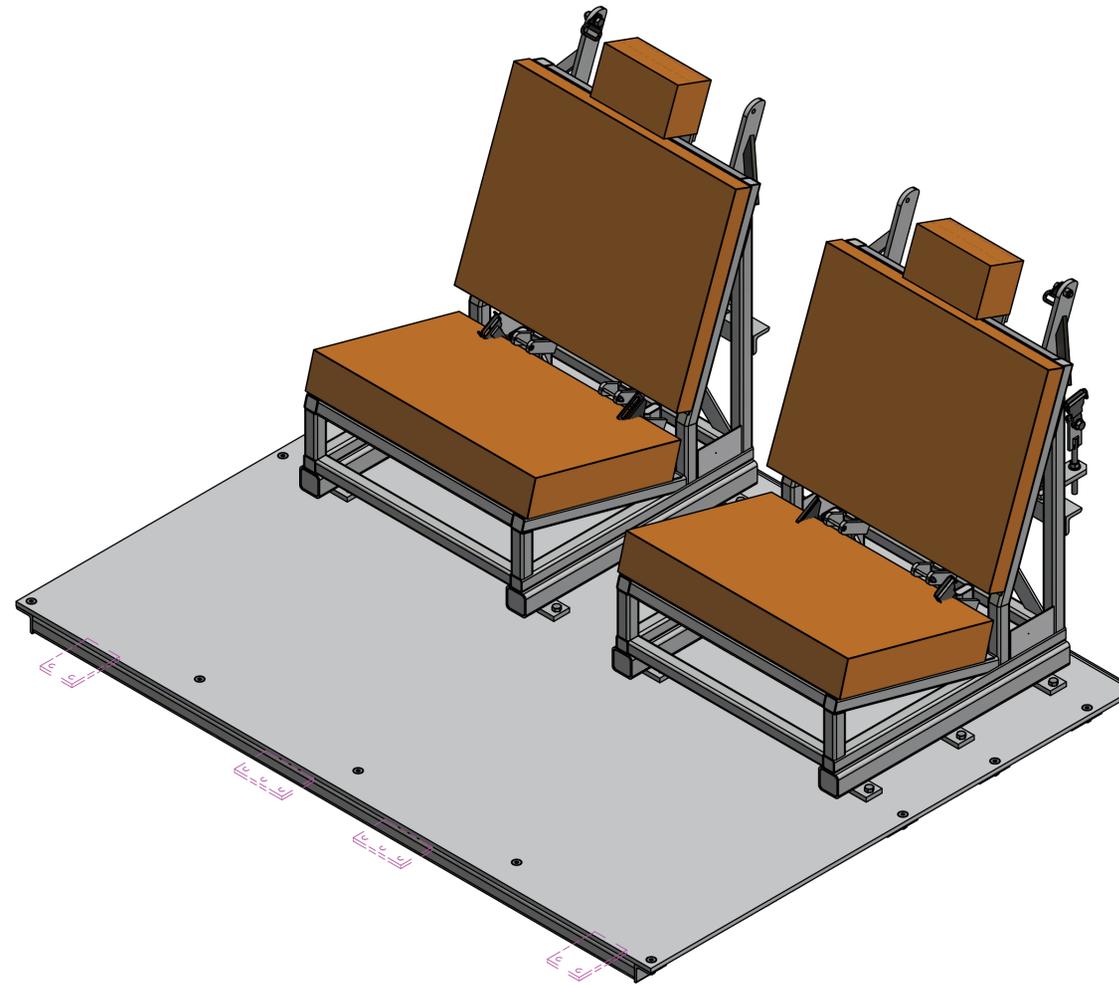
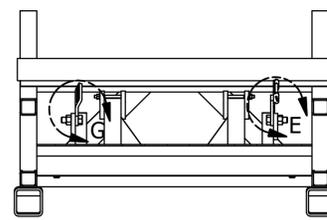
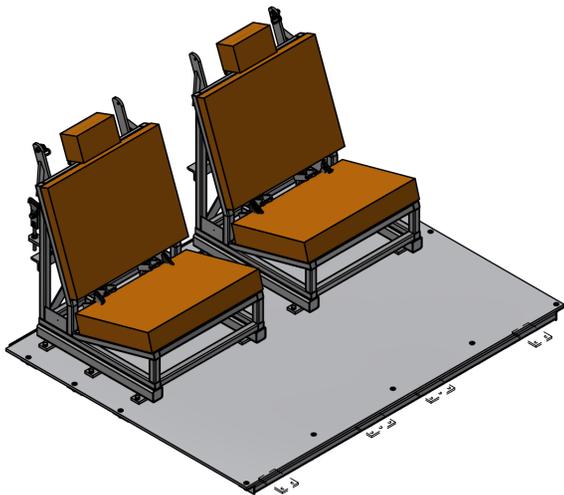


Parts List and Drawings
NHTSA STANDARD SEAT ASSEMBLY; FMVSS No. 213, No. NHTSA-213-2021
CHILD FRONTAL IMPACT SLED



March 2023

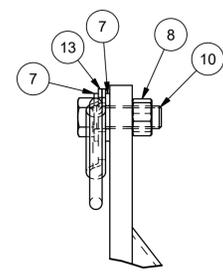
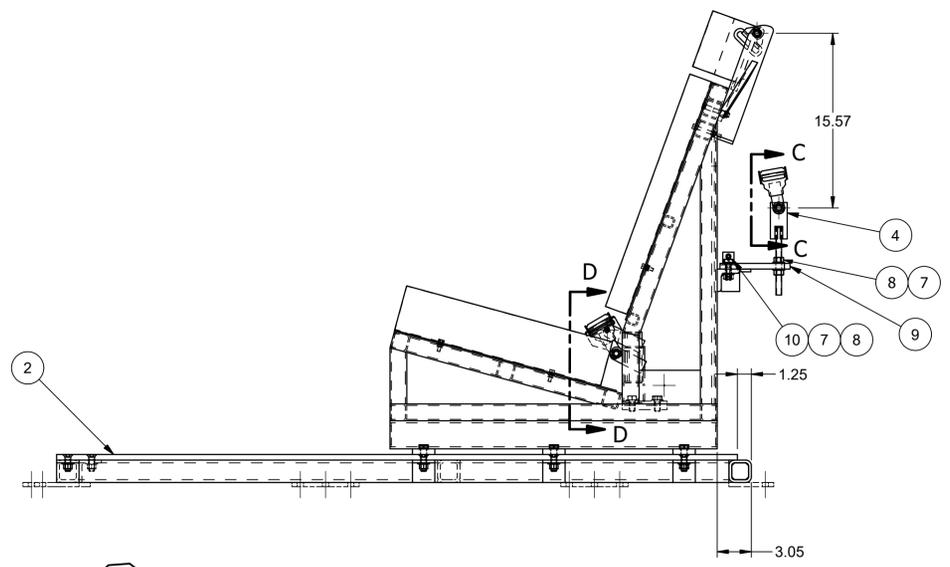
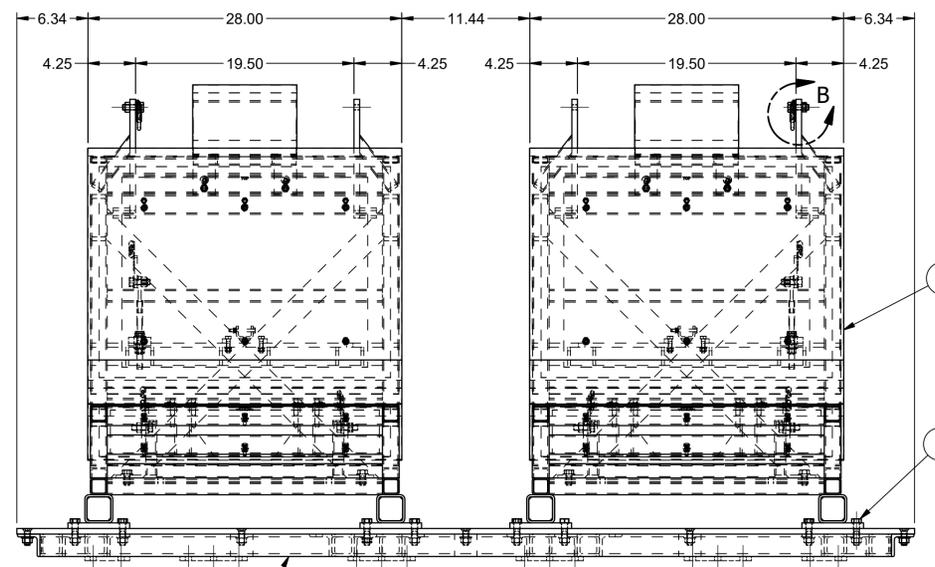
VEHICLE RESEARCH and TEST CENTER
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION



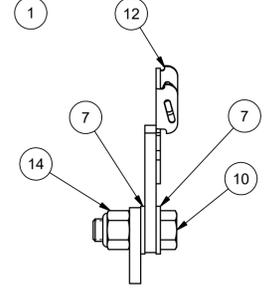
SECTION D-D
SCALE 1/8

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 329.2 [12.96] WAS 369.2 [14.54], 610.0 [24.02] WAS 602.4 [23.72], AND 44.2 [1.74] WAS 48.1 [1.89]	3/10/2015	DW
	C	REDESIGNED UPPER D-RING MOUNT SHEET 1 DIMENSION 161.0 [6.34] WAS 166.6 [6.56], 290.6 [11.44] WAS 292.1 [11.50], 711.2 [28.00] WAS 698.5 [27.50], 292.1 [11.50] WAS 304.8 [12.00], 108.0 [4.25] WAS 44.2 [1.74], 495.3 [19.50] WAS 610.0 [24.02], 328.6 [12.94] WAS 305.5 [12.03], 727.4 [28.64] WAS 644.8 [25.39], 301.3 [11.86] WAS 329.2 [12.96]; ADDED ITEMS 9 THRU 19; ADDED SECTION B-B AND DETAIL C	7/18/2016	DW
	D	3021-332 WAS 9000695V BOLT, HEX HD1/4-20 x2, ADDED ITEM 19 THRU 22 ANCHORS AND REQ FASTENERS, ADDED ANCHOR VIEWS	11/22/2016	JHC
	F	MOVED TETHER ANCHOR ASSEMBLY - 2921-345 AND RELATED HARDWARE TO BENCH SEAT ASSEMBLY 3021-010	4/5/2018	DW
	G	ADDED NOTE #1; QTY. OF ITEM #7 WAS 53	5/2/2019	DW
	H	CONVERTED TO ENGLISH DIMENSIONS, ADDED 15.56 DIMENSION, REMOVED 3021-122, CHANGED QTY OF 3021-121 TO 4, RENUMBERED PARTS LIST	12/15/2021	JHC
	I	ADDED NOTE 1., REORDERED NOTES	2/16/2023	JHC

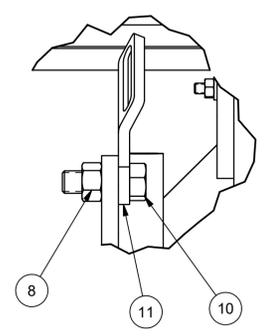
SEE SHT. 2



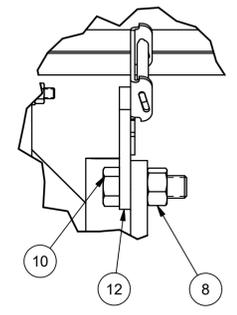
D-RING
DETAIL B
SCALE 1/2



REAR LOCKING BELT
ANCHOR
SECTION C-C
SCALE 1/2



INBOARD LAP BELT
ANCHOR
DETAIL G
SCALE 1/2

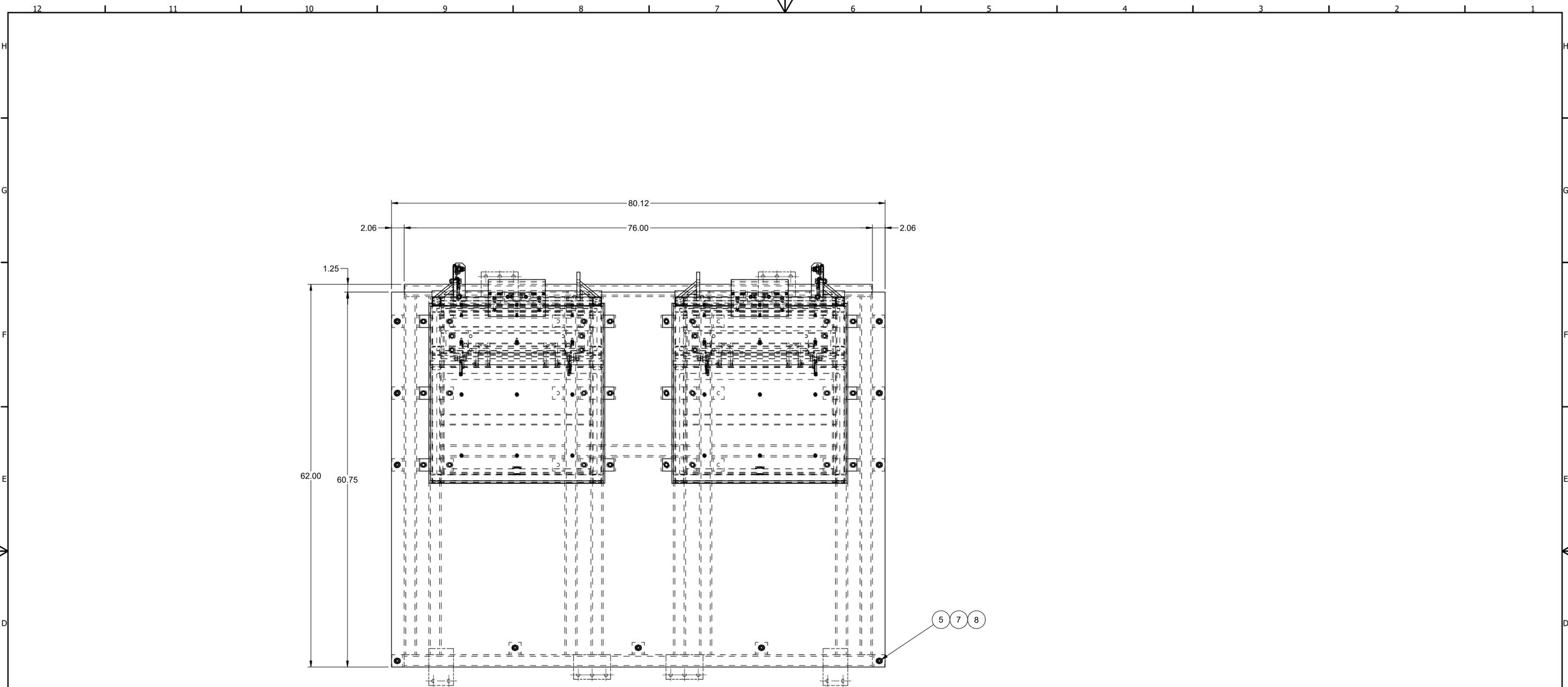


OUTBOARD LAP BELT
ANCHOR
DETAIL E
SCALE 1/2

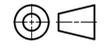
ITEM	QTY	PART NUMBER	DESCRIPTION
14	2	9000131V	HEX LOCKNUT NYLON INSERT, 1/2-13
13	2	3021-123	D-RING
12	4	3021-121	OUTBOARD LAP BELT ANCHOR
11	2	3021-120	INBOARD LAP BELT ANCHOR
10	10	9000609V	BOLT, HEX HD. 1/2-13 x 1 1/2"
9	2	3021-333	REAR LOCKING BELT ANCHOR MTG. BAR ASSY.
8	47	9000274	NUT, HEX 1/2-13
7	49	9000295	WASHER, FLAT Ø1/2" TYPE "A" 1.0625" O.D.
6	24	9000615V	BOLT, HEX HD. 1/2-13 x 2"
5	11	9000480V	SCREW, FHCS 1/2-13 x 1 1/2"
4	2	3021-820	REAR LOCKING BELT ANCHOR ASSY.
3	2	3021-010	BENCH SEAT ASSEMBLY
2	1	3021-117	SUPPORT FRAME COVER PLATE
1	1	3021-105	SUPPORT FRAME TUBE ASSEMBLY

- NOTES:
1. THE TEST EQUIPMENT MUST CONTAIN AT LEAST ONE SEAT BENCH ASSEMBLY. THE SIDE BY SIDE BENCH CONFIGURATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY
 2. ALL DIMENSION TOLERANCES $\pm 0.12"$ UNLESS OTHERWISE NOTED.

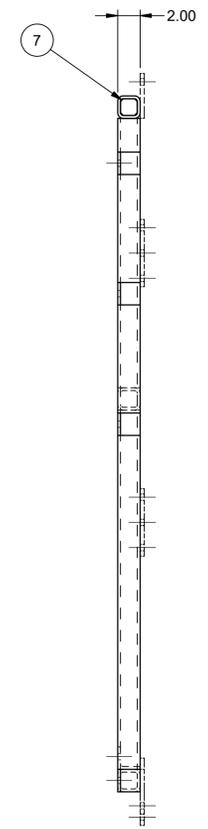
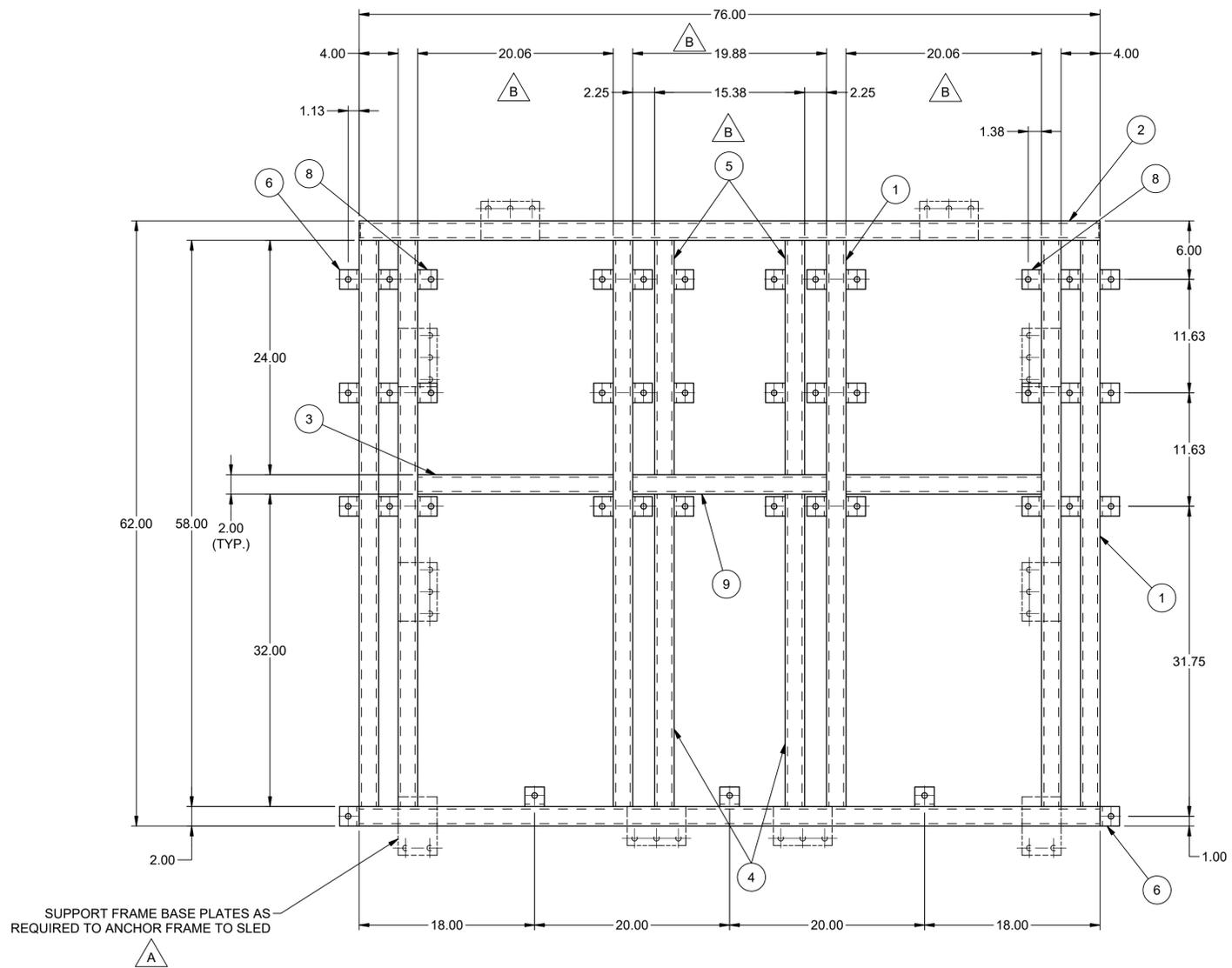
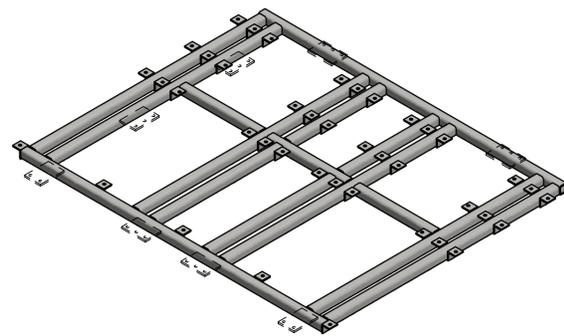
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED <input checked="" type="checkbox"/> .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 4/29/2013		BENCH SEATS & SUPPORT FRAME ASSEMBLY CHILD FRONTAL IMPACT SLED	
MATERIAL: HEAT TREAT: FINISH:	CHECKED: ENG: APPROVED:	THIRD ANGLE PROJECTION		SCALE: 1/8 SHEET 1 OF 2	



VIEW A-A
FROM SHT. 1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL	DRAWN Dave Walker	4/29/2013	BENCH SEATS & SUPPORT FRAME ASSEMBLY CHILD FRONTAL IMPACT SLED
HEAT TREAT	CHECKED		
FINISH	ENG		 THIRD ANGLE PROJECTION
	APPROVED		
			SIZE A1 DRAWING NUMBER 3021-103 REV I SCALE: 1/8 SHEET 2 OF 2

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DESIGNER
	A	MADE FRAME BASE PLATES REFERENCE AND ADDED NOTE; REMOVED WALL SUPPORT ANGLE 3021-106.	2/12/2015	DW
	B	DIMENSION 509.5 [20.06] WAS 508.0 [20.00], 505.0 [19.88] WAS 508.0 [20.00], AND 390.7 [15.38] WAS 393.7 [15.50]; ADDED ITEM #10 3021-110-3 SUPPORT FRAME INTERNAL TUBE #5	6/11/2016	DW
	C	ADDED NOTE #1; QTY. OF ITEM #1 PART # 3021-110-1 WAS 4, REMOVED PART # 3021-110-4	5/1/2019	DW
	D	CONVERTED TO ENGLISH DIMENSIONS, ADDED WELDED NOTE	11/30/2021	JHC



SUPPORT FRAME BASE PLATES AS REQUIRED TO ANCHOR FRAME TO SLED

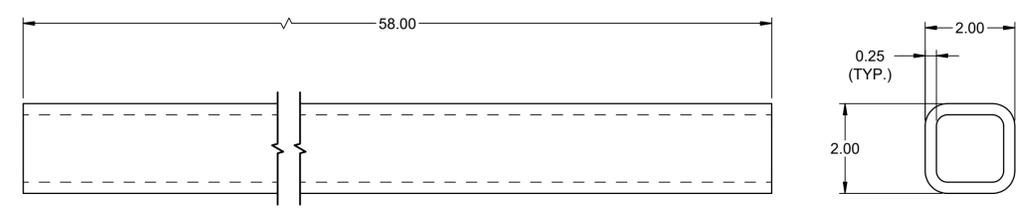
ALL WELDED CONSTRUCTION

ITEM	QTY	PART NUMBER	DESCRIPTION
9	1	3021-110-3	SUPPORT FRAME INTERNAL TUBE 3
8	6	3021-118	SUPPORT FRAME ANGLE CLIP 2
7	2	3021-250-2	2" TUBE CAP
6	35	3021-115	SUPPORT FRAME ANGLE CLIP
5	2	3021-110-7	SUPPORT FRAME INTERNAL TUBE 4
4	2	3021-110-10	SUPPORT FRAME INTERNAL TUBE 5
3	2	3021-110-5	SUPPORT FRAME INTERNAL TUBE 2
2	2	3021-110-2	SUPPORT FRAME FRONT & REAR TUBE
1	6	3021-110-1	SUPPORT FRAME SIDE TUBE

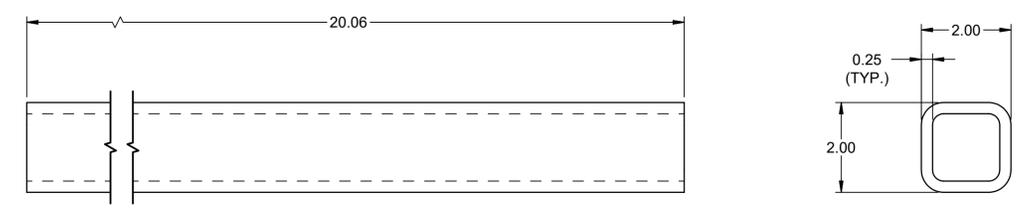
NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 .XX ±.01 .XXX ±.005 ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: Dave Walker DATE: 4/26/2013 CHECKED: _____ ENG: _____ APPROVED: _____		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION SUPPORT FRAME TUBE ASSEMBLY CHILD FRONTAL IMPACT SLED DRAWING NUMBER: 3021-105 SCALE: 1/8 SHEET: 1 OF 1	
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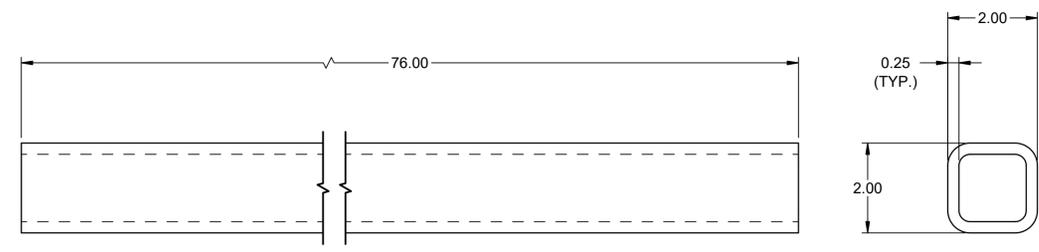
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 509.5 [20.06] WAS 508.0 [20.00], ADDED PART 3021-110-3	4/26/2013	DW
	B	ADDED NOTE #1; REMOVED PART #3021-110-4	5/1/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/30/2021	JHC



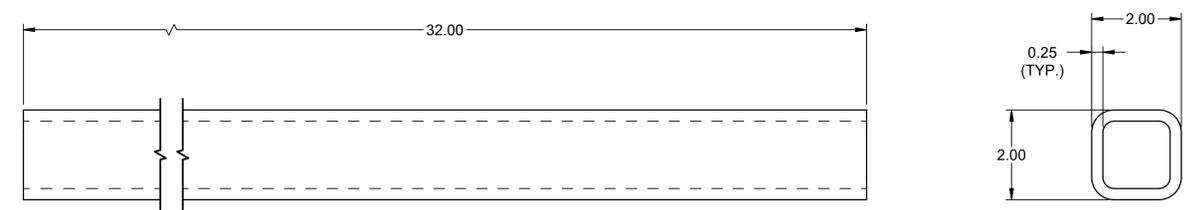
3021-110-1
SUPPORT FRAME SIDE TUBE
T.S. 2 x 2 x 1/4 x 58.0"
(6 REQUIRED)



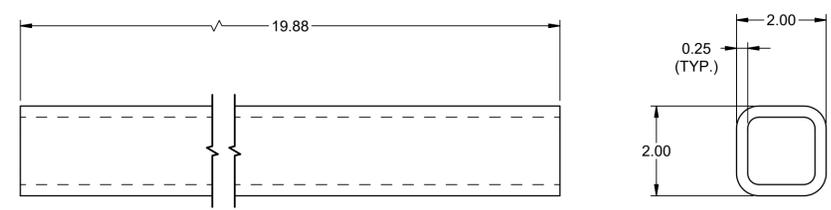
3021-110-5
SUPPORT FRAME INTERNAL TUBE 2
T.S. 2 x 2 x 1/4 x 20.0"
(2 REQUIRED)



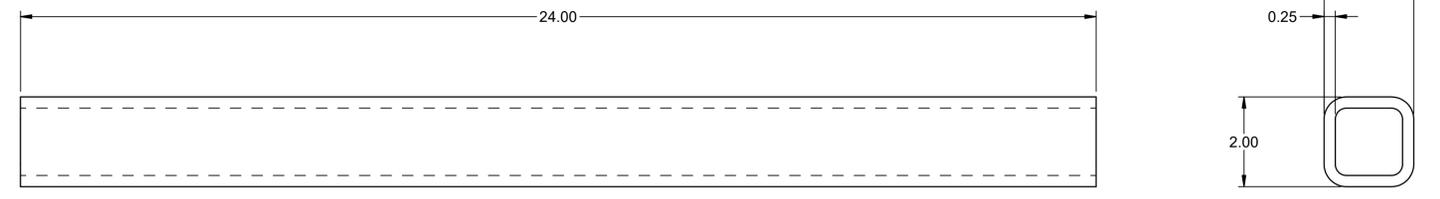
3021-110-2
SUPPORT FRAME FRONT & REAR TUBE
T.S. 2 x 2 x 1/4 x 76.0"
(2 REQUIRED)



3021-110-10
SUPPORT FRAME INTERNAL TUBE 5
T.S. 2 x 2 x 1/4 x 32.0"
(2 REQUIRED)



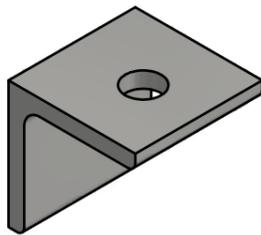
3021-110-3
SUPPORT FRAME INTERNAL TUBE 3
T.S. 2 x 2 x 1/4 x 19.88"
(1 REQUIRED)



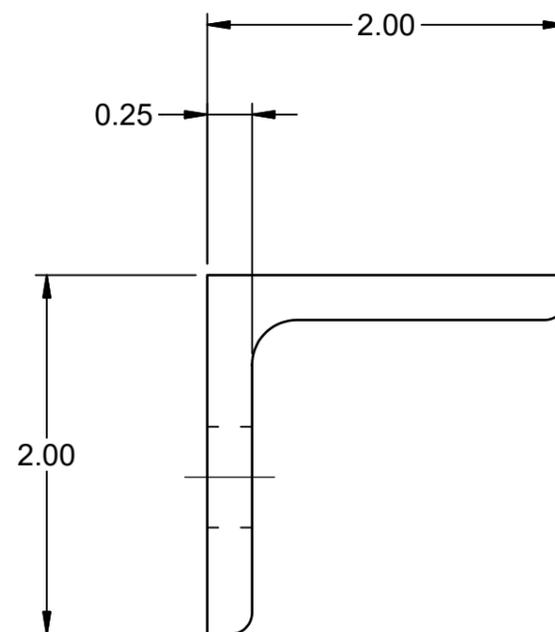
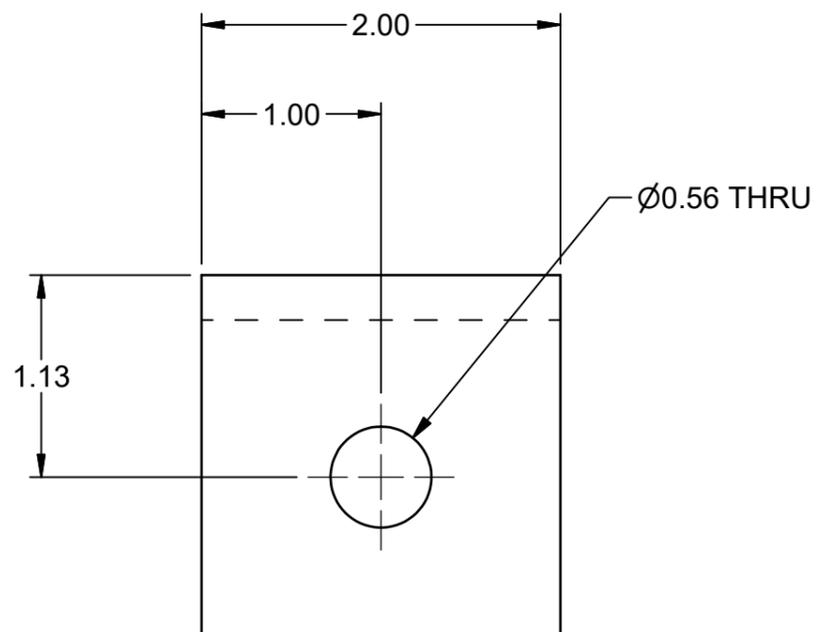
3021-110-7
SUPPORT FRAME INTERNAL TUBE 4
T.S. 2 x 2 x 1/4 x 24.0"
(2 REQUIRED)

NOTES:
1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 .XX ±.01 .XXX ±.005 ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 4/26/2013		SUPPORT FRAME SIDE TUBE CHILD FRONTAL IMPACT SLED	
MATERIAL: STEEL A-500 HEAT TREAT: FINISH:	APPROVED:	SIZE: A1 SCALE: 1/2	DRAWING NUMBER: 3021-110-1 thru 7 SHEET: 1 OF 1	REV: C	



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1	4/17/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/30/2021	JHC

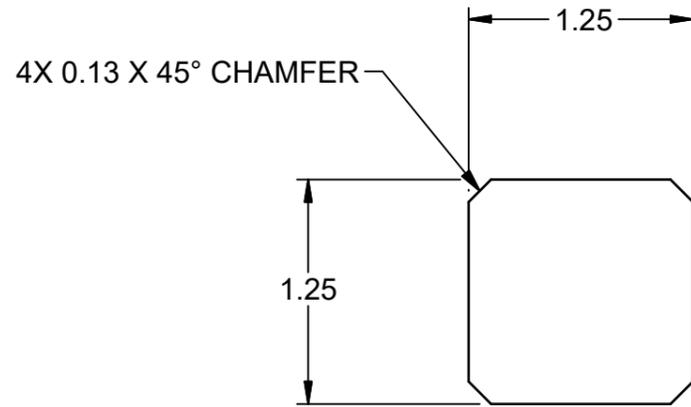


MATERIAL: L 2 x 2 x 1/4 x 2.0"

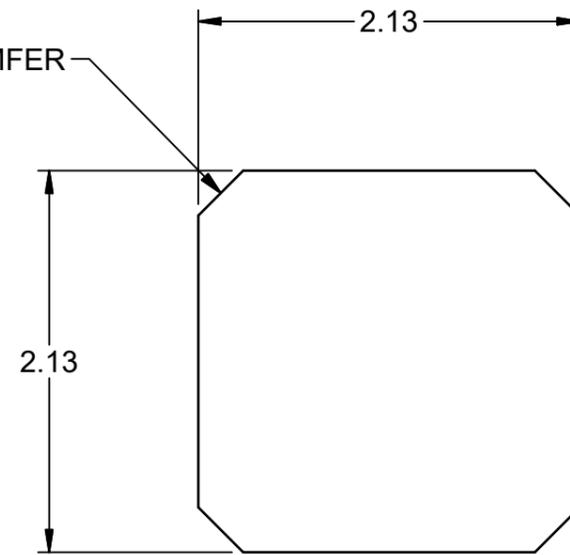
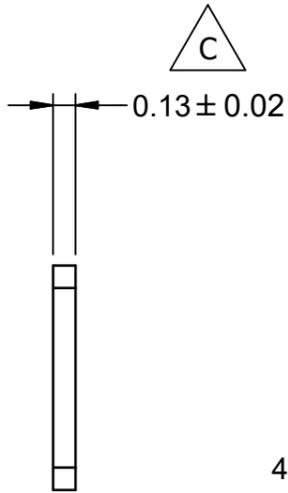
1. CALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED $\frac{125}{254}$.X $\pm .1$ ANGLES $\pm .5^\circ$.XX $\pm .01$ FRACTION $\pm 1/64$.XXX $\pm .005$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
					APPROVALS
	MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	SUPPORT FRAME ANGLE CLIP		
	HEAT TREAT	CHECKED	CHILD FRONTAL IMPACT SLED		
FINISH	ENG	APPROVED	DATE 4/26/2013	SIZE: A3 SCALE: 1:1	
				DRAWING NUMBER: 3021-115 SHEET: 1 OF 1	

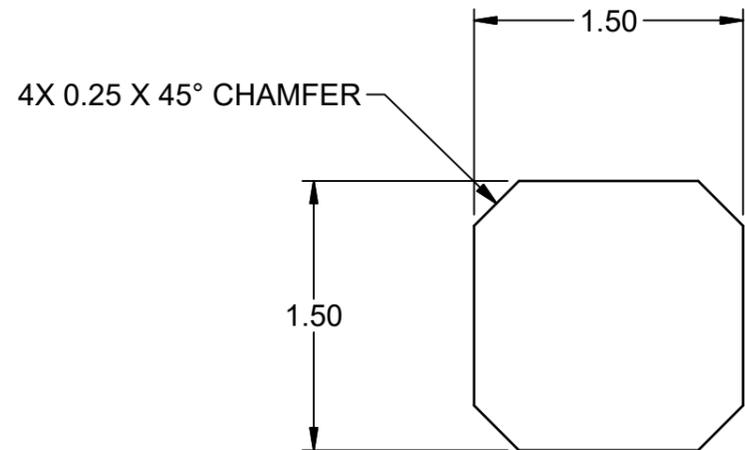
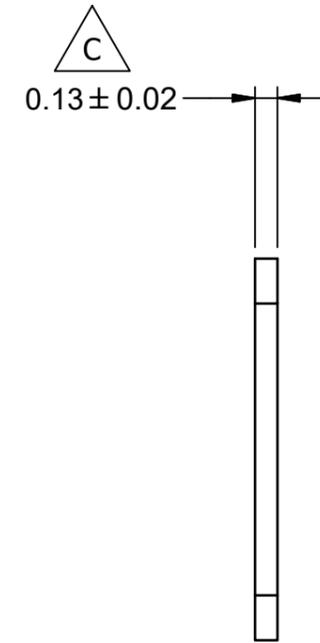
REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1	4/4/2013	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/30/2021	JHC
	C	ADDED TOLERANCE TO DIMENSION	2/16/2023	JHC



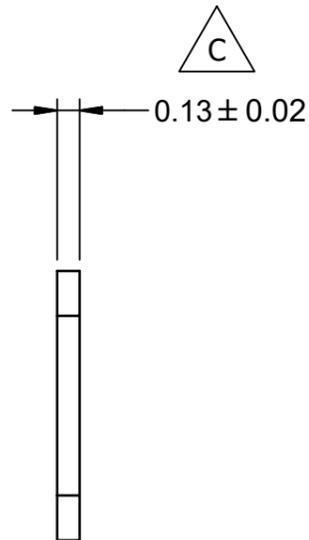
3021-250-1
BENCH FRAME TUBE CAP #1
PL 0.13" x 1.25" x 1.25"



3021-250-3
2 1/2" TUBE CAP
PL 0.13" x 2.13" x 2.13"



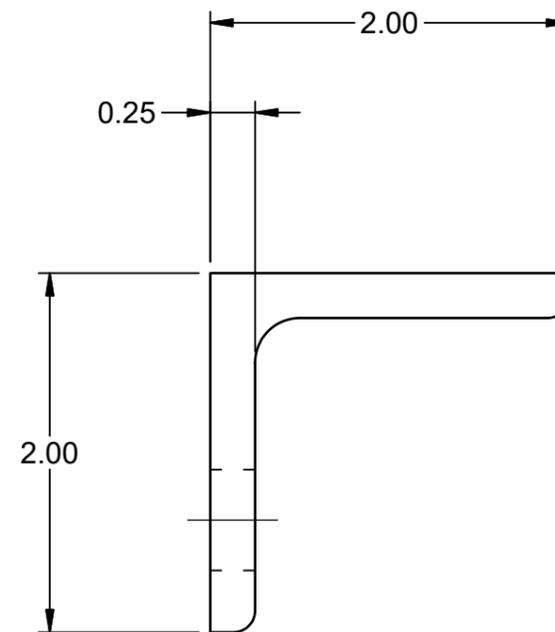
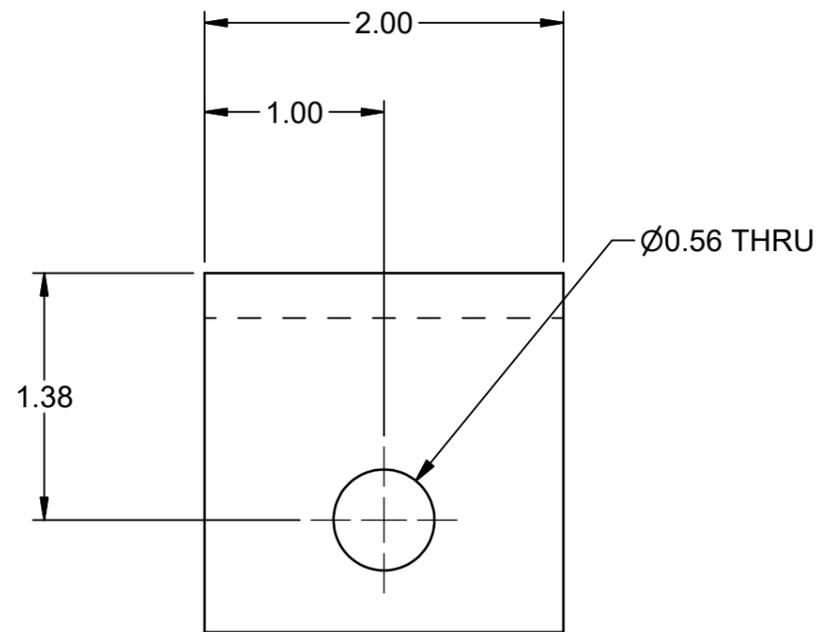
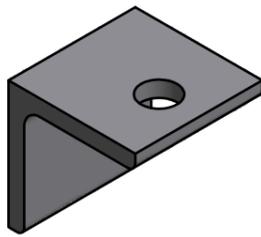
3021-250-2
2" TUBE CAP
PL 0.13" x 1.5" x 1.5"



NOTES:
A 1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED: $\frac{125}{64}$ ANGLES: ±.5° FRACTION: ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE		TUBE CAPS CHILD FRONTAL IMPACT SLED	
	DRAWN Dave Walker	4/4/2013	SIZE A3		
	MATERIAL STEEL ASTM-A36	CHECKED		SCALE: 1:1	SHEET 1 OF 1
HEAT TREAT	ENG				
FINISH	APPROVED				

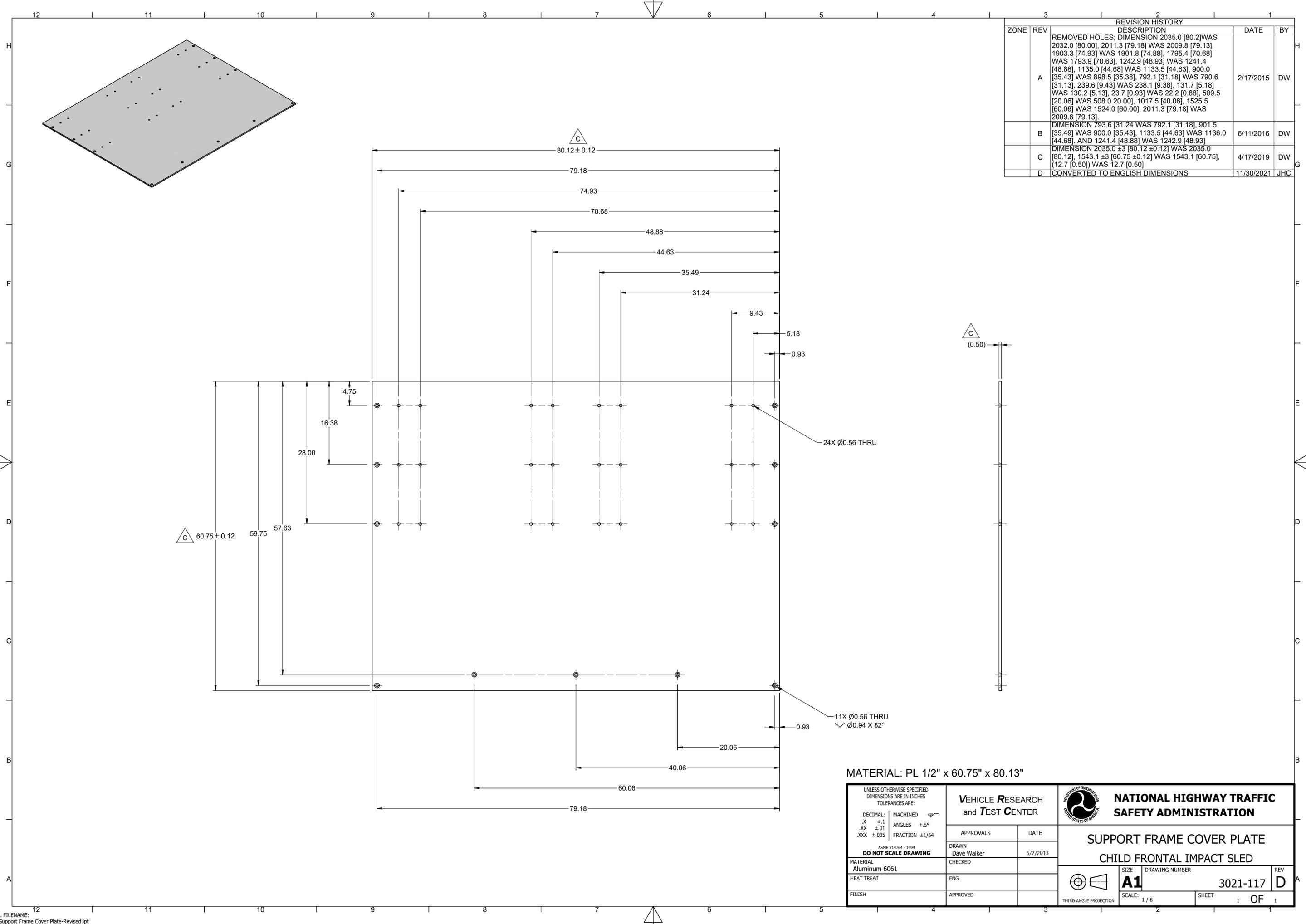
REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1	4/17/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/30/2021	JHC



MATERIAL: L 2 x 2 x 1/4 x 2.0"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED: $\sqrt{25}$ ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
MATERIAL STEEL ASTM-A36		APPROVALS DRAWN Dave Walker		DATE 4/26/2013	
HEAT TREAT		CHECKED		SUPPORT FRAME ANGLE CLIP 2 CHILD FRONTAL IMPACT SLED	
FINISH		ENG 4/26/2013		SIZE A3	
		APPROVED		DRAWING NUMBER 3021-118	
				SCALE: 1 : 1	
				SHEET 1 OF 1	

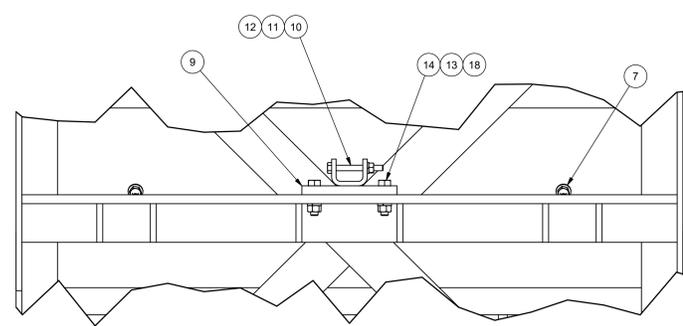
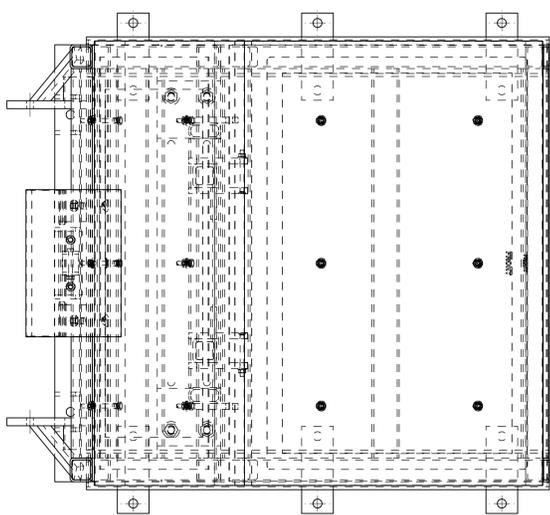
NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12"
 UNLESS OTHERWISE NOTED.



