

APPROVED BY
BUREAU OF EXPLOSIVES

J. A. Fleishman

DATE 11/5/92

LOADING AND BRACING ON COMMERCIAL FLATRACK CONTAINERS OF CBU-52, CBU-58 OR CBU-71 PACKED IN CNU-126/E, CNU-180/E OR CNU-180B/E SHIPPING AND STORAGE CONTAINERS

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- LOADING AND BRACING SPECIFICATIONS SET FORTH WITHIN THIS DRAWING ARE APPLICABLE TO LOADS THAT ARE TO BE SHIPPED BY TRAILER/CONTAINER-ON-FLAT CAR (T/COFC) RAIL CARRIER SERVICE. THESE SPECIFICATIONS MAY ALSO BE USED FOR LOADS THAT ARE TO BE MOVED BY MOTOR OR WATER CARRIERS. SEE GENERAL NOTE "M" ON PAGE 2.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMICAL COMMAND <i>Timothy R. Free</i>	DRAFTSMAN	TECHNICIAN	ENGINEER L. FIEFFER
	VALIDATION ENGINEERING DIVISION <i>GMA</i>	TRANSPORTATION ENGINEERING DIVISION <i>w. R. Furrick</i>	LOGISTICS ENGINEERING OFFICE <i>WJ Ernst</i>
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND <i>Allen [Signature]</i>	JANUARY 1993		
U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL	CLASS	DIVISION	DRAWING
	19	48	7150
			FILE SP15J20

DO NOT SCALE

GENERAL NOTES

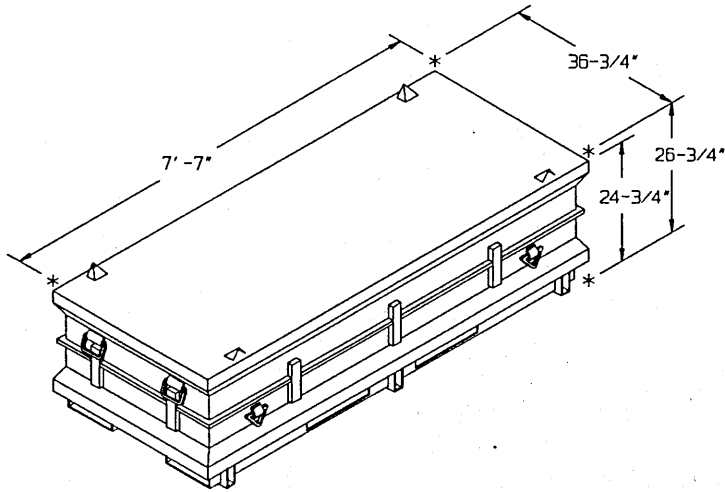
(GENERAL NOTES CONTINUED)

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. 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-STQ; AS WELL AS ANY AND ALL OTHER APPLICABLE SERVICE REGULATIONS.
- C. THE SPECIFIED OUTLOADING PROCEDURES ARE APPLICABLE TO CBU-52, CBU-58, OR CBU-71 PACKED IN A CNU-126/E, CNU-180/E, OR CNU-180B/E SHIPPING AND STORAGE CONTAINER. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CNU CONTAINER WITH CBU ITEMS INSTALLED. SEE PAGE 3 FOR DETAILS OF THE CONTAINERS. CAUTION: REGARDLESS OF THE QUANTITY OF CONTAINERS TO BE SHIPPED, THE "MAXIMUM GROSS WEIGHT" OF THE FLATRACK INCLUDING LADING AND DUNNAGE MUST NOT BE EXCEEDED.
- D. THE LOAD AS SHOWN IS BASED ON A 20'-0" LONG BY 8'-0" WIDE COMMERCIAL FLATRACK CONTAINER WITH FULL HEIGHT ENDWALLS, AND INSIDE DIMENSIONS OF 19'-4" LONG BY 7'-2" WIDE. THE LOAD AS SHOWN CAN BE SHIPPED BY ANY FORM OF SURFACE TRANSPORTATION. NOTICE: OTHER CONTAINERS OF THE SAME DESIGN CONFIGURATION CAN ALSO BE USED.
- E. WHEN LOADING THE CNU-126/E, CNU-180/E OR CNU-180B/E 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 ONE INCH 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 ONE-HALF INCH (1/2"). EXCESSIVE SLACK CAN BE ELIMINATED FROM A LOAD BY LAMINATING ADDITIONAL PIECES OF APPROPRIATE THICKNESS TO THE VERTICAL PIECES ON THE END BLOCKING ASSEMBLY AT ONE END OF THE LOAD. NAIL EACH ADDITIONAL PIECE TO THE VERTICAL PIECE W/1 APPROPRIATELY SIZED NAIL EVERY 12". ADDITIONALLY, THE THICKNESS AND QUANTITY OF THE VERTICAL PIECES IN THE END BLOCKING ASSEMBLIES MAY BE ADJUSTED AS REQUIRED TO FACILITATE VARIANCE IN THE LENGTH OF THE CONTAINER.
- 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" 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. PORTIONS OF ONE OF THE FLATRACK ENDWALLS DEPICTED WITHIN THIS DRAWING HAVE NOT BEEN SHOWN IN THE LOAD VIEW FOR CLARITY PURPOSES.
- J. WHEN INSTALLING BLOCKING ASSEMBLIES, 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 BLOCKING ASSEMBLY TO PROVIDE A UNIFORM LOAD BEARING SURFACE. NAIL THESE FILL PIECES TO THE END BLOCKING ASSEMBLY W/1 APPROPRIATELY SIZED NAIL EVERY SIX INCHES.
- K. 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 12 FOR GUIDANCE.
- L. REQUIREMENTS CITED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET 6C 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.

- M. 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.
- N. 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.
- O. THE OUTLOADING PROCEDURES SPECIFIED HEREIN CAN ALSO BE UTILIZED FOR THE SHIPMENT OF THE DEPICTED CNU-126/E, CNU-180/E OR CNU-180B/E CONTAINERS WHEN THEY ARE LOADED WITH AN ITEM WHICH IS IDENTIFIED DIFFERENTLY BY NOMENCLATURE THAN THE ITEM DESIGNATED WITHIN THE DRAWING TITLE, PROVIDED THE GROSS WEIGHT OF THE CONTAINER DOES NOT EXCEED 2,400 POUNDS.
- P. 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, 1A, 2, 5, 10, AND 15. NOTE THAT ALL STRAPPING USED FOR LOAD SECUREMENT, I.E., HOLD-DOWN STRAPS, MUST BE MARKED AS SPECIFIED IN LOADING RULE 15.
- Q. 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.
- R. 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.

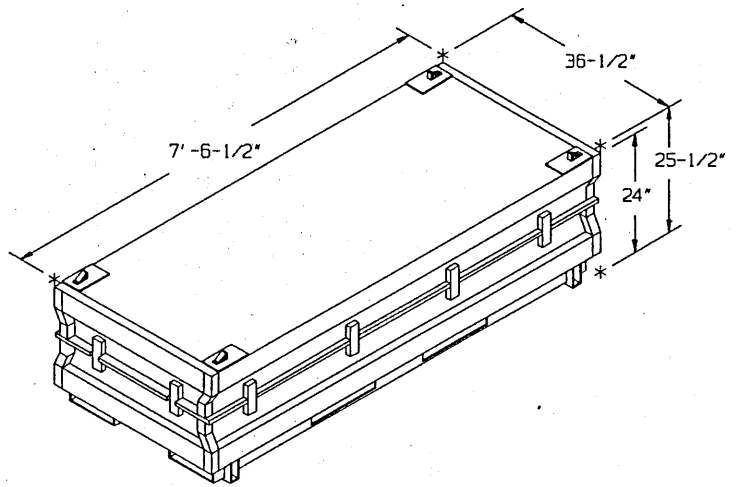
MATERIAL SPECIFICATIONS

- LUMBER - - - - - : SEE TM 743 200 1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
- NAILS - - - - - : FED SPEC FF-N-105; COMMON.
- STRAPPING, STEEL - - : ASTM D3953; FLAT STRAPPING, TYPE I OR 2, HEAVY DUTY, COATED FINISH (ORGANIC), ZINC-COATED (GRADE 2), OR UNCOATED.
- SEAL, STRAP - - - - : ASTM D3953; CLASS H, FINISH A, B (GRADE 2), OR C, TYPE D, STYLE I, II, OR IV.
- STAPLE, STRAP - - - : COMMERCIAL GRADE.
- ANTI-CHAFING MATERIAL - - - - - : MIL-B-121 (OR EQUAL); NEUTRAL BARRIER MATERIAL.



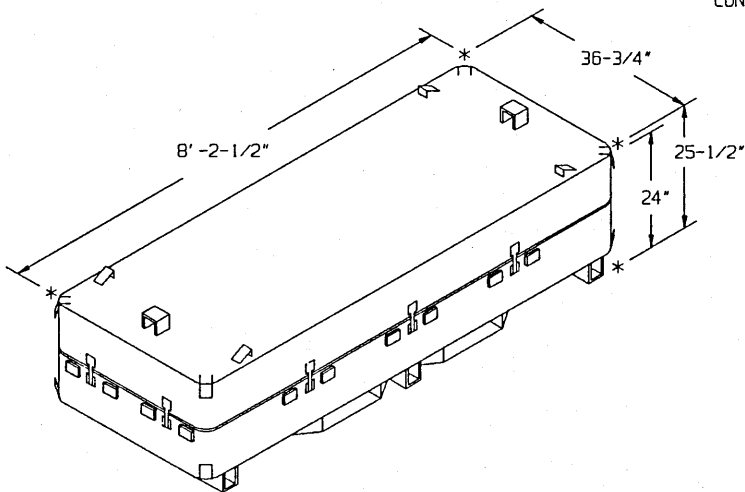
CNU-180/E CONTAINER

CONTAINER WEIGHT
 FOR CBU-58 - - - - - 2,084 LBS (APPROX)
 FOR CBU-71 - - - - - 2,064 LBS (APPROX)
 CONTAINER CUBE - - - - - 47.9 CU FT (APPROX)



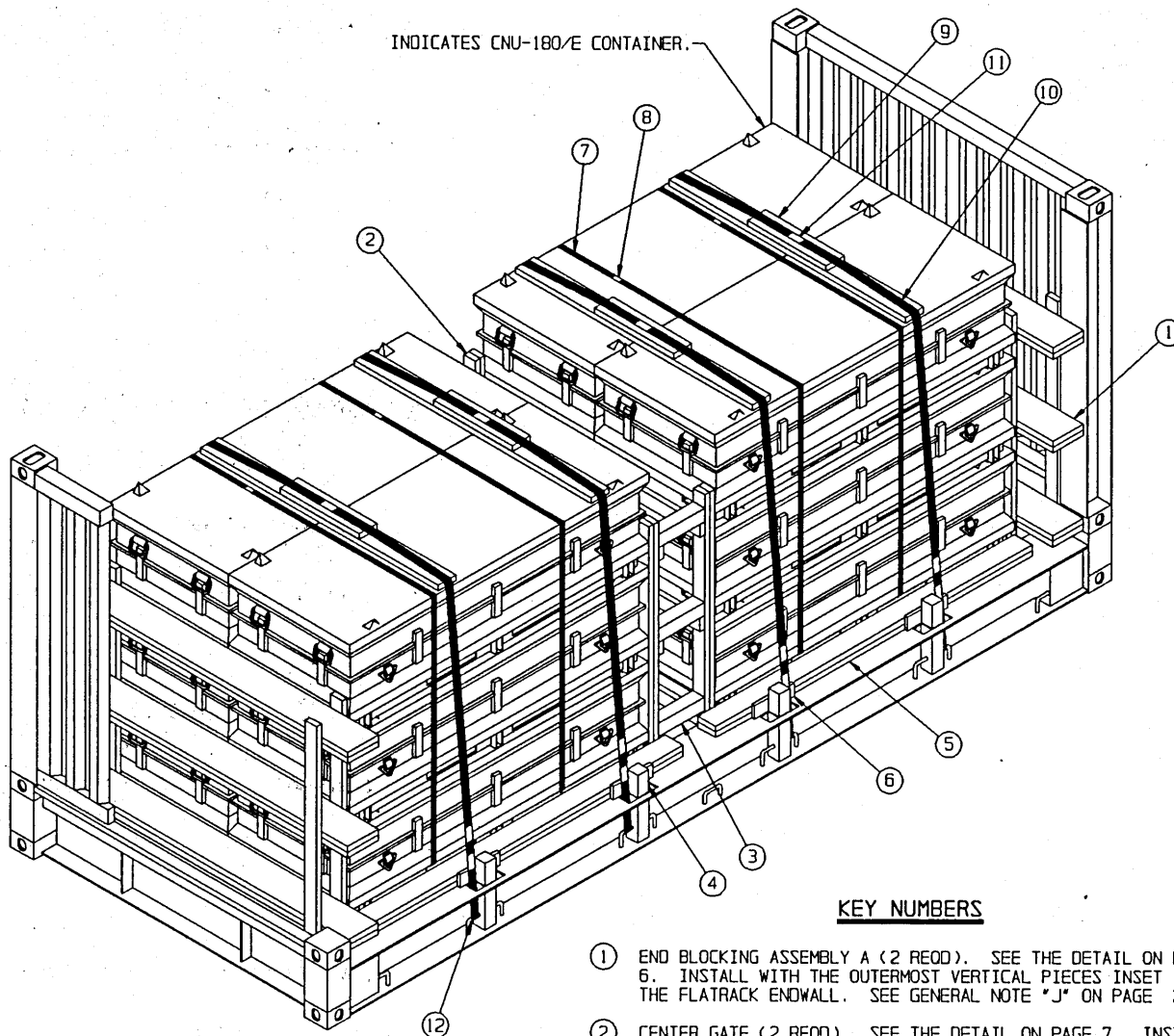
CNU-180B/E CONTAINER

CONTAINER WEIGHT
 FOR CBU-58 - - - - - 2,084 LBS (APPROX)
 FOR CBU-71 - - - - - 2,064 LBS (APPROX)
 CONTAINER CUBE - - - - - 45.9 CU FT (APPROX)



