

STORAGE IN APPROVED MAGAZINES OF MODULAR ARTILLERY CHARGE SYSTEM XM231 (MACS), PACKED IN PA161E1 CYLINDRICAL METAL CONTAINERS, UNITIZED 36 CONTAINERS PER 30" X 45" METAL PALLET

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U.S. ARMY MATERIEL COMMAND DRAWING			
APPROVED: U.S. ARMY INDUSTRIAL OPERATIONS COMMAND <i>H. Hoff</i> <i>David A. Perkowski</i> AMSTA-AR-ESK	DRAFTSMAN	D. WHITMORE	
	ENGINEER	M. DAEUMER	
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND <i>(Arthur) ...</i> DEFENSE AMMUNITION CENTER	SUPPLY ENGINEERING DIVISION	<i>Thomas ...</i>	
	LOGISTICS ENGINEERING OFFICE	<i>William Ernest</i>	
AUGUST 1997			
CLASS	DIVISION	DRAWING	FILE
19	48	4250/50	1-3-4-14-22PM1004

DO NOT SCALE

GENERAL NOTES

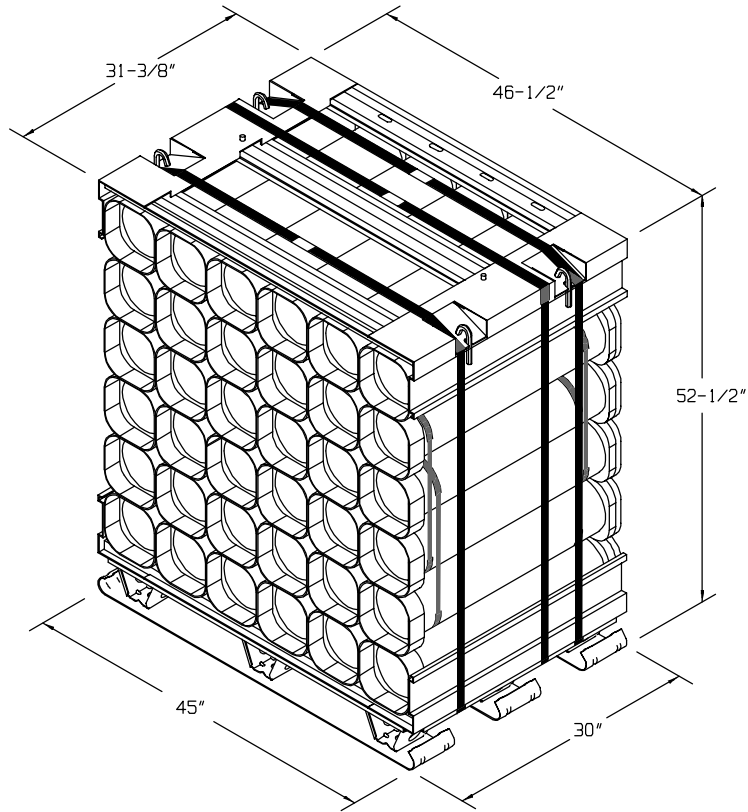
(GENERAL NOTES CONTINUED)

- 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 SPECIFIED WITHIN THIS DOCUMENT ARE APPLICABLE 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 PALLET UNITS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS 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 MODULAR ARTILLERY CHARGE SYSTEM, XM231, (MACS) PACKED IN THE PA161E1 CONTAINER AND UNITIZED ON A 30" LONG BY 45" WIDE PALLET WITH COVER. SUBSEQUENT REFERENCE TO PALLET UNIT MEANS THE PALLET UNIT WITH AMMUNITION ITEMS.
- D. FOR PALLET UNIT DETAILS, REFER TO U.S. ARMY AMC UNITIZATION DRAWING 19-48-4231/50-20PM1006 AND THE PICTORIAL VIEW ON PAGE 3.
- E. CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- F. STORED PALLET UNITS MUST NOT CONTACT THE WALLS OF A MAGAZINE. THEREFORE, UNITS WILL BE STORED A MINIMUM OF SIX INCHES (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.
- G. AISLE DIMENSIONS SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN PALLET UNIT DIMENSIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT.
- H. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED BY LOCAL STANDARDS WILL NOT BE EXCEEDED.
- J. THE MATERIALS HANDLING EQUIPMENT (MHE) AREA SHOULD BE OF SUFFICIENT DIMENSION TO PERMIT "TURN-AROUND" OF MHE WHEN STORING IN MAGAZINE NOT EQUIPPED WITH PROPERLY SIZED APRONS FOR THAT PURPOSE. THE MHE AISLE IN ALL MAGAZINES IS BASED ON A FIGURE WHICH IS AT LEAST 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40") WHICHEVER IS THE GREATEST. IF THE AVAILABLE MHE PERMITS, ADDITIONAL PALLET UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- K. THE USE OF "FLOOR DUNNAGE" UNDER METAL PALLETS IS OPTIONAL, ALTHOUGH THE USE OF THIS TYPE OF DUNNAGE IS DELINEATED WITHIN THIS STORAGE PROCEDURE DRAWING. THE PURPOSE OF FLOOR DUNNAGE IS TO HELP KEEP THE RUNNERS OF A PALLET DRY, THUS AIDING IN PREVENTING DETERIORATION DUE TO CORROSION. THEREFORE, 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 DESIRED OBJECTIVE. NOTE: ISOMETRIC VIEWS WITHIN THIS DRAWING DO NOT DEPICT ALL FLOOR DUNNAGE THAT IS REQUIRED WHEN DUNNAGE IS USED. FLOOR DUNNAGE IS SHOWN AT SOME LOCATIONS TO PROVIDE POSITIONING GUIDANCE.
- 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.
- 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" SECTIONS OF THE MULTIPLE LOT STORAGE PROCEDURES TYPICALLY SHOWN ON PAGES 22 THRU 28.
- N. ALTHOUGH SPECIFIC PROCEDURES ARE INCLUDED IN THIS DRAWING FOR STORING MULTIPLE LOTS WITHIN ONE STRUCTURE, THE BASIC STORAGE PATTERN AS SHOWN ON PAGES 4 THRU 21 CAN ALSO BE ADAPTED FOR THE STORING OF MORE THAN ONE LOT. LOTS WHEN STORED IN ACCORDANCE WITH A 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 ADJACENT ROWS CONTAINING DIFFERENT LOTS. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 46-1/2" UNIT-DIMENSION, EACH ROW MAY BE A DIFFERENT LOT AND READILY REMOVABLE. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 31-3/8" UNIT-DIMENSION, A LOT MUST CONSIST OF TWO OR MORE ROWS TO PROVIDE ADEQUATE SPACE TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK FOR STORING OR REMOVING THE LOT. HOWEVER, WHEN THE SIZE OF THE LOT REQUIRES THE SPACE OF ONLY ONE ROW, IT IS PERMISSABLE TO STORE THAT LOT WITH THE 46-1/2" UNIT-DIMENSION ESTABLISHING THE WIDTH OF THAT ROW, PROVIDING THE STORAGE PRINCIPLES SPECIFIED ARE FOLLOWED AS CLOSELY AS POSSIBLE. THE 1" SPACE BETWEEN LOTS, AS STATED ABOVE WILL NOT BE EXCEEDED SOLELY TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK. FOR ADDITIONAL REQUIREMENTS AND GUIDANCE, SEE THE SPECIAL NOTES FOR MULTIPLE-LOT STORAGE ON PAGES 22 THRU 28.
- O. ANY "LIGHT" PALLET UNIT THAT DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- P. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- R. A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE ONE INCOMPLETE, UNBANDED PARTIAL UNIT LOAD PER LOT IN A STORAGE STRUCTURE. PRIOR TO SHIPMENT OF A PARTIAL UNIT, A LAYER MUST BE COMPLETED BY POSITIONING OF ONE OR MORE FILLER CONTAINERS AS DELINEATED BY DRAWING 19-48-4231/50-20PM1006. THE UNIT MUST THEN BE REBANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.

(CONTINUED AT RIGHT)

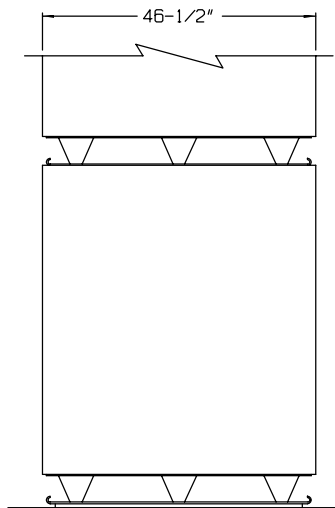
MATERIAL SPECIFICATIONS

LUMBER - - - - SEE TM 743-200-1, (DUNNAGE LUMBER)
AND FED SPEC MM-L-751.



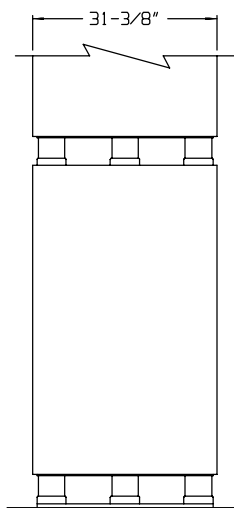
ISOMETRIC VIEW

36 CONTAINERS PER PALLET
 UNIT WEIGHT - - - - 1,476 POUNDS (APPROX)
 CUBE - - - - - 44.33 CUBIC FEET (APPROX)



1" X 6" X 42" (3 REQD
 PER FIRST LAYER UNIT)
 POSITION UNDER PALLET
 SKIDS.

LOCATION "A"



1" X 6" X 30" (3 REQD
 PER FIRST LAYER UNIT)
 POSITION UNDER PALLET
 POSTS.

LOCATION "B"

FLOOR DUNNAGE

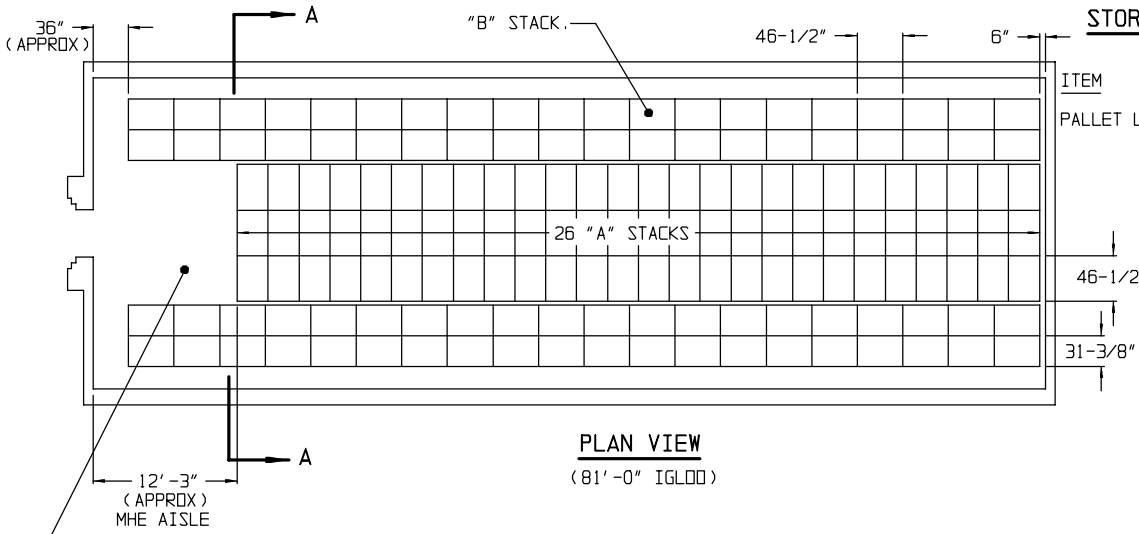
SEE GENERAL NOTE
 "K" ON PAGE 2.

DETAILS

STORAGE IN 81'-0" IGL00

(12'-9" HIGH)

ITEM	QUANTITY
PALLET UNITS - - - - -	276

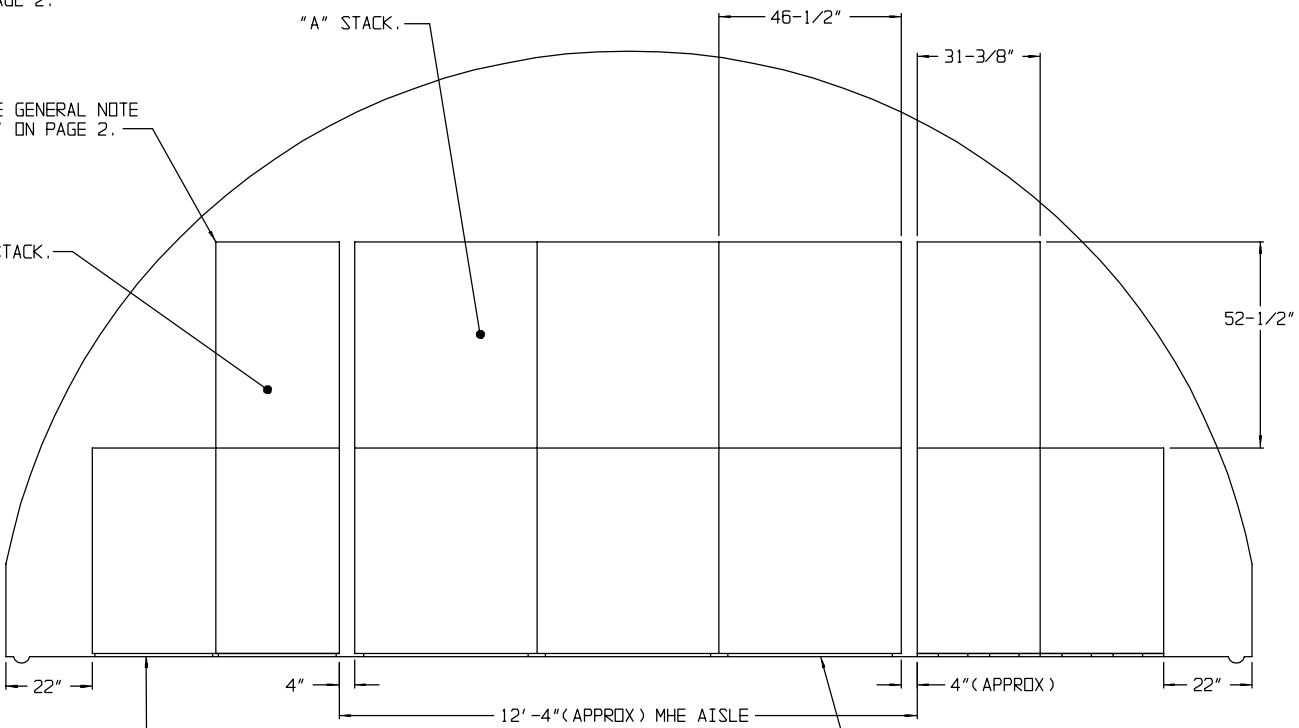


PLAN VIEW
(81'-0" IGL00)

SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.

"B" STACK.



SECTION A-A

FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER UNIT).
POSITION UNDER PALLET POSTS.
SEE LOCATION "B" DETAIL ON
PAGE 3.

FLOOR DUNNAGE, 1" X 6" X 42"
(3 REQD PER FIRST-LAYER UNIT)
POSITION UNDER PALLET SKIDS.
SEE LOCATION "A" DETAIL ON
PAGE 3 AND GENERAL NOTE "K"
ON PAGE 2.

