

06 Rough Carpentry Scope of Work. The work includes but is not limited to the following:

I. Mobilization

- a. This sub will provide its own equipment and fuel for the performance of its work.
 - i. Forklifts and cranes
 - ii. Slings and chains, block and tackle
 - iii. Tool cribs and secure storage
 - iv. Trailers and trucks
 - v. Compressors
 - vi. Table saws cut off saws
 - vii. Measuring and leveling devices
 - viii. Hand tools

II. Material Handling

- a. This sub is responsible for the coordination of all material deliveries either panelized or stick framed.
 - i. Sub will coordinate the sequence of material deliveries and control the way in which the manufacture loads the material for efficient offloading
 - ii. Sub will crane unload material from box cars or flatbeds as deliveries occur
 - iii. Sub will erect material as it is sequenced for delivery from the manufacture
 - iv. Material will be used as it is delivered
 - v. Material will not be stock piled on site for any length of time that would cause weather related damages or cause mobility issues at the site, or invite theft of unattended and loose unattached material.

III. Materials

- a. The sub will provide fasteners as required
 - i. Hand nails for tacking and securing
 - ii. Pneumatic nails
 - iii. Powder actuated fasteners
 - iv. Galvanized Drywall Screws for miscellaneous fastening situations
 - v. Fasteners for temporary cover or temporary bracing
 - vi. Chalk and oil and fuels for hand tools
 - vii. Gas charges for automatic nailing tools

IV. Installation and Execution

- a. Work will consist of layout
 - i. This sub will verify that the overall dimensions of the building foundation is the same as the erection drawings indicate
 - ii. The sub will examine the flatness of the floor to ensure that there are no major deficiencies that would in fact affect the installation and fit of the work.
 - iii. This sub will chalk line the floors and layout all wall panel dimensions to true straight lines
 - iv. All layout lines will be sealed with a clear spray when it is possible
 - v. Wall Panels will be erected to straight layout lines to ensure quality plumb, level, and square framing work.
 - vi. Temporary bracing will be installed to maintain true wall lines prior to the erection of the floor members
 - vii. The framing subcontractor will install all interior and exterior wall, floor, ceiling and drywall blocking that is not factory installed.
 - viii. Prior to the erection of the floor trusses care should be given to the point of beginning. Layout conflicts with furnace room ductwork and bathroom plumbing are common occurrences that are usually avoidable when the layout starting point is correct. It is expected that the layout is taped and measured and examined for conflicts before framing members are erected.

- ix. Floor joists will be crane loaded in place to avoid jarring hitting and moving the erected walls.
- x. Floor joists will be installed to exact centerlines, properly nailed in place with permanent bracing installed in bays.
- xi. GC expects that all work put in place is secure. The subcontractor should only erect material that he can permanently secured and braced within the time constraints of his workday.
- xii. The sub will install sub-flooring material to true lines.
- xiii. The sub floor will be properly spaced at all edges and glued and nailed permanently in place.
- xiv. The sub-floor will be nailed and examined by the onsite superintendent before wall panels are loaded for the erection of the next level of construction
- xv. The Sub-floor is to be checked for flatness in an effort to identify any discrepancies in the concrete floor that would continue to translate through to the roof system.
- xvi. The erection of the second floor and third floor walls will be to straight lines.
- xvii. All truss bearing walls will be held absolutely straight to a line. It is common knowledge that trusses run long and short and can cause dimensional errors in layouts. GC demands straight, plumb, level and true planes of construction where adjustments to dimensions caused in stacking are made.
- xviii. Prior to the erection of the roof truss system all bracing needs to be installed and the box of the building needs to be absolutely soundly rigid and solid
- xix. All fire blocking and area separation needs to be securely in place.
- xx. Core wall installation should be in place prior to the construction of the roof system the core wall will be provided by the drywall contractor and erected by this subcontractor
- xxi. The framing subcontractor will install all fire draft stops and area separations in the attic space, and any other draft stop or separations that must be installed as the framing is progressing is done so by the framing subcontractor. All fires and draft stops integrated with the structure and a part of the assembly of the panels, floors and roof will remain in this sub contractors scope of work.
- xxii. The roof system will be properly laid out to dimensions and erected and braced properly ensuring that adequate vertical, horizontal, shear, diagonal and sway bracing is in place to establish a "brace" bay against which the safe erection of the roof system can begin
- xxiii. The building eaves are to be straight and true to a an exact plane with string line checks or transit alignments made as the work progresses
- xxiv. Permanent rafter bracing will be installed exactly as shown on the truss and panel manufactures drawings.
- xxv. Sheathing installation will be installed after fascia and gable overhangs have been installed and aligned.
- xxvi. Sheathing will be installed and properly fastened as the material is put in place. GC requires plywood or OSB sheathing material to be nailed firmly in place the same day that it is installed. Workmen need to ensure that nailing is performed and the building properly braced and temporary braced before the end of the workday.
- xxvii. GC expects that all material erected is securely fastened and braced at the end of each days work and will not tolerate exposures to collapse due to improperly erected, fastened or braced construction.

