U.S. Department
of Transportation
Federal Highway Administration

February 9, 2006

400 Seventh St., S.W.
Washington, D.C. 20590

In Reply Refer To:
HSA-10/B-143

Mr. William B. Williams, P.E.
Standards Engineer
Wyoming Department of Transportation
5300 Bishop Boulevard
Cheyenne, Wyoming 82009-3340

Dear Mr. Williams:

In your letter dated January 17 you requested formal Federal Highway Administration (FHWA) acceptance of a transition design from a box-beam guardrail to a permanent concrete barrier. You further requested FHWA's approval to use this design connected to a vertical concrete barrier, a New Jersey or F-shape concrete barrier, or to a single-slope concrete barrier. Drawings of the transition showing general details and schematics of its connection to the four concrete barrier profiles noted above are enclosed with this letter. I assume that anyone requiring detailed drawings of this non-proprietary design may obtain them through your office.

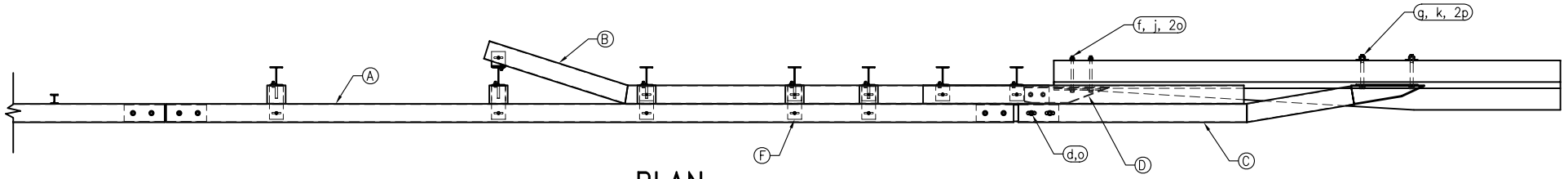
Based on its similarity to the transition design tested for use with your Wyoming steel post and beam bridge rail (FHWA acceptance letter B37A) and particularly the design tested with the BEAT-SSCC (FHWA acceptance letter CC69B), I agree that your proposed transition may be considered a crashworthy design meeting National Cooperative Highway Research Program Report 350 test level 3 without further testing. The addition of the steel rubrail and the modification of each of the safety shapes to a vertical wall at the connection point appear to be significant improvements over the BEAT-SSCC design.

