- To the East: Hopewell Centre II
- To the South: St. Francis' Canossian College and residential buildings along Kennedy Road
- To the West: St. Francis' Canossian School

1.3 Project Description

1.3.1 The site area will be approximately 3,140.7m^2. The layout plans of the Indicative Development Scheme can be referred to Appendix 1 of Planning Statement, including:

- A 24-storey residential building over an Open Space open to public and three (3) podium levels
- Preservation of Nam Koo Terrace (a two-storeys Grade 1 Historic Building) with proposed commercial uses
- Provision of open spaces
- Barrier-free access that links to Hopewell Centre II

1.3.2 Some modification and refurbishment works, such as floor strengthening, fitting of modern services, improvements to fire safety, etc., will be carried out at Nam Koo Terrace.

1.4 Objectives of the Report

1.4.1 The objectives of this EA Report are to:

- Assess the potential environmental impacts arising from the operation of the Indicative Development Scheme, in terms of air quality, noise, water quality, waste management and land contamination.
- Recommend appropriate measures to mitigate any impacts if necessary.

Schedule of the Regulation when conducting notifiable and regulatory works, and further implement dust control and suppression measures.

Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation

2.1.4 This Regulation comes into force on June 2015 and mandates that all Non-road Mobile Machinery ("NRMM"), unless they are exempted, shall meet the prescribed emission standards. All regulated machines sold or leased for use in Hong Kong that are approved or exempted must bear a proper label in a prescribed format issued by EPD.

Asbestos Containing Materials ("ACMs")

2.1.5 APCO regulates a series of activities involving ACMs. The owner of premises where ACMS are found or reasonably suspected of being shall engage a Registered Asbestos Consultant ("RAC") to provide an Asbestos Investigation Report ("AIR") before the building is demolished. In the case that any ACM is found, an Asbestos Management Plan ("AMP") including an Operation and Maintenance Plan ("O&MP") for ACM not requiring asbestos removal works; and an Asbestos Abatement Plan ("AAP") for any asbestos abatement work or work which involves the use or handling of any ACM, shall be prepared, singed by the RAC and then submitted to EPD for approval. The owner shall notice EPD in writing no less than 28 days before date on which any asbestos abatement work is to be commenced in accordance with Section 73 of the APCO.

2.1.6 As stipulated in APCO, a Registered Asbestos Contractor shall be engaged in removal of ACMs in accordance with the approved AAP as the supervisor. Under Section 74(3) of the APCO, a RAC so appointed shall supervise the asbestos abatement work and notify the Authority of any modification of the content of the AMP or an AAP before implementing the modification. After the asbestos abatement work is done, the RAC shall prepare a summary report and submit to EPD for record and then demolition work can commence.

Hong Kong Planning Standards and Guidelines ("HKPSG")

2.1.7 Chapter 9 Environment in HKPSG also recommends buffer distances for roads as summarised in **Table 2-2**.

Table 2-2 HKPSG Recommended Buffer Distances for Roads

POLLUTION SOURCE	TYPE OF ROAD	BUFFER DISTANCE	PERMITTED USES
Road and Highways	Trunk Road and Primary Distributor	>20m	Active and passive recreational use
		3 – 20m	Passive recreational use
		<3m	Amenity areas
	District Distributor	>10m	Active and passive recreational use
		<10m	Passive recreational uses
	Local Distributor	>5m	Active and passive recreational use
		<5m	Passive recreational use
	Under Flyovers	-	Passive recreational use

Source: Table 3.1 of Chapter 9 Environment of HKPSG

2.2 Identification of Air Sensitive Receiver ("ASRs")

2.2.1 The first layer ASRs within 500m study area closest from the Site have been identified. The study area of 500m from the Site boundary is shown in **Figure 2-1**. The relative locations of representative ASRs to site boundary are shown in **Figure 2-2** and summarised in **Table 2-3**.

Table 2-3 Identified Representative ASRs

ASR ID	DESCRIPTION	LAND USE	APPROZIMATE DISTANCE TO SITE BOUNDARY, m
ASR1	St. Francis' Canossian College	Educational Institution	13.5
ASR2	St. Francis' Canossian School	Educational Institution	8.3
ASR3	No.1, Sau Wa Fong	Residential	2.7
ASR4	Greenland House	Residential	4.1
ASR5	Kaza	Residential	8.2
ASR6*	Hopewell Centre II	Hotel/Office	6.0

Note: *ASR6 is the planned ASR and currently under construction.

2.3 Air Quality Impact during Construction Phase

2.3.1 Fugitive dust and air emission from construction machinery and vehicles are the major pollutants affecting air quality during construction phase. Construction activities including excavation, stockpiling, earth moving, transferring or handling of dusty materials are sources of air quality impact during construction phase. As there is no basement floor for the Proposed Development and deep excavation is not required, amount of excavated material from excavation works shall be minimal. For the whole construction period anticipated to be two years, 25,088 tonnes of C&D materials (including 24,480 tonnes of inert C&D materials and 608 tonnes of C&D waste) would be generated as estimated in **Section 5.2**. All the dusty materials will be covered or wetted on-site. With implementation of control measures recommended in **paragraph 2.3.3**, no adverse air quality impact arising from construction activities is anticipated.

2.3.2 The *Air Pollution Control (Construction Dust) Regulation* stipulated a number of air quality control measures. With these good practices, air quality impact arising from construction activities can be controlled, and therefore adverse impact on air quality is not expected.

