



## **Island County Planning and Community Development**

Physical Address: 1 NE 6th Street, Coupeville, WA 98239

121 N East Camano Drive, Camano Island, WA 98282

Mailing Address: 1 NE 7th Street, Coupeville, WA 98239

Phone: Whidbey 360-679-7339 | Camano 360-387-3443 | Fax 360-679-7306

<https://www.islandcountywa.gov/207/Planning-Community-Development>

### **Building Permit Application-Single Family Residence & DADU (Detached Acc. Dwelling Unit)**

**All applications and supporting documents will be reviewed for completeness prior to acceptance. Allow for at least 60 minutes when submitting applications in person.**

Required for submittal:

- Complete application, signed and completed in ink.
- 2 complete sets of building plans.
- 2 complete sets of engineers calculations (if applicable).
- Universal Plot Plan - 11x17 preferred, drawn to a standard engineer's scale, not to exceed 1" = 60'. Indicate water lines, septic lines, septic reserve and drainfield, any buildings currently on the parcel and proposed building(s).
- Completed Washington State Energy Code Worksheet.
- Approved Water Availability by the Island County Health Department.
- Approved Septic Permit /As-Built or Applicable Sewer District.
- Approved Access Permit by Island County Public Works (if accessing off a county road – not necessary for private road).
- Verify with Planning and Community Development Department that the parcel has an issued address from Island County.
- Provide any applicable land use documents: Geotechnical Reports, Wetland Reports, Shorelines, variances, RUD's, Clearing & Grading, ICN from DNR, etc.

### **In-person application submittal hours:**

**Coupeville** Monday- Friday: 8:00 a.m. to 2:00 p.m.

**Camano** Monday – Friday: 8:00 a.m. to 2:00 p.m.

A permit is an official document that gives a landowner permission to establish a use on or develop their property. Permits provide local government oversight of land use and development in order to protect the health, safety, and welfare of all its citizens. Permit applications are processed by County professionals to ensure proposals are consistent with local, state, and national regulations.

# MASTER BUILDING APPLICATION

Owner/Applicant \_\_\_\_\_

Phone \_\_\_\_\_

ADDRESS \_\_\_\_\_

Email \_\_\_\_\_

City, State, Zip \_\_\_\_\_

CONTACT/AGENT \_\_\_\_\_

Phone \_\_\_\_\_

Address \_\_\_\_\_

Email \_\_\_\_\_

City, State, Zip \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

License # \_\_\_\_\_

Expiration \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Email \_\_\_\_\_

NAME OF CONSTRUCTION LENDER OR BOND \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

## PROPERTY INFORMATION

PROJECT ADDRESS \_\_\_\_\_

City \_\_\_\_\_

Lot Size \_\_\_\_\_

Subdivision/Mobile Home Park \_\_\_\_\_

Space # \_\_\_\_\_

Zone \_\_\_\_\_

Parcel # \_\_\_\_\_

Key # \_\_\_\_\_

Division \_\_\_\_\_ Block \_\_\_\_\_ Lot \_\_\_\_\_ Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

Has work started? \_\_\_\_\_

Was this ever an Owner Builder Building? \_\_\_\_\_

Adjoining Parcels you own \_\_\_\_\_

Is the property in a special tax program? \_\_\_\_\_

Is this property subject to a Moratorium? \_\_\_\_\_ Yes \_\_\_\_\_ No Type \_\_\_\_\_

## PROJECT INFORMATION

### RESIDENTIAL

☐ One and Two Family dwelling & attached accessory structures

☐ Manufactured Home

☐ Detached Accessory structure <3000 sq ft

### OTHER

☐ Plumbing/Mechanical

☐ Flood Development

☐ Ebey's Landing Historical Reserve

☐ Shoreline, bulkhead & docks

☐ Demolition

### BUILDING CODE

☐ Non-Residential & Multi-Family Residential

☐ Tenant Improvement or Change of use

☐ Sign

☐ Sprinkler or Fire Alarm

### FIRE CODE

☐ Temporary Operational Permit \*

☐ Temporary Tents & canopies\*

☐ Motor Vehicle fuel dispensing system

**\*Temporary is 180 days or less.**

The applicant warrants that all information in this application is truthful and complete. Permits may be suspended or revoked whenever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any provision of the code. **I have read and understand cover sheet instructions.**

/s/

Applicant signature

Date

# ONE AND TWO FAMILY DWELLING & ATTACHED ACCESSORY STRUCTURES PERMIT APPLICATION

Permit # \_\_\_\_\_

## Check all that apply

☐ Single Family Residence ☐ Two Family Residence ☐ Spec. Home  
☐ Rental ☐ Owner Occupied ☐ Accessory Quarters ☐ Guest House  
☐ Modular ☐ Moved home from \_\_\_\_\_

## Alteration to Existing Home

☐ Addition ☐ Interior Remodel ☐ Repair ☐ Other

Fair Market Value of remodel or repair \$ \_\_\_\_\_

Provide a brief description of proposed work \_\_\_\_\_

## Attached Accessory Structures

☐ Garage ☐ Carport ☐ Decks ☐ Other (describe) \_\_\_\_\_

## Dimensions

**Basement** ☐ Finished ☒ X ☐ Semi-finished/Insulated ☐ Unfinished = \_\_\_\_\_ sq.ft.

**Main Floor** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.

**2<sup>nd</sup> Floor** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.

**3<sup>rd</sup> Floor** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.

**Number of Bedrooms** \_\_\_\_\_ Method of sewage disposal ☐ Septic ☐ Sewer

**Garage** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.

**Carport** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.

**Deck** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.  
Height above Grade \_\_\_\_\_ Covered? \_\_\_\_\_ Yes ☐ No ☐

**Deck** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.  
Height above Grade \_\_\_\_\_ Covered? \_\_\_\_\_ Yes ☐ No ☐

**Deck** \_\_\_\_\_ ☒ X \_\_\_\_\_ = \_\_\_\_\_ sq.ft.  
Height above grade \_\_\_\_\_ Covered? \_\_\_\_\_ Yes ☐ No ☐

**Maximum height of building** \_\_\_\_\_ (Measured from average natural grade to high point of building excluding antennas, chimneys or similar architectural features)

Total Heated floor Area \_\_\_\_\_ sq. ft. Percentage of glazing \_\_\_\_\_

Type of heat? Electric resistance \_\_\_\_\_ Other \_\_\_\_\_

Provide copy of Water Availability form **approved** by the Island County Health Department.

