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DATE <u>8/14/84</u>	DATE <u>8/10/84</u>

LOADING AND BRACING WITH WOODEN DUNNAGE IN 6-FOOT HIGH OPEN TOP COMMERCIAL CONTAINERS OF BOXED AMMUNITION AND COMPONENTS ON 4-WAY ENTRY PALLETS

LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS. SEE GENERAL NOTE "K" ON PAGE 2.

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U.S. ARMY AMC DRAWING					
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19	48	4187	15PA 1007		

DO NOT SCALE

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 UNLOADING PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO LOADS OF BOXED AMMUNITION AND COMPONENTS ON 4-WAY ENTRY PALLETS. SUBSEQUENT REFERENCE TO A PALLET UNIT MEANS THE UNIT WITH AMMUNITION ITEMS. SEE PAGES 3 AND 4 FOR "TYPICAL UNIT DETAILS". CAUTION: REGARDLESS OF THE QUANTITY OF UNITS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF 44,800 POUNDS MUST NOT BE EXCEEDED.
- C. THE LOADS AS SHOWN ARE BASED ON A 4,365 POUND 20' LONG BY 8' WIDE BY 6'-0" HIGH COMMERCIAL INTERMODAL FREIGHT CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 92" WIDE BY 60" HIGH. THE LOADS ARE DESIGNED FOR TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC) SHIPMENT; HOWEVER, THE LOADS AS DESIGNED CAN ALSO BE MOVED BY OTHER SURFACE MODES OF TRANSPORT (MOTOR AND WATER). NOTICE: OTHER CONTAINERS OF THE SAME DESIGN CONFIGURATION CAN BE USED, HOWEVER, THE CONFIGURATION OF THE REAR CORNER POSTS AND ADJACENT WELDED STEEL ANGLE PIECES MUST BE AS DEPICTED HEREIN SO THAT SPECIFIED BLOCKING AND BRACING PROCEDURES CAN BE APPLIED.
- D. WHEN LOADING THE UNITS, THEY ARE TO BE POSITIONED SO AS TO ACHIEVE A TIGHT LOAD (TIGHT AGAINST THE FORWARD AND SIDE DUNNAGE ASSEMBLIES OR TIGHT AGAINST THE FORWARD ASSEMBLY AND SIDE WALL OF THE CONTAINER). ALTHOUGH A TOTAL OF ONE AND ONE-HALF INCHES (1-1/2") OF UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS PERMITTED, LATERAL VOIDS WITHIN THE LOAD ARE TO BE HELD TO A MINIMUM. EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER OR TO THE CENTER FILL ASSEMBLIES. NAIL EACH ADDITIONAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE NUMBER AND/OR THICKNESS OF THE DUNNAGE LUMBER USED MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE UNIT SIZE. SEE THE "SPECIAL NOTES" FOR EACH TYPICAL LOAD FOR ADDITIONAL GUIDANCE.
- E. DUNNAGE LUMBER SPECIFIED IS OF A NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE. THE 4" X 4" DOOR POST VERTICALS MUST BE HARDWOOD, SUCH AS OAK. IF DESIRED, PILOT HOLES FOR THE NAILS TO BE DRIVEN INTO THE DOOR POST VERTICALS MAY BE PREDRILLED.
- F. A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES OR WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- G. CAUTION: DO NOT NAIL DUNNAGE MATERIAL TO THE CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- H. PORTIONS OF THE CONTAINERS DEPICTED WITHIN THIS DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- J. TO MAKE LOADING EASIER, TO HELP ACHIEVE A TIGHT LOAD ACROSS A CONTAINER AND TO PREVENT UNACCEPTABLE DAMAGE TO LADING UNITS WHEN LOADING A CONTAINER, A SLIP-SHEET CAN BE USED EFFECTIVELY AS A "SHOEHORN" TYPE DEVICE. THE SLIP-SHEET WILL PROVIDE A SMOOTH SURFACE THAT WILL PREVENT UNIT STRAPS AND/OR BOXES AND/OR BOX CLEATS FROM INTERLOCKING OR CATCHING ON OTHER PROJECTIONS WHEN LATERALLY ADJACENT LADING UNITS ARE BEING LOADED. A SLIP-SHEET WILL BE USED AFTER ONE-HALF OF A STACK IS LOADED WITH ONE OF ITS SIDES IN TIGHT CONTACT AT ONE SIDE OF THE CONTAINER. THE SLIP-SHEET IS TO BE PLACED AGAINST THE OTHER SIDE OF THE HALF-STACK BEFORE THE LAST HALF OF THE STACK IS LOADED. AFTER A STACK IS COMPLETED, THE SLIP-SHEET IS TO BE REMOVED FOR SUBSEQUENT USE WITH THE NEXT STACK. A SLIP-SHEET OF SUITABLE SIZE CAN BE MADE FROM A SHEET OF 1/8" TEMPERED HARDBOARD (MASONITE) OR FROM A SHEET OF ANY OTHER MATERIAL THAT WILL SATISFY THE REQUIREMENT.

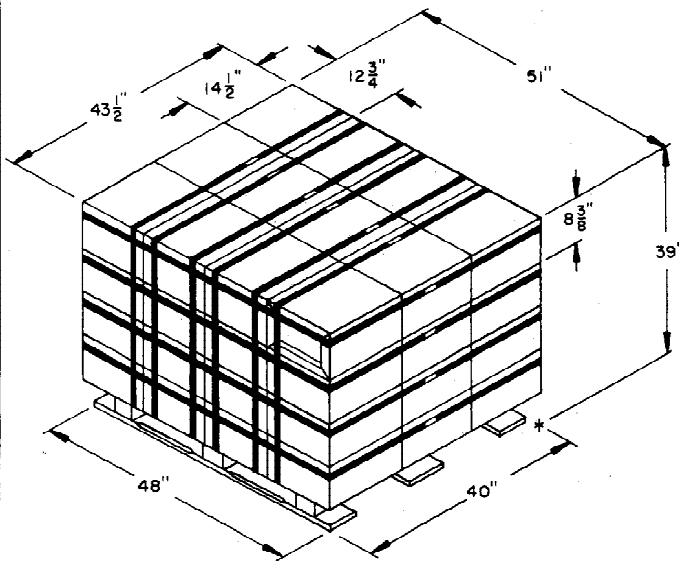
(CONTINUED AT RIGHT)

(GENERAL NOTES CONTINUED)

- K. REQUIREMENTS CITED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C APPLY WHEN THE SHIPMENT MOVES BY TRAILER/CONTAINER-ON-FLAT-CAR (T/COFC). SPECIAL T/COFC NOTES FOLLOW.
 - 1. A LOADED CONTAINER MUST BE ON A CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN TOFC SERVICE.
 - 2. THE LOAD LIMIT OF A T/COFC RAIL CAR MUST NOT BE EXCEEDED, NOR WILL A CAR BE LOADED SO THAT THE TRUCK UNDER ONE END OF THE CAR CARRIES MORE THAN ONE-HALF OF THE LOAD LIMIT FOR THAT CAR.
- L. DURING INTRASTATE AND/OR INTERSTATE MOVES BY MOTOR CARRIER, A PROPER CHASSIS/MODIFIED FLAT BED TRAILER MUST BE USED TO PRECLUDE VIOLATION OF ONE OR MORE "WEIGHT LAWS" APPLICABLE TO THE STATE OR STATES INVOLVED.
- M. 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 1 INCH EQUALS 25.4 MM AND 1 POUND EQUALS 0.454 KG.

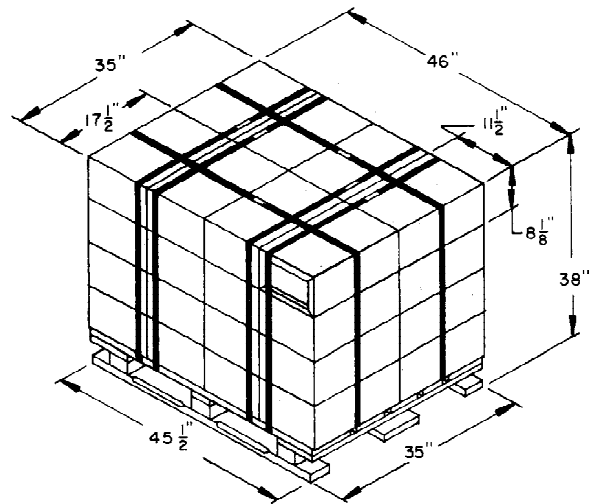
MATERIAL SPECIFICATIONS

- LUMBER -----: TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
- PLYWOOD -----: FED SPEC NN-P-530; GROUP B, CONSTRUCTION AND INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- NAILS -----: FED SPEC FF-N-105; COMMON.
- WIRE -----: FED SPEC QQ-W-461.



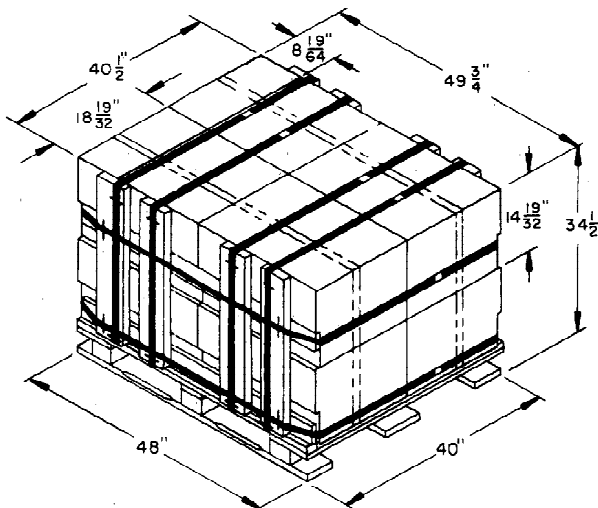
PALLET UNIT NO. 1

UNIT WEIGHT ----- 3,546 POUNDS (APPROX)
 CUBE ----- 50.1 CUBIC FEET



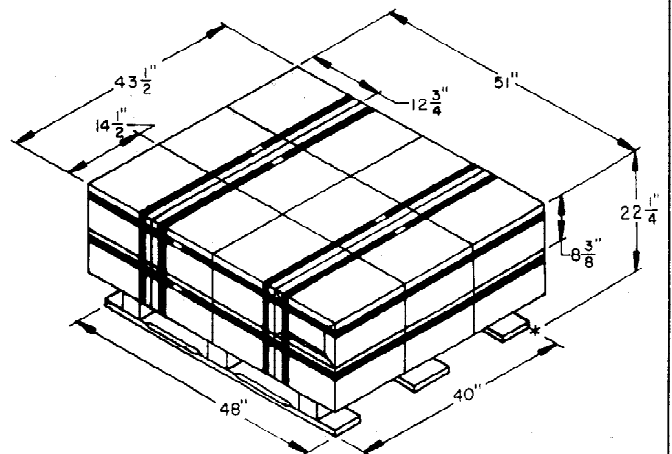
PALLET UNIT NO. 2

UNIT WEIGHT ----- 2,663 POUNDS (APPROX)
 CUBE ----- 35.5 CUBIC FEET



PALLET UNIT NO. 3

UNIT WEIGHT ----- 2,967 POUNDS (APPROX)
 CUBE ----- 40.3 CUBIC FEET

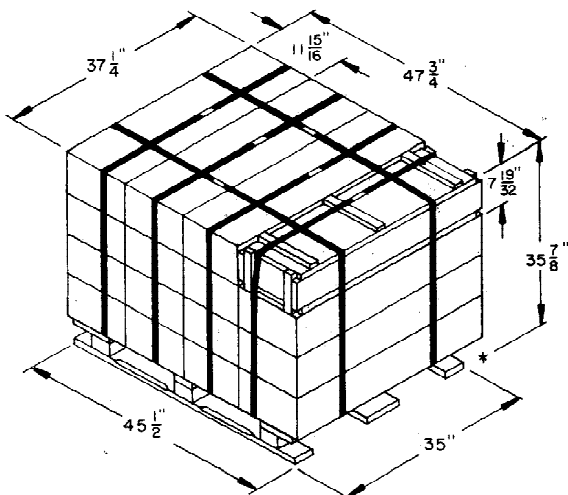


PALLET UNIT NO. 4

UNIT WEIGHT ----- 1,934 POUNDS (APPROX)
 CUBE ----- 28.9 CUBIC FEET

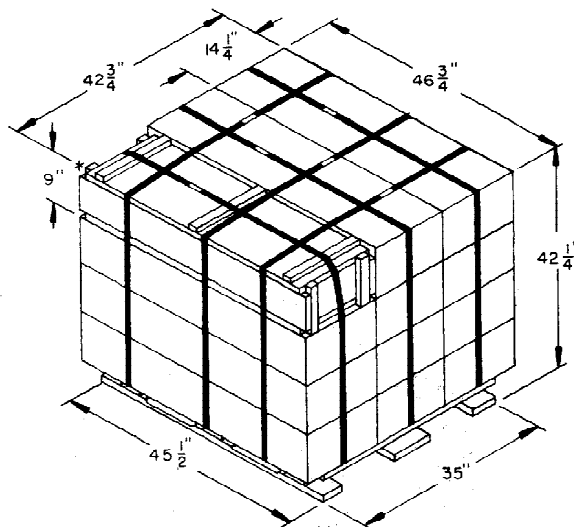
SPECIAL NOTES:

