

GARAGE CONVERSION Submittal Requirements

A *garage conversion* involves creating habitable space, like a bedroom or rec room, within a garage or portion of a garage. The new living space will need to comply with current building and energy code requirements. Converting a residential garage into living space requires a building permit, and may require electrical, mechanical, and plumbing permits as well. So that we can effectively determine the scope of the work and applicable code requirements, please provide all of the requested information.

- Completed** permit application.
 - Permit must include all plumbing and mechanical work associated with the project.
- Check, cash, or Visa/MasterCard for applicable **fees**.
- Two copies of the drawings, assembled into complete sets.
- Two copies of *Washington State Energy Code* (WSEC) compliance forms.
- Two copies of septic approval by the King County Health Department if conversion includes a bedroom and property is served by a septic system.

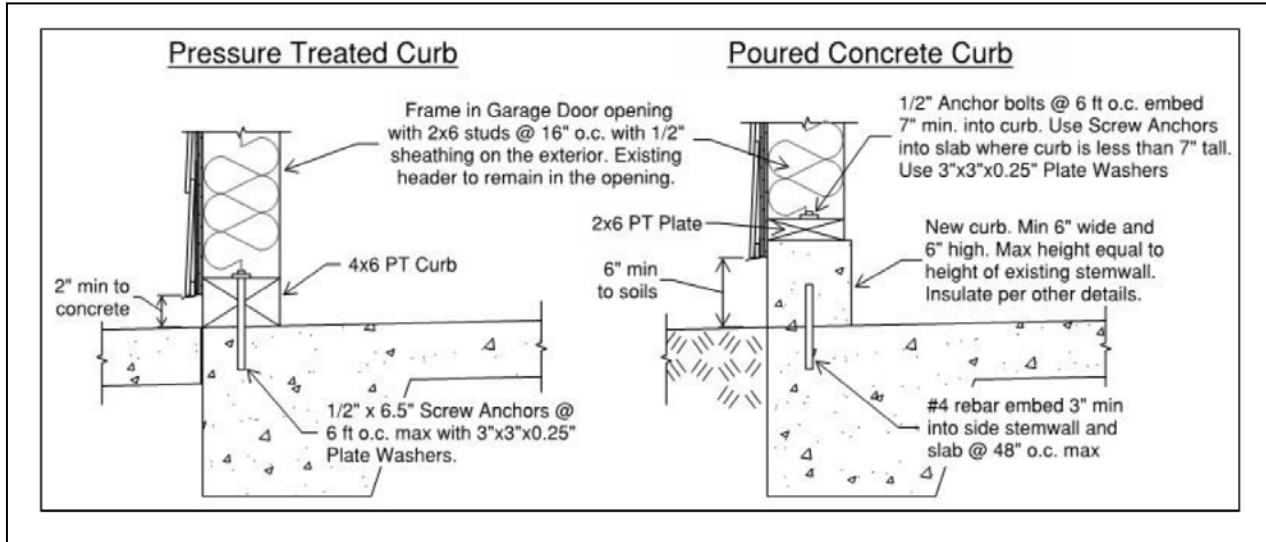
MINIMUM DRAWING REQUIREMENTS

- Plans shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed, and shall demonstrate how the proposed work conforms to the provisions of adopted codes and ordinances.
- Plans must be **drawn to scale** ($\frac{1}{4}'' = 1'$ minimum), dimensioned, and labeled.
- Minimum plan size** 11" x 17".
- Plans shall include:
 - Floor Plan** for each story including:
 - Existing conditions and proposed alterations.
 - Label all rooms as to use (bedroom, kitchen, etc.).
 - Clearly delineated scope of work.
 - Size of all windows and doors; provide height and width.
 - Location of new or relocated plumbing fixtures.
 - Location of existing, new or relocated mechanical equipment and appliances.
 - Existing and proposed smoke and carbon monoxide detectors.
 - Show whole house ventilation if conversion area exceeds 500 square feet.
 - Cross-section** showing floor, wall, ceiling, and roof construction.
 - Framing** details for wall, roof, and floor construction.
 - Show how project meets requirements of the **WSEC**.
 - Stair and handrail** detail, if applicable.
 - Elevation drawings** of exterior walls modified by remodel.
 - Engineering** calculations and stamped drawings if making structural changes that require engineered plans.

