

FINISHED BASEMENT SUBMITTAL GUIDE

Pennsylvania Uniform Construction Code (UCC) referencing the International Residential Code

BUILDING PERMIT REQUIREMENTS: A building permit is required for residential alterations or repairs as set forth in Section 403.62 of the PA Uniform Construction Code. Submit the following items for review and approval:

- **BUILDING PERMIT APPLICATION**
Complete the Building Permit Application. It is necessary to fill out all applicable areas of the permit application including the signature of the permit applicant.
- **PLAN REQUIREMENTS**
Unless otherwise instructed, please submit all plans for review in a digital format. Digitally reviewed and approved plans will be emailed to you upon completion. The permit applicant is required to print and provide hard copies of the approved plans if required by the municipality.
 - Basement floor plan
 - Typical wall cross section
 - Site plan when an egress window well, exterior stairway or Bilco entry will be installed.

PLAN SPECIFICATIONS

Basement Floor Plan

- Label each room specific to its use within the finished and unfinished portions of the basement.
- Location of all existing and proposed partition walls.
- Location of emergency escape and rescue opening including wells or “Bilco” type stairways. (approved window or door).
- Location of the required 110-volt smoke detector(s) with 9-volt battery back-up(s).
- Location of electrical service panel(s) or sub-panel(s). 30” wide x 36” deep needed in front of electrical panels.
- Location of stairway guards (if applicable) and continuous, graspable handrail.
- Location of all plumbing fixtures including sump and sewage ejector pits/pumps.
- Location and size of all dropped soffits or ceiling height changes. (identify unique soffit heights on plans)

Cross Section

- Ceiling height within finished portion of basement including height under dropped soffits and within stairway.
- Lumber size and on center spacing of partition wall studs with pressure treated sill plates.
- Approved fireblock material at top plate separation between wall system and floor system.
- Minimum R-13 cavity (batt) insulation or R-10 continuous foam insulation within all exterior and interior partition walls enclosing habitable space.

2018 IRC CODE REFERENCES

The following code sections are applicable for basement alterations. This list, although not all inclusive, provides guidance on code provisions affecting basement alterations.

- **R302.11 Fireblocking required.** Fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) 2-inch nominal lumber, (2) thicknesses of 1-inch nominal lumber with broken lap joints, $\frac{3}{4}$ " particleboard, $\frac{1}{2}$ " gypsum wallboard, $\frac{1}{4}$ " cement-based millboard or batts / blankets of mineral wool or glass fiber installed in such a manner as to be securely retained in place are approved fireblock materials.
- **R303.7 Stairway illumination.** All interior and exterior stairs shall be provided with a means to illuminate the stairway, including the landings and treads. Interior stairways shall be provided with an artificial light source in the immediate vicinity of each landing and at the top and bottom of the stair.
- **R305.1 Minimum ceiling height.** Ceiling height in basements with habitable spaces may not be less than 7 feet clear height except for under beams, girders, ducts, or other obstructions where clear height shall not be less than 6 feet 4 inches.
- **R305.1 Minimum ceiling height within bathrooms.** Bathrooms shall have a ceiling height of 6 feet 8 inches at the center of the front clearance area for fixtures.
- **R310.1 Emergency escape and rescue.** Every sleeping room shall have at least one approved, openable emergency escape and rescue opening. Escape windows shall have a sill height not to exceed 44" above the floor. Windows are to provide a clear opening of not less than 24" high and 20" wide with a net clear opening of 5.0 square feet. Windows below grade are to be provided with an approved window well 9 square feet in area with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened. Wells with a vertical depth greater than 44" are to be equipped with a permanently affixed ladder or steps usable with the window in the fully open position.
- **R311.7.2 Stairway headroom.** The minimum stairway headroom shall not be less than 6 feet 8 inches.
- **R311.7.8 Handrails.** Handrails having minimum and maximum heights of 34 inches and 38 inches respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of the stairway of four or more risers. All required handrails shall be continuous the full length of the stairs. Where half walls or partial guardrails are installed, handrails are to remain continuous through these transition points. Ends shall be returned or shall terminate in newel posts or into the adjacent wall.
- **R312.1 Stairway Guardrails.** Open sides of stairs with a total rise of more than 30 inches above the adjacent floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads. Openings between guardrail balusters on the side of stair treads shall be maximum 4-3/8 inches.
- **R314 Smoke alarms.** 110-volt, UL listed smoke alarms with 9-volt battery back-ups are to be installed within a finished basement and in any bedrooms within the basement. The remainder of the dwelling is to be provided with no less than battery alarms on each level of dwelling, outside of each sleeping area and in each bedroom.
- **R315 Carbon monoxide alarms.** Where work requiring a permit occurs in existing dwellings that have attached garages or in existing dwellings within which fuel-fired appliances exist, carbon monoxide alarms shall be provided outside of each sleeping area in the immediate vicinity of the bedrooms.

- **M1701/G2407.5 Combustion air.** Air for combustion of flue gases for fossil fuel appliances shall be provided. The minimum required volume shall be 50 cubic feet per 1000 Btu/h input rating. Partitions between confined equipment and adjacent spaces shall be provided with two openings with a minimum free area of 1 square inch per 1000 Btu/h input rating, but not less than 100 square inches each. One opening shall be within 12" of the top and one opening shall be within 12" of the bottom of the enclosure.
- **E3901.9 Unfinished basement receptacles.** At least one GFCI protected, tamper-resistant receptacle outlet, in addition to any provided for specific equipment shall be installed in each unfinished portion of the basement.
- **E3902.16 Arc-fault circuit-interrupter protection.** All branch circuits in finished spaces other than bathrooms that supply 120-volt, single-phase, 15- and 20-ampere outlets shall be protected by combination AFCI's.
- **E4002.14 Tamper-resistant receptacles.** All receptacles added in finished and unfinished portions of a basement shall be listed tamper-resistant receptacles.