



KITTITAS COUNTY

COMMUNITY DEVELOPMENT SERVICES

411 NORTH RUBY STREET SUITE #2 ■ ELLENSBURG, WA 98926
PHONE (509) 962-7506 ■ FAX (509) 962-7682

R-001

BULLETIN

DEVELOPMENT ASSISTANCE BULLETIN

Residential Permit Package

Single Family Dwelling, Duplex, Townhouse

FOR MORE INFORMATION VISIT THE CDS WEBSITE AT: WWW.CO.KITTITAS.WA.US/CDS

This Development Assistance Bulletin provides information about the permitting process for single family dwellings, duplexes and townhouses. This package will also help you understand the documents required for obtaining a building permit.

Building permits and building codes help to ensure that your construction project is built right, safe and will last. Builders and homeowners are required to obtain a permit prior to constructing, altering or replacing a residential dwelling, duplex or townhouse. The permit process involves the submission of construction drawings for plan review approval prior to permit issuance. Inspections are required throughout the construction process to ensure your project is constructed to current code requirements. After all work is complete and inspected, a Certificate of Occupancy is issued which certifies that your dwelling was built according to the building codes and may be used or occupied. Our staff at the Kittitas County Community Development Services (CDS) is here to assist you. Please contact our office at the above phone number or email address for assistance or additional information.

THE FOLLOWING DOCUMENTS ARE REQUIRED AT PERMIT SUBMITTAL:

1. Permit Application: (Available at www.co.kittitas.wa.us/cds/building.asp).
2. Residential Submittal Checklist: (Complete attached Bulletin R-002).
3. Site Plan: (See Bulletin B-002 for example of site plan requirements).
4. Water Availability Form: (If located in Upper County Water Management Area).
5. Construction Drawings: (Two sets of construction drawings).
6. WSEC Information: (See Bulletin R-003).
7. Whole House Venting Form: (Complete Bulletin R-004).
8. Engineering drawings: (If required, two sets of construction drawings).
9. Engineering Calculations: (If required, two sets of engineering calculations).
10. Other Documents: (i.e. truss layout, I-joist layout, timber framing, etc.).

THE FOLLOWING IS REQUIRED PRIOR TO PERMIT ISSUANCE:

1. Septic Permit: (See page 4 for requirements).
2. Driveway Access Permit: (See page 5 for requirements).
3. Water Availability Form: (If not located in Upper County Water Management Area).

****NOTE:** Permit application must be signed by the property owner.

A permit application will not be accepted until you have submitted all required materials and fees specified herein.

NOTE: KITTITAS COUNTY HAS CREATED THIS DEVELOPMENT ASSISTANCE BULLETIN TO INFORM THE PUBLIC ABOUT THE EFFECT OF CODES AND REGULATIONS ON THEIR PROJECTS. THIS PACKET IS NOT INTENDED TO BE COMPLETE STATEMENTS OF ALL LAWS AND RULES AND SHOULD NOT BE USED AS SUBSTITUTES FOR THEM. IF CONFLICTS ARISE, CURRENT CODES AND REGULATIONS ARE THE FINAL AUTHORITY. SINCE CODES AND REGULATIONS MAY BE REVISED OR AMENDED AT ANY TIME, CONSULT KITTITAS COUNTY TO BE SURE ALL REQUIREMENTS ARE MET BEFORE WORK BEGINS.

Answers To Frequently Asked Questions

Q: When is a permit required for a Single Family Dwelling, Duplex or Townhouse?

A: A permit is required for all newly constructed or altered Single Family Dwellings, Duplexes or Townhouses (IRC Section R105.1).

Q: If I build a Single Family Dwelling, Duplex or Townhouse under 200 square feet, is it exempt from permit requirements?

A: No. The exemption specified under IRC Section R105 does not apply to residential dwellings.

Q: Is engineering required?

A: Sometimes. Depending on how and where you build and the complexity of the structure, engineering may be required. All residential structures located in areas above 70 lbs ground snowload require full engineering. See page 4, Section H, of this Bulletin R-001 for more information. If you are not sure, please contact the Community Development Services @ (509) 962-7506.

Q: Can I build a Single Family Dwelling, Duplex or Townhouse in a floodplain?

A: Sometimes. However, a Flood Permit is required prior to permit submittal. Please contact CDS at (509)962-7506 to obtain a Flood Permit.

Q: What information is required on my drawings?

A: See page 1 of this Development Assistance Bulletin and the attached Bulletin R-002 for a checklist of items that must be depicted on the drawings.

Q: Can I turn in an incomplete permit application?

A: No. Incomplete applications will not be accepted. In an effort to provide an efficient and timely permitting process, incomplete applications cannot be accepted. Incomplete applications place an unnecessary burden on other permit applicants. If you attempt to submit an incomplete application, it will be documented and returned to you with a completed Submittal Checklist (Bulletin R-002) outlining the specific missing information that must be included in your permit application before it will be accepted.

Q: Can I build a residence on a steep slope?

A: Sometimes. The placement of structures on or near to slopes steeper than 1 unit vertical in 3 units horizontal (33.3 % slope) shall conform to "prescriptive" setback requirements per IRC Section R403.1.7. If these setbacks cannot be met, then geotechnical engineering will be required prior to permit submittal.

Q: Are permits required through any other agencies?

A: Yes. A permit is also required from the State of Washington Department of Labor & Industries for the electrical permit. They can be reached at (509) 454-3700. The Kittitas County Public Health Department also issues permits for septic systems and water availability. They can be reached at (509) 962-7515. Access permits are issued by Kittitas County Public Works (509) 962-7523.

A. Completed Application for Permit

The Application for Permit establishes the property owner, contractor, scope of work, as well as other relevant information. Please be sure to fill out the application completely. This includes contractor license number, contact name, phone numbers and e-mails. Application must be signed by the owner of the property.

B. Map Parcel Number

This is a 13-digit number assigned by the Assessor's Office. This number is used by Community Development Services to file and organize all information for your permit. (i.e. xx-xx-xxxx-xxxx). This number can be found on the Kittitas County website at www.co.kittitas.wa.us/assessor/property.asp.

C. Deposit/ Fees

Deposits are required for every application and are as follows:

- New Residence \$800.00
- Modular Homes \$300.00
- Residential Alteration/Addition \$150.00
- Critical Areas \$ 50.00

The balance of permit fees are payable at the time of permit issuance. Approved plans will not be held for more than 180 days from the date plans are stamped approved. Plans held over 180 days will expire and the balance of plan review fees must be paid. **All Deposits are Non-Refundable.**

D. Residential Submittal Checklist (Bulletin R-002)

The attached Residential Submittal Checklist (R-002) is a two-part form. The first part of the form must be completed by the permit applicant. The second part of the form contains an expanded checklist that will be used by the Kittitas County Permit Technician at permit submittal intake to determine if all of the required information has been provided. This is not a plan review. It is intended to ensure that all the information necessary to issue a permit has been provided and is contained on the drawings. Any additional documents will also be identified at this time. If all submittal documents are provided, then the application will be accepted, given a tracking number and placed in the plan review tubes and wait their turn for permit issuance in order of submittal. If the application does not meet the minimum submittal requirements it will NOT be accepted and the applicant will be given a detailed list of all of the submittal requirements that must be included prior to the permit application being accepted.

