

NOTES:

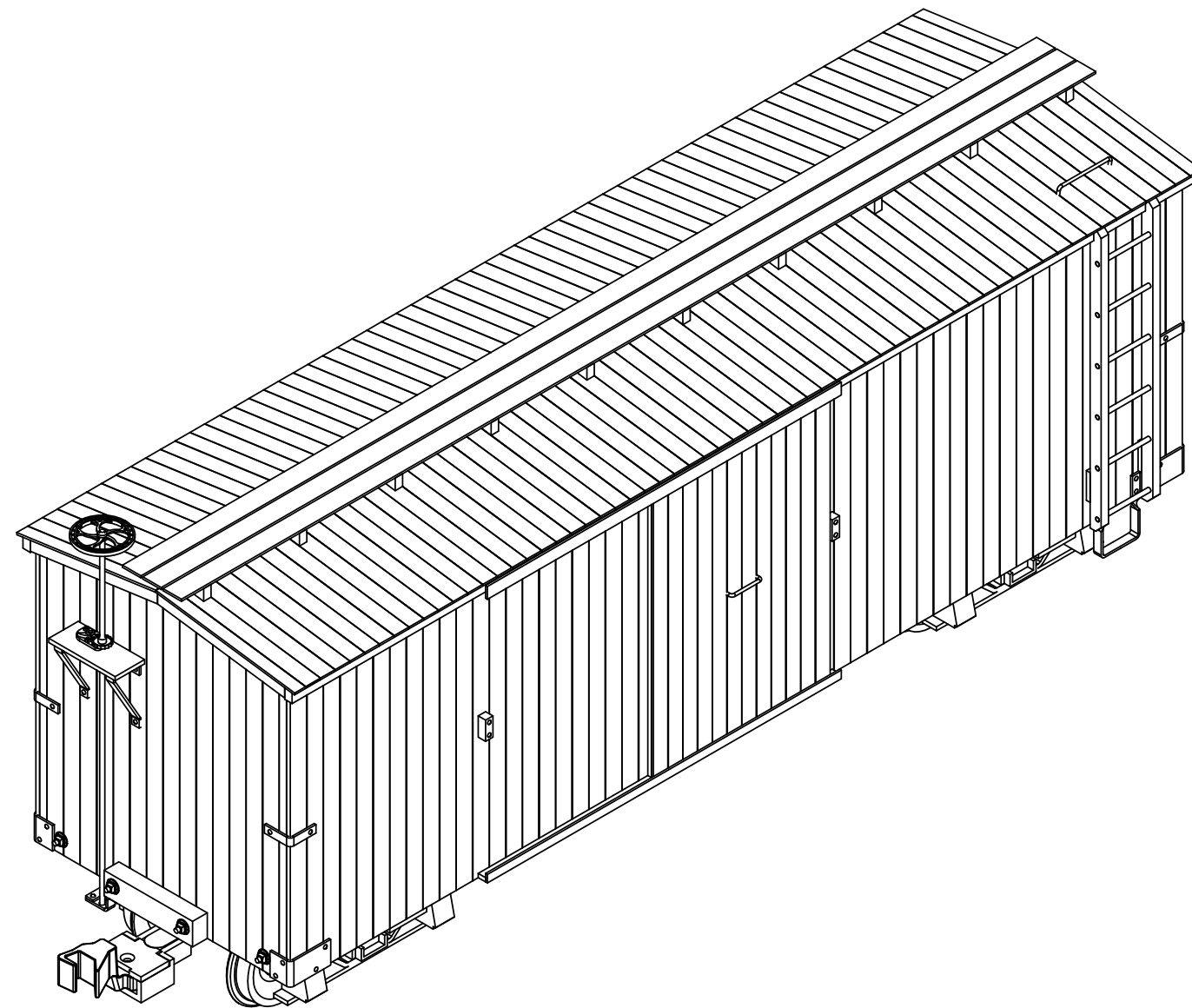
- 1. BELOW LISTED SUPPLIERS ARE THOSE USED IN THE DEVELOPMENT OF THIS DRAWING PACKAGE. ALTERNATE SUPPLIERS MAY BE USED AT THE BUILDER'S OPTION. I HAVE NO AFFILIATION WITH ANY OF THE SUPPLIERS NOTED BELOW.
- 2. PART NUMBER LISTED IS FOR MCMASTER-CARR SUPPLY COMPANY, 6100 SULTON INDUSTRIAL BLVD., ATLANTA, GA 30336 (404) 346-7000.
- 3. PART NUMBER LISTED IS FOR BACHMANN INDUSTRIES, 1400 EAST ERIE AVENUE, PHILADELPHIA, PA 19142 (215) 533-1600.
- 4. PART NUMBER LISTED IS FOR USA TRAINS, PO BOX 100, MALDON, MA 02148 (781) 322-6084.
- 5. PART NUMBER LISTED IS FOR PLASTRUCT, INC., 1020 SOUTH WALACE PLACE, CITY OF INDUSTRY, CA 91748 (636) 912-7016 OR (800) 666-7015.
- 6. PART NUMBER LISTED IS FOR KADEE QUALITY PRODUCTS, 673 AVENUE C, WHITE CITY, OR 97503 (541) 826-3883.
- 7. PART NUMBER LISTED IS FOR OZARK MINIATURES, INC., 3461 S 5225W, CEDAR CITY, UT 84720 (435)586-1036.
- 8. PART NUMBER LISTED IS FOR SPECIAL SHAPES, 6911 W 59th STREET, CHICAGO, IL 60638 (773) 586-8517.
- 9. PART NUMBER LISTED IS FOR HOBBY LOBBY, 7600 A SW 44th STREET, OKLAHOMA CITY, OK 73173 (800) 888-0321
- 10. PART NUMBER LISTED IS FOR K&S PRECISION METALS, 6911 W 59th STREET, CHICAGO, IL 60638 (773) 586-8503.
- 11. MANY OF THE ABOVE ITEMS MAY BE PURCHASED FROM YOUR LOCAL HOBBY SHOP OR YOUR PREFERRED ONLINE SUPPLIER.
- 12. ADDITIONAL ADHESIVES, PAINTS, DECALS, ETC., MAY BE FOUND AT HOBBY LOBBY, MICHAELS OR JO ANNES FABRICS.
- 13. LOCTITE 242 THREAD LOCKER MAY BE FOUND AT FASTENAL (www.fastenal.com)

SUGGESTED ASSEMBLY INSTRUCTIONS

- 1. FIND NUMBERS 47 THRU 49 (BRAKE ROD LINK, BRAKE ROD TRUCK, BRAKE ROD STAFF), FIND NUMBERS 61 THRU 63 (BRAKE RIGGING SHORT LEVER, BRAKE RIGGING LONG LEVER, BRAKE RIGGING SUPPORT), FIND NUMBER 67 (ESCUTCHEON PIN), FIND NO 63 (K VALVE MASTER) AND FIND NO 62 (K VALVE SLAVE) MAY BE ELIMINATED IF BRAKE RIGGING DETAIL IS NOT DESIRED.
- 2. ASSEMBLE MAIN FRAME COMPONENTS FIND NUMBERS 1 (CENTER SILL, LEFT), 2 (CENTER SILL, RIGHT), 3 (INTERMEDIATE SILL), 4 (OUTER SILL), 5 (END BEAM), AND 8 (NEEDLE BEAM) USING A GOOD QUALITY WOOD GLUE.
- 3. ASSEMBLE FIND NUMBERS 6 (BODY BOLSTER) AND 7 (KING PIN BLOCK) SEPARATELY. AFTER GLUE HAS COMPLETELY DRIED, DRILL 1/4" HOLE AS SHOWN. INSTALL FIND NUMBER 72 (TAPPING INSERT FOR WOOD) IN 1/4" HOLE WITH SCREW DRIVER SLOT LOCATED ON FIND NUMBER 7 SIDE OF ASSEMBLY. COATING THE HOLE WITH THICK CA PRIOR TO INSTALLING THE TAPPING INSERT WILL SECURE IT IN PLACE PERMANENTLY. LOCATE AND INSTALL ASSEMBLY ON FRAME.
- 4. ASSEMBLE FIND NUMBERS 64 (QUEEN POST TUBE), 65 (COTTER PIN, NEEDLE BEAM) AND 76 (WASHER, FLAT) AND SOLDER TO MAKE A QUEEN POST (8 REQUIRED).
- 5. SLIP ONE EACH QUEEN POST ASSEMBLY AND FIND NUMBER 66 (COTTER PIN, BOLSTER) ON TO EACH FIND NUMBER 45 (TRUSS ROD OUTER) AND 46 (TRUSS ROD INNER). SLIP TRUSS RODS THROUGH HOLES IN END BEAMS AND INTO FIND NUMBER 69 (TURNBUCKLE). INSTALL COTTER PINS IN MATING HOLES IN BOLSTER AND NEEDLE BEAM SECURING WITH THICK CA.
- 6. SHOULD BRAKE RIGGING DETAIL BE DESIRED, THIS WOULD BE A GOOD TIME TO INSTALL IT, FOLLOWED BY INSTALLING FIND NUMBER 9 (DECK PLANK).
- 7. MAKE 2 SUB ASSEMBLIES OF THE SIDE FRAMING CONSISTING OF FIND NUMBERS 10 (CORNER POST, 11 (SIDE HEADER BEAM, 14 (INTERMEDIATE POST), 15 (SIDE DIAGONAL POST), 16 (SIDE DIAGONAL POST), FIND NUMBER 28 (SIDE WALL SHEATHING) AND FIND NUMBER 27 (INTERIOR SHEATHING NAILER).
- 8. INSTALL SIDE FRAMING SUB ASSEMBLIES, AND FIND NUMBER 12 (RAFTER) ON EACH END OF THE CAR USING FIND NUMBER 13 (RIDGE BEAM) AS A GUIDE. DO NOT GLUE RIDGE BEAM OR CENTER RAFTER IN PLACE NOW. AFTER GLUE HAS SET, REMOVE RIDGE BEAM.
- 9. INSTALL END FRAMING FIND NUMBER 14 (INTERMEDIATE POST), FIND NUMBER 17 (END DIAGONAL POST) AND FIND NUMBER 29 (END WALL SHEATHING).
- 10. INSTALL FIND NUMBER 12 (RAFTER) CENTERED, AND FIND NUMBER 13 (RIDGE BEAM).
- 11. INSTALL SIDING FIND NUMBER 18 (SIDING PLANK), FIND NUMBER 19 # 20 (END WALL PLANK), FIND NUMBER 21 (END WALL FILLER PLANK). INSTALL FIND NUMBER 24 (TOP SIDE DOOR FILLER). INSTALL FIND NUMBER 22 (SIDE BOTTOM DOOR FILLER) AND FIND NUMBER 23 (SIDE BOTTOM DOOR FILLER CENTER) TO COMPLETE THE SIDING.

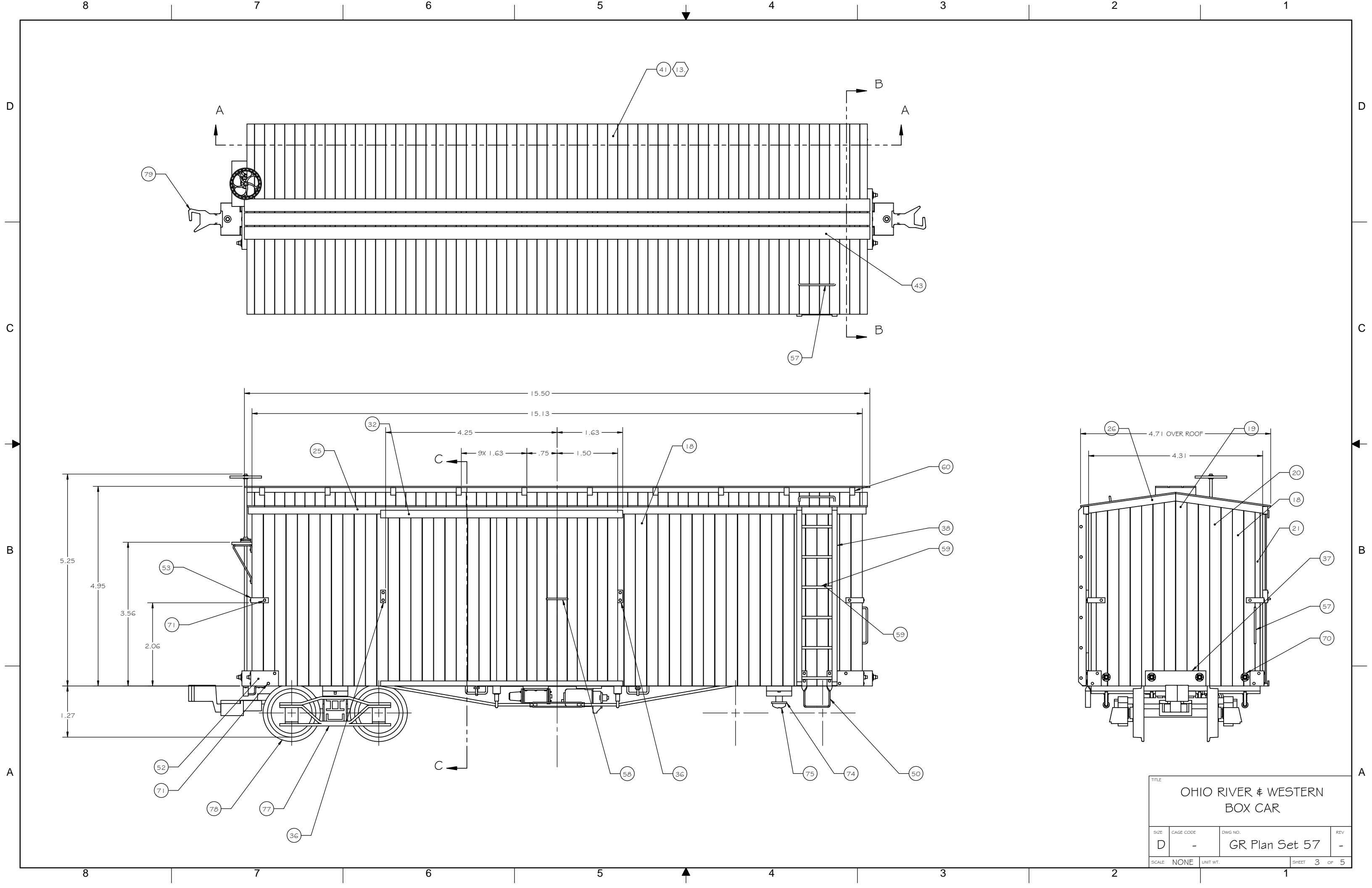
SUGGESTED ASSEMBLY INSTRUCTIONS CONT'D

- 12. INSTALL FIND NUMBER 41 (ROOF PLANK) BEING CAREFUL TO CENTER THE FIRST PLANK IN THE LENGTH OF THE CAR. FINISH ROOF INSTALLING FIND NUMBER 42 (ROOF PLANK) ON THE FOUR CORNERS. INSTALL ONE FIND NUMBER 57 (GRAB IRON) LOCATED AS SHOWN ON DRAWINGS.
- 13. INSTALL FIND NUMBER 25 (SIDE WALL FACIA) AND FIND NUMBER 26 (END WALL FACIA).
- 14. INSTALL FIND NUMBER 30 (BOTTOM DOOR TRACK), FIND NUMBER 31 (BOTTOM DOOR GUIDE), AND FIND NUMBER 32 (TOP DOOR GUIDE).
- 15. INSTALL FIND NUMBER 37 (BUFFER BLOCK) SLIPPING THEM OVER THE TRUSS ROD ENDS. INSTALL FIND NUMBER 70 (NUT & WASHER CASTING, TRUSS ROD) ON TRUSS ROD ENDS.
- 16. INSTALL FIND NUMBER 60 (ROOF WALK SUPPORT) AND FIND NUMBER 43 (ROOF WALK).
- 17. INSTALL FIND NUMBER 52 (BOTTOM CORNER BRACE), FIND NUMBER 53 (CORNER BRACE) AND FIND NUMBER 71 (CARRIAGE BOLT) ON CORNERS OF CAR. INSTALL ONE FIND NUMBER 57 (GRAB IRON) ON END OF CAR AS SHOWN.
- 18. INSTALL FIND NUMBER 51 (BRAKE PLATFORM SUPPORT), FIND NUMBER 40 (BRAKE PLATFORM), FIND NUMBER 80 (BRAKE WHEEL), FIND NUMBER 56 (BRAKE STAFF), FIND NUMBER 81 (PAWL AND RATCHET), FIND NUMBER 54 AND 55 (BRAKE STAFF SUPPORT) AND FIND NUMBER 71 (CARRIAGE BOLT).
- 19. ASSEMBLE LADDER FIND NUMBER 38 (LADDER RAIL), FIND NUMBER 39 (LADDER SHIM) AND FIND NUMBER 59 (LADDER RUNG). INSTALL ASSEMBLY ON CAR SIDE AS SHOWN ON DRAWINGS. INSTALL FIND NUMBER 50 (STIRRUP STEP) UNDER LADDER AS SHOWN.
- 20. FIND NUMBER 77 (ARCH BAR TRUCK), DRILL KING PIN HOLE OUT TO 1/4" (.250) DIAMETER. CUT FIND NUMBER 68 (BUSHING) FROM TB8 TUBE APPROXIMATELY 1/4" LONG. INSTALL BUSHING IN KING PIN HOLE IN TRUCK BOLSTER MAKING IT FLUSH ON THE BOTTOM OF THE BOLSTER. SECURE USING ACC OR SOLVEND, AND ALLOW TO SET OVERNIGHT. ONCE SET, FILE BUSHING FLUSH WITH THE TOP OF BOLSTER. DRILL BUSHING OUT TO 0.172 (1 1/64") DIAMETER.
- 21. ASSEMBLE FIND NUMBER 78 (WHEEL SET) INTO FIND NUMBER 77 USING FIND NUMBER 73 (WASHER, FLAT) TO CENTER AXLES IN THE TRUCK SIDE FRAMES. THESE WASHERS MAY VARY IN THICKNESS, USE IN MULTIPLES OF 2 ON EACH AXLE. WHEEL SET SHOULD SPIN FREELY AFTER INSTALLATION. INSTALL ASSEMBLED TRUCK ON TO CAR BODY USING FIND NUMBER 74 (FLAT WASHER) AND FIND NUMBER 75 (MACHINE SCREW)
- 22. ASSEMBLE FIND NUMBER 79 (COUPLER, LARGE OFFSET) TO FIND NUMBER 77 (TRUCK) USING FASTENERS SUPPLIED.

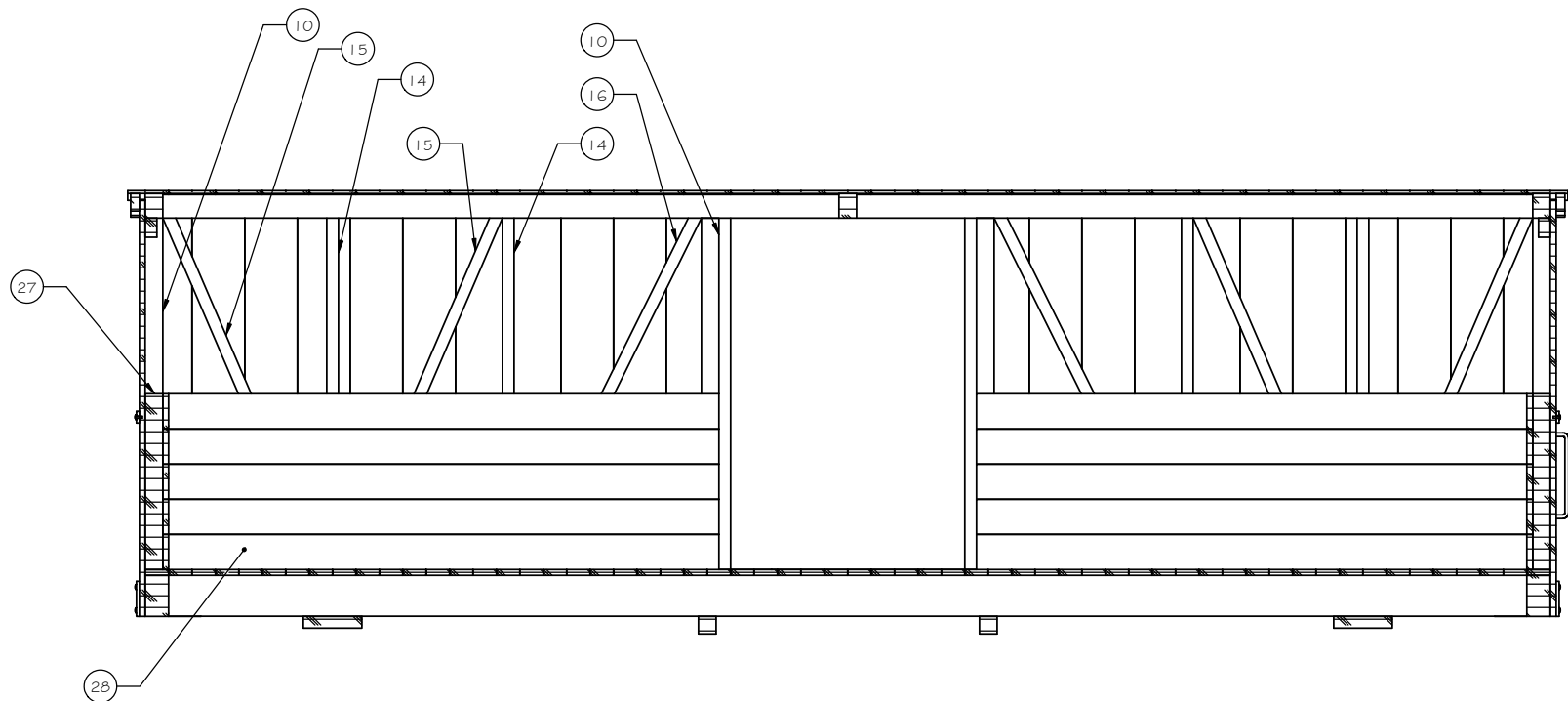


OHIO RIVER & WESTERN BOX CAR

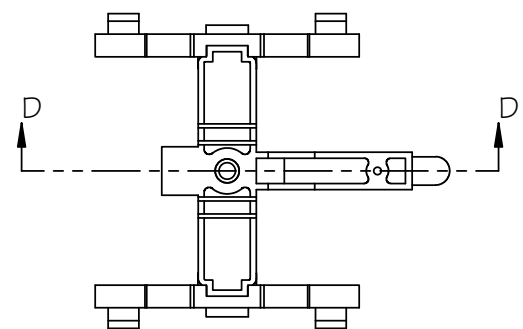
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OHIO RIVER & WESTERN BOX CAR			
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D	-	GR Plan Set 57	-
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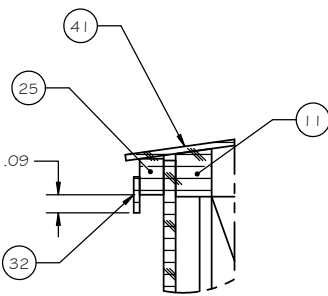
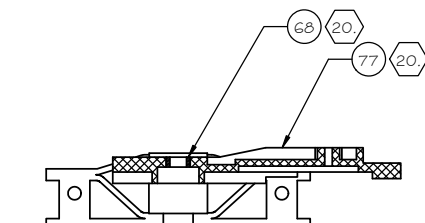
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D	-	GR Plan Set 57	-
SCALE	NONE	UNIT WT.	SHEET 3 OF 5