2.3.3 The following good practices and air quality control measures shall be implemented during the construction phase to avoid adverse air quality impact on the air sensitive uses:

- Hard paving surface on open area, regular spraying water on exposed site surfaces and unpaved roads to reduce dust emissions, particularly during dry weather.
- Before, during and immediately after any excavation or earth moving operation, the working site shall be sprayed with water to keep the surface wet.
- Spraying water frequently for extra dusty areas and areas close to ASRs.
- Any stockpile of dusty materials shall be either covered entirely by impervious sheeting, placed in an area sheltered on the top and three sides, or sprayed with water so as to maintain the entire surface wet.

- Before loading, unloading or transfer any dusty materials, wet the dusty materials as far as practicable.
- Before, during and immediately after uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures, the working area shall be watered so as to maintain the entire surface wet.
- All demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from the site clearance) that may generate dust particles shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides within a day of demolition.
- Tarpaulin covering of all dusty vehicles loads transported to, from and between site locations.
- Vehicle washing facilities including a high-pressure water jet shall be provided at every discernible or designated vehicle exit point. The area for vehicle washing and the section of the road between the washing facilities and the exit point shall be paved with concrete, bituminous materials or hardcore.
- At least 2.4m high hoarding from ground level shall be provided along site boundary where adjoins a road, streets or accessible to other public premises except for a site entrance or exit. For the portion of the site boundary in the vicinity of ASR2 to ASR6, site hoarding higher than 2.4m above ground should be erected as far as practicable to minimise any potential air quality impact on these ASRs.
- Where possible, wet the surface of façade grinding work.
- Equip vacuum cleaner on grinder for façade grinding work to collect dusty particles where possible.
- Main haul road shall be kept wet by spraying water. Imposition of speed controls for vehicles on site haul roads and confine haulage and delivery vehicles to designated roadways inside the site.
- A portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit shall be kept clear of dusty materials.
- Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from the ASRs.
- Every stock of more than 20 bags of cement or dry Pulverised Fuel Ash (“PFA”) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides.

2.3.4 Many construction plants are driven by fuel combustion, use of construction plants could be a source of NO_x, SO_2, PM and CO. As advised by the Applicant, approx. 15 nos. of construction plants including excavator, generators, air compressor, etc., to be operated on site. All the plants to be used on site will comply with the relevant statutory regulations.

2.3.5 The *Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation* provides a guidance on control of emission from the use of NRMM. To minimise the air quality impact from the emission of NRMM, it is recommended that exempted NRMMs shall not be used and only approved NRMM should be used during the construction phase. Moreover, power supply shall be provided for on-site plants and diesel-powered machinery should be avoided as far as practicable. The engines of the NRMM should be switched off when not in use. Considering the quantity of on-site plants is limited and with implementation of the

mitigation measures, adverse air quality impact due to emission from construction plant is not expected.

2.3.6 As discussed in **paragraphs 5.2.16** and **5.2.29**, approx. 43.5 tonnes/day of construction waste (including 42.5 tonnes/day C&D materials and 1 tonne/day C&D waste) will be generated. Assuming the capacity of each dump truck is 15 tonnes, about 3 trips/day would be required to handle the generated waste. All loaded dump trucks shall be covered by impervious sheeting and the vehicle wheels shall be washed thoroughly before leaving the Site. Therefore, adverse air quality impact from dump trucks is not expected.

2.3.7 Regarding potential cumulative impact, desktop study and site visit has been conducted to ascertain the presence of any concurrent projects in the vicinity of the Site. Construction works are undergoing at Hopewell Centre II (i.e. ASR6). According to our site visit on 25 April 2024, major construction works for Hopewell Centre II were completed. As advised by the Applicant, the remaining works for Hopewell Centre II mainly include interior works, which is expected to be completed in 2024. In view of the works programme for the Proposed Development, no overlapping is anticipated with construction works of Hopewell Centre II. Hence, no adverse cumulative constructional air quality impact is expected.

2.3.8 Besides, according to TPB Portal, there is a planned residential development at 31-36 Sau Wa Fong, which may be the concurrent project in the vicinity of the Site. At the moment, there is no detail or solid timetable about this planned residential development. If the aforementioned project will be constructed concurrently with the Proposed Development, the Applicant of the Proposed Development will be responsible for the liaison with the responsible personnel of other projects to avoid adverse cumulative air quality impact. Moreover, mitigation measures including good site practice in accordance with the *Air Pollution Control (Construction Dust) Regulation* would be implemented for both the Proposed Development and the aforementioned project to further minimise dust and air pollutant generation. Hence, no adverse cumulative constructional air quality impact is expected.

2.3.9 A five-storey building at No. 18 Sau Wa Fong will be demolished as planned. Given the age of the building, ACM may be found inside the building. A RAC will be hired to conduct an asbestos study including AIR, AMP and AAP before and throughout demolition process to conform to the APCO. The AIR and AAP, if any, will be submitted to EPD at appropriate time required, and a registered asbestos contractor will be hired to carry out the asbestos abatement works in this case. Once asbestos abatement work has been completed in accordance with the approved AAP, the RAC shall conduct a visual inspection to check for any additional ACMs. If additional ACMs are discovered, demolition shall be suspended and the RAC shall be informed immediately, the RAC shall submit the modified AAP to the EPD after investigation for further asbestos abatement work by the registered asbestos contractor. An air sampling test shall be conducted by a Registered Asbestos Laboratory at the working area when all ACMs has been removed, in order to verify that there is no asbestos fibre left suspended in the air.