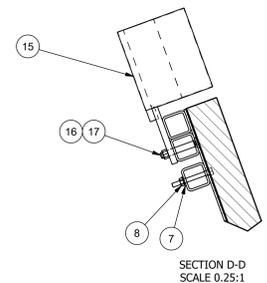
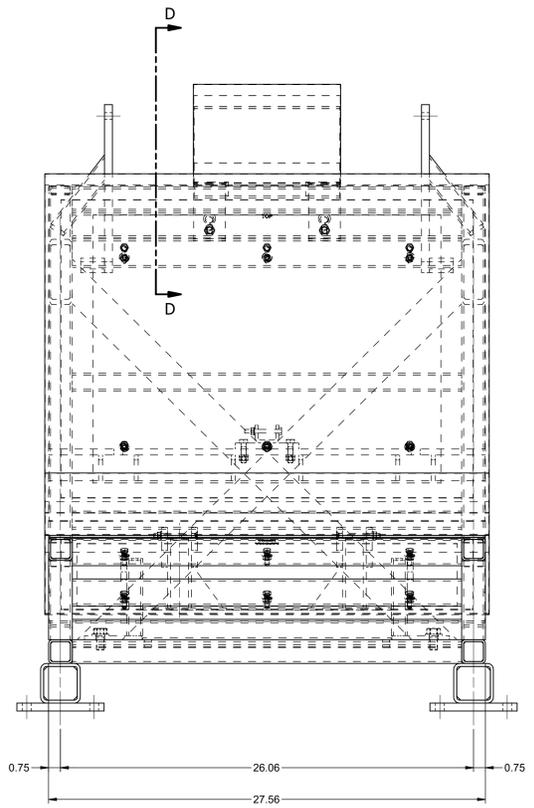
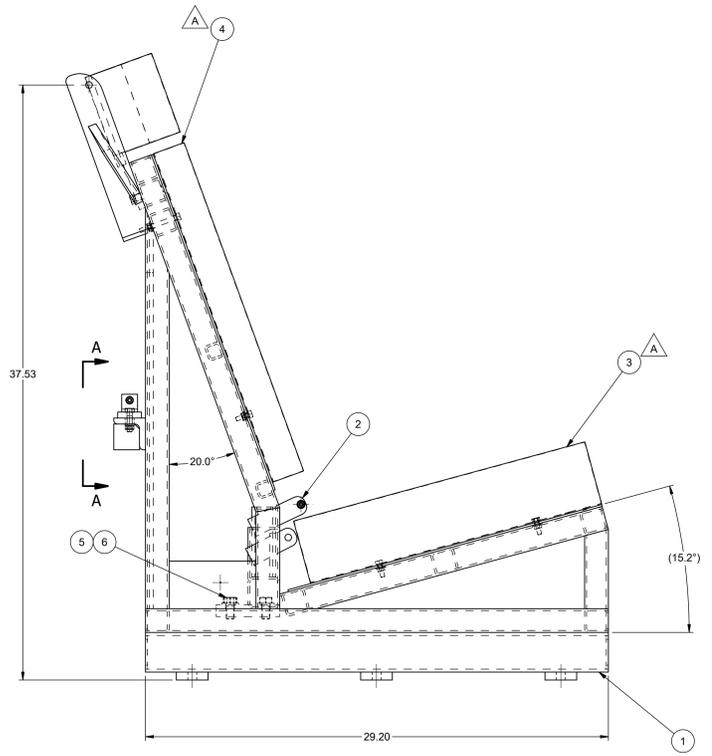
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REMOVED HOLES; DIMENSION 2035.0 [80.2] WAS 2032.0 [80.00], 2011.3 [79.18] WAS 2009.8 [79.13], 1903.3 [74.93] WAS 1901.8 [74.88], 1795.4 [70.68] WAS 1793.9 [70.63], 1242.9 [48.93] WAS 1241.4 [48.88], 1135.0 [44.68] WAS 1133.5 [44.63], 900.0 [35.43] WAS 898.5 [35.38], 792.1 [31.18] WAS 790.6 [31.13], 239.6 [9.43] WAS 238.1 [9.38], 131.7 [5.18] WAS 130.2 [5.13], 23.7 [0.93] WAS 22.2 [0.88], 509.5 [20.06] WAS 508.0 [20.00], 1017.5 [40.06], 1525.5 [60.06] WAS 1524.0 [60.00], 2011.3 [79.18] WAS 2009.8 [79.13].	2/17/2015	DW
	B	DIMENSION 793.6 [31.24] WAS 792.1 [31.18], 901.5 [35.49] WAS 900.0 [35.43], 1133.5 [44.63] WAS 1136.0 [44.68]. AND 1241.4 [48.88] WAS 1242.9 [48.93]	6/11/2016	DW
	C	DIMENSION 2035.0 ±3 [80.12 ±0.12] WAS 2035.0 [80.12], 1543.1 ±3 [60.75 ±0.12] WAS 1543.1 [60.75], (12.7 [0.50]) WAS 12.7 [0.50]	4/17/2019	DW
	D	CONVERTED TO ENGLISH DIMENSIONS	11/30/2021	JHC

MATERIAL: PL 1/2" x 60.75" x 80.13"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker	DATE 5/7/2013		SUPPORT FRAME COVER PLATE CHILD FRONTAL IMPACT SLED	
MATERIAL Aluminum 6061 HEAT TREAT FINISH	CHECKED ENG APPROVED	SIZE A1	DRAWING NUMBER 3021-117	REV D	SCALE: 1/8 SHEET 1 OF 1



VIEW A-A
SCALE 0.375



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	REVISED ITEM #3 3021-230 SEAT PAN CUSHION ASSY. AND #4 3021-245 SEAT BACK CUSHION ASSEMBLY.	2/19/2015	DW
	B	REDESIGNED ITEM #2, PART #3021-750, LATCH ASSEMBLY; REDESIGNED UPPER D-RING MOUNT (3021-015 - BENCH SEAT FRAME ASSEMBLY); DIMENSION 953.2 [37.53] WAS 955.7 [37.63], 661.9 [26.06] WAS 660.4 [26.00], AND 700.0 [27.56] WAS 698.5 [27.50]	7/12/2016	DW
	C	QTY. OF ITEMS #7 & 8 WAS 12, ADDED ITEMS 9 THRU 14 AND VIEW A-A	4/4/2018	DW
	D	ADDED NOTE #1	4/17/2019	DW
	E	CONVERTED TO ENGLISH DIMENSIONS, ADDED HEAD RESTRAINT AND FASTENERS, REVISED TETHER BOLT TO 6MM & FLATWASHER AND NUT, RENUMBERED PARTS LIST	12/15/2021	JHC
	F	REMOVED MATERIAL COLUMN FROM THE PARTS LIST, REVISED DESCRIPTION OF ITEM 15 (3021-280)	2/21/2023	JHC

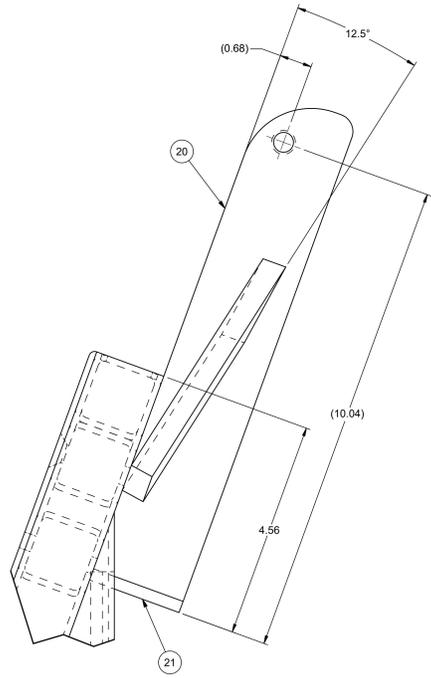
ITEM	QTY	PART NUMBER	DESCRIPTION
18	2	9000656	NUT, HEX 5/16-18
17	2	9000478V	SCREW, FHCS 3/8-16 x 2 1/2"
16	2	9000657V	NUT, HEX 3/8-16
15	1	3021-280	ATD HEAD PROTECTION DEVICE (ATDHPD)
14	2	9000942V	BOLT, HEX HD, 5/16-18 x 1 1/4"
13	2	9000118	WASHER, SPRING LOCK 5/16"
12	1	9009091	NUT, HEX M6-1
11	1	5001212V	WASHER, SPRING LOCK M6
10	1	5000565V	BOLT, HEX HD, M6 x1 x 55
9	1	2921-345	TETHER ANCHOR ASSEMBLY
8	12	9001199	NUT, HEX 1/4-20 (UNPLATED)
7	12	9000244	WASHER, FLAT 1/4"
6	4	9000604V	BOLT, HEX HD, 1/2-13 x 1"
5	4	9000295	WASHER, FLAT 1/2" TYPE "A" 1.0625" O.D.
4	1	3021-245	SEAT BACK CUSHION ASSY.
3	1	3021-230	SEAT PAN CUSHION ASSY.
2	1	3021-750	LATCH ASSEMBLY
1	1	3021-015	BENCH SEAT FRAME ASSEMBLY

NOTES:
1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

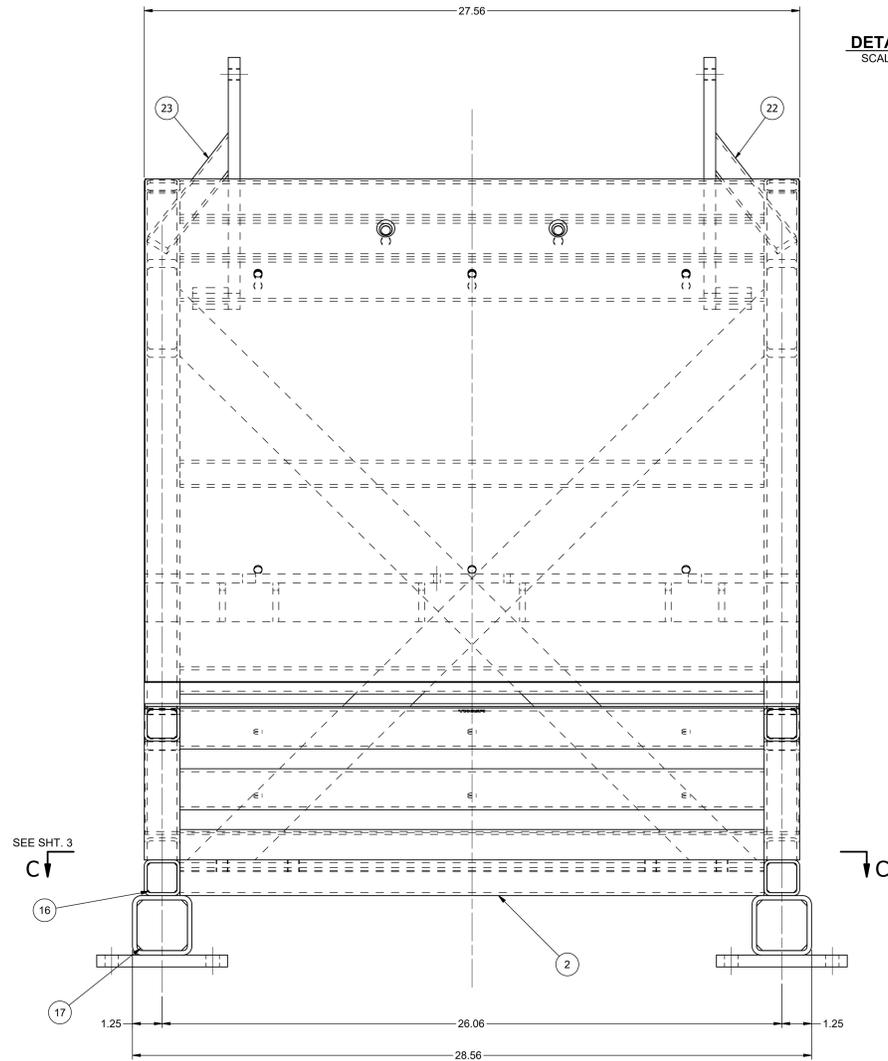
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: .X ±.1	MACHINED ✓	APPROVALS	DATE	BENCH SEAT ASSEMBLY CHILD FRONTAL IMPACT SLED	
XX ±.01	ANGLES ±.5°	DRAWN Dave Walker	4/12/2013	DRAWING NUMBER 3021-010	
XXX ±.005	FRACTION ±1/64	CHECKED		SCALE: 0.25:1	
DO NOT SCALE DRAWING		HEAT TREAT ENG		SHEET 1 OF 1	
MATERIAL		FINISH APPROVED		REV F	



B
SEE SHT. 2



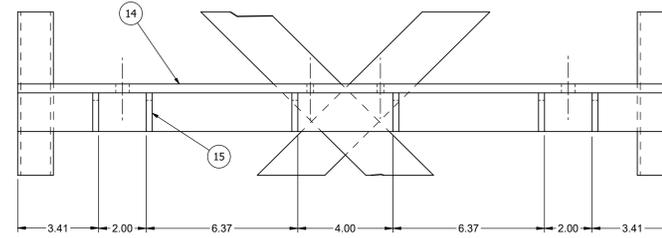
DETAIL G
SCALE 3/4



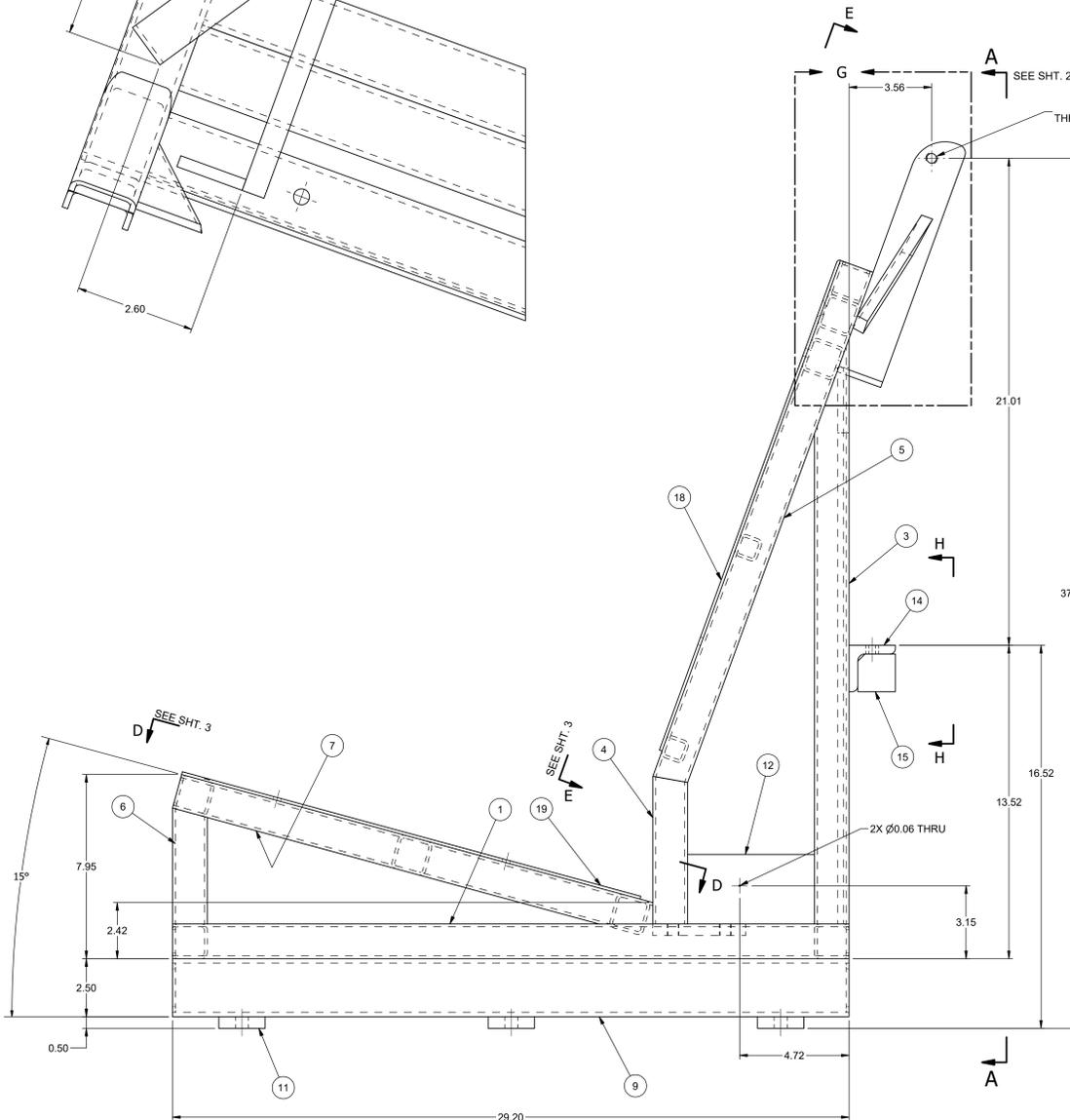
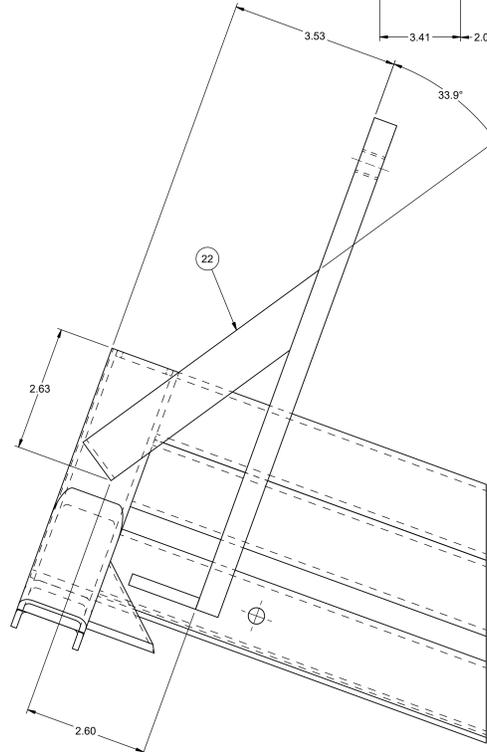
SEE SHT. 3

NOTES:
1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

B



SECTION H-H
SCALE 0.375 : 1



SEE SHT. 3

SEE SHT. 3

2X 1/2-13 UNC - 2B THRU - TYP BOTH ANCHORS

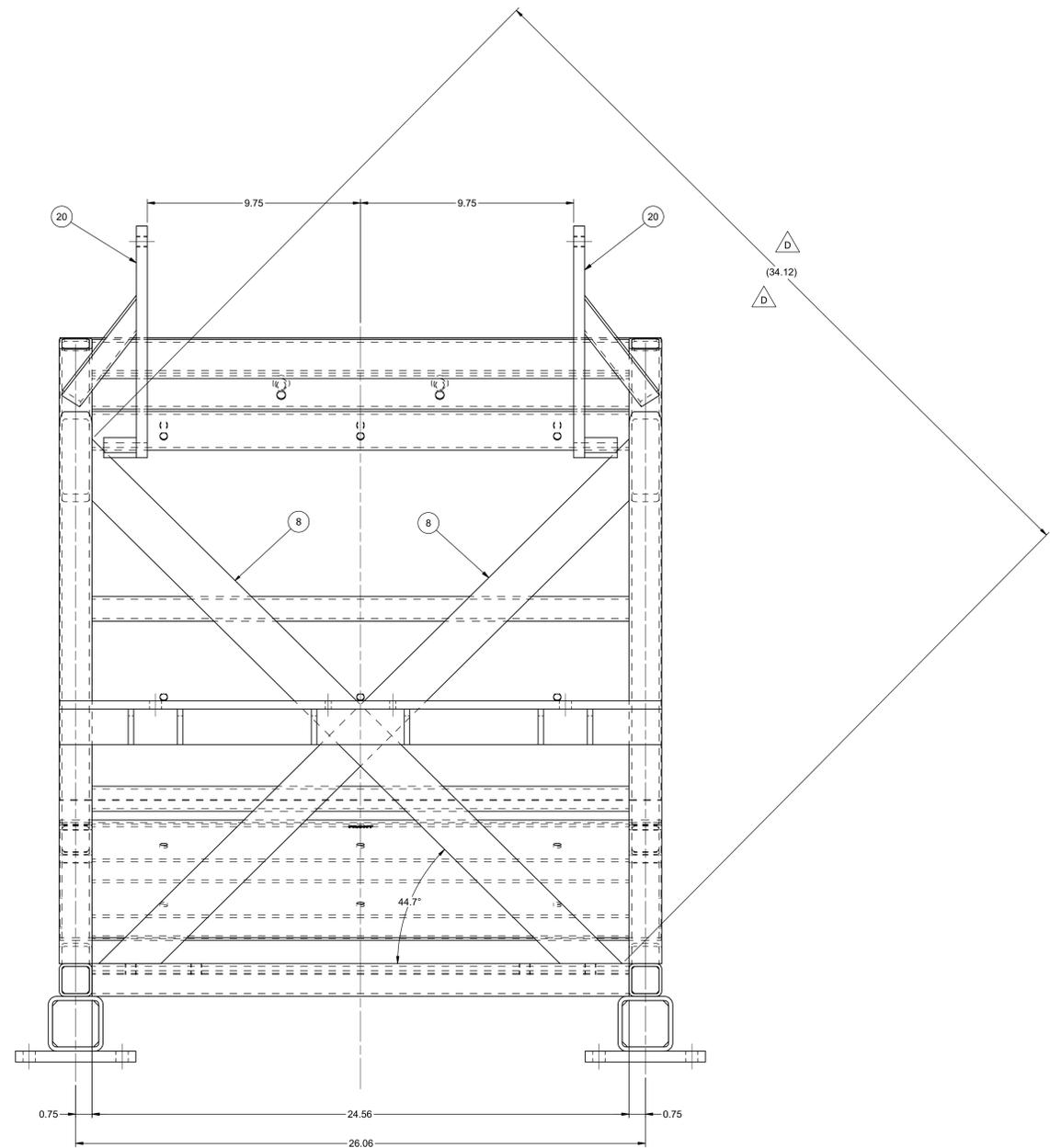
2X Ø0.06 THRU

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
G2, 12	A	ADDED VIEWS D-D AND E-E REMOVED PARTS 3021-220-1, 3021-220-2, 3021-221, & 3021-250-2; ADDED PARTS 3021-201, 3021-326, 3021-342, 3021-339, & 3021-340; REDESIGNED UPPER D-RING ANCHOR	2/19/2015	DW
	B	ADDED DETAIL G, DIM. 953.2 [37.53] WAS 926.4[36.47] AND 700.0[27.56] WAS 800.1[31.50] SHEET 1 DIM. 247.7[9.75] WAS 305.0[12.01], 600.2[23.63] WAS 574.8[22.63], 940.5[37.03] WAS 901.0[35.47] SHEET 2 DIM. 121.4[4.78] WAS 88.9[3.50], 228.6[9.00] WAS 260.4[10.25], 108.0[4.25] WAS 69.9[2.75], 342.9[13.05] WAS 311.2[12.25], 575.0[22.64] WAS 546.1[21.50], 121.4[4.78] WAS 88.9[3.50], 228.6[9.00] WAS 260.4[10.25], 260.3[10.25] WAS 304.8[12.00]; HOLE NOTE 6X Ø8.2 THRU [6X Ø0.32 THRU] WAS ((6X Ø8.2 THRU [6X Ø0.32 in THRU])	7/14/2016	DW
	C	ADDED SECTION H-H ADDED NOTE #1, SHEET 3 OF 3 VIEW E-E DIM. 336.6 [13.25] WAS 342.9 [13.50]; CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE SHT. 2 OF 3 DIMENSION (Ø67 [34.12]) WAS 866.8 [34.12], (Ø00 [15.77]) WAS 400.5 [15.77], (127 [5.00]) WAS 127.0 [5.00], (339 [13.35]) WAS 339.1 [13.35] SHT. 3 OF 3 HOLE DIMENSION 6X 8.7 THRU [6X 0.34 THRU] WAS 6X 8.2 THRU [6X 0.32 THRU]	3/8/2018	DW
	D	ADDED SECTION H-H ADDED SECTION H-H	4/17/2019	DW
	E	REMOVED ITEMS 8, 11, & 23 FROM BOM AND RENUMBERED, CHANGED ITEM 2 QTY TO 8, REVISED DIMENSIONS ON SHT 2, REMOVED 270, 44, 129 AND 575 DIMS, REVISED DIMS 15" WAS 15.2", 20" WAS 20.0". ADDED 229 DIM REVISED SHT 3 - 700 DIM WAS 699, CONVERTED TO ENGLISH DIMENSIONS, RENUMBERED BOM, ADDED WELDED NOTE	12/1/2021	JHC

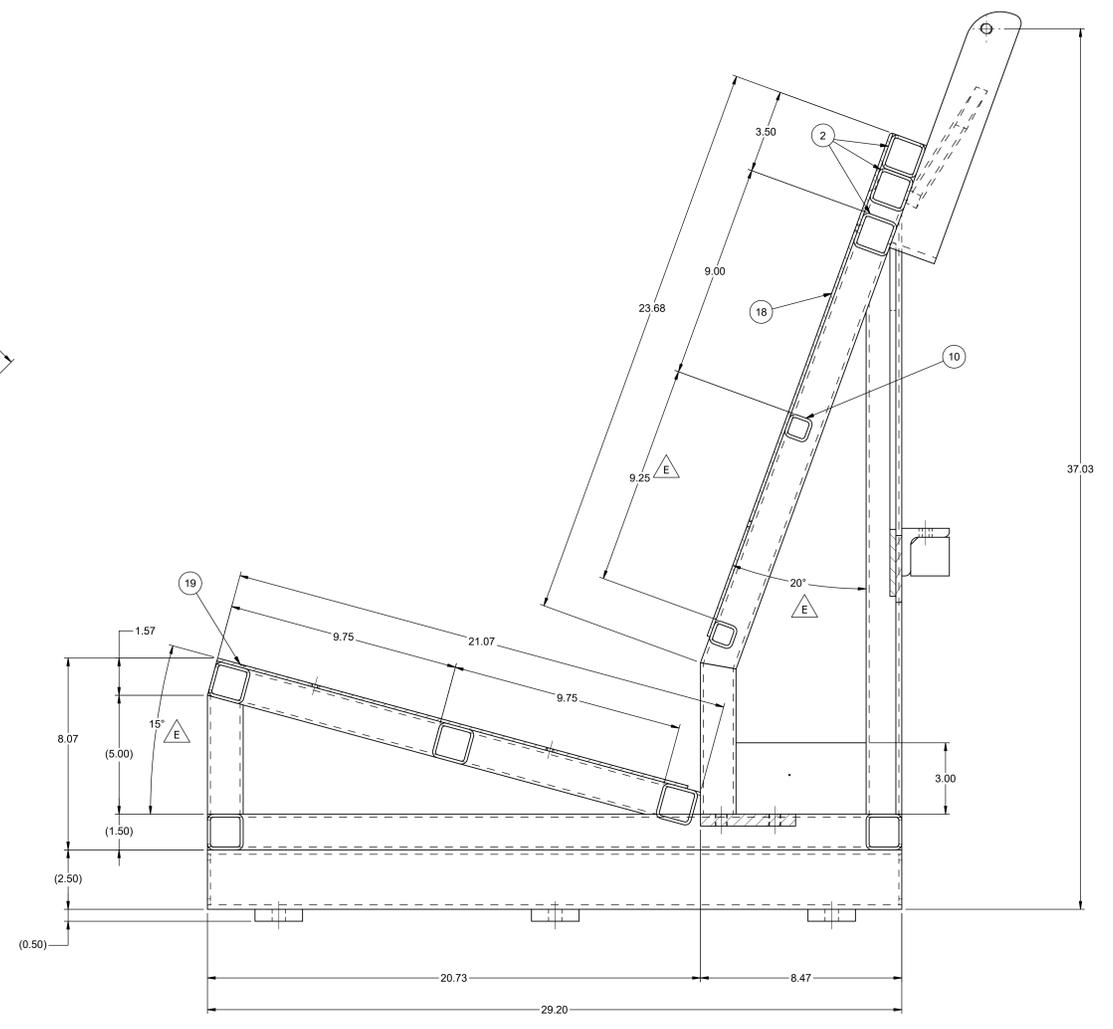
ALL WELDED CONSTRUCTION

ITEM	QTY	PART NUMBER	DESCRIPTION
23	1	3021-340	D-RING ANCHOR BRACE BAR - RIGHT
22	1	3021-339	D-RING ANCHOR BRACE BAR - LEFT
21	2	3021-342	D-RING ANCHOR GUSSET
20	2	3021-326	D-RING ANCHOR
19	1	3021-260	BENCH SEAT PAN PLATE
18	1	3021-265	BENCH SEAT BACK PLATE
17	4	3021-250-3	2 1/2" TUBE CAP
16	8	3021-250-1	BENCH FRAME TUBE CAP #1
15	6	3021-851	REAR SHELF MOUNT - ANGLE GUSSET
14	1	3021-850	REAR SHELF MOUNT
13	1	3021-270	SEAT BELT ANCHOR PLATE
12	2	3021-255	Z POINT PLATE
11	6	3021-209	SEAT FRAME ANCHOR PLATE
10	2	3021-200-10	BENCH FRAME TUBE #10
9	2	3021-200-9	BENCH FRAME TUBE #9
8	2	3021-205	BENCH CROSS BRACE PLATE
7	2	3021-200-7	BENCH FRAME TUBE #7
6	2	3021-200-6	BENCH FRAME TUBE #6
5	2	3021-200-5	BENCH FRAME TUBE #5
4	2	3021-200-4	BENCH FRAME TUBE #4
3	2	3021-200-3	BENCH FRAME TUBE #3
2	8	3021-200-2	BENCH FRAME TUBE #2
1	2	3021-200-1	BENCH FRAME TUBE #1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 XXX ±.005 ASME Y14.5M-1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: _____ DATE: 4/12/2013 DRAWN: Dave Walker CHECKED: _____ HEAT TREAT: ENG FINISH: APPROVED _____		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION BENCH SEAT FRAME ASSEMBLY CHILD FRONTAL IMPACT SLED SIZE: A0 DRAWING NUMBER: 3021-015 SCALE: 0.375 : 1 SHEET: 1 OF 3	
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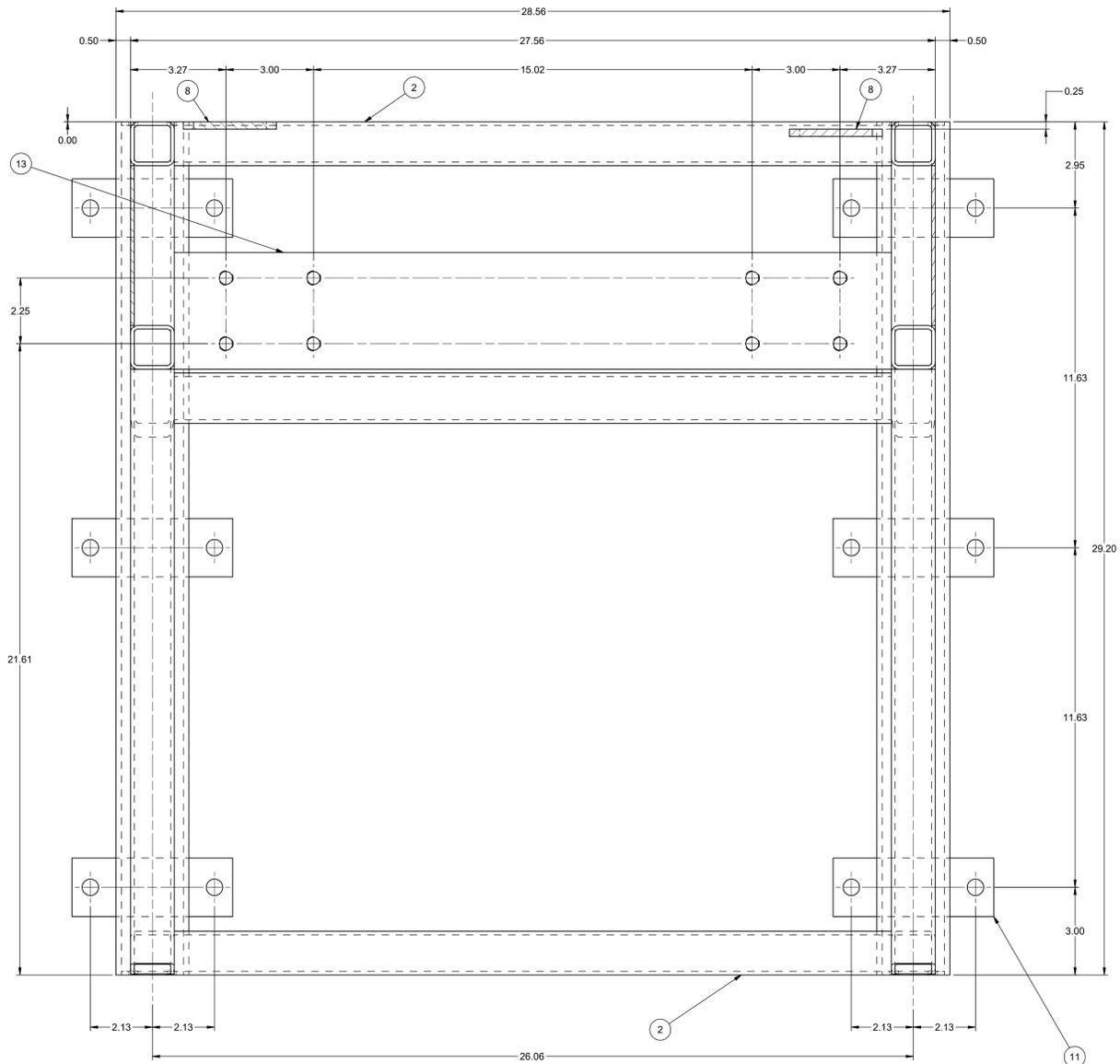


VIEW A-A
FROM SHT. 1

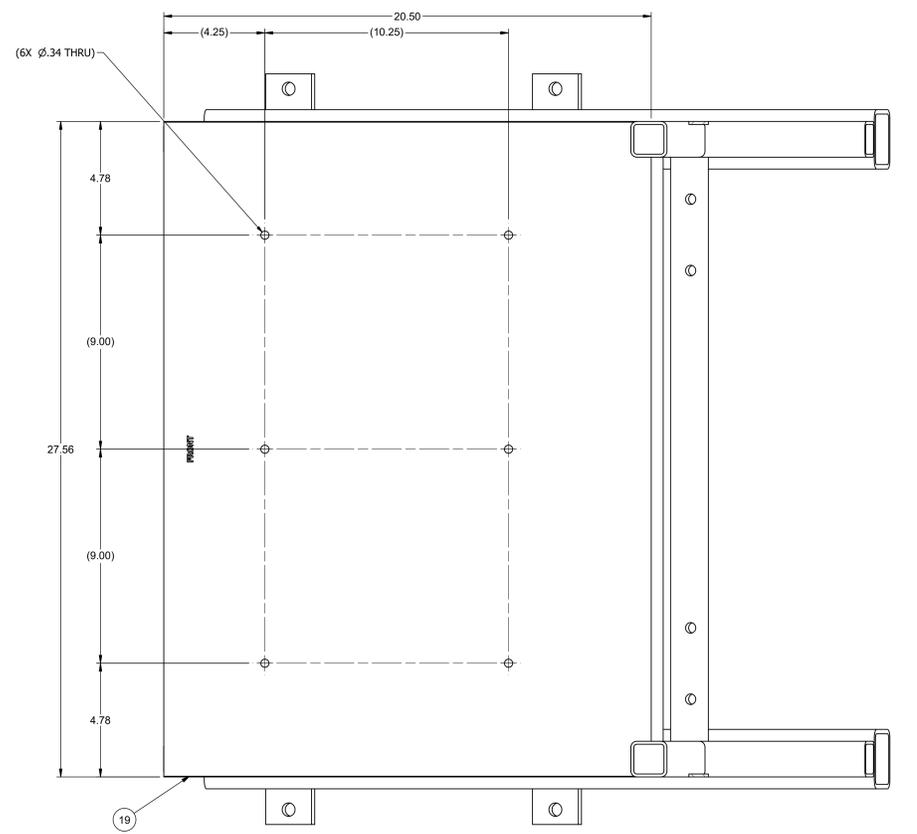


SECTION B-B
FROM SHT. 1

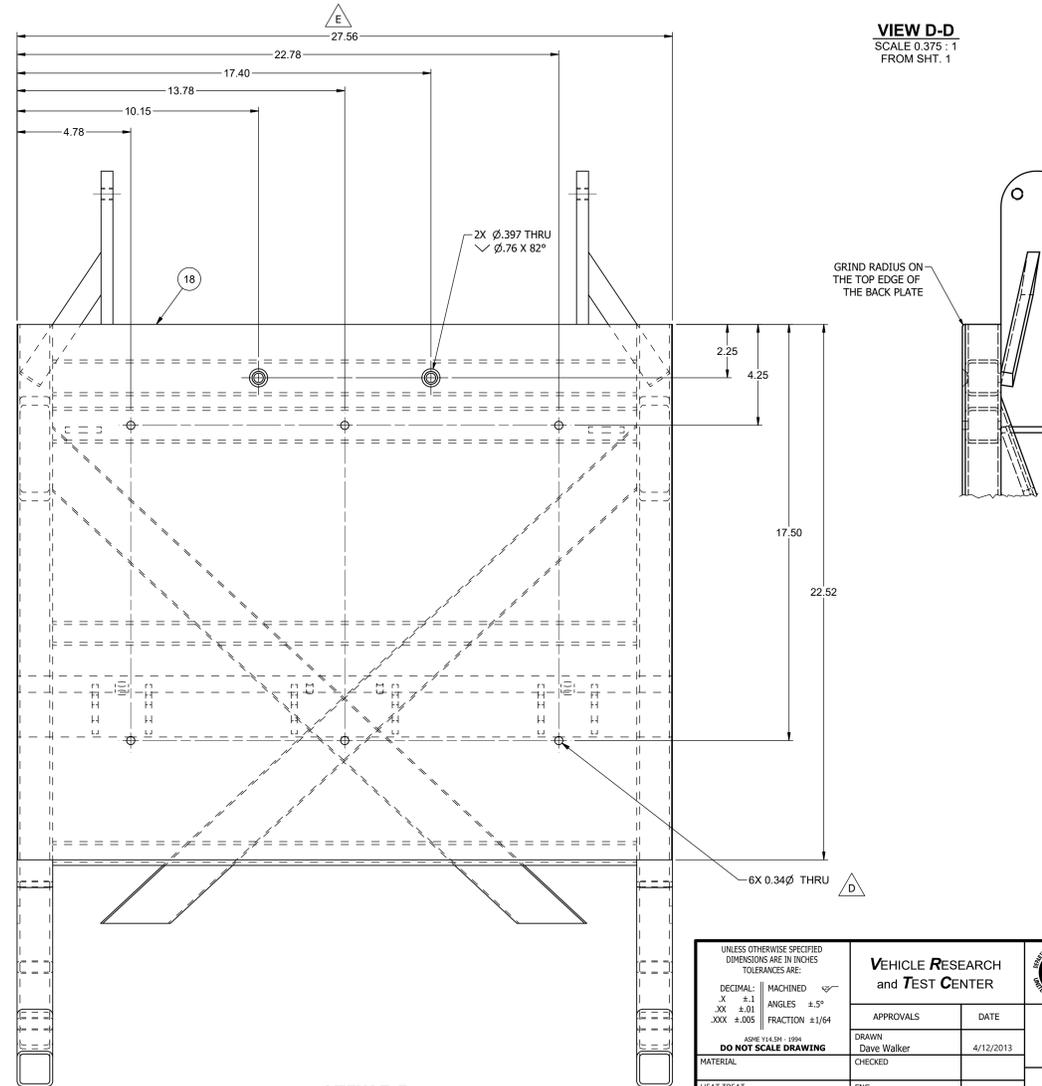
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: .X ±.1	MACHINED ✓	APPROVALS	DATE	BENCH SEAT FRAME ASSEMBLY	
XX ±.01	ANGLES ±.5°	Drawn Dave Walker	4/12/2013	CHILD FRONTAL IMPACT SLED	
XXX ±.005	FRACTION ±1/64	CHECKED		DRAWING NUMBER A0 3021-015 E	
DO NOT SCALE DRAWING		MATERIAL		SCALE: 0.375 : 1	
HEAT TREAT		FINISH		SHEET 2 OF 3	



