


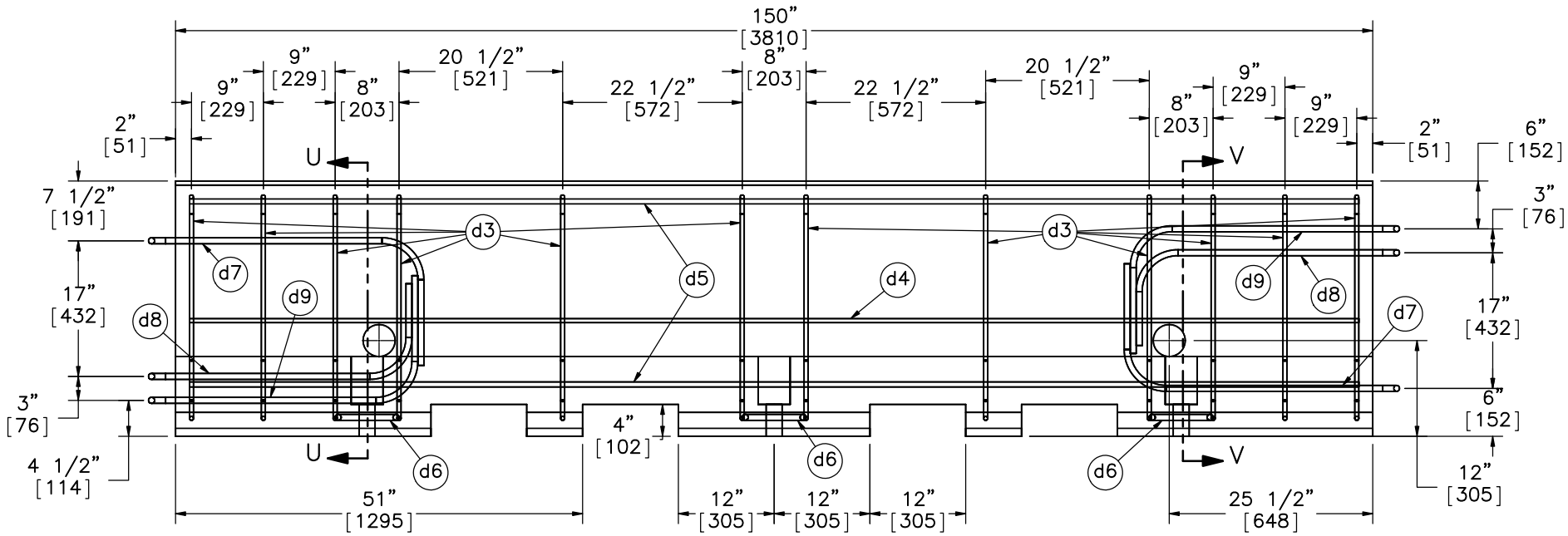
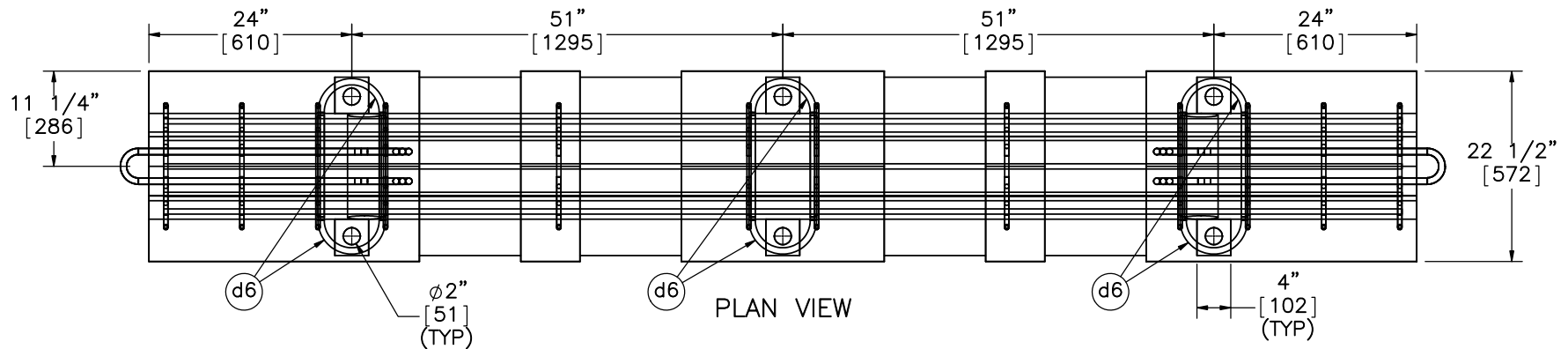
PLAN VIEW



