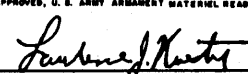
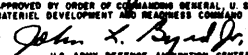
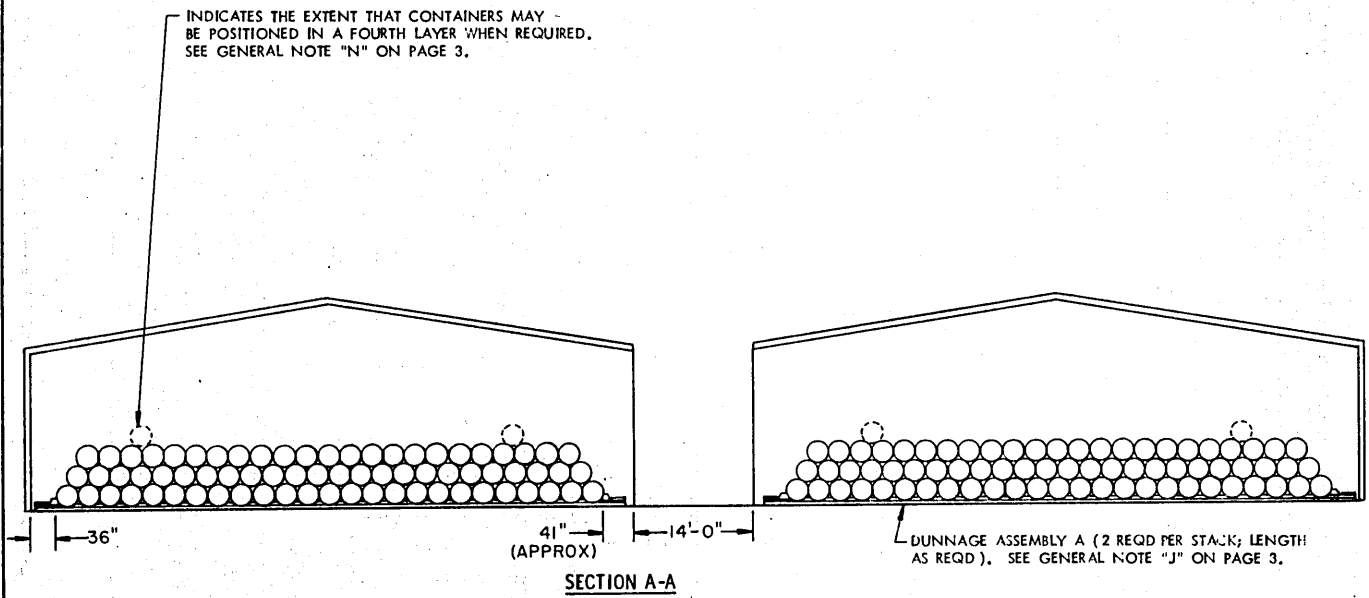
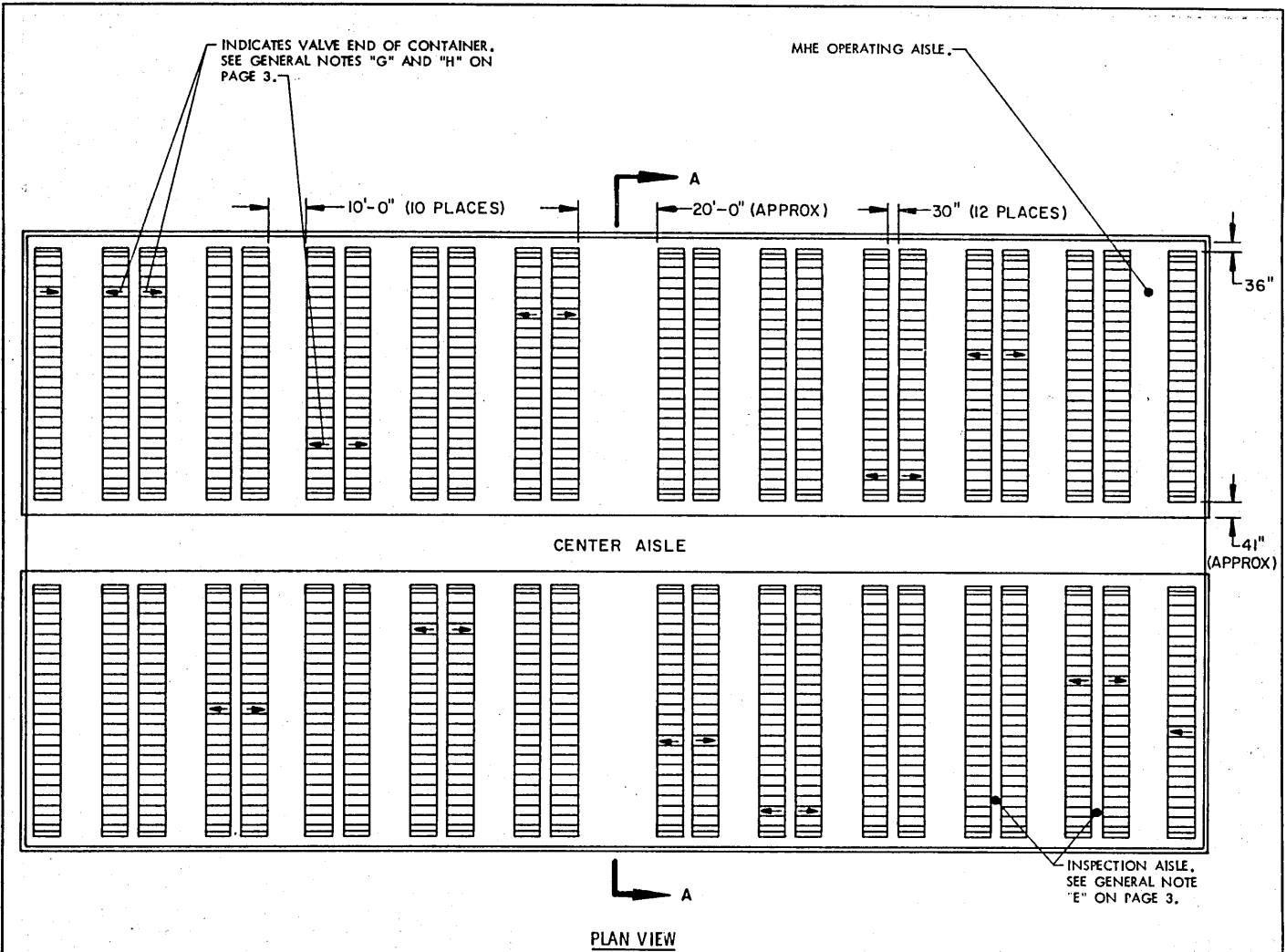