1. THE FOLLOWING SPECIAL NOTES AND THE FIVE CHARTS ON PAGE 5 ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A LOAD PATTERN, AND IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE LOADED IN A 20' LONG BY 8' WIDE BY 6' HIGH COMMERCIAL INTERMODAL FREIGHT CONTAINER, BASED ON THE SIZE AND WEIGHT OF THE PALLETIZED UNIT TO BE LOADED.
2. CHART NO. 1 MAY BE USED IN SELECTING A LOAD PATTERN FOR THE WIDTH OF THE CONTAINER WHICH IS TO BE LOADED. THE LOAD PATTERN WILL BE BASED EITHER ON THE UNIT LENGTH ACROSS THE CONTAINER OR ON THE UNIT WIDTH ACROSS THE CONTAINER, DEPENDENT UPON THE LENGTH OR WIDTH DIMENSIONS OF THE UNIT TO BE LOADED. UNIT SIZE RANGES AND LOAD PATTERNS FOR A COMMERCIAL CONTAINER WIDTH OF 92" ARE GIVEN. CONTAINERS OF OTHER WIDTHS MAY BE USED, HOWEVER, THE SIZE RANGE OF THE UNITS WHICH CAN BE LOADED IN THE TWO LOAD PATTERNS WILL HAVE TO BE CALCULATED. THE SMALLER FIGURE SHOWN FOR UNIT SIZE RANGE IS BASED ON THE MINIMUM UNIT LENGTH OR WIDTH, AS APPLICABLE, AND THE LARGER FIGURE IS CALCULATED ON THERE BEING AT LEAST 1" EXCESS LATERAL SPACE REMAINING IN THE CONTAINER AFTER THE UNITS ARE POSITIONED.
3. CHART NO. 2 MAY BE USED IN DETERMINING THE QUANTITY OF UNITS WHICH CAN BE POSITIONED WITHIN ONE ROW IN THE LENGTH OF A CONTAINER. THE UNIT SIZE RANGE FOR A 20' CONTAINER IS BASED ON THE INSIDE USABLE LENGTH OF THE CONTAINER BEING 19'-0-1/2" LONG AND ALSO ON A REQUIRED AVERAGE TOTAL INSIDE BLOCKING THICKNESS OF 23-1/2".
4. CHART NO. 3 MAY BE USED IN DETERMINING THE NUMBER OF TIERS WHICH CAN BE LOADED IN A CONTAINER, BASED ONLY ON THE HEIGHT OF THE UNIT. THE ACTUAL NUMBER OF TIERS WHICH CAN BE LOADED WILL BE BASED ON SEVERAL FACTORS SUCH AS THE WEIGHT OF THE UNITS AND THE QUANTITY THAT IS TO BE SHIPPED.
5. CHART NO. 4 MAY BE USED IN DETERMINING THE COMBINATIONS OF PALLET UNIT LENGTHS AND WIDTHS WHICH ARE ACCEPTABLE FOR CHIMNEY-PATTERN LOADS. THE DATA CONTAINED IN THE CHART IS BASED UPON THE TOTAL OF THE PALLET UNIT LENGTH AND WIDTH BEING LESS THAN THE INSIDE WIDTH OF THE COMMERCIAL CONTAINER BY AT LEAST 1/2" BUT NOT MORE THAN 10". NOTE: REGARDLESS OF THE LADING WEIGHT, SIDE BLOCKING MUST BE USED WHEN THE UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS GREATER THAN 1-1/2". IF THE UNBLOCKED SPACE IS LESS THAN 1-1/2", SIDE BLOCKING IS NOT REQUIRED UNLESS THE LADING WEIGHT EXCEEDS 26,880 POUNDS.
6. CHART NO. 5 MAY BE USED AS GUIDANCE IN DETERMINING THE NUMBER OF 2" X 6", 2" X 8" OR 2" X 10" BEAMS REQUIRED, THE NUMBER OF BEAM ASSEMBLIES REQUIRED, AND THE NUMBER OF BEAMS PER BEAM ASSEMBLY REQUIRED PER LAYER IN THE FABRICATION OF THE FORWARD AND REAR BLOCKING ASSEMBLIES FOR A SPECIFIED CONTAINER LOAD WEIGHT. THE BEAM ASSEMBLIES WILL BE ARRANGED IN SUCH A MANNER SO AS TO PROVIDE MAXIMUM SUPPORT FOR EACH LAYER OF PALLET UNITS BEING BLOCKED.
7. WHEN EACH BEAM ASSEMBLY OF THE FORWARD BLOCKING ASSEMBLY CONSISTS OF ONLY ONE 2" X 6", 2" X 8" OR 2" X 10" BEAM AND FORWARD STRUT ASSEMBLIES ARE INSTALLED AT THE FRONT OF THE LOAD, IT WILL BE NECESSARY TO DOUBLE THE NUMBER OF BEAMS PER BEAM ASSEMBLY. THIS WILL ENABLE THE PROPER ATTACHMENT OF THE FORWARD STRUT ASSEMBLIES TO THE FORWARD BLOCKING ASSEMBLY TO BE ACCOMPLISHED.
8. THE LOAD BEARING PIECES OF THE FORWARD AND REAR BLOCKING ASSEMBLIES SHOULD BE CUT APPROXIMATELY 6" LONGER THAN THE LOAD HEIGHT. ADDITIONALLY, THE LOAD BEARING PIECES SHOULD BE SPACED TO PROVIDE MAXIMUM SUPPORT TO THE UNITS BEING BLOCKED, AND GENERALLY SHOULD NOT BE LOCATED DIRECTLY AT THE CENTER OF THE FORWARD OR REAR BLOCKING ASSEMBLY.
9. WHENEVER THE GROSS WEIGHT OF THE LADING BEING LOADED IN A CONTAINER EXCEEDS 26,880 POUNDS (60% OF THE MAXIMUM GROSS WEIGHT OF THE CONTAINER), ADDITIONAL SIDEWALL STRENGTHENING MUST BE PROVIDED. THIS ADDITIONAL SIDEWALL STRENGTHENING IS USUALLY FABRICATED IN THE FORM OF SIDE FILL ASSEMBLIES. FOR ADDITIONAL GUIDANCE, SEE THE TYPICAL SIDE FILL ASSEMBLIES ON PAGES 8, 10, 14, 18, AND 22. WHENEVER THE GROSS WEIGHT OF THE LADING IS LESS THAN 26,880 POUNDS AND THERE IS MORE THAN 1-1/2" OF UNBLOCKED SPACE ACROSS THE WIDTH OF THE LOAD BAY, THIS UNBLOCKED SPACE MUST BE FILLED OUT BY EITHER PLACING SIDE FILL ASSEMBLIES AT THE SIDES OF THE LOAD OR ANTI-SWAY BRACING OR CENTER FILL ASSEMBLIES IN THE CENTER OF THE LOAD. FOR ADDITIONAL GUIDANCE, SEE THE ANTI-SWAY BRACING ASSEMBLIES ON PAGE 13 AND THE CENTER FILL ASSEMBLIES ON PAGE 26. WHENEVER THE GROSS WEIGHT OF THE LADING IS LESS THAN 26,880 POUNDS AND THE UNBLOCKED SPACE ACROSS THE WIDTH OF THE LOAD BAY IS 1-1/2" OR LESS, NEITHER SIDE BLOCKING NOR CENTER BLOCKING IS REQUIRED.
10. UNLESS OTHERWISE SPECIFIED, COMMERCIAL CONTAINERS CAN BE LOADED UP TO THEIR RATED CAPACITY. CAUTION: REGARDLESS OF THE QUANTITY OF PALLET UNITS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF 44,800 POUNDS MUST NOT BE EXCEEDED.



PALLET UNIT NO. 5

UNIT WEIGHT ----- 1,751 POUNDS (APPROX)
 CUBE ----- 37.0 CUBIC FEET



PALLET UNIT NO. 6

UNIT WEIGHT ----- 1,761 POUNDS (APPROX)
 CUBE ----- 49.2 CUBIC FEET

CHART NO. 1					
UNITS IN WIDTH OF COMMERCIAL CONTAINER					
CONTAINER WIDTH	LOAD PATTERN	PALLETIZED UNITS (LENGTH ACROSS CONTAINER)		PALLETIZED UNITS (WIDTH ACROSS CONTAINER)	
		UNIT LENGTH	LOAD PAGE	UNIT WIDTH	LOAD PAGE
92"	1-WIDE	OVER 45-1/2	6, 18, 26	OVER 45-1/2	6, 18, 26
	2-WIDE	35 - 45-1/2		35 - 45-1/2	

CHART NO. 3	
TIERS IN HEIGHT OF COMMERCIAL CONTAINER	
NO. OF TIERS	60" INSIDE HEIGHT CONTAINER
2	18-1/2" - 27"
1	27" - 54"

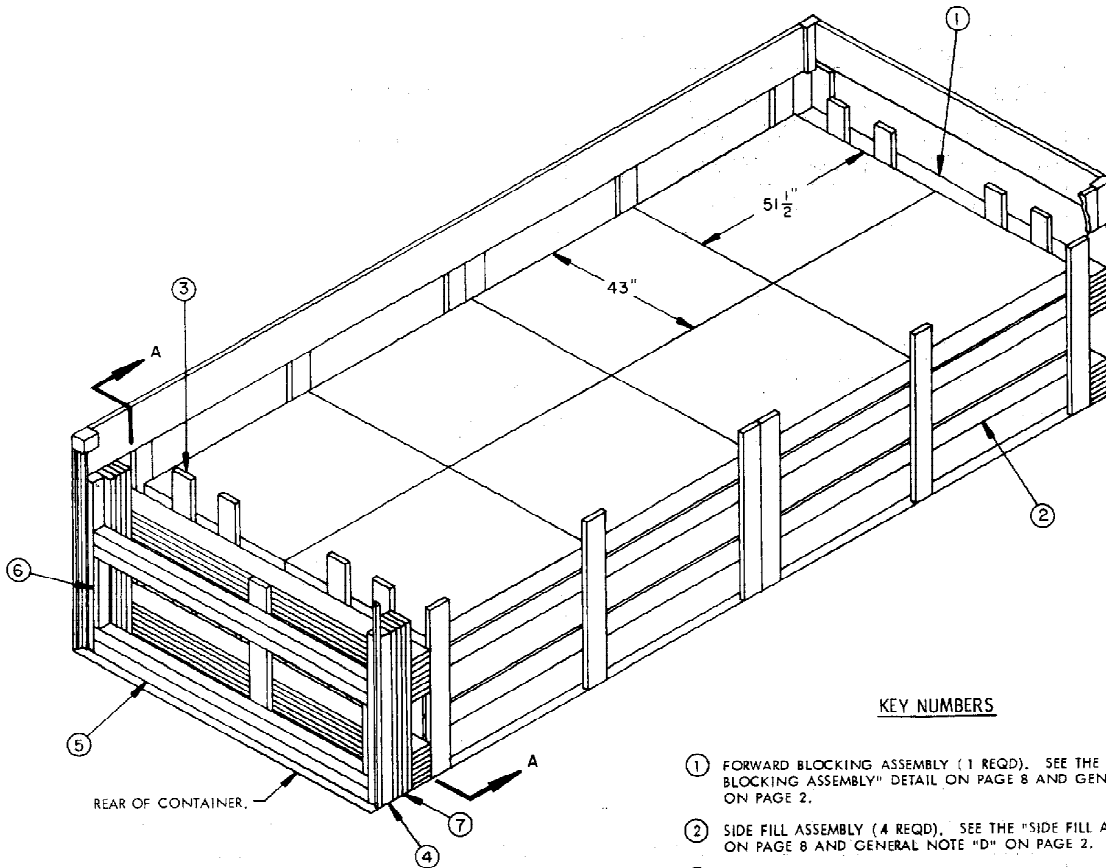
CHART NO. 2	
UNITS IN LENGTH OF 20' COMMERCIAL CONTAINER	
NUMBER UNITS LONG	UNIT SIZE RANGE
5	35" - 38-3/4"
4	39" - 49-1/4"
3	49-1/2" - 66-1/2"

CHART NO. 4	
PALLETIZED UNIT LENGTH/WIDTH COMBINATIONS	
UNIT LENGTH	MINIMUM TO MAXIMUM UNIT WIDTH
	CONTAINER WIDTH (92" INSIDE DIMENSION)
44"	38" - 47-1/2"
43"	39" - 48-1/2"
42"	40" - 49-1/2"
41"	41" - 50-1/2"
40"	42" - 51-1/2"
39"	43" - 52-1/2"
38"	44" - 53-1/2"
37"	45" - 54-1/2"
36"	46" - 55-1/2"
35"	47" - 56-1/2"

CHART NO. 5									
REQUIRED BEAMS/BEAM PER LAYER ASSEMBLIES FOR FORWARD/REAR BLOCKING ASSEMBLY									
LOAD WEIGHT IN LBS	LOAD CONFIGURATION (1-TIER)								
	2" X 6" BEAM MAT'L			2" X 8" BEAM MAT'L			2" X 10" BEAM MAT'L		
	NO. OF BEAMS REQD	NO. BEAM ASSY REQD ●	NO. BEAMS PER ASSY *	NO. OF BEAMS REQD	NO. BEAM ASSY REQD ●	NO. BEAMS PER ASSY *	NO. OF BEAMS REQD	NO. BEAM ASSY REQD ●	NO. BEAMS PER ASSY *
6,100-8,000	4	2	2	3	3	1	2	2	1
8,100-12,000	6	2	3	4	2	2	2	2	1
12,100-16,000	8	2	4	6	2	3	4	2	2
16,100-20,000	10	2	5	6	2	3	4	2	2
20,100-24,000	12	3	4	8	2	4	4	2	2
24,100-28,000	14	2	7	8	2	4	6	2	3
28,100-32,000	16	2	8	9	3	3	6	2	3
32,100-34,000	18	3	6	10	2	5	6	2	3
34,100-36,000	18	3	6	10	2	5	6	2	3
36,100-38,000	20	2	10	12	3	4	8	2	4
38,100-40,000	20	2	10	12	3	4	8	2	4

* SEE SPECIAL NOTE 7 ON PAGE 4.

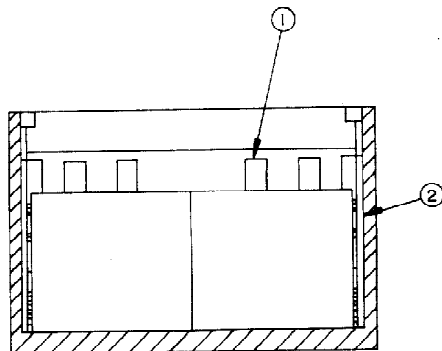
● THE NUMBER OF BEAMS PER ASSEMBLY AND THE NUMBER OF BEAM ASSEMBLIES REQUIRED COMBINATIONS MAY BE ADJUSTED AS APPROPRIATE FOR THE ITEM BEING SHIPPED. SEE SPECIAL NOTE 6 ON PAGE 4 FOR ADDITIONAL GUIDANCE.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 8 AND GENERAL NOTE "F" ON PAGE 2.
- ② SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY" DETAIL ON PAGE 8 AND GENERAL NOTE "D" ON PAGE 2.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" ON PAGE 9 AND GENERAL NOTE "F" ON PAGE 2.
- ④ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD).
- ⑤ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7"-1-3/8") (4 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICAL PIECES W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 30.
- ⑥ DOOR SPANNER SUPPORT PIECE, 2" X 4" X 20" (2 REQD). NAIL TO A DOOR POST VERTICAL W/4-10d NAILS AFTER THE LOWER DOOR SPANNER PIECES ARE IN POSITION.
- ⑦ FILL MATERIAL, 6" WIDE BY 47-1/2" LONG MATERIAL (AS REQD). NAIL EACH PIECE TO THE REAR BLOCKING ASSEMBLY AND/OR LAMINATE TOGETHER W/3 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). **CAUTION:** DO NOT NAIL TO THE DOOR POST VERTICALS, PIECES MARKED ④.



SECTION A-A

SPECIAL NOTES:

1. THE PALLETIZED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 6 IS BASED ON PALLET UNIT NO. 1 SHOWN ON PAGE 3. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR PALLETIZED UNITS OF OTHER DIMENSIONS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHARTS ON PAGE 5 FOR GUIDANCE.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE BEARING PIECES ON THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE BEARING PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12".

RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, FOUR SIDE FILL ASSEMBLIES, AND ONE REAR BLOCKING ASSEMBLY.
2. INSTALL FORWARD BLOCKING ASSEMBLY.
3. INSTALL ONE SIDE FILL ASSEMBLY AND LOAD ONE PALLET UNIT.
4. REPEAT STEP 3.
5. LOAD TWO PALLET UNITS.
6. REPEAT STEP 3.
7. REPEAT STEP 3.
8. REPEAT STEP 5.
9. INSTALL REAR BLOCKING ASSEMBLY.
10. INSTALL TWO DOOR POST VERTICALS.
11. CLOSE THE CONTAINER DOOR HEADER.
12. INSTALL TWO DOOR SPANNER PIECES AT THE LOWEST POSITION.
13. INSTALL THE SOLID FILL LOAD BLOCKING MATERIAL.
14. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER PIECES.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	117	59
2" X 4"	11	8
2" X 6"	287	287
4" X 4"	37	49
NAILS	NO. REQD	POUNDS
6d (2")	72	1/2
10d (3")	457	7-1/4
12d (3-1/4")	16	1/2

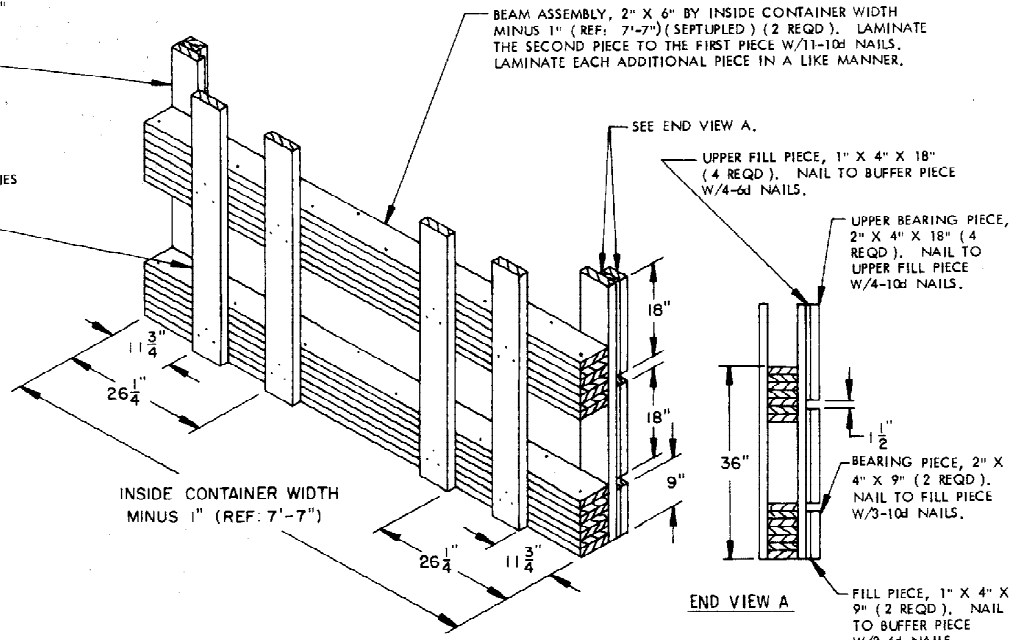
LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
PALLET UNIT-----	8-----	28,368 LBS
DUNNAGE-----		805 LBS
CONTAINER-----		4,365 LBS
TOTAL WEIGHT-----		33,538 LBS

BUFFER PIECE, 2" X 6" X 47-1/2"
(2 REQD.). NAIL TO THE BEAM
ASSEMBLIES W/3-10d NAILS AT
EACH JOINT.

LOAD BEARING PIECE,
2" X 6" X 48" (4 REQD.).
NAIL TO THE BEAM ASSEMBLIES
W/3-10d NAILS AT EACH
JOINT.

BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH
MINUS 1" (REF: 7'-7") (SEPTUPLD) (2 REQD.). LAMINATE
THE SECOND PIECE TO THE FIRST PIECE W/11-10d NAILS.
LAMINATE EACH ADDITIONAL PIECE IN A LIKE MANNER.



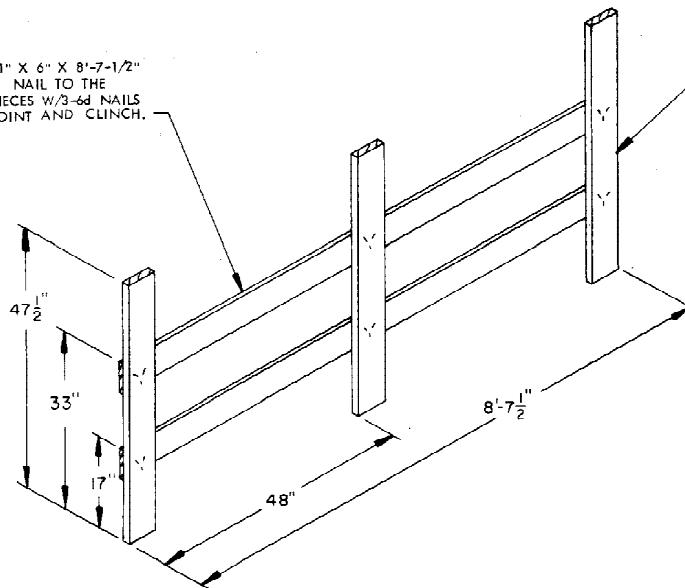
INSIDE CONTAINER WIDTH
MINUS 1" (REF: 7'-7")

END VIEW A

FORWARD BLOCKING ASSEMBLY

TIE PIECE, 1" X 6" X 8'-7-1/2"
(2 REQD.). NAIL TO THE
VERTICAL PIECES W/3-6d NAILS
AT EACH JOINT AND CLINCH.

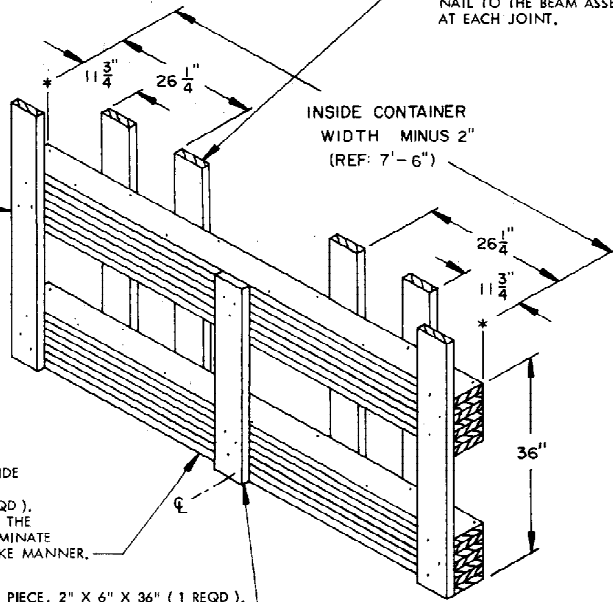
VERTICAL PIECE, 1" X 6" BY
INSIDE CONTAINER HEIGHT
MINUS 1" (REF: 47'-1/2")
(3 REQD.).



SIDE FILL ASSEMBLY

BUFFER PIECE, 2" X 6" X 47-1/2"
(2 REQD). NAIL TO THE BEAM
ASSEMBLIES W/3-10d NAILS AT
EACH JOINT. DO NOT NAIL TO
ASSEMBLY UNTIL ASSEMBLY HAS
BEEN PLACED INTO ITS BLOCKING
POSITION. AFTER THE "REAR
BLOCKING ASSEMBLY" HAS
BEEN CENTERED IN THE CON-
TAINER, POSITION BUFFER PIECES
SO AS TO CONTACT THE SIDE
WALL OF THE CONTAINER
BEFORE NAILING BUFFER PIECES
TO THE ASSEMBLY.

LOAD BEARING PIECE, 2" X 6" 48" (4 REQD).
NAIL TO THE BEAM ASSEMBLIES W/3-10d NAILS
AT EACH JOINT.

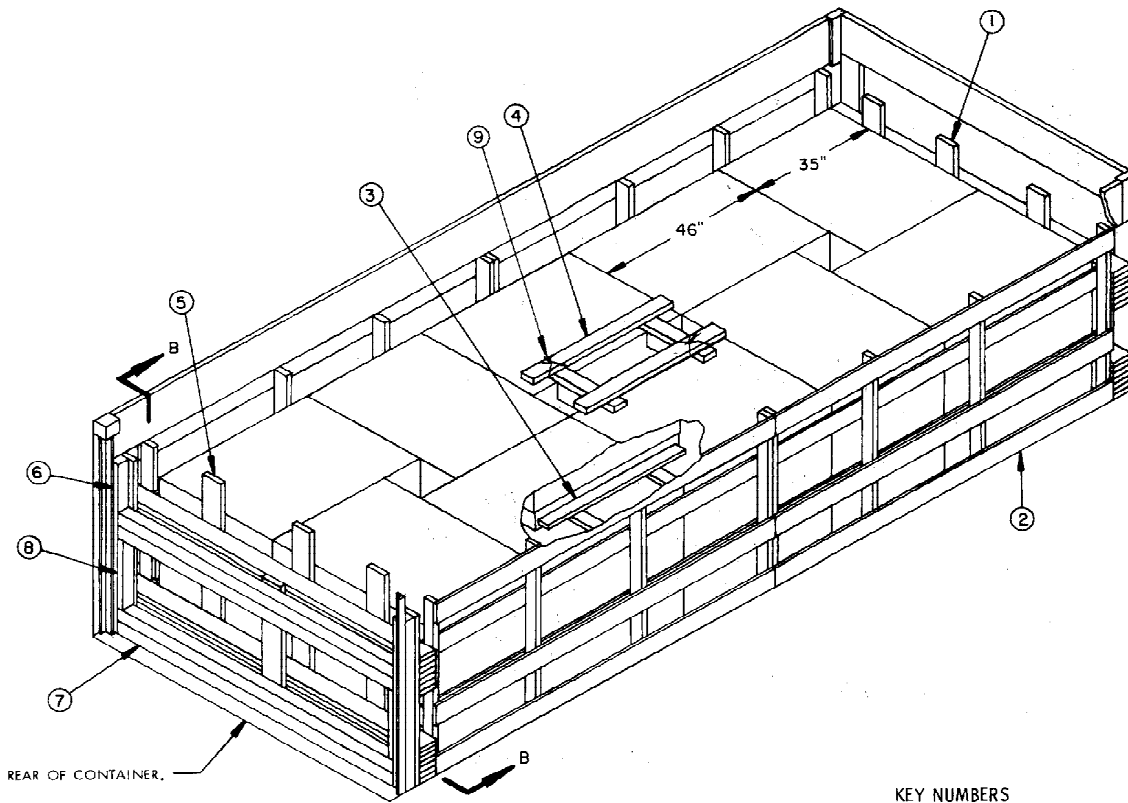


INSIDE CONTAINER
WIDTH MINUS 2"
(REF: 7'-6")

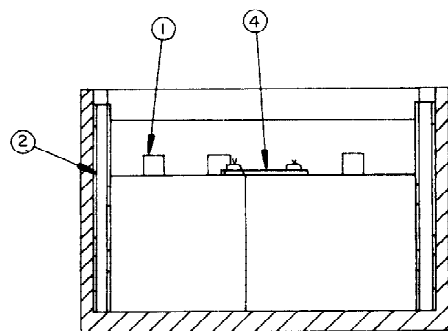
BEAM ASSEMBLY, 2" X 6" BY INSIDE
CONTAINER WIDTH MINUS 2"
(REF: 7'-6") (SEPTUPLED) (2 REQD).
LAMINATE THE SECOND PIECE TO THE
FIRST PIECE W/11-10d NAILS. LAMINATE
EACH ADDITIONAL PIECE IN A LIKE MANNER.

SUPPORT PIECE, 2" X 6" X 36" (1 REQD).
NAIL TO EACH BEAM ASSEMBLY W/3-10d
NAILS.

REAR BLOCKING ASSEMBLY



ISOMETRIC VIEW



SECTION B-B

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 12 AND GENERAL NOTE "F" ON PAGE 2.
- ② SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY" DETAIL ON PAGE 12 AND GENERAL NOTE "D" ON PAGE 2.
- ③ LOWER ANTI-SWAY BRACE (1 REQD). SEE THE "LOWER ANTI-SWAY BRACE" DETAIL ON PAGE 13.
- ④ TOP ANTI-SWAY BRACE (1 REQD). SEE THE "TOP ANTI-SWAY BRACE" DETAIL ON PAGE 13.
- ⑤ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" ON PAGE 13 AND GENERAL NOTE "F" ON PAGE 2.
- ⑥ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD).
- ⑦ DOOR SPANNER, 4" X 4" MATERIAL CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7"-1-3/8") (4 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICAL PIECES W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 30.
- ⑧ DOOR SPANNER SUPPORT PIECES, 2" X 4" X 20" (2 REQD). NAIL TO A DOOR POST VERTICAL W/4-10d NAILS AFTER THE LOWER DOOR SPANNER PIECES ARE IN POSITION.
- ⑨ TIE WIRE, 14 GAGE ANNEALED BY A LENGTH TO SUIT (2 REQD). INSTALL TO SECURE DIAGONALLY OPPOSITE CORNERS OF PIECE MARKED ④ TO ADJACENT PALLET UNIT UNITIZING STRAPS. TWIST ENDS OF WIRE TOGETHER.

SPECIAL NOTES:

1. THE PALLETIZED UNIT IN THE TYPICAL CHIMNEY-PATTERN LOAD, ON PAGE 10, IS BASED ON PALLET UNIT NO. 2 SHOWN ON PAGE 3. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF DIFFERENT LENGTHS AND WIDTHS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHARTS ON PAGE 5.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE BEARING PIECES ON THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE BEARING PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12".

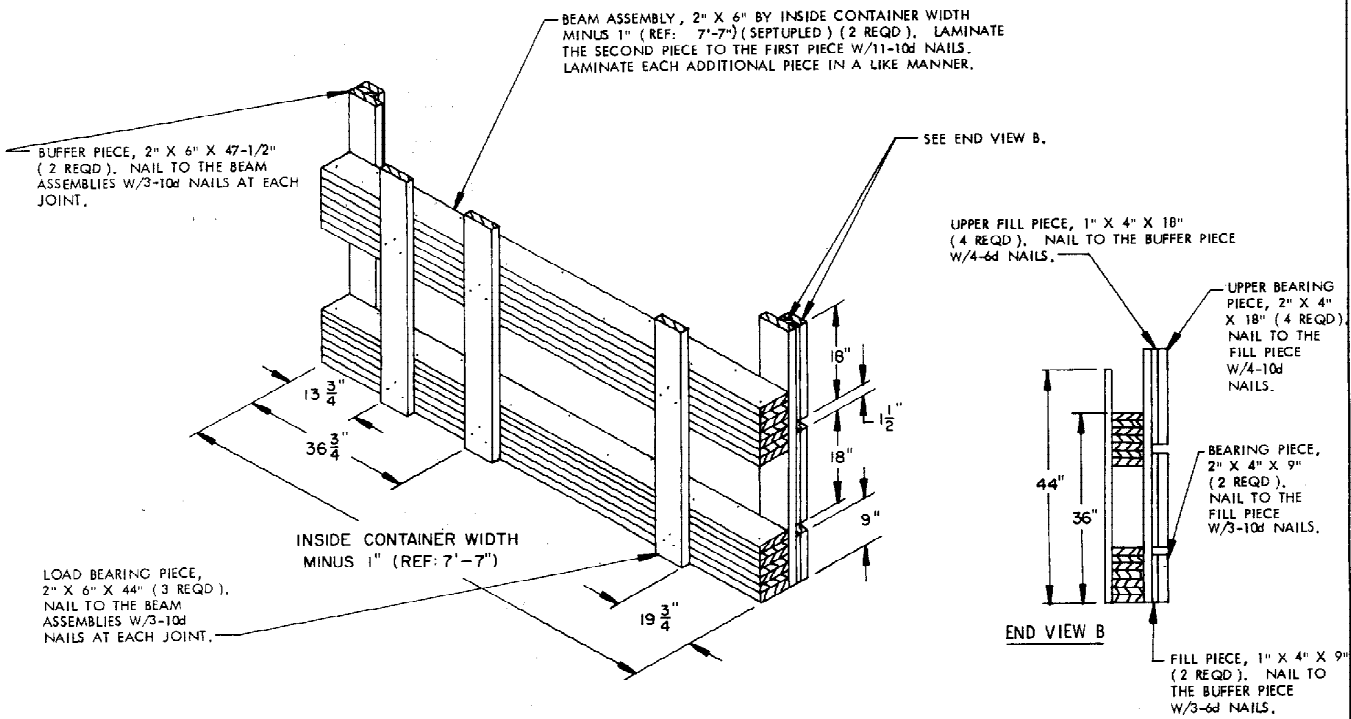
RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, FOUR SIDE FILL ASSEMBLIES, ONE TOP ANTI-SWAY BRACE, ONE LOWER ANTI-SWAY BRACE, AND ONE REAR BLOCKING ASSEMBLY.
2. INSTALL FORWARD BLOCKING ASSEMBLY.
3. INSTALL ONE SIDE FILL ASSEMBLY AND LOAD ONE PALLET UNIT.
4. INSTALL ONE SIDE FILL ASSEMBLY AND LOAD ONE PALLET UNIT.
5. LOAD TWO PALLET UNITS.
6. REPEAT STEP 3.
7. REPEAT STEP 4.
8. INSTALL LOWER ANTI-SWAY BRACE.
9. INSTALL TOP ANTI-SWAY BRACE.
10. LOAD FOUR PALLET UNITS.
11. INSTALL REAR BLOCKING ASSEMBLY.
12. INSTALL TWO DOOR POST VERTICALS.
13. CLOSE THE CONTAINER DOOR HEADER.
14. INSTALL TWO DOOR SPANNER PIECES AT THE LOWEST POSITIONS.
15. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER PIECES.

