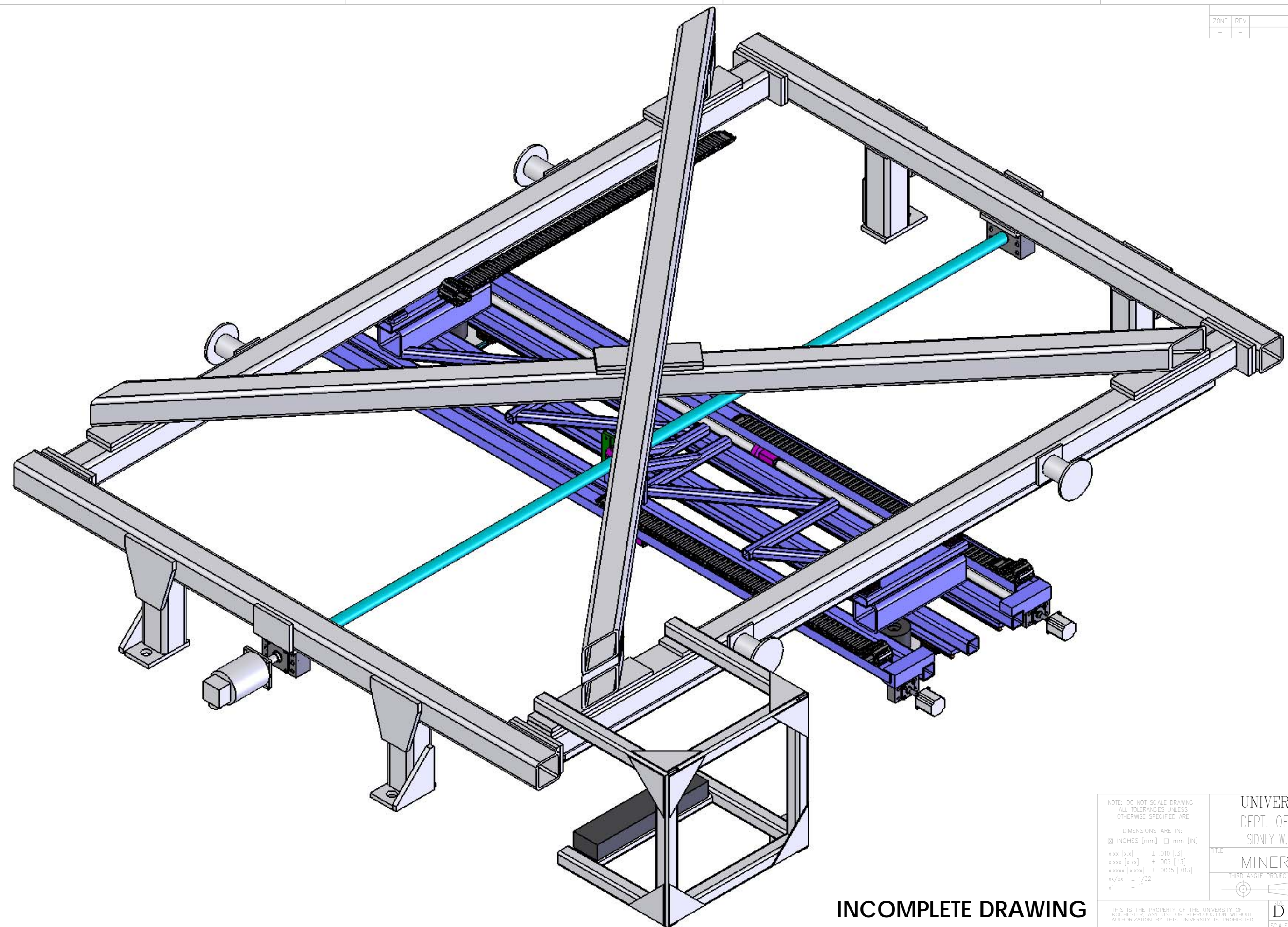


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



**INCOMPLETE DRAWING**

NOTE: DO NOT SCALE DRAWING!  
ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]  
xxx [x]   ± .010 [.3]  
xxxx [xxx]   ± .005 [.13]  
xxxxx [xxxx]   ± .0005 [.013]  
xx/xx   ± 1/32  
x'   ± 1"

UNIVERSITY OF ROCHESTER  
DEPT. OF PHYSICS AND ASTRONOMY  
SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: **MINERVA MAPPER ASS'Y**

THIRD ANGLE PROJECTION

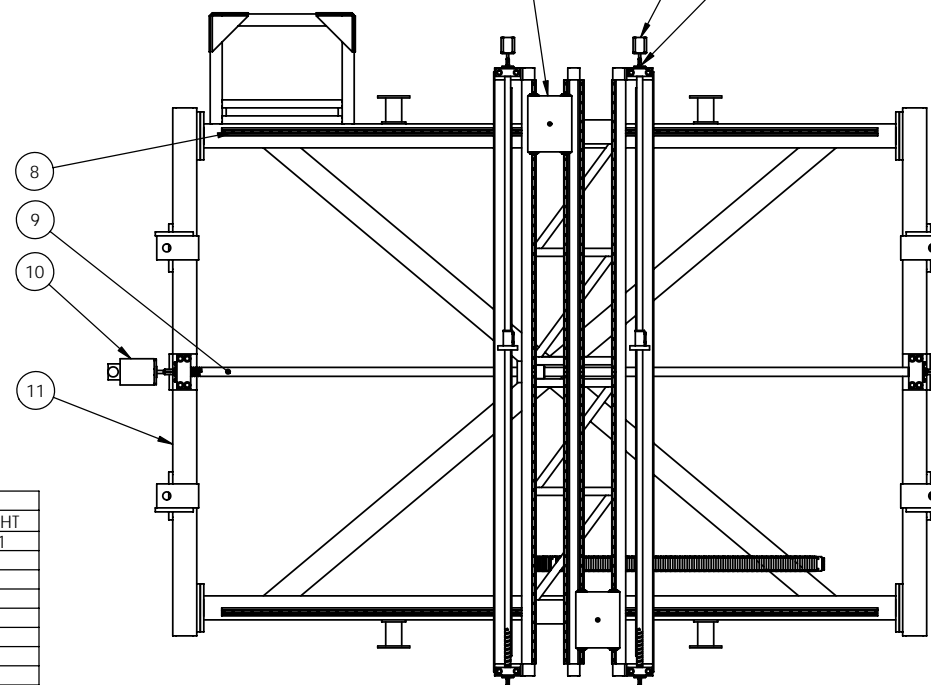
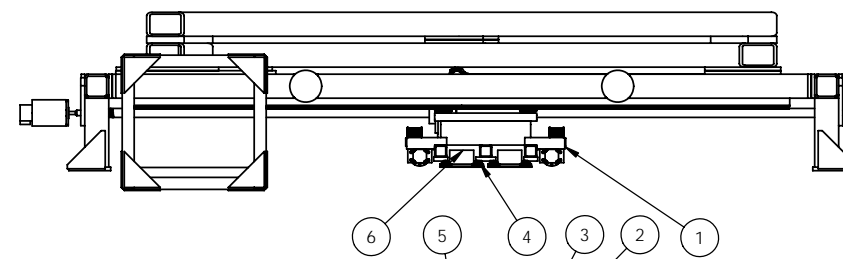
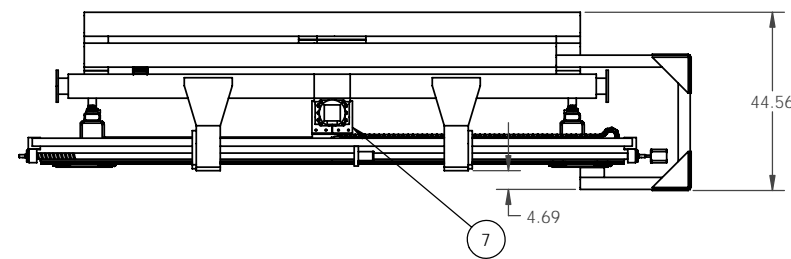
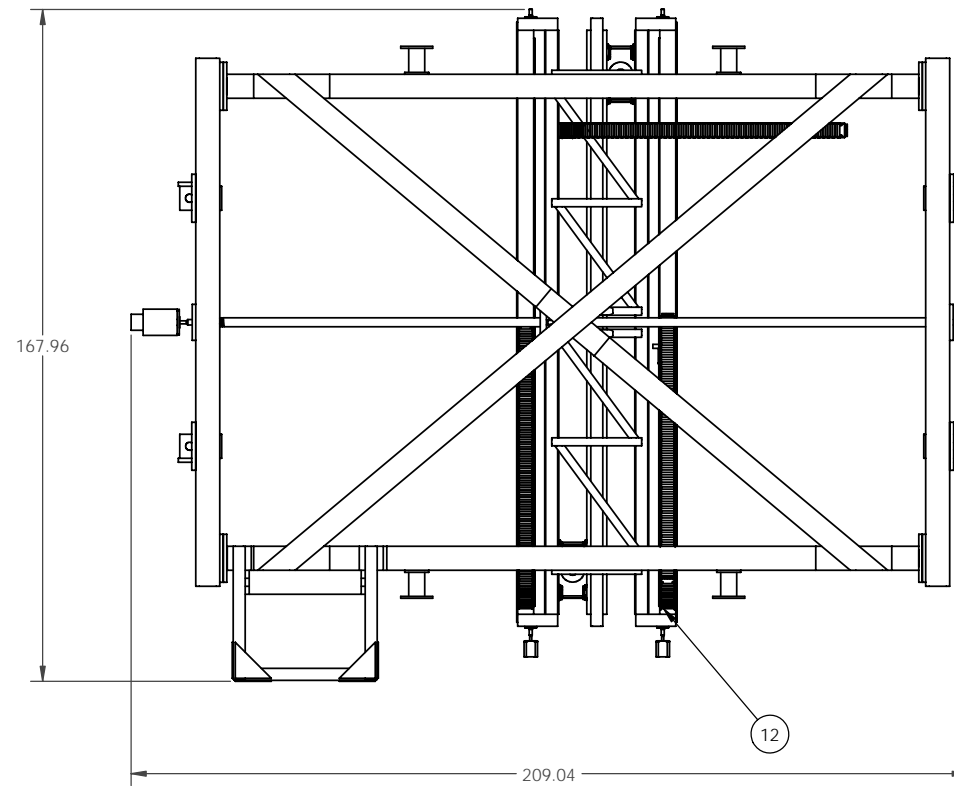
DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

THIS IS THE PROPERTY OF THE UNIVERSITY OF ROCHESTER. ANY USE OR REPRODUCTION WITHOUT AUTHORIZATION BY THIS UNIVERSITY IS PROHIBITED.	SIZE [DWG NO.] <b>D</b> D061024	REV -
WEIGHT: 7270 LBS	SCALE 1:8    SHEET 1 OF 22	FILE: MAPPER





REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



Parts List							
ITEM NO.	QTY	DET_SHT	ASSY_SHT	DESCRIPTION	MATERIAL	SIZE	WEIGHT
1	1	12-17	11	CROSS FRAME	WELDMNT	-	1351
2	2	-	3	BALL SCR ASSY 1.50-1.00xSHORT LG	-	BALL SCR ASSY SHORT	101
3	2	-	3	MOTOR KM092	-	KM092	11
4	4	-	3	HSR25 HB 2 UU +3700L	THK	HSR25 HB 2 UU +3700L	31
5	2	-	18	SOURCE MOUNTING PLATE ASSY	-	-	12
6	2	22	3	SOURCE CONTAINER	LEAD	6.00 DIA x 4.00 LG	43
7	1	21	3	LONG BALL NUT MOUNTING PLATE	CRS	.69 x 8.00 x 10.13	13
8	2	-	3	HSR25 HB 2 UU +4160L	THK	HSR25 HB 2 UU +4160L	34
9	1	-	3	BALL SCR ASSY 2.25-0.50xLONG	-	BALL SCR ASSY LONG	296
10	1	-	3	MOTOR MH172	-	MH172	102
11	1	-	4	MAIN FRAME ASSY	SEE ASSY_SHT 4	-	4972
12	3	-	3	IGUS B15i-6-038-0	IGUS	B15i-6-038-0	4

NOTE: DO NOT SCALE DRAWING !  
ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE:

DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]

x.xxx [x.x]   ± .010 [.3]  
 x.xxxx [x.xxx]   ± .005 [.13]  
 x.xxxxx [x.xxxx]   ± .0005 [.013]  
 xx/xx   ± 1/32  
 x'   ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

