

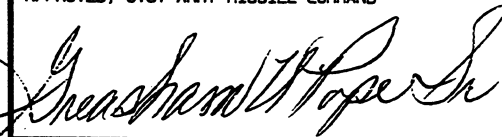


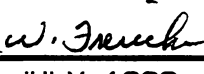

JAVELIN

LOADING AND BRACING (TL & LTL) IN VAN TRAILERS OF GUIDED MISSILES PACKED ONE PER METAL CONTAINER

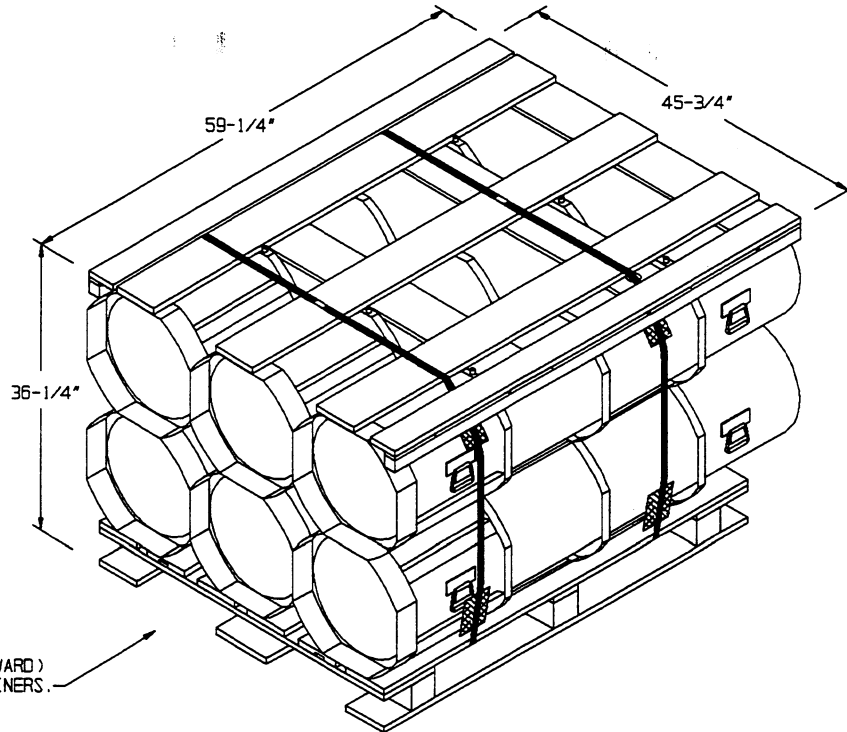
INDEX

<u>ITEM</u>	<u>PAGE(S)</u>
GENERAL NOTES AND MATERIAL SPECIFICATIONS - - - - -	2,3
PALLET UNIT DETAIL - - - - -	3
40-UNIT LOAD IN A 53'-0" LONG BY 7'-8" WIDE TRAILER - - - - -	4,5
21-UNIT LOAD IN A 40'-0" LONG BY 8'-2" WIDE TRAILER - - - - -	6,7
13-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE TRAILER - - - - -	8,9
14-UNIT COMBINATION LOAD IN A 45'-0" LONG BY 8'-2" WIDE TRAILER - - - - -	10,11
11-UNIT COMBINATION LOAD IN A 40'-0" LONG BY 7'-8" WIDE TRAILER - - - - -	12,13
10-UNIT (1 WIDE) LOAD IN A 40'-0" LONG TRAILER - - - - -	14,15
TYPICAL LTL (5-UNIT LOAD) - - - - -	16,17
TYPICAL LTL (1-UNIT LOAD) - - - - -	18,19
DETAILS - - - - -	20-24
PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS - - - - -	25
PROCEDURES FOR SHIPMENT OF PARTIAL PALLET UNITS - - - - -	26
PROCEDURES FOR VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS - - - - -	27
PROCEDURES FOR VAN TRAILERS EQUIPPED WITH LARGE-ANGLED FRONT CORNERS - - - - -	28

● **CAUTION:** THE PROCEDURES SHOWN HEREIN ARE ONLY APPLICABLE FOR HIGHWAY MOVEMENTS; NOT FOR TRAILER-ON-FLATCAR (TOFC) MOVEMENTS.

U.S. ARMY MATERIEL COMMAND DRAWING			
APPROVED, U.S. ARMY MISSILE COMMAND 	DRAFTSMAN	TECHNICIAN	ENGINEER
			L. FIEFFER
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND 	VALIDATION ENGINEERING DIVISION	TRANSPORTATION ENGINEERING DIVISION	LOGISTICS ENGINEERING OFFICE
			
JULY 1996			
	CLASS	DIVISION	DRAWING
	19	48	5986
		DRAWING	FILE
			GM11JV1

DO NOT SCALE



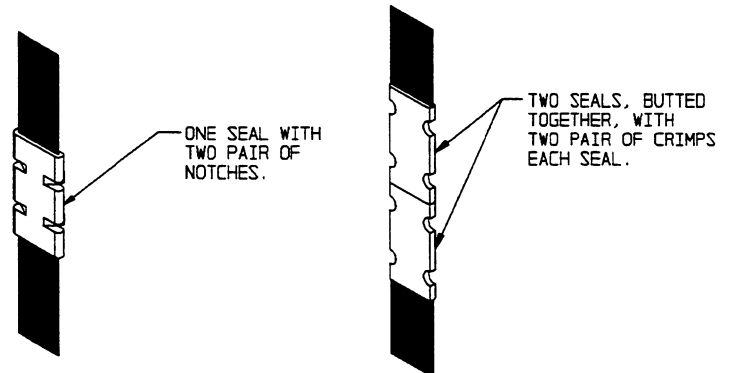
OPENING (FORWARD)
END OF CONTAINERS.

PALLET UNIT DATA

GROSS WEIGHT - - - - - 549 LBS (APPROX)
CUBE - - - - - 56.9 CUBIC FEET (APPROX)

(GENERAL NOTES CONTINUED FROM PAGE 2)

- S. PALLET UNITS WHICH DO NOT CONTAIN A FULL QUANTITY OF ITEMS CAN BE TRANSPORTED. SEE THE "SHIPMENT OF A PARTIAL PALLET UNIT" DETAILS ON PAGE 26. FOR "SHIPMENT OF LEFTOVER CONTAINERS", SEE THE DETAILS ON PAGE 25.
- T. THESE PROCEDURES CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE JAVELIN CONTAINERS WHEN THEY ARE LOADED WITH AN ITEM OTHER THAN THE SPECIFIED GUIDED MISSILE, OR WHEN THEY ARE EMPTY.
- U. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4 MM AND ONE POUND EQUALS 0.454 KG.
- V. ANTI-CHAFING MATERIAL MAY BE INSTALLED AT POINTS OF CONTACT BETWEEN CONTAINERS AND STEEL STRAPPING, IF DESIRED, TO PREVENT CHAFING DAMAGE TO CONTAINER PAINT AND MARKINGS.



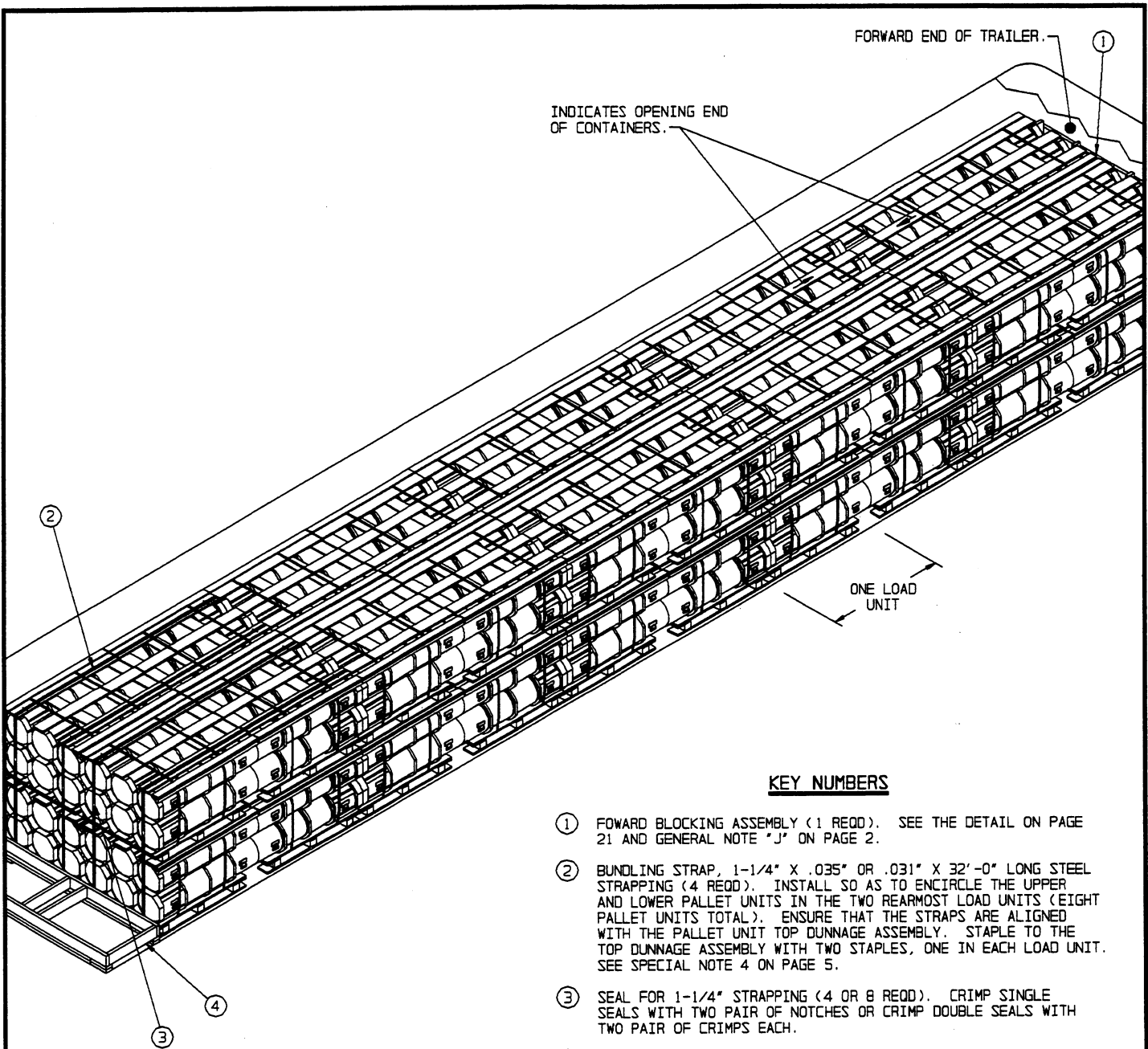
STRAP JOINT A

METHOD OF SECURING A STRAP JOINT WHEN USING A NOTCH-TYPE SEALER.

STRAP JOINT B

METHOD OF SECURING A STRAP JOINT WHEN USING A CRIMP-TYPE SEALER.

END-OVER-END LAP JOINT DETAILS



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 21 AND GENERAL NOTE "J" ON PAGE 2.
- ② BUNDLING STRAP, 1-1/4" X .035" OR .031" X 32'-0" LONG STEEL STRAPPING (4 REQD). INSTALL SO AS TO ENCIRCLE THE UPPER AND LOWER PALLET UNITS IN THE TWO REARMOST LOAD UNITS (EIGHT PALLET UNITS TOTAL). ENSURE THAT THE STRAPS ARE ALIGNED WITH THE PALLET UNIT TOP DUNNAGE ASSEMBLY. STAPLE TO THE TOP DUNNAGE ASSEMBLY WITH TWO STAPLES, ONE IN EACH LOAD UNIT. SEE SPECIAL NOTE 4 ON PAGE 5.
- ③ SEAL FOR 1-1/4" STRAPPING (4 OR 8 REQD). CRIMP SINGLE SEALS WITH TWO PAIR OF NOTCHES OR CRIMP DOUBLE SEALS WITH TWO PAIR OF CRIMPS EACH.
- ④ REAR BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 5.

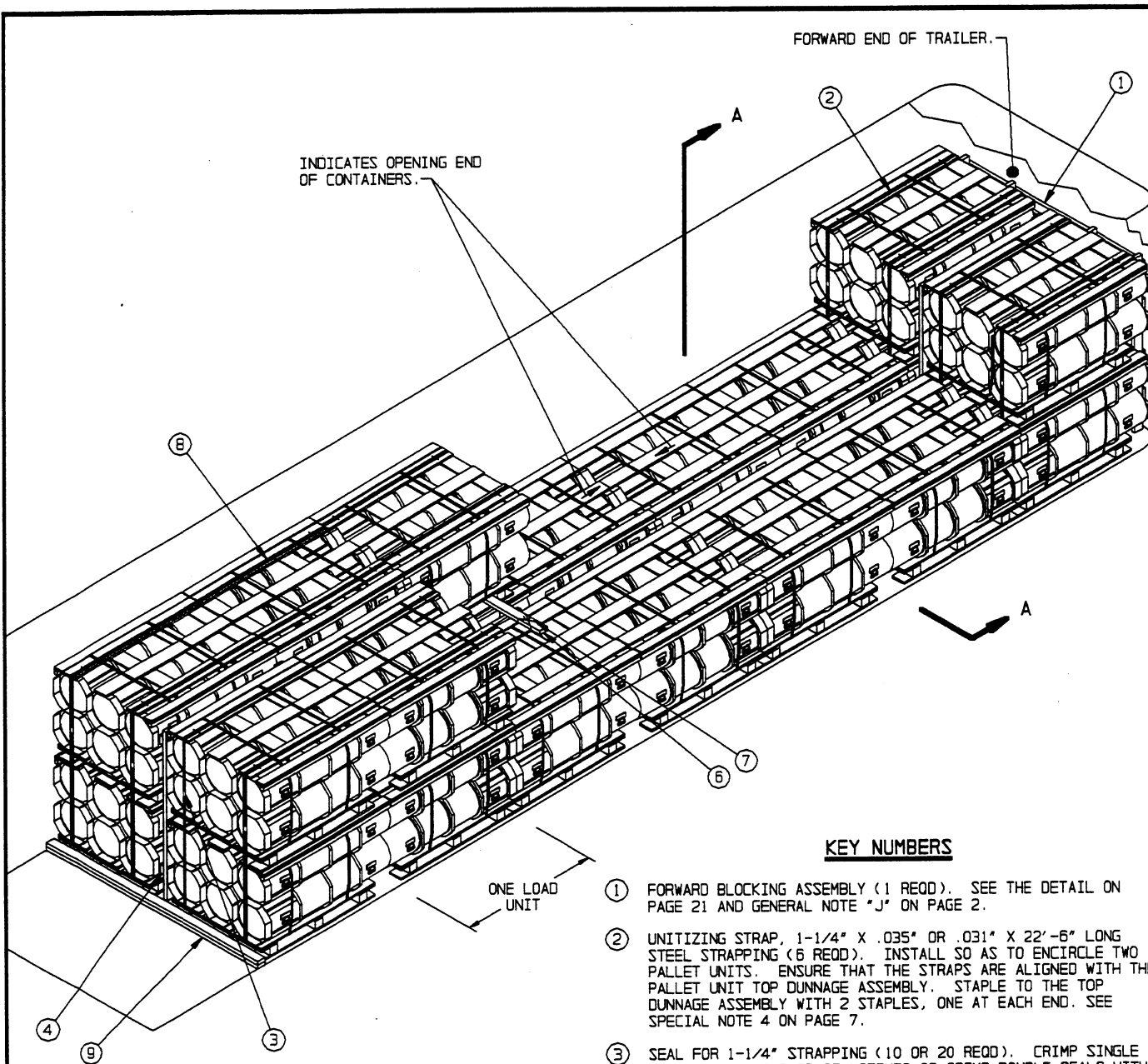
SPECIAL NOTES:

1. A 53'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES AND CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY B" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. NOTE: REAR BLOCKING ASSEMBLIES MAY BE REPLACED WITH NAILED HEADERS AT THE REAR OF THE LOAD, PROVIDED THE TRAILER IS CONFIGURED SUCH AS TO ALLOW NAILING IN THE AREA IN QUESTION. REFER TO PIECE MARKED ③ ON PAGE 6 AND THE HEADER NAILING CHARTS ON PAGE 7 FOR GUIDANCE.
4. IF A STACK AT THE REAR OF THE LOAD IS MORE THAN ONE UNIT HIGH, AS IN THE DEPICTED LOAD, BUNDLING STRAPS, PIECE MARKED ②, MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO STACKS IN EACH APPLICABLE ROW.
5. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR UNITS BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD; OR, THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER.
6. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.
7. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

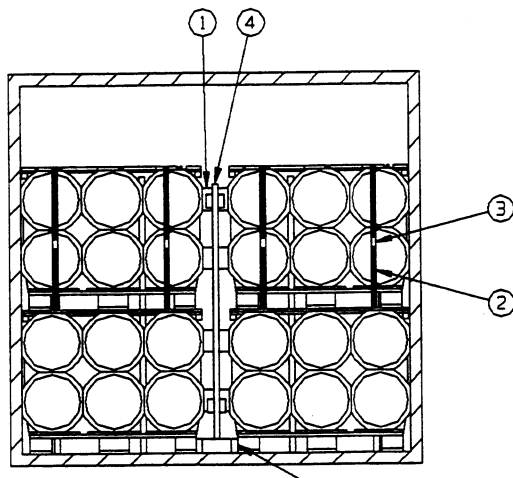
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	42	28
2" X 6"	81	81
NAILS	NO. REQD	POUNDS
10d (3")	110	1-3/4
STEEL STRAPPING, 1-1/4" -- 128'	REQD	19 LBS
SEAL FOR 1-1/4" STRAPPING	4 REQD	NIL
STAPLE	8 REQD	NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	40	21,960 LBS
DUNNAGE		239 LBS
TOTAL WEIGHT		22,199 LBS (APPROX)



ISOMETRIC VIEW



SECTION A-A

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REOD). SEE THE DETAIL ON PAGE 21 AND GENERAL NOTE "J" ON PAGE 2.
- ② UNITIZING STRAP, 1-1/4" X .035" OR .031" X 22'-6" LONG STEEL STRAPPING (6 REOD). INSTALL SO AS TO ENCLOSE TWO PALLET UNITS. ENSURE THAT THE STRAPS ARE ALIGNED WITH THE PALLET UNIT TOP DUNNAGE ASSEMBLY. STAPLE TO THE TOP DUNNAGE ASSEMBLY WITH 2 STAPLES, ONE AT EACH END. SEE SPECIAL NOTE 4 ON PAGE 7.
- ③ SEAL FOR 1-1/4" STRAPPING (10 OR 20 REOD). CRIMP SINGLE SEALS WITH TWO PAIR OF NOTCHES OR CRIMP DOUBLE SEALS WITH TWO PAIR OF CRIMPS EACH.
- ④ CRIB FILL ASSEMBLY (3 REOD). SEE THE DETAIL ON PAGE 20.
- ⑤ ANTI-SWAY BRACE (4 REOD). SEE THE DETAIL ON PAGE 20.
- ⑥ TOP-OF-LOAD ANTI-SWAY BRACE (1 REOD). SEE THE DETAIL ON PAGE 7.
- ⑦ TIE WIRE, NO. 14 GAGE WIRE, 24" LONG (2 REOD). INSTALL TO FORM A COMPLETE LOOP AROUND THE TOP-OF-LOAD ANTI-SWAY BRACE AND THE PALLET TOP DUNNAGE ASSEMBLY. BRING ENDS TOGETHER AND TWIST TAUT.
- ⑧ BUNDLING STRAP, 1-1/4" X .035" OR .031" X 32'-0" LONG STEEL STRAPPING (4 REOD). INSTALL SO AS TO ENCLOSE THE UPPER AND LOWER PALLET UNITS IN THE TWO REAR MOST LOAD UNITS (FOUR PALLET UNITS TOTAL). ENSURE THAT THE STRAPS ARE ALIGNED WITH THE PALLET UNIT TOP DUNNAGE ASSEMBLY. STAPLE TO THE TOP DUNNAGE ASSEMBLY WITH 2 STAPLES, ONE IN EACH LOAD UNIT. SEE SPECIAL NOTES 4 AND 5 ON PAGE 7.
- ⑨ HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (1 REOD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. SEE SPECIAL NOTE 3 AND THE "HEADER NAILING CHARTS" ON PAGE 7. NOTE: PALLET UNITS SHOULD BE LOADED SUCH THAT THE LOAD UNIT CLOSEST TO THE REAR OF THE TRAILER IS ORIENTED WITH THE FORWARD ENDS TOWARDS THE DOORS, SO AS TO ALLOW ACCESS TO NAIL THE HEADER.

SPECIAL NOTES:

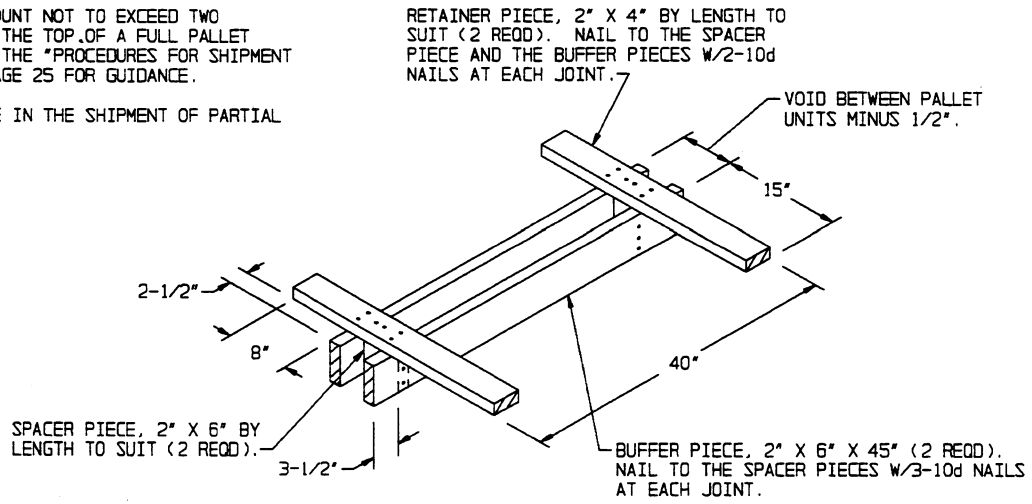
1. A 40'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES, CRIB FILL ASSEMBLIES AND TOP-OF-LOAD ANTI-SWAY BRACES MAY BE OMITTED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS IS 6" OR LESS, AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. IF USE OF THE HEADER, PIECE MARKED ④, IS NOT DESIRED OR NOT POSSIBLE, SUCH AS WHEN THE TRAILER IS EQUIPPED WITH A METAL THRESHOLD PLATE AND IT INTERFERES WITH THE NAILING OF THE HEADER, THE FOLLOWING CRITERIA WILL BE USED TO SELECT AN APPROPRIATE REAR BLOCKING ASSEMBLY. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY B", AS DEPICTED ON PAGE 22. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED.
4. A PALLET UNIT AT EACH END OF A SECOND LAYER PORTION OF THE LOAD MUST BE UNITIZED TO A PALLET UNIT IN THE FIRST LAYER USING EITHER BUNDLING STRAPS OR UNITIZING STRAPS, PIECES MARKED ⑧ OR ②.
5. IF A STACK AT THE REAR OF THE LOAD IS MORE THAN ONE UNIT HIGH, AS IN THE DEPICTED LOAD, BUNDLING STRAPS, PIECE MARKED ⑨, MUST BE INSTALLED SO AS TO ENCIRCLE THE REARMOST TWO STACKS IN EACH APPLICABLE ROW.
6. TOP-OF-LOAD ANTI-SWAY BRACES SHOWN AS PIECE MARKED ⑥ IS ONLY REQUIRED FOR THE BRACING OF AN ODD UNIT IN THE SECOND LAYER. IF ANOTHER PALLET UNIT IS POSITIONED OPPOSITE THE ODD UNIT, CRIB FILL WILL BE INSTALLED IN LIEU OF PIECE MARKED ⑥.
7. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A 2-TIER LOAD CAN BE REDUCED BY A MULTIPLE OF FOUR UNITS BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD; OR, THE ENTIRE TOP TIER CAN BE LEFT OFF; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE TOP TIER.
8. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.
9. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

# NAILS	MAX. LOAD WEIGHT (LBS)
3	15,000
4	20,000
5	25,000
6	30,000

• HEADERS AT THE FRONT END OF A LOAD OR AT THE FRONT END OF A DIVIDED LOAD WILL BE DOUBLED 2" X 6" MATERIAL. THE NUMBER OF NAILS INDICATED ABOVE REFERS TO THE NUMBER OF NAILS USED IN EACH LAMINATION OF A HEADER, FOR EXAMPLE 6 NAILS MEANS THE FIRST BOARD IS NAILED TO THE TRAILER FLOOR W/6-10d NAILS, AND THE SECOND BOARD IS LAMINATED TO THE FIRST W/6-20d NAILS, FOR A TOTAL OF 6-10d AND 6-20d NAILS PER HEADER.

# NAILS	MAX. LOAD WEIGHT (LBS)
6	15,000
7	17,500
8	20,000
9	22,500
10	25,000
11	27,500
12	30,000

* HEADERS AT THE REAR OF A FULL LOAD OR AT THE REAR END OF A DIVIDED LOAD WILL BE DOUBLED 2" X 4" MATERIAL. THE NUMBER OF NAILS INDICATED ABOVE REFERS TO THE NUMBER OF NAILS USED IN EACH LAMINATION OF A HEADER, FOR EXAMPLE 8 NAILS MEANS THE FIRST BOARD IS NAILED TO THE TRAILER FLOOR W/8-10d NAILS, AND THE SECOND BOARD IS LAMINATED TO THE FIRST W/8-10d NAILS, FOR A TOTAL OF 16-10d NAILS. NOTE: REAR HEADERS MAY BE HANDLED IN THE SAME MANNER AS FORWARD HEADERS, USING 10d AND 20d NAILS, IF DESIRED.



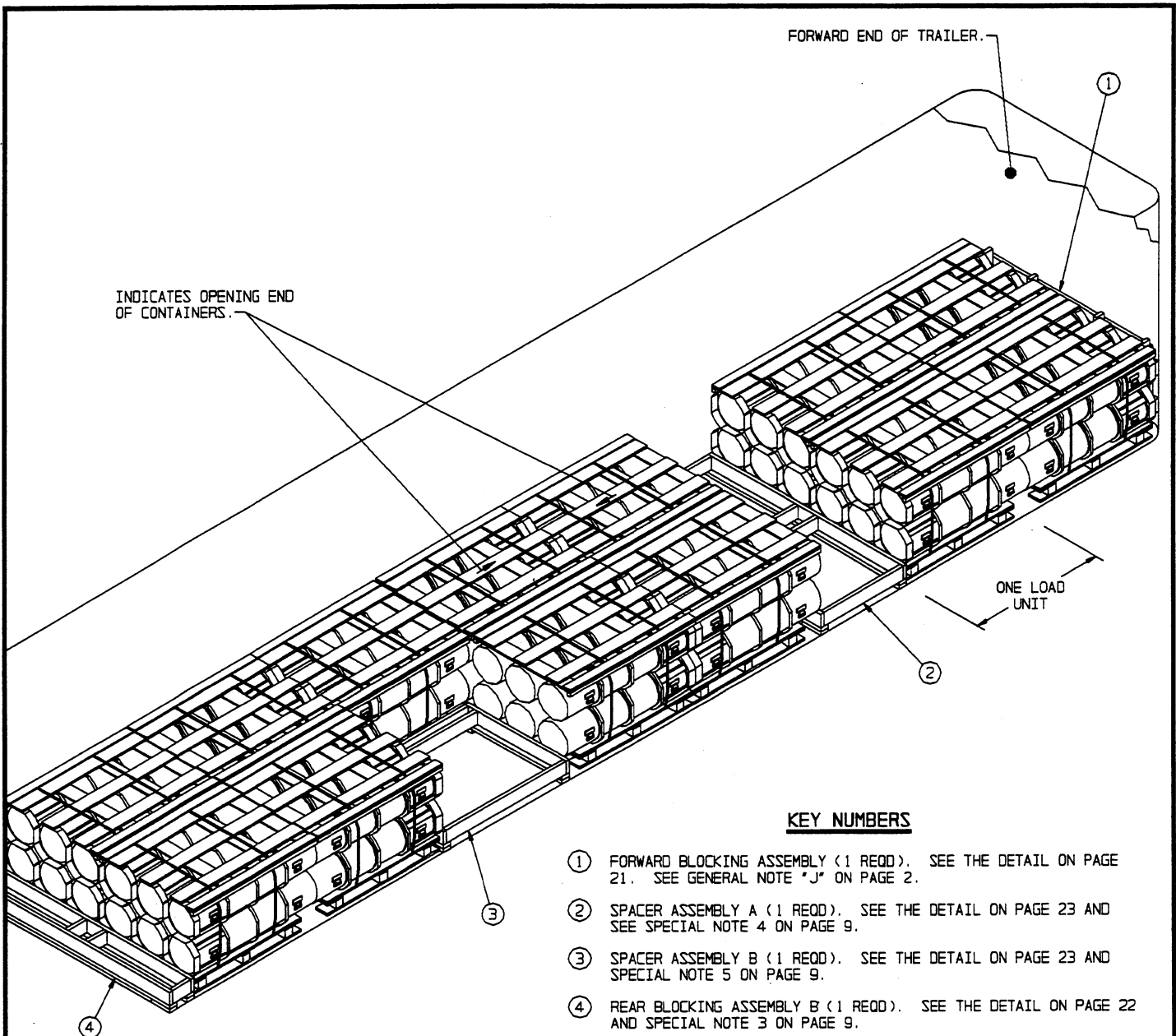
TOP-OF-LOAD ANTI-SWAY BRACE

THIS ASSEMBLY IS DESIGNED FOR THE LATERAL BRACING OF A PALLET UNIT IN THE SECOND LAYER WHEN THERE IS NOT A PALLET UNIT DIRECTLY OPPOSITE IT AND IT IS NOT BUNDLED INTO A GROUP OF FOUR PALLET UNITS.

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	193	129
2" X 6"	64	64
NAILS	NO. REOD	POUNDS
10d (3")	212	3-1/2
WIRE, NO. 14 GAGE	4' REOD	NIL
STEEL STRAPPING, 1-1/4"	263' REOD	38 LBS
SEAL FOR 1-1/4" STRAPPING	10 REOD	NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	21	11,529 LBS
DUNNAGE		428 LBS
TOTAL WEIGHT		11,957 LBS (APPROX)



KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 21. SEE GENERAL NOTE "J" ON PAGE 2.
- ② SPACER ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 23 AND SEE SPECIAL NOTE 4 ON PAGE 9.
- ③ SPACER ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 23 AND SPECIAL NOTE 5 ON PAGE 9.
- ④ REAR BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 9.