Approval Date \_\_\_\_\_

Provide copy of septic permit or as-built **approved** by the Island County Health Department.

Septic permit # \_\_\_\_\_

Provide copy of access permit **approved** by the Island County Public Works Department.

Access Permit # \_\_\_\_\_

## Narrative of Proposal

1. What is the current use of the site ( for example “vacant”, “single family residential” and “pasture”, etc.)?

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2. What is the purpose of the clearing and grading activities (e.g. “to clear for a home site”, “to harvest timber”, “to install a new driveway”)?

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3. All sites have storm water runoff from things such as gutters, driveways, roads, cleared areas, or new impervious surfaces. Describe how it will be managed. Please be specific (for example, “runoff from gutters and parking area to be infiltrated by a drywell located near SE corner of house” or “runoff from driveway to be captured in catch basin and routed in a tight line over the bluff and to the beach”). *Please NOTE: An answer of “No runoff” is not acceptable.* Attach additional pages or plans if necessary.

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4. What is the total estimated amount of excavated and fill material? (NOTE: The total amount includes all material relocated on site plus any material imported to or exported from the site.)  
\_\_\_\_\_ cubic yards

5. If materials will be exported from the site, provide the amount if cubic yards, the address, parcel number(s), and location of disposed materials.

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6. What is the maximum height of cut or fill proposed for this site? \_\_\_\_\_ feet