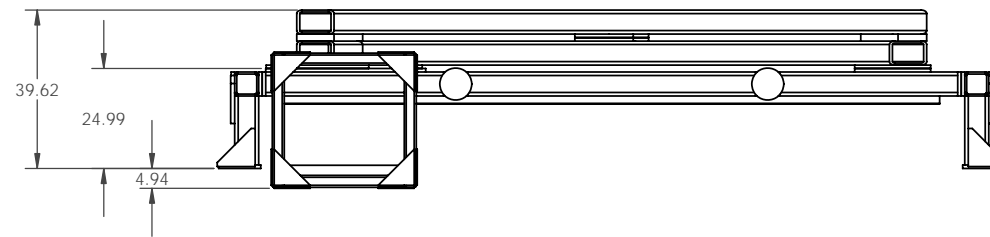
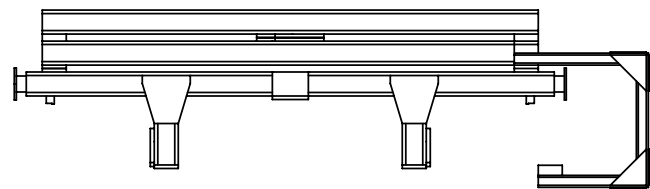
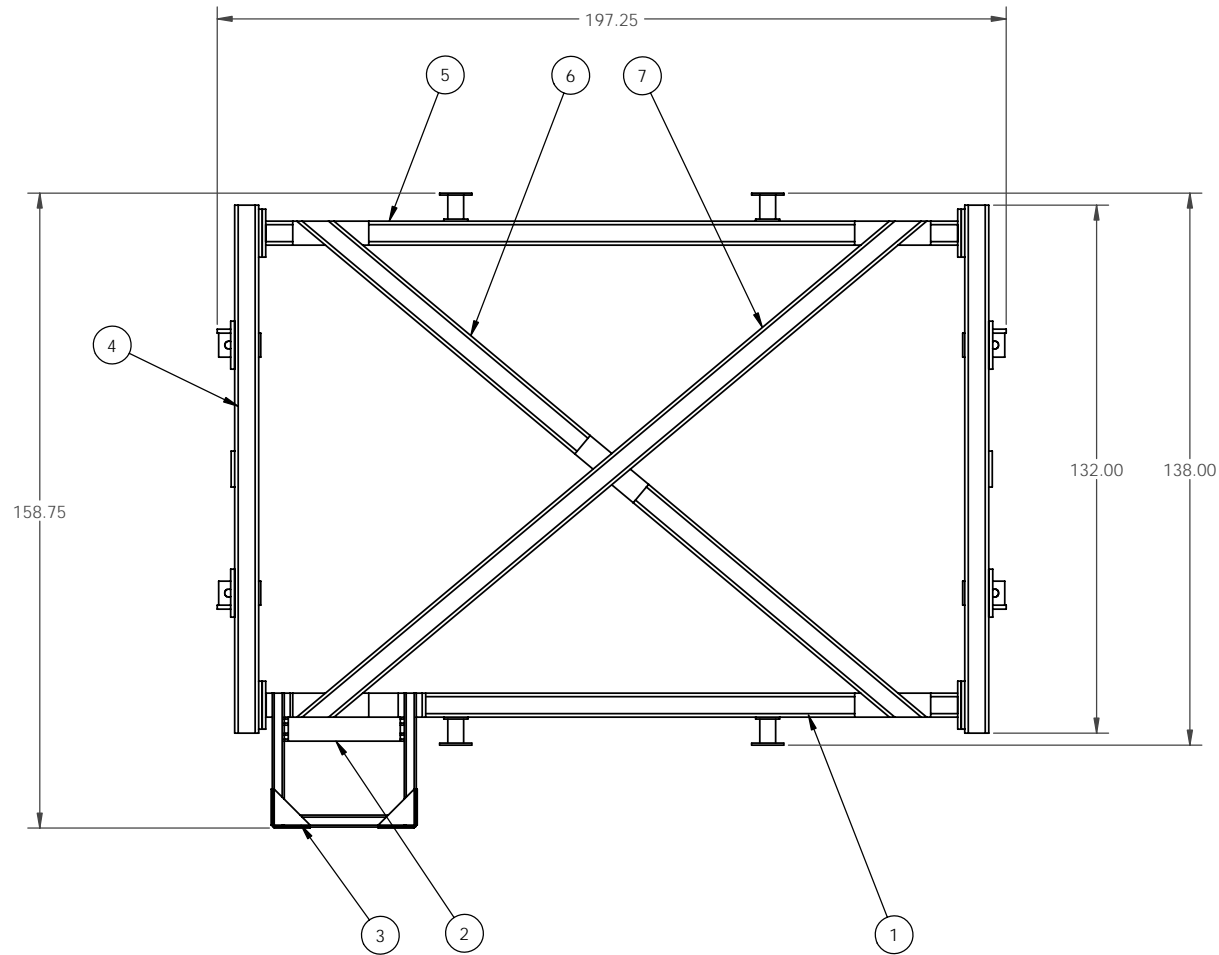
SCALE: 1:24   SHEET: 3 OF 22

WEIGHT: 7270 LBS

FILE: MAPPER

GENERAL DESCRIPTION

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



11 NAME: MAIN FRAME ASSY  
 QTY: 1  
 MAT'L: SEE CHART  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPER: -  
 WEIGHT: 4972

Parts List							
ITEM NO.	QTY.	DET_SHT	ASSY_SHT	DESCRIPTION	MATERIAL	SIZE	WEIGHT
1	1	8	4	MAIN FRAME, VERTICAL, RH	WELDMENT	-	872
2	1	5	4	Pb CAP	Pure Lead	3.50 x 6.00 x 28.00	234
3	1	5	4	DOG HOUSE	WELDMENT	-	252
4	2	6	4	MAIN FRAME, HORIZONTAL	WELDMENT	-	677
5	1	7	4	MAIN FRAME, VERTICAL, LH	WELDMENT	-	841
6	1	9	4	MAIN FRAME, DIAGONAL, LOWER	WELDMENT	-	654
7	1	10	4	MAIN FRAME, DIAGONAL, UPPER	WELDMENT	-	764

NOTE: DO NOT SCALE DRAWING !  
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 INCHES [mm]  mm [IN]

x.xxx [x,x] ± .010 [.3]  
 x.xxxx [x,xxx] ± .005 [.13]  
 x.xxxxx [x,xxxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASSY

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

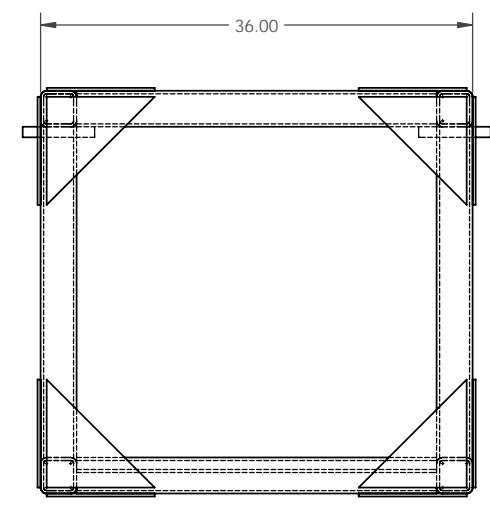
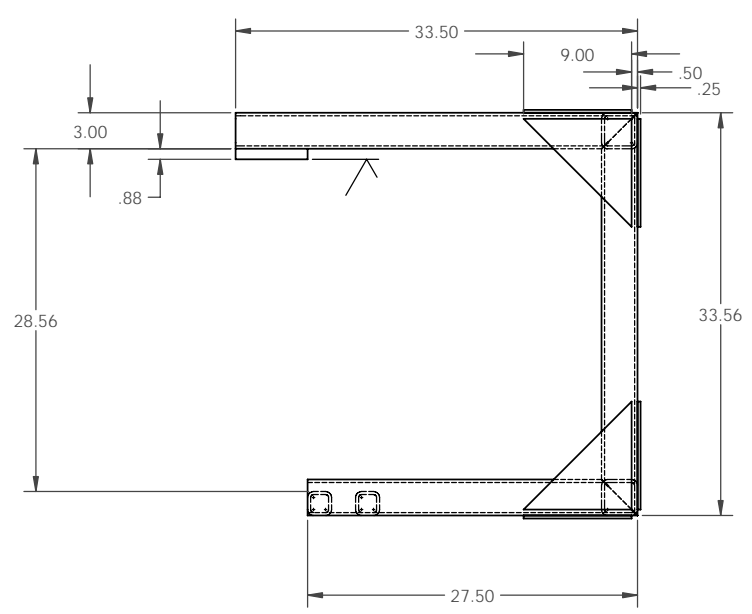
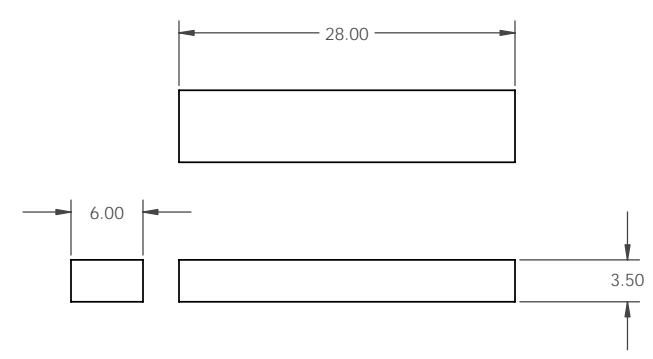
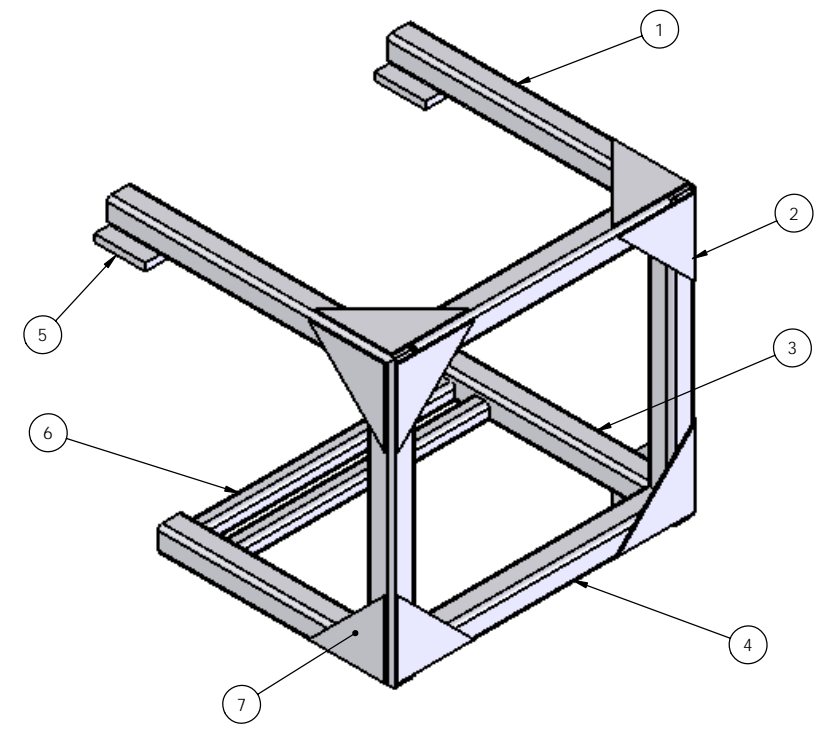
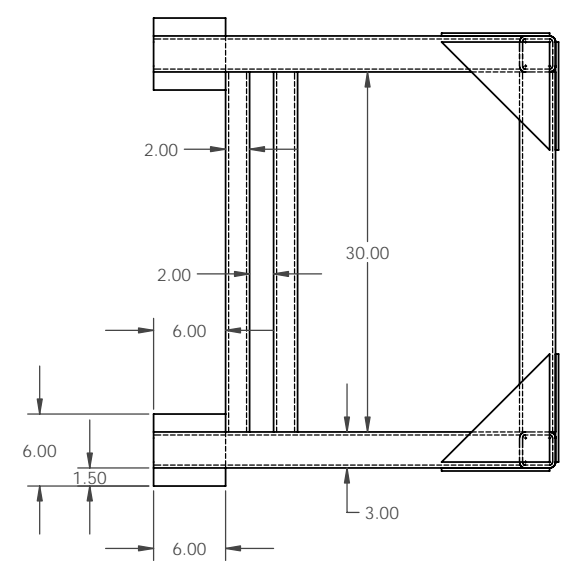
SCALE: 1:24 SHEET 4 OF 22

WEIGHT: 4972 LBS

1 FILE: MAPPER

**INCOMPLETE DRAWING**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



2 NAME: Pb CAP  
 QTY: 1  
 MAT'L: Pure Lead  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: 3.50 x 6.00 x 28.00  
 WEIGHT: 234

3 NAME: DOG HOUSE  
 QTY: 1  
 MAT'L: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: -  
 WEIGHT: 252

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	2	STEEL	TUBE, SQUARE 3.00 X 3.00 X .25	33.5	23
2	2	STEEL	TUBE, SQUARE 3.00 X 3.00 X .25	33.562	22
3	2	STEEL	TUBE, SQUARE 3.00 X 3.00 X .25	27.5	19
4	2	STEEL	TUBE, SQUARE 3.00 X 3.00 X .25	30	22
5	2	CRS	.88 x 6.00	6.00	9
6	2	STEEL	TUBE, SQUARE 2.00 X 2.00 X .25	30	13
7	12	CRS	.25 x 9.00	9.00	3

NOTE: DO NOT SCALE DRAWING!  
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 DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]  
 x.xxx [x,x] ± .010 [.3]  
 x.xxxx [x,xxx] ± .005 [.13]  
 x.xxxxx [x,xxxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