ISOMETRIC VIEW

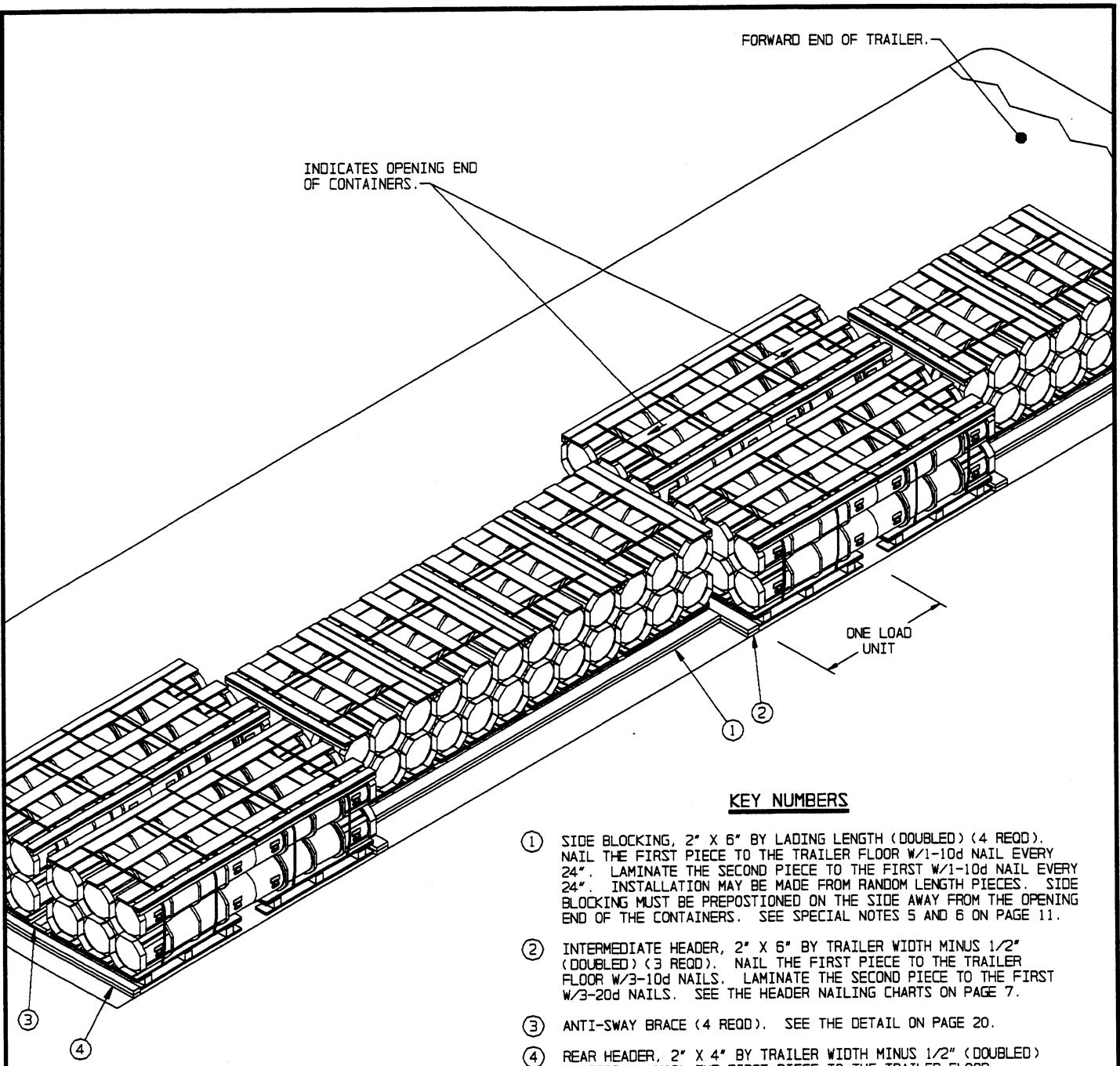
SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY B" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. NOTE: REAR BLOCKING ASSEMBLIES MAY BE REPLACED WITH NAILED HEADERS AT THE REAR OF THE LOAD, PROVIDED THE TRAILER IS CONFIGURED SUCH AS TO ALLOW NAILING IN THE AREA IN QUESTION. REFER TO PIECE MARKED ③ ON PAGE 6 AND THE HEADER NAILING CHARTS ON PAGE 7 FOR GUIDANCE.
4. SPACER ASSEMBLY "A", SHOWN AS PIECE MARKED ② IN THE LOAD ON PAGE 8, IS TO BE USED FOR THE PURPOSE OF FILLING LONGITUDINAL VOID, AND IS SHOWN AS TYPICAL ONLY. IF THE TRAILER TO BE LOADED IS LONGER THAN 40', THE LOCATION OF THE ASSEMBLY, AND/OR THE STRUT LENGTHS, MAY BE DIFFERENT FROM WHAT IS SHOWN. IF A SHORTER TRAILER IS USED FOR THE DEPICTED LOAD, THIS ASSEMBLY MAY NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY "A" MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
5. SPACER ASSEMBLY "B", SHOWN AS PIECE MARKED ③ IN THE LOAD ON PAGE 8, IS ONLY SHOWN TO DEPICT A TYPICAL INSTALLATION. IF A PALLET UNIT IS LOADED IN PLACE OF THE SPACER ASSEMBLY "B", PIECE MARKED ③ WILL NOT BE REQUIRED. NOTE THAT A SPACER ASSEMBLY "B" MUST BE POSITIONED WHERE THERE WILL BE A PALLET UNIT AT EACH END. A SPACER ASSEMBLY "B" MUST NOT BE POSITIONED ADJACENT TO THE FORWARD BLOCKING ASSEMBLY, PIECE MARKED ①.
6. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE REDUCED BY A MULTIPLE OF TWO UNITS BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD; OR, ONE OR MORE UNITS CAN BE ADDED TO OR OMITTED FROM THE LOAD.
7. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.
8. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	59	40
2" X 6"	96	96
NAILS	NO. REOD	POUNDS
10d (3")	158	2-1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	13	7,137 LBS
DUNNAGE		275 LBS
TOTAL WEIGHT		7,412 LBS (APPROX)



INDICATES OPENING END OF CONTAINERS.

FORWARD END OF TRAILER.

ONE LOAD UNIT

KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" BY LADING LENGTH (DOUBLED) (4 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/1-10d NAIL EVERY 24". LAMINATE THE SECOND PIECE TO THE FIRST W/1-10d NAIL EVERY 24". INSTALLATION MAY BE MADE FROM RANDOM LENGTH PIECES. SIDE BLOCKING MUST BE PREPOSITIONED ON THE SIDE AWAY FROM THE OPENING END OF THE CONTAINERS. SEE SPECIAL NOTES 5 AND 6 ON PAGE 11.
- ② INTERMEDIATE HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (3 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/3-20d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 7.
- ③ ANTI-SWAY BRACE (4 REQD). SEE THE DETAIL ON PAGE 20.
- ④ REAR HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE SPECIAL NOTES 3 AND 4 ON PAGE 11 AND THE HEADER NAILING CHARTS ON PAGE 7.

ISOMETRIC VIEW

COMBINATION 1-WIDE AND 2-WIDE
 14-UNIT LOAD IN A 45'-0" LONG BY 8'-2" WIDE CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

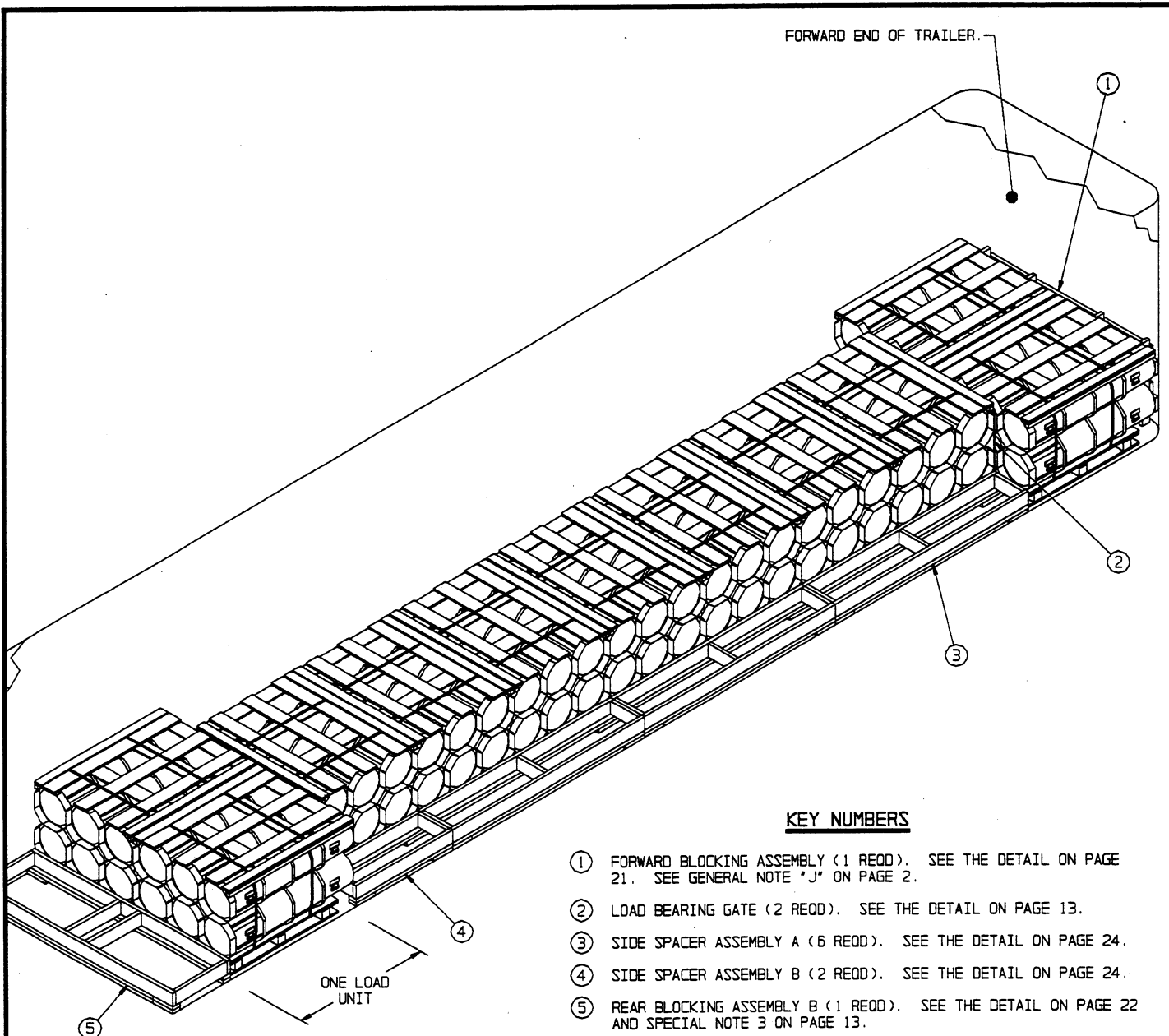
1. A 45'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES MAY BE OMITTED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS IS 6" OR LESS, AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE HEADER, PIECE MARKED ③, AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. NOTE: REAR BLOCKING ASSEMBLY "B", AS DEPICTED ON PAGE 22, MAY BE USED IN PLACE OF THE NAILED HEADERS AT THE REAR OF THE LOAD.
4. IF THE TRAILER IS EQUIPPED WITH A METAL THRESHOLD PLATE AND IT INTERFERES WITH THE NAILING OF PIECE MARKED ④ AT THE REAR OF THE LOAD, REAR BLOCKING ASSEMBLY "B", AS DEPICTED ON PAGE 22, MUST BE INSTALLED.
5. IF DESIRED, SIDE SPACERS "A" AND/OR "B", AS DEPICTED ON PAGE 24, MAY BE USED IN LIEU OF THE SIDE BLOCKING, PIECE MARKED ①. SEE THE LOAD ON PAGE 12 FOR DETAILS.
6. SIDE BLOCKING AND HEADERS, PIECES MARKED ①, ②, AND ④, MUST BE POSITIONED AGAINST THE PALLET, NOT THE CONTAINERS. SIDE BLOCKING MAY BE PRE-POSITIONED ON ONE SIDE OF THE TRAILER, IF DESIRED, TO SIMPLIFY LOADING. ALSO, 2" X 8" MATERIAL MAY BE SUBSTITUTED FOR THE 2" X 4" OR 2" X 6" SIDE BLOCKING OR HEADER MATERIAL, IF DESIRED.
7. THE LOADING PROCEDURES SHOWN ON PAGE 10 ARE LIMITED TO 1-LAYER LOADS; PALLET UNITS WILL NOT BE STACKED.
8. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. THE LOAD CAN BE INCREASED BY REPLACING SOME OF THE 1-WIDE UNITS WITH 2-WIDE UNITS, OR THE LOAD CAN BE REDUCED BY REPLACING 2-WIDE PORTIONS WITH SINGLE UNITS.
9. IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LOAD. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	65	44
2" X 6"	138	138
NAILS	NO. REQD	POUNDS
10d (3")	127	2
20d (4")	9	1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	14	7,686 LBS
DUNNAGE		367 LBS
TOTAL WEIGHT		8,053 LBS (APPROX)

COMBINATION 1-WIDE AND 2-WIDE
14-UNIT LOAD IN A 45'-0" LONG BY 8'-2" WIDE CONVENTIONAL VAN TRAILER



KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 21. SEE GENERAL NOTE "J" ON PAGE 2.
- ② LOAD BEARING GATE (2 REQD). SEE THE DETAIL ON PAGE 13.
- ③ SIDE SPACER ASSEMBLY A (6 REQD). SEE THE DETAIL ON PAGE 24.
- ④ SIDE SPACER ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 24.
- ⑤ REAR BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 13.

ISOMETRIC VIEW

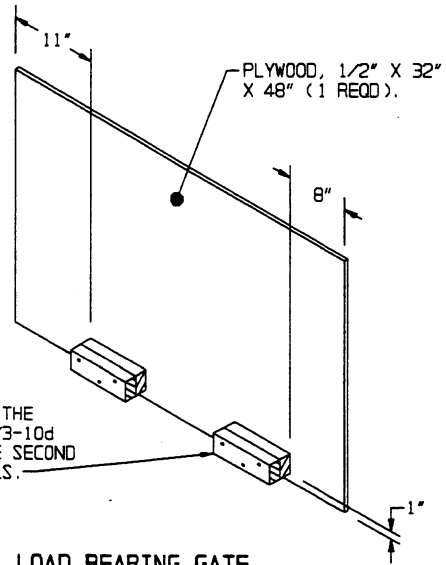
COMBINATION 1-WIDE AND 2-WIDE
 11-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE CONVENTIONAL VAN TRAILER

SPECIAL NOTES:

1. A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. ANTI-SWAY BRACES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY B" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. NOTE: REAR BLOCKING ASSEMBLIES MAY BE REPLACED WITH NAILED HEADERS AT THE REAR OF THE LOAD, PROVIDED THE TRAILER IS CONFIGURED SUCH AS TO ALLOW NAILING IN THE AREA IN QUESTION. REFER TO PIECE MARKED ③ ON PAGE 6 AND THE HEADER NAILING CHARTS ON PAGE 7 FOR GUIDANCE.
4. IF THE TRAILER BEING LOADED IS EQUIPPED WITH A WOOD OR WOOD AND METAL FLOOR, AND IF DESIRED, NAILED SIDE BLOCKING MAY BE USED IN LIEU OF THE SIDE SPACERS, PIECES MARKED ③ AND ④. SIDE BLOCKING SHOULD BE DOUBLED 2" X 6" MATERIAL. SEE THE LOAD ON PAGE 10 FOR DETAILS.
5. THE LOADING PROCEDURES SHOWN ON PAGE 12 ARE LIMITED TO 1-LAYER LOADS; PALLET UNITS WILL NOT BE STACKED.
6. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. THE LOAD CAN BE INCREASED BY REPLACING SOME OF THE 1-WIDE UNITS WITH 2-WIDE UNITS, OR THE LOAD CAN BE REDUCED BY REPLACING 2-WIDE PORTIONS WITH SINGLE UNITS.
7. IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LOAD. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.