ELEVATION VIEW

- Notes: (1) Test shall be performed according to test designation no. 3–35 of MASH criteria.
- (2) Impact point is 51 3/16" (1.3 m) upstream from the centerline of the joint between barrier nos. 3 and 4.
- (3) The ends of the barrier should be pulled until there is no slack in the joints.

 Midwest Roadside Safety Facility	NDOR PCB LON Test 1		SHEET: 1 of 6
	System Layout		DATE: 4/3/2017
DWG. NAME: NDORPCB_LON_R5	SCALE: 1:150 UNITS: in.[mm]	REV. BY: KAL/RWB	DRAWN BY: EMR/TJD/JE K



Part d1

Note: (1) Concrete has minimum 28-day compressive strength of 5000 psi (34.5 MPa).



Midwest Roadside Safety Facility

NDOR PCB LON Test 1

Portable Concrete Barrier

DWG. NAME: NDORPCB_LON_R5

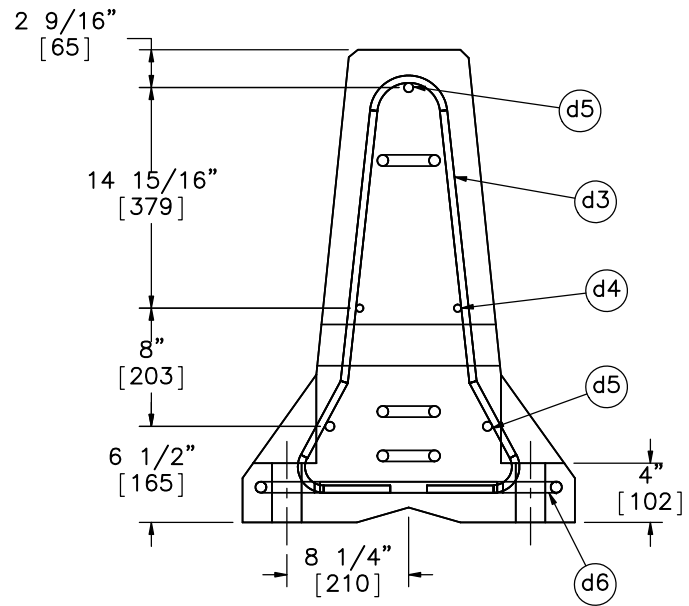
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UNITS: in.[mm]

