00100 INSTRUCTIONS TO BIDDERS: Each bidder shall visit the site of the proposed work and fully acquaint himself with the conditions as they exist in order that the restrictions attending the work are understood. All areas and dimensions are indicated on the drawings as accurately as possible, but all conditions shall be verified by each Contractor and/or Subcontractor at the site. The failure of any bidder to examine or receive any form, instrument, or document or to visit the site shall not relieve the bidder from any obligation with respect to his bid. The submission of a bid shall acknowledge that the Contractor and his condition and his provisions for operating under the conditions as they exist at the site and has include all necessary items.

00200 PROJECT DATA: Use Group: R-5

Construction Classification: 5B

Structural Data: Loads indicated are in pounds per square foot and were used to design structural members. Second Floor/Live Load: 30

First Floor/Live Load: 40 Dead Load: 20 Dead Load: 20 Total Load: 50 Total Load: 60

Roof Load/Snow Load: 30 Attic Floor/Live Load: 20 Dead Load: 20 Dead Load: 10 Total Load: 50 Total Load: 30

Soil Bearing Capacity: 3,000 p.s.f. Design Load

The Owner reserves the right to reject any or all bids received and to award the contract without respect to the bid

### SPECIFICATION SECTIONS

**DIVISION 1 - GENERAL REQUIREMENTS** 

01010 SUMMARY OF WORK: The work shall include the construction of one single family dwelling.

Contractor shall field verify all dimensions prior to the beginning of construction.

The Owner may have work performed under separate contracts, concurrently, with the work of this contract, i.e.: swimming pools, fences, landscaping, etc.

## 01018 OWNER FURNISHED ITEMS:

The following items will be supplied by the Owner shall be installed by the contractor. Electrical fixtures, ceiling fans, appliances. Installation shall include providing the necessary wiring, piping, fasteners, supports, etc.

These contract documents were prepared in accordance with the International Building Code. The Contactor shall conform to this and other applicable local, county, state and federal codes, law and requirements.

# The Contractor shall apply and pay for construction permit, certificate of occupancy and all other required permits

or licenses. Contactor is responsible for obtaining all inspections pursuant to the International Building Code. 01090 DEFINITIONS AND STANDARDS:

The term "provide" means furnish and install, complete and ready for intended use as applicable in each instance. The term "Architect" shall mean Brian Berzinskis, Architect.

# 01500 TEMPORARY FACILTIES:

Temporary water, power and sanitary facilities shall be made available on the site and use shall be coordinated with

## 01700 PROJECT CLOSEOUT:

Remove all debris from site, clean windows, floors and other exposed surfaces and remove labels. "Clean" is defined to mean that which is expected for a first class building cleaning and maintenance program. Provide Owner with Certificate of Occupancy and general operating/maintenance instruction for all installed equipment.

## 01740 WARRANTIES AND BONDS:

The Contractor shall guarantee all labor and materials used in the project for a period of one year commencing from the date of issuance of Certificate of Substantial Completion or the Owner's final payment for construction. Any deficiencies that become evident during this one year period shall be corrected at the Contractor's expense. HOME OWNER WARRANTY: At the time of closing, the Contractor shall provide the Owner anew home warranty and applicable documents in accordance with the International Building Code.

### DIVISION 2 - SITEWORK SITE CLEARING:

cades and other projections to preserve existing items to remain and prevent injury to vegetation and improvements as indicated or which interfere with new construction. Restore disturbed areas to condition prior to commencing construction and to match adjacent areas where indicated; including new topsoil,

## 02110 SITE CLEARING:

Strip and stockpile topsoil for late distribution when fine grading is done. Spread soil, hand grade and seed lawn. Excess materials shall be distributed in such a way so as to provide smooth transition to undisturbed grade. Slope grades as indicated on drawings.

# Bottom of exterior footing shall be minimum of 3'0" below finished grade for frost protection. Maximum slope

FROST AND SLOPE PROTECTION:

between the bottom of adjacent footings shall be one vertical to two horizontal. 02050 SHORING AND BRACING: Contractor shall fully brace and otherwise protect all work in progress until building is completed. Provide all

### necessary guying work and bracing to erect and hold the building frame in alignment until all walls, floors and roof deck are installed.