INSTALL WITH THIS END AWAY FROM THE OPENING ENDS OF THE CONTAINERS.

HOLD-DOWN PIECE, 2" X 3" X 9" (DOUBLED) (2 REQD). NAIL THRU THE FIRST PIECE THRU THE PLYWOOD W/3-10d NAILS AND CLINCH. LAMINATE THE SECOND PIECE TO THE FIRST W/3-10d NAILS.



LOAD BEARING GATE

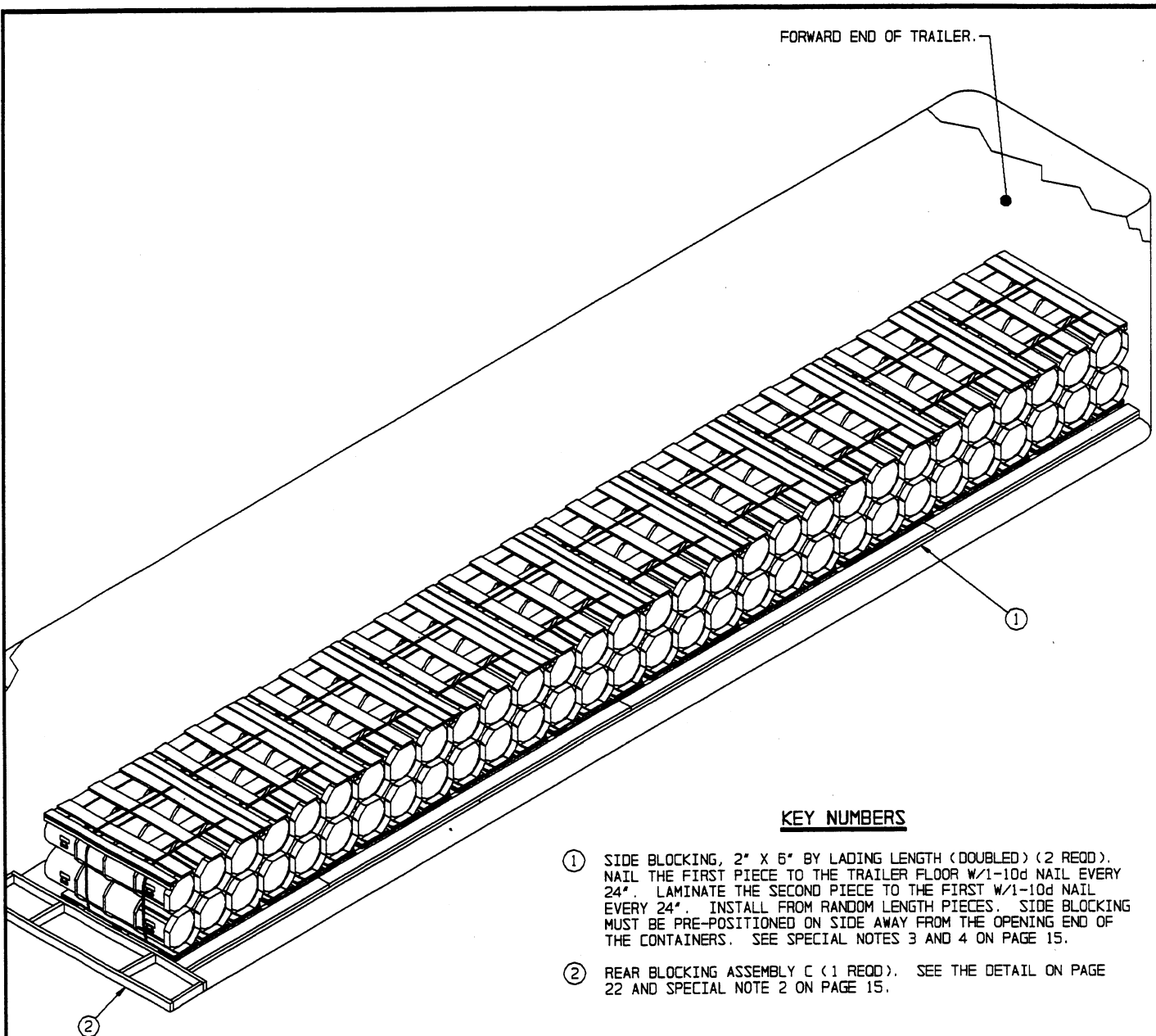
INSTALL WITH THE HOLD-DOWN PIECES UNDER THE PALLET OF THE ONE-WIDE PALLET UNIT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 3"	6	3
2" X 4"	161	108
2" X 6"	183	183
NAILS	NO. REQD	POUNDS
10d (3")	398	6-1/4
PLYWOOD, 1/2" - - -	21.33 SQ FT REQD - - - -	30 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT - - - - -	11 - - - - -	6,039 LBS
DUNNAGE - - - - -	- - - - -	625 LBS
TOTAL WEIGHT - - - - -		6,664 LBS (APPROX)

COMBINATION 1-WIDE AND 2-WIDE
11-UNIT LOAD IN A 40'-0" LONG BY 7'-8" WIDE CONVENTIONAL VAN TRAILER



KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" BY LADING LENGTH (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/1-10d NAIL EVERY 24". LAMINATE THE SECOND PIECE TO THE FIRST W/1-10d NAIL EVERY 24". INSTALL FROM RANDOM LENGTH PIECES. SIDE BLOCKING MUST BE PRE-POSITIONED ON SIDE AWAY FROM THE OPENING END OF THE CONTAINERS. SEE SPECIAL NOTES 3 AND 4 ON PAGE 15.
- ② REAR BLOCKING ASSEMBLY C (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 2 ON PAGE 15.

ISOMETRIC VIEW

SPECIAL NOTES:

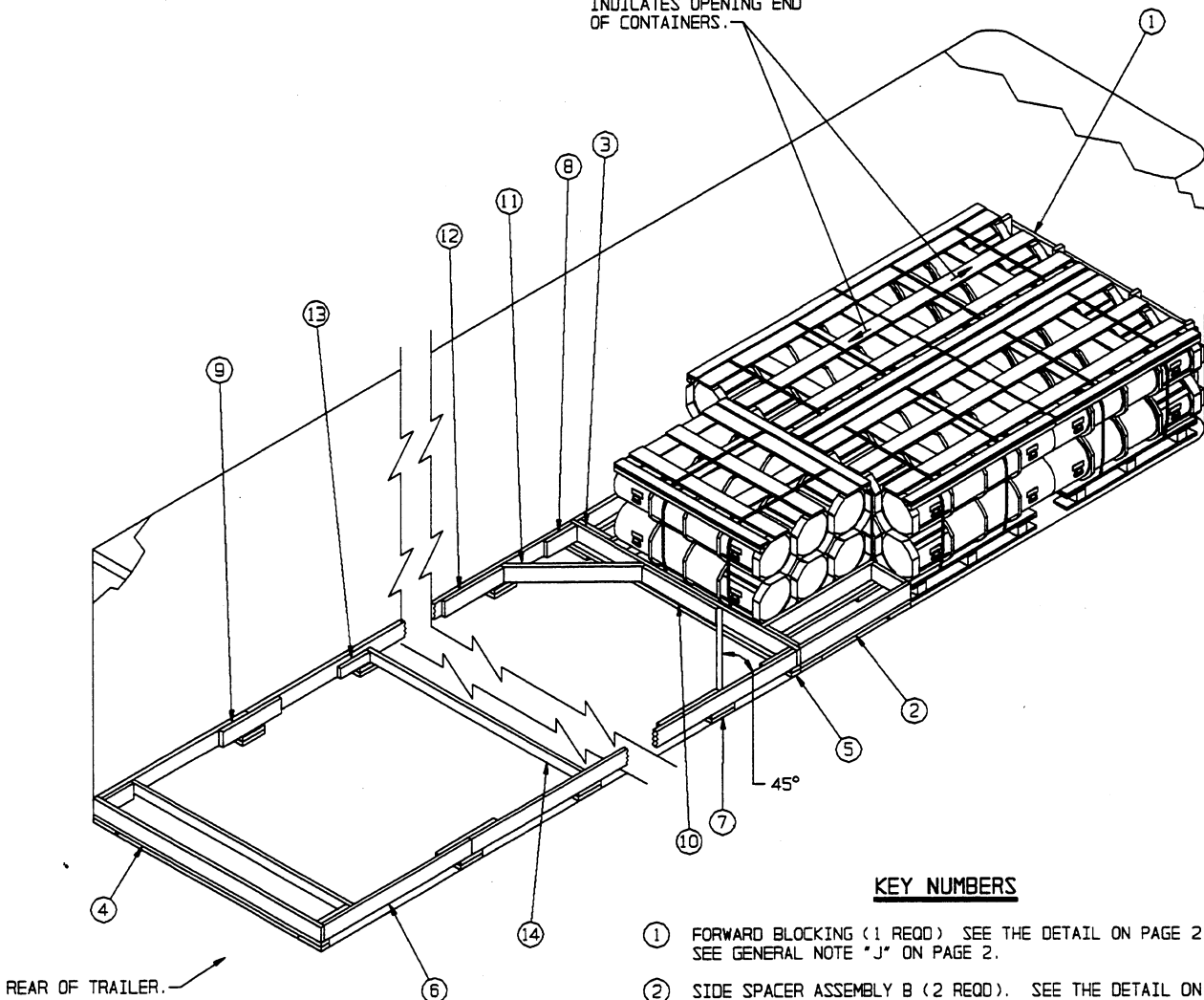
1. A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS GREATER THAN 1-1/2" AND LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY C" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. NOTE: REAR BLOCKING ASSEMBLIES MAY BE REPLACED WITH NAILED HEADERS AT THE REAR OF THE LOAD, PROVIDED THE TRAILER IS CONFIGURED SUCH AS TO ALLOW NAILING IN THE AREA IN QUESTION. REFER TO PIECE MARKED ③ ON PAGE 6 AND THE HEADER NAILING CHARTS ON PAGE 7 FOR GUIDANCE.
3. IF DESIRED, SIDE SPACERS "A" AND/OR "B", AS DEPICTED ON PAGE 24, MAY BE USED IN LIEU OF THE SIDE BLOCKING, PIECE MARKED ①. SEE THE LOAD ON PAGE 12 FOR DETAILS.
4. SIDE BLOCKING, PIECE MARKED ①, MUST BE POSITIONED AGAINST THE PALLET, NOT THE CONTAINERS. SIDE BLOCKING MAY BE PRE-POSITIONED ON ONE SIDE OF THE TRAILER, IF DESIRED, TO SIMPLIFY LOADING. ALSO, 2" X 8" MATERIAL MAY BE SUBSTITUTED FOR THE 2" X 6" SIDE BLOCKING MATERIAL, IF DESIRED.
5. THE LOADING PROCEDURES SHOWN ON PAGE 14 ARE LIMITED TO 1-LAYER LOADS; PALLET UNITS WILL NOT BE STACKED.
6. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED.
7. IF A PALLET UNIT WHICH DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS IS TO BE TRANSPORTED, THAT SHORT UNIT SHOULD BE POSITIONED AT THE REAR OF THE LOAD. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	21	14
2" X 6"	153	153
NAILS	NO. REQD	POUNDS
10d (3")	92	1-1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET UNIT	10	5,490 LBS
DUNNAGE		336 LBS
TOTAL WEIGHT		5,826 LBS (APPROX)

INDICATES OPENING END
OF CONTAINERS.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING (1 REQD) SEE THE DETAIL ON PAGE 21. SEE GENERAL NOTE "J" ON PAGE 2.
- ② SIDE SPACER ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 24. SEE SPECIAL NOTE 3 ON PAGE 17.
- ③ HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). SEE SPECIAL NOTE 3 ON PAGE 17.
- ④ HEADER AND SIDE STRUT SUPPORT, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD). NAIL TO THE BOTTOM EDGE OF A HEADER, PIECE MARKED ③, W/1-10d NAIL EVERY 8".
- ⑤ RISER PIECE, 2" X 4" X 9" (4 REQD). POSITION UNDER EACH END OF HEADER AND SIDE STRUT SUPPORT PIECES, PIECE MARKED ④. NAIL TO THE PIECE MARKED ④ W/2-10d NAILS.
- ⑥ SIDE STRUT, 2" X 6" BY CUT TO FIT BETWEEN THE FORWARD AND REAR HEADERS, PIECES MARKED ③ (2 REQD). SEE SPECIAL NOTE 4 ON PAGE 17.
- ⑦ RISER PIECE, 2" X 4" X 9" (DOUBLED) (AS REQD). CENTER UNDER THE JOINTS OF PIECES MARKED ① AND ②, ③ AND ④, AND UNDER THE SPLICE OF PIECES MARKED ⑤ IF APPLICABLE. NAIL THE FIRST PIECE TO THE SIDE STRUT MARKED ⑥ W/2-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑧ POCKET CLEAT, 2" X 6" X 12" (4 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑥, W/3-10d NAILS. TOENAIL TO THE ADJACENT HEADER, PIECE MARKED ③, W/3-12d NAILS.
- ⑨ SPLICE PIECE, 2" X 6" X 24" (AS REQD). CENTER ON JOINT OF PIECES MARKED ⑥ AND NAIL TO SIDE STRUT MARKED ⑥ W/4-10d NAILS AT EACH END. SEE SPECIAL NOTE 4 ON PAGE 17.

