ BENT 37	1.4' X 0.7'		* BOTTOM FLANGE	2
37	G-4	@ BENT 36	2.8' X 0.7'		* BOTTOM FLANGE	3
37	G-4	14.5' FROM BENT 37	2.8' X 0.6'		* BOTTOM FLANGE	RT EXT
38	G-1	@ BENT 37	0.8' X 0.5'		* BOTTOM FLANGE	1
38	G-2	@ BENT 37	0.8' X 0.4'		* BOTTOM FLANGE	2
38	G-2	@ BENT 38	5.5' X 1.4'		* BOTTOM FLANGE	1
38	G-3	3' FROM BENT 37	2' X 0.5'		* BOTTOM FLANGE	2
38	G-3	@ BENT 37	3' X 0.5'		* BOTTOM FLANGE	2
38	G-3	@ BENT 37	0.6' X 0.3'		* BOTTOM FLANGE & WEB	2
38	G-3	@ BENT 37	1.8' X 0.6'		* BOTTOM FLANGE	3
38	G-4	25' FROM BENT 37	2.2' X 0.4'		* BOTTOM FLANGE	3
38	G-4	13.5' FROM BENT 38	6' X 0.5'		* BOTTOM FLANGE	3
38	G-4	@ BENT 37	0.8' X 0.6'		* BOTTOM FLANGE	3
38	G-4	@ BENT 37	2.2' X 1.7'		* BOTTOM FLANGE & WEB	3
38	G-4	@ BENT 37	0.6' X 0.3'		* BOTTOM FLANGE	RT EXT
39	G-1	@ BENT 39	0.3' X 0.5'		* BOTTOM FLANGE	LT EXT
39	G-2	@ BENT 39	1.3' X 1.2'		* BOTTOM FLANGE	2
39	G-4	27.5' FROM BENT 38	6.4' X 0.6'		* BOTTOM FLANGE	3
40	G-2	@ BENT 40	0.8' X 0.3'		* BOTTOM FLANGE	1
40	G-3	@ BENT 40	1' X 0.7'		* BOTTOM FLANGE	3
40	G-3	@ BENT 40	0.9' X 0.7'		* BOTTOM FLANGE	2
40	G-4	@ BENT 40	1.9' X 1.3'		* BOTTOM FLANGE	3
41	G-2	@ BENT 40	1.8' X 0.3'		* BOTTOM FLANGE	1
41	G-3	30' FROM BENT 40	4' X 0.5'		* BOTTOM FLANGE	2
41	G-4	29' FROM BENT 40	2.6' X 0.4'		* BOTTOM FLANGE	3
41	G-4	@ BENT 40	0.9' X 0.5'		* BOTTOM FLANGE	3
41	G-4	@ BENT 41	0.7' X 0.7'		* BOTTOM FLANGE	RT EXT
43	G-1	@ BENT 42	2.9' X 0.8'		* BOTTOM FLANGE	LT EXT
43	G-2	@ BENT 42	4.7' X 0.5'		* BOTTOM FLANGE	1
43	G-3	@ BENT 42	1.3' X 0.8'		* BOTTOM FLANGE	2
43	G-3	@ BENT 42	1.4' X 0.8'		* BOTTOM FLANGE	3
43	G-4	@ BENT 43	1' X 0.8'		* BOTTOM FLANGE	3
43	G-4	@ BENT 42	0.5' X 0.7'		* BOTTOM FLANGE	3
43	G-4	@ BENT 42	0.6' X 0.6'		* BOTTOM FLANGE	RT EXT
44	G-1	@ BENT 43	0.8' X 0.5'		* BOTTOM FLANGE	1
44	G-1	@ BENT 44	1' X 0.5'		* BOTTOM FLANGE	1
44	G-2	@ BENT 43	0.8' X 0.2'		* BOTTOM FLANGE	1
44	G-2	@ BENT 44	1' X 0.8'		* BOTTOM FLANGE	2
44	G-3	@ BENT 43	1.5' X 0.8'		* BOTTOM FLANGE	2

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
29-44	SHOTCRETE					
	GIRDERS	0.00	0.00			
	DIAPHRAGMS	3.50	1.75			
	DECK	0.00	0.00			
29-44	EPOXY MORTAR					
	GIRDERS	133.95	39.07			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

DRAWN BY: M.A. LEE DATE: 6/2016
 CHECKED BY: T. SHERRILL DATE: 6/2016
 DESIGN ENGINEER OF RECORD: T. SHERRILL DATE: 6/2016

17-OCT-2016 16:21
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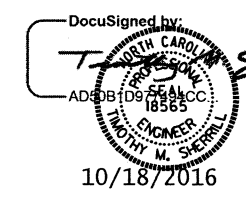
PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 5 OF 22

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	5-20
1			3			TOTAL SHEETS 394
2			4			



GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
45	G-1	@ BENT 45	0.7' X 0.8'		* BOTTOM FLANGE	LT EXT
45	G-2	6' FROM BENT 45	3.5' X 0.6'		* BOTTOM FLANGE	1
45	G-2	@ BENT 45	0.7' X 0.7'		* BOTTOM FLANGE	2
45	G-2	8' FROM INTER. DIA.	3' X 0.3'		* BOTTOM FLANGE	2
45	G-3	@ BENT 44	1.5' X 0.7'		* BOTTOM FLANGE	3
46	G-2	@ BENT 45	0.7' X 0.5'		* BOTTOM FLANGE	1
46	G-3	@ BENT 45	2.7' X 0.3'		* BOTTOM FLANGE	2
46	G-3	@ BENT 46	0.7' X 0.5'		* BOTTOM FLANGE	2
46	G-4	3' FROM BENT 45	3.3' X 0.5'		* BOTTOM FLANGE	3
46	G-4	3' FROM BENT 46	3.2' X 0.4'		* BOTTOM FLANGE	3
46	G-4	@ BENT 45	2.4' X 1.5'		* BOTTOM FLANGE	3
47	G-2	2' FROM BENT 47	2.7' X 0.5'		* BOTTOM FLANGE	1
47	G-2	@ BENT 47	0.5' X 0.7'		* BOTTOM FLANGE	1
47	G-3	@ BENT 47	2.1' X 0.6'		* BOTTOM FLANGE	2
47	G-3	@ BENT 47	1.8' X 0.4'		* BOTTOM FLANGE	3
47	G-4	@ BENT 47	3.1' X 0.5'		* BOTTOM FLANGE	3
47	G-4	5.5' FROM INTER. DIA.	3.5' X 0.6'		* BOTTOM FLANGE	3
48	G-1	@ BENT 48	0.8' X 0.8'		* BOTTOM FLANGE	1
48	G-2	@ BENT 48	0.9' X 0.8'		* BOTTOM FLANGE	1
48	G-4	@ BENT 47	1.3' X 0.5'		* BOTTOM FLANGE	RT EXT
49	G-2	@ BENT 48	1.3' X 0.8'		* BOTTOM FLANGE	1
49	G-3	@ BENT 48	2.3' X 0.8'		* BOTTOM FLANGE	2
49	G-3	@ BENT 49	0.6' X 0.6'		* BOTTOM FLANGE	2
49	G-3	@ BENT 49	0.4' X 0.6'		* BOTTOM FLANGE	3
49	G-4	@ BENT 48	1.2' X 1.2'		* BOTTOM FLANGE	3
50	G-1	@ BENT 50	0.5' X 0.5'		* BOTTOM FLANGE	1
50	G-3	@ BENT 49	0.5' X 1.3'		* BOTTOM FLANGE	3
51	G-2	@ BENT 51	0.7' X 0.7'		* BOTTOM FLANGE	1
51	G-2	@ BENT 51	0.7' X 0.7'		* BOTTOM FLANGE	2
51	G-3	@ BENT 50	1.6' X 0.4'		* BOTTOM FLANGE	2
51	G-4	@ BENT 50	3.3' X 0.8'		* BOTTOM FLANGE	3
51	G-4	@ BENT 51	0.6' X 1.3'		* BOTTOM FLANGE	3
52	END DIA.	@ BENT 51	2.5' X 0.8'		DIAPHRAGM	2
52	G-1	@ BENT 52	0.5' X 1.3'		* BOTTOM FLANGE & WEB	1
52	G-2	@ BENT 51	2.3' X 0.7'		* BOTTOM FLANGE	1
52	G-2	@ BENT 52	0.9' X 0.8'		* BOTTOM FLANGE	1
52	G-4	@ BENT 51	1' X 0.5'		* BOTTOM FLANGE	3
52	G-4	@ BENT 52	1' X 0.8'		* BOTTOM FLANGE	3
53	G-2	2.5' FROM INTER. DIA.	0.5' X 0.6'		* BOTTOM FLANGE	1
53	G-3	@ BENT 52	0.3' X 0.5'		* BOTTOM FLANGE	3
53	G-4	@ BENT 53	0.3' X 0.6'		* BOTTOM FLANGE	3
54	G-3	3' FROM INTER. DIA.	0.7' X 0.7'		* BOTTOM FLANGE	3
54	G-3	@ BENT 53	1.3' X 0.3'		* BOTTOM FLANGE	2
54	G-4	3.5' FROM INTER. DIA.	0.3' X 0.3'		* BOTTOM FLANGE	3
55	G-2	3' FROM INTER. DIA.	0.5' X 0.5'		* BOTTOM FLANGE	2
55	G-2	@ BENT 55	0.3' X 0.6'		* BOTTOM FLANGE	2
55	G-3	@ BENT 54	0.7' X 0.3'		* BOTTOM FLANGE	3
55	G-3	@ BENT 55	1' X 0.6'		* BOTTOM FLANGE	3
55	G-3	@ BENT 55	1.5' X 1'		* BOTTOM FLANGE	2
55	G-4	@ BENT 54	0.5' X 0.6'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
55	G-4	@ BENT 55	1.5' X 0.5'		* BOTTOM FLANGE	RT EXT
56	G-1	@ BENT 56	1' X 0.7'		* BOTTOM FLANGE	1
56	G-2	2.5' FROM BENT 56	0.3' X 0.3'		* BOTTOM FLANGE	1
56	G-2	@ BENT 55	1' X 1'		* BOTTOM FLANGE	1
56	G-2	@ BENT 56	1.3' X 0.7'		* BOTTOM FLANGE	2
56	G-3	@ BENT 56	1' X 1.5'		* BOTTOM FLANGE	2
56	G-4	@ BENT 55	0.7' X 0.6'		* BOTTOM FLANGE	3
56	G-4	@ BENT 56	2.3' X 0.8'		* BOTTOM FLANGE	3
57	G-1	4' FROM BENT 56	0.5' X 0.5'		* BOTTOM FLANGE	1
57	G-1	@ BENT 57	0.7' X 0.7'		* BOTTOM FLANGE	1
57	G-1	@ BENT 57	0.7' X 0.8'		* BOTTOM FLANGE	LT EXT
57	G-2	@ BENT 56	2.3' X 0.5'		* BOTTOM FLANGE	2
57	G-2	@ BENT 56	0.7' X 0.7'		* BOTTOM FLANGE	1
57	G-3	@ BENT 56	0.2' X 0.8'		* BOTTOM FLANGE	2
57	G-3	@ BENT 57	2.5' X 0.7'		* BOTTOM FLANGE	3
57	G-4	@ BENT 56	0.2' X 0.8'		* BOTTOM FLANGE	3
58	G-1	15' FROM INTER. DIA.	4' X 0.6'		* BOTTOM FLANGE	RT EXT
58	G-1	@ BENT 58	2' X 0.6'		* BOTTOM FLANGE	1
58	G-2	15' FROM BENT 57	0.5' X 0.5'		* BOTTOM FLANGE & WEB	1
58	G-3	@ BENT 57	3' X 0.8'		* BOTTOM FLANGE	2
58	G-4	@ BENT 57	3' X 0.5'		* BOTTOM FLANGE	3
58	G-4	@ BENT 58	1' X 0.8'		* BOTTOM FLANGE	3

REPAIR QUANTITY TABLE						
SPAN	MEMBER	REPAIR TYPE	QUANTITIES			
			ESTIMATE		ACTUAL	
			AREA SF	VOLUME CF	AREA SF	DEPTH FT
45-58		SHOTCRETE				
		GIRDERS	0.00	0.00		
		DIAPHRAGMS	2.00	1.00		
45-58		DECK	0.00	0.00		
		EPOXY MORTAR				
		GIRDERS	63.03	18.38		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

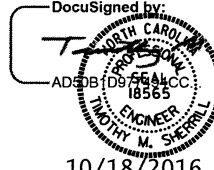
CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 6 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 394

DocuSigned by:

10/18/2016

DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: T. SHERRILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
59	G-1	@ BENT 59	0.7' X 0.7'		* BOTTOM FLANGE	1
59	G-2	3' FROM INTER. DIA.	0.3' X 0.3'		* BOTTOM FLANGE	2
59	G-2	@ BENT 59	1.5' X 1'		* BOTTOM FLANGE	1
59	G-3	@ BENT 59	0.5' X 0.5'		* BOTTOM FLANGE	2
59	G-3	@ BENT 59	0.7' X 0.7'		* BOTTOM FLANGE	3
59	G-4	2.5' FROM INTER. DIA.	1' X 1'		* BOTTOM FLANGE	3
59	G-4	@ BENT 58	0.5' X 0.8'		* BOTTOM FLANGE	3
59	G-4	@ BENT 59	2' X 0.8'		* BOTTOM FLANGE	3
60	END DIA.	@ BENT 59	4' X 1'		DIAPHRAGM	2
60	G-1	@ BENT 60	0.7' X 0.7'		* BOTTOM FLANGE	1
60	G-2	@ BENT 59	0.5' X 1.5'		* BOTTOM FLANGE & WEB	1
60	G-2	@ BENT 59	5' X 0.6'		* BOTTOM FLANGE	1
60	G-2	@ BENT 60	1' X 0.8'		* BOTTOM FLANGE	2
60	G-2	@ BENT 60	3.5' X 0.6'		* BOTTOM FLANGE	1
60	G-3	@ BENT 59	1.3' X 0.5'		* BOTTOM FLANGE	2
60	G-3	@ BENT 60	0.6' X 0.6'		* BOTTOM FLANGE	3
60	G-3	@ BENT 60	1' X 1'		* BOTTOM FLANGE	2
60	G-4	@ BENT 59	3.5' X 0.6'		* BOTTOM FLANGE	3
60	G-4	@ BENT 60	8' X 1.3'		* BOTTOM FLANGE	RT EXT
60	G-4	@ BENT 60	3' X 1'		* BOTTOM FLANGE	3
60	G-4	5' FROM INTER. DIA.	2' X 0.5'		* BOTTOM FLANGE	3
61	G-1	@ BENT 60	1' X 0.8'		* BOTTOM FLANGE	1
61	G-2	@ BENT 60	0.5' X 1.5'		* BOTTOM FLANGE	1
61	G-2	@ BENT 60	1' X 0.3'		* BOTTOM FLANGE	1
61	G-3	2.5' FROM INTER. DIA.	0.5' X 1.2'		WEB	3
61	G-3	@ BENT 60	1' X 0.8'		* BOTTOM FLANGE	3
61	G-3	@ BENT 61	0.5' X 0.6'		* BOTTOM FLANGE	2
61	G-4	15' FROM INTER. DIA.	3.5' X 0.6'		* BOTTOM FLANGE	3
61	G-4	@ BENT 60	1.3' X 0.8'		* BOTTOM FLANGE	3
62	G-1	@ BENT 61	0.3' X 0.7'		* BOTTOM FLANGE	LT EXT
62	G-1	@ BENT 62	1.3' X 0.6'		* BOTTOM FLANGE	1
62	G-1	@ BENT 62	1.5' X 0.8'		* BOTTOM FLANGE	LT EXT
62	G-2	@ BENT 61	0.7' X 0.7'		* BOTTOM FLANGE	1
62	G-2	@ BENT 62	1' X 0.8'		* BOTTOM FLANGE	2
62	G-3	@ BENT 62	0.8' X 0.7'		* BOTTOM FLANGE	2
62	G-4	@ BENT 61	3' X 0.6'		* BOTTOM FLANGE	3
62	G-4	@ BENT 62	1.5' X 1'		* BOTTOM FLANGE	3
63	G-3	5' FROM INTER. DIA.	0.5' X 0.5'		* BOTTOM FLANGE & WEB	2
64	G-1	@ BENT 63	0.6' X 0.6'		* BOTTOM FLANGE	RT EXT
64	G-2	@ BENT 64	0.6' X 0.7'		* BOTTOM FLANGE	2
64	G-4	@ BENT 63	0.5' X 0.7'		WEB	LT EXT
65	G-1	@ BENT 65	0.7' X 0.6'		* BOTTOM FLANGE	1
65	G-2	@ BENT 65	1' X 0.8'		* BOTTOM FLANGE	1
65	G-2	@ BENT 65	0.7' X 0.6'		* BOTTOM FLANGE	2
65	G-3	@ BENT 64	0.5' X 0.3'		* BOTTOM FLANGE	2
65	G-4	@ BENT 64	0.5' X 0.3'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
66	G-1	@ BENT 66	0.8' X 0.5'		* BOTTOM FLANGE	1
66	G-1	5' FROM INTER. DIA.	3.5' X 0.7'		* BOTTOM FLANGE	RT EXT
66	G-1	@ BENT 66	0.7' X 2'		* BOTTOM FLANGE	RT EXT
66	G-3	@ BENT 65	2.7' X 0.8'		* BOTTOM FLANGE	2
66	G-4	@ BENT 65	2' X 0.6'		* BOTTOM FLANGE	3
67	G-2	5' FROM INTER. DIA.	3.5' X 0.6'		* BOTTOM FLANGE	1
67	G-3	@ BENT 66	2' X 0.6'		* BOTTOM FLANGE	3
67	G-3	@ BENT 67	0.5' X 0.8'		* BOTTOM FLANGE	3
67	G-4	@ BENT 66	0.5' X 0.6'		* BOTTOM FLANGE	3
67	G-4	@ BENT 67	0.8' X 0.8'		* BOTTOM FLANGE	3
68	G-1	@ BENT 67	1' X 1'		* BOTTOM FLANGE	RT EXT
68	G-1	@ BENT 68	0.7' X 0.7'		* BOTTOM FLANGE	RT EXT
68	G-1	@ BENT 68	1.5' X 0.8'		* BOTTOM FLANGE	1
68	G-2	@ BENT 68	1' X 0.8'		* BOTTOM FLANGE	1
68	G-2	@ BENT 68	0.8' X 0.8'		* BOTTOM FLANGE	2
68	G-4	@ BENT 67	0.3' X 0.6'		* BOTTOM FLANGE	3
69	END DIA.	@ BENT 69	3' X 0.6'		DIAPHRAGM	3
69	G-1	@ BENT 69	0.7' X 0.6'		* BOTTOM FLANGE	1
69	G-1	@ BENT 69	0.7' X 0.7'		* BOTTOM FLANGE	RT EXT
69	G-3	@ BENT 69	1.3' X 0.8'		* BOTTOM FLANGE	3
70	G-1	@ BENT 69	0.4' X 0.7'		* BOTTOM FLANGE	1
70	G-1	@ BENT 70	1' X 1.5'		* BOTTOM FLANGE & WEB	RT EXT
70	G-1	@ BENT 70	0.8' X 1.5'		* BOTTOM FLANGE & WEB	1
70	G-2	@ BENT 70	0.3' X 0.6'		* BOTTOM FLANGE	1
71	G-2	@ BENT 71	0.7' X 0.7'		* BOTTOM FLANGE	2
71	G-2	@ BENT 71	0.7' X 0.7'		* BOTTOM FLANGE	1
72	G-1	@ BENT 72	0.6' X 0.8'		* BOTTOM FLANGE	1
72	G-1	@ BENT 72	1' X 0.8'		* BOTTOM FLANGE	1
72	G-1	@ BENT 72	0.5' X 0.6'		* BOTTOM FLANGE	RT EXT
72	G-2	@ BENT 72	0.8' X 0.8'		* BOTTOM FLANGE	2
72	G-4	@ BENT 72	1' X 0.8'		* BOTTOM FLANGE	3
72	G-4	@ BENT 72	0.5' X 1.5'		* BOTTOM FLANGE & WEB	LT EXT
73	G-2	2' FROM BENT 72	2.5' X 0.6'		* BOTTOM FLANGE	1
73	G-2	@ BENT 72	0.5' X 0.8'		* BOTTOM FLANGE	2
73	G-2	@ BENT 72	1' X 0.8'		* BOTTOM FLANGE	1
73	G-1	@ BENT 72	0.8' X 0.8'		* BOTTOM FLANGE	RT EXT
73	G-3	9.5' FROM BENT 73	2' X 0.6'		* BOTTOM FLANGE	2
73	G-2	@ BENT 73	0.7' X 0.7'		* BOTTOM FLANGE	2
73	G-4	@ BENT 73	0.3' X 1'		* BOTTOM FLANGE	3

REPAIR QUANTITY TABLE											
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY					
							QUANTITIES				
							ESTIMATE		ACTUAL		
59-73	SHOTCRETE	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF					
	GIRDERS	0.95	0.28								
	DIAPHRAGMS	5.80	2.90								
59-73	EPOXY MORTAR	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF					
	GIRDERS	79.62	23.22								
	DECK	0.00	0.00								

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936

TYRRELL COUNTY

BRIDGE NO. 7

SHEET 7 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-22
					TOTAL SHEETS 394

DocuSigned by:
Tyrrell County
AD5B1D9754MCC
18565
ENGINEER
JOHN M. SHERILL
10/18/2016

DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: I. SHERILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: I. SHERILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
74	G-2	@ BENT 74	0.7' X 0.6'		* BOTTOM FLANGE	1
74	G-1	@ BENT 73	0.5' X 1.5'		* BOTTOM FLANGE	2
74	G-1	@ BENT 73	0.5' X 0.6'		* BOTTOM FLANGE	1
74	G-2	@ BENT 73	0.5' X 0.6'		* BOTTOM FLANGE	1
74	G-2	@ BENT 74	0.5' X 0.8'		* BOTTOM FLANGE	2
74	G-2	@ BENT 74	1' X 0.8'		* BOTTOM FLANGE	2
75	G-1	@ BENT 75	0.7' X 0.7'		* BOTTOM FLANGE	1
75	G-2	@ BENT 75	0.5' X 0.8'		* BOTTOM FLANGE	1
75	G-3	5' FROM BENT 75	0.5' X 0.5'		* BOTTOM FLANGE	1
75	G-2	@ BENT 74	1' X 0.8'		* BOTTOM FLANGE	2
75	G-2	@ BENT 74	0.8' X 1.5'		* BOTTOM FLANGE	1
75	G-1	@ BENT 74	1.5' X 1.5'		* BOTTOM FLANGE	1
75	G-4	@ BENT 75	0.5' X 0.7'		* BOTTOM FLANGE	3
75	G-3	@ BENT 75	0.5' X 1.5'		* BOTTOM FLANGE	RT EXT
76	G-1	7' FROM BENT 75	2.5' X 0.3'		* BOTTOM FLANGE	RT EXT
76	G-2	@ BENT 75	1.5' X 0.8'		* BOTTOM FLANGE	1
76	G-1	@ BENT 75	1' X 0.8'		* BOTTOM FLANGE	RT EXT
76	G-3	@ BENT 75	1.5' X 0.8'		* BOTTOM FLANGE	2
76	G-4	@ BENT 76	0.8' X 0.8'		* BOTTOM FLANGE	3
76	G-3	@ BENT 76	1' X 0.8'		* BOTTOM FLANGE	3
77	DECK	4.5' FROM INTER. DIA.	0.7' X 0.7'		BOTTOM OF DECK	1
77	G-1	@ BENT 76	1.2' X 0.8'		* BOTTOM FLANGE	LT EXT
77	G-1	@ BENT 77	0.5' X 0.5'		* BOTTOM FLANGE	1
77	G-1	5' FROM BENT 77	0.5' X 0.5'		* BOTTOM FLANGE	1
77	G-2	@ BENT 77	0.7' X 0.5'		* BOTTOM FLANGE	1
77	G-2	@ BENT 77	0.8' X 0.6'		* BOTTOM FLANGE	2
77	G-1	@ BENT 76	1' X 0.6'		* BOTTOM FLANGE	RT EXT
77	G-3	@ BENT 76	5.5' X 0.6'		* BOTTOM FLANGE	3
78	G-1	@ BENT 78	3.8' X 0.9'		* BOTTOM FLANGE	1
78	G-2	@ BENT 78	0.8' X 0.6'		* BOTTOM FLANGE	1
78	G-3	@ BENT 78	0.9' X 0.6'		* BOTTOM FLANGE	2
79	G-1	@ BENT 78	0.6' X 0.8'		* BOTTOM FLANGE	1
79	G-2	@ BENT 78	1.3' X 0.6'		* BOTTOM FLANGE	1
79	G-3	@ BENT 78	0.6' X 0.7'		* BOTTOM FLANGE	2
79	G-2	@ BENT 79	1.5' X 0.2'		* BOTTOM FLANGE	1
79	G-2	@ BENT 79	1.2' X 1'		* BOTTOM FLANGE	2
79	G-3	@ BENT 79	0.7' X 0.5'		* BOTTOM FLANGE	2
79	G-3	33' FROM BENT 78	3.3' X 0.8'		* BOTTOM FLANGE	2
79	G-4	@ BENT 78	0.7' X 0.6'		* BOTTOM FLANGE	3
80	G-1	@ BENT 80	0.3' X 0.6'		* BOTTOM FLANGE	1
80	G-4	@ BENT 80	0.8' X 0.5'		* BOTTOM FLANGE	2
80	G-1	@ BENT 80	1.0' X 0.8'		* BOTTOM FLANGE	1
80	G-2	@ BENT 80	1.5' X 1.3'		* BOTTOM FLANGE	2
80	G-2	31' FROM BENT 79	3.4' X 0.5'		* BOTTOM FLANGE	1
80	G-3	25' FROM BENT 79	10.5' X 0.5'		* BOTTOM FLANGE	2
80	G-2	@ BENT 80	0.7' X 0.6'		* BOTTOM FLANGE	3
80	G-3	26' FROM BENT 79	2.4' X 0.4'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
81	G-1	@ BENT 80	1.8' X 0.8'		* BOTTOM FLANGE	1
81	G-2	@ BENT 80	0.8' X 0.6'		* BOTTOM FLANGE	1
81	G-1	@ BENT 81	0.3' X 0.8'		* BOTTOM FLANGE	1
81	G-2	@ BENT 81	0.6' X 0.8'		* BOTTOM FLANGE	2
81	G-1	@ BENT 80	2.2' X 0.9'		* BOTTOM FLANGE	LT EXT
81	G-3	@ BENT 80	1.2' X 0.9'		* BOTTOM FLANGE	2
81	G-4	@ BENT 80	0.4' X 0.8'		* BOTTOM FLANGE	3
81	G-3	@ BENT 81	0.3' X 0.4'		* BOTTOM FLANGE	3
81	G-4	29' FROM BENT 80	4.4' X 0.5'		* BOTTOM FLANGE	3
82	G-2	@ BENT 81	1.6' X 1'		* BOTTOM FLANGE	1
83	END DIA.	@ BENT 83	1.7' X 0.8'		DIAPHRAGM	3
83	G-3	@ BENT 82	2.1' X 0.9'		* BOTTOM FLANGE	1
83	G-1	@ BENT 82	0.3' X 1.3'		* BOTTOM FLANGE & WEB	1
83	G-3	@ BENT 83	0.8' X 0.7'		* BOTTOM FLANGE	3
83	G-4	@ BENT 83	0.4' X 0.8'		WEB	RT EXT
84	G-1	@ BENT 83	0.3' X 0.8'		* BOTTOM FLANGE	1
84	G-2	@ BENT 83	3' X 0.7'		* BOTTOM FLANGE	1
84	G-3	@ BENT 83	1.8' X 0.4'		* BOTTOM FLANGE	2
84	G-3	@ BENT 83	0.6' X 0.5'		* BOTTOM FLANGE	3
84	G-3	1' FROM BENT 83	0.7' X 0.5'		* BOTTOM FLANGE	3
84	G-3	@ BENT 84	1.8' X 0.6'		* BOTTOM FLANGE	3
84	G-4	@ BENT 84	0.4' X 0.8'		* BOTTOM FLANGE	3
84	G-4	8' FROM BENT 84	3.2' X 0.5'		* BOTTOM FLANGE	3
84	G-1	@ BENT 84	0.6' X 0.6'		* BOTTOM FLANGE	3
84	G-4	@ BENT 84	0.3' X 1.3'		* BOTTOM FLANGE	RT EXT
85	G-1	@ BENT 84	0.5' X 0.8'		* BOTTOM FLANGE	1
85	G-2	@ BENT 84	2.7' X 0.6'		* BOTTOM FLANGE	1
85	G-2	@ BENT 85	0.8' X 1.1'		* BOTTOM FLANGE	2
85	G-1	@ BENT 85	0.4' X 0.7'		* BOTTOM FLANGE	1
85	G-4	6' FROM BENT 85	2.5' X 0.5'		* BOTTOM FLANGE	3
86	G-2	@ BENT 85	0.6' X 0.8'		* BOTTOM FLANGE	2
86	G-1	@ BENT 86	1.3' X 1.1'		* BOTTOM FLANGE & WEB	1
87	G-2	@ BENT 87	0.7' X 0.5'		* BOTTOM FLANGE	1
87	G-3	@ BENT 86	0.5' X 0.5'		* BOTTOM FLANGE	3
87	G-2	@ BENT 86	0.7' X 0.6'		* BOTTOM FLANGE	3
87	G-3	@ BENT 87	1.2' X 1.4'		WEB	3
87	G-3	@ BENT 87	0.7' X 0.4'		* BOTTOM FLANGE	2
87	G-3	@ BENT 87	0.7' X 0.3'		* BOTTOM FLANGE	2
88	G-3	@ BENT 88	2.7' X 0.9'		* BOTTOM FLANGE	2
88	G-1	@ BENT 87	0.7' X 0.7'		* BOTTOM FLANGE	1
88	END DIA.	@ BENT 88	6.4' X 0.8'		DIAPHRAGM	2

