

**MODULAR JOINT DETAILS**  
SECTION A-A

**SUGGESTED REPAIR INSTALLATION PROCEDURE**

REMOVE THE EXISTING BOLTS AT COVER PLATES AT BARRIER RAILS AND SIDEWALKS TO ACCESS THE EXISTING GLAND.

REMOVE DEBRIS FROM GLAND ALONG LENGTH OF JOINT.

ADJUST JOINT OPENINGS AS NEEDED TO REMOVE THE EXISTING NEOPRENE GLAND. DISENGAGE SEAL LOCKING LUG, REMOVE LOCKING LUG AND REMOVE GLANDS FROM EXTRUSIONS.

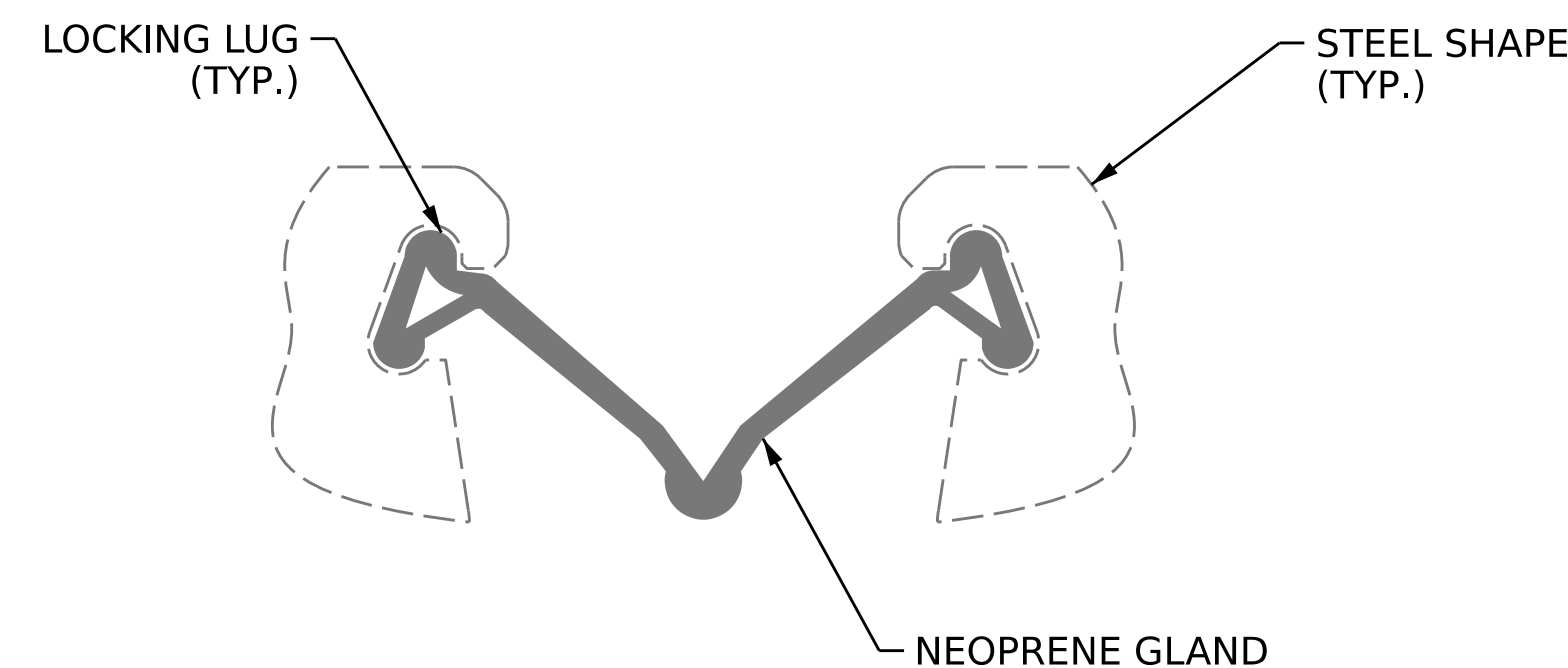
ONCE GLAND IS REMOVED CLEAN THE EXISTING EXTRUSION CAVITIES OF OIL, GREASE AND OTHER LATENTS WITH MANUFACTURER'S APPROVED SOLVENTS.

