PrSM

STORAGE IN APPROVED MAGAZINES OF PRECISION STRIKE MISSILE (PrSM) LAUNCH POD MISSILE CONTAINERS (LPMC)

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GENERAL NOTES

- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- THE STORAGE PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE THE STORAGE PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO THE PRECISION STRIKE MISSILE (PrSM) LAUNCH POD MISSILE CONTAINER (LPMC). SUBSEQUENT REFERENCE TO POD OR CONTAINER HEREIN MEANS THE LPMC WITH MISSILE COMPONENTS. SEE PAGE 3 AND AMCOM DRAWING 13774977 FOR DETAILS OF THE CONTAINER.
- THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLI-CABLE FOR STORAGE IN VARIOUS TYPES AND SIZES OF MAGAZINES. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE CONTAINERS IN OTHER TYPES OF AP-PROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER THE BASIC PRINCI-PLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGA-ZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- <u>CAUTION</u>: THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE STORED WITH THE FORWARD END FACING TOWARD THE SAME MAGAZINE SIDEWALL OR THE REAR WALL AS INDICATED BY THE DIRECTIONAL ARROWS ON THE STORAGE VIEWS.
- STORED CONTAINERS MUST NOT CONTACT THE SIDES OF A MAGAZINE. THEREFORE, UNITS MUST BE STORED A MINIMUM OF 6" FROM THE SIDEWALL OR CURVATURE OF THE MAGAZINE AS APPLICABLE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, UNITS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- AISLE DIMENSION SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN CONTAINER DI-MENSIONS, AND/OR AVAILABLE MATERIAL HANDLING EQUIPMENT (MHE). HOWEVER, A 24" MINIMUM INSPECTION AISLE MUST BE MAINTAINED AT THE AFT END OF THE CONTAINERS FOR INVENTORY PURPOSES AND FOR INSPECTION OF THE WIRING HARNESS AND GROUND CABLE, AND TO ENSURE THAT "SHORTING PLUGS" ARE IN PLACE ON ALL CONTAINERS FOR PROTECTION FROM STATIC ELECTRICITY AND STRAY VOLTAGE.
- THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED WILL NOT BE EXCEEDED.
- IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGA-
- THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER CONTAINERS IN THE STACKS SHOWN IN THE STORAGE VIEWS HEREIN, UNLESS TWO UPPER CONTAINERS ARE HANDLED AS ONE LIFT OR THE PACKAGE GUARD IS RE-MOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO CONTAINERS AS ONE LIFT.
- THE SHOCK ISOLATOR (RUBBER) SKIDS OF A CONTAINER WILL NOT ADEQUATELY SUPPORT A STACK OF TWO OR MORE CONTAINERS, SO POD SUPPORT ASSEMBLIES MUST BE INSTALLED BEHIND THE SKIDS OF THE LOWER CONTAINERS IF STACKS ARE TWO OR MORE HIGH.

(CONTINUED AT RIGHT)

(GENERAL NOTES CONTINUED)

- M. CAUTION: CONTAINERS MUST NOT BE STACKED MORE THAN FOUR HIGH.
- N. WHEN LOCAL STORAGE CONDITIONS ARE SUCH THAT AN AMMUNITION STORAGE MAGAZINE NET EXPLOSIVE WEIGHT LIMIT WILL BE REACHED BEFORE ALL AVAILABLE STORAGE SPACE WILL BE UTILIZED, A COMBINATION OF THE VARI-OUS STORAGE PATTERNS DELINEATED HEREIN MAY BE USED IN LIEU OF BLOCK STORAGE PATTERNS TO FACILITATE INVENTORY, INSPECTION, THE USE OF MATERIAL HANDLING EQUIPMENT, SURVEILLANCE, ETC., OF THE AMMUNI-TION TO BE STORED WITHIN THE MAGAZINE.
- O. ANY CONTAINER THAT DOES NOT CONTAIN TWO ROUNDS WILL NOT BE BURIED IN STORAGE; IT MUST BE POSITIONED ON TOP OF THE LAST STACK ADJACENT TO OR NEAREST THE MAGAZINE DOOR
- P. CONTAINERS PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RE-STORED SOLELY TO CONFORM TO THE PROCE-DURES SPECIFIED IN THIS DOCUMENT
- Q. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE, WHICH IS PAR-TIALLY FILLED WITH THE DESIGNATED ITEM.
- R. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES
- S. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2' WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- T POD SUPPORT DUNNAGE IS NOT REQUIRED IF THE CONTAINERS BEING STORED ARE EQUIPPED WITH HARDWOOD SKIDS.
- U. CAUTION: WHEN STACKING CONTAINERS, THE ALIGNMENT HOLES IN THE SHOCK ISOLATOR SKIDS OF AN UPPER CONTAINER MUST BE PROPERLY ALIGNED WITH THE STACKING PINS OF A LOWER CONTAINER TO PRECLUDE UN-DUE STRESS ON THE SHOCK ABSORBERS AND FRAME AND TO PROVIDE FOR STABILITY OF THE STACK.
- V. WHEN LOADING CONTAINERS IN MAGAZINES, CARE MUST BE TAKEN TO PRO-
- W. TO FACILITATE MOVEMENT OF THE CONTAINERS THROUGH THE NARROW DOOR OPENINGS OF MOST TYPES OF STORAGE MAGAZINES. A "STORAGE HAN-DLING AID" HAS BEEN DESIGNED, FABRICATED AND USED. THE STORAGE AID CONSISTS OF A METAL RAMP AND WHEELED DOLLY. THIS AID PROVIDES FOR AN EFFICIENT OPERATION WITH A FORKLIFT TRUCK UNLOADING A CONTAINER FROM A TRANSPORT VEHICLE, PLACING THE CONTAINER ON THE WHEELED DOLLY ON THE RAMP AND ROLLING THE CONTAINER THROUGH THE NARROW DOOR OPENING INTO THE MAGAZINE WITH AN ELECTRIC PALLET JACK, TO PER-MIT A FORKLIFT TRUCK WITHIN THE MAGAZINE TO REMOVE THE CONTAINER FROM THE DOLLY AND PLACE IT IN THE DESIGNATED STORAGE LOCATION. SEE GENERAL NOTE "X" FOR APPLICABLE DRAWING.
- X. FABRICATION DRAWING FOR THE STORAGE AID DESCRIBED IN GENERAL NOTE "W" IS AVAILABLE FROM THE DEFENSE AMMUNITION CENTER (DAC), 1 C TREE ROAD, ATTN: ATCL-ACE, MCALESTER, OK, 74501, DSN 956-8927. THE DRAWING NUMBER AND TITLE IS AS FOLLOWS: ACV00140; MLRS STORAGE HANDLING AID FOR NARROW DOOR MAGAZINES.
- Y. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS.
 WHEN NECESSARY, THE METRIC EQUIVALENT MAY BE COMPUTED ON THE BA-SIS OF ONE INCH EQUALS 25.4MM, AND ONE POUND EQUALS 0.454 KG.