GENERAL GUIDELINES

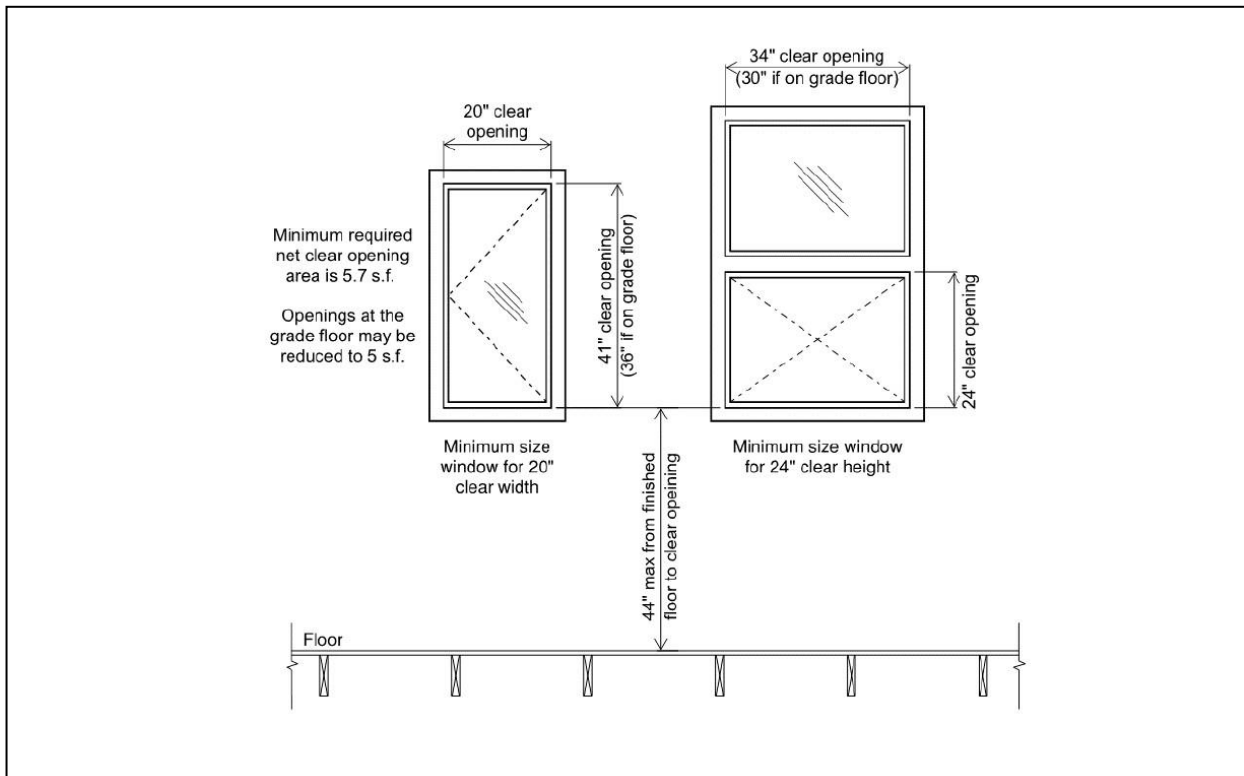
Filling In the Garage Door Opening

Framing details for exterior walls shall show all components of construction. See the energy code section for insulation requirements.