2.3.10 In addition, to minimise the air emission during the demolition works, two layers of protective screen shall be placed over the scaffolds for the building. The area at which demolition work takes place shall be sprayed with water immediately prior to, during and immediately after the demolition activities so as to maintain the entire surface wet. With the implementation of recommend mitigation measures, no adverse air quality impact from the demolition works is anticipated.

2.3.11 In general, EPD publishes the *Code of Practice on Asbestos Control* and *Practice Note* ("ProPECC PN 2/97"), which stipulates the following precautionary measures that should be taken during the removal of ACMs:

- Adoption of protection, such as a full containment, mini containment, or segregation of work area.
- Provision of decontamination facilities for cleaning of workers, equipment and bagged waste before leaving the work area.
- Adoption of engineering control techniques such as use of negative pressure equipment with High Efficiency Particulate Air ("HEPA") filters to ensure air flow between work area and the outside environment is free from any fibre release.
- Watering of ACMs before and during disturbance, minimising the breakage and dropping of ACMs, and packing of debris and waste immediately after it is produced.
- Provision of HEPA-filtered vacuum cleaner and wet wiping for cleaning the work area.
- Provision of sealants for coating any surfaces previously in contact with or contaminated by asbestos.
- Proper bagging, safe storage and disposal of asbestos and ACMs.
- Pre-treatment of all effluent from work area before discharge.
- Air monitoring strategy to check for leakage and clearance of the work area after the asbestos work.

2.3.12 By making out an asbestos abatement plan and taking recommended precautionary measures, it's not expected to be adverse impact related to the removal of ACMs. Further details on disposal of asbestos waste is discussed in **Section 5** of this EA Report.

2.4 Air Quality Impact during Operation Phase

Chimney Emission

2.4.1 A site visit was conducted on 25 April 2024 to identify air pollution sources in the vicinity of the Site. No chimney was found within 200m from the Site during the site visit. The buffer distance between industrial chimneys and air sensitive uses of the Proposed Development recommended in Table 3.1 of Chapter 9 in HKPSG is fulfilled in this case. Therefore, no adverse air quality impact from chimney emission is expected.

Vehicular Emission from Open Road

2.4.2 Queen's Road East, Kennedy Road and St. Francis Street are three major roads in vicinity of the Site as shown in **Figure 2-3**. With reference to the *Annual Traffic Census 2022* published by the Transport Department ("TD"), both Queen's Road East and Kennedy Road are classified as District Distributors ("DD"). Table 3.1, Chapter 9 of HKPSG recommends a minimum buffer distance of 10m between DD and air sensitive uses, which has been adopted for Queen's Road East and Kennedy Road.

2.4.3 St. Francis Street is not listed in the *Annual Traffic Census 2022*. It is a cul-de-sac leading from St. Francis' Canossian School to Queen's East Road, which may be classified as Local Distributor ("LD") or District Distributor ("DD"). As a conservative approach, a buffer distance of 10m for DD is adopted for St. Francis Street.

Oily Fume and Cooking Odour

2.4.6 As observed during the site visit on 25 April 2024, the Site is surrounded by schools and residential buildings, and no restaurant was found in the vicinity. Moreover, no fume exhaust or cooking odour was identified during the site visit. Therefore, no adverse air impact due to oily fumes and cooking odour from nearby uses is expected.

2.4.7 Oily fumes and cooking odour emitted from the proposed commercial premises such as restaurants (usually kitchens of restaurants) could be another potential source of air pollution. In order to minimise the potential oily fume and odour emissions from kitchens, positioning of exhaust outlets from kitchens at detailed design stage should refer to the recommendations given by the *Control of Oily Fume and Cooking Odour from Restaurants and Food Business* published by the EPD, as follows:

- Locate the outlets at such a place where the ventilation is good and the emissions from them can be adequately dispersed without hindrance.
- Provide sufficient separate distance from any sensitive receptor in the vicinity so that the emissions will not cause, or contribute to, an odour nuisance or other type of air pollution to the public.
- Set the exhaust outlet high as possible for upward discharge. Advice should be sought from the environmental professionals to confirm if alternative location is also suitable.
- Ensure the emission from the exhaust system will not be restricted or deflected by, for example, the use of plates or caps.

2.4.8 To minimise the impact of oily fumes and cooking odour, water spray hoods (hydrovents)/air washers or electrostatic precipitator should be installed to control oily fumes and cooking odour. Operation and maintenance of the exhaust system and air pollution control equipment should be carried out in accordance with the manufacturer's specification and specified procedures by competent staff with sufficient training. Qualified professionals should be employed to perform regular monitoring, inspection, cleaning and maintenance of components to ensure proper performance. In case of future complaint against oily fumes and cooking odour from the proposed development, the Applicant would carry out investigation and take remedial actions to rectify any odour nuisance on the ASRs nearby.

2.5 Conclusion

2.5.1 With the implementation of the recommended mitigation measures and good site practices, adverse impacts associated with air quality during the construction phase is not anticipated.

2.5.2 No adverse air quality impact on the Site from chimney and vehicular emissions is anticipated with the sufficient buffer distance provided between air pollution sources and the Site boundary. At the same time, no adverse air quality impact on surrounding air sensitive receptors during operation of the Proposed Development is anticipated with the implementation of the recommended measures on oily fumes and cooking odour emissions.

2.5.3 Overall, no adverse air quality impacts are anticipated during the construction and operation phases of the Proposed Development.

3.3.5 Besides, according to the aerial photos provided in Google Map, some fixed plants (air-cooled chillers and cooling towers), which might have direct line-of-sight to the Indicative Development Scheme, were observed on the roof of the buildings in the vicinity of the Site, including Greatmany Centre – FN1, St. Francis' Canossian School – FN2 and Dominion Centre – FN3, as shown on **Figure 3-1**.

