PART 1 GENERAL

1.1 SUMMARY

A. Section includes structural floor, wall, and roof framing; built-up structural beams and columns; wall and roof sheathing; sill gaskets; preservative treatment of wood; fire retardant treatment of wood; miscellaneous framing and sheathing; and concealed wood blocking for support of toilet and bath accessories, wall cabinets, wood trim, and miscellaneous specialties.

B. Section includes infiltration barrier and rough hardware.

C. Related Sections:

3. Section 05500 - Metal Fabrications: Placement of steel fabrications bearing upon and anchored into concrete and masonry.
5. Section 09900 - Painting: Priming.

1.2 REFERENCES

A. American National Standards Institute:

1. ANSI A 135.4 - Basic Hardboard.
2. ANSI A208.1 - Mat-Formed Wood Particle Board.

B. American Wood-Preservers' Association:

1. AWPA C1 - All Timber Products - Preservative Treatment by Pressure Process.
2. AWPA C20 - Structural Lumber - Fire-Retardant Treatment by Pressure Processes.

C. National Institute of Standards and Technology:

1. NIST PS 20 - American Softwood Lumber Standard.

D. Western Wood Products Association:

1. WWPA G-5 - Western Lumber Grading Rules.

E. NFPA - National Forest Products Association: National Design Specification for Wood Construction.

F. APA - American Plywood Association Grading Rules.

1.3 QUALITY ASSURANCE

A. Perform Work in accordance with the following:

1. Lumber Grading Agency: Certified by NIST PS 20.
2. Wood Structural Panel Grading Agency: APA.
3. Comply with requirements of the Uniform Building Code, Oregon revised latest edition.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

A. Grading Rules: WWPA, unless otherwise noted.

B. All structural wood members shall be Coast Region Douglas Fir No, 2 or Better Grade fb as noted in National Design Specifications for Stress Grade Lumber and its fastenings, unless noted otherwise. 19% Maximum moisture content for lumber 2 inches or less nominal thickness.

C. Sills, roof curbs, cants, crickets and lumber in contact with earth, masonry or concrete: No. 2 and better, Douglas Fir, S4S pressure treated.

2.2 SHEET MATERIALS

A. Grade Rules: American Plywood Association (APA).
B. Roof Sheathing: APA Span-Rated Sheathing, Exposure 1, Grade C-D, exterior glue, square edges, unsanded. See structural drawings for span ratings and thicknesses.
C. Wall Sheathing and Miscellaneous Plywood: APA Rated Sheathing, Exposure 1, Grade C-D, exterior glue, square edges, 15/32 inch thick, unless noted otherwise.
D. Medium Density Fiberboard: Weyerhaeuser Fiberwood or equal, thickness noted.
E. computer equipment back board: Grade A-C, 3/4 inch thick.

2.3 INFILTRATION BARRIER

A. Dupont “Tyvek” exterior air infiltration barrier.

2.4 BUILDING PAPER

A. 15 pound asphalt impregnated building paper.

2.5 ROUGH HARDWARE AND ACCESSORIES

A. General: Hot-dipped galvanized steel for exterior, high humidity and treated wood locations; plain finish elsewhere; size and type to suit conditions. Simpson “Strong-Tie” or approved. All butted wood members shall be attached with steel connectors.
B. Nails and Bolts: Size and spacing in accordance with IBC and Reference Standards. Washers shall be used under all bolt heads and nuts bearing on wood. Fasten wood panel shear walls in accordance with drawings.
C. Drywall Screws: Bugle head, hardened steel, power driven type, length to achieve full penetration of sheathing substrate.
D. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolt or ballistic fastener for anchorages to steel. J bolt/ Epoxy bolt approved.
E. Screening: Galvanized 20 ga. mesh, openings not to exceed 1/16 inch.
F. Adhesive: Franklin Titebond II or approved. APA specifications AFG-1.

