STORAGE IN APPROVED MAGAZINES OF ENCAPSULATED HARPOON MISSILE, PACKED 1 PER MK630 MOD 0 SHIPPING AND STORAGE CONTAINER

INDEX

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND
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JUNE 1997

CLASS	DIVISION	DRAWING	FILE
19	48	8636	SP 1-3-4-14-22J35

DO NOT SCALE

PROJECT SP 335-97 DRAWING 19-48-8636

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 SPECIFIED HEREIN ARE APPLICABLE TO THE ENCAPSULATED HARPOON MISSILE, PACKED 1 PER MK630 MOD 0 CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER MEANS THE MK630 CONTAINER WITH CONTENTS. FOR DETAILS OF THE CONTAINER SEE NAVSEA SYSTEMS COMMAND OR-4/261 AND THE PICTORIAL VIEW ON PAGE 3.

CONTAINER DIMENSIONS - - 271-7/8" L X 44" W X 39-1/4" H
STACKING HEIGHT - - - - 36-1/4"
GROSS WEIGHT - - - - - - 3,667 POUNDS (APPROX)
CUBE - - - - - - - - - - 272 CUBIC FEET (APPROX)

CAUTION: THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE STORED WITH THE FORWARD END FACING TOWARD A SIDEWALL OR THE REAR WALL AS INDICATED BY THE DIRECTIONAL ARROWS ON THE STORAGE VIEWS. ADDITIONALLY CONTAINERS MUST NOT BE STACKED MORE THAN THREE (3) CONTAINERS HIGH.

C. 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 CONTAINERS 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.

D. 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.

E. STORED CONTAINERS MUST NOT CONTACT THE WALLS OF A MAGAZINE. THEREFORE, CONTAINERS 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, CONTAINERS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.

F. AISLE DIMENSIONS SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT (MHE).

G. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED BY LOCAL STANDARDS 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 UNITS 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 CONTAINERS AS ONE LIFT.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

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

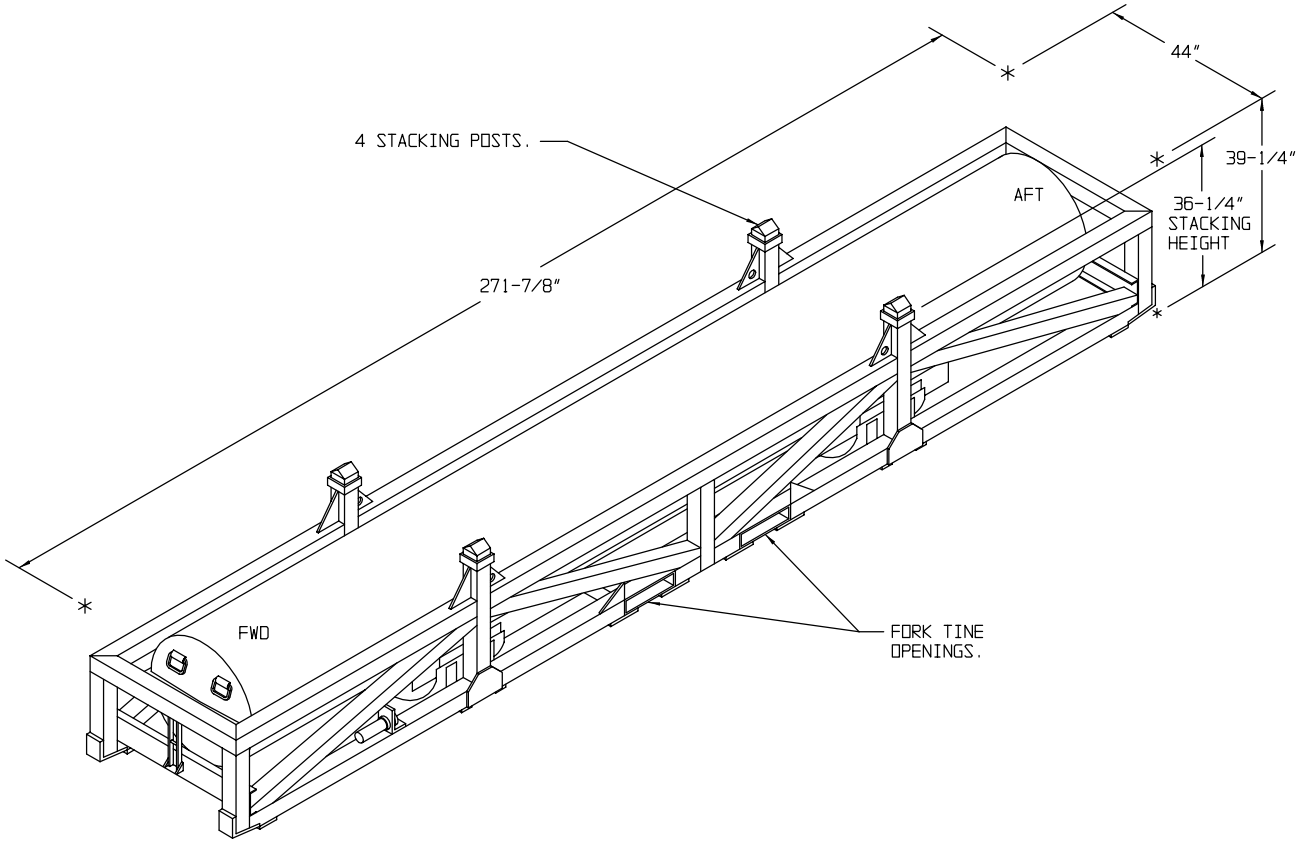
(GENERAL NOTES CONTINUED)

K. IF THE QUANTITY OF CONTAINERS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN 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. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.

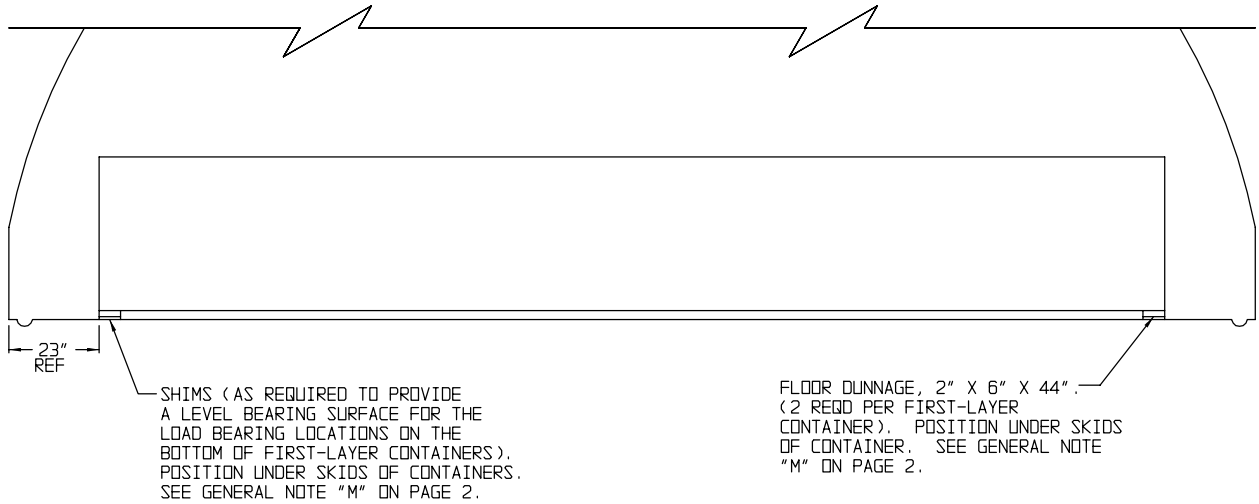
M. THE USE OF NOMINAL SIZE 1" X 6" X 44" OR 2" X 6" X 44" FLOOR DUNNAGE UNDER EACH END OF EACH FIRST-LAYER CONTAINER IS OPTIONAL, ALTHOUGH THE USE OF THIS TYPE OF DUNNAGE IS DELINEATED WITHIN THIS STORAGE PROCEDURE DRAWING. THE PURPOSE OF FLOOR DUNNAGE IS TO HELP KEEP THE RUNNERS OF A CONTAINER DRY, 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. IN IGLOO, ARCH TYPE AND STRADLEY MAGAZINES WHICH HAVE FLOORS SLOPING TOWARD THE SIDEWALLS, THE DEPICTED STORAGE PATTERNS INCLUDE CONTAINER-STACKS WHICH STRADDLE THE RIDGE OF THE FLOOR AT THE CENTER OF THE MAGAZINE. IT WILL BE NECESSARY, THEREFORE, TO USE 2" THICK MATERIAL FOR FLOOR DUNNAGE UNDER THESE STACKS TO PREVENT THE BOTTOM OF THE FORK TINE POCKETS FROM CONTACTING THE CONCRETE FLOOR STACK STABILIZING DUNNAGE IN THE FORM OF SHIMS WILL BE USED IF REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS FROM THE FLOOR TO THE TOP OF THE STACK. SHIM MATERIAL OF VARYING THICKNESSES OR THICKER FLOOR DUNNAGE WILL BE USED AS REQUIRED UNDER THE LOAD BEARING LOCATIONS AT THE ENDS OF FIRST-LAYER CONTAINERS. SEE THE "FLOOR DUNNAGE AND SHIM LOCATION DETAIL" ON PAGE 3 FOR A TYPICAL INSTALLATION.

N. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE WHICH IS PARTIALLY FILLED WITH THE DESIGNATED ITEM.

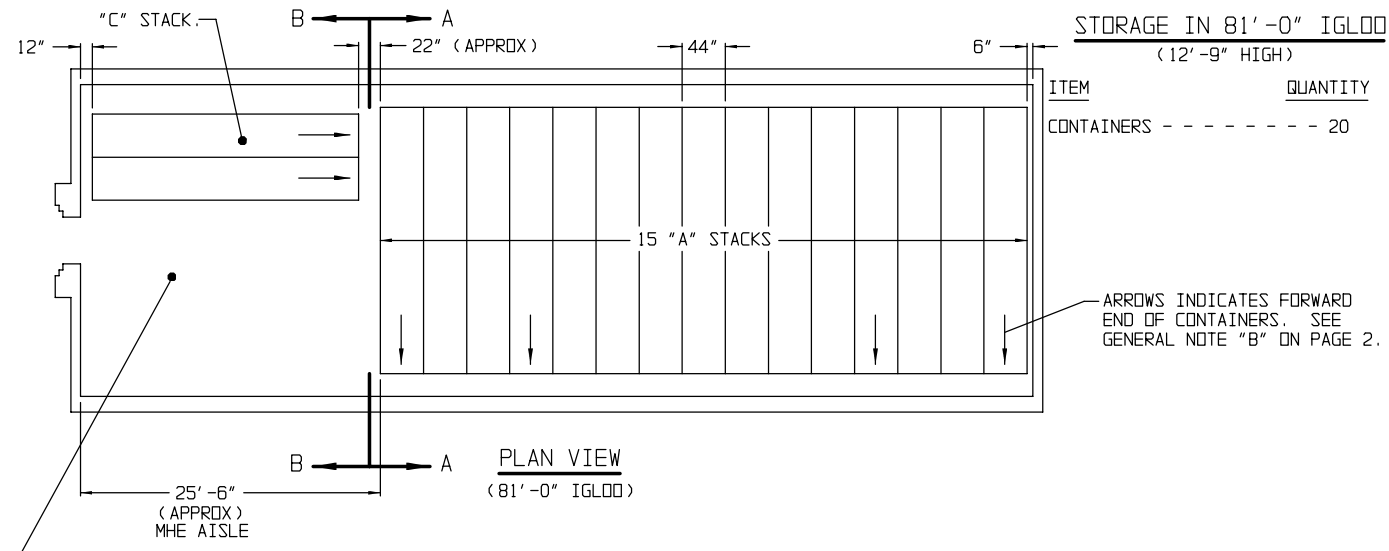


MK630 MOD 0 CONTAINER

GROSS WEIGHT- - - - 3,667 POUNDS (APPROX)
CUBE - - - - - - - 272 CUBIC FEET (APPROX)



