

LOADING AND BRACING (TL & LTL) IN VAN TRAILERS[●] OF MXU-787 AIRFOIL GROUP PACKED IN CNU-592/E 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 26.							
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PROJECT SP 463-02

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 LOADS OF MXU-787 AIRFOIL GROUP PACKED IN THE CNU-592/E CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH AIRFOIL INSTALLED. SEE PAGE 3 FOR DETAILS OF THE CONTAINER.

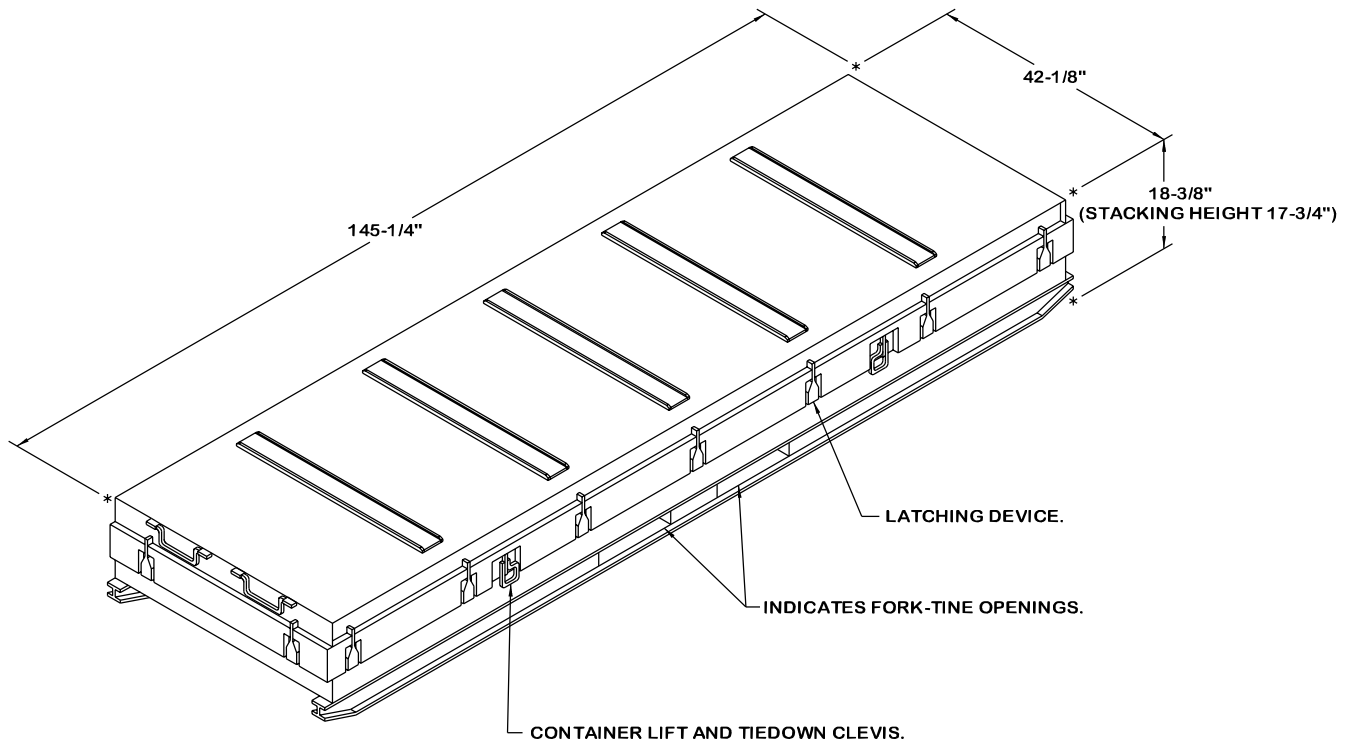
CONTAINER DIMENSIONS - - - - - 12' -1-1/2" LONG X 42-1/8"
 WIDE X 18-3/8" HIGH (STACKING: 17-3/4")
GROSS WEIGHT - - - - - 1,115 POUNDS (APPROX)
CUBE - - - - - 65.2 CUBIC FEET (APPROX)
- C. THE OUTLOADING PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR SHIPMENTS IN CONVENTIONAL TYPE VAN TRAILERS 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 99" 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. SELECTION OF A VEHICLE FOR THE TRANSPORT OF THE DESIGNATED ITEM IS THE RESPONSIBILITY OF THE ORIGINATING CARRIER AND THE SHIPPER. ONLY VEHICLES IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE REGULATORY DOCUMENTS WILL BE SELECTED FOR USE.
- E. 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.
- F. **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.
- G. THE "LOAD AS SHOWN" FOR MOST OF THE FULL LOADS DEPICTED HEREIN IS BASED ON AN APPROXIMATE LADING WEIGHT OF 39,000 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.
- H. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH CNU-592/E 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.

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MATERIAL SPECIFICATIONS

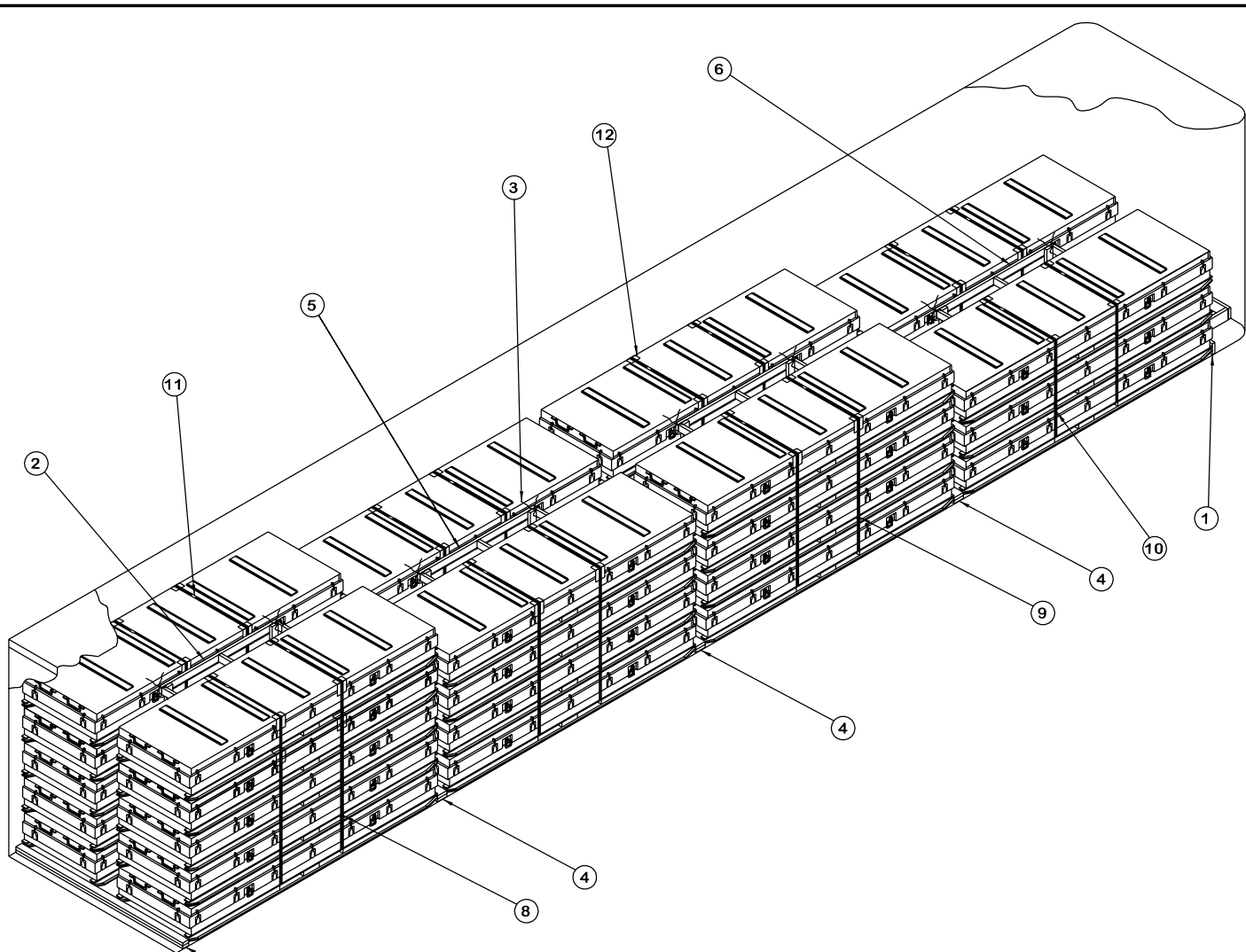
- LUMBER- - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.
- NAILS - - - - - : ASTM F1667; COMMON STEEL NAIL (NLCMS OR NLCMS).
- STRAPPING, STEEL- - - : ASTM D3953; FLAT STRAPPING, TYPE 1 OR 2, HEAVY DUTY, FINISH A, B (GRADE 2), OR C.
- SEAL, STRAP - - - - - : ASTM D3953;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

- J. 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, PIECE MARKED ①, AND POSITION THE CONTAINERS DIRECTLY AGAINST THE FORWARD POSITION OF THE TRAILER.
- K. 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 17 FOR GUIDANCE.
- L. 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.
- M. **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.
- N. 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 AND OF A QUALITY EQUIVALENT TO THOSE MANUFACTURED BY SENCO PRODUCTS INCORPORATED. **NOTE:** STAPLES WILL NOT BE SUBSTITUTED FOR NAILS IN ANY LOAD RESTRAINING FLOOR DUNNAGE APPLICATION.
- O. PORTIONS OF THE TRAILERS, SUCH AS SIDEWALLS, ENDWALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- P. THE UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS NOT TO EXCEED 6". INSTALLING FILL ASSEMBLIES OR CRIB FILL ASSEMBLIES BETWEEN THE CONTAINERS AS REQUIRED CAN ELIMINATE EXCESSIVE SLACK FROM A LOAD.
- Q. 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 "B" AS SHOWN ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS 9" OR GREATER, USE THE REAR BLOCKING ASSEMBLY "A" OR "C" AS DEPICTED ON PAGES 21 AND 22. **NOTE:** REAR BLOCKING ASSEMBLIES MAY BE REPLACED WITH NAILED HEADERS AT THE REAR OF THE LOAD, PROVIDED THE TRAILER FLOOR IS CONFIGURED SUCH AS TO ALLOW NAILING IN THIS AREA. **CAUTION:** THE NAILED HEADER METHOD IS REQUIRED WHEN LOADING VAN TRAILERS EQUIPPED WITH ROLL-UP TYPE DOORS.
- R. **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.
- S. THESE PROCEDURES CAN ALSO BE UTILIZED FOR THE SHIPMENT OF CNU-592/E CONTAINERS WHEN THEY ARE LOADED WITH AN ITEM OTHER THAN THE SPECIFIED AIRFOIL, OR WHEN THEY ARE EMPTY.
- T. **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 25.4MM AND ONE POUND EQUALS 0.454 KG.



CNU-592/E CONTAINER

WEIGHT - - 1,115 POUNDS (APPROX)
 CUBE - - - 65.2 CU FT (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD SPACER ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 19 AND SPECIAL NOTES 2 AND 3 ON PAGE 5.
- ② CRIB FILL ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 24. LOCATE BETWEEN THE FIVE-HIGH STACKS OF CONTAINERS. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIE-DOWN CLEAVISES. SEE SPECIAL NOTE 4 ON PAGE 5.
- ③ TIE WIRE, 24" LONG (8 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND EACH END OF THE CRIB FILL ASSEMBLY, PIECES MARKED 2, 5 AND 6, AND THE TOP CONTAINER'S LIFT AND TIE-DOWN CLEVIS. BRING THE ENDS TOGETHER AND TWIST TAUT. SEE THE "CRIB FILL WIRE TIE DETAIL" ON PAGE 24.
- ④ INTERMEDIATE HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (3 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/6-20d NAILS. SEE THE FORWARD HEADER NAILING CHARTS ON PAGE 5.
- ⑤ CRIB FILL ASSEMBLY B (2 REQD). SEE THE DETAIL ON PAGE 24. LOCATE BETWEEN THE FOUR-HIGH STACKS OF CONTAINERS. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIE-DOWN CLEAVISES. SEE SPECIAL NOTE 4 ON PAGE 5.
- ⑥ CRIB FILL ASSEMBLY C (1 REQD). SEE THE DETAIL ON PAGE 24. LOCATE BETWEEN THE THREE-HIGH STACKS OF CONTAINERS. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIE-DOWN CLEAVISES. SEE SPECIAL NOTE 4 ON PAGE 5.
- ⑦ REAR HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/6-10d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 5.

(KEY NUMBERS CONTINUED)

- ⑧ STACK UNITIZING STRAP A, 1-1/4" X .031" OR .035" X 22'-4" LONG STEEL STRAPPING (4 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑨ STACK UNITIZING STRAP B, 1-1/4" X .031" OR .035" X 19'-6" LONG STEEL STRAPPING (8 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑩ STACK UNITIZING STRAP C, 1-1/4" X .031" OR .035" X 16'-6" LONG STEEL STRAPPING (4 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑪ SEAL FOR 1-1/4" STRAPPING (16 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL.
- ⑫ ANTI-CHAFING NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINERS.