2.6 SILL GASKET

A. 1/4 inch thick plate-width polyethylene foam strip from continuous rolls.

2.7 WOOD PRESERVATIVE

A. Wood Preservative (Pressure Treatment): AWPA Treatment C1 using water borne preservative with 0.25 percent retainage.
B. Wood Preservative (Surface Application): Colored, 5% pentachlorophenol type.

PART 3 EXECUTION

3.1 FRAMING

A. Set structural members level and plumb, in correct position.
B. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in alignment until completion of erection and installation of permanent bracing.
C. Place horizontal members, crown side up.
D. Stud spacing 16" o.c. unless otherwise noted.
E. Construct load bearing framing members full length without splices.
F. Double members at openings over 16 inches wide. Space short studs over and under

opening to stud spacing.

G. Construct double joist headers at floor and ceiling openings and under wall stud partitions parallel to floor joists. Frame rigidly into joists.

H. Bridge framing in excess of 8 feet span at mid-span. Fit solid blocking at ends of members.

I. Place full width continuous sill flashings under framed walls on cementitious foundations. Lap flashing joint 4 inches.

J. Place sill gasket directly on cementitious foundation. Puncture gasket clean and fit tight to protruding foundation anchor bolts.

K. Coordinate installation of glue laminated structural units, prefabricated wood trusses and wood “I” joists.

L. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.

M. Coordinate curb installation with installation of decking and support of deck openings.

N. Cap plates doubled with lapped intersections staggered minimum of 48 inches. Overlap at corners and run to provide continuous tie.

O. Reinforce framing members as directed where passage through framing members is permitted.

P. Provide blocking between members at all supports and at edges of openings for sheathing and finishes support.

Q. Provide fire stops and blocking in walls for nailing of sheathing. Maximum spacing 10'-0" o.c. and at floor planes for walls clad both sides.

R. Provide solid blocking in stud walls for anchorage of wall-hung items, including, but not limited to casework, hardware, toilet accessories, Owner-furnished items noted, specialties, door stops, and mechanical and electrical items.

S. Stud Height: Unless supported laterally, the maximum height of studs follows for non-bearing walls only:

Size	Height (Max.)
2x4	14'-0" Interior, 8’-0” Exterior
2x6	20'-0" Interior, 14’-0” Exterior

T. Wood suspended gypsum board ceilings to be minimum 2"x6" joists 24 inches o.c. supported by 2x4 hangars 6'-0" o.c. maximum and continuous ledger at walls.

U. Install telephone and electrical panel back boards with plywood sheathing material where required. Size back boards 12 inches beyond size of electrical panels.

3.2 SHEATHING

A.

B. Attach plywood back board to gypsum board partition with 2 inch type 'S' Bugle Head screws to metal framing at 12" oc.

C. Secure roof sheathing perpendicular to framing members with ends staggered. Secure sheet edges over firm bearing. Provide solid edge blocking. Sheathing clips where noted.

D. Place air-infiltration barrier over wall sheathing; weather lap joints.

E. Install roof plywood in two span continuous pattern; half lap wall and roof sheathing. Install with end and side spaces recommended by APA.

F. Note plywood shear walls. Nail in accordance with schedule on Drawings and IBC requirements. Do not overdrive nails. Panels with overdriven nails shall be removed and re-nailed.

G. Install floor, seating and stair plywood with gun grade adhesive and ring-shank nails or screws.

3.3 TOLERANCES

A. Framing Members: 1/4 inch maximum from true position.

B. Surface Flatness of Floor: 1/4 inch in 10 feet maximum.

3.4 AIR INFILTRATION BARRIERS

A. General:

Install barriers with minimum 4 inch laps, securely stapled.
Install barriers shingle lapped, to shed water unless noted as single sheet.
Fit tight around all penetrations and tape.
Patch all tears as directed. Repair punctures with duct tape.

B. Air Infiltration Barrier:

1. Install over sheathing at all exterior wood framed walls, stapled.

END OF SECTION