

## **Safety Manual > Scaffolding Appendix**

### **I. Scaffolding Appendix**

#### **1. Outrigger Scaffold**

- a. Outrigger beams shall extend not more than 6 feet beyond the face of the building. The inboard end of outrigger beams, measured from the fulcrum point to the extreme point of support, shall be not less than one and one-half times the outboard end in length. The beams shall rest on edge, the sides shall be plumb, and the edges shall be horizontal. The fulcrum point of the beam shall rest on a secure bearing at least 6 inches in each horizontal dimension. The beam shall be secured in place against movement and shall be securely braced at the fulcrum point against tipping.
- b. The inboard ends of outrigger beams shall be securely supported either by means of struts bearing against sills in contact with the overhead beams or ceiling, or by means of tension members secured to the floor joists underfoot, or by both if necessary. The inboard ends of outrigger beams shall be secured against tipping and the entire supporting structure shall be securely braced in both directions to prevent any horizontal movement.
- c. Unless outrigger scaffolds are designed by a licensed professional engineer, they shall be constructed and erected in accordance with table D-16. Outrigger scaffolds designed by a registered professional engineer shall be constructed and erected in accordance with such design. A copy of the detailed drawings and specifications showing the sizes and spacing of members shall be kept on the job.
- d. Planking shall be laid tight and shall extend to within 3 inches of the building wall. Planking shall be nailed or bolted to outriggers.
- e. Where there is danger of material falling from the scaffold, a wire mesh or other enclosure shall be provided between the guardrail and the toe-board.
- f. Where additional working levels are required to be supported by the outrigger method, the plans and specifications of the outrigger and scaffolding structure shall be designed by a registered professional engineer.

#### **2. Masons' Adjustable Multiple-Point Suspension Scaffolds**

- a. The scaffold shall be capable of sustaining a working load of 50 pounds per square foot and shall not be loaded in excess of that figure.
- b. The scaffold shall be provided with hoisting machines that meet the requirements of a nationally recognized testing laboratory. Refer to 1910.7 for definition of nationally recognized testing laboratory.

Table D-16 – Minimum Nominal Size and Maximum Spacing of Members of Outrigger Scaffolds

|                           | Light duty   | Medium duty |
|---------------------------|--------------|-------------|
| Maximum scaffold load     | 25 p.s.f.    | 50 p.s.f.   |
| Outrigger size            | 2 x 10 in.   | 3 x 10 in.  |
| Maximum outrigger spacing | 10 ft. 0 in. | 6 ft. 0 in. |
| Planking                  | 2 x 9 in.    | 2 x 9 in.   |
| Guardrail                 | 2 x 4 in.    | 2 x 4 in.   |
| Guardrail uprights        | 2 x 4 in.    | 2 x 4 in.   |
| Toe-boards (minimum)      | 4 in.        | 4 in.       |

- c. The platform shall be supported by wire ropes in conformity with this section, suspended from overhead outrigger beams.
- d. The scaffold outrigger beams shall consist of structural metal securely fastened or anchored to the frame or floor system of the building or structure.
- e. Each outrigger beam shall be equivalent in strength to at least a standard 7-inch, 15.3-pound steel I-beam, be at least 15 feet long, and shall not project more than 6 feet 6 inches beyond the bearing point.
- f. Where the overhang exceeds 6 feet 6 inches, outrigger beams shall be composed of stronger beams or multiple beams and be installed in accordance with approved designs and instructions.
- g. If channel iron outrigger beams are used in place of I-beams, they shall be securely fastened together with the flanges turned out.
- h. All outrigger beams shall be set and maintained with their webs into vertical position.
- i. A stop bolt shall be placed at each end of every outrigger beam.
- j. The outrigger beam shall rest on suitable wood-bearing blocks.
- k. All parts of the scaffold such as bolts, nuts, fittings, clamps, wire rope, and outrigger beams and their fastenings, shall be maintained in sound and good working condition and shall be inspected before each installation and periodically thereafter.
- l. The free end of the suspension wire ropes shall be equipped with proper size thimbles and be secured by splicing or other equivalent means. The running ends shall be securely attached to the hoisting drum and at least four turns of rope shall at all times remain on the drum.
- m. Where a single outrigger beam is used, the steel shackles or clevises with which the wire ropes are attached to the outrigger beams shall be placed directly over the hoisting drums.
- n. The scaffold platform shall be equivalent in strength to at least 2-inch planking.
- o. Guardrails not less than 2 x 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1 x 4-inch lumber or equivalent, and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above

the ground or floor. Toe-boards shall be a minimum of 4 inches in height. Wire mesh shall be installed in accordance with this section.

