



PERMIT SUBMITTAL REQUIREMENTS FOR New Single Family Residence

PERMITTING & DEVELOPMENT
BUILDING
DIVISION
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The purpose of this handout is to assist the public in complying with the detailed permit submittal requirements. It is not a complete list of permit or code requirements and should not be used as a substitute for applicable laws and regulations. It is the responsibility of the owner/design professional to review the submittal for completeness. Only complete applications will be accepted by the city for review.

CODES: Current Edition Adopted

- International Building (IBC)
- Residential Codes (IRC)
- Uniform Plumbing Code
- Washington State Energy Code (WSEC)
- WSDOT Standard Specifications
- Edmonds Community Development Code (ECDC)

BUILDING PERMIT FEES:

- Building Permit Fees Based on Square Footage
- Inspection Fees Per Fee Schedule

OTHER PERMITS/FEES THAT MAY APPLY:

- Plumbing Permit
- Right-of-Way Construction Permit
- Side Sewer Permit
- Water Meter and Installation Fees
- Park and Transportation Impact Fees
- General Facility Charges – Water, Sewer & Storm
- Fire Sprinkler Permit

SUBMITTAL REQUIREMENTS:

1) CRITICAL AREAS CHECKLIST

A Critical Areas Determination, issued by the Planning Division, must be completed and on file with the City. Provide applicable information as indicated by the decision.

2) SOILS INVESTIGATION AND/OR REPORT

The International Residential Code (IRC) requires the classification of soil and design bearing capacity to be determined and called out on the plans. This classification is based on observation and tests of the soil materials disclosed by borings or excavations on the building site. Soils reports by a geotechnical engineer are required when soils at the site are not adaptable to conventional spread footings, when overall site slopes exceed 15%, or when required by the Building Official.

The recommendations within the report shall be incorporated into the foundation design. They shall conform to the requirements of IRC Chapter R403.

ESLHA: Lots located in the designated Earth Subsidence and Landslide Hazard Area are subject to additional development requirements of ECDC Section 19.10.

When soils reports are required, they shall include the following:

- A site plan showing the location of test borings and/or excavations.
- A complete record of the soil samples.
- A record of the soils profile.
- Elevation of the water table, if encountered.
- Recommendations for foundation type and design criteria, including but not limited to: bearing capacity of natural or compacted soil; provisions to mitigate the effects of expansive soils; mitigation of the effects of liquefaction, differential settlement and carrying soil strength, the effects of adjacent loads, and foundation drainage.
- Expected total and differential settlement.
- Pile and pier foundation information in accordance with IBC Chapter 18.
- Special design and construction provisions for footings or foundations founded on expansive soils, as necessary.
- Compacted fill material properties and testing in accordance with IBC Chapter 18.
- See ECDC 18.30 and Stormwater Addendum Checklist #4 for additional infiltration testing requirements.

NOTE: Report recommendations shall be incorporated into the foundation design.

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THE SITE PLAN SCALE 1"=20':

SITE PLAN *(It is the applicant's responsibility to submit a true and accurate site plan containing the following information)*

- Property owner's name and street address.
- North arrow designation and property line dimensions.
- Existing and proposed easements and street right-of-way dedications.
- Adjacent City right-of-way (developed or undeveloped) clearly show existing and proposed hard surface areas, including edge of pavement for street or alley. Streets, approaches, driveways, sidewalks, alleys, easements (public and private), paved areas, street dedications and adjacent City right-of-way (developed or undeveloped).
- Sewer manhole location, sewer stub location, proposed sewer lines and cleanouts, water meter location, water service line, gas, cable and phone lines, fire hydrants, telephone poles, utility transformers, etc.
- Existing critical areas including physical features and water courses of any size (i.e., streams, creeks, ponds, ditches, etc.). Show any proposed critical area buffers and setbacks.
- Dimension all buildings and structures (label existing and/or proposed).
Indicate setback distances from property lines and access easements, call out lot area and structural lot coverage. Structural lot coverage includes the total ground coverage of all buildings or structures on a site measured from the outside of external walls or supporting members or from a point 2.5 feet in from the outside edge of a cantilevered roof, whichever covers the greatest area. Provide a square footage for each structure as well as coverage as a percentage of total lot area.
- Include accessory structures and projections, decks, porches, hot tubs/pools, cantilevered structures, bay windows, chimneys, eave lines, breezeways, patios, sheds, fences, etc.
- Retaining wall location with typical section detail.
- Rockery location. Rockeries and retaining walls may be no taller than three (3) feet above original grade when located within a required setback area. Refer to ECDC 18.40.020 for rockery prohibitions.
- Datum point and building height calculations.
- Elevation grades at the property corners.
Topographic grades to be shown at two (2) foot

intervals across the lot. Indicate lot slope and driveway slope.

- Designated flood plain sites must provide basement, first floor elevations and the lowest proposed elevation of the footing, foundation wall, and finished floor stamped by a licensed land surveyor, based on base flood elevation.
- Type and diameter-at-breast-height of existing trees, labeled 'to be retained' and 'to be removed', with description of how retained trees will be protected.
- Height Calculations *(See attachments A & E)*
 - Height rectangle. Stake out the smallest rectangle that encompasses all four corners of the proposed building at original, undisturbed soil grade. Include decks when covered by a roof and projections such as bay windows. Chimneys and eaves are exempt if they project no more than 30 inches. Note, detached structures must have separate height calculations.
 - Select a datum point to establish a starting point to compute height calculations. The datum point must be a permanent point of reference and be located off site (i.e. top of a manhole cover, fire hydrant, or street monument). Reference the datum point at elevation +100 (or the actual surveyed elevation, if available).
 - Calculate the elevation at each corner of the height rectangle relative to the datum point mark of +100 (or the actual surveyed elevation, if available). Values may be higher or lower than that of the datum point.
 - Add the four corner elevations and average - this figure is the average grade.
 - Add 25 feet to the average grade for a single family residence. This figure is the maximum height allowed at the proposed project location.
 - On the plot plan show the elevations at each corner of the height rectangle, the datum point grade, as well as the lines of average grade, proposed building height, and maximum allowed height.
 - Height field verification shall be done by the applicant's agent/contractor and verified by the building inspector. The agent/contractor shall set up the equipment; establish the datum point and the point of average grade. These items must be consistent with the approved plan.

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SURVEY MAY BE REQUIRED TO CHECK HEIGHT:

If the proposed height of a building (as shown on the plans) is within 12 inches of the maximum height permitted for the zone an elevation survey is required. An elevation survey consists of three components, to be conducted by a licensed surveyor.

- Prior to construction the surveyor shall establish average grade as specified in ECDC 21.105.010, and shall establish a reference datum point that will be undisturbed and can be freely accessed.
- The surveyor shall locate the elevation of the first floor prior to the City under-floor inspection.
- A final letter of height confirmation shall be provided prior to framing inspection.

CONSTRUCTION PLAN SHEETS - SCALE 1"=20':

SUBDIVISION OR SHORT PLAT REQUIREMENTS

When applicable, provide all information and/or details as required by the recorded plat or subdivision.