E. Unified Site Plan (Bulletin B-002)

A Site Plan is required and can be submitted before or at time of application for building permit. There is a \$50.00 fee for the Critical Areas Evaluation which is paid in addition to the deposit above. A site plan is a graphical presentation of your entire lot as seen from an aerial view and must include certain features (see Bulletin B-002 for a full list of site plan requirements). For sites located within a designated Urban Growth Area (UGA) an approved utilities site plan is required from the city having jurisdiction.

F. Water Availability Notification Form

A completed Water Availability Form must be submitted to the Kittitas County Public Health Department. The Public Health Department must approve and sign the Water Availability Form prior to permit submittal for structures located in the Upper County Water Management Area. An approved Water Availability Form is required **prior to permit issuance** for structures located in the Lower County. For questions on private wells, public water systems or constructing an on-site well contact the Public Health Department at (509) 962-7515; 507 N. Naneum St, Ellensburg, WA 98926. www.co.kittitas.wa.us/health/default.asp

G. Construction Drawings

The construction drawings are detailed drawings of the structure you are planning to build. They include both the architectural and structural components. The drawings must be complete and accurate. Two sets are required at the time of application submittal. These working drawings are used to provide detailed information on how you plan to construct your project. See attached Bulletin R-002 Residential Submittal Checklist for a complete list of required drawings and the items required on the drawings.

- Construction drawings must be drawn to a minimum of ¼" scale on appropriately sized paper with 1" margins (Elevations and pole buildings may be drawn to 1/8" scale minimum).
- Construction drawings must be drawn on a minimum page size of 11" x 17", plans must be clear with readable text.

- If you plan to build on a steep site, propose to build higher than two stories, or plan to use unconventional materials, please contact Kittitas County CDS for a Pre-Application meeting.
- Kittitas County may require additional drawings, details, sections, or engineered stamped calculations and plans for **any** building. (See Section H for engineering and architect requirements)

Cautionary Note: Mail order plans generally meet the local codes in the jurisdiction where they were drawn. However, they usually do not meet Kittitas County codes or requirements. These plans should be reviewed by someone familiar with Kittitas County requirements and prepare modifications before applying for a building permit. You may find it necessary to seek a professional architect, designer or engineer.

H. Engineering

Professional Preparation of Plans: Kittitas County shall require a Washington State licensed design professional, licensed under the provisions of RCW 18.08, WAC 308-12 (for Architects) or RCW 18.43 (for Engineers) to stamp, prepare or oversee the preparation of plans and calculations for buildings or structures when ANY of the following criteria are met but is not limited to the following:

- A building of any occupancy over 4,000 square feet.
Exception: residential buildings that do not contain more than 4 dwelling units; farm buildings of any size associated with commercial agriculture; buildings such as garages, sheds, barn or shelters for animals and machinery that are used in connection with or auxiliary to farm buildings, or in connection with or accessory to residential buildings of four dwelling units or less.
- Buildings containing five or more residential dwelling units.
Exception: buildings less than 4000 square feet.
- All log and timber frame structures and log and timber frame structural components. This includes any log or beam style trusses used in stick framed buildings.
- All structures located above 70-psf ground snow load that are regulated by the International Residential Code.
- All structures located above 50-psf ground snow load that are regulated by the International Building Code.

Plans submitted that have been engineered by a licensed architect or engineer must have the engineering **on the plans**. This can be accomplished two ways.

- The architect or engineer stamps all structural plans and calculations; OR
- The calculations are prepared and stamped by the architect or engineer. The structural plans have been reviewed by the architect or engineer and he or she supplies a stamped letter stating that all engineering within the calculations are detailed on the plans.

It is highly recommended to call our department prior to starting the engineering for all design criteria.

I. Energy & Ventilation Code Compliance

The attached Bulletin R-003 provides information about how to comply with the Washington State Energy Code (WSEC). Completed Prescriptive or Component Performance forms are required at the time of residential permit submittal. Forms are available in electronic format with embedded formulas (Excel spreadsheet) at: <http://www.energy.wsu.edu/BuildingEfficiency/EnergyCode.aspx>. Paper copies of the required forms are available at the CDS office located at the above address. The plans and specifications shall show in sufficient detail all pertinent data and features of the building and the equipment systems.

Complete Bulletin R-004 and select the appropriate option to comply with Whole House Ventilation requirements.

J. Flood Permit (if applicable)

Based on the critical areas review, a Flood Permit may be required. Additional forms and permit fees are necessary. A licensed surveyor must complete an "elevation certificate" and a Pre-Application meeting is required prior to application submittal. Please contact a permit technician at Community Development Services for further information.

K. Pre-application Site Inspection by Fire Marshal (if applicable)

Properties located outside of a fire district must comply with the International Wildland Urban Interface Code (IWUIC) and be inspected by the Fire Marshal prior to application submittal. Please contact a permit technician at Community Development Services for further information (509) 962-7506.

L. On-Site Sewage Disposal Permit

An on-site sewage disposal permit must be issued by the Environmental Health Department prior to the issuance of a building permit. For building sites in areas on a sewer system, a letter certifying sewer availability from the Sewer District is required. For questions with on-site sewage permits contact Kittitas County Public Health at (509) 962-7515.

M. Access Permit and Rural Address

Access **must be** approved, installed, and inspected prior to receiving a building permit and a rural address assigned. Contact the Kittitas County Department of Public Works at (509) 962-7523.

N. Inspections

All work must be inspected and approved. All permits shall expire by limitation and be declared void if any one of the following apply:

- a. Work is not started within 365 days of obtaining a permit.
- b. Work is abandoned for 365 days or more after beginning work.
- c. An inspection and approval of work completed has not been performed by Kittitas County Community Development Services for 365 days.

The building permit card and approved construction plans shall be kept on the site of work until completion of the project. It shall be the duty of the permit holder or their agent to notify the building official that such work is ready for inspection. It shall be the duty of the person requesting any inspections required by code to provide access to a means for inspection of such work. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. Any portion that does not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

To schedule an inspection contact CDS at (509) 962-7694 or www.co.kittitas.wa.us/cds/request.asp.

Please refer to the County website for a daily list of the scheduled inspections.
www.co.kittitas.wa.us/cds/inspections.asp

O. Certificate of Occupancy

No building or structure shall be **USED OR OCCUPIED**, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the Building Official has issued a Certificate of Occupancy (IRC Section R110). Final inspection shall be made after the permitted work is complete and prior to occupancy; it is the sole duty of the permit holder or their agent to schedule the final inspection (IRC R109). It is strictly prohibited to use or occupy a single family dwelling, duplex or townhouse prior to issuance of the Certificate of Occupancy. Code enforcement will be notified and fines imposed if a single family dwelling, duplex or townhouse is used or occupied prior to issuance of the Certificate of Occupancy

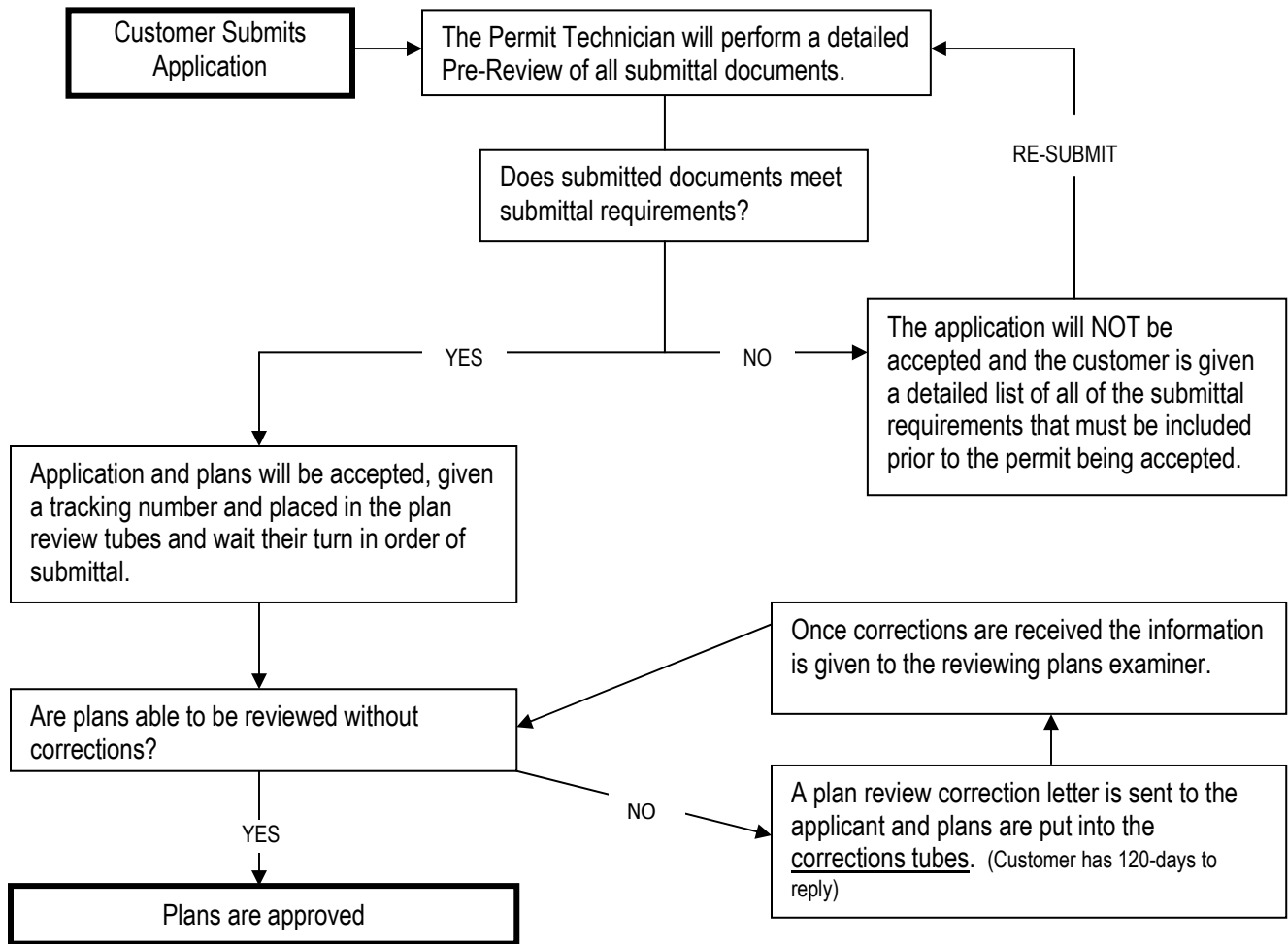
P. Contractor Registration

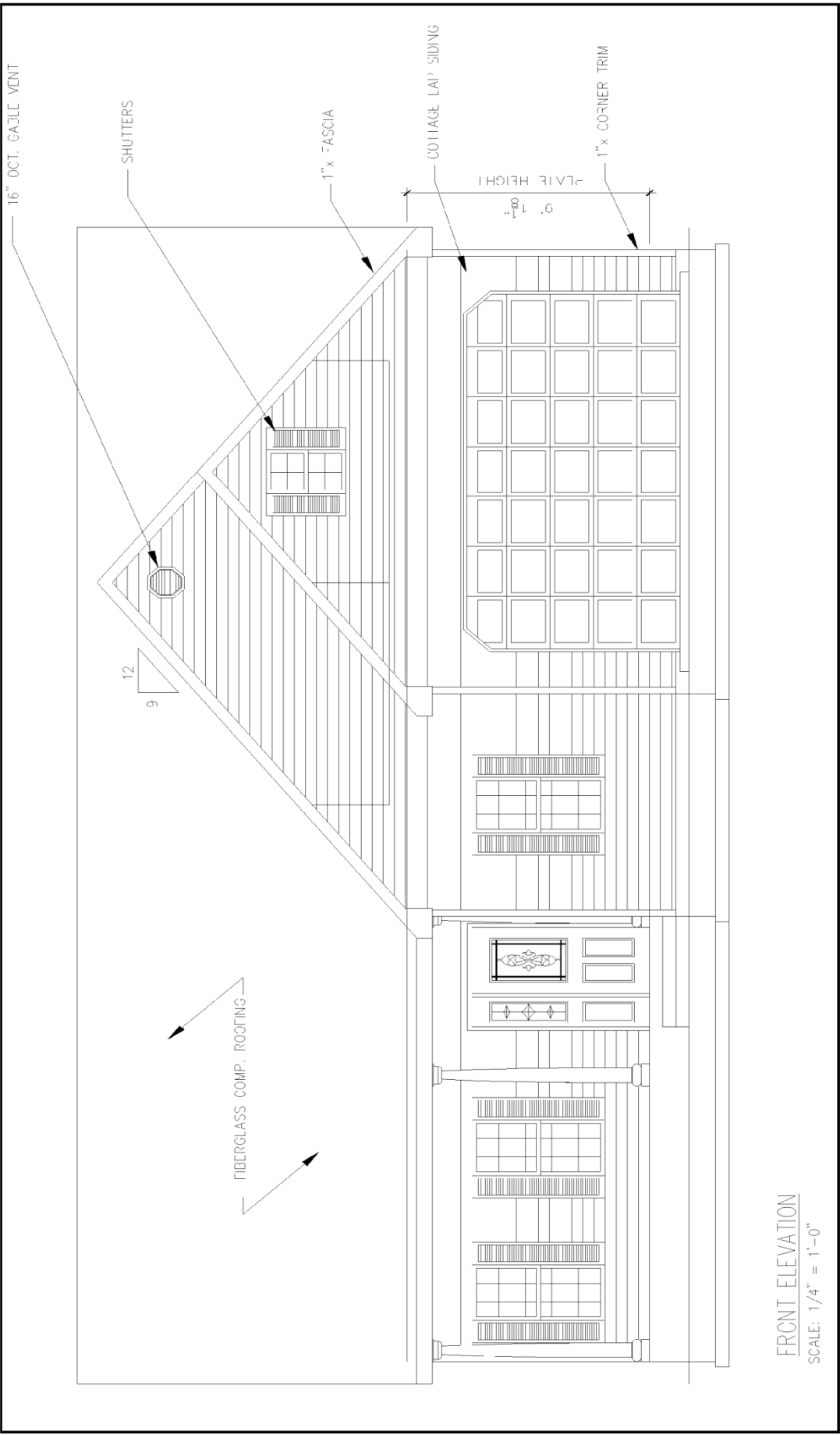
1. The State Contractors Registration Act (RCW Chapter 18.27) requires all persons doing any work as a Contractor to obtain a Certificate of Registration from the Washington State department of Labor and Industries.
2. An owner can personally perform the proposed construction or can contract to have the work performed by a Registered Contractor.
3. An owner, if not a registered contractor, can construct improvements on his or her own property provided it is done **WITHOUT** the intention of selling the improved property.
4. It is unlawful to do any work as a Contractor without a Certificate of Registration. Violation of these requirements is a misdemeanor.

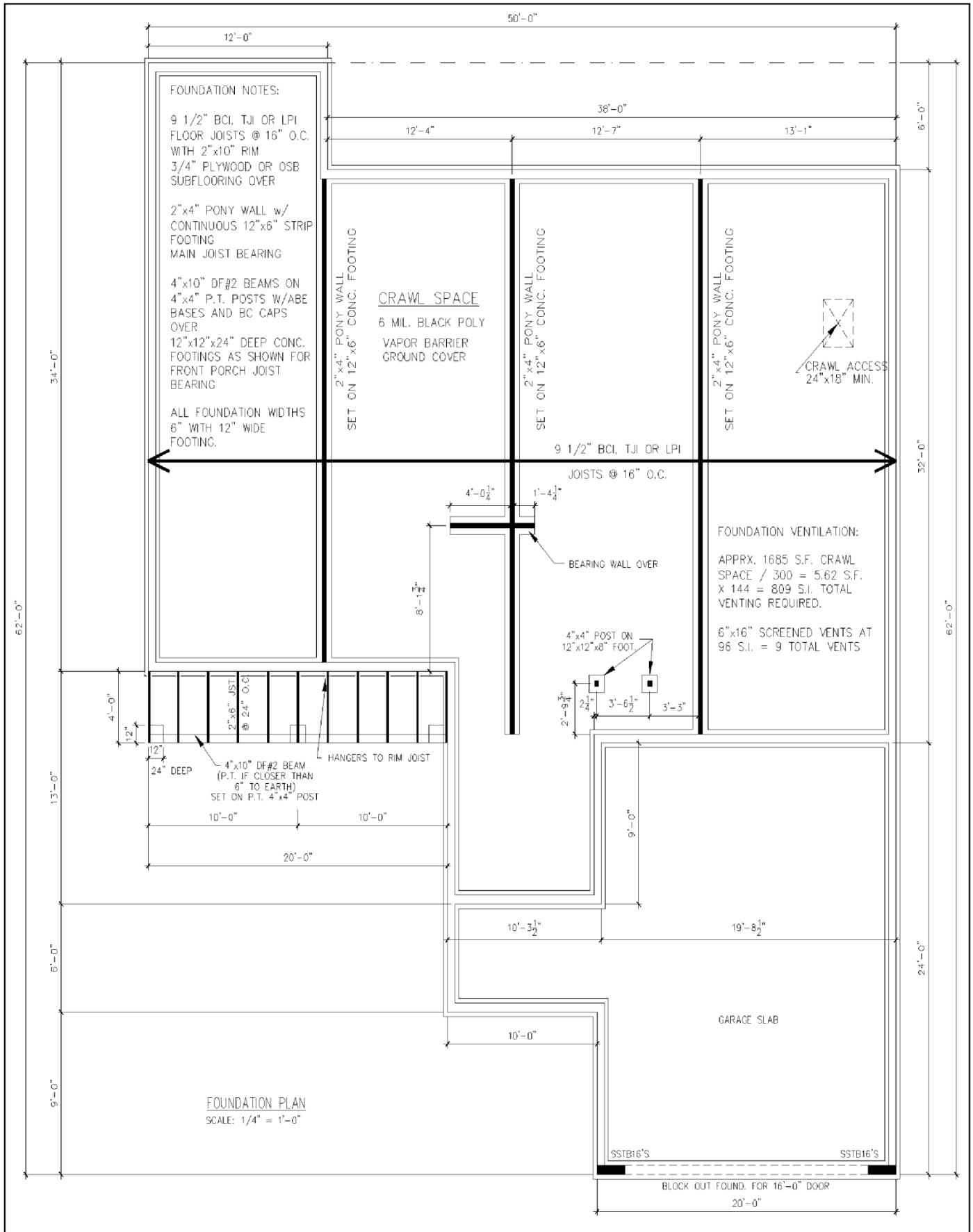
Q. Urban Wildland Interface

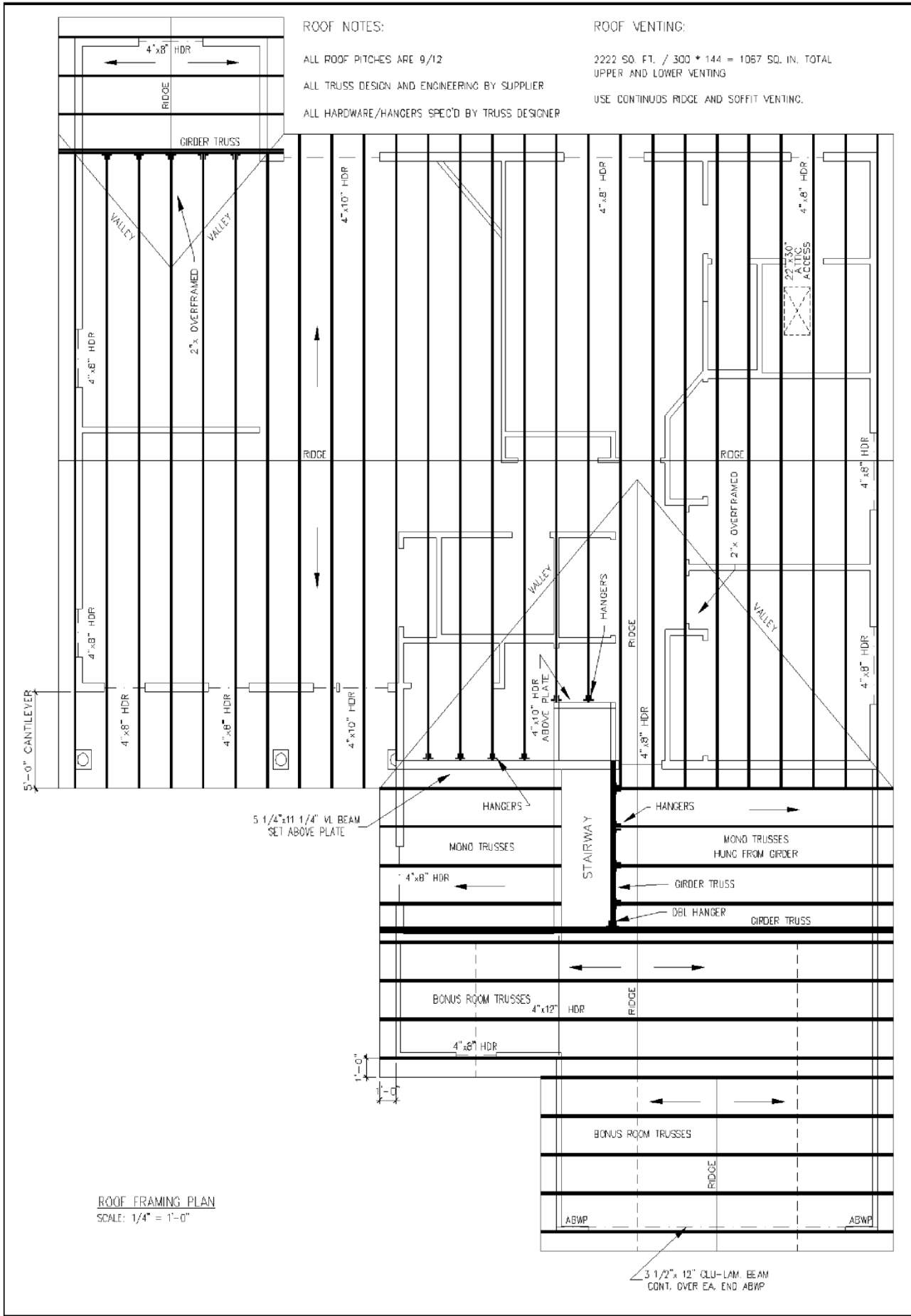
Not all properties in Kittitas County have fire protection available. If you are located outside of a fire district your project will have to meet the International Urban Wildland Interface Code (IWUIC) code requirements. Please contact the Kittitas County Fire Marshal's Office at (509) 962-7506 for further information.