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
74-88	SHOTCRETE					
	GIRDERS	2.00	0.58			
	DIAPHRAGMS	6.48	3.24			
	DECK	0.49	0.25			
74-88	EPOXY MORTAR					
	GIRDERS	75.87	22.13			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

DRAWN BY : M.A. LEE DATE : 6/2016
 CHECKED BY : T. SHERILL DATE : 6/2016
 DESIGN ENGINEER OF RECORD : T. SHERILL DATE : 6/2016

DocuSigned by
 T. SHERILL
 AD 9B1D91888CC
 ENGINEER
 10/18/2016

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 8 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH				
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS				
REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	BY:
1			3	
2			4	
TOTAL SHEETS				394

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
89	G-1	@ BENT 88	1' X 0.7'		* BOTTOM FLANGE	1
89	G-2	@ BENT 88	1.3' X 0.4'		* BOTTOM FLANGE	1
89	G-3	@ BENT 88	2.1' X 0.7'		* BOTTOM FLANGE	1
89	G-2	@ BENT 89	0.6' X 0.8'		* BOTTOM FLANGE	2
89	G-3	@ BENT 88	0.8' X 0.6'		* BOTTOM FLANGE	2
89	G-4	@ BENT 89	0.6' X 0.5'		* BOTTOM FLANGE	3
89	G-2	@ BENT 89	0.5' X 0.8'		* BOTTOM FLANGE	3
90	END DIA.	@ BENT 89	3.2' X 0.5'		DIAPHRAGM	2
90	G-2	@ BENT 89	0.5' X 0.6'		* BOTTOM FLANGE	1
90	G-1	@ BENT 89	0.7' X 1.1'		* BOTTOM FLANGE	1
90	G-2	@ BENT 89	0.8' X 0.8'		* BOTTOM FLANGE	2
90	G-2	@ BENT 90	0.8' X 0.8'		* BOTTOM FLANGE	1
91	END DIA.	@ BENT 91	6.4' X 0.4'		DIAPHRAGM	3
91	END DIA.	@ BENT 91	4.3' X 0.4'		DIAPHRAGM	2
91	G-4	12' FROM BENT 90	2.7' X 0.3'		* BOTTOM FLANGE	3
92	G-1	@ BENT 92	0.4' X 0.4'		* BOTTOM FLANGE	LT EXT
92	G-2	@ BENT 92	0.7' X 0.6'		* BOTTOM FLANGE	1
92	G-2	@ BENT 91	2.8' X 0.5'		* BOTTOM FLANGE	1
92	G-1	@ BENT 92	2' X 0.6'		* BOTTOM FLANGE	LT EXT
92	G-2	@ BENT 92	0.8' X 0.7'		* BOTTOM FLANGE	2
92	G-3	@ BENT 92	0.9' X 0.8'		* BOTTOM FLANGE	1
93	G-1	@ BENT 92	0.8' X 0.6'		* BOTTOM FLANGE	1
93	G-2	@ BENT 93	0.5' X 0.5'		* BOTTOM FLANGE	1
93	G-2	@ BENT 93	0.3' X 0.2'		WEB	2
93	G-2	@ BENT 93	0.5' X 1.3'		WEB	2
94	END DIA.	@ BENT 94	2.2' X 0.7'		DIAPHRAGM	2
94	G-3	@ BENT 93	1.1' X 0.8'		* BOTTOM FLANGE	2
94	G-3	@ BENT 93	0.5' X 0.5'		* BOTTOM FLANGE	2
94	G-3	@ BENT 94	1' X 0.8'		* BOTTOM FLANGE	3
95	G-2	@ BENT 95	0.6' X 0.7'		* BOTTOM FLANGE	1
95	G-1	@ BENT 95	0.8' X 0.7'		* BOTTOM FLANGE	1
95	G-4	@ BENT 95	0.7' X 0.6'		* BOTTOM FLANGE	3
96	G-1	@ BENT 95	0.7' X 0.7'		* BOTTOM FLANGE	1
96	G-2	@ BENT 96	0.8' X 0.5'		* BOTTOM FLANGE	1
96	G-3	@ BENT 96	0.9' X 0.7'		* BOTTOM FLANGE	2
96	G-2	@ BENT 96	0.7' X 0.8'		* BOTTOM FLANGE	2
97	G-3	30' FROM BENT 96	1.7' X 0.4'		* BOTTOM FLANGE	2
97	G-2	@ BENT 96	0.8' X 0.6'		* BOTTOM FLANGE	2
97	G-2	@ BENT 97	1.3' X 1.2'		* BOTTOM FLANGE	1
97	G-3	@ BENT 97	0.6' X 0.7'		* BOTTOM FLANGE	2
97	G-3	33' FROM BENT 96	2.3' X 0.5'		* BOTTOM FLANGE	2
97	G-3	@ BENT 97	0.8' X 0.8'		* BOTTOM FLANGE	3
98	G-3	@ BENT 97	0.6' X 0.6'		* BOTTOM FLANGE	3
98	G-2	@ BENT 98	1.1' X 0.8'		* BOTTOM FLANGE	1
98	G-2	@ BENT 97	0.6' X 1.5'		* BOTTOM FLANGE	2
98	G-4	@ BENT 97	0.4' X 0.8'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
99	G-2	@ BENT 98	0.9' X 0.8'		* BOTTOM FLANGE	1
99	G-1	@ BENT 98	0.5' X 0.7'		* BOTTOM FLANGE	1
100	G-3	@ BENT 100	0.7' X 0.6'		* BOTTOM FLANGE	2
100	G-1	@ BENT 100	0.6' X 0.8'		* BOTTOM FLANGE	1
100	G-4	@ BENT 100	0.7' X 0.8'		* BOTTOM FLANGE	3
101	G-2	@ BENT 101	0.6' X 0.6'		* BOTTOM FLANGE	2
101	G-3	@ BENT 101	0.8' X 0.9'		* BOTTOM FLANGE	2
101	G-3	@ BENT 100	0.8' X 1'		* BOTTOM FLANGE	2
101	G-3	@ BENT 100	0.4' X 0.5'		* BOTTOM FLANGE	3
101	G-2	@ BENT 100	0.8' X 0.8'		* BOTTOM FLANGE	2
101	G-4	@ BENT 101	0.8' X 0.7'		* BOTTOM FLANGE	3
102	G-1	@ BENT 102	0.7' X 0.7'		* BOTTOM FLANGE	1
102	G-2	@ BENT 102	0.5' X 0.7'		* BOTTOM FLANGE	1
102	G-3	@ BENT 101	0.5' X 1'		* BOTTOM FLANGE	2
102	G-3	@ BENT 102	1' X 1.4'		* BOTTOM FLANGE	2
103	G-1	@ BENT 103	0.5' X 0.5'		* BOTTOM FLANGE	1
103	G-2	@ BENT 102	0.7' X 0.7'		* BOTTOM FLANGE	1
103	G-3	@ BENT 102	0.7' X 0.7'		* BOTTOM FLANGE	2
103	G-3	12' FROM BENT 102	3' X 0.5'		* BOTTOM FLANGE	2

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
89-103	SHOTCRETE					
	GIRDERS	0.86	0.25			
	DIAPHRAGMS	7.42	3.71			
	DECK	0.00	0.00			
89-103	EPOXY MORTAR					
	GIRDERS	36.78	10.73			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

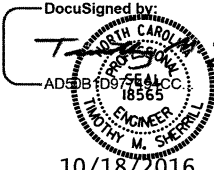
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 9 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-24
1			3			TOTAL SHEETS
2			4			394

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
104	G-2	@ BENT 104	0.5' X 0.5'		* BOTTOM FLANGE	1
104	G-3	@ BENT 103	0.5' X 0.5'		* BOTTOM FLANGE	2
105	G-2	@ BENT 104	0.5' X 0.5'		* BOTTOM FLANGE	1
105	G-2	@ BENT 105	0.5' X 0.5'		* BOTTOM FLANGE	1
105	G-4	@ BENT 105	0.5' X 0.5'		* BOTTOM FLANGE	3
106	G-2	@ BENT 105	2' X 0.5'		* BOTTOM FLANGE	1
106	G-2	@ BENT 106	0.5' X 0.5'		* BOTTOM FLANGE	1
106	G-3	@ BENT 106	0.5' X 0.5'		* BOTTOM FLANGE	2
107	END DIA.	@ BENT 106	1' X 0.5'		DIAPHRAGM	3
107	END DIA.	@ BENT 107	3' X 0.7'		DIAPHRAGM	2
107	G-1	@ BENT 106	0.5' X 0.5'		* BOTTOM FLANGE	1
107	G-2	@ BENT 107	1.2' X 1.2'		* BOTTOM FLANGE & WEB	1
107	G-2	@ BENT 107	0.5' X 0.5'		* BOTTOM FLANGE	2
107	G-3	@ BENT 107	0.7' X 1'		* BOTTOM FLANGE	2
107	G-4	30' FROM BENT 106	0.5' X 0.5'		* BOTTOM FLANGE	3
107	G-4	@ BENT 107	0.7' X 1'		* BOTTOM FLANGE	3
108	G-2	@ BENT 107	0.5' X 0.5'		* BOTTOM FLANGE	2
108	G-2	@ BENT 108	0.5' X 0.5'		* BOTTOM FLANGE	2
109	G-1	@ BENT 108	0.5' X 0.5'		* BOTTOM FLANGE	1
109	G-2	@ BENT 109	0.6' X 0.2'		* BOTTOM FLANGE	1
109	G-2	@ BENT 109	0.5 X 0.3'		* BOTTOM FLANGE	3
109	G-2	2' FROM BENT 108	0.4' X 0.5'		* BOTTOM FLANGE	2
109	G-2	@ BENT 108	0.3' X 0.6'		* BOTTOM FLANGE	2
109	G-3	@ BENT 109	0.8' X 0.7'		* BOTTOM FLANGE	RT EXT
109	G-3	@ BENT 108	0.4' X 1.3'		* BOTTOM FLANGE	3
109	G-3	@ BENT 108	0.7' X 0.8'		* BOTTOM FLANGE	3
109	G-4	@ BENT 108	0.3' X 0.8'		* BOTTOM FLANGE	LT EXT
110	END DIA.	@ BENT 109	1.7' X 0.8'		DIAPHRAGM	2
110	END DIA.	@ BENT 109	2.3' X 0.6'		DIAPHRAGM	2
110	G-1	@ BENT 109	0.3' X 0.7'		WEB	1
110	G-1	@ BENT 109	1' X 0.8'		* BOTTOM FLANGE	1
110	G-1	@ BENT 109	0.4' X 0.4'		* BOTTOM FLANGE	1
110	G-2	@ BENT 110	0.6' X 0.5'		* BOTTOM FLANGE	1
110	G-2	@ BENT 110	0.6' X 0.7'		* BOTTOM FLANGE	RT EXT
110	G-3	@ BENT 109	1' X 1.3'		* BOTTOM FLANGE & WEB	2
110	G-3	@ BENT 109	2.1' X 0.8'		* BOTTOM FLANGE	3
110	G-4	@ BENT 109	0.5' X 1.3'		* BOTTOM FLANGE & WEB	LT EXT
111	END DIA.	@ BENT 110	2.5' X 0.5'		DIAPHRAGM	2
111	END DIA.	@ BENT 110	3' X 1'		DIAPHRAGM	3
111	END DIA.	@ BENT 110	0.8' X 1.3'		DIAPHRAGM	RT EXT
111	G-1	@ BENT 110	0.6' X 0.7'		* BOTTOM FLANGE	1
111	G-3	@ BENT 110	0.5' X 1.4'		* BOTTOM FLANGE & WEB	2
111	G-3	@ BENT 110	0.6' X 1.5'		* BOTTOM FLANGE	2
111	G-3	@ BENT 110	0.6' X 1.4'		* BOTTOM FLANGE & WEB	3
111	G-4	@ BENT 110	0.9' X 0.8'		* BOTTOM FLANGE & WEB	LT EXT
111	G-4	@ BENT 110	0.4' X 1.4'		* BOTTOM FLANGE & WEB	3
111	G-4	@ BENT 110	0.4' X 0.3'		* BOTTOM FLANGE	RT EXT

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
112	DECK	2' FROM BENT 112	0.5' X 0.7'		BOTTOM OF DECK	3
112	END DIA.	@ BENT 111	2' X 0.6'		DIAPHRAGM	1
112	END DIA.	@ BENT 111	3' X 1'		DIAPHRAGM	2
112	END DIA.	@ BENT 111	1.5' X 0.8'		DIAPHRAGM	3
112	END DIA.	@ BENT 111	1.3' X 1.5'		DIAPHRAGM	RT EXT
112	END DIA.	@ BENT 112	1.7' X 0.5'		DIAPHRAGM	1
112	END DIA.	@ BENT 112	0.8' X 0.3'		DIAPHRAGM	3
112	END DIA.	@ BENT 112	1.4' X 1.3'		DIAPHRAGM	RT EXT
112	END DIA.	@ BENT 111	1.5' X 1.3'		DIAPHRAGM	LT EXT
112	G-1	@ BENT 111	0.3' X 0.8'		* BOTTOM FLANGE	LT EXT
112	G-1	@ BENT 111	0.8' X 0.7'		* BOTTOM FLANGE	1
112	G-2	@ BENT 111	1.2' X 0.8'		* BOTTOM FLANGE	1
112	G-2	@ BENT 111	0.8' X 1.5'		* BOTTOM FLANGE	2
112	G-2	@ BENT 111	0.6' X 0.6'		* BOTTOM FLANGE	2
112	G-2	@ BENT 111	0.6' X 1.4'		* BOTTOM FLANGE	2
112	G-2	2' FROM BENT 111	0.6' X 0.6'		WEB	3
112	G-3	@ BENT 111	0.4' X 1.4'		* BOTTOM FLANGE & WEB	3
112	G-3	@ BENT 112	0.4' X 0.8'		* BOTTOM FLANGE	2
112	G-3	@ BENT 112	0.8' X 0.6'		* BOTTOM FLANGE	3
112	G-4	@ BENT 111	0.5' X 0.7'		* BOTTOM FLANGE	3
112	G-4	@ BENT 112	0.4' X 0.7'		* BOTTOM FLANGE	LT EXT
112	G-4	@ BENT 112	0.7' X 0.6'		* BOTTOM FLANGE	3
113	END DIA.	@ BENT 113	1.3' X 1.4'		DIAPHRAGM	LT EXT
113	END DIA.	@ BENT 113	1.4' X 2.2'		DIAPHRAGM	1
113	END DIA.	@ BENT 113	1.4' X 1.7'		DIAPHRAGM	1
113	END DIA.	@ BENT 113	1' X 1.5'		DIAPHRAGM	2
113	END DIA.	@ BENT 113	1.3' X 2'		DIAPHRAGM	RT EXT
113	END DIA.	@ BENT 113	1.2' X 2'		DIAPHRAGM	3
113	END DIA.	@ BENT 113	0.8' X 0.8'		DIAPHRAGM	RT EXT
113	END DIA.	@ BENT 112	3' X 1'		DIAPHRAGM	1
113	END DIA.	@ BENT 112	3' X 1'		DIAPHRAGM	2
113	END DIA.	@ BENT 112	0.8' X 1.5'		DIAPHRAGM	3
113	G-1	@ BENT 113	0.8' X 0.7'		* BOTTOM FLANGE	1
113	G-1	@ BENT 112	0.6' X 0.5'		* BOTTOM FLANGE & WEB	1
113	G-2	@ BENT 112	0.7' X 0.5'		* BOTTOM FLANGE	2
113	G-3	@ BENT 112	0.7' X 0.7'		* BOTTOM FLANGE & WEB	3
113	G-4	@ BENT 112	0.8' X 0.7'		* BOTTOM FLANGE & WEB	3
114	END DIA.	@ BENT 114	1.2' X 0.7'		DIAPHRAGM	1
114	END DIA.	@ BENT 113	0.8' X 1'		DIAPHRAGM	LT EXT
114	END DIA.	@ BENT 113	1' X 3.1'		DIAPHRAGM	1
114	END DIA.	@ BENT 113	1.7' X 1.5'		DIAPHRAGM	1
114	END DIA.	@ BENT 113	1.4' X 1.4'		DIAPHRAGM	2
114	END DIA.	@ BENT 113	1.3' X 2'		DIAPHRAGM	2
114	END DIA.	@ BENT 113	1.3' X 2'		DIAPHRAGM	3
114	END DIA.	@ BENT 113	1.7' X 1.8'		DIAPHRAGM	2
114	END DIA.	@ BENT 113	0.5' X 0.7'		DIAPHRAGM	RT EXT
114	G-2	@ BENT 113	1.4' X 0.3'		* BOTTOM FLANGE	2
114	G-4	@ BENT 114	1.8' X 0.9'		* BOTTOM FLANGE	LT EXT

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
104-114	SHOTCRETE					
	GIRDERS	0.57	0.17			
	DIAPHRAGMS	62.06	31.03			
	DECK	0.35	0.18			
EPOXY MORTAR		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
	GIRDERS	30.06	8.77			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

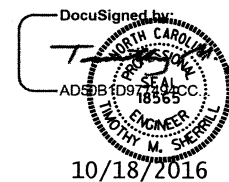
FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 10 OF 22



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-25
					TOTAL SHEETS 394

DRAWN BY: M.A. LEE DATE: 6/2016
CHECKED BY: I. SHERRILL DATE: 6/2016
DESIGN ENGINEER OF RECORD: I. SHERRILL DATE: 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
115A	END DIA.	@ REST PIER 1	1.5' X 1.1'		DIAPHRAGM	1
115A	END DIA.	@ BENT 114	1.5' X 1.1'		DIAPHRAGM	LT EXT
115A	END DIA.	@ BENT 114	0.5' X 0.5'		DIAPHRAGM	1
115A	END DIA.	@ BENT 114	2.8' X 0.5'		DIAPHRAGM	1
115A	END DIA.	@ BENT 114	2.5' X 0.5'		DIAPHRAGM	2
115A	END DIA.	@ BENT 114	0.8' X 0.4'		DIAPHRAGM	2
115A	END DIA.	@ BENT 114	3' X 1'		DIAPHRAGM	3
115A	G-1	@ REST PIER 2	1.7' X 0.7'		* BOTTOM FLANGE	1
115A	G-1	@ BENT 115	0.5' X 0.5'		* BOTTOM FLANGE	1
115A	G-2	@ REST PIER 2	1.3' X .7'		* BOTTOM FLANGE	2
115A	G-2	@ REST PIER 2	1.7' X 0.7'		* BOTTOM FLANGE	3
115A	G-2	@ REST PIER 1	1' X 0.8'		* BOTTOM FLANGE	1
115A	G-2	@ BENT 114	0.7' X 0.7'		WEB	1
115A	G-3	@ REST PIER 2	2.4' X 1.3'		* BOTTOM FLANGE	2
115A	G-3	2' FROM BENT 114	0.3' X 0.3'		WEB	3
115A	G-4	@ REST PIER 1	0.3' X 0.3'		WEB	3
115A	G-4	16' FROM BENT 115	4' X 0.3'		* BOTTOM FLANGE	3
115A	G-4	8' FROM BENT 115	3' X 0.3'		* BOTTOM FLANGE	3
115B	END DIA.	@ REST PIER 2	1' X 4'		DIAPHRAGM	2
115B	G-2	@ REST PIER 1	0.8' X 0.8'		* BOTTOM FLANGE	2
115B	G-2	@ REST PIER 1	1.4' X 0.8'		* BOTTOM FLANGE	3
115B	G-3	@ REST PIER 1	1.4' X 0.8'		* BOTTOM FLANGE	3

		REPAIR QUANTITY TABLE				
		QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 115A & 115B	SHOTCRETE					
	GIRDERS	0.67	0.20			
	DIAPHRAGMS	13.52	6.76			
	DECK	0.00	0.00			
	EPOXY MORTAR					
	GIRDERS	12.44	3.63			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

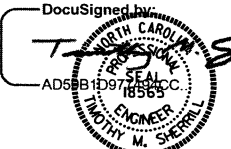
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 11 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-26
1			3			TOTAL SHEETS
2			4			394

