

LOADING AND BRACING* IN END OPENING ISO CONTAINER OF 105MM CARTRIDGES PACKED IN PA71 FIBER CONTAINERS IN WIREBOUND PALLET BOXES, USING TY-GARD RE- STRAINT MATERIAL

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*THE PROCEDURES SHOWN HEREIN ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY CONTAINER-ON-FLATCAR (COFC) RAIL, MOTOR, OR WATER CARRIERS.

U.S. ARMY MATERIEL COMMAND DRAWING

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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 105MM CARTRIDGES PACKED IN PA71 FIBER CONTAINERS IN WIREBOUND PALLET BOXES USING TY-GARD MATERIALS FOR AFT RESTRAINT. SUBSEQUENT REFERENCE TO PALLET UNIT HEREIN MEANS THE PALLET UNIT WITH AMMUNITION ITEMS. SEE PAGE 3 AND ARDEC DRAWING 9277353 FOR DETAILS OF THE PALLET UNIT. SEE AMC DRAWING 19-48-4346-15P1000 FOR ALL NON-TYGARD SHIPMENTS. **CAUTION:** REGARDLESS OF THE QUANTITY OF PALLET UNITS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF THE END OPENING ISO CONTAINER MUST NOT BE EXCEEDED.
- C. THE LOADS AS SHOWN ARE BASED ON A 4,700 POUND 20' LONG BY 8' WIDE BY 8'-6" HIGH END OPENING ISO CONTAINER WITH INSIDE DIMENSIONS OF 19'-4" LONG BY 92" WIDE BY 93" HIGH, WITH A MAXIMUM GROSS WEIGHT OF 52,910 POUNDS. OLDER/OTHER CONTAINERS MAY HAVE A TOTAL INSIDE HEIGHT OF 95", BUT A CLEAR HEIGHT UNDER THE ROOF BOWS OF 93". VERIFY INSIDE CONTAINER HEIGHT PRIOR TO FABRICATING DUNNAGE. THE LOAD IS DESIGNED FOR TRAILER/CONTAINER-ON-FLATCAR (T/COFC) SHIPMENT. HOWEVER, THE LOAD AS DESIGNED CAN ALSO BE MOVED BY OTHER SURFACE MODES OF TRANSPORT. **NOTICE:** OTHER CONTAINERS OF THE SAME DESIGN CONFIGURATION CAN BE USED.
- D. WHEN LOADING PALLET UNITS, THEY ARE TO BE POSITIONED SO AS TO ACHIEVE A TIGHT LOAD (TIGHT AGAINST THE DUNNAGE ASSEMBLIES). THE UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD BAY IS NOT TO EXCEED 1-1/2". EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE HORIZONTAL PIECES ON THE CENTER FILL ASSEMBLY OR INCREASING THE LENGTH OF LATERAL PIECES ON THE CENTER FILL ASSEMBLY. NAIL EACH ADDITIONAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS AND/OR QUANTITY OF THE PIECES IN THE CENTER FILL ASSEMBLY MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE SIZE OF THE PALLET UNITS. THE LOADS MUST BE AS TIGHT AS POSSIBLE LONGITUDINALLY, BUT THE VOID MUST NOT EXCEED 3/4" OVERALL. EXCESSIVE SLACK CAN BE ELIMINATED BY APPLYING THE TY-GARD MATERIALS TIGHT AGAINST THE REAR OF THE LOAD.
- E. THIS DRAWING DEPICTS A 20-PALLET UNIT MAXIMUM CONFIGURATION, WITH A LADING WEIGHT OF 49,312 POUNDS. DUE TO RESTRICTIONS ENACTED BY THE SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND AND THE JOINT MUNITIONS COMMAND, ANY ISO CONTAINER DESTINED TO BE MOVED OVER CONUS HIGHWAYS CAN NOT EXCEED 40,000 POUNDS GROSS WEIGHT. IN ORDER TO COMPLY WITH THIS RESTRICTION, FIVE PALLET UNITS MUST BE ELIMINATED FROM THE 20-PALLET UNIT MAXIMUM LOAD. THIS WILL RESULT IN A 15-PALLET UNIT LOAD WITH A GROSS WEIGHT OF 38,355 POUNDS. SEE THE PROCEDURES ON PAGE 6 AND 8 FOR DETAILS.
- F. A STAGGERED NAILING PATTERN WILL BE USED WHENEVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES OR WHEN LAMINATING DUNNAGE. ADDITIONALLY, THE NAILING PATTERN FOR AN UPPER PIECE OF LAMINATED DUNNAGE WILL BE ADJUSTED AS REQUIRED SO THAT A NAIL FOR THAT PIECE WILL NOT BE DRIVEN THROUGH, ON TO, OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- G. IN SOME ISO CONTAINERS THERE IS A SLOT AT THE CORNERS OF THE FORWARD WALL. PIECES OF DUNNAGE MATERIAL MUST BE LAMINATED TO THE BUFFER PIECES OF THE FORWARD STRUT ASSEMBLIES TO PROVIDE A FLAT SURFACE FOR THE BUFFER PIECES. A PIECE OF 2" X 4", 2" X 3" OR A SPECIAL WIDTH PIECE CUT-TO-FIT CAN BE USED. THIS FILL PIECE WILL BE NAILED WITH ONE APPROPRIATELY SIZED NAIL EVERY 12". NOTE THAT SOME CONTAINERS ARE EQUIPPED WITH "TIE-BARS" IN THE CORNER SLOT, WHICH PRECLUDE THE USE OF A FULL HEIGHT FILL PIECE. WHEN "TIE-BARS" ARE PRESENT, THE FILL PIECE MUST BE INSTALLED IN SEGMENTS DESIGNED TO FIT BETWEEN THE "TIE-BARS" VERTICALLY. THE FILL PIECE(S) IS NOT REQUIRED WHEN THE CORNER PORTIONS OF THE CONTAINER FORWARD WALL ARE SMOOTH AND FLAT. DO NOT ALLOW ANY DUNNAGE ASSEMBLY TO CONTACT THE CONTAINER FORWARD WALL. ONLY THE CORNER POSTS OF THE CONTAINER SHOULD BE USED FOR FORWARD LONGITUDINAL BLOCKING.
- H. WHETHER AN ISO CONTAINER IS FULL OR IS LOADED WITH A REDUCED QUANTITY OF LADING UNITS, THE LENGTHWISE CENTER OF GRAVITY OF THE LOAD MUST BE WITHIN 12", IN EITHER DIRECTION, OF THE MID-POINT OF THE CONTAINER.
- J. **CAUTION:** DO NOT NAIL DUNNAGE MATERIAL TO THE ISO CONTAINER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- K. PORTIONS OF THE ISO CONTAINER DEPICTED WITHIN THIS DRAWING, SUCH AS THE SIDE WALLS AND ROOF, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- L. **MAXIMUM LOAD WEIGHT CRITERIA:**