CNU-126/E CONTAINER

CONTAINER WEIGHT
 FOR CBU-52 - - - - - 2,032 LBS (APPROX)
 FOR CBU-58 - - - - - 2,160 LBS (APPROX)
 CONTAINER CUBE - - - - - 49.3 CU FT (APPROX)



ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ HOLD-DOWN STRAP, 2" X .044" OR .050" BY A LENGTH TO SUIT (REF: 24'-6") (4 REOD). INSTALL EACH STRAP FROM TWO 12'-3" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑩, WITH TWO STAPLES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑪ SEAL FOR 2" STRAPPING (20 REOD). FASTEN PIECE MARKED ⑪ WITH ONE SEAL CRIMPED WITH TWO PAIR OF NOTCHES. FASTEN PIECE MARKED ⑬ WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "TIEDOWN DETAIL" ON PAGE 12 AND GENERAL NOTE "K" ON PAGE 2.
- ⑫ PAD, STRAPPING, 2" X .050" X 18" (8 REOD). PRE-POSITION THE PAD BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ⑪, AND THE FLATRACK TIEDOWN PROVISIONS. FASTEN WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "TIEDOWN DETAIL" ON PAGE 12.

KEY NUMBERS

- ① END BLOCKING ASSEMBLY A (2 REOD). SEE THE DETAIL ON PAGE 6. INSTALL WITH THE OUTERMOST VERTICAL PIECES INSET INTO THE FLATRACK ENDWALL. SEE GENERAL NOTE "J" ON PAGE 2.
- ② CENTER GATE (2 REOD). SEE THE DETAIL ON PAGE 7. INSTALL WITH THE VERTICAL PIECES FLAT AGAINST THE CNU-180/E CONTAINERS, AND WITH THE RETAINER PIECE UNDER THE CNU-180/E CONTAINERS.
- ③ STRUT, 4" X 4" BY A LENGTH TO SUIT (REF: 14-1/2" FOR CNU-180/E, 15-1/2" FOR CNU-180B/E) (6 REOD). TOENAIL TO THE CENTER GATE W/2-12d NAILS AT EACH END.
- ④ STAKE, 4" X 4" X 18" (8 REOD). INSTALL THE STAKE INTO THE FLATRACK STAKE POCKETS WITH A TIGHT (SNUG) FIT. NOTE: REFERENCE DIMENSIONS FOR A TIGHT FITTING STAKE ARE 3-1/4" (ACTUAL) X 3-1/4" (ACTUAL). NAIL 1-20d NAIL THRU THE HOLE PROVIDED IN THE FACE OF THE FLATRACK STAKE POCKET AND INTO THE STAKE. BEND THE PROTRUDING HEAD OF THE NAIL OVER AGAINST THE STAKE POCKET.
- ⑤ SIDE BLOCKING, 2" X 6" X 8'-0" (DOUBLED) (4 REOD). LAMINATE THE FIRST PIECE TO THE SECOND W/10-10d NAILS. INSTALL AS DEPICTED, AGAINST THE CNU-180/E CONTAINER AND THE CENTER GATE.
- ⑥ FILL PIECE, 1" X 4" X 12" AND/OR 2" X 4" X 12" (AS REOD). POSITION BETWEEN THE STAKE AND THE SIDE BLOCKING AND NAIL TO THE SIDE BLOCKING WITH 3 APPROPRIATELY SIZED NAILS (6d FOR 1" MATERIAL, 10d FOR 2" MATERIAL). TOENAIL TO THE STAKE W/2-12d NAILS.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" OR .031" BY A LENGTH TO SUIT (REF: 25'-3") (4 REOD). INSTALL TO ENIRCLE ALL SIX CONTAINERS IN ONE LOAD BAY.
- ⑧ SEAL FOR 1-1/4" STRAPPING, (4 REOD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "K" ON PAGE 2.
- ⑨ STRAPPING BOARD ASSEMBLY (4 REOD). SEE THE DETAIL ON PAGE 6 AND SPECIAL NOTE 2 ON PAGE 5.

