

MINIMUM SPECIFICATIONS FOR RELOCATABLE CLASSROOMS

State Board Policy Chapter 62, Rule 62.9

I. PURPOSE AND COMPLIANCE

- A. To set minimum safety utility requirements for relocatable units regardless of the manufacturer, vendor, and/or contractor.**
- B. To assure local school authorities a relocatable unit meeting the mentioned requirements and, at the same time, giving them the freedom of selection as to the particular make and model of relocatable unit they desire to place under contract.**
- C. To set forth certain mandatory requirements that must be complied with by any manufacturer, vendor, and/or contractor supplying a relocatable unit for use in the public school districts of the State of Mississippi.**
- D. All relocatable units must conform to the construction requirements as established in this specification.**

II. PROCEDURE

- A. Approval of plans and specifications**
 - 1. Plans shall be prepared by an Architect or Engineer registered in the State of Mississippi.**
 - 2. Submit plans for approval to state agencies listed below:**
 - a. State Board of Health - 1 set**
 - b. State Department of Education - Division of School Building and Transportation - 1 set**
 - 3. Before bids may be submitted to local school districts, plans submitted by persons, firms or corporations must be approved by the State Department of Education.**

III. MOBILITY

- A. To be considered a relocatable unit, the largest component must be of such construction as to permit highway travel and require a minimum of “on-site” work before the unit may be used for the intended school purposes. Such units must consist of pre-fabricated component parts, or sections, that can be easily joined together or dismantled on the site.**

- B. A minimum of dismantling work and replacement of parts or components should be required to prepare an “in place” unit for relocation to another school site.

IV. DIMENSION REQUIREMENTS

- A. The following dimensions must equal or exceed the minimum shown below:

1. Floor to ceiling - 8' 0”
2. Exterior width - 24' or 28'
3. Clear instructional area - 700 square feet, exclusive of storage, toilets, and heating area.

V. STRUCTURAL DESIGN

- A. Southern Standard Building Code - (Latest Edition)

1. All units for the State of Mississippi shall meet code for specified region regardless of site location.
2. Foundations, as well as structure, shall meet code.
 - a. Footings shall be “poured in place” concrete. Piers shall be of concrete and/or masonry construction, using 4” jr. steel I-Beam for posts and rails as runners for units to be placed on, reinforced as required. Slab on grade construction will not be allowed. Concrete blocks and piers will not be allowed.

- B. Anchor bolts shall be used to resist uplift.

- C. Floor Live Load 75 pounds per square foot and roof live load should be minimum of 20 pounds per square foot with the wind live load being the figure given in the Southern Standard Building Code.

- D. Certification of Design

1. To be approved by the State Department of Education, Division of School Building and Transportation. Structural drawings must bear the seal of a structural engineer registered in the State of Mississippi.

VI. CHASSIS

- A. Shall be perimeter in type and design.**
- B. All I-Beams are made of A-36 steel or better.**
- C. Either 8" or 10" I-Beam will be used as chassis beams. The front and rear members will be the same depth of I-Beam as those used on the sides. The I-Beam will be checked to see if it corresponds with the size specified.**
- D. Placement of axles shall be indicated on the chassis drawing. This placement is expressed on the drawing as a distance the axles are located from the front crossmember. The axle location has been determined by engineering analysis, taking into account the gross weight, total length, the necessary coupling hitch weight, total distance, and turning radius. The coupling weight is not less than 12% nor more than 25% of the gross weight. The axles, rims, tires, and hitch will remain the property of the manufacturer.**
- E. Weld Quality - All welds on the steel chassis are full welds with no burn-throughs or skips. Where the main I-Beams are butted together the joint is either full penetration weld from both sides of the web and flanges, or as it is welded on one side of the web reinforced on the other side of the web of the I-Beam. This plate is at least 4" wide and is welded along all four sides. The difference in the height of the plate and web of the I-Beam is not more than 1½ inches.**
- F. Chassis painting - All exposed metal of the chassis system is completely painted to prevent corrosion. This includes the inside surfaces of I-Beams, angles and channels. Black is the color of the paint and the type of paint is either an asphaltic base, a latex base, or a water reducible enamel.**
- G. Lag Bolt Spacing - At least one lag bolt for every 40 sq. ft. of floor area will be used to fasten the chassis to the floor system. One lag bolt will always be installed at 4" intervals. The remaining required lag bolts will be evenly distributed throughout the rest of the chassis area. The lag bolt size is 5/16" x 2 ½".**
- H. A serial number will be stamped into each frame to identify the manufacturer, time, and place of manufacture.**

VII. CONSTRUCTION MATERIALS AND STANDARDS

A. Required:

- 1. All wall framing shall be 2x4 wood studs @ 16" O.C. Double studs at and over all doors with extra blocking over and under all windows. Three 1x4 belt line running full length and width of building.**
- 2. A 3 1/2" blanket of fiber glass insulation with a vapor barrier in all exterior walls. Insulation factor R-11 or greater.**
- 3. Exterior walls shall be covered with embossed finish .019 aluminum, ribbed for extra strength. As an alternate exterior hardboard siding products as Tecture- 1-11 or masonite painted board siding or approved equal, will be acceptable.**
- 4. Interior walls surfaces shall be 1/2" gypsum board with a 1/2 hour fire rating with a vinyl covered material.**
- 5. Top Plate- Double 2x4's.**
- 6. Bottom Plate- Single 2x4.**
- 7. Roof Rafters-Shall be full truss type 2 x pitched rafters @ 16" O.C.**
- 8. Roof is insulated w/ 3 1/2" blanket fiber glass insulation with a vapor barrier on the warm side.**
- 9. Interior ceiling shall be 1/2" gypsum board, carrying a 1/2 hour fire rating.**
- 10. Roof covering shall be 1/2" CD plywood decking with 15# felt and 235# shingles or approved equal. Roof shall be vented.**
- 11. Floor joists shall be 2x6 #2SPF @ 16" O.C.**
- 12. Floor decking shall be 3/4" plywood. 3/4" T&G (Tongue and Grove) will be acceptable.**
- 13. Floor shall be insulated w/ 3 1/2" blanket fiber glass insulation with a vapor barrier on the warm side. Insulation factor R-11 or greater.**
- 14. Finish flooring shall be 1/8" vinyl composition tile having a light reflectance value of 30%.**

- 15. The bottom board material, which is fastened to the underside of the unit, is made of a moisture and weather resistant material.**
- 16. This unit shall have two (2) exterior doors which are located remotely from each other. These doors shall not be located in rooms where an unlockable interior door must be used in order to exit. All exterior doors shall be aluminum clad, with shatter proof glass, panic hardware, door closure, and kickplate. There shall be one exit light located above each exterior door. All exterior doors swing outward. All exterior doors 36" x 80". There will be an exterior light located near each exterior door on the latch side of the door.**
- 17. The window area shall equal at least 20% of the floor area and shall be at least 50% operable.**
- 18. Interior doors to be 3'- 0" x 6'-8" hollow core with heavy duty hinges.**
- 19. Venetian blinds shall be furnished on each window of commercial grade.**
- 20. Each girls' bath facility shall consist of one vitreous china water closet, one vitreous china wall hung lavatory. Wall materials are to have a smooth finish wall panel that is complete washable. A urine proof smooth trim will be metal. Toilet paper holder at each water closet and mirror over each lavatory.**
- 21. Each boys' bath facility shall consist of one vitreous china water closet, one vitreous china wall hung lavatory, one vitreous china urinal wall hung with flush valve. Wall materials are to have a smooth finish wall panel that is completely washable. Trim will be metal. Toilet paper holder at each water closet and mirror over each lavatory.**
- 22. Each kindergarten classroom required to have a 6-gallon hot water heater.**
- 23. Sanitation shall meet approval of the Mississippi State Board of Health.**