3.3.6 The management offices of the office buildings and school have been contacted to obtain the model number and operation hour of the fixed plants. For Greatmany Centre – FN1, as the model number of fixed plant could not be provided by the management office, a model with similar dimension and cooling capacity has been adopted in the assessment. Such information and catalogues showing the Sound Power Levels ("SWL") of these fixed plants are provided in **Appendix A**. The SWLs adopted in the assessment are summarised in **Table 3-4** below.

Table 3-4 Inventory of Identified Fixed Noise Sources

Source ID	Building Name	Noise Sources	Operation Period	SWL, dB(A)
FN1	Greatmany Centre	Air-cooled chiller	Day time	103
FN2	St. Francis' Canossian School	Outdoor Unit	Day time	72
FN3	Dominion Centre	Cooling Tower	Day time	101

Noise Sensitive Receivers ("NSRs") for Fixed Noise Impact Assessment

3.3.7 As a conservative approach, five NSRs along the site boundary are selected for the fixed noise impact assessment, as shown on **Figure 3-1**. As all the NSRs will not be affected by IFs, they should be classified as ASR "B". Thus, the day and evening time ANL of 65dB(A) shall be adopted.

Assessment Methodology

3.3.8 The noise levels at the NSRs are calculated based on standard acoustical principle and practice. All identified noise sources were assumed as point source for the purpose to determine attenuation due to distance correction:

$$SPL = SWL - DC + FC$$

where
SPL = Sound Pressure Level at NSRs, dB(A)
SWL = Sound Power Level of the fixed noise source, dB(A)
DC = Distance Correction, by (20 x $\log_{10}$(D) + 8) dB(A)
D = Horizontal Distance between the NSR and the noise sources, m
FC = Façade Correction, 3 dB(A)

Assessment Results

3.3.9 The results show that the noise levels at all NSRs comply with the ANL for daytime. As there is no night-time operation of the fixed noise sources, night-time assessment is considered unnecessary. Therefore, no adverse fixed noise impact on the Indicative Development Scheme is anticipated. The detailed calculation is provided in **Appendix B** and summarised in **Table 3-5** below.

Table 3-5 Summary of Fixed Noise Impact Assessment Results

NSR ID	SPL, dB(A)	Day and evening time ANL, dB(A)	Compliance? (Y/N)
NSR1	63	65	Y
NSR2	62		Y
NSR3	61		Y
NSR4	61		Y
NSR5	60		Y

Planned On-Site Fixed Noise Sources

3.3.10 Most of the M&E equipment installed in the Indicative Development Scheme including water pumps, Fire Services ("FS") pumps, emergency generators and lift machines will be installed in plant rooms and will be enclosed with louvres installed at the openings. For the commercial places at the Indicative Development Scheme, outdoor split-type air conditioners will likely be the only outdoor fixed plants. As mentioned in **paragraph 3.3.3**, the SWL of outdoor split-type air conditioners is generally minimal. Therefore, no adverse noise impact arising from enclosed M&E equipment and the outdoor split-type air conditioners is anticipated.

3.3.11 Quiet air conditioning system will be selected as far as practicable. Outdoor air conditioning units will be located away from the nearest NSRs to minimise noise impact on the NSRs closest to the Indicative Development Scheme. Noise control measures recommended in the *Good Practice on Ventilation System Noise Control* should, where applicable, be implemented at ventilation facilities in order to minimise noise generation. Some good practices include:

- If practicable, equipment should be installed in a plant room with thick walls, behind a large enough obstruction or as far as practicable from the receivers.
- Equipment maintenance should be scheduled regularly to ensure that equipment is properly operated in order to maintain a controlled level of noise and vibration and prevent noise emissions from equipment from increasing over time.
- Erect a barrier or partial enclosure between the plant and nearby residential buildings to block direct line of sight between noise source and NSRs.
- Complete enclosure with silencers at condenser fan outlets and at air inlets of the enclosure should be provided so as to contain and absorb the noise from the chiller when there are noise sensitive receivers nearby.
- If the floor underneath is an NSR, floating floor can be installed to reduce noise transmission through the floor slab.
- Fan speed should be slowed down during non-rush hours, duct openings should be directed away from NSRs.
- Air discharge point of fans should be equipped with silencers so as to absorb noise generated from the fan.
- If practicable, fabricate a complete enclosure to contain and absorb noise energy radiated by the source.

5.2.36 Given the above, with the implementation of mitigation measures mentioned above and listed in **Section 5.3**, no adverse waste impact from the handling, transportation or disposal of general refuse from workforce during construction of the Indicative Development Scheme is anticipated.

Chemical Waste

5.2.37 The existing building at No. 18 Sau Wa Fong was built in 1960s. ACM will likely be present in this building. The details of handling the ACM in accordance with APCO have been discussed in Paragraphs **2.3.9** to **2.3.12**. After the demolition works, the asbestos waste labelling, handling and packaging depends on the type of ACMs. The EPD's *Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste* shall be followed for handling, collection and transportation and disposal of asbestos waste. The quantity of the asbestos to be generated depends on the investigation and asbestos abatement plan carried out by RAC.

5.2.38 Other than asbestos, other chemical waste produced during construction of the Indicative Development Scheme include waste batteries, lubricating oil, waste paints and waste lamp may be generated. However, given the small scale of the works, only a limited amount which is expected to be less than 1 tonne of these chemical wastes may be generated.