STORAGE IN 60'-8" IGL00

(12'-9" HIGH)

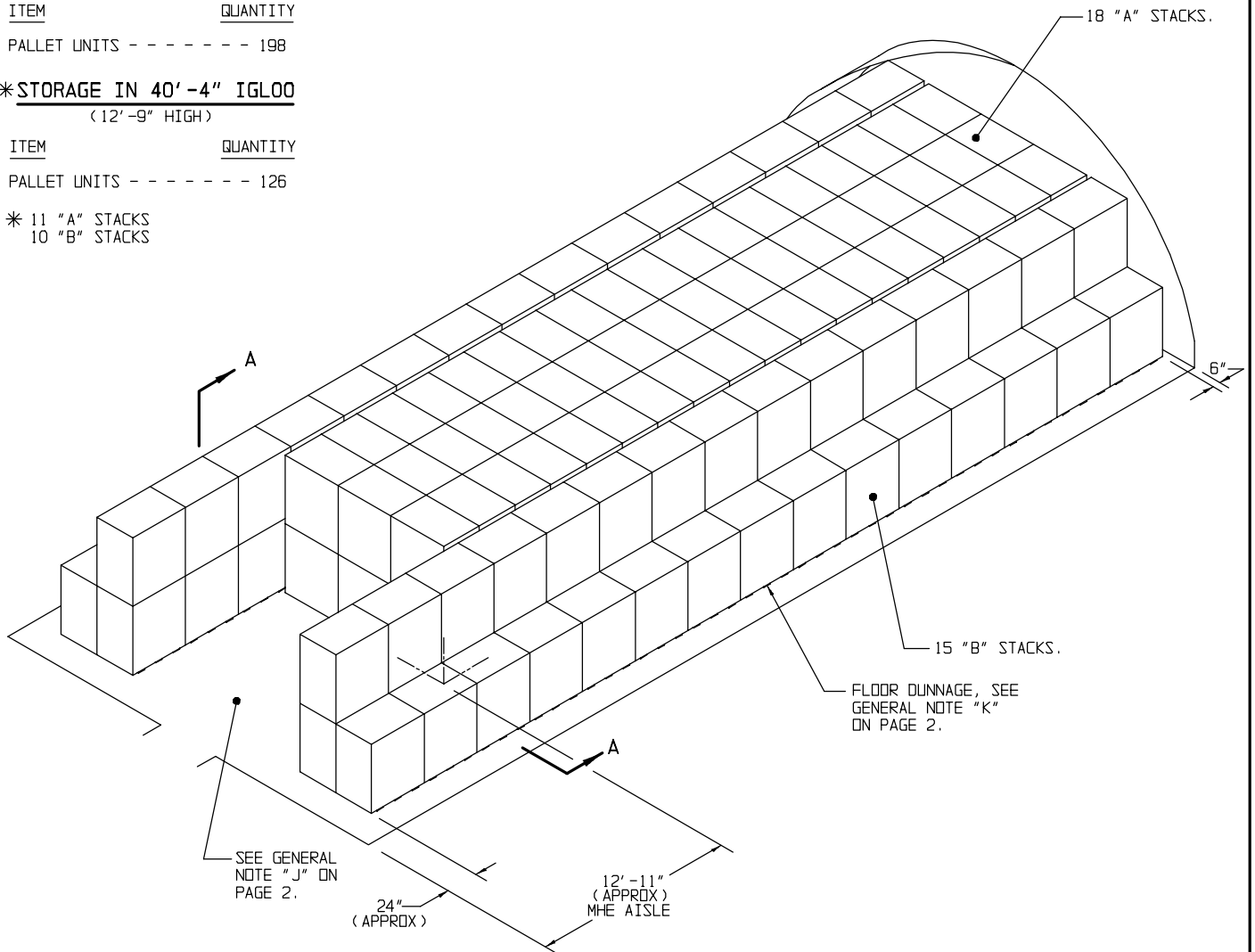
ITEM	QUANTITY
PALLET UNITS - - - - -	198

***STORAGE IN 40'-4" IGL00**

(12'-9" HIGH)

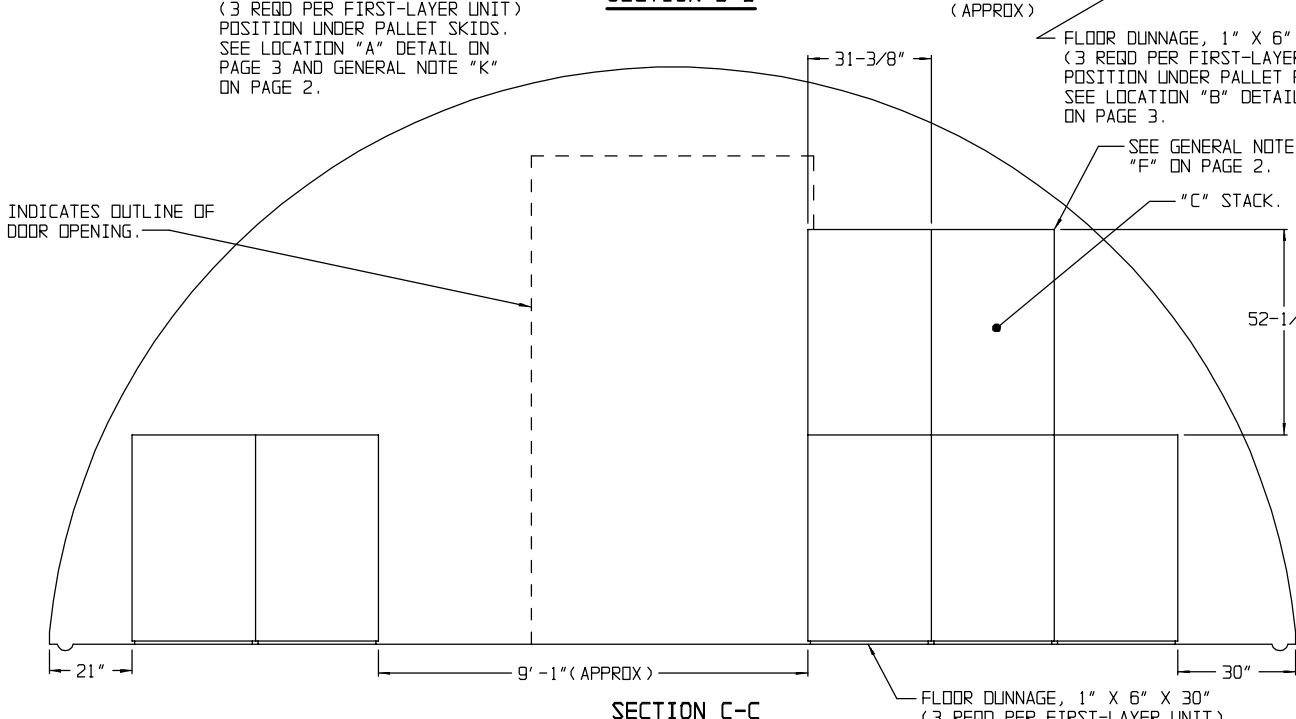
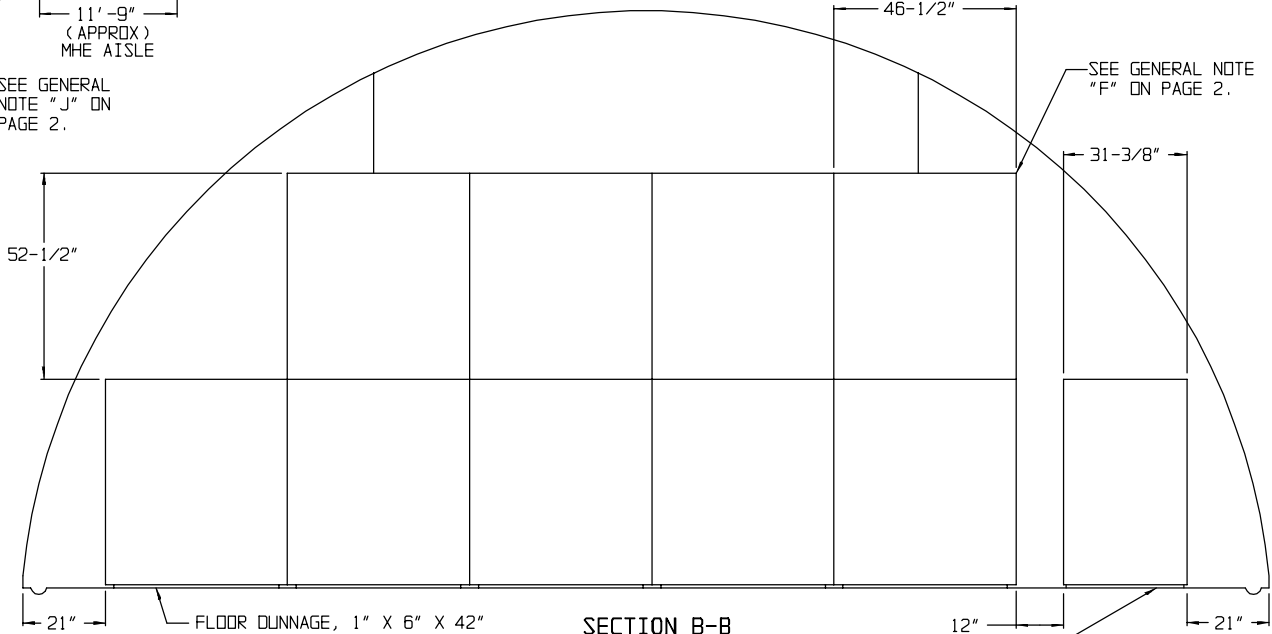
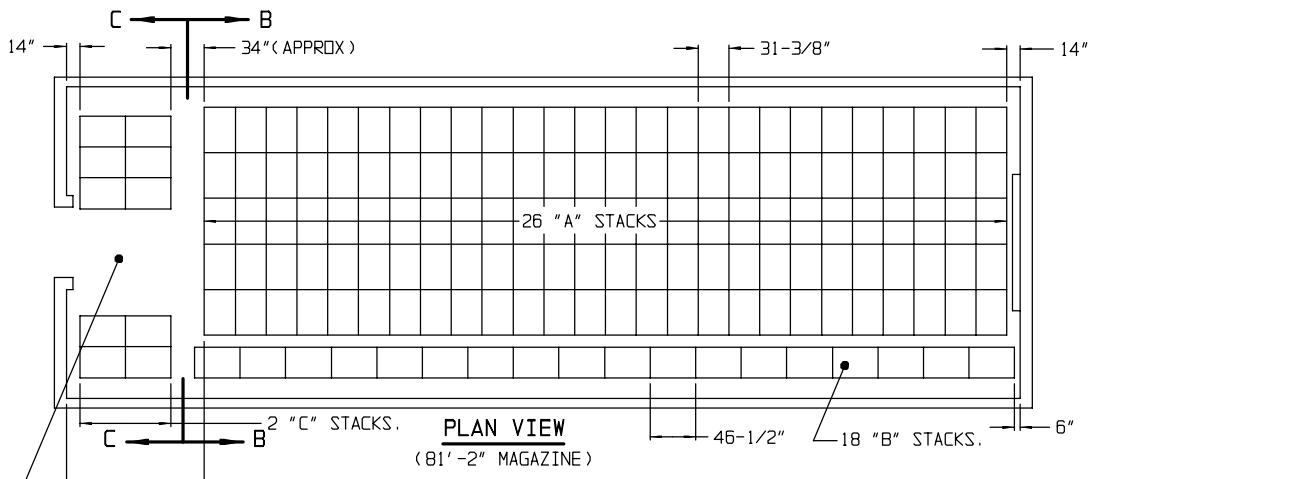
ITEM	QUANTITY
PALLET UNITS - - - - -	126

- * 11 "A" STACKS
- 10 "B" STACKS



ISOMETRIC VIEW
(60'-8" IGL00)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



STORAGE PROCEDURES IN 81'-2" L X 26'-6" W X 12'-1-3/4" H ARCH TYPE MAGAZINE

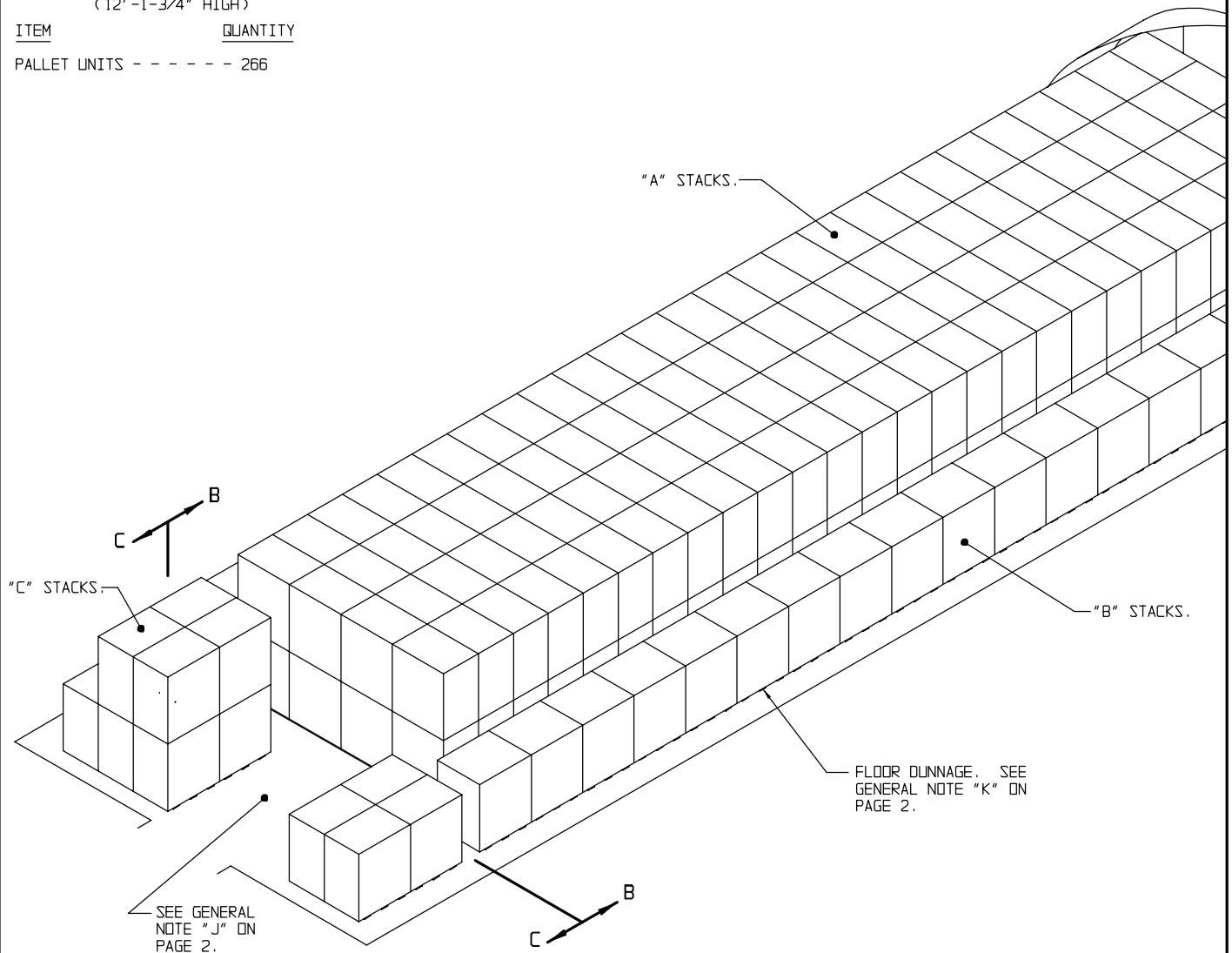
STORAGE IN 81'-2" MAGAZINE

(12'-1-3/4" HIGH)

ITEM

QUANTITY

PALLET UNITS - - - - - 266

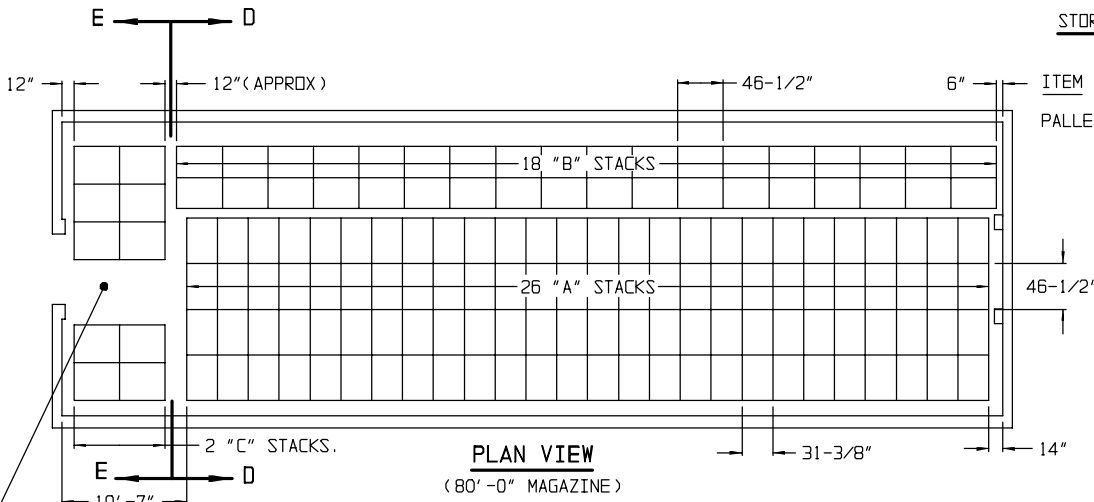


ISOMETRIC VIEW
(81'-2" MAGAZINE)

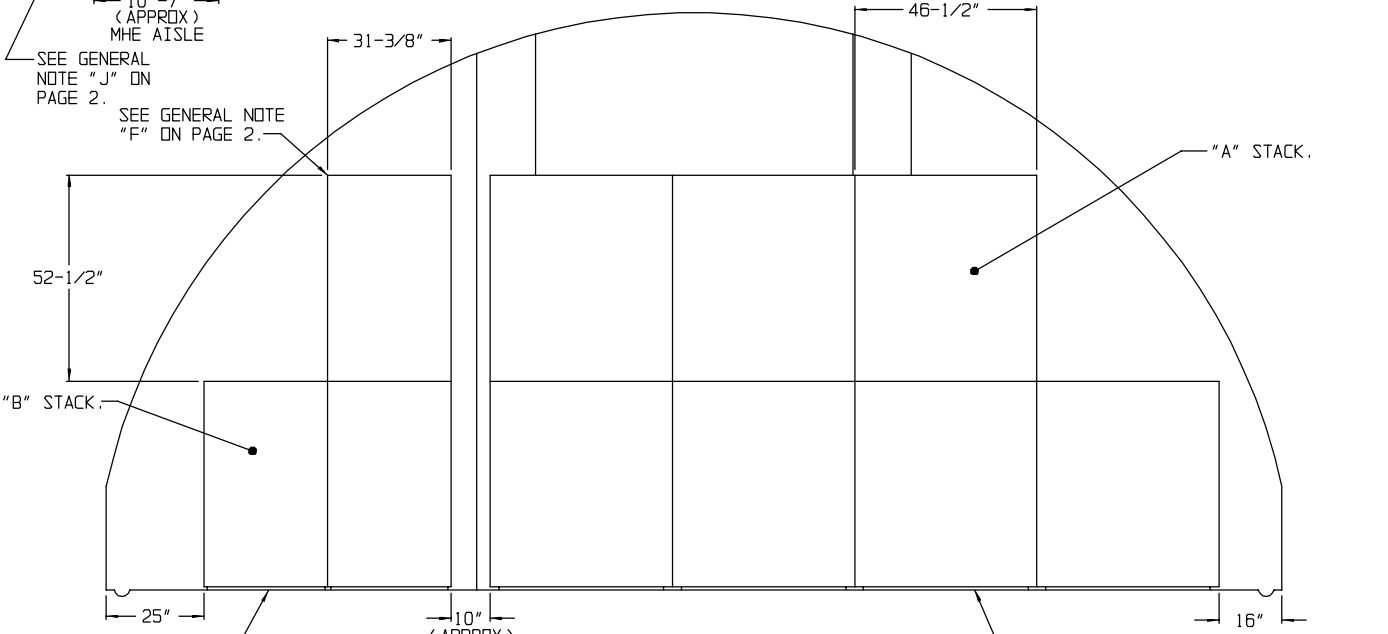
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE
(12'-1-3/4" HIGH)

ITEM	QUANTITY
PALLET UNITS - - - - -	250



PLAN VIEW
(80'-0" MAGAZINE)



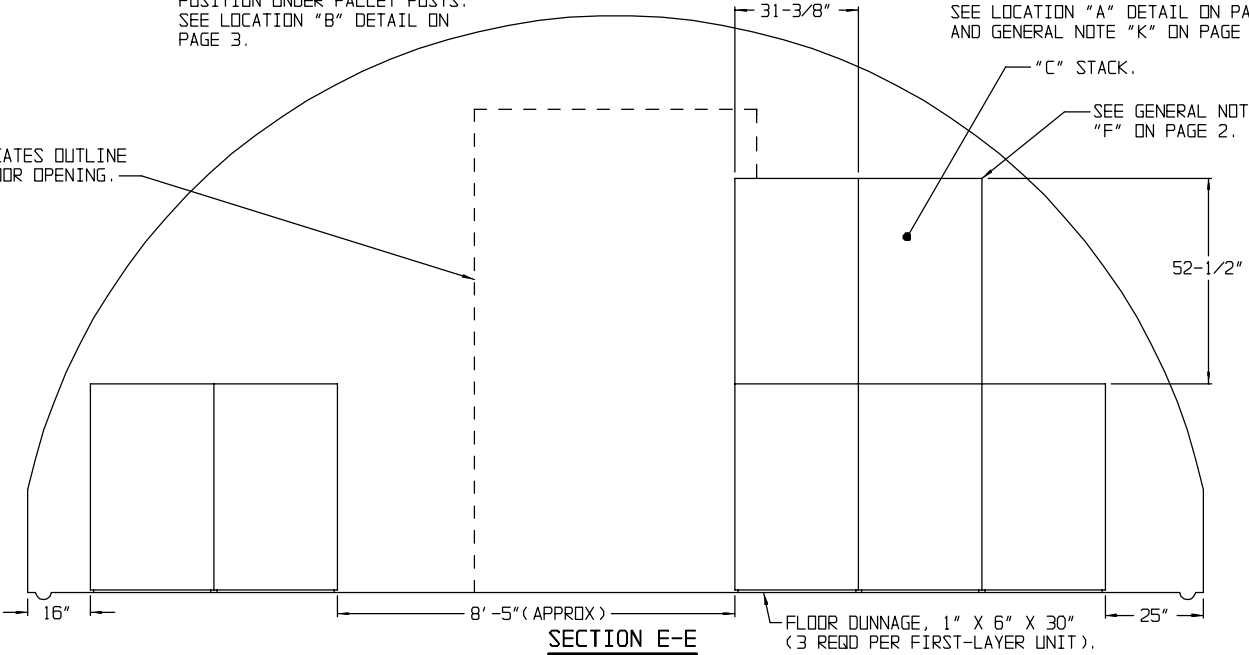
SECTION D-D

FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER UNIT).
POSITION UNDER PALLET POSTS.
SEE LOCATION "B" DETAIL ON
PAGE 3.

FLOOR DUNNAGE, 1" X 6" X 42"
(3 REQD PER FIRST-LAYER UNIT).
POSITION UNDER PALLET SKIDS.
SEE LOCATION "A" DETAIL ON PAGE 3
AND GENERAL NOTE "K" ON PAGE 2.

INDICATES OUTLINE
OF DOOR OPENING.

SEE GENERAL NOTE
"F" ON PAGE 2.



SECTION E-E

FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER UNIT).

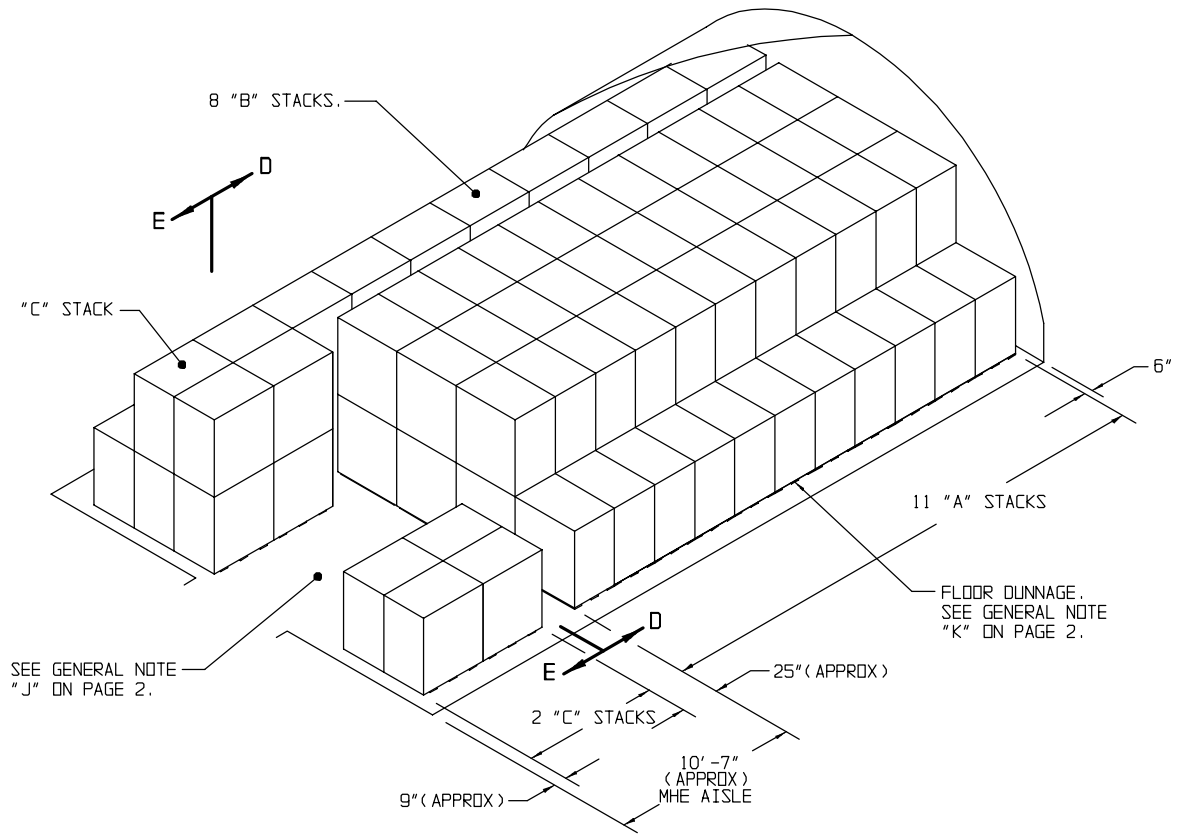
STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 12'-1-3/4" H ARCH TYPE MAGAZINES

STORAGE IN 40'-0" MAGAZINE

(12'-1-3/4" HIGH)

ITEM QUANTITY

PALLET UNITS - - - - - 115



ISOMETRIC VIEW

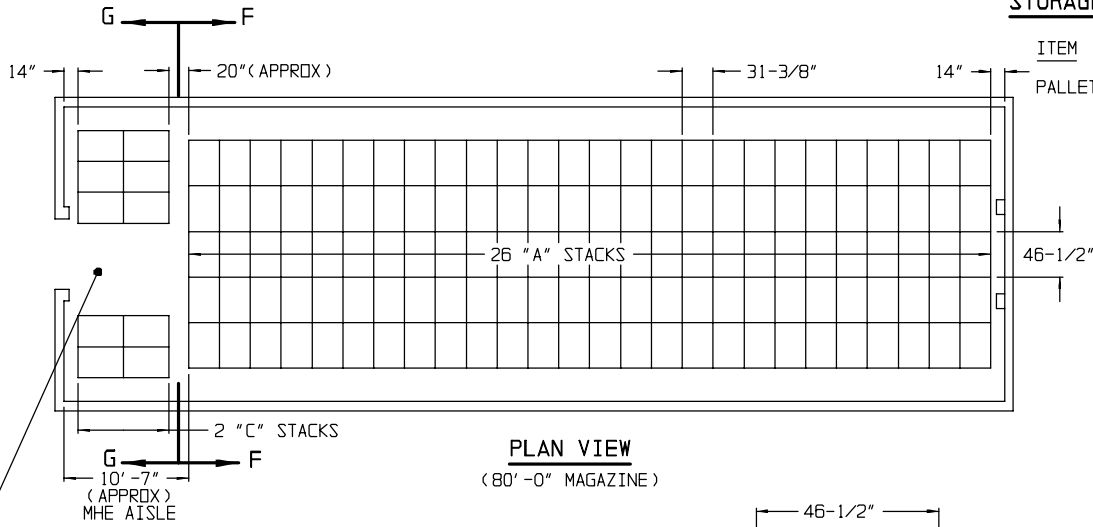
(40'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

(11'-0" HIGH)

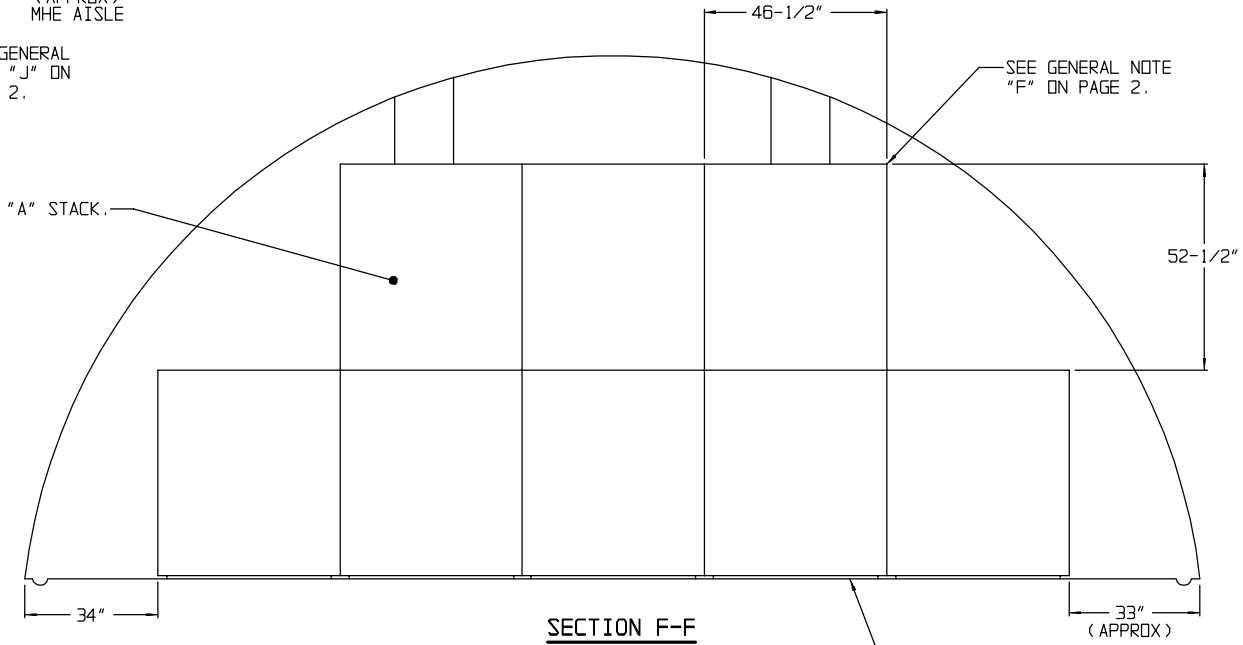
ITEM	QUANTITY
PALLET UNITS - - - - -	220



PLAN VIEW
(80'-0" MAGAZINE)

SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.

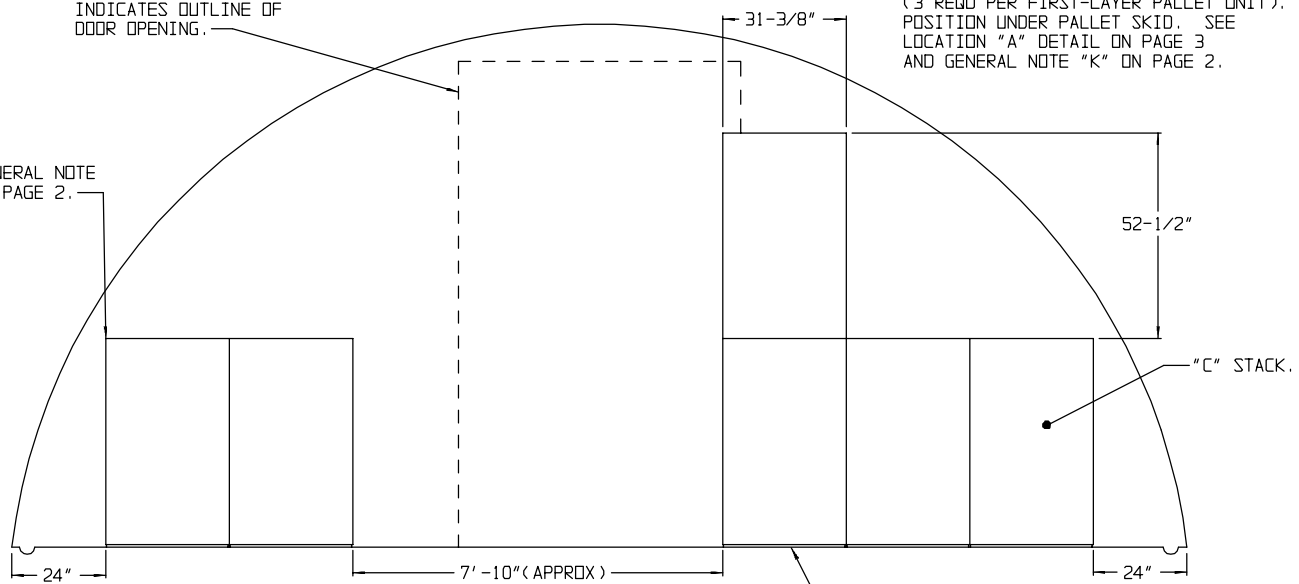


SECTION F-F

INDICATES OUTLINE OF DOOR OPENING.

FLOOR DUNNAGE, 1" X 6" X 42"
(3 REQD PER FIRST-LAYER PALLET UNIT).
POSITION UNDER PALLET SKID. SEE
LOCATION "A" DETAIL ON PAGE 3
AND GENERAL NOTE "K" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION G-G

FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER PALLET
UNIT). POSITION UNDER PALLET
POSTS. SEE LOCATION "B" DETAIL ON PAGE 3.

