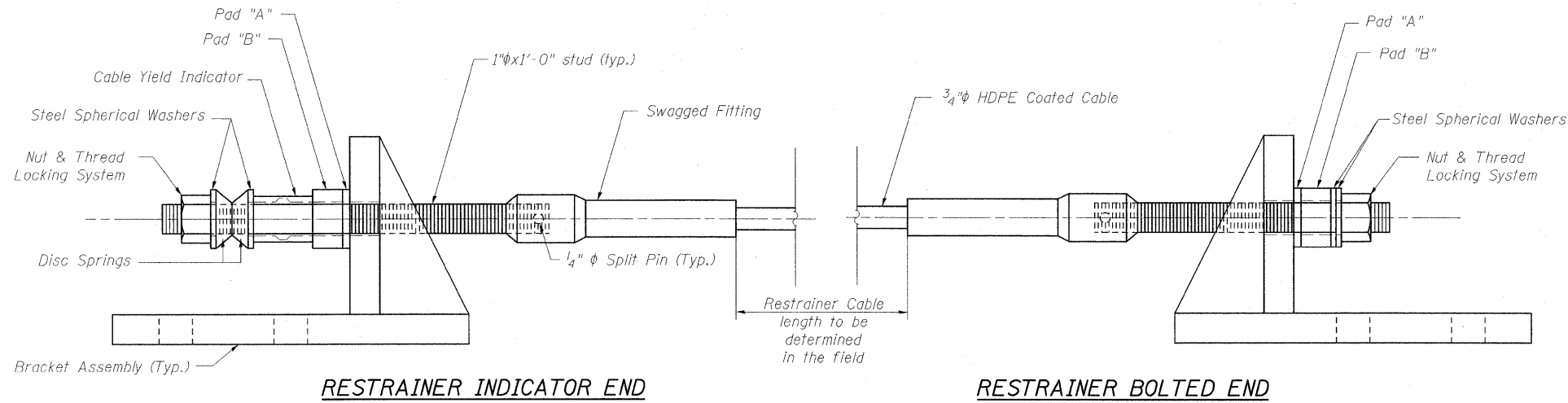


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

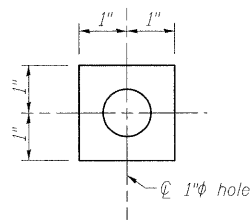
CABLE RESTRAINER UNIT INSTALLATION PROCEDURE



1. Align cable assembly angles with bumper assembly. For Bumper placement see Sheets 14 and 15 of 35.
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 15 of 36.
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.

Cost of Bracket Assemblies is included with Furnishing and Erecting Structural Steel.

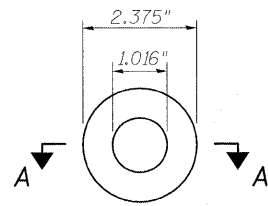
CABLE & BRACKET ASSEMBLY ELEVATION



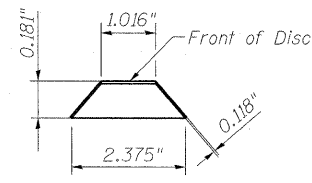
PAD DETAIL

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

Pad "B" = 2"x2"x1" Washer



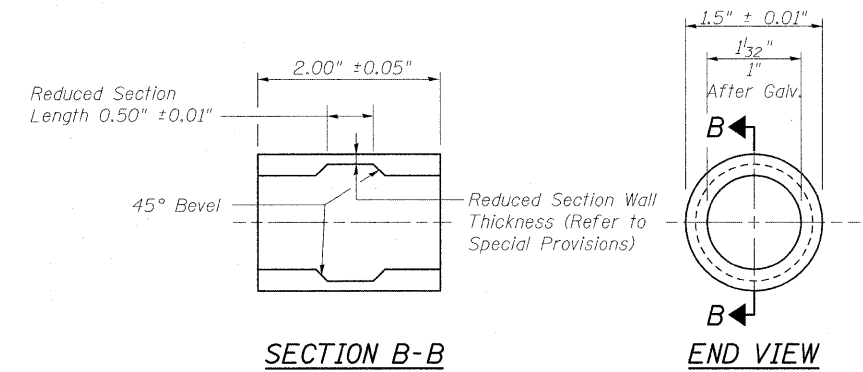
PLAN



SECTION A-A

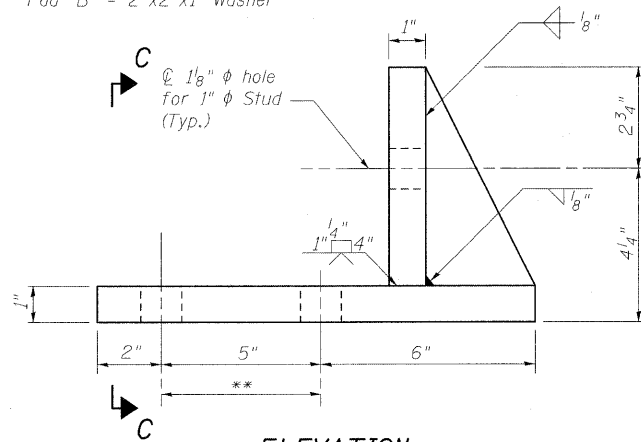
DISC SPRING

(Single Spring) (as Installed on Stud)



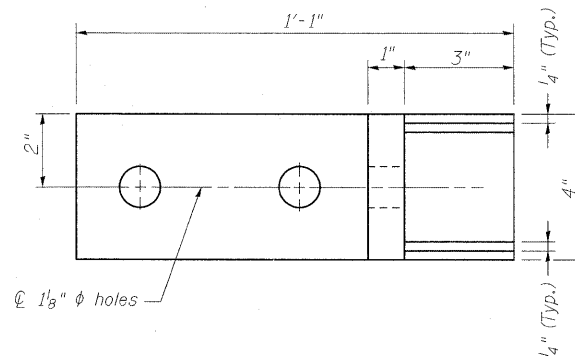
CABLE YIELD INDICATOR

(All dimensions are before galvanizing except as noted)



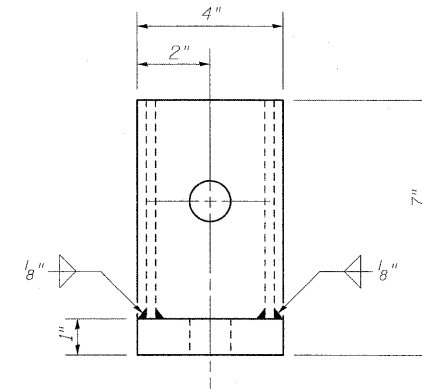
ELEVATION

** \varnothing 1/8" hole for 1" x 4 1/2" long A325 bolts with 1-1/16" washer



PLAN

BRACKET ASSEMBLY



SECTION C-C

DESIGNED	B.B.
CHECKED	C.J.F.
DRAWN	W.J.S.
CHECKED	C.J.F. & B.B.



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Fax 618-288-4666

SHEET NO. 13 36 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(25-3HB)I-3	EFFINGHAM	1416	1394
SN 025-0018			CONTRACT NO. 74296		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

**SEISMIC RESTRAINER
& BRACKET DETAILS
STRUCTURE NO. 025-0018**