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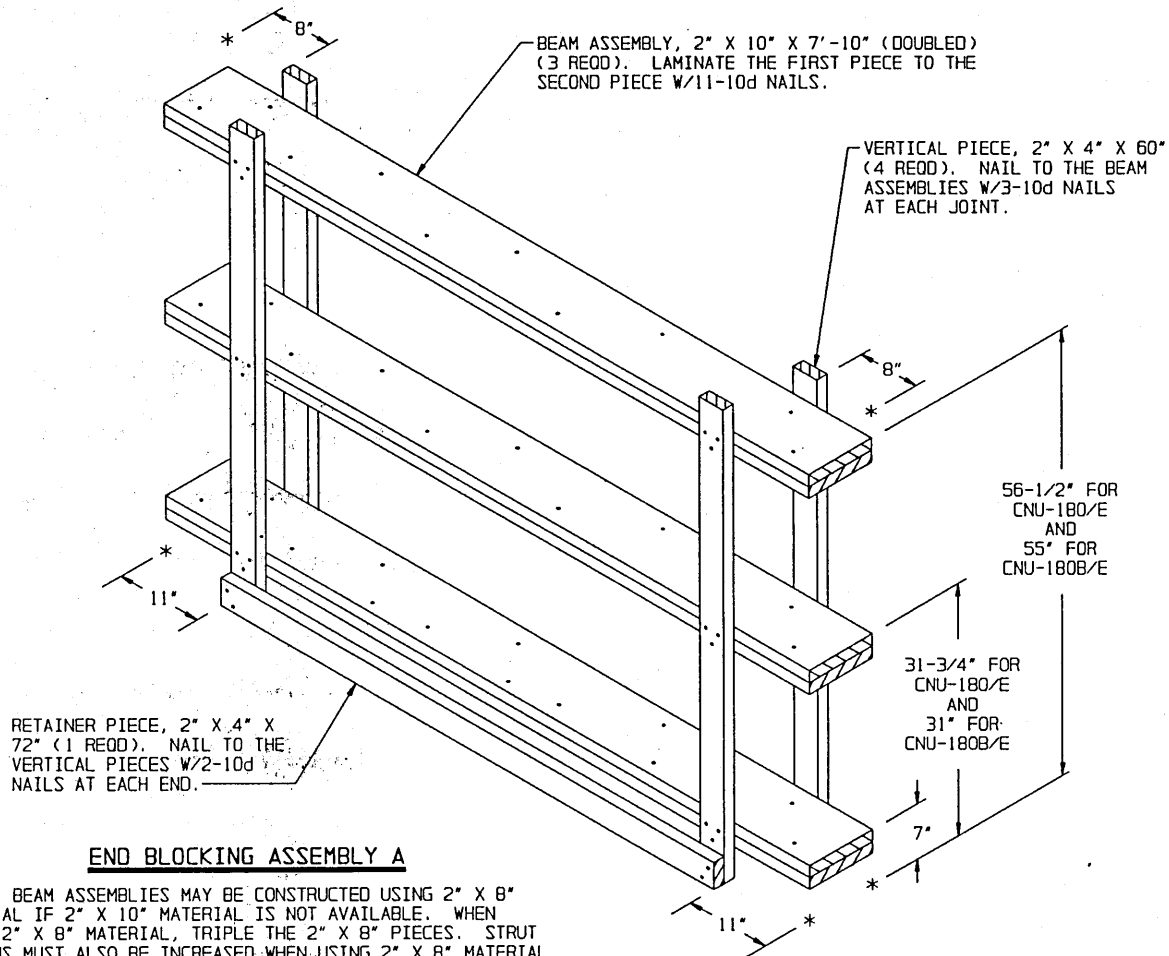
SPECIAL NOTES:

1. THE LOAD AS SHOWN ON PAGE 4 DEPICTS CNU-180/E CONTAINERS. THE DEPICTED PROCEDURES MAY ALSO BE USED FOR LOADING CNU-180B/E CONTAINERS, BUT MAY NOT BE USED FOR LOADING CNU-126/E CONTAINERS. FOR CNU-126/E CONTAINER LOADING, SEE THE PROCEDURES ON PAGE 8.
2. POSITION THE STRAPPING BOARD ASSEMBLIES, PIECES MARKED (10), AND THE HOLD-DOWN STRAPS, PIECES MARKED (1), SO AS TO BE VERTICALLY IN LINE WITH THE FLATRACK TIEDOWN POINTS AND PERPENDICULAR TO THE FLATRACK FLOOR WHEN VIEWED FROM THE SIDE OF THE FLATRACK.
3. THE LOAD AS SHOWN MAY BE REDUCED BY ONE OR TWO LAYERS, IF DESIRED, FOR A SHIPMENT OF 8 OR 4 CONTAINERS.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
1" X 4"	8	3
2" X 4"	140	94
2" X 6"	96	96
2" X 10"	94	157
4" X 4"	20	27
NAILS	NO. REOD	POUNDS
6d (2")	24	1/4
10d (3")	262	4-1/4
12d (3-1/4")	40	3/4
20d (4")	8	1/2
STEEL STRAPPING, 1-1/4"	102' REOD	15 LBS
SEAL FOR 1-1/4" STRAPPING	4 REOD	NIL
STEEL STRAPPING, 2"	110' REOD	37 LBS
SEAL FOR 2" STRAPPING	20 REOD	4 LBS
STAPLE, 2-1/8" X 1"	8 REOD	NIL
ANTI-CHAFING MATERIAL	AS REOD	NIL

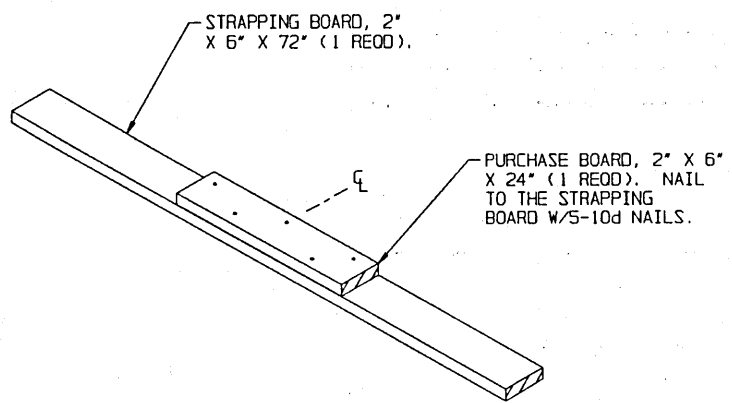
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CBU-58 IN CNU-180/E	12	25,008 LBS
DUNNAGE		816 LBS
FLATRACK		5,732 LBS
TOTAL WEIGHT		31,556 LBS (APPROX)

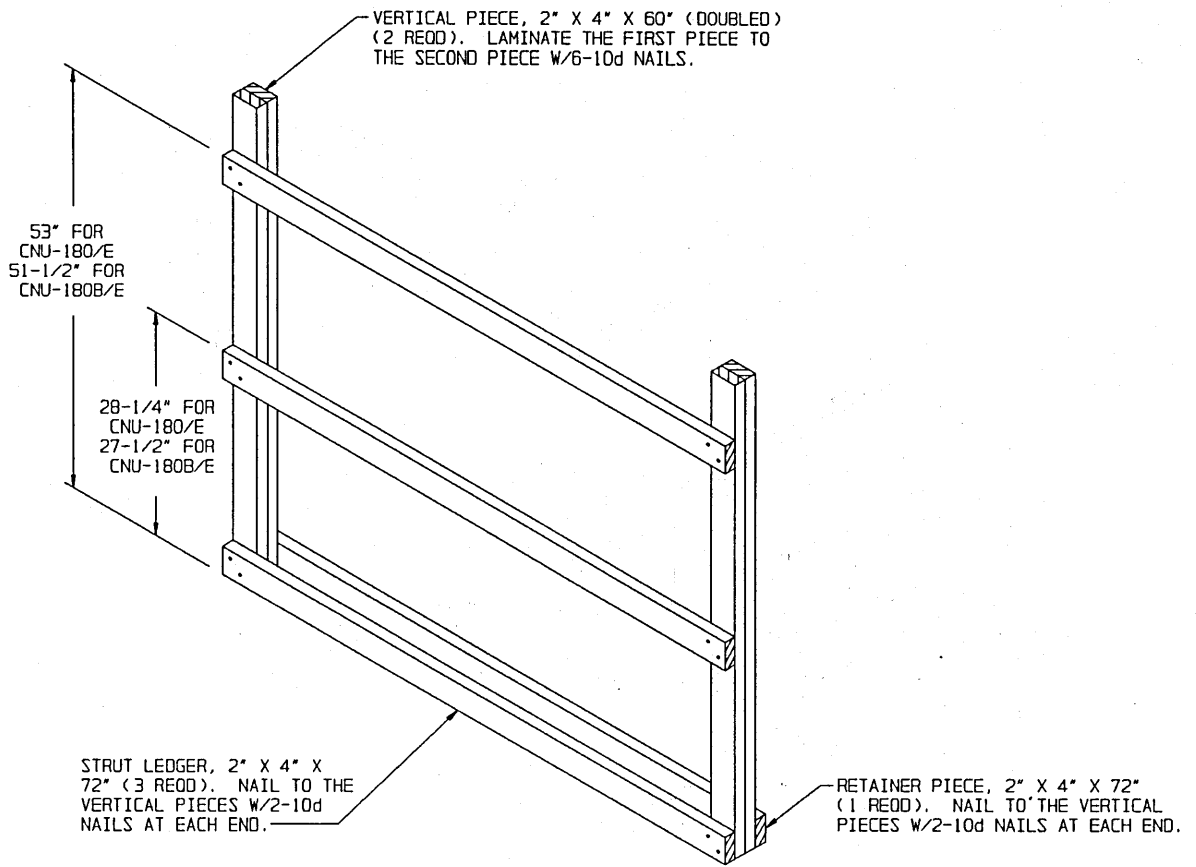


END BLOCKING ASSEMBLY A

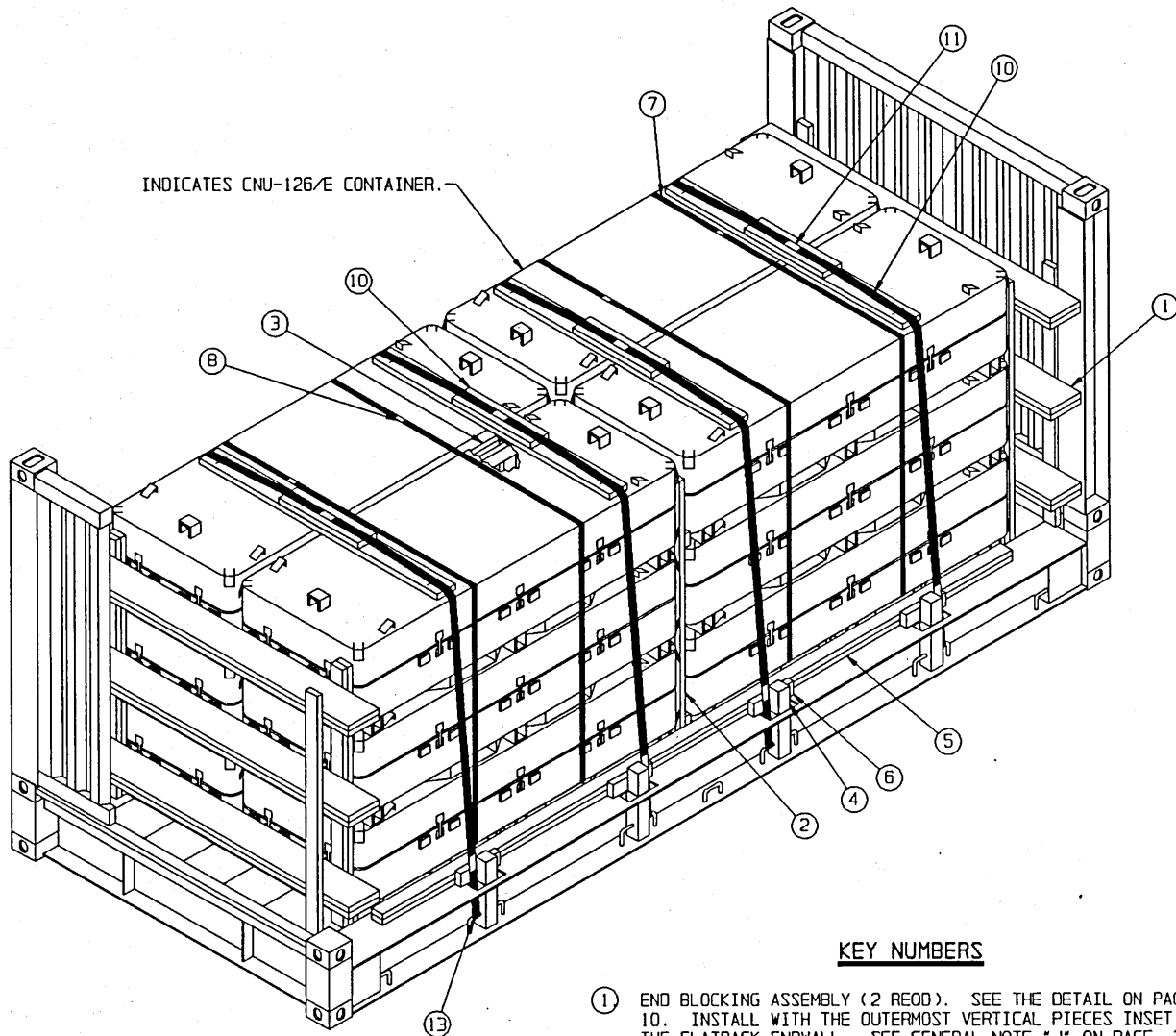
NOTE: BEAM ASSEMBLIES MAY BE CONSTRUCTED USING 2" X 8" MATERIAL IF 2" X 10" MATERIAL IS NOT AVAILABLE. WHEN USING 2" X 8" MATERIAL, TRIPLE THE 2" X 8" PIECES. STRUT LENGTHS MUST ALSO BE INCREASED WHEN USING 2" X 8" MATERIAL IN CNU-180/E AND CNU-180B/E LOADS.



STRAPPING BOARD ASSEMBLY



CENTER GATE



INDICATES CNU-126/E CONTAINER.

ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑩ HOLD-DOWN STRAP, 2" X .044 X .050" BY A LENGTH TO SUIT (REF: 24'-6") (4 REOD). INSTALL EACH STRAP FROM TWO 12'-3" LONG PIECES. STAPLE TO THE STRAPPING BOARD ASSEMBLY, PIECE MARKED ⑩, WITH TWO STAPLES. SEE GENERAL NOTE "N" ON PAGE 2.
- ⑪ SEAL FOR 2" STRAPPING (20 REOD). FASTEN PIECE MARKED ⑪ WITH ONE SEAL CRIMPED WITH TWO PAIR OF NOTCHES. FASTEN PIECE MARKED ⑬ WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "TIEDOWN DETAIL" ON PAGE 12 AND GENERAL NOTE "K" ON PAGE 2.
- ⑫ PAD, STRAPPING, 2" X .050" X 18" (8 REOD). PRE-POSITION THE PAD BETWEEN THE HOLD-DOWN STRAP, PIECE MARKED ⑪, AND THE FLATRACK TIEDOWN PROVISIONS. FASTEN WITH ONE SEAL CRIMPED WITH ONE PAIR OF NOTCHES. SEE THE "TIEDOWN DETAIL" ON PAGE 12.

KEY NUMBERS

- ① END BLOCKING ASSEMBLY (2 REOD). SEE THE DETAIL ON PAGE 10. INSTALL WITH THE OUTERMOST VERTICAL PIECES INSET INTO THE FLATRACK ENDWALL. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FILLER ASSEMBLY (1 REOD). SEE THE DETAIL ON PAGE 11.
- ③ ANTI-CHAFING ASSEMBLY (2 REOD). SEE THE DETAIL ON PAGE 11. INSTALL BETWEEN ADJACENT STACKS OF CONTAINERS.
- ④ STAKE, 4" X 4" X 18" (8 REOD). INSTALL THE STAKE INTO THE FLATRACK STAKE POCKETS WITH A TIGHT (SNUG) FIT. NOTE: REFERENCE DIMENSIONS FOR A TIGHT FITTING STAKE ARE 3-1/4" (ACTUAL) X 3-1/4" (ACTUAL). NAIL 1-20d NAIL THRU THE HOLE PROVIDED IN THE FACE OF THE FLATRACK STAKE POCKET AND INTO THE STAKE. BEND THE PROTRUDING HEAD OF THE NAIL OVER AGAINST THE STAKE POCKET.
- ⑤ SIDE BLOCKING, 2" X 4" X 16'-0" (DOUBLED) (2 REOD). LAMINATE THE FIRST PIECE TO THE SECOND W/20-10d NAILS. INSTALL AS DEPICTED, AGAINST THE CNU-126/E CONTAINERS, CENTERED ON THE LENGTH OF THE LOAD. NOTE: MAY BE INSTALLED USING FOUR SHORTER PIECES (I.E.: 8' LENGTHS).
- ⑥ FILL PIECE, 1" X 4" X 12" AND/OR 2" X 4" X 12" (AS REOD). POSITION BETWEEN THE STAKE AND THE SIDE BLOCKING AND NAIL TO THE SIDE BLOCKING WITH 3 APPROPRIATELY SIZED NAILS (6d FOR 1" MATERIAL, 10d FOR 2" MATERIAL). TOENAIL TO THE STAKE W/2-12d NAILS.
- ⑦ BUNDLING STRAP, 1-1/4" X .035" OR .031" BY A LENGTH TO SUIT (REF: 25'-3") (4 REOD). INSTALL TO ENCIRCLE ALL SIX CONTAINERS IN ONE LOAD BAY.
- ⑧ SEAL FOR 1-1/4" STRAPPING, (4 REOD, 1 PER STRAP). CRIMP EACH SEAL WITH TWO PAIR OF NOTCHES. SEE GENERAL NOTE "K" ON PAGE 2.
- ⑨ STRAPPING BOARD ASSEMBLY (4 REOD). SEE THE DETAIL ON PAGE 6 AND SPECIAL NOTE 2 ON PAGE 9.

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SPECIAL NOTES:

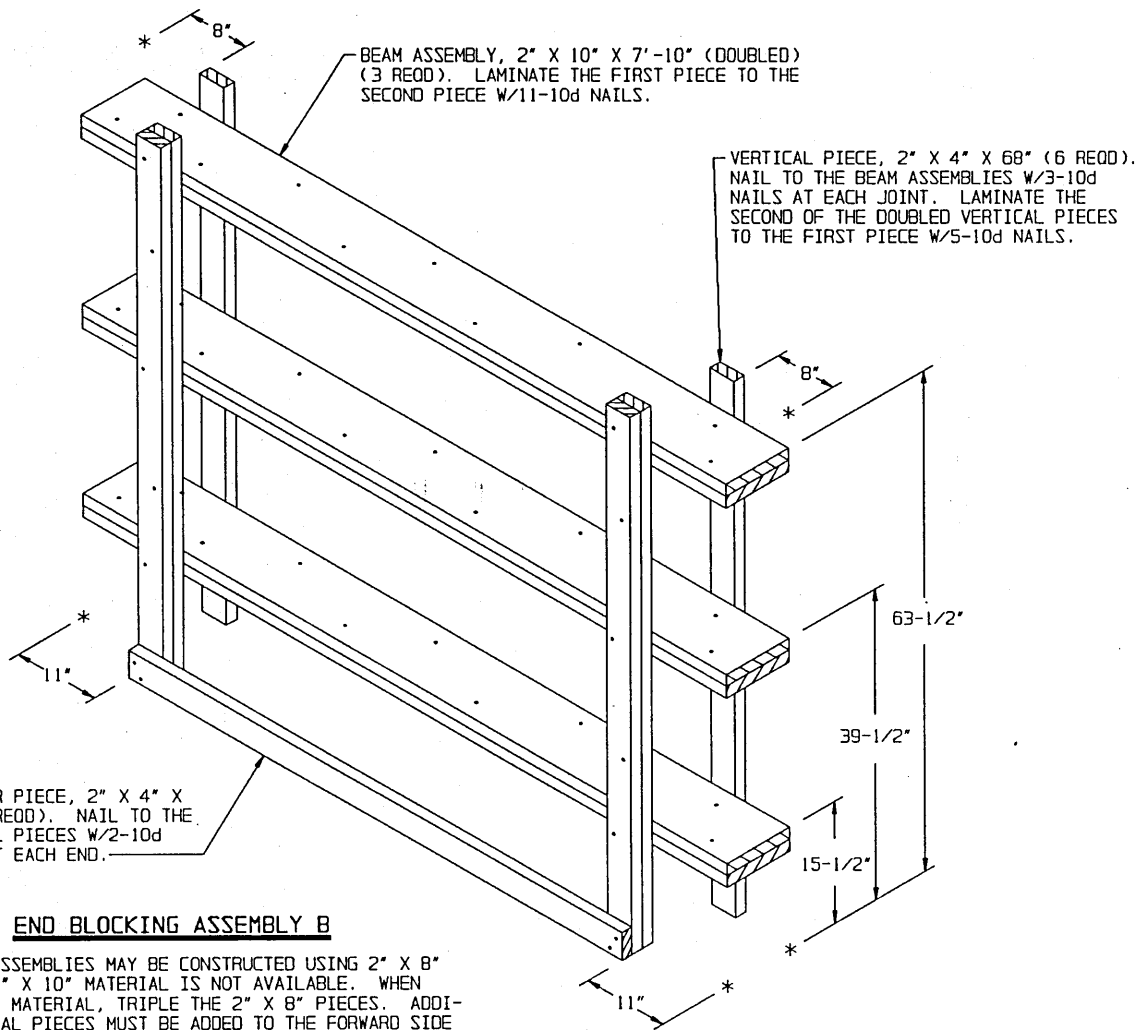
1. THE LOAD AS SHOWN ON PAGE 8 DEPICTS CNU-126/E CONTAINERS. THE DEPICTED PROCEDURES MAY ONLY BE USED FOR LOADING CNU-126/E CONTAINERS. FOR CNU-180/E AND CNU-180B/E CONTAINER LOADING, SEE THE PROCEDURES ON PAGE 4.
2. POSITION THE STRAPPING BOARD ASSEMBLIES, PIECES MARKED (9), AND THE HOLD-DOWN STRAPS, PIECES MARKED (10), SO AS TO BE VERTICALLY IN LINE WITH THE FLATRACK TIEDOWN POINTS AND PERPENDICULAR TO THE FLATRACK FLOOR WHEN VIEWED FROM THE SIDE OF THE FLATRACK.
3. THE LOAD AS SHOWN MAY BE REDUCED BY ONE OR TWO LAYERS, IF DESIRED, FOR A SHIPMENT OF 8 OR 4 CONTAINERS.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	299	200
2" X 6"	32	32
2" X 10"	94	157
4" X 4"	12	16
NAILS	NO. REOD	POUNDS
10d (3")	306	4-3/4
12d (3-1/4")	28	1/2
20d (4")	8	1/2
STEEL STRAPPING, 1-1/4" --- 101' REOD		15 LBS
SEAL FOR 1-1/4" STRAPPING --- 4 REOD		NIL
STEEL STRAPPING, 2" --- 110' REOD		37 LBS
SEAL FOR 2" STRAPPING --- 20 REOD		4 LBS
STAPLE, 2-1/8" X 1" --- 8 REOD		NIL