Sincerely yours,

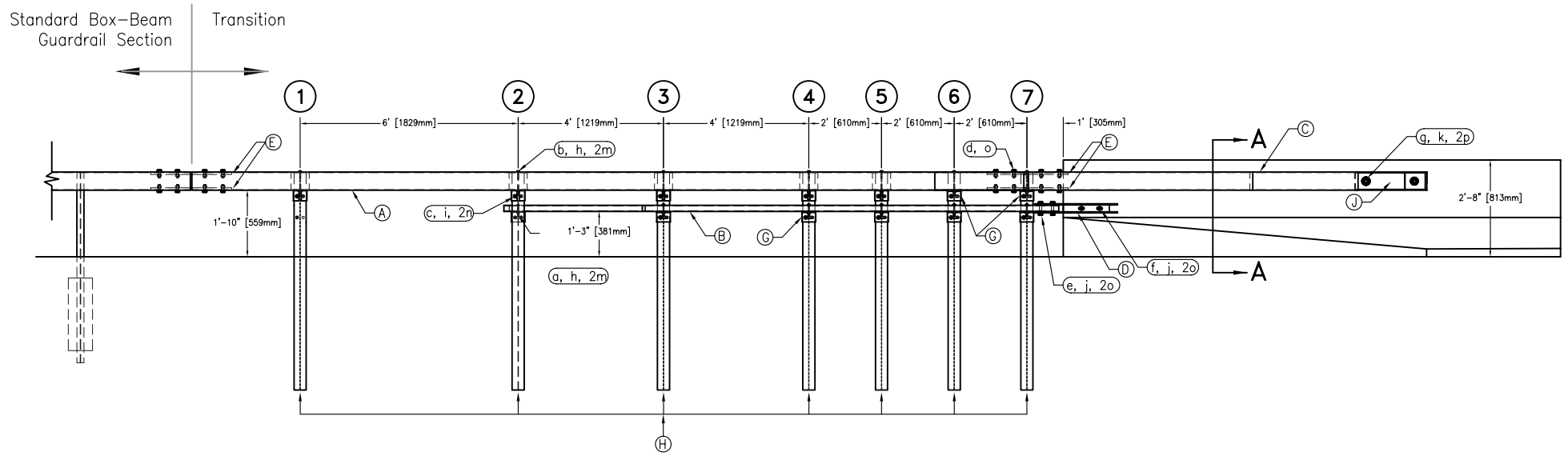
/original signed by/

John R. Baxter, P.E.
Director, Office of Safety Design
Office of Safety

Enclosures



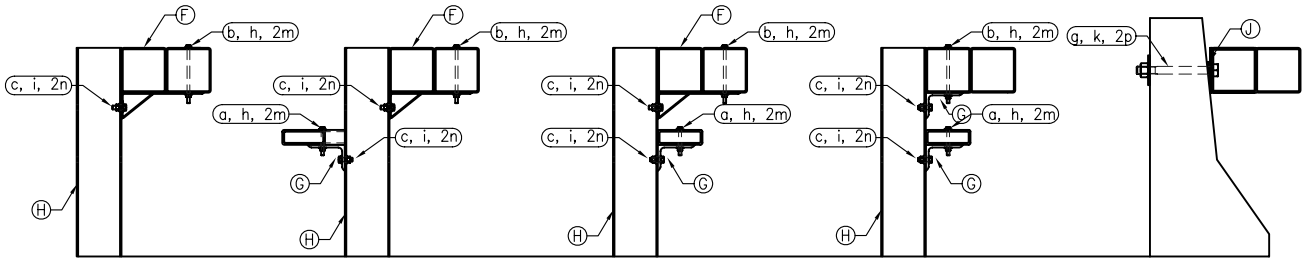
PLAN



ELEVATION

ITEM	QTY	DESCRIPTION
A	1	Transition Rail
B	1	Rub Rail
C	1	Anchor Rail Section
D	1	Rub Rail Anchor Bracket (Concrete Rail Dependent)
E	4	Box Beam Splice (AASHTO RBS01)
F	5	Support Bracket with Blockout (Post 1-5 Upper)
G	8	Support Bracket (Post 6-7 Upper, 2-7 Lower)
H	7	Transition Post
J	1	Shim Plate (for non-vertical walls)
a	6	3/8" X 3.5" [10 X 89mm] A307 Hex Bolt
b	7	3/8" X 7.5" [10 X 191mm] A307 Hex Bolt
c	13	1/2" X 1.5" [13 X 38mm] A307 Hex Bolt
d	16	3/4" X 2" [19 X 51mm] A325 Hex Bolt
e	2	3/4" X 4" [19 X 102mm] A325 Hex Bolt
f	2	3/4" [19mm] A325 Hex Bolt (Length Dependent on Concrete)**
g	2	1" [25mm] A325 Hex Bolt (Length Dependent on Concrete)
h	13	3/8" [10mm] Hex Nut
i	13	1/2" [13mm] Hex Nut
j	4	3/4" [19mm] Hex Nut (Quantity 2 if Anchors are Used at Item f)
k	2	1" [25mm] Hex Nut
m	26	3/8" [10mm] Washer
n	26	1/2" [13mm] Washer
o	24	3/4" [19mm] Washer (Quantity 22 if Anchors are Used at Item f)
p	4	1" [25mm] Plate Washer

