



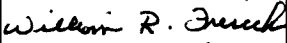

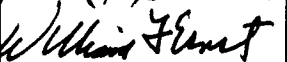
LOADING AND BRACING (TL & LTL) ON FLATBED TRAILERS OF BOMBS, BLU-109/B IN CNU-416/E CONTAINERS

INDEX

ITEM	PAGE(S)
GENERAL NOTES AND MATERIAL SPECIFICATIONS - - - - -	2
CONTAINER DETAIL - - - - -	3
8-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER (STEEL STRAP TIEDOWN METHOD) - - - - -	4,5
8-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER (CHAIN TIEDOWN METHOD) - - - - -	6,7
8-UNIT LOAD ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER (STRAP WEB TIEDOWN METHOD) - - - - -	8,9
DETAILS - - - - -	12,13
PROVISIONS FOR THE USE OF FIRE HOSE - - - - -	14

● CAUTION: THE OUTLOADING PROCEDURES SHOWN HEREIN ARE ONLY APPLICABLE TO HIGHWAY MOVEMENTS, NOT TRAILER-ON-FLATCAR (TOFC) MOVEMENTS.

U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND 	ENGINEER	BASIC	WILLIAM MEYER	DO NOT SCALE				
		REV.	MICHAEL SARDONE	WEBSITE: HTTP://WWW.DAC.ARMY.MIL				
	TECHNICIAN	BASIC		NOVEMBER 1986				
		REV.		REVISION NO. 2				
	DRAFTSMAN	BASIC		JANUARY 1997				
		REV.		SEE THE REVISION LISTING ON PAGE 2				
APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND  DEFENSE AMMUNITION CENTER	TRANSPORTATION ENGINEERING DIVISION							
	VALIDATION ENGINEERING DIVISION			TESTED	CLASS	DIVISION	DRAWING	FILE
	LOGISTICS ENGINEERING OFFICE				19	48	7084	SP11PB 1001

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 THE BLU-109/B BOMB IN CNU-416/E SHIPPING AND STORAGE CONTAINERS. SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH MISSILE INSTALLED. SEE PAGE 3 FOR DETAIL OF THE CONTAINER.
- C. THE LOADS AS SHOWN HEREIN ARE BASED ON 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILERS. TRAILERS OF OTHER LENGTHS AND WIDTHS MAY BE USED. TRAILERS MUST HAVE WOOD OR WOOD AND METAL FLOORS. TRAILERS HAVING ALL-METAL FLOORS CANNOT BE USED. CAUTION: IF THE TRAILER FLOOR IS EQUIPPED WITH EXPOSED METAL DECKING ABOVE THE BOGIE ASSEMBLY, OR ELSEWHERE, FIELD MEASUREMENTS SHOULD BE MADE TO ENSURE THAT THE METAL DECKING DOES NOT INTERFERE WITH THE PROPER POSITIONING AND NAILING OF THE DUNNAGE AS SPECIFIED BY THE PROCEDURES SHOWN HEREIN.
- D. SELECTION OF A VEHICLE USED TO TRANSPORT THE DESIGNATED ITEM MUST COMPLY WITH AR 55-355, CHAPTER 29, FOR EXPLOSIVES AND OTHER DANGEROUS ARTICLES, IN FULL.
- E. GROSS WEIGHT AND AXLE DISTRIBUTION OF WEIGHT FOR A LOAD WILL BE THE RESPONSIBILITY OF THE CARRIER. THE CARRIER WILL ADVISE THE SHIPPER OF APPLICABLE LOADING REQUIREMENTS, AND THE SHIPPER WILL LOAD ACCORDINGLY.
- F. NOTICE: A SHIPMENT WILL BE POSITIONED ON A TRAILER CONSISTENT WITH STATE WEIGHT LAWS.
- G. OTHER TYPES OF LADING ITEMS MAY BE LOADED ON A TRAILER WHICH IS PARTIALLY LOADED WITH THE DESIGNATED ITEM, 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.

(CONTINUED AT RIGHT)

- H. CAUTION: REGARDLESS OF THE TYPE OF TRAILER INVOLVED, ONLY THOSE TRAILERS HAVING TIEDOWN ANCHORING FACILITIES WHICH PROVIDE HOLDING STRENGTH EQUAL TO OR GREATER THAN THE STRENGTH OF THE HOLD-DOWN STRAPS OR CHAINS AND WHICH ALIGN NEAR THE INDICATED LOCATIONS FOR THE HOLD-DOWN STRAPS OR CHAINS SHOULD BE USED. IF THE TRAILER ANCHOR DEVICES ARE NOT PROPERLY POSITIONED TO RECEIVE STRAPPING OR CHAINS, AS SHOWN, OR IF THE ANCHOR DEVICES ARE NOT EQUAL TO OR GREATER THAN THE STRENGTH OF THE TIEDOWN STRAPS OR CHAINS, STEEL STRAPS MAY BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED. CAUTION: AVOID TRAILER WHEELS, FIFTH WHEEL PLATE CONTROLS AND OTHER APPURTENANCES. USE EDGE PROTECTORS OR PADS ON ALL SHARP EDGES. NEITHER CHAINS NOR WEB STRAPS WILL BE APPLIED TO FORM A COMPLETE LOOP WHICH ENCOMPASSES BOTH THE LADING AND THE TRAILER FRAME AND/OR BED.
- J. 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.
- 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 13 FOR GUIDANCE.
- L. THE TRANSPORTING VEHICLE OPERATOR SHOULD BE INSTRUCTED TO PERIODICALLY INSPECT THE TIEDOWN CHAINS AND LOAD BINDERS DURING TRANSIT AND TIGHTEN IF NECESSARY.
- M. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE SIZE OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED. THE APPROVED METHODS SHOWN HEREIN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING AND STAYING OF THE DESIGNATED ITEM.
- N. 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.
- 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. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.

MATERIAL SPECIFICATIONS

- LUMBER - - - - - : SEE TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.
- NAILS - - - - - : FED SPEC FF-N-105; COMMON.
- PLYWOOD - - - - - : COMMERCIAL ITEM DESCRIPTION A-A-55057, TYPE A, CONSTRUCTION AND 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.
- STRAP, WEB - - - - - : WEB SLING AND TIEDOWN ASSOCIATION RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC WEB TIEDOWNS, FIRST PUBLISHED IN 1991.
- STRAPPING, STEEL - - - : ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH A, B (GRADE 2), OR C.
- SEAL, STRAP - - - - - : ASTM D3953; CLASS H, FINISH A, B (GRADE 2), OR C, DOUBLE NOTCH TYPE, STYLE I, II, OR IV.
- STAKE POCKET PROTECTOR - - : COMMERCIAL GRADE.
- CHAIN - - - - - : NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975.
- LOAD BINDER - - - - - : FED SPEC GGG-B-325.

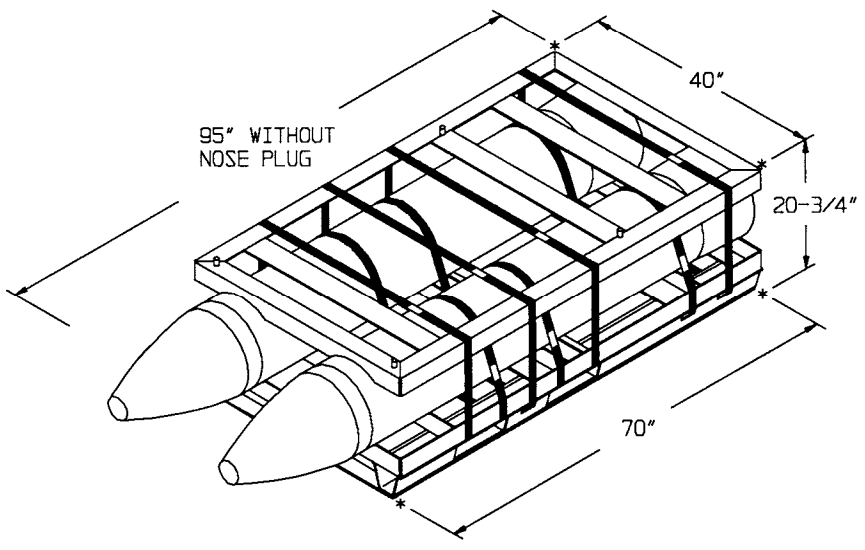
REVISIONS

REVISION NO. 1, DATED JUNE 1987, CONSISTS OF:

- 1. CHANGING CONTAINER WIDTH FROM 38" TO 40".
- 2. ADDING PROCEDURES FOR LOAD RESTRAINT USING CHAINS AND LOAD BINDERS.