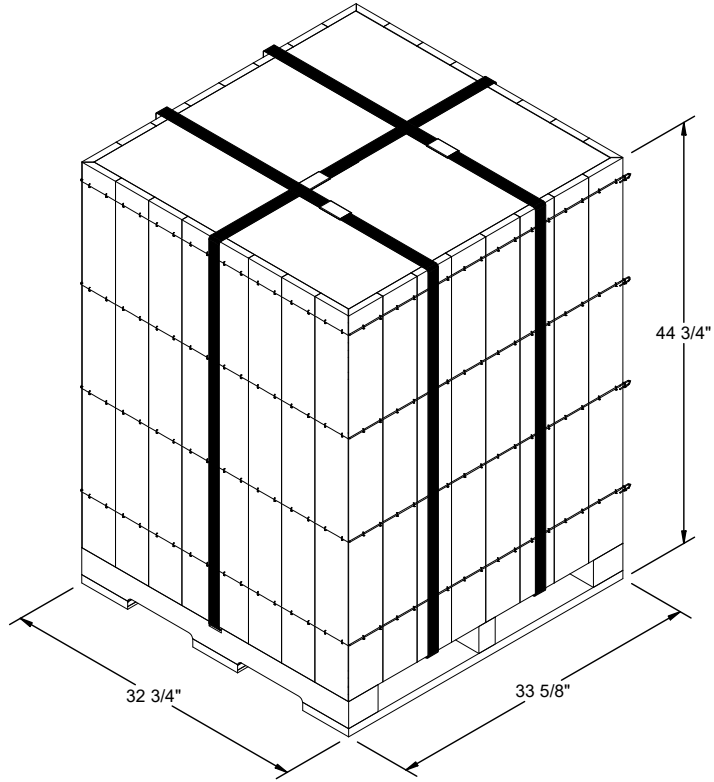
THE MAXIMUM LOAD WEIGHTS ARE CONTROLLED BY EQUIPMENT CAPABILITY FACTORS. ALTHOUGH THE HEAVIEST MAXIMUM LOADS ARE DELINEATED IN THE LOAD VIEWS, PROVISIONS ARE INCLUDED WITHIN THIS DRAWING SO THAT THE BASIC LOADS CAN BE ADJUSTED TO SATISFY A LESSER QUANTITY OF LADING UNITS. DEPENDING ON TRANSPORTATION ROUTING, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY "WEIGHT LAWS" OF CERTAIN STATES. ALSO, IT MAY BE NECESSARY TO REDUCE THE LOAD WEIGHT TO SATISFY OTHER WEIGHT RESTRICTIONS IMPOSED ON THE INTERMODAL CONTAINER SYSTEM.

(CONTINUED AT RIGHT)

- M. REQUIREMENTS CITED WITHIN THE ASSOCIATION OF AMERICAN RAILROADS (AAR) INTERMODAL LOADING GUIDE APPLY WHEN THE SHIPMENT MOVES BY TRAILER/CONTAINER-ON-FLATCAR (T/COFC). SPECIAL T/COFC NOTES FOLLOW:
 1. A LOADED CONTAINER MUST BE ON A CHASSIS EQUIPPED WITH TWO BOGIE ASSEMBLIES WHEN BEING MOVED IN TOFC SERVICE.
 2. THE LOAD LIMIT OF A T/COFC RAILCAR MUST NOT BE EXCEEDED, NOR WILL A CAR BE LOADED SO THAT THE TRUCK UNDER ONE END OF THE CAR CARRIES MORE THAN ONE-HALF OF THE LOAD LIMIT FOR THAT CAR.
- N. DURING INTRASTATE AND/OR INTERSTATE MOVES BY MOTOR CARRIER, A PROPER CHASSIS OR MODIFIED FLATBED TRAILER MUST BE USED TO PRECLUDE VIOLATION OF ONE OR MORE "WEIGHT LAWS" APPLICABLE TO THE STATE OR STATES INVOLVED.
- O. 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.
- P. A COMPLETE SET OF TY-GARD RESTRAINTS WILL CONSIST OF TWO SECTIONS OF TY-GARD DS AND ONE SECTION OF TY-PATCH DS. EACH COMPLETE SET IS CAPABLE OF RESTRAINING A MAXIMUM OF 13,200 POUNDS. SEE THE CHART ON PAGE 3 FOR ALLOWABLE LOADING WEIGHTS.
- Q. MARK CONTAINER SIDEWALLS FOR PROPER LOCATION OF TY-GARD. PEEL AND ADHERE TY-GARD TO PRE-MARKED LOCATIONS, TAKING CARE TO FOLLOW THE CONTOUR OF THE CONTAINER CORRUGATIONS. CARE MUST BE USED TO ENSURE A CONSISTENT PRESSURE (APPROXIMATELY 16 PSI) IS APPLIED WHEN AFFIXING THE TY-GARD TO THE ISO CONTAINER. TENSION THE LOAD WITH THE TY-TOOL AND SEAL THE TY-GARD WITH THE TY-PATCH. TY-TAPE WILL THEN BE APPLIED TO VERTICALLY SPAN ALL TY-GARD LAYERS IN AT LEAST TWO LOCATIONS. REFER TO TY-GARD MANUAL 14019090 FOR COMPLETE INSTALLATION INSTRUCTIONS.
- R. IF NECESSARY DUE TO LOAD HEIGHT AND WEIGHT RESTRICTIONS, ONE SET OF TY-GARD DS RESTRAINTS MAY VERTICALLY OVERLAP ANOTHER SET, HOWEVER, OVERLAP WILL NOT EXCEED 6".
- S. IF THE INTERIOR OF THE ISO CONTAINER BEING LOADED HAS TIEDOWN RINGS ALONG THE BASE OF THE SIDE WALLS, THE BOTTOM SET OF TY-GARD RESTRAINTS CAN BE ADJUSTED UPWARD TO CLEAR THE RINGS. IF NECESSARY TO ACHIEVE THIS, OVERLAP TY-GARD SETS. SEE GENERAL NOTE "R" ABOVE FOR DETAILS.
- T. THE QUANTITY OF PALLET UNITS SHOWN IN THE LOAD ON PAGE 4 MAY BE REDUCED FOR SHIPMENT, IF DESIRED. SEE THE PROCEDURES ON PAGES 6 AND 8 FOR DETAILS.
- U. DUNNAGE LUMBER SPECIFIED IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.

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).
- PLYWOOD - - - - - : COMMERCIAL ITEM DESCRIPTION A-A-55057, INDUSTRIAL PLYWOOD, INTERIOR WITH EXTERIOR GLUE, GRADE C-D. IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER INTERIOR OR AN EXTERIOR GRADE MAY BE SUBSTITUTED.
- WIRE, CARBON STEEL - : ASTM A853; ANNEALED AT FINISH, BLACK OXIDE FINISH, 0.0800" DIA, GRADE 1006 OR BETTER.
- TY-GARD DS® - - - - : 8135-01-585-0512, 24" WIDE.
- TY-PATCH DS® - - - - : 8135-01-584-6017, 24" WIDE.
- TY-TAPE DS® - - - - : 8135-17-123-0568.
- TY-TOOL DS® - - - - : 5120-17-123-0567, 3 PIECES

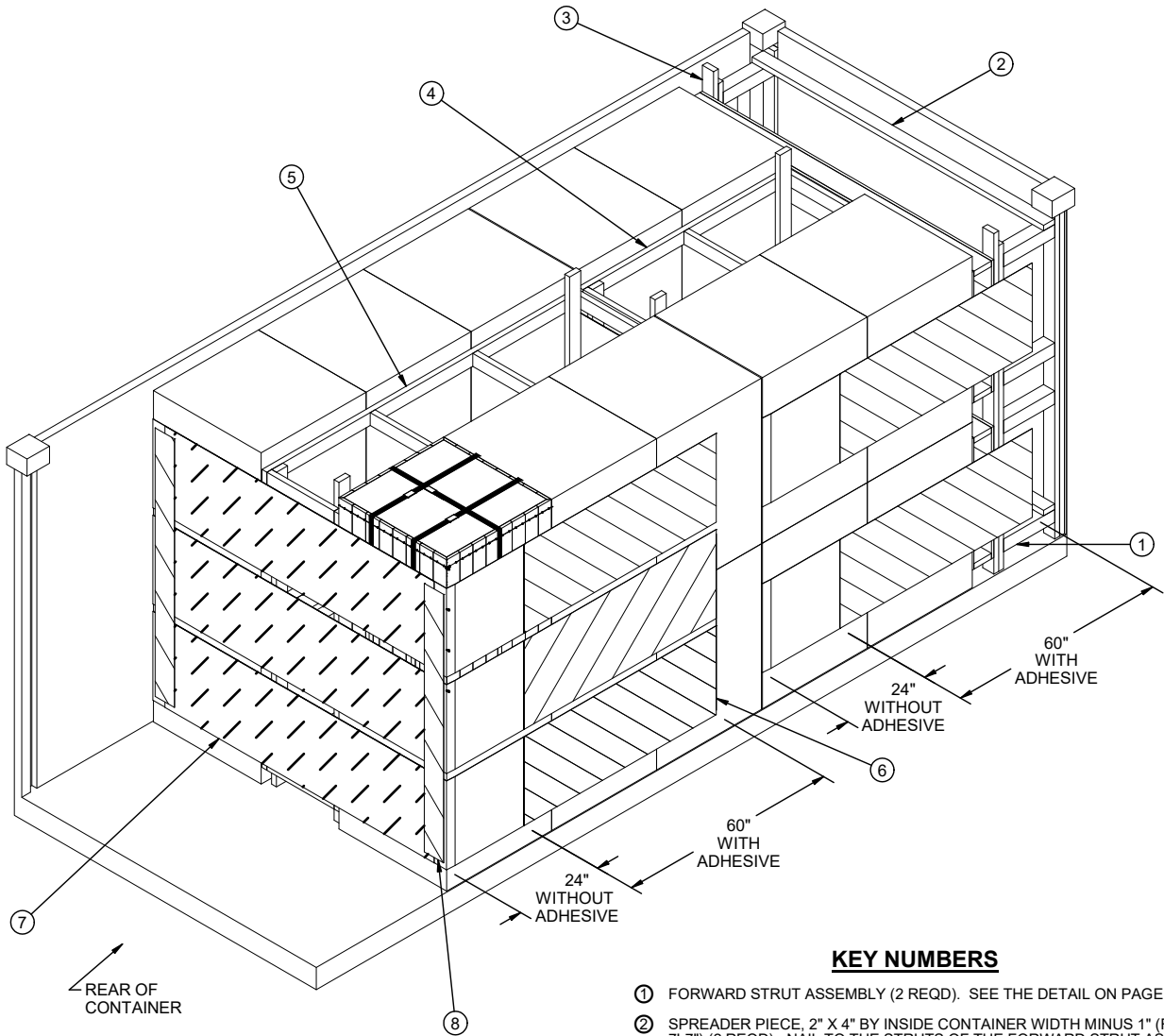


PALLET UNIT DATA

GROSS WEIGHT - - - - 1,920 - 2,200 LBS
 CUBE - - - - - - - - - - 28.5 CU FT

| TY-GARD DS STRENGTH RATINGS | | |
|-----------------------------|--------------------------|----------------------------------|
| SETS OF TY-GARD | LOAD HEIGHT MIN (INCHES) | ISO CONTAINER CONTENTS MAX (LBS) |
| 1 | 18 | 13,200 |
| 2 | 36 | 26,400 |
| 3 | 54 | 39,600 |

NOTE: EACH SET CONTAINS TWO SECTIONS OF TY-GARD DS AND ONE SECTION OF TY-PATCH DS. DO NOT CUT TY-GARD DS AND TY-PATCH DS INTO WIDTHS LESS THAN THE STANDARD 24" WIDE.



