



The City of Lakewood adopted the 2021 International Residential Code Appendix F effective June 30, 2023. This handout applies to all new one and two-family dwellings and townhouses constructed from plans submitted on or after July 1, 2023, or from existing master plans with permit applications submitted on or after July 1, 2023.

Radon control methods are required for room additions added to homes that were constructed with a radon control system at the time of original construction. The provisions of Appendix F are not retroactive and are not intended for retrofitting existing structures.

The information provided in this handout is not a complete list of the requirements of 2021 IRC Appendix F. It is intended to be an overview of the basic requirements. Please thoroughly read Appendix F and the City of Lakewood amendments. Please note that Radon systems must be tested at the end of construction and upgraded to an active system should tests show the passive system does not reduce radon levels to below acceptable levels.

General Information:

The basic radon control system consists of:

- A 3-inch or 4-inch solid pipe extending from below the floor or sub-slab grade, through the home to a termination above the roof structure.
- The vent pipe must be fitted with a T-fitting below grade to collect and transport radon gasses to the exterior of the home. The T-fitting must have an extension installed on each end of at least 12 inches in length and the opening must be covered with mesh or filter cloth to prevent closure from gravel or concrete.
- Any exposed and visible portion of the radon control pipe must be labeled to read "Radon Reduction System" including pipe located in the attic.
- The vent pipe must be accessible in the attic or on the outside of the building to allow future installation of a radon control vent fan.
- The vent pipe must terminate at least 12 inches above the roof and a minimum of 10 feet from any window or other opening into conditioned spaces located less than 2 feet below the radon exhaust termination, and at least 10 feet from any opening in an adjoining or adjacent building.
- All penetrations of the foundation, slab or floor for plumbing, structural columns, heat ducts, radon control pipes, or other similar penetrations must be sealed tight with caulking. All seams, expansion joints and gaps in the concrete or wood floor must also be sealed with caulking.
- The interior sump pit must be fit with a gasket and sealed even if the sump is not being used to collect radon gases.
- An electrical junction box with a dedicated circuit must be provided either in the attic or on the roof of the home for future installation of an in-line radon control vent fan.
- Crawl space or basement areas that are separated by foundation walls must have separate radon control systems installed. The collection system can be tied to the primary radon control vent pipe or you can run separate pipes.
- Buildings with crawl spaces that have an approved mechanical ventilation system are not required to have a radon control pipe installed within the crawl space provided that any access to the crawl space is sealed and fit with a gasket, and the ground is covered with a continuous layer of 10 mil polyethylene.

Building Plans:

- Building plans and applications submitted on or after September 1, 2018 must include details for the locations and installation of the required radon control methods. Plans must include:



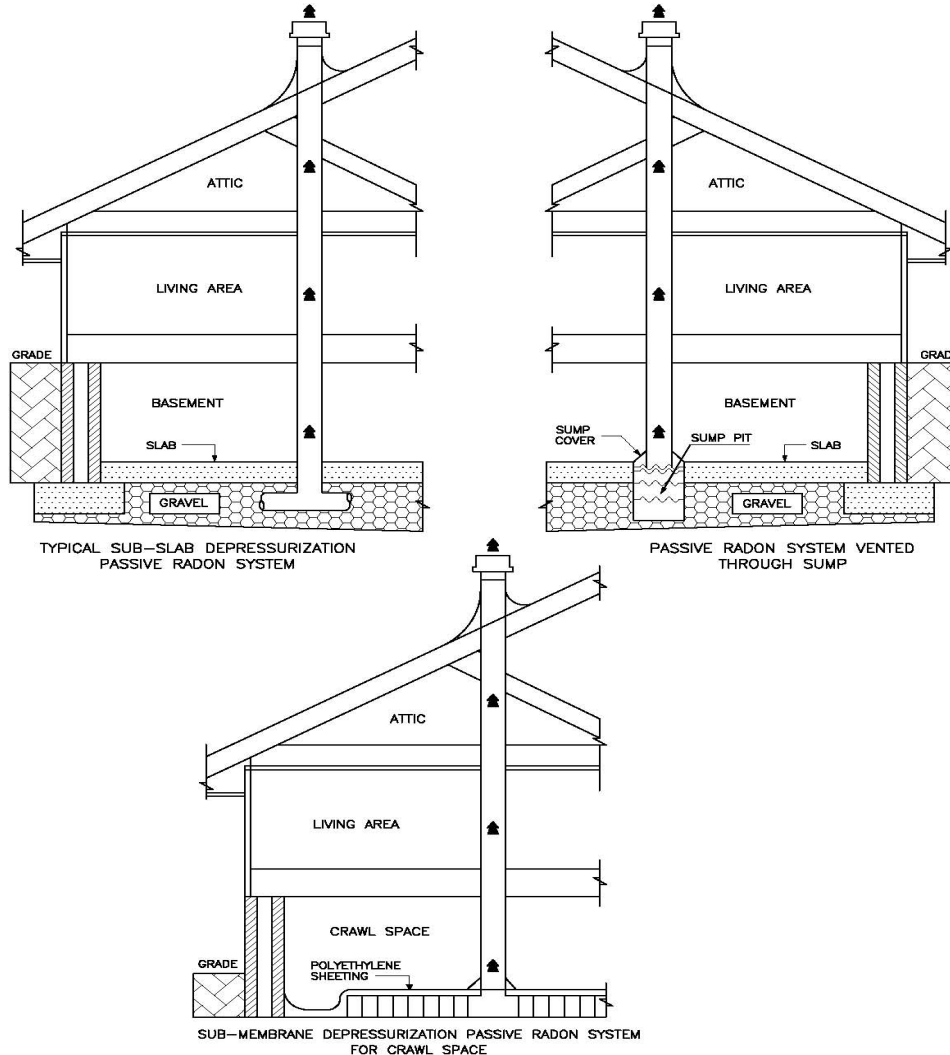
Lakewood

Radon Control Methods

- Location of radon vent pipe(s)
- Location of the required electrical circuit for the future fan
- Details of installation when the control pipe is taken from a sump
- Details to seal interior sump lid

Inspections: The radon control method system will not require additional inspections.

- The underground pipe and T-fitting will be inspected along with normal underground plumbing.
- Gravel in the trenches will be observed at or before foundation damp or water proofing inspection.
- Roof termination will be inspected at rough inspection along with all other rough plumbing vents.
- Electrical circuit will be inspected at rough electrical inspection.
- The required label on exposed radon control pipes will be verified at final building inspection.



We are happy you are building in Lakewood, and we want to provide whatever information you require. Please call 303.987.7500 with any questions.