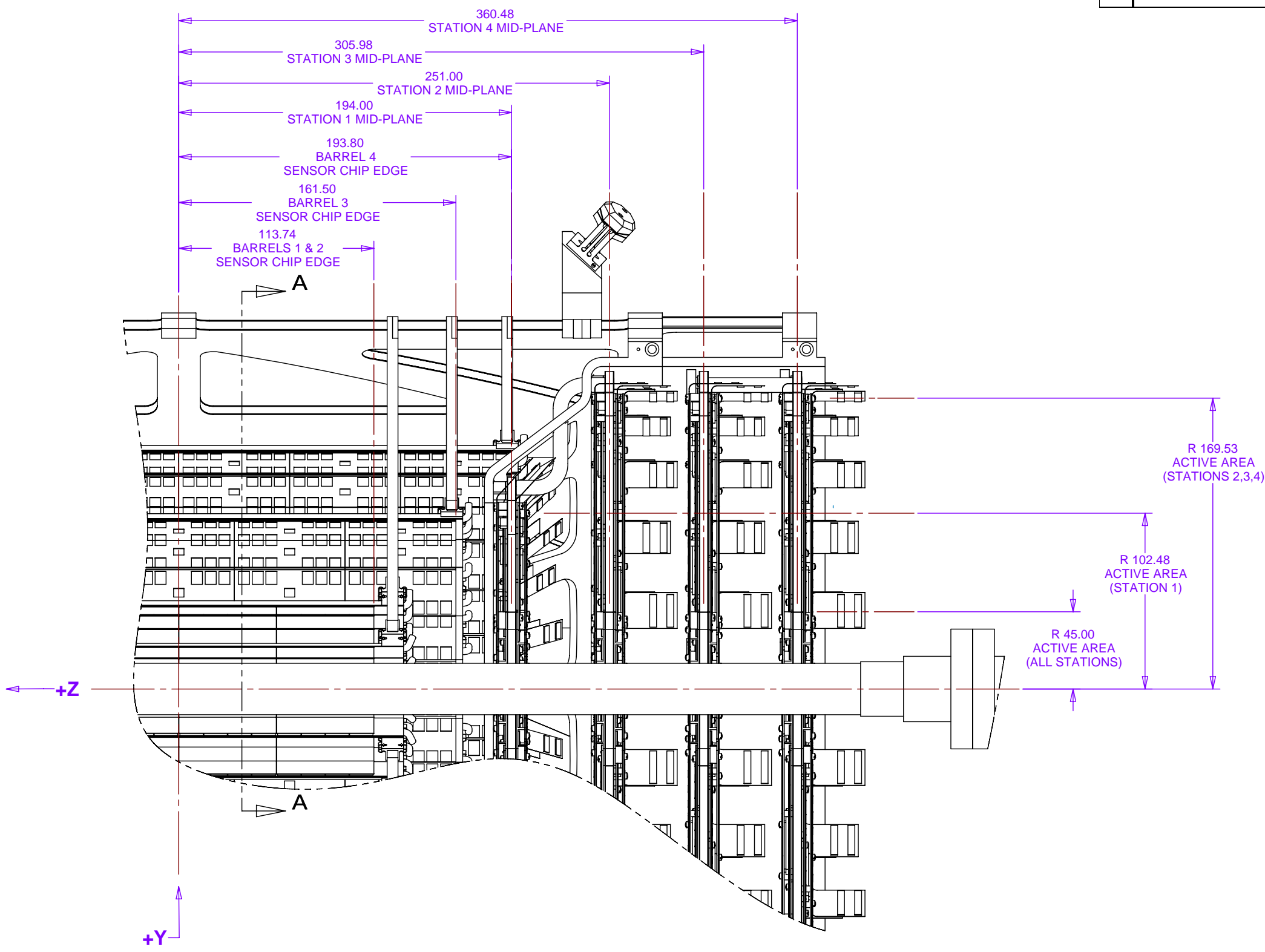


8 7 6 5 4 3 2 1

		REVISIONS	
REV	DESCRIPTION	DATE	APPROVED

D  
C  
B  
A

D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
-TOLERANCES-

DECIMALS      ANGULAR = +/- .30'  
 X = +/- .1  
 .XX = +/- .01  
 .XXX = +/- .001      SURFACE FINISH = 250

FINISH

PART NO.  
111-PHX-01-1001-1

CAD GENERATED DRAWING.  
DO NOT MANUALLY UPDATE  
DO NOT SCALE DRAWING

	SIGNATURE	DATE
Designer	Roger L. Smith	4/9/2007
Drawn	Roger L. Smith	4/9/2007
Checked		
Engineer	Eric Ponslet	4/9/2007
Approved		

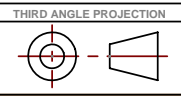
**HYTEC, INC**

TITLE  
**PHENIX CENTRAL UPGRADE  
SENSOR LOCATIONS**

DWG. NO.      SIZE      SHEET NO.  
111-PHX-01-1001      D      1 of 2

SCALE 3:4      REVISION

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



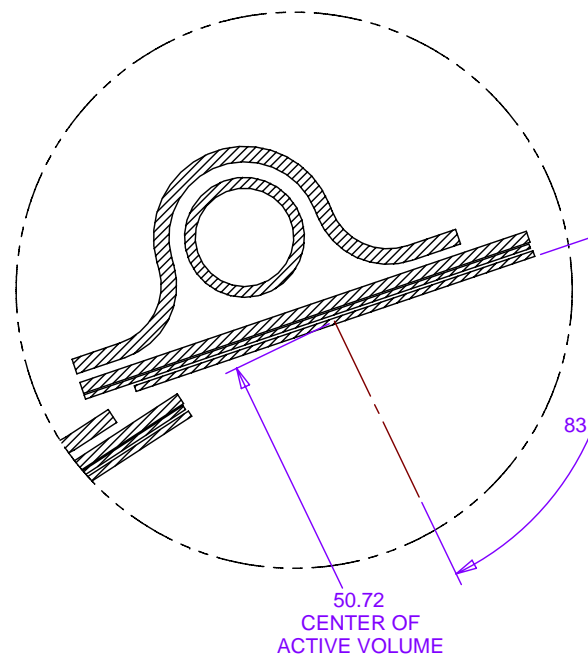
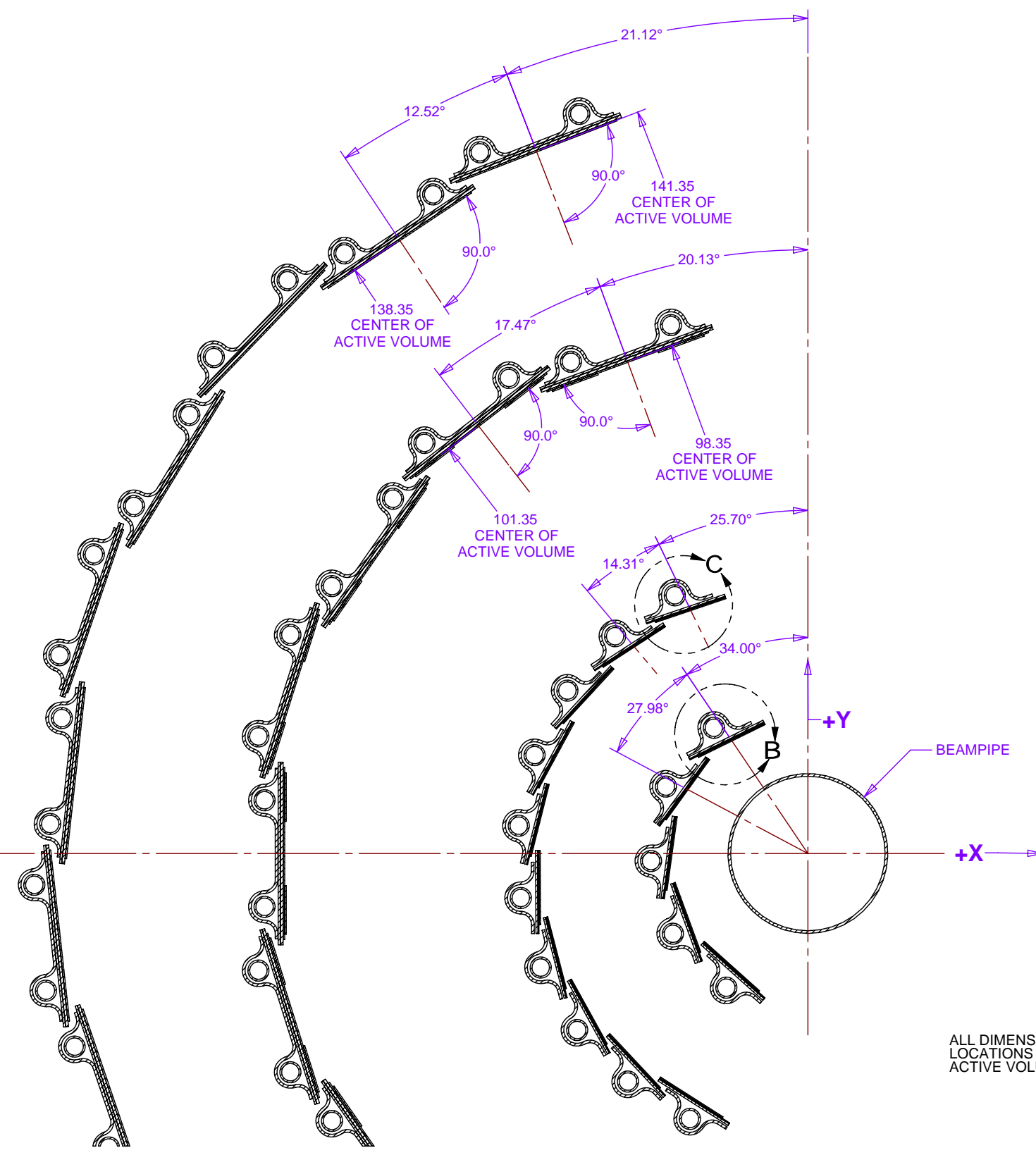
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

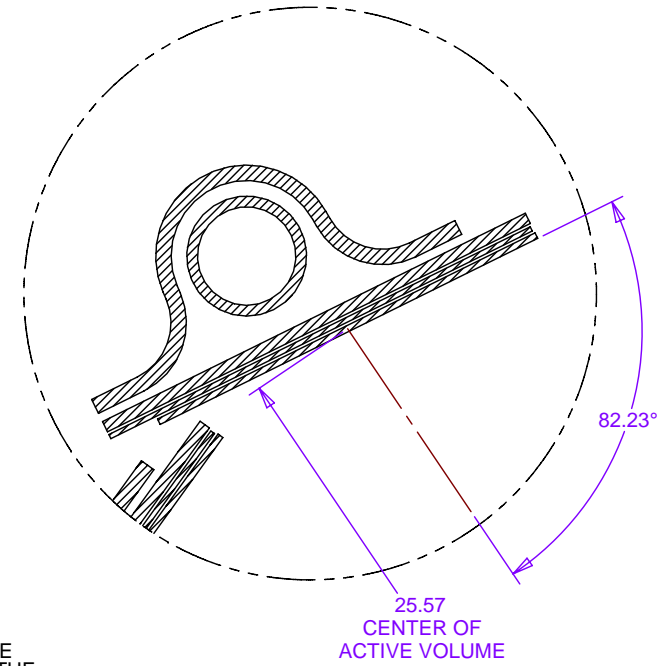
REVISIONS		DATE	APPROVED
REV	DESCRIPTION		

D  
C  
B  
A

D  
C  
B  
A



DETAIL C  
SCALE 8 : 1



DETAIL B  
SCALE 8 : 1

ALL DIMENSIONS ON THIS SHEET REFER TO THE LOCATIONS OF THE GEOMETRIC CENTERS OF THE ACTIVE VOLUME OF THE SENSORS

SECTION A-A  
SCALE 2 : 1

**PRELIMINARY  
NOT FOR  
PRODUCTION**

<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</small> DECIMALS X = +/- .1 .XX = +/- .01 .XXX = +/- .001 ANGULAR = +/- .30' SURFACE FINISH = 250	CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE SENSOR LOCATIONS</b>	
	FINISH PART NO. <b>111-PHX-01-1001-1</b>	SIGNATURE Designer: Roger L. Smith Drawn: Roger L. Smith Checked: Eric Ponslet Approved:	DATE 4/9/2007 4/9/2007 4/9/2007	DWG. NO. <b>111-PHX-01-1001</b>
THIRD ANGLE PROJECTION 		SCALE 3:4		REVISION

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC. REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY, IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

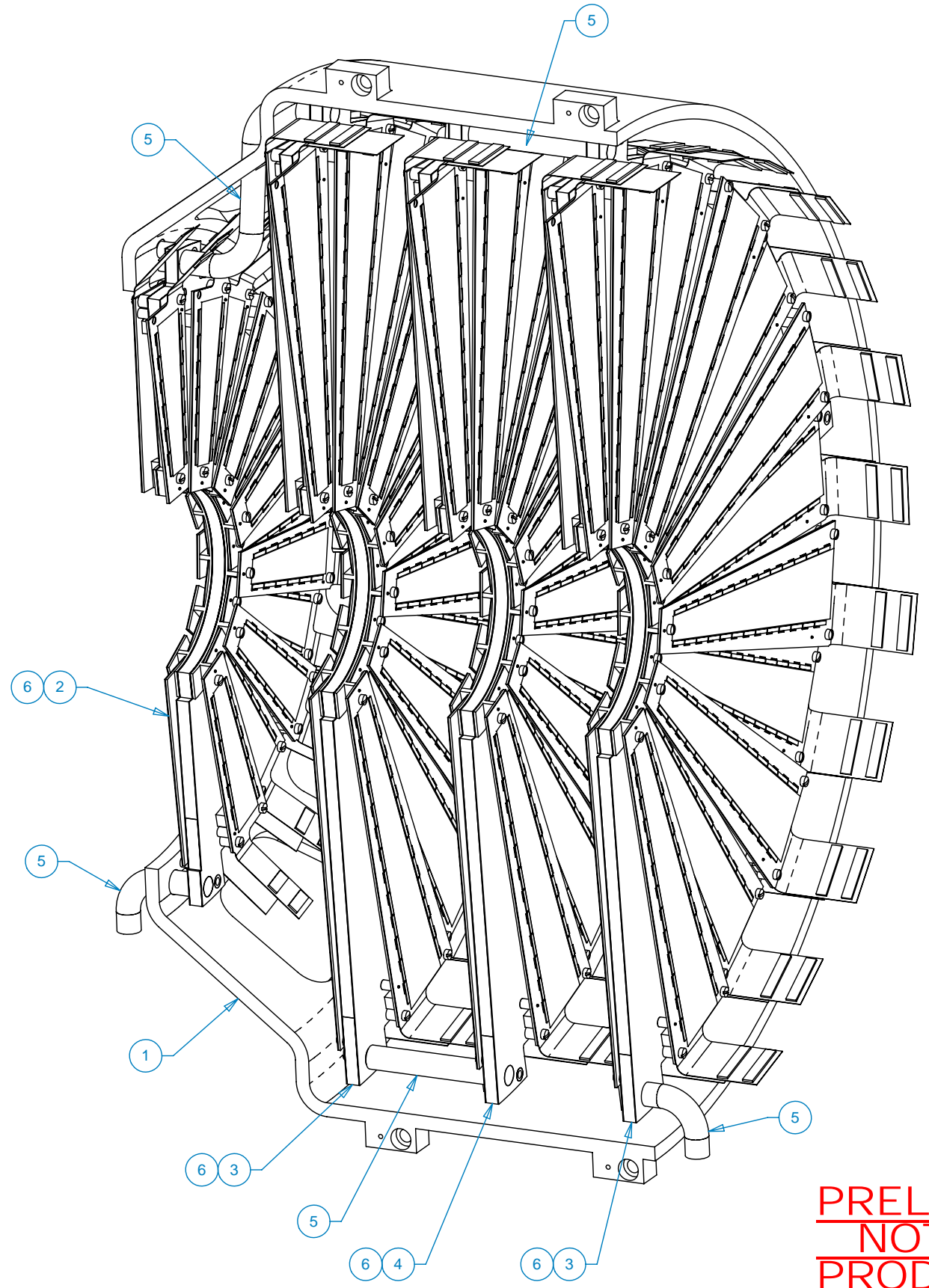
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	DATE	APPROVED

