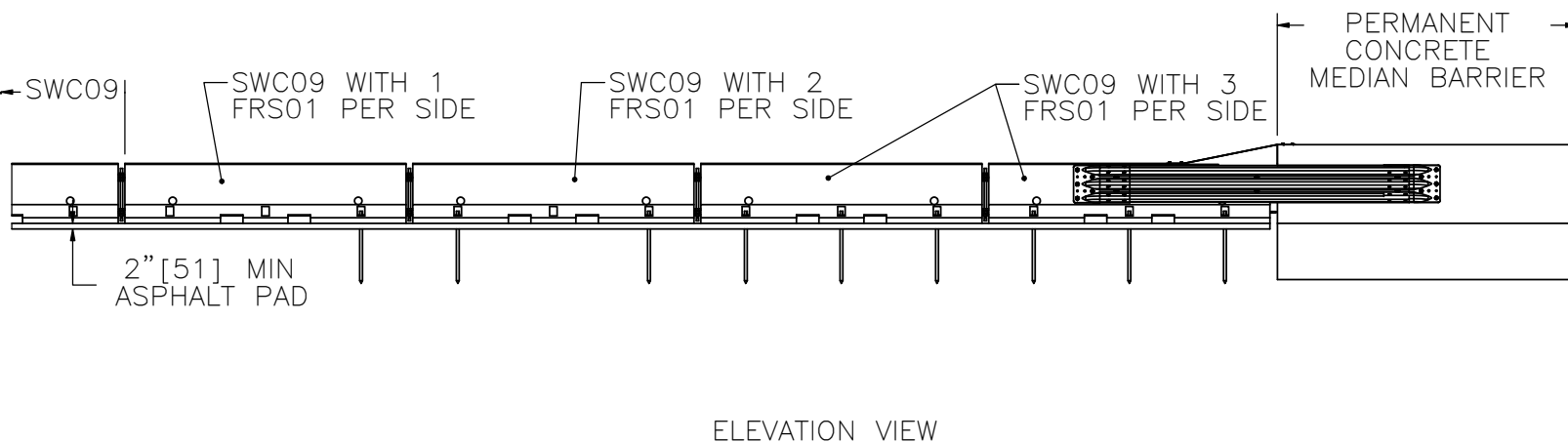
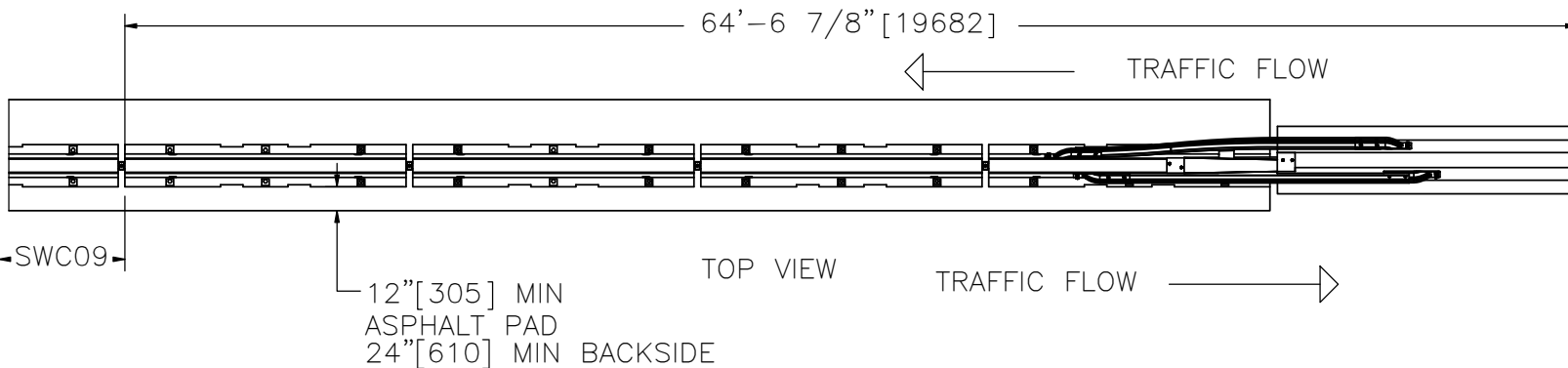




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INTENDED USE

The Portable Concrete Median Barrier Transition system should be used where an F-shape portable concrete barrier system, placed on a 2" [51] min. thick asphalt pad, is placed adjacent and end-on to a permanent concrete median barrier system and where a transition is needed. The maximum dynamic deflection of this transition is 2.6 in. [67] with a working width of 24 7/8 in. [632]. The portable barriers should be anchored with 6 FRS01 driven pins in the first two portable barriers closest to the permanent barrier system, 4 FRS01 driven pins in the third portable barrier placed in the upstream and downstream holes, and 2 FRS01 driven pins in the fourth portable barrier placed on the upstream end of the portable barrier. The Portable Concrete Median Barrier Transition has been crash tested under TL-3 conditions using test designation 3-11, and its safety performance was found acceptable according to the MASH criteria.

COMPONENTS

Unit Length = 64'-6 7/8" [19682]

DESIGNATOR	COMPONENT	NUMBER
----	Permanent Concrete Barrier	-
FRS01	Driven Pins	18
RTE01b	Thrie-Beam Terminal Connector	4
FBX02	Powers Fasteners Wedge-Bolt D3/4" [19]x6" [152] long	20
FMW02	Portable Concrete Barrier Connector Pin	3
RTM02a	Thrie Beam 12.5 ft long-12 Gauge	4
FBB01	D5/8" [16] x 1 1/2 [38] long Guardrail Bolt and Nut	48
PDB19	TCBT Blockout	1
FMM08	RedHead Multi-Set II Drop-In Anchor D3/4" [19]	4
FBX20a	Hex Bolt D3/4" [19]-10x5 1/2" [140]x1 3/8" [35]	2
FBX20a	Hex Bolt D3/4" [19]-10x1 3/4" [44]x1 3/8" [35]	2
FBX01	Powers Fasteners Wedge-Bolt D5/8" [16]x4" [102] long	4
RET01	TCBT Cap	1
FWC20a	Plain Round Washer D7/8" [22]	4
SWC09	Portable F-Shape Concrete Barrier Element	4

ACCEPTANCE

FHWA Letter B-41A, August 19, 2011.