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SPECIAL NOTES:

1. A 32-UNIT LOAD OF CNU-592/E CONTAINERS IS SHOWN IN A 53'-0" LONG BY 8'-2" WIDE (INSIDE DIMENSIONS) CONVENTIONAL VAN TRAILER. TRAILERS OF OTHER LENGTHS AND WIDTHS MAY BE USED. SEE GENERAL NOTE "E" ON PAGE 2.
2. A TRAILER WITH ROUNDED FRONT CORNERS IS SHOWN. IF A TRAILER WITH SQUARE FRONT CORNERS IS TO BE LOADED, THE FORWARD SPACER ASSEMBLY "A", PIECE MARKED ① ON PAGE 4, WILL NEED TO BE MODIFIED. SEE THE DETAIL ON PAGE 19.
3. IF THE TRAILER HAS SUFFICIENT NAILING AREA AT THE FRONT OF THE LOAD, A NAILED HEADER MAY BE USED IN PLACE OF THE FORWARD SPACER ASSEMBLY. SEE THE LOAD ON PAGE 8 FOR GUIDANCE ON INSTALLING A NAILED HEADER.
4. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM UNIT TO UNIT.
5. IF THE SPACE AT THE REAR OF THE LOAD 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 NAILED HEADER AS SHOWN OR THE REAR BLOCKING ASSEMBLY "B" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE CONTAINERS AND THE REAR DOOR IS 9" OR GREATER, USE THE NAILED HEADER AS SHOWN OR THE REAR BLOCKING ASSEMBLY "A" AS DETAILED ON PAGE 21. IF THE TRAILER IS EQUIPPED WITH A METAL THRESHOLD PLATE AND IT INTERFERES WITH THE NAILING OF PIECE MARKED ⑥ ON PAGE 4, ONE OF THE REAR BLOCKING ASSEMBLIES DESCRIBED ABOVE MUST BE INSTALLED.
6. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE REDUCED BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD.

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

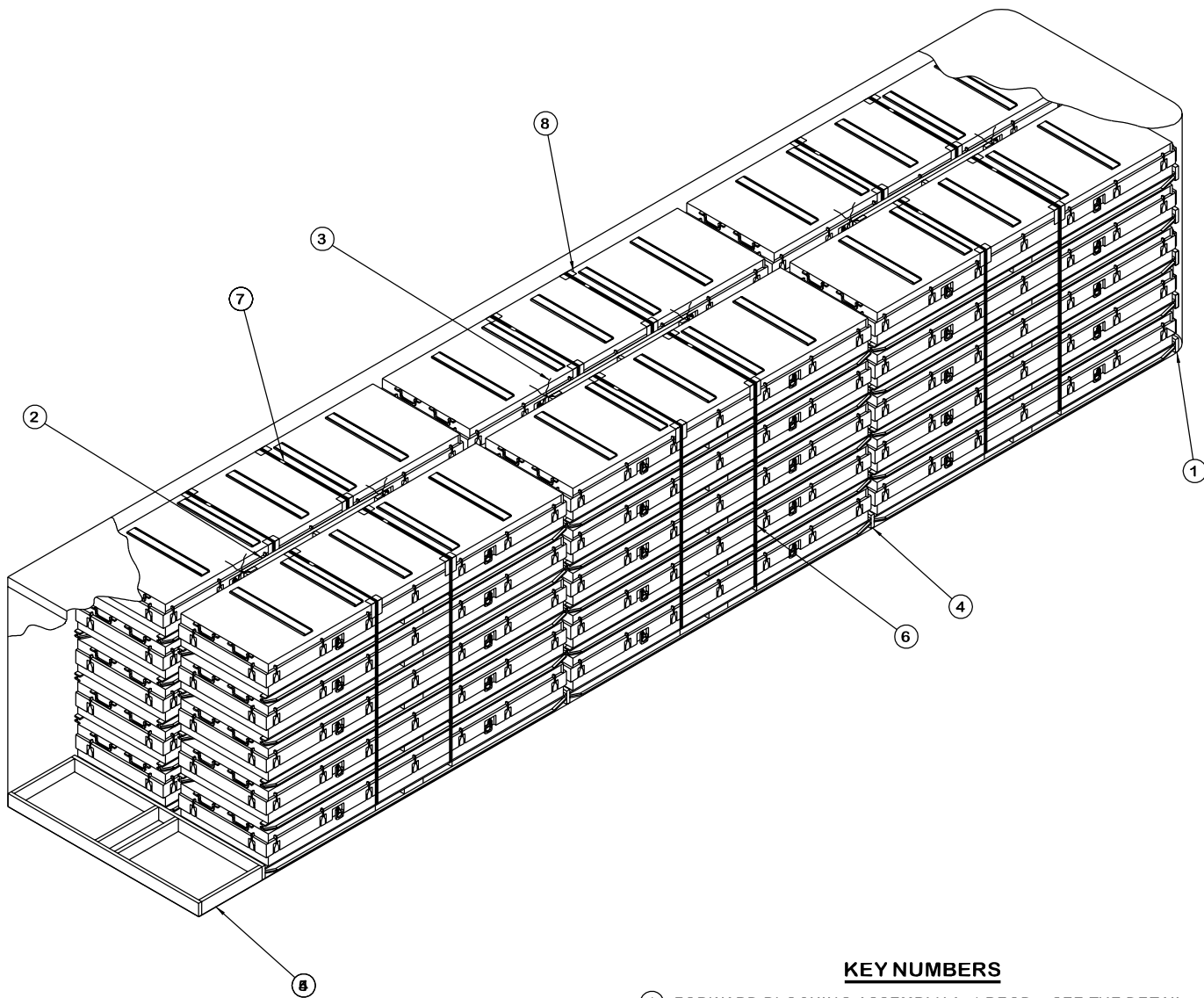
* HEADERS AT THE REAR OF A FULL LOAD OR AT THE REAR END OF A DIVIDED LOAD WILL BE DOUBLED 2" X 4" MATERIAL. THE NUMBER OF NAILS INDICATED ABOVE REFERS TO THE NUMBER OF NAILS USED IN EACH LAMINATION OF A HEADER, FOR EXAMPLE 8 NAILS MEANS THE FIRST BOARD IS NAILED TO THE TRAILER FLOOR W/8-10d NAILS, AND 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.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" x 4"	274	183
2" x 6"	72	72
NAILS	NO. REQD	POUNDS
10d (3")	288	5
20d (4")	12	1/2
STEEL STRAPPING, 1-1/4" - - -	312' REQD - - -	45 LBS
SEAL FOR 1-1/4" STRAPPING - - -	16 REQD - - -	3/4 LBS
WIRE, 0.0800" DIA - - - - -	16' REQD - - -	1/2 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	32 - - - - -	35,680 LBS
DUNNAGE - - - - -	- - - - -	558 LBS

TOTAL WEIGHT - - - - - 36,238 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 18 AND SPECIAL NOTES 2 AND 3 ON PAGE 7.
- ② CRIB FILL ASSEMBLY A (3 REQD). SEE THE DETAIL ON PAGE 24. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIE-DOWN CLEVISSES. SEE SPECIAL NOTE 4 ON PAGE 7.
- ③ TIE WIRE, 24" LONG (6 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND EACH END OF THE CRIB FILL ASSEMBLY, PIECE MARKED 2, AND THE TOP CONTAINER'S LIFT AND TIEDOWN CLEVIS. BRING THE ENDS TOGETHER AND TWIST TAUT. SEE THE "CRIB FILL WIRE TIE DETAIL" ON PAGE 24.
- ④ INTERMEDIATE BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 23.
- ⑤ REAR BLOCKING ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 21 AND SPECIAL NOTE 5 ON PAGE 7.
- ⑥ STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 22'-4" LONG STEEL STRAPPING (12 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑦ SEAL FOR 1-1/4" STRAPPING (12 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL.
- ⑧ ANTI-CHAFING NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINERS.

SPECIAL NOTES:

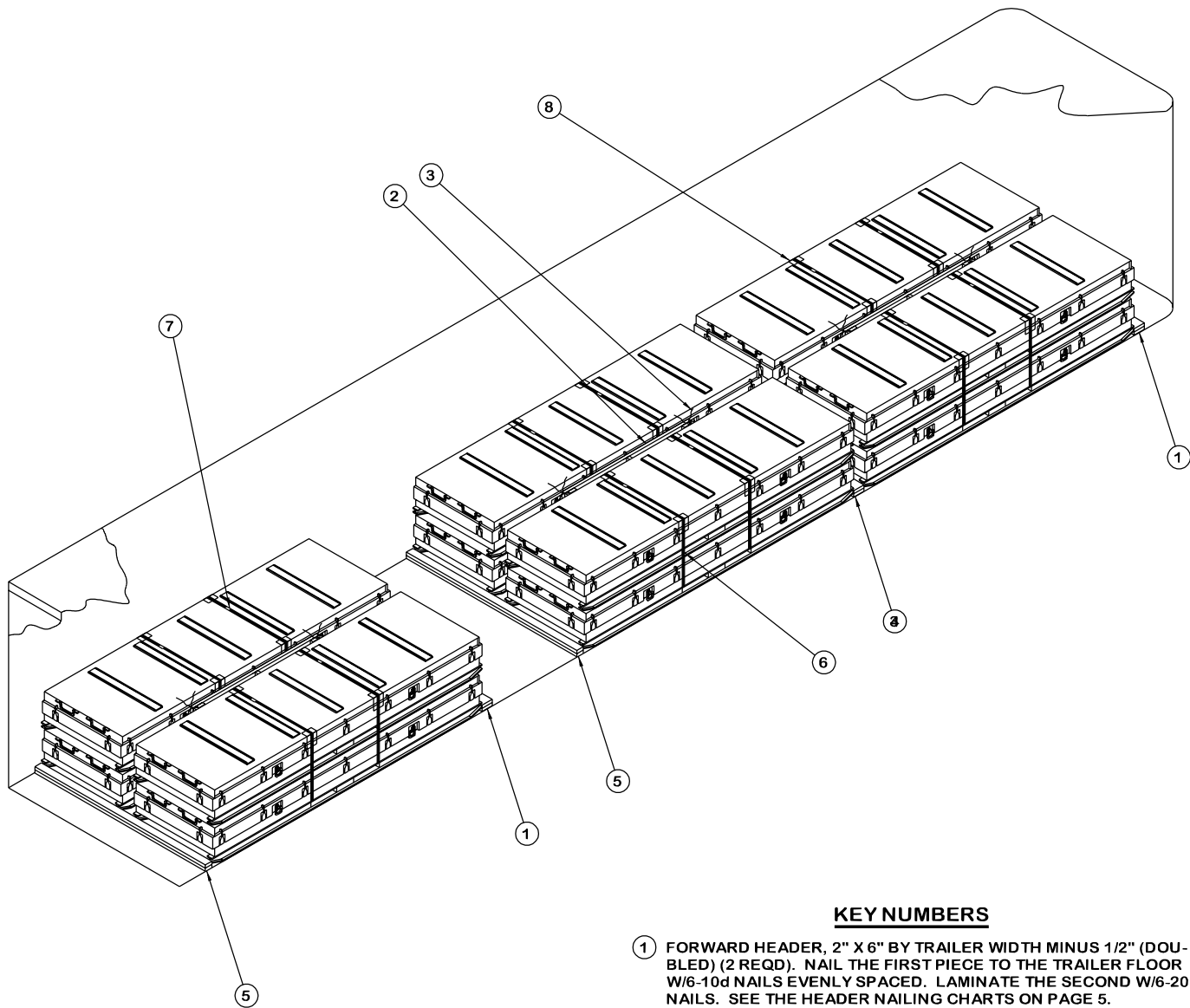
1. A 30-UNIT LOAD OF CNU-592/E CONTAINERS IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSIONS) CONVENTIONAL VAN TRAILER. TRAILERS OF OTHER LENGTHS AND WIDTHS MAY BE USED. SEE GENERAL NOTE "E" ON PAGE 2.
2. A TRAILER WITH ROUNDED FRONT CORNERS IS SHOWN. IF A TRAILER WITH SQUARE FRONT CORNERS IS TO BE LOADED, THE FORWARD BLOCKING ASSEMBLY "A", PIECE MARKED ① ON PAGE 6, MAY BE OMITTED.
3. IF THE TRAILER HAS SUFFICIENT NAILING AREA AT THE FRONT OF THE LOAD, A NAILED HEADER MAY BE USED IN PLACE OF THE FORWARD BLOCKING ASSEMBLY. SEE THE LOAD ON PAGE 8 FOR GUIDANCE ON INSTALLING A NAILED HEADER.
4. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM UNIT TO UNIT.
5. 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 "B" AS DETAILED ON PAGE 21. 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 ⑤ ON PAGE 4 AND THE HEADER NAILING CHARTS ON PAGE 5 FOR GUIDANCE.
6. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE REDUCED BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	204	136
2" X 6"	137	137
NAILS	NO. REQD	POUNDS
10d (3")	308	5
STEEL STRAPPING, 1-1/4" - -	268' REQD - - -	39 LBS
SEAL FOR 1-1/4" STRAPPING - -	12 REQD - - -	3/4 LBS
WIRE, 0.0800" DIA - - - - -	12' REQD - - -	1/4 LBS

LOAD AS SHOWN

<u>ITEM</u>	<u>QUANTITY</u>	<u>WEIGHT (APPROX)</u>
CONTAINER - - - - -	30 - - - - -	33,450 LBS
DUNNAGE - - - - -	- - - - -	588 LBS
TOTAL WEIGHT - - - - -		34,038 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS EVENLY SPACED. LAMINATE THE SECOND W/6-20d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 5.
- ② CRIB FILL ASSEMBLY D (3 REQD). SEE THE DETAIL ON PAGE 24. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIE-DOWN CLEVISSES. SEE SPECIAL NOTE 2 ON PAGE 9.
- ③ TIE WIRE, 24" LONG (6 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND EACH END OF THE CRIB FILL ASSEMBLY, PIECE MARKED 2, AND THE TOP CONTAINER'S LIFT AND TIEDOWN CLEVIS. BRING THE ENDS TOGETHER AND TWIST TAUT. SEE THE "CRIB FILL WIRE TIE DETAIL" ON PAGE 24.
- ④ INTERMEDIATE HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/6-20d NAILS. SEE THE FORWARD HEADER NAILING CHARTS ON PAGE 5.
- ⑤ REAR HEADER, 2" X 4" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (2 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/6-10d NAILS. SEE THE HEADER NAILING CHARTS ON PAGE 5.
- ⑥ STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 13'-6" LONG STEEL STRAPPING (12 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑦ SEAL FOR 1-1/4" STRAPPING (12 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL.
- ⑧ ANTI-CHAFING NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINERS.