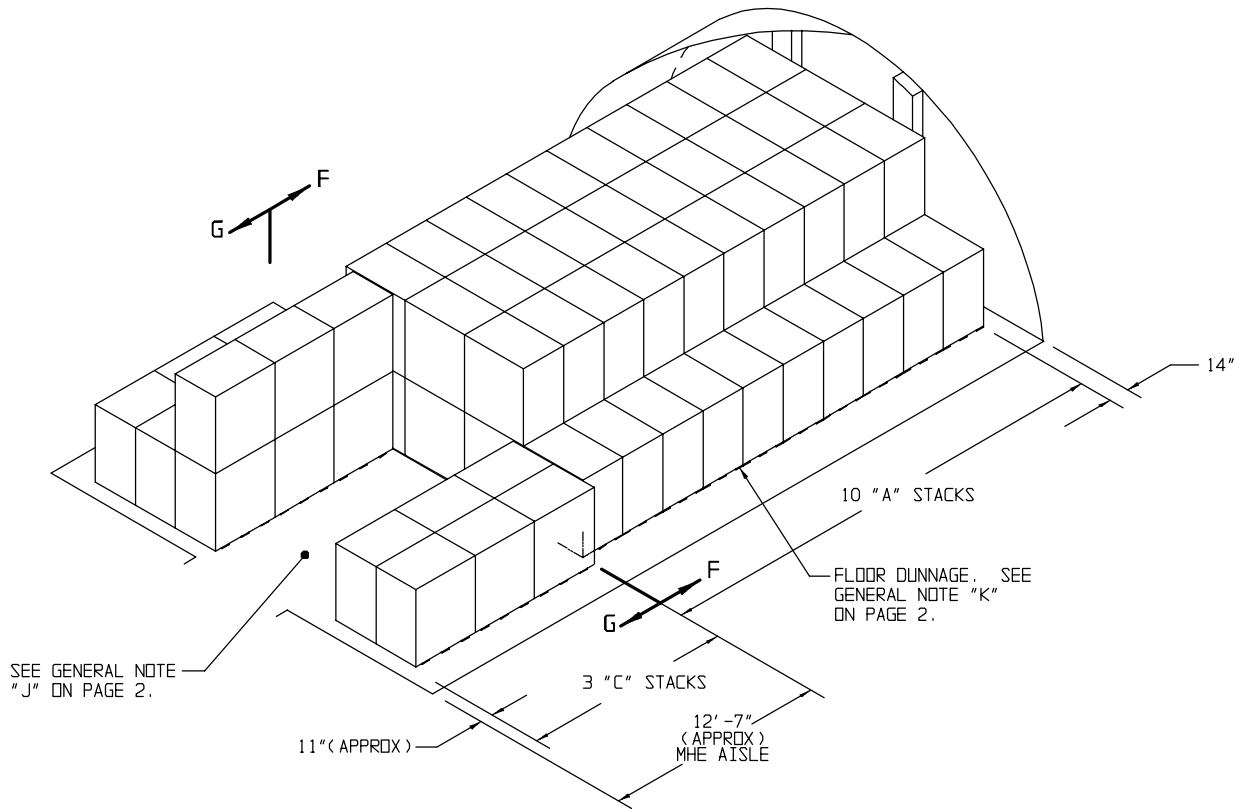
STORAGE IN 40'-0" MAGAZINE

(11'-0" HIGH)

ITEM

QUANTITY

PALLET UNITS - - - - - 98

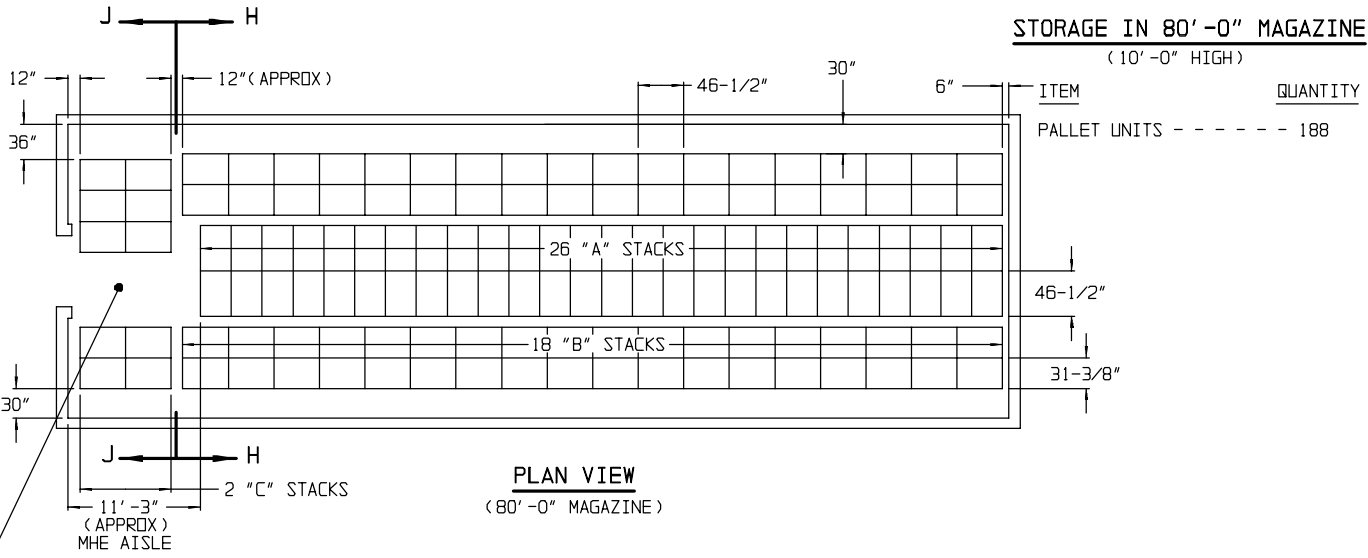


ISOMETRIC VIEW
(40'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

(10'-0" HIGH)

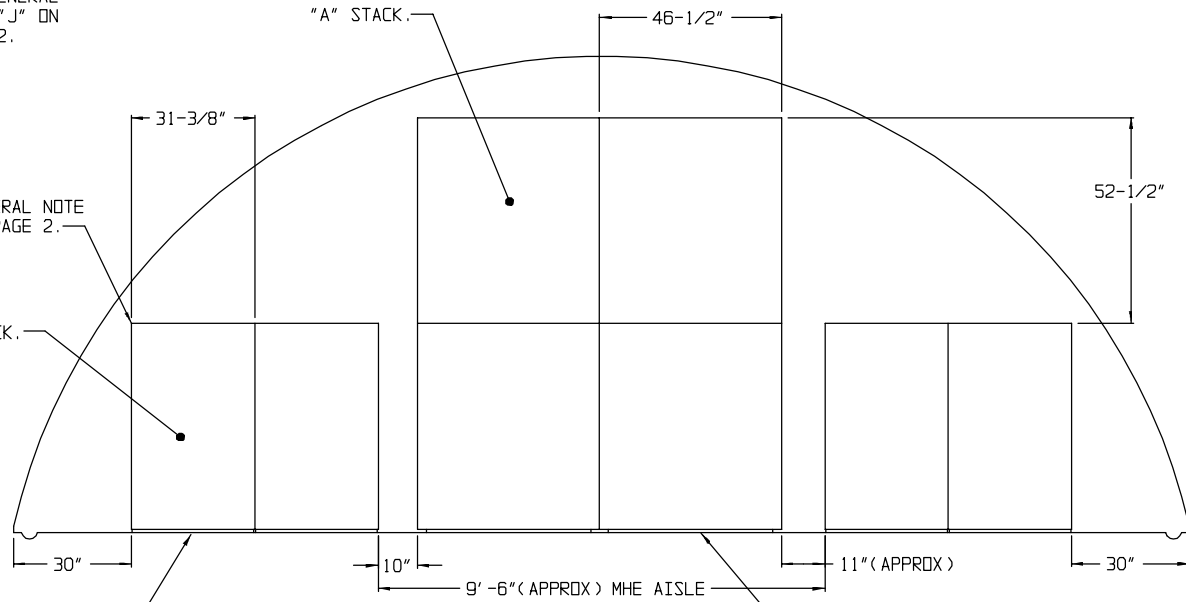


PLAN VIEW
(80'-0" MAGAZINE)

SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.

"B" STACK.

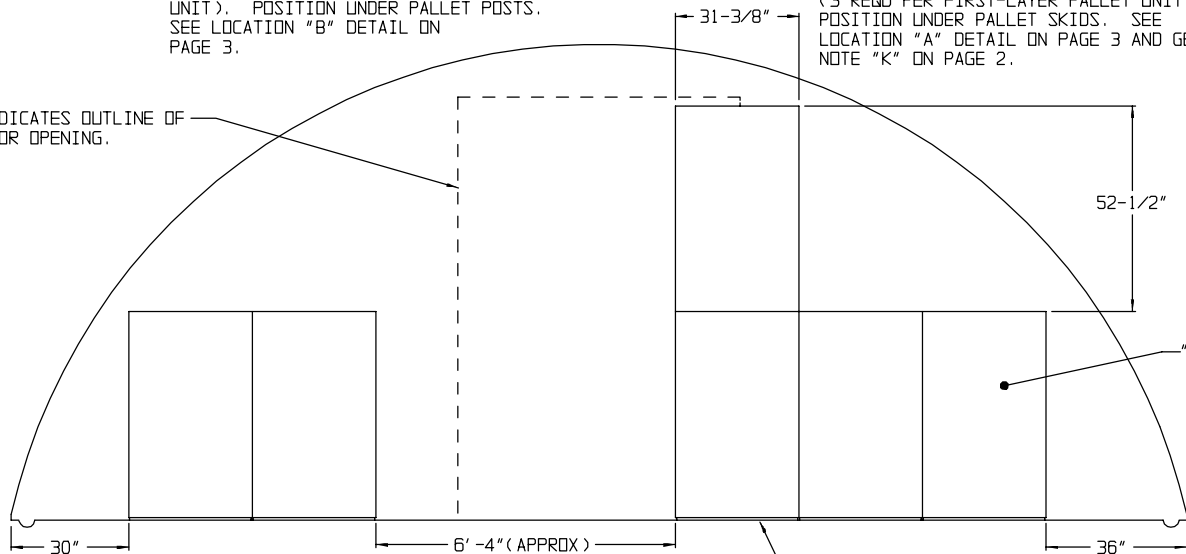


SECTION H-H

FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER PALLET UNIT). POSITION UNDER PALLET POSTS. SEE LOCATION "B" DETAIL ON PAGE 3.

FLOOR DUNNAGE, 1" X 6" X 42"
(3 REQD PER FIRST-LAYER PALLET UNIT). POSITION UNDER PALLET SKIDS. SEE LOCATION "A" DETAIL ON PAGE 3 AND GENERAL NOTE "K" ON PAGE 2.

INDICATES OUTLINE OF DOOR OPENING.



SECTION J-J

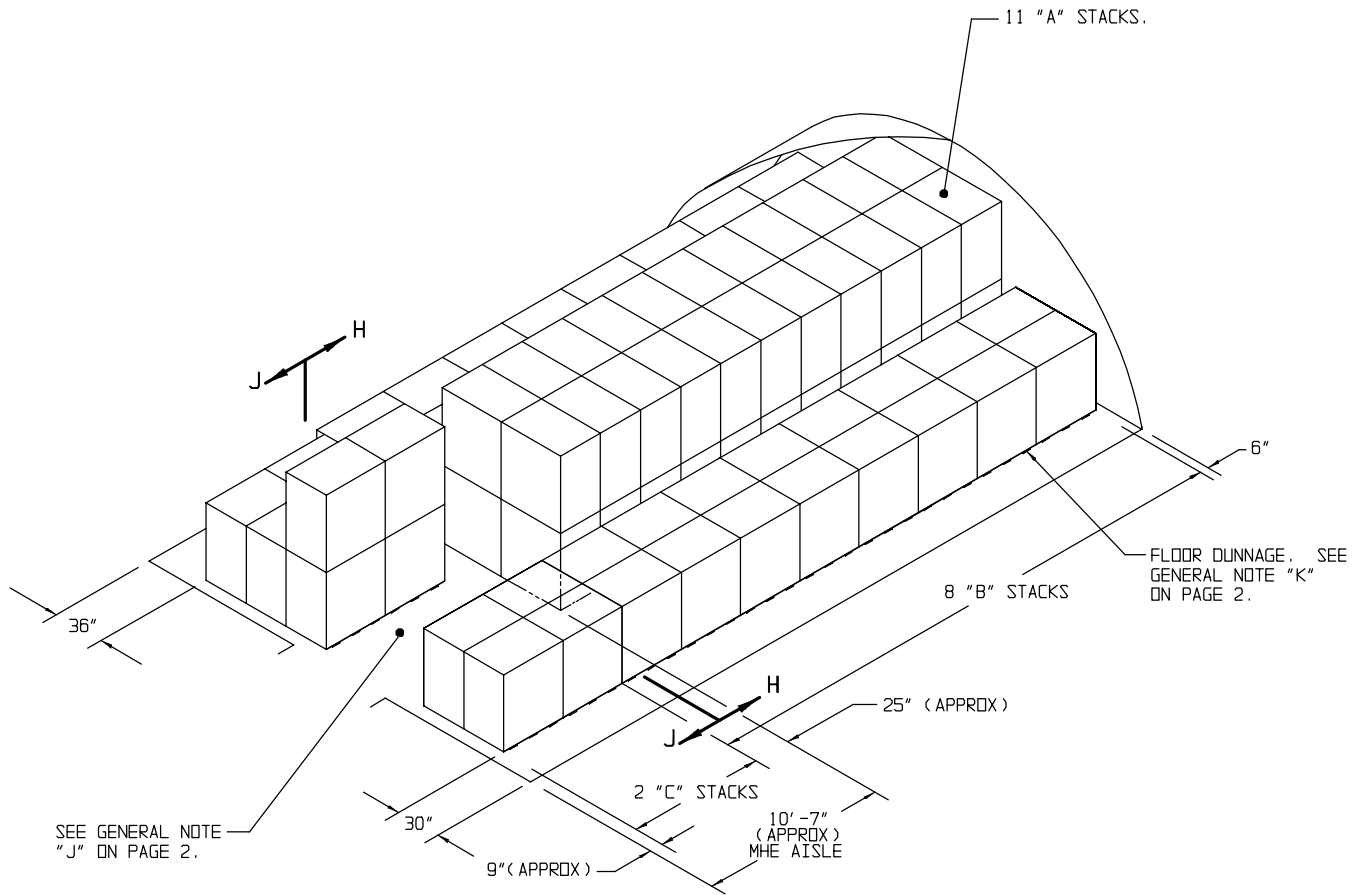
FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER PALLET UNIT). POSITION UNDER PALLET POSTS. SEE LOCATION "B" DETAIL ON PAGE 3.

STORAGE IN 40'-0" MAGAZINE

(10'-0" HIGH)