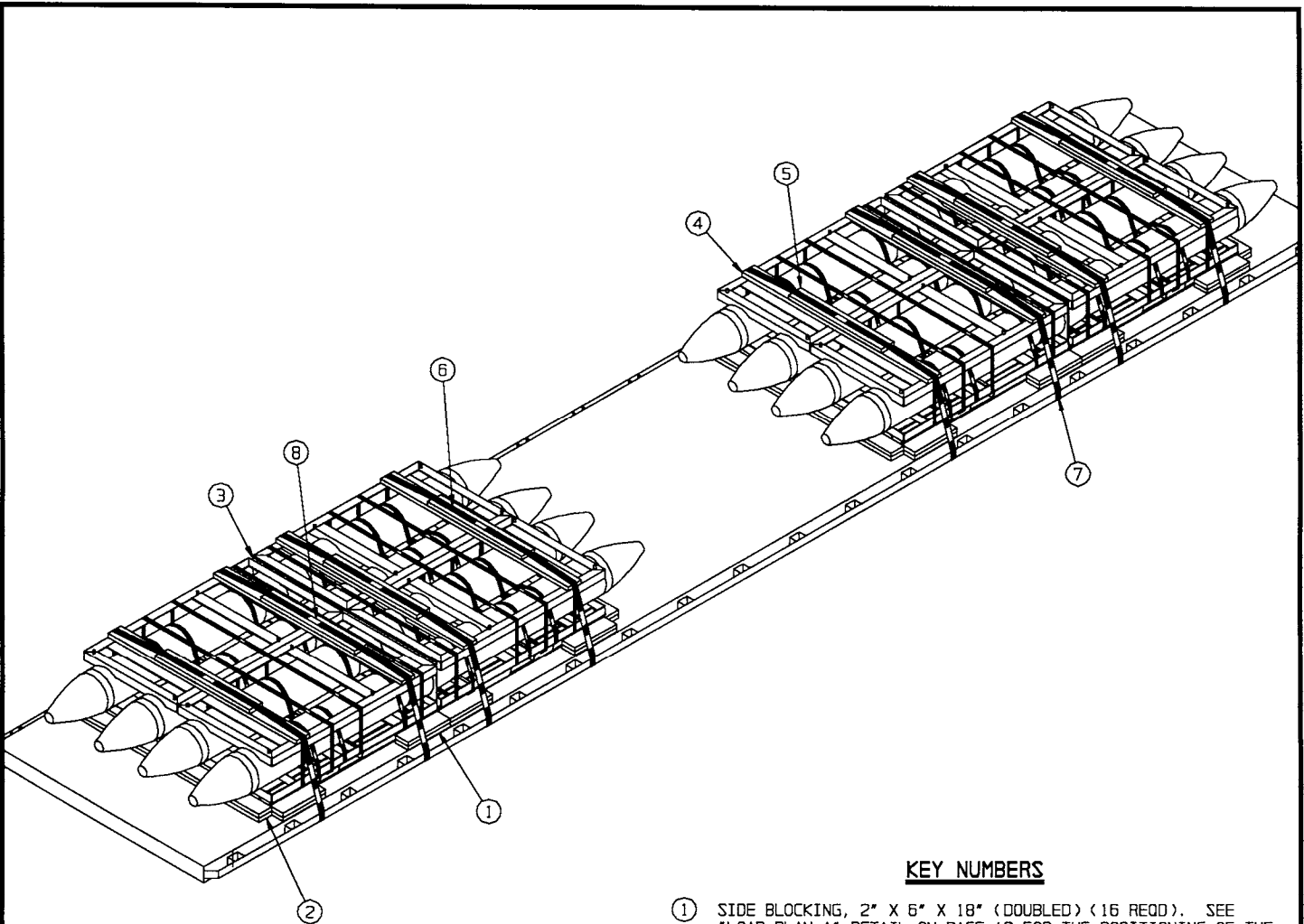
REVISION NO. 2, DATED JANUARY 1997, CONSISTS OF:

- 1. CHANGING SIDE BLOCKING LENGTH FROM 30" TO 18".
- 2. REMOVING BACK-UP CLEATS.
- 3. ADDING PROCEDURES FOR LOAD RESTRAINT USING WEB STRAPS.
- 4. UPDATING GENERAL NOTES AND DRAWING FORMAT.



CONTAINER DETAIL

GROSS WEIGHT - - - - - 4,337 LBS (APPROX)
 CUBE - - - - - 45.6 CUBIC FEET (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

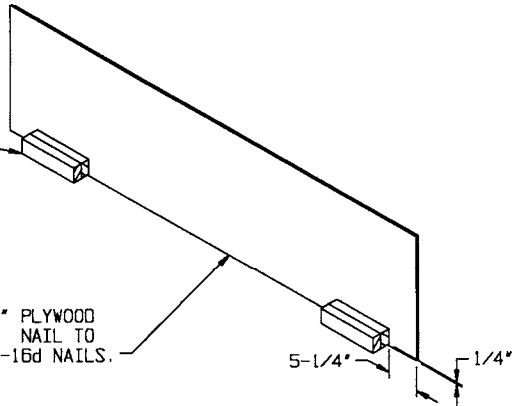
- ① SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (16 REQD). SEE "LOAD PLAN A" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FLOORLINE HEADER, 2" X 6" X 6'-8" (DOUBLED) (4 REQD). SEE "LOAD PLAN A" ON PAGE 12 FOR THE POSITIONING OF THE FLOORLINE HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ③ SEPARATOR GATE (2 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 5.
- ④ STRAPPING BOARD, 2" X 6" X 6'-8" (8 REQD). POSITION ON TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑤ PURCHASE BOARD, 2" X 6" X 40" (8 REQD). CENTER ON THE STRAPPING BOARD, PIECE MARKED AND NAIL W/4-10d NAILS.
- ⑥ HOLD-DOWN STRAP, 2" X .050" OR .044" X 22'-0" LONG STEEL STRAPPING (8 REQD). POSITION OVER THE TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑦ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (16 REQD). POSITION UNDER STAKE POCKET OR RUB RAIL AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED . SEE "DETAIL A" ON PAGE 13. ALT: STAKE POCKET PROTECTOR (32 REQD). USE 2 UNDER EACH STAKE POCKET OR RUB RAIL WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 13.
- ⑧ SEAL FOR 2" STEEL STRAPPING (40 REQD, 5 PER STRAP). DOUBLE NOTCH EACH SEAL EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED . SEE THE "HOLD-DOWN STRAP ANCHORING DETAILS" AND "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.

SPECIAL NOTES:

1. AN 8-UNIT LOAD IS SHOWN ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER HAVING A NAILABLE FLOOR. OTHER LENGTH TRAILERS, BOTH LONGER AND SHORTER, MAY BE USED FOR THE SHIPMENT OF REDUCED OR INCREASED LOADS OF BLU-109/B BOMBS.
2. A 45'-0" FLATBED TRAILER CAN ACCOMODATE UP TO A 10-UNIT LOAD FOR A LADING WEIGHT OF 43,370 POUNDS BY PLACING ONE 4-UNIT LOAD ON THE FORWARD SECTION OF THE TRAILER, ONE 2-UNIT LOAD IN THE CENTER OF THE TRAILER, AND ONE 4-UNIT LOAD IN THE REAR OF THE TRAILER. SEE PAGE 12 AND GENERAL NOTES "E" AND "F" ON PAGE 2.
3. FOR THE SHIPMENT OF A 7-UNIT LOAD, REFER TO PAGE 10. FOR THE SHIPMENT OF A 6-UNIT LOAD, REFER TO PAGE 11. FOR LOADS LESS THAN 6-UNITS, REFER TO THE NOTE ON PAGE 10.
4. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7. IF WEB STRAP TIEDOWNS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 8 AND 9 FOR GUIDANCE.

HOLD-DOWN PIECE, 2" X 3" X 10" (DOUBLED) (2 REOD). THE HOLD-DOWN PIECES MAY BE SHIFTED LEFT OR RIGHT AS WELL AS UP OR DOWN TO ALLOW FOR PROPER ALIGNMENT INTO THE FORKLIFT OPENINGS.

LOAD BEARING PIECE, 1/2" PLYWOOD X 5'-6" X 21" (1 REOD). NAIL TO THE HOLD-DOWN PIECE W/2-16d NAILS.



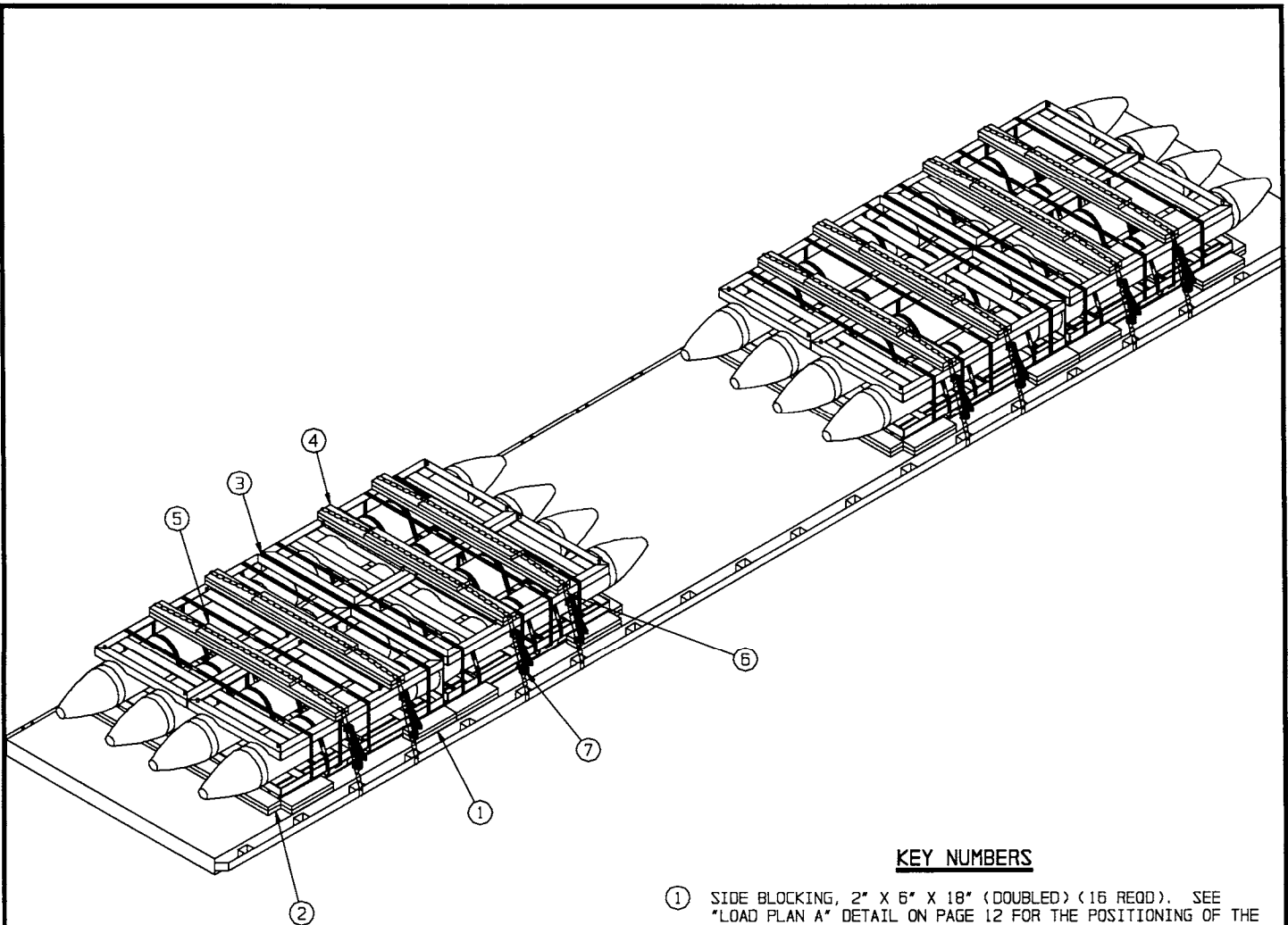
SEPARATOR GATE A

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 3"	7	4
2" X 6"	182	182
NAILS	NO. REOD	POUNDS
10d (3")	224	3-1/2
16d (3-1/2")	8	1/4
20d (4")	32	1-1/4
PLYWOOD, 1/2" - - - -	23 SQ FT REOD - - - -	31-3/4 LBS
STEEL STRAPPING, 2" - - - -	200' REOD - - - -	66-3/4 LBS
SEAL FOR 2" STRAPPING - - - -	40 REOD - - - -	8 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	8 - - - - -	34,696 LBS
DUNNAGE - - - - -	- - - - -	484 LBS
TOTAL WEIGHT - - - - -		35,180 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (16 REQD). SEE "LOAD PLAN A" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FLOORLINE HEADER, 2" X 6" X 6'-8" (DOUBLED) (4 REQD). SEE "LOAD PLAN A" ON PAGE 12 FOR THE POSITIONING OF THE FLOORLINE HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ③ SEPARATOR GATE (2 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 5.
- ④ CHAIN BOARD, 2" X 6" X 6'-8" (DOUBLED) (8 REQD). LAMINATE W/5-10d NAILS. POSITION ON TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑤ PURCHASE BOARD, 2" X 6" X 40" (8 REQD). CENTER ON THE CHAIN BOARD, PIECE MARKED ④, AND NAIL W/4-10d NAILS.
- ⑥ CHAIN, BINDING, 5/16" GRADE 70 BY A LENGTH TO SUIT (8 REQD). POSITION AS SHOWN ABOVE, FASTENING THE CHAIN GRABHOOKS TO THE TRAILER STAKE POCKETS. SEE THE "SPECIAL PROVISIONS FOR CHAIN TIEDOWN" ON PAGE 7.
- ⑦ LOAD BINDER, 5/16", OVERCENTER TYPE (8 REQD, 1 PER CHAIN). WIRE TIE HANDLE TO PREVENT OPENING DURING TRANSPORT. FASTEN THE TENSIONED CHAIN, PIECE MARKED ⑥, TO THE STRAPPING BOARD, PIECE MARKED ④, W/1-20d NAIL AT EACH END, BENDING OVER TO FORM A LOOP AROUND THE CHAIN LINK. SEE "SPECIAL PROVISIONS FOR CHAIN TIEDOWN" ON PAGE 7.

SPECIAL NOTES:

1. AN 8-UNIT LOAD IS SHOWN ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER HAVING A NAILABLE FLOOR. OTHER LENGTH TRAILERS, BOTH LONGER AND SHORTER, MAY BE USED FOR THE SHIPMENT OF REDUCED OR INCREASED LOADS OF BLU-109/B BOMBS.
2. A 45'-0" FLATBED TRAILER CAN ACCOMMODATE UP TO A 10-UNIT LOAD FOR A LADING WEIGHT OF 43,370 POUNDS BY PLACING ONE 4-UNIT LOAD ON THE FORWARD SECTION OF THE TRAILER, ONE 2-UNIT LOAD IN THE CENTER OF THE TRAILER, AND ONE 4-UNIT LOAD IN THE REAR OF THE TRAILER. SEE PAGE 12 AND GENERAL NOTES "E" AND "F" ON PAGE 2.
3. FOR THE SHIPMENT OF A 7-UNIT LOAD, REFER TO PAGE 10. FOR THE SHIPMENT OF A 6-UNIT LOAD, REFER TO PAGE 11. FOR LOADS LESS THAN 6-UNITS, REFER TO THE NOTE ON PAGE 10.
4. THE PROCEDURES DEPICTED ON PAGES 6 AND 7 CAN BE USED FOR ANY LOADS SHOWN HEREIN. NOTE: THE CHAINS MUST BE ATTACHED TO THE TRAILER STAKE POCKETS AND VERTICALLY IN LINE WITH THE CHAIN BOARDS. THE CHAIN BOARDS CAN BE SHIFTED LEFT OR RIGHT BUT MUST NOT BE POSITIONED CLOSER THAN 6" FROM THE CONTAINER ENDS TO PROVIDE FOR VERTICAL ALIGNMENT. IT MAY BE NECESSARY IN SOME LOADS TO SHIFT THE CONTAINERS WITH DUNNAGE TO ADHERE TO THIS LOADING REQUIREMENT.
5. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE. IF WEB STRAP TIEDOWNS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 8 AND 9 FOR GUIDANCE.

SPECIAL PROVISIONS FOR CHAIN TIEDOWN

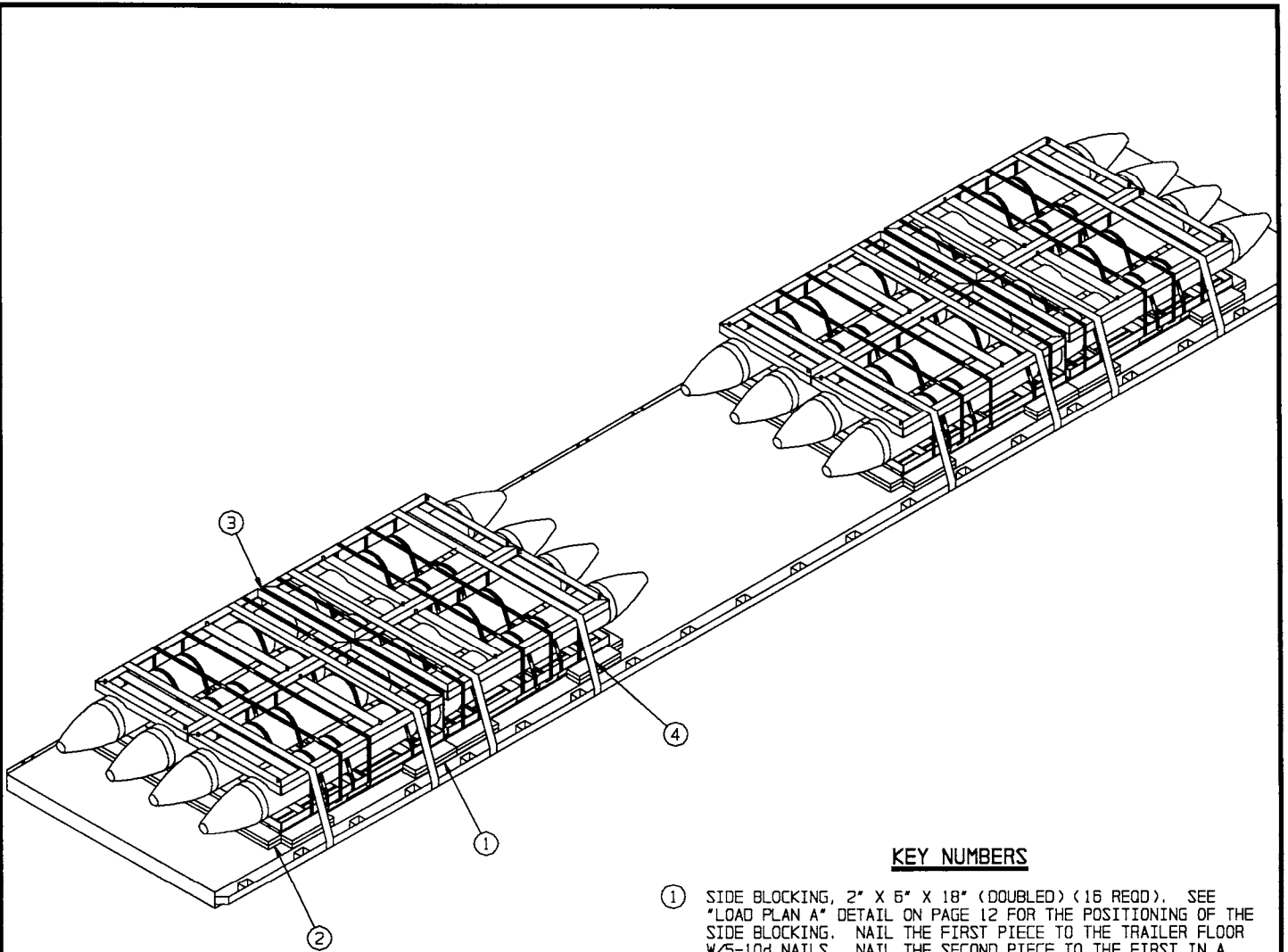
LADING MAY BE SECURED TO THE FLATBED TRAILER BY CARRIER-OWNED CHAINS AND LOAD BINDERS IN LIEU OF SPECIFIED STRAPPING, PROVIDED THE FOLLOWING CONDITIONS ARE MET AND THE PROCEDURES CONTAINED ON PAGES 6 AND 7 ARE FOLLOWED.

1. ONLY CHAINS AND LOAD BINDERS OF GOOD QUALITY WILL BE USED. ALL CHAINS AND LOAD BINDERS SHALL CONFORM TO THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975.
2. ALL CHAINS SHALL BE MARKED AS PRESCRIBED BY THE NATIONAL ASSOCIATION OF CHAIN MANUFACTURER'S WELDED CHAIN SPECIFICATION ADOPTED NOVEMBER 1975. AT LEAST ONE LINK IN EVERY 36 LINKS SHALL CARRY THE MANUFACTURER'S PERMANENT AND DISTINCTIVE MARK IDENTIFYING THE GRADE OF CHAIN. CHAINS NOT MARKED IN THIS MANNER SHALL NOT BE USED. IN ADDITION TO THE GRADE MARKING, THE CHAIN MAY ALSO CARRY LETTER MARKINGS OR SYMBOLS IDENTIFYING THE CHAIN MANUFACTURER. THE PRESENCE OF THE MANUFACTURER'S IDENTIFICATION MARKING IS NOT MANDATORY.
3. BEFORE AND DURING INSTALLATION, THE CHAINS AND LOAD BINDERS SHALL BE INSPECTED FOR BENT HOOKS, STRETCH, GOUGES, BENT LINKS, WEAR, OR ANY OTHER NOTICEABLE DEFECTS. ANY DEFICIENCY SHALL BE CAUSE FOR REJECTION OF A CHAIN OR LOAD BINDER. CHAINS MUST NOT BE TWISTED DURING INSTALLATION. CAUTION: EXTREME CARE MUST BE EXERCISED WHEN TENSIONING CHAINS TO PREVENT DAMAGE OR PERMANENT DEFORMATION TO THE LADING.
4. CHAIN SIZES AND GRADES APPROVED FOR USE WITH FLATBED TRAILER LOADS ARE AS FOLLOWS:
 - A. 3/8", GRADE 43 HIGH TEST CHAIN
 - B. 5/16", GRADE 70 BINDING CHAIN
 - C. 3/8", GRADE 70 BINDING CHAIN
 - D. 5/16", GRADE 80 ALLOY STEEL CHAIN
 - E. 3/8", GRADE 80 ALLOY STEEL CHAIN
5. THE GRABHOOKS ON THE ENDS OF THE CHAIN MAY BE OF THE FOLLOWING TYPES WITH GRADE MARKINGS AS INDICATED.
 - A. CLEVIS GRABHOOKS, 3/8" SIZE, DO NOT REQUIRE GRADE MARKING. ALLOY GRABHOOKS, 5/16" SIZE, SHALL CARRY THE MANUFACTURER'S GRADE MARK OF 7, 70, OR 700. THE HOOKS SHALL BE USED ON THE APPROPRIATE SIZE CHAIN.
 - B. CLOSED EYE GRABHOOKS, 3/8" AND 5/16" SIZE, MAY BE USED ON THE APPROPRIATE SIZE CHAIN IF THEY ARE A PART OF A CHAIN ASSEMBLY WHICH WAS PROVIDED BY A CHAIN MANUFACTURER, AND THE CHAIN ASSEMBLY CARRIES THE CORRECT GRADE IDENTIFICATION MARKING AS PREVIOUSLY STATED. CLOSED EYE GRABHOOKS THAT FORM A PART OF THE CHAIN ASSEMBLY ARE EXEMPT FROM GRADE MARKINGS.
6. CONNECTING LINKS USED FOR CHAIN REPAIR MUST BE CORRECTLY MARKED AND BE EQUAL TO OR GREATER IN STRENGTH THAN THE CHAIN THEY ARE REPAIRING. CHAINS WITH UNMARKED CONNECTING LINKS SHALL NOT BE USED.
7. CHAIN AND FITTING OF A HIGHER GRADE MAY BE SUBSTITUTED FOR THE GRADES SPECIFIED IN NOTE 4 ABOVE.
8. LOAD BINDERS SHALL BE 5/16" TO 3/8" SIZE AND HAVE A MINIMUM BREAKING STRENGTH OF 16,200 POUNDS (WORKING LOAD LIMIT OF 5,400 POUNDS). OVERCENTER TYPE LOAD BINDERS SHALL BE SAFETY WIRED TO PREVENT ACCIDENTAL OPENING DURING TRANSPORT. LOAD BINDER SIZE SHALL BE COMPATIBLE WITH THE SIZE OF THE CHAIN BEING USED.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 3"	7	4
2" X 6"	235	235
NAILS	NO. REQD	POUNDS
10d (3")	264	4-1/4
16d (3-1/2")	8	1/4
20d (4")	48	3/4
PLYWOOD, 1/2" -----	23 SQ FT REQD --	31-3/4 LBS
CHAIN, BINDING, 5/16" -----	216' REQD -----	260 LBS
LOAD BINDER -----	8 REQD -----	48 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER -----	8 -----	34,696 LBS
DUNNAGE -----	-----	824 LBS
TOTAL WEIGHT -----		35,520 LBS (APPROX)



ISOMETRIC VIEW

KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (16 REQD). SEE "LOAD PLAN A" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FLOORLINE HEADER, 2" X 6" X 6'-8" (DOUBLED) (4 REQD). SEE "LOAD PLAN A" ON PAGE 12 FOR THE POSITIONING OF THE FLOORLINE HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ③ SEPARATOR GATE (2 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 5.
- ④ WEB STRAP ASSEMBLY (8 REQD). POSITION TO EXTEND FROM A WINCH ON ONE SIDE OF THE TRAILER, OVER THE CONTAINERS, TO AN ATTACHMENT POINT ON THE OPPOSITE SIDE. SEE THE "SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN" ON PAGE 9.

SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN

LADING MAY BE SECURED TO A FLATBED TRAILER BY WEB STRAP ASSEMBLIES IN LIEU OF STEEL STRAPPING OR CHAINS AND LOAD BINDERS, PROVIDED THE FOLLOWING CONDITIONS ARE MET.

1. ONLY WEB STRAPS OF GOOD QUALITY WILL BE USED. ALL WEB STRAPS AND ASSOCIATED HARDWARE SHALL CONFORM TO THE WEB SLING & TIEDOWN ASSOCIATION RECOMMENDED STANDARD SPECIFICATION FOR SYNTHETIC WEB TIEDOWNS, FIRST PUBLISHED IN 1991.
2. ALL WEB STRAP TIEDOWN ASSEMBLIES SHALL BE PERMANENTLY LABELED WITHIN 18" OF ONE END TO SHOW:
 - A. NAME OR TRADEMARK OF MANUFACTURER
 - B. WORKING LOAD LIMIT (WLL)
 - C. DATE OF MANUFACTURE (MONTH AND YEAR)
3. WEB STRAP ASSEMBLY MINIMUM BREAKING STRENGTH WILL BE AT LEAST THREE TIMES THE WLL MARKED ON THE STRAP.
4. THE TOTAL MINIMUM BREAKING STRENGTH (MBS) OF THE STRAPS USED TO RESTRAIN AMMUNITION ITEMS WILL BE AT LEAST 1-1/2 TIMES THE TOTAL WEIGHT OF THE ITEMS, WITH A MINIMUM OF TWO STRAPS POSITIONED OVER EACH LOAD UNIT ON A TRAILER. WRITTEN PROOF OF THE MBS OF THE STRAPS SHALL BE PROVIDED BY THE CARRIER TO THE SHIPPING ACTIVITY IF REQUESTED.
5. CARRIERS MUST COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS APPLICABLE TO CARGO RESTRAINT USING WEB STRAPS.
6. WHEN USING STRAPS AND WINCHES FOR CARGO RESTRAINT, THE STRAPS WILL BE TENSIONED UNTIL TIGHT WITHOUT CAUSING DAMAGE TO THE CARGO. ONLY WINCH BARS WILL BE USED FOR OPERATING THE STRAP WINCHES.
7. BEFORE AND DURING INSTALLATION, THE WEB STRAP ASSEMBLIES SHALL BE INSPECTED FOR DEFECTS. STRAPS HAVING ANY OF THE FOLLOWING DEFECTS WILL NOT BE USED FOR THE RESTRAINT OF ANY AMMUNITION LOAD, WITH THE EXCEPTION OF ONE WITH FRAYED ENDS. A STRAP HAVING FRAYED ENDS CAN BE USED IF THE FRAYED END IS TRIMMED AND MELTED WITH HEAT OR FLAME UNTIL ALL STRANDS ARE SEIZED.
 - A. STRAP ASSEMBLY HARDWARE: SHALL BE INSPECTED FOR BENT HOOKS, GOUGES, CORROSION, SIGNS OF REPAIR, BENT RATCHETS OR WINCHES, WEAR, OR ANY OTHER NOTICEABLE DEFECTS.
 - B. STRAP WEBBING: SHALL BE INSPECTED FOR KNOTS, EXCESSIVE ABRASIVE WEAR, TEARS, PUNCTURES, CUTS, ACID OR CAUSTIC BURNS, BROKEN STITCHES, FRAYED ENDS, OIL OR GREASE SPOTS EXCEEDING 6 SQUARE INCHES, BLEACHING OF COLOR, INCREASED STIFFNESS, SPLICES, VISIBLE WEAR INDICATOR THREADS, OR ANY OTHER NOTICEABLE DEFECTS.
8. RATCHET HANDLES MUST BE IN THE LOCKED POSITION AND/OR WINCH LOCKING DEVICES MUST BE FULLY SEATED IN THE TEETH OF THE WINCH.
9. IF THE WINCHES BEING USED ARE THE REMOVABLE TYPE HAVING BOLTS FOR ATTACHMENT TO THE TRAILER, CARE MUST BE EXERCISED WHEN ATTACHING THE WINCHES TO THE TRAILER. IF EXCESSIVE FORCE IS EXERTED ON THE BOLT DURING TENSIONING, DEFORMATION OF THE WINCH BRACKET MAY OCCUR, AND SUBSEQUENTLY CAUSE FAILURE OF THE WINCH BRACKET DURING TRANSPORT. WINCHES MUST BE FASTENED TO THE TRAILER WITH A MINIMUM OF TWO BOLTS.

SPECIAL NOTES:

1. AN 8-UNIT LOAD IS SHOWN ON A 40'-0" LONG BY 8'-0" WIDE FLATBED TRAILER HAVING A NAILABLE FLOOR. OTHER LENGTH TRAILERS, BOTH LONGER AND SHORTER, MAY BE USED FOR THE SHIPMENT OF REDUCED OR INCREASED LOADS OF BLU-109/B BOMBS.
2. A 45'-0" FLATBED TRAILER CAN ACCOMMODATE UP TO A 10-UNIT LOAD FOR A LADING WEIGHT OF 43,370 POUNDS BY PLACING ONE 4-UNIT LOAD ON THE FORWARD SECTION OF THE TRAILER, ONE 2-UNIT LOAD IN THE CENTER OF THE TRAILER, AND ONE 4-UNIT LOAD IN THE REAR OF THE TRAILER. SEE PAGE 12 AND GENERAL NOTES "E" AND "F" ON PAGE 2.
3. FOR THE SHIPMENT OF A 7-UNIT LOAD, REFER TO PAGE 10. FOR THE SHIPMENT OF A 6-UNIT LOAD, REFER TO PAGE 11. FOR LOADS LESS THAN 6-UNITS, REFER TO THE NOTE ON PAGE 10.
4. IF STEEL STRAPPING IS TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 4 AND 5 FOR GUIDANCE. IF CHAINS AND LOAD BINDERS ARE TO BE USED FOR LOAD SECUREMENT, REFER TO THE PROCEDURES ON PAGES 6 AND 7.

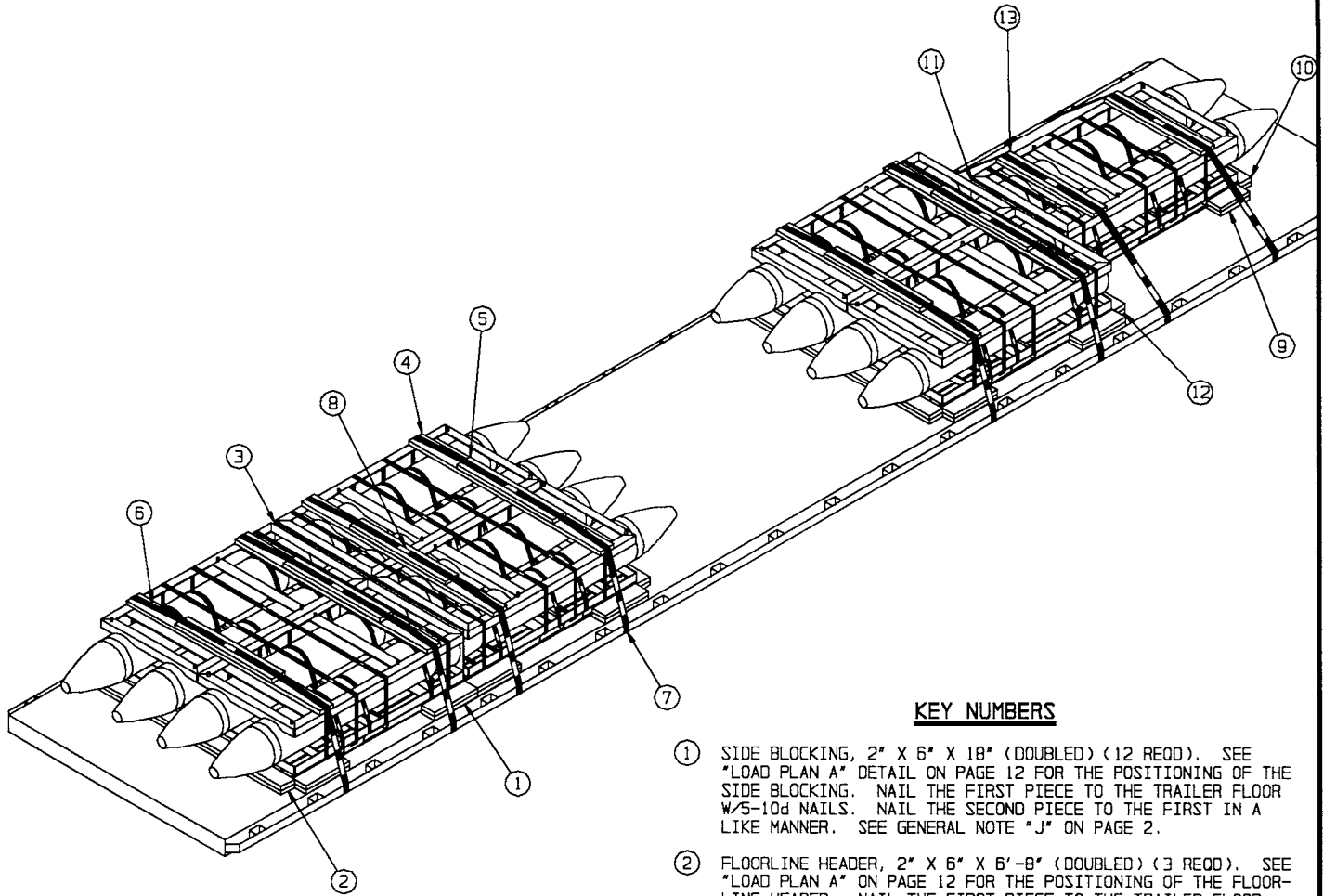
(SPECIAL PROVISIONS FOR WEB STRAP TIEDOWN CONTINUED)

10. DRIVERS MUST BE INSTRUCTED TO PERIODICALLY CHECK THE TIGHTNESS OF THE WEB STRAP ASSEMBLIES AND RE-TIGHTEN, IF NECESSARY.
11. IF PROVIDED ON OR WITH THE WEB STRAP ASSEMBLIES, SCUFF SLEEVES/WEB PROTECTORS WILL BE USED WHEREVER THE STRAP PASSES OVER A SHARP CORNER OR IRREGULAR SURFACE. IF NOT PROVIDED, ANTI-CHAFING MATERIAL OF A SUITABLE THICKNESS WILL BE USED TO INSURE THAT THE STRAP WEBBING IS NOT DAMAGED DURING TRANSPORT OF THE LOAD.
12. THE HARDWARE FITTING OF THE TIEDOWN ASSEMBLIES MUST BE ATTACHED TO THE TRAILER IN SUCH A MANNER THAT THEY WILL REMAIN IN PLACE IF SLACK DEVELOPS IN THE STRAP DURING TRANSPORT.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 3"	7	4
2" X 6"	102	102
NAILS	NO. REQD	POUNDS
10d (3")	192	3
16d (3-1/2")	8	1/4
20d (4")	32	1-1/4
PLYWOOD, 1/2" - - - -	23 SQ FT REQD - - - -	31-3/4 LBS
WEB STRAP ASSEMBLIES - - - -	- - - -	8 REQD

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
CONTAINER - - - - -	8 - - - - -	34,696 LBS
DUNNAGE - - - - -	- - - - -	249 LBS
TOTAL WEIGHT - - - - -		34,945 LBS (APPROX)



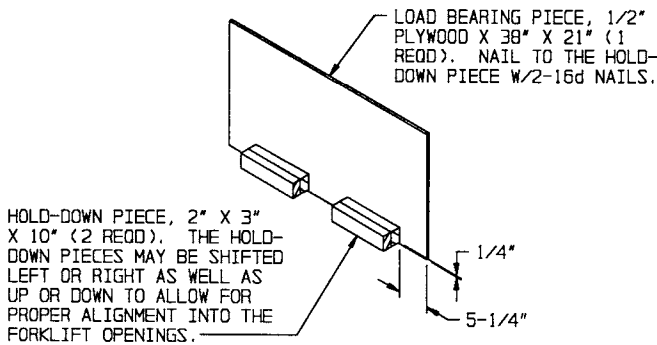
ISOMETRIC VIEW

(KEY NUMBERS CONTINUED)

- ⑪ SEPARATOR GATE (1 REQD). SEE THE "SEPARATOR GATE B" DETAIL BELOW.
- ⑫ HEADER, 2" X 6" X 20" (DOUBLED) (2 REQD). POSITION AGAINST THE PALLET SKID AS SHOWN ABOVE AND IN THE "LOAD PLAN B" ON PAGE 12. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/3-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/3-20d NAILS.
- ⑬ STRAPPING BOARD, 2" X 6" X 40" (2 REQD). POSITION ON TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.

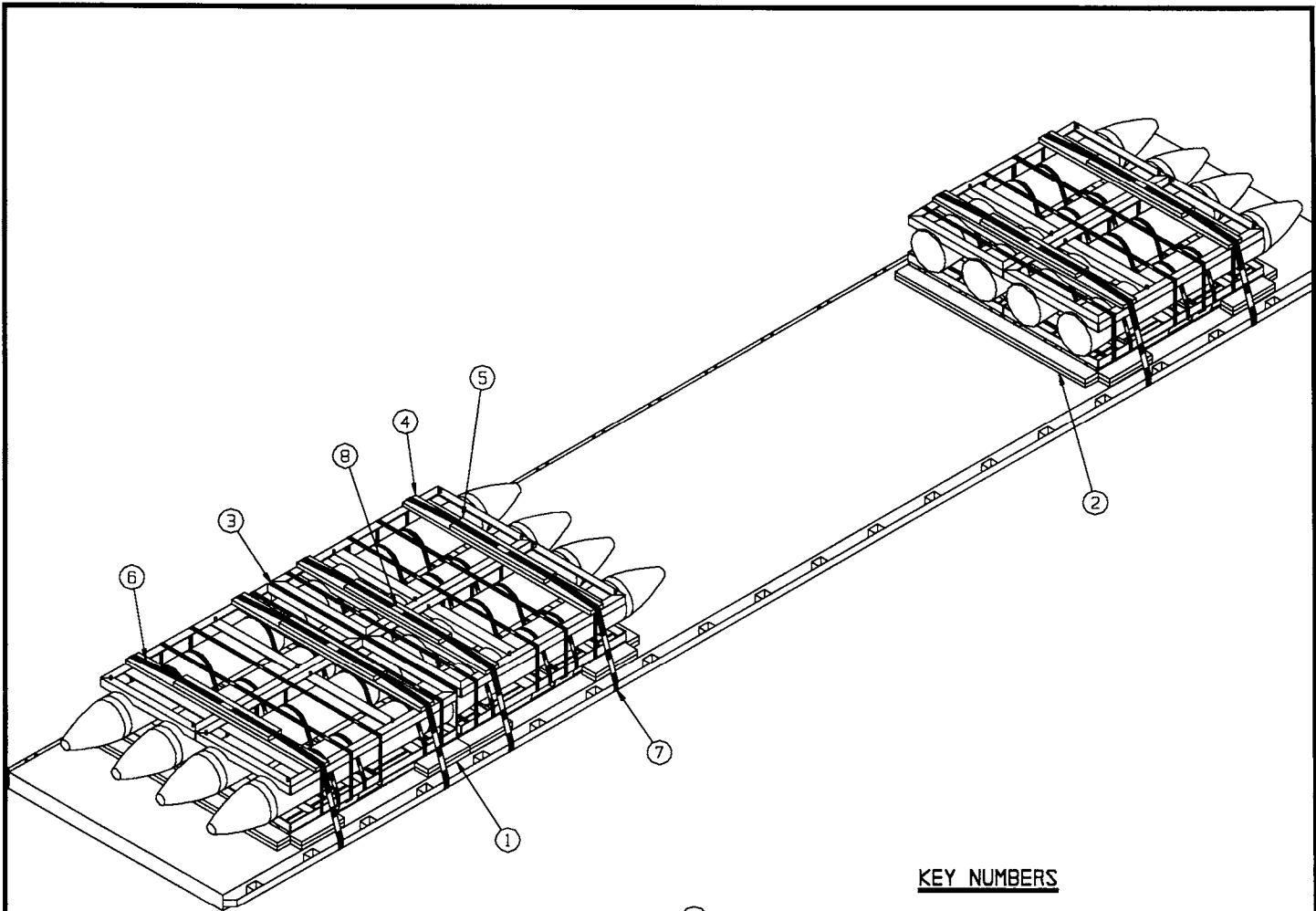
KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (12 REQD). SEE "LOAD PLAN A" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FLOORLINE HEADER, 2" X 6" X 6'-8" (DOUBLED) (3 REQD). SEE "LOAD PLAN A" ON PAGE 12 FOR THE POSITIONING OF THE FLOORLINE HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ③ SEPARATOR GATE (1 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 5.
- ④ STRAPPING BOARD, 2" X 6" X 6'-8" (6 REQD). POSITION ON TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑤ PURCHASE BOARD, 2" X 6" X 40" (6 REQD). CENTER ON THE STRAPPING BOARD, PIECE MARKED ④, AND NAIL W/4-10d NAILS.
- ⑥ HOLD-DOWN STRAP, 2" X .050" OR .044" X 22'-0" LONG STEEL STRAPPING (6 REQD) AND 2" X .050" OR .044" X 20'-6" LONG STEEL STRAPPING (2 REQD). POSITION OVER THE TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑦ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (16 REQD). POSITION UNDER STAKE POCKET OR RUB RAIL AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED ⑥. SEE "DETAIL A" ON PAGE 13. ALT: STAKE POCKET PROTECTOR (32 REQD). USE 2 UNDER EACH STAKE POCKET OR RUB RAIL WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 13.
- ⑧ SEAL FOR 2" STEEL STRAPPING (40 REQD, 5 PER STRAP). DOUBLE NOTCH EACH SEAL EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑦. SEE THE "HOLD-DOWN STRAP ANCHORING DETAILS" AND "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.
- ⑨ SIDE BLOCKING, 2" X 6" X 12" (DOUBLED) (4 REQD). SEE "LOAD PLAN B" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING FOR THE SINGLE WIDE CONTAINER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER.
- ⑩ HEADER, 2" X 6" X 40" (DOUBLED) (1 REQD). POSITION AGAINST THE PALLET SKID AS SHOWN. NAIL THE FIRST PIECE TO THE FLOOR W/4-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/4-20d NAILS.



SEPARATOR GATE B

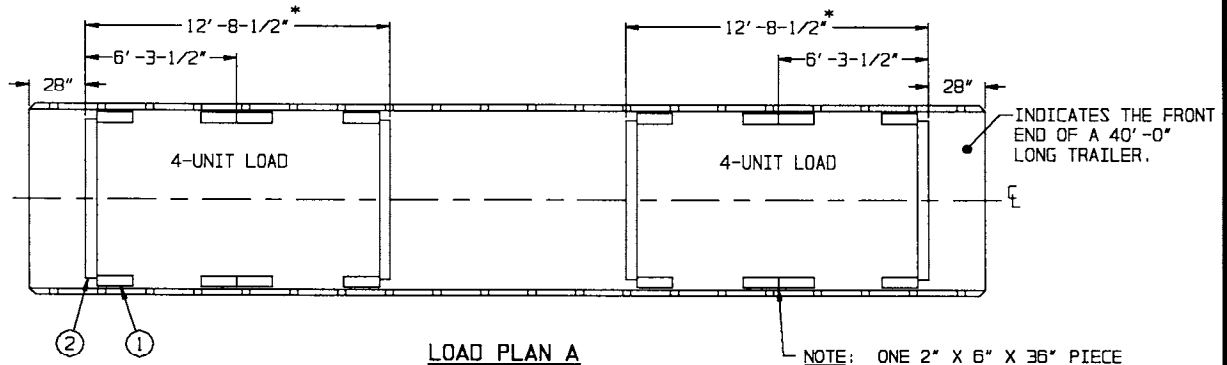
(CONTINUED AT LEFT)



ISOMETRIC VIEW

KEY NUMBERS

- ① SIDE BLOCKING, 2" X 6" X 18" (DOUBLED) (12 REQD). SEE "LOAD PLAN A" DETAIL ON PAGE 12 FOR THE POSITIONING OF THE SIDE BLOCKING. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/5-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST IN A LIKE MANNER. SEE GENERAL NOTE "J" ON PAGE 2.
- ② FLOORLINE HEADER, 2" X 6" X 6'-8" (DOUBLED) (4 REQD). SEE "LOAD PLAN A" ON PAGE 12 FOR THE POSITIONING OF THE FLOORLINE HEADER. NAIL THE FIRST PIECE TO THE TRAILER FLOOR W/8-10d NAILS. NAIL THE SECOND PIECE TO THE FIRST W/8-20d NAILS.
- ③ SEPARATOR GATE (1 REQD). SEE THE "SEPARATOR GATE A" DETAIL ON PAGE 5.
- ④ STRAPPING BOARD, 2" X 6" X 6'-8" (6 REQD). POSITION ON TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑤ PURCHASE BOARD, 2" X 6" X 40" (6 REQD). CENTER ON THE STRAPPING BOARD, PIECE MARKED ④, AND NAIL W/4-10d NAILS.
- ⑥ HOLD-DOWN STRAP, 2" X .050" OR .044" X 22'-0" LONG STEEL STRAPPING (6 REQD). POSITION OVER THE TOP OF THE LOAD UNIT AS TYPICALLY SHOWN ABOVE.
- ⑦ PAD, 2" X .050" OR .044" X 18" LONG STEEL STRAPPING (12 REQD). POSITION UNDER STAKE POCKET OR RUB RAIL AND SEAL TO HOLD-DOWN STRAP, PIECE MARKED ⑥. SEE "DETAIL A" ON PAGE 13. ALT: STAKE POCKET PROTECTOR (24 REQD). USE 2 UNDER EACH STAKE POCKET OR RUB RAIL WITH A HOLD-DOWN STRAP. SEE "DETAIL B" ON PAGE 13.
- ⑧ SEAL FOR 2" STEEL STRAPPING (30 REQD, 5 PER STRAP). DOUBLE NOTCH EACH SEAL EXCEPT THOSE USED TO SECURE THE PADS, PIECES MARKED ⑦. SEE THE "HOLD-DOWN STRAP ANCHORING DETAILS" AND "END-OVER-END LAP JOINT DETAILS" ON PAGE 13.

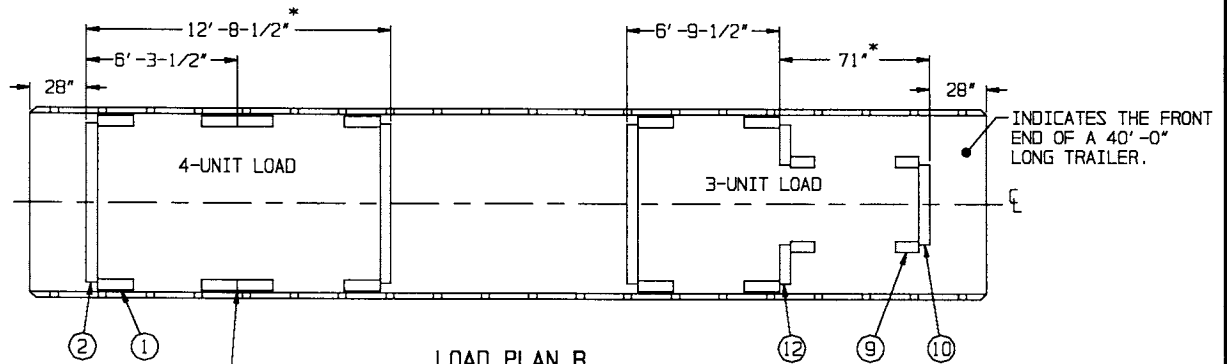


LOAD PLAN A

SEE PAGES 4 THRU 9 AND GENERAL NOTES "E" AND "F" ON PAGE 2.

NOTE: ONE 2" X 6" X 36" PIECE (DOUBLED) MAY BE USED IN PLACE OF TWO 2" X 6" X 18" PIECES (DOUBLED).

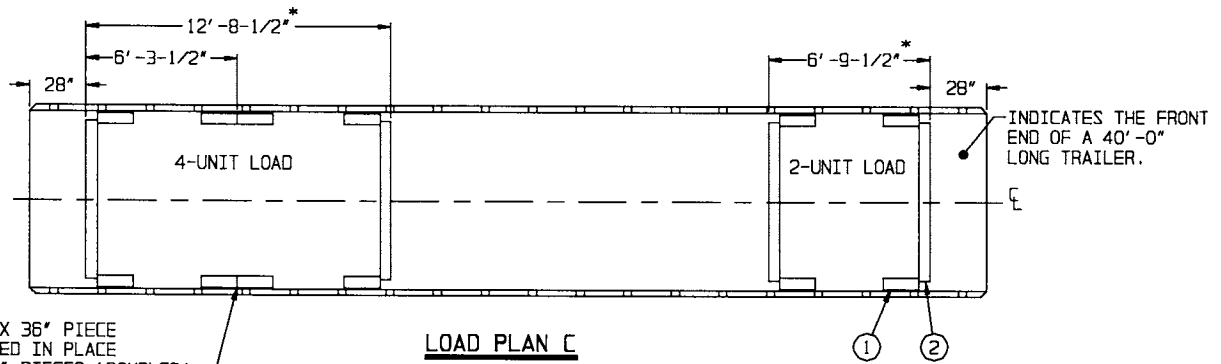
* CAUTION: THIS DIMENSION MAY VARY DEPENDING ON THE PALLET UNITS BEING LOADED. THE DIMENSION SHOULD ALLOW FOR A TIGHT FIT OF THE HEADER AGAINST THE PALLET POSTS TO MINIMIZE LONGITUDINAL MOVEMENT OF THE LOAD. NOTE: TO AVOID EXCESS LATERAL MOVEMENT OF THE LADING, POSITION THE SIDE BLOCKING TIGHT AGAINST THE CONTAINER SKIDS, PRIOR TO NAILING. FIELD INSPECTION OF THE HEADER AND OTHER DUNNAGE SHOULD BE PERFORMED PRIOR TO SHIPMENT.



LOAD PLAN B

SEE PAGE 10 AND GENERAL NOTES "E" AND "F" ON PAGE 2.

NOTE: ONE 2" X 6" X 36" PIECE (DOUBLED) MAY BE USED IN PLACE OF TWO 2" X 6" X 18" PIECES (DOUBLED).



