REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
--	A	PER ENGINEER'S MARK	11/17/06	C.A.M.
--	B	PER ENGINEER'S MARK	2/15/07	C.A.M.

1. ELASTOMERIC DISC
(A) -ELASTOMERIC DISCS SHALL HAVE THE MINIMUM THICKNESS PER AASHTO 14.6.4.3.

(B) -AREAS OF ELASTOMERIC DISCS SHALL BE DESIGNED FOR A MAXIMUM AVERAGE STRESS OF 3,000 PSI AT THE TOTAL DEAD AND LIVE LOADS OF THE STRUCTURE PER AASHTO 14.6.4.4

(C) -ELASTOMERIC DISC TO BE OF 50 SHORE "A" DUROMETER HARDNESS PER AASHTO 14.6.4.2.

2. POT
(A) -ALL STEEL USED IN POT BEARING TO BE AASHTO M270, GR. 345 HOT DIP GALVANIZED, EXCEPT FOR INSIDE OF BASE POT.

(B) -DEPTH OF THE POT CAVITY SHALL BE EQUAL TO OR GREATER THAN: (POT O.D) 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 14.6.4.7.

(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 14.6.4.5
(1) RINGS SHALL FIT THE POT ID SNUGLY 6mm@ MIN. (1.0mm TO 0.50mm LESS THAN POT ID).

(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 WORKING STRESS AS PER AASHTO SECTION 14.6.2. AT THE FULL DEAD AND LIVE LOAD OF THE STRUCTURE.

(B) -FILLED PTFE SHALL MEET THE FOLLOWING REQUIREMENTS:
(1) BONDED TO THE PISTON IT SHALL HAVE A MINIMUM THICKNESS OF 3mm AND SHALL BE RECESSED ONE-HALF OF ITS THICKNESS INTO STEEL PISTON. TO CONFORM TO AASHTO SECTION 14.6.2.6.1.

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 14ga. (AASHTO 14.6.2.3.2). THICKNESS AND SHALL BE CONNECTED TO THE TOP PLATE BY MEANS OF AN EPOXY BOND & SEAL WELDED AROUND THE ENTIRE PERIMETER (AS PER AASHTO SECTION 14. 2002)

(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 FORCES ON THE BEARING AND NOT LESS THAN 10% OF THE TOTAL VERTICAL LOAD CAPACITY OF THE BEARING.

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

(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 AASHTO M270 GR. 345 HOT DIP GALVANIZED.

8. MATERIALS
(A) -STRUCTURE STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GR. 345 HOT DIP GALVANIZED.

(B) -ELASTOMERS SHALL CONFORM TO AASHTO SECT. 14, 2002.

(C) -ELASTOMER SEALS MAY ONLY BE MADE OF METAL AS FOLLOWS:
(1) -ROUND CROSS SECTION BRASS RINGS, ASTM B-36 (HALF HARD) , SHALL CONFORM TO FEDERAL SPECIFICATION QQB626, COMPOSITION 2.

(D) -PTFE SLIDING SURFACES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SECTION 14, 2002.

(E) -STAINLESS STEEL SLIDING SURFACES SHALL CONFORM TO ASTM A-240 TYPE 304 WITH A SURFACE FINISH OF #9 MIRROR (AASHTO 14.6.2.2)

9. MANUFACTURING REQUIREMENTS
(A) -POTS AND PISTONS SHALL BE MACHINED FROM A SOLID PIECE OF STEEL AS PER AASHTO SECTION 18.5.1.5-1 POT BEARINGS.

(B) -ELASTOMERIC DISC TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 ELASTOMERIC DISC.

(C) -PTFE SLIDING SURFACE TOLERANCES SHALL BE PER AASHTO TABLE 18.5.1.5-1 PTFE.

(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 #9 MIRROR. FLATNESS SHALL CONFORM TO CLASS "A" OR BETTER.

(E) -SOLE PLATE TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1 REQUIREMENTS.

(F) -GUIDE BAR TOLERANCES SHALL CONFORM TO TABLE 18.5.1.5-1.

(G) -OVERALL HEIGHT OF BEARING SHALL NOT EXCEED THE NOMINAL HEIGHT BY MORE THAN 4.76mm

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

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 ± 0254mm 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" 0.254 X NOMINAL DIMENSION PER AASHTO TABLE 18.5.15-1.

(C) -"NOMINAL DIMENSIONS" SHALL BE INTERPRETED AS THE ACTUAL DIMENSION OF THE PLATE, IN METRIC UNITS, UNDER THE STRAIGHT EDGE WHERE THE STRAIGHT EDGE IS NOT PARALLEL TO ANY FLAN 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 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH. EDITION 2002 WITH CURRENT INTERIMS, AS MODIFIED BY THE 3RD EDITION NEW JERSEY D.O.T. DESIGN MANUAL FOR BRIDGES AND STRUCTURES SECTION 23, AND 2001 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS MODIFIED BY THE SPECIAL PROVISIONS.

12. ADDITIONAL COMMENTS
(A) -BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.

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

(C) -ALL BEARINGS SHALL BE PLACED ON A 3mm THK BEARING PAD SAME SIZE AS MASONRY PLATE.

(D) -ALL DIMENSIONS ARE IN MILIMETERS UNLESS OTHERWISE NOTED.

(E) -SCALE = N.T.S.

(F) -MANUFACTURING LOCATION:
AMSCOT STRUCTURAL PRODUCTS CORP. INC.
241 EAST BLACKWELL STREET
DOVER, NJ 07801
PH. (973) 989-8850
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CONTACT: PETER SOMOGYI

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RESUBMIT APPROVED
BY DATE

SUNDERLAND
PROJECT NO. BRF 0114(2)
HIGHWAY NO. TH 3, BRIDGE NO. 13
OVER ROARING BRANCH

POT BEARING NOTES

AMSCOT
STRUCTURAL PRODUCTS CORP.
DOVER, NJ

JOB# 2291

SCALE: N.T.S.	APPRVD: B.F.	DRAWN BY: C.A.M.
DATE: 6/27/06		REVISION: B

FOR: PETRICCA CONSTRUCTION COMPANY

DWG NO: PC06A7RB | SHEET NO. 7 OF 7