

TOWN PLANNING BOARD

TPB Paper No. 10465
For Consideration by the
Town Planning Board on 24.8.2018

SUBMISSION OF THE DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A
PREPARED UNDER SECTION 25 OF
THE URBAN RENEWAL AUTHORITY ORDINANCE

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| | |
|---------------------------------------|---|
| <u>Development Scheme Area</u> | 129 to 151 Queen's Road West (odd nos.), the In Ku Lane Refuse Collection Point (RCP) cum public toilet (PT), the 5-a-side soccer pitch of Li Sing Street Playground; and the adjoining pavements |
| <u>Area</u> | 2,046m ² |
| <u>Lease</u> | (a) Private land (129 to 151 Queen's Road West) (b) Government land (In Ku Lane RCP cum PT, 5-a-side soccer pitch of Li Sing Street Playground, pavement at Queen's Road West (QRW) and rear lane of 129 to 151 Queen's Road West) |
| <u>OZP</u> | Approved Sai Ying Pun & Sheung Wan Outline Zoning Plan (OZP) No. S/H3/31 |
| <u>Zoning</u> | <p>"Residential (Group A)7" ("R(A)7")</p> <ul style="list-style-type: none"> - a maximum building height (BH) of 110mPD or the height of the existing building, whichever is the greater - a maximum BH of 130mPD would be permitted for sites with an area of 400m² or more <p>"Government, Institution or Community" ("G/IC")</p> <ul style="list-style-type: none"> - a maximum BH of 2 storeys or the height of the existing building, whichever is the greater <p>"Open Space" ("O")</p> <p>Area shown as 'Road'</p> |
| <u>Proponent</u> | Urban Renewal Authority (URA) |
| <u>Proposed Amendments</u> | <ul style="list-style-type: none"> (a) To rezone Development Scheme Area mainly to "R(A)23" (b) To stipulate a BH restriction of 130mPD for the "R(A)23" zone (c) To stipulate the provision of a POS of not less than 538m² (d) To stipulate the provision of a government RCP cum PT of not less than 860m² Gross Floor Area (GFA) |

- (e) To stipulate the provision of a neighbourhood elderly centre (NEC) sub-base as required by the government

1 The Proposal

- 1.1 On 16.3.2018, URA submitted the draft Queen's Road West/In Ku Lane Development Scheme Plan (DSP) No. S/H3/URA3/A for the consideration of the Town Planning Board (the Board) in accordance with section 25(5) of the URA Ordinance (URAO). The submission comprises the draft DSP with its Notes and Explanatory Statement (ES), a planning report, a traffic impact assessment report, an environmental assessment report, a drainage and sewerage impact assessment report, and a Stage 1 social impact assessment (SIA) report (**Annex B**). On 2.5.2018, URA further submitted the Stage 2 SIA report to the Board (**Annex D**).
- 1.2 The Queen's Road West/In Ku Lane Development Scheme (the Scheme) is to rezone the private lots and government land within the Scheme from "R(A)7", "G/IC" and "O" to "R(A)23" with a BH restriction of 130mPD to facilitate a high-density commercial/residential development and the reprovisioning of the POS and government RCP cum PT. URA has also agreed to provide an NEC sub-base of not less than 120m² IFA within the Scheme, in response to the request from Labour and Welfare Bureau (LWB) and Social Welfare Department (SWD).
- 1.3 In support of the draft DSP, the proponent has submitted the following documents:
 - (a) URA's Letter dated 16.3.2018 (**Annex A**)
 - (b) Planning Report (including Stage 1 SIA Report) (**Annex B**)
 - (c) URA's Letter dated 2.5.2018 (**Annex C**)
 - (d) Stage 2 SIA Report (**Annex D**)
 - (e) URA's letter dated 14.6.2018 providing responses to comments of government departments with revised technical assessments (**Annex E-1**)
 - (f) URA's letter dated 4.7.2018 providing responses to public comments (**Annex E-2**)
 - (g) Letter dated 26.7.2018 providing responses to comments of government departments (**Annex E-3**)
- 1.4 The purpose of this paper is to invite the Board to consider whether the draft DSP (together with its Notes and ES), as submitted by URA, is suitable for gazetting under section 5 of the Town Planning Ordinance (TPO).
- 1.5 The area proposed to be zoned "R(A)23" on the draft DSP is currently zoned "R(A)7", "G/IC" and "O" on the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/31 (**Plan 1**). The "R(A)7" zone covers private lots at 129 to 151 Queen's Road West and unallocated government land at the rear of the private lots, while the "G/IC" zone and the "O" zone covers government land allocated for the purpose of RCP, PT and open space (**Plan 2**). URA has included the adjoining pavements along Queen's Road West within the boundary of the Scheme as part of the affected buildings

