



LEED 2009 for Core & Shell Development

IEQ PREREQUISITE 1: MINIMUM INDOOR AIR QUALITY PERFORMANCE

All fields and uploads are required unless otherwise noted.

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Compliance with the prerequisite requirements must be documented for the entire Core & Shell project building and associated grounds, including tenant occupied spaces, from which anticipated tenant work may also be documented.

Select one of the following:

- ☐ **In Scope:** The project team does not anticipate any future tenant work that would impact the ability for the Core & Shell project to meet the requirements of this prerequisite and/or credit.
- ☐ **Tenant Sales and/or Lease Agreement:** The Core & Shell project scope is limited such that submittal documentation needs be based (either in whole or in part) on anticipated tenant work beyond the Core & Shell project scope.

IN SCOPE

Complete the following documentation sections using data for the entire project building, including tenant occupied spaces. Data shall be based entirely on design and construction elements that are included in the Core & Shell project scope. No data entered below shall be based on anticipated tenant work.

TENANT SALES AND/OR LEASE AGREEMENT

For all spaces where the scope of anticipated tenant work will include elements of ventilation systems addressed in IEQ Prerequisite 1:

- ☐ Tenant sales and/or lease agreements contain binding language specifying minimum performance criteria for all elements addressed in submittal documentation for IEQ Prerequisite 1.
- ☐ The minimum performance criteria is sufficiently detailed such that anticipated tenant work, when completed, shall not negate or call into question any part of the submittal documentation for IEQ Prerequisite 1.

Upload L-6. Provide the tenant sales and/or lease agreement(s) associated with the project.

Complete the following documentation section assuming all tenant work has been completed and conforms to the requirements of the sales and/or lease agreements. For required uploads, provide all available documentation pertaining to the Core & Shell project scope and anticipated tenant work.

Select all that apply to the project building:

- ☐ The project building is mechanically ventilated, in part or in whole.
- ☐ The project building is naturally ventilated, in part or in whole.
- ☐ The project building is mechanically conditioned, in part or in whole.
- ☐ The project building is naturally conditioned, in part or in whole.

The project meets Sections 4 through 7 of ASHRAE 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

Signatory	
Initial Here :	

Note: For projects with mechanical ventilation and natural ventilation, complete the Mechanical Ventilation section for all mechanically ventilated spaces, and the Natural Ventilation section for all naturally ventilated spaces.

A floor plan for the project building indicating the areas served by a combination of natural and mechanical ventilation or conditioning systems is required to demonstrate credit compliance. The representative floor plans for the project building upload below is a linked submittal. If one is not present, you may upload one now.

Upload L-1. Representative floor plan(s) for the project building.

Select one of the following:

- ☐ The floor plan above shows the areas served by a combination of natural and mechanical ventilation or conditioning systems.
- ☐ A different document is better suited to satisfy the requirement.

Upload L-1.1. Floor plan for the project building indicating the areas served by a combination of natural and mechanical ventilation or conditioning systems.

MECHANICAL VENTILATION

- ☐ Mechanical ventilation systems are designed using local code, which is more stringent than the ASHRAE Standard 62.1-2007 Ventilation Rate Procedure. (Optional)

Upload IEQp1-1. Local code requirements, comparison of the local code vs. ASHRAE Standard 62.1-2007 Ventilation Rate Procedure, and ventilation rate calculations including the design outdoor ventilation rate.

Complete the following table for each mechanically ventilated space in the project building.

Table. Ventilation Rate Procedure

AHU	Zone	Occupancy Category	Rp (cfm / person)	Ra (cfm/sf)	Occupant Density		Az (sf)	Vbz (cfm)	Ez	Voz (cfm)	Ev	Vot (cfm)
					Default	#/1000sf						
					<input type="checkbox"/> Yes							

Note: Refer to ASHRAE Standard 62.1-2007 Ventilation Rate Procedure and ASHRAE 62MZCalc spreadsheet for detailed definitions and calculation procedures.

Table. Outdoor Air Flow

AHU	Zone	Occupancy Category	Vot (cfm)	Design OA Intake Flow (cfm)	Zone Complies with IEQp1	Zone Complies with IEQc2
Compliance with IEQ Prerequisite 1: Note: The design outdoor air intake flow for all zones must be equal to or greater than the outdoor air ventilation rate required by ASHRAE Standard 62.1-2007, ventilation rate procedure.						
Compliance with IEQ Credit 2: Note: The design outdoor air intake flow for all zones must be 30% greater than the minimum outdoor air ventilation rate required by ASHRAE Standard 62.1-2007, ventilation rate procedure.						

NATURAL VENTILATION

- ☐ The space is an engineered natural ventilation system approved by the authority having jurisdiction. The project takes an exception to the prescriptive requirements of ASHRAE Standard 62.1-2007 sections 5.1.1 and 5.1.2.

Upload IEQp1-2. Regulatory approval letter or document indicating the engineered system has been approved by the authority having jurisdiction.

Upload L-14. Graphic and numeric summary of the airflow analysis performed. Include the boundary conditions used for the analysis, simulation algorithm, solution variables, temperatures, airflow volumes and mean age of air for the spaces modeled.

Complete the following table for each naturally ventilated space in the project building.

Table. Natural Ventilation Floor/Window Ratio

Room Name or ID	Occupiable Floor Area (sf)	Description of Operable Window Openings	Openable Window Area ¹ (sf)	Ratio of Window Area to Occupiable Area (%)	Is the Window to Occupiable Area Ratio Sufficient?	Is the Entire Occupiable Area Within 25' of the Window(s)?	Zone Complies with IEQp1
Compliance with IEQ Prerequisite 1: Note: Naturally ventilated spaces shall be permanently open to and within 8 m (25 ft) of operable wall or roof openings to the outdoors, the openable area of which is a minimum of 4% of the net occupiable floor area to meet the requirements of the prerequisite.							

1. Openable window area is the area of operable window that can open to the outside.

ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of prerequisite compliance with the submittal requirements outlined in this form.

SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload IEQp1-SC. Provide additional documentation that supports the claim to special circumstances. (Optional)

- ☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the prerequisite intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload IEQp1-ACP. Provide additional documents that support the alternative compliance path approach. (Optional)

SUMMARY

IEQ Prerequisite 1: Minimum Indoor Air Quality Performance
Compliance Documented: