

ELEVATION

THREE CABLE LOW-TENSION TRANSITION TO BCT END TERMINAL



STC01

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## INTENDED USE

Three Cable Low-Tension Guardrail Transition to BCT Terminal is a non-proprietary system and should be used in locations where three cable low-tension barrier transitions to strong-post, W-beam guardrail are required. This transition system is TL-3 NCHRP 350 accepted.

## COMPONENTS

Unit Length = 62'-6" [19050]

DESIGNATOR	COMPONENT	SYSTEM	NUMBER
FBB01	Guardrail splice bolts and nuts		16
FBB04	Guardrail post bolts and nuts		4
FBH01	Cable hooks		48
PDB01	Timber blockout		4
PDE02	Timber guardrail post		4
PSE01	Cable guardrail post and welded soil plate		16
RCM01	3x7 wire rope		3
RWM22a	W-beam rail		1
SEW03a	Breakaway cable terminal (BCT)		1
-----	16D double head nail		9
-----	South Dakota cable anchor bracket		1
-----	Lower Anchor Plate		2
-----	ø3/4"x18" [M22x457] Steel rod		8
FWC16a	ø5/8" [M16] Flat washer		4
FWC22b	ø3/4" [M22] Flat washer		8
FNX22b	ø3/4" [M22] Heavy hex nut		16
-----	Cable bracket		2
RCE01	Compensating cable end assembly		3
RCE03	Cable end fitting		3

## ACCEPTANCE

FHWA Acceptance Letter B-147, May 8, 2006

## REFERENCES

Faller, R.K., Sicking, D.L., Rohde, J.R., Holloway, J.C., Keller, E.A., and Reid, J.D., Crash Testing of South Dakota's Cable Guardrail to W-Beam Transition, South Dakota Report No. SD98-16, Final Report to the South Dakota Department of Transportation, Transportation Research Report No. TRP-03-80-98, Project No. SPR-3(017), Midwest Roadside Safety Facility, University of Nebraska-Lincoln, December 4, 1998.

## CONTACT INFORMATION

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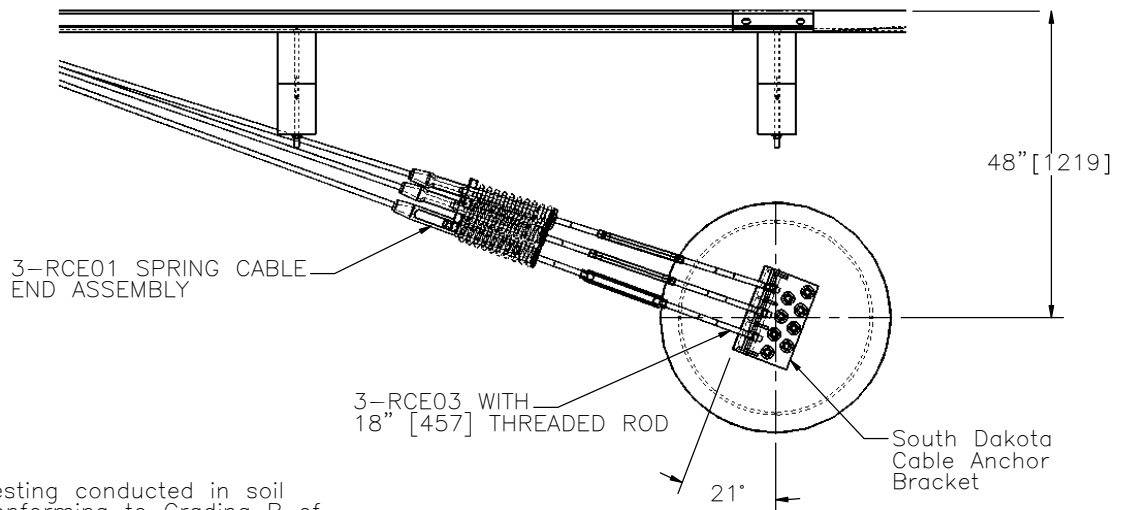


