Where to Test in Commercial/ Multifamily Buildings (10% vs 25% vs 100%)



Presented by: Myca Bruno



Where are These Testing Protocols Applicable?

- Freddie Mac (and *sometimes* Fannie Mae)
  - **10%*** of total ground contact units (with a minimum of 1 ground contact unit per building)

- HUD Healthcare Mortgage Insurance Program (Section 232)
  - Compliance with the ANSI/AARST standards; however, allows deviation to testing protocols consisting of **25%*** of ground contact locations instead of 100% of ground locations during initial testing.
  - 10% of upper locations per floor per building still apply

If there are any results that meet or exceed the EPA action level (4.0 pCi/L), you must test the remainder of ground contact locations to meet compliance with the 100% ground contact testing protocols per the ANSI/AARST standard.

*If there are state regulatory requirements, then must comply with the state requirements instead.

- ANSI/AARST Standards
  HUD Multifamily (MAP)
  Most states with regulatory requirements related to radon measurement
  - **100%** of ground contact units and common areas/offices, etc. + 10% of upper units

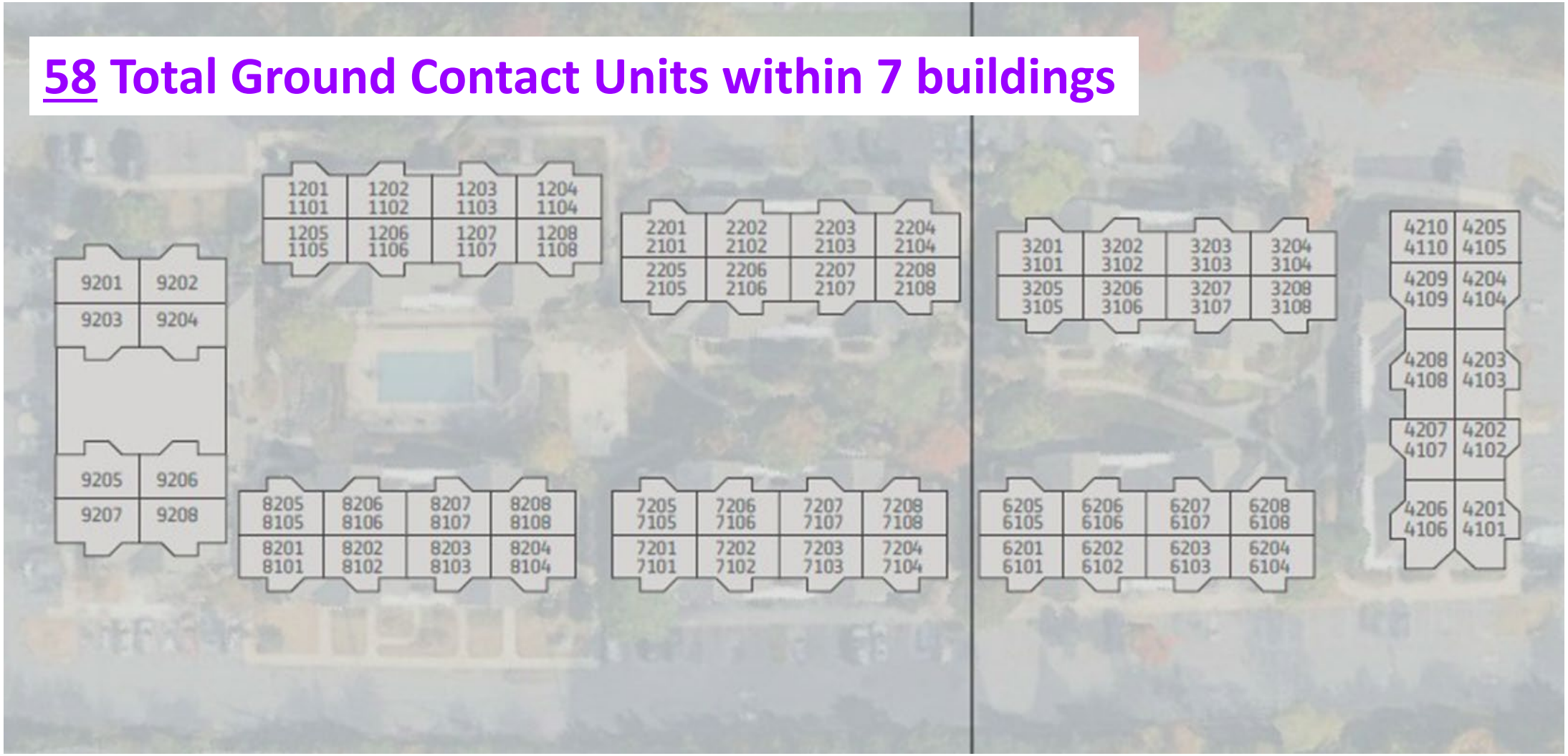
PLOT TWIST

Some states do not have regulatory requirements related to radon measurement but do have regulatory requirements to comply with the ANSI/AARST standards for radon mitigation.

Keep in mind that once radon mitigation is complete, post-mitigation clearance testing must be completed per the ANSI/AARST standard….

Which may result in additional locations with results that meet or exceed the action level requiring additional mitigation if initial testing was not conducted per the ANSI/AARST standards.

10% of Total GC locations per Freddie Mac



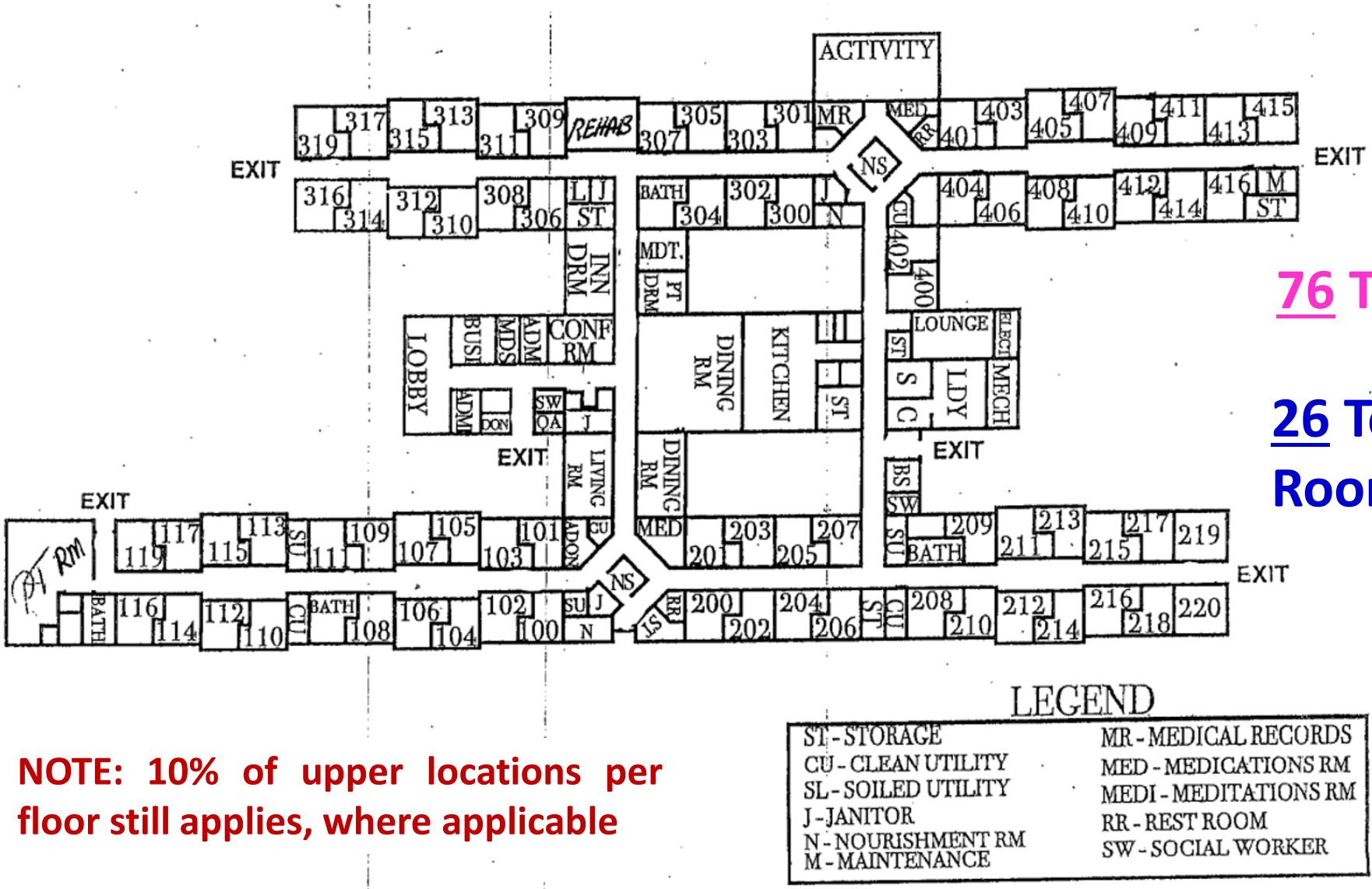
7 Total Ground Contact Units included in testing = minimum of 1 GC unit per building