SPECIAL NOTES:

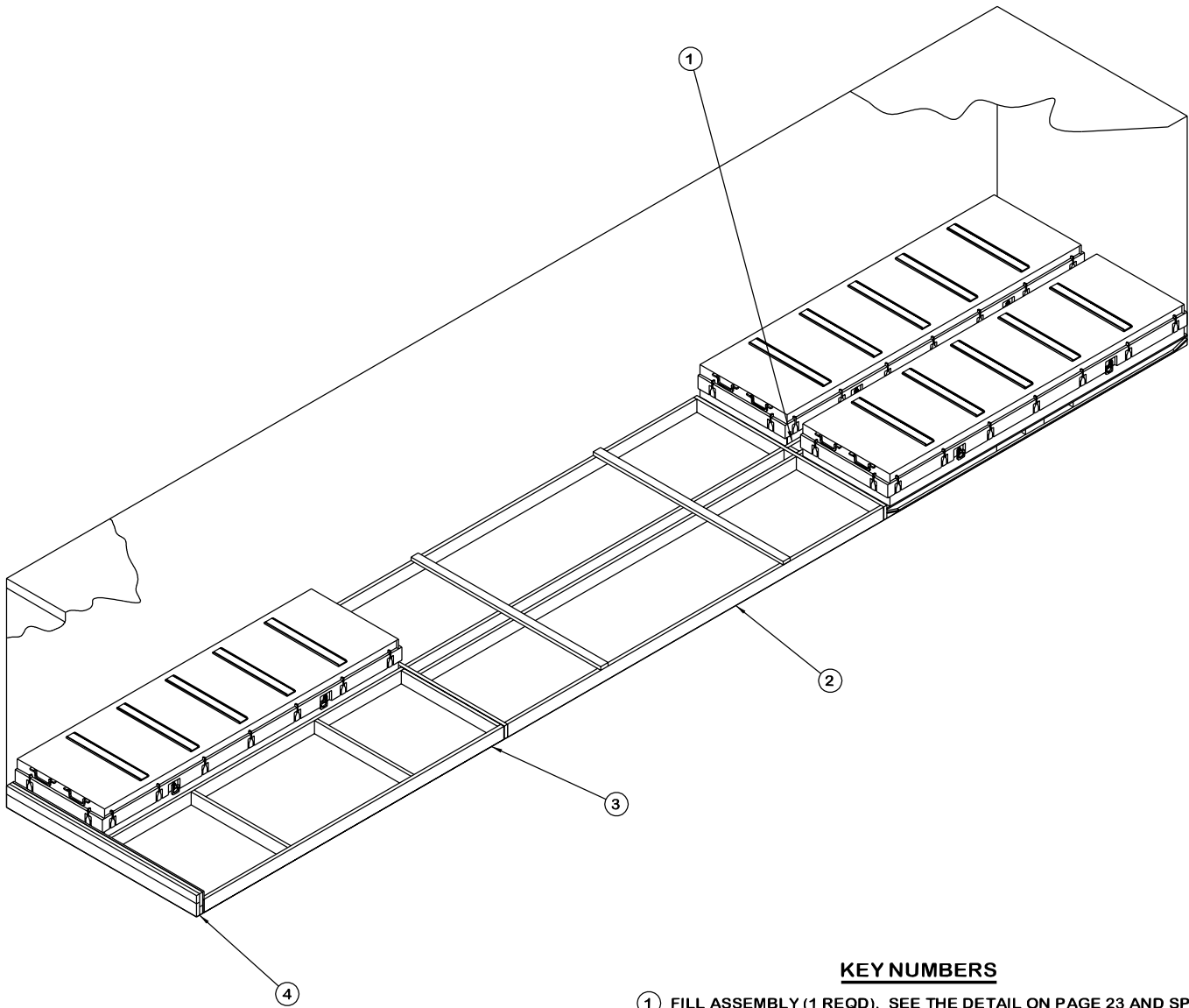
1. A 12-UNIT LOAD OF CNU-592/E CONTAINERS IS SHOWN IN A 45'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSIONS) CONVENTIONAL VAN TRAILER. TRAILERS OF OTHER LENGTHS AND WIDTHS MAY BE USED. SEE GENERAL NOTE "E" ON PAGE 2.
2. CRIB FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM UNIT TO UNIT.
3. IF THE SPACE AT THE REAR OF THE LOAD 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 NAILED HEADER AS SHOWN OR THE REAR BLOCKING ASSEMBLY "B" AS DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD BETWEEN THE CONTAINERS AND THE REAR DOOR IS 9" OR GREATER, USE THE NAILED HEADER AS SHOWN OR THE REAR BLOCKING ASSEMBLY "A" AS DETAILED ON PAGE 21. IF THE TRAILER IS EQUIPPED WITH A METAL THRESHOLD PLATE AND IT INTERFERES WITH THE NAILING OF PIECE MARKED ⑤ ON PAGE 8, ONE OF THE REAR BLOCKING ASSEMBLIES DESCRIBED ABOVE MUST BE INSTALLED.
4. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE REDUCED BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	137	92
2" X 6"	46	46
NAILS	NO. REQD	POUNDS
10d (3")	156	3
20d (4")	16	3/4
STEEL STRAPPING, 1-1/4" - - - - 81' REQD - - - -		12 LBS
SEAL FOR 1-1/4" STRAPPING - - - - 12 REQD - - - -		3/4 LBS
WIRE, 0.0800" DIA - - - - - 12' REQD - - - -		1/4 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	12 - - - - -	13,380 LBS
DUNNAGE - - - - -	- - - - -	289 LBS
TOTAL WEIGHT - - - - -		13,669 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① FILL ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 23 AND SPECIAL NOTE 6 ON PAGE 11.
- ② CENTER SPACER ASSEMBLY (1 REQD). SEE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 11.
- ③ FILLER ASSEMBLY (1 REQD). SEE DETAIL ON PAGE 23 AND SPECIAL NOTE 5 ON PAGE 11.
- ④ REAR BLOCKING ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 21 AND SPECIAL NOTE 4 ON PAGE 11.

SPECIAL NOTES:

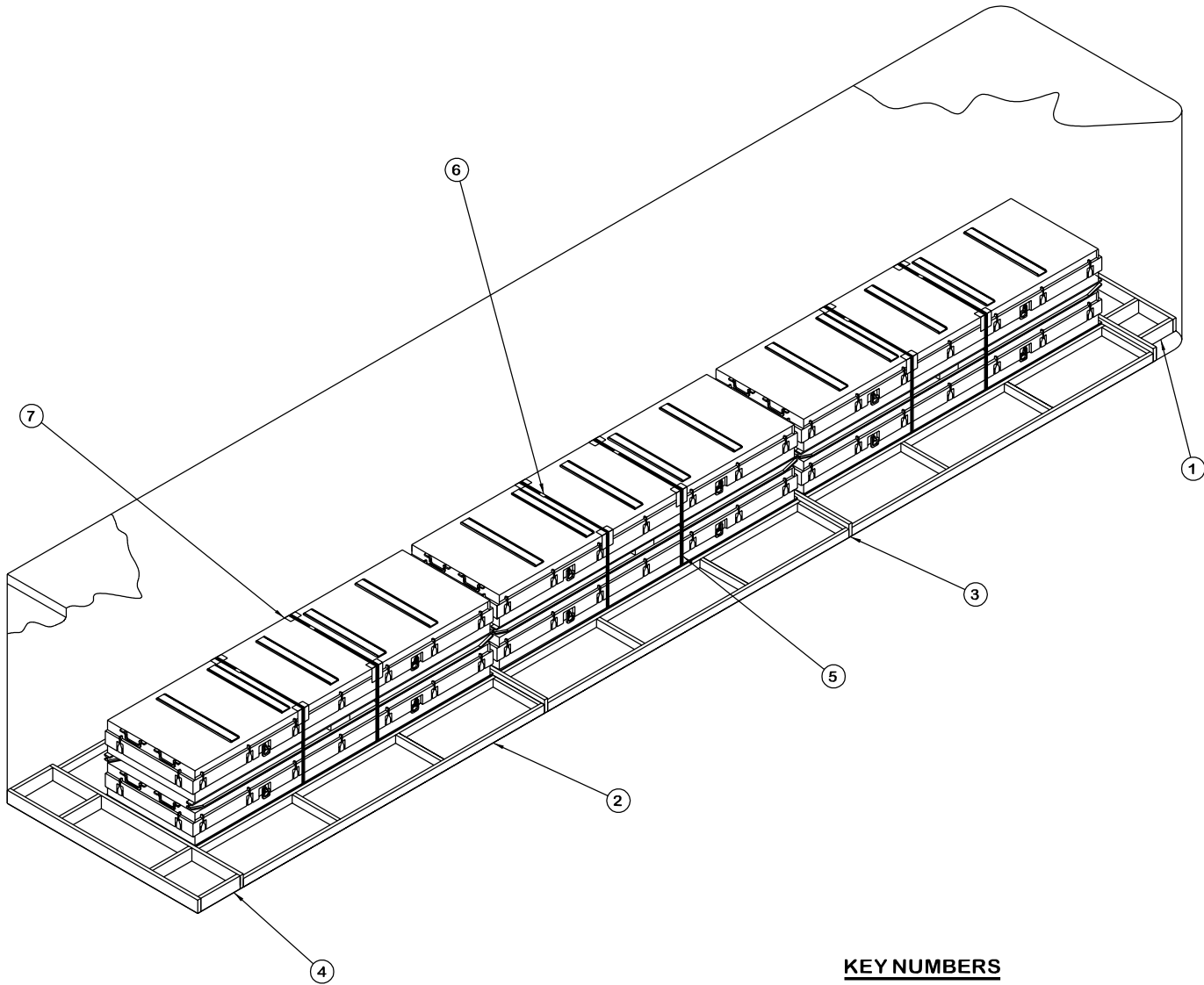
1. A 3-UNIT LOAD OF CNU-592/E CONTAINERS IS SHOWN IN A 40'-0" LONG BY 7'-8" WIDE (INSIDE DIMENSIONS) VAN TRAILER WITH A STEEL FLOOR. TRAILERS OF OTHER LENGTHS AND WIDTHS MAY BE USED. SEE GENERAL NOTE "E" ON PAGE 2.
2. A TRAILER WITH SQUARE FRONT CORNERS IS SHOWN. IF A TRAILER WITH ROUNDED FRONT CORNERS IS TO BE LOADED, A HEADER, FORWARD SPACER ASSEMBLY OR FORWARD BLOCKING ASSEMBLY WILL NEED TO BE ADDED. SEE THE LOAD ON PAGE 4 FOR GUIDANCE ON INSTALLING A FORWARD SPACER ASSEMBLY OR LOAD ON PAGE 6 FOR GUIDANCE ON INSTALLING A FORWARD BLOCKING ASSEMBLY.
3. CENTER SPACER ASSEMBLY, SHOWN AS PIECE MARKED ② IN THE LOAD ON PAGE 10, IS TO BE USED FOR THE PURPOSE OF PROVIDING FOR PROPER WEIGHT DISTRIBUTION, 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:** THE CENTER SPACER ASSEMBLY MUST NOT BE POSITIONED NEXT TO A FORWARD BLOCKING ASSEMBLY, IF REQUIRED.
4. 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 DETAILED ON PAGE 21. IF THE SPACE AT THE REAR OF THE LOAD IS GREATER THAN 1-1/2" BUT LESS THAN 9" USE THE REAR BLOCKING ASSEMBLY "B", SHOWN AS PIECE MARKED ④ ON PAGE 10. IF THE SPACE AT THE REAR OF THE LOAD IS 1-1/2" OR LESS, REAR BLOCKING IS NOT REQUIRED.
5. FILLER ASSEMBLY, SHOWN AS PIECE MARKED ③ IN THE LOAD ON PAGE 10, IS ONLY SHOWN TO DEPICT A TYPICAL INSTALLATION. IF A CONTAINER IS LOADED IN PLACE OF THE SPACER ASSEMBLY, THE SPACER ASSEMBLY WILL NOT BE REQUIRED. **NOTE:** THE FILLER ASSEMBLY MUST NOT BE POSITIONED NEXT TO A FORWARD BLOCKING ASSEMBLY, IF REQUIRED.
6. FILL ASSEMBLIES ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER TO CONTAINER.
7. THE DEPICTED LOAD CAN BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED OR TO SUIT THE WEIGHT OF THE UNIT BEING LOADED. A LOAD CAN BE REDUCED BY OMITTING ONE OR MORE FULL LOAD UNITS FROM THE LOAD.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
1" X 6"	8	4
2" X 4"	57	38
2" X 6"	132	132
NAILS	NO. REQD	POUNDS
6d (2")	16	NIL
10d (3")	96	1-1/2