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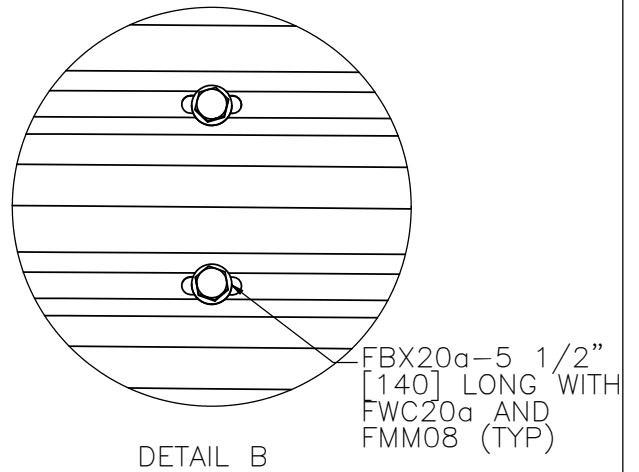
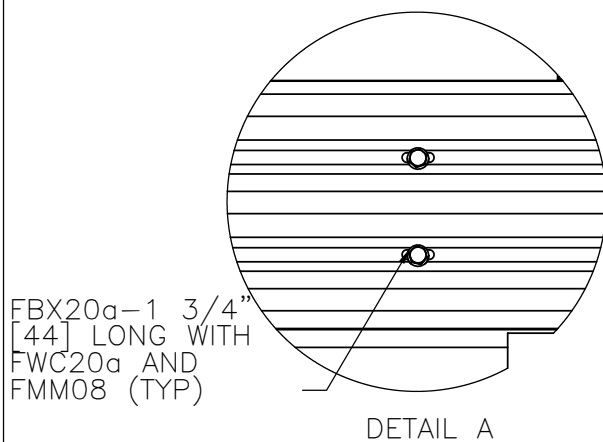
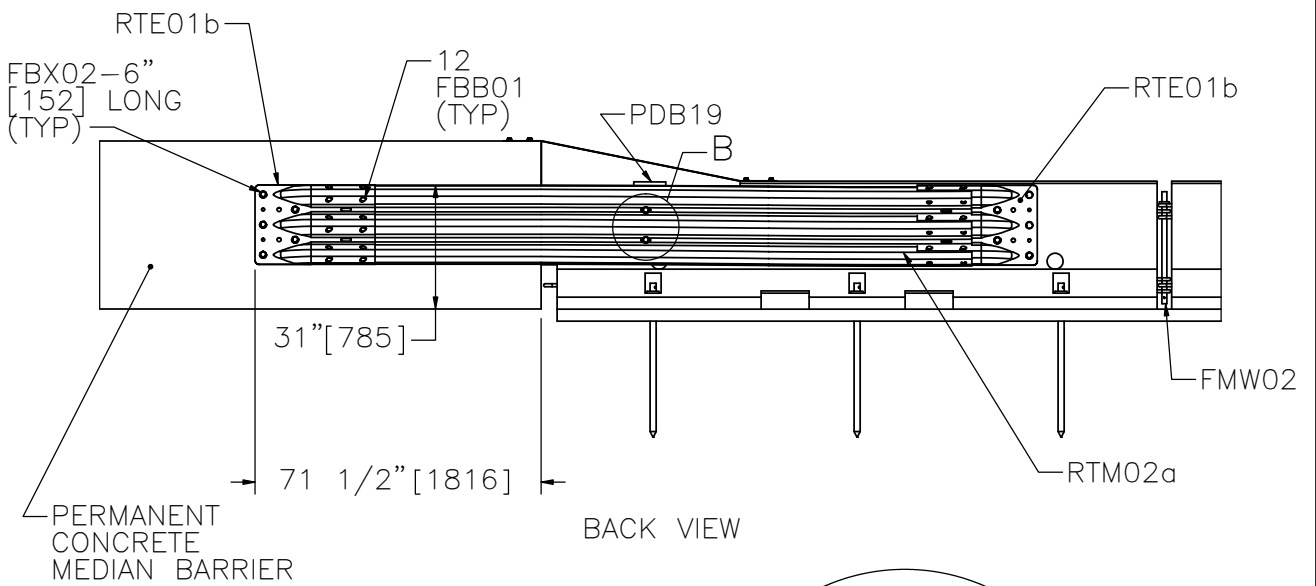
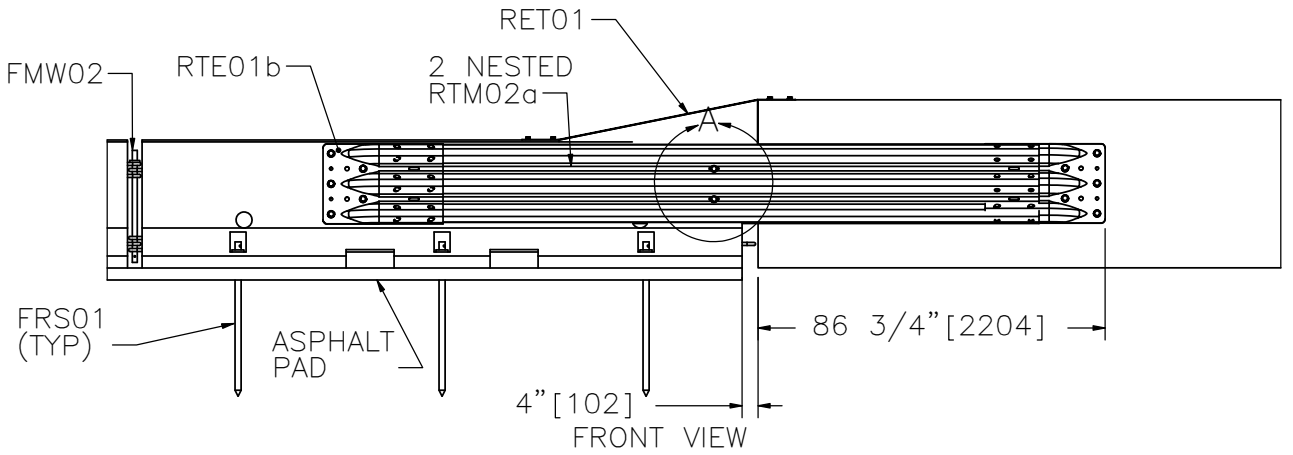


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Wiebelhaus, M.J., Terpsma, R.J., Lechtenberg, K.A., Reid, J.D., Faller, R.K., Bielenberg, R.W., Rohde, J.R., and Sicking, D.L., *Development of a Temporary Concrete Barrier to Permanent Concrete Median Barrier Approach Transition*, Final Report to the Midwest State's Regional Pooled Fund Program, Transportation Research Report No. TRP-03-208-10, Project No. SPR-03(017)-Year 16, Project Code: RFPF-06-07 and 06-09, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, July 15, 2010.

Bielenberg, R.W., Rosenbaugh, S.K., Reid, J.D., Faller, R.K., Lechtenberg, K.A., and Sicking, D.L., *Termination and Transition of Temporary Concrete Barrier*, Paper No. 10-0431, Presented at the Annual Meeting of the Transportation Research Board and Published in the Compendium of Papers CD-ROM, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, Washington D.C., January 2010.

