

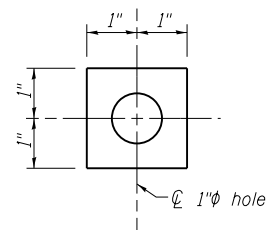
RESTRAINER INDICATOR END

RESTRAINER BOLTED END

CABLE & BRACKET ASSEMBLY ELEVATION

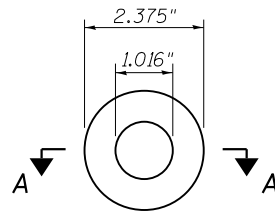
CABLE RESTRAINER UNIT INSTALLATION PROCEDURE

1. Align cable assembly angles with bumper assembly. For Bumper placement see Sheets 7 and 8 of 20.
2. Install Cable Yield Indicator, Spherical Washers, Disc Springs, Washers and Nut on the indicator end of Seismic Restrainers.
3. Place Spherical Washers and Nut on bolted end of restrainers. Place Thread Locking System on bolted end stud prior to installing nut and washers, and prior to setting the cable.
4. Tighten nut on the cable at the indicator end of restrainer. The cable should be approximately straight with no sag.
5. Place Thread Locking System on indicator end stud after tightening the cable but before backing off the nut. Back off the nut at restrainer indicator end a distance equal to maximum additional amount that the joint is expected to open, relative to existing ambient conditions. See Expansion Table on Sheet 8 of 20.
6. If the cable needs to be secured from turning while tightening, use double nut locking technique on the stud to protect the threads.
7. For Thread Locking System, see Special Provision for Seismic Restrainers.

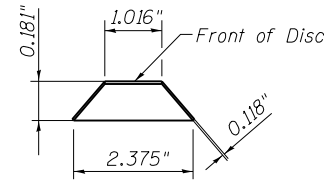


PAD DETAIL

Pad "A" = 2"x2"x1/4" Plain Elastomeric Bearing Pad (50 Durometer)
 Pad "B" = 2"x2"x1" Washer

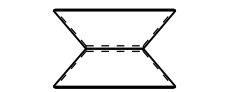


PLAN

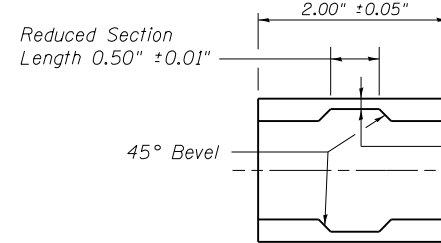


(Single Spring)

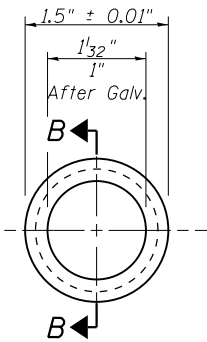
SECTION A-A



(as Installed on Stud)



SECTION B-B

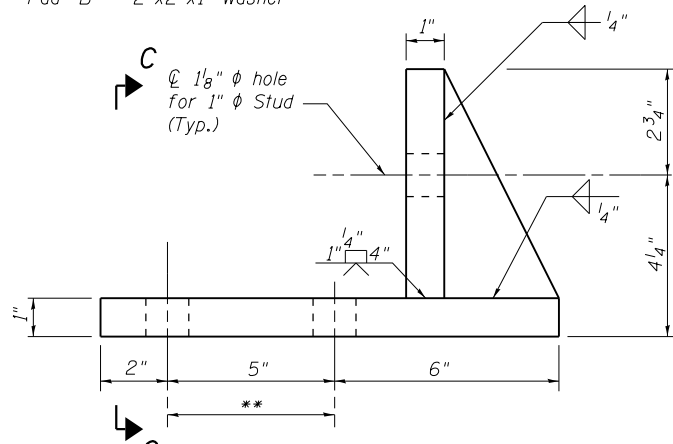


END VIEW

CABLE YIELD INDICATOR

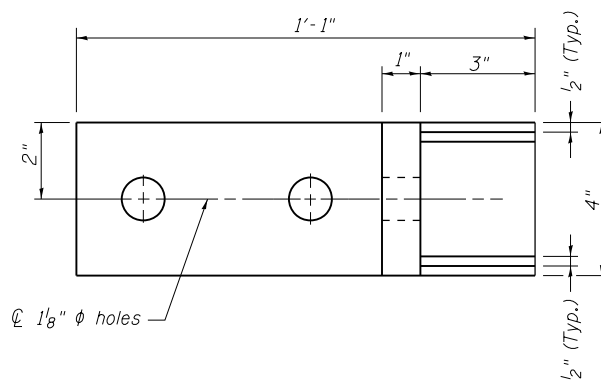
(All dimensions are before galvanizing except as noted)

Notes:
 Bracket Assembly shall be paid for as Furnishing and Erecting Structural Steel.
 HPPE Coated Cable swag fitting, incidentals and Yield Indicators shall be paid for as Seismic Restrainer.



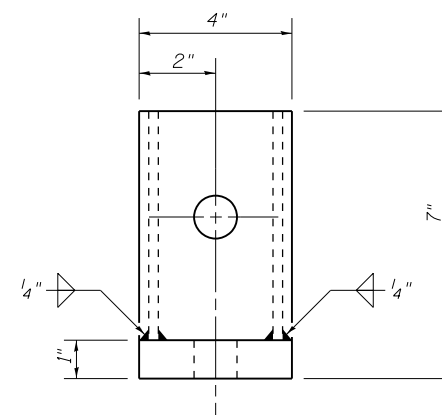
ELEVATION

** 1/8 inch diameter hole for 1 inch diameter x 4 1/2 inch long A325 bolts with 1-1/16 inch washer



PLAN

BRACKET ASSEMBLY



SECTION C-C

S:\Proj\025-0062\025-0062-TR over 57-70\025-0062-TR.dwg 025-0062 TR over 57-70\025-0062-TR.dwg 025-0062-TR over 57-70\025-0062-TR.dwg

FILE NAME = 0250062-74295-006.dgn	USER NAME =	DESIGNED - B.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SEISMIC RESTRAINER & BRACKET DETAILS STRUCTURE NO. 025-0062	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BERNARDINI LOCHMULLER & ASSOCIATES, INC. 3 DAK DRIVE MARYVILLE, IL 62442 PHONE (618) 284-4666 FAX (618) 284-4666	CHECKED - A.C.S.	REVISED -	70			(25-4HB-2)I	EFFINGHAM	1760	1746	
PLOT SCALE =	DRAWN - B.B.	REVISED -	CONTRACT NO. 74295							
PLOT DATE = 2:29:40 PM 8/15/2013	CHECKED - C.J.F.	REVISED -	SHEET NO. 6 of 20 SHEETS							