CC-1000

Roundtable Discussion

Panelists

- Dawn Oggier
- Kyle Hoylman
- Matt Koch
- Tony McDonald



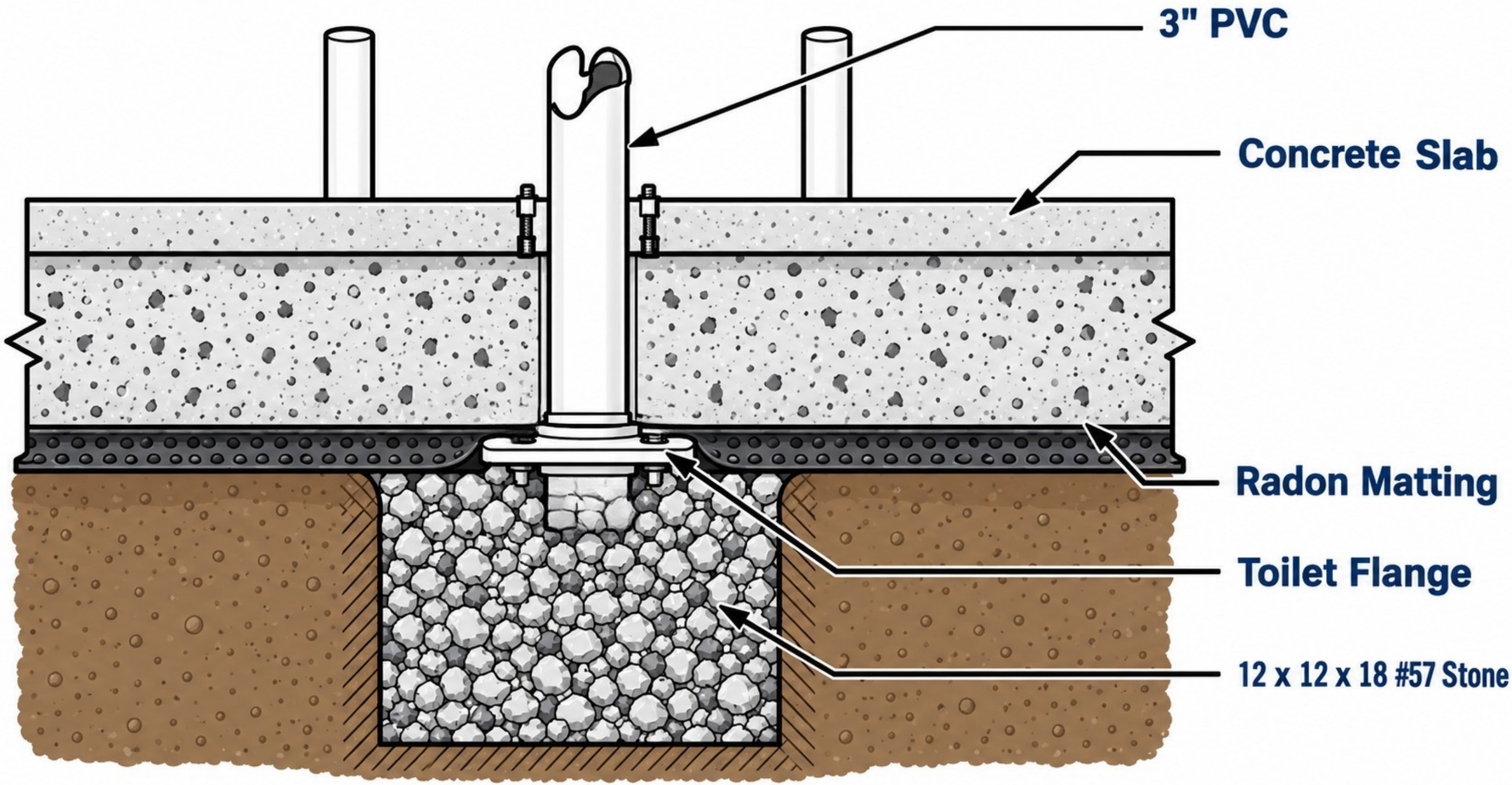
61 Radon Construction Drawings Reviewed



3 MET the ANSI/AARST CC-1000 requirement

58 DID NOT MEET the requirement

4.9% Compliance rate


3" PVC
Concrete Slab
Radon Matting
Toilet Flange
12 x 12 x 18 #57 Stone

CC-1000

Duct size changes and transitions

5.6.4 Duct size changes

Exhaust vent piping shall not decrease in size in the direction of airflow, from its connection to inlets or inlet ducting below the top of the plenum to the roof discharge or termination.

5.6.5 Transitions

Connections between different materials or shapes shall maintain the cross-sectional dimensions of the connected main trunk, secondary trunk, or branch ducting.

Whole system inlet capacity

5.7.3

“The combined total area of all unobstructed inlet air transfer openings on the face of aggregate or soil shall be not less than twice the equivalent cross-sectional pipe diameter required in Section 4.3 (Soil gas vent systems per plenum size).”

Table 5.7.1 Minimum inlet air transfer capacity: 3-inch example

Duct pipe size	Minimum gravel surface face	Pit in a 4-inch gravel layer	Perforated pipe at 1.0 in²/ft
3 in	214 in²	**4 in × 12-in diameter**	**3 in × 18 ft**



What enclosed spaces require to be included in a sub-slab venting system design?

Soil Gas Collection Plenums

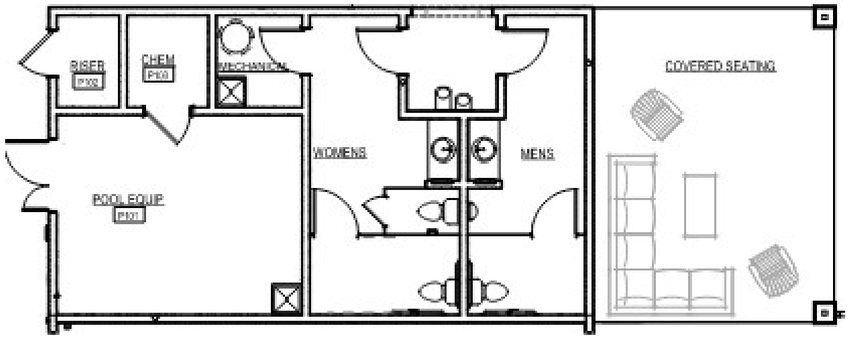
SECTION 3: REQUIREMENT SUMMARY

3.1 General

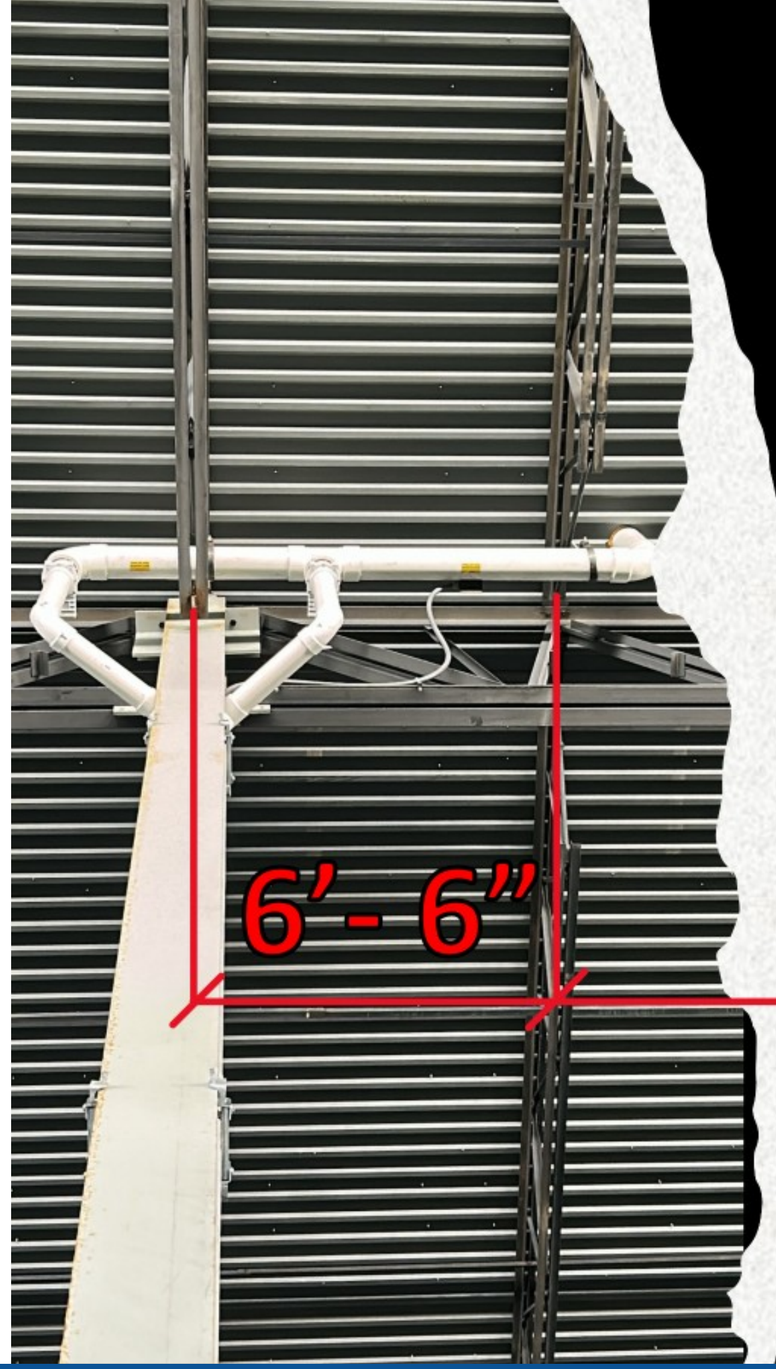
Soil gas control shall be designed and constructed for all portions of foundation systems where there is enclosed space immediately above *crawl spaces* and slab-on-grade or basement slabs. The design and subsequent inspections of work in progress shall be conducted in coordination with an individual who is trained and qualified for design of systems that comply with this standard.