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
116	DECK	12' FROM BENT 115	2' X 0.7'		BOTTOM OF DECK	RT EXT
116	END DIA.	@ BENT 116	2' X 0.7'		DIAPHRAGM	LT EXT
117	DECK	@ BENT 116	1' X 2'		BOTTOM OF DECK	RT EXT
117	END DIA.	@ BENT 116	1.5' X 1.5'		DIAPHRAGM	2
117	END DIA.	@ BENT 116	1.5' X 1'		DIAPHRAGM	2
117	G-1	@ BENT 117	0.7' X 1'		* BOTTOM FLANGE	1
117	G-1	@ BENT 117	0.7' X 1'		* BOTTOM FLANGE	2
117	G-2	@ BENT 117	0.7' X 1'		* BOTTOM FLANGE	3
118	G-1	@ BENT 118	0.5' X 0.5'		* BOTTOM FLANGE	1
118	G-1	@ BENT 118	0.5' X 0.5'		* BOTTOM FLANGE	2
118	G-1	@ BENT 118	0.5' X 0.5'		* BOTTOM FLANGE	2
118	G-3	3' FROM BENT 117	0.7' X 0.7'		WEB	2
119	END DIA.	@ BENT 119	1' X 3'		DIAPHRAGM	3
119	G-1	@ BENT 119	0.5' X 0.5'		* BOTTOM FLANGE	1
119	G-2	@ BENT 119	0.5' X 0.5'		* BOTTOM FLANGE	1
119	G-2	@ BENT 119	0.7' X 0.7'		* BOTTOM FLANGE	2
119	G-3	@ BENT 119	0.7' X 0.7'		* BOTTOM FLANGE	3
120	END DIA.	@ BENT 119	2' X 0.5'		DIAPHRAGM	3
120	END DIA.	@ BENT 119	4' X 0.7'		DIAPHRAGM	2
120	G-1	@ BENT 119	0.5' X 0.5'		* BOTTOM FLANGE	LT EXT
120	G-2	@ BENT 119	1' X 0.7'		* BOTTOM FLANGE	3
120	G-2	@ BENT 120	0.5' X 1'		* BOTTOM FLANGE	2
120	G-4	12' FROM BENT 119	4' X 0.5'		* BOTTOM FLANGE	3
120	G-4	@ BENT 119	0.7' X 0.7'		* BOTTOM FLANGE	3
121	END DIA.	@ BENT 121	1' X 0.8'		DIAPHRAGM	3
121	G-1	@ BENT 121	0.7' X 0.7'		* BOTTOM FLANGE	1
121	G-2	@ BENT 121	1.5' X 0.5'		* BOTTOM FLANGE	1
121	G-3	@ BENT 120	2.5' X 0.5'		* BOTTOM FLANGE	2
121	G-3	@ BENT 121	0.7' X 0.7'		* BOTTOM FLANGE	3
121	G-4	@ BENT 121	0.5' X 0.6'		* BOTTOM FLANGE	3
122	END DIA.	@ BENT 121	2.5' X 0.5'		DIAPHRAGM	1
122	END DIA.	@ BENT 122	4' X 0.3'		DIAPHRAGM	1
122	END DIA.	@ BENT 122	2.5' X 1'		DIAPHRAGM	2
122	G-1	@ BENT 121	1' X 1'		* BOTTOM FLANGE	LT EXT
123	END DIA.	@ BENT 122	1' X 4'		DIAPHRAGM	1
123	END DIA.	@ BENT 123	1.5' X 0.8'		DIAPHRAGM	3
123	G-2	3' FROM BENT 123	0.5' X 0.5'		WEB	1
123	G-3	3' FROM BENT 123	0.5' X 0.5'		WEB	2
123	G-3	@ BENT 123	0.5' X 0.5'		* BOTTOM FLANGE	3
124	G-2	@ BENT 124	0.7' X 0.7'		* BOTTOM FLANGE	1
124	G-2	@ BENT 124	0.7' X 0.7'		* BOTTOM FLANGE	2
124	G-3	@ BENT 123	0.5' X 0.5'		* BOTTOM FLANGE	3
125	DECK	20' FROM BENT 124	1' X 1'		BOTTOM OF DECK	RT EXT
125	G-2	@ BENT 124	0.7' X 0.7'		* BOTTOM FLANGE	2
125	G-4	@ BENT 125	0.7' X 0.7'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
126	G-1	@ BENT 125	0.7' X 0.7'		* BOTTOM FLANGE	1
127	G-1	@ BENT 126	0.7' X 1'		* BOTTOM FLANGE	RT EXT
127	G-2	3' FROM BENT 127	0.3' X 0.3'		WEB	1
127	G-2	@ BENT 126	0.7' X 1.5'		* BOTTOM FLANGE	1
127	G-3	@ BENT 126	0.7' X 0.8'		* BOTTOM FLANGE	2
127	G-4	@ BENT 126	0.8' X 0.8'		* BOTTOM FLANGE	3
127	G-4	@ BENT 127	0.8' X 1'		* BOTTOM FLANGE	3
127	G-4	@ BENT 127	1' X 1'		* BOTTOM FLANGE	2
127	G-4	@ BENT 127	0.7' X 1.5'		* BOTTOM FLANGE	3
127	G-4	@ BENT 127	1' X 0.8'		* BOTTOM FLANGE	3
127	G-4	@ BENT 127	2.5' X 0.6'		* BOTTOM FLANGE	2
127	G-4	@ BENT 127	1.5' X 0.6'		* BOTTOM FLANGE	1
127	G-4	@ BENT 127	1.5' X 0.6'		* BOTTOM FLANGE	1
127	G-4	@ BENT 127	0.6' X 1.5'		* BOTTOM FLANGE	1
127	G-4	@ BENT 127	1' X 1'		* BOTTOM FLANGE	RT EXT
128	END DIA.	@ BENT 128	1.5' X 0.7'		DIAPHRAGM	2
128	G-1	@ BENT 128	0.5' X 0.3'		WEB	RT EXT
128	G-2	@ BENT 128	0.7' X 0.6'		* BOTTOM FLANGE	2
128	G-2	@ BENT 128	0.7' X 1'		* BOTTOM FLANGE	1
128	G-3	3' FROM BENT 128	0.5' X 0.5'		WEB	2
128	G-3	@ BENT 128	0.7' X 0.7'		* BOTTOM FLANGE	3
128	G-4	@ BENT 128	1.5' X 0.8'		* BOTTOM FLANGE	3
129	G-2	@ BENT 129	1' X 1'		* BOTTOM FLANGE & WEB	1
129	G-3	@ BENT 128	0.7' X 0.8'		* BOTTOM FLANGE	3
129	G-3	@ BENT 129	1' X 1.5'		* BOTTOM FLANGE	2
129	G-4	@ BENT 128	0.7' X 0.6'		* BOTTOM FLANGE	3
129	G-4	@ BENT 129	0.5' X 0.8'		* BOTTOM FLANGE	LT EXT
130	END DIA.	@ BENT 129	0.7' X 1.5'		DIAPHRAGM	1
130	END DIA.	@ BENT 130	3.5' X 0.5'		DIAPHRAGM	2
130	END DIA.	@ BENT 130	1' X 0.8'		DIAPHRAGM	1
130	END DIA.	@ BENT 131	4' X 1'		DIAPHRAGM	1
130	G-1	@ BENT 131	1' X 0.8'		* BOTTOM FLANGE	1
130	G-2	@ BENT 129	0.6' X 1'		* BOTTOM FLANGE	2
130	G-2	@ BENT 129	1' X 1.5'		* BOTTOM FLANGE	1
130	G-2	@ BENT 131	0.8' X 0.8'		* BOTTOM FLANGE	1
130	G-2	@ BENT 131	0.5' X 0.6'		* BOTTOM FLANGE	2
130	G-3	@ BENT 129	0.3' X 3'		* BOTTOM FLANGE	2
130	G-3	@ BENT 131	0.6' X 0.8'		* BOTTOM FLANGE	2
130	G-3	@ BENT 131	1' X 0.8'		* BOTTOM FLANGE	3
130	G-4	@ BENT 129	0.3' X 1'		* BOTTOM FLANGE	3
130	G-4	@ BENT 130	1' X 0.8'		* BOTTOM FLANGE	3
132	G-1	@ BENT 132	1.5' X 0.8'		* BOTTOM FLANGE	1
132	G-3	@ BENT 131	0.5' X 0.8'		* BOTTOM FLANGE	3
133	END DIA.	@ BENT 132	2.5' X 0.7'		DIAPHRAGM	2
133	G-1	5' FROM BENT 132	4' X 0.5'		* BOTTOM FLANGE	1
133	G-2	@ BENT 132	0.7' X 0.8'		* BOTTOM FLANGE	1
133	G-3	3' FROM BENT 133	0.5' X 0.5'		WEB	2

REPAIR QUANTITY TABLE								
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	QUANTITIES			
					ESTIMATE		ACTUAL	
					AREA SF	VOLUME CF	AREA SF	DEPTH FT
116-133	SHOTCRETE							
	GIRDERS		1.73	0.50				
	DIAPHRAGMS		33.30	16.65				
	DECK		4.40	2.20				
116-133	EPOXY MORTAR							
	GIRDERS		45.27	13.20				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

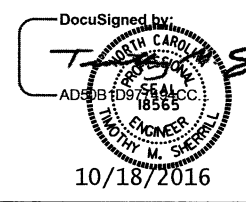
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 12 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM
& UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-27
1			3			TOTAL SHEETS
2			4			394



DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
134	END DIA.	@ BENT 133	1' X 0.7'		DIAPHRAGM	RT EXT
134	END DIA.	@ BENT 133	1' X 1.5'		DIAPHRAGM	2
134	END DIA.	@ BENT 133	0.5' X 2'		DIAPHRAGM	2
134	END DIA.	@ BENT 134	2' X 0.7'		DIAPHRAGM	1
134	G-1	@ BENT 133	0.5' X 0.7'		* BOTTOM FLANGE	LT EXT
134	G-3	2.5' FROM BENT 134	0.5' X 0.5'		WEB	2
134	G-3	3' FROM BENT 134	0.5' X 0.5'		WEB	3
134	G-3	@ BENT 134	0.8' X 0.7'		* BOTTOM FLANGE	3
135	END DIA.	@ BENT 135	3' X 0.7'		DIAPHRAGM	3
135	G-2	@ BENT 135	1' X 0.8'		* BOTTOM FLANGE	1
135	G-3	@ BENT 135	0.7' X 0.8'		* BOTTOM FLANGE	2
136	G-1	3' FROM BENT 135	1' X 0.5'		WEB	1
136	G-1	@ BENT 135	0.8' X 0.8'		* BOTTOM FLANGE	1
136	G-2	@ BENT 135	0.8' X 0.8'		* BOTTOM FLANGE	2
136	G-3	1' FROM BENT 136	1' X 4'		* BOTTOM FLANGE	2
136	G-3	@ BENT 136	1' X 1.5'		* BOTTOM FLANGE	2
136	G-4	3' FROM BENT 136	0.5' X 0.5'		WEB	3
136	G-4	@ BENT 136	1' X 0.8'		* BOTTOM FLANGE	3
137	G-1	@ BENT 136	0.8' X 0.8'		* BOTTOM FLANGE	1
137	G-2	@ BENT 136	1' X 0.7'		* BOTTOM FLANGE	1
137	G-4	@ BENT 137	0.5' X 0.6'		* BOTTOM FLANGE	3
138	END DIA.	@ BENT 138	0.5' X 1.5'		DIAPHRAGM	1
138	END DIA.	@ BENT 138	2.5' X 1'		DIAPHRAGM	2
138	END DIA.	@ BENT 138	0.5' X 1.5'		DIAPHRAGM	2
138	G-1	@ BENT 137	0.3' X 0.7'		* BOTTOM FLANGE	1
138	G-1	@ BENT 138	1' X 0.7'		* BOTTOM FLANGE	1
138	G-3	@ BENT 137	0.7' X 0.7'		* BOTTOM FLANGE	2
138	G-3	@ BENT 138	0.7' X 0.7'		* BOTTOM FLANGE	2
139	G-1	@ BENT 139	0.5' X 0.6'		* BOTTOM FLANGE	LT EXT
139	G-2	@ BENT 139	0.5' X 0.6'		* BOTTOM FLANGE	1
139	G-2	@ BENT 139	1.3' X 1.2'		* BOTTOM FLANGE	2
140	END DIA.	@ BENT 139	2.5' X 0.8'		DIAPHRAGM	2
140	G-2	5' FROM BENT 139	2.7' X 0.5'		* BOTTOM FLANGE	2
140	G-2	3' FROM BENT 140	0.5' X 0.5'		WEB	1
141	END DIA.	@ BENT 140	5' X 0.7'		DIAPHRAGM	2
141	END DIA.	@ BENT 140	2.5' X 0.5'		DIAPHRAGM	1
141	END DIA.	@ BENT 140	1.5' X 1'		DIAPHRAGM	3
141	END DIA.	@ BENT 141	1.5' X 0.5'		DIAPHRAGM	2
141	END DIA.	@ BENT 141	2' X 2.5'		DIAPHRAGM	2
141	G-4	@ BENT 140	0.3' X 0.7'		* BOTTOM FLANGE	RT EXT
141	G-4	@ BENT 141	0.3' X 0.7'		* BOTTOM FLANGE	RT EXT
141	G-4	@ BENT 141	1.2' X 1'		* BOTTOM FLANGE	3
142	END DIA.	@ BENT 141	3' X 0.3'		DIAPHRAGM	1
142	END DIA.	@ BENT 141	4' X 0.7'		DIAPHRAGM	3
142	END DIA.	@ BENT 142	0.5' X 0.7'		DIAPHRAGM	2
142	G-1	6' FROM BENT 142	0.8' X 0.5'		* BOTTOM FLANGE	LT EXT
142	G-1	@ BENT 141	0.8' X 0.8'		* BOTTOM FLANGE	LT EXT
142	G-2	@ BENT 141	3' X 0.3'		* BOTTOM FLANGE	1

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
143	G-1	@ BENT 142	1' X 0.8'		* BOTTOM FLANGE	LT EXT
143	G-3	@ BENT 142	1' X 0.8'		* BOTTOM FLANGE	2
143	G-3	@ BENT 142	0.5' X 2'		WEB	3
144	END DIA.	@ BENT 143	2.5' X 0.7'		DIAPHRAGM	2
144	END DIA.	@ BENT 143	1' X 0.5'		DIAPHRAGM	2
144	G-1	@ BENT 143	1' X 0.4'		* BOTTOM FLANGE	1
144	G-2	@ BENT 144	0.7' X 0.7'		* BOTTOM FLANGE	2
144	G-3	@ BENT 144	0.7' X 0.6'		* BOTTOM FLANGE	3
144	G-3	@ BENT 144	1' X 0.7'		* BOTTOM FLANGE	2
144	G-4	4' FROM BENT 144	4' X 0.5'		* BOTTOM FLANGE	3
145	END DIA.	@ BENT 144	0.5' X 0.5'		DIAPHRAGM	3
145	END DIA.	@ BENT 145	1' X 0.7'		DIAPHRAGM	1
145	END DIA.	@ BENT 145	0.5' X 0.7'		DIAPHRAGM	3
145	G-1	2.5' FROM BENT 144	0.3' X 0.3'		* BOTTOM FLANGE	1
145	G-3	@ BENT 144	0.7' X 0.6'		* BOTTOM FLANGE	2
145	G-3	@ BENT 145	0.5' X 0.8'		* BOTTOM FLANGE	2
145	G-4	@ BENT 145	0.5' X 0.7'		* BOTTOM FLANGE	3
146	END DIA.	@ BENT 145	2' X 1.5'		DIAPHRAGM	3
146	G-2	5' FROM BENT 145	1.5' X 0.6'		* BOTTOM FLANGE	2
146	G-3	11' FROM BENT 145	0.5' X 0.6'		* BOTTOM FLANGE	3
146	G-3	13' FROM BENT 145	1.5' X 0.6'		* BOTTOM FLANGE	3
146	G-3	@ BENT 145	0.3' X 0.3'		WEB	2
146	G-3	@ BENT 146	2.5' X 0.6'		* BOTTOM FLANGE	2
146	G-4	11' FROM BENT 145	1' X 0.8'		* BOTTOM FLANGE	RT EXT
146	G-4	@ BENT 145	0.5' X 0.8'		* BOTTOM FLANGE	3
146	G-4	@ BENT 146	1.5' X 0.8'		* BOTTOM FLANGE	3
148	END DIA.	@ BENT 147	1.5' X 0.7'		DIAPHRAGM	2
148	END DIA.	@ BENT 148	3.5' X 0.8'		DIAPHRAGM	2
148	G-3	@ BENT 147	0.9' X 0.8'		* BOTTOM FLANGE	3

REPAIR QUANTITY TABLE								
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	QUANTITIES			
					ESTIMATE		ACTUAL	
					AREA SF	VOLUME CF	AREA SF	DEPTH FT
134-148	SHOTCRETE							
	GIRDERS		2.59	0.76				
	DIAPHRAGMS		39.15	19.58				
	DECK		0.00	0.00				
134-148	EPOXY MORTAR							
	GIRDERS		34.04	9.93				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

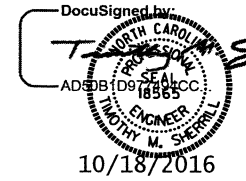
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 13 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM
& UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-28
1			3			TOTAL SHEETS
2			4			394



DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
149	END DIA.	@ BENT 147	2' X 0.5'		DIAPHRAGM	3
149	END DIA.	@ BENT 149	2' X 0.5'		DIAPHRAGM	2
149	G-1	@ BENT 147	0.5' X 0.5'		WEB	LT EXT
150	END DIA.	@ BENT 147	2.5' X 0.7'		DIAPHRAGM	2
150	END DIA.	@ BENT 147	2' X 0.7'		DIAPHRAGM	1
150	END DIA.	@ BENT 147	3' X 0.7'		DIAPHRAGM	2
150	G-4	@ BENT 150	0.7' X 0.7'		* BOTTOM FLANGE	3
151	END DIA.	@ BENT 147	2' X 0.5		DIAPHRAGM	2
151	G-1	@ BENT 147	0.6' X 0.6'		* BOTTOM FLANGE	LT EXT
151	G-1	@ BENT 147	0.7' X 0.8'		* BOTTOM FLANGE	1
151	G-4	@ BENT 147	3' X 0.5		* BOTTOM FLANGE	3
152	END DIA.	@ BENT 147	2' X 0.7'		DIAPHRAGM	2
152	END DIA.	@ BENT 151	1' X 1'		DIAPHRAGM	2
152	G-2	@ BENT 152	1' X 0.8'		* BOTTOM FLANGE	1
152	G-3	@ BENT 147	0.5' X 0.7'		* BOTTOM FLANGE	3
153	END DIA.	@ BENT 152	3.5' X 0.5'		DIAPHRAGM	2
153	END DIA.	@ BENT 152	3.5' X 0.5'		DIAPHRAGM	1
153	END DIA.	@ BENT 152	1' X 1'		DIAPHRAGM	LT EXT
153	END DIA.	@ BENT 153	2.5' X 0.8'		DIAPHRAGM	2
154	END DIA.	@ BENT 153	5' X 0.5'		DIAPHRAGM	2
154	END DIA.	@ BENT 153	3' X 0.3'		DIAPHRAGM	3
154	G-4	@ BENT 154	0.7' X 0.7'		* BOTTOM FLANGE	3
155	END DIA.	@ BENT 154	2.5' X 0.3'		DIAPHRAGM	2
155	END DIA.	@ BENT 154	6' X 0.3'		DIAPHRAGM	3
155	END DIA.	@ BENT 155	5' X 1'		DIAPHRAGM	1
155	END DIA.	@ BENT 155	3' X 1'		DIAPHRAGM	2
155	END DIA.	@ BENT 155	4.5' X 2.7'		DIAPHRAGM	1
155	G-2	@ BENT 155	0.7' X 0.7'		* BOTTOM FLANGE	2
155	G-3	@ BENT 155	0.7' X 0.7'		* BOTTOM FLANGE	2
156	END DIA.	@ BENT 156	2' X 1.5'		DIAPHRAGM	1
156	G-2	@ BENT 155	0.8' X 1'		* BOTTOM FLANGE	1
157	END DIA.	@ BENT 156	6.5' X 0.7'		DIAPHRAGM	2
157	END DIA.	@ BENT 156	4' X 5'		DIAPHRAGM	3
157	G-2	@ BENT 157	0.7' X 0.7'		* BOTTOM FLANGE	1
157	G-3	1' FROM BENT 157	3' X 0.5'		* BOTTOM FLANGE	2
157	G-4	@ BENT 158	0.7' X 0.7'		* BOTTOM FLANGE	3
158	END DIA.	@ BENT 158	4.5' X 0.7'		DIAPHRAGM	1
159	END DIA.	@ BENT 158	1' X 1.5'		DIAPHRAGM	1
159	END DIA.	@ BENT 158	6.5' X 1.5'		DIAPHRAGM	2
159	END DIA.	@ BENT 158	0.7' X 0.7'		DIAPHRAGM	3
159	END DIA.	@ BENT 159	1' X 1.5'		DIAPHRAGM	2

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
161	END DIA.	@ BENT 160	1' X 0.5'		DIAPHRAGM	2
161	END DIA.	@ BENT 160	2' X 0.7'		DIAPHRAGM	1
161	END DIA.	@ BENT 161	1.5' X 0.3'		DIAPHRAGM	2
161	END DIA.	@ BENT 161	1.5' X 0.7'		DIAPHRAGM	3
161	G-3	3' FROM BENT 160	0.5' X 0.5'		WEB	2
162	END DIA.	@ BENT 161	5' X 0.5'		DIAPHRAGM	2
162	END DIA.	@ BENT 162	1' X 1'		DIAPHRAGM	1
162	G-1	@ BENT 162	0.8' X 1'		* BOTTOM FLANGE	1
162	G-3	@ BENT 161	0.5' X 0.5'		* BOTTOM FLANGE	2
163	END DIA.	@ BENT 162	2' X 0.5'		DIAPHRAGM	2
163	END DIA.	@ BENT 163	5.5' X 0.5'		DIAPHRAGM	3
163	G-2	@ BENT 162	0.8' X 1'		* BOTTOM FLANGE	1

REPAIR QUANTITY TABLE						
		QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 149-163	SHOTCRETE					
	GIRDERS	0.50	0.15			
	DIAPHRAGMS	97.84	48.92			
	DECK	0.00	0.00			
	EPOXY MORTAR					
	GIRDERS	10.66	3.11			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

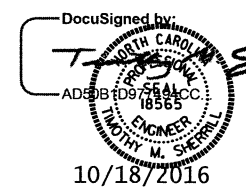
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 14 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-29
1			3			TOTAL SHEETS
2			4			394



DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
164	G-2	@ BENT 163	0.7' X 0.7'		*BOTTOM FLANGE	2
164	G-2	@ BENT 164	0.5' X 0.5'		*BOTTOM FLANGE	1
164	G-3	@ BENT 163	1' X 0.8'		*BOTTOM FLANGE	2
166	G-2	@ BENT 166	0.5' X 0.5'		*BOTTOM FLANGE	LT EXT
166	G-3	@ BENT 166	0.7' X 0.8'		*BOTTOM FLANGE	3
167	END DIA.	@ BENT 166	0.3' X 0.8'		DIAPHRAGM	1
167	END DIA.	@ BENT 166	5' X 0.7'		DIAPHRAGM	2
167	END DIA.	@ BENT 167	1' X 6'		DIAPHRAGM	1
167	END DIA.	@ BENT 167	1' X 1'		DIAPHRAGM	RT EXT
167	G-3	@ BENT 166	1' X 0.7'		*BOTTOM FLANGE	3
167	G-3	@ BENT 167	0.8' X 4'		*BOTTOM FLANGE	2
168	G-1	@ BENT 168	0.6' X 0.6'		*BOTTOM FLANGE	1
168	G-1	@ BENT 168	0.7' X 0.7'		*BOTTOM FLANGE	2
168	G-3	@ BENT 168	0.6' X 0.7'		*BOTTOM FLANGE	3
168	G-3	8' FROM INTER. DIA.	3' X 0.5'		*BOTTOM FLANGE	RT EXT
168	G-4	@ BENT 167	0.5' X 0.8'		*BOTTOM FLANGE	3
168	G-4	3.5' FROM INTER. DIA.	0.5' X 0.5'		WEB	3
169	END DIA.	@ BENT 168	1.5' X 0.7'		DIAPHRAGM	3
169	G-1	@ BENT 169	1' X 0.6'		*BOTTOM FLANGE	1
169	G-1	@ BENT 169	1' X 0.6'		*BOTTOM FLANGE	2
170	G-1	1.5' FROM INTER. DIA.	2.5' X 0.5'		*BOTTOM FLANGE	1
170	G-1	@ BENT 170	0.7' X 0.8'		*BOTTOM FLANGE	2
170	G-2	@ BENT 169	1.5' X 0.7'		*BOTTOM FLANGE	2
170	G-2	@ BENT 169	0.5' X 0.8'		*BOTTOM FLANGE	1
170	G-3	@ BENT 170	1.5' X 1.5'		*BOTTOM FLANGE & WEB	3
170	G-4	@ BENT 170	1.5' X 1.5'		*BOTTOM FLANGE & WEB	RT EXT
171	G-3	@ BENT 171	1' X 0.8'		*BOTTOM FLANGE	3
172	END DIA.	@ BENT 171	0.3' X 0.7'		DIAPHRAGM	3
172	END DIA.	@ BENT 172	2' X 1'		DIAPHRAGM	2
172	END DIA.	@ BENT 172	2.5' X 0.3'		DIAPHRAGM	2
172	END DIA.	@ BENT 172	1.3' X 1.3'		DIAPHRAGM	RT EXT
172	G-1	@ BENT 171	1.5' X 0.8'		*BOTTOM FLANGE	1
172	G-4	@ BENT 173	1' X 0.7'		*BOTTOM FLANGE	3
173	END DIA.	@ BENT 174	3.5' X 1.5'		DIAPHRAGM	2
173	G-1	@ BENT 174	0.5' X 0.6'		*BOTTOM FLANGE	1
173	G-2	3' FROM INTER. DIA.	0.3' X 0.3'		WEB	1
174	END DIA.	@ BENT 174	1.5' X 0.5'		DIAPHRAGM	2
174	END DIA.	@ BENT 174	1' X 1'		DIAPHRAGM	1
174	END DIA.	@ BENT 175	3' X 0.5'		DIAPHRAGM	2
174	G-3	@ BENT 175	1' X 0.7'		*BOTTOM FLANGE	3
174	G-3	@ BENT 175	0.3' X 0.8'		*BOTTOM FLANGE	LT EXT
175	G-2	@ BENT 176	1' X 0.8'		*BOTTOM FLANGE	1
175	G-3	@ BENT 175	1.5' X 0.8'		*BOTTOM FLANGE	2
175	G-3	3' FROM INTER. DIA.	1.5' X 0.5'		*BOTTOM FLANGE	2
176	END DIA.	@ BENT 176	2' X 0.5'		DIAPHRAGM	2
176	G-3	@ BENT 177	1' X 0.7'		*BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
177	G-2	@ BENT 177	1.2' X 0.8'		*BOTTOM FLANGE	1
178	G-1	@ BENT 178	0.5' X 0.5'		*BOTTOM FLANGE	2
178	G-3	3' FROM INTER. DIA.	0.5' X 0.5'		WEB	2
179	END DIA.	@ BENT 180	4' X 1.5'		DIAPHRAGM	2
179	END DIA.	@ BENT 180	2' X 1'		DIAPHRAGM	2
179	END DIA.	@ BENT 180	2' X 1'		DIAPHRAGM	1
179	END DIA.	@ BENT 180	2' X 1'		DIAPHRAGM	1
179	G-1	6' FROM INTER. DIA.	0.5' X 0.5'		*BOTTOM FLANGE	1
179	G-2	@ BENT 180	1' X 0.8'		*BOTTOM FLANGE	1
179	G-2	3' FROM INTER. DIA.	0.5' X 0.5'		WEB	2
180	G-3	3.5' FROM INTER. DIA.	0.4' X 0.4'		WEB	3

REPAIR QUANTITY TABLE								
QUANTITIES								
ESTIMATE								
ACTUAL								
SPAN 164-180	SHOTCRETE		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
	GIRDERS		1.00	0.29				
	DIAPHRAGMS		37.94	18.97				
DECK		0.00	0.00					
EPOXY MORTAR	GIRDERS		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
	GIRDERS		28.03	8.18				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

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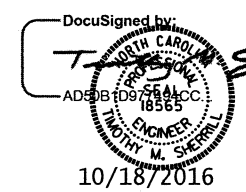
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 15 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-30
1			3			TOTAL SHEETS
2			4			394