SECTION C-C
FROM SHT. 1



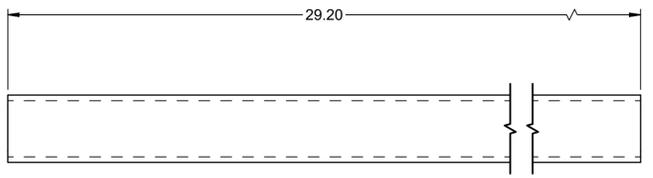
VIEW D-D
SCALE 0.375 : 1
FROM SHT. 1



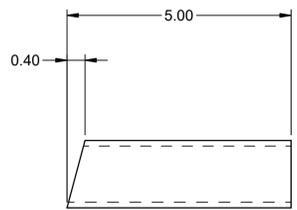
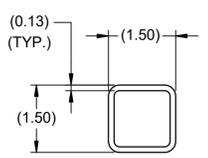
VIEW E-E
SCALE 0.375 : 1
FROM SHT. 1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: MACHINED ✓	ANGLES ±5°	APPROVALS	DATE	BENCH SEAT FRAME ASSEMBLY CHILD FRONTAL IMPACT SLED	
.X ±.1	FRACTION ±1/64	DRAWN Dave Walker	4/12/2013		
.XXX ±.005		CHECKED		SIZE: A0 DRAWING NUMBER: 3021-015 REV: E	
DO NOT SCALE DRAWING		MATERIAL	HEAT TREAT	SCALE: 0.5 : 1 SHEET 3 OF 3	
		FINISH	APPROVED		

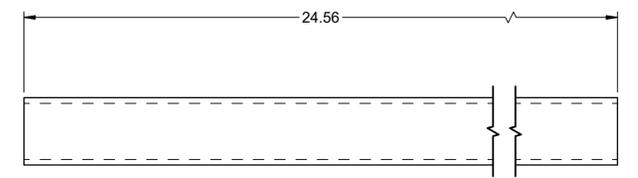
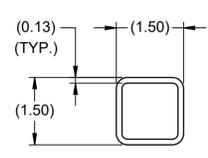
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	ON PART #3021-200-2 DIMENSION 623.8 [24.56], ON PART #3021-200-8 DIMENSION 700.0 [27.56] WAS 698.5 [27.50], AND ON PART #3021-200-10 DIMENSION 623.8 [24.56] WAS 622.3 [24.50]	4/3/2013	DW
	B	ADDED NOTE #1	4/17/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION, REMOVED 3021-200-8 DETAIL VIEW	11/24/2021	JHC



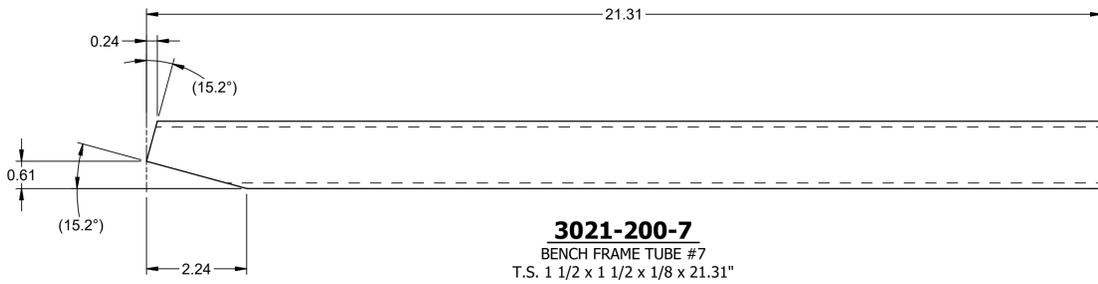
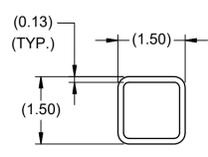
3021-200-1
BENCH FRAME TUBE #1
T.S. 1 1/2 x 1 1/2 x 1/8 x 29.20"
2 REQUIRED
SCALE 1 / 2



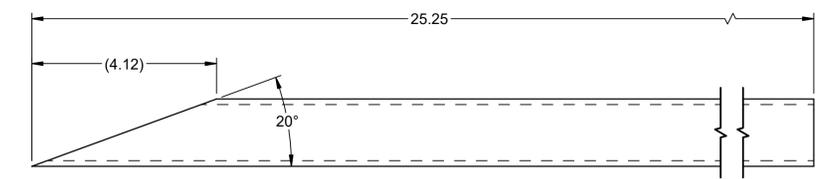
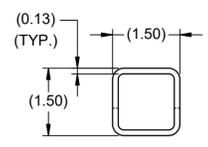
3021-200-6
BENCH FRAME TUBE #6
T.S. 1 1/2 x 1 1/2 x 1/8 x 5.0"
2 REQUIRED
SCALE 1 / 2



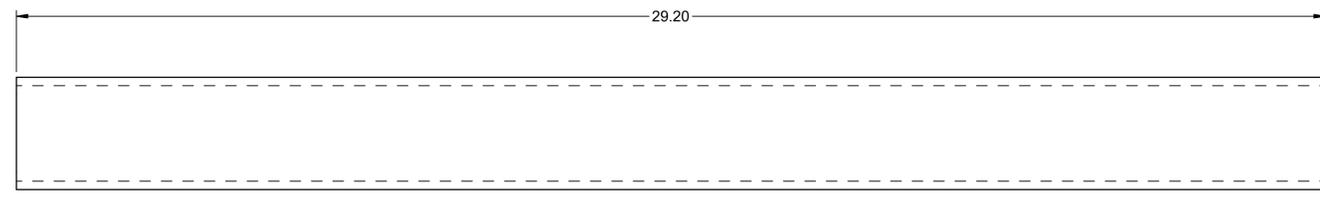
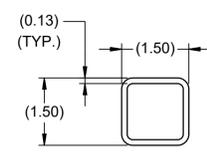
3021-200-2
BENCH FRAME TUBE #2
T.S. 1 1/2 x 1 1/2 x 1/8 x 24.50"
6 REQUIRED
SCALE 1 / 2



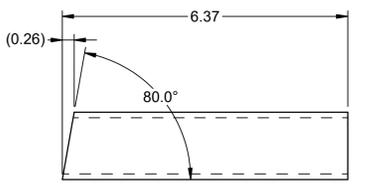
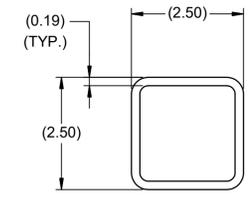
3021-200-7
BENCH FRAME TUBE #7
T.S. 1 1/2 x 1 1/2 x 1/8 x 21.31"
2 REQUIRED
SCALE 1 / 2



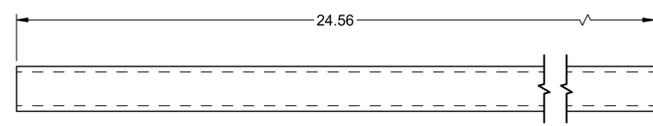
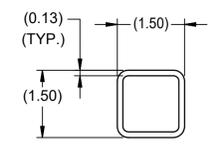
3021-200-3
BENCH FRAME TUBE #3
T.S. 1 1/2 x 1 1/2 x 1/8 x 25.25"
2 REQUIRED
SCALE 1 / 2



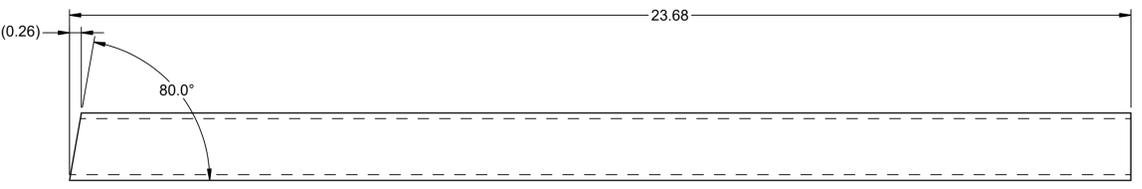
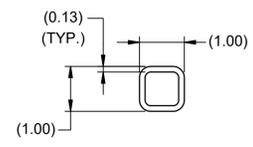
3021-200-9
BENCH FRAME TUBE #9
T.S. 2 1/2 x 2 1/2 x 3/16 x 29.20"
2 REQUIRED
SCALE 1 / 2



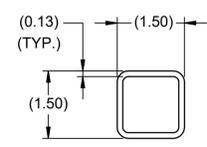
3021-200-4
BENCH FRAME TUBE #4
T.S. 1 1/2 x 1 1/2 x 1/8 x 6.37"
2 REQUIRED
SCALE 1 / 2



3021-200-10
BENCH FRAME TUBE #10
T.S. 1" x 1" x 1/8" x 24.50"
2 REQUIRED
SCALE 1 / 2



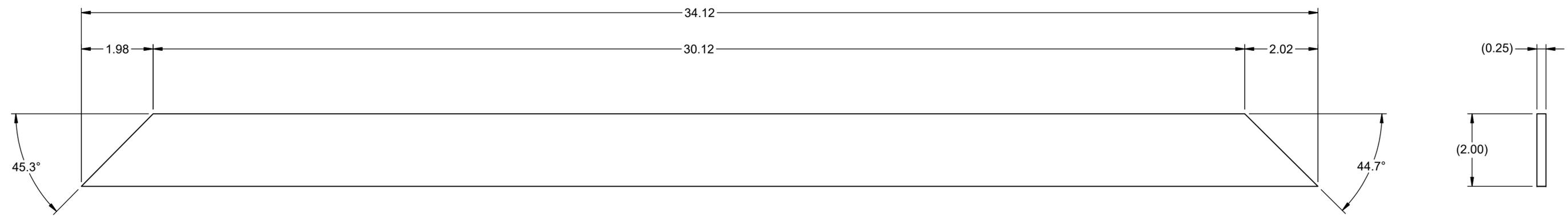
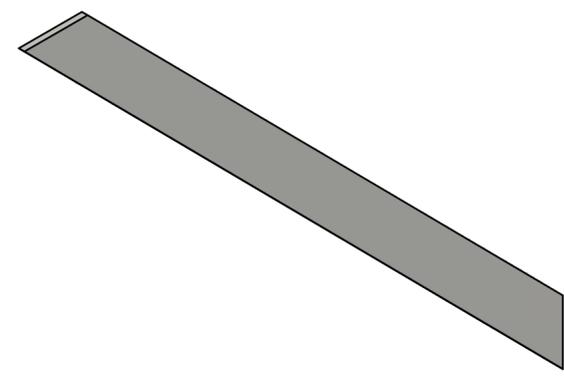
3021-200-5
BENCH FRAME TUBE #5
T.S. 1 1/2 x 1 1/2 x 1/8 x 20.63"
2 REQUIRED
SCALE 1 / 2



NOTES:
1. ALL DIMENSION TOLERANCES ± 0.12"
UNLESS OTHERWISE NOTED.

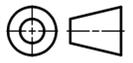
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED <input checked="" type="checkbox"/> .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 4/3/2013 ENG:	
MATERIAL: STEEL A-500 HEAT TREAT: FINISH:	APPROVED:	SIZE: A1 SCALE:	DRAWING NUMBER: 3021-200-1THRU10 SHEET: 1 OF 1

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1	4/17/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC

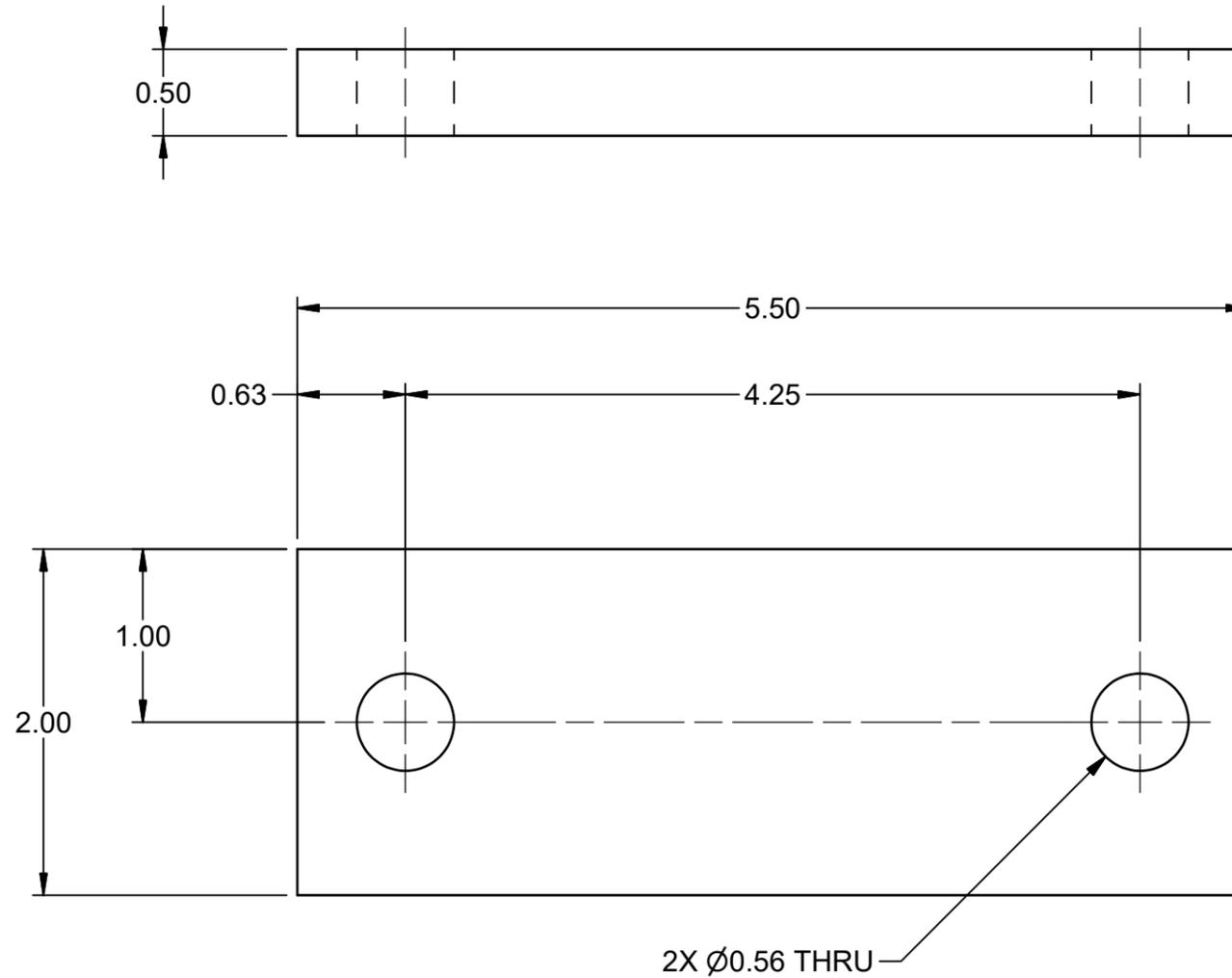
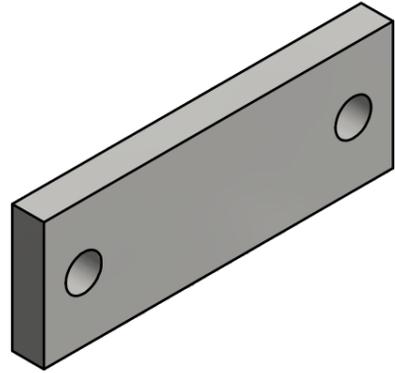



NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$
 UNLESS OTHERWISE NOTED.

MATERIAL: BAR 2.0" x 0.25" x 34.12"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED  .X $\pm .1$ ANGLES $\pm .5^\circ$.XX $\pm .01$ FRACTION $\pm 1/64$.XXX $\pm .005$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	4/4/2013	BENCH CROSS BRACE PLATE CHILD FRONTAL IMPACT SLED
HEAT TREAT	CHECKED		
FINISH	ENG		 THIRD ANGLE PROJECTION
	APPROVED		
		SIZE A2	DRAWING NUMBER 3021-205
		SCALE: 1 / 2	SHEET 1 OF 1
		REV B	

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1	4/17/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/23/2021	JHC

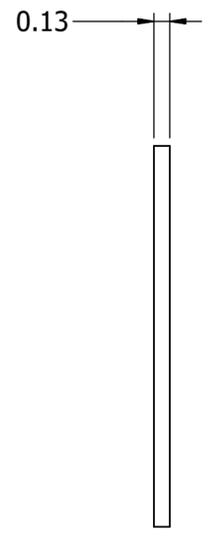
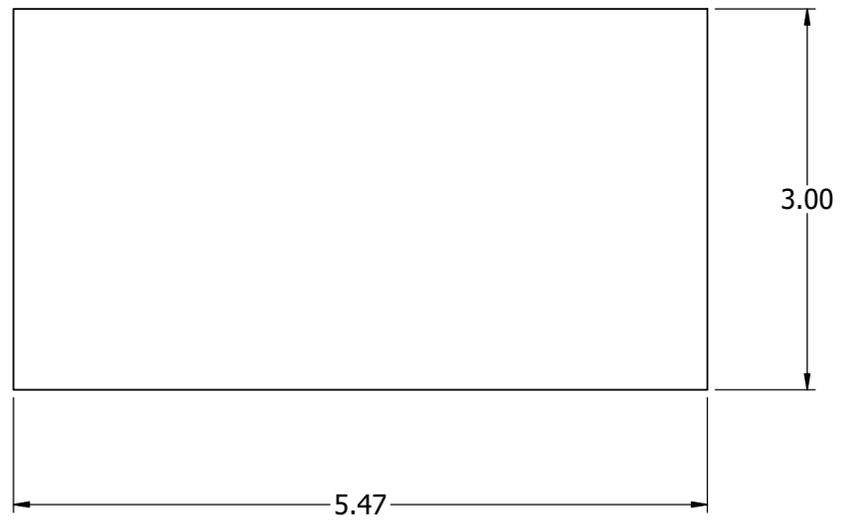
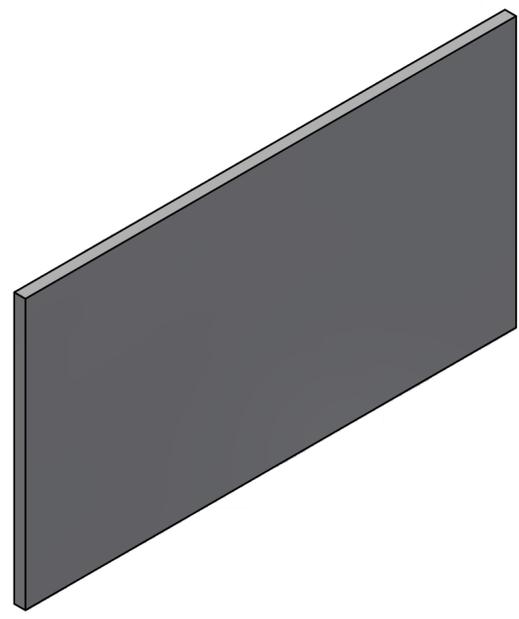


NOTES:
1. ALL DIMENSION TOLERANCES $\pm 0.12''$
UNLESS OTHERWISE NOTED.

MATERIAL: BAR 2.0" x 0.5" x 5.5"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\overset{125}{\curvearrowright}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE		SEAT FRAME ANCHOR PLATE CHILD FRONTAL IMPACT SLED		
	DRAWN Dave Walker	4/4/2013				SIZE A3
	MATERIAL STEEL ASTM-A36	CHECKED		4/4/2013	SCALE: 1 : 1	SHEET 1 OF 1
HEAT TREAT	ENG					
FINISH	APPROVED					

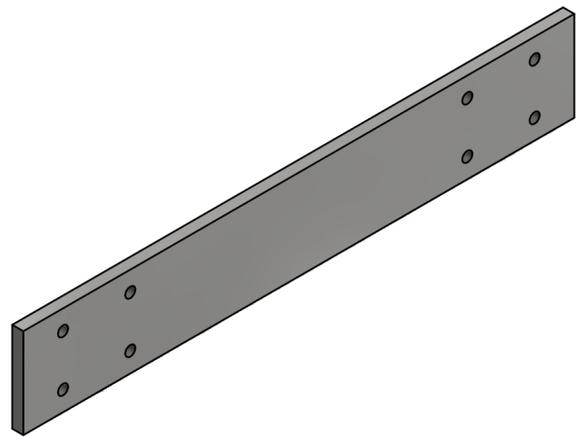
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 368.3 [14.50] WAS 304.8 [12.00] AND 142.4 [5.61] WAS 78.9 [3.11]	4/7/2016	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



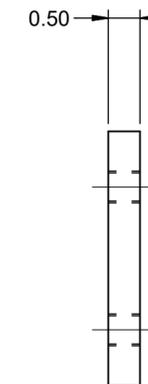
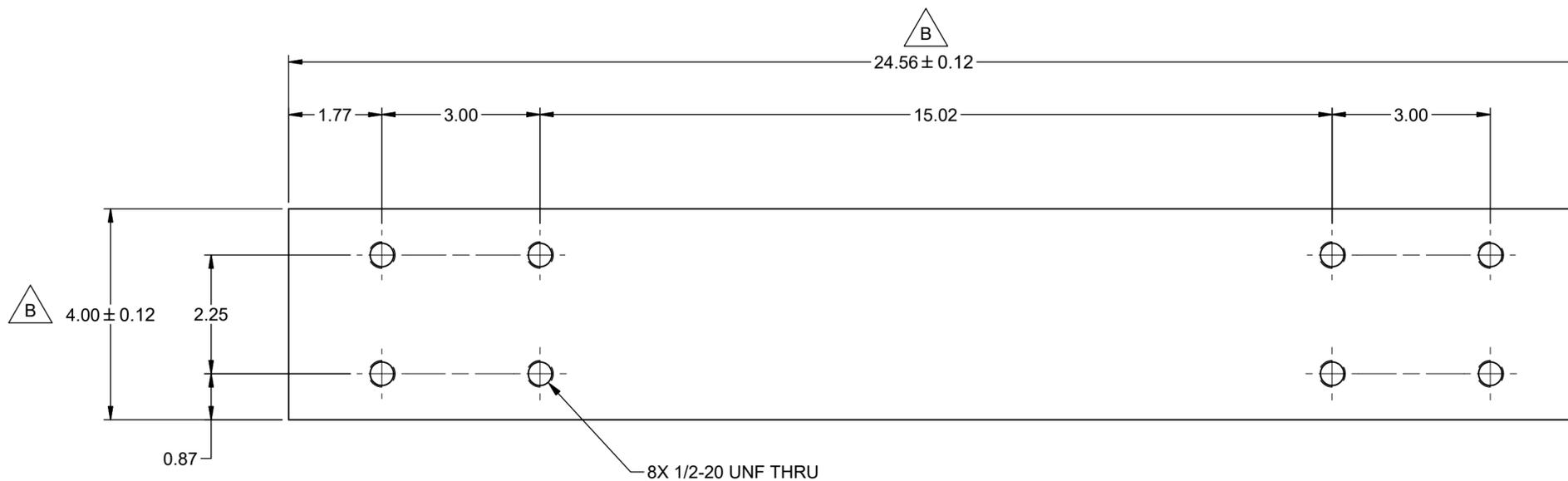
MATERIAL: PL 0.13" x 3.0" x 5.47"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE		Z POINT PLATE CHILD FRONTAL IMPACT SLED		
MATERIAL	CHECKED					
STEEL ASTM-A36	ENG			A2	3021-255	B
HEAT TREAT	APPROVED		SCALE:	SHEET	OF	
FINISH			1 : 1	1	1	

NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12"
 UNLESS OTHERWISE NOTED.

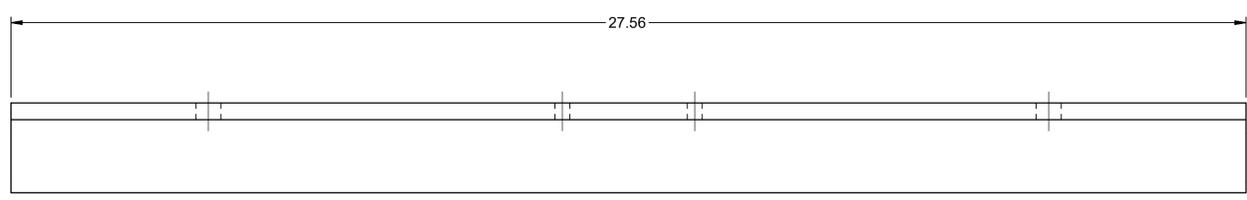
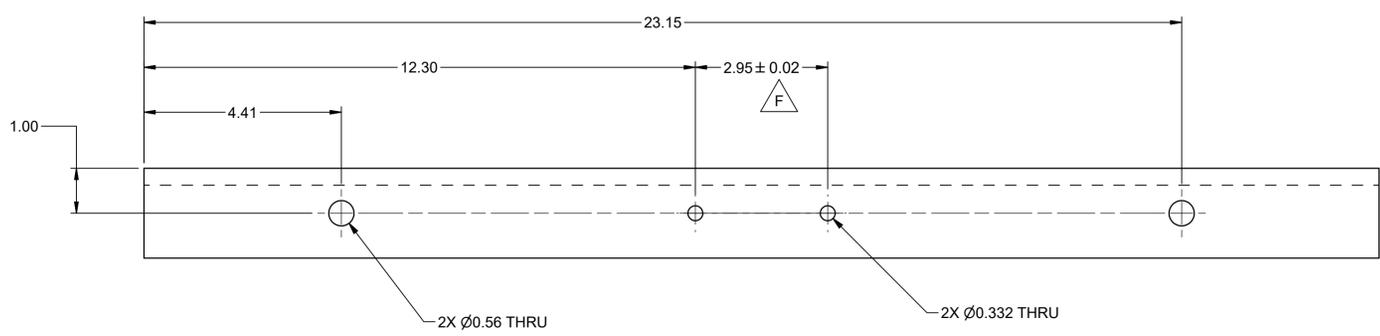
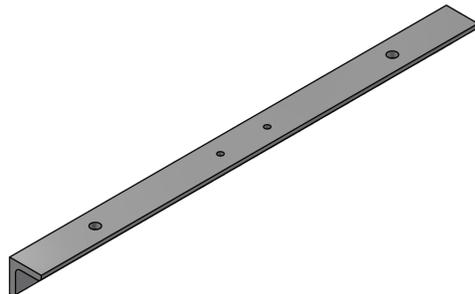


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 623.6 [24.56] WAS 622.3 [24.50], 44.9 [1.77] WAS 44.5 [1.75], AND 381.6 [15.02] WAS 381.0 [15.00]	4/4/2013	DW
	B	DIMENSION 623.8 ±3 [24.56 ±0.12] WAS 623.8 [24.56], 101.6 ±3 [4.00 ±0.12] WAS 101.6 [4.00]	4/18/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



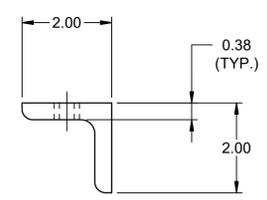
MATERIAL: BAR 4.0" x 0.5" x 24.50"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	4/4/2013	SEAT BELT ANCHOR PLATE CHILD FRONTAL IMPACT SLED
HEAT TREAT	CHECKED		
FINISH	ENG		 THIRD ANGLE PROJECTION
	APPROVED		
	SIZE A2	DRAWING NUMBER 3021-270	REV C
	SCALE: 1 / 2	SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 30.8 [1.25] WAS 19.1 [0.75], 111.1 [4.38] WAS 54.0 [2.13], 587.4 [23.13] WAS 644.2 [25.38], 2X Ø7.9 THRU[2X Ø 0.31 THRU] WAS Ø 7.9[Ø 0.31]" THRU	4/25/2013	DW
	B	DIMENSION 30.4 [1.20] WAS 31.8 [1.25], 588.1 [23.15] WAS 587.4 [23.13], 387.5 [15.26] WAS 386.8 [15.23], 312.5 [12.30] WAS 311.8 [12.27], 111.9 [4.41] WAS 111.1 [4.38], AND 700.0 [27.56] WAS 698.5 [27.50]	6/11/2016	DW
	C	Ø14.3 HOLE 25.4 [1.00] GAGE LINE WAS 30.4 [1.20], AND Ø7.9 HOLES GAGE LINE WAS 25.7 [1.01]; DRAWING TITLE WAS REAR SHELF MOUNT ANGLE	4/3/2018	DW
	D	ADDED NOTE #1	4/18/2019	DW
	E	CONVERTED DIMENSIONS TO ENGLISH, REVISED MATERIAL DESCRIPTION, REVISED STOCK SIZE TO 2 X 2 X 3/8 ANGLE, .332 DIA WAS 0.31	11/23/2021	JHC
	F	REMOVED 15.26 DIMENSION, ADDED 2.95±0.02 DIMENSION	2/21/2023	JHC

NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12"
 UNLESS OTHERWISE NOTED.

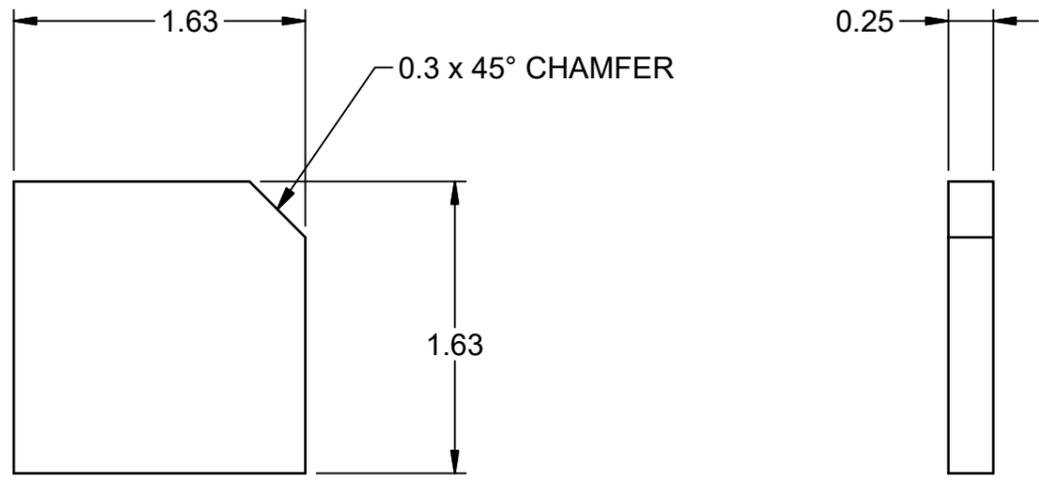
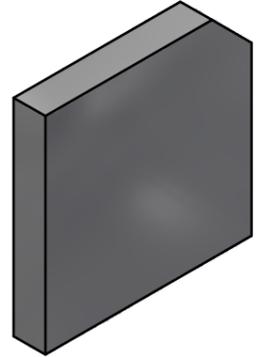


MATERIAL: L 2" x 2" x 3/8" x 27.56"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker	DATE 4/25/2013		REAR SHELF MOUNT CHILD FRONTAL IMPACT SLED	
MATERIAL STEEL ASTM-A36	CHECKED	ENG	SIZE A1	DRAWING NUMBER 3021-850	REV F
HEAT TREAT FINISH	APPROVED	SCALE:	SHEET 1 OF 1		

6 5 4 3 2 1

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	SQUARED OFF PLATE, DIMENSION 44.5 [1.75] WAS 46.0 [1.81], AND CHAMFER DIMENSION WAS 6.4 [0.25] TYP.	4/25/2013	DW
	B	ADDED NOTE #1	4/18/2019	DW
	C	CONVERTED DIMENSIONS TO ENGLISH, REVISED MATERIAL DESCRIPTION, 1.63 DIMENSIONS WERE 1.75	11/23/2021	JHC
	D	REMOVED STRAY DATE FROM TITLE BLOCK	2/21/2023	JHC



MATERIAL: BAR 1 .63" x 0.25" x 1.63"



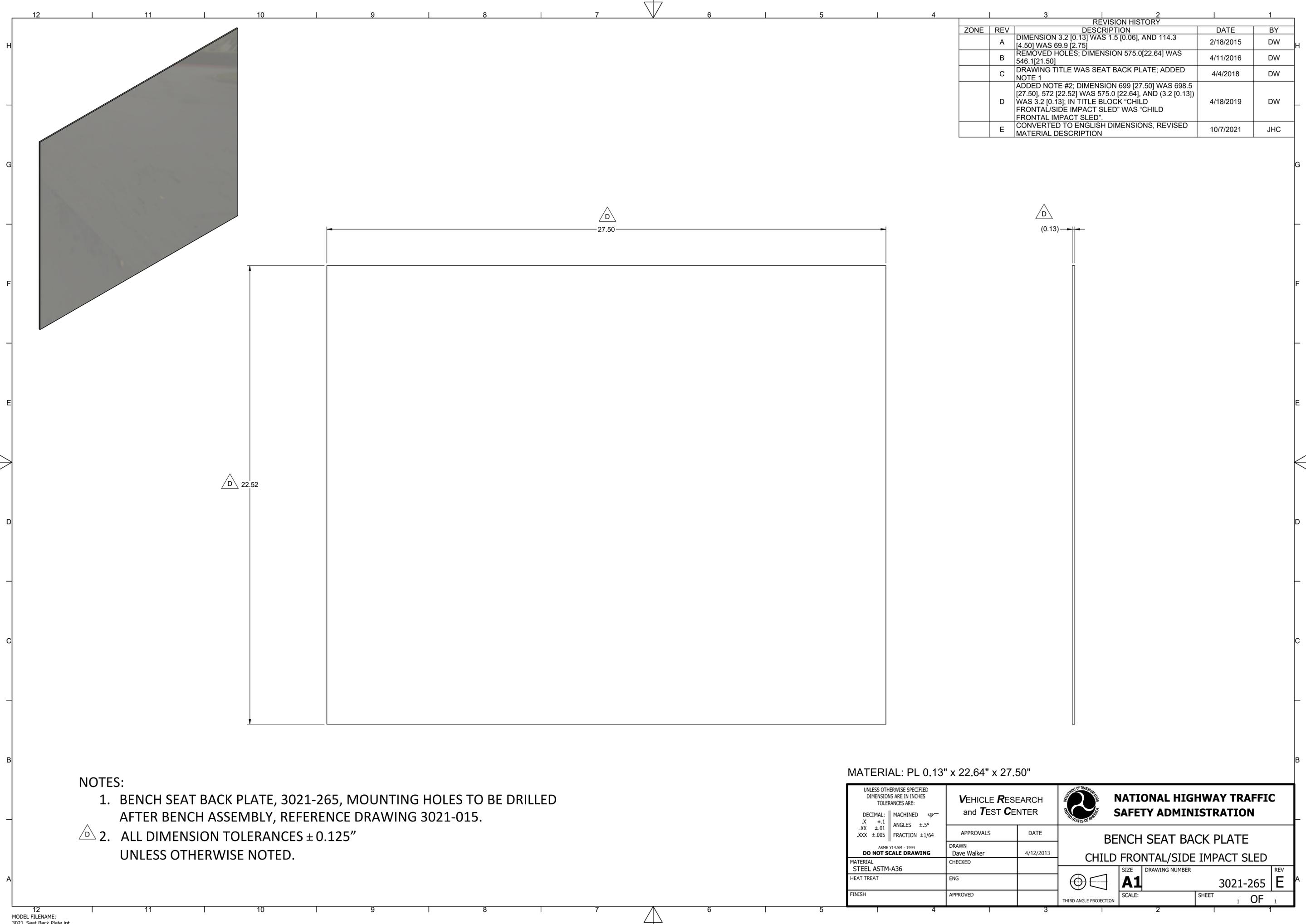
NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12"
 UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED $\pm .125$.X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE		REAR SHELF MOUNT - ANGLE GUSSET	
	MATERIAL	CHECKED		CHILD FRONTAL IMPACT SLED	
	STEEL ASTM-A36	DRAWN	4/25/2013	SIZE A3	DRAWING NUMBER 3021-851
HEAT TREAT	ENG		THIRD ANGLE PROJECTION	SCALE: 1 : 1	SHEET 1 OF 1
FINISH	APPROVED				

D
C
B
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D
C
B
A

6 5 4 3 2 1



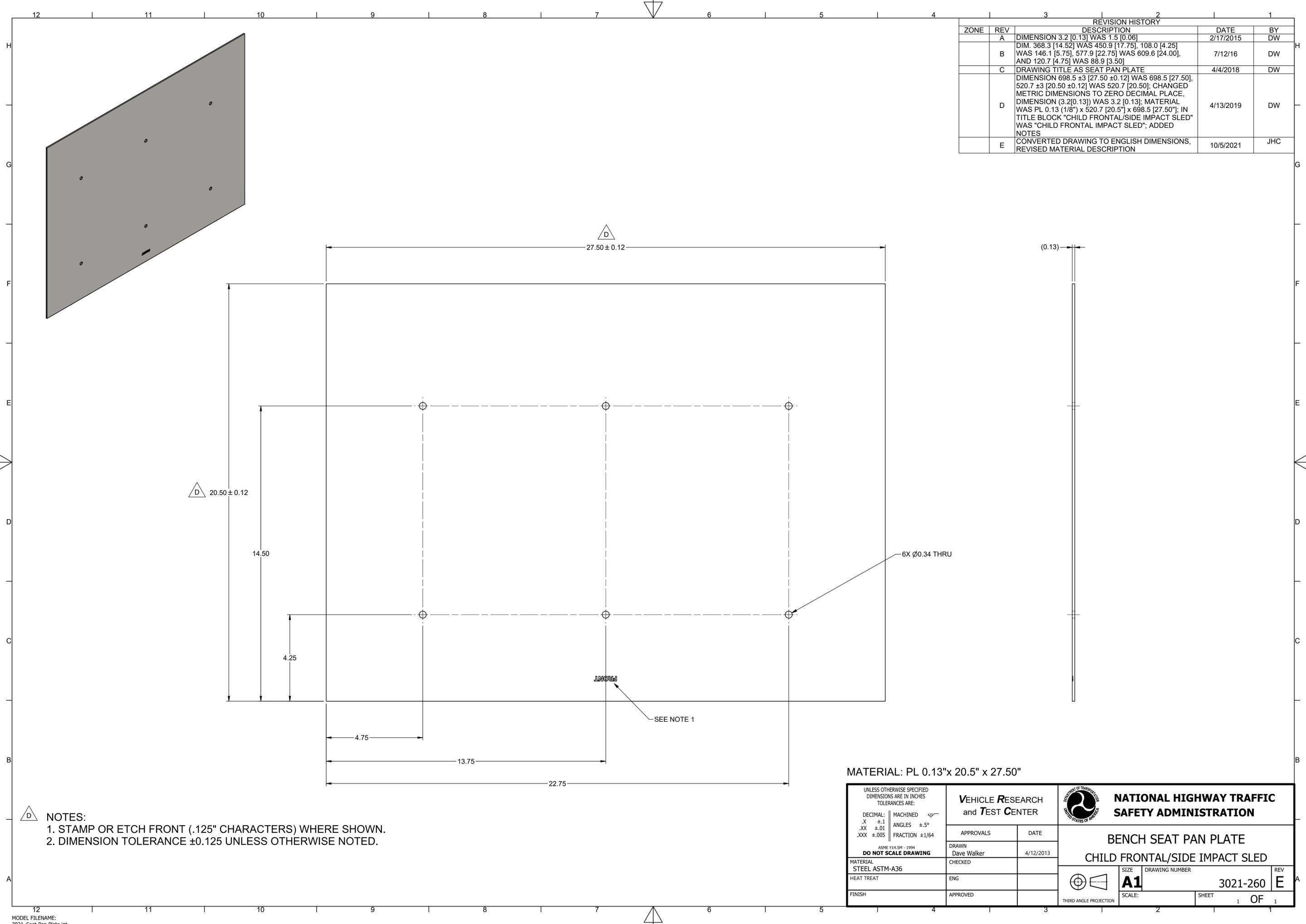
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 3.2 [0.13] WAS 1.5 [0.06], AND 114.3 [4.50] WAS 69.9 [2.75]	2/18/2015	DW
	B	REMOVED HOLES; DIMENSION 575.0[22.64] WAS 546.1[21.50]	4/11/2016	DW
	C	DRAWING TITLE WAS SEAT BACK PLATE; ADDED NOTE 1	4/4/2018	DW
	D	ADDED NOTE #2; DIMENSION 699 [27.50] WAS 698.5 [27.50], 572 [22.52] WAS 575.0 [22.64], AND (3.2 [0.13]) WAS 3.2 [0.13]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED".	4/18/2019	DW
	E	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/7/2021	JHC

NOTES:

1. BENCH SEAT BACK PLATE, 3021-265, MOUNTING HOLES TO BE DRILLED AFTER BENCH ASSEMBLY, REFERENCE DRAWING 3021-015.
2. ALL DIMENSION TOLERANCES $\pm 0.125''$ UNLESS OTHERWISE NOTED.

MATERIAL: PL 0.13" x 22.64" x 27.50"

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: .X ± 0.1 , .XX ± 0.01 , .XXX ± 0.005 MACHINED <input checked="" type="checkbox"/> ANGLES $\pm 0.5^\circ$ FRACTION $\pm 1/64$ <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 4/12/2013		BENCH SEAT BACK PLATE CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL: STEEL ASTM-A36 HEAT TREAT: FINISH:	ENG: APPROVED:	SIZE: A1 SCALE:	DRAWING NUMBER: 3021-265 SHEET: 1 OF 1	REV: E	

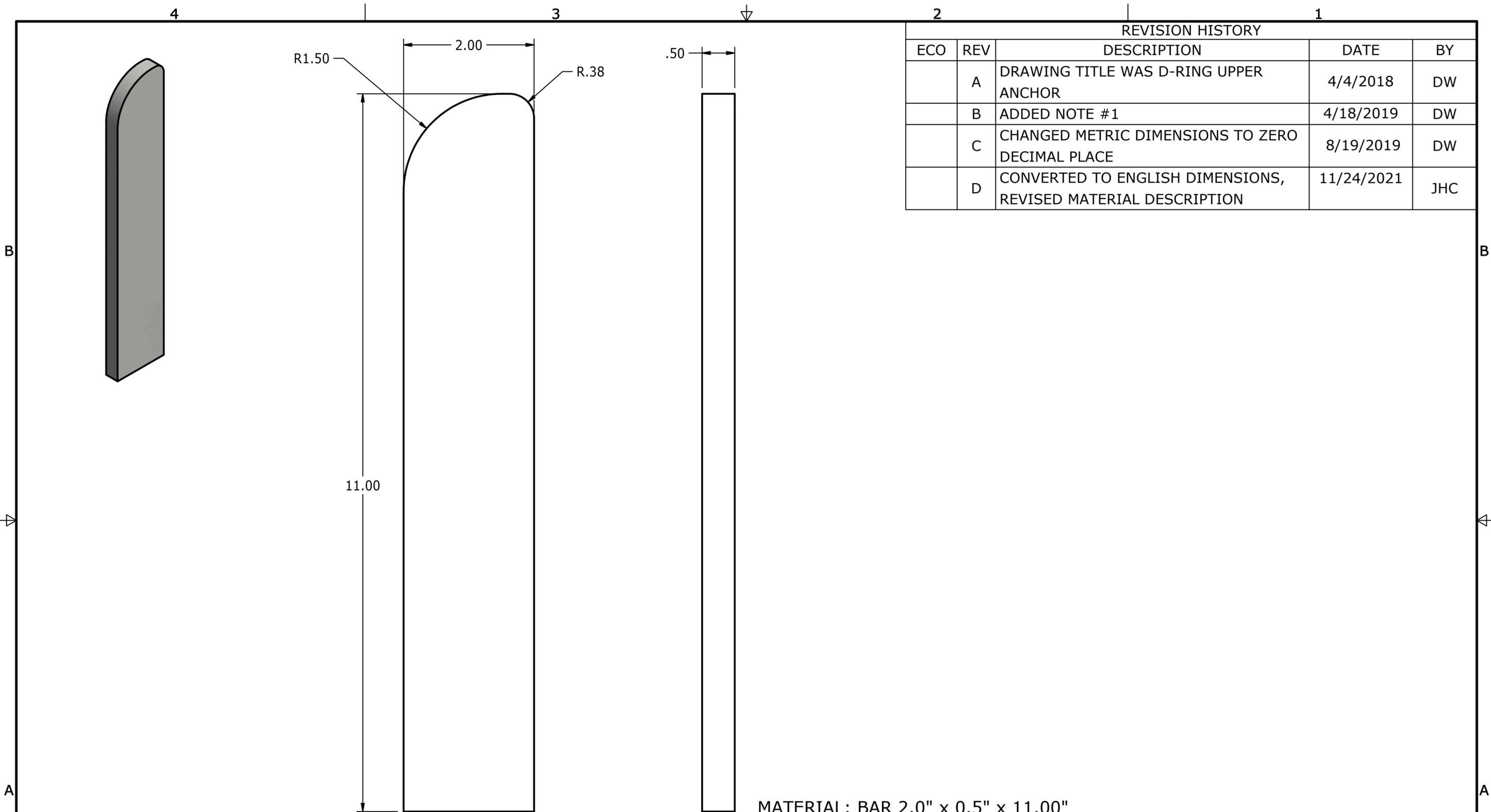


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 3.2 [0.13] WAS 1.5 [0.06]	2/17/2015	DW
	B	DIM. 368.3 [14.52] WAS 450.9 [17.75], 108.0 [4.25] WAS 146.1 [5.75], 577.9 [22.75] WAS 609.6 [24.00], AND 120.7 [4.75] WAS 88.9 [3.50]	7/12/16	DW
	C	DRAWING TITLE AS SEAT PAN PLATE	4/4/2018	DW
	D	DIMENSION 698.5 ±3 [27.50 ±0.12] WAS 698.5 [27.50], 520.7 ±3 [20.50 ±0.12] WAS 520.7 [20.50]; CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE, DIMENSION (3.2[0.13]) WAS 3.2 [0.13]; MATERIAL WAS PL 0.13 (1/8") x 520.7 [20.5"] x 698.5 [27.50"]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED NOTES	4/13/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/5/2021	JHC

- NOTES:**
1. STAMP OR ETCH FRONT (.125" CHARACTERS) WHERE SHOWN.
 2. DIMENSION TOLERANCE ±0.125 UNLESS OTHERWISE NOTED.