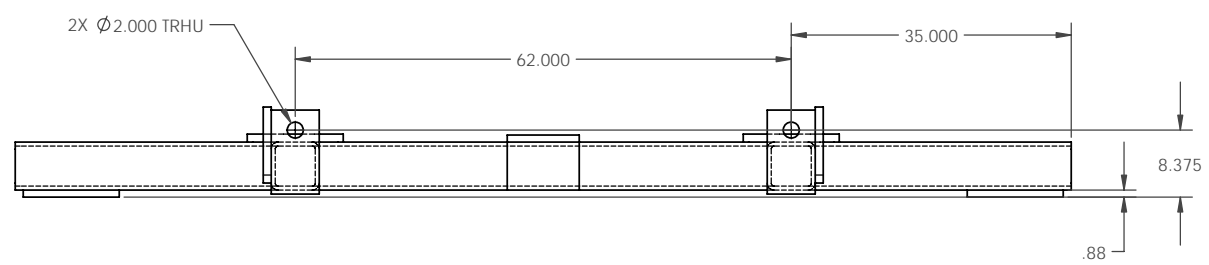
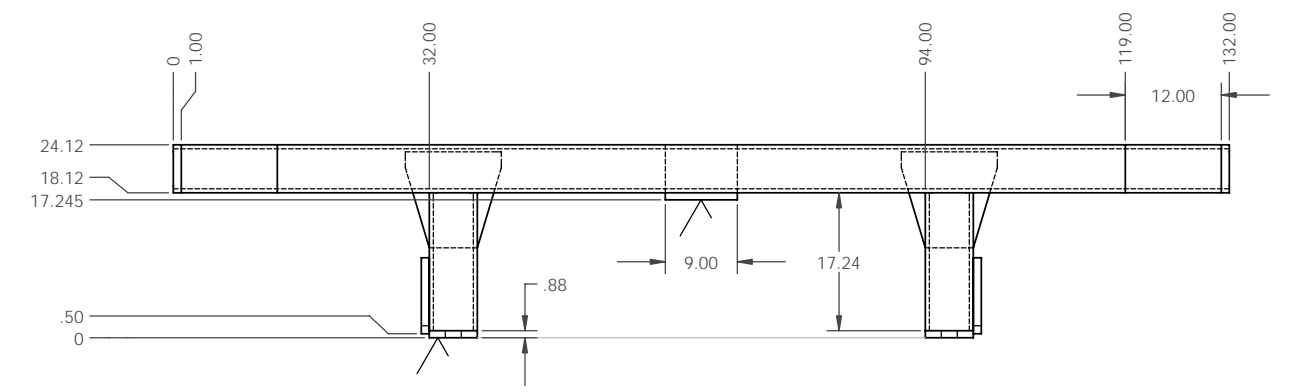
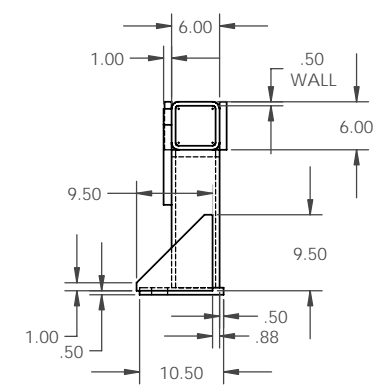
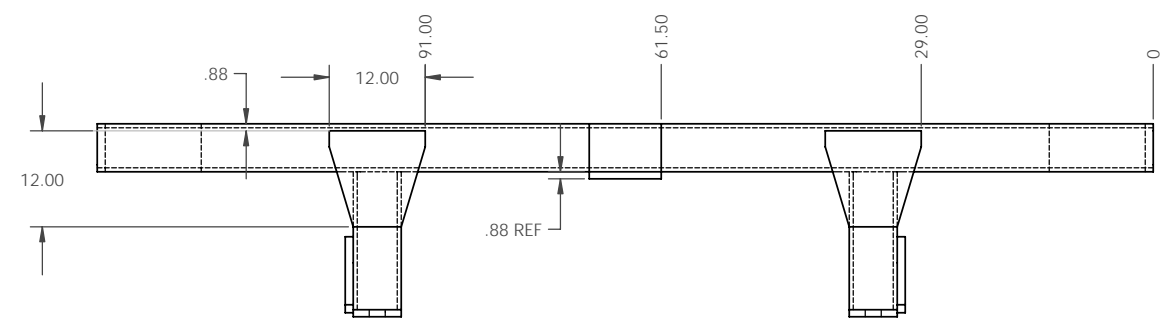
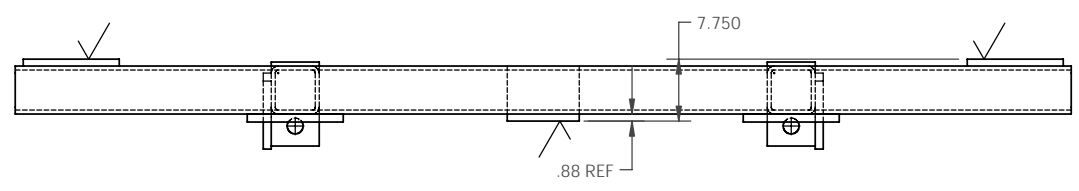
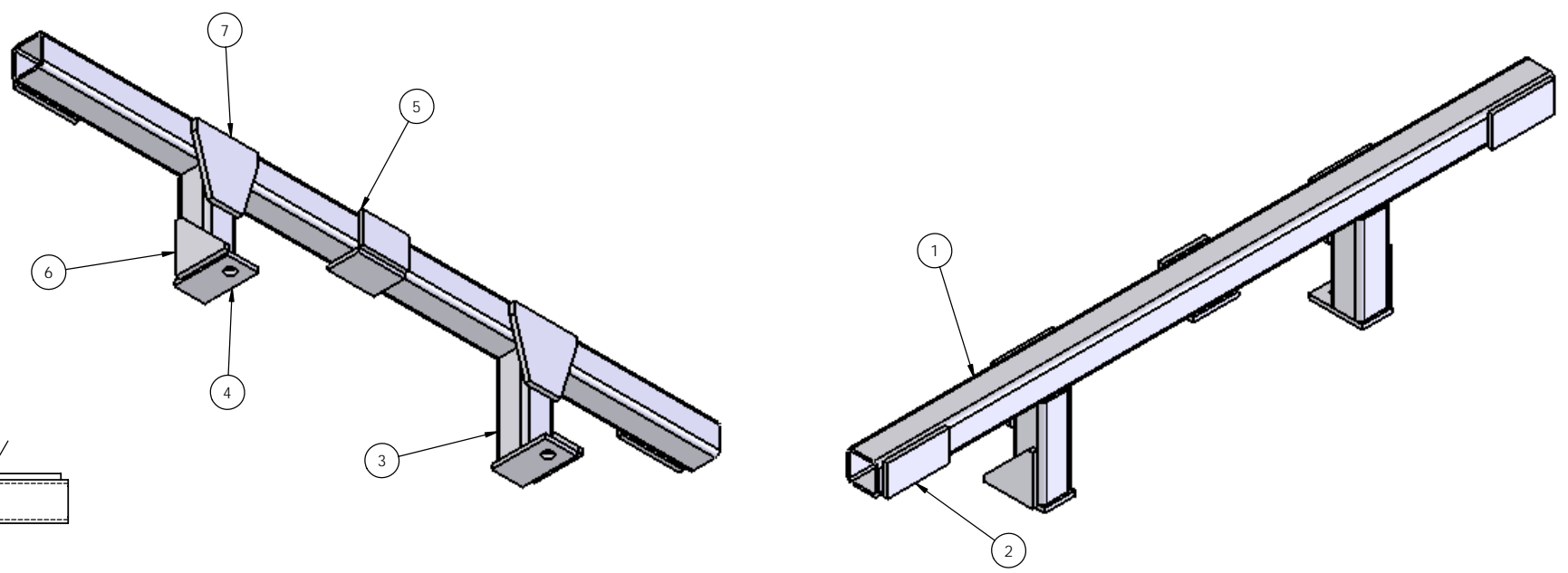
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WEIGHT: 252 LBS

SCALE	1:8	SHEET	5 OF 22	REV	-
SIZE [DWG NO.]	D	DWG NO.	D061024	FILE:	MAPPER

**INCOMPLETE DRAWING**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



4 NAME: MAIN FRAME HORIZ  
 QTY: 2  
 MATL: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TY: -  
 WEIGHT: 677

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	1	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	132	389
2	2	CRS	.88 x 6.00	12.00	18
3	2	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	17.245	51
4	2	CRS	.88 x 6.00	10.50	15
5	2	CRS	.88 x 6.00	9.00	13
6	2	CRS	1.00 x 9.50	9.50	15
7	2	CRS	1.00 x 12.00	12.00	32

NOTE: DO NOT SCALE DRAWING!  
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 DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]  
 x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

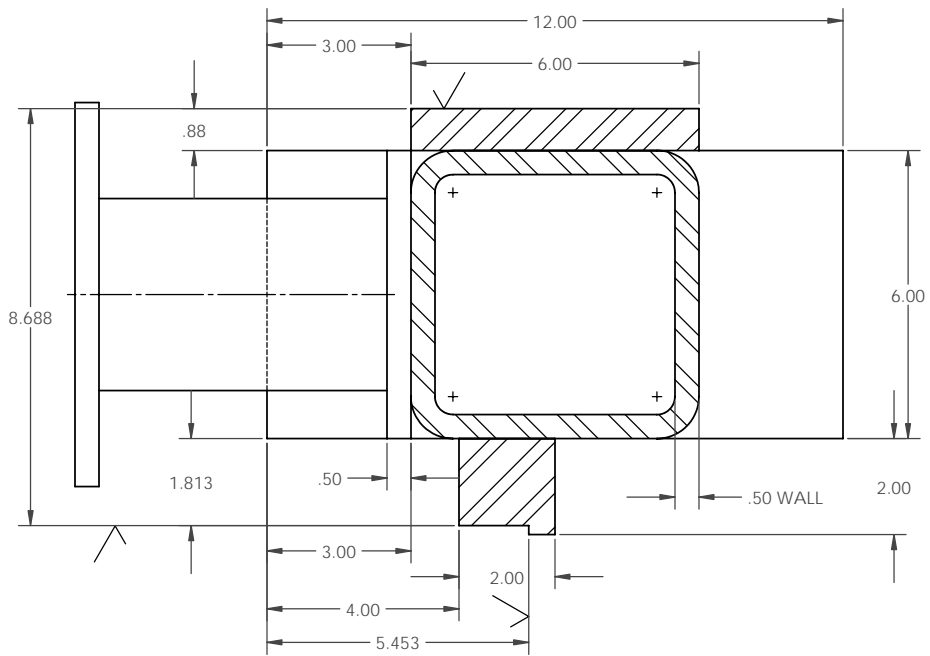
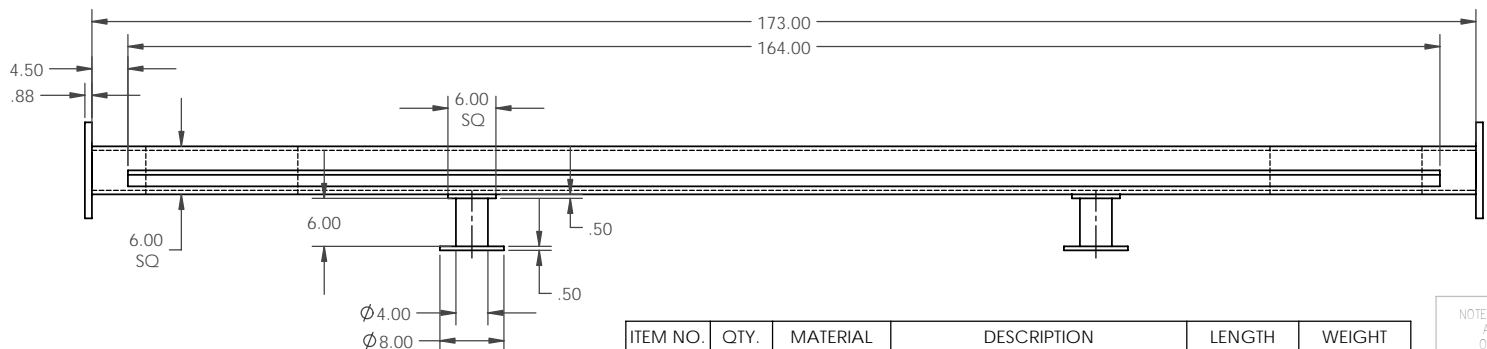
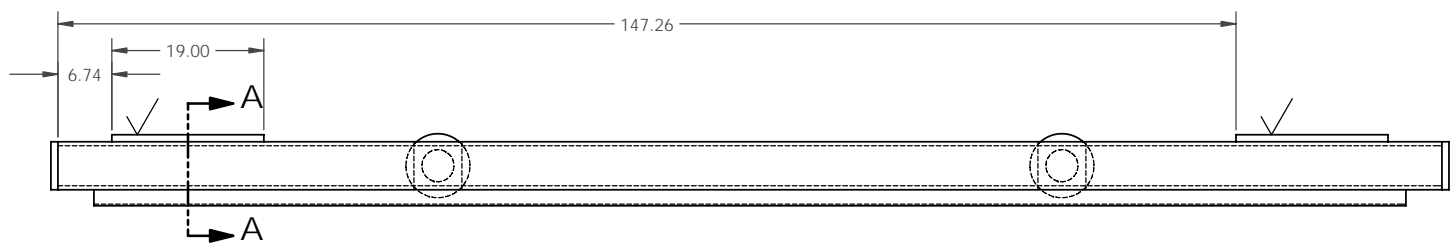
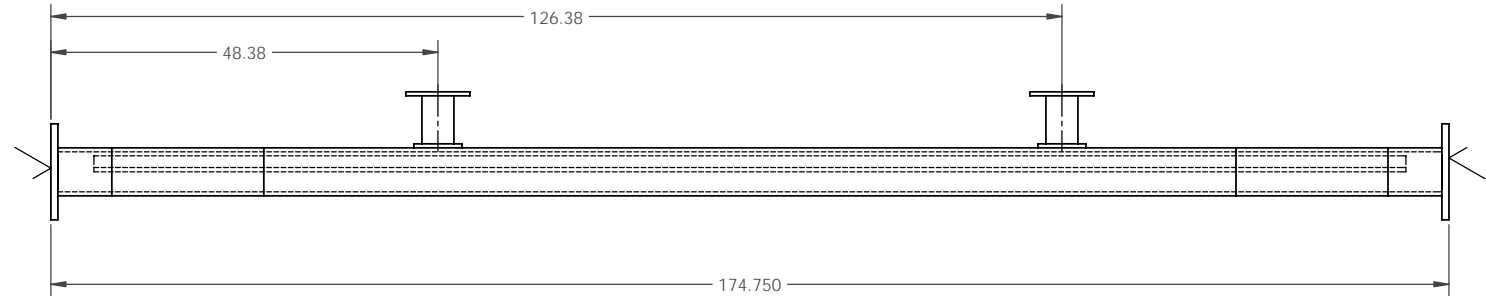
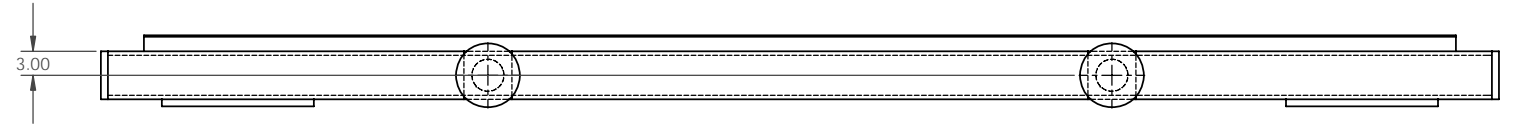
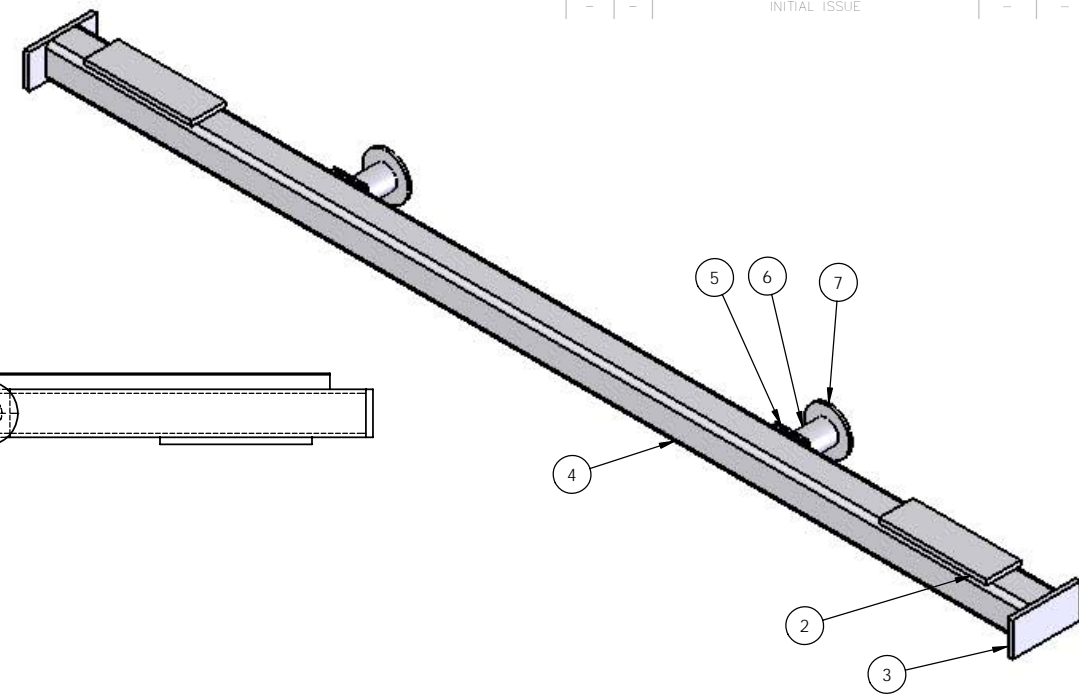
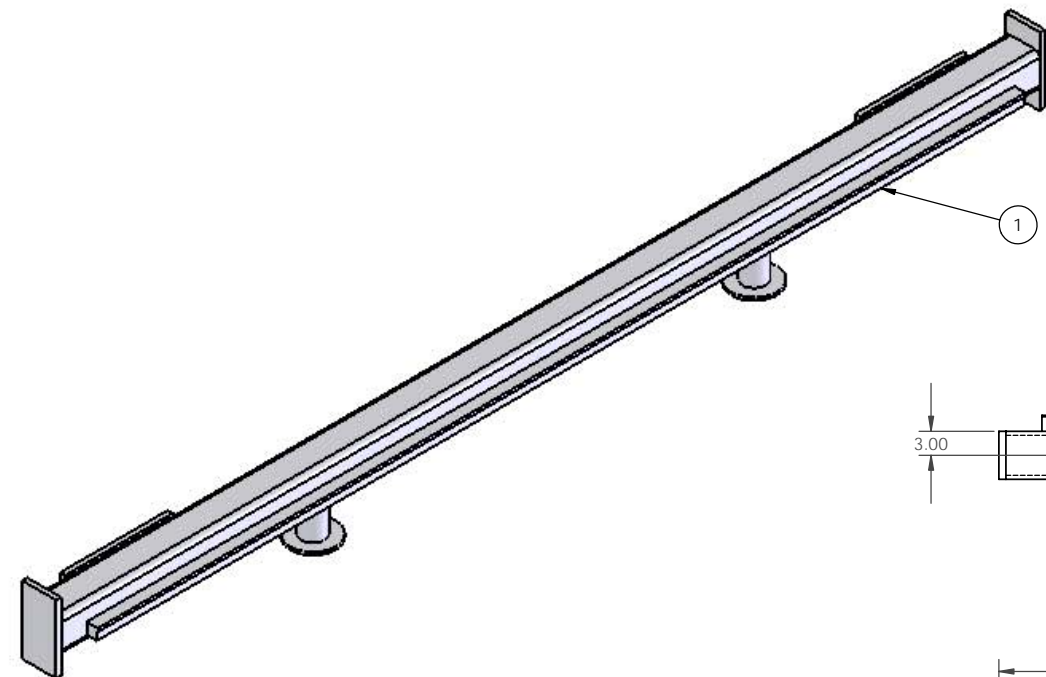
DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE	1:12	SHEET	6 OF 22	REV	-
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**INCOMPLETE DRAWING**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