Sleeping Rooms

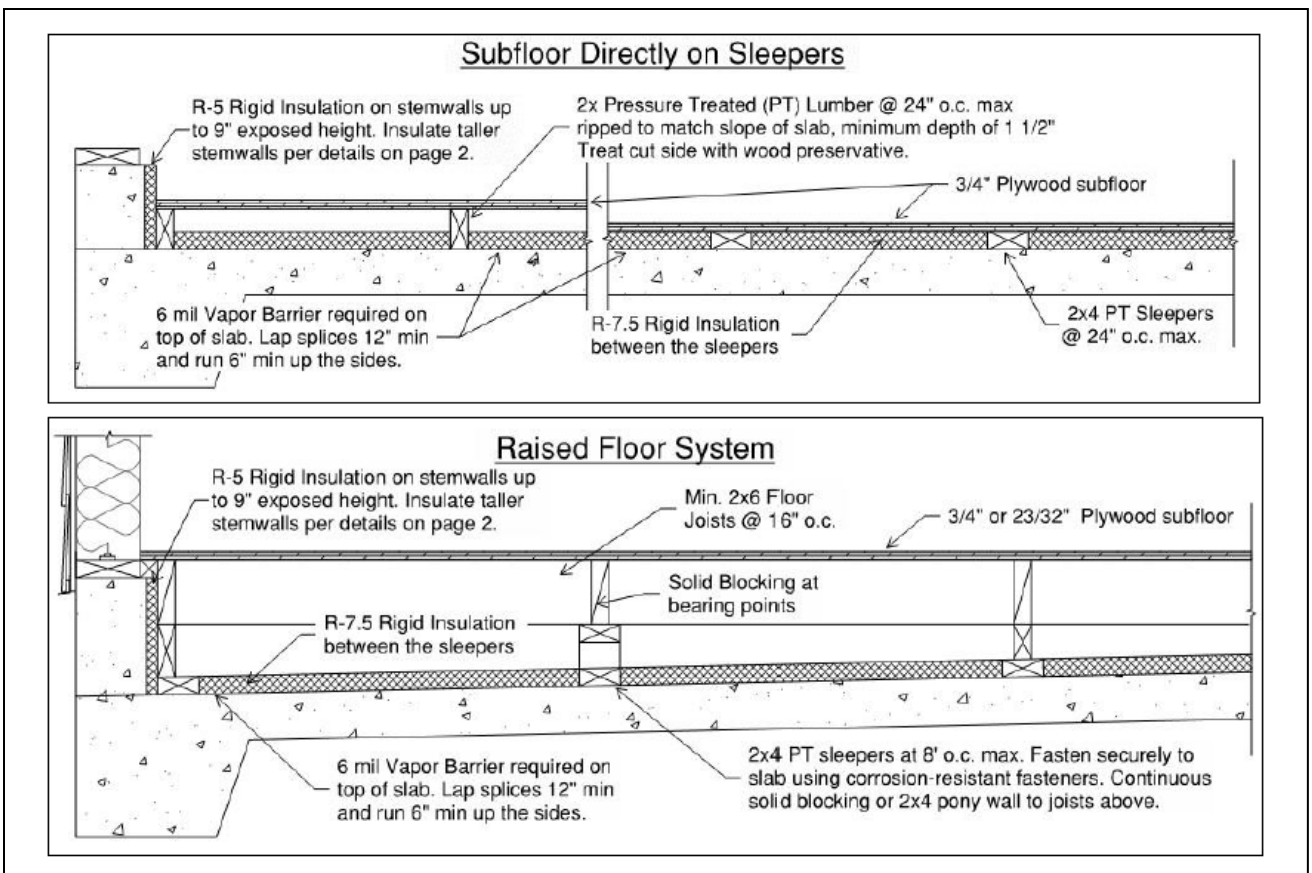
All newly created sleeping rooms are required to have at least one emergency escape and rescue opening. See the following diagram for dimensional requirements. Smoke and carbon monoxide alarms are required outside of and in the immediate vicinity of all sleeping areas, and a smoke alarm is required within each bedroom. Sleeping rooms shall not have windows or doors that open into a garage.



Energy Code

The WSEC requires that any previously unheated space that is being converted to a heated space shall fully comply with the current energy code requirements for attic, wall, and floor insulation; and compliant windows and exterior doors. Specifically:

- **Attic Insulation:** Minimum R-49 for attics (possible R-38 for single rafter framing with no attic space). An attic access panel (minimum 22" x 30") will be required to access the attic area. Since the attic area will now have heated space below the ceiling, it will also need to be ventilated.
- **Wall Insulation:** Minimum exterior wall insulation of the heated space shall be R-21. If existing walls consist of 2x4 framing, they will need either rigid or high-density insulation, or to be furred out to accommodate R-21 insulation. The existing garage door(s) will need to be removed and replaced with a framed wall that can accommodate R-21 insulation.
- **Window & Exterior Doors:** Fenestrations (openings in exterior walls) shall have a maximum U-factor of 0.30 (the lower the U-factor, the greater a window or door's resistance to heat flow and the better its insulating properties).
- **Floor Insulation:** The floor of the newly heated area is required to be insulated. While the energy code requires insulation *under* the slab, we realize that removing and replacing portions of the slab is difficult. Below are two insulation options above the slab that are equivalent to under slab insulation. *Note:* If batt insulation is to be used in raised framing without the R-7.5 rigid insulation indicated below, the minimum value is R-30 and the space below the floor joists will either need to be ventilated or filled to capacity with rigid insulation.



Visit www.energy.wsu.edu for energy code requirements and required compliance forms.

Existing Equipment

If existing fuel-burning appliances (furnace, hot water tank, etc.) are to remain in the converted space, combustion air must be maintained. This can be accomplished by direct-vent appliances or construction of a cold room for the appliances while maintaining combustion air requirements. Other methods shall be considered. Areas containing fuel-burning equipment shall not open into a bedroom.