

BEARING NOTES

- | | |
|---|--|
| <p>1) BEARINGS SHALL BE PAID FOR UNDER ITEM 531.18 "BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD WITH EXTERNAL LOAD PLATES". BEARING DEVICES SHALL CONFORM TO APPLICABLE SUBSECTIONS OF SECTIONS 531 AND 731.</p> <p>2) ALL MATERIALS SHALL CONFORM TO SECTION 14 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND SECTION 18 OF AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS AND ALL AASHTO OR ASTM SPECIFICATIONS REFERENCED IN THE CONTRACT DOCUMENTS.</p> <p>3) THE ELASTOMERIC COMPOUND SHALL BE VIRGIN CRYSTALLIZATION RESISTANT POLYCHLOROPRENE (NEOPRENE) OR VIRGIN NATURAL POLYISOPRENE (NATURAL RUBBER) AS THE RAW POLYMER. THE RESULTING PRODUCT SHALL BE FREE OF POROUS AREAS, WEAK SECTIONS, BUBBLES, FOREIGN MATTER, OR OTHER DEFECTS AFFECTING SERVICEABILITY. IT SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 251.</p> <p>4) BEARING WAS DESIGNED USING METHOD A, WITH A DESIGN HARDNESS OF 50 POINTS AND A DESIGN SHEAR MODULUS OF 110 PSI.</p> <p>5) ALTERNATE CONFIGURATIONS FOR BEARINGS MAY BE SUBMITTED FOR APPROVAL. ANY ALTERNATE SUBMITTED SHALL BE DESIGNED AND STAMPED IN ACCORDANCE WITH SUBSECTION 105.03 AND SHALL MEET THE DESIGN LOADS AND CRITERIA SHOWN ON THIS SHEET. ANY ALTERNATE SHALL BE DESIGNED PER THE LATEST AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. BRIDGE SEAT ELEVATIONS MAY BE REVISED TO ACCOMMODATE AN ALTERNATE CONFIGURATION.</p> <p>6) STEEL REINFORCED ELASTOMERIC PADS SHALL BE WITHIN THE TOLERANCES LISTED IN TABLE 2 IN AASHTO M251. EXTERNAL LOAD PLATES SHALL BE WITHIN THE TOLERANCES GIVEN IN SECTION 18 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS.</p> <p>7) BEARING SHALL BE SET LEVEL AND PARALLEL. THE CONCRETE UNDER THE BEARING DEVICE SHALL BE LEVEL.</p> <p>8) DURING ANY WELDING, SURFACES IN CONTACT WITH THE ELASTOMER SHALL BE RESTRICTED TO 200 DEGREES FAHRENHEIT. TEMPERATURE SHALL BE DETERMINED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS.</p> <p>9) PRIOR TO ORDERING MATERIALS AND STARTING THE WORK, THE CONTRACTOR SHALL SUBMIT A DRILLING AND MORTARING PROPOSAL TO THE ENGINEER FOR APPROVAL, INCLUDING A PREMIXED MORTAR MATERIAL BRAND NAME.</p> <p>10) THE DRILLED HOLES TO BE MORTARED SHALL BE THOROUGHLY CLEANED, WETTED, AND FREE OF STANDING WATER.</p> <p>11) THE MORTAR SHALL BE MIXED IN A MECHANICAL MIXER ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE READILY POURABLE SO THAT WHEN Poured IT COMPLETELY FILLS THE REMAINING HOLE CAVITIES. THE PLACEMENT OF MORTAR FOR EACH BEARING SHALL BE CONTINUOUS AND COMPLETE AT ALL HOLE LOCATIONS.</p> <p>12) ALL EXPOSED MORTAR SHALL BE CURED FOR A PERIOD OF NOT LESS THAN THREE (3) DAYS BY THE WETTED BURLAP METHOD IN ACCORDANCE WITH SECTION 501. CURING SHALL COMMENCE AS SOON AS PRACTICAL AFTER MORTAR PLACEMENT. THE CONTRACTOR SHALL NOT APPLY ANY FORCES TO THE BEARING RETAINERS DURING THE CURING PERIOD.</p> <p>13) THE BEARING MANUFACTURER SHALL INCLUDE A TEMPERATURE SETTING TABLE ON THE FABRICATION DRAWINGS.</p> <p>14) BRIDGE SEAT ELEVATIONS ARE BASED ON THE BEARING HEIGHTS SHOWN. PRIOR TO CASTING SUBSTRUCTURE UNITS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE PROPOSED BEARING HEIGHT AS PROVIDED BY THE MANUFACTURER AND ANY ELEVATION MODIFICATIONS REQUIRED BEFORE CONSTRUCTING SUBSTRUCTURE UNITS.</p> | <p>15) ANCHOR BOLTS FURNISHED FOR BEARING SIDE RETAINERS SHALL CONFORM TO SUBSECTION 714.08. THE BOLTS, NUTS, AND WASHERS FURNISHED SHALL BE TESTED AND CERTIFIED AS MEETING THE REQUIREMENTS OF THE ZINC THICKNESS TEST AS SPECIFIED IN SUBSECTION 714.05, IN ADDITION TO ANY OTHER TEST AND CERTIFICATION REQUIREMENTS.</p> <p>16) THE WELDS FOR THE SOLE PLATE CONNECTION SHOULD ONLY BE ALONG THE LONGITUDINAL GIRDER AXIS. TRANSVERSE JOINTS SHOULD BE SEALED WITH AN ACCEPTABLE CAULKING MATERIAL.</p> <p>17) BEARING RETAINER ASSEMBLIES SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 726.08 OR METALIZED IN ACCORDANCE WITH SUBSECTION 726.09.</p> <p>18) METALIZING OR GALVANIZING THAT HAS BEEN DAMAGED SHALL BE REPAIRED USING THE METHODS DESCRIBED IN SUBSECTION 726.08.</p> <p>19) ELASTOMERIC BEARINGS SHALL BE VULCANIZED TO SOLE PLATES.</p> <p>20) ALL LOADS PROVIDED ARE UNFACTORED.</p> |
|---|--|

