
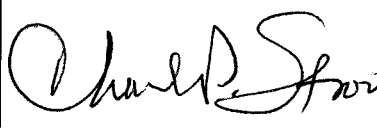

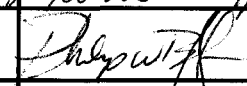



# LOADING AND BRACING (TL & LTL) IN VAN TRAILERS<sup>•</sup> OF SIDEWINDER (AIM-9X) MISSILES PACKED IN CNU-609 SHIPPING AND STORAGE CONTAINERS

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**• 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 JOINT MUNITIONS COMMAND  	CAUTION: VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 22.						
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND   U.S. ARMY DEFENSE AMMUNITION CENTER	DO NOT SCALE			JUNE 2007			
	ENGINEER OR TECHNICIAN	BASIC REV.	MELVIN SIX				
	TRANSPORTATION ENGINEERING DIVISION						
	VALIDATION ENGINEERING DIVISION		TESTED	CLASS	DIVISION	DRAWING	FILE
ENGINEERING DIRECTORATE			19	48	8842	SP11J122	

**GENERAL NOTES**

**(GENERAL NOTES CONTINUED)**

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE OUTLOADING PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO SIDEWINDER (AIM-9X) MISSILES PACKED IN CNU-609 SHIPPING AND STORAGE CONTAINER. SEE PAGE 3 AND RAYTHEON DRAWING 2215440 FOR DETAILS OF THE CONTAINER.
- C. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR SHIPMENTS IN CONVENTIONAL TYPE VAN TRAILERS AND APPLY TO TRAILERS HAVING WOOD, OR WOOD AND METAL, OR ALL METAL FLOORS. REGARDLESS OF THE DIMENSIONS OF THE VAN TRAILERS SHOWN, THE PROCEDURES ARE ALSO APPLICABLE FOR TRAILERS WHICH ARE 89" THRU 101" IN WIDTH AND FOR TRAILERS OF OTHER LENGTHS FROM THE SHORTEST TO THE LONGEST AVAILABLE (REF: 24' TO 53'), AND FOR STRAIGHT TRUCK VANS. THE SPECIFIED BRACING IS ADEQUATE FOR LOADS WEIGHING UP TO AND INCLUDING THE MAXIMUM WEIGHTS PERMITTED BY LAW.
- D. THE GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF THE APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY. THE TOTAL WEIGHT OF THE LADING, OF THE DUNNAGE, OF THE TRACTOR, AND OF THE SEMITRAILER CARRYING THE LADING MUST NOT EXCEED THE MAXIMUM GROSS WEIGHT ALLOWED FOR THE STATE OR STATES THRU WHICH THE LOAD IS TO BE TRANSPORTED BY MOTOR CARRIER. LIKEWISE, THE GROSS WEIGHT ON A SINGLE OR TANDEM AXLE MUST NOT EXCEED THE MAXIMUM ALLOWABLE WEIGHT. IF THERE IS ANY DOUBT AS TO WHETHER THE TOTAL GROSS WEIGHT OR AXLE WEIGHT EXCEEDS THE MAXIMUM ALLOWED, WEIGHT SHOULD BE VERIFIED BY ACTUALLY WEIGHING THE LOADED VEHICLE.
- E. **NOTICE:** A SHIPMENT WILL BE POSITIONED IN THE TRAILER CONSISTENT WITH STATE WEIGHT LAWS. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. COMBINATIONS OF THE OUTLOADING PROCEDURES SPECIFIED MAY BE USED, HOWEVER, THE APPROVED METHODS SHOWN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEMS.
- F. THE "LOAD AS SHOWN" FOR MOST OF THE FULL LOADS DEPICTED HEREIN IS BASED ON AN APPROXIMATE LADING WEIGHT OF 42,000 POUNDS. THE SPECIFIED BLOCKING AND BRACING FOR THE FULL LOADS IS ADEQUATE FOR THE RETENTION OF LOADS, UP TO 45,000 POUNDS, IF IT IS DESIRED TO INCREASE THE LADING WEIGHT.
- G. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH CNU-609 CONTAINERS, PROVIDING THE TOTAL LOAD IS COMPATIBLE, EXISTING DIRECTIVES ARE NOT VIOLATED, AND THE OTHER LADING ITEMS ARE BLOCKED AND BRACED TO EQUAL THE BLOCKING AND BRACING CRITERIA SPECIFIED HEREIN.

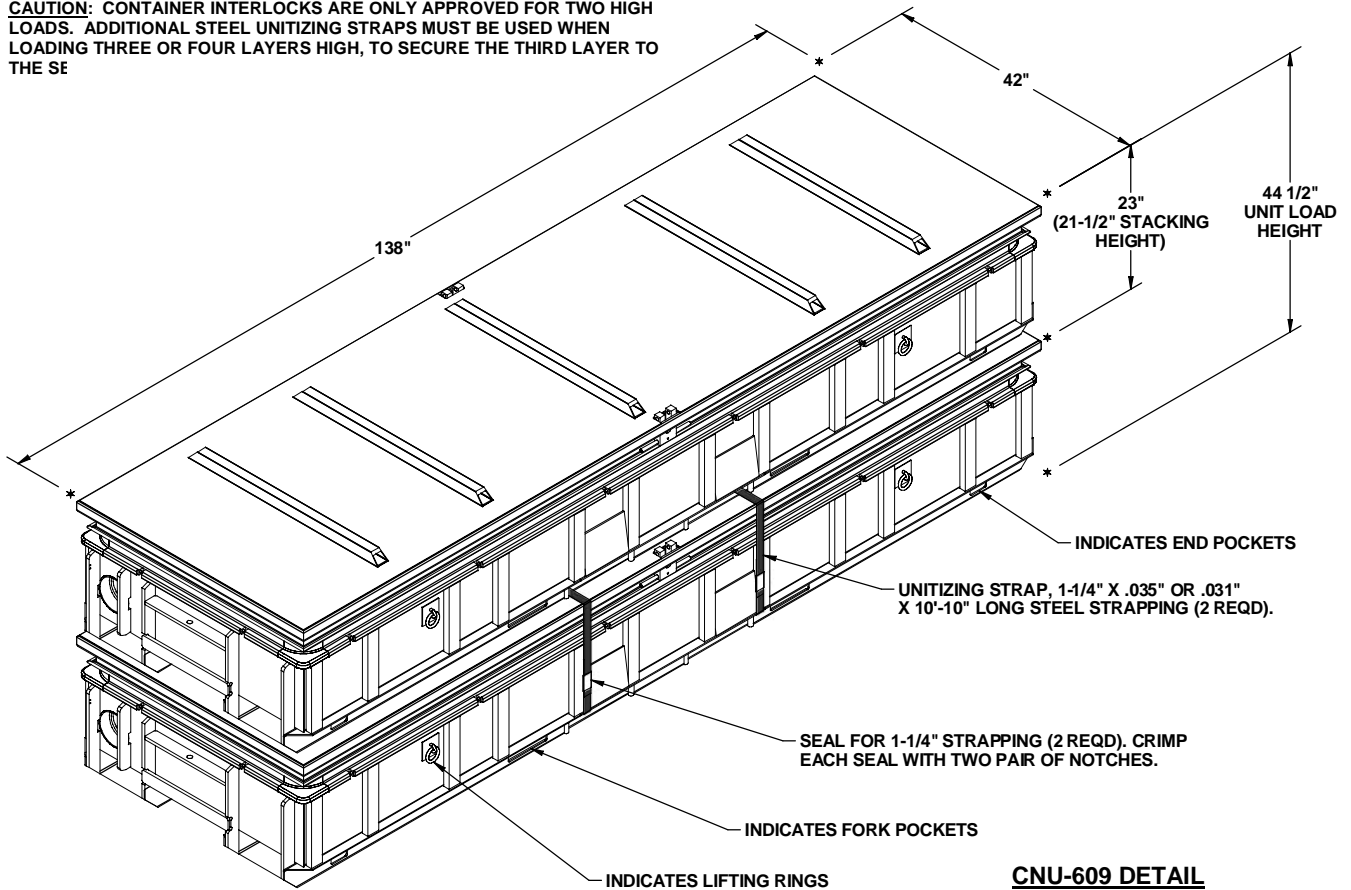
- H. SOME LOADS ARE SHOWN IN TRAILERS HAVING ROUNDED CORNERS AT THE FORWARD END. IF THE CONVENTIONAL VAN TRAILER BEING USED IS EQUIPPED WITH A SQUARE FRONT OR WITH AN INSTALLED BULKHEAD, OMIT THE FORWARD BLOCKING ASSEMBLY AND POSITION THE CONTAINERS DIRECTLY AGAINST THE FORWARD PORTION OF THE TRAILER.
- J. WHEN STEEL STRAPPING IS SEALED AT AN END-OVER-END LAP JOINT, A MINIMUM OF ONE SEAL WITH TWO PAIR OF NOTCHES WILL BE USED TO SEAL THE JOINT WHEN A NOTCH-TYPE SEALER IS BEING USED. A MINIMUM OF TWO SEALS, BUTTED TOGETHER WITH TWO PAIR OF CRIMPS PER SEAL WILL BE USED TO SEAL THE JOINT WHEN A CRIMP-TYPE SEALER IS BEING USED. REFER TO THE "STRAP JOINT A" AND "STRAP JOINT B" DETAILS ON PAGE 22 FOR GUIDANCE.
- K. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- L. **NOTICE:** A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES. ALSO, A STAGGERED NAILING PATTERN WILL BE USED WHEN DUNNAGE IS NAILED TO THE FLOOR OF THE TRANSPORTING VEHICLE, OR WHEN LAMINATING DUNNAGE. THE NAILING PATTERN WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL DOES NOT PENETRATE INTO OR NEAR A CRACK BETWEEN FLOOR BOARDS. 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 THE PIECE ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- M. POWER DRIVEN STAPLES MAY BE USED AS ALTERNATIVE FASTENERS FOR NAILS WHEN CONSTRUCTING DUNNAGE ASSEMBLIES WHICH ARE TO BE USED IN THE DELINEATED TRAILER LOADS SHOWN THROUGHOUT THIS DRAWING. THE STAPLES TO BE USED MUST BE EQUAL IN LENGTH TO THE SPECIFIED NAIL SIZE AND MUST BE SUBSTITUTED ON A ONE STAPLE FOR ONE NAIL BASIS. STAPLES WHICH ARE 2-1/2" OR LESS IN LENGTH SHOULD BE IN ACCORDANCE WITH ASTM F1667 AS NEARLY AS PRACTICABLE. STAPLES WHICH ARE LONGER THAN 2-1/2" WILL BE A COMMERCIAL GRADE, OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENGCO PRODUCTS INCORPORATED. **NOTE:** STAPLES WILL NOT BE SUBSTITUTED FOR NAILS IN ANY LOAD RESTRAINING FLOOR DUNNAGE APPLICATION.
- N. PORTIONS OF THE TRAILERS, SUCH AS SIDEWALLS, ENDWALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- O. THE UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS NOT TO EXCEED 6". EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY INCREASING THE LENGTH OF THE STRUTS ON THE CRIB OR SIDE FILL ASSEMBLIES.
- P. IF THE SPACE AT THE REAR OF THE LOAD, BETWEEN THE CONTAINERS AND THE REAR DOOR MEASURES 1-1/2" OR LESS REAR BLOCKING IS NOT REQUIRED. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THE 9", USE THE "REAR BLOCKING ASSEMBLY C" AS DEPICTED ON PAGE 22. IF THE VOID AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY "A" OR "B", AS SHOWN ON PAGE 21. **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 THE REAR HEADER ON PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE. **CAUTION:** THE NAILED HEADER METHOD IS REQUIRED WHEN LOADING VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS.
- Q. **CAUTION:** WHEN POWER OR PNEUMATIC NAILERS ARE BEING USED IN THE APPLICATION OF NAILED FLOORLINE BLOCKING OR BRACING, CONTAINERS BEING LOADED INTO THE CONVEYANCE MUST BE POSITIONED TO ALLOW A CLEAR PATH OF EXIT FOR THE OPERATOR AT ALL TIMES, SHOULD AN EMERGENCY EXIT BECOME NECESSARY.
- R. THESE PROCEDURES CAN ALSO BE UTILIZED FOR THE SHIPMENT OF CNU-609 CONTAINERS WHEN THEY ARE LOADED WITH AN ITEM OTHER THAN THE SPECIFIED SIDEWINDER MISSILES, OR WHEN THEY ARE EMPTY.
- S. 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.
- T. ANTI-CHAFING MATERIAL MAY BE INSTALLED AT POINTS OF CONTACT BETWEEN CONTAINERS AND THE VAN TRAILER OR BETWEEN INDIVIDUAL CONTAINERS, IF DESIRED, TO PREVENT CHAFING DAMAGE TO CONTAINERS.