0200 EARTHWORK: Excavate as required to install footings and to maintain finished floor elevation. Backfill with clean soil, free grade away from building. Compact soil in areas to receive concrete floors or slab to 95%.

Engage a professional pest control operator. Treat soil with an approved chemical and provide a five year

## 02514 PORTLAND CEMENT CONCRETE PAVING:

Concrete sidewalks, ramps and slabs to be minimum 3,000 psi. Concrete curbing to be minimum 4,000 psi. Provide weld wire mesh (ASTM A-185) in all walks, ramps and slabs. Provide expansion joists at intervals not to exceed

### **DIVISION 3 - CONCRETE** 03310 CONCRETE WORK:

Provide reinforcing bars conforming to ASTM A-615. Grade 60(new billet steel) and welded wire mesh conforming to ASTM A-185 of sizes indicated on drawings. Bars marked continuous shall be lapped 40 times the bar diameter at splices and corners and hooked at non-continuous bottom bar at supports. Provide supports for reinforcement, including chairs, bolsters, spacers, etc. as required or indicated on drawings.

All footing and slabs shall be minimum 3,500 psi or as indicated on drawings. Cement content shall be minimum of 5.75 bags per cubic yard. Trowel finish all exposed to view surfaces to be covered with resilient flooring or carpet. Concrete exposed to weather shall be air entrained. Slump shall be four inches. All work, mising and testing shall be in accordance with ACI Code 318-77. Placement of concrete in cold weather shall conform to ACI 306-72 and placement of concrete in hot weather shall conform to ACI 305-77. The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or towards the main vehicle entry doorway.

Elastometric sealant shall be 1-component silicone or 1-component polyurethane sealant conforming to FSIT-S00230 Class A. Provide closed cell sealant backer rod. Submit product data. Provide foam-in-place fire-stop sealant as manufactured by Insta Foam Products Inc. as approved equal.

### DIVISION 4 - MASONRY 04200 UNIT MASONRY:

Provide face brick conforming to ASTM C 27216, Grade SW, Type FBS. Grade MW may be substituted for interior use and for exterior use where not in contact with earth. Color and texture as selected by Owner. Mortar for brick masonry shall conform to ASTM C 270, Type M or S: mortar color as selected by owner. Provide 22 gauge galvanized corrugated steel anchors for attachment to wood substrates, spacing not to exceed 12" on center vertically or 32" on center horizontally.

## CONTINUOUS DAMPROOFING:

On all exterior above and below grade unit masonry surface provide and install a two coat cementitious plaster finish, Finished surface shall be a trowel finish, total thickness of 3/4", color as selected by owner. Install cove at intersection of foundation wall footing.

### DIVISION 5 -- METALS 05000 METALS:

Contractor shall provide all necessary labor, materials and equipment to erect all miscellaneous iron and steel as detailed or noted on these drawings. All structural steel shall be detailed and fabricated in accordance with the latest edition of the AISC Manual of Steel Construction. Use standard framed beams unless otherwise noted. Structural steel shall conform to ASTM A-36 and ASTM A-572 except pipe columns, which shall conform to ASTM A-53. Metal j mold trim, beam caps and foundation caps to be 22 gauge galvanized metal by local craftsmen. Carpenter's iron work consists of bolts, plates, anchors, hangers, columns, dowels, etc. required for framing. Anchor bolts shall be 1/2" diameter galvanized at 6'0" on center maximum. Minimum tow two per sill. Conform to ASTM A-307

### DIVISION 6 - CARPENTRY Contractor shall provide all labor, materials and equipment to frame up, sheath and trim out

building as shown or specified in these documents. Framing lumber shall be kiln-dried Douglas Fir 75/25 Construction Std. Fb=825 PSI Fv=95 psi E=1,600,000 PSI TJI joists, parallams and microllams shall be manufactured by Weyerhaeuser Trus Joist. Exterior wolmanized framing lumber shall be Southern Pine #2 or better. All framing

shall be pressure treated. R317.1.3 Geographical areas. In geographical areas where experience has demonstrated a specific need, approved naturally durable or pressure-preservativetreated wood shall be used for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances when those members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members. Depending on local

connections to be 'SIMPSON STRONG-TIE' or equal. All wood resting on masonry or concrete

experience, such members may include: 1. Horizontal members such as girders, joists and decking.