MATERIAL SPECIFICATIONS

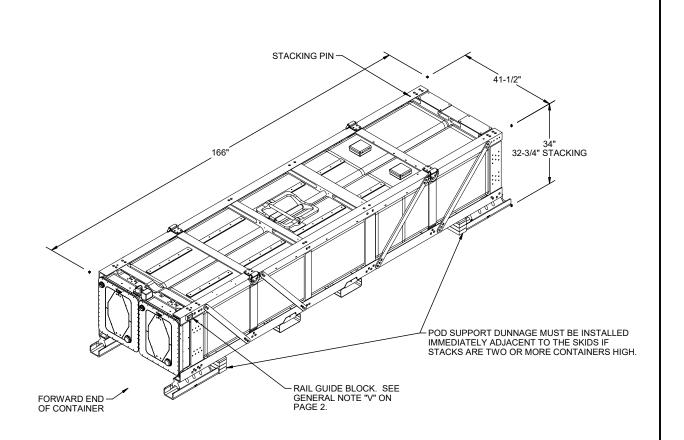
LUMBER SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.

NAILS - - - - - - : FED SPEC FF-N-105; COMMON.

COMMERCIAL ITEM DESCRIPTION A-A-55057 PLYWOOD - - - - - -: TYPE A, CONSTRUCTION AND INDUSTRIAL PLY-WOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY

BE SUBSTITUTED.

PAGE 2



LAUNCH POD MISSILE CONTAINER DATA

GROSS WEIGHT - - - - - - - 4,615 LBS (APPROX) CUBE - - - - - - - - 130.56 CU FT (APPROX)

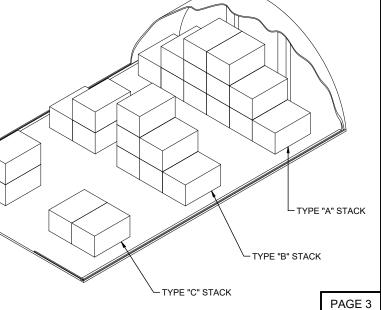
STACK IDENTIFICATION

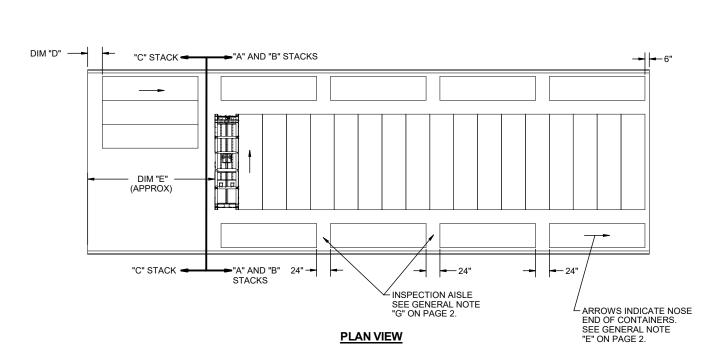
A TYPE "A" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS WHICH EXTENDS FULL WIDTH AND HEIGHT OF THE MAGAZINE, AND IS ONE ITEM/UNIT LONG IN THE LENGTH OF THE MAGAZINE.

A TYPE "B" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS WHICH EXTEND FULL WIDTH AND HEIGHT OF THE MAGAZINE, AND IS ONE UNIT/ITEM LONG, BUT HAS AN AISLE AT OR NEAR THE CENTER OF THE WIDTH OF THE STACK.

A TYPE "C" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS WHICH IS ONE UNIT/ITEM LONG AND CONSISTS OF PARTIAL STACKS ON EACH SIDE OF THE MAGAZINE, USUALLY ONE ITEM/UNIT HIGH ON ONE SIDE OF THE MAGAZINE.

NOTE: A MODIFIED "B" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS THAT ARE ON ONE SIDE OF THE TYPE "A" STACK AND ARE ORIENTED WITH THE LENGTH OF THE ITEMS/UNITS ALONG THE LENGTH OF THE STORAGE MAGAZINE.

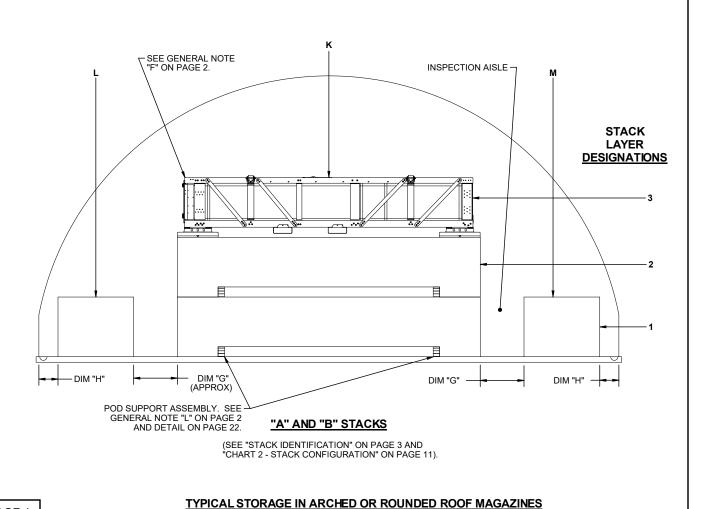




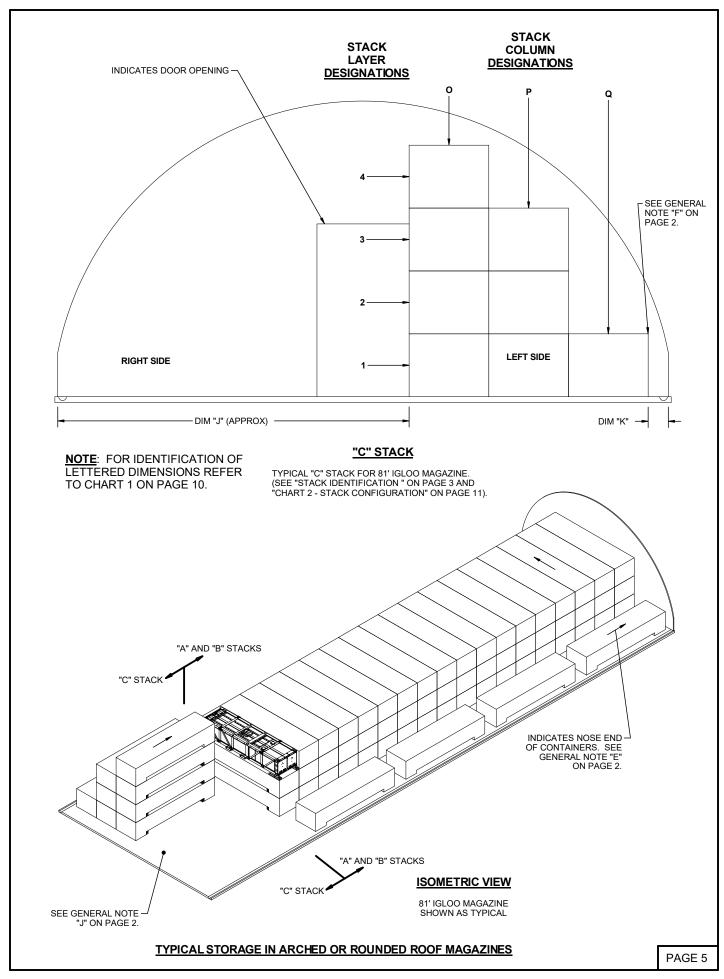
NOTE: FOR IDENTIFICATION OF LETTERED DIMENSIONS REFER TO CHART 1 ON PAGE 10.