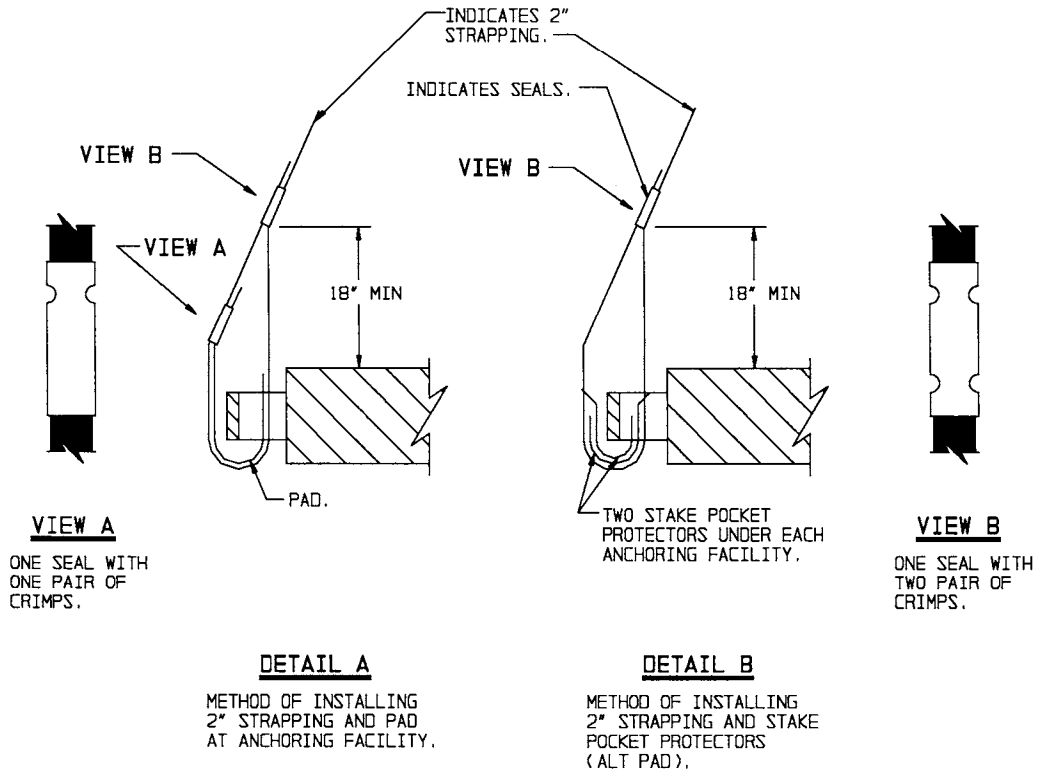
LOAD PLAN C

SEE PAGE 11 AND GENERAL NOTES "E" AND "F" ON PAGE 2.

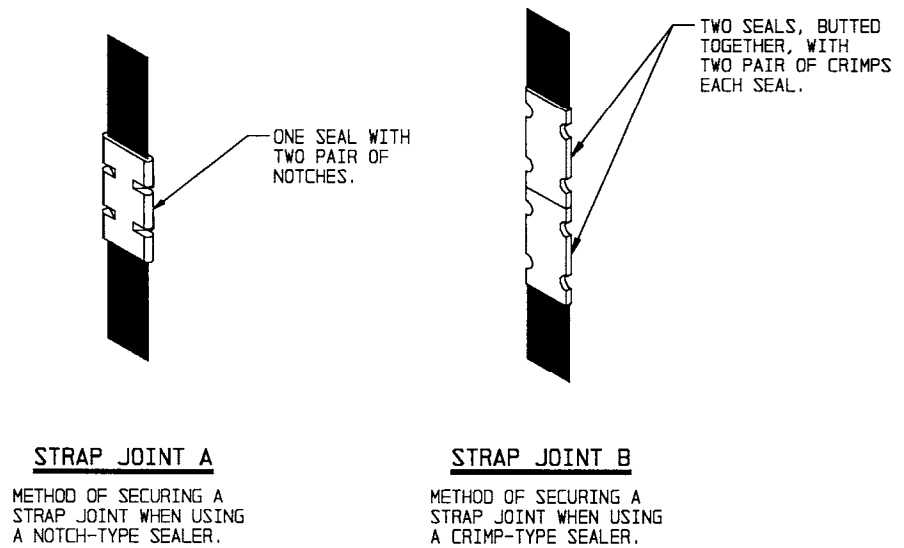
NOTE: ONE 2" X 6" X 36" PIECE (DOUBLED) MAY BE USED IN PLACE OF TWO 2" X 6" X 18" PIECES (DOUBLED).

FLOOR DUNNAGE PLAN

NOTE: ALL DUNNAGE IS DOUBLED 2" X 6" LUMBER. FOR SPECIFIC LUMBER LENGTHS AND THE NUMBER OF NAILS REQUIRED, SEE PAGES 4 THRU 11. A TEN, FIVE, FOUR, THREE, AND TWO CONTAINER LOAD CAN BE ACCOMPLISHED BY VARIATIONS OF THE 3 LOAD PLANS SHOWN ABOVE, FOR FLATBED TRAILERS LONGER THAN AS WELL AS SHORTER THAN 40'-0". SEE SPECIAL NOTE 2 ON PAGE 5 AND GENERAL NOTES "E" AND "F" ON PAGE 2.



HOLD-DOWN STRAP ANCHORING DETAILS



END-OVER-END LAP JOINT DETAILS

**PROVISIONS FOR THE USE OF FIRE HOSE IN LIEU
OF CHAIN BOARDS OR STRAPPING BOARDS**

FIRE HOSE THAT IS NO LONGER SUITABLE FOR USE IN FIRE FIGHTING APPLICATIONS CAN BE SUBSTITUTED FOR THE DOUBLED 2" BY 6" WOODEN CHAIN BOARDS OR SINGLE 2" BY 6" STRAPPING BOARDS, AS SPECIFIED HEREIN, PROVIDED THE FOLLOWING CONDITIONS ARE MET.

1. SUBSTITUTION AND APPLICATION GUIDANCE

- A. FIRE HOSE MAY BE USED WHEREVER A CHAIN OR STRAPPING BOARD CONTACTS A RIGID SURFACE OF THE LOAD PROVIDED GOUGING, SCRATCHING, CRACKING, BENDING, CRUSHING, OR OTHER VISIBLE DAMAGE DOES NOT OCCUR TO THE LOAD.
- B. ONE OR MORE SEGMENTS OF FIRE HOSE MAY BE USED TO REPLACE EACH CHAIN OR STRAPPING BOARD PROVIDING LOAD PROTECTION DURING TENSIONING OF TIEDOWNS AND LOAD SHIPMENT; I.E., A CHAIN BOARD NEED NOT BE REPLACED BY A SINGLE SEGMENT OF HOSE, MULTIPLE SEGMENTS MAY BE USED INSTEAD, AS LONG AS THEY ARE SECURELY FASTENED TO THE TIEDOWN. REGARDLESS OF THE NUMBER OF SEGMENTS USED, THE HOSE LENGTH WILL BE SUCH THAT IT EXTENDS AT LEAST 6" BEYOND THE EDGE OF THE LOAD.
- C. FIRE HOSE CANNOT BE USED IN PLACE OF A PURCHASE BOARD ON A LOAD CONSISTING OF MORE THAN TWO PALLETS OR CONTAINERS ACROSS THE WIDTH OF THE TRAILER. THE FIRE HOSE CAN BE APPLIED TO THE OUTER STACKS, HOWEVER, A PURCHASE BOARD ASSEMBLY WILL STILL BE REQUIRED TO PROVIDE VERTICAL HOLD-DOWN ON THE CENTER STACK(S).

2. ACCEPTABLE FIRE HOSE

- A. FIRE HOSE TO BE USED WILL BE A RUBBER LINED SINGLE OR DOUBLE JACKETED TYPE; I.E., IT MUST HAVE A RUBBER LINING INSIDE A SINGLE OR DOUBLED FABRIC (COTTON, LINEN, ETC.) JACKET.
- B. THE COLLAPSED WIDTH OF THE HOSE MUST BE A MINIMUM OF 2-1/2".
- C. THE HOSE SEGMENTS USED MUST NOT CONTAIN DEFECTS THAT WILL ALLOW DIRECT CONTACT OF THE CHAIN OR LOAD BINDER WITH THE LOAD. THE HOSE THICKNESS MUST ALSO BE OF SUCH A THICKNESS THAT DENTING OR DAMAGE TO THE LOAD DOES NOT OCCUR DURING CHAIN OR STRAP TENSIONING.

4. SECUREMENT TO CHAINS OR STRAPS

- A. THE SEGMENTS OF HOSE USED UNDER EACH CHAIN OR STRAP WILL BE SECURED TO THE CHAIN OR STRAP WITH ONE FASTENER EVERY 12", WITH A MINIMUM OF TWO FASTENERS REQUIRED PER HOSE SEGMENT.
- B. FASTENERS CAN CONSIST OF PLASTIC ELECTRICAL TIES, NO. 14 GAGE WIRE, OR TAPE. REGARDLESS OF THE TYPE OF FASTENING USED, IT MUST PROVIDE A POSITIVE MEANS OF SECUREMENT OF THE HOSE TO THE CHAIN OR STRAP AND MUST NOT DAMAGE THE SURFACE OF THE CONTAINER, PALLET, OR ITEM IT CONTACTS.