D  
C  
B  
A

D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	1	111-PHX-01-3010-1	Half Cage	
2	1	111-PHX-01-3012-1	Half Station 1 Assembly	
3	1	111-PHX-01-3009-1	Half Station 2 & 4 Assembly	
4	1	111-PHX-01-3009-3	Half Station 3 Assembly	
5	AR		Cooling Tubing	Silicone
6	12		Screw, #4-40 UNC-2B X .50 lg	Nylon

**PARTS LIST**

<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</small> DECIMALS X = +/- .1 .XX = +/- .01 .XXX = +/- .001 ANGULAR = +/- .30' SURFACE FINISH = 250	<b>CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING</b>		<b>HYTEC, INC</b>	
	<small>FINISH</small>		<small>SIGNATURE</small> Designer Roger L. Smith Drawn Roger L. Smith Checked Eric Ponslet Approved	<small>DATE</small> 4/10/2007 4/10/2007 4/10/2007
<small>THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC. REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY, IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.</small>		<small>THIRD ANGLE PROJECTION</small> 		<small>TITLE</small> <b>PHENIX CENTRAL UPGRADE FVTX HALF-ARM ASSEMBLY</b>
<small>PART NO.</small> <b>111-PHX-01-3000-1</b>		<small>DWG. NO.</small> <b>111-PHX-01-3000 D</b>	<small>SIZE</small> <b>D</b>	<small>SHEET NO.</small> <b>1 of 2</b>
<small>SCALE</small> 1:1		<small>REVISION</small>		

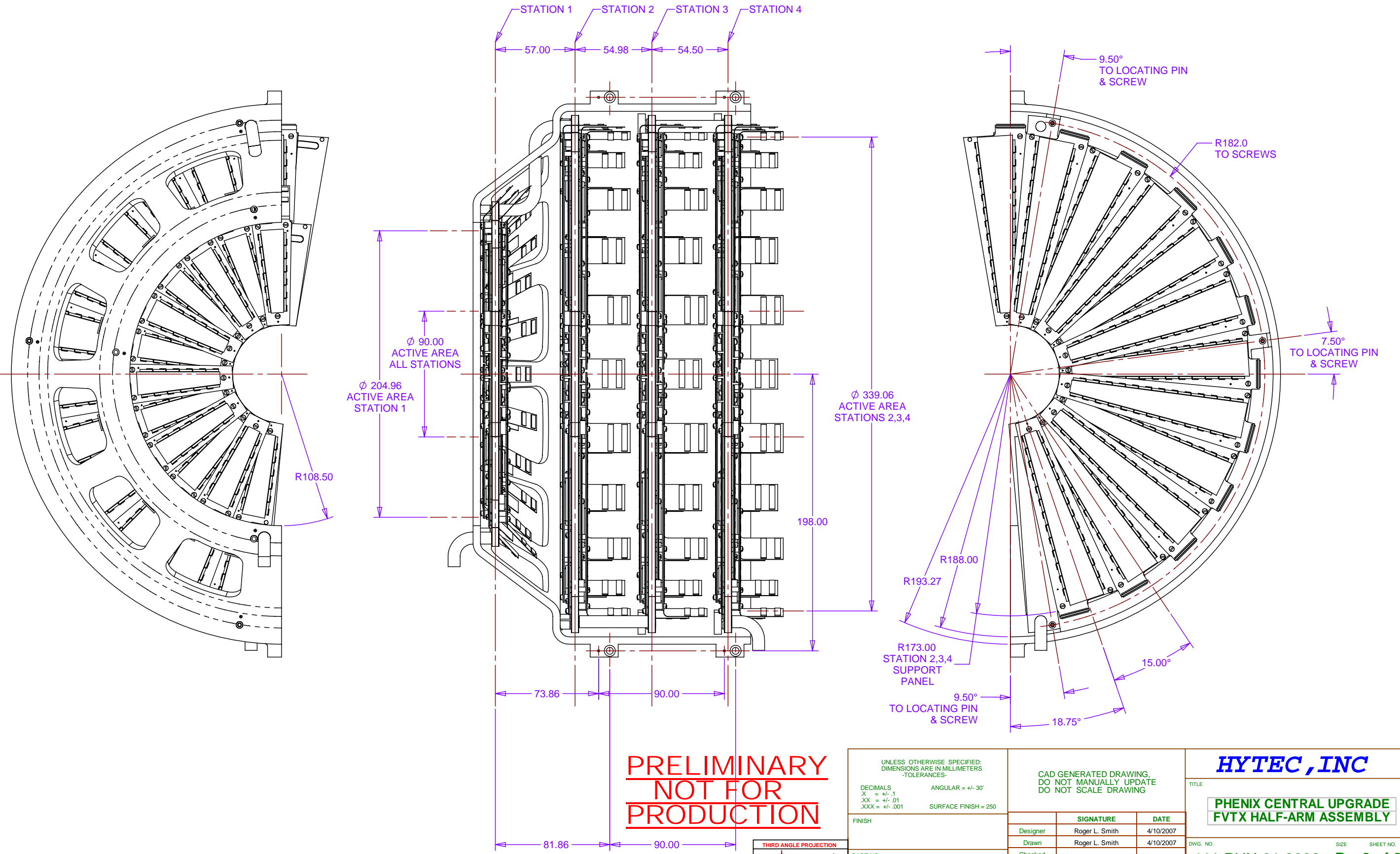
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	DATE	APPROVED

D  
C  
B  
A

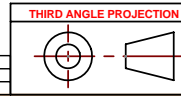
D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

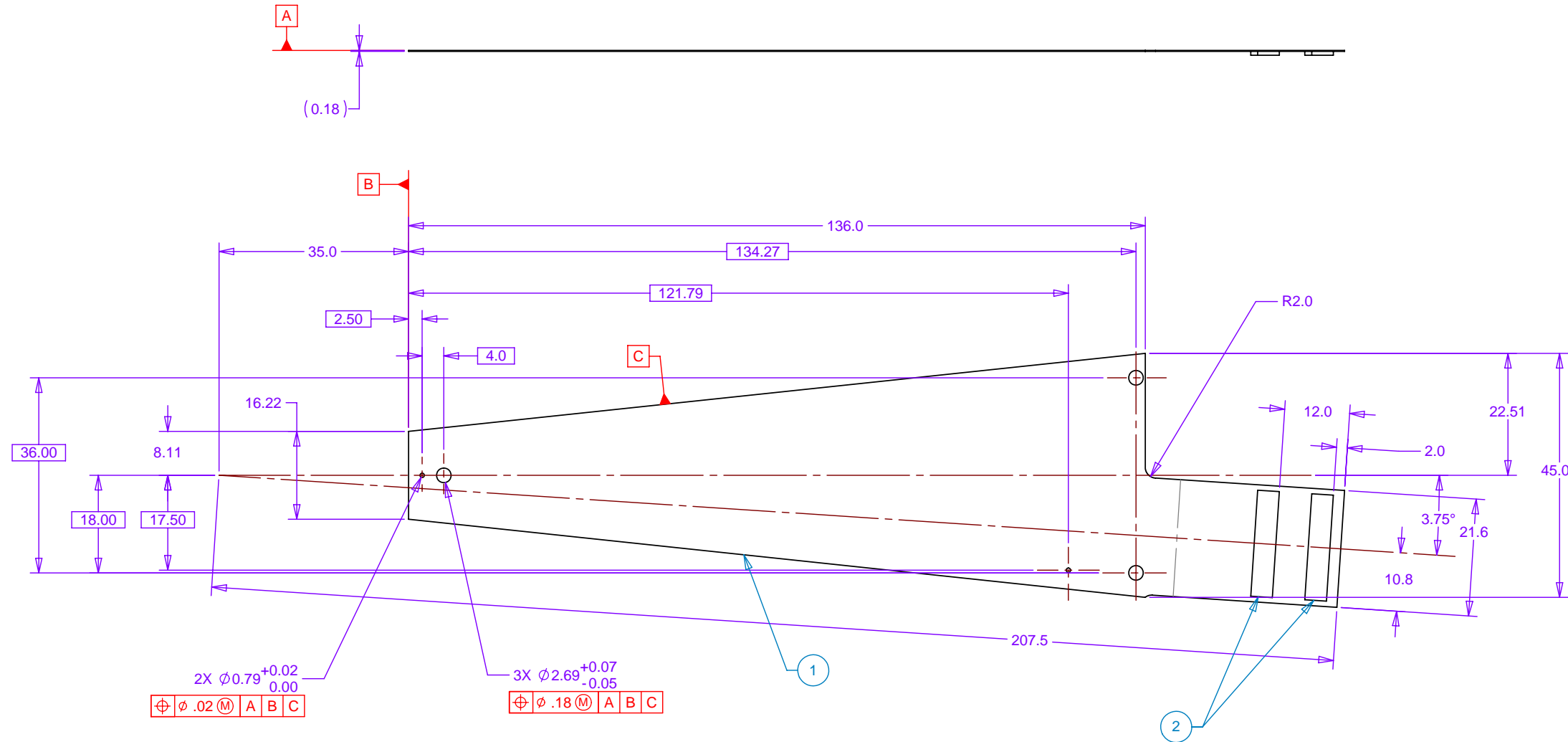
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES- DECIMALS X = +/- .1 XX = +/- .01 .XXX = +/- .001 ANGULAR = +/- .30° SURFACE FINISH = 250	CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE          FVTX HALF-ARM ASSEMBLY</b>	
	FINISH PART NO. <b>111-PHX-01-3000-1</b>	SIGNATURE Designer Roger L. Smith Drawn Roger L. Smith Checked Eric Ponslet Approved Eric Ponslet	DATE 4/10/2007 4/10/2007 4/10/2007	DWG. NO. <b>111-PHX-01-3000 D</b>
SCALE 3:4		REVISION		

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
 REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
 IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



8 7 6 5 4 3 2 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Revised & Redrawn	03/12/07	Eric Ponslet
B	Revised & Redrawn	03/21/07	Eric Ponslet
C	Revised & Redrawn	04/11/07	Eric Ponslet



2X  $\phi 0.79^{+0.02}_{0.00}$   $\phi .02 (M) A B C$

3X  $\phi 2.69^{+0.07}_{-0.05}$   $\phi .18 (M) A B C$

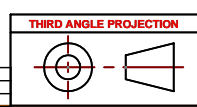
- NOTES: UNLESS OTHERWISE SPECIFIED
- ALL DIMENSIONS IN MILLIMETERS
  - DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
  - PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL LOOSE PARTICULATE.
  - PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.

**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	1			Multi Layer Kapton (Currently Unspecified)/Cu Laminate
2	2	DF18C-100DS-0.4V	Hirose Connector Receptacle	

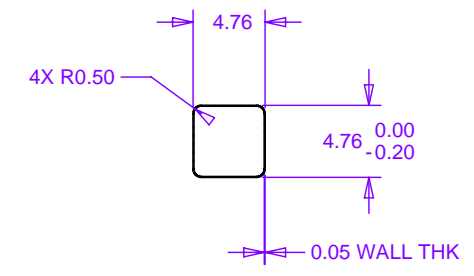
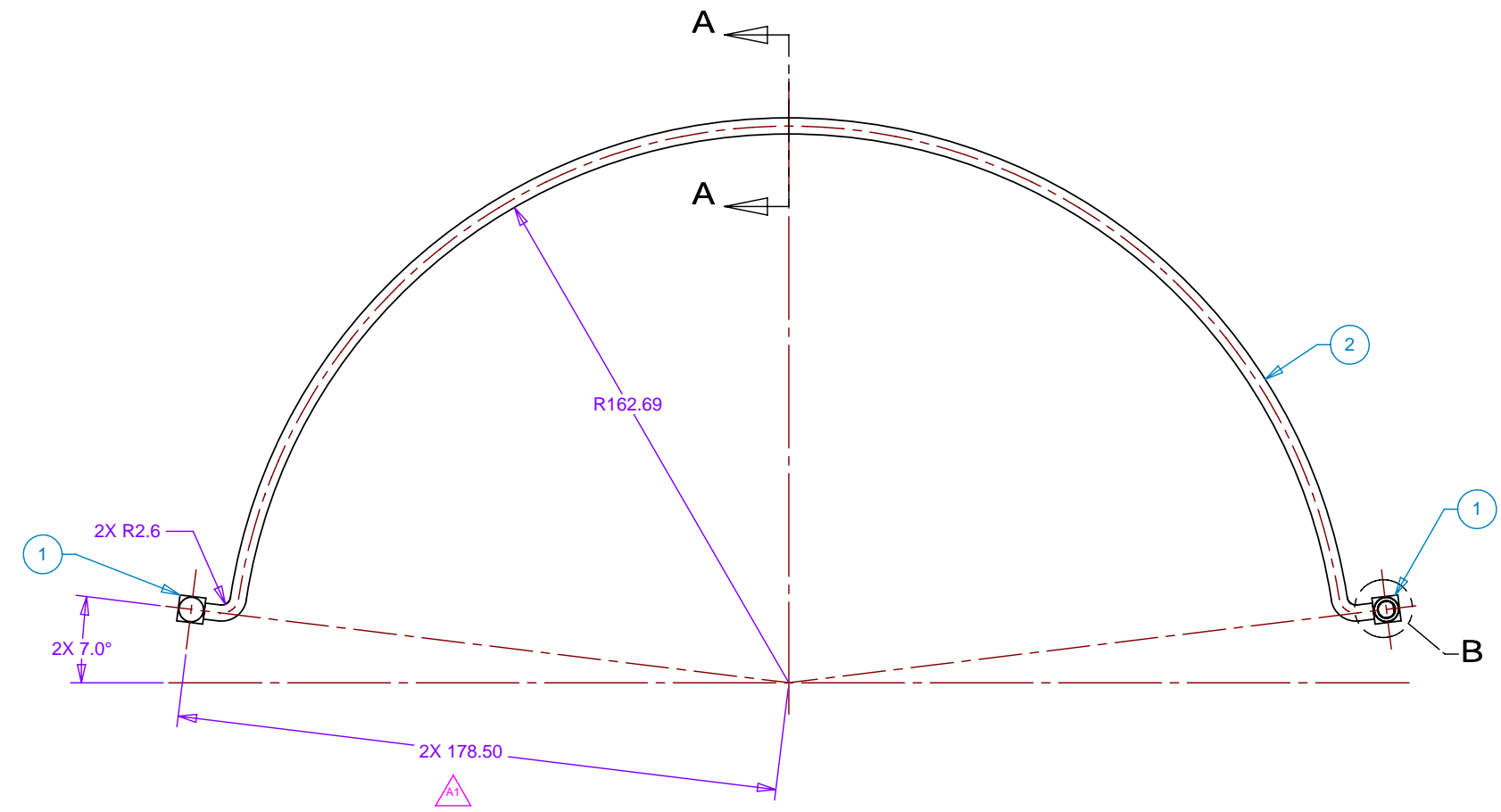
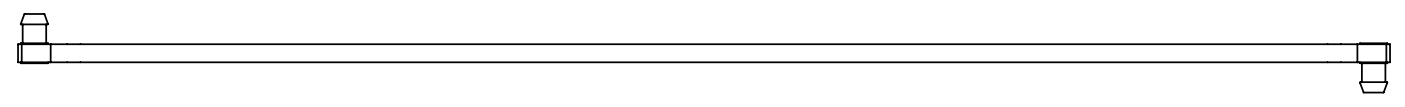
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE FVTX STATIONS 2,3,4 HDI OUTLINE</b>	
DECIMALS X = +/- .1 .XX = +/- .01 .XXX = +/- .001	ANGULAR = +/- .30° SURFACE FINISH = 250	FINISH			
PART NO. <b>111-PHX-01-3001-1</b>		DESIGNER	SIGNATURE	DATE	DWG. NO. <b>111-PHX-01-3001 D</b>
		Drawn	Roger L. Smith	2/14/2007	SIZE <b>D</b>
		Checked	Eric Ponslet	2/14/2007	SHEET NO. <b>1 of 1</b>
		Engineer	Eric Ponslet	2/14/2007	REVISION <b>C</b>
		Approved	Eric Ponslet	2/14/2007	SCALE <b>2:1</b>