For example:

- Tree retention and/or landscaping plan.
- Driveway turnaround.
- Existing and proposed utility / access easements, street dedications, sidewalk improvements, etc.
- Utility stub locations with rim & invert elevations.

STORMWATER PLAN *(Refer to ECDC Chapter 18.30, Stormwater Addendum, and associated Appendices)*

- Drainage Report including:
 - Investigation & description of downstream drainage system.
 - Existing and proposed land coverage areas (in square feet).
 - Narrative of BMP selection process noting specific infeasibility criteria from Stormwater Addendum Appendix A.
 - Calculation for sizing all proposed BMPs.
 - Addendum Checklists as noted below.
 - Copy of the Geotechnical report.
 - Maintenance information/details for all proposed stormwater facilities.
- Addendum Checklists:
 - #1: Category 1 Stormwater Site Plans (2000sf or greater hard surface); OR
 - #2: Category 2 Stormwater Site Plans (5000sf or greater hard surface)
- Drainage Site Plan

- Existing and proposed land coverage areas (in square feet).
- Existing and proposed stormwater management system(s).
- Existing and proposed pipe – diameter, length and material.
- Existing and proposed storm structures with rim and invert elevations for all pipe connections.
- Points of connection to all structures and hard surfaces with inverts to storm system(s).

EROSION AND SEDIMENT CONTROL PLAN

- Protection of Low Impact Development BMP's.
- Protection of trees to be preserved.
- Rock construction entrance, silt fence, catch basin protection, etc. Refer to City standard details and Stormwater Addendum.

TREE PROTECTION & RETENTION PLAN

- A tree inventory containing the following information:
 - A number system of all existing significant trees on the subject property (with corresponding tags on trees);
 - Size (DBH) and estimated tree crown diameter;
 - Proposed tree status (trees to be removed or retained);
 - Brief general health or condition rating of trees (i.e., poor, fair, good, excellent, etc.);
 - Tree type or species.
- A site plan depicting the following information:
 - Location of all proposed improvements, including building footprint, access, utilities, applicable setbacks, critical areas, buffers, and required landscaped areas clearly identified. If a short subdivision or subdivision is being proposed and the location of all proposed improvements has not yet been established, a phased tree retention and protection plan review is required as described in subsection (3)(a) of this section;
 - Accurate location of significant trees on the subject property and adjacent properties where the canopy and/or critical root zone of adjacent significant trees extend onto the subject property (surveyed locations may be required);

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- Trees labeled corresponding to the tree inventory numbering system;
 - Location of tree protection measures;
 - Indicate limits of disturbance drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities;
 - Proposed tree status (trees to be removed or retained) noted by an "X" or by ghosting out;
 - Proposed locations of any required replacement trees as outlined in ECDC 23.10.080 and trees required to be planted in accordance with subsection (C)(5) of this section. Where replacement trees are proposed to be planted at a different location than the project site, a description of the alternate site and written approval from the property owner must be provided.
- An arborist report containing the following information:
- A complete description of each tree's health, condition, and viability;
 - A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);
 - Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare);
 - For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);
 - Description of the impact of necessary tree removal to the remaining trees, including those in a grove;
- Reports from professionals such as a geotechnical engineer or biologist, as applicable.

UTILITY PLAN (refer to Water & Sewer Handouts and standard details)

NOTE: Projects that fall within the Olympic View Water and Sewer District for water and/or sewer will need to contact the district for connection requirements and fees.

- Existing and proposed dry utilities – gas, power, phone, cable, including utility poles, transformers, etc.
- Existing and proposed water, sewer, and storm utilities, including catch basins, manholes, and fire hydrants.
- Show existing and/or proposed water meter, including size.
- Show water service line from meter (or stub at property line if part of a subdivision) to building structure.
- Show new sewer connection to City main or connection to existing sewer lateral (or stub if lot is part of a subdivision).
- Provide 6" cleanout at property line and cleanout at building structure.
- Show sewer pipe invert elevations at City main, property line & building (min 2% pipe slope).
- Provide 10-ft separation between water & sewer.

TRAFFIC IMPACT WORKSHEET

- Complete and submit Appendix pages 1 and 2. (See handout E82)

PARK IMPACT WORKSHEET

- Complete and submit. (See Applications & Forms)

GRADING PLAN

- Show existing grade contours and proposed finished grades at two (2) foot intervals.
- Indicate lowest footing and finished floor elevations.
- Detail permanent slope protection, the slope of the lot, driveway slope profile and methods for temporary and permanent erosion control.

ARCHITECTURAL PLAN SHEETS - SCALE ¼" = 1'

1) COVER SHEET – General Notes

- Name, address, phone number of owner and project contact person.
- Legal description, tax account parcel number, copies of recorded access or utility easements.
- Zoning, lot square footage, building pad area, and structural lot coverage.

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- Design loads: dead, live, wind (wind speed 85 mph; wind exposure B or C, see R301.2.1.4), ground snow load 25 psf, lateral, seismic (Seismic Design Category D1).
- Climate and Geographic Design Criteria per IRC Table 301.2(1). (See Attachment B1)
- Soil classification, concrete strength, reinforcement steel grades.
- Specify timber species and lumber grades, plywood span indexes for roof, wall, floor sheathing.
- Nailing schedules for floor, wall, roof sheathing per IBC Table 2304.9.1 and IRC Table R602.3(1).
- Type of heating system and fuel type.
- Energy Code Compliance Information.
 - R-values for all envelope components.
 - U-value for glazing.
 - Specify and provide details for additional Energy Credits per WSEC R406.
 - Indicate required air leakage testing per WSEC R402.4.
 - Indicate required duct testing per WSEC R403.3.

NOTE: Do NOT include the Site Plan on the Cover Sheet. It is a separate single page. (See attachment A)

2) FOUNDATION PLAN (See attachments B, C & H)

A site specific foundation plan is required and shall be designed based on the soil classification determined on site. Show the following details:

- Slab, footing and wall dimensions, thickness and height; grade of reinforcing steel, spacing and size of vertical and horizontal rebar and anchor bolts, indicate stepped footing elevations.
- Location and size of foundation vents and crawlspace access opening.
- Isolated footings with reinforcement and connectors.
- Location of hold-downs or other metal connectors per IBC Chapter 18 or IRC Chapter 4.
- Positive drainage method for all crawl space areas.
- For slabs: Provide insulation, thermal break, aggregate and vapor barrier details.
- Foundation drainage detail. Footing drains are required around all concrete and masonry foundations that retain earth and enclose habitable or useable spaces located below grade, and for crawlspaces when a minimum 6" slope within the first 10' of the foundation wall is not achieved, or when a Geotechnical Engineer calls out footing drain requirements in a report. Show the proposed discharge location of the footing drains.

See attachment C1 for footing drain requirements-when a Geotechnical report is provided, the foundation drainage recommendations in the report shall govern.

NOTE: Footings and foundations shall be constructed of masonry and/or concrete, unless an alternate design is approved by the City. In all cases, the footing must extend below the frost line (18" minimum). Bearing walls shall be of sufficient size to support all imposed loads; walls greater than 4 feet exposed, with unequal backfill, or supporting a surcharge, shall be designed and stamped by a Washington State licensed engineer with design calculations submitted for review.

3) CONSTRUCTION AND SECTION DETAILS

(See attachments C, H, G & I)

- Note the timber species, lumber grade and nailing patterns near the appropriate detail.
- Framing cross sections from foundation through roof and plan views (with appropriate cross references) show joist and stud size, spacing, direction, support, connections, blocking, headroom, insulation, foundation and footing drain.
- Engineered lateral calculations are required when the "conventional construction" wall bracing provisions cannot be met.
- Locate and detail all seismic hold-downs, anchor bolts, drag strut locations, post and beam connections, rafter and truss clips; specify manufacturer, model number and size. Clearly indicate exterior and interior shear wall location(s), specify nailing patterns and provide lateral analysis calculations.
- Typical bearing wall and roof section view; label all materials, insulation, sheathing, connections, exterior bracing, nailing patterns for roof, wall and floor sheathing, finish materials, roofing and siding.
- Roof construction, ventilation, drainage and pitch.
- Provide load calculations for all beams that span greater than 8 feet, specify connectors.
Note: positive connection is required at all posts and beams.
- For factory engineered trusses note positive connection, bracing and blocking requirements. Manufactured floor and roof trusses are designed for specific conditions and tolerances; the manufacturer prepares a design sheet which specifies the size and grade of the members, the size and type of connectors to be used and the method of bracing. All rafters or trusses shall be anchored to

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bearing walls with approved framing anchors. Note: the design sheet shall be submitted to the building inspector at the framing inspection.

- Chimney construction, clearance from combustibles, outside air, detail hearth, roof clearance, lateral support and seismic strap connections. Supply manufacturer's listing for factory built units, inserts, flues, woodstoves, etc.
- Stair, handrail, guards, headroom, landing, deck details. Note: enclosed useable space under interior stairs requires 1/2" gypboard on walls and ceiling.

4) FLOOR PLAN (See attachments D, D1 & G)

- Direction, spacing, size and species of structural beams, joists, rafters and trusses.
- Dimension, specify use of each room and/or area, and indicate the square footage of each floor.
- Stairway, door and hallway widths, locate hardwired smoke alarms (detectors).
- Location, access and clearance to crawl and attic spaces, specify opening dimensions.
- Mechanical and plumbing fixtures/appliances. Show hot water tank relief vent and seismic straps. Show water main shutoff. A pressure reduction valve is required where the lateral pressure exceeds 80 psi. An expansion tank is required at the water heater.
- Specify size of doors and windows. Provide openable area and sill height of egress windows in all sleeping rooms.
- Show extent of fire separation between garage and living space and garage attic areas or habitable spaces over garage.
- Show required lighting for interior and exterior stairways.

5) ELEVATION VIEWS (See attachment E)

- Front, rear, sides, average grade and finished floor and roof elevations.
- Roof overhangs, decks, porches, stairways, walkways, breezeways, cantilevered structures, chimneys, roof decks, guardrails, handrails, landings, stairs, siding, roof material, etc.
- Show location and size of windows, doors, sliders, skylights, etc.
- Show the proposed height of the residence and the maximum allowed taken from the average grade as determined by the height calculations.

6) MECHANICAL PLANS

Include source specific and whole house ventilation (fans) on the plans including fan location(s) and cfm

sizing. Indicate type of whole house ventilation system to be installed.

7) STRUCTURAL CALCULATIONS

Plans which do not meet conventional construction as detailed in the IRC or IBC, must be designed, stamped and signed in accordance with the structural provisions of the IBC by a Washington State licensed Engineer with supporting calculations included in the submittal.

APPLY ONLINE AT: mybuildingpermit.com

SAMPLE SITE PLAN NEW SINGLE FAMILY RESIDENCE

Scale: 1"=20'

Property Owner Name
Property Address
Parcel #

HEIGHT CALCULATIONS:

A = +99'
B = +107'
C = +100'
D = +105'
Total = 411'
Avg Grade = 102.75 (411/4)
Actual = 125'
Maximum = 127.75'
(Average Grade + 25')

Total New or Replaced
Impervious Surface =
3,745 sf

STRUCTURAL LOT

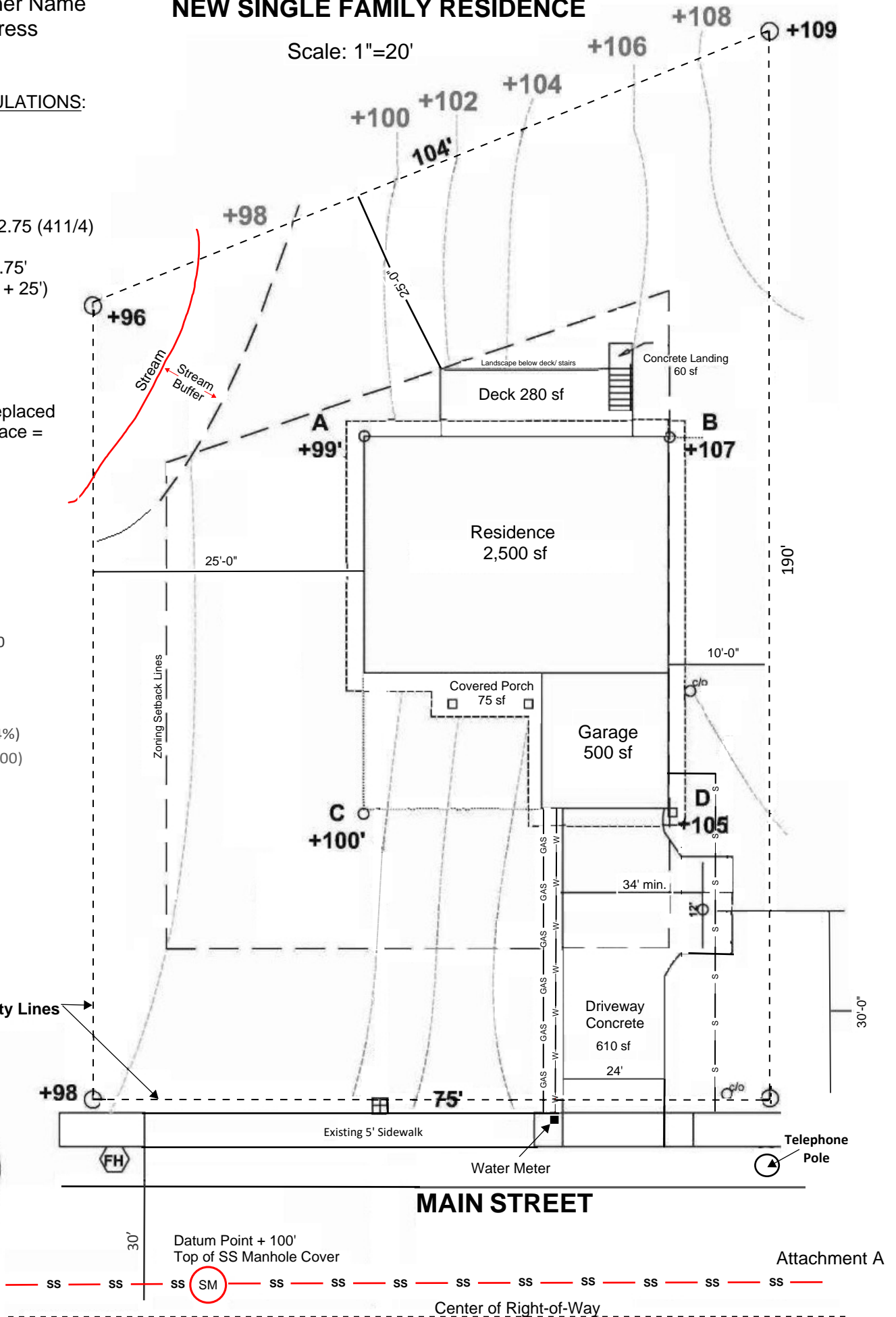
COVERAGE:

Residence: 2,500
Garage: 500
Deck: 280
Porch: 75
Total: 3,355 (24%)
(3,355/13,500)

LOT AREA:
13,500 SQ.FT.

LOT SLOPE: 11%

Property Lines

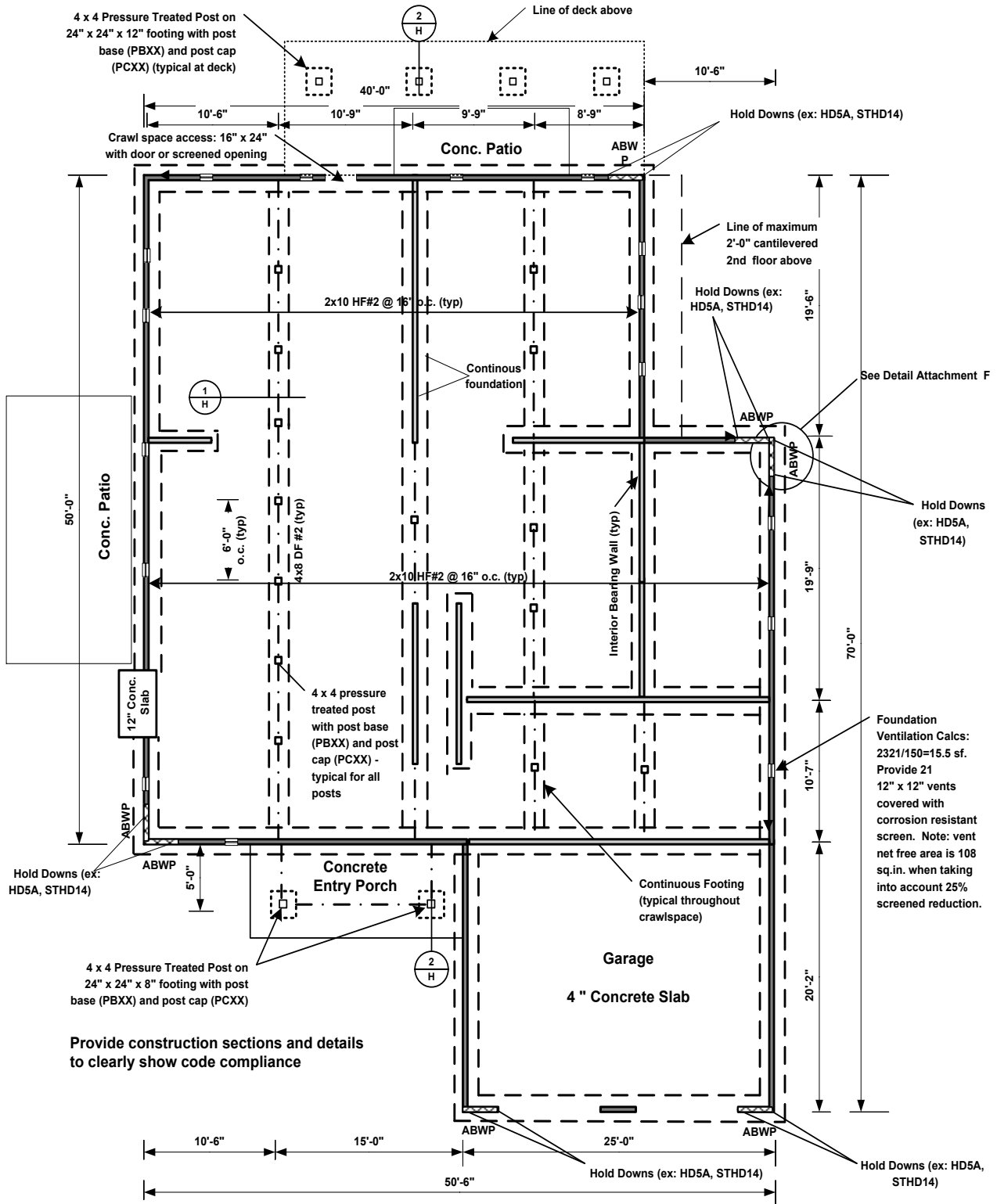


Attachment A

SAMPLE FOUNDATION PLAN

INCLUDES 1ST FLOOR FRAMING

SCALE 1/4" = 1'-0"



