# 10 Clean Air

**Healthy**

## Submission information

Provide the following information for the submission

|  |  |
| --- | --- |
| **Submission type** | Choose an item. |
| **Performance level targeted** | [ ]  Minimum Expectation |
| [ ]  Credit Achievement |
| **Points targeted**  | Click or tap here to enter text. |

#### ***Please ensure the regular occupied area section is completed.***

#### Technical Questions

|  |  |
| --- | --- |
| There are project-specific technical questions for this credit and all responses received from the NZGBC are included in the credit submission folder. | Choose an item. |

#### Changes between Rounds

If applicable, please use the text box below to explain any changes between Round 1 and Round 2. This is an opportunity for the GSAP to describe how they have addressed the Assessors comments in Round 2.

Click or tap here to enter text.

## Submission template

### Minimum Expectation

#### Ventilation System Attributes

|  |
| --- |
| **Ventilation systems have been designed to comply with the required separation distances.** |[ ]
| **Outline how ventilation systems have been designed to the minimum separation distances.**Click or tap here to enter text. |
| **Identify the standard adopted for separation distances.** | Click or tap here to enter text. |
| **Outline why the standard was selected and how it complies.**Click or tap here to enter text. |
| **All new and existing ductwork that serves the building has been cleaned prior to occupation in accordance with a recognised Standard.** |[ ]
| **Identify the standard adopted for ductwork cleaning.** | Click or tap here to enter text. |
| **Outline how ductwork has been cleaned in accordance with the standard. Where no ductwork exists in the building, provide evidence.**Click or tap here to enter text. |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |
| --- | --- |
| Document name / description | Reference |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |

## Discussion

Narratives will help the Assessors understand how the project complies with the credit. Please include a narrative below, but note that simply listing the credit requirements is not helpful. Instead, outline any other issues that need to be considered by the Assessment Panel.

Click or tap here to enter text.

#### Provision of Outdoor Air

|  |  |
| --- | --- |
| **Indicate which pathway the project is choosing for compliance and fill out the below accordingly** | Choose an item. |
| **The building provides a 10% improvement of outdoor air to each space in the regularly occupied areas.** |[ ]
| * Outline how the HVAC system has been sized to accommodate the increased outdoor air rates.

Click or tap here to enter text. |
| * Outline how the default occupancy has been determined, identifying any assumptions made or prescribed occupancy rates used.

Click or tap here to enter text. |
| **The regularly occupied areas are provided with good access to outdoor air, appropriate for the activities and conditions.** |[ ]
| **Outline how ventilation is achieved.**Click or tap here to enter text. |
| **Identify the standard used for the ventilation design.** | Click or tap here to enter text. |
| Demonstrate that ventilation meets the requirements of the standard.Click or tap here to enter text. |
| **The system is capable of providing enough outdoor air to maintain carbon dioxide (CO2) levels at or less than 800ppm within each space in the regularly occupied areas at all times in the default occupancy period.** |[ ]
| * Provide evidence that carbon dioxide (CO2) levels have been maintained at or less than 800 ppm within each space in the regularly occupied areas at all times in the default occupancy period.
 | Click or tap here to enter text. |
| * Outline how the system continuously measures the concentration of CO2 and then adjusts the amount of outdoor accordingly.

Click or tap here to enter text. |
| * Outline how the CO2 sensors have been located so that they provide accurate representative readings of the CO2 concentrations.

Click or tap here to enter text. |
| * Outline if alternative thresholds have been nominated and justify why.

Click or tap here to enter text. |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |
| --- | --- |
| Document name / description | Reference |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |

## Discussion

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Click or tap here to enter text.

#### Exhaust or Elimination of Pollutants

|  |  |
| --- | --- |
| **Sources of pollutants are either compliant with minimum emissions standards or not present within the regularly occupied areas.** | Choose an item. |
| * Identify the standard adopted for minimum pollutant emissions.
 | Click or tap here to enter text. |
| * Demonstrate that the sources of pollutants are compliant with the standard.

Click or tap here to enter text. |  |
| **Specified sources of pollutants are exhausted directly to the outside of the project in accordance with a recognised standard, and/or physically separated from occupants.** | Choose an item. |
| * Identify the standard adopted for exhausting the sources of pollutants.
 | Click or tap here to enter text. |
| * Demonstrate how specified sources of pollutants are exhausted in compliance with the standard and/or physically separated from occupants.

Click or tap here to enter text. |
| * Provide a summary of the sources of pollutants and how their emissions have been exhausted and/or separated.

Click or tap here to enter text. |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |
| --- | --- |
| Document name / description | Reference |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |

## Discussion

Narratives will help the Assessors understand how the project complies with the credit. Please include a narrative below, but note that simply listing the credit requirements is not helpful. Instead, outline any other issues that need to be considered by the Assessment Panel.

Click or tap here to enter text.

### Credit Achievement

#### Ventilation System Attributes

|  |  |
| --- | --- |
| **Any mechanical ventilation system within the building, whether existing or new, provides adequate access to both sides of all moisture and debris-catching components for maintenance within the air distribution system.** | Choose an item. |
| * Outline how adequate access has been provided for cleaning and maintenance.

Click or tap here to enter text. |
| **Providing adequate access for cleaning and maintenance purposes is possible.** | Choose an item. |
| * If no, demonstrate why it is not possible to provide adequate access.

Click or tap here to enter text. |
| * Demonstrate that design teams have provided access to the upstream side of fan coil units and outlined how the coils are designed.

Click or tap here to enter text. |
| * Outline how fan coil units or air handling units located within a ceiling void fully demonstrates safe access for cleaning and maintenance.
 | Click or tap here to enter text. |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |
| --- | --- |
| Document name / description | Reference |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |
| Click or tap here to enter text. | Click or tap here to enter text. |

## Discussion

Narratives will help the Assessors understand how the project complies with the credit. Please include a narrative below, but note that simply listing the credit requirements is not helpful. Instead, outline any other issues that need to be considered by the Assessment Panel.