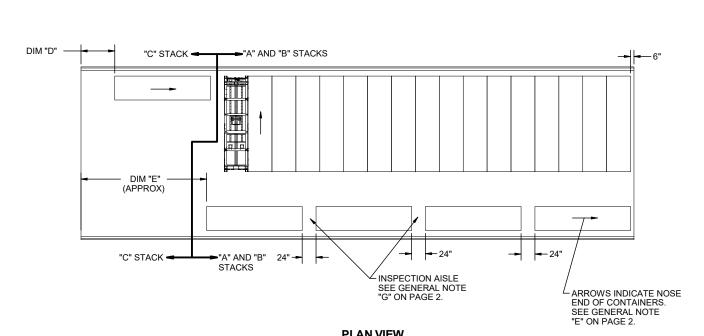
81' IGLOO MAGAZINE SHOWN AS TYPICAL

STACK COLUMN DESIGNATIONS



PAGE 4

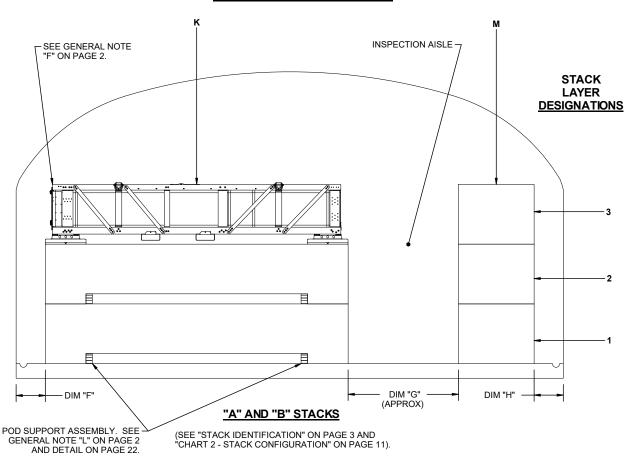




PLAN VIEW

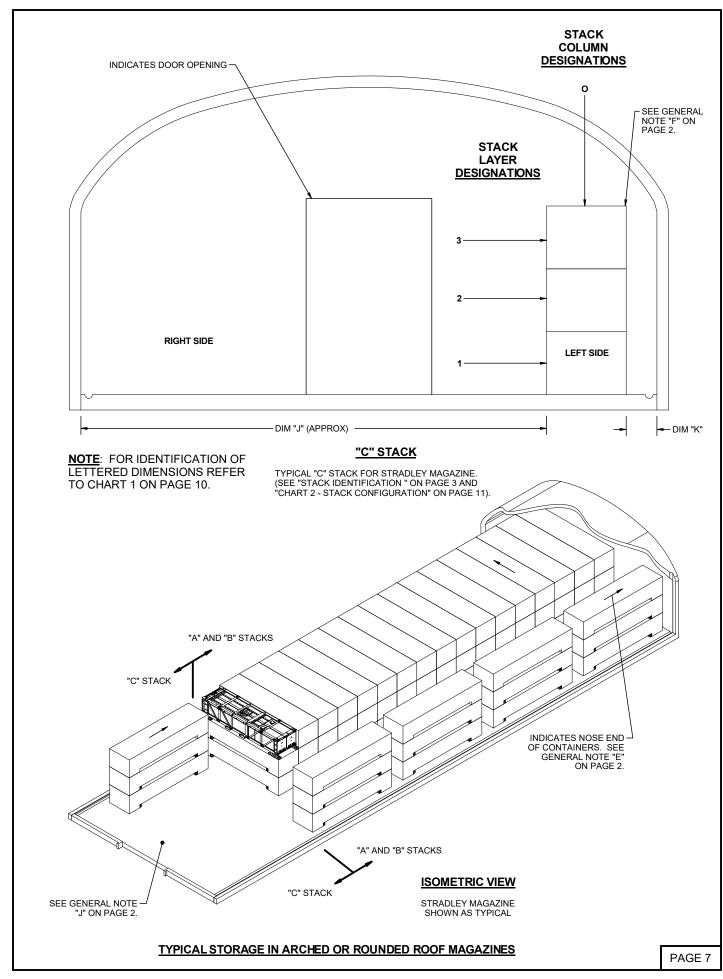
NOTE: FOR IDENTIFICATION OF LETTERED DIMENSIONS REFER TO CHART 1 ON PAGE 10. STRADLEY MAGAZINE SHOWN AS TYPICAL