R. Permitting Process









TYPICAL ROOF CONST.

ROOFING (SEE ELEVATIONS)
 30# ASPHALTIC ROOFING PAPER
 7/16" OSB OR 1/2" PLYWD SHEATHING
 PRE-ENGINEERED ROOF TRUSSES @ 24" o/c
 R-49 BATT INSUL. W/VAPOR RETARDER
 5/8" GYPSUM BOARD CEILING

(SEE ELEVATIONS)
X

INSUL. BAFFLE

1x4 OR 6 FASCIA

CONT. VENTING
OR 6"x16" VENTS

3/8" SOFFIT
(MAY BE RAKED)

2'-0"

TYPICAL
(SEE ROOF PLAN)

1'-10"
0'-10"

TYPICAL WALL CONST.

HARDBOARD SIDING
 TYVEK BUILDING WRAP
 7/16" OSB OR 1/2" PLYWOOD
 2x6 STUDS @16"o/c
 R-21 BATT INSUL. W/VAPOR RETARDER
 1/2" GYPSUM BOARD INTERIOR

TYPICAL FLOOR CONST.

3/8" UNDERLAYMENT OR CARPET PAD
 @ CARPETED AREAS
 3/4" T&G PLYWOOD SUBFLOOR GLUED
 & RING-SHANK NAILED
 FLOOR JOISTS (SEE LAYOUT)
 R-30 BATT INSULATION

PT 2x4 or 6 W/1/2" @ A.B.
 @ 6' o/c & 12" FROM
 ENDS & SPLICES - 7"
 MINIMUM EMBED

6" MIN.

2'-0" MIN.

6" MIN.

(1) #4 REBAR HORIZ. AT TOP OF
STEMWALL
 (1) #4 REBAR VERT. AT 18" O.C.
 (2) #4 REBAR HORIZ. IN FOOTING 3"
CLEAR OF SOIL

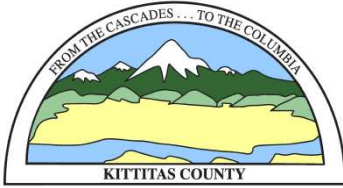
VAPOR BARRIER

CONCRETE FOOTING
(SEE FOUNDATION PLAN)

3" 6" 3"
1'-0"

WALL SECTION (TYP)

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



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R-002
BULLETIN

Residential Submittal Checklist
Single Family Dwelling/ Duplex/ Townhouse
 FOR MORE INFORMATION VISIT THE CDS WEBSITE AT: WWW.CO.KITTITAS.WA.US/CDS

Property Owner:		Day Phone:	
Job Site Address:			
Project Description:	<input type="checkbox"/> New residence	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration

THIS IS NOT A REVIEW: This checklist is used to assure that your permit application includes at least the minimum information needed to complete the plan review and issue a permit. **YOUR APPLICATION WILL NOT BE ACCEPTED FOR SUBMITTAL UNTIL ALL OF THE APPLICABLE ITEMS ARE INCLUDED.** The information required is listed below. Two (2) complete sets of drawings, engineering and other documents are required.

TO BE COMPLETED BY PERMIT APPLICANT

Required Submittal Items			Intake Staff Comments	Staff Intake Verification
	YES	N/A		
1.	<input type="checkbox"/>	<input type="checkbox"/>	Application Completed and Signed	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	Site Plan (See the "unified site plan requirements" handout)	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	Zoning Decisions, Flood Permit, Variances, etc. that may apply	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	Foundation Plan	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	Floor Plan (one for each floor level)	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	Floor Framing Plan (one for each level)	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	I-Joist Layout (one for each level)	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	Typical Cross Section (from roof to fnd.)	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	Roof/Ceiling Framing Plan	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	Roof Truss Layout and Truss Sheets	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	Elevation Plans (each side of structure)	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	Energy & Ventilation Compliance Forms	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	Water Availability Form (from EH)	<input type="checkbox"/>

By signing this form you are certifying that the above information is attached and accurate.

Signature: _____ Date: _____

TO BE COMPLETED BY PERMIT TECHNICIAN

For Official Use	Permit #:		Date:
	Permit Technician:		
	Map #:	_____ - _____ - _____ - _____	

Information Provided?			Required Information	Permit Technician Comments
YES	NO	N/A		
PLAN REQUIREMENTS				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plans drawn to 1/4" scale on minimum 11" x 17" paper.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Two (2) sets of plans and all other required information.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan drawings and text is legible on substantial paper.	
REQUIRED ADMINISTRATION ITEMS				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completed Environmental Health Water Availability Form.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Locator Map provided.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Urban Wildland Interface Review by Fire Marshal.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flood permit and Pre-Application meeting completed.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zoning issues completed such as variance, CUP, etc.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No outstanding Code Enforcement issues.	
SITE PLAN				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drawn to scale. With all lot lines and setbacks shown.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All new and existing buildings shown and dimensioned.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surface water, wetlands, irrigation shown.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	North arrow, address, access driveway(s), main road.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Septic and well location with setbacks.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slopes with topographical contours.	
DESIGN CRITERIA/ ENGINEERING				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct design criteria used (snow, wind, soil, etc.)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural engineering required above 70 psf Pg.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural engineering required due to complexity.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Engineered plans stamped by engineer.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Engineering calculations stamped.	
FLOOR PLAN(S)				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All rooms labeled with use. Including unheated, unfinished areas.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plumbing and mechanical fixtures locations and labeled.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Window and door sizes labeled; identify egress windows and safety glazing.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Smoke detector locations.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Garage fire separation; walls, ceiling and door(s).	