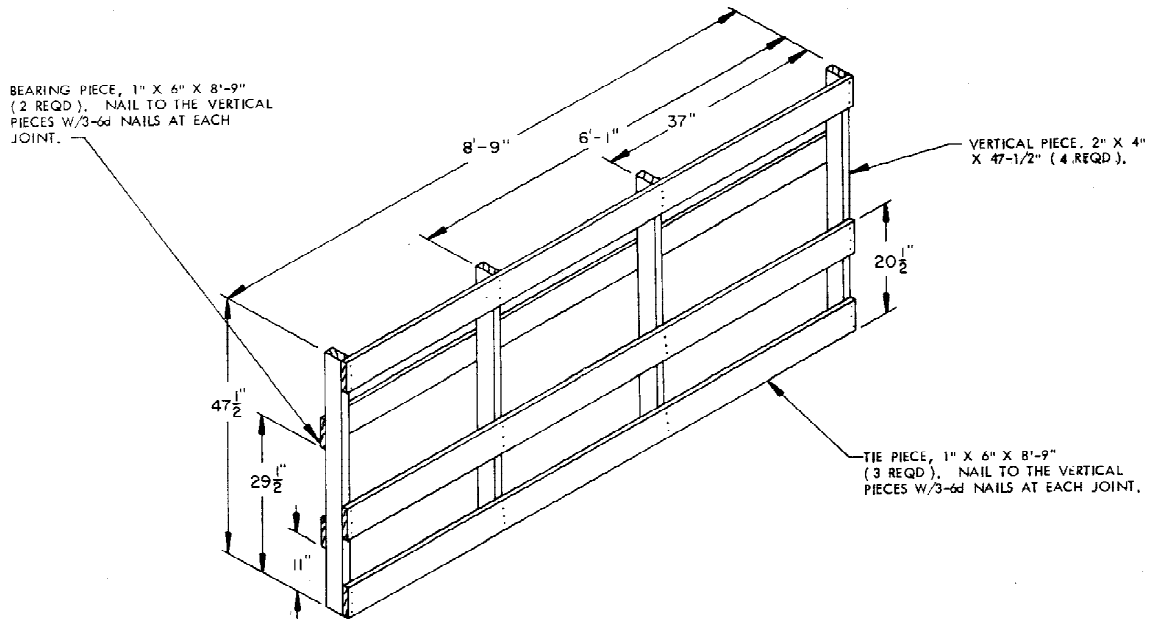
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	176	88
2" X 4"	90	54
2" X 6"	254	254
4" X 4"	39	32
NAILS	NO. REQD	POUNDS
6d (2")	244	1-1/2
10d (3")	308	4-3/4
12d (3-1/4")	16	1/2
WIRE, 14, GAGE-----4 FT REQD-----NIL		

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX.)</u>
PALLET UNIT-----	10-----	26,630 LBS
DUNNAGE-----		887 LBS
CONTAINER-----		4,365 LBS
TOTAL WEIGHT-----		31,882 LBS

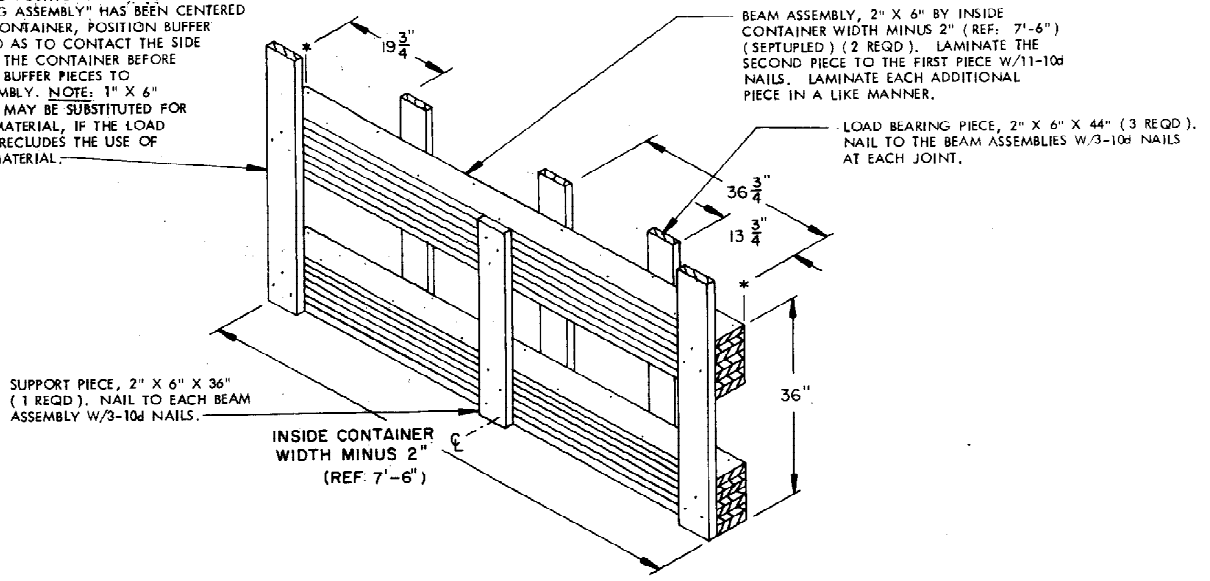


FORWARD BLOCKING ASSEMBLY

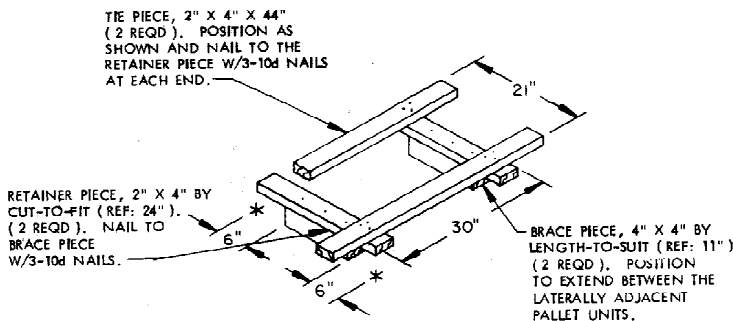


SIDE FILL ASSEMBLY

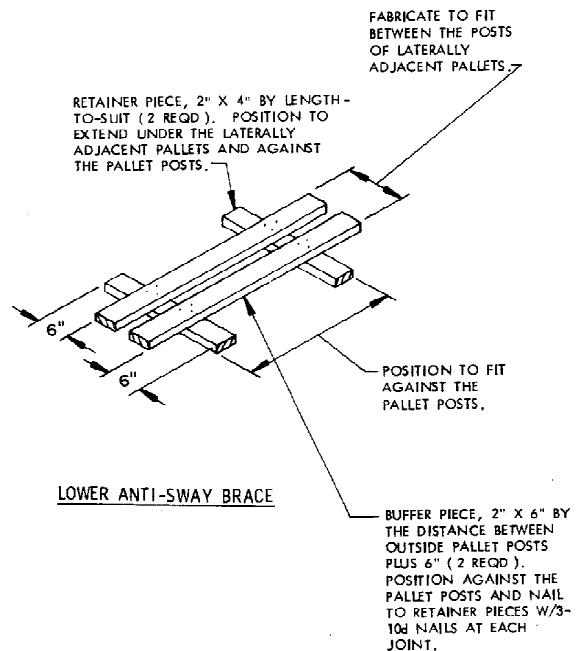
BUFFER PIECE, 2" X 6" X 47-1/2" (2 REQD).
 NAIL TO THE BEAM ASSEMBLIES W/3-10d NAILS
 AT EACH JOINT. DO NOT NAIL TO ASSEMBLY
 UNTIL ASSEMBLY HAS BEEN PLACED INTO ITS
 BLOCKING POSITION. AFTER THE "REAR
 BLOCKING ASSEMBLY" HAS BEEN CENTERED
 IN THE CONTAINER, POSITION BUFFER
 PIECES SO AS TO CONTACT THE SIDE
 WALL OF THE CONTAINER BEFORE
 NAILING BUFFER PIECES TO
 THE ASSEMBLY. NOTE: 1" X 6"
 MATERIAL MAY BE SUBSTITUTED FOR
 2" X 6" MATERIAL, IF THE LOAD
 LENGTH PRECLUDES THE USE OF
 2" X 6" MATERIAL.



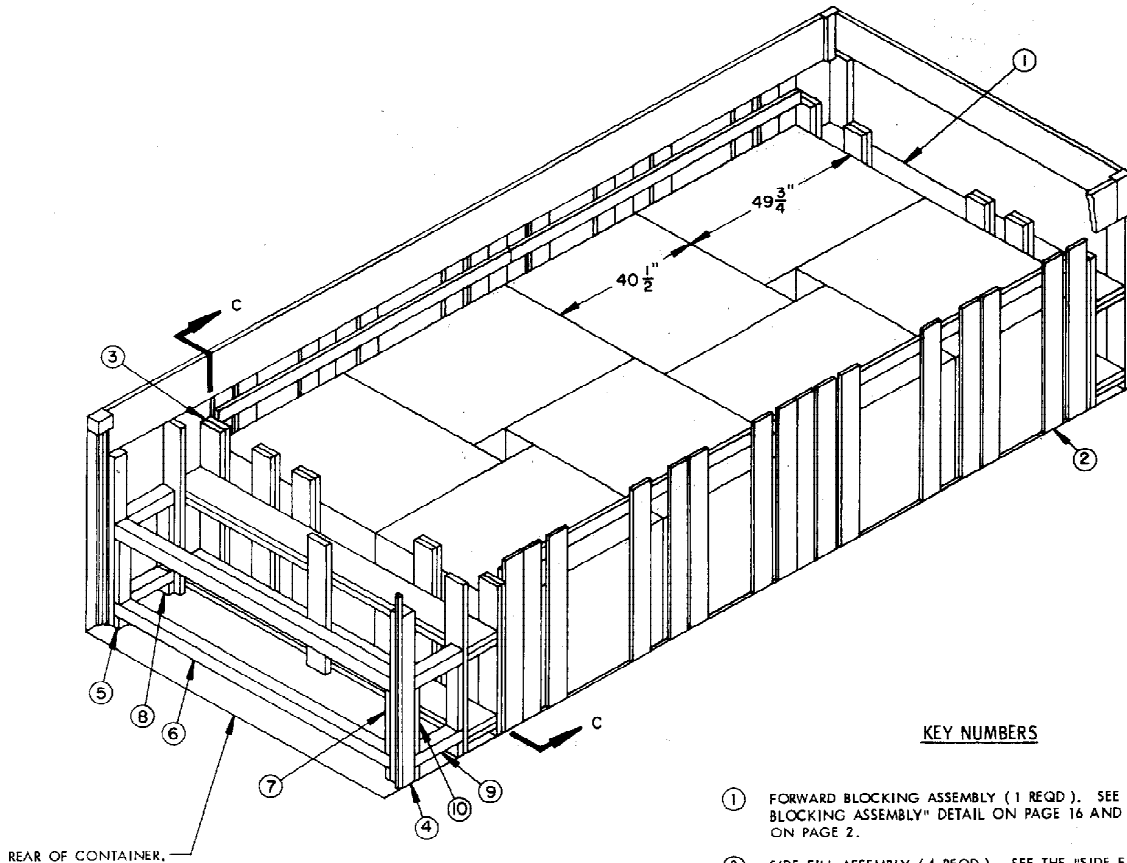
REAR BLOCKING ASSEMBLY



TOP ANTI-SWAY BRACE



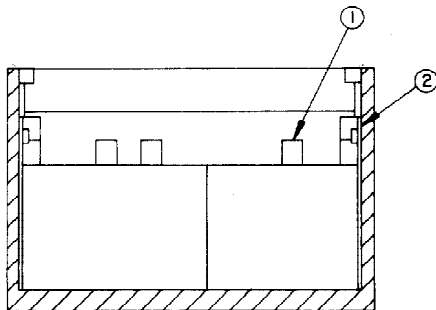
LOWER ANTI-SWAY BRACE



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 16 AND GENERAL NOTE "F" ON PAGE 2.
- ② SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY" DETAIL ON PAGE 16 AND GENERAL NOTE "D" ON PAGE 2.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" DETAIL ON PAGE 17 AND GENERAL NOTE "F" ON PAGE 2.
- ④ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD).
- ⑤ DOOR SPANNER LEDGER, 2" X 4" X 5-1/2" (2 REQD). NAIL TO "DOOR POST VERTICAL" W/2-10d NAILS.
- ⑥ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (2 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICAL PIECES W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT DETAIL ON PAGE 30.
- ⑦ DOOR SPANNER SUPPORT PIECE, 2" X 4" X 17" (2 REQD). NAIL TO "DOOR POST VERTICAL" W/4-10d NAILS AFTER THE LOWER "DOOR SPANNER" IS IN PLACE.
- ⑧ STRUT LEDGER, 2" X 4" X 5-1/2" (4 REQD). NAIL TO THE BUFFER PIECE OF THE "REAR BLOCKING ASSEMBLY" AND THE "DOOR POST VERTICAL" W/2-10d NAILS.
- ⑨ STRUT, 4" X 4" BY CUT-TO-FIT (4 REQD). TOENAIL TO THE BUFFER PIECE OF THE "REAR BLOCKING ASSEMBLY" AND THE "DOOR POST VERTICAL" W/2-12d NAILS AT EACH END.
- ⑩ STRUT SUPPORT PIECE, 2" X 4" X 17" (4 REQD). NAIL TO THE BUFFER PIECE OF THE "REAR BLOCKING ASSEMBLY" AND THE "DOOR POST VERTICAL" W/4-10d NAILS AFTER THE LOWER STRUTS ARE IN PLACE.



SECTION C-C

SPECIAL NOTES:

1. THE PALLETIZED UNIT IN THE TYPICAL CHIMNEY-PATTERN LOAD ON PAGE 14 IS BASED ON PALLET UNIT NO. 3 SHOWN ON PAGE 3. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF DIFFERENT LENGTHS AND WIDTHS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHARTS ON PAGE 5.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE BEARING PIECES ON THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE BEARING PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ALSO, IT IS PERMITTED TO ELIMINATE THE SIDE FILL ASSEMBLIES FROM ONE OR BOTH SIDES IF THE SPACE ACROSS THE WIDTH OF THE CONTAINER DOES NOT PROVIDE ENOUGH SPACE FOR THEIR INSTALLATION.

RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

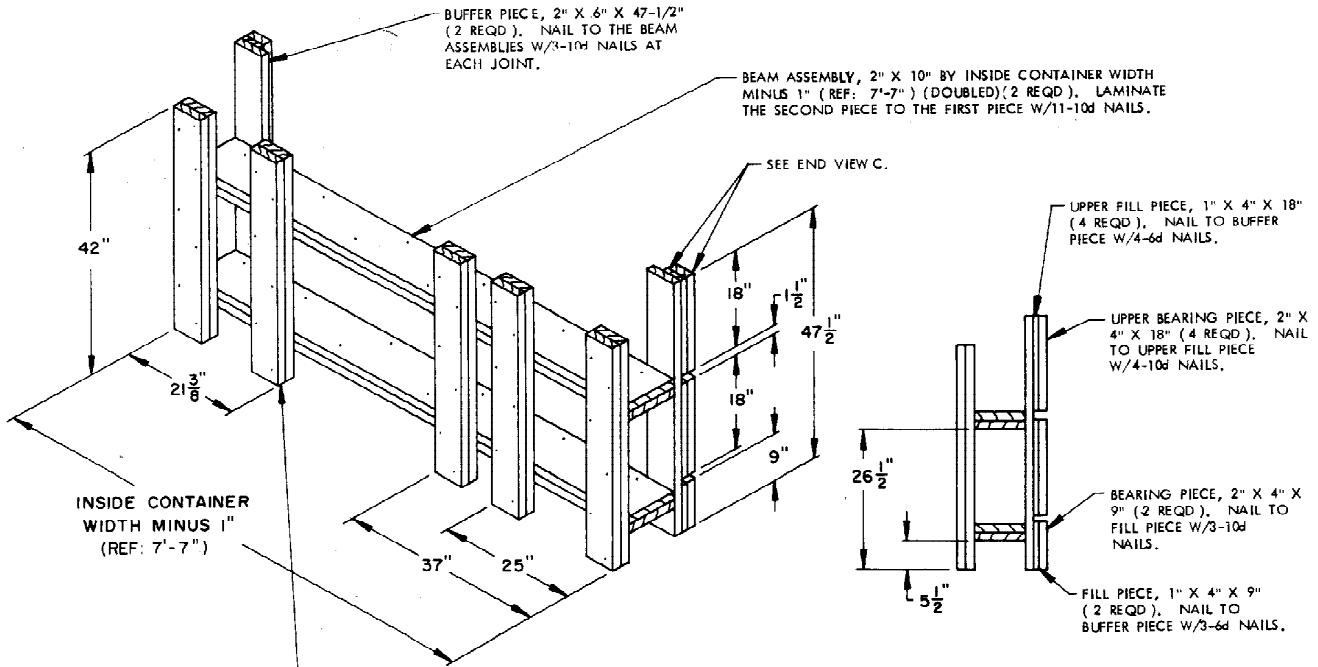
1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, ONE REAR BLOCKING ASSEMBLY, AND FOUR SIDE FILL ASSEMBLIES.
2. INSTALL FORWARD BLOCKING ASSEMBLY
3. INSTALL TWO SIDE FILL ASSEMBLIES.
4. LOAD FOUR PALLET UNITS.
5. REPEAT STEP 3.
6. REPEAT STEP 4.
7. INSTALL REAR BLOCKING ASSEMBLY.
8. INSTALL THE TWO DOOR POST VERTICALS.
9. CLOSE THE CONTAINER DOOR HEADER.
10. INSTALL THE LOWER DOOR SPANNER PIECE AND THE DOOR SPANNER LEDGERS.
11. INSTALL THE STRUT LEDGERS, THE STRUTS AND THE STRUT SUPPORT PIECES BETWEEN THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL.
12. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	127	64
2" X 4"	50	34
2" X 6"	54	54
2" X 10"	61	102
4" X 4"	29	37
NAILS	NO. REQD	POUNDS
6d (2")	118	3/4
10d (3")	242	3-3/4
12d (3-1/4")	20	1/2

LOAD AS SHOWN

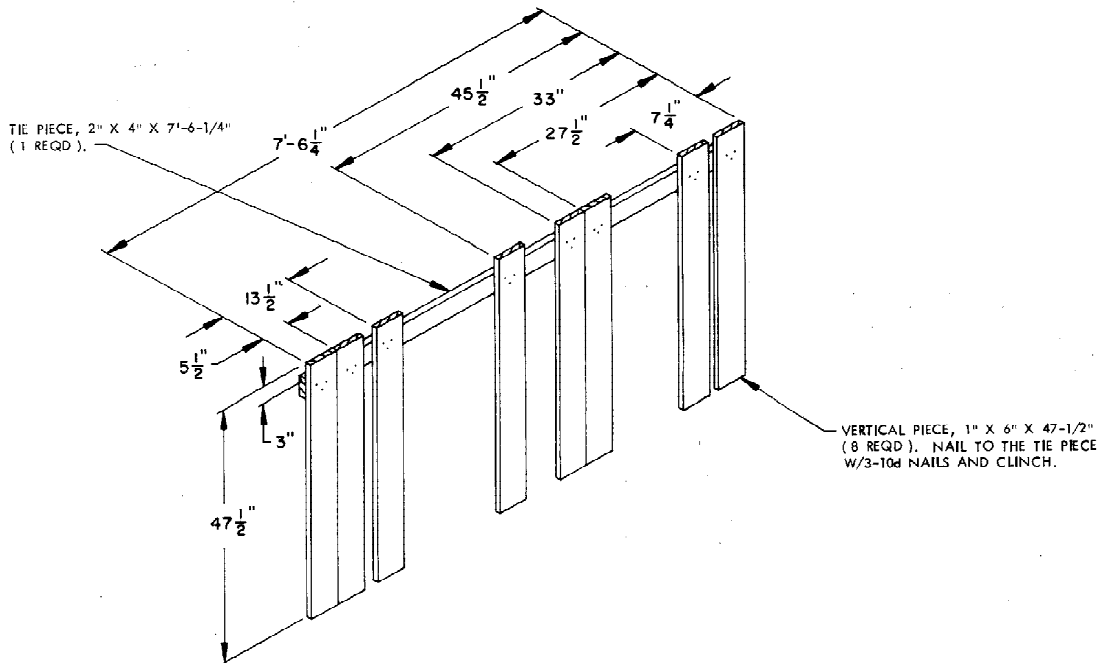
<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
PALLET UNIT-----	8-----	23,736 LBS
DUNNAGE-----		593 LBS
CONTAINER-----		4,365 LBS
TOTAL WEIGHT-----		28,694 LBS



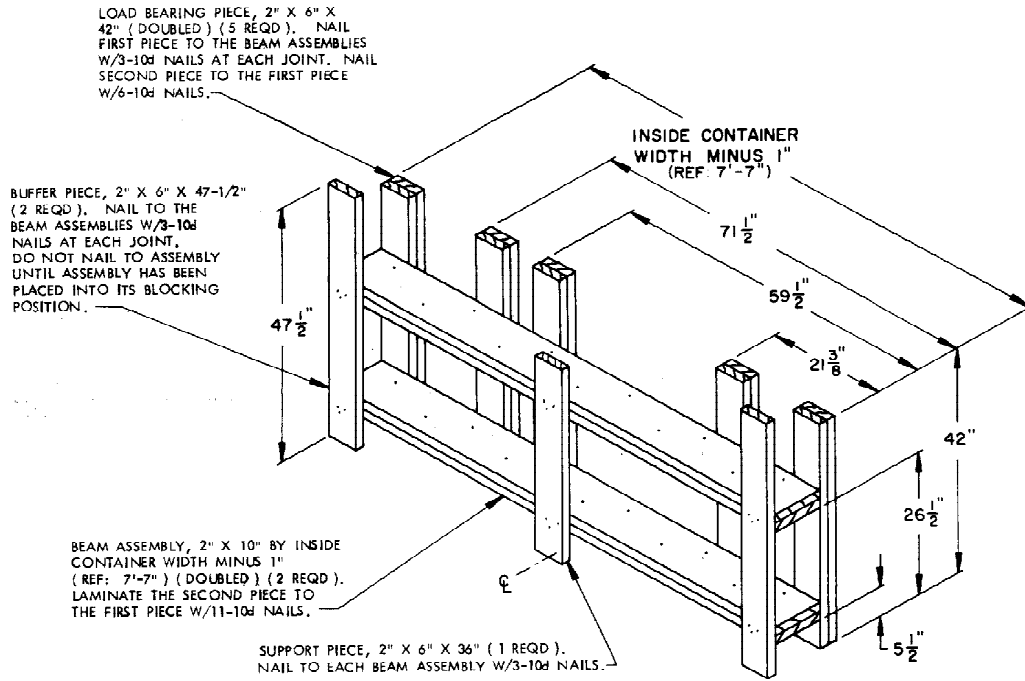
END VIEW C

LOAD BEARING PIECE, 2" X 6" X 42" (DOUBLED) (5 REQD.), NAIL THE FIRST PIECE TO THE BEAM ASSEMBLIES W/3-10d NAILS AT EACH JOINT. NAIL THE SECOND PIECE TO THE FIRST PIECE W/8-10d NAILS. DO NOT NAIL THE TWO OUTSIDE BEARING PIECES TO THE ASSEMBLY UNTIL IT IS IN PLACE.

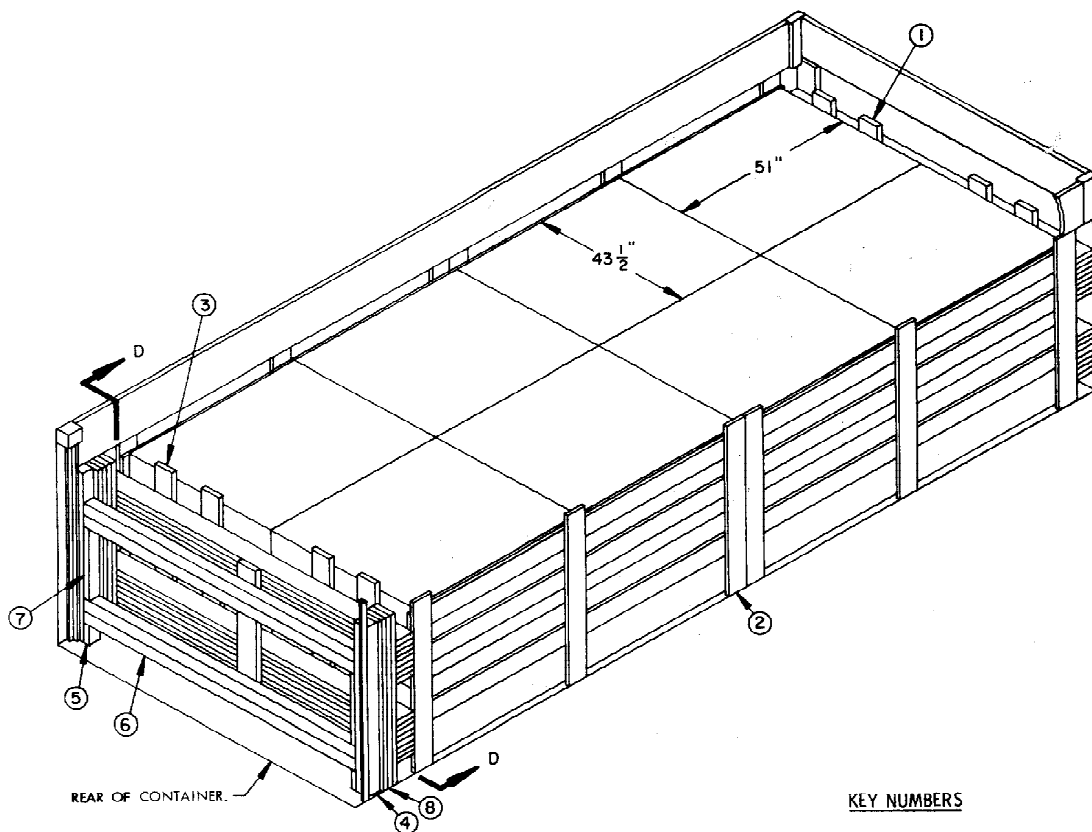
FORWARD BLOCKING ASSEMBLY



SIDE FILL ASSEMBLY



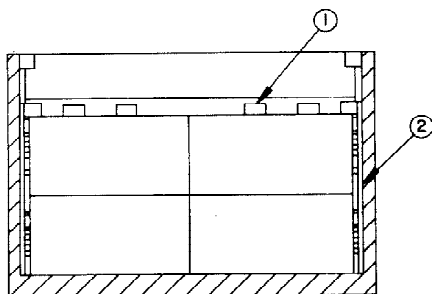
REAR BLOCKING ASSEMBLY



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 20 AND GENERAL NOTE "F" ON PAGE 2.
- ② SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY" DETAIL ON PAGE 20 AND GENERAL NOTE "D" ON PAGE 2.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" DETAIL ON PAGE 21 AND GENERAL NOTE "F" ON PAGE 2.
- ④ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD). SEE "TYPICAL DETAIL B" AND "C" ON PAGE 30 AND GENERAL NOTE "E" ON PAGE 2.
- ⑤ STRUT LEDGER, 2" X 4" X 6" (2 REQD). NAIL TO DOOR POST VERTICAL W/2-10d NAILS.
- ⑥ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (4 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICAL PIECES W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 30.
- ⑦ DOOR SPANNER SUPPORT PIECE, 2" X 4" X 20" (2 REQD). NAIL TO A DOOR POST VERTICAL W/4-10d NAILS AFTER THE LOWER DOOR SPANNER PIECES ARE IN POSITION.
- ⑧ FILL MATERIAL, 6" WIDE BY 47-1/2" LONG MATERIAL (AS REQD). NAIL EACH PIECE TO THE REAR BLOCKING ASSEMBLY AND/OR LAMINATE TOGETHER W/5 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). CAUTION: DO NOT NAIL TO THE DOOR POST VERTICALS, PIECES MARKED ④.



SECTION D-D

SPECIAL NOTES:

1. THE PALLETIZED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 18 IS BASED ON PALLET UNIT NO. 4 SHOWN ON PAGE 3. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR PALLETIZED UNITS OF OTHER DIMENSIONS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHARTS ON PAGE 5 FOR GUIDANCE.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE TIE PIECES ON THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE TIE PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE NUMBER AND THICKNESS OF THE TIE PIECES AND THE THICKNESS OF THE VERTICAL PIECES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE LENGTH OF THE PALLET UNIT.

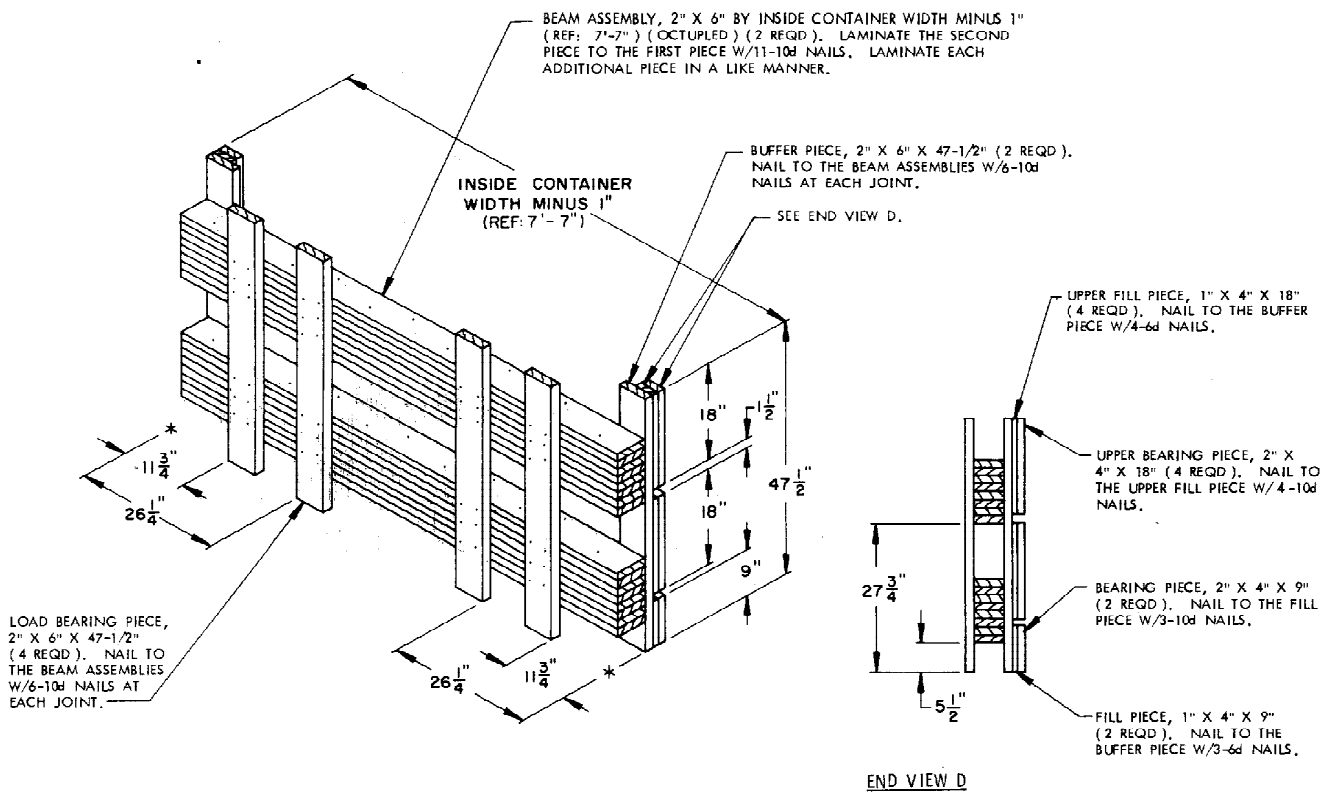
RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, FOUR SIDE FILL ASSEMBLIES, AND ONE REAR BLOCKING ASSEMBLY.
2. INSTALL FORWARD BLOCKING ASSEMBLY.
3. INSTALL ONE SIDE FILL ASSEMBLY AND LOAD TWO PALLET UNITS.
4. REPEAT STEP 3.
5. LOAD FOUR PALLET UNITS.
6. REPEAT STEP 3.
7. REPEAT STEP 3.
8. REPEAT STEP 5.
9. INSTALL REAR BLOCKING ASSEMBLY.
10. INSTALL THE TWO DOOR POST VERTICALS.
11. CLOSE THE CONTAINER DOOR HEADER.
12. INSTALL THE STRUT LEDGERS AND THE TWO DOOR SPANNER PIECES AT THE LOWEST POSITION.
13. INSTALL THE SOLID FILL LOAD BLOCKING MATERIAL.
14. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER PIECES.

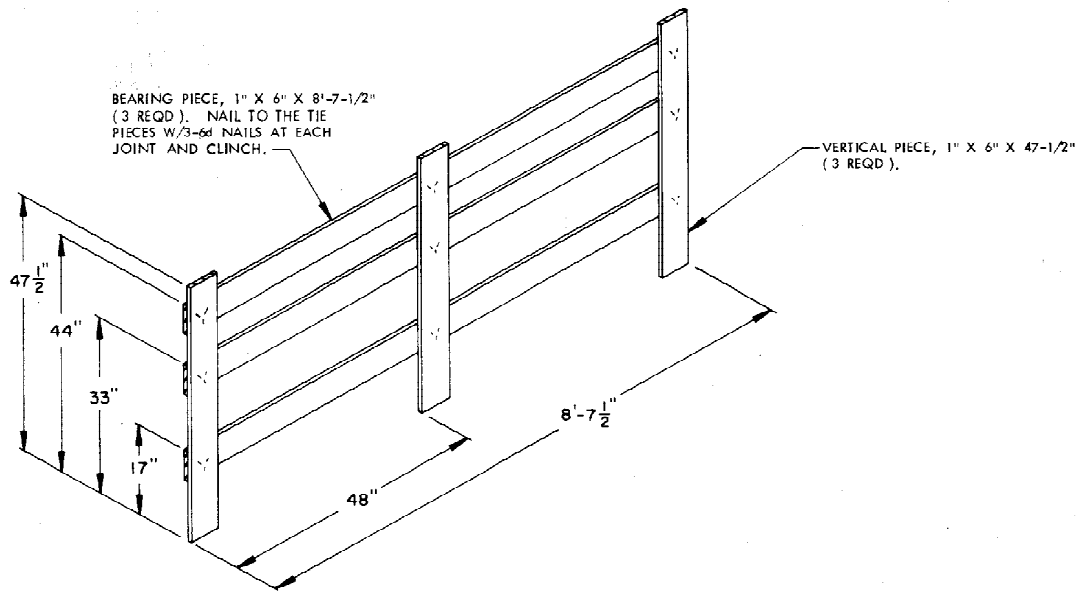
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	126	63
2" X 4"	12	8
2" X 6"	287	287
4" X 4"	37	47
NAILS	NO. REQD	POUNDS
6d (2")	81	1/2
10d (3")	461	7-1/4
12d (3-1/4")	16	1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT-----	16-----	30,944 LBS
DUNNAGE-----		825 LBS
CONTAINER-----		4,365 LBS
TOTAL WEIGHT-----		36,134 LBS



FORWARD BLOCKING ASSEMBLY



SIDE FILL ASSEMBLY

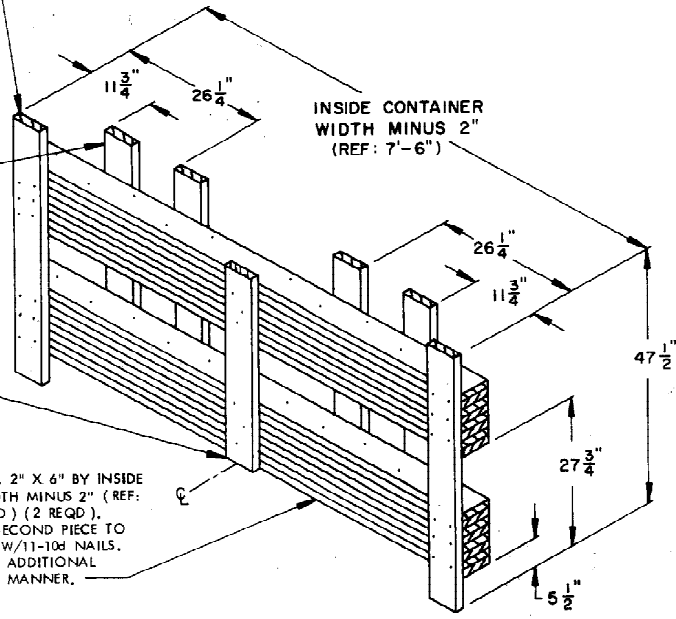
BUFFER PIECE, 2" X 6" X 47-1/2" (2 REQD). NAIL TO THE BEAM ASSEMBLIES W/6-10d NAILS AT EACH JOINT. DO NOT NAIL TO ASSEMBLY UNTIL ASSEMBLY HAS BEEN PLACED INTO ITS BLOCKING POSITION. AFTER THE "REAR BLOCKING ASSEMBLY" HAS BEEN CENTERED IN THE CONTAINER, POSITION BUFFER PIECES SO AS TO CONTACT THE SIDE WALL OF THE CONTAINER BEFORE NAILING BUFFER PIECES TO THE ASSEMBLY.

LOAD BEARING PIECE, 2" X 6" X 47-1/2" (4 REQD). NAIL TO THE BEAM ASSEMBLIES W/6-10d NAILS AT EACH JOINT.

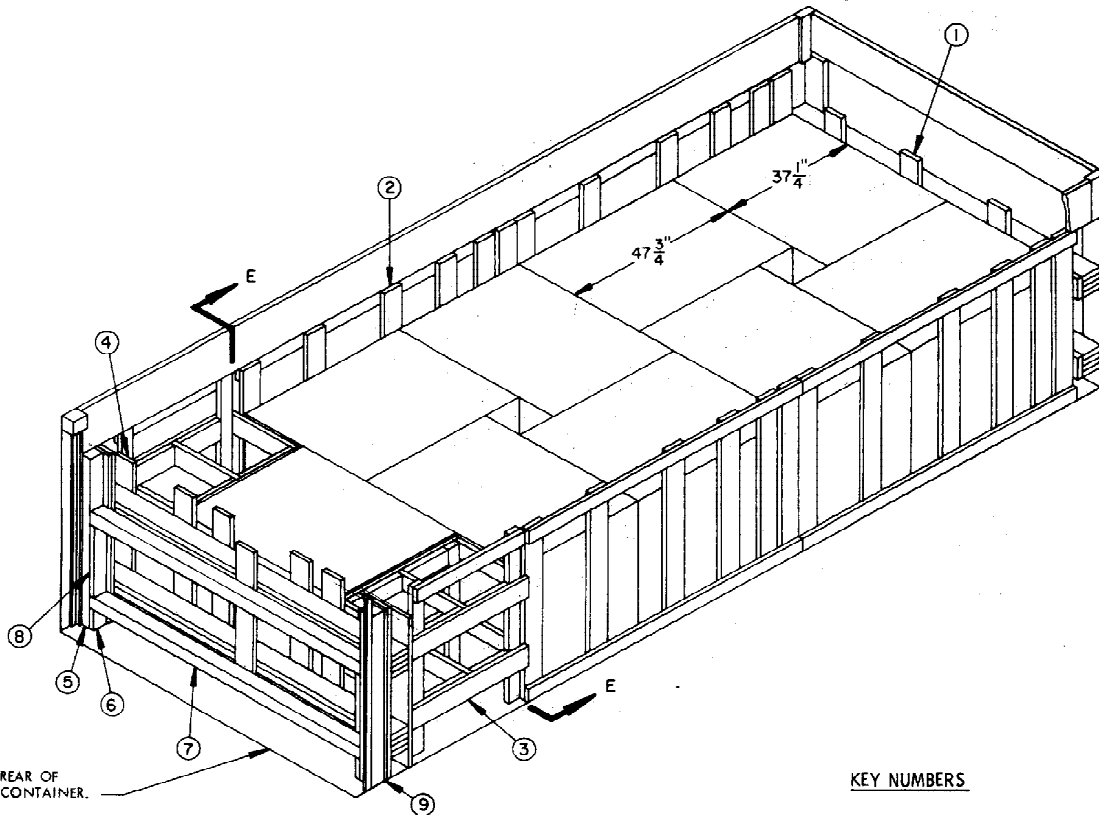
SUPPORT PIECE, 2" X 6" X 36" (1 REQD). NAIL TO EACH BEAM ASSEMBLY W/3-10d NAILS.

BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS 2" (REF: 7'-6") (OCTUPLED) (2 REQD). LAMINATE THE SECOND PIECE TO THE FIRST PIECE W/11-10d NAILS. LAMINATE EACH ADDITIONAL PIECE IN A LIKE MANNER.

INSIDE CONTAINER WIDTH MINUS 2" (REF: 7'-6")



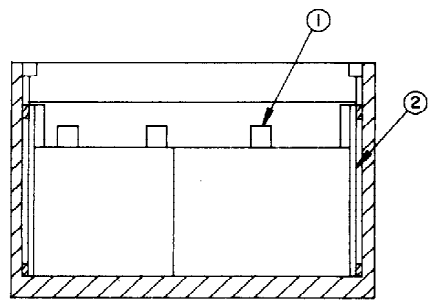
REAR BLOCKING ASSEMBLY



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 24 AND GENERAL NOTE "F" ON PAGE 2.
- ② SIDE FILL ASSEMBLY (4 REQD). SEE THE "SIDE FILL ASSEMBLY" DETAIL ON PAGE 24 AND GENERAL NOTE "D" ON PAGE 2.
- ③ FILLER ASSEMBLY (2 REQD). SEE THE "FILLER ASSEMBLY" DETAIL ON PAGE 25.
- ④ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" DETAIL ON PAGE 25 AND GENERAL NOTE "F" ON PAGE 2.
- ⑤ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD). SEE THE TYPICAL DETAIL "B" AND "C" ON PAGE 30.
- ⑥ STRUT LEDGER, 2" X 4" X 5-1/2" (2 REQD). NAIL TO DOOR POST VERTICAL W/2-10d NAILS.
- ⑦ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF. 7'-1-3/8") (2 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICAL PIECES W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 30. AFTER INSTALLING THE BOTTOM DOOR SPANNER, THE FILL MATERIAL, PIECE MARKED ⑨, IS TO BE INSTALLED.
- ⑧ DOOR SPANNER SUPPORT PIECE, 2" X 4" X 17" (2 REQD). NAIL TO DOOR POST VERTICAL W/4-10d NAILS AFTER LOWER DOOR SPANNER IS IN PLACE.
- ⑨ FILL MATERIAL, 6" WIDE BY 47-1/2" LONG MATERIAL (AS REQD). NAIL EACH PIECE TO THE REAR BLOCKING ASSEMBLY AND/OR LAMINATE TOGETHER W/5 NAILS OF A SUITABLE SIZE (10d NAILS FOR 2" THICK MATERIAL). CAUTION: DO NOT NAIL TO THE DOOR POST VERTICALS, PIECES MARKED ⑤.



SECTION E-E

SPECIAL NOTES:

1. THE PALLETIZED UNIT IN THE TYPICAL CHIMNEY-PATTERN LOAD ON PAGE 22 IS BASED ON PALLET UNIT NO. 5 SHOWN ON PAGE 4. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR UNITS OF DIFFERENT LENGTHS AND WIDTHS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHARTS ON PAGE 5.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE VERTICAL PIECES ON THE SIDE FILL ASSEMBLIES ON ONE OR BOTH SIDES OF THE CONTAINER. NAIL EACH ADDITIONAL PIECE TO THE VERTICAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS OF THE VERTICAL PIECES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE LENGTH OF THE PALLET UNIT.

RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, FOUR SIDE FILL ASSEMBLIES, TWO FILLER ASSEMBLIES AND ONE REAR BLOCKING ASSEMBLY.
2. INSTALL FORWARD BLOCKING ASSEMBLY.
3. INSTALL TWO SIDE FILL ASSEMBLIES AND LOAD FOUR PALLET UNITS.
4. REPEAT STEP 3.
5. INSTALL TWO FILLER ASSEMBLIES AND LOAD ONE PALLET UNIT.
6. INSTALL REAR BLOCKING ASSEMBLY.
7. INSTALL THE TWO DOOR POST VERTICALS.
8. CLOSE THE CONTAINER DOOR HEADER.
9. INSTALL THE TWO STRUT LEDGERS AND THE LOWER DOOR SPANNER.
10. INSTALL THE SOLID FILL MATERIAL.
11. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	8	4
2" X 4"	104	69
2" X 6"	326	326
4" X 4"	16	21
NAILS	NO. REQD	POUNDS
6d (2")	22	1/4
10d (3")	494	7-1/2
12d (3-1/4")	8	1/4

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	9	15,759 LBS
DUNNAGE		854 LBS
CONTAINER		4,365 LBS

TOTAL WEIGHT----- 20,978 LBS

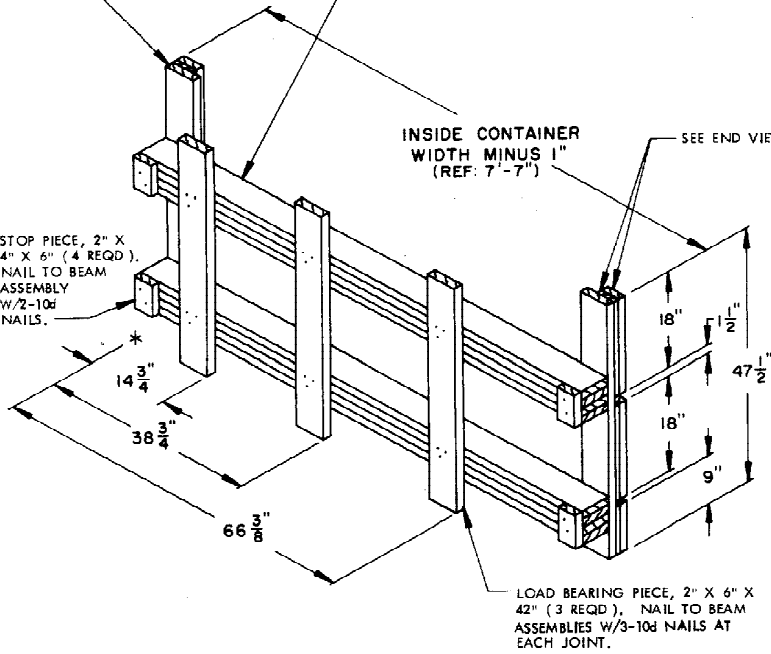
BUFFER PIECE, 2" X 6" X 47-1/2" (2 REQD). NAIL TO THE BEAM ASSEMBLIES W/3-10d NAILS AT EACH JOINT.

BEAM ASSEMBLY, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (QUADRUPLED) (2 REQD). LAMINATE SECOND PIECE TO THE FIRST W/11-10d NAILS. LAMINATE EACH ADDITIONAL PIECE IN A LIKE MANNER.

STOP PIECE, 2" X 4" X 6" (4 REQD). NAIL TO BEAM ASSEMBLY W/2-10d NAILS.

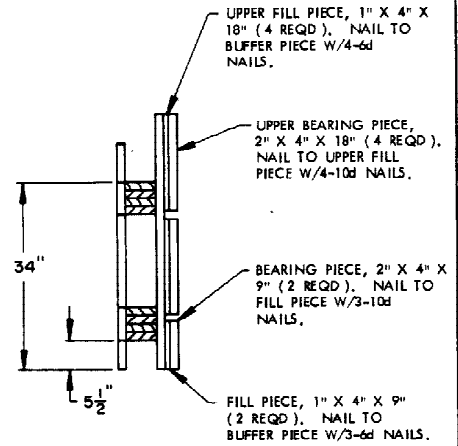
INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7")

SEE END VIEW E.

