### Project Type

<table>
<thead>
<tr>
<th>Work Contract</th>
<th>Heavy Construction Activities (Main Dust Generation)</th>
<th>From</th>
<th>To</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent Project</td>
<td>WC01_PL5A</td>
<td>Pedestrian Connectivity - PL5A (SMP Estate to Kwun Tong MTR)</td>
<td>Aug-16</td>
<td>Mar-18</td>
<td>200</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC01_PL5B</td>
<td>Pedestrian Connectivity - PL5B (SMP Estate to Kwun Tong MTR)</td>
<td>Aug-16</td>
<td>Mar-18</td>
<td>200</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC02_PL7</td>
<td>Pedestrian Connectivity _ PL7 (Po Tat Estate To BBI at Tsueng Kwan O Tunnel Road)</td>
<td>Sep-17</td>
<td>May-18</td>
<td>200</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC03_PH1</td>
<td>Site Formation and Engineering Infrastructure at Main Site - Phase 1 area</td>
<td>Sep-16</td>
<td>Dec-17</td>
<td>8000</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC03_PLR</td>
<td>Site formation for Cavern</td>
<td>Jan-18</td>
<td>Oct-19</td>
<td>150</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC03_DAR</td>
<td>Access Road to Road L1/L2/L3 (Connection between Main Site and DAR)</td>
<td>Mar-18</td>
<td>Nov-18</td>
<td>1000</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC04_PH2</td>
<td>Access Road to Po Lam Road (Connection between Main Site and Po Lam Road)</td>
<td>Sep-16</td>
<td>Feb-18</td>
<td>2000</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC05</td>
<td>Road Improvement Works - Area 2 (Lin Tak Road Widening)</td>
<td>Mar-17</td>
<td>Jun-21</td>
<td>600</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC06_LTRW</td>
<td>Road Improvement Works - Area 3 (Clear Water Bay Road)</td>
<td>Mar-17</td>
<td>Jul-20</td>
<td>500</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC07_A3</td>
<td>Road Improvement Works - Area 4 (Shun Lee Tsuen Road)</td>
<td>Mar-17</td>
<td>Jul-19</td>
<td>120</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC08</td>
<td>Site Preparation</td>
<td>Jan-18</td>
<td>Apr-18</td>
<td>100</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC09</td>
<td>Site Improvement</td>
<td>Jan-18</td>
<td>Apr-18</td>
<td>100</td>
</tr>
</tbody>
</table>

### Notes:

1. 10% active operating area has been adopted for ARQ contracts (WC03 & WC04), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged works area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*).

### Calculations:

<table>
<thead>
<tr>
<th>Project</th>
<th>Total Area in one month (m²)</th>
<th>Percentage of Daily Active Operating Area (%)</th>
<th>Percentage of Max Daily Active Operating Area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC01_PL5A</td>
<td>200</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC01_PL5B</td>
<td>200</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC02_PL7</td>
<td>200</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC03_PH1</td>
<td>8000</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>WC03_PLR</td>
<td>150</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC03_DAR</td>
<td>1000</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC04_PH2</td>
<td>2000</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC05</td>
<td>600</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC06_LTRW</td>
<td>500</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC07_A3</td>
<td>120</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC08</td>
<td>100</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>WC09</td>
<td>100</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Total Area in one month (m²):

<table>
<thead>
<tr>
<th>Project</th>
<th>Total Area in one month (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC01_PL5A</td>
<td>200</td>
</tr>
<tr>
<td>WC01_PL5B</td>
<td>200</td>
</tr>
<tr>
<td>WC02_PL7</td>
<td>200</td>
</tr>
<tr>
<td>WC03_PH1</td>
<td>8000</td>
</tr>
<tr>
<td>WC03_PLR</td>
<td>150</td>
</tr>
<tr>
<td>WC03_DAR</td>
<td>1000</td>
</tr>
<tr>
<td>WC04_PH2</td>
<td>2000</td>
</tr>
<tr>
<td>WC05</td>
<td>600</td>
</tr>
<tr>
<td>WC06_LTRW</td>
<td>500</td>
</tr>
<tr>
<td>WC07_A3</td>
<td>120</td>
</tr>
<tr>
<td>WC08</td>
<td>100</td>
</tr>
<tr>
<td>WC09</td>
<td>100</td>
</tr>
</tbody>
</table>