2. Vertical members such as posts, poles and columns. 3. Both horizontal and vertical members.

All structural designs are done with Trus Joist Softwhere. Where the verbage "pieces" is used this refers to the number of plies.

### Headers (unless otherwise noted): 3 foot span (3) 2 x 8 or (2) 2 x 8

4 foot span (3) 2 x 10 or (2) 2 x 12

6 foot span (3) 2 x 12 or 3-1/2" x 9-1/4" PSL

Provide solid bridging under all parallel partitions. Double joists under all parallel partitions.

## Underlayment: APA Sub-Floor 3/4" T&G Plywood Glued & Nailed

Roof: 5/8" CDX 32/16 Plywood Wall: 1/2" CDX 32/16 Plywood

### Soffits: Perforated Vinyl Soffit or Vented Bead Board Exterior Siding: As noted or scheduled on documents. Nailing to be done in accordance to the International Building Code.

### DIVISION 7 - THERMAL AND MOISTURE PROTECTION 07175 WATER REPELLANT:

Provide solvent-based silicone sealer to all exposed masonry. Provide 3.0% concentration of polymerized silicone resins in solvent as recommended by the manufacturer for specific substrates

Provide 4mil carbonated poltethylene film rated at 0.1 perms.

VAPOR BARRIER:

Provide mineral fiber blanket insulation with 1.0 lb. Density, D=0.27 thickness/R-Value as indicated on drawings conforming to FSHH-1-5211.

### 07311 ROOFING SHINGLES: Provide min. 325lb Class A U.L. wind resistant asphalt fiberglass shingles complying with ASTM

07600 FLASHING AND SHEET METAL: Provide aluminum sheet 0.032" thick C22A41 clear anodized finish or copper sheet 0.0216" thick

# ASTM B370 temper H00 (cold-rolled) except where temper 060 is required for forming.

**GUTTERS AND DOWNSPOUTS:** Provide aluminum sheet (0.032" thick) fabricated to the sizes down on the drawing. Provide

# concrete splash blocks at all leaders. Color as selected by owner.

**DIVISION 8 - DOORS AND WINDOWS** 08100 FLUSH WOOD DOORS: Doors and hardware as selected by owner. Any glass components of doors and adjacent side

windows are to be tempered safety glass. Garage door entering to living area to be 1-3/4" thick solid core L label. Where indicated on drawings provide doors with the appropriate U.L. fire resistant rating. Openings from a private garage and residence shall be equipped with solid wood doors not less than 1-3/8 inches in thickness, solid or honeycomb core steel doors not less than 1-3/8 inches thick, or 20-minute fire-rated doors. Submit product data to Owner for approval.

### 08200 EXTERIOR WOOD DOORS:

Exterior wood doors shall be 1 3/4" solid fiberglass core pre-hung thermal doors. Glasslites shall be ½" tempered insulated glass.

Provide PVC clad wood windows of sizes and types indicated on drawings and as manufactured by Andersen. Windows shall be pre-glazed with clear insulating glass. Provide insect screens for all operating sash. Provide corrosion resistant hardware on all windows. Install complete with

Windows in sleeping rooms comply with the means of egress requirements of the International Building Code. Refer to drawings for specific locations and sizes.

## 08800 GLASS AND GLAZING:

Provide 1/2" standard taper gypsum board complying with 16 CFR 1201 in locations indicated on drawings. Provide 1/4" quality G11 polished wire glass in locations indicated on drawings. Refer to other sections for glazing included as part of that section.

**DIVISION 9 - FINISHES** 09250 GYPSUM DRYWALL:

Provide 1/2" standard taper gypsum board complying with ASTM C36 unless otherwise indicated. Provide Type "X" where indicated and where required in fire resistance assemblies. Screw and glue drywall to wall and ceiling systems. Provide water resistant gypsum board (ASTM C 630) in toilet rooms and wonder board in wet areas. Provide manufacturer's standard metal trim accessories of the bead type. Provide ready-mixed vinyl joint compound and perforated joint tape. Install compound in three coats. Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with 1/2 inch gypsum board.