5 NAME: MAIN FRAME VERT LH  
 QTY: 1  
 MATL: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TY: -  
 WEIGHT: 841

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	1	CRS	2.00 x 2.00	164.00	172
2	2	CRS	.88 x 6.00	19.00	28
3	2	CRS	.88 x 6.00	.88	18
4	1	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	173	510
5	2	CRS	.50 x 6.00	6.00	5
6	2	CRS	4.00	6.00	21
7	2	CRS	8.00 DIA	.50	7

NOTE: DO NOT SCALE DRAWING!  
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 DIMENSIONS ARE IN:  
 ☐ INCHES [mm]    □ mm [IN]  
 x.xxx [x.x]    ± .010 [.3]  
 x.xxxx [x.xxx]    ± .005 [.13]  
 x.xxxxx [x.xxxx]    ± .0005 [.013]  
 xx/xx    ± 1/32  
 x'    ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION	DRAWN: RSF	DATE: 10/24/06
	CHECKED: RSF	DATE: 10/24/06
	APPROVED: RSF	DATE: -

SCALE: 1:12	SHEET: 7 OF 22	REV: -
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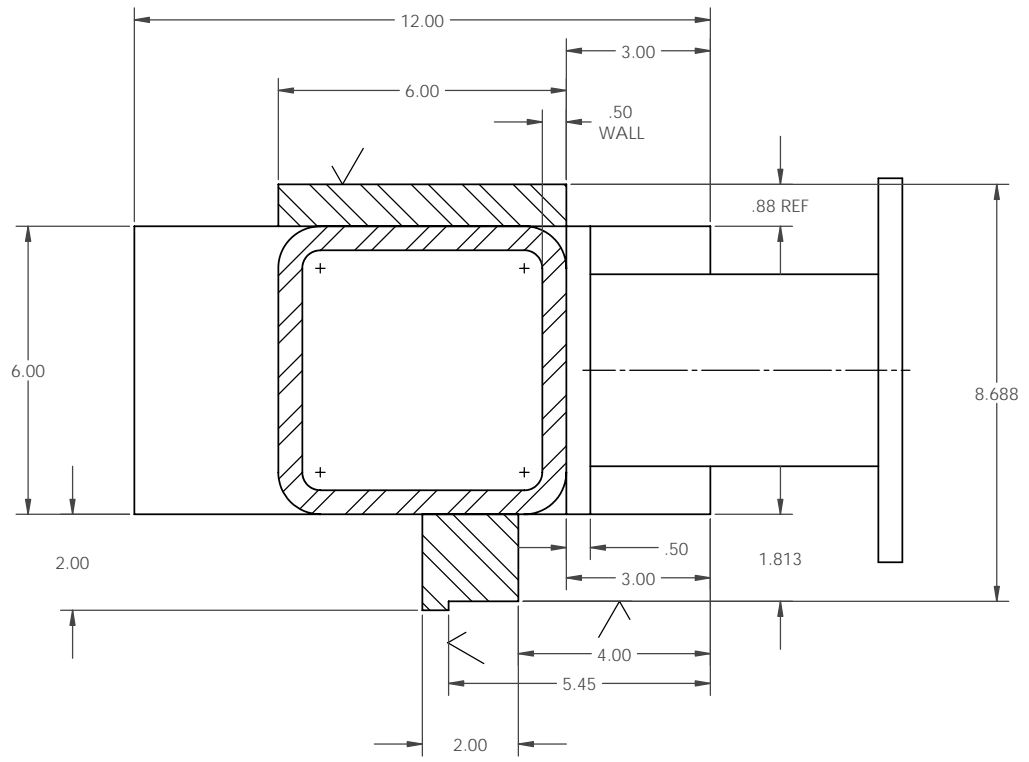
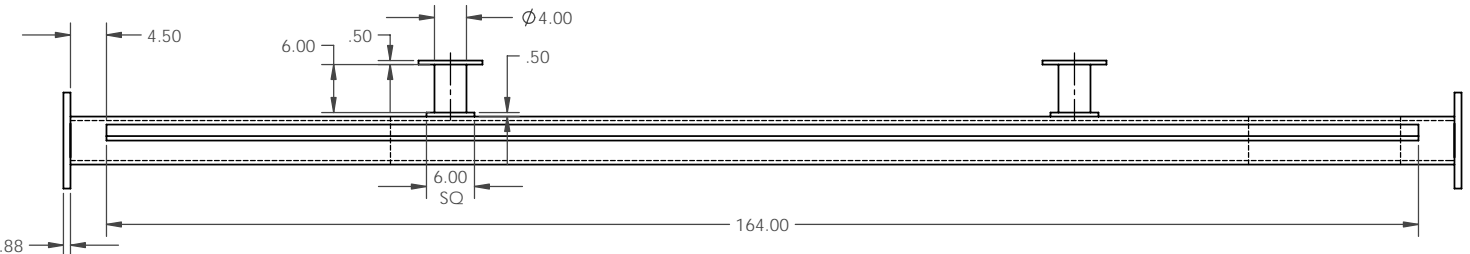
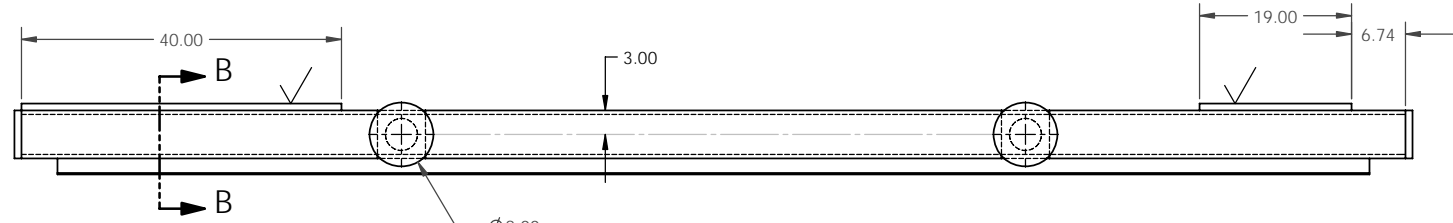
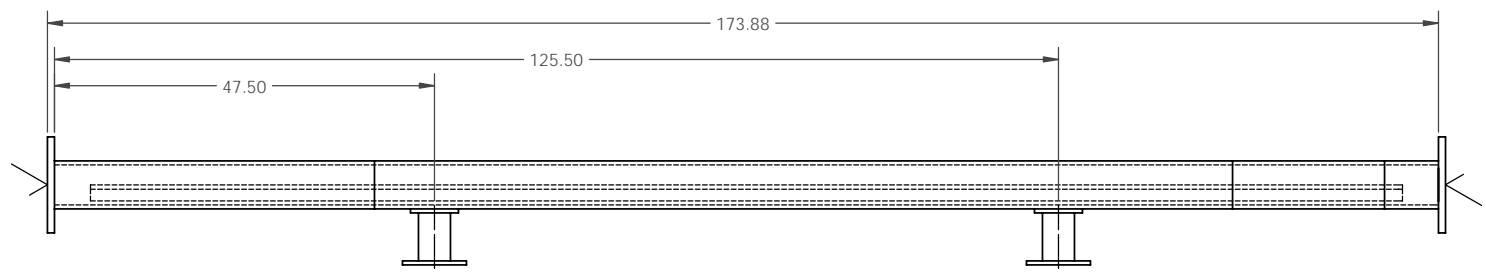
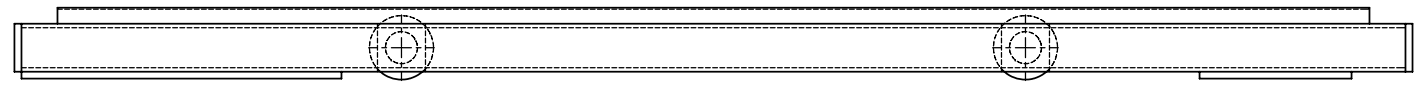
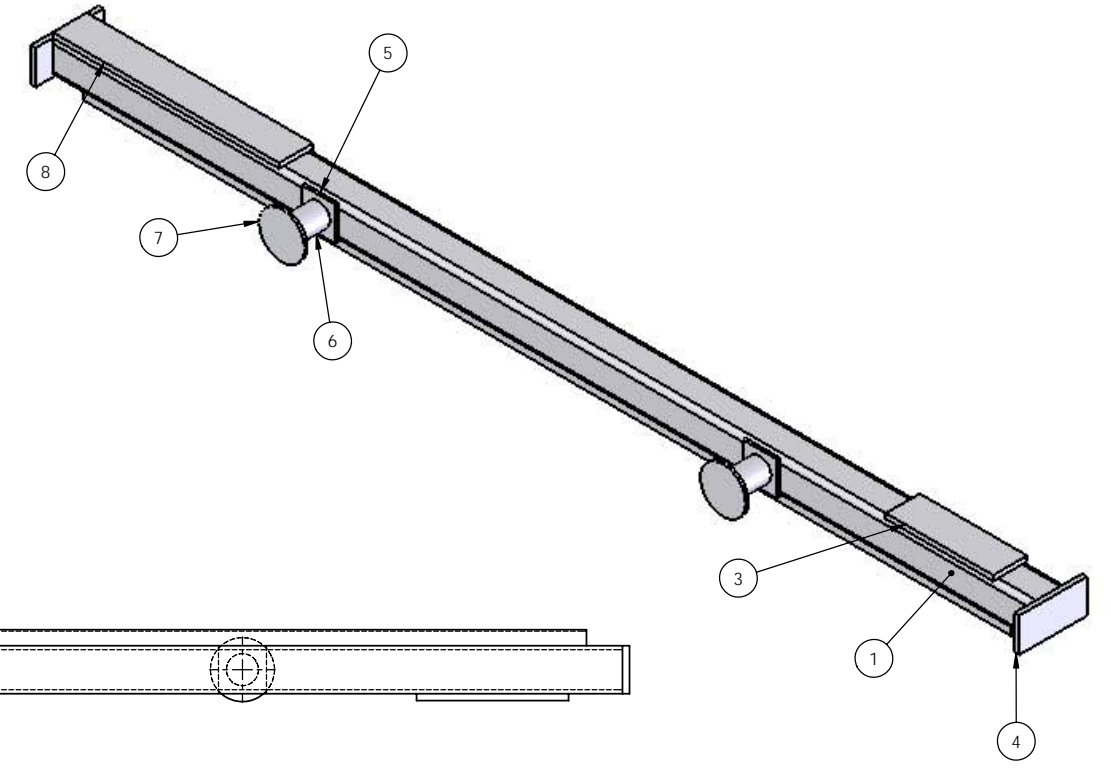
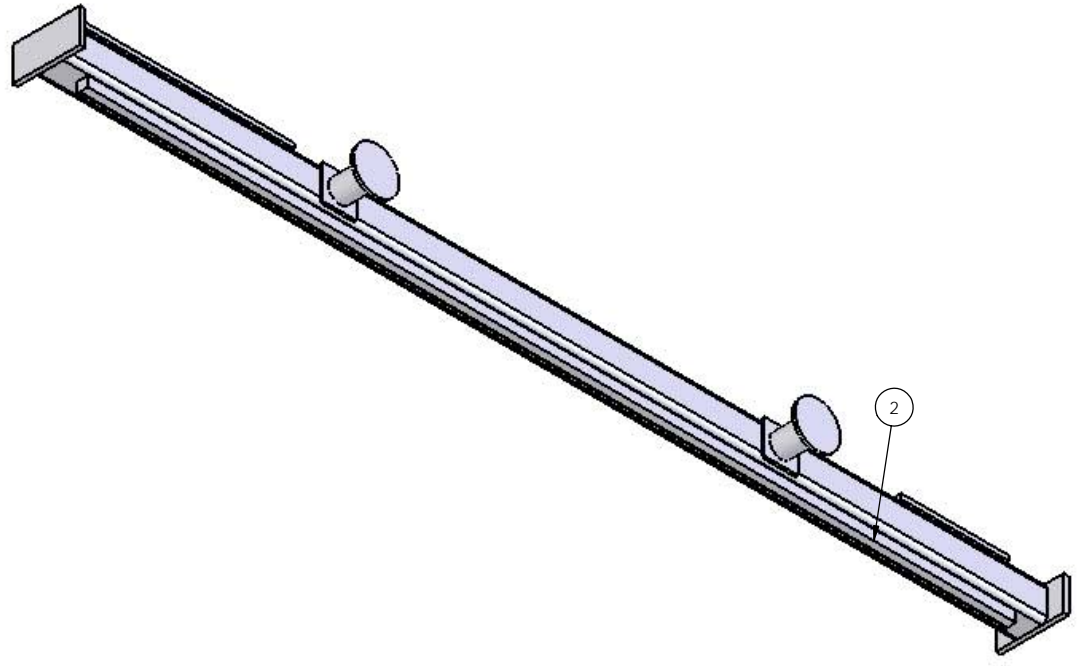
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SIZE: DWG NO. D	DWG NO. D061024	REV: -
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**INCOMPLETE DRAWING**