VII. ELECTRICAL

- A. Electrical current shall be single phase.**
- B. All minimum wiring size to be 12/2 copper romex with ground.**
- C. All lighting and ceiling vent fans shall be 110V.**
- D. All lighting shall not be less than 70 footcandles of light.**
- E. This building shall have one 200 AMP main breaker panel box.**
- F. Electrical material, services, appliances, fittings, and other equipment installed, intended for use in, or attached to, the unit shall be listed by nationally recognized testing agencies and all national electrical codes.**

IX. PLUMBING

- A. Plumbing shall meet requirements of the Southern Standard plumbing Code.**

X. HEATING

- A. Heating shall be electric, thermostatically controlled, and shall be designed to maintain an inside temperature of 70 degrees F. with an outside low of 10 degrees F.**

XI. AIR CONDITIONING

- A. If required shall be 3 ton or 36,000 BTU-for two classroom unit a 4 ton capacity or 48,000 BTU.**

XII. SKIRTING

- A. Skirting shall be .019 aluminum using a 2x2 framing. The skirting will enclose the entire perimeter of building from base of unit to ground level. The 2x2 framing material shall be treated to resist termites and moisture.**

XIII. SPECIAL EQUIPMENT

Chalk and Tack Board

Each classroom shall contain 16 linear feet of chalkboard and 8 linear feet of cork or fiber tackboard.

Teacher's Cabinet

Each classroom shall contain one teacher's cabinet with a hanging rod and storage shelves.

Shelf and Hook Strip

Each classroom shall contain a hat shelf with 35 coat hooks.

XIV. NOTICE

ALL BIDS SHALL BE SUBMITTED WITH PLANS AND SPECIFICATIONS OF UNIT YOU ARE SUBMITTED FOR BID.

A. Plans shall include the following:

- 1. Perimeter Frame Plan drawn at scale not less than 1/8" = 1' 0"**
- 2. Foundation Plan drawn at scale not less than 1/8"=1' 0"**
- 3. Floor Plan drawn to scale not less than 1/8" = 1' 0". This plan shall show all equipment, electrical lights, outlets, mechanical, etc., door & window schedules**
- 4. Typical Wall Section drawn at scale not less than 3/4" = 1" 0".**
- 5. Anchoring systems shall be specified on detailed plans.**
- 6. Mini-gutters shall be installed around the complete unit with metal flashing over exterior doors and windows.**

XV. CONTRACTOR RESPONSIBILITY

Work required of party contracting with school officials for furnishing and reinstalling one or more relocatable units:

A. Location of each unit on the school site according to directions of school officials.

- 1. They should not be placed where they could construct width of required means of egress from there or adjacent buildings.**
- 2. Should maintain vehicular access and space for service vehicles.**
- 3. Spacing of units should comply with requirements of Table 600 of the Standard Building code.**

B. Hand excavation and fine grading for footings.

C. Construction of footings and piers for concrete and steel I-Beam foundations. (A crawl space of 18 inches minimum is required.) Back fill and hand rake area to be covered by unit.

D. Complete installation of each unit on foundation including:

- 1. Proper anchorages to foundation and/or tie-downs.**
- 2. Installation of metal skirt.**

E. Stub-out of utility lines so they are easily accessible for permanent tie-in by school officials.

F. Complete cleaning of interior and exterior of each unit. Clean site adjacent to unit and leave grounds in neat condition and unit ready for occupancy.

XVI. GUARANTEES AND WARRANTIES

A. Contractor and/or vendor shall guarantee all labor, materials, and equipment for a period of one year after final acceptance of units in contract.