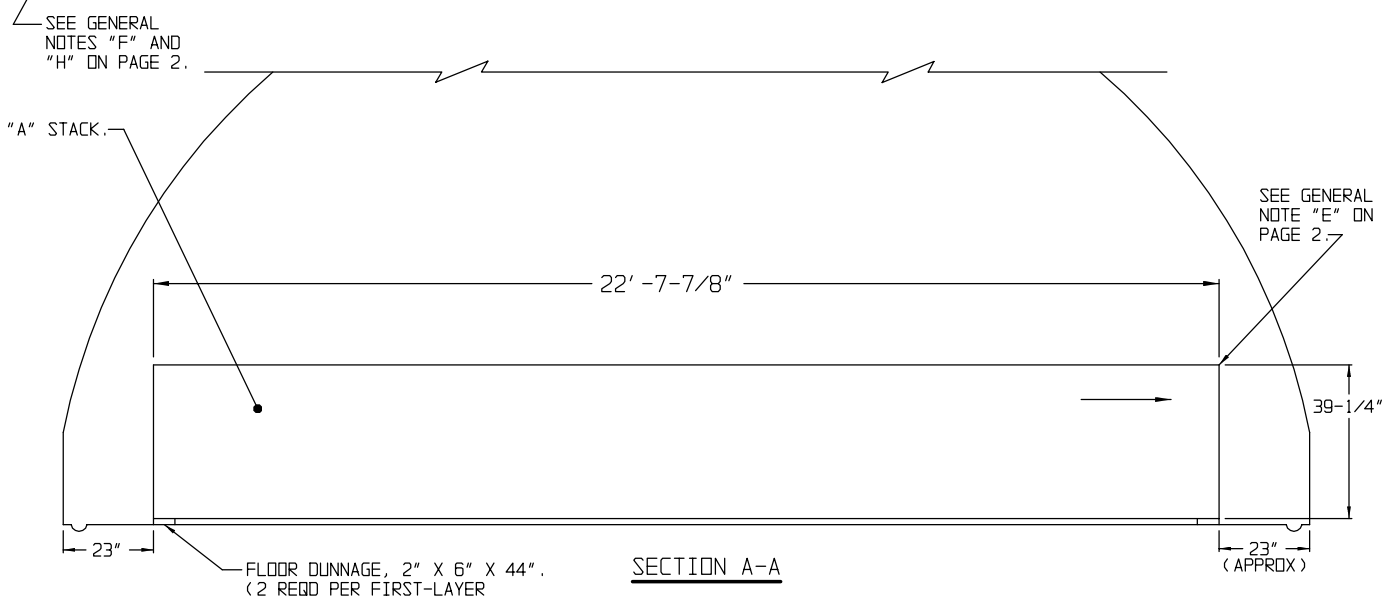
TYPICAL FLOOR DUNNAGE AND SHIM LOCATION DETAIL



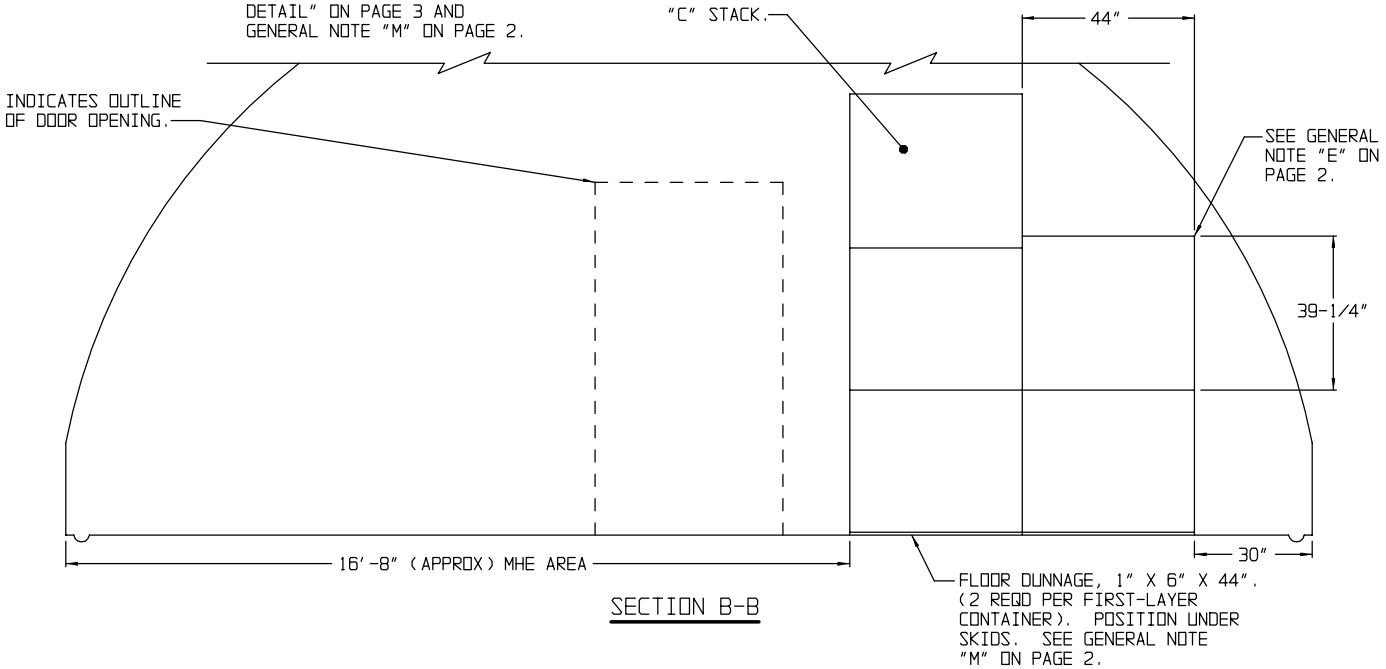
STORAGE IN 81'-0" IGLOO
(12'-9" HIGH)

ITEM	QUANTITY
CONTAINERS	20

PLAN VIEW
(81'-0" IGLOO)



SECTION A-A



SECTION B-B

STORAGE PROCEDURES IN 81'-0", 60'-8", AND 40'-4" L X 26'-6" W X 12'-9" H IGLOO MAGAZINES

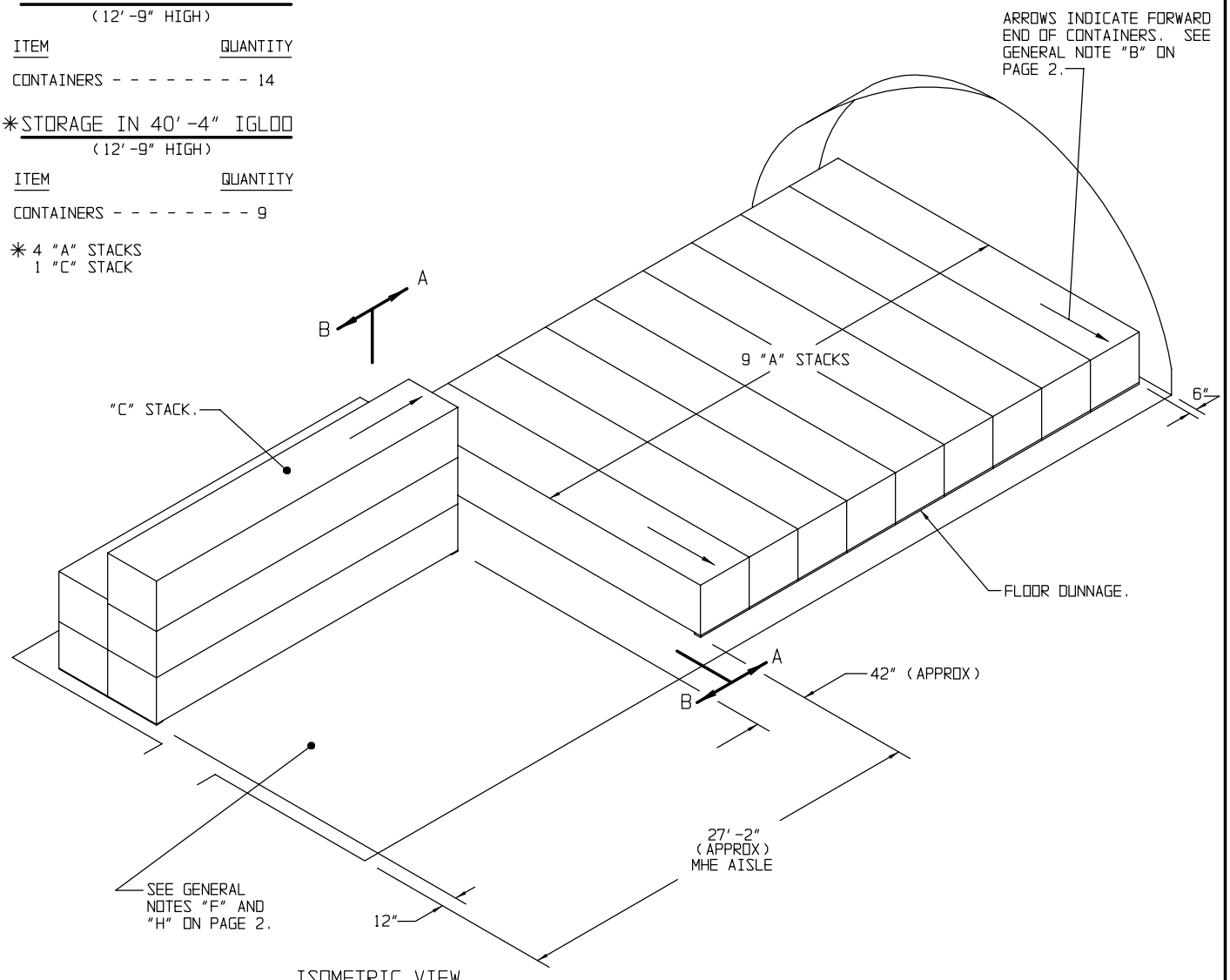
STORAGE IN 60'-8" IGLOO
(12'-9" HIGH)

ITEM	QUANTITY
CONTAINERS	14

✳STORAGE IN 40'-4" IGLOO
(12'-9" HIGH)

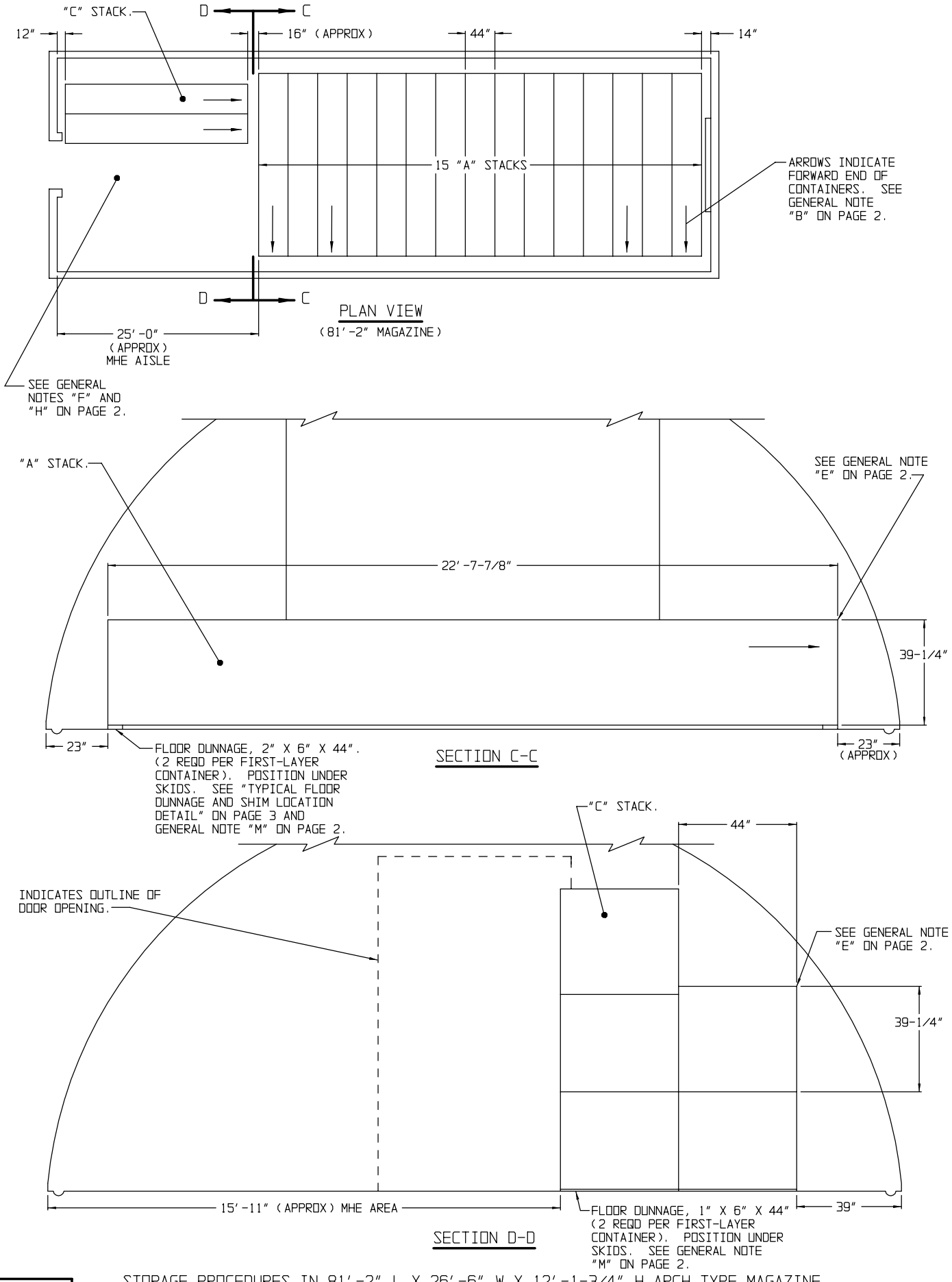
ITEM	QUANTITY
CONTAINERS	9

✳ 4 "A" STACKS
1 "C" STACK



ISOMETRIC VIEW
(60'-8" IGLOO)

