

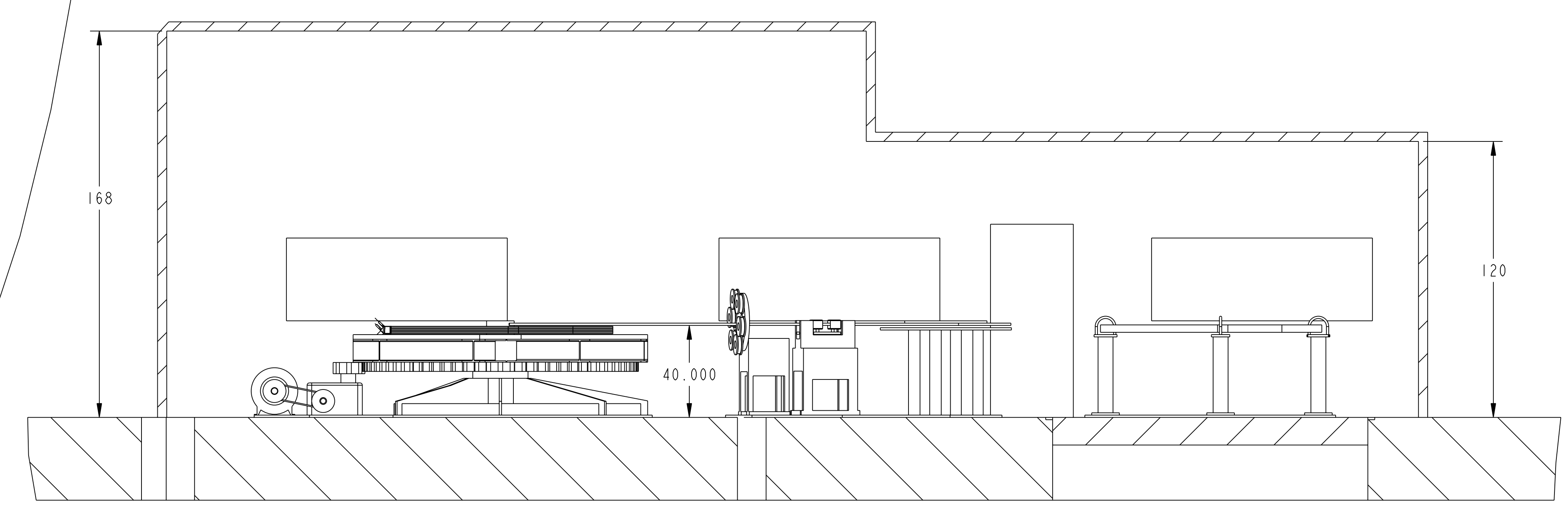
SCALE 0.031

COIL WINDING RADII
 MAX = 61.710
 MIN = 48.075
 13.635

TF COIL WINDING CONDUCTOR LENGTHS
 LINEAR LENGTH PER TURN = 365.5"
 3 TURNS PER LAYER / PANCAKE
 365.5 X 3 = 1096.5"
 4 LAYERS PER COIL
 1096.5 X 4 = 4386"
 4386" / 12 = 365.5' / coil

TF COIL WINDING ROOM 05-02-05
 FEED SPOOL DIAMETER CALCULATIONS
 BASIC COIL DIMENSIONS
 INNER PERIPHERY OF TF COIL = 345.61" X 3 TURNS = 1036.83" / 12 = 86.4'
 OUTER PERIPHERY OF TF COIL = 365.65" X 3 TURNS = 1096.95" / 12 = 91.4'
 91.4' < 100'
 100' FEET = 1 LAYER OF TF COIL CONDUCTOR 1" X 1"
 100 X 12 = 1200" CIRC OF 32" CORE = 32
 CIRC01 = 32 X 3.1416 = 100.92"
 1200 / 100.92 = 11.89 turns