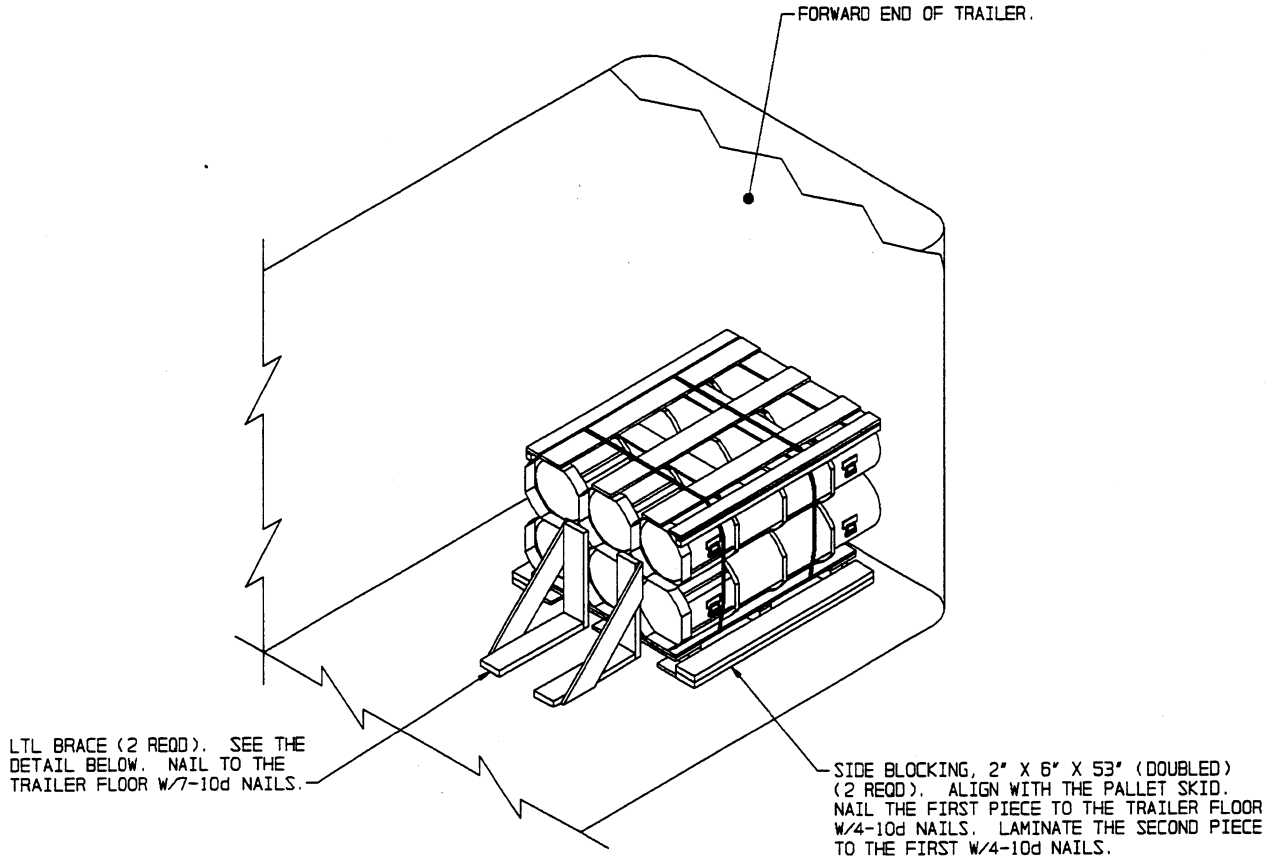
(KEY NUMBERS CONTINUED)

- ⑩ CENTER CLEAT, 2" X 6" X 30" (1 REQD). NAIL TO A HEADER, PIECE MARKED ③, W/6-10d NAILS.
- ⑪ DIAGONAL BRACE, 2" X 6" BY CUT TO FIT (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AT A 45° ANGLE AS SHOWN AND TOENAIL TO THE ADJACENT HEADER AND SIDE STRUT, PIECES MARKED ③ AND ⑥, W/2-16d NAILS AT EACH END.
- ⑫ BACK-UP CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑥, W/8-10d NAILS.
- ⑬ STRUT BRACE RETAINING CLEAT, 2" X 4" X 12" (AS REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑥, W/3-10d NAILS. SEE SPECIAL NOTE 5 ON PAGE 17.
- ⑭ STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQUIRED). NAIL TO THE POCKET CLEATS, PIECES MARKED ⑧, AND/OR TO THE STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑬, W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 5 ON PAGE 17.

(CONTINUED AT LEFT)

SPECIAL NOTES:

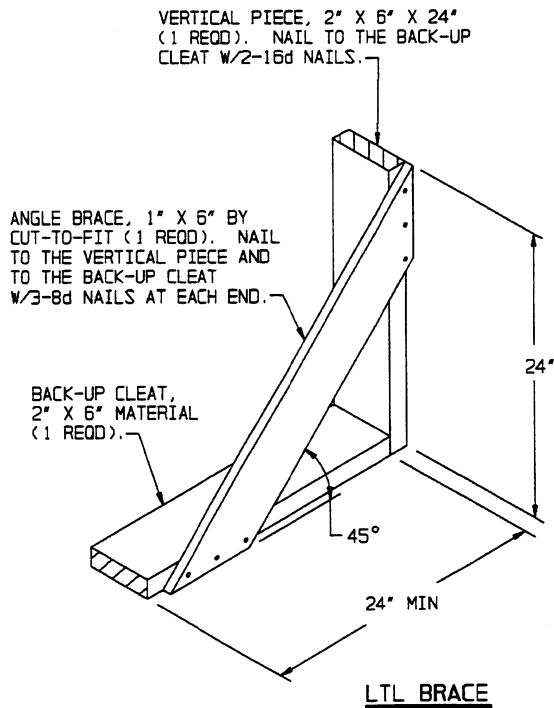
1. A 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. ANTI-SWAY BRACES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER RING TO CONTAINER RING.
3. THE SIDE SPACER ASSEMBLIES, PIECE MARKED ②, ARE SHOWN ONLY TO DEPICT A TYPICAL INSTALLATION. SIDE SPACER ASSEMBLIES WILL BE USED WHEN A PALLET UNIT IS OMITTED. THEY MAY OR MAY NOT BE REQUIRED, DEPENDING ON THE QUANTITY OF PALLET UNITS TO BE SHIPPED.
4. DEPENDING ON THE NUMBER OF UNITS BEING LOADED, EACH OF THE SIDE STRUTS, PIECES MARKED ⑥, MAY NEED TO BE FORMED FROM MORE THAN ONE PIECE OF MATERIAL. IF SUCH IS THE CASE, THE SIDE STRUTS MUST BE SPLICED. SPLICING CAN BE ACCOMPLISHED BY CENTERING A 2" X 6" X 24" PIECE ON THE JOINT OF THE SIDE STRUTS AND NAILING IT TO THE SIDE STRUTS W/4-10d NAILS AT EACH END. CAUTION: A RISER PIECE, PIECE MARKED ⑦, MUST BE POSITIONED UNDER EACH SPLICE JOINT. NOTE: IF DESIRED, THE STRUT BRACE PIECE(S), PIECE MARKED ④, MAY BE NAILED TO THE SPLICE PIECES IN LIEU OF USING ADDITIONAL STRUT BRACE RETAINING CLEATS, PIECE MARKED ⑬.
5. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO PIECE MARKED ⑧. IF THE SIDE STRUTS, PIECE MARKED ⑥, ARE LONGER THAN 7'-0", AN ADDITIONAL STRUT BRACE, PIECE MARKED ②, AND TWO STRUT BRACE RETAINING CLEATS, PIECE MARKED ③, AND TWO RISER PIECES MARKED ⑦, MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.
6. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ③ THRU ④, IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 20,000 POUNDS.
7. TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS MAY BE USED; HOWEVER, THE NAILED-HEADER METHOD OF REAR BLOCKING MUST BE INSTALLED IN LIEU OF THE "K-BRACE" TYPE BLOCKING. SEE THE "PROCEDURES FOR CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS" ON PAGE 27 FOR GUIDANCE. NOTE THAT THE NAILED-HEADER METHOD OF REAR BLOCKING MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS AND NAILABLE FLOORS, AND MAY BE USED IN LIEU OF PIECES MARKED ③ THRU ④ WHICH APPLY TO TRAILERS HAVING NON-NAILABLE FLOORS.
8. LEFTOVER CONTAINERS IN AN AMOUNT NOT TO EXCEED TWO CONTAINERS MAY BE SECURED TO THE TOP OF A FULL PALLET UNIT FOR SHIPMENT. REFER TO THE "PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS" ON PAGE 25 FOR GUIDANCE.
9. REFER TO PAGE 26 FOR GUIDANCE IN THE SHIPMENT OF PARTIAL PALLET UNITS.

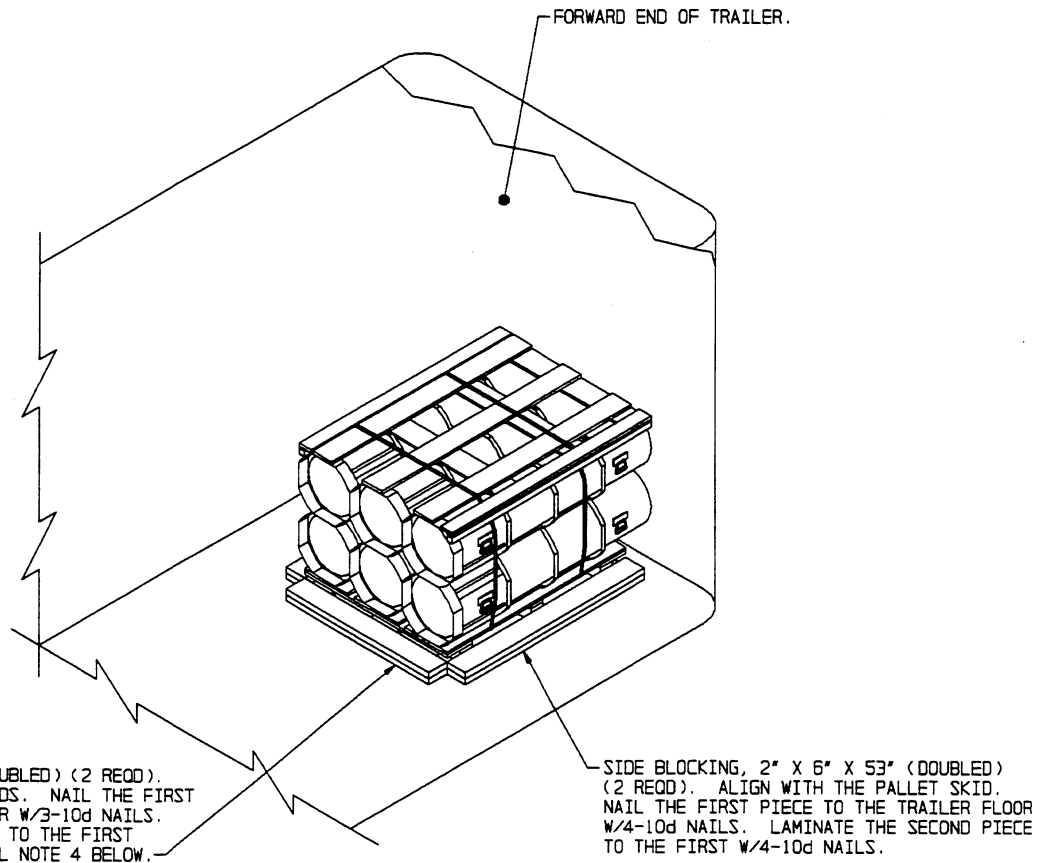


ISOMETRIC VIEW

SPECIAL NOTES:

1. A 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE POSITIONING OF A UNIT IS OPTIONAL. LTL BRACES MUST CONTACT EITHER THE AFT OR FORWARD END OF THE UNIT (BELL OR BASE), NOT THE SIDES. UNITS MAY ALSO BE LOCATED IN THE CORNER OF THE TRAILER, IF DESIRED. IF THE TRAILER DOES NOT HAVE A SQUARE FRONT, A FORWARD BLOCKING ASSEMBLY MUST BE INSTALLED WHEN POSITIONING A UNIT IN THE CORNER OF THE TRAILER. SEE THE DETAIL ON PAGE 21.
3. MORE THAN ONE PALLET UNIT CAN BE SHIPPED, PROVIDING THE CAPACITY OF THE LTL BRACES IS NOT EXCEEDED. THE LOAD SHOULD BE FORMED IN ROWS, WITH THE UNITS POSITIONED AGAINST OPPOSITE SIDEWALLS. THE PROPER ANTI-SWAY BRACES, IF REQUIRED, WILL BE INSTALLED BETWEEN THE LATERALLY ADJACENT UNITS. SEE THE DETAIL ON PAGE 20.
4. EACH LTL BRACE AS APPLIED FOR LONGITUDINAL BRACING WILL SUPPORT 2,000 POUNDS OF LADING; HOWEVER, NOT LESS THAN TWO BRACES WILL BE USED AGAINST EACH PALLET UNIT ACROSS THE WIDTH OF THE TRAILER.





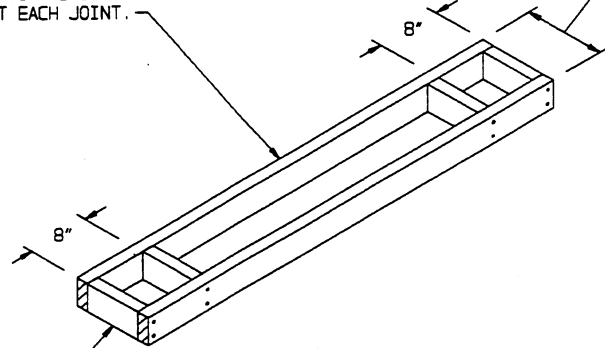
ISOMETRIC VIEW

SPECIAL NOTES:

1. A 7'-8" WIDE (INSIDE DIMENSION) CONVENTIONAL VAN TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE POSITIONING OF A UNIT IS OPTIONAL. THE PALLET UNIT MAY BE TURNED WITH ONE SIDE AGAINST THE FORWARD WALL OF THE TRAILER, IF DESIRED. UNITS MAY ALSO BE LOCATED IN THE CORNER OF THE TRAILER, IF DESIRED. IF THE TRAILER DOES NOT HAVE A SQUARE FRONT, A FORWARD BLOCKING ASSEMBLY MUST BE INSTALLED WHEN POSITIONING A UNIT IN THE CORNER OF THE TRAILER. SEE THE DETAIL ON PAGE 21.
3. MORE THAN ONE PALLET UNIT CAN BE SHIPPED. THE LOAD SHOULD BE FORMED IN ROWS, WITH THE UNITS POSITIONED AGAINST OPPOSITE SIDEWALLS. THE PROPER ANTI-SWAY BRACES, IF REQUIRED, WILL BE INSTALLED BETWEEN THE LATERALLY ADJACENT UNITS. SEE THE DETAIL ON PAGE 20.
4. THE HEADER AS APPLIED ABOVE FOR LONGITUDINAL BRACING WILL SUPPORT 7,500 POUNDS OF LADING; A TRAILER WIDTH HEADER WILL SUPPORT UP TO A FULL TRAILER LOAD OF PALLET UNITS. SEE THE HEADER NAILING CHARTS ON PAGE 7.

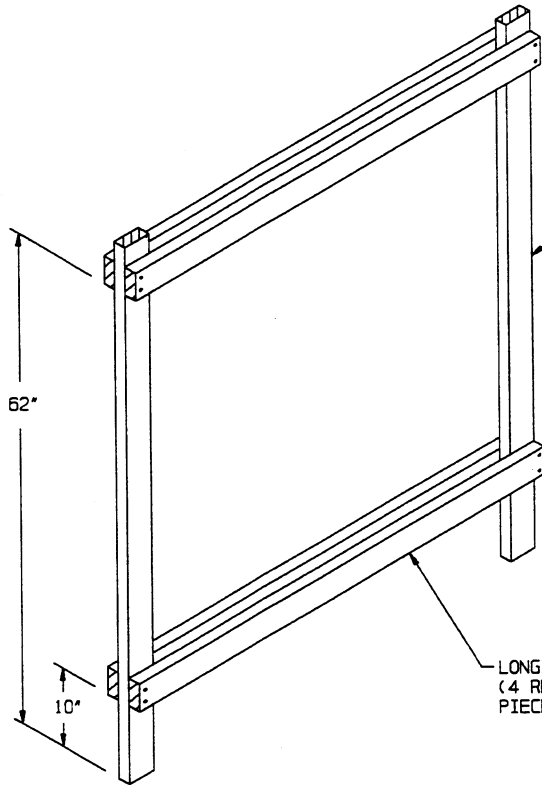
BUFFER PIECE, 2" X 4" X 59-1/4"
(2 REOD). NAIL TO THE STRUTS
W/2-10d NAILS AT EACH JOINT.

