

TABLE OF CENTERING DEVICE MACHINERY COMPONENTS							
PIECE	NAME	QNTY.	DESCRIPTION OF WORK	MATERIAL	DESIGNATION	SUPPLEMENTAL REQUIREMENT	REMARKS
446A	COLLAR FOR 485A AND 486A	4	NEW SET SCREW SHAFT COLLAR FOR 2 1/2" DIAMETER, TYPE 303 STAINLESS STEEL	MCMMASTER-CARR PART NO. 6462K47 (OR APPROVED EQUAL)			COMMERCIAL
447	LATCH POCKET	2	REHABILITATE EXISTING LATCH POCKET	N/A	N/A	N/A	SEE NOTE 5
448	LATCH BAR	2	REHABILITATE EXISTING LATCH BAR	N/A	N/A	N/A	SEE NOTE 5
449	LATCH ROLLER	2	REHABILITATE EXISTING ROLLER	N/A	N/A	N/A	SEE NOTE 5
450	PIN FOR 448 AND 449	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 5
451	COTTER PIN FOR 450	4	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
453	LATCH STOP	2	REPLACE EXISTING LATCH STOP	STRUCTURAL STEEL	ASTM A 709 GR. 50	N/A	SEE NOTE 1
454	BOLT FOR 453	4	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
455	LATCH PAWL BRACKET	2	REHABILITATE EXISTING LATCH PAWL BRACKET	N/A	N/A	N/A	SEE NOTE 5
456	BOLT FOR 455	6	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
457	PIN FOR 455 AND 459	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 5
458	COTTER PIN FOR 457	4	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
459	LATCH PAWL	2	REHABILITATE EXISTING LATCH PAWL	N/A	N/A	N/A	SEE NOTE 5
460	LATCH TRIP LEVER	2	REHABILITATE EXISTING LATCH TRIP LEVER	N/A	N/A	N/A	SEE NOTE 5
461	KEY FOR 460	2	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
462	SET SCREW FOR 460	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
463	LATCH COUNTERWEIGHT BAR	4	REHABILITATE EXISTING LATCH COUNTERWEIGHT BAR	N/A	N/A	N/A	SEE NOTE 5
464	PIN FOR 463 AND 472	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 5
465	COTTER PIN FOR 464	4	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
466	SPACER FOR 464	2	REPLACE EXISTING SPACERS	STEEL	ASTM A 53	N/A	SEE NOTE 1
467	STUD FOR 463	2	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
468	NUT FOR 467	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 563	N/A	SEE NOTES 1, 3 AND 4
470	COUNTERWEIGHT HUB	4	REHABILITATE EXISTING COUNTERWEIGHT HUB	N/A	N/A	N/A	SEE NOTE 5
471	BOLT FOR 470	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
472	LATCH COUNTERWEIGHT LINK	4	REHABILITATE EXISTING LATCH COUNTERWEIGHT LINK	N/A	N/A	N/A	SEE NOTE 5
473	LATCH COUNTERWEIGHT	2	REHABILITATE EXISTING LATCH COUNTERWEIGHT	N/A	N/A	N/A	SEE NOTE 5
474	SET SCREW FOR 473	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
476	LATCH LEVER	2	REHABILITATE EXISTING LEVER	N/A	N/A	N/A	
477	KEY FOR 476	2	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
478	SET SCREW FOR 476	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
482	PIN FOR 476, 479 AND 519	4	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 5
483	COTTER PIN FOR 482	8	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
485A	LATCH SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-21
486A	LATCH SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-21
510A	LATCH SHAFT BEARING - HOUSING	6	REPLACE EXISTING HOUSING WITH SIMILAR	STR. STEEL	ASTM A 36	N/A	SEE DETAIL SHT. NO. M-21
510B	LATCH SHAFT BEARING - BUSHING	6	REPLACE EXISTING BUSHING WITH SIMILAR	CAST BRONZE	ASTM B 22 C91100	N/A	SEE DETAIL SHT. NO. M-21
514	LATCH ROD	2	REPLACE EXISTING LATCH ROD	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
515	LATCH ROD	2	REPLACE EXISTING LATCH ROD	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
516	SLEEVE NUT FOR 514 AND 515	2	REPLACE EXISTING HARDWARE	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
517	NUT FOR 514	6	REPLACE EXISTING HARDWARE	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
518	NUT FOR 515	2	REPLACE EXISTING HARDWARE	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
519	CLEVIS FOR 514 AND 515	4	REPLACE EXISTING CLEVIS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1