DRAWN BY : M.A.LEE DATE : 6/2016
CHECKED BY : T.SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T.SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
181	END DIA.	@ BENT 181	1' X 1.5'		DIAPHRAGM	LT EXT
181	G-3	@ BENT 181	0.3' X 0.6'		* BOTTOM FLANGE	LT EXT
181	G-3	3.5' FROM INTER. DIA.	0.4' X 0.4'		WEB	3
182	END DIA.	@ BENT 182	1' X 1'		DIAPHRAGM	3
182	G-4	@ BENT 182	1' X 1.5'		* BOTTOM FLANGE	3
184	END DIA.	@ BENT 185	1' X 1'		DIAPHRAGM	RT EXT
184	G-3	@ BENT 184	1' X 0.8'		* BOTTOM FLANGE	3
184	G-4	@ BENT 184	1.5' X 0.8'		* BOTTOM FLANGE	LT EXT
185	END DIA.	@ BENT 185	1' X 1'		DIAPHRAGM	1
185	G-2	2.5' FROM INTER. DIA.	0.5' X 0.5'		WEB	2
185	G-2	3' FROM INTER. DIA.	0.4' X 0.4'		WEB	2
186	END DIA.	@ BENT 187	0.5' X 1'		DIAPHRAGM	1
186	G-4	2.5' FROM INTER. DIA.	0.5' X 0.5'		WEB	3
187	END DIA.	@ BENT 180	0.5' X 1.5'		DIAPHRAGM	1
187	END DIA.	@ BENT 187	2' X 1'		DIAPHRAGM	2
187	G-3	3' FROM INTER. DIA.	0.5' X 0.5'		WEB	2
188	END DIA.	@ BENT 188	3' X 1'		DIAPHRAGM	1
188	END DIA.	@ BENT 188	1.5' X 1.5'		DIAPHRAGM	3
188	END DIA.	@ BENT 189	1' X 1'		DIAPHRAGM	3
188	G-1	2.5' FROM INTER. DIA.	0.4' X 0.4'		WEB	3
188	G-3	3' FROM INTER. DIA.	0.5' X 0.5'		WEB	3
189	G-1	@ BENT 190	0.3' X 0.7'		* BOTTOM FLANGE	RT EXT
191	END DIA.	@ BENT 190	6.5' X 0.7'		DIAPHRAGM	2
191	G-2	@ BENT 191	0.7' X 0.7'		* BOTTOM FLANGE	1
191	G-2	@ BENT 191	0.8' X 0.8'		* BOTTOM FLANGE	2
191	G-3	@ BENT 190	0.5' X 0.5'		* BOTTOM FLANGE	2
192	END DIA.	@ BENT 191	2' X 4'		DIAPHRAGM	2
192	G-1	3' FROM BENT 191	0.7' X 0.7'		WEB	1
192	G-1	4' FROM BENT 191	0.5' X 0.5'		WEB	1
193	END DIA.	@ BENT 192	1' X 1'		DIAPHRAGM	1
193	G-2	@ BENT 193	0.8' X 0.8'		* BOTTOM FLANGE	2
193	G-2	4' FROM BENT 192	0.7' X 0.7'		WEB	2
194	G-2	@ BENT 194	0.7' X 0.7'		* BOTTOM FLANGE	LT EXT
195	END DIA.	@ BENT 195	2.5' X 0.3'		DIAPHRAGM	2

		REPAIR QUANTITY TABLE					
		QUANTITIES					
		ESTIMATE			ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
SPAN 181-195	SHOTCRETE						
	GIRDERS	2.71	0.79				
	DIAPHRAGMS	28.30	14.15				
	DECK	0.00	0.00				
EPOXY MORTAR							
	GIRDERS	6.40	1.87				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

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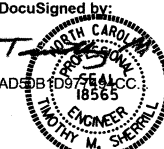
PROJECT NO. B-5936

TYRRELL COUNTY

BRIDGE NO. 7

SHEET 16 OF 22

STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					TOTAL SHEETS
					5-31
					394

DocuSigned by:

 10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
 CHECKED BY : T. SHERRILL DATE : 6/2016
 DESIGN ENGINEER OF RECORD: T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
196	END DIA.	@ BENT 196	2.5' X 0.5'		DIAPHRAGM	1
196	G-1	@ BENT 195	0.5' X 0.5'		* BOTTOM FLANGE	LT EXT
196	G-1	@ BENT 196	0.7' X 0.7'		* BOTTOM FLANGE	1
196	G-4	@ BENT 196	1.5' X 0.7'		* BOTTOM FLANGE	3
196	G-4	@ BENT 196	0.7' X 0.7'		* BOTTOM FLANGE	LT EXT
197	END DIA.	@ BENT 197	2' X 0.3'		DIAPHRAGM	2
197	G-1	@ BENT 197	1' X 0.5'		* BOTTOM FLANGE	1
197	G-1	@ BENT 197	1' X 0.5'		* BOTTOM FLANGE	1
197	G-2	@ BENT 196	0.5' X 0.5'		* BOTTOM FLANGE	1
197	G-2	@ BENT 197	0.5' X 0.5'		* BOTTOM FLANGE	3
197	G-3	@ BENT 197	0.5' X 0.5'		* BOTTOM FLANGE	2
197	G-4	@ BENT 197	0.7' X 0.7'		* BOTTOM FLANGE	3
198	G-2	5' FROM BENT 197	2.5' X 0.5'		* BOTTOM FLANGE	2
199	END DIA.	@ BENT 198	2' X 0.5'		DIAPHRAGM	2
199	END DIA.	@ BENT 199	1.5' X 0.5'		DIAPHRAGM	1
199	G-3	@ BENT 199	1.5' X 1'		* BOTTOM FLANGE	LT EXT
199	G-3	8' FROM BENT 198	2.5' X 0.3'		* BOTTOM FLANGE	2
200	G-2	@ BENT 200	0.5' X 0.5'		* BOTTOM FLANGE	1
201	G-1	@ BENT 201	1' X 0.7'		* BOTTOM FLANGE	1
201	G-2	8' FROM BENT 198	0.7' X 0.7'		WEB	1
201	G-2	8' FROM BENT 198	1' X 1'		WEB	1
202	G-2	@ BENT 202	0.7' X 0.8'		* BOTTOM FLANGE	2
203	END DIA.	@ BENT 203	6.5' X 0.8'		DIAPHRAGM	2
203	G-2	@ BENT 203	0.5' X 0.5'		* BOTTOM FLANGE	2
203	G-2	3' FROM BENT 203	0.7' X 0.7'		WEB	2
204	END DIA.	@ BENT 204	1' X 1.5'		DIAPHRAGM	1
204	G-2	4' FROM BENT 204	0.8' X 0.8'		WEB	1
205	END DIA.	@ BENT 204	1.5' X 1'		DIAPHRAGM	3
205	END DIA.	@ BENT 205	3' X 1'		DIAPHRAGM	2
206	END DIA.	@ BENT 205	1.5' X 0.7'		DIAPHRAGM	RT EXT
206	END DIA.	@ BENT 205	6.5' X 0.7'		DIAPHRAGM	2
206	G-1	@ BENT 205	0.8' X 0.8'		* BOTTOM FLANGE	LT EXT
206	G-1	@ BENT 205	0.8' X 0.8'		* BOTTOM FLANGE	1
206	G-1	@ BENT 206	0.8' X 0.8'		* BOTTOM FLANGE	1
206	G-2	@ BENT 205	1' X 0.8'		* BOTTOM FLANGE	2
206	G-2	20' FROM BENT 206	3' X 0.3'		* BOTTOM FLANGE	1
206	G-2	@ BENT 206	0.7' X 0.7'		* BOTTOM FLANGE	3
206	G-4	4' FROM BENT 205	1.5' X 0.3'		* BOTTOM FLANGE	1
207	END DIA.	@ BENT 206	2.5' X 0.5'		DIAPHRAGM	3
207	G-1	@ BENT 206	0.7' X 0.7'		* BOTTOM FLANGE	2
207	G-1	4' FROM BENT 206	1' X 1'		WEB	1
207	G-1	4' FROM BENT 207	0.8' X 0.8'		WEB	1
207	G-2	@ BENT 207	1' X 0.7'		* BOTTOM FLANGE	2
208	G-2	@ BENT 208	0.8' X 0.8'		* BOTTOM FLANGE	1
209	END DIA.	@ BENT 208	3.5' X 1'		DIAPHRAGM	2
209	END DIA.	@ BENT 208	2' X 0.5'		DIAPHRAGM	1
209	G-2	4' FROM BENT 208	0.5' X 0.5'		WEB	2
209	G-2	10' FROM BENT 208	4' X 0.3'		* BOTTOM FLANGE	3
209	G-2	3' FROM BENT 209	0.5' X 0.5'		WEB	1

		REPAIR QUANTITY TABLE				
		QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 196-209	SHOTCRETE					
	GIRDERS	4.76	1.39			
	DIAPHRAGMS	26.15	13.08			
	DECK	0.00	0.00			
		EPOXY MORTAR				
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
		GIRDERS	17.37	5.07		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

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FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

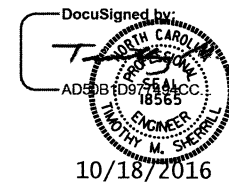
PROJECT NO. B-5936

TYRRELL COUNTY

BRIDGE NO. 7

SHEET 17 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-32
					TOTAL SHEETS
					394



10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
 CHECKED BY : T. SHERRILL DATE : 6/2016
 DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
210	END DIA.	@ BENT 210	1.5' X 0.5'		DIAPHRAGM	3
211	DECK	@ BENT 210	1' X 1.5'		BOTTOM OF DECK	2
211	END DIA.	@ BENT 210	1' X 3'		DIAPHRAGM	2
211	G-4	@ BENT 211	0.7' X 0.7'		* BOTTOM FLANGE	3
212	END DIA.	@ BENT 211	3' X 0.5'		DIAPHRAGM	1
212	END DIA.	@ BENT 212	1' X 1'		DIAPHRAGM	LT EXT
212	G-2	5' FROM BENT 211	4' X 0.3'		* BOTTOM FLANGE	1
212	G-3	4' FROM BENT 211	0.5' X 0.5'		WEB	2
213	END DIA.	@ BENT 213	4' X 0.5'		DIAPHRAGM	1
213	G-4	@ BENT 213	0.8' X 0.8'		* BOTTOM FLANGE	3
214	END DIA.	@ BENT 213	2' X 0.5'		DIAPHRAGM	2
214	G-2	@ BENT 213	0.8' X 0.8'		* BOTTOM FLANGE	1
214	G-2	1' FROM BENT 213	1.5' X 4'		* BOTTOM FLANGE	1
214	G-3	3' FROM BENT 213	0.5' X 0.5'		WEB	3
214	G-3	4' FROM BENT 214	0.8' X 0.8'		WEB	2
215	DECK	2' FROM BENT 214	1' X 1'		BOTTOM OF DECK	3
215	G-4	3' FROM BENT 214	0.6' X 0.6'		WEB	3
216	END DIA.	@ BENT 216	4.5' X 0.6'		DIAPHRAGM	2
216	G-4	@ BENT 215	0.6' X 0.6'		* BOTTOM FLANGE	RT EXT
217	END DIA.	@ BENT 216	6.5' X 0.6'		DIAPHRAGM	2
217	END DIA.	@ BENT 217	4' X 0.3'		DIAPHRAGM	2
218	END DIA.	@ BENT 218	6.5' X 0.5'		DIAPHRAGM	2
218	END DIA.	@ BENT 218	1' X 0.3'		DIAPHRAGM	RT EXT
218	G-1	1' FROM BENT 217	1' X 4'		* BOTTOM FLANGE	1
218	G-2	@ BENT 217	0.8' X 0.8'		* BOTTOM FLANGE	1
219	END DIA.	@ BENT 219	1' X 0.5'		DIAPHRAGM	3
220	END DIA.	@ BENT 220	15' X 0.3'		DIAPHRAGM	3
220	END DIA.	@ BENT 220	1' X 4'		DIAPHRAGM	2
220	G-3	@ BENT 220	0.6' X 0.6'		* BOTTOM FLANGE	3
220	G-4	@ BENT 219	0.8' X 0.8'		* BOTTOM FLANGE	3
221	END DIA.	@ BENT 220	1' X 2'		DIAPHRAGM	2
221	END DIA.	@ BENT 221	0.5' X 0.5'		DIAPHRAGM	2
221	G-2	3' FROM BENT 220	4' X 0.5'		* BOTTOM FLANGE	1
221	G-2	3' FROM BENT 221	0.6' X 0.6'		WEB	1
221	G-3	20' FROM BENT 221	3' X 0.5'		* BOTTOM FLANGE	3
221	G-3	@ BENT 221	0.6' X 0.6'		WEB	2
222	END DIA.	@ BENT 221	2.5' X 0.5'		DIAPHRAGM	1
222	G-2	@ BENT 221	0.8' X 0.8'		* BOTTOM FLANGE	2
222	G-3	@ BENT 222	1' X 0.7'		* BOTTOM FLANGE	2
222	G-3	2' FROM BENT 222	1' X 1'		WEB	2
223	END DIA.	@ BENT 222	3' X 0.5'		DIAPHRAGM	1
223	G-2	@ BENT 222	0.5' X 0.5'		* BOTTOM FLANGE	1
223	G-2	4' FROM BENT 222	0.5' X 0.5'		WEB	2

REPAIR QUANTITY TABLE						
SPAN	MEMBER	QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
210-223	SHOTCRETE					
	GIRDERS	3.47	1.01			
	DIAPHRAGMS	34.60	17.30			
	DECK	2.50	1.25			
EPOXY MORTAR		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
	GIRDERS	20.06	5.85			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

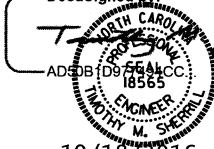
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 18 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-33
1			3			TOTAL SHEETS
2			4			394

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
224	END DIA.	@ BENT 223	1.5' X 2'		DIAPHRAGM	2
224	END DIA.	@ BENT 224	0.5' X 0.5'		DIAPHRAGM	3
224	END DIA.	@ BENT 224	0.4' X 0.5'		DIAPHRAGM	1
224	END DIA.	@ BENT 224	0.5' X 0.5'		DIAPHRAGM	2
224	G-2	3' FROM BENT 223	0.5' X 0.5'		WEB	2
225	DECK	8' FROM BENT 224	1' X 1'		* BOTTOM FLANGE	3
225	END DIA.	@ BENT 224	1.5' X 0.3'		DIAPHRAGM	3
225	G-1	@ BENT 225	0.7' X 0.7'		WEB	LT EXT
225	G-3	@ BENT 225	0.7' X 0.7'		* BOTTOM FLANGE	3
226	END DIA.	@ BENT 225	1' X 0.5'		DIAPHRAGM	1
226	G-1	@ BENT 225	0.5' X 0.5'		* BOTTOM FLANGE	LT EXT
226	G-3	@ BENT 225	2.5' X 0.3'		* BOTTOM FLANGE	2
227	END DIA.	@ BENT 226	2.5' X 0.7'		DIAPHRAGM	3
227	END DIA.	@ BENT 227	1' X 0.3'		DIAPHRAGM	1
227	G-4	@ BENT 227	0.8' X 0.8'		* BOTTOM FLANGE	3
228	DECK	14' FROM BENT 227	1.5' X 1'		BOTTOM OF DECK	RT EXT
228	DECK	16' FROM BENT 227	1.5' X 1'		BOTTOM OF DECK	RT EXT
228	END DIA.	@ BENT 228	4' X 0.5'		DIAPHRAGM	2
228	END DIA.	@ BENT 228	1' X 1'		DIAPHRAGM	RT EXT
228	G-2	@ BENT 227	0.5' X 0.5'		* BOTTOM FLANGE	1
228	G-4	25' FROM BENT 228	3' X 0.5'		* BOTTOM FLANGE	3
229	END DIA.	@ BENT 228	1.5' X 0.8'		DIAPHRAGM	3
229	END DIA.	@ BENT 229	1.5' X 1'		DIAPHRAGM	3
229	G-3	@ BENT 229	0.5' X 0.7'		WEB	2
230	DECK	14' FROM BENT 229	2' X 5'		BOTTOM OF DECK	LT EXT
230	DECK	20' FROM BENT 229	1' X 3'		BOTTOM OF DECK	LT EXT
230	DECK	14' FROM BENT 229	4' X 2'		BOTTOM OF DECK	RT EXT
230	DECK	25' FROM BENT 229	4' X 2'		BOTTOM OF DECK	RT EXT
230	DECK	@ BENT 230	2' X 1'		BOTTOM OF DECK	LT EXT
230	END DIA.	@ BENT 230	1' X 0.5'		DIAPHRAGM	3
230	G-3	@ BENT 229	0.7' X 0.7'		* BOTTOM FLANGE	2
231	G-3	@ BENT 230	0.4' X 1.5'		* BOTTOM FLANGE	2
231	G-3	3' FROM BENT 230	0.5' X 0.4'		WEB	3
231	G-3	3' FROM BENT 231	0.4' X 0.4'		WEB	2
232	G-2	3' FROM BENT 232	0.3' X 0.3'		WEB	1
233	G-1	@ BENT 232	0.8' X 0.8'		END OF GIRDER	LT EXT
233	G-1	4' FROM BENT 232	0.3' X 0.5'		* BOTTOM FLANGE	LT EXT
233	G-4	@ BENT 232	0.7' X 0.7'		END OF GIRDER	3
233	G-4	12' FROM BENT 232	2' X 0.7'		* BOTTOM FLANGE	3

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
234	G-2	2' FROM BENT 233	0.3' X 0.5'		WEB	2
234	G-2	3' FROM BENT 234	0.4' X 0.4'		WEB	1
235	END DIA.	@ BENT 235	3' X 1.5'		DIAPHRAGM	3
235	G-4	@ BENT 235	0.8' X 0.8'		END OF GIRDER	RT EXT
236	G-4	@ BENT 236	0.5' X 0.7'		END OF GIRDER	3
236	G-4	3' FROM BENT 235	2' X 0.7'		* BOTTOM FLANGE	3
236	G-3	10' FROM BENT 236	0.3' X 0.5'		WEB	2
236	G-3	6' FROM BENT 236	0.5' X 1.5'		* BOTTOM FLANGE	2
237	G-2	@ BENT 236	1' X 1'		END OF GIRDER	1
237	G-4	@ BENT 236	0.3' X 0.3'		WEB	RT EXT

REPAIR QUANTITY TABLE						
	QUANTITIES					
	ESTIMATE			ACTUAL		
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
SPAN 224-237	SHOTCRETE					
	GIRDERS	5.21	1.52			
	DIAPHRAGMS	17.40	8.70			
	DECK	35.00	17.50			
EPOXY MORTAR	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
	GIRDERS	8.67	2.53			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

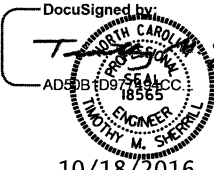
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 19 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-34
1			3			TOTAL SHEETS
2			4			394

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
238	G-1	@ BENT 238	1' x 1'		END OF GIRDER	1
238	G-2	0.5' FROM BENT 238	0.5' x 1.5'		* BOTTOM FLANGE	1
238	G-3	@ BENT 237	0.7' x 0.7'		END OF GIRDER	2
238	G-4	@ BENT 238	1' x 0.8'		END OF GIRDER	3
238	G-1	@ BENT 237	0.7' x 0.8'		END OF GIRDER	LT EXT
238	G-4	@ BENT 237	0.7' x 0.7'		END OF GIRDER	3
238	G-4	4' FROM BENT 238	0.4' x 0.4'		WEB	3
239	END DIA.	@ BENT 238	1.5' X 2'		DIAPHRAGM	LT EXT
239	G-3	4' FROM BENT 239	0.5' X 0.5'		WEB	2
240	END DIA.	@ BENT 240	2' X 1.5'		DIAPHRAGM	2
240	G-2	1' FROM BENT 239	1' X 0.5'		* BOTTOM FLANGE	1
241	G-2	@ BENT 240	3' X 1'		* BOTTOM FLANGE	1
241	G-3	@ BENT 240	1' X 1'		END OF GIRDER	2
241	G-4	@ BENT 241	1' X 0.5'		END OF GIRDER	3
244	G-3	@ BENT 244	1' X 1'		END OF GIRDER	2
245	G-3	@ BENT 244	0.5' X 1'		END OF GIRDER	2
245	G-2	1.5' FROM BENT 244	0.4' X 0.4'		WEB	2
245	G-4	5' FROM BENT 244	0.4' X 0.4'		WEB	3
245	G-3	@ BENT 244	2' X 1'		END OF GIRDER	2
245	G-4	@ BENT 244	0.5' X 1'		END OF GIRDER	3
245	G-2	@ BENT 244	0.5' X 1.5'		* BOTTOM FLANGE	2
245	G-4	@ BENT 244	1' X 2'		END OF GIRDER	3
246	G-1	@ BENT 246	1' X 1.5'		END OF GIRDER	1
246	G-1	@ INTER. DIA.	4' X 1.5'		* BOTTOM FLANGE	1
247	G-4	0.5' FROM BENT 246	4' X 1'		* BOTTOM FLANGE	1
247	G-2	@ BENT 246	2' X 1'		* BOTTOM FLANGE	1
247	G-2	3' FROM BENT 246	0.4' X 0.4'		WEB	2
248	END DIA.	@ BENT 248	3' X 1'		DIAPHRAGM	2
248	G-2	2' FROM BENT 247	0.4' X 0.4'		TOP FLANGE	2
249	G-1	@ BENT 249	1' X 1'		END OF GIRDER	1
249	G-2	@ BENT 248	1' X 1'		* BOTTOM FLANGE	1
250	G-1	@ BENT 250	1' X 1'		* BOTTOM FLANGE	LT EXT
251	G-2	5' FROM BENT 251	0.4' X 1.3'		* BOTTOM FLANGE	1
251	G-3	4' FROM BENT 250	0.3' X 0.3'		* BOTTOM FLANGE	2
252	END DIA.	@ BENT 252	1' X 1'		DIAPHRAGM	3
252	G-1	@ BENT 251	1.5' X 1.5'		END OF GIRDER	LT EXT
252	G-1	@ BENT 252	1' X 1'		END OF GIRDER	LT EXT
252	G-1	4' FROM BENT 251	0.4' X 0.4'		WEB	1
252	G-2	@ BENT 251	1' X 1.5'		* BOTTOM FLANGE	1
252	G-3	@ BENT 251	1.5' X 1'		* BOTTOM FLANGE	2
253	G-1	@ BENT 253	1' X 0.8'		* BOTTOM FLANGE	1
255	G-1	@ BENT 254	2' X 0.8'		* BOTTOM FLANGE	1
255	G-2	@ BENT 255	0.7' X 0.8'		* BOTTOM FLANGE	2
255	G-3	@ BENT 254	0.9' X 0.3'		* BOTTOM FLANGE	2
255	G-4	@ BENT 255	0.6' X 0.7'		WEB	RT EXT
255	G-4	3' FROM BENT 256	0.4' X 0.4'		WEB	3

REPAIR QUANTITY TABLE						
		QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 238-256	SHOTCRETE					
	GIRDERS	18.38	5.36			
	DIAPHRAGMS	10.00	5.00			
	DECK	0.00	0.00			
	EPOXY MORTAR					
	GIRDERS	25.84	7.54			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

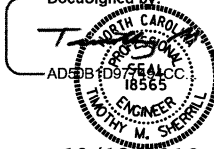
CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 20 OF 22

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GIRDER, DIAPHRAGM & UNDERDECK REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-35
					TOTAL SHEETS 394

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE : 6/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
257	G-1	@ BENT 257	0.5' X 0.6'		* BOTTOM FLANGE	1
257	G-3	@ BENT 257	0.5' X 0.8'		* BOTTOM FLANGE	2
257	G-4	@ BENT 256	1.7' X 0.3'		* BOTTOM FLANGE	3
257	G-4	3' FROM BENT 256	1.3' X 0.3'		* BOTTOM FLANGE	3
258	G-2	@ BENT 258	0.3' X 1.3'		* BOTTOM FLANGE & WEB	1
258	G-3	1' FROM BENT 258	0.5' X 0.4'		WEB	3
258	G-4	@ BENT 258	0.6' X 0.6'		* BOTTOM FLANGE	3
259	G-1	@ BENT 259	0.4' X 0.7'		* BOTTOM FLANGE	LT EXT
259	G-3	@ BENT 259	0.5' X 0.7'		* BOTTOM FLANGE	2
259	G-3	@ BENT 259	1.3' X 1'		* BOTTOM FLANGE	3
259	G-4	@ BENT 259	0.6' X 0.7'		* BOTTOM FLANGE	3
260	G-1	@ BENT 259	0.5' X 0.7'		* BOTTOM FLANGE	1
260	G-1	@ BENT 260	0.6' X 0.6'		* BOTTOM FLANGE	1
260	G-2	@ BENT 260	1' X 0.8'		* BOTTOM FLANGE	1
261	G-3	@ BENT 261	0.6' X 0.7'		* BOTTOM FLANGE	3
261	G-4	@ BENT 261	0.8' X 0.8'		* BOTTOM FLANGE	3
264	G-2	@ BENT 264	0.4' X 0.6'		* BOTTOM FLANGE	1
264	G-4	@ BENT 264	1.1' X 0.3'		* BOTTOM FLANGE	3
265	G-1	@ BENT 265	0.8' X 0.8'		* BOTTOM FLANGE	1
265	G-2	@ BENT 265	0.7' X 0.7'		* BOTTOM FLANGE	1
265	G-2	@ BENT 265	1.2' X 0.8'		* BOTTOM FLANGE	2
265	G-3	@ BENT 264	1' X 1.5'		* BOTTOM FLANGE	2
265	G-3	@ BENT 265	0.3' X 0.5'		* BOTTOM FLANGE	2
265	G-3	@ BENT 265	0.8' X 1.5'		* BOTTOM FLANGE	2
265	G-3	@ BENT 265	0.6' X 0.6'		* BOTTOM FLANGE	3
266	G-1	@ BENT 265	0.6' X 0.8'		* BOTTOM FLANGE	1
266	G-2	@ BENT 265	0.6' X 0.6'		* BOTTOM FLANGE	1
266	G-2	@ BENT 266	0.6' X 0.8'		* BOTTOM FLANGE	2
266	G-3	@ BENT 265	0.8' X 0.7'		* BOTTOM FLANGE	3
266	G-3	@ BENT 266	0.8' X 0.3'		* BOTTOM FLANGE	2
267	G-2	@ BENT 266	0.8' X 0.8'		* BOTTOM FLANGE	2
268	G-2	@ BENT 267	1.8' X 0.3'		* BOTTOM FLANGE	2
268	G-3	26' FROM BENT 267	4.3' X 0.4'		* BOTTOM FLANGE	2
268	G-3	26' FROM BENT 267	2.5' X 0.5'		* BOTTOM FLANGE	3
269	G-1	@ BENT 268	0.4' X 0.7'		* BOTTOM FLANGE	LT EXT
269	G-2	@ BENT 269	0.4' X 0.7'		* BOTTOM FLANGE	2
269	G-3	@ BENT 269	3.6' X 0.8'		* BOTTOM FLANGE	3
271	DECK	@ BENT 270	2' X 1.7'		BOTTOM OF DECK	3
271	G-1	@ BENT 271	1.5' X 1.3'		* BOTTOM FLANGE & WEB	LT EXT
271	G-1	@ BENT 271	0.7' X 0.7'		WEB	1
271	G-2	@ BENT 270	0.7' X 0.7'		* BOTTOM FLANGE	1

