

APPROVED BY
 BUREAU OF EXPLOSIVES
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 DATE 11/15/71

LOADING AND BRACING IN A CONTAINER/ TRAILER EQUIPPED WITH A MECHANICAL BRACING SYSTEM OF SEPARATE LOADING PROJECTILES FOR CONTAINER/ TRAILER-ON-FLAT CAR (C/TOFC) SHIPMENT

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REVISIONS			DRAFTSMAN PB/STW	PROJ ENG MWD/LOW	CHK JH
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DO NOT SCALE

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13, AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE DEPICTED OUTLOADING PROCEDURES ARE APPLICABLE TO SEPARATE LOADING PROJECTILES, PACKED AS SPECIFIED IN GENERAL NOTE "C". SUBSEQUENT REFERENCE TO PALLET MEANS THE PALLET WITH AMMUNITION ITEMS.
- C. DETAIL OF PALLETIZED SEPARATE LOADING PROJECTILES:
155MM, 8/PALLET ----- 13-1/2" LONG X 27" WIDE X 31-1/2" HIGH.
GROSS WEIGHT ----- 862 POUNDS (APPROX).

175MM, 6/PALLET ----- 17" LONG X 25-1/2" WIDE X 41" HIGH.
GROSS WEIGHT ----- 948 POUNDS (APPROX).

175MM, 20/PALLET ----- 40" LONG X 51-1/4" WIDE X 48-3/4" OR 44-3/4" HIGH.
GROSS WEIGHT ----- 3,366 POUNDS (APPROX).

8", 3/PALLET ----- 9-1/2" LONG X 28-1/2" WIDE X 38-1/2" HIGH.
GROSS WEIGHT ----- 633 POUNDS (APPROX).

8", 6/PALLET ----- 19-1/2" LONG X 28-1/2" WIDE X 38-1/2" HIGH.
GROSS WEIGHT ----- 1,253 POUNDS (APPROX).
- D. THIS PROCEDURAL DRAWING IS APPLICABLE TO A TRAILER OR CONTAINER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BRACING SYSTEM AS SPECIFIED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C AND APPENDICES THERETO. SUBSEQUENT REFERENCE TO A TRAILER THROUGHOUT THIS DOCUMENT MEANS A TRAILER OR CONTAINER. FOR TOFC AND/OR COFC SHIPMENTS, ONLY RAILCARS WHICH ARE SPECIFIED BY THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C, OR THE AFORE MENTIONED APPENDICES, WILL BE USED.
- E. THE LOADS AS SHOWN ARE BASED ON TRAILERS WHICH ARE 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) WITH WOOD, OR WOOD AND METAL, OR ALL-METAL FLOORS. THE DELINEATED OUTLOADING PROCEDURES ARE ALSO APPLICABLE TO TRAILERS WHICH ARE EIGHTY-NINE INCHES (89") THROUGH NINETY-THREE INCHES (93") IN WIDTH.
- F. THE OUTLOADING PROCEDURES SPECIFIED ARE FOR TRAILERS EQUIPPED WITH VARIOUS TYPES OF SELF-CONTAINED MECHANICAL BRACING DEVICES. THE HEIGHT LOCATIONS FOR THE INSTALLATION OF CROSS MEMBERS ARE IDENTICAL TO THOSE RECOMMENDED WITHIN THE BUREAU OF EXPLOSIVES PAMPHLET NO. 6C AND APPENDICES THERETO. CAUTION: TRAILERS EQUIPPED WITH FACILITIES WHICH DO NOT MEET THE LOCATION REQUIREMENTS SPECIFIED IN THIS DRAWING MUST NOT BE USED.
1. VOIDS WITHIN THE LENGTH OF A LOAD MUST BE HELD TO A MINIMUM. CROSS MEMBERS MUST BE PLACED AGAINST THE LADING AS TIGHTLY AS THE HOLE SPACING IN THE CROSS MEMBER ATTACHMENT FACILITY PERMITS. ALSO, EACH CROSS MEMBER WILL BE INSTALLED WITH THE ENDS ATTACHED AS NEARLY AS POSSIBLE IN "MATED" POSITIONS (AT EQUAL HEIGHTS AND AT EQUAL DISTANCES FROM THE END OF THE TRAILER).
 2. CROSS MEMBERS IN EMPTY TRAILERS AND THOSE NOT USED IN LOADED TRAILERS MUST BE SECURED FOR SHIPMENT. COMPONENTS ASSIGNED TO EACH TRAILER MUST REMAIN THEREWITH EVEN THOUGH UNUSED DURING SOME SHIPMENTS.
 3. A CROSS MEMBER WILL NOT BE RELIED UPON TO RETAIN MORE LADING ON EITHER SIDE THAN AS SHOWN WITHIN THE LOAD VIEWS.
- G. 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. NOTICE: A SHIPMENT WILL BE POSITIONED IN A TRAILER CONSISTENT WITH THE WEIGHT LAWS OF THE STATES THROUGH WHICH THE TRAILER WILL BE TRANSPORTED BY HIGHWAY (MOTOR CARRIER).
- H. THE NUMBER OF LADING UNITS MAY BE ADJUSTED TO FIT THE CAPACITY OF THE TRAILER TO BE LOADED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS SHOWN MUST BE FOLLOWED AS CLOSELY AS POSSIBLE FOR BLOCKING, BRACING, AND STAYING OF THE DESIGNATED ITEMS.
- J. OTHER TYPES OF LADING ITEMS MAY BE LOADED INTO TRAILERS WHICH ARE PARTIALLY LOADED WITH THE DEPICTED ITEMS, 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 IN THIS DRAWING.

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

LUMBER -- : SEE TM 743-200-1, DUNNAGE LUMBER; FED SPEC MM-L-751.

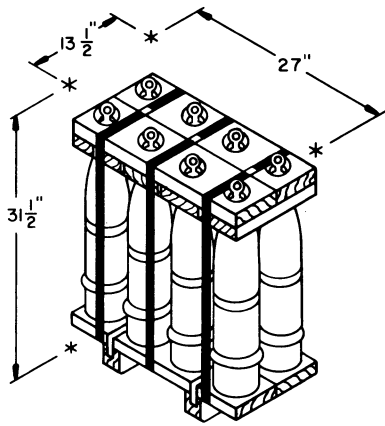
PLYWOOD : GROUP B OR C, GRADE * C-D (EXTERIOR); FED SPEC NN-P-530.
FSN 5530-051-1198.

NAILS --- : COMMON, CEMENT COATED OR CHEMICALLY ETCHED;
FED SPEC FF-N-105.
ALT: ANNULAR-RING TYPE NAIL OF THE SAME SIZE.

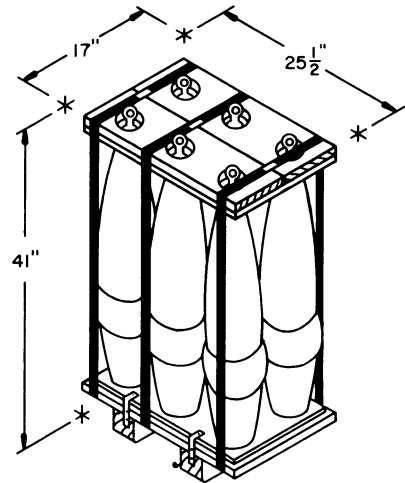
*IF SPECIFIED GRADE IS NOT AVAILABLE, A BETTER EXTERIOR GRADE MAY BE SUBSTITUTED.

(GENERAL NOTES CONTINUED)

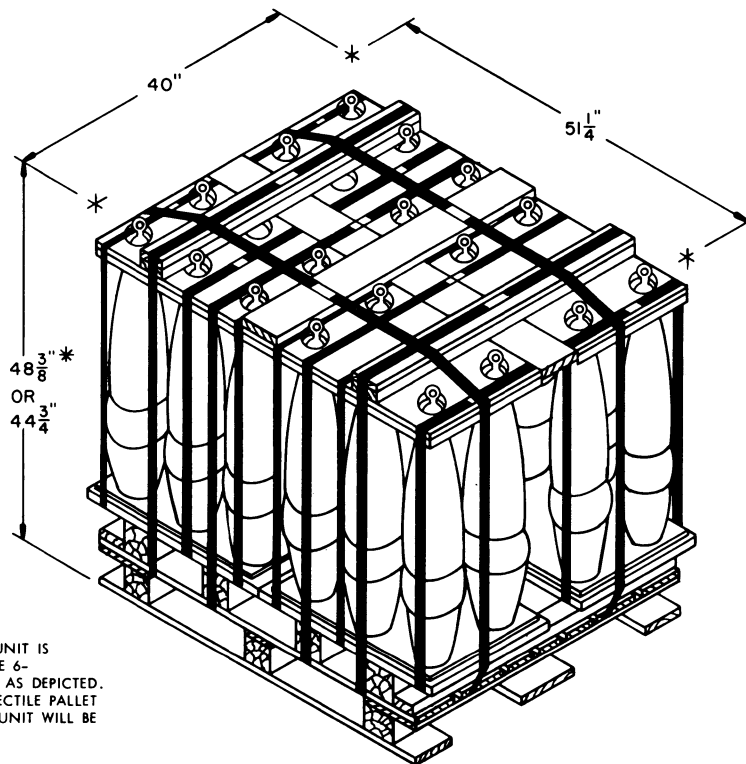
- K. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-5/8" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-5/8" THICK BY 5-5/8" WIDE.
- L. NOTICE: A STAGGERED NAILING PATTERN WILL BE USED WHEREVER POSSIBLE WHEN NAILS ARE DRIVEN INTO JOINTS OF DUNNAGE ASSEMBLIES, OR WHEN LAMINATING DUNNAGE.
- M. DO NOT NAIL BLOCKING TO THE TRAILER WALLS OR FLOOR. ALL NAILING WILL BE WITHIN THE DUNNAGE.
- N. PORTIONS OF THE TRAILER BODIES DEPICTED WITHIN THIS PROCEDURAL DRAWING, SUCH AS ONE OF THE SIDE WALLS, HAVE NOT BEEN SHOWN IN THE LOAD VIEWS FOR CLARITY PURPOSES.
- O. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTION WHICH IS IMMEDIATELY ADJACENT TO A DEPICTED OUTLOADING METHOD.



155MM, 8/PALLET

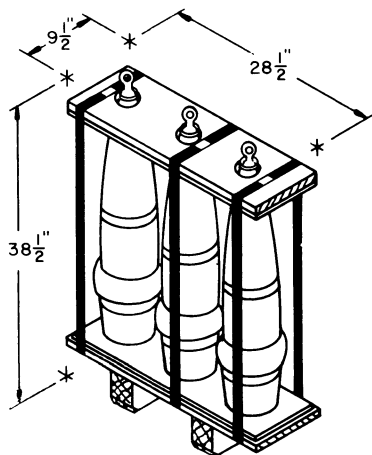


175MM, 6/PALLET

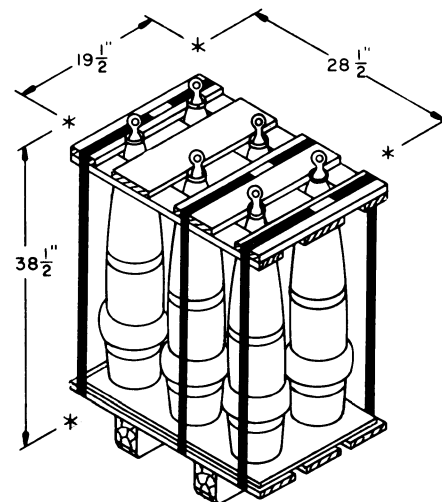


175MM, 20/PALLET

* THE HEIGHT OF THE 20/PALLET UNIT IS 48-3/8" WHEN THE SKIDS OF THE 6-PROJECTILE PALLET ARE INTACT, AS DEPICTED. WITH THE SKIDS OF THE 6-PROJECTILE PALLET REMOVED, THE HEIGHT OF THE UNIT WILL BE 44-3/4".

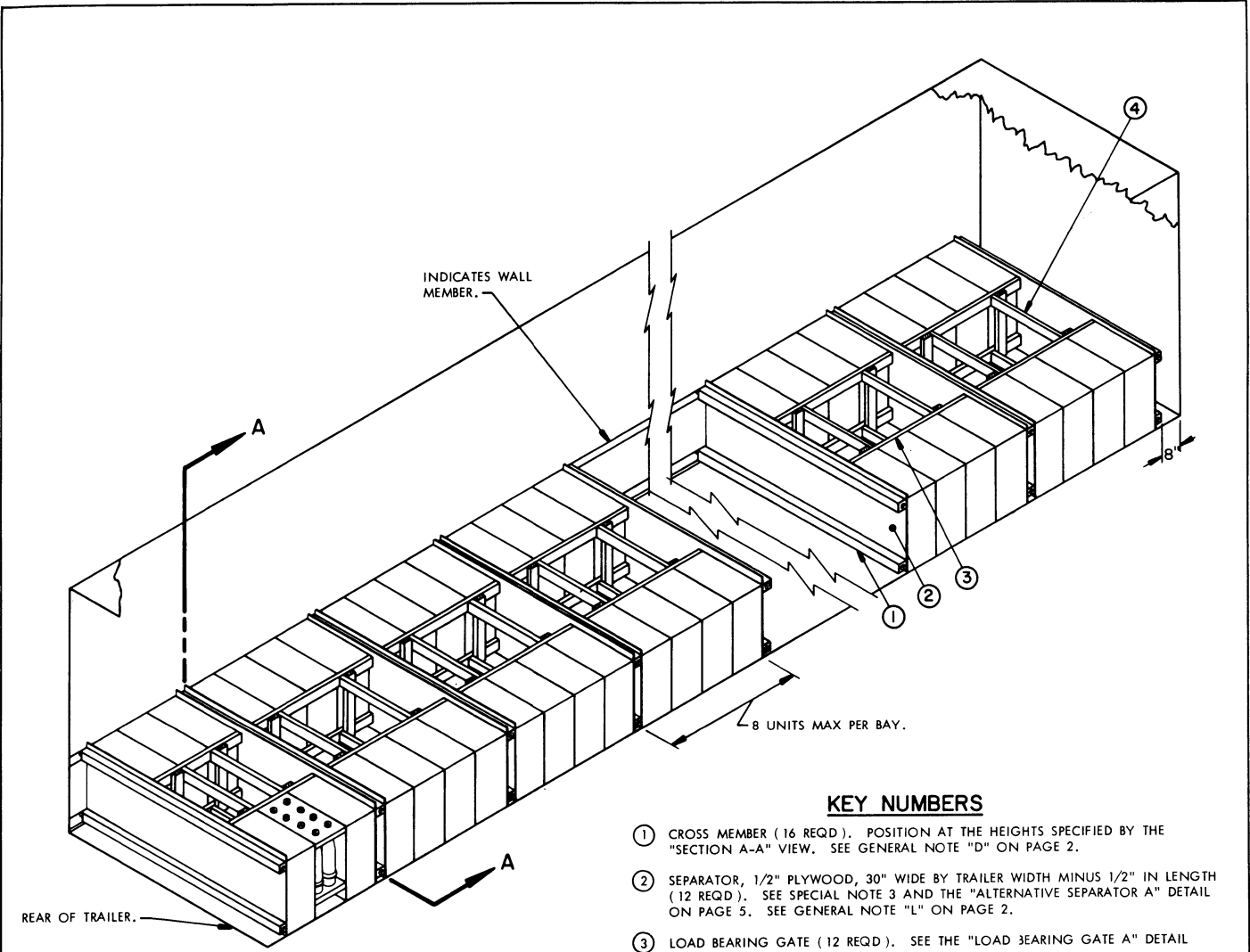


8", 3/PALLET



8", 6/PALLET

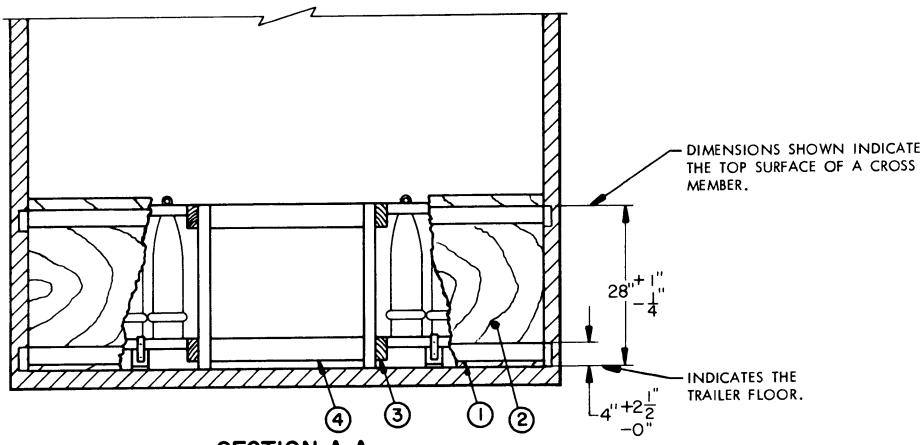
PALLET UNIT DETAILS



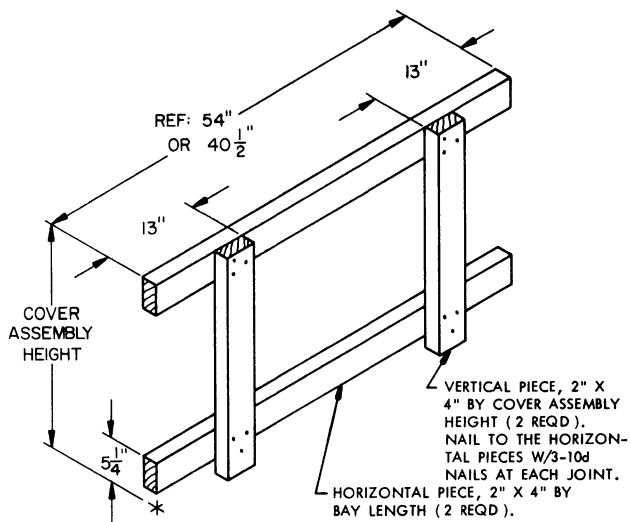
ISOMETRIC VIEW

KEY NUMBERS

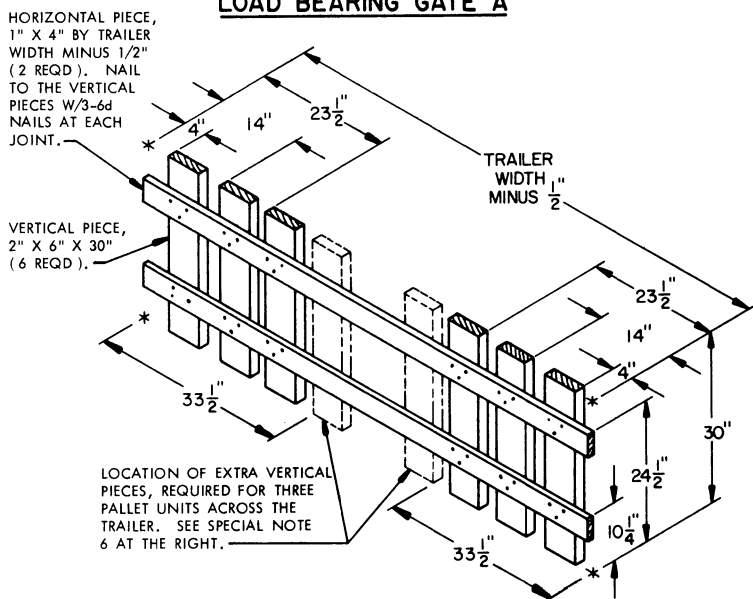
- ① CROSS MEMBER (16 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION A-A" VIEW. SEE GENERAL NOTE "D" ON PAGE 2.
- ② SEPARATOR, 1/2" PLYWOOD, 30" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (12 REQD). SEE SPECIAL NOTE 3 AND THE "ALTERNATIVE SEPARATOR A" DETAIL ON PAGE 5. SEE GENERAL NOTE "L" ON PAGE 2.
- ③ LOAD BEARING GATE (12 REQD). SEE THE "LOAD BEARING GATE A" DETAIL ON PAGE 5.
- ④ STRUT, 2" X 4" BY CUT TO FIT (24 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE LOAD BEARING GATES W/2-10d NAILS AT EACH END.



SECTION A-A



LOAD BEARING GATE A



ALTERNATIVE SEPARATOR A

TO CONSTRUCT TWELVE OF THESE ALTERNATIVE SEPARATOR ASSEMBLIES, 184 LINEAR FEET OF 1" X 4", 180 LINEAR FEET OF 2" X 6", AND 432 (2-3/4 LBS) 6d NAILS WILL BE REQUIRED.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	233	155
NAILS	NO. REQD	POUNDS
10d (3")	240	3-3/4
PLYWOOD, 1/2"	230 SQ FT REQD	324 LBS

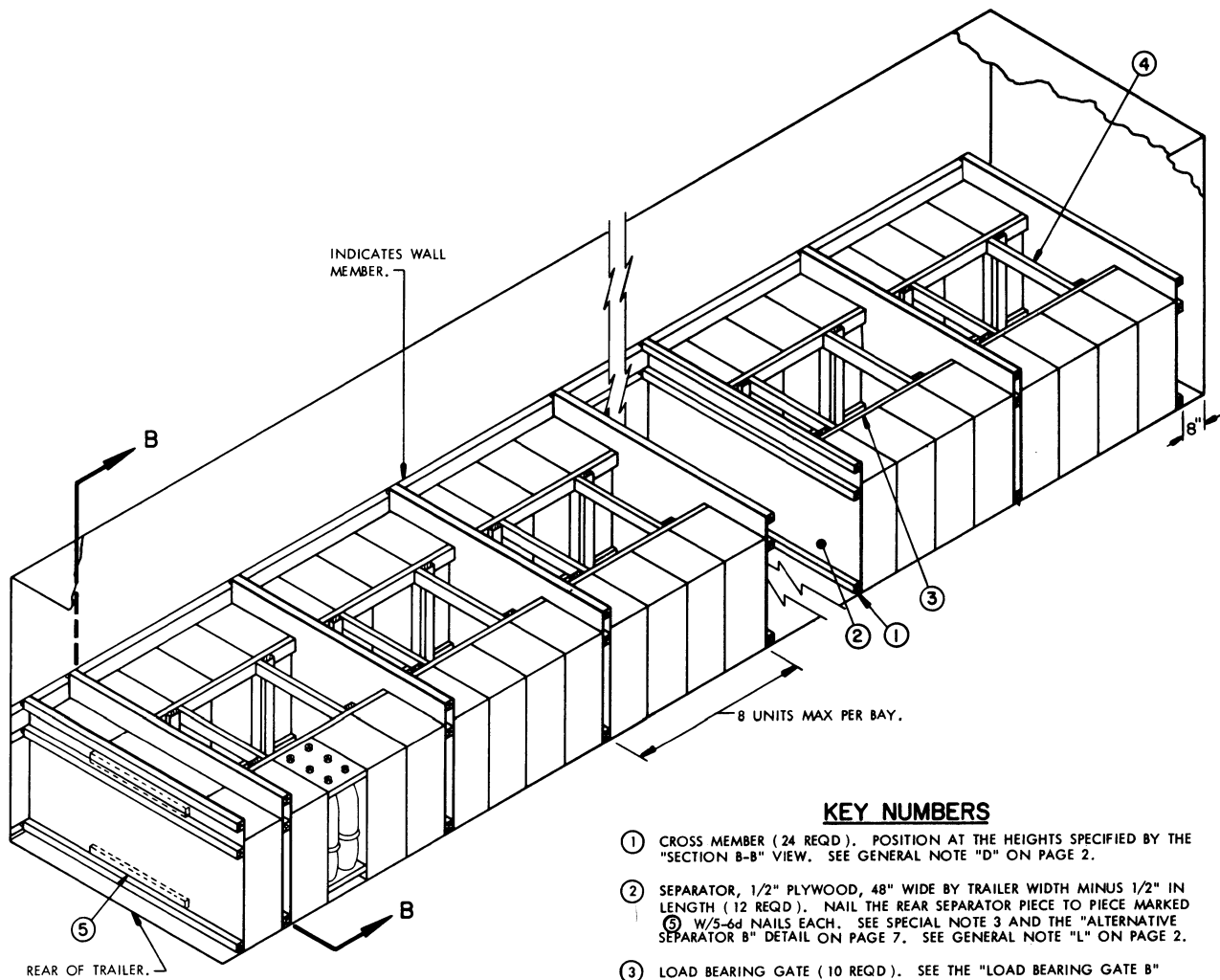
SPECIAL NOTES:

1. A 46-UNIT LOAD OF PALLETIZED 155MM PROJECTILES (8/PALLET) IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM THAT CONTAINS AT LEAST SIXTEEN (16) CROSS MEMBERS.
2. WIDER OR NARROWER TRAILERS MAY BE USED FOR SHIPMENT OF THE DEPICTED LOAD BY ADJUSTING THE LENGTH OF THE STRUTS, PIECES MARKED ④.
3. IF 1/2" (OR THICKER) PLYWOOD IS NOT AVAILABLE, OR IF DESIRED, A SEPARATOR MAY BE FABRICATED FROM DIMENSIONAL LUMBER. SEE THE "ALTERNATIVE SEPARATOR A" DETAIL AT THE LEFT.
4. A 46-UNIT LOAD IS SHOWN AS TYPICAL. THE NUMBER OF UNITS MAY BE ADJUSTED, AS DESIRED. THE LOCATION OF THE LADING WITHIN THE LENGTH OF THE TRAILER IS THE RESPONSIBILITY OF THE CARRIER. HOWEVER, IF PALLET UNITS ARE TO BE OMITTED FROM THE DEPICTED LOAD, IT IS RECOMMENDED THAT THEY BE OMITTED FROM THE FORWARD END OF THE REAR PORTION OF THE LOAD; IF UNITS ARE TO BE ADDED, THEY SHOULD BE POSITIONED AT THE REAR OF THE FRONT PORTION OF THE LOAD.
5. THE 6-UNIT BAY WHICH IS SHOWN AT THE REAR OF THE LOAD MAY BE PLACED AT ANY LOCATION WITHIN THE LENGTH OF THE LOAD, AS DESIRED.
6. IF AN UNEVEN NUMBER OF UNITS IS TO BE SHIPPED, THE ODD QUANTITY CAN BE ACCOMPLISHED BY LOADING ONE BAY WITH THREE UNITS WIDE AND ONE LONG. IF THE "ALTERNATIVE SEPARATOR A" ASSEMBLY IS USED IN LIEU OF THE PLYWOOD SEPARATOR IN THIS BAY, TWO (2) EXTRA VERTICAL PIECES, AS SHOWN BY THE PHANTOM LINES IN THE DETAIL, MUST BE ADDED. APPLY LATERAL BRACING SIMILAR TO THAT SHOWN BY PIECE MARKED ⑤ ON PAGE 6.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET	46	39,652 LBS
DUNNAGE		716 LBS*
TOTAL WEIGHT		40,368 LBS

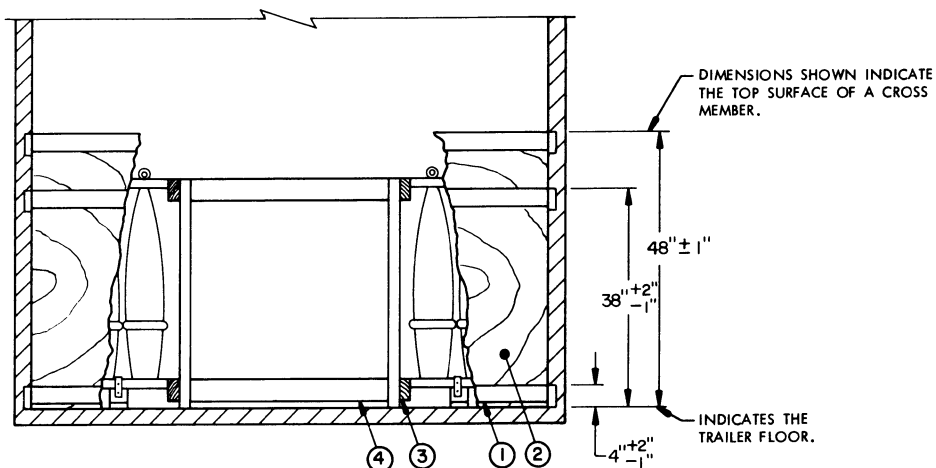
*DUNNAGE WEIGHT WILL BE 1,008 POUNDS (APPROX) IF "ALTERNATIVE SEPARATOR A" IS USED IN LIEU OF PLYWOOD.