## **DIVISION 16 - ELECTRICAL**

Provide smoke detectors using an AC primary source as power supply per IRC code. Smoke detectors shall be interconnected. Provide battery backup. Electrical layout is diagrammatic in nature and may require additional items to meet code, which shall be provided by Contractor. All work to be performed in strict accordance with National Electric Code. Complete specifications to be supplied by others. Furnish and install all wiring boxes, wiring devices, outlet boxes, fittings, panels, breakers, safety disconnects, plates switches and all items necessary for a complete installation. Circuit panel box is at suggested locations only. This location may vary in accordance with power utility requirements. Connect ground lug to rebar in footing below circuit breaker

Smoke detectors/carbon monoxide detectors are to be located in all sleeping areas and on each floor level. In addition, they are to be hard-wired w/ battery backup, interconnected and alarmed.

International Residential Code using the ultimate design wind speed of 125 miles per hour.

# Buildings and portions thereof shall be constructed in accordance with the wind provisions of the

PROTECTION OF OPENINGS Wood structural panels with a minimum thickness of 7/16 inch and a maximum span of 8 feet shall be permitted for opening protection. Panels shall be precut and attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled

## PROTECTION OF ADJACENT PROPERTIES

Where any conditions of Section 5-23:-2.15(f)1.i.(1) are met, a plan shall be submitted to the construction official detailing the matter in which the adjoining property will be protected. The construction official is authorized to utilize special technical services as per NJAC 5:23-2.19. No permit shall be issued until such plans have been filed.

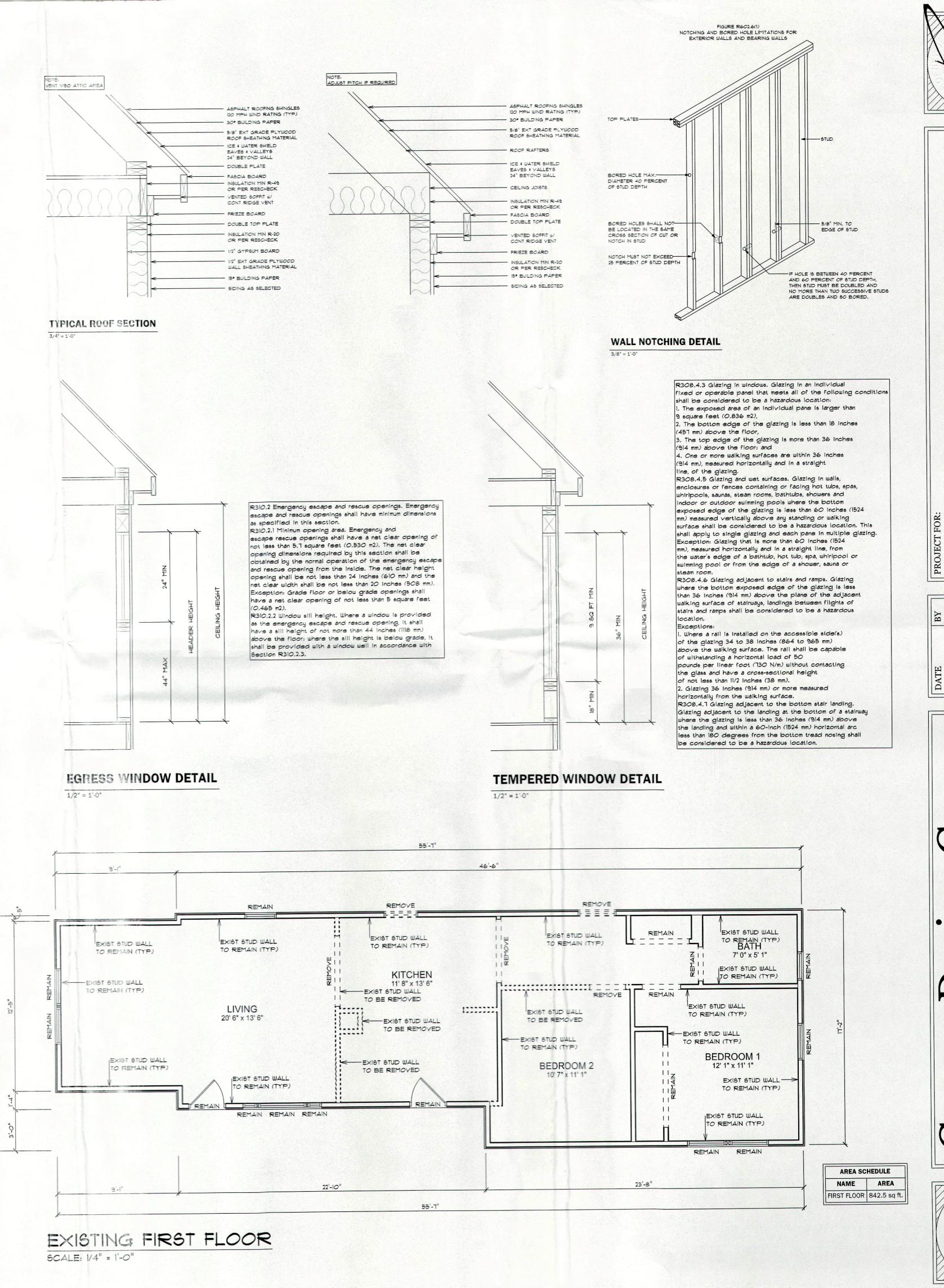
as required for the anchorage method and shall be secured with the attachment hardwre provided.

