

PRINTS MODIFIED TO INCORPORATE  
RADON REDUCTION SYSTEM  
USE ONLY FOR INSTALLATION OF  
RADON REDUCTION SYSTEM

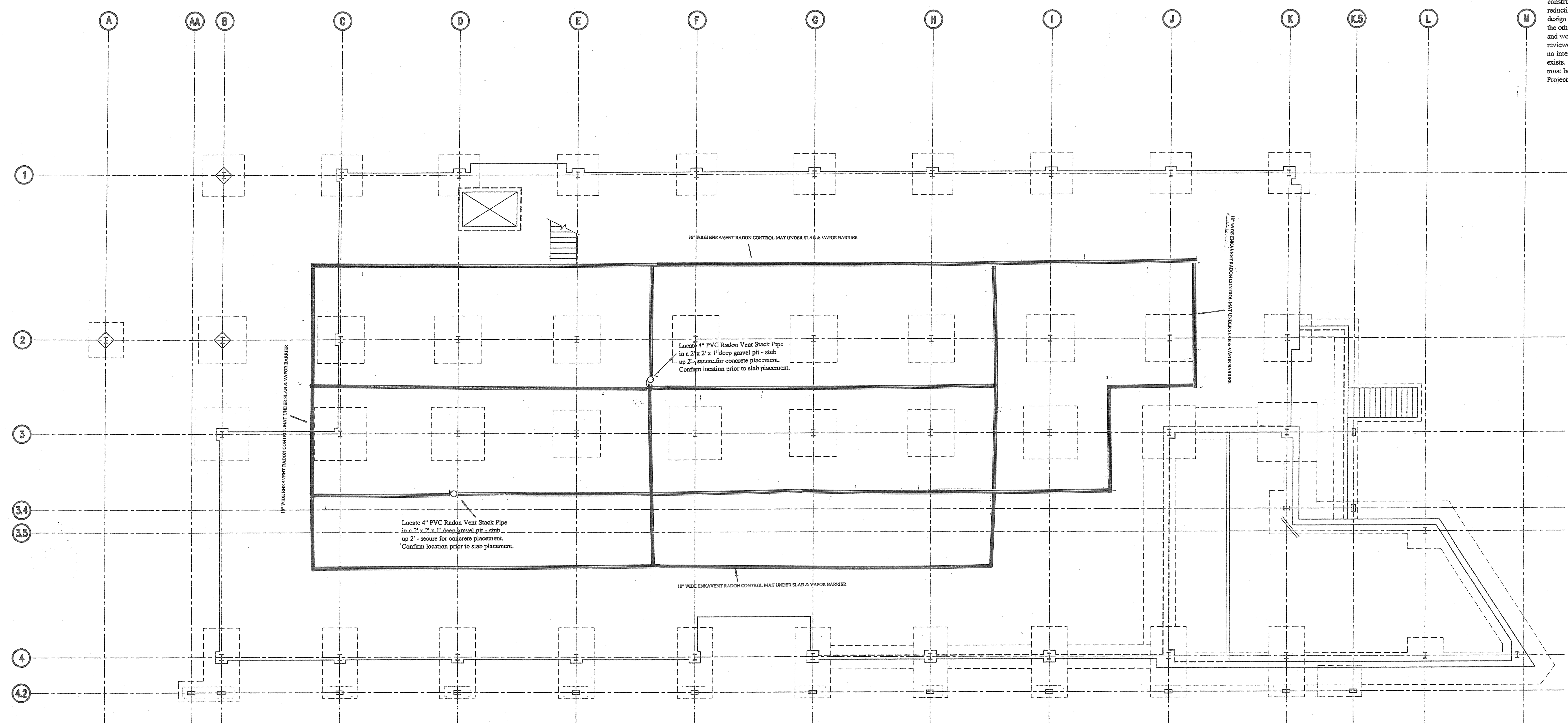
RADON RESISTANT CONSTRUCTION  
DETAIL GENERAL NOTE

The radon resistant construction detail sheet involves modification of certain specific standard construction features, the addition of radon reduction sub-slab installations, and certain other design alterations that may affect many or all of the other trades; project scheduling, coordination and work schedules. The design must be reviewed by each subcontractor to determine that no interferences with planned construction details exist. Any discovered conflicts or interferences must be reported to the General Contractors Project Manager for resolution.



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SCHOOL OF BUILDING CONSTRUCTION  
UNIVERSITY OF FLORIDA-GAINESVILLE  
PROJECT NO. BR-191

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PRINTS MODIFIED TO INCORPORATE  
A SOIL GAS REDUCTION SYSTEM, USE  
ONLY FOR THAT PURPOSE.

