

Design and Construction of Redevelopment of Queen Mary Hospital, Phase 1 at Pok Fu Lam Road, Hong Kong CONTRACT NO: SS F501 (PWP NO. 70MM)

Green Contractor Award 2019



PAUL Y. - ABLE JOINT VENTURE



1. Water Pollution Mitigation

1. Waste Water Treatment System Wastewater Recycled, Treated and/or Reused on Site



Vortex dynamic filter uses <u>fluid mechanics</u> to separate sludge from water.

1. Waste Water Treatment System Wastewater Recycled, Treated and/or Reused on Site





Additional mechanical pretreatments are setup for cleansing and filtering the wastewater before it is delivered to the approved discharge points.



2. Noise Pollution Mitigation





Noise Mitigative Measures for Demolition Works 2. **3-Layer Noise Reduction Shields** SOUNDPROOFING PANELS > PARETE / WALL PANELS DITCH P ASSORBIMENTO ACUSTICO: CLASSE A Sound-proofing panels SOUNDPROOFING: CLASS A installation in progress. PER PANNELLI SPESSORE 50 mm R., 32 dB. THICKNESS 50 mm PER PANNELLI SPESSORE 80 mm R, 33 dB. THICKNESS 80 mm PER PANNELLI SPESSORE 100 mm R, 34 dB. THICKNESS 100 mm CLINICAL PATHOLOGY BUILDING 2nd Layer – Demolition (CPB) Sound Proof Panels As of CPB Site Hoarding



3. Air Pollution Mitigation





3. Dust Control for Site Formation Works



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Numerous atomized spray nozzles are installed along the barriers in order to suppress the dust effectively during site formation works.



3. Dust Control for Outdoor Works

Defense Against Dust Pollution for Welding works



Mitigation to the source : Vacuum dust collectors or exhaust fan will be operated for the smoke occurred during Welding work near Block K / Block J

3. Dust Control for Outdoor Works





Multi-functions housekeeping kits are established at designated locations to facilitate cleaning and housekeeping works;

HILTI On!Track System is applied at various zones which regular tidying and cleaning works to be carried out promptly by designated personnel.

4. Vibration Mitigation

Beyond Contract Requirements



Sandwich Design – Double-layer steel casing with insulation material filled inside to absorb sound.



4. Vibration Control for Demolition Works

INNOVATIVE

Bration Absorption Platfo

Self-

developed

Vibration Mitigation At Source



Wheels System –

Wheels are installed in order to move the platform by the machinery (i.e. not by workers).

4. Vibration Control for Demolition Works



5. Waste Management

5. Selection of Materials for Reduction of Waste Generation



Beyond Contract Requirements

Deployment of reusable site office.

Requirements Re-used electronic devices: Effective and efficient waste pollution aviodance measures are implemented. REUSE 10 10 BR Fell trees collected for upcycling to furniture: **Re-used site office furniture: Reused Des** 1

Refuse Classification and Separation - Reuse 5.

Beyond Contract

5. Refuse Classification and Separation - Recycling



6. Innovative Measures

6.1 Multi-functions Post and Control & Command Centre



A <u>"Control and Command Centre"</u> is established at site office with multiple LCD monitors for real-time monitoring of various sets of data and to control the devices on intelligent lamp post.

6.2 Good Practices on Anti-mosquito – Innovative System

Application of Tracking Tag on Monitoring –



4. Complete and save the records.

1.

2.

3.

6.3 Renewable Energy Worker Resting Area



Worker Rest Area, in which the facilities are powered up by renewable energy, i.e. solar and wind energy, is installed on site.

6.4 MiC Site Office & Renewable Energy



MiC technology is applied in construction of site office with the following features:

- 1. Green materials, e.g. **reused bamboo**, is used for finishes;
- 2. MiC site office is entirely powered by **renewable energy**.

end | thank you