

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)

A SEALER SHALL BE APPLIED TO THE EXPOSED CONCRETE SURFACES OF THE BRIDGE AND RETAINING WALL AS LISTED BELOW. SEE PROPOSAL NOTE 110-84 FOR SEALER MATERIAL AND SURFACE PREPARATION REQUIREMENTS AND APPLICATION RATES AND PROCEDURES.

- 1) PIER CAPS EXCLUDING THE BOTTOM SURFACE OF THE PIER CAP.
- 2) ABUTMENT BACKWALLS, BRIDGE SEATS, AND FRONT FACE OF ABUTMENTS.
- 3) EXPOSED FACES OF CONCRETE RAILING ON RETAINING WALL "B".

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (NON-EPOXY)

A SEALER SHALL BE APPLIED TO THE EXPOSED CONCRETE SURFACES OF THE BRIDGE AND RETAINING WALL AS LISTED BELOW. SEE PROPOSAL NOTE 110-84 FOR SEALER MATERIAL AND SURFACE PREPARATION REQUIREMENTS AND APPLICATION RATES AND PROCEDURES.

- 1) VERTICAL FACE OF CURB, TOP OF SIDEWALK, ALL EXPOSED FACES OF CONCRETE RAILING, DECK FASCIA AND UNDER DECK RETURN TO TOP FLANGE OF THE FASCIA GIRDER.
- 2) THE PIER COLUMNS EXCLUDING THE AREAS AT THE BOTTOM OF THE COLUMNS WHICH ARE PRESENTLY COVERED WITH TAR.
- 3) THE FACE OF RETAINING WALL "B" BELOW THE CONCRETE RAILING.

ITEM 517 - RAILING. (BRIDGE SIDEWALK RAILING WITH CONCRETE PARAPET). AS PER PLAN

THIS ITEM CONSISTS OF ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY TO CONSTRUCT NEW RAILING ON THE ABUTMENT WINGWALLS AS SHOWN ON SHEET [11/21]. THE VERTICAL DIMENSIONS SHOWN SHALL BE USED IN LIEU OF THOSE GIVEN IN DRAWING BR-2-82 TO MATCH THE EXISTING PARAPETS ON THE BRIDGE SUPERSTRUCTURE. REFER TO BR-2-82 FOR ADDITIONAL DETAILS.

PAYMENT WILL BE MADE AT THE PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
517	LIN. FT.	RAILING, (BRIDGE SIDEWALK RAILING WITH CONCRETE PARAPET), AS PER PLAN.

ITEM 517 - RAILING. (ALUMINUM TUBE). AS PER PLAN

THIS ITEM SHALL BE USED FOR THE REPAIR OF THE EXISTING ALUMINUM TUBE RAILING AND CONSISTS OF ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY FOR THE REMOVAL AND REPLACEMENT OF THE ALUMINUM TUBE RAILING, SUPPORTS AND MISSING TUBE SPLICE HARDWARE AS SHOWN ON SHEET [17/21] AND ANY ADDITIONAL DAMAGED RAILING PARTS, AS DIRECTED BY THE ENGINEER. ALL REMOVED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE BRIDGE SUPERSTRUCTURE.

THE FOLLOWING QUANTITIES SHALL BE USED FOR ESTIMATE PURPOSES.

- 1) 3 1/2" O.D. ALUMINUM TUBE 127 LIN FT.
- 2) 4 1/2" O.D. ALUMINUM TUBE 45 LIN FT.
- 3) RAILING SUPPORT 3 EACH

PAYMENT WILL BE MADE AT THE PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
517	LIN. FT.	RAILING, (ALUMINUM TUBE), AS PER PLAN.

ITEM 516 - STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC STRIP SEALS

DESCRIPTION: THIS ITEM SHALL CONSIST OF FURNISHING, FABRICATING, AND INSTALLING STRUCTURAL STEEL EXPANSION JOINTS WITH ELASTOMERIC STRIP SEALS, AS DETAILED ON SECTION D-D, SHEET [19/21]. THE EXPANSION JOINT SHALL EXTEND BETWEEN THE CURBS AT THE REAR ABUTMENT.

MATERIALS: STEEL PORTIONS OF THE JOINTS THAT ARE FULLY ENCASED IN CONCRETE MAY BE UNPAINTED ASTM A36. ALL OTHER PORTIONS SHALL BE ASTM A36 OR ASTM A588, PAINTED AS SPECIFIED. ELASTOMERIC STRIP SEALS SHALL BE NEOPRENE MEETING THE REQUIREMENTS GIVEN BELOW. THE PHYSICAL PROPERTIES OF THE SEAL ELEMENTS SHALL MEET THE REQUIREMENTS SPECIFIED IN TABLE 'E' THIS SHEET. THE ELASTOMERIC EXTRUSIONS AND THE STEEL RETAINERS OR WELDED RETAINERS SHALL BE AS MANUFACTURED BY THE D.S. BROWN COMPANY OF NORTH BALTIMORE, OHIO; THE WATSON BOWMAN AND ACME CORPORATION OF AMHERST, NEW YORK; STRUCTURAL ACCESSORIES OF LENOIR, NORTH CAROLINA, OR AN APPROVED ALTERNATE. ADHESIVE SHALL BE SIKASTIX 323 BY THE SIKA CHEMICAL CORPORATION OF LYNDHURST, NEW JERSEY; FEL-POXY FP-101 BY THE FELT PRODUCTS MANUFACTURING COMPANY OF SKOKIE, ILLINOIS, MARK-184 BY POLY-CARB OF SOLON, OHIO, OR AN APPROVED ALTERNATE.

SIZE: STRIP SEALS SHALL HAVE A MINIMUM MOVEMENT RATING OF 5 INCHES UNLESS ANOTHER RATING IS SPECIFIED ELSEWHERE ON THE PLANS. THE SEAL FOR THE DECK JOINT OF EACH ABUTMENT SHALL BE FURNISHED IN ONE COMPLETE PIECE. CUTS, TEARS, CRACKS OR OTHER SUCH IRREGULARITIES SHALL BE CAUSE FOR REJECTION.

TYPE: THE STEEL RETAINER SHALL BE TYPE A. THE ELASTOMERIC EXTRUSION SHALL BE TYPE 500, S-500, OR 50 SF AS MANUFACTURED BY D.S. BROWN, WATSON BOWMAN - ACME CORPORATION, AND STRUCTURAL ACCESSORIES, RESPECTIVELY. THE ELASTOMERIC AND STEEL RETAINERS SHALL BE FURNISHED BY THE SAME MANUFACTURER.

MATERIAL PROPERTIES: THE ELASTOMERIC STRIP SEALS SHALL MEET THE REQUIREMENTS OF ASTM D2628 (MODIFIED TO OMIT THE RECOVERY TEST) EXCEPT THAT THE TYPE A DUROMETER HARDNESS SHALL BE 60±7 PERCENT BASED ON ASTM METHOD D2240 (MODIFIED).

TESTING: EACH LOT OF STRIP SEALS SHALL BE TESTED BY THE MANUFACTURER OR AN ACCREDITED LABORATORY TO ENSURE COMPLIANCE WITH THESE PROVISIONS. TWO COPIES OF THE CERTIFIED TEST DATA INDICATING THAT THE TESTED MATERIALS COMPLY WITH THESE PROVISIONS SHALL BE SUBMITTED TO THE LABORATORY. SAMPLING, WHEN REQUESTED, SHALL BE IN ACCORDANCE WITH 106.03. IF SEALS ARE FURNISHED IN A LENGTH REQUIRING CUTTING IN THE FIELD, THE PIECE SHALL BE AT LEAST 2'-0" LONGER THAN JOINT REQUIREMENTS SO THAT THE REMOVED PORTION CAN BE SUBMITTED TO THE LABORATORY FOR TESTING.