LOAD AS SHOWN

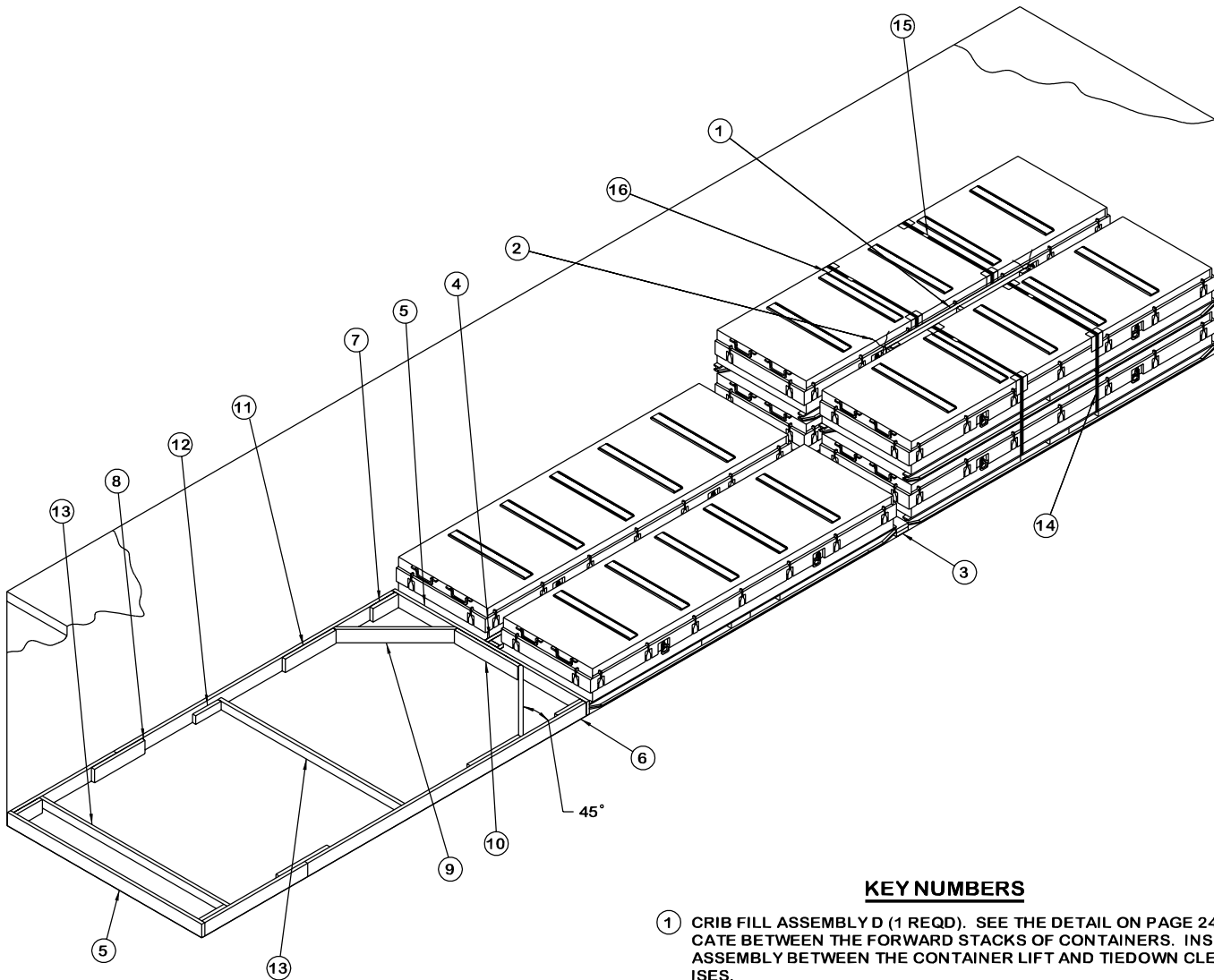
ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	3 - - - - -	3,345 LBS
DUNNAGE - - - - -	- - - - -	352 LBS
TOTAL WEIGHT - - - - -		3,697 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD SPACER ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 20 AND SPECIAL NOTE 2 ON PAGE 13.
- ② FILL ASSEMBLY (6 REQD). SEE DETAIL ON PAGE 23.
- ③ INTERMEDIATE BLOCKING ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 23.
- ④ REAR BLOCKING ASSEMBLY C (1 REQD). SEE THE DETAIL ON PAGE 22 AND SPECIAL NOTE 3 ON PAGE 13.
- ⑤ STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 13'-6" LONG STEEL STRAPPING (6 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑥ SEAL FOR 1-1/4" STRAPPING (6 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL.
- ⑦ ANTI-CHAFING NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINERS.



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ CENTER CLEAT, 2" X 6" BY CUT-TO-FIT BETWEEN THE DIAGONAL BRACES, PIECES MARKED ⑧ (1 REQD). NAIL TO THE HEADER, PIECE MARKED ⑤, W/6-10d NAILS.
- ⑪ BACK-UP CLEAT, 2" X 6" X 24" (2 REQD). NAIL TO A SIDE STRUT, PIECE MARKED ⑥, W/8-10d NAILS.
- ⑫ 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 15.
- ⑬ STRUT BRACE, 2" X 4" BY TRAILER WIDTH MINUS 3" IN LENGTH (MINIMUM OF ONE REQD). NAIL TO THE POCKET CLEATS, PIECES MARKED ⑦, AND/OR TO THE STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑫, W/2-12d NAILS AT EACH END. SEE SPECIAL NOTES 5 AND 6 ON PAGE 15.
- ⑭ STACK UNITIZING STRAP, 1-1/4" X .031" OR .035" X 13'-6" LONG STEEL STRAPPING (4 REQD, 2 PER STACK). INSTALL AS FAR APART AS FORKLIFT OPENINGS ALLOW.
- ⑮ SEAL FOR 1-1/4" STRAPPING (4 REQD, 1 PER STRAP). DOUBLE NOTCH EACH SEAL.
- ⑯ ANTI-CHAFING NEUTRAL BARRIER MATERIAL (AS REQD). PLACE UNDER ALL STRAPS AT POINTS OF CONTACT WITH CONTAINERS.

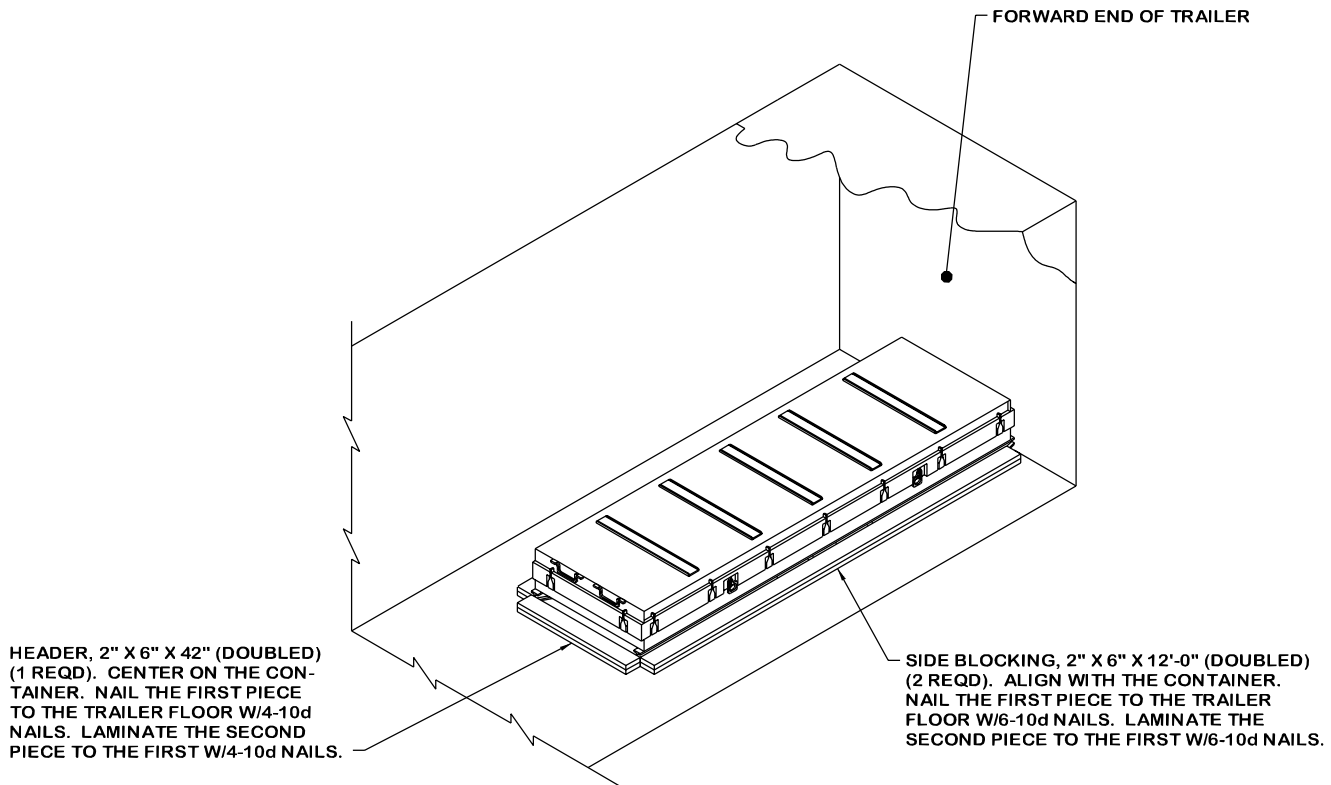
KEY NUMBERS

- ① CRIB FILL ASSEMBLY D (1 REQD). SEE THE DETAIL ON PAGE 24. LOCATE BETWEEN THE FORWARD STACKS OF CONTAINERS. INSTALL ASSEMBLY BETWEEN THE CONTAINER LIFT AND TIEDOWN CLEVISSES.
- ② TIE WIRE, 24" LONG (2 REQD). INSTALL TO FORM A COMPLETE LOOP AROUND EACH END OF THE CRIB FILL ASSEMBLY, PIECE MARKED 1, AND THE TOP CONTAINER'S LIFT AND TIEDOWN CLEVIS. BRING THE ENDS TOGETHER AND TWIST TAUT. SEE THE "CRIB FILL WIRE TIE DETAIL" ON PAGE 24.
- ③ INTERMEDIATE HEADER, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (DOUBLED) (1 REQD). NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/6-10d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/4-20d NAILS. SEE THE FORWARD HEADER NAILING CHARTS ON PAGE 5.
- ④ FILL ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 23.
- ⑤ HEADER, 2" X 6" X TRAILER WIDTH MINUS 1/2" IN LENGTH (2 REQD).
- ⑥ SIDE STRUT, 2" X 6" BY CUT-TO-FIT BETWEEN THE HEADERS, PIECES MARKED ⑤ (2 REQD). SEE SPECIAL NOTE 4 ON PAGE 15.
- ⑦ 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 ⑤, W/3-12d NAILS.
- ⑧ SPLICE PIECE, 2" X 6" X 24" (AS REQD). CENTER ON JOINT OF SIDE STRUTS, PIECES MARKED ⑥, AND NAIL W/4-10d NAILS TO EACH END OF SIDE STRUTS. SEE SPECIAL NOTE 4 ON PAGE 15.
- ⑨ DIAGONAL BRACE, 2" X 6" X 42" (2 REQD). DOUBLE BEVEL EACH END WITH 45° CUTS. INSTALL AS SHOWN AND TOENAIL TO THE ADJACENT HEADER AND SIDE STRUT, PIECES MARKED ⑤ AND ⑥, W/2-16d NAILS AT EACH END. SEE THE "DIAGONAL BRACE BEVEL DETAIL" ON PAGE 17.

(CONTINUED AT LEFT)

SPECIAL NOTES:

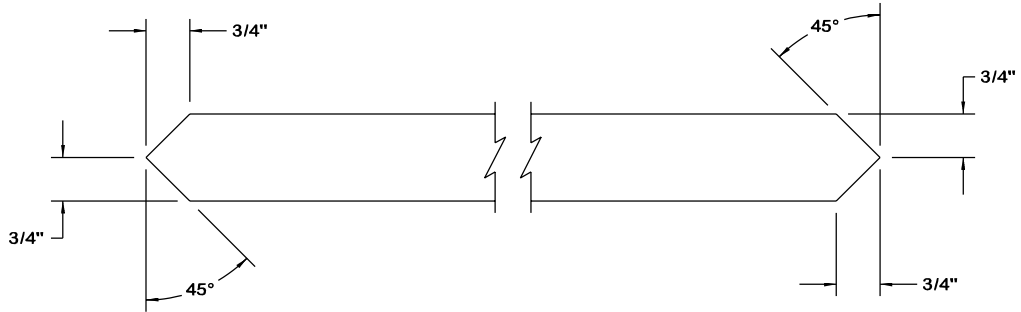
1. A 6-UNIT LOAD OF CNU-592/E CONTAINERS IS SHOWN IN AN 8'-2" WIDE (INSIDE DIMENSION) VAN TRAILER. TRAILERS OF OTHER WIDTHS MAY BE USED. SEE GENERAL NOTE "E" ON PAGE 2.
2. A TRAILER WITH SQUARE FRONT CORNERS IS SHOWN. IF A TRAILER WITH ROUNDED FRONT CORNERS IS TO BE LOADED, A HEADER, FORWARD SPACER ASSEMBLY OR FORWARD BLOCKING ASSEMBLY WILL NEED TO BE ADDED. SEE THE LOAD ON PAGE 4 FOR GUIDANCE ON INSTALLING A FORWARD SPACER ASSEMBLY AND THE LOAD ON PAGE 6 FOR GUIDANCE ON INSTALLING A FORWARD BLOCKING ASSEMBLY.
3. IF THE TRAILER HAS SUFFICIENT NAILING AREA AT THE FRONT OF THE LOAD, A NAILED HEADER MAY BE USED IN PLACE OF THE FORWARD BLOCKING ASSEMBLY. SEE THE LOAD ON PAGE 8 FOR GUIDANCE ON INSTALLING A NAILED HEADER.
4. DEPENDING ON THE NUMBER OF CONTAINERS BEING LOADED, EACH OF THE SIDE STRUTS, PIECES MARKED ⑤ ON PAGE 14, 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 W/4-10d NAILS AT EACH END OF THE SIDE STRUTS. NOTE: IF DESIRED, THE STRUT BRACES, PIECES MARKED ⑫ ON PAGE 14, MAY BE NAILED TO THE SPLICE PIECES IN LIEU OF USING ADDITIONAL STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑪.
5. ALL LOADS THAT UTILIZE THE BLOCKING PROCEDURES DEPICTED ON PAGE 14, REGARDLESS OF THE NUMBER OF CONTAINERS, REQUIRE ONE STRUT BRACE POSITIONED AT THE REAR OF THE TRAILER AND NAILED TO THE POCKET CLEATS, PIECES MARKED ⑥. AN ADDITIONAL STRUT BRACE, PIECE MARKED ⑫, AND TWO STRUT BRACE RETAINING CLEATS, PIECES MARKED ⑪, MUST BE APPLIED FOR EVERY 7'-0" OF SIDE STRUT LENGTH, WHEN THE SIDE STRUTS, PIECES MARKED ⑤, ARE LONGER THAN 7'-0".
6. THE "K-BRACE" BLOCKING, SHOWN AS PIECES MARKED ④ THRU ⑫, IS ADEQUATE FOR RETAINING A MAXIMUM LOAD OF 20,000 POUNDS.
7. THE DEPICTED LOAD CAN BE INCREASED TO SUIT THE QUANTITY TO BE SHIPPED. SEE THE PROCEDURES ON PAGES 4 THRU 13 FOR GUIDANCE. THE DEPICTED LOAD CAN ALSO BE REDUCED TO SUIT THE QUANTITY TO BE SHIPPED.
8. FILL ASSEMBLIES FOR SINGLE-TIER CONTAINER STACKS OR CRIB FILL ASSEMBLIES FOR MULTIPLE-TIER CONTAINER STACKS ARE REQUIRED WHEN THE SPACE BETWEEN THE LATERALLY ADJACENT UNITS EXCEEDS 6", AS MEASURED FROM CONTAINER TO CONTAINER.



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. POSITIONING OF A UNIT IS OPTIONAL. UNITS MAY ALSO 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 DETAIL ON PAGES 18 AND 19.
3. MORE THAN ONE CONTAINER CAN BE SHIPPED, PROVIDING THE CAPACITY OF THE HEADER IS NOT EXCEEDED. THE LOAD SHOULD BE FORMED IN ROWS, WITH UNITS POSITIONED AGAINST OPPOSITE SIDE WALLS. THE PROPER FILL ASSEMBLY OR CRIB FILL, IF REQUIRED, WILL BE INSTALLED BETWEEN LATERALLY ADJACENT UNITS. SEE THE DETAIL ON PAGE 23 AND 24.
4. THE HEADER AS APPLIED ABOVE FOR LONGITUDINAL BRACING WILL SUPPORT 10,000 POUNDS OF LADING; A TRAILER WIDTH HEADER WILL SUPPORT UP TO A FULL LOAD OF CONTAINERS. SEE THE HEADER NAILING CHARTS ON PAGE 5.



DIAGONAL BRACE BEVEL DETAIL

DEPICTED ABOVE IS THE TOP VIEW OF 2" X 6" MATERIAL. SEE THE LOAD ON PAGE 14.



ONE SEAL WITH TWO PAIR OF NOTCHES.

STRAP JOINT A

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



TWO SEALS, BUTTED TOGETHER, WITH TWO PAIR OF CRIMPS EACH SEAL.

STRAP JOINT B

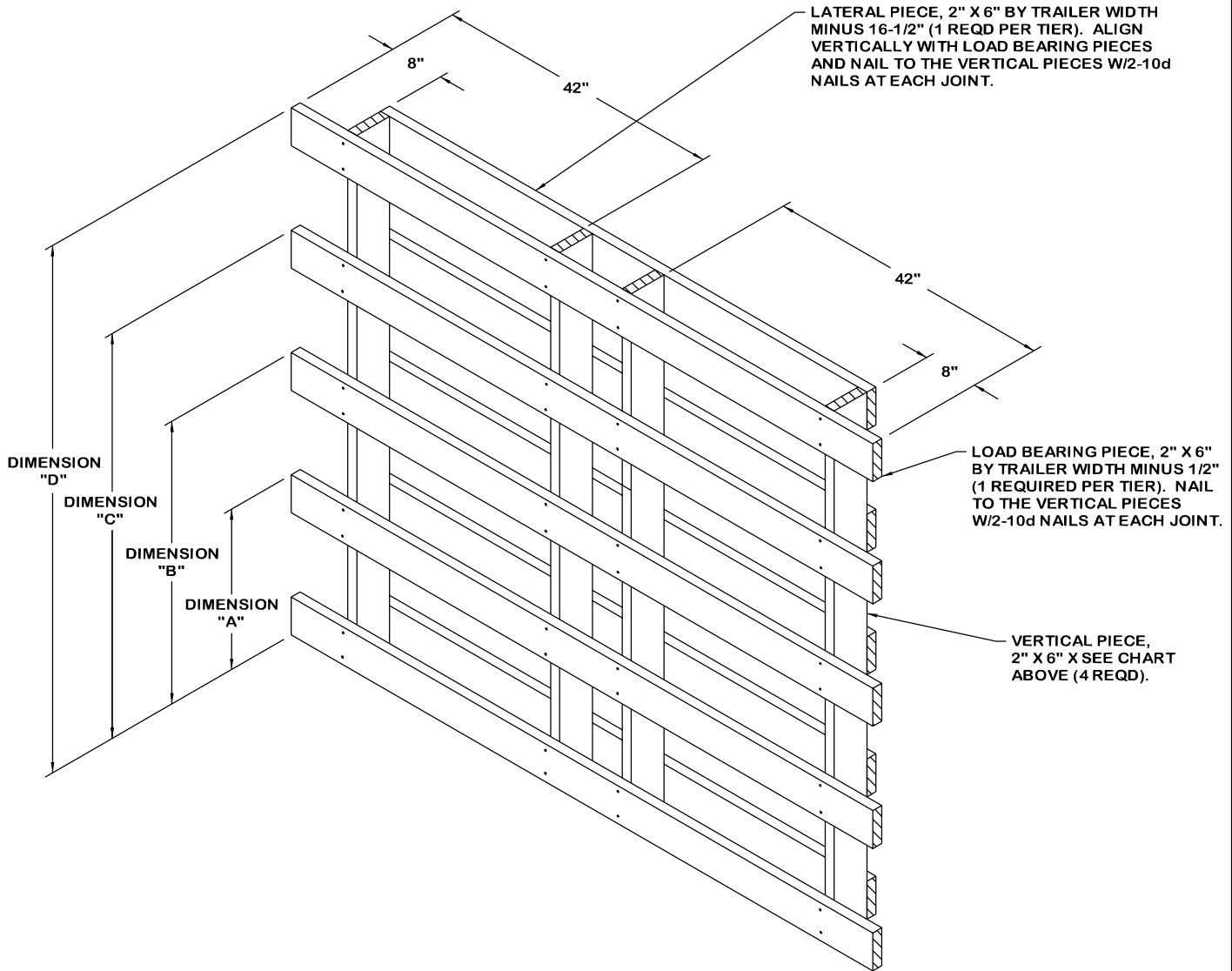
METHOD OF SECURING A STRAP JOINT WHEN USING A CRIMP-TYPE SEALER.

END-OVER-END LAP JOINT DETAILS

SEE GENERAL NOTE "K" ON PAGE 2.

FORWARD BLOCKING ASSEMBLY DETAILS CHART

NUMBER OF TIERS	FORWARD BLOCKING ASSEMBLY	DIMENSIONS				VERTICAL PIECE LENGTH
		"A"	"B"	"C"	"D"	
1	E	--	--	--	--	5-1/2"
2	D	23-1/4"	--	--	--	23-1/4"
3	C	41"	41"	--	--	41"
4	B	58-3/4"	58-3/4"	58-3/4"	--	58-3/4"
5	A	6'-4-1/2"	6'-4-1/2"	6'-4-1/2"	6'-4-1/2"	6'-4-1/2"



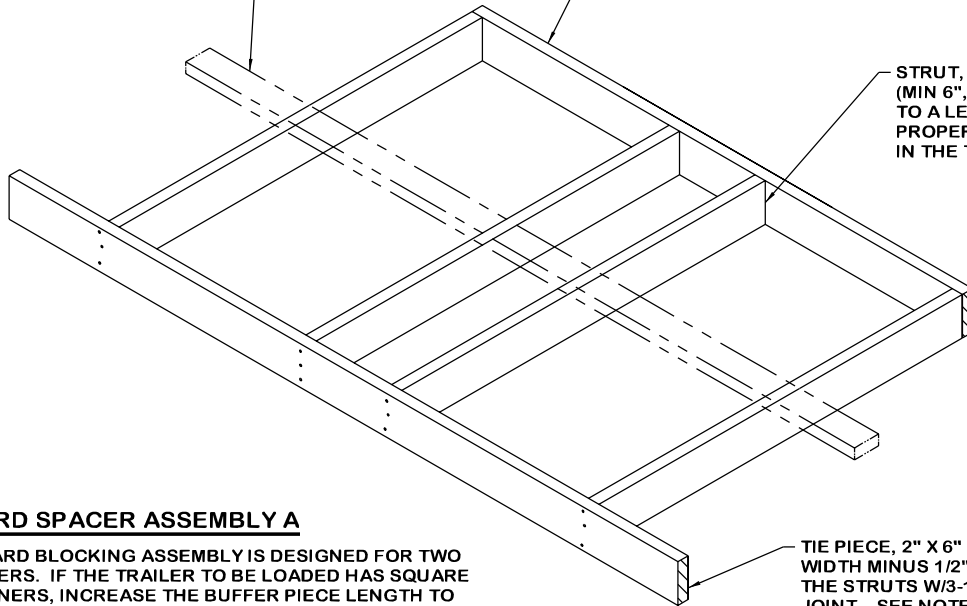
FORWARD BLOCKING ASSEMBLY A, B, C, D AND E

THESE ASSEMBLIES ARE DESIGNED FOR USE AT THE FRONT END OF A TRAILER WHICH HAS ROUNDED CORNERS, AND ARE APPLICABLE FOR A CORNER RADIUS 6-1/2" TO 8". IF THE RADIUS IS LESS THAN 6-1/2" VERTICAL PIECES WILL BE 2" X 4" 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 25 FOR GUIDANCE.

LATERAL BRACE, 2" X 4" BY INSIDE TRAILER WIDTH MINUS 1/2" (AS REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT. INSTALL A LATERAL BRACE WHEN STRUT LENGTH EXCEEDS 36".

BUFFER PIECE, 2" X 6" X INSIDE TRAILER WIDTH MINUS 1/2" (1 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT. SEE NOTE BELOW.

