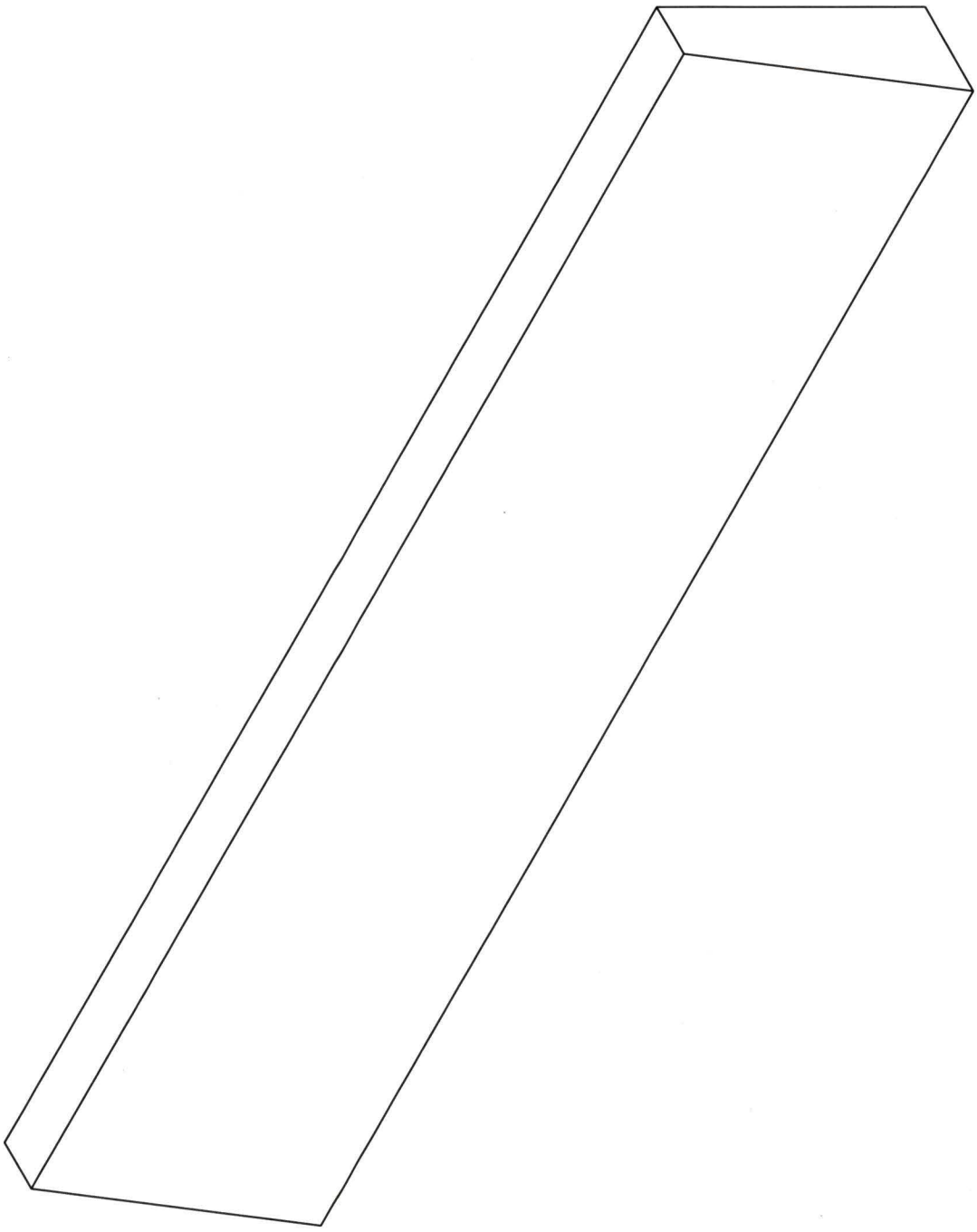

ISOMETRIC VIEW

MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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INTENDED USE

The Manitoba constrained-width, tall wall roadside barrier is a non-proprietary system. The concrete used for the Manitoba constrained-width, tall wall barrier should have a minimum compressive strength of 6.5 ksi [45 MPa]. The Manitoba constrained-width, tall wall roadside barrier was designed for use on foundation slab (option a-b), concrete footing (option a-b), or bridge deck (option c). Option c should be attached to a bridge deck with a minimum bending strength of 25.7 kip-ft per ft [114.3 kN-m per m]. A transition design between the Manitoba constrained-width, tall wall median barrier and dual Manitoba constrained-width, tall wall roadside barriers exists and is located in the report *Development of the Manitoba Constrained-Width, Tall Wall Barrier.* The Manitoba constrained-width, tall wall roadside barrier is intended to be used in locations where a maximum dynamic deflection of 2 in. [51 mm] at the top of the barrier or less is acceptable and where a working width of 37.4 in. [949 mm] is provided. The Manitoba constrained-width, tall wall roadside barrier has been crash tested under Test Level 5 (TL-5) conditions for test designation no. 5-12 and deemed acceptable according to the Manual for Assessing Safety Hardware (MASH) performance criteria.

COMPONENTS

Unit Length = 157½" [4000]

DESIGNATOR	COMPONENT	SYSTEM	NUMBER
-	See Bill of Bars	-	-

ELIGIBILITY

FHWA Eligibility will be pursued.

REFERENCES

Rosenbaugh, S.K., Schmidt, J.D., Regier, E.M., and Faller, R.K., *Development of the Manitoba Constrained-Width, Tall Wall Barrier,* Final Report to Manitoba Infrastructure, Transportation Research Report No. TRP-03-356-16, Project No. 2015-17-TE, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, September 26, 2016.

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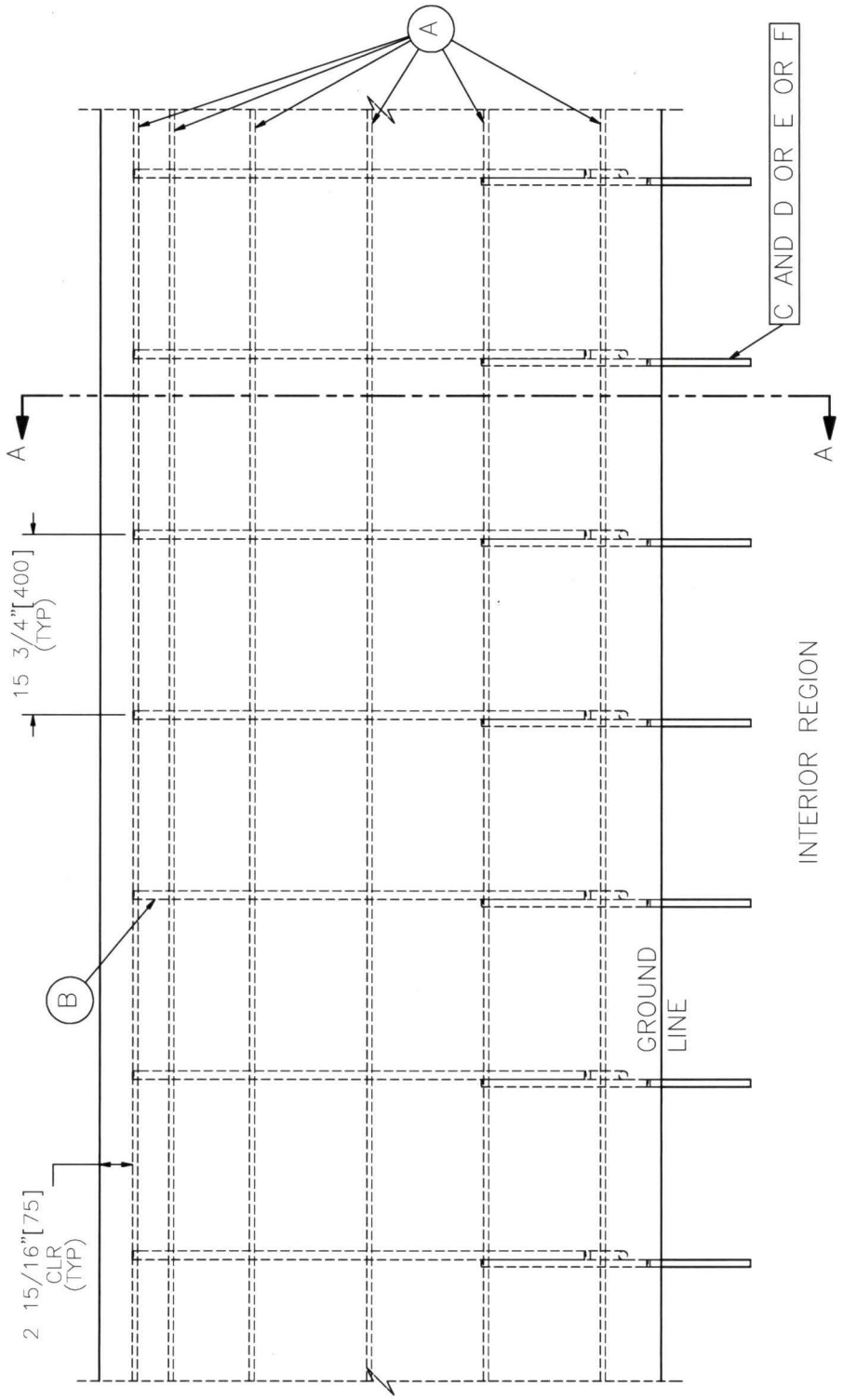

