

SECURITY-RELATED INFORMATION
WITHHELD UNDER 5 USC SECTION 552(b)
(4) AND 5 USC SECTION 552(b)(7)(F)

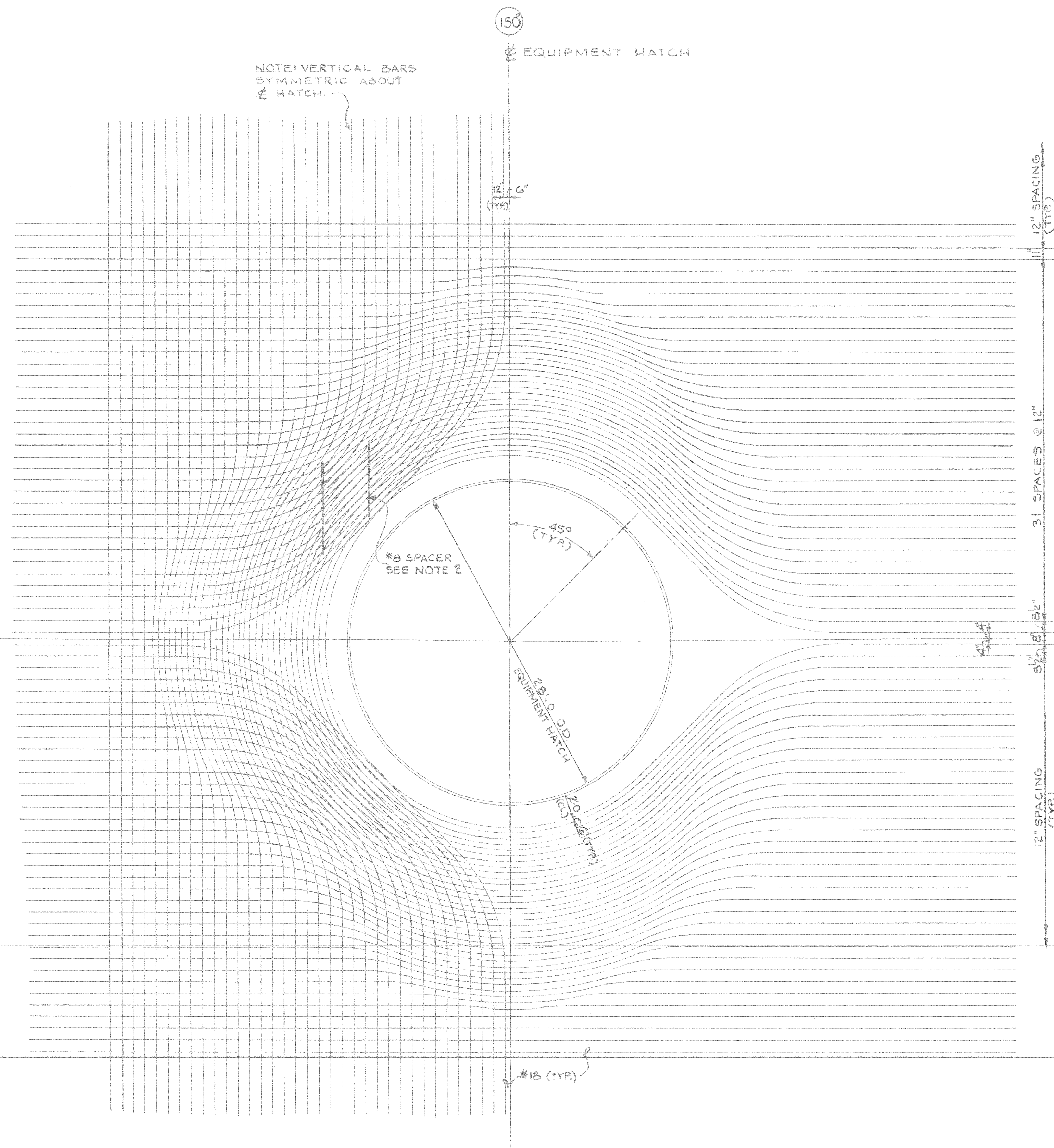
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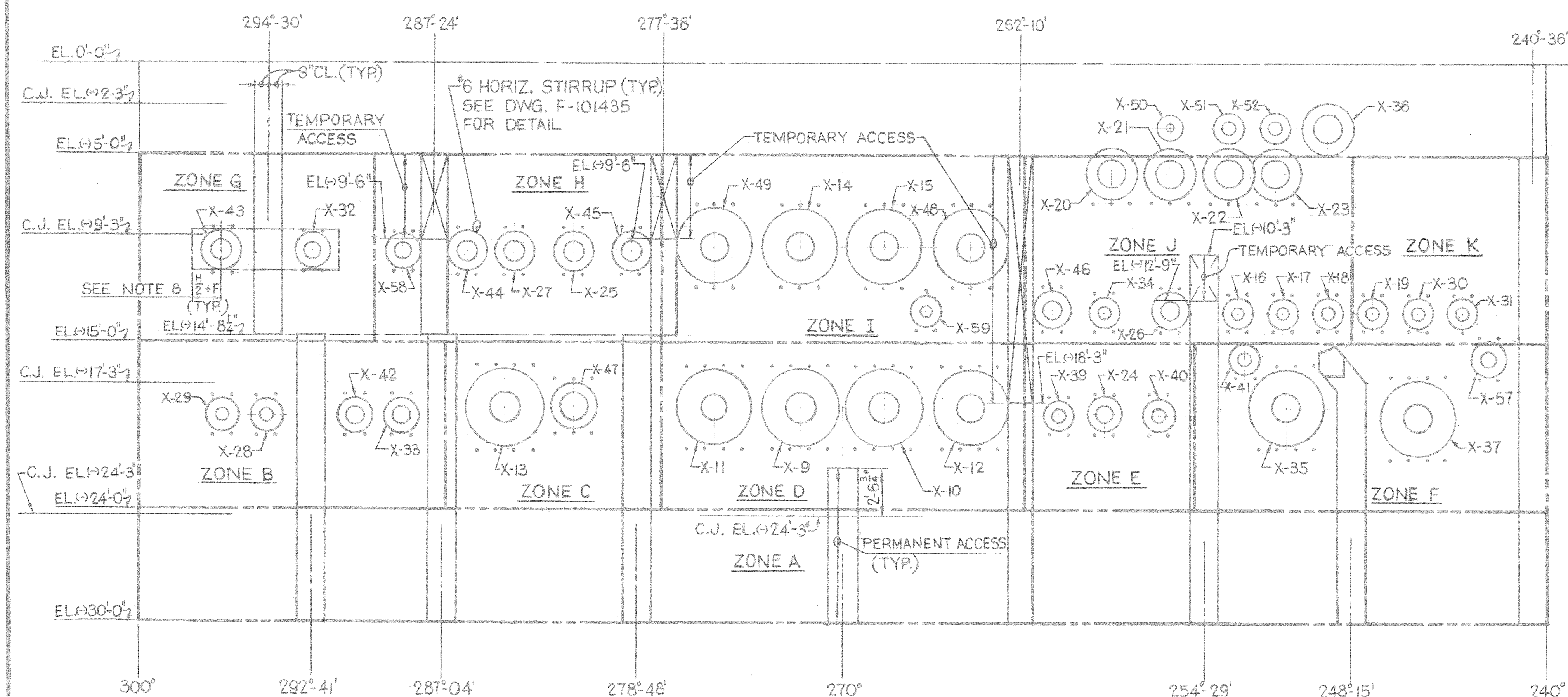
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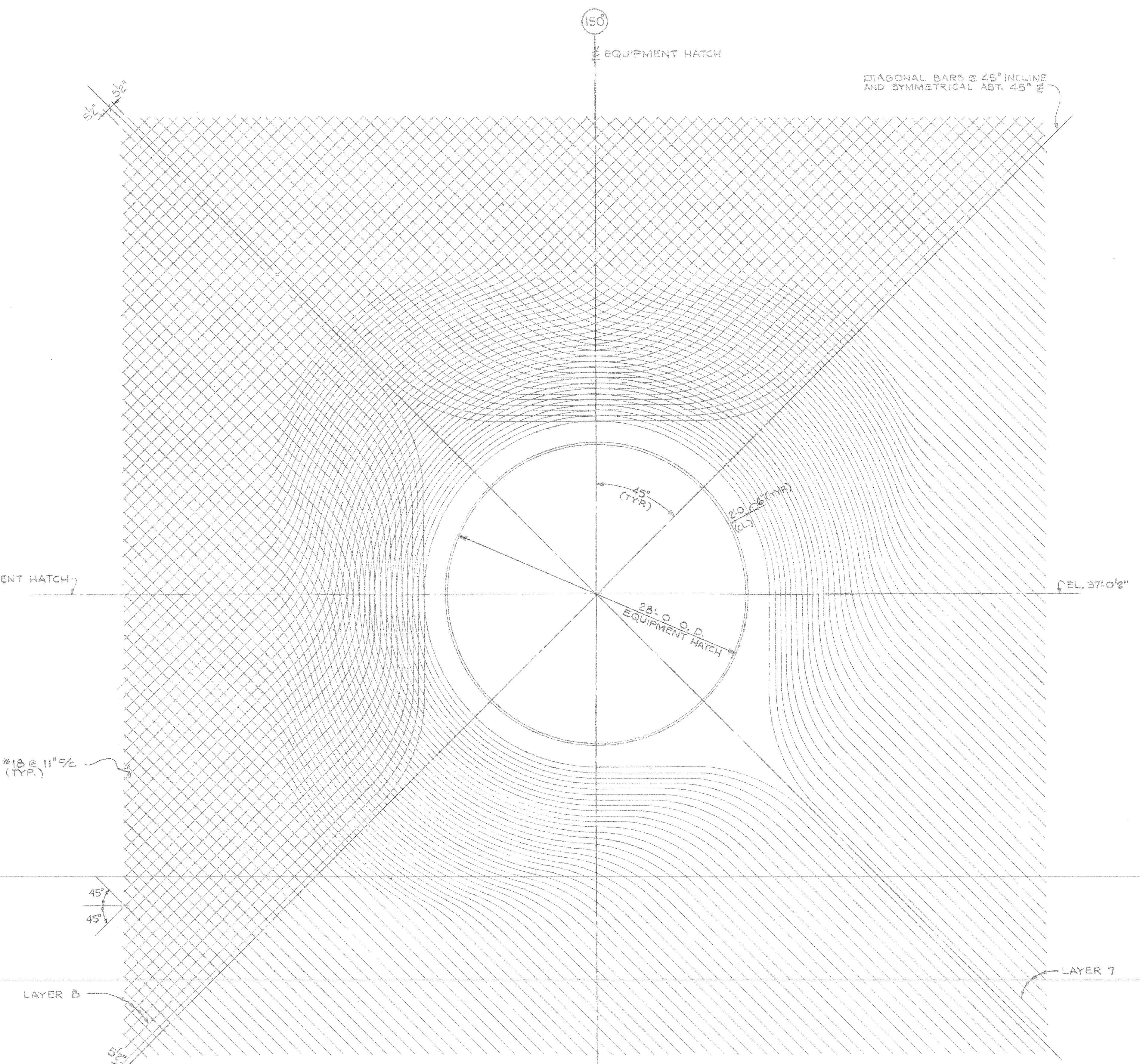


