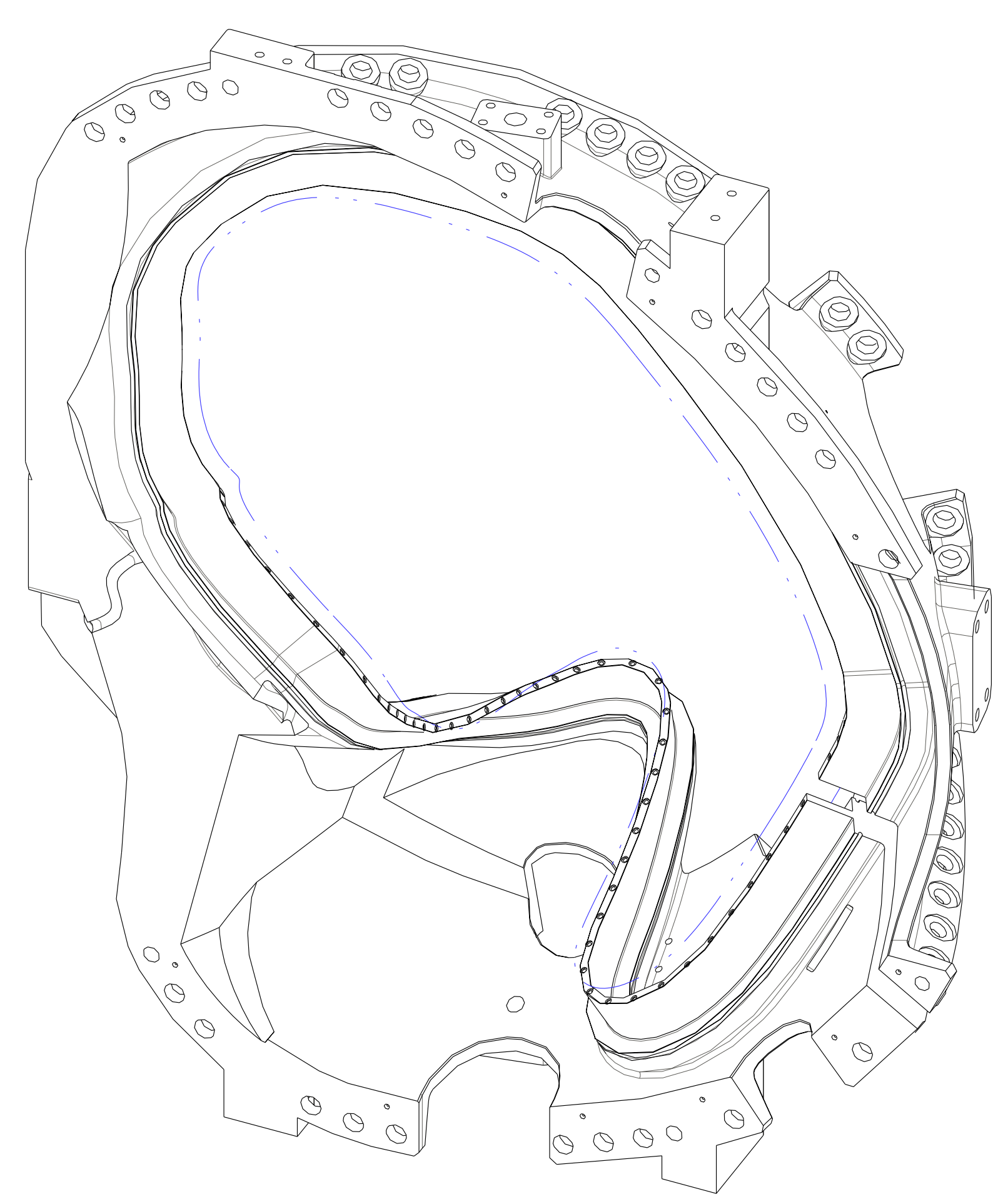
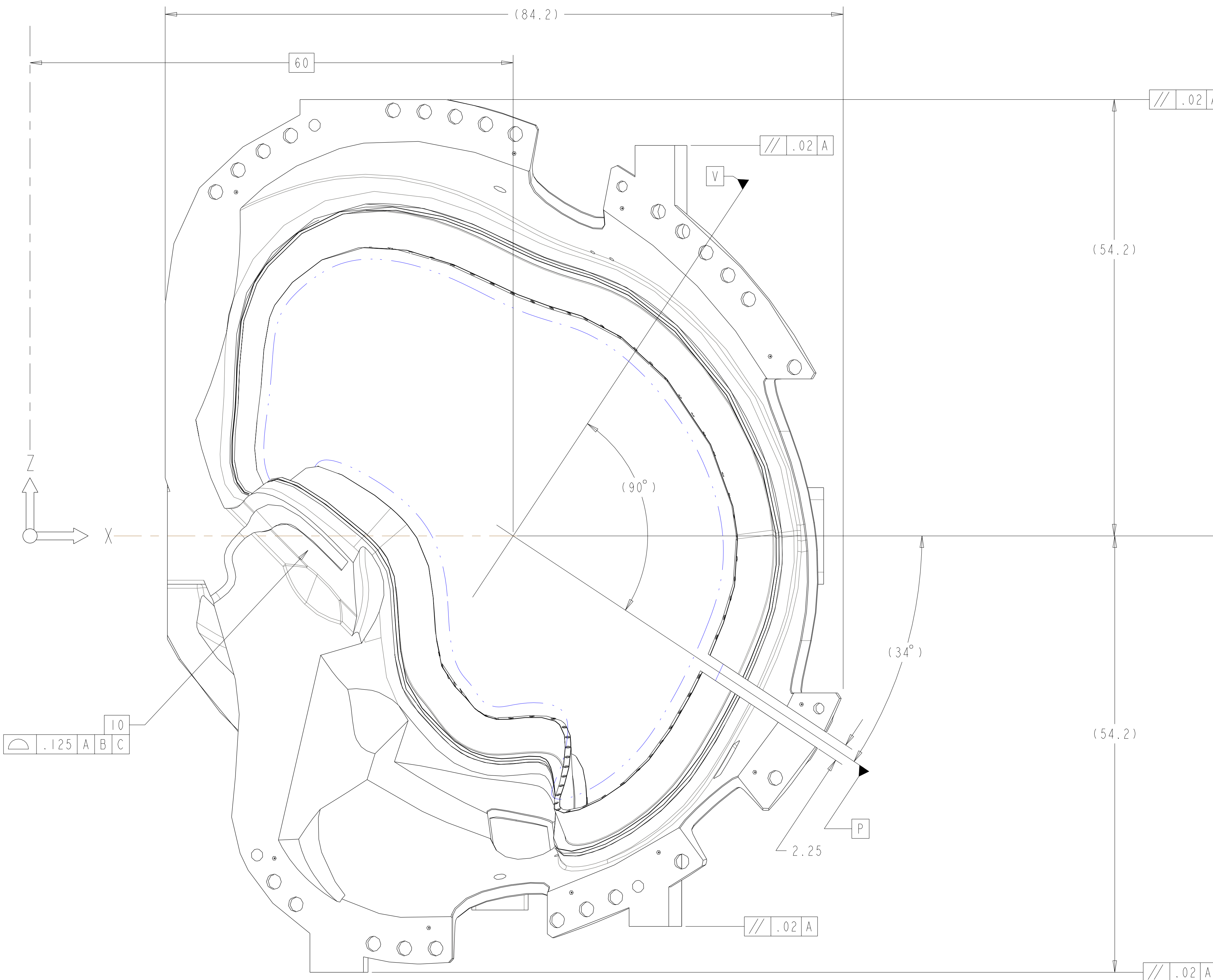
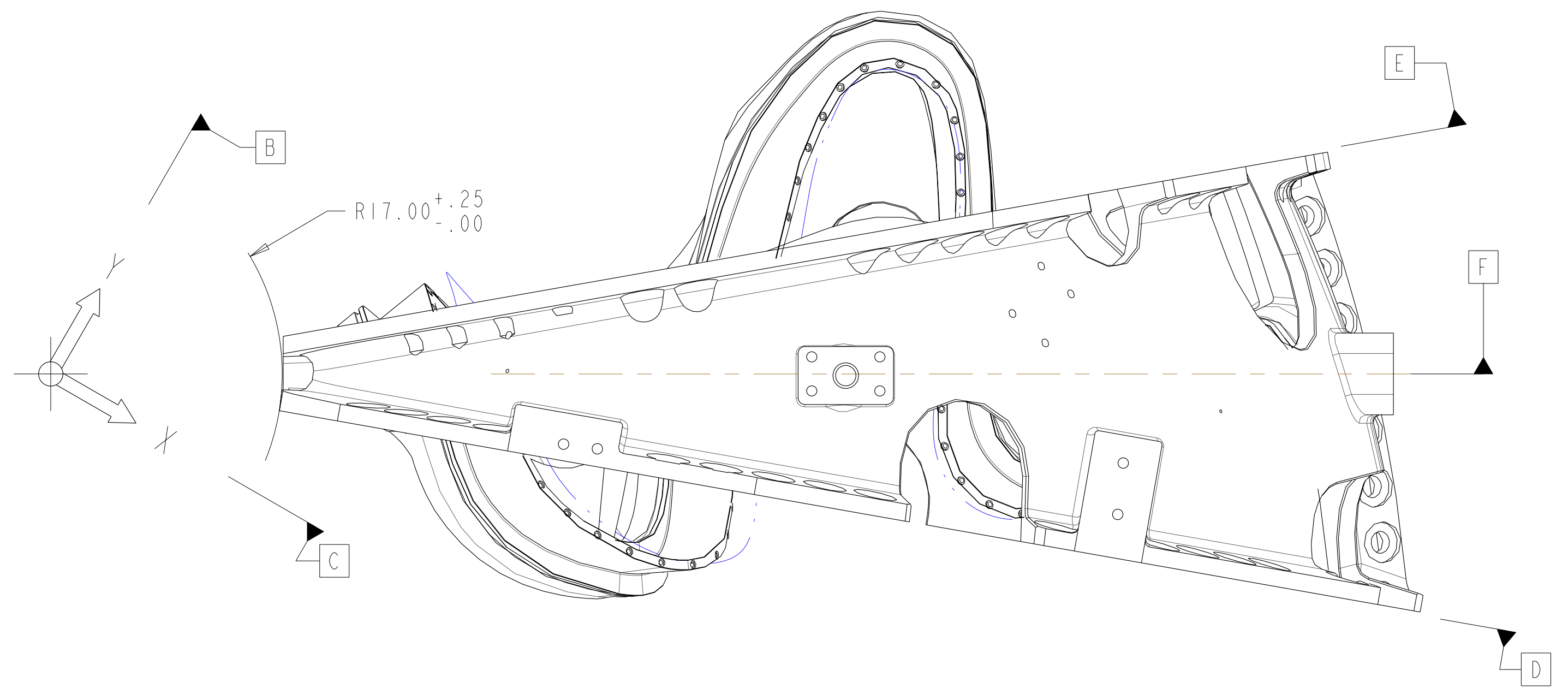


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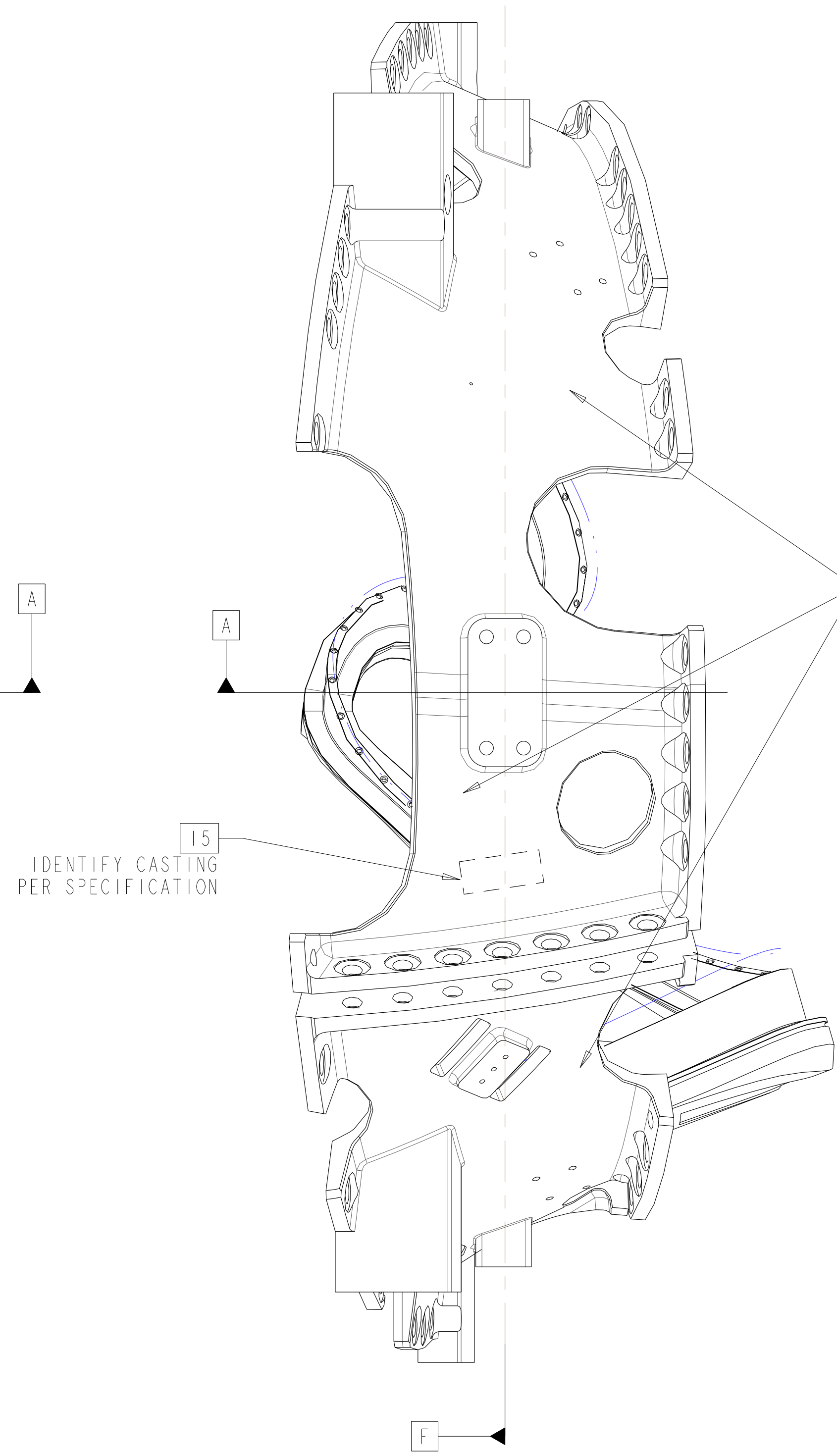
1. DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.8M-1996.
2. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
3. DIMENSIONS ARE IN INCHES.
4. DRAWING DEPICTS FINAL MACHINED STATE OF PART DEFINED BY PRO/ENGINEER FILE SE141-115.PRT.
5. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE RELATED TO DATUM A- (PRIMARY X-Y PLANE, TOP) DATUM B- (SECONDARY Y-Z PLANE, SIDE) DATUM C- (TERTIARY X-Z PLANE, FRONT)
6. DIMENSIONS APPLY AT TEMPERATURE OF 20-30°C (68-86°F).
7. DIMENSIONS AND TOLERANCES EXCLUDE PROCESS MATERIAL ALLOWANCES WHICH MAY ADD MASS.
8. APPROXIMATE WEIGHT = 4368 LBS. WEIGHT OF FINISHED PART NOT TO EXCEED 6000 LBS.
- 9 UNLESS OTHERWISE SPECIFIED, AS-CAST SURFACE PROFILE TOLERANCE = +/- .25 - INCH, WITH EXEMPTION FOR INTERSECTING SURFACES WHERE FILLETS ARE EXPECTED. MIN FILLET AND CORNER RADII = 0.5 +/- 0.1-IN.
- 10 DESIGNATED SURFACE REGIONS HAVE PROFILE TOLERANCE = +/- 0.125-IN.
11. MIN THICKNESS PER CAD GEOMETRY, TOLERANCE = +0.25-IN / -0.0-IN.
12. PARTING LINE EDGES, FLASH, GATES, RUNNER, AND RISER EXTENSIONS 0.25-IN MAX
- 13 UNLESS OTHERWISE SPECIFIED, MACHINED SURFACE PROFILE TOLERANCE = +/- 0.02-IN.
14. BACK SPOTFACE ALL THRU HOLES MINIMUM TO CLEAN UP.
- 15 SEE LATEST REVISION OF SPECIFICATION NCSX-CSPEC-141-03 FOR ADDITIONAL REQUIREMENTS.



ISOMETRIC VIEW



SCALE 0.13



9 AS CAST SURFACES  
 .5 A C B

15 IDENTIFY CASTING PER SPECIFICATION

next assy	AR	-1	PRODUCTION WINDING FORM TYPE-B	SEE NOTE #15	SEE NOTE #15	I
CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO	
SE141-102	NEXT ASSEMBLY					

PARTS LIST

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
I	REMOVED SPHERICAL SEATS, REVISED LEAD BLOCK/COOLING PER ECN-4903	GLL	09/04	MJC			DEW					

SCALE NOTED	DES	DATE	DRW	DATE	CHK	DATE	SECT	DEPT	PE	DATE	CR	PJ	REQ	PPPL	DATE	VERSION NO.	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS
TOLERANCES UNLESS OTHERWISE SPECIFIED	T BROWN	6-30-04	PAUL MILLER	6-30-04	M COLE	6-30-04			D WILLIAMSON	6/25/04				J SIEGEL	6/25/04	12	X-10	5700	3	1	12	S	U

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NATIONAL COMPACT STELLARATOR EXPERIMENT	PRODUCTION WINDING FORM TYPE-B
RELEASE LEVEL	SE141-115
Fabrication	

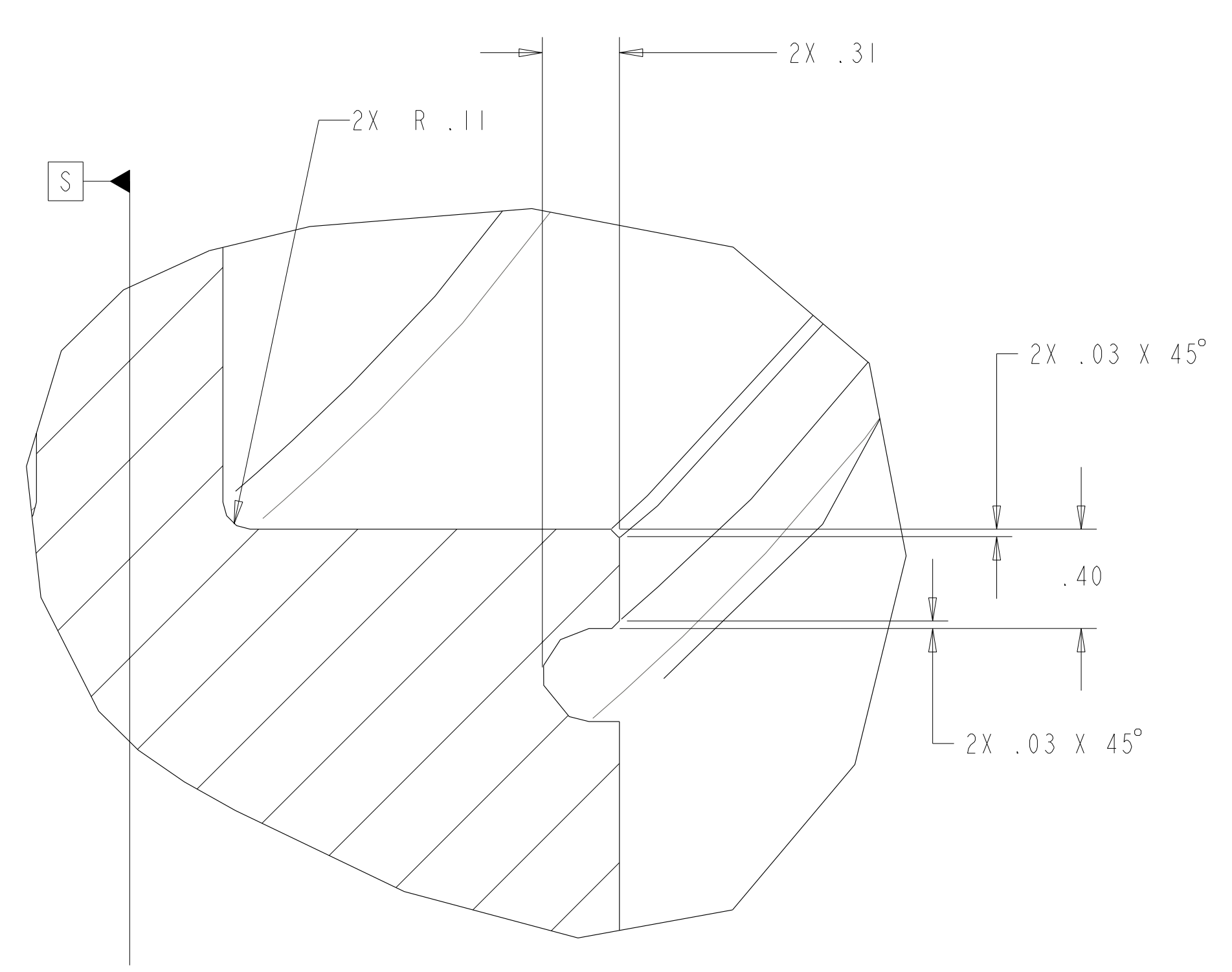
NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO THE ACCURACY, COMPLETENESS OR USEFULNESS OF THE INFORMATION OR STATEMENTS CONTAINED IN THESE DRAWINGS, OR THAT THE USE OR DISCLOSURE OF ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS MAY NOT INFRINGE PRIVATE RIGHTS OF OTHERS. NO LIABILITY IS ASSUMED WITH RESPECT TO THE USE OF, OR FOR DAMAGES RESULTING FROM THE USE OF, ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS. DRAWINGS MADE AVAILABLE FOR INFORMATION TO BIDDER ARE NOT TO BE USED FOR OTHER PURPOSES, AND ARE TO BE RETURNED UPON REQUEST OF THE FORWARDING CONTRACTOR.

**P** THIS DRAWING PRODUCED ON PRO-ENGINEER

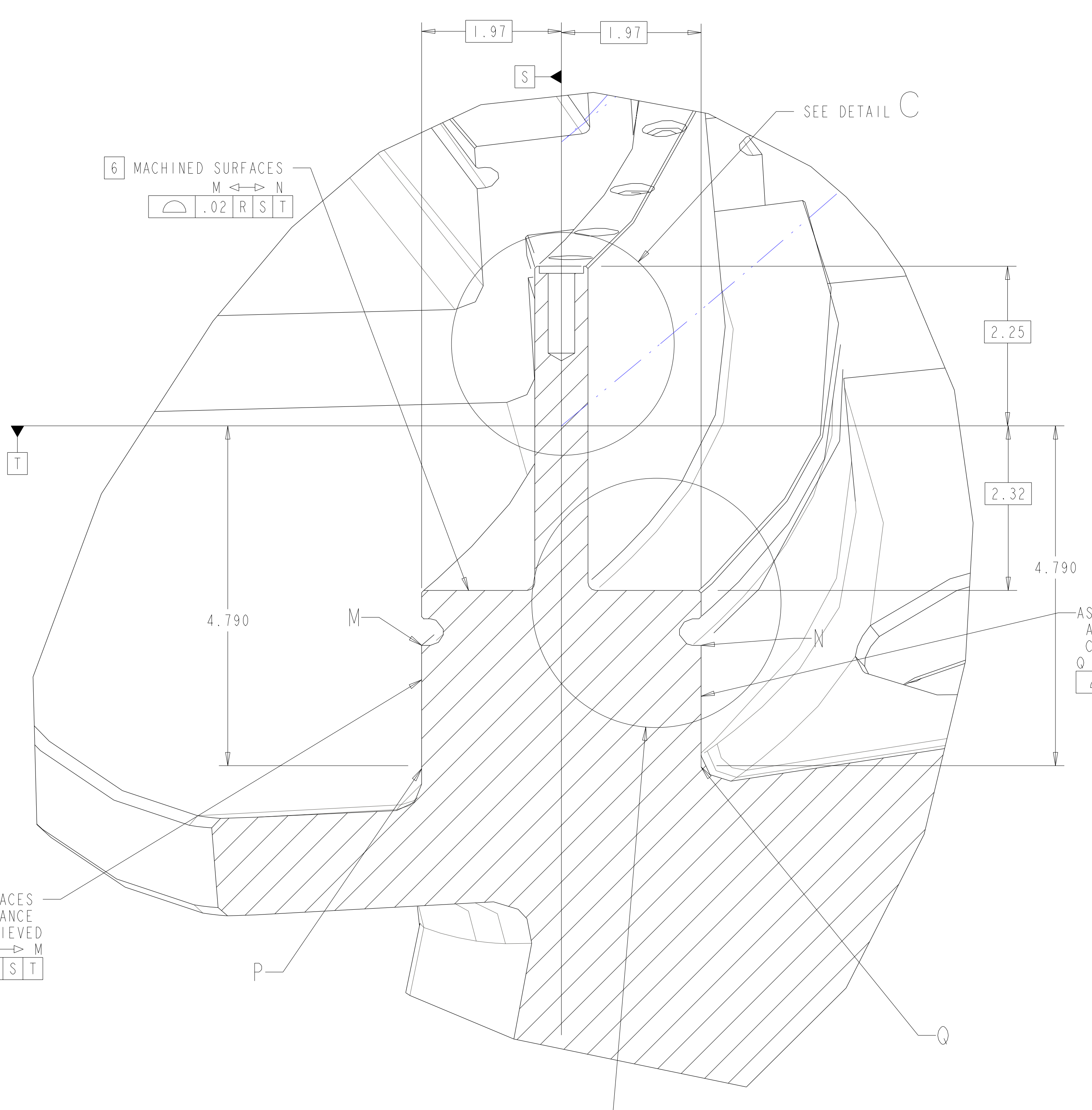
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SE141-115