MATERIAL: PL 0.13"x 20.5" x 27.50"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 4/12/2013	BENCH SEAT PAN PLATE CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL: STEEL ASTM-A36 HEAT TREAT: ENG FINISH: APPROVED	APPROVED:	SIZE: A1 SCALE:		



REVISION HISTORY				
ECO	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING UPPER ANCHOR	4/4/2018	DW
	B	ADDED NOTE #1	4/18/2019	DW
	C	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE	8/19/2019	DW
	D	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

MATERIAL: BAR 2.0" x 0.5" x 11.00"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X $\pm .1$ ANGLES $\pm .5^\circ$.XX $\pm .01$ FRACTION $\pm 1/64$.XXX $\pm .005$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
MATERIAL STEEL ASTM-A36		APPROVALS DRAWN Dave Walker		DATE 4/7/2016	
HEAT TREAT		CHECKED		D-RING ANCHOR CHILD FRONTAL IMPACT SLED	
FINISH		ENG		SIZE A2	
APPROVED		THIRD ANGLE PROJECTION		DRAWING NUMBER 3021-326	
		SCALE: 1 : 1		REV D	
		SHEET 1 OF 1			

4

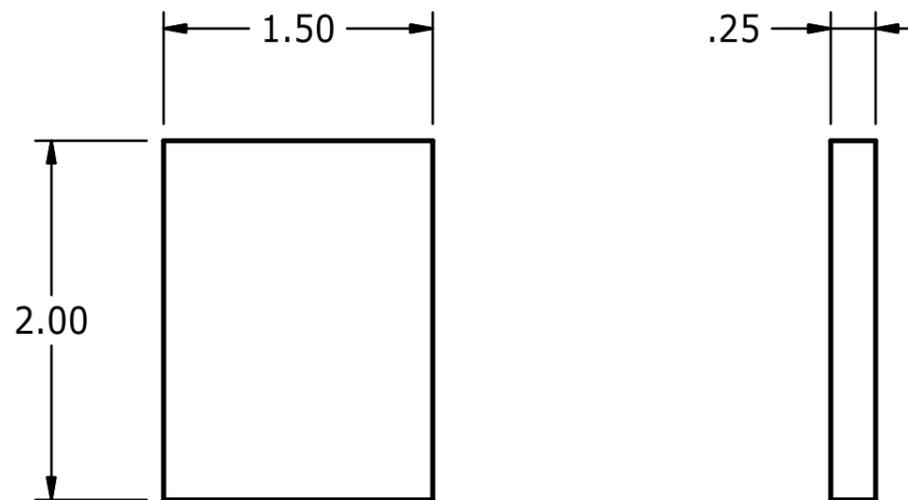
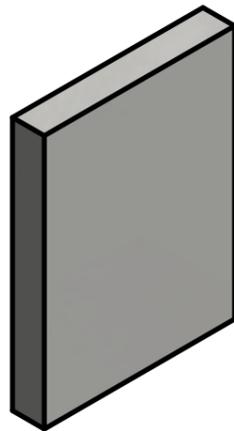
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REVISION HISTORY

ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING UPPER ANCHOR GUSSET	4/7/2016	DW
	B	ADDED NOTE #1	4/18/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



MATERIAL: BAR 1.5" x 0.25" x 2.00"



NOTES:

1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED ANGLES ±.5° FRACTION ±1/64 <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
						APPROVALS
	MATERIAL	DRAWN		SIZE A3	DRAWING NUMBER 3021-342	REV C
	STEEL ASTM-A36	Dave Walker				
HEAT TREAT	CHECKED					
FINISH	ENG		4/7/2016			
	APPROVED					

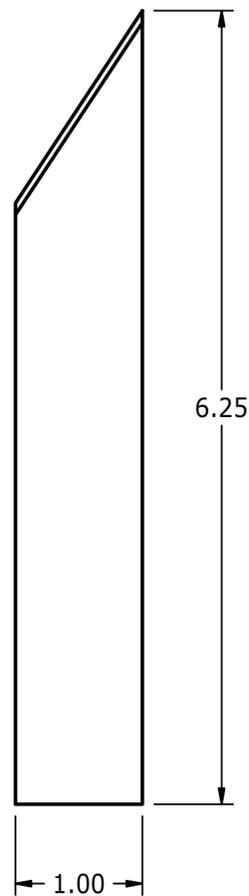
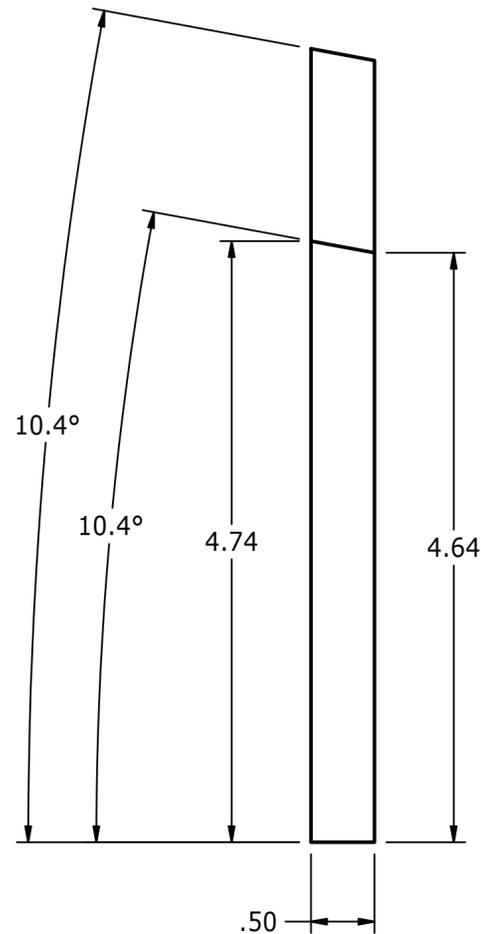
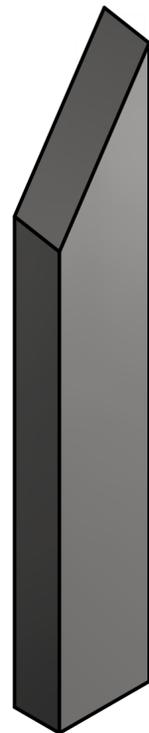
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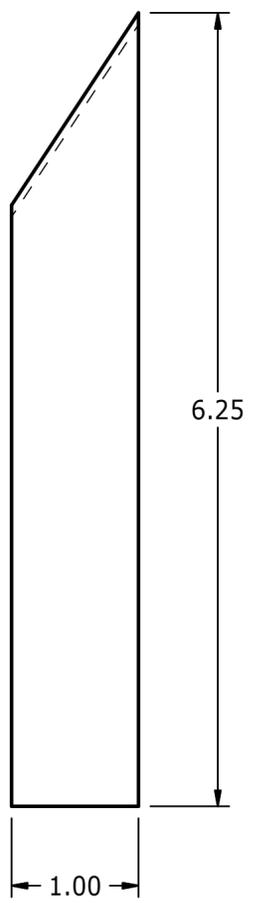
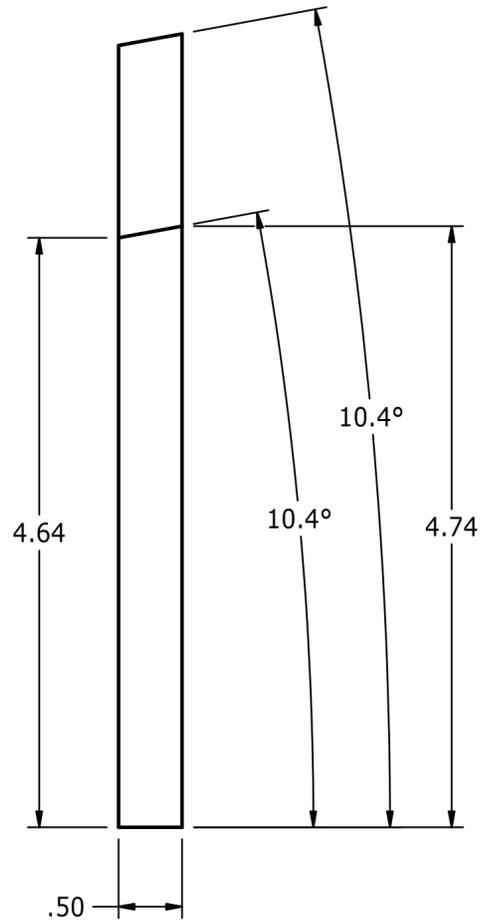
REVISION HISTORY				
ECO	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING UPPER ANCHOR BRACE BAR - LEFT	4/4/2018	DW
	B	ADDED NOTE #1	4/18/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC




NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

MATERIAL: BAR 1.0" x 0.5" x 6.25"

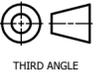
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: X $\pm .1$, .XX $\pm .01$, .XXX $\pm .005$ ANGLES $\pm 5^\circ$ FRACTION $\pm 1/64$ <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS DRAWN: Dave Walker CHECKED:		DATE 4/7/2016		D-RING ANCHOR BRACE BAR - LEFT CHILD FRONTAL IMPACT SLED	
MATERIAL: STEEL ASTM-A36 HEAT TREAT: FINISH:		ENG: 4/7/2016 APPROVED:		 SCALE: 1:1 DRAWING NUMBER: 3021-339 REV: C SHEET: 1 OF 1	



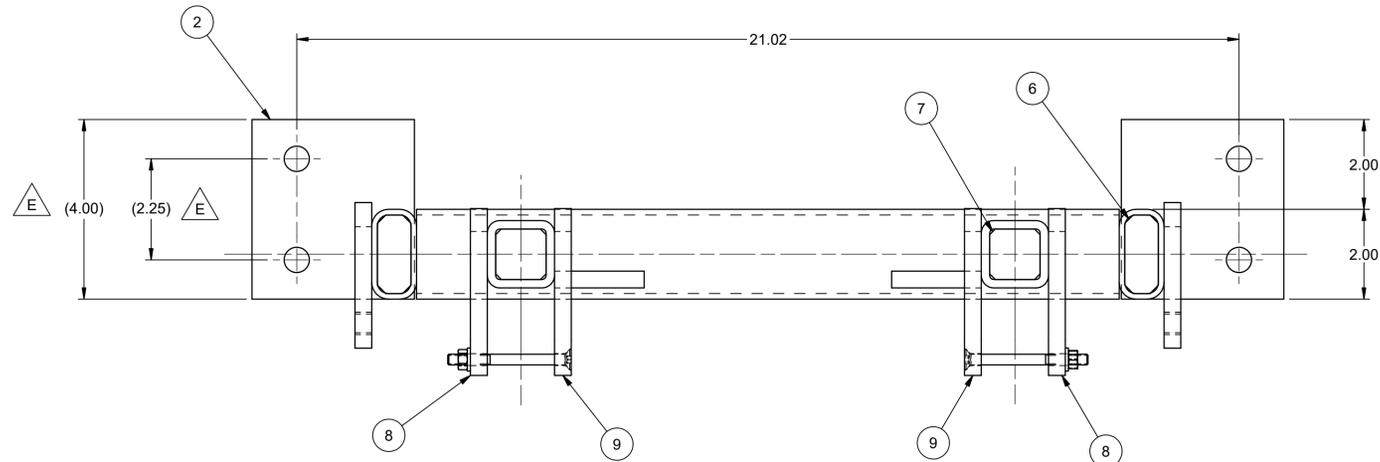
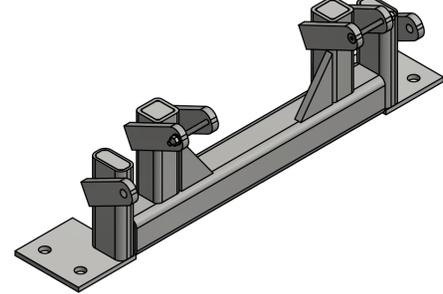
REVISION HISTORY				
ECO	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING UPPER ANCHOR BRACE BAR - RIGHT	4/7/2016	DW
	B	ADDED NOTE #1	4/18/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC


NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

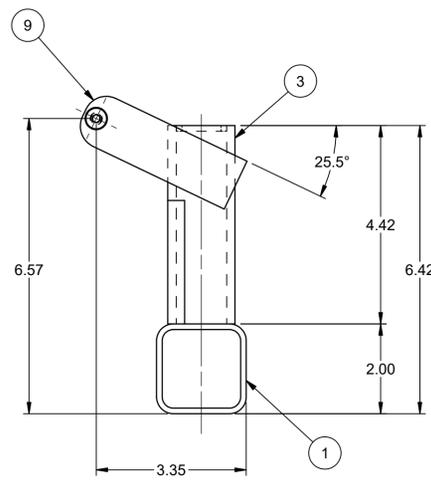
MATERIAL: BAR 1.0" x 0.5" x 6.25"

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: .X $\pm .1$, .XX $\pm .01$, .XXX $\pm .005$ MACHINED  ANGLES $\pm 5^\circ$ FRACTION $\pm 1/64$ <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS		DATE		D-RING ANCHOR BRACE BAR - RIGHT CHILD FRONTAL IMPACT SLED	
DRAWN Dave Walker		4/7/2016			
MATERIAL STEEL ASTM-A36		CHECKED		 SCALE: A2 1 : 1	
HEAT TREAT		ENG			
FINISH		APPROVED		DRAWING NUMBER: 3021-340 REV: C SHEET: 1 OF 1	

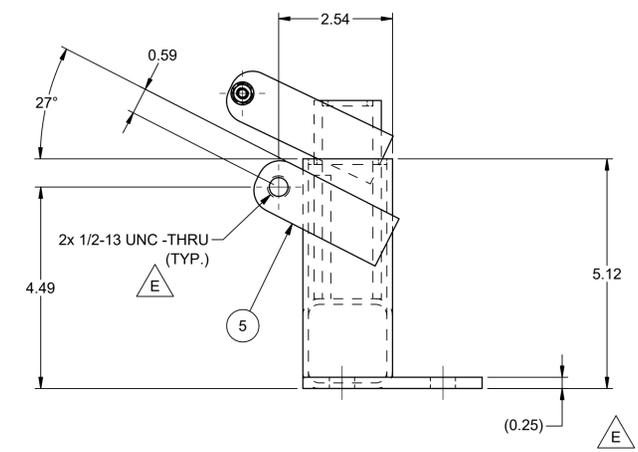
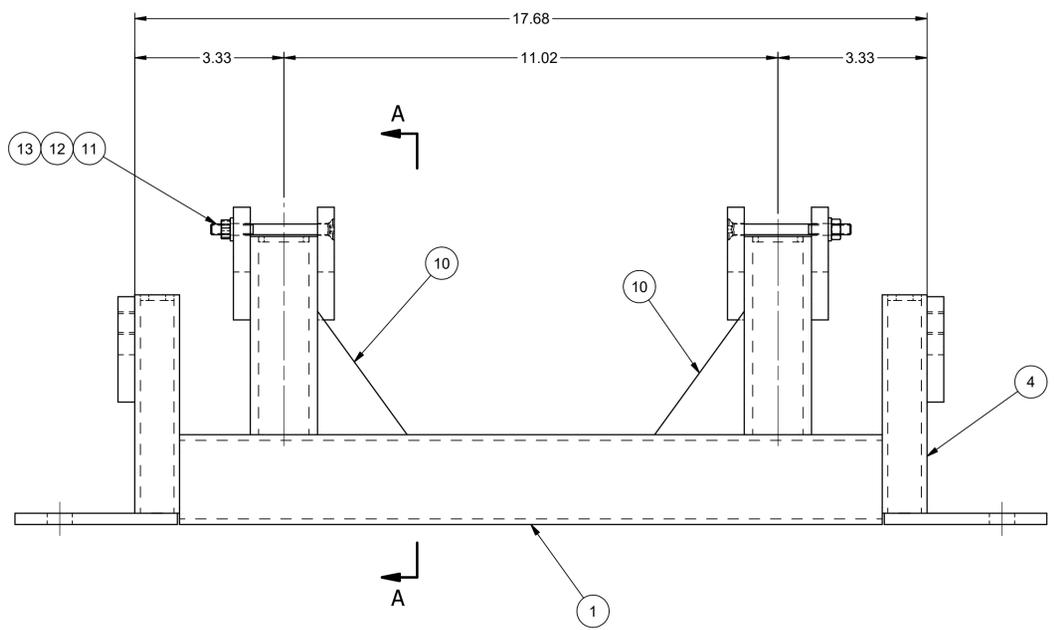
12 11 10 9 8 7 6 5 4 3 2 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
C4	A	DIMENSION 141.9 [5.59] WAS 181.9 [7.16]	11/3/2014	DW
	B	DIMENSION 534.0 [21.02] WAS 533.4 [21.00], 55.8 [2.20] WAS 57.2 [2.25], 163.0 [6.42] WAS 152.4 [6.00], 112.2 [4.42] WAS 101.6 [4.00], 167.0 [6.57] WAS 170.2 [6.70], 85.0 [3.35] WAS 107.8 [4.24], 25.56° WAS 23.3°, 449.0 [17.68] WAS 450.9 [17.75], 271.0 [10.67] WAS 280.0 [11.02], AND 89.0 [3.50] WAS 85.4 [3.36]; DESCRIPTION OF ITEM #3 - LATCH ANCHOR TUBE WAS LATCH ANCHOR ROD TUBE; ADDED ITEMS 8 THRU 13	4/6/2016	DW
	C	3021-765 MODIFIED FHCS WAS 9000560V STD FHCS	11/16/2016	JHC
	D	DIMENSION 280.0 [11.02] WAS 271.0 [10.67], 84.5 [3.33] WAS 89.0 [3.50]	4/17/2018	DW
	E	ADDED NOTE #1: DIMENSION (57.2 [2.25]) WAS 57.2 [2.25], (101.6 [4.00]) WAS 101.6 [4.00], AND (6.4 [0.25]) WAS 6.4 [0.25]; ADDED LATCH BELT ANCHOR PLATE TAPPED HOLE 2x 1/2-13 UNC THRU (TYP.); ITEM #11 PART #500015V - SCREW, FHCS M6x1.0 X 70 WAS PART #3021-765 - LATCH ANCHOR BOLT - MODIFIED FHCS, ITEM #12 PART 35000094 - WASHER, FLAT M6 WAS PART #9000244 - WASHER, FLAT Ø1/4"; ITEM #13 PART #9009091 - NUT, HEX M6-1 WAS PART #9001199 - NUT, HEX 1/4-20 (UNPLATED)	5/2/2019	DW
	F	CONVERTED TO ENGLISH DIMENSIONS, ADDED WELDED NOTE	11/29/2021	JHC



SECTION A-A



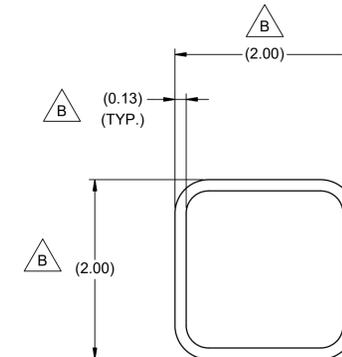
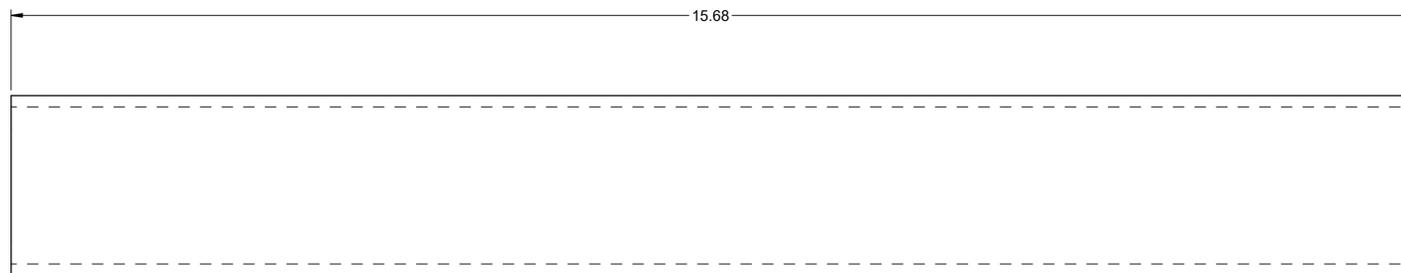
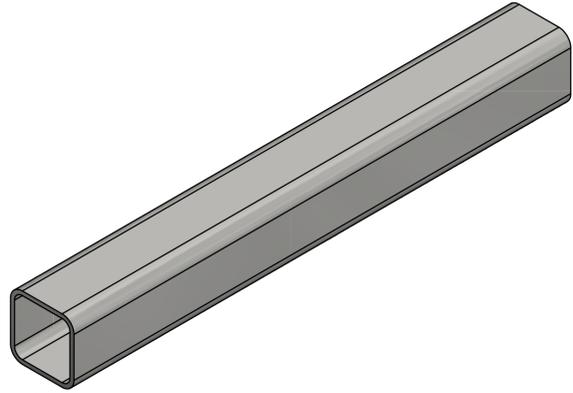
ALL WELDED CONSTRUCTION EXCEPT FOR FASTENERS, ITEMS 11, 12, & 13

ITEM	QTY	PART NUMBER	DESCRIPTION
13	2	9009091	NUT, HEX M6-1
12	2	5000094	WASHER, FLAT M6
11	2	5000015V	SCREW, FHCS M6x1.0 x 70 (PARTIAL THREAD)
10	2	3021-761	LATCH GUSSET PLATE
7	2	3021-758	LATCH TUBE CAP #2
9	2	3021-760	LATCH ANCHOR PLATE-INSIDE
8	2	3021-759	LATCH ANCHOR PLATE-OUTSIDE
4	2	3021-755	LATCH END TUBE
3	2	3021-753	LATCH ANCHOR TUBE
5	2	3021-756	LAP BELT ANCHOR ATTACHMENT PLATE
2	2	3021-752	LATCH BASE PLATE
6	2	3021-757	LATCH TUBE CAP #1
1	1	3021-751	LATCH BASE TUBE

NOTES:
1. ALL DIMENSION TOLERANCES ± 0.12" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: _____ DATE: 4/17/2013 DRAWN: Dave Walker CHECKED: _____ HEAT TREAT: ENG FINISH: APPROVED		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION LATCH ASSEMBLY CHILD FRONTAL IMPACT SLED SIZE: A1 DRAWING NUMBER: 3021-750 SCALE: 1/2 SHEET: 1 OF 1	
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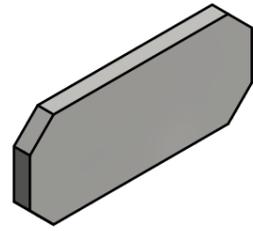
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 398.2 [15.68] WAS 400.1 [15.75]	11/30/2015	DW
	B	ADDED NOTE #1; DIMENSION (50.8 [2.00]) WAS 50.8 [2.00], AND (3.2 [0.13]) WAS 3.2 [0.13]	4/18/2019	DW
	C	CONVERT TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



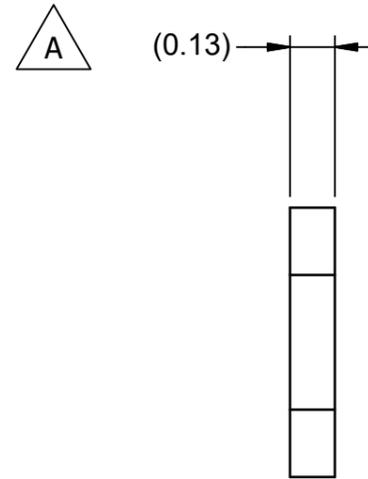
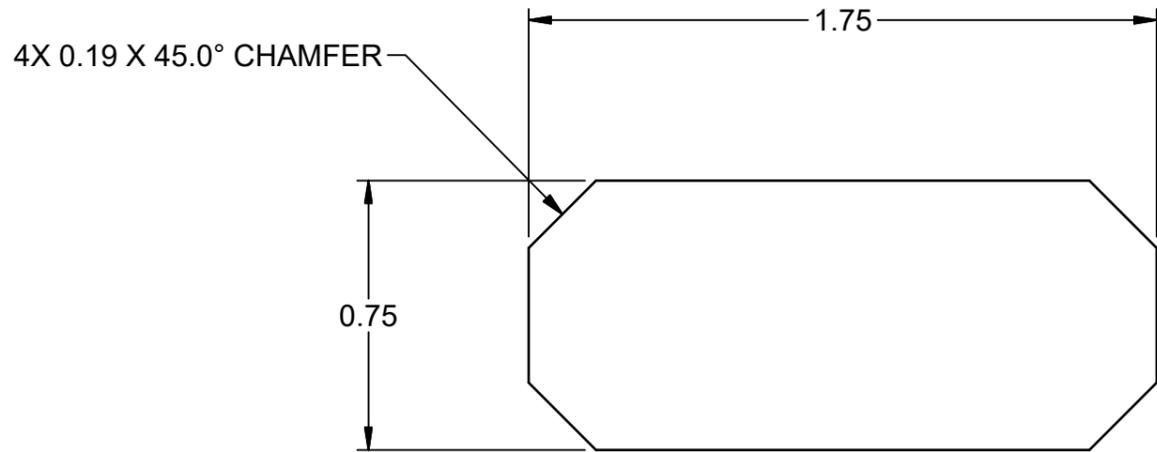
△ B NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.12"
 UNLESS OTHERWISE NOTED.

MATERIAL: T.S. 2" x 2" x 1/8" x 15.68"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL STEEL A-500	DRAWN Dave Walker	4/19/2013	LATCH BASE TUBE CHILD FRONTAL IMPACT SLED
HEAT TREAT	CHECKED		
FINISH	ENG		THIRD ANGLE PROJECTION
	APPROVED		
SIZE A1		DRAWING NUMBER 3021-751	REV C
SCALE: 1:1		SHEET 1 OF 1	

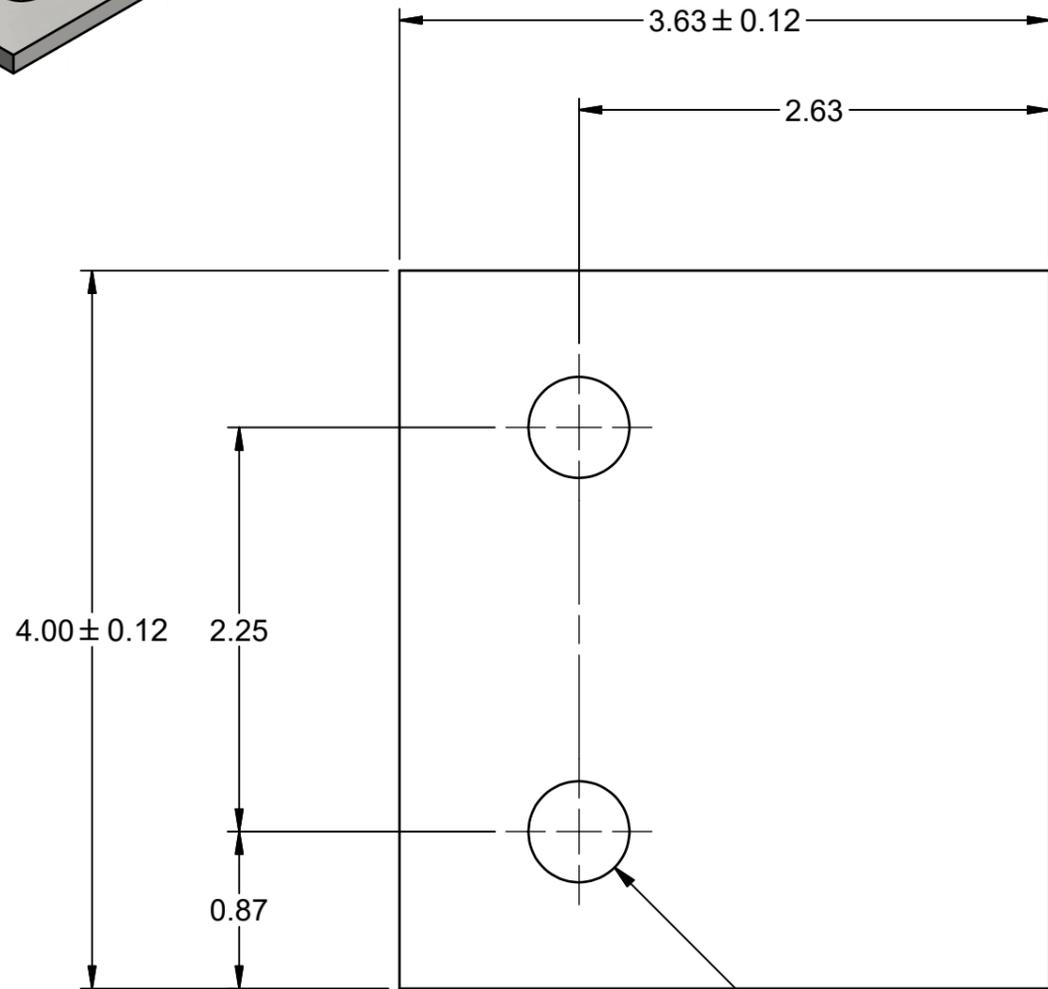
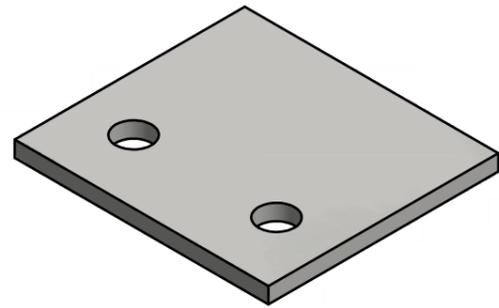


REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION (3.2 [0.13]) WAS 3.2 [0.13]	4/22/2013	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



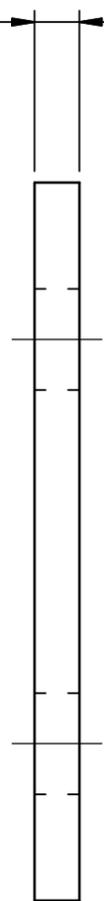
MATERIAL: PL 0.125" x 0.75" x 1.75"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED \pm 0.005 .X \pm 0.1 .XX \pm 0.01 .XXX \pm 0.005 ANGLES \pm 0.5° FRACTION \pm 1/64 <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
						APPROVALS
	MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	4/22/2013	LATCH TUBE CAP #1 CHILD FRONTAL IMPACT SLED		
HEAT TREAT	CHECKED					
FINISH	ENG	4/22/2013		SIZE A3	DRAWING NUMBER 3021-757	REV B
	APPROVED			SCALE: 2 : 1	SHEET 1 OF 1	



2X Ø0.56 THRU

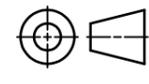
(0.25)

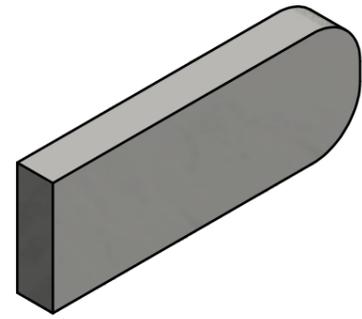


REVISION HISTORY

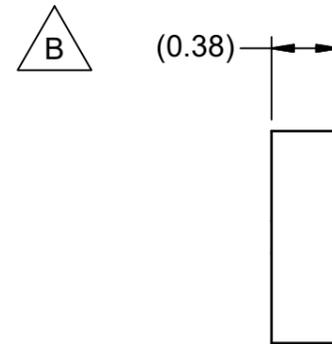
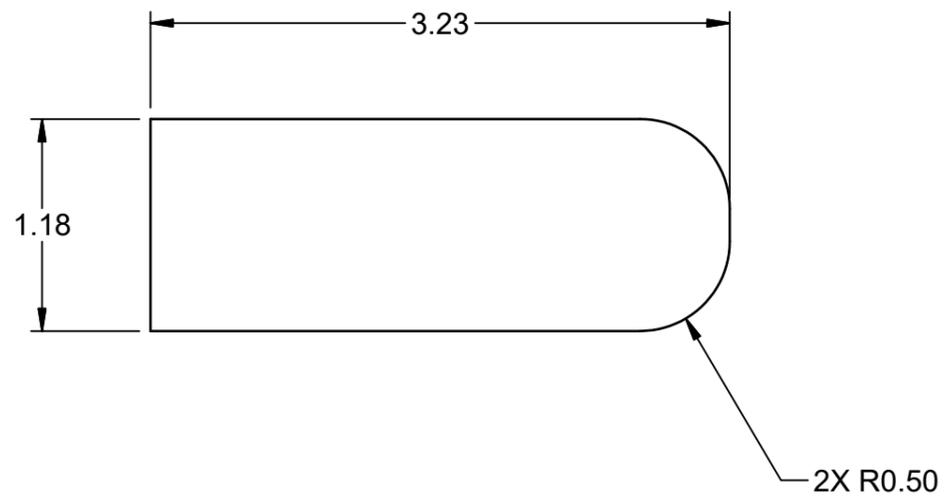
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 92.1 ±3 [3.63 ±0.12] WAS 92.1 [3.63], 101.6 ±3 [4.00 ±0.12] WAS 101.6 [4.00], AND (6.4 [0.25]) WAS 6.4 [0.25]	4/19/2013	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC

MATERIAL: PL 0.25" x 3.63" x 4.0"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ¹²⁵ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION			
					APPROVALS	DATE
	MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	LATCH BASE PLATE CHILD FRONTAL IMPACT SLED			
	HEAT TREAT	CHECKED				
FINISH	ENG	4/19/2013	 THIRD ANGLE PROJECTION	SIZE A3	DRAWING NUMBER 3021-752	REV B
	APPROVED		SCALE: 1 : 1	SHEET 1 OF 1		

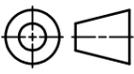


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	COMPLETE REDESIGN, DIM. 30.0 [1.18] WAS 50.8 [2.00], 69.0 [2.72] WAS 113.6 [4.47], & 15.0 [0.59] WAS 15.9 [0.63]	4/19/2013	DW
	B	ADDED NOTE #1, DIMENSION (9.5 [0.38]) WAS 9.5 [0.38], REMOVED HOLE 1/2-13 UNC THRU	4/19/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC

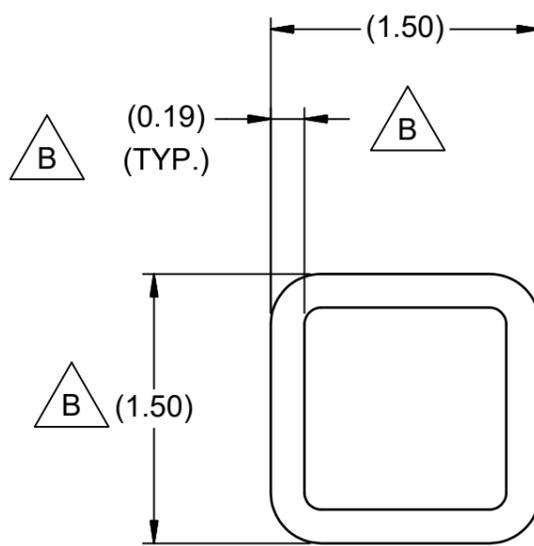
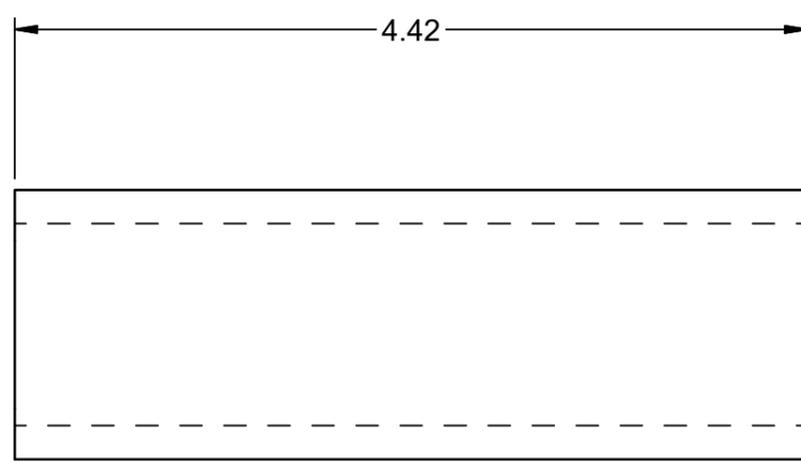



NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

MATERIAL: BAR 1.18" x 0.38" x 3.23"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\overset{125}{\curvearrowright}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
	DRAWN Dave Walker	4/19/2013	
	CHECKED		
MATERIAL STEEL ASTM-A36	ENG	4/19/2013	 THIRD ANGLE PROJECTION
HEAT TREAT	APPROVED		SIZE: A3 SCALE: 1:1
FINISH			DRAWING NUMBER: 3021-756 SHEET: 1 OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIM. 38.1 [1.50] WAS 50.8 [2.00], 4.8 [0.19] TYP. WAS 3.2 [0.13] TYP., & 112.2 [4.42] WAS 101.6 [4.00]	11/30/2015	DW
	B	ADDED NOTE #1; DIMENSION (38.1 [1.5]) WAS 38.1 [1.5], AND (4.8 [0.19]) WAS 4.8 [0.19]	4/18/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



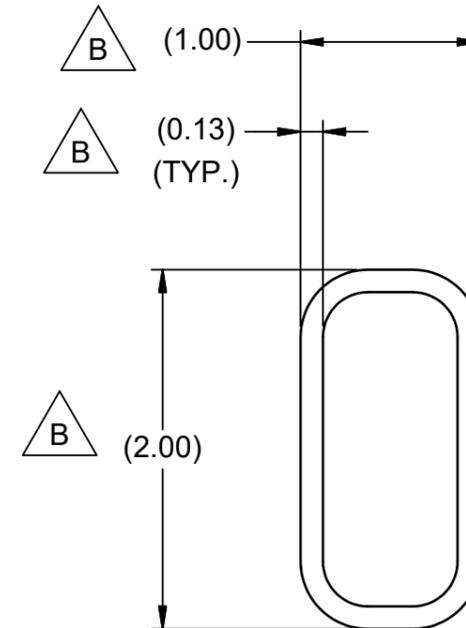
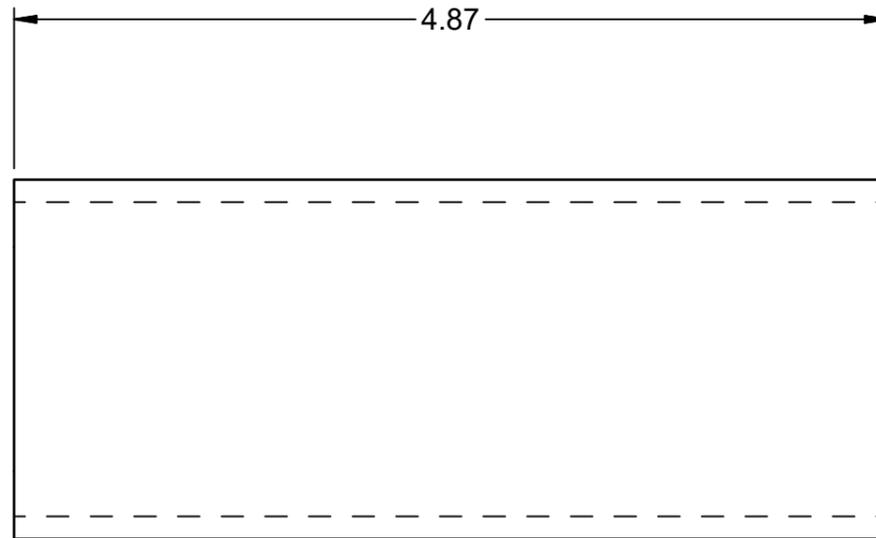
NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$ UNLESS OTHERWISE NOTED.

MATERIAL: T.S. 1 1/2" x 1 1/2" x 3/16" x 4.42"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\overset{125}{\curvearrowright}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 4/19/2013 4/19/2013		LATCH ANCHOR TUBE CHILD FRONTAL IMPACT SLED	
MATERIAL STEEL A-500 HEAT TREAT FINISH	SIZE A3 SCALE: 1/2	DRAWING NUMBER 3021-753	REV C		

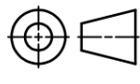


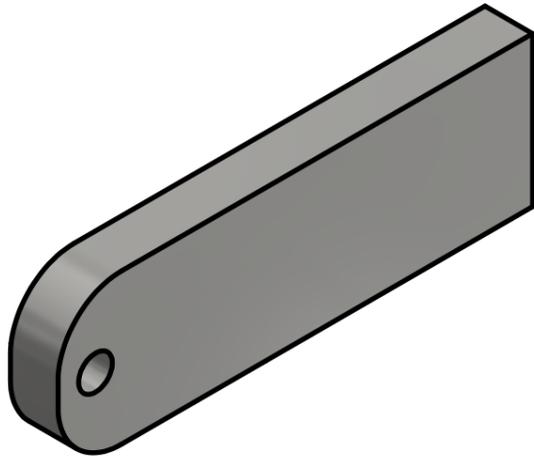
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 123.6 [4.87] WAS 158.8 [6.25]	4/19/2013	DW
	B	ADDED NOTE #1, DIMENSIONS (25.4 [1.00]) WAS 25.4 [1.00], (3.2 [0.13]) WAS 3.2 [0.13], (50.8 [2.00]) WAS 50.8 [2.00]	4/19/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



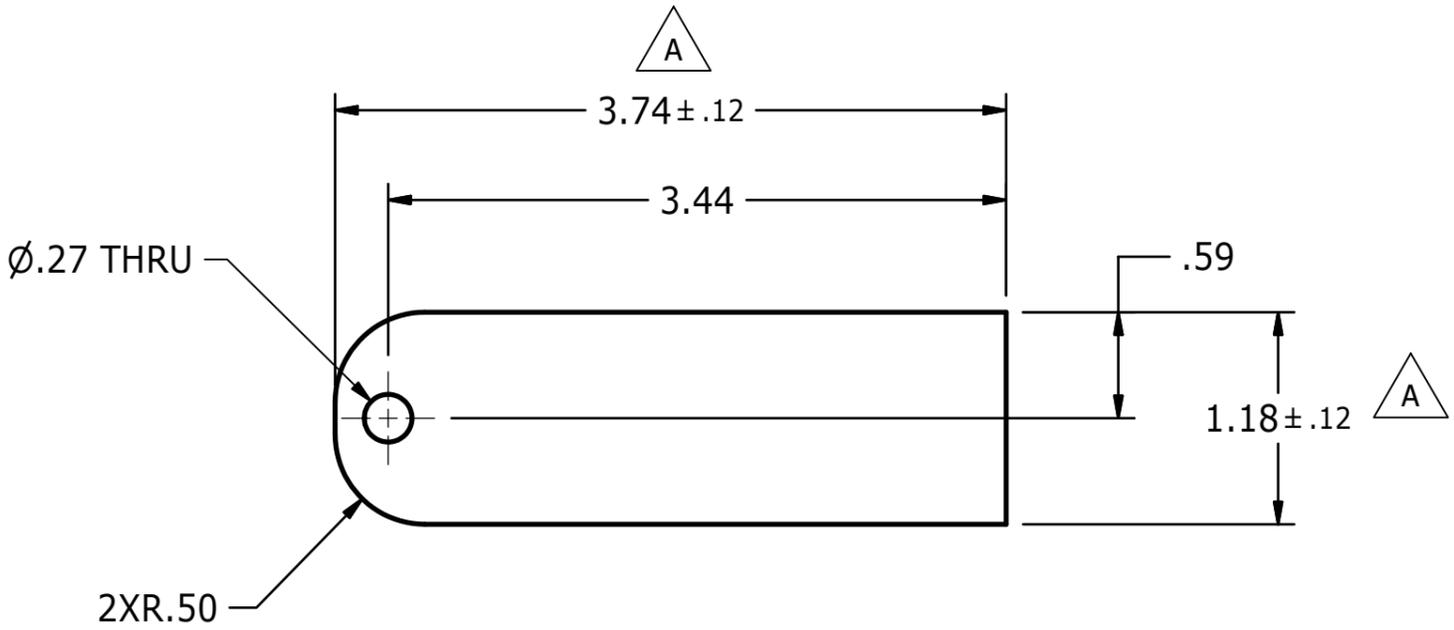

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$
 UNLESS OTHERWISE NOTED.

