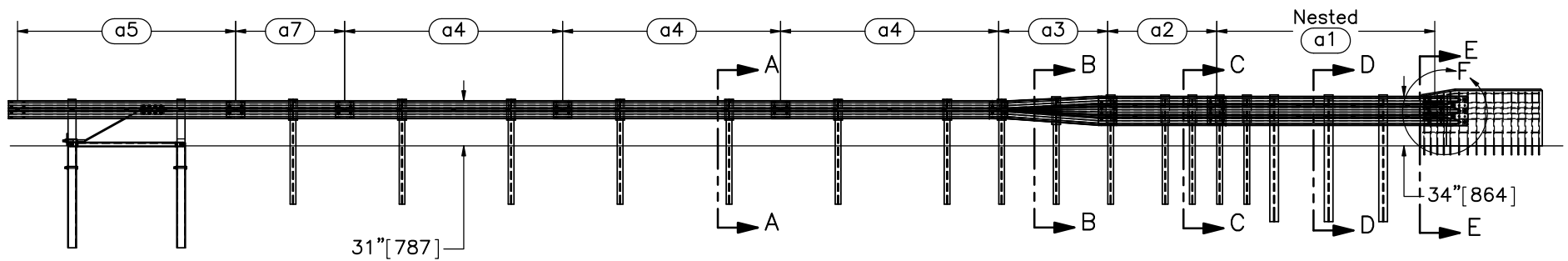


PLAN VIEW



ELEVATION VIEW

- Notes: (1) Test shall be performed according to MASH test designation no. 3-21.
 (2) The impact location is 89" [2261] upstream of the buttress or 26" [660] upstream of the centerline of post no. 18.
 (3) BCT anchors are placed in 3' [914] diameter holes, then backfilled and tamped with soil.
 (4) Critical region is located between post nos. 12 and 19.
 (5) The upstream end of part a3 is rotated upward 3/4" [19] to accommodate the 31" [787] MGS guardrail height.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

System Layout

DWG. NAME:
Thrie_Buttruss-1_R6

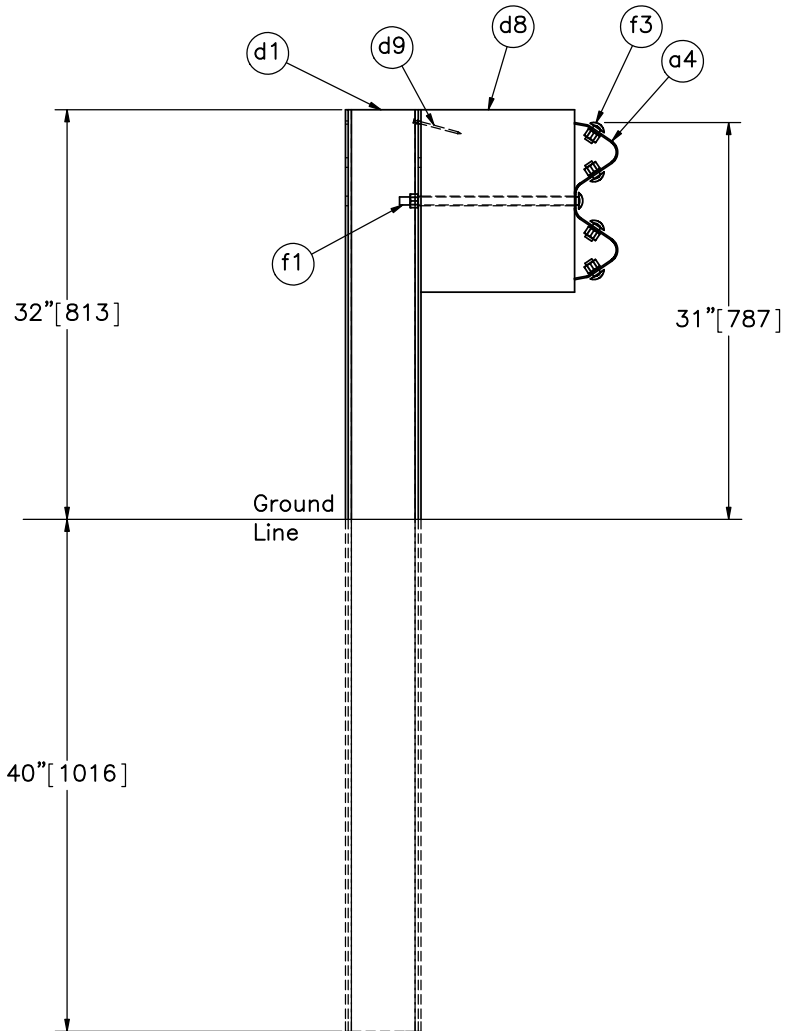
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SHEET:
1 of 23

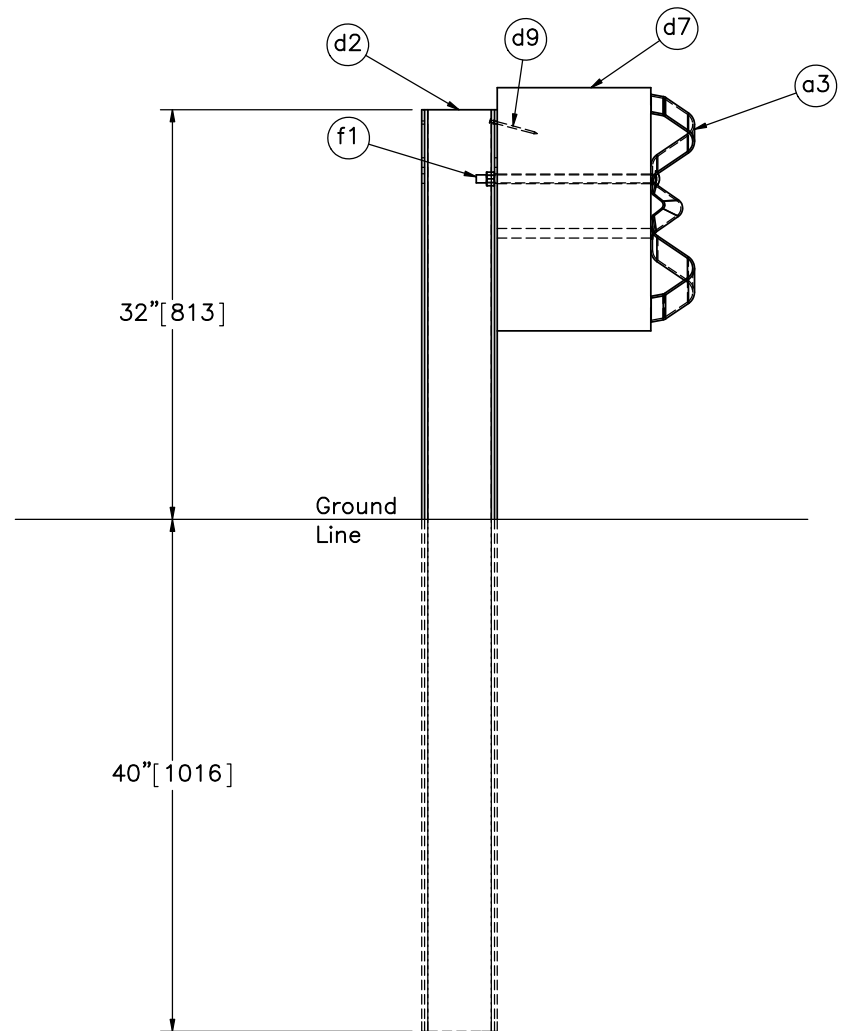
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



SECTION A-A
Post Nos. 3-10



SECTION B-B
Post No. 11

Note: (1) No bolt placed in lower hole of post no. 11.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Post Nos. 3-11 Details

DWG. NAME.
Thrie_Buttress-1_R6

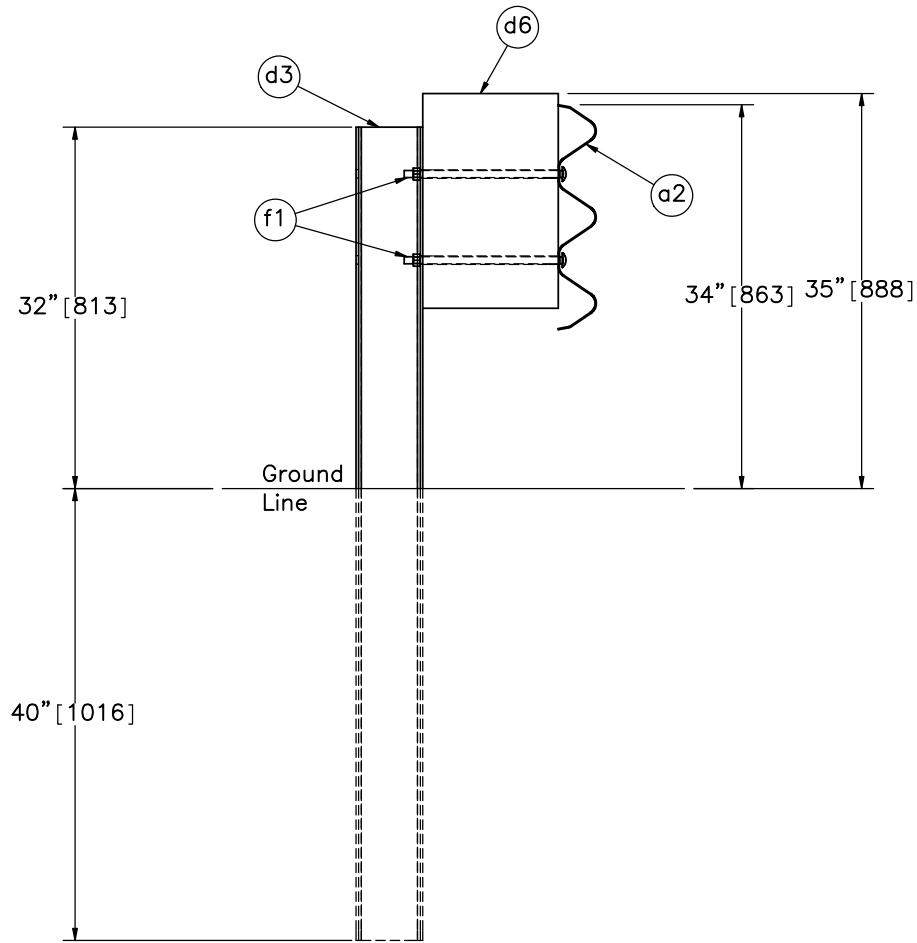
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SHEET:
2 of 23

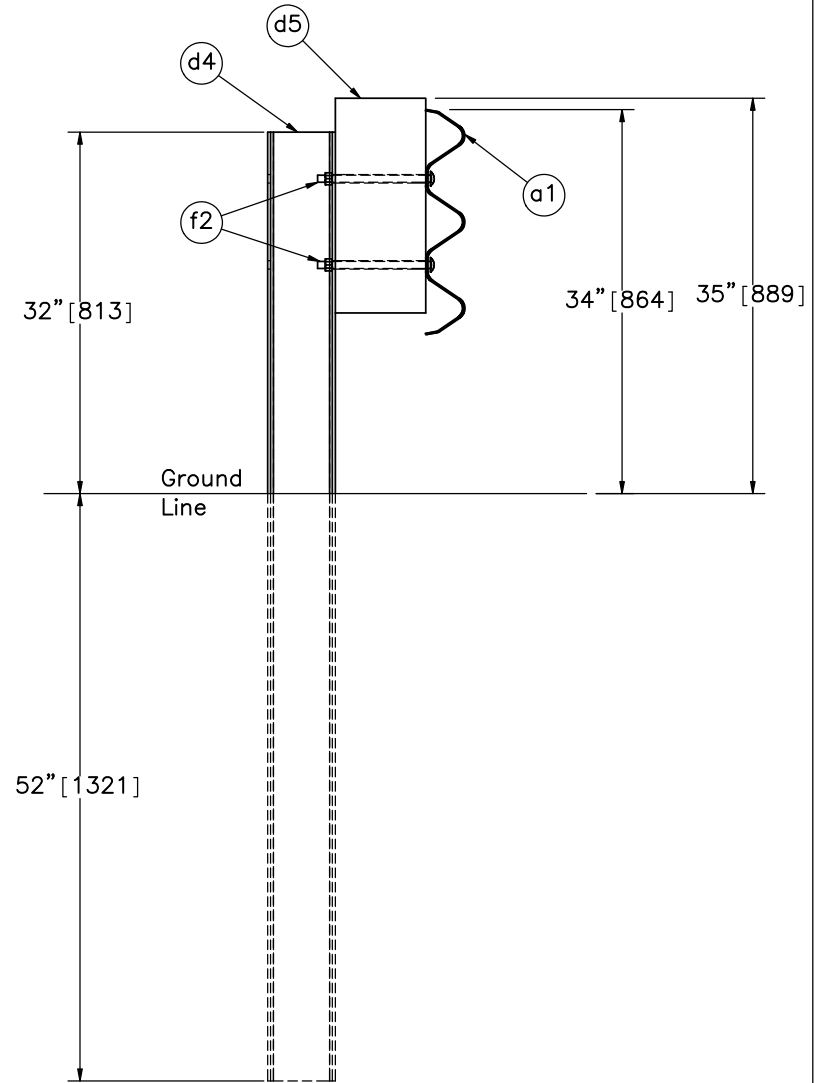
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