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Summary of square footage for each floor/use; include decks, porches, garage, basement, storage, attic areas.	
FOUNDATION PLAN				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dimensioned footings and foundation plan view.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retaining walls location and height and engineering if required.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Independent footings and pier location, size, spacing, rebar and connectors.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crawlspace ventilation amount required, size and location.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Geotechnical engineering for steep slopes.	
FLOOR FRAMING PLAN(S)				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floor joist size, spacing, span, grade, species.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I-Joist layout sheet and individual joist and beam design reports.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Supporting beam and header size, spacing, span, grade, species.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Deck framing, deck ledger, displacement connection detail to house, post restraint detail.	
ROOF/CEILING FRAMING PLAN(S)				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Truss engineering layout and individual truss sheets.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Truss hangers.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rafter size, space, spacing, grade, species.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ceiling joists and collar ties.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beam and header size, grade, species.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roof sheathing thickness and span rating.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gable end overhang lookout framing detail, knee brace, or other framing method.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roof venting amount required, size, quantity, location.	
LATERAL WALL BRACING				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shearwall locations identified.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shearwall schedule included.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shearwall construction details.	
CROSS SECTION THROUGH BUILDING FROM FOUNDATION TO ROOF				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Footing and foundation dimensions, rebar, depth below grade. Wall heights for sloped sites.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sill plate material, galvanized nails for P.T. wood.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anchor bolt sizing and spacing.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stud size, spacing, grade, species.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wall height, interior and exterior wall coverings.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wind uplift connectors.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roofing material, ice dam protection, roof sheathing.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor barrier type wall and crawlspace.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Insulation type and R-value all required locations.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical header, floor framing, roof framing, beams, etc.	

ELEVATION PLAN(S)			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Front, rear, sides.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Siding, veneer, roof coverings,
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final grade all sides.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roof pitch.
DETAILS AND OTHER REQUIRED PLAN(S)			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lateral design hardware, anchors and holdowns.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bearing posts, bearing walls, blocking for point loads.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Post cap and post base hardware.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Miscellaneous hangers, ledgers, connectors.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Framing and foundation details where necessary.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stairways (rise, run, handrail height, clearances).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Insulated Panel (SIP) engineering plan(s).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Timber frame shop drawing(s) engineering and approval.
GENERAL NOTES/ CODE NOTES			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Applicable codes listed on plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completed WSEC and WSVIAQ compliance form.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	General notes, nailing tables, connectors, lumber grade & species, misc. info.
REQUIRED PRIOR TO PERMIT ISSUANCE			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Public Works Access Permit approval.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Septic Permit issued.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:



KITITITAS COUNTY

COMMUNITY DEVELOPMENT SERVICES

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B-002
BULLETIN

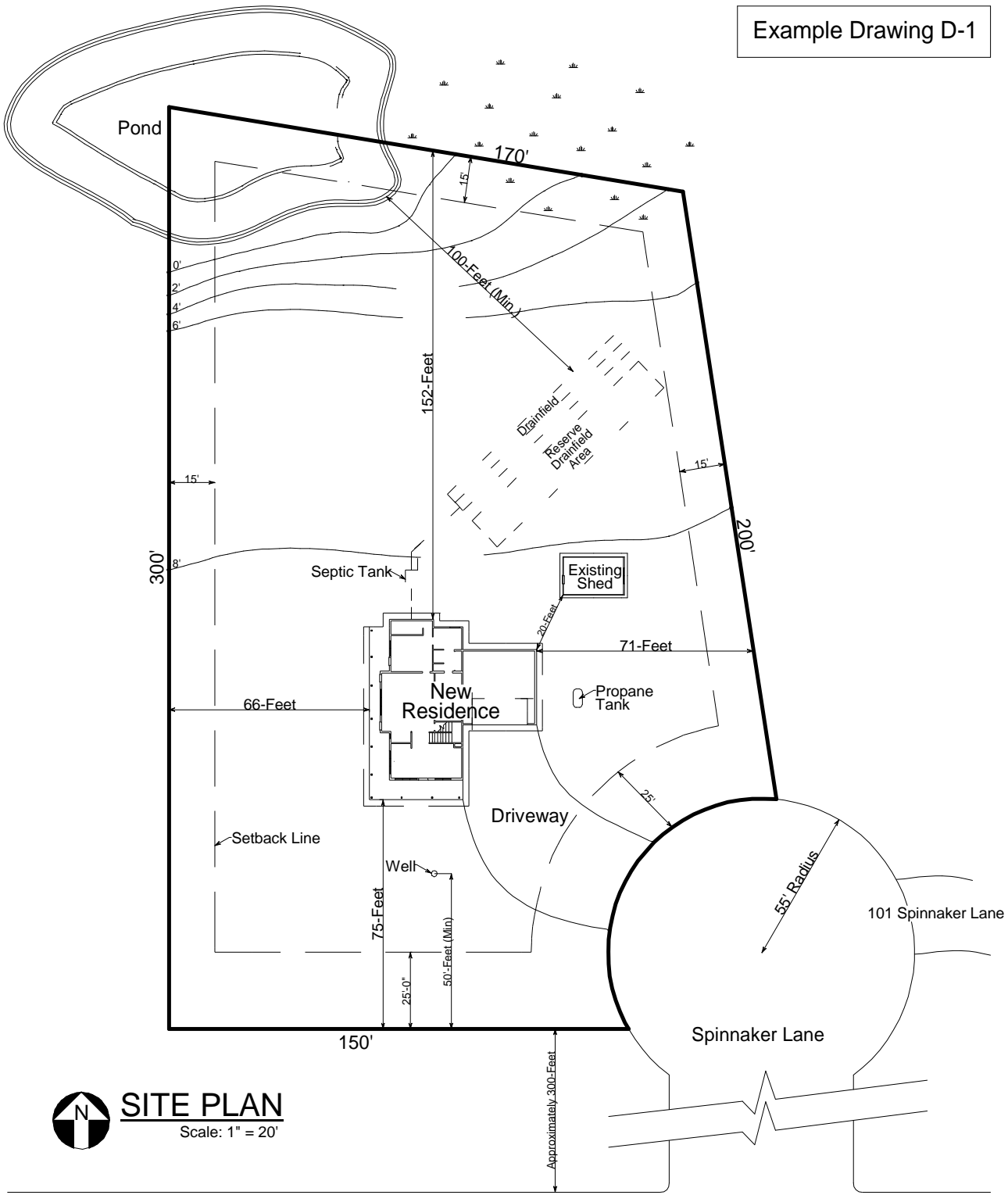
UNIFIED SITE PLAN REQUIREMENTS

FOR MORE INFORMATION VISIT THE CDS WEBSITE AT: WWW.CO.KITITITAS.WA.US/CDS

The site plan or plot plan is a graphical presentation of an entire lot as seen from an aerial view. This site plan will be used by Kittitas County Community Development Services (CDS) to check setbacks and critical areas; used by the department of Public Works to grant access and issue addresses and; used by the Environmental Health Department for septic permits. Three copies of the site plan are required for building permit applications. (See the example drawing D-1 on the back of this Bulletin).