- p. Overhead protection shall be provided on the scaffold, not more than 9 feet above the platform, consisting of 2-inch planking or material of equivalent strength laid tight, when men are at work on the scaffold and an overhead hazard exists.
- q. Each scaffold shall be installed or relocated in accordance with designs and instructions, of a registered professional engineer, and supervised by a competent, designated person.

### 3. Two-Point Suspension Scaffolds (Swinging Scaffolds)

- a. Two-point suspension scaffold platforms shall be not less than 20 inches no more than 36 inches wide overall. The platform shall be securely fastened to the hangers by U-bolts or by other equivalent means.
- b. The hangers of two-point suspension scaffolds shall be made of wrought iron, mild steel, or other equivalent material having a cross-sectional area capable of sustaining four times the maximum intended load, and shall be designed with a support for guardrail, intermediate rail, and toe-board.
- c. When hoisting machines are used on two-point suspension scaffolds, such machines shall be of a design tested and approved by a nationally recognized testing laboratory. Refer to 1910.7 for definition of nationally recognized testing laboratory.
- d. The roof irons or hooks shall be of wrought iron, mild steel, or other equivalent material of proper size and design, securely installed and anchored. Tie-backs of three-fourth inch manila rope or the equivalent shall serve as a secondary means of anchorage, installed at right angles to the face of the building whenever possible and secured to a structurally sound portion of the building.
- e. Guardrails not less than 2 x 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- x 4-inch lumber or equivalent, and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height.
- f. Two-point suspension scaffolds shall be suspended by wire or fiber ropes.
- g. The blocks for fiber ropes shall be of standard 6-inch size, consisting of at least one double and one single block. The sheaves of all blocks shall fit the size of rope used.
- h. All wire ropes, fiber ropes, slings, hangers, platforms, and other supporting parts shall be inspected before every installation. Periodic inspections shall be made while the scaffold is in use.
- i. On suspension scaffolds designed for a working load of 500 pounds no more than two men shall be permitted to work at one time. On suspension scaffolds with a working load of 750 pounds, no more than three men shall be permitted to work at one time. Each workman shall be protected by a safety lifebelt attached to a lifeline. The lifeline shall be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safely suspend the workman in case of a fall.
- j. Where acid solutions are used, fiber ropes are not permitted unless acid-proof.
- k. Two-point suspension scaffolds shall be securely lashed to the building or structure to prevent them from swaying. Window cleaners' anchors shall not be used for this purpose.

LSU University Safety Manual  
 Section VIII, Part I – Scaffolding Appendix

- l. The platform of every two-point suspension scaffold shall be one of the following types:
- m. The side stringer of ladder-type platforms shall be clear straight-grained spruce or materials of equivalent strength and durability. The rungs shall be of straight-grained oak, ash, or hickory, at least 1 1/8 inch in diameter, with seven-eighth inch tenons mortised into the side stringers at least seven-eighth inch. The stringers shall be tied together with the tie rods not less than one-quarter inch in diameter, passing through the stringers and riveted up tight against washers on both ends. The flooring strips shall be spaced not more than five-eighth inch apart except at the side rails where the space may be 1 inch. Ladder-type platforms shall be constructed in accordance with table D-17.
- n. Plank-type platforms shall be composed of not less than nominal 2 x 8-inch un-spliced planks, properly cleated together on the underside starting 6 inches from each end; intervals in between shall not exceed 4 feet. The plank-type platform shall not extend beyond the hangers more than 18 inches. A bar or other effective means shall be securely fastened to the platform at each end to prevent its slipping off the hanger. The span between hangers for plank-type platforms shall not exceed 10 feet.
- o. Beam platforms shall have side stringers of lumber not less than 2 x 6 inches set on edge. The span between hangers shall not exceed 12 feet when beam platforms are used. The flooring shall be supported on 2- and 6-inch crossbeams, laid flat and set into the upper edge of the stringers with a snug fit, at intervals of not more than 4 feet, securely nailed in place. The flooring shall be of 1- x 6-inch material properly nailed. Floorboards shall not be spaced more than one-half inch apart.