# STORAGE IN TRANSITORY BUILDINGS OF THE 1-TON CONTAINER (FILLED)

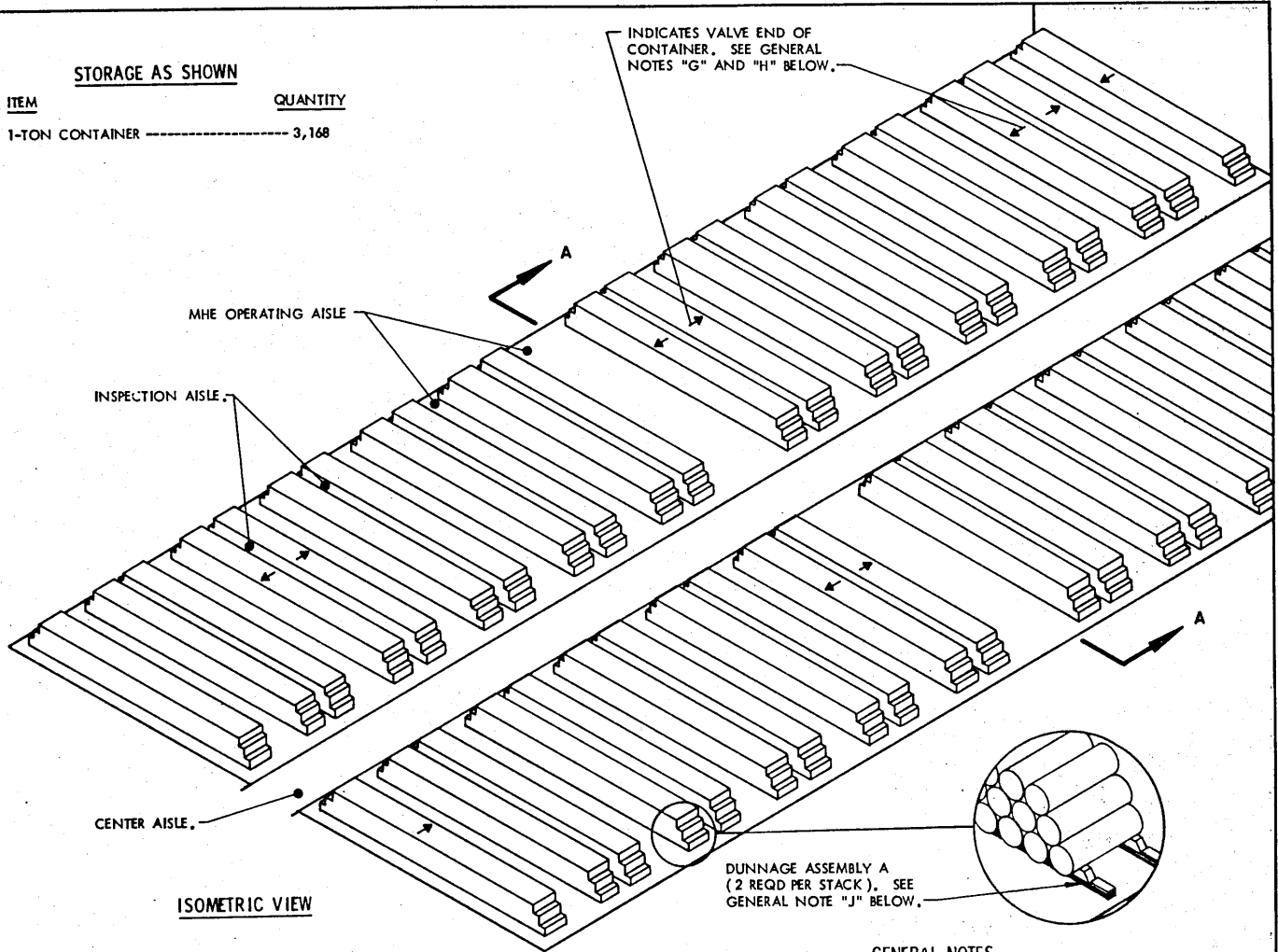
REVISIONS				<small>DRAFTSMAN</small> <i>AWM / [Signature]</i>	<small>PROJ. ENG.</small> <i>MWD / [Signature]</i>
				<small>CHECKED</small> <i>R. [Signature]</i>	<small>LOG. ENGINEER</small> <i>[Signature]</i>
<small>APPROVED, U. S. ARMY ARMAMENT MATERIEL READINESS COMMAND</small>					
					
<small>APPROVED BY ORDER OF COMMANDING GENERAL, U. S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)</small>					
					
<small>U. S. ARMY DEFENSE ALLOCATION CENTER AND SCHOOL</small>					
<b>U. S. ARMY DARCOM DRAWING</b>					
<b>MARCH 1980</b>					
				<small>CLASS</small>	<small>DIVISION</small>
				<small>DRAWING</small>	<small>FILE</small>
				<b>19</b>	<b>48</b>
				<b>4518</b>	<b>CB 10 M 12</b>

**DO NOT SCALE**



**STORAGE AS SHOWN**

ITEM	QUANTITY
1-TON CONTAINER -----	3,168



**ISOMETRIC VIEW**

**(GENERAL NOTES CONTINUED)**

- J. THE PROCEDURES AS SHOWN SPECIFY "DUNNAGE ASSEMBLY A" TO SUPPORT BOTTOM LAYER OF CONTAINERS. DUNNAGE ASSEMBLIES "A", "B", AND/OR "C" MAY BE USED, AS DESIRED. SEE THE APPROPRIATE DETAILS ON PAGES 4 THROUGH 8.
- K. THE STORAGE FACILITY MUST COMPLY WITH ALL REQUIREMENTS AND BE APPROVED FOR THE STORAGE OF CHEMICAL ITEMS. ALSO, THE MAXIMUM FLOOR LOAD, AS PRESCRIBED BY LOCAL STANDARDS, WILL NOT BE EXCEEDED.
- L. THE PROCEDURES DEPICTED HEREIN WILL NOT BE USED IN OTHER FACILITIES UNLESS SPECIFIC AUTHORIZATION IS OBTAINED.
- M. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- N. TO PRECLUDE BUILDING SEVERAL PARTIAL STACKS TO HANDLE THE END OF A LOT, CONTAINERS CAN BE PLACED IN A FOURTH LAYER. HOWEVER, FOURTH LAYER CONTAINERS WILL NOT BE PLACED IN THE FIRST TWO STORAGE LOCATIONS AT EACH END OF A STACK (NEAR BUILDING SIDE WALL AND NEAR CENTER AISLE).

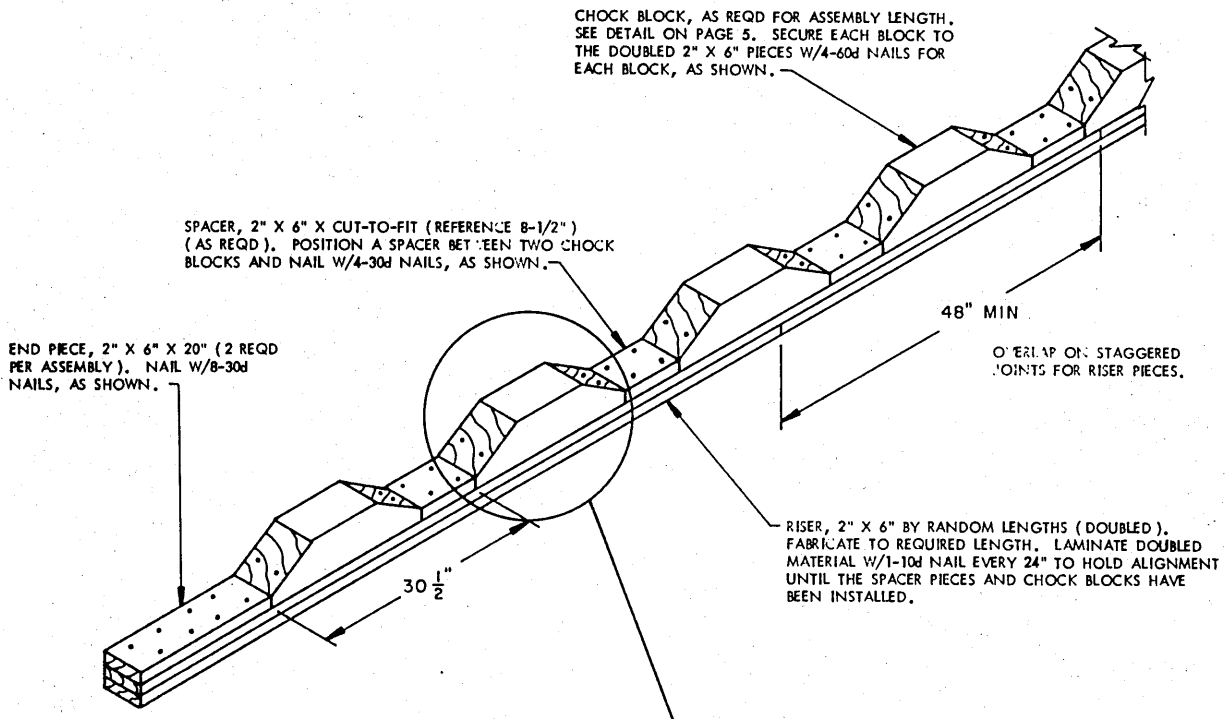
**MATERIAL SPECIFICATIONS**

- LUMBER** ----- : SEE TM 743-200-1, DUNNAGE LUMBER, FED SPEC MM-L-751.
- NAILS** ----- : COMMON, FED SPEC FF-N-105.
- STRUCTURAL STEEL** -- : ROLLED SHAPES, PLATE AND BAR; FED SPEC QQ-S-741D.
- BOLTS** ----- : SAE GRADE 1 CARBON STEEL.