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

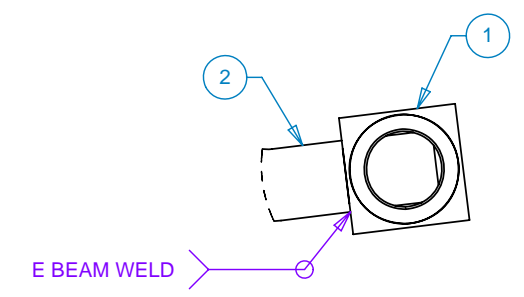


8 7 6 5 4 3 2 1

REVISIONS		DATE	APPROVED
REV	DESCRIPTION		
A1	178.50 was 178.25	03/30/07	Eric Ponslet



SECTION A-A  
SCALE 4:1



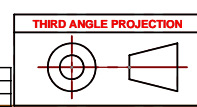
DETAIL B  
SCALE 4:1  
TYP 2X

NOTES: UNLESS OTHERWISE SPECIFIED

- DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
- REMOVE ALL BURRS AND BREAK SHARP EDGES
- PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
- PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.
- COMPLETE ASSEMBLY SHALL BE LEAK PROOF (TBD SPEC).

**PRELIMINARY  
NOT FOR  
PRODUCTION**

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	2	111-PHX-01-3005-1	Hose Barb	
2	AR		Tube	Nickel

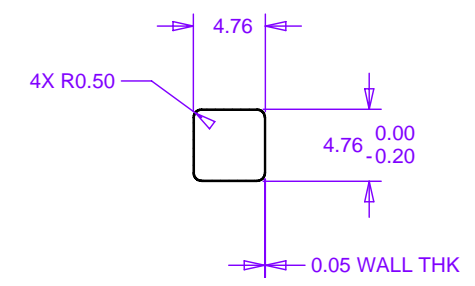
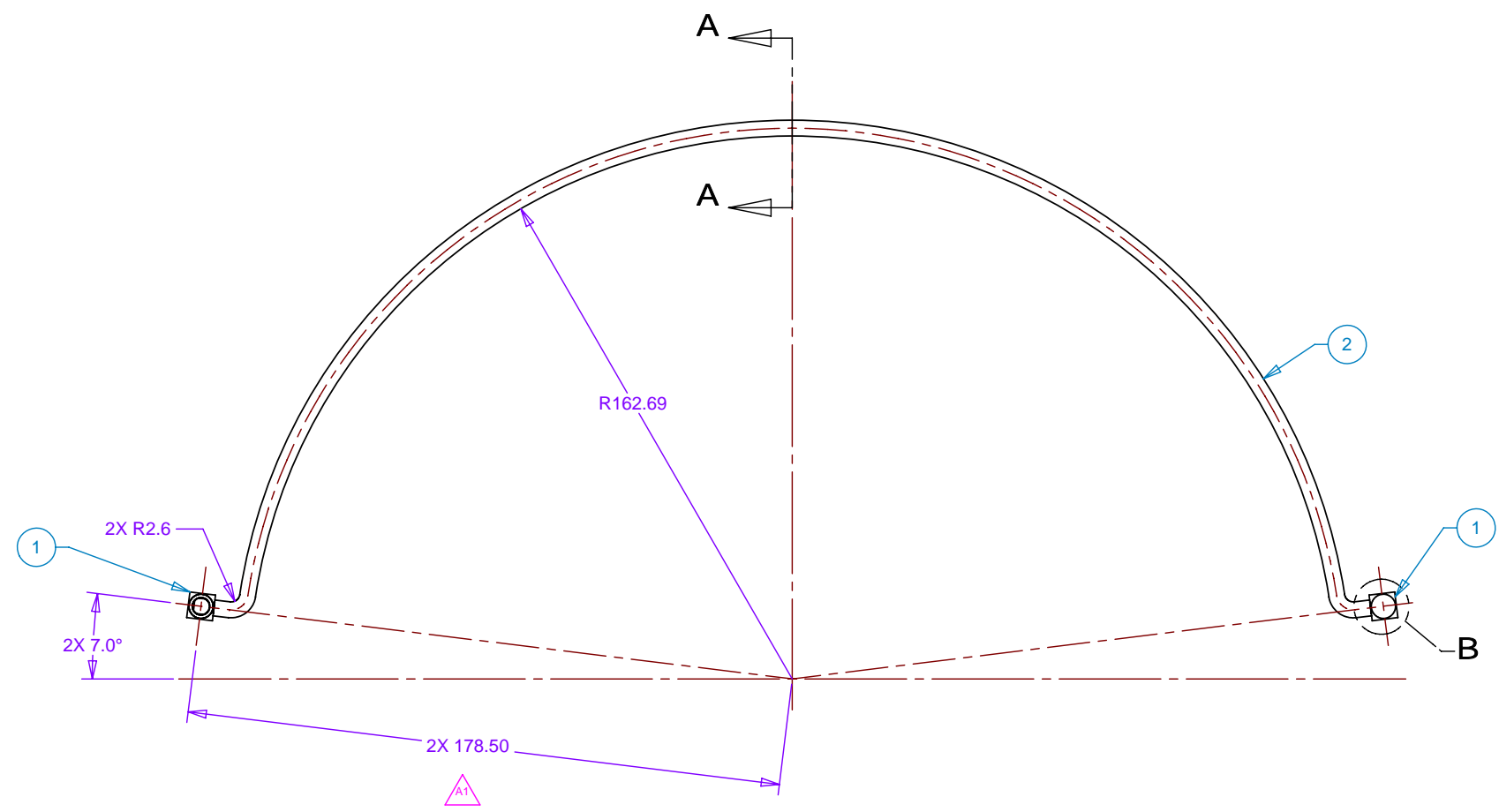
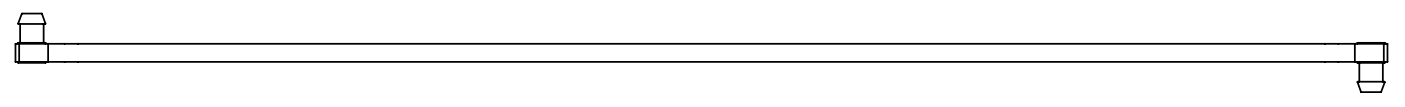
**PARTS LIST**

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</p> <p>DECIMALS      ANGULAR = +/- .30'</p> <p>.X = +/- .25      .XX = +/- .75      SURFACE FINISH = 250</p> <p>.XXX = +/- .250</p>	<p>CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING</p>		<p><b>HYTEC, INC</b></p>													
	<p>TITLE</p> <p align="center"><b>PHENIX CENTRAL UPGRADE FVTX STATIONS 2 &amp; 4 COOLING TUBE WELDMENT</b></p>		DWG. NO.	SIZE SHEET NO.												
<p>FINISH</p> <p>PART NO.</p> <p><b>111-PHX-01-3002-1</b></p>	<table border="1"> <thead> <tr> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>Designer Roger L. Smith</td> <td>2/26/2007</td> </tr> <tr> <td>Drawn Roger L. Smith</td> <td>2/26/2007</td> </tr> <tr> <td>Checked Eric Ponslet</td> <td>2/27/2007</td> </tr> <tr> <td>Engineer Eric Ponslet</td> <td>2/27/2007</td> </tr> <tr> <td>Approved Eric Ponslet</td> <td>2/27/2007</td> </tr> </tbody> </table>	SIGNATURE	DATE	Designer Roger L. Smith	2/26/2007	Drawn Roger L. Smith	2/26/2007	Checked Eric Ponslet	2/27/2007	Engineer Eric Ponslet	2/27/2007	Approved Eric Ponslet	2/27/2007	<p>SCALE 1:1</p>	<p>111-PHX-01-3002 D</p>	<p>1 of 1</p>
SIGNATURE	DATE															
Designer Roger L. Smith	2/26/2007															
Drawn Roger L. Smith	2/26/2007															
Checked Eric Ponslet	2/27/2007															
Engineer Eric Ponslet	2/27/2007															
Approved Eric Ponslet	2/27/2007															

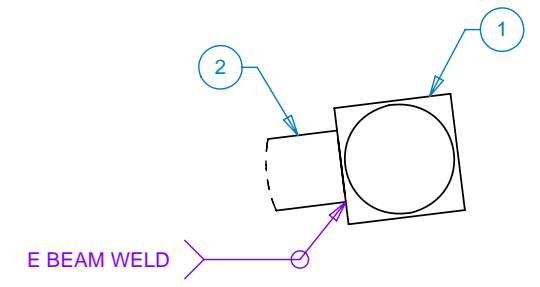
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REVISIONS		DATE	APPROVED
REV	DESCRIPTION		
A1	178.50 was 178.25	03/30/07	Eric Ponslet



SECTION A-A  
SCALE 4 : 1



DETAIL B  
SCALE 4 : 1  
TYP 2X

D

D

C

C

B

B

A

A

NOTES: UNLESS OTHERWISE SPECIFIED

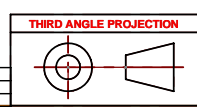
1	DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
2	REMOVE ALL BURRS AND BREAK SHARP EDGES
3	PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
4	PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.
5	COMPLETE ASSEMBLY SHALL BE LEAK PROOF (TBD SPEC).

**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	2	111-PHX-01-3005-1	Hose Barb	
2	AR		Tube	Nickel

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE FVTX STATION 3 COOLING TUBE WELDMENT</b>	
DECIMALS .X = +/- 2.5 .XX = +/- .75 .XXX = +/- .250	ANGULAR = +/- .30° SURFACE FINISH = 250	FINISH			
PART NO. <b>111-PHX-01-3003-1</b>		DESIGNER	ROGER L. SMITH	DATE	2/26/2007
		CHECKED	ERIC PONSET	DATE	2/27/2007
		ENGINEER	ERIC PONSET	DATE	2/27/2007
		APPROVED	ERIC PONSET	DATE	2/27/2007
DWG. NO. <b>111-PHX-01-3003 D</b>		SCALE	1:1	SHEET NO.	1 of 1
REVISION		A			

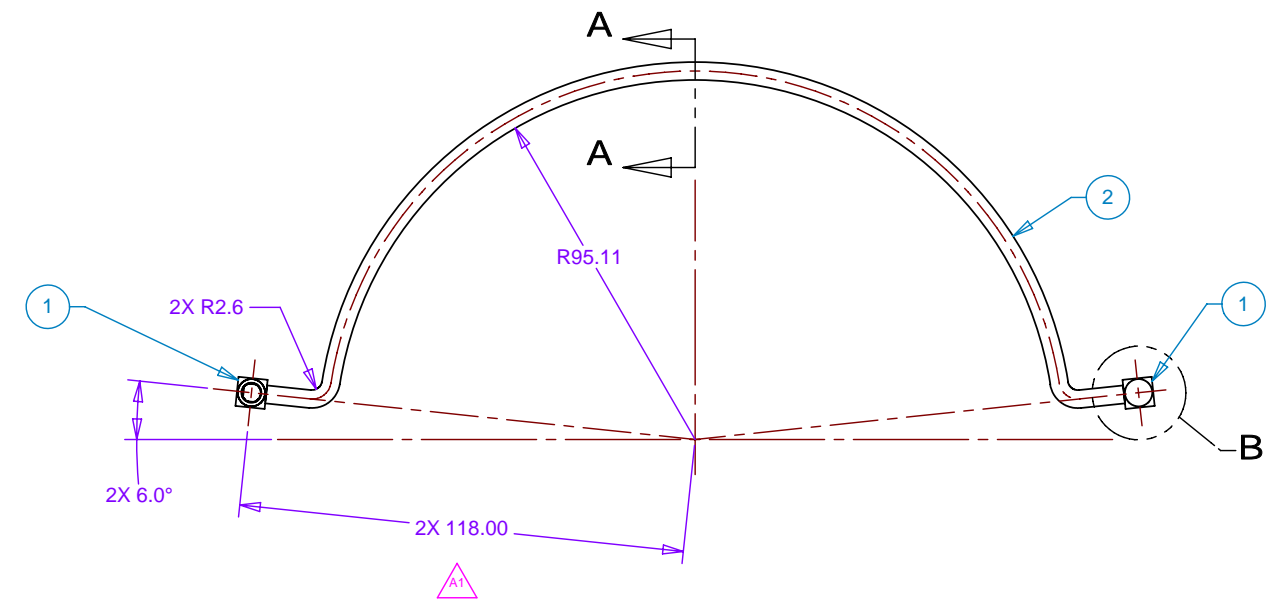
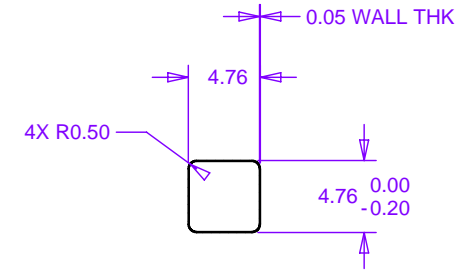
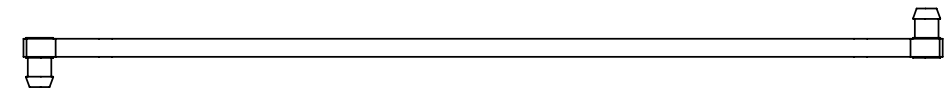
THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



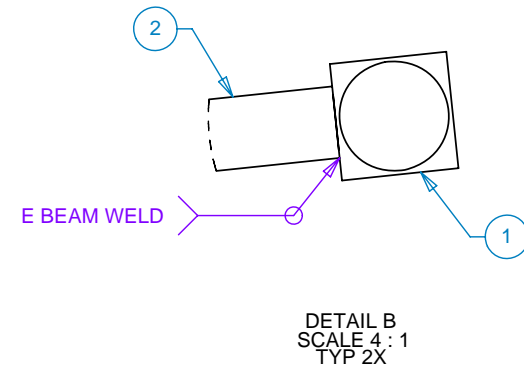
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	DATE	APPROVED
A1	118.00 was 104.50	03/30/07	Eric Ponslet



SECTION A-A  
SCALE 4:1



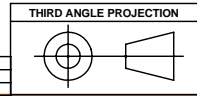
DETAIL B  
SCALE 4:1  
TYP 2X

NOTES: UNLESS OTHERWISE SPECIFIED

1	DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
2	REMOVE ALL BURRS AND BREAK SHARP EDGES
3	PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
4	PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.
5	COMPLETE ASSEMBLY SHALL BE LEAK PROOF (TBD SPEC).