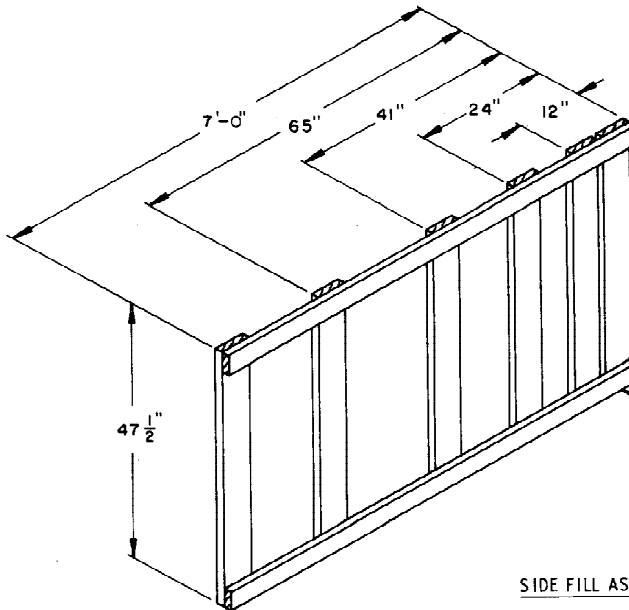


LOAD BEARING PIECE, 2" X 6" X 42" (3 REQD). NAIL TO BEAM ASSEMBLIES W/3-10d NAILS AT EACH JOINT.

FORWARD BLOCKING ASSEMBLY



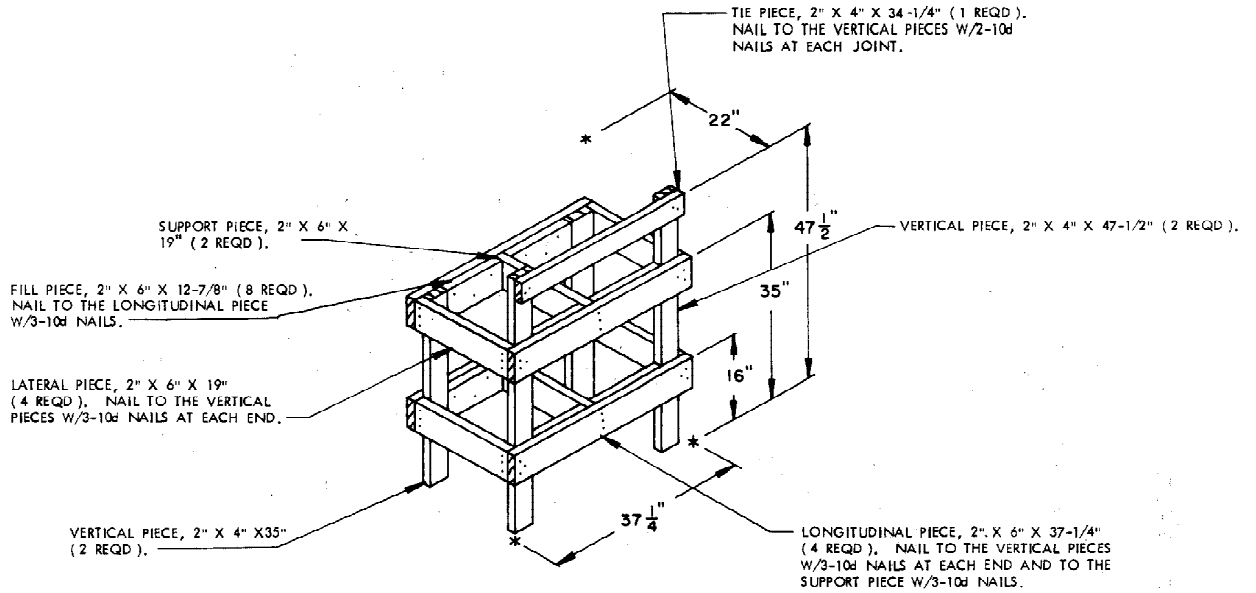
END VIEW E



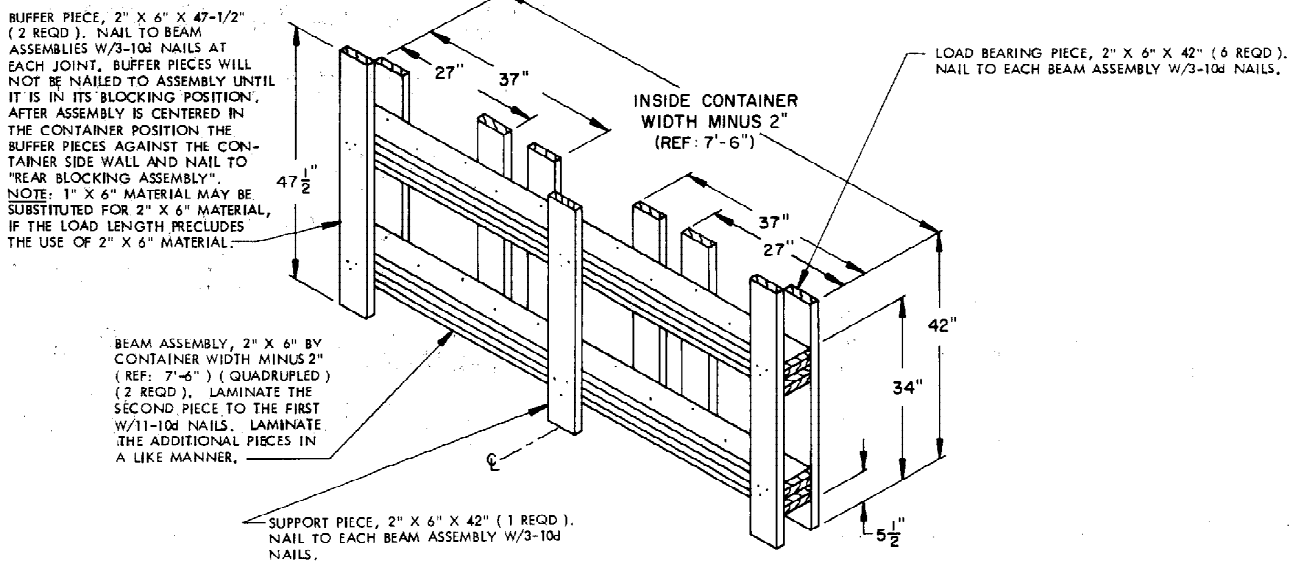
VERTICAL PIECE, 2" X 6" X 47-1/2" (6 REQD). NAIL TO HORIZONTAL PIECES W/2-10d NAILS AT EACH END.

HORIZONTAL PIECE, 2" X 4" X 7'-0" (2 REQD).

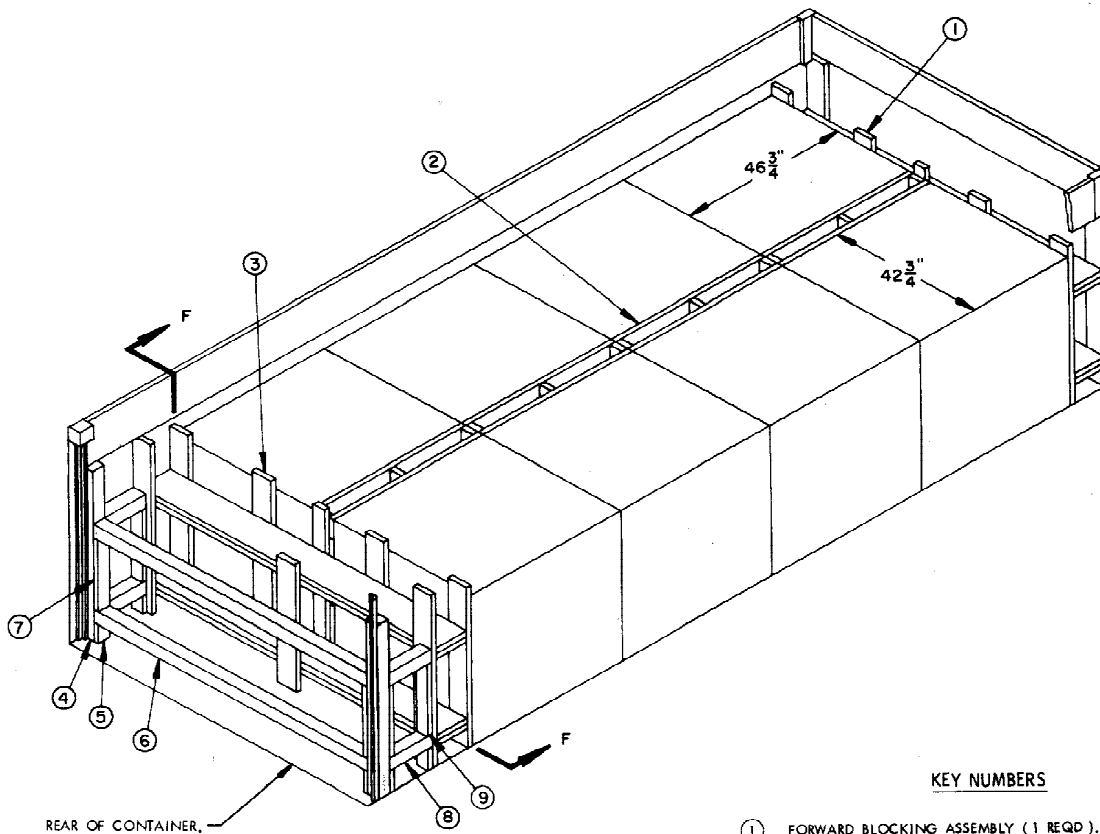
SIDE FILL ASSEMBLY



FILLER ASSEMBLY

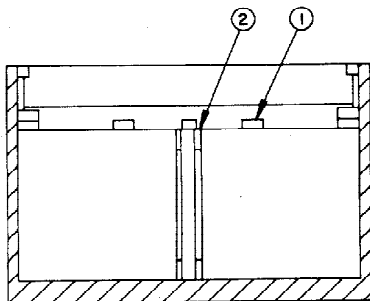


REAR BLOCKING ASSEMBLY



REAR OF CONTAINER,

ISOMETRIC VIEW



SECTION F-F

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE "FORWARD BLOCKING ASSEMBLY" DETAIL ON PAGE 28 AND GENERAL NOTE "F" ON PAGE 2.
- ② CENTER FILL ASSEMBLY (4 REQD). SEE THE "CENTER FILL ASSEMBLY" DETAIL ON PAGE 28 AND GENERAL NOTE "D" ON PAGE 2.
- ③ REAR BLOCKING ASSEMBLY (1 REQD). SEE THE "REAR BLOCKING ASSEMBLY" DETAIL ON PAGE 29 AND GENERAL NOTE "F" ON PAGE 2.
- ④ DOOR POST VERTICAL, HARDWOOD, 4" X 4" X 47-1/2" (2 REQD). SEE "TYPICAL DETAIL A" ON PAGE 30 AND GENERAL NOTE "E" ON PAGE 2.
- ⑤ STRUT LEDGER, 2" X 4" X 5-1/2" (6 REQD). NAIL TO THE DOOR POST VERTICAL AND THE BUFFER PIECES ON THE "REAR BLOCKING ASSEMBLY" W/2-10d NAILS.
- ⑥ DOOR SPANNER, 4" X 4" MATERIAL, CUT TO A LENGTH THAT WILL PROVIDE FOR A DRIVE FIT (REF: 7'-1-3/8") (2 REQD). TOENAIL TO THE 4" X 4" DOOR POST VERTICALS W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 30.
- ⑦ DOOR SPANNER SUPPORT PIECE, 2" X 4" X 22" (2 REQD). NAIL TO A DOOR POST VERTICAL W/4-10d NAILS AFTER THE LOWER DOOR SPANNER PIECE IS IN POSITION.
- ⑧ STRUT, 4" X 4" BY CUT-TO-FIT (4 REQD). TOENAIL TO THE BUFFER PIECE OF THE "REAR BLOCKING ASSEMBLY" AND THE "DOOR POST VERTICAL" W/2-12d NAILS AT EACH END.
- ⑨ STRUT SUPPORT PIECE, 2" X 4" X 22" (4 REQD). NAIL TO THE BUFFER PIECE OF THE "REAR BLOCKING ASSEMBLY" AND THE "DOOR POST VERTICAL" W/4-10d NAILS AFTER THE LOWER STRUTS ARE IN POSITION.

SPECIAL NOTES:

1. THE PALLETIZED UNIT SHOWN IN THE TYPICAL 2-WIDE LOAD ON PAGE 26 IS BASED ON PALLET UNIT NO. 6 SHOWN ON PAGE 4. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR PALLETIZED UNITS OF OTHER DIMENSIONS. REFER TO THE "SPECIAL NOTES" ON PAGE 4 AND THE CHART ON PAGE 5 FOR GUIDANCE.
2. EXCESSIVE SLACK ACROSS THE WIDTH OF A LOAD CAN BE ELIMINATED BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE BEARING PIECES ON ONE OR BOTH SIDES OF THE CENTER FILL ASSEMBLIES. NAIL EACH ADDITIONAL PIECE TO THE BEARING PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS OF THE BEARING AND VERTICAL PIECES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE LENGTH OF THE PALLETIZED UNITS.

RECOMMENDED SEQUENTIAL LOADING PROCEDURES:

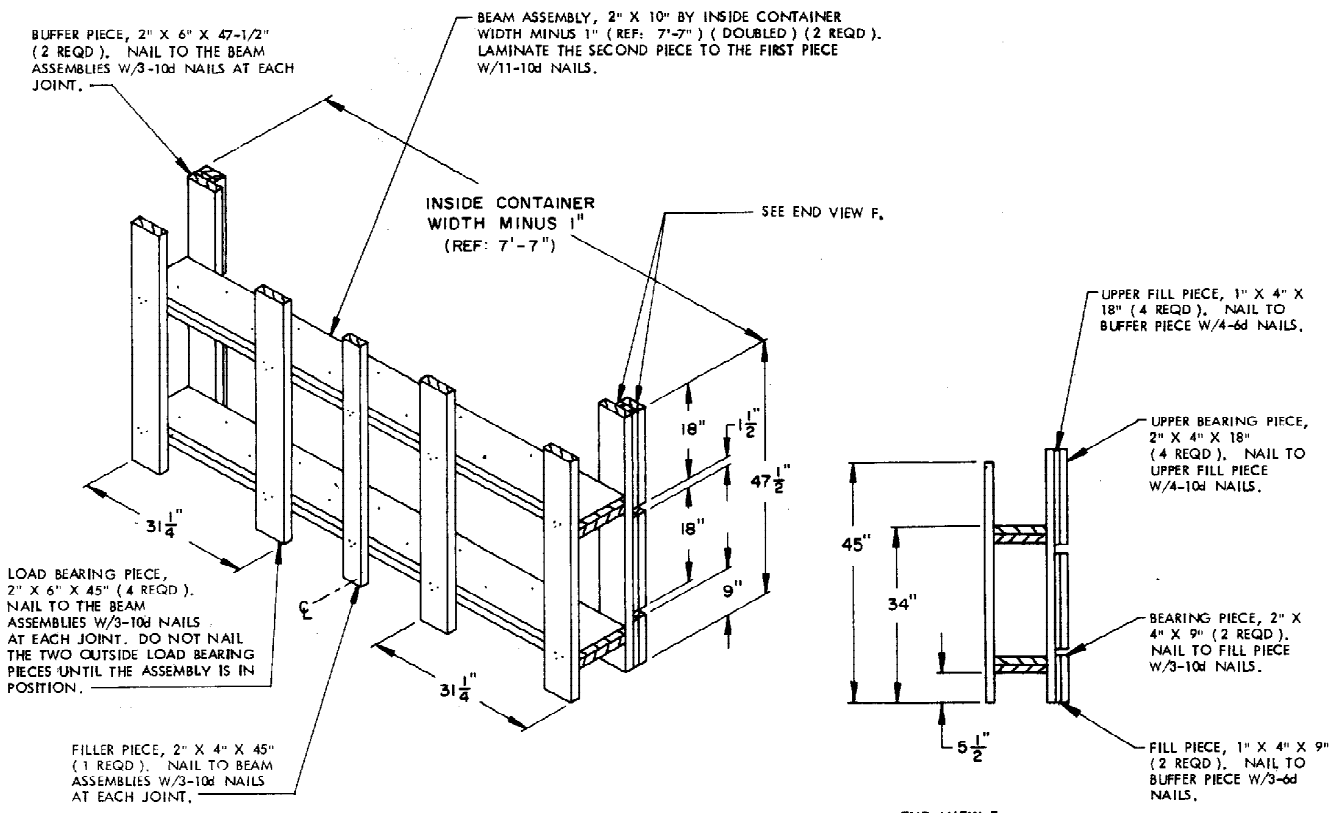
1. PREFABRICATE ONE FORWARD BLOCKING ASSEMBLY, FOUR CENTER FILL ASSEMBLIES, AND ONE REAR BLOCKING ASSEMBLY.
2. INSTALL FORWARD BLOCKING ASSEMBLY.
3. LOAD TWO PALLET UNITS AND INSTALL ONE CENTER FILL ASSEMBLY.
4. REPEAT STEP 3.
5. REPEAT STEP 3.
6. REPEAT STEP 3.
7. INSTALL REAR BLOCKING ASSEMBLY.
8. INSTALL THE TWO DOOR POST VERTICALS.
9. CLOSE THE CONTAINER DOOR HEADER.
10. INSTALL THE SIX STRUT LEDGERS.
11. INSTALL A DOOR SPANNER PIECE AT THE LOWEST POSITION.
12. INSTALL THE STRUTS AND STRUT SUPPORT PIECES BETWEEN THE REAR BLOCKING ASSEMBLY AND THE DOOR POST VERTICAL.
13. INSTALL THE DOOR SPANNER SUPPORT PIECES AND THE REMAINING DOOR SPANNER PIECE.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	48	24
2" X 4"	44	30
2" X 6"	96	96
2" X 10"	31	51
4" X 4"	20	27
NAILS	NO. REQD	POUNDS
6d (2")	70	1/2
10d (3")	274	4-1/4
12d (3-1/4")	12	1/4