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CBU-58 IN CNU-126/E	12	25,920 LBS
DUNNAGE		872 LBS
FLATRACK		5,732 LBS
TOTAL WEIGHT		32,524 LBS (APPROX)

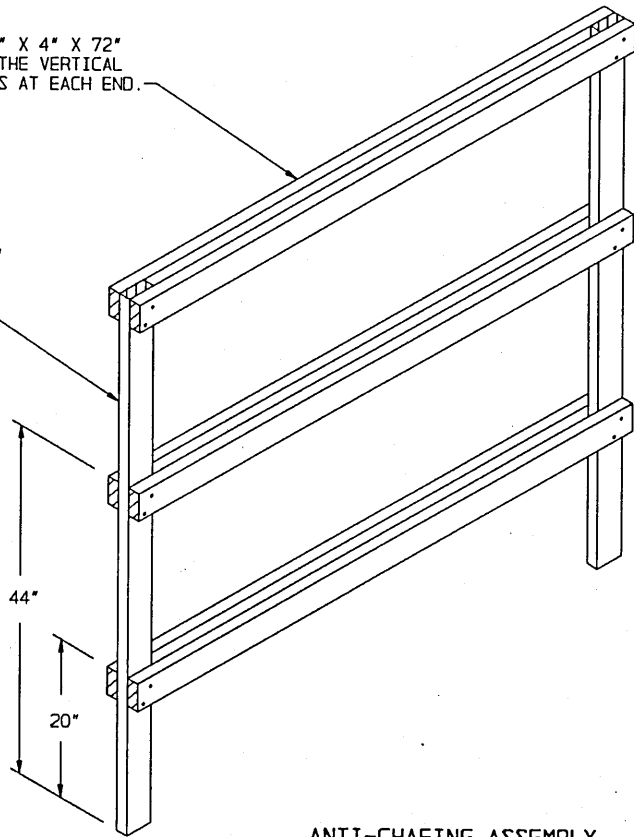


END BLOCKING ASSEMBLY B

NOTE: BEAM ASSEMBLIES MAY BE CONSTRUCTED USING 2" X 8" MATERIAL IF 2" X 10" MATERIAL IS NOT AVAILABLE. WHEN USING 2" X 8" MATERIAL, TRIPLE THE 2" X 8" PIECES. ADDITIONAL VERTICAL PIECES MUST BE ADDED TO THE FORWARD SIDE OF THE END BLOCKING ASSEMBLY WHEN USING 2" X 8" MATERIAL AND LOADING CNU-126/E CONTAINERS.

HORIZONTAL PIECE, 2" X 4" X 72"
(6 REOD). NAIL TO THE VERTICAL
PIECES W/2-10d NAILS AT EACH END.

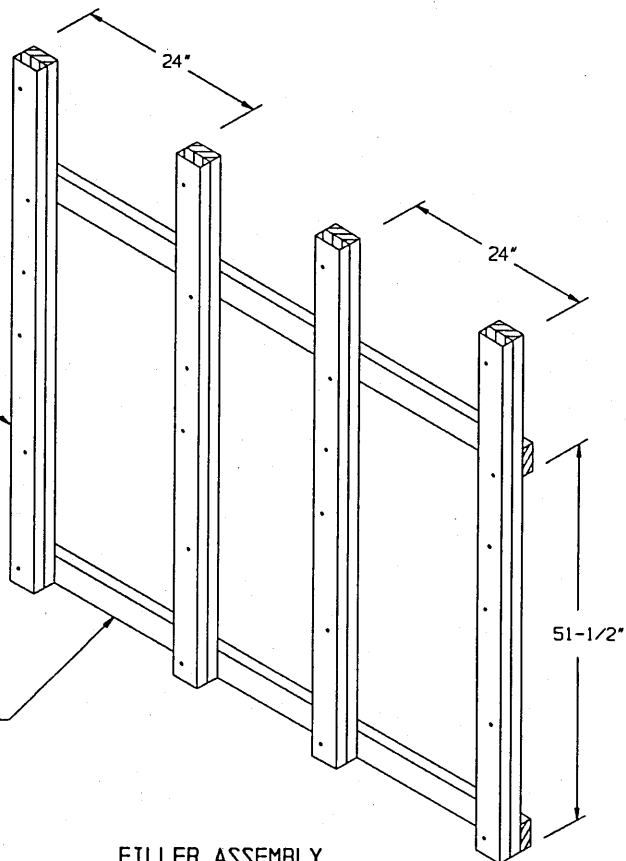
VERTICAL PIECE, 2" X 4"
X 68" (2 REOD).