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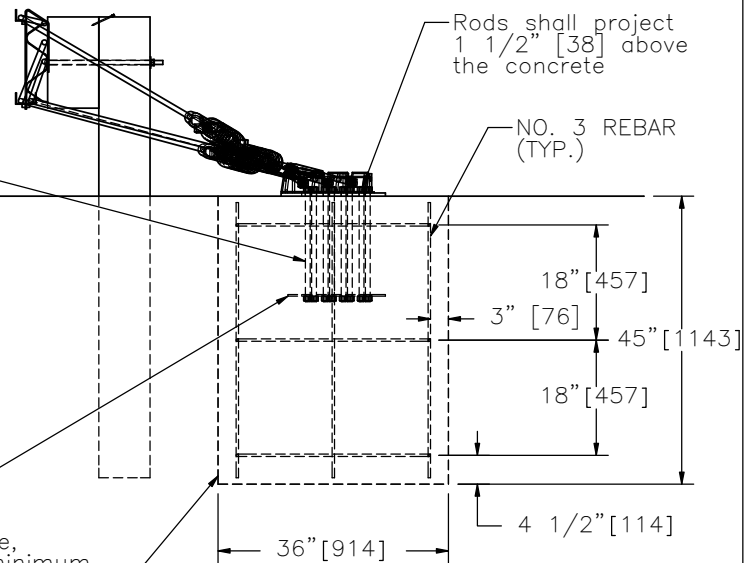
Note: Testing conducted in soil conforming to Grading B of AASHTO M147-65 (1990), the size of the concrete anchor assembly may need to be adjusted depending on the native soil conditions.

Detail A

8- $\phi$ 3/4" [19] x 18" [457] long steel rods shall conform to ASTM A449 and the top 6" [152] of the rods shall be galvanized in accordance with ASTM A153. Provide heavy hex nuts at each end of rod and a flat washer shall be placed on each rod on the top end. The threads shall be punched after the top nuts are installed to prevent rotation. The heavy hex nuts shall conform to ASTM A563.

6" [152] x 14" [356] x 1/4" [6] Steel Plate. Punch or drill holes to the same plan pattern as cable anchor bracket.

Concrete cast in place, 4000 psi (28 MPa) minimum 28 day compressive strength (no forms necessary)



SECTION B-B

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## DESIGN DETAILS FOR CABLE GUARDRAIL TO W-BEAM TRANSITION

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

<u>NAME</u>	<u>PLATE NO.</u>
W-BEAM TO 3 CABLE TRANSITION (NEW CABLE OR RESET CABLE ONLY)	350 TEST
3 CABLE GUARDRAIL	629.01
W-BEAM TO 3 CABLE TRANSITION	629.05
W-BEAM TO 3 CABLE TRANSITION BRACKET	629.15
W-BEAM GUARDRAIL POST INSTALLATION	630.31
W-BEAM GUARDRAIL INSTALLATION	630.32
W-BEAM GUARDRAIL, RAIL SPLICE, AND HARDWARE	630.33
W-BEAM TERMINAL CONNECTOR AND 1" STEEL WASHER	630.35
W-BEAM GUARDRAIL BREAKAWAY CABLE TERMINAL	630.47

NOTE: Drawings are available through the South Dakota Department of Transportation.

The cable anchor bracket shall be fabricated from steel that conforms to AASHTO M183 and the bracket shall be galvanized after fabrication in accordance with ASTM A123.

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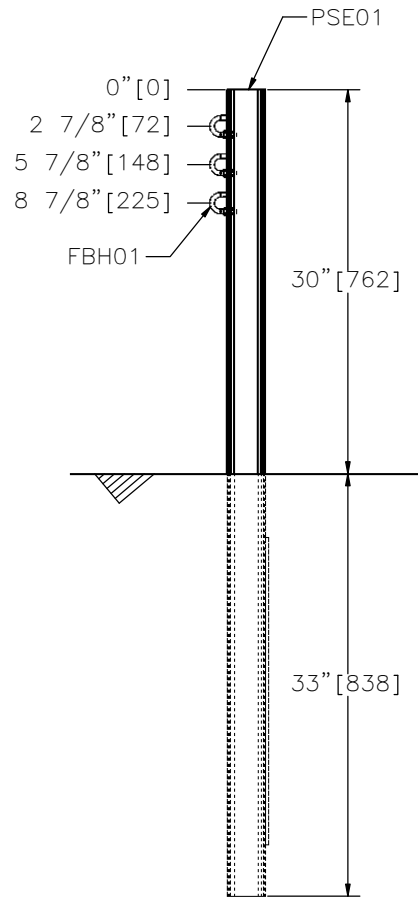
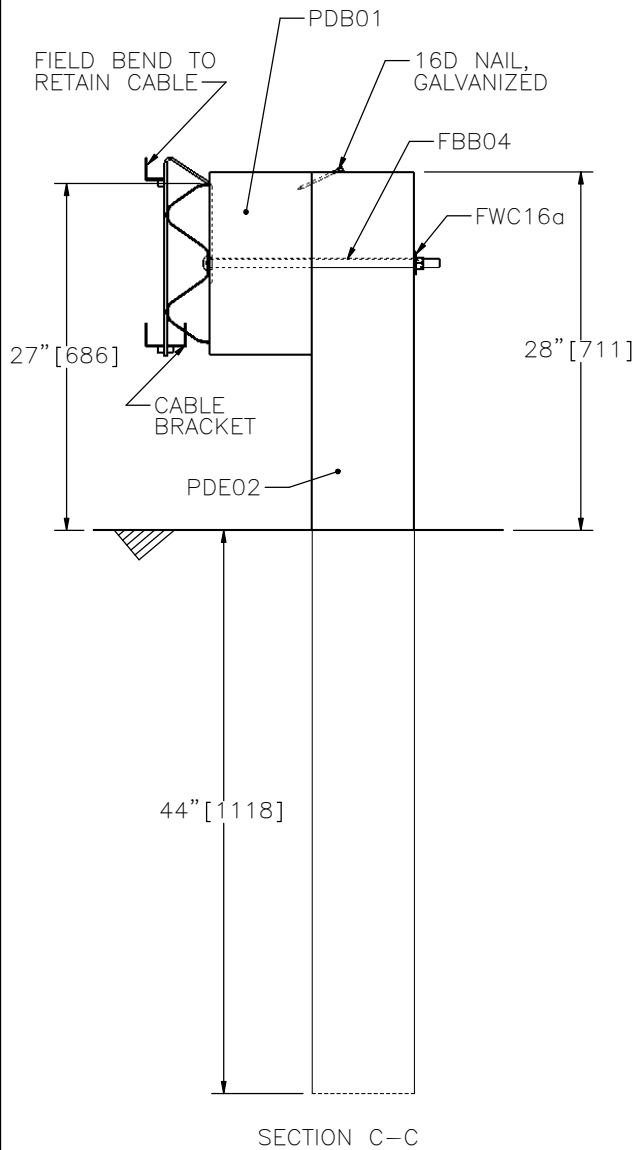