**GENERAL NOTES**

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5), TM 9-1300-206 (CHAPTER 4), AND TM 3-250.
- B. DETAILS OF CONTAINER:  
 DIMENSIONS ----- 81-1/2" LONG X 30-1/2" DIAMETER.  
 GROSS WEIGHT ----- 3,500 POUNDS (APPROX).
- C. THE STORAGE PLAN DEPICTED HEREIN IS DESIGNED SPECIFICALLY FOR A TRANSITORY STORAGE BUILDING, APPROXIMATELY 154' WIDE BY 300' LONG, LOCATED AT UMATILLA ARMY DEPOT ACTIVITY.
- D. THIS STORAGE PLAN IS BASED ON THE USE OF A 6000 POUND MINIMUM CAPACITY FORKLIFT TRUCK OR A MOBILE WAREHOUSE TYPE CRANE. MHE WILL BE EQUIPPED WITH AN M1 LIFTING BEAM (NSN 1730-00-368-6195) WHICH PERMITS A CONTAINER TO BE REMOVED FROM ANY LOCATION WITHIN A STACK WITHOUT EXCESSIVE RELOCATION OF OTHER CONTAINERS. ATTACHMENT DEVICES USED FOR SECURING THE M1 LIFTING BEAM TO THE FORKLIFT TRUCK OR MOBILE CRANE WILL BE OF A TYPE AND DESIGN AS APPROVED BY THE DEFENSE AMMUNITION CENTER AND SCHOOL (DACS) AND THE FIELD SAFETY ACTIVITY OF THE MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM).
- E. AISLE DIMENSIONS SHOWN IN THIS DRAWING MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS AND/OR MATERIALS HANDLING EQUIPMENT; HOWEVER, BOTH ENDS OF EACH CONTAINER MUST BE ACCESSIBLE BY NOT LESS THAN A 30" WIDE AISLE TO PERMIT ADEQUATE INSPECTION.
- F. STORED CONTAINERS MUST NOT CONTACT THE WALLS OF THE BUILDING.
- G. THE VALVE END OF ALL CONTAINERS WILL BE ORIENTED TO FACE THE MHE OPERATING AISLES. SEE THE STORAGE VIEWS FOR ADDITIONAL GUIDANCE ON CONTAINER ORIENTATION.
- H. VALVES ON EACH CONTAINER WILL BE POSITIONED IN THE PROPER VERTICAL OR HORIZONTAL ALIGNMENT, AS REQUIRED FOR THE SPECIFIC CHEMICAL AGENTS IN THE CONTAINER.

(CONTINUED AT LEFT)



SPACER, 2" X 6" X CUT-TO-FIT (REFERENCE 8-1/2") (AS REQD). POSITION A SPACER BETWEEN TWO CHOCK BLOCKS AND NAIL W/4-30d NAILS, AS SHOWN.

END PIECE, 2" X 6" X 20" (2 REQD PER ASSEMBLY). NAIL W/8-30d NAILS, AS SHOWN.

48" MIN

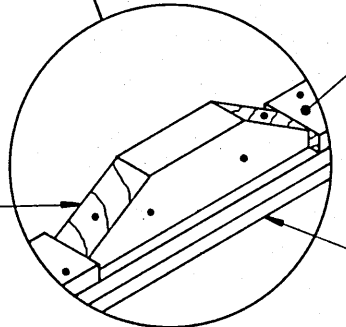
OVERLAP OR STAGGERED JOINTS FOR RISER PIECES.

RISER, 2" X 6" BY RANDOM LENGTHS (DOUBLED). FABRICATE TO REQUIRED LENGTH. LAMINATE DOUBLED MATERIAL W/1-10d NAIL EVERY 24" TO HOLD ALIGNMENT UNTIL THE SPACER PIECES AND CHOCK BLOCKS HAVE BEEN INSTALLED.

30 1/2"

DUNNAGE ASSEMBLY A

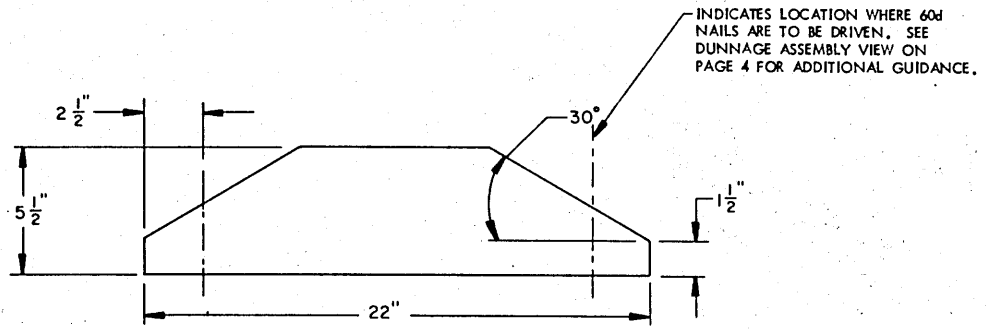
CHOCK BLOCK, 4" X 6" X 22". CUT AS SHOWN IN THE "CHOCK BLOCK DETAIL" ON PAGE 5 AND POSITION AS SHOWN, ON THE 3-1/2" WIDTH, AND CENTERED ON THE RISER. NAIL W/2-60d NAIL THROUGH THE TOP, AS SHOWN. ALSO, TOENAIL W/2-60d NAILS ON EACH SIDE, BEGINNING APPROXIMATELY 2-1/2" ABOVE THE BOTTOM OF THE CHOCK AND NAILING AT AN ANGLE OF 30 DEGREES FROM THE VERTICAL.