TF COIL WINDING ROOM 05-02-05
 FEED SPOOL DIAMETER CALCULATIONS
 BASIC COIL DIMENSIONS
 INNER PERIPHERY OF TF COIL = 345.61" X 3 TURNS = 1036.83" / 12 = 86.4'
 OUTER PERIPHERY OF TF COIL = 365.65" X 3 TURNS = 1096.95" / 12 = 91.4'
 91.4' < 100'
 100' FEET = 1 LAYER OF TF COIL CONDUCTOR 1" X 1"
 100 X 12 = 1200" CIRC OF 24" CORE = 24 + 1"THK = 25
 CIRC01 = 25 X 3.1416 = 78.54
 CIRC02 = 27 X 3.1416 = 84.82
 CIRC03 = 29 X 3.1416 = 91.10
 CIRC04 = 31 X 3.1416 = 97.38
 CIRC05 = 33 X 3.1416 = 103.66
 CIRC06 = 35 X 3.1416 = 109.96
 CIRC07 = 37 X 3.1416 = 116.24
 CIRC08 = 39 X 3.1416 = 122.52
 CIRC09 = 41 X 3.1416 = 128.81
 CIRC10 = 43 X 3.1416 = 135.09
 CIRC11 = 45 X 3.1416 = 141.37
 1209.49" > 1200"
 45" O.D. SPOOL SIZE REQUIRED



SECTION Z-Z
 SCALE 0.031

PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY	REOD
8	SE1312-002	TF WINDING ROOM DETAILS			I
7	PE2121-033	TF WINDING ROOM DETAILS			I
6	PE2121-032	TF WINDING ROOM DETAILS			I
5	SE144-151-6	TF WINDING ROOM DETAILS	--		I
4	SE1312-102	TF WINDING ROOM DETAILS	--		I
3	SE1312-026	TF WINDING ROOM DETAILS	--		I
2	SE1312-025	TF WINDING ROOM DETAILS	--		I
1	SE1312-010	TF WINDING ROOM DETAILS	--		I