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NOTE: Cables have been omitted in sections C-C and D-D.

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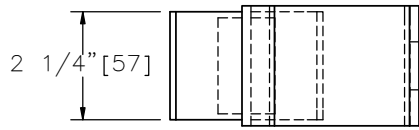
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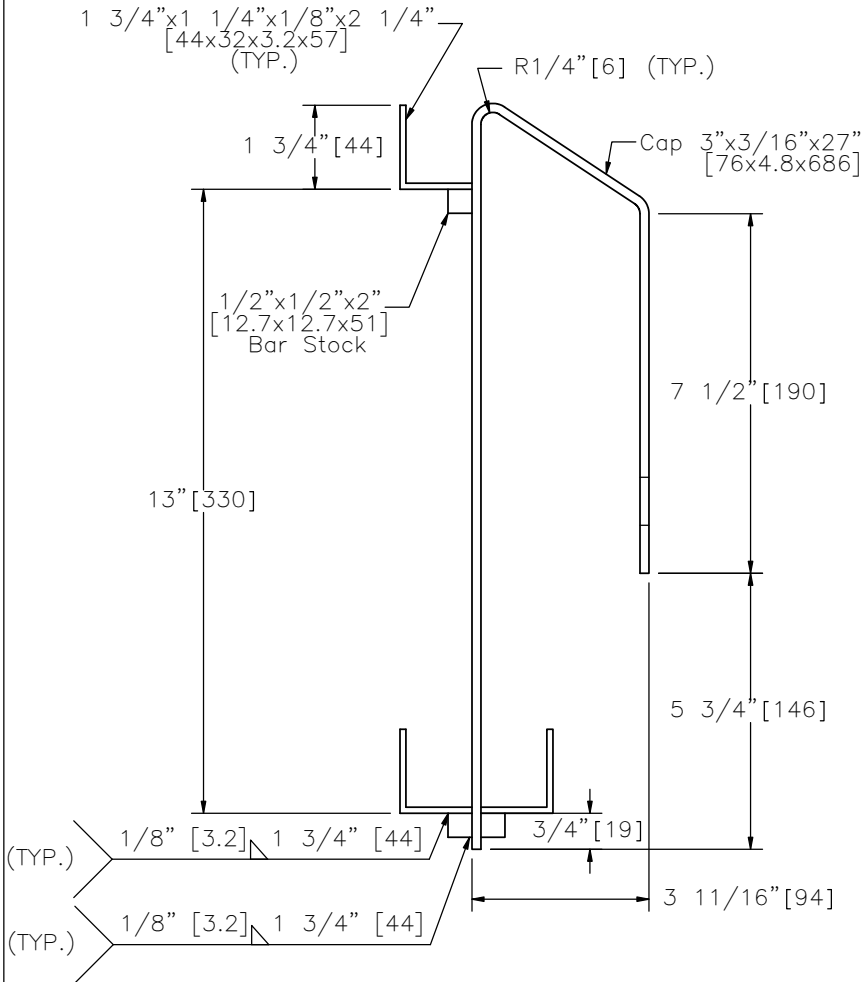
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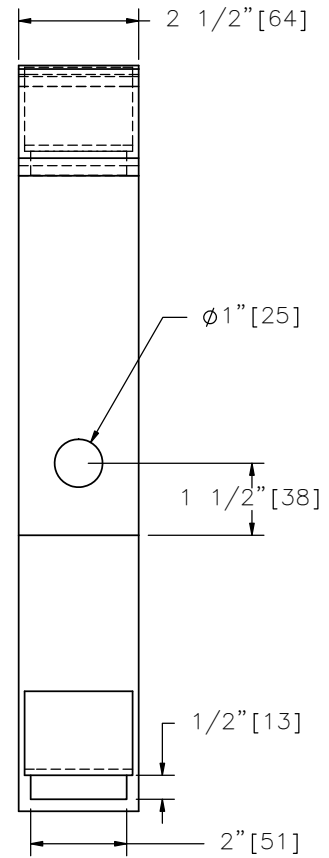
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Plan View