** 3/4 X 4" [19 X 102mm] Powers Wedge Bolt or Equivalent Anchors are Acceptable Alternative



POST 1 POST 2 POSTS 3-5 POSTS 6-7 SECTION "A-A"

Midwest Roadside Safety Facility

Box-Beam Guardrail to Concrete Barrier Transition

System Layout

Drawing Name: WY BoxBeam Transition

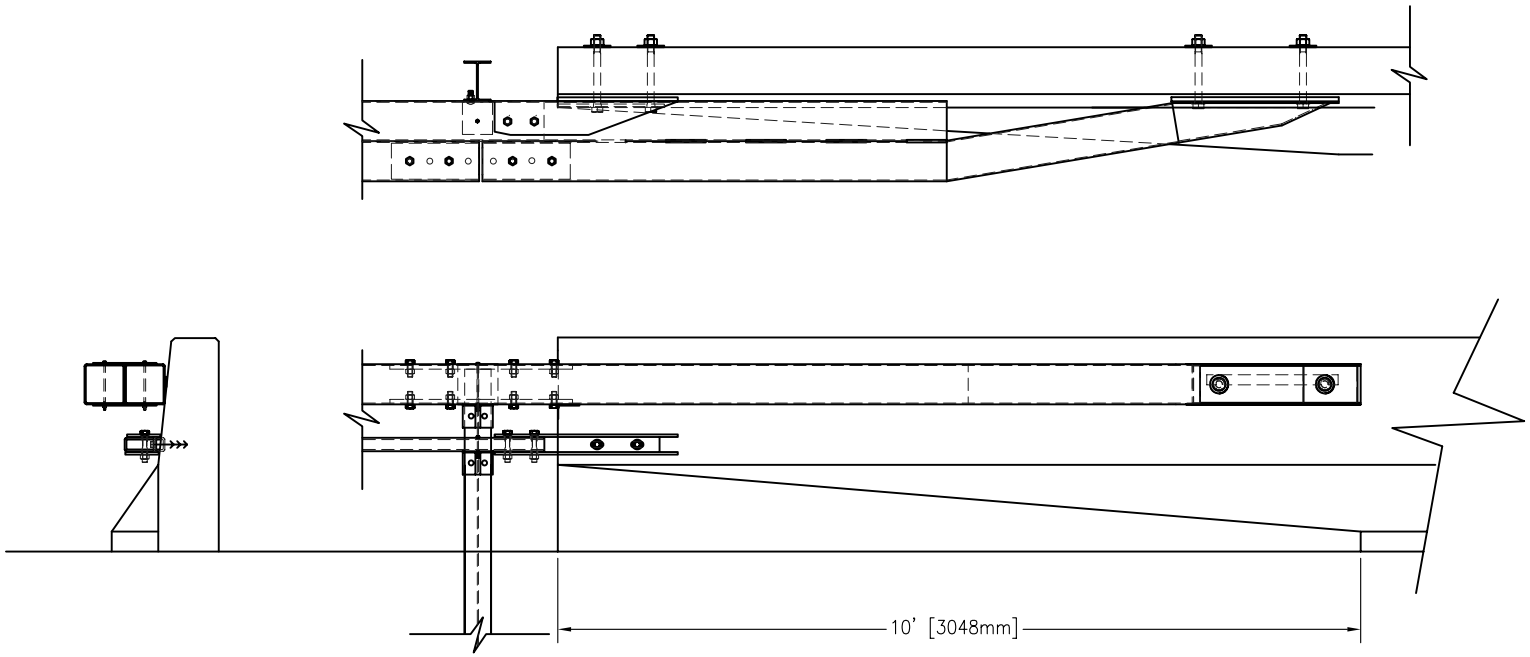
Scale: NONE

Sheet: S1

Date: 1/13/06

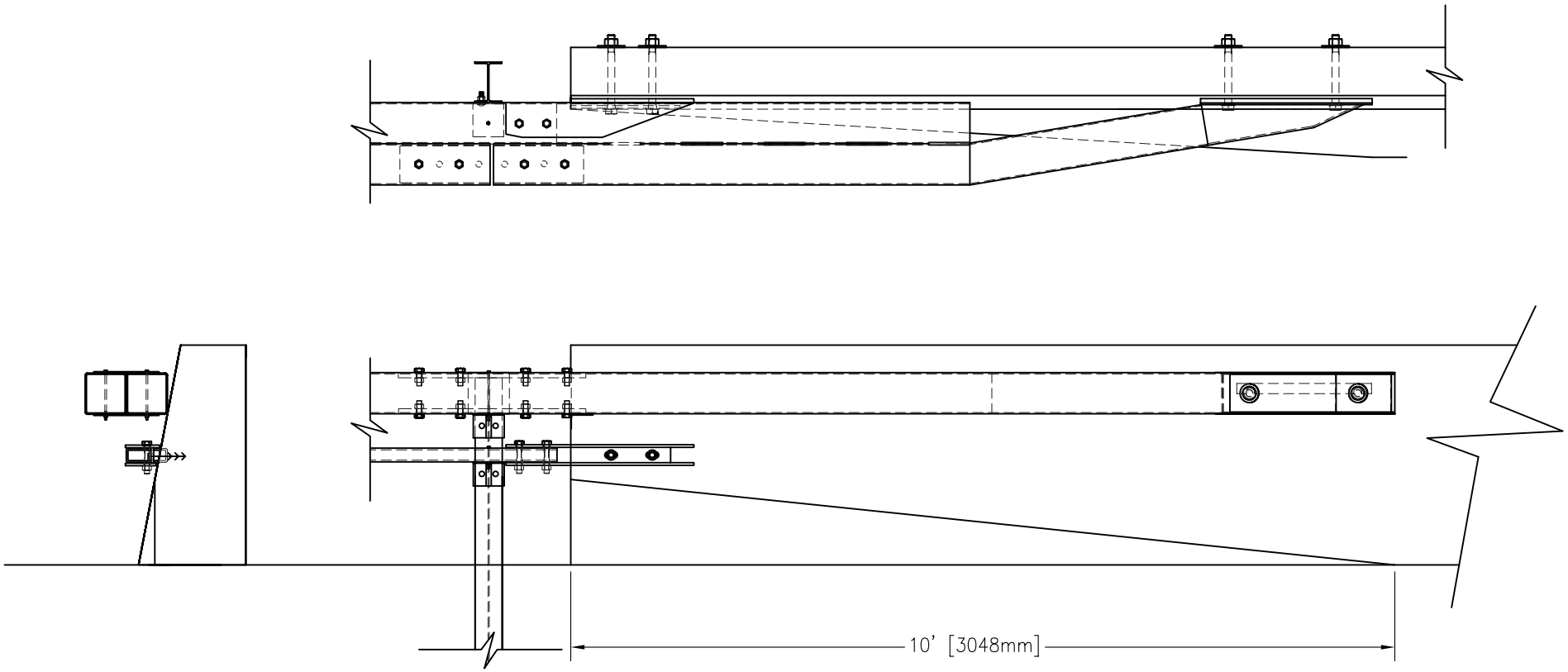