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
272	END DIA.	@ BENT 272	1.3' X 1.5'		DIAPHRAGM	LT EXT
272	G-1	@ BENT 271	0.8' X 0.6'		* BOTTOM FLANGE	LT EXT
272	G-1	@ BENT 272	0.8' X 0.6'		* BOTTOM FLANGE	1
272	G-1	@ BENT 272	0.7' X 0.7'		WEB	1
272	G-3	@ BENT 271	0.8' X 0.7'		* BOTTOM FLANGE	2
272	G-4	@ BENT 272	1.2' X 0.8'		* BOTTOM FLANGE	3
273	G-1	@ BENT 272	0.7' X 0.6'		* BOTTOM FLANGE	LT EXT
273	G-1	@ BENT 272	0.3' X 0.7'		WEB	LT EXT
273	G-1	@ BENT 272	0.8' X 0.8'		* BOTTOM FLANGE	1
273	G-1	2' FROM BENT 272	1.2' X 1.2'		WEB	1
273	G-2	1' FROM BENT 272	1.1' X 1'		WEB	2
273	G-2	2' FROM BENT 273	1' X 0.8'		WEB	2
273	G-3	@ BENT 273	1.1' X 1.4'		WEB	2
273	G-4	@ BENT 273	0.5' X 0.7'		WEB	3
274	DECK	10' FROM BENT 273	1.8' X 0.8'		BOTTOM OF DECK	1
274	G-1	@ BENT 273	0.8' X 0.8'		WEB	LT EXT
274	G-1	@ BENT 274	2.2' X 1.2'		* BOTTOM FLANGE	LT EXT
274	G-1	@ BENT 274	2' X 0.3'		* BOTTOM FLANGE	1
274	G-2	2' FROM BENT 273	2.2' X 1.2'		WEB	1
274	G-3	@ BENT 274	6' X 1'		* BOTTOM FLANGE	2
274	G-3	@ BENT 274	1.9' X 1'		* BOTTOM FLANGE	2
274	G-3	@ BENT 274	1.8' X 1'		* BOTTOM FLANGE	2
274	G-4	@ BENT 274	2' X 0.8'		* BOTTOM FLANGE	3
274	G-4	@ BENT 274	1' X 0.8'		* BOTTOM FLANGE	RT EXT
274	G-4	4' FROM BENT 273	0.3' X 1.2'		WEB	3

REPAIR QUANTITY TABLE						
		QUANTITIES				
		ESTIMATE		ACTUAL		
		AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SPAN 257-274	SHOTCRETE					
	GIRDERS	10.26	2.99			
	DIAPHRAGMS	1.95	0.98			
	DECK	4.84	2.42			
	EPOXY MORTAR					
	GIRDERS	44.17	12.88			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

DRAWN BY : M.A. LEE DATE : 6/2016
 CHECKED BY : T. SHERRILL DATE : 6/2016
 DESIGN ENGINEER OF RECORD : T. SHERRILL DATE : 6/2016

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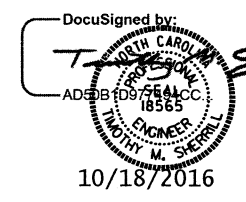
PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 21 OF 22

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GIRDER, DIAPHRAGM & UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-36
1			3			TOTAL SHEETS
2			4			394



10/18/2016

GIRDER, DIAPHRAGM, & DECK REPAIR TABLES						
SPAN	MEMBER	LENGTH FROM BENT (FT)	APPROX. REPAIR SIZE	ACTUAL REPAIR SIZE	LOCATION	BAY
08 S	DECK	6' FROM BENT 8-S	1.7' X 1.3		BOTTOM OF DECK	-
10 S	DECK	6' FROM BENT 10-S	2.5' X 1.7'		BOTTOM OF DECK	-
13 S	DECK	6' FROM BENT 13-S	2' X 1.4'		BOTTOM OF DECK	-
15 S	DECK	6' FROM BENT 15-S	4' X 2'		BOTTOM OF DECK	-
18 S	DECK	@ BENT 18-S	1' X 1.5'		BOTTOM OF DECK	-
18 S	DECK	@ BENT 18-S	1.4' X 1.4'		BOTTOM OF DECK	-
19 S	DECK	@ BENT 18-S	1' X 4'		BOTTOM OF DECK	-
19 S	DECK	@ BENT 19-S	24' X 3.5'		BOTTOM OF DECK	-
19 S	DECK	6' FROM BENT 19-S	1.7' X 1.2'		BOTTOM OF DECK	-

REPAIR QUANTITY TABLE						
		QUANTITIES				
		ESTIMATE		ACTUAL		
SPAN	MEMBER	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
1 S-60 S	SHOTCRETE					
	GIRDERS	0.00	0.00			
	DIAPHRAGMS	0.00	0.00			
	DECK	110.76	55.38			
EPOXY MORTAR						
	GIRDERS	0.00	0.00			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

CONTRACTOR MAY ELECT TO USE EPOXY MORTAR IN LIEU OF SHOTCRETE.

* ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

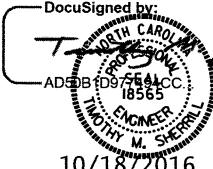
PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO. 7

SHEET 22 OF 22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GIRDER, DIAPHRAGM
& UNDERDECK REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			394
2			4			

DocuSigned by:

10/18/2016

DRAWN BY : M.A. LEE DATE : 6/2016
CHECKED BY : T. SHERRILL DATE : 6/2016
DESIGN ENGINEER OF RECORD: T. SHERRILL DATE : 6/2016

NOTES

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL OR PRESTRESSED TENDONS.

CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL AND PRESTRESSED TENDONS SHALL NOT BE DAMAGED.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

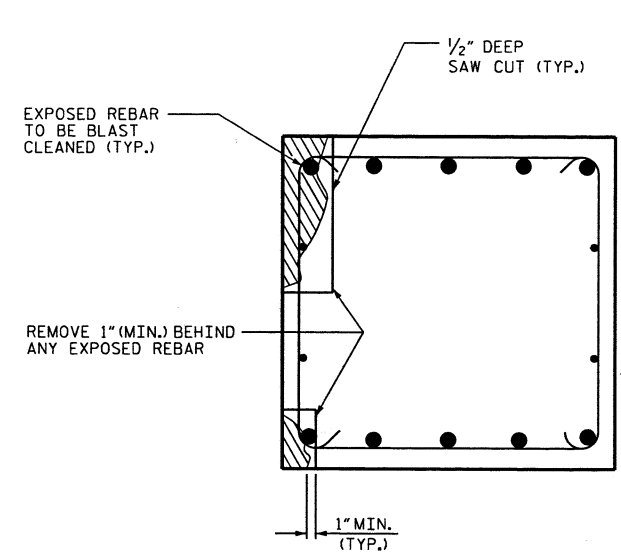
ALL REPAIRS IN GIRDER FLANGE OR INCLUDING GIRDER FLANGE IN REPAIR SHALL BE EPOXY MORTAR.

FOR EPOXY MORTAR REPAIRS, SEE SPECIAL PROVISIONS.

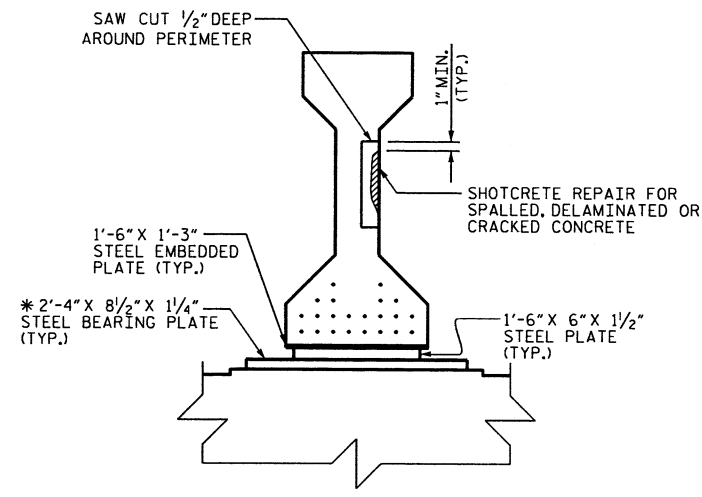
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

EPOXY MORTAR REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR CLEANING AND PAINTING EXISTING BEARINGS WITH HRCSA, SEE SPECIAL PROVISIONS.

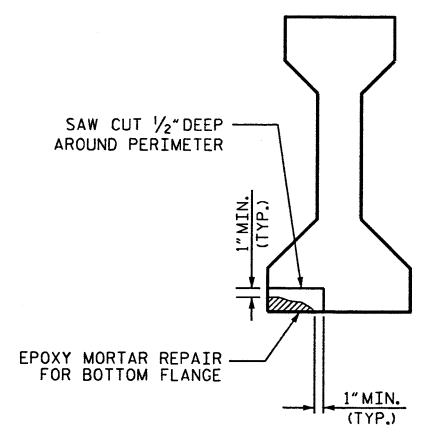


SECTION A-A



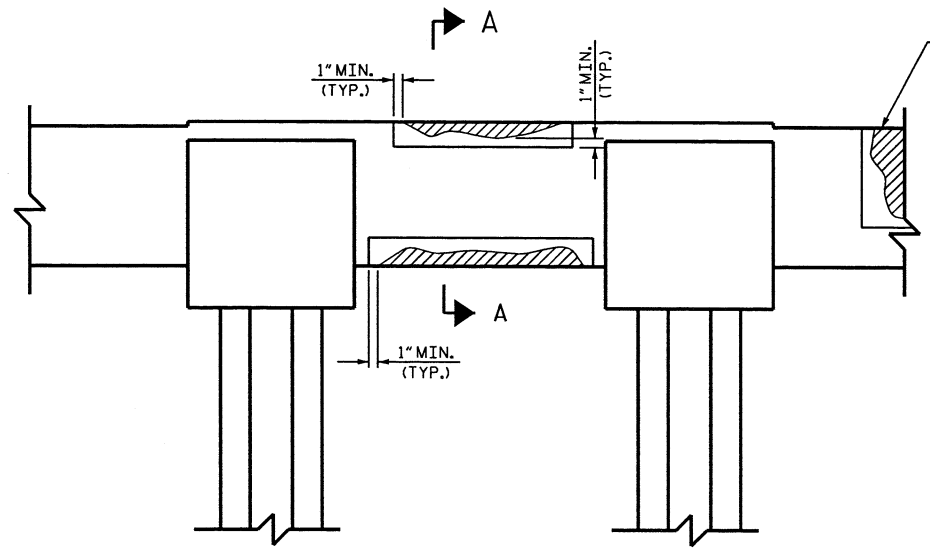
SECTION B-B

* AT APPROXIMATELY 368 LOCATIONS THERE IS AN ADDITIONAL STEEL BEARING PLATE.
 (IF MORE THAN HALF THE CIRCUMFERENCE OF REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.)



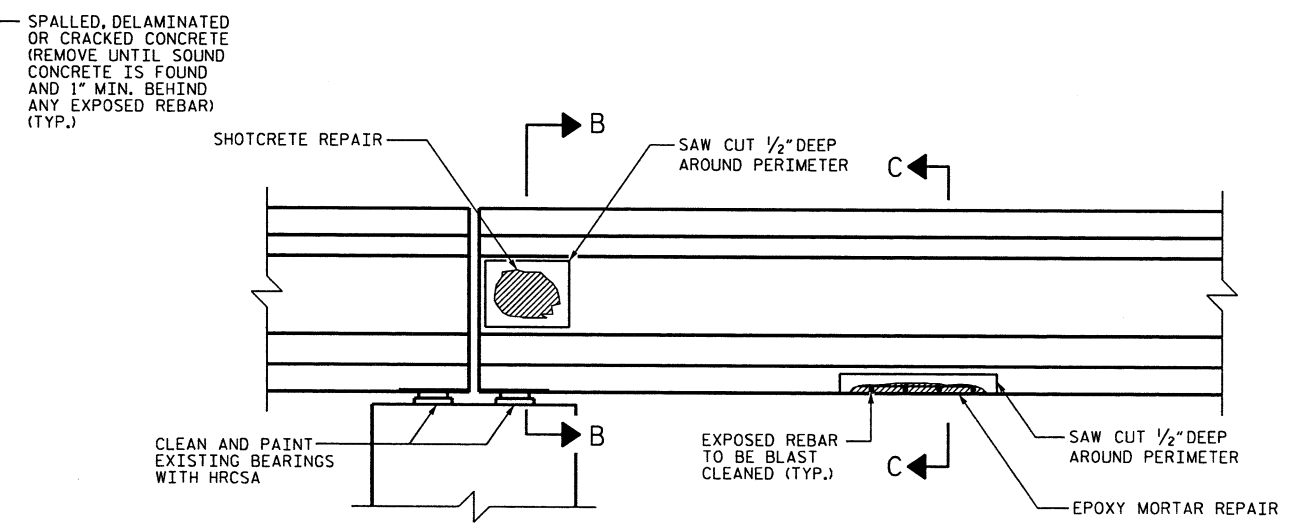
SECTION C-C

(ALL UNSOUND CONCRETE MUST BE REMOVED. HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS. PRESTRESSED STRANDS NOT SHOWN FOR CLARITY.)



BENT CAP REPAIRS

CAP REPAIR



ELEVATION

CONCRETE GIRDER REPAIR DETAIL

PROJECT NO. B-5936
 TYRRELL COUNTY
 BRIDGE NO. 7

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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL CAP & GIRDER REPAIR DETAILS



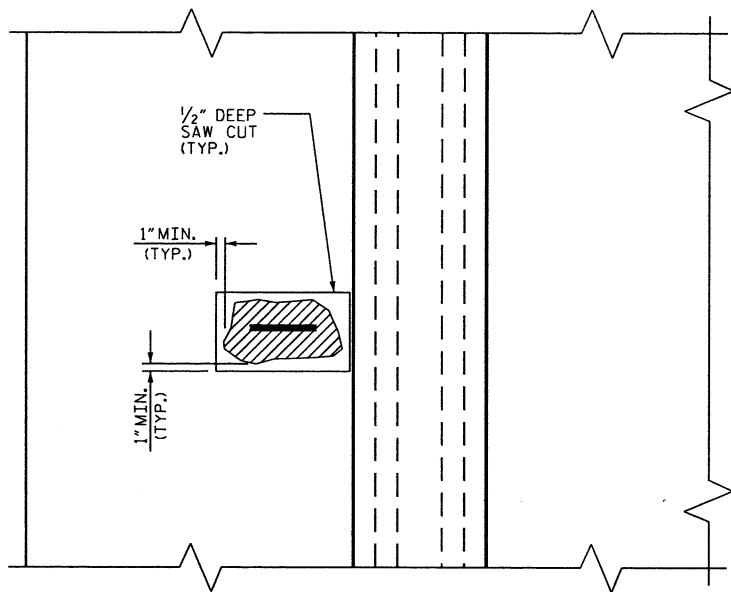
DocuSigned by:
Robbie Weisz
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DRAWN BY : S. T. SANDOR DATE : 10/2016
 CHECKED BY : R. N. WEISZ DATE : 10/2016

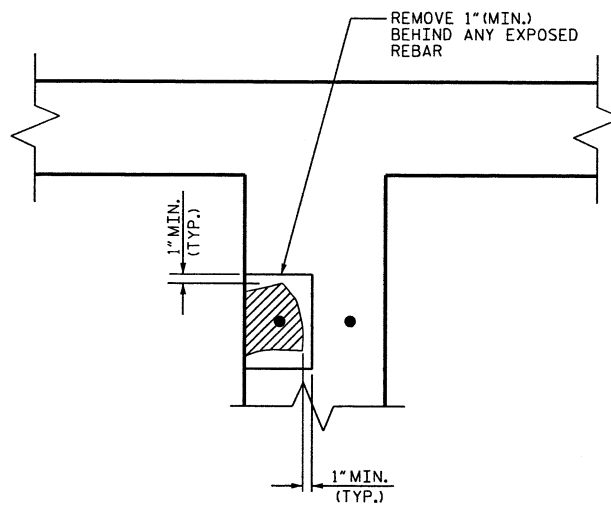
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REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			394

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SECTION D-D



SECTION E-E

NOTES


CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL OR PRESTRESSED TENDONS.

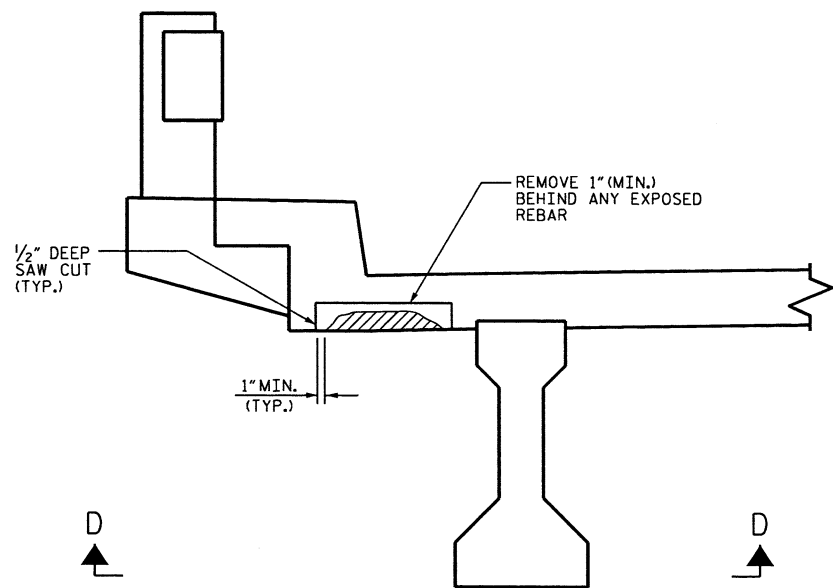
CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL AND PRESTRESSED TENDONS SHALL NOT BE DAMAGED.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

EPOXY MORTAR REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

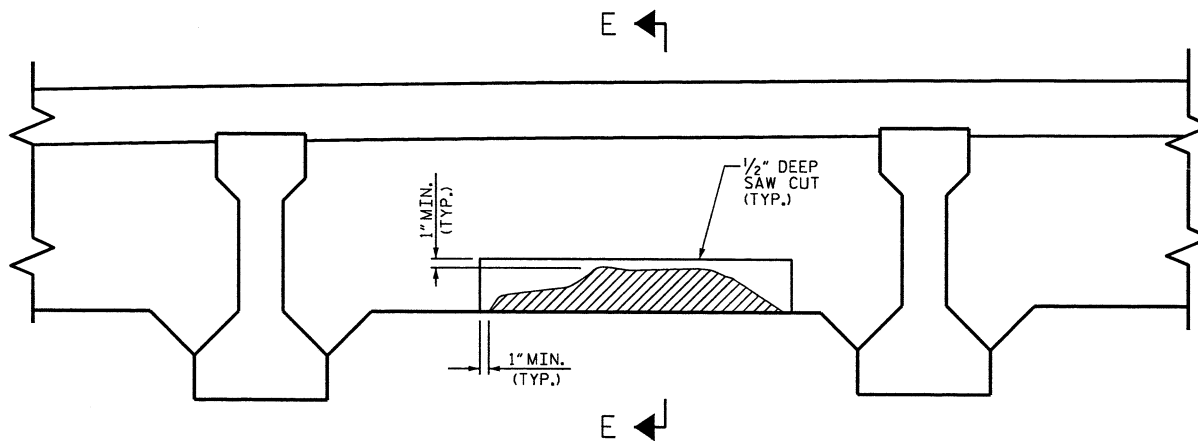
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

 DAMAGED AREA



TYPICAL SECTION

OVERHANG DETAILS



TYPICAL SECTION

INTERIOR DIAPHRAGM REPAIR DETAILS

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 2 OF 2



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Robbie Weisz 11/9/2016
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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 TYPICAL OVERHANG &
 DIAPHRAGM
 REPAIR DETAILS

DRAWN BY : S. T. SANDOR DATE : 06/2016
 CHECKED BY : R. N. WEISZ DATE : 06/2016

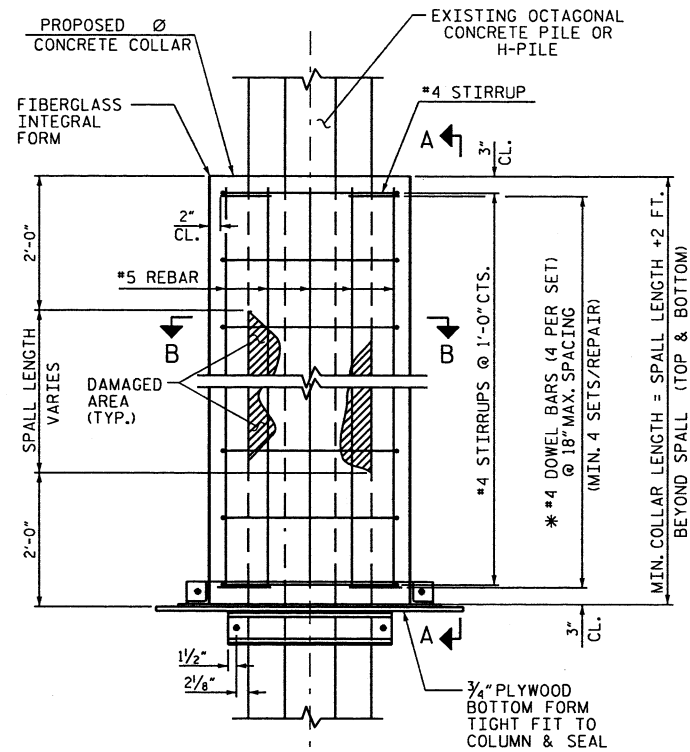
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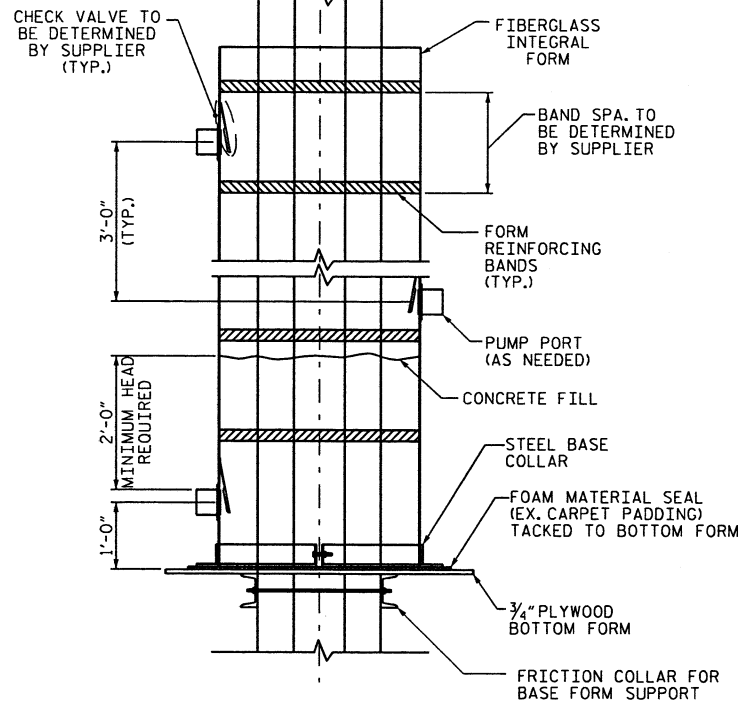
S-382
 TOTAL SHEETS
 394

TYPICAL PILE JACKET WITHOUT PUMP PORTS

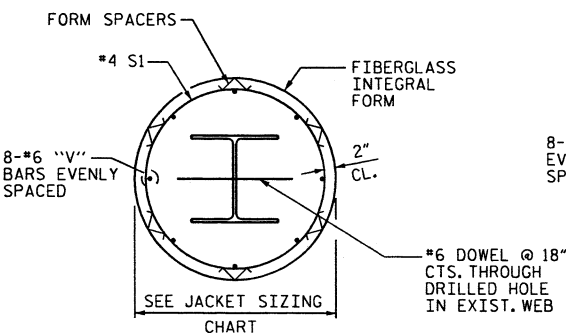
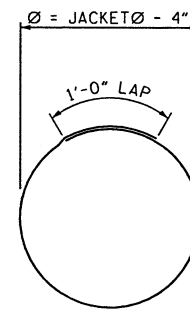


JACKET ELEVATION

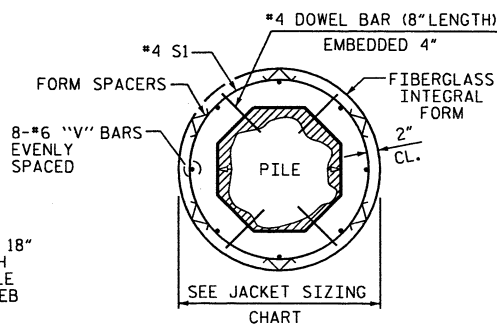
*FOR H-PILES USE #6 DOWEL BARS



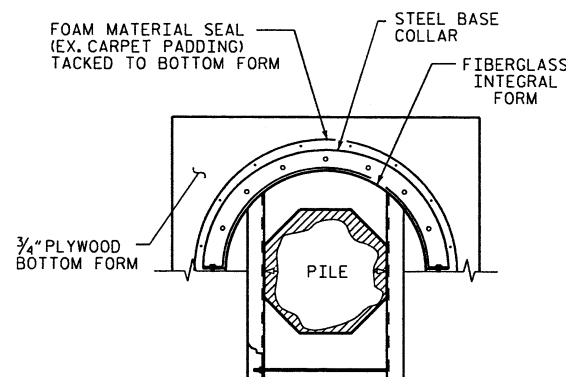
SECTION A-A



**SECTION B-B
H-PILE REPAIR**

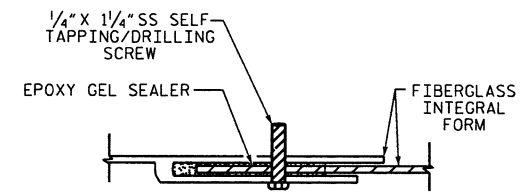
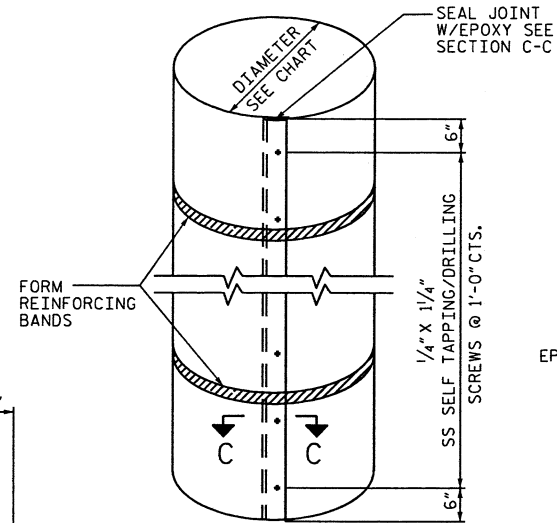


**SECTION B-B
OCTAGONAL PILE REPAIR**



**PLATFORM DETAIL
SEE JACKET SIZING CHART**

PILE/COLUMN SIZE	RECOMMENDED JACKET SIZE	
	ROUND	SQUARE
12" SQUARE	28" Ø	24" X 24"
14" SQUARE	30" Ø	26" X 26"
16" SQUARE	34" Ø	28" X 28"
20" SQUARE	38" Ø	32" X 32"
24" SQUARE	44" Ø	36" X 36"
30" SQUARE	N/A	42" X 42"
ROUND	PILE Ø + 10"	N/A
OCTAGONAL	PILE Ø + 10"	N/A



SECTION C-C

FIBERGLASS INTEGRAL FORM

REPAIR SEQUENCE

- 1) COMPLETELY REMOVE ALL LOOSE OR DELAMINATED CONCRETE, OIL, GREASE, LAITANCE AND OTHER CONTAMINANTS. PREPARE CONCRETE USING ACCEPTABLE MECHANICAL MEANS AND CONCRETE CLEANERS AND DEGREASERS AS NECESSARY TO OBTAIN CLEAN, SOUND AND ROUGH SURFACES. COARSE AGGREGATE SHALL BE EXPOSED. CONCRETE PILE SURFACES SHOULD BE SOUND AND FREE OF CONTAMINATION. WHERE MARINE GROWTH OR OTHER CONTAMINANTS EXIST, INCLUDING VISIBLE SIGNS OF CORROSION, A HIGH PRESSURE WATER BLAST SHOULD BE UTILIZED TO ENSURE A CLEAN, SOUND, CONTAMINANT-FREE SURFACE FOR OPTIMUM BOND.
- 2) CLEAN REINFORCING STEEL & COLUMNS OR PILE, OF ALL RUST AND FOREIGN MATERIAL.
- 3) DETERMINE FIBERGLASS INTEGRAL FORM LENGTH. CONTRACTOR SHALL ESTABLISH MEAN LOW WATER (MLW) ELEVATION AND SET BOTTOM OF JACKET A MINIMUM OF 2' BELOW THAT ELEVATION. ADDITIONALLY, THE MINIMUM LENGTH SHALL BE 2' ABOVE AND BELOW THE REMOVED DELAMINATED OR LOOSE CONCRETE.
- 4) FOR CONCRETE PILES DRILL 5/8" HOLES AND PLACE #4 DOWELS W/ EPOXY GROUT. FOR H-PILES DRILL HOLES AND PLACE #6 DOWELS.
- 5) BUILD THE REBAR CAGE BY PLACING THE #4 STIRRUPS AND VERTICAL REINFORCING STEEL IN ACCORDANCE WITH THE PROJECT DRAWING.
- 6) INSTALL FORM SPACERS TO INSURE ADEQUATE CONCRETE COVER AT ALL PARTS OF THE SLEEVE.
- 7) INSTALL THE LEAVE-IN PLACE FIBERGLASS FORM (ALSO CALLED JACKET OR COLLAR). THE DIAMETER OF THE JACKET SHOULD BE LARGE ENOUGH TO IN-CIRCLE THE PILE WHILE PROVIDING A MINIMUM OF 5" TOTAL CLEARANCE. 2" OF CLEARANCE BETWEEN THE PILE AND THE REINFORCING STEEL AND 2" OF CLEARANCE BETWEEN THE REINFORCING STEEL AND THE FORM. (SEE JACKET SIZING CHART)
- 8) INSERT CONCRETE PUMP HOSE THRU TOP OF JACKET AND EXTEND TO JUST ABOVE THE BOTTOM AND PUMP AT A FLOW RATE TO THE DESIRED FILL ELEVATION. IF SITE CONDITIONS PROHIBIT INSERTING PUMP HOSE THRU TOP OF JACKET THEN INSTALL PUMP PORTS AND PLACE CONCRETE AS SHOWN IN THE DETAILS.
- 9) PLACE CONCRETE FILL. INSTALL PUMP PORT(S) IN JACKET FOR UNDERWATER APPLICATIONS. PORTS SHOULD HAVE A CHECK VALVE TO KEEP BACK FLOW OF CONCRETE ONCE PUMP NOZZLE IS REMOVED. FOR CONCRETE PLACEMENTS GREATER THAN 5' USE MULTIPLE PORTS SPACED 3' VERTICALLY AND ALTERNATING 180° FROM PREVIOUS PORT. A MINIMUM OF 2' OF CONCRETE HEAD, IS NEEDED ABOVE PORT PRIOR TO CHANGING PORTS.
- 10) REMOVE FORM WORK WHEN CONCRETE STRENGTH ACHIEVES 3,000 PSI.

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TYRRELL COUNTY
 BRIDGE NO. 7

SHEET 2 OF 2

STATE OF NORTH CAROLINA
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PILE JACKET REPAIR



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Robbie Weisz 11/9/2016
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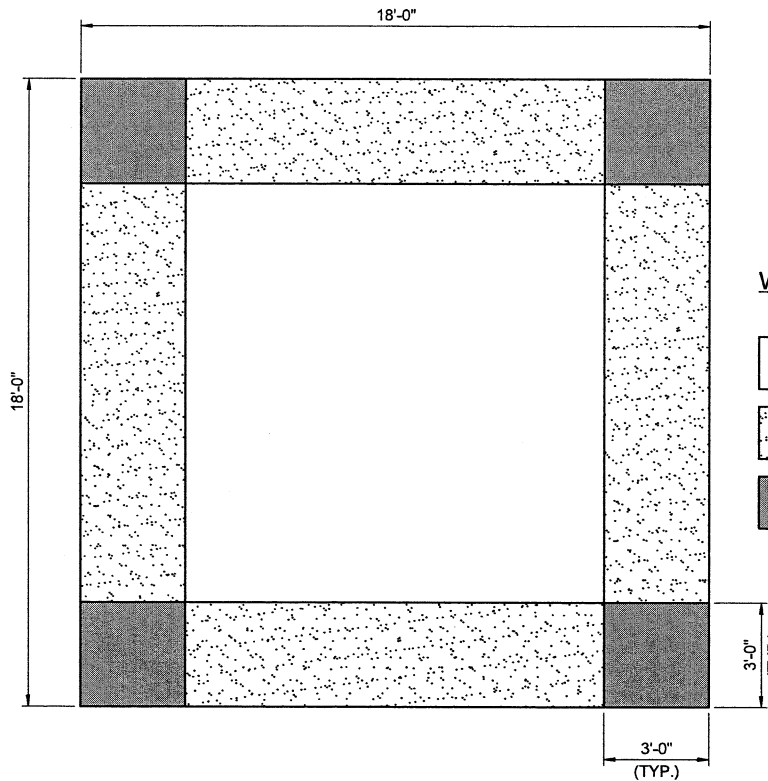
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 TOTAL SHEETS
 394

DRAWN BY: S. T. SANDOR DATE: 06/2016
 CHECKED BY: R. N. WEISZ DATE: 06/2016

GENERAL NOTES

- DURING CONSTRUCTION, THE CONTRACTOR MAY ENCOUNTER EXISTING CONDITIONS WHICH ARE NOT KNOWN DURING BID OR ARE AT VARIANCE WITH PROJECT DOCUMENTATION (DISCOVERY). SUCH CONDITIONS MAY INTERFERE WITH NEW CONSTRUCTION, PROPER EXECUTION OF THE WORK, REQUIRE PROTECTION AND/OR SUPPORT OF EXISTING WORK DURING CONSTRUCTION, OR MAY CONSIST OF DAMAGE OR DETERIORATION TO STRUCTURAL MATERIALS OR COMPONENTS WHICH JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BRIDGE AND/OR OPERATOR HOUSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ALL SUCH DISCOVERIES PRIOR TO PROCEEDING WITH WORK RELATED TO SUCH DISCOVERIES.
- THE CURRENT DRAWINGS MAY SPECIFY DIMENSIONS, ELEVATIONS AND CONSTRUCTION CONDITIONS TO BE FIELD VERIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD VERIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION OR FABRICATION OF COMPONENTS. THE FIELD VERIFICATION SHALL BE MADE IN A TIMELY MANNER SO AS TO CAUSE NO DELAYS IN EXECUTION OF THE WORK.
- PROJECT INCLUDES AREA OF SELECTIVE DEMOLITION AS INDICATED IN THE DRAWINGS. DURING THE ENTIRE LENGTH OF THE PROJECT, PROTECT ALL EXISTING EQUIPMENT AND MATERIALS WHICH ARE NOT BEING DEMOLISHED.
- ALL PRODUCTS, MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS, IN COMPLIANCE WITH ALL APPLICABLE CODES, AND WITHIN THE ACCEPTED COMMERCIAL TRADE STANDARDS BY SKILLED, EXPERIENCED, TRAINED AND COMPETENT CRAFTSMEN. MATERIAL SHALL BE USED FOR ONLY THE PURPOSES FOR WHICH THEY ARE DESIGNED.
- WORK AREAS SHALL BE KEPT CLEAN AND SAFE AT ALL TIMES BY THE CONTRACTOR. TRASH AND DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE ON THE SITE. ALL HAZARDOUS WASTES SHALL BE PROPERLY AND LEGALLY DISPOSED OF ON A DAILY BASIS.
- DURING THE BIDDING PERIOD AND THE CONSTRUCTION PERIOD, ANY DISCREPANCIES, CONFLICTS AND/OR QUESTIONS OF INTERPRETATIONS IN THE DRAWINGS OR SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER PROMPTLY FOR CLARIFICATION.
- ALL SHOWN DIMENSIONS ARE BASED ON ORIGINAL DRAWINGS. PRIOR TO FABRICATION OF ANY MATERIAL SHOWN IN THE DRAWINGS, THE CONTRACTOR SHALL FIELD VERIFY ALL APPLICABLE EXISTING CONDITIONS AND DIMENSIONS FOR WORK WHICH TIES, CONNECTS OR IS ADJACENT TO THE EXISTING STRUCTURE. IF CONDITIONS OR DIMENSIONS VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PREPARATION OF THE SHOP DRAWINGS.



CONTROL HOUSE ROOF WIND ZONES PLAN

SCALE: 3/8" = 1'-0"

WIND ZONE NET DESIGN WIND PRESSURE (PSF)

WIND ZONE	NET DESIGN WIND PRESSURE (PSF)	
	POSITIVE	NEGATIVE
ZONE 1	16	-41.5
ZONE 2	16.5	-62.2
ZONE 3	18.5	-114.6

SCOPE OF WORK FOR CONTROL HOUSE RENOVATIONS

ALL WORK ON THE CONTROL HOUSE SHALL BE COORDINATED WITH ELECTRICAL SCOPE OF WORK AS SHOWN ON SHEET A-4

- SLOPED ROOF INSTALLATION
 - REMOVAL OF EXISTING ROOF ATTACHMENTS
 - REMOVAL OF EXISTING ROOF GRAVEL FINISH, DRAINS, AND CLEANING
 - INSTALL NEW COLD-FORMED STEEL CHANNEL PURLINS AND CONNECTIONS ON TOP OF EXISTING ROOF
 - INSTALL NEW STANDING SEAM METAL ROOF, TRIMS, AND FLASHINGS ON TOP OF EXISTING ROOF
 - INSTALL NEW GUTTERS AND DOWNSPOUTS AND REATTACH EXISTING ROOF ATTACHMENTS
- REPLACEMENT OF DOORS
 - REMOVAL OF EXISTING DOORS ON THE CONTROL HOUSE
 - INSTALLATION OF NEW METAL DOORS ON THE CONTROL HOUSE
- REPLACEMENT OF WINDOWS
 - REMOVAL OF EIGHT EXISTING WINDOWS OF THE CONTROL HOUSE
 - INSTALLATION OF NEW WINDOWS
- REPLACEMENT OF HANDRAILS
 - REMOVAL OF HANDRAILS ON SECOND FLOOR OF CONTROL HOUSE
 - REMOVE EXISTING LADDER ON NORTH SIDE OF CONTROL HOUSE
 - INSTALL NEW HANDRAILS ON SECOND FLOOR OF CONTROL HOUSE
- REPLACE FLAG POLE
 - REMOVE EXISTING FLAG POLE
 - INSTALLATION OF NEW FLAG POLE
- REPLACE SEPTIC TANK SUPPORT PLATFORM
 - REMOVAL OF EXISTING SEPTIC TANK SYSTEM BELOW THE CONTROL HOUSE
 - INSTALLATION OF NEW PLATFORM FOR THE EXISTING SEPTIC TANK
 - INSTALL AND CONNECT SEPTIC TANK
- PAINTING OF OPERATOR HOUSE
 - PAINT INTERIOR AND EXTERIOR OF THE CONTROL HOUSE WALLS
- REPLACE SECOND FLOOR TILES
 - REMOVAL OF FLOOR TILES CONTAINING ASBESTOS IN THE OPERATOR ROOM OF THE CONTROL HOUSE
 - INSTALLATION OF NEW FLOOR TILES IN THE OPERATOR ROOM OF THE CONTROL HOUSE

ARCHITECTURAL/STRUCTURAL NOTES

- ALL ASPECTS OF JOB AND SITE SAFETY ARE COMPLETELY THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE OPERATOR HOUSE ROOF CONDITIONS PRIOR TO ANY FOOT TRAFFIC. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN THE SAFETY OF THE STRUCTURE, ITS WORKERS AND THE GENERAL PUBLIC. NO STRUCTURAL MEMBER MAY BE CUT OR MANIPULATED IN ANY WAY WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO EXISTING BUILDING AND OTHER STRUCTURES CAUSED BY ITS OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
- GOVERNING BUILDING CODES
 - INTERNATIONAL BUILDING CODE (IBC) 2012 WITH REVISIONS AND AMENDMENTS. STRUCTURAL MEMBERS ARE DESIGNED USING LOAD COMBINATIONS IN IBC
 - ASCE 7-2010 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES
- DESIGN CRITERIA
 - WIND DESIGN DATA
 - RISK CATEGORY FOR OPERATOR HOUSE: CATEGORY II
 - BASIC WIND SPEED (3 SECOND GUST) FOR RISK CATEGORY II: 129 MPH
 - WIND EXPOSURE CATEGORY: EXPOSURE D
 - ROOF LIVE LOAD
 - ORDINARY FLAT, PITCHED AND CURVED ROOF (THAT ARE NOT OCCUPIABLE): 20 PSF
 - SNOW LOAD
 - GROUND SNOW LOAD 10 PSF
 - SLOPED ROOF SNOW LOAD 10 PSF
 - CONTROLLING LOAD COMBINATION: 0.6D ± 0.6W

- STRUCTURAL STEEL
 - ALL PURLINS AND PURLIN BRACES SHALL CONFORM TO AISI COLD FORMED STEEL 2007 DESIGN SPECIFICATIONS WITH SUPPLEMENT NO.2 OF 2010. ALL PURLINS AND PURLIN BRACES SHALL CONFORM TO MATERIAL SPECIFICATIONS OF ASTM A653 GALVANIZED STEEL WITH Fy = 50 KSI AND 12 GAUGE THICKNESS.
 - ALL HOT-ROLLED STEEL COMPONENTS OF THE SEPTIC TANK PLATFORM SUPPORT SYSTEM, REST PIER ACCESS SYSTEM AND MISCELLANEOUS STEEL FOR CONNECTIONS SHALL BE GALVANIZED.
 - CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS FOR ALL SCOPE ITEMS FOR ENGINEERS APPROVAL PRIOR TO FABRICATION OF SCOPE ITEMS.
 - IF THE CONTRACTOR PROPOSES AN ALTERNATIVE ROOF DESIGN, THEN THE NEW ROOF DESIGN CALCULATIONS AND DRAWINGS SHALL BE STAMPED AND SEALED BY A LICENSED PROFESSIONAL CIVIL ENGINEER IN THE STATE OF NORTH CAROLINA. THE DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO BEGINNING OF WORK.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

ARCHITECTURAL NOTES

ALLIGATOR RIVER SWING SPAN

Designed by: *Scott Reynolds*
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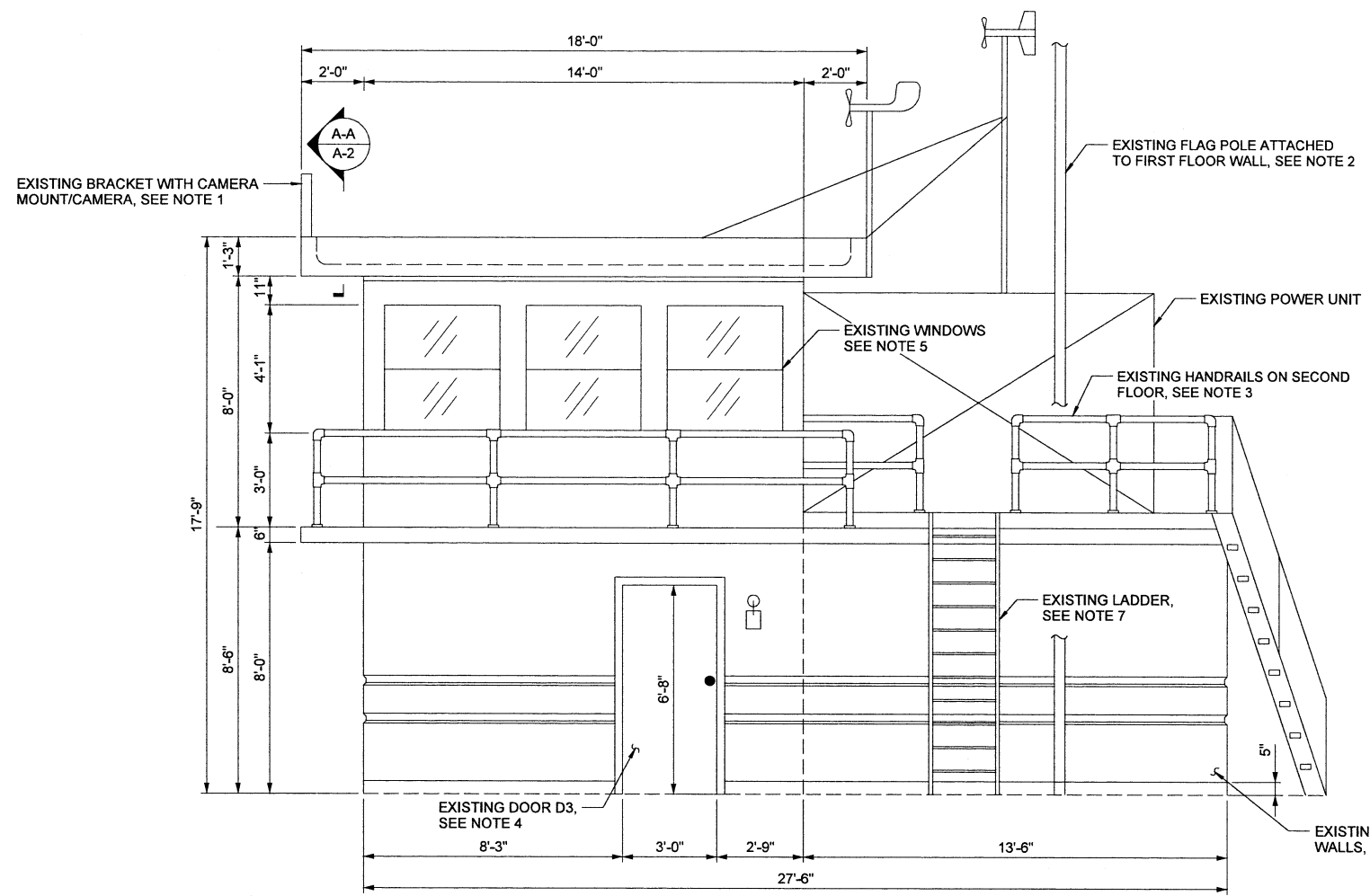
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Hardesty & Hanover
 engineering that moves you

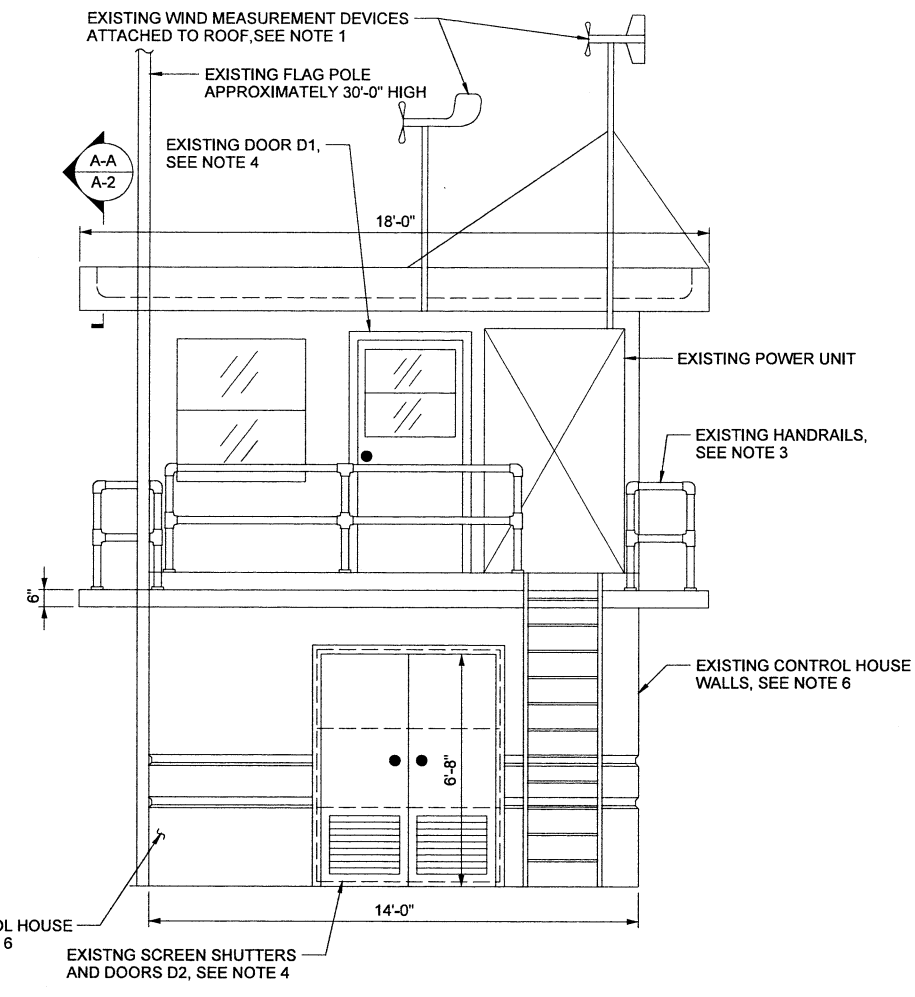
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 NORTH CAROLINA PROFESSIONAL ENGINEERS
 SCOTT A. REYNOLDS

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CHECKED BY: <u>DMM</u>	DATE: <u>8/8/2016</u>
DESIGN ENGINEER OF RECORD: <u>AR</u>	DATE: <u>8/8/2016</u>

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NORTH ELEVATION
SCALE: 3/8" = 1'-0"

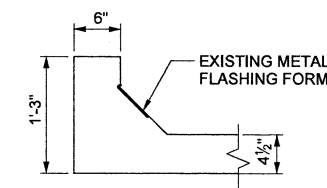


WEST ELEVATION
SCALE: 3/8" = 1'-0"

NOTES

ALL WORK ON THE CONTROL HOUSE SHALL BE COORDINATED WITH ELECTRICAL SCOPE OF WORK

- REMOVE AND STORE THE EXISTING BRACKET WITH CAMERA MOUNT/CAMERA, AND EXISTING WIND MEASUREMENT DEVICES BEFORE INSTALLATION OF NEW STANDING SEAM METAL ROOF. CONTRACTOR SHALL MAKE SURE THAT THE EXISTING ROOF LEDGE IS NOT DAMAGED WHEN REMOVING THE BRACKET AND OTHER ATTACHMENTS. ANY DAMAGE SHALL BE REMEDIED BEFORE INSTALLATION OF NEW ROOF AT NO ADDITIONAL COST. REINSTALL AFTER NEW ROOF IS IN PLACE. THE LOCATION OF REINSTALLATION SHALL BE COORDINATED WITH OWNER OF THE BRIDGE.
- REMOVE AND REPLACE THE EXISTING FLAG POLE AS PER THE SCOPE OF WORK AND SPECIFICATIONS. THE LOCATION OF THE NEW POLE SHALL REMAIN THE SAME. THE NEW POLE ATTACHMENT TO THE WALL SHALL BE 12 INCHES ABOVE DECK LEVEL.
- ALL EXISTING HANDRAILS ON SECOND FLOOR OF CONTROL HOUSE SHALL BE REPLACED WITH NEW HANDRAILS AS PER SCOPE OF WORK AND SPECIFICATIONS. HANDRAILS SHALL BE CONTINUOUS ON THE NORTH SIDE OF THE SECOND FLOOR AFTER REMOVAL OF THE EXISTING LADDER.
- THE FRAMING DETAILS FOR THE EXISTING DOORS D1, D2, AND D3 OF THE CONTROL HOUSE ARE SHOWN ON SHEET A-8. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE AND REPLACE THESE DOORS WITHOUT DAMAGE TO THE WALLS. ANY DAMAGE SHALL BE REMEDIED AT NO ADDITIONAL COST. SEE DOOR REPLACEMENT SCHEDULE ON SHEET A-8 FOR FURTHER DETAILS.
- THE FRAMING DETAILS FOR ALL THE EXISTING WINDOWS (8 TOTAL) OF THE CONTROL HOUSE ARE SHOWN ON SHEET A-8. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE AND REPLACE THESE WINDOWS WITHOUT DAMAGE TO THE WALLS. ANY DAMAGE SHALL BE REMEDIED AT NO ADDITIONAL COST. SEE WINDOW REPLACEMENT SCHEDULE ON SHEET A-8 FOR FURTHER DETAILS.
- THE EXISTING CONTROL HOUSE WALLS SHALL BE PAINTED AS PER SCOPE OF WORK AND SPECIFICATIONS. SEE SHEET A-4 FOR LIMITS OF PAINTING.
- THE EXISTING NORTH SIDE LADDER SHALL BE REMOVED.