## FLOOD-RESISTANT CONSTRUCTION

Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) shall be designed and constructed in accordance with the provisions contained in this section. The lowest floor shall be the floor of the lowest enclosed area, including basement, but excluding any unfinished flood-resistant enclosure that is useable soley for vehicle parking, building access or limited storage. Electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall be located at or above the elevation required. Systems, fixtures, and equipment and components shall not be mounted on or penetrate through walls intended to break away under flood loads. New water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems. New sanitary systems shall be designed to minimize or eliminate infiltration of floodwaters into systems and discharges from s ystems into floodwaters. Building materials used below the elevation required shall comply with the following: All wood, including floor sheathing, shall be pressure-preservative-treated.

### APPLICABLE CODES International Building Code/2018 International Residential Code/2018 National Electric Code/2017 National Standard Plumbing Code/2018

Wood Frame Construction Manual/2001



H2.5A HURRICANE TIE @ 16" OC

SIMPSON STRONG-TIE NOT TO SCALE

PROPOSED ROOF FRAMING - CEILING

SCALE: 3/16" = 1'-0"

NO. 4 TYPE SPACING

16"o.c.

24"0.c.

24"o.c.

16"o.c.

16"o.c.

16"o.c.

24"o.c.

3-8d 2-8d

2-16d

16d

2-16d

3-8d 2-16d

lod

3-16d

8-16d

3-8d

2-10d

16d

160

3-8d

4-8d

3-10d

3-10d

2-16d

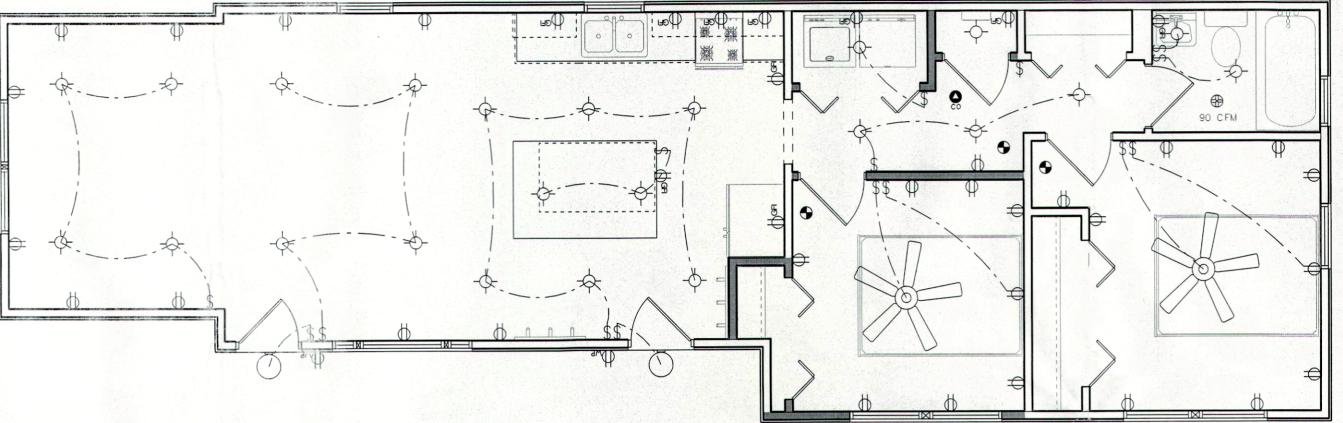
10d

lod

4-16d 3-16d

3-8d

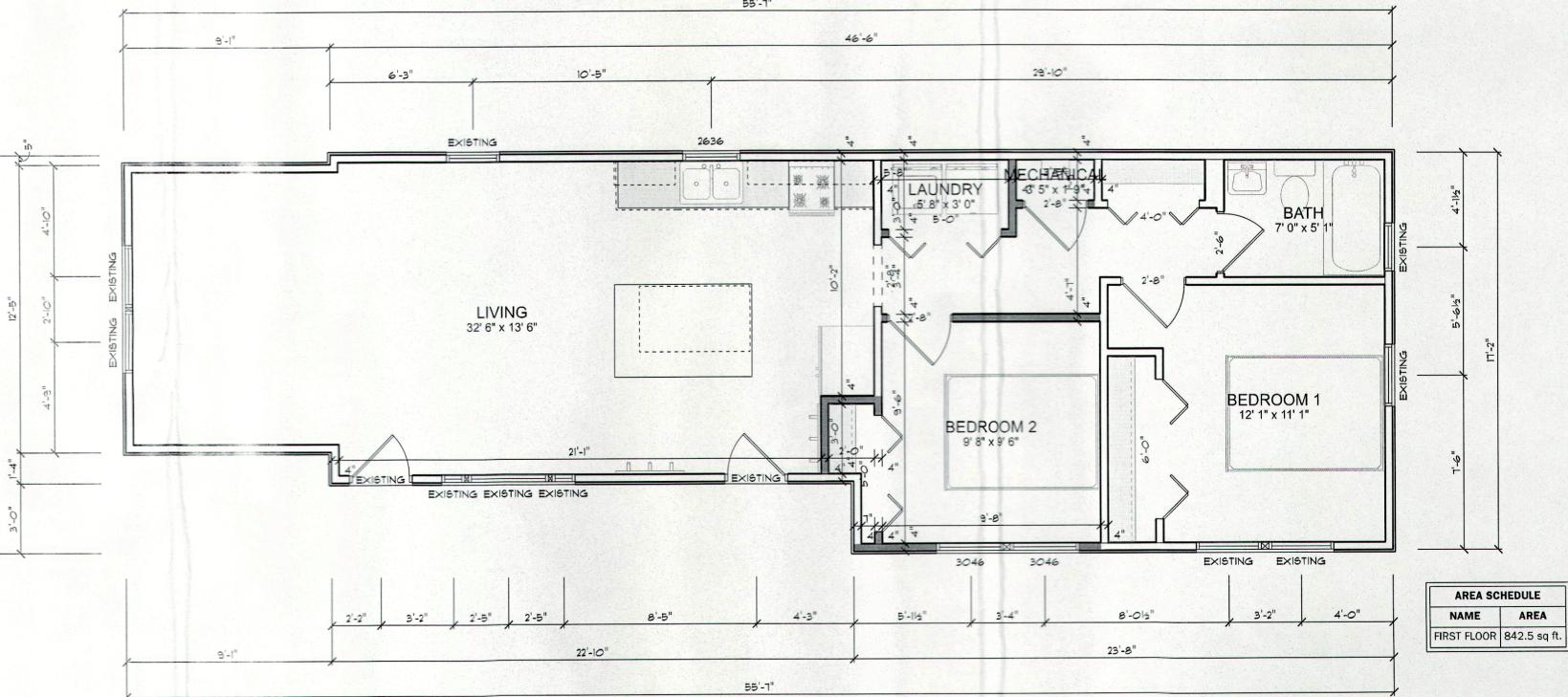
10d



ELECTRICAL LEGEND				
ELECTRICAL	COUNT	SYMBOL		
ceiling fan 5 bladed 01	2			
exterior light 01	2	Q		
co detector	1	0		
fan 90 CFM	1	<b>⊕</b> 90 CFM		
light	23	<b>-</b>		
outlet	28	Ф		
outlet gfi	10	∯GF1		
outlet wp	2	Øwp.		
smoke detector	3	•		
switch	15	\$		