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD STRUT ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 5.
- ② SPREADER PIECE, 2" X 4" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (2 REQD). NAIL TO THE STRUTS OF THE FORWARD STRUT ASSEMBLIES W/2-10d NAILS AT EACH END. INSTALL THE UPPER SPREADER PIECE ON THE UNDERSIDE OF THE STRUTS IF THE VERTICAL SPACING DOES NOT ALLOW FOR NAILING AS DEPICTED.
- ③ FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 5. NAIL THROUGH THE BUFFER PIECES INTO THE VERTICAL PIECE OF THE FORWARD STRUT ASSEMBLIES W/6-10d NAILS.
- ④ CENTER FILL ASSEMBLY A (1 REQD). SEE THE DETAIL ON PAGE 7.
- ⑤ CENTER FILL ASSEMBLY B (1 REQD). SEE THE DETAIL ON PAGE 7.
- ⑥ TY-GARD DS FLEXIBLE BARRIER, 24" WIDE X 12'-0" LONG (10 REQD). APPLY EACH TY-GARD PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS. PRE-MARK THE CONTAINER SIDEWALL 7'-0" FROM THE EXPECTED REARMOST EDGE OF THE LOAD AT THE REQUIRED HEIGHT. INSTALL THE TY-GARD WITH THE 5 FOOT ADHESIVE SECTION FURTHEST FROM THE REAR OF THE LOAD, AT THE PRE-MARKED LOCATION.
- ⑦ TY-PATCH DS, 24" WIDE X 7'-0" LONG (5 REQD). APPLY EACH TY-PATCH PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS, FORMING A PATCH OVER TWO PIECES OF TY-GARD MATERIAL AFTER CINCHING THEM TIGHT.
- ⑧ TY-TAPE DS, 72" LONG (4 REQD). APPLY EACH TY-TAPE PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS.

BILL OF MATERIAL

| LUMBER | LINEAR FEET | BOARD FEET |
|---------------|------------------|------------|
| 2" X 4" | 277 | 185 |
| 2" X 6" | 61 | 61 |
| 4" X 4" | 11 | 14 |
| NAILS | NO. REQD | POUNDS |
| 6d (2") | 192 | 1-1/4 |
| 10d (3") | 248 | 3-3/4 |
| PLYWOOD, 3/4" | 48.03 SQ FT REQD | 99.06 LBS |
| TY-GARD | 120 FT REQD | 20.18 LBS |
| TY-PATCH | 35 FT REQD | 7.83 LBS |
| TY-TAPE | 24 FT REQD | 1.60 LBS |

LOAD AS SHOWN

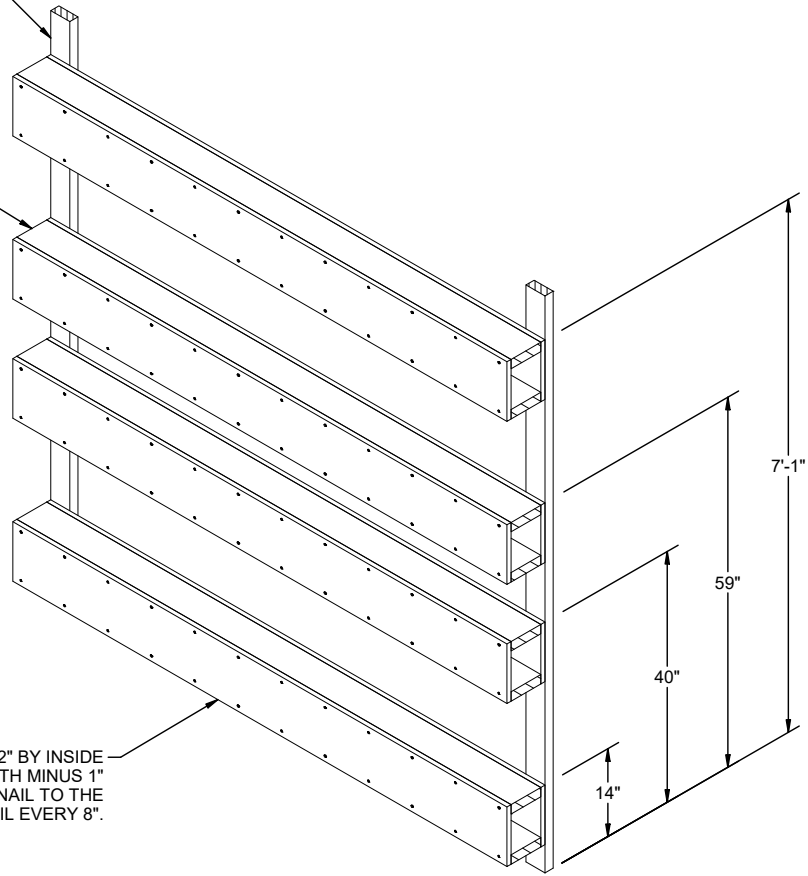
| ITEM | QUANTITY | WEIGHT (APPROX) |
|-------------|----------|-----------------|
| PALLET UNIT | 20 | 44,000 LBS |
| DUNNAGE | | 654 LBS |
| CONTAINER | | 4,700 LBS |

TOTAL WEIGHT - - - - - 49,354 LBS

BUFFER PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" (REF: 7'-8") (2 REQD). NAIL THRU THE PLYWOOD INTO THE BEAMS W/2-10d NAILS AT EACH JOINT.