No ground contact units per Freddie Mac's definition

NOT included in testing:
Upper units + Common Areas/ Offices etc.

25% of GC Locations Allowed by HUD Section 232



76 Total Resident Rooms

26 Total "Non-Residential" Rooms/ Areas

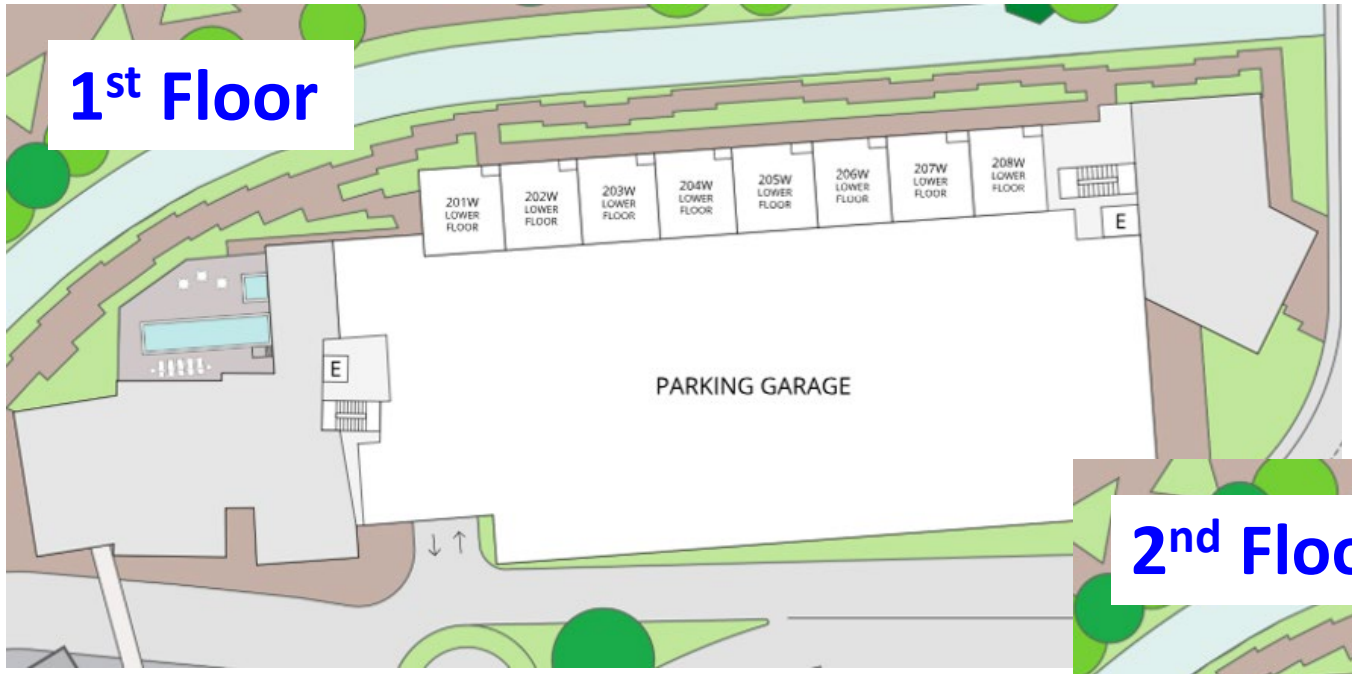
NOTE: 10% of upper locations per floor still applies, where applicable

