

LOADING AND BRACING* ON COMMERCIAL FLATRACK ISO CONTAINERS OF SIDEARM (AGM-122A) MISSILES PACKED IN CNU-434 SHIPPING AND STORAGE CONTAINERS

INDEX

ITEM	PAGE(S)
GENERAL NOTES AND MATERIAL SPECIFICATIONS	2
CONTAINER DETAILS	3
TYPICAL LOADING PROCEDURES	4-5
DETAILS	6-8

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

U.S. ARMY MATERIEL COMMAND DRAWING

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		19	48	8714	SP15J121

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. ALL LOADS SHIPPED BY THE PROCEDURES DEPICTED IN THIS DRAWING MUST BE IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN TITLE 49, THE UNITED STATES CODE OF FEDERAL REGULATIONS; AR 55-355/AFM 75-2; DOD 4500.32-R; DOD 5100.76-M; DOD 6055.9-STD; AS WELL AS ANY AND ALL OTHER APPLICABLE SERVICE REGULATIONS.
- C. THE SPECIFIED OUTLOADING PROCEDURES ARE APPLICABLE TO LOADS OF SIDEARM (AGM-122A) MISSILES PACKED IN CNU-434 SHIPPING AND STORAGE CONTAINER. SEE PAGE 3 AND NAVY DRAWING AR-68/90 FOR DETAILS OF THE CONTAINER. **CAUTION:** REGARDLESS OF THE QUANTITY OF CONTAINERS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF THE FLATRACK ISO CONTAINER MUST NOT BE EXCEEDED.
- D. THE LOAD AS SHOWN IS BASED ON A 5,700 POUND 20' LONG BY 8' WIDE FLATRACK ISO CONTAINER WITH FULL HEIGHT ENDWALLS, AND INSIDE DIMENSIONS OF 19'-4" LONG BY 86" WIDE. 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.
- E. WHEN LOADING CONTAINERS, THEY ARE TO BE POSITIONED SO AS TO ACHIEVE A TIGHT LOAD BETWEEN THE END BLOCKING ASSEMBLY AND THE LADING. ALTHOUGH A TOTAL OF 1" OF UNBLOCKED SPACE ACROSS THE WIDTH OF A LOAD IS PERMITTED, LONGITUDINAL VOIDS WITHIN THE LOAD ARE TO BE HELD TO A MINIMUM, NOT EXCEEDING 1/2". EXCESS SLACK CAN BE ELIMINATED FROM A LOAD BY INCREASING THE LENGTH OF THE STRUTS.
- F. 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.
- G. 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 ONTO OR RIGHT BESIDE A NAIL IN A LOWER PIECE.
- H. WHEN INSTALLING END BLOCKING ASSEMBLIES AND ENDWALL GATES, THE ASSEMBLIES MUST BE POSITIONED SO AS TO BE SUPPORTED AND IN LINE WITH THE STRONG POINTS OF THE FLATRACK ENDWALLS. **NOTE:** SOME FLATRACK ENDWALLS WILL REQUIRE FILL PIECES TO BE INSTALLED ON THE END WALL GATES TO PROVIDE A UNIFORM LOAD BEARING SURFACE. NAIL THESE FILL PIECES TO THE END WALL GATES W/1 APPROPRIATELY SIZED NAIL EVERY SIX INCHES. THESE PIECES ARE NOT REQUIRED IF THE ENDWALL IS SMOOTH (IF THE HINGES DO NOT PROTRUDE).
- J. WHEN STEEL STRAPPING IS SEALED IN 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 8 FOR GUIDANCE.
- K. THE 2" STRAPPING USED FOR LOAD SECUREMENT, I.E., HOLD-DOWN STRAPS, WILL ONLY BE FASTENED TO THE FLATRACK CONTAINER BY UTILIZING TIEDOWN PROVISIONS LOCATED ON THE TOP OR ALONG THE SIDE OF THE FLATRACK BOTTOM SIDE RAILS. **CAUTION:** THE LOAD SECUREMENT STRAPS WILL NOT BE POSITIONED AROUND THE UNDERSIDE OR THROUGH THE FORKLIFT POCKETS OF THE FLATRACK CONTAINER. ADDITIONALLY, THE FLATRACK TIEDOWN PROVISIONS MUST BE AT LEAST AS STRONG AS THE 2" LOAD SECUREMENT STRAPPING BEING USED; AND BE OF A SUFFICIENT WIDTH TO RECEIVE THE 2" STRAPPING AND BE OF A DESIGN WHICH WILL PROVIDE A BEARING SURFACE ACROSS THE FULL WIDTH OF THE 2" STRAPPING SO THAT THE STRAPPING WILL NOT BE DEFORMED, ESPECIALLY AT ITS EDGES, WHEN PROPERLY TENSIONED.
- L. REFER TO ASSOCIATION OF AMERICAN RAILROADS MANUAL "GENERAL RULES GOVERNING THE LOADING OF COMMODITIES ON OPEN TOP CARS" FOR APPLICABLE LOADING RULES AS FOLLOWS: PREFACE, 1, 2, 3, 5, 7, 10, 12, 13, 14, AND 15. NOTE THAT ALL STRAPPING USED FOR LOAD SECUREMENT, I.E., HOLD-DOWN STRAPS, MUST BE MARKED AS SPECIFIED IN LOADING RULE 15.
- M. WHETHER A 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.

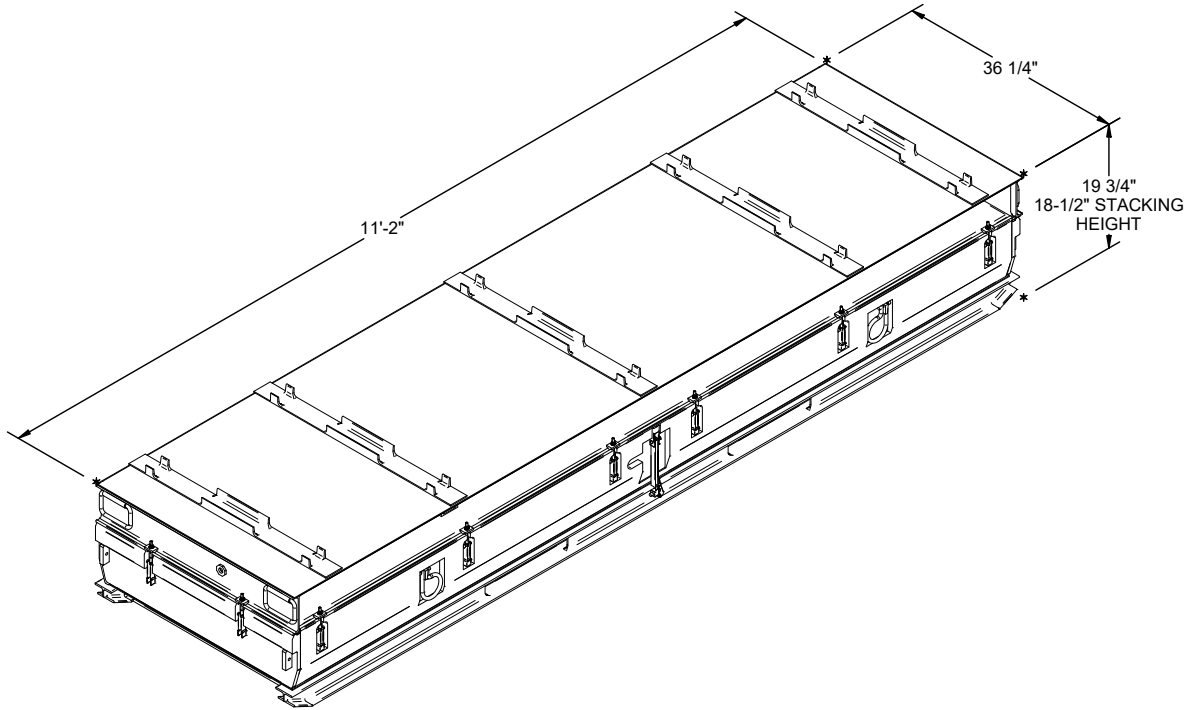
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(GENERAL NOTES CONTINUED)

- N. PORTIONS OF THE FLATRACK DEPICTED WITHIN THIS DRAWING, SUCH AS THE ENDWALL, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- O. **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.
- P. 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.
- Q. 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.
- R. THE LOAD AS SHOWN ON PAGE 4 MAY BE REDUCED BY ONE, TWO OR THREE LAYERS FOR A SHIPMENT OF SIX, FOUR OR TWO CONTAINERS. SEE THE LOAD ON PAGE 7 FOR PROCEDURES ON SHIPPING ONE CONTAINER. THREE, FIVE OR SEVEN CONTAINERS MAY NOT BE SHIPPED ON A SINGLE FLATRACK.
- S. ANTI-CHAFING MATERIAL MAY BE INSTALLED AT POINTS OF CONTACT BETWEEN CONTAINERS AND BETWEEN CONTAINERS AND STEEL STRAPPING, IF DESIRED, TO PREVENT CHAFING DAMAGE TO CONTAINER PAINT AND MARKINGS.
- 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.