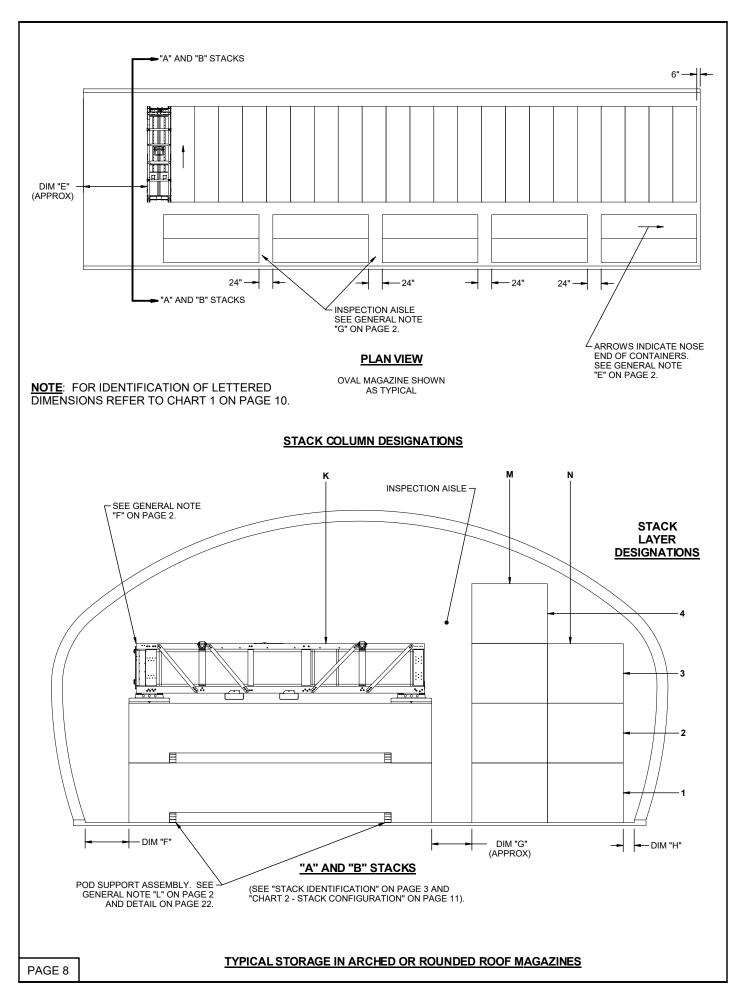
STACK COLUMN DESIGNATIONS

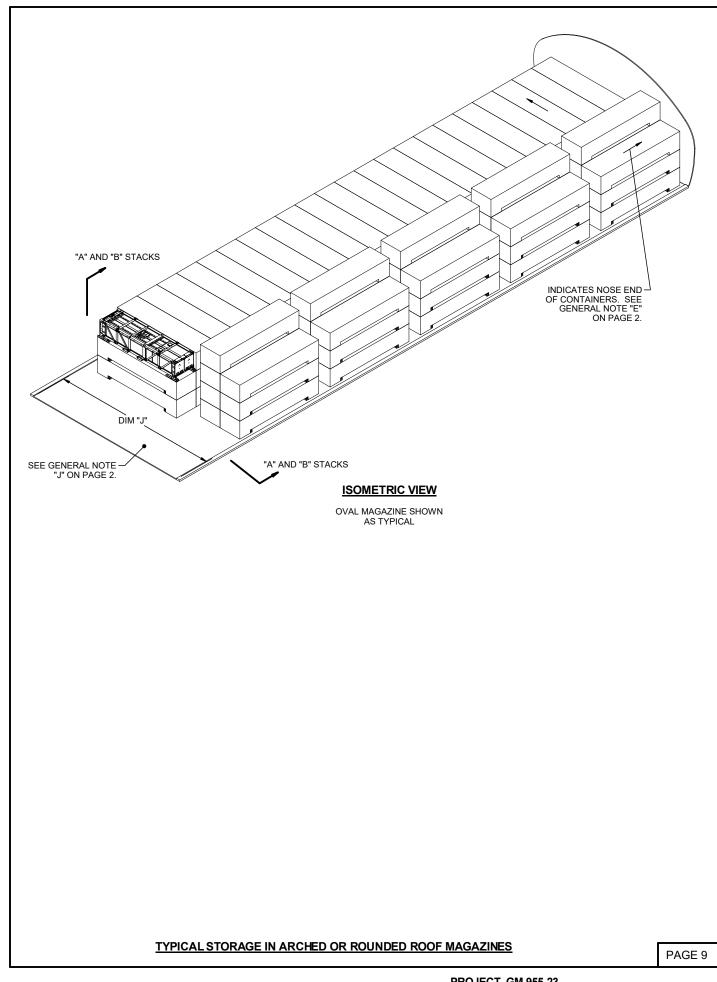


TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES

PAGE 6







SPECIAL NOTES:

- THE FOLLOWING CHARTS ON PAGES 10 AND 11 ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A STORAGE PATTERN, AND IN DETERMINING THE QUAN-TITY OF CONTAINERS WHICH CAN BE STORED IN THE STORAGE MAGAZINES LISTED IN THESE CHARTS.
- 2. CHART 1 ON PAGE 10 DESCRIBES THE STORAGE MAGAZINE GENERAL DIMENSIONS AND THE DIMENSIONS OF THE CONTAINER SPACING WITHIN THE STORAGE MAGAZINES.
- 3. DIMENSIONS "A", "B" AND "C" HAVE BEEN OMITTED TO AVOID CONFUSION WITH STACKS "A", "B" AND "C".
- 4. CHART 2 ON PAGE 11 DETAILS THE QUANTITY OF CONTAINERS IN EACH TYPE OF MAGAZINE AND THE LAYOUT OF THE STACKS FOR EACH TYPE OF MAGAZINE. THE CHART SHOWS THE NUMBER OF CONTAINERS IN EACH STACK LAYER AND THE LOCATION OF THE CONTAINER ON EACH LAYER.

(CONTINUED AT RIGHT)

EXAMPLE:

CHART 2 – "A" STACK CONFIGURATION MAGAZINE: STRADLEY

LAYER NUMBER 1: 1 (K) LAYER NUMBER 2: 1 (K) LAYER NUMBER 3: 1 (K)

EXPLANATION:

LAYER 1 (BOTTOM LAYER) HAS ONE CONTAINER IN THE "K" COLUMN.

LAYER 2 (ON TOP OF LAYER 1) HAS ONE CONTAINER IN THE "K" COLUMN.

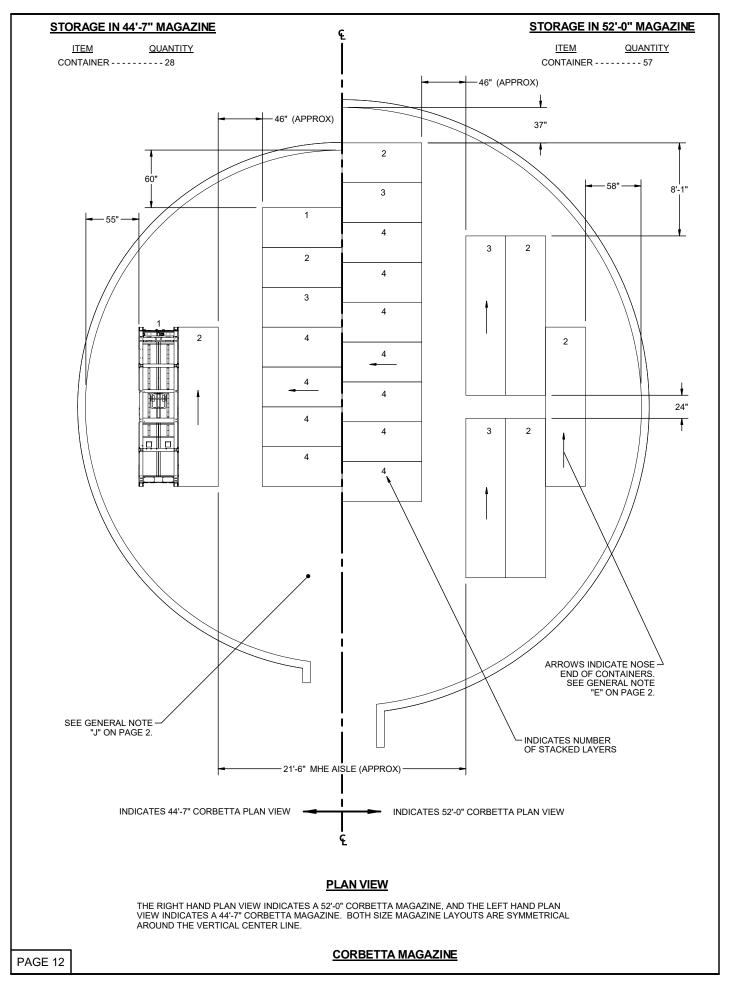
LAYER 3 (ON TOP OF LAYER 2) HAS ONE CONTAINER IN THE "K" COLUMN.