Table D-17 – Schedule for Ladder-Type Platforms

|   | Length of Platform (feet)   |               |           |               |               |
|---|---|---------------|-----------|---------------|---------------|
|   | 12  | 14 & 16       | 18 & 20   | 22 & 24       | 28 & 30       |
| Side stringers, minimum cross section (finished sizes): |   |               |           |               |               |
| at ends (in.)   | 1 3/4 x 2 3/4   | 1 3/4 x 2 3/4 | 1 3/4 x 3 | 1 3/4 x 3     | 1 3/4 x 3 1/2 |
| at middle (in.)   | 1 3/4 x 3 3/4   | 1 3/4 x 3 3/4 | 1 1/4 x 4 | 1 3/4 x 4 1/4 | 1 3/4 x 5     |
| Reinforcing strip (minimum)                             | A 1/8 x 7/8-in, steel reinforcing strip or its equivalent shall be attached to the side or underside full length.                           |               |           |               |               |
| Rungs   | Rungs shall be 1 1/8-in. minimum, diameter with at least 7/8-in. diameter tenons, and the maximum spacing shall be 12 in. center to center. |               |           |               |               |
| Tie rods:   |   |               |           |               |               |
| Number (minimum)  | 3   | 4             | 4         | 5             | 6             |

LSU University Safety Manual  
 Section VIII, Part I – Scaffolding Appendix

|                                       |             |             |             |             |             |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Diameter (minimum)                    | 1/4 in      |
| Flooring, minimum finished size (in.) | 1/2 x 2 3/4 |

4. Stone Setters' Adjustable Multiple-Point Suspension Scaffolds

- a. The scaffold shall be capable of sustaining a working load of 25 pounds per square foot and shall not be overloaded. Scaffolds shall not be used for storage of stone or other heavy materials.
- b. The hoisting machine and its supports shall be of a type tested and listed by a nationally recognized testing laboratory. Refer to 1910.399(a) (77) for definition of listed, and 1910.7 for nationally recognized testing laboratory.
- c. The platform shall be securely fastened to the hangers by U-bolts or other equivalent means.
- d. The scaffold unit shall be suspended from metal outriggers, iron brackets, wire rope slings, or iron hooks which will safely support the maximum intended load.
- e. Outriggers when used shall be set with their webs in a vertical position, securely anchored to the building or structure and provided with stop bolts at each end.
- f. The scaffold shall be supported by wire rope conforming with this section, suspended from overhead supports.
- g. The free ends of the suspension wire ropes shall be equipped with proper size thimbles, secured by splicing or other equivalent means. The running ends shall be securely attached to the hoisting drum and at least four turns of rope shall remain on the drum at all times.
- h. Guardrails not less than 2 by 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- by 4-inch lumber or

LSU University Safety Manual  
Section VIII, Part I – Scaffolding Appendix

equivalent, and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height.

- i. When two or more scaffolds are used on a building or structure they shall not be bridged one to the other but shall be maintained at even height with platforms butting closely.
- j. Each scaffold shall be installed or relocated in accordance with designs and instructions of a registered professional engineer, and such installation or relocation shall be supervised by a competent designated person.

5. Single-Point Adjustable Suspension Scaffolds

- a. The scaffolding, including power units or manually operated winches, shall be a type tested and listed by a nationally recognized testing laboratory. Refer to 1910.399(a)(77) for definition of listed, and 1910.7 for nationally recognized testing laboratory.
- b. All power-operated gears and brakes shall be enclosed.
- c. In addition to the normal operating brake, all-power driven units must have an emergency brake which engages automatically when the normal speed of descent is exceeded.
- d. Guards, mid-rails, and toe-boards shall completely enclose the cage or basket. Guardrails shall be no less than 2 by 4 inches or the equivalent installed no less than 36 inches nor more than 42 inches above the platform. Mid-rails shall be 1 by 6 inches or the equivalent; installed equidistant between the guardrail and the platform. Toe-boards shall be a minimum of 4 inches in height.
- e. The hoisting machines, cables, and equipment shall be regularly serviced and inspected after each installation and every 30 days thereafter.
- f. The units may be combined to form a two-point suspension scaffold.
- g. The supporting cable shall be straight for its entire length, and the operator shall not sway the basket and fix the cable to any intermediate points to change his original path of travel.
- h. Equipment shall be maintained and used in accordance with the manufacturers' instructions.