SHEET: 2 of 6

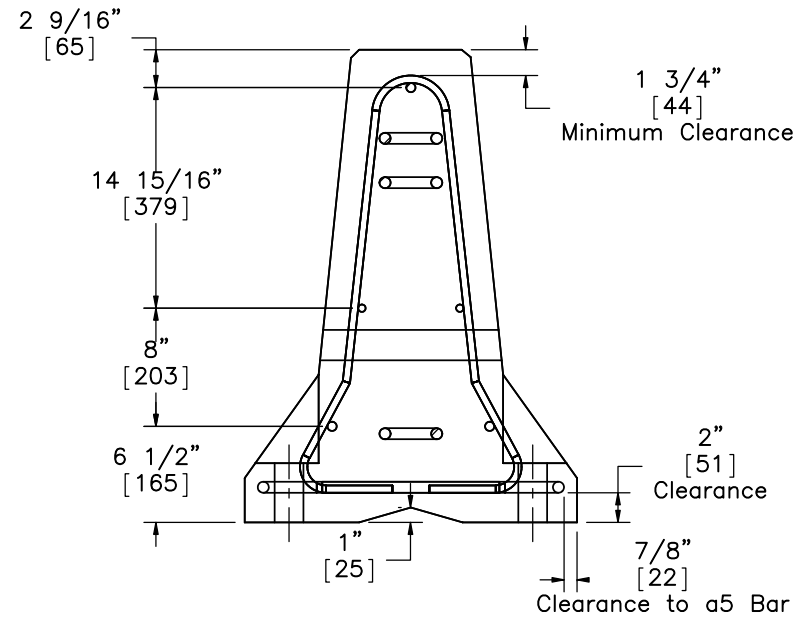
DATE: 4/3/2017

DRAWN BY: EMR/TJD/JE K

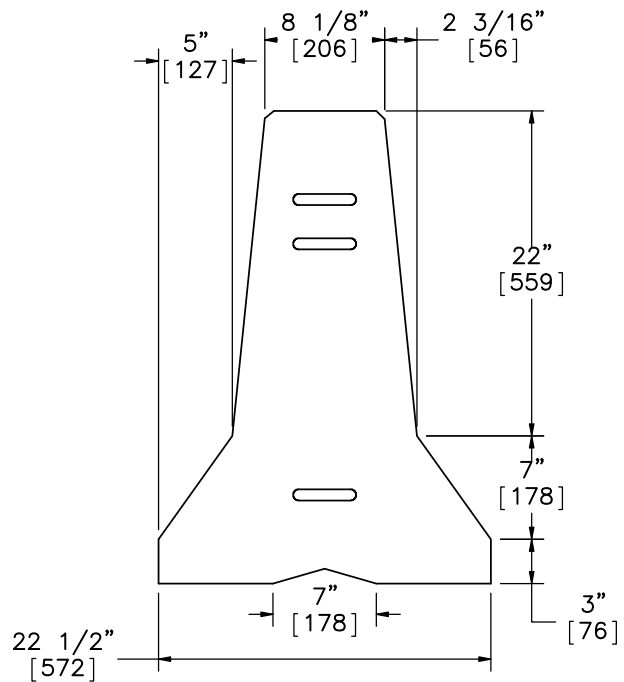
REV. BY: KAL/RWB



SECTION U-U



SECTION V-V



PROFILE VIEW



Midwest Roadside
Safety Facility

NDOR PCB LON
Test 1

Portable Concrete Barrier
Profile Detail

DWG. NAME:
NDORPCB_LON_R5

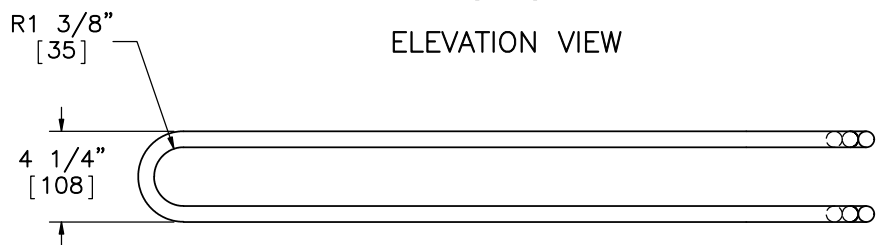
