

STORAGE IN APPROVED MAGAZINES OF COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY WOODEN PALLETS

PA117 SERIES CONTAINER

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U.S. ARMY MATERIEL COMMAND DRAWING			
APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND <i>msk</i> <i>David A. Piskovich</i> SMCAR-ESK	DRAFTSMAN	D. WHITMORE	
	ENGINEER	M. DAEUMER	
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND <i>John L. Bryant</i> U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL	SUPPLY ENGINEERING DIVISION	<i>William F. Ernst</i>	
	LOGISTICS ENGINEERING OFFICE	<i>William F. Ernst</i>	
MARCH 1992			
CLASS	DIVISION	DRAWING	FILE
19	48	4145 /11A	1-2-3-4-14 PM1003

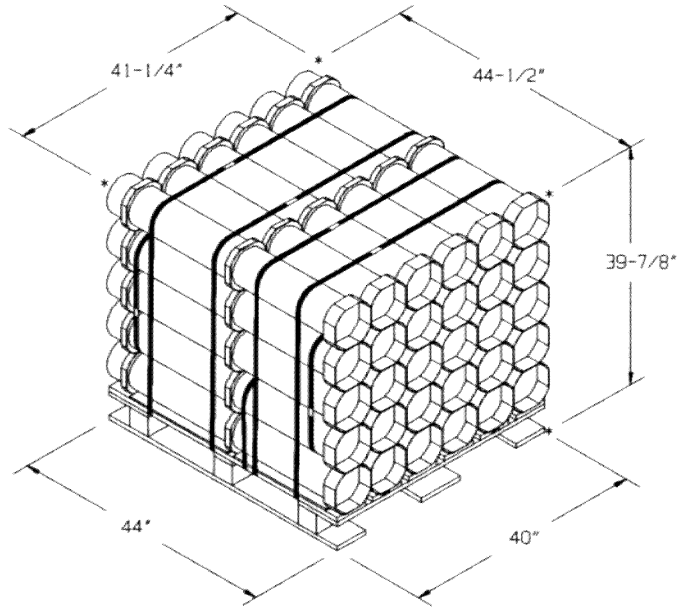
DO NOT SCALE

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 HEREIN ARE APPLICABLE TO COMPLETE ROUNDS PACKED IN PA117 SERIES CONTAINERS ON A 40" BY 44" WOODEN PALLET.
- C. FOR DETAIL OF THE PALLET UNIT, SEE PAGE 3. FOR UNITIZATION PROCEDURES, SEE U. S. ARMY AMC DRAWING 19-48-4079/8A-20PM1002.
- PALLET UNIT:
DIMENSIONS - - - 41-1/4" LONG BY 44-1/2" WIDE BY 39-7/8" HIGH
GROSS WEIGHT - - - 1,804 POUNDS (APPROX)
CUBE - - - - - 41.8 CUBIC FEET (APPROX)
- D. THE STORAGE PROCEDURES DEPICTED 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 HERE-IN WILL BE FOLLOWED.
- 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. 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. IF AVAILABLE MHE PERMITS, ADDITIONAL PALLETIZED UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- K. IF THE QUANTITY OF PALLET UNITS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HERE-IN DUE TO THE PERMITTED "EXPLOSIVE LIMIT" OR FOR ANY OTHER REASON, SUCH AS A LIMITED QUANTITY TO BE STORED, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.
- L. THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER UNITS IN THE STACKS SHOWN IN THE STORAGE VIEWS HERE-IN, UNLESS TWO UPPER PALLET UNITS 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.
- M. STACK STABILIZING DUNNAGE IN THE FORM OF "SHIMS" PROBABLY WILL BE REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS. SHIM MATERIAL OF VARIOUS THICKNESS WILL BE USED AS REQUIRED TO GAIN LEVEL OR NEARLY LEVEL STACKS AND SOLID BEARING WITHIN A STACK FROM THE FLOOR OF A MAGAZINE TO THE TOP OF THE STACK.
- N. 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 0.454KG.
- O. 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 24 THRU 30.
- P. 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 23 CAN ALSO BE ADAPTED FOR THE STORING OF MORE THAN ONE LOT, HOWEVER, THE USE OF A STAGGERED LAYER STORAGE PATTERN AS SHOWN IS PROHIBITED. MULTIPLE LOTS OF PALLET UNITS WHEN STORED IN ACCORDANCE WITH THE BASIC STORAGE PATTERN MAY BE STORED WITH ONE OR MORE STACKS USED FOR EACH LOT. LOTS WILL NOT BE MIXED, EXCEPT TO THE EXTENT THAT UNITS OF ONE LOT WILL NOT BE STACKED ON TOP OF PALLET UNITS FROM ANOTHER LOT. MULTIPLE LOTS OF PALLET UNITS MAY BE STORED WITH ONE OR MORE ROWS USED FOR EACH LOT. (A ROW RUNS FROM THE REAR OF THE MAGAZINE TO THE FRONT). EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE GENERAL NOTES AND IN THE SPECIAL NOTES ON PAGES 24 THRU 30.
- Q. ANY "LIGHT" PALLET UNIT THAT DOES NOT CONTAIN A FULL QUANTITY OF ROUNDS WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- R. A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE ONE INCOMPLETE, UN-BANDED PARTIAL UNIT LOAD PER LOT IN A STORAGE STRUCTURE. PRIOR TO SHIPMENT OF A PARTIAL UNIT, A LAYER MUST BE COMPLETED, IF APPLICABLE, BY THE POSITIONING OF ONE OR MORE FILLERS ASSEMBLIES, AS SPECIFIED BY DRAWING 19-48-4079/8A-20PM1002. THE UNIT MUST THEN BE RE-BANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.
- S. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.

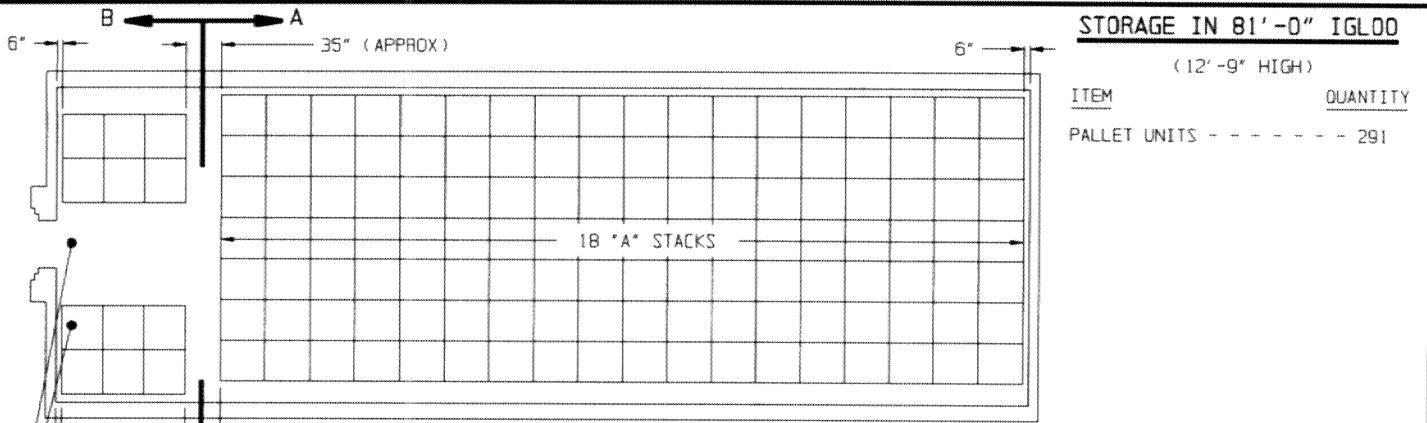
(CONTINUED AT RIGHT)



PALLET UNIT

UNIT WEIGHT - - - - - 1,804 LBS (APPROX)

DETAIL



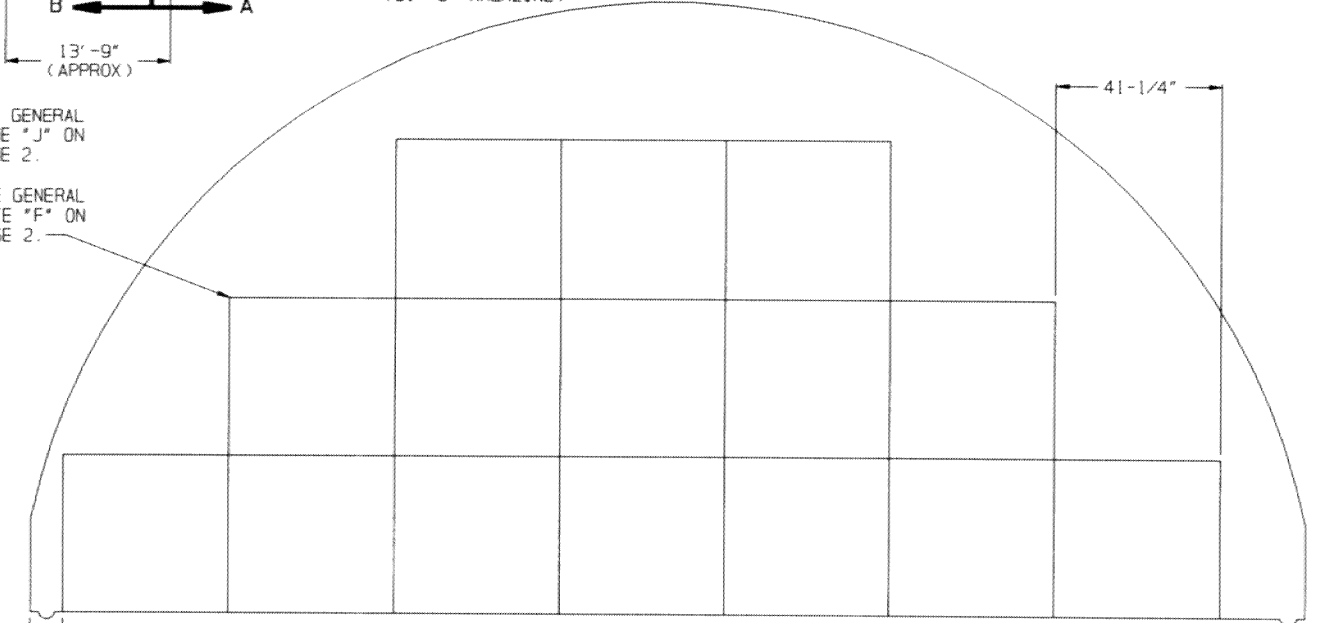
STORAGE IN 81'-0" IGLOO
(12'-9" HIGH)

ITEM	QUANTITY
PALLET UNITS - - - - -	291

PLAN VIEW
(81'-0" MAGAZINE)

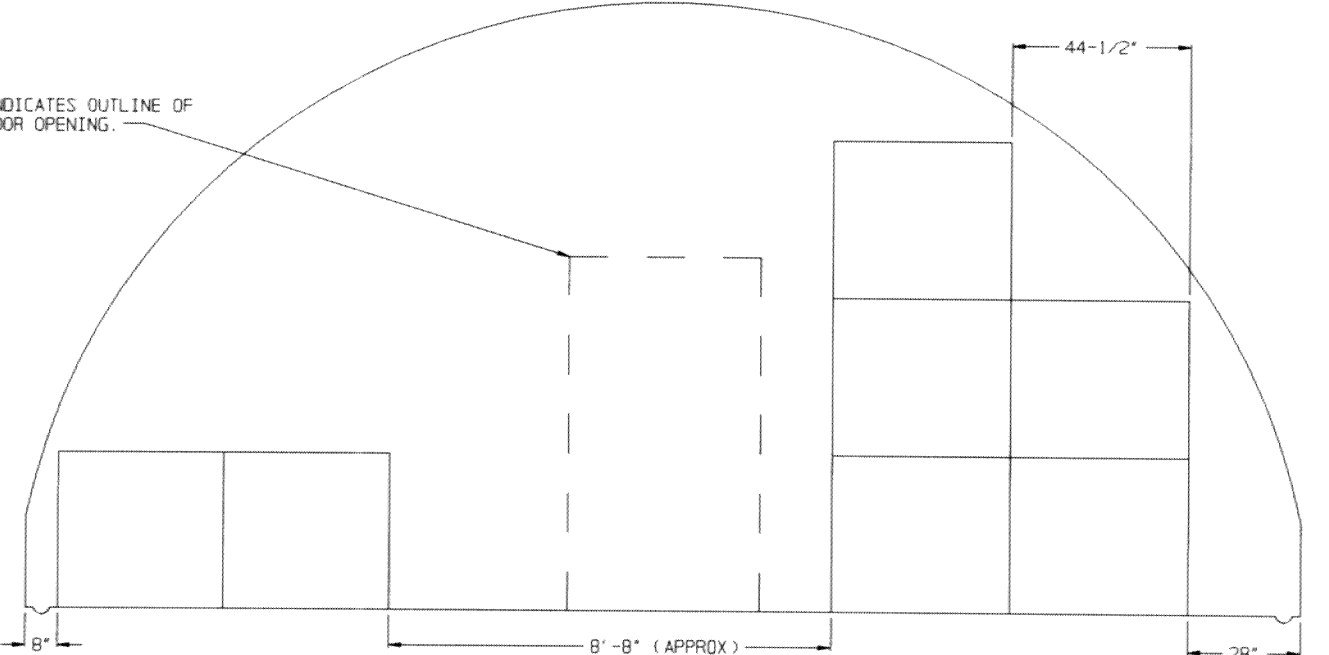
SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION A-A
(*A* STACK, 15 PALLET UNITS)

INDICATES OUTLINE OF DOOR OPENING.



SECTION B-B
(*C* STACK, 7 PALLET UNITS)

STORAGE IN 60'-8" IGL00

(12'-9" HIGH)

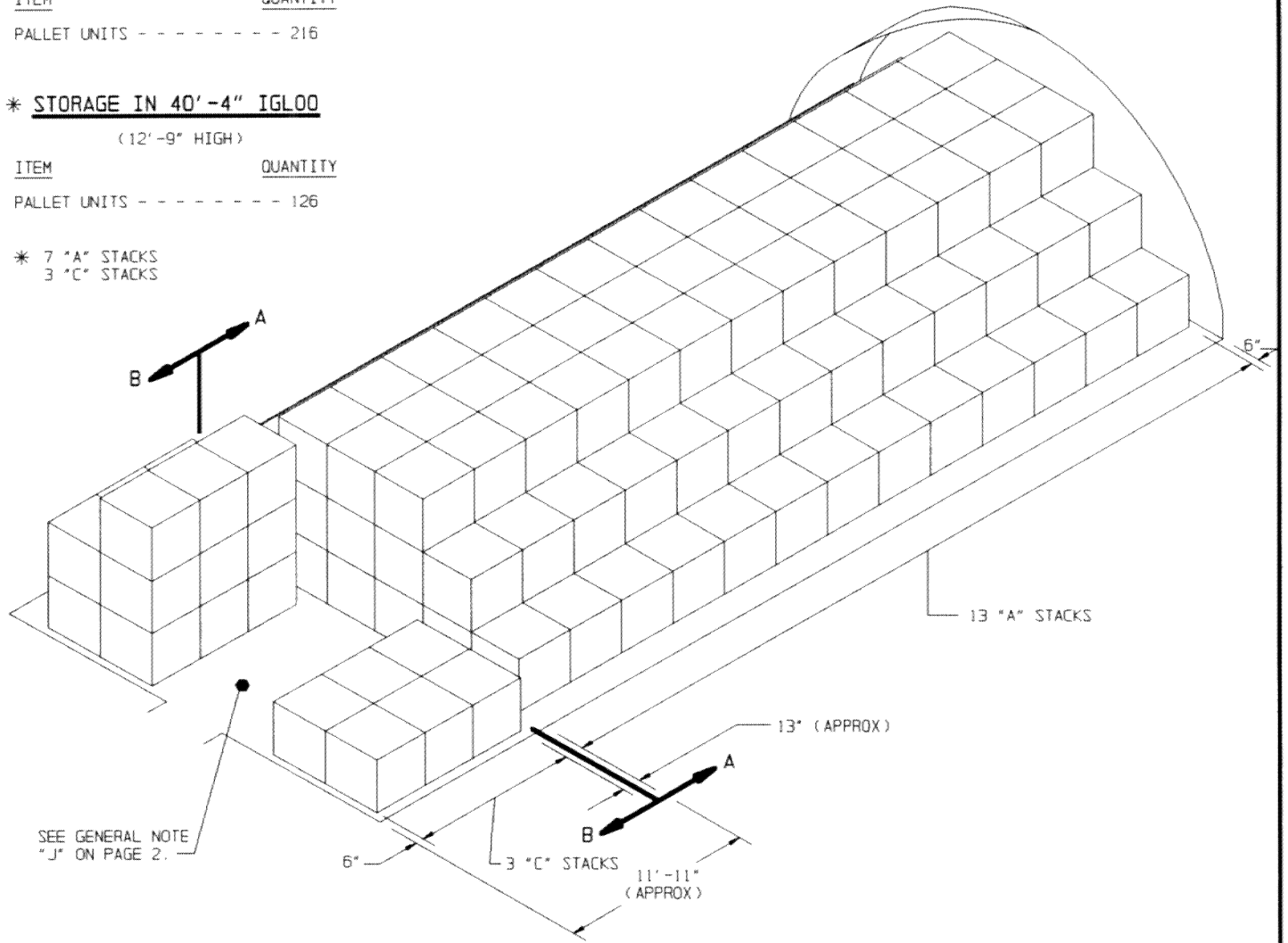
<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	216

* STORAGE IN 40'-4" IGL00

(12'-9" HIGH)

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	126

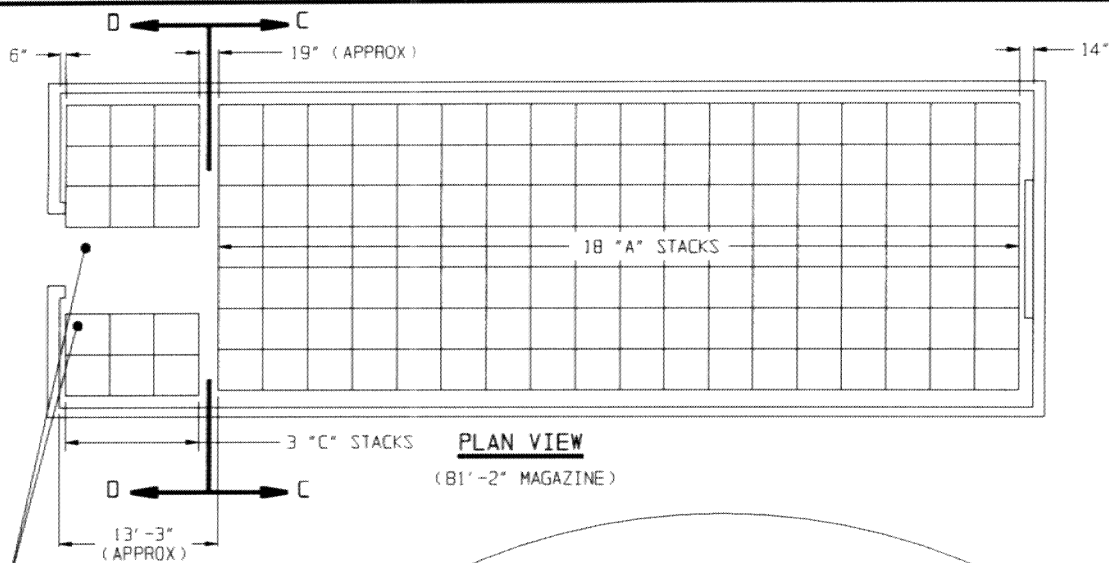
- * 7 "A" STACKS
- 3 "C" STACKS



ISOMETRIC VIEW

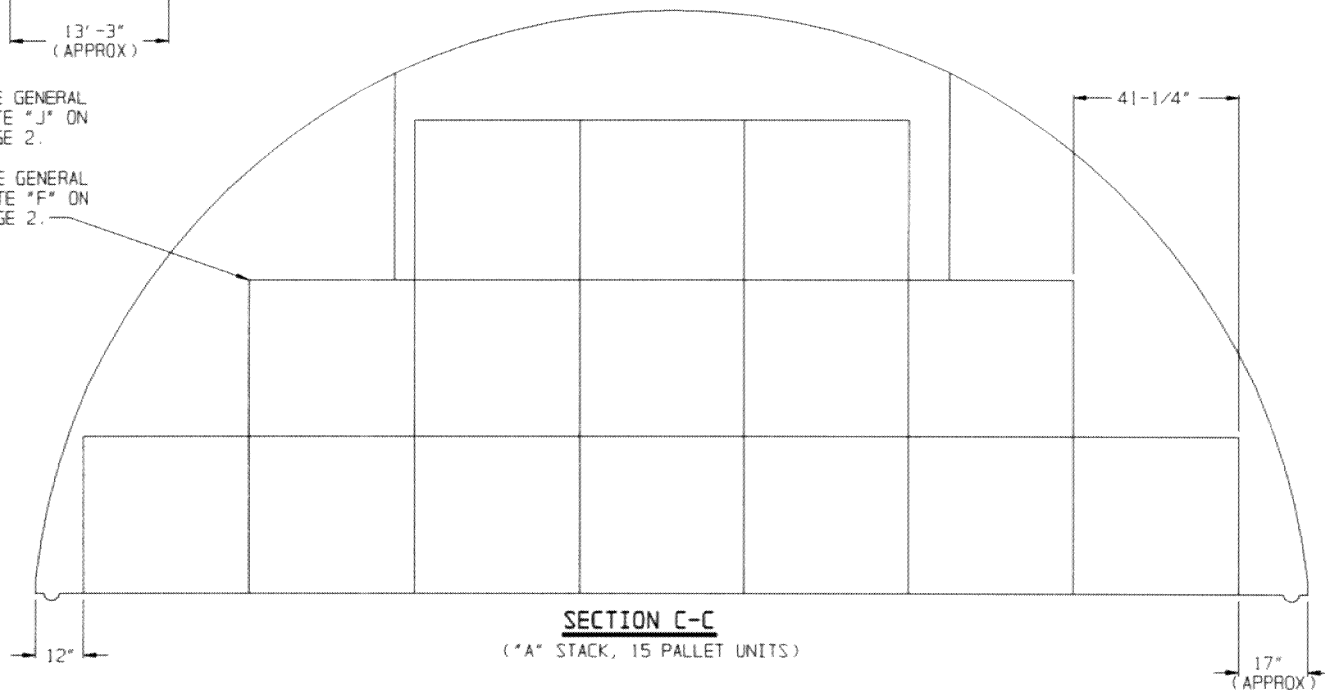
(60'-8" IGL00)

FOR "GENERAL NOTES", SEE PAGE 2.

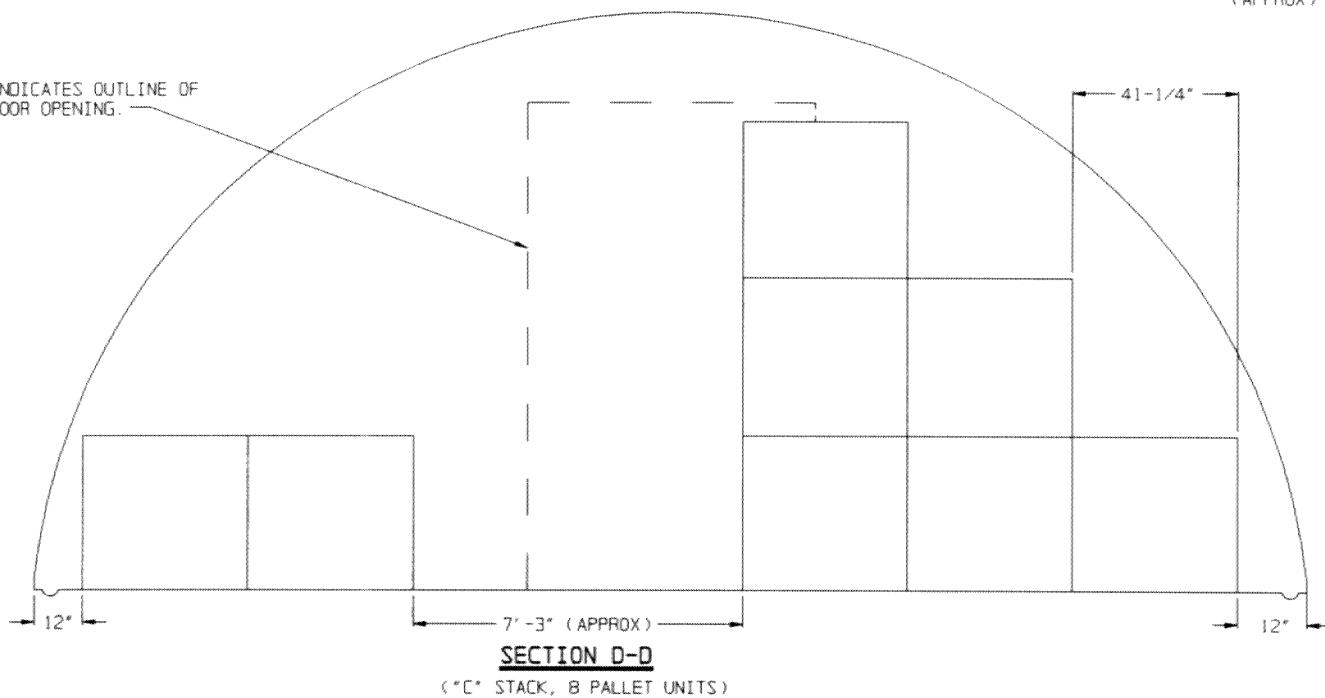


SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



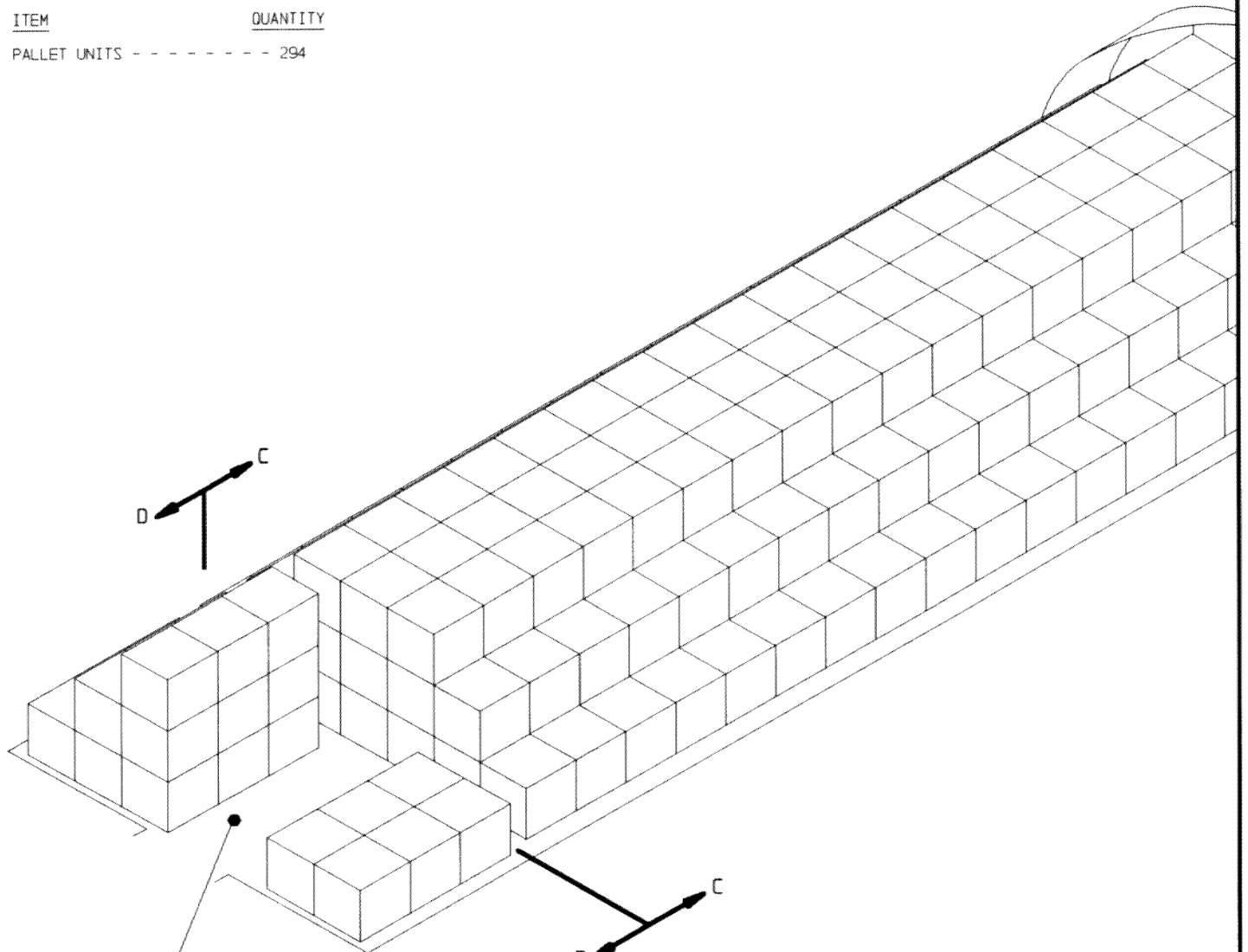
INDICATES OUTLINE OF DOOR OPENING.



STORAGE IN 81'-2" MAGAZINE

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

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	294



SEE GENERAL NOTE
"J" ON PAGE 2.

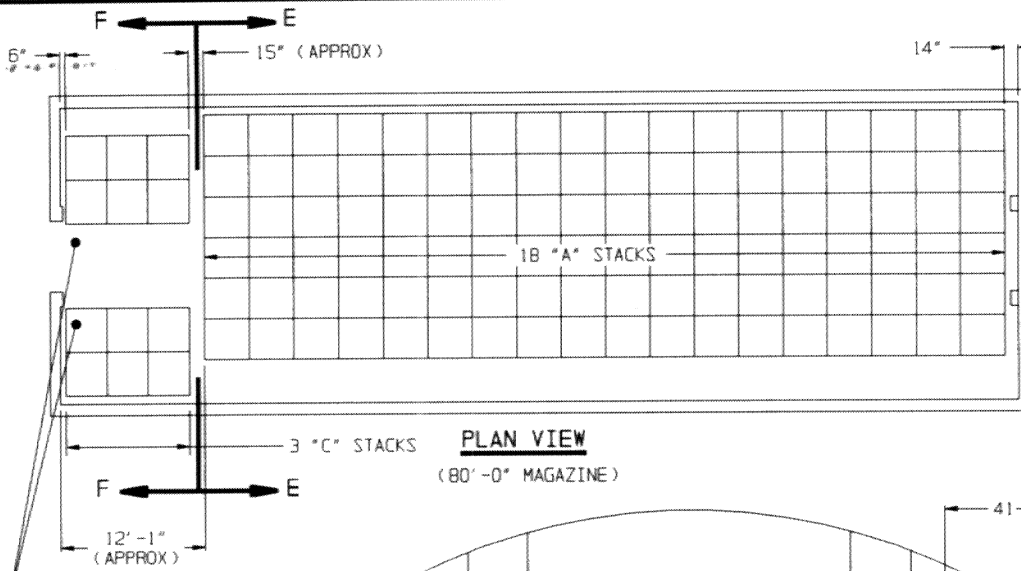
ISOMETRIC VIEW

FOR "GENERAL NOTES", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

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

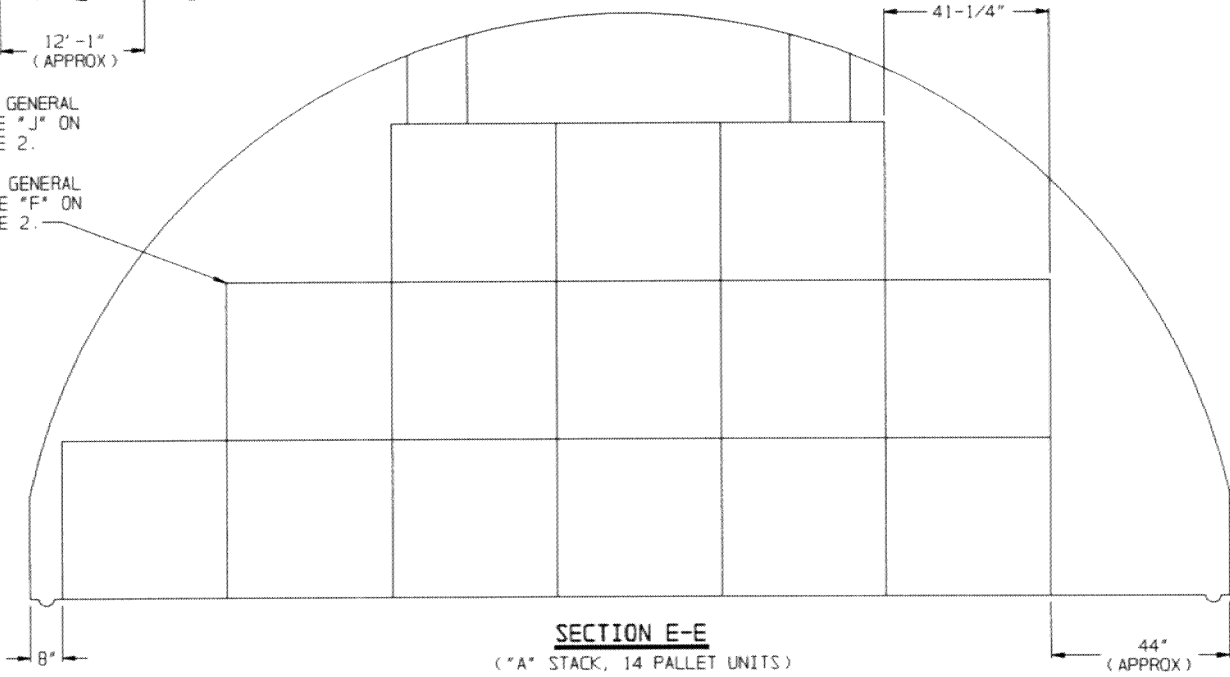
ITEM	QUANTITY
PALLET UNITS - - - - -	273



PLAN VIEW
(80'-0" MAGAZINE)

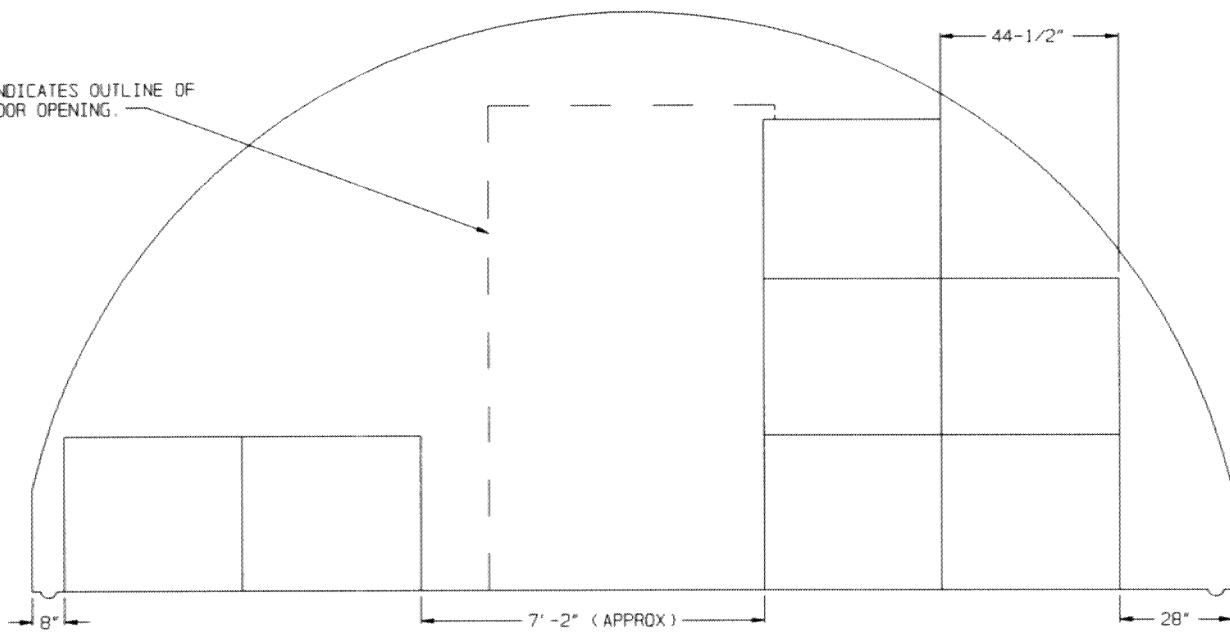
SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION E-E
(*A* STACK, 14 PALLET UNITS)

INDICATES OUTLINE OF DOOR OPENING.



SECTION F-F
(*C* STACK, 7 PALLET UNITS)

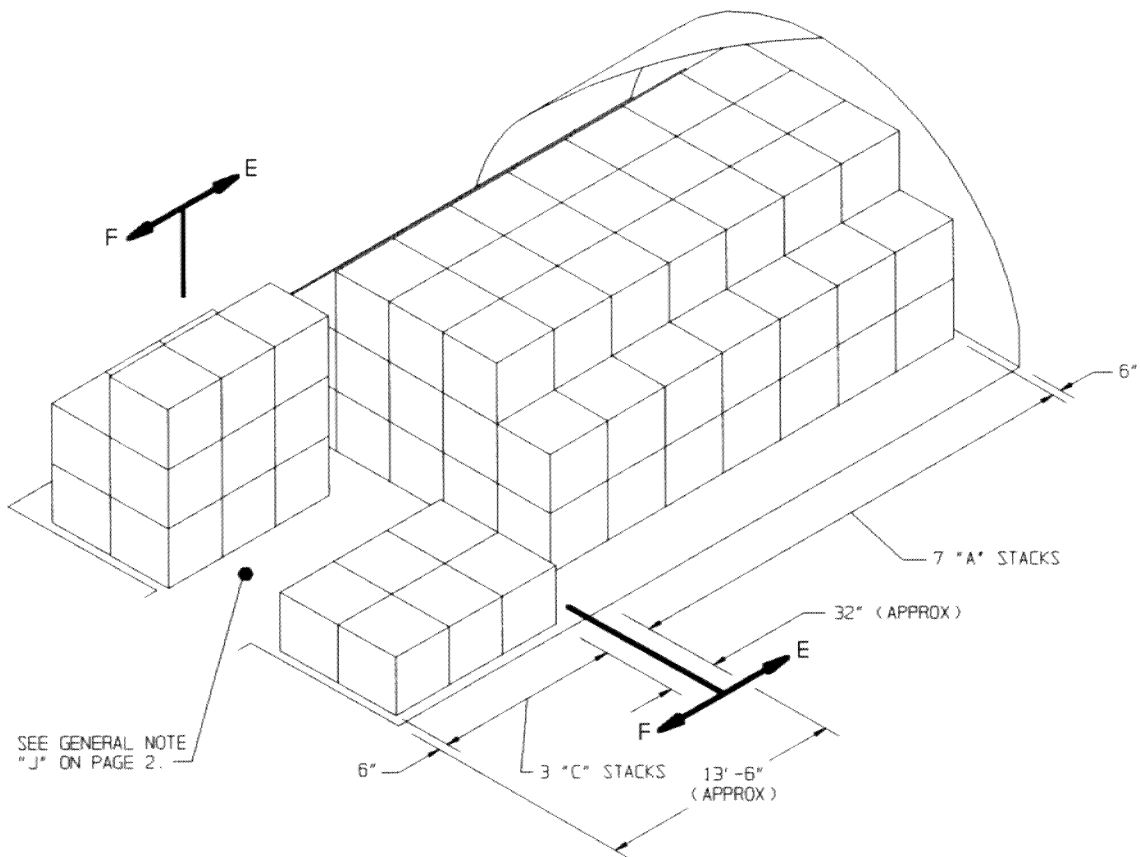
STORAGE IN 40'-0" MAGAZINE

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

ITEM

QUANTITY

PALLET UNITS - - - - - 119



ISOMETRIC VIEW

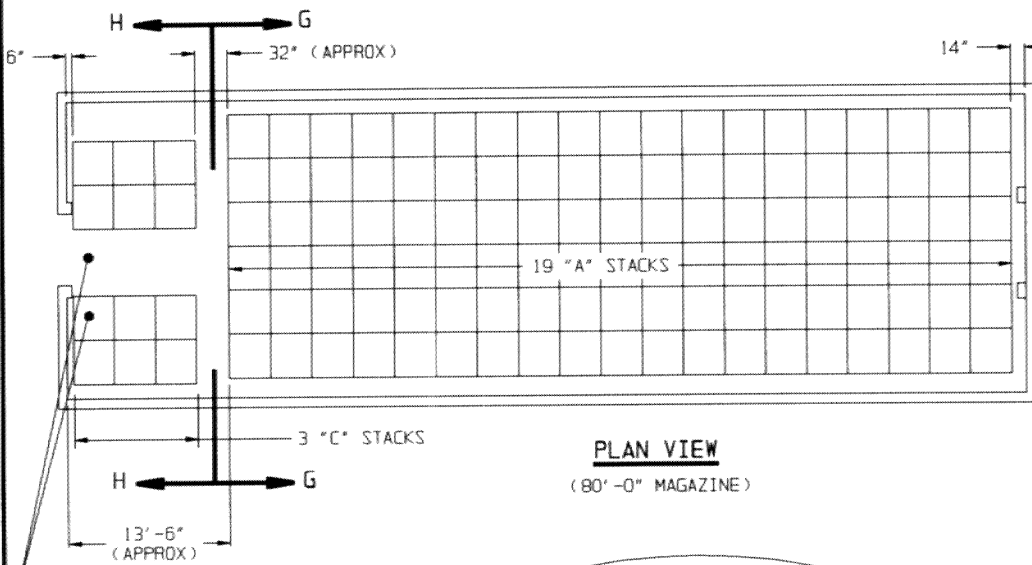
(40'-0" MAGAZINE)

FOR "GENERAL NOTES", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

(11'-0" HIGH)

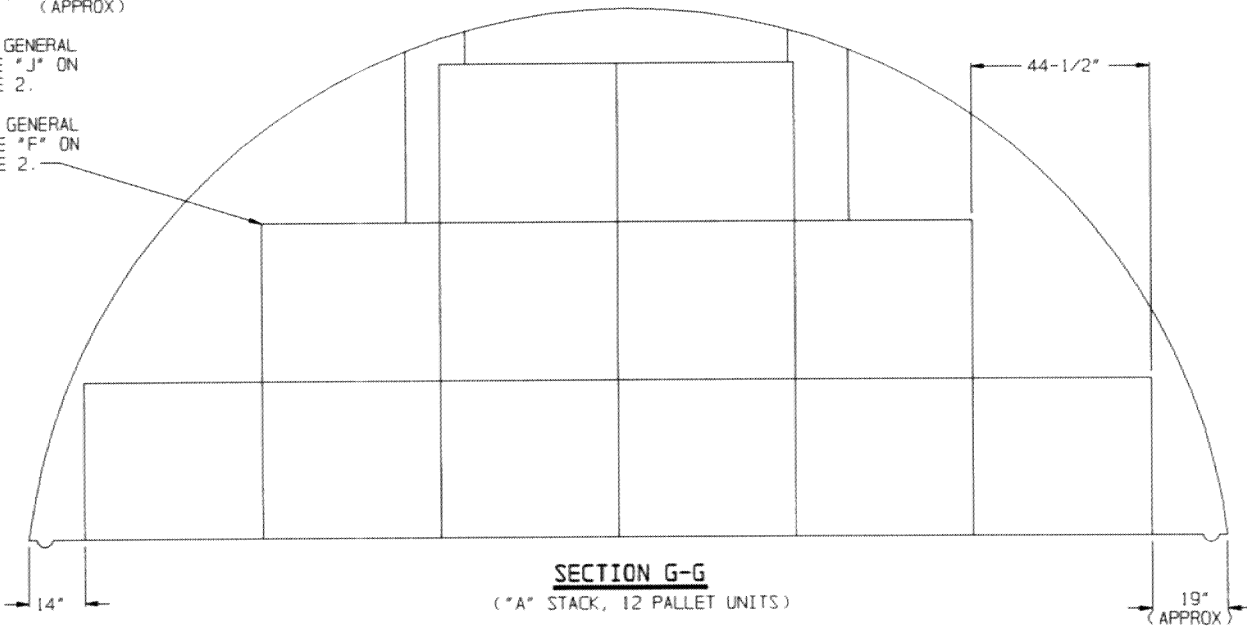
ITEM	QUANTITY
PALLET UNITS - - - - -	246



PLAN VIEW
(80'-0" MAGAZINE)

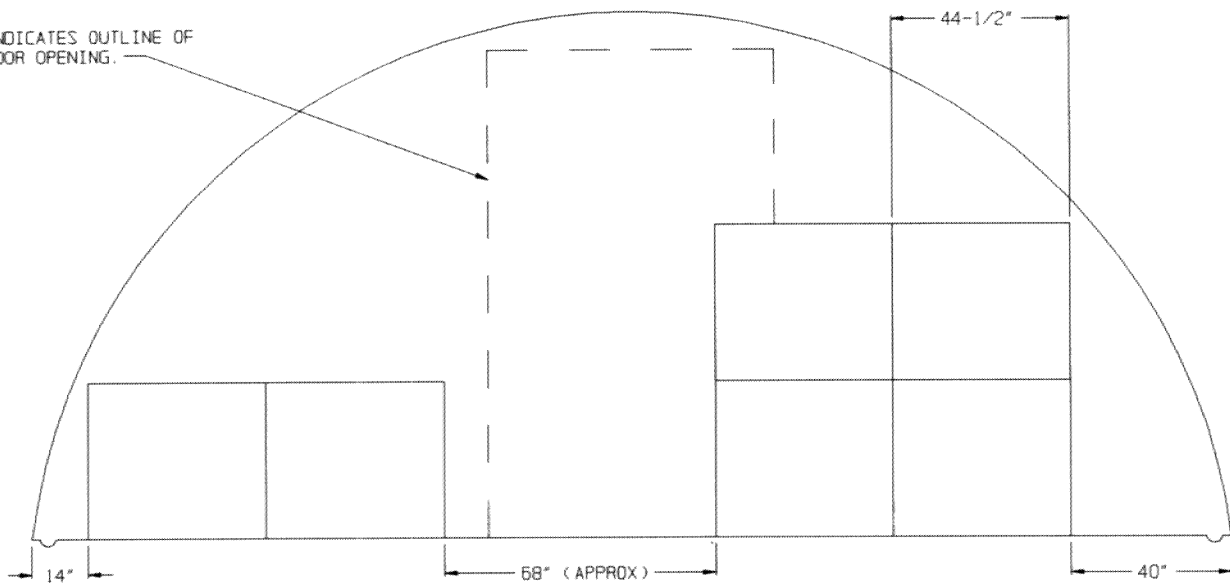
SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION G-G
("A" STACK, 12 PALLET UNITS)

INDICATES OUTLINE OF DOOR OPENING.

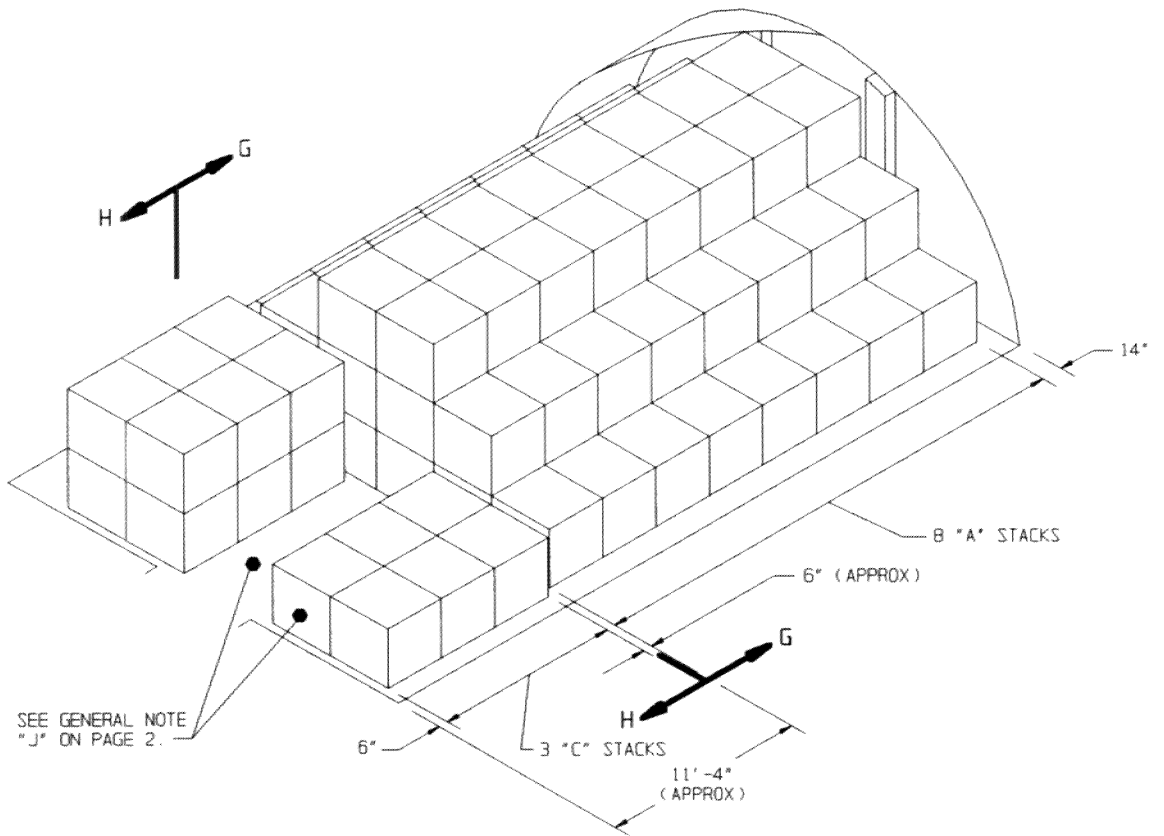


SECTION H-H
("C" STACK, 6 PALLET UNITS)

STORAGE IN 40'-0" MAGAZINE

(11'-0" HIGH)

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	114



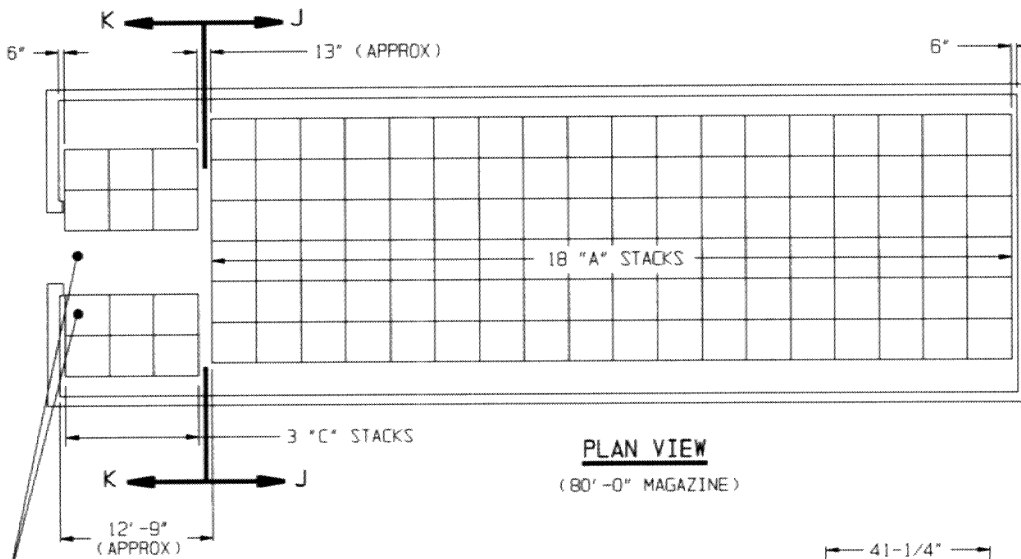
ISOMETRIC VIEW
(40'-0" MAGAZINE)

FOR "GENERAL NOTES", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

(10'-0" HIGH)

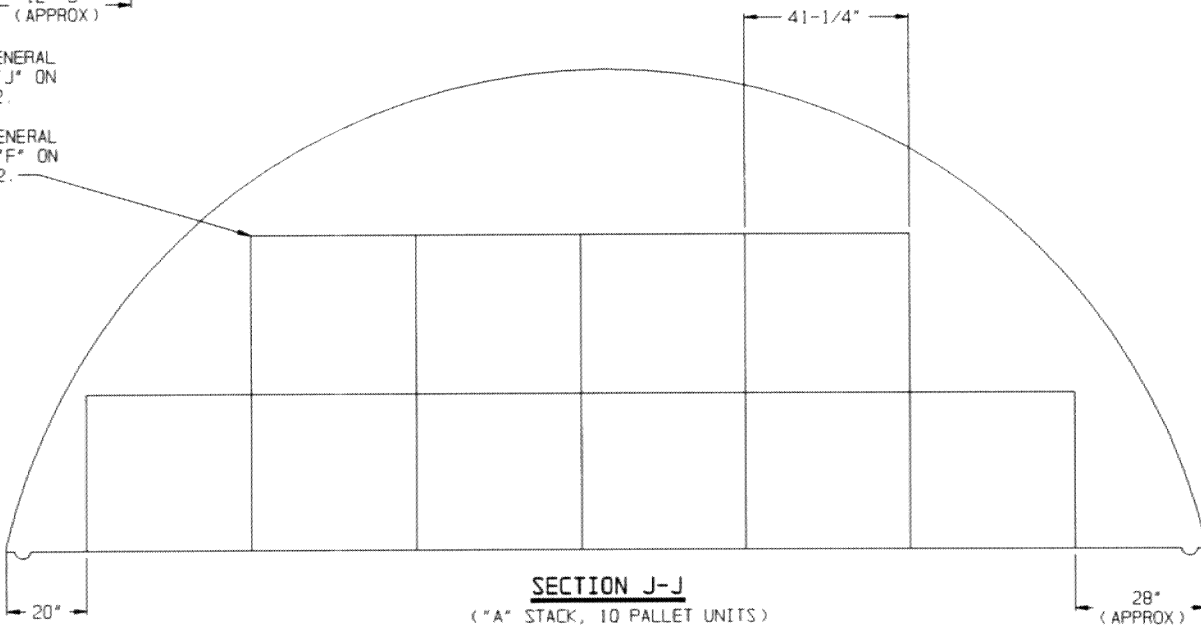
ITEM	QUANTITY
PALLET UNITS - - - - -	198



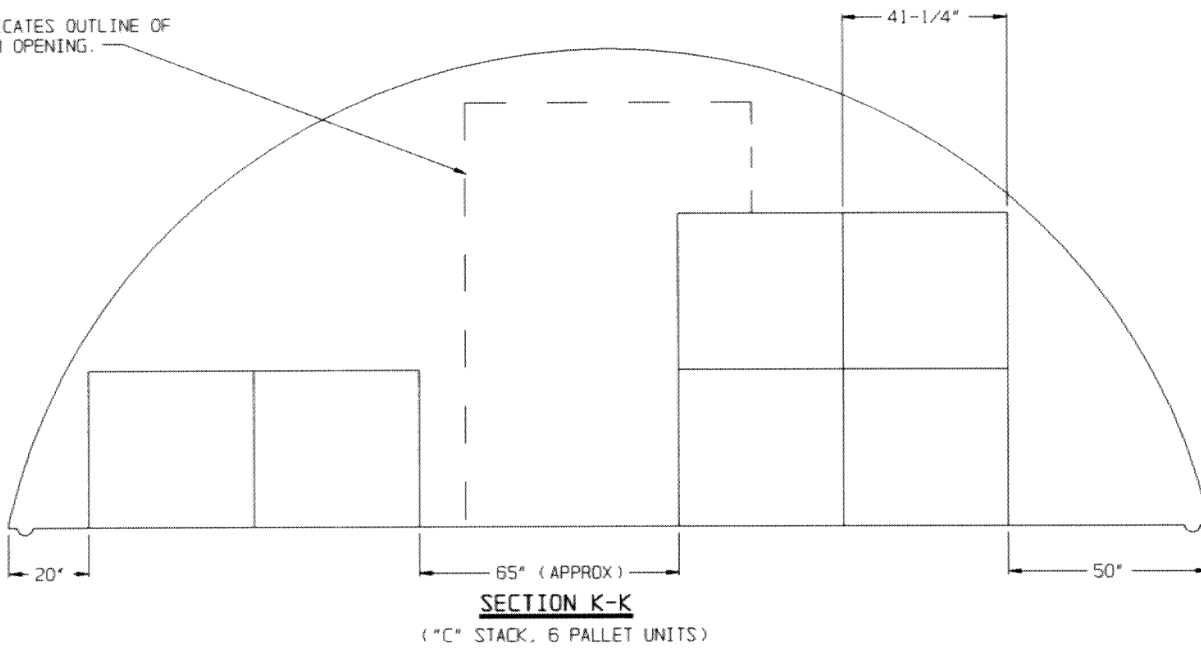
PLAN VIEW
(80'-0" MAGAZINE)

SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



INDICATES OUTLINE OF DOOR OPENING.



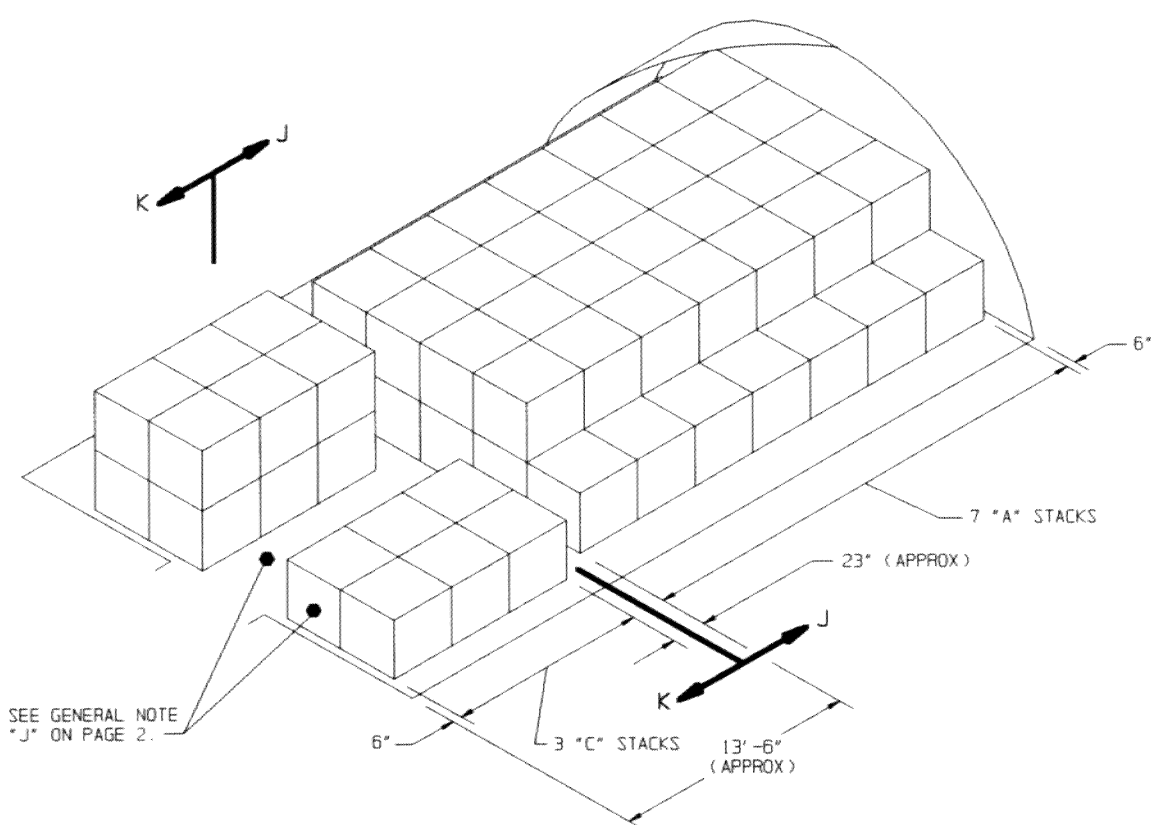
STORAGE IN 40'-0" MAGAZINE

(10'-0" HIGH)

ITEM

QUANTITY

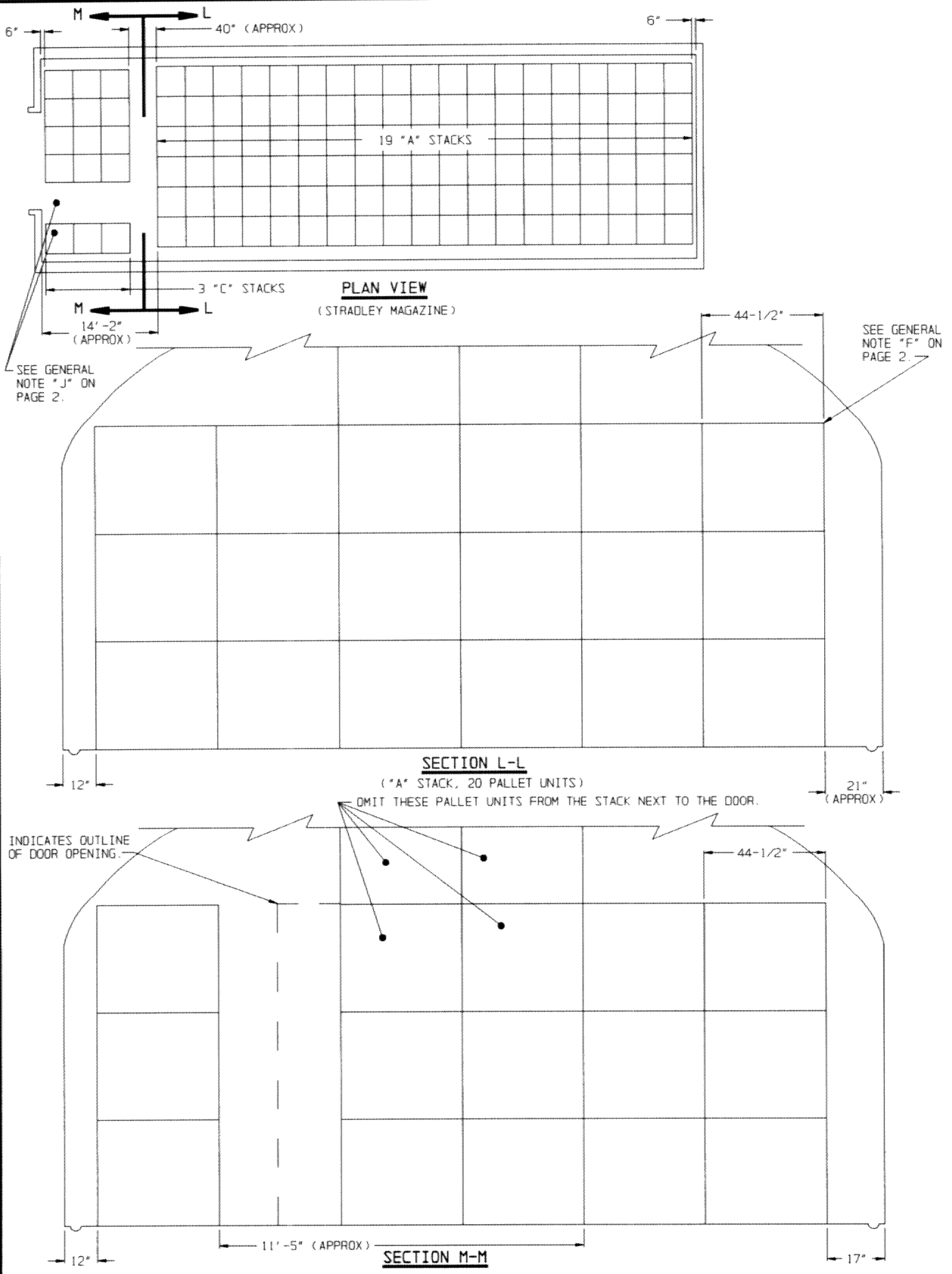
PALLET UNITS - - - - - 88



ISOMETRIC VIEW

(40'-0" MAGAZINE)

FOR "GENERAL NOTES", SEE PAGE 2.

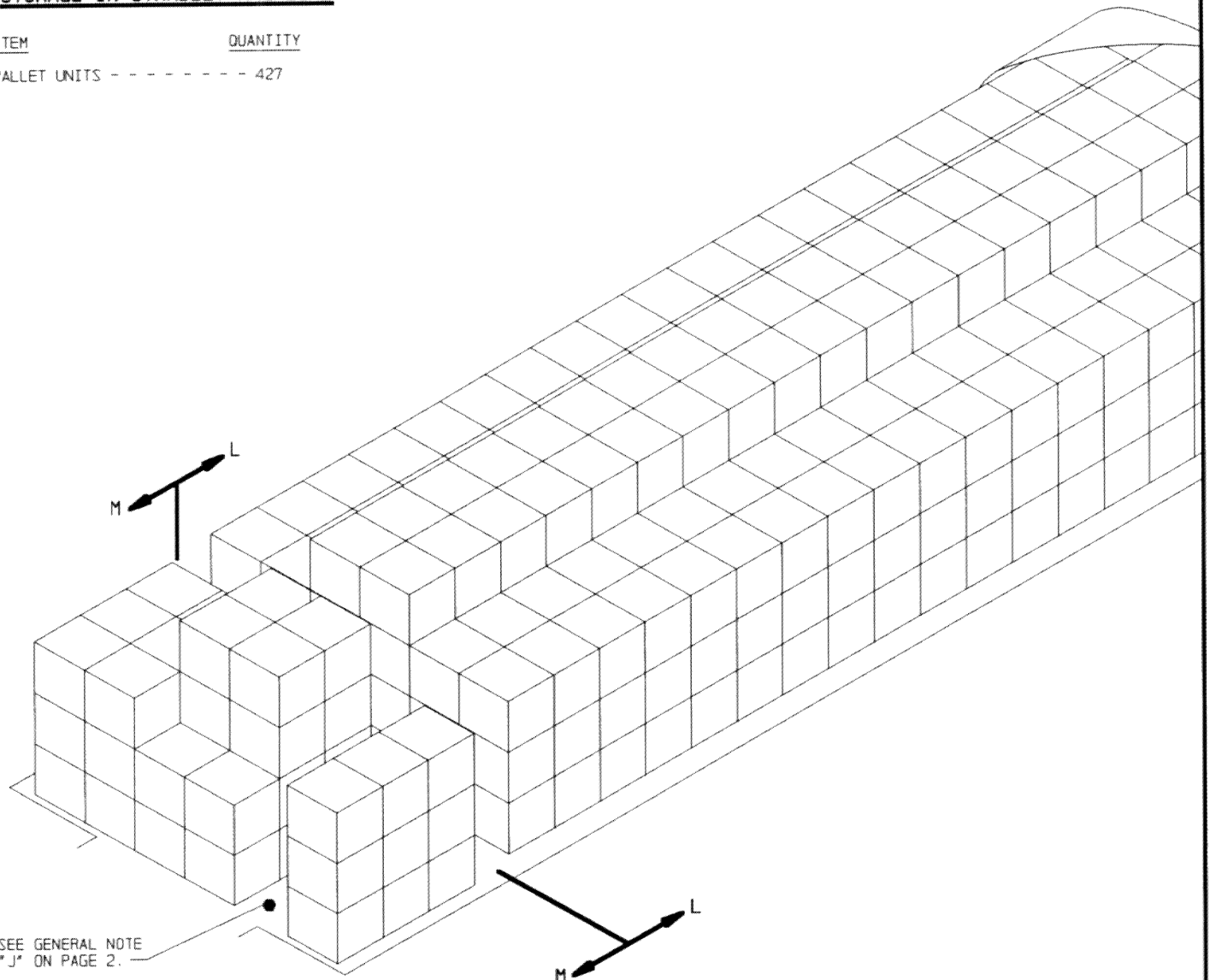


STORAGE IN STRADLEY MAGAZINE

ITEM

QUANTITY

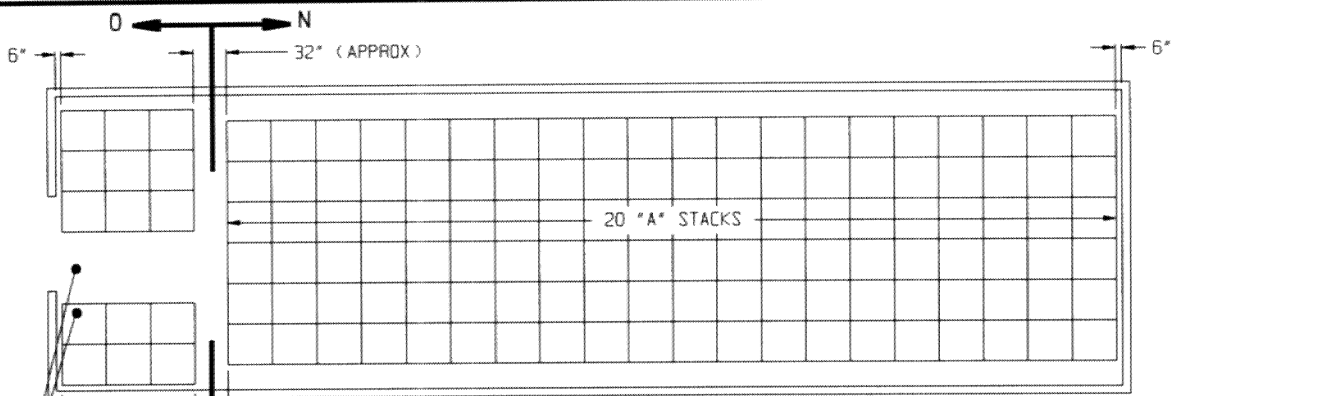
PALLET UNITS - - - - - 427



SEE GENERAL NOTE
"J" ON PAGE 2.

ISOMETRIC VIEW
(STRADLEY MAGAZINE)

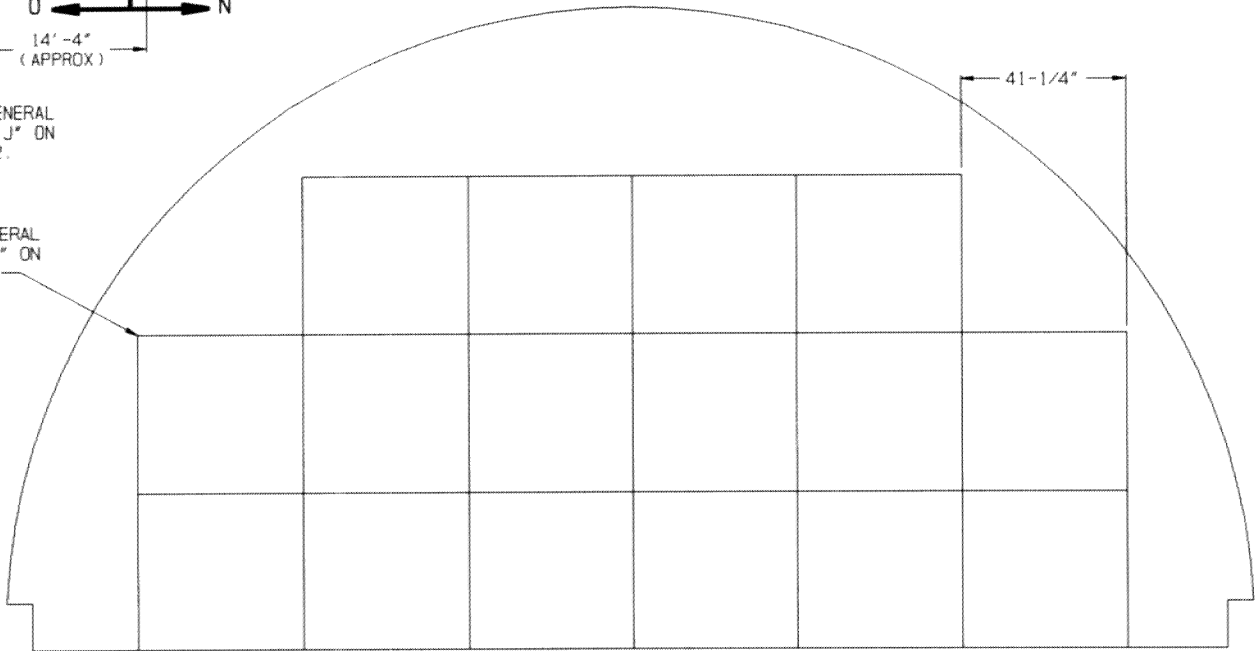
FOR "GENERAL NOTES", SEE PAGE 2.



PLAN VIEW (STEEL ARCH MAGAZINE)

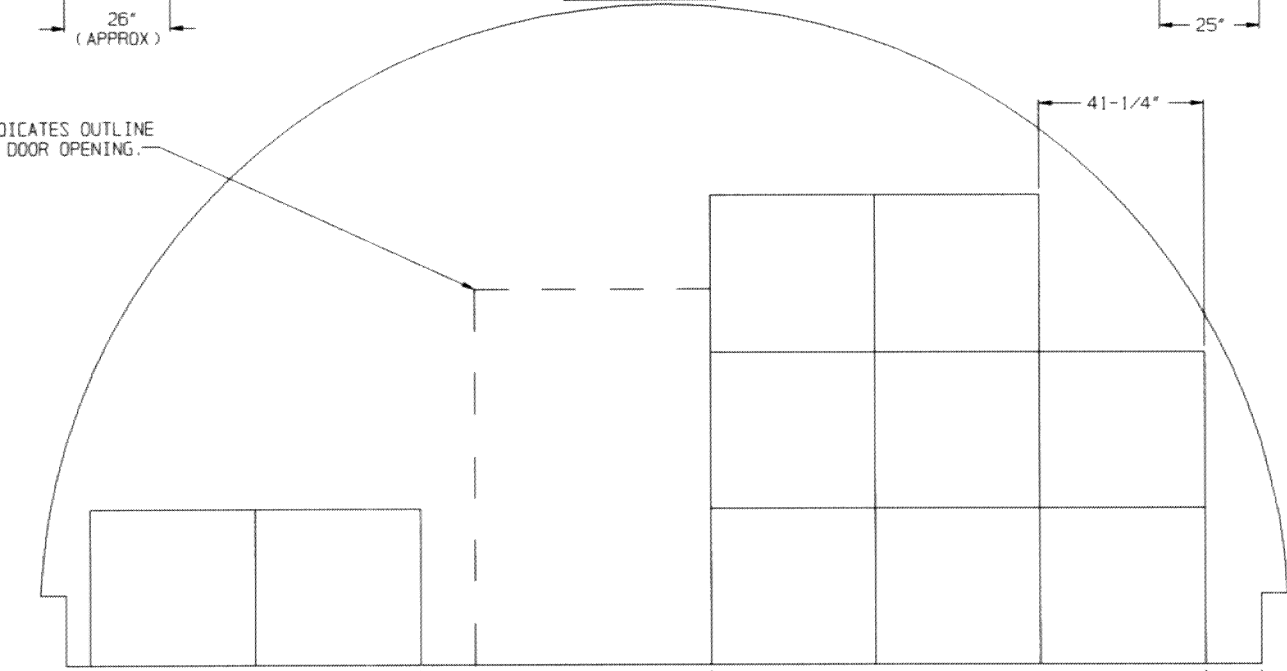
SEE GENERAL NOTE "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION N-N ("A" STACK, 16 PALLET UNITS)

INDICATES OUTLINE OF DOOR OPENING.

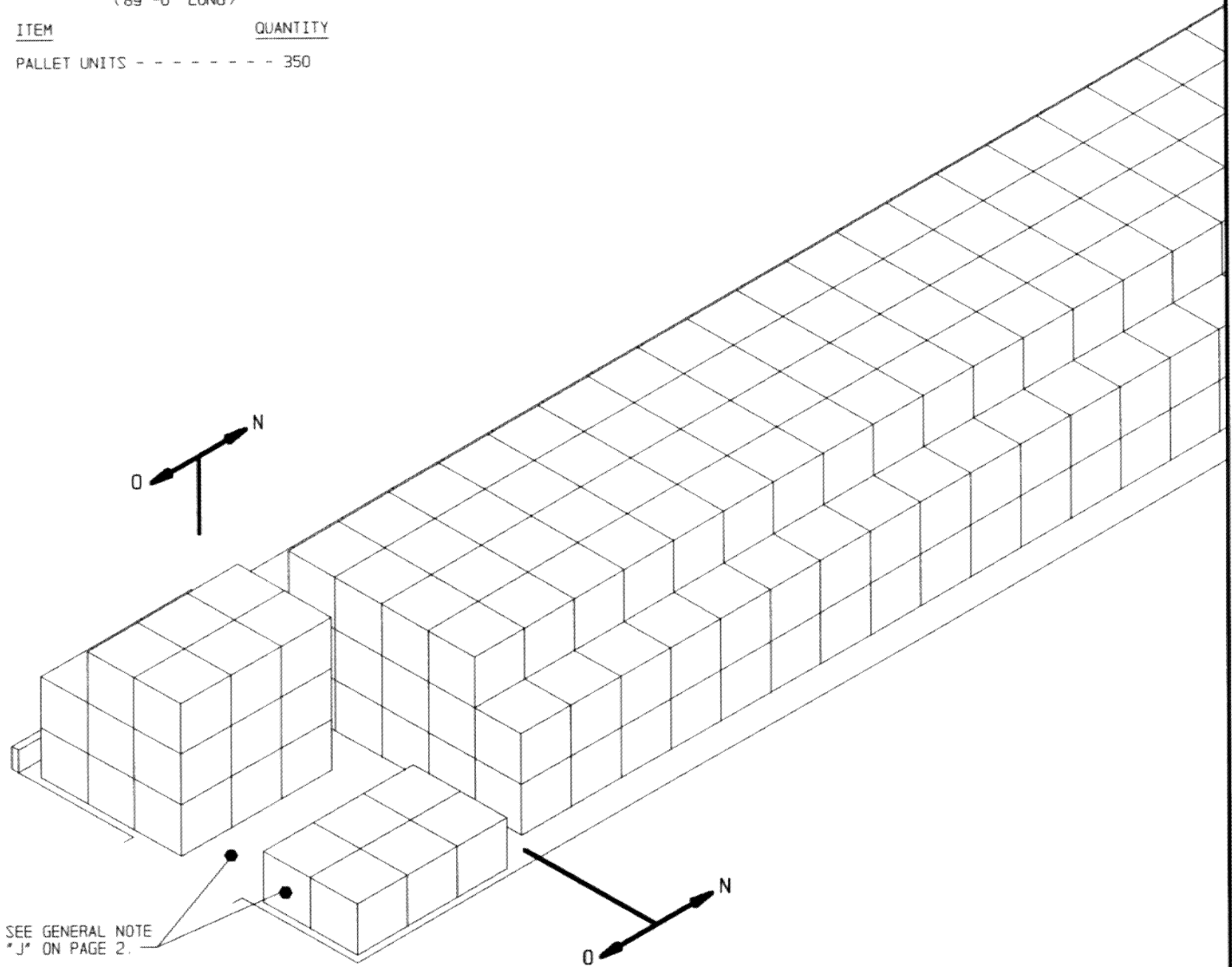


SECTION O-O
("C" STACK, 10 PALLET UNITS)

STORAGE IN STEEL ARCH MAGAZINE

(89'-0" LONG)

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	350



SEE GENERAL NOTE
J ON PAGE 2.

ISOMETRIC VIEW
(STEEL ARCH MAGAZINE)

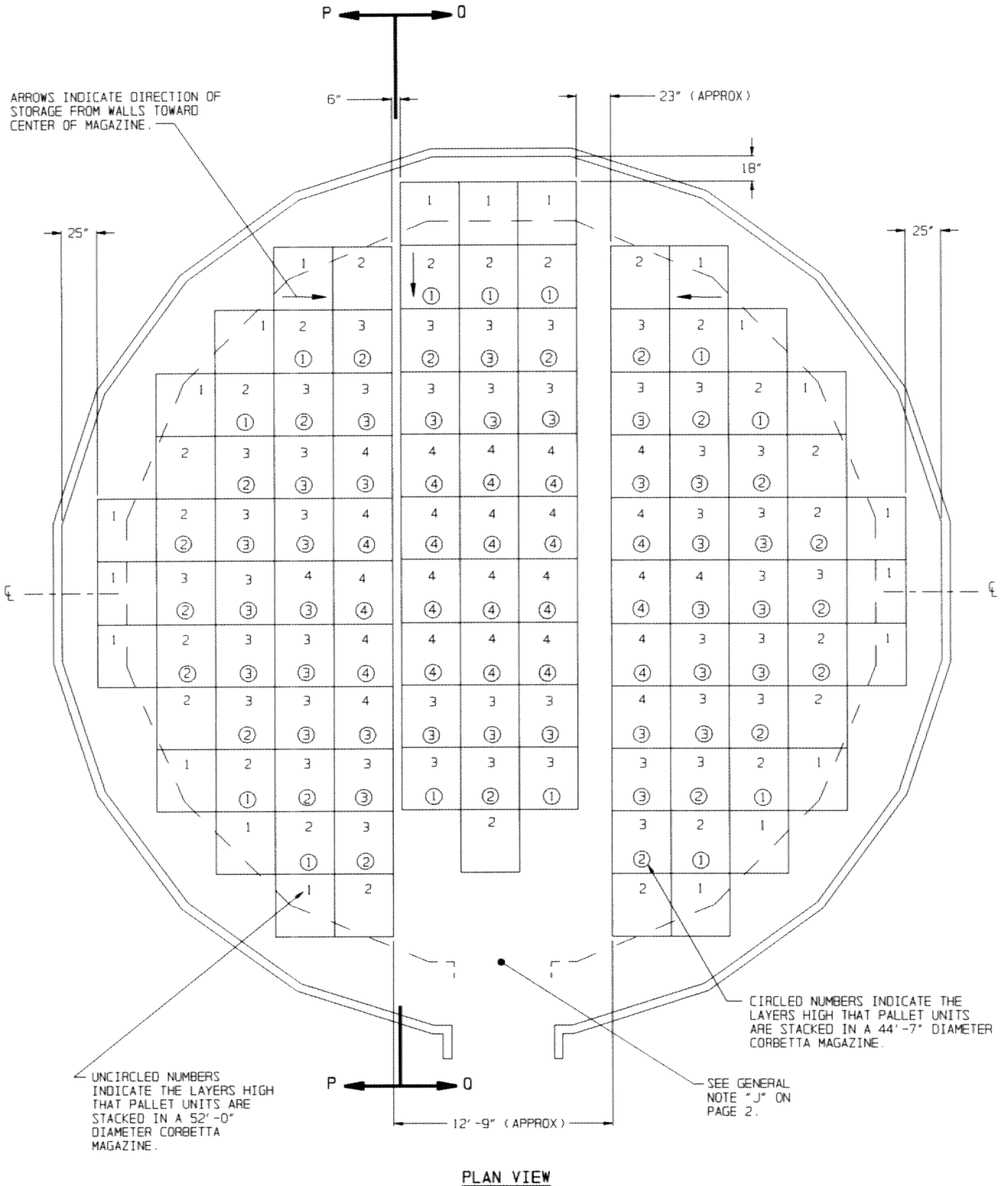
FOR "GENERAL NOTES", SEE PAGE 2.

STORAGE IN 44'-7" DIA CORBETTA MAGAZINE

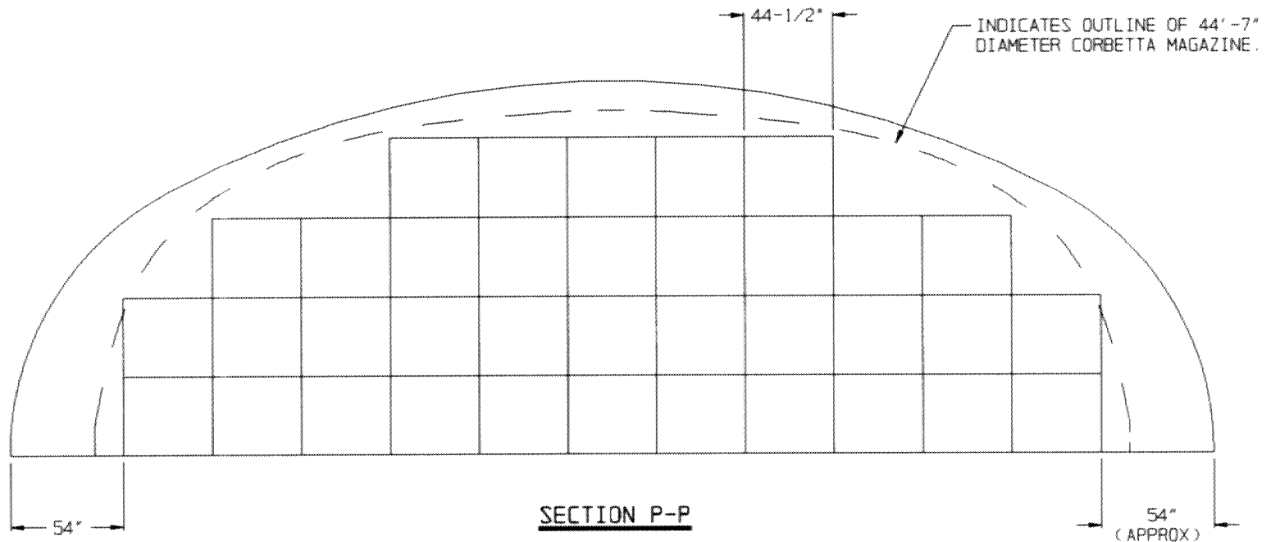
STORAGE IN 52'-0" DIA CORBETTA MAGAZINE

ITEM QUANTITY
 PALLET UNITS - - - - - 220

ITEM QUANTITY
 PALLET UNITS - - - - - 297

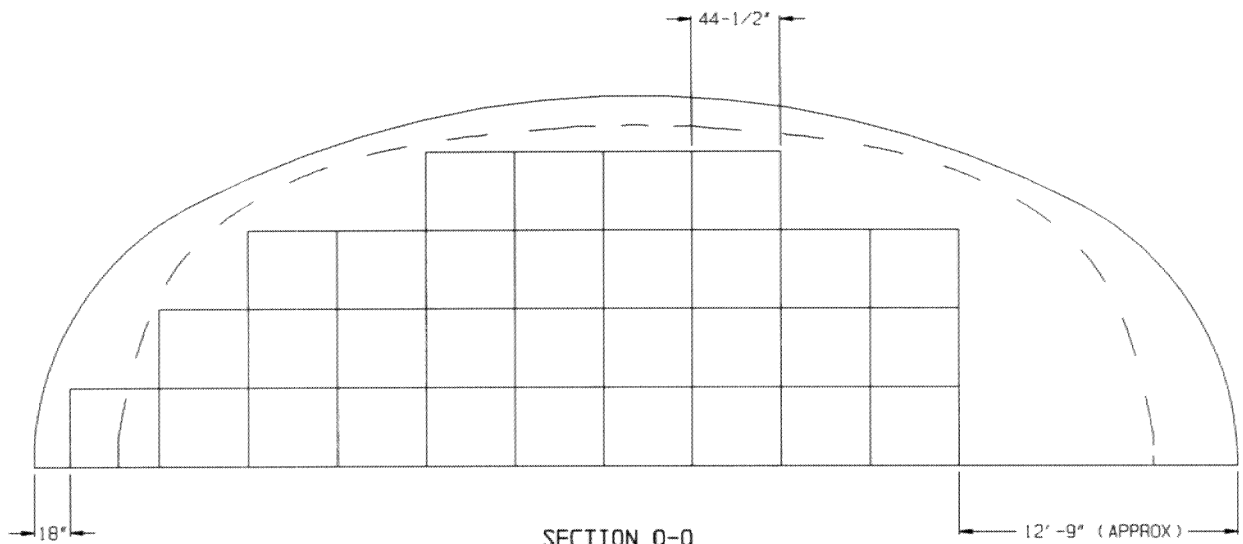


PLAN VIEW



SECTION P-P

(36 UNITS PER THIS STACK IN A 52'-0" DIAMETER MAGAZINE, 28 UNITS PER THIS STACK IN A 44'-7" DIAMETER MAGAZINE).



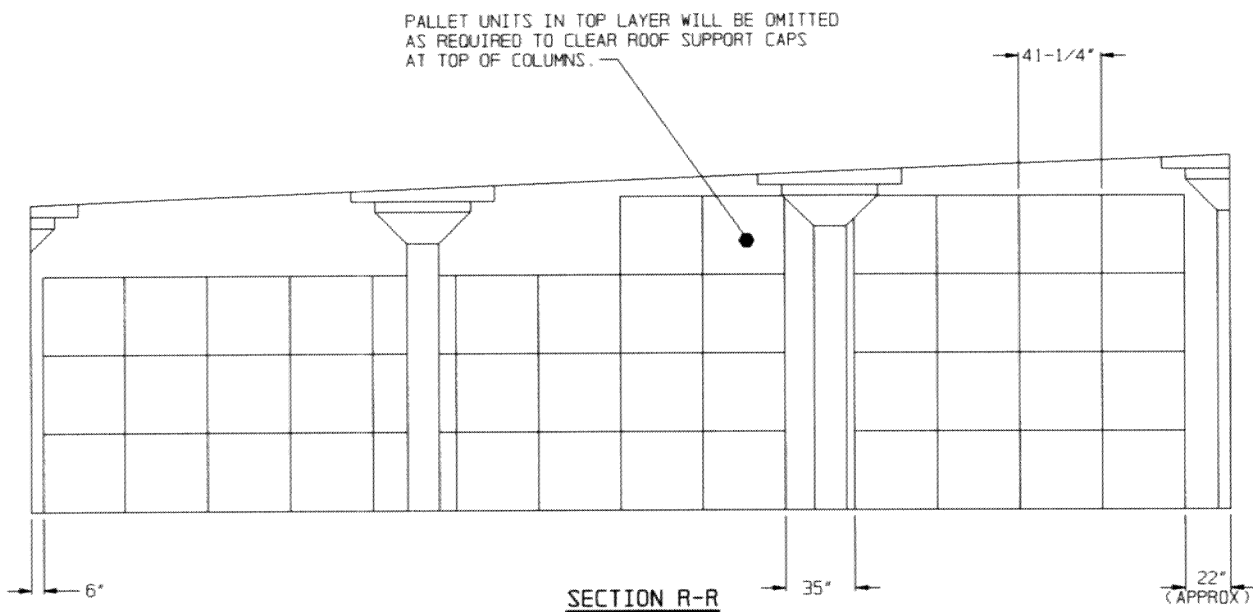
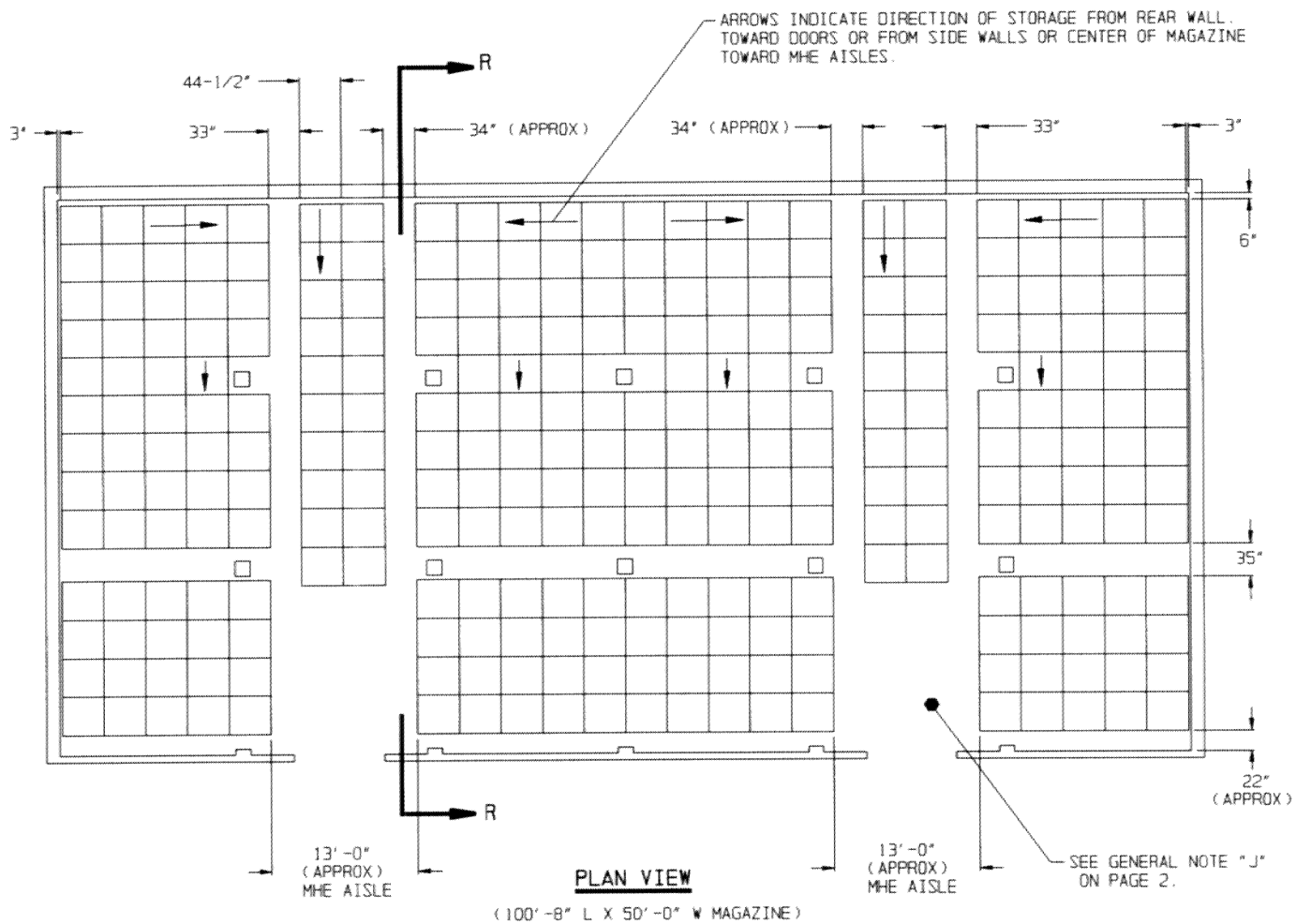
SECTION O-O

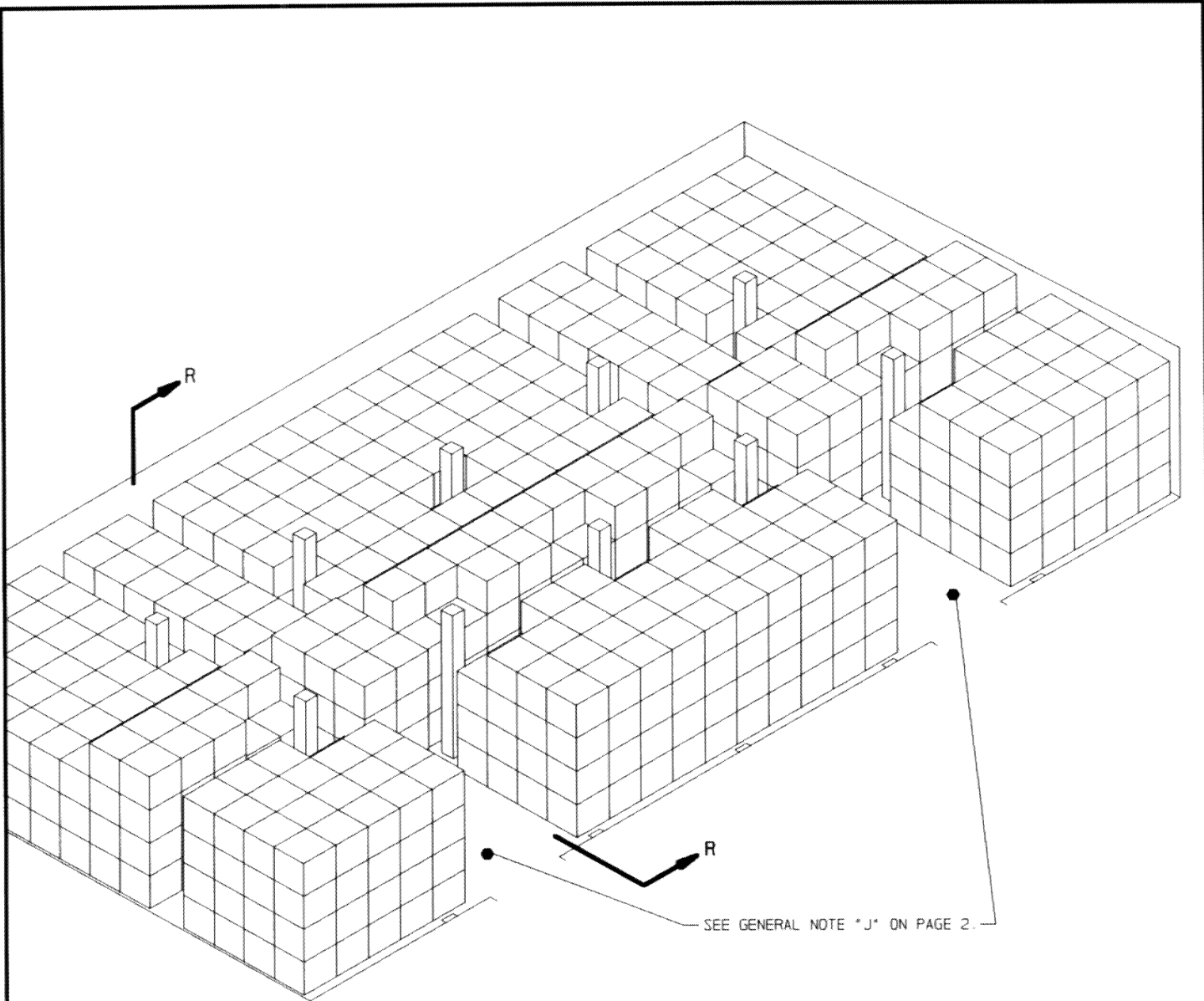
(31 UNITS PER THIS STACK IN A 52'-0" DIAMETER MAGAZINE, 26 UNITS PER THIS STACK IN A 44'-7" DIAMETER MAGAZINE).

FOR "GENERAL NOTES", SEE PAGE 2.

SPECIAL NOTE:

THE PRINCIPLES OF STORAGE IN 52'-0" DIAMETER CORBETTA MAGAZINES CAN ALSO BE APPLIED FOR STORAGE IN 44'-7" DIAMETER OR OTHER DIAMETER CORBETTA MAGAZINES. SOME PALLET STACKS MUST BE OMITTED AND PALLET UNITS MAY NEED TO BE OMITTED FROM SOME PALLET STACKS TO PROVIDE THE NECESSARY CLEARANCE FROM THE MAGAZINE WALL.



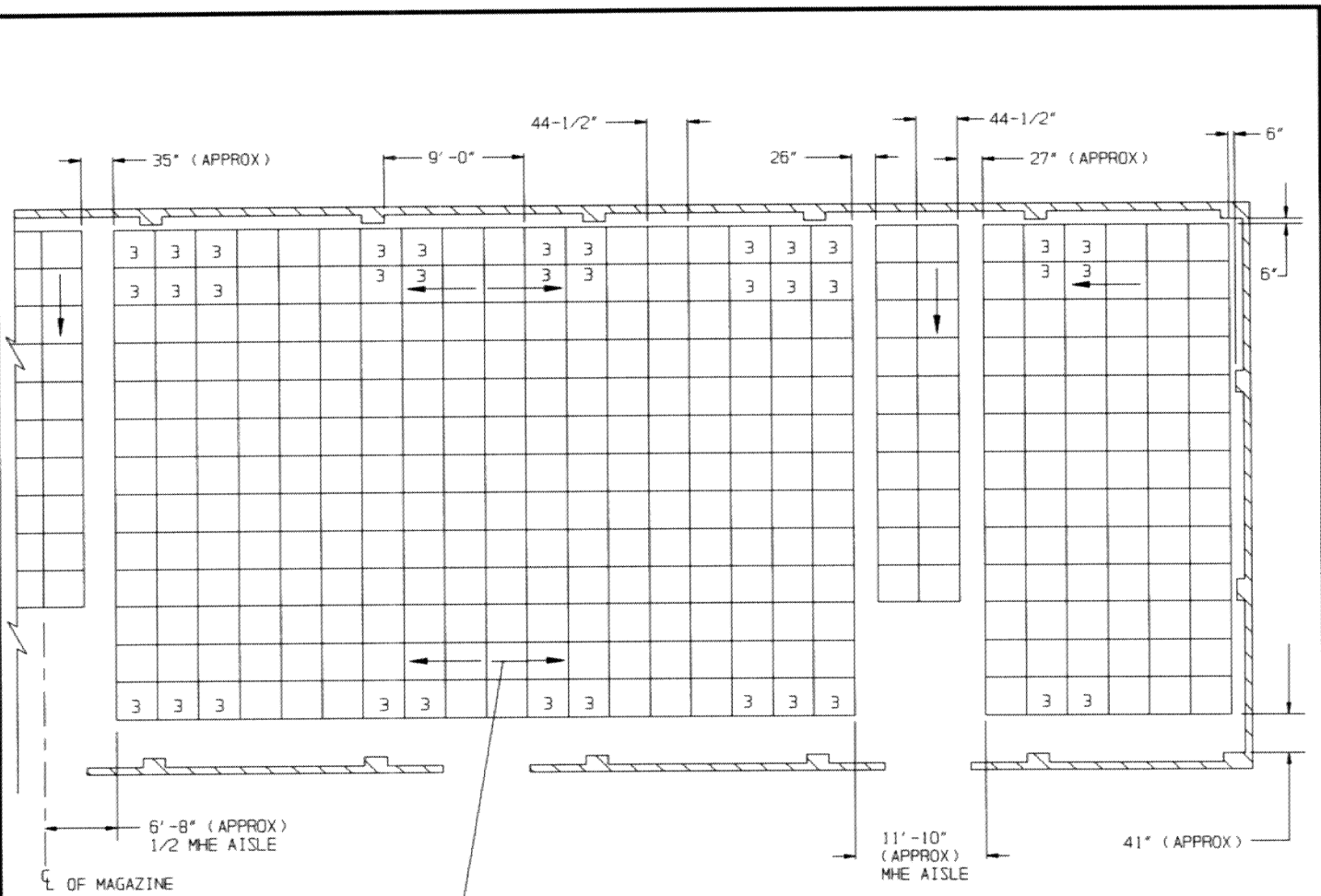


ISOMETRIC VIEW
(100'-8" L X 50'-0" W MAGAZINE)

FOR "GENERAL NOTES", SEE PAGE 2.

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

<u>ITEM</u>	<u>QUANTITY</u>
PALLET UNITS - - - - -	994



ARROWS INDICATE DIRECTION OF STORAGE FROM REAR WALL TOWARD DOORS OR FROM SIDE WALLS OR CENTER OF MAGAZINE TOWARD MHE AISLES.

PLAN VIEW

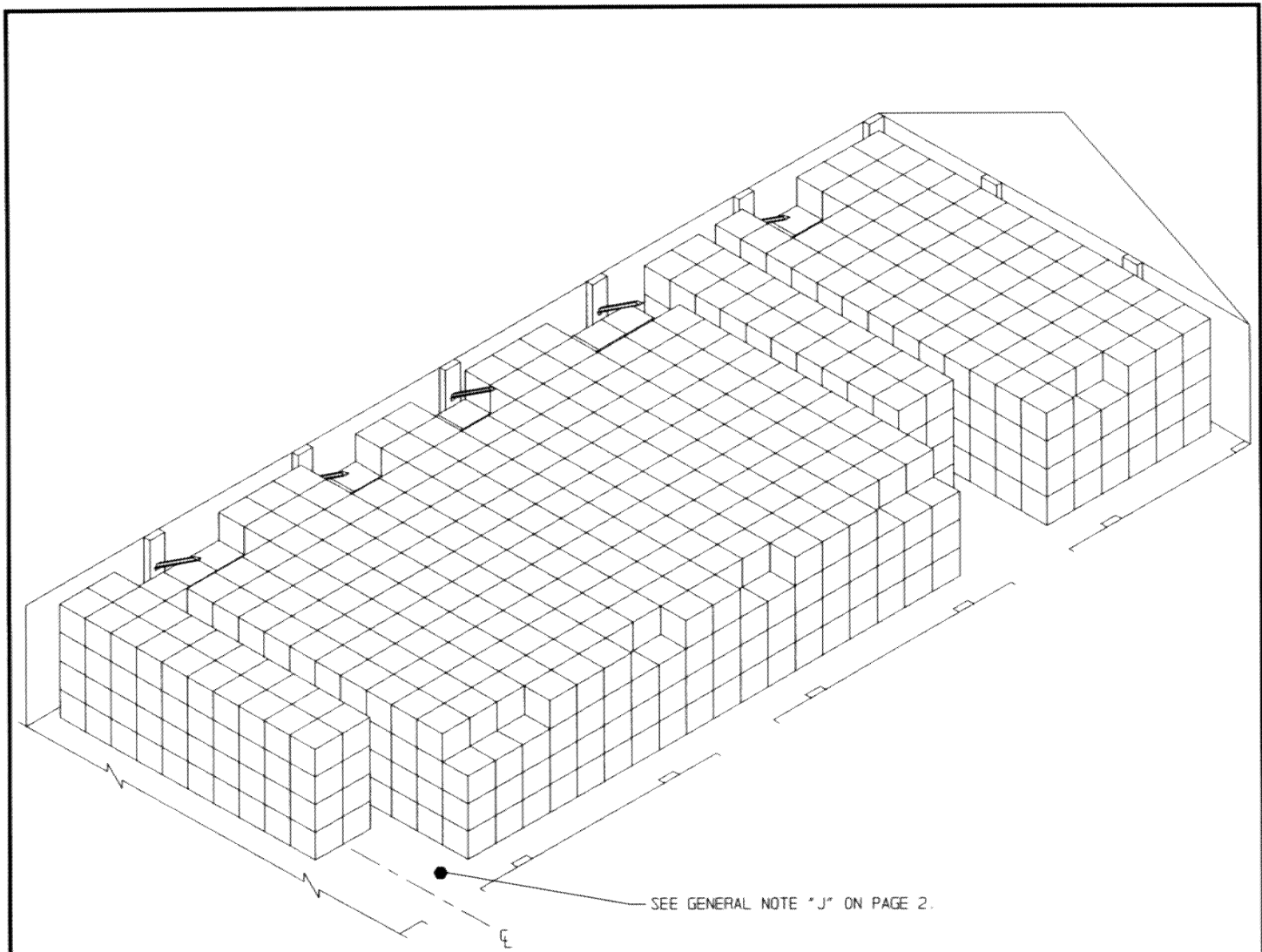
(ONE-HALF OF A STANDARD MAGAZINE SHOWN)

STORAGE AS SHOWN *

(ONE-HALF OF A STANDARD MAGAZINE)

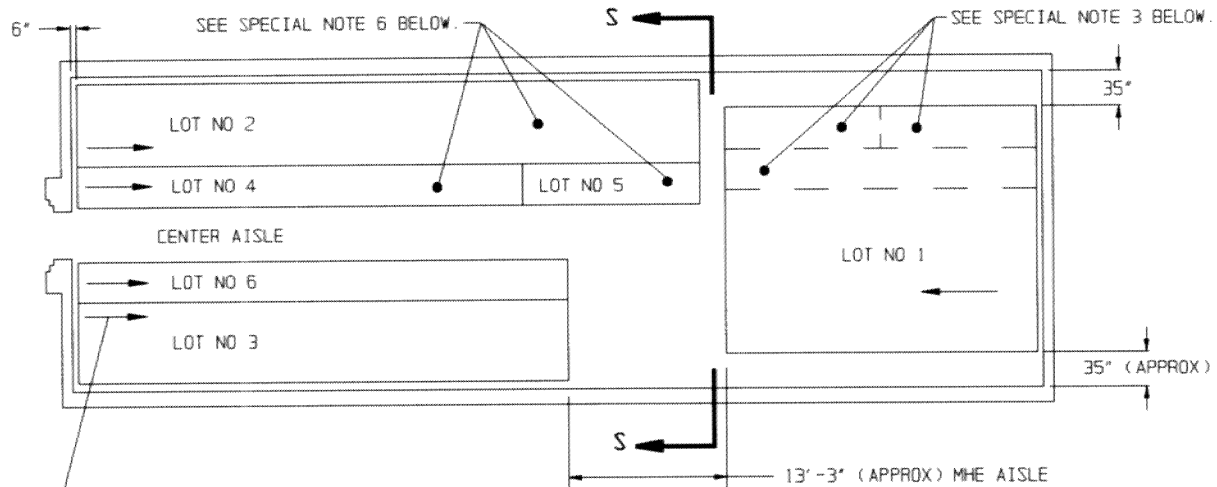
ITEM	QUANTITY
PALLET UNITS - - - - -	1,332

* PALLET STACKS NOT NUMBERED ARE FOUR (4) PALLET UNITS HIGH.



ISOMETRIC VIEW
(ONE-HALF OF A STANDARD MAGAZINE SHOWN)

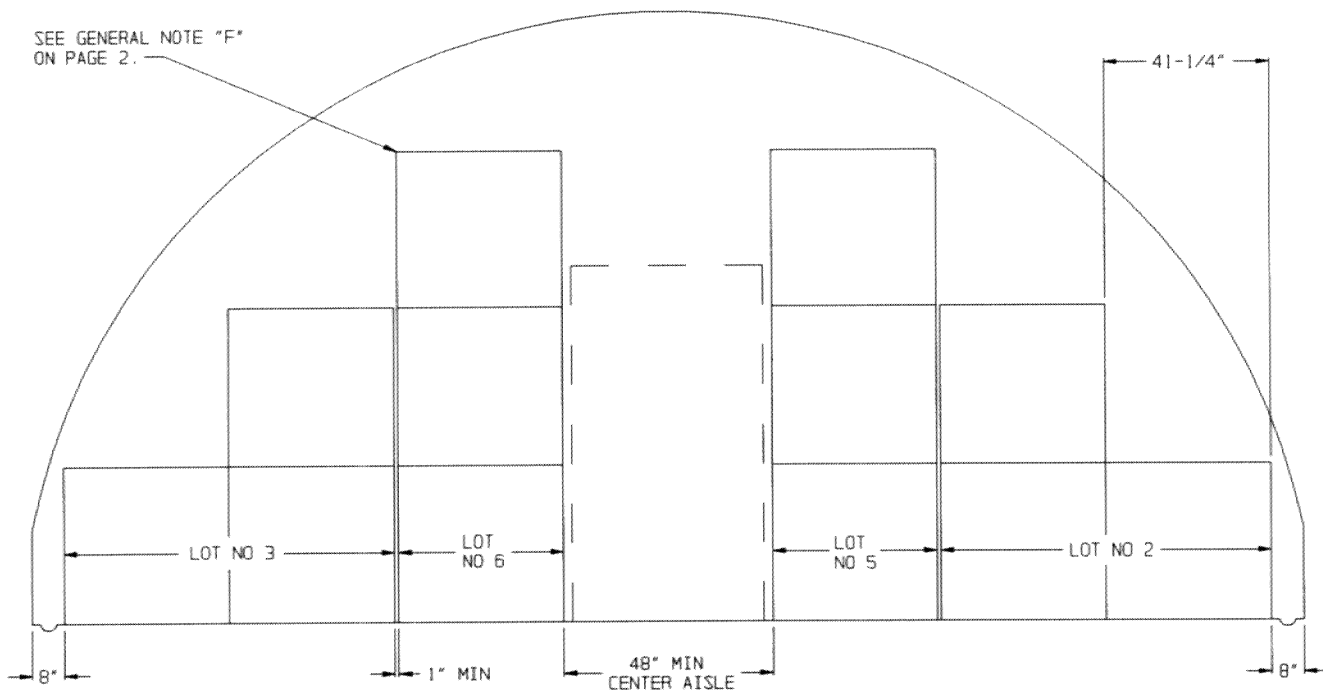
FOR "GENERAL NOTES", SEE PAGE 2.



ARROWS INDICATE DIRECTION OF STORAGE FROM FRONT AND/OR REAR TOWARD CENTER OF THE LENGTH OF THE MAGAZINE.

PLAN VIEW
(81'-0" IGLOO SHOWN)

SEE GENERAL NOTE "F" ON PAGE 2.



SECTION S-S

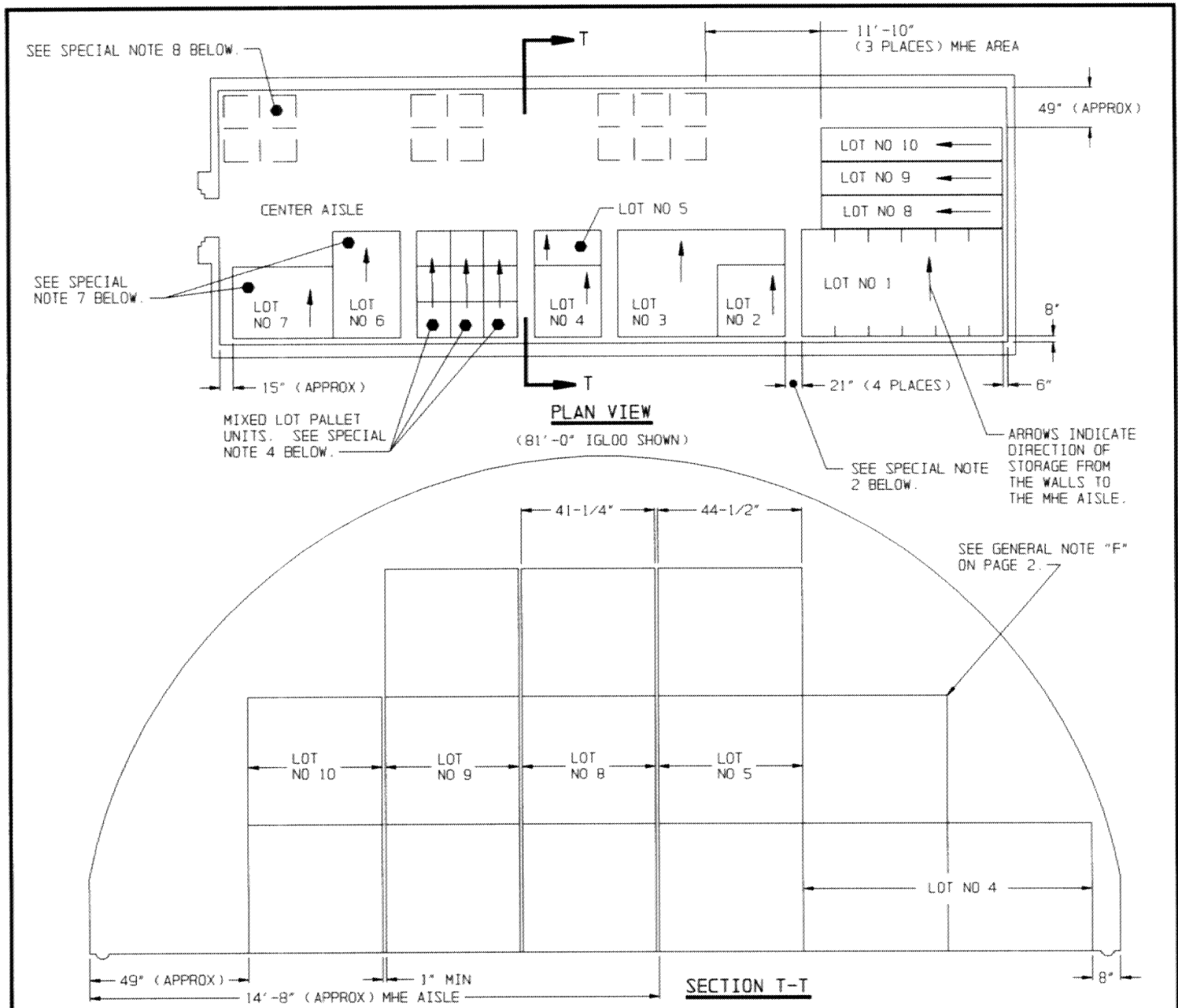
(SPECIAL NOTES CONTINUED)

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. 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. 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 MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
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.
7. A 13'-3" MHE OPERATING AREA HAS BEEN SHOWN. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCK, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON EACH SIDE OF MAGAZINE) 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 OF STORAGE RESULTS.

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TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



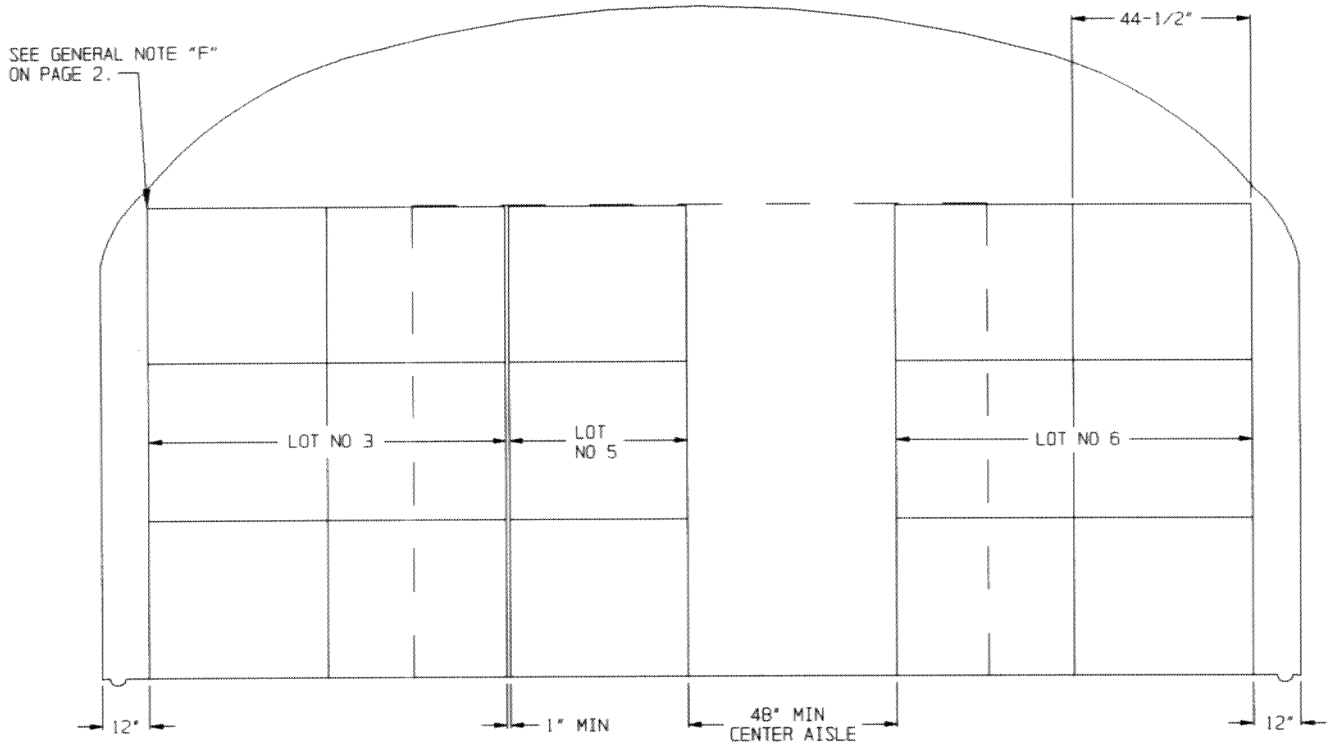
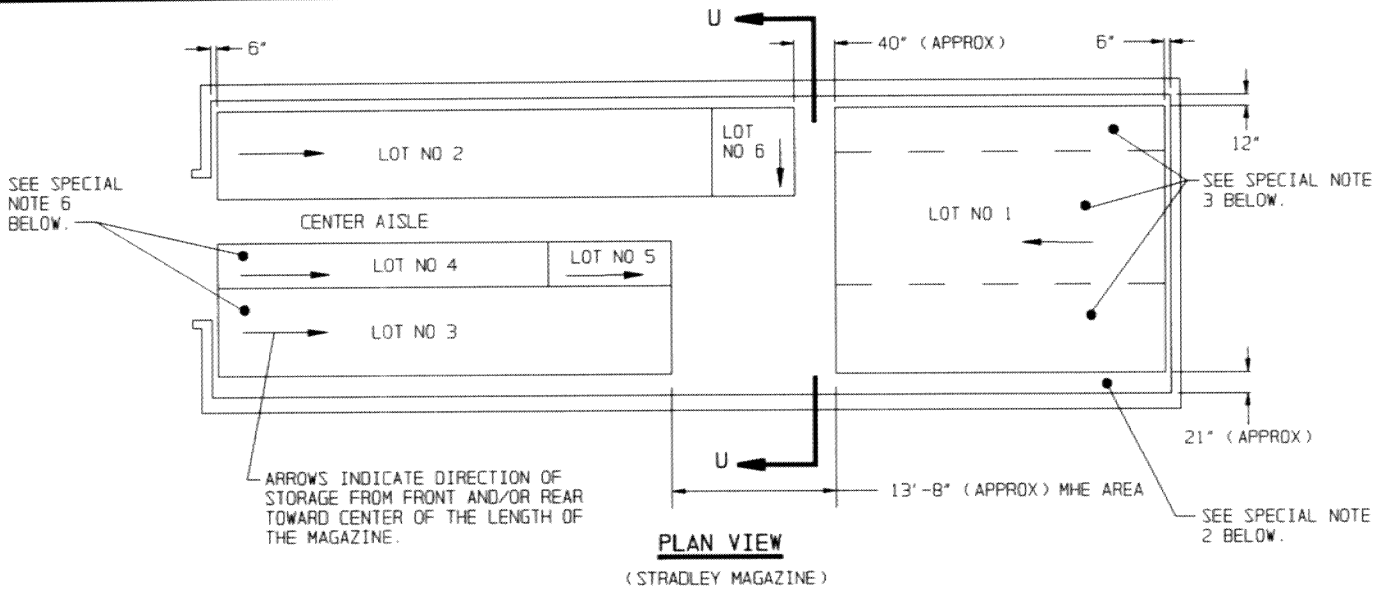
SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO STORAGE OF NUMEROUS SMALL 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 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 ROWS 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 COMPLETE ROUNDS WITHIN THAT UNIT, HOWEVER, 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 NO 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 MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
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 INCLOSED 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 UNIT LOADS 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'-10" 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. "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.

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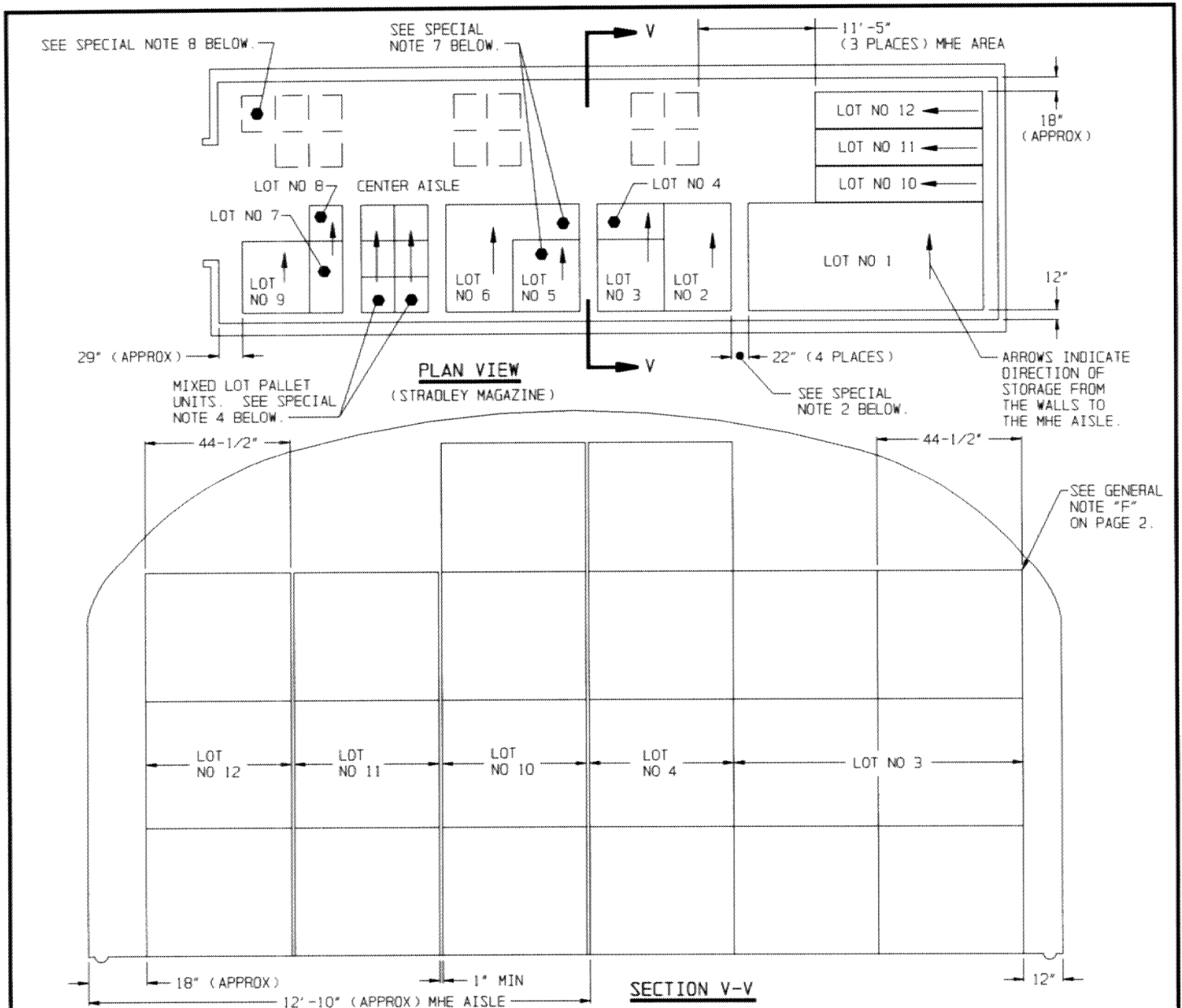
TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



SPECIAL NOTES:

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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 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 MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
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.
7. A 13'-8" MHE OPERATING AREA HAS BEEN SHOWN. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCK, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON EACH SIDE OF MAGAZINE) 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 OF STORAGE RESULTS.

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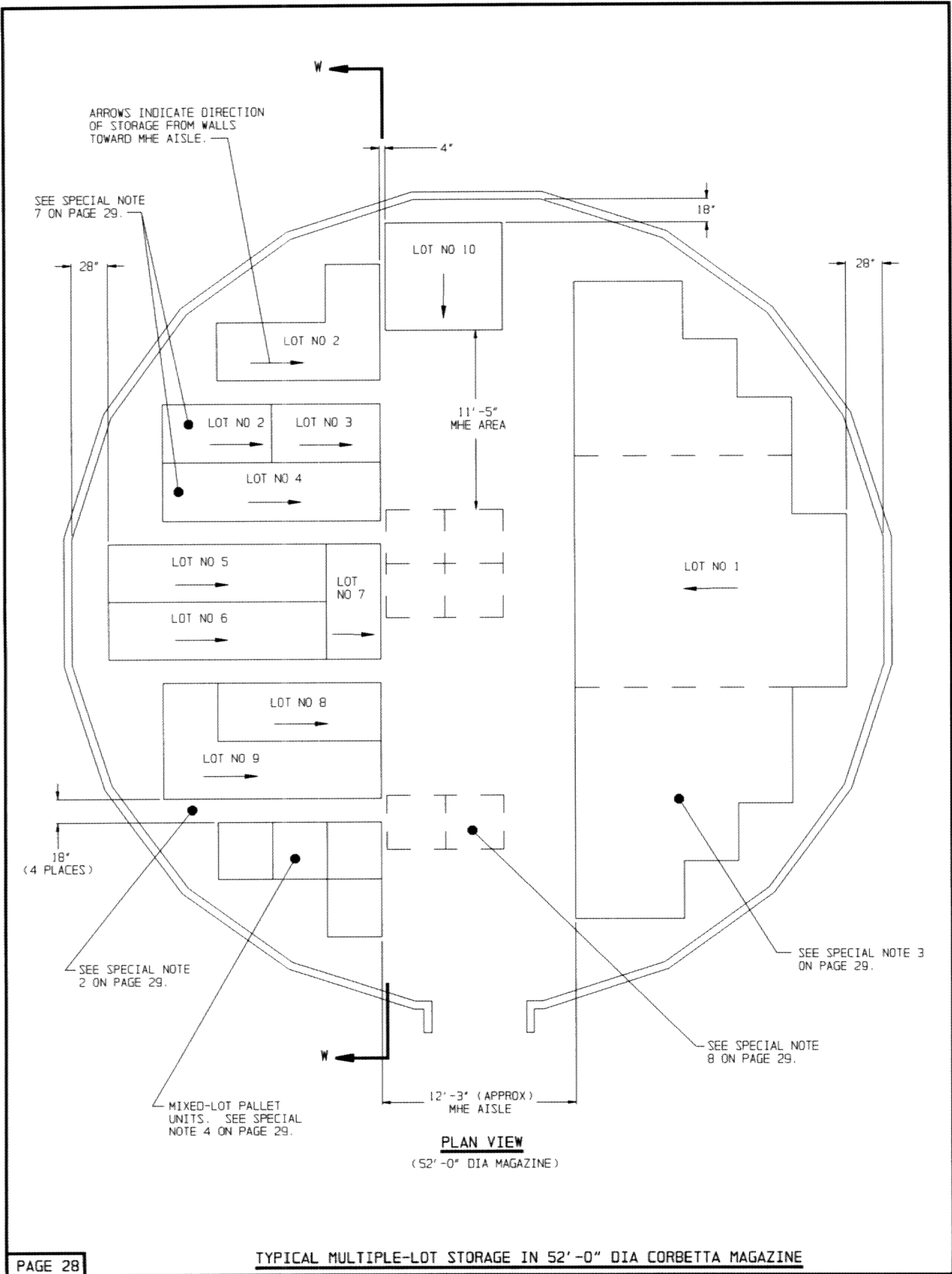
SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO STORAGE OF NUMEROUS SMALL 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 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 ROWS 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 COMPLETE ROUNDS WITHIN THAT UNIT, HOWEVER, LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
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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 INCLOSED 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 UNIT LOADS 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 TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

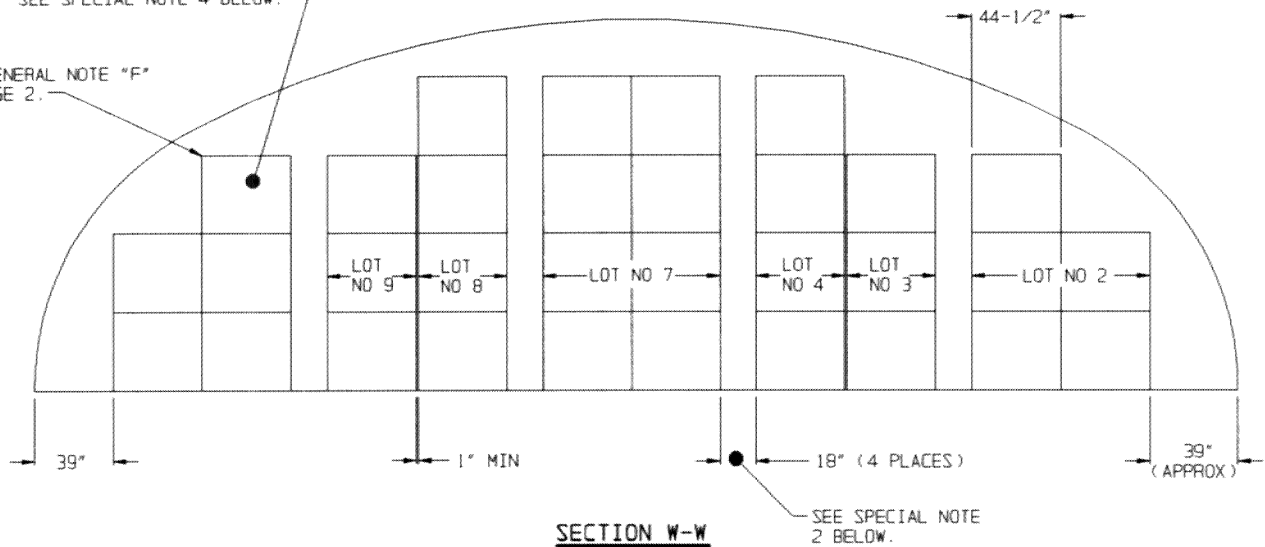
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TYPICAL MULTIPLE-LOT STORAGE IN STRADLEY MAGAZINE



MIXED-LOT PALLET UNITS.
SEE SPECIAL NOTE 4 BELOW.

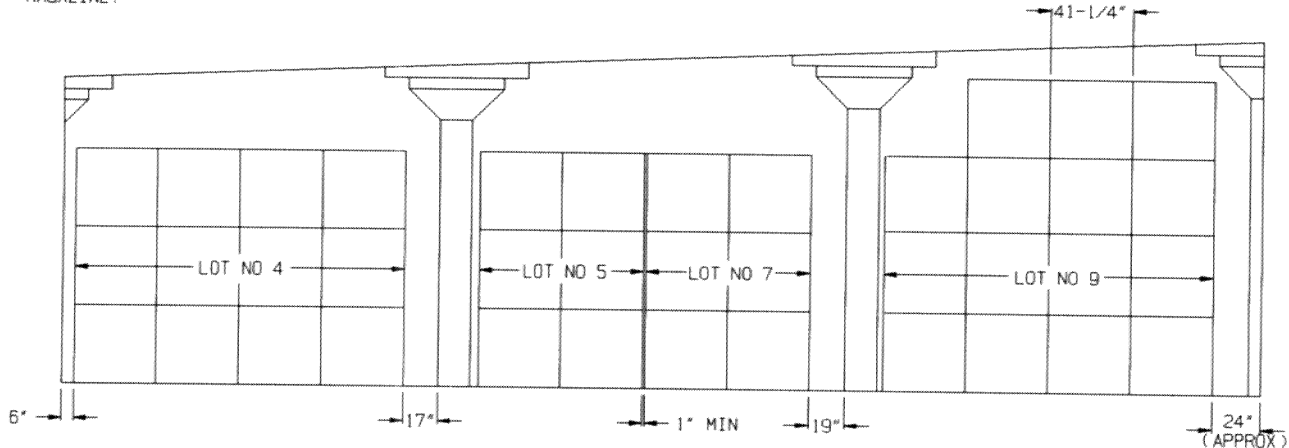
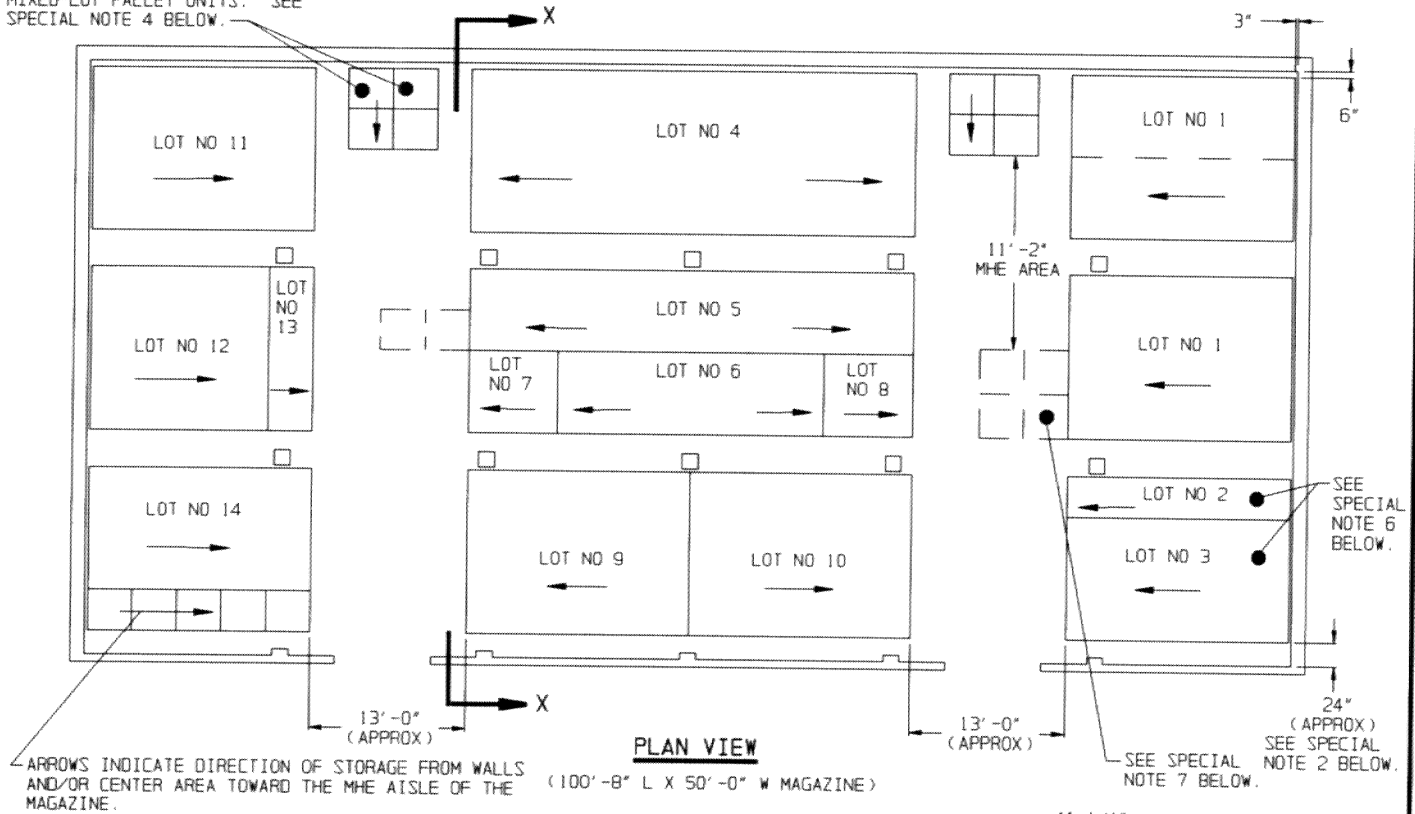
SEE GENERAL NOTE "F"
ON PAGE 2.



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8. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS OR ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS ADJACENT TO THE MHE AISLE. 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 UNIT LOADS 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 FORLIFT 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 AVAILIABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF THE 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.

MIXED-LOT PALLET UNITS. SEE SPECIAL NOTE 4 BELOW.



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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 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 SMALLER SIZED LOTS, OR AS TYPICALLY SHOWN 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.
4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT, HOWEVER, ALL 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 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 MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
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. 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 ADJACENT TO THE MHE AISLE. 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 "24 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNIT LOADS 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'-2" 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. AN MHE AISLE (SPACE BETWEEN STORED PALLET UNITS) 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.

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