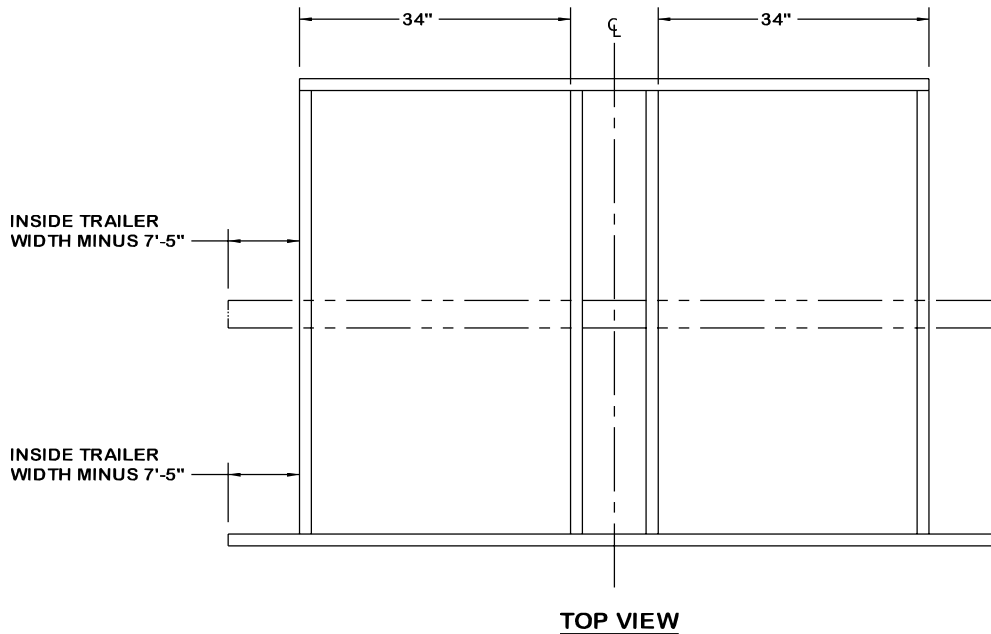
STRUT, 2" X 6" BY CUT-TO-FIT (MIN 6", MAX 60") (4 REQD). CUT TO A LENGTH TO PROVIDE FOR PROPER WEIGHT DISTRIBUTION IN THE TRAILER.



FORWARD SPACER ASSEMBLY A

NOTE: THIS FORWARD BLOCKING ASSEMBLY IS DESIGNED FOR TWO ROWS OF CONTAINERS. IF THE TRAILER TO BE LOADED HAS SQUARE INSIDE FRONT CORNERS, INCREASE THE BUFFER PIECE LENGTH TO "INSIDE TRAILER WIDTH MINUS 1/2 INCH", AND INSTALL THE OUTER STRUTS AT THE ENDS OF THE BUFFER AND TIE PIECES.

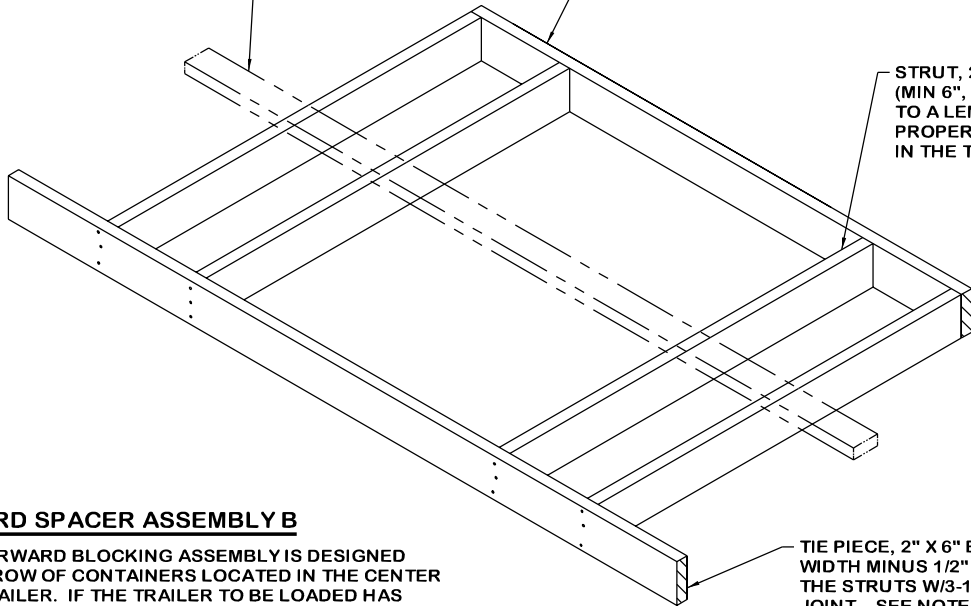
TIE PIECE, 2" X 6" BY INSIDE TRAILER WIDTH MINUS 1/2" (1 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT. SEE NOTE AT LEFT.



LATERAL BRACE, 2" X 4" BY INSIDE TRAILER WIDTH MINUS 1/2" (AS REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT. INSTALL A LATERAL BRACE WHEN STRUT LENGTH EXCEEDS 36".

BUFFER PIECE, 2" X 6" X INSIDE TRAILER WIDTH MINUS 1/2" (1 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT. SEE NOE BELOW.

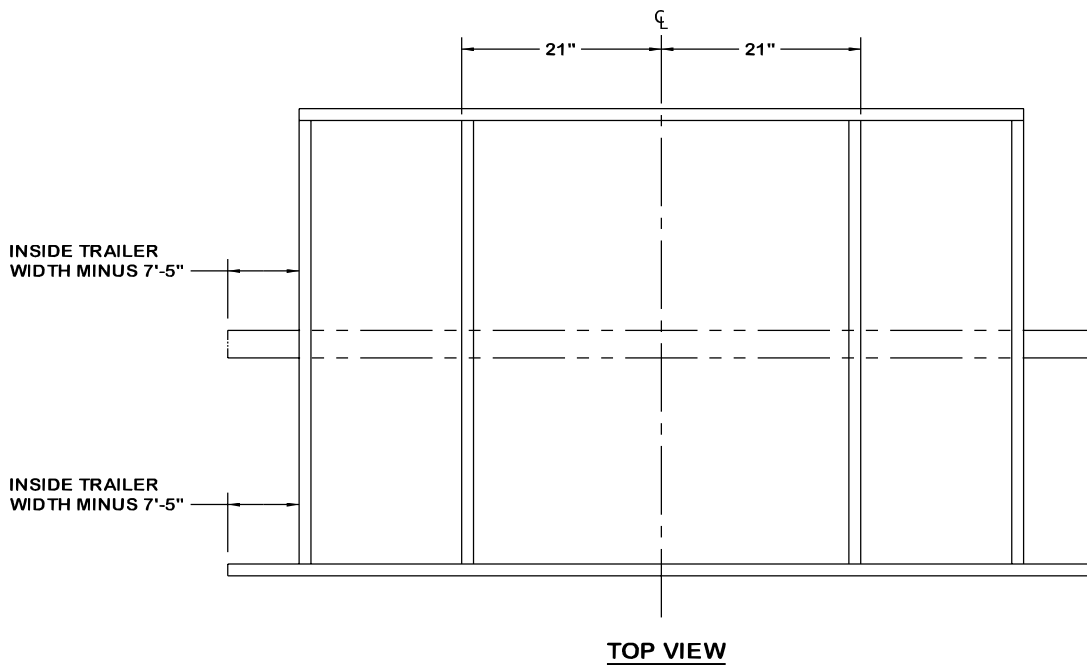
STRUT, 2" X 6" BY CUT-TO-FIT (MIN 6", MAX 60") (4 REQD). CUT TO A LENGTH TO PROVIDE FOR PROPER WEIGHT DISTRIBUTION IN THE TRAILER.

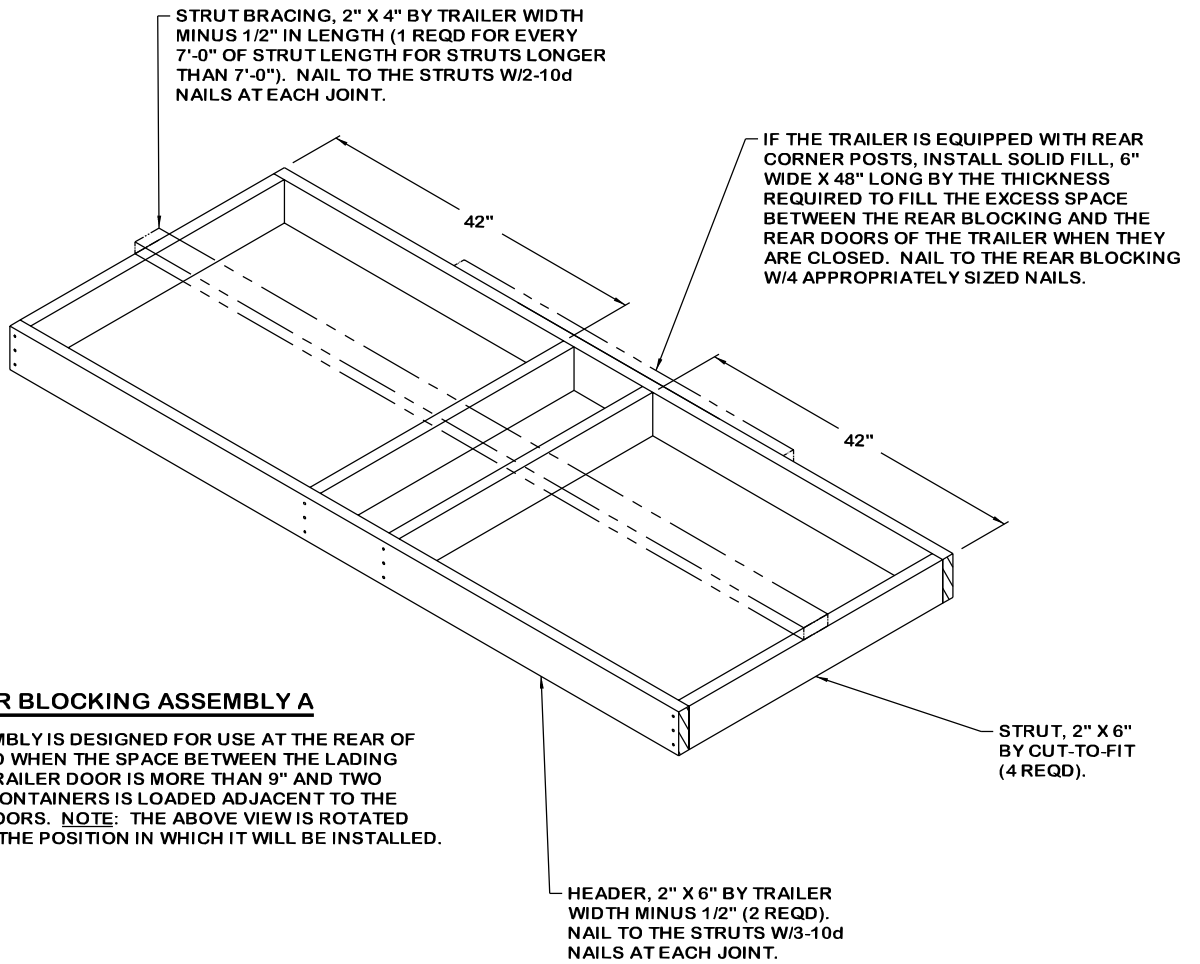


FORWARD SPACER ASSEMBLY B

NOTE: THIS FORWARD BLOCKING ASSEMBLY IS DESIGNED FOR A SINGLE ROW OF CONTAINERS LOCATED IN THE CENTER OF THE VAN TRAILER. 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.

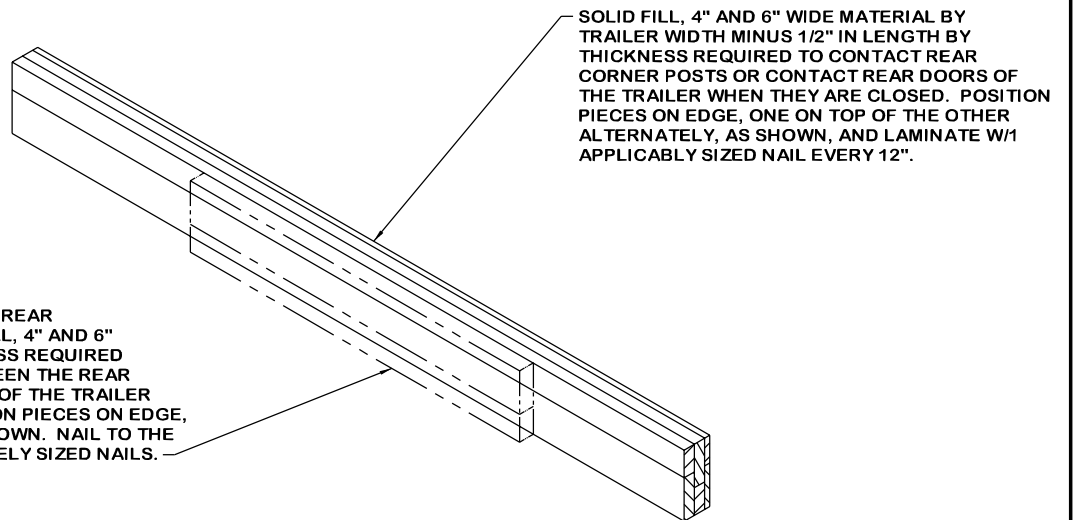
TIE PIECE, 2" X 6" BY INSIDE TRAILER WIDTH MINUS 1/2" (1 REQD). NAIL TO THE STRUTS W/3-10d NAILS AT EACH JOINT. SEE NOTE AT LEFT.





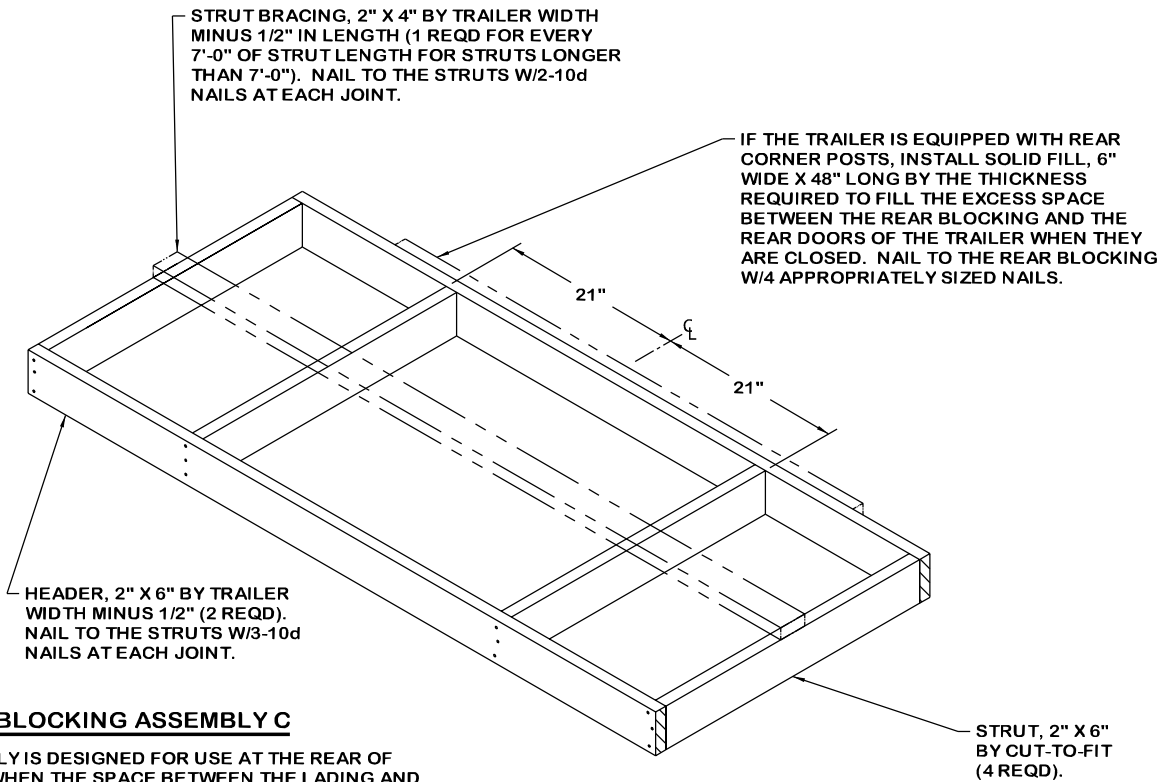
REAR BLOCKING ASSEMBLY A

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



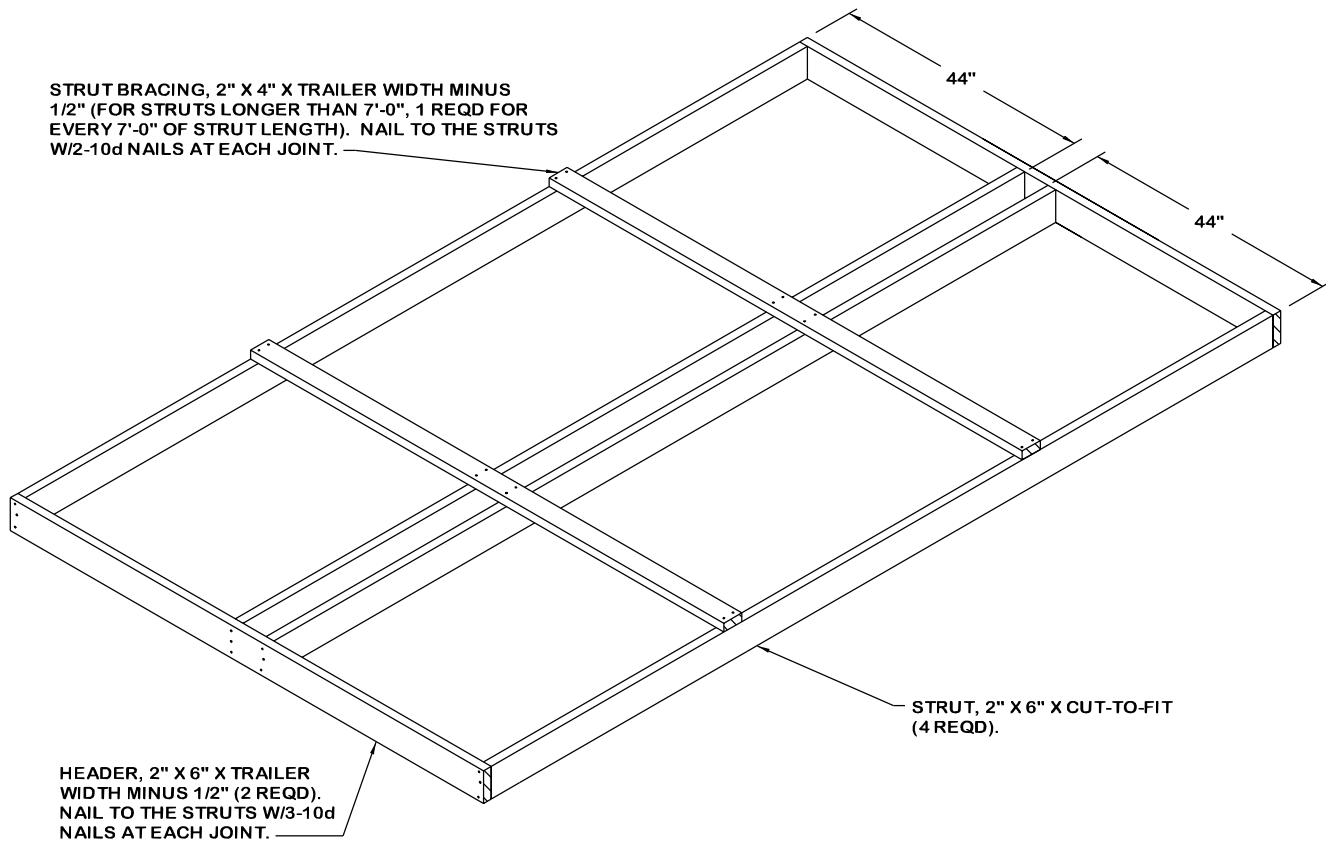
REAR BLOCKING ASSEMBLY B

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

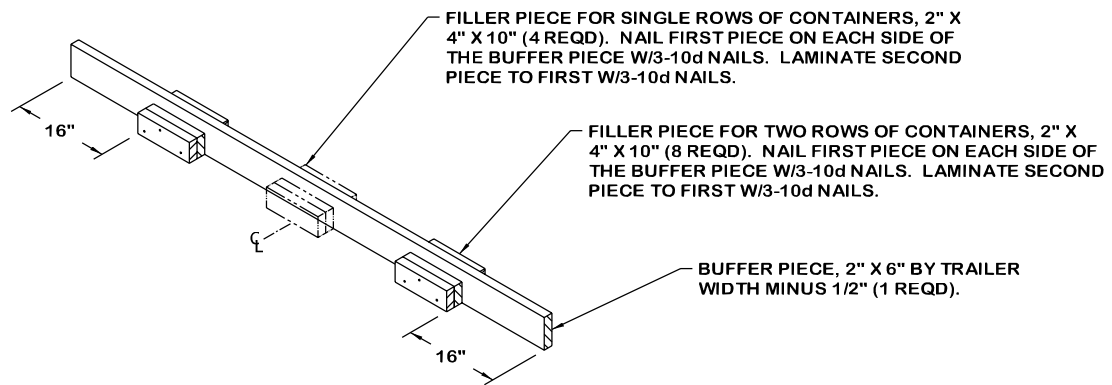
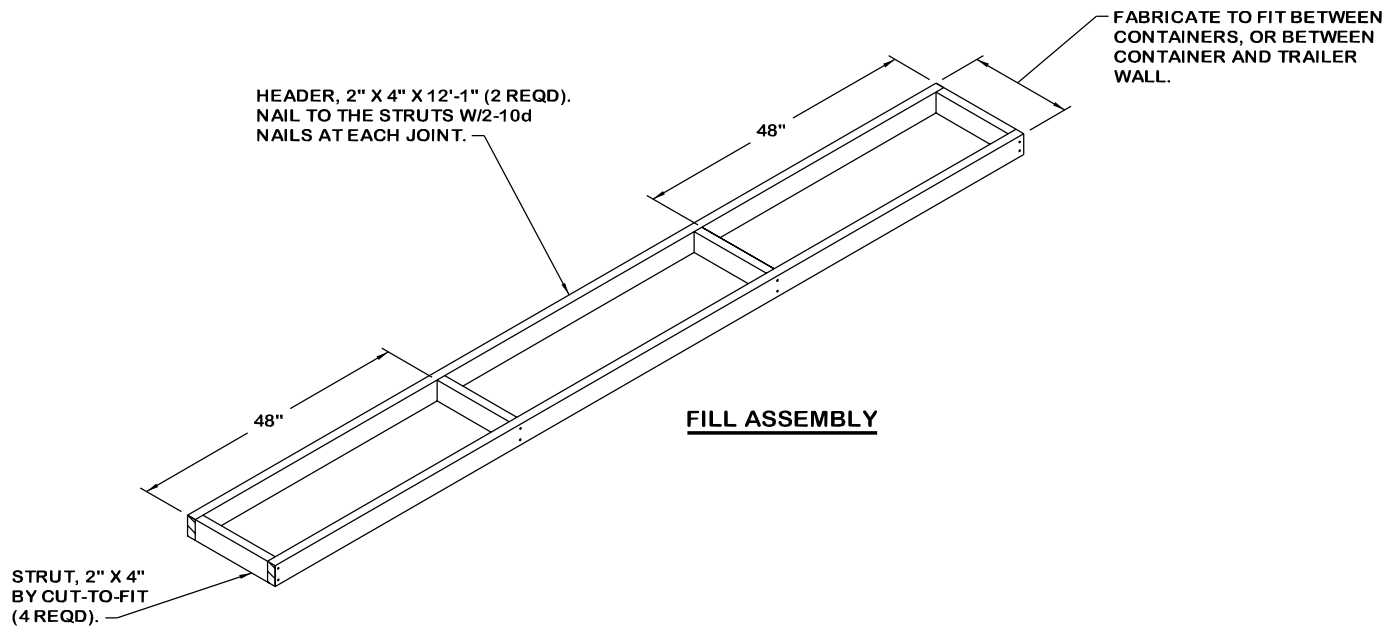


REAR BLOCKING ASSEMBLY C

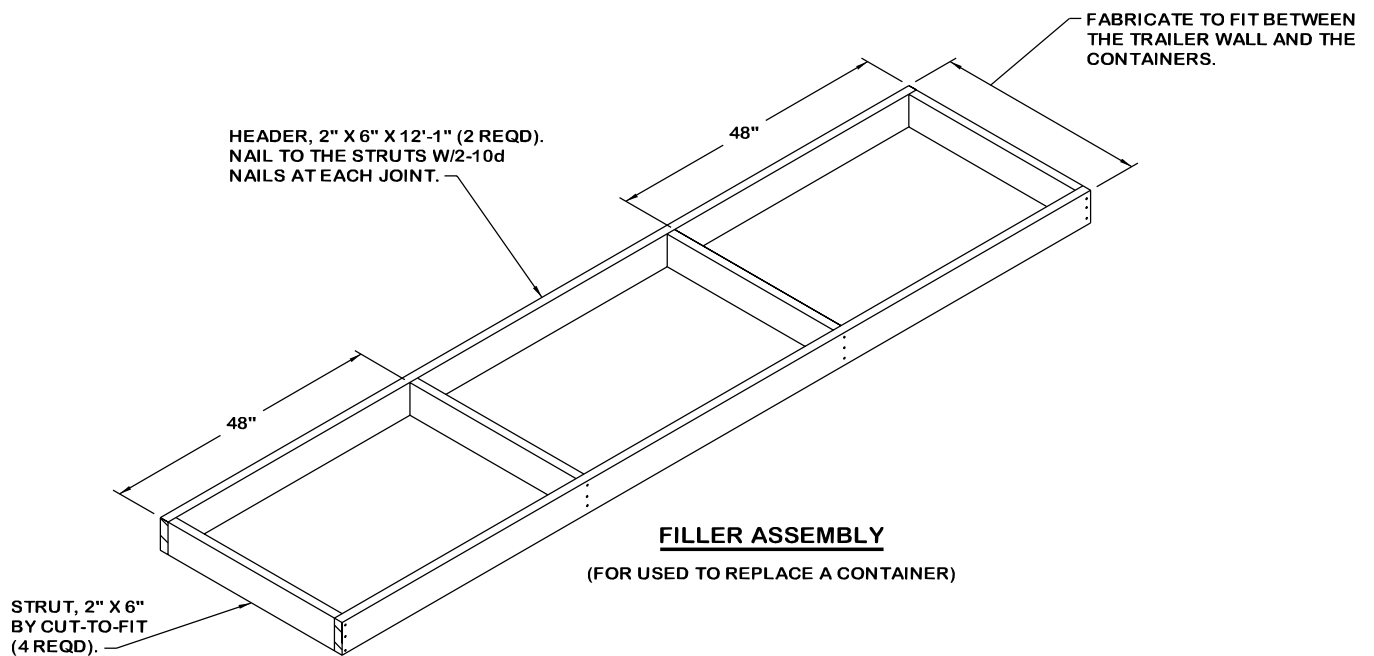
THIS ASSEMBLY IS DESIGNED FOR USE AT THE REAR OF THE A LOAD WHEN THE SPACE BETWEEN THE LADING AND THE TRAILER DOOR IS MORE THAN 9" AND ONE ROW OF CONTAINERS IS LOADED ADJACENT TO THE TRAILER DOORS. NOTE: THE ABOVE VIEW IS ROTATED 180° FROM THE POSITION IN WHICH IT WILL BE INSTALLED.



CENTER SPACER ASSEMBLY



INTERMEDIATE BLOCKING ASSEMBLY

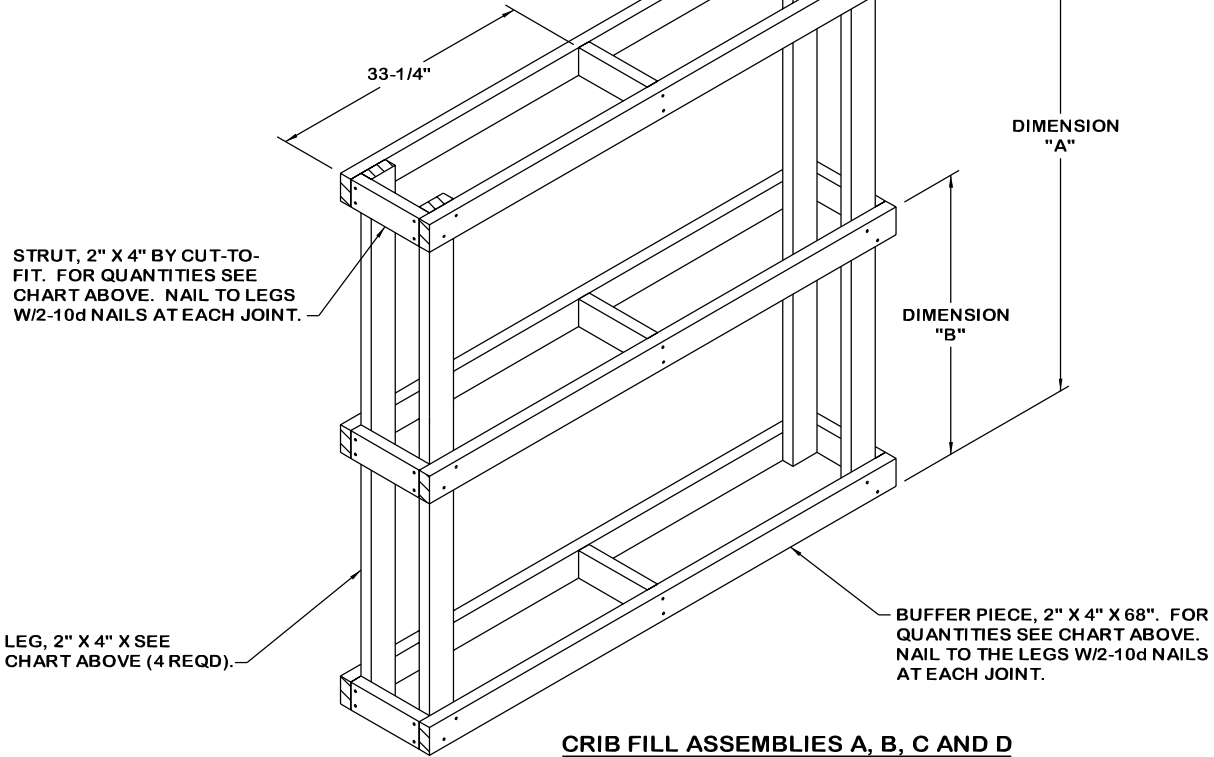


CRIB FILL DETAILS CHART

TIERS PER STACK	CRIB FILL	QUANTITIES		DIMENSIONS		
		STRUTS	BUFFER PIECES	"A"	"B"	LEG LENGTH
2	D	6	4	31-1/2"	--*	31-1/2"
3	C	9	6	49-1/4"	31-1/2"	49-1/4"
4	B	9	6	67"	49-1/4"	67"
5	A	9	6	7'-0-3/4"	49-1/4"	7'-0-3/4"

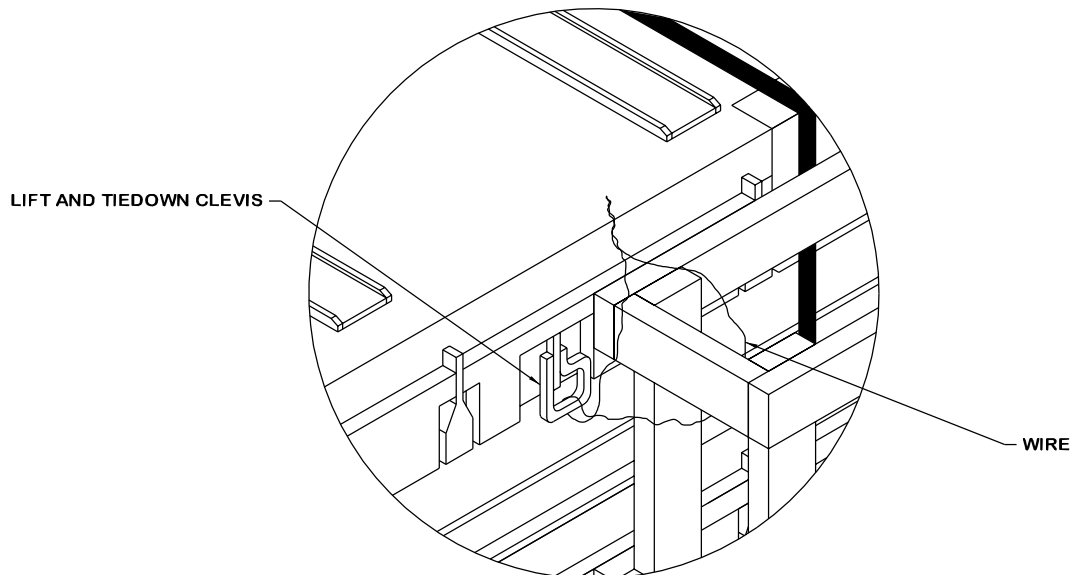
* THE CENTER SECTION IS NOT REQUIRED FOR FOR CRIB FILL "D".

FABRICATE TO FIT BETWEEN LATERALLY ADJACENT UNITS

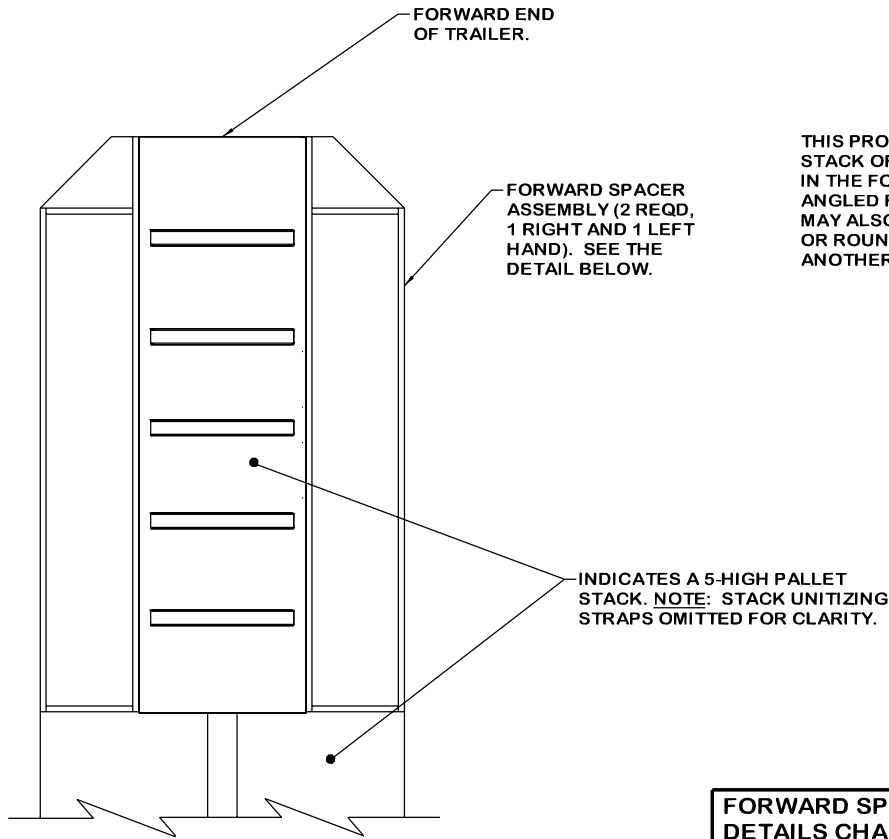


CRIB FILL ASSEMBLIES A, B, C AND D

THESE ASSEMBLIES ARE DESIGNED TO SEPARATE MULTIPLE-TIER CONTAINERS.



CRIB FILL WIRE TIE DETAIL

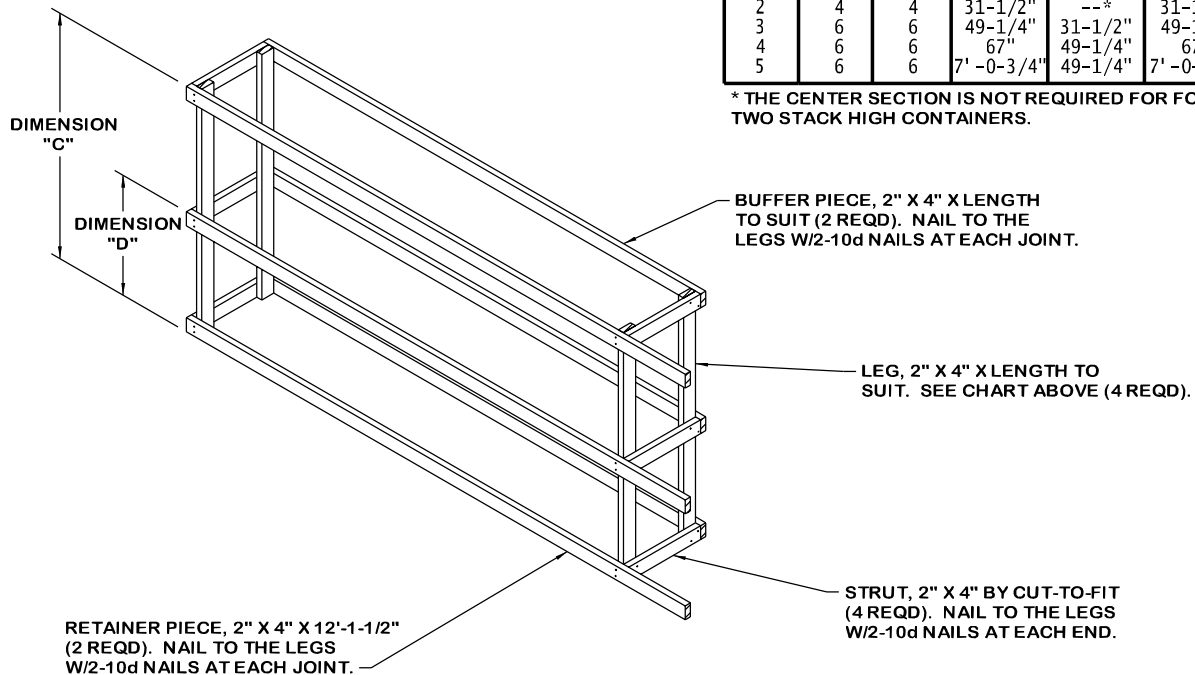


FORWARD LOADING PATTERN

THIS PROCEDURE IS APPLICABLE TO THE LOADING OF A STACK OF TWO TO FIVE (1 WIDE, 2 TO 5 HIGH) CONTAINERS IN THE FORWARD END OF A 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.

TIERS PER STACK	QUANTITIES		DIMENSIONS		
	STRUTS	BUFFER PIECES	"C"	"D"	LEG LENGTH
2	4	4	31-1/2"	--*	31-1/2"
3	6	6	49-1/4"	31-1/2"	49-1/4"
4	6	6	67"	49-1/4"	67"
5	6	6	7'-0-3/4"	49-1/4"	7'-0-3/4"

* THE CENTER SECTION IS NOT REQUIRED FOR TWO STACK HIGH CONTAINERS.



FORWARD SPACER ASSEMBLY

THIS ASSEMBLY IS DESIGNED FOR LATERAL BRACING OF A TWO TO FIVE HIGH CONTAINER STACK LOCATED IN THE FRONT OF A LARGE ANGLED CORNER CONVENTIONAL VAN TRAILER AS SHOWN IN THE "FORWARD LOADING PATTERN" VIEW ABOVE. RIGHT HAND AND LEFT HAND SPACER ASSEMBLIES ARE REQUIRED. NOTE: FOR LATERAL BRACING OF A SINGLE HIGH LOAD, USE A SINGLE ASSEMBLY INCLUDING ONE RETAINER PIECE, TWO STRUTS AND ONE BUFFER PIECE.