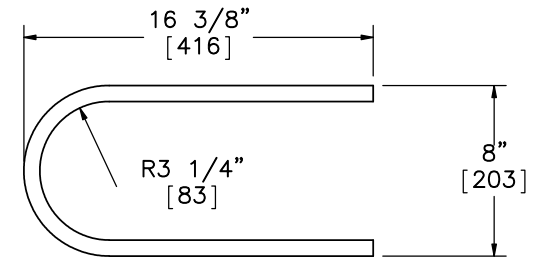
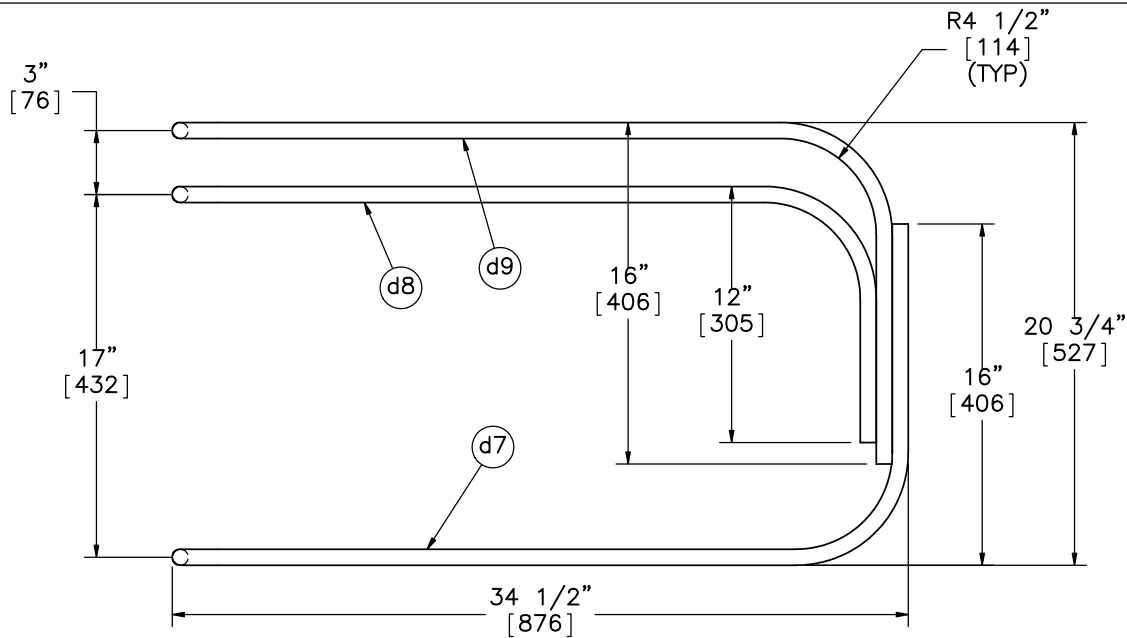
SCALE: 1:13
UNITS: in.[mm]

SHEET:
3 of 6

DATE:
4/3/2017

DRAWN BY:
EMR/TJD/JE
K

REV. BY:
KAL/RWB



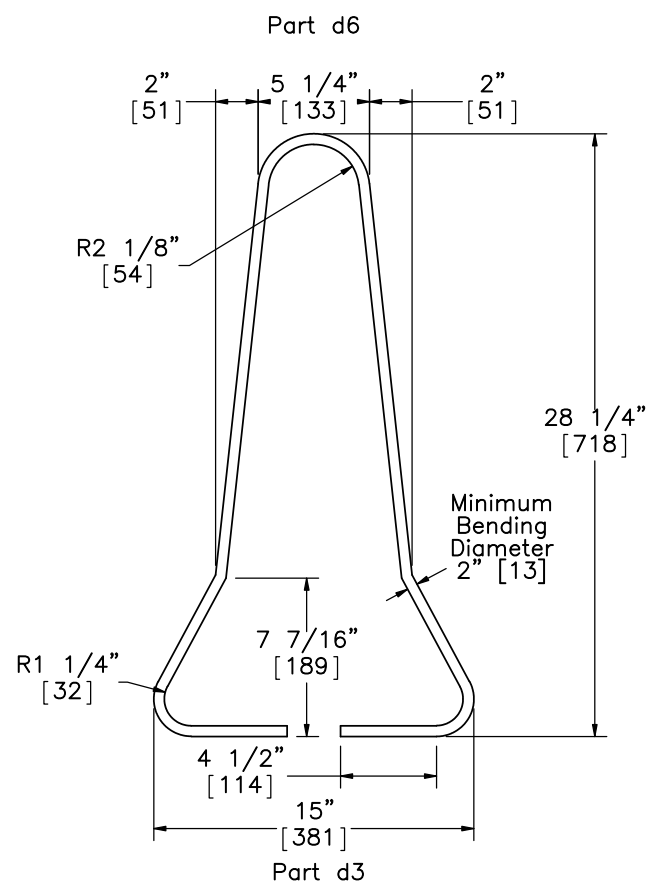
ELEVATION VIEW

PLAN VIEW
Loop Bar Assembly

Notes: (1) The steel shall be zinc-coated (galvanized) as specified below or epoxy coated to Nebraska standards.