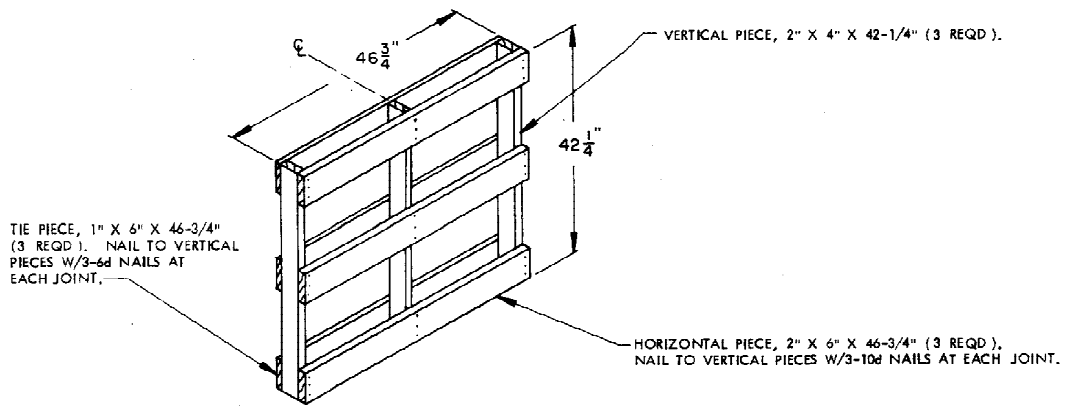
LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
PALLET UNIT-----	8-----	14,088 LBS
DUNNAGE-----		467 LBS
CONTAINER-----		4,365 LBS
TOTAL WEIGHT-----		18,980 LBS



FORWARD BLOCKING ASSEMBLY

END VIEW F



CENTER FILL ASSEMBLY

BUFFER PIECE, 2" X 6" X 47-1/2"
(2 REQD.). NAIL TO THE BEAM
ASSEMBLIES W/3-10d NAILS AT
EACH JOINT. DO NOT NAIL TO
ASSEMBLY UNTIL ASSEMBLY HAS
BEEN PLACED INTO ITS BLOCKING
POSITION.

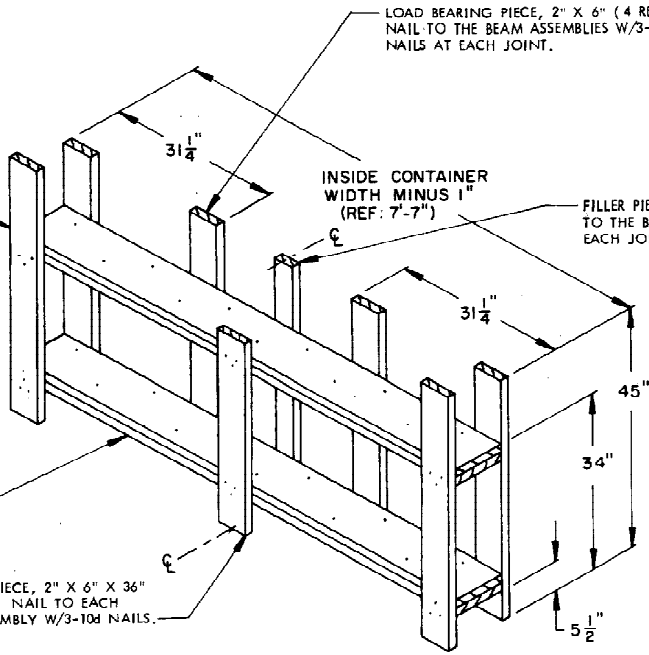
LOAD BEARING PIECE, 2" X 6" (4 REQD.).
NAIL TO THE BEAM ASSEMBLIES W/3-10d
NAILS AT EACH JOINT.

INSIDE CONTAINER
WIDTH MINUS 1"
(REF: 7'-7")

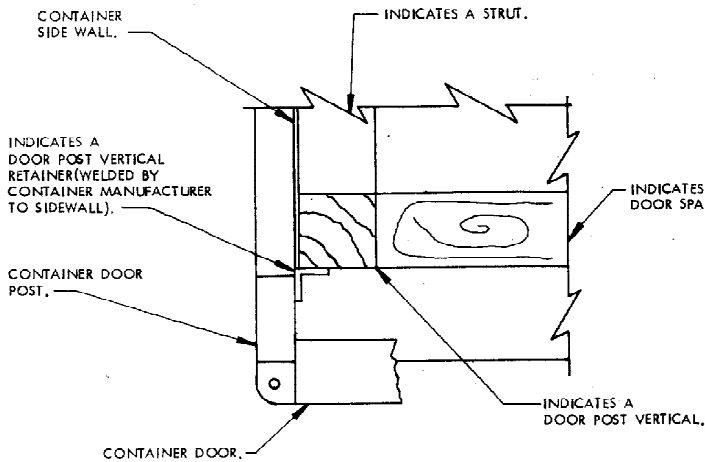
FILLER PIECE, 2" X 4" X 45" (1 REQD.). NAIL
TO THE BEAM ASSEMBLIES W/3-10d NAILS AT
EACH JOINT.

BEAM ASSEMBLY, 2" X 10" BY
INSIDE CONTAINER WIDTH MINUS
1" (REF: 7'-7") (DOUBLED) (2 REQD.).
LAMINATE THE SECOND PIECE TO THE
FIRST PIECE W/11-10d NAILS.

SUPPORT PIECE, 2" X 6" X 36"
(1 REQD.). NAIL TO EACH
BEAM ASSEMBLY W/3-10d NAILS.

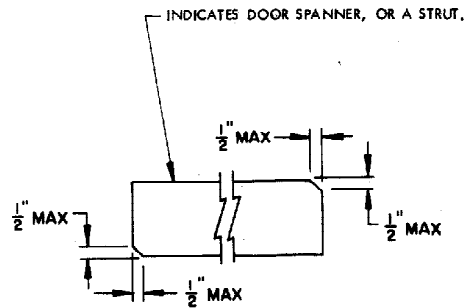


REAR BLOCKING ASSEMBLY



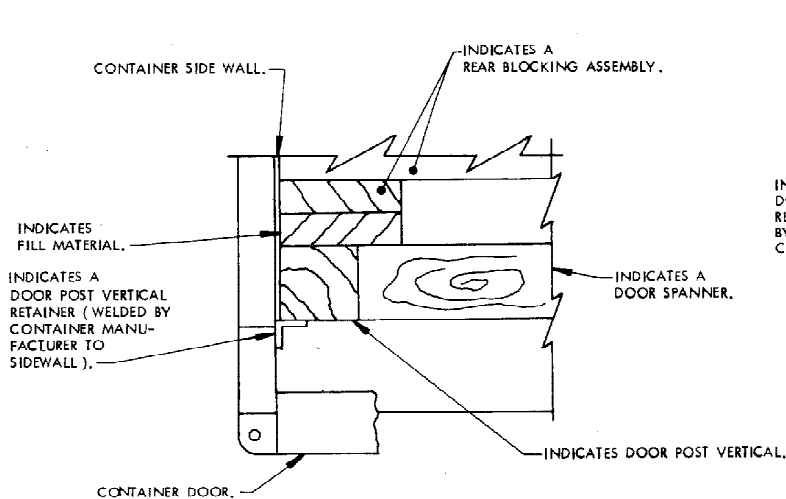
TYPICAL DETAIL A

A TYPICAL PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE DOOR POST VERTICAL AND ADJACENT DUNNAGE PIECES.



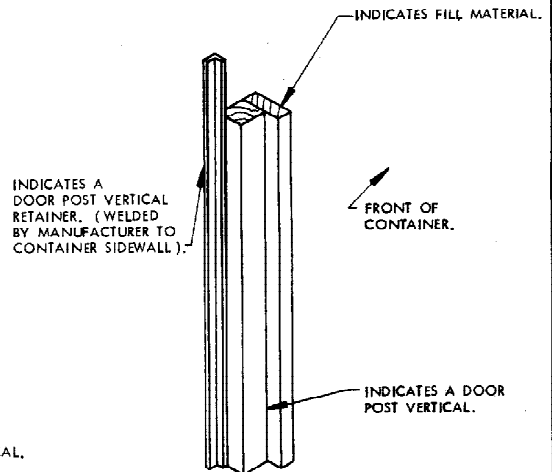
BEVEL-CUT

IF DESIRED, EACH END OF A DOOR SPANNER PIECE OR A STRUT MAY BE BEVEL-CUT AS SHOWN ABOVE TO FACILITATE THE ACHIEVEMENT OF A TIGHT DOOR-POST-TO-DOOR-POST FIT OR A TIGHT REAR-OF-LOAD FIT.



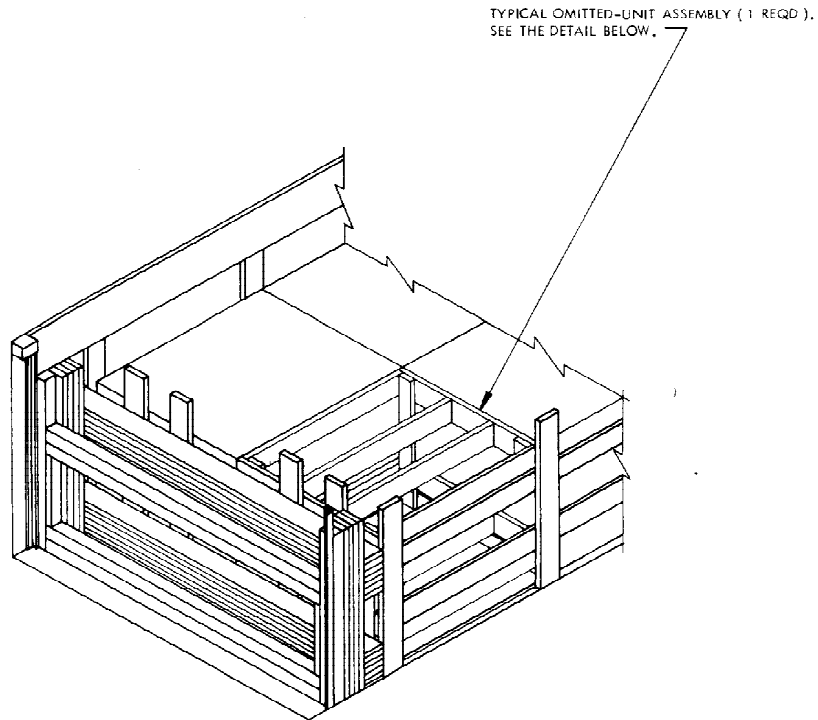
TYPICAL DETAIL B

A TYPICAL PARTIAL PLAN VIEW OF THE LEFT REAR PORTION OF THE CONTAINER IS SHOWN DEPICTING THE PROPER POSITION OF THE DOOR POST VERTICAL AND ADJACENT DUNNAGE PIECES.



TYPICAL DETAIL C

DOOR SPANNERS AND STRUT LEDGERS OR DOOR SPANNER SUPPORT PIECE HAVE BEEN OMITTED FOR CLARITY PURPOSES.



TYPICAL REDUCED LOAD

(SEE THE "REDUCED LOAD PROVISIONS" AT LEFT.)

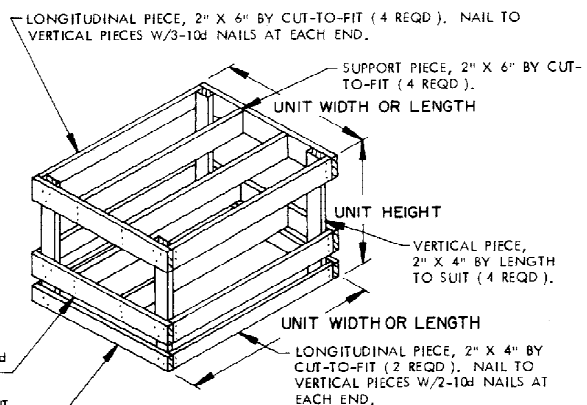
REDUCED LOAD PROVISIONS

WHEN A CONTAINER IS TO BE LOADED WITH A REDUCED QUANTITY OF LADING UNITS, THE LENGTHWISE CENTER OF GRAVITY OF A LOAD MUST BE WITHIN 12" IN EITHER DIRECTION, OF THE MIDPOINT IN A CONTAINER, AND THE FOLLOWING CRITERIA WILL APPLY.

- A. IF A LOAD IS REDUCED BY ONLY A SMALL AMOUNT, LADING UNITS NORMALLY MAY BE ELIMINATED FROM THE REAR OF THE LOAD, AS SHOWN ABOVE.
- B. IF A LOAD IS REDUCED BY A LARGE AMOUNT, LADING UNITS SHOULD BE ELIMINATED FROM LOCATIONS WITHIN THE LOAD OR LADING UNITS SHOULD BE ELIMINATED AS REQUIRED AND THE TOTAL LOAD SHIFTED AS NECESSARY, FORE OR AFT, TO ACHIEVE A SYMMETRICAL WEIGHT DISTRIBUTION. THE DEPICTED PROCEDURES WILL BE FOLLOWED AS CLOSELY AS POSSIBLE, MAKING ONLY THOSE ADJUSTMENTS TO THE DUNNAGE WHICH ARE REQUIRED TO ACCOMMODATE THE NUMBER OF UNITS TO BE SHIPPED.

LATERAL PIECE, 2" X 6" BY CUT-TO-FIT (4 REQD). NAIL TO VERTICAL PIECES W/3-10# NAILS AT EACH END AND TO THE SUPPORT PIECES W/3-10# NAILS AT EACH JOINT.

LATERAL PIECE, 2" X 4", BY CUT-TO-FIT (2 REQD). NAIL TO THE VERTICAL PIECES W/2-10# NAILS AT EACH END.



TYPICAL OMITTED-UNIT ASSEMBLY

THE ASSEMBLY AS SPECIFIED ABOVE IS FOR USE IN PLACE OF AN OMITTED PALLET UNIT, AND WILL BE REQUIRED FOR SOME LOADS TO PROVIDE A TWO WIDE LOADING PATTERN THROUGHOUT THE LENGTH OF THESE LOADS.