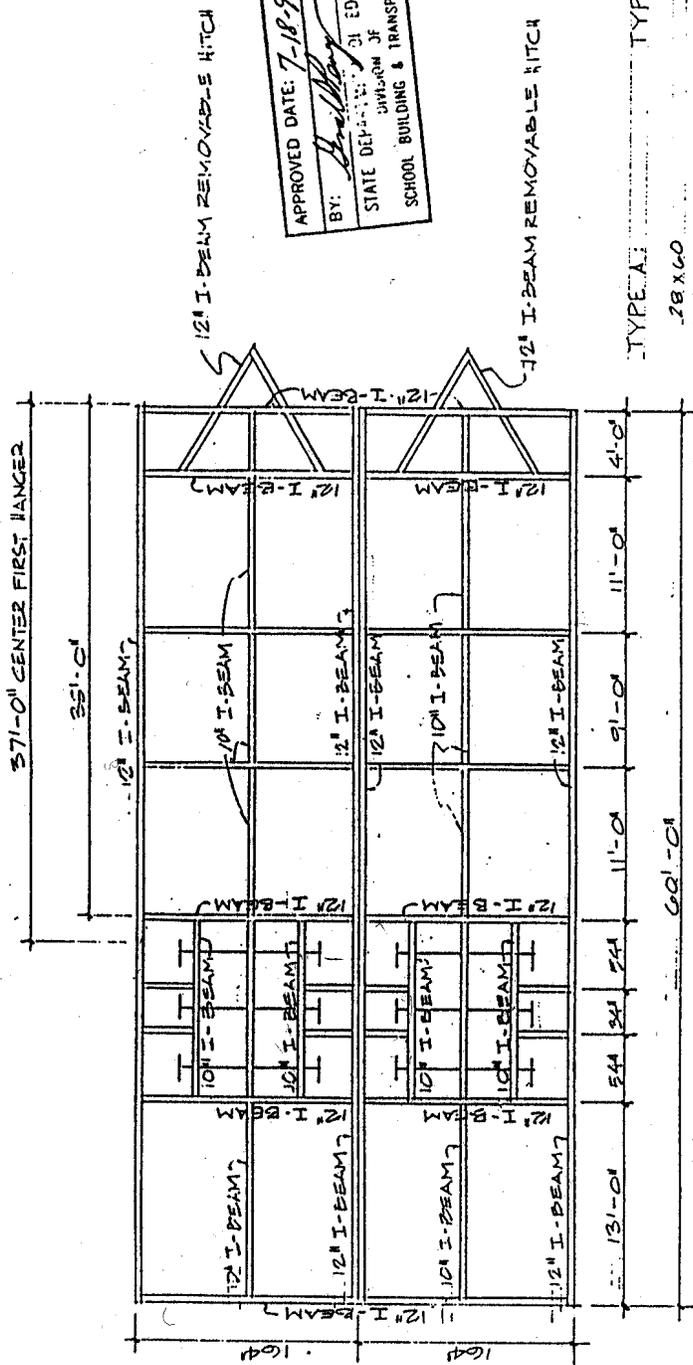
B. Furnish the contracting authorities:

- 1. All guarantees or warranties furnished by the manufacturers of any equipment or components incorporated in the work of the contract.**

C. The standard guarantee or warranty of the manufacturer of the main structural unit- before entering a contract, school officials should consider the terms of the warranty of the unit manufacturer as to time limitations, etc.

XVII. SCHOOL AUTHORITY RESPONSIBILITY

A. Do preliminary clearing and/or grading prior to arrival of relocatable unit contractor.



12\" I-BEAM REMOVABLE HITCH

12\" I-BEAM REMOVABLE HITCH

APPROVED DATE: 7-18-90
 BY: *Tom Wallace Cox*
 STATE DEPARTMENT OF EDUCATION
 DIVISION OF SCHOOL BUILDING & TRANSPORTATION

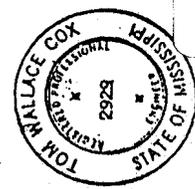
TYPE A: TYPE B:

28 X 60
 28 X 50
 28 X 64
 28 X 54
 28 X 48
 28 X 60
 28 X 64

PERIMETER FRAME: 28 X 60 A'

SCALE: 1/8" = 1'-0"
 DATE:
 APPROVED BY:
 DRAWN BY:

DRAWING NUMBER



Tom Wallace Cox