### Percentage of Daily Active Operating Area (%):

- WC01_PL5A: 0.0%
- WC01_PL5B: 0.0%
- WC02_PL7: 0.0%
- WC03_PH1: 0.1%
- WC03_PLR: 0.0%
- WC03_DAR: 0.0%
- WC04_PH2: 0.0%
- WC05: 0.0%
- WC06_LTRW: 0.0%
- WC07_A3: 0.0%
- WC08: 0.0%
- WC09: 0.0%

### Percentage of Max Daily Active Operating Area (%):

- WC01_PL5A: 0.0%
- WC01_PL5B: 0.0%
- WC02_PL7: 0.0%
- WC03_PH1: 0.1%
- WC03_PLR: 0.0%
- WC03_DAR: 0.0%
- WC04_PH2: 0.0%
- WC05: 0.0%
- WC06_LTRW: 0.0%
- WC07_A3: 0.0%
- WC08: 0.0%
- WC09: 0.0%

### Notes:

1. 10% active operating area has been adopted for ARQ contracts (WC03 & WC04), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged works area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*)
## Justifications for the Percentage of Active Works Areas

The ARQ Project involves various construction activities, each with a specified active area. The active areas are calculated based on the percentage of daily active operating area, the percentage of annual averaged active area, and the monthly active area. The table below summarizes the active areas for different work contracts.

<table>
<thead>
<tr>
<th>Work Contract</th>
<th>Heavy Construction Activities (Main Dust Generation)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC01 PL5A</td>
<td>RS Clearence &amp; Excavation of Area 5</td>
<td>1.3 (&lt;10%)</td>
</tr>
<tr>
<td>WC01 PL5B</td>
<td>Site Clearence of Area 1 &amp; 2, &amp; Excavation inside Area 1 &amp; 2</td>
<td>1.3 (&lt;10%)</td>
</tr>
<tr>
<td>WC02 PL7</td>
<td>Site Clearence &amp; Excavation of Area 1</td>
<td>1.1 (&lt;10%)</td>
</tr>
<tr>
<td>WC03 PH1</td>
<td>Site Clearence &amp; Excavation of Area 2</td>
<td>1.2</td>
</tr>
<tr>
<td>WC03 PH2</td>
<td>Site Clearence &amp; Excavation of Area 3</td>
<td>1.3</td>
</tr>
<tr>
<td>WC03 PLR</td>
<td>Site Clearence &amp; Excavation of Area 4</td>
<td>1.2</td>
</tr>
<tr>
<td>WC04 PH4</td>
<td>Site Clearence &amp; Excavation of Area 5</td>
<td>1.3</td>
</tr>
<tr>
<td>WC04 PH5</td>
<td>Road Improvement Works - Area 1 (Sulphate Road)</td>
<td>1.3</td>
</tr>
<tr>
<td>WC05</td>
<td>Road Improvement Works - Area 1 (Saloon Road)</td>
<td>1.2</td>
</tr>
<tr>
<td>WC06</td>
<td>Site Clearence &amp; Excavation of Area 5</td>
<td>1.2</td>
</tr>
<tr>
<td>WC07 A3</td>
<td>Site Clearence &amp; Excavation of Area 6</td>
<td>1.2</td>
</tr>
<tr>
<td>WC07 A4</td>
<td>Site Clearence &amp; Excavation of Area 7</td>
<td>1.2</td>
</tr>
<tr>
<td>WC08</td>
<td>Road Improvement Works - Area 2 (Road L1)</td>
<td>1.2</td>
</tr>
<tr>
<td>WC09</td>
<td>Road Improvement Works - Area 3 (Road L2)</td>
<td>1.2</td>
</tr>
</tbody>
</table>