25% of 76 Resident Rooms = 19

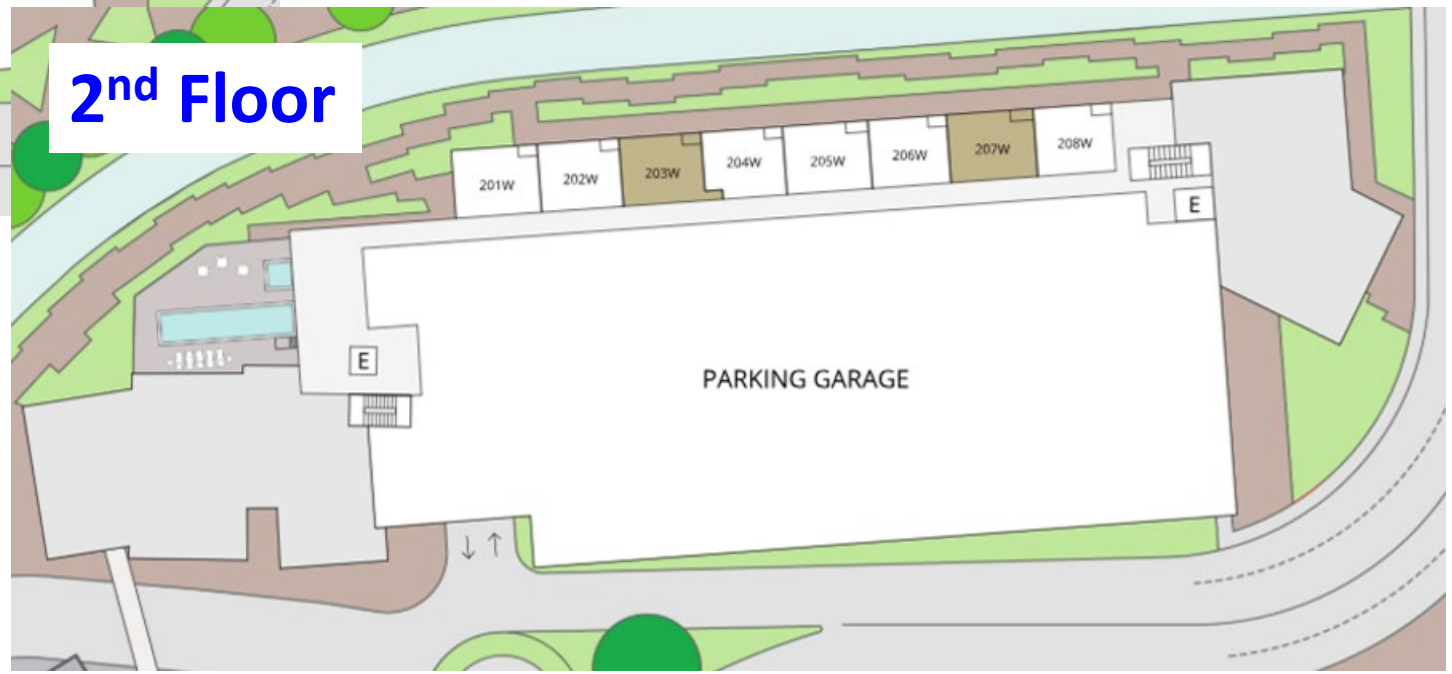
25% of 26 "Non-Residential" Rooms/ Areas = 6.5 = 7



Testing Protocols for 100% of GC Locations



"Ground Contact" testing protocols do not mean 1st floor only = 100%



These 8 townhomes units are included within the 100% GC testing….