overhangs the pavement. The pavement will be indicated on the draft DSP as an area shown as 'Road'.

- 1.6 According to URA's notional scheme, the proposed development includes one residential tower over a non-domestic podium (with shops, an NEC sub-base and a clubhouse) with a basement car park, and the provision of a POS, and a government RCP cum PT. The preliminary design drawings are at **Drawings 2 to 12** and the development parameters are set out in the table below.

| | |
|--|---|
| Gross site area | 2,046m ² |
| Net site area ⁽ⁱ⁾ | 1,318m ² |
| Proposed zoning | "R(A)23" |
| Total PR | 8.57 |
| - domestic PR | - 7.35 |
| - non-domestic PR | - 1.21 |
| Total GFA | About 11,290m ² |
| - maximum domestic GFA | - About 9,690m ² |
| - maximum non- domestic GFA | - About 1,600m ² |
| Maximum BH | 130mPD |
| No. of Towers | 1 |
| No. of Storeys | 35 (about) |
| - domestic | 29 |
| - non-domestic (including E&M) | 5 |
| - basement car park | 1 |
| No. of flats | about 189 |
| Parking Spaces | |
| - Car parking spaces | 15 – 16 (subject to technical feasibility on smart-parking measures) |
| - Loading /Unloading (L/UL) bays ⁽ⁱⁱ⁾ | 2 |
| Government RCP and PT ⁽ⁱⁱⁱ⁾ | Not less than 860m ² GFA (RCP: 660m ² ; PT: 200m ²) |
| NEC sub-base ⁽ⁱⁱⁱ⁾ | Not less than 120m ² IFA |
| Private Open Space | Provision to be determined at detailed design stage |
| POS ⁽ⁱⁱⁱ⁾ | Not less than 538m ² |
| Interim reprovisioning of RCP | A temporary, smaller RCP within the Scheme area during construction period will be provided to maintain daily operation |
| Notes: ⁽ⁱ⁾ Net site area is adopted for PR calculation, subject to survey and detailed design. ⁽ⁱⁱ⁾ Including 1 L/UL bay for light goods vehicles for the proposed residential development, and 1 L/UL bay for refuse collection vehicles within the government RCP. ⁽ⁱⁱⁱ⁾ Area is subject to detailed design and acceptance by relevant government departments | |

Development Intensity

- 1.7 While the gross site area of the Scheme is 2,046m², the net site area of 1,318m² is used for GFA/PR calculation purposes. The net site area has excluded the existing 5-a-side soccer pitch and the pavement where the affected buildings overhang (**Plan 3**). The proposed total GFA/PR of the Scheme is about 11,290m²/8.57, comprising of about 9,690m²/7.35 for domestic use and 1,600m²/1.21 for non-domestic use (including the RCP cum PT and NEC). There is currently no GFA and PR restriction in the “R(A)7” zone on the OZP.

Reprovisioning of Government RCP cum PT

- 1.8 URA proposes to reprovide the In Ku Lane RCP cum PT within the Scheme. According to the preliminary design, the proposed RCP cum PT will be reprovisioned within the non-domestic podium with access from In Ku Lane located in the northern portion of the site. The reprovisioned RCP will be totally enclosed during refuse collection operation and equipped with modern de-odourising installations.
- 1.9 During the construction of the reprovisioned RCP, a temporary RCP of smