

BEYOND

SMART CITIES

INDOOR ENVIRONMENTAL QUALITY - GREEN

BUILDING TECHNOLOGY TRAINING PROGRAM

FOR GREEN BUILDING AND SUSTAINABILITY SPECIALISTS

KRISHNAJI PAWAR, LEED AP BD+C, GSAS CGP, ISO 14001:2015, GCP

GREEN BUILDING SPECIALIST CURRICULUM

GREEN BUILDING SPECIALIST

BEYOND SMART CITIES

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ENVIRONMENTAL TOBACCO SMOKE CONTROL

PREREQUISITE

FOR GREEN BUILDING AND SUSTAINABILITY SPECIALIST

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LEARNING OBJECTIVES



Intent of Environmental Tobacco Smoke Control - Prerequisite

Behind the Intent

Step by Step Guidance

Requirements

Required Documentation

Connection to Ongoing Performance

Terms and Definitions



IEQ - PR- DESIGN

INTENT

To prevent or minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to environmental tobacco smoke.

POTENTIAL TECHNOLOGIES & STRATEGIES

Prohibiting indoor smoking is the only way to fully eliminate the health risks associated with ETS. 4 For this reason, designated indoor smoking rooms are not allowed in LEED-certified buildings. Only residential projects are excepted, because of legal ownership issues. The prerequisite also prohibits smoking in outdoor areas used for business purposes. A business that uses a public sidewalk or courtyard for seating or kiosks still maintains control over those areas, even though they are typically outside the property boundary line.

ENVIRONMENTAL TOBACCO SMOKE CONTROL

REQUIREMENTS

For this prerequisite smoking includes tobacco smoke, as well as smoke produced from the combustion of cannabis and controlled substances and the emissions produced by electronic smoking devices. Prohibit smoking inside the building. Prohibit smoking outside the building except in designated smoking areas located at least 25 feet (7.5 meters) from the maximum extent allowable by local codes) from all entries, outdoor air intakes, and operable windows. Communicate the no-smoking policy to occupants. Have in place provisions for enforcement or no- smoking signage.

IMPLEMENTATION

REQUIRED DOCUMENTATION

| Documentation                                                                                                                        | Applies to all projects | Applies to all projects |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|
| The project owner has a written policy prohibiting smoking in the building or on the property or in the building or on the property. | X                       | X                       |
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BEHIND THE INTENT

Tobacco use kills more than five million people worldwide every year.<sup>1</sup> Smoking also puts nonsmokers at risk by exposing them to environmental tobacco smoke (ETS), often called secondhand smoke. In 2006, nearly half of all nonsmoking Americans were regularly exposed to secondhand smoke.<sup>2</sup> ETS exposure at home or in the workplace increases nonsmokers' risk of developing lung cancer, heart disease, and other serious health problems.<sup>3</sup>

Prohibiting indoor smoking is the only way to fully eliminate the health risks associated with ETS.<sup>4</sup> For this reason, designated indoor smoking rooms are not allowed in LEED-certified buildings. Only residential projects are excepted, because of legal ownership issues. The prerequisite also prohibits smoking in outdoor areas used for business purposes. A business that uses a public sidewalk or courtyard for seating or kiosks still maintains control over those areas, even though they are typically outside the property boundary line. They are included under this prerequisite because the business owner still has control over the smoking policy in these areas.

Restricting the introduction of ETS into the building interior not only benefits human health, it also improves the longevity of building surfaces, air distribution systems, furniture, and furnishings when compared with those in buildings that allow smoking.<sup>5</sup>

STEP-BY-STEP GUIDANCE

STEP 1. DETERMINE SMOKE-FREE LOCATIONS

Obtain confirmation from the owner that smoking is prohibited inside the building. Residential projects may allow smoking in specific units, with specific requirements for ensuring that those units are adequately isolated (see *Further Explanation, Project Type Variations*). [↗](#)

- Identify the location of building openings, including entries, outdoor air intakes, and operable windows. Identify the property line and the location of outdoor areas used for business purposes, both inside and outside the property line. Indicate these elements on a site plan, map, or sketch.
- Emergency exits do not qualify as building openings if the doors are alarmed, because alarmed doors will not be opened. Emergency exits without alarms qualify as building openings.