(CONTINUED AT RIGHT)

**MATERIAL SPECIFICATIONS**

- LUMBER** - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.
- NAILS** - - - - - : ASTM F1667; COMMON STEEL NAIL (NLCMS OR NLCMMS).
- STRAPPING, STEEL** - - - : ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH A, B, (GRADE 2), OR C.
- SEAL, STRAP** - - - - - : ASTM D3953; CLASS H, FINISH A, B, (GRADE 2), OR C, DOUBLE NOTCH TYPE, STYLE I, II, OR IV.
- ANTI-CHAFING MATERIAL** - - - - - : MIL-PRF-121 (OR EQUAL); NEUTRAL BARRIER MATERIAL.
- WIRE, CARBON STEEL** - - - : ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, 0.0800" DIA, GRADE 1006 OR BETTER.

**CAUTION:** CONTAINER INTERLOCKS ARE ONLY APPROVED FOR TWO HIGH LOADS. ADDITIONAL STEEL UNITIZING STRAPS MUST BE USED WHEN LOADING THREE OR FOUR LAYERS HIGH, TO SECURE THE THIRD LAYER TO THE SE



**TYPICAL UNIT LOAD DETAIL**

(NOTE: UNITIZATION USING THE CONTAINER INTERLOCKS IS THE PREFERRED METHOD, WHERE POSSIBLE. THE ALTERNATE STEEL STRAPPING METHOD IS DEPICTED ABOVE.)

**CNU-609 DETAIL**

GROSS WEIGHT - - - - - 1,473 LBS (APPROX)  
 CUBE - - - - - 77.2 CU FT (APPROX)

**UNIT LOAD DETAIL (WITH STEEL STRAPPING)**

GROSS WEIGHT - - - - - 2,949 LBS (APPROX)  
 CUBE - - - - - 149.3 CU FT (APPROX)

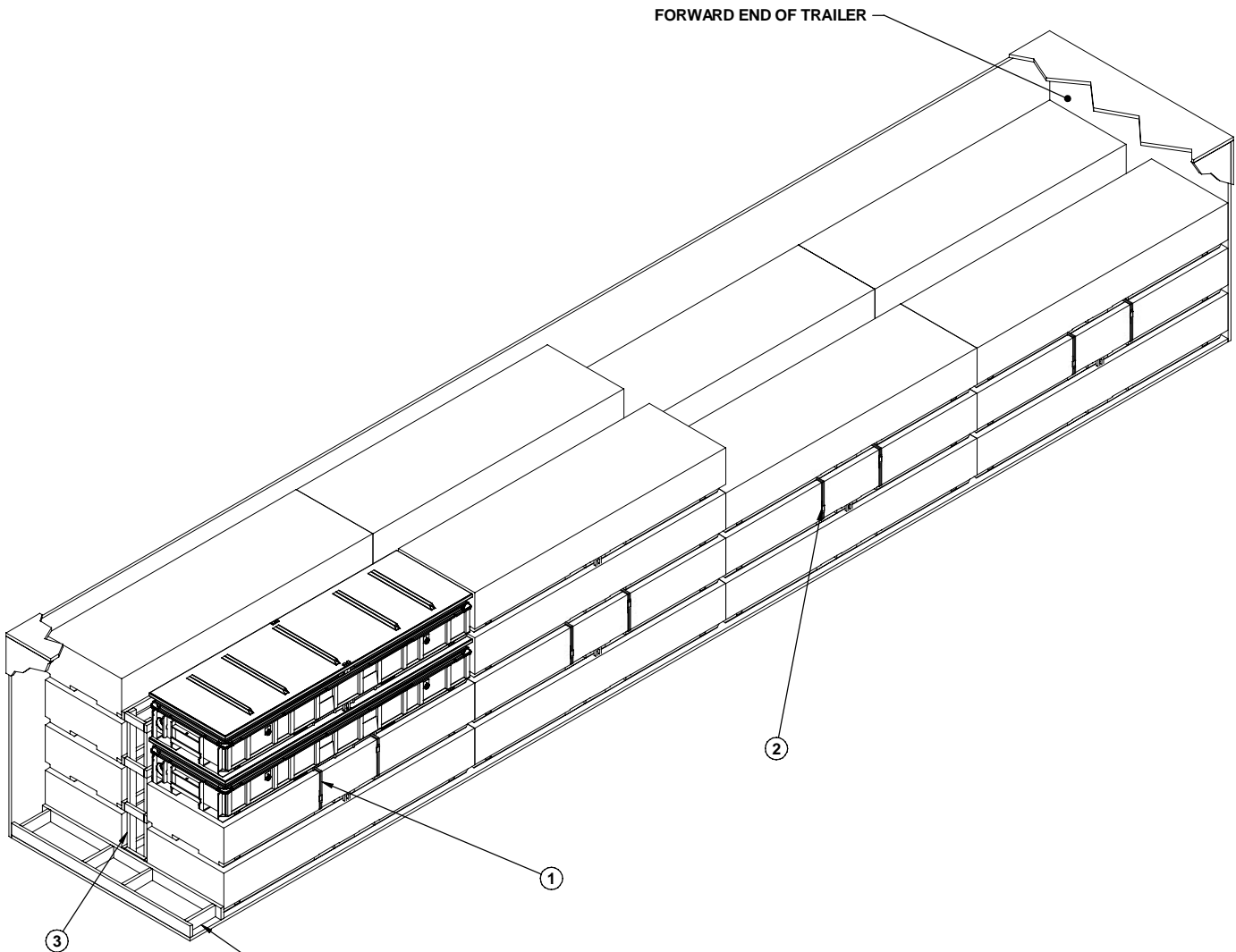
**UNITIZATION AND HANDLING GUIDANCE**

1. STACKING CONTAINERS FOR UNITIZING:
  - A. AN UPPER CONTAINER SHOULD BE PLACED AS CLOSE AS POSSIBLE IN VERTICAL ALIGNMENT WITH THE NEXT LOWER CONTAINER.
  - B. POSITION THE AFT END OF AN UPPER CONTAINER ABOVE THE AFT END OF THE NEXT LOWER CONTAINER.
  - C. THE CONTAINER SKIDS OF AN UPPER CONTAINER SHOULD BE FULLY SEATED AGAINST THE SKID LOCATOR PIECES ON THE COVER OF THE NEXT LOWER CONTAINER.
2. UNITIZING PROCEDURE USING PREFERRED INTERLOCKING FEATURE.
  - A. DETACH QUICK RELEASE PIN (BOTH SIDES) ON CONTAINER TO BE PLACED ON TOP.
  - B. STACK TWO CONTAINERS AS SHOWN. BE SURE TO ALIGN THE STACKING FEATURES.
  - C. SECURE TOP CONTAINER TO BOTTOM CONTAINER USING INTERLOCKING FEATURE.
  - D. INSTALL QUICK RELEASE PIN (BOTH SIDES).
3. UNITIZING PROCEDURE USING OPTIONAL 1-1/4" BANDING STRAPS.
  - A. STACK TWO CONTAINERS AS SHOWN. BE SURE TO ALIGN THE STACKING FEATURES.
  - B. FEED UNITIZING STRAP THROUGH FORK POCKETS OF BOTH CONTAINERS. (2 PLACES)
  - C. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE-NOTCHED SEAL.

**(UNITIZATION AND HANDLING GUIDANCE CONTINUED)**

4. CONTAINER OR CONTAINER STACK HANDLING:
  - A. ONLY APPROVED AND APPROPRIATELY SIZED MATERIALS HANDLING EQUIPMENT WILL BE USED FOR HANDLING THE DEPICTED CONTAINERS. APPROVED MATERIAL HANDLING EQUIPMENT (FORKLIFT TRUCKS, CRANES, HAND TRUCKS, DOLLIES, ROLLER ASSEMBLIES, SLINGS, SPREADER BARS, ETC.) IS SPECIFIED ELSEWHERE.
  - B. PRECAUTIONARY HANDLING TECHNIQUES NORMALLY EMPLOYED OR AS SPECIFIED FOR THE TYPE OF COMMODITY INVOLVED WILL BE OBSERVED.
  - C. IF HANDLING IS ACCOMPLISHED WITH A FORKLIFT TRUCK, THE CONTAINERS SHOULD BE HANDLED FROM A SIDE POSITION AS MUCH AS POSSIBLE. CARE MUST BE EXERCISED WHEN INSERTING FORKS UNDER A CONTAINER, TO PREVENT DAMAGE TO THE CONTAINER BY THE FORK TINES OR THE FORKLIFT PACKAGE GUARD.
  - D. WHEN UNLOADING A CONTAINER OR CONTAINER STACK FROM THE VAN TRAILER, THE FORKLIFT TINES WILL BE INSERTED UNDER THE LOWER CONTAINER, THE FORKLIFT WILL THEN ELEVATE THE END SLIGHTLY ABOVE THE FLOOR, AND BEGIN DRAGGING THE CONTAINER OR STACK FROM THE TRAILER AFTER ATTACHING A CHAIN OR WEB STRAP FROM A LOWER CONTAINER LIFT POINT AROUND THE FORKLIFT MAST TO A LIFT POINT OF THE OPPOSITE SIDE OF THE CONTAINER.

(CONTINUED AT RIGHT)



FORWARD END OF TRAILER

**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① UNITIZING STRAP, 1-1/4" X .035" OR .031" X 10'-10" (16 REQD). INSTALL TO UNITIZE CONTAINER IN THE SECOND LAYER OF THE STACK TO THE CONTAINER ON THE THIRD LAYER OF THE STACK. NOTE: THE LOAD SHOWN ABOVE DEPICTS THE CONTAINERS IN THE FIRST AND SECOND LAYERS AND THE THIRD AND FOURTH LAYERS AS BEING UNITIZED USING THE CONTAINER INTERLOCKS AND THE THIRD LAYER AS BEING UNITIZED USING STEEL STRAPPING. IF DESIRED, ALL LAYERS CAN BE UNITIZED USING STRAPPING. SEE THE DETAILS ON PAGE 3.
- ② SEAL FOR 1-1/4" STEEL STRAPPING (16 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 22.
- ③ CRIB FILL ASSEMBLY A (4 REQD, 2 FOR THREE HIGH LOADS AND 2 FOR FOUR HIGH LOADS). SEE THE DETAIL ON PAGE 18 AND SPECIAL NOTE 2 ON PAGE 5.
- ④ REAR BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 21 AND SPECIAL NOTE 3 ON PAGE 5.

SPECIAL NOTES:

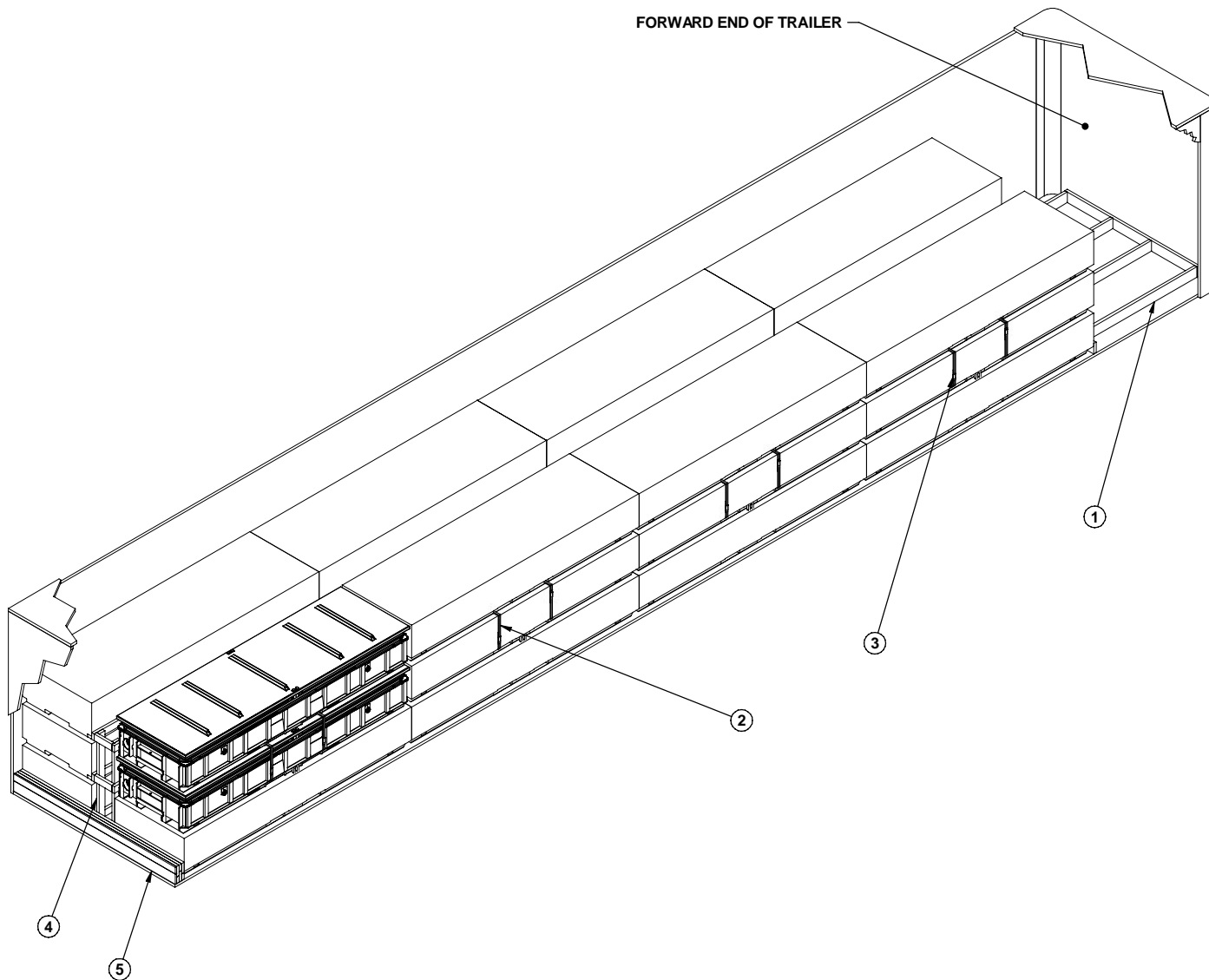
1. A 48'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER WITH SQUARE FRONT IS SHOWN. IF A TRAILER WITH ROUNDED FRONT CORNERS IS TO BE LOADED, THE FORWARD BLOCKING ASSEMBLY "B" MUST BE USED, SEE THE DETAIL ON PAGE 20. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT CONTAINERS EXCEEDS 6".
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE CONTAINERS AND THE REAR DOOR IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY A" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. 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 THE REAR HEADER ON PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE.
4. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	627	418
2" X 6"	22	22
NAILS	NO. REQD	POUNDS
10d (3")	472	7-1/2
STEEL STRAPPING, 1-1/4" - - 174' REQD - - - 25 LBS		
SEAL FOR 1-1/4" STRAPPING - - 16 REQD - - - 3/4 LB		

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	- - - - 28 - - - - -	41,244 LBS
DUNNAGE	- - - - -	912 LBS
<b>TOTAL WEIGHT</b> - - - - -		<b>42,156 LBS (APPROX)</b>



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① FORWARD BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 19.
- ② UNITIZING STRAP, 1-1/4" X .035" OR .031" X 10'-10" (16 REQD). INSTALL TO UNITIZED CONTAINER IN THE CENTER OF THE STACK TO THE CONTAINER ON THE TOP OF THE STACK. **NOTE:** THE LOAD SHOWN ABOVE DEPICTS THE CONTAINERS IN THE FIRST AND SECOND LAYERS AS BEING UNITIZED USING THE CONTAINER INTERLOCKS AND THE THIRD LAYER AS BEING UNITIZED USING STEEL STRAPPING. IF DESIRED, ALL THREE LAYERS CAN BE UNITIZED USING STRAPPING. SEE THE DETAILS ON PAGE 3.
- ③ SEAL FOR 1-1/4" STEEL STRAPPING (16 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 22.
- ④ CRIB FILL ASSEMBLY A (4 REQD). SEE THE DETAIL ON PAGE 18 AND SPECIAL NOTE 2 ON PAGE 7.
- ⑤ REAR BLOCKING ASSEMBLY C (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 7.

**SPECIAL NOTES:**

1. A 53'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT CONTAINERS EXCEEDS 6".
3. IF THE SPACE AT THE REAR OF THE LOAD, BETWEEN THE CONTAINERS AND THE REAR DOOR IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY C" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21. **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 THE REAR HEADER ON PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE.
4. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED.

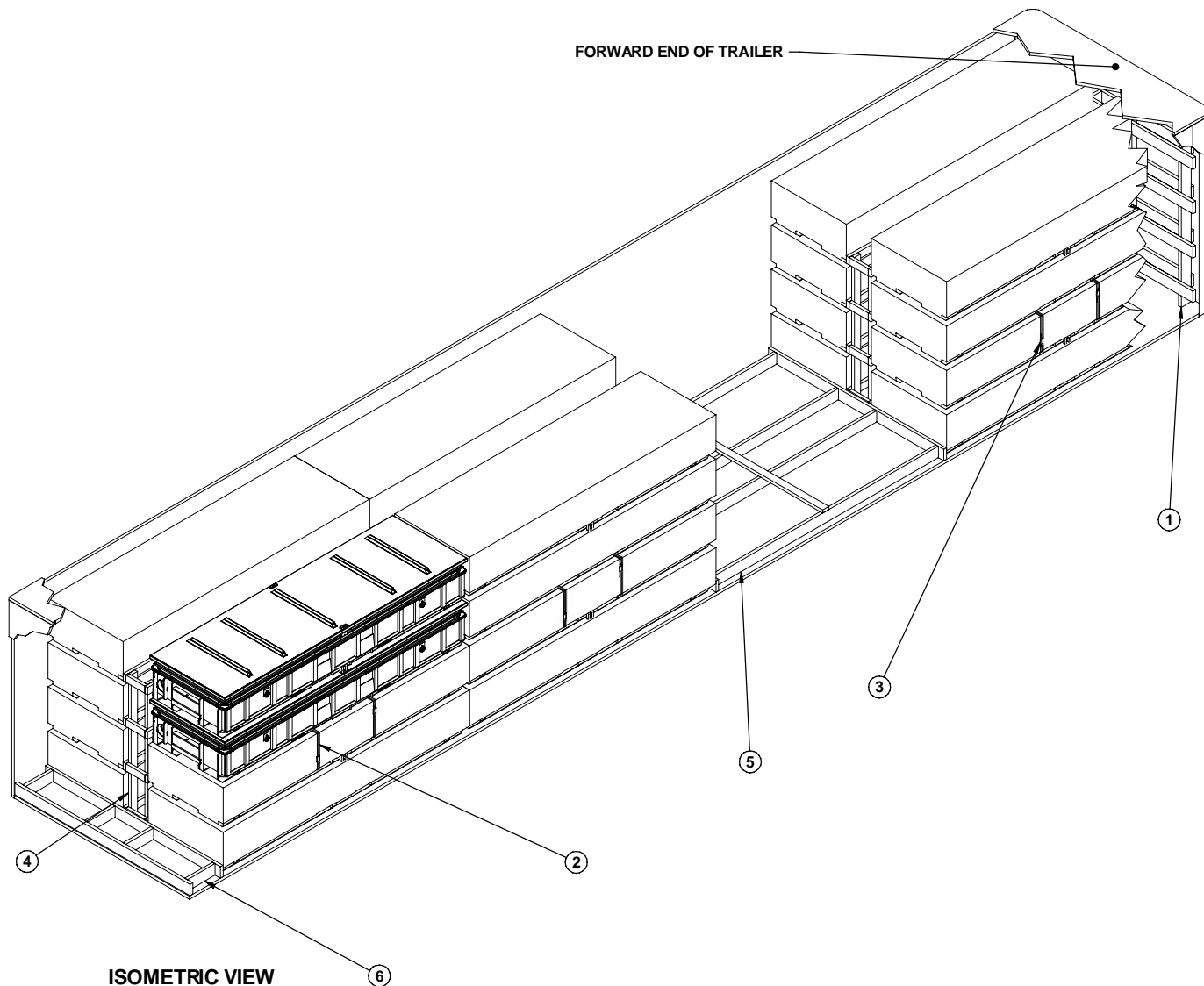
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	9	3
1" X 6"	9	4
2" X 4"	405	270
2" X 6"	63	63
NAI LS	NO. REQD	POUNDS
6d (2")	18	NIL
10d (3")	366	5-3/4
STEEL STRAPPING, 1-1/4" - - 174' REQD - - - 25 LBS		
SEAL FOR 1-1/4" STRAPPING - - 16 REQD - - - 3/4 LB		

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	24	35,352 LBS
DUNNAGE		710 LBS
<b>TOTAL WEIGHT</b>		<b>36,062 LBS (APPROX)</b>

FORWARD END OF TRAILER



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① FORWARD BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 20.
- ② UNITIZING STRAP, 1-1/4" X .035" OR .031" X 10'-10" (12 REQD). INSTALL TO UNITIZE CONTAINER IN THE SECOND LAYER OF THE STACK TO THE CONTAINER ON THE THIRD LAYER OF THE STACK. NOTE: THE LOAD SHOWN ABOVE DEPICTS THE CONTAINERS IN THE FIRST AND SECOND LAYERS AND THE THIRD AND FOURTH LAYERS AS BEING UNITIZED USING THE CONTAINER INTERLOCKS AND THE THIRD LAYER AS BEING UNITIZED USING STEEL STRAPPING. IF DESIRED, ALL LAYERS CAN BE UNITIZED USING STRAPPING. SEE THE DETAILS ON PAGE 3.
- ③ SEAL FOR 1-1/4" STEEL STRAPPING (12 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL. SEE THE "END-OVER-END LAP JOINT DETAILS" ON PAGE 22.
- ④ CRIB FILL ASSEMBLY A (3 REQD). SEE THE DETAIL ON PAGE 18 AND SPECIAL NOTE 2 ON PAGE 9.
- ⑤ CENTER SPACER ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 17 AND SPECIAL NOTE 4 ON PAGE 9.
- ⑥ REAR BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 21 AND SPECIAL NOTE 3 ON PAGE 9.



**SPECIAL NOTES:**

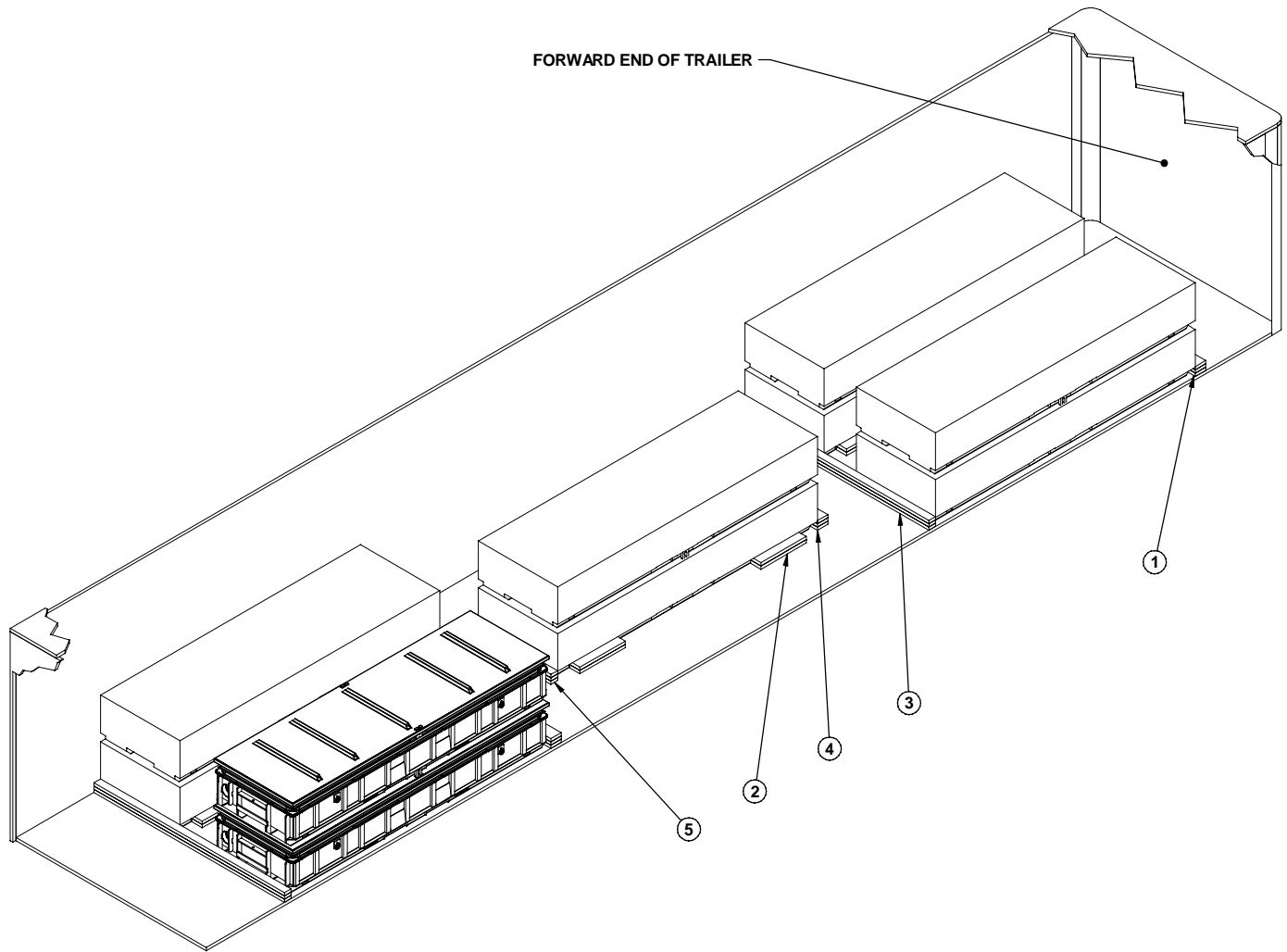
1. A 48'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER WITH ROUNDED FRONT IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT CONTAINERS EXCEEDS 6".
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE CONTAINERS AND THE REAR DOOR IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY A" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. 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 THE REAR HEADER ON PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE.
4. IF THE TRAILER BEING LOADED IS EQUIPPED WITH A WOOD OR WOOD AND METAL FLOOR, AND IF DESIRED, NAILED HEADERS MAY BE USED IN LIEU OF CENTER SPACER ASSEMBLIES. SEE THE LOAD ON PAGE 10 FOR DETAILS.
5. THE DEPICTED LOAD CAN BE ADJUSTED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED.