FABRICATE TO FIT BETWEEN
LATERALLY ADJACENT PALLET
UNITS MINUS 1/2".



STRUT, 2" X 4" BY CUT-
TO-FIT (2 REOD).

ANTI-SWAY BRACE

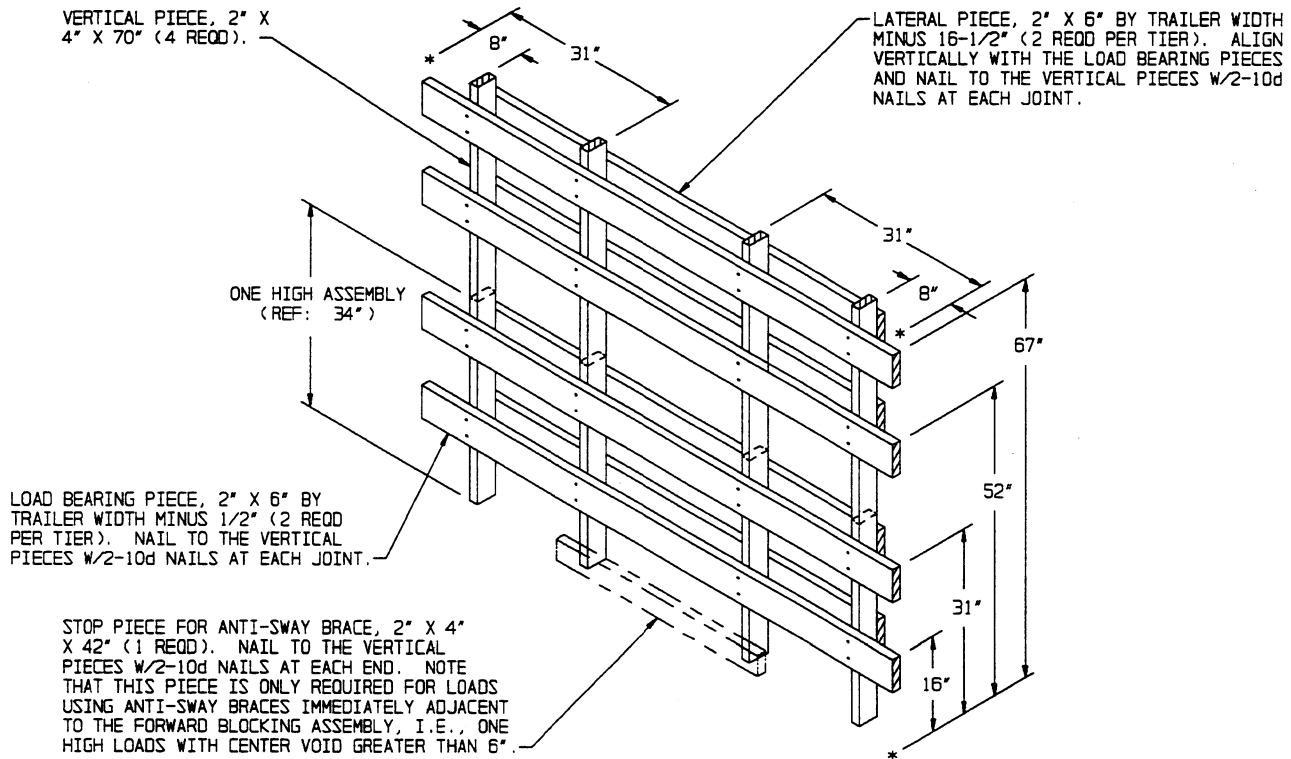


VERTICAL PIECE, 2" X 4"
X 68" (2 REOD).

LONGITUDINAL PIECE, 2" X 4" X 59-1/4"
(4 REOD). NAIL TO THE VERTICAL
PIECES W/2-10d NAILS AT EACH END.

CRIB FILL ASSEMBLY

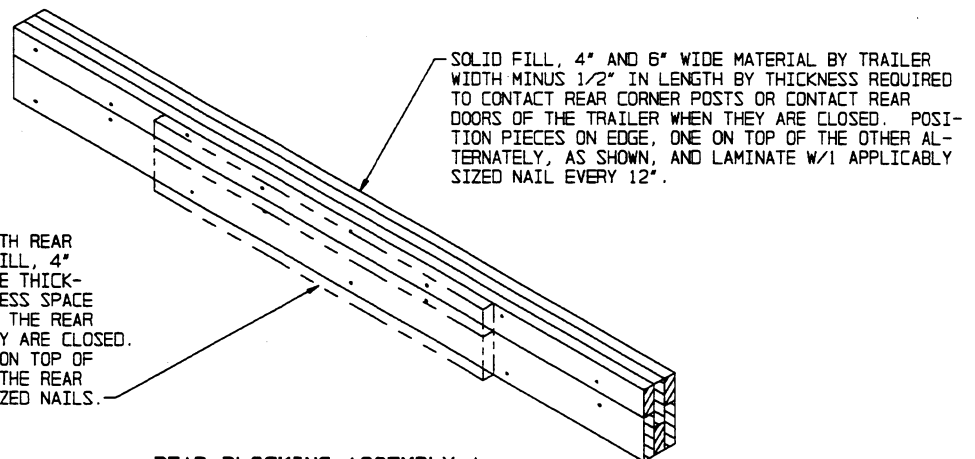
NOTE: IF THE VOID TO BE FILLED IS MORE THAN 7"
ROTATE THE VERTICAL PIECES 90°. IF THE VOID TO
BE FILLED IS BETWEEN 3" AND 5", REPLACE THE 2"
LONGITUDINAL PIECES WITH 1" LONGITUDINAL PIECES.



FORWARD BLOCKING ASSEMBLY

THE ASSEMBLY AS DEPICTED ABOVE IS APPLICABLE FOR A TWO-TIER LOAD. FOR A ONE-TIER LOAD, ELIMINATE THE TOP TWO LATERAL PIECES AND THE TOP TWO LOAD BEARING PIECES AND SHORTEN THE VERTICAL PIECES TO 34", AS DEPICTED ABOVE. THIS ASSEMBLY IS DESIGNED FOR USE AT THE FRONT END OF A TRAILER HAVING ROUNDED CORNERS, AND IS APPLICABLE FOR A CORNER RADIUS OF NOT MORE THAN 6-1/2". IF THE RADIUS IS FROM 6-1/2" TO 8", 2" X 6" VERTICAL PIECES WILL BE USED IN LIEU OF THE 2" X 4" PIECES. IF THE TRAILER TO BE LOADED HAS LARGE-ANGLED CORNERS AT THE FORWARD END, REFER TO PAGE 28 FOR GUIDANCE.

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL, 4" AND 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING AND THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. POSITION PIECES ON EDGE, ONE ON TOP OF THE OTHER AS SHOWN. NAIL TO THE REAR BLOCKING W/4 APPROPRIATELY SIZED NAILS.



REAR BLOCKING ASSEMBLY A

THIS REAR BLOCKING ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOORS IS GREATER THAN 1-1/2" OR LESS THAN 9".

STRUT, 2" X 6" BY CUT-TO-FIT (4 REOD).

STRUT LEDGER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (2 REOD). NAIL TO THE BOTTOM EDGE OF A HEADER W/1-10d NAIL EVERY 12".

HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REOD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT.

RISER, 2" X 4" X 9" (4 REOD). NAIL TO THE STRUT LEDGER W/2-10d NAILS.

IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL, 6" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING AND THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. NAIL TO THE REAR BLOCKING W/4 APPROPRIATELY SIZED NAILS.

STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REOD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

REAR BLOCKING ASSEMBLY B

THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOOR IS MORE THAN 9" AND TWO ROWS OF PALLET UNITS ARE LOADED ADJACENT TO THE TRAILER DOORS. NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

STRUT, 2" X 4" BY CUT-TO-FIT (4 REOD).

HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REOD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

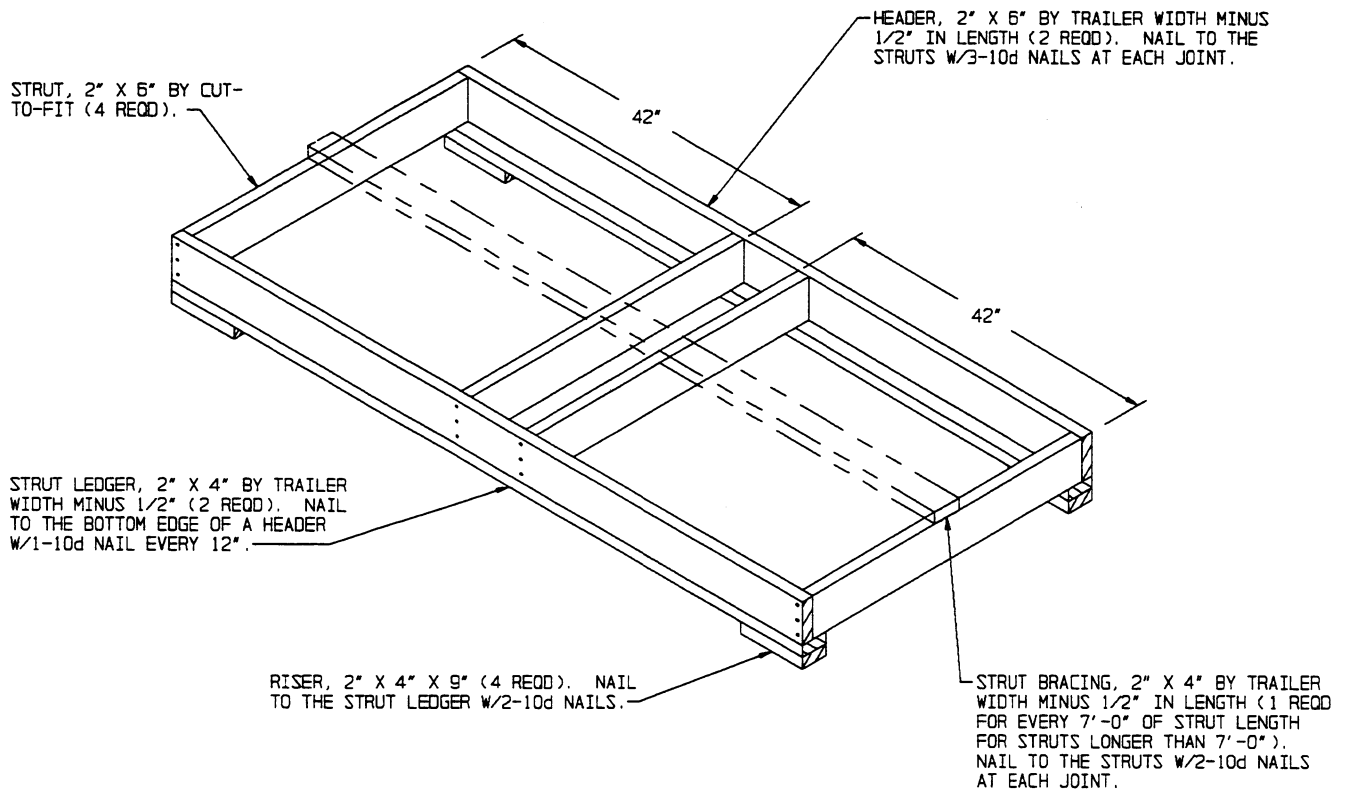
IF THE TRAILER IS EQUIPPED WITH REAR CORNER POSTS, INSTALL SOLID FILL, 4" WIDE BY 48" LONG BY THE THICKNESS REQUIRED TO FILL THE EXCESS SPACE BETWEEN THE REAR BLOCKING AND THE REAR DOORS OF THE TRAILER WHEN THEY ARE CLOSED. NAIL TO THE REAR BLOCKING W/4 APPROPRIATELY SIZED NAILS.

STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REOD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

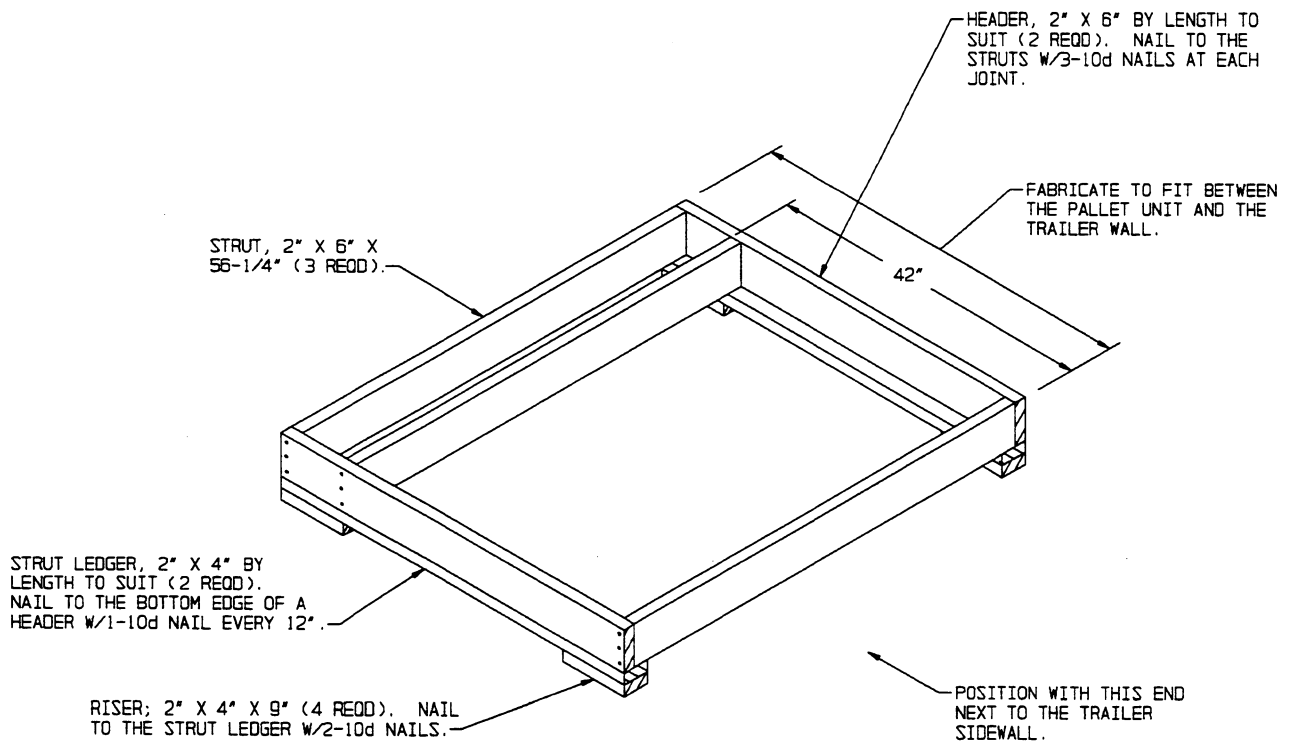
INSTALL WITH THIS END TOWARDS OPENING ENDS OF THE CONTAINERS.