MATERIAL: T.S. 2 x 1 x 1/8 x 4.87"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\pm .005$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
MATERIAL STEEL A-500 HEAT TREAT FINISH		APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED		DATE 4/19/2013 4/19/2013	
		 THIRD ANGLE PROJECTION		LATCH END TUBE CHILD FRONTAL IMPACT SLED	
		SIZE A3		DRAWING NUMBER 3021-755	
		SCALE: 1 / 2		SHEET 1 OF 1	
				REV C	



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIM. 65.0 ±3 [3.75 ±0.12] WAS 95.0 [3.75], 30.3 ±3 [1.18 ±0.12] WAS 30.0 [1.18], (9.5 [0.38]) WAS 9.5 [0.38]	4/19/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/29/2021	JHC



MATERIAL: PL 0.38" x 1.18" x 3.74"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE	LATCH ANCHOR PLATE-OUTSIDE CHILD FRONTAL IMPACT SLED	
	DRAWN Dave Walker	11/30/2015		
	MATERIAL STEEL ASTM-A36	CHECKED	SIZE: A3 DRAWING NUMBER: 3021-759 REV: B	
HEAT TREAT	ENG	11/30/2015		
FINISH	APPROVED	SCALE: 1:1 SHEET: 1 OF 1		

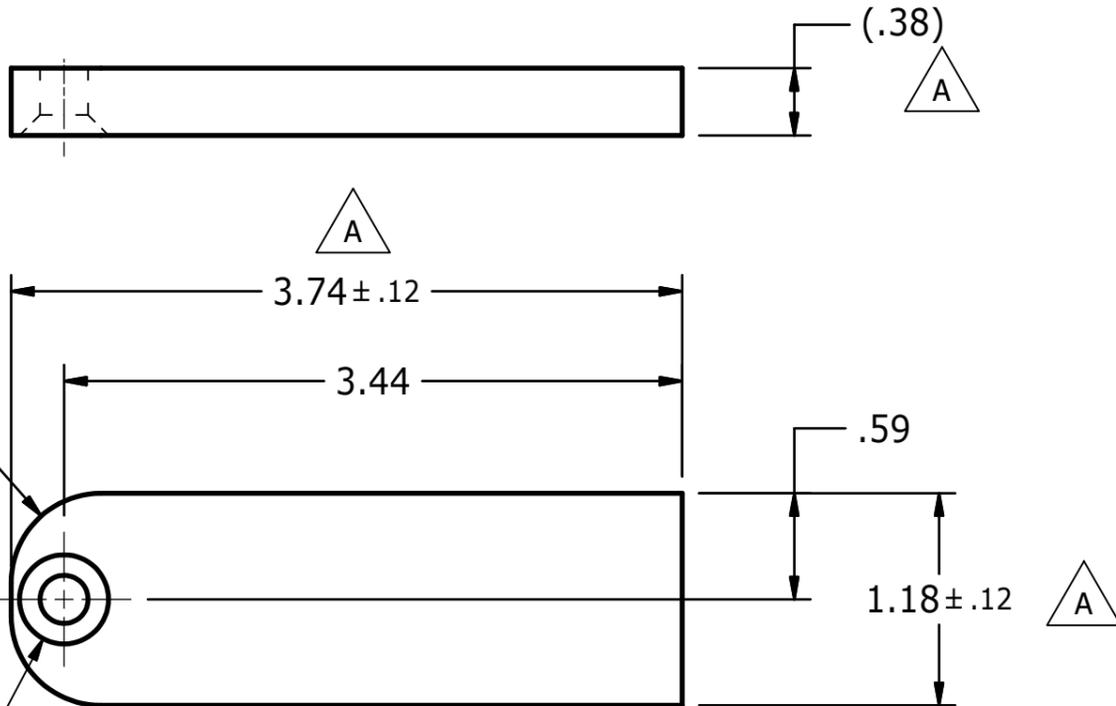
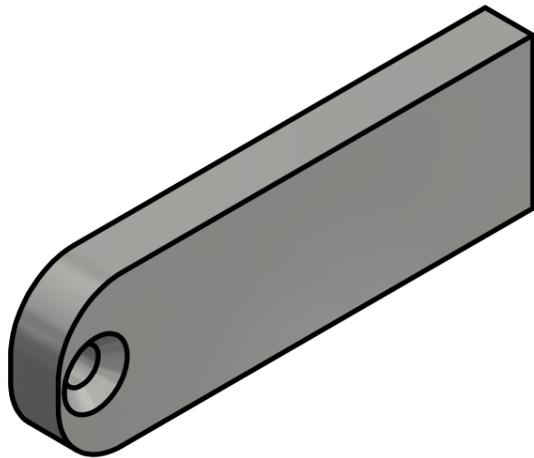
4

3

2

1

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIM. 95.0 ±3 [3.74 ±0.12] WAS 95.0 [0.12], 30.0 ±3 [1.18 ±.12] WAS 30.0 [1.18], (9.5 [0.38]) WAS 9.5 [0.38]; HOLE DIMENSION Ø6.8 THRU √Ø12.6 x 90° [Ø0.27 THRU √Ø0.50 x 90°] WAS Ø6.8 THRU √Ø12.9 x 82° [Ø0.27 THRU √Ø0.51 x 82°]	4/19/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/29/2021	JHC

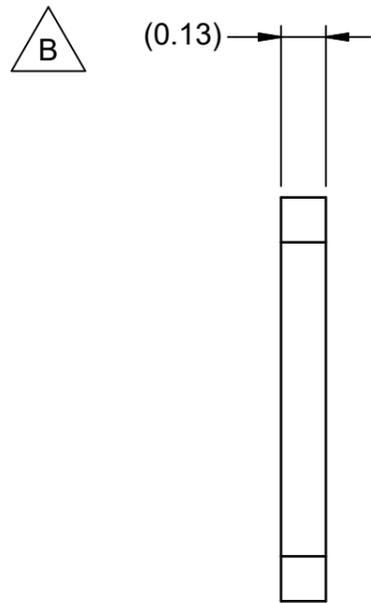
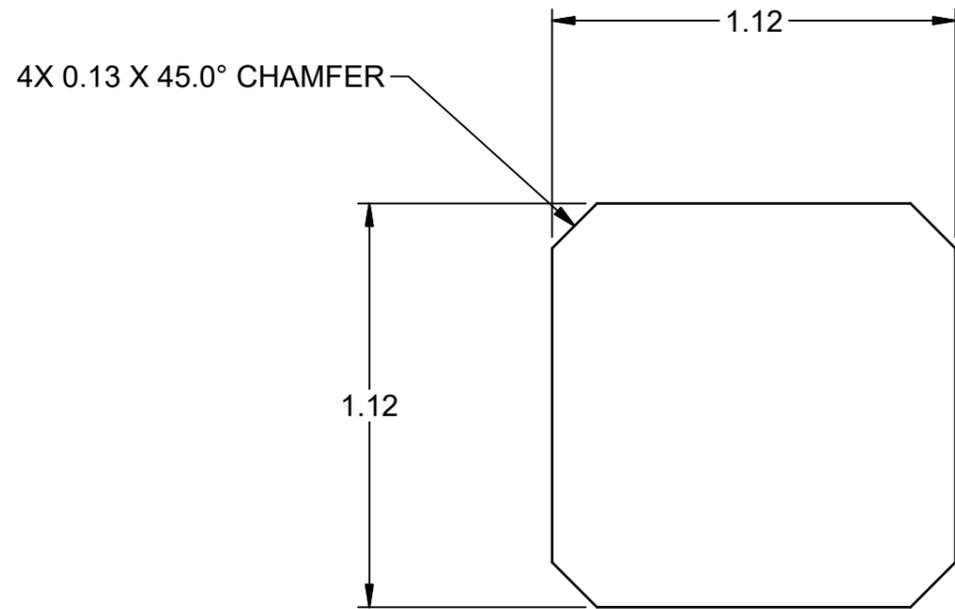
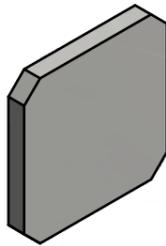


△ A √ Ø.27 THRU
 √ Ø.50 X 90.0°

MATERIAL: PL 0.38" x 1.18" x 3.74"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 11/30/2015 11/30/2015	
MATERIAL STEEL ASTM-A36 HEAT TREAT FINISH	THIRD ANGLE PROJECTION	SIZE A3 SCALE: 1:1	DRAWING NUMBER 3021-760 SHEET 1 OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 28.5 [1.12] WAS 44.5 [1.75]	11/30/2015	DW
	B	DIMENSION (3.2 [0.13]) WAS 3.2 [0.13]	4/22/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/24/2021	JHC



MATERIAL: PL 0.19" x 1.12" x 1.12"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED $\frac{125}{64}$.X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
						APPROVALS
	MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	4/22/2013	LATCH TUBE CAP #2 CHILD FRONTAL IMPACT SLED		
HEAT TREAT	CHECKED					
FINISH	ENG	4/22/2013		SIZE A3	DRAWING NUMBER 3021-758	REV C
	APPROVED			SCALE: 2 : 1	SHEET 1 OF 1	

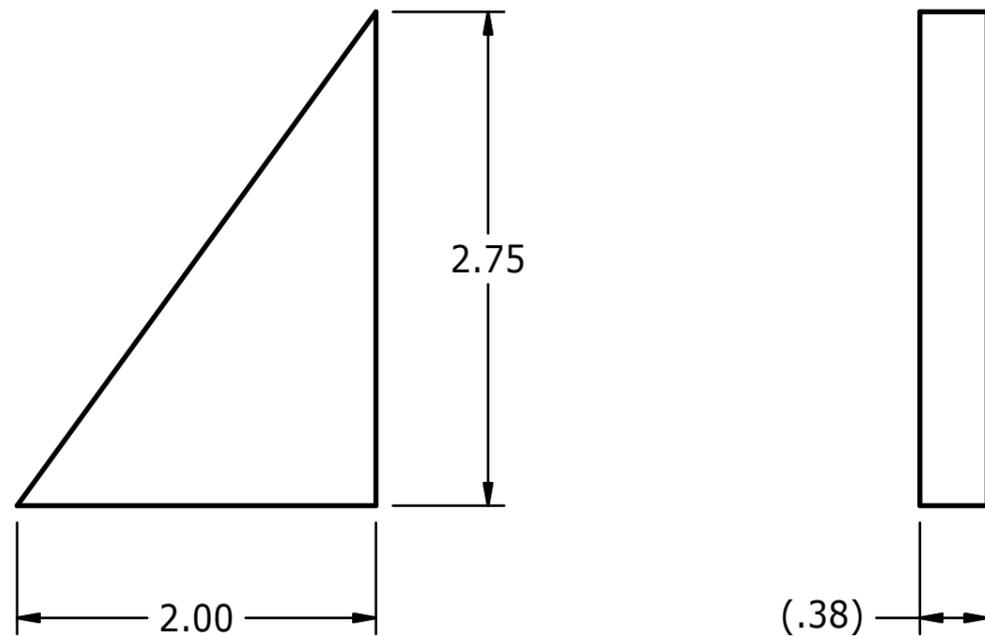
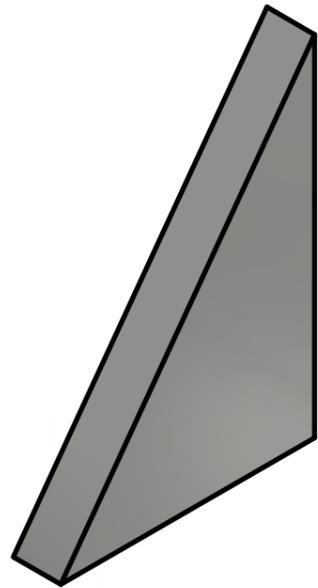
4

3

2

1

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE #1, DIM. (9.5 [0.38]) WAS 9.5 [0.38]	4/19/2019	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	11/29/2021	JHC



B

B

A

A

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$
 UNLESS OTHERWISE NOTED.

MATERIAL: BAR 2" x 3/8" x 2 3/4"

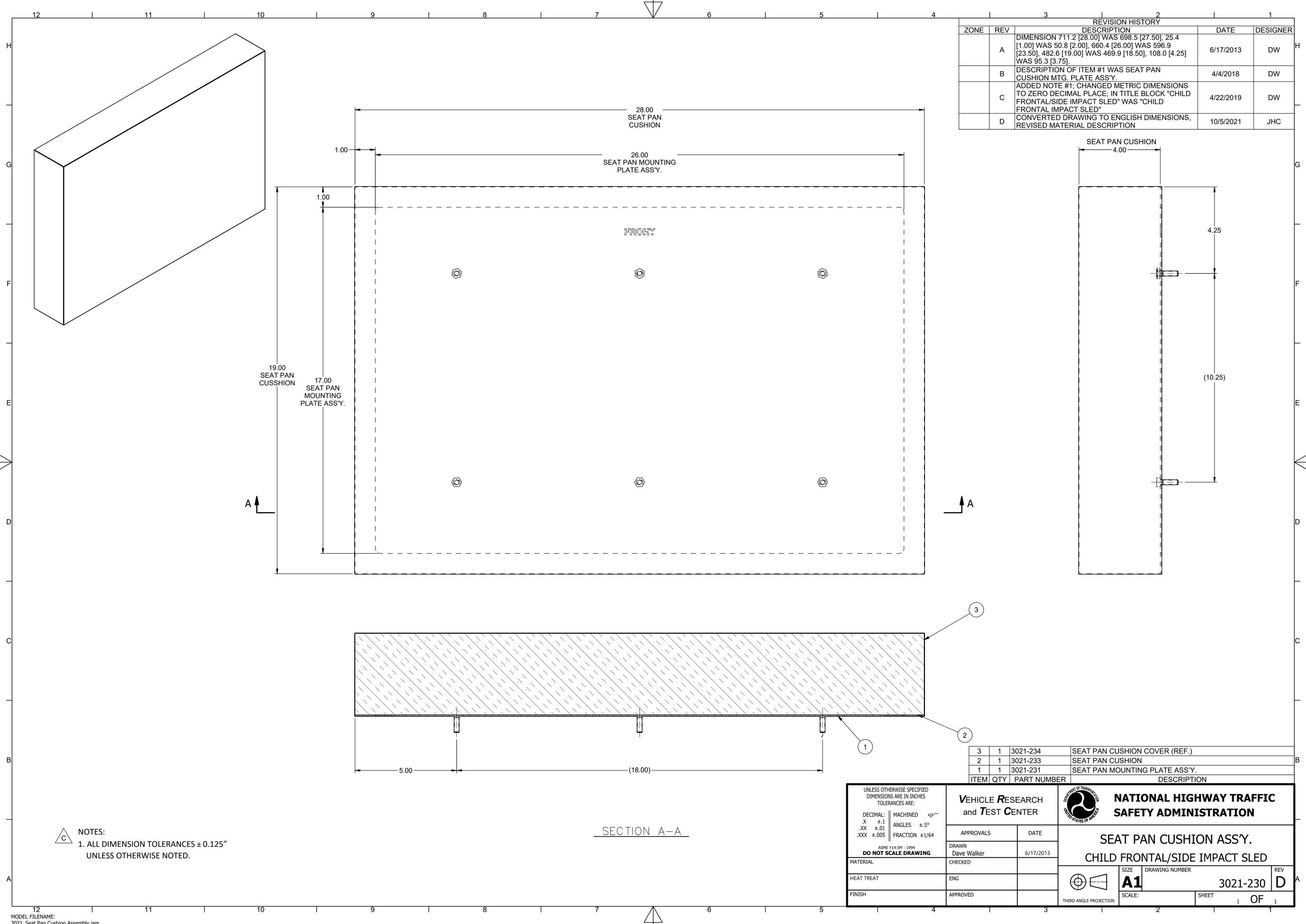
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
				APPROVALS
	MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	4/6/2016	LATCH GUSSET PLATE CHILD FRONTAL IMPACT SLED
	HEAT TREAT	CHECKED		
FINISH	APPROVED	4/6/2016	 THIRD ANGLE PROJECTION	
		SIZE: A3 SCALE: 1:1	DRAWING NUMBER: 3021-761 SHEET: 1 OF 1	

4

3

2

1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DESIGNER
	A	DIMENSION 711.2 [28.00] WAS 698.5 [27.50], 25.4 [1.00] WAS 50.8 [2.00], 660.4 [26.00] WAS 596.9 [23.50], 482.6 [19.00] WAS 469.9 [18.50], 108.0 [4.25] WAS 95.3 [3.75].	6/17/2013	DW
	B	DESCRIPTION OF ITEM #1 WAS SEAT PAN CUSHION MTG. PLATE ASS'Y.	4/4/2018	DW
	C	ADDED NOTE #1: CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"	4/22/2019	DW
	D	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/5/2021	JHC

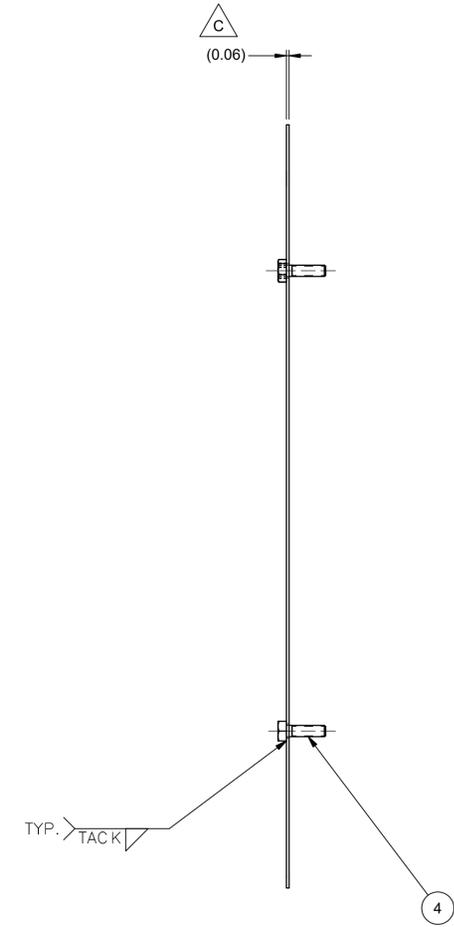
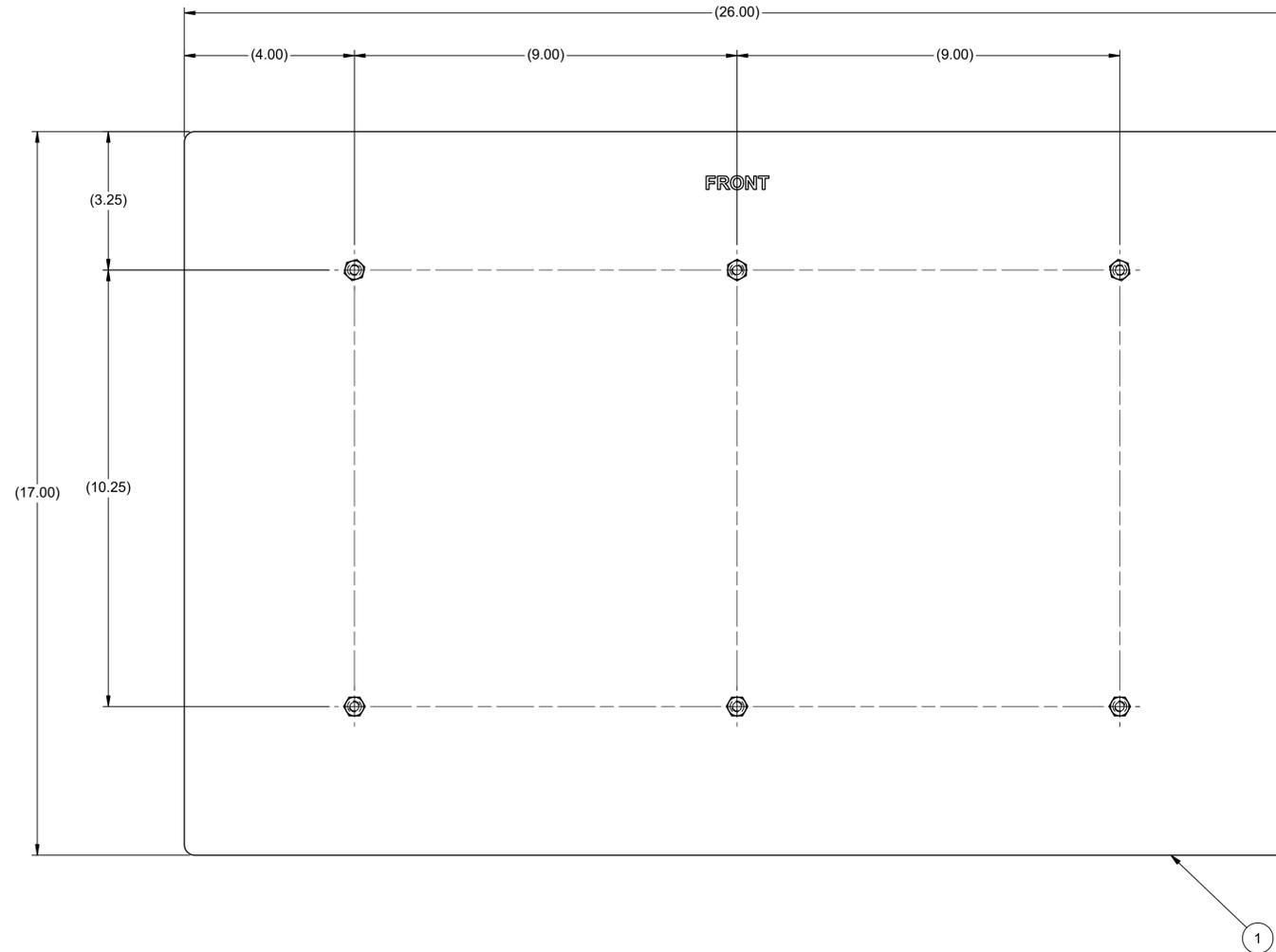
ITEM	QTY	PART NUMBER	DESCRIPTION
3	1	3021-234	SEAT PAN CUSHION COVER (REF.)
2	1	3021-233	SEAT PAN CUSHION
1	1	3021-231	SEAT PAN MOUNTING PLATE ASS'Y.

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.125"$ UNLESS OTHERWISE NOTED.

SECTION A-A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED <input checked="" type="checkbox"/> .X ± 0.1 ANGLES $\pm 0.5^\circ$.XX ± 0.01 FRACTION $\pm 1/64$.XXX ± 0.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: Dave Walker DATE: 6/17/2013 CHECKED: _____ ENG: _____ APPROVED: _____		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION SEAT PAN CUSHION ASS'Y. CHILD FRONTAL/SIDE IMPACT SLED DRAWING NUMBER: 3021-230 REV: D SCALE: _____ SHEET: 1 OF 1	
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REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DESIGNER
	A	DIMENSION 660.4 [26.00] WAS 698.5 [27.50], 101.6 [2.75] WAS 88.9 [3.5], 431.8 [17.00] WAS 469.8 [18.5], 82.6 [3.25] WAS 95.3 [3.75], 44.5 [1.75] WAS 69.9 [2.75], AND 0.9 [0.03] WAS 1.5 [0.06]	3/10/2015	DW
	B	DRAWING TITLE WAS SEAT PAN CUSHION MTG. PLATE.; REVISED ITEM #1, 3021-232, SEAT PAN MOUNTING PLATE	4/4/2018	DW
	C	CHANGED ALL DIMENSIONS TO REFERENCE AND ALL METRIC DIMENSIONS TO ZERO DECIMAL PLACES; DIMENSION (1.5 [0.06]) WAS 3.2 [0.13]; ADDED NOTE 1	3/12/2020	DW
	D	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/5/2021	JHC

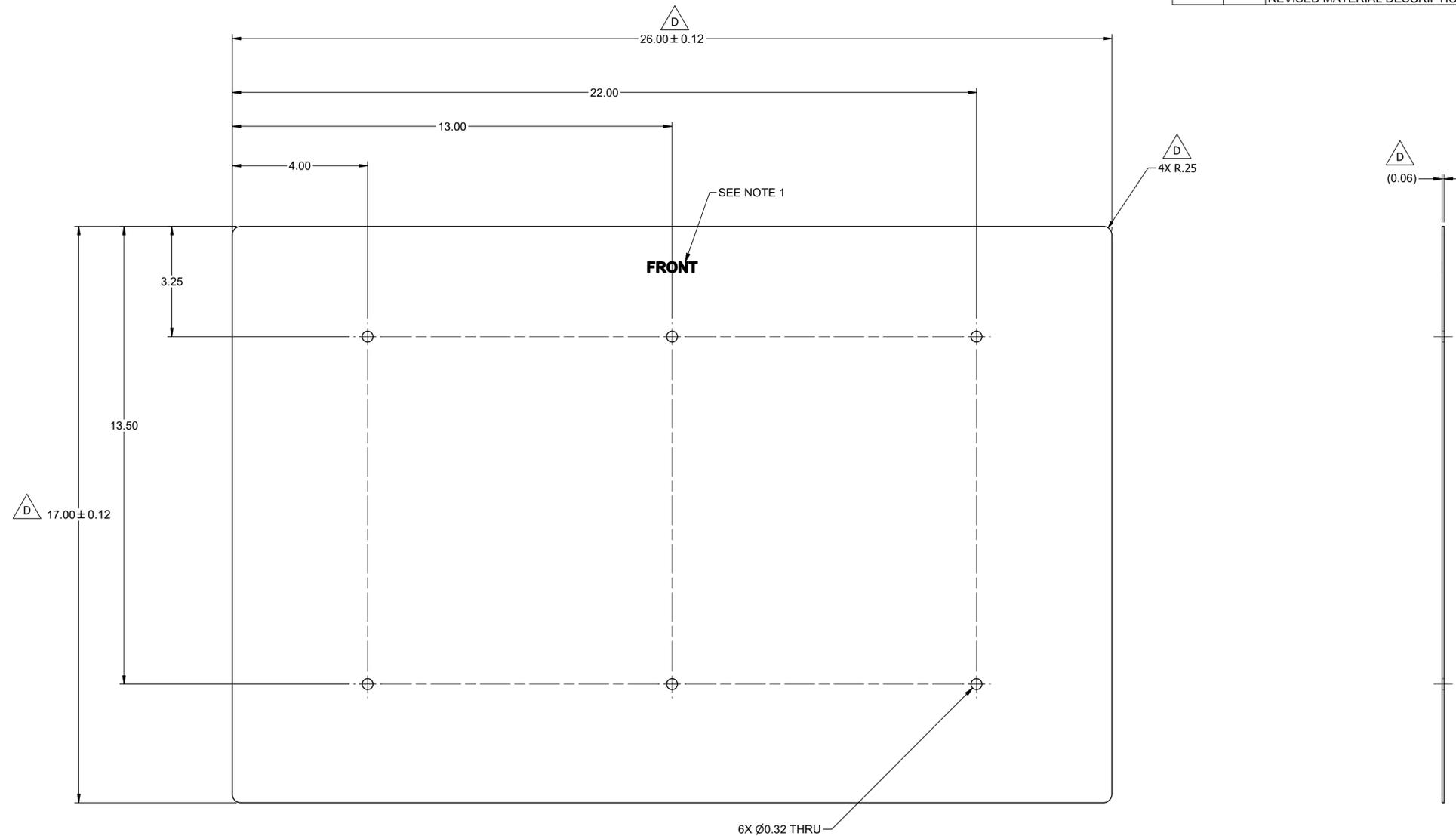
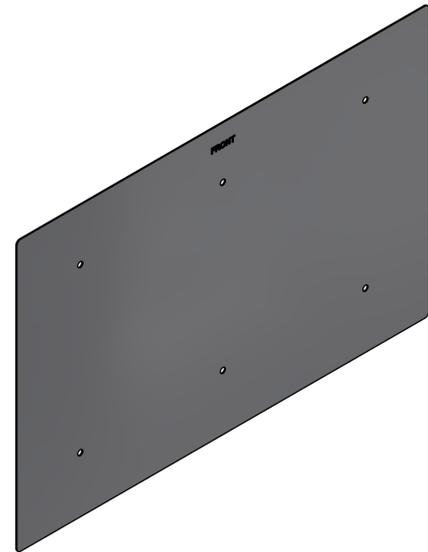


NOTES:
 1. DIMENSION TOLERANCE ± 0.02 " UNLESS OTHERWISE NOTED.

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
4	6	9000685V	BOLT, HEX HD. 1/4-28 x 7/8"	Steel, Mild
1	1	3021-232	SEAT PAN CUSHION MOUNTING PLATE	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker CHECKED	DATE 6/17/2013		SEAT PAN MOUNTING PLATE ASS'Y. CHILD FRONTAL IMPACT SLED	
MATERIAL HEAT TREAT FINISH	APPROVED	SIZE A1	DRAWING NUMBER 3021-231	REV D	SHEET 1 OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DESIGNER
	A	DIMENSION 660.4 [26.00] WAS 698.5 [27.50], 69.9 [2.75] WAS 88.9 [3.50], 431.8 [17.00], 82.6 [3.25] WAS 95.3 [3.75], 44.5 [1.75] WAS 69.9 [2.75], AND 0.9 [0.03] WAS 1.5 [0.06]; ADDED MATERIAL NOTE.	6/17/2013	DW
	B	DIMENSION 101.6 [4.00] WAS 88.9 [2.75], 228.6 [9.00] WAS 260.4 [10.25], 88.9 [3.50] WAS 44.5 [1.75]	7/11/2016	DW
	C	ADDED NOTE 1; DRAWING TITLE WAS SEAT PAN MOUNTING PLATE	3/9/2018	DW
	D	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE; DIMENSION 660 ±3 [26.00 ±0.12] WAS 660.4 [26.0], 432 ±3 [17.00 ±0.12] WAS 431.8 [17.00], (1.5 [0.06]) WAS 0.9 [0.03], ADDED 4X R6.4 [0.25]; MATERIAL WAS PL 0.9 [0.03"] x 431.8 [17.00"] x 660.4 [26.00"]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED NOTE 2	5/2/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/5/2021	JHC



NOTES:

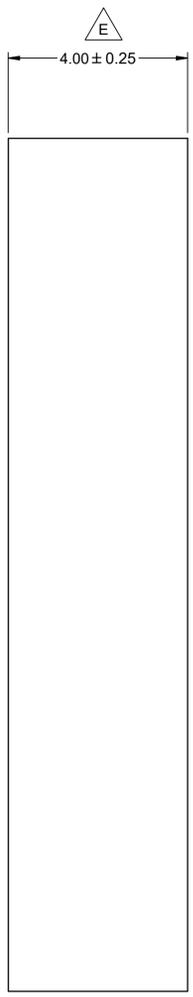
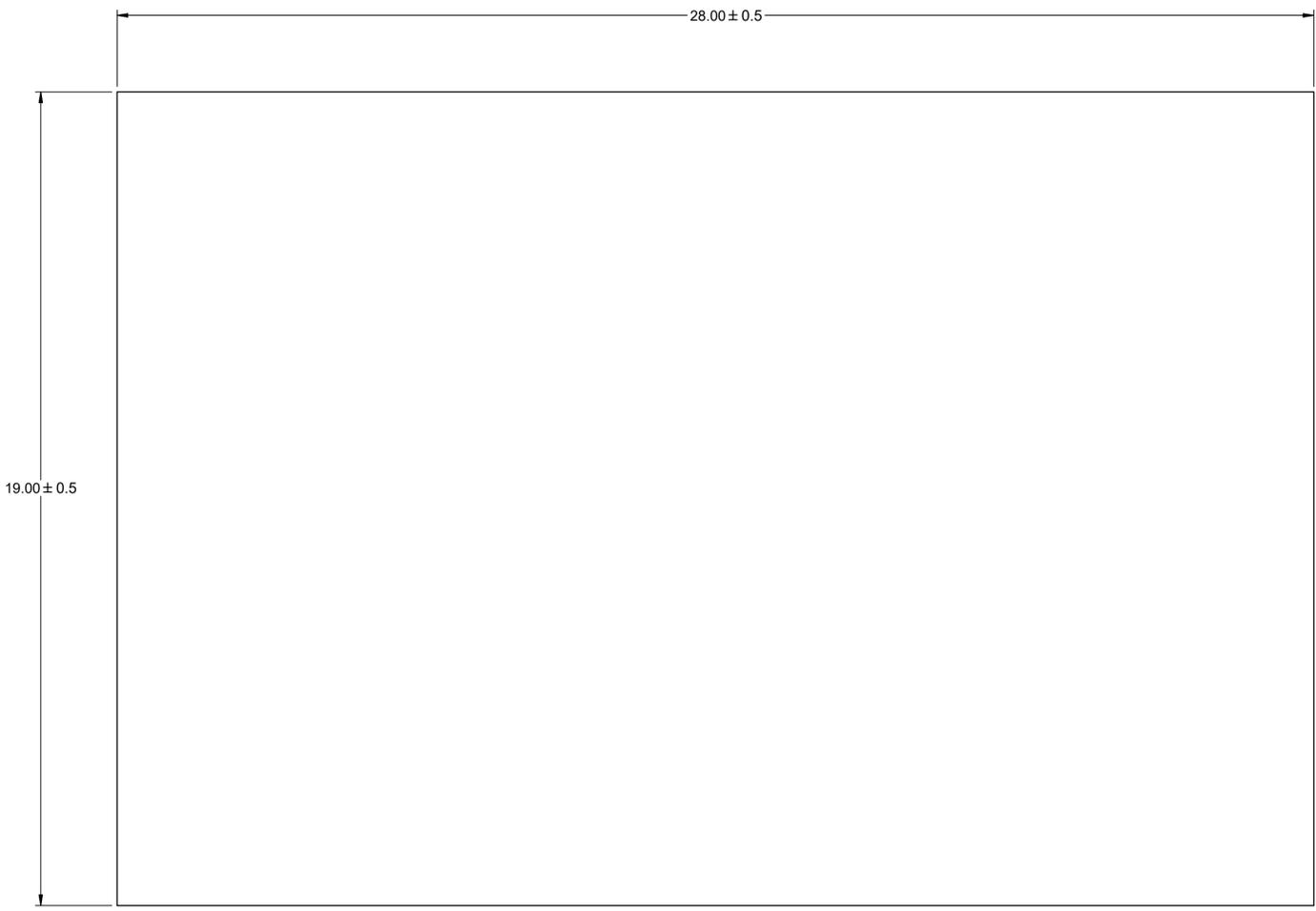
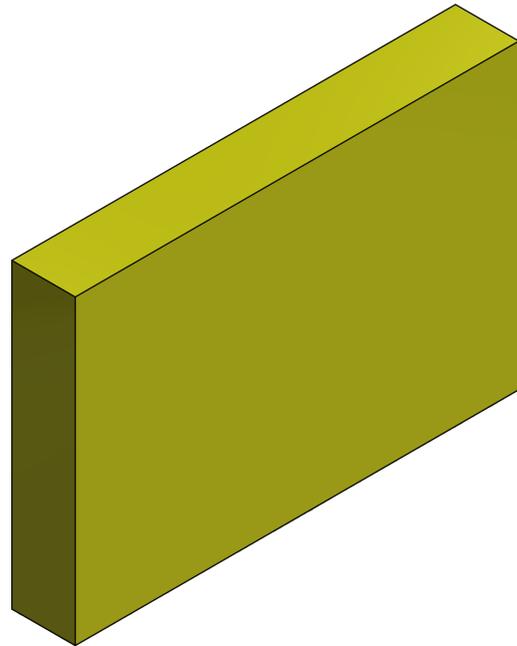
1. STAMP OR ETCH FRONT (.125" CHARACTERS) WHERE SHOWN.
2. DIMENSION TOLERANCES ±0.02" UNLESS OTHERWISE NOTED.

MATERIAL: PL 16 GA. x 17.00" x 26.00"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005	MACHINED ✓ ANGLES ±.5° FRACTION ±1/64	
VEHICLE RESEARCH and TEST CENTER APPROVALS: Dave Walker DATE: 6/17/2013		SEAT PAN CUSHION MOUNTING PLATE CHILD FRONTAL/SIDE IMPACT SLED
MATERIAL: STEEL ASTM-A36 HEAT TREAT: ENG FINISH: APPROVED		
ASME Y14.5M - 1994 DO NOT SCALE DRAWING		SIZE: A1 DRAWING NUMBER: 3021-232 SCALE: 1 OF 1

12 11 10 9 8 7 6 5 4 3 2 1

H
G
F
E
D
C
B
A



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 711.2 ±12.7 [28.00 ±0.5] WAS 698.5 [27.50], 482.6 ±12.7 [19.00 ±0.5] WAS 469.9 [18.50], AND 101.6 ±6.4 [4.00 ±0.25] WAS 101.6 [4.00]; REVISED NOTE 1, MATERIAL NOTE.	3/10/2015	DW
	B	MATERIAL NOTE WAS POLYURETHANE FOAM DENSITY 47 kg/m ³ (2.0 pcf) ±10% PER ASTM D3574-11 50% CFD 6.6 pcf ±10% FOR CERTIFICATION 50% ILD 440 N ±10%	4/23/2015	DW
	C	IN MATERIAL NOTE 6.6 kPa WAS 6.6 pcf	5/12/2015	DW
	D	ADDED 25% & 65% AS REFERENCE SPECS	10/15/2016	JHC
	E	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE, DIMENSION (102 ±12.7 [4.00 ±0.50] WAS (101.6 ±6.4 [4.00 ±0.25])); IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; REMOVED MATERIAL NOTE , ADDED PROCUREMENT SPECIFICATION TABLE AND TESTING CERTIFICATION SPECIFICATION TABLE	4/19/2019	DW
	F	CONVERTED TO ENGLISH DIMENSIONS	10/14/2021	JHC
	G	ADDED FOAM TESTING NOTE	2/21/2023	JHC

G

NOTE:
FOAM IFDs ARE MEASURED ON THE FULL SIZE SAMPLES, USING THE TEST METHODOLOGY AND APPARATUS DESCRIBED IN ASTM STANDARD D3574-11 AT 50% INDENTATION. 25% AND 65% ARE COLLECTED FOR REFERENCE ONLY.