V. Door, window and hardware installations

- i. This sub is responsible for taking delivery of GC purchased Windows, doors and temporary hardware.
 - 1. Windows will be installed balanced in rough openings so insulation can be easily installed, truly level and truly plumb. The window will be set in a bead of caulk applied at the nailing flange. The window will be tested for operation and function by this sub prior to nailing it permanently in place. The window installation shall consist of an installer/fastener who physically installs the window and an inspector inside of the building checking the operation of the window as well as the balance of the window in the rough opening.

- ii. This subcontractor will install all exterior entrance doors and exterior storage doors and water room.
 - 1. The sub will take delivery of the doors and the disbursement of the doors to the correct addresses.
 - a. The doors will be installed balanced in the rough opening making certain that insulation can be installed at the vertical jams and door head.
 - b. Doors will be installed plumb level and square with the “door to jamb” gap exactly even.
 - c. Once the door has been fitted for the best operation the temporary lockset is to be installed. Once installed and adjusted for perfect operation, the door is to be nailed firmly in place.
 - d. The door is to be shimmed at each hinge location and at similar locations on the strike side.
 - e. The door threshold will rest firmly on the substrate with any gaps taken up with cedar shake shim stock.
 - f. The door will be fastened in place by first mailing the brick mold with #16 galvanized exterior finish nails. After that the doors will be tested for fit and hardware action and then permanently nailed using two #16 finish nails at each shim location and installing three 3” security screws one through each hinge location.
- iii. The sub will install all exterior trim, decks and handrails.
 - 1. All exterior woods, including soffit blocking, brick ladders, rakes and lookouts, columns and column treatments, decks and wood rails, will be installed by this subcontractor. As a general rule, the framing subcontractor will install finish material that must be in place prior to masonry or finish siding installations. Any lumber finishes that attach to finish exterior surfaces are in the framers scope as well.

VI. Cleaning

- i. The framing subcontractor will keep his work area cleaned and totally picked up and free of any debris on a daily basis.
- ii. The exterior of the building will be left clean and free of mud and sawdust deposits. The roof will be swept off and ready for the installation of felt roofing underlayment.
- iii. The interior of the building will be kept free of framing material and supplies and swept on a daily basis so that other trades can commence with work as the building is erected.
- iv. All material that is left over will be moved to the next building all dunnage will be moved to the dumpsters and all pallets and shipping crates will be sent back to the manufacture or demolished and scrapped.

VII. Protection of the Work

- i. Materials not used will be covered at the end of each day to ensure that snow and rain cannot warp lumber, trusses or pre-built wall panels.
- ii.

VIII. Winter Protection

- i. This sub is responsible for all winter conditions pertaining to the erection of its work

IX. Safety

- a. This sub will complete its work as an OSHA compliant employer.
- b. The sub will employ workmen who are OSHA trained and compliant.
- c. The sub will employ a competent person who is formally trained to identify safety issues and who has the authority to make necessary changes.
- d. The sub will attend all weekly safety meetings

X. Value Engineering

- a. Alternate materials and methods should be suggested if time and money savings could be realized. All value engineering should be submitted separately as voluntary alternates