**PRELIMINARY  
NOT FOR  
PRODUCTION**

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC. REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY, IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	2	111-PHX-01-3005-1	Hose Barb	
2	AR		Tube	Nickel

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE FVTX STATION 1 COOLING TUBE WELDMENT</b>	
DECIMALS .X = +/- 2.5 .XX = +/- .75 .XXX = +/- .250	ANGULAR = +/- .30' SURFACE FINISH = 250	SIGNATURE			
FINISH		Designer	Roger L. Smith	DATE	2/26/2007
PART NO. 111-PHX-01-3004-1		Drawn	Roger L. Smith	DATE	2/27/2007
		Checked	Eric Ponslet	DATE	2/27/2007
		Engineer	Eric Ponslet	DATE	2/27/2007
		Approved	Eric Ponslet	DATE	2/27/2007
		DWG. NO.	111-PHX-01-3004	SIZE	D
		SHEET NO.	1 of 1	REVISION	A

8 7 6 5 4 3 2 1

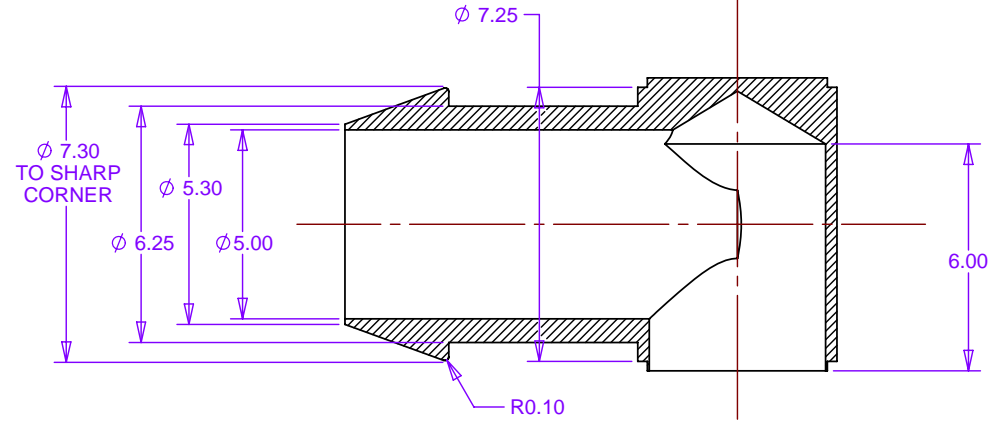
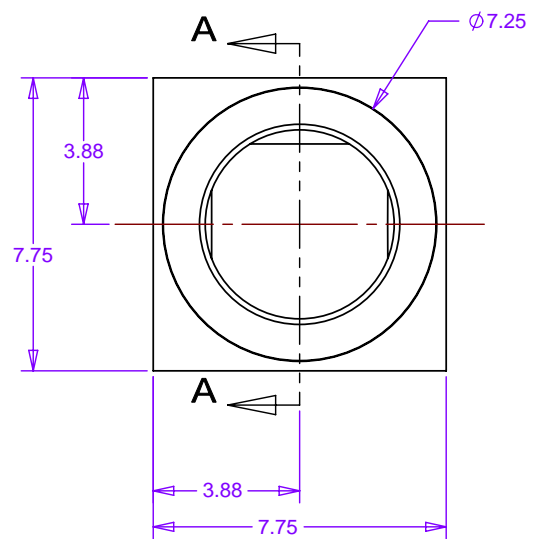


8 7 6 5 4 3 2 1

REVISIONS		DATE	APPROVED
REV	DESCRIPTION		

D

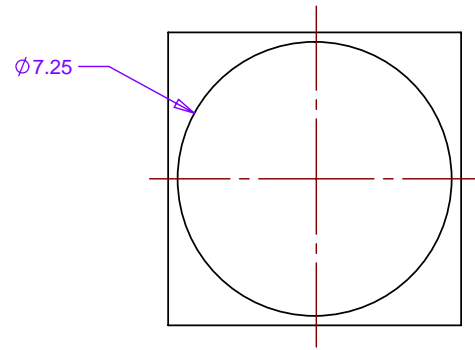
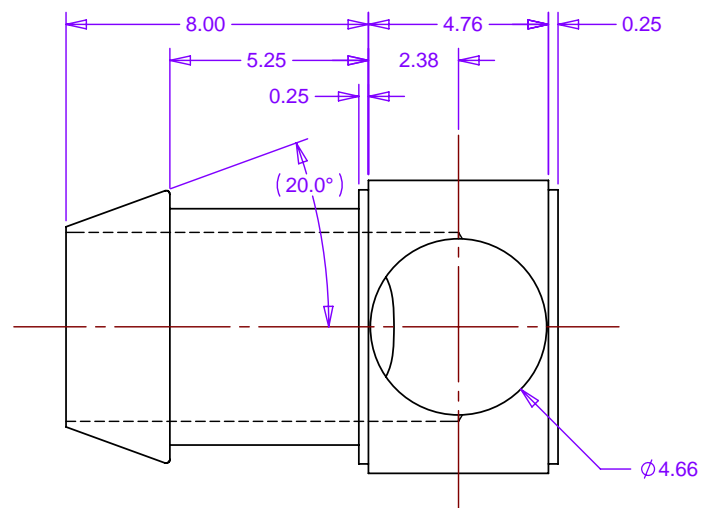
D



SECTION A-A  
SCALE 10:1

C

C



MATERIAL: Titanium Alloy

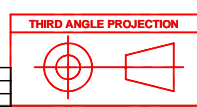
B

B

NOTES: UNLESS OTHERWISE SPECIFIED

- ALL DIMENSIONS IN MILLIMETERS
- DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
- PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL LOOSE PARTICULATE.
- REMOVE ALL BURRS AND BREAK SHARP EDGES TO A MAXIMUM OF .4
- ALL INSIDE CORNERS TO BE .4 RADIUS MAX
- COUNTERSINK 82 DEGREES ALL TAPPED HOLES TO MAJOR DIAMETER
- COUNTERSINK 82 DEGREES APPROXIMATELY .08/1.5 DEEP ALL DRILLED HOLES
- PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
- PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.

**PRELIMINARY  
NOT FOR  
PRODUCTION**



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-	CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b>	
	TITLE	PHENIX CENTRAL UPGRADE FVTX COOLING HOSE BARB		
DECIMALS .X = +/- .25 .XX = +/- .125 .XXX = +/- .0625	ANGULAR = +/- .30° SURFACE FINISH = 250	FINISH	SIGNATURE	DATE
			Roger L. Smith	2/26/2007
			Eric Ponslet	2/27/2007
			Eric Ponslet	2/27/2007
			Eric Ponslet	2/27/2007
PART NO. <b>111-PHX-01-3005-1</b>	DWG. NO. <b>111-PHX-01-3005 D</b>	SCALE 1:1	SIZE D	SHEET NO. <b>1 of 1</b>
			REVISION	

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

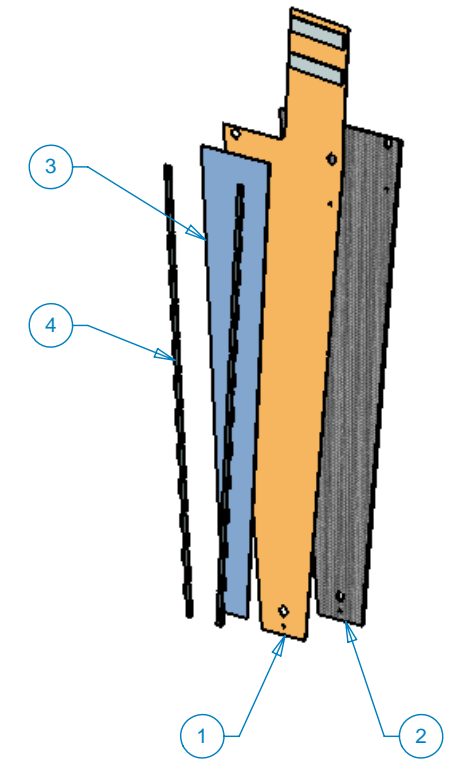
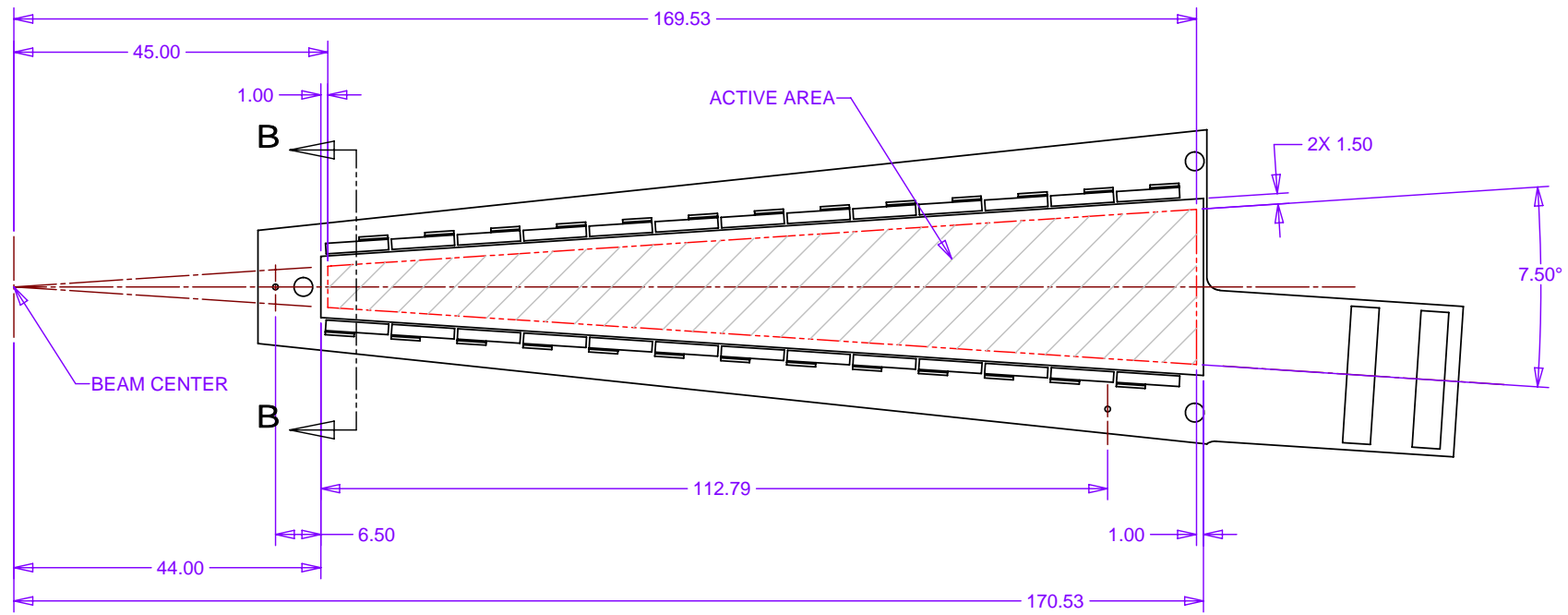
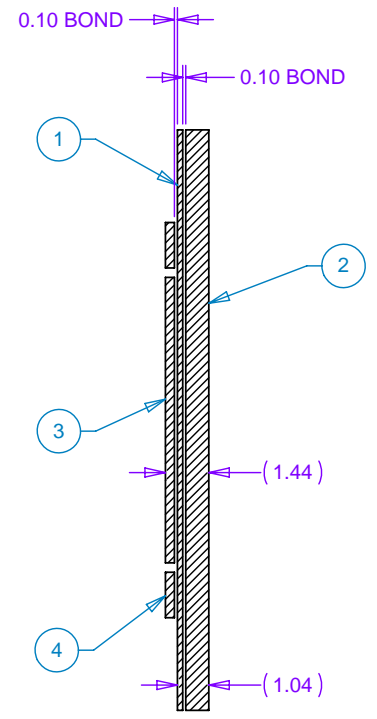
8 7 6 5 4 3 2 1

A

A

8 7 6 5 4 3 2 1

REV		DESCRIPTION		REVISIONS		DATE	APPROVED



D  
C  
B  
A

D  
C  
B  
A

**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	1	111-PHX-01-3001-1	HDI	
2	1	111-PHX-01-3007-1	Backplane	
3	1		Silicon Detector	
4	26		FPHX Chip	
5	AR		Adhesive	

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
-TOLERANCES-

DECIMALS      ANGULAR = +/- .30'  
 .X = +/- .25      .XX = +/- .75  
 .XX = +/- .75      .XXX = +/- .250      SURFACE FINISH = 250

FINISH

PART NO.  
**111-PHX-01-3006-1**

THIRD ANGLE PROJECTION

CAD GENERATED DRAWING.  
DO NOT MANUALLY UPDATE  
DO NOT SCALE DRAWING

**HYTEC, INC**

TITLE  
**PHENIX CENTRAL UPGRADE  
FVTX STATIONS 2,3,4  
SENSOR MODULE ASSEMBLY**

SIGNATURE	DATE
Designer Roger L. Smith	3/14/2007
Drawn Roger L. Smith	3/14/2007
Checked	
Engineer Eric Ponslet	3/14/2007
Approved	

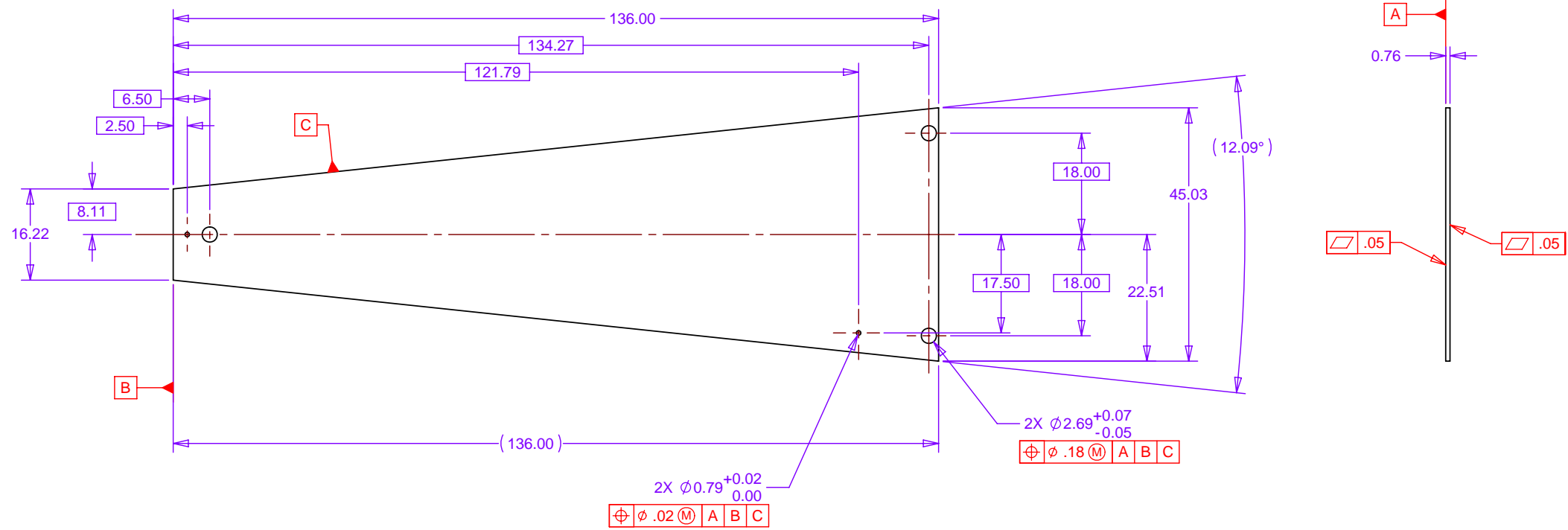
DWG. NO. **111-PHX-01-3006 D**      SIZE      SHEET NO. **1 of 1**

SCALE 2:1      REVISION

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

8 7 6 5 4 3 2 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Revised & Redrawn	04/03/07	Eric Ponslet



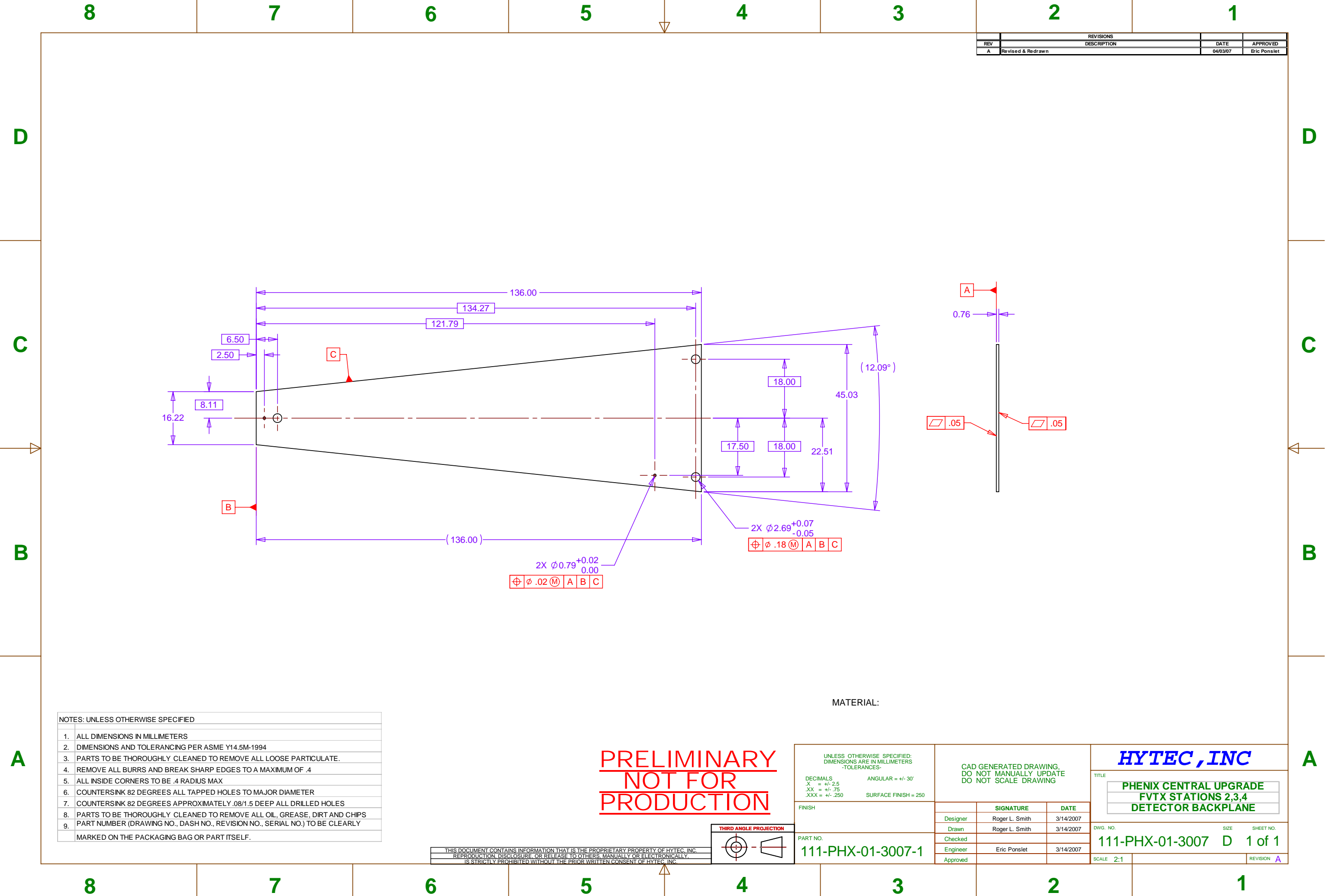
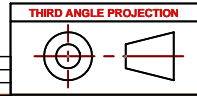
MATERIAL:

- NOTES: UNLESS OTHERWISE SPECIFIED
- ALL DIMENSIONS IN MILLIMETERS
  - DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
  - PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL LOOSE PARTICULATE.
  - REMOVE ALL BURRS AND BREAK SHARP EDGES TO A MAXIMUM OF .4
  - ALL INSIDE CORNERS TO BE .4 RADIUS MAX
  - COUNTERSINK 82 DEGREES ALL TAPPED HOLES TO MAJOR DIAMETER
  - COUNTERSINK 82 DEGREES APPROXIMATELY .08/1.5 DEEP ALL DRILLED HOLES
  - PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
  - PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.

**PRELIMINARY  
NOT FOR  
PRODUCTION**

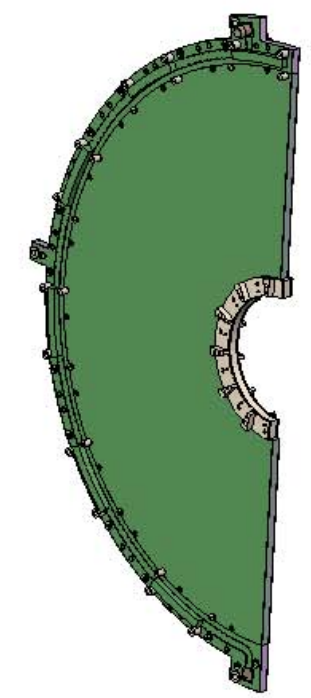
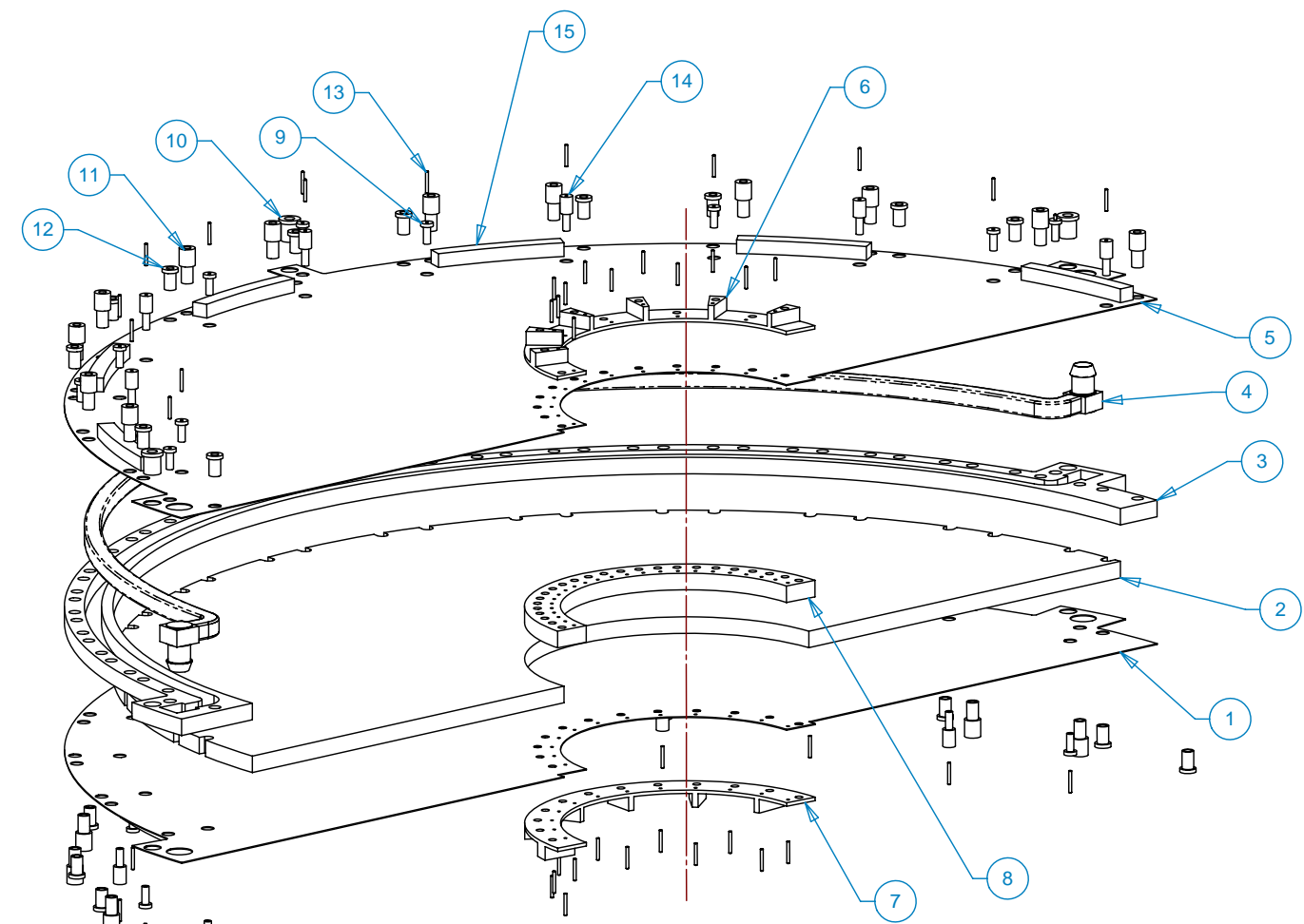
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES- DECIMALS      ANGULAR = +/- .30' .X = +/- .25 .XX = +/- .75 .XXX = +/- .250      SURFACE FINISH = 250	CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE          FVTX STATIONS 2,3,4          DETECTOR BACKPLANE</b>	
	FINISH PART NO. <b>111-PHX-01-3007-1</b>	DESIGNER Roger L. Smith	SIGNATURE 	DATE 3/14/2007
CHECKED Eric Ponslet	ENGINEER Eric Ponslet	DATE 3/14/2007	SCALE 2:1	SHEET NO. <b>1 of 1</b>
APPROVED 	REVISION <b>A</b>			

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
 REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
 IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



8 7 6 5 4 3 2 1

REV		DESCRIPTION		REVISIONS		DATE	APPROVED



- 1 Station 1
- 3 Stations 2 & 4 (Shown)
- 5 Station 3

**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	QTY	QTY	PART NO.	DESCRIPTION	MATERIAL
1	1	0	0		Face Sheet	GFRP M55J[0/45/-45/90]
2	1	0	0		Honeycomb Core	HEXCELL CRIII 3/16-5052-.0007
3	1	0	0		Foam Core	
4	0	1	0	111-PHX-01-3002-1	Cooling Tube Weldment	
	0	0	1	111-PHX-01-3003-1		
	1	0	0	111-PHX-01-3004-1		
5	1	0	0		Face Sheet	GFRP M55J[0/45/-45/90]
6	1	1	1		IR Standoff 1	Carbon-Carbon
7	1	1	1		IR Standoff 2	Carbon-Carbon
8	1	1	1		IR Core Insert	Carbon-Carbon
9					Shallow Pin Insert	Carbon-Carbon
10					Panel Mount Insert	Carbon-Carbon
11					Tall Module Mount Insert	Carbon-Carbon
12					Shallow Module Mount Insert	Carbon-Carbon
13	51	51	51		Pin	Ceramic
14					Thermal Bridge	Carbon-Carbon
15					Tall Pin Insert	Carbon-Carbon
	-1	-3	-5		PARTS LIST	

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
-TOLERANCES-

DECIMALS      ANGULAR = +/- .30'  
X = +/- .1  
.XX = +/- .01  
.XXX = +/- .001      SURFACE FINISH = 250

CAD GENERATED DRAWING.  
DO NOT MANUALLY UPDATE  
DO NOT SCALE DRAWING

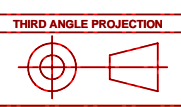
**HYTEC, INC**

TITLE: **PHENIX CENTRAL UPGRADE  
FVTX HALF STATIONS 1,2,3 & 4  
SUPPORT PANEL ASSEMBLY**

FINISH	SIGNATURE	DATE
	Roger L. Smith	4/9/2007
	Roger L. Smith	4/9/2007
	Eric Ponslet	4/9/2007

DWG. NO. **111-PHX-01-3008**      SIZE **D**      SHEET NO. **1 of 1**

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



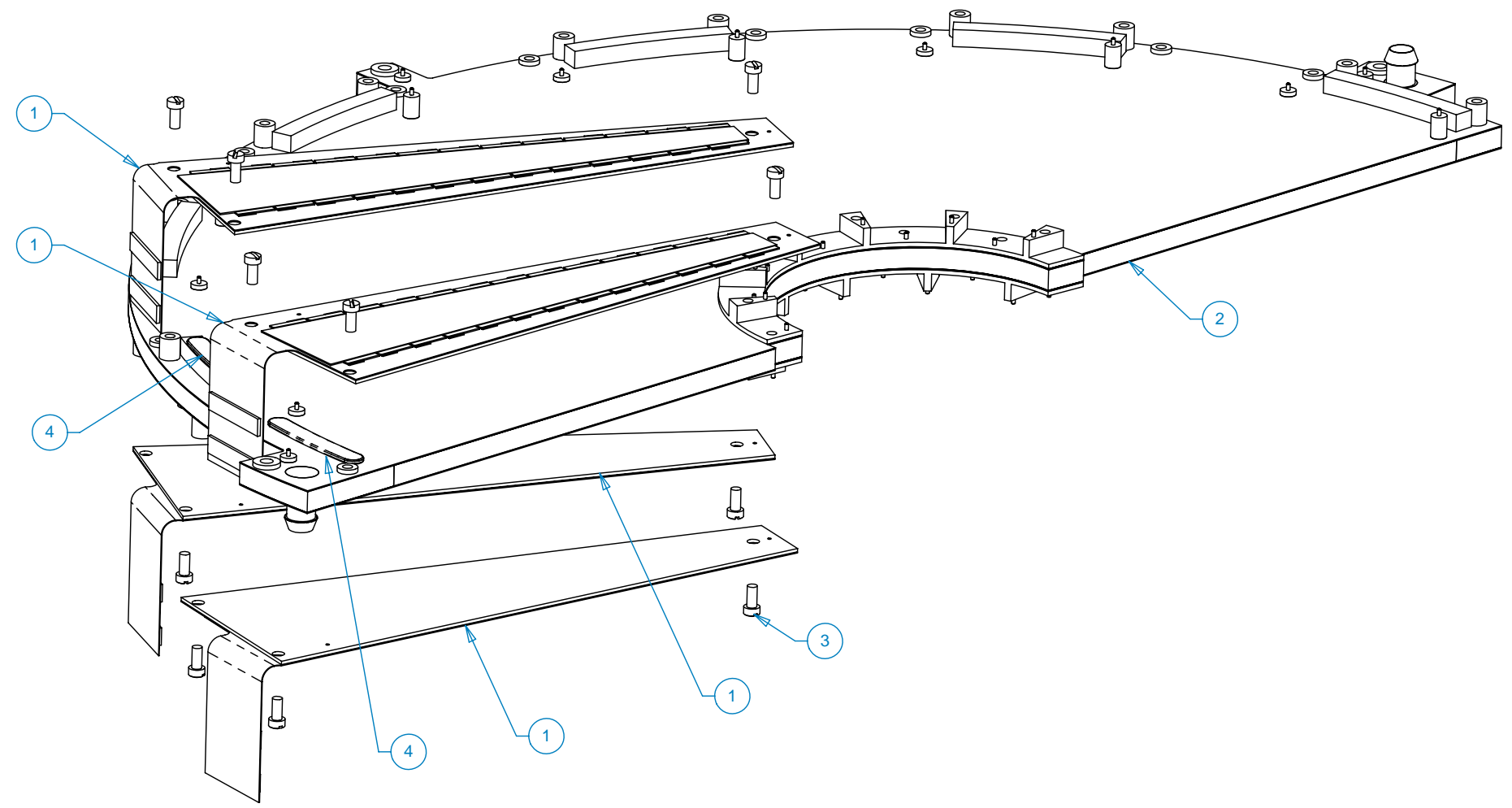
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	DATE	APPROVED