MATERIAL SPECIFICATIONS

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



CNU-434 CONTAINER

GROSS WEIGHT ----- 1,387 LBS
 CUBE ----- 52.0 CU FT

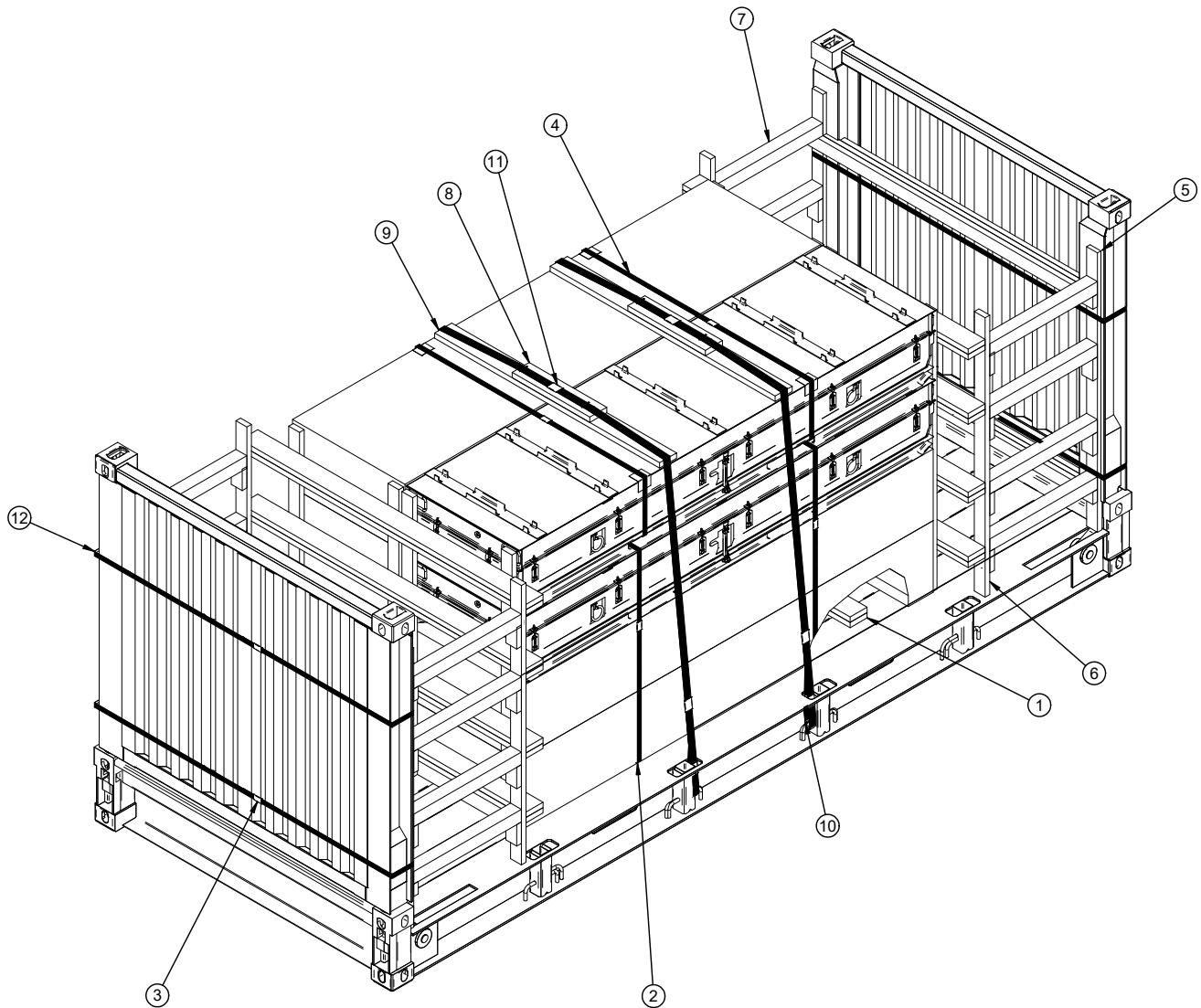
UNITIZATION AND HANDLING GUIDANCE

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 1-1/4" BANDING STRAPS.
 - A. STACK FOUR CONTAINERS. BE SURE TO ALIGN THE STACKING FEATURES.
 - B. FEED UNITIZING STRAP THROUGH FORK POCKETS OF TOP AND BOTTOM CONTAINERS (2 PLACES).
 - C. TENSION AND SECURE EACH STRAP WITH ONE DOUBLE-NOTCHED SEAL.

(CONTINUED AT RIGHT)

(UNITIZATION AND HANDLING GUIDANCE CONTINUED)

3. CONTAINER OR CONTAINER STACK HANDLING:
 - A. ONLY APPROVED AND APPROPRIATELY SIZED MATERIAL 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. IF ONE CONTAINER IS HANDLED BY SLINGING, THE SLING MAY BE ATTACHED TO THE LIFTING POINTS ON THE CONTAINER. DO NOT HANDLE STACKED CONTAINERS WITH A SLING.



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑦ STRUT, 4" X 4" BY CUT-TO-FIT (REF: 34-3/4") (16 REQD), TOENAIL TO THE BUFFER PIECES OF THE END BLOCKING ASSEMBLY AND THE ENDWALL GATE W/2-12d NAILS AT EACH END. SEE THE "BEVEL-CUT" DETAIL ON PAGE 7.
- ⑧ STRAPPING BOARD ASSEMBLY (2 REQD). POSITION VERTICALLY IN LINE WITH THE FLATRACK TIEDOWN POINTS AND ON THE FLAT SURFACE OF THE CONTAINER LIDS. SEE THE DETAIL ON PAGE 7.
- ⑨ HOLD-DOWN STRAP, 2" X .050" OR .044" X 23'-6" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO 11'-9" LONG PIECES. STAPLE TO STRAPPING BOARD ASSEMBLY W/2 STAPLES EACH.
- ⑩ PAD, STRAPPING 2" X .050" OR .044" X 18" (4 REQD). PRE-POSITION THE PAD BETWEEN THE HOLD-DOWN STRAP AND THE FLATRACK TIEDOWN PROVISIONS. SEE THE "TIEDOWN DETAIL" ON PAGE 8.
- ⑪ SEAL FOR 2" STRAPPING (10 REQD, 5 PER STRAP). FASTEN 2" HOLD DOWN STRAP WITH ONE SEAL AT EACH LOCATION CRIMPED WITH TWO PAIR OF NOTCHES. FASTEN PAD WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "TIEDOWN DETAIL" ON PAGE 8.
- ⑫ GATE STRAP, 1-1/4" X .035" OR .031" OR .029" BY A LENGTH TO SUIT (REF: 18'-6") (4 REQD). INSTALL STRAPPING AROUND THE ENDWALL AND THE LOAD BEARING GATE AS SHOWN.