# ISLAND COUNTY PLUMBING & MECHANICAL PERMIT

Coupeville - (360) 679-7339

(360) 387-3443 - Camano Annex

Mailing Address: 1 NE 7<sup>th</sup> St., Coupeville, WA 98239

121 N. East Camano Dr, Camano Island, WA 98282

<b>Receipt #:</b> _____	<b>Issue Date:</b> _____	<b>Permit Number:</b> _____																																																																			
<b>Owner</b> _____ <b>Phone</b> _____ <b>Mailing Address</b> _____ <b>Email</b> _____ <b>City</b> _____ <b>State</b> _____ <b>Zip</b> _____ <b>PROJECT ADDRESS</b> _____ <b>City</b> _____ <b>Geographic ID/Parcel #</b> _____ <b>Property ID/Key #</b> _____ <b>Is this in a Flood Zone?</b> _____ <b>Is this in Ebey's Landing National Historical Reserve?</b> _____																																																																					
1. <b>Type of Structure:</b> _____ 2. <b>Has this building been previously heated?</b> _____ <b>New or Replacement</b> 3. <b>Heat Type</b> (Check all that apply): <b>Electric</b> <b>Propane</b> <b>Natural Gas</b> <b>Other</b> (describe) : _____ 4. <b>Draw a floor plan on the reverse side of this form or a separate sheet, with rooms labeled, indicating location of proposed fixtures.</b> 5. <b>Propane Tank(s) proposed?</b> <b>Yes</b> <b>No</b> -If yes, how many? _____ <b># of Gallons</b> _____ <b>ASME Tank</b> <b>DOT Tank</b> <b>Above Ground</b> <b>Under Ground</b> <b>AND, draw a plot plan of the parcel indicating the location of the tank(s) including setbacks from property lines and structures.</b> 6. <b>Is this for a manufactured home?</b> _____ <b>If yes, approval of an alteration permit from the Department of Labor and Industries is required for interior fixtures.</b>																																																																					
<b>Person doing work must meet all pertinent laws and ordinances.</b>																																																																					
<b>PLUMBING CONTRACTOR INFORMATION</b>  <b>CONTRACTOR</b> _____ <b>License #</b> _____ <b>Exp</b> _____ <b>Address</b> _____ <b>City, State, Zip</b> _____ <b>Phone</b> _____ <b>(Quantity)</b> _____ <b>Email</b> _____ <table style="width: 100%;"> <tr><td>_____ Back Flow Preventer</td><td></td></tr> <tr><td>_____ Bathroom Sink</td><td></td></tr> <tr><td>_____ Bathtub/Shower Combo</td><td></td></tr> <tr><td>_____ Bidet and/or Urinal</td><td></td></tr> <tr><td>_____ Dishwasher</td><td></td></tr> <tr><td>_____ Floor Drain (Requires Trap Primer)</td><td></td></tr> <tr><td>_____ Hot Water Heater/Tankless Water Heater</td><td></td></tr> <tr><td>_____ Kitchen Sink/Disposal</td><td></td></tr> <tr><td>_____ Laundry Washer</td><td></td></tr> <tr><td>_____ Miscellaneous Sink</td><td></td></tr> <tr><td>_____ Other: _____</td><td></td></tr> <tr><td>_____ Shower Stall</td><td></td></tr> <tr><td>_____ Spa/Jacuzzi Tub and/or Hot Tub</td><td></td></tr> <tr><td>_____ Toilet</td><td></td></tr> <tr><td><b>\$</b> _____ <b>TOTAL number of fixtures above multiplied by \$17.00</b></td><td></td></tr> <tr><td><b>\$</b> _____ <b>Hose bibs: Up to 5 bibs \$15.00 total. Each add'l bib is \$3.00</b></td><td></td></tr> </table> <div style="text-align: right;"> <b>Total Plumbing Fixture Fees</b>    \$ _____  <b>Basic Plumbing Permit Fee</b>    + _____ <b>\$50.00</b>  <b>TOTAL PLUMBING FEE</b>    = \$ _____       </div>	_____ Back Flow Preventer		_____ Bathroom Sink		_____ Bathtub/Shower Combo		_____ Bidet and/or Urinal		_____ Dishwasher		_____ Floor Drain (Requires Trap Primer)		_____ Hot Water Heater/Tankless Water Heater		_____ Kitchen Sink/Disposal		_____ Laundry Washer		_____ Miscellaneous Sink		_____ Other: _____		_____ Shower Stall		_____ Spa/Jacuzzi Tub and/or Hot Tub		_____ Toilet		<b>\$</b> _____ <b>TOTAL number of fixtures above multiplied by \$17.00</b>		<b>\$</b> _____ <b>Hose bibs: Up to 5 bibs \$15.00 total. Each add'l bib is \$3.00</b>		<b>MECHANICAL CONTRACTOR INFORMATION</b>  <b>CONTRACTOR</b> _____ <b>License #</b> _____ <b>Exp</b> _____ <b>Address</b> _____ <b>City, State, Zip</b> _____ <b>Phone</b> _____ <b>(Quantity )</b> _____ <b>Email</b> _____ <table style="width: 100%;"> <tr><td>_____ Exhaust Fans (bathroom/ laundry)</td><td>@ \$17.00 = _____</td></tr> <tr><td>_____ Dryer Vent/Ducting</td><td>@ \$17.00 = _____</td></tr> <tr><td>_____ Fireplace/Gas</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Forced Air Furnace</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Gas/Propane Piping System 1-5</td><td>@ \$13.00 = _____</td></tr> <tr><td>_____ Piping system over 5 outlets (each)</td><td>@ \$3.00= _____</td></tr> <tr><td>_____ Gas/Propane Stove (Unit heaters)</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Gas/Propane Tank/Facilities</td><td>@ \$24.00 = _____</td></tr> <tr><td>_____ Generator</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Boiler Heat Piping &lt;= 3 HP, 100k BTU</td><td>@ \$45.00 = _____</td></tr> <tr><td>_____ " " &lt;= 15 HP or 500,000 BTU</td><td>@ \$69.00 = _____</td></tr> <tr><td>_____ " " &gt; 15 HP or 500,000 BTU</td><td>@ \$102.00 = _____</td></tr> <tr><td>_____ Insert</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Other: _____</td><td>@ \$34.00 = _____</td></tr> <tr><td>_____ Pump &amp; Pressure Tank</td><td>@ \$24.00 = _____</td></tr> <tr><td>_____ Range Hood</td><td>@ \$24.00 = _____</td></tr> <tr><td>_____ Heat Pump &lt;=100,000 BTU</td><td>@ \$45.00 = _____</td></tr> <tr><td>_____ Woodstove</td><td>@ \$34.00 = _____</td></tr> </table> <div style="text-align: right;"> <b>Total Mechanical Fixture Fees</b>    \$ _____  <b>Basic Mechanical Permit Fee</b>    + _____ <b>\$50.00</b>  <b>TOTAL MECHANICAL FEE</b>    = \$ _____       </div>	_____ Exhaust Fans (bathroom/ laundry)	@ \$17.00 = _____	_____ Dryer Vent/Ducting	@ \$17.00 = _____	_____ Fireplace/Gas	@ \$34.00 = _____	_____ Forced Air Furnace	@ \$34.00 = _____	_____ Gas/Propane Piping System 1-5	@ \$13.00 = _____	_____ Piping system over 5 outlets (each)	@ \$3.00= _____	_____ Gas/Propane Stove (Unit heaters)	@ \$34.00 = _____	_____ Gas/Propane Tank/Facilities	@ \$24.00 = _____	_____ Generator	@ \$34.00 = _____	_____ Boiler Heat Piping <= 3 HP, 100k BTU	@ \$45.00 = _____	_____ " " <= 15 HP or 500,000 BTU	@ \$69.00 = _____	_____ " " > 15 HP or 500,000 BTU	@ \$102.00 = _____	_____ Insert	@ \$34.00 = _____	_____ Other: _____	@ \$34.00 = _____	_____ Pump & Pressure Tank	@ \$24.00 = _____	_____ Range Hood	@ \$24.00 = _____	_____ Heat Pump <=100,000 BTU	@ \$45.00 = _____	_____ Woodstove	@ \$34.00 = _____
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<b>Column Total(s)</b> _____ <b>x .03 (technology fee) =</b> _____ <b>TOTAL DUE</b> _____																																																																					

# Island County Planning and Community Development

## Field Indicators Worksheet

The Field Indicators Worksheet will help you and the County determine if a wetland or wetland buffer is on your property. Applicants for permits for single family residential uses must either complete this Worksheet or, at their option, hire a wetland professional to complete a Wetland Report that includes the elements of the Worksheet. All other applicants (commercial or non-residential) must do the latter, if the County verifies that the development proposal is for land that contains or is affected by a wetland.

The comments section of this Worksheet may be used to record any particulars or information about your property. You may attach additional pages and photographs.

The County will verify the information provided in this Worksheet or related wetland report.

This Worksheet must be included with every application for development. Prospective purchasers may also ask the County to review the Worksheet to assist them in determining whether the property they are interested in purchasing contains wetlands.

**Applicant Name** (please print): \_\_\_\_\_

**Date:** \_\_\_\_\_

**Parcel or Key Number:** \_\_\_\_\_

# Hydrology

The presence of water is the most obvious and common indicator of a wetland. There are several factors that must be considered in describing whether or not you have water on your property. Some wetlands have standing water all year long; others are soggy only during wetter months of the year; and, others appear wet only after storm events.

1. Is there ever standing water on the property?

☐ Yes ☐ No

If No, proceed to question #3

If Yes, is it:

☐ 4 weeks - 4 months ☐ 4 months - 8 months - Seasonally ☐ 8 months - Year Round

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2. If you answered yes to question #1, are the surrounding adjacent areas:

Topographically higher ☐ Yes ☐ No

Topographically lower ☐ Yes ☐ No

Topographically the same elevation ☐ Yes ☐ No

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3. When you dug the hole, did you observe any water within 10 inches of the ground surface?