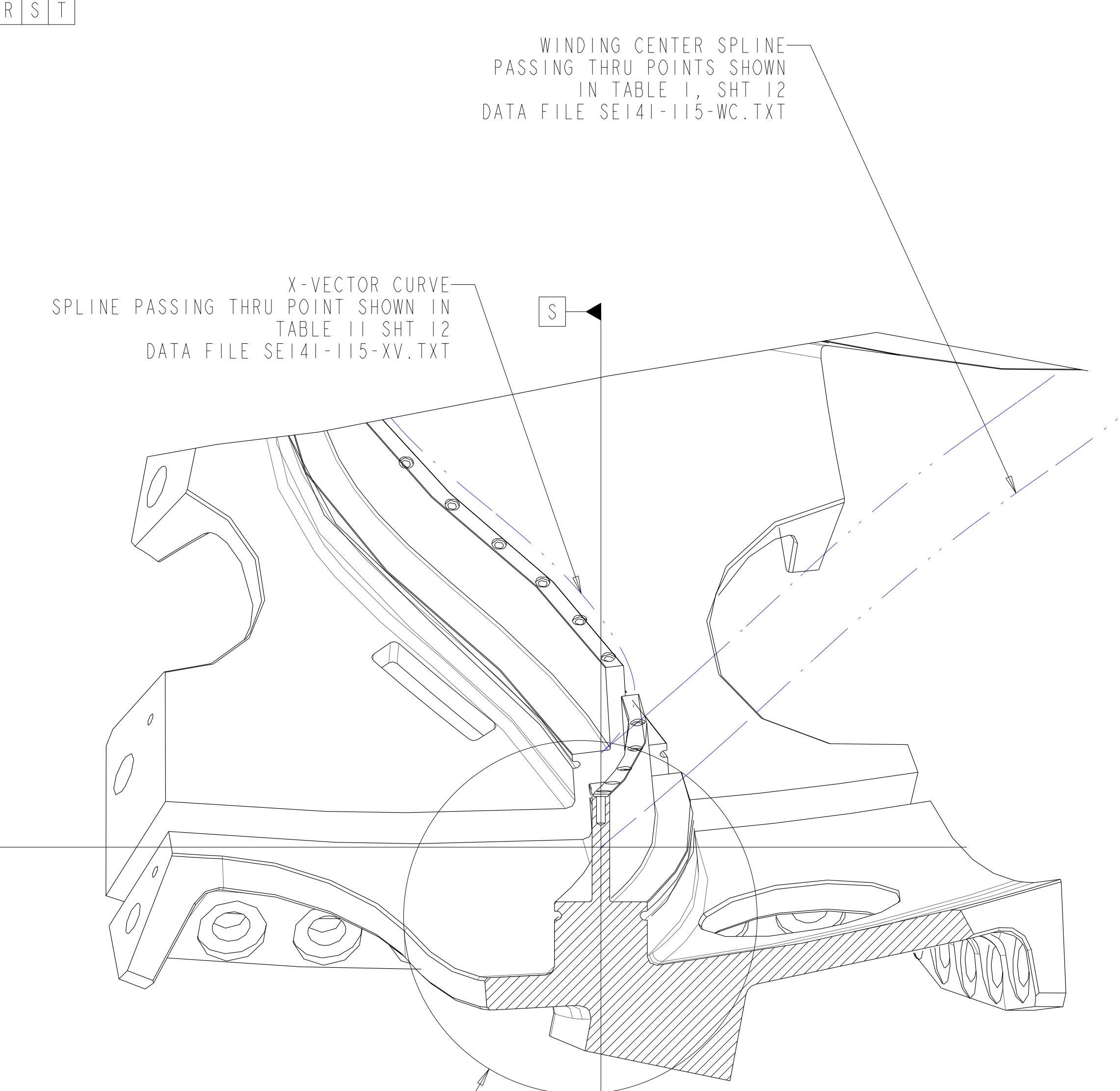
FOR NOTES AND PARTS LIST SEE SHEET 1



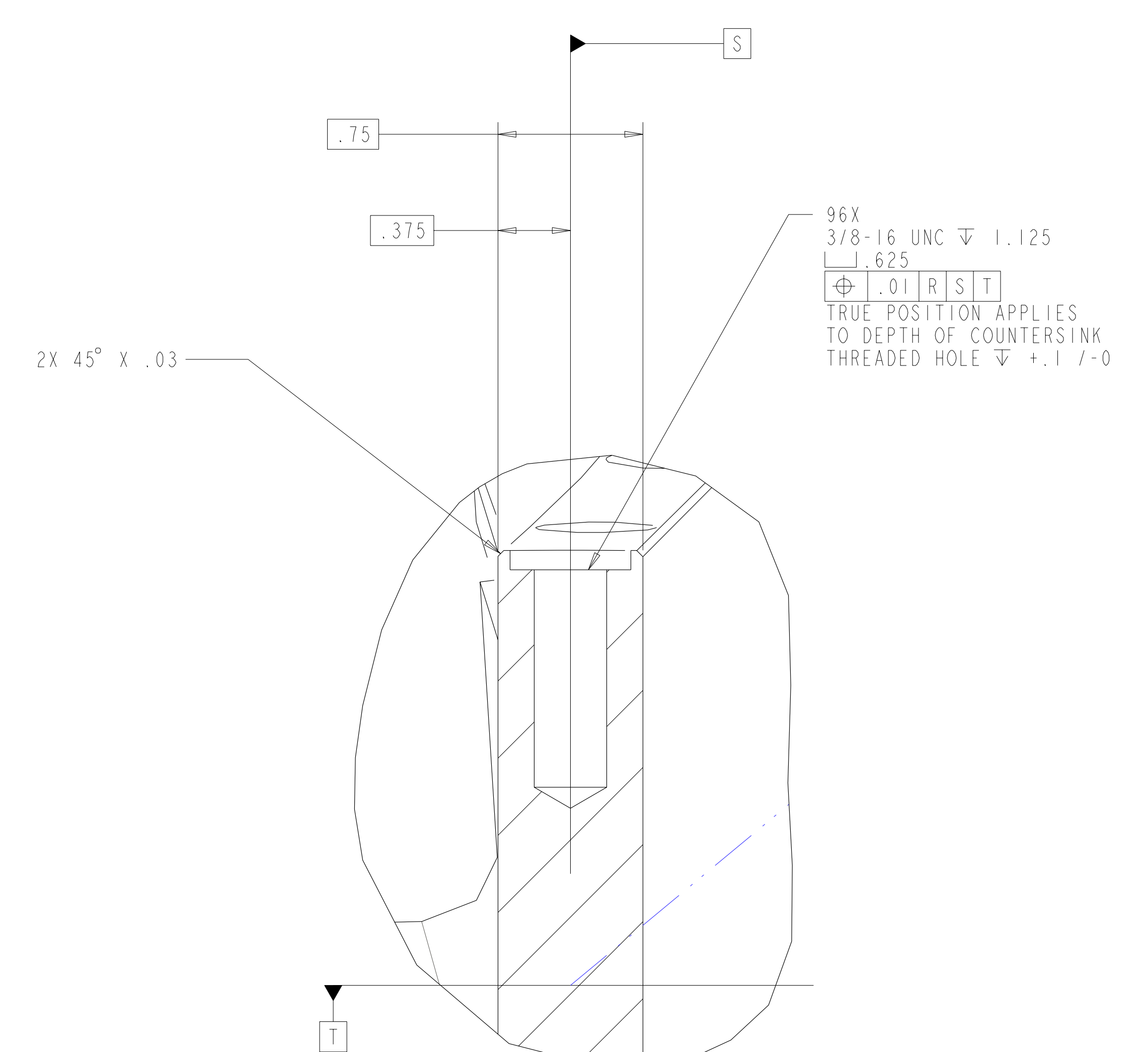
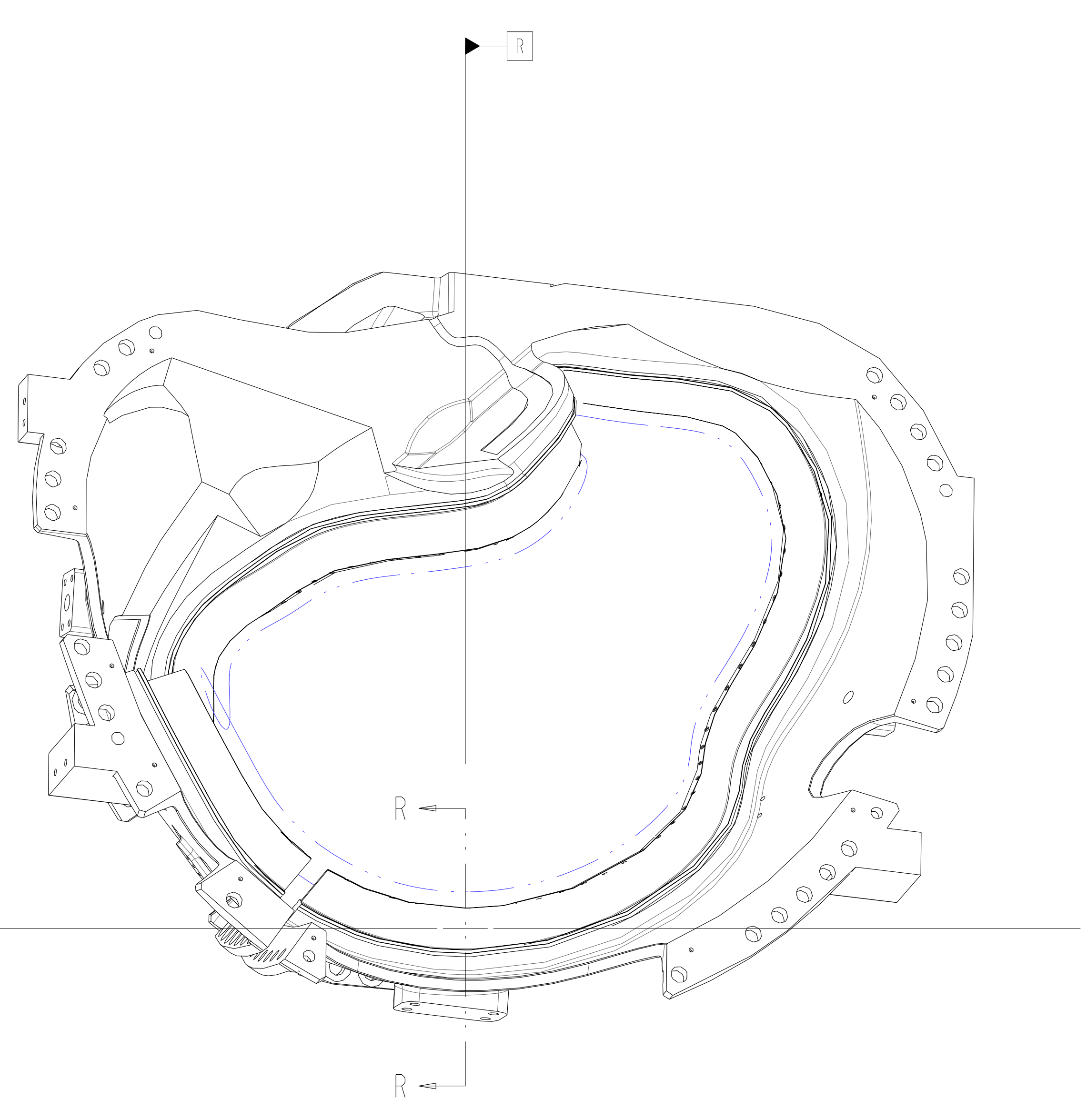
DETAIL B  
SCALE 2.00



DETAIL A  
SCALE 1.00  
TYPICAL FOR ALL POINTS ALONG WINDING CENTER



SECTION R-R  
SCALE 0.250



DETAIL C  
SCALE 2.00

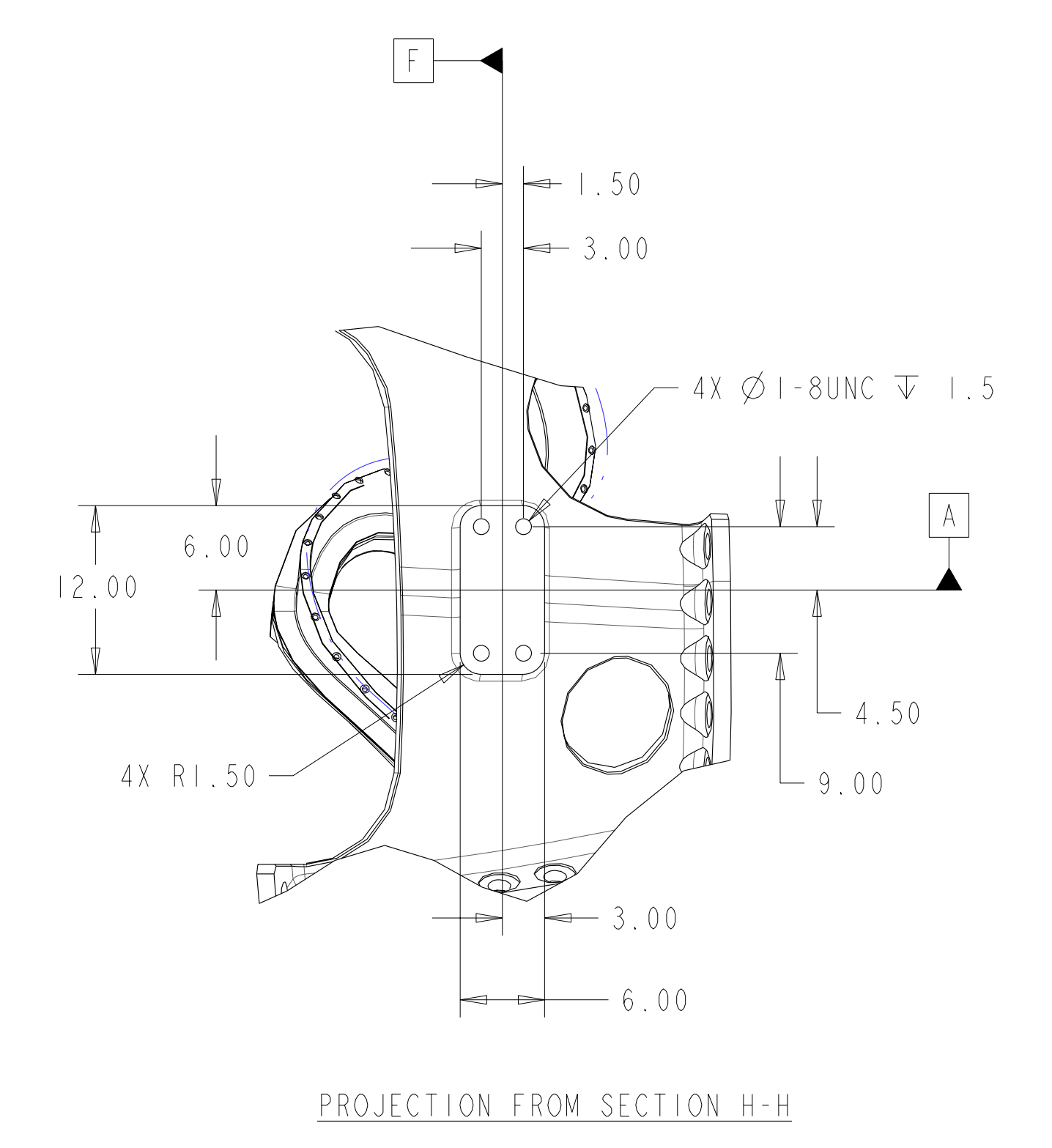
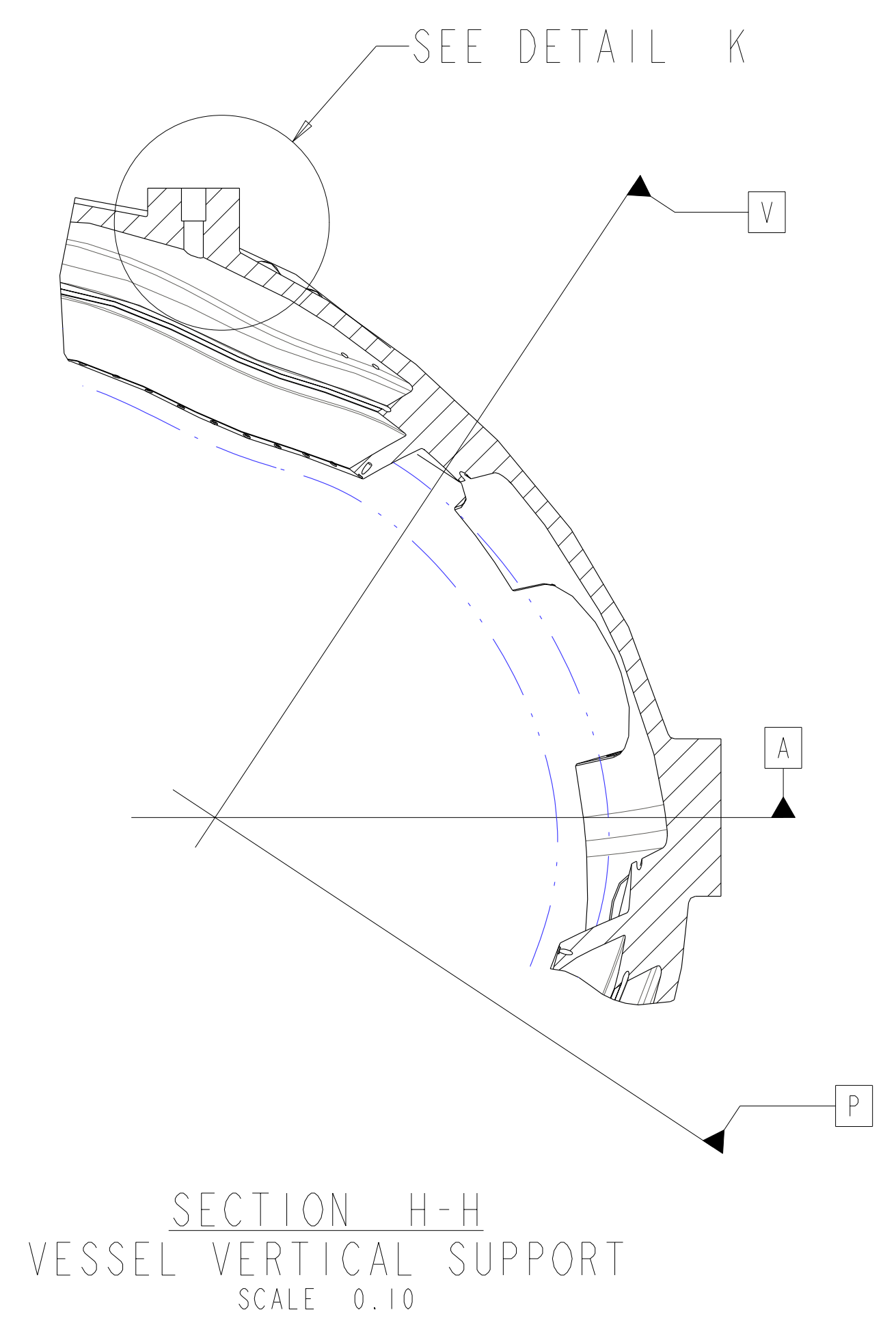
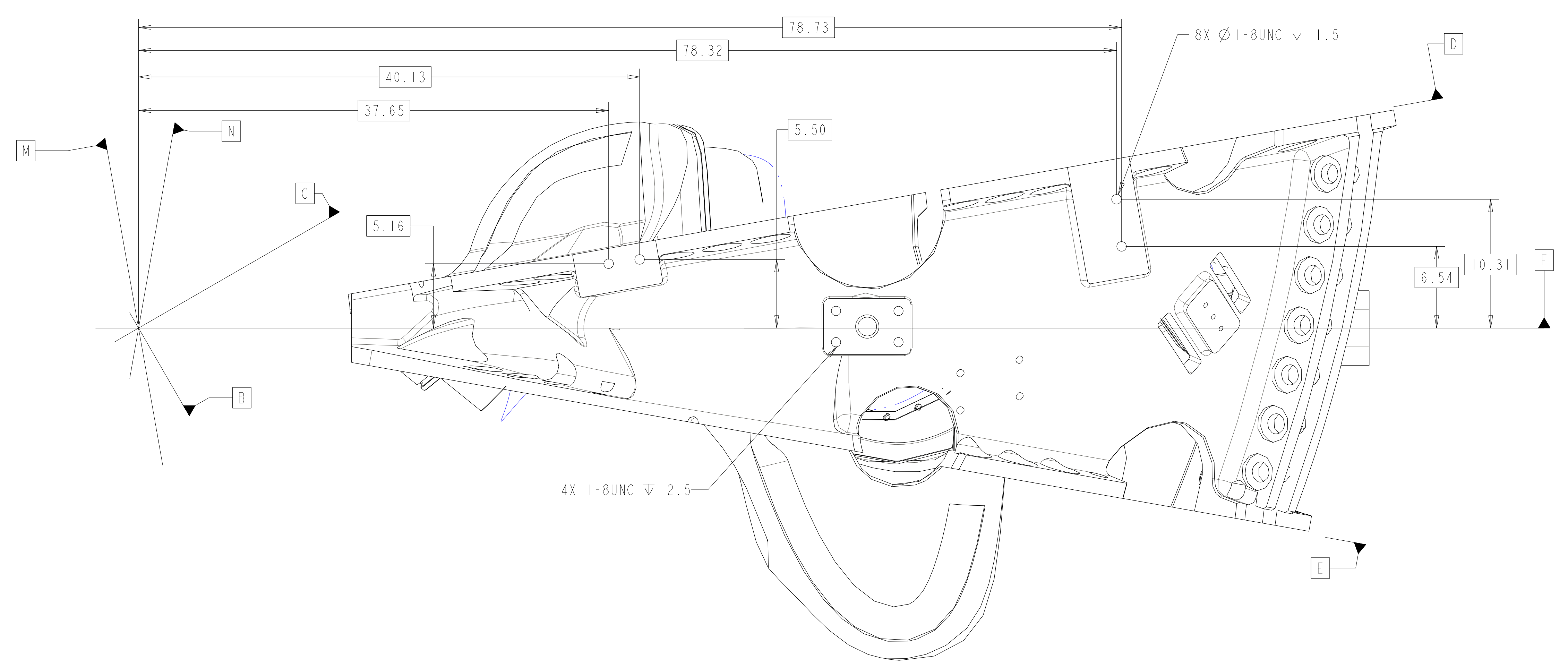
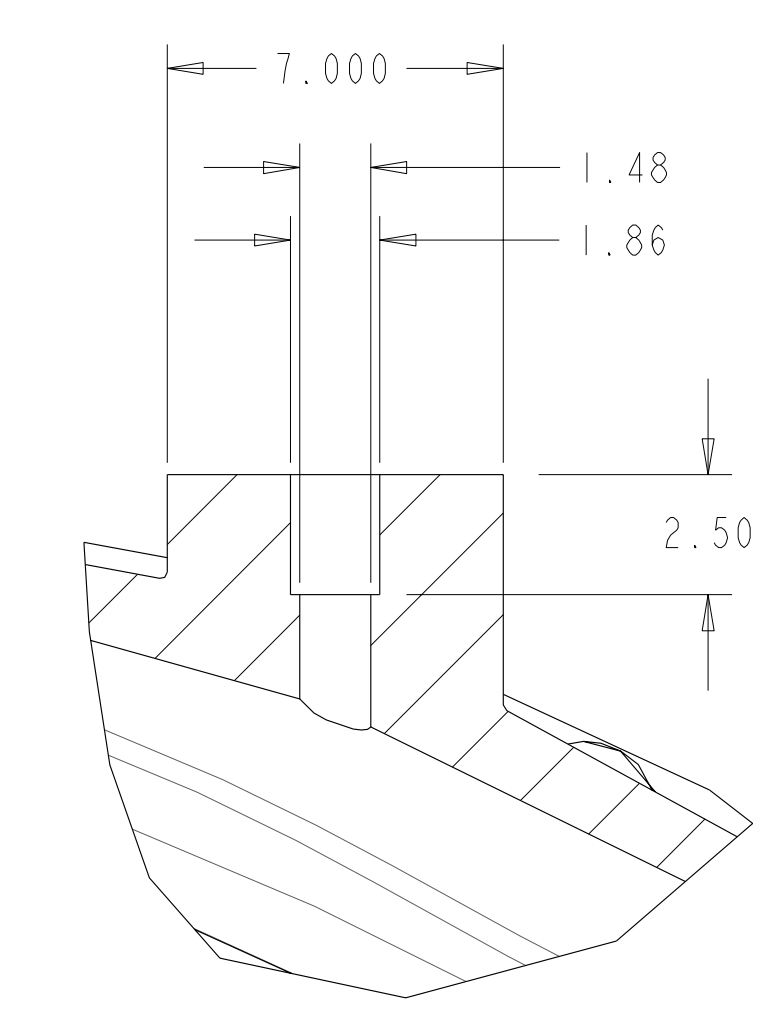
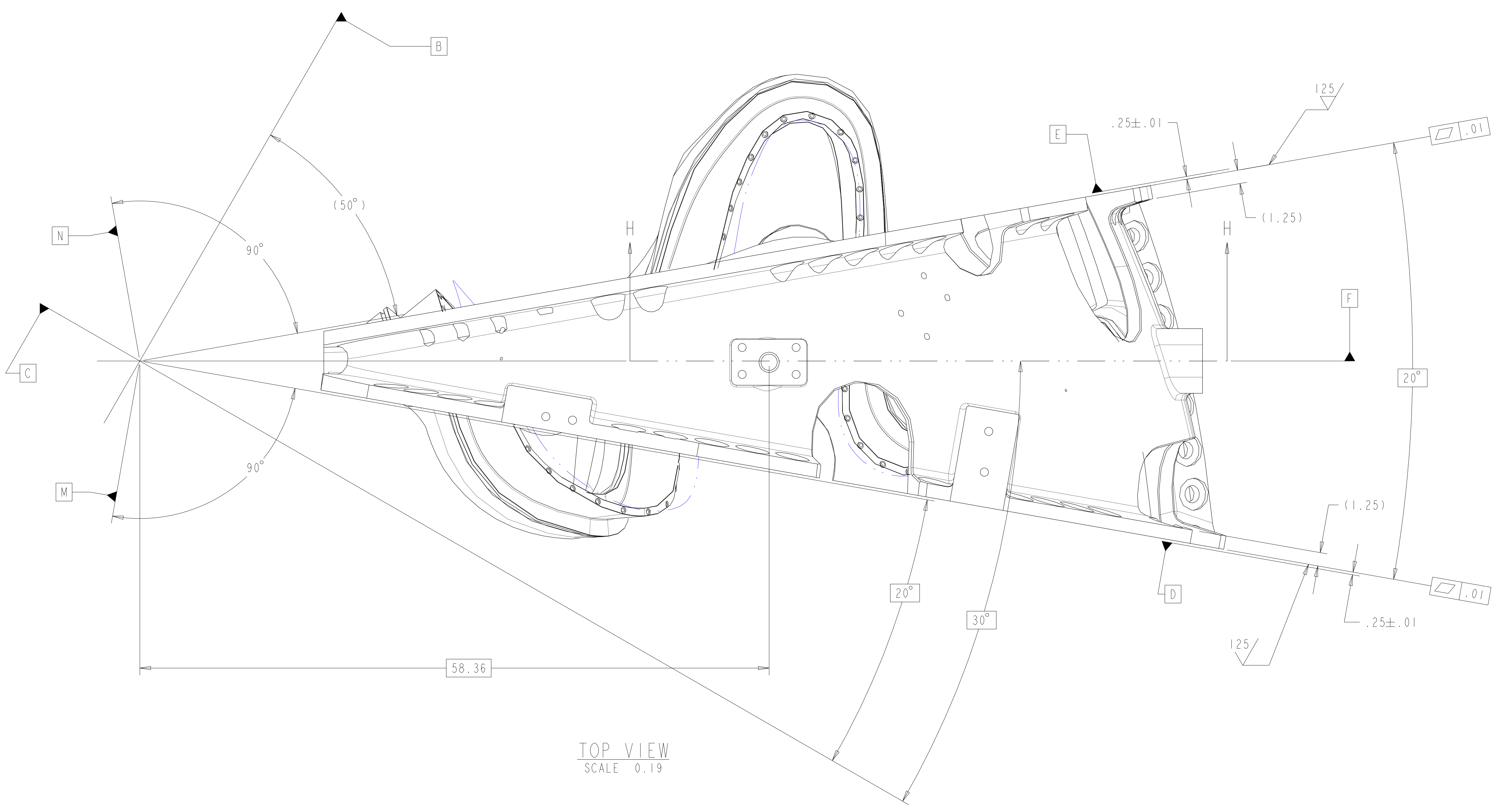
DATUM R = PLANE NORMAL TO WINDING CENTER  
 DATUM S = PLANE PASSING THRU WINDING CENTER AND X VECTOR AT DATUM R  
 DATUM T = PLANE PASSING THRU WINDING CENTER ORTHOGONAL TO DATUM S

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NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	2	12	S	U
RELEASE LEVEL	SEI41-115						
Fabrication							

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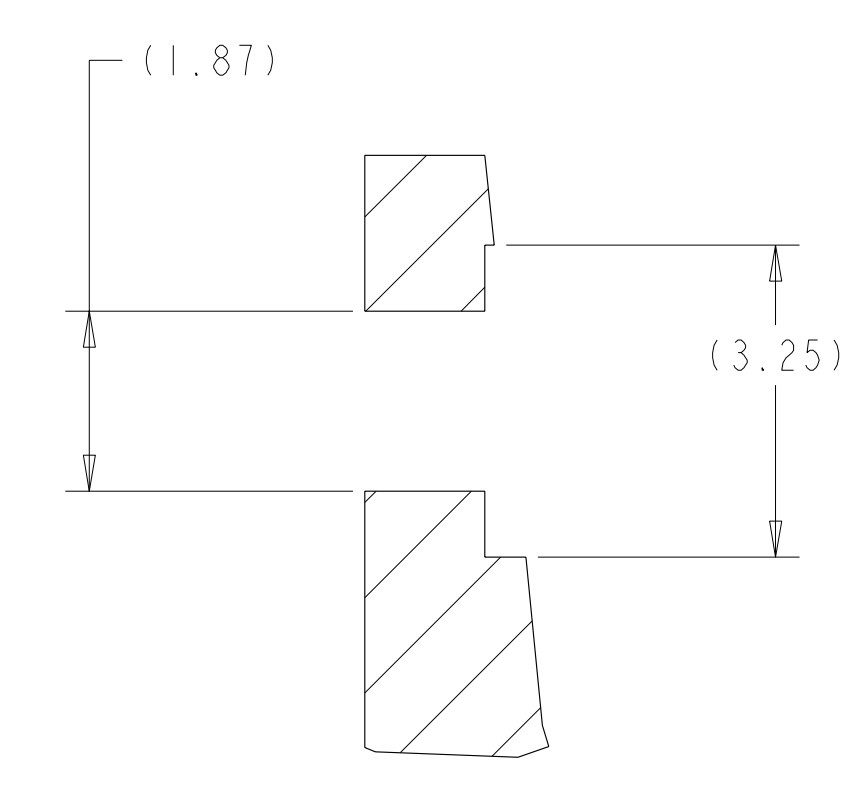
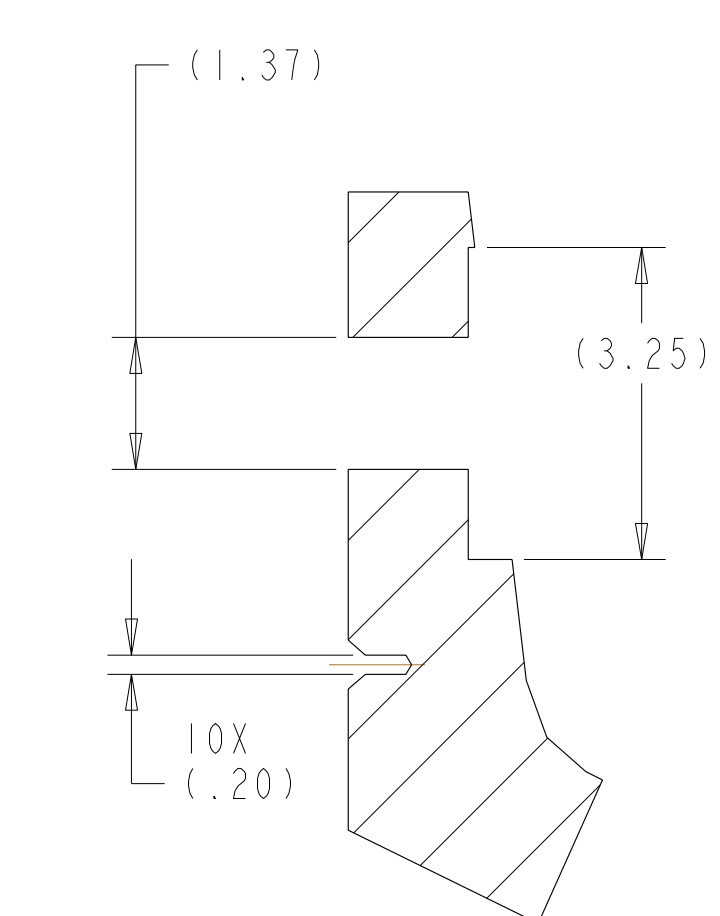
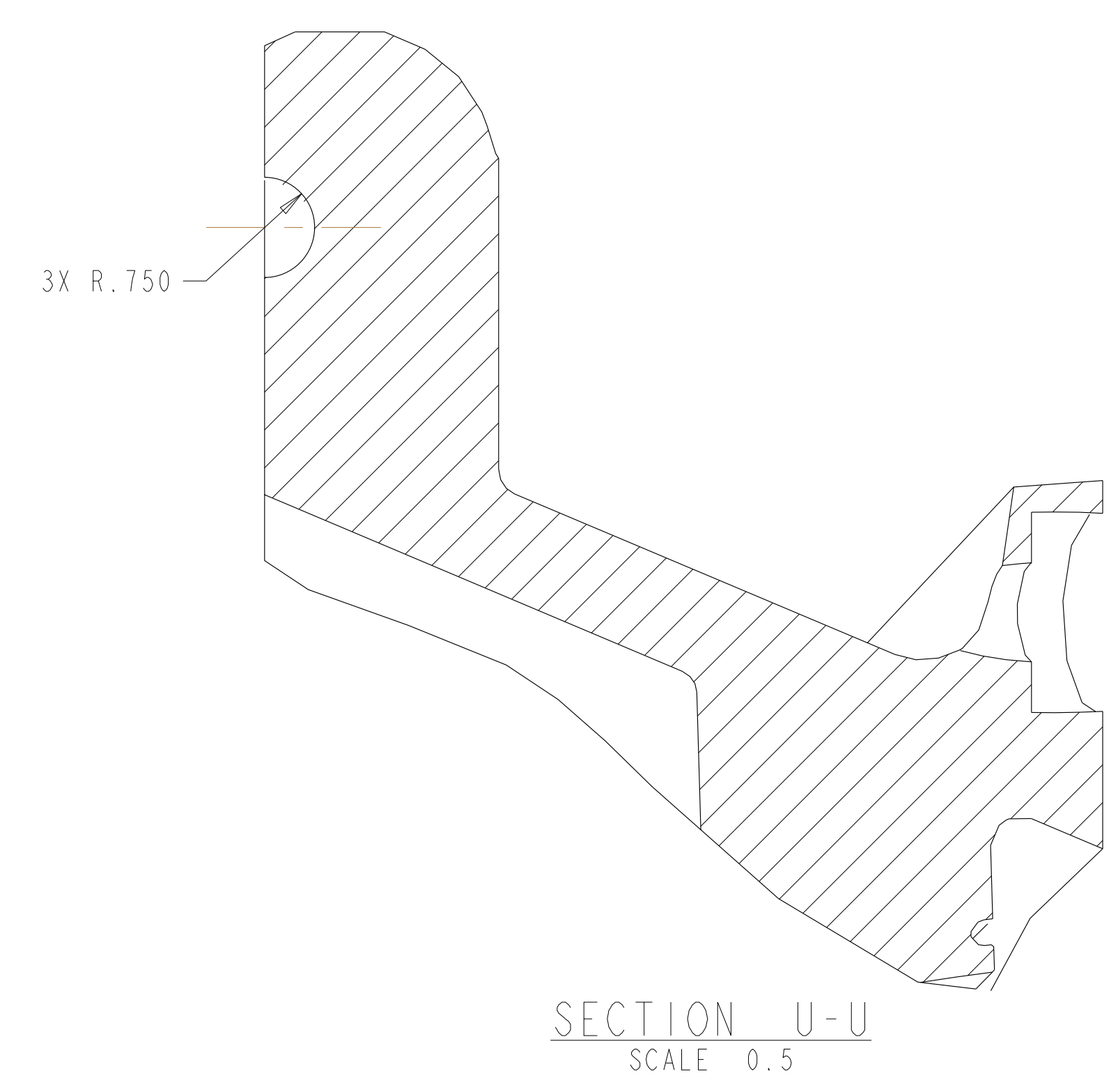
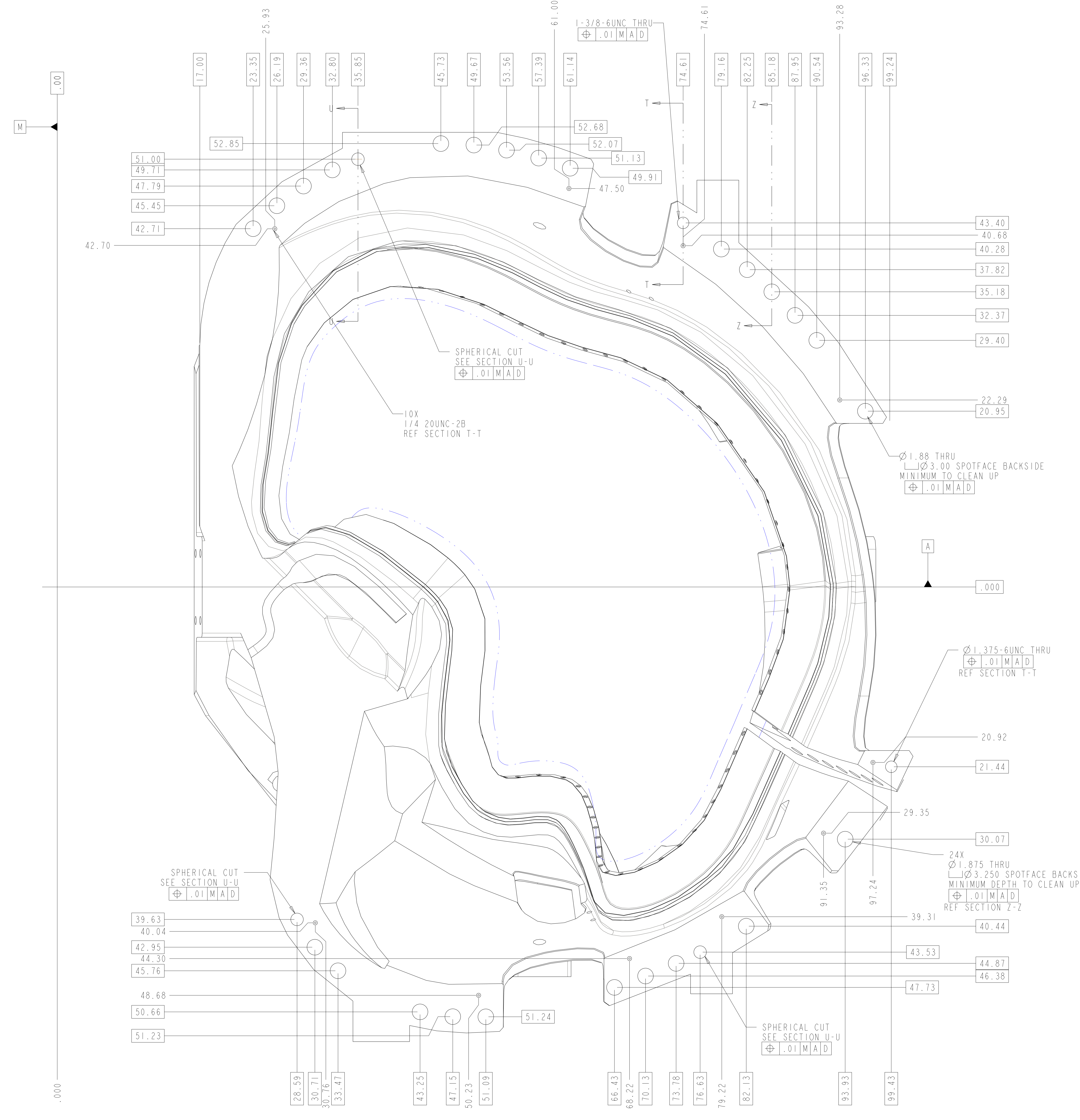
SEI41-115

FOR NOTES AND PARTS LIST SEE SHEET I

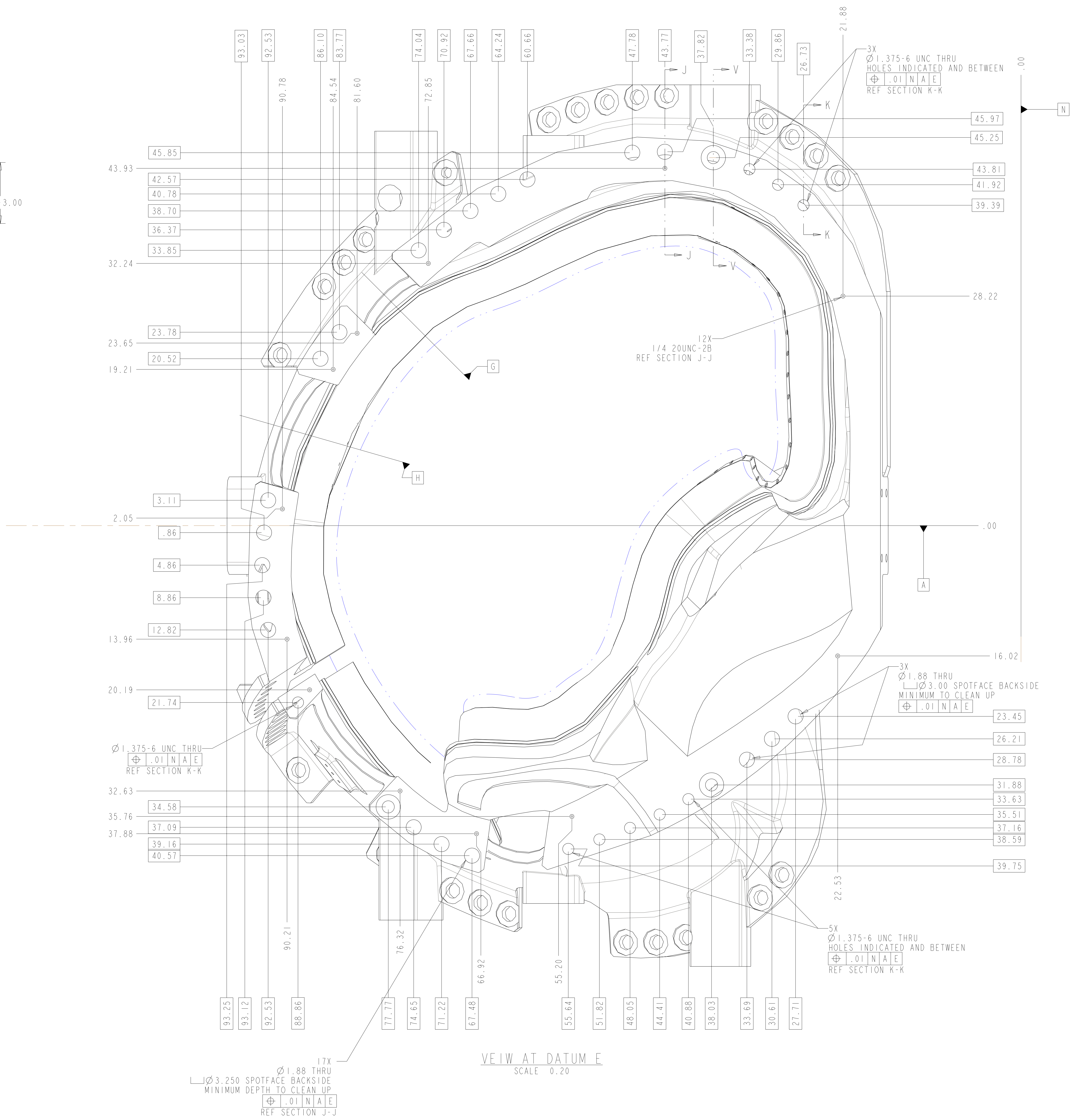
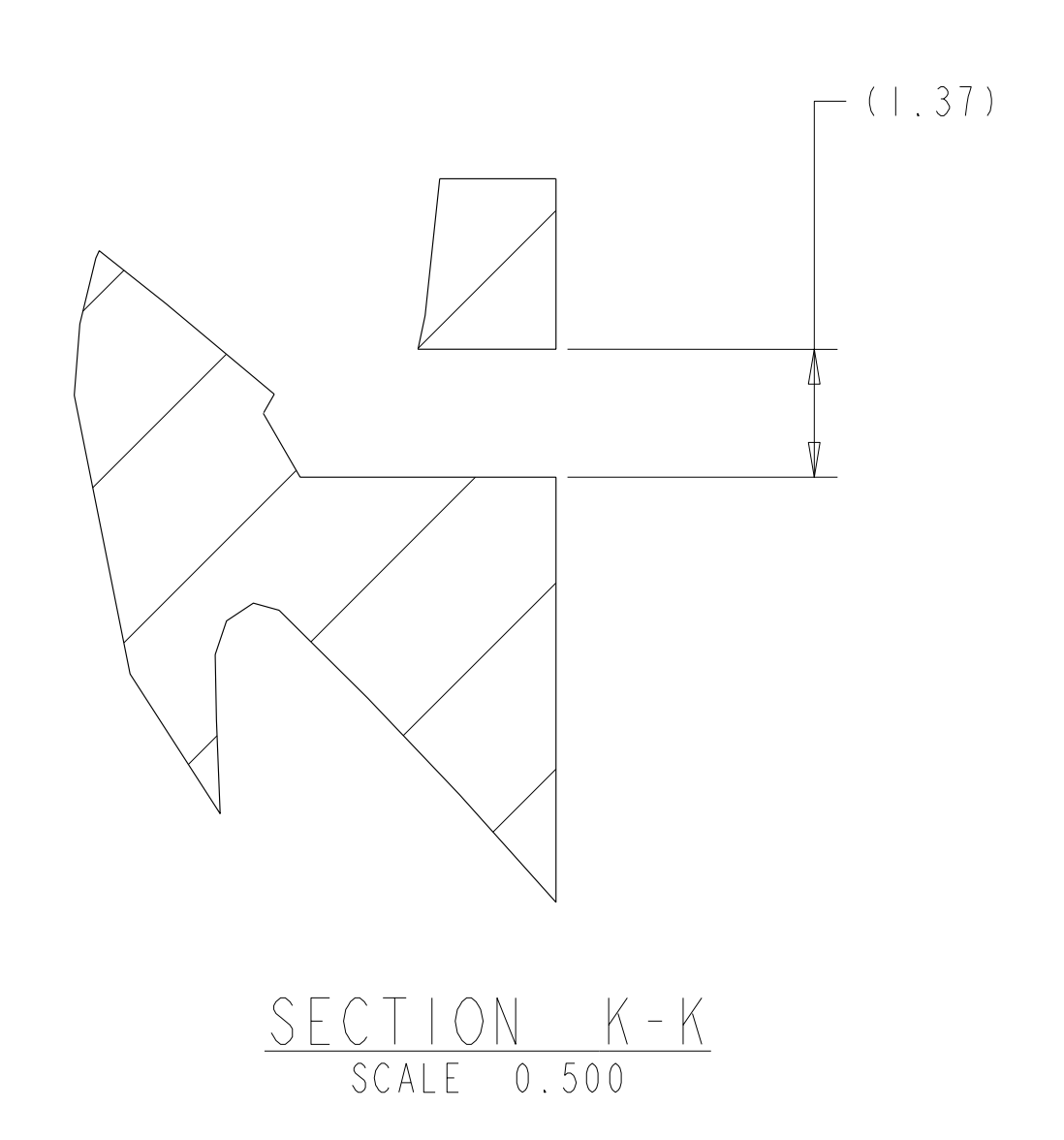
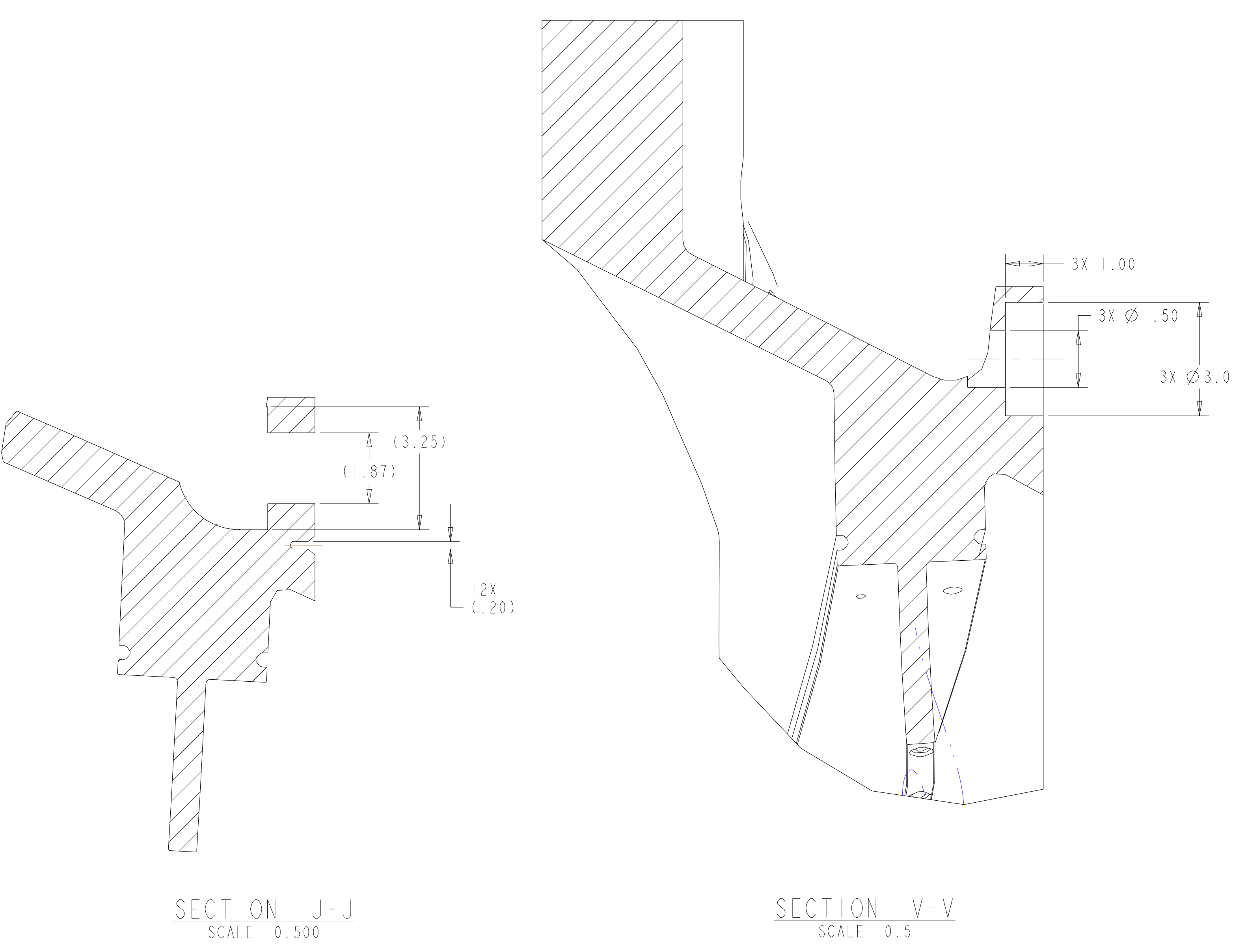


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UT-BATTELLE NATIONAL COMPACT STELLARATOR EXPERIMENT						
PRODUCTION WINDING FORM TYPE-B						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
12	X-10	5700	3	3	12	S
RELEASE LEVEL	SEI41-115					
Fabrication						
						U
						REV
						1

FOR NOTES AND PARTS LIST SEE SHEET 1

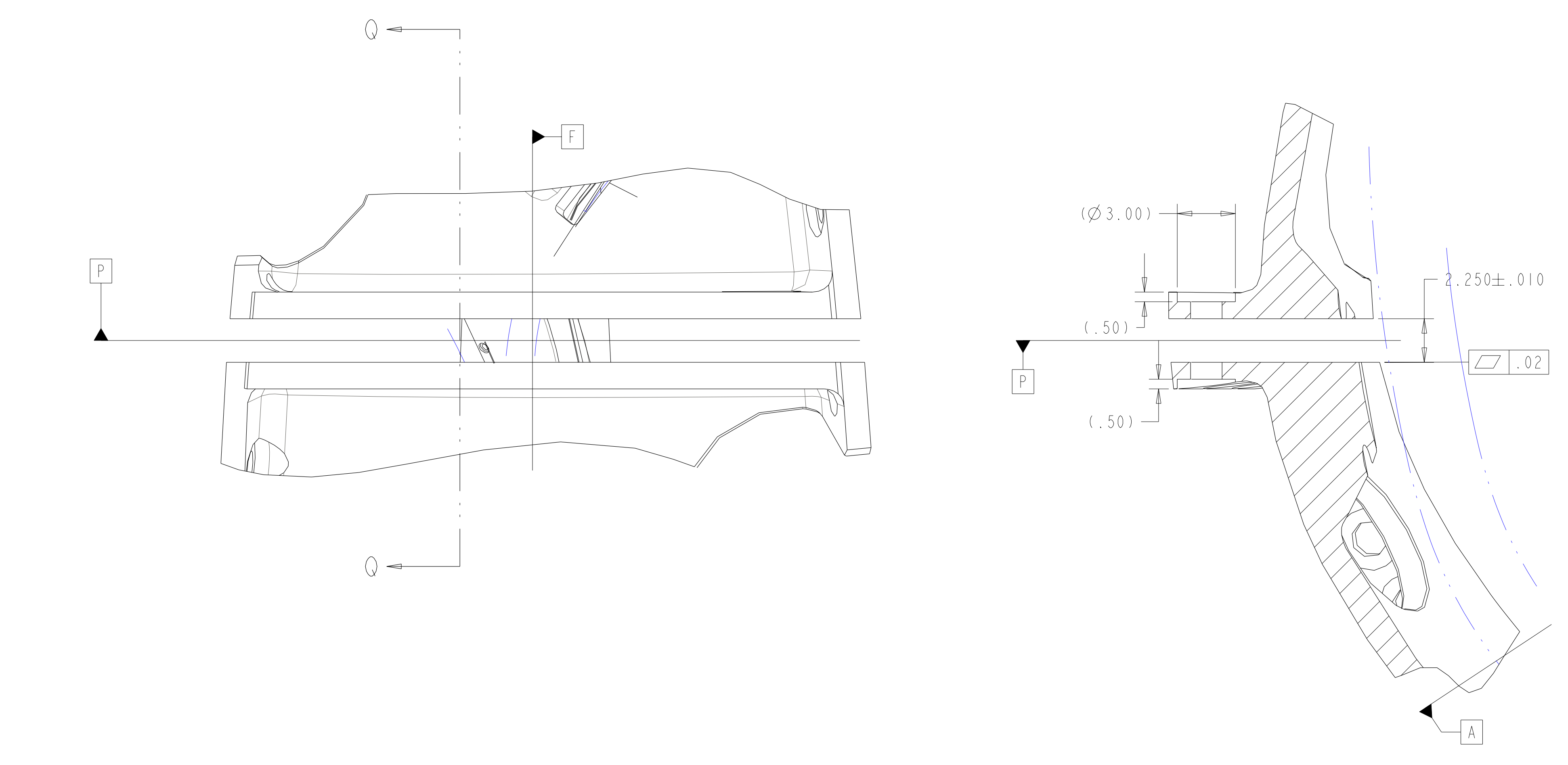


Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME						
<b>UT-BATTELLE</b> NATIONAL COMPACT STELLARATOR EXPERIMENT						
PRODUCTION WINDING FORM TYPE-B						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
12	X-10	5700	3	4	12	S
RELEASE LEVEL	SEI41-115					
Fabrication						