REAR BLOCKING ASSEMBLY C

THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOOR IS MORE THAN 9" AND ONE ROW OF PALLET UNITS, POSITIONED WITH THE PALLET WIDTH ACROSS THE WIDTH OF THE TRAILER, IS LOADED ADJACENT TO THE TRAILER DOORS. NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

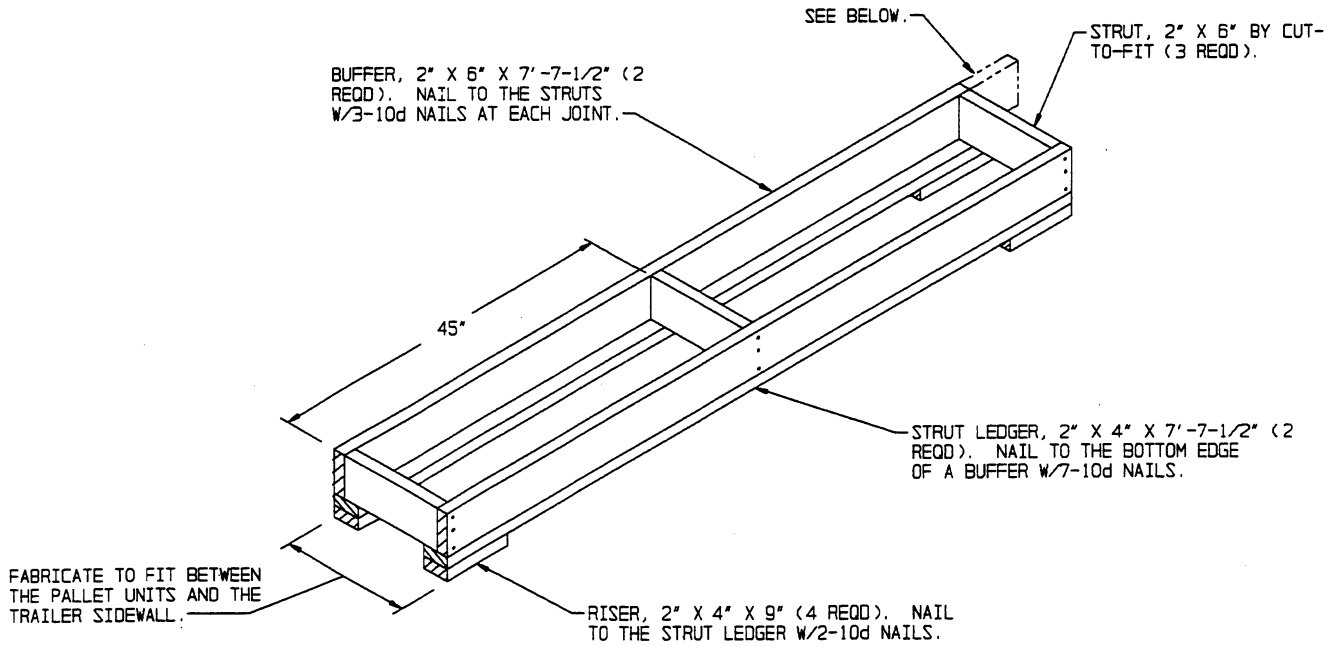


SPACER ASSEMBLY A



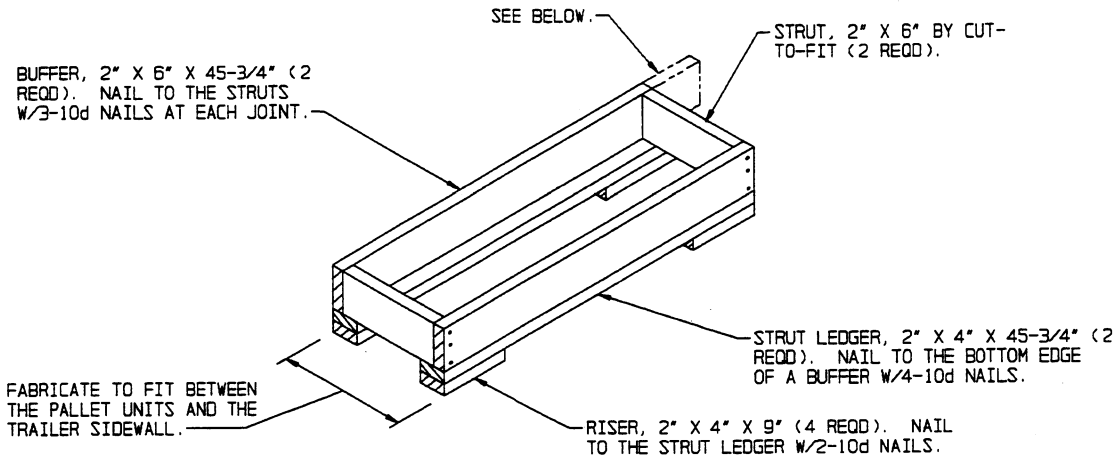
SPACER ASSEMBLY B

IF THE VAN TRAILER TO BE LOADED IS 90" OR LESS IN WIDTH, ELIMINATE THE INTERIOR STRUT.



SIDE SPACER ASSEMBLY A

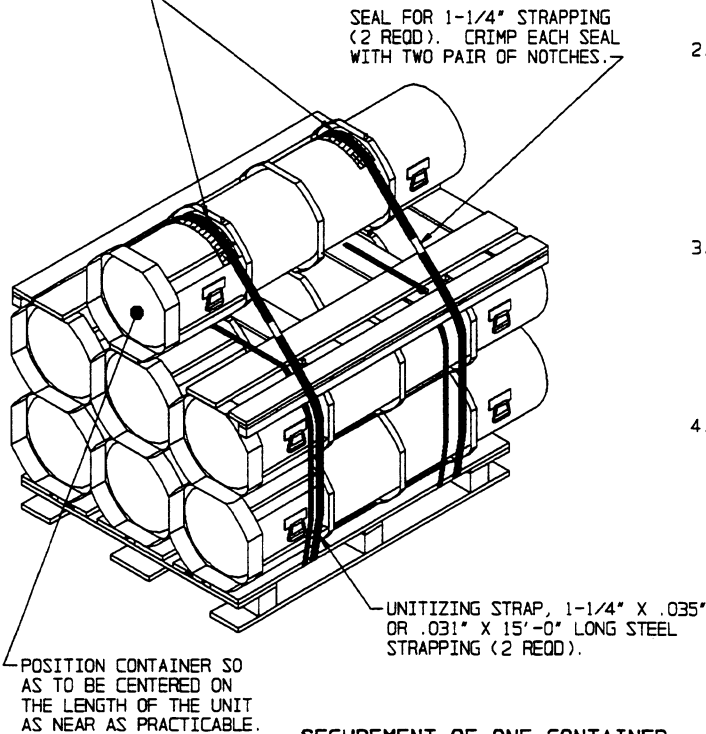
THIS ASSEMBLY IS TWO PALLET UNITS LONG. IF THE TRAILER BEING LOADED HAS ROUNDED CORNERS, AND THE ASSEMBLY IS TO BE USED ADJACENT TO THE FORWARD WALL, LENGTHEN ONE END OF ONE BUFFER PIECE BY 7", AS DEPICTED ABOVE.



SIDE SPACER ASSEMBLY B

THIS ASSEMBLY IS ONE PALLET UNIT LONG. IF THE TRAILER BEING LOADED HAS ROUNDED CORNERS, AND THE ASSEMBLY IS TO BE USED ADJACENT TO THE FORWARD WALL, LENGTHEN ONE END OF ONE BUFFER PIECE BY 7", AS DEPICTED ABOVE.

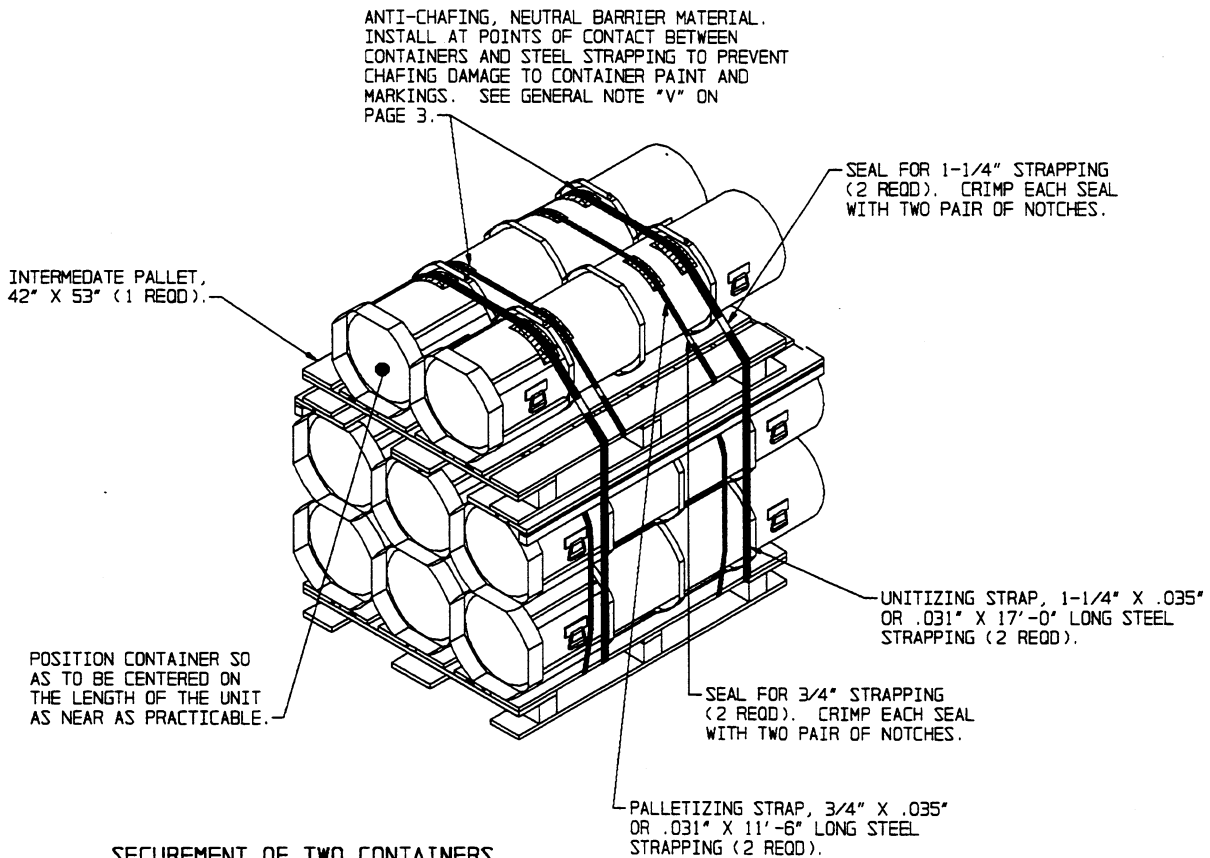
ANTI-CHAFING, NEUTRAL BARRIER MATERIAL.
INSTALL AT POINTS OF CONTACT BETWEEN
CONTAINERS AND STEEL STRAPPING TO PREVENT
CHAFING DAMAGE TO CONTAINER PAINT AND
MARKINGS. SEE GENERAL NOTE "V" ON
PAGE 3.



SECUREMENT OF ONE CONTAINER

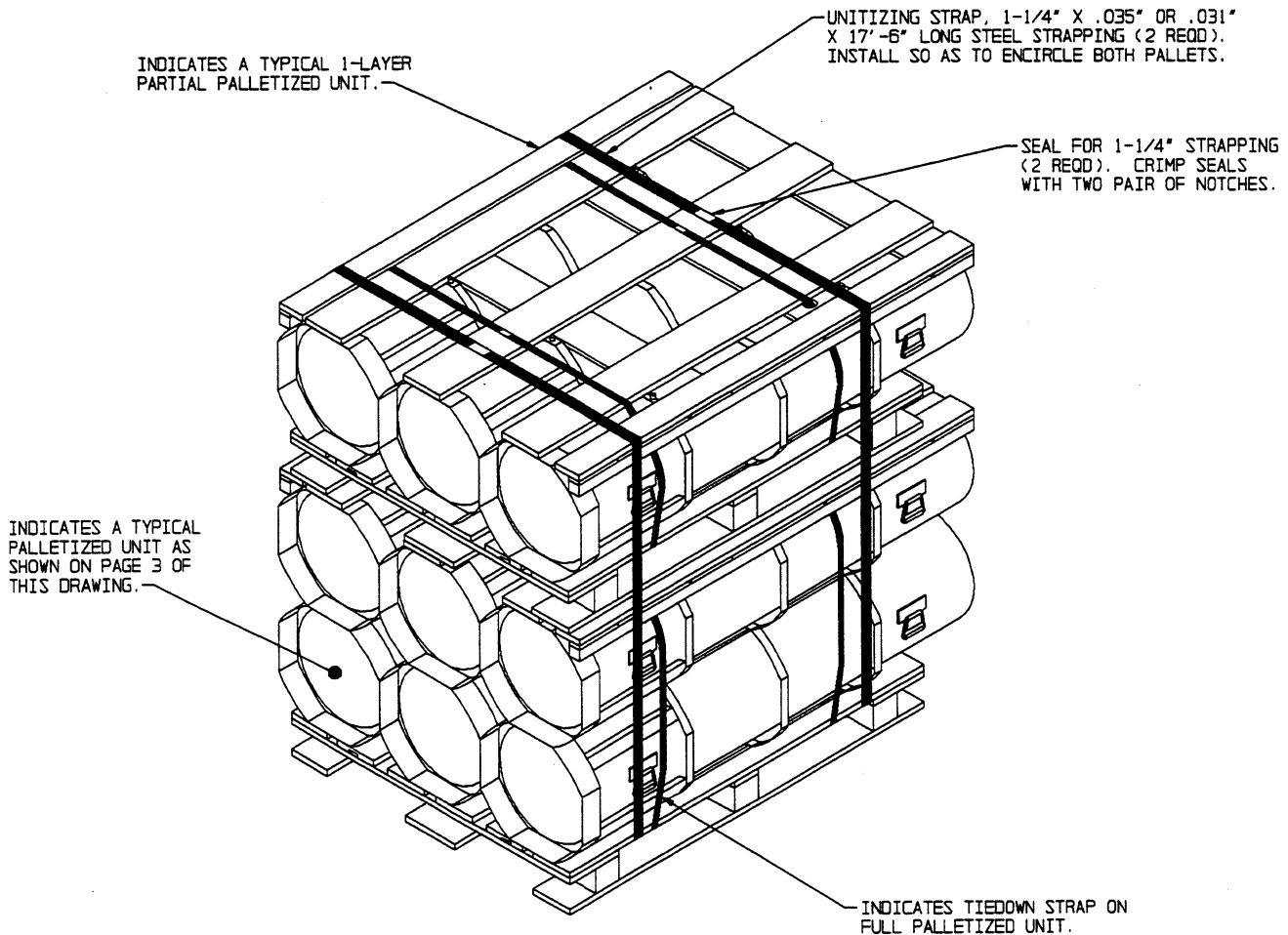
SPECIAL NOTES:

1. SHIPMENTS OF PALLET UNITS OF JAVELIN MISSILES SHOULD CONSIST OF FULL-HEIGHT UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION, MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LEFTOVER CONTAINERS. LEFTOVER CONTAINERS ARE DESCRIBED AS ONE OR TWO CONTAINERS.
2. SHIPMENT OF LEFTOVER CONTAINERS IS APPLICABLE FOR CONUS AND OCONUS MOTOR CARRIER SHIPMENTS FROM DEPOT TO DEPOT OR FROM DEPOTS TO POSTS, CAMPS, AND STATIONS, OR, UPON APPROVAL FROM HIGHER HEADQUARTERS, FOR SHIPMENTS FROM LOAD, ASSEMBLE, AND PACK PLANTS TO DEPOTS. CAUTION: A LOAD CONTAINING LEFTOVER CONTAINERS IN AN AMOUNT WHICH IS LESS THAN A FULL LAYER, AND SECURED TO THE TOP OF A FULL OR PARTIAL UNIT, MUST NOT BE DESTINED FOR SHIPMENT OVERSEAS BY WATER CARRIER.
3. THE PROCEDURES ON THIS PAGE ARE PRESENTED AS GUIDANCE IN THE SECUREMENT OF LEFTOVER CONTAINERS FOR SHIPMENT. THE PROCEDURES ARE ALSO APPLICABLE FOR SECUREMENT OF LEFT-OVER CONTAINERS TO PARTIAL UNITS FOR SHIPMENT ON TOP OF A LOAD. SEE SPECIAL NOTE 5 ON PAGE 26 FOR LIMITATIONS. IN ADDITION, THE PROCEDURES ARE APPLICABLE FOR SECURING LEFTOVER CONTAINERS TO A PARTIAL UNIT FOR SHIPMENT WITHIN A TIER.
4. THE PROCEDURES DEPICTED ON THIS PAGE ARE APPLICABLE FOR THE SHIPMENT OF LEFTOVER CONTAINERS IN ANY OF THE LOADS DEPICTED HEREIN.