☐ Yes ☐ No

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4. Identify any features through which water flows onto your property (Check all that apply)

☐ Stream ☐ Culverts ☐ Ditches ☐ Roadside Ditch  
☐ Storm Drains ☐ Ponds, lakes, estuaries ☐ Pumps ☐ Other \_\_\_\_\_

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5. Identify any features through which water flows off of your property (Check all that apply)

☐ Stream ☐ Culverts ☐ Ditches ☐ Roadside Ditch  
☐ Storm Drains ☐ Ponds, lakes, estuaries ☐ Pumps ☐ Other \_\_\_\_\_

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6. Are there defined ditches/channels on, or near your property that have water?

☐ Yes, there are ditches/channels that have occasional water flow (e.g. after storm events).

☐ Yes, there are ditches/channels that have regular water flow during wet months.

☐ Yes, there are ditches/channels that have water flow all year long.

☐ No, there are no defined channels

If Yes, how wide is defined channel?

☐ Large (>2 ft across) ☐ Small (<2 ft across) ☐ Grass Lined Swale (dried up pond)

Comments:

### Hydrology Map

Please refer to the *Hydrology Map Example* found in the *Wetland Identification Guide* for instructions

Draw a close approximation of the features you listed in questions 1-6 of the Hydrology section of the Field Indicators Worksheet. Please label the features and approximate dimensions. You may also include areas where wetland vegetation was observed and sites where you performed your soil samples. An organized and informative drawing will help make our site visit more efficient. For greater accuracy, you may obtain an aerial map of your parcel from the Island County Planning and Community Development offices, and use it as the base layer for your map. The Hydrology Map section of the *Island County Wetland Identification Guide* has further information.

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Comments:

## Vegetation

Only certain types of vegetation can survive in wetland conditions. In fact, some plants, trees and shrubs live nowhere else except in wetlands, e.g. skunk cabbage. Other types of vegetation are tolerant of both wet and drier conditions, e.g. salmonberry and alder. Most trees and plants look different depending upon the time of the year. This can make it difficult to identify exactly what's on your property. Numerous photographs of the more common types of wetland vegetation are shown during different seasons. **Please include these observations in your Hydrology Map.**

7. Are there any native wetland plants on the property that are identified in the Wetland Vegetation section of the Wetland Identification Guide? (Check all that apply)
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> Slough Sedge       | <input type="checkbox"/> Cooley's Hedge Nettle | <input type="checkbox"/> Crabapple     | <input type="checkbox"/> Red Stemmed Dogwood       |
| <input type="checkbox"/> Labrador Tea       | <input type="checkbox"/> Water Parsley         | <input type="checkbox"/> Skunk Cabbage | <input type="checkbox"/> American Speedwell        |
| <input type="checkbox"/> Cat Tail           | <input type="checkbox"/> Common Rush           | <input type="checkbox"/> Willows       | <input type="checkbox"/> Red Alder                 |
| <input type="checkbox"/> Salmonberry        | <input type="checkbox"/> Nootka Rose           | <input type="checkbox"/> Bull Rush     | <input type="checkbox"/> Western Red Cedar         |
| <input type="checkbox"/> Pacific Silverweed | <input type="checkbox"/> Sitka Spruce          | <input type="checkbox"/> Hardhack      | <input type="checkbox"/> Grasses (other than lawn) |
- 
8. Are there any non-native wetland plants on the property that are identified in the Wetland Vegetation section of the Wetland Identification Guide?
- |  |   |                                      |   |
|--|---|--------------------------------------|---|
| <input type="checkbox"/> Creeping Buttercup                | <input type="checkbox"/> Reed Canary Grass    | <input type="checkbox"/> Yellow Iris | <input type="checkbox"/> Himalayan Blackberry |
| <input type="checkbox"/> Eurasian Milfoil                  | <input type="checkbox"/> Evergreen Blackberry | <input type="checkbox"/> Velvetgrass | <input type="checkbox"/> Yellow Iris          |
| <input type="checkbox"/> Canadian Thistle/<br>Bull Thistle | <input type="checkbox"/> Hairy Willow-herb    |                                      |   |

Comments:

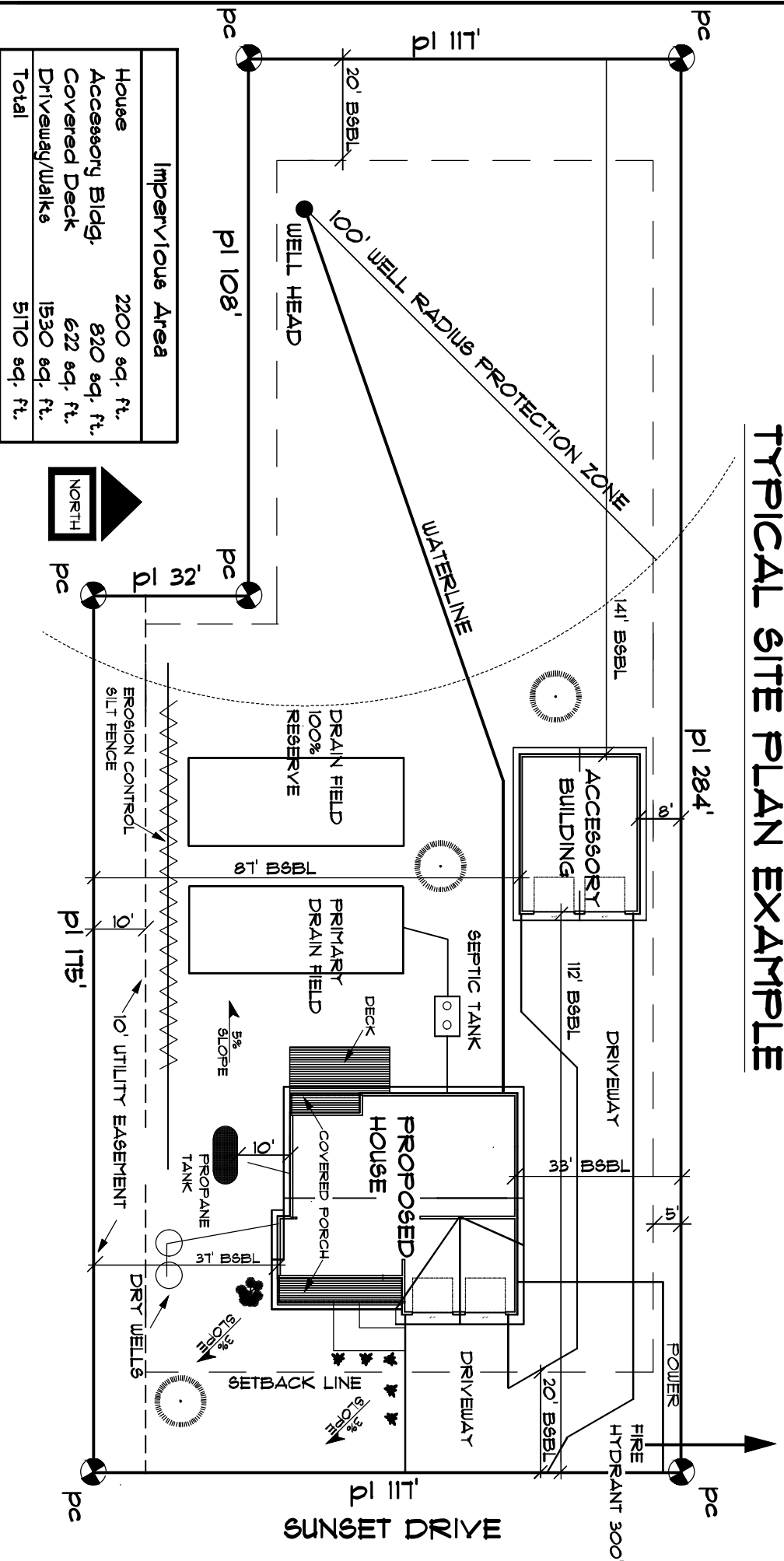
## Soil

While water and vegetation can be identified by simply observing what is on your property, learning about your soils will take a little more work. Soil characteristics change as a result of the regular presence of water. Minerals in the soil will start to rust and organics are unable to decompose. By digging some holes you can see whether or not the area you are looking at is in fact a wetland. The Wetland Identification Guide's Soil section provides additional information that you may find useful in answering the following questions. You will need to dig a hole 12 inches deep in order to answer the following questions. **Please include the locations where you took your soil samples in your Hydrology Map.**

9. Indicate the color of the soil at the bottom of the 12 inch deep hole that you dug.
- |                                     |  |                                |
|-------------------------------------|--|--------------------------------|
| <input type="checkbox"/> Dark Black | <input type="checkbox"/> Grey w/rust spots | <input type="checkbox"/> Brown |
|-------------------------------------|--|--------------------------------|
- 
10. Does the soil smell sulfuric? (like rotten eggs)
- |                              |                             |                                   |
|------------------------------|-----------------------------|-----------------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> At Times |
|------------------------------|-----------------------------|-----------------------------------|
- 
11. If you take a tablespoon size sample of the soil and squeeze it, is it saturated with water?
- |                              |  |  |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> Moderate/Soil is damp | <input type="checkbox"/> No. Soil is dry |
|------------------------------|--|--|

Comments:

# TYPICAL SITE PLAN EXAMPLE



NAME/  
MAILING ADDRESS:

JOHN C. DOE  
4268 RED ROCK ROAD  
BELLTOWN, WA 98555

SITE  
ADDRESS:

DOE RESIDENCE SITE PLAN  
5394 SUNSET DRIVE  
GREENBANK, WA

PROPERTY ID #:

TAX PARCEL # 55341-00-03004-0

SCALE:

1" = 30'

DATE:

3/15/2005

## UNIVERSAL PLOT PLAN

### Basic Plot Plan Requirements

All building permit applications require a plot plan. Provide minimum of 1 plot plan drawn **not larger** than 11X17 (8 ½" X 11" may be used if it is to scale and legible). As you draw your plot plan, please use the following Applicant Checklist to ensure all required information as shown.

\_\_\_\_\_ Drawn to a standard *engineering* scale not to exceed 1" = 60'. Indicate the engineering scale and provide a bar scale. (Acceptable ranges include: 1"=20' to 1'=60')

\_\_\_\_\_ Indicate North Arrow directional.

\_\_\_\_\_ Boundaries, dimensions, and area of lot (square feet or acreage).

\_\_\_\_\_ Land features: Show top and toe of all slopes, direction of slope, percentage of slope or slope angle, seasonal drainage ways and soggy areas, ditches, ravines, lakes, ordinary high water mark of shoreline, etc.

### **\*\*NEW CHANGE TO CRITICAL AREAS\*\***

\_\_\_\_\_ Critical Areas: Show protected species habitats, geologically hazardous areas, floodplains, aquifer recharge areas, streams, wetlands as well as all of their associated buffers onsite or off-site when they may affect the proposal. (note: if a feature is shown on the County's Critical Areas map it must be shown on the plot plan; if you do not believe that feature is present please describe).

\_\_\_\_\_ Location, size, and purpose of all existing buildings (temporary or permanent) and proposed buildings. Label each as existing or proposed.

\_\_\_\_\_ Location, dimensions and volume of all existing/proposed propane tanks, fuel tanks, etc. Label each as existing or proposed.

\_\_\_\_\_ Location, dimensions of all decks, roof overhangs, porches, cantilevers, bay windows, retaining walls, patios and chimneys.

\_\_\_\_\_ Distances from building to property lines and other buildings.

\_\_\_\_\_ Location and width of existing and proposed driveways/accesses serving each structure and any parking areas. Access permit numbers, if assigned.

\_\_\_\_\_ Width and name of road(s) bordering the property.

\_\_\_\_\_ Indicate all easements (access, utility, drainage, etc.) on the property including their width. Label them with intended use and the Auditor File No.

\_\_\_\_\_ Indicate location of septic tank, drain field, reserve area and tight line between house and septic tank. Show distance between drain field and reserve area to property lines. Indicate if hooked up to sewer.