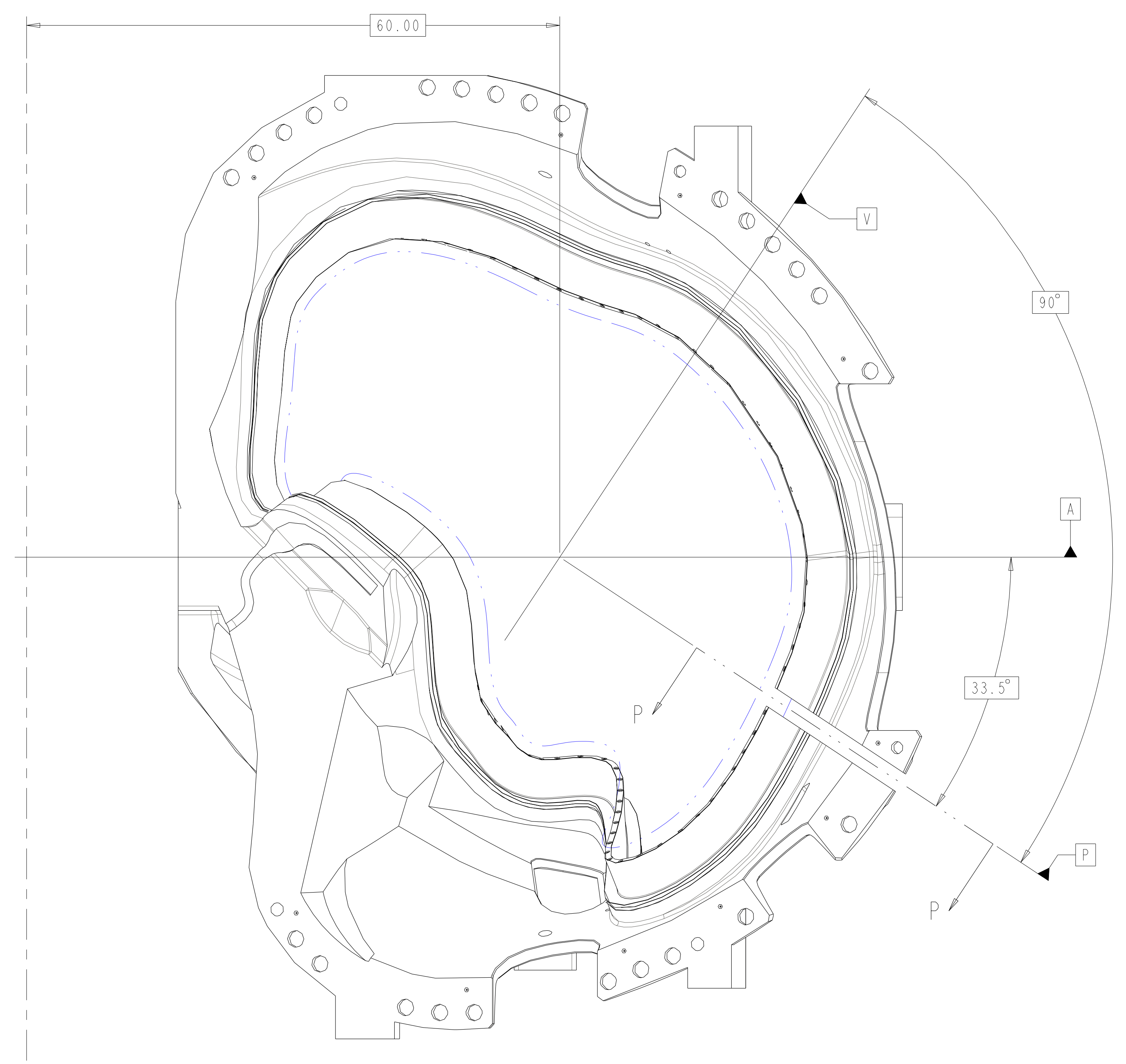


Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee PROJECT NAME							
<b>UT-BATTELLE</b>							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	5	12	S	U
RELEASE LEVEL		SEI41-115					
Fabrication							

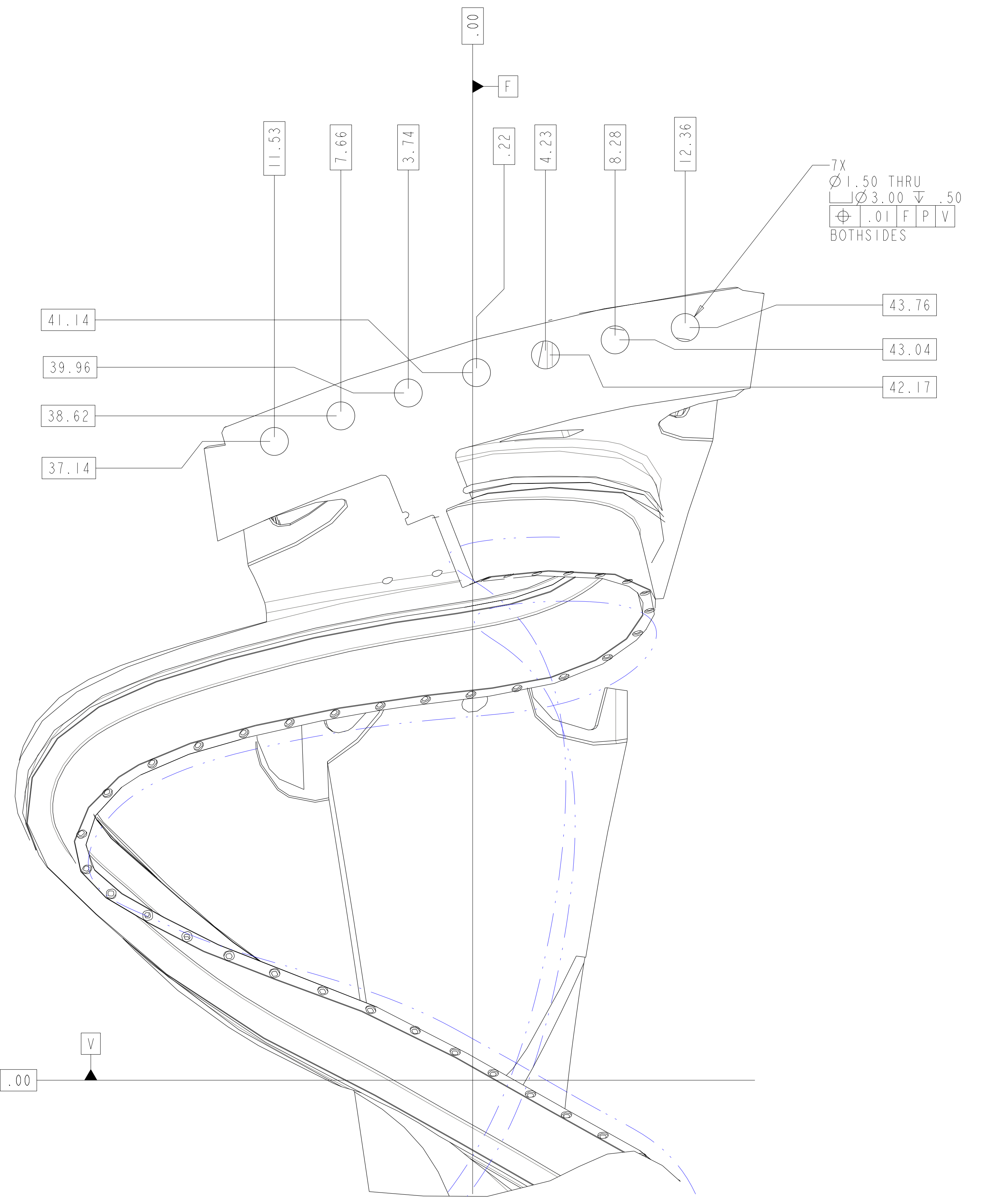
FOR NOTES AND PARTS LIST SEE SHEET 1



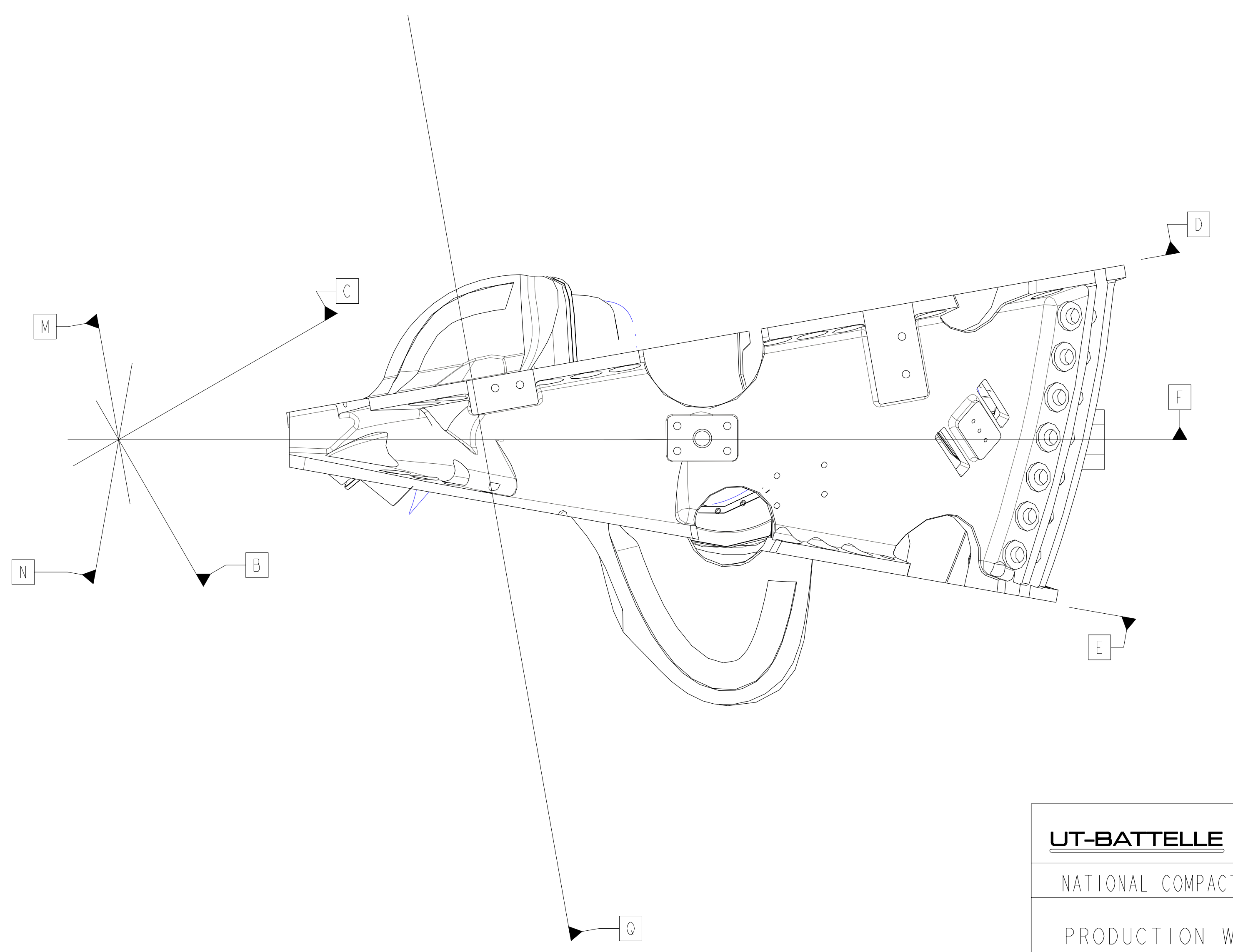
SECTION Q-Q



POLOIDAL BREAK DETAIL  
SCALE 0.13

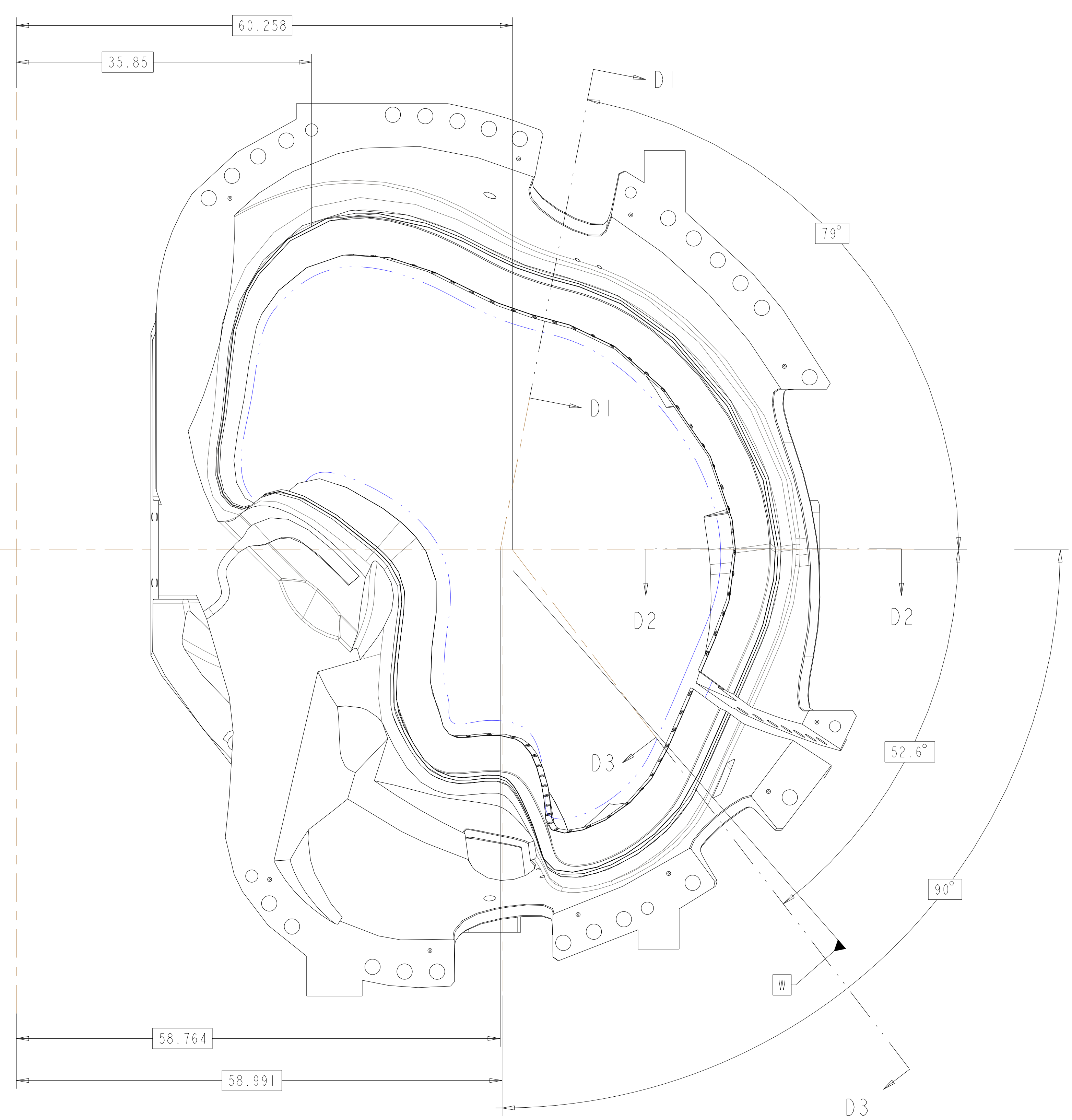


SECTION P-P  
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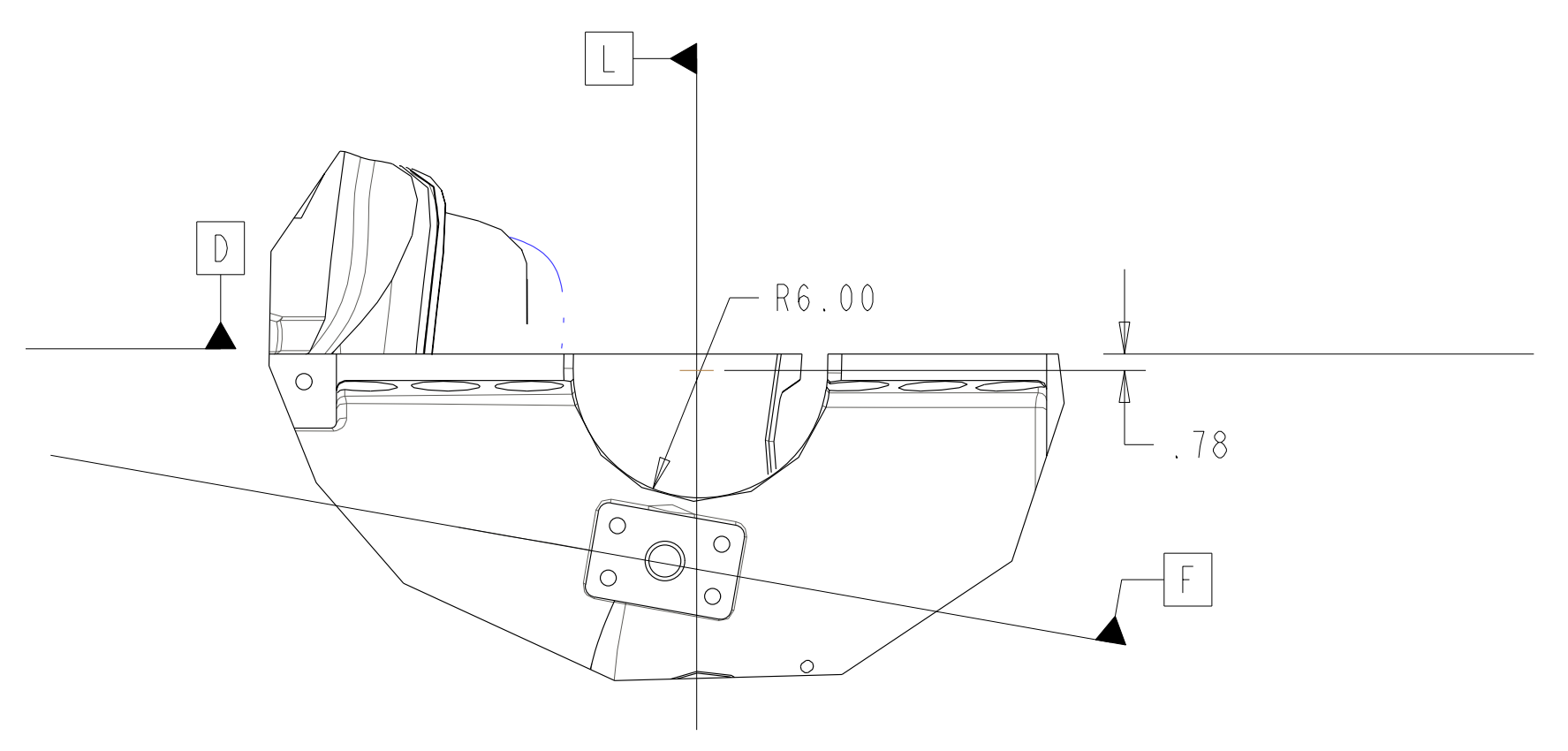


<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC., Oak Ridge, Tennessee					
PROJECT NAME NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	6	12	S	U
RELEASE LEVEL Fabrication		SE141-115					
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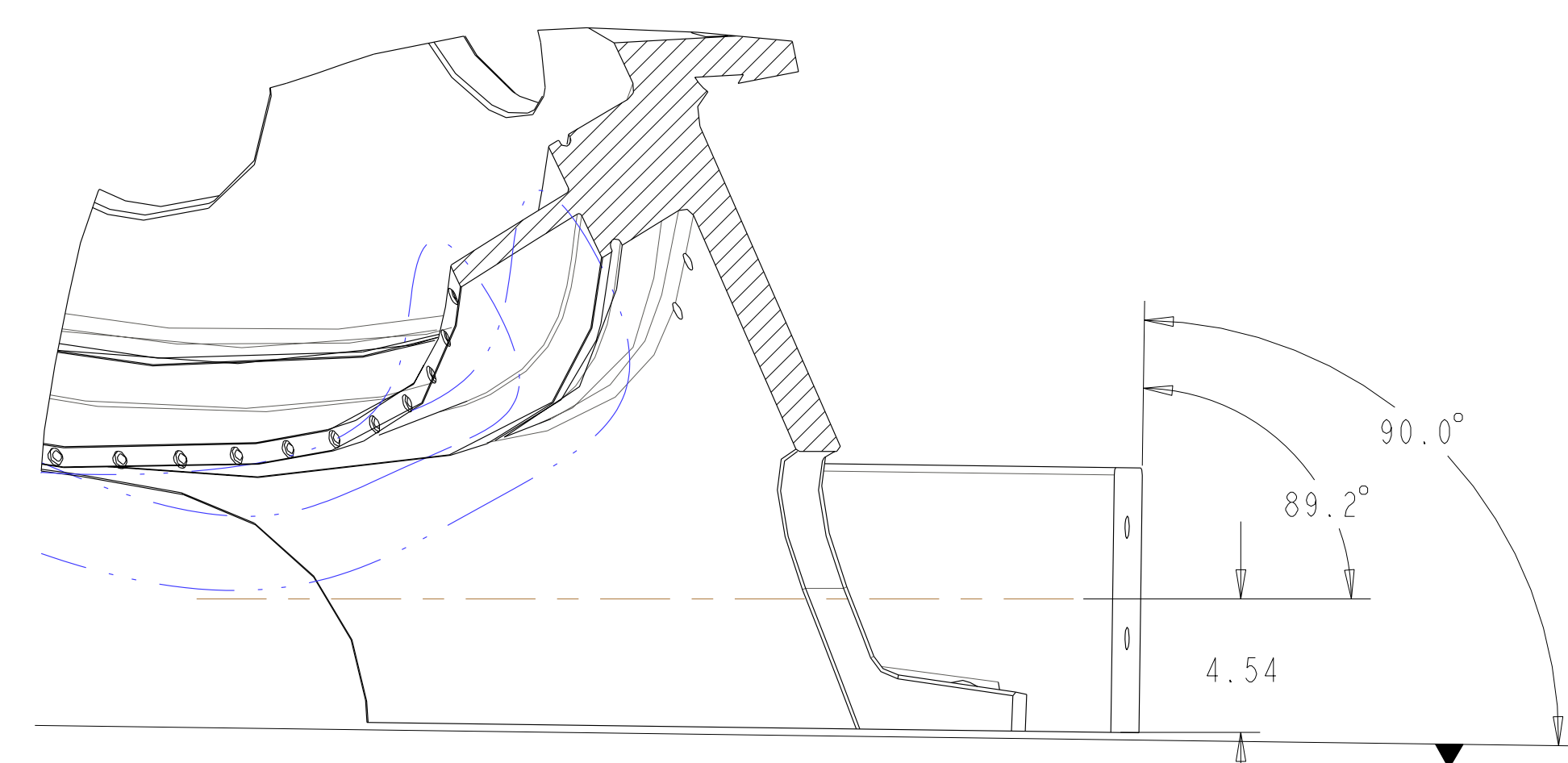
FOR NOTES AND PARTS LIST SEE SHEET 1