Would you include any of these building areas/types in a sub-slab venting system design?

- Pool cabana with 2 bathrooms and a pool equipment room?
- Enclosed storage (non-conditioned) in bottom floor of an open-air parking garage with parking levels directly above?
- Remote stair tower in an open-air garage that services upper-level apartments?
- Detached 4 car garage that does not have any living space above?







8.5 Pipe Support.
Above ground piping shall be supported by the structure of the building using hangers or strapping designed for piping support. Supports for plastic horizontal piping shall be installed at intervals not exceeding **4 feet** (1.2 m) and supports for vertical piping shall be installed at intervals not exceeding 10 feet (3 m).

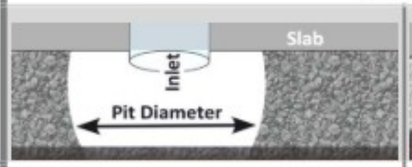
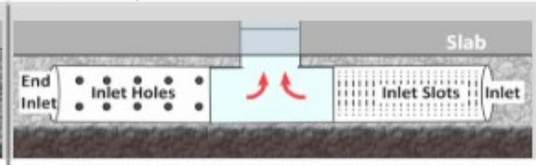
How do you comply when the building structural members exceed 4’ on center?

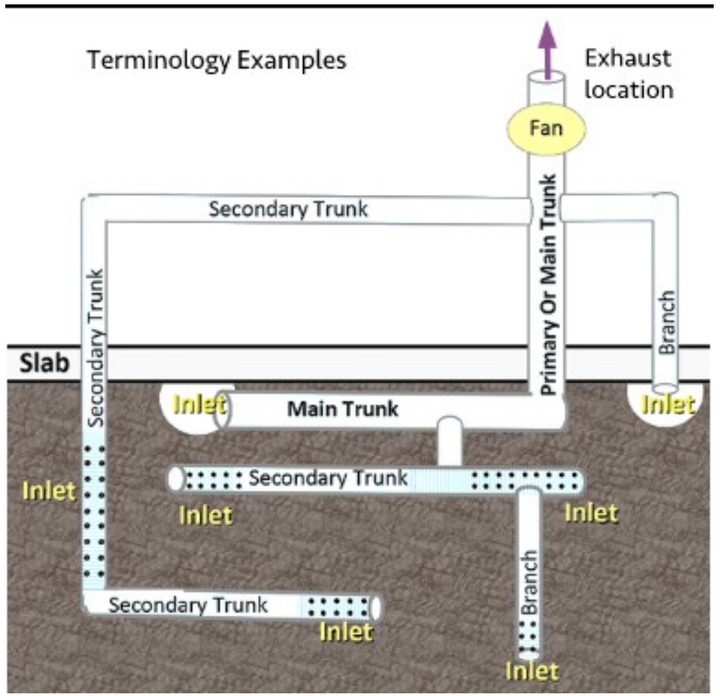


What is the purpose of sub-slab ductwork?

- Table 5.7.1 lists the minimum length of pipe/inlet openings from a riser, so why do you use sub-slab ducting?