LOCATION		BRIDGE 43S ABUTMENT 1	BRIDGE 43S ABUTMENT 2	BRIDGE 43N ABUTMENT 3	BRIDGE 43N ABUTMENT 4
FIXED (F) or EXPANSION (EXP)		EXP	EXP	EXP	EXP
QUANTITY REQUIRED		6	6	6	6
DL+SDL (kips)		167.3	167.3	158.9	158.9
LL+IM (kips)		120.3	120.3	119.0	119.0
TOTAL DESIGN REACTION (kips)		287.6	287.6	277.9	277.9
ASKEW ANGLE (degrees)	A	70	70	70	70
ELASTOMERIC PAD (in)	L	13	13	13	13
	W	20	20	20	20
	Ns	7	7	7	7
	Ts	0.075	0.075	0.075	0.075
	Ne	6	6	6	6
	Te	3/8	3/8	3/8	3/8
	Tc	1/8	1/8	1/8	1/8
ANCHOR BOLTS (in)	PER BRG.	4	4	4	4
	DIA.a	1 1/2	1 1/2	1 1/2	1 1/2
	Ha	21	21	21	21
ANCHOR BOLT HOLES (in)	DIA.h	1 5/8	1 5/8	1 5/8	1 5/8
	Ez	3	3	3	3
	Ex	3 1/4	3 1/4	3 1/4	3 1/4
WELD SIZE (in)	F	5/16	5/16	5/16	5/16
SOLE PLATE (in)	Ws	22	22	22	22
	Ls	15	15	15	15
	T1	1 1/2	1 1/2	1 1/2	1 5/8
	T2	1 11/16	1 11/16	1 1/2	1 1/2
RETAINER (in)	Lr	15	15	15	15
	Or	5/8	5/8	5/8	5/8
GIRDER EXTENSION (in)	EXT	32	32	32	32
BEARING HEIGHT (in)	Ht	4.619	4.619	4.525	4.588

PROJECT NAME:	HARTFORD
PROJECT NUMBER:	IM 09I-2(79)
FILE NAME:	s12a132bearings.dgn
PROJECT LEADER:	K. HIGGINS
DESIGNED BY:	R. KLINEFELTER
BEARING NOTES	
PLOT DATE:	15-DEC-2014
DRAWN BY:	R. KLINEFELTER
CHECKED BY:	W. LAMMER
SHEET	95 OF 166