By: JRR

Rev: 0



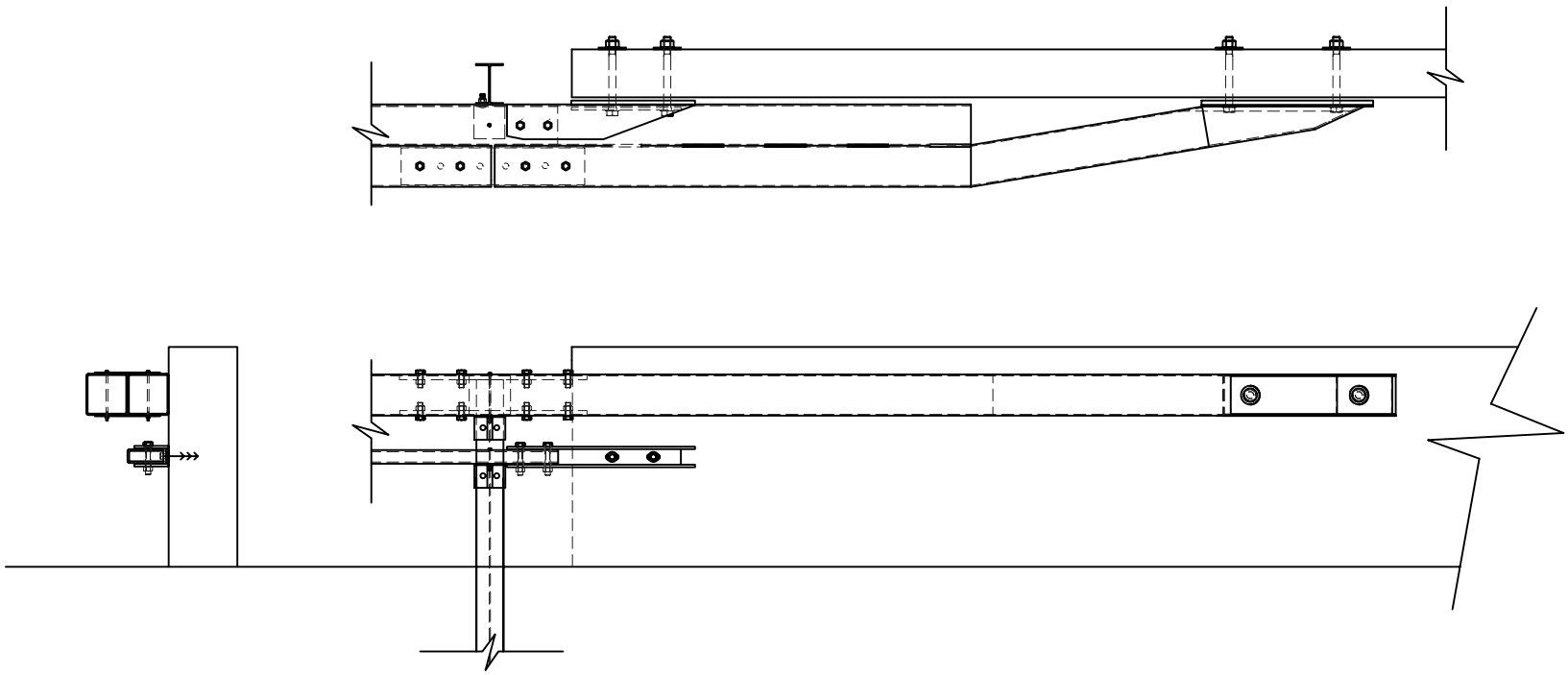
SAFETY SHAPE & F-SHAPE

Midwest Roadside Safety Facility	Box-Beam Guardrail to Concrete Barrier Transition Jersey and F-Shape Attachment Detail	Sheet: 107JF
		Date: 1/13/06
		By: JRR
	Drawing Name: WY BoxBeam Transition / Scale: NONE	Rev: 0



SINGLE SLOPE

MwRSF Midwest Roadside Safety Facility	Box-Beam Guardrail to Concrete Barrier Transition Single Slope Attachment Detail		Sheet: 107SS Date: 1/13/06 By: JRR
	Drawing Name: WY BoxBeam Transition	Scale: NONE	Rev: 0



VERTICAL PARAPET

Midwest Roadside Safety Facility	Box-Beam Guardrail to Concrete Barrier Transition Vertical Shape Attachment Detail	Sheet: 107V
		Date: 1/13/06
		By: JRR
	Drawing Name: WY BoxBeam Transition / Scale: NONE	Rev: 0