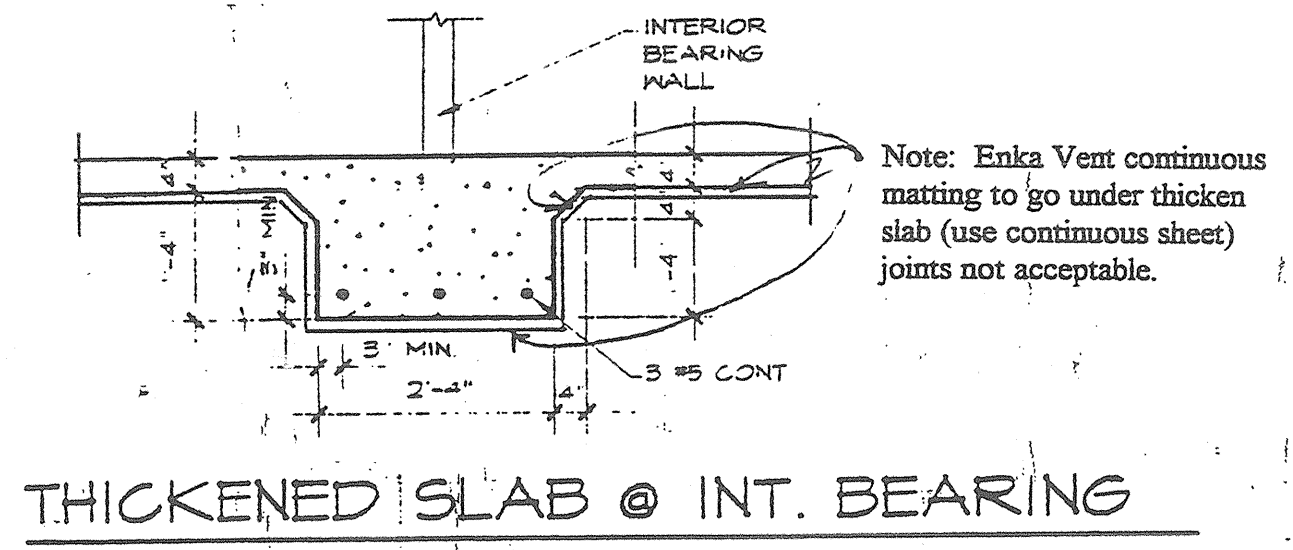
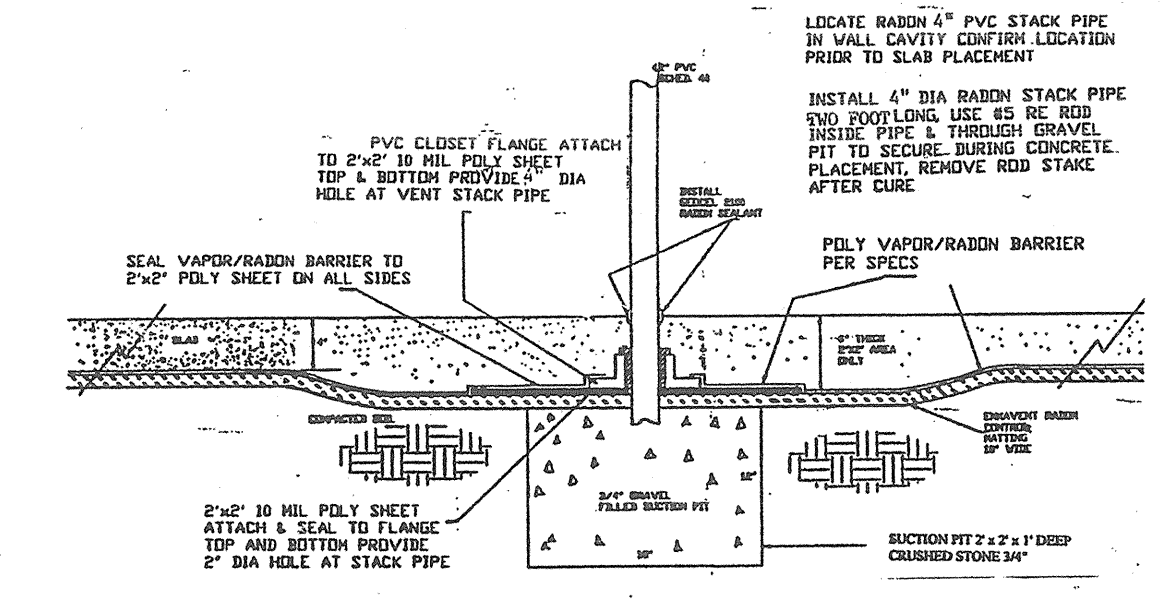
**1 1/8"=1'-0" RADON PROTECTION SLAB ON GRADE PLAN**