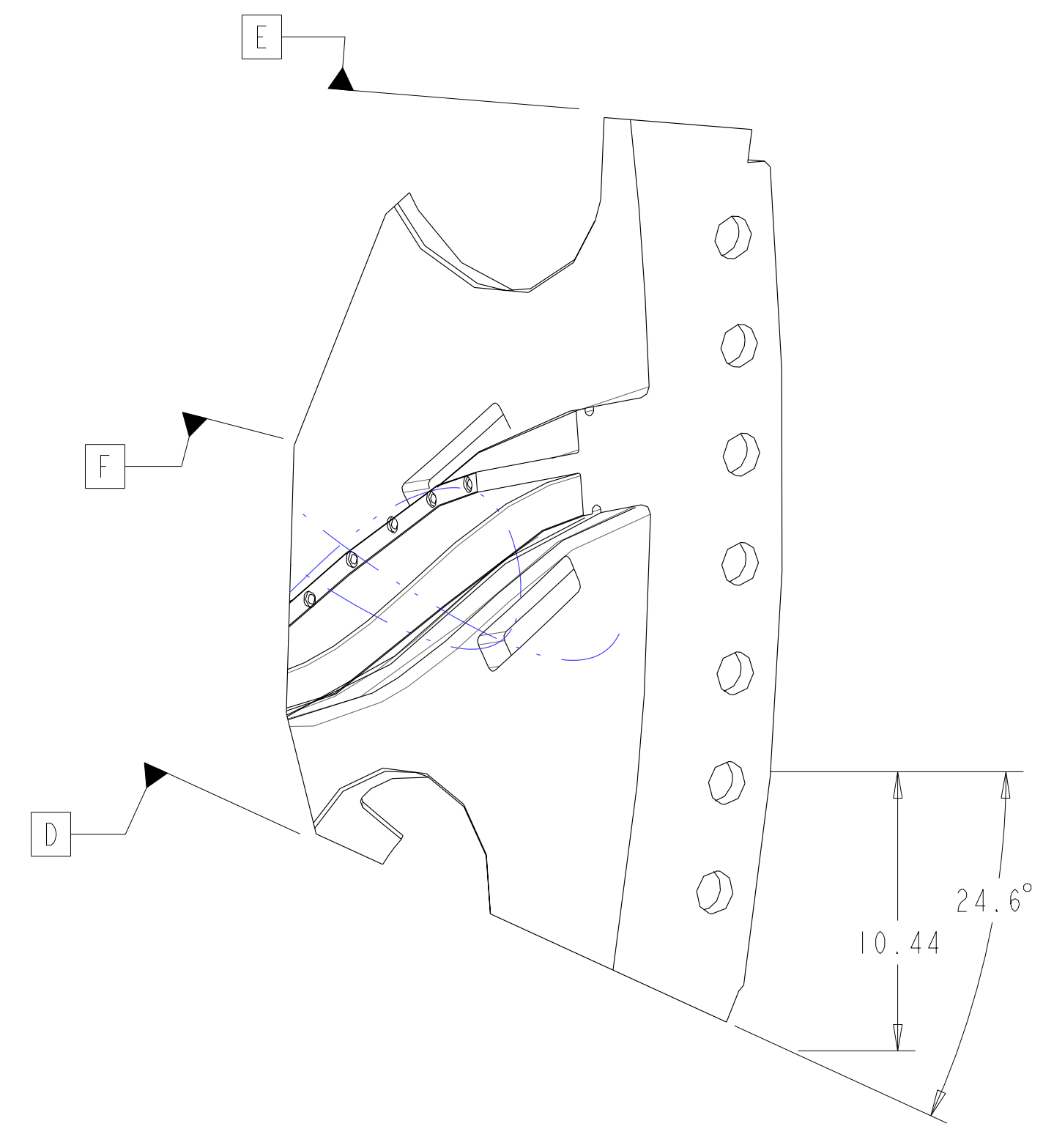
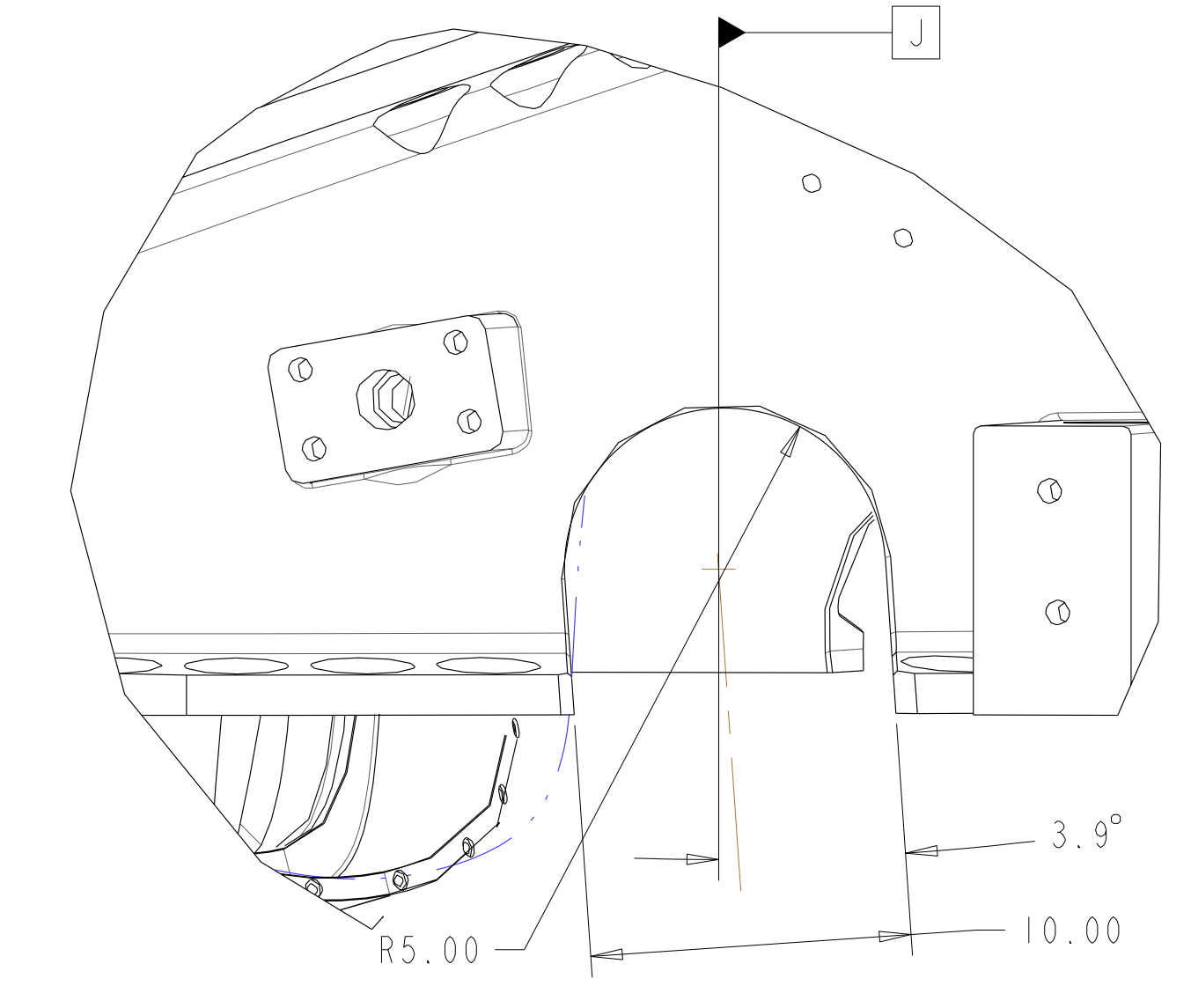
VIEW AT DATUM D  
SCALE 0.13



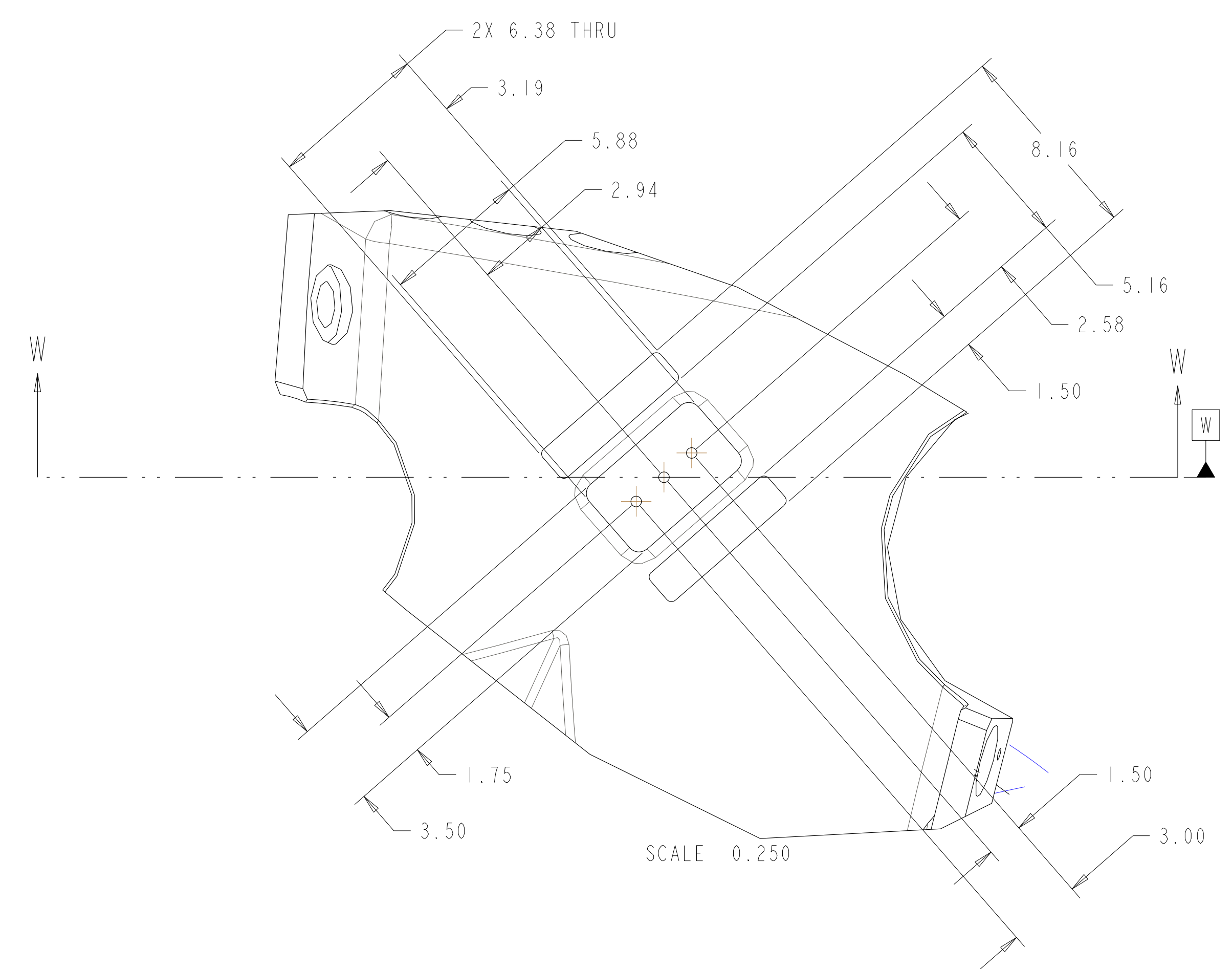
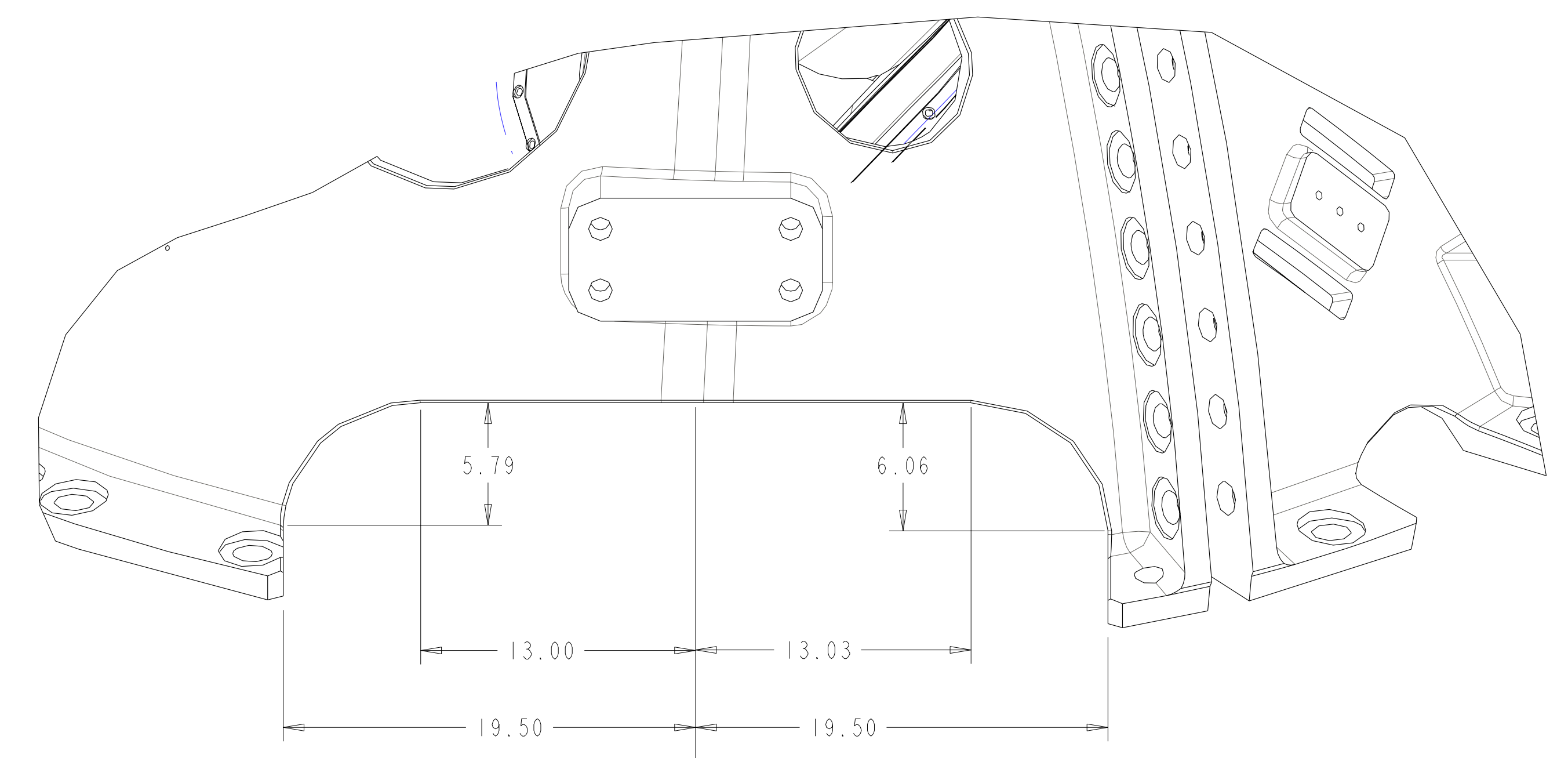
BOTTOM VIEW



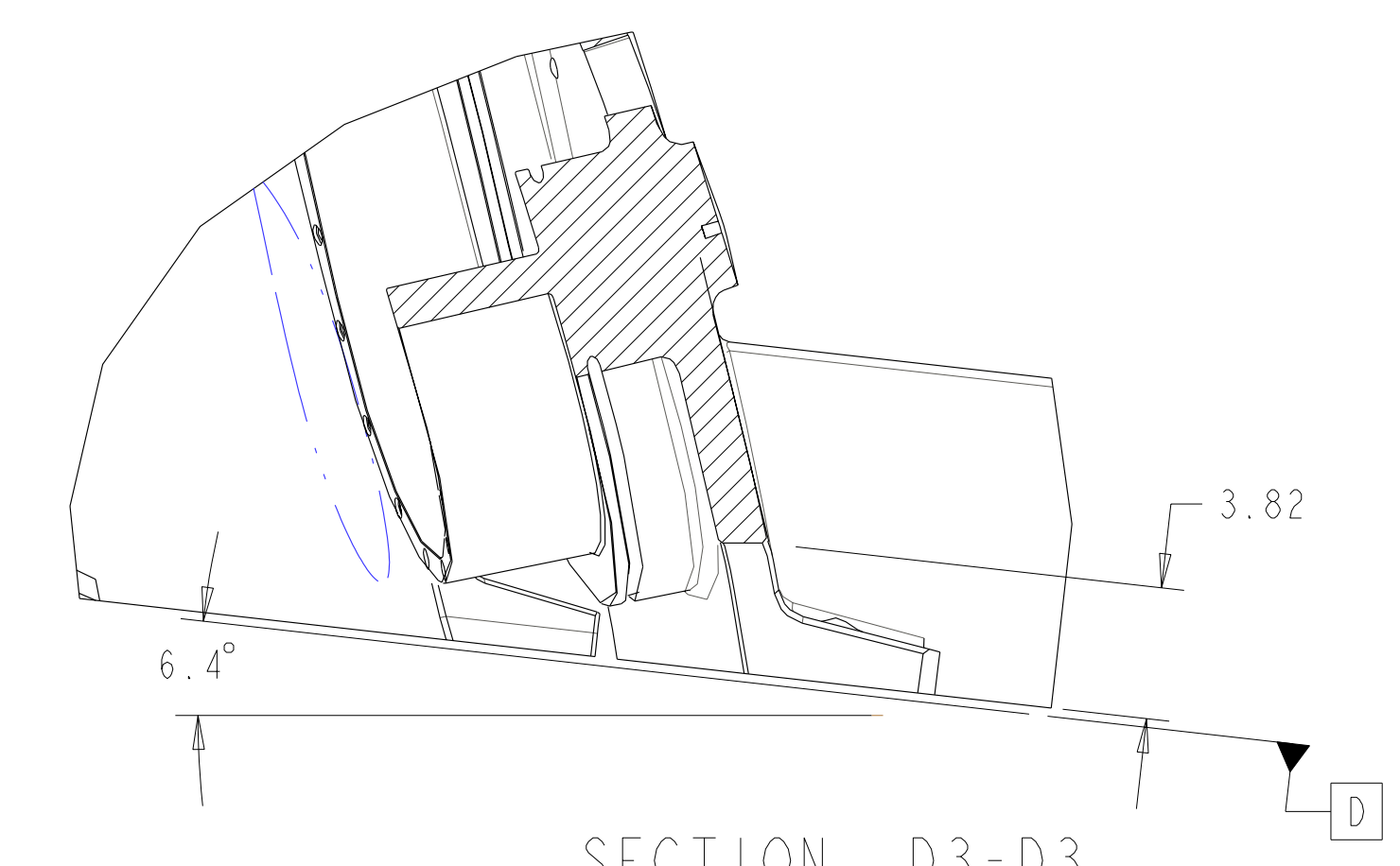
SECTION D1-D1  
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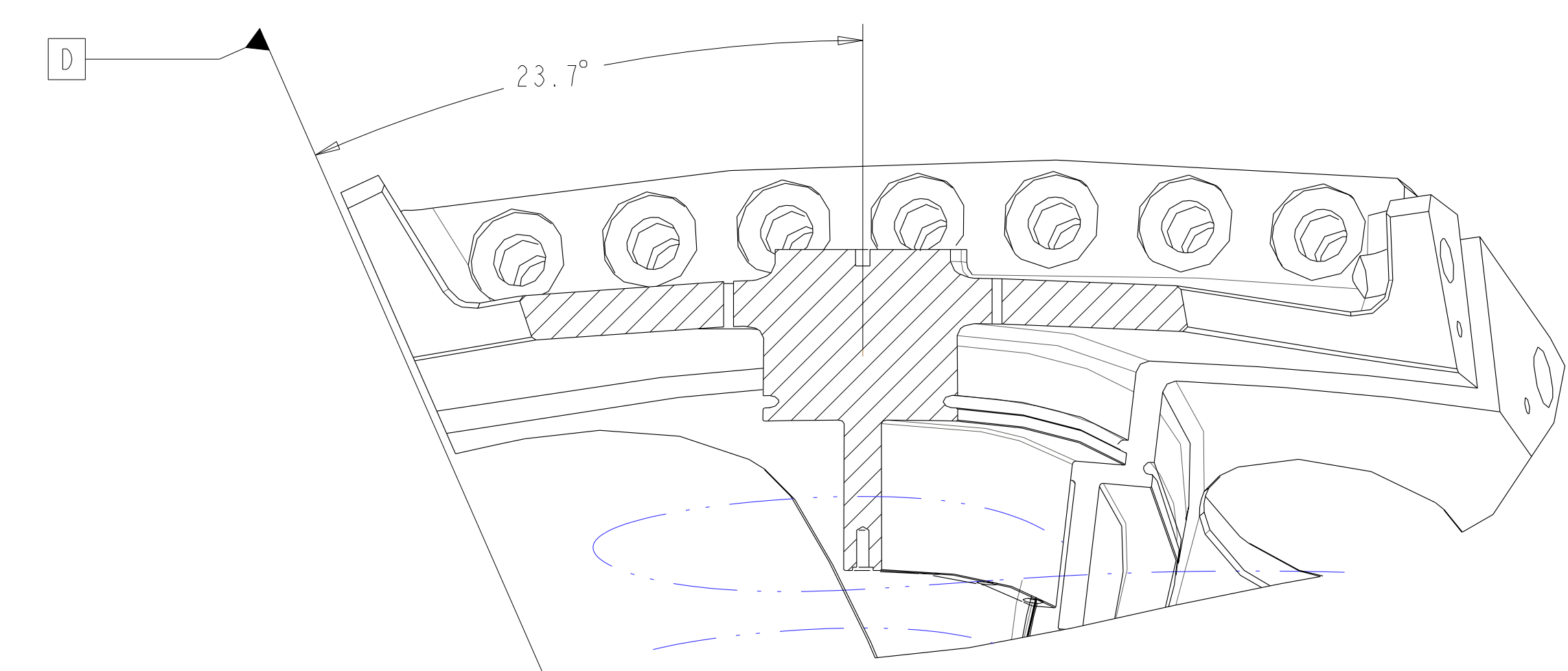
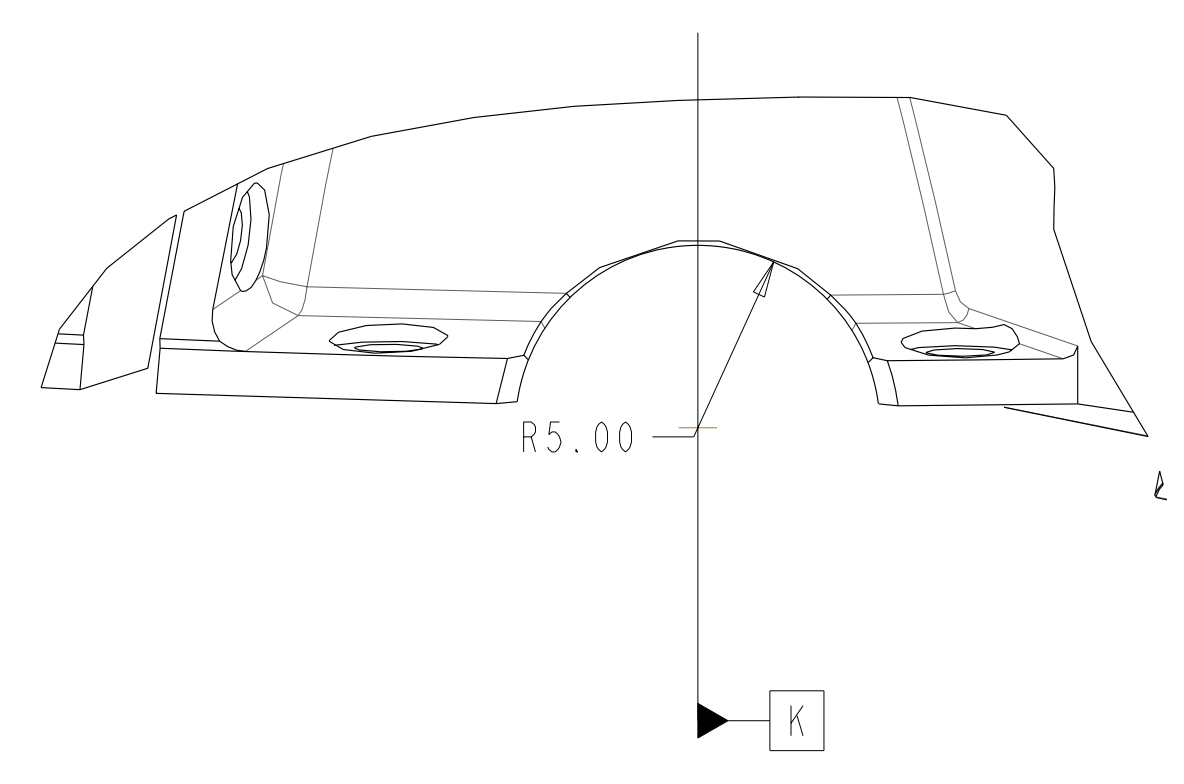
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SCALE 0.250



SECTION D3-D3  
SCALE 0.19



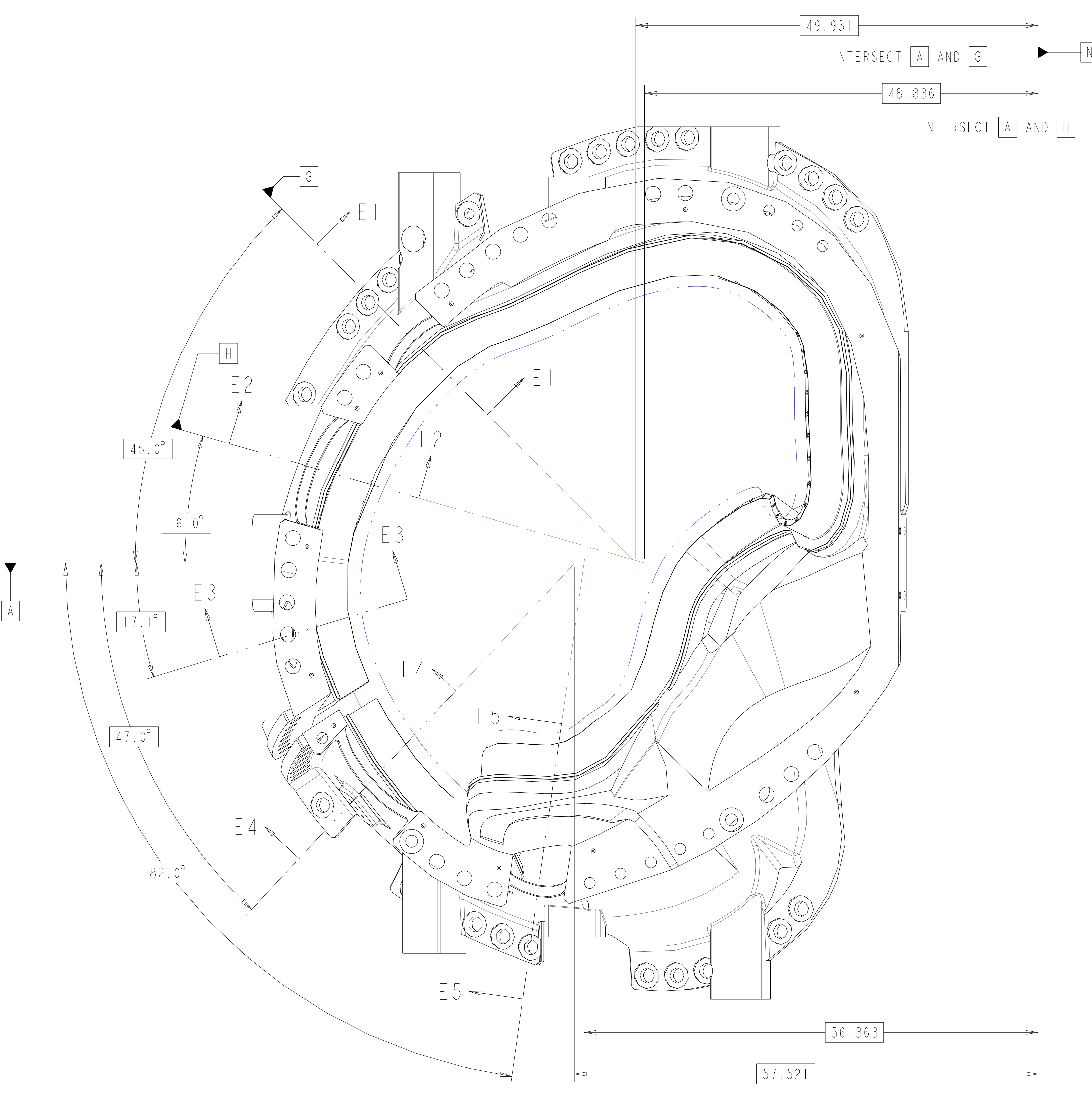
SECTION W-W

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<b>UT-BATTELLE</b> NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	7	12	S	U
RELEASE LEVEL	SEI41-115						
Fabrication							

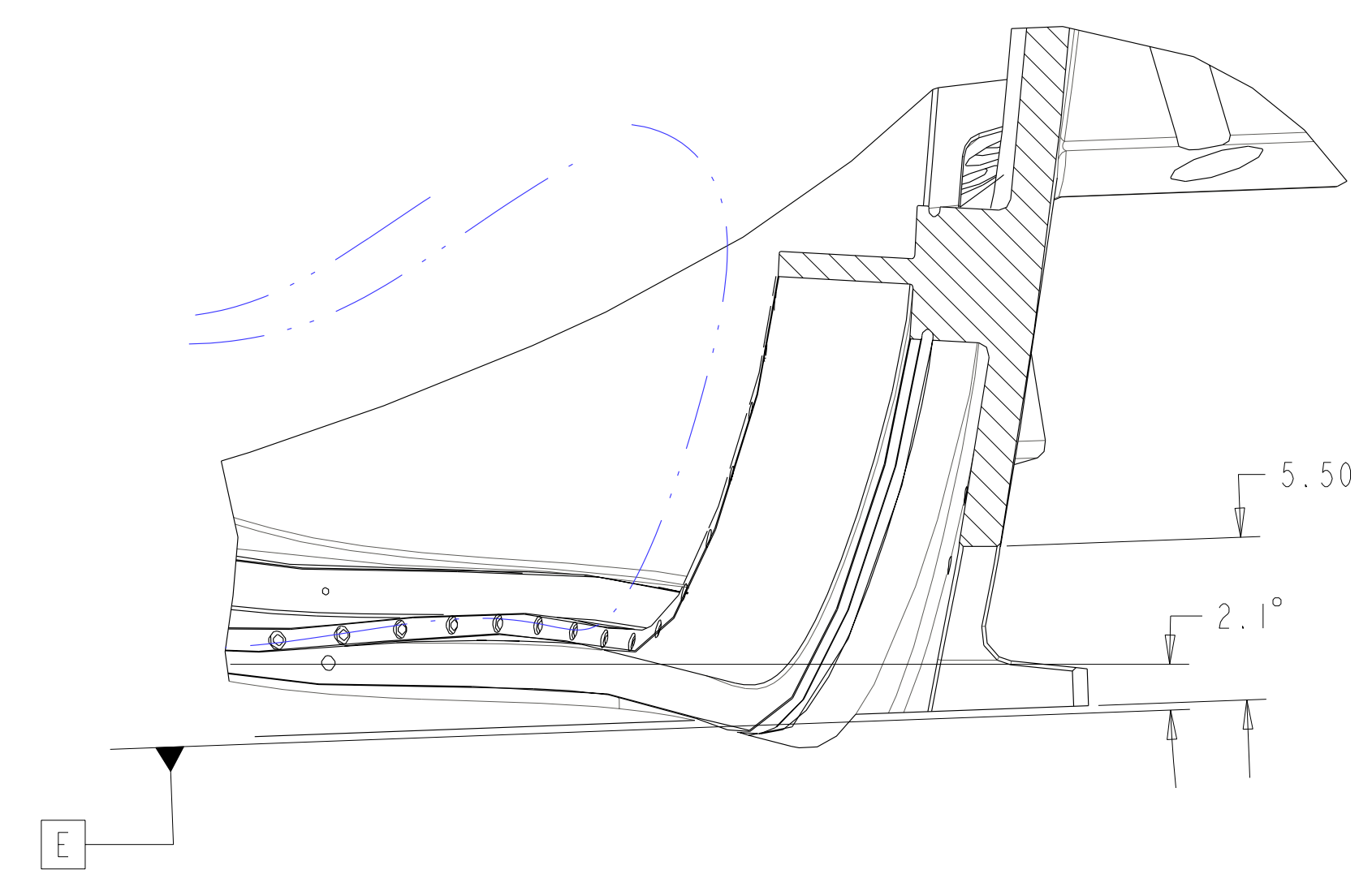
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8 7 6 5 4 3 2 1

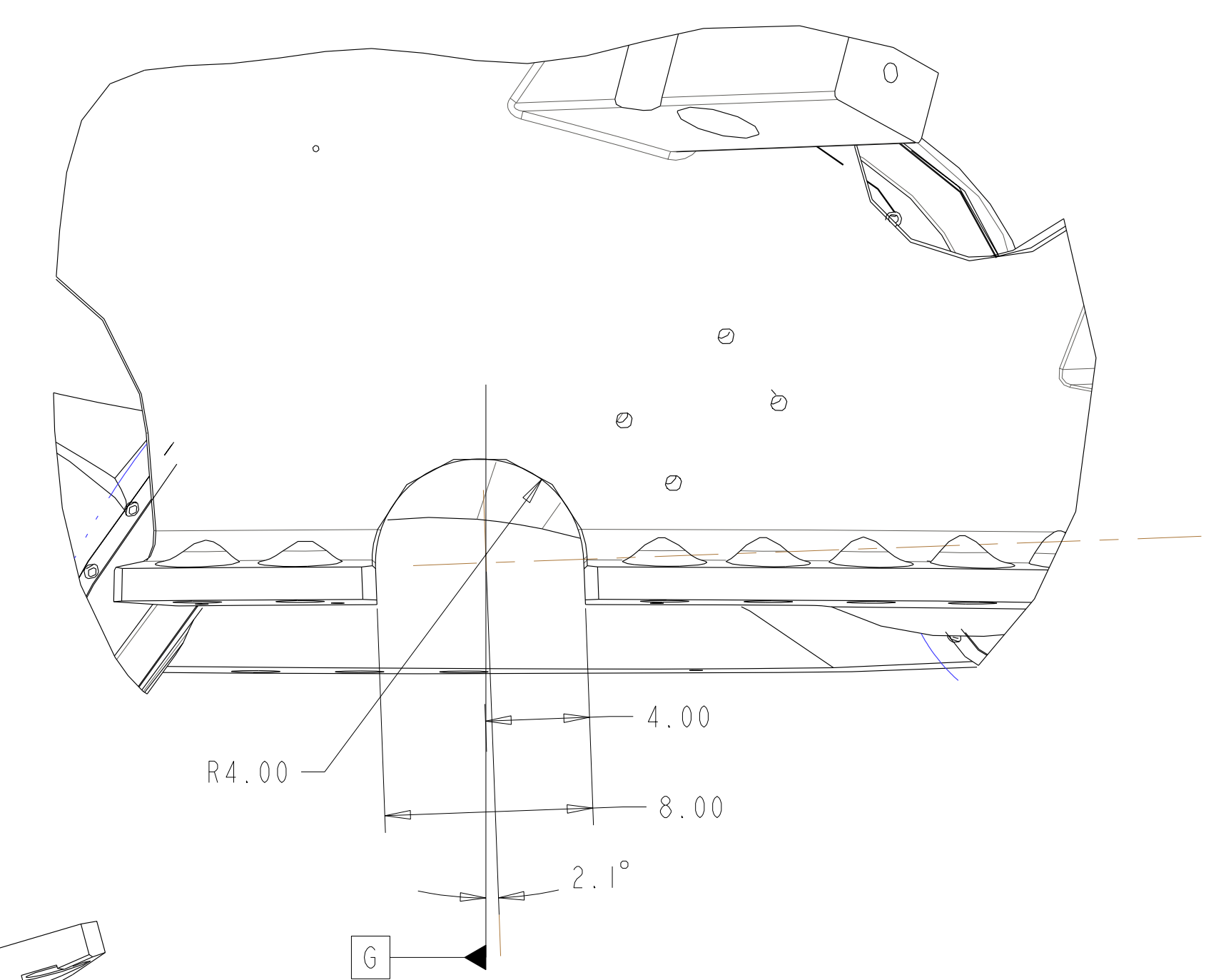
FOR NOTES AND PARTS LIST SEE SHEET 1



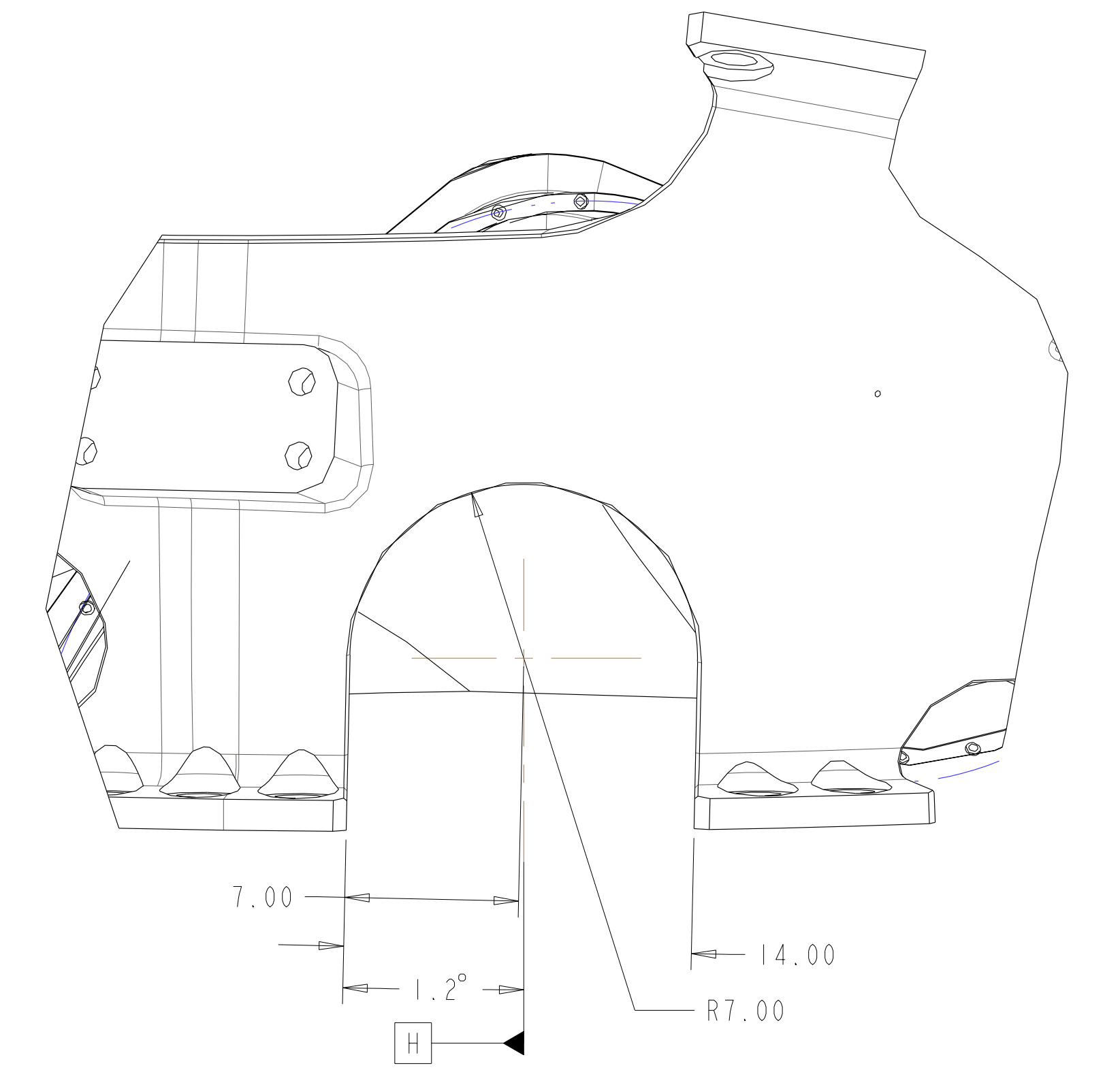
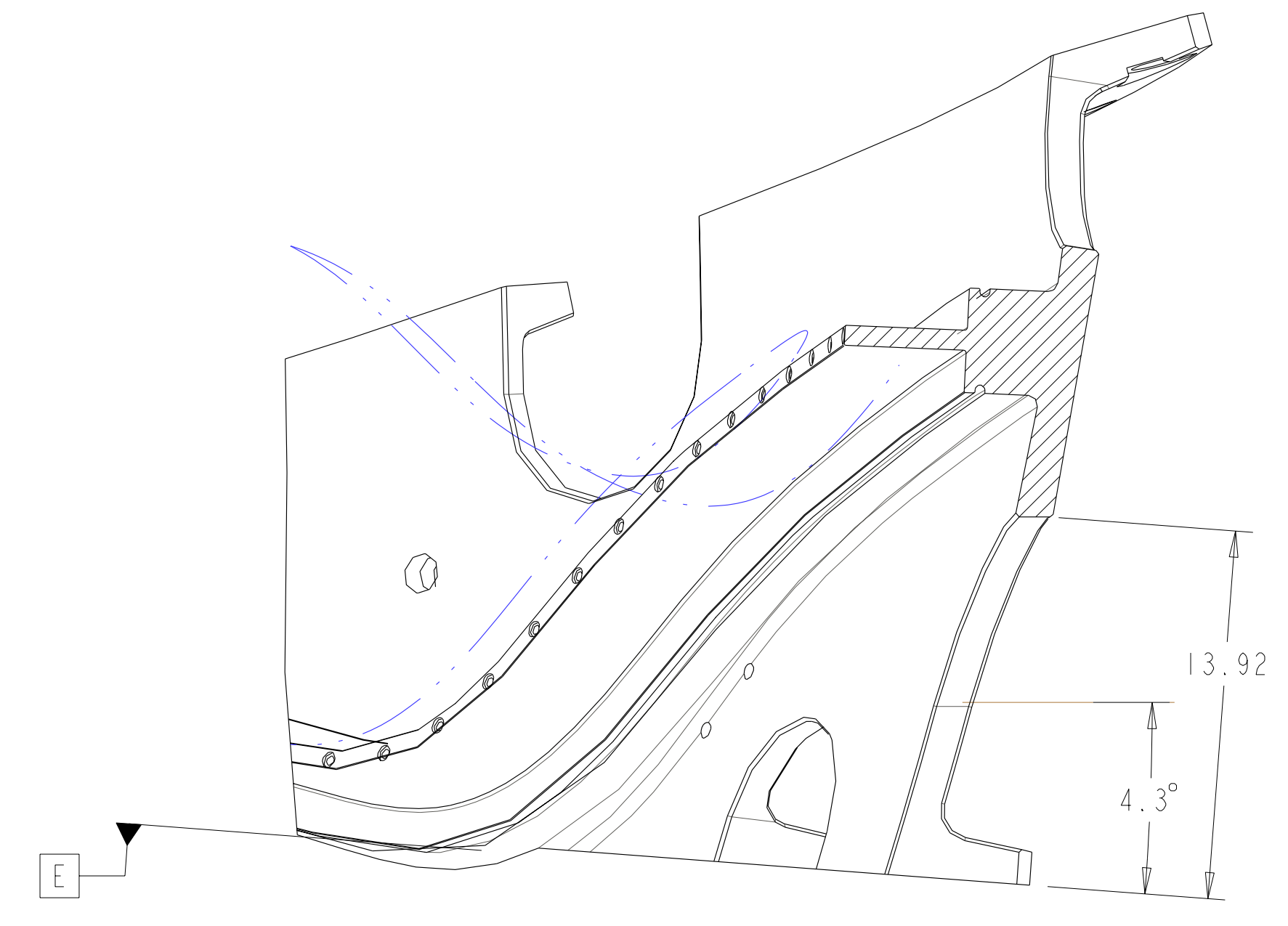
VIEW AT DATUM E  
SCALE 0.13



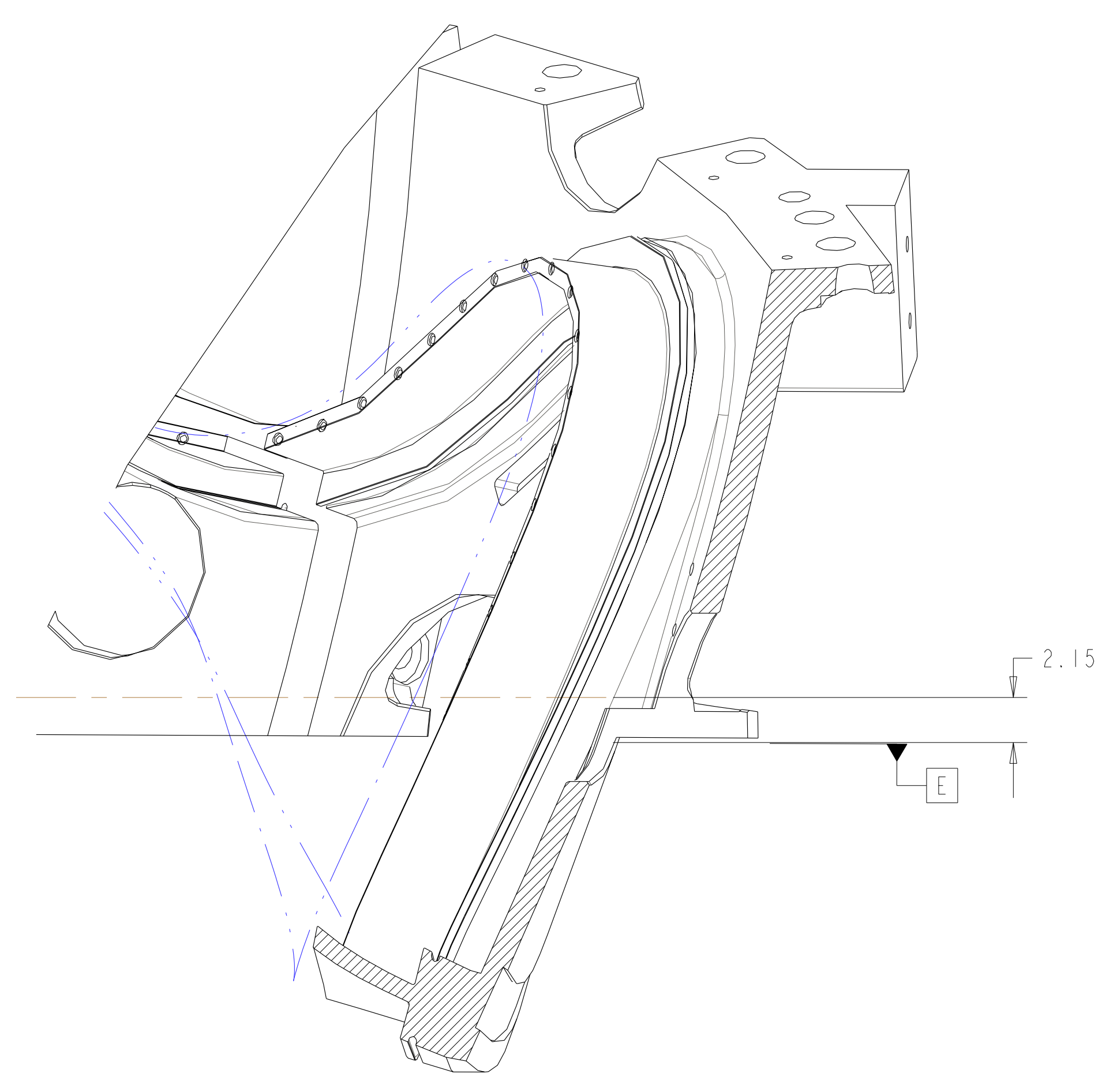
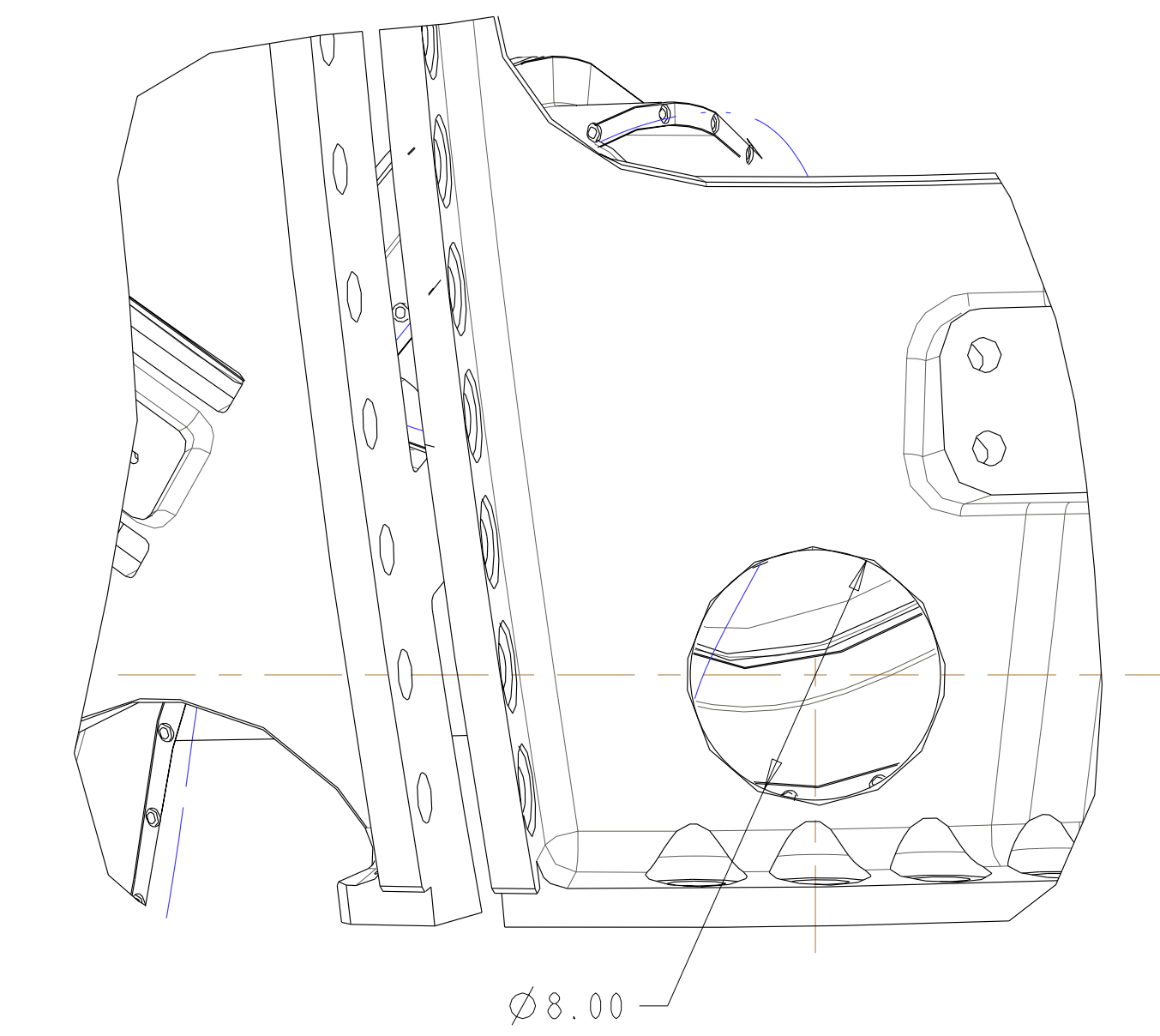
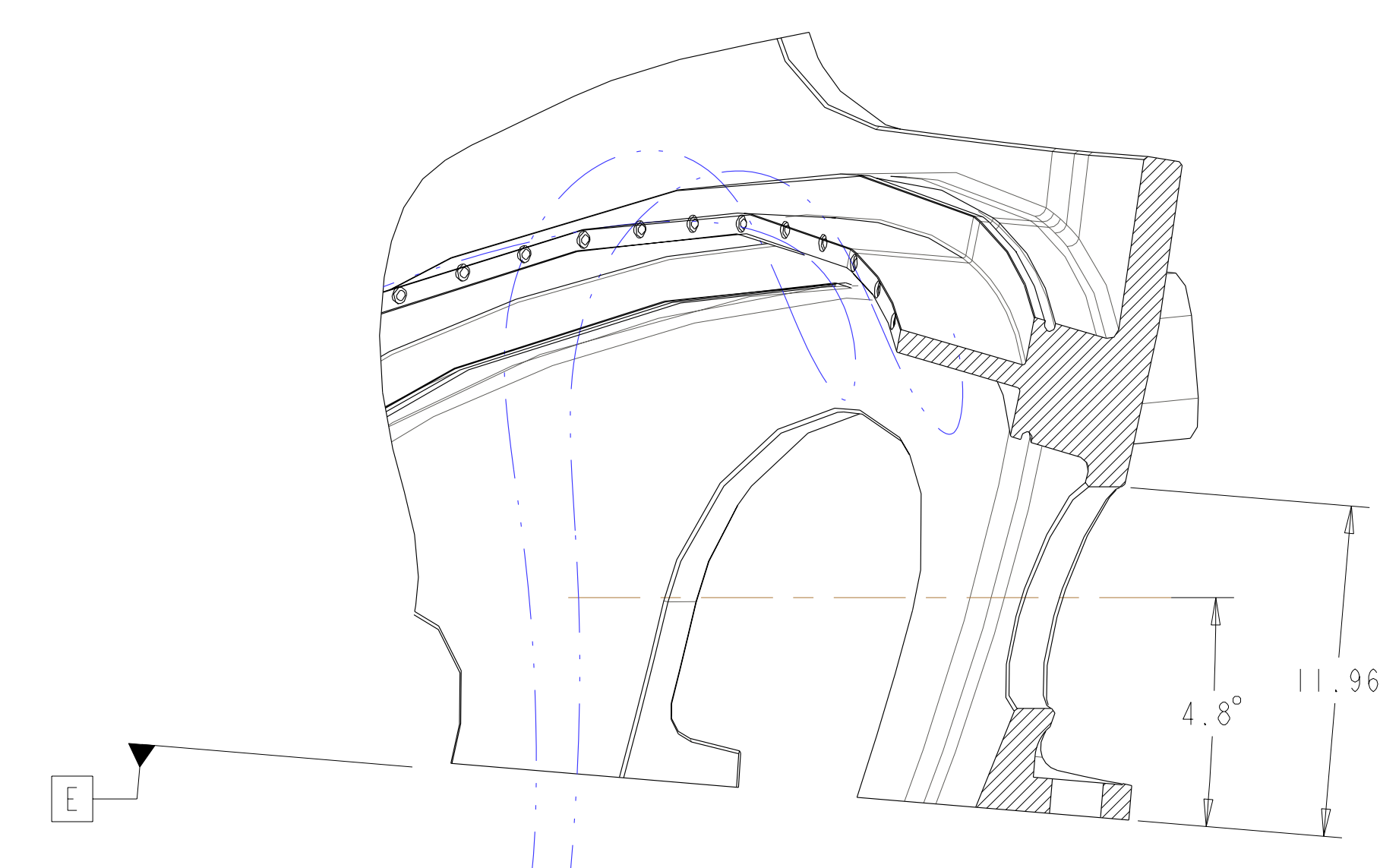
SECTION E1-E1  
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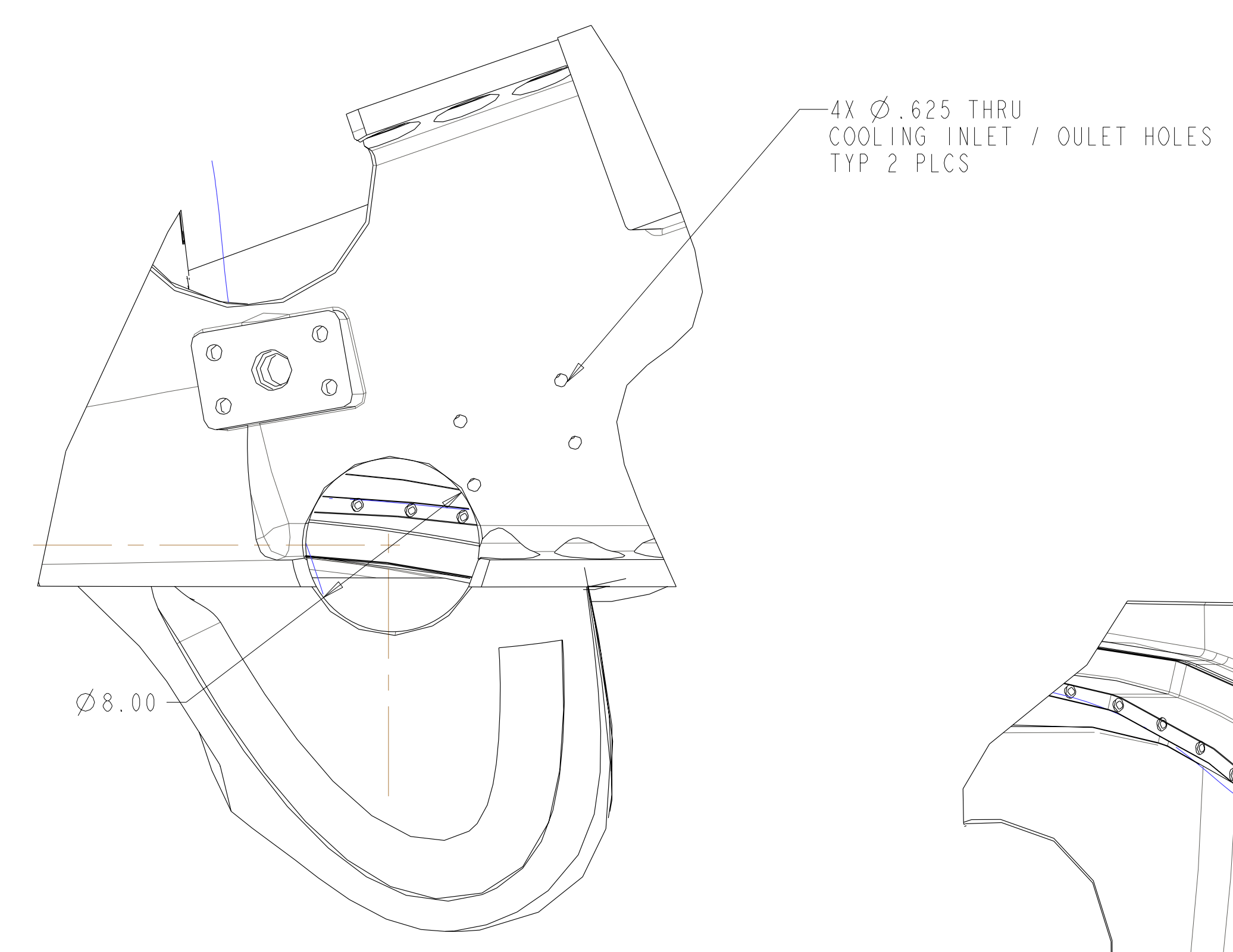
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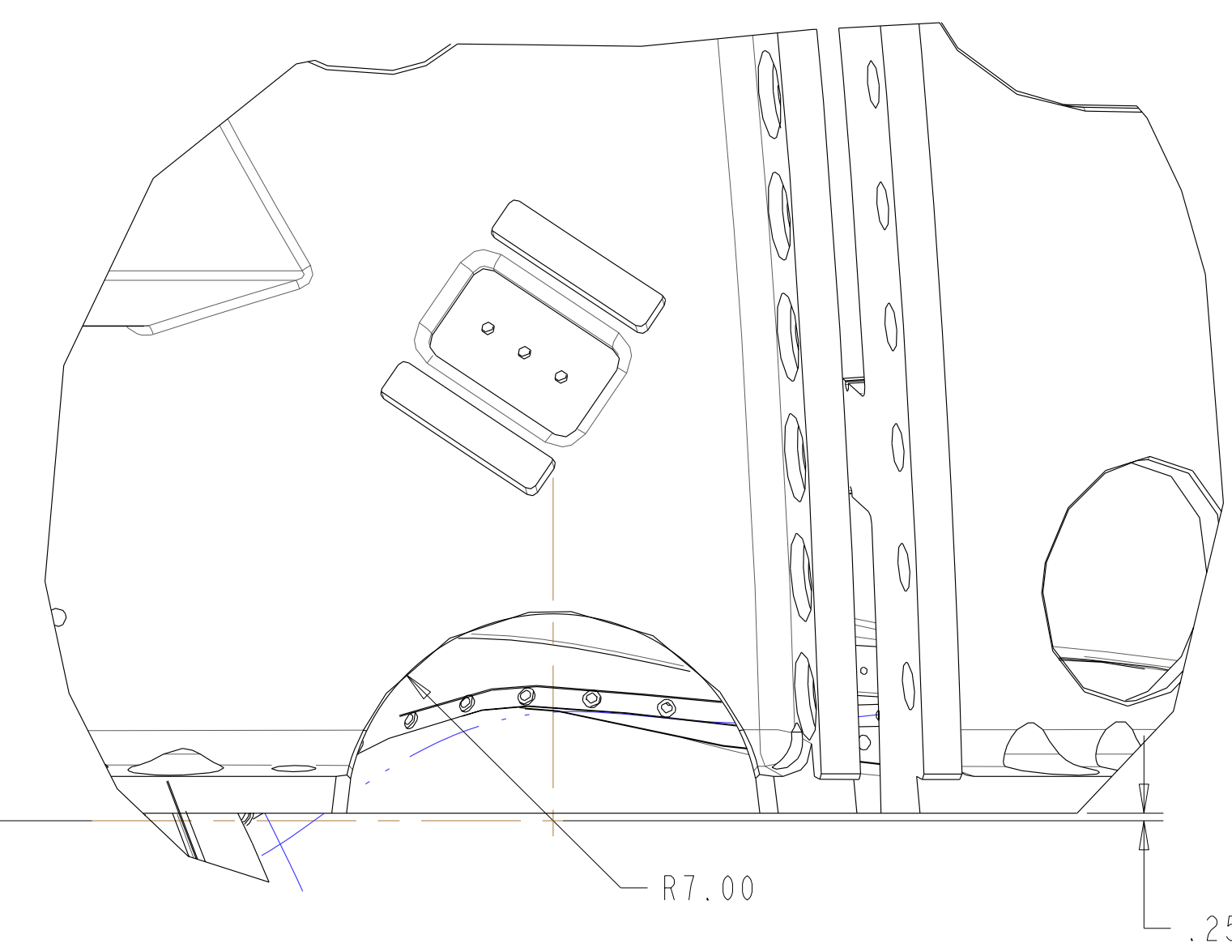
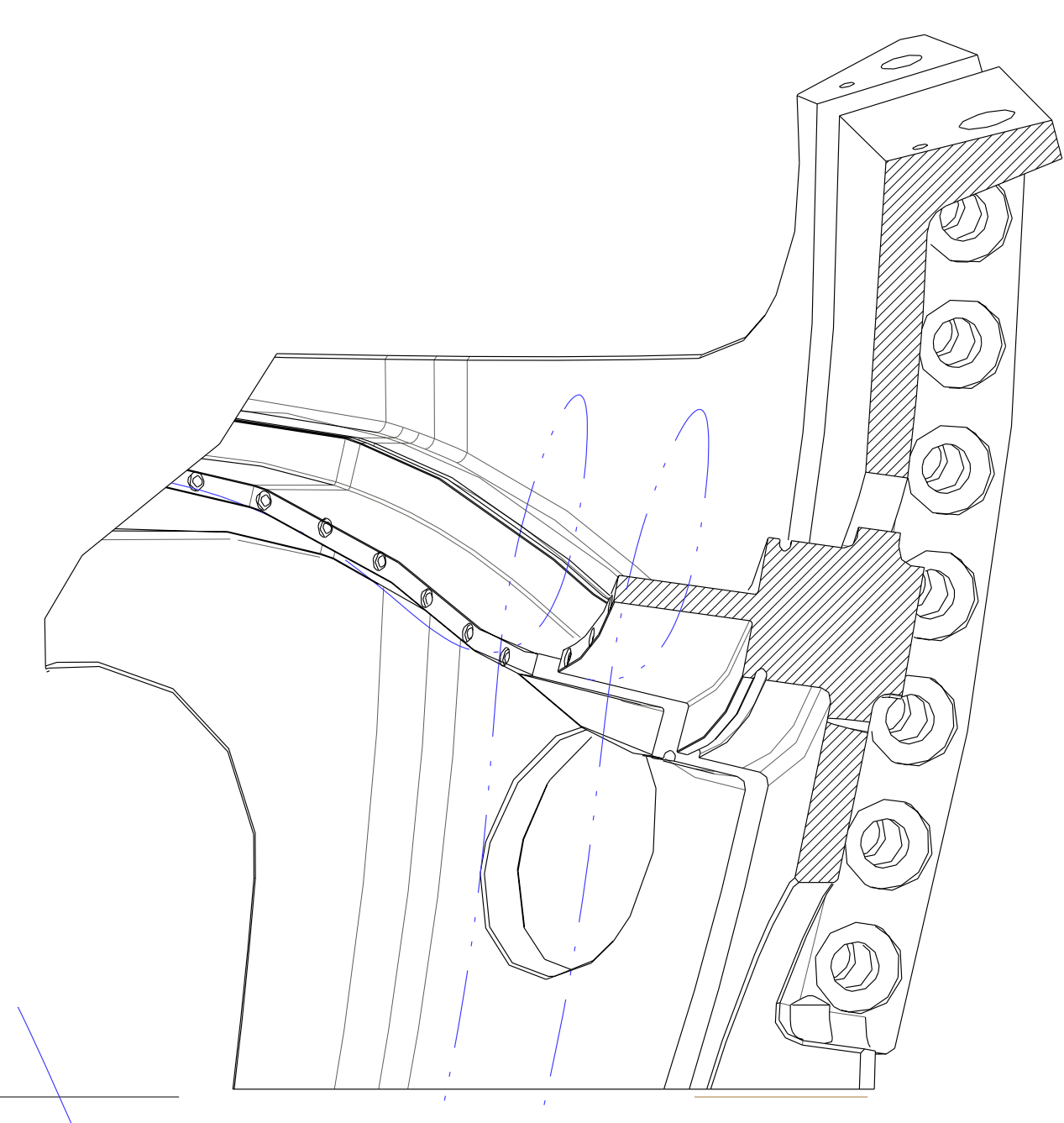
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SECTION E5-E5  
SCALE 0.19