**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	395	264
2" X 6"	168	168
NAI LS	NO. REQD	POUNDS
10d (3")	440	7
STEEL STRAPPING, 1-1/4" - - 130' REQD - - 19 LBS		
SEAL FOR 1-1/4" STRAPPING - - 12 REQD - - 3/4 LB		

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	- - - - 24 - - - - -	35,352 LBS
DUNNAGE	- - - - -	888 LBS
<b>TOTAL WEIGHT</b>		<b>36,240 LBS (APPROX)</b>



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① FORWARD HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (TRIPLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. NAIL THE SECOND AND THIRD PIECE TO THE PREVIOUS PIECE W/6-20d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 11.
- ② SIDE BLOCKING, 2" X 6" X 24" (DOUBLED) (12 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/4-10d NAILS. SEE SPECIAL NOTE 2 ON PAGE 11.
- ③ REAR HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (TRIPLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/11-10d NAILS. NAIL THE SECOND AND THIRD PIECE TO THE PREVIOUS PIECE W/11-10d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 11 AND SPECIAL NOTE 3 ON PAGE 11.
- ④ INTERMEDIATE FORWARD HEADER, 2" X 6" X 42" (TRIPLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND AND THIRD PIECE TO THE PREVIOUS PIECE W/5-20d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 11.
- ⑤ INTERMEDIATE REAR HEADER, 2" X 4" X 42" (TRIPLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND AND THIRD PIECE TO THE PREVIOUS PIECE W/5-10d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 11.

FORWARD HEADER NAILING CHART*	
#NAILS	MAX. LOAD WEIGHT (LBS)
3	15,000
4	20,000
5	25,000
6	30,000
7	35,000
8	40,000
9	45,000

• 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 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/8-20d NAILS, FOR A TOTAL OF 8-10d AND 8-20d NAILS PER HEADER.

REAR HEADER NAILING CHART*	
#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
13	32,500
14	35,000
15	37,500
16	40,000
17	42,500
18	45,000

\* 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 2" X 6" MATERIAL WITH 10d AND 20d NAILS, IF DESIRED.

**SPECIAL NOTES:**

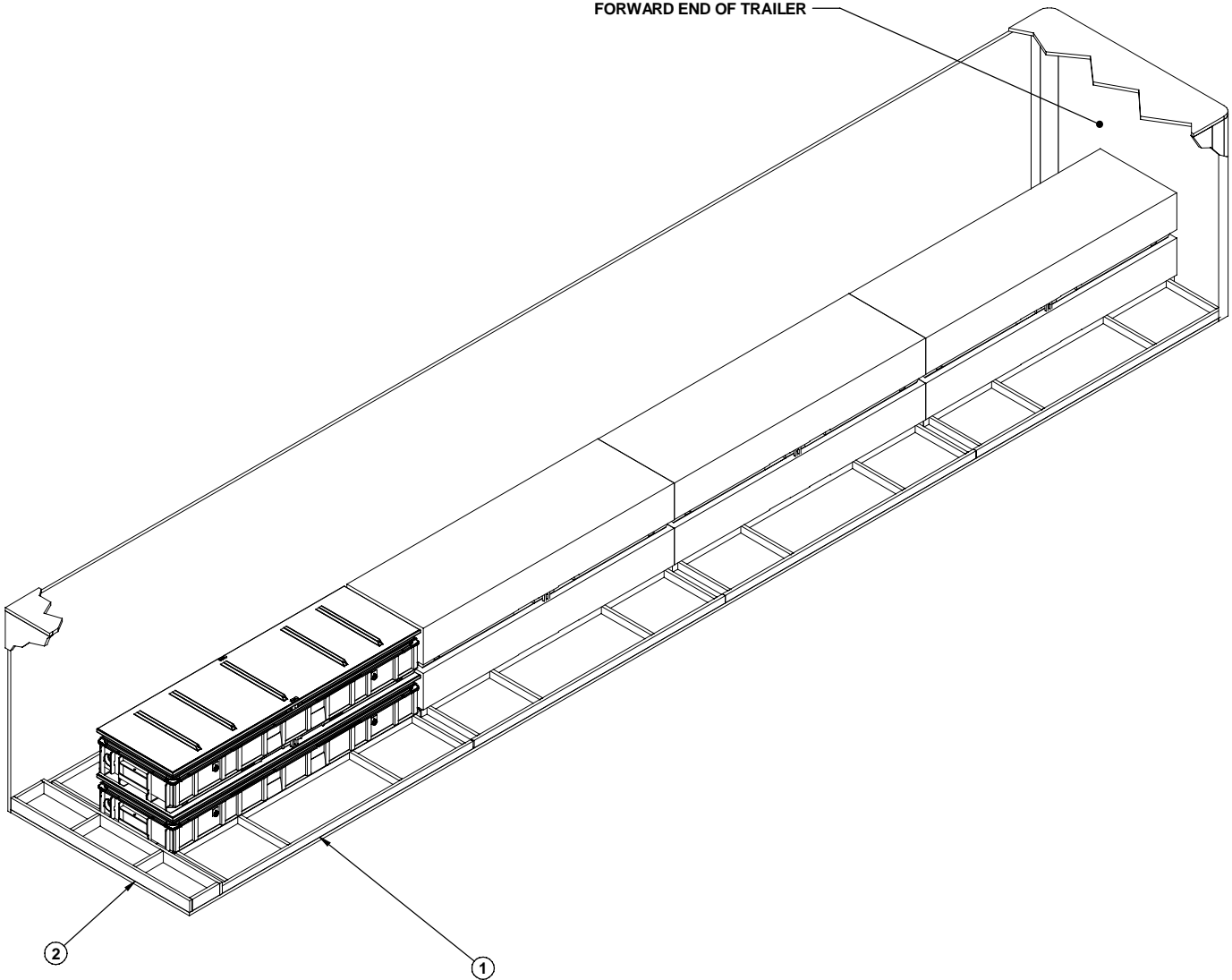
1. A 48'-0" LONG BY 8'-5" WIDE (INSIDE DIMENSION) VAN TRAILER WITH ROUNDED FRONT CORNERS IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. SIDE BLOCKING OR CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT CONTAINERS EXCEEDS 6", AS MEASURED FROM CONTAINER TO CONTAINER.
3. IF THE SPACE AT THE REAR OF THE LOAD, BETWEEN THE PALLET UNITS AND THE REAR DOOR IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED. IF THE TRAILER IS EQUIPPED WITH A METAL THRESHOLD PLATE AND IT INTERFERES WITH THE NAILING OF THE REAR HEADER, ONE OF THE REAR BLOCKING ASSEMBLIES DESCRIBED BELOW MUST BE INSTALLED. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY A" AS DETAILED ON PAGE 21.
4. THE SPLIT IN THE LOAD CONFIGURATION ON PAGE 11 IS SHOWN AS TYPICAL ONLY. CONTAINERS MAY BE SHIFTED FORE OR AFT, THE QUANTITY IN EACH LOAD BAY MAY BE ADJUSTED, OR ALL THE CONTAINERS MAY BE GROUPED TOGETHER IN ONE LOAD BAY AS NEEDED TO SUIT THE QUANTITY TO BE SHIPPED, OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED OR THE SUPPLIED EQUIPMENT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	62	41
2" X 6"	110	110
NAILS	NO. REQD	POUNDS
10d (3")	159	2-1/2
20d (4")	30	1-1/4

**LOAD AS SHOWN**

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	10	14,730 LBS
DUNNAGE		304 LBS
<b>TOTAL WEIGHT</b>		<b>15,034 LBS (APPROX)</b>

FORWARD END OF TRAILER



**ISOMETRIC VIEW**

**KEY NUMBERS**

- ① SIDE FILL ASSEMBLY (8 REQD). SEE DETAIL ON PAGE 18 AND SPECIAL NOTE 2 ON PAGE 13.
- ② REAR BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 21 AND SPECIAL NOTE 3 ON PAGE 13.

SPECIAL NOTES:

1. A 48'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER IS SHOWN. TRAILERS OF OTHER DIMENSIONS CAN BE USED.
2. IF DESIRED, NAILED SIDE BLOCKING MAY BE USED IN LIEU OF THE SIDE FILL ASSEMBLIES. SEE THE LOAD ON PAGE 10 FOR DETAILS.
3. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE PALLET UNITS AND THE REAR DOOR IS 9" OR GREATER, USE THE "REAR BLOCKING ASSEMBLY B" AS SHOWN. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9", USE THE "REAR BLOCKING ASSEMBLY C" AS DETAILED ON PAGE 22. 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 THE REAR HEADER ON PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE.

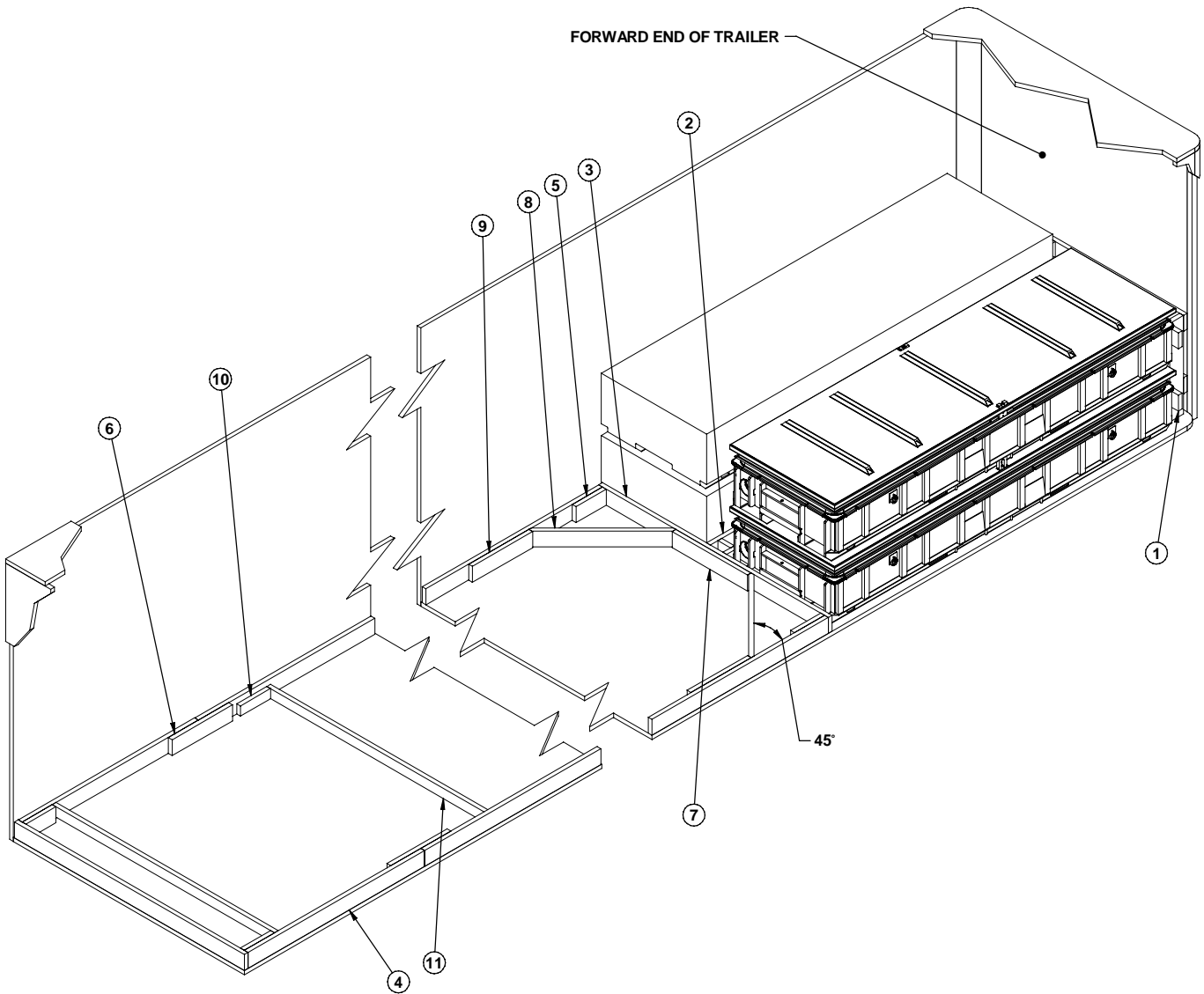
**BILL OF MATERIAL**

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	257	172
2" X 6"	22	22
NAI LS	NO. REQD	POUNDS
10d (3")	78	2-1/2

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER	8	11,784 LBS
DUNNAGE		388 LBS
<b>TOTAL WEIGHT</b>		<b>12,172 LBS (APPROX)</b>

FORWARD END OF TRAILER



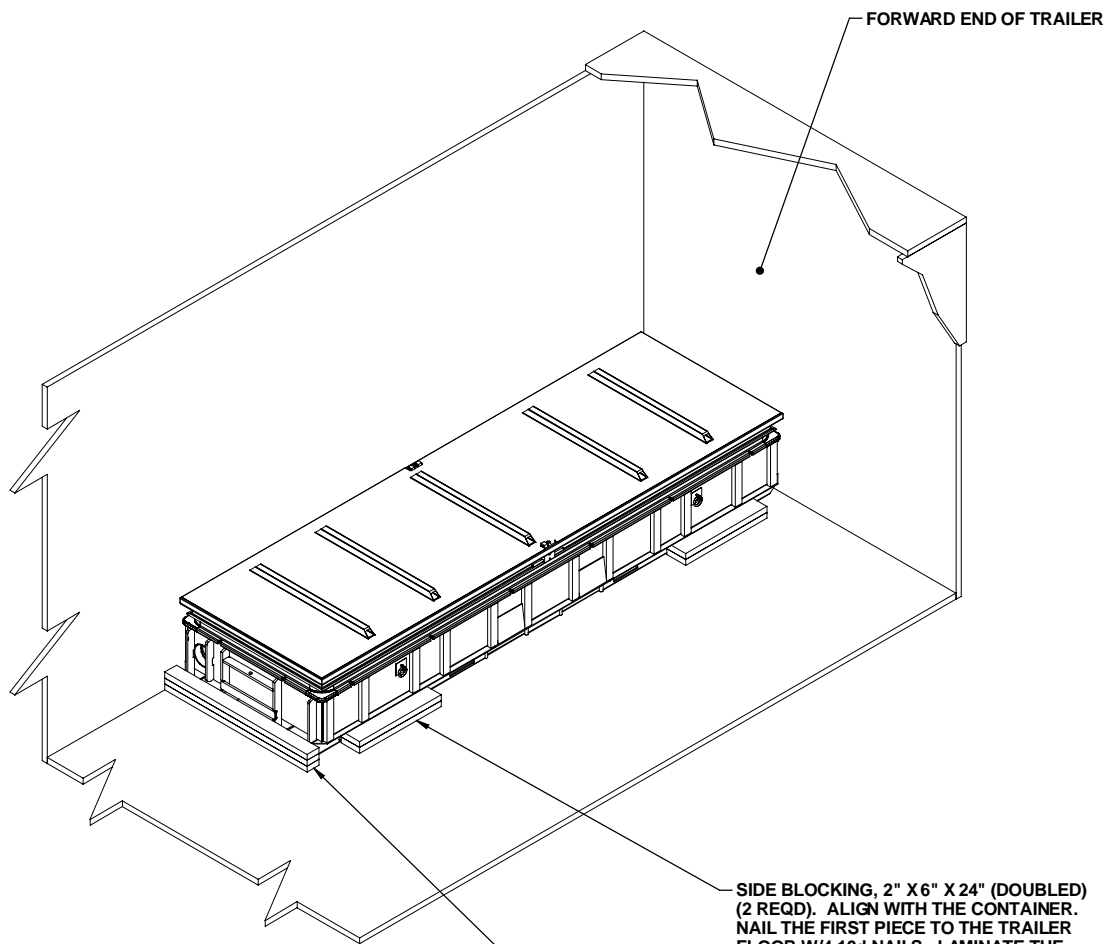
**ISOMETRIC VIEW**

**SPECIAL NOTES:**

1. A 7'-8" WIDE (INSIDE DIMENSION) VAN TRAILER IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN LATERALLY ADJACENT CONTAINERS EXCEEDS 6".
3. DEPENDING ON THE NUMBER OF UNITS BEING LOADED, EACH OF THE SIDE STRUTS 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.
4. ALL LTL LOADS, REGARDLESS OF THEIR SIZE, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO POCKET CLEAT. IF THE SIDE STRUTS ARE LONGER THAN 7'-0", AN ADDITIONAL STRUT BRACE AND TWO STRUT BRACE RETAINING CLEATS MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH.
5. THE "K-BRACE" BLOCKING IS ADEQUATE FOR RETAINING A MAXIMUM LTL LOAD OF 20,000 POUNDS.
6. 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. REFER TO PAGE 10 AND THE HEADER NAILING CHARTS ON PAGE 11 FOR GUIDANCE. NOTE THAT THE NAILED-HEADER METHOD OF REAR BLOCKING MAY ALSO BE USED IN TRAILERS EQUIPPED WITH HINGED DOORS AND NAILABLE FLOORS.

**KEY NUMBERS**

- ① FORWARD BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 20.
- ② CRIB FILL ASSEMBLY B (2 REQD). INSTALL BETWEEN LATERALLY ADJACENT CONTAINERS. SEE THE DETAIL ON PAGE 18 AND SPECIAL NOTE 2 AT LEFT.
- ③ HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD).
- ④ SIDE STRUT, 2" X 6" BY CUT TO FIT BETWEEN THE FORWARD AND REAR HEADERS (2 REQD). SEE SPECIAL NOTE 3 AT LEFT.
- ⑤ POCKET CLEAT, 2" X 6" X 12" (4 REQD). NAIL TO A SIDE STRUT W/3-10d NAILS. TOENAIL TO THE ADJACENT HEADER W/3-12d NAILS.
- ⑥ SPLICE PIECE, 2" X 6" X 24" (AS REQD). CENTER ON THE JOINT OF A SIDE STRUT AND NAIL W/4-10d NAILS AT EACH END.
- ⑦ CENTER CLEAT, 2" X 6" X 30" (1 REQD). NAIL TO A HEADER W/6-10d NAILS.
- ⑧ 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 W/2-16d NAILS AT EACH END.
- ⑨ BACK-UP CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO A SIDE STRUT W/8-10d NAILS.
- ⑩ STRUT BRACE RETAINING CLEAT, 2" X 4" X 12" (AS REQD). NAIL TO A SIDE STRUT W/3-10d NAILS.
- ⑪ STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQUIRED). NAIL TO THE POCKET CLEATS AND/OR TO THE STRUT BRACE RETAINING CLEATS W/2-12d NAILS AT EACH END. SEE SPECIAL NOTE 4 AT LEFT.



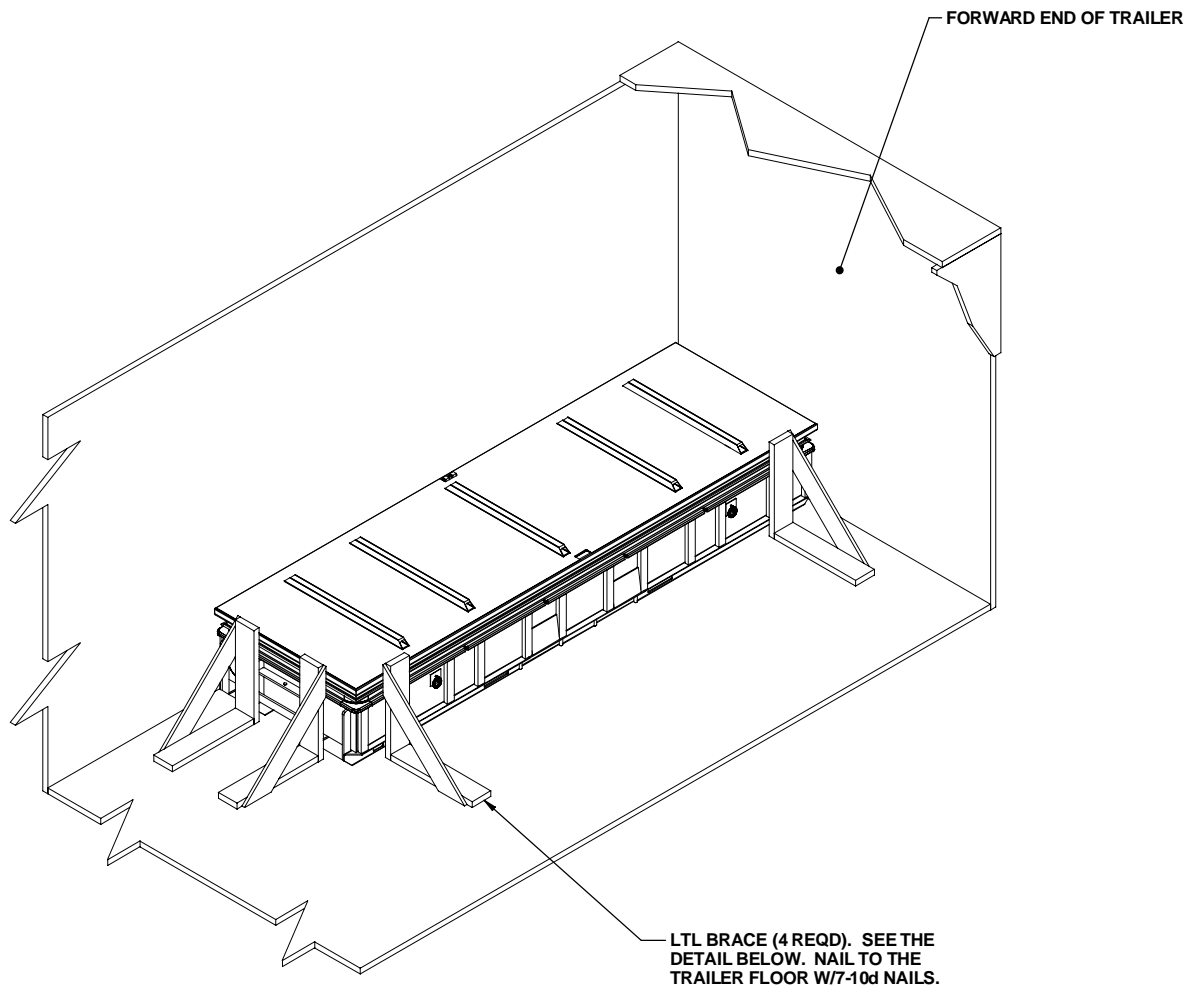
**ISOMETRIC VIEW**

SIDE BLOCKING, 2" X 6" X 24" (DOUBLED)  
(2 REQD). ALIGN WITH THE CONTAINER.  
NAIL THE FIRST PIECE TO THE TRAILER  
FLOOR W/4-10d NAILS. LAMINATE THE  
SECOND TO THE FIRST W/4-10d NAILS.

HEADER, 2" X 4" X 42" (TRIPLED)  
(1 REQD). CENTER ON THE CONTAINER.  
NAIL THE FIRST PIECE TO THE TRAILER  
FLOOR W/4-10d NAILS. LAMINATE THE  
SECOND AND THIRD TO THE PREVIOUS  
PIECE W/4-10d NAILS.