6. Boatswain's Chairs

- a. The chair seat shall be not less than 12 by 24 inches, and of 1-inch thickness. The seat shall be reinforced on the underside to prevent the board from splitting.
- b. The two fiber rope seat slings shall be of 5/8-inch diameter, reeved through the four seat holes so as to cross each other on the underside of the seat.
- c. Seat slings shall be of at least 3/8-inch wire rope when a workman is conducting a heat producing process such as gas or arc welding.
- d. The workman shall be protected by a safety life belt attached to a lifeline. The lifeline shall be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safely suspend the worker in case of a fall.

LSU University Safety Manual  
Section VIII, Part I – Scaffolding Appendix

- e. The tackle shall consist of correct size ball bearing or bushed blocks and properly spliced 5/8-inch diameter first-grade manila rope.
- f. The roof irons, hooks, or the object to which the tackle is anchored shall be securely installed. Tiebacks when used shall be installed at right angles to the face of the building and securely fastened to a chimney

7. Carpenters' Bracket Scaffolds

- a. The brackets shall consist of a triangular wood frame not less than 2 by 3 inches in cross section, or of metal of equivalent strength. Each member shall be properly fitted and securely joined.
- b. Each bracket shall be attached to the structure by means of one of the following:
  - i. A bolt no less than five-eighths inch in diameter which shall extend through the inside of the building wall.
  - ii. A metal stud attachment device
  - iii. Welding to steel tanks
  - iv. Hooking over a well-secured and adequately strong supporting member.
  - v. The brackets shall be spaced no more than 10 feet apart.
- c. No more than two persons shall occupy any given 10 feet of a bracket scaffold at any one time. Tools and materials shall not exceed 75 pounds in addition to the occupancy.
- d. The platform shall consist of not less than two 2- by 9-inch nominal size planks extending not more than 18 inches or less than 6 inches beyond each end support.
- e. Guardrails not less than 2 by 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- by 4-inch lumber or equivalent, and toe-boards. shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height.

8. Bricklayers' Square Scaffolds

- a. The squares shall not exceed 5 feet in width and 5 feet in height.
- b. Members shall be not less than those specified in Table D-18.
- c. The squares shall be reinforced on both sides of each corner with 1- by 6-inch gusset pieces. They shall also have braces 1 by 8 inches on both sides running from center to center of each member, or other means to secure equivalent strength and rigidity.
- d. The squares shall be set not more than 5 feet apart for medium duty scaffolds, and not more than 8 feet apart for light duty scaffolds. Bracing 1 x 8 inches, extending from the bottom of each square to the top of the next square, shall be provided on both front and rear sides of the scaffold.

Table D-18 – Minimum Dimensions for Bricklayers' Square Scaffold Members

| Members                             | Dimensions (Inches) |
|-------------------------------------|---------------------|
| Bearers or horizontal members       | 2 by 6              |
| Legs                                | 2 by 6              |
| Braces at corners                   | 1 by 6              |
| Braces diagonally from center frame | 1 by 8              |

LSU University Safety Manual  
 Section VIII, Part I – Scaffolding Appendix

- e. Platform Planks shall be at least 2- by 9-inch nominal size. The ends of the planks shall overlap the bearers of the squares and each plank shall be supported by not less than three squares.
- f. Bricklayers’ square scaffolds shall not exceed three tiers in height and shall be so constructed and arranged that one square shall rest directly above the other. The upper tiers shall stand on a continuous row of planks laid across the next lower tier and be nailed down or otherwise secured to prevent displacement.
- g. Scaffolds shall be level and set upon a firm foundation.

9. Horse Scaffolds

- a. Horse scaffolds shall not be constructed or arranged more than two tiers or 10 feet in height.
- b. The members of the horses shall be not less than those specified in Table D-19.
- c. Horses shall be spaced not more than 5 feet for medium duty and not more than 8 feet for light duty.
- d. When arranged in tiers, each horse shall be placed directly over the horse in the tier below.
- e. On all scaffolds arranged in tiers the legs shall be nailed down to the planks to prevent displacement or thrust and each tier shall be substantially cross braced.