\_\_\_\_\_ Drainage: Location and description of all existing and proposed drainage features and systems, including natural drainage ways, culverts and ditches. Show the direction of water flow.

\_\_\_\_\_ Grading Plans: Show existing and proposed finished grade contours for any cut or fill 2 feet or greater in height in plan view and cross sections. Indicate quantities of fill or excavation in cubic yards. For any material exported from the site, state quantity and where materials will be disposed. For any materials imported to the site, indicate quantity, source and type of materials.

\_\_\_\_\_ Existing and proposed vegetation: Please be specific about the type, e.g. grasses, shrubs, types of trees, etc.

\_\_\_\_\_ Clearing Limits: Show all areas where trees and brush currently exist and will be cut or removed.

\_\_\_\_\_ Erosion and sedimentation control plans: Show all areas where soil will be exposed along with measures to limit erosion and transport of silt and sediment.

\_\_\_\_\_ Indicate location of water lines, well, and pollution control radius. Note: A pollution control radius around an off-site well may impact your project if it overlaps onto your parcel.

\_\_\_\_\_ Road distances to nearest fire hydrant, if applicant has right to use fire hydrant.

\_\_\_\_\_ Separate Existing Conditions map for large or complex projects. Show topography with contours at intervals no greater than 5' and all natural features.

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WASHINGTON STATE UNIVERSITY  
**Energy Program**

<b>Permit#</b>			
<b>Address or Lot &amp; Block</b>			
<b>City</b>		<b>Zip</b>	

**These requirements apply to all the IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).**

**Instructions:** This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in as building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

<b>Authorized Representative Signature</b>		<b>Date</b>	
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All Climate Zones Table 402.1.3		
	R-Value <sup>a</sup>	U-Factor <sup>a</sup>
Fenestration U-Factor <sup>b,j</sup>	n/a	0.30
Skylight U-Factor <sup>b</sup>	n/a	0.50
Ceiling <sup>e</sup>	60	n/a
Wood Frame Wall <sup>g,i</sup>	20+5 or 13+10	n/a
Floor	30	n/a
Below Grade Wall <sup>c,h</sup>	10/15/21 int + 5TB	n/a
Slab <sup>d,f</sup> R-Value & Depth	10, 4 ft	n/a
<b>a</b>	R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table	
<b>b</b>	The fenestration U-factor column excludes skylights.	
<b>c</b>	"10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.	
<b>d</b>	R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.	
<b>e</b>	For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.	
<b>f</b>	R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.	
<b>g</b>	For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.	
<b>h</b>	Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.	
<b>i</b>	The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation	
<b>j</b>	A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.	



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Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

1. Small Dwelling Unit: ..... **5.0 credits**  
Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
2. Medium Dwelling Unit: ..... **8.0 credits**  
All dwelling units that are not included in #1, #3 or #4.
3. Large Dwelling Unit: ..... **9.0 credits**  
Dwelling units exceeding 5000 square feet of conditioned floor area.
4. Dwelling units serving Group R-2 occupancies: ..... **6.5 credits**  
Section R401.1 and residential building Section R202 for Group R-2.
5. Additions 150 square feet to 500 square feet: ..... **2.0 credits**

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Table R406.2 ENERGY EQUALIZATION CREDITS			
Heating Options	Description of Primary Heating Source	Credits - select ONE heating option	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	<input type="checkbox"/>
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	1.5	<input type="checkbox"/>
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	<input type="checkbox"/>
4 <sup>c</sup>	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0	<input type="checkbox"/>
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	<input type="checkbox"/>

a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.

b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that “changeover” temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).

c. Additional points for the HVAC system are included in Table R406.3.

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Summary of Table R406.3				
Energy Options	Energy Credit Option Descriptions	Credits - select ONE energy option from each category <sup>d</sup>		Comments:
1.1	Efficient Building Envelope	0.5	<input type="checkbox"/>	
1.2	Efficient Building Envelope	1.0	<input type="checkbox"/>	
1.3	Efficient Building Envelope	1.5	<input type="checkbox"/>	
1.4	Efficient Building Envelope	2.5	<input type="checkbox"/>	
2.1	Air Leakage Control and Efficient Ventilation	1.0	<input type="checkbox"/>	
2.2	Air Leakage Control and Efficient Ventilation	1.5	<input type="checkbox"/>	
2.3	Air Leakage Control and Efficient Ventilation	2.0	<input type="checkbox"/>	
3.1 <sup>a</sup>	High Efficiency HVAC	1.0	<input type="checkbox"/>	
3.2 <sup>a</sup>	High Efficiency HVAC	0.5	<input type="checkbox"/>	
3.3 <sup>a,c,d</sup>	High Efficiency HVAC	0.5	<input type="checkbox"/>	
3.4 <sup>a,d</sup>	High Efficiency HVAC	1.5	<input type="checkbox"/>	
3.5 <sup>d</sup>	High Efficiency HVAC	1.5	<input type="checkbox"/>	
3.6 <sup>a</sup>	High Efficiency HVAC	1.0	<input type="checkbox"/>	
3.7 <sup>a,d,e</sup>	High Efficiency HVAC	2.0	<input type="checkbox"/>	
3.8 <sup>a,d</sup>	High Efficiency HVAC	1.0	<input type="checkbox"/>	
3.9 <sup>c</sup>	High Efficiency HVAC	0.5	<input type="checkbox"/>	
3.10	High Efficiency HVAC	1.5	<input type="checkbox"/>	
3.11	High Efficiency HVAC	2.5	<input type="checkbox"/>	
4.1	High Efficiency HVAC Distribution System	0.5	<input type="checkbox"/>	
5.1 <sup>d</sup>	Efficient Water Heating	0.5	<input type="checkbox"/>	
5.2	Efficient Water Heating	0.5	<input type="checkbox"/>	
5.3	Efficient Water Heating	0.5	<input type="checkbox"/>	
5.4	Efficient Water Heating	1.0	<input type="checkbox"/>	
5.5	Efficient Water Heating	1.5	<input type="checkbox"/>	
5.6	Efficient Water Heating	2.0	<input type="checkbox"/>	
5.7	Efficient Water Heating	2.5	<input type="checkbox"/>	
5.8	Efficient Water Heating	2.5	<input type="checkbox"/>	
6.1 <sup>e</sup>	Renewable Electric Energy (4.5 credits max)	0.5-4.5	<input type="checkbox"/>	
7.1	Appliance Package	0.5	<input type="checkbox"/>	
Total Credits				