WALL REINFORCEMENT AT EQUIPMENT HATCH
ELEVATION
3/16" = 1'-0"

CADWELD TO BAR SIZE	CADWELD SERIES NO.	ANCHOR PLATE SIZE	CADWELD ASSEMBLIES REQ'D.	TEST ASSEMBLIES REQ'D.
#6	RBB-692-JA	1/2" x 3" x 3"	90	7
#8	RBB-8101-JA	3/4" x 3" x 5"	540	40
#10	RBB-1092-JA	1" x 4" x 6"	—	—
#11	RBB-11101-JA	1 1/2" x 4 1/2" x 7"	90	7



STIRRUP ARRANGEMENT FROM 240° TO 300° AZIMUTH
SCALE: 1/8" = 1'-0"



DIAGONAL REINFORCEMENT AT EQUIPMENT HATCH
ELEVATION
3/16" = 1'-0"

ZONE	ELEV. TO ELEV.	AZIMUTH TO AZIMUTH	TOTAL AREA OF REINF. REQ'D.
A	EL. 30' TO EL. 24'	240° TO 300°	240.70 IN. ²
B	EL. 24' TO EL. 15'	287° TO 300°	85.85 IN. ²
C		277° 45' TO 287°	61.10 IN. ²
D		262° 15' TO 277° 45'	102.38 IN. ²
E		255° TO 262° 15'	47.87 IN. ²
F		240° TO 255°	99.08 IN. ²
G	EL. 15' TO EL. 9'	290° TO 300°	36.21 IN. ²
H		277° 45' TO 290°	44.39 IN. ²
I		262° 15' TO 277° 45'	56.15 IN. ²
J		248° 15' TO 262° 15'	50.70 IN. ²
K		240° TO 248° 15'	29.90 IN. ²

*INCLUDED IN TOTAL AREA OF REINF. REQ'D.
AREA OF INCLINED SHEAR REINFORCING
REQUIRED BETWEEN PENETRATION SLEEVES

PENETRATIONS	ELEV. TO ELEV. (APPROXIMATE)	AREA REQUIRED* (UNIFORMLY DISTR.)
X-29 TO X-33	19'-10" TO 17'-11"	13.85 IN. ²
X-13 TO X-47	20'-7" TO 16'-5"	20.90 IN. ²
X-11 TO X-12	20'-7" TO 16'-5"	48.94 IN. ²
X-39 TO X-40	19'-10" TO 17'-11"	8.94 IN. ²
X-35 TO X-37	21'-0" TO 16'-6"	35.00 IN. ²
X-43 TO X-32	11'-2" TO 9'-1"	4.69 IN. ²
X-58 TO X-45	11'-2" TO 9'-1"	9.07 IN. ²
X-49 TO X-48	12'-0" TO 8'-0"	23.19 IN. ²
X-46 TO X-18	14'-4" TO 12'-3"	10.52 IN. ²
X-20 TO X-23	7'-5" TO 5'-0"	8.95 IN. ²
X-19 TO X-31	14'-3" TO 12'-6"	3.76 IN. ²

NOTES FOR PENETRATION AREA (240° TO 300°)

- SPACING OF INCLINED STIRRUPS MUST NOT EXCEED 18" AT THE OUTSIDE FACE OF WALL.
- ZONES OF INCLINED STIRRUPS INDICATE REQUIRED AREA OF REINFORCING AT OUTSIDE FACE OF WALL. USE #6, #8 OR #10 INCLINED STIRRUPS IN ANY COMBINATION TO OBTAIN REQUIRED AREA FOR A GIVEN ZONE.
- PENETRATIONS ARE SHOWN AT MIDDLE SURFACE AND ACCESS OPENINGS ARE SHOWN AT OUTSIDE FACE OF WALL.
- ALL ADDITIONAL ACCESS OPENINGS REQUIRED BY FIELD ARE CONSIDERED TEMPORARY AND STIRRUPS MUST BE PLACED PRIOR TO CONCRETE PLACEMENT.
- WHEREVER ANCHOR PLATES ARE USED WITH STIRRUPS, PLATE SHOULD REST IN THE PLANE OF LAYER 1 OR 2 ON THE INSIDE AND LAYER 6 OR 7 ON THE OUTSIDE.
- FINAL AS-BUILT STIRRUP ARRANGEMENT SHALL BE SKETCHED SHOWING BAR SIZE AND LOCATION (BY VISUAL INSPECTION) AND SUBMITTED TO THE RESIDENT CONSTRUCTION ENGINEER FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.
- CONSTRUCTION MANAGERS SHALL BE NOTIFIED WHEN STIRRUPS ARE IN PLACE, IN ORDER THAT A U.E.C. FIELD ENGINEER MAY HAVE THE OPTION OF INSPECTING THE DISTRIBUTION.
- REFER TO DRAWING 9763-F-101497 FOR F & H DIMENSIONS.
- PROPER ANCHOR PLATES MAY BE USED WITH ANY SIZE STIRRUP IF REQUIRED FOR INSTALLATION. SEE ANCHOR PLATE SCHEDULE THIS DRAWING.

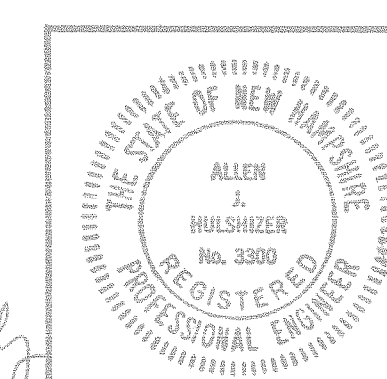
NOTES:

- FOR GENERAL NOTES SEE DWG. NO. 9763-F-101435
- PROVIDE #8 SPACER BARS AS REQUIRED BETWEEN LAYERS OF PARALLEL EQUIPMENT HATCH BENT BARS TO MAINTAIN 1" MINIMUM CLEARANCE BETWEEN LAYERS.

REFERENCE DWGS.