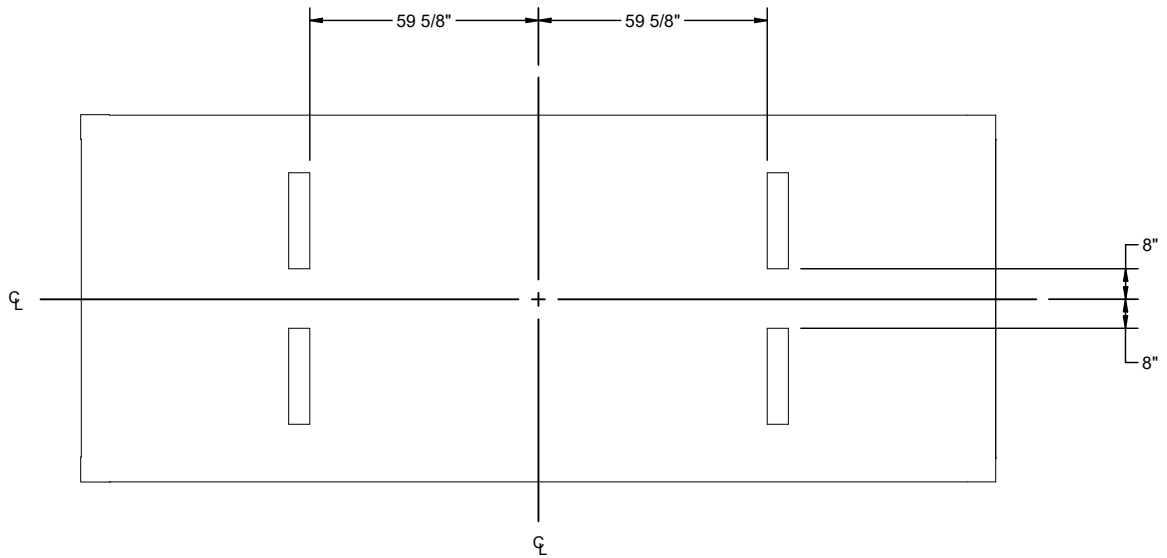
KEY NUMBERS

- ① FLOOR LINE BLOCKING, 2" X 6" X 25" (DOUBLED) (4 REQD). SEE "FLOOR DUNNAGE PLAN" DETAIL ON PAGE 5 FOR THE POSITIONING OF THE BLOCKING. NAIL THE FIRST PIECE TO THE FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ② UNITIZING STRAP, 1-1/4" X .035" OR .031" OR .029" X 16'-11" (4 REQD, 2 PER STACK). INSTALL STRAPPING THRU THE FORKLIFT POCKETS OF THE TOP AND BOTTOM CONTAINERS IN A STACK, AS FAR APART AS POSSIBLE.
- ③ SEAL FOR 1-1/4" STRAPPING (8 REQD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE THE "STRAP JOINT A" AND "STRAP JOINT B" DETAILS ON PAGE 8.
- ④ BUNDLING STRAP, 1-1/4" X .035" OR .031" OR .029" X 16'-2" (2 REQD). INSTALL STRAPPING THROUGH THE FORK POCKETS AROUND TOP LAYER OF CONTAINERS.
- ⑤ ENDWALL GATE (2 REQD). SEE DETAIL ON PAGE 6.
- ⑥ LOAD BEARING GATE (2 REQD). SEE DETAIL ON PAGE 6. POSITION AGAINST THE CONTAINERS AND IN LINE WITH THE END WALL GATE AS SHOWN ABOVE.

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SPECIAL NOTES:

1. IF THE CORNER POSTS OF THE FLATRACK ARE SMOOTH, I.E., THE ENDWALL HINGE DOES NOT PROTRUDE FROM THE CORNER POST, THE FILL PIECES MAY BE ELIMINATED FROM THE ENDWALL GATES. ALSO, THE LENGTH OF THE FILL PIECE MUST BE ADJUSTED AS REQUIRED DEPENDING ON THE LENGTH OF THE PROTRUDING HINGE.
2. POSITION THE STRAPPING BOARD ASSEMBLIES AND THE HOLD-DOWN STRAPS SO AS TO BE VERTICALLY IN LINE WITH THE FLATRACK TIEDOWN POINTS.
3. THE LOAD AS SHOWN ON PAGE 4 MAY BE REDUCED BY AN EVEN NUMBER OF CONTAINERS, ONE, TWO OR THREE LAYERS, IF DESIRED FOR A SHIPMENT OF SIX, FOUR OR TWO CONTAINERS.



