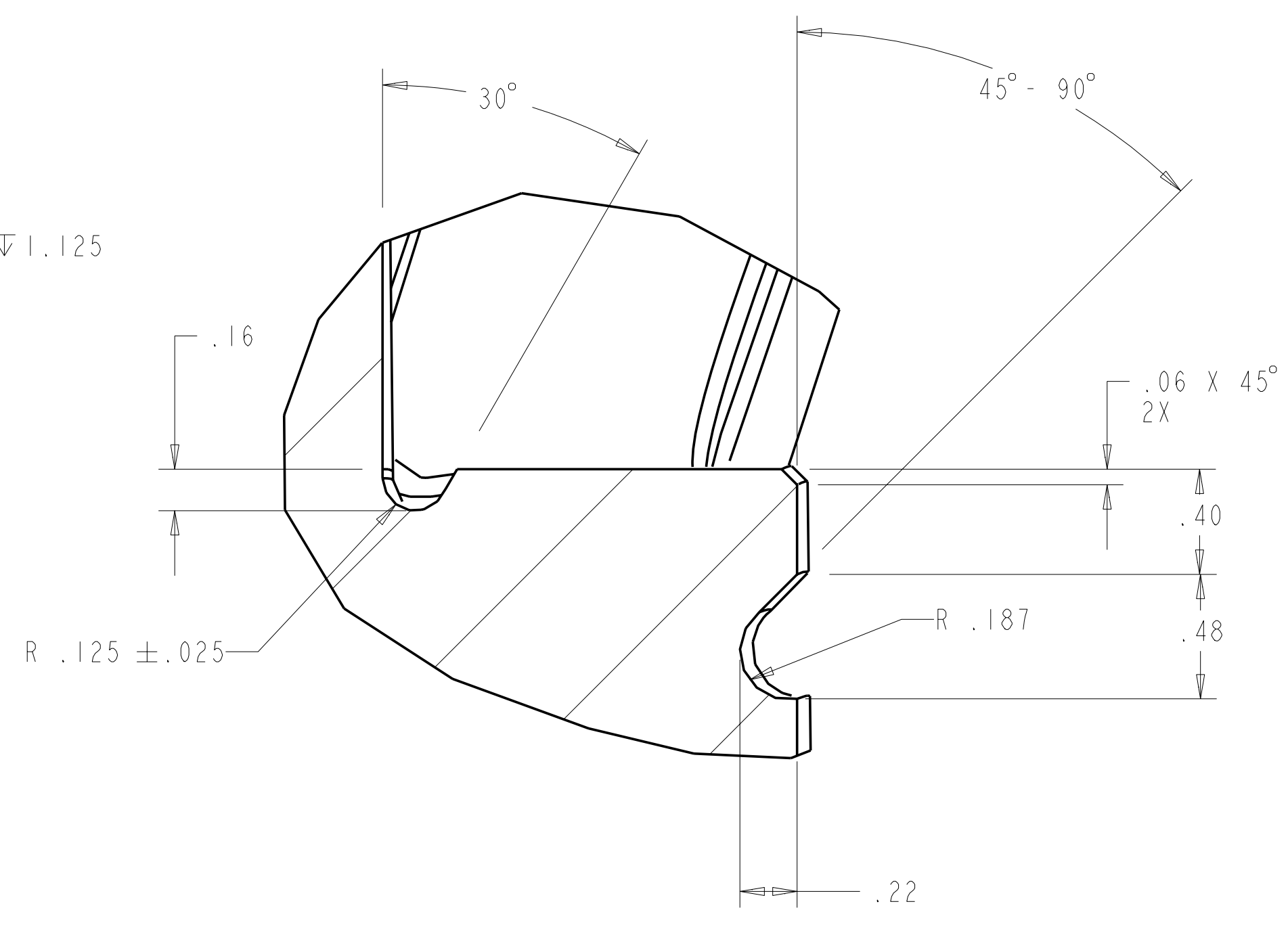