5.2.39 The Contractor shall register as a Chemical Waste Producer under the WDO. All chemical waste shall be stored at a properly designed chemical waste storage area located within the construction site in accordance with EPD's *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes*. A licensed collector shall be employed to handle and dispose of all chemical wastes, e.g. at the Chemical Waste Treatment Centre ("CWTC") at Tsing Yi, or other facility approved by EPD.

5.2.40 Given the above, with the implementation of mitigation measures mentioned above and listed in **Section 5.3**, no adverse waste impact from the handling, transportation or disposal of general refuse from workforce during construction of the Indicative Development Scheme is anticipated.

Summary

5.2.41 The type of waste and their estimated quantities generated during the construction phase are summarised in **Table 5-3**.

Table 5-3 Estimation of Wastes to be Generated During Construction Phase

WASTE TYPE	ESTIMATED QUANTITY (TONNES)	SOURCES OF WASTE	TREATMENT
INERT C&D MATERIAL			
Demolition waste	137	Demolition	On-site reuse/recycle Off-site reuse/recycle Sent to public fill reception facilities
Paving	1,206	Removal of paving	
Excavated material	11,307	Excavation	
Building Waste	11,959	Superstructure Construction	
NON-INERT C&D MATERIAL			
Topsoil	251	Site clearance and formation	On-site sorting for reuse/recycle

concept which shows the desirability of various waste management methods and comprises the following in order of preference:

- Avoidance
- Minimisation
- Recycling/reuse

5.3.10 The majority of waste generated during the operation of the Indicative Development Scheme will mainly comprise of municipal solid waste including domestic waste and commercial wastes such as food waste, food packaging, paper, can, plastic bottles, etc., which shall be collected and stored in appropriate waste receptacles with a secure lid to minimise the potential adverse impact due to wind blowing away any waste and to improve hygiene. Recyclable and non-recyclable waste shall be regularly collected by licensed waste collectors and taken off-site for recycling or disposal, respectively. Besides, food waste will be collected separately for proper disposal, e.g., off-site treatment at Organic Resources Recovery Centre ("ORRC") for or on-site treatment with food waste compositing machines, etc.

5.4 Conclusion

5.4.1 With the development of WMP and the implementation of good site practices recommended therein, the waste generation during construction phase can be greatly reduced. Provided that good engineering practices as recommended in **Section 5.3** will be followed, there should be no adverse impacts related to the management, handling and transportation of waste during the construction phase.

5.4.2 During the operation phase, the major type of waste generated will be domestic waste generated by the residential portion of the Indicative Development Scheme and commercial wastes from commercial outlets. Both types of waste will be collected on a regular basis by registered waste collectors and will be disposed at a landfill managed by EPD. Therefore, no adverse waste impacts from handling, transportation, or disposal are anticipated during operation.

5.4.3 With the implementation of the recommended mitigation measures, adverse waste impacts generated during the construction and operational phases of the Indicative Development Scheme are not anticipated.

- Grade I Historical Building (Nam Koo Terrace)

6.3.3 With reference to historical documents provided in **Appendix E**, the Site area was used primarily for residential and educational uses, which shall not lead to any land contamination potential. There is no aerial photograph available before the development of Nam Koo Terrace, which is the oldest structure on the Site.

6.3.4 Historical aerial photographs provided in **Appendix F** show that the Site has been occupied by Nam Koo Terrace, St. Luke's College and Miu Kang Terrace since 1963 or earlier. And the No. 18 Sau Wa Fong was present since 1973. Moreover, the historical documents do not provide any information about previous land use prior to construction of Nam Koo Terrace. No existing and previous development with land contamination potential on the Site is identified. Hence, no land contamination issue is anticipated.

Site Walkover

6.3.5 A site walkover was carried out on 25 April 2024. At the time of site visit, the buildings at Miu Kang Terrace and Hill Side Terrace (i.e. former St. Luke's College) have been demolished, while No. 18 Sau Wa Fong has been vacant. No chemical storage, or stressed vegetation were observed. Therefore, no land contamination issue is anticipated. The photographs of the site walkover and checklist is shown in **Appendix G**.

Dangerous Goods and Incident Records

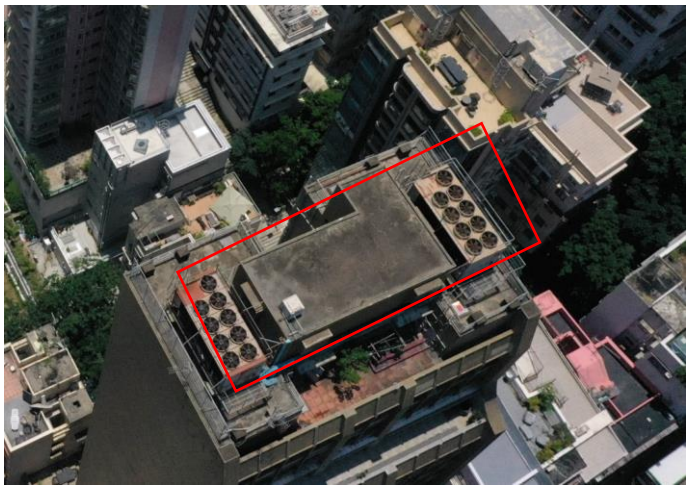
6.3.6 Regional Office (South) of EPD was contacted to review if any record of registered Chemical Waste Producer ("CWP") or accident spillage / leakage of dangerous or chemical is related to the Site. According to EPD's reply dated 19 April 2024, Regional Office (South) did not have any record of potential land contamination incident and Chemical Waste Producers Registration within the Site.