Elevation View



End View

CABLE BRACKET

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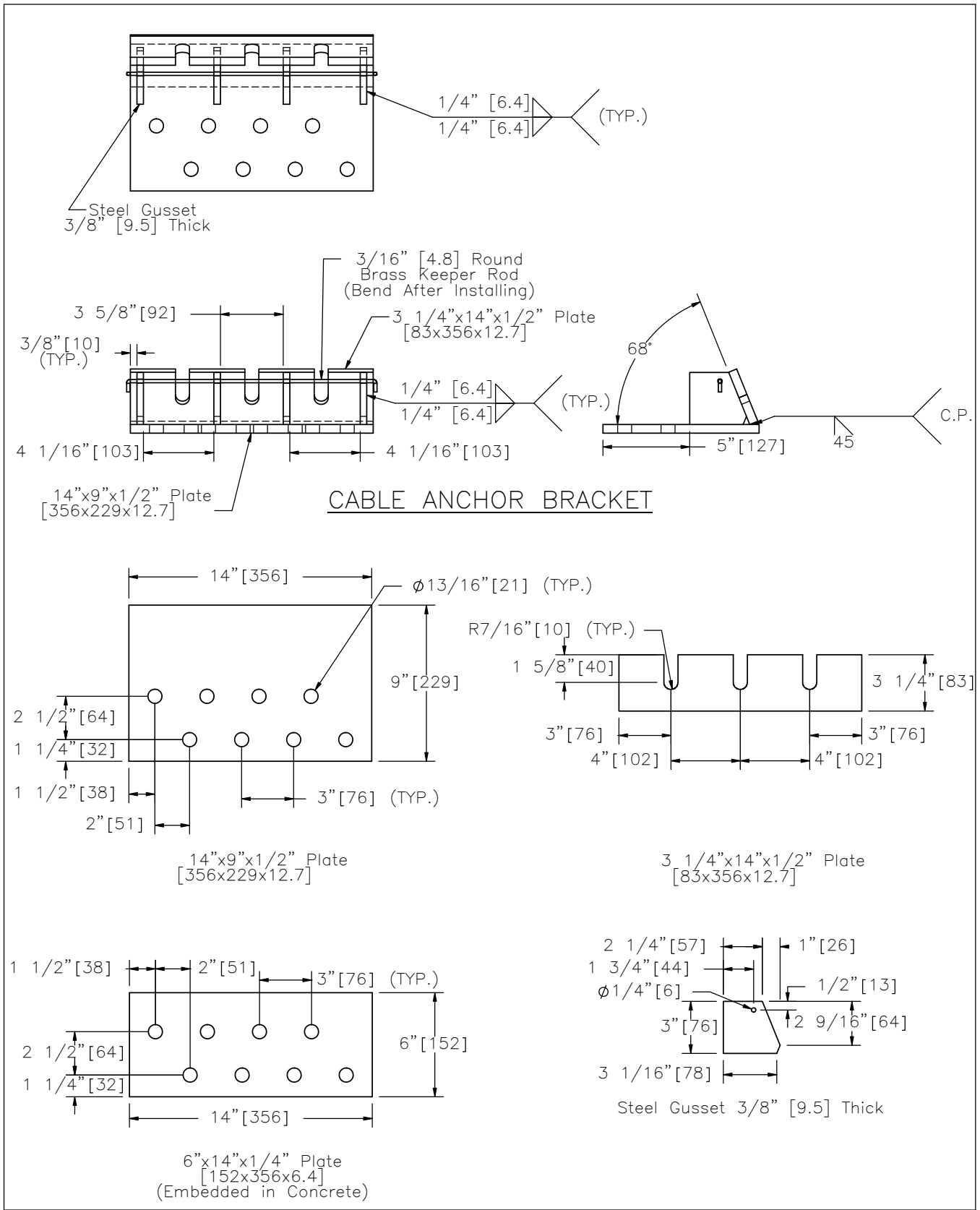
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