Table D-19 – Minimum Dimensions for Horse Scaffold Members

| Members                         | Dimensions (Inches) |
|---------------------------------|---------------------|
| Horizontal members or bearers   | 3 by 4              |
| Legs                            | 1 1/4 by 4 1/2      |
| Longitudinal brace between legs | 1 by 6              |
| Gusset brace at top of legs     | 1 by 8              |
| Half diagonal braces            | 1 1/4 by 4 1/2      |

- f. Horses or parts which have become weak or defective shall not be used.
- g. Guardrails not less than 2 by 4 inches or the equivalent and not less than 36 inches or more than 42 inches high with a mid-rail, when required, of 1- by 4-inch lumber or equivalent and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height. Wire mesh shall be installed in accordance with paragraph (a) (17) of this section.

10. Needle Beam Scaffold

- a. Wood needle beams shall be in accordance with this section, and shall be not less than 4 by 6 inches in size, with the greater dimension placed in a vertical direction. Metal beams or the equivalent conforming to this section may be used.
- b. Ropes or hangers shall be provided for supports. The span between supports on the needle beam shall not exceed 10 feet for 4- by 6-inch timbers. Rope supports shall be equivalent in strength to 1-inch diameter first-grade manila rope.

LSU University Safety Manual  
Section VIII, Part I – Scaffolding Appendix

- c. The ropes shall be attached to the needle beams by a scaffold hitch or a properly made eye splice. The loose end of the rope shall be tied by a bowline knot or by a round turn and one-half hitch.
- d. The platform span between the needle beams shall not exceed 8 feet when using 2-inch scaffold plank. For spans greater than 8 feet, platforms shall be designed based on design requirements for the special span. The overhang of each end of the platform planks shall be not less than 1 foot and not more than 18 inches.
- e. When one needle beam is higher than the other or when the platform is not level the platform shall be secured against slipping.
- f. All unattached tools, bolts, and nuts used on needle beam scaffolds shall be kept in suitable containers.
- g. One end of a needle beam scaffold may be supported by a permanent structural member conforming to this section.
- h. Each man working on a needle beam scaffold 20 feet or more above the ground or floor and working with both hands, shall be protected by a safety life belt attached to a lifeline. The lifeline shall be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safely suspend the workman in case of a fall.

11. Plasterers', Decorators', And Large Area Scaffolds

- a. Plasterers', decorators', lathers'; and ceiling workers' inside scaffolds shall be constructed in accordance with the general requirements set forth for independent wood pole scaffolds.
- b. Guardrails not less than 2 by 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- by 4-inch lumber or equivalent, and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height.
- c. All platform planks shall be laid with the edges close together.
- d. When independent pole scaffold platforms are erected in sections, such sections shall be provided with connecting runways equipped with substantial guardrails.

12. Interior Hung Scaffolds

- a. The suspended steel wire rope shall conform to this section. Wire may be used providing the strength requirements of this section are met.
- b. For hanging wood scaffolds, the following minimum nominal size material is recommended:
  - i. Supporting bearers 2 by 9 inches on edge.
  - ii. Planking 2 by 9 inches or 2 by 10 inches, with maximum span 7 feet for heavy duty and 10 feet for light duty or medium duty.
  - iii. Steel tube and coupler members may be used for hanging scaffolds with both types of scaffold designed to sustain a uniform distributed working load up to heavy duty scaffold loads with a safety factor of four.

LSU University Safety Manual  
Section VIII, Part I – Scaffolding Appendix

- iv. When a hanging scaffold is supported by means of wire rope, such wire rope shall be wrapped at least twice around the supporting members and twice around the bearers of the scaffold, with each end of the wire rope secured by at least three standard wire-rope clips.
- c. All overhead supporting members shall be inspected and checked for strength before the scaffold is erected.
- d. Guardrails not less than 2 by 4 inches or the equivalent and not less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- by 4-inch lumber or equivalent, and toe-boards, shall be installed at all open sides on all scaffolds more than 10 feet above the ground or floor. Toe-boards shall be a minimum of 4 inches in height.