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



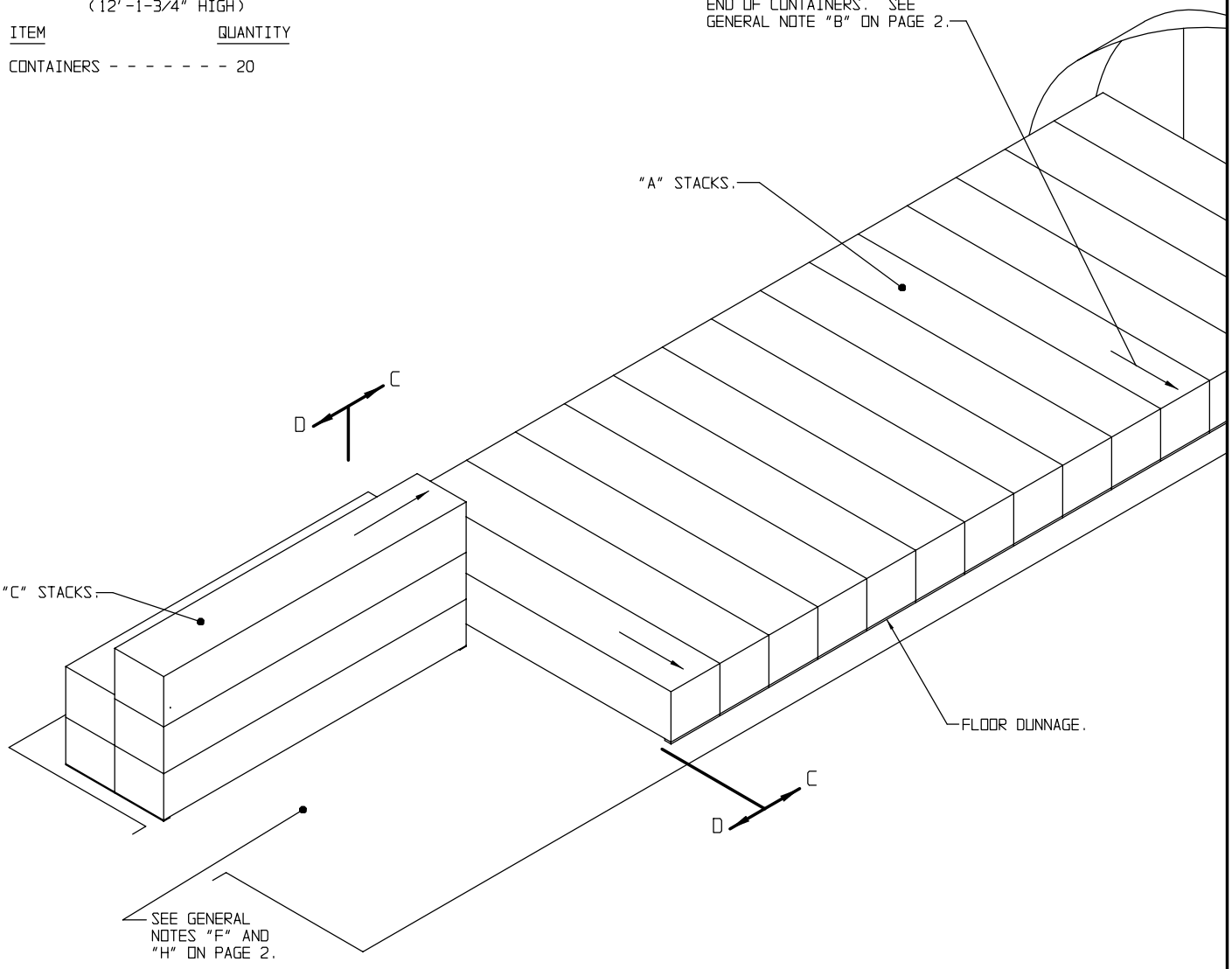
STORAGE PROCEDURES IN 81'-2" L X 26'-6" W X 12'-1-3/4" H ARCH TYPE MAGAZINE

PROJECT SP 335-97 DRAWING 19-48-8636

STORAGE IN 81'-2" MAGAZINE

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

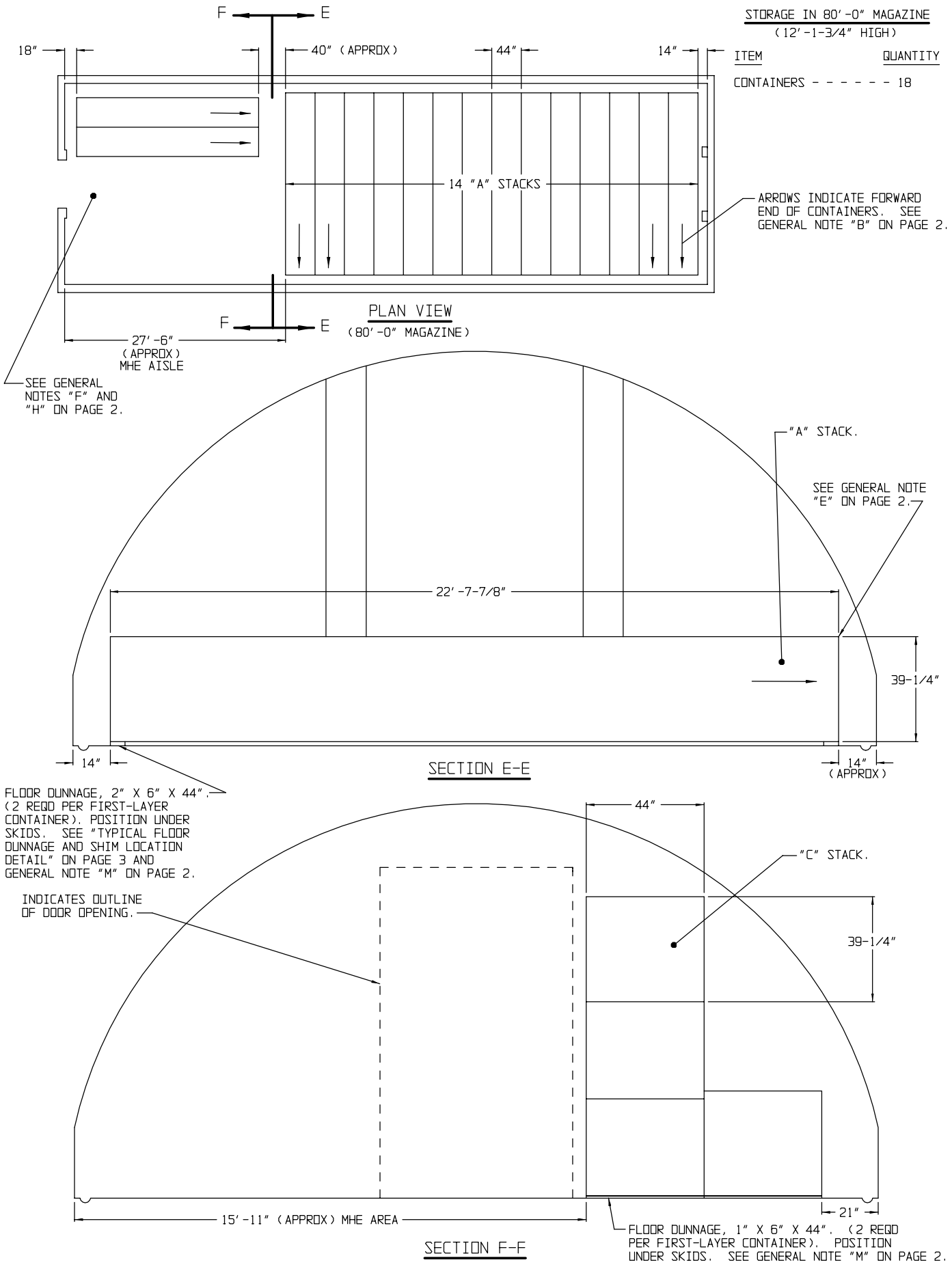
ITEM	QUANTITY
CONTAINERS - - - - - - - -	20



ISOMETRIC VIEW

(81'-2" MAGAZINE)

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



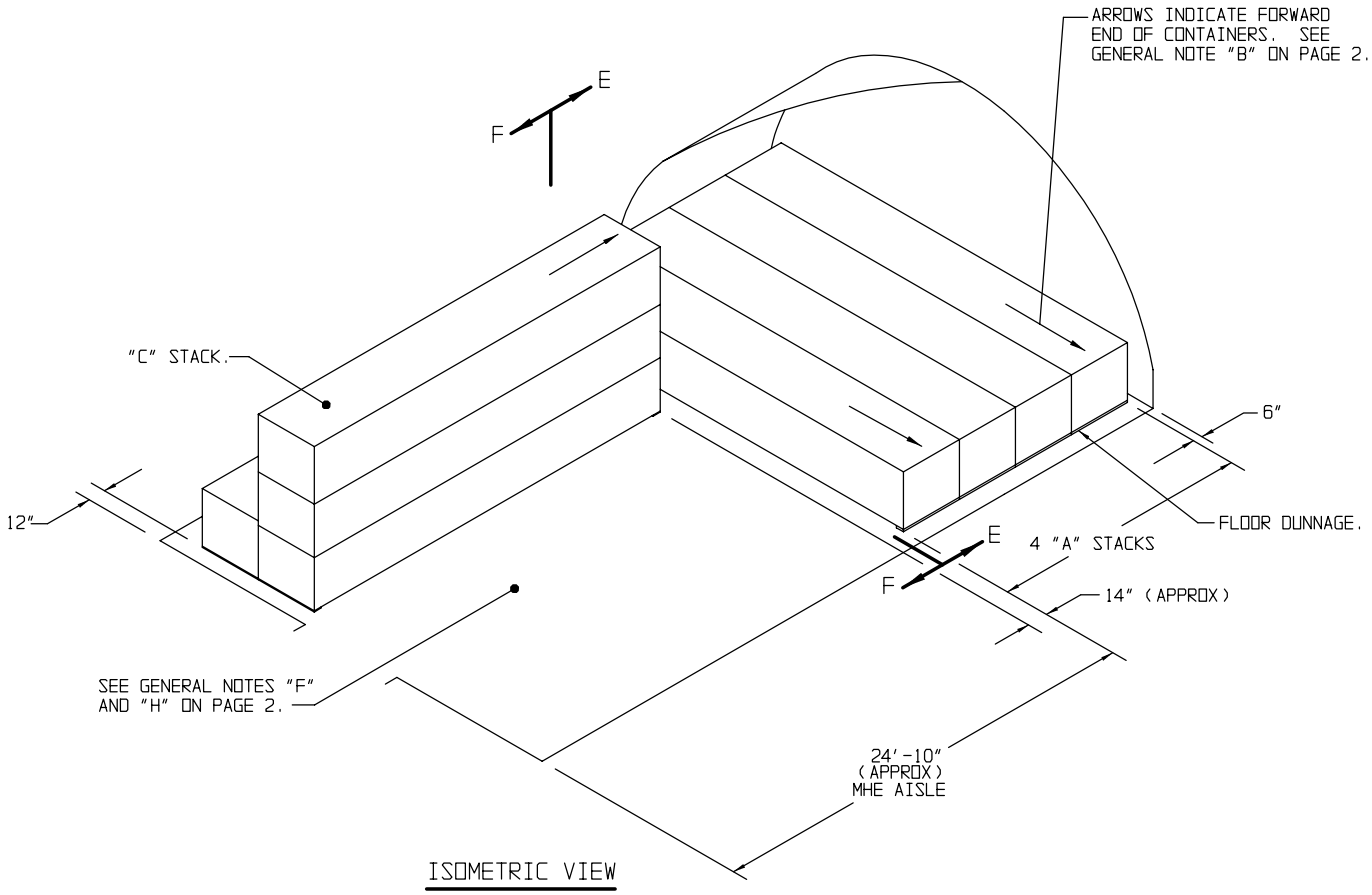
STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 12'-1-3/4" H ARCH TYPE MAGAZINES