SECTION A-A
EXISTING ROOF
SCALE: 1" = 1'-0"

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO: 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
EXISTING CONTROL HOUSE DETAILS - 1
ALLIGATOR RIVER SWING SPAN

DRAWN BY: CEM DATE: 8/8/2016
CHECKED BY: DMM DATE: 8/8/2016
DESIGN ENGINEER OF RECORD: AR DATE: 8/8/2016

DWG NUMBER 5 TOTAL DWGS 90

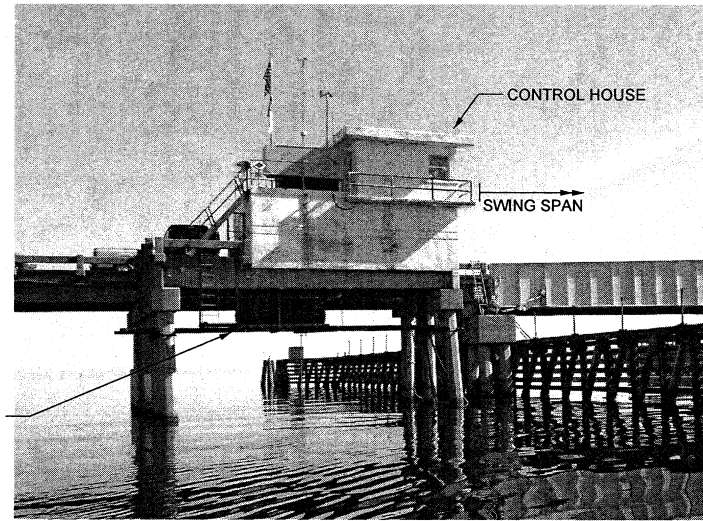
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REVISIONS						SHEET NO. A-2
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 10
2			4			

Designed by: *Scott Reynolds*
Professional Engineer
No. 036065
11/10/2016

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PHOTO 1



SEPTIC TANK PLATFORM

PHOTO 3



PHOTO 5

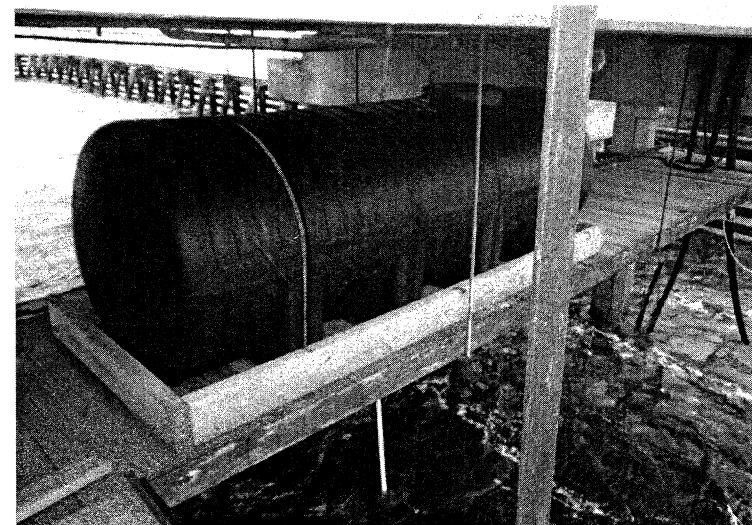


PHOTO 2

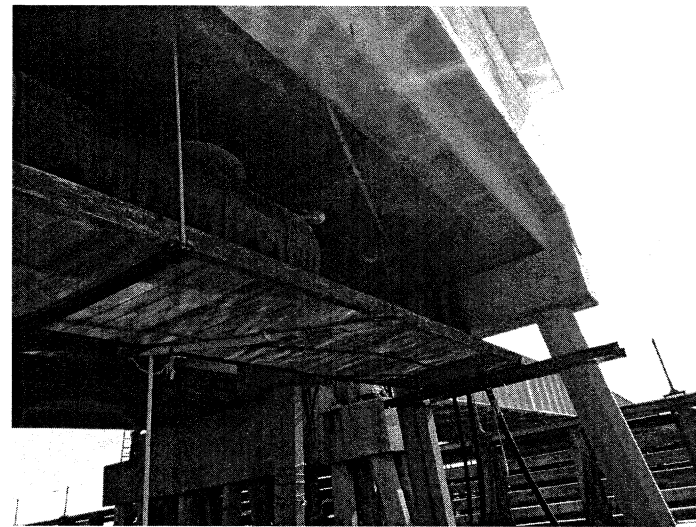
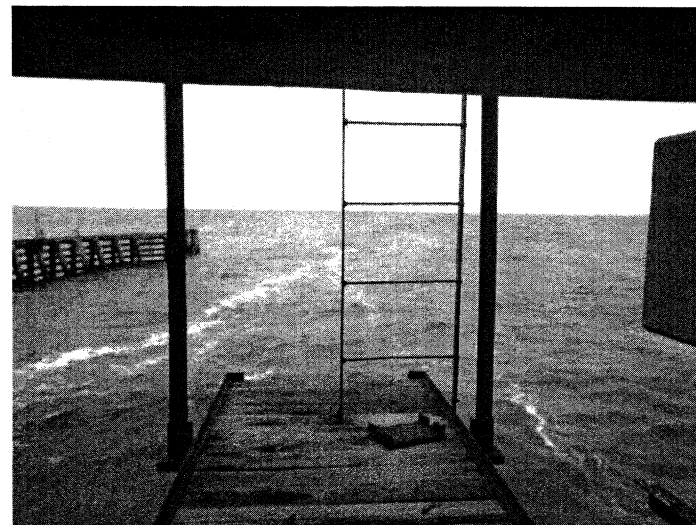


PHOTO 4



PHOTO 6



NOTES:

1. THE SCOPE OF WORK INCLUDES THE REPLACEMENT OF THE SEPTIC TANK SUPPORT PLATFORM. PHOTOS 1 THROUGH 6 WILL AID THE CONTRACTOR IN DEVELOPING THE COST ESTIMATE PRIOR TO BIDDING.
2. THE EXISTING SEPTIC TANK AND SUPPORT PLATFORM ARE LOCATED UNDERNEATH THE CONTROL HOUSE AS SHOWN IN PHOTOS 1 THROUGH 5.
3. EXISTING ACCESS TO THE PLATFORM IS BY MEANS OF A VERTICAL LADDER FROM THE DECK NEAR THE SOUTHWEST END OF THE CONTROL HOUSE AS SHOWN IN PHOTO 6.
4. THE EXISTING SUPPORT PLATFORM FRAMING CONSISTS OF STEEL ANGLES SPANNING BETWEEN CONCRETE PILES OF THE SUBSTRUCTURE. THE ANGLES ARE SUPPORTED BY FRICTION COLLARS ATTACHED TO THE PILES. FURTHER, STEEL RODS HAVE BEEN ALSO USED TO SUSPEND THE PLATFORM FROM UNDERNEATH THE CONCRETE DECK AS SHOWN IN PHOTOS 2 AND 5.
5. TIMBER DECKING BETWEEN THE ANGLES, SUPPORTS THE EXISTING SEPTIC TANK AS SHOWN IN PHOTOS 2, 4 AND 5.
6. AFTER AWARD OF WORK CONTRACT, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY FIELD VERIFY EXISTING PLATFORM CONFIGURATION PRIOR TO PLATFORM DEMOLITION. THE CONTRACTOR SHALL DETERMINE THE LOCATIONS OF THE EXISTING ACCESS LADDER, THE EXISTING SEPTIC TANK AND PIPING LOCATIONS. THE EXISTING SEPTIC TANK AND PIPING SHALL BE TEMPORARILY REMOVED AND STORED AS PER OWNER'S RECOMMENDATION. AFTER REMOVAL OF STEEL RODS OF THE PLATFORM, THE HOLES IN THE DECK SHALL BE FILLED WITH STEELSTIK EPOXY PUTTY OR APPROVED EQUAL. ALL EXISTING CONNECTION HARDWARE FOR THE EXISTING PLATFORM SHALL BE REMOVED, CUT FLUSH AND GROUND SMOOTH AS DIRECTED BY THE ENGINEER.
7. A PLATFORM REPLACEMENT DRAWING HAS BEEN PROVIDED ON SHEET A-10. FIELD VERIFY THE SHOWN DIMENSIONS FOR APPROVAL BY ENGINEER. IF ACTUAL DIMENSIONS VARY FROM SHOWN DIMENSIONS, MINOR MODIFICATIONS TO THE REPLACEMENT MAY BE MADE BY ENGINEER PRIOR TO FABRICATION OF THE NEW PLATFORM FRAMING.
8. AFTER INSTALLATION OF THE NEW PLATFORM, THE EXISTING SEPTIC TANK AND PIPING SHALL BE REINSTALLED AT THE LOCATION DETERMINED AS PER NOTE 6. NEW ACCESS LADDER SHALL BE PROVIDED AS CLOSE AS POSSIBLE TO THE WEST PILE BENT OF THE CONTROL HOUSE.

EXISTING SEPTIC TANK SUPPORT PLATFORM

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SEPTIC TANK PLATFORM
 DETAILS - 1
 ALLIGATOR RIVER
 SWING SPAN

Digitized by: *Scott Reynolds*
 11/10/2016
 SEAL 038065
 NORTH CAROLINA PROFESSIONAL ENGINEERS BOARD
 A. REYNOLDS

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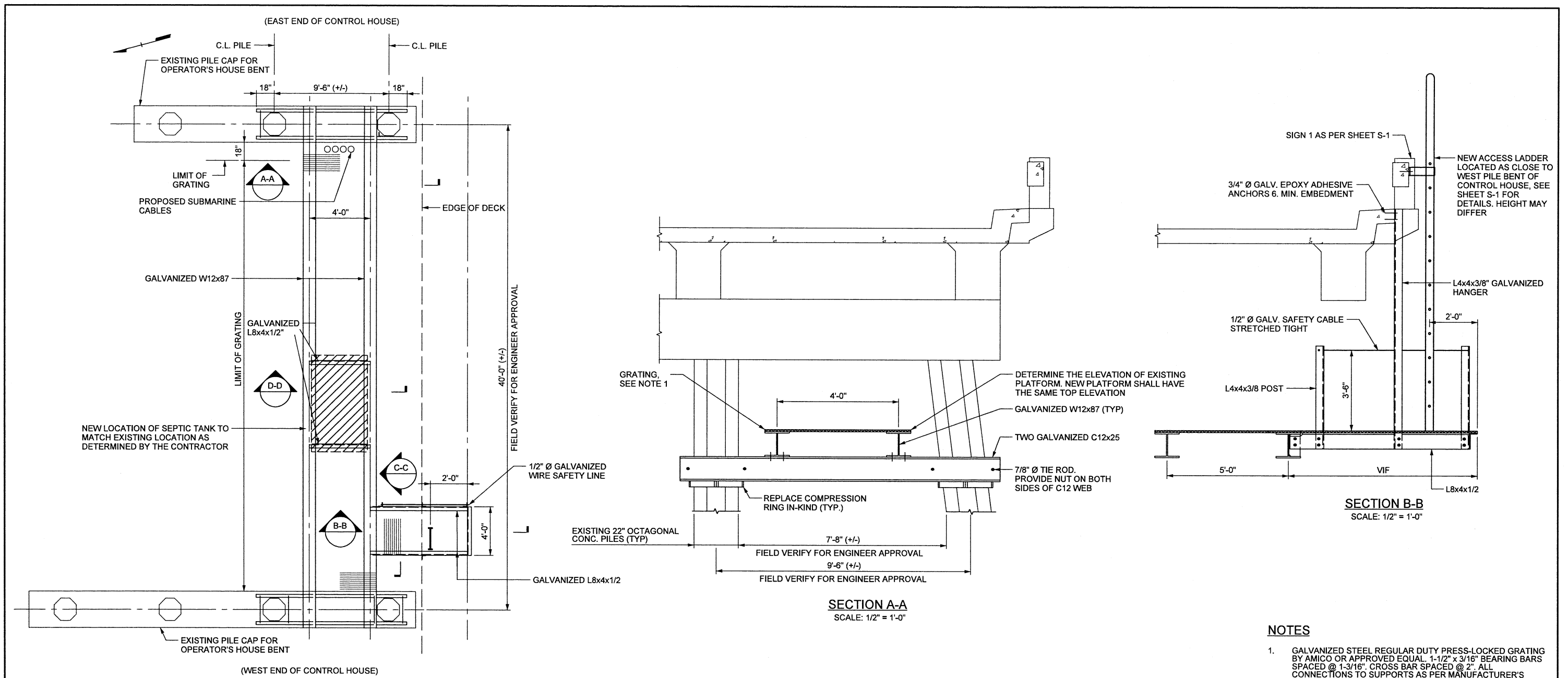
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 CHECKED BY: DMM DATE: 8/8/2016
 DESIGN ENGINEER OF RECORD: AR DATE: 8/8/2016

DWG NUMBER	TOTAL DWGS
12	90

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SHEET NO. **A-9**
 TOTAL SHEETS 10



NOTES

1. GALVANIZED STEEL REGULAR DUTY PRESS-LOCKED GRATING BY AMICO OR APPROVED EQUAL. 1-1/2" x 3/16" BEARING BARS SPACED @ 1-3/16". CROSS BAR SPACED @ 2". ALL CONNECTIONS TO SUPPORTS AS PER MANUFACTURER'S RECOMMENDATIONS
2. THE ACCESS LADDER FOR THE SEPTIC TANK SHALL BE ALACO MODEL 561 OR EQUAL

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SEPTIC TANK PLATFORM
 DETAILS - 2**
 ALLIGATOR RIVER
 SWING SPAN

STIFFENER DETAIL
 SCALE: 1" = 1'-0"
 (GRATING NOT SHOWN)

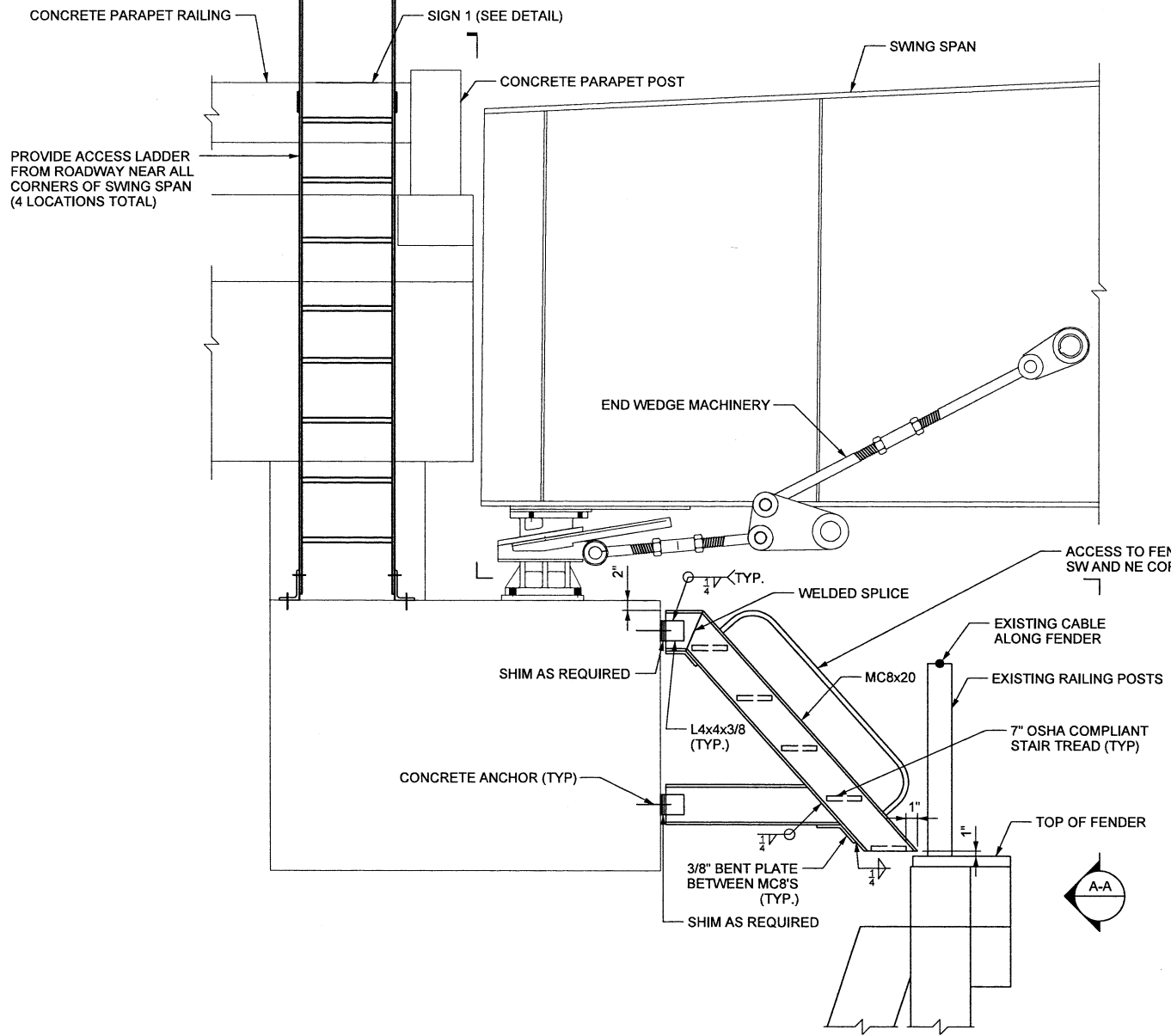
Designed by: *Scott Reynolds*
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 SEAL 036065
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SCOTT A. REYNOLDS

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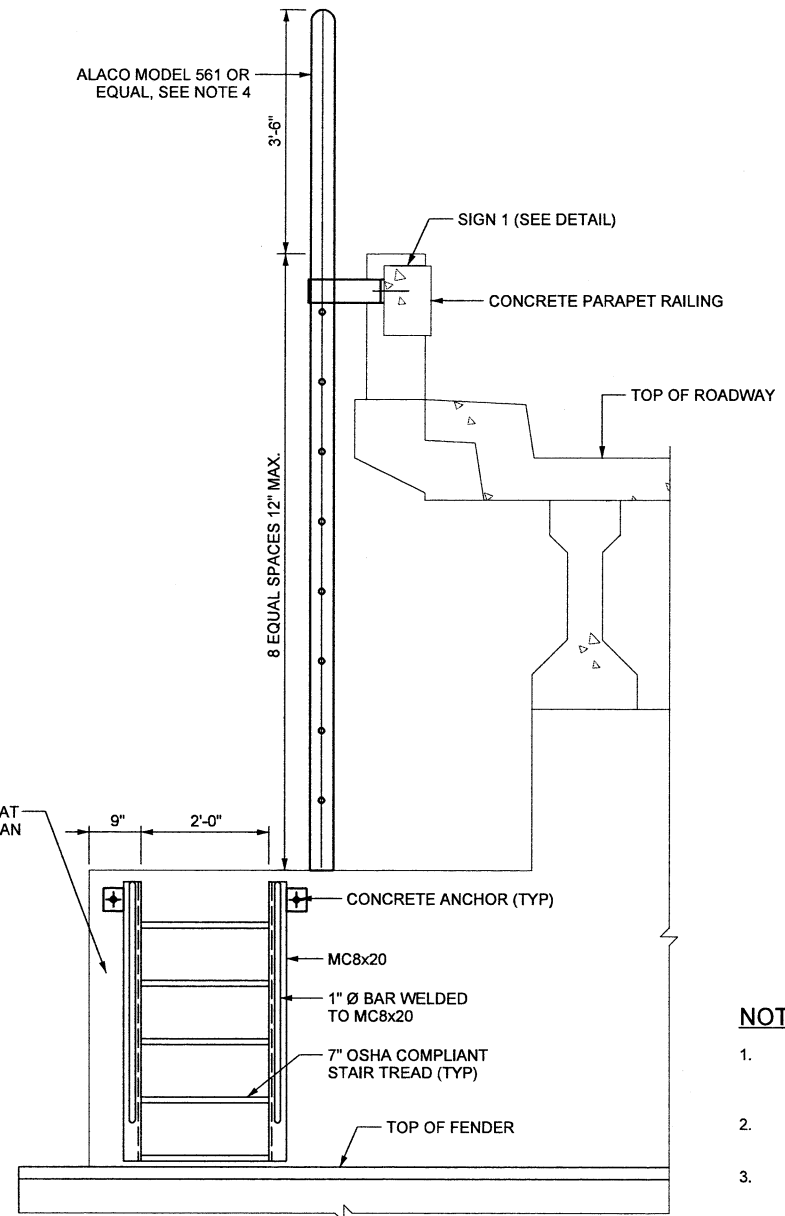
SEPTIC TANK SUPPORT PLATFORM REPLACEMENT

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 DESIGN ENGINEER OF RECORD: DMM DATE: 8/8/2016

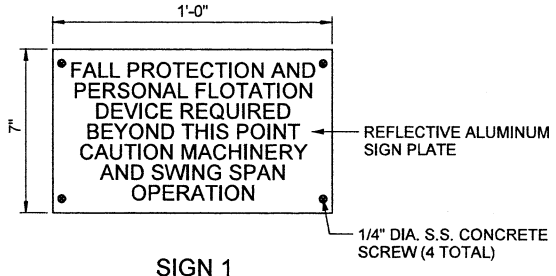
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REST PIER ACCESS SYSTEM
SCALE: 3/4"=1'-0"



SECTION A-A
SCALE: 3/4"=1'-0"



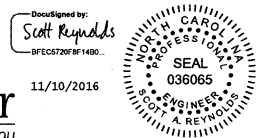
SIGN 1

NOTES

1. CONTRACTOR SHALL REMOVE AND DISCARD EXISTING LADDERS AT EACH CORNER OF THE BRIDGE. ALL EXISTING ANCHOR BOLTS OR ATTACHMENTS SHALL BE CUT FLUSH AND GROUND SMOOTH.
2. ALL METAL WORKS AND CONNECTIONS FOR ACCESS SYSTEM SHALL BE GALVANIZED.
3. ALL ANCHORS INTO CONCRETE SHALL BE GALVANIZED 3/4" DIA. EPOXY ADHESIVE U.N.O.
4. INSTALLATION OF LADDER SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
5. ALL COSTS ASSOCIATED WITH THE REST PIER ACCESS SYSTEM SHALL BE INCLUDED WITHIN THE CONTROL HOUSE RENOVATIONS ITEM.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
REST PIER ACCESS SYSTEM DETAILS
ALLIGATOR RIVER SWING SPAN



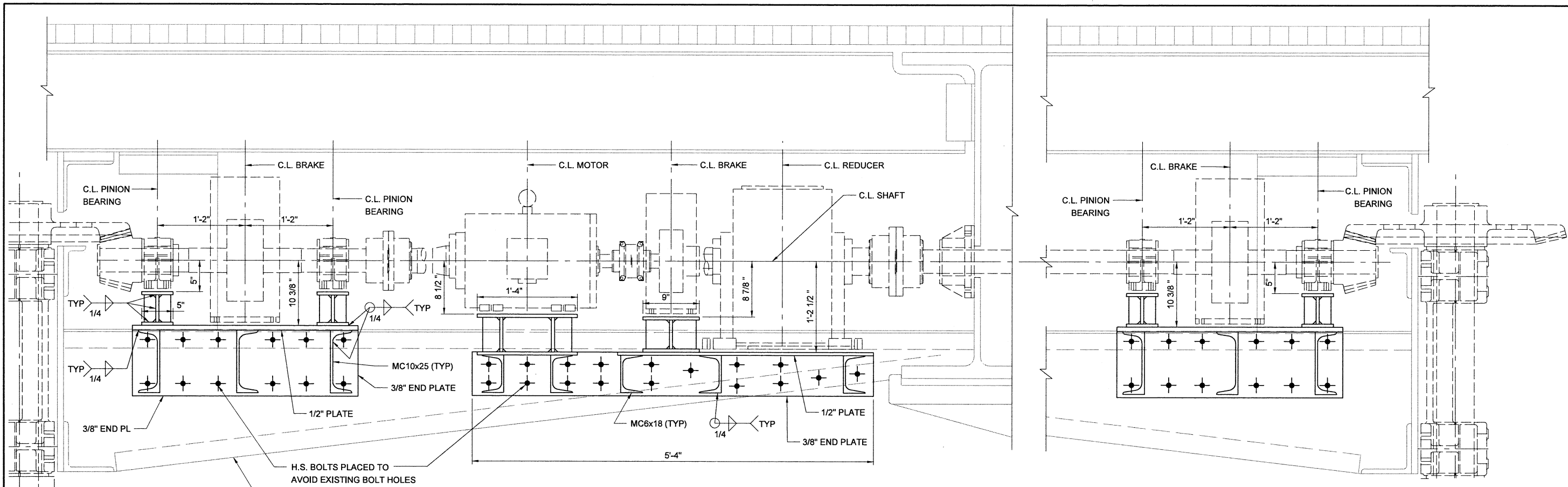
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 CHECKED BY: RAJ DATE: 8/8/2016
 DESIGN ENGINEER OF RECORD: SAR DATE: 8/8/2016