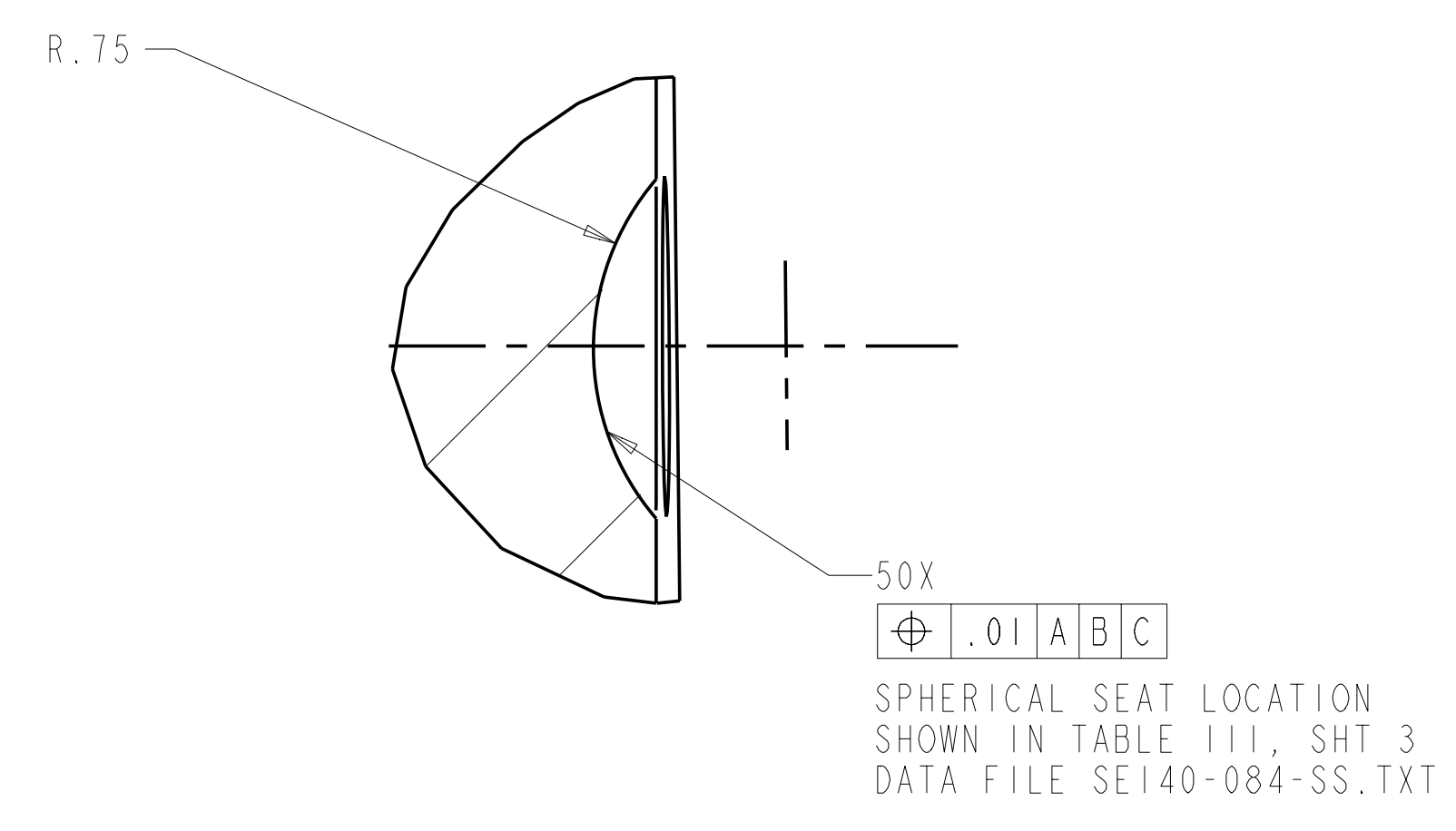