D  
C  
B  
A

D  
C  
B  
A

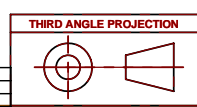


- 1 Station 2 & 4
- 3 Station 3

ITEM	QTY	QTY	PART NO.	DESCRIPTION	MATERIAL
1	24	24	111-PHX-01-3006-1	Station 2,3,4 Sensor Module Assembly	
2	1	0	111-PHX-01-3008-3	Support Panel Assembly	
	0	1	111-PHX-01-3008-5	Support Panel Assembly	
3				Screw, #2-56 UNC-2B	Nylon
4	AR	AR		Thermal Interface	Silicone
	-1	-3		PARTS LIST	

PRELIMINARY  
NOT FOR  
PRODUCTION

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</p> <p>DECIMALS      ANGULAR = +/- .30'  X = +/- .1  XX = +/- .01  XXX = +/- .001      SURFACE FINISH = 250</p>	<p>CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING</p>	<p><b>HYTEC, INC</b></p> <p>TITLE <b>PHENIX CENTRAL UPGRADE FVTX HALF-STATIONS 2,3 &amp; 4 ASSEMBLY</b></p>																		
<p>FINISH</p>	<table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>Designer</td> <td>Roger L. Smith</td> <td>4/9/2007</td> </tr> <tr> <td>Drawn</td> <td>Roger L. Smith</td> <td>4/9/2007</td> </tr> <tr> <td>Checked</td> <td></td> <td></td> </tr> <tr> <td>Engineer</td> <td>Eric Pnslet</td> <td>4/9/2007</td> </tr> <tr> <td>Approved</td> <td></td> <td></td> </tr> </tbody> </table>		SIGNATURE	DATE	Designer	Roger L. Smith	4/9/2007	Drawn	Roger L. Smith	4/9/2007	Checked			Engineer	Eric Pnslet	4/9/2007	Approved			<p>DWG. NO.      SIZE      SHEET NO.</p> <p style="font-size: 1.2em;"><b>111-PHX-01-3009 D 1 of 3</b></p> <p>SCALE 3:2      REVISION</p>
	SIGNATURE	DATE																		
Designer	Roger L. Smith	4/9/2007																		
Drawn	Roger L. Smith	4/9/2007																		
Checked																				
Engineer	Eric Pnslet	4/9/2007																		
Approved																				



THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

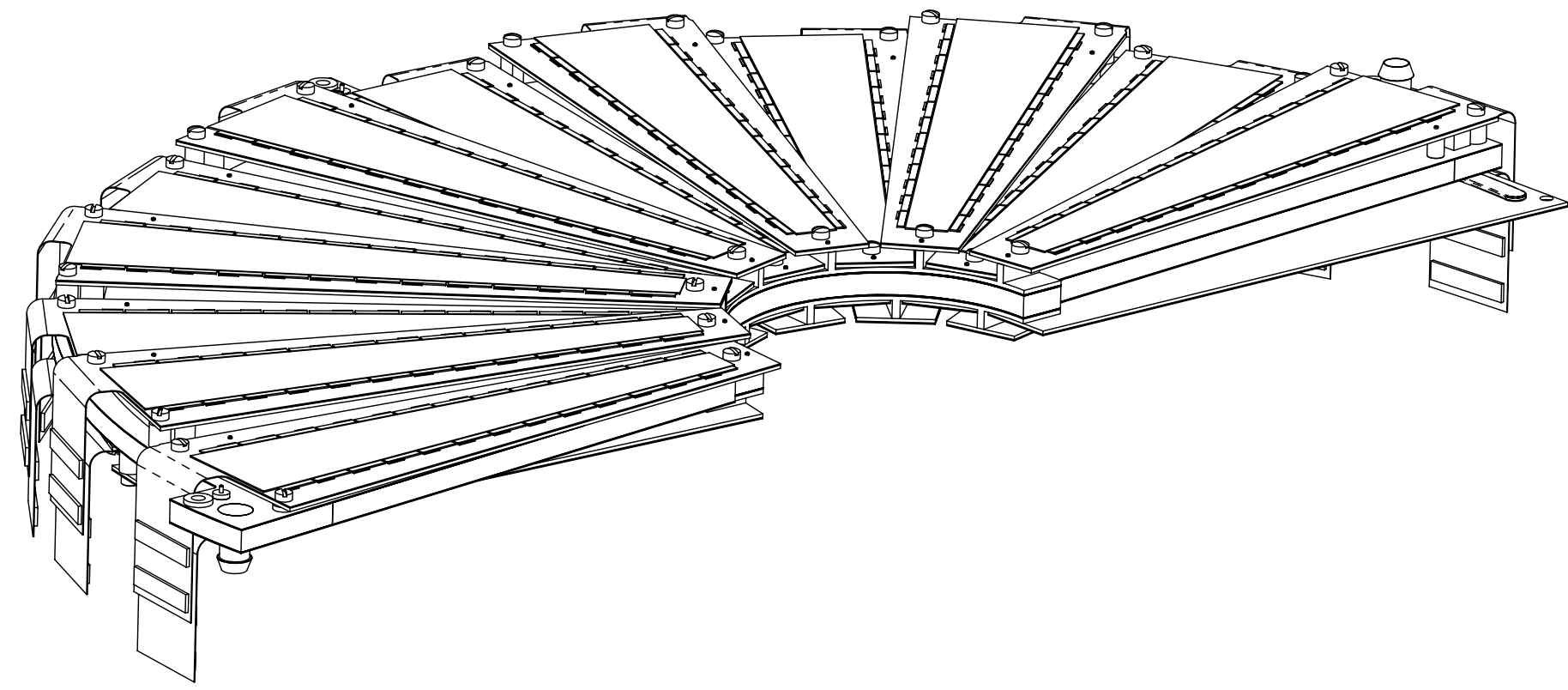
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

		REVISIONS			
REV	DESCRIPTION	DATE	APPROVED		

D  
C  
B  
A

D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
-TOLERANCES-

DECIMALS      ANGULAR = +/- .30'  
 X = +/- .1  
 .XX = +/- .01  
 .XXX = +/- .001      SURFACE FINISH = 250

CAD GENERATED DRAWING.  
DO NOT MANUALLY UPDATE  
DO NOT SCALE DRAWING

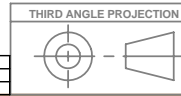
**HYTEC, INC**

TITLE  
**PHENIX CENTRAL UPGRADE  
FVTX HALF-STATIONS 2,3 & 4  
ASSEMBLY**

FINISH	SIGNATURE	DATE
	Designer Roger L. Smith	4/9/2007
	Drawn Roger L. Smith	4/9/2007
	Checked Eric Pnslet	4/9/2007
	Approved	

DWG. NO.      SIZE      SHEET NO.  
**111-PHX-01-3009 D 2 of 3**

SCALE 3:2      REVISION



THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
 REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
 IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

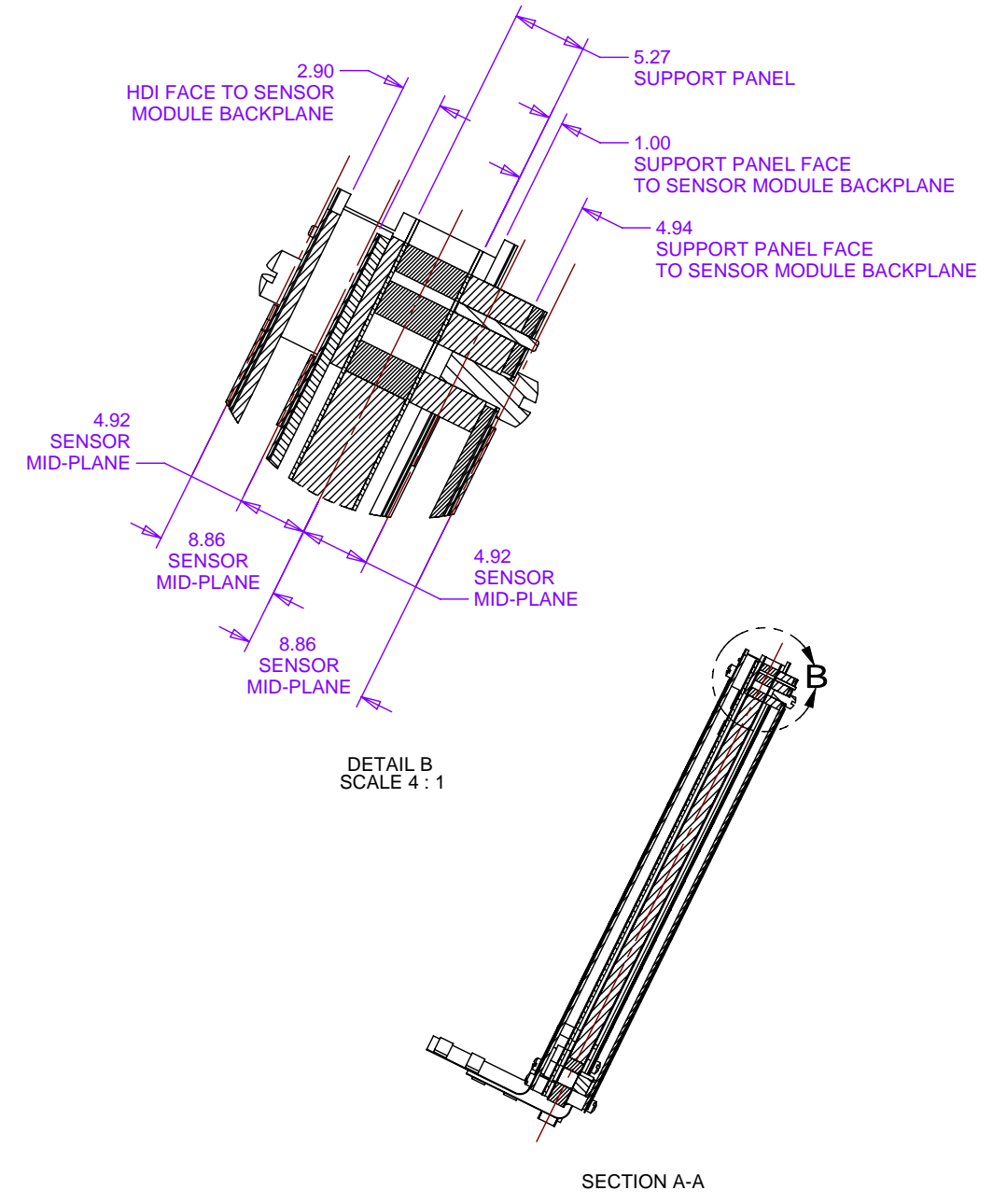
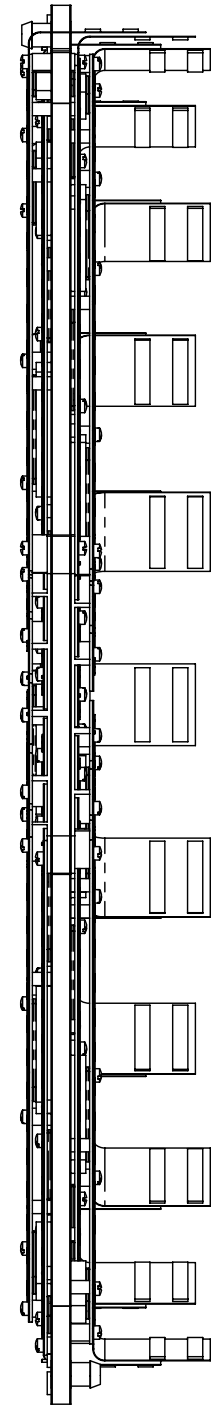
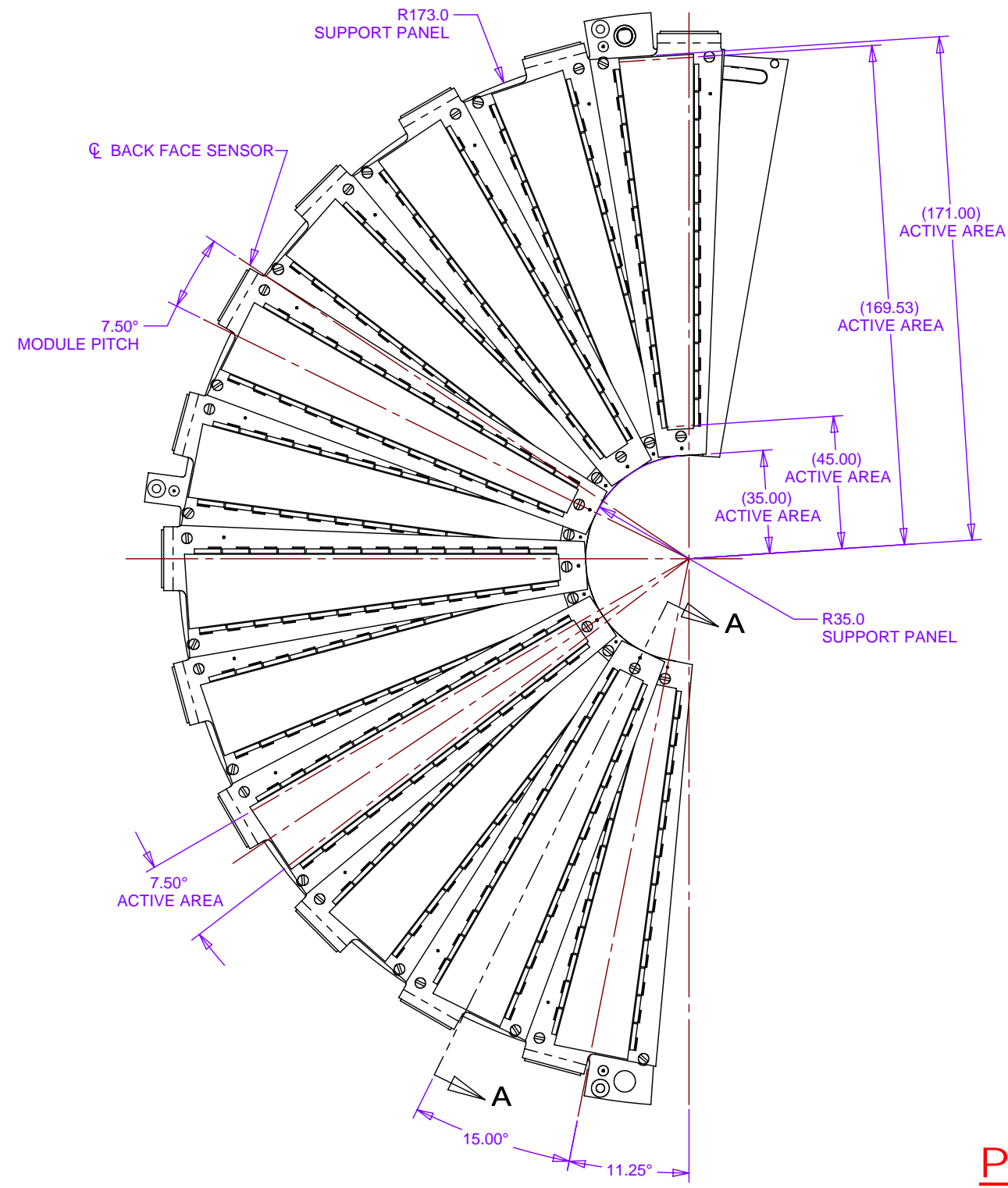
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV		DESCRIPTION		REVISIONS		DATE	APPROVED