**SPECIAL NOTES:**

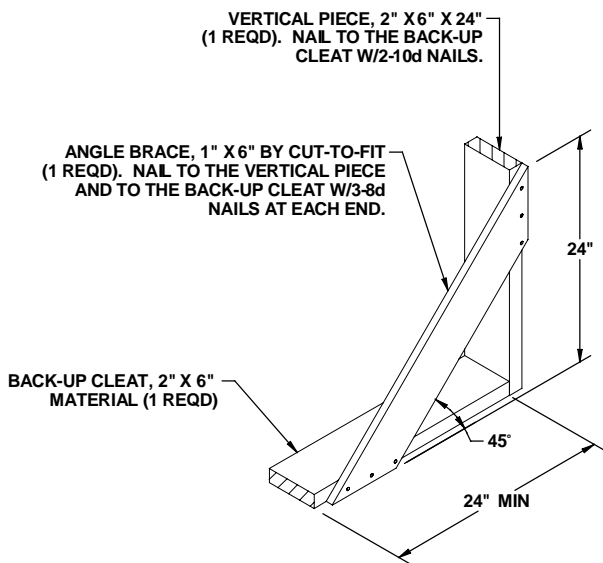
1. AN 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH HAS A SQUARE FRONT AND NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE POSITIONING OF A UNIT IS OPTIONAL. UNITS MAY BE LOCATED IN THE CORNER OF THE TRAILER. IF THE TRAILER DOES NOT HAVE A SQUARE FRONT, A FORWARD BLOCKING ASSEMBLY MUST BE INSTALLED WHEN POSITIONING A UNIT IN THE CORNER OF THE TRAILER. SEE THE DETAILS ON PAGES 19 AND 20.
3. MORE THAN ONE CONTAINER CAN BE SHIPPED. THE LOAD SHOULD BE FORMED IN ROWS, WITH THE CONTAINERS POSITIONED AGAINST OPPOSITE SIDEWALLS. THE PROPER CRIB FILL WILL BE INSTALLED BETWEEN THE LATERALLY ADJACENT CONTAINERS. SEE THE DETAILS ON PAGE 18.
4. THE HEADER AS APPLIED ABOVE FOR LONGITUDINAL BRACING WILL SUPPORT 20,000 POUNDS OF LADING; A TRAILER WIDTH HEADER WILL SUPPORT UP TO A FULL TRAILER LOAD OF CONTAINERS. SEE THE HEADER NAILING CHARTS ON PAGE 11.



**ISOMETRIC VIEW**

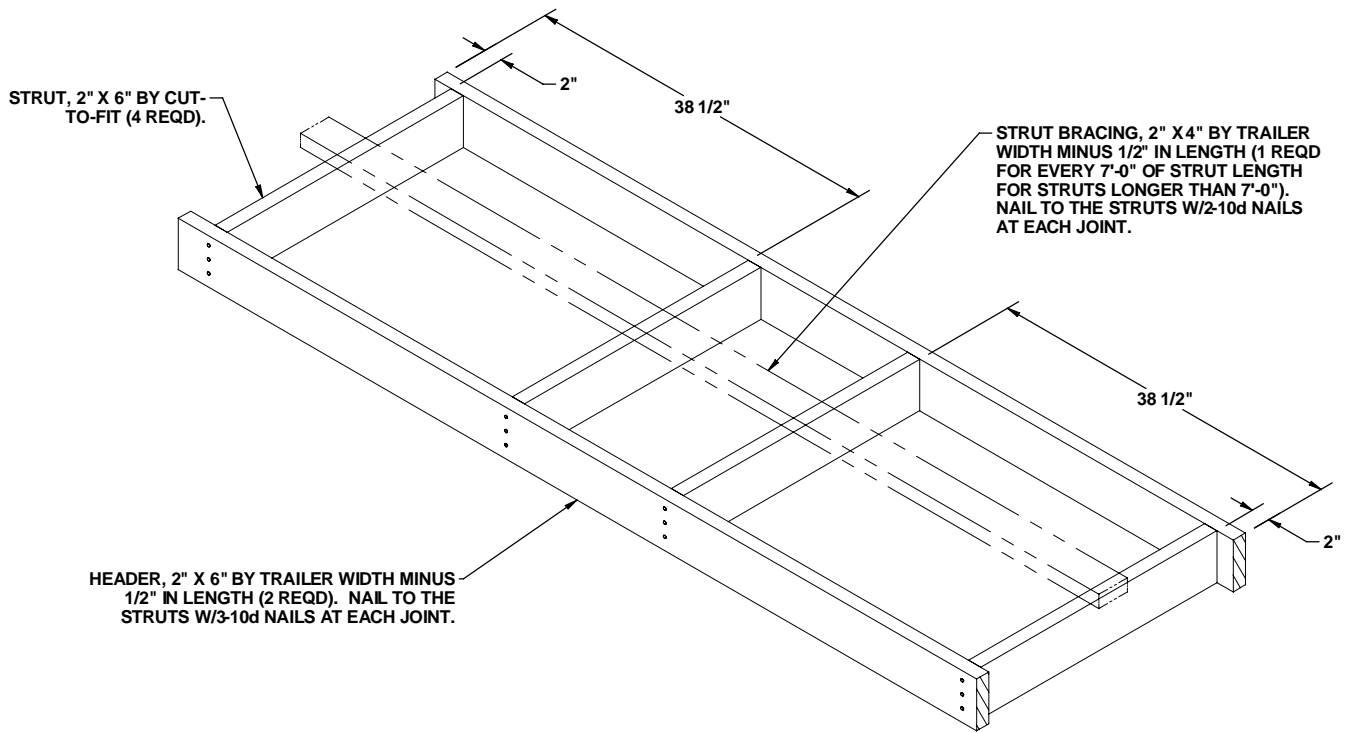
**SPECIAL NOTES:**

1. A 7'-8" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH HAS A NAILABLE FLOOR IS SHOWN. TRAILERS OF OTHER WIDTHS CAN BE USED.
2. THE POSITIONING OF A CONTAINER IS OPTIONAL. CONTAINERS MAY ALSO BE LOCATED CENTERED IN THE TRAILER, IF DESIRED. IF THE TRAILER DOES NOT HAVE A SQUARE FRONT, A FORWARD BLOCKING ASSEMBLY MUST BE INSTALLED WHEN POSITIONING A CONTAINER IN THE CORNER OF THE TRAILER. SEE THE DETAILS ON PAGES 19 AND 20.
3. MORE THAN ONE CONTAINER 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 CRIB FILL ASSEMBLY WILL BE INSTALLED BETWEEN THE LATERALLY ADJACENT UNITS. SEE THE DETAILS ON PAGE 18.
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 CONTAINER ACROSS THE WIDTH OF THE TRAILER.



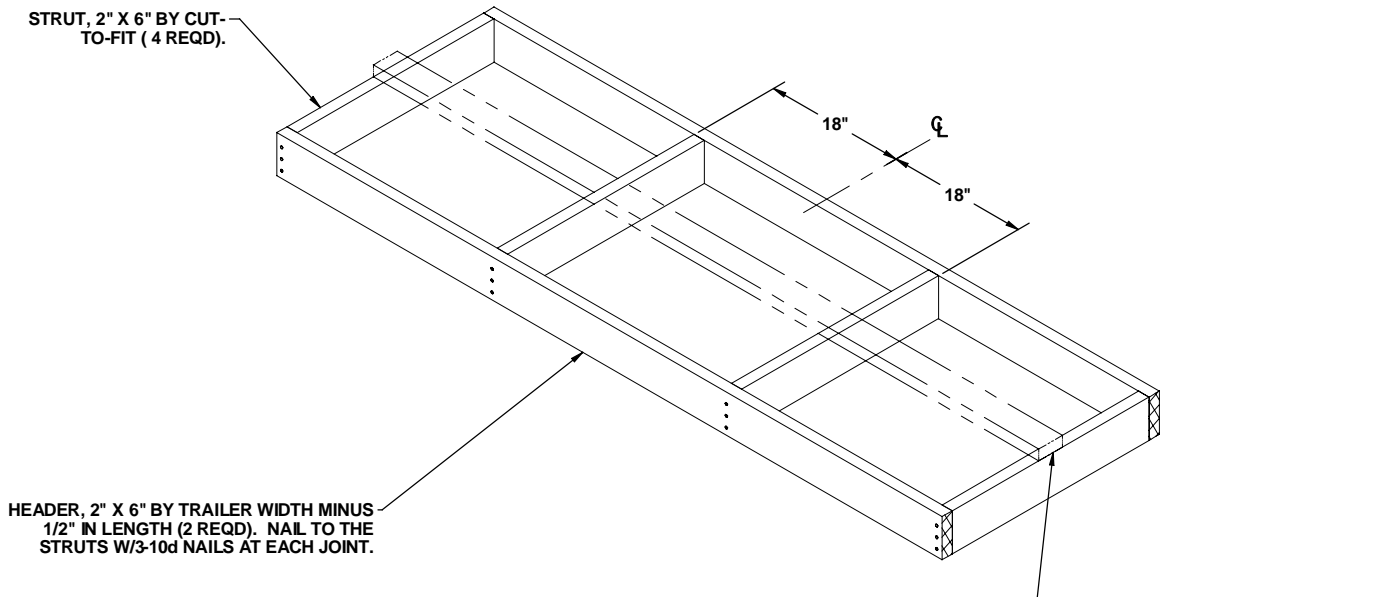
**LTL BRACE**





**CENTER SPACER ASSEMBLY A**

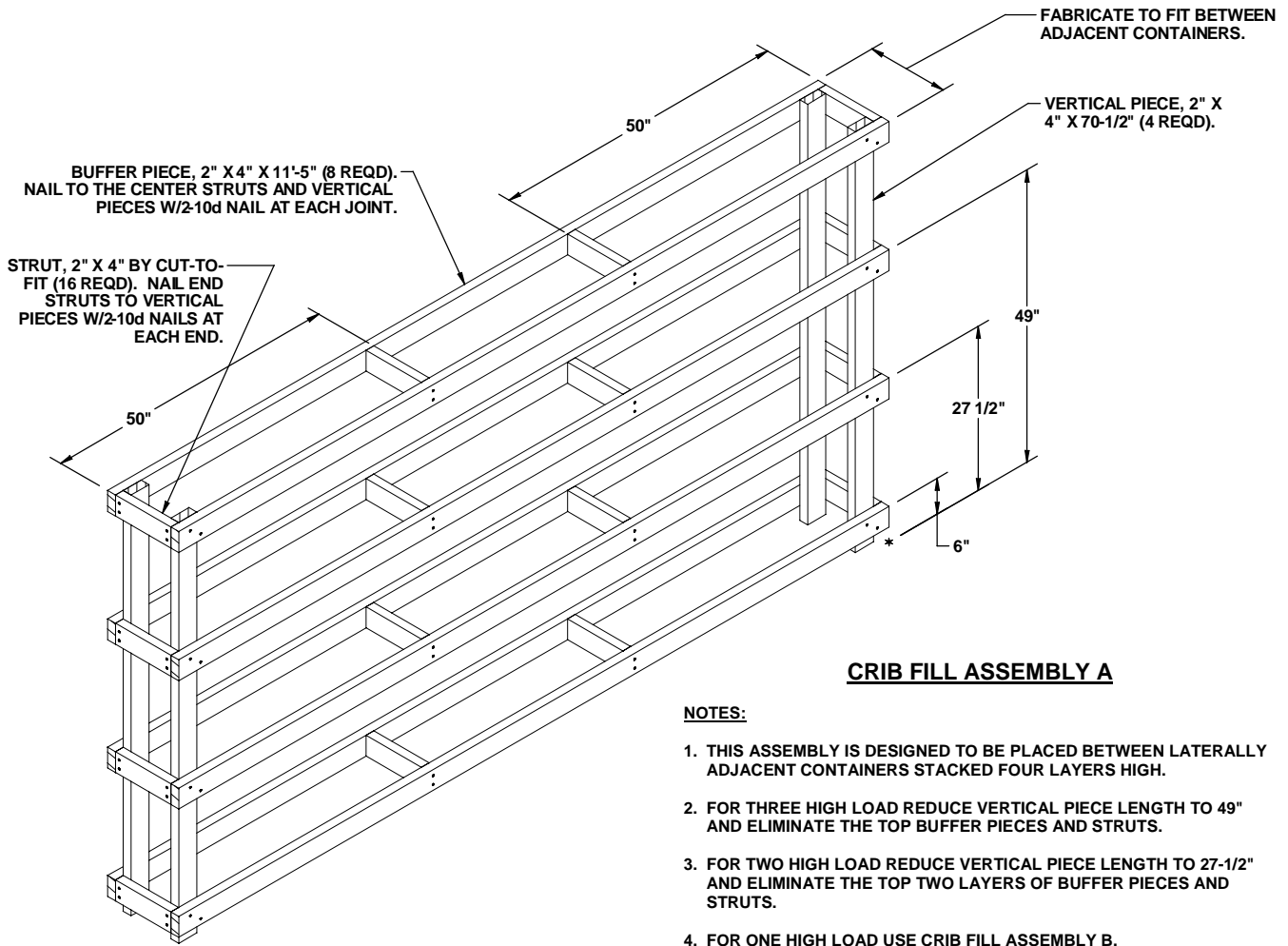
THIS CENTER SPACER ASSEMBLY IS DESIGNED FOR USE WITH CONTAINERS POSITIONED AGAINST THE TRAILER WALLS.