SPACER INSTALL AS SHOWN ABOVE.

RISER, DOUBLED.

ALTERNATIVE CHOCK BLOCK DETAIL



**CHOCK BLOCK**

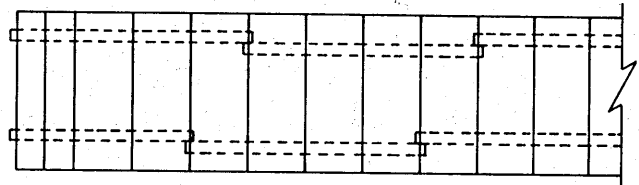
6" X 6" MATERIAL

USE 4" X 6" MATERIAL FOR ALTERNATIVE.

ALTHOUGH THE SPECIFICATIONS FOR BOTH CHOCK BLOCKS (6" X 6" AND 4" X 6") ARE BASED ON THE USE OF NOMINAL SIZED LUMBER, FULL SIZE LUMBER MAY BE USED.

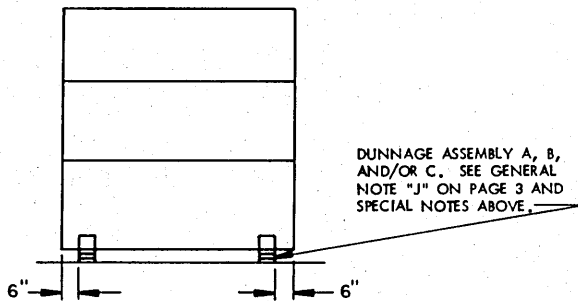
**SPECIAL NOTES:**

1. WHEN USING DUNNAGE ASSEMBLY A, THE ASSEMBLY SHALL BE CONSTRUCTED OF THE LENGTH AS REQUIRED TO HOLD THE NUMBER OF CONTAINERS IN THE BOTTOM LAYER OF A STACK.
2. WHEN USING DUNNAGE ASSEMBLY B AND/OR C, AS DETAILED ON PAGES 6 THRU 8, THE LONGITUDINAL LAP JOINTS OF DUNNAGE ASSEMBLIES ON ONE SIDE OF A STACK OF CONTAINERS MUST BE STAGGERED FROM THE LAP JOINTS ON THE OTHER SIDE OF THE SAME STACK OF CONTAINERS. SEE THE PARTIAL PLAN VIEW ON THE RIGHT OF THIS PAGE FOR ADDITIONAL GUIDANCE RELATIVE TO THE POSITIONING OF DUNNAGE ASSEMBLIES B AND/OR C.

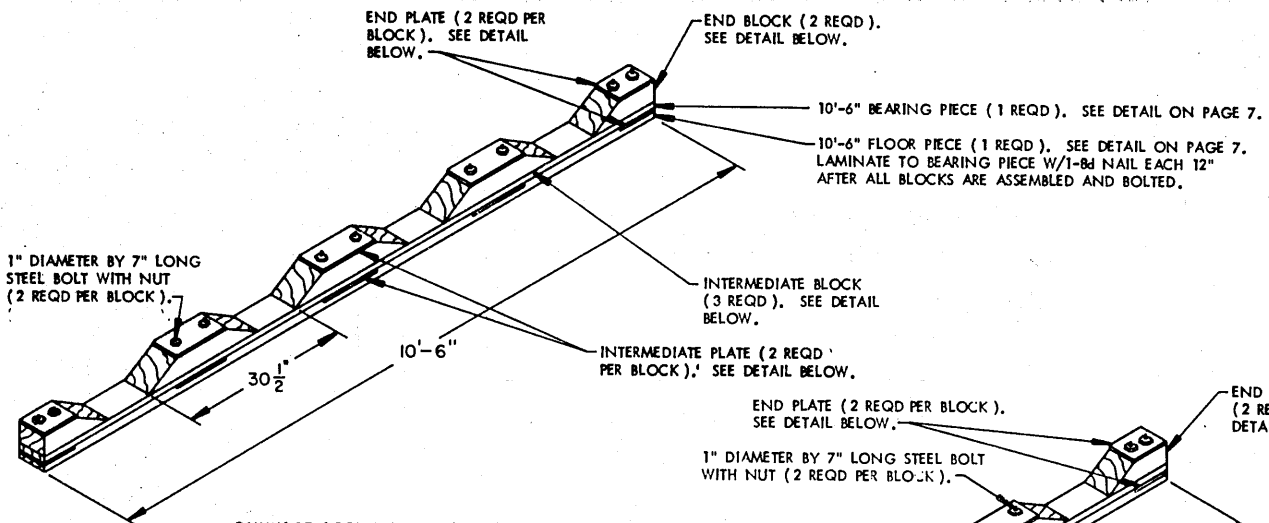


**PARTIAL PLAN VIEW**

SEE SPECIAL NOTE 2 AT LEFT.