FLOOR DUNNAGE PLAN DETAIL

NOTE: THE FLOOR LINE BLOCKING MAY BE SHIFTED LONGITUDINALLY TO AVOID CONTAINER OBSTRUCTIONS AND LATERALLY TO ACHIEVE A TIGHT FIT BETWEEN CONTAINER STACKS. SEE GENERAL NOTE "E" ON PAGE 2.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	175	117
2" X 6"	156	156
4" X 4"	59	78
NAI LS	NO. REQD	POUNDS
10d (3")	968	15
12d (3-1/4")	64	1-1/4
20d (4")	32	3/4
STEEL STRAPPING, 1-1/4"	174' REQD	- 24.86 LBS
SEAL FOR 1-1/4" STRAPPING	- 10 REQD	- 0.25 LBS
STEEL STRAPPING, 2"	- - - 47' REQD	- 10.5 LBS
SEAL FOR 2" STRAPPING	- - - 10 REQD	- - 0.5 LBS

LOAD AS SHOWN

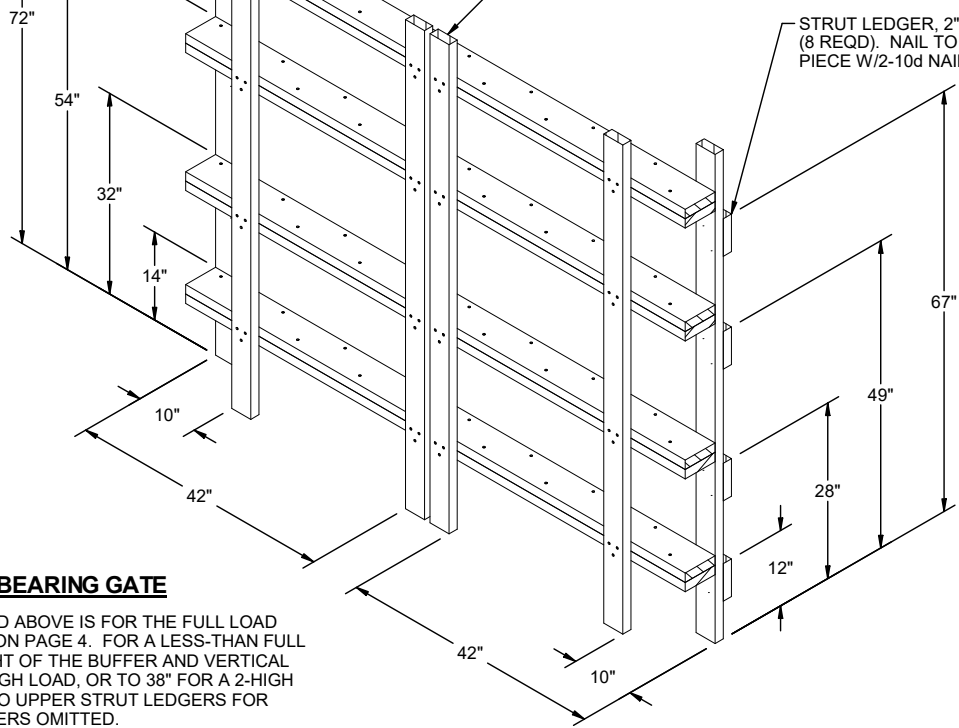
ITEM	QUANTITY	WEIGHT (APPROX)
CNU CONTAINER	- - - - 8 - - - - -	11,096 LBS
DUNNAGE	- - - - - - - - - - -	741 LBS
CONTAINER	- - - - - - - - - - -	5,700 LBS
TOTAL WEIGHT		- - - - - 17,537 LBS (APPROX)

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

BEAM ASSEMBLY, 2" X 6" BY END WALL WIDTH
MINUS 1/2" (DOUBLED) (4 REQD). NAIL THE FIRST
MEMBER TO THE SECOND W/1-10d NAIL EVERY 6".

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

STRUT LEDGER, 2" X 4" X 6"
(8 REQD). NAIL TO THE BUFFER
PIECE W/2-10d NAILS.



LOAD BEARING GATE

THE ASSEMBLY DISPLAYED ABOVE IS FOR THE FULL LOAD PROCEDURES DEPICTED ON PAGE 4. FOR A LESS-THAN FULL LOAD, REDUCE THE HEIGHT OF THE BUFFER AND VERTICAL PIECES, TO 59" FOR A 3-HIGH LOAD, OR TO 38" FOR A 2-HIGH LOAD, AND ELIMINATE TWO UPPER STRUT LEDGERS FOR EACH LAYER OF CONTAINERS OMITTED.