**Provide 6 mil black polyethylene moisture barrier throughout crawlspace, lap seams 12".

**All wood in contact with concrete or exposed to weather must be pressure treated or naturally resistant to decay.

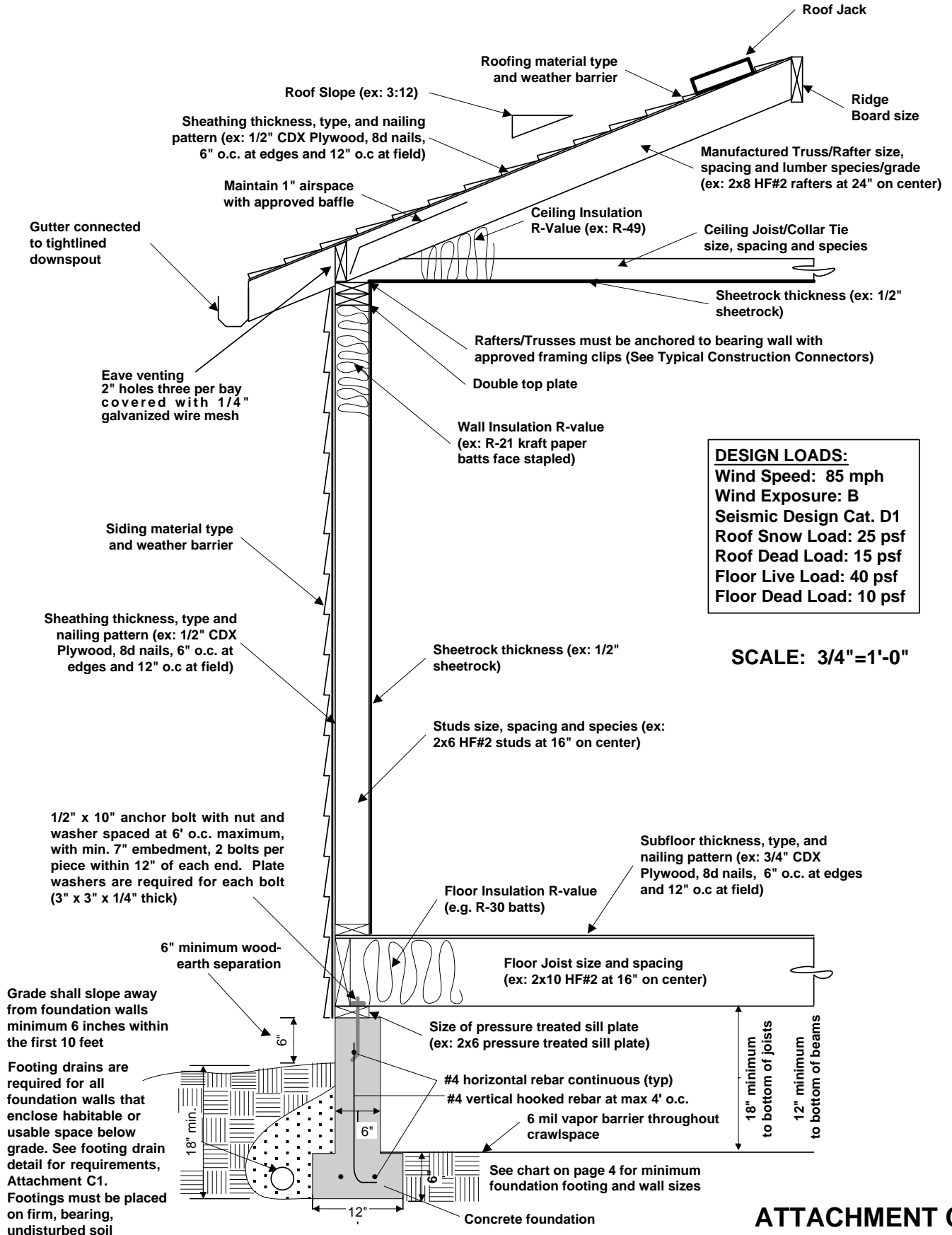
**Footings to bear on 2000 psf. undisturbed soil. Soil Type: Silty Gravel

**TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND SPEED ^e (mph)	SEISMIC DESIGN CATEGORY ^g	SUBJECT TO DAMAGE FROM				WATER DESIGN TEMP ^f	ICE SHEILD UNDER-LAYMENT REQUIRED ¹	FLOOD HAZARDS ^h	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^k
			Weathering ^a	Frost line depth ^b	Termite ^c	Decay ^d					
25 psf	85	D1	Moderate	18"	Slight to Moderate	S to M	27° F	No	Firm Maps 11-8-99	0-1,000	50°

SAMPLE SECTION VIEW

(FOR CONVENTIONAL LIGHT-FRAME WOOD CONSTRUCTION)

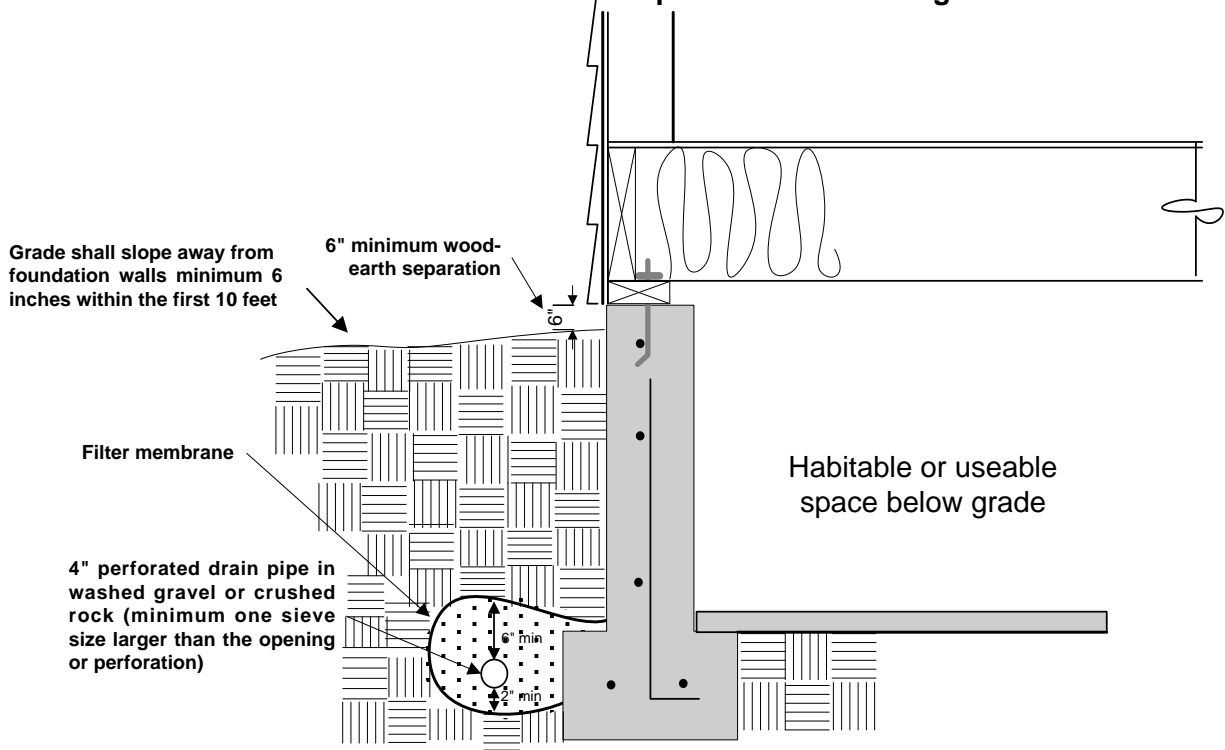


DESIGN LOADS:
 Wind Speed: 85 mph
 Wind Exposure: B
 Seismic Design Cat. D1
 Roof Snow Load: 25 psf
 Roof Dead Load: 15 psf
 Floor Live Load: 40 psf
 Floor Dead Load: 10 psf