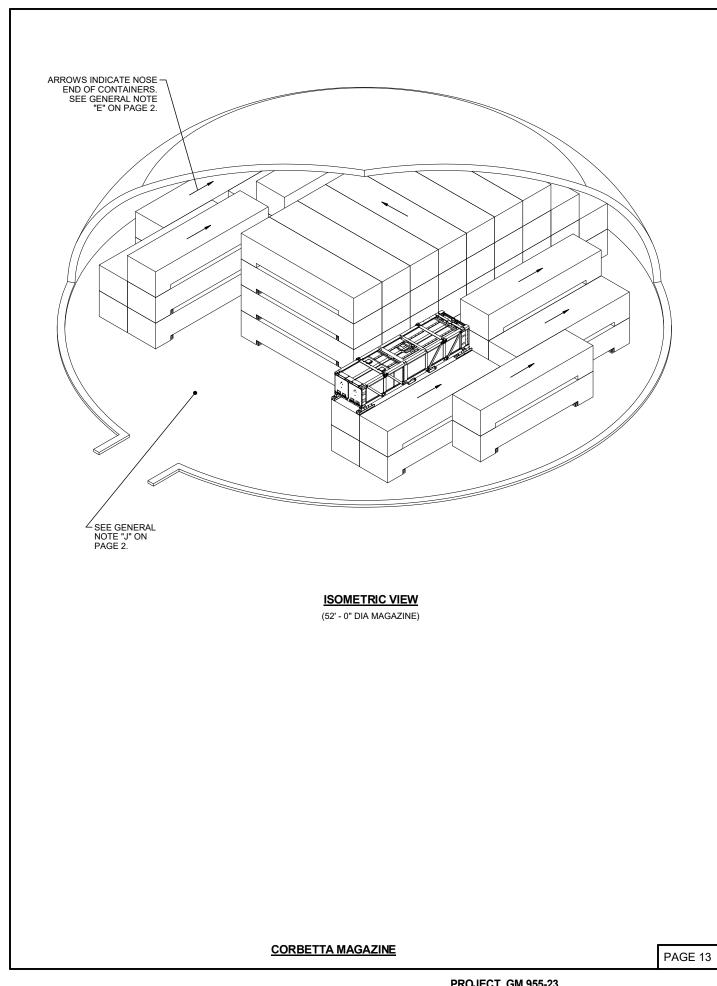
CHART 1 - DIMENSIONS														
	MAGAZINE TYPE													
MAGAZINE DIMENSIONS	IGLOO			ARCH 12' 26'-6" 25'-0"			ARCH 11'		ARCH 10'		OVAL ARCH	STRADLEY	STEEL ARCH	
LENGTH	40'-4" 60'-8" 81'-0"		81'-2"	40'-0"	80'-0"	40'-0"	80'-0"	40'-0"	80'-0"	89'-0"	80'-0"	59'-0"	89'-0"	
WIDTH	26'-6"		26'-6"	25'-0"	25'-0"	25'-0"		25'-0"		24'-10"	25'-0"	25'-0"	24'-11"	
HEIGHT	12'-9"			12'- 1- 3/4"			11'-0" 10'-0"		14'-5"	14'-0"	14'-0"	13'- 6"		
DIMENSIONS						CONT	AINER SP	ACING DI	MENSION	ıs				
DIM "D" ("C" STACK TO FRONT)	24"	24" 24" 24"		24"	24"	24"	24"	24"	24"	24"		58"		24"
DIM "E" (MHE AISLE APPROX)	19'- 1"	18'-8"	18'-3"	19'-3"	18'-1"	17'-6"	18'-1"	20'-0"	18'-9"	18'-2"	9'-2"	20'-8"	10'-1"	22'-10"
DIM "F" ("A" STACK TO SIDE)				51"	42"	42"	67"	67"	46"	46"	24"	16"	57"	58"
DIM "G" ("A" TO "B" STACK)	24"	24"	24"	24"	24"	24"			24"	24"	24"	60"	24"	24"
DIM "H" ("B" STACK TO SIDE)	6"	6"	6"	26"	17"	17"			13"	13"	6"	16"	11"	9"
DIM "J" (MHE AREA APPROX)	14'- 11"	14'- 11"	14'- 11"	14'- 10"	13'-1"	13'-1"	13'-4"	13'-4"	13'-1"	13'- 1"	24'-10"	19'-6"	25'-0"	13'-8"
DIM "K" ("C" STACK TO SIDE)	11"	11"	11"	15"	18"	18"	15"	15"	10"	10"		16"		10"

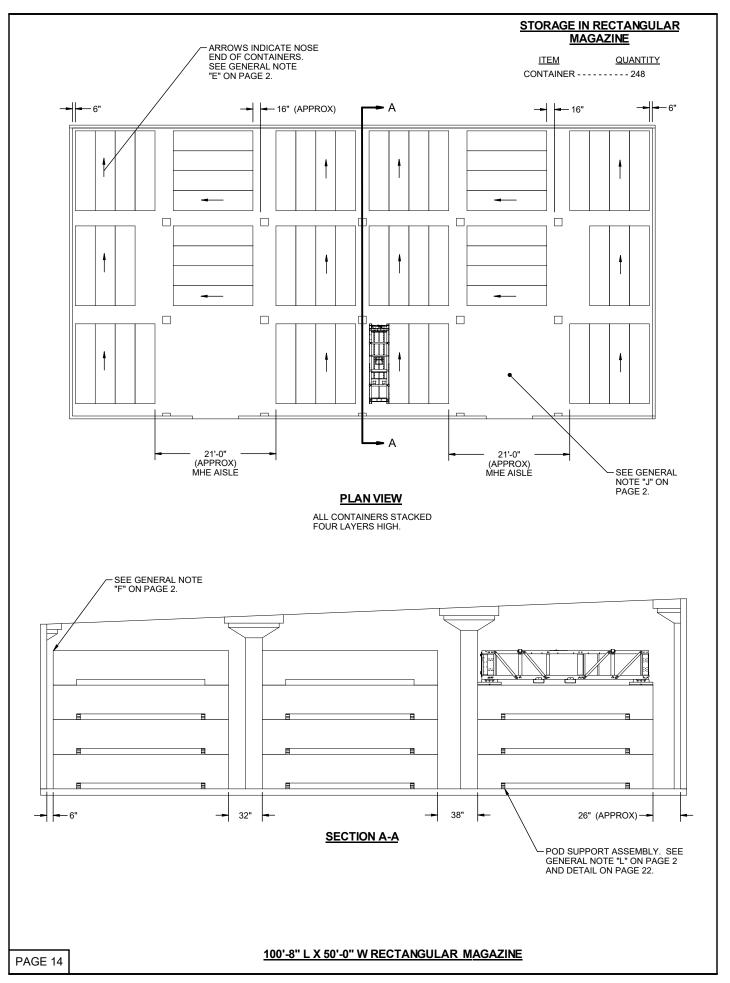
TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES

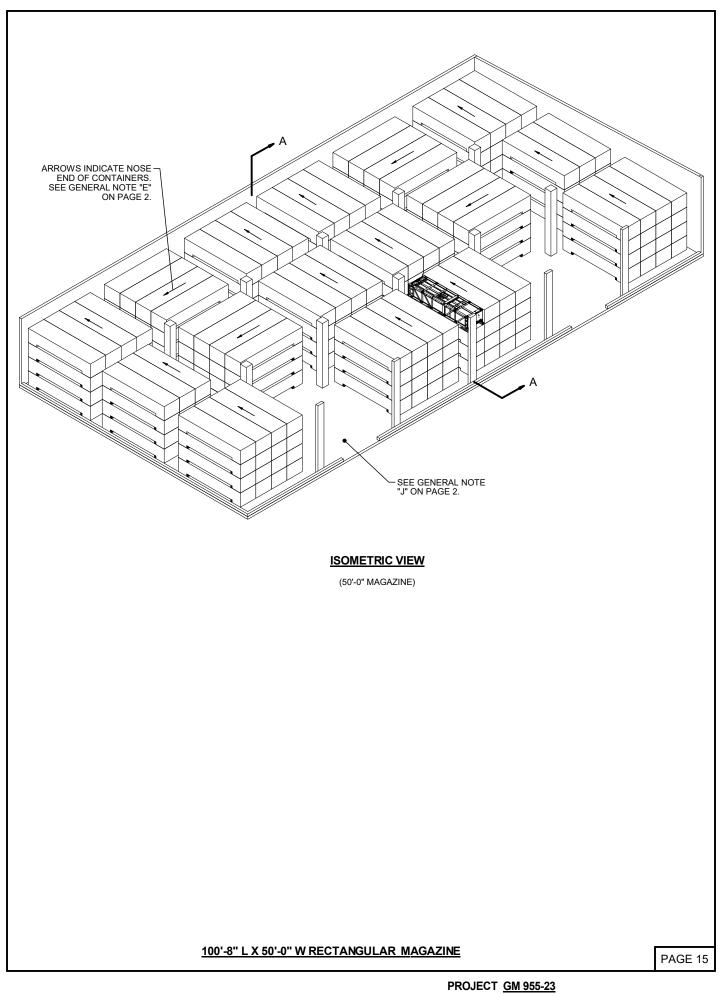
					CHART	2 - STA	CK CON	FIGURA	ΓΙΟΝ					
						MAG	AZINE TYP	E						
		IGLOO			ARCH 12' ARCH 12' X 25' W			H 11'	ARC	ARCH 10'		STRADLEY	STEEL	ARCH
QUANTITY PER MAGAZINE	40'-4" L	60'-8" L	81'-0" L	26'-6" W	40'-0" L	80'-0" L	40'-0" L	80'-0" L	40'-0" L	80'-0" L	ARCH	STRADLEY	59'-0" L	89'-0"
	28	48	70	66	28	67	24	57	19	44	10 4	66	62	93
					•	"A" STACK	CONFIGUR	RATION	l	l		l		l
LAYER						cc	NTAINERS	PER LAY	ER					
1	1(K) 1(K) 1(K) 1(K) 1(K) 1(K) 1(K)												K)	
2		1(K)		1(K)	1(K)	1(K)		1(K)	1(K)	1(K)	1(K)	
3		1(K)		1(K)	1(K)	1(K)		-	-	1(K)	1(K)	1(K)	
4					-	-			-	-			1(K)	
SINGLE STACK TOTAL		3		3	3		3		2		3	3	4	
NUMBER OF STACKS	6	12	18	17	6	17	6	17	6	17	23	17	14	19
"A" STACK TOTAL	18	36	54	51	18	51	18	51	12	34	69	51	56	76
					•	"B" STACK	CONFIGUR	RATION						
LAYER						cc	NTAINERS	PER LAY	ER					
1	1(L, M) 1(M) 1(M)						1(M)					1(M)	1(M)	1(M)
2				1(M)	1(1	M)			-	2(M-N)	1(M)	1(M)	1(M)	
3												1(M)		
4					-	-					1(M)			
SINGLE STACK TOTAL	2	2	2	2	2	2	0	0	1	1	7	3	2	2
NUMBER OF STACKS	1	2	4	4	1	4	0	0	1	4	5	4	3	4
"B" STACK TOTAL	2	4	8	8	2	8	0	0	1	4	35	12	6	8
				I.	"C" ST	ACK CON	IGURATIO	N - LEFT SI	DE					
LAYER						cc	NTAINERS	PER LAY	ER .					
1		3(O-Q)		3(O-Q)	3(0	- Q)	3(0	- Q)	3(0)- Q)		1(0)		3(0-0
2		2(O-P)		2(O-P)		- P)	2(O-P)		2(O-P)			1(0)		3(0-0
3		2(O-P)		2(O-P)	2(O-P)		1(0)		1(0)			1(0)		2(O-F
4		1(0)			1(0)									1(0)
SINGLE STACK TOTAL		8		7	8			6		6		3		9
NUMBER OF STACKS		1		1		1		1	1			1		1
"C" STACK LF TOTAL		8		7	8	3		6	6			3		9
					"C" ST	ACK CONF	IGURATION	N - RIGHT S	IDE		•			
"C" STACK					_			_		_				

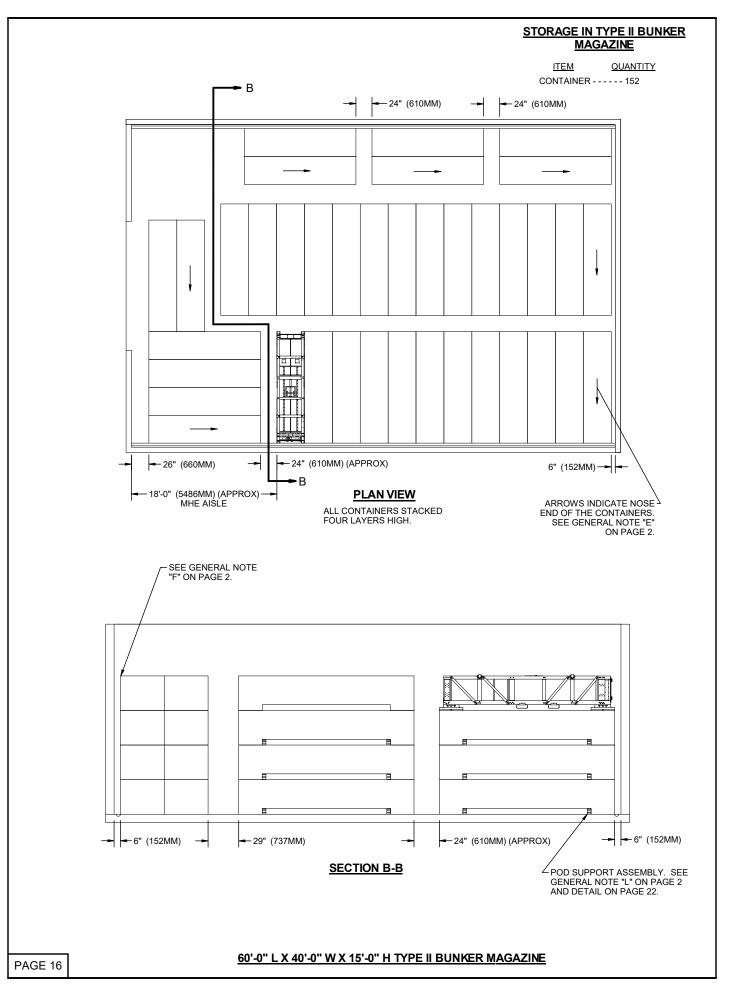
TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES

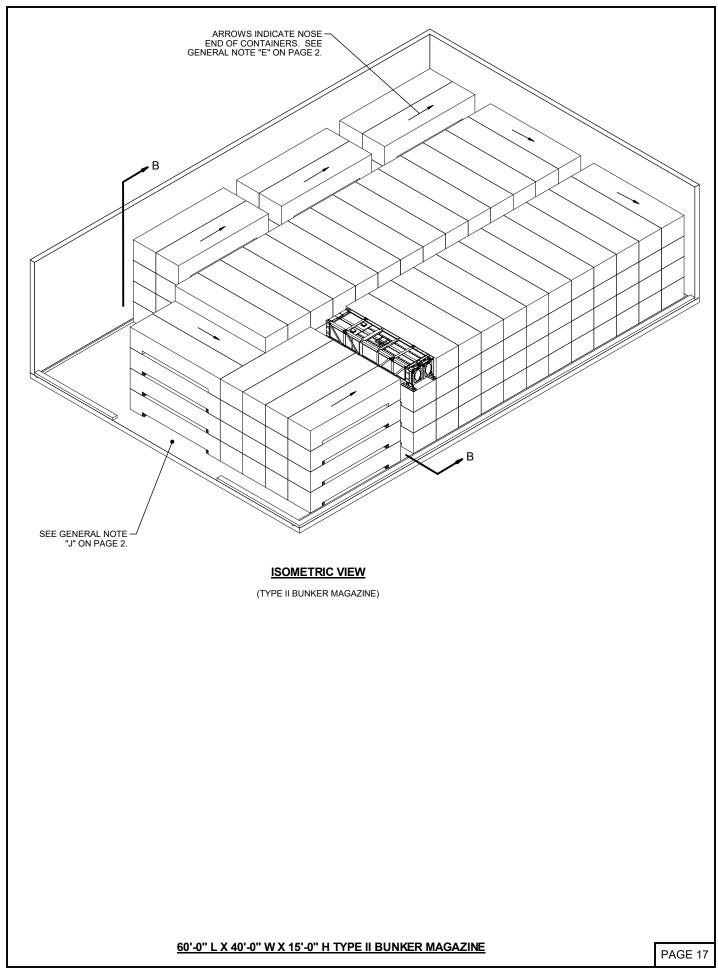


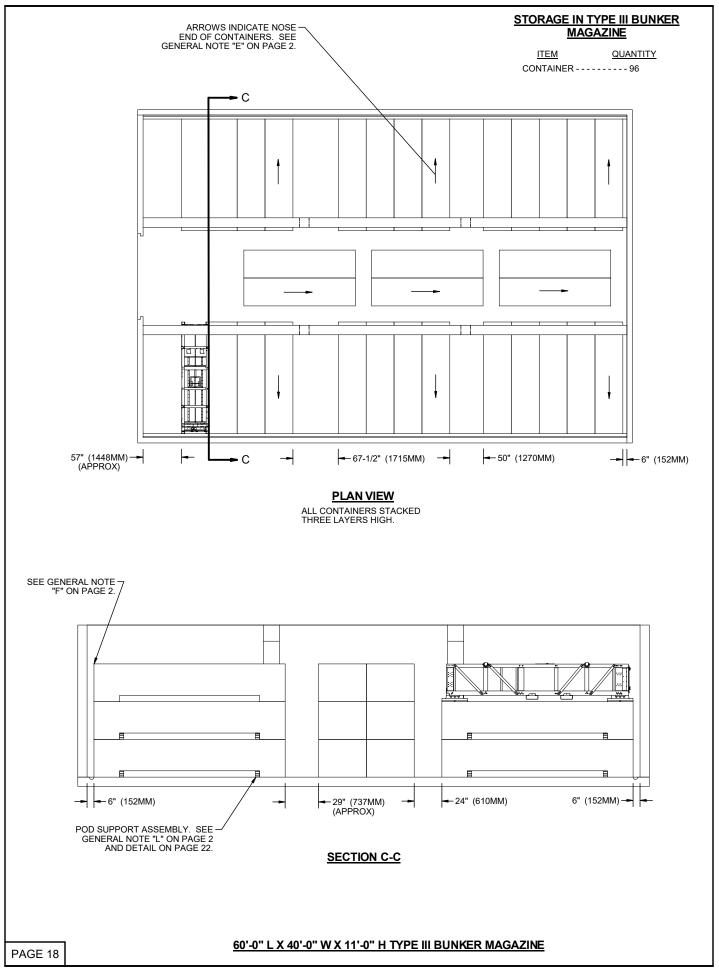


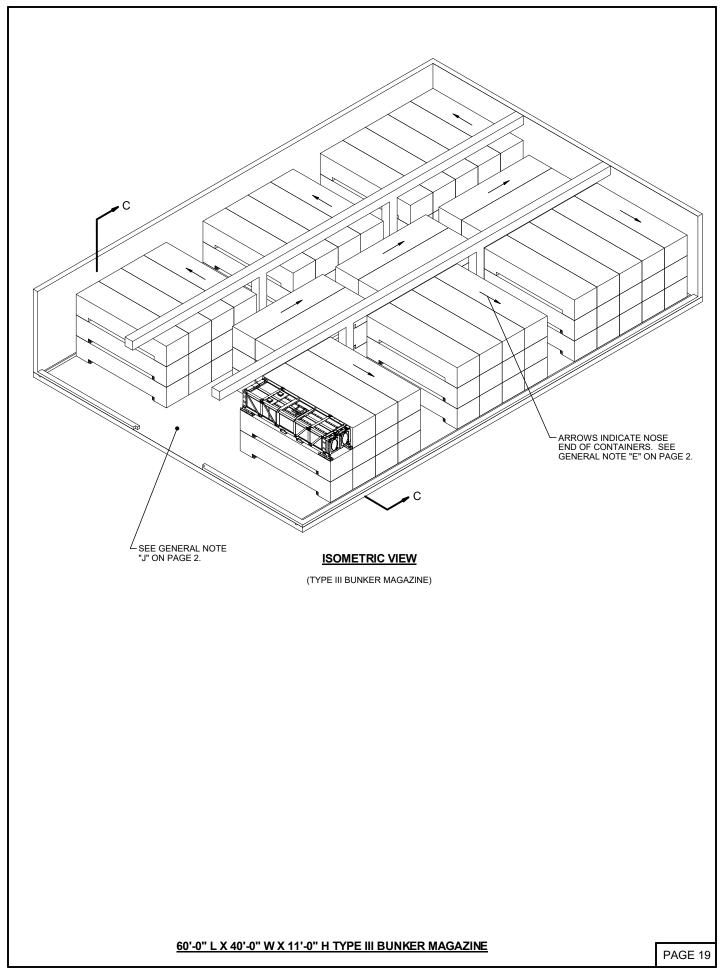


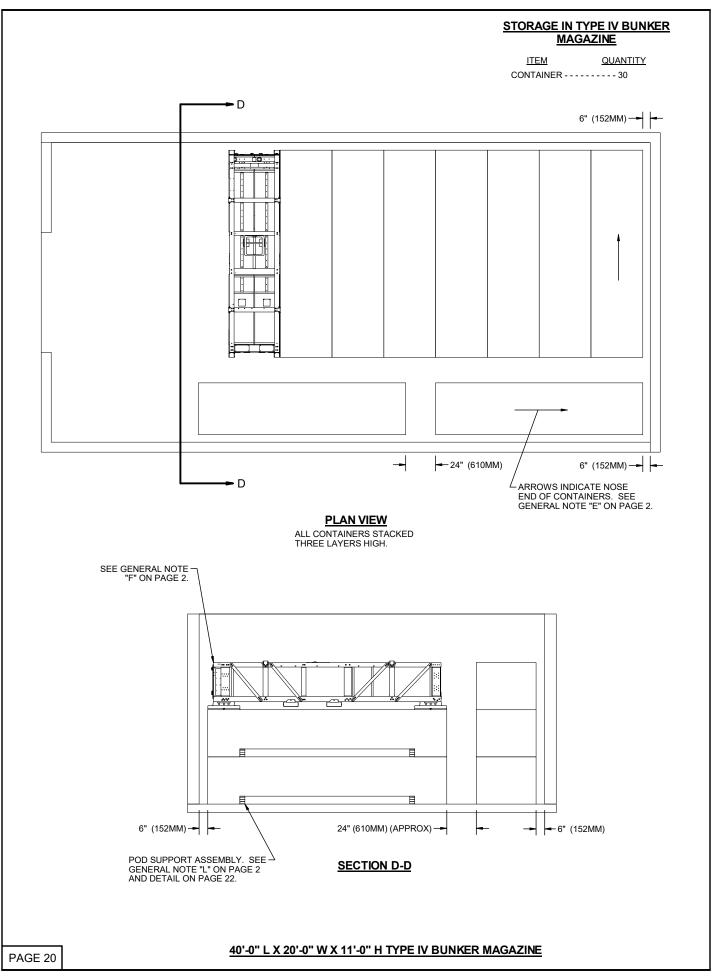


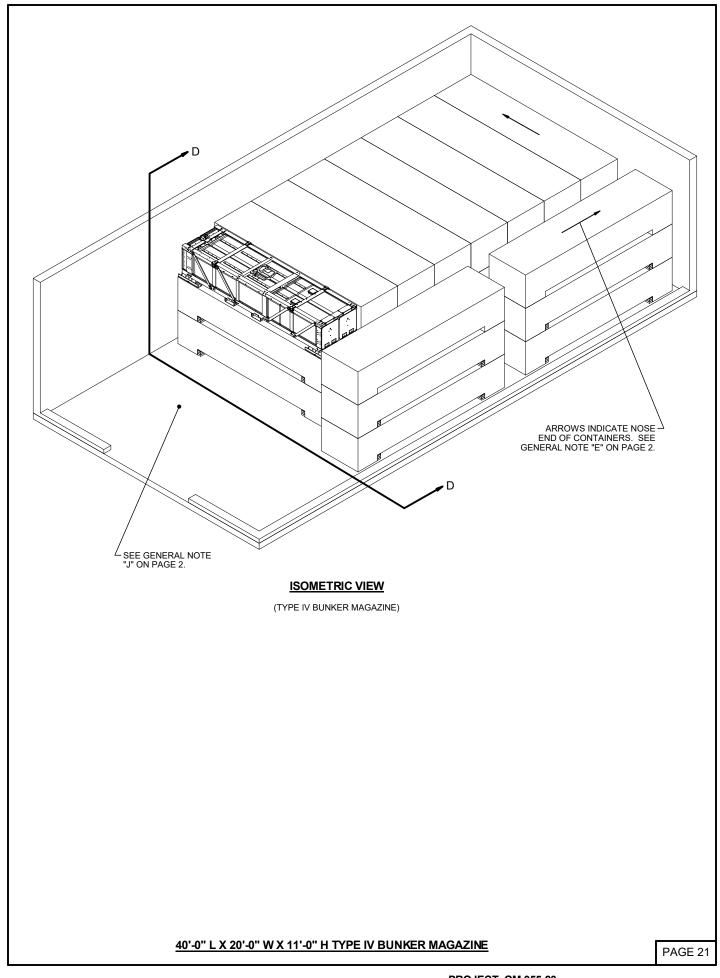


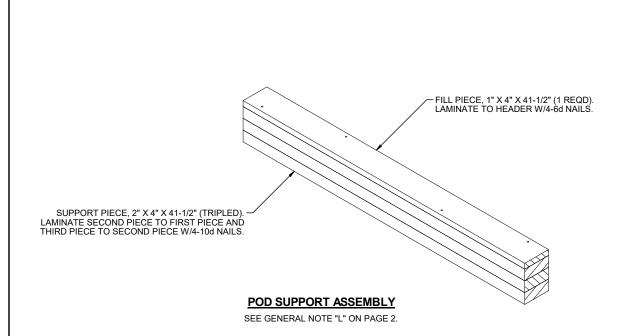












SPECIAL NOTES:

- 1. TWO POD SUPPORT ASSEMBLIES ARE REQUIRED UNDER THE FRAME OF EACH CONTAINER WHICH HAS ONE OR MORE CONTAINERS ON TOP. THE TOP CONTAINER IN A STACK, REGARDLESS OF THE NUMBER OF CONTAINERS IN THE STACK, WILL NOT HAVE POD SUPPORT ASSEMBLIES UNDER THE FRAME.
- 2. FOR STABILITY PURPOSES, IT IS DESIRED THAT THE SKIDS OF A LOWER CONTAINER SUPPORT A PORTION OF THE WEIGHT OF THE CONTAINERS ABOVE. THE THICKNESS OF THE POD SUPPORT ASSEMBLY SHOULD BE ADJUSTED AS NECESSARY TO PROVIDE THE PROPER SUPPORT BUT STILL MAINTAIN CONTACT BETWEEN THE METAL BOTTOM OF THE UPPER CONTAINER SKIDS AND THE TOP FRAME OF THE LOWER CONTAINER OR THE MAGAZINE FLOOR, AS APPLICABLE, TO PROVIDE PROPER ELECTRICAL CONDUCTIVITY. THE THICKNESS OF THE POD SUPPORT ASSEMBLY MAY BE REDUCED BY SUBSTITUTING A 1" X 4" X 41-1/2" FILL PIECE FOR ONE OF THE 2" X 4" X 41-1/2" SUPPORT PIECES. THE THICKNESS MAY BE INCREASED BY SUBSTITUTING A SUPPORT PIECE FOR A FILL PIECE OR BY ADDING A 1/4" OR THICKER PLYWOOD PIECE.

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POD SUPPORT ASSEMBLY DETAIL