PROPOSED FIRST FLOOR - ELECTRICAL SCALE: 1/4" = 1'-0"

> ROOM FINISH SCHEDULE ROOM NAME | FLOORING | CEILING FINISH | CEILING MATERIAL | WALLCOVERING | AREA 35.1 sq ft. 112.8 sq ft. BEDROOM 1 Hardwood Flat BEDROOM 2 Hardwood Flat 91.0 sq ft. LAUNDRY Tile w/ Drain Flat 16.6 sq ft. 5.8 sq ft. MECHANICAL | Tile w/ Drain | Flat Paint 413.2 sq ft. Paint Hardwood Flat



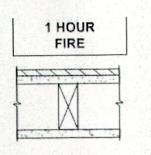
PROPOSED FIRST FLOOR SCALE: 1/4" = 1'-0"

FIGURE R602.3(2) FRAMING DETAILS -STAGGER JOINTS 24 IN. OR SINGLE OR DOUBLE-CUT PLATE TIED WITH 16 GAGE STEEL STRAP: USE SPLICE PLATES- SEE SECTION R602.3.2 SEE SECTION R602.6. AROUND PIPE --- JACK STUDS ---OR TRIMMERS - SOLID BLOCKING FLOOR JOISTS FOUNDATION CRIPPLE WALL- SEE SECTION R602.9 FOUNDATION STUDS ANCHOR BOLTS EMBEDDED IN FOUNDATION 6 FEET O.C. MAX. -1 IN. BY 4 IN.

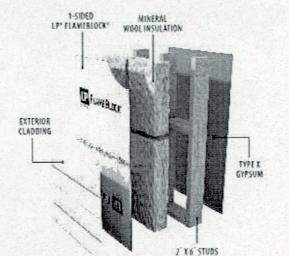
APPLY APPROVED SHEATHING OR BRACE EXTERIOR WALLS WITH 1 IN, BY 4 IN, BRACES LET INTO STUDS AND PLATES AND EXTENDING FROM BOTTOM PLATE TO TOP PLATE, OR OTHER APPROVED METAL STRAP DEVICES INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. SEE SECTION R602.10

WALL & HEADER FRAMING 3/8" = 1'-0"

GENERIC GA FILE NO. WP 8105 GYPSUM WALLBOARD, GYPSUM SHEATHING, WOOD STUDS EXTERIOR SIDE: One layer 48" wide 5/6" type X gypsum sheathing applied parallel to 2 x 4 wood studs 24" o.c. with 13/4" galvanized roofing nails 4" o.c. at vertical joints and 7" o.c. at intermediate studs and top and bottom plates. Joints of gypsum sheathing may be left untreated. Exterior cladding to be attached through sheathing to studs. INTERIOR SIDE: One layer 5/6" type X gypsum wallboard, water-resistant gypsum backing board, or gypsum veneer base applied parallel or at right angles to studs with 6d coated nails, 17/8" long, 0.0915" shank, 1/4" heads, 7" o.c. (LOAD-BEARING)



Varies Thickness: Approx. Weight: 7 psf Fire Test: (UL R3501-47, -48, 9-17-65, UL Design U309; UL R1319-129, 7-22-70, UL Design U314)



### EXTERIOR LOAD-BEARING WALL -INTERTEK LISTING LPB/WPPS-60-01

(T HOUR WALL; FIRE RATED FROM BOTH SIDES) Reduces dead load and wall thickness versus common alternatives Reduces labor costs and construction time\* Provides better substrate for securely fastening exterior facing Allows a wide range of code-compliant exterior facings

## FIRE RATED PROPERTY LINE OPTIONS

1/8" = 1'-0"

SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL TOP OR SOLE PLATE TO STUD, END NAIL STUD TO SOLE PLATE, FACE NAIL DOUBLE STUDS, FACE NAIL DOUBLE TOP PLATES, FACE NAIL SOLE PLATE TO JOIST OR BLOCKING AT BRACING WALL PANELS DOUBLE TOP PLATES, MIN 24" OFFSET OF END JOISTS, FACE NAIL IN LAPPED AREA BLOCKING BETWEEN JOISTS ORRAFTERS TO TOP PLATE, TOE NAIL RIM JOISTS TO TOP PLATE, TOE NAIL TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL BUILT-UP HEADER, TWO PIECES WITH 1/2" SPACER CONTINUED HEADER, TWO PIECES CEILING JOISTS TO PLATE, TOE NAIL CONTINUOUS HEADER TO STUD, TOE NAIL CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL RAFTER TO PLATE, TOE NAIL BUILT-UP GIRDER AND BEAMS, 2-INCH LUMBER LAYOUT BUILT-UP CORNER STUDS ROOF RAFTER TO RIDGE, VALLEY OR HIP RAFTERS: DIAGONAL BRACE LET INTO STUDS FACE NAIL RAFTER TIE TO RAFTERS, FACE CORNER AND PARTITION POSTS NAIL EACH LAYER AS FOLLOWS: 32" O.C. AT TOP AND BOTTOM AND STAGGERED. NOTE: A THIRD STUD AND/OR PARTITION INTERSECTION THROUGH THE USE OF WOOD BACKUP CLEATS, METAL DRYWALL CLIPS OR OTHER APPROVED DEVICES THAT WILL SERVE AS ADEQUATE BACKING FOR THE FACING

BUILDING MATERIAL	DESCRIPTION OF FASTENER	FASTENERS EDGE	FASTENERS FIELD
WOOD STRUCTURAL PANEL	S SUBFLOOR, ROOF AND WALL SHEATHIN	IG TO FRAMING	
5/16 - 1/2	6d COMMON NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6"	12"
19/32 - 1	8d COMMON NAIL	6"	12"

FASTENER SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS

I X 6 SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL " SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL

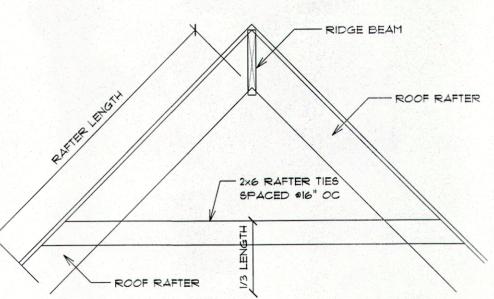
JOISTS TO SILL OR GIRDER, TOE NAIL

## GENERAL NOTES:

1.) ALL NAILS ARE SMOOTH - COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED.

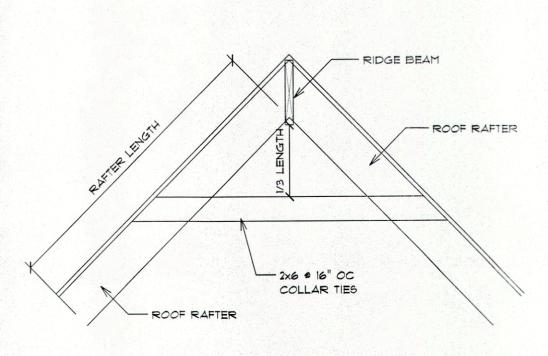
2.) 8d DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITH MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS.

3.) NAILS FOR ATTACHING PANEL ROOF SHEATHIGN TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES, AND GABLE END WALLS; AND 4 INCHES ON CENTER FOR MINIMUM ASSISTED TO LARGE PROFIT RIDGES, EAVES, AND GABLE END WALLS: AND 4 MORES ON CENTER TO GABLE END WALL FRAMING. 4.) ALL RAFTER TO PLATE CONNECTIONS TO BE REINFORCED WITH "SIMPSON" HURRICANE TIE NO. H2.5 OR EQUAL.



RAFTER TIE DETAIL

1/2" = 1'-0"



**COLLAR TIE DETAIL** 1/2" = 1'-0"