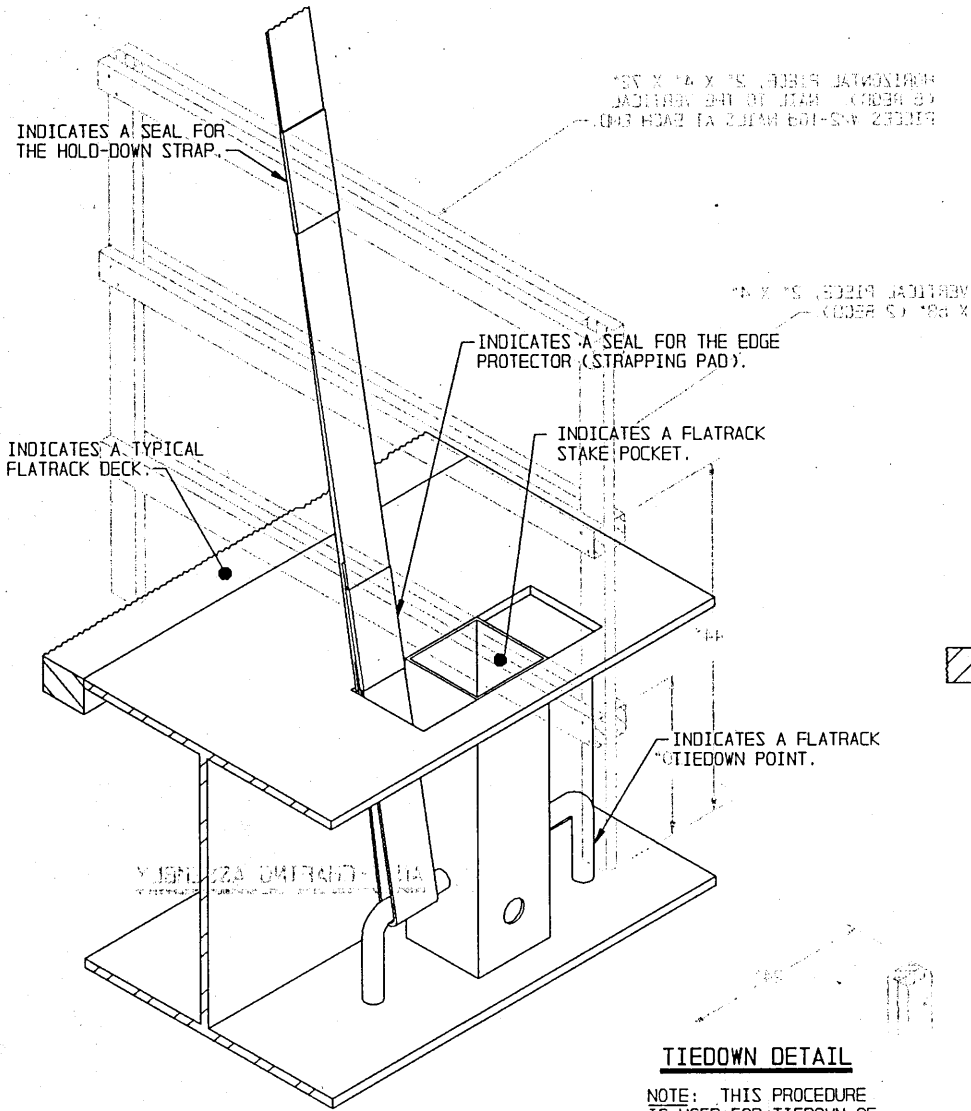
ANTI-CHAFING ASSEMBLY

VERTICAL PIECE, 2" X 4" X 66"
(DOUBLED) (4 REOD). LAMINATE
THE FIRST PIECE TO THE SECOND
PIECE W/6-10d NAILS.

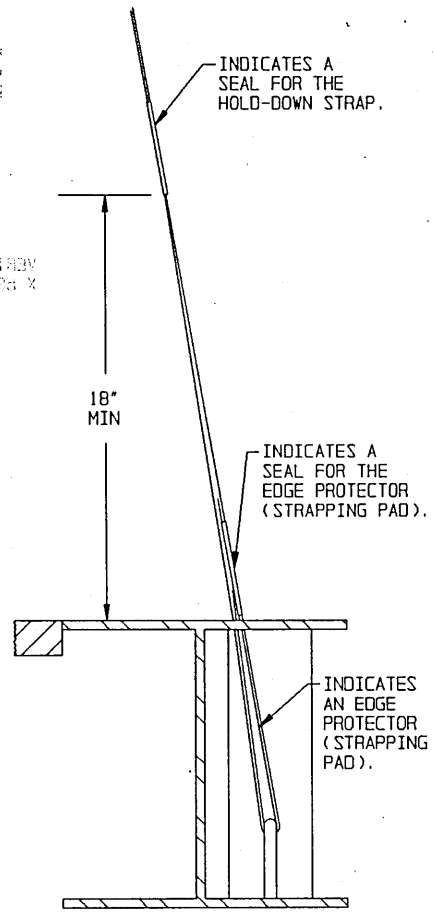
RETAINER PIECE, 2" X 4" X 72"
(2 REOD). NAIL TO THE VERTICAL
PIECES W/2-10d NAILS AT EACH JOINT.



FILLER ASSEMBLY



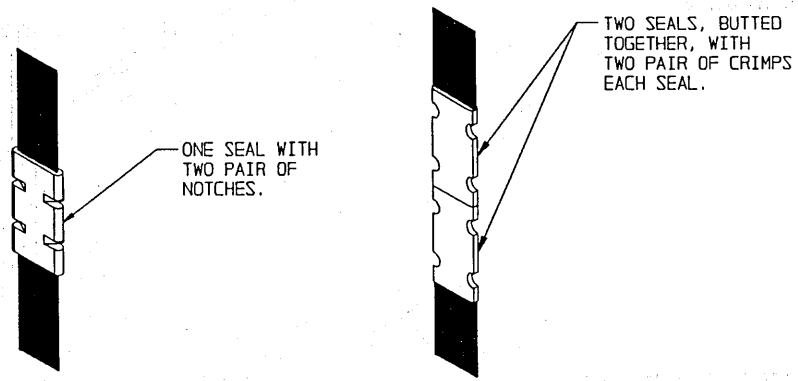
PARTIAL ISOMETRIC SECTION VIEW



PARTIAL SIDE VIEW

TIEDOWN DETAIL

NOTE: THIS PROCEDURE IS USED FOR TIEDOWN OF THE LOAD USING FLATRACK SIDE RAIL TIEDOWN POINTS. SEE GENERAL NOTE "N" ON PAGE 2.



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.

STRAP/SEAL DETAIL

DETAILS