### Notes:
1. 10% active operating area has been adopted for ARQ contracts (WC01 & WC02), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*)

---

### Justifications for the Percentage of Active Works Areas and Dust Suppression Efficiency

The Justifications for the Percentage of Active Works Areas and Dust Suppression Efficiency table below provides a detailed breakdown of the active areas for different contracts.

<table>
<thead>
<tr>
<th>Work Contract</th>
<th>Heavy Construction Activities (Main Dust Generation)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC01 PL5A</td>
<td>RS Clearence &amp; Excavation of Area 5</td>
<td>1.3 (&lt;10%)</td>
</tr>
<tr>
<td>WC01 PL5B</td>
<td>Site Clearence of Area 1 &amp; 2, &amp; Excavation inside Area 1 &amp; 2</td>
<td>1.3 (&lt;10%)</td>
</tr>
<tr>
<td>WC02 PL7</td>
<td>Site Clearence &amp; Excavation of Area 1</td>
<td>1.1 (&lt;10%)</td>
</tr>
<tr>
<td>WC03 PH1</td>
<td>Site Clearence &amp; Excavation of Area 2</td>
<td>1.2</td>
</tr>
<tr>
<td>WC03 PH2</td>
<td>Site Clearence &amp; Excavation of Area 3</td>
<td>1.3</td>
</tr>
<tr>
<td>WC03 PLR</td>
<td>Site Clearence &amp; Excavation of Area 4</td>
<td>1.2</td>
</tr>
<tr>
<td>WC04 PH4</td>
<td>Site Clearence &amp; Excavation of Area 5</td>
<td>1.3</td>
</tr>
<tr>
<td>WC04 PH5</td>
<td>Road Improvement Works - Area 1 (Sulphate Road)</td>
<td>1.3</td>
</tr>
<tr>
<td>WC05</td>
<td>Road Improvement Works - Area 1 (Saloon Road)</td>
<td>1.2</td>
</tr>
<tr>
<td>WC06</td>
<td>Site Clearence &amp; Excavation of Area 5</td>
<td>1.2</td>
</tr>
<tr>
<td>WC07 A3</td>
<td>Site Clearence &amp; Excavation of Area 6</td>
<td>1.2</td>
</tr>
<tr>
<td>WC07 A4</td>
<td>Site Clearence &amp; Excavation of Area 7</td>
<td>1.2</td>
</tr>
<tr>
<td>WC08</td>
<td>Road Improvement Works - Area 2 (Road L1)</td>
<td>1.2</td>
</tr>
<tr>
<td>WC09</td>
<td>Road Improvement Works - Area 3 (Road L2)</td>
<td>1.2</td>
</tr>
</tbody>
</table>

---

### Notes:
1. 10% active operating area has been adopted for ARQ contracts (WC01 & WC02), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*)

---

### Total Area in one month (m²)

- **WC01 PL5A**: 6120 m²
- **WC01 PL5B**: 2000 m²
- **WC02 PL7**: 150 m²
- **WC03 PH1**: 120 m²
- **WC03 PH2**: 500 m²
- **WC03 PLR**: 1000 m²
- **WC04 PH4**: 8000 m²
- **WC04 PH5**: 2000 m²
- **WC05**: 2000 m²
- **WC06**: 2000 m²
- **WC07 A3**: 150 m²
- **WC07 A4**: 150 m²
- **WC08**: 150 m²
- **WC09**: 150 m²