E

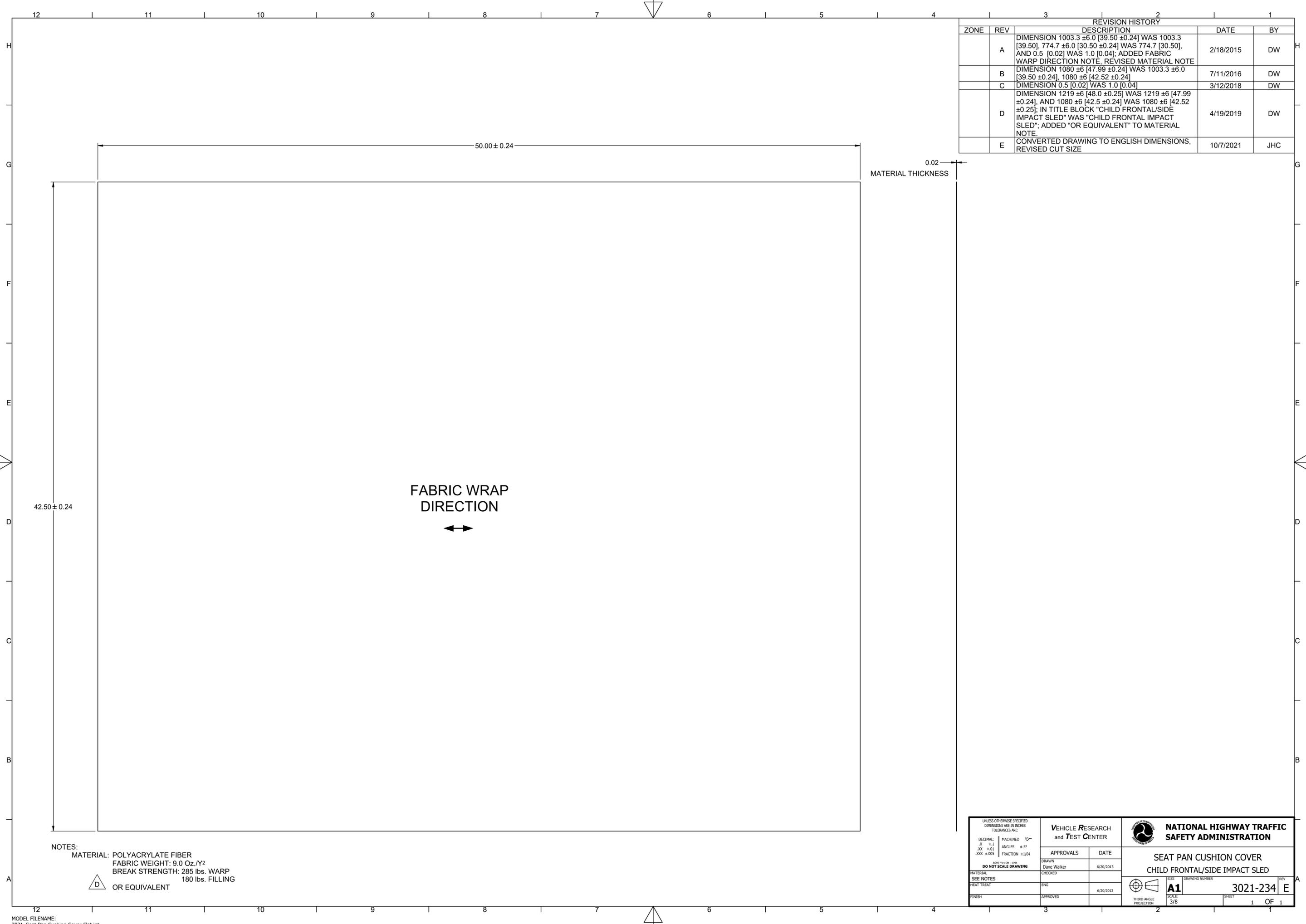
E

PROCUREMENT SPECIFICATIONS FOR 4" AND 2" FOAMS					
	Density Kg/m ³ (lb/ft ³)	50% CFD (kPa)	IFD 25% N (lb)	IFD 50% N (lb)	IFD 65% N (lb)
NHTSA Specifications – Seat Pan (102 mm (4 inches))	47 / (2.9) ±10%	6.6 kPa ±10%	237 / (53.3) ±15% FOR REFERENCE	440 / (98.9) ±10% [396-484] FOR REFERENCE	725 / (162.9) ±15% FOR REFERENCE
NHTSA Specification – Seat Back (51 mm (2 inches))	47 / (2.9) ±10%	6.6 kPa ±10%	157 / (35.3) FOR REFERENCE	300 / (67.4) ±15% [255-345] FOR REFERENCE	480 / (107.9) FOR REFERENCE

TEST CERTIFICATION SPECIFICATIONS FOR 4" AND 2" FOAMS			
	IFD 25% N (lb)	IFD 50% N (lb)	IFD 65% N (lb)
NHTSA Specifications – Seat Pan (102 mm (4 inches))	237 / (53.3) 15% FOR REFERENCE	440 / (98.9) ±15% [374-506] FOR REFERENCE	725 / (162.9) ±15% FOR REFERENCE
NHTSA Specifications – Seat Back (51 mm (2 inches))	157 / (35.3) FOR REFERENCE	300 / (67.4) ±15% [255-345] FOR REFERENCE	480 / (107.9) FOR REFERENCE

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED: ✓ ANGLES: ±.5° FRACTION: ±1/64 <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE: 6/17/2013	
MATERIAL: Polystyrene HEAT TREAT: FINISH:	APPROVED:	SIZE: A1 SCALE:	DRAWING NUMBER: 3021-233 SHEET: 1 OF 1

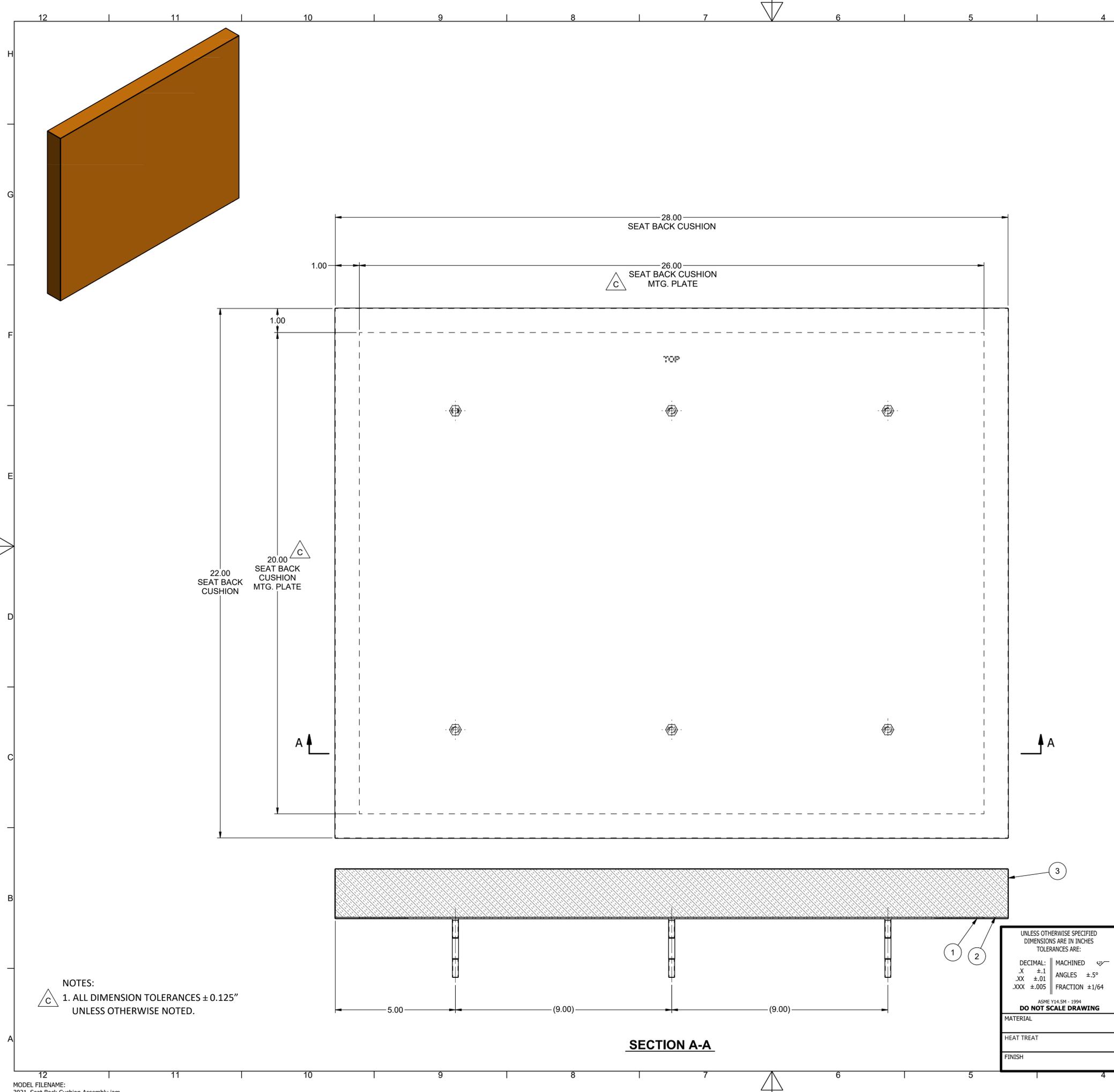
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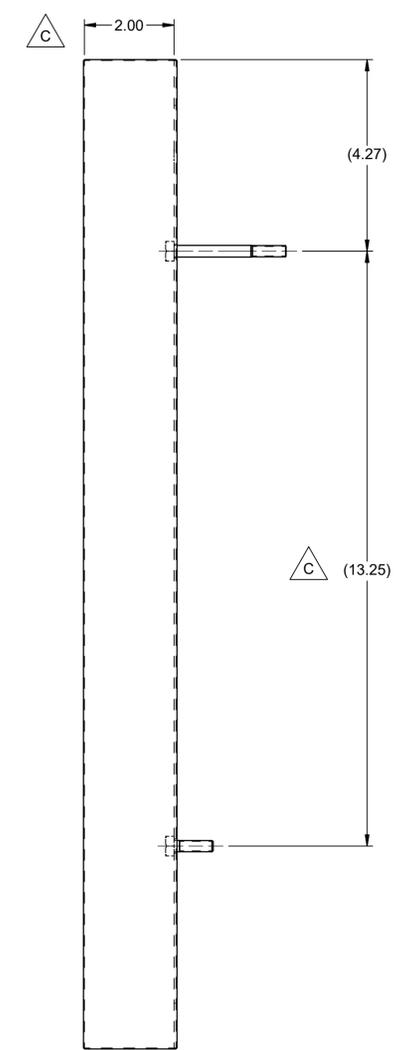
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 1003.3 ± 6.0 [39.50 ± 0.24] WAS 1003.3 [39.50], 774.7 ± 6.0 [30.50 ± 0.24] WAS 774.7 [30.50], AND 0.5 [0.02] WAS 1.0 [0.04]; ADDED FABRIC WARP DIRECTION NOTE, REVISED MATERIAL NOTE	2/18/2015	DW
	B	DIMENSION 1080 ± 6 [47.99 ± 0.24] WAS 1003.3 ± 6.0 [39.50 ± 0.24], 1080 ± 6 [42.52 ± 0.24]	7/11/2016	DW
	C	DIMENSION 0.5 [0.02] WAS 1.0 [0.04]	3/12/2018	DW
	D	DIMENSION 1219 ± 6 [48.0 ± 0.25] WAS 1219 ± 6 [47.99 ± 0.24], AND 1080 ± 6 [42.5 ± 0.24] WAS 1080 ± 6 [42.52 ± 0.25]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED "OR EQUIVALENT" TO MATERIAL NOTE.	4/19/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED CUT SIZE	10/7/2021	JHC

NOTES:
 MATERIAL: POLYACRYLATE FIBER
 FABRIC WEIGHT: 9.0 Oz./Y²
 BREAK STRENGTH: 285 lbs. WARP
 180 lbs. FILLING
 OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: X ±.1 MACHINED ✓ XX ±.01 ANGLES ±.5° XXX ±.005 FRACTION ±1/64		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DO NOT SCALE DRAWING		APPROVALS	DATE	SEAT PAN CUSHION COVER CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL CHECKED		DAVE WALKER	6/20/2013	DRAWING NUMBER 3021-234 E	
HEAT TREAT		ENG	6/20/2013	REV	
FINISH		APPROVED		SCALE: 3/8 SHEET 1 OF 1	



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 711.2 [28.00] WAS 698.5 [27.00], 482.6 [19.00] WAS 520.7 [20.50], 25.4 [1.00] WAS 49.8 [1.96], 660.4 [26.00] WAS 596.9 [23.50], 482.6 [19.00] WAS 520.7 [20.50], 431.8 [17.00] WAS 482.6 [19.00], 25.4 [1.00] WAS 18.1 [0.71], 25.4 [1.00] WAS 19.1 [0.75], 95.3 [3.75] WAS 88.9 [3.50], 311.2 [12.25] WAS 355.6 [14.00], 25.4 [1.00] WAS 38.1 [1.50], AND 52.0 [2.05] WAS 76.2 [3.00]	3/10/2015	DW
	B	DIMENSION 558.8 [22.00] WAS 482.6 [19.00], 508.0 [20.00] WAS 431.8 [17.00], 82.6 [3.25] WAS 95.3 [3.75], AND 342.9 [13.50] WAS 304.8 [12.00]	7/18/2016	DW
	C	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE, REARRANGED DIMENSIONS, DIMENSION (508 [20.0]) SEAT BACK CUSHION MTG. PLATE WAS 508.0 [20.00] SEAT BACK CUSHION MTG. PLATE, (337 [13.25]) WAS 342.9 [13.50], (660 [26.00]) SEAT BACK CUSHION MTG. PLATE WAS 660.4 [26.00] SEAT BACK CUSHION MTG. PLATE, DIMENSION (51 [2.00]) WAS 52.0 [2.05]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; AND ADDED NOTE #1	4/19/2019	DW
	D	CONVERTED DRAWING TO ENGLISH DIMENSIONS	10/7/2021	JHC



ITEM	QTY	PART NUMBER	DESCRIPTION
3	1	3021-249	SEAT BACK CUSHION COVER
2	1	3021-248	SEAT BACK CUSHION
1	1	3021-246	SEAT BACK CUSHION MTG. PLATE ASSEMBLY

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.125"$ UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
 DECIMAL: MACHINED
 .X ± 0.1 ANGLES $\pm 0.5^\circ$
 .XX ± 0.01 FRACTION $\pm 1/64$
 .XXX ± 0.005
 ASME Y14.5M - 1994
DO NOT SCALE DRAWING

VEHICLE RESEARCH and TEST CENTER

APPROVALS	DATE
DRAWN Dave Walker	6/17/2013
CHECKED	
ENG	
APPROVED	

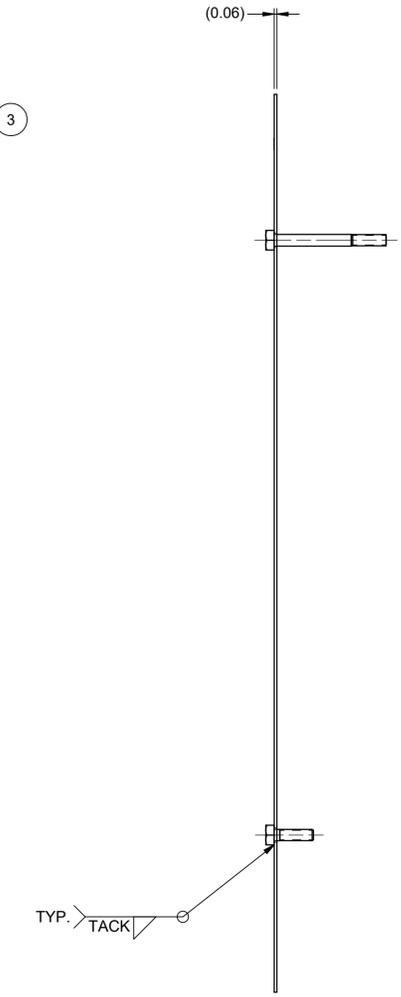
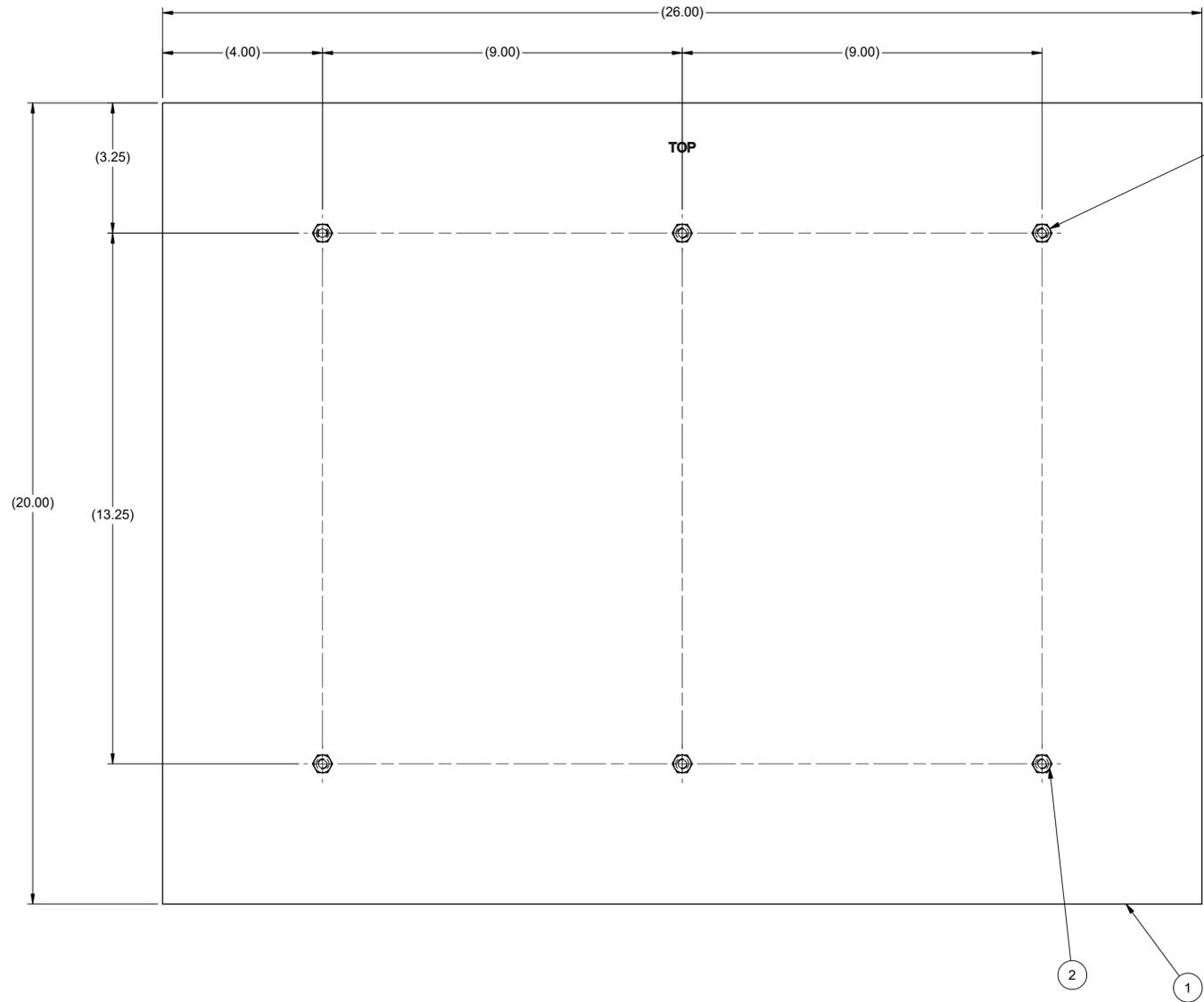
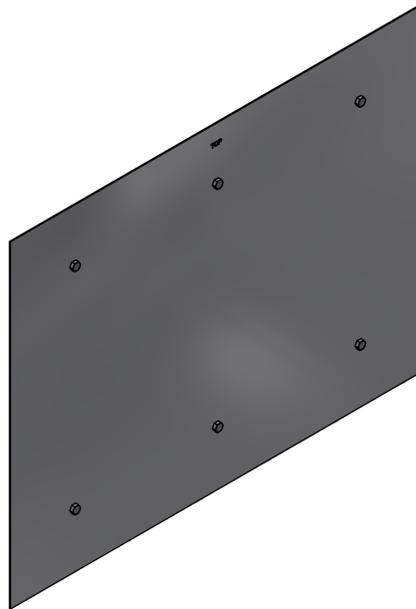
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

**SEAT BACK CUSHION ASS'Y.
CHILD FRONTAL/SIDE IMPACT SLED**

SIZE A1	DRAWING NUMBER 3021-245	REV D
SCALE:	SHEET 1 OF 1	

THIRD ANGLE PROJECTION

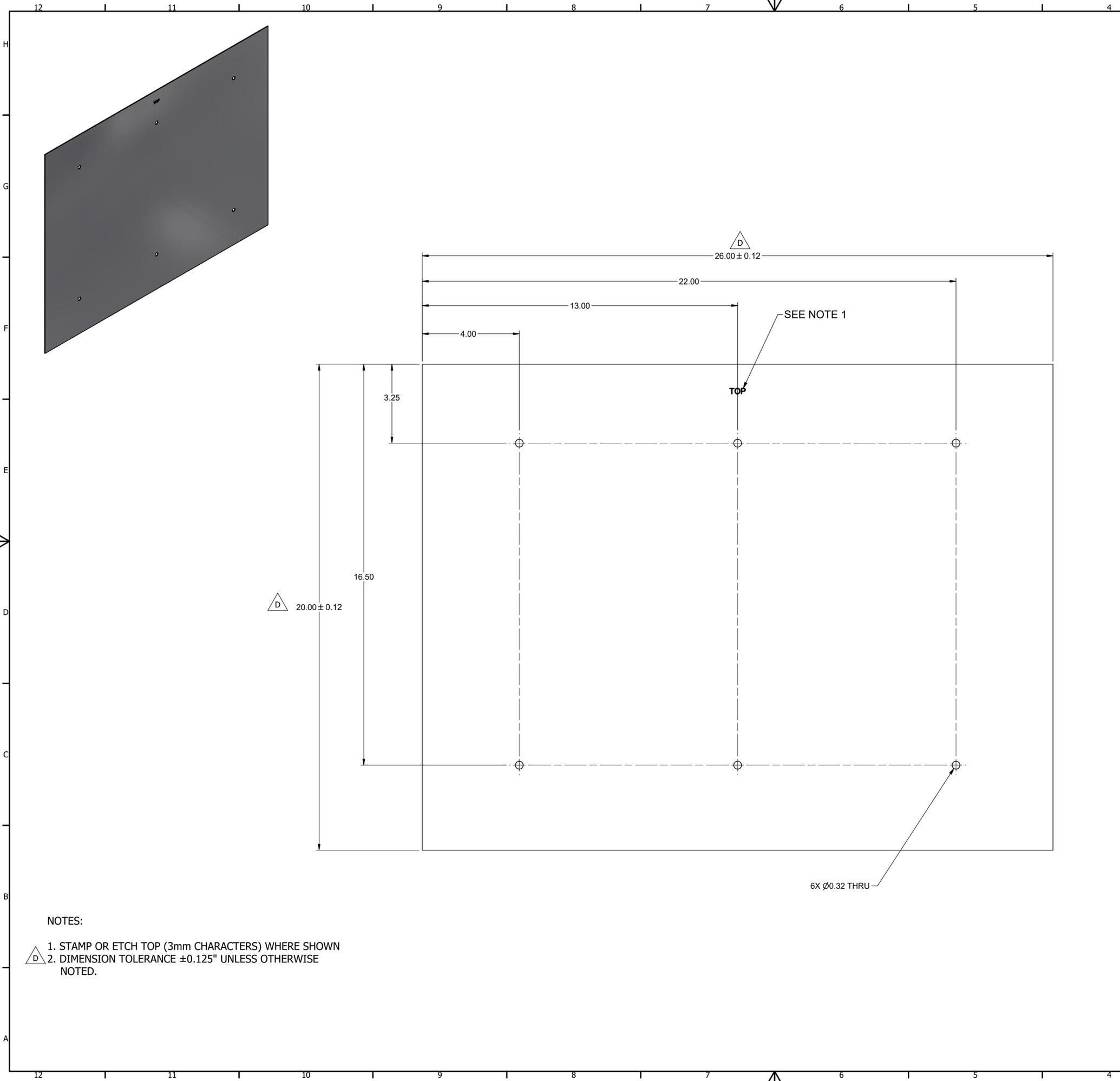
REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 660.4 [26.00] WAS 596.9 [23.50], 69.9 [2.75] WAS 38.1 [1.50], 431.8 [17.00] WAS 482.6 [19.00], 95.3 [3.75] WAS 88.9 [3.50], 311.2 [12.25] WAS 355.6 [14.00], 25.4 [1.00] WAS 38.1 [1.50], AND 0.9 [0.03] WAS 0.9 [0.04]	2/18/2015	DW
	B	DIMENSION 101.6 [400] WAS 69.9 [2.75], 228.6 [9.00] WAS 260.4 [10.25], 508.0 [20.00] WAS 431.8 [17.00], 82.3 [3.25] WAS 95.3 [3.75], 336.6 [13.25] WAS 311.2 [12.25], 88.9 [3.50] WAS 25.4 [1.00], AND 1.5 [0.06] WAS 0.9 [0.03]; QTY. OF ITEM #2 WAS 6, ADDED ITEM #3	4/7/2016	DW
	C	REVISED ITEM #1, 3021-247, SEAT BACK CUSHION MTG. PLATE	3/12/2018	DW
	D	CHANGED ALL DIMENSIONS TO REFERENCE, CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE; DIMENSION (336.6 [13.25]) WAS 342.9 [13.50]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED NOTE 1	5/2/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS	10/7/2021	JHC



NOTES:
 1. DIMENSION TOLERANCE ± 0.125 " UNLESS OTHERWISE NOTED.

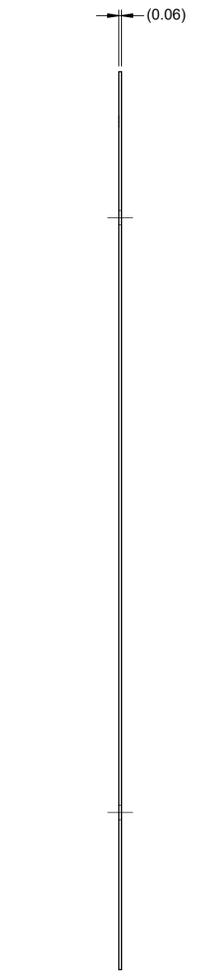
ITEM	QTY	PART NUMBER	DESCRIPTION
3	3	9000611V	BOLT, HEX HD. 1/4-28 x 2 1/2"
2	3	9000685V	BOLT, HEX HD. 1/4-28 x 7/8"
1	1	3021-247	SEAT BACK CUSHION MTG. PLATE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED <input checked="" type="checkbox"/> .X ± 0.1 ANGLES $\pm 0.5^\circ$.XX ± 0.01 FRACTION $\pm 1/64$.XXX ± 0.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS		DATE		SEAT BACK CUSHION MTG. PLATE ASSEMBLY CHILD FRONTAL/SIDE IMPACT SLED	
DRAWN Dave Walker		6/17/2013			
MATERIAL		CHECKED		SIZE DRAWING NUMBER A1 3021-246 SCALE: SHEET 1 OF 1	
HEAT TREAT		ENG			
FINISH		APPROVED			
				THIRD ANGLE PROJECTION	



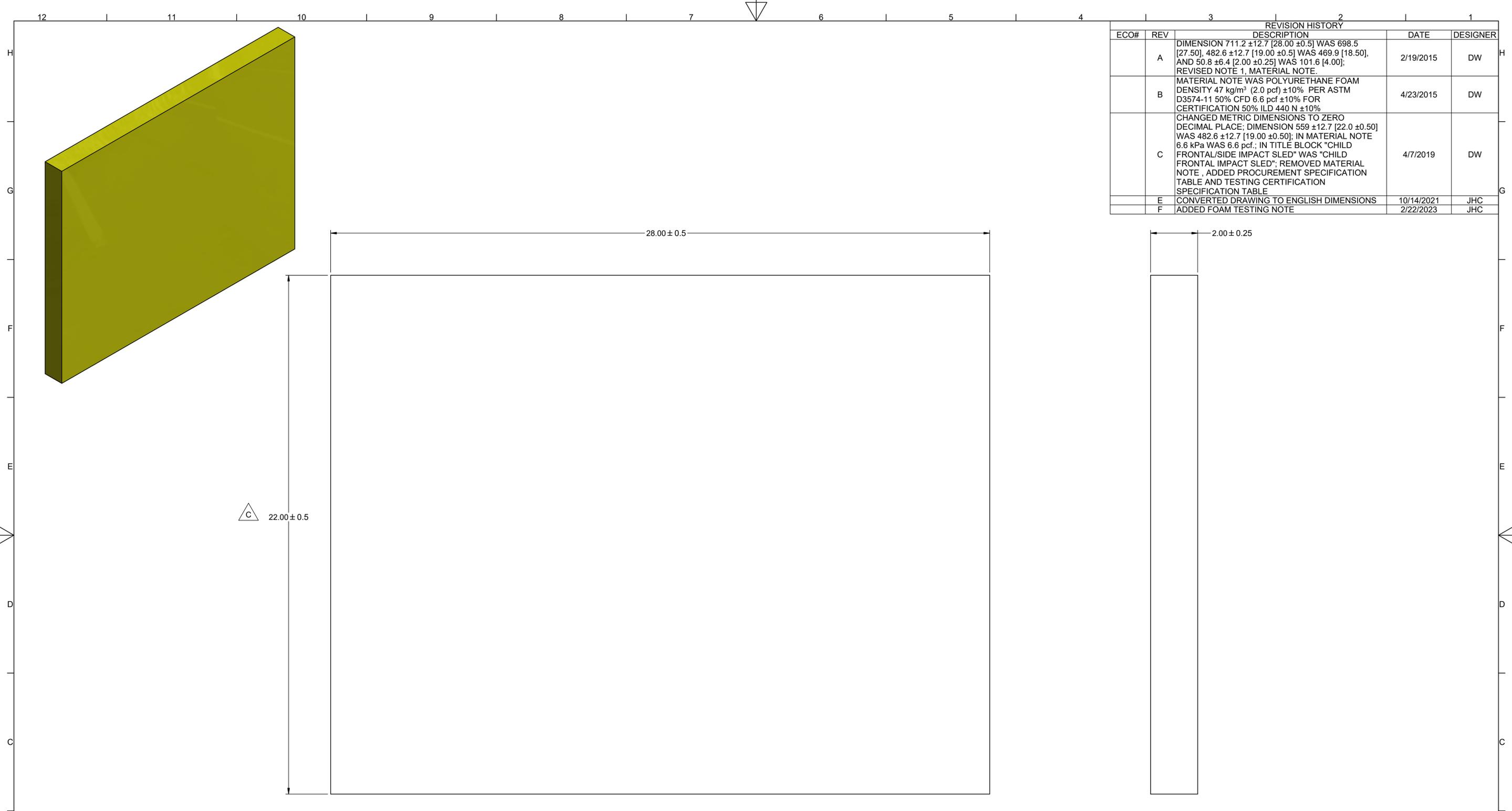
REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 711.2 [28.0] WAS 596.9 [23.50], 69.9 [2.75] WAS 38.1 [1.50], 431.8 [17.00] WAS 482.6 [19.00], 95.3 [3.75] WAS 88.9 [3.50], 311.2 [12.25] WAS 355.6 [14.00], 25.4 [1.00] WAS 38.1 [1.50], AND 0.9 [0.03] WAS 0.9 [0.04]	2/18/2015	DW
	B	DIMENSION 508.0 [20.00] WAS 431.8 [17.00], 82.6 [3.25] WAS 24.5 [1.00], 342.9 [13.50] WAS 311.2 [12.25], 228.6 [9.00] WAS 260.4 [10.25], 101.6 [4.00] WAS 69.9 [2.75], AND (1.5 [0.06]) WAS 0.9 [0.03]	7/11/2016	DW
	C	ADDED NOTE 1	3/12/2018	DW
	D	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE; DIMENSION 660 ±3 [26.00 ±0.12] WAS 660.4 [26.00], AND 508 ±3 [20.00 ±0.12] WAS 508.0 [20.00]; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED NOTE 2	5/2/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/7/2021	JHC

- NOTES:
1. STAMP OR ETCH TOP (3mm CHARACTERS) WHERE SHOWN
 2. DIMENSION TOLERANCE ±0.125" UNLESS OTHERWISE NOTED.



MATERIAL: PL 16 GA. x 20.00" x 26.00"

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: ±.1 MACHINED ✓ .XX ±.01 ANGLES ±5° .XXX ±.005 FRACTION ±1/64 <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE 6/17/2013	
MATERIAL: STEEL ASTM-A36 HEAT TREAT:	ENG:	DATE: 6/17/2013	A1
FINISH:	APPROVED:	SHEET: 1 OF 1	DRAWING NUMBER: 3021-247 REV: E



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	DESIGNER
	A	DIMENSION 711.2 ± 12.7 [28.00 ± 0.5] WAS 698.5 [27.50], 482.6 ± 12.7 [19.00 ± 0.5] WAS 469.9 [18.50], AND 50.8 ± 6.4 [2.00 ± 0.25] WAS 101.6 [4.00]; REVISED NOTE 1, MATERIAL NOTE.	2/19/2015	DW
	B	MATERIAL NOTE WAS POLYURETHANE FOAM DENSITY 47 kg/m ³ (2.0 pcf) ± 10% PER ASTM D3574-11 50% CFD 6.6 pcf ± 10% FOR CERTIFICATION 50% ILD 440 N ± 10%	4/23/2015	DW
	C	CHANGED METRIC DIMENSIONS TO ZERO DECIMAL PLACE; DIMENSION 559 ± 12.7 [22.0 ± 0.50] WAS 482.6 ± 12.7 [19.00 ± 0.50]; IN MATERIAL NOTE 6.6 kPa WAS 6.6 pcf.; IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; REMOVED MATERIAL NOTE, ADDED PROCUREMENT SPECIFICATION TABLE AND TESTING CERTIFICATION SPECIFICATION TABLE	4/7/2019	DW
	E	CONVERTED DRAWING TO ENGLISH DIMENSIONS	10/14/2021	JHC
	F	ADDED FOAM TESTING NOTE	2/22/2023	JHC

△ C 22.00 ± 0.5

2.00 ± 0.25

28.00 ± 0.5

△ F

NOTE:
FOAM IFDs ARE MEASURED ON THE FULL SIZE SAMPLES, USING THE TEST METHODOLOGY AND APPARATUS DESCRIBED IN ASTM STANDARD D3574-11 AT 50% INDENTATION. 25% AND 65% ARE COLLECTED FOR REFERENCE ONLY.

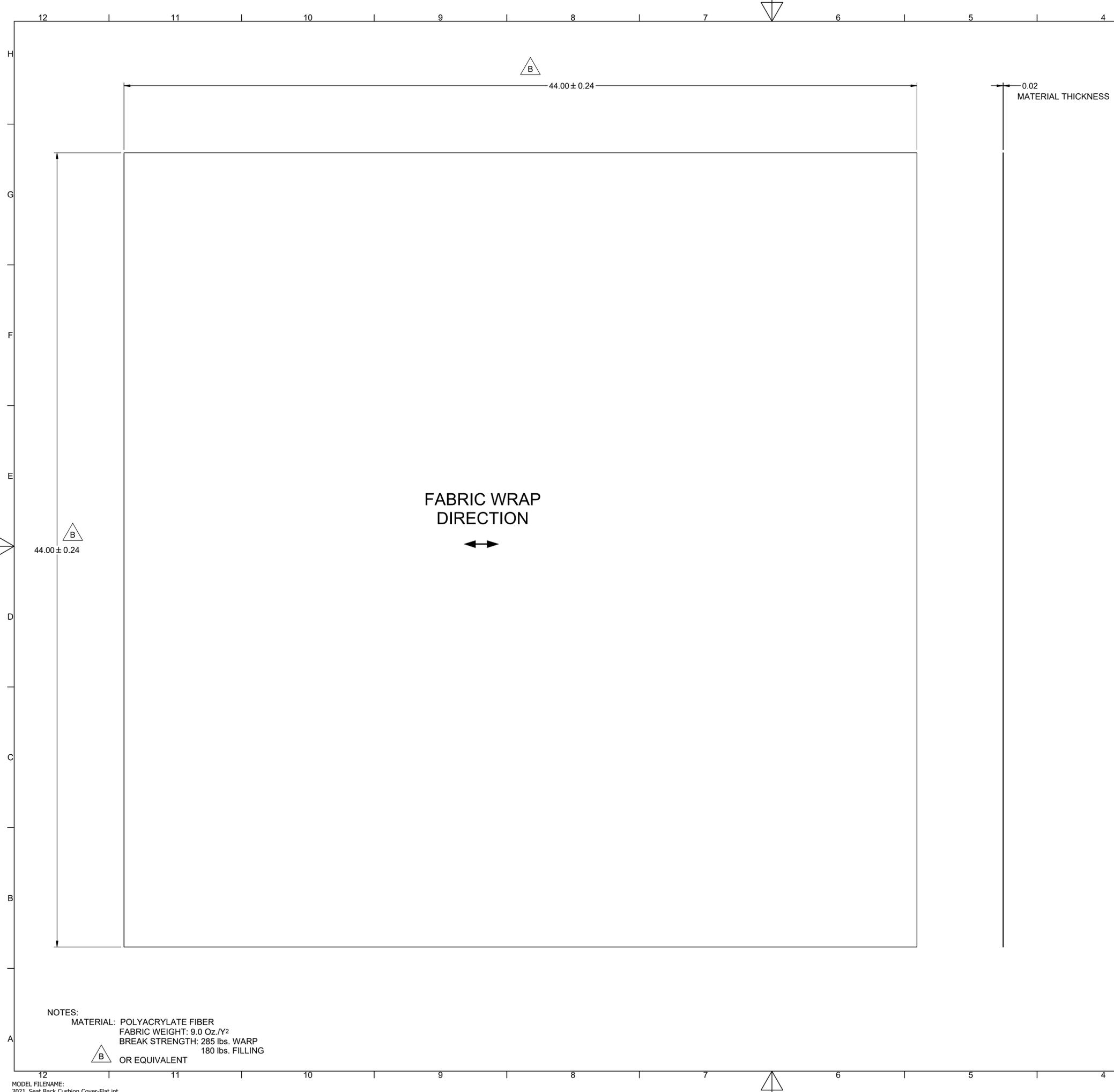
△ C

△ C

PROCUREMENT SPECIFICATIONS FOR 4" AND 2" FOAMS					
	Density Kg/m ³ (lb/ft ³)	50% CFD (kPa)	IFD 25% N (lb)	IFD 50% N (lb)	IFD 65% N (lb)
NHTSA Specifications – Seat Pan (102 mm (4 inches))	47 / (2.9) ±10%	6.6 kPa ±10%	237 / (53.3) ±15% FOR REFERENCE	440 / (98.9) ±10% [396-484]	725 / (162.9) ±15% FOR REFERENCE
NHTSA Specifications – Seat Back (51 mm (2 inches))	47 / (2.9) ±10%	6.6 kPa ±10%	157 / (35.3) FOR REFERENCE	300 / (67.4) ±15% [255-345]	480 / (107.9) FOR REFERENCE

TEST CERTIFICATION SPECIFICATIONS FOR 4" AND 2" FOAMS			
	IFD 25% N (lb)	IFD 50% N (lb)	IFD 65% N (lb)
NHTSA Specifications – Seat Pan (102 mm (4 inches))	237 / (53.3) 15% FOR REFERENCE	440 / (98.9) ±15% [374-506]	725 / (162.9) ±15% FOR REFERENCE
NHTSA Specifications – Seat Back (51 mm (2 inches))	157 / (35.3) FOR REFERENCE	300 / (67.4) ±15% [255-345]	480 / (107.9) FOR REFERENCE

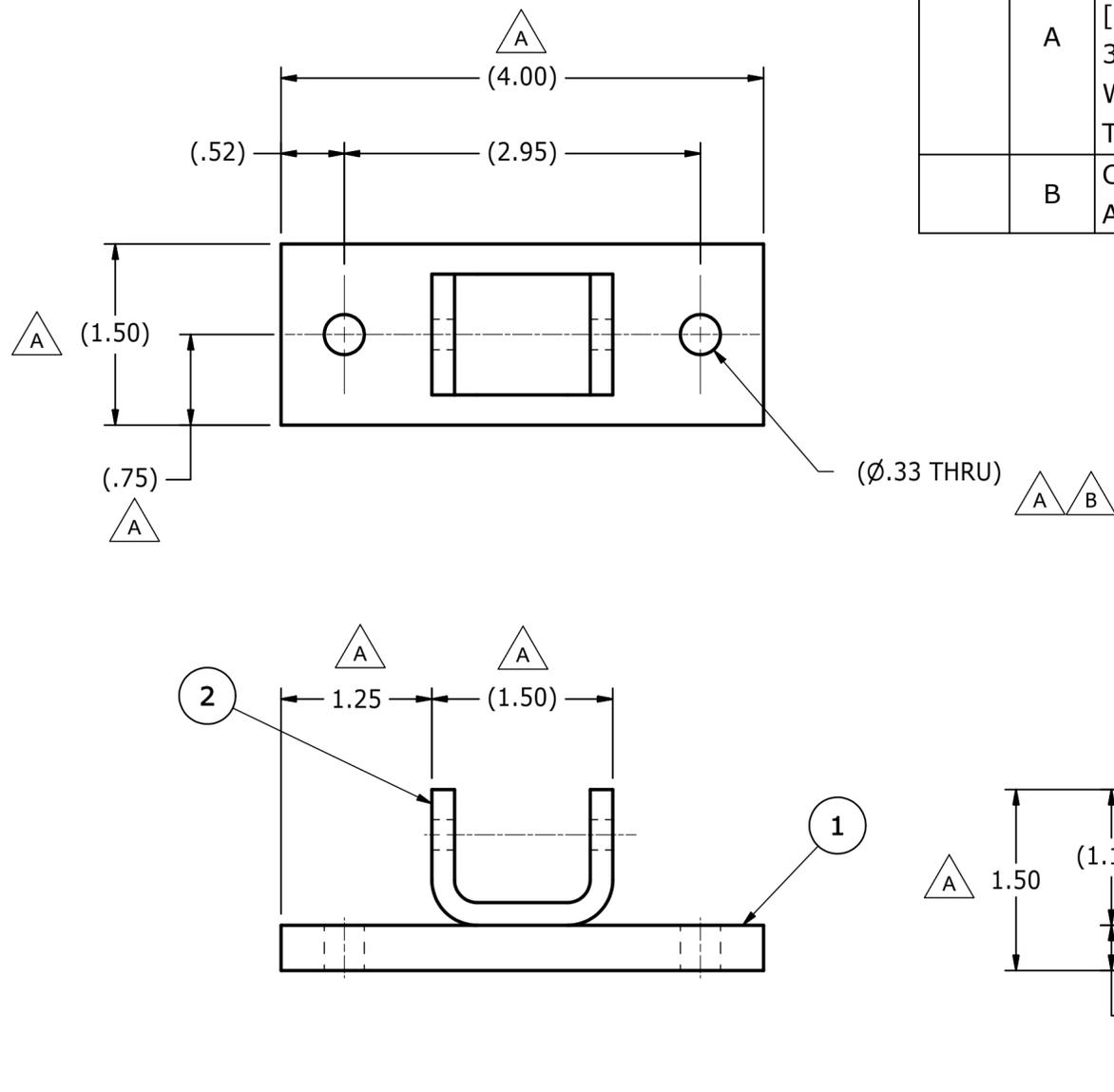
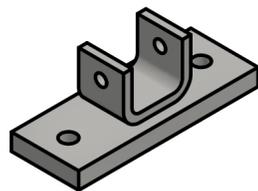
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL Polystyrene	DRAWN Dave Walker	6/17/2013	SEAT BACK CUSHION CHILD FRONTAL/SIDE IMPACT SLED
HEAT TREAT	ENG		
FINISH	APPROVED		SIZE: A1 DRAWING NUMBER: 3021-248 REV: F SCALE: SHEET 1 OF 1



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 693.2 ± 6.0 [38.31 ± 0.24] WAS 1003.3 [39.50], 692.6 ± 6.0 [27.27 ± 0.24] WAS 774.7 [30.50], AND 0.5 [0.02] WAS 1.0 [0.04]; ADDED FABRIC WARP DIRECTION NOTE, REVISED MATERIAL NOTE	2/19/2015	DW
	B	DIMENSION 1118 ± 6 [44.0 ± 0.2] WAS 692.6 ± 6.0 [27.27 ± 0.24], 1067 ± 6 [42.0 ± 0.2] WAS 973.2 ± 6.0 [38.31 ± 0.24] IN TITLE BLOCK "CHILD FRONTAL/SIDE IMPACT SLED" WAS "CHILD FRONTAL IMPACT SLED"; ADDED "OR EQUIVALENT" TO MATERIAL NOTE.	7/12/2018	DW
	C	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED OVERALL DIMENSIONS	10/7/2021	JHC

NOTES:
 MATERIAL: POLYACRYLATE FIBER
 FABRIC WEIGHT: 9.0 Oz./Y²
 BREAK STRENGTH: 285 lbs. WARP 180 lbs. FILLING
 OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: ± 0.1 MACHINED ± 0.005 XX ± 0.01 ANGLES $\pm 5^\circ$ XXX ± 0.005 FRACTION $\pm 1/64$		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DO NOT SCALE DRAWING		APPROVALS	DATE	SEAT BACK CUSHION COVER CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL	SEE NOTES	DRAWN	6/21/2013	SIZE	DRAWING NUMBER
HEAT TREAT	ENG	DAVE WALKER	6/21/2013	A1	3021-249 C
FINISH	APPROVED			THIRD ANGLE PROJECTION	SCALE: 3/8 SHEET 1 OF 1



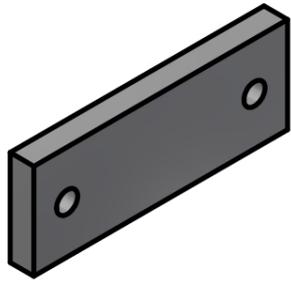
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION (102 [4.00]) WAS (101.6 [4.00]), (38 [1.50]) WAS 38.1 [1.50], (19 [0.75]) WAS (19.1 [0.75]), 32 [1.25] WAS 31.8 [1.25], (38 [1.50]) WAS 38.1 ϕ [1.50], 38 [1.50] WAS 38.1 [1.50], (29 [1.13]) WAS 28.6 [1.13], HOLE NOTE ($\phi 8.4$ THRU [$\phi 0.33$ THRU]) WAS $\phi 8.4$ THRU [$\phi 0.33$ THRU]; ADDED NOTE 1	7/31/2018	DW
	B	CONVERTED DRAWING TO ENGLISH DIMENSIONS, ADDED WELD NOTE	10/4/2021	JHC

ALL WELDED CONSTRUCTION

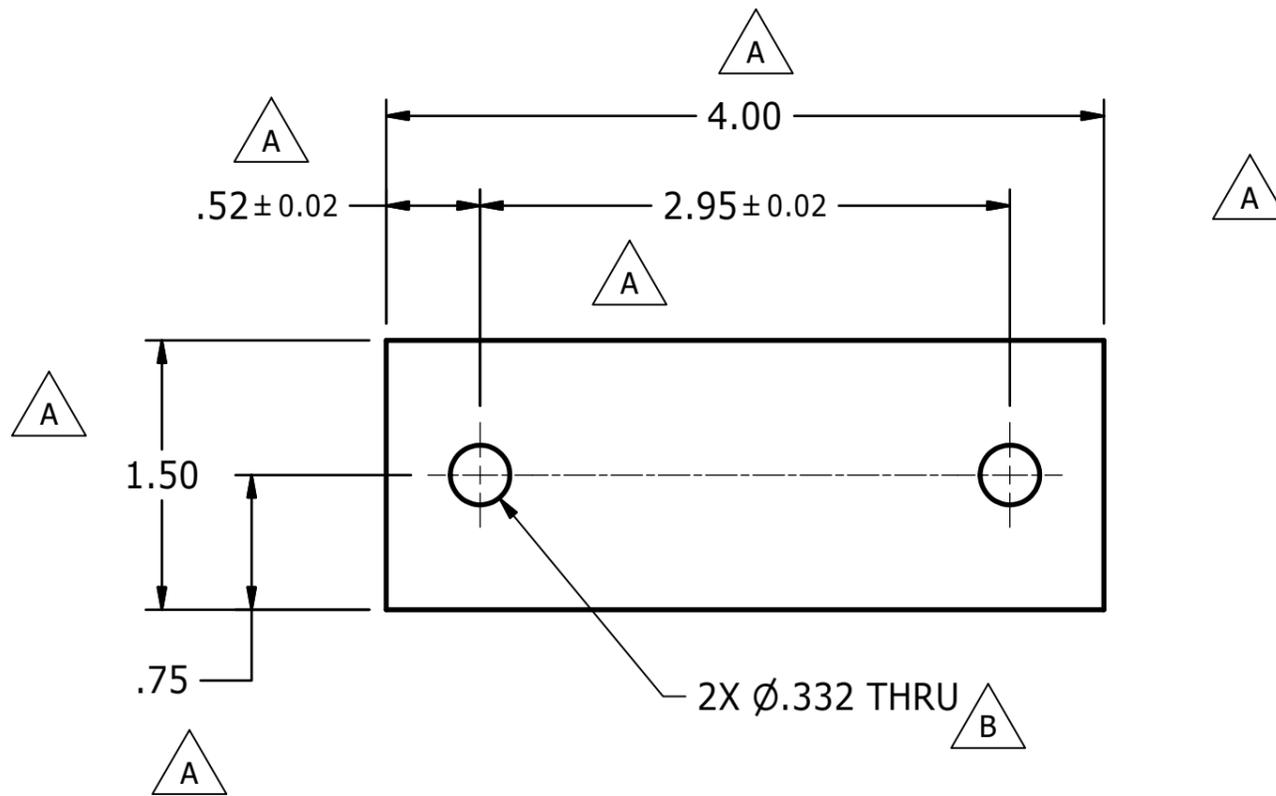
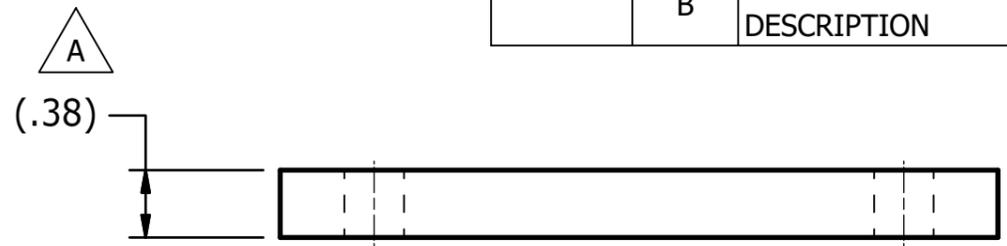
NOTES:
 A 1. DIMENSION TOLERANCES ± 0.125 " UNLESS OTHERWISE NOTED.

ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	2921-347	TETHER ANCHOR - ANCHOR BAR
1	1	2921-346	TETHER ANCHOR BASE PLATE

PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: X ± 0.1 , .XX ± 0.01 , .XXX ± 0.005 MACHINED: ANGLES $\pm 5^\circ$, FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: DRAWN Dave Walker, CHECKED: [Signature], DATE: 2/9/2016	
MATERIAL: [Blank], HEAT TREAT: ENG, FINISH: APPROVED		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION TETHER ANCHOR ASSEMBLY	
SCALE: 1:1 THIRD ANGLE PROJECTION		SIZE: A2, DRAWING NUMBER: 2921-345, REV: B, SHEET: 1 OF 1	



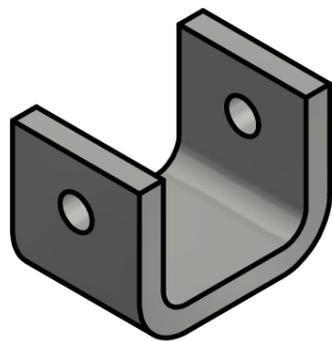
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 102 [4.00] WAS 101.6 [4.00], 75.0 ±0.05 [2.95 ±0.02], 13.3 ±0.5 [0.52 ±0.02] WAS 13.3 [0.52], 38 [1.50] WAS 38.1 [1.50], 19 [0.75] WAS 19.1 [0.75], REMOVED DIMENSION 13.3 [0.52]; ADDED NOTE 1	7/31/2018	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/4/2021	JHC



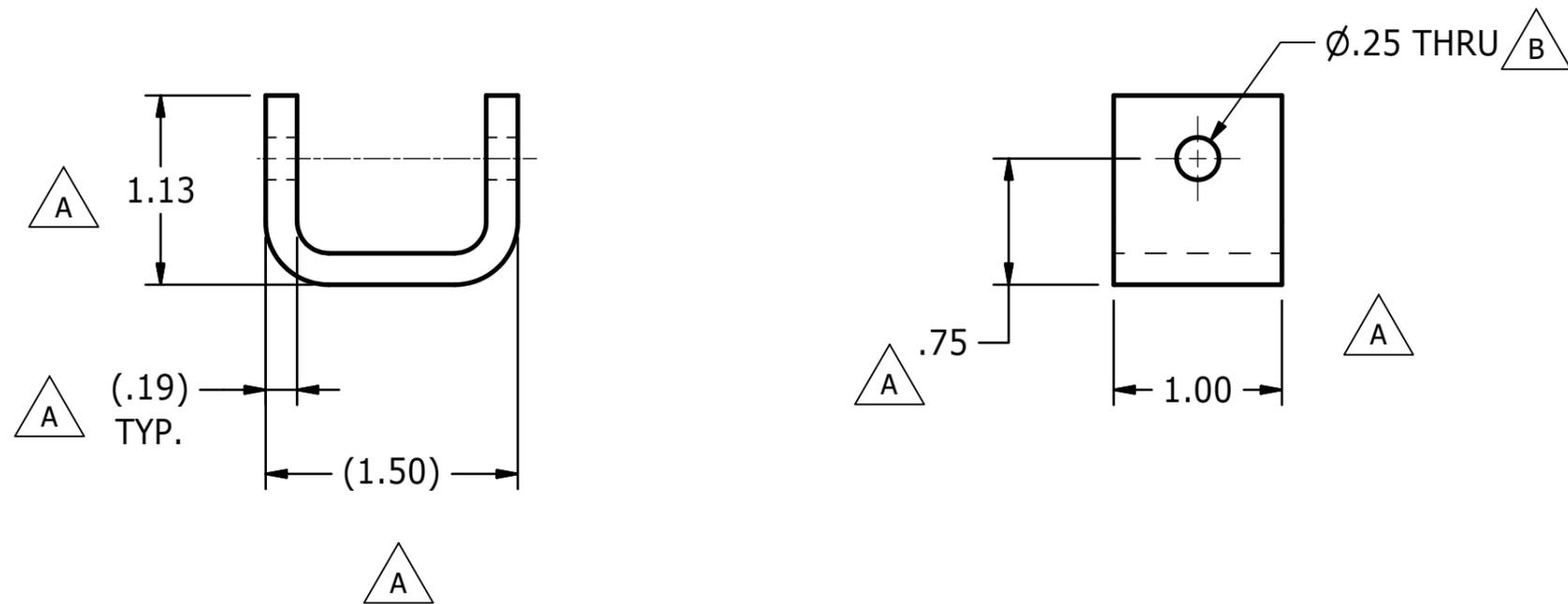
MATERIAL: BAR 1.50 x 0.38 x 4.00

NOTES:
 1. DIMENSION TOLERANCES ±0.125" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: X ±.5 X.X ±.2 X.XX ±.1 MACHINED 1/5 ANGLES ±.5° ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 2/9/2016	
MATERIAL STEEL ASTM-A36 HEAT TREAT FINISH	 THIRD ANGLE PROJECTION	SIZE A3 SCALE: 1 : 1	DRAWING NUMBER 2921-346 SHEET 1 OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 29 [1.13] WAS 28.6 [1.13], (4.8 [0.19]) TYP. WAS 4.8 [0.19]] TYP., (38 [1.50]) WAS 38.1 [1.50}, 25 [1.00] WAS 25.4 [1.00], 19 [0.75] WAS 19.1 [0.75]; ADDED NOTE 1	7/31/2018	DW
	B	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION, .25 THRU WAS .27 THRU	10/4/2021	JHC



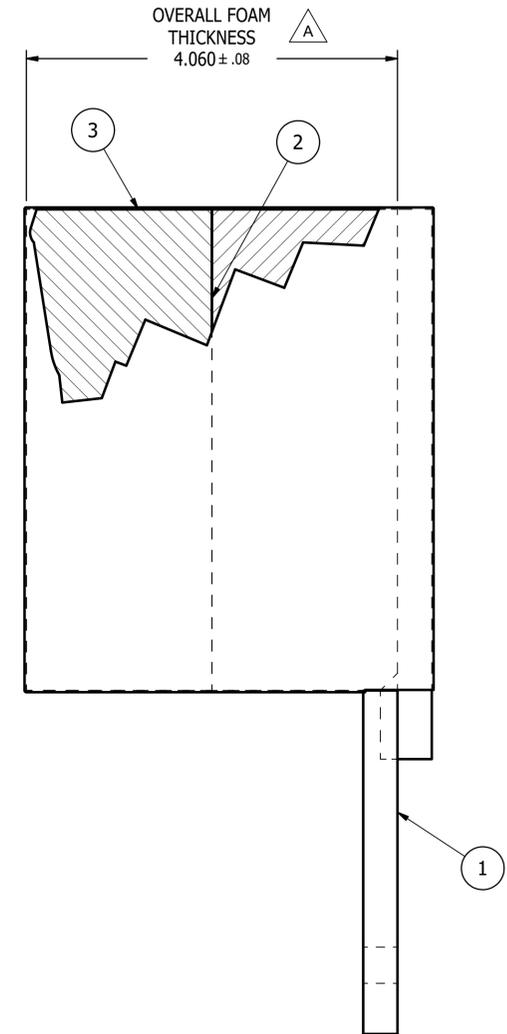
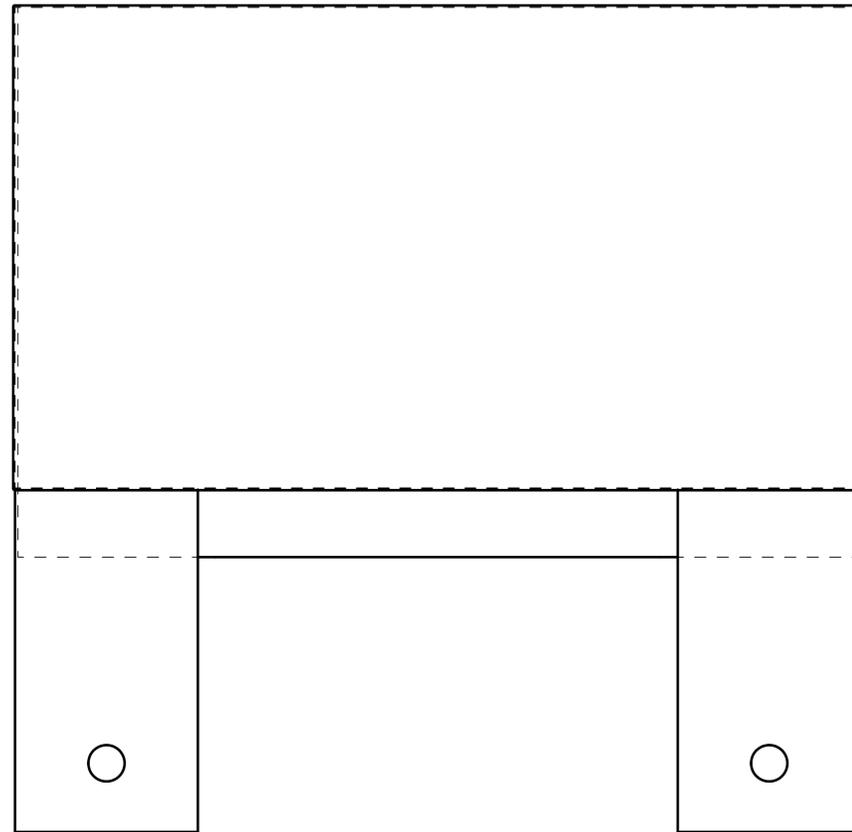
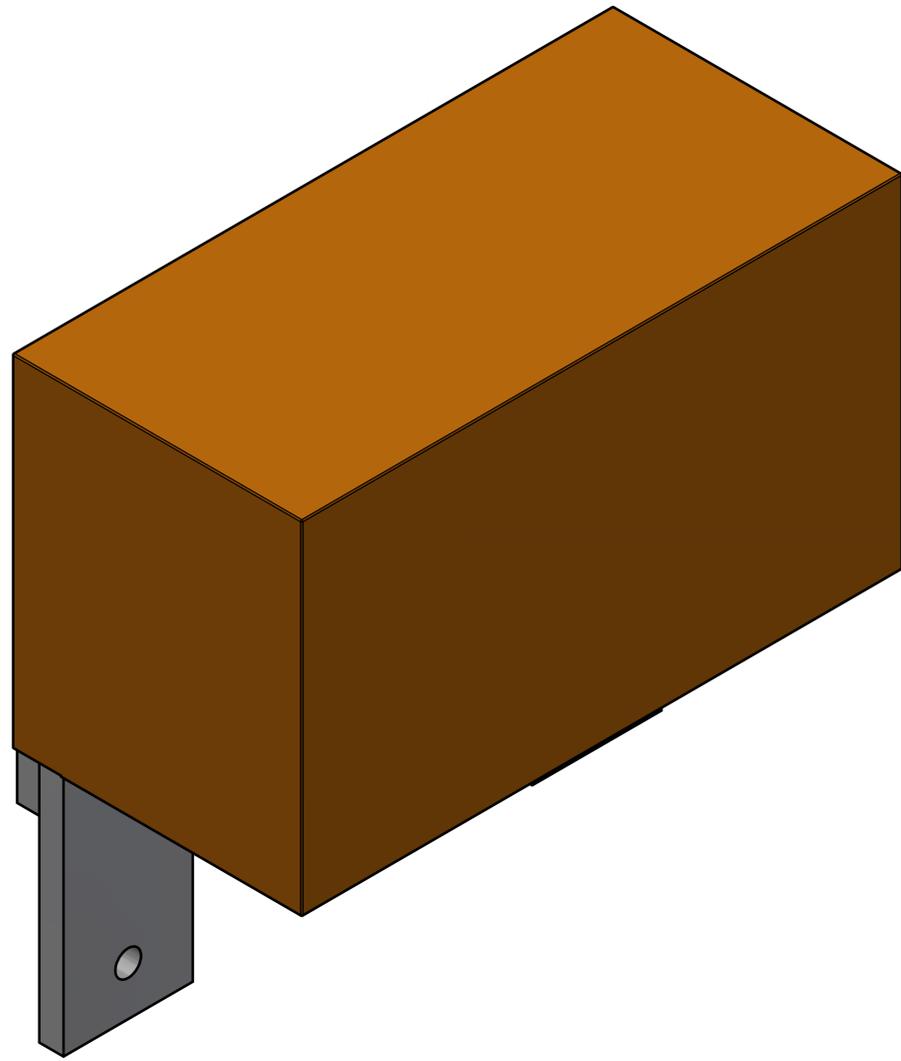
MATERIAL: T.S. 1 1/2 x 1 1/2 x 3/16 x 1.00"

NOTES:

1. DIMENSION TOLERANCES ± 0.125 " UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED $\pm .005$.X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE 2/9/2016	
MATERIAL: STEEL A-500 HEAT TREAT: ENG FINISH: APPROVED	APPROVED:	DATE: 2/9/2016	 THIRD ANGLE PROJECTION
		SIZE: A3	DRAWING NUMBER: 2921-347
		SCALE: 1:1	SHEET: 1 OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REVISED TITLE BLOCK AND BOM DESCRIPTIONS, ADDED FOAM THICKNESS DIMENSION	2/16/2023	JHC

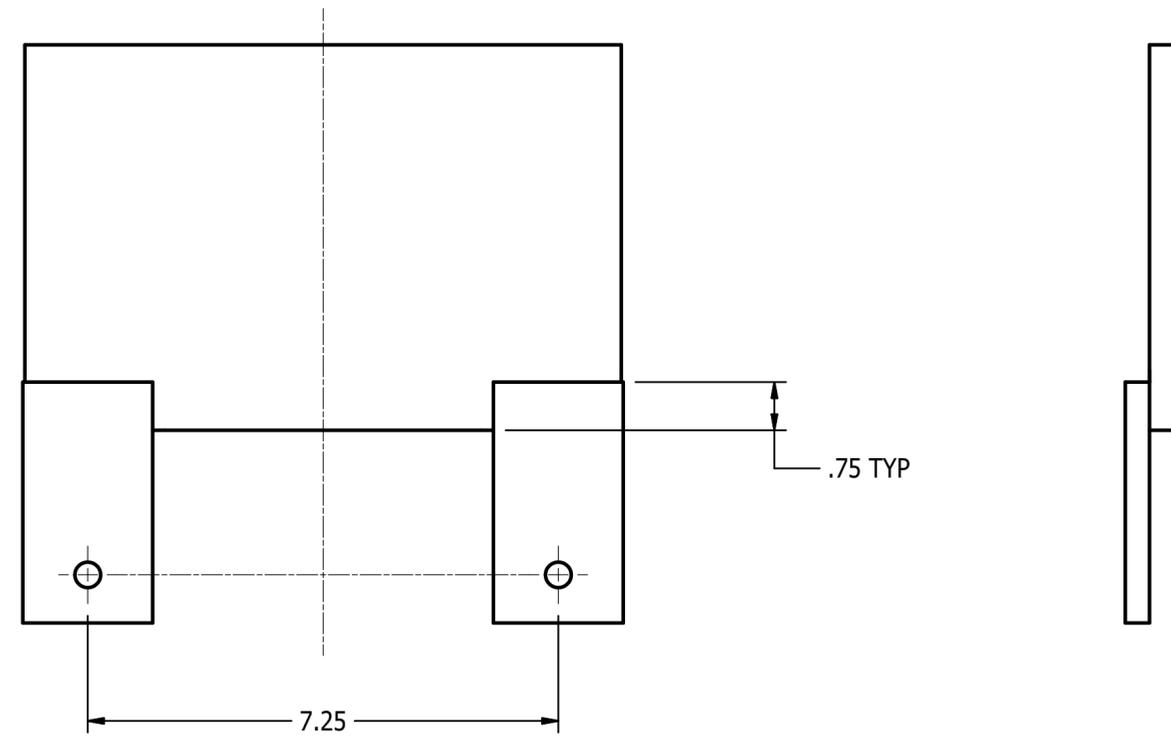
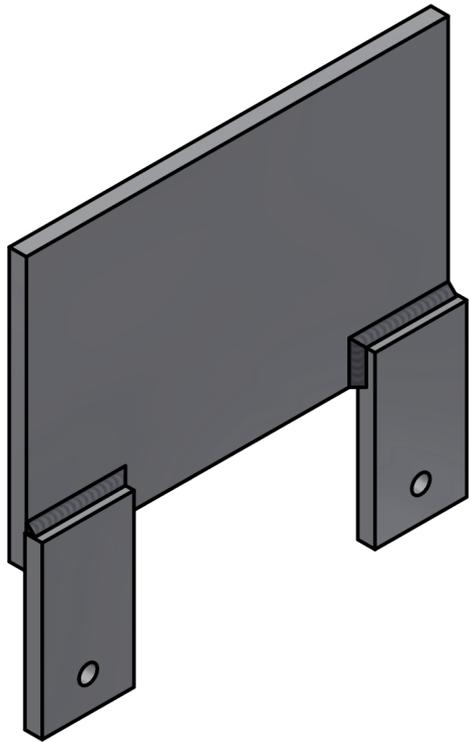


- NOTE:
1. PLACE THE TWO FOAM PIECES ON THE STEEL WELDMENT AND WRAP BOTH THE STEEL AND THE FOAM WITH THE FABRIC. TAPE THE FABRIC TO THE STEEL TO HOLD TOGETHER.
 2. TO BE USED AT NHTSA'S OPTION

ITEM	QTY	PART NUMBER	DESCRIPTION
3	1	3021-286	HEAD PROTECTION DEVICE COVER
2	2	3021-285	HEAD PROTECTION DEVICE FOAM
1	1	3021-281	HEAD PROTECTION DEVICE WELDMENT ASSEMBLY

PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER	
DECIMAL .X ±.1 .XX ±.01 .XXX ±.005	MACHINED ANGLES ±.5° FRACTION ±1/64	APPROVALS	DATE
DO NOT SCALE DRAWING		DRAWN JIM CLEVENGER	12/9/2021
MATERIAL	CHECKED	NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
HEAT TREAT	ENG	ATD HEAD PROTECTION DEVICE (ATDHPD) (OPTIONAL)	
FINISH	APPROVED	CHILD FRONTAL/SIDE IMPACT SLED	
		SIZE THIRD ANGLE PROJECTION	DRAWING NUMBER 3021-280 SCALE: 1:1
		SHEET 1 OF 1	

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REVISED TITLE BLOCK DESCRIPTION, REMOVE WELD SYMBOLS AND ADDED WELD NOTE	2/16/2023	JHC



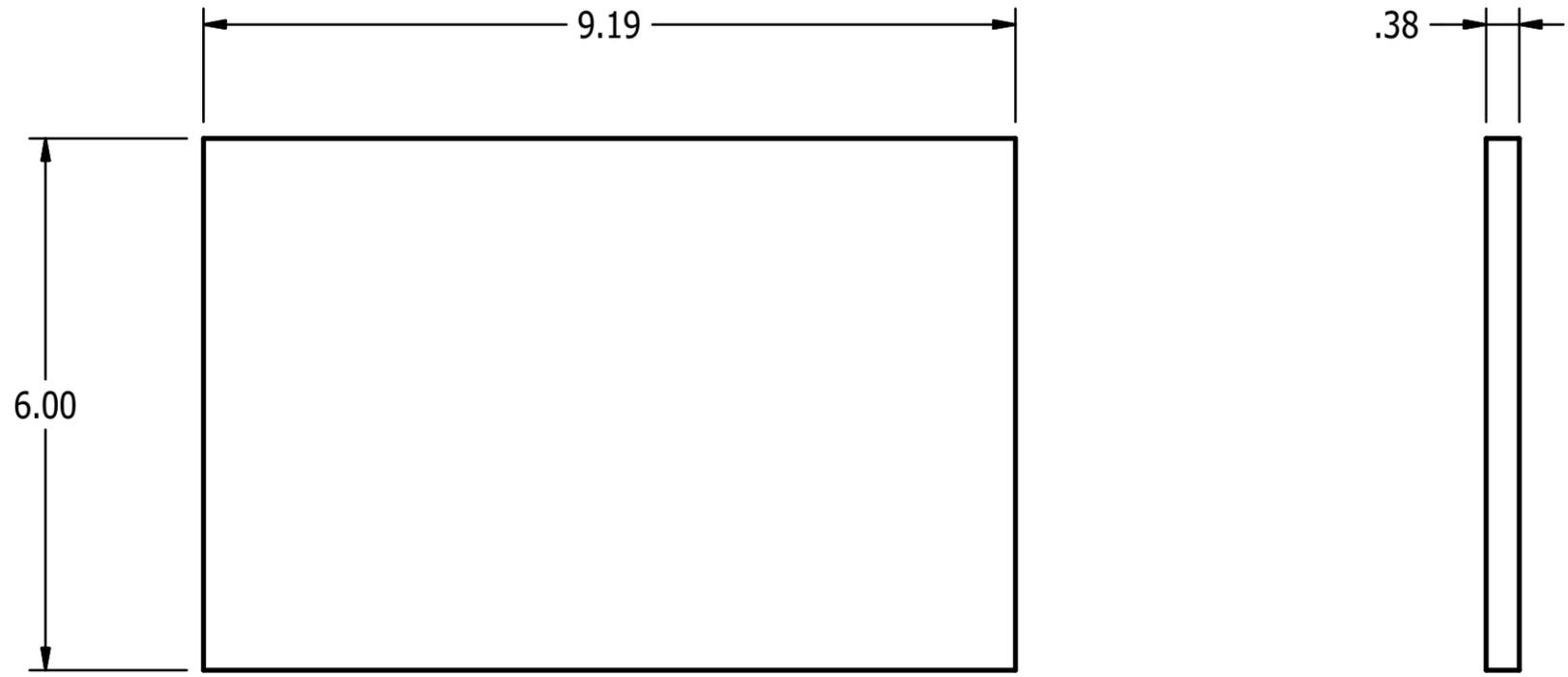
ALL WELDED CONSTRUCTION

NOTES:
1. ALL DIMENSION TOLERANCES $\pm 0.12''$
UNLESS OTHERWISE NOTED.

ITEM	QTY	PART NUMBER	DESCRIPTION
2	2	3021-283	HEAD PROTECTION DEVICE MOUNTING TAB
1	1	3021-282	HEAD PROTECTION DEVICE MAIN PLATE

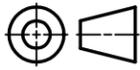
PARTS LIST			
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: X $\pm .1$, .XX $\pm .01$, .XXX $\pm .005$ MACHINED: $\frac{1}{32}$ ANGLES: $\pm 5^\circ$ FRACTION: $\pm 1/64$ <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: _____ DATE: _____ DRAWN: JIM CLEVENGER 12/13/2021 CHECKED: _____ ENG: _____ APPROVED: _____	
MATERIAL: Welded Steel Mild HEAT TREAT: _____ FINISH: _____		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION HEAD PROTECTION DEVICE WELDMENT ASSEMBLY CHILD FRONTAL/SIDE IMPACT SLED SIZE: C DRAWING NUMBER: 3021-281 REV: A SCALE: 1/2 SHEET: 1 OF 1 <small>THIRD ANGLE PROJECTION</small>	

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REVISED TITLE BLOCK DESCRIPTION	2/16/2023	JHC

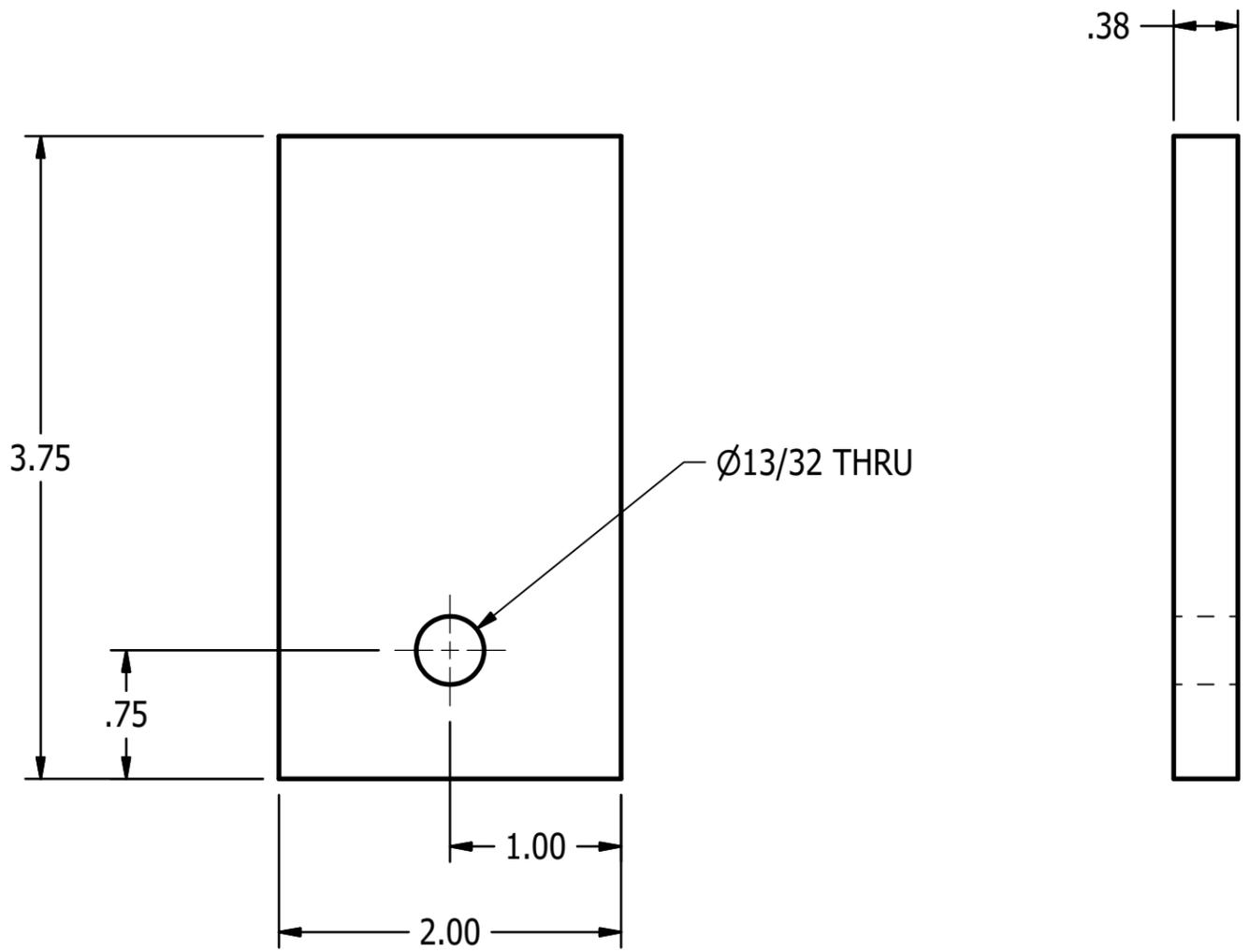


MATERIAL: PL 3/8" x 6 x 9.18

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$
 UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\sqrt{25}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
MATERIAL STEEL ASTM-A36 HEAT TREAT FINISH		APPROVALS DRAWN JIM CLEVINGER CHECKED ENG APPROVED		DATE 12/13/2021	
		HEAD PROTECTION DEVICE MAIN PLATE CHILD FRONTAL/SIDE IMPACT SLED		 THIRD ANGLE PROJECTION	
		SIZE B		DRAWING NUMBER 3021-282	
		SCALE: 1 / 2		SHEET 1 OF 1	
				REV A	

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REVISED TITLE BLOCK DESCRIPTION	2/16/2023	JHC

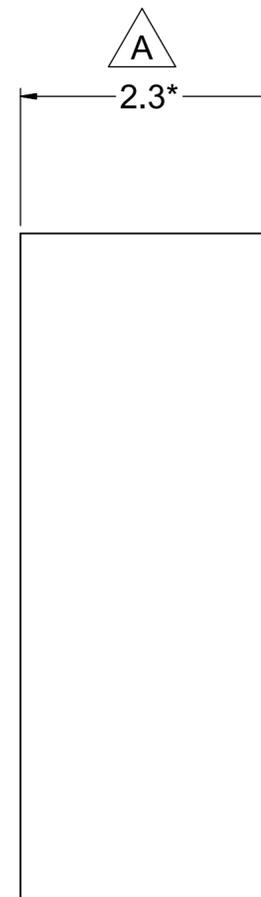
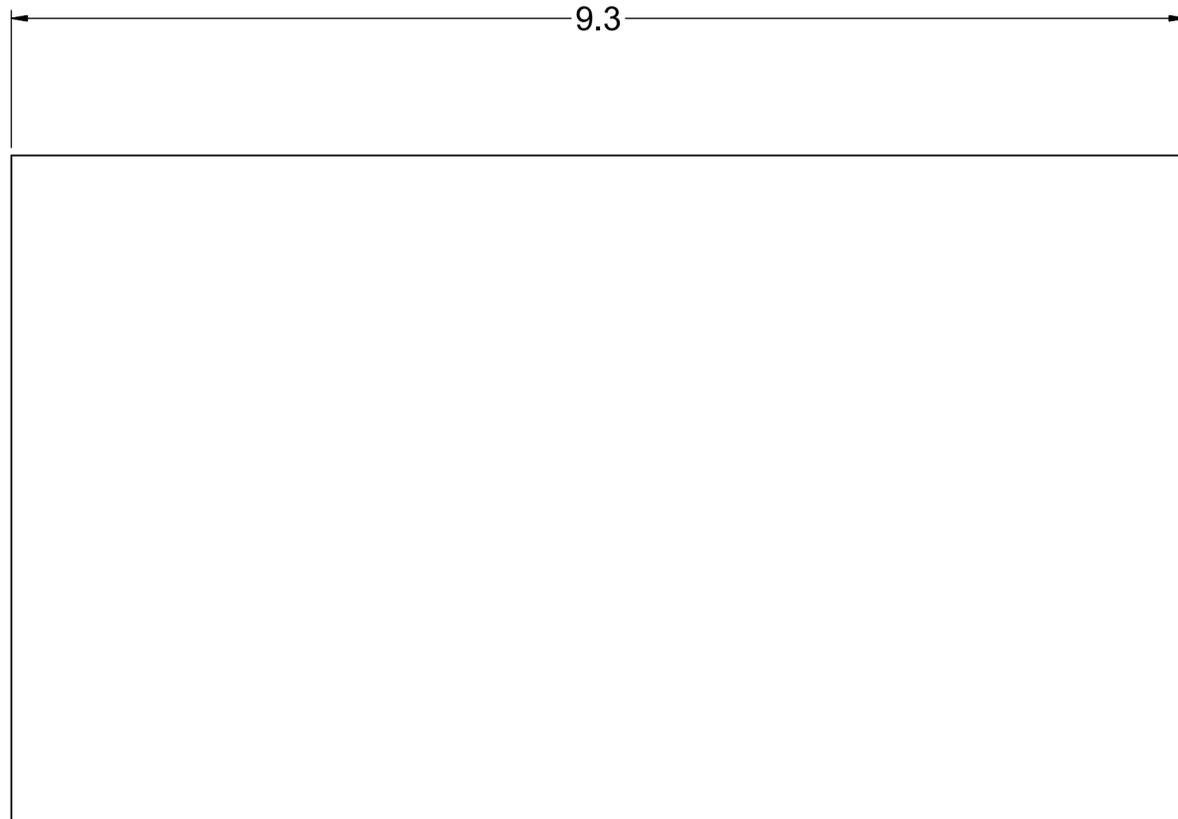
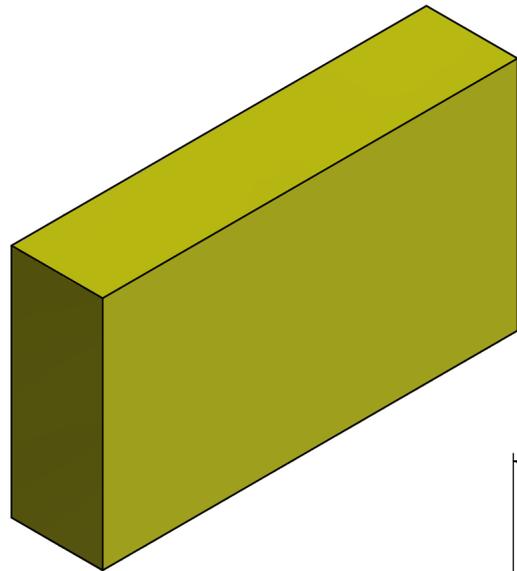


NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.12''$
 UNLESS OTHERWISE NOTED.

MATERIAL: PL 3/8" x 2 x 3.75"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\sqrt{25}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
	DRAWN JIM CLEVINGER	12/13/2021	
	CHECKED		
MATERIAL STEEL ASTM-A36	ENG		 THIRD ANGLE PROJECTION
HEAT TREAT	APPROVED		
FINISH			SIZE: B SCALE: 1:1
		DRAWING NUMBER	SHEET: 1 OF 1
		3021-283	REV: A

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REVISED TITLE BLOCK DESCRIPTION, REVISED THICKNESS DIMENSION AND ADDED DIMENSION NOTE	2/16/2023	JHC



* TRIM FOAM THICKNESS TO OBTAIN THE OVERALL ASSEMBLY DIMENSION SHOWN ON DRAWING 3021-280.

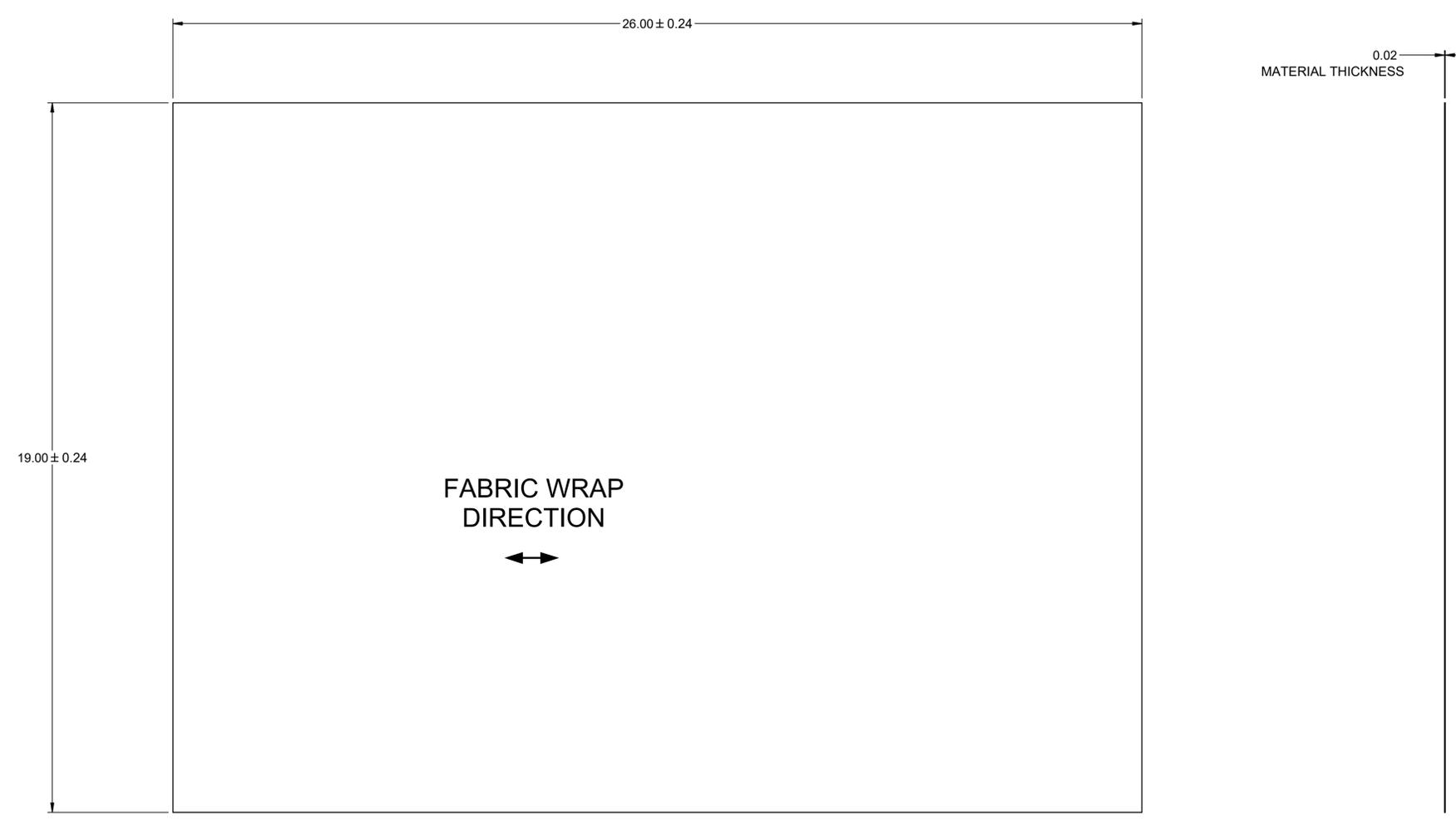
NOTES:

1. FOAM TOLERANCE ± 0.08 " UNLESS OTHERWISE NOTED.

MATERIAL: POLYETHYLENE CLOSED CELL FOAM 2.2 PCF - SHT. 2.3" x 5.3" x 9.3" OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: .X ± 0.1 .XX ± 0.01 .XXX ± 0.005	MACHINED ANGLES $\pm 5^\circ$ FRACTION $\pm 1/64$	APPROVALS	DATE	HEAD PROTECTION DEVICE FOAM CHILD FRONTAL/SIDE IMPACT SLED	
ASME Y14.5M - 1994 DO NOT SCALE DRAWING		DRAWN Dave Walker	2/13/2012	DRAWING NUMBER 3021-285	
MATERIAL	CHECKED	ENG		SCALE: A2 1:1	REV A
HEAT TREAT	APPROVED			SHEET 1 OF 1	
FINISH					

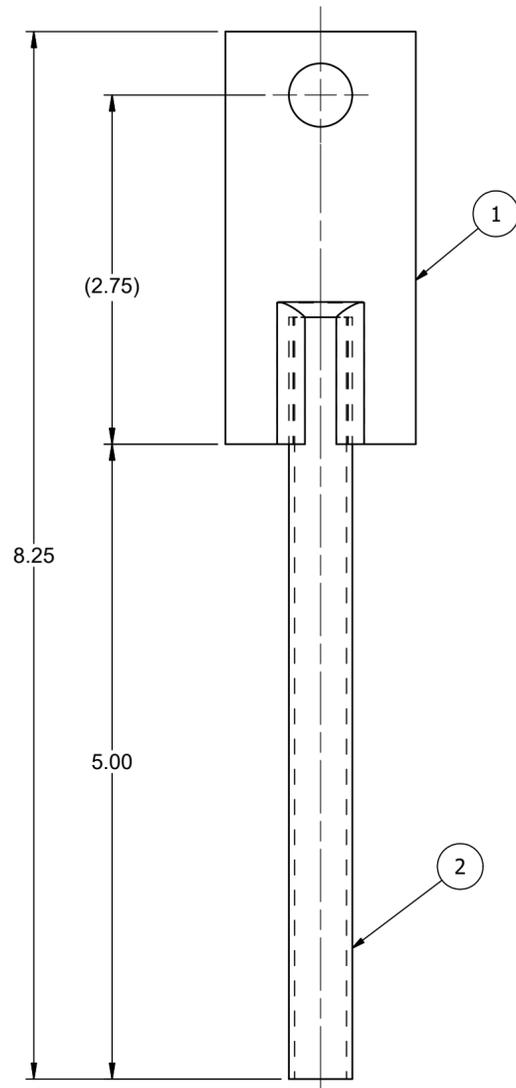
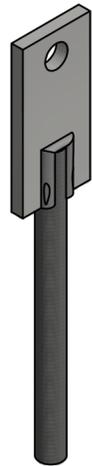
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
		REVISED TITLE BLOCK DESCRIPTION	2/16/2023	JHC



NOTES:
 MATERIAL: POLYACRYLATE FIBER
 FABRIC WEIGHT: 9.0 Oz./Y²
 BREAK STRENGTH: 285 lbs. WARP
 180 lbs. FILLING
 OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: X ±.1 MACHINED ✓ XX ±.01 ANGLES ±.5° XXX ±.005 FRACTION ±1/64		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DO NOT SCALE DRAWING		APPROVALS DRAWN JIM CLEVINGER	DATE 12/9/2021	HEAD PROTECTION DEVICE COVER CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL SEE NOTES	CHECKED	ENG		SIZE A1	DRAWING NUMBER 3021-286
HEAT TREAT	APPROVED			SCALE: 1 / 2	SHEET 1 OF 1

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	REMOVED DIMENSION 38.1 [1.50], 19.1 [0.75], DIMENSION (82.6 [3.25]) WAS 82.6 [3.25], DIMENSION 210 [8.25] WAS 209.6 [8.25], 127 [5.00] WAS 127.0 [5.00] ADDED NOTE #1	4/22/2019	DW
	B	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION, ADDED WELDED NOTE	10/6/2021	JHC

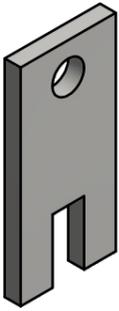


ALL WELDED CONSTRUCTION

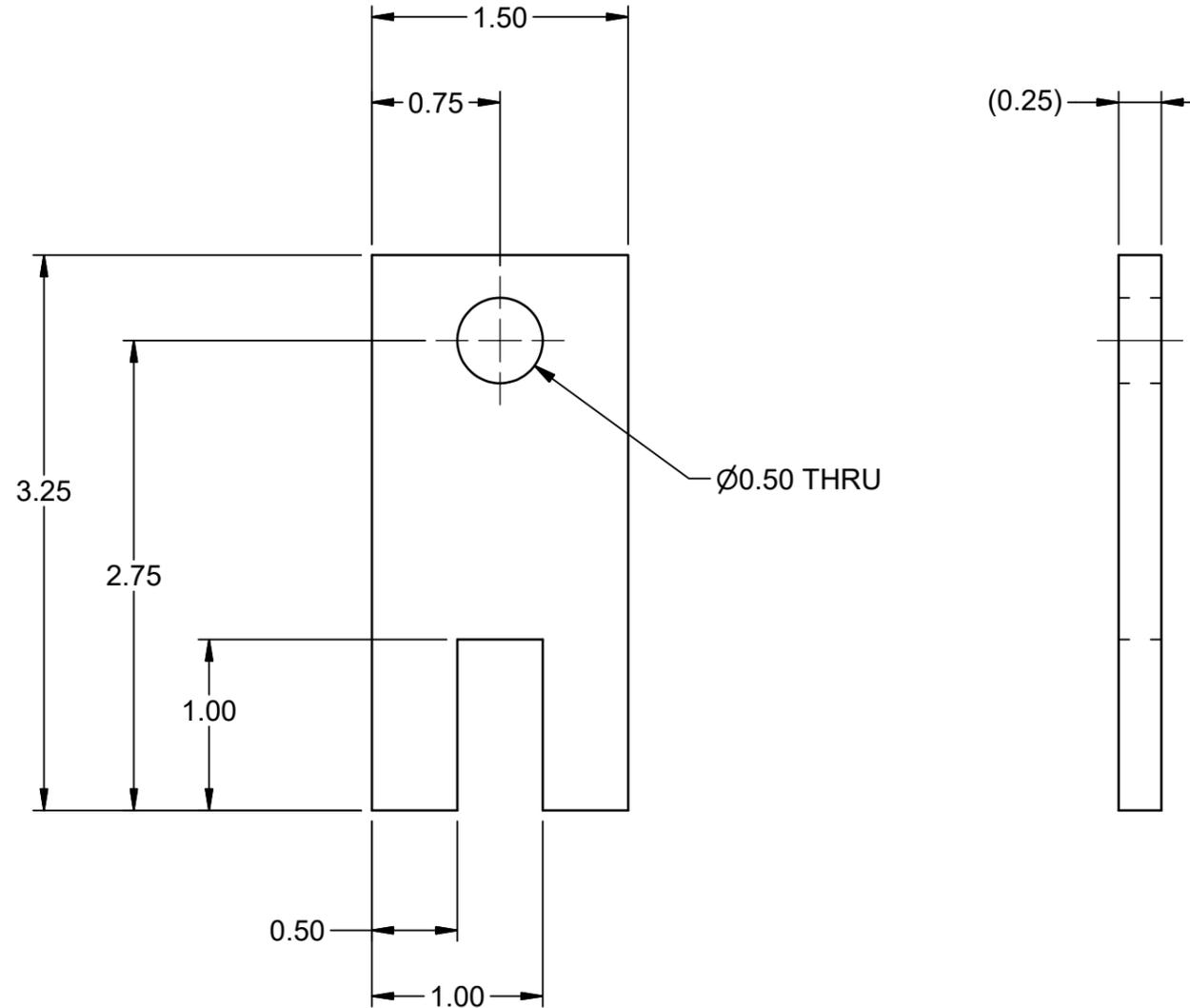
ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	3021-822	REAR LOCKING BELT ANCHOR THREADED ROD
1	1	3021-821	REAR LOCKING BELT ANCHOR PLATE

NOTES:
 1. ALL DIMENSION TOLERANCES $\pm 0.125''$ UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$, .XX $\pm .01$, .XXX $\pm .005$ MACHINED: ANGLES $\pm .5^\circ$, FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS: DRAWN Dave Walker, CHECKED, APPROVED DATE: 6/12/2013		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
MATERIAL: Welded Steel Mild HEAT TREAT FINISH		REAR LOCKING BELT ANCHOR ASS'Y. CHILD FRONTAL/SIDE IMPACT SLED		SIZE: A2 DRAWING NUMBER: 3021-820 REV: B	
		THIRD ANGLE PROJECTION		SCALE: SHEET 1 OF 1	



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING LOWER ANCHOR PLATE	6/12/2013	DW
	B	DIMENSION 38 [1.50] WAS 38.1 [1.50], 83 [3.25] WAS 82.6 [3.25], (6.4 [0.25]) WAS 6.4 [0.25], ADDED NOTE 1	4/22/2019	DW
	C	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/6/2021	JHC

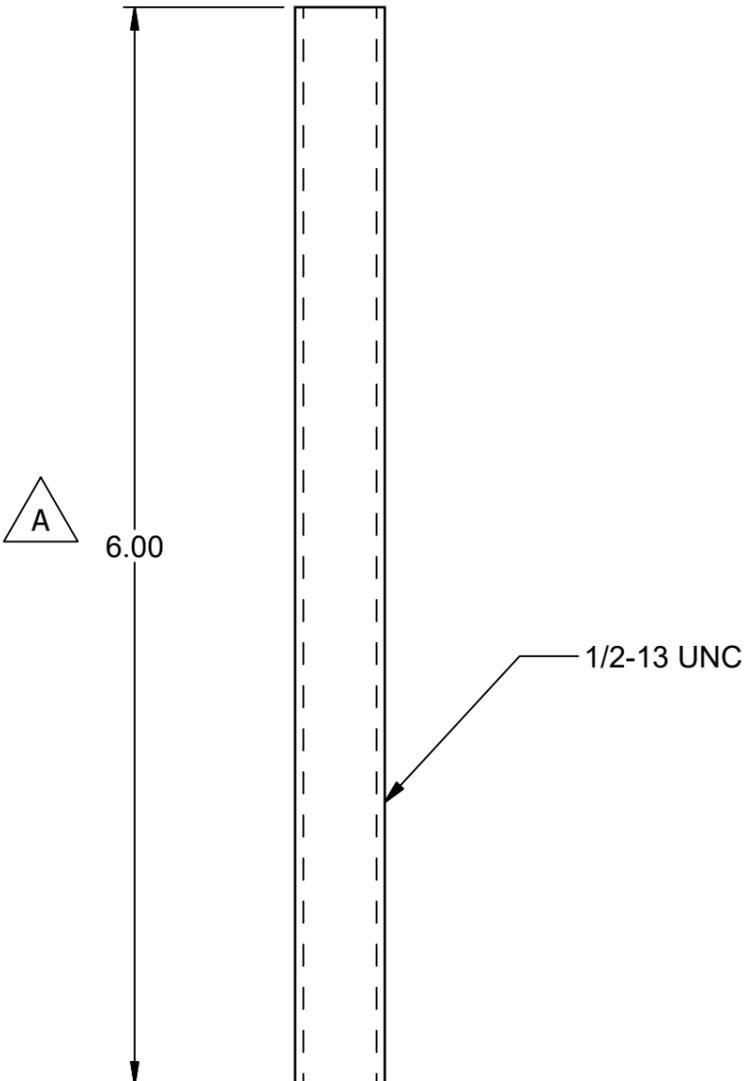


NOTES:
 1. DIMENSION TOLERANCES $\pm 0.125''$ UNLESS OTHERWISE NOTED.