- 9763-F-101435 - CONTAINMENT CONCRETE TYPICAL REINFORCING.
- 9763-F-101440 - CONTAINMENT CONCRETE EQUIPMENT HATCH REINF. SHT 1.
- 9763-F-101495 - CONTAINMENT LINER-VERTICAL WALL.
- 9763-F-101496 - CONTAINMENT LINER-WALL OPNGS. & PENETRATIONS.
- 9763-F-101497 - CONTAINMENT LINER-PENETRATIONS SCHEDULE.

N-STAMP ITEM
HOQUE

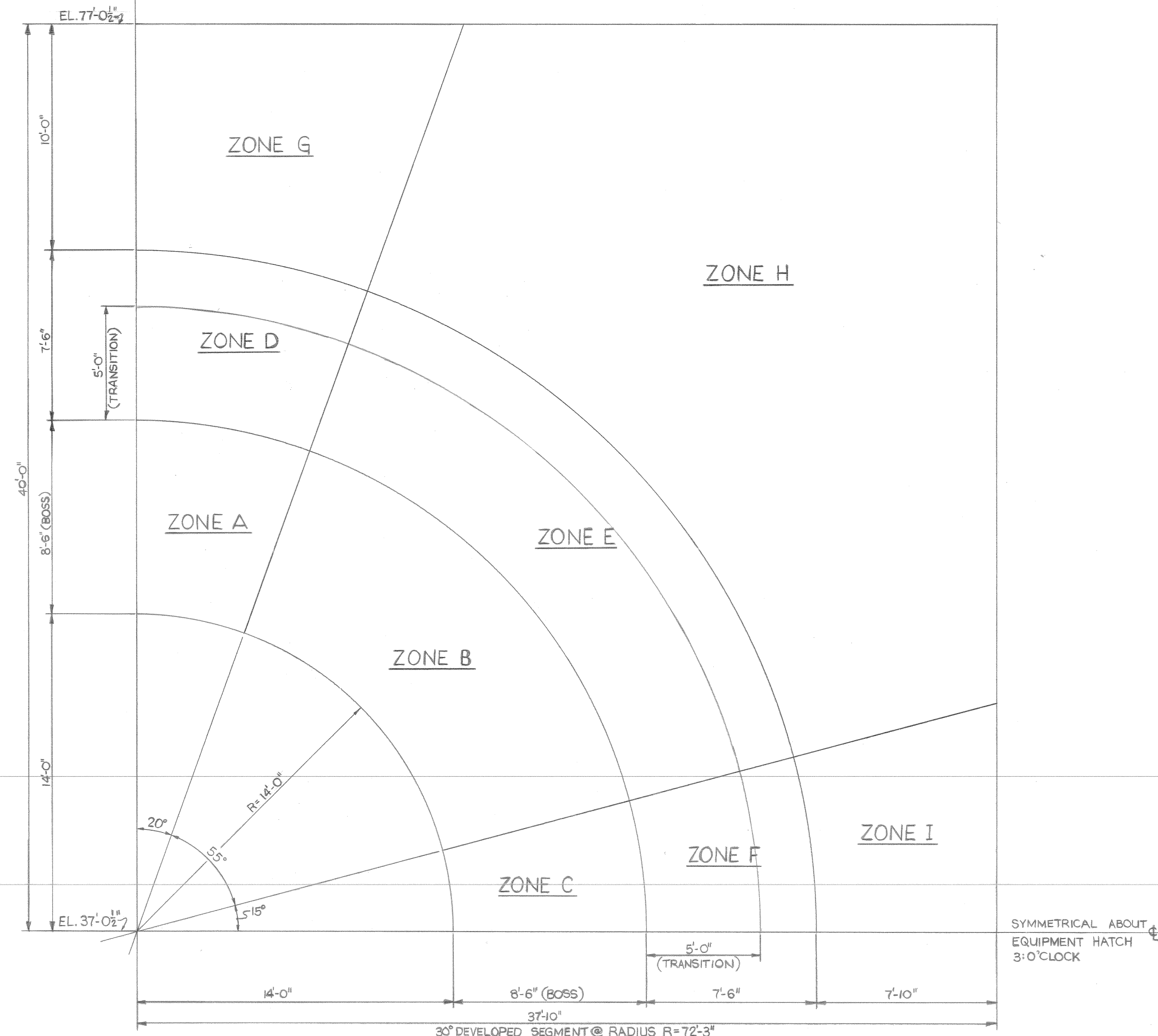


REV.	DATE	DESCRIPTION	DWN. BY	CRD. BY	ENGR.	SUP. ENGR.
1	4-3-81	REVISED PENETRATION NOTES	eam	eam	eam	eam
2	5-3-78	FOR CONSTRUCTION	eam	eam	eam	eam
3	7-16-78	FOR FABRICATION	eam	eam	eam	eam

CONTAINMENT
CONCRETE
EQUIPMENT HATCH REINF. - SHEET 2
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
SEABROOK STATION
United engineers & constructors inc.
UNITS 1 AND 2 9763-F-101441

CONST.	DISCIPLINE	CRD. BY	DATE	DISCIPLINE	CRD. BY	DATE
N/A	STRUCT.	eam	5-30-80	MECH.	N/A	
	MECH.	N/A		ELECT.	N/A	
	NUCLEAR	N/A		MECH. SVCS.	N/A	

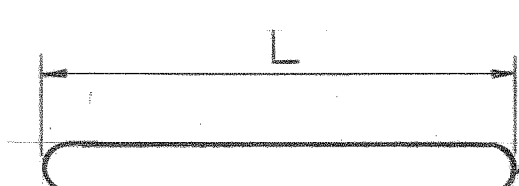
SYMMETRICAL ABOUT EQUIPMENT HATCH
12:00'CLOCK



TYPICAL STIRRUP ARRANGEMENT FOR QUARTER SEGMENT
(LOOKING FROM OUTSIDE)
SCALE: $\frac{3}{8}$ "=1'-0"

REGION	ZONE	SIZE OF STIRRUP	SPACING R X H	TOTAL NO.	STIRRUP LENGTH (L)	AREA FT. ²	REMARKS
BOSS	A	#6	15" X 12"	45	7'-3 $\frac{1}{4}$ "	54.15	—
	B		12" X 9"	200	7'-3 $\frac{1}{4}$ "	148.91	—
	C		15" X 12"	35	7'-3 $\frac{1}{4}$ "	40.61	—
TRANS. & SHELL	D		12" X 9"	92	VARIES	68.72	PROVIDE MIN. OF 5% EXTRA STIRRUP (QUAD. FOR EACH VARIABLE LENGTH)
	E		8" X 8"	425	VARIES	188.99	DO
	F		12" X 9"	70	VARIES	51.54	DO
SHELL	G		18" X 15"	72	3'-6 $\frac{1}{4}$ "	134.12	—
	H		18" X 15"	320	3'-6 $\frac{1}{4}$ "	598.23	—
	I		21" X 21"	24	3'-6 $\frac{1}{4}$ "	73.99	—

R=RADIAL
H=HOOP



NOTE:
WHEREVER #6 STIRRUPS DO NOT FIT, SUBSTITUTE THREE (3) OF #5 STIRRUPS FOR EVERY TWO (2) OF #6 STIRRUPS.
SUBSTITUTION OF #3 & #4 STIRRUPS IS ALSO PERMITTED PROVIDED THE TOTAL REQUIRED AREA IS FURNISHED IN EACH ZONE. BUNDLED (2) STIRRUPS MAY BE USED.

REGION	ZONE	SIZE OF STIRRUP	TOTAL NO.	STIRRUP LENGTH (L)	REMARKS
BOSS	A	#5	7	7'-3"	—
	B		15	7'-3"	—
	C		6	7'-3"	—
TRANS. & SHELL	D		15	VARIES	—
	E		32	VARIES	—
	F		10	VARIES	—
SHELL	G		10	3'-6"	—
	H		24	3'-6"	—
	I		4	3'-6"	—

NOTES

- FOR GENERAL NOTES AND REFERENCE DWGS. SEE DWG. NO. 9763-F-101435.
- WORK THIS DWG. WITH DWG. NO. 9763-F-101434 & 101440.
- TOTAL NUMBER OF STIRRUPS MUST BE PLACED IN A GIVEN ZONE AS SHOWN IN THE TABLE ON THIS DWG.
- STIRRUP SPACING IS PROVIDED IN RADIAL AND HOOP PATTERN. STIRRUPS MAY BE PLACED IN ORTHOGONAL PATTERN AND SPACING MAY BE INCREASED OR DECREASED BY A MAXIMUM OF HALF THE STIRRUP SPACING FOR A GIVEN ZONE IF REQUIRED FOR PLACEMENT.
- HEAT NUMBERS (IDENTIFICATION TAGS) ON STIRRUP BUNDLES SHALL BE MAINTAINED WITH THE BATCH OF STIRRUPS FOR FUTURE IDENTIFICATION FOR USE IN UNIT #2.
- ALL STIRRUPS IN BOSS AND TRANSITION ZONE MUST HOOK AROUND EXTREME OUTSIDE LAYER AND IN SHELL, AROUND LAYER #7.

N-STAMP ITEM
HOQAE

CONTAINMENT
CONCRETE
EQUIPMENT HATCH TRANSVERSE SHEAR REINFORCING
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
SEABROOK STATION
UNITED ENGINEERS & CONSTRUCTORS INC.
UNITS 1 AND 2 9763-F-101444

REV.	DATE	DESCRIPTION	DWN. BY	CHK. BY	ENGR.	SUP. ENGR.
3	8/20/80	REVISED PER ECA 01/2019 A	EH	EH	EH	EH
2	6/27/80	REVISED TRANSVERSE SHEAR REINFORCING TABLES & NOTE 2	EH	EH	EH	EH
1	5/25/79	STIRRUP LENGTHS CHANGED & NOTE ADDED.	EH	EH	EH	EH
0	4/16/78	ISSUED FOR CONSTRUCTION	EH	EH	EH	EH
4	11-11-82	REV. PER ECA 01/83 G1 A NEW 10" X 10" BOSS	EH	EH	EH	EH

DISCIPLINE	CHK. BY	DATE	DISCIPLINE	CHK. BY	DATE
STRUCT.	PC	7/8/80	INST. & CONTR.	NA	
MECH.	NA		ELECT.	NA	
NUCLEAR	NA		MECH. SVCS.	NA	

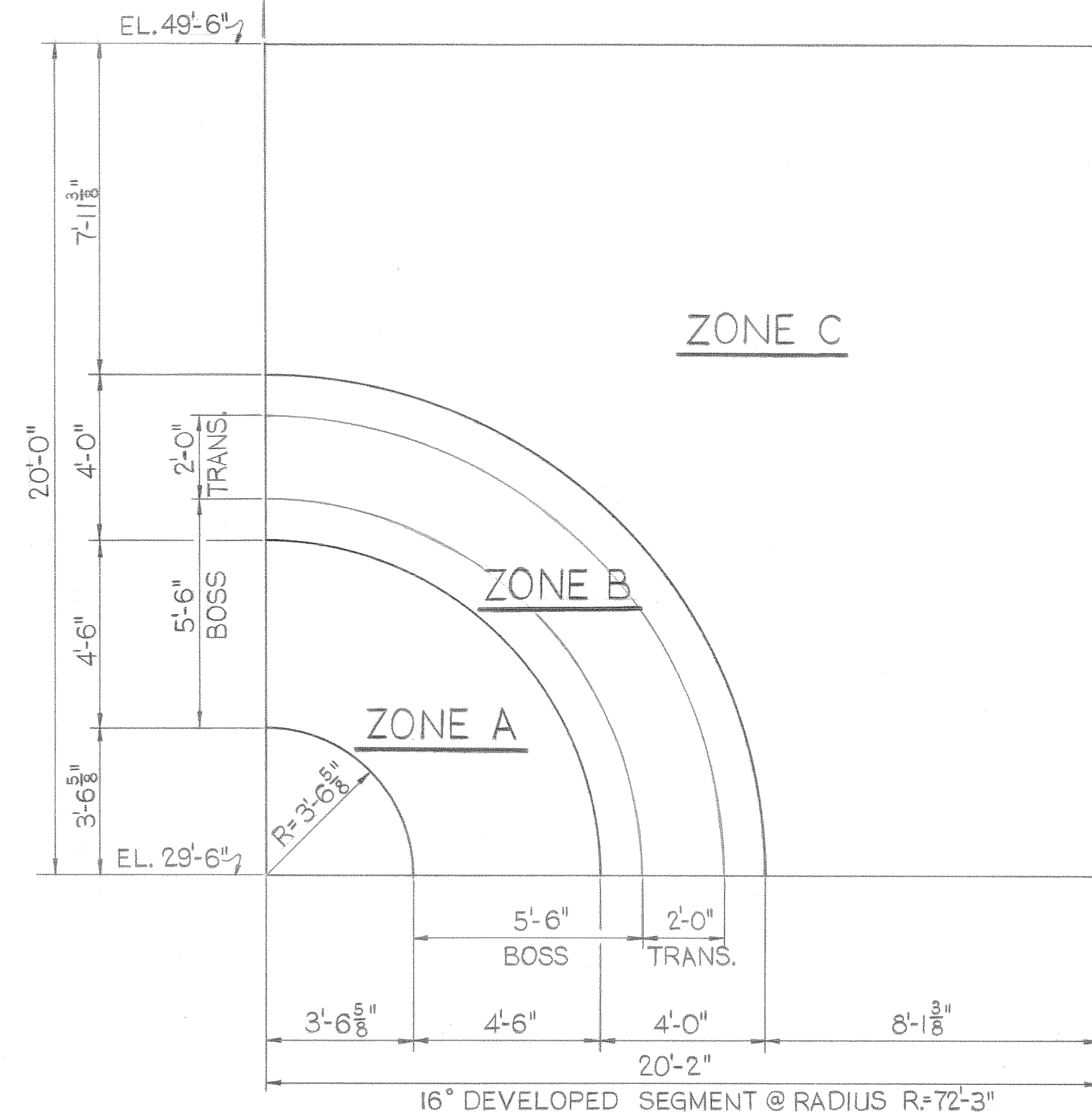
1 AREA 017 CS

4

3

2

SYMMETRICAL ABOUT PERSONNEL AIR LOCK
12:00CLOCK

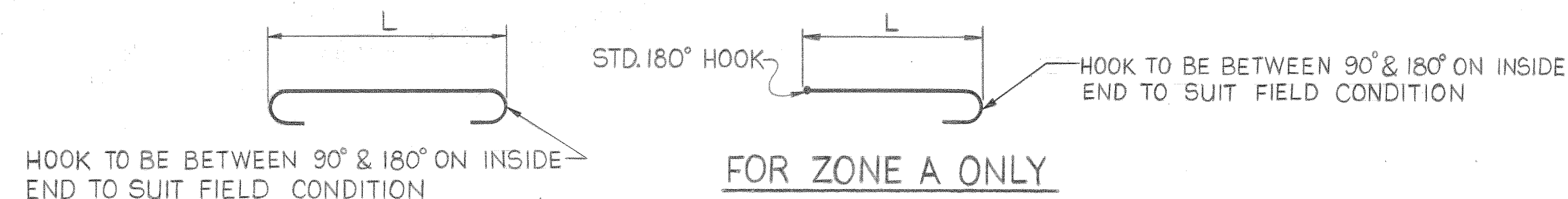


TYPICAL STIRRUP ARRANGEMENT FOR QUARTER SEGMENT
(LOOKING FROM OUTSIDE)
SCALE: $\frac{3}{8}'' = 1'-0''$

TABLE OF TRANSVERSE SHEAR REINFORCEMENT FOR QUARTER SEGMENT						
REGION	ZONE	SIZE OF STIRRUP	SPACING R X H	TOTAL NO.	STIRRUP LENGTH (L)	AREA FT. ²
BOSS	A	#6	18" X 18"	18	5'-3 1/4"	41.01
BOSS, TRANS. & SHELL	B	#6	12" X 9"	84	VARIES	63.16
SHELL	C	#6	21" X 18"	110	3'-6 1/4"	289.25
REMARKS						END HOOKS ARE IN DIFFERENT PLANE PROVIDE MIN. OF 5% EXTRA STIRRUP/ QUAD. FOR EACH VARIABLE LENGTH

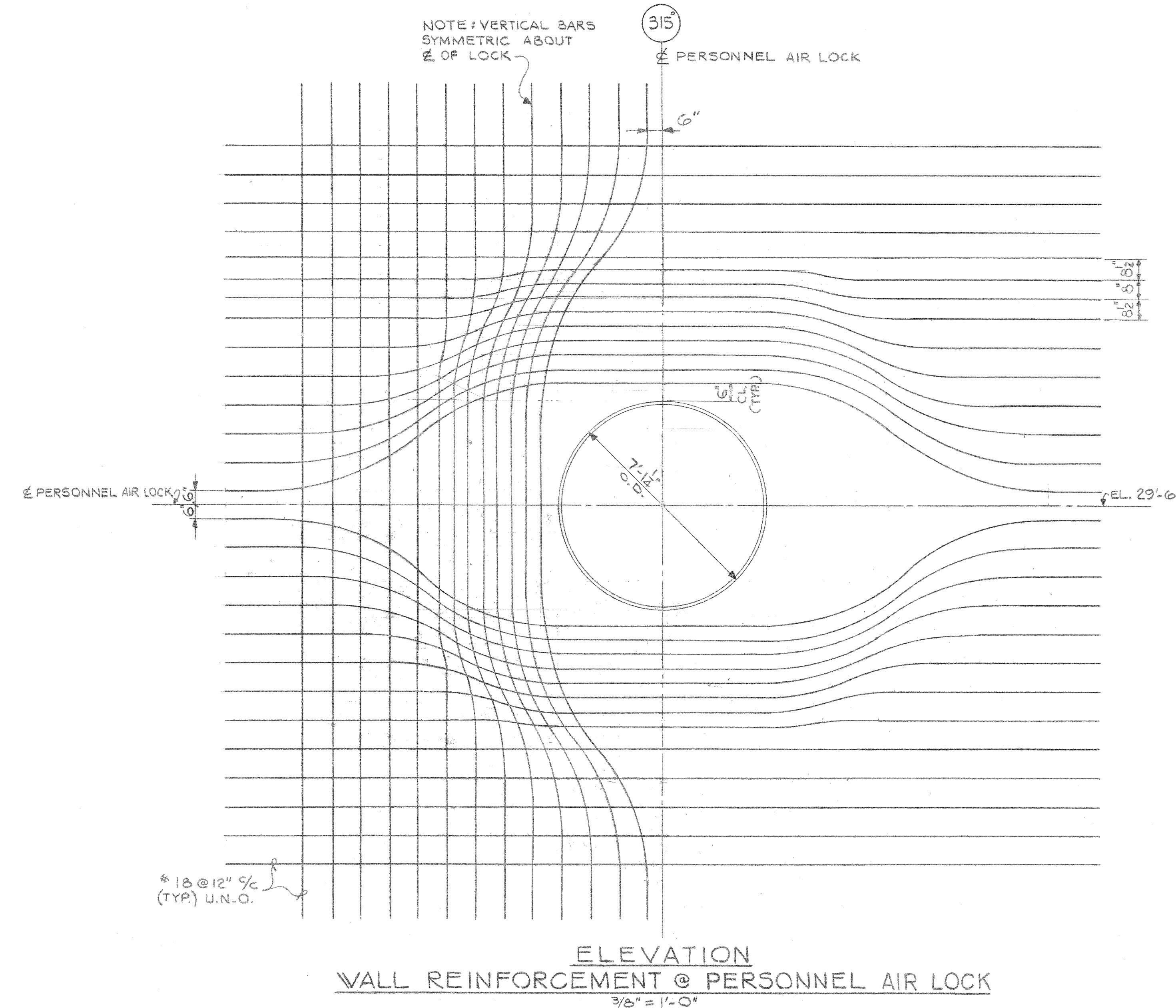
TABLE OF SUBSTITUTE ADDITIONAL #5 TRANSVERSE SHEAR REINFORCEMENT FOR ALTERNATE USE					
REGION	ZONE	SIZE OF STIRRUP	TOTAL NO.	STIRRUP LENGTH (L)	REMARKS
BOSS	A	#5	4	5'-3"	END HOOKS ARE IN DIFFERENT PLANE
BOSS, TRANS. & SHELL	B	#5	13	VARIES	
SHELL	C	#5	17	3'-6"	

R=RADIAL
H=HOOP

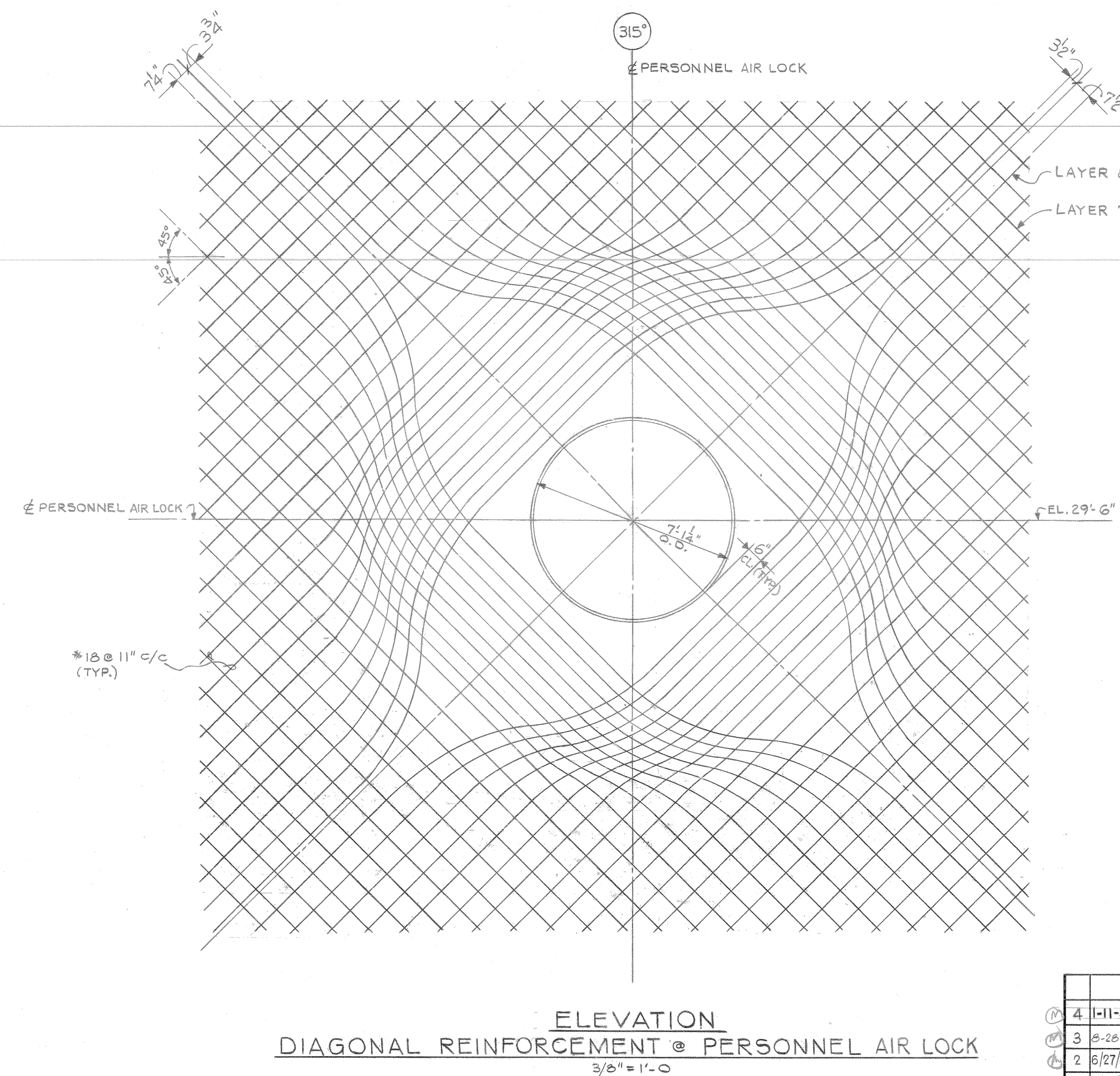


NOTE:
WHENEVER #6 STIRRUPS DO NOT FIT, SUBSTITUTE THREE (3) OF #5 STIRRUPS FOR EVERY TWO (2) OF #6 STIRRUPS.

SUBSTITUTION OF #3 & #4 STIRRUPS IS ALSO PERMITTED PROVIDED THE TOTAL REQUIRED AREA IS FURNISHED IN EACH ZONE. BUNDLED (2) STIRRUPS MAY BE USED.



ELEVATION
WALL REINFORCEMENT @ PERSONNEL AIR LOCK
 $\frac{3}{8}'' = 1'-0''$



ELEVATION
DIAGONAL REINFORCEMENT @ PERSONNEL AIR LOCK
 $\frac{3}{8}'' = 1'-0''$

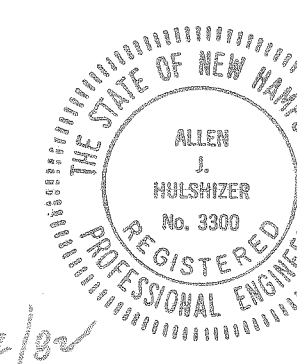
NOTES:

- FOR GENERAL NOTES AND REFERENCE DWGS. SEE DWG. NO. 9763-F-101435.
- WORK THIS DWG. WITH DWG. NO. 9763-F-101434 & 101443.
- TOTAL NUMBER OF STIRRUPS MUST BE PLACED IN A GIVEN ZONE AS SHOWN IN THE TABLE ON THIS DWG.
- STIRRUP SPACING IS PROVIDED IN RADIAL AND HOOP PATTERN. STIRRUPS MAY BE PLACED IN ORTHOGONAL PATTERN AND SPACING MAY BE INCREASED OR DECREASED BY A MAXIMUM OF HALF THE STIRRUP SPACING FOR A GIVEN ZONE IF REQUIRED FOR PLACEMENT.
- HEAT NUMBERS (IDENTIFICATION TAGS) ON STIRRUP BUNDLES SHALL BE MAINTAINED WITH THE BATCH OF STIRRUPS FOR FUTURE IDENTIFICATION FOR USE IN UNIT #2.
- ALL STIRRUPS IN BOSS AND TRANSITION ZONE MUST HOOK AROUND EXTREME OUTSIDE LAYER AND IN SHELL, AROUND LAYER #7.

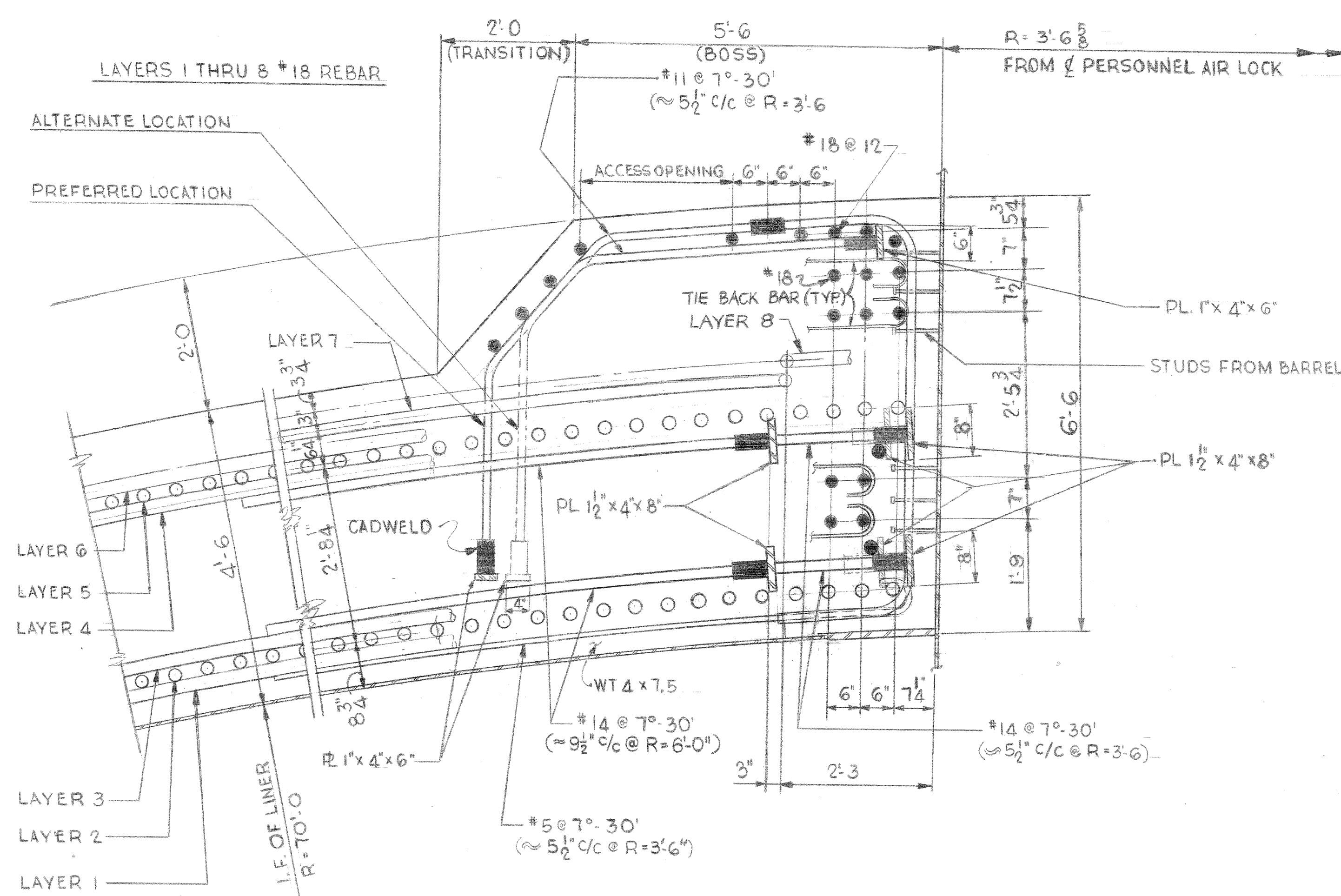
REV.	DATE	DESCRIPTION	BY	CHKD.	APP'D.	DATE
4	1-11-82	REV. PER ECA 01/25/81A	ATN	WFW	ATN	1/25/82
3	9-28-81	REV. PER ECA 01/24/81A	ATN	WFW	ATN	9/28/81
2	8/27/80	ADDED STIRRUP DETAIL & REV. TRANS. SHEAR REIN. TABLE	ATN	EH	ATN	8/27/80
1	4/23/79	REWORKED HOLD HOOD FRAME, SHEAR BAR ARRANGEMENT IN WALL	ATN	EH	ATN	4/23/79
5-26-79	FOR CONSTRUCTION					
DATE	DESCRIPTION	PE	DWN. BY	CKD. BY	RES. ENG.	SDE
DATE	DESCRIPTION	PE	DWN. BY	CKD. BY	RES. ENG.	SDE
DATE	DESCRIPTION	PE	DWN. BY	CKD. BY	RES. ENG.	SDE

ENGINEER	Allen J. Houlston	NO. 3300
STATE REG. New Hampshire		
CONTAINMENT CONCRETE PERSONNEL AIR LOCK REIN.- SHEET 1 PUBLIC SERVICE CO. OF NEW HAMPSHIRE SEABROOK STATION United engineers & constructors inc.		
UNITS 1 AND 2		9763-F-101442

N-STAMP ITEM
HOQAE

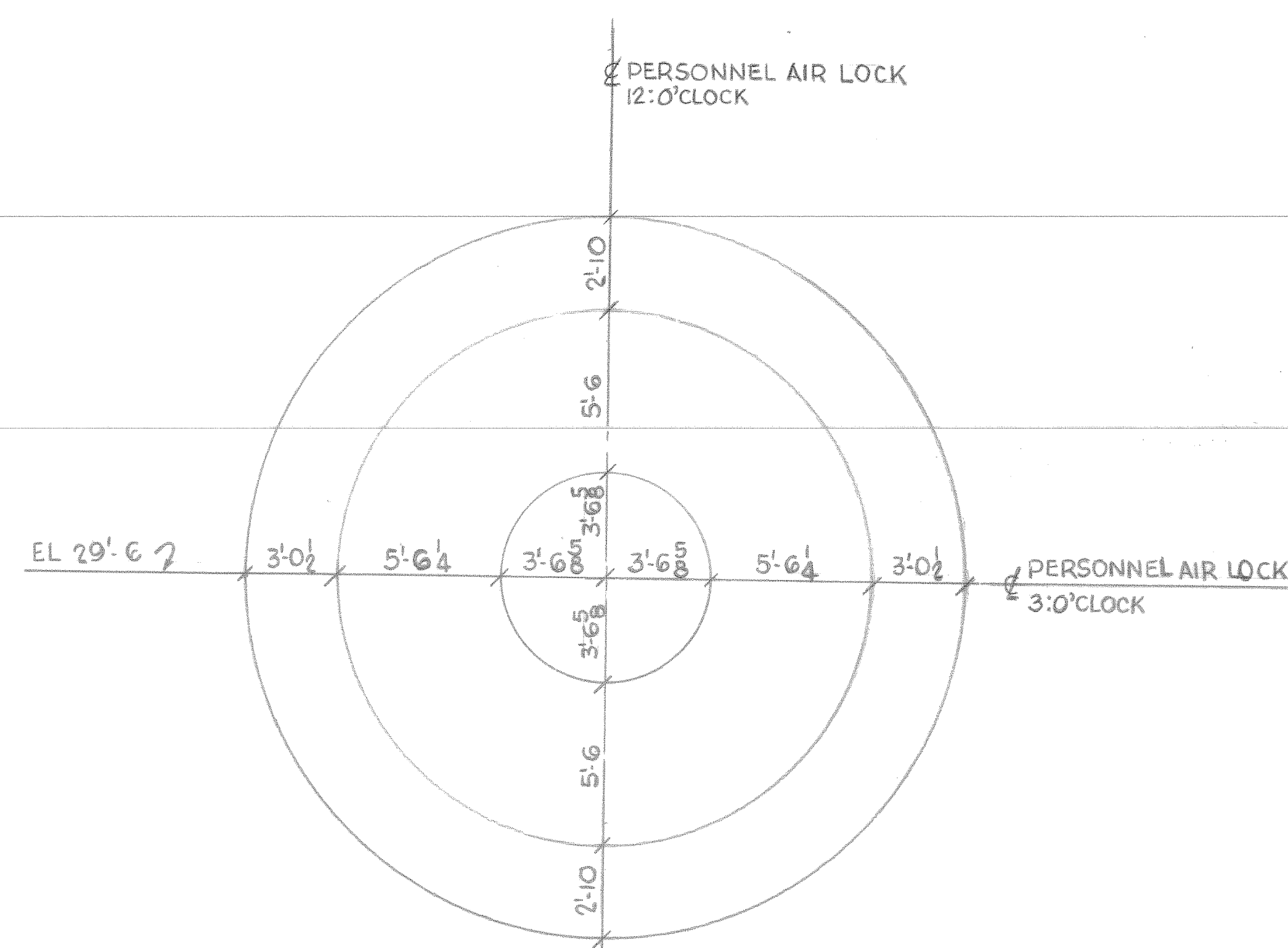


DISCIPLINE	CKD. BY	DATE	DISCIPLINE	CKD. BY	DATE
STRUCT.	WFW	7/28/82	INT. & CONTR.	WFW	7/28/82
MECH.	WFW	7/28/82	ELECT.	WFW	7/28/82
NUCLEAR	WFW	7/28/82	MECH. SVCS.	WFW	7/28/82

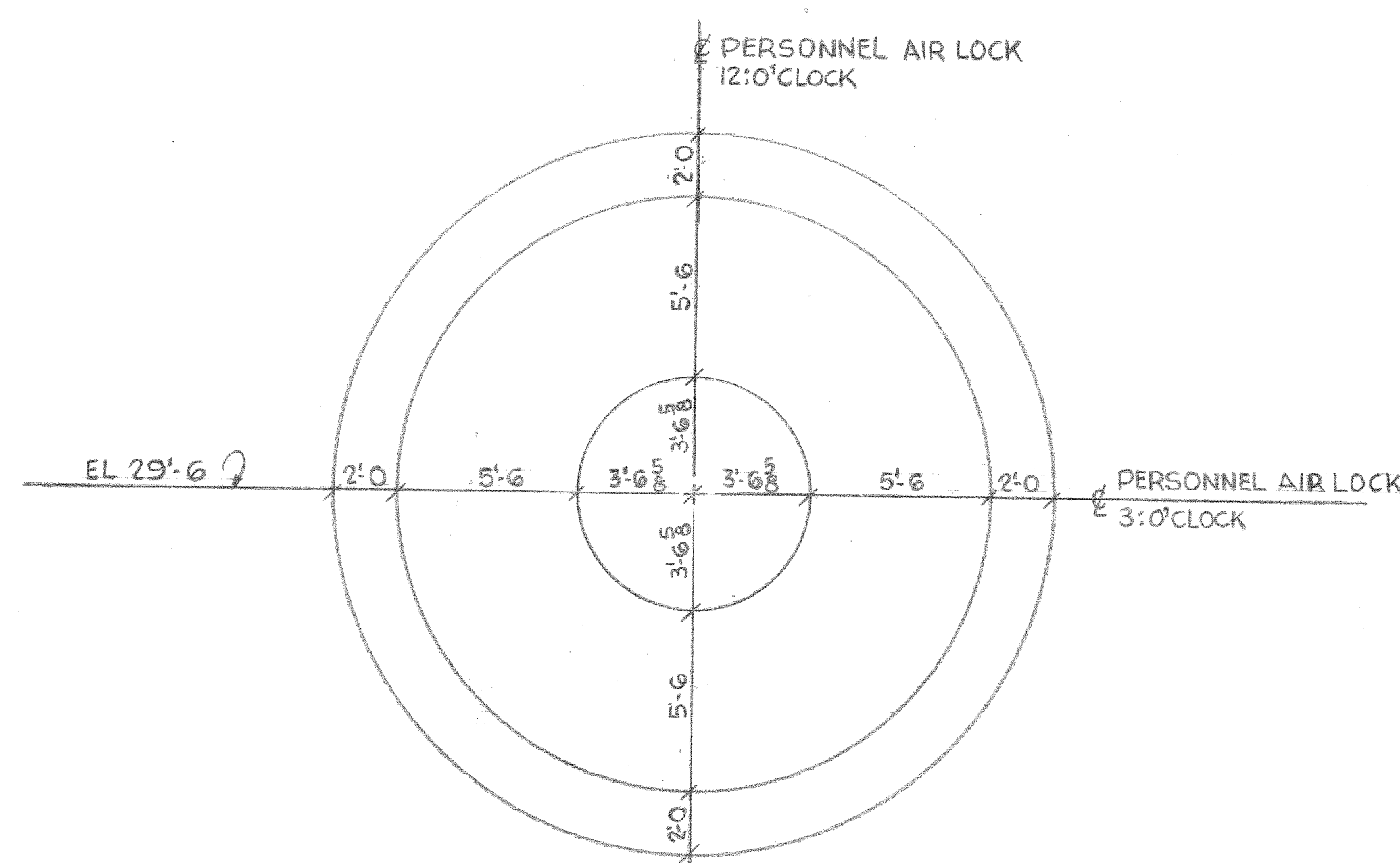


SECTION AT HORIZONTAL ̢ (3:0'CLOCK)

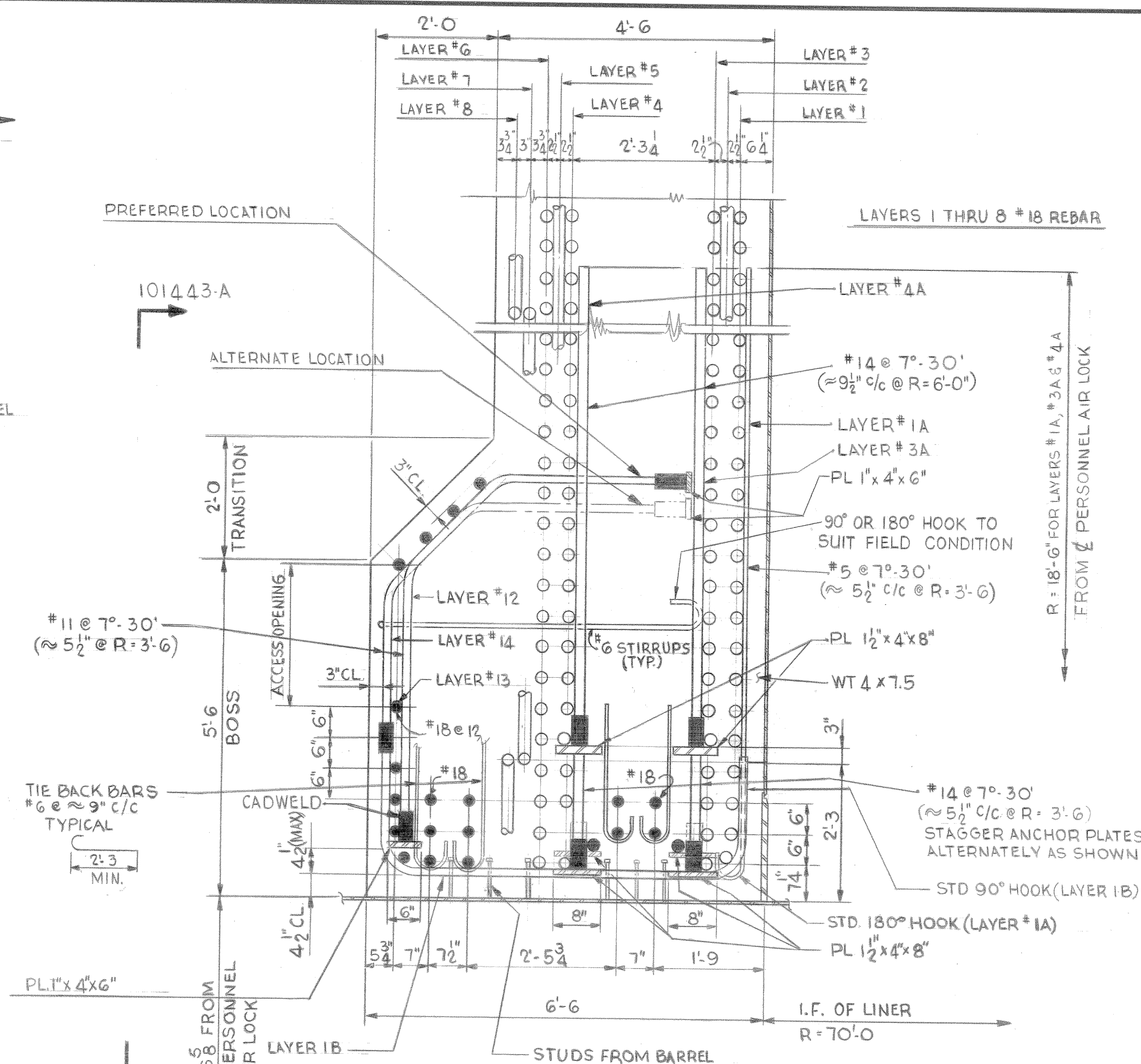
SCALE 3/4" = 1'-0"