BEAM, 2" X 6" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (8 REQD).

PLYWOOD, 3/4" X 9-1/2" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (8 REQD). NAIL TO THE BEAMS W/1-6d NAIL EVERY 8".



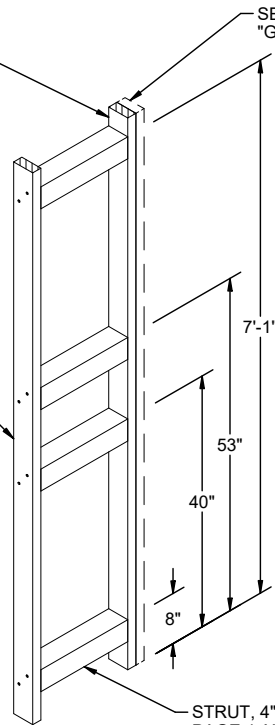
FORWARD BLOCKING ASSEMBLY

FOR A ONE-HIGH LOAD, ELIMINATE TOP TWO BOX BEAM ASSEMBLIES.

BUFFER PIECE, 2" X 4" BY INSIDE CONTAINER HEIGHT MINUS 1" (REF: 7'-4") (1 REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.

SEE GENERAL NOTE "G" ON PAGE 2.

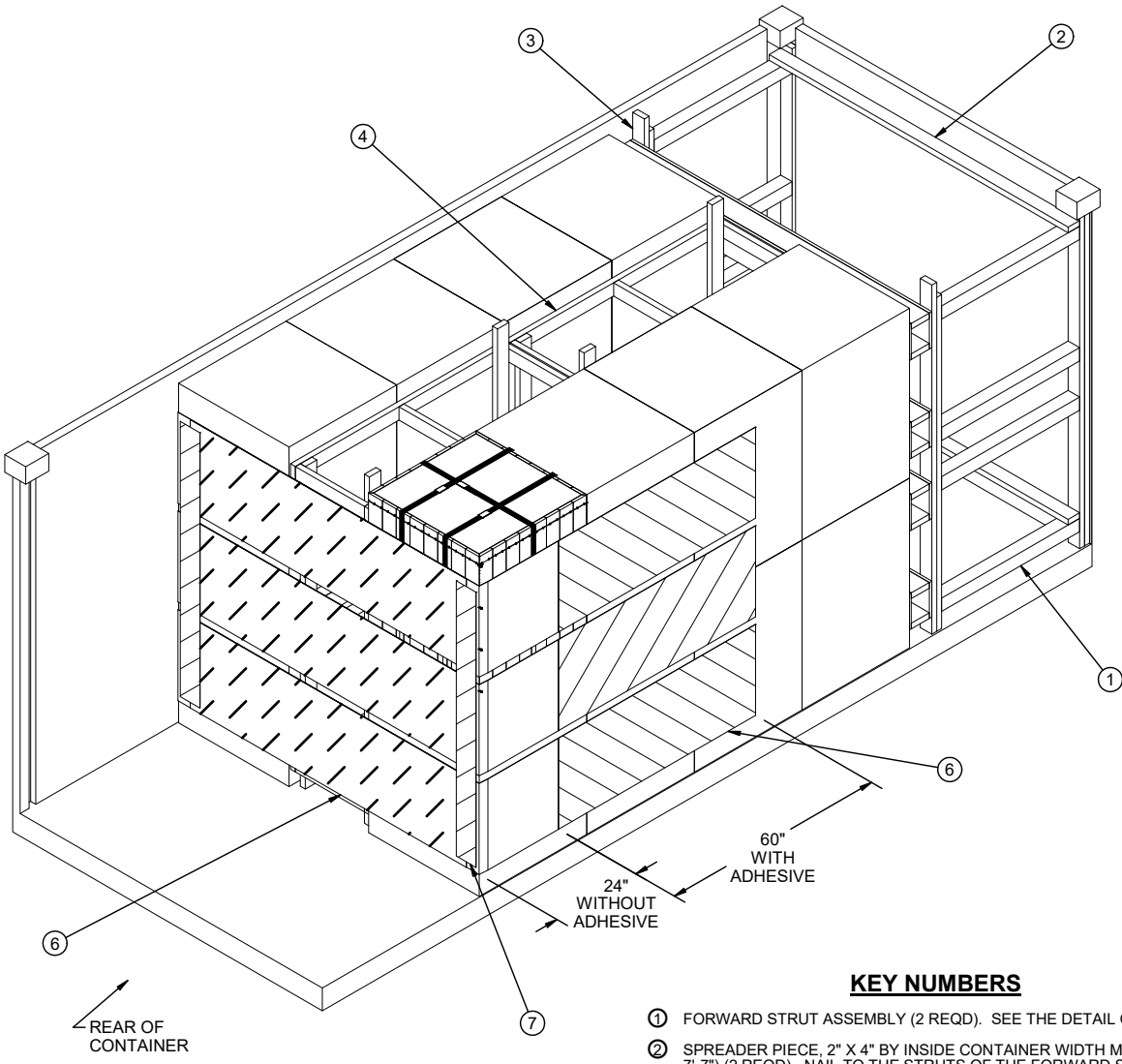
VERTICAL PIECE, 2" X 4" X 7'-4" (1 REQD). NAIL TO THE STRUTS W/2-10d NAILS AT EACH JOINT.



STRUT, 4" X 4" X 16" FOR LOAD ON PAGE 4 AND 8; AND 42" FOR LOAD ON PAGE 6 (4 REQD).

FORWARD STRUT ASSEMBLY

FOR A ONE-HIGH LOAD, ELIMINATE THE TWO UPPER STRUTS AND SHORTEN THE 7'-4" VERTICAL PIECE TO 44".