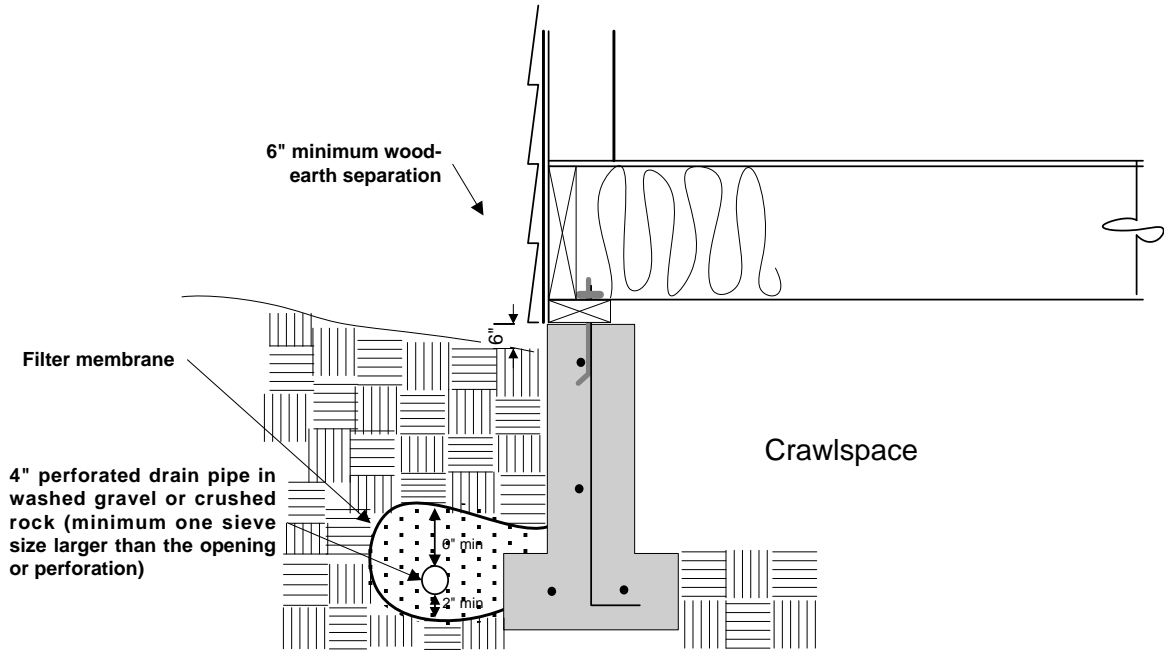
SCALE: 3/4" = 1'-0"

Foundation Drainage Examples

Footing drains are required for concrete or masonry foundation walls that retain earth and enclose habitable or useable space located below grade - IRC 405.1

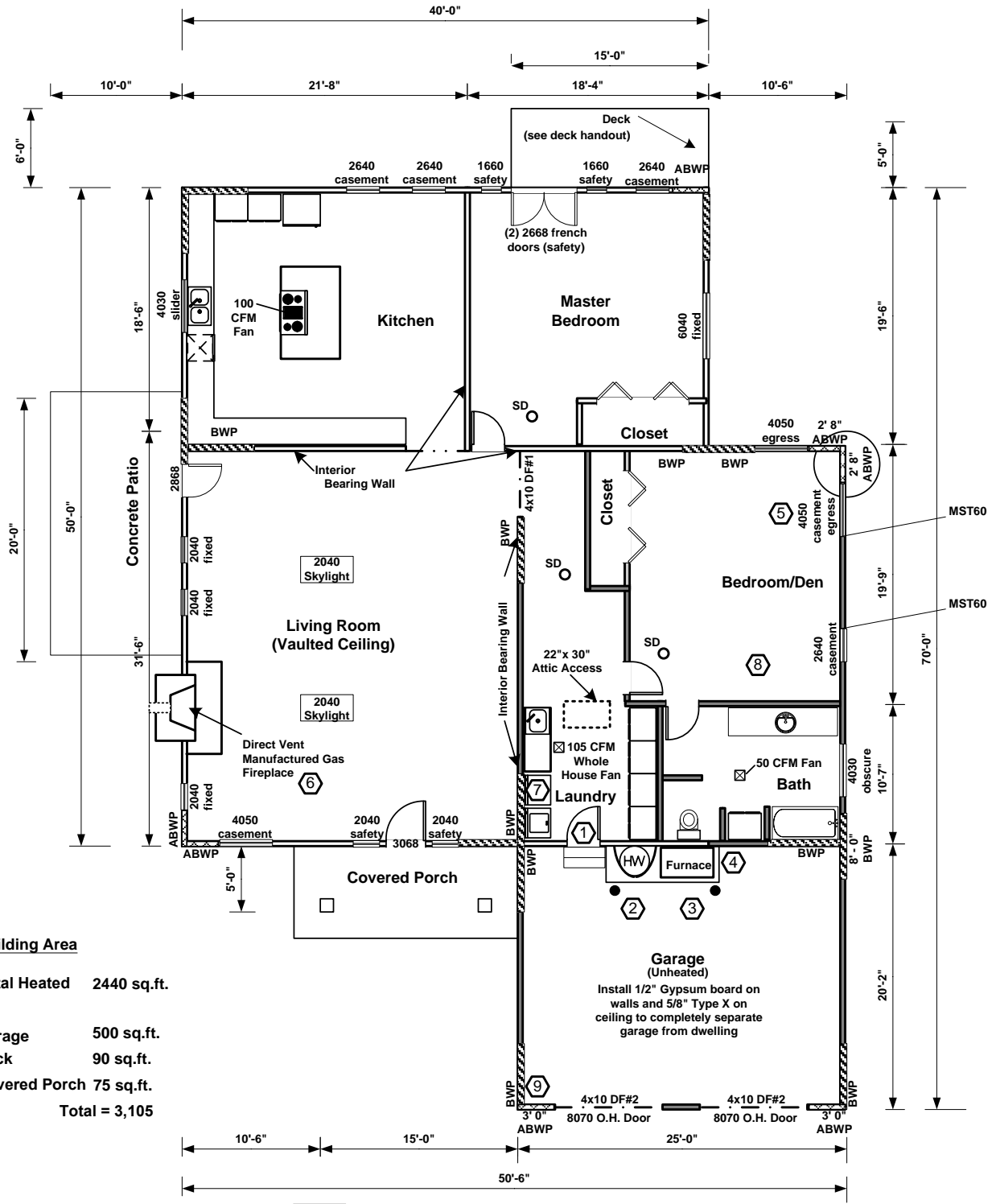


Footing drains are required for crawlspaces if topography does not allow for minimum 6 inch slope away from the foundation wall within the first 10 feet - IRC 401.3



SAMPLE FLOOR PLAN

SCALE 1/4" = 1'-0"



Building Area

Total Heated 2440 sq.ft.

Garage 500 sq.ft.

Deck 90 sq.ft.

Covered Porch 75 sq.ft.

Total = 3,105

▨ = BWP

— = Proposed Walls

= See Sample General Notes

SAMPLE GENERAL NOTES FROM FLOOR PLAN REFERENCES

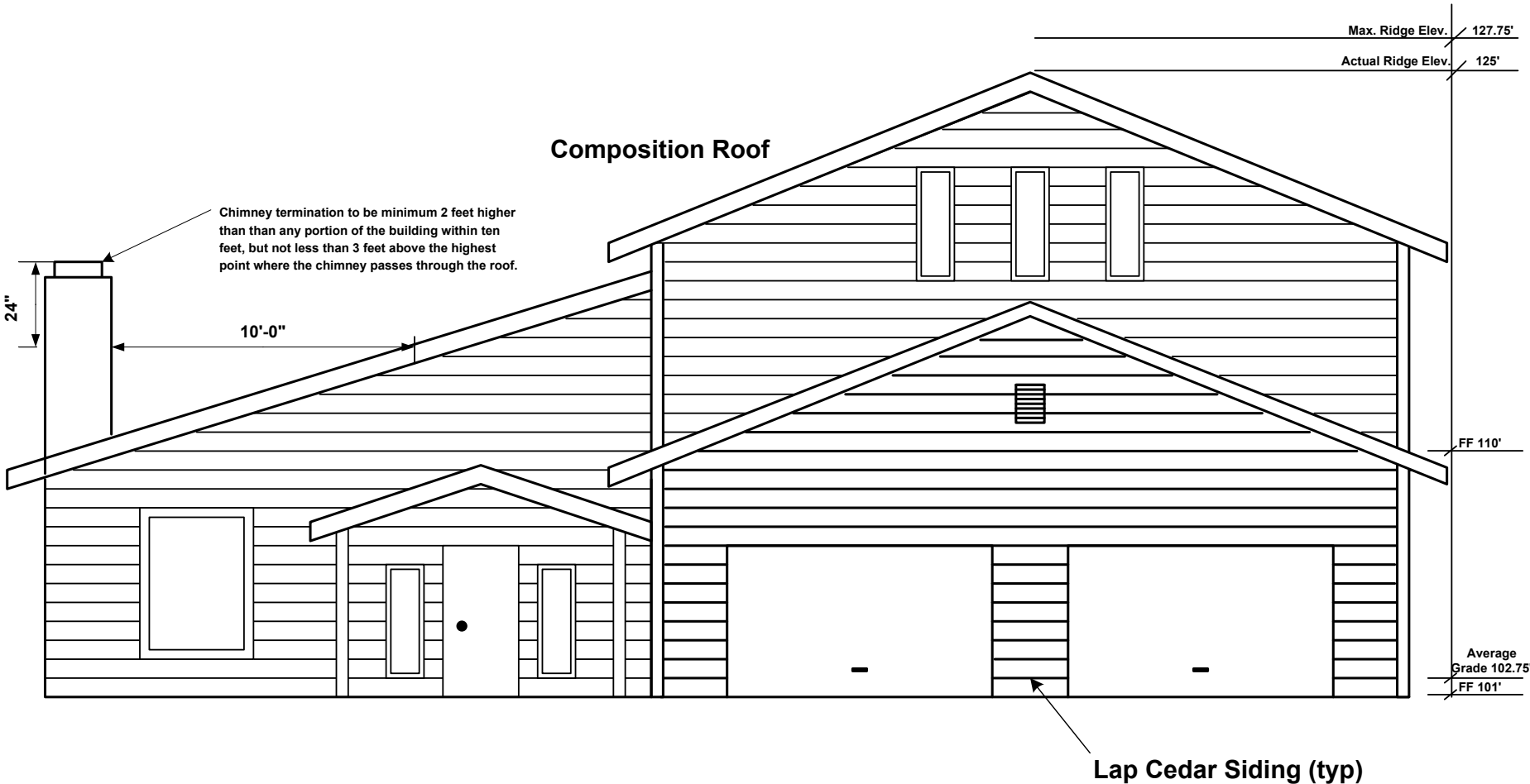
- 1** Door between garage and dwelling to be 1- 3/8" solid core or 20 minute door.
- 2** Vent hot water tank relief valve directly to the outside, provide seismic straps within upper 1/3 and lower 1/3 of hot water tank, provide expansion tank.
- 3** Install bollard or wheelstop to protect mechanical equipment from vehicle impact.
- 4** Sources of ignition for gas hot water tank and furnace to be located a minimum of 18" above finished floor, or labeled FVIR.
- 5** Provide one openable escape window in basement and in each sleeping room meeting all of the following requirements:

 - 1) An openable area of not less than 5.7 square feet (5.0 @ grade level)
 - 2) A minimum clear height of 24"
 - 3) A minimum clear width of 20"
 - 4) Finished sill height of not more than 44" above the finished floor
- 6** Install direct vent manufactured gas fireplace in accordance with manufacturer's specifications and State codes.
- 7** Dryer to vent directly to the outside with a maximum vent length of 25' and a maximum of two 90 degree elbows.
- 8** Smoke detectors to be hard wired, interconnected, with battery backup and installed in the following locations:

 - 1) In each sleeping room.
 - 2) Immediately outside sleeping rooms.
 - 3) Minimum of one installed on each floor, including the basement.
- 9** Provide pressure reducing valve and main water shut-off on water supply line.

SAMPLE ELEVATION

SCALE 1/4" = 1'-0"