D  
C  
B  
A

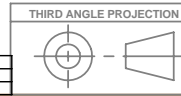
D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

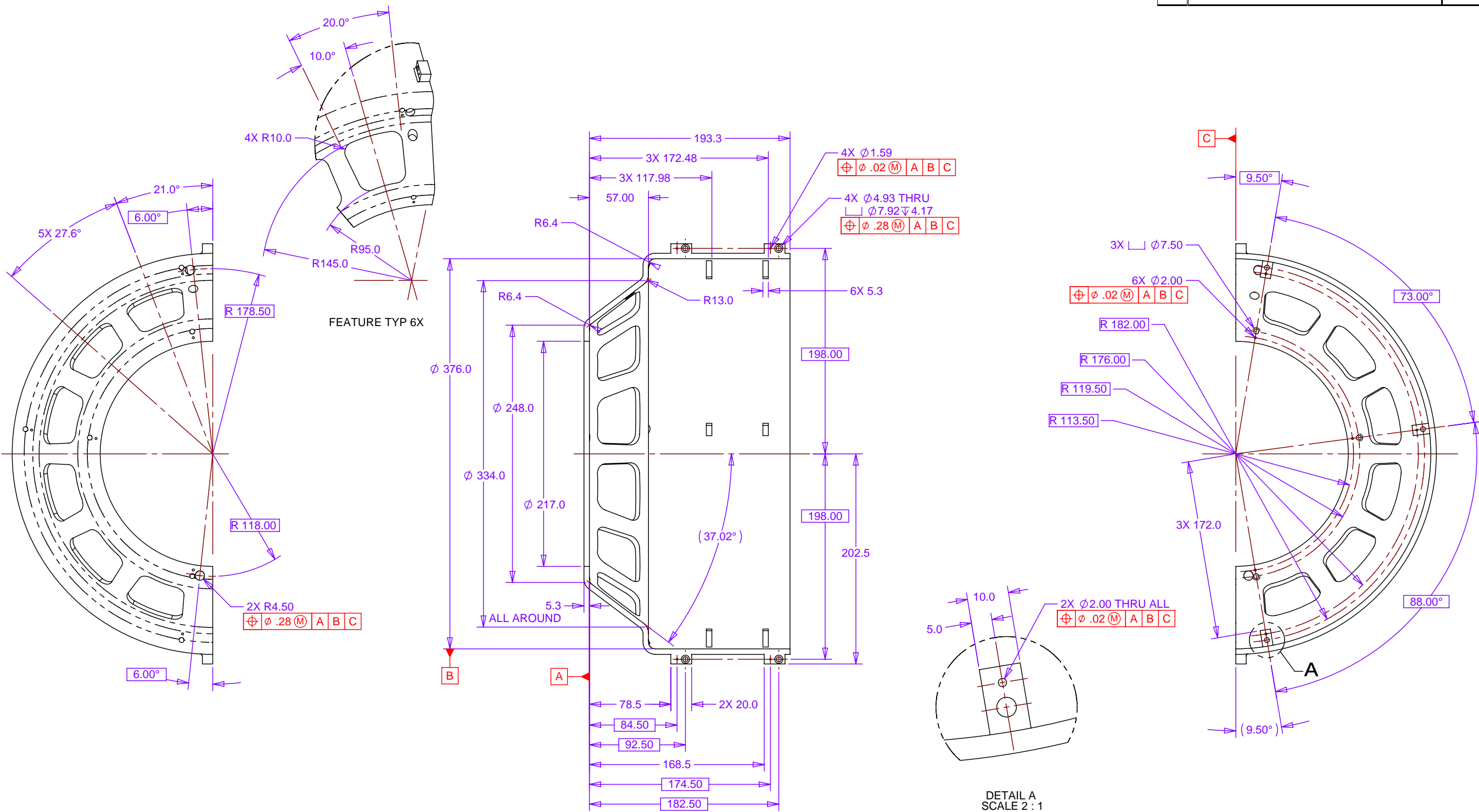
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b>	
DECIMALS X = +/- .1 XX = +/- .01 XXX = +/- .001	ANGULAR = +/- .30' SURFACE FINISH = 250	TITLE <b>PHENIX CENTRAL UPGRADE FVTX HALF-STATIONS 2,3 &amp; 4 ASSEMBLY</b>		DWG. NO. <b>111-PHX-01-3009</b>	SIZE SHEET NO. <b>D 3 of 3</b>
FINISH	PART NO. <b>111-PHX-01-3009-1</b>	DESIGNER Roger L. Smith	SIGNATURE Eric Pnslet	DATE 4/9/2007	REVISION
		Drawn Roger L. Smith			
		Checked 			
		Approved 			

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	DATE	APPROVED



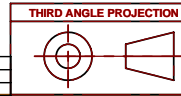
NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS IN MILLIMETERS
2. DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994
3. PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL LOOSE PARTICULATE.
4. REMOVE ALL BURRS AND BREAK SHARP EDGES TO A MAXIMUM OF .4
5. ALL INSIDE CORNERS TO BE .4 RADIUS MAX
6. COUNTERSINK 82 DEGREES ALL TAPPED HOLES TO MAJOR DIAMETER
7. COUNTERSINK 82 DEGREES APPROXIMATELY .08/1.5 DEEP ALL DRILLED HOLES
8. PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL OIL, GREASE, DIRT AND CHIPS
9. PART NUMBER (DRAWING NO., DASH NO., REVISION NO., SERIAL NO.) TO BE CLEARLY MARKED ON THE PACKAGING BAG OR PART ITSELF.

PRELIMINARY  
NOT FOR  
PRODUCTION

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES- DECIMALS: X = +/- .1, XX = +/- .01, XXX = +/- .001 ANGULAR = +/- .30' SURFACE FINISH = 250	CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE          FVTX          HALF-CAGE</b>			
	FINISH	SIGNATURE	DATE	DWG. NO.	SIZE	SHEET NO.
	Designer	Roger L. Smith	3/14/2007	111-PHX-01-3010	D	1 of 1
	Drawn	Roger L. Smith	3/14/2007			
	Checked					
	Engineer	Eric Ponslet	3/15/2007			
	Approved					

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC. REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY, IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



PART NO.  
**111-PHX-01-3010-1**

SCALE 1:2 REVISION

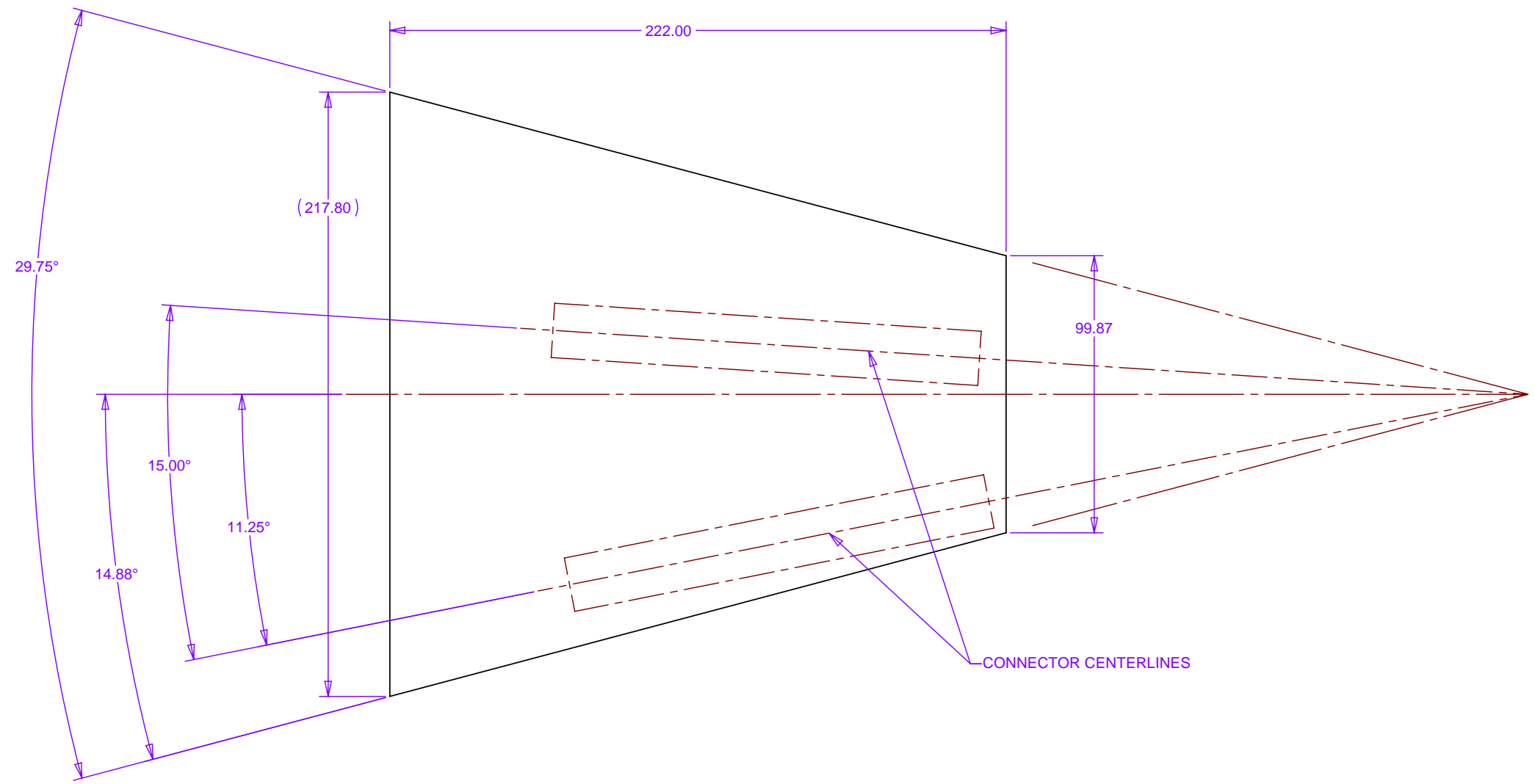


8 7 6 5 4 3 2 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Added Centerline	04/11/07	Eric Ponslet

D  
C  
B  
A

D  
C  
B  
A



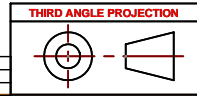
**PRELIMINARY  
NOT FOR  
PRODUCTION**

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-	
DECIMALS .X = +/- .1 .XX = +/- .01 .XXX = +/- .001	ANGULAR = +/- .30' SURFACE FINISH = 250
FINISH	
PART NO. 111-PHX-01-3011-1	

CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		
Designer	SIGNATURE	DATE
Drawn	Roger L. Smith	3/16/2007
Checked		
Engineer	Eric Ponslet	3/16/2007
Approved		

<b>HYTEC, INC</b>		
TITLE <b>PHENIX CENTRAL UPGRADE FVTX READOUT CARD OUTLINE</b>		
DWG. NO. 111-PHX-01-3011	SIZE D	SHEET NO. 1 of 1
SCALE 1:1	REVISION A	

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



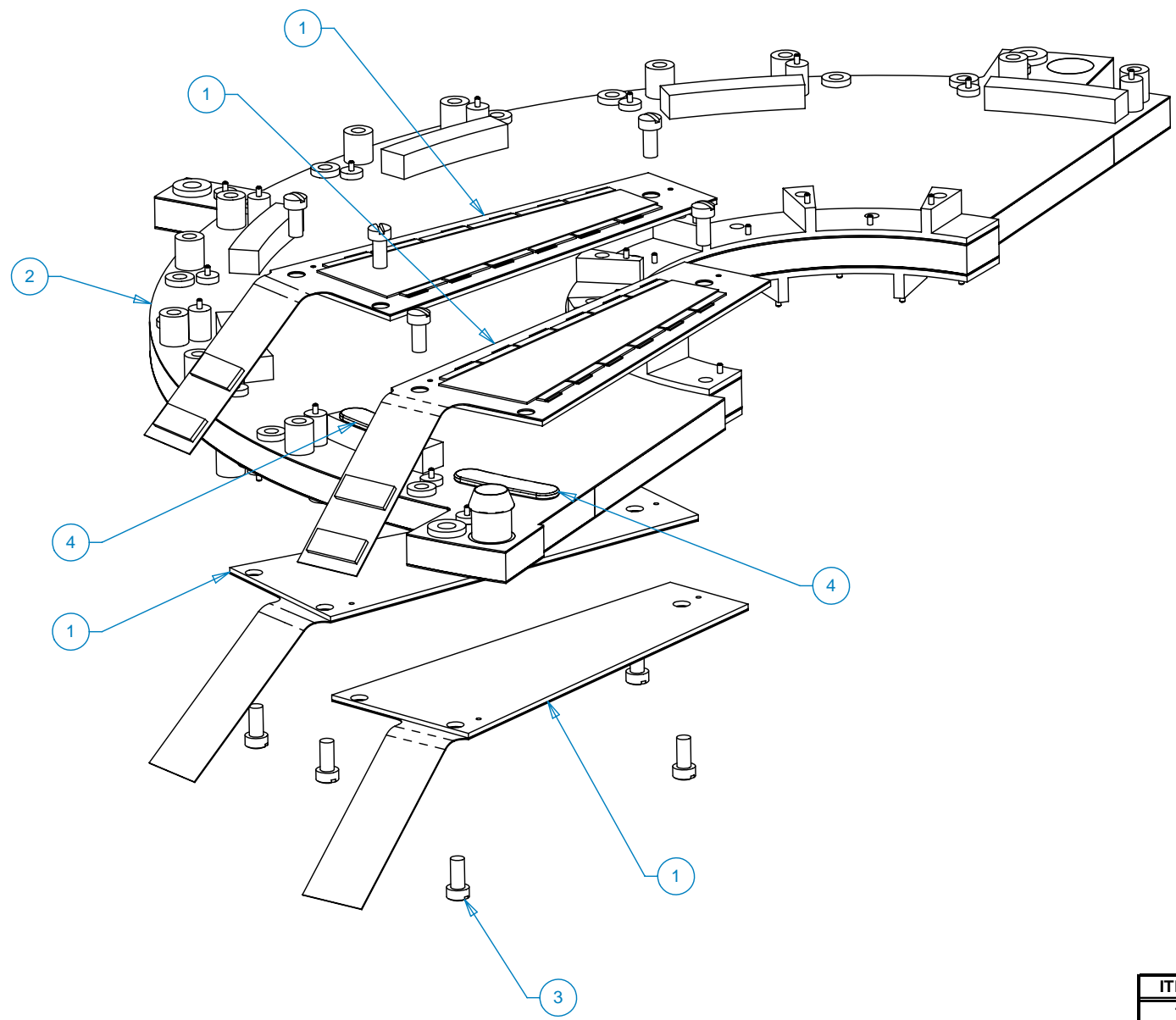
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	DATE	APPROVED

D  
C  
B  
A

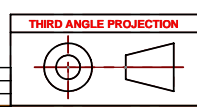
D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	24		Station 1 Sensor Module Assembly	
2	1	111-PHX-01-3008-1	Support Panel Assembly	
3			Screw, #2-56 UNC-2B X 3/16 lg	Nylon
4	AR		Thermal Interface	Silicone

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		<b>HYTEC, INC</b> TITLE <b>PHENIX CENTRAL UPGRADE FVTX HALF-STATION 1 ASSEMBLY</b>	
DECIMALS .X = +/- .1 .XX = +/- .01 .XXX = +/- .001	ANGULAR = +/- .30' SURFACE FINISH = 250	SIGNATURE			
FINISH		Designer	Roger L. Smith	DATE	4/9/2007
		Drawn	Roger L. Smith		4/9/2007
		Checked			
		Engineer	Eric Ponslet		4/9/2007
		Approved			



THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.

PART NO. <b>111-PHX-01-3012-1</b>	DWG. NO. <b>111-PHX-01-3012</b>	SIZE <b>D</b>	SHEET NO. <b>1 of 3</b>
--------------------------------------	------------------------------------	------------------	----------------------------

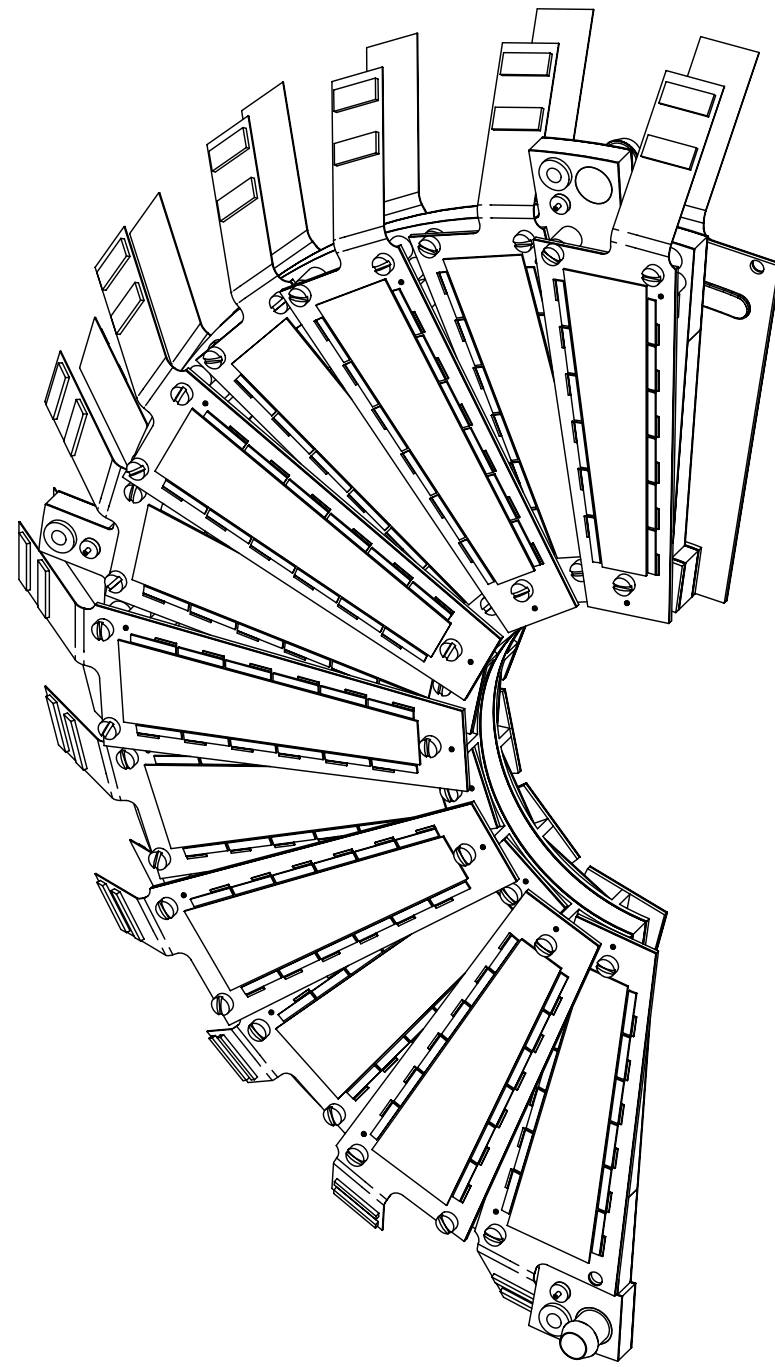
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REV	DESCRIPTION	REVISIONS	
		DATE	APPROVED

D  
C  
B  
A

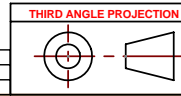
D  
C  
B  
A



**PRELIMINARY  
NOT FOR  
PRODUCTION**

<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</small> DECIMALS      ANGULAR = +/- .30' .X                = +/- .1 .XX              = +/- .01 .XXX            = +/- .001      SURFACE FINISH = 250	<small>CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING</small>		<b>HYTEC, INC</b>	
	<small>FINISH</small>	<small>SIGNATURE</small> Roger L. Smith	<small>DATE</small> 4/9/2007	<small>TITLE</small> <b>PHENIX CENTRAL UPGRADE FVTX HALF-STATION 1 ASSEMBLY</b>
<small>PART NO.</small> <b>111-PHX-01-3012-1</b>	<small>Checked</small> Eric Ponslet	<small>DATE</small> 4/9/2007	<small>DWG. NO.</small> <b>111-PHX-01-3012</b>	<small>SIZE</small> <b>D</b>
<small>APPROVED</small>	<small>APPROVED</small>	<small>APPROVED</small>	<small>SCALE</small> 3:2	<small>SHEET NO.</small> <b>2 of 3</b>

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



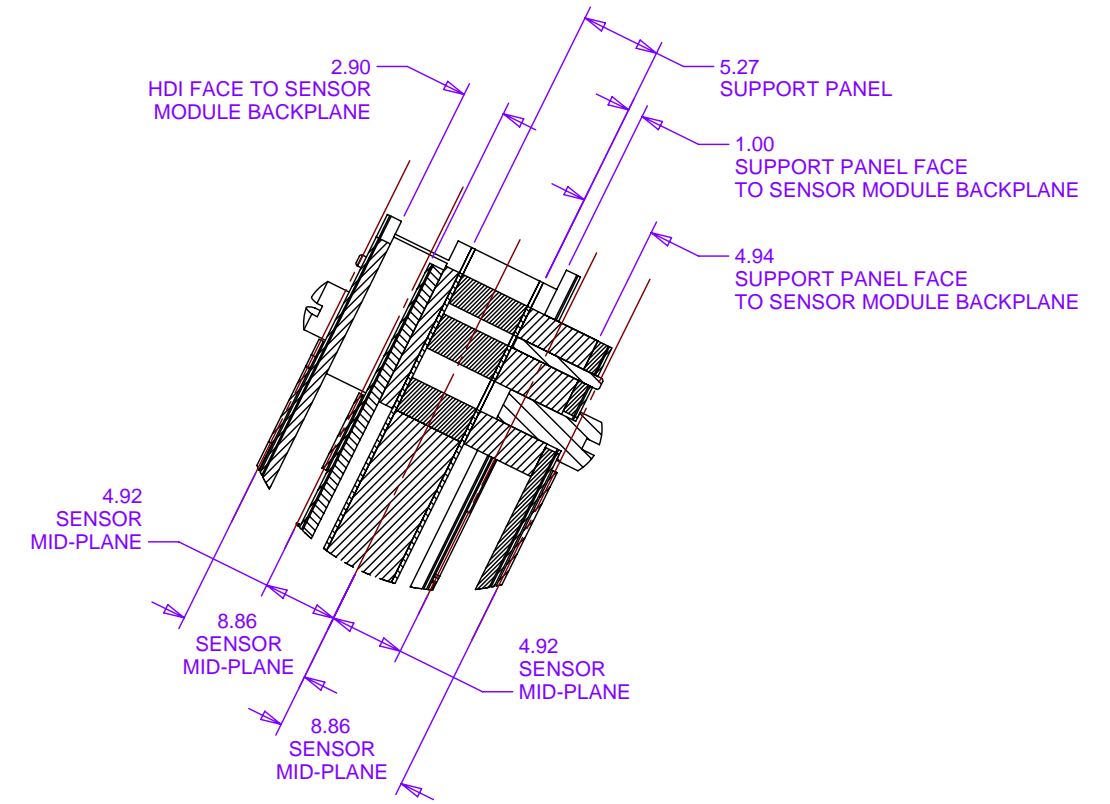
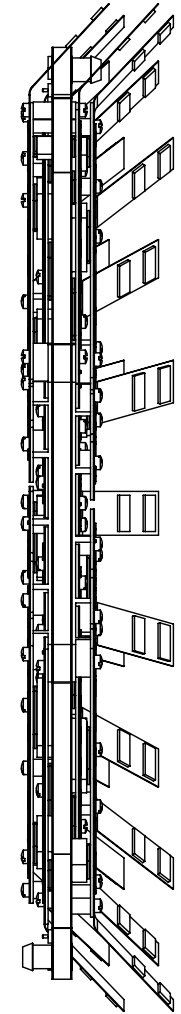
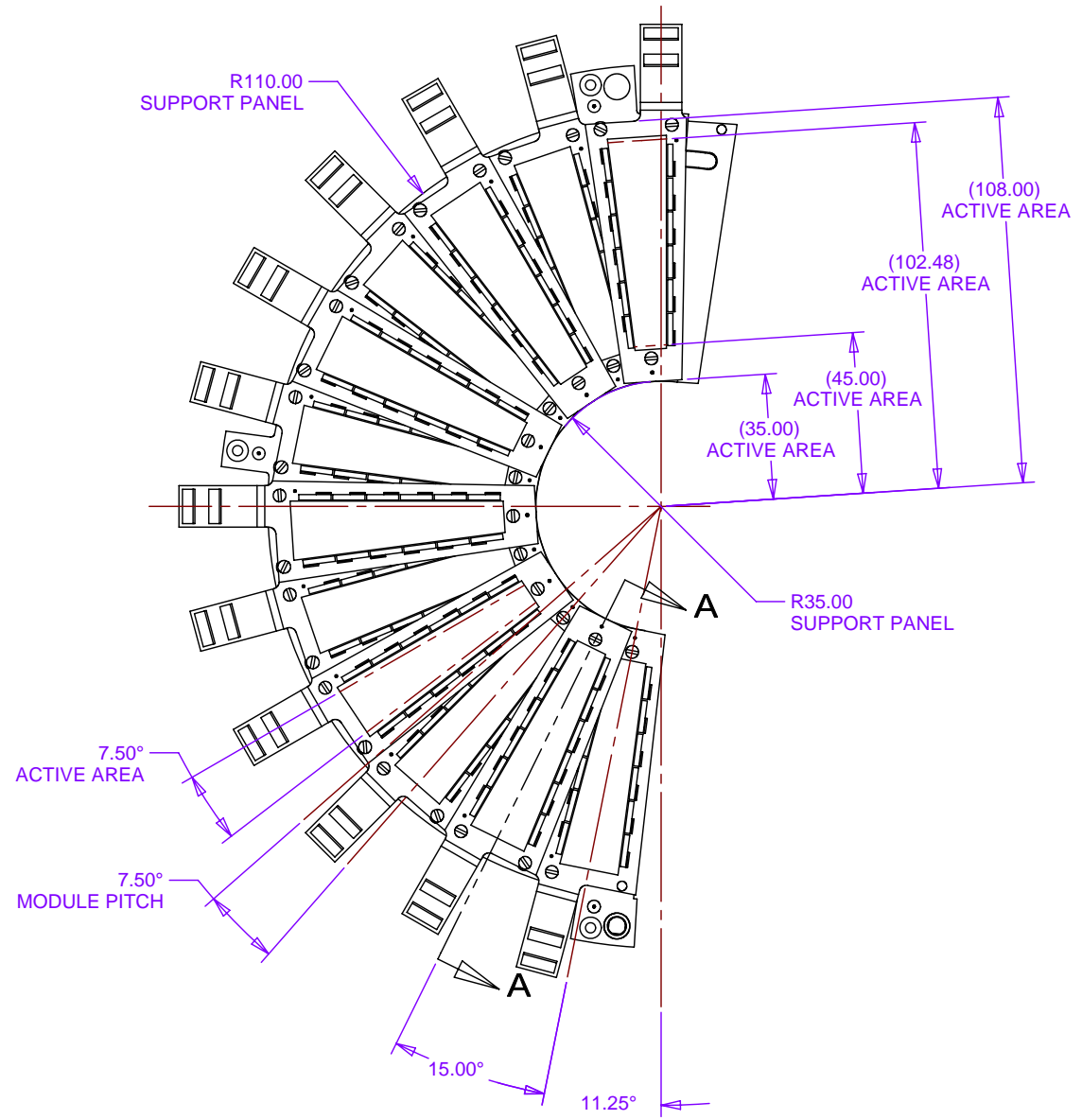
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

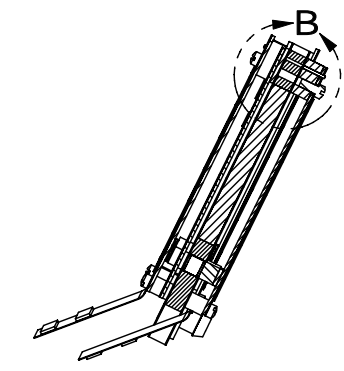
REV	DESCRIPTION	REVISIONS	DATE	APPROVED

D  
C  
B  
A

D  
C  
B  
A



DETAIL B  
SCALE 4 : 1

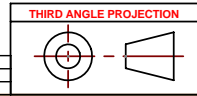


SECTION A-A

**PRELIMINARY  
NOT FOR  
PRODUCTION**

<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-</small> DECIMALS: X = +/- .1, XX = +/- .01, XXX = +/- .001 ANGULAR = +/- .30' SURFACE FINISH = 250	<small>CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING</small>		<b>HYTEC, INC</b>	
	<small>FINISH</small>	<small>SIGNATURE</small> Roger L. Smith	<small>DATE</small> 4/9/2007	<small>TITLE</small> <b>PHENIX CENTRAL UPGRADE FVTX HALF-STATION 1 ASSEMBLY</b>
<small>PART NO.</small> 111-PHX-01-3012-1	<small>Checked</small> Eric Ponslet	<small>DATE</small> 4/9/2007	<small>DWG. NO.</small> 111-PHX-01-3012	<small>SIZE</small> D
<small>Approved</small>	<small>Approved</small>	<small>REVISION</small>	<small>SHEET NO.</small> 3 of 3	<small>SCALE</small> 1:1

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPRIETARY PROPERTY OF HYTEC, INC.  
REPRODUCTION, DISCLOSURE, OR RELEASE TO OTHERS, MANUALLY OR ELECTRONICALLY,  
IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF HYTEC, INC.



8 7 6 5 4 3 2 1