DETAIL 1  
SCALE 2.0

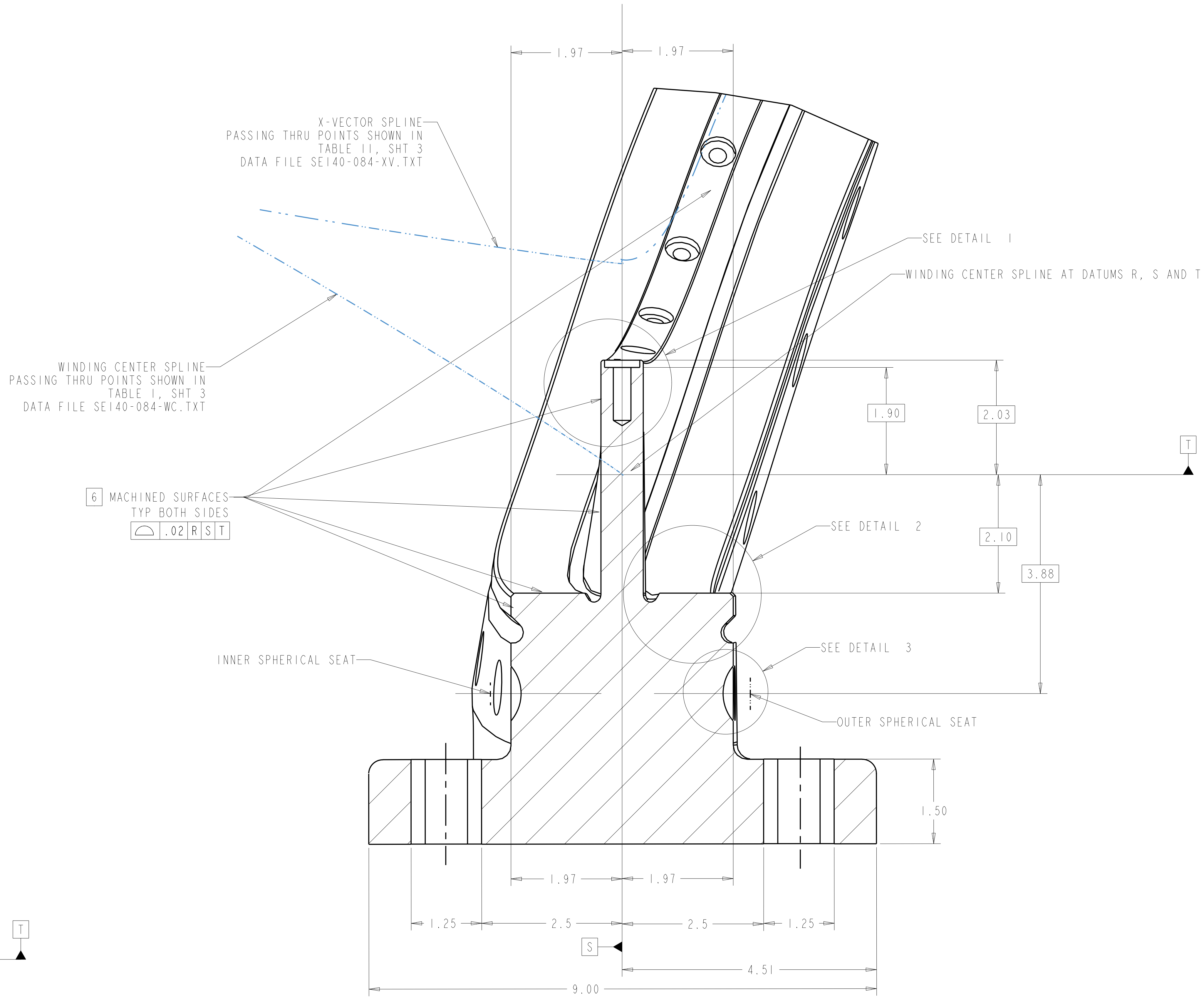
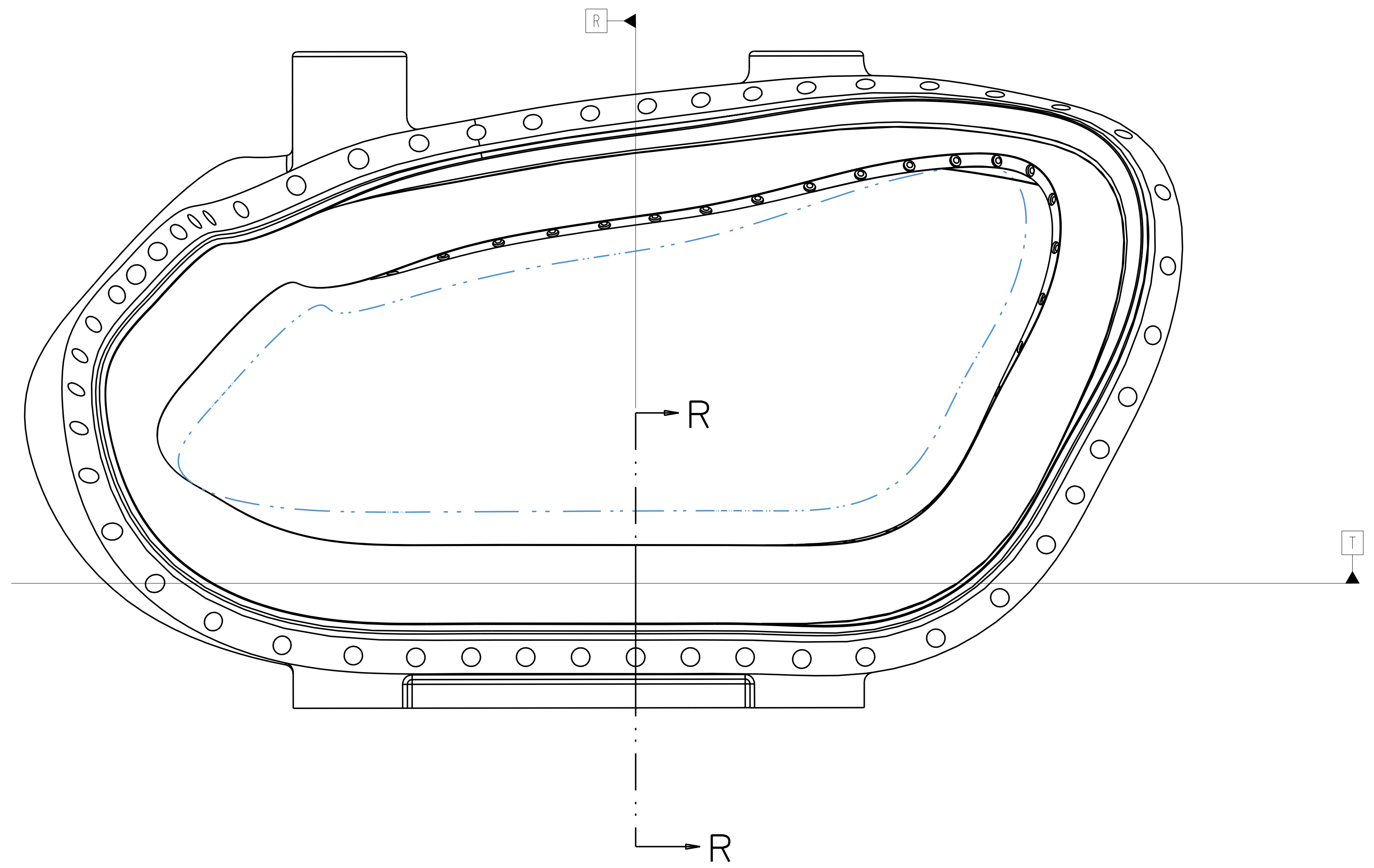


DETAIL 2  
SCALE 2.0



DETAIL 3  
SCALE 2.0

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



SECTION R-R  
 SCALE 1.0  
 APPLIES AT ALL POINTS  
 ALONG WINDING CENTER

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							
TWISTED RACETRACK WINDING FORM							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
8	X-10	5700	3	2 3	S	U	
RELEASE LEVEL	SE140-084						REV
WIP							-

SE140-084

TABLE I  
WINDING CENTER SPLINE CO-ORDINATE DATA FILE  
(FILE SE140-084-WC.TXT)

Winding Center Coordinates
No. X Y Z
1 0.000 -0.002 -10.953
2 2.888 0.000 -10.949
3 5.776 -0.001 -10.943
4 8.663 0.004 -10.941
5 11.551 0.022 -10.948
6 14.436 -0.064 -10.879
7 17.253 -0.559 -10.536
8 19.814 -1.656 -9.812
9 21.983 -3.261 -8.800
10 23.752 -5.211 -7.621
11 25.159 -7.389 -6.355
12 26.194 -9.738 -5.037
13 26.839 -12.205 -3.688
14 27.012 -14.732 -2.310
15 26.577 -17.184 -0.862
16 25.442 -19.264 0.767
17 23.707 -20.381 2.725
18 21.776 -19.871 4.754
19 20.163 -17.961 6.131
20 19.161 -15.315 6.616
21 18.513 -12.503 6.551
22 17.430 -9.840 6.500
23 15.490 -7.744 6.789
24 13.018 -6.372 7.327
25 10.303 -5.628 7.950
26 7.489 -5.400 8.544
27 4.650 -5.491 9.059
28 1.796 -5.531 9.490
29 -1.050 -5.228 9.856
30 -3.841 -4.581 10.216
31 -6.584 -3.789 10.646
32 -9.331 -3.046 11.134
33 -12.109 -2.381 11.559
34 -14.894 -1.656 11.781
35 -17.614 -0.692 11.762
36 -20.149 0.657 11.512
37 -22.263 2.438 10.737
38 -23.533 4.238 8.929
39 -23.706 5.254 6.268
40 -23.071 5.377 3.467
41 -22.027 4.851 0.834
42 -20.898 3.781 -1.596
43 -19.793 2.538 -3.956
44 -18.484 1.554 -6.330
45 -16.675 0.825 -8.448
46 -14.296 0.267 -9.966
47 -11.539 -0.018 -10.741
48 -8.663 -0.029 -10.966
49 -5.775 0.012 -10.976
50 -2.888 0.005 -10.959