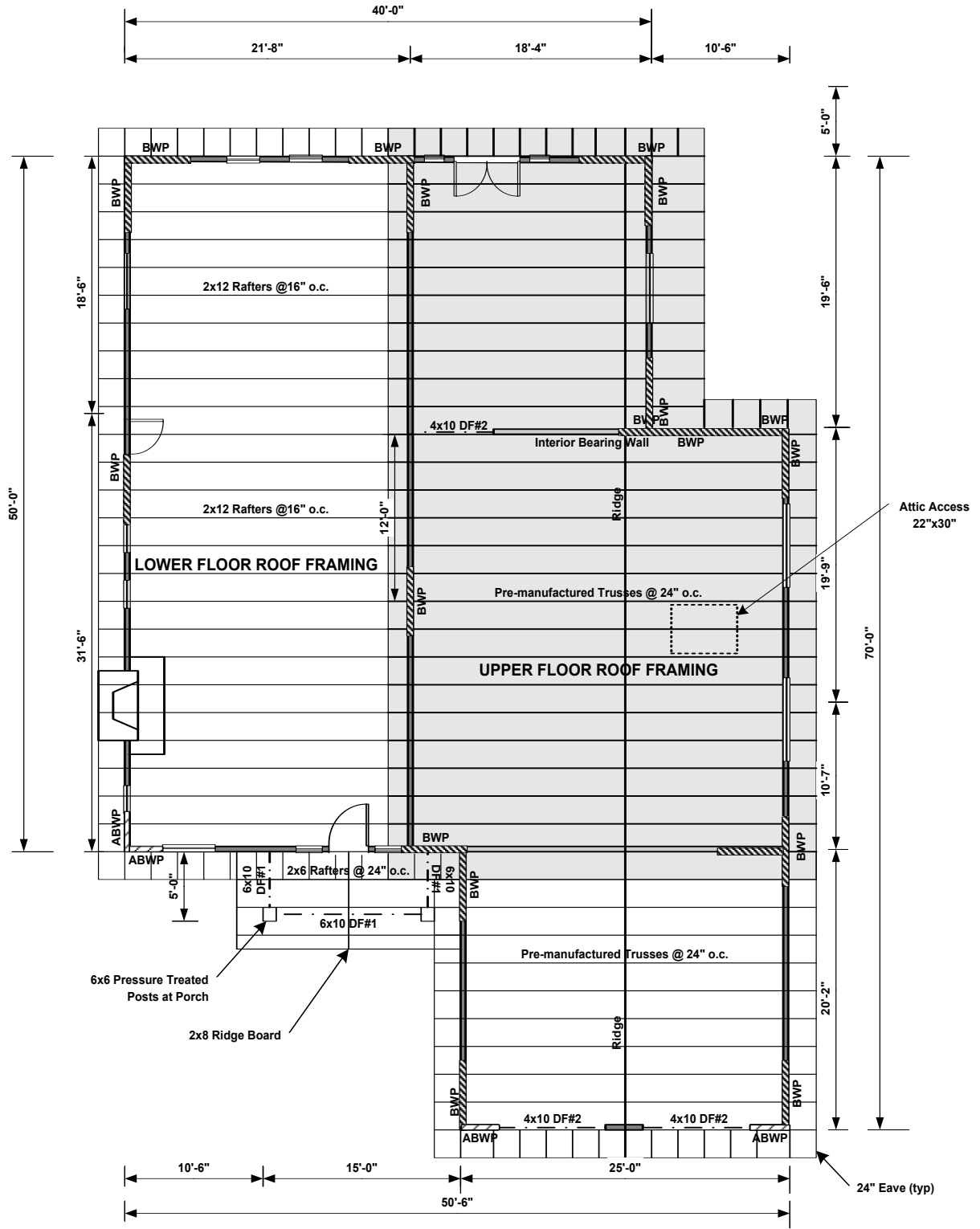
SOUTH ELEVATION

FF = Finished Floor Elevation

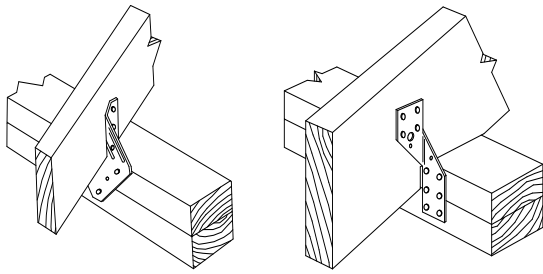
SAMPLE ROOF FRAMING PLAN

INCLUDES 1ST & 2ND FLOOR ROOF FRAMING

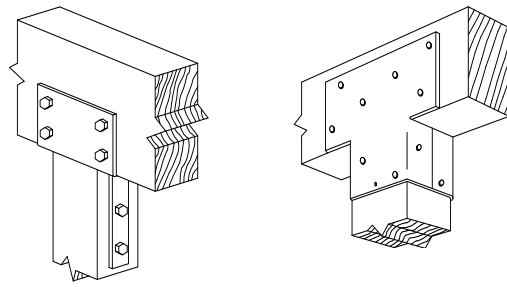
SCALE 1/4" = 1'-0"



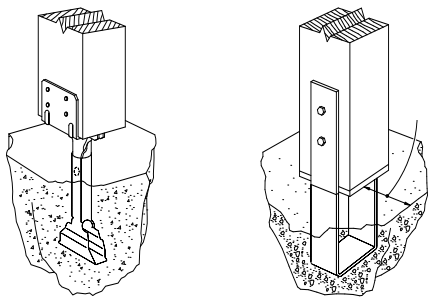
TYPICAL CONSTRUCTION CONNECTORS



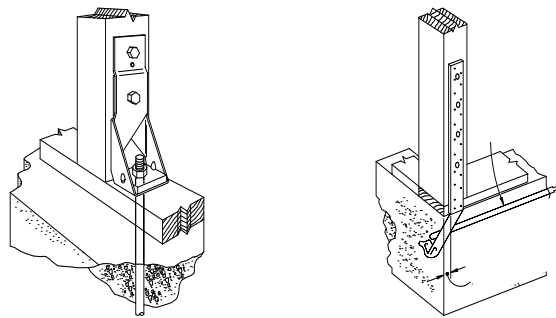
Rafter/Truss Clips



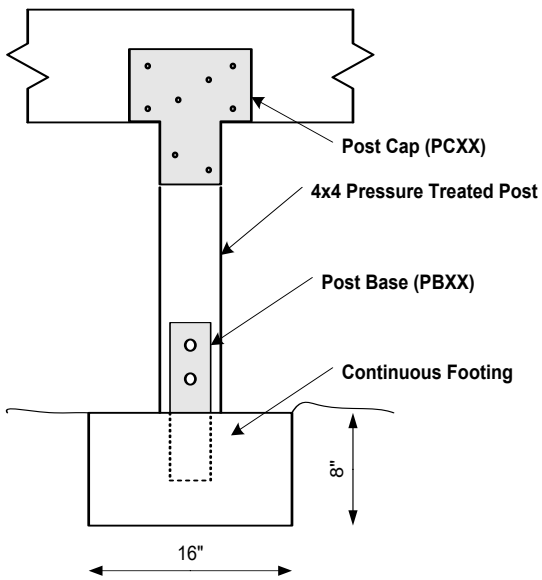
Post-Beam Connectors



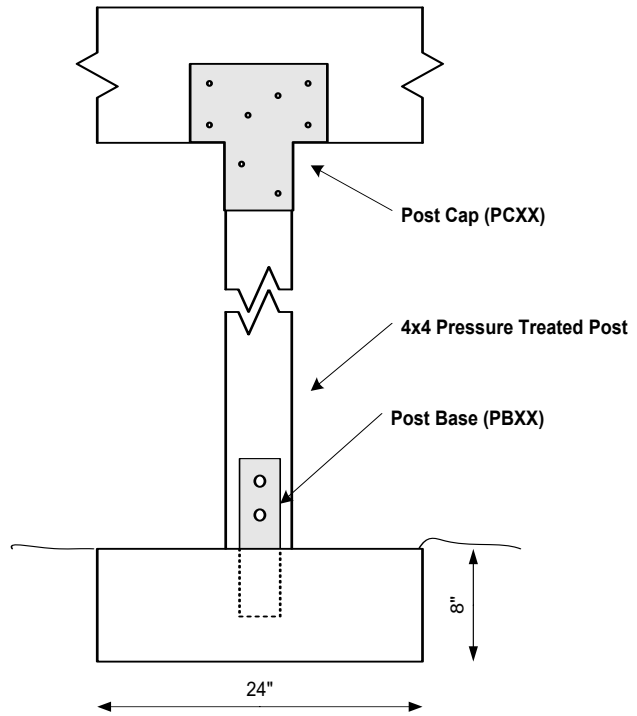
Post-Pier Connectors



Holdowns



Typical Crawlspace Post & Beam



Entry Porch/Deck Post & Beam

Sample Stair Detail

International Residential Code

