REVISIONS					
ZONE	REV	DESCRIPTION	REVISED BY	DATE	APPROVED
--	A	PER ENGINEERS MARKS	EJG	10/9/12	BF

NOTES FOR HLMR POT BEARING ASSEMBLY (ITEM NO. 531.12):

1. ELASTOMERIC DISC.
(A)-ELASTOMERIC DISCS SHALL HAVE THE MINIMUM THICKNESS PER AASHTO LRFD 14.7.4.3

(B)-AREAS OF ELASTOMERIC DISCS SHALL BE DESIGNED FOR A MAXIMUM AVERAGE STRESS OF 3500 PSI AT THE TOTAL DEAD AND LIVE LOADS OF THE STRUCTURE PER AASHTO LRFD 14.7.4.4

(C)-ELASTOMERIC DISC TO BE OF 50 SHORE "A" DUROMETER HARDNESS PER AASHTO LRFD 14.7.4.2.

2. POT

(A)-ALL STEEL USED IN POT BEARING TO BE AASHTO M270, GR. 345, AND SHALL BE GALVANIZED EXCEPT INSIDE POT BEARING SURFACES SHALL NOT BE GALVANIZED.

(B)-DEPTH OF THE POT CAVITY SHALL BE EQUAL TO OR GREATER THAN: (POT ID/2) X DESIGN ROTATION (03 RADIANS) +.1 + THE THICKNESS OF THE ELASTOMERIC DISC. + THE PISTON FACE WIDTH.

(C)-INSIDE DIAMETERS SHALL BE THE SAME AS THE ELASTOMERIC DISC.

3. PISTON

(A)-PISTONS SHALL BE DESIGNED AS FOLLOWS FOR THICKNESS AND CLEARANCE PER AASHTO LRFD 14.7.4.7.

(B)-PISTON FOR ROUND CROSS SECTION SEALING RINGS SHALL HAVE THE LOWER OUTSIDE EDGE BEVELED TO ACCEPT AND RETAIN THE RING AND PERMIT FULL DESIGN ROTATION.

4. ELASTOMERIC SEAL RINGS
(A)-ROUND CROSS SECTION BRASS SEALING RINGS SHALL MEET THE FOLLOWING DESIGN REQUIREMENTS PER AASHTO LRFD 14.7.4.5
(1) RINGS SHALL FIT THE POT ID SNUGLY, 5/16"Ø MIN.

(2) RINGS SHALL BE ROLLED INTO A CIRCLE AND BRAZED. (TO BE MADE FROM ONE PIECE).

5. PTFE SLIDING SURFACE
(A)-THE AREA OF THE PTFE SHALL BE DESIGNED FOR A CONTACT STRESS AS PER AASHTO LRFD 14.7.2.4, AT THE FULL DEAD AND LIVE LOAD OF THE STRUCTURE.

(B)-UNFILLED PTFE SHALL MEET THE FOLLOWING REQUIREMENTS:
(1) BONDED TO THE PISTON IT SHALL HAVE A MINIMUM THICKNESS OF 1/8" AND SHALL BE RECESSED ONE-HALF OF ITS THICKNESS INTO STEEL PISTON. TO CONFORM TO AASHTO LRFD 14.7.2.8.1.

(C)-PTFE SURFACE SHALL BE ASTM D 4894 AASHTO LRFD S14.7.2.1.

(D)-EXPOSED PTFE SLIDING SURFACES SHALL BE PIGMENTED TO INCREASE RESISTANCE TO DAMAGE FROM UV LIGHT.

6. STAINLESS STEEL SLIDING SURFACE
(A)-THE STAINLESS STEEL SLIDING SURFACE SHALL COVER THE PTFE SURFACE IN ALL OPERATING POSITIONS PLUS ONE ADDITIONAL INCH IN EVERY DIRECTION OF MOVEMENT.

(B)-STAINLESS STEEL SHALL BE 11ga. (AASHTO LRFD 14.7.2.3.2) THICKNESS AND SHALL BE CONNECTED TO THE TOP PLATE BY MEANS OF AN EPOXY BOND & SEAL WELDED AROUND THE ENTIRE PERIMETER (AS PER AASHTO SUBSECTION 14.7.2.8.2)

(C)-WELDING PROCEDURES SHALL BE CHOSEN SUCH THAT THE STAINLESS STEEL IN SERVICE IS IN CONTACT WITH THE TOP PLATE AND THE SURFACE IS SMOOTH AND FLAT.