6.3.7 Moreover, Fire Services Department ("FSD") was also contacted to review any current / past licences for storage of Dangerous Goods ("DG"), registration of DG licence, fire incidents, spillage/leakage of DG etc., relating to the Site. According to FSD's reply dated 19 April 2024, no DG licence was issued in respect of the Site, while 1 incident record of No. 1 Fire Alarm was recorded at No. 53 Ship Street, which is located within the Site. As there is no any CWP or DG license issued within the Site, and FSD's reply dated 20 September 2024 mentioned that no incident of spillage /leakage of dangerous goods was involved in the incident of No.1 Fire Alarm, it is considered that the fire incident does not have any land contamination potential to the Site. The information request letters and replies from EPD and FSD are attached in **Appendix H.**

6.4 Conclusion

6.4.1 A detailed investigation of the past and present land-use of the Site was carried out. Based on historical records and the site walkover, no potential sources of land contamination were identified in the past and no existing land contamination issues were identified. As such, steps 1 to 6 of **paragraph 6.2.2** are not required. Hence, no adverse impact from the land contamination issue is anticipated and site investigation is considered not necessary.

FN1 – Greatmany Centre

Photo Records	 
Model [Note 1]	TRANE RTAC 300
Operation Hour [Note 2]	Monday to Saturday: 7:00 – 19:00 Sunday: Closed

Notes:

1. Due to lack of model details, the SWL of a model with similar dimension and capacity has been adopted in the assessment.
2. Information provided by the Management Office.

FN2 – St. Francis' Canossian School

Photo Record	
Model [Note 1]	MITSUBISHI PU-10YAKD
Operation Hour [Note 1]	Monday to Saturday: 7:00 – 19:00 Sunday: Closed

Note:

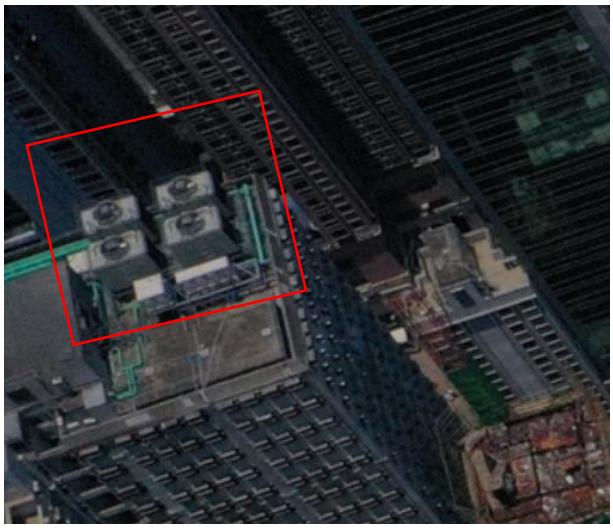
1. Information provided by the Management Office.

4-1 STANDARD SPECIFICATIONS

Item				Model name	PE-8GAK(T)		PE-10GAK(T)	
					Gross	Net	Gross	Net
Capacity ∗1				Btu/h	74,000	70,000	91,000	87,000
				kW	21.6	20.6	26.7	25.6
				kcal/h	18,500	17,700	22,900	21,900
Total input				kW	7.65		10.25	
EER				kcal/h.W	2.41	2.31	2.23	2.13
COP				W/W	2.82	2.69	2.60	2.49
INDOOR UNIT	Model name				PE-8GAK(T)		PE-10GAK(T)	
	Power supply(phase,cycle,voltage)				3PH 4W 50Hz 380-415V		3PH 4W 50Hz 380-415V	
		Input		kW	1.00		1.12	
		Running current		A	1.8		2.0	
		Starting current		A	5.0		5.0	
	External finish				Galvanized steel		Galvanized steel	
	Heat exchanger				Cross fin coil		Cross fin coil	
	Fan	Fan(drive) X No.			Centrifugal (direct) X 2		Centrifugal (direct) X 2	
		Fan motor output		kW	0.75		0.75	
		Airflow	Hi	CMM	65		80	
				L/s	1,083		1,333	
			Lo	CMM	52		64	
				L/s	867		1,067	
		External static pressure		Pa	100		100	
				mmAq	10		10	
	Operation control & Thermostat				Remote control & built in		Remote control & built in	
	Noise level ∗2		Hi	dB(A)	49		50	
			Lo		45		46	
	Cond. Drain connection O.D.				R1		R1	
	Dimensions		H	mm	400		400	
			W	mm	1400		1600	
			D	mm	634		634	
	Weight			kg	70		77	
				lbs	154		169	
OUTDOOR UNIT	Model name				PU-8YAKD		PU-10YAKD	
	Power supply(phase,cycle,voltage)				3PH 4W 50Hz 380-415V		3PH 4W 50Hz 380-415V	
		Input		kW	6.65		9.13	
		Running current		A	13.0		16.6	
		Starting current		A	95		125	
	External finish				Munsell 3Y 7.8/1.1		Munsell 3Y 7.8/1.1	
	Refrigerant control				Capillary tube		Capillary tube	
	Compressor				Hermetic		Hermetic	
		Model			ZR94KC-TFD		ZR125KC-TFD	
		Motor output		kW	5.6		7.5	
		Starter type			Line start		Line start	
		Protection devices			Thermal relay, Thermal switch HP switch, LP switch		Thermal relay, Thermal switch HP switch, LP switch	
	Heat exchanger				Cross fin coil		Cross fin coil	
	Fan	Fan(drive) X No.			Propeller(direct) X 2		Propeller(direct) X 2	
		Fan motor output		kW	0.15 X 2		0.15 X 2	
		Airflow		m^3/min	160		160	
				L/s	2,667		2,667	
	Noise level ∗2			dB(A)	66		66	
	Dimensions		H	mm	1480		1480	
			W	mm	1047		1047	
			D	mm	547		547	
	Weigh			kg	197		206	
				lbs	433		453	
REFRIGERANT PIPING	Refrigerant				R-22		R-22	
	Charge			kg	6.0		6.5	
				lbs	13.2		14.3	
	Pipe size O.D.		Liquid	mm	15.88		15.88	
			Gas	mm	25.4		28.6	
	Connection method		Indoor side		Blazed		Blazed	
			Outdoor side		Flared/Flanged		Flared/Flanged	
	Between the indoor & outdoor unit		Height difference		Max. 30m		Max. 30m	
			Piping length		Max. 50m		Max. 50m	