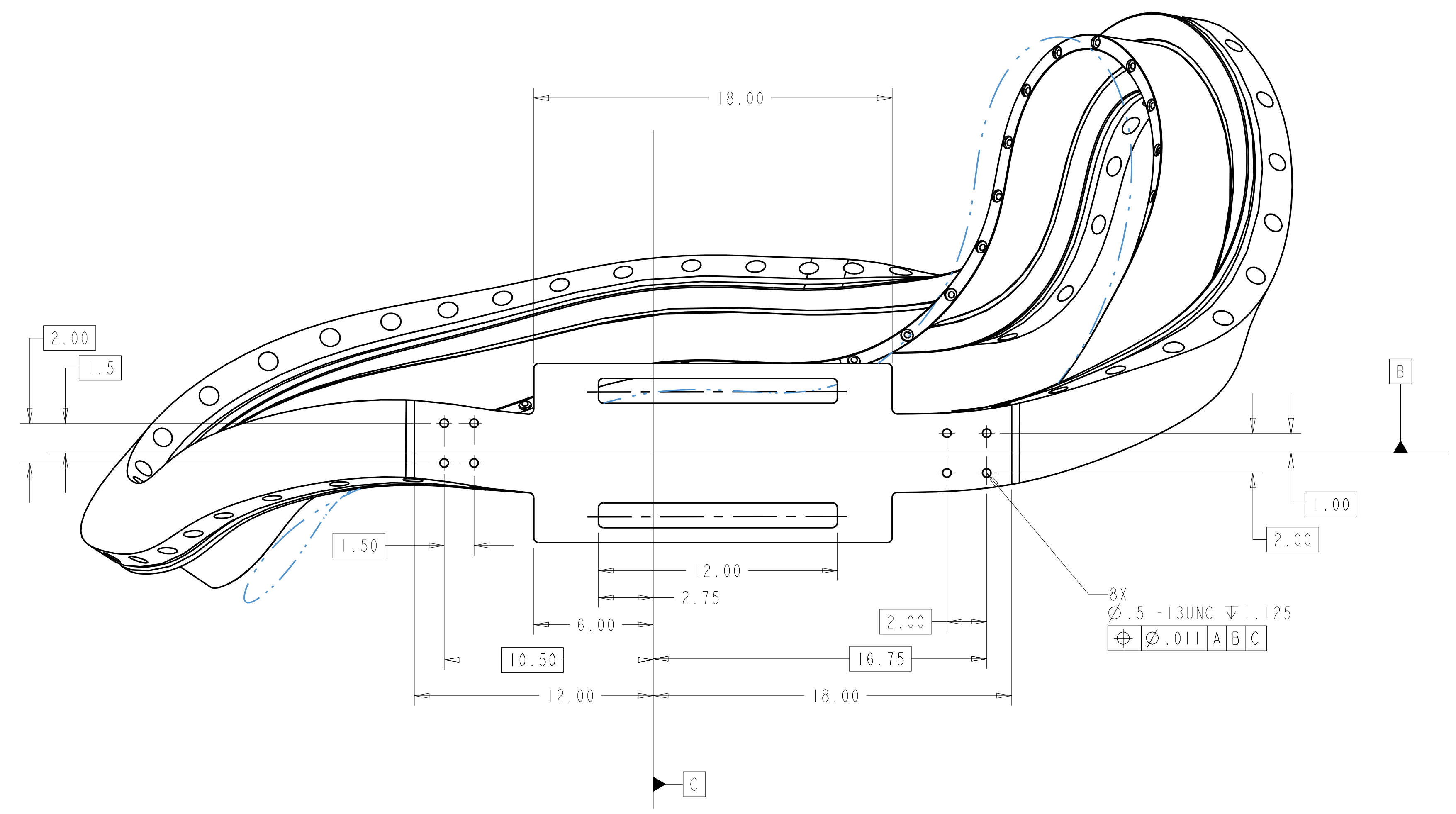
TABLE II  
X VECTOR CURVE CO-ORDINATE DATA FILE  
(FILE SE140-084-XV.TXT)