ISOMETRIC VIEW

KEY NUMBERS

- ① FORWARD STRUT ASSEMBLY (2 REQD). SEE THE DETAIL ON PAGE 5.
- ② SPREADER PIECE, 2" X 4" BY INSIDE CONTAINER WIDTH MINUS 1" (REF: 7'-7") (2 REQD). NAIL TO THE STRUTS OF THE FORWARD STRUT ASSEMBLIES W/2-10d NAILS AT EACH END. INSTALL THE UPPER SPREADER PIECE ON THE UNDERSIDE OF THE STRUTS IF THE VERTICAL SPACING DOES NOT ALLOW FOR NAILING AS DEPICTED.
- ③ FORWARD BLOCKING ASSEMBLY (1 REQD). SEE THE DETAIL ON PAGE 5. NAIL THROUGH THE BUFFER PIECES INTO THE VERTICAL PIECE OF THE FORWARD STRUT ASSEMBLIES W/6-10d NAILS.
- ④ CENTER FILL ASSEMBLY A (2 REQD). SEE THE DETAIL ON PAGE 7.
- ⑤ TY-GARD DS FLEXIBLE BARRIER, 24" WIDE X 12'-0" LONG (6 REQD). APPLY EACH TY-GARD PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS. PRE-MARK THE CONTAINER SIDEWALL 7'-0" FROM THE EXPECTED REARMOST EDGE OF THE LOAD AT THE REQUIRED HEIGHT. INSTALL THE TY-GARD WITH THE 5 FOOT ADHESIVE SECTION FURTHEST FROM THE REAR OF THE LOAD, AT THE PRE-MARKED LOCATION.
- ⑥ TY-PATCH DS, 24" WIDE X 7'-0" LONG (3 REQD). APPLY EACH TY-PATCH PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS, FORMING A PATCH OVER TWO PIECES OF TY-GARD MATERIAL AFTER CINCHING THEM TIGHT.
- ⑦ TY-TAPE DS, 72" LONG (2 REQD). APPLY EACH TY-TAPE PIECE IN ACCORDANCE WITH TY-GARD DS INSTALLATION INSTRUCTIONS.

← REAR OF CONTAINER

60" WITH ADHESIVE

24" WITHOUT ADHESIVE

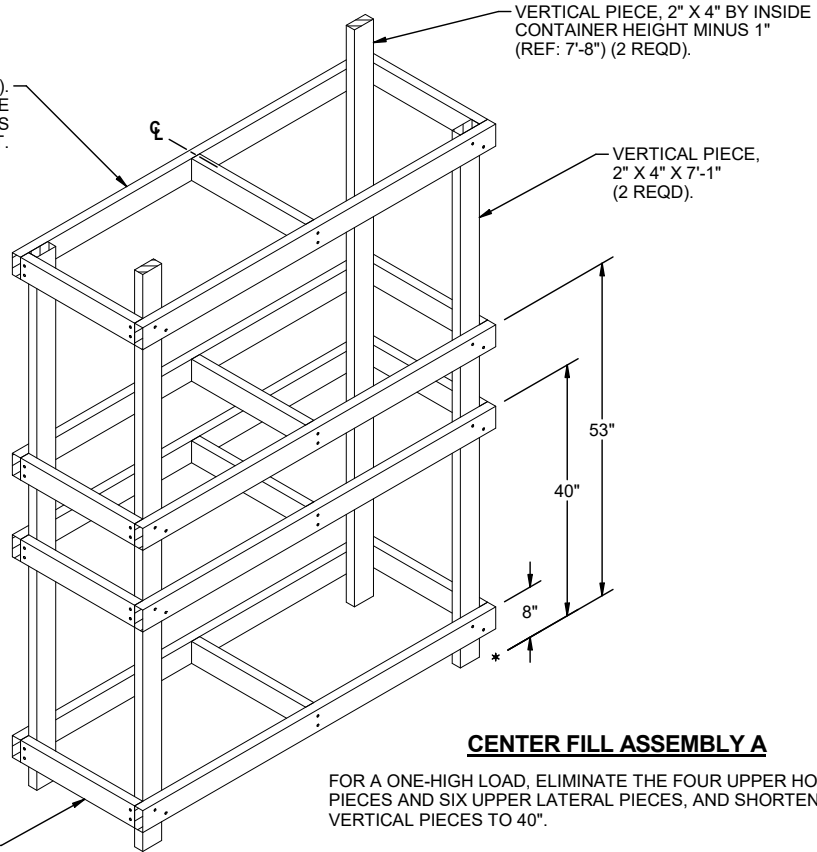
BILL OF MATERIAL

| LUMBER | LINEAR FEET | BOARD FEET |
|-----------------------|--------------------------|------------|
| 2" X 4" | 248 | 165 |
| 2" X 6" | 61 | 61 |
| 4" X 4" | 28 | 37 |
| NAILS | NO. REQD | POUNDS |
| 6d (2") | 192 | 1-1/4 |
| 10d (3") | 232 | 3-3/4 |
| PLYWOOD, 3/4" - - - - | 48.03 SQ FT REQD - - - - | 99.06 LBS |
| TY-GARD - - - - - | 72 FT REQD - - - - | 12.10 LBS |
| TY-PATCH - - - - - | 21 FT REQD - - - - | 4.70 LBS |
| TY-TAPE - - - - - | 12 FT REQD - - - - | 0.80 LBS |

LOAD AS SHOWN

| ITEM | QUANTITY | WEIGHT (APPROX) |
|-------------------------------|--------------|-------------------|
| PALLET UNIT - - - - - | 16 - - - - - | 35,200 LBS |
| DUNNAGE - - - - - | - - - - - | 648 LBS |
| CONTAINER - - - - - | - - - - - | 4,700 LBS |
| TOTAL WEIGHT - - - - - | | 40,548 LBS |

HORIZONTAL PIECE, 2" X 4" X 65" (8 REQD).
NAIL TO THE VERTICAL PIECES AND THE
INNER LATERAL PIECE W/2-10d NAILS
AT EACH JOINT.