PROJECT SP 335-97 DRAWING 19-48-8636

STORAGE IN 40'-0" MAGAZINE

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

ITEM	QUANTITY
CONTAINERS - - - - - - - -	8



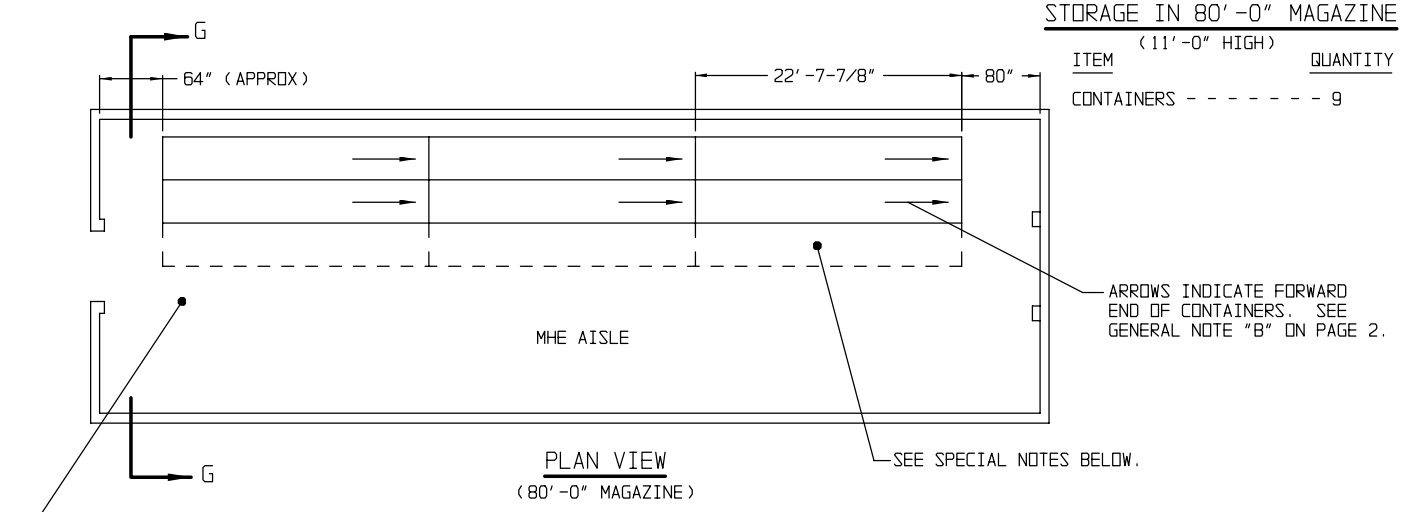
ISOMETRIC VIEW

(40'-0" MAGAZINE)

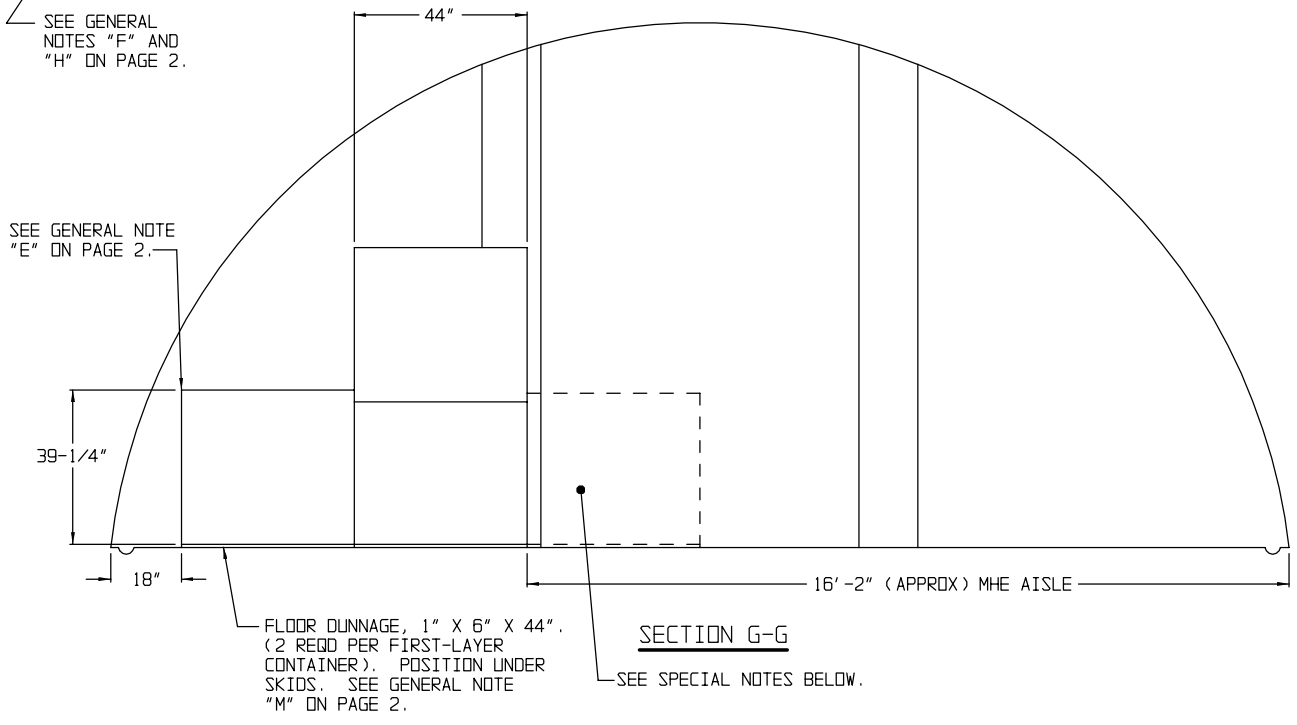
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE
(11'-0" HIGH)

ITEM	QUANTITY
CONTAINERS	9



PLAN VIEW
(80'-0" MAGAZINE)



SECTION G-G

SPECIAL NOTES:

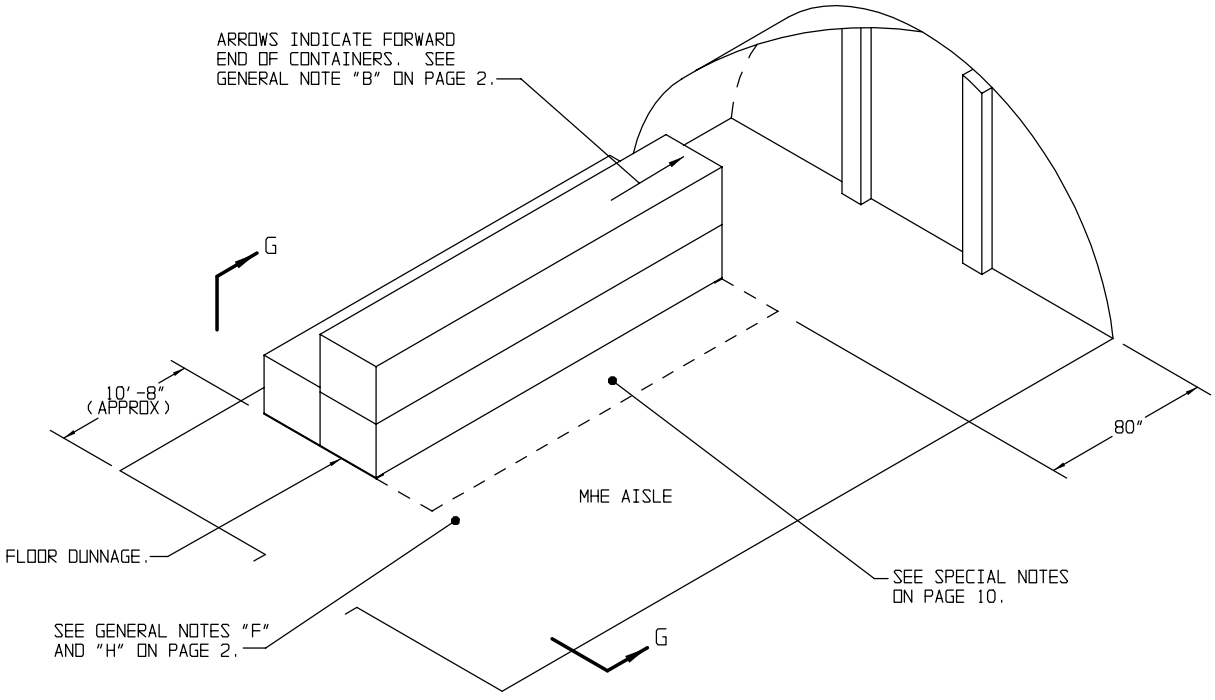
1. IT IS SUGGESTED THAT CONTAINERS BE END HANDLED THRU THE DOOR OPENING BY 2 PALLET JACKS AND PLACED IN AREAS SHOWN BY DOTTED LINES.

2. A FORKLIFT TRUCK POSITIONED INSIDE THE MAGAZINE WITH FORK TINES IN LINE WITH THE TINE OPENINGS OF THE CONTAINER CAN THEN PLACE THE CONTAINERS INTO THE STACKS AS SHOWN.

STORAGE IN 40'-0" MAGAZINE

(11'-0" HIGH)

ITEM	QUANTITY
CONTAINERS - - - - - - - - -	3

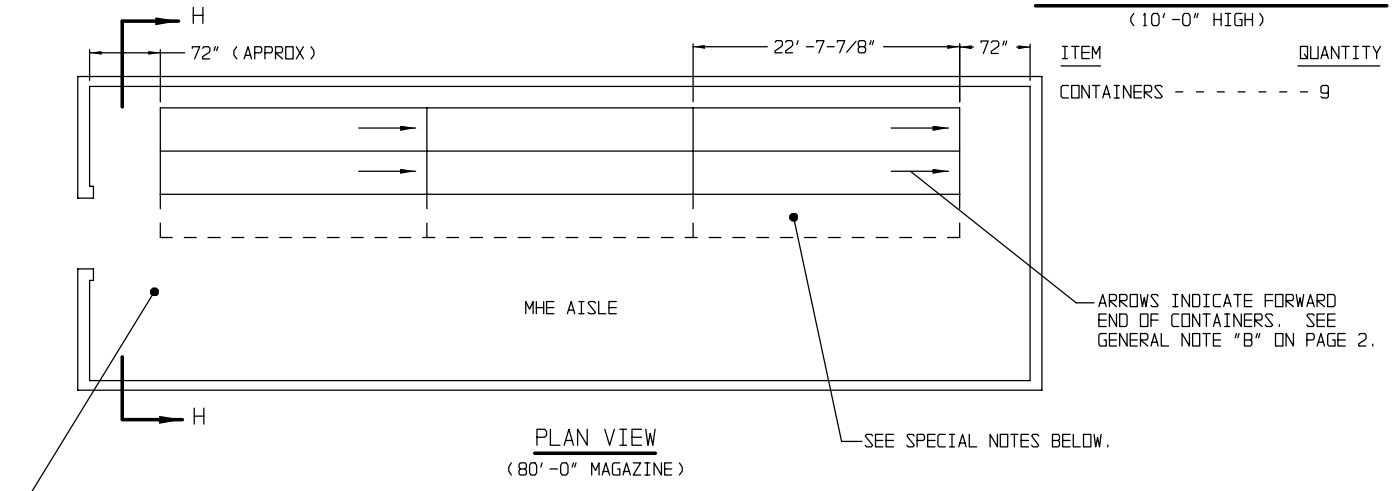


ISOMETRIC VIEW

(40'-0" MAGAZINE)

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

STORAGE IN 80'-0" MAGAZINE
(10'-0" HIGH)



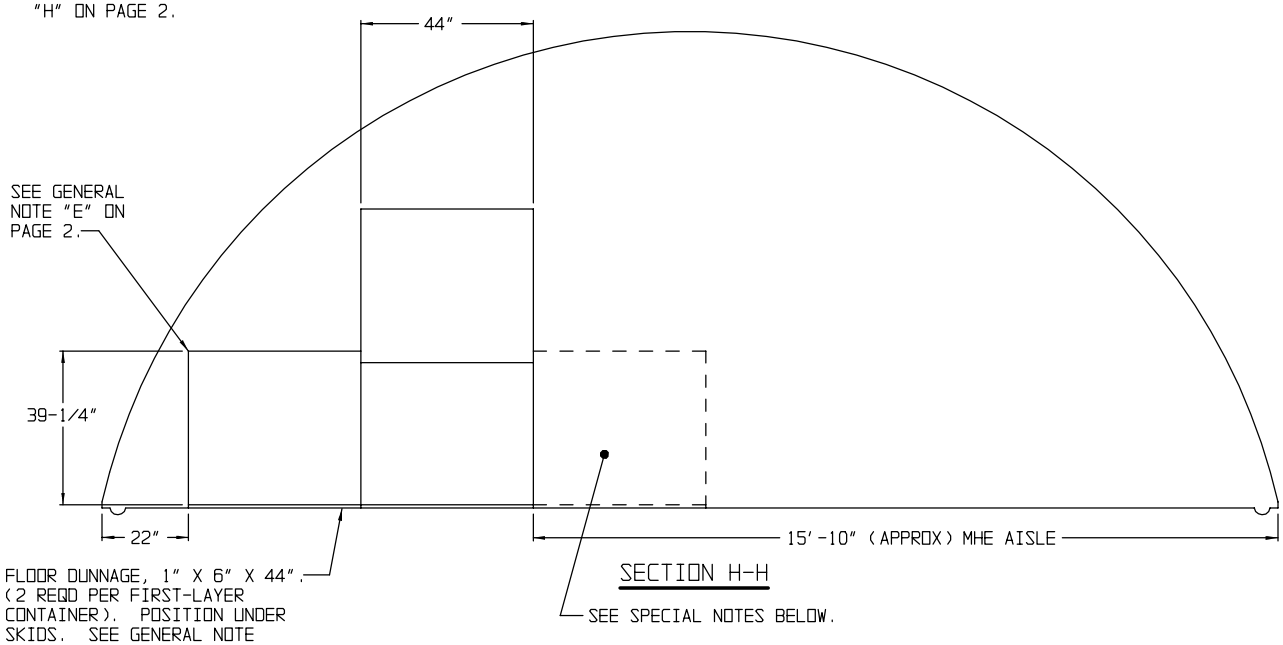
ITEM	QUANTITY
CONTAINERS	9

ARROWS INDICATE FORWARD END OF CONTAINERS. SEE GENERAL NOTE "B" ON PAGE 2.

SEE SPECIAL NOTES BELOW.

PLAN VIEW
(80'-0" MAGAZINE)

SEE GENERAL NOTES "F" AND "H" ON PAGE 2.



SECTION H-H

SPECIAL NOTES:

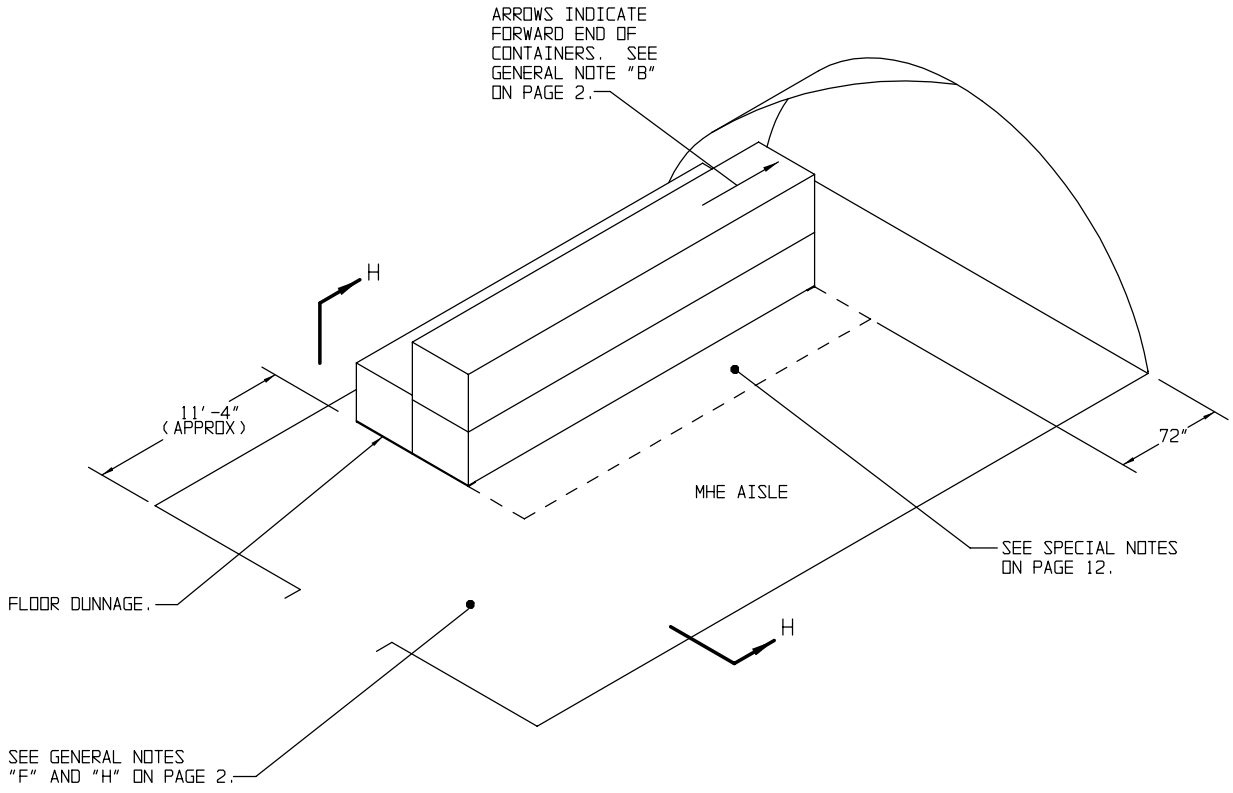
1. IT IS SUGGESTED THAT CONTAINERS BE END HANDLED THRU THE DOOR OPENING BY 2 PALLET JACKS AND PLACED IN AREAS SHOWN BY DOTTED LINES.

2. A FORKLIFT TRUCK POSITIONED INSIDE THE MAGAZINE WITH FORK TINES IN LINE WITH THE TINE OPENINGS OF THE CONTAINER CAN THEN PLACE THE CONTAINERS INTO THE STACKS AS SHOWN.

STORAGE IN 40'-0" MAGAZINE

(10'-0" HIGH)

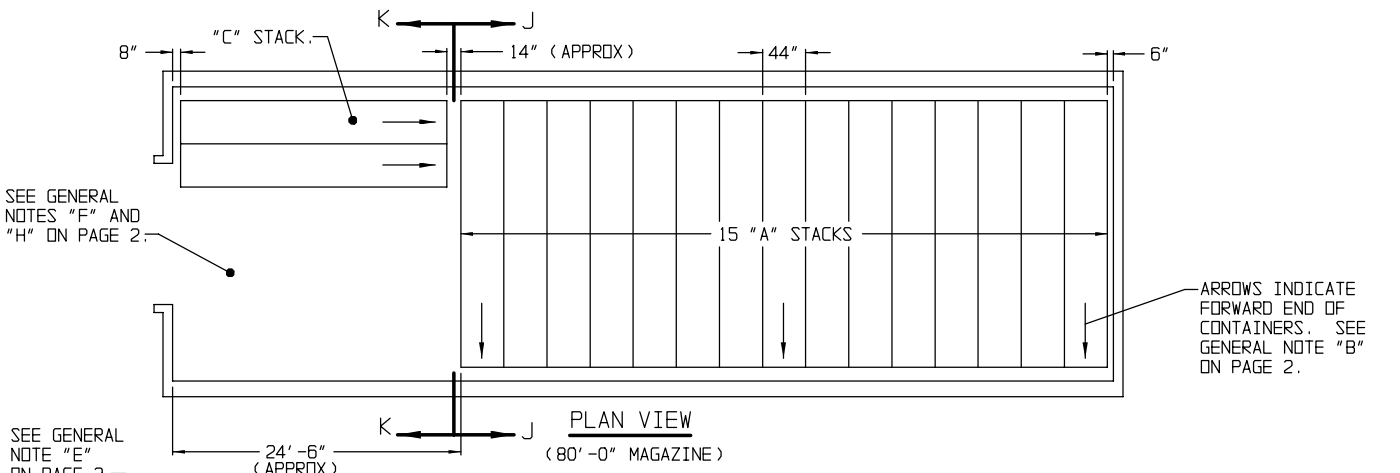
ITEM	QUANTITY
CONTAINERS	3



ISOMETRIC VIEW

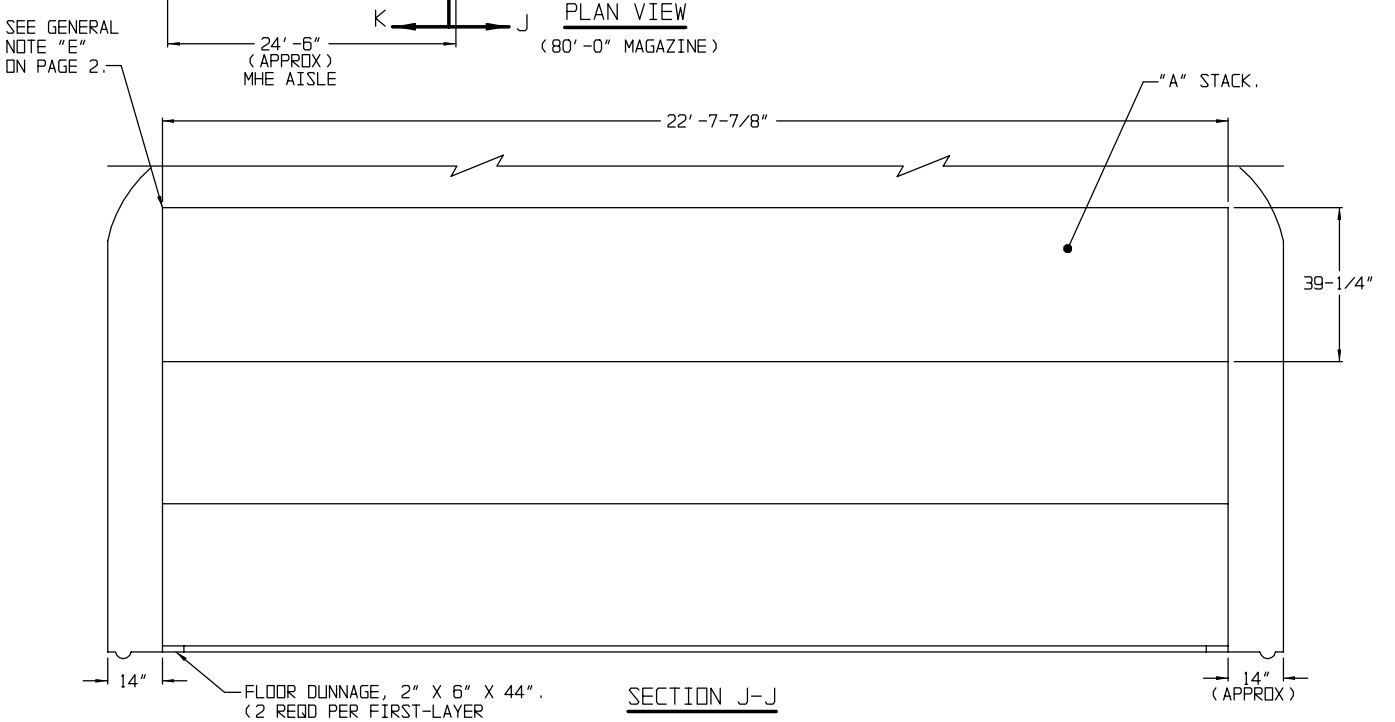
(40'-0" MAGAZINE)