MATERIAL ACCEPTANCE WILL BE BASED UPON LABORATORY EVALUATION OF CERTIFIED TEST DATA, LABORATORY TEST OF SAMPLED MATERIAL, OR BOTH.

PREPARATIONS FOR INSTALLATION: TO AVOID THE SUBSEQUENT CONTAMINATION OF PREPARED SURFACES, ALL SURFACES OF ELASTOMERIC STRIP SEALS SHALL BE CLEANED WITH METHYL ETHYL KETONE (MEK) TOLUENE (T) OR OTHER APPROVED SOLVENT USING CLEAN DISPOSABLE CLOTHS. THE BONDING SURFACES OF THE STEEL RETAINER (THE INTERIOR OF THE ANCHOR GROOVES) SHALL BE PREPARED TO GRADE SA 3, ASTM D2200. PREPARATION SHALL BE ACCOMPLISHED NOT MORE THAN 24 HOURS PRIOR TO ADHESIVE BONDING.


INSTALLATION: IMMEDIATELY PRIOR TO ADHESIVE APPLICATION, BONDING SURFACES SHALL BE CLEAN, DRY, AND WARMER THAN 45 DEGREES FAHRENHEIT AND THEY SHALL BE MAINTAINED AT OR ABOVE THIS TEMPERATURE UNTIL THE ADHESIVE HAS CURED. IF NECESSARY, JOINT ENCLOSURES AND SUPPLEMENTAL HEATING SHALL BE FURNISHED TO ENSURE A RAPID AND COMPLETE ADHESIVE CURE OR THE INSTALLATION OF THE ELASTOMERIC SEAL SHALL BE POSTPONED UNTIL WARMER WEATHER WILL PERMIT THE INSTALLATION AND CURING AT TEMPERATURES ABOVE 45 DEGREES FAHRENHEIT

ITEM SPECIAL - SOUNDING OF CONCRETE DECK BOTTOMS

THIS WORK SHALL CONSIST OF SUPPLYING THE MATERIALS, LABOR AND EQUIPMENT NECESSARY FOR SOUNDING DECK BOTTOMS IN ORDER THAT THE ENGINEER MAY OUTLINE THE DELAMINATED AREAS. AFTER ALL REMOVAL OPERATIONS ON THE BRIDGE ARE COMPLETED THE CONTRACTOR SHALL SOUND THE ENTIRE DECK BOTTOM WITH HAMMERS AND THE ENGINEER SHALL OUTLINE ALL UNSOUND AREAS FOR EPOXY INJECTION. THE FOOTAGE FOR THIS ITEM SHALL BE THE NUMBER OF SQUARE FEET OF DECK BOTTOM THAT ARE SATISFACTORILY SOUNDED AND ACCEPTED. THE ACCEPTED QUANTITIES OF DECK BOTTOM SOUNDING WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY FOR SOUNDING CONCRETE DECK BOTTOMS. PAYMENT WILL BE MADE UNDER ITEM SPECIAL - SOUNDING CONCRETE DECK BOTTOMS. *Sounding shall be done in spans 2, 3, 4 & 5 only.*

ITEM 520 PNEUMATICALLY PLACED MORTAR

WHEN PATCHING SURFACES THAT HAVE A RUSTICATION GROOVE PATTERN, THE CONTRACTOR SHALL PLACE AND TEXTURE THE PATCHING IN SUCH A MANNER AS TO PRESERVE THE RUSTICATION GROOVE PATTERN. *Work to be performed on the superstructure includes curbs, sidewalks and parapets.*

 COLPETZER-THOMAS, INC. AN ENGINEERING GROUP <small>WILLOUGHBY • MENTOR • NORTH CANTON • STEUBENVILLE • LORAIN</small>		2 / 21				
GENERAL NOTES LAK-615-0402 LAKE COUNTY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JPR	R.L.B.	R.L.B.	RJC	JEA	9-22-88	