(D)-STAINLESS STEEL SLIDING SURFACES SHALL BE PREFERABLY FACE DOWN.

7. GUIDE BARS
(A)-GUIDE BARS AND THEIR CONNECTIONS TO THE TOP PLATE SHALL BE DESIGNED FOR THE HORIZONTAL STRENGTH FORCES ON THE BEARING AND NOT LESS THAN 19% OF THE TOTAL VERTICAL LOAD CAPACITY OF THE BEARING.

(B)-UNLESS THE GUIDE BAR CLEARANCE IS SPECIFIED IT SHALL BE A TOTAL OF 3mm (MAX.) PER 14.7.9.4.

(C)-GUIDING ARRANGEMENTS SHALL BE DESIGNED SO THAT GUIDING MEMBER IS ALWAYS WITHIN THE GUIDES AT ALL POINTS OF TRANSLATION OF THE BEARING.

(D)-GUIDE BAR MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ASTM M270 GR. 345 AND SHALL BE GALVANIZED. SEE NOTE 9 (I).

7. GUIDE BARS
(A)-STRUCTURE STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GR. 345 AND SHALL BE GALVANIZED.

(B)-ELASTOMERS SHALL CONFORM TO AASHTO LRFD SUBSECTION 14.7.4.2.

(C)-ELASTOMER SEALS MAY ONLY BE MADE OF METAL AS FOLLOWS:
(1)-ROUND CROSS SECTION BRASS RINGS SHALL CONFORM TO ASTM B16 STANDARD TEMPER H02

(D)-PTFE SLIDING SURFACES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO LRFD SECTION 14.7.2.

(E)-STAINLESS STEEL SLIDING SURFACES SHALL CONFORM TO ASTM A-240 TYPE 304 WITH A SURFACE FINISH OF #8 MIRROR (AASHTO LRFD 14.7.2.2)

9. MANUFACTURING REQUIREMENTS
(A)-POTS AND PISTONS SHALL BE MACHINED FROM A SOLID PIECE OF STEEL AS PER AASHTO LRFD SECTION 18.3.3.2.1 POT BEARINGS.

(B)-ELASTOMERIC DISC TOLERANCES SHALL BE PER AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 18.1.4.2.

(C)-PTFE SLIDING SURFACE TOLERANCES SHALL BE PER AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 18.1.4.2.

(D)-STAINLESS STEEL SLIDING SURFACES SHALL BE EPOXY BONDED & SEAL WELDED. CONFORMING TO THE AMERICAN WELDING SOCIETY REQUIREMENTS FOR STAINLESS STEEL, AROUND IT'S PERIMETER USING TECHNIQUES WHICH WILL ENSURE IT REMAINS IN CONTACT WITH THE BACKING PLATE. FINISH SHALL BE #8 MIRROR (AASHTO 14.7.2.2). FLATNESS SHALL CONFORM TO CLASS "A" OR BETTER.

(E)-SOLE PLATE TOLERANCES SHALL CONFORM TO AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 18.1.4.2.

(F)-GUIDE BAR TOLERANCES SHALL CONFORM TO AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 18.1.4.2.

(G)-OVERALL HEIGHT OF BEARING SHALL NOT EXCEED THE NOMINAL HEIGHT BY MORE THAN 6mm.

(H)-THE EDGES OF ALL PARTS SHALL BE BROKEN BY GRINDING SO THAT THERE ARE NO SHARP EDGES.

(I)-EXTERNAL STEEL PLATE SURFACES TO BE HOT DIP GALVANIZED AS PER SPECIFICATIONS.

10. TOLERANCES FOR FLATNESS
(A)-FLATNESS OF BEARING SURFACES SHALL BE DETERMINED BY THE FOLLOWING METHOD:
(1)-A PRECISION STRAIGHT EDGE LONGER THAN THE NOMINAL DIMENSION TO BE MEASURED SHALL BE PLACED IN CONTACT WITH THE SURFACE TO BE MEASURED AS PARALLEL TO IT AS POSSIBLE.

(2)-SELECT A FEELER GAUGE HAVING AN ACCURACY OF ±.001" EQUAL TO THE TOLERANCE ALLOWED AND ATTEMPT TO INSERT IT UNDER THE STRAIGHT EDGE.