Bielenberg, R.W., Rosenbaugh, S.K., Faller, R.K., Reid, J.D., and Lechtenberg, K.A, *Transition of Temporary Concrete Barrier*, Journal of Transportation Safety & Security, Taylor & Francis, Volume 4, Number 2, April 2012, pages 137-159.

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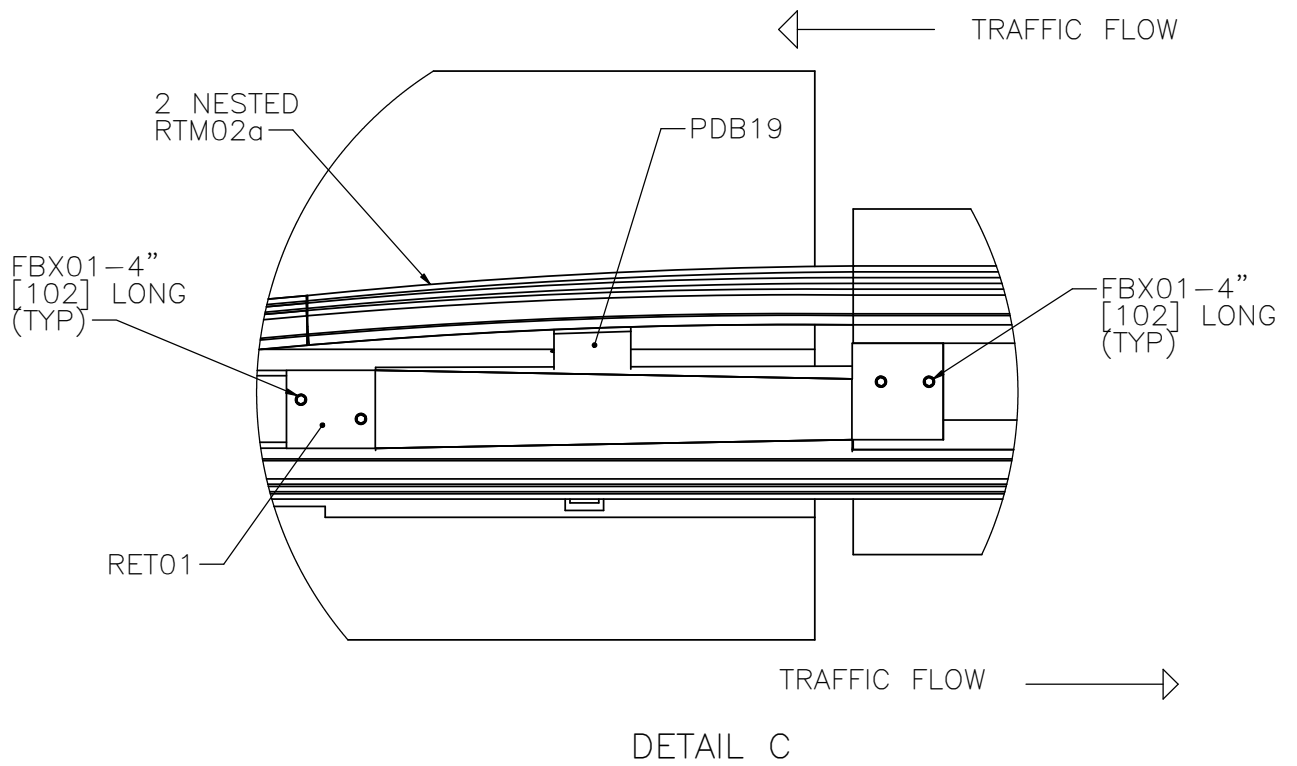
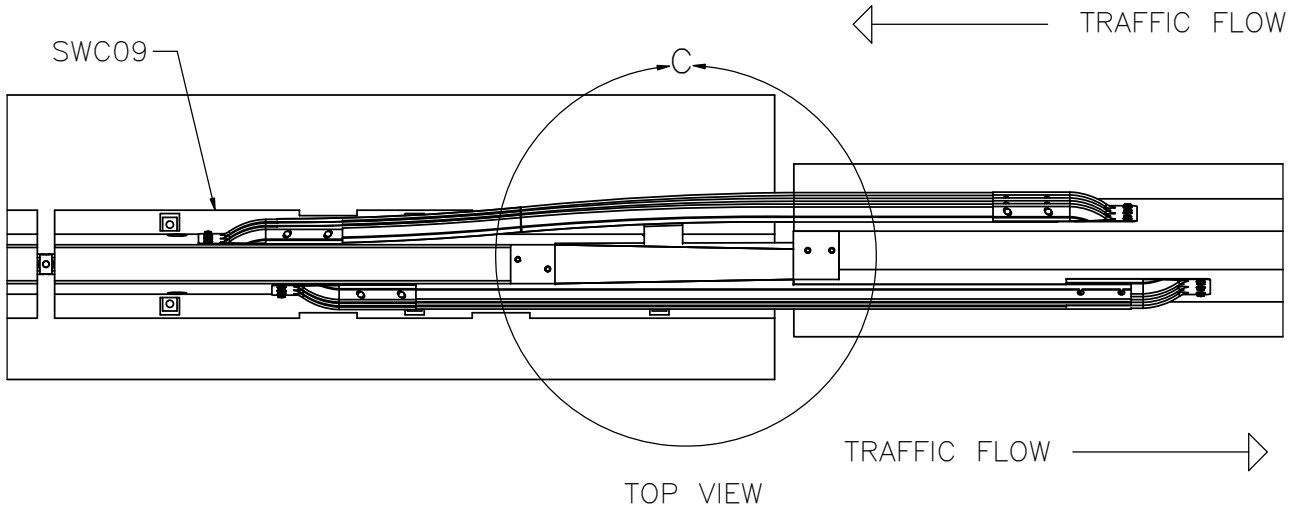