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



SECTION B-B  
SCALE 1 : 2

1 NAME: MAIN FRAME VERT RH  
 QTY: 1  
 MAT'L: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: -  
 WEIGHT: 872

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	1	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	173	510
2	1	CRS	2.00 x 2.00	164.00	172
3	1	CRS	.88 x 6.00	19.00	28
4	2	CRS	.88 x 6.00	12.00	18
5	2	CRS	.50 x 6.00	6.00	5
6	2	CRS	4.00 DIA	6.00	21
7	2	CRS	8.00 DIA	.50	7
8	1	CRS	2.00 x 2.00	164.00	172

NOTE: DO NOT SCALE DRAWING!  
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 DIMENSIONS ARE IN:  
 ☒ INCHES [mm] ☐ mm [IN]  
 x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION	DRAWN: RSF	DATE: 10/24/06
	CHECKED: RSF	DATE: 10/24/06
	APPROVED: RSF	DATE: -

SCALE: 1:12	SHEET: 8 OF 22	REV: -
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**INCOMPLETE DRAWING**

WEIGHT: 872 LBS

1

FILE: MAPPER



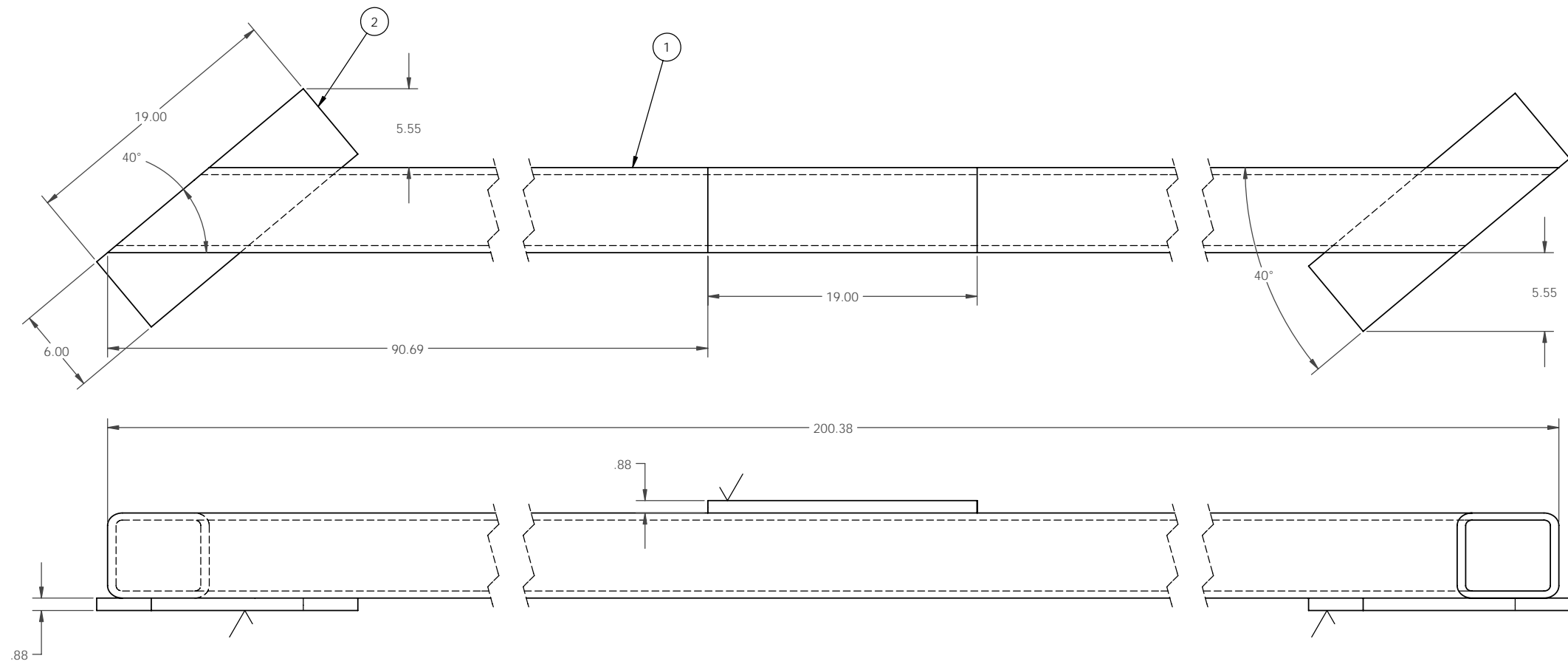
4

3

2

1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



6 NAME: MAIN FRAME DIAG LOWER  
 QTY: 1  
 MAT'L: WELDMNT  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: -  
 WEIGHT: 654

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	1	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	200.38	570
2	3	CRS	.88 x 6.00	19.00	28

NOTE: DO NOT SCALE DRAWING !  
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DIMENSIONS ARE IN:  
 ☒ INCHES [mm] ☐ mm [IN]

x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE: 1:5 SHEET 9 OF 22

WEIGHT: 654 LBS

DWG NO: D061024

FILE: MAPPER

**INCOMPLETE DRAWING**

4

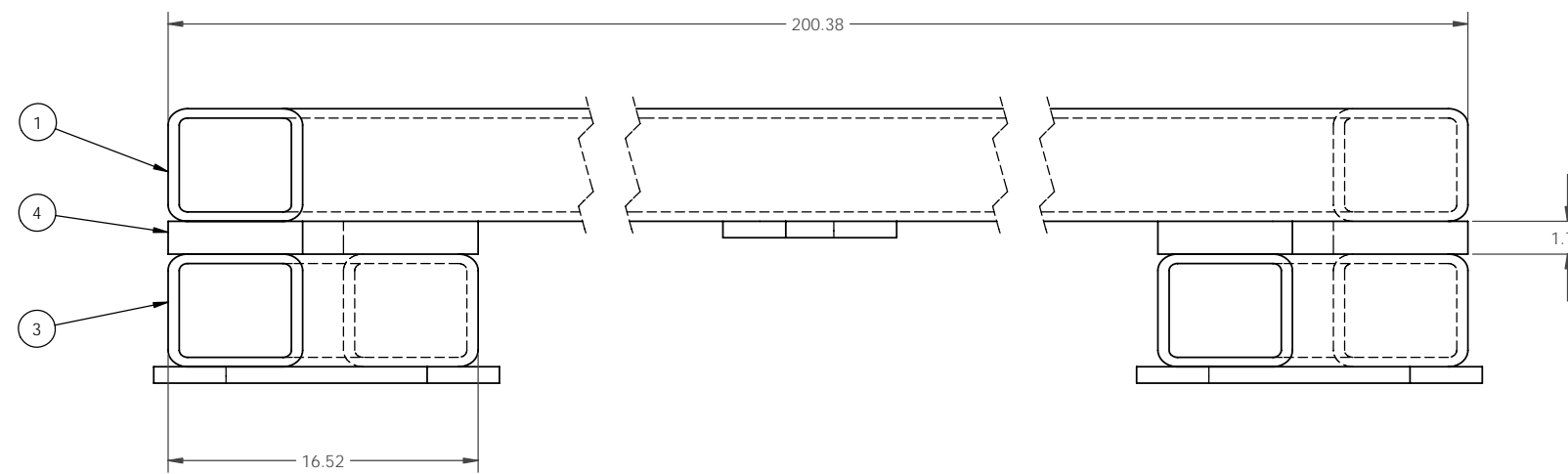
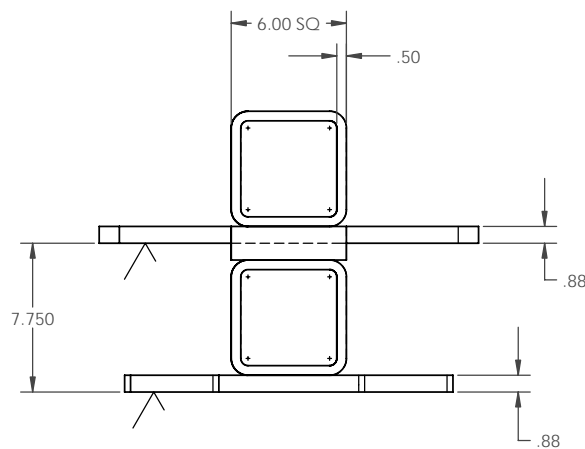
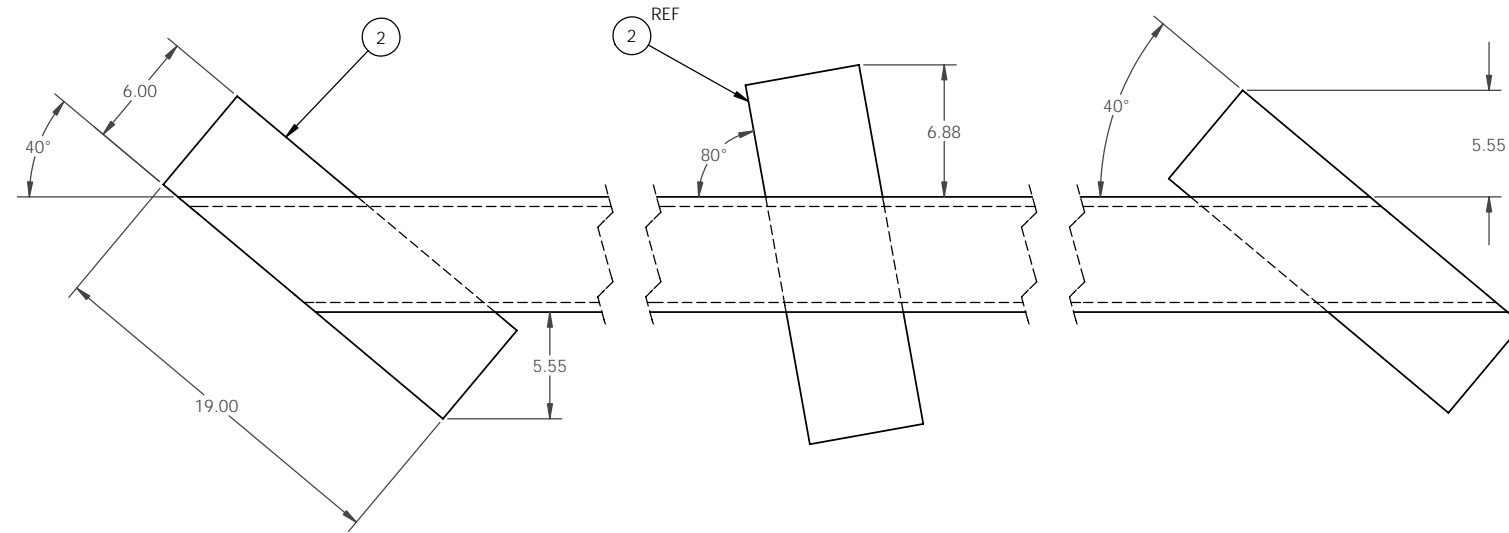
3

2

1

FILE: MAPPER

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



7 NAME: MAIN FRAME DIAG UPPER  
 QTY: 1  
 MAT'L: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TY: -  
 WEIGHT: 764

ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	1	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	200.38	570
2	3	CRS	.88 x 6.00	19.00	28
3	2	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	16.52	28
4	2	CRS	1.75 x 6.00	16.52	28

NOTE: DO NOT SCALE DRAWING !  
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 DIMENSIONS ARE IN:  
 ☒ INCHES [mm] ☐ mm [IN]  
 x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

UNIVERSITY OF ROCHESTER  
 DEPT. OF PHYSICS AND ASTRONOMY  
 SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

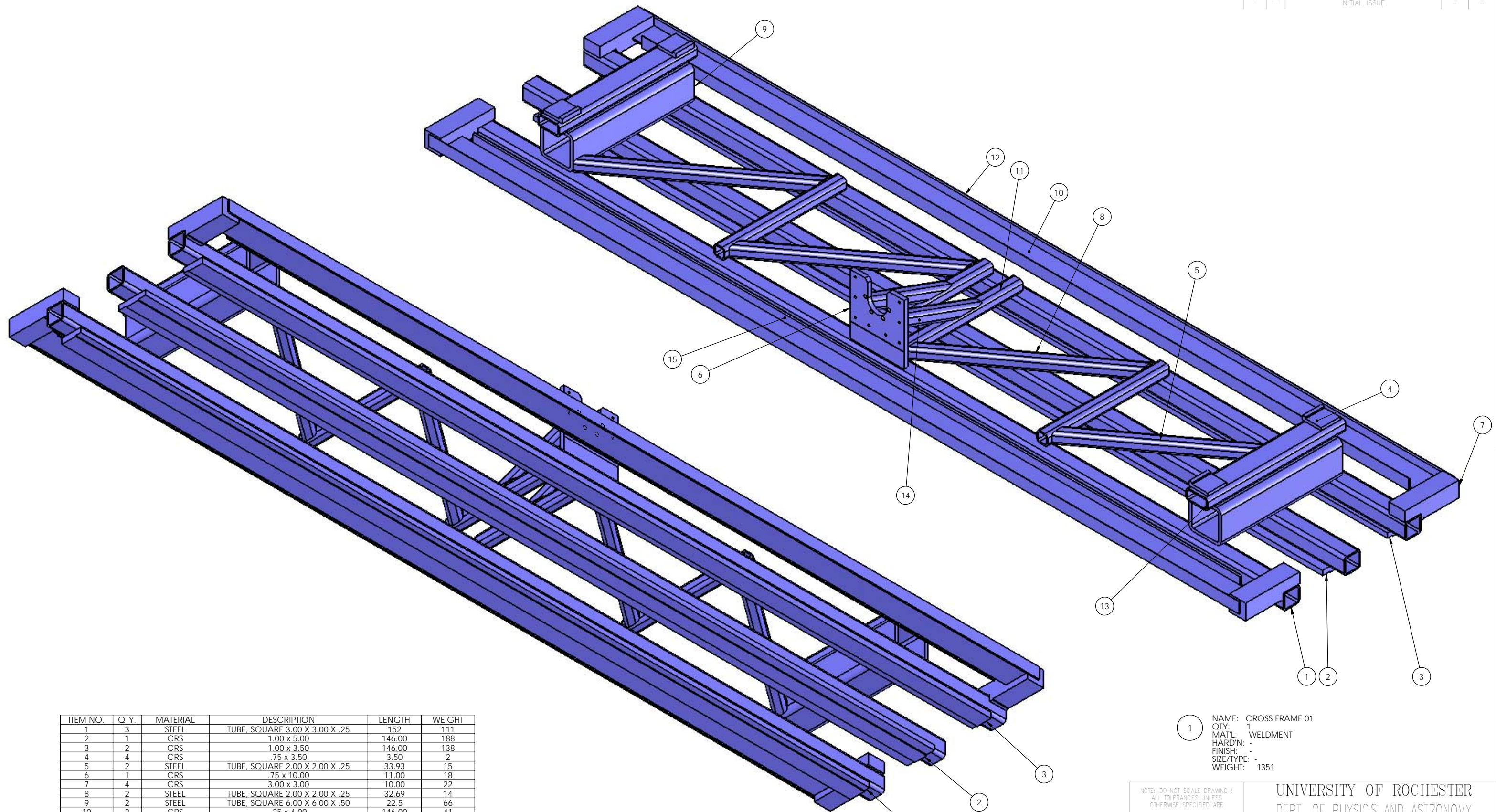
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SCALE	1:5	SHEET	10 OF 22	REV	-
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**INCOMPLETE DRAWING**



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



ITEM NO.	QTY.	MATERIAL	DESCRIPTION	LENGTH	WEIGHT
1	3	STEEL	TUBE, SQUARE 3.00 X 3.00 X .25	152	111
2	1	CRS	1.00 x 5.00	146.00	188
3	2	CRS	1.00 x 3.50	146.00	138
4	4	CRS	.75 x 3.50	3.50	2
5	2	STEEL	TUBE, SQUARE 2.00 X 2.00 X .25	33.93	15
6	1	CRS	.75 x 10.00	11.00	18
7	4	CRS	3.00 x 3.00	10.00	22
8	2	STEEL	TUBE, SQUARE 2.00 X 2.00 X .25	32.69	14
9	2	STEEL	TUBE, SQUARE 6.00 X 6.00 X .50	22.5	66
10	2	CRS	.25 x 4.00	146.00	41
11	4	STEEL	TUBE, SQUARE 2.00 X 2.00 X .25	22.5	10
12	2	CRS	.25 x 2.00	150.00	20
13	2	STEEL	TUBE, RECTANGULAR 4.00 X 2.00 X .25	25.5	19
14	2	STEEL	TUBE, SQUARE 2.00 X 2.00 X .25	16.27	6
15	2	CRS	.25 x 2.00	142.00	19

1 NAME: CROSS FRAME 01  
 QTY: 1  
 MAT'L: WELDMENT  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPER: -  
 WEIGHT: 1351

NOTE: DO NOT SCALE DRAWING!  
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE  
 DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]  
 x.xx [x] ± .010 [.3]  
 x.xxx [xxx] ± .005 [.13]  
 x.xxxx [xxxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE	1:6	SHEET	11 OF 22	REV	-
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**INCOMPLETE DRAWING**



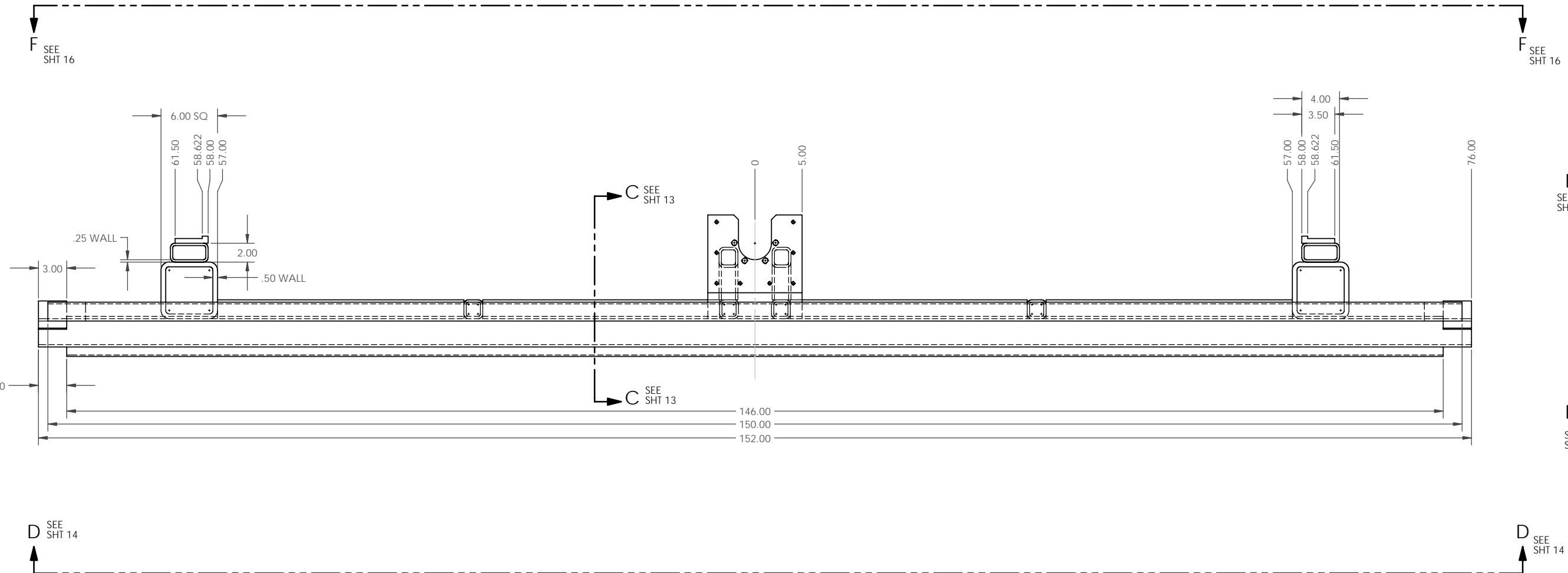
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



**INCOMPLETE DRAWING**

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DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]

x.xx [x,x]   ± .010 [.3]  
x.xxx [x,xx]   ± .005 [.13]  
x.xxxx [x,xxx]   ± .0005 [.013]  
xx/xx   ± 1/32  
x'   ± 1"

UNIVERSITY OF ROCHESTER DEPT. OF PHYSICS AND ASTRONOMY SIDNEY W. BARNES RESEARCH LABORATORY			
TITLE MINERVA MAPPER ASS'Y			
THIRD ANGLE PROJECTION	DRAWN RSF	DATE 10/24/06	
	CHECKED RSF	DATE 10/24/06	
	APPROVED RSF	DATE -	

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WEIGHT: 1351 LBS	SIZE DWG NO D061024	FILE: MAPPER		

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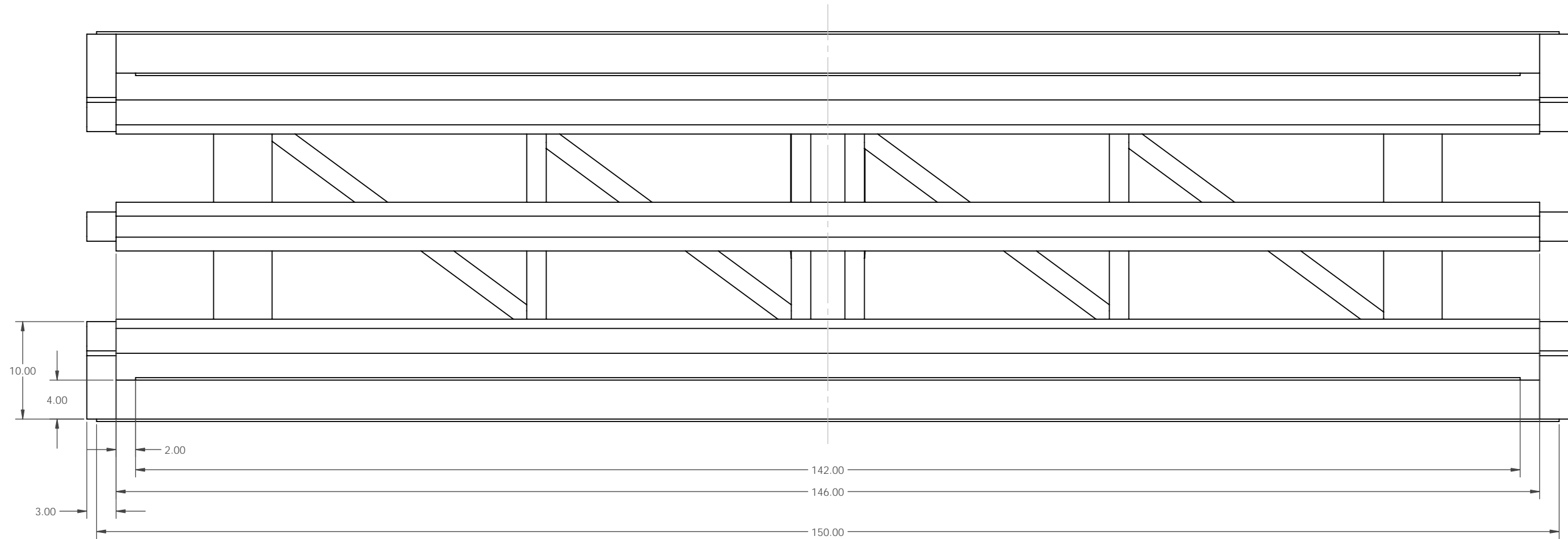
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



VIEW D-D  
FROM SHT 12

**INCOMPLETE DRAWING**

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DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]

x.xx [x.x]   ± .010 [.3]  
x.xxx [x.xxx]   ± .005 [.13]  
x.xxxx [x.xxxx]   ± .0005 [.013]  
xx/xx   ± 1/32  
x'   ± 1"

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DEPT. OF PHYSICS AND ASTRONOMY  
SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SIZE	DWG NO	REV
D	D061024	-
SCALE	1:6	SHEET 14 OF 22