13. Ladder-Jack Scaffolds

- a. All ladder-jack scaffolds shall be limited to light duty and shall not exceed a height of 20 feet above the floor or ground.
- b. All ladders used in connection with ladder-jack scaffolds shall be heavy-duty ladders and shall be designed and constructed in accordance with 1910.25 and 1910.26.
- c. The ladder jack shall be so designed and constructed that it will bear on the side rails in addition to the ladder rungs, or if bearing on rungs only, the bearing area shall be at least 10 inches on each rung.
- d. Ladders used in conjunction with ladder jacks shall be so placed, fastened, held, or equipped with devices so as to prevent slipping.
- e. The wood platform planks shall be not less than 2 inches nominal in thickness. Both metal and wood platform planks shall overlap the bearing surface not less than 12 inches. The span between supports for wood shall not exceed 8 feet. Platform width shall be not less than 18 inches.
- f. Not more than two persons shall occupy any given 8 feet of any ladder-jack scaffold at any one time.

14. Window-Jack Scaffolds

- a. Window-jack scaffolds shall be used only for the purpose of working at the window opening through which the jack is placed.
- b. Window jacks shall not be used to support planks placed between one window jack and another or for other elements of scaffolding.
- c. Window-jack scaffolds shall be provided with suitable guardrails unless safety belts with lifelines are attached and provided for the workman. Window-jack scaffolds shall be used by one man only.

15. Roofing Brackets

- a. Roofing brackets shall be constructed to fit the pitch of the roof.
- b. Brackets shall be secured in place by nailing in addition to the pointed metal projections. The nails shall be driven full length into the roof. When rope supports are used, they shall consist of first-grade manila of at least three-quarter-inch diameter, or equivalent.

LSU University Safety Manual  
Section VIII, Part I – Scaffolding Appendix

- c. A substantial catch platform shall be installed below the working area of roofs more than 20 feet from the ground to eaves with a slope greater than 3 inches in 12 inches without a parapet. In width the platform shall extend 2 feet beyond the projection of the eaves and shall be provided with a safety rail, mid-rail, and toe-board. This provision shall not apply where employees engaged in work upon such roofs are protected by a safety belt attached to a lifeline.

16. Crawling Board or Chicken Ladders

- a. Crawling boards shall be not less than 10 inches wide and 1 inch-thick, having cleats 1 x 1 1/2 inches. The cleats shall be equal in length to the width of the board and spaced at equal intervals not to exceed 24 inches. Nails shall be driven through and clinched on the underside. The crawling board shall extend from the ridge pole to the eaves when used in connection with roof construction, repair, or maintenance.
- b. A firmly fastened lifeline of at least three-quarter-inch rope shall be strung beside each crawling board for a handhold.
- c. Crawling boards shall be secured to the roof by means of adequate ridge hooks or equivalent effective means.

17. Float or Ship Scaffolds

- a. Float or ship scaffolds shall support not more than three men and a few light tools, such as those needed for riveting, bolting, and welding. They shall be constructed in accordance with this section, unless substitute designs and materials provide equivalent strength, stability, and safety.
- b. The platform shall be not less than 3 feet wide and 6 feet long, made of three-quarter-inch plywood, equivalent to American Plywood Association Grade B-B, Group I, Exterior.
- c. Under the platform, there shall be two supporting bearers made from 2- x 4-inch, or 1- x 10-inch rough, selected lumber, or better. They shall be free of knots or other flaws and project 6 inches beyond the platform on both sides. The ends of the platform shall extend about 6 inches beyond the outer edges of the bearers. Each bearer shall be securely fastened to the platform.
- d. An edging of wood not less than 3/4 x 1 1/2 inches, or equivalent, shall be placed around all sides of the platform to prevent tools from rolling off.
- e. Supporting ropes shall be 1-inch diameter manila rope or equivalent, free from deterioration, chemical damage, flaws, or other imperfections. Rope connections shall be such that the platform cannot shift or slip. If two ropes are used with each float, each of the two supporting ropes shall be hitched around one end of a bearer and pass under the platforms to the other end of the bearer where it is hitched again, leaving sufficient rope at each end for the supporting ties.
- f. Each workman shall be protected by a safety lifebelt attached to a lifeline. The lifeline shall be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safely suspend the workman in case of a fall.