- a. An alternative heating source sized at a maximum of 0.5 Watts/ft<sup>2</sup> (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
- b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
- c. Option 3.9 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.8 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
- d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
- e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
- f. Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

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Table 406.3 – Energy Credits (Single Family)			
Option	Description	Credits: SF	
1. EFFICIENT BUILDING ENVELOPE OPTIONS Only one option from Items 1.1 through 1.4 may be selected in this category. Compliance with the conductive UA targets is demonstrated using Section R402.1.5, Total UA alternative, where [1-(Proposed UA/Target UA)] > the required %UA reduction			
Energy Credit Options		Old HSPF	HSPF2
3.3 Ducted central heat pump		9.5	8.1
3.5 ductless heat pump in main living area + electric resistance in other rooms		10	9
3.6 ducted central heat pump		11	9.4
3.6 ducted central heat pump – NEEP cc VCHP list		10	8.5
3.7 ductless heat pump with no electric resistance (except footnote A)		10	9
3.7 ductless heat pump with no electric resistance ≤ 24,000 Btu (except footnote A)		9	8.1
1.1	Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.22	0.5	
1.2	Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.25 FloorR-38 Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab or Compliance based on Section R402.1.5: Reduce the Total target UA by 15%.	1.0	
1.3	Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.18 Ceiling and single-rafter or joist-vaulted R-60 advanced Wood frame wall R-21 int plus R-12 ci Floor R-38 Basement wall R-21 int plus R-12 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab <b>or</b> Compliance based on Section R402.1.5: Reduce the Total target UA by 22.5%.	1.5	
1.4	Prescriptive compliance is based on Table R402.1.3 with the following modifications: Vertical fenestration U = 0.18 Ceiling and single-rafter or joist-vaulted R-60 advanced Wood frame wall R-21 int plus R-16 ci Floor R-48 Basement wall R-21 int plus R-16 ci Slab on grade R-20 perimeter and under entire slab Below grade slab R-20 perimeter and under entire slab <b>Or</b> Compliance based on Section R402.1.5: Reduce the Total target UA by 30%	2.5	

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Table 406.3 – Energy Credits (Single Family)		
Option	Description	Credits: SF
2. AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION OPTIONS Only one option from Items 2.1 through 2.3 may be selected in this category.		
2.1	<p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum at 50 Pascals, or for R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.25 cfm/ft2 maximum at 50 Pascals</p> <p><b>and</b></p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the International Residential Code or Section 403.8 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.65.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected, the maximum tested building air leakage, and shall show the qualifying ventilation system and its control sequence of operation.</p>	1.0
2.2	<p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum at 50 Pascals, or for R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.20 cfm/ft2 maximum at 50 Pascals</p> <p><b>and</b></p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the International Residential Code or Section 403.8 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.75.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.</p>	1.5
2.3	<p>Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.6 air changes per hour maximum at 50 Pascals, or for R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.15 cfm/ft2 maximum at 50 Pascals</p> <p><b>and</b></p> <p>All whole house ventilation requirements as determined by Section M1505.3 of the International Residential Code or Section 403.8 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.80. Duct insulation shall comply with Section R403.3.7.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.</p>	2.0
To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.		

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Table 406.3 – Energy Credits (Single Family)		
Option	Description	Credits: SF
<b>3. HIGH EFFICIENCY HVAC EQUIPMENT OPTIONS</b>		
Only one option from Items 3.1 through 3.8 may be selected in this category. Item 3.9 may be taken with Items 3.1 or 3.3c only.		
Reference the chart at the appendix for the HSPF2 Rating conversions for the HVAC selections.		
3.1 <sup>a</sup>	<p>For System Type 1 in Table R406.2:</p> <p>Energy Star rated (U.S. North) Gas or propane furnace with minimum AFUE of 95% <b>Or</b> Energy Star rated (U.S. North) Gas or propane boiler with minimum AFUE of 90%.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	1.0
3.2 <sup>a</sup>	<p>For secondary heating system serving System Type 2 in Table R406.2:</p> <p>Energy Star rated (U.S. North) Gas or propane furnace with minimum AFUE of 95% <b>Or</b> Energy Star rated (U.S. North) Gas or propane boiler with minimum AFUE of 90%.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	0.5
3.3 <sup>a,c,d</sup>	<p>Air-source, centrally ducted heat pump with minimum HSPF2 OF 8.1 (HSPF of 9.5)</p> <p>In areas where the winter design temperature as specified in Appendix RC is 23°F or below, a cold climate heat pump found on the NEEP cc ASHP qualified product list shall be used.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	0.5
3.4 <sup>a,d</sup>	<p>Closed-loop ground source heat pump; with a minimum COP of 3.3 <b>or</b> Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	1.5
3.5 <sup>d</sup>	<p>Ductless mini-split heat pump system, zonal control: In homes where the primary space heating system is zonal electric heating, a ductless mini-split heat pump system with a minimum HSPF of 9 (HSPF 10.0) shall be installed and provide heating to the largest zone of the housing unit.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	1.5
3.6	<p>A centrally ducted air source cold climate variable capacity heat pump (cc VHP) found on the NEEP cc VCHP qualified product list with a minimum of HSPF2 of 9.4 (HSPF of 11.0) may be used to satisfy this requirement.</p>	1.0