STEP 2. DESIGNATE LOCATIONS OF EXTERIOR SMOKING AREAS

Determine whether the project has or will have designated outdoor smoking areas. Locate any area designated for smoking at least 25 feet (7.5 meters) from smoke-free areas, based on the information gathered in Step 1. The 25-foot (7.5-meter) distance is a straight-line calculation.

- Consider design strategies that may encourage people to use the designated smoking area, such as covered seating.
- Educate occupants on the smoking policy and encourage them to self-police. This is particularly important in retail situations.
- Ashtays signal that smoking is allowed in a particular area. Be sure these are placed outside the 25-foot (7.5-meter) perimeter.

STEP 3. CONFIRM THAT SMOKING IS PROHIBITED IN NONDESIGNATED AREAS

Provide confirmation from the owner that smoking outside designated areas is prohibited in any space used by the building for business purposes, even if the space falls outside the property line. Examples of spaces used for business purposes include sidewalk seating, kiosks, and courtyards.

- Smoking must be prohibited in areas within 25 feet (7.5 meters) from building openings.



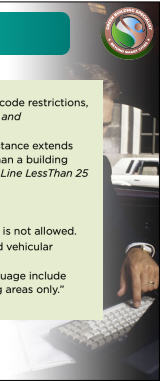
STEP-BY-STEP GUIDANCE +

- If smoking cannot be prohibited for the full 25-foot (7.5-meter) distance because of code restrictions, provide documentation of the regulation (see *Further Explanation, Code Limitations and Restrictions*). ➡
- Smoking in the prohibited area is not allowed, even when the 25-foot (7.5-meter) distance extends beyond the property line. The boundary of the space for business purposes, other than a building opening, indicates the end of a nonsmoking area (see *Further Explanation, Property Line Less Than 25 Feet from the Building*). ➡

**STEP 4. DETERMINE LOCATIONS OF NO-SMOKING SIGNAGE**

Post signage within 10 feet (3 meters) of all building entrances indicating that smoking is not allowed.

- School projects must post signage at the property line adjacent to all pedestrian and vehicular entrances indicating the no-smoking policy for the school site.
- Language on the signage is up to the project team. Two examples of successful language include "No smoking allowed within 25 feet" and "Smoking is allowed in designated smoking areas only."
- It may be helpful to stripe sidewalks to show the no-smoking boundary.



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REQUIREMENTS

For this prerequisite smoking includes tobacco smoke, as well as smoke produced from the combustion of cannabis and controlled substances and the emissions produced by electronic smoking devices.

Prohibit smoking inside the building.

Prohibit smoking outside the building except in designated smoking areas located at least 25 feet (7.5 meters) (or the maximum extent allowable by local codes) from all entries, outdoor air intakes, and operable windows.

Communicate the no-smoking policy to occupants. Have in place provisions for enforcement or no-smoking signage.

**Residential only**

**Option 1. No Smoking**  
Meet the requirements above.

OR

**Option 2. Compartmentalization of Smoking Areas**  
Meet the requirements above for all areas inside and outside the building except dwelling units and private balconies.

Each dwelling unit where smoking is permitted must be compartmentalized to prevent excessive leakage between units:

- Weather-strip all exterior doors and operable windows in the residential units to minimize leakage from outdoors.
- Weather-strip all doors leading from residential units into common hallways.
- Minimize uncontrolled pathways for the transfer of smoke and other indoor air pollutants between residential units by sealing penetrations in the walls, ceilings, and floors and by sealing vertical chases (including utility chases, garbage chutes, mail drops, and elevator shafts) adjacent to the units.



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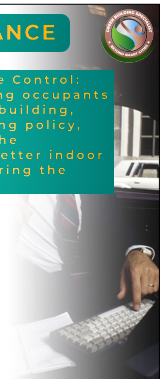
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CONNECTION TO ONGOING PERFORMANCE

**LEED Q+M EQ Prerequisite: Environmental Tobacco Smoke Control:** Strategies undertaken for minimising exposure of building occupants to environmental tobacco smoke in a newly constructed building, such as effective communication of the building's smoking policy, may help create precedence for prohibiting smoking in the operations phase of the building and can contribute to better indoor environmental quality performance for the occupants during the operations phase.