(3)-PLATES ARE "ACCEPTABLE" IF THE FEELER GAUGE DOES NOT PASS UNDER THE STRAIGHT EDGE.

(B)-FLATNESS TOLERANCES SHALL BE AS FOLLOWS:
(1)-CLASS "A" 0.001 X NOMINAL DIMENSION PER AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATION 18.1.4.2-1.

(C)-"NOMINAL DIMENSIONS" SHALL BE INTERPRETED AS THE ACTUAL DIMENSION OF THE PLATE UNDER THE STRAIGHT EDGE WHERE THE STRAIGHT EDGE IS NOT PARALLEL TO ANY PLAN DIMENSION OF THE PLATE BEING MEASURED.

(D)-IN DETERMINING THE FLATNESS THE STRAIGHT EDGE MAY BE LOCATED IN ANY POSITION ON THE SURFACE BEING MEASURED.

11. REFERENCE
(A)-AASHTO LRFD STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 4TH. EDITION 2007 WITH CURRENT INTERIMS, AS MODIFIED BY THE 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AS MODIFIED BY THE SPECIAL PROVISIONS.

12. ADDITIONAL COMMENTS
(A)-BEARINGS SHALL BE TESTED ACCORDING TO SECTION 531 OF VERMONT'S 2006 STANDARD SPECIFICATION FOR CONSTRUCTION.

(B)-ALL WELDERS SHALL BE QUALIFIED AS PER AWS D1.5.

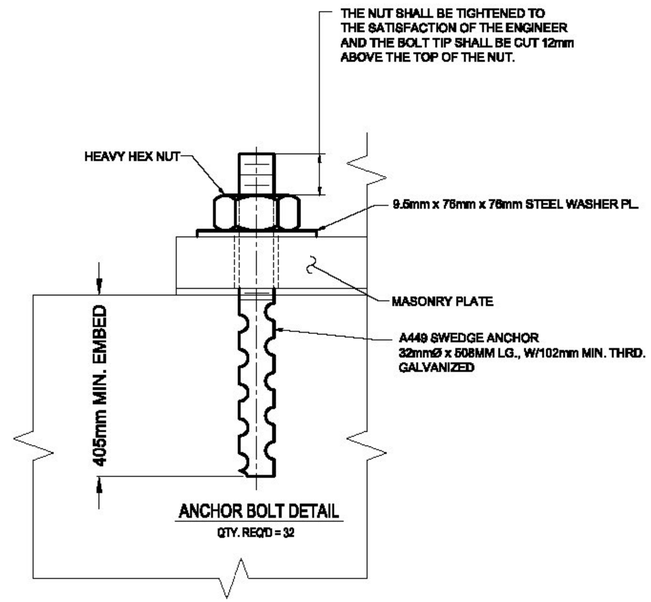
(C)-ALL BEARINGS SHALL BE PLACED ON A 1/8" THK. BEARING PAD SAME SIZE AS MASONRY PLATE.

(D) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

(E) SCALE = N.T.S.

(E) NEW BRIDGE SEAT ELEVATIONS SHALL BE ADJUSTED BY THE G/C BASED ON THE FINAL CONFIGURATION OF THE BEARINGS.

(F) MANUFACTURING LOCATION:
AMSCOT STRUCTURAL PRODUCTS CORP. INC.
241 EAST BLACKWELL STREET
DOVER, NJ 07801
PH: (973) 989-8900
FX: (973) 989-5851
CONTACT: PETER SOMOGYI



ANCHOR BOLT DETAIL
QTY. REQ'D = 32

Vermont Agency of Transportation
RECEIVED
CK'D BY M.E.M OK'D BY
Oct. 10, 2012
RESUBMIT APPROVED ✓
BY M.Evans-Mongeon DATE Nov. 01, 2012

CAMBRIDGE
PROJECT NUMBER: BRF-027-1 (4)

HIGH LOAD MULTI-ROTATIONAL BEARING NOTES & ANCHOR BOLT DETAIL

AMSCOT
STRUCTURAL PRODUCTS CORP.

SCALE: N.T.S.	APPRV'D:	DRAWN BY: E.J.G.
DATE: 9/25/12	BF	REVISION: A
FOR: A. L. ST. ONGE CONTRACTOR, INC.		
DWG NO: ALO12B5RA		SHEET 5 OF 5