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

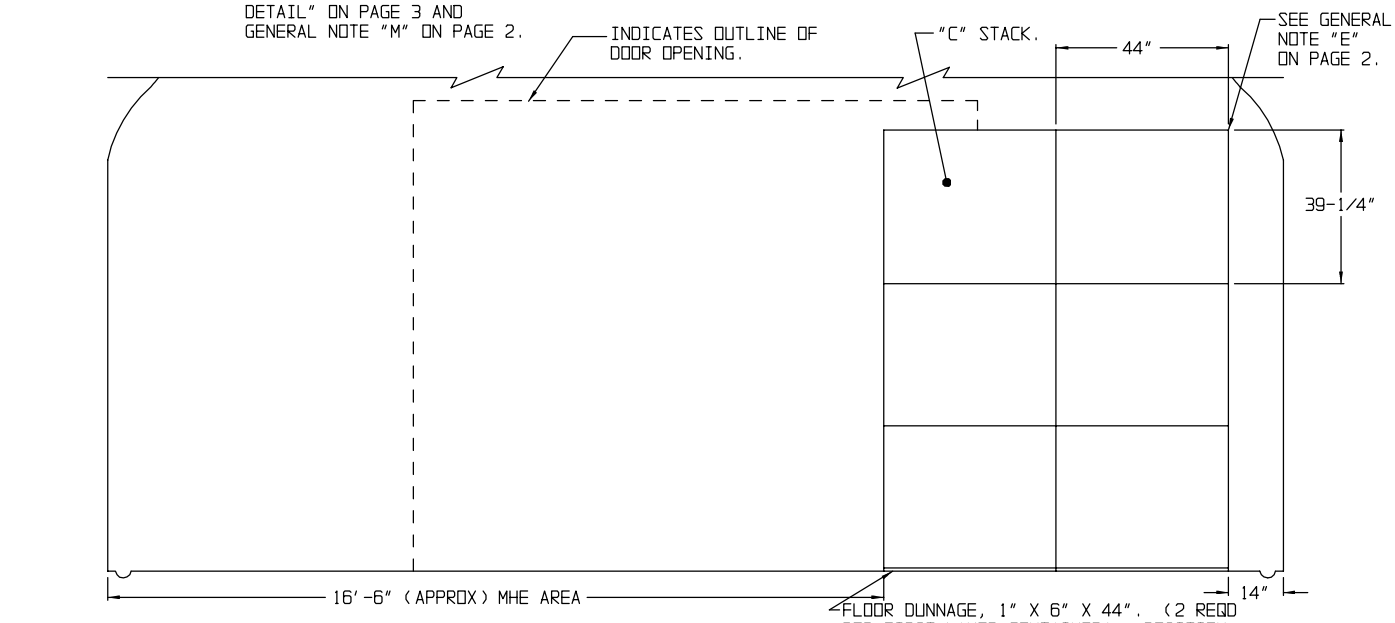


PLAN VIEW

(80'-0" MAGAZINE)



SECTION J-J



SECTION K-K

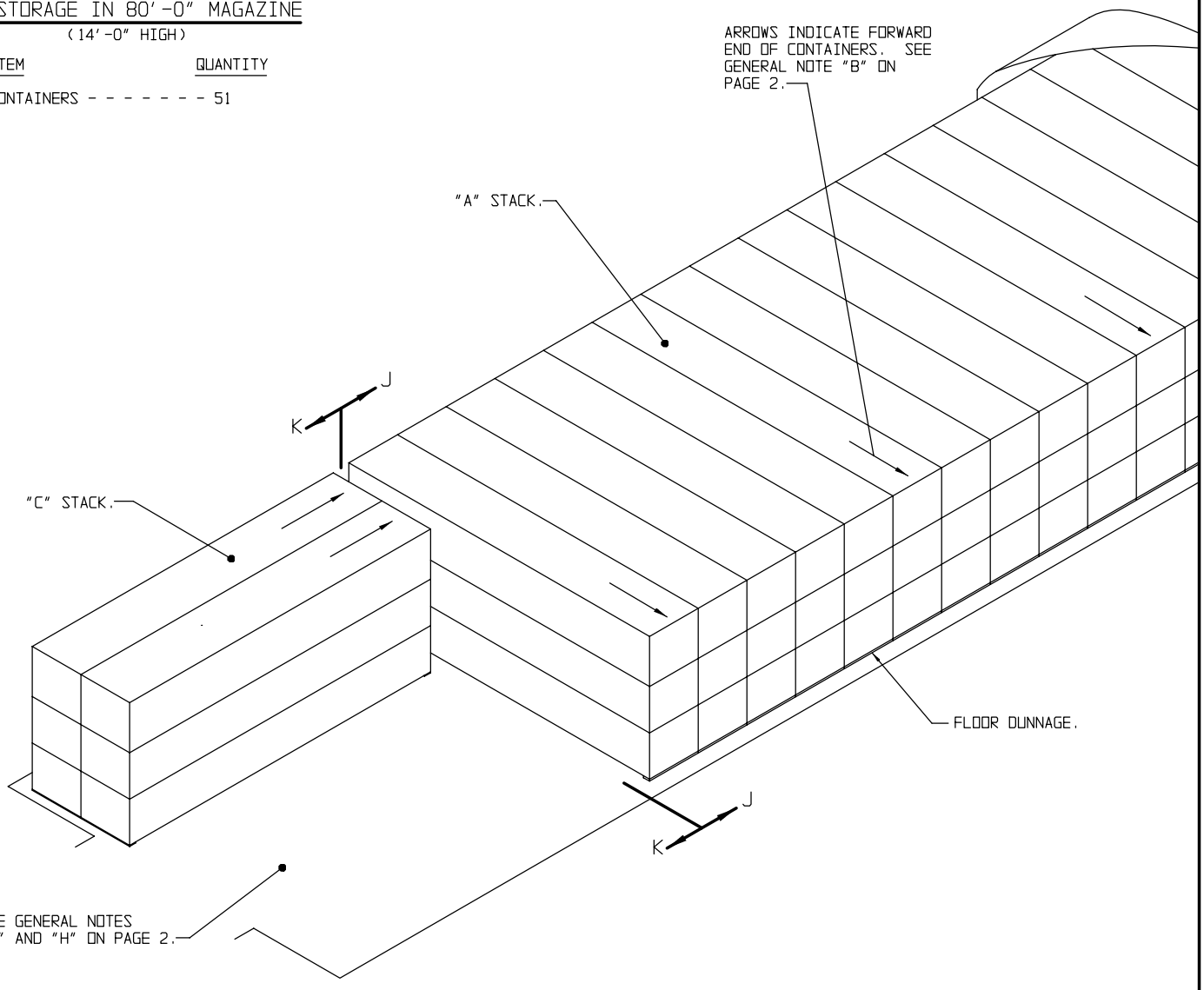
STORAGE PROCEDURES IN 80'-0" L X 25'-0" W X 14'-0" H STRADLEY MAGAZINE

PROJECT SP 335-97 DRAWING 19-48-8636

STORAGE IN 80'-0" MAGAZINE

(14'-0" HIGH)

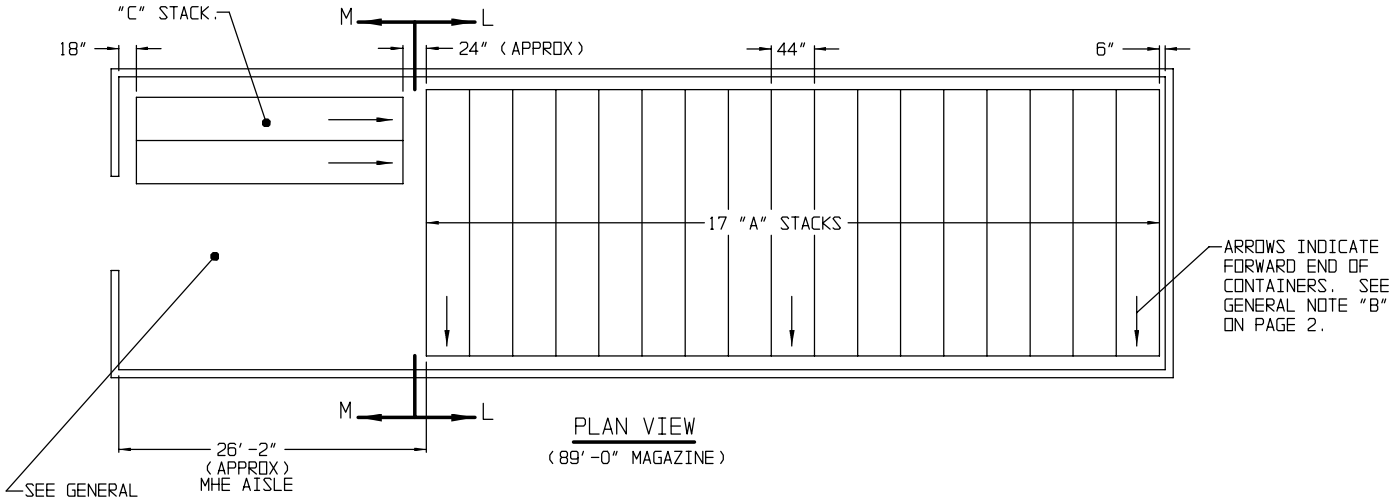
ITEM	QUANTITY
CONTAINERS	51



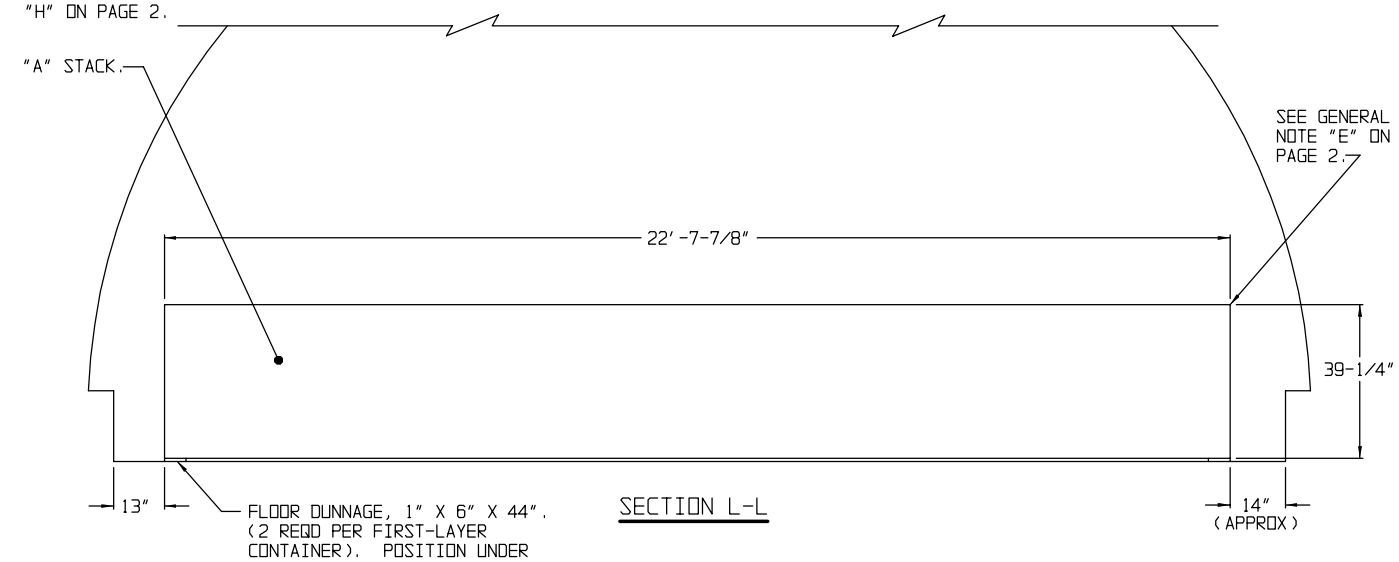
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

ISOMETRIC VIEW

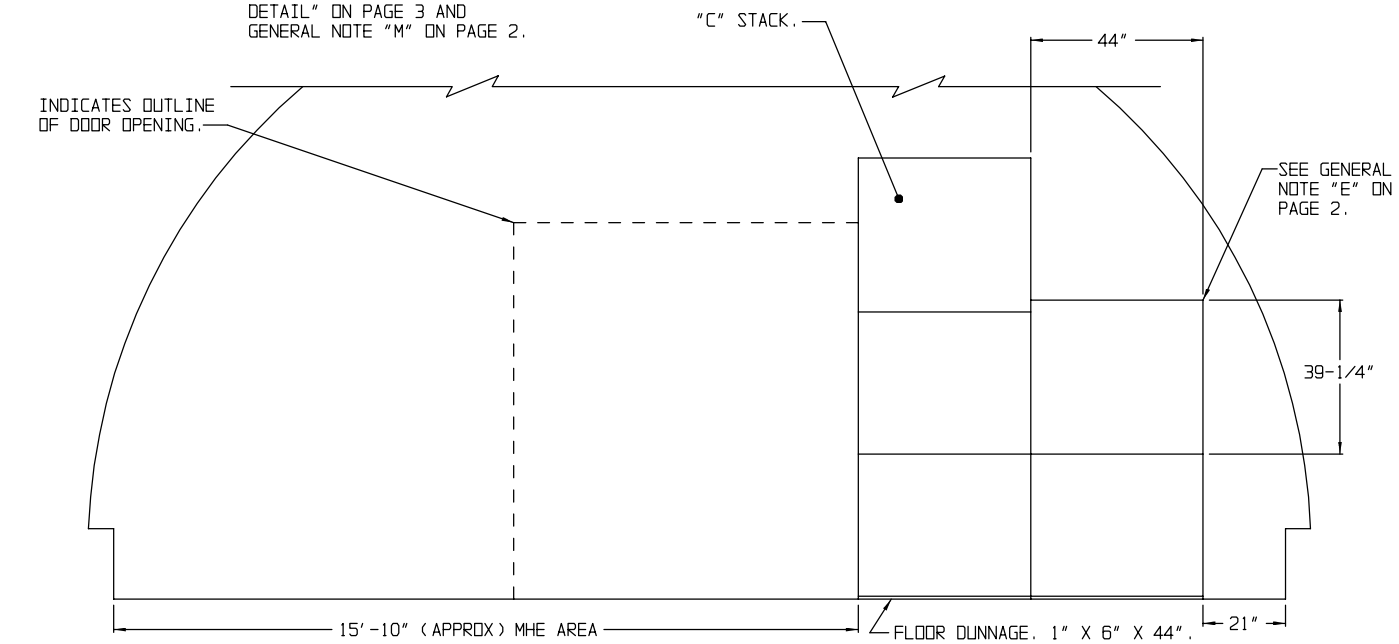
(80'-0" MAGAZINE)