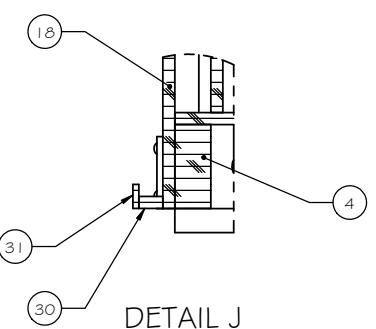
SECTION A-A



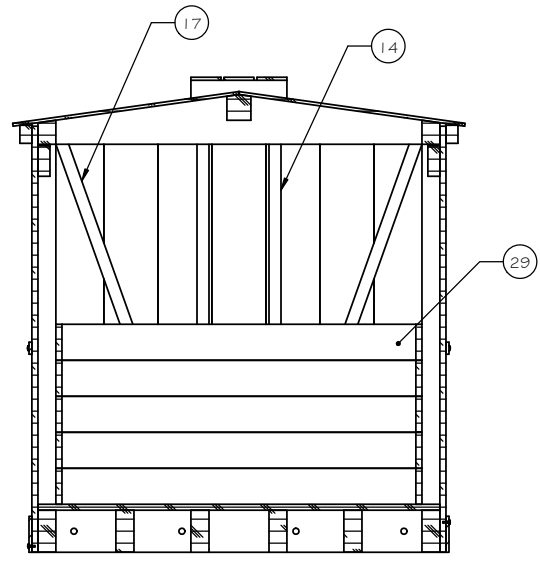
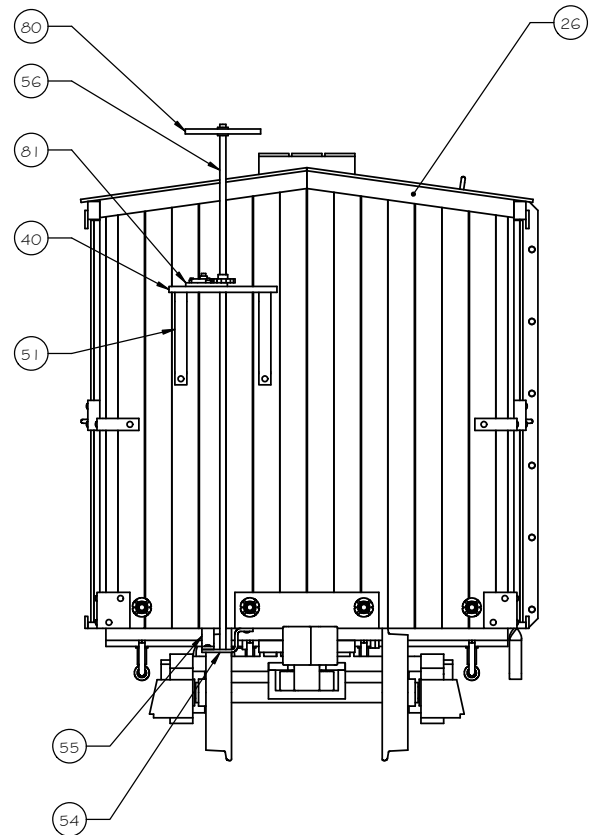
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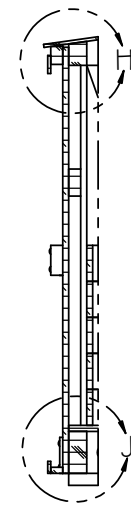
DETAIL H