DEVELOPED ELEVATION
(LOOKING FROM OUTSIDE)

SCALE 1/4" = 1'-0"

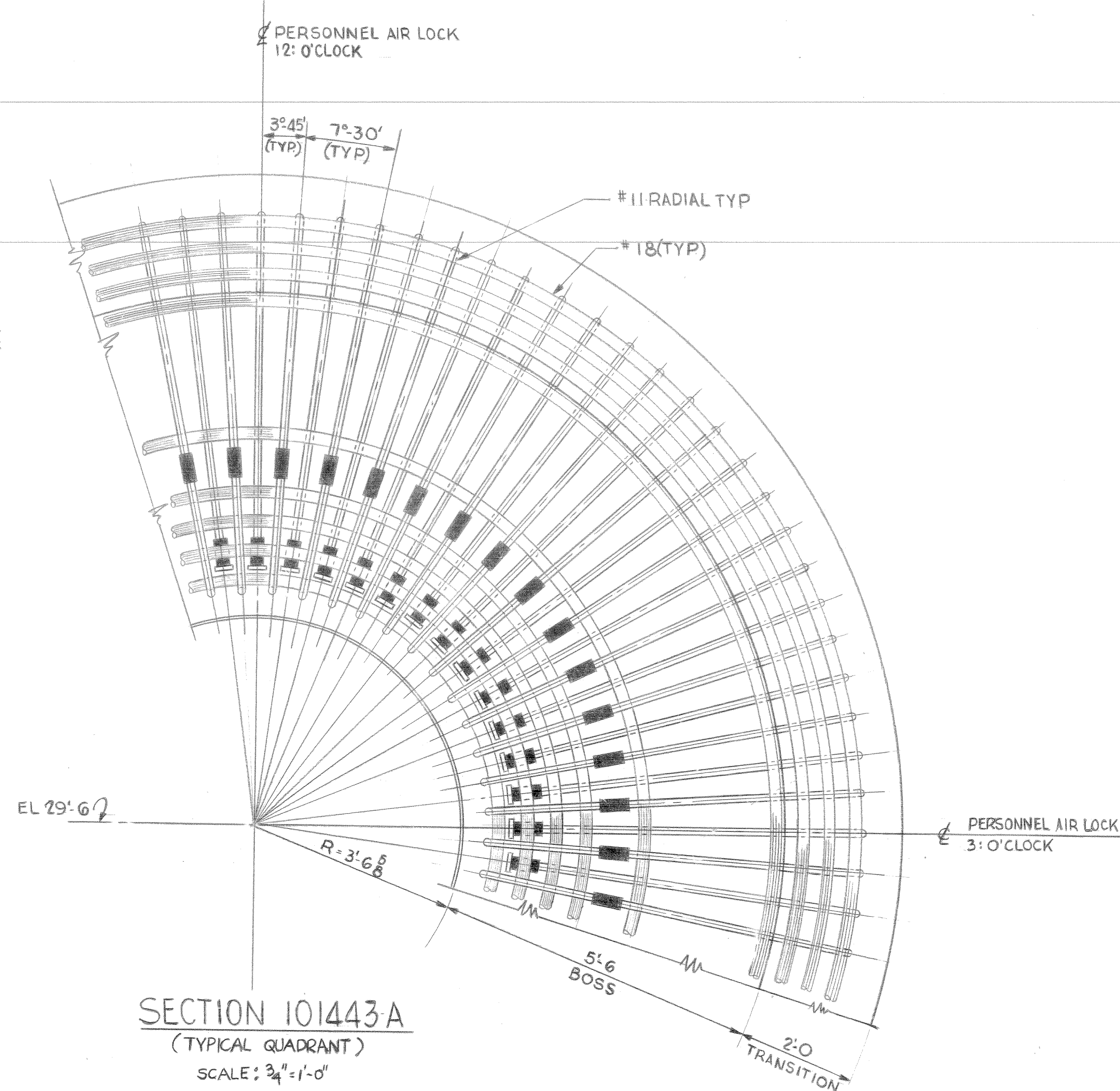
PROJECTED ELEVATION
(LOOKING FROM OUTSIDE)

SCALE 1/4" = 1'-0"



SECTION AT VERTICAL ̢ 12:0'CLOCK

SCALE 3/4" = 1'-0"

SECTION 101443-A
(TYPICAL QUADRANT)

SCALE: 3/4" = 1'-0"

ANCHOR PLATE SCHEDULE

PIECE MARKS (*)	CADWELD TO BAR SIZE	CADWELD SERIES NO.	ANCHOR PLATE SIZE	TOTAL NO. FOR UNIT #1	TOTAL NO. FOR UNIT #2
A6/1, A7/1	#11	RBB-1101-JA	1"x4"x6"	144	144
A205/1, A5/1	#14	RBB-1401-JA	1 1/2"x4"x8"	192	192

(*) PIECES ARE DIFFERENT ONLY FOR ORIENTATION OF TAP HOLES. FOR DETAILS AND QUANTITIES SEE SHOP DWGS. CUE ̢C FP #13610 THRU 13618 & 13634 THRU 13640.

NOTES:

- FOR GENERAL NOTES AND LIST OF REFERENCE DWGS. SEE DWG. NO. 9763-F-101435
- WORK THIS DWG. WITH DWGS. NO. 9763-F-101442 & 9763-F-101434
- HOOP BARS TO BE FABRICATED WITH THE LARGEST CHORD LENGTH PRACTICAL FOR SHIPMENT. HOOP BAR CADWELD SPLICES TO BE STAGGERED MINIMUM OF 18" C/C FROM THE ADJACENT CADWELD SPLICE. CADWELD SPLICES SHOULD BE CENTERED BETWEEN RADIAL BARS WHERE APPLICABLE.
- LAYER #3A, #12 & #14 SHOULD BE BENT WITH A CONSTANT RADIUS IN A GROUP OF 45°. ONE SEGMENT OF 45° SHOULD BE SYMMETRICAL AROUND 12:00'CLOCK.
- SPACING OF LAYERS #12 & #14 BARS MAY BE ADJUSTED IN THE HOOP DIRECTION.
- FOR ANCHOR PLATE DETAIL SEE DWG. NO. 9763-F-101440
- FOR TRANSVERSE SHEAR BARS SEE DWG. NO. F-101442
- SEE ECA 01/28974 FOR THE AS BUILT LOCATION OF THE REBARS AND ANCHORAGE PLATES.

N-STAMP ITEM
HOQUEENGINEER: *[Signature]*
STATE REG. NEW HAMPSHIRE NO. 3300

CONTAINMENT
CONCRETE
PERSONNEL AIR LOCK REINF.- SHEET 2
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
SEABROOK STATION

united engineers & contractors inc.

UNITS 1 & 2 9763-F-101443

REV. NO.	DATE	DESCRIPTION	PE	DWN. BY	CHK. BY	ENG.	SDE	GAE	PEM
1	5-79	ISSUED FOR CONSTRUCTION							
2	3-2879	REV'D NOTE AND REBAR AREN'T MOVED NOTE 2 HOLES							
3	5-25-79	REV'D STIRRUP HOOK REV'D TIE-BACK BAR PER ECA 01/23320							
4	6-27-80	REV'D SECT AT VERTICAL							
5	7-1-81	REV'D TIE-BACK BAR PER ECA 01/23320							

DISCIPLINE	CKD BY	DATE	DISCIPLINE	CKD BY	DATE
STRUCT.	PEM	7-31-81	INST. & CONTR.	PEM	7-31-81
MECH.	PEM	7-31-81	ELECT.	PEM	7-31-81
NUCLEAR	PEM	7-31-81	MECH. SVCS.	PEM	7-31-81

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