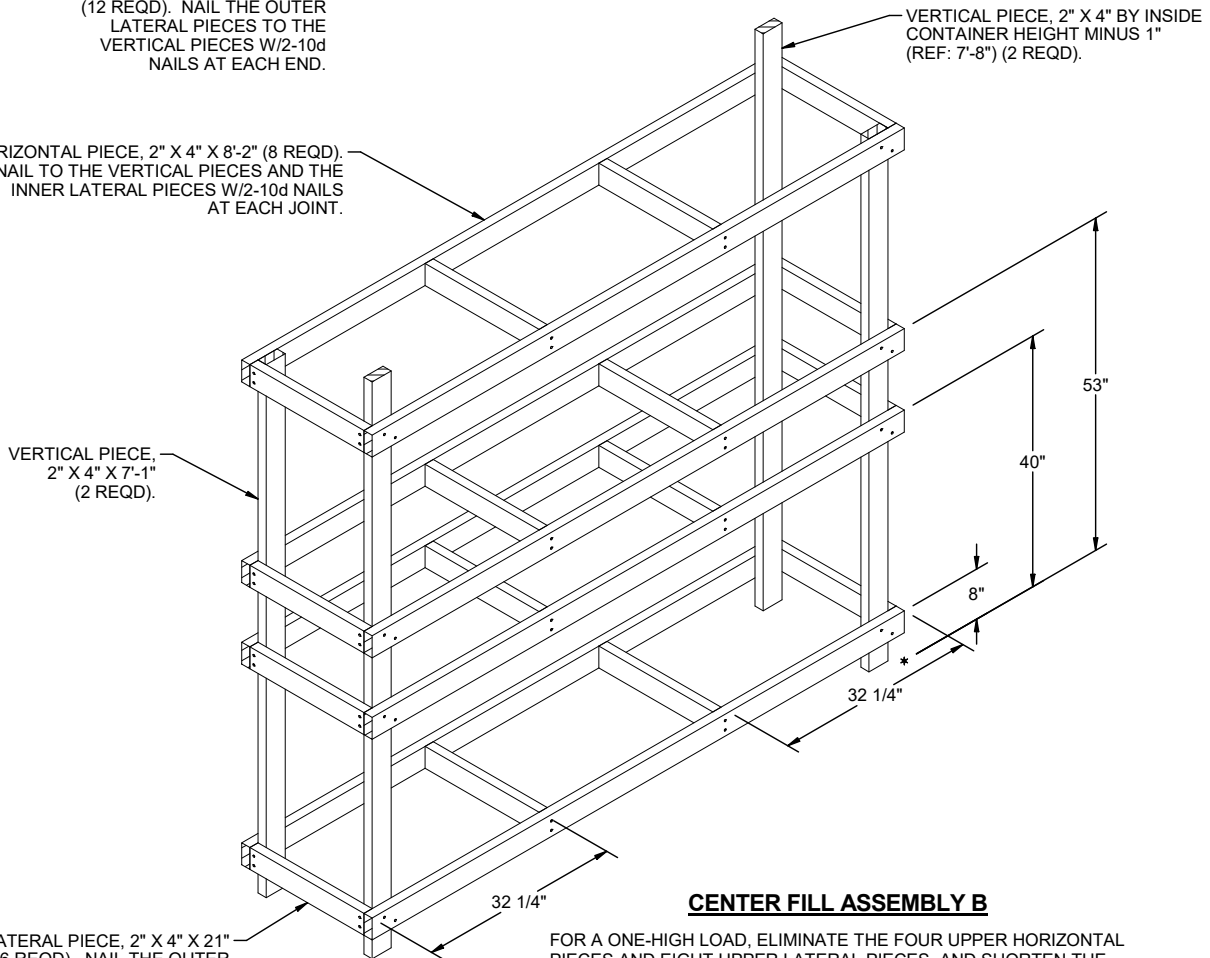


CENTER FILL ASSEMBLY A

FOR A ONE-HIGH LOAD, ELIMINATE THE FOUR UPPER HORIZONTAL
PIECES AND SIX UPPER LATERAL PIECES, AND SHORTEN THE 7'-1"
VERTICAL PIECES TO 40".

LATERAL PIECE, 2" X 4" X 21"
(12 REQD). NAIL THE OUTER
LATERAL PIECES TO THE
VERTICAL PIECES W/2-10d
NAILS AT EACH END.

HORIZONTAL PIECE, 2" X 4" X 8'-2" (8 REQD).
NAIL TO THE VERTICAL PIECES AND THE
INNER LATERAL PIECES W/2-10d NAILS
AT EACH JOINT.