SECTION E4-E4  
SCALE 0.19



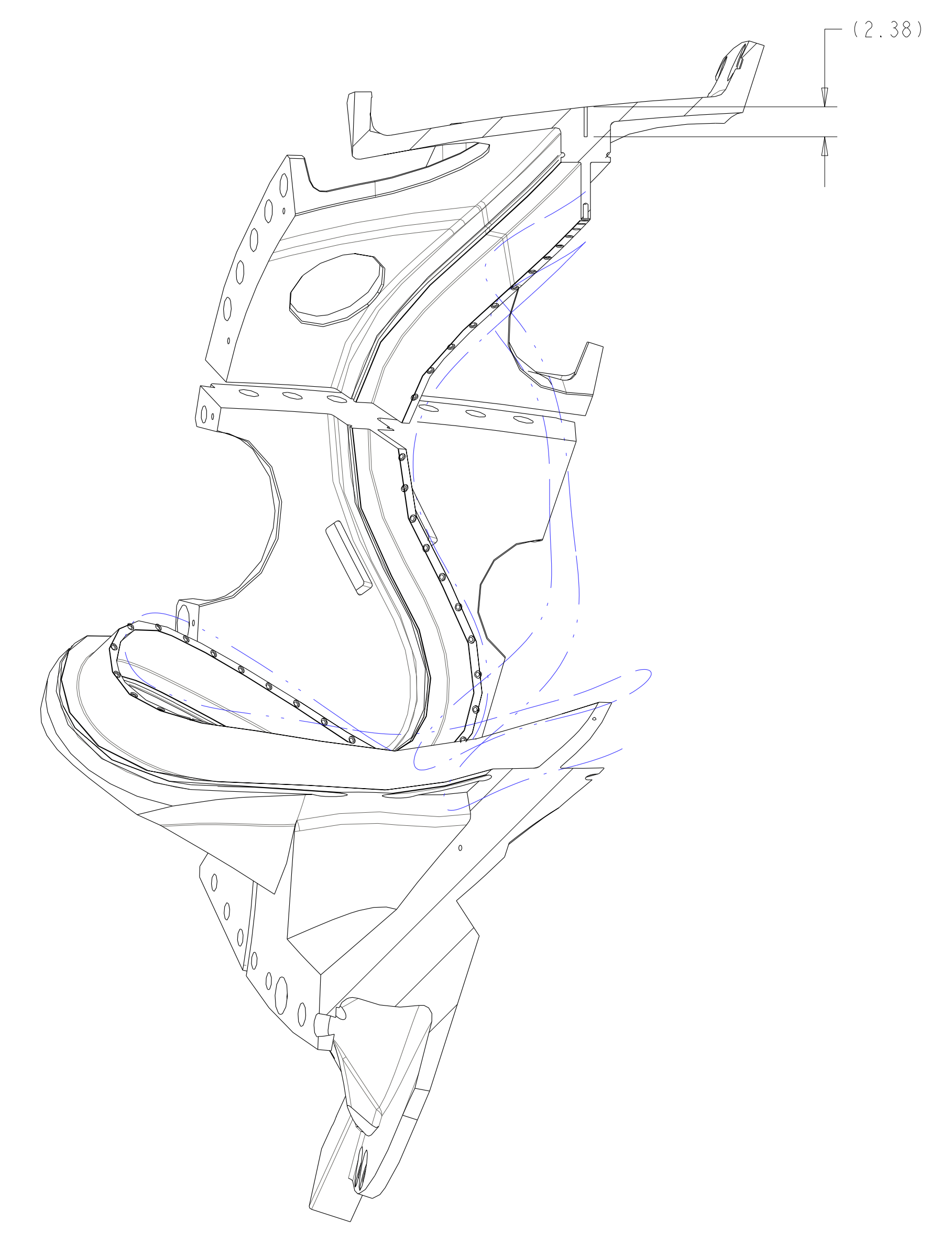
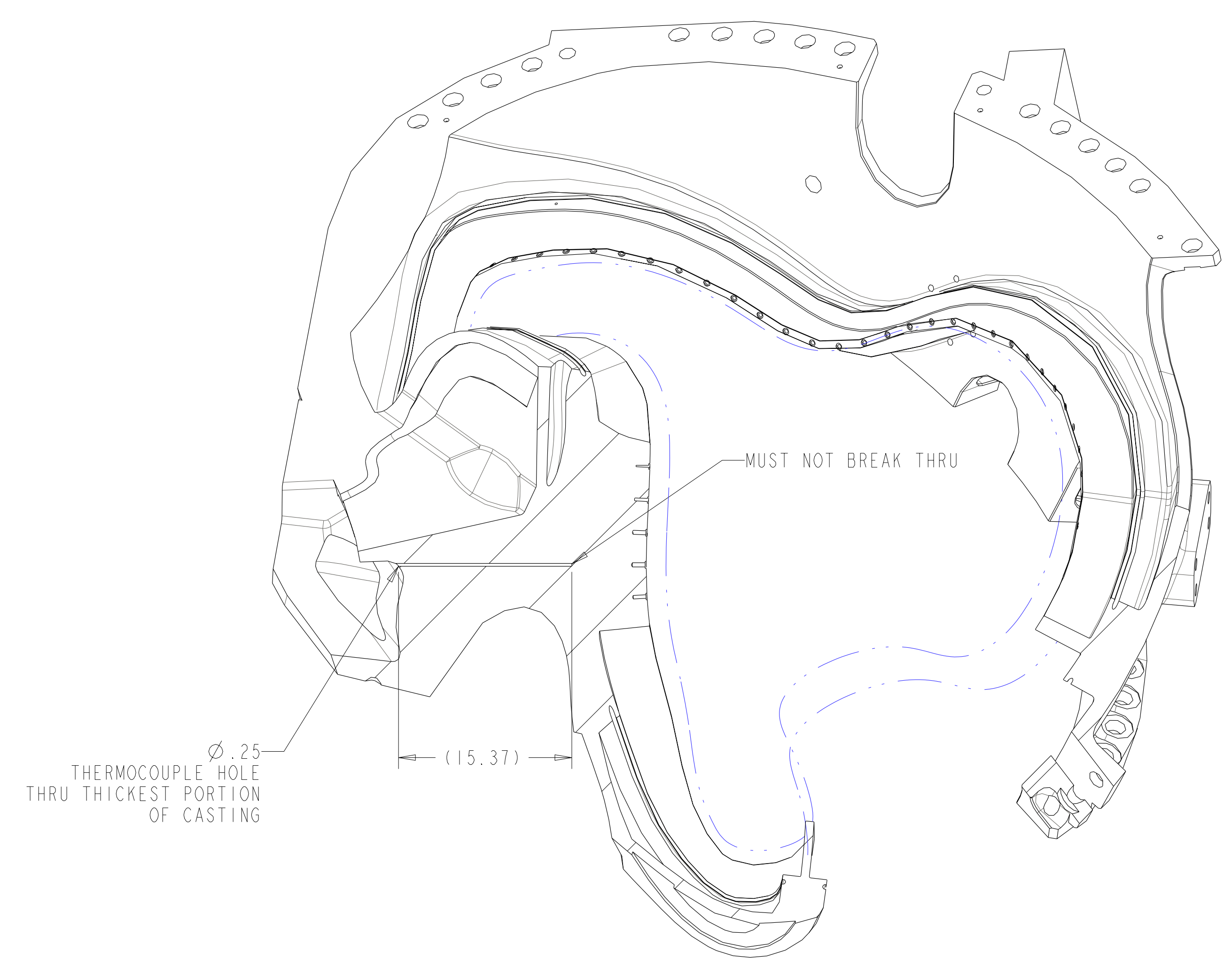
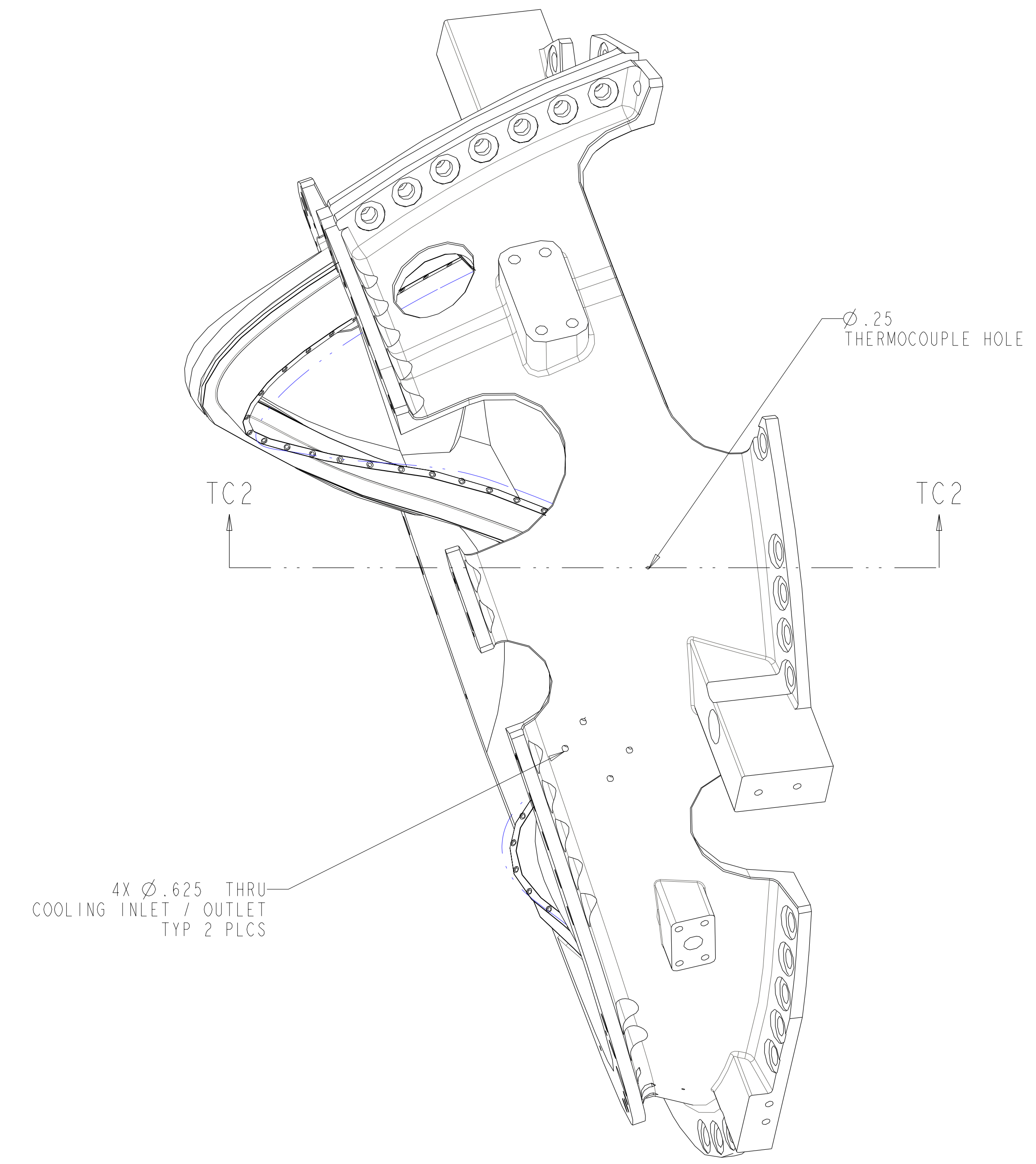
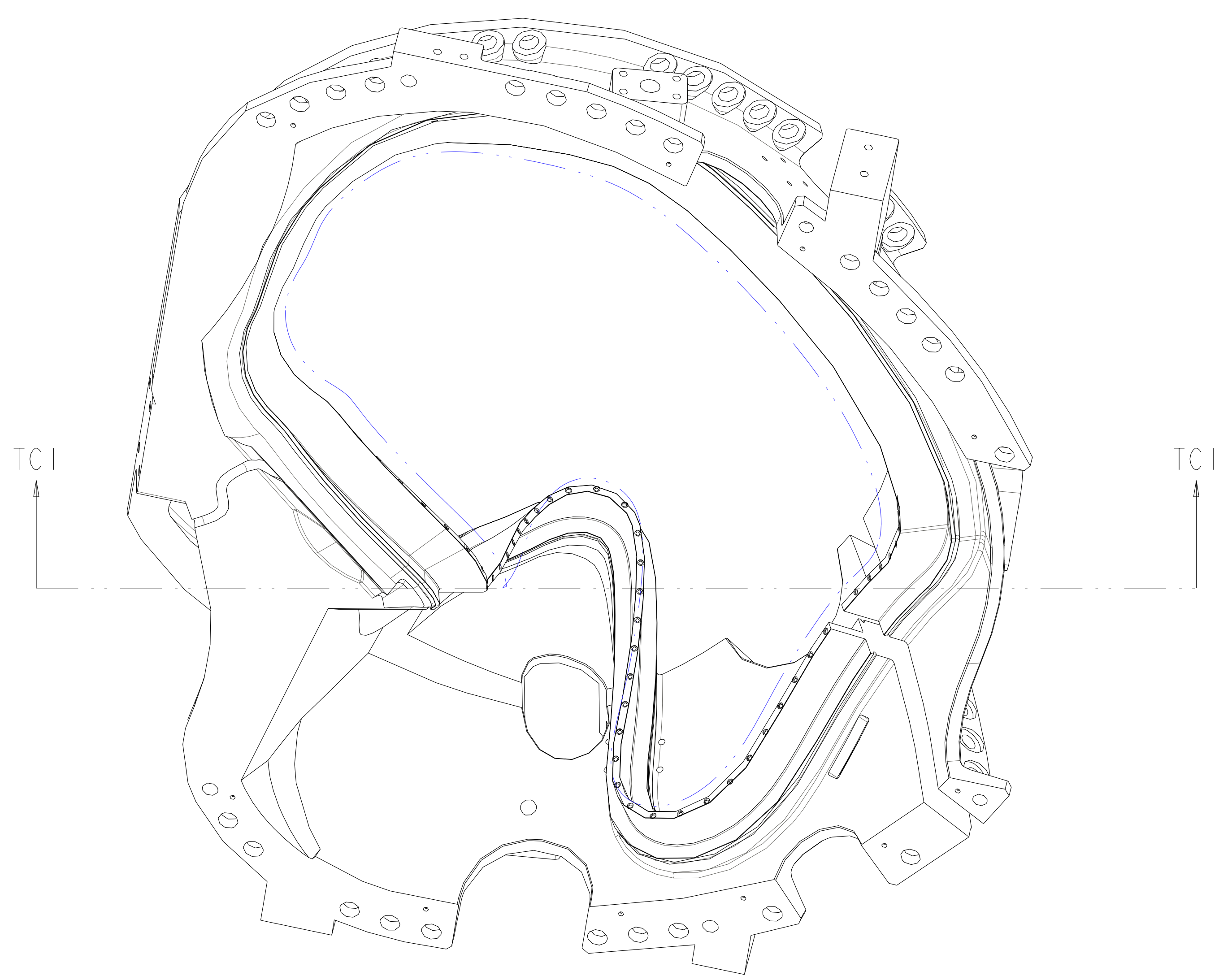
Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC., Oak Ridge, Tennessee PROJECT NAME						
<b>UT-BATTELLE</b> NATIONAL COMPACT STELLARATOR EXPERIMENT						
PRODUCTION WINDING FORM TYPE-B						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
12	X-10	5700	3	8 12	S	U
RELEASE LEVEL						
Fabrication		SE141-115				
						REV
						1

