

RESIDENTIAL FINISHED BASEMENT BUILDING PERMIT REQUIREMENTS

This guideline is intended to provide the homeowner/contractor with the basic information needed to apply for a building permit to finish or partially finish most existing residential basements.

Complete a Residential Alteration Permit Application on the [Citizenserve Online Portal](#).

Upload a complete set of detailed building construction plans drawn to scale and containing the following:

Framing detail – material, spacing, etc.

Plumbing – fixture types and locations

Electrical – Outlets, switches and light locations

Mechanical – register supply and return locations and exhaust fan details

All room dimensions – include ceiling height and labeling of each room

Required Inspections:

- Plumbing Ground Rough - scheduled and required for new plumbing installed under the basement floor slab
- Complete Rough – scheduled and required after all framing, fire blocking, above ground plumbing, electrical, and mechanical work is completed. This inspection approval is required **before** insulating and/or drywall or paneling can be installed.
- Final Inspection – is conducted upon completion of the project and **before** furniture is installed and/or the room(s) are used.

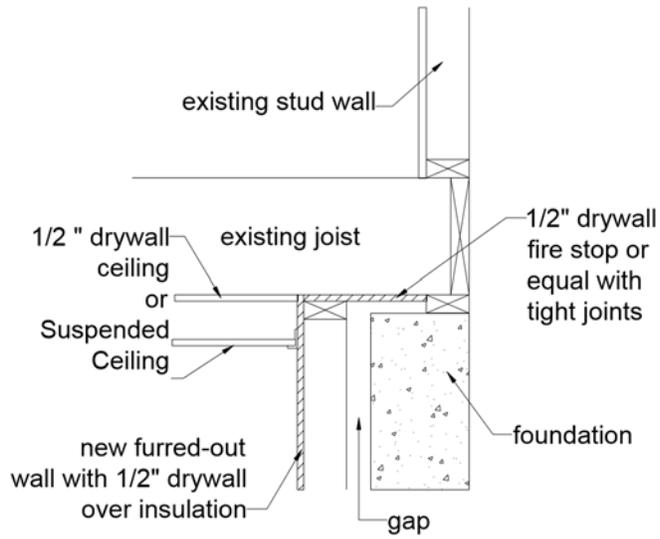
The permit applicant is responsible to call for all required inspections. Please email buildinginspections@lakesaintlouis.com or schedule using the [Citizenserve Online Portal](#).

Construction Design Guidelines:

- Draw plans to scale with finished dimensions.
- Every **sleeping room** in a basement shall have one operable emergency escape and rescue opening. The minimum clear opening dimensions of the window shall be at least 24 inches high and at least 20 inches wide. The total opening size of the window for escape or rescue shall be 5 square feet if the window sill is 44 inches or less below the exterior finished grade. The bottom of the windows clear opening shall not be installed more than 44 inches above the inside finished floor.

- Smoke detectors are required within 3 feet of the basement stairs, in all sleeping rooms and also in close proximity outside sleeping rooms. Smoke detectors shall be interconnected with all other smoke detectors in the house and shall have a battery backup. Smoke detectors are required in all unfinished areas.
- Carbon Monoxide detectors must be installed outside of each sleeping area, this includes existing sleeping areas on all floor levels.
- Receptacles serving counter tops within 6 feet of a sink must be GFCI protected.
- If plans propose concealment or enclosing a fuel fired appliance, such as a gas furnace and/or water heater, proper ventilation at the top and bottom of the room is required for combustion air. Each ventilation opening shall equal 1 square inch per every 1000 BTU's of input for the gas fired appliances. A louvered door or air grates through wall(s) to adjoining spaces can accomplish this. Remember to provide door opening(s) wide enough for repair or replacement of your mechanical equipment. Also, remember to maintain the manufacturer's clearance recommendations around all mechanical equipment.
- Finished ceiling height shall not be less than 7 feet. Beams may project down an additional 6 inches to 6 feet - 6 inches.
- Hallways require a minimum 3 foot (36 inch) wide finished width. If using ½ drywall, the rough width should be at least 37 inches wide.
- Arc fault circuit interrupter protection is required to protect all new circuits in all new habitable spaces.
- Receptacles shall be spaced within 6 feet of door openings then every 12 feet measured horizontally along the wall edge of the floor.
- Bathrooms require exhaust fans that shall be vented to the exterior. Vent ducts are required to be fastened to the vent with a screw or clamp.
- Receptacles within bathrooms and unfinished areas of the basement require a ground fault circuit interrupter (GFCI). Bathroom GFCI outlets must be on a dedicated 20 amp circuit and within 36" of sink bowl edge.
- Concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs must be blocked at the ceiling and floor level and vertically at intervals not to exceed 10 feet. Approved materials would include, but are not limited to: ½ inch drywall, 2 by lumber, metal flashing, rock wool (or paperless fiberglass) insulation, and/or fire caulk. All holes/gaps in top plate must be sealed.
- If ACQ treated lumber bottom plates are required or if you choose to use them, approved fasteners are required. Hot-dipped galvanized or stainless steel fasteners are acceptable.
- Storage areas located beneath the stairs shall be enclosed by minimum ½" drywall.

Typical Foundation Wall Detail



Typical Basement Floor Plan