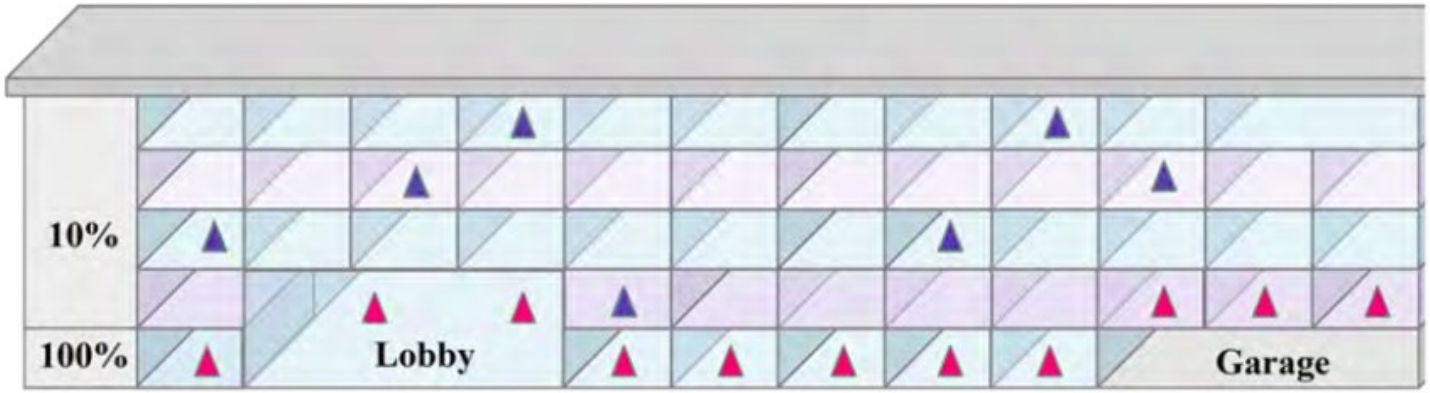


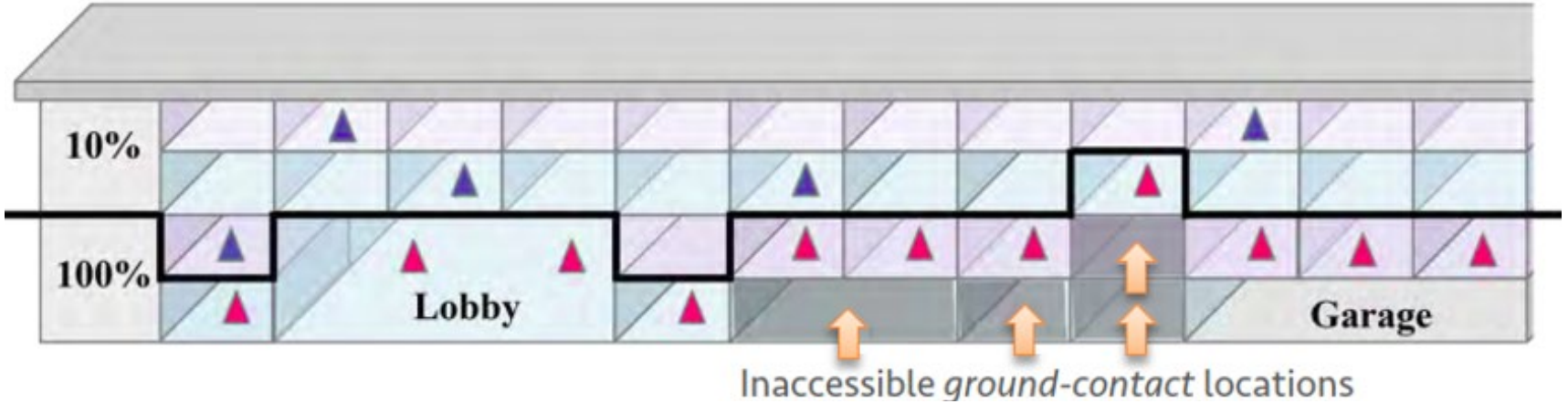
…All units on the 3rd floor would also be included in the 100% GC testing, with the exception of the outlined units.