DWG NUMBER	TOTAL DWGS
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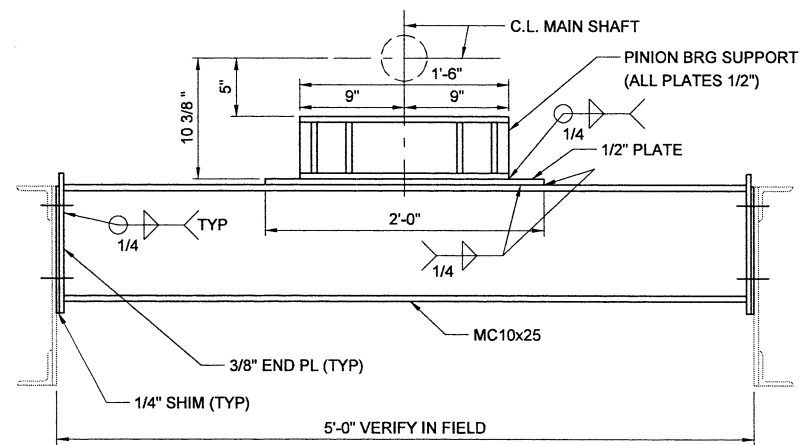
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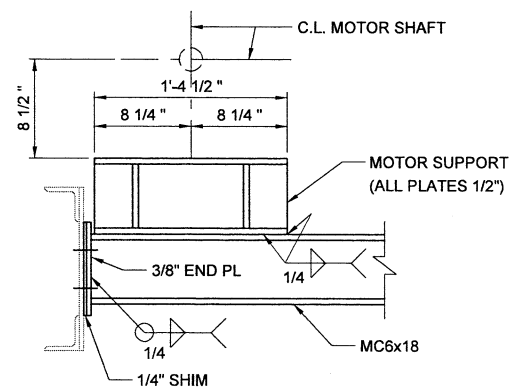
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TOTAL SHEETS 3



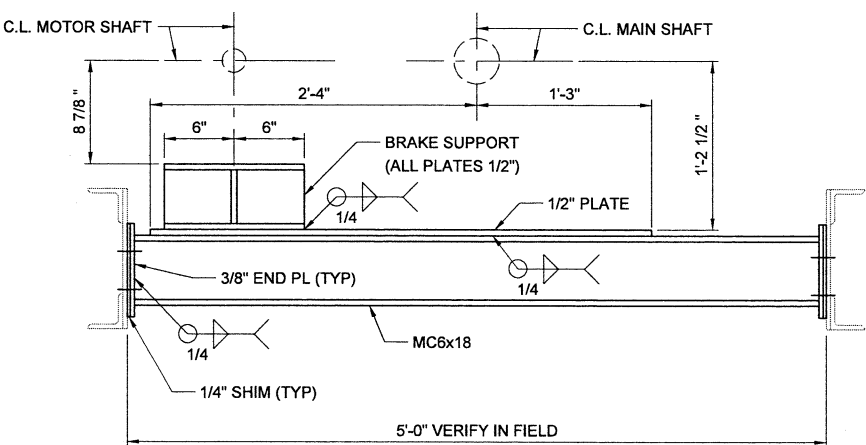
ELEVATION - TURNING MACHINERY SUPPORTS
SCALE: 1 1/2" = 1'-0"



SECTION AT PINION BEARING
SCALE: 1 1/2" = 1'-0"



SECTION AT MOTOR
SCALE: 1 1/2" = 1'-0"

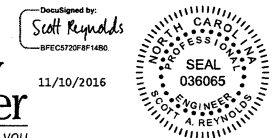


SECTION AT REDUCER AND BRAKE
SCALE: 1 1/2" = 1'-0"

NOTES

1. THE CONTRACTOR SHALL PERFORM A FIELD SURVEY OF SUPPORT MEMBERS AND SUBMIT TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OF NEW MACHINERY SUPPORTS.
2. EXISTING TURNING MACHINERY SUPPORTS SHALL BE REMOVED AND DISPOSED. REMAINING EXISTING WELDS SHALL BE GROUND SMOOTH WITH THE BASE METAL. UN-USED BOLT HOLES SHALL BE FILLED WITH H.S. BOLTS OF SAME DIAMETER
3. SIZE AND LOCATION OF SUPPORTS ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL DETAIL NEW MACHINERY SUPPORTS BASED ON FIELD SURVEY AND SHOP DRAWINGS OF ACTUAL MACHINERY FURNISHED IN THIS CONTRACT.
4. NEW MACHINERY SUPPORTS SHALL BE MADE FROM ASTM A709 GR. 50 STEEL.
5. NEW MACHINERY SUPPORTS AND EXISTING SUPPORTS WHERE SHOWN SHALL RECEIVE SYSTEM 1 PAINT IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
6. FINAL INSTALLED LOCATION AND PLACEMENT OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE COORDINATED WITH SCOPE OF WORK SHOWN ELSEWHERE.
7. MOUNTING/HOLE PLACEMENT AND SIZE SHALL BE AS SPECIFIED ELSEWHERE.
8. ALL BOLTS SHALL BE H.S. DIA. 7/8" UNLESS NOTED OTHERWISE
9. ALL MACHINERY MOUNTING SURFACES SHALL HAVE A 250 MICRO-INCH AND BE FLAT WITHIN 0.010 INCH. THICKNESS OF MOUNTING PLATES TO BE FINISHED ARE GIVEN FOR AFTER FINISHING.
10. UNLESS OTHERWISE NOTED, 1/2" SHIM PACK TO BE PROVIDED AT ALL MACHINERY MOUNTING SURFACES.

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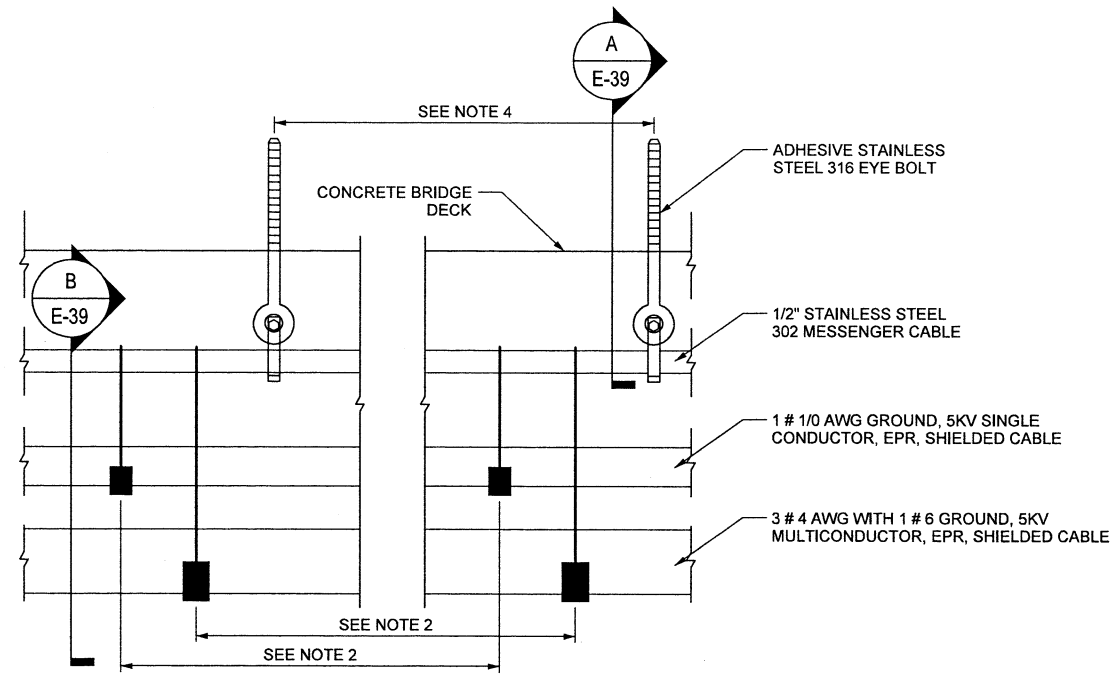
PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
MACHINERY SUPPORTS
ALLIGATOR RIVER SWING SPAN

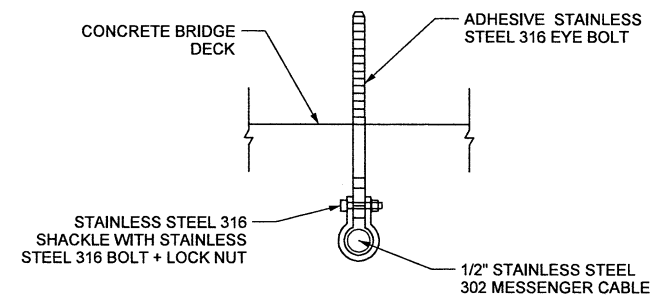
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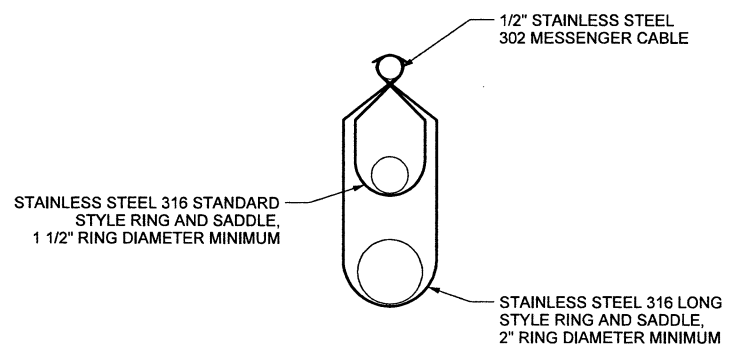
DWG NUMBER	TOTAL DWGS
15	90



AERIAL AND MESSENGER CABLE SUPPORTS
SCALE: 6" - 1'-0"



SECTION A - MESSENGER CABLE SUPPORTS
SCALE: 6" - 1'-0"



SECTION B - AERIAL CABLE SADDLES
SCALE: 6" - 1'-0"

- NOTES:**
1. FINAL SIZE OF CABLE RINGS AND SADDLES TO BE COORDINATED WITH CABLE MANUFACTURER OUTER DIAMETER.
 2. FURNISH AND INSTALL AERIAL CABLE SADDLE SUPPORTS PER MANUFACTURERS RECOMMENDATIONS.
 3. SEE PROJECT SPECIAL PROVISIONS FOR ADDITIONAL DETAILS REGARDING THE MESSENGER CABLE INSTALLATION.
 4. THE MESSENGER CABLE SHALL BE SUPPORTED EVERY 10 FEET. WHERE SUPPORTS CANNOT BE SPACED 10 FEET IN SPECIFIC LOCATIONS THE CONTRACTOR MAY INCREASE SPACING UP TO A MAXIMUM SPACING OF 25 FEET.

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO: 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**INCOMING SERVICE LAYOUT
& AERIAL CABLE
SUPPORT DETAILS**
ALLIGATOR RIVER
SWING SPAN

DRAWN BY: QIV DATE: 8/8/2016
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DESIGN ENGINEER OF RECORD: GHS DATE: 8/8/2016

Disciplined by: *Scott Reynolds*
BFECS208F1480

11/10/2016

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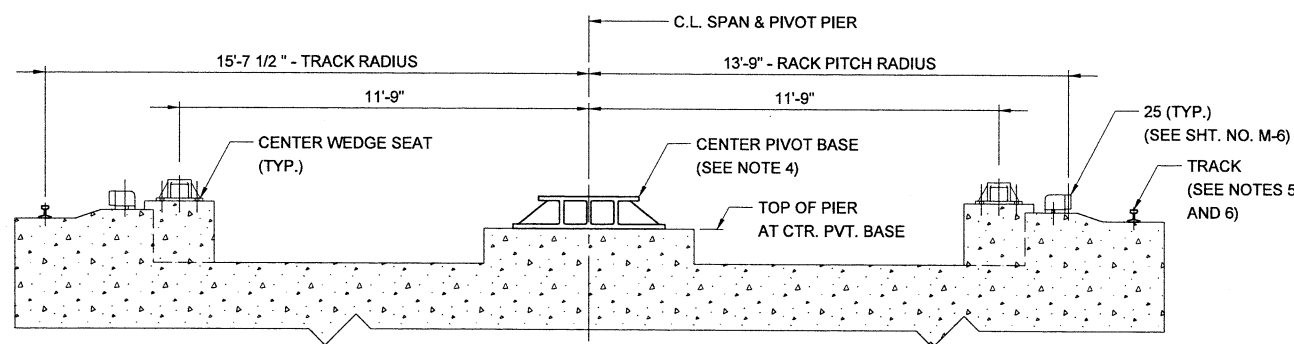
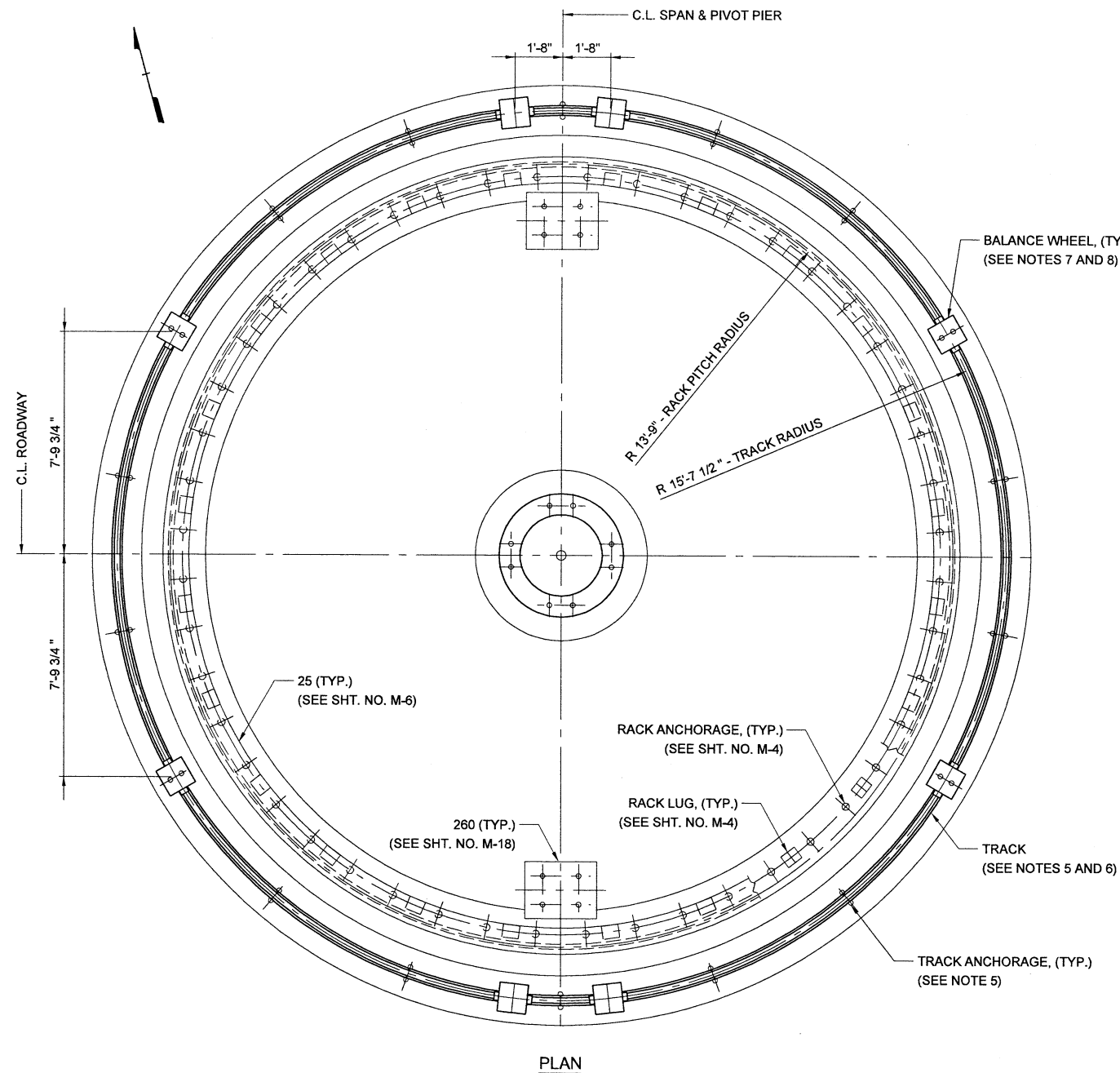
SEAL
036065
ROD A. REYNOLDS
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA

REVISIONS					
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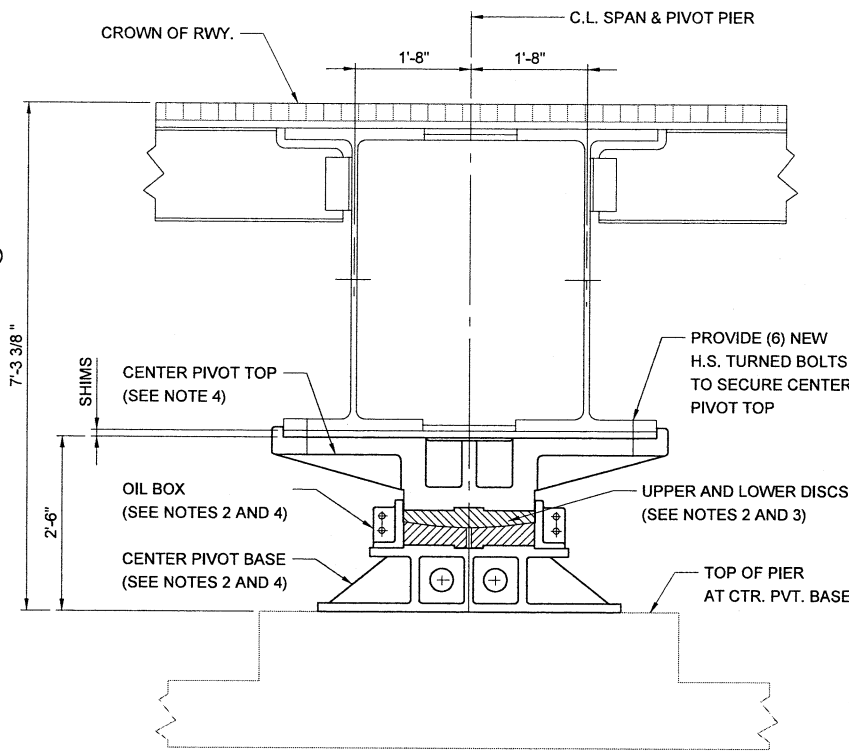
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DWG NUMBER	TOTAL DWGS
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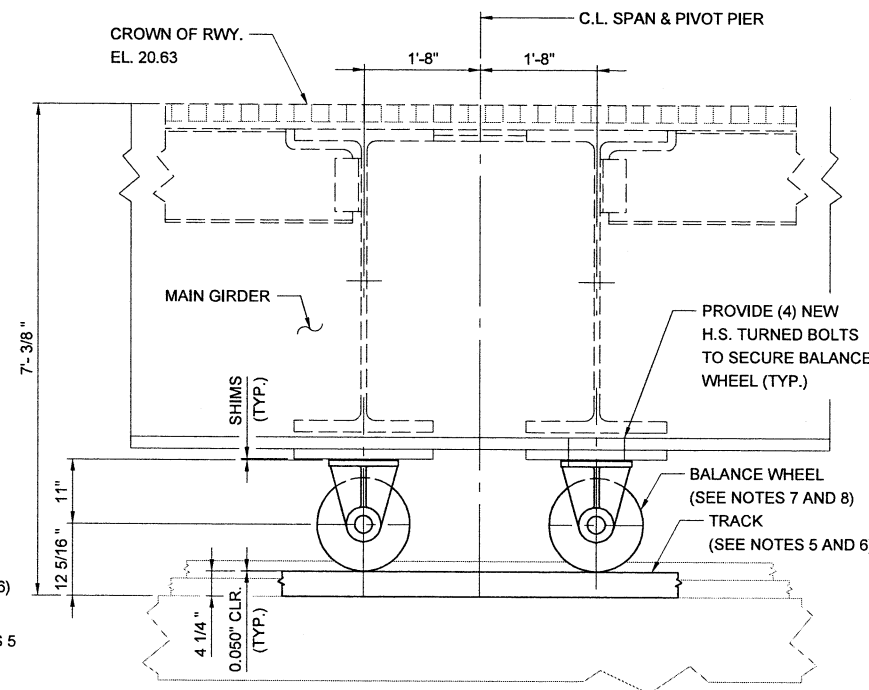
SHEET NO.	E-39
TOTAL SHEETS	51



CENTER PIER - STABILIZING MACHINERY
SCALE: 3/8" = 1'-0"



CENTER PIVOT ASSEMBLY
SCALE: 3/4" = 1'-0"
(1) CENTER PIVOT TOTAL



BALANCE WHEEL ASSEMBLY
SCALE: 3/4" = 1'-0"
(8) BALANCE WHEELS TOTAL

STABILIZING MACHINERY REHABILITATION NOTES:

1. WITH THE CORRECTIVE SHIM THICKNESS BETWEEN THE CENTER PIVOT TOP AND PIVOT GIRDER DETERMINED, THE CONTRACTOR SHALL ESTABLISH THE FINAL ELEVATION OF THE SWING SPAN. WITH THE FINAL ELEVATION OF THE SWING SPAN ESTABLISHED, THE CONTRACTOR CAN SET THE ELEVATION OF THE MACHINERY AND BEGIN THE MACHINERY REHABILITATION WORK.
2. FOR THE STABILIZING MACHINERY, THE CONTRACTOR SHALL PLAN TO TEMPORARILY REMOVE THE CENTER PIVOT'S OIL BOX FROM THE ASSEMBLY TO EXPOSE THE UPPER AND LOWER BEARING DISCS. THIS EFFORT MAY BE COORDINATED WITH THE CONTRACTOR'S EFFORTS TO JACK THE SWING SPAN FOR INTRODUCTION OR REMOVAL OF THE CORRECTIVE SHIM BETWEEN THE CENTER PIVOT TOP AND PIVOT GIRDER. THE UPPER AND LOWER BEARING DISCS SHALL BE INSPECTED TO CONFIRM THEY REMAIN IN LIKE-NEW CONDITION.
3. THE EXPOSED LOWER BEARING DISC SHALL BE USED TO DETERMINE THE FINAL POSITION OF THE NEW RACK AND NEW TRACK ASSEMBLIES.
4. THE EXISTING CENTER PIVOT ASSEMBLY SHALL BE CLEANED PRIOR TO REINSTALLING THE OIL BOX. THE OIL BOX SHALL BE INSTALLED WITH A NEW GASKET AND ALL NEW HARDWARE. AS PART OF THE ASSEMBLY EFFORT, ALL NON-GASKETED JOINTS SHALL BE SEALED WITH A PERMATEX NON-HARDENING COMPOUND AS RECOMMENDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE EXTERIOR OF THE CENTER PIVOT ASSEMBLY SHALL THEN BE PAINTED. AS SOON AS PRACTICAL, THE BEARING CAVITY SHALL BE FILLED WITH THE PROPER QUANTITY AND TYPE OF LUBRICANT. AS PART OF THE WORK AND FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THAT THE REASSEMBLED CENTER PIVOT REMAINS PROPERLY SEALED AND IN GOOD WORKING CONDITION.
5. THE EXISTING TRACK AND ANCHORAGE HARDWARE SHALL BE REPLACED IN-KIND. PRIOR TO REPLACING TRACK SECTIONS, THE CONTRACTOR SHALL CONFIRM THAT EXISTING EMBEDDED SUPPORT PLATES REMAIN IN SATISFACTORY CONDITION. ANY SIGNS OF DETERIORATION, ANCHORAGE LOCATION, OR OTHER FINDINGS THAT MIGHT AFFECT PROPER INSTALLATION AND SERVICE OF NEW TRACK SECTIONS SHALL BE REPORTED TO THE ENGINEER. THE ENGINEER MAY REQUIRE REPLACEMENT OF ANY EXISTING MECHANICAL ELEMENT OR SUPPORT DEEMED UNACCEPTABLE AS A RESULT OF THIS INSPECTION. THE ENGINEER SHALL BE THE FINAL JUDGE OF A COMPONENT'S CONDITION.
6. REPLACEMENT TRACK SECTIONS SHALL BE INSTALLED SUCH THAT THEIR ENDS FULLY MATE, THEY FORM A CONCENTRIC CIRCLE AROUND THE CENTER PIVOT, THEIR TREAD SURFACE IS LEVEL AND THEIR ELEVATIONS CONSISTENT. THE FULLY ASSEMBLED TRACK SHALL BE INSTALLED WITH A CONCENTRICITY TOLERANCE OF 1/16 INCH AND SECURED AT AN ELEVATION THAT COMPLEMENTS THE FINAL ELEVATION OF THE SWING SPAN, WHICH MAY INFLUENCE THE FINAL ELEVATION OF BALANCE WHEELS.
7. THE EXISTING BALANCE WHEEL ASSEMBLIES SHALL BE REMOVED, DISASSEMBLED, CLEANED, INSPECTED, PAINTED, REASSEMBLED, INSTALLED, ALIGNED, FASTENED AND LUBRICATED AS PART OF THIS WORK.
8. REFER TO SPECIAL PROVISION 'STABILIZING MACHINERY' FOR INSTALLATION CLEARANCES BETWEEN TRACK AND BALANCE WHEELS.
9. ANY MOVEMENT OF THE SWING SPAN REQUIRES THE CENTER PIVOT ASSEMBLY, TRACK ASSEMBLY AND BALANCE WHEELS TO BE INSTALLED FOR PROPER STABILIZATION.

PROJECT NO. B-5936
TYRRELL COUNTY
 BRIDGE NO: 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

CENTER BEARING
 AND BALANCE WHEELS

ALLIGATOR RIVER
 SWING SPAN

Designed by
 Scott Reynolds
 PROFESSIONAL ENGINEER
 036065



HH Hardesty & Hanover
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DRAWN BY: JAG/MS DATE: 8/8/2016
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DWG NUMBER	TOTAL DWGS	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
70	90	

REVISIONS						SHEET NO. M-3
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