NOTE : ∗1 Rating condition
Cooling : Indoor unit D.B.27°C, W.B.19°C
Outdoor unit D.B.35°C
Refrigerant piping length (one way) : 7.5m (in case of others)
NOTE : ∗2 Noise level is measured in an unacoustic room based on JIS conditions.
NOTE : ∗3 Guaranteed operating range is ; Outdoor D.B.20-52°C Indoor W.B.15-24°C

FN3 – Dominion Centre

Photo Records	 
Model [Note 1]	RYOWO FWS-169-15
Operation Hour [Note 1]	Monday to Friday: 8:00 – 18:30 Saturday: 8:00 – 13:30 Sunday: Closed

Note:

1. Information provided by the Management Office.

3 SPECIFICATION

Model	Nominal Water Flow M^3/hr	Dimension L mm	W mm	h mm	H mm	Fan Motor kW	Fan Dia mm	Piping In mm	Out mm	Fv mm	Of mm	Dr mm	Sound Power Level	Weight Dry kgs	Wet kgs
FWS-94-3.7	94	4000	2000	4125	4625	3.7	1600	100x2	150	25	50	50	88	1335	2300
FWS-94-5.5	107				4705	5.5							91	1385	2350
FWS-94-7.5	119				4745	7.5							93	1400	2365
FWS-127-5.5	127	4400	2300	4125	4705	5.5	1800	100x2	150	25	50	50	90	1570	3000
FWS-127-7.5	141				4745	7.5							92	1585	3015
FWS-127-11	160				4825	11							94	1650	3080
FWS-169-7.5	169	4400	2600	4125	4745	7.5	2000	125x2	200	25	50	50	92	1690	3700
FWS-169-11	192				4825	11							94	1760	3770
FWS-169-15	213				4870	15							95	1770	3780
FWS-200-7.5	190	4600	2600	4145	4785	7.5	2400	125x2	200	40	80	50	91	2195	4000
FWS-200-11	215				4865	11							93	2250	4055
FWS-200-15	235				4910	15							95	2255	4060
FWS-250-7.5	210	4800	3200	4345	4985	7.5	2400	125x2	200	40	80	50	90	2890	5000
FWS-250-11	240				5065	11							93	2945	5055
FWS-250-15	265				5110	15							94	2950	5060
FWS-275-7.5	225	5200	3200	4145	4785	7.5	2900	150x2	200	40	80	50	89	3050	5160
FWS-275-11	255				4865	11							92	3105	5215
FWS-275-15	285				5910	15							94	3110	5220
FWS-300-7.5	235	6000	3200	4345	4895	7.5	2400	150x2	200	40	80	50	89	3310	6500
FWS-300-11	270				5065	11							91	3365	6555
FWS-300-15	300				5110	15							93	3370	6560
FWS-300-18.5	320				5175	18.5							94	3410	6600
FWS-300-22	340				5215	22							95	3470	6660
FWS-330-7.5	260	6300	3200	4145	4785	7.5	2900	150x2	250	50	80	50	88	3405	6595
FWS-330-11	300				4865	11							91	3460	6650
FWS-330-15	330				4910	15							93	3465	6655
FWS-330-18.5	350				5175	18.5							94	3505	6695
FWS-330-22	375				5215	22							95	3565	6755
FWS-350-7.5	275	5400	3600	5425	6065	7.5	3000	150x2	250	50	80	50	89	3580	6770
FWS-350-11	315				6145	11							91	3635	6825
FWS-350-15	350				6190	15							93	3640	6830
FWS-350-18.5	375				6255	18.5							94	3680	6870
FWS-350-22	400				6295	22							95	3740	6930
FWS-400-7.5	285	6600	3600	4345	4985	7.5	3000	125x4	250	50	80	50	87	3630	7000
FWS-400-11	325				5065	11							89	3685	7055
FWS-400-15	360				5110	15							91	3690	7060
FWS-400-18.5	385				5135	18.5							92	3730	7100
FWS-400-22	410				5195	22							93	3790	7160
FWS-400-30	450				5255	30							94	3820	7185
FWS-500-7.5	305	6000	4200	5355	5990	7.5	3400	125x4	250	50	80	50	87	4230	8000
FWS-500-11	345				6070	11							90	4285	8055
FWS-500-15	385				6115	15							91	4290	8060
FWS-500-18.5	410				6180	18.5							93	4325	8100
FWS-500-22	435				6220	22							94	4390	8120
FWS-500-30	485				6280	30							95	4415	8145
FWS-550-7.5	315	6600	3600	5355	5990	7.5	3000	125x4	250	50	80	50	87	4350	8080
FWS-550-11	360				6070	11							89	4405	8135
FWS-550-15	400				6115	15							91	4410	8140
FWS-550-18.5	430				6180	18.5							92	4450	8180
FWS-550-22	455				6220	22							94	4510	8240
FWS-550-30	500				6280	30							95	4535	8275
FWS-600-11	435	7000	4200	5500	6255	11	3700	150x4	300	50	80	50	89	5015	9000
FWS-600-15	485				6300	15							91	5020	9005
FWS-600-18.5	520				6365	18.5							92	5060	9045
FWS-600-22	550				6405	22							94	5120	9085
FWS-600-30	610				6465	30							95	5140	9110
FWS-600-37	650				6485	37							96	5330	9300
FWS-700-11	515	7000	5000	5500	6255	11	3700	150x4	300	50	80	50	89	5650	12000
FWS-700-15	570				6300	15							91	5655	12005
FWS-700-18.5	610				6365	18.5							92	5690	12055
FWS-700-22	645				6405	22							93	5755	12120
FWS-700-30	720				6465	30							95	5780	12145
FWS-700-37	765				6485	37							96	5970	12335
FWS-800-11	555	7500	5000	6400	7155	11	4200	150x4	300	50	80	50	88	6905	14880
FWS-800-15	615				7200	15							90	6910	14885
FWS-800-18.5	655				7265	18.5							91	6945	14920
FWS-800-22	695				7305	22							93	7010	14985
FWS-800-30	760				7365	30							95	7035	15010
FWS-800-37	820				7385	37	4200	150x4	350	50	80	50	98	7225	15200
FWS-800-45	880				7405	45							99	7255	15230
FWS-800-55	940				7495	55							100	7365	15340