ISOMETRIC VIEW

KEY NUMBERS

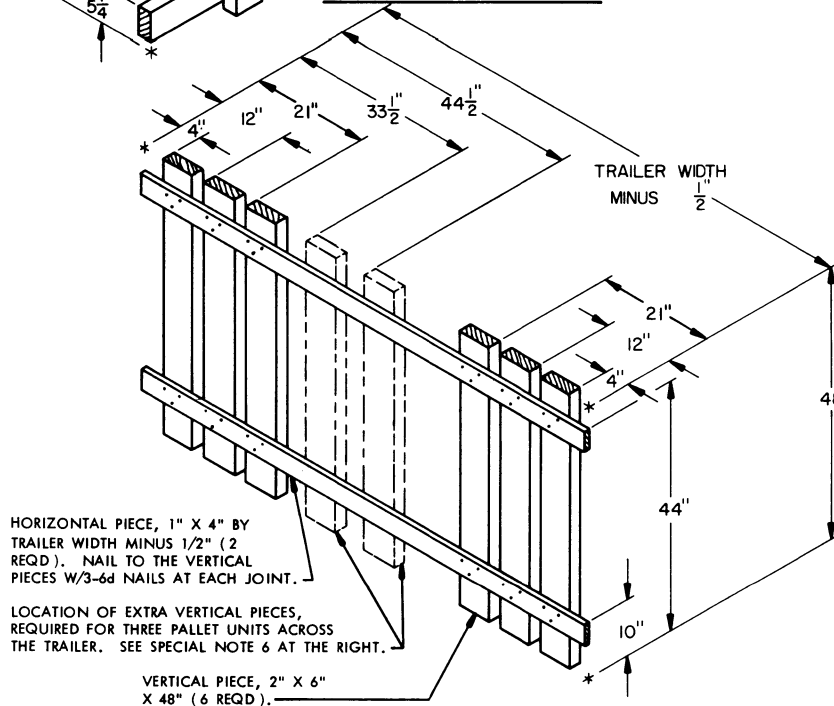
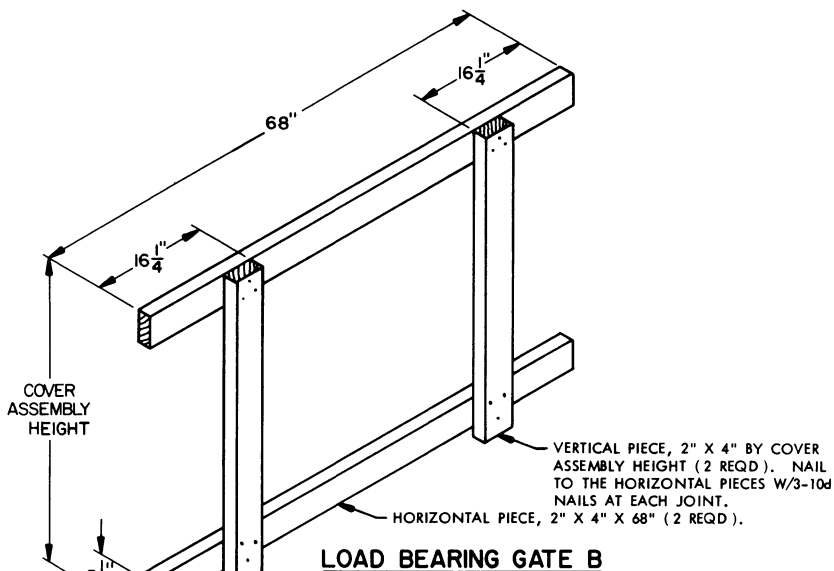
- ① CROSS MEMBER (24 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION B-B" VIEW. SEE GENERAL NOTE "D" ON PAGE 2.
- ② SEPARATOR, 1/2" PLYWOOD, 48" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (12 REQD). NAIL THE REAR SEPARATOR PIECE TO PIECE MARKED ⑤ W/5-6d NAILS EACH. SEE SPECIAL NOTE 3 AND THE "ALTERNATIVE SEPARATOR B" DETAIL ON PAGE 7. SEE GENERAL NOTE "L" ON PAGE 2.
- ③ LOAD BEARING GATE (10 REQD). SEE THE "LOAD BEARING GATE B" DETAIL ON PAGE 7.
- ④ STRUT, 2" X 4" BY CUT TO FIT (20 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE LOAD BEARING GATES W/2-10d NAILS AT EACH END.
- ⑤ SPACER PIECE, 2" X 4" BY CUT TO FIT BETWEEN LATERALLY ADJACENT PALLET COVERS AND/OR BASES (2 REQD).



SECTION B-B

SPECIAL NOTES:

1. A 42-UNIT LOAD OF PALLETIZED 175MM PROJECTILES (6/PALLET) IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM AND CONTAINS AT LEAST TWENTY-FOUR (24) CROSS MEMBERS.
2. WIDER OR NARROWER TRAILERS MAY BE USED FOR SHIPMENT OF THE DEPICTED LOAD BY ADJUSTING THE LENGTH OF THE STRUTS, PIECES MARKED ④.
3. IF 1/2" (OR THICKER) PLYWOOD IS NOT AVAILABLE, OR IF DESIRED, A SEPARATOR MAY BE FABRICATED FROM DIMENSIONAL LUMBER. SEE THE "ALTERNATIVE SEPARATOR B" DETAIL AT THE LEFT.
4. A 42-UNIT LOAD IS SHOWN AS TYPICAL. THE NUMBER OF UNITS MAY BE ADJUSTED, AS DESIRED. THE LOCATION OF THE LADING WITHIN THE LENGTH OF THE TRAILER IS THE RESPONSIBILITY OF THE CARRIER. HOWEVER, IF PALLET UNITS ARE TO BE OMITTED FROM THE DEPICTED LOAD, IT IS RECOMMENDED THAT THEY BE OMITTED FROM THE FORWARD END OF THE REAR PORTION OF THE LOAD; IF UNITS ARE TO BE ADDED, THEY SHOULD BE POSITIONED AT THE REAR OF THE FRONT PORTION OF THE LOAD.
5. THE 2-UNIT BAY WHICH IS SHOWN AT THE REAR OF THE LOAD MAY BE PLACED AT ANY LOCATION WITHIN THE LENGTH OF THE LOAD, AS DESIRED.
6. IF AN UNEVEN NUMBER OF UNITS IS TO BE SHIPPED, THE BAY AT THE REAR OF THE TRAILER CAN BE LOADED WITH THREE UNITS WIDE INSTEAD OF TWO. IF THE "ALTERNATIVE SEPARATOR B" ASSEMBLY IS USED IN LIEU OF THE PLYWOOD SEPARATOR IN THIS BAY, TWO (2) EXTRA VERTICAL PIECES, AS SHOWN BY PHANTOM LINES IN THE DETAIL, MUST BE ADDED. APPLY LATERAL BRACING SIMILAR TO THAT SHOWN BY PIECE MARKED ⑤.