**CENTER SPACER ASSEMBLY B**

THIS CENTER SPACER ASSEMBLY (NOT SHOWN IN LOAD DRAWINGS) IS DESIGNED FOR USE WITH CONTAINERS LOADED AS A SINGLE STACK LOCATED DOWN THE CENTER OF THE TRAILER.

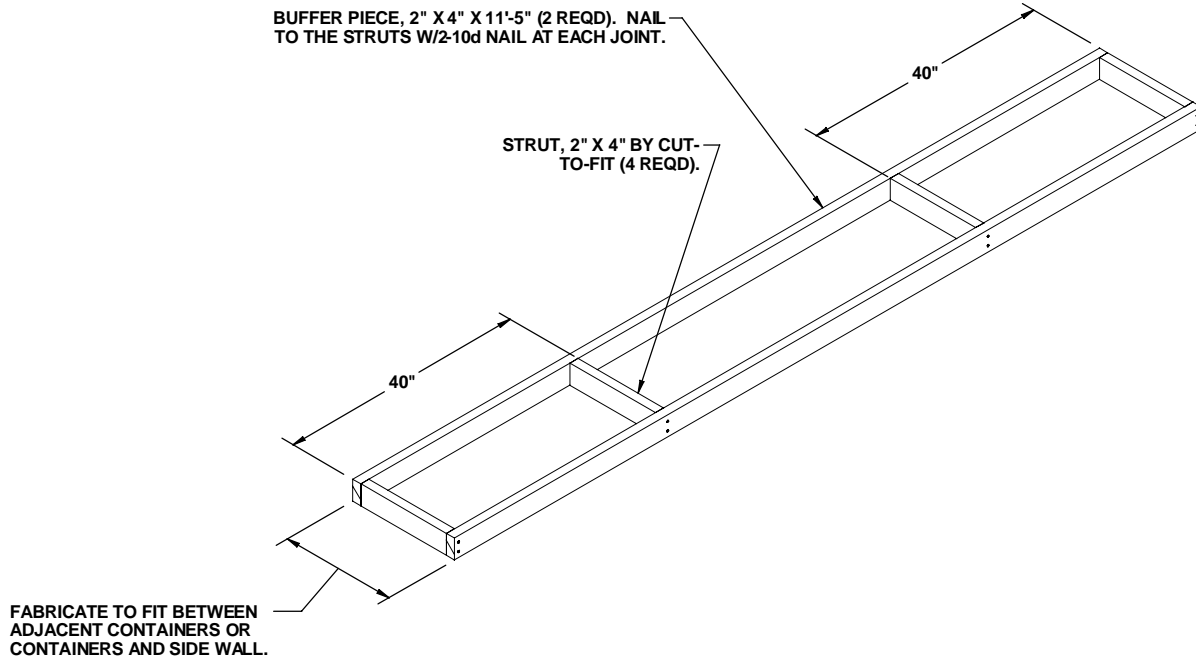
STRUT BRACING, 2" X 4" BY TRAILER WIDTH MINUS 1/2" IN LENGTH (1 REQD FOR EVERY 7'-0" OF STRUT LENGTH FOR STRUTS LONGER THAN 7'-0"). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.



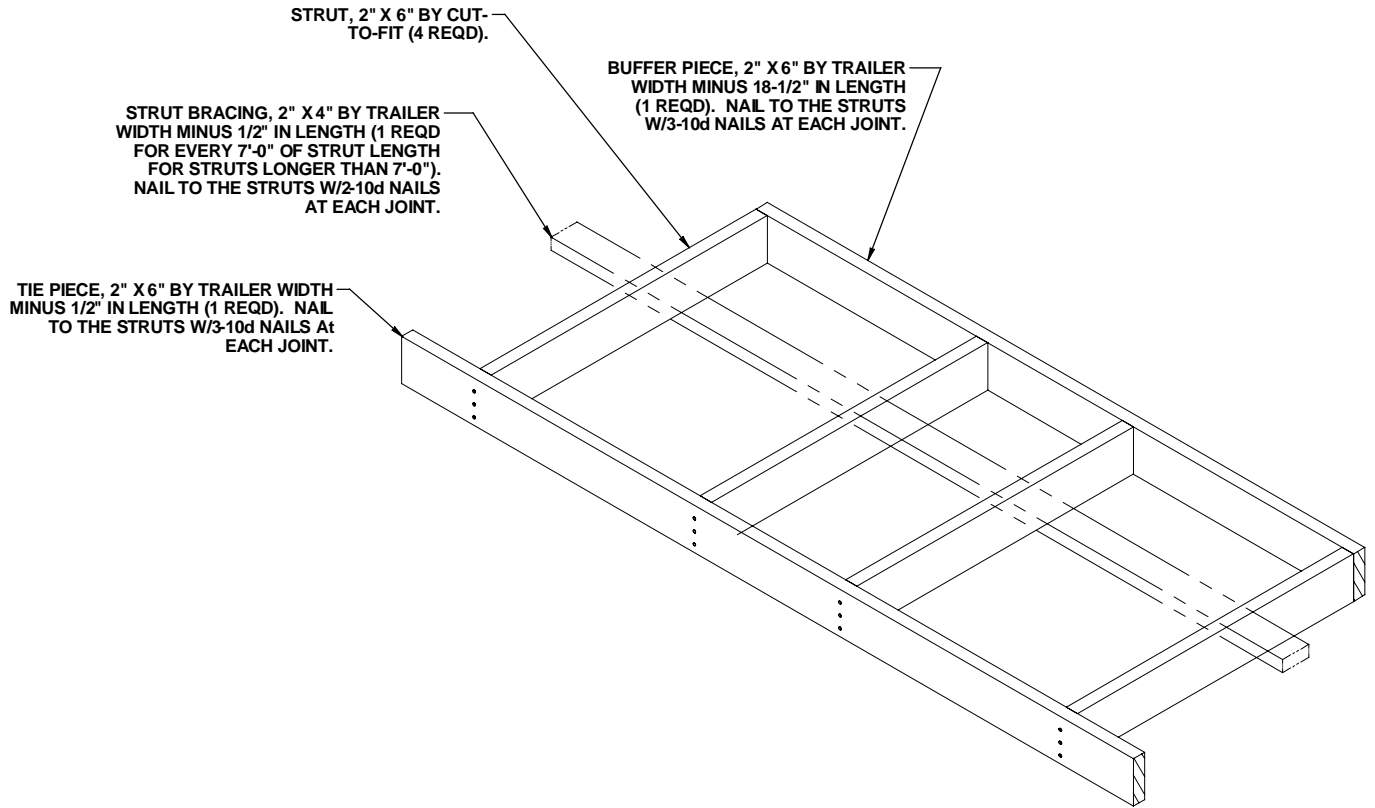
**CRIB FILL ASSEMBLY A**

**NOTES:**

1. THIS ASSEMBLY IS DESIGNED TO BE PLACED BETWEEN LATERALLY ADJACENT CONTAINERS STACKED FOUR LAYERS HIGH.
2. FOR THREE HIGH LOAD REDUCE VERTICAL PIECE LENGTH TO 49" AND ELIMINATE THE TOP BUFFER PIECES AND STRUTS.
3. FOR TWO HIGH LOAD REDUCE VERTICAL PIECE LENGTH TO 27'-1/2" AND ELIMINATE THE TOP TWO LAYERS OF BUFFER PIECES AND STRUTS.
4. FOR ONE HIGH LOAD USE CRIB FILL ASSEMBLY B.

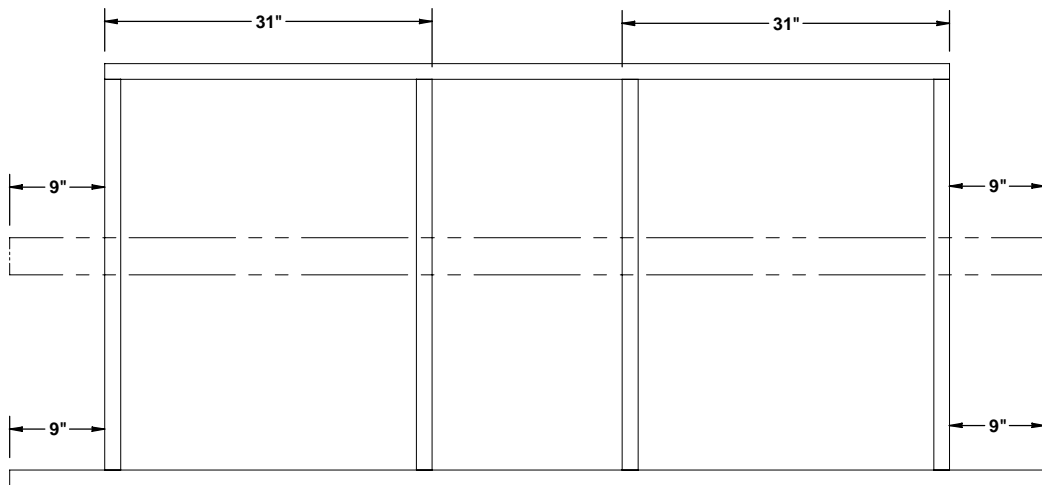


**CRIB FILL ASSEMBLY B/SIDE FILL ASSEMBLY**

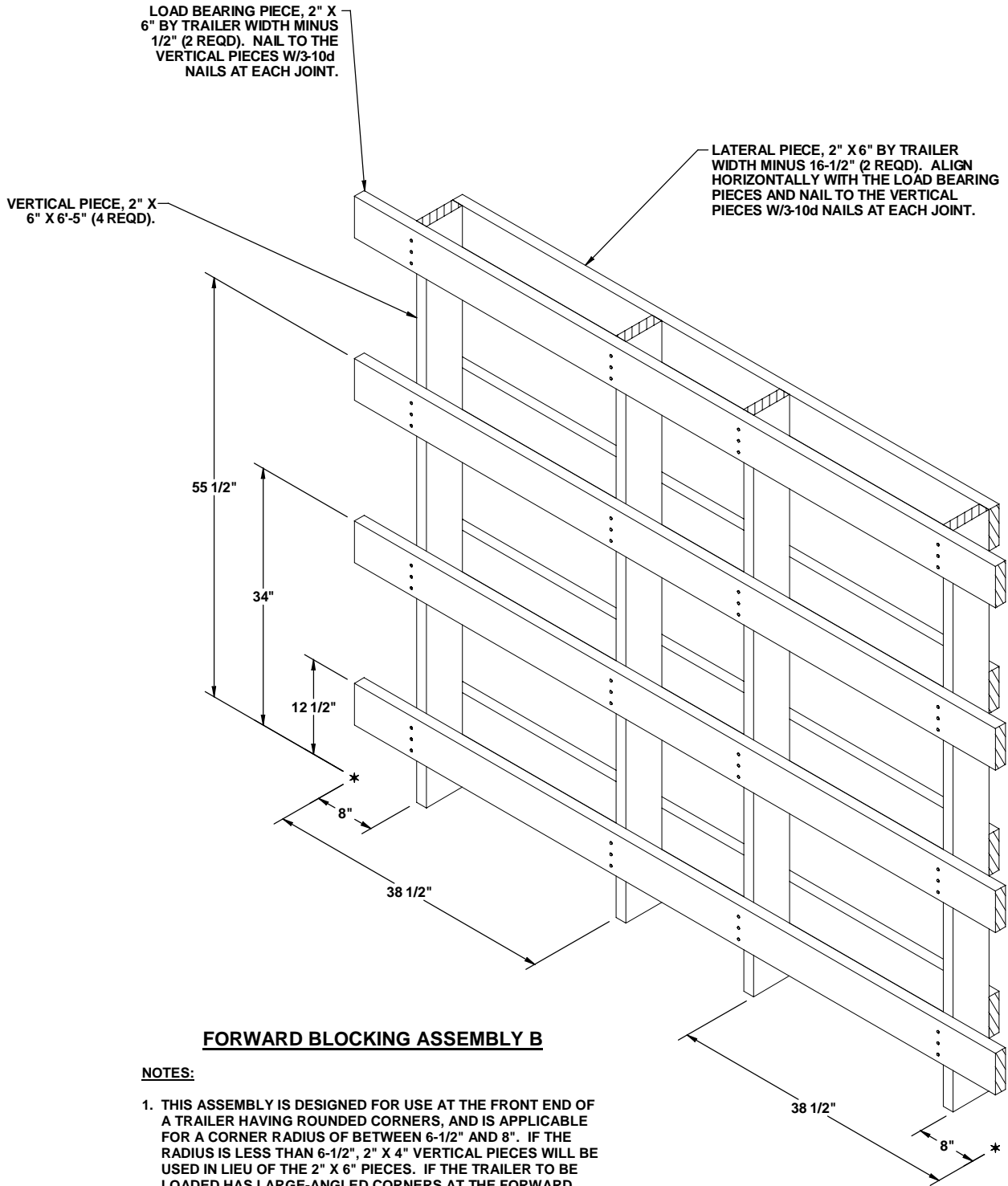


**FORWARD BLOCKING ASSEMBLY B**

**NOTE:** IF THE TRAILER TO BE LOADED HAS SQUARE INSIDE FRONT CORNERS, INCREASE THE BUFFER PIECE LENGTH TO "INSIDE TRAILER WIDTH MINUS 1/2 INCH". INSTALL THE OUTER STRUTS AT THE ENDS OF THE BUFFER AND TIE PIECES.



