STORAGE IN APPROVED MAGAZINES OF JOINT DIRECT ATTACK MUNITION (JDAM) PACKED 2 PER CNU-589 SHIPPING AND STORAGE CONTAINER

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U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY FIELD SUPPORT COMMAND	<u>CAUTION:</u> VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 16.											
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GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. 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 JOINT DIRECT ATTACK MUNITION (JDAM) GUIDANCE KIT UNITS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR AD-JUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- C. THE STORAGE PROCEDURES SPECIFIED HEREIN ARE APPLICABLE FOR THE JOINT DIRECT ATTACK MUNITION (JDAM) GUIDANCE KITS, PACKED 2 PER CNU-589 SHIPPING AND STORAGE CONTAINER. SUBSEQUENT REFERENCE TO A CONTAINER MEANS THE CONTAINER WITH MUNITION INSIDE.
- D. FOR CONTAINER DETAILS REFER TO PLASTIC RESEARCH CORPORATION DRAWING 103060-101 AND PICTORIAL VIEW ON PAGE 3.
- E. 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.
- F. AISLE DIMENSION SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN CONTAINER DIMEN-SIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT.
- G. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED WILL NOT BE EXCEEDED.
- H. IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- J. 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 REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
- K. THE USE OF "FLOOR DUNNAGE" IS OPTIONAL, ALTHOUGH THE USE OF THIS TYPE OF DUNNAGE IS DELINIATED WITHIN THIS STORAGE PROCEDURE DRAWING. THE PURPOSE OF FLOOR DUNNAGE IS TO KEEP THE BOTTOM OF A CONTAINER DRY, THUS AIDING IN PREVENTING DETERIORATION. THERE-FORE, FLOOR DUNNAGE SHOULD BE USED WHEN STORING IN A MAGAZINE THAT IS KNOWN TO HAVE A "DAMP" FLOOR. ALSO, IN LIEU OF USING ONE-INCH THICK FLOOR DUNNAGE AS SPECIFIED, THE USE OF THICKER FLOOR DUNNAGE MAY BE REQUIRED, AND SHOULD BE USED, TO ACHIEVE THE DE-SIRED OBJECTIVE. <u>NOTE:</u> SOME VIEWS WITHIN THIS DRAWING WILL NOT DEPICT THE FLOOR DUNNAGE THAT IS REQUIRED WHEN DUNNAGE IS USED. FLOOR DUNNAGE IS SHOWN AT SOME LOCATIONS TO PROVIDE POSITIONING GUIDANCE. SEE GENERAL NOTE "S" AT RIGHT.
- L. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 6" MATERIAL IS ACTUALLY 3/4" THICK BY 5-1/2" WIDE.

(CONTINUED AT RIGHT)

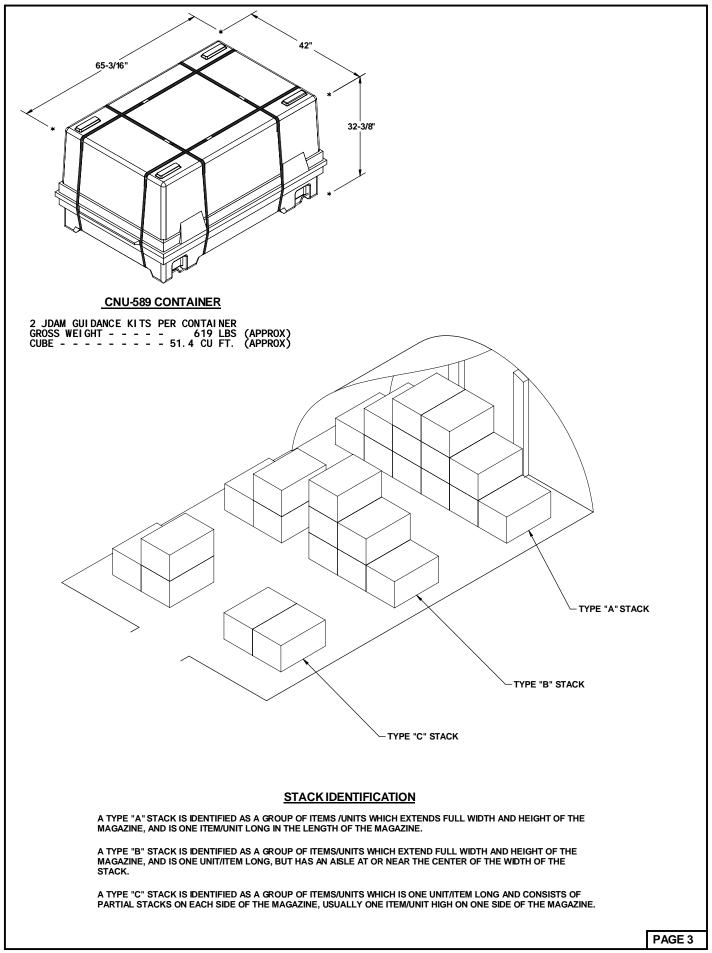
(GENERAL NOTES CONTINUED)