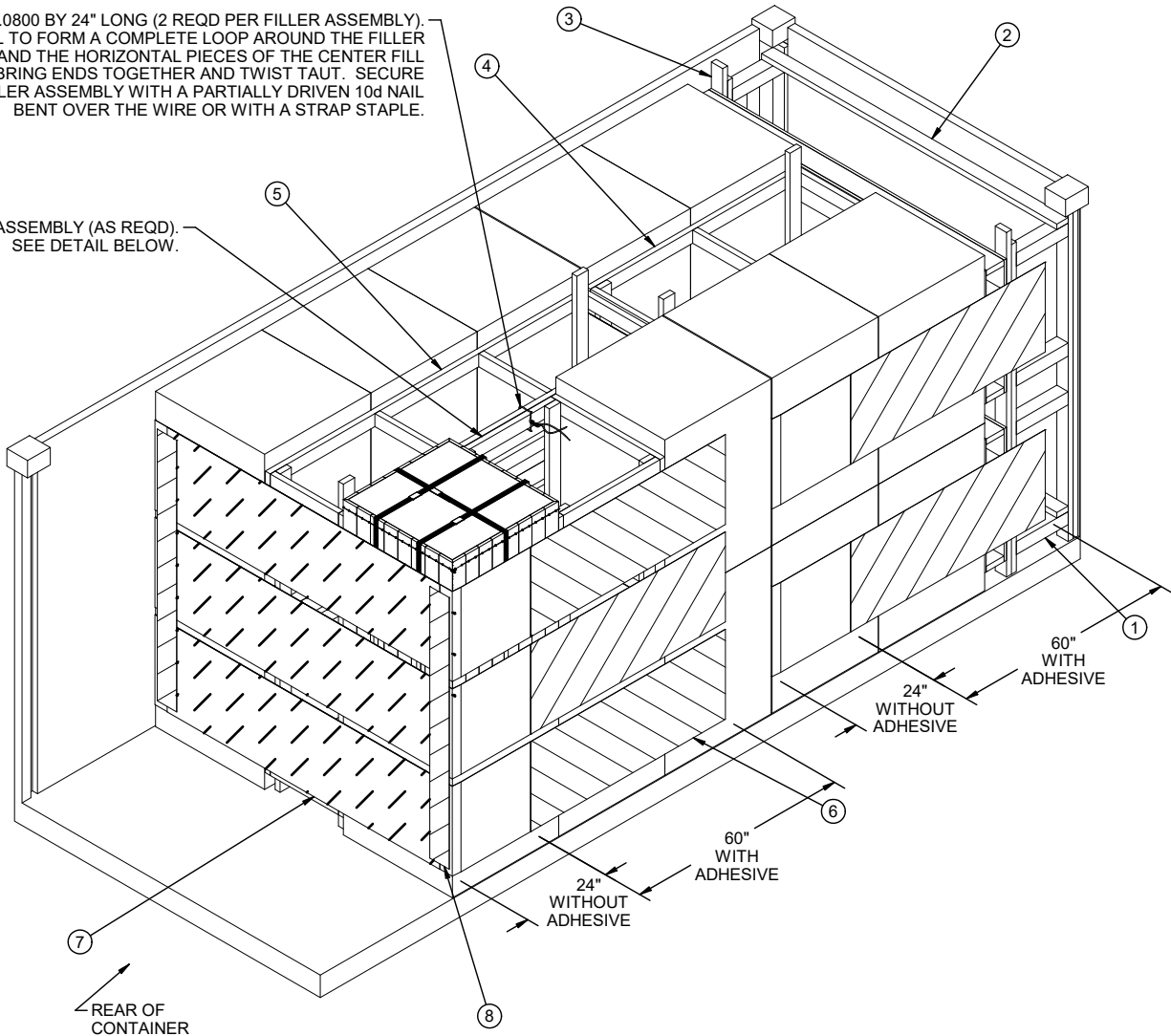
CENTER FILL ASSEMBLY B

FOR A ONE-HIGH LOAD, ELIMINATE THE FOUR UPPER HORIZONTAL
PIECES AND EIGHT UPPER LATERAL PIECES, AND SHORTEN THE
7'-1" VERTICAL PIECES TO 40".

LATERAL PIECE, 2" X 4" X 21"
(16 REQD). NAIL THE OUTER
LATERAL PIECES TO THE
VERTICAL PIECES W/2-10d
NAILS AT EACH END.

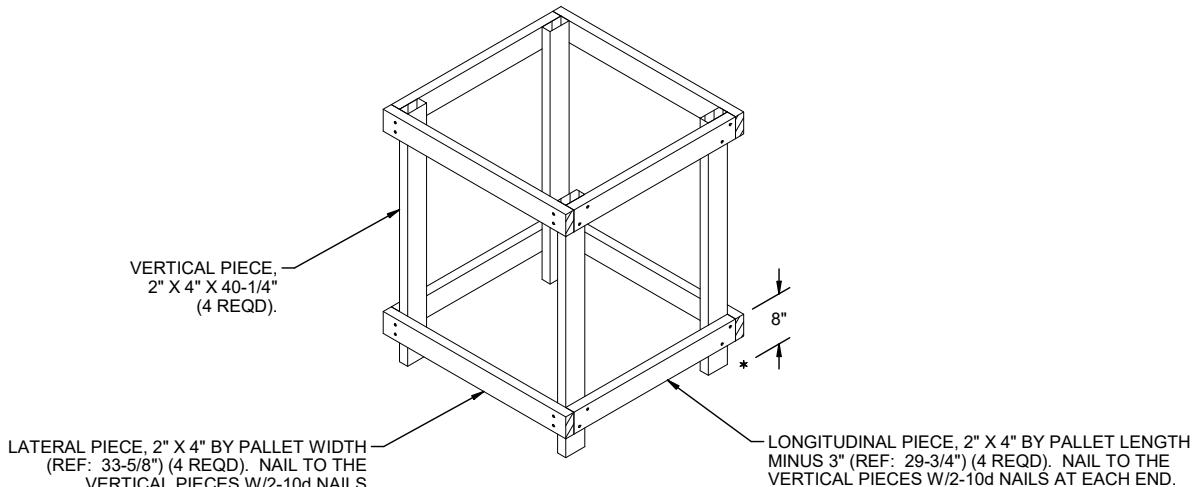
TIE WIRE, .0800 BY 24" LONG (2 REQD PER FILLER ASSEMBLY). INSTALL TO FORM A COMPLETE LOOP AROUND THE FILLER ASSEMBLY AND THE HORIZONTAL PIECES OF THE CENTER FILL ASSEMBLY. BRING ENDS TOGETHER AND TWIST TAUT. SECURE TO THE FILLER ASSEMBLY WITH A PARTIALLY DRIVEN 10d NAIL BENT OVER THE WIRE OR WITH A STRAP STAPLE.

FILLER ASSEMBLY (AS REQD). SEE DETAIL BELOW.



LESS-THAN-FULL-LOAD PROCEDURE

THE DETAIL ABOVE DEPICTS A BLOCKING METHOD TO BE USED IN A LESS-THAN-FULL-LOAD. KEY NUMBERS REFER TO KEY NUMBERS ON PAGE 4. SEE GENERAL NOTE "H" ON PAGE 2.



FILLER ASSEMBLY

FOR MINUS ONE PALLET UNIT. NO MORE THAN THREE FILLER ASSEMBLIES MAY BE USED FOR A 2-HIGH LOAD OR ONE FILLER ASSEMBLY MAY BE USED FOR A 1-HIGH LOAD.