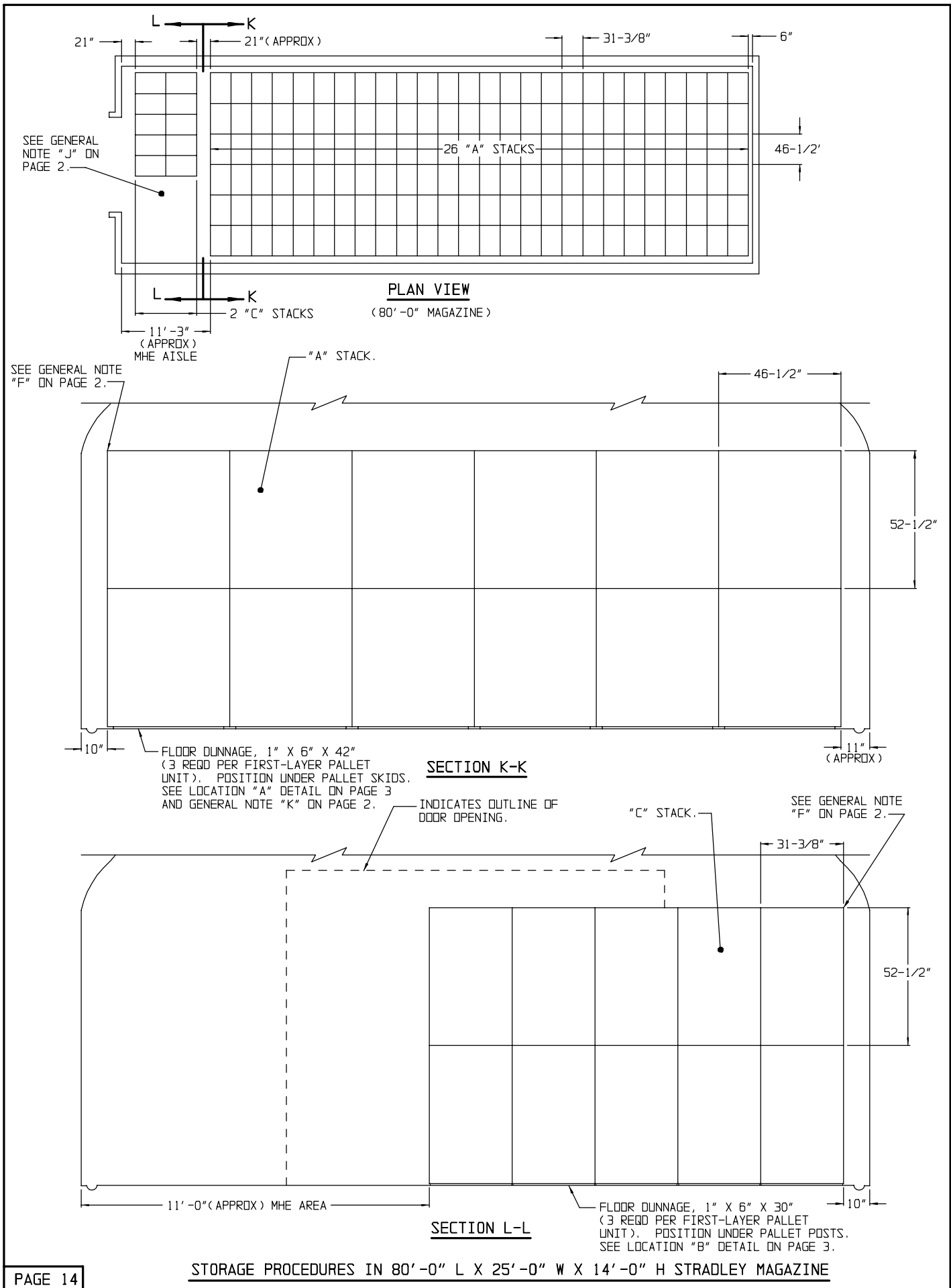
ITEM QUANTITY

PALLET UNITS - - - - - 88



ISOMETRIC VIEW
(40'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

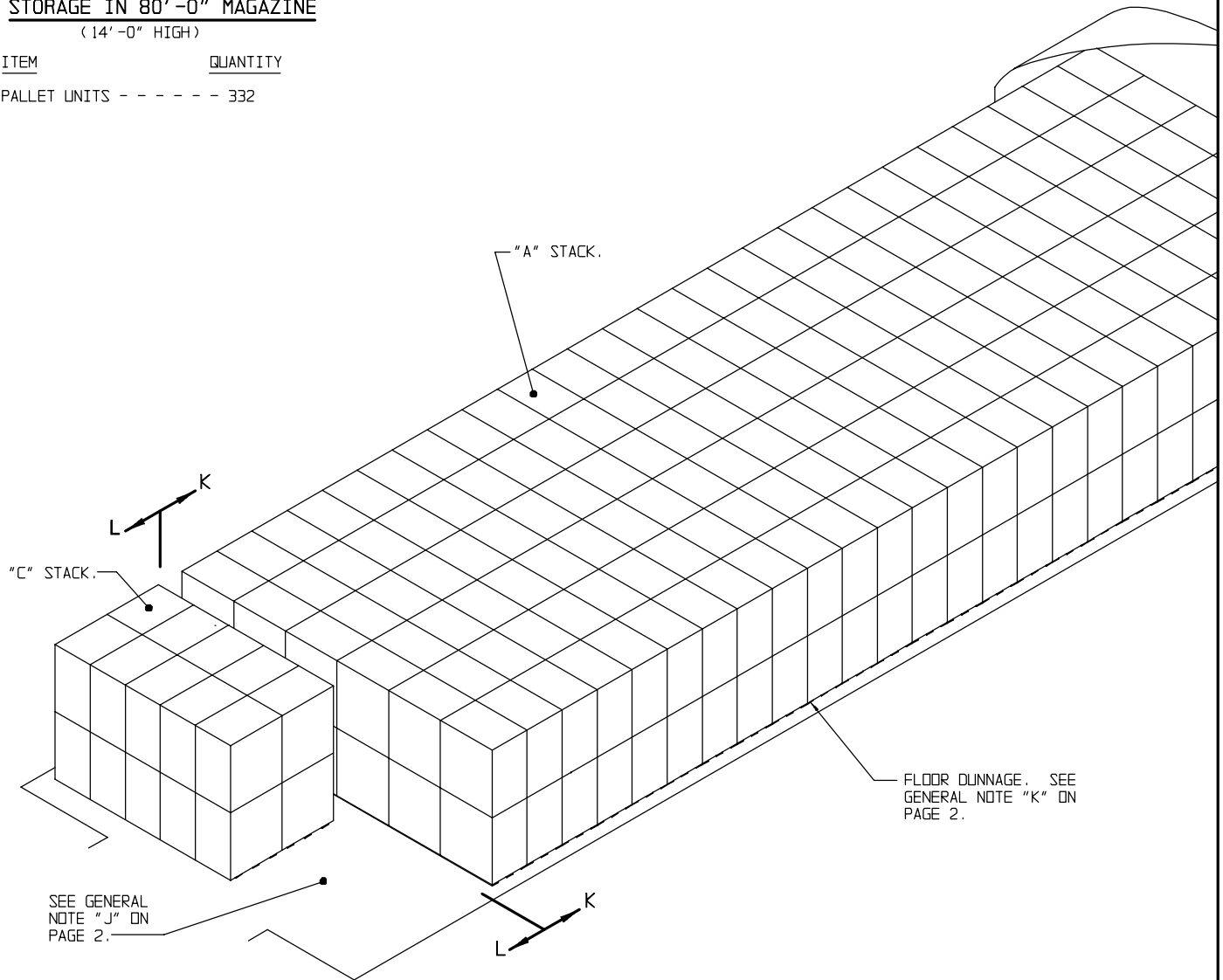


STORAGE IN 80'-0" MAGAZINE

(14'-0" HIGH)

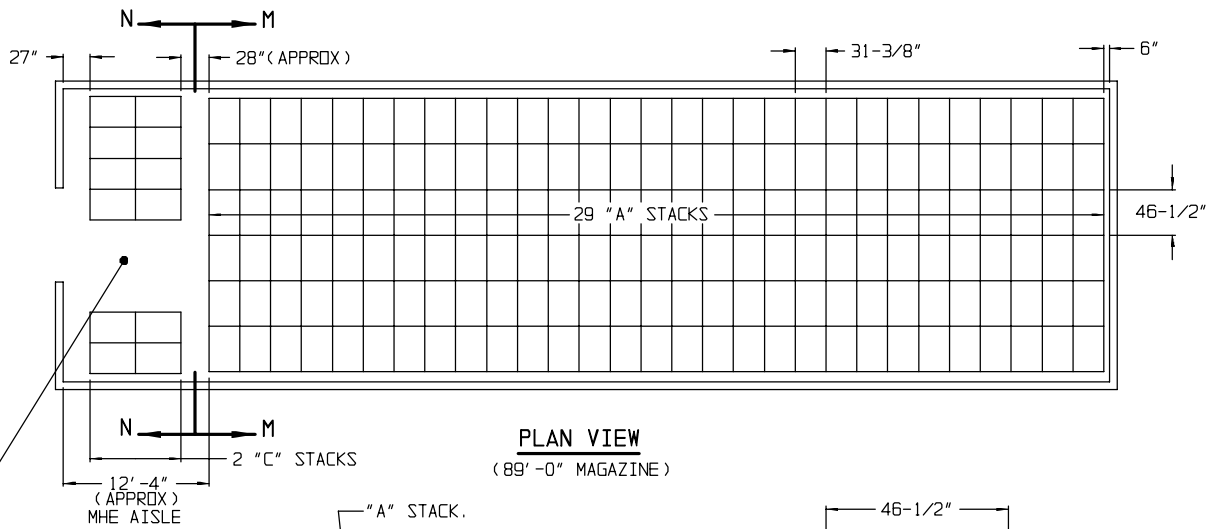
ITEM QUANTITY

PALLET UNITS - - - - - 332



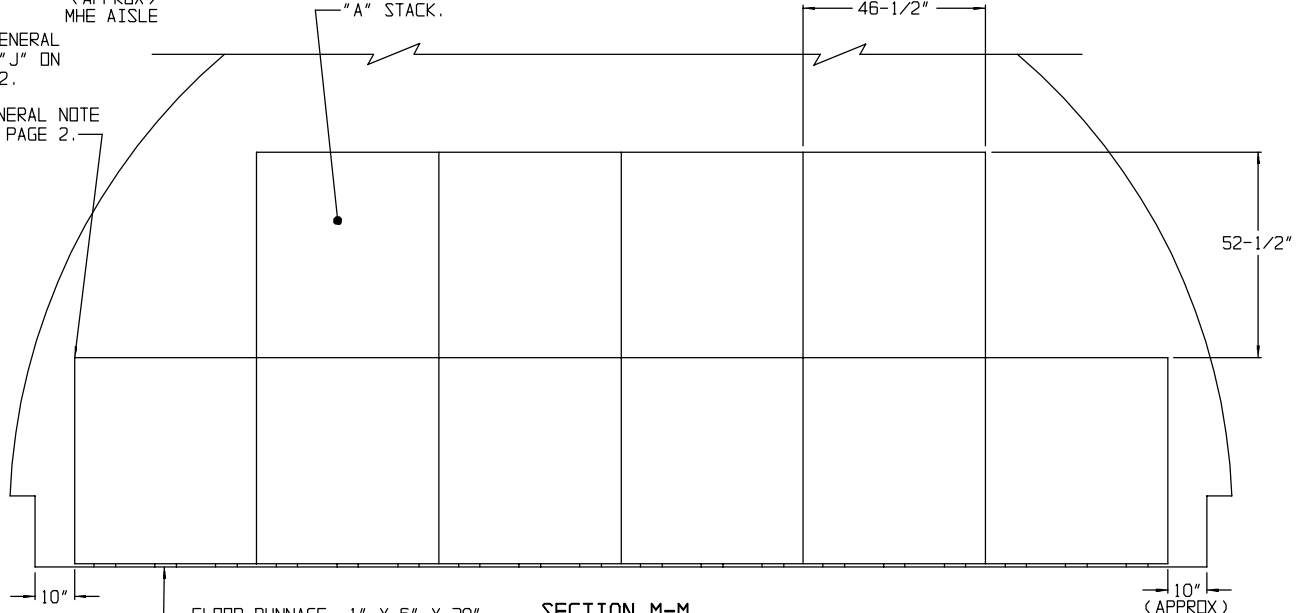
ISOMETRIC VIEW
(80'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



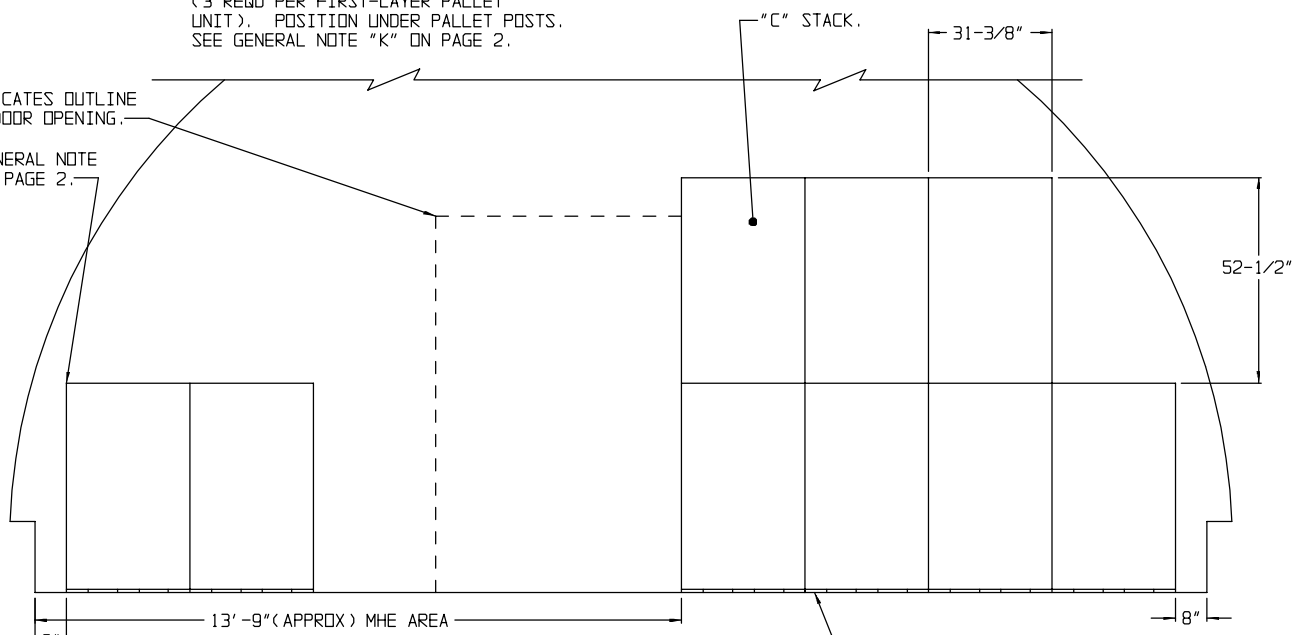
SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



INDICATES OUTLINE OF DOOR OPENING.

SEE GENERAL NOTE "F" ON PAGE 2.

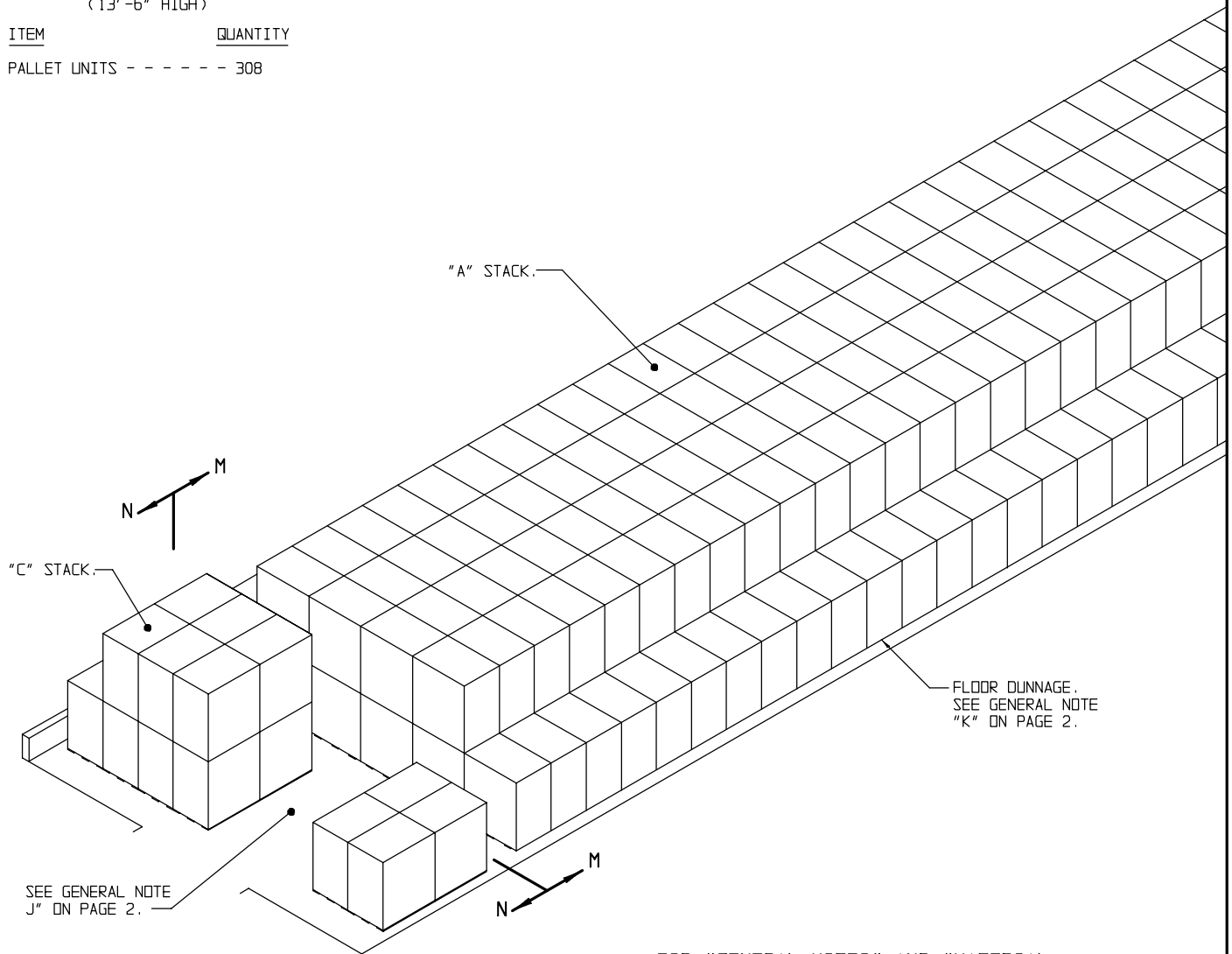


STORAGE IN 89'-0" MAGAZINE

(13'-6" HIGH)

ITEM QUANTITY

PALLET UNITS - - - - - 308



ISOMETRIC VIEW
(89'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 52'-0" DIA MAGAZINE