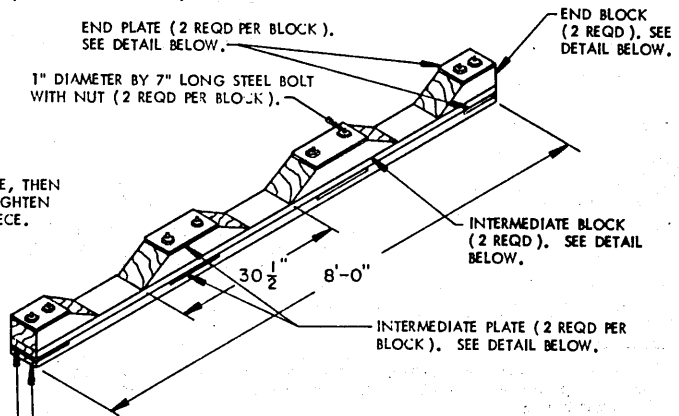


**PLACEMENT OF DUNNAGE DETAIL**



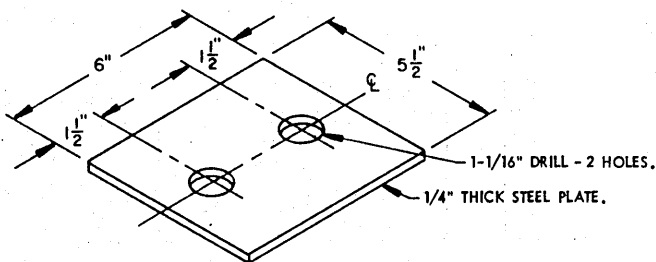
**DUNNAGE ASSEMBLY B (10'-6" LONG)**

ASSEMBLE THE DUNNAGE ASSEMBLY BY PLACING A BOLT THROUGH A BOTTOM PLATE, THEN THROUGH A BEARING PIECE AND A BLOCK, AND THEN THROUGH A TOP PLATE. TIGHTEN THE NUT ON THE BOLT AND THEN LAMINATE THE FLOOR PIECE TO THE BEARING PIECE. THE NUT ON THE BOLT IS TO BE ON THE UPPER SURFACE.



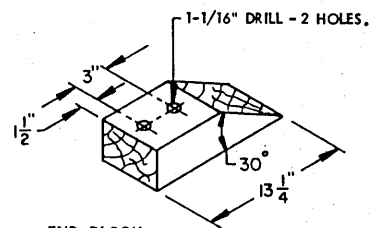
**DUNNAGE ASSEMBLY B (8'-0" LONG)**

8'-0" FLOOR PIECE (1 REQD), SEE DETAIL ON PAGE 7. LAMINATE TO BEARING PIECE W/1-8d NAIL EACH 12" AFTER ALL BLOCKS ARE ASSEMBLED AND BOLTED.  
8'-0" BEARING PIECE (1 REQD), SEE DETAIL ON PAGE 7.



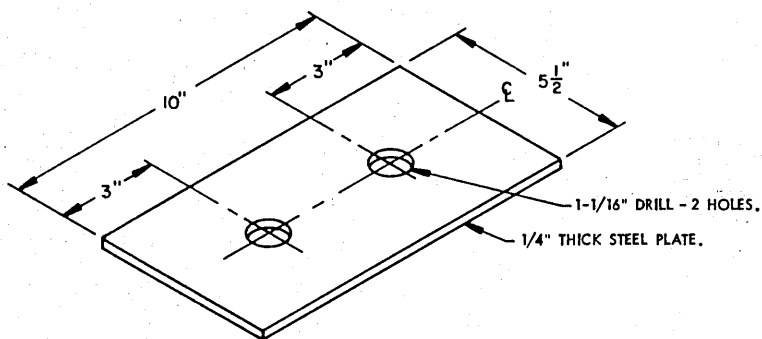
**END PLATE**

(2 REQD PER END BLOCK)