SECTION C-C
Post Nos. 12-16



SECTION D-D
Post Nos. 17-19



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Post Nos. 12-19 Details

DWG. NAME:
Thrie_Buttress-1_R6

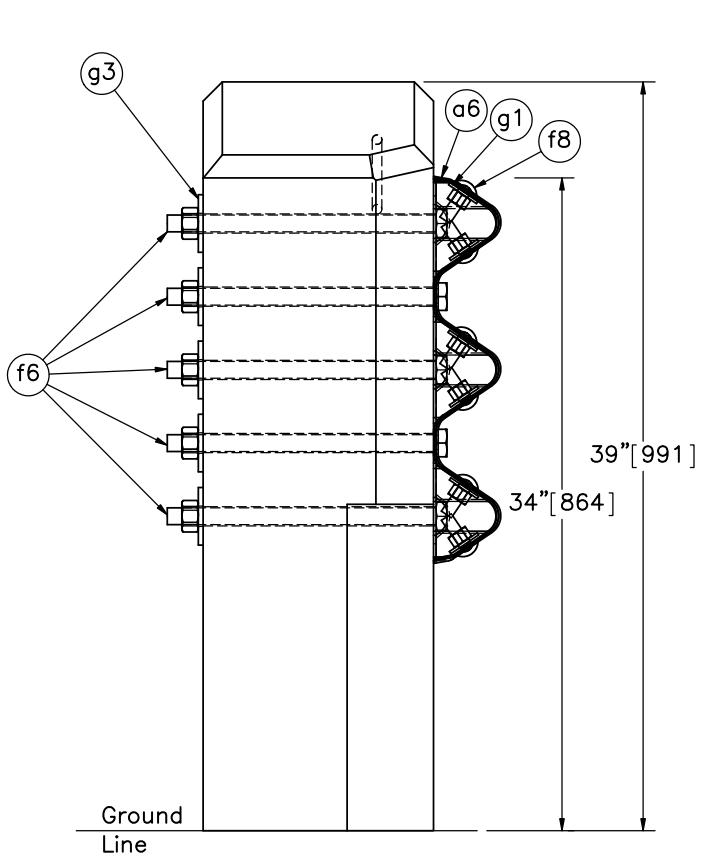
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SHEET:
3 of 23

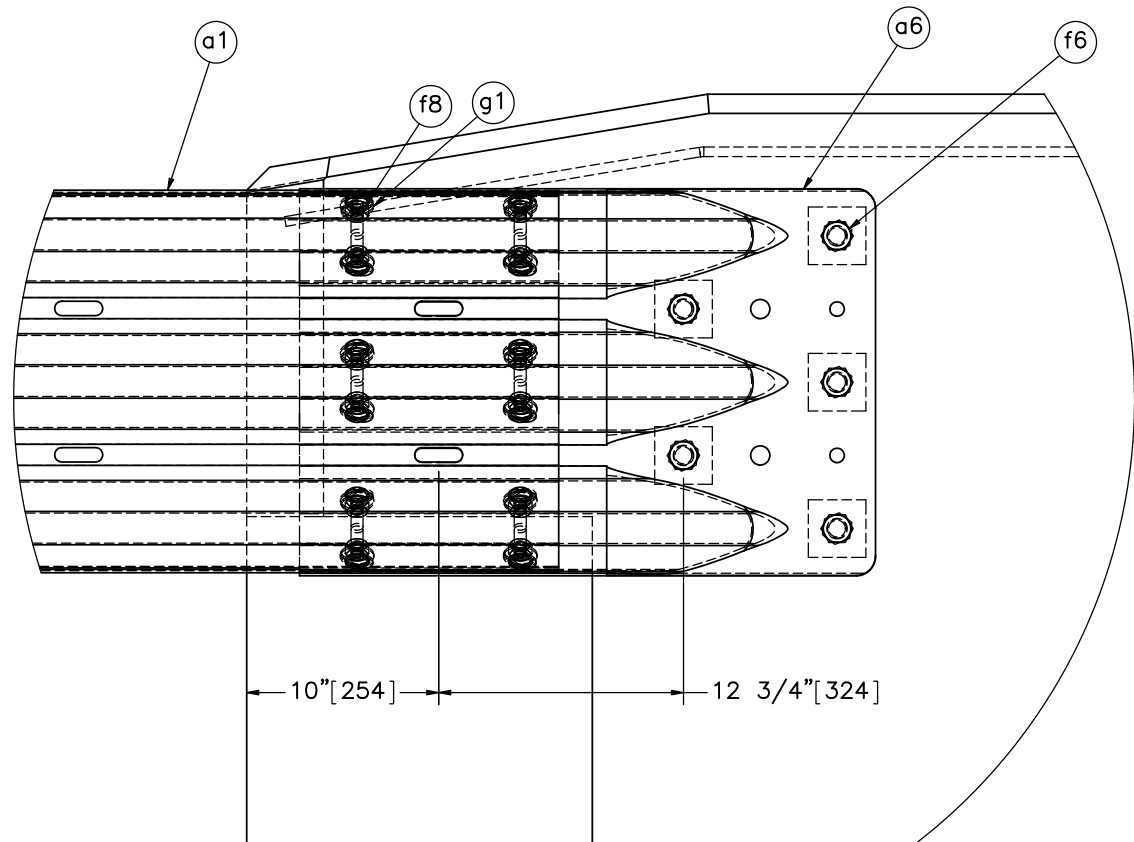
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



SECTION E-E
(REBAR HIDDEN)



DETAIL F
(REBAR HIDDEN)

Note: (1) g1 washers placed between nuts and thrie beam end connector.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Thrie Beam Buttress and End
Shoe Details

DWG. NAME:
Thrie_Buttress-1_R6

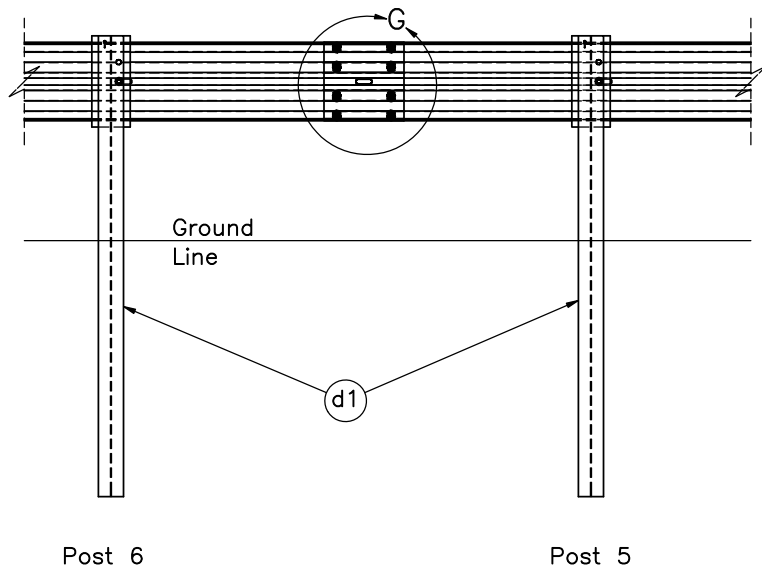
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SHEET:
4 of 23

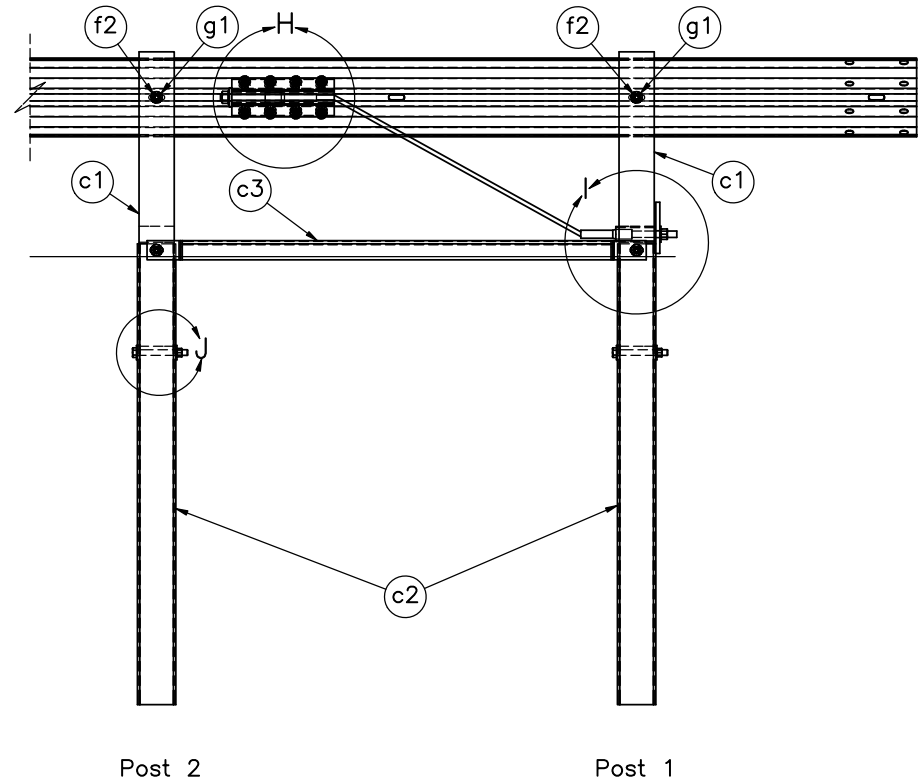
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

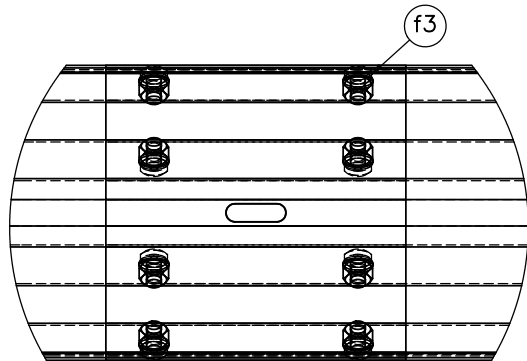
REV. BY:
KAL/SKR/R
KF/JCH



SPLICE DETAIL
BACKSIDE



END SECTION DETAIL
BACKSIDE



DETAIL G
SCALE 1 : 8



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

End Section and Splice Detail

DWG. NAME.
Thrie_Buttress-1_R6

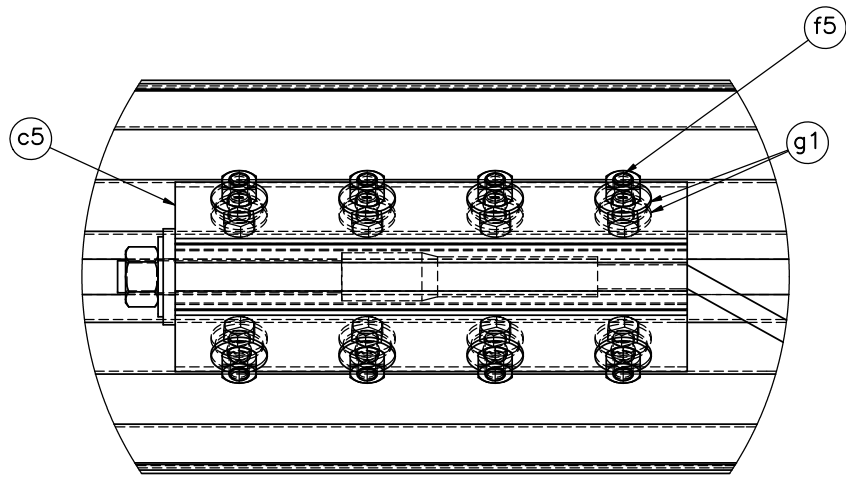
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SHEET:
5 of 23

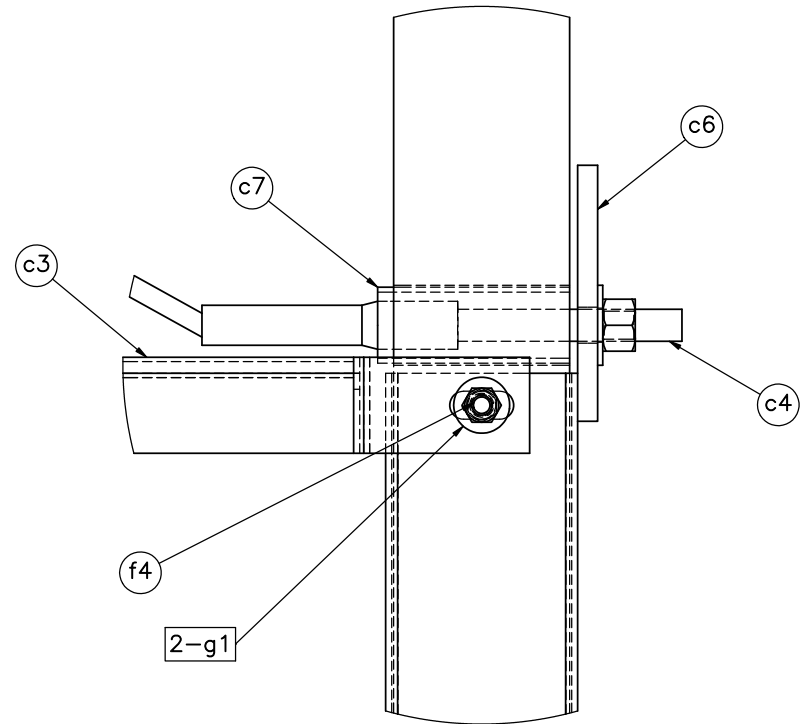
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

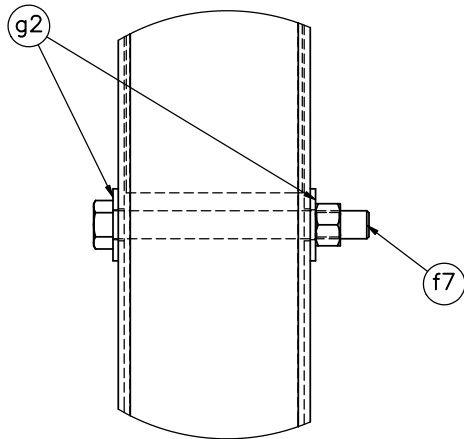
REV. BY:
KAL/SKR/R
KF/JCH



DETAIL H



DETAIL I



DETAIL J



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

BCT Anchor Details

DWG. NAME:
Thrie_Buttress-1_R6

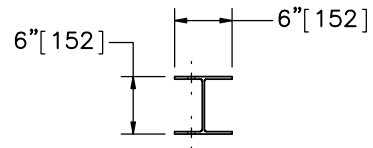
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SHEET:
6 of 23