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	<p>In areas where the winter design temperature as specified in Appendix RC is 23°F or below, an air source centrally ducted heat pump shall be a cold climate variable capacity heat pump as listed on the NEEP qualified product list.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.</p>	
3.7 <sup>a,d,e</sup>	<p>Ductless split system heat pumps with no electric resistance heating in the primary living areas. A ductless heat pump system with a minimum HSPF2 of 9 (HSPF of 10) shall be sized and installed to provide heat to entire dwelling unit at the design outdoor air temperature.</p> <p><b>Exception:</b> In homes with total heating loads of 24,000 BTUs or less using multi-zone mini-split systems with nominal ratings of 24,000 or less, the minimum HSPF to claim this credit shall be HSPF2 of 8.1 (HSPF of 9)</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).</p>	2.0
3.8 <sup>a,d</sup>	<p>Air-to-water heat pump with minimum COP of 3.2 at 47°F, rated in accordance with AHRI 550/590 by an accredited or certified testing lab. To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).</p>	1.0
3.9 <sup>c</sup>	<p>Gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15. For R-2 Occupancy, gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall serve all units.</p>	1.5
3.10	<p>Combination water heating and space heating system shall include one of the following:</p> <p>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</p> <p>Or</p> <p>For R-2 Occupancy, gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0., shall serve all units.</p> <p>or</p> <p>For R-2 Occupancy, gas-fired heat pump(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall serve all units.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	2.5
3.11	<p>Connected thermostat meeting ENERGY STAR Certified Smart Thermostats/EPA ENERGY STAR specifications. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the thermostat model.</p>	0.5

**Table 406.3 – Energy Credits (Single Family)**

Option	Description	Credits: SF
<b>4. HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM OPTIONS</b>		

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4.1	<p>HVAC equipment and associated duct system(s) installation shall comply with the requirements of Section R403.3.2.</p> <p>Electric resistance heat, hydronic heating and ductless heat pumps are not permitted under this option.</p> <p>Direct combustion heating equipment with AFUE less than 80% is not permitted under this option.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and shall show the location of the heating and cooling equipment and all the ductwork.</p>	0.5
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Table 406.3 – Energy Credits (Single Family)		
Option	Description	Credits: SF
<b>5. EFFICIENT WATER HEATING OPTIONS</b>		
Only one option from Items 5.3 through 5.8 may be selected in this category. Items 5.1 and 5.2 may be combined with any option.		
5.1	<p>A drain water heat recovery unit(s) shall be installed, which captures waste water heat from at least two showers, including tub/shower combinations. It is acceptable, but not required, for sink water to be connected. Unit shall have a minimum efficiency of 40% if installed for equal flow or a minimum efficiency of 54% if installed for unequal flow. Such units shall be rated in accordance with CSA B55.1 or IAPMO IGC 346-2017 and be so labeled.</p> <p>To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specifies the drain water heat recovery units and the plumbing layout needed to install it. Labels or other documentation shall be provided that demonstrates that the unit complies with the standard.</p>	0.5
5.2	<p>For Compact Hot Water Distribution system credit, the volume shall store not more than 16 ounces of water between the nearest source of heated water and the termination of the fixture supply pipe where calculated using Section R403.5.2. Construction documents shall indicate the ounces of water in piping between the hot water source and the termination of the fixture supply. When the hot water source is the nearest primed plumbing loop or trunk, this must be primed with an On Demand recirculation pump and must run a dedicated ambient return line from the furthest fixture or end of loop to the water heater.</p> <p>To qualify for this credit, the dwelling must have a minimum of 1.5 bathrooms.</p>	0.5
5.3	<p>Water heating system shall include the following:</p> <p>Energy Star rated gas or propane water heater with a minimum UEF of 0.80.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	0.5
5.5	<p>Water heating system shall include the following:</p> <p>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	1.5
5.6	Water heating system shall include the following:	2.0



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	<p>Electric heat pump water heater meeting the standards for Tier III of NEEA's advanced water heating specification</p> <p>Electric heat pump water heater with a minimum UEF of 2.9 and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors. Equipment shall meet Section 4, requirements for all units, of the NEEA standard Advanced Water Heating Specification with the UEF noted above</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency.</p>	
5.7	<p>Water heating system shall include one of the following:</p> <p>Electric heat pump water heater with a minimum UEF of 2.9 and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors. Equipment shall meet Section 4, requirements for all units, of the NEEA standard Advanced Water Heating Specification with the UEF noted above.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency.</p>	2.5
5.8	<p>Combination water heating and space heating system shall include the following:</p> <p>Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	2.5

Table 406.3 – Energy Credits (Single Family)		
Option	Description	Credits: SF
<b>6. RENEWABLE ELECTRIC ENERGY OPTION</b>		
6.1	<p>For each 600 kWh of electrical generation per housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 4.5 credits. Generation shall be calculated as follows:</p> <p>For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTS or approved alternate by the code official. Documentation noting solar access shall be included on the plans.</p> <p>For wind generation projects designs shall document annual power generation based on the wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and height of the tower.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic or wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual energy power production.</p>	0.5 - 4.5



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Table 406.3 – Energy Credits (Single Family)		
Option	Description	Credits: SF
<b>7. APPLIANCE PACKAGE OPTION</b>		
7.1	<p>All of the following appliances shall be new and installed in the dwelling unit and shall meet the following standards:</p> <ol style="list-style-type: none"> <li>1. Dishwasher, standard – Energy Star rated, Most Efficient 2021 or Dishwasher, compact – Energy Star rated (Version 6.0)</li> <li>2. Refrigerator (if provided) – Energy Star rated (Version 5.1)</li> <li>3. Washing machine (Residential) – Energy Star rated (Version 8.1)</li> <li>4. Dryer – Energy Star rated, Most Efficient 2022</li> </ol> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the appliance type and provide documentation of Energy Star compliance. At the time of inspection, all appliances shall be installed and connected to utilities. Dryer ducts and exterior dryer vent caps are not permitted to be installed in the dwelling unit.</p>	0.5
<p>a. An alternative heating source sized at a maximum of 0.5 Watts/ft<sup>2</sup> (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.</p> <p>b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.</p> <p>c. Option 3.9 can only be taken with Options 3.1 and 3.3. To qualify to claim option 3.8 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.</p> <p>d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.</p> <p>e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.</p> <p>f. Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance.</p> <p>Supplementary heat for water heating system shall be in accordance with Section R403.5.7.</p>		