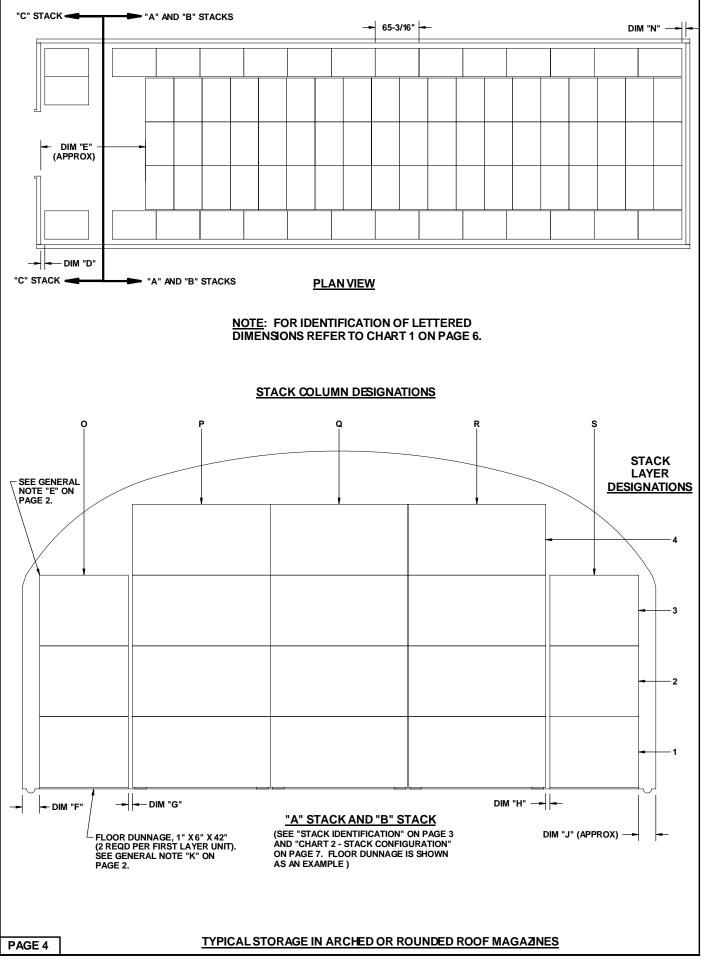
- M. STORAGE OF MULTIPLE LOTS IN A MAGAZINE WILL REQUIRE CAREFUL PRE-PLANNING SO AS TO INSURE MHE ACCESSIBILITY TO ANY LOT IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE APPLICABLE "SPECIAL NOTES" SEC-TIONS OF THE MULTIPLE LOT STORAGE PROCEDURES SHOWN ON PAGES 14 THRU 16.
- N. ALTHOUGH SPECIFIC PROCEDURES ARE INCLUDED IN THIS DRAWING FOR STORING MULTIPLE LOTS WITHIN ONE STRUCTURE, THE BASIC STORAGE PAT-TERN AS SHOWN ON PAGES 4 THRU 13 CAN ALSO BE ADAPTED FOR STORAGE MORE THAN ONE LOT, LOTS WHEN STORED IN ACCORDANCE WITH THE BASIC STORAGE PATTERN MAY BE STORED WITH ONE OR MORE ROWS USED FOR EACH LOT. A SPACE OF APPROXIMATELY 1" WILL HAVE TO BE LEFT BETWEEN ADJECENT ROWS CONTAINING DIFFERENT LOTS. IN BASIC STORAGE PAT-TERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 65-3/16" CON-TAINER DIMENSION, EACH ROW MAY BE A DIFFERENT LOT AND READILY RE-MOVABLE. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF THE ROW IS ESTABLISHED BY THE 42" UNIT DIMENSION, A LOT MUST CONSISTS OF TWO OR MORE ROWS TO PROVIDE ADEQUATE SPACE TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK FOR STORING OR REMOVING THE LOT. THE 1" SPACE BE-TWEEN LOTS, AS STATED ABOVE WILL NOT BE EXCEEDED SOLELY TO ACCOM-MODATE THE WIDTH OF A FORKLIFT TRUCK. FOR ADDITIONAL REQUIREMENTS AND GUIDANCE, SEE SPECIAL NOTES FOR MULTIPLE-LOT STORAGE ON PAGES 14 THRU 16.
- O. ANY "LIGHT" CONTAINER UNIT THAT DOES NOT CONTAIN A FULL QUANTITY GUIDANCE KITS WILL NOT BE BURIED IN STORAGE, IT MUST BE POSITIONED ADJECENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- P. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALL, END WALLS, AND ROOFS HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- Q. A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE ONE INCOM-PLETE, UN-BANDED PARTIAL CONTAINER PER LOT IN A STORAGE STRUCTURE. THE CONTAINER MUST BE RE-BANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.
- R. IN IGLOO, ARCH TYPE AND STRADLEY MAGAZINES WHICH HAVE SLOPING FLOORS, THE DEPICTED STORAGE PATTERNS, IN SOME CASES, INCLUDE CON-TAINER STACKS WHICH STRADDLE THE RIDGE OF THE FLOOR AT THE CENTER OF THE MAGAZINE. FLOOR DUNNAGE IN THE FORM OF SHIMS WILL BE USED AS REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS.
- S. 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 BASIS OF ONE INCH EQUALS 25.4MM, AND ONE POUND EQUALS 0.454 KG.
- T. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE, WHICH IS PAR-TIALLY FILLED WITH THE DESIGNATED ITEM.

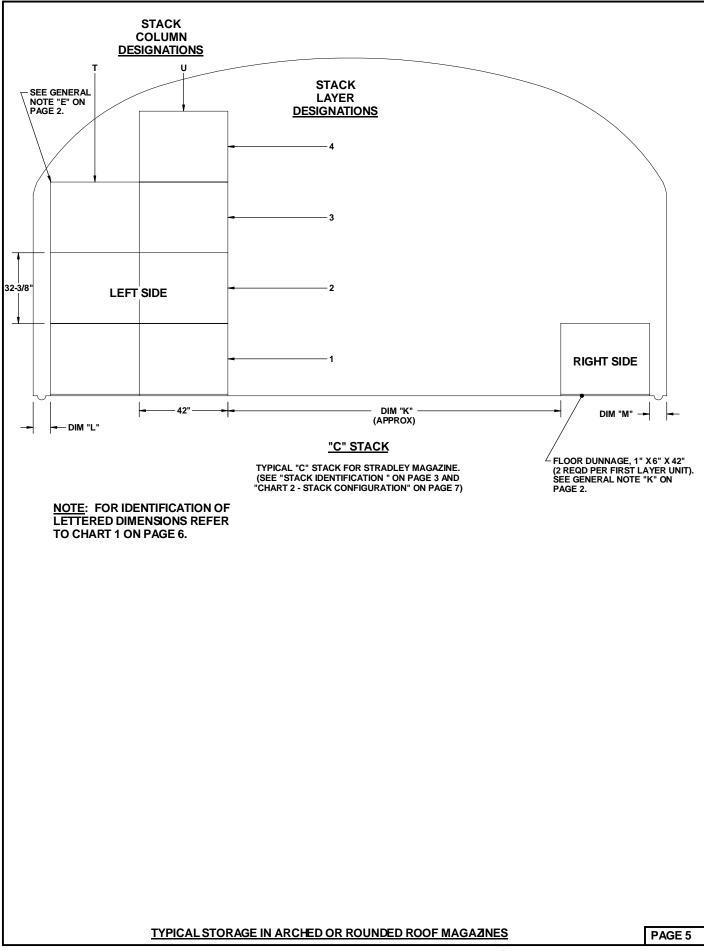
MATERIAL SPECIFICATIONS

<u>LUMBER</u> - - - - - - - - -:

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







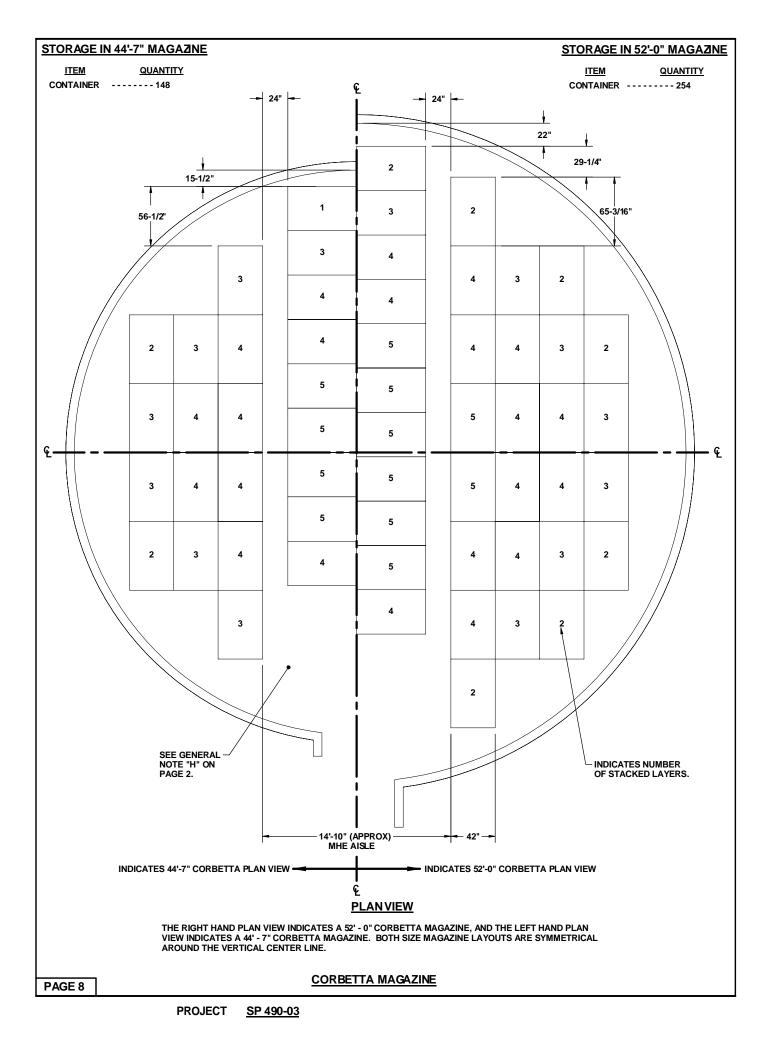
PAGE 6

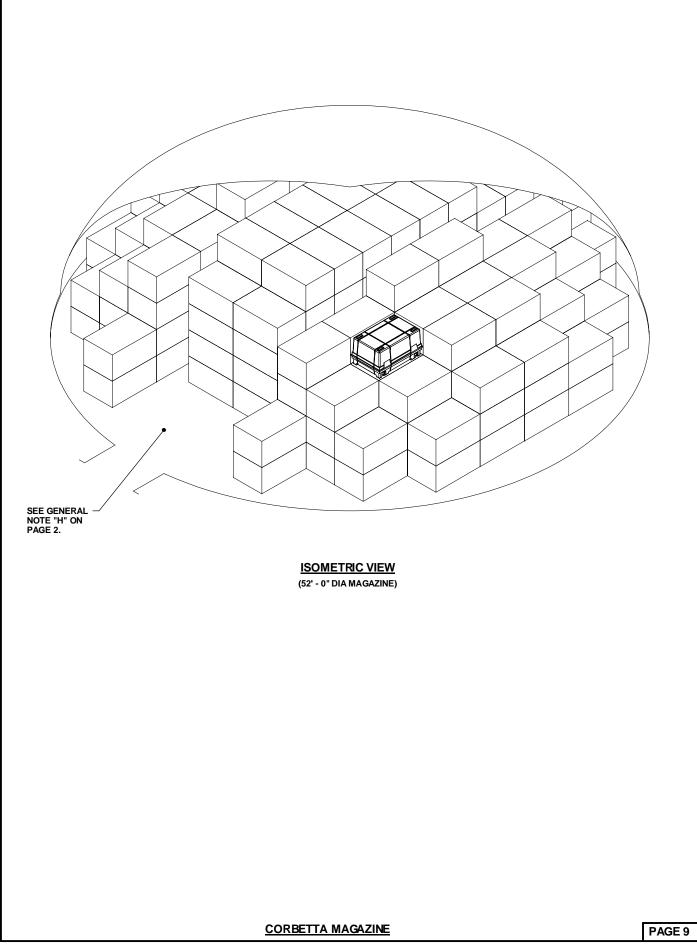
TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZNES

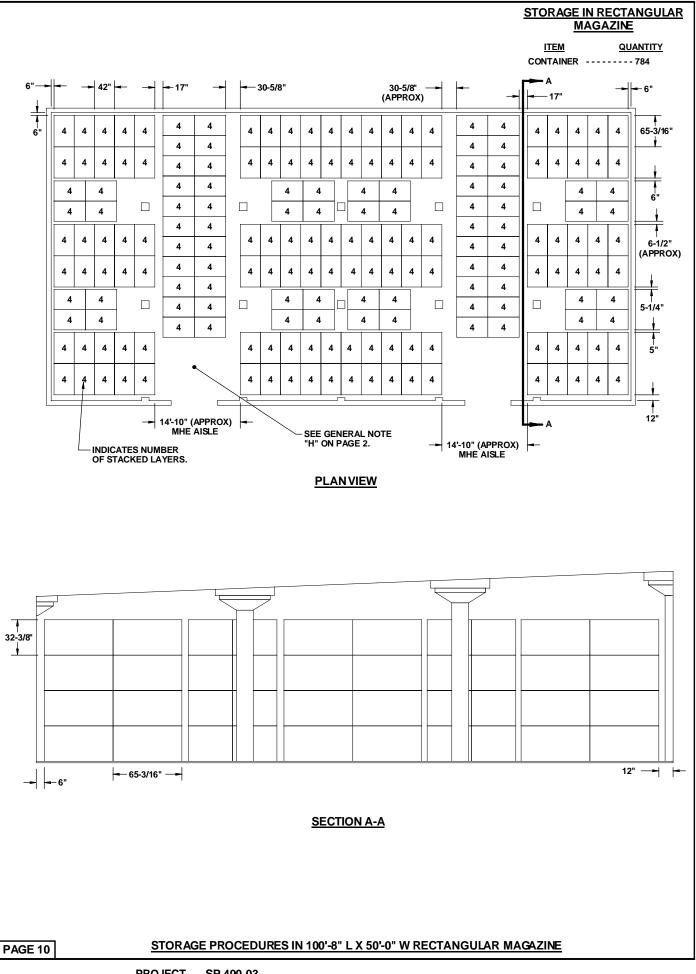
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				CHA	RT 1 -	DIMEN	SION	S							
MAGAZINE							MAGAZ	INE TYP	ΡE						
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WIDTH		26'-6"	•	26'-6"	2 5' - 0 "	25'-0"	25'	-0"	25'	-0"	2 4 ' - 10 "	2 5' - 0 "	25'-0"	2 4'-11	
HEIGHT		12'-9"		1	2'-1-3/4		11'-	- 0 "	10'	- 0 "	14'-5"	14'-0"	14'-0"	13'-6'	
DIMENSIONS	PALLET UNIT SPACING DIMENSIONS														
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DIM "E" (MHE AISLE APPROX)	11'-10 "	11'-0 "	10'-7"	9'-11"	10'-10"	10'-0"	10'-10"	12'-4"	11'-6"	13'-0"	11'-9 "	13'-0"	9'-8"	11'-9"	
DIM "F" ("B" STACK LEFT)	17"	17"	17 "	19 "	10 "	10 "	40"	40"	20"	20"	7"	10 "	10 "	10 "	
DIM "G" ("A" TO "B" LEFT)	2 "	2 "	2 "	0 "	0"	0 "	2 "	2 "	0"	0 "	4 "	0 "	0"	0"	
DIM "H" ("A" TO "B" RIGHT)	2 "	2 "	2 "	0 "	0"	0 "	2"	2 "	NA	NA	4 "	0 "	0"	0	
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DIM "K" (MHE AREA)	13'-7"	13'-7"	13'-7"	12'-9"	12'-10"	12'-4"	11'-9"	11'-9 "	11'-1"	11'-1"	13'-6"	12'-9"	12'-9"	12 " - 5 '	
DIM "L" ("C" STACK LEFT)	17"	17"	17"	19 "	10 "	10 "	16 "	16 "	20"	20"	7"	10 "	10 "	14 "	
DIM "M" ("C" STACK RIGHT)	17 "	17"	17"	19 "	10 "	10 "	16 "	16 "	20"	20"	6 "	10 "	10 "	9"	
DIM "N" ("A" STACK BACK)	6 "	6 "	6 "	6"	14 "	14 "	14 "	14 "	6"	6 "	6 "	6 "	6"	6"	

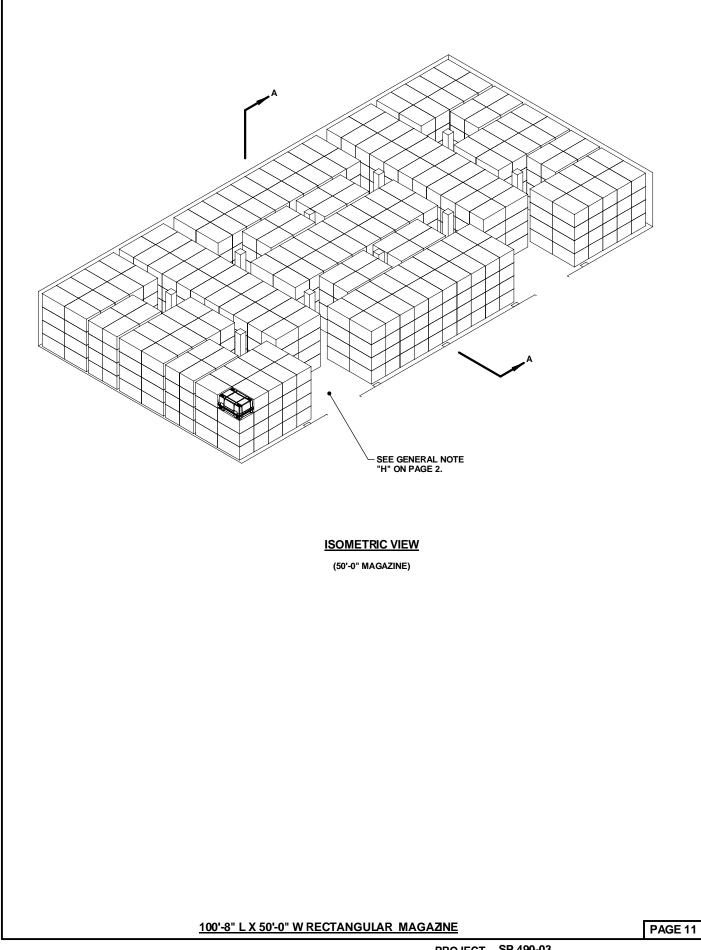
"A" AND "B" STACKS
"C" STACK
SEE GENERAL NOTE "A" AND "B" "H" ON PAGE 2.
"C" STACK
ISOMETRIC VIEW

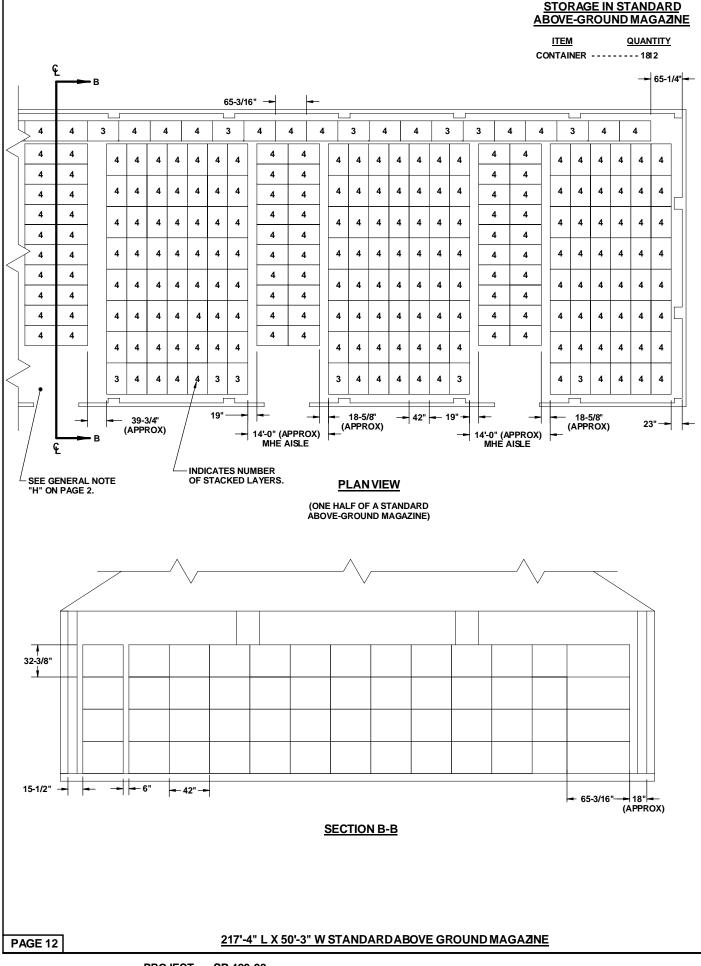
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3 4		3(P-R) 1(Q)		3(P-R) 3(P-R) 1(Q) 1(Q)				2(P-Q) 0		1(Q) 0		3(P-R) 3(P-R)	3(P-R) 1(Q)				
SINGLE		((()		1(Q) 1(Q)			,			0		3(F-K)	((4)				
STACK Total	10		10	10 10		6		7		12	12	10)				
NUMBER OF STACKS	8	14	20	20	8	19	8	19	8	19	22	19	14	22			
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				"B" STAC	K CONFI	GURATIC	ON - TO T	HE LEFT	OF "A"	STACK							
B" STACK CONFIGURATION - TO THE LEFT OF "A" STACK LAYER CONTAINERS PER LAYER																	
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2		0		0			1(0		1(0)	1(0)	1(0)	0			
3 4		0 0		0					0		1(O) 0	1(O) 0	0	0			
SINGLE STACK		1		1		1	2		1		3	3	2	1			
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OF STACKS "B" STACK														<i>i</i> =			
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TOTAL NUMBER						1											
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LAYER						CO	NTAINERS	PER LAY	ER								
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TOTAL NUMBER																	
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"C" STACK LF TOTAL		3			3		3	3 3			7	7	5	5			
				"(STAC	KCONFIG	GURATIO	N - RIGH	TSIDE								
"C" STACK RT TOTAL		1			1		1		1		1	1 1					
SPECIAL NOTES	:						EXAM	PLE:	,			,	,				
DETERMIN STORAGE	ED AS GUIE IING THE Q MAGAZINE	DANCE IN TH QUANTITY OF ES LISTED IN	IE SELECTI CONTAINE NTHESE CH	ON OF A STO ERS WHICH O IARTS.	ORAGE PAT CAN BE STO	TERN, AND DRED IN THE	E CHAR IN MAGA LAYEF		1: 2 (T-U) 2: 2 (T-U)	GURATION	– LEFT S	IDE					
SIONS AND	CHART 1 ON PAGE 6 DESCRIBES THE STORAGE MAGAZINE GENERAL DIMEN- SIONS AND THE DIMENSIONS OF THE CONTAINER SPACING WITHIN THE STOR- AGE MAGAZINES.								LAYER NUMBER 4: 1 (U)								
3. DIMENSION WITH STAC		" AND "C" H B" AND "C".		OMITTED TO	AVOID COM	NFUSION	LAYE	EXPLANATION: LAYER 1 (BOTTOM LAYER) HAS CONTAINERS FROM THE "T" COLUMN (NEAREST									
	INE AND T	HE LAYOUT	OF THE ST	ACKS FOR E	ACH TYPE	OF MAGA-	PE LAYEF	R 2 (ON TOP		1) HAS TWO		NERS FROM 1		UMN			
				CONTAINER			LAYE	R 3 (ON TOP	OF LAYER	2) HAS TW		NERS FROM 1	THE "T" COL	.UMN			
		(CON	TINUED AT	RIGHT)			(NEAR	EST THE LI	EFT SIDE OF	THE MAG	AZINE) TO	THE "U" COL	UMN.				
							LAYEF THE D		OF LAYER	3) HAS ONI	E CONTAI	NER AT THE "	_	I (NEARES			

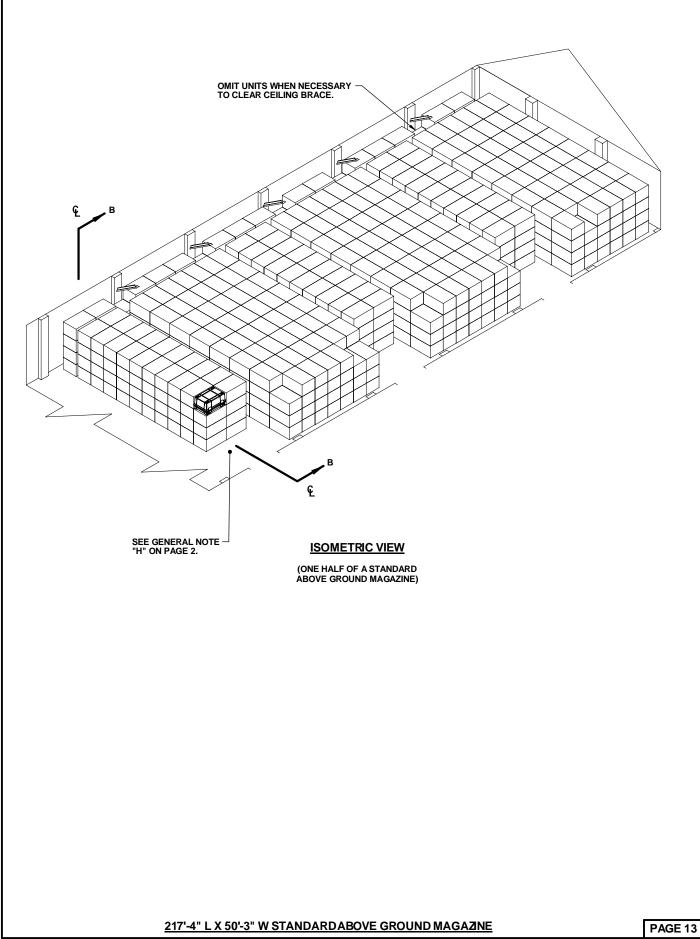


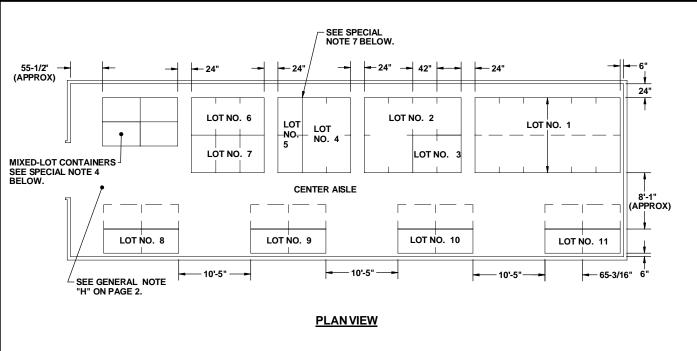












SPECIAL NOTES:

- 1. THE STORAGE PLAN SHOWN IN THIS PAGE IS TYPICAL ONLY, AND APPLIES TO NUMEROUS LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 24" WIDE MUST BE PRO-VIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OR ON ONE SIDE OF THE MAGAZINE. HOWEVER, THESE AREAS MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING STACKS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. AN MHE AISLE WILL BE REQUIRED ON ONE SIDE OF THE MAGAZINE, AND EACH LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPEC-TION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. A MIXED-LOT CONTAINER MAY HAVE TWO LOTS PER CONTAINER. HOWEVER, BOTH LOTS WITHIN THE CONTAINER MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.

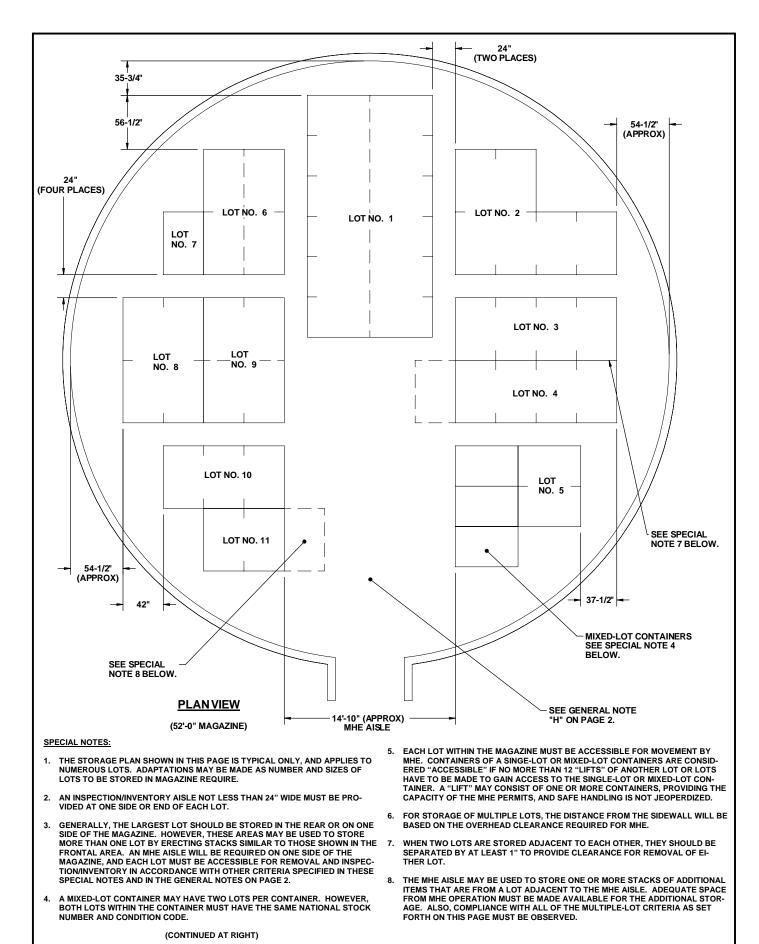
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(SPECIAL NOTES CONTINUED)

- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. CONTAINERS OF A SINGE-LOT OR MIXED-LOT CONTAINERS ARE CONSID-ERED "ACCESSIBLE" IF NO MORE THAN 12 "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNIT. A "LIFT" MAY CONSIST OF ONE OR MORE CONTAINERS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPERDIZED.
- 6. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 7. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- 8. THE MHE AISLE MAY BE USED TO STORE ONE OR MORE STACKS OF ADDITIONAL ITEMS THAT ARE FROM A LOT ADJACENT TO THE CENTER AISLE. ADEQUATE SPACE FROM MHE OPERATION MUST BE MADE AVAILABLE FOR THE ADDITIONAL STORAGE. ALSO, COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED.

TYPICAL MULTIPLE-LOT STORAGE PROCEDURES IN ARCHED OR ROUNDED ROOF MAGAZNES

PAGE 14



TYPICAL MULTIPLE-LOT STORAGE IN CORBETTA MAGAZINE

PAGE 15