SECUREMENT OF TWO CONTAINERS

PROCEDURES FOR SHIPMENT OF LEFTOVER CONTAINERS

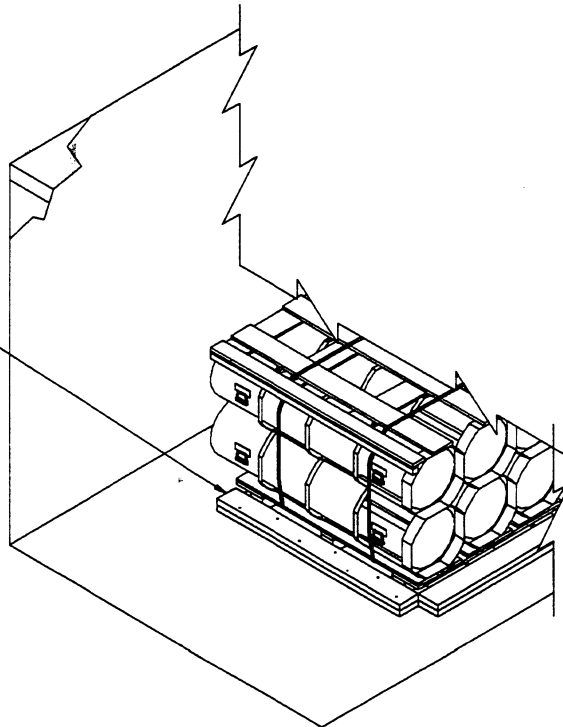


**SECUREMENT OF A PARTIAL PALLET UNIT
ON TOP OF A FULL PALLET UNIT**

SPECIAL NOTES:

1. SHIPMENTS OF PALLET UNITS OF AMMUNITION AND/OR COMPONENTS SHOULD CONSIST OF FULL-HEIGHT AND FULL-LAYER UNITS TO THE MAXIMUM EXTENT POSSIBLE. HOWEVER, THE END OF A LOT, OR THE QUANTITY OF ITEMS NEEDED TO FILL A REQUISITION MAY NECESSITATE THE SHIPMENT OF ONE OR MORE LESS-THAN-FULL PALLET UNITS WITHIN A LOAD. THE PROCEDURES ON THIS PAGE ARE PRESENTED AS GUIDANCE IN THE SHIPMENT OF THESE PARTIAL UNITS.
2. A PARTIAL PALLET UNIT MUST CONSIST OF ONE FULL LAYER OF CONTAINERS IN ORDER FOR THE TOP DUNNAGE ASSEMBLY TO PROPERLY FUNCTION. A LAYER MAY PARTIALLY CONSIST OF FILLER ASSEMBLIES, THOUGH, AS DESCRIBED IN THE GENERAL NOTES OF AMC DRAWING 19-48-5266-GM20JV1.
3. A LESS THAN FULL HEIGHT PALLET UNIT CAN BE SHIPPED BY POSITIONING IT EITHER ON THE TOP TIER OF A LOAD OR ON THE TOP OF THE LOWER PORTION OF A LOAD WHEN THE LOAD CONTAINS A PARTIAL TIER IN THE END OF THE TRAILER. THE PARTIAL UNIT WILL BE STRAPPED TO THE PALLETIZED UNIT DIRECTLY BELOW WITH TWO VERTICAL UNITIZING STRAPS. SEE THE "SECUREMENT OF PARTIAL UNIT ON TOP" VIEW ABOVE FOR GUIDANCE.
4. A PARTIAL PALLET UNIT MUST NOT BE POSITIONED ON THE REARMOST PALLET UNIT IN THE LOAD.
5. LEFTOVER CONTAINERS, IN AN AMOUNT WHICH IS LESS THAN THE QUANTITY IN ONE LAYER OF A UNIT, CAN BE SECURED TO THE TOP OF A PARTIAL UNIT FOR SECUREMENT ON TOP OF A LOAD. THE LEFTOVER CONTAINERS MUST BE SECURED TO THE PARTIAL UNIT WITH THEIR OWN STRAPPING, SEPARATE FROM THE STRAPS FOR THE PARTIAL UNIT. SEE THE DETAILS ON PAGE 25 FOR GUIDANCE IN STRAP APPLICATION.

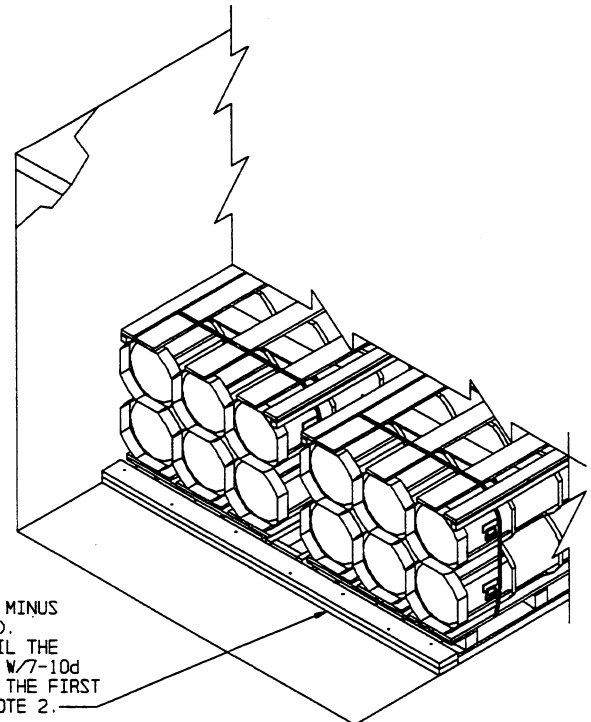
HEADER, 2" X 6" X 53" (DOUBLED)
(1 REOD). POSITION AGAINST
THE PALLET. NAIL THE FIRST
PIECE TO THE TRAILER FLOOR
W/7-10d NAILS. NAIL THE SECOND
PIECE TO THE FIRST IN A LIKE
MANNER. SEE SPECIAL NOTE 2.



METHOD A

SPECIAL NOTES:

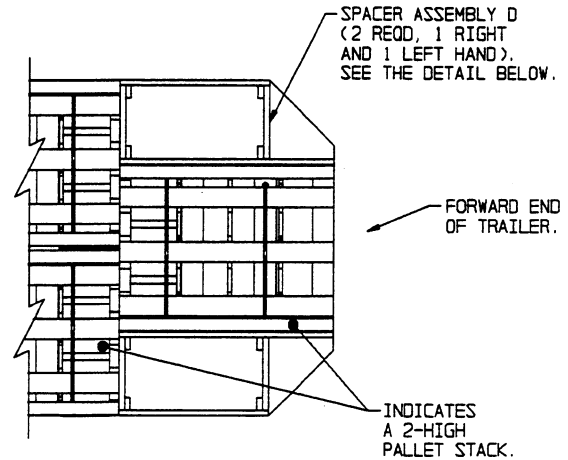
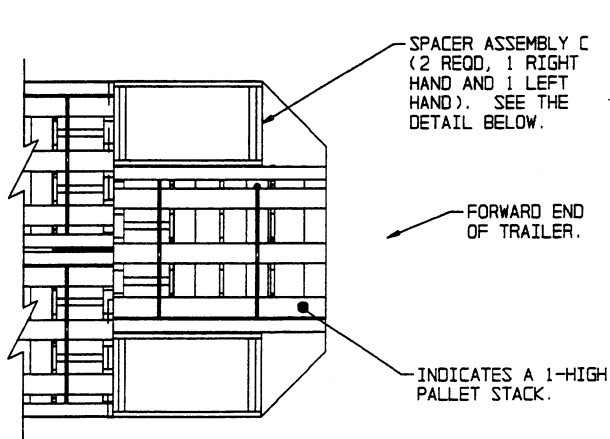
1. THE NAILED HEADER METHOD "A" REAR BLOCKING DEPICTED ABOVE IS APPLICABLE FOR PALLET UNITS WHICH ARE POSITIONED WITH THE PALLET WIDTH ACROSS THE WIDTH OF THE TRAILER. THE NAILED HEADER METHOD "B" REAR BLOCKING DEPICTED BELOW IS APPLICABLE FOR PALLET UNITS WHICH ARE POSITIONED WITH THE PALLET LENGTH ACROSS THE WIDTH OF THE TRAILER. BOTH PROCEDURES CAN ONLY BE USED IN THE TRAILERS HAVING A AVAILABLE FLOOR AREA BETWEEN THE LADING AND THE METAL THRESHOLD, OR A THRESHOLD PLATE IF THE TRAILER IS SO EQUIPPED, OF AT LEAST SIX INCHES.
2. THE PROCEDURE DEPICTED AS METHODS "A" AND "B" ABOVE ARE ADEQUATE FOR THE RETENTION OF 17,500 POUNDS OF LADING. FOR LOADS OF GREATER OR LESS WEIGHT, SEE THE HEADER NAILING CHARTS ON PAGE 7 TO DETERMINE THE QUANTITY OF NAILS REQUIRED.
3. WHEN LOADING PALLET UNITS AS SHOWN IN METHOD "B" BELOW, ORIENT THE PALLET UNITS WITH THE FORWARD END TOWARDS THE REAR OF THE TRAILER, SO AS TO ALLOW ACCESS TO NAIL THE HEADER.
4. EITHER NAILED HEADER METHOD, ALTHOUGH DESIGNED ESPECIALLY FOR TRAILERS HAVING ROLL-UP TYPE DOORS, MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS.



HEADER, 2" X 6" BY TRAILER WIDTH MINUS
1/2" IN LENGTH (DOUBLED) (1 REOD).
POSITION AGAINST THE PALLET. NAIL THE
FIRST PIECE TO THE TRAILER FLOOR W/7-10d
NAILS. NAIL THE SECOND PIECE TO THE FIRST
IN A LIKE MANNER. SEE SPECIAL NOTE 2.

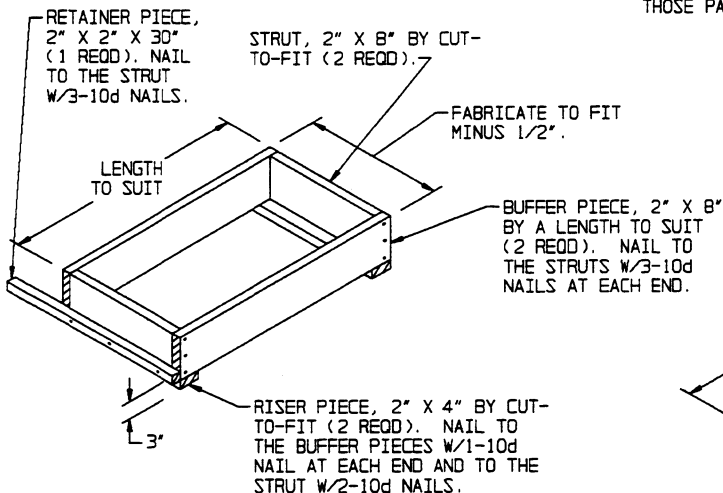
METHOD B

NAILED HEADER METHOD PROCEDURES FOR
CONVENTIONAL VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS



ALTERNATIVE FORWARD LOADING PATTERN A

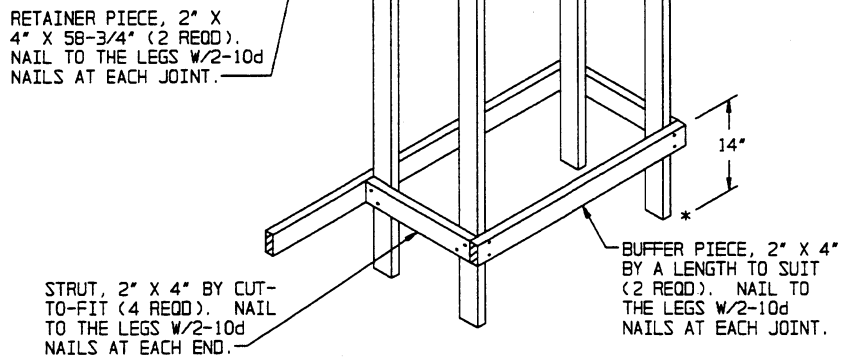
THIS PROCEDURE IS APPLICABLE TO THE LOADING OF ONE PALLET UNIT IN THE FORWARD END OF A CONVENTIONAL VAN TRAILER HAVING LARGE-ANGLED FRONT CORNERS (REF: 18°). THE PROCEDURES MAY ALSO BE USED IN TRAILERS HAVING SQUARE CORNERS, OR ROUNDED FRONT CORNERS, OR ANGLED CORNERS OF ANOTHER SIZE.



SPACER ASSEMBLY C

ALTERNATIVE FORWARD LOADING PATTERN B

THIS PROCEDURE IS APPLICABLE TO THE LOADING OF A STACK OF TWO PALLET UNITS IN THE FORWARD END OF A CONVENTIONAL VAN TRAILER HAVING LARGE-ANGLED FRONT CORNERS (REF: 18°). THE PROCEDURES MAY ALSO BE USED IN TRAILERS HAVING SQUARE CORNERS, OR ROUNDED FRONT CORNERS, OR ANGLED CORNERS OF ANOTHER SIZE. NOTE THAT IF THE LOAD UNIT BEHIND THE STACKED PALLET UNITS IN THE FRONT IS ONLY ONE HIGH, TWO UNITIZING STRAPS MUST BE INSTALLED AROUND THOSE PALLET UNITS IN THE FRONT STACK.



SPACER ASSEMBLY D

THIS ASSEMBLY IS DESIGNED FOR LATERAL BRACING OF A 2-HIGH PALLET STACK LOCATED IN THE FRONT OF AN ANGLED-CORNER CONVENTIONAL VAN TRAILER AS SHOWN IN THE "ALTERNATIVE FORWARD LOADING PATTERN B" VIEW ABOVE. NOTE THAT THIS VIEW DEPICTS THE ASSEMBLY POSITIONED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED IN A LOAD. RIGHT HAND AND LEFT HAND SPACER ASSEMBLIES ARE REQUIRED.