**Total Area in one month (m²):** 25720 m²

### Percentage of Daily Active Operating Area (%)

- **WC01 PL5A**: 0.7
- **WC01 PL5B**: 0.7
- **WC02 PL7**: 0.7
- **WC03 PH1**: 0.7
- **WC03 PH2**: 0.7
- **WC03 PLR**: 0.7
- **WC04 PH4**: 0.7
- **WC04 PH5**: 0.7
- **WC05**: 0.7
- **WC06**: 0.7
- **WC07 A3**: 0.7
- **WC07 A4**: 0.7
- **WC08**: 0.7
- **WC09**: 0.7

**Percentage of Daily Active Operating Area (%):** 0.7

---

### Percentage of Max Daily Active Operating Area (%)

- **WC01 PL5A**: 1.4
- **WC01 PL5B**: 1.4
- **WC02 PL7**: 1.4
- **WC03 PH1**: 1.4
- **WC03 PH2**: 1.4
- **WC03 PLR**: 1.4
- **WC04 PH4**: 1.4
- **WC04 PH5**: 1.4
- **WC05**: 1.4
- **WC06**: 1.4
- **WC07 A3**: 1.4
- **WC07 A4**: 1.4
- **WC08**: 1.4
- **WC09**: 1.4

**Percentage of Max Daily Active Operating Area (%):** 1.4

---

### Percentage of Annual Averaged Active Area (%)

- **WC01 PL5A**: 1.1
- **WC01 PL5B**: 1.1
- **WC02 PL7**: 1.1
- **WC03 PH1**: 1.1
- **WC03 PH2**: 1.1
- **WC03 PLR**: 1.1
- **WC04 PH4**: 1.1
- **WC04 PH5**: 1.1
- **WC05**: 1.1
- **WC06**: 1.1
- **WC07 A3**: 1.1
- **WC07 A4**: 1.1
- **WC08**: 1.1
- **WC09**: 1.1

**Percentage of Annual Averaged Active Area (%):** 1.1
### Justifications for the Percentage of Active Works Areas

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Work Contract</th>
<th>Heavy Construction Activities (Main Dust Generation)</th>
<th>From</th>
<th>To</th>
<th>Active Operating Area (m²)</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent Project</td>
<td>WC01_PLD</td>
<td>Pedestrian Connectivity - PLD (between Tai Po and Lo Wu)</td>
<td>Aug-16</td>
<td>Mar-16</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC01_PLL</td>
<td>Pedestrian Connectivity - PLL (between Tai Po and Lo Wu)</td>
<td>Aug-16</td>
<td>Mar-16</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC02_PL7</td>
<td>Pedestrian Connectivity - PL7 (between Tai Po and Lo Wu)</td>
<td>Sep-17</td>
<td>May-18</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC03_PH1</td>
<td>Site Formation and Engineering Infrastructure at Main Site - Phase 1 area</td>
<td>Sep-16</td>
<td>Dec-17</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>The ARQ Project</td>
<td>WC03_PLD</td>
<td>Site Formation and Engineering Infrastructure at Main Site - Phase 2 area</td>
<td>Jun-19</td>
<td>Jun-20</td>
<td>8000</td>
<td>8000</td>
<td>8000</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC04_PLD</td>
<td>Site Formation and Engineering Infrastructure at Main Site - Phase 2 area</td>
<td>Sep-16</td>
<td>Dec-17</td>
<td>2000</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>The ARQ Project</td>
<td>WC05</td>
<td>Access Road to Road L1/L2/L3 (Connection between Main Site and DAR)</td>
<td>Mar-18</td>
<td>Nov-18</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>The ARQ Project</td>
<td>WC06</td>
<td>Site Preparation and Engineering Infrastructure at Main Site - Phase 2 area</td>
<td>Sep-16</td>
<td>Dec-17</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC07_A1</td>
<td>Access Road Improvement Works - Area 1 (Shing Lee Tsuen Road)</td>
<td>Jan-18</td>
<td>Apr-18</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC07_A4</td>
<td>Access Road Improvement Works - Area 4 (Shing Lee Tsuen Road)</td>
<td>Feb-18</td>
<td>Jul-19</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC08</td>
<td>Site Formations for Cavern</td>
<td>Jan-18</td>
<td>Oct-19</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Concurrent Project</td>
<td>WC09</td>
<td>Viewing Platform</td>
<td>Jan-18</td>
<td>Apr-18</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

#### Notes:

1. 10% active operating area has been adopted for ARQ contracts (WC03 & WC04), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged works area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*)

<table>
<thead>
<tr>
<th>Total Area in one month (m²)</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
<th>11100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Daily Active Operating Area (%)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Percentage of Max Daily Active Operating Area (%)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Percentage of Annual Averaged Active Area (%)</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>
## Title: Justifications for the Percentage of Active Works Areas

### Project Type | Work Contract | Heavy Construction Activities (Main Dust Generation) | From | To | Active Working Area (m²)
--- | --- | --- | --- | --- | ---
Concurrent Project | WC01_PL5A | Pedestrian Connectivity - PL5A (SMP Estate to Kwun Tong MTR) | Aug-16 | Mar-18 | 200
Concurrent Project | WC01_PL5B | Pedestrian Connectivity - PL5B (SMP Estate to Kwun Tong MTR) | Aug-16 | Mar-18 | 200
Concurrent Project | WC02_PL7 | Pedestrian Connectivity _ PL7 (Po Tat Estate To BBI at Tsueng Kwan O Tunnel Road) | Sep-17 | May-18 | 200
The ARQ Project | WC03_PH1 | Site Formation and Engineering Infrastructure at Main Site - Phase 1 area | Sep-16 | Dec-17 | 8000
The ARQ Project | WC03_PH2 | Site Formation and Engineering Infrastructure at Main Site - Phase 2 area | Jul-18 | Jul-20 | 8000
The ARQ Project | WC04_PH3 | Site Formation and Engineering Infrastructure at Main Site - Phase 3 area | Oct-19 | Oct-20 | 2000
The ARQ Project | WC05 | Site Formation and Engineering Infrastructure at Main Site - Phase 4 area | Jan-18 | Oct-19 | 150
Concurrent Project | WC06_LTRW | Road Improvement Works - Area 2 (Lin Tak Road Widening) | Mar-17 | Jun-21 | 600
Concurrent Project | WC07_A1 | Road Improvement Works - Area 3 (Clear Water Bay Road) | Mar-17 | Jul-20 | 500
Concurrent Project | WC07_A2 | Road Improvement Works - Area 4 (Shun Lee Tsuen Road) | Mar-17 | Jul-19 | 120
Concurrent Project | WC08 | Road Improvement Works - Area 5 (Po Lam Road) | Jan-18 | Apr-18 | 150
Concurrent Project | WC09 | Road Improvement Works - Area 6 (Road L1/L2/L3) | Mar-18 | Nov-18 | 1000
Concurrent Project | WC10 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC11 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC12 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC13 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC14 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC15 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC16 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC17 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC18 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC19 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC20 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC21 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC22 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC23 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC24 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC25 | Retaining Walls | Mar-18 | Nov-18 | 1000
Concurrent Project | WC26 | Retaining Walls | Mar-18 | Nov-18 | 1000

### Notes:
1. 10% active operating area has been adopted for ARQ contracts (WC03 & WC04), while for other work contracts, 100% active operating area is adopted.
2. 10% annual averaged area has been adopted.
3. Detail breakdown of construction activities are represented by an asterisk (*)

### Monthly active area for each heavy construction activity (m²)

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area in one month (m²)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Percentage of Daily Active Operating Area (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Percentage of Max Daily Active Operating Area (%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
<td>0 (±10%)</td>
</tr>
</tbody>
</table>

### Annual Active Area (m²)

- WC03: 8000
- WC04: 8000
- WC05: 8000
- WC06: 600
- WC07: 500
- WC08: 120
- WC09: 150
- WC10: 1000
- WC11: 1000
- WC12: 1000
- WC13: 1000
- WC14: 1000
- WC15: 1000
- WC16: 1000
- WC17: 1000
- WC18: 1000
- WC19: 1000
- WC20: 1000
- WC21: 1000
- WC22: 1000
- WC23: 1000
- WC24: 1000
- WC25: 1000
- WC26: 1000
- WC27: 1000
- WC28: 1000
- WC29: 1000
- WC30: 1000
- WC31: 1000
- WC32: 1000
- WC33: 1000
- WC34: 1000
- WC35: 1000
- WC36: 1000
- WC37: 1000
- WC38: 1000
- WC39: 1000
- WC40: 1000
Calculation of Watering Efficiency (For Heavy Construction and Wind Erosion)

With reference to Cowherd et al., "Control of Open Fugitive Dust Sources, EPA-450/3-88-008, U.S. Environmental Protection Agency, Research Triangle Park, NC, percentage of dust mitigation efficiency is calculated from Equation (3-2):

\[ C = 100 - \frac{0.8 p d t}{i} \]

where

- \( p \) = Potential average hourly daytime evaporation rate, mm/hour = 0.25916 [1]
- \( d \) = Average hourly daytime traffic rate per hour = 70 per hour [2]
- \( i \) = Application intensity = 1.75 L/m² [3]

Note:

[1] \( p = 0.0049 \times 52.898 \) inch, where 52.898 inch is equivalent to the total evaporation of 1343.4 mm obtained from Hong Kong Observatory (http://www.weather.gov.hk/cis/normal/1971_2000/normal_s_e.htm)

[2] Estimated by Engineer

[3] The assumptions provided are for the purpose of assessment predictions only. Actual figures would be defined in the detailed design stage.

By applying the Equation (3-2) with the above assumptions,

Dust suppression efficiency = \( 100 - 0.8 \times (0.25916 \times 70 \times t) / 1.75 \) \( [t = \text{time between application, hr}] \)

Therefore,

For watering once per hour (i.e. \( t = 1 \) hour), the estimated dust suppression efficiency is 91.7%.
Calculation of Watering Efficiency (for Stockpile)

With reference to Cowherd et al., "Control of Open Fugitive Dust Sources, EPA-450/3-88-008, U.S. Environmental Protection Agency, Research Triangle Park, NC, percentage of dust mitigation efficiency is calculated from Equation (3-3) and Figure 3-3:

\[
C = 75 \times (M - 1) \quad \text{[for 1} \leq M \leq 2]\n\]

\[
C = 62 + 6.7M \quad \text{[for 2} \leq M \leq 5]\n\]

where 
\[c = \text{Instantaneous control efficiency (\%)}\]
\[M = \text{Ratio of controlled to uncontrolled surface moisture contents}\]

According to the Equation (3-3), by increasing the surface moisture content by a ratio of 1.67 would achieve 50% dust suppression efficiency:

\[
\text{Dust suppression efficiency} = 75 \times (1.67 - 1) = 50\%
\]

**Watering Intensity**

Given

- Area of Stockpile = 15657.3 m²
- Dry Fill Density = 1700 kg/m³
- Uncontrolled Surface Moisture Content = 2 %
- Controlled Surface Moisture Content = 3.3 %

Assume

- Depth of Water Penetrated into Stockpile = 0.02 m see Note [1]

Therefore,

- Weight of Uncontrolled Wet Stockpile Surface = \(15657.3 \times 1700 \times 0.02 / (1 - 0.02)\) = 543212 kg
- Weight of Controlled Wet Stockpile Surface = \(15657.3 \times 1700 \times 0.02 / (1 - 0.033)\) = 550705 kg
- Watering Intensity = \((550705 - 543212) / 15657.3\) = 0.5 L/m²/hour