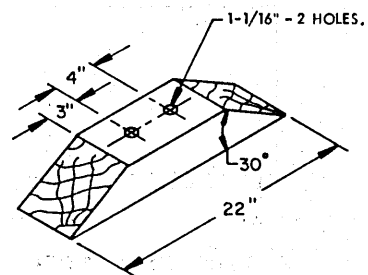
**END BLOCK**

4" X 6" MATERIAL



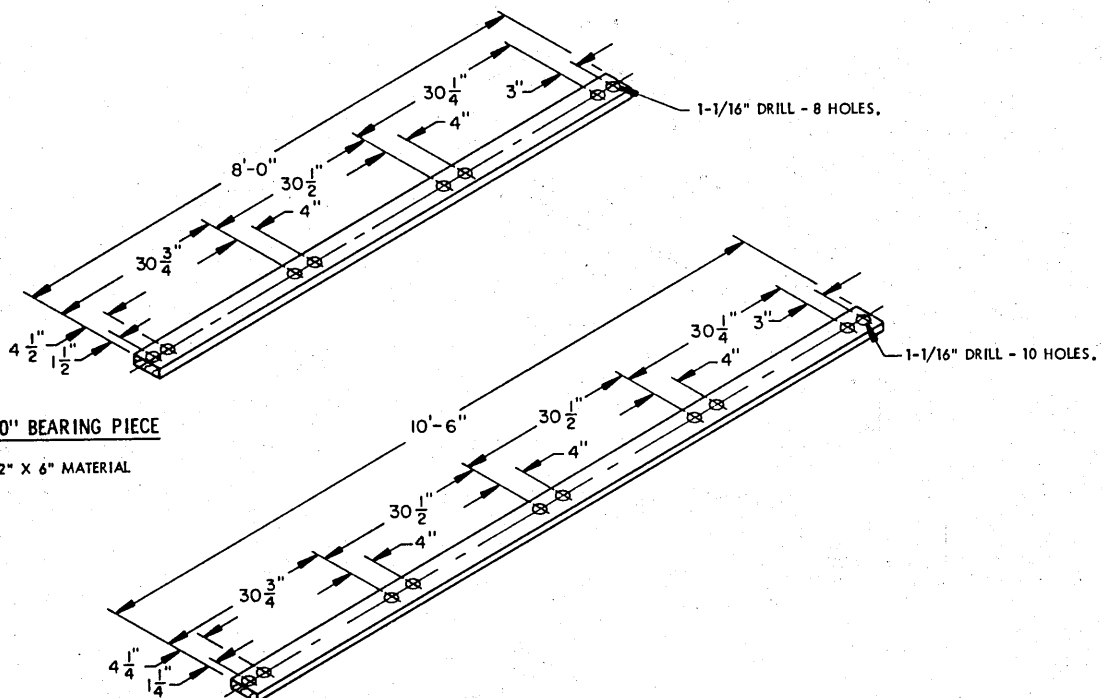
**INTERMEDIATE PLATE**

(2 REQD PER INTERMEDIATE BLOCK)