Notes:

1/CTI Certification applies to the operation with the Wet Bulb Temp. between 12.8℃ and 32.2℃, Max. Entering Water Temp. 51.7℃, Min. Range of 2.2℃ and Min. Approach of 2.8℃.
2/The nominal water flows are based upon 37℃ HWT, 32℃ CWT, 28℃ WBT, 32℃ DBT and 101.3 kPa Barometric pressure.
3/Sound Power Level is in dBA re 10^{-12} Watt.
4/Data and specifications are subjected to change without prior notice.

ryowo™

Sound Power Levels of Existing Fixed Noise Sources

ID	Building Name	Fixed Noise Sources	Sound Power Level, dB(A)	Quantity	Total SWL, dB(A)
FN1	Greatmany Centre	TRANE Chiller	100*	2	103
FN2	St. Francis' Canossian School	MITSUBISHI Outdoor Unit	66	4	72
FN3	Dominion Centre	RYOWO Cooling Tower	95	4	101

** Sound Power Level of FN1 was determined by free-field sound presspure level at 10m provided in the catalogue. SWL = (SPL+20log(D)+8+3) dB(A)*

Calculation of Fixed Noise Level on the Indicative Development Scheme

	Source ID	SWL, dB(A)	Horizontal Distance, m	Distance Correction, dB(A)	Façade Correction, dB(A)	SPL, dB(A)
NSR1	FN1	103	63.1	44	3	62
	FN2	72	84.2	47	3	29
	FN3	101	135.8	51	3	53
					Total	**63**
NSR2	FN1	103	66.2	44	3	62
	FN2	72	69.7	45	3	30
	FN3	101	121.1	50	3	54
					Total	**62**
NSR3	FN1	103	78.8	46	3	60
	FN2	72	48.7	42	3	33
	FN3	101	102.1	48	3	56
					Total	**61**
NSR4	FN1	103	92.3	47	3	59
	FN2	72	33.7	39	3	36
	FN3	101	94.5	48	3	57
					Total	**61**
NSR5	FN1	103	103.9	48	3	58
	FN2	72	33.1	38	3	37
	FN3	101	108.5	49	3	55
					Total	**60**

FSD's Further Reply dated 20 Sep 2024

消 防 處
香港九龍尖沙咀東部康莊道 1 號
消防處總部大廈

FIRE SERVICES DEPARTMENT
FIRE SERVICES HEADQUARTERS BUILDING,
No.1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong.

本處檔號 **OUR REF.** : (23) in FSD GR 6-5/4 R Pt. 55
來函檔號 **YOUR REF.** : EPA23.1039-J.01/L00088/AW/CL
電子郵件 **E-mail** : hkfsdenq@hkfsd.gov.hk
圖文傳真 **FAX NO.** : 2988 1196
電 話 **TEL NO.** : 2733 7896

20 September 2024

EnviroSolutions & Consulting Ltd
16/F & 17/F,
700 Nathan Road,
Mong Kok, Kowloon.
(Attn: Mr. Charls LIANG, Consultant)

Dear Mr. LIANG,

Section 12A Rezoning Application at Nam Koo Terrace,
Hill Side Terrace, Miu Kang Terrace, Inland
Lot No. 9048, No. 18 Sau Wah Fong and Adjoining Government Land
Request for Information of Dangerous Goods & Incident Records

I refer to your email of 5.9.2024 regarding the captioned request and reply below in response to your questions:-

1. Please be advised that no incident of spillage / leakage of dangerous goods was involved in the incident of No. 1 Fire Alarm in respect of the captioned address.

2. Please be informed that an online platform[1] for application for incident report has been launched. Should you need the details of the incident, you are advised to submit application via the online platform.

If you have further questions, please feel free to contact the undersigned.

Yours sincerely,

(AU Ting-hin)
for Director of Fire Services

[1] FSD website: https://www.hkfsd.gov.hk/eng/
(Access to Information → Information available to the public → Incident Report (FS 276))

Ref. number and date should be quoted in reference to this letter
凡 提 及 本 信 時 請 引 述 編 號 及 日 期