WEIGHT: 1351 LBS      1      FILE: MAPPER



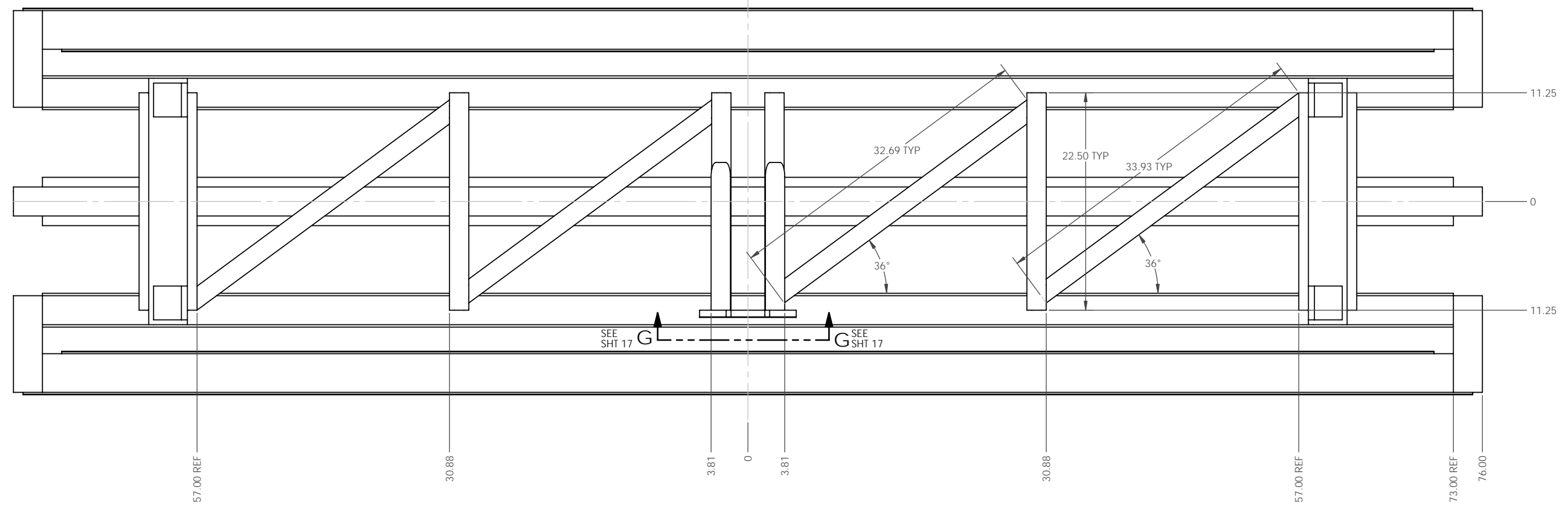
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



VIEW F-F  
FROM SHT 12

**INCOMPLETE DRAWING**

NOTE: DO NOT SCALE DRAWING !  
ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]

x.xx [x,x]   ± .010 [.3]  
x.xxx [x,xx]   ± .005 [.13]  
x.xxxx [x,xxx]   ± .0005 [.013]  
xx/xx   ± 1/32  
x'   ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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WEIGHT: 1351 LBS

SCALE: 1:6   SHEET: 16 OF 22

SIZE: D   DWG NO: D061024   REV: -

FILE: MAPPER

4

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2

1

B

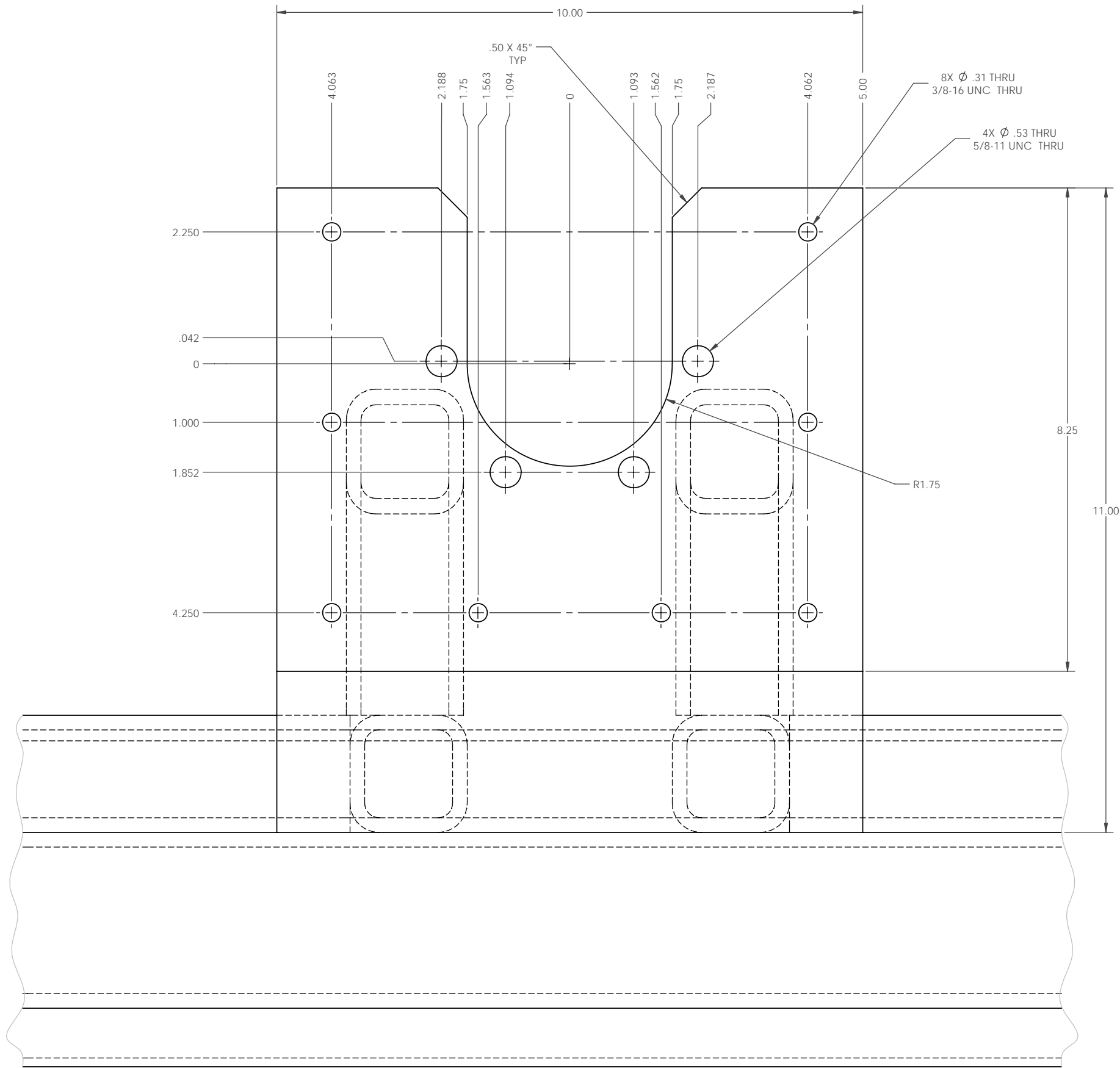
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A



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



VIEW G-G  
FROM SHT 16

**INCOMPLETE DRAWING**

NOTE: DO NOT SCALE DRAWING !  
ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:  
 INCHES [mm]    mm [IN]

x.xxx [x.x]   ± .010 [.3]  
x.xxxx [x.xxx]   ± .005 [.13]  
x.xxxxx [x.xxxx]   ± .0005 [.013]  
xx/xx   ± 1/32  
x'   ± 1"

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DEPT. OF PHYSICS AND ASTRONOMY  
SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: **MINERVA MAPPER ASS'Y**

THIRD ANGLE PROJECTION

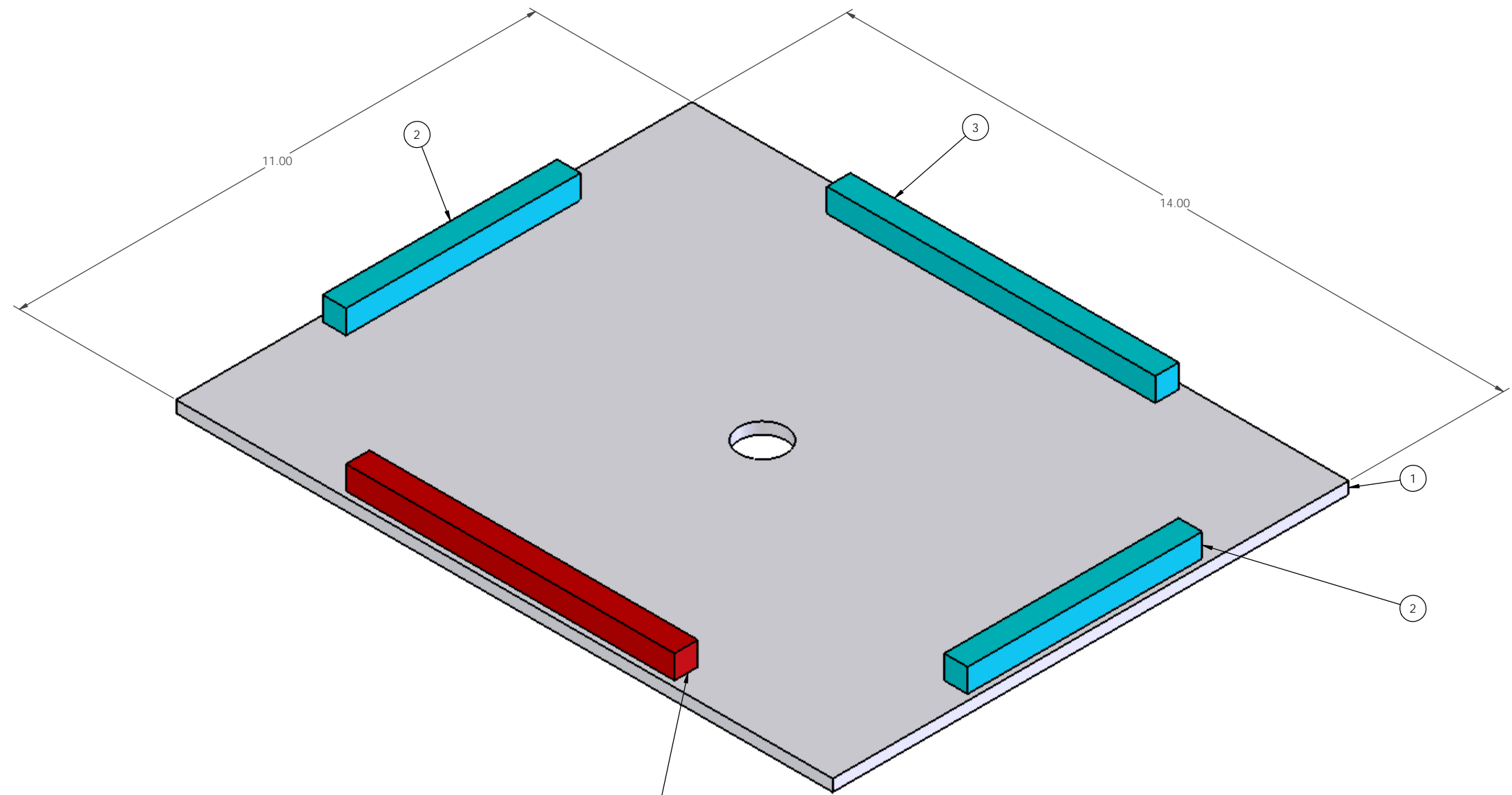
DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE: 1:1   SHEET: 17 OF 22

WEIGHT: 1351 LBS   **1**   FILE: MAPPER

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



5 NAME: SOURCE MTG PLT ASSY  
 QTY: 2  
 MAT'L: SEE CHART  
 HARD'N: -  
 FINISH: -  
 SIZE/TY: -  
 WEIGHT: -

Parts List							
ITEM NO.	QTY.	DET_SHT	ASSY_SHT	DESCRIPTION	MATERIAL	SIZE	WEIGHT
1	1	-	-	SOURCE MOUNTING PLATE	CRS	0.25 x 11.00 x 14.00	10.794
2	2	-	-	STIFFENER 01	CRS	.50 x .50 x 5.00	0.35
3	2	-	-	STIFFENER 02	CRS	.50 x .50 x 7.00	0.49

NOTE: DO NOT SCALE DRAWING!  
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 DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]  
 x.xxx [x,x] ± .010 [.3]  
 x.xxxx [x,xx] ± .005 [.13]  
 x.xxxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

**INCOMPLETE DRAWING**

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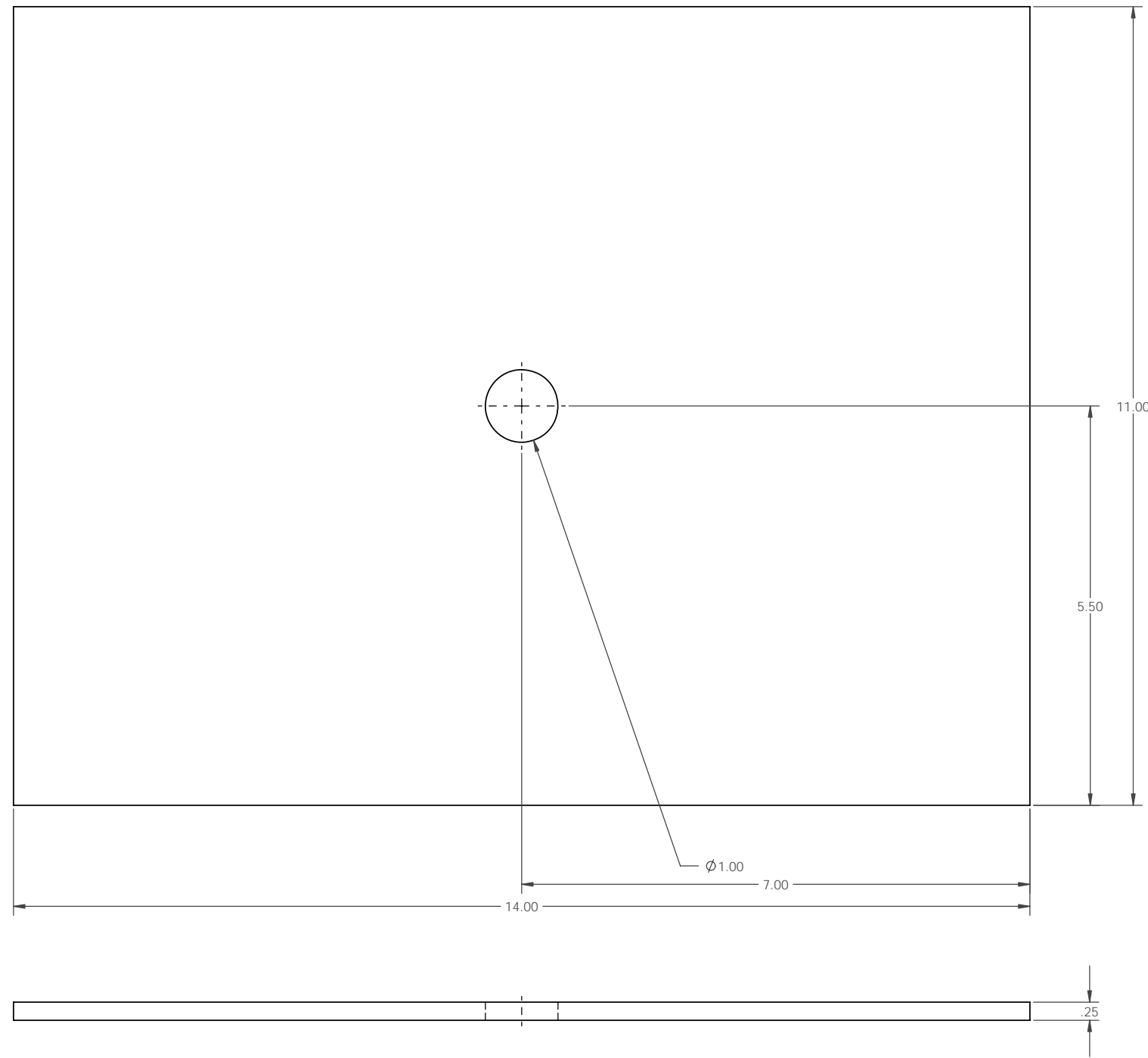
WEIGHT: 12 LBS