Click or tap here to enter text.

#### Provision of Outdoor Air

|  |  |
| --- | --- |
| **Indicate which pathway the project is choosing for compliance and fill out the below accordingly** | Choose an item. |
| **The building provides a 60% improvement of outdoor air to each space in the regularly occupied areas.** | Choose an item. |
| * Outline how the HVAC system has been sized to accommodate the increased outdoor air rates.

Click or tap here to enter text. |
| * Outline how the default occupancy has been determined, identifying any assumptions made or prescribed occupancy rates used.

Click or tap here to enter text. |
| **The regularly occupied areas are provided with good access to outdoor air, appropriate for the activities and conditions.** | Choose an item. |
| * Outline how ventilation is achieved.

Click or tap here to enter text. |
| * Identify the standard used for the ventilation design.
 | Click or tap here to enter text. |
| * Demonstrate that ventilation meets the requirements of the standard.

Click or tap here to enter text. |
| **The system is capable of providing enough outdoor air to maintain carbon dioxide (CO2) levels at or less than 700ppm within each space in the regularly occupied areas at all times in the default occupancy period.** | Choose an item. |
| * Provide evidence that carbon dioxide (CO2) levels have been maintained at or less than 700 ppm within each space in the regularly occupied areas at all times in the default occupancy period.
 | Click or tap here to enter text. |
| * Outline how the system continuously measures the concentration of CO2 and then adjusts the amount of outdoor accordingly.

Click or tap here to enter text. |
| * Outline how the CO2 sensors have been located so that they provide accurate representative readings of the CO2 concentrations.

Click or tap here to enter text. |
| * Outline if alternative thresholds have been nominated and justify why.

Click or tap here to enter text. |

#### Supporting documentation

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|  |  |
| --- | --- |
| Document name / description | Reference |
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## Regular Occupied Area

The area of a building(s) relevant to particular credit. The definition of Regularly occupied areas varies across different Green Star tools, and is uniquely defined within particular credits.

#### Primary Space

All areas where a person is expected to work, or remain for an extended period of time, including, but not limited to:

- Offices, either open plan or private;

- Residential lounge rooms and bedrooms;

- Classrooms, laboratories, computer labs;

- Ward rooms, nurse’s stations, clinic rooms;

- Kitchen and preparation areas where food is being sold;

- Retail / sales floor, exhibition halls, galleries (unless exclusion is justified), multi-purpose rooms (as a general setting); and

- Occupied areas within industrial buildings such as manufacturing spaces, shop floors and work stations. Warehouse and distribution spaces are considered primary space only if the majority of the space is an area where people expected work, or remain for an extend period of time.

The predominant use of the space determines the space type classification. Where the functional requirements of the space demand specific ventilation conditions (e.g. laboratories, auditoriums, cinemas, or archives) the exclusion must be justified by the project team in a Technical Question.

#### Secondary Areas

All areas used to support the principal activity of the primary space. These spaces will be regularly occupied, however a single person is unlikely to remain within for more than two hours. Examples of secondary space include:

- Meeting rooms, boardrooms;

- Residential kitchens and bathrooms;

- Auditoriums, gyms, seminar rooms (if not intended for regular classes);

- Waiting rooms, and any diagnostic area where no specific lighting requirements exist;

- Cafeterias, restaurants, seating areas, office breakout areas, food courts

Where the project team is unsure of whether a space is primary or secondary, it is recommended that the project team either submits a Technical Question for confirmation, or classify the space as a primary space.

Corridors that are exclusively used for transit between spaces (i.e. do not act as a foyer, lounge, waiting space, or reception), and are bound on both sides by a wall these are excluded from the nominated area. Where a corridor is part of a shared space, this corridor, or section of a corridor, cannot be excluded and is considered part of the adjacent space.

#### Tertiary Space

All areas which are either transient spaces, or accessed intermittently. Examples of tertiary spaces include:

- Back of house areas;

- Corridors;

- Hallways;

- Plant rooms;

- Storage facilities, storerooms, storehouses, depots or similar;

- Warehouse and distribution spaces if they are unoccupied.

- Service riser

Project teams can choose to submit a Technical Question to have their identification of spaces types in their project confirmed.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Building Space Name and Identifier  | Area(m2) | Sum Area(m2) |
| Primary Space |  |  |  |
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| Secondary Space |  |  |  |
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| Tertiary Space |  |  |  |
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| --- | --- |
| **Total Gross Gloor Area (GFA)** | Click or tap here to enter text. |

**\*If the project team has already populated the project summary GFA in another Submission Template, please paste it here.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clean Air** | **Primary, secondary or tertiary** | Occupied Area (m2) | Discussion (If any) |
| Ventilation System Attributes |  |  |  |
| Provision of Outdoor Air |  |  |  |
| Exhaust and Elimination of Pollutants |  |  |  |

**\*For any exclusions to the occupied areas, please submit a TQ to** **greenstarnz@nzgbc.org.nz** **for approval.**

## Discussion

Narratives will help the Assessors understand how the project complies with the credit. Please include a narrative below, but note that simply listing the credit requirements is not helpful. Instead, outline any other issues that need to be considered by the Assessment Panel.

Click or tap here to enter text.

## Declaration

Provide the following details as confirmation that the information provided in this document is truthful and accurate at the time of completion.

|  |  |
| --- | --- |
| **Name** | Click or tap here to enter text. |
| **Position** | Click or tap here to enter text. |
| **Email** | Click or tap here to enter text. |
| **Date** | Click or tap to enter a date. |