MATERIAL: BAR 1.5" x 0.25" x 3.25"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ± 0.005 .X ± 0.1 ANGLES $\pm 0.5^\circ$.XX ± 0.01 FRACTION $\pm 1/64$.XXX ± 0.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
	DRAWN Dave Walker	6/12/2013	
CHECKED			
MATERIAL STEEL ASTM-A36	ENG	6/12/2013	THIRD ANGLE PROJECTION
HEAT TREAT	APPROVED		
FINISH			SIZE: A3 SCALE: 1:1
		DRAWING NUMBER: 3021-821 REV: C	
		SHEET: 1 OF 1	

REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 152 [6.00] WAS 152.4 [6.00], ADDED NOTE #1	4/22/2019	DW
	B	CONVERTED DRAWING TO ENGLISH DIMENSIONS	10/6/2021	JHC



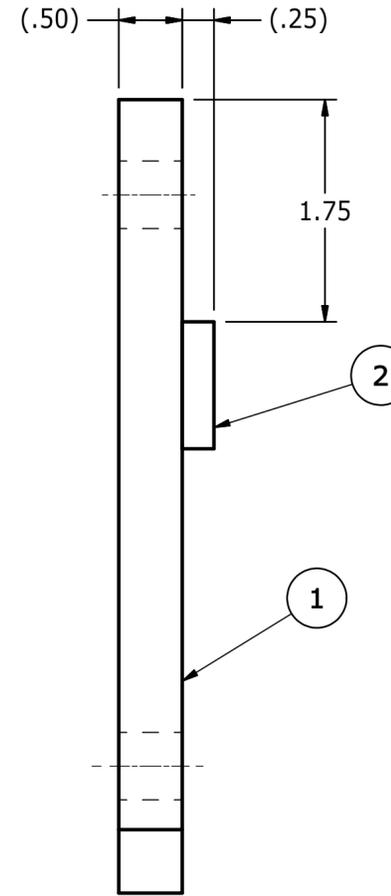
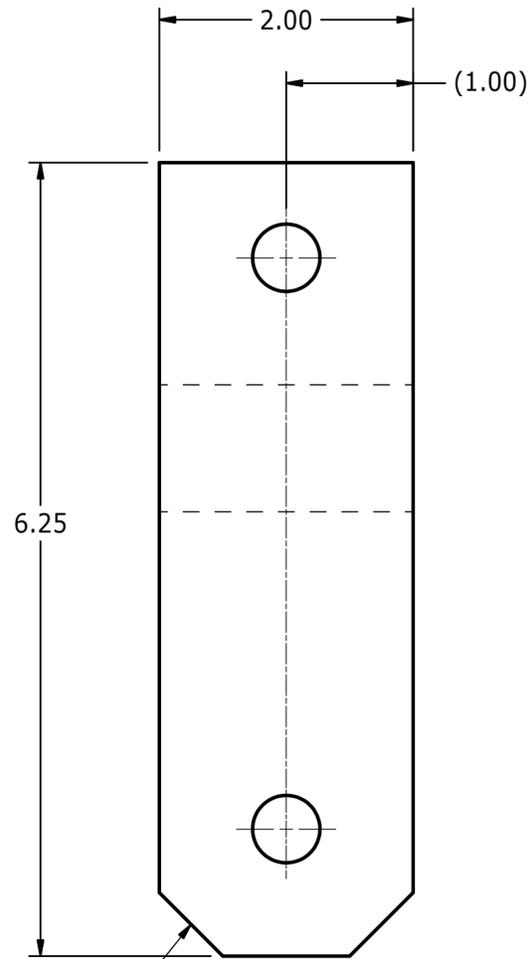
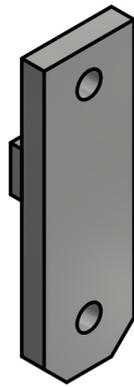
NOTES:
1. DIMENSION TOLERANCES ± 0.125 " UNLESS OTHERWISE NOTED.

MATERIAL: ROD, THREADED 1/2-13 x 6.00" LG.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\sqrt{25}$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE		REAR LOCKING BELT ANCHOR THREADED ROD CHILD FRONTAL/SIDE IMPACT SLED	
	DRAWN Dave Walker	6/12/2013	CHECKED		
MATERIAL Steel	ENG	6/12/2013	THIRD ANGLE PROJECTION	SIZE A3	DRAWING NUMBER 3021-822
HEAT TREAT	APPROVED		SCALE: 1 : 1	SHEET 1 OF 1	REV B

REVISION HISTORY

ECO	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING ANCHOR MTG. BAR ASS'Y.	4/5/2018	DW
	B	DIMENSION 159 [6.25] WAS 158.8 [6.25], 51 [2.00] WAS 50.8 [2.00], (12.7 [0.50]) WAS 12.7 [0.50], (6.4 [0.21]) WAS 6.4 [0.25], 44 [1.75] 44.5 [1.75]; ADDED NOTE #1	4/22/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, ADDED WELDED NOTE	10/6/2021	JHC



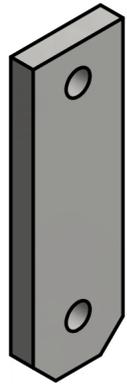
ALL WELDED CONSTRUCTION

ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	3021-335	REAR LOCKING BELT ANCHOR MTG. BAR STOP
1	1	3021-334	REAR LOCKING BELT ANCHOR MTG. BAR

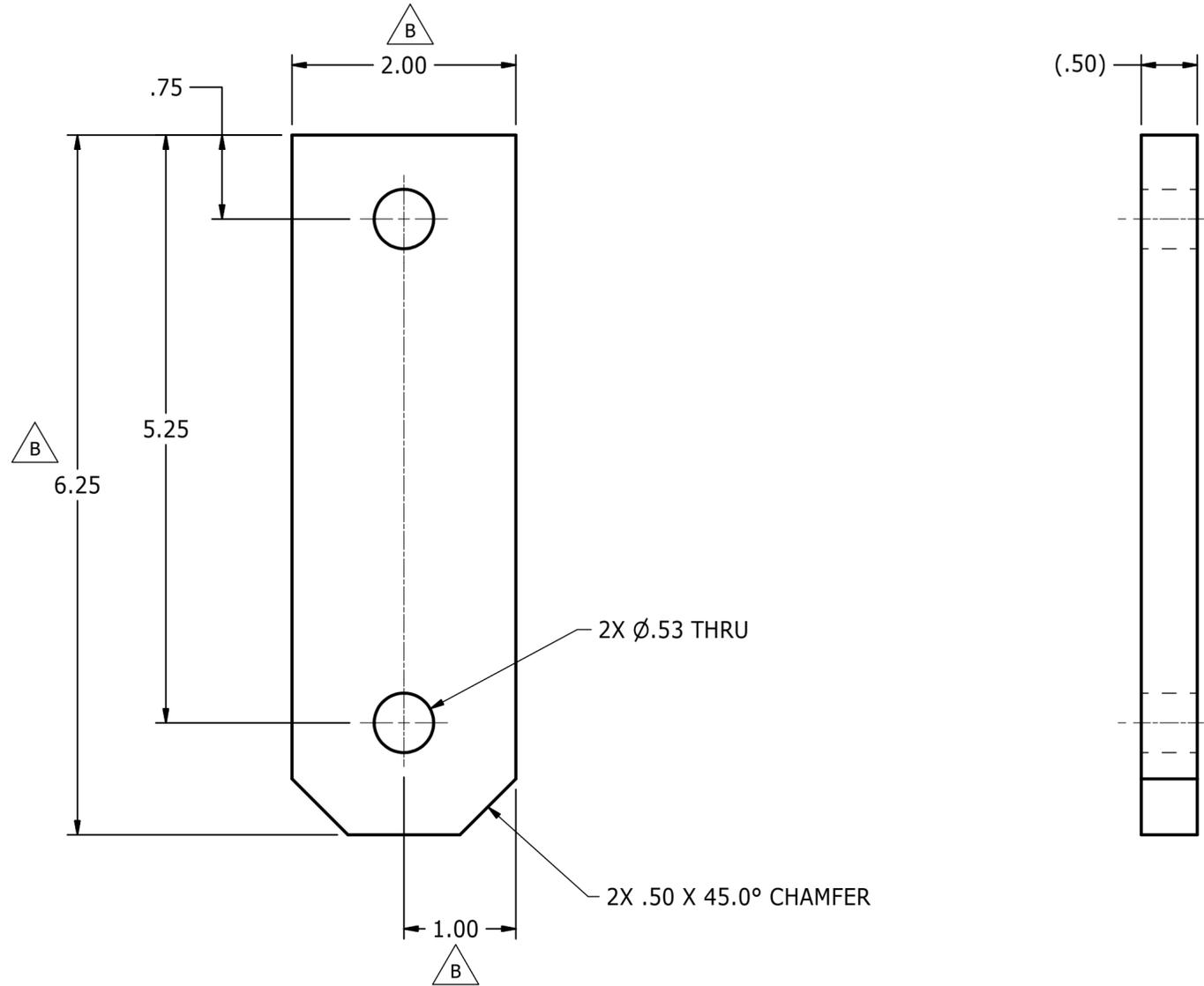
PARTS LIST

NOTES:
 1. ALL DIMENSION TOLERANCES ± 0.125"
 UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
	DRAWN Dave Walker	7/18/2016	
	CHECKED		
MATERIAL	HEAT TREAT	FINISH	SIZE: A2 DRAWING NUMBER: 3021-333 SCALE: SHEET 1 OF 1 REV: C



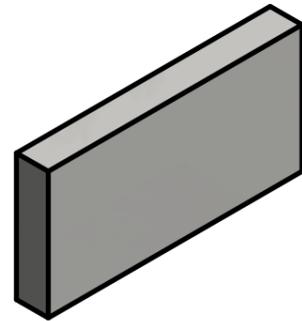
REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	DESIGNER
	A	DRAWING TITLE WAS D-RING LOWER ANCHOR MTG. BAR	4/5/2018	DW
	B	DIMENSION 51 [2.00] WAS 50.8 [2.00], 159 [6.25] WAS 158.8 [6.25], AND (12.7 [0.50]) WAS 12.7 [0.50]; ADDED DIMENSION 25.4 [1.00]; ADDED NOTE 1	4/22/2019	DW
	C	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/6/2021	JHC



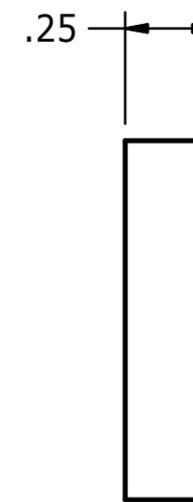
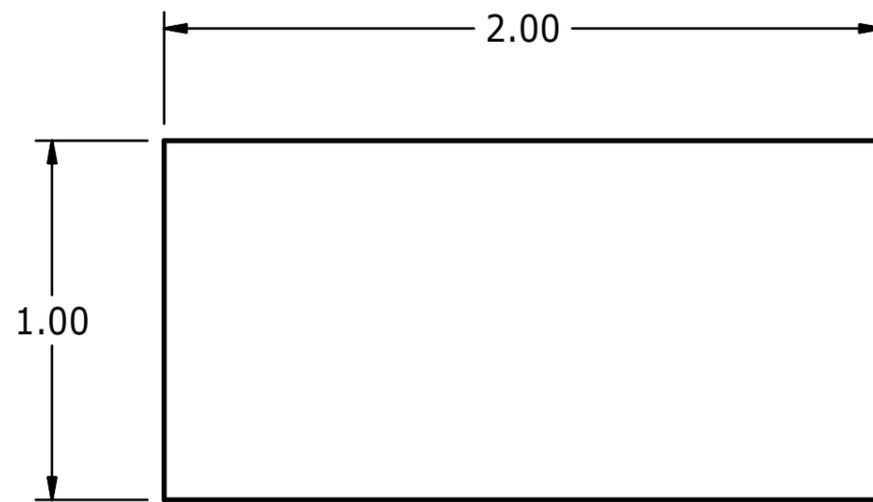
NOTES:
 1. DIMENSION TOLERANCES ±0.125" UNLESS OTHERWISE NOTED.

MATERIAL: BAR 2.0" x 0.5" x 6.25"

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:</small> DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 MACHINED ANGLES ±.5° FRACTION ±1/64 <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS DRAWN: Dave Walker CHECKED:	DATE 7/18/2016	
MATERIAL: STEEL ASTM-A36 HEAT TREAT: FINISH:	ENG APPROVED:	7/18/2016	SIZE: A2 SCALE: 1:1 DRAWING NUMBER: 3021-334 SHEET: 1 OF 1



REVISION HISTORY				
ECO#	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS D-RING LOWER ANCHOR MTG. BAR STOP	4/5/2018	DW
	B	DIMENSION (25 [1.00]) WAS 25.4 [1.00], 51 [2.00] WAS 50.8 [2.00]; ADDED NOTE #1	4/22/2019	DW
	C	CONVERTED DRAWING TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/6/2021	JHC

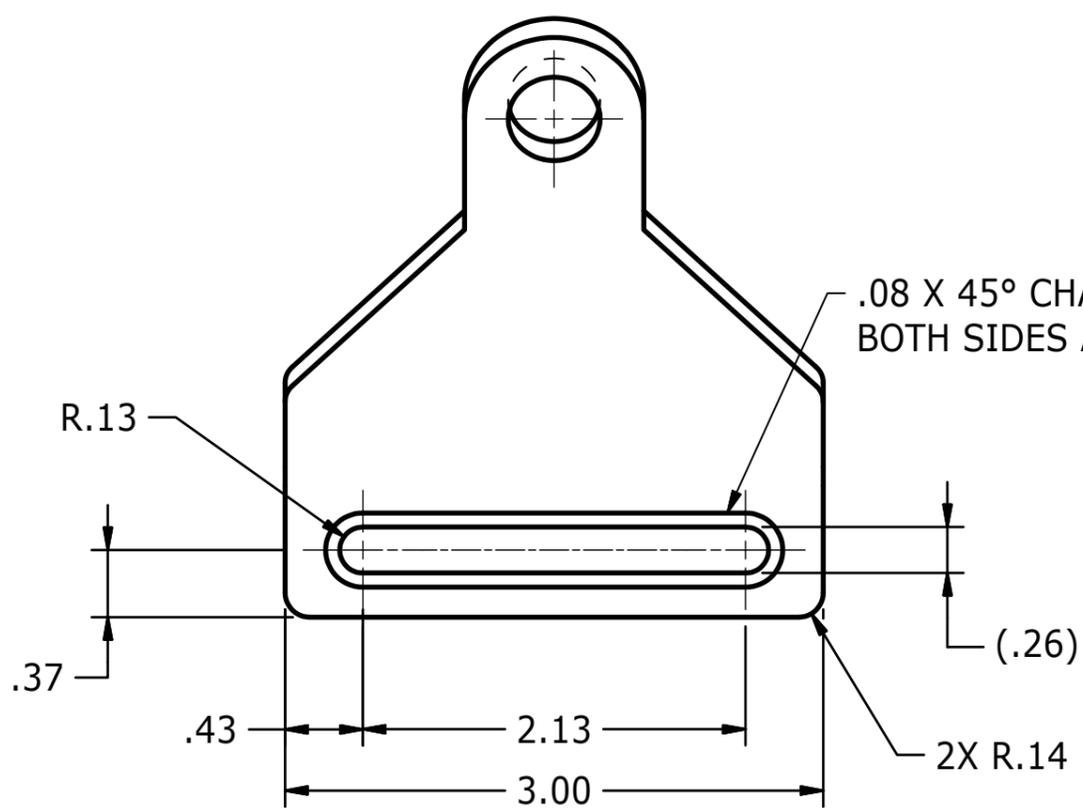
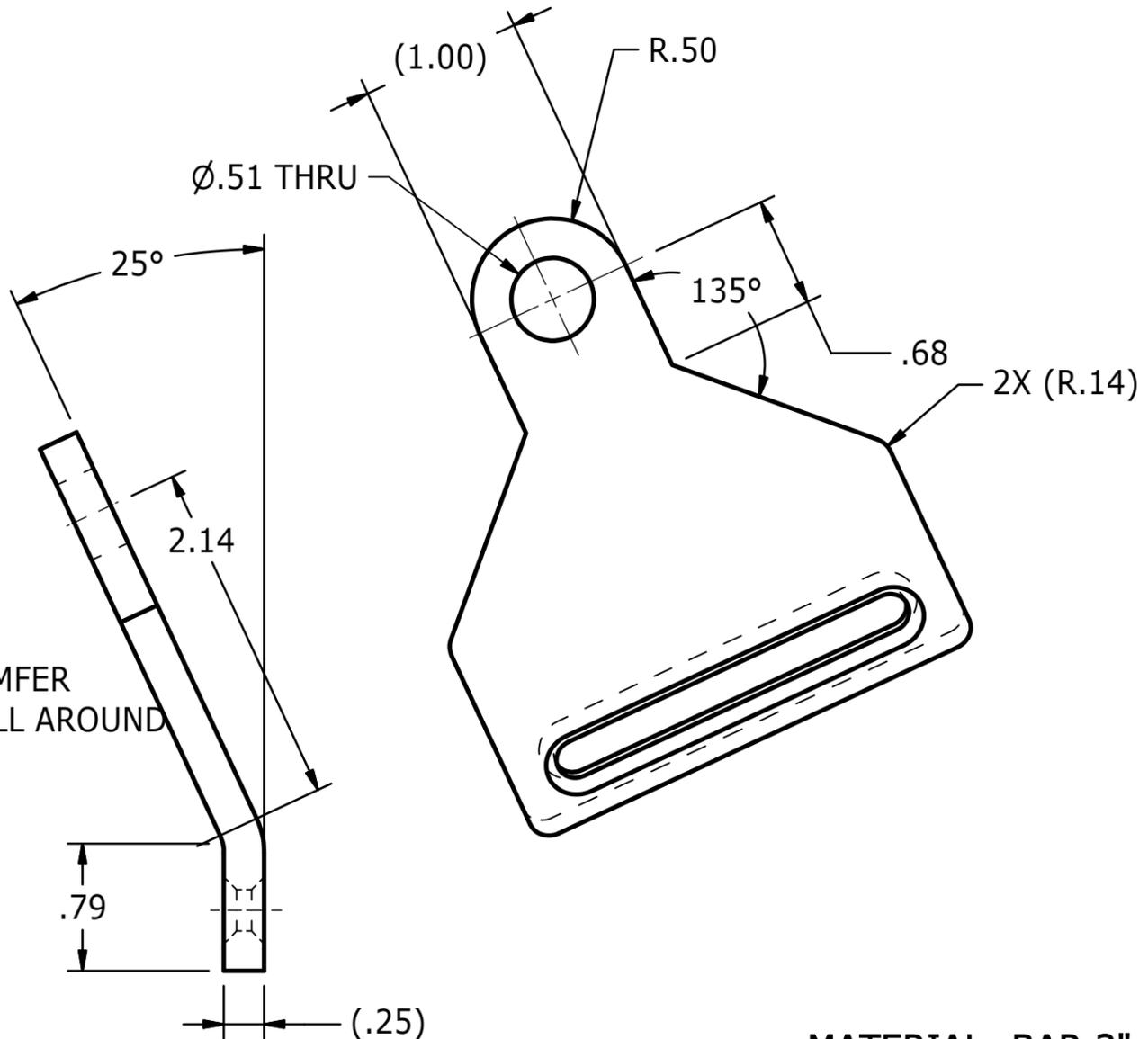


MATERIAL: BAR 1.0" x 0.25" x 2.0"

1. ALL DIMENSION TOLERANCES $\pm 0.125''$ UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ MACHINED $\pm .005$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
MATERIAL STEEL ASTM-A36	DRAWN Dave Walker	7/18/2016	SIZE A3 DRAWING NUMBER 3021-335 REV C
HEAT TREAT	CHECKED	7/18/2016	
FINISH	APPROVED		

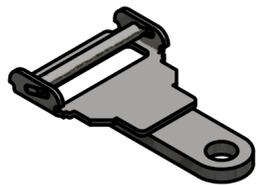
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	CONVERTED TO ENGLISH DIMENSIONS, REVISED MATERIAL DESCRIPTION	10/6/2021	JHC



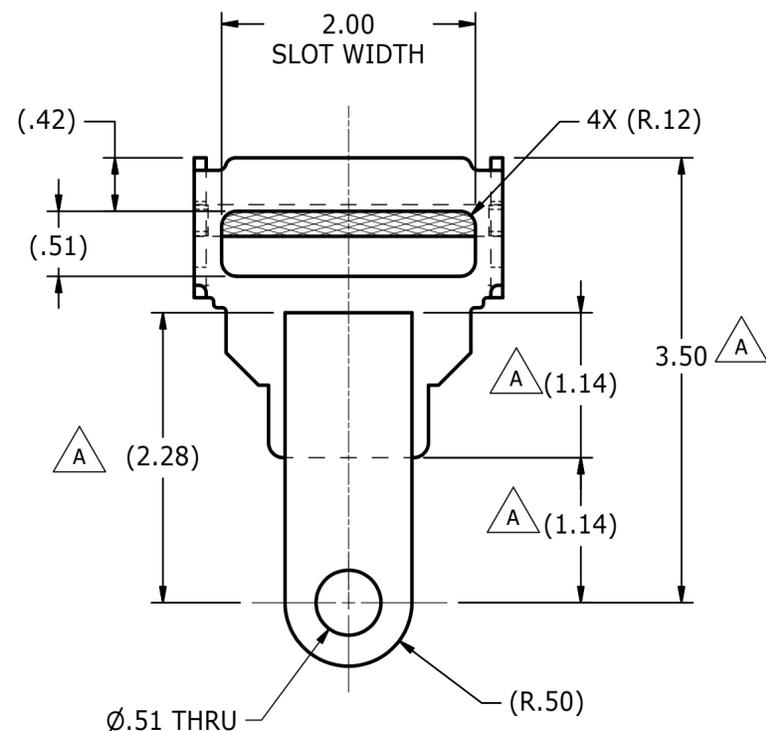
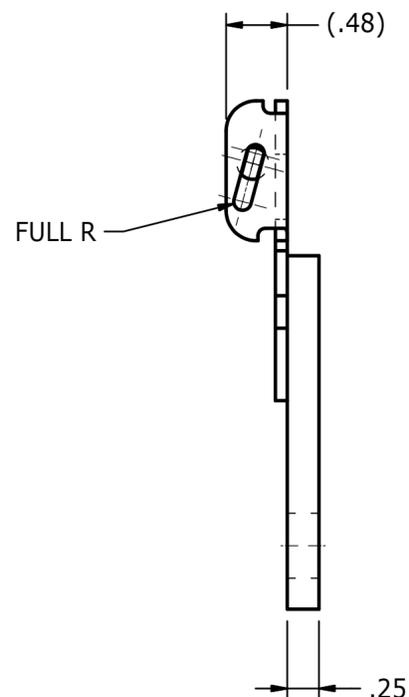
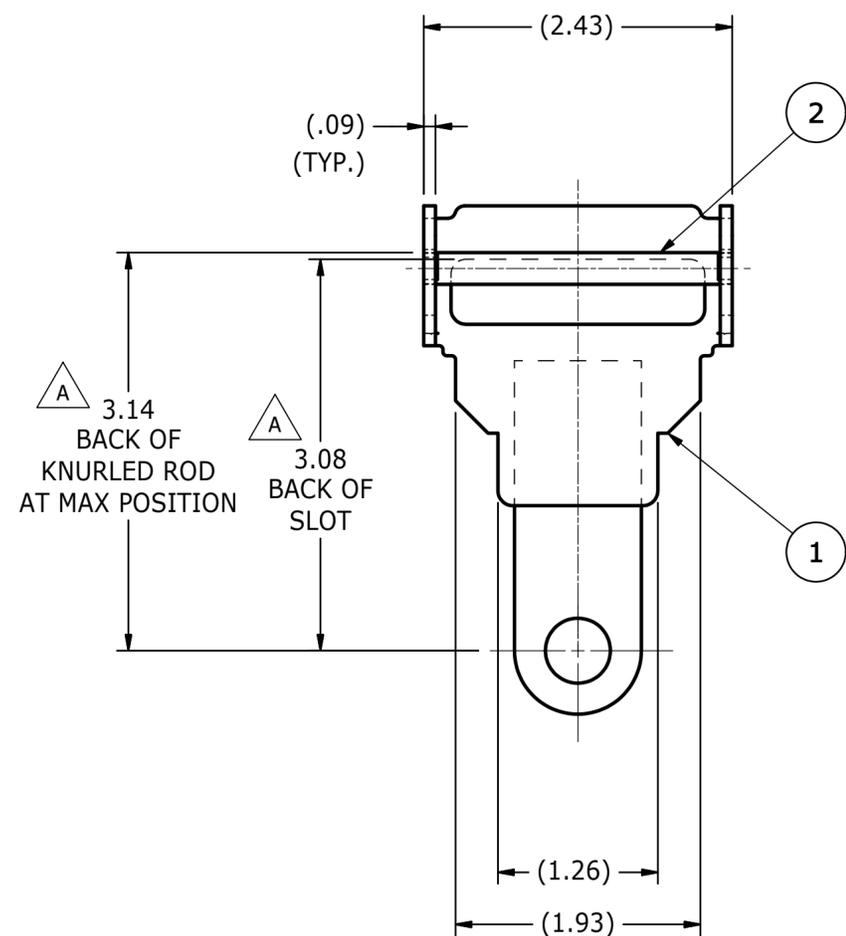
MATERIAL: BAR 3" x 1/4" x 3 1/2"

NOTES:
1. DIMENSION TOLERANCES 0.02" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: X ±.1 .XX ±.01 .XXX ±.005 MACHINED ANGLES ±.5° FRACTION ±1/64 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Dave Walker CHECKED ENG APPROVED	DATE 8/2/2016 8/2/2016		INBOARD LAP BELT ANCHOR CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL STEEL ASTM-A36 HEAT TREAT FINISH				DRAWING NUMBER 3021-120 SHEET 1 OF 1	REV A



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 79.7 BACK OF KNURLED ROD AT MAX POSITION WAS 78.0 BACK OF KNURLED ROD AT MAX POSITION, 78.3 BACK OF SLOT WAS 76.6 BACK OF SLOT, (58) WAS (42.3), (29) WAS (15.00) & (27.3); ADDED NOTES 1 & 2	7/31/2018	DW
	B	CONVERTED TO ENGLISH DIMENSIONS, ADDED WELDED NOTE	10/6/2021	JHC



ALL WELDED CONSTRUCTION

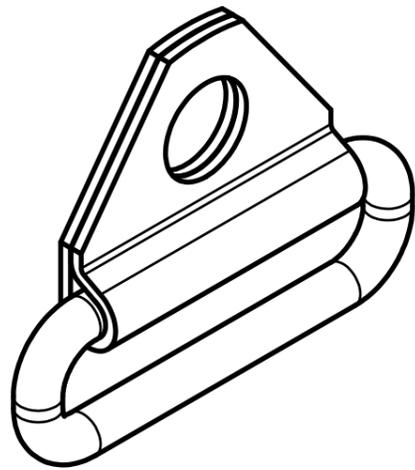
ITEM	QTY	PART NUMBER	DESCRIPTION
2	1		OUTBOARD LAP BELT ANCHOR KNURLED ROD
1	1		OUTBOARD LAP BELT ANCHOR PLATE

PARTS LIST

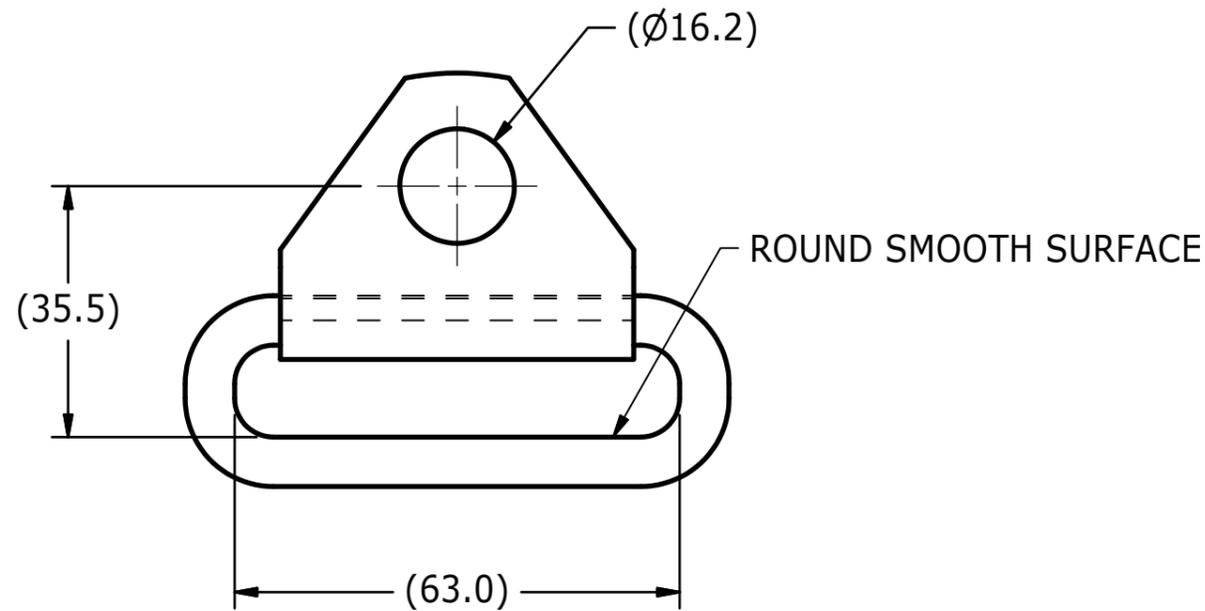
NOTES:

- 1. MODIFIED HARDWARE TAKEN FROM SEAT BELTS PLUS PART NUMBER WSCH201P, 3 POINT RETRACTABLE SEAT BELT WITH PUSH BUTTON w/CONTOURED SLEEVE, OR EQUIVALENT.
- 2. DIMENSION TOLERANCES ± 0.08 " UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED ✓ .X $\pm .1$.XX $\pm .01$.XXX $\pm .005$ ANGLES $\pm .5^\circ$ FRACTION $\pm 1/64$ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS		DATE		OUTBOARD LAP BELT ANCHOR CHILD FRONTAL/SIDE IMPACT SLED	
DRAWN Dave Walker		8/2/2016			
CHECKED					
ENG					
FINISH		APPROVED		THIRD ANGLE PROJECTION SIZE A2 DRAWING NUMBER 3021-121 REV B SCALE: SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	ADDED NOTE 1; DRAWING TITLE WAS UPPER ANCHOR	3/27/2018	JC
	B	CHANGED ALL DIMENSIONS TO REFERENCE DIMENSIONS	4/22/2019	JC



NOTES:

- HARDWARE TAKEN FROM SEAT BELTS PLUS PART NUMBER WSCH201P, 3 POINT RETRACTABLE SEAT BELT WITH PUSH BUTTON w/CONTOURED SLEEVE, OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: MACHINED X ±.5 1/6 X.X ±.2 ANGLE X.XX ±.1 ±.5° <small>ASME Y14.5M - 1994</small> DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS DRAWN Jim.Clevenger CHECKED ENG APPROVED	DATE 11/22/2016	D-RING CHILD FRONTAL/SIDE IMPACT SLED	
MATERIAL Steel, Mild HEAT TREAT FINISH	SIZE A3 SCALE: 1 : 1	DRAWING NUMBER 3021-123	REV B	SHEET 1 OF 1

4 | 3 | 2 | 1

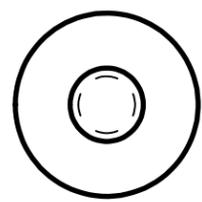
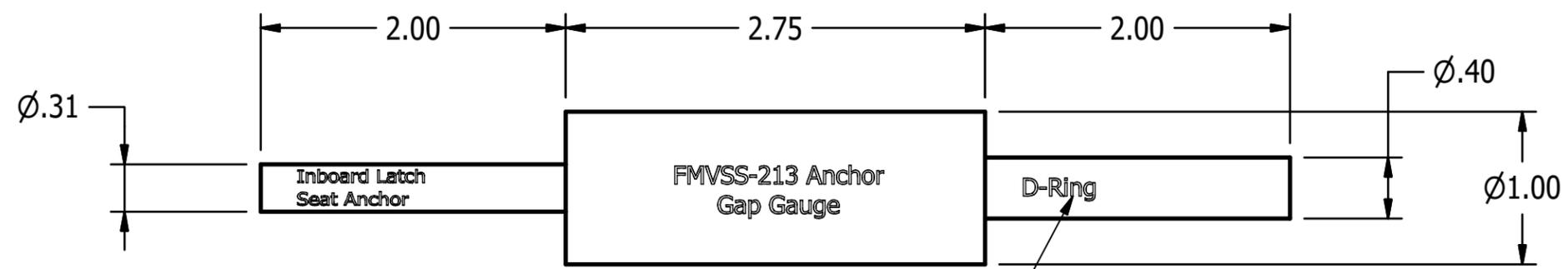


TABLE SECTIONS - AS SHOWN

B

B

A

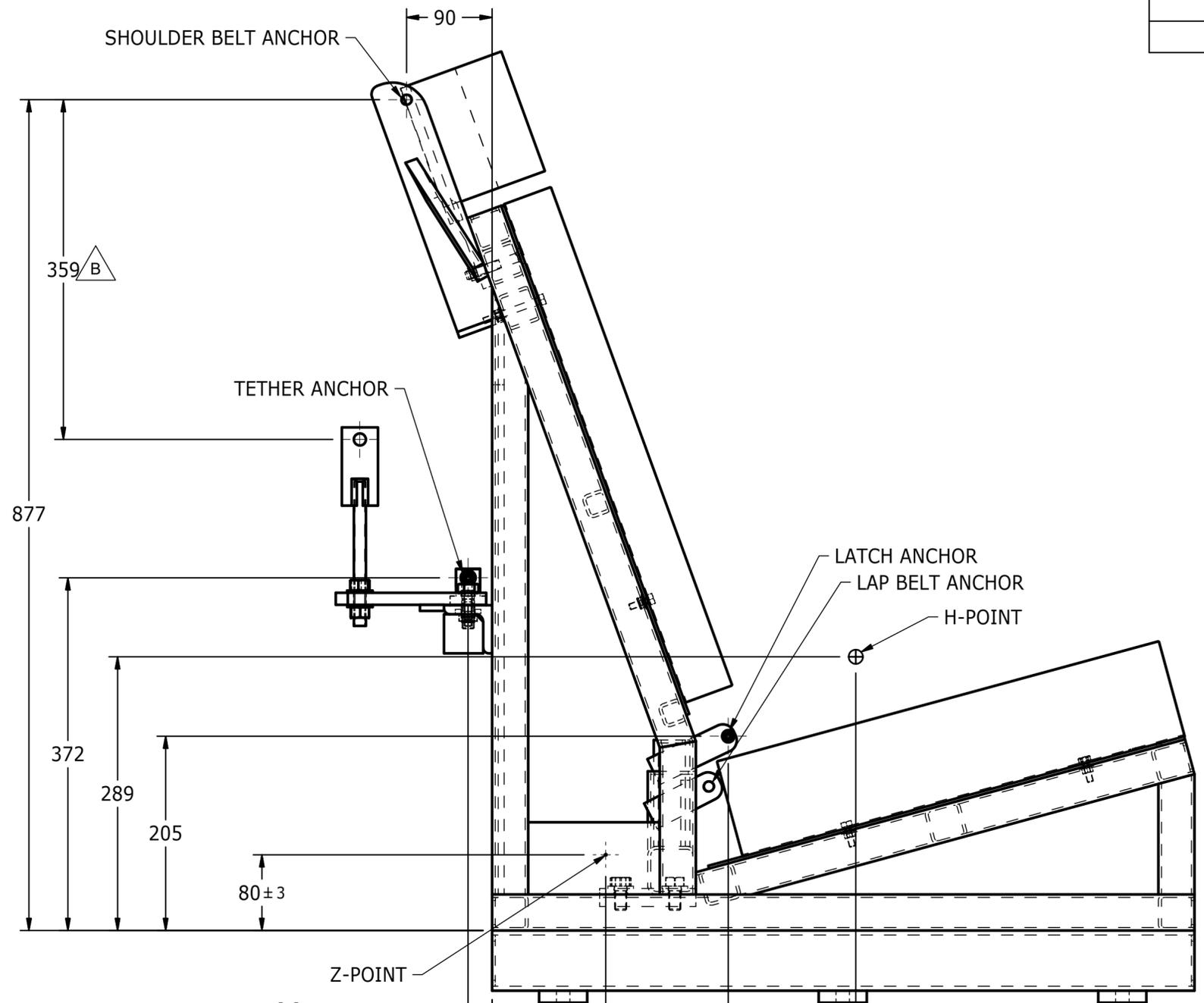
A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: MACHINED $\frac{1}{25}$.X ±.1 ANGLES ±.5° .XX ±.01 FRACTION ±1/64 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
	APPROVALS	DATE	
	DRAWN JIM CLEVINGER	1/5/2022	SIZE DRAWING NUMBER REV B 2921-950 1
	MATERIAL STEEL ASTM-A36	CHECKED	1/5/2022
HEAT TREAT	ENG		
FINISH	APPROVED		

4 | 3 | 2 | 1

4 3 2 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 25 WAS 30; ADDED NOTE 1	4/5/2018	DW
	B	ADDED 359 DIMENSION, 248 WAS 244	9/15/2021	JHC



Y - LOCATION FROM CENTER LINE	
POINT	Y-DIMENSION
H-POINT	N/A
SHOULDER BELT ANCHOR	248
TETHER ANCHOR	0
LATCH ANCHOR	140
LAP BELT ANCHOR	225
Z-POINT	350

NOTES:
 1. DIMENSIONAL TOLERANCES ± 6mm, UNLESS OTHERWISE SPECIFIED.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:	
DECIMAL:	MACHINED
X ±.5	✓
X.X ±.2	✓
X.XX ±.1	✓
	ANGLES ±.5°
ASME Y14.5M - 1994 DO NOT SCALE DRAWING	
MATERIAL	
HEAT TREAT	ENG
FINISH	APPROVED

VEHICLE RESEARCH and TEST CENTER	
APPROVALS	DATE
DRAWN Dave Walker	7/7/2016
CHECKED	
ENG	
APPROVED	

		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
SIZE A2	DRAWING NUMBER 3021-1000	REV B	
THIRD ANGLE PROJECTION		SCALE: 1 / 4	SHEET 1 OF 1