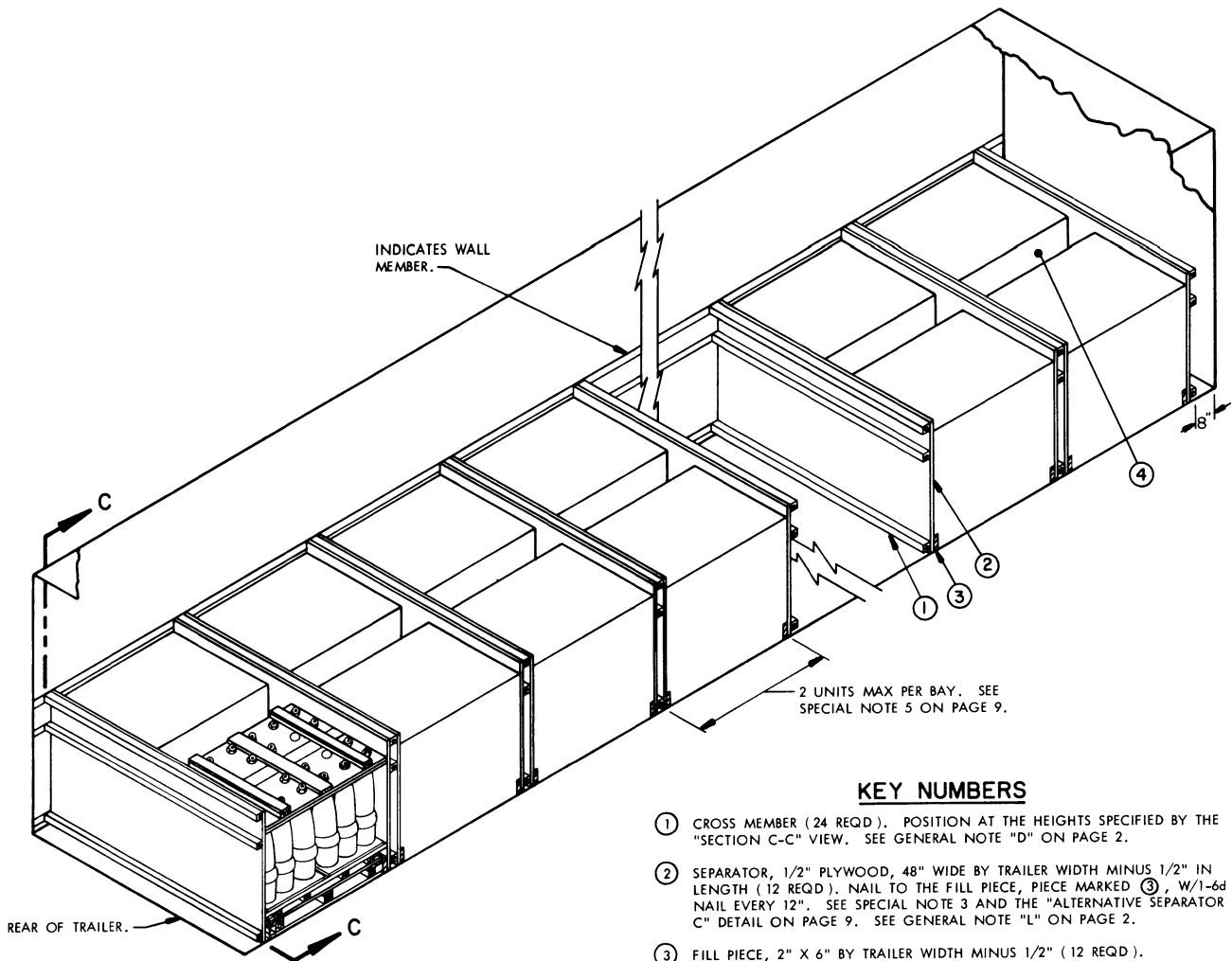
TO CONSTRUCT TWELVE OF THESE ALTERNATIVE SEPARATORS, 184 LINEAR FEET OF 1" X 4", 288 LINEAR FEET OF 2" X 6", AND 432 (2-3/4 LBS) 6d NAILS WILL BE REQUIRED.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	238	159
NAILS	NO. REQD	POUNDS
6d (2")	10	NIL
10d (3")	200	3-1/4
PLYWOOD, 1/2"	368 SQ FT REQD	505 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET	42	39,816 LBS
DUNNAGE		774 LBS*
TOTAL WEIGHT		40,590 LBS

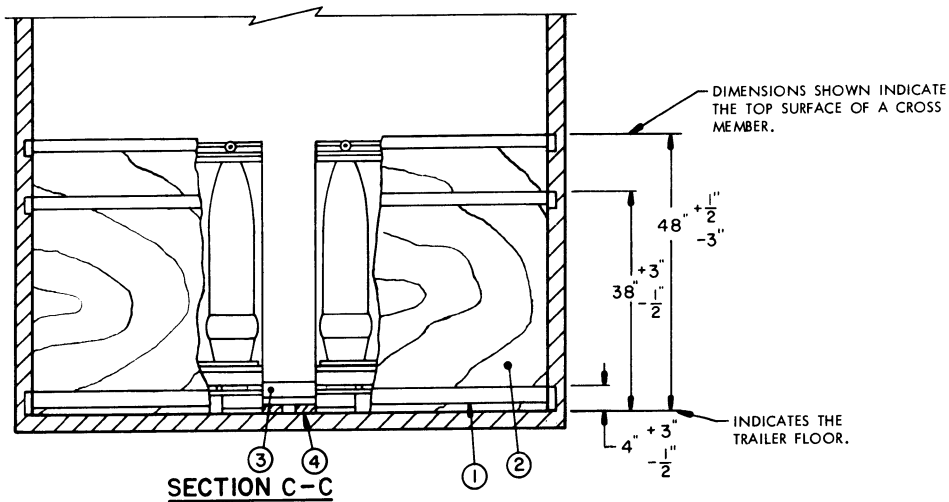
* DUNNAGE WEIGHT WILL BE 1,146 POUNDS (APPROX) IF "ALTERNATIVE SEPARATOR B" IS USED IN LIEU OF PLYWOOD.



ISOMETRIC VIEW

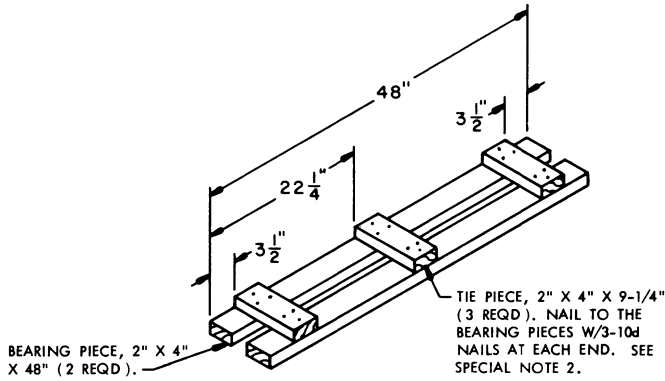
KEY NUMBERS

- ① CROSS MEMBER (24 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION C-C" VIEW. SEE GENERAL NOTE "D" ON PAGE 2.
- ② SEPARATOR, 1/2" PLYWOOD, 48" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (12 REQD). NAIL TO THE FILL PIECE, PIECE MARKED ③, W/1-6d NAIL EVERY 12". SEE SPECIAL NOTE 3 AND THE "ALTERNATIVE SEPARATOR C" DETAIL ON PAGE 9. SEE GENERAL NOTE "L" ON PAGE 2.
- ③ FILL PIECE, 2" X 6" BY TRAILER WIDTH MINUS 1/2" (12 REQD).
- ④ CENTER FILL ASSEMBLY (6 REQD). SEE THE DETAIL ON PAGE 9.

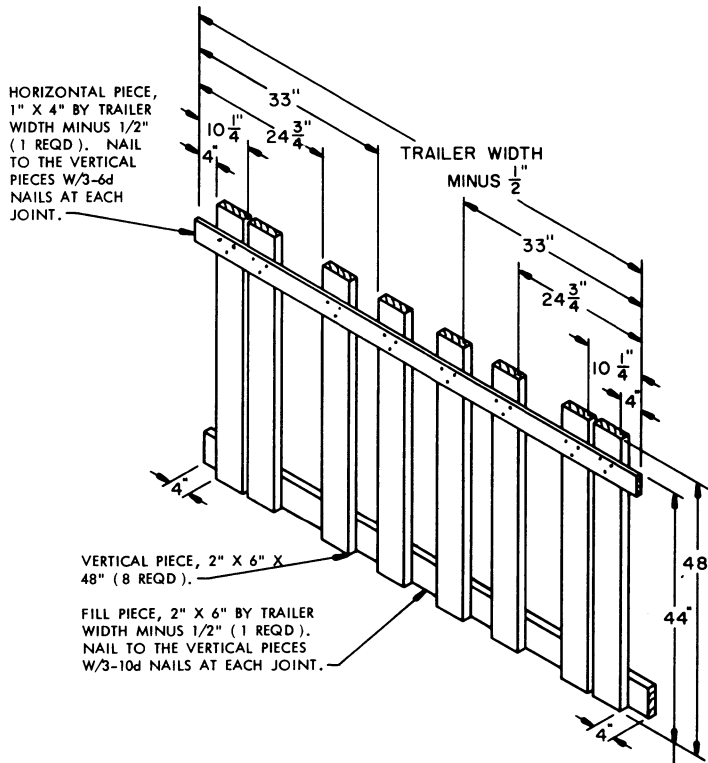


SPECIAL NOTES:

1. A 12-UNIT LOAD OF PALLETIZED 175MM PROJECTILES (20/PALLET) IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM THAT CONTAINS AT LEAST TWENTY-FOUR (24) CROSS MEMBERS.
2. WIDER OR NARROWER TRAILERS MAY BE USED FOR SHIPMENT OF THE DEPICTED LOAD BY ADJUSTING THE WIDTH OF THE "CENTER FILL ASSEMBLY" PIECE MARKED ④.
3. IF 1/2" (OR THICKER) PLYWOOD IS NOT AVAILABLE, OR IF DESIRED, A SEPARATOR MAY BE FABRICATED FROM DIMENSIONAL LUMBER. SEE THE "ALTERNATIVE SEPARATOR C" DETAIL AT LEFT.
4. A 12-UNIT LOAD IS SHOWN AS TYPICAL. THE NUMBER OF UNITS MAY BE ADJUSTED, AS DESIRED. THE LOCATION OF THE LADING WITHIN THE LENGTH OF THE TRAILER IS THE RESPONSIBILITY OF THE CARRIER. HOWEVER, IF ONE OR MORE PALLET UNITS ARE TO BE OMITTED FROM THE DEPICTED LOAD, IT IS RECOMMENDED THAT THEY BE OMITTED FROM THE FORWARD END OF THE REAR PORTION OF THE LOAD.
5. IF A BAY IS TO CONTAIN ONLY ONE PALLET UNIT, THE PALLET UNIT SHOULD BE CENTERED IN THE WIDTH OF THE TRAILER. PROVIDE LATERAL BRACING FOR THE LONE UNIT BY NAILING FOUR (4) 2" X 4" X 24" LONG PIECES TO THE SEPARATOR W/6 APPLICABLY SIZED NAILS. ALIGN WITH THE PALLET COVER AND/OR BASE, SIMILAR TO THE POSITIONING OF PIECE MARKED ⑤ ON PAGE 6.



CENTER FILL ASSEMBLY



ALTERNATIVE SEPARATOR C

TO CONSTRUCT TWELVE OF THESE ALTERNATIVE SEPARATOR ASSEMBLIES, 92 LINEAR FEET OF 1" X 4", 476 LINEAR FEET OF 2" X 6" (92 LINEAR FEET OF THIS IS THE FILL PIECE MARKED ③), 216 (1-1/4 LBS) 6d NAILS, AND 216 (3-1/2 LBS) 10d NAILS WILL BE REQUIRED.

ADJUST HEIGHT, AS NECESSARY, SO THAT THE 1" X 4" HORIZONTAL PIECE WILL NOT CONTACT A CROSS MEMBER.

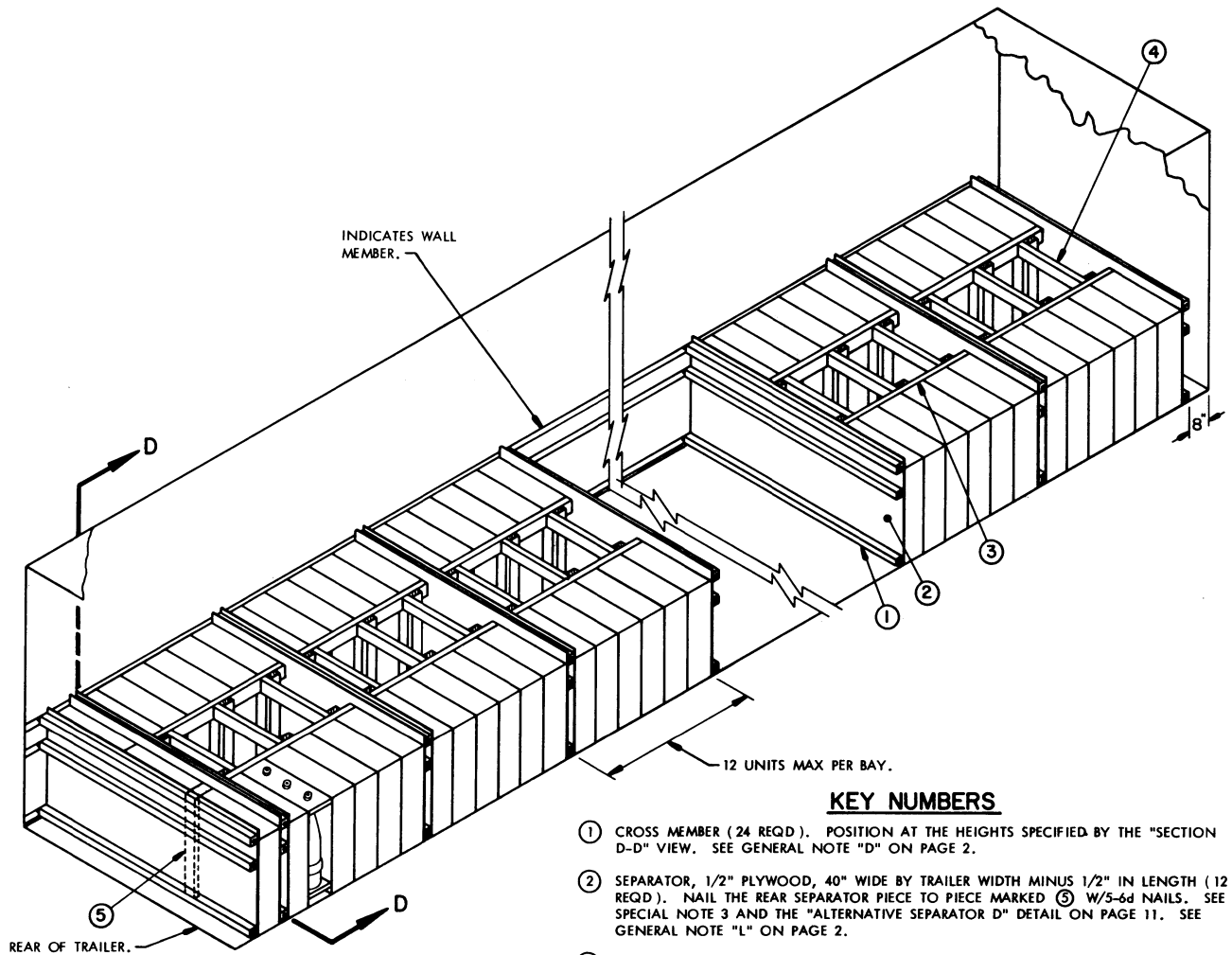
BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	63	42
2" X 6"	90	90
NAILS	NO. REQD	POUNDS
6d (2")	96	3/4
10d (3")	36	1/2
PLYWOOD, 1/2"	368 SQ FT REQD	505 LBS

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET	12	40,392 LBS
DUNNAGE		837 LBS *

TOTAL WEIGHT ----- 41,229 LBS
 *DUNNAGE WEIGHT WILL BE 1,374 POUNDS (APPROX)
 IF "ALTERNATIVE SEPARATOR C" IS USED IN LIEU OF PLYWOOD.