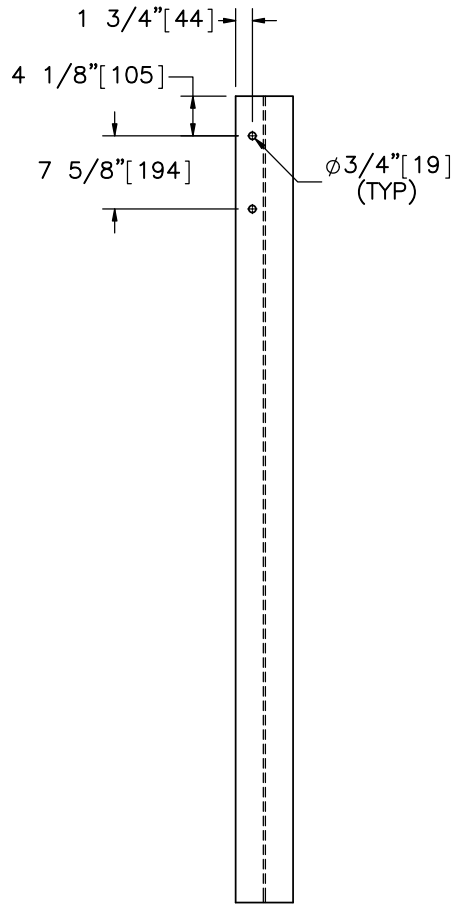
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH

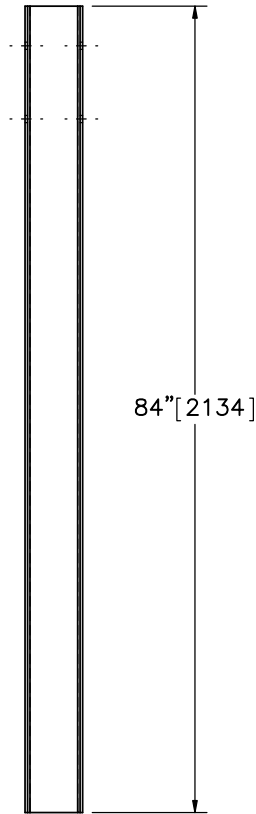


PLAN VIEW

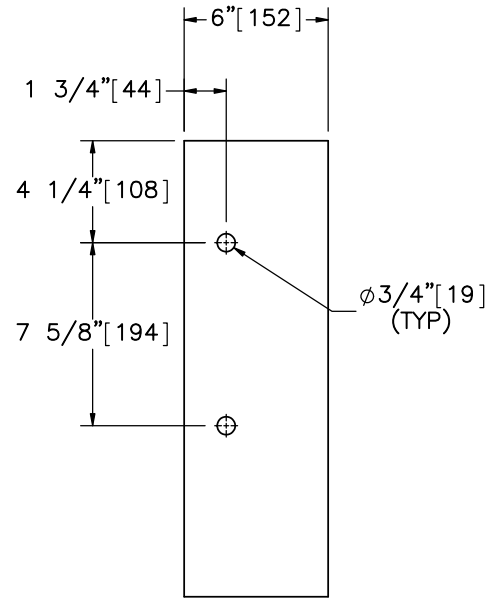


ELEVATION VIEW

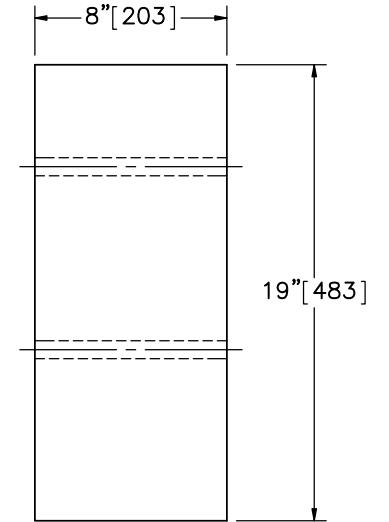
Part d4



PROFILE VIEW



ELEVATION VIEW



PROFILE VIEW

Part d5
SCALE 1:8



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Post Nos. 17-19 Components

DWG. NAME.
Thrie_Buttress-1_R6

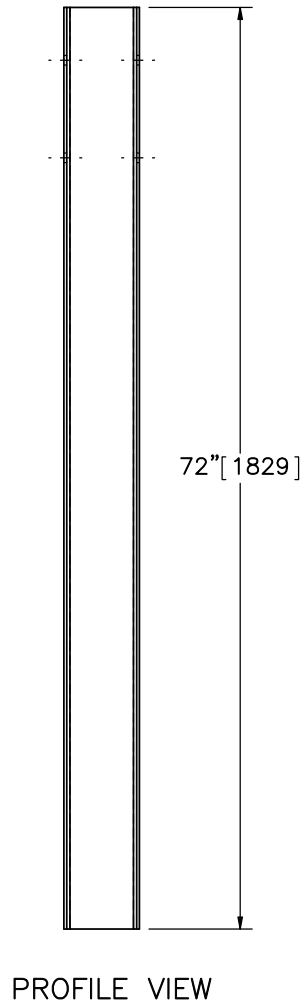
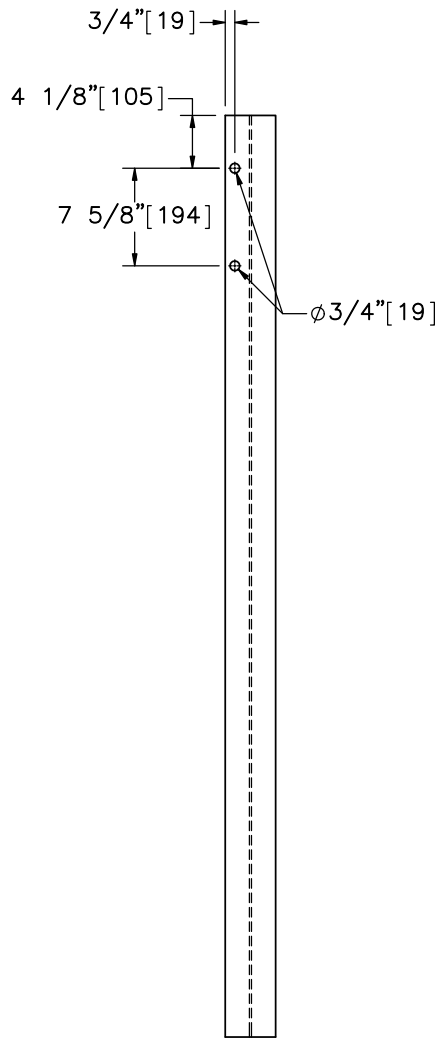
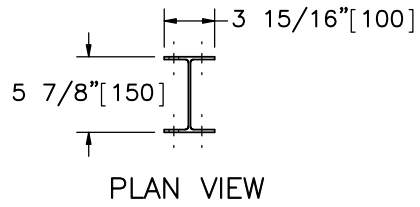
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SHEET:
7 of 23

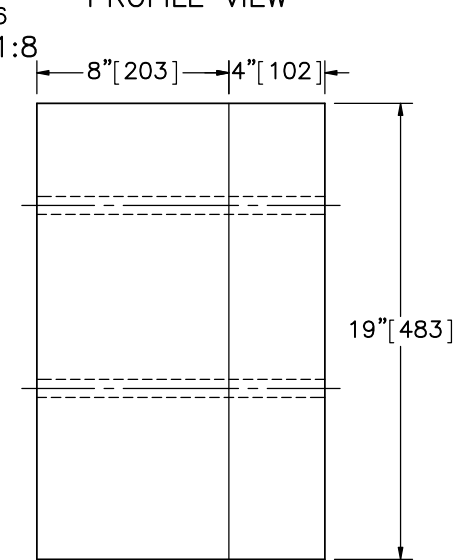
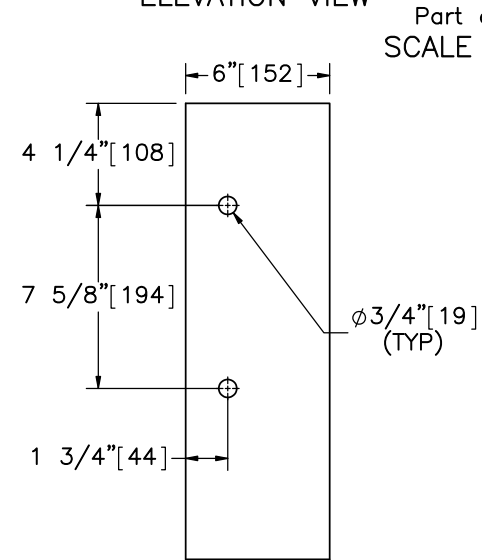
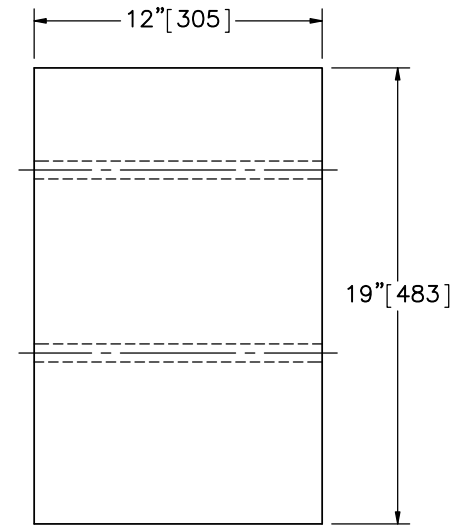
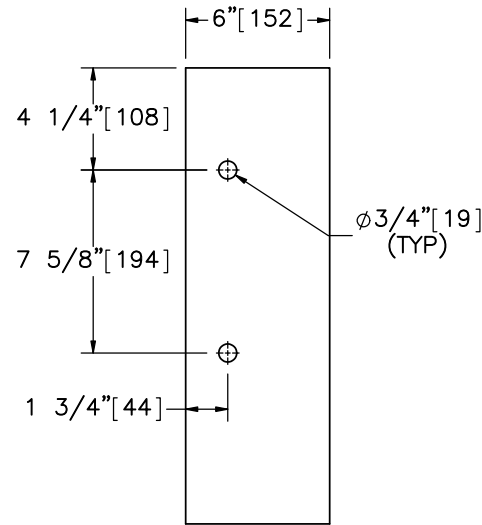
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



Part d3



Part d6
SCALE 1:8

Alternate Blockout Option



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Post Nos. 12-16 Components

DWG. NAME:
Thrie_Buttress-1_R6

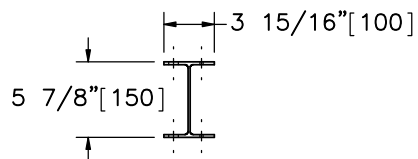
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UNITS: in.[mm]

SHEET:
8 of 23

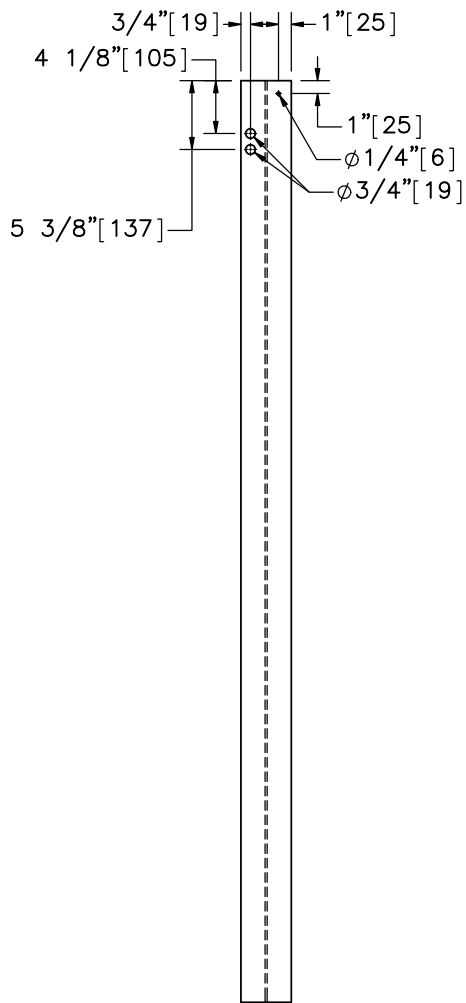
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

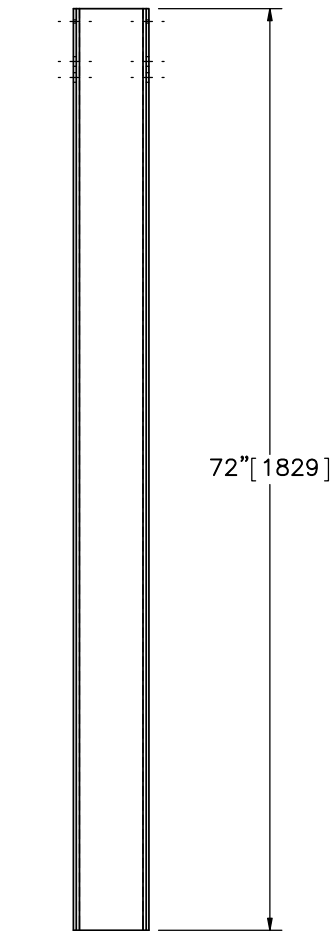
REV. BY:
KAL/SKR/R
KF/JCH



PLAN VIEW



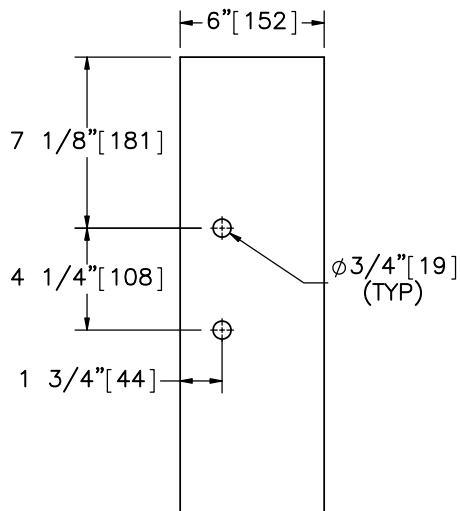
ELEVATION VIEW



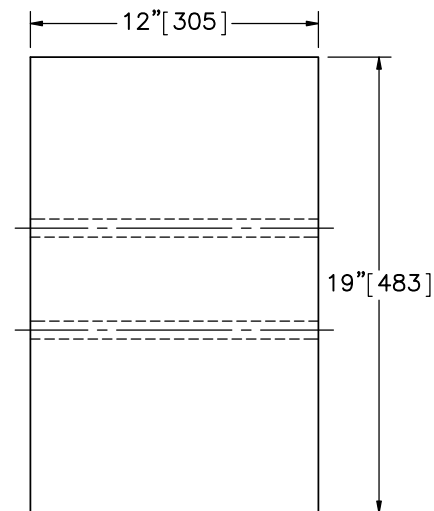
PROFILE VIEW

Part d2

Note: (1) Top bolt hole in part d2 is for use with asymmetric guardrail segment after 3" [76] roadway overlay.
 (2) Top hole not necessary for testing.

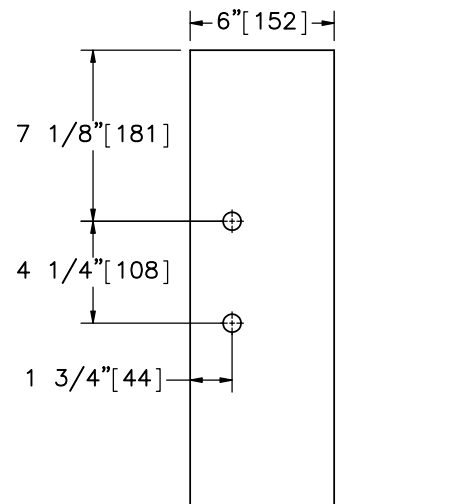


ELEVATION VIEW

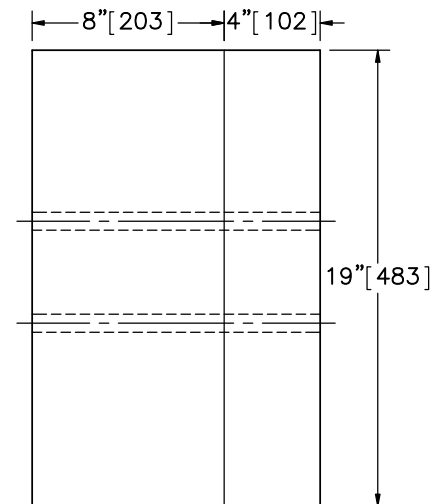


PROFILE VIEW

Part d7
SCALE 1:8



ELEVATION VIEW



PROFILE VIEW

Alternate Blockout Option



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Post No. 11 Components

DWG. NAME:
Thrie_Buttress-1_R6

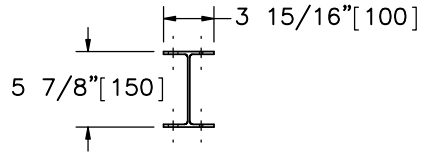
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UNITS: in.[mm]

SHEET:
9 of 23

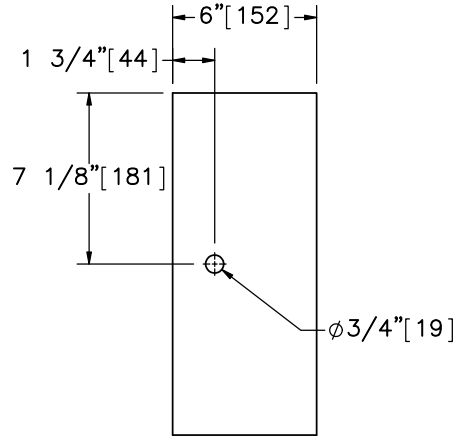
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

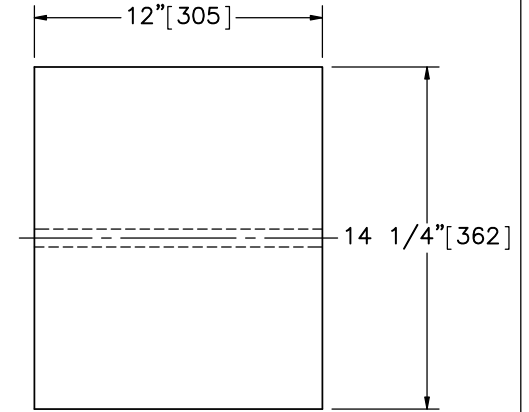
REV. BY:
KAL/SKR/R
KF/JCH



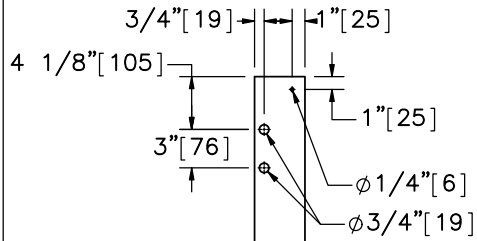
PLAN VIEW



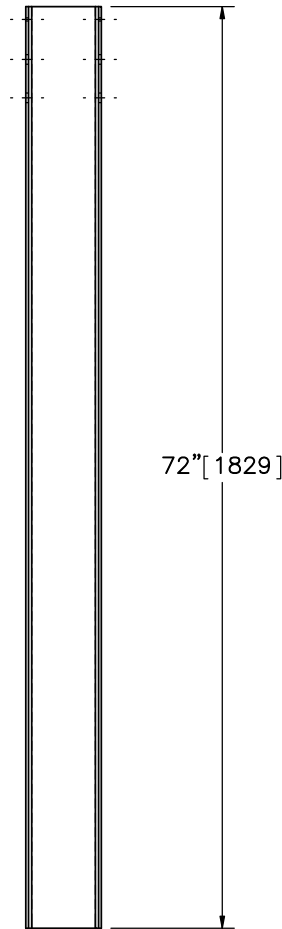
ELEVATION VIEW



PROFILE VIEW

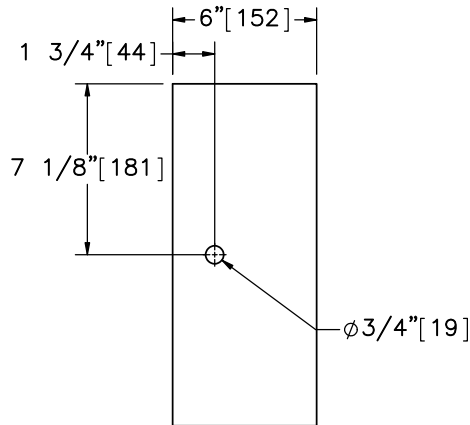


ELEVATION VIEW

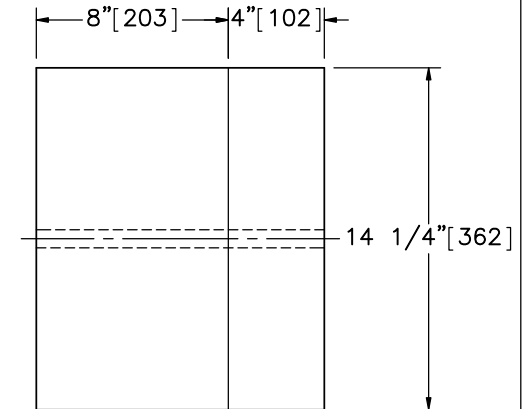


PROFILE VIEW

Part d8
SCALE 1:8



ELEVATION VIEW



PROFILE VIEW

Alternate Blockout Option

Part d1

Note: (1) Top bolt hole in part d1 for use to attach rail and blockout after 3" [76] roadway overlay.
(2) Top hole not necessary for testing.



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Post Nos. 3-10 Components

DWG. NAME:
Thrie_Buttress-1_R6

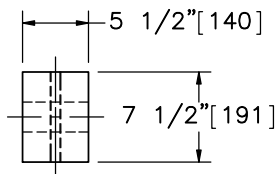
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UNITS: in.[mm]

SHEET:
10 of 23

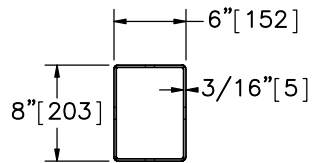
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

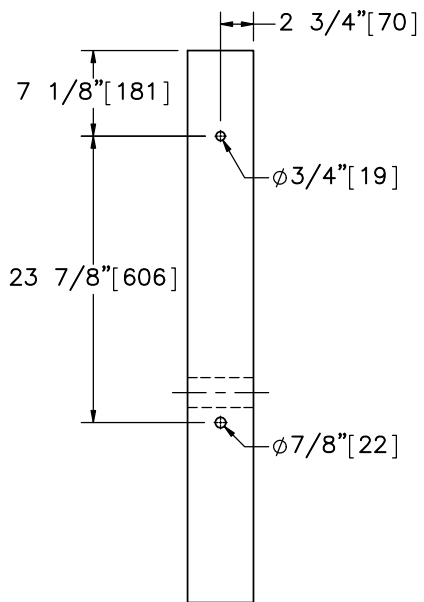
REV. BY:
KAL/SKR/R
KF/JCH



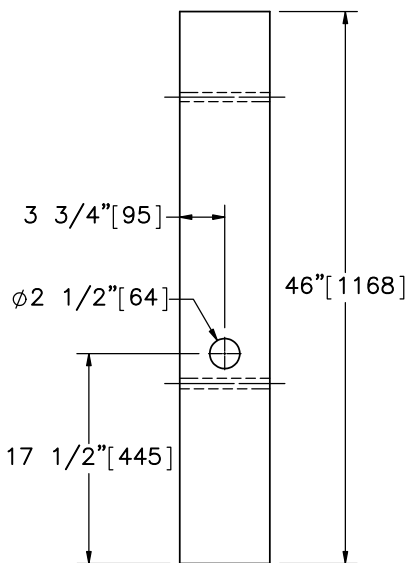
PLAN VIEW



PLAN VIEW

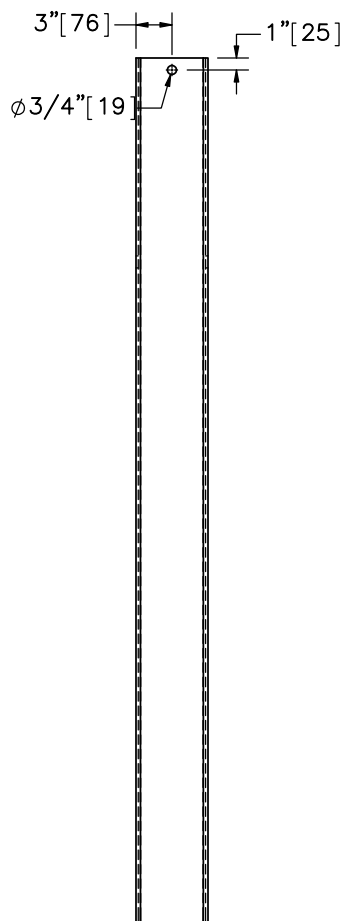


ELEVATION VIEW

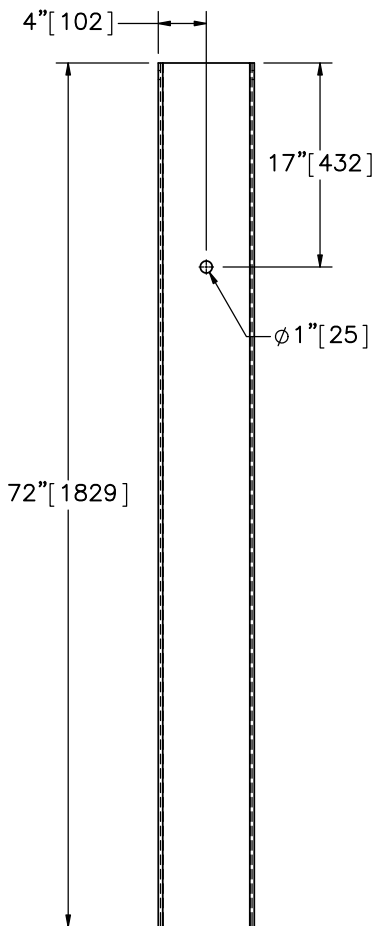


PROFILE VIEW

Part c1



ELEVATION VIEW



PROFILE VIEW

Part c2



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

BCT Timber Post & Foundation Tube Details

DWG. NAME:
Thrie_Buttress-1_R6

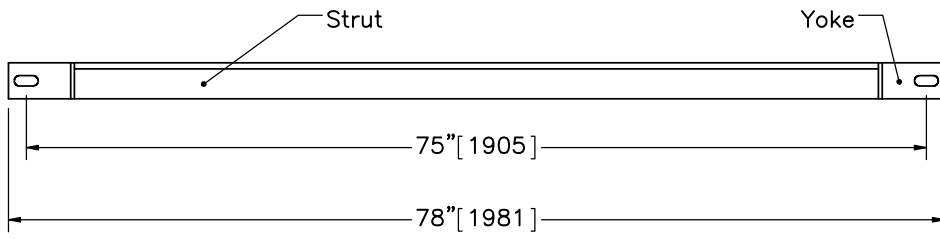
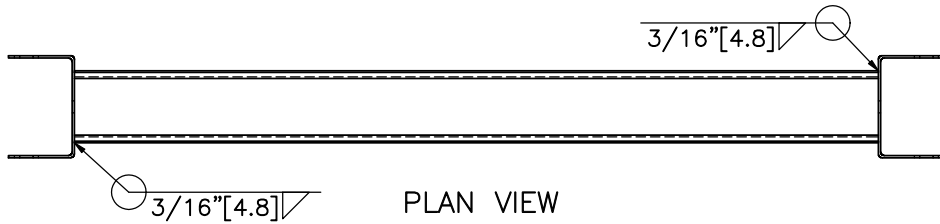
SCALE: 1:16
UNITS: in.[mm]

SHEET:
11 of 23

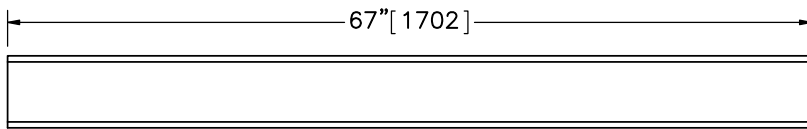
DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH

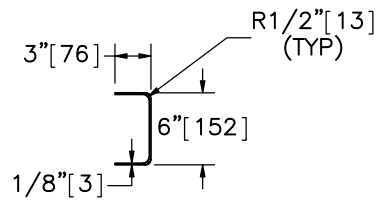


ELEVATION VIEW
Part c3

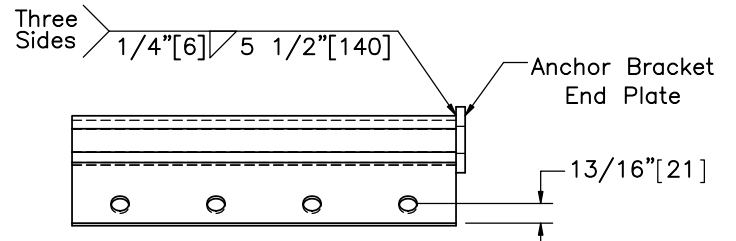


ELEVATION VIEW

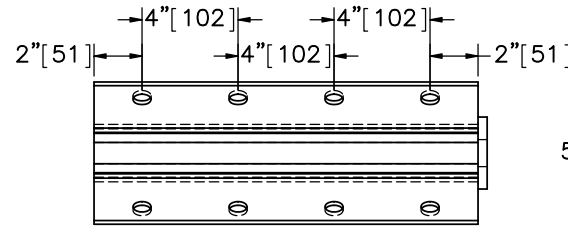
6"x3" [152x76] 10 Gauge [3.4] Strut



PROFILE VIEW

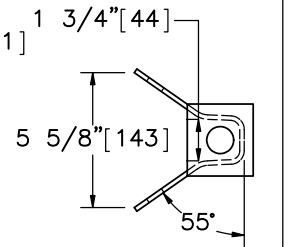


PLAN VIEW

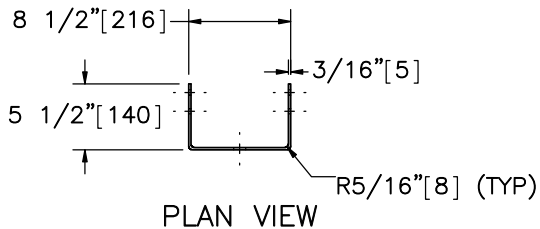


ELEVATION VIEW

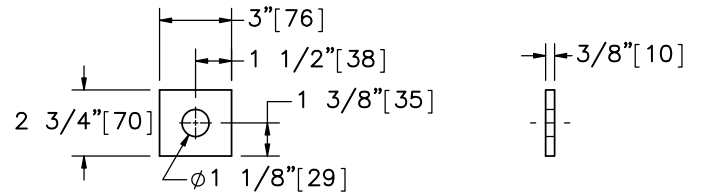
Part c5
SCALE 1:8



PROFILE VIEW



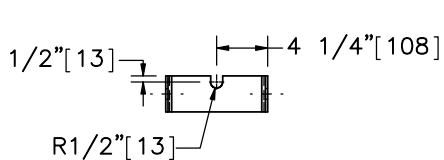
PLAN VIEW



ELEVATION VIEW

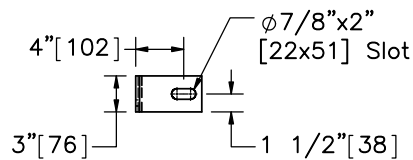
PROFILE VIEW

Anchor Bracket End Plate
SCALE 1:8



ELEVATION VIEW

Yoke



PROFILE VIEW



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Ground Strut Details

DWG. NAME:
Thrie_Buttress-1_R6

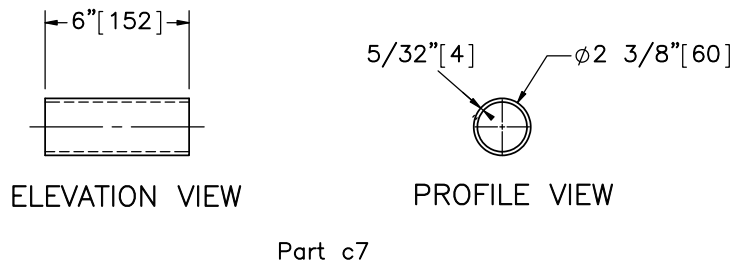
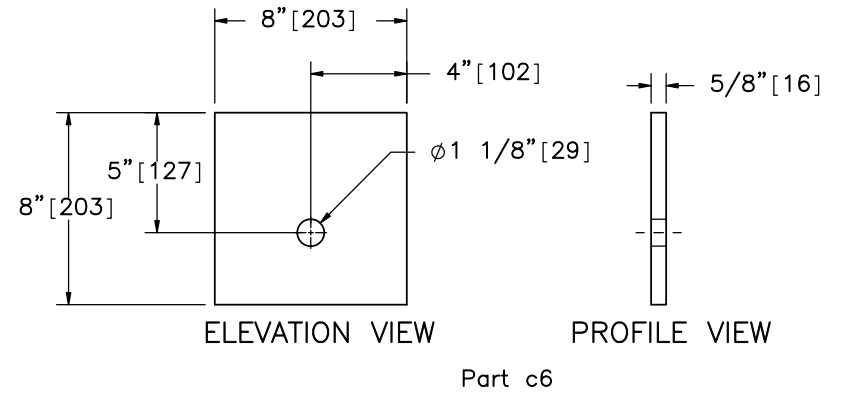
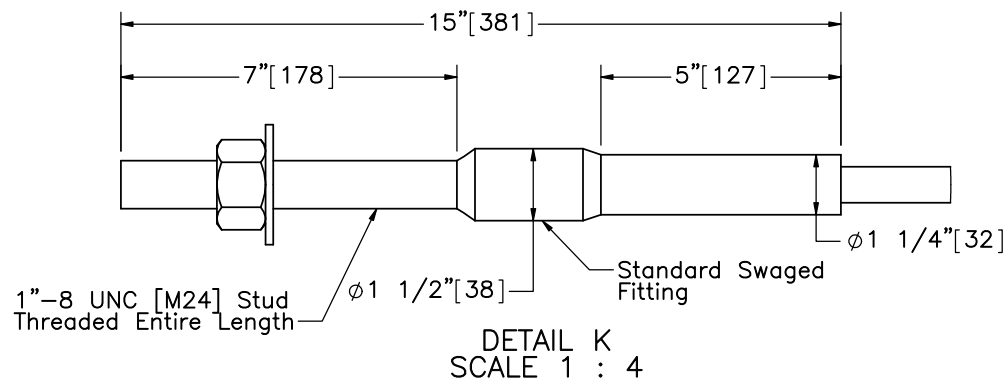
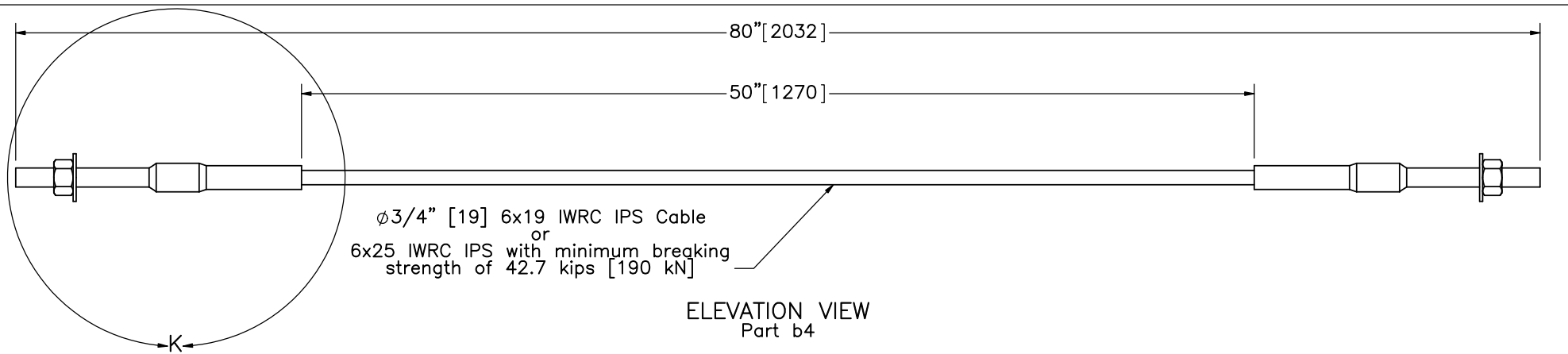
SCALE: 1:16
UNITS: in.[mm]

SHEET:
12 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



Midwest Roadside Safety Facility

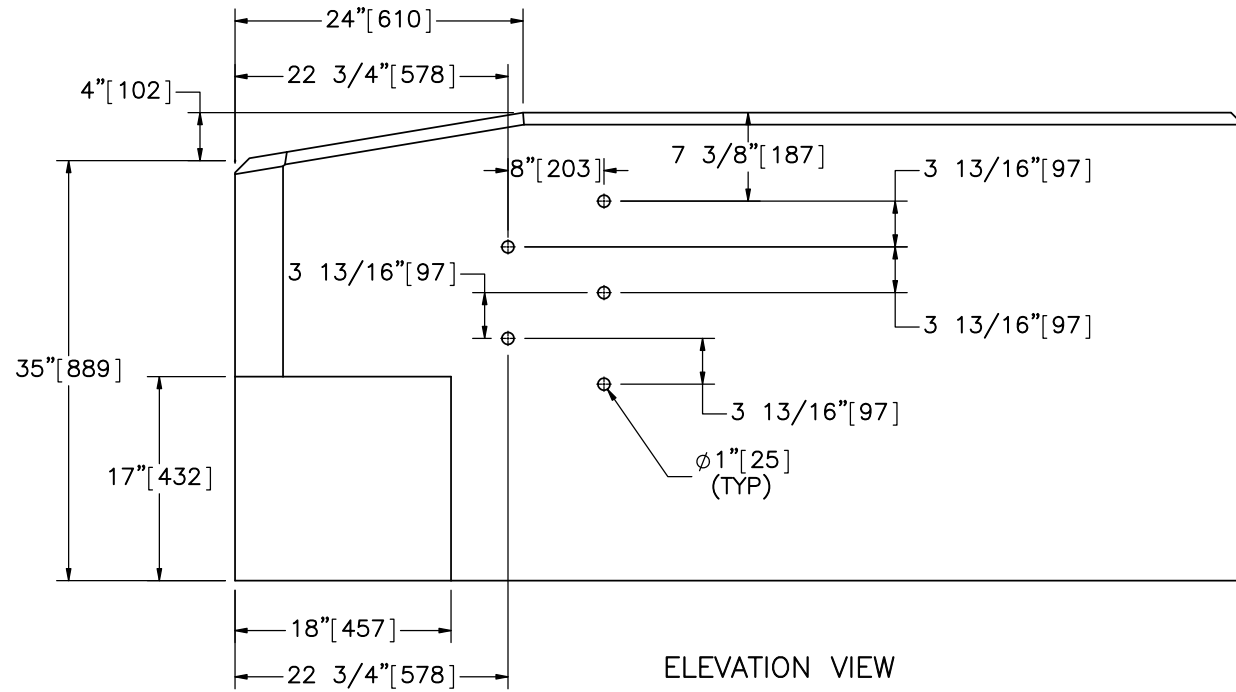
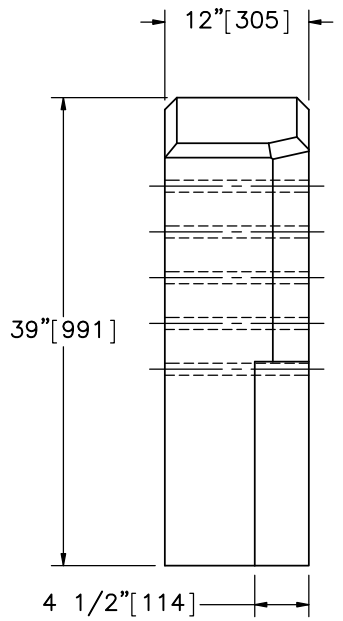
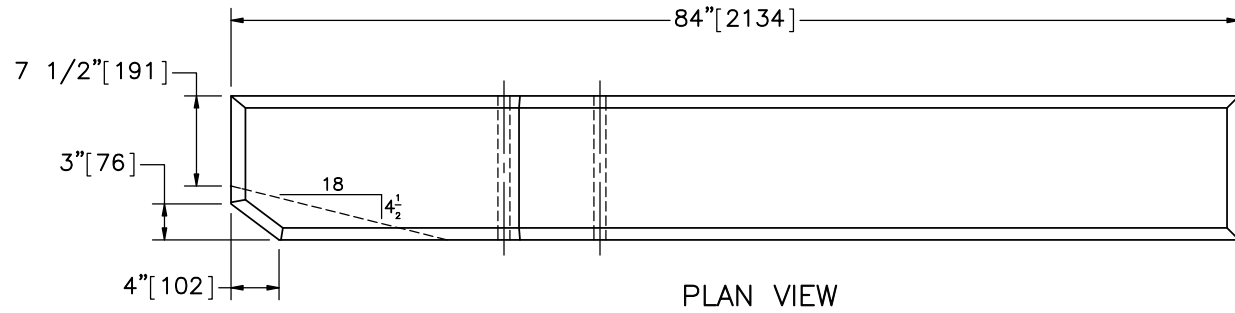
34" Thrie-Beam AGT to Concrete Buttress

BCT Anchor Cable

DWG. NAME:
Thrie_Buttress-1_R6

SCALE: 1:8
UNITS: in.[mm]

SHEET:
13 of 23
DATE:
1/18/2017
DRAWN BY:
TJD/JEK
REV. BY:
KAL/SKR/R
KF/JCH



Part b1

- Notes: (1) Lower setback has lateral flare of 1:4.
 (2) Five 1" [25] diameter holes are required for placement of 7/8" [22] diameter bolts.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Buttress Details

DWG. NAME:
Thrie_Buttress-1_R6

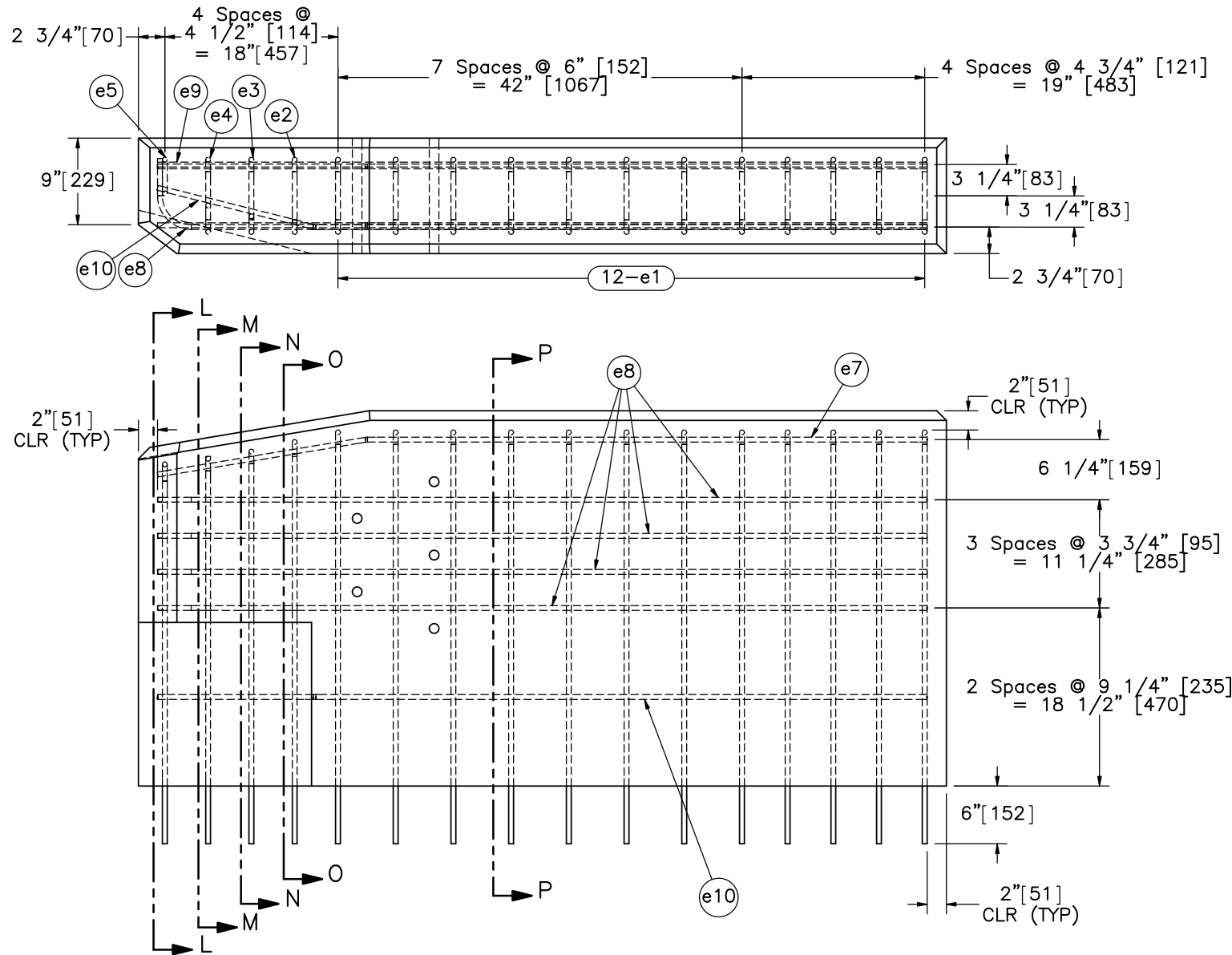
SCALE: 1:16
UNITS: in.[mm]

SHEET:
14 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



- Notes: (1) Vertical rebar embedded in tarmac with chemical epoxy adhesive with a minimum bond strength of 1,450 psi [10.0 MPa].
 (2) All edges of the top of the buttress are chamfered 1" [25].



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Rebar Detail

DWG. NAME:
Thrie_Buttress-1_R6

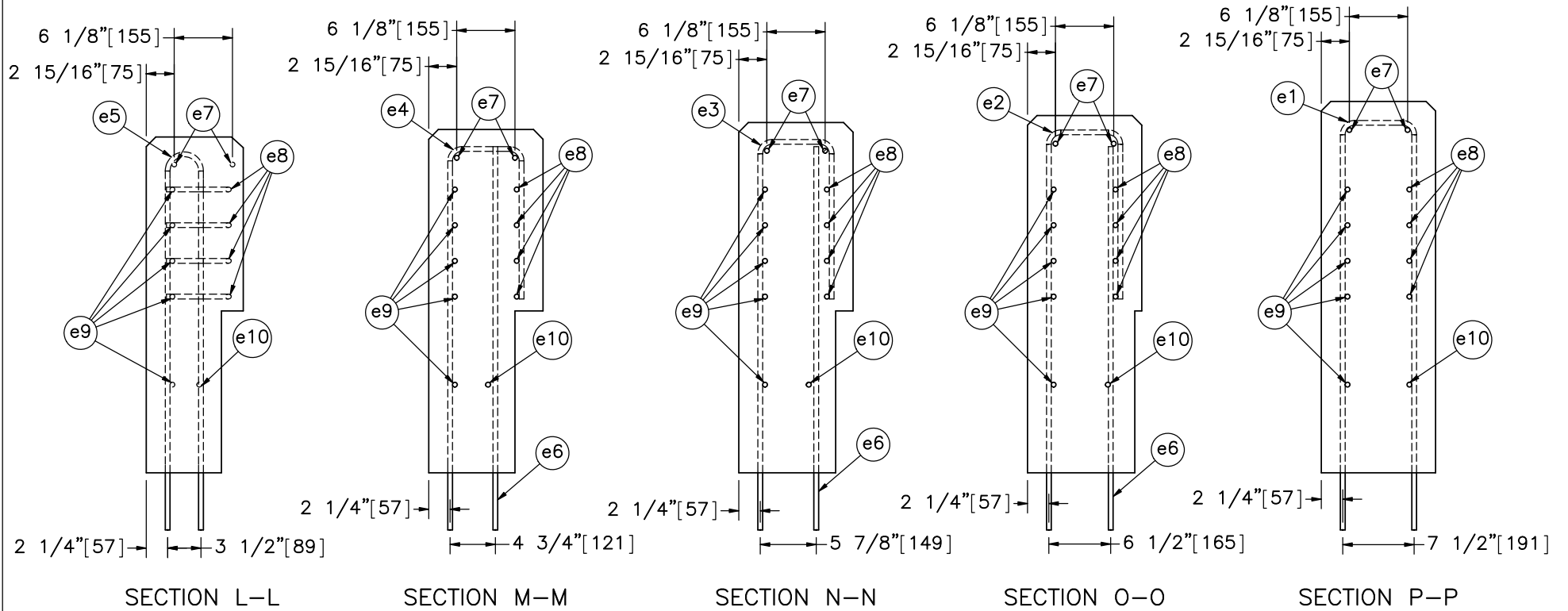
SCALE: 1:16
UNITS: in.[mm]

SHEET:
15 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



Note: (1) All stirrups have minimum 2" [51] concrete clear cover.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Buttress Sections

DWG. NAME.
Thrie_Buttress-1_R6

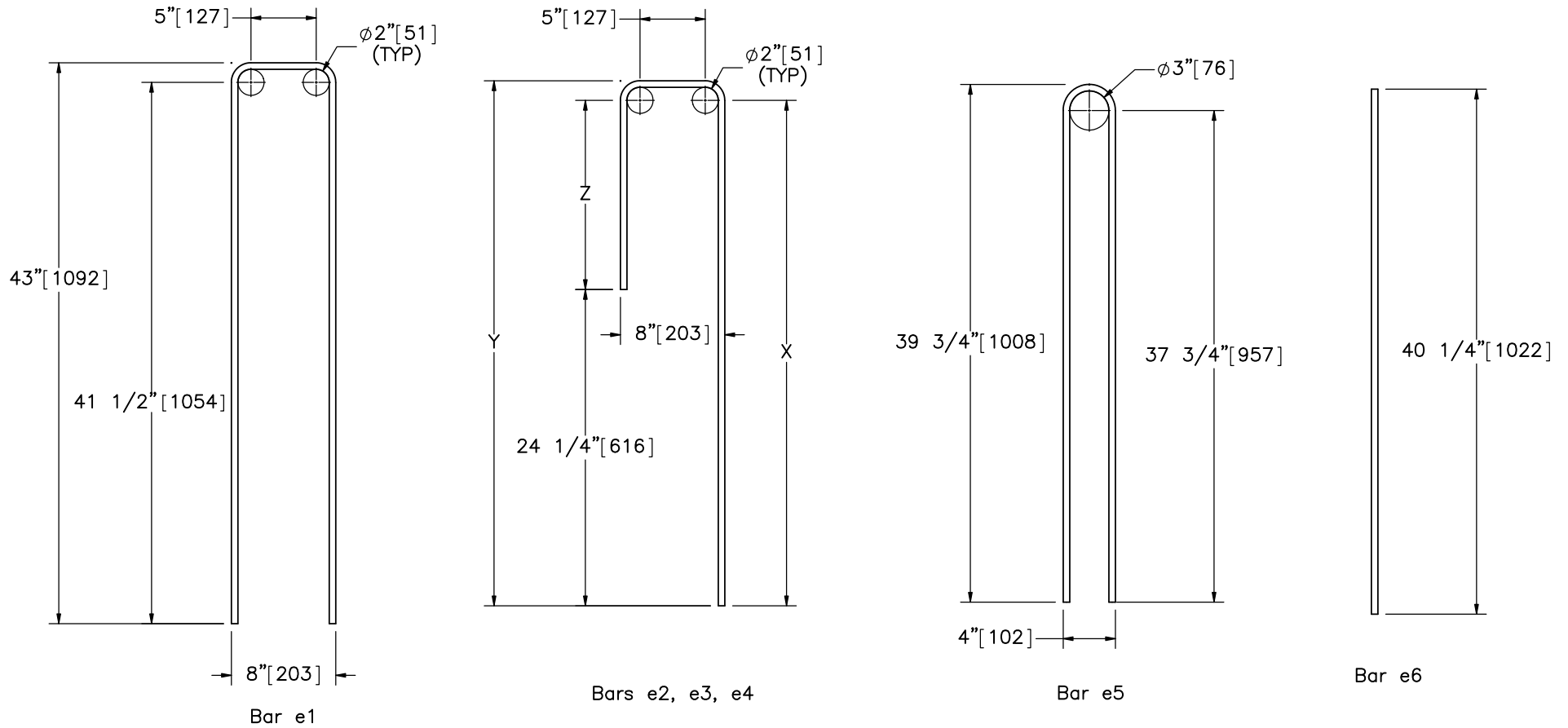
SCALE: 1:16
UNITS: in.[mm]

SHEET:
16 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH



Bill of Bars						
Part No.	QTY	Size	X	Y	Z	Unbent Length
e1	12	#4	41 1/2" [1,054]	43" [1,092]	-	92" [2,337]
e2	1	#4	40 1/2" [1,029]	42" [1,067]	16 1/4" [413]	65 3/4" [1,670]
e3	1	#4	39 1/2" [1,003]	41" [1,042]	15 1/4" [387]	63 1/2" [1,612]
e4	1	#4	38 3/4" [984]	40 1/4" [1,022]	14 1/2" [368]	62 1/4" [1,581]
e5	1	#4	37 3/4" [959]	39 3/4" [1,010]	-	80 3/4" [2,051]
e6	1	#4	-	-	-	40 1/4" [1,022]



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Vertical Rebar Details

DWG. NAME: Thrie_Buttress-1_R6

SCALE: 1:12

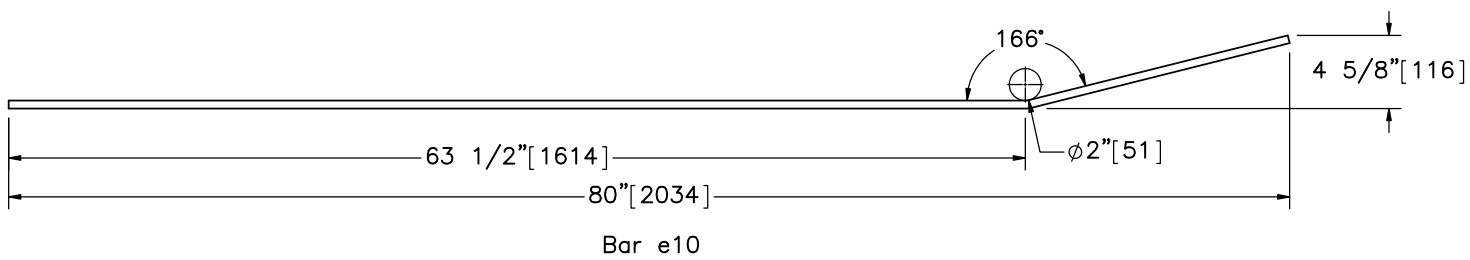
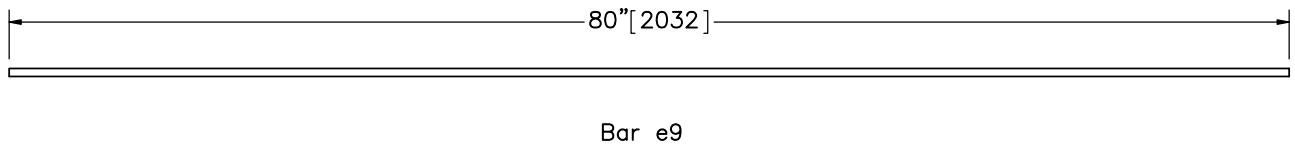
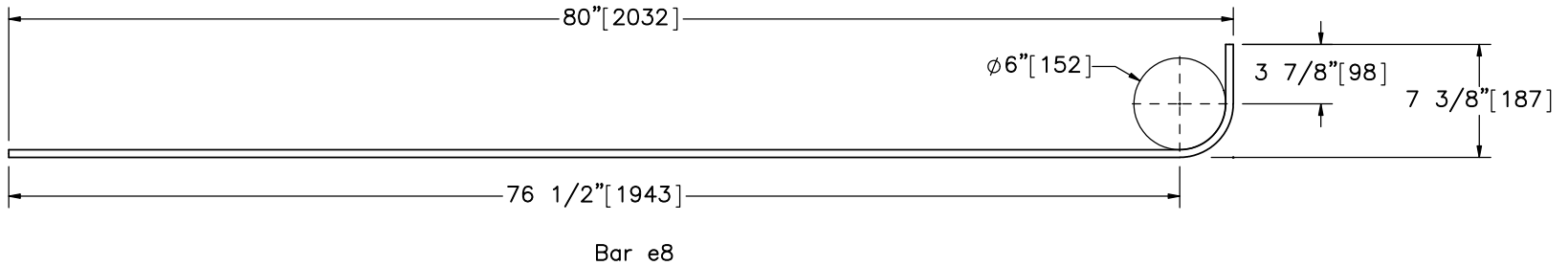
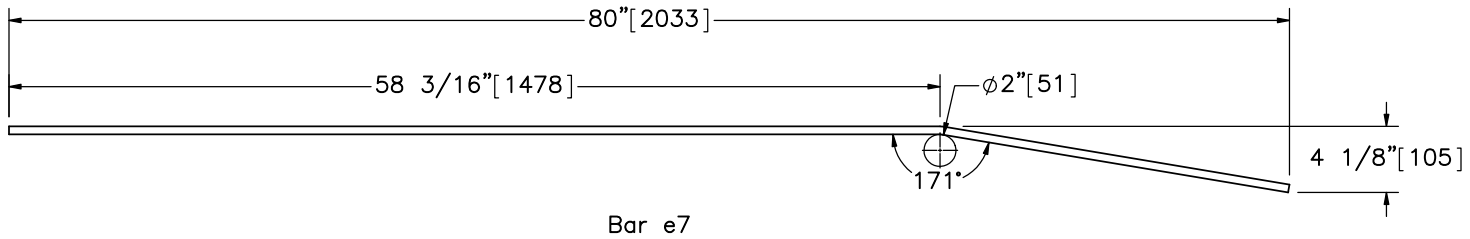
UNITS: in.[mm]

SHEET: 17 of 23

DATE: 1/18/2017

DRAWN BY: TJD/JEK

REV. BY: KAL/SKR/RKF/JCH



Bill of Bars			
Part No.	QTY	Size	Unbent Length
e7	2	#4	80 1/4" [2,038]
e8	4	#4	85 1/2" [2,171]
e9	5	#4	80" [2,032]
e10	1	#4	80 1/2" [2,045]



Midwest Roadside Safety Facility

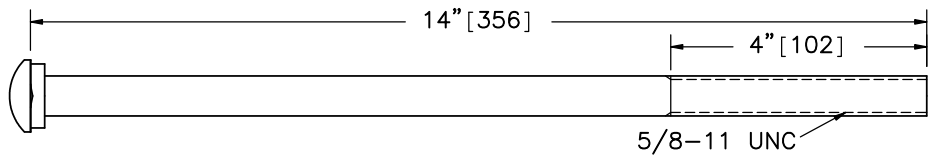
34" Thrie-Beam AGT to Concrete Buttress

Horizontal Rebar Details

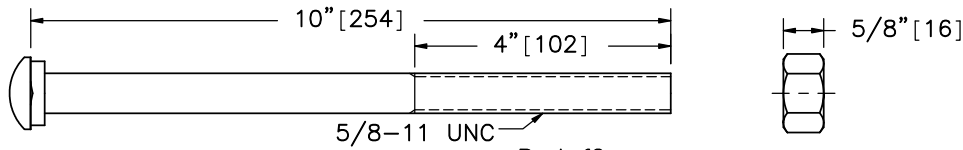
DWG. NAME: Thrie_Buttress-1_R6

SCALE: 1:12
UNITS: in.[mm]

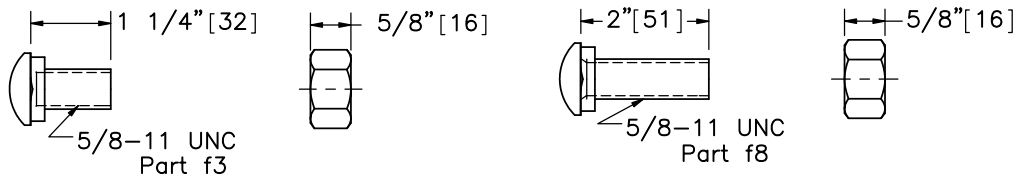
SHEET: 18 of 23
DATE: 1/18/2017
DRAWN BY: TJD/JEK
REV. BY: KAL/SKR/R/KF/JCH



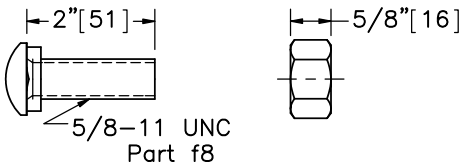
Part f1



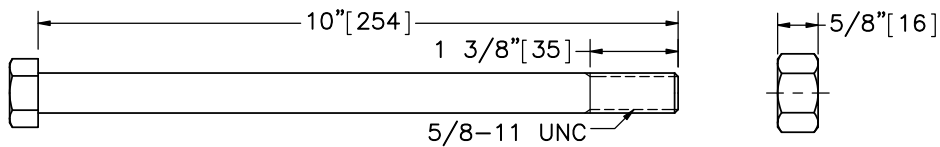
Part f2



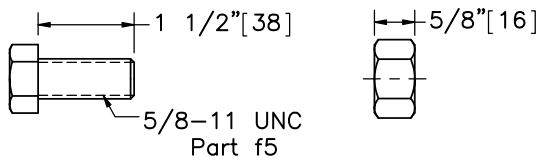
Part f3



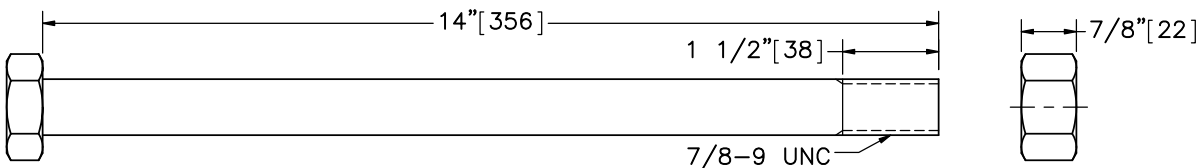
Part f8



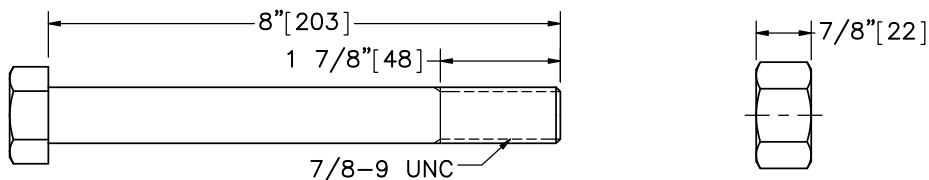
Part f4



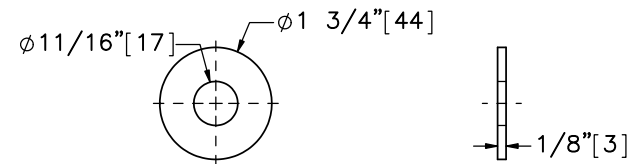
Part f5



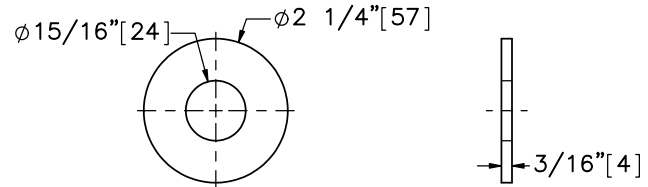
Part f6



Part f7



Part g1



Part g2



Midwest Roadside Safety Facility

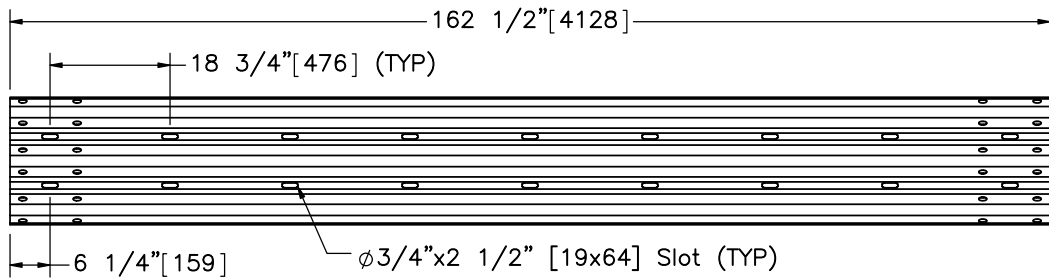
34" Thrie-Beam AGT to Concrete Buttress

Fastener Details

DWG. NAME:
Thrie_Buttress-1_R6

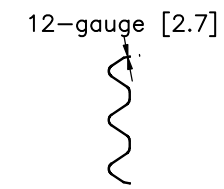
SCALE: 1:3
UNITS: in.[mm]

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19 of 23
DATE:
1/18/2017
DRAWN BY:
TJD/JEK
REV. BY:
KAL/SKR/R
KF/JCH

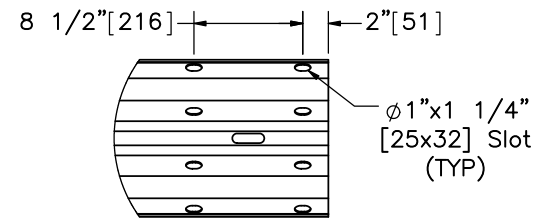


ELEVATION VIEW

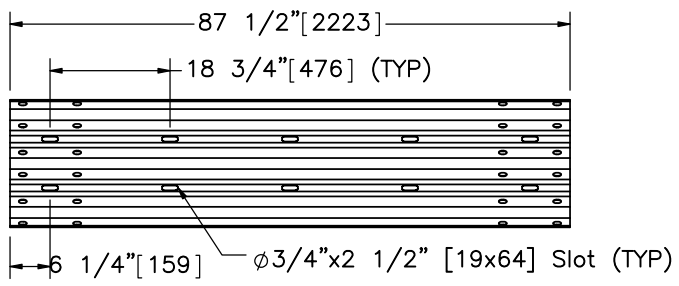
Part a1



PROFILE VIEW

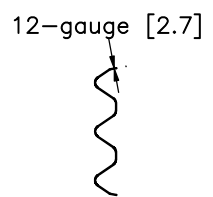


DETAIL Q
SCALE 1 : 15

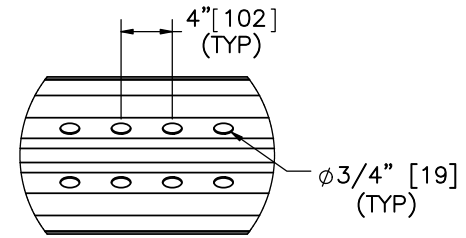


ELEVATION VIEW

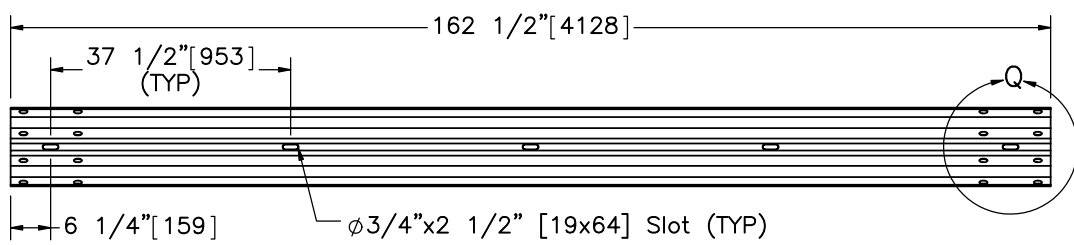
Part a2



PROFILE VIEW

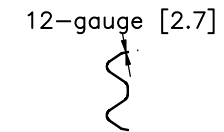


DETAIL R
SCALE 1 : 15

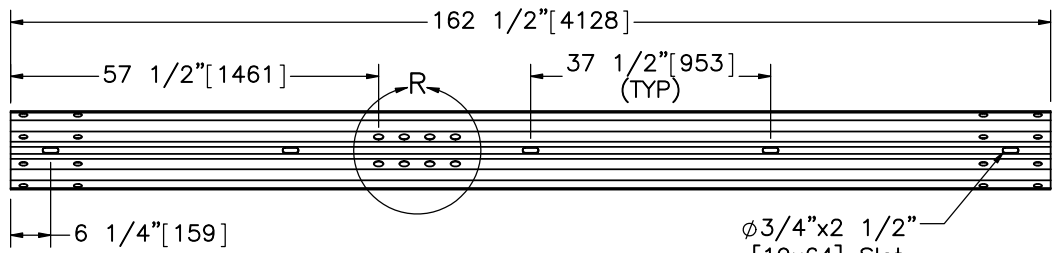


ELEVATION VIEW

Part a4



PROFILE VIEW



ELEVATION VIEW

Part a5

$\phi 3/4$ "x2 1/2"
[19x64] Slot
(TYP)



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Safety Facility

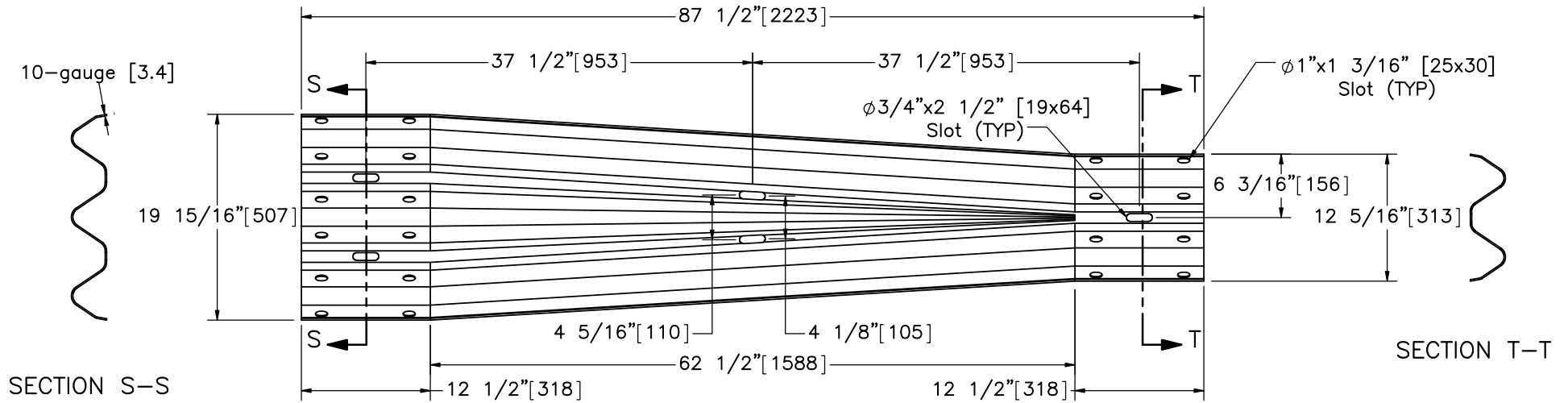
34" Thrie-Beam AGT to
Concrete Buttress

Guardrail Details

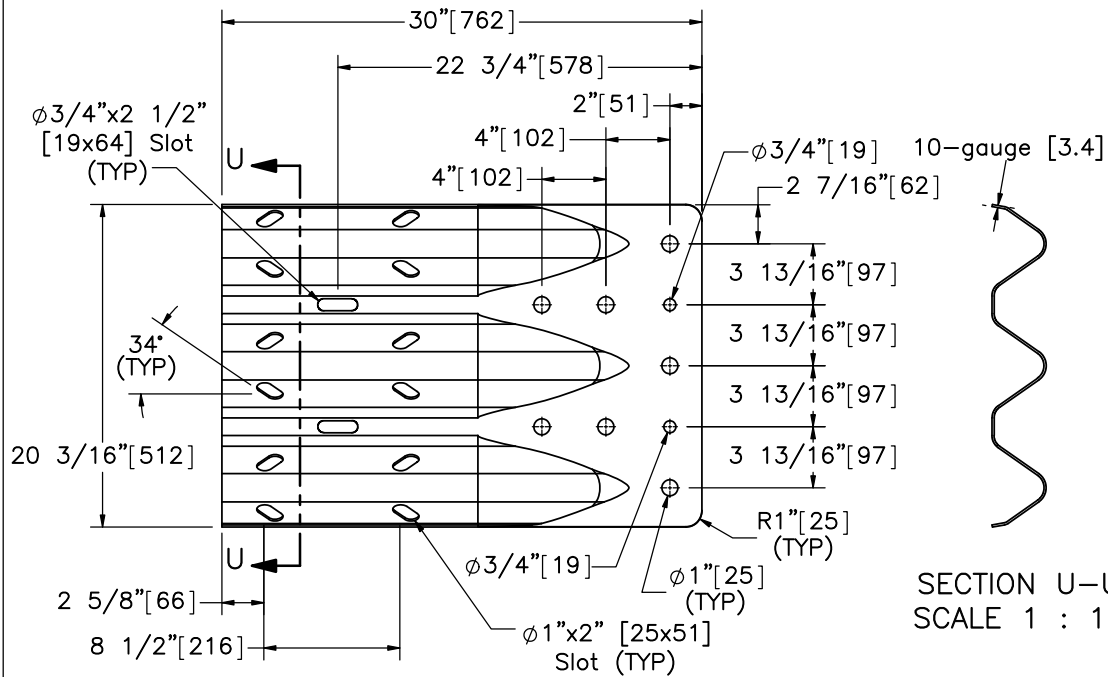
DWG. NAME:
Thrie_Buttress-1_R6

SCALE: 1:30
UNITS: in.[mm]

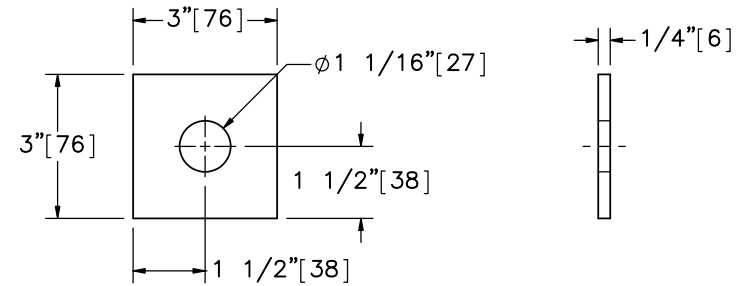
SHEET:
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DATE:
1/18/2017
DRAWN BY:
TJD/JEK
REV. BY:
KAL/SKR/R
KF/JCH



ELEVATION VIEW
Part a3



ELEVATION VIEW
Part a6



Part g3

SECTION U-U
SCALE 1 : 12



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Rail Transition and Component
Details

DWG. NAME:
Thrie_Buttress-1_R6

SCALE: 1:15
UNITS: in.[mm]

SHEET:
21 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH

Item No.	QTY.	Description	Material Specification	Galvanization Specification	Hardware Guide
a1	2	12'-6" [3,810] 12-gauge [2.7] Thrie Beam Section	AASHTO M180	ASTM A653	RTM08a
a2	1	6'-3" [1,905] 12-gauge [2.7] Thrie Beam Section	AASHTO M180	ASTM A653	RTM19a
a3	1	10-gauge [3.4] Symmetrical W-beam to Thrie Beam Transition	AASHTO M180	ASTM A653	RWT01b
a4	3	12'-6" [3,810] 12-gauge [2.7] W-Beam Section	AASHTO M180	ASTM A653	RWM04a
a5	1	12'-6" [3,810] 12-gauge [2.7] W-Beam MGS End Section	AASHTO M180	ASTM A653	RWM14a
a6	1	10-gauge [3.4] Thrie Beam End Shoe Section	AASHTO M180	ASTM A653	RTE01b
a7	1	6'-3" [1,905] 12-gauge [2.7] W-Beam MGS Section	AASHTO M180	ASTM A653	RWM04a
b1	1	Concrete - 21.9 cubic ft [0.62 cubic m]	Min. f'c = 4,000 psi [27.6 MPa]	-	-
c1	2	BCT Timber Post - MGS Height	SYP Grade No. 1 or better (No knots +/- 18" [457] from ground on tension face)	-	PDF01
c2	2	72" [1,829] Long Foundation Tube	ASTM A500 Gr. B	*AASHTO M111 (ASTM A123)	PTE06
c3	1	Ground Strut Assembly	ASTM A36	*AASHTO M111 (ASTM A123)	PFPO2
c4	1	BCT Cable Anchor Assembly	-	-	FCA01
c5	1	Anchor Bracket Assembly	ASTM A36	*AASHTO M111 (ASTM A123)	FPA01
c6	1	8"x8"x5/8" [203x203x16] Anchor Bearing Plate	ASTM A36	*AASHTO M111 (ASTM A123)	FPB01
c7	1	2 3/8" [60] O.D. x 6" [152] Long BCT Post Sleeve	ASTM A53 Gr. B Schedule 40	*AAHSTO M111 (ASTM A123)	FMM02
d1	8	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d2	1	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d3	5	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d4	3	W6x15 [W152x22.3], 84" [2,134] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	PWE12
d5	3	6"x8"x19" [152x203x483] Timber Blockout	SYP Grade No.1 or better	-	PDB17
d6	5	6"x12"x19" [152x305x483] Timber Blockout	SYP Grade No.1 or better	-	-
d7	1	6"x12"x19" [152x305x483] Timber Blockout	SYP Grade No.1 or better	-	PDB18
d8	8	6"x12"x14 1/4" [152x305x368] Timber Blockout	SYP Grade No.1 or better	-	PDB10a

* Component does not need to be galvanized for testing purposes.



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Bill of Materials

DWG. NAME:
Thrie_Buttress-1_R6

SCALE: None
UNITS: in.[mm]

SHEET:
22 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH

Item No.	QTY.	Description	Material Specification	Galvanization Specification	Hardware Guide
d9	9	16D Double Head Nail	—	—	—
e1	12	1/2" [13] Dia., 92" [2,337] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e2	1	1/2" [13] Dia., 65 3/4" [1,670] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e3	1	1/2" [13] Dia., 63 1/2" [1,612] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e4	1	1/2" [13] Dia., 62 1/4" [1,581] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e5	1	1/2" [13] Dia., 80 3/4" [2,051] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e6	3	1/2" [13] Dia., 40 1/4" [1,022] Long Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e7	2	1/2" [13] Dia., 80 5/16" [2,039] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e8	4	1/2" [13] Dia., 85 1/2" [2,171] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e9	5	1/2" [13] Dia., 80" [2,032] Long Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e10	1	1/2" [13] Dia., 80 1/2" [2,045] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
f1	19	5/8" [16] Dia. UNC, 14" [356] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB06
f2	8	5/8" [16] Dia. UNC, 10" [254] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB03
f3	52	5/8" [16] Dia. UNC, 1 1/4" [32] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB01
f4	2	5/8" [16] Dia. UNC, 10" [254] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX16a
f5	8	5/8" [16] Dia. UNC, 1 1/2" [38] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX16a
f6	5	7/8" [22] Dia. UNC, 14" [356] Long Heavy Hex Bolt and Nut	Bolt — ASTM A325 Type 1 or ASTM A449 or SAI J429 Gr. 5 Nut — ASTM A563DH or ASTM A194 Gr. 2H	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX22b
f7	2	7/8" Dia. [22] UNC, 8" [203] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX22a
f8	24	5/8" [16] Dia. UNC, 2" [51] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB02
g1	34	5/8" [16] Dia. Plain Round Washer	ASTM F844	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FWC16a
g2	4	7/8" [22] Dia. Plain Round Washer	ASTM F844	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	—
g3	5	3"x3"x1/4" [76x76x6] or 3 1/2"x3 1/2"x1/4" [89x89x6] Square Plate Washer	ASTM A572 Gr. 50	*AASHTO M111 (ASTM A123)	FWR10

* Component does not need to be galvanized for testing purposes.

** Rebar does not need to be epoxy-coated for testing purposes.



Midwest Roadside
Safety Facility

34" Thrie-Beam AGT to
Concrete Buttress

Bill of Materials

DWG. NAME.
Thrie_Buttress-1_R6

SCALE: None
UNITS: in.[mm]

SHEET:
23 of 23

DATE:
1/18/2017

DRAWN BY:
TJD/JEK

REV. BY:
KAL/SKR/R
KF/JCH

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVIEWER	REVISED BY
0	10/6/2016	-	Originated from drawing AGT Buttress_R11.	-	TJD/JEK
1	10/13/2016	-	Nested rail attachment hardware changed to 2" bolts. Dimension style change. Dimension movement throughout.	KAL	JEK
		1	Post numbering reversed.		
		9	Physical change: d7.		
		14	Dimension additions.		
		16	Dimension additions.		
		17	Dimension additions.		
		18	Part f8 added. Physical change: f3, f7.		
		20	Physical change: g3. Dimension additions.		
		21	HWG edits: a1-2, a6, d1-5, d7. Galvanization column header edit.		
		22	New: f8. Quantity edit: f3. Description edit: f3, f7, g3. Material edit: f6, g3. HWG edit: f6, g2-3. Galvanization column header edit.		
2	10/14/2016	-	Lower bolt removed from transition post (post 10). Washers added to end shoe rail attachment. Section lettering. Page added for buttress sections.	SKR	JEK
		1	Note edits.		
		4	Washers added.		
		6	Washer bubbles edited.		
		9	Part d2 physical change. Note added.		
		10	Note added.		
		14	Dim shifts.		
		15	Sections L-P added (p16). Text edits. Dimensions removed.		
		16	New Page.		
		17	Table edit. Bars e2-4 variable additions. Physical change: b5, b6.		
		18	Table edit. Dim rounding.		
		22	Description edit: a1-6. Material edit: a1-6, c1, d1-4. Galv edit: c2-3, c5-7, d1-4. HWG edit: a3. Note added.		
23	Quantity edit: f1, g1. Galv edit: e1-11, g3. Notes added.				
3	10/20/2016	-	Rebar total length rounding. Rebar part renumbering per disuse of bar e7 (replaced by e6). E6 physical change.	SKR	JEK
		4	Note added. Minor movement.		
		14	Dim shifts.		

3	10/20/2016	15	Dim add.	SKR	JEK
		16	Dimension edits. Note added.		
		17	Bar e7 removed. Table edits. Length rounding.		
		18	Bar numbering/naming edits.		
		23	Rebar (e series) naming and length edits.		
4	11/18/2016		6'-3" w-beam span and post added. Buttress rebar – additional top bar. – Document title edit.	RKF/SKR	JEK
		1	Post numbering. Dimension edit to correspond to additional post. All notes edited.		
		2	Post numbering. Sheet title.		
		3	Post numbering. Sheet title. Nail removed.		
		4	Dimensions added.		
		9	Note edit.		
		14	Dim add. Note adds.		
		15	Dim add. Note 1 edit.		
		16	Additional top bar, dimensions to correspond.		
		18	e7 quantity.		
		BOM (22,23)	New: a7. Quantity edit: d1, d8, d9, e7, f1, f3. Description edit: a1-a6, g3. Column header edits.		
5	11/18/2016	2	Note added.	KAL	JEK
		7	Sheet title.		
		8	Sheet title.		
		9	Sheet title. Note added.		
		10	Sheet title. Note added. Note edit.		
6	1/18/2017	1	Note 5 edit.	JCH	JEK
		8	Part d3 change.		
		20	Gauge thickness dim added.		
		21	Gauge thickness dim added.		
		23	Description edit: g3. Material edit: f6.		