NOTES:
(1) A MINIMUM OVERLAP OF 24" [610] IS TO BE USED FOR ALL LONGITUDINAL REBAR.
(2) END SECTION REINFORCEMENT SPACING OF BAR B IS 7 7/8" [200] INSTEAD OF 15 3/4" [400] AND SHOULD EXTEND FOR A MINIMUM LENGTH OF 109 5/8" [2785] ADJACENT TO DISCONTINUITIES.

MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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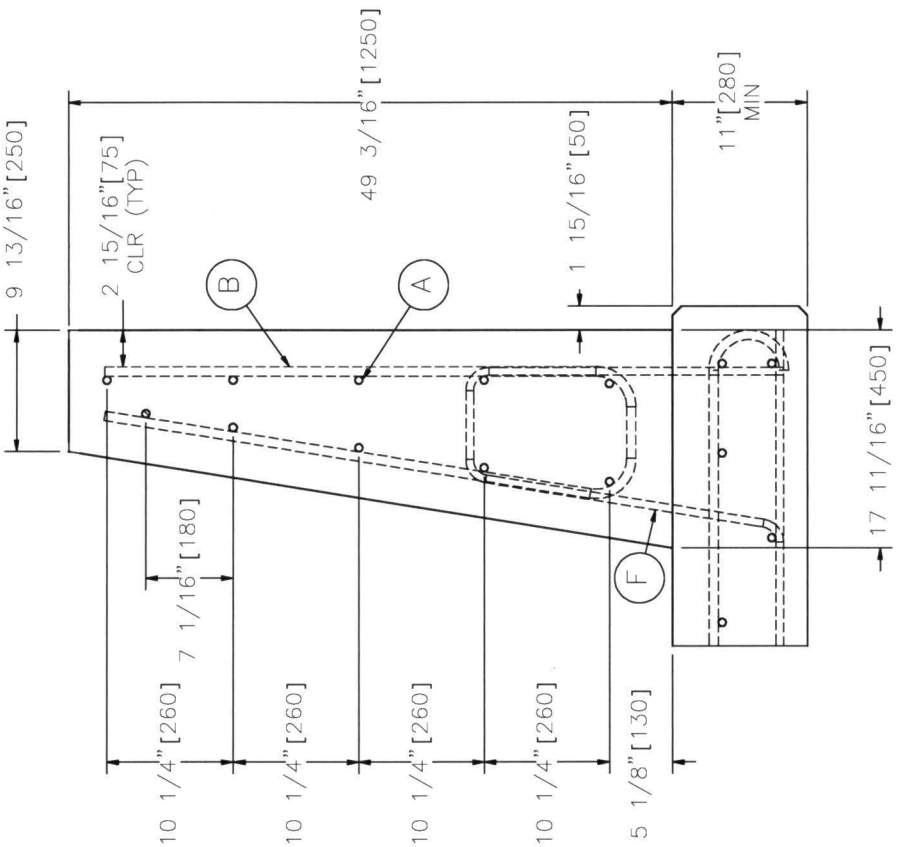
SECTION A–A
OPTION A

SECTION A–A
OPTION B

NOTE: 2 15/16" [75] CLEAR COVER FOR ALL REBAR.



SECTION A–A
OPTION C
ANCHORAGE FOR BRIDGE DECK

NOTE: 2 15/16" [75] CLEAR COVER FOR ALL REBAR.

MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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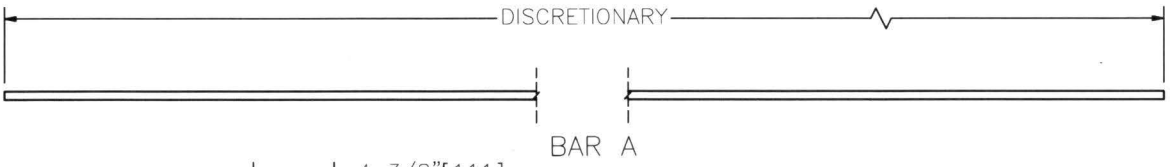
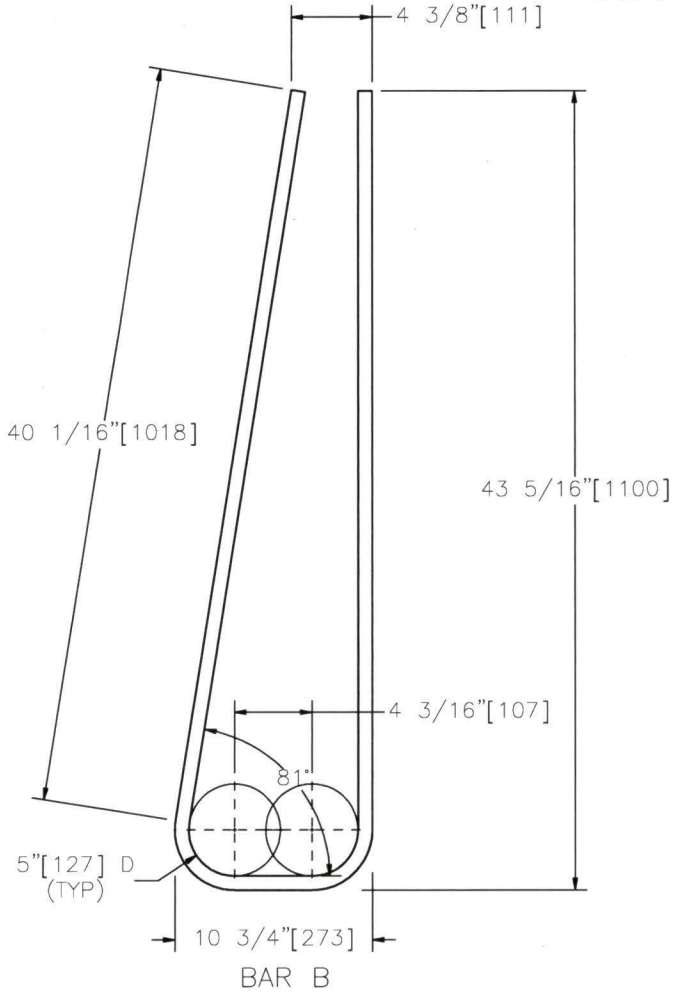
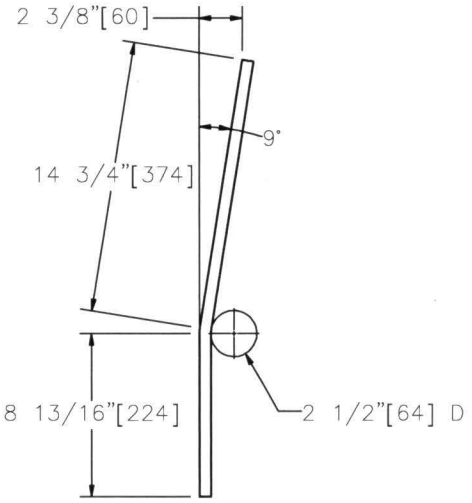


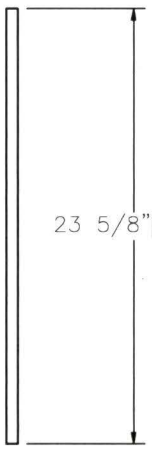
BAR A



BAR B



BAR C



BAR D

* TOTAL LENGTH OF LONGITUDINAL REBAR SHOULD ALLOW FOR A MINIMUM OF 2 15/16" [75] OF COVER AT THE ENDS. LENGTH OF LONGITUDINAL BAR IS UP TO THE USER AS LONG AS LENGTH IS ADDED FOR THE NUMBER OF CORRESPONDING LAPS WITH A MINIMUM LAP OF 24" [610].

BAR	SYSTEM	QUANTITY	SIZE	LENGTH	MATERIAL
A	a–c	10	15M	*	CANADIAN METRIC GR. 400W
B	a–c	10	20M	93 7/8" [2,384]	CANADIAN METRIC GR. 400W
C	a	20	15M	23 13/16" [605]	CANADIAN METRIC GR. 400W
D	a	20	15M	23 5/8" [600]	CANADIAN METRIC GR. 400W

MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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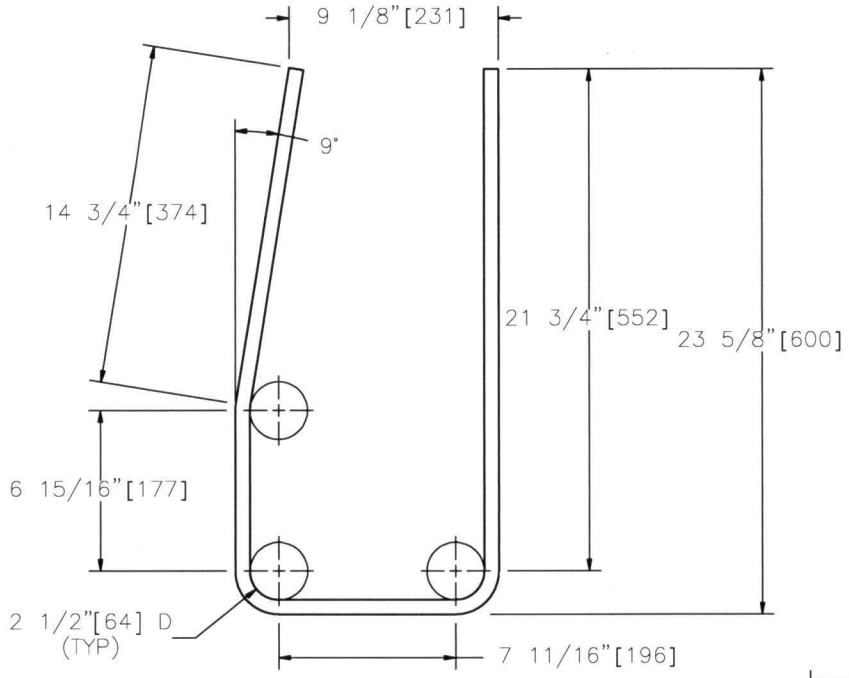
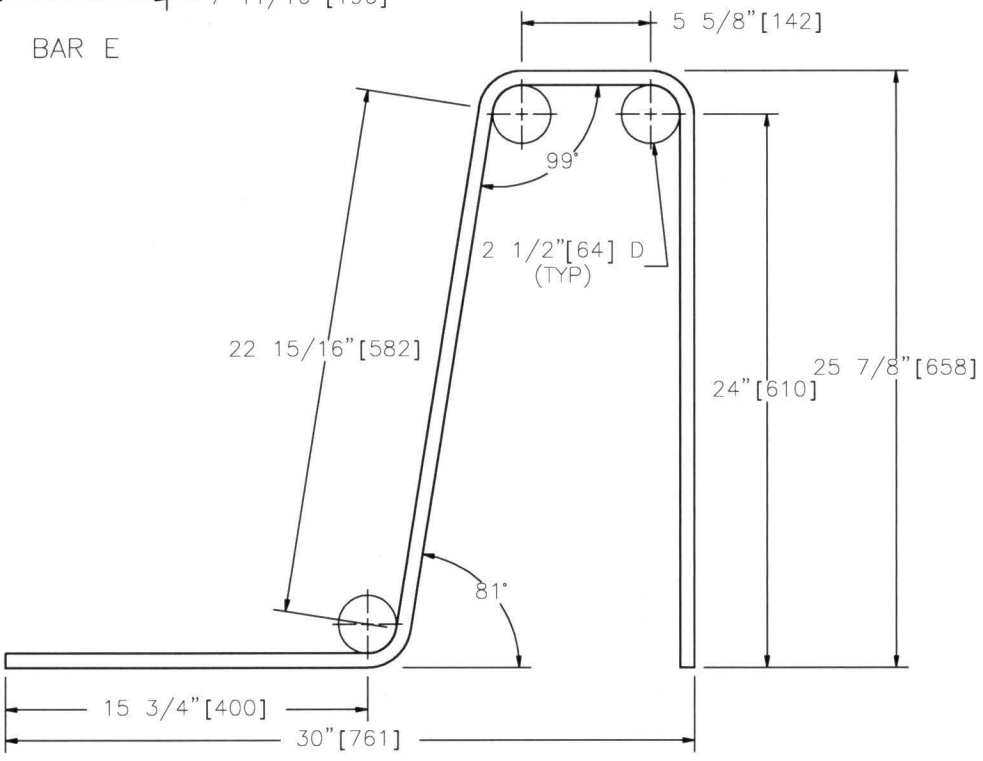


BAR E



BAR F

BAR	SYSTEM	QUANTITY	SIZE	LENGTH	MATERIAL
E	b	10	15M	56 5/16" [1,430]	CANADIAN METRIC GR. 400W
F	c	10	15M	75 3/16" [1,910]	CANADIAN METRIC GR. 400W

MANITOBA CONSTRAINED-WIDTH, TALL WALL - ROADSIDE

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