Zinc-coated (galvanized steel bars shall meet the requirements of ASTM A123, (coating grade 100, minimum coating - 2.30 oz. per square foot). The bars shall be fabricated prior to galvanizing. The procedures of ASTM A143 shall be observed as applicable. All zinc coating damage due to fabrication or handling shall be repaired with a zinc dust (zinc-rich) formulation in accordance with ASTM A780.

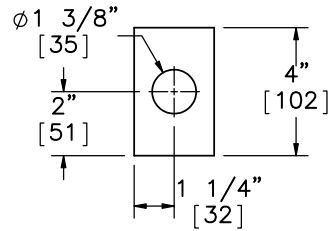
(2) Use epoxy coated steel for loop bars for crash testing.



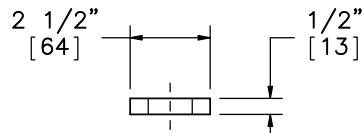
Part d6

Part d3

 Midwest Roadside Safety Facility	NDOR PCB LON Test 1	SHEET: 4 of 6
	Bill of Bars - Portable Concrete Barriers	DATE: 4/3/2017
DWG. NAME: NDORPCB_LON_R5	SCALE: 1:9 UNITS: in.[mm]	DRAWN BY: EMR/TJD/JE K
		REV. BY: KAL/RWB