The outlined units would be included as upper units at 10% = 1 unit

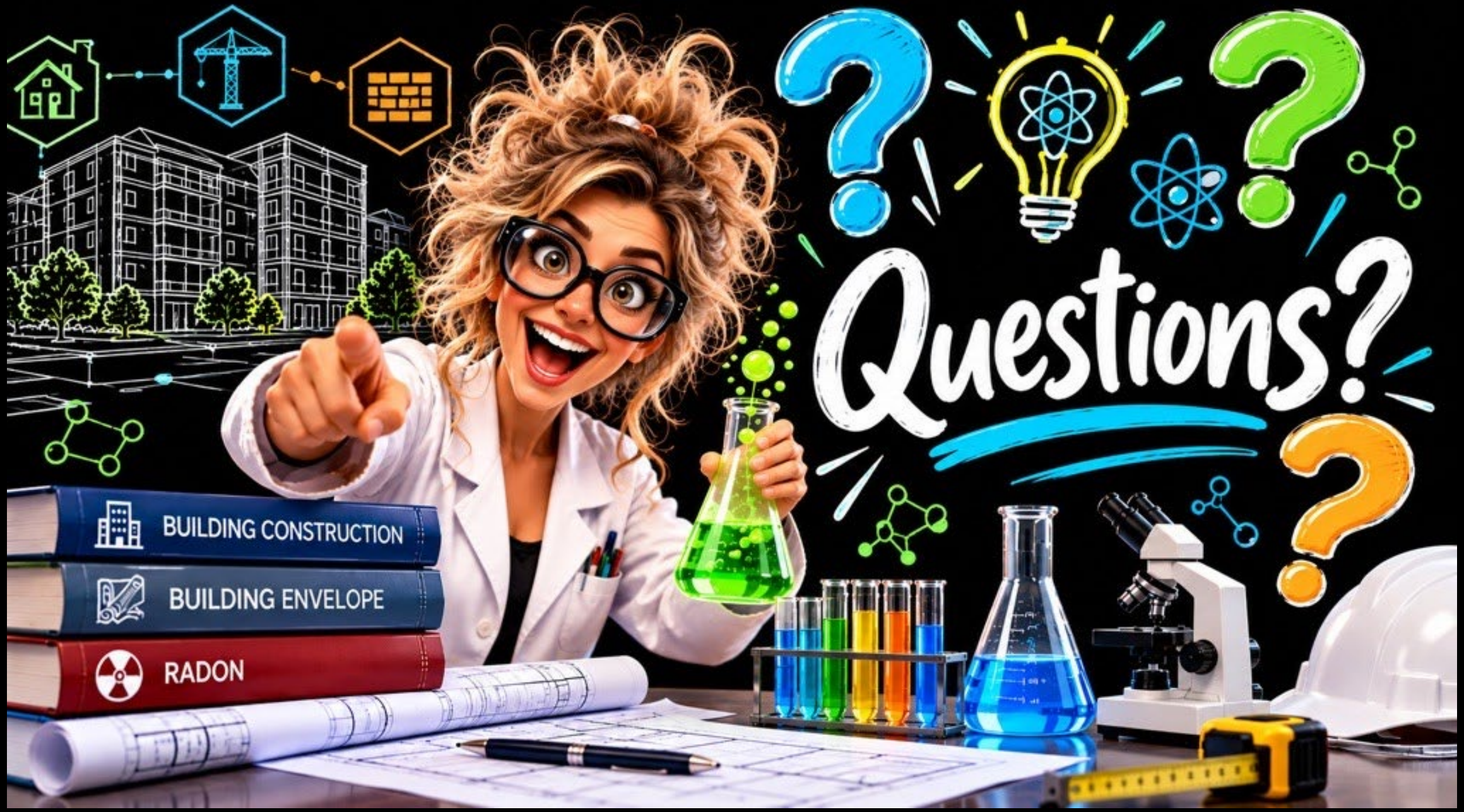
Multifamily buildings are NOT all created the same

“Ground contact” does not always mean directly touching the ground





ANSI/AARST *Protocol for Conducting Measurements of Radon and Radon Decay Products in Multifamily, School, Commercial and Mixed-Use Buildings* (MA-MFLB-2023)


Questions?
BUILDING CONSTRUCTION
BUILDING ENVELOPE
RADON