**INTERMEDIATE BLOCK**

4" X 6" MATERIAL

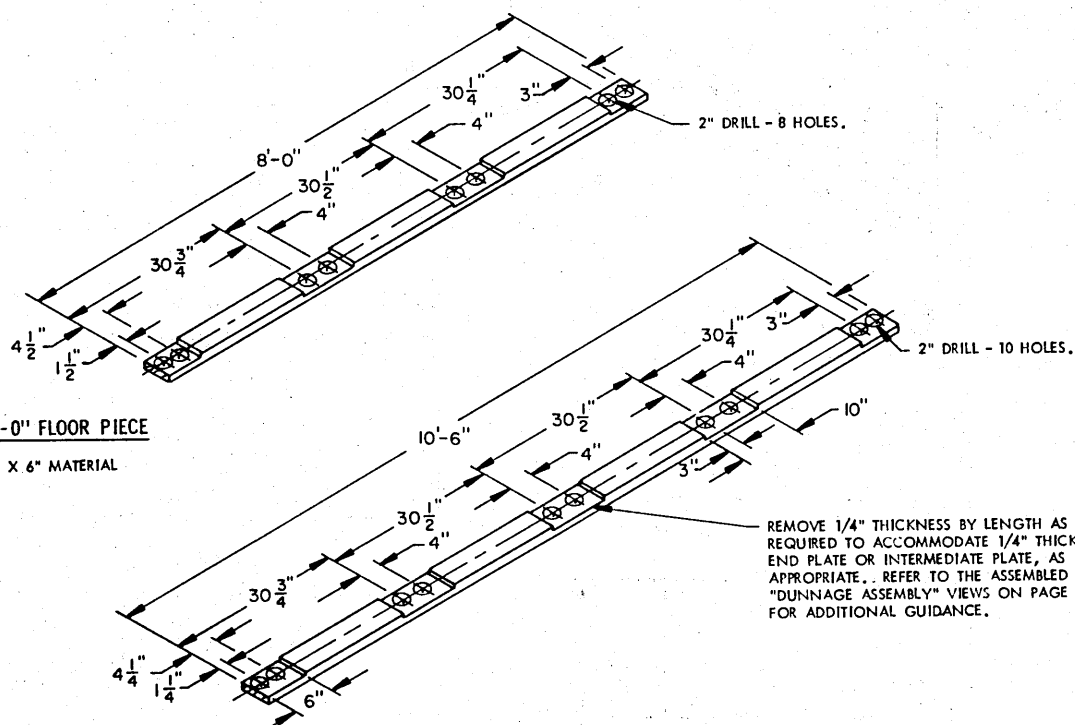


**8'-0" BEARING PIECE**

2" X 6" MATERIAL

**10'-6" BEARING PIECE**

2" X 6" MATERIAL



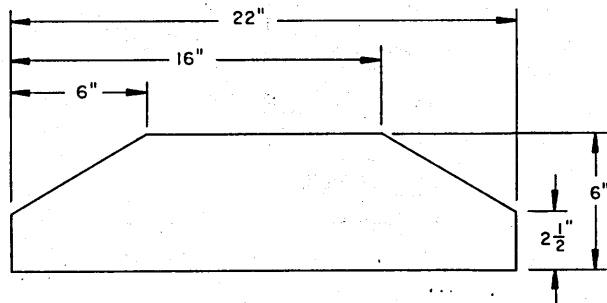
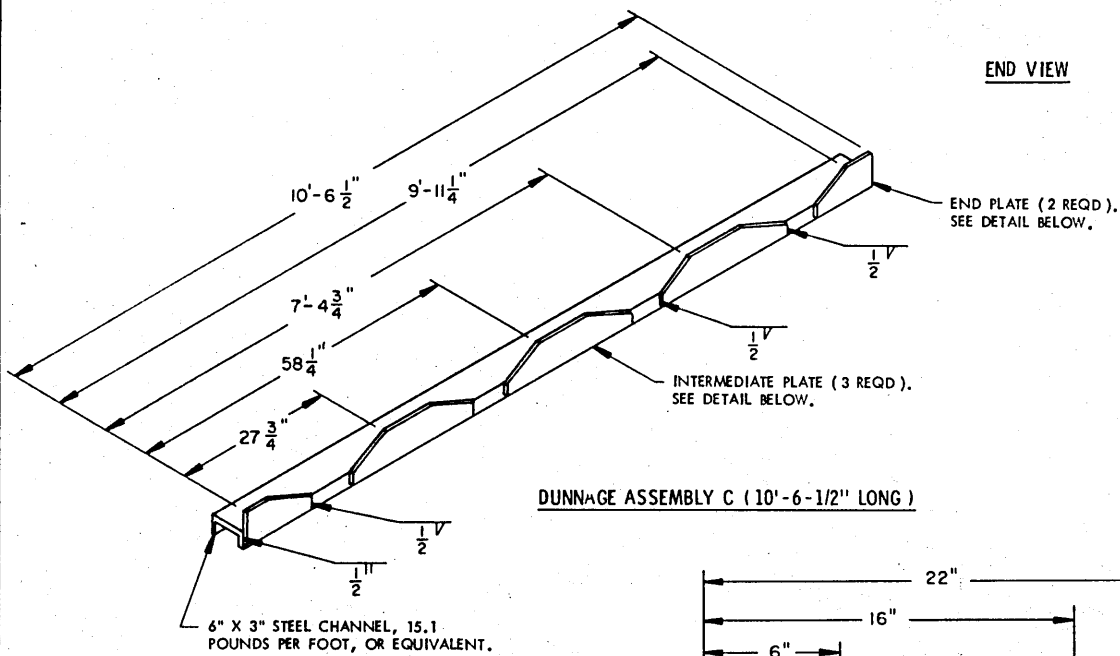
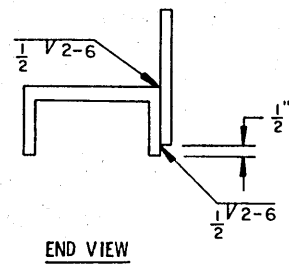
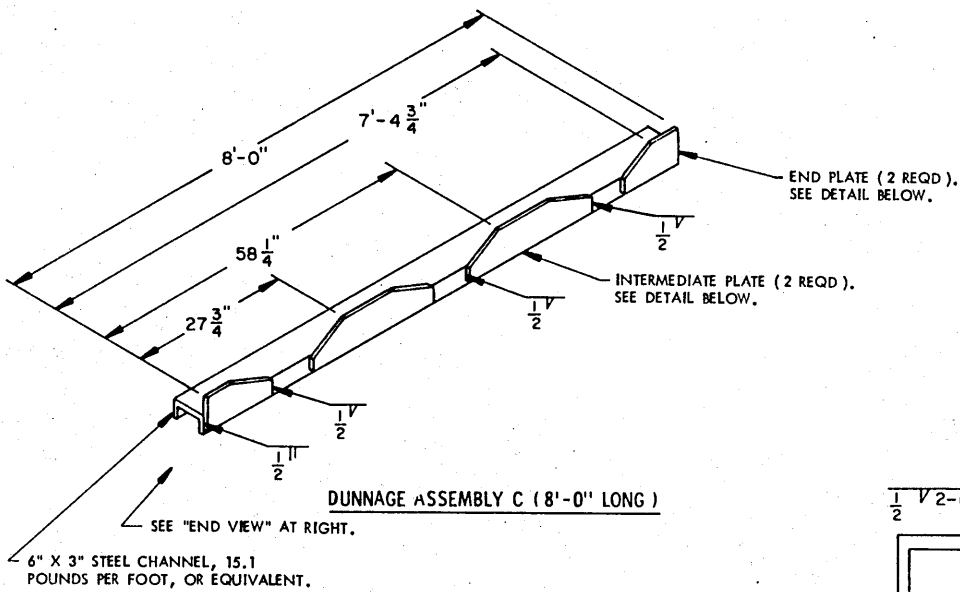
**8'-0" FLOOR PIECE**

2" X 6" MATERIAL

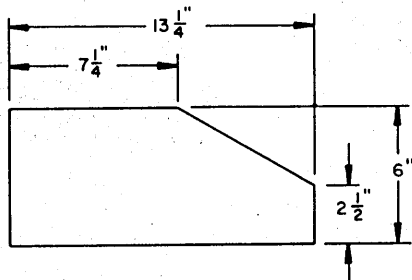
**10'-6" FLOOR PIECE**

2" X 6" MATERIAL

REMOVE 1/4" THICKNESS BY LENGTH AS REQUIRED TO ACCOMMODATE 1/4" THICK END PLATE OR INTERMEDIATE PLATE, AS APPROPRIATE. REFER TO THE ASSEMBLED "DUNNAGE ASSEMBLY" VIEWS ON PAGE 6 FOR ADDITIONAL GUIDANCE.



**INTERMEDIATE PLATE**  
(1/2" THICK STEEL PLATE)



**END PLATE**  
(1/2" THICK STEEL PLATE)