X-Vector Coordinates
No. X Y Z
1 -0.005 0.002 -7.153
2 2.880 0.000 -7.162
3 5.768 -0.001 -7.171
4 8.670 0.003 -7.181
5 11.545 0.032 -7.194
6 14.215 -0.081 -7.188
7 16.558 -0.629 -7.118
8 18.649 -1.817 -6.951
9 20.438 -3.632 -6.678
10 21.871 -5.873 -6.314
11 22.921 -8.320 -5.874
12 23.624 -10.820 -5.366
13 23.986 -13.286 -4.781
14 23.970 -15.592 -4.096
15 23.555 -17.718 -3.238
16 22.605 -19.612 -2.016
17 20.776 -20.864 0.044
18 18.847 -20.336 2.076
19 17.351 -18.448 3.349
20 16.503 -15.879 3.705
21 16.113 -13.284 3.508
22 15.645 -10.814 3.291
23 14.531 -8.132 3.382
24 12.549 -5.559 3.892
25 9.886 -3.700 4.639
26 6.878 -3.032 5.357
27 4.013 -3.125 5.885
28 1.441 -3.170 6.280
29 -1.028 -2.869 6.672
30 -3.598 -2.165 7.198
31 -6.303 -1.199 7.943
32 -9.031 -0.243 8.835
33 -11.625 0.615 9.684
34 -14.017 1.487 10.335
35 -16.197 2.510 10.779
36 -18.017 3.723 10.948
37 -19.371 5.053 10.655
38 -20.339 6.547 9.443
39 -20.473 7.469 7.022
40 -19.770 7.259 4.400
41 -18.553 6.114 1.978
42 -17.280 4.385 -0.222
43 -16.198 2.810 -2.352
44 -15.119 1.848 -4.219
45 -13.938 1.312 -5.521
46 -12.606 0.928 -6.368
47 -10.923 0.558 -6.911
48 -8.573 0.174 -7.148
49 -5.802 -0.017 -7.146
50 -2.902 -0.010 -7.142

TABLE III  
SPHERICAL SEAT LOCATION CO-ORDINATES  
(FILE SE140-084-SS.TXT)

No.	Spherical Seat - Left			Spherical Seat - Right		
	X	Y	Z	X	Y	Z
1 0.000 -2.546 -14.830						
2 2.896 -2.540 -14.829						
3 5.782 -2.541 -14.823						
4 8.669 -2.535 -14.822						
5 11.561 -2.528 -14.821						
6 14.462 -2.578 -14.776						
7 17.351 -2.922 -14.525						
8 20.195 -3.682 -13.966						
9 23.112 -4.670 -13.071						
10 26.112 -5.753 -11.576						
11 28.713 -7.170 -9.326						
12 30.448 -9.231 -6.815						
13 31.399 -11.838 -4.449						
14 31.647 -14.891 -2.240						
15 31.037 -18.108 0.011						
16 29.424 -20.916 2.476						
17 26.955 -22.421 5.332						
18 24.037 -21.668 8.381						
19 21.526 -18.866 10.470						
20 19.969 -15.302 11.182						
21 18.953 -12.144 11.153						
22 17.458 -10.028 11.134						
23 15.127 -9.340 11.128						
24 12.525 -9.556 10.663						
25 10.097 -9.730 10.103						
26 7.777 -9.738 10.156						
27 5.115 -9.828 10.634						
28 1.859 -9.869 11.128						
29 -1.606 -9.532 11.493						
30 -4.817 -8.871 11.683						
31 -7.660 -8.168 11.726						
32 -10.363 -7.536 11.664						
33 -13.194 -6.888 11.458						
34 -16.213 -6.038 11.032						
35 -19.299 -4.781 10.367						
36 -22.242 -3.016 9.607						
37 -24.450 -0.999 8.521						
38 -25.276 0.401 6.994						
39 -25.385 1.038 5.312						
40 -25.234 1.292 3.088						
41 -24.999 1.296 0.662						
42 -24.547 0.926 -1.791						
43 -23.594 -0.052 -4.542						
44 -21.999 -1.158 -7.670						
45 -19.520 -2.100 -10.651						
46 -16.108 -2.845 -12.888						
47 -12.195 -3.098 -14.146						
48 -8.706 -2.772 -14.705						
49 -5.736 -2.499 -14.875						
50 -2.887 -2.520 -14.849						

ALL POINT LOCATION IN TABLES ARE BASIC DIMENSIONS TO DATUMS A, B, AND C



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						
TWISTED RACETRACK WINDING FORM						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
8	X-10	5700	3	3	S	U
RELEASE LEVEL		REV				
WIP		SE140-084				