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SE141-115



FOR NOTES AND PARTS LIST SEE SHEET 1



SECTION TC1-TC1

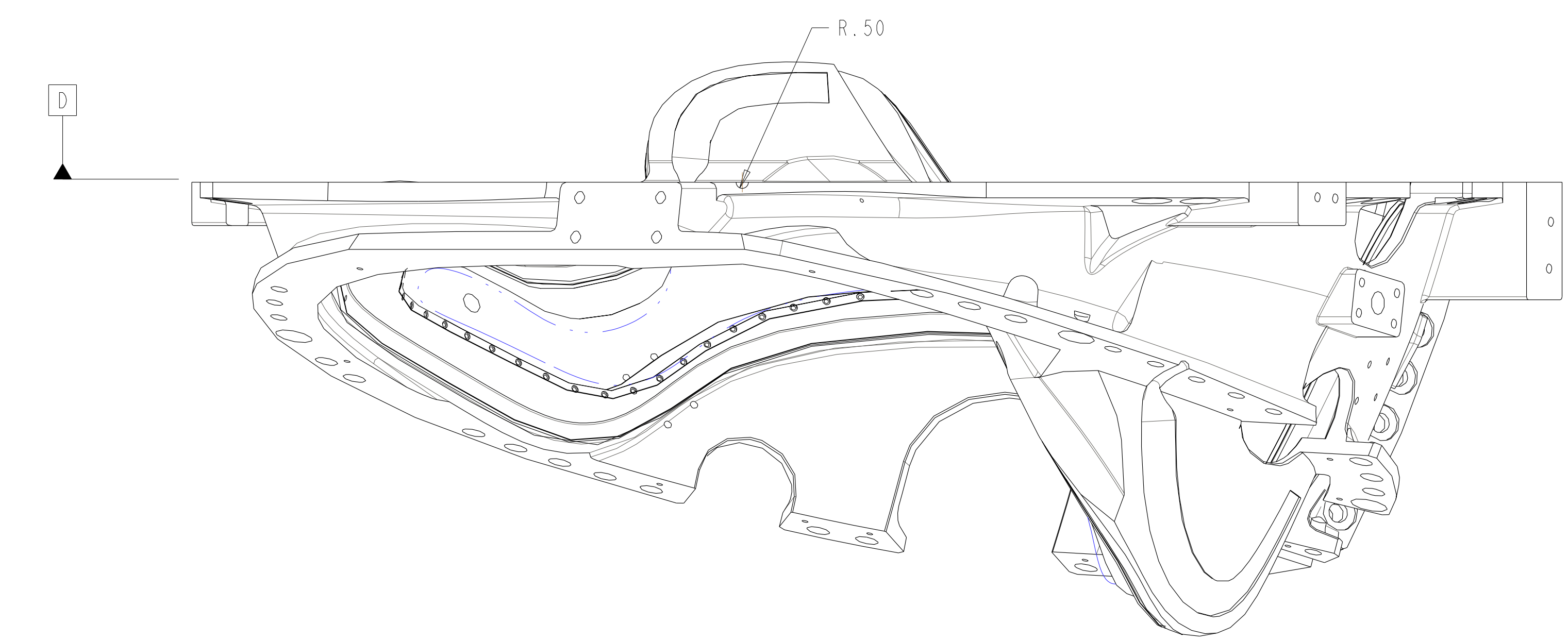
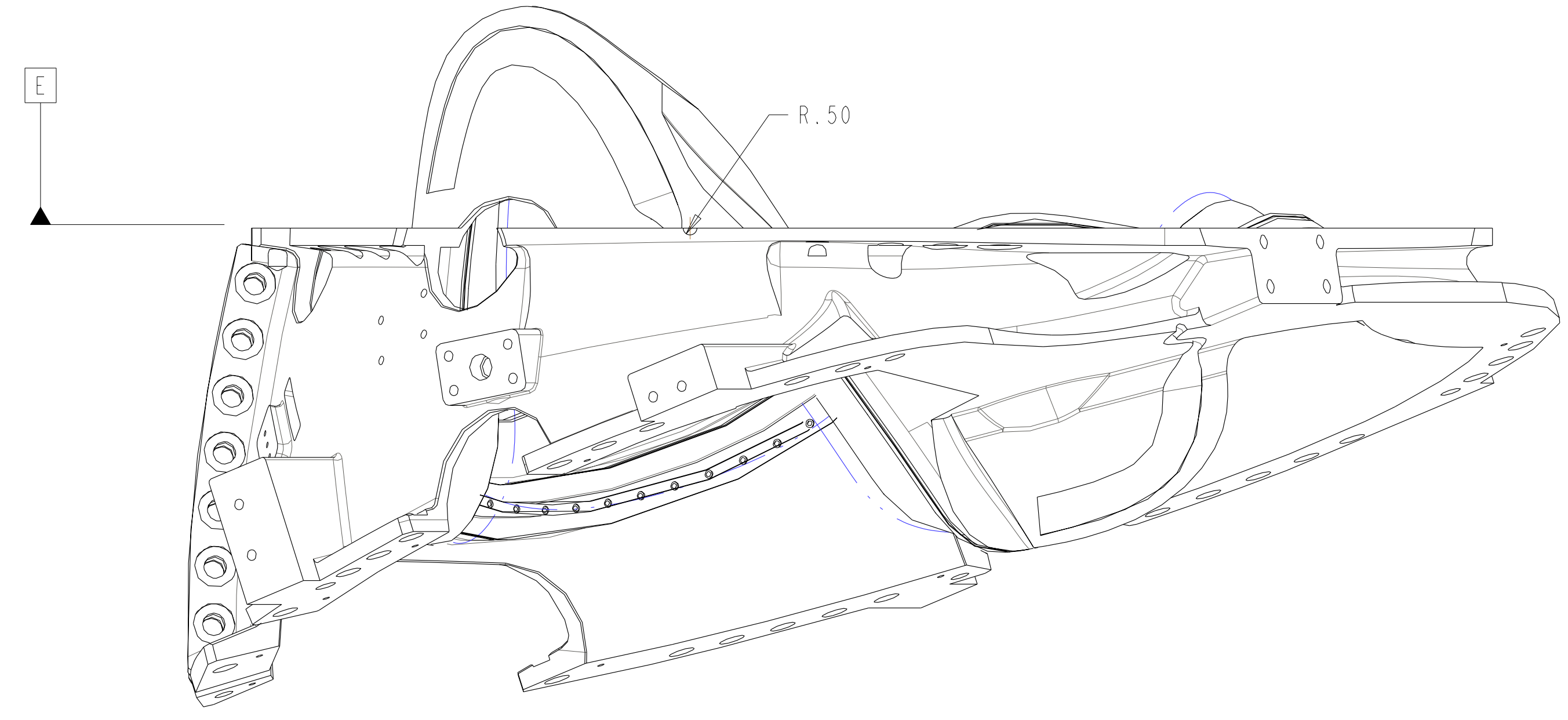
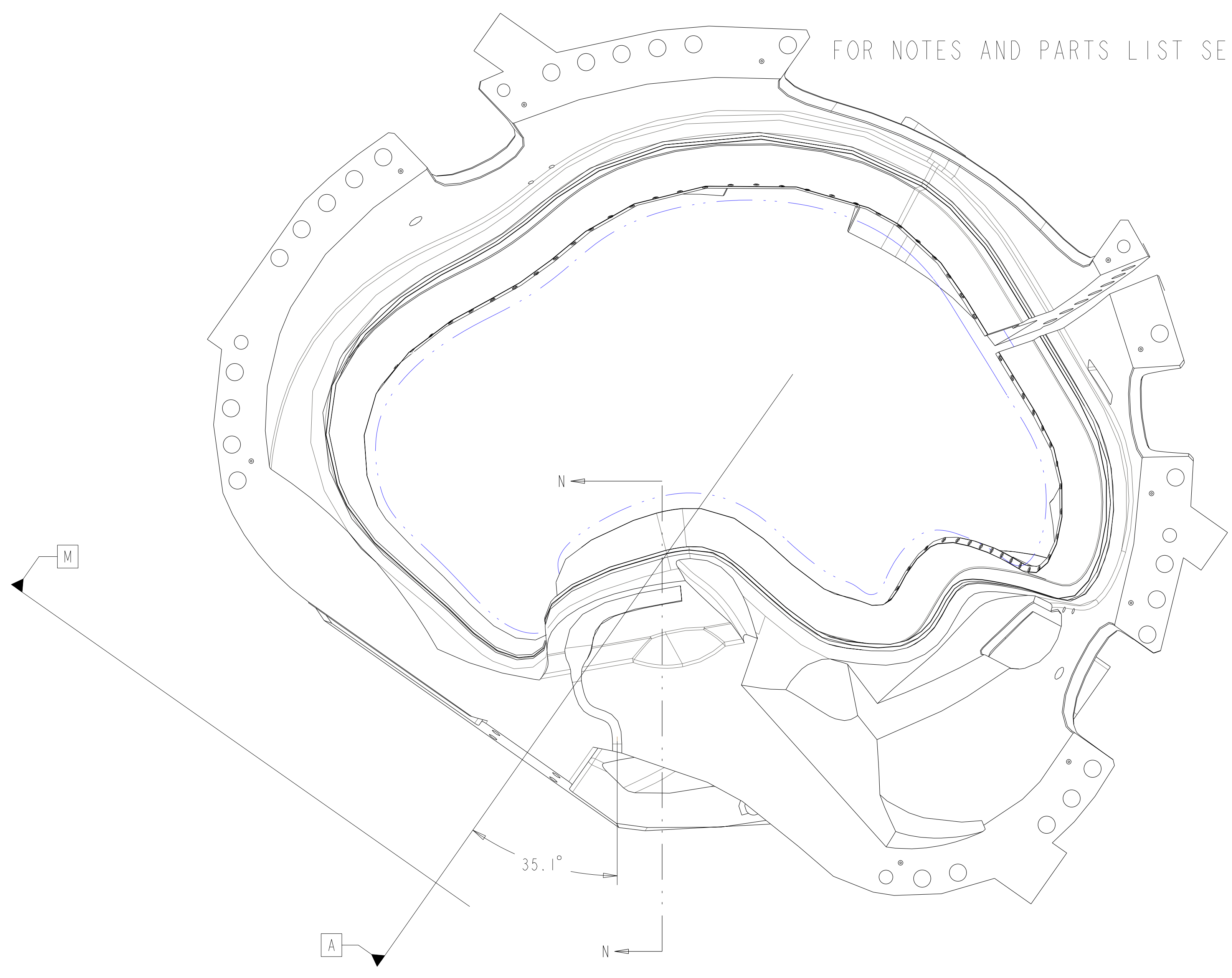
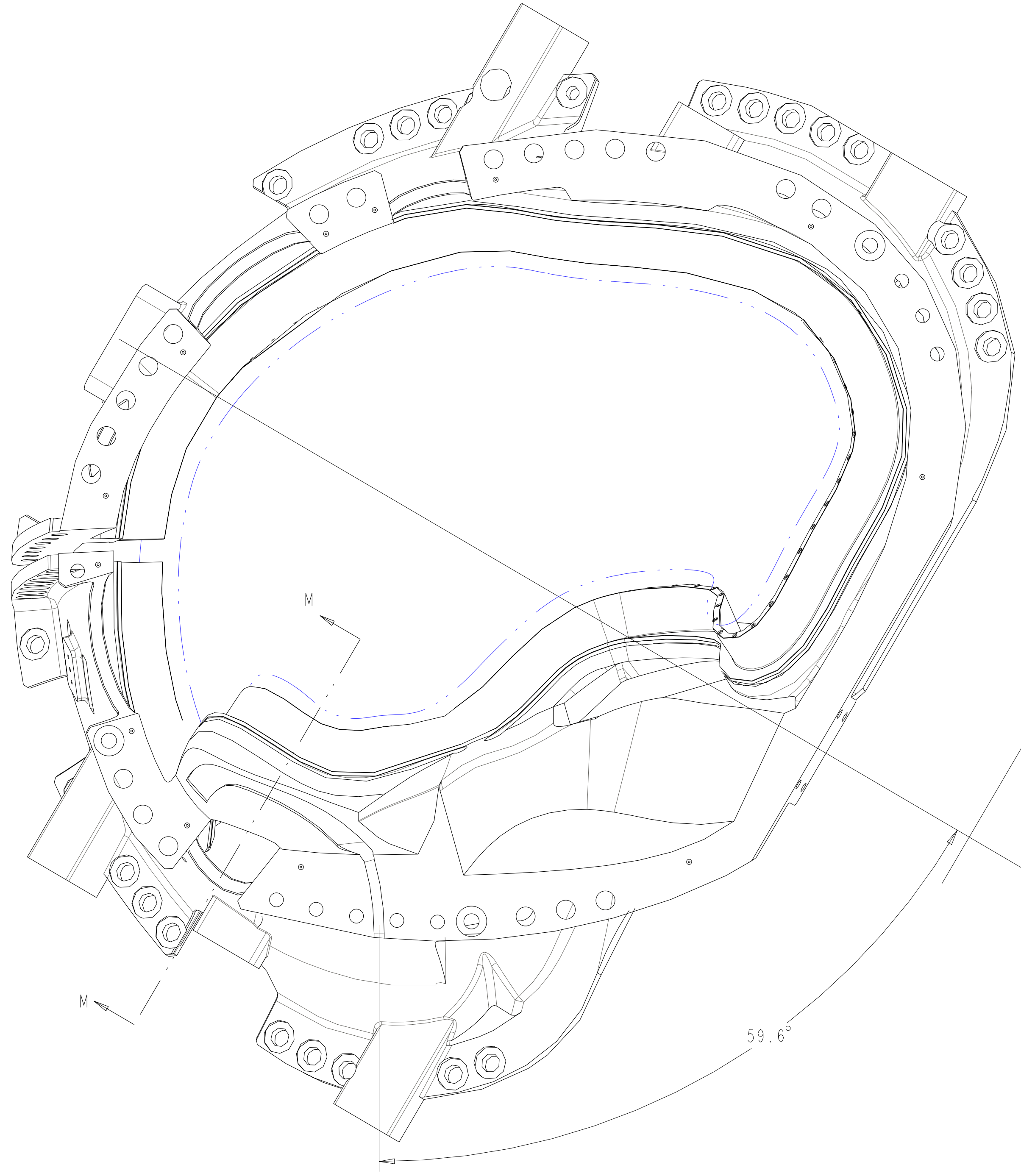
SECTION TC2-TC2

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME							
<b>UT-BATTELLE</b> NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	9 12	S	U	
RELEASE LEVEL	SEI41-115						REV
Fabrication							1

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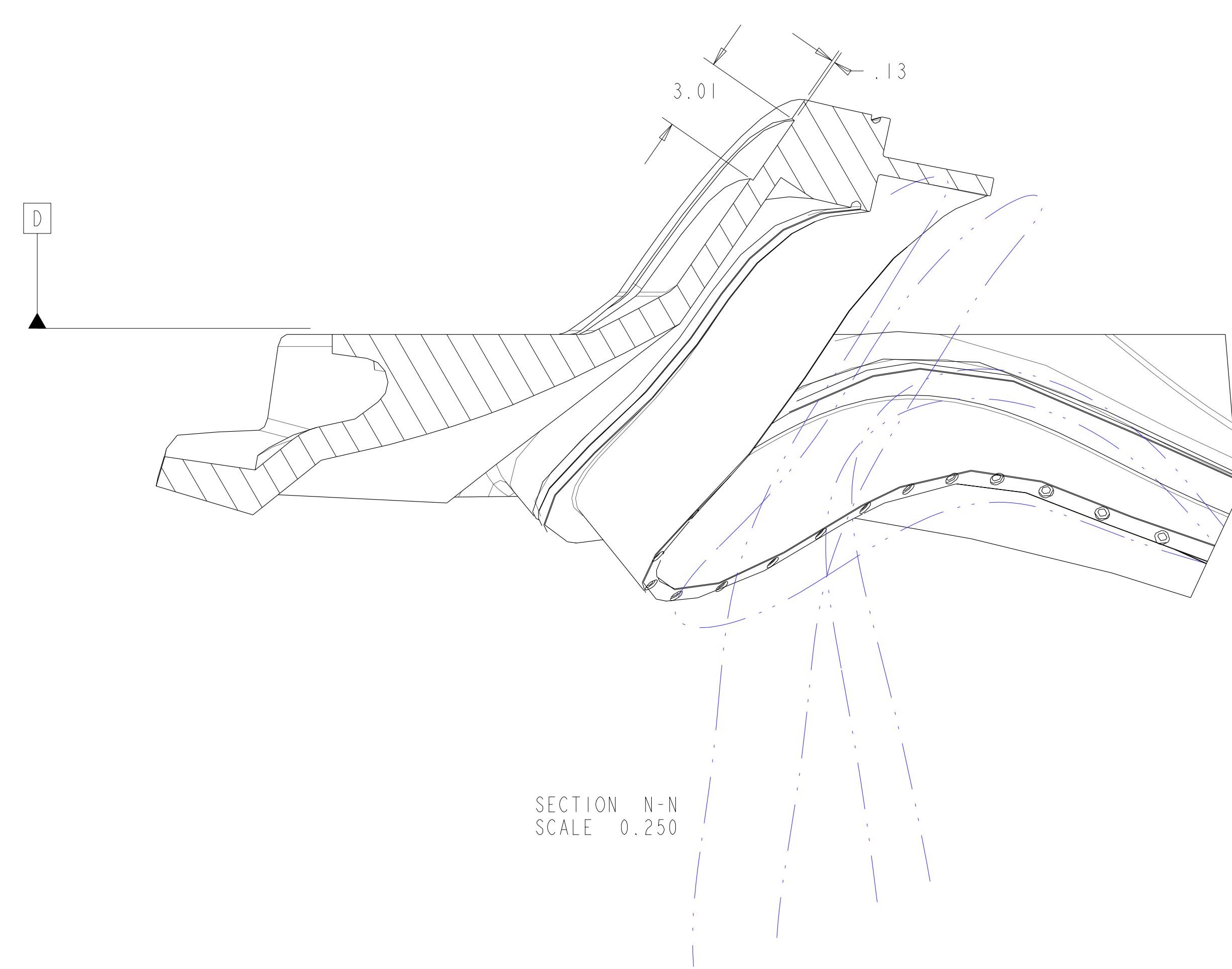
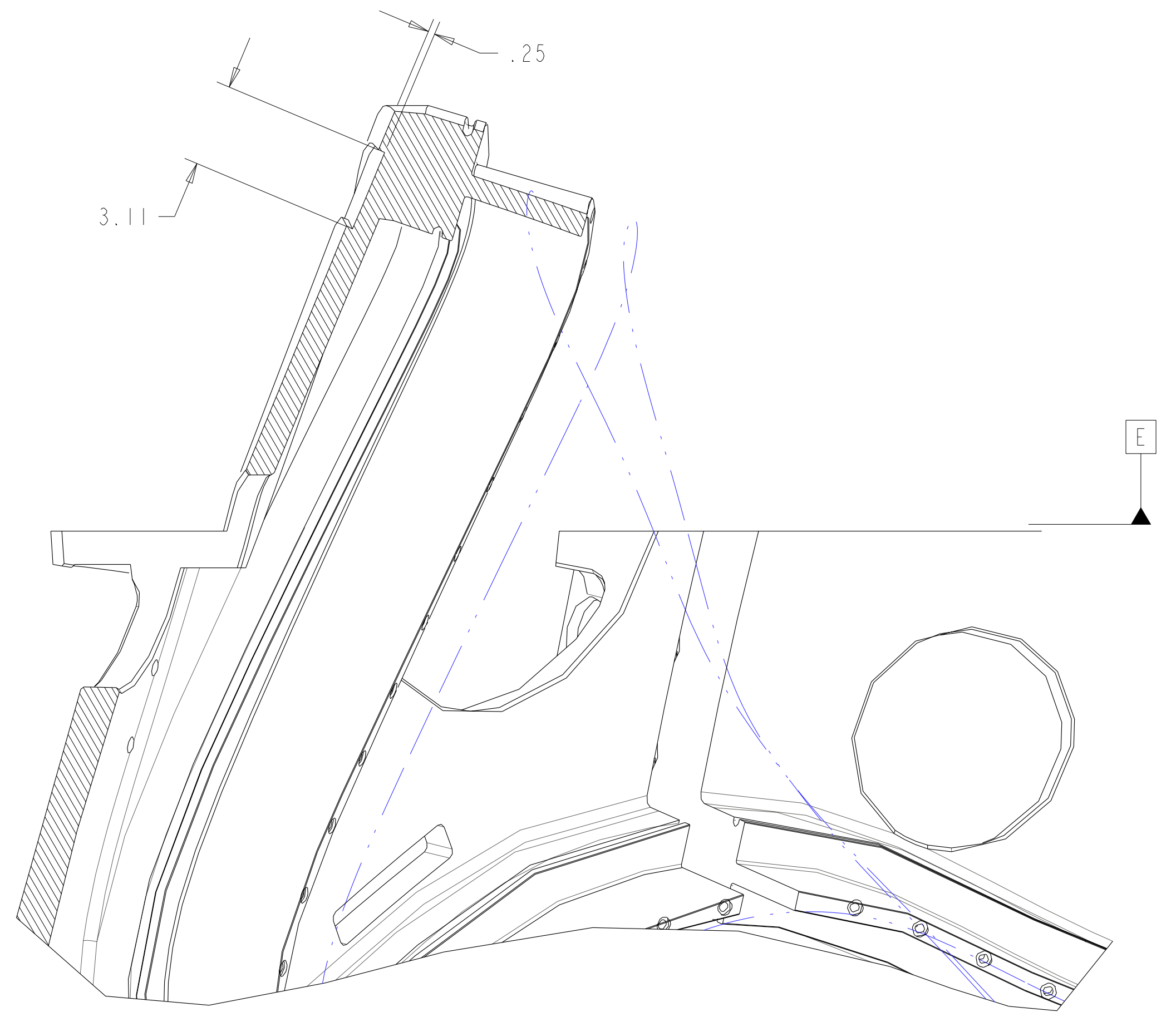
SEI41-115

FOR NOTES AND PARTS LIST SEE SHEET 1



SCALE 0.125

SCALE 0.125



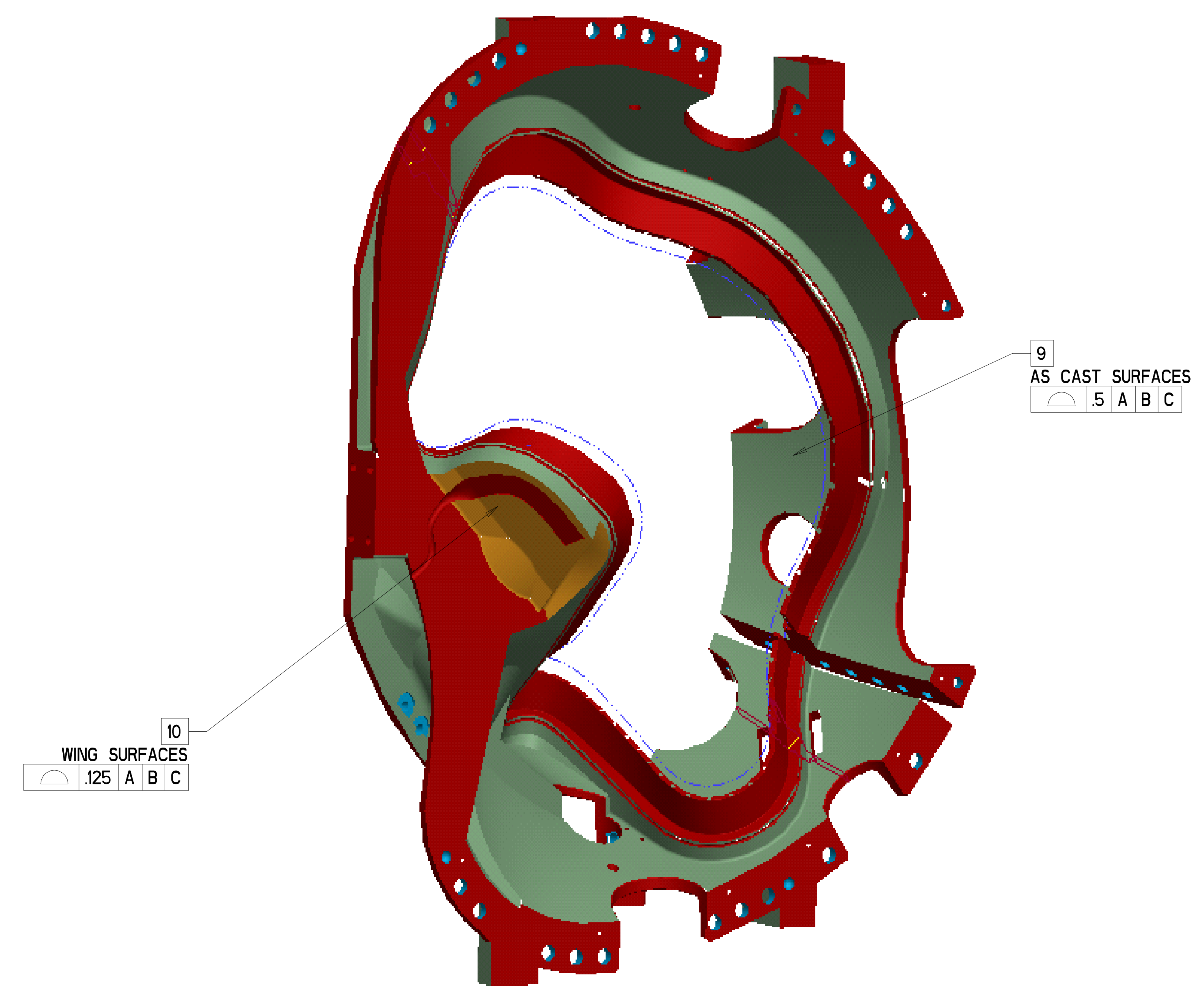
SECTION M-M  
SCALE 0.25

SECTION N-N  
SCALE 0.250

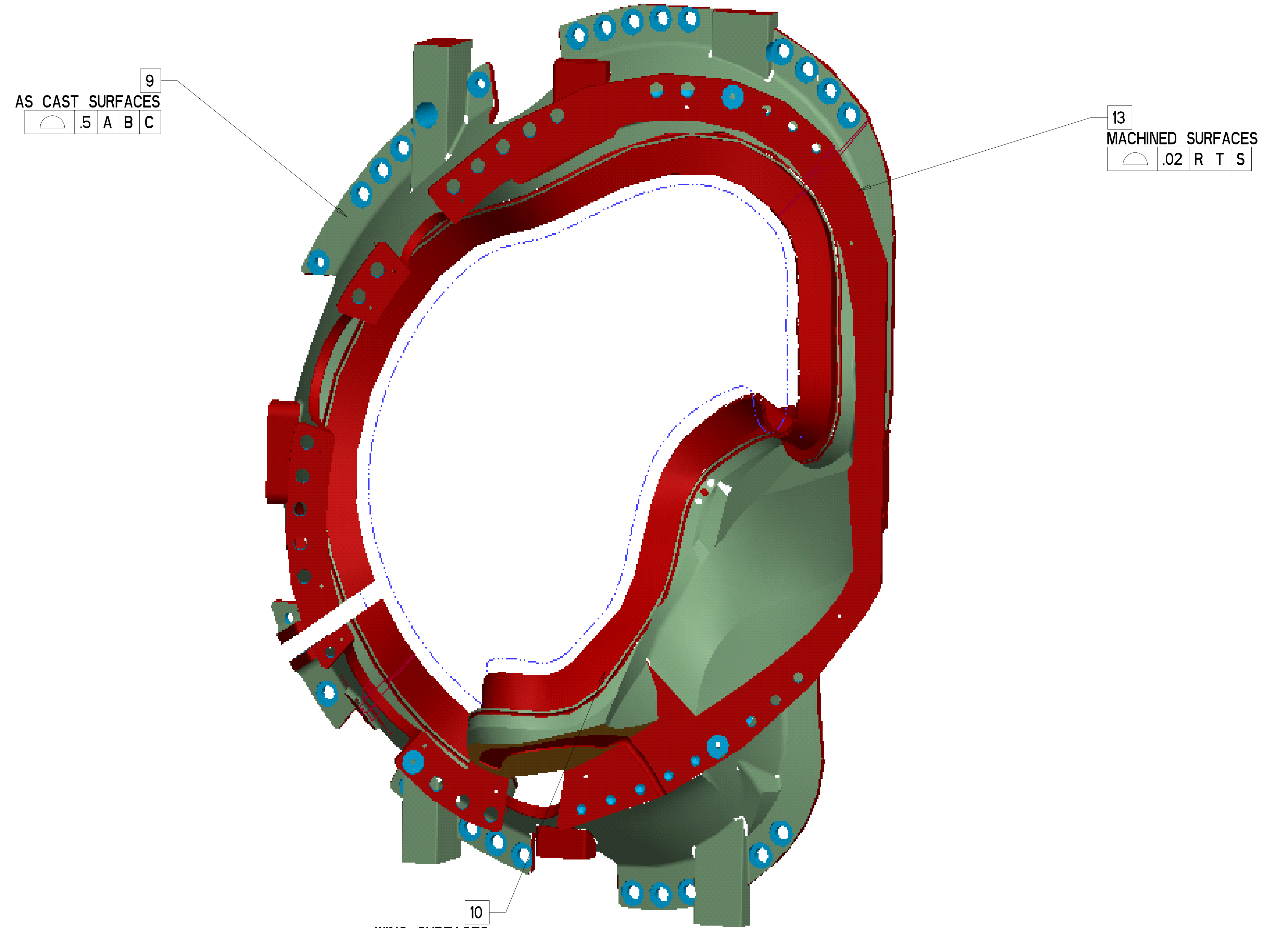
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
12	X-10	5700	3	10 12	S	U	
RELEASE LEVEL Fabrication		SE141-115					REV 1

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ISOMETRIC VIEW  
NOT TO SCALE



ISOMETRIC VIEW  
NOT TO SCALE

<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
PROJECT NAME NATIONAL COMPACT STELLARATOR EXPERIMENT							
PRODUCTION WINDING FORM TYPE-B							
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