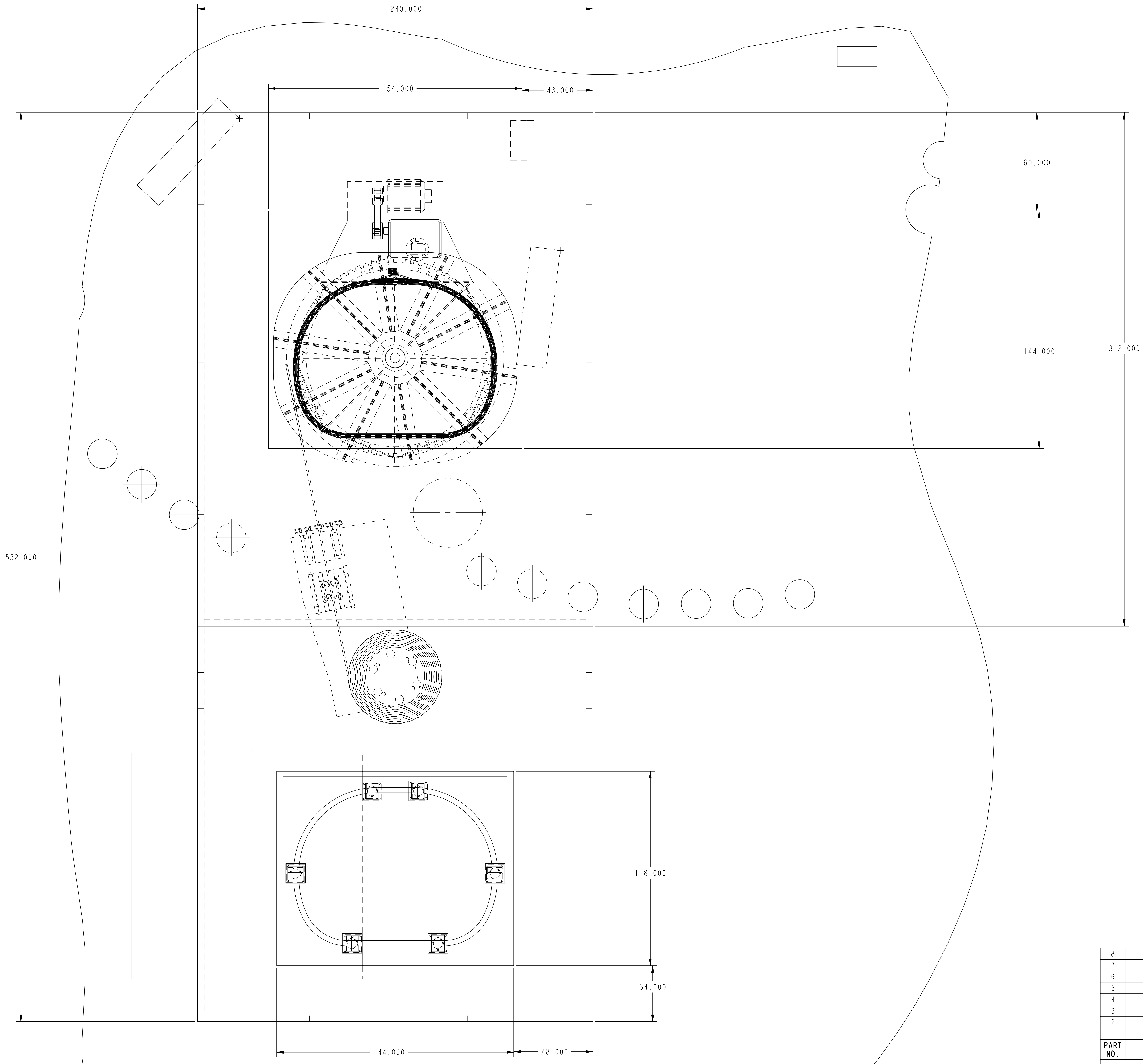
PARTS LIST

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY	
Pro E	DIMENSIONS ARE IN INCHES MACHINE SURFACES BREAK SHARP EDGES .005/.020	NATIONAL COMPACT STELLATOR EXPERIMENT	
DO NOT VERIFY INFORMATION BY SCALING DRAWING	TOLERANCES NON-CUMULATIVE	TF COIL WINDING ROOM PLAN VIEW AND ELEVATION BASIC SCHEME	DRAWING NO: SE1312-102
NEXT ASSEMBLY	DECIMAL-INCH FRACTIONS .X +/- .000 0"-12" +/- .010 .XX +/- .030 12"-32" +/- .010 .XXX +/- .005 32"-120" +/- .010 ANGULAR +/- .05 OVER 120" +/- .10	DSN: STEILL	CHK: ENGR: J CHRZANOWSKI
WEIGHT 1238.5 lbs	WELDING ENGINEER	SUPV:	SHEET 1 OF 2 REV

RELEASE LEVEL:
 DWG VERSION NO: 0

NCSX-SE1312-102

NO.	REVISION	BY	CH	SUP	APPROVED	DATE



PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY	REOD
8	SE1312-002	TF WINDING TABLE ASSEMBLY		1	
7	PE2121-033	TEST CELL HATCH CURB		1	
6	PE2121-032	TEST CELL HATCH COVER		1	
5	SE1312-026	TF WINDING ROOM DETAILS	--	1	
4	SE1312-102	TF COIL WINDING ROOM ARRGT	--	1	
3	SE1312-025	TF COIL GROUND WRAP TABLE ASSEMBLY	--	1	
2	SE144-151-6	TEST CELL FLOOR	--	1	
1	SE1312-010	TAPE / TENSIONER ARRANGEMENT	--	1	

PARTS LIST					
COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED Pro E	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES MACHINE SURFACES BREAK SHARP EDGES .005/.020	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT			
DO NOT VERIFY INFORMATION BY SCALING DRAWING	TOLERANCES NON-CUMULATIVE	DSN:	DRAWING NO:		
NEXT ASSEMBLY	DECIMAL-INCH FRACTIONS .XX +/- .030 .XXX +/- .005 ANGULAR +/- .05	CHK:	SE1312-102		
		ENGR:	SHEET 2 OF 2		
		SUPV:	REV		

WEIGHT
1238.5 lbs

MODEL NAME
SE1312-102

WELDING ENGINEER

RELEASE LEVEL:
DWG VERSION NO: 0

SCALE 0.045

NCSX-SEI 312-102

NCSX_ASSY-FORMAT.E