CENTERING DEVICE MACHINERY REHABILITATION NOTES:

- EXISTING PIECE(S) SHALL BE REMOVED AND REPLACED IN-KIND. THE IN-KIND REPLACEMENT PIECE(S) SHALL BE DETAILED USING DIMENSIONAL INFORMATION SHOWN ON THE ORIGINAL SHOP DRAWINGS AND MATERIAL INFORMATION SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE DIMENSIONAL INFORMATION BY MEASURING EXISTING PIECE(S) PRIOR TO SUBMITTING SHOP DRAWINGS.
- UNLESS NOTED OTHERWISE, ALL IN-KIND REPLACEMENT PIECES, REHABILITATED PIECES AND NEW PIECES SHALL BE PROVIDED WITH NEW SHIMS. SHIMS SHALL PROVIDE FOR PROPER ALIGNMENT OF MATING PIECES.
- UNLESS NOTED OTHERWISE, ALL IN-KIND REPLACEMENT PIECES, REHABILITATED PIECES AND NEW PIECES SHALL BE PROVIDED WITH NEW HARDWARE. HARDWARE SHALL PROVIDE FOR PROPER MOUNTING.
- HARDWARE FOR IN-KIND REPLACEMENT PIECES AND REHABILITATED PIECES SHALL COMPLEMENT THE REQUIREMENTS OF THE ORIGINAL SHOP DRAWINGS. HARDWARE FOR NEW PIECES SHALL BE PER THE GENERAL MACHINERY NOTES AND GENERAL BRIDGE MACHINERY SPECIFICATION.
- REHABILITATION OF LATCH COMPONENTS, INCLUDING POCKETS, BARS, ROLLERS, PINS, ETC., SHALL INCLUDE CLEANING OF ALL SURFACES FOR INSPECTION, ADJUSTMENT FOR PROPER ALIGNMENT, PREPARATION OF EXPOSED SURFACES FOR PAINTING, PAINTING AND REASSEMBLY WITH MATING PIECES. WHEN APPLICABLE, THE CONTRACTOR SHALL COORDINATE MATING DIMENSIONS OF NEW (REPLACEMENT) PIECES WITH EXISTING (REHABILITATED) PIECES.

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

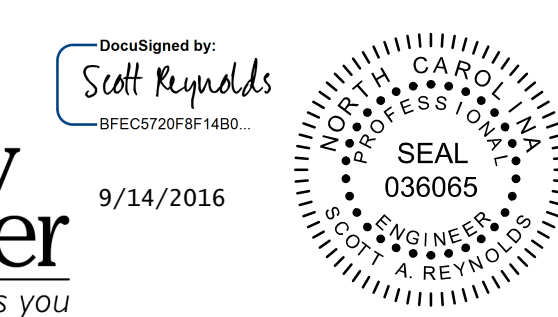
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**TABLE OF CENTERING DEVICE MACHINERY COMPONENTS**

**ALLIGATOR RIVER SWING SPAN**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			M-22
2			4			

TOTAL SHEETS 23



DRAWN BY: JAG/MS DATE: 8/8/2016  
CHECKED BY: GAF/RH DATE: 8/8/2016  
DESIGN ENGINEER OF RECORD: JAG/MS DATE: 8/8/2016

DWG NUMBER 89 TOTAL DWGS 90

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

\*\*\*\*\*DTM20160808\*\*\*\*\*  
\*\*\*\*\*DGN\*\*\*\*\*  
\*\*\*\*\*USERNAME\*\*\*\*\*