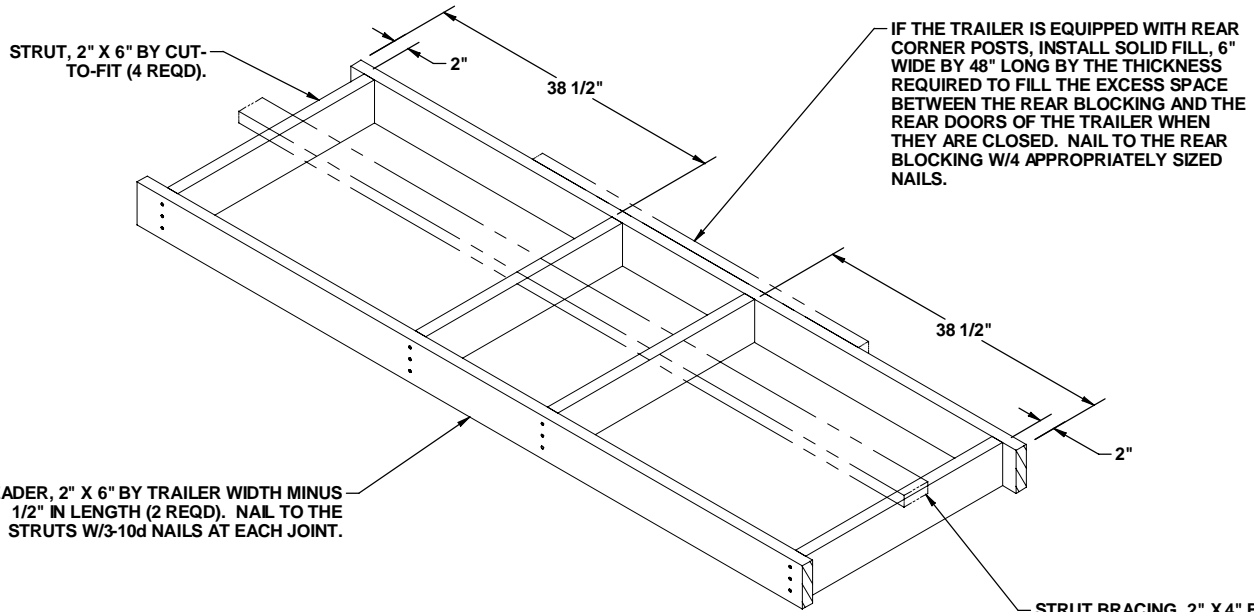
**TOP VIEW**



**FORWARD BLOCKING ASSEMBLY B**

**NOTES:**

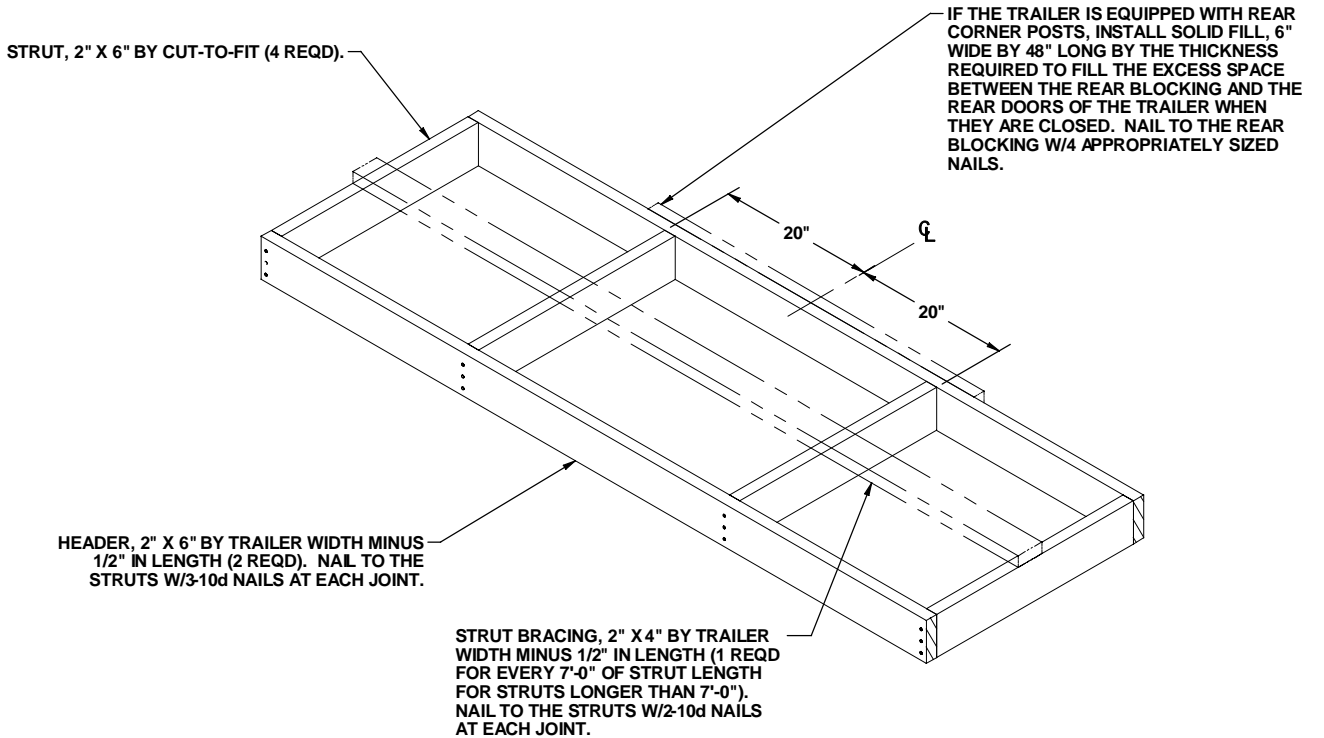
1. THIS ASSEMBLY IS DESIGNED FOR USE AT THE FRONT END OF A TRAILER HAVING ROUNDED CORNERS, AND IS APPLICABLE FOR A CORNER RADIUS OF BETWEEN 6-1/2" AND 8". IF THE RADIUS IS LESS THAN 6-1/2", 2" X 4" VERTICAL PIECES WILL BE USED IN LIEU OF THE 2" X 6" PIECES. IF THE TRAILER TO BE LOADED HAS LARGE-ANGLED CORNERS AT THE FORWARD END, REFER TO PAGE 23 FOR GUIDANCE.
2. FOR THREE HIGH LOAD REDUCE VERTICAL PIECE LENGTH TO 55-1/2" AND ELIMINATE THE TOP LOAD BEARING PIECE AND LATERAL PIECE.
3. FOR TWO HIGH LOAD REDUCE VERTICAL PIECE LENGTH TO 34" AND ELIMINATE THE TOP TWO LOAD BEARING PIECES AND LATERAL PIECES.
4. FOR ONE HIGH LOAD REDUCE VERTICAL PIECE LENGTH TO 12-1/2" AND ELIMINATE THE TOP THREE LOAD BEARING PIECES AND LATERAL PIECES.



**REAR BLOCKING ASSEMBLY A**

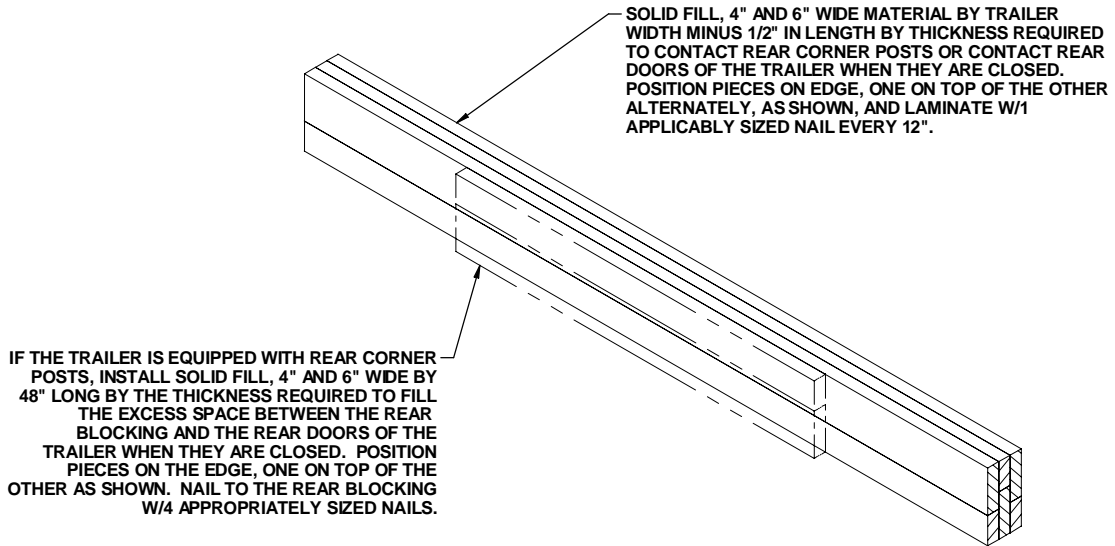
THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOOR IS MORE THAN 9" AND TWO CONTAINERS ARE LOADED ADJACENT TO THE TRAILER DOORS, AS SHOWN ON PAGE 4. NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.

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.



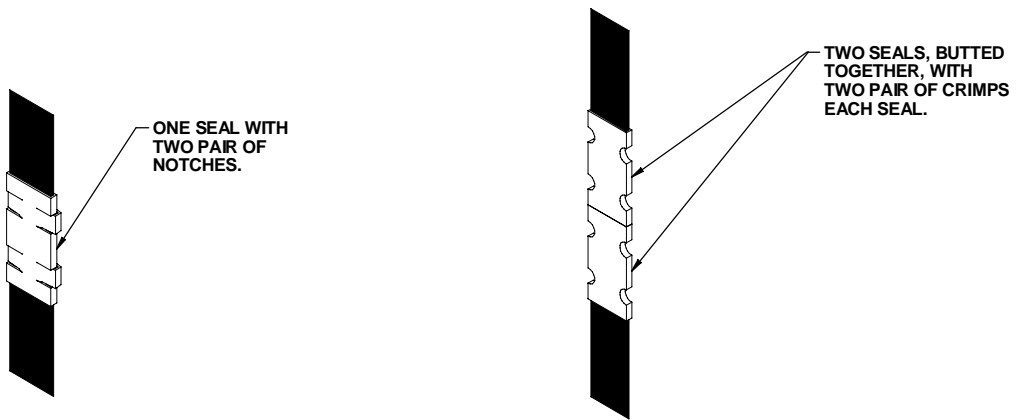
**REAR BLOCKING ASSEMBLY B**

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 ONE ROW OF CONTAINERS IS LOADED ADJACENT TO THE TRAILER DOORS, AS SHOWN ON PAGE 12. NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.



**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 GREATER THAN 1-1/2" BUT LESS THAN 9", AS SHOWN ON PAGE 6. NOTE THAT THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.



**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 STRAP JOINTS**