SCALE	1:1	SHEET	18 OF 22
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SIZE [DWG NO] D [D061024] REV -

1 FILE: MAPPER

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



1 NAME: SOURCE MTG PLT  
 QTY: 2  
 MAT'L: CRS  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: 0.25 x 11.00 x 14.00  
 WEIGHT: 11

NOTE: DO NOT SCALE DRAWING !  
 ALL TOLERANCES UNLESS  
 OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]

x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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TITLE: MINERVA MAPPER ASS'Y

THIRD ANGLE PROJECTION

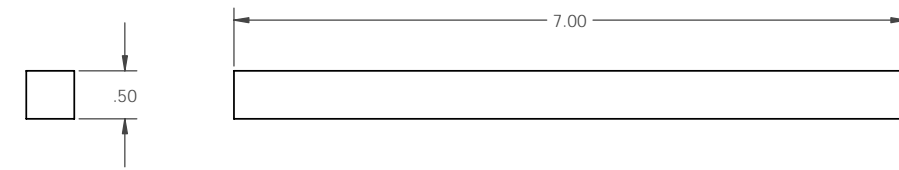
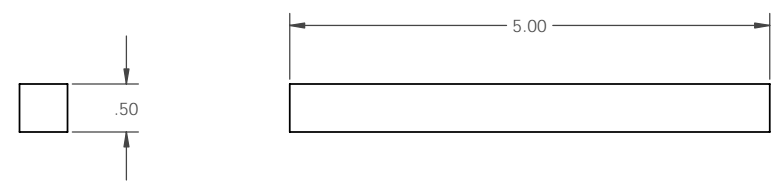
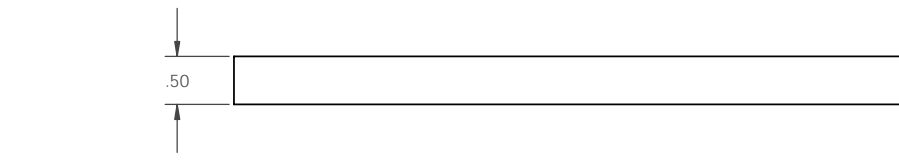
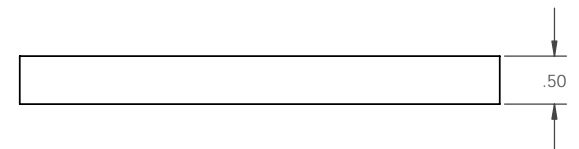
DRAWN	RSF	DATE	10/24/06
CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE	1:1	SHEET	19	OF	22
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**INCOMPLETE DRAWING**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



2 NAME: SOURCE PLT STIFFENER 01  
 QTY: 2  
 MAT'L: CRS  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: .50 x .50 x 5.00  
 WEIGHT: 0.35

3 NAME: SOURCE PLT STIFFENER 02  
 QTY: 2  
 MAT'L: CRS  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: .50 x .50 x 7.00  
 WEIGHT: 0.49

**INCOMPLETE DRAWING**

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DIMENSIONS ARE IN:  
 INCHES [mm]  mm [IN]

x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [xxxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

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SCALE	1:1	SHEET	20 OF 22
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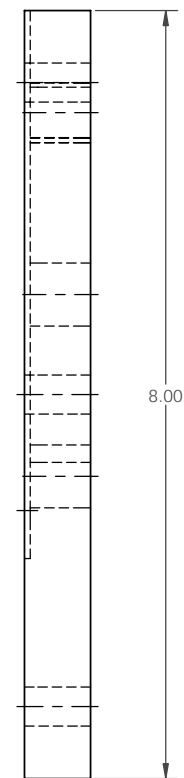
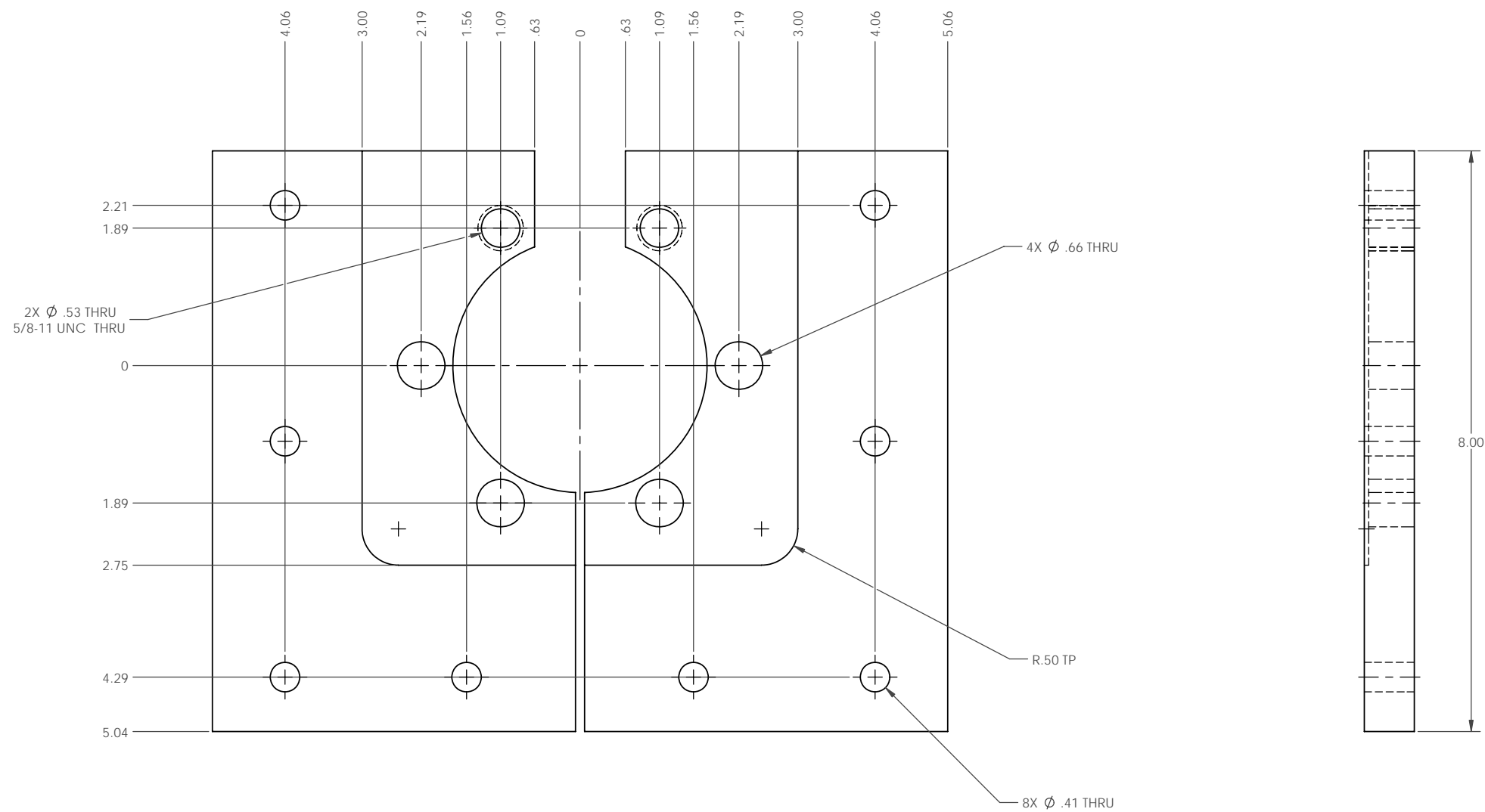
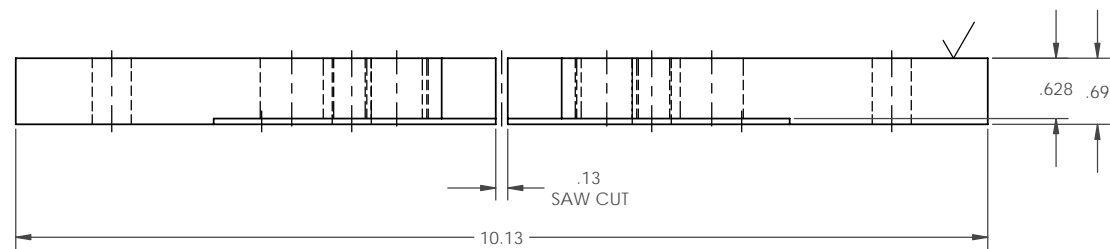
WEIGHT: 0.35 LBS

DWG NO: D061024

FILE: MAPPER



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



7 NAME: LONG BALL NUT MOUNTING PLATE  
 QTY: 1  
 MAT'L: CRS  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: .69 x 8.00 x 10.13  
 WEIGHT: 13

CAN BE MADE AS 2 PIECES  
 OR AS 1 PIECE AND CUT INTO 2 PEICES

NOTE: DO NOT SCALE DRAWING !  
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 INCHES [mm]  mm [IN]

x.xxx [x.x] ± .010 [.3]  
 x.xxxx [x.xxx] ± .005 [.13]  
 x.xxxxx [x.xxxx] ± .0005 [.013]  
 xx/xx ± 1/32  
 x' ± 1"

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CHECKED	RSF	DATE	10/24/06
APPROVED	RSF	DATE	-

SCALE: 1:1 SHEET 21 OF 22

WEIGHT: 13 LBS

1 FILE: MAPPER

**INCOMPLETE DRAWING**

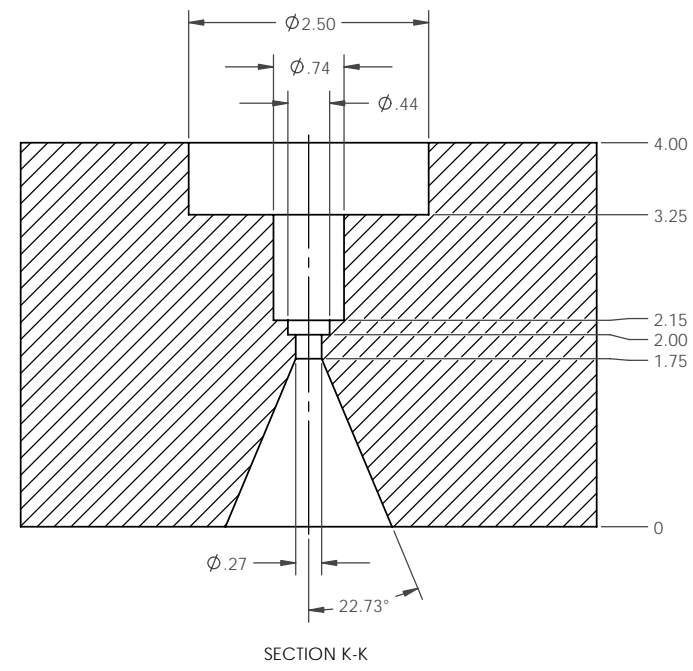
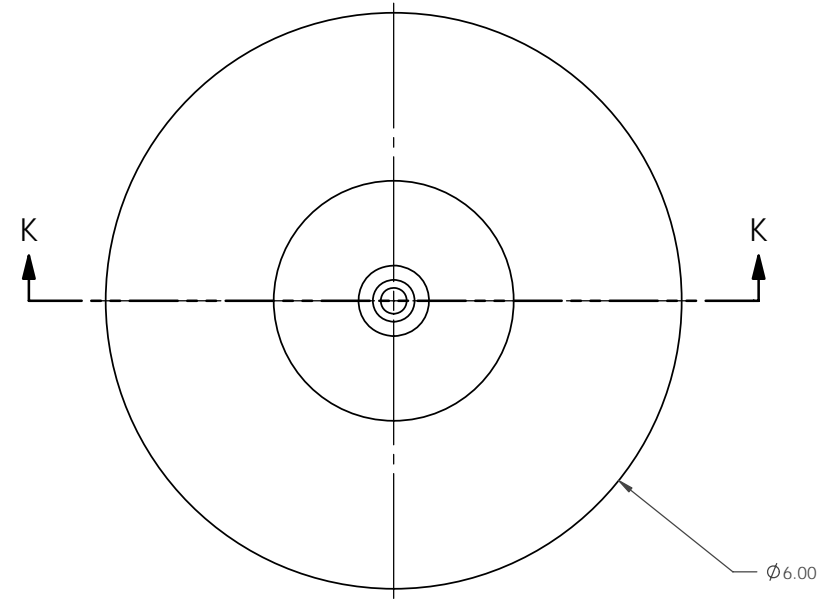
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



6 NAME: SOURCE CONTAINER  
 QTY: 2  
 MAT'L: LEAD  
 HARD'N: -  
 FINISH: -  
 SIZE/TYPE: 6.00 DIA x 4.00 LG  
 WEIGHT: 43

NOTE: DO NOT SCALE DRAWING!  
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 INCHES [mm]  mm [IN]

x.xx [x,x] ± .010 [.3]  
 x.xxx [x,xx] ± .005 [.13]  
 x.xxxx [x,xxx] ± .0005 [.013]  
 xx/xx ± 1/32  
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SCALE	1:1	SHEET	22 OF 22	REV	-
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