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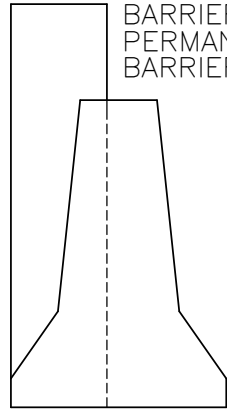
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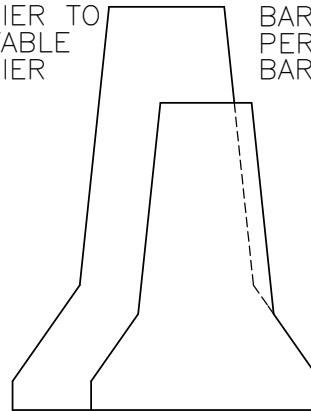
TRAFFIC FROM
PERMANENT
BARRIER TO
PORTABLE
BARRIER



VERTICAL PARAPET

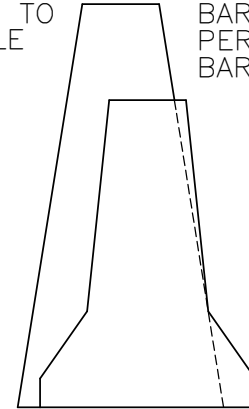
TRAFFIC FROM
PORTABLE
BARRIER TO
PERMANENT
BARRIER

TRAFFIC FROM
PERMANENT
BARRIER TO
PORTABLE
BARRIER



SAFETY SHAPE

TRAFFIC FROM
PERMANENT
BARRIER TO
PORTABLE
BARRIER



SINGLE SLOPE

TRAFFIC FROM
PORTABLE
BARRIER TO
PERMANENT
BARRIER

TRAFFIC FROM
PORTABLE
BARRIER TO
PERMANENT
BARRIER

NOTE: THE 32" [813] TEMPORARY F-SHAPED BARRIER IS SHOWN AS THE FRONT BARRIER.

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Guidelines for attaching to permanent concrete median barriers besides the CA single-slope median barrier:

1. If the permanent median barrier is 32 in. (813 mm) high, the sloped, steel transition cap is not required for the transition. For barriers with heights greater than 32 in. (813 mm), the steel transition cap is required. The cap design can be adjusted for different height and shape barriers as long as adjusted cap provides equivalent slope, permanent barrier coverage, barrier overlap, structural capacity, and anchorage as the original design.
2. Alignment of the temporary barrier system with the permanent barrier may also change when the transition is applied to different permanent barrier geometries. When attaching to a single-slope barrier profile, the slope break point between the toe of the barrier and the main face of the barrier should be aligned flush with the oncoming traffic side of the single-slope barrier. For safety shape barriers, the toe of the temporary barrier should be aligned flush with the toe of the oncoming traffic side of the median barrier. Vertical median barriers require that the toe of the temporary barrier segments on the reverse direction traffic side be aligned with the base of the permanent barrier on the reverse direction traffic side. These alignments will prevent vehicle snag for oncoming traffic on the permanent median barrier while preventing snag on the toe of the barrier for reverse direction impacts.
3. The thrie beam sections that span the gap between the end of the temporary barrier and the permanent median barrier should be used in all instances except when the transition leads into the bolt-through tie-down system or the asphalt pin tie-down system are applied.

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