

## Building

- 1.) Please update the applicable codes on Sheet A1.1 to remove the IEBC and ICC A117.1 and add the 2018 UPC. Please remove ICC A117.1 from Sheet G1.0 as well.
  - a. *Applicable codes updated on sheet A1.1 and G1.0.*
- 2.) An automatic fire sprinkler system is required to be provided because the city of Mercer Island has adopted Appendix V. Please specify system type on the drawings as required by the Fire Marshal.
  - a. *Note calling out fire sprinkler requirement/type added to sheet G1.0.*
- 3.) Please clearly show the location of the code-required handrail at the stairs in plan. Where the handrail is located at the top of a guard, the configuration must meet the requirements of IRC R311.7.8.5...
  - a. *Handrail details updated. Please see sheet A5.2.*
- 4.) We do not find any notes on the drawings addressing the interconnection of smoke alarms and carbon monoxide alarms as required in IRC R314.4 and R315.5. Provide notes on the drawings addressing the interconnectivity requirement.
  - a. *Smoke alarm interconnection addressed via floor plan note 19.*
- 5.) A heat detector or heat alarm is required in attached garages per IRC R314.2.1 and must be installed in a central location in accordance with the manufacturer's instructions...
  - a. *Heat detector added to floor plan. Please see sheet A2.0.*
- 6.) IRC R317.1 requires wood framing members that rest on concrete to be not less than 8" from exposed ground unless they are pressure treated and wood siding, sheathing, and wall framing...
  - a. *Detail added to sheet A5.0 showing relevant dimensions/requirements.*
- 7.) The crawl space ventilation calculations on Sheet A1.2 use a reduced ventilation area of 1:1,500. When applying the exception to IRC R408.2, you are required to incorporate a radon vent system into your design...
  - a. *Minimum net area of ventilation and crawlspace ventilation updated. Please see sheet A1.2.*
- 8.) Sheet A1.2 shows the crawlspace vent opening width but does not show the depth. Please clarify the opening size and specify the provision of corrosion-resistant wire mesh...
  - a. *Details and measurements added to sheet A1.2.*
- 9.) Crawl space access is required per IRC R408.4 to be 18" x 24" through floors or 16" x 24" through walls. It appears an exterior access opening is being provided...
  - a. *Details and measurements added to sheet A1.2.*
- 10.) A 6-mil polyethylene or approved vapor retarded with joints lapped not less than 6" is required between the concrete slab-on-grade at the attached garage and the base course...
  - a. *Floor type F01 updated. Please see sheet G1.1.*

- 11.) Do the guard details on Sheet A5.0 apply at the upper floor opening? Section 2/A5.2 shows the guard spanning 12' between Grids 3 & 4; additional posts may need to be incorporated into the design.
  - a. *Guardrail details updated. Please see sheet A5.2.*
- 12.) Please show roof drains in footing details.
  - a. *Roof drains shown on foundation plan. See sheet A1.2.*
- 13.) Adhered masonry veneer is required to have the following clearances per IRC R703.12.1: 4" minimum above the earth, 2" minimum above paved areas...
  - a. *Detail added to sheet A5.0 showing relevant dimensions/requirements.*
- 14.) Enclosed attics and rafter spaces must have cross ventilation for each space per IRC R806.1. The minimum net free ventilating area of 1:150 must be provided unless the provisions of the exception...
  - a. *Sheet A2.2 revised with new venting plan and calculations.*
- 15.) Attic access openings are required by IRC R807.1 and need to be located on the drawings. A 22" x 30" opening needs to be provided where the minimum unobstructed headroom is at least 30 inches. Show all locations on the drawings.
  - a. *Attic access shown on sheet E1.1.*

## Energy

- 1.) Provide heating system sizing calculations.
  - a. *Heating system sizing worksheet/calculations included.*
- 2.) The gross heated area and glazing areas on Sheet 1.1 do not appear to relate to this project. Please update.
  - a. *Gross heated and glazing areas updated.*
- 3.) The location of all interior and exterior mechanical equipment must be clearly indicated on the drawings. It is unclear where the heat pump is to be located.
  - a. *Mechanical equipment shown on sheet M1.0.*
- 4.) Energy Credit Option 2.3 has been selected per WSEC Table R406.3 for Air Leakage Control and Efficient Ventilation. This requires the tested air leakage rate in WSEC 402.4.1.2 to be reduced...
  - a. *Note added to energy credit selection 2.3 on sheet G1.1 requiring HRV with minimum efficiency of 0.75.*
- 5.) Energy Credit Option 3.6 has been selected...
  - a. *Energy credits revised. Credit 3.6 no longer selected. Please see revised energy credits on sheet G1.1.*
- 6.) A certificate is required to be posted on a wall in the space where the furnace is located, a utility room, or on an electrical panel per WSEC R401.3 and include the following...
  - a. *Notes on G1.1 updated.*

- 7.) Provide general notes to address air barrier and insulation installation requirements listed in WSEC Table R402.4.1.1.
  - a. *Notes on G1.1 updated. Please see note 7, additional energy notes, sheet G1.1.*
  
- 8.) Indicate which whole-house mechanical ventilation system is being provided to comply with the requirement in IRC M1505.4. The Mercer Island Cover Sheet refers to Sheet M1.0...
  - a. *Sheet M1.0 included showing HRV details satisfying whole house mechanical ventilation requirements.*
  
- 9.) Clarify the mechanical ventilation rate in accordance with IRC M1505.4.3. The minimum whole-house ventilation rate from IRC M1505.4.3(1) must be adjusted by the system coefficient...
  - a. *Please see note 5 on sheet M1.0.*
  
- 10.) Per IRC M1505.4.1.1, whole-house ventilation fans must be rated for sound at a maximum of 1.0 sone. This sound rating shall be at a minimum of...
  - a. *HRV used for whole-house ventilation. Exception for M1505.4.1.1 does not require HRV to meet sound requirements.*
  
- 11.) Provide notes on the drawings to address whole-house mechanical ventilation system controls to show compliance with the requirements in IRC M1505.4.2.
  - a. *Please see note 8 on sheet M1.0.*