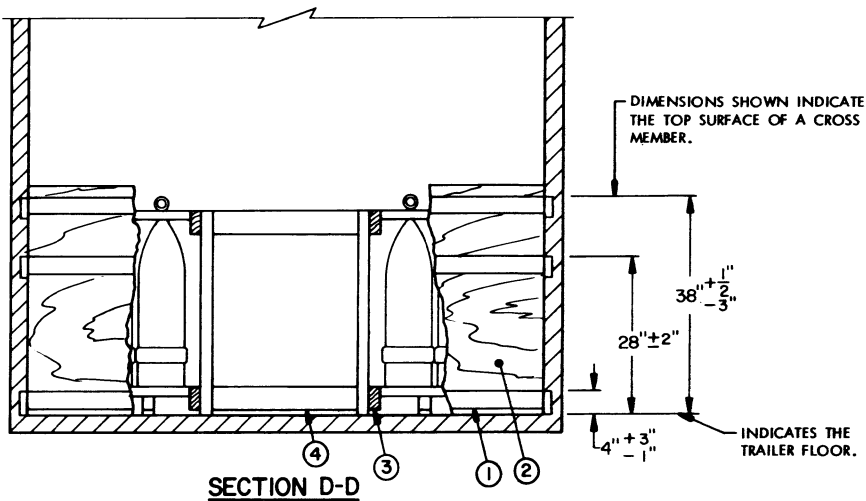
175MM 20/PALLET



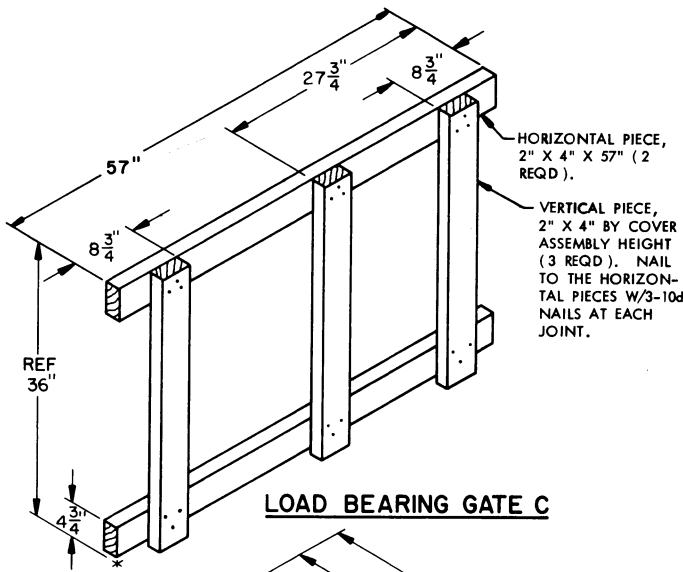
ISOMETRIC VIEW

KEY NUMBERS

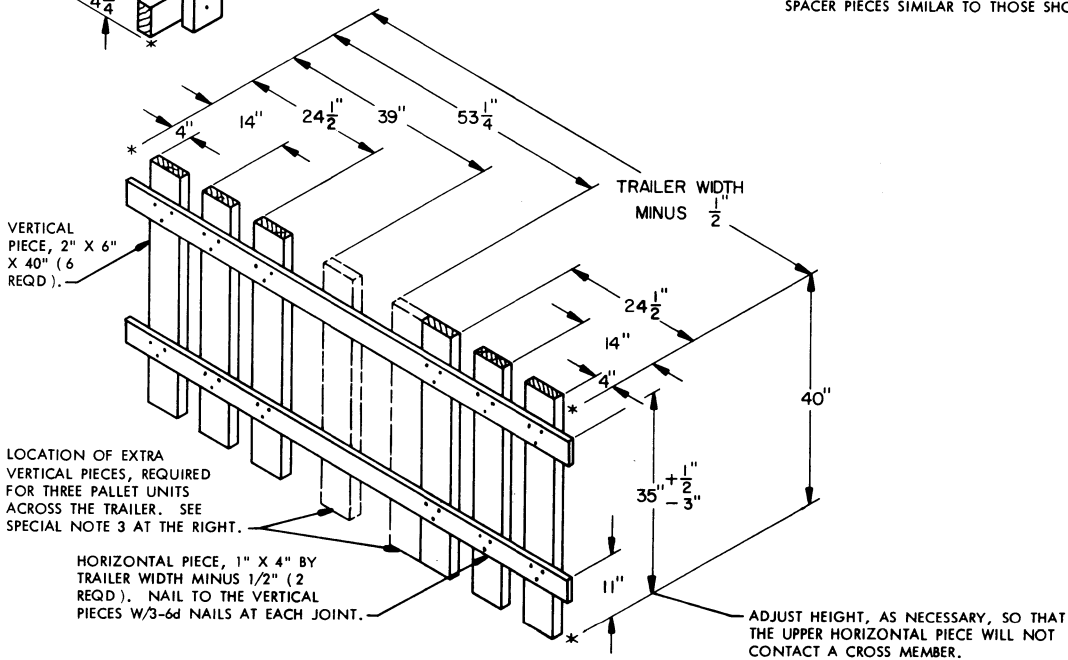
- ① CROSS MEMBER (24 REQD). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION D-D" VIEW. SEE GENERAL NOTE "D" ON PAGE 2.
- ② SEPARATOR, 1/2" PLYWOOD, 40" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (12 REQD). NAIL THE REAR SEPARATOR PIECE TO PIECE MARKED ⑤ W/5-6d NAILS. SEE SPECIAL NOTE 3 AND THE "ALTERNATIVE SEPARATOR D" DETAIL ON PAGE 11. SEE GENERAL NOTE "L" ON PAGE 2.
- ③ LOAD BEARING GATE (10 REQD). SEE THE "LOAD BEARING GATE C" DETAIL ON PAGE 11.
- ④ STRUT, 2" X 4" BY CUT TO FIT (30 REQD). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE LOAD BEARING GATES W/2-10d NAILS AT EACH END.
- ⑤ SPACER PIECE, 2" X 4" BY COVER ASSEMBLY HEIGHT (1 REQD). POSITION TO BE IN THE VOID BETWEEN LATERALLY ADJACENT PALLETS IN THE 3-PALLET WIDE PORTION OF THE LOAD.



SECTION D-D



LOAD BEARING GATE C



ALTERNATIVE SEPARATOR D

TO CONSTRUCT TWELVE OF THESE ALTERNATIVE SEPARATOR ASSEMBLIES, 184 LINEAR FEET OF 1" X 4", 240 LINEAR FEET OF 2" X 6", AND 432 (2-3/4 LBS) 6d NAILS WILL BE REQUIRED.

SPECIAL NOTES:

1. A 63-UNIT LOAD OF PALLETIZED 8" PROJECTILES (3/PALLET) IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM THAT CONTAINS AT LEAST TWENTY-FOUR (24) CROSS MEMBERS.
2. WIDER OR NARROWER TRAILERS MAY BE USED FOR SHIPMENT OF THE DEPICTED LOAD BY ADJUSTING THE LENGTH OF THE STRUTS, PIECES MARKED ④.
3. IF 1/2" (OR THICKER) PLYWOOD IS NOT AVAILABLE, OR IF DESIRED, A SEPARATOR MAY BE FABRICATED FROM DIMENSIONAL LUMBER. SEE THE "ALTERNATIVE SEPARATOR D" DETAIL AT THE LEFT. NOTE THE PIECES SHOWN IN PHANTOM LINES; THESE ARE REQUIRED FOR THE 3-WIDE BAY AT THE REAR OF THE LOAD.
4. A 63-UNIT LOAD IS SHOWN AS TYPICAL. THE NUMBER OF UNITS MAY BE ADJUSTED, AS DESIRED. THE LOCATION OF THE LADING WITHIN THE LENGTH OF THE TRAILER IS THE RESPONSIBILITY OF THE CARRIER. HOWEVER, IF PALLET UNITS ARE TO BE OMITTED FROM THE DEPICTED LOAD, IT IS RECOMMENDED THAT THEY BE OMITTED FROM THE FORWARD END OF THE REAR PORTION OF THE LOAD; IF UNITS ARE TO BE ADDED, THEY SHOULD BE POSITIONED AT THE REAR OF THE FRONT PORTION OF THE LOAD.
5. THE 3-UNIT BAY WHICH IS SHOWN AT THE REAR OF THE LOAD MAY BE PLACED AT ANY LOCATION WITHIN THE LENGTH OF THE LOAD, AS DESIRED.
6. AN ODD NUMBER OF UNITS IS SHOWN. IF ONE LESS PALLET UNIT IS TO BE LOADED, THE MIDDLE UNIT IN THE REAR BAY SHOULD BE OMITTED. PROVIDE LATERAL BRACING FOR THE REMAINING UNITS IN THE BAY BY APPLYING SPACER PIECES SIMILAR TO THOSE SHOWN BY PIECE MARKED ⑤ ON PAGE 6.

BILL OF MATERIAL

LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	263	176
NAILS	NO. REQD	POUNDS
6d (2")	5	NIL
10d (3")	300	4-3/4
PLYWOOD, 1/2"	307 SQ FT REQD	420 LBS

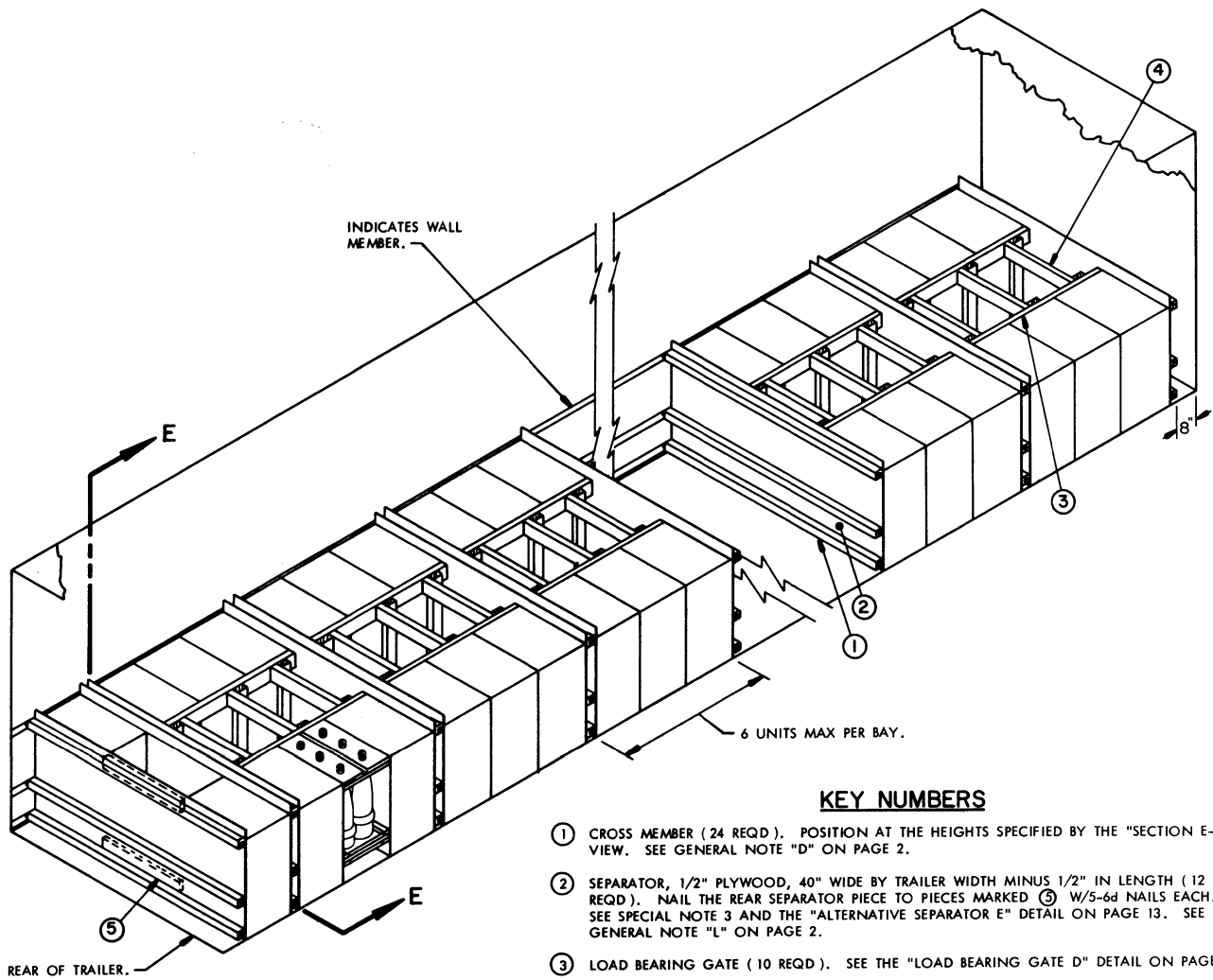
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET	63	39,879 LBS
DUNNAGE		865 LBS *

TOTAL WEIGHT ----- 40,744 LBS

* DUNNAGE WEIGHT WILL BE 1,232 LBS (APPROX) IF "ALTERNATIVE SEPARATOR D" IS USED IN LIEU OF PLYWOOD.

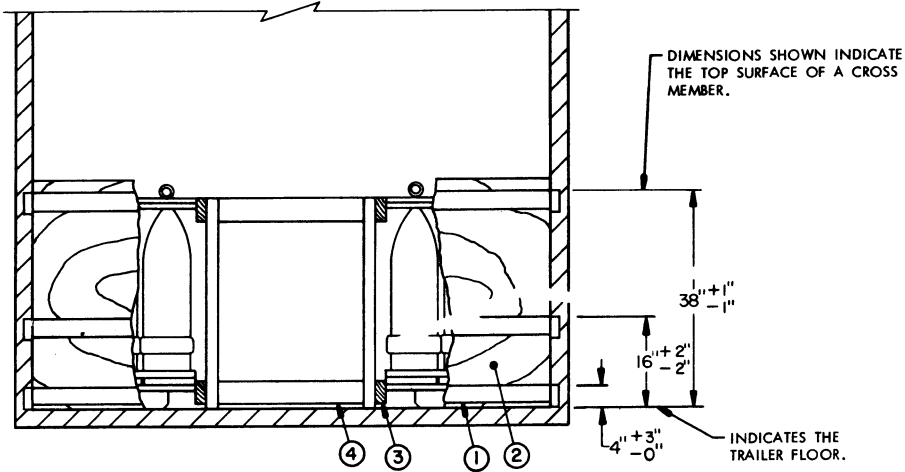
8" 3/PALLET



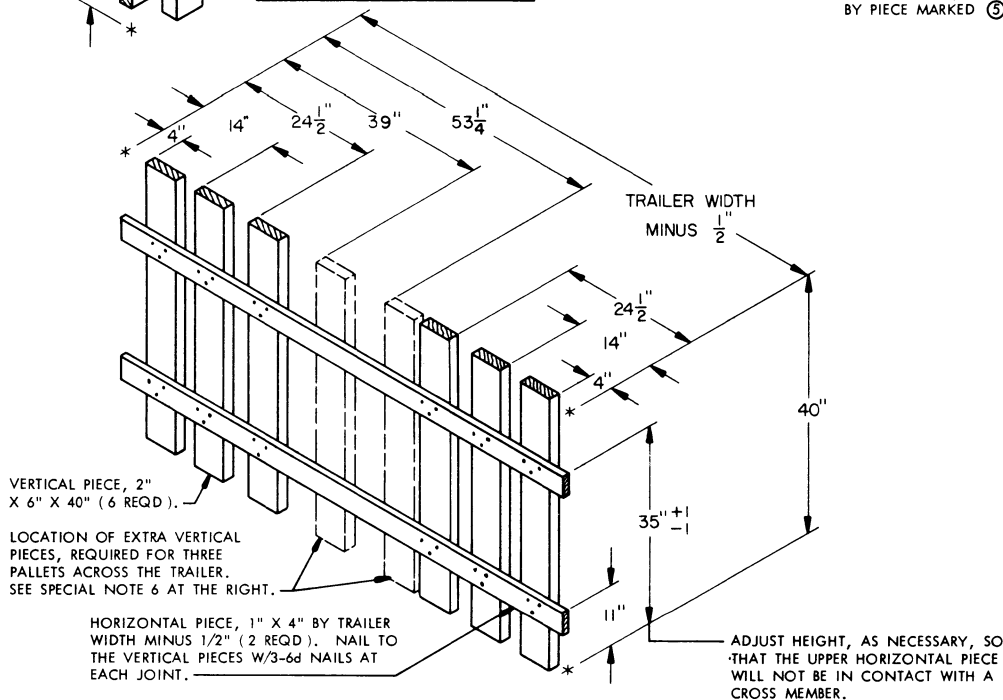
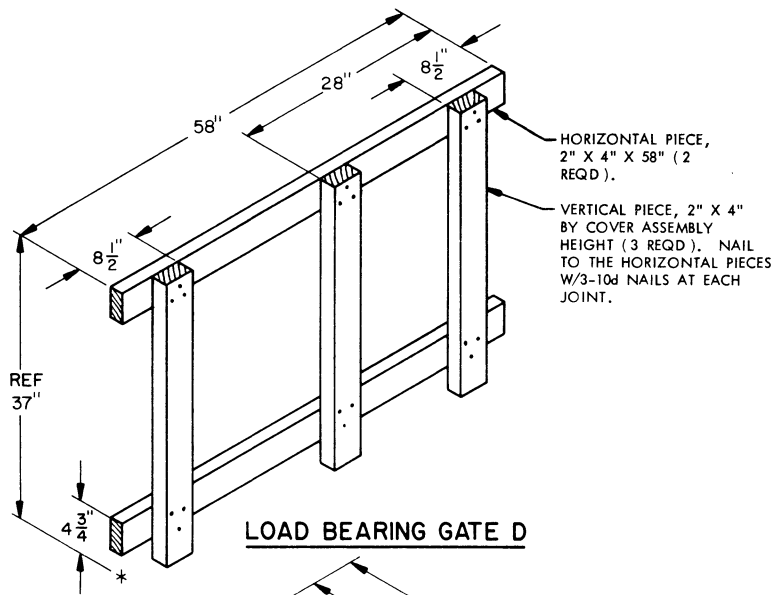
ISOMETRIC VIEW

KEY NUMBERS

- ① CROSS MEMBER (24 REQD.). POSITION AT THE HEIGHTS SPECIFIED BY THE "SECTION E-E" VIEW. SEE GENERAL NOTE "D" ON PAGE 2.
- ② SEPARATOR, 1/2" PLYWOOD, 40" WIDE BY TRAILER WIDTH MINUS 1/2" IN LENGTH (12 REQD.). NAIL THE REAR SEPARATOR PIECE TO PIECES MARKED ⑤ W/5-6d NAILS EACH. SEE SPECIAL NOTE 3 AND THE "ALTERNATIVE SEPARATOR E" DETAIL ON PAGE 13. SEE GENERAL NOTE "L" ON PAGE 2.
- ③ LOAD BEARING GATE (10 REQD.). SEE THE "LOAD BEARING GATE D" DETAIL ON PAGE 13.
- ④ STRUT, 2" X 4" BY CUT TO FIT (30 REQD.). POSITION AS SHOWN AND NAIL TO THE VERTICAL PIECES OF THE LOAD BEARING GATES W/2-10d NAILS AT EACH END.
- ⑤ SPACER PIECE, 2" X 4" BY CUT TO FIT BETWEEN LATERALLY ADJACENT PALLET COVERS AND/OR BASES (2 REQD.).



SECTION E-E



TO CONSTRUCT TWELVE OF THESE ALTERNATIVE SEPARATOR ASSEMBLIES, 184 LINEAR FEET OF 1" X 4", 240 LINEAR FEET OF 2" X 6", AND 432 (2-3/4 LBS) 6d NAILS WILL BE REQUIRED.

BILL OF MATERIAL		
LUMBER	LINEAR FEET	BOARD FEET
2" X 4"	270	180
NAILS	NO. REQD	POUNDS
6d (2")	10	NIL
10d (3")	300	4-3/4
PLYWOOD, 1/2" ----- 307 SQ FT REQD -----		420 LBS

SPECIAL NOTES:

1. A 32-UNIT LOAD OF PALLETIZED 8" PROJECTILES (6/PALLET) IS SHOWN IN A 40'-0" LONG BY 7'-6" WIDE (INSIDE DIMENSION) VAN TRAILER WHICH IS EQUIPPED WITH A MECHANICAL LOAD BLOCKING SYSTEM THAT CONTAINS AT LEAST TWENTY-FOUR (24) CROSS MEMBERS.
2. WIDER OR NARROWER TRAILERS MAY BE USED FOR SHIPMENT OF THE DEPICTED LOAD BY ADJUSTING THE LENGTH OF THE STRUTS, PIECES MARKED ④.
4. A 32-UNIT LOAD IS SHOWN AS TYPICAL. THE NUMBER OF UNITS MAY BE ADJUSTED, AS DESIRED. THE LOCATION OF THE LADING WITHIN THE LENGTH OF THE TRAILER IS THE RESPONSIBILITY OF THE CARRIER. HOWEVER, IF PALLET UNITS ARE TO BE OMITTED FROM THE DEPICTED LOAD, IT IS RECOMMENDED THAT THEY BE OMITTED FROM THE FORWARD END OF THE REAR PORTION OF THE LOAD; IF UNITS ARE TO BE ADDED, THEY SHOULD BE POSITIONED AT THE REAR OF THE FRONT PORTION OF THE LOAD.
5. THE 2-UNIT BAY WHICH IS SHOWN AT THE REAR OF THE LOAD MAY BE PLACED AT ANY LOCATION WITHIN THE LENGTH OF THE LOAD, AS DESIRED.
6. IF AN UNEVEN NUMBER OF UNITS IS TO BE SHIPPED, THE BAY AT THE REAR OF THE TRAILER CAN BE LOADED WITH THREE UNITS WIDE INSTEAD OF TWO. IF THE "ALTERNATIVE SEPARATOR E" ASSEMBLY IS USED IN LIEU OF THE PLYWOOD SEPARATOR IN THIS BAY, TWO (2) EXTRA VERTICAL PIECES, AS SHOWN BY THE PHANTOM LINES IN THE DETAIL, MUST BE ADDED. APPLY A SPACER PIECE AS SHOWN BY PIECE MARKED ⑤ ON PAGE 10.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
PALLET -----	32 -----	40,096 LBS
DUNNAGE -----	-----	875 LBS *

TOTAL WEIGHT ----- 40,971 LBS

* DUNNAGE WEIGHT WILL BE 1,213 POUNDS (APPROX) IF "ALTERNATIVE SEPARATOR E" IS USED IN LIEU OF PLYWOOD.