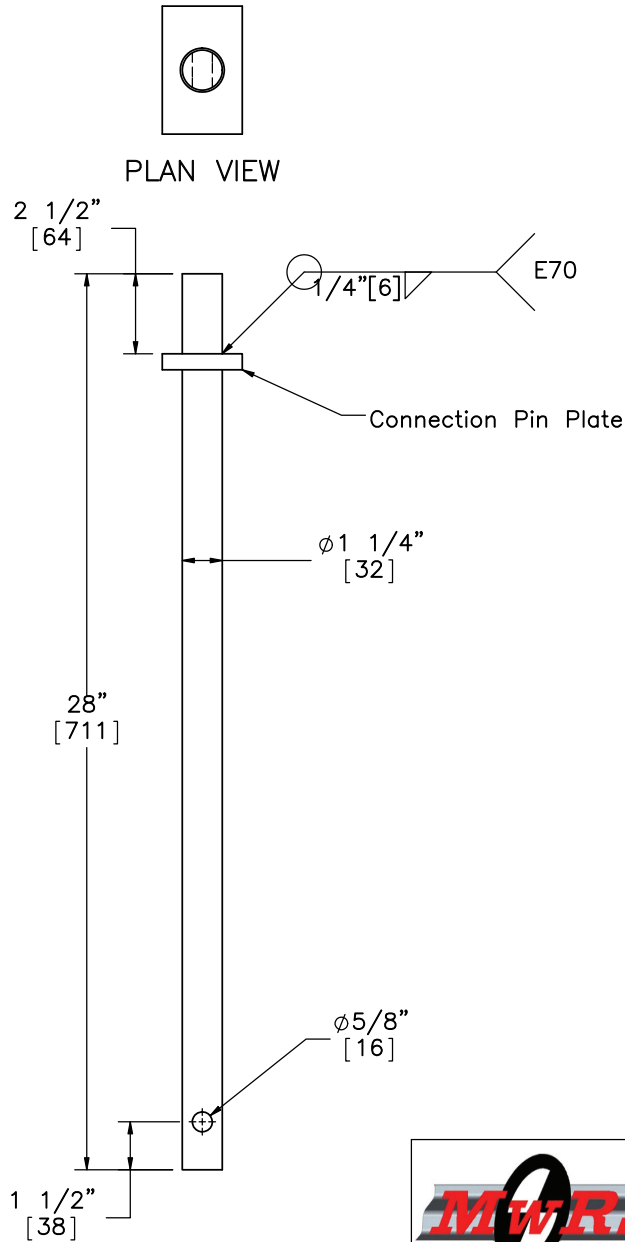


PLAN VIEW



ELEVATION VIEW

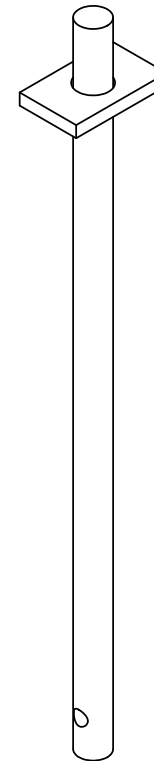
Connection Pin Plate



PLAN VIEW

ELEVATION VIEW

Part d2



ISOMETRIC VIEW



Midwest Roadside Safety Facility

NDOR PCB LON
Test 1

Connection Pin Detail

DWG. NAME:
NDORPCB_LON_R5

SCALE: 1:6
UNITS: in.[mm]

SHEET:
5 of 6

DATE:
4/3/2017

DRAWN BY:
EMR/TJD/JE
K

REV. BY:
KAL/RWB

Item No.	QTY.	Description	MaterialSpec	Hardware Guide
d1	8	NDOR Portable Concrete Barrier	min f'c=5000 psi [34.5 MPa]	SWC09
d2	7	1 1/4" [32] Dia., 28" [711] Long Connector Pin	ASTM A36	FMW02
d3	96	1/2" [13] Dia., 72" [1829] Long Form Bar	ASTM A615 Grade 60	-
d4	16	1/2" [13] Dia., 146" [3708] Long Longitudinal Bar	ASTM A615 Grade 60	-
d5	24	5/8" [16] Dia., 146" [3708] Long Longitudinal Bar	ASTM A615 Grade 60	-
d6	48	3/4" [19] Dia., 36" [914] Long Anchor Loop Bar	ASTM A615 Grade 60, Epoxy Coated or Galvanized	-
d7	16	3/4" [19] Dia., 102" [2591] Long Connection Loop Bar	ASTM A709 Grade 70 or A706 Grade 60, Epoxy Coated or Galvanized	-
d8	16	3/4" [19] Dia., 91" [2311] Long Connection Loop Bar	ASTM A709 Grade 70 or A706 Grade 60, Epoxy Coated or Galvanized	-
d9	16	3/4" [19] Dia., 101" [2565] Long Connection Loop Bar	ASTM A709 Grade 70 or A706 Grade 60, Epoxy Coated or Galvanized	-



Midwest Roadside
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NDOR PCB LON
Test 1

Bill of Materials

DWG. NAME.
NDORPCB_LON_R5

SCALE: None
UNITS: in.[mm]

SHEET:
6 of 6

DATE:
4/3/2017

DRAWN BY:
EMR/TJD/JE
K

REV. BY:
KAL/RWB

Revision History

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVIEWER	REVISED BY
0	9/24/2015	–	Made NDORPCB_LON using PCB–MGS_Trans_R12	–	EMR
1	10/1/2015	–	Updated and corrected blocks.	KAL	EMR
		1	Notes deleted. Notes added. Dimension for placement of impact location.		
		2	Note edit.		
		5	Note added.		
		6	Note deleted.		
		7	Revision History table sheet added.		
2	10/6/2015	2	Note edit.	RWB	EMR
		4	Note added.		
		6	Material specifications edit.		
3	10/13/2015	4	Note edits.	KAL/RWB	EMR
4	3/4/2016	1	Reversed barrier numbering and impact point to match test conditions. Updated test designation in notes. Changed barrier from Kansas to Nebraska f–type.	KAL	TJD
		6	Updated bill of materials.		
5	4/3/2017	4	Note 1 edit. (typo)	–	JEK