LAY THE NEW GLAND ON THE JOINT OPENING LEAVING 6" EXTENSION PAST THE END OF THE UPTURN.

AFTER INSPECTION, INSTALL THE NEW GLAND TO THE EXISTING EXTRUSION IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDE.

CONDUCT WATER-TIGHTNESS TEST.

RE-INSTALL COVER PLATES AT BARRIER RAILS AND SIDEWALKS.



**DETAIL "A"**

**GENERAL NOTES**

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING MODULAR EXPANSION JOINT TO FIND THE MANUFACTURER'S STAMP TO IDENTIFY THE MANUFACTURER AND PURCHASE THE APPROPRIATE GLAND.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL GLAND SIZE BASED ON EXISTING JOINT OPENINGS AND ANTICIPATED MOVEMENTS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

RETAIN ALL EXISTING COVER PLATES AND HARDWARE. CLEAN AND REPAIR AS NEEDED. CONTRACTOR SHALL REPLACE DAMAGED PLATES AND/OR HARDWARE AS NEEDED OR DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE DEPARTMENT.

REPLACEMENT STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 36 OR APPROVED EQUAL. PLATE COATINGS SHALL MATCH EXISTING, UNLESS DIRECTED ELSEWISE BY ENGINEER AND BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OR METALLIZED AFTER FABRICATION PER THE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS.

ALL BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL CONFORM TO ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.

FOR MODULAR EXPANSION JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

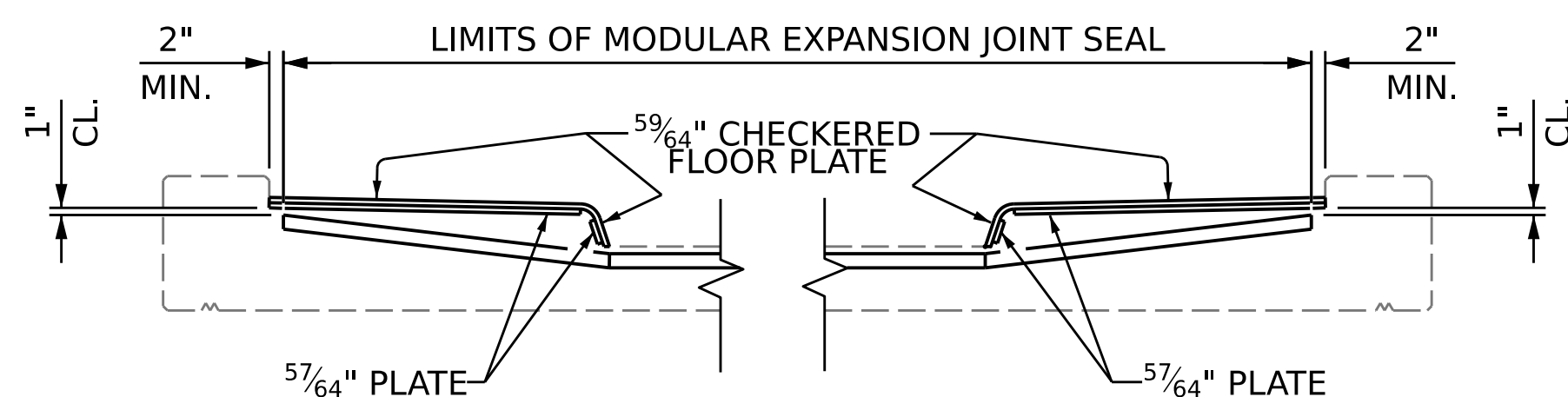
NO SEPARATE PAYMENT WILL BE MADE FOR REMOVING AND REINSTALLING MEDIAN, SIDEWALK AND BARRIER RAIL COVER PLATES. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE LINEAR FEET PRICE BID FOR "MODULAR JOINT SEALS FOR PRESERVATION".