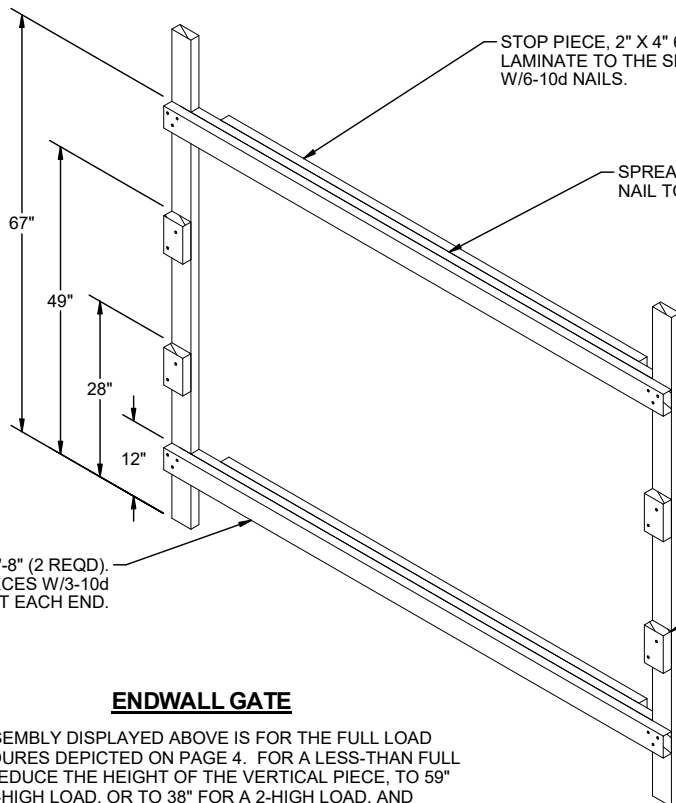
STOP PIECE, 2" X 4" 6'-5" (2 REQD).
LAMINATE TO THE SPREADER PIECE
W/6-10d NAILS.

SPREADER PIECE, 2" X 4" X 7'-1" (2 REQD).
NAIL TO THE STRUT LEDGER W/6-10d NAILS.

VERTICAL PIECE, 2" X 4" X 73"
(2 REQD).

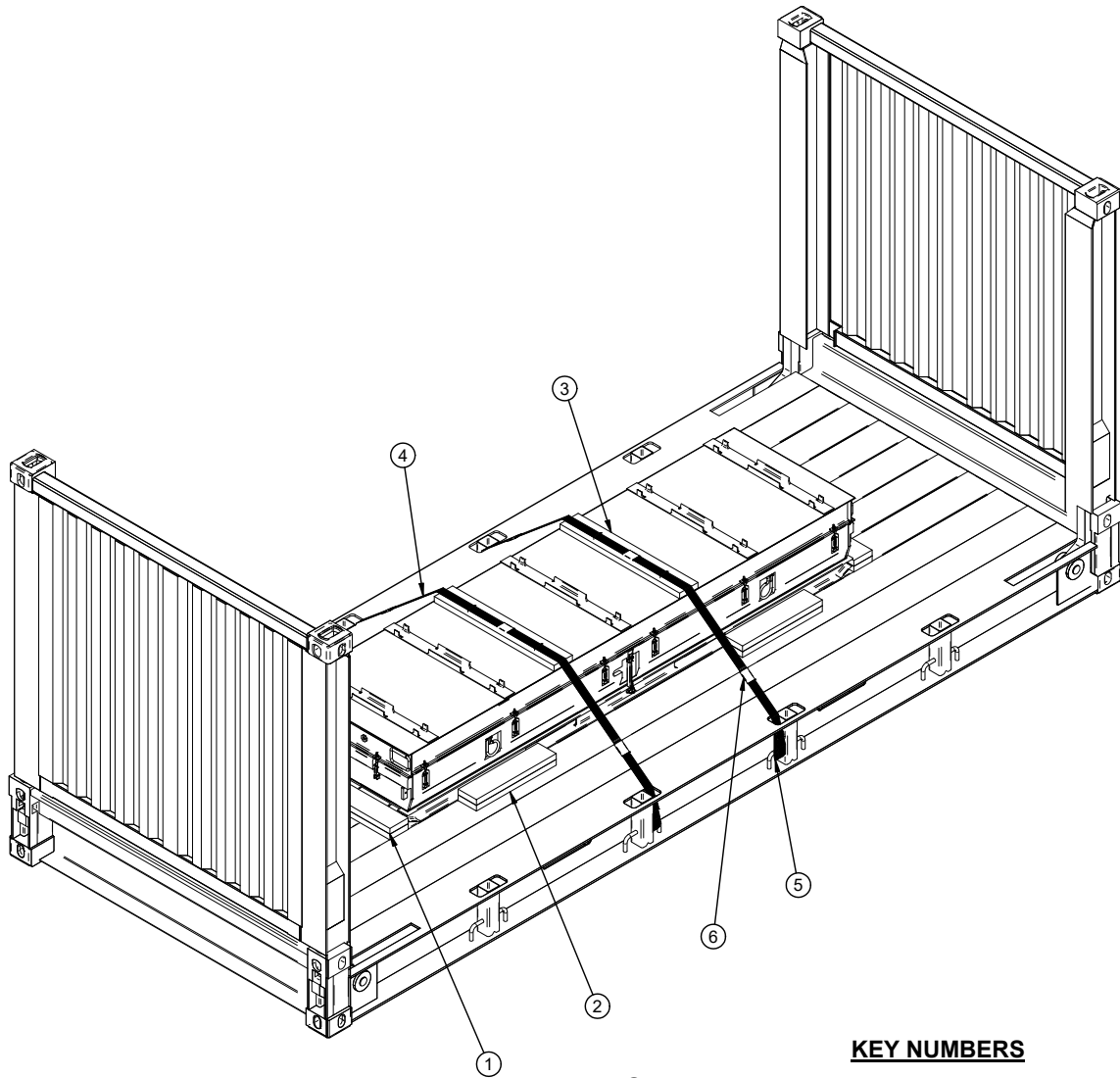
STRUT LEDGER, 2" X 4" X 6"
(4 REQD). NAIL TO THE
VERTICAL PIECE W/2-10d NAILS.