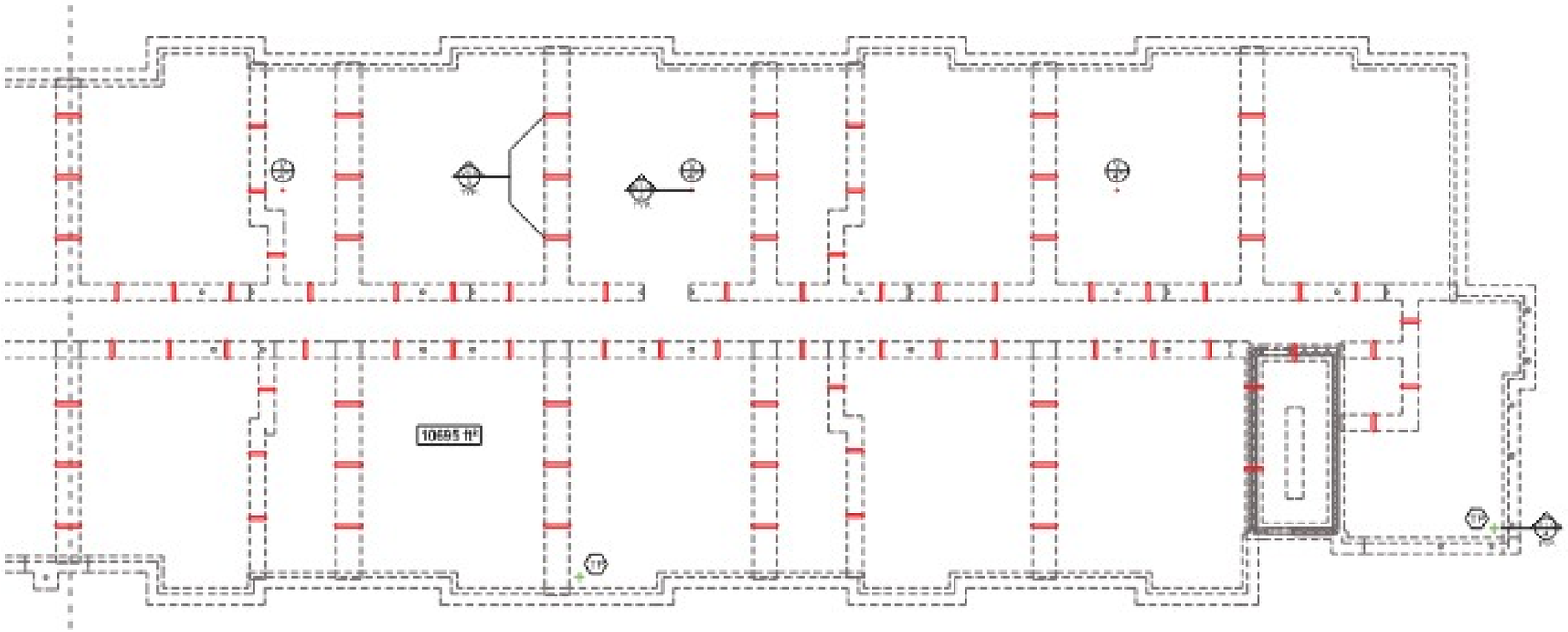
Table 5.7.1 Examples of Minimum Inlet Air Transfer Capacity

Minimum surface-face for gravel size numbers 5, 56, 57 or 6 to achieve required air transfer openings between stones.		Common Examples		
				
Duct pipe size	Minimum surface face of the gravel	Open face of gravel for pits with a 4" (10 cm) layer gravel.	Equivalent openings per length of perforated pipe Minimum for ASTM F705, F758, D2729, AASHTO 252: 1.0 in²/ft (21 cm²/m)	Other product examples
3" (7.6 cm)	214 sq in (1,383 cm²)	= 4" x 12" diameter pit (10 cm x 30 cm)	3" x 18 ft (5.4 m)	
4" (10.2 cm)	381 sq in (2,458 cm²)	= 4" x 16" diameter pit (10 cm x 33 cm)	4" x 32 ft (10 m)	4" x 7 ft (2.3 m) 2.0 in²/ft (42 cm²/m)
6" (15.2 cm)	857 sq in (5,531 cm²)	= 4" x 24" diameter pit (10 cm x 61 cm)	6" x 71 ft (22 m)	6" x 40 ft (12 m) 2.0 in²/ft (42 cm²/m)



What is the purpose of sub-slab ductwork?

- Does this design comply?



Sub-slab ducting design for systems without aggregate. (5.5.3)

- Example given is for a building without grade beams. What does a design for a building with grade beams/waffle slab look like?

Table 5.5.3
Requirements For Alternative Gas Permeable Layers