**MOVEMENT AND SETTING AT JOINT**

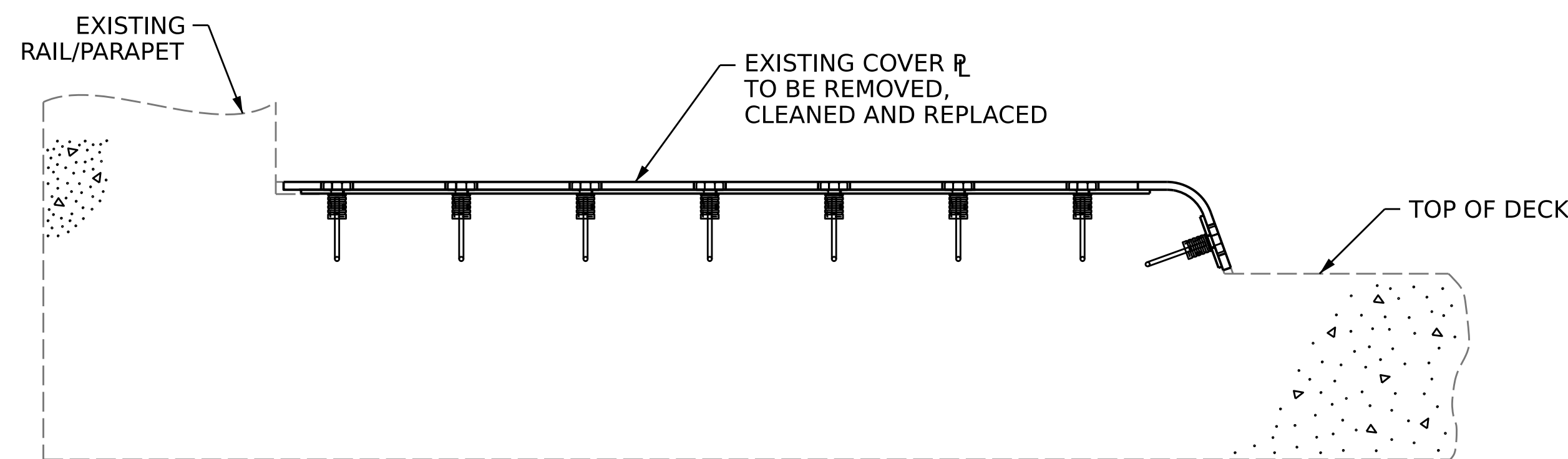
LOCATION	SKEW ANGLE	TOTAL MOVEMENT (ALONG CL RDWY)	PERPENDICULAR JOINT OPENING AT 32°F	PERPENDICULAR JOINT OPENING AT 60°F	PERPENDICULAR JOINT OPENING AT 90°F
END BENT 1	57.6°	4 <sup>11</sup> / <sub>16</sub> "	3 <sup>9</sup> / <sub>16</sub> "	2 <sup>3</sup> / <sub>4</sub> "	2"

**JOINT REPAIR QUANTITY TABLE**

	ESTIMATED	ACTUAL
MODULAR EXPANSION JOINT SEALS FOR PRESERVATION	73.4 LN. FT.	

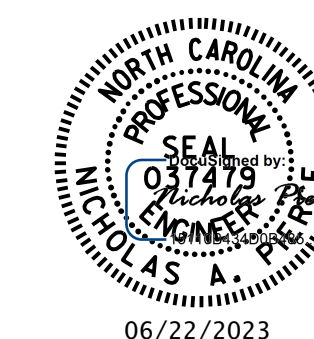


**SKETCH SHOWING LIMITS OF MODULAR EXPANSION JOINT SEAL-SIDEWALK**



**SECTION THRU SIDEWALK NORMAL TO JOINT**

PROJECT NO. **15BPR.124.3**  
WAKE COUNTY  
BRIDGE NO. **911039**



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
**MODULAR EXPANSION JOINT REPAIR**

DRAWN BY : A. Y. GODFREY DATE : 10/2022  
CHECKED BY : N.A. PIERCE DATE : 10/2022  
DESIGN ENGINEER OF RECORD : N.A. PIERCE DATE : 12/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			52-08
2			4			TOTAL SHEETS 18