STRUT LEDGER, 2" X 4" 7'-8" (2 REQD).
NAIL TO VERTICAL PIECES W/3-10d
NAILS AT EACH END.



ENDWALL GATE

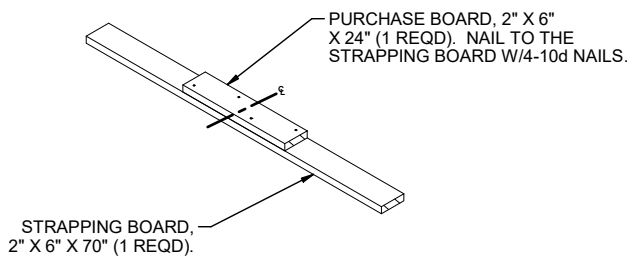
THE ASSEMBLY DISPLAYED ABOVE IS FOR THE FULL LOAD PROCEDURES DEPICTED ON PAGE 4. FOR A LESS-THAN FULL LOAD, REDUCE THE HEIGHT OF THE VERTICAL PIECE, TO 59" FOR A 3-HIGH LOAD, OR TO 38" FOR A 2-HIGH LOAD, AND ELIMINATE TWO UPPER STRUT LEDGERS EACH FOR A 3-HIGH OR 2-HIGH LOAD.