The Following List Identifies The Graphical Notes and Text Required On the Site Plan:

- **Scale** - Scale is required. Minimum scale 1" = 100'. The site plan must give dimensions for the property and show the entire lot without broken property lines. For large parcels, draw a two-page site plan, the first page depicting the entire lot at a convenient scale and the second page depicting an enlargement of the developed area at 1" = 20' scale.
- **Proposed and/or Existing Structure(s) and/or Tank(s) with Dimensions** - Show all existing and proposed buildings, structures, uses and distances to property lines, and other buildings and easements. Structures include all buildings, porches, decks, retaining walls, rockeries, and above ground and underground tanks. Identify existing buildings to remain, those scheduled for demolition, and/or those scheduled for removal.
- **Lot Lines, Setbacks, and Easements with Dimensions** - Show all property lines, building setback lines, applicable plat or short plat restrictions and easements. Documentation of easements(s) may be required.
- **Surface Water** - (Ponds, Streams, Irrigation Laterals, Canals, Ditches, Wetlands, Rivers, Creeks, Ravines, Springs, Lakes, Bogs, Areas of Saturated Ground, Flood Hazard Areas/Boundaries, Erosions Hazard Areas, and Coal Mines) should be indicated on the site plan. Show the name of the body of water (if applicable). Show distances to abutting structures.
- **Location of Existing and/or Proposed Access Point(s)** - This includes streets, access easements, alleys, cul-de-sacs, and joint use driveways. Please mark location of approach with stakes and ribbon. For questions on access contact the Department of Public Works at (509) 962-7523.
- **North Arrow**
- **Septic / Reserve Areas and Well Location** - Show setbacks with respect to the location of the septic tank, drain field and reserve area. These must be identical to the location approved by the Environmental Health Department. Show well location and any encroachments within the well protection area. For questions on septic and well requirements and restrictions contact the Kittitas County Environmental Health Department at (509) 962-7052.
- **Natural Features (Slopes, Gullies, Etc.)** - If any portion of the site slopes at more than 15%, show topographic contours. Maximum contour intervals equal five feet. Show top and toe of all slopes inclined at 40 percent or more and more than ten feet high. Note: These elevations can be approximated unless a proposed property is in a flood hazard area; if so, contact a CDS planner at (509) 962-7506 for further requirements.
- **Adjacent Address** – Show and/or describe the approximate distance and address of the nearest addressed driveway. This may be shown graphically or described on the site plan.
- **Nearest Cross Street** – Show and/or describe the approximate distance to the nearest cross street. This may be shown graphically or described on the site plan.



SITE PLAN
Scale: 1" = 20'

Fair Wind Road



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R-003
BULLETIN

2009 Energy Code information

FOR MORE INFORMATION VISIT THE CDS WEBSITE AT: WWW.CO.KITTITAS.WA.US/CDS

1. Residential Permit Application Submittal Requirements

- Completed Prescriptive or Component Performance forms are required at the time of residential permit submittal.
- Forms are available in electronic format with embedded formulas (Excel spreadsheet) at: <http://www.energy.wsu.edu/BuildingEfficiency/EnergyCode.aspx>
- Paper copies of the required forms are available at the CDS office located at the above address.
- The plans and specifications shall show in sufficient detail all pertinent data and features of the building and the equipment systems.
- Alternative prescriptive paths are available for Climate Zone 2 (see below Options IV, V and VI).
- Kittitas County outdoor design temperature is 2° F.
- Equipment sizing calculations must be submitted with the residential permit application materials.
- CDS will provide limited assistance. Consultants are commercially available to provide professional assistance and should be used as a primary resource to complete the required forms.

**TABLE 6-2
PRESCRIPTIVE REQUIREMENTS^{0,1} FOR SINGLE-FAMILY RESIDENTIAL
CLIMATE ZONE 2**

Option	Glazing Area ¹⁰ % of floor	Glazing U - Factor		Door ⁹ U- Factor	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade ¹²	Wall int ⁴ Below Grade	Wall ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
		Vertical	Overhead ¹¹								
<input type="checkbox"/> I	12 %	0.32	0.50	0.20	R-49 or R-38 adv	R-38	R-21 Int. ⁷	R-21 TB	R-12	R-30	R-10 2'
<input type="checkbox"/> II*	15 %	0.32	0.50	0.20	R-49 or R-38 adv	R-38	R-19 + R-5	R-21 TB	R-12	R-30	R-10 2'
<input type="checkbox"/> III	Unlimited	0.30	0.50	0.20	R-49 or R-38 adv	R-38	R-19 + R-5	R-21 TB	R-12	R-30	R-10 2'
OPTIONS IV, V AND VI have been developed by WSU Energy Program using the Component Performance Approach and are equivalent paths and allowed as an alternate method. Option VII is allowed per WSEC Chapter 4 for Systems Analysis and WSEC Chapter 5 for Component Performance Approach.											
<input type="checkbox"/> IV	15%	0.30 (weighted average)	0.50	0.20	R-49	R-49	R-21 Int. ⁷	R-21 TB	R-12	R-30	R-10 2'
<input type="checkbox"/> V	18%	0.28 (weighted average)	0.50	0.20	R-60 adv	R-60 adv	R-21 Int. ⁷	R-21 TB	R-12	R-38	R-10 2'
<input type="checkbox"/> VI	20%	0.28 (weighted average)	0.50	0.20	R-49 adv	R-49 adv	R35 (2 lb. foam in cavity)	R-21 TB	R-12	R-38	R-10 2'
<input type="checkbox"/> VII	Calculated	Complete a "Systems Analysis" or "Component Performance Approach" per WSEC 2009.									

*Reference Case

FOOTNOTES:

0. Nominal R-values are for wood frame assemblies only or assemblies built in accordance with Section 601.1.
1. Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 13%, it shall comply with all of the requirements of the 15% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
2. Requirement applies to all ceilings except single rafter or joist vaulted ceilings complying with note 3. 'Adv' denotes Advanced Framed Ceiling.
3. Requirement applicable only to single rafter or joist vaulted ceilings.
4. Below grade walls shall be insulated either on the exterior to a minimum level of R-12 continuous, or on the interior as a framed wall. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
5. Floors over crawl spaces or exposed to ambient air conditions.
6. Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4. For slabs inside a foundation wall, the insulation shall be installed to provide a thermal break (TB) between the slab edge and the foundation. Monolithic slabs shall include insulation, installed outside the foundation wall, and shall extend downward from the top of the slab for a minimum distance of 24 inches or downward and then horizontally for a minimum combined distance of 24 inches. Monolithic slabs shall also include R-10 insulation under the non-load-bearing portions of the slab.
7. Int. denotes standard framing 16 inches on center with headers insulated with a minimum of R-10 insulation.
8. Reserved.
9. Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C.
10. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.35 or less is not included in glazing area limitations.
11. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.
12. Log and solid timber walls with a minimum average thickness of 3.5" are exempt from this insulation requirement.

2. Residential Inspection Process

Compliance Certificate:

- Per Section 105.4 WSEC, the permanent Compliance Certificate shall be completed and located within three feet of the electrical distribution panel at the time of final inspection and before a Certificate of Occupancy will be issued.
- The Compliance Certificate shall be completed by the builder or registered design professional.
- A blank Compliance Certificate will be provided by Kittitas County when the residential permit is issued.
- Contractors may use Compliance Certificates with their logo or other imagery in lieu of the Washington State form provided it contains the same information fields as the Washington State form.