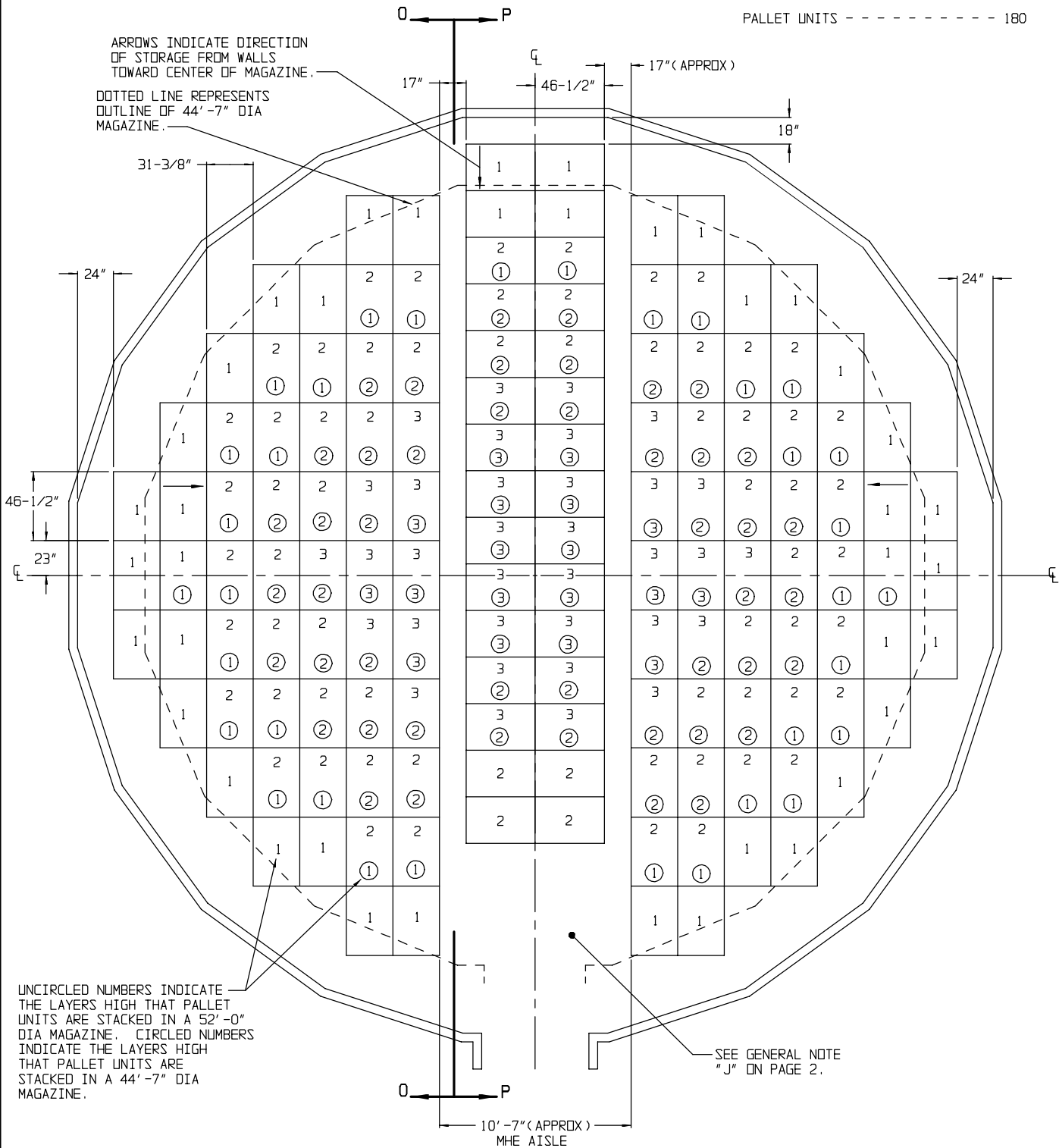
ITEM QUANTITY

PALLET UNITS - - - - - 274

STORAGE IN 44'-7" DIA MAGAZINE

ITEM QUANTITY

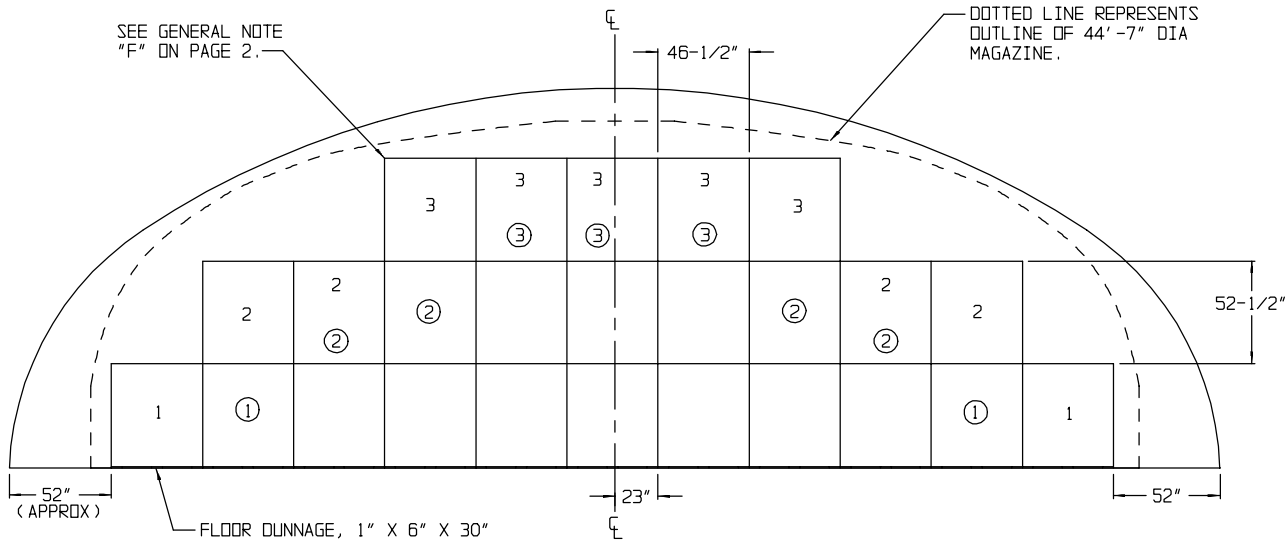
PALLET UNITS - - - - - 180



PLAN VIEW
(52'-0" DIA MAGAZINE)

UNCIRCLED NUMBERS INDICATE THE LAYERS HIGH THAT PALLET UNITS ARE STACKED IN A 52'-0" DIA MAGAZINE. CIRCLED NUMBERS INDICATE THE LAYERS HIGH THAT PALLET UNITS ARE STACKED IN A 44'-7" DIA MAGAZINE.

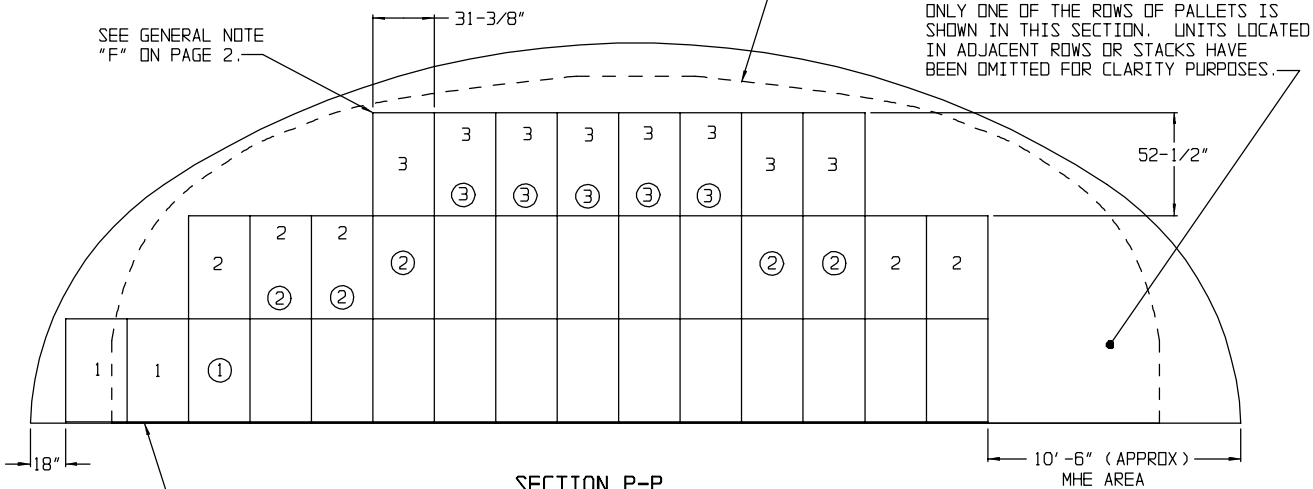
SEE GENERAL NOTE "J" ON PAGE 2.



FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER
PALLET UNIT). POSITION UNDER
PALLET POSTS. SEE GENERAL
NOTE "K" ON PAGE 2.

SECTION 0-0

DOTTED LINE REPRESENTS
OUTLINE OF 44'-7" DIA
MAGAZINE.

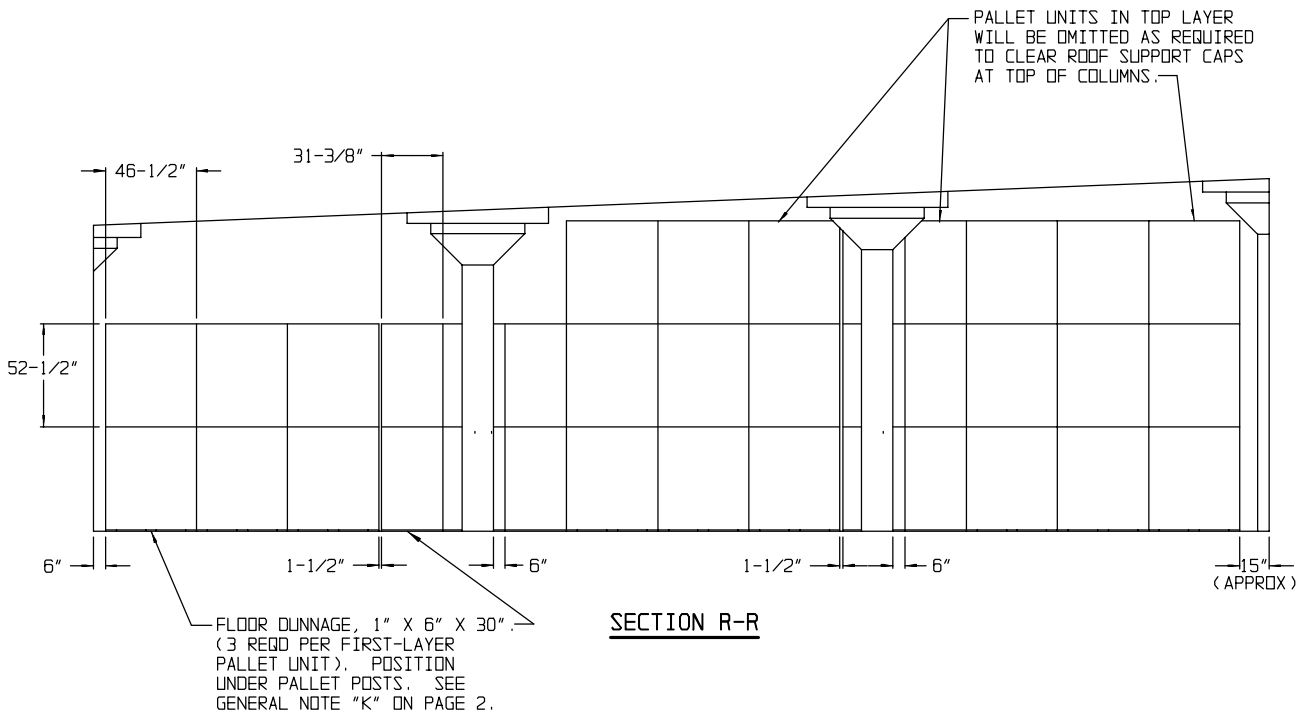
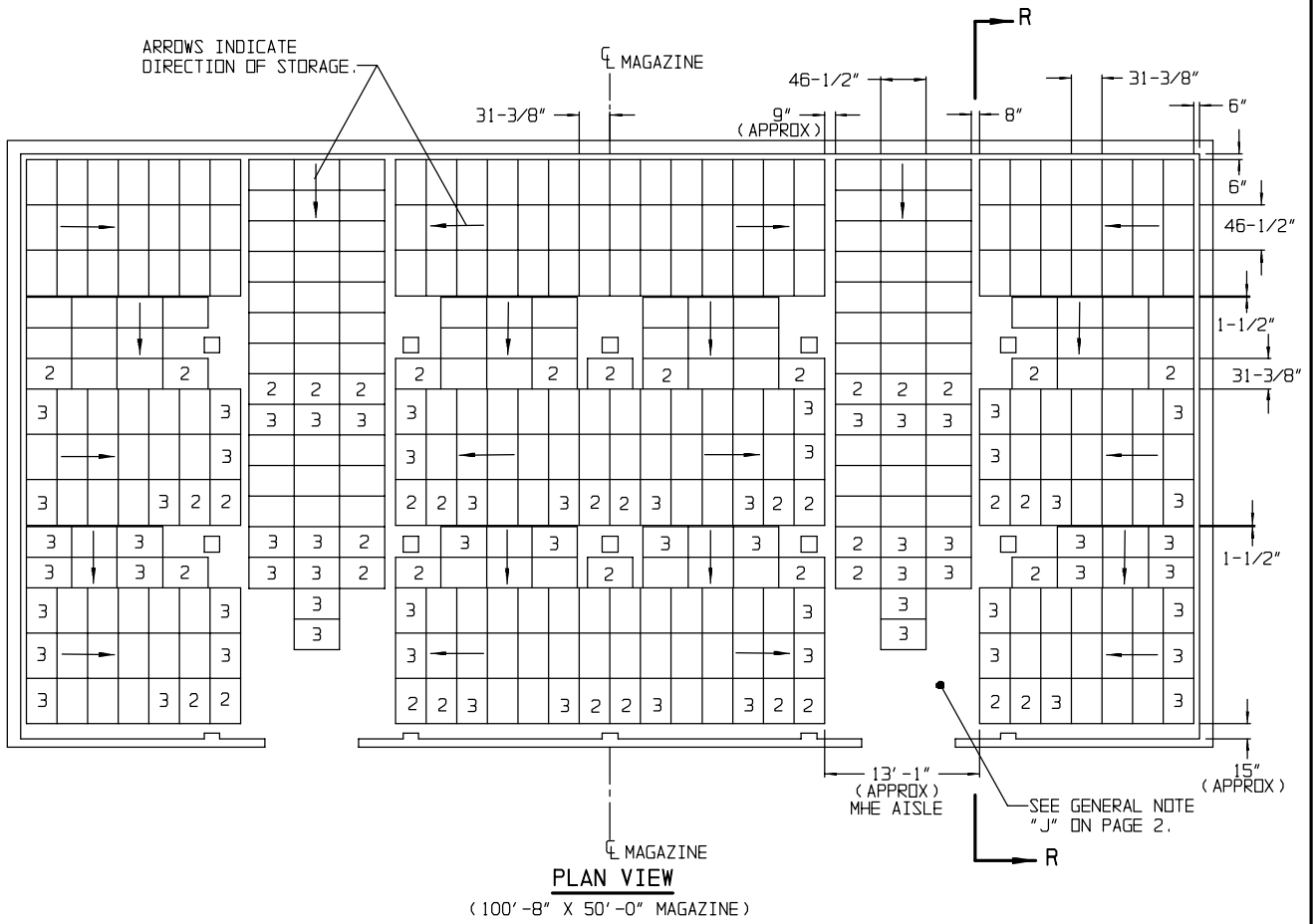


FLOOR DUNNAGE, 1" X 6" X 30"
(3 REQD PER FIRST-LAYER
PALLET UNIT). POSITION
UNDER PALLET POSTS. SEE
GENERAL NOTE "K" ON PAGE 2.

SECTION P-P

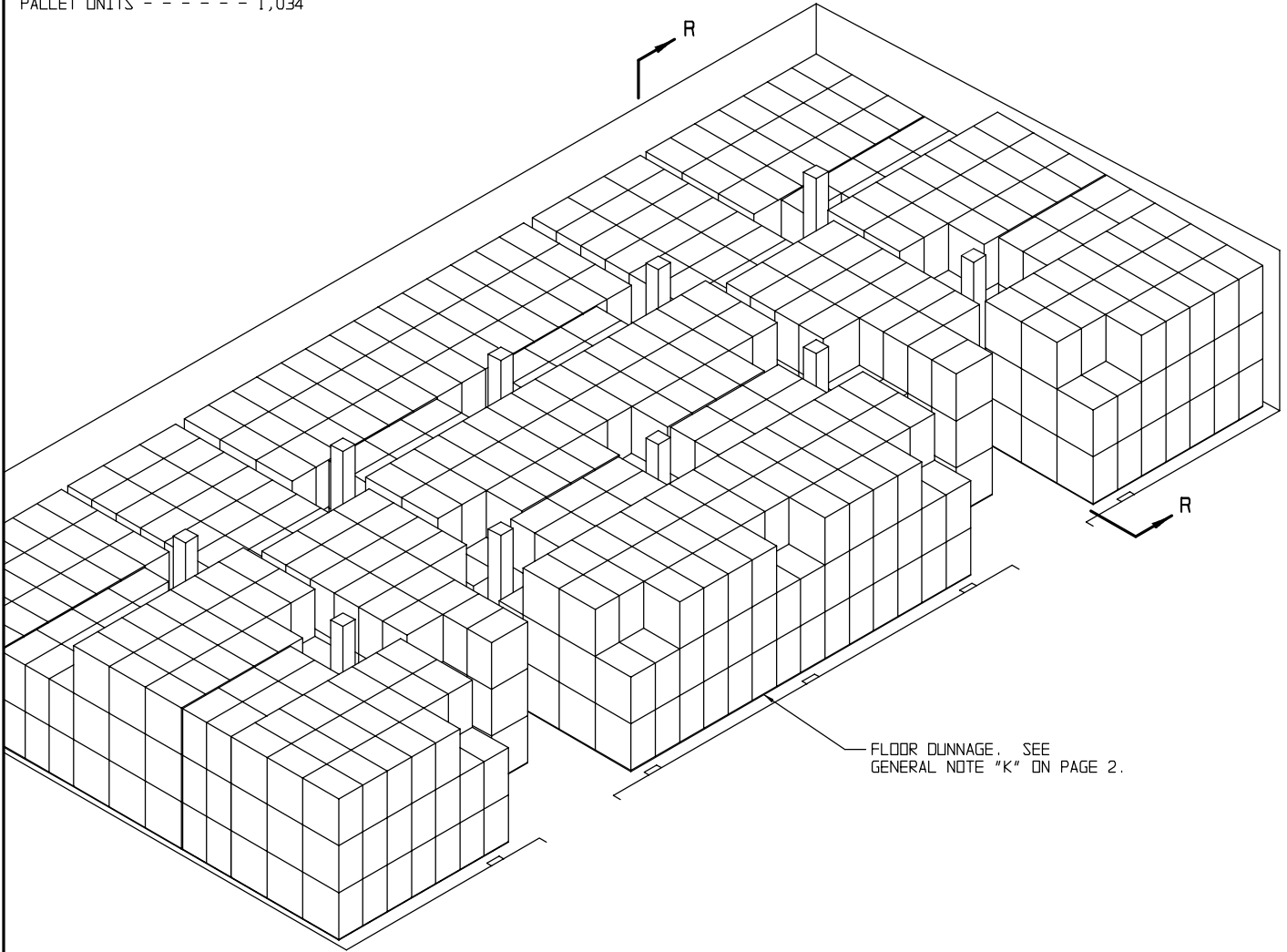
ONLY ONE OF THE ROWS OF PALLETS IS
SHOWN IN THIS SECTION. UNITS LOCATED
IN ADJACENT ROWS OR STACKS HAVE
BEEN OMITTED FOR CLARITY PURPOSES.

FOR "GENERAL NOTES" AND "MATERIAL
SPECIFICATIONS", SEE PAGE 2.



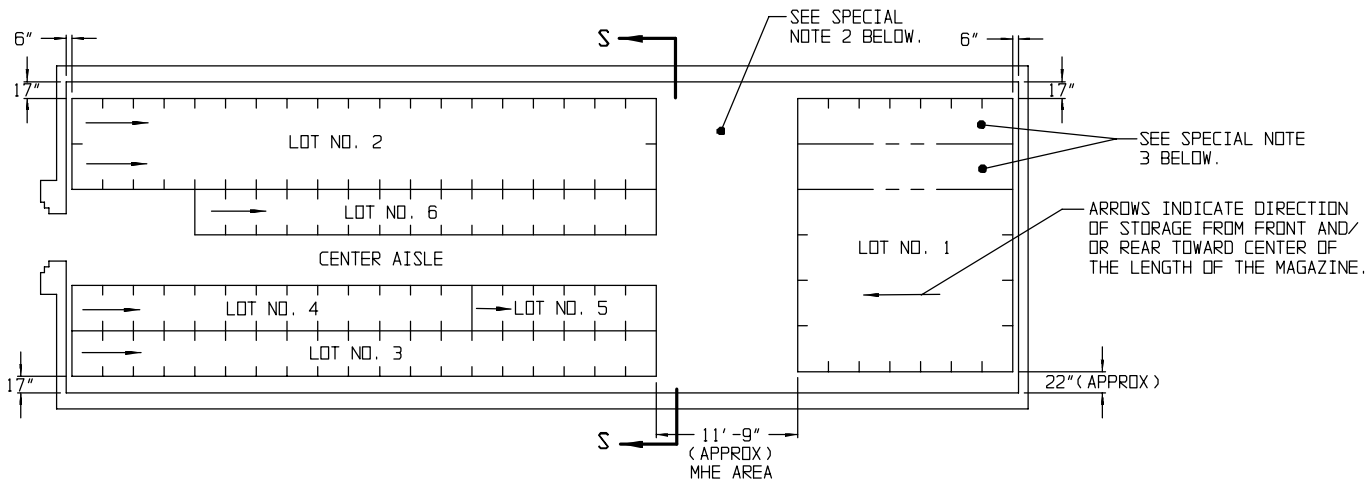
STORAGE IN 100'-8" X 50'-0" MAGAZINE

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	1,034

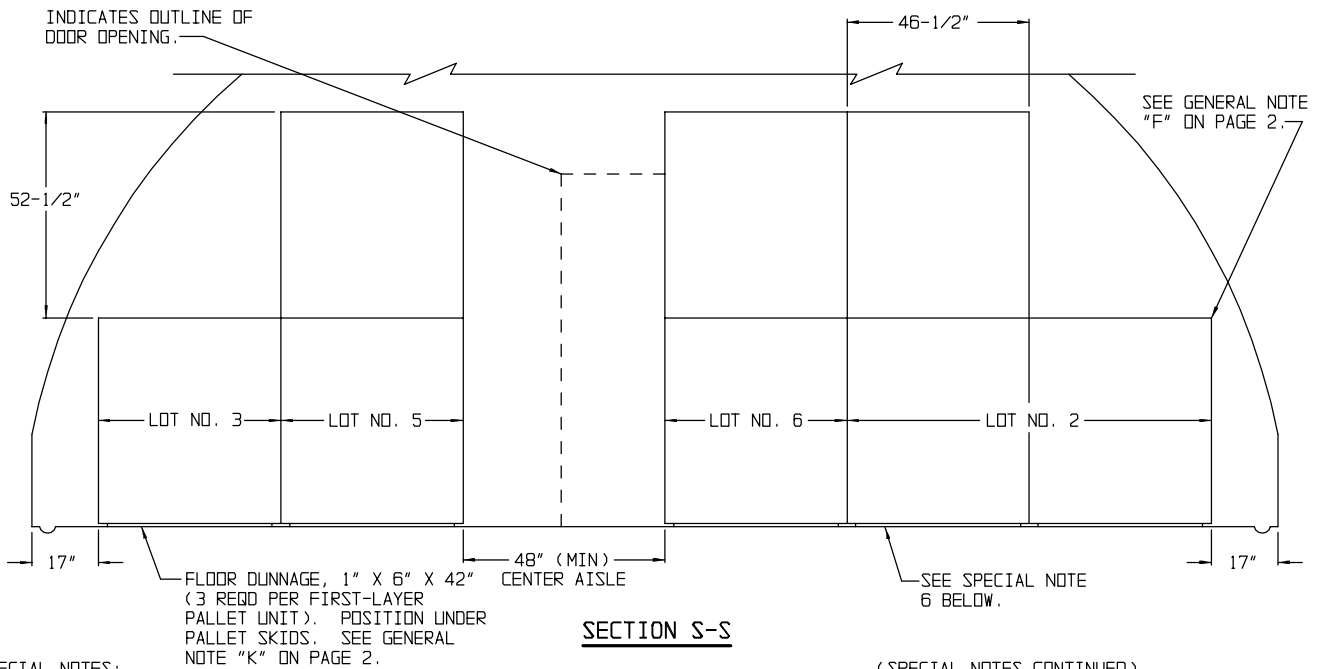


ISOMETRIC VIEW
(100'-8" X 50'-0" MAGAZINE)

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PLAN VIEW
(81'-0" IGLOO SHOWN)



SECTION S-S

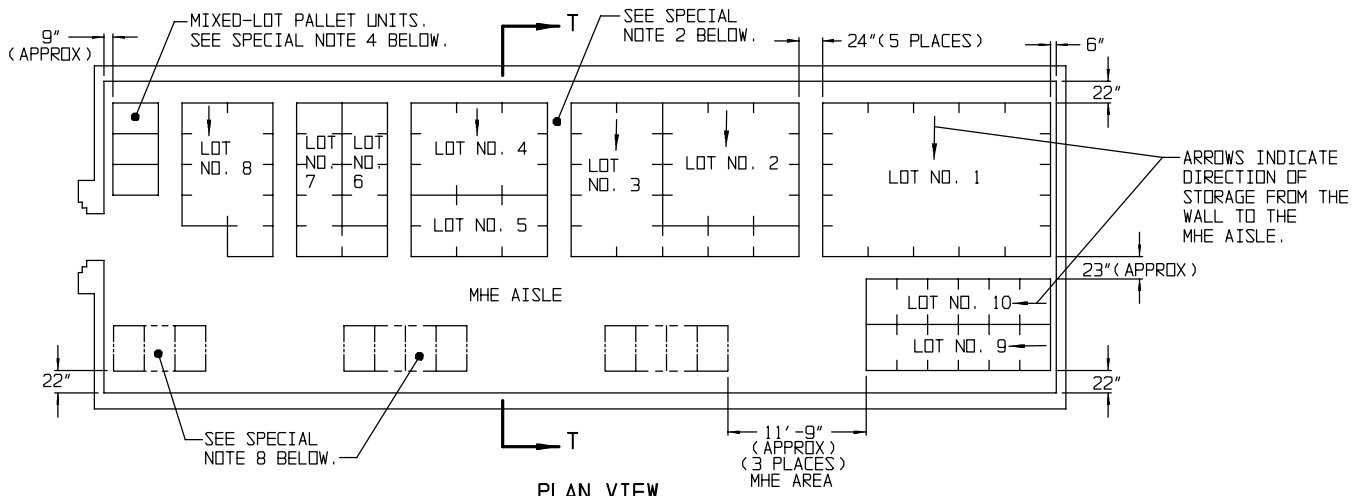
SPECIAL NOTES:

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO RELATIVELY LARGE LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
2. AN INSPECTION/INVENTORY AISLE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING ROWS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. A CENTER AISLE WILL NOT BE REQUIRED IN THE REAR AREA AS LONG AS EACH LOT IS ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
4. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. A SINGLE-LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THAT LOT. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

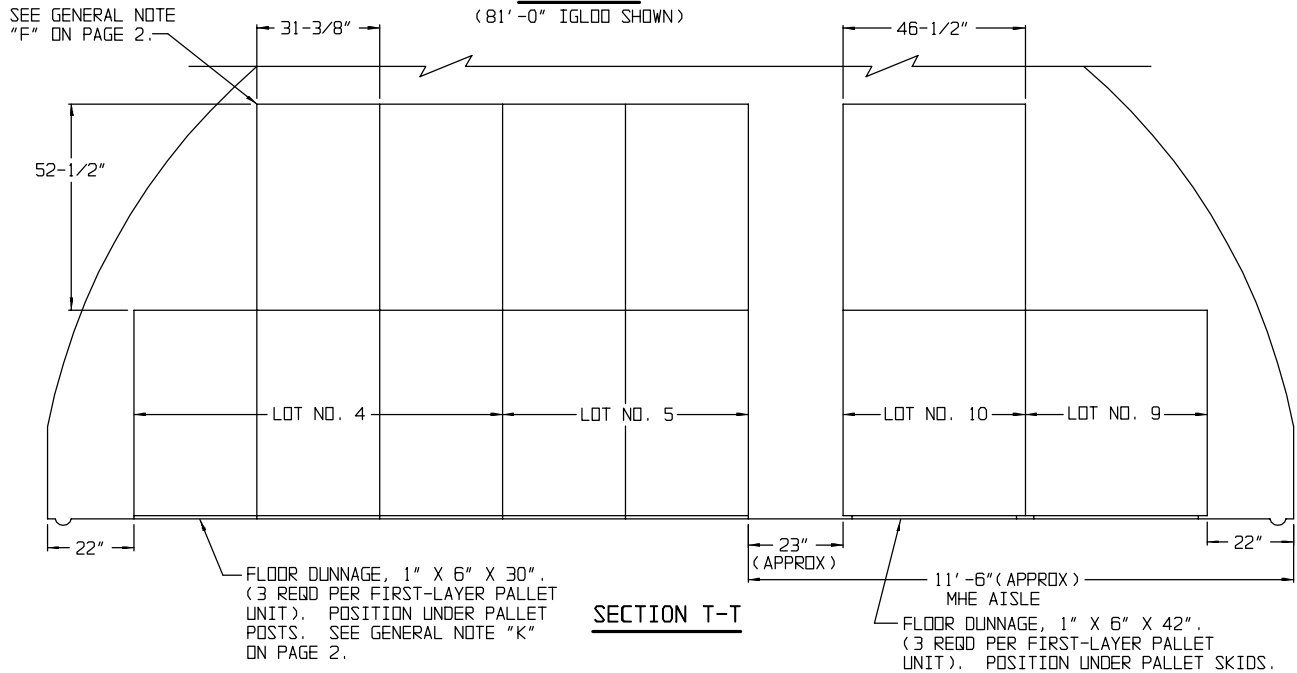
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(SPECIAL NOTES CONTINUED)

5. FOR STORAGE OF MULTIPLE-LOTS, THE DISTANCE FROM THE SIDEWALLS WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
6. 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.



PLAN VIEW



SPECIAL NOTES:

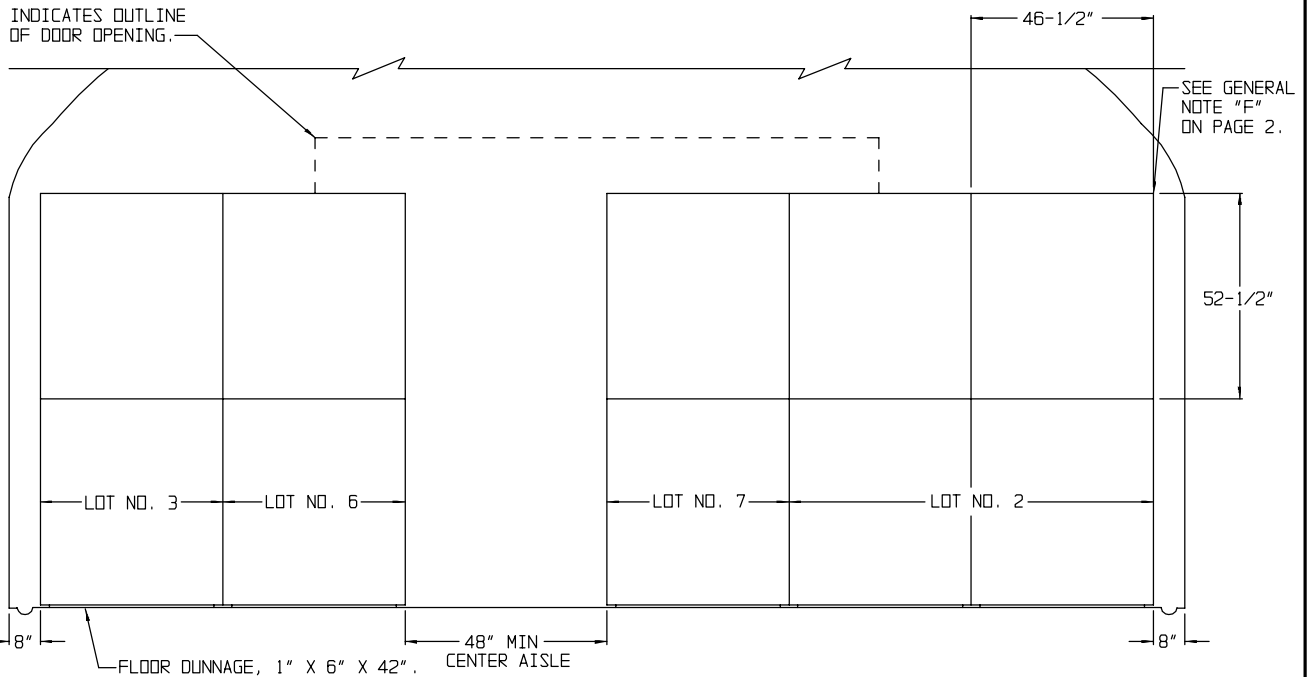
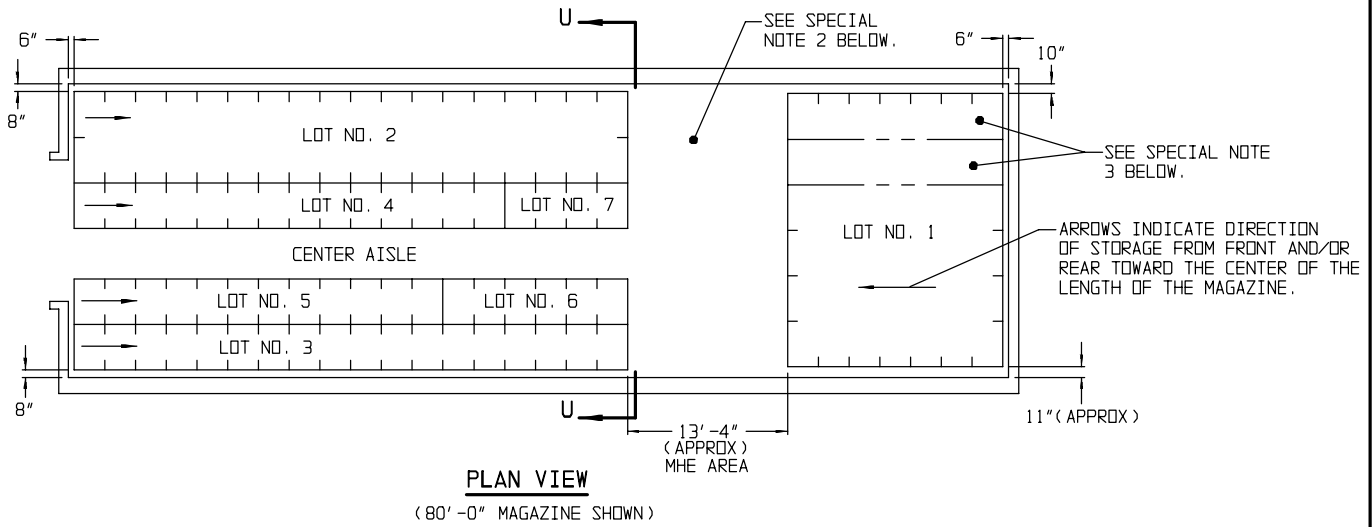
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2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY 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 INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL CONTAINERS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS AND SAFE HANDLING IS NOT JEOPARDIZED.

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(SPECIAL NOTES CONTINUED)

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. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA, AS SET FORTH ON THIS PAGE, MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF PALLET UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". MORE OR FEWER UNITS THAN SHOWN MAY BE STORED AT ANY ONE OF THE ADDITIONAL STORAGE LOCATIONS. AN 11'-9" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL LOCATION" BY FORKLIFT TRUCK. THIS OPERATING AREA IS BASED ON REQUIREMENTS OF FORKLIFT TRUCKS COMMONLY USED IN STORAGE MAGAZINES. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE. HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



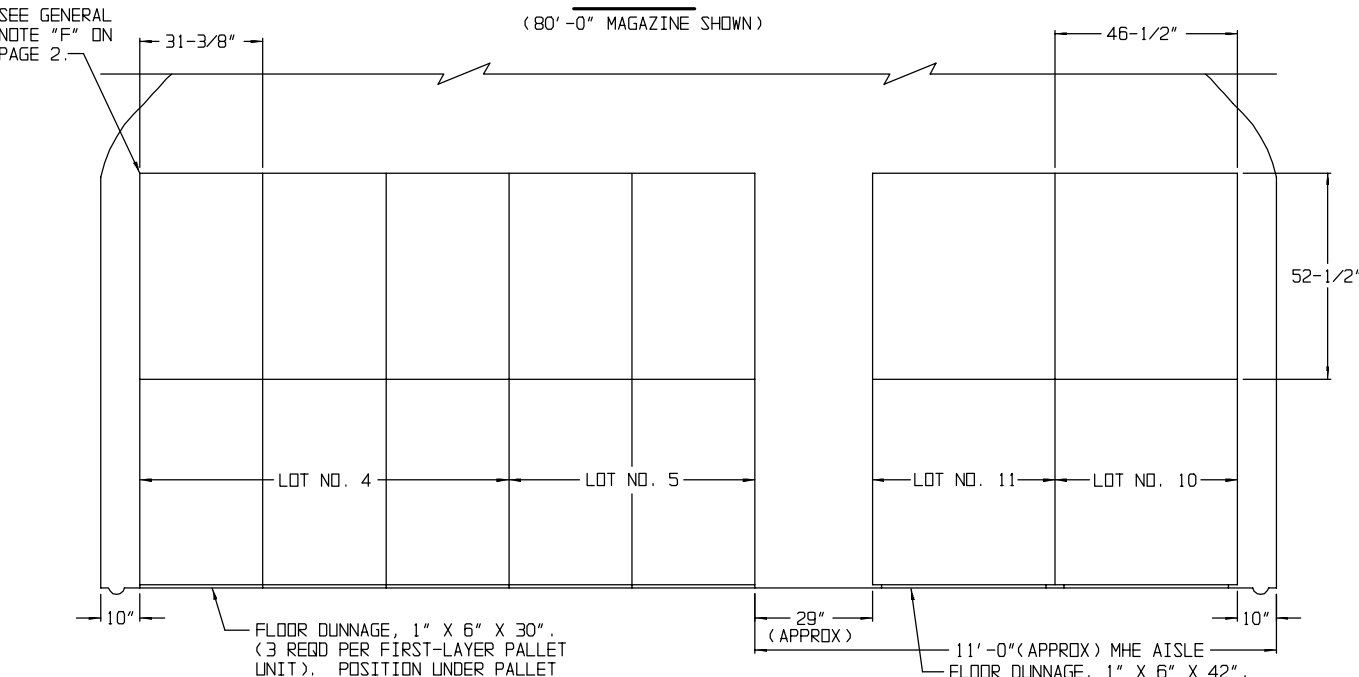
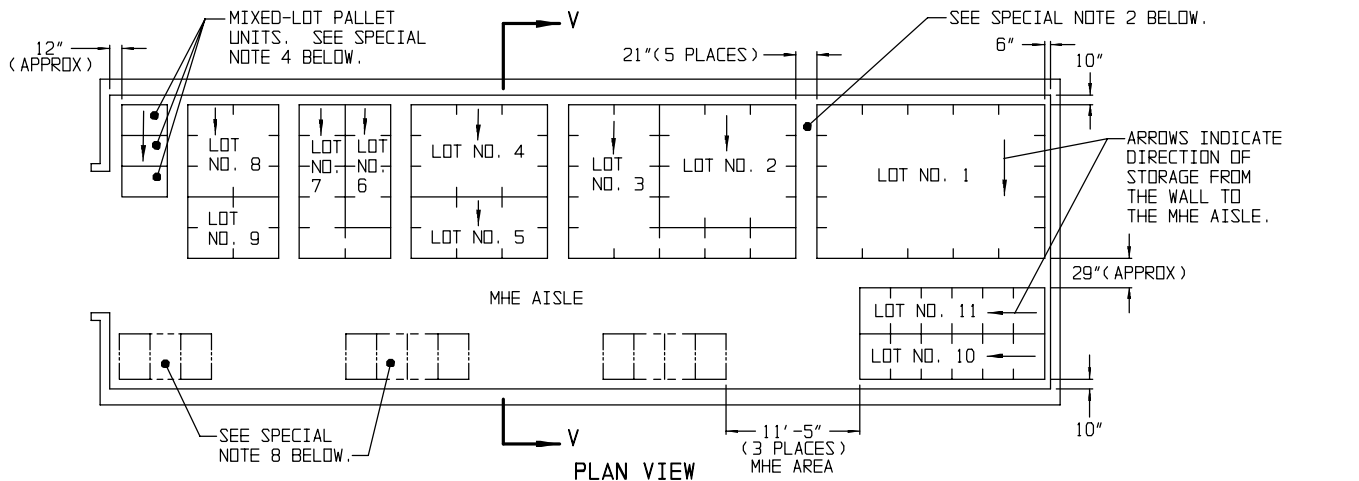
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2. AN INSPECTION/INVENTORY AISLE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING ROWS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. A CENTER AISLE WILL NOT BE REQUIRED IN THE REAR AREA AS LONG AS EACH LOT IS ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
4. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. A SINGLE-LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THAT LOT. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED

(SPECIAL NOTES CONTINUED)

5. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
6. 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.

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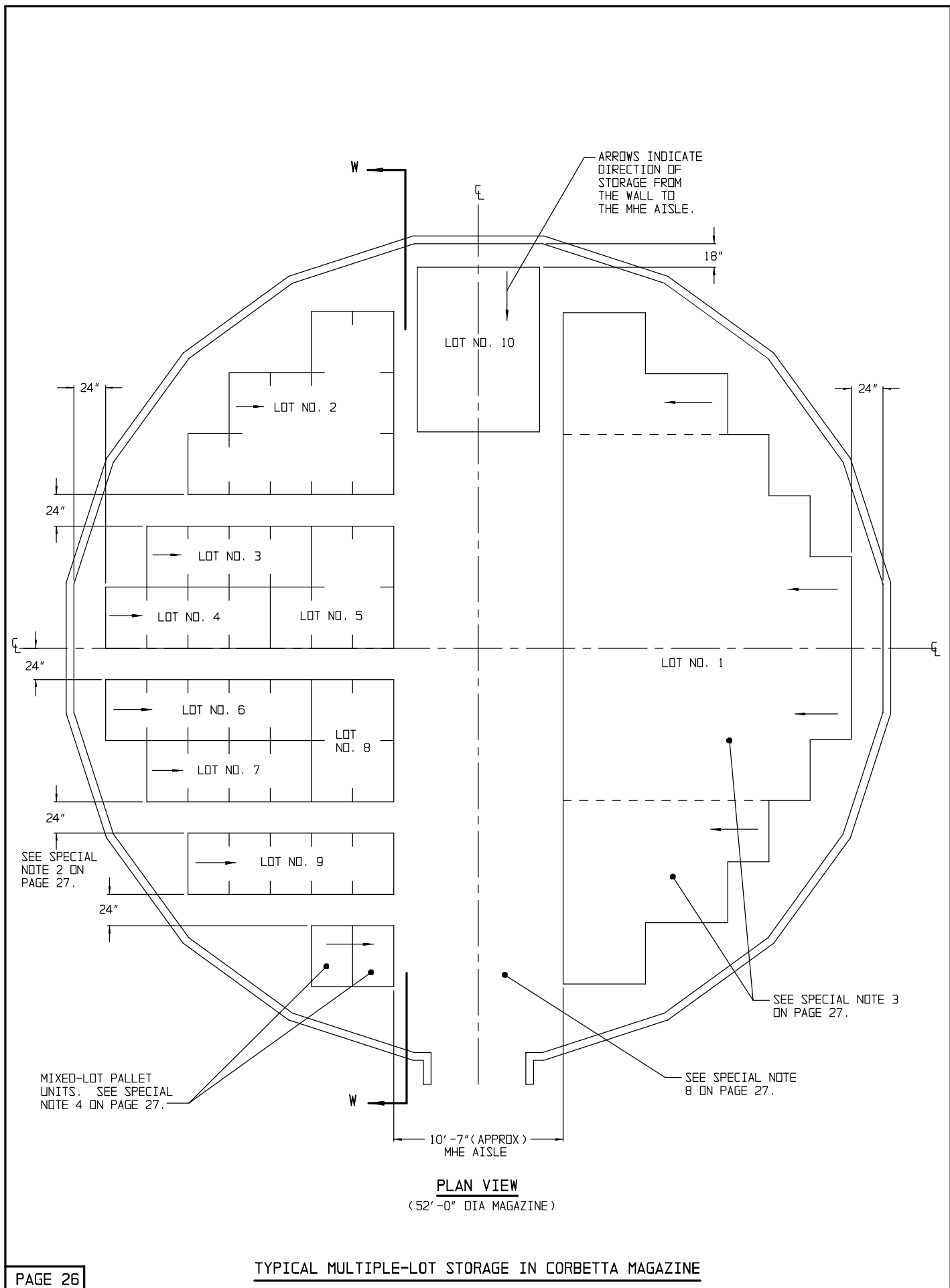


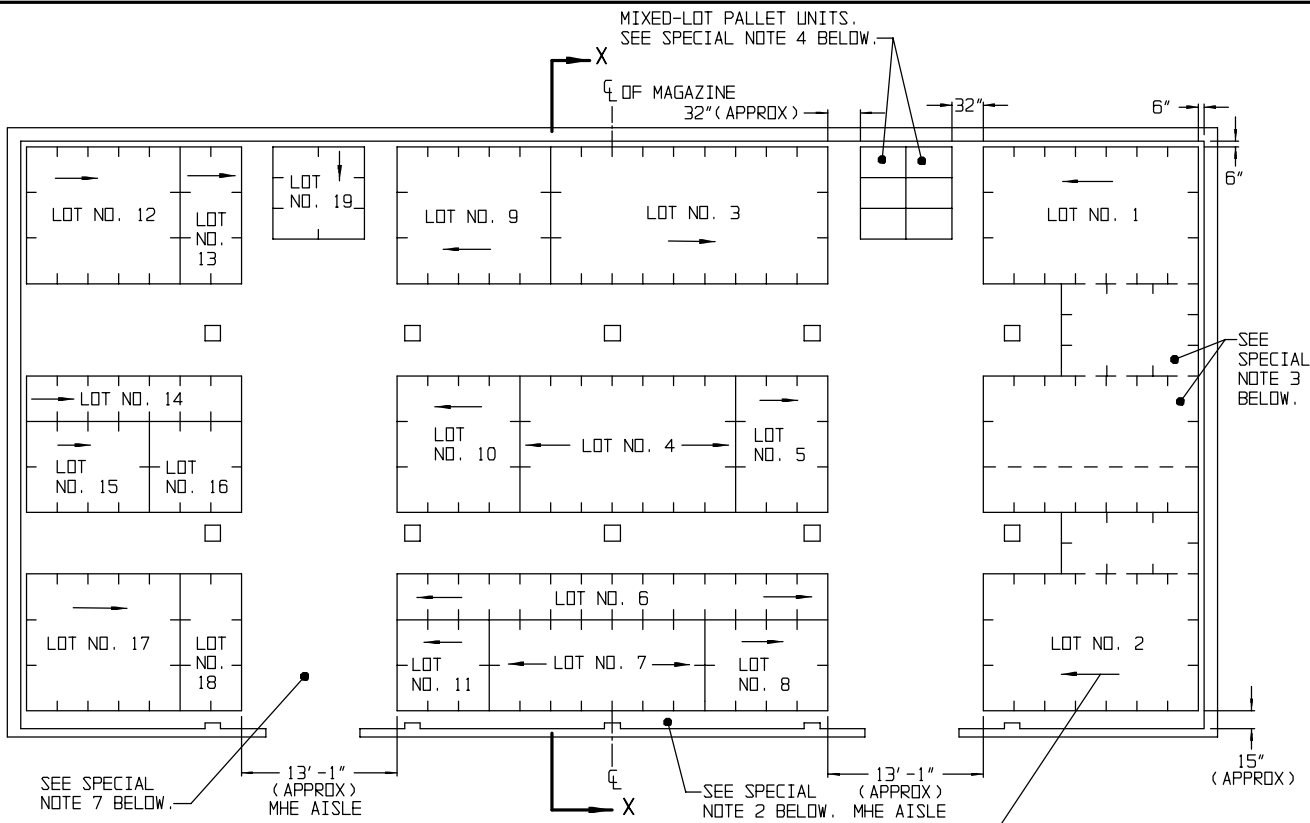
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2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY 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 INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL CONTAINERS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
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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. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF PALLET UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". MORE OR FEWER STACKS THAN SHOWN MAY BE STORED AT ANY ONE OF THE ADDITIONAL STORAGE LOCATIONS. AN 11'-5" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL LOCATION" BY FORKLIFT TRUCK. THIS OPERATING AREA IS BASED ON REQUIREMENTS OF FORKLIFT TRUCKS COMMONLY USED IN STORAGE MAGAZINES. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT MOVEMENT WITHIN A MAGAZINE. HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

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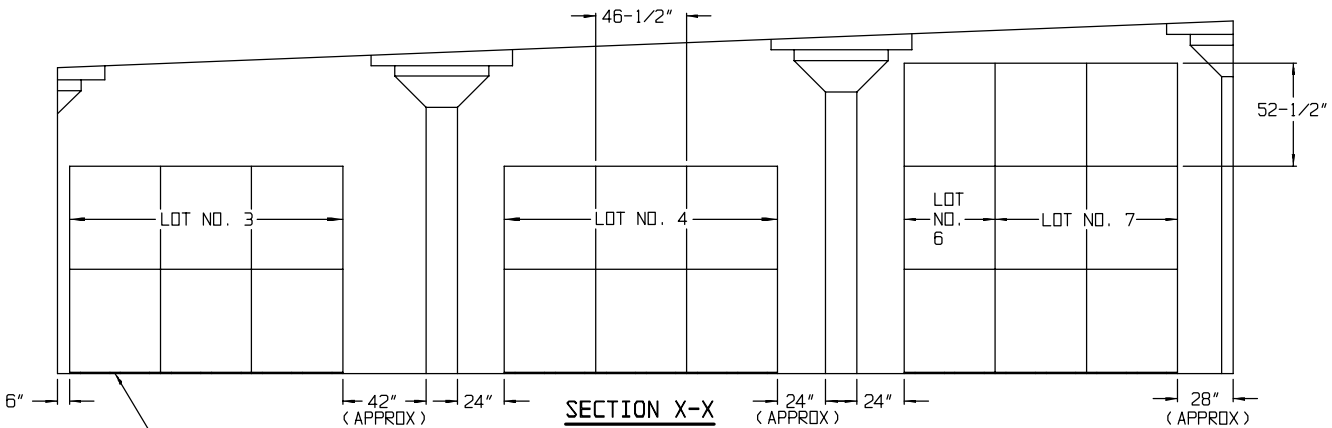
TYPICAL MULTIPLE-LOT STORAGE IN STRADLEY MAGAZINE





PLAN VIEW
(100'-8" X 50'-0" MAGAZINE)

ARROWS INDICATE DIRECTION OF STORAGE FROM WALLS AND/OR CENTER AREA TOWARD THE MHE AISLE.



SECTION X-X

FLOOR DUNNAGE, 1" X 6" X 30".
(3 REQD PER FIRST-LAYER PALLET UNIT). POSITION UNDER PALLET POSTS.
SEE GENERAL NOTE "K" ON PAGE 2.

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED) SEE SPECIAL NOTE 2 BELOW.

1. THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" 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 ROWS SIMILAR TO THOSE SHOWN IN THE CENTER AREA OR AS TYPICALLY INDICATED BY DOTTED LINES. EACH ADDITIONAL LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
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5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWENTY-FOUR (24) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEDPAROIZED.
6. 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.
7. THE MHE AISLE MAY BE USED TO STORE ONE OR MORE STACKS OF ADDITIONAL LOTS OR ADDITIONAL ITEMS THAT ARE FROM A LOT ADJACENT TO THE MHE AISLE. THIS ADDITIONAL STORAGE IS TO BE ARRANGED IN A MANNER SIMILAR TO ARRANGEMENTS DEPICTED ON PAGES 23 AND 25 FOR THE "ADDITIONAL STORAGE LOCATIONS" (SHOWN BY DOTTED LINES). ADEQUATE SPACE FOR MHE OPERATION, AS DESCRIBED ON PAGES 23 AND 25, 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.

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