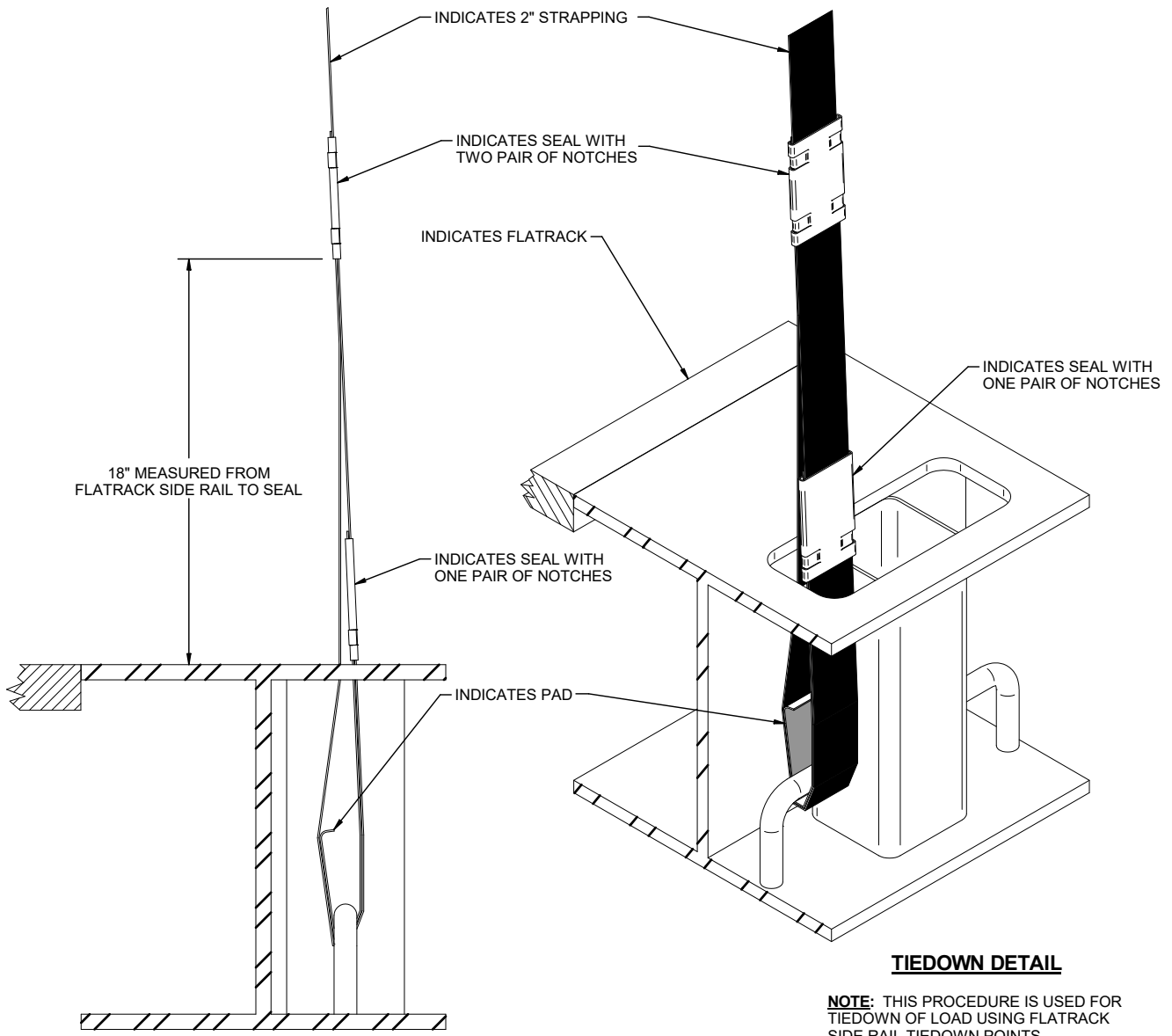
ISOMETRIC VIEW

KEY NUMBERS

- ① HEADER, 2" X 6" X 36" (DOUBLED) (2 REQD). INSTALL AGAINST THE CONTAINER SKIDS. NAIL THE FIRST PIECE TO THE FLATRACK DECK W/4-16d NAILS. LAMINATE THE SECOND PIECE TO THE FIRST W/4-20d NAILS.
- ② SIDE BLOCKING, 2" X 6" X 24" (DOUBLED) (2 REQD). POSITION PARALLEL WITH THE SIDE OF THE CONTAINER AND WITHIN 12" OF THE END OF THE CONTAINER. NAIL THE FIRST PIECE TO THE FLATRACK DECK W/4-16d NAILS. LAMINATE THE SECOND TO THE FIRST W/4-20d NAILS.
- ③ STRAPPING BOARD, 2" X 6" X 36" (2 REQD).
- ④ HOLD-DOWN STRAP, 2" X 0.50" OR .044" X 12'-6" LONG STEEL STRAPPING (2 REQD). INSTALL EACH STRAP FROM TWO PIECES, EACH 6'-3" LONG. FASTEN TO A TIEDOWN PROVISION ON THE SIDE OF THE FLATRACK AND BRING UP TO THE TOP OF THE LOAD WHERE THEY CAN BE TENSIONED AND SEALED. STAPLE TO STRAPPING BOARD W/2- STAPLES EACH.
- ⑤ PAD, STRAPPING 2" X .050" OR .044" X 18" (4 REQD). PRE-POSITION THE PAD BETWEEN THE HOLD-DOWN STRAP AND THE FLATRACK TIEDOWN PROVISIONS. SEE THE "TIEDOWN DETAIL" ON PAGE 8.
- ⑥ SEAL FOR 2" STRAPPING (10 REQD, 5 PER STRAP). FASTEN 2" HOLD DOWN STRAP WITH ONE SEAL AT EACH LOCATION CRIMPED WITH TWO PAIR OF NOTCHES. FASTEN PAD WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "END-OVER-END LAP JOINT DETAILS" AND THE "TIEDOWN DETAIL" ON PAGE 8.



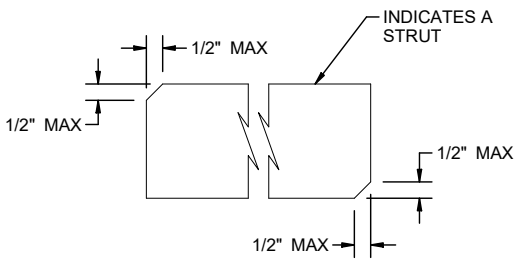
STRAPPING BOARD ASSEMBLY



TIEDOWN DETAIL

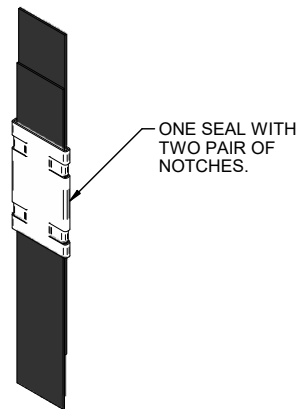
NOTE: THIS PROCEDURE IS USED FOR TIEDOWN OF LOAD USING FLATRACK SIDE RAIL TIEDOWN POINTS.

PARTIAL SIDE VIEW



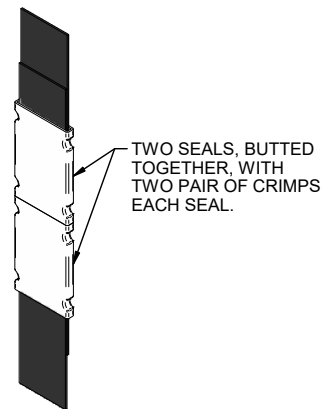
BEVEL CUT

IF DESIRED, EACH END OF A STRUT MAY BE BEVEL-CUT AS SHOWN ABOVE TO FACILITATE THE ACHIEVMENT OF A TIGHT END OF LOAD FIT.



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.