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**RADON RESISTANT CONSTRUCTION DETAILS**  
Sealing, Foundation Details, Passive Radon Control System Installation General Details

1. Install 18" wide EnkaVent radon control matting under slab, located as indicated on plans sheet, location may be adjusted due to field conditions with consultants approval.
2. Install 2' x 2' x 1' deep gravel filled suction pit at each radon stack pipe location on plans sheet, location may be adjusted due to field conditions with consultants approval. Location of radon stack pipe must be confirmed by the contractor prior to slab concrete placement.
3. Install 4" PVC radon vent stack pipes thru slab to run through upper level floors, then through appropriate roof membrane penetration and flashing detail. Coordinate roof penetration, 4" Dia. and expose 12" of 4" PVC vent pipe above roof surface. Provide pipe support and fire protection as per code. Provide 110 volt, 20 amp duplex within 6' of each radon stack roof penetration.
4. Install 10 mil poly vapor barrier to also act as an in place radon retarder. Overlap all seams, splices, joints, repairs, or punctures 18" and optionally seal with approved 2" or 3" tape. Install with the minimum of seams or splices. Run vapor/radon barrier to within 1/4" of all walls or any specified isolation material. Install vapor/radon barrier material immediately after the installation of the underlying EnkaVent radon control matting. Fit vapor/radon barrier to within 1/4" of any pipe, conduit or other slab penetrations, a 12" x 12" poly material patch with pipe size hole cut in the center and taped to the vapor/radon barrier on all sides may be used.
5. A/C service lines must be run from a point above grade in a vapor tight conduit to a point above the interior slab elevation.
6. Apply curing compound, Meadows Sealite #1100, or equal, to slab concrete ASAP after placement.
7. Seal and caulk all slab construction joints, isolation joints, saw cuts, pipe and conduit slab penetrations prior to wall closure with Silca-Flex 1A polyurethane sealant or equal, minimum 1/4" bead on cleaned surfaces. Any foam insulated piping shall be sealed by tightly clamping the foam within the slab area and removing 1/2" of insulation at slab surface and sealing with approved polyurethane sealant. Column penetrations shall be caulked in a similar manner.
8. All slab openings and column base openings or any repaired slab holes shall be filled with a non-shrink construction grout, Benzol F-77 or equal.
9. No hollow or conduit type stakes shall be used or left in place by any trade, penetrations to the radon vapor barrier shall be kept to a minimum, the use of solid re-bar material for staking is recommended.
10. Exhaust from radon fan must be at least 10 feet above grade and away from any intake vent.



**RADON RESISTANT CONSTRUCTION INSTALLATION NOTES**

In accordance with current EPA and Florida DCA/radon resistant construction guidelines a passive sub-slab depressurization radon control design has been chosen for this project. The installed system may be made into an active system by the addition of a RadonAway in-line suction fan mounted on the roof.  
The system presented consists of a pattern of 18" wide EnkaVent radon matting strips installed on top of finished and compacted sub-grade. These are intended to provide a controlled suction path and wide distribution under the slab. The suction is distributed into the EnkaVent mat by means of a gravel filled suction pit under the bottom surface of the mat at a designated location for the PVC radon suction stack pipe. The radon stack pipe runs through each floor deck to an exit point in the roof area. The radon resistant construction details also include sealing of all slab penetrations, construction joints, saw cuts, and other openings.  
It is critical that the EnkaVent matting be carefully covered with the specified vapor barrier material (10 mil poly) and that any overlaps or seams in the barrier material not be in the area or adjacent to the EnkaVent mat. No concrete or sand fill must be allowed to enter the interior of the matting. The EnkaVent is installed after all building pad preparation is complete and just prior to the installation of the vapor barrier. The suction pits and exact radon stack pipe location must be determined prior to laying the matting on the pad. The vapor barrier should be installed with 18" overlaps and with the minimum number of seams. The radon stack pipe will pass through each deck and ceiling with the appropriate fire and smoke protection. The roof penetration should be 12" above the roof surface and a minimum of 10' from any opening into conditioned space. All horizontal stack pipe runs must pitch back to the suction pit 1/16" per foot.  
A pre-wired electrical power source should be placed in close proximity of each roof stack penetration.

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Radon Resistant Construction Details  
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100% CONSTRUCTION DOCUMENTS

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