PLAN VIEW
(89'-0" MAGAZINE)



SECTION L-L

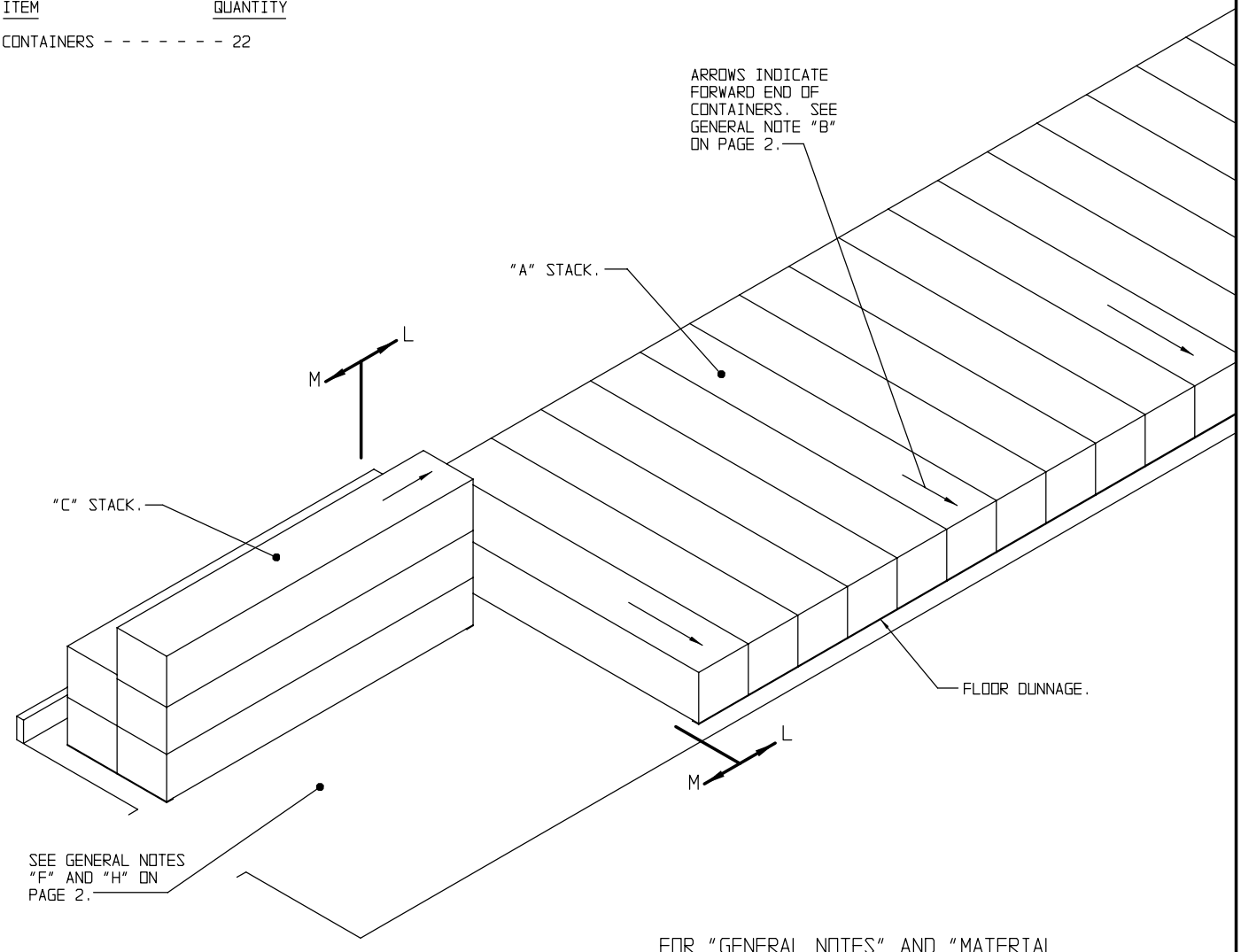


SECTION M-M

STORAGE PROCEDURES IN 89'-0" L X 24'-11" W X 13'-6" H STEEL ARCH MAGAZINE

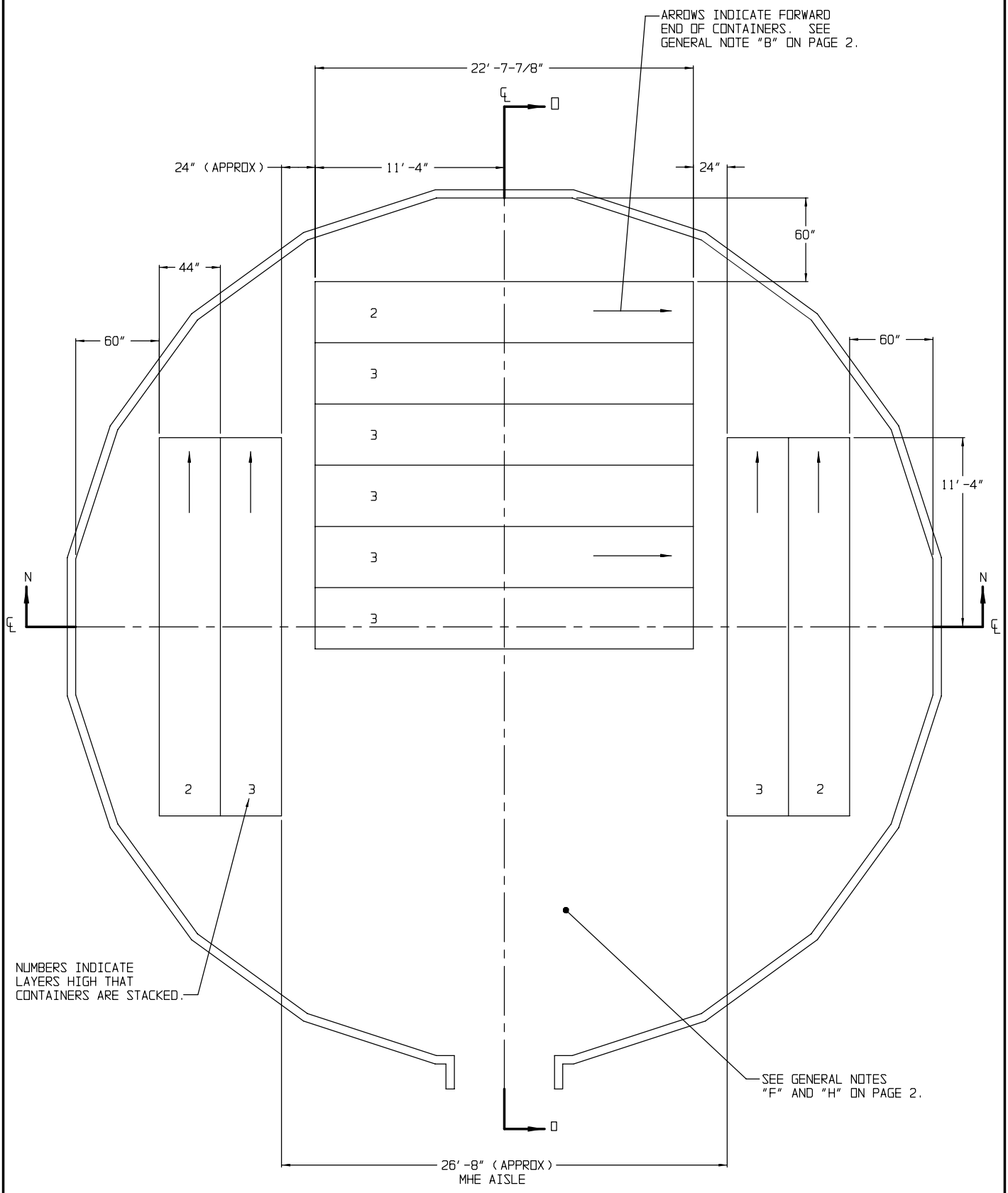
STORAGE IN 89'-0" MAGAZINE
(13'-6" HIGH)

ITEM	QUANTITY
CONTAINERS - - - - - - - -	22



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

ISOMETRIC VIEW
(89'-0" MAGAZINE)



PLAN VIEW

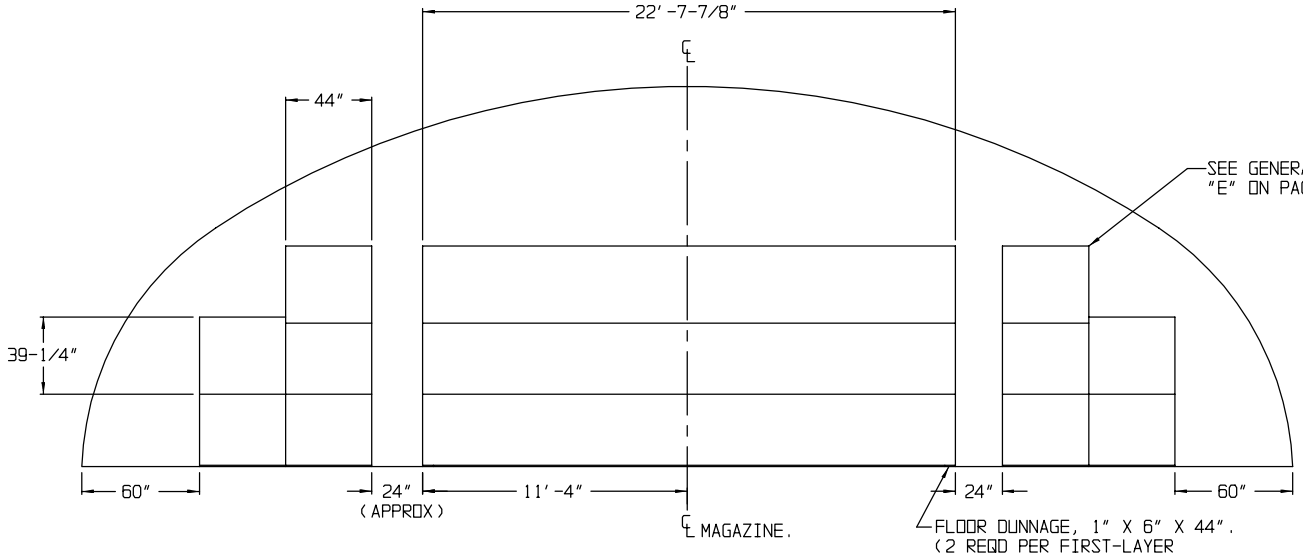
(52′-0″ DIA MAGAZINE)

STORAGE PROCEDURES IN 52′-0″ DIA CORBETTA MAGAZINE

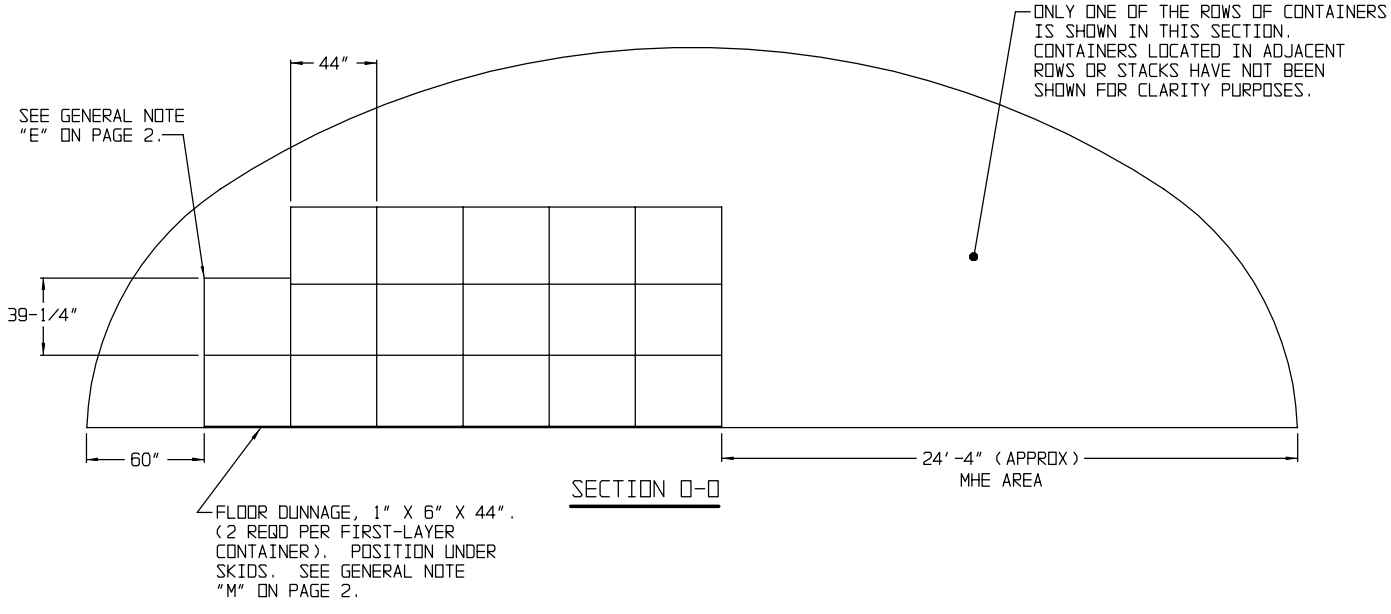
PROJECT SP 335-97 DRAWING 19-48-8636

STORAGE IN 52′-0″ DIA MAGAZINE

ITEM	QUANTITY
CONTAINERS	27

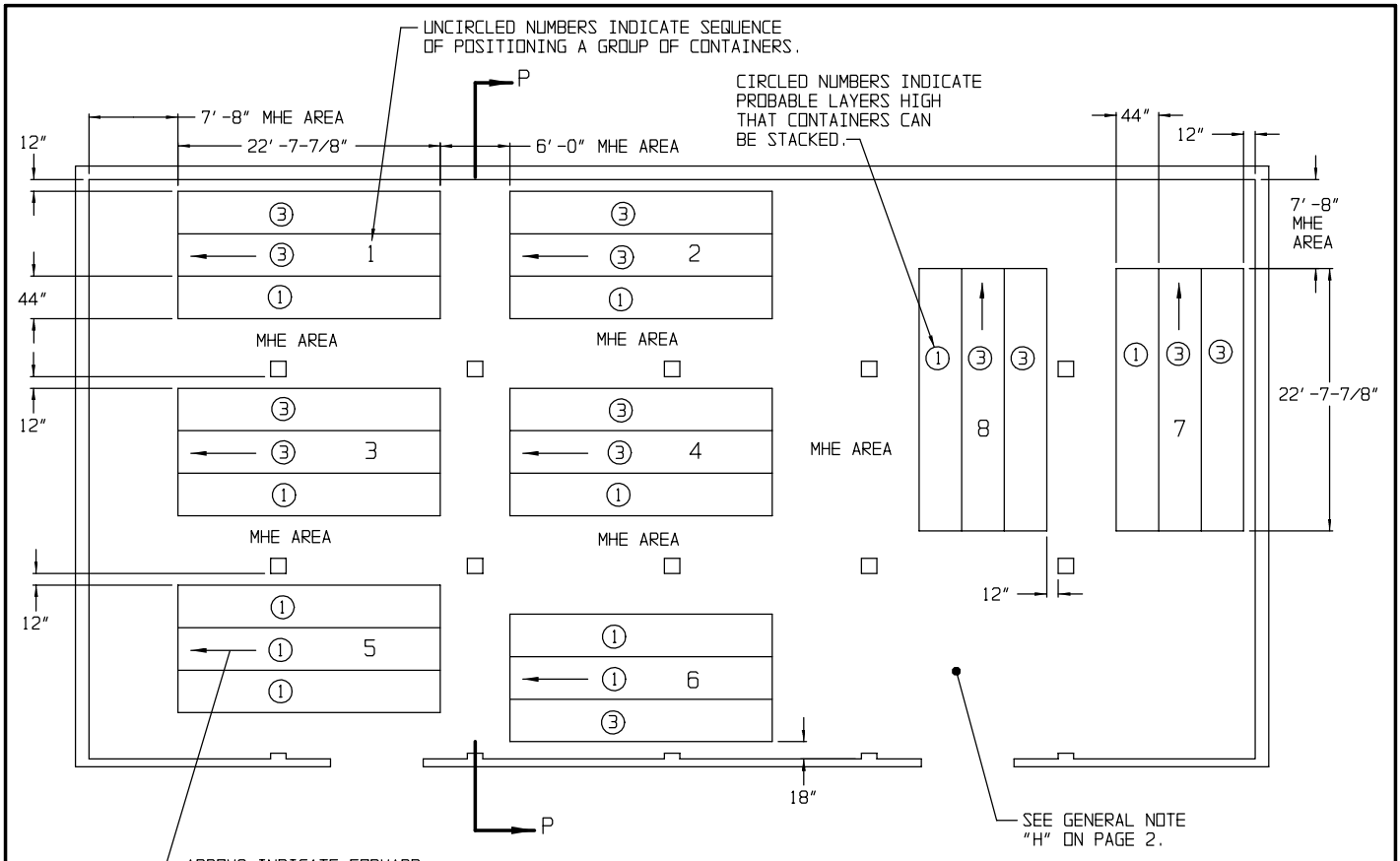


SECTION N-N



SECTION O-O

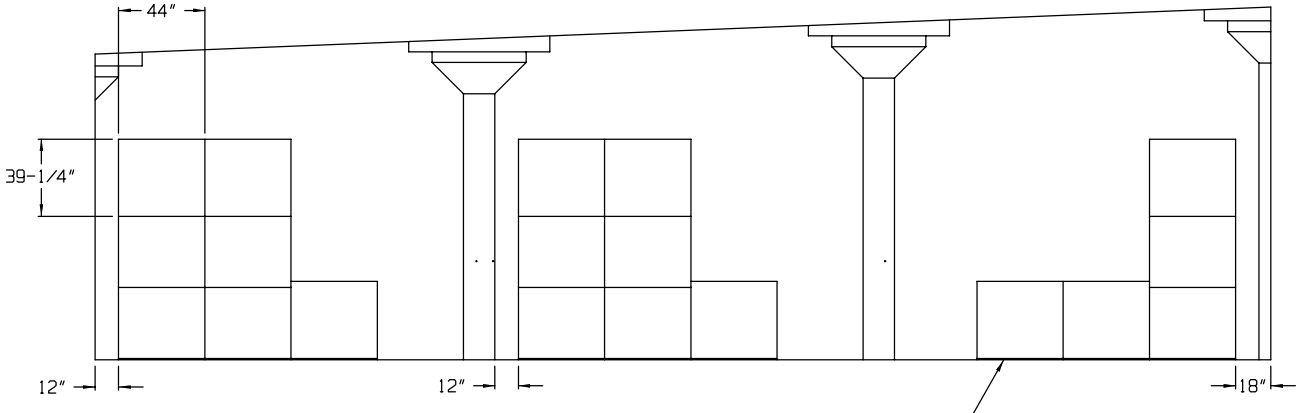
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PLAN VIEW

(100′-8″ X 50′-0″ MAGAZINE)

SEE SPECIAL NOTES ON PAGE 21.



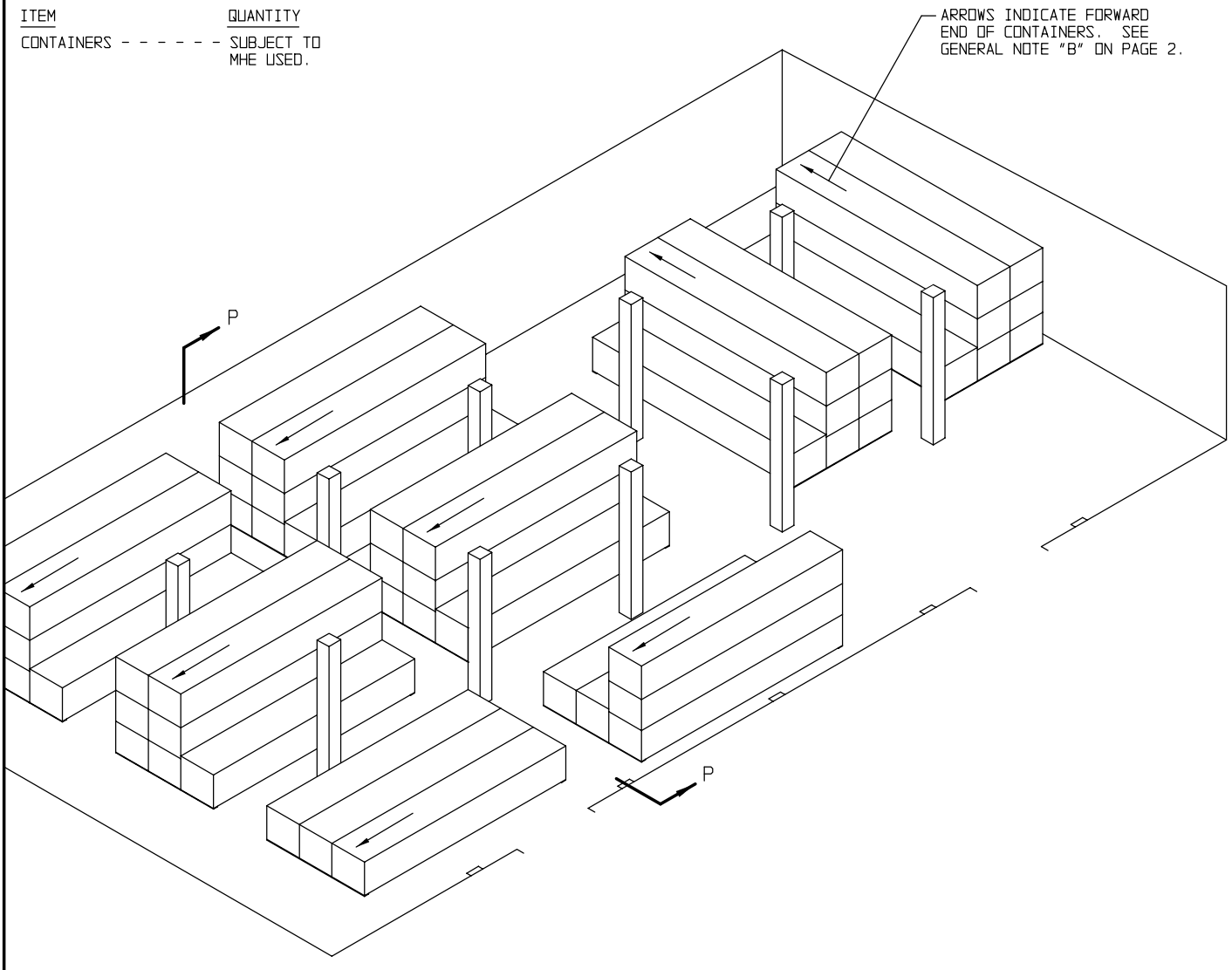
SECTION P-P

STORAGE PROCEDURES IN 100′-8″ L X 50′-0″ W RECTANGULAR MAGAZINE

PROJECT SP 335-97 DRAWING 19-48-8636

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

ITEM	QUANTITY
CONTAINERS - - - - - -	SUBJECT TO MHE USED.



ISOMETRIC VIEW

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

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

SPECIAL NOTES:

1. DUE TO THE LENGTH OF THE CONTAINER AND THE LOCATION OF THE COLUMNS IN THE MAGAZINE, THE PLAN VIEW DEPICTS A STORAGE PATTERN THAT CAN BE ACCOMPLISHED BY USE OF 2 PALLET JACKS AND A CONVENTIONAL FORKLIFT TRUCK.

2. THE STORAGE PATTERN DEPICTS 3 CONTAINER HIGH AND 1 CONTAINER HIGH STACKS WHICH CAN BE ACCOMPLISHED BY END HANDLING A CONTAINER WITH 2 PALLET JACKS AND PLACING IN A STORAGE LOCATION. STACKING CONTAINERS UP TO 3 LAYERS HIGH CAN THEN BE ACCOMPLISHED BY USE OF A CONVENTIONAL FRONT LOADER FORKLIFT TRUCK.

3. STACKS HAVE BEEN POSITIONED TO PROVIDE ADEQUATE SPACE FOR REMOVAL OF THE PALLET JACKS AS WELL AS PROVIDE ACCESS FOR STACKING BY FORKLIFT TRUCK.

4. ALL REQUIREMENTS OF GENERAL NOTES "B", "D", "E" AND "F" ON PAGE 2 MUST BE COMPLIED WITH.