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REQUIRED DOCUMENTATION

| Documentation                                                                                                                                                                                                            | All projects where smoking is prohibited | Residential projects where smoking is permitted |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------|
| Description of project's no-smoking policy, including information on how policy is communicated to building occupants and enforced                                                                                       | X                                        | X                                               |
| Copy of no-smoking policy, signed letter from owner describing project's no-smoking policy and enforcement, or copy of any legally binding covenants or restrictions to verify status of residential units as nonsmoking | X                                        |                                                 |
| Door schedule demonstrating weather-stripping at exterior unit doors and doors leading from units to common hallways                                                                                                     |                                          | X                                               |
| Differential air pressure test report for units in project building                                                                                                                                                      |                                          | X                                               |
| Scaled site plan or map showing the location of designated outdoor smoking and no-smoking areas, location of property line, and site boundary and indicating 25-foot (7.5-meter) distance from building openings         | X                                        | X                                               |
| Drawings, photos, or other evidence of signage communicating no-smoking policy                                                                                                                                           | X                                        | X                                               |
| Any code restrictions that prevent establishment of no-smoking requirements                                                                                                                                              | X                                        | X                                               |



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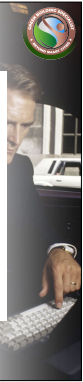
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REQUIRED DOCUMENTATION +

**Required Documentation**  
Follow LEED v4 reference guide documentation requirements with the following modifications:

- ▶ Description of project's no smoking policy, addressing the expanded smoking definition in entirety and including information on how policy is communicated to building occupants and enforced for all projects where smoking is prohibited as well as for residential projects where smoking is permitted.
- ▶ Scaled site plan or map showing the location of all designated outdoor smoking and no-smoking areas, location of property line, and site boundary and indicating 25 foot distance from building openings or alternatively a copy of the local code regulations (translated in English with relevant sections highlighted) that are being met for non-smoking on the project in lieu of 25 feet rule.
- ▶ Drawings, photos, or other evidence of signage with language communicating no-smoking policy or evidence of any other means of enforcement (for example, evidence of enforcement by security personnel, educational pamphlets regarding building smoking policy or via digital displays available in lobby area etc.)
- ▶ Narrative of code restrictions being used in lieu of 25 feet rule from building openings for no smoking policy.



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REFERENCED STANDARDS

- Standard Test Method for Determining Air Leakage Rate by Fan Pressurization, ASTM E779-03: [astm.org](http://astm.org) Standard Test Methods for Determining Airtightness of Buildings Using an Orifice Blower Door, ASTM E1827-11: [astm.org](http://astm.org)
- Nondestructive testing, Leak testing – Criteria for method and technique selection, CEN Standard EN 1779—1999: [cen.eu](http://cen.eu)
- Nondestructive testing, Leak testing, Tracer gas method, CEN Standard EN 13185—2001: [cen.eu](http://cen.eu) Nondestructive testing, Leak testing, Calibration of reference leaks for gases, CEN Standard EN 13192—2001: [cen.eu](http://cen.eu)
- RESNET Standards: [resnet.us/standards](http://resnet.us/standards) ENERGY STAR Multifamily Testing Protocol: [energystar.gov/ia/partners/bldgs\\_lenders\\_raters](http://energystar.gov/ia/partners/bldgs_lenders_raters)



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## TERMS AND DEFINITIONS

Newer changes to this prerequisite include a revised formal definition of smoking that aligns with industry best practice and incorporates previous related LEED interpretations. In response to feedback from project teams with unique no-smoking enforcement methods, requirements for communicating a no-smoking policy have also been revised and projects can use other means of enforcement beyond signage, and signage location is no longer required to be within 10 feet of the building entrances.



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SMART CITIES

THANK YOU

GREEN BUILDING SPECIALIST  
BEYOND SMART CITIES

**THE WORLD'S 1ST GREEN TECHNOLOGY  
MARKETPLACE**

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