DETAIL J

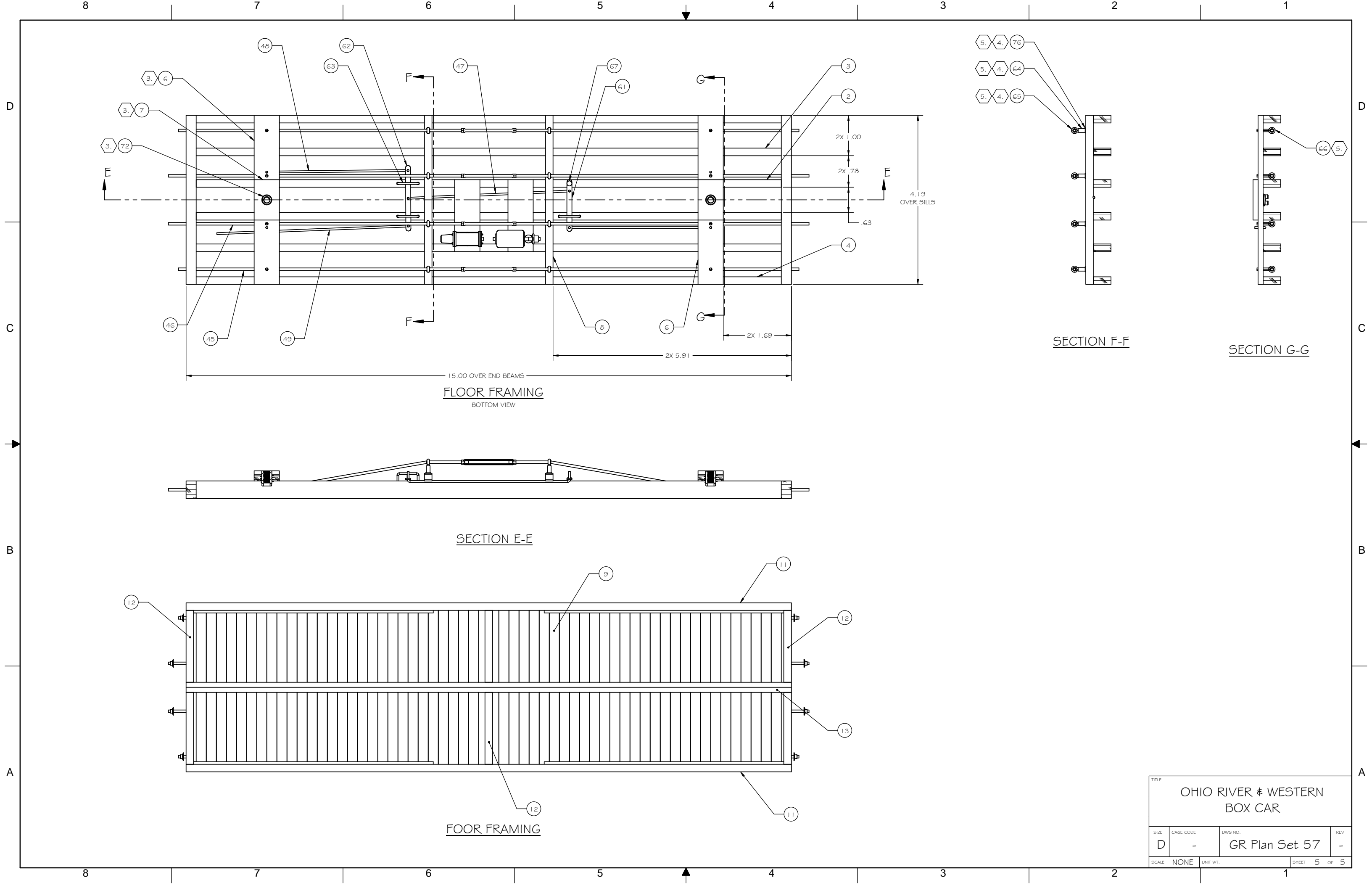


SECTION B-B



SECTION C-C

TITLE			
OHIO RIVER & WESTERN BOX CAR			
SIZE	CAGE CODE	DWG. NO.	REV.
D	-	GR Plan Set 57	-
SCALE	NONE	UNIT WT.	SHEET 4 OF 5



FLOOR FRAMING
BOTTOM VIEW

SECTION E-E

FLOOR FRAMING

SECTION F-F

SECTION G-G

TITLE			
OHIO RIVER & WESTERN BOX CAR			
SIZE	CAGE CODE	DWG NO.	REV
D	-	GR Plan Set 57	-
SCALE	NONE	UNIT WT.	SHEET 5 OF 5