Duct Leakage Testing:

- Duct tightness testing shall be conducted to verify that the ducts are sealed per Section 503.10 WSEC.
- A signed affidavit documenting the test results shall be provided to Kittitas County.
- A blank duct testing affidavit will be provided in the residential permit package at time of permit issuance.
- Duct testing results must also be recorded on the Compliance Certificate.
- Duct tightness testing shall be verified by either 1) post construction test or, 2) rough-in test. **Testing at mechanical rough-in is highly recommended.**
- The duct testing and the affidavit must be completed by a certified individual; and the ducts shall be tested in accordance with RS-33 (Washington State University publication # WSUEEP 09-008).
- The WSEC has some exceptions to the requirements for duct testing. See WSEC Section 503.10.

NOTE: Building cavities may not be used as ducts. Installation of ducts in exterior walls, floors or ceilings shall not displace required envelope insulation; full depth insulation is required behind ducts. However, penetrations of floor insulation for supply registers and plenum penetrations between a garage and the house is an acceptable practice.

Building Air Leakage Testing:

- Building air leakage testing is required per Section 502.4.5 WSEC. Testing shall occur at any time after rough-in and after installation of all penetrations of the building envelope.
- Blower door testing must be completed and the results recorded on the Compliance Certificate no later than the time of final inspection and prior to issuance of a Certificate of Occupancy.
- Kittitas County may conduct spot checking of blower door tests. Builders will be notified initially at the time of permit issuance, and as time progresses, randomly by the inspector during the construction process if a required blower door test for a permitted residential structure is to be witnessed by CDS staff.
- Be especially aware of proper sealing around tub/shower traps.
- **IMPORTANT!!! The building Air Leakage test must pass according to the code specified rate – there are no exceptions or remedies in the WSEC.**



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R-004
BULLETIN

2009 Whole House Ventilation

FOR MORE INFORMATION VISIT THE CDS WEBSITE AT: WWW.CO.KITTITAS.WA.US/CDS

Whole House Ventilation Using Prescriptive Method

Check the box to describe which one of the four prescriptive Whole House Ventilation Systems you will be using.

Option 1 - Intermittent Whole House Ventilation Using Exhaust Fans (IRC M1508.4)

- _____ CFM Exhaust Fan Flow Rating Per Table M1508.2 (attached). Location of whole house exhaust fan(s) must be shown on the plans.
- Fan controls: 24 hour clock timer with capability of continuous operation, manual and automatic control & accessible.
- Whole house fans located 4 feet or less from the interior grille shall have a sone rating of 1.0 or less at 0.1 inches w.g.
- Outdoor air shall be distributed to each habitable room by individual outdoor air inlets. Where outdoor air supplies are separated from exhaust points by doors, provisions shall be made to ensure air flow by installation of distribution ducts, undercutting doors, grilles, transoms, or similar means. Doors shall be undercut a minimum of 1/2" above the floor covering.

Option 2 - Intermittent Whole House Ventilation Integrated with a Forced Air Heating System (IRC M1508.5).

- Integrated whole house ventilation systems shall provide outdoor air at the rate calculated using Section M1508.3. The delivered ventilation rate for intermittently operating ventilation systems shall be the combination of its delivered capacity from Table M1508.2, and its ventilation effectiveness and daily fractional operation time from Table M1508.3.
- The system shall distribute outdoor air to each habitable room through the forced air systems ducts with an outdoor air inlet duct connected at the return air plenum of the forced air system, at a point within 4 feet upstream of the air handler.
- The system shall be equipped with a motorized damper connected to the automatic ventilation control clock timer.
- The system shall be controlled by a 24-hour clock timer and shall control the system blower and automatic damper. The timer shall be capable of operating without energizing other energy-consuming appliances.
- At the time of final inspection, the automatic control timer shall be set to operate the whole house ventilation system for at least 8 hours a day.

Option 3 – Intermittent Whole House Ventilation Using a Supply Fan (VIAQ 303.4.3).

- Outdoor air shall be distributed through the forced-air system ducts or through dedicated ducts to habitable rooms. Supply fans shall have the capacity to provide the amount of air specified in Table M1508.2 and air must be filtered before delivery.
- _____ inch outdoor air inlet duct, connected to the furnace supply air stream or return, sized per Table M1506.2.
- Fresh Air inlet duct Back-draft Damper Selection: (Choose one).
 - Calibrated manual volume damper installed and set to meet the measured flow rates in Table M 1508.2 by field testing with a pressure gauge and/or following manufacturer's installation instructions.
 - A manual volume damper installed and set to meet the measured flow rates specified in Table M1508.2 by field testing with a flow hood or flow measuring station.
 - An automatic flow-regulating device sized to the specified flow rate in Table M 1508.2 which provides constant flow over a pressure range of 0.20 to 0.60 inches water gauge.
- At the time of final inspection, the automatic control timer shall be set to operate the whole house ventilation system for at least 8 hours a day.

Option 4 - Whole House Ventilation Using a Heat Recovery Ventilation System (VIAQ 303.4.4).

- All duct work in heat recovery system shall be sized and installed per the manufacturer's instructions.
- System minimum flow rating shall not be less than specified in Table M1508.2.
- Heat recovery ventilation systems shall have a filter on the upstream side of the heat exchanger in both the intake and exhaust airstreams with a minimum efficiency ratings value of (MERV) of 6.
- Outdoor air inlets shall be screened or otherwise protected from entry by leaves or other material and located per M1508.7.4.
- Ventilation supply ducts in the conditioned space upstream of the heat exchanger shall be insulated to a min. of R-4.

**TABLE M1508.2
MINIMUM VENTILATION RATES
(Continuously Operating Systems)**

FLOOR AREA (ft ²)	BEDROOMS ¹				
	0-1	2-3	4-5	6-7	>7
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165

¹Ventilation rates in table are minimum outdoor airflow rates measured in cfm.

M1508.3 Intermittently Operating Ventilation Systems. The delivered ventilation rate for intermittently operating ventilation systems shall be the combination of its delivered capacity from Table M1508.2, and its ventilation effectiveness and daily fractional operation time from Table M1508.3.

$$Q_f = Q_r / (\epsilon f)$$

Where:

Q_f = Outdoor air flow rate

Q_r = Ventilation air requirement (from Table M1508.2)

ϵ = Ventilation effectiveness (from Table M1508.3)

f = Fractional operation time (from Table M1508.3)

**TABLE M1508.3
VENTILATION EFFECTIVENESS FOR
INTERMITTENT FANS**

Daily Fractional Operation Time, f	Ventilation Effectiveness, ϵ
$f < 35\%$	0.33
$35\% \leq f < 60\%$	0.50
$60\% \leq f < 80\%$	0.75
$80\% \leq f$	1.0

**TABLE 1508.6.2
Prescriptive Supply Fan Duct Sizing**

Supply Fan Tested CFM at 0.40" WG		
Specified Volume from Table 3-2	Minimum Smooth Duct Diameter	Minimum Flexible Duct Diameter
50 – 90 CFM	4 inch	5 inch
90 - 150 CFM	5 inch	6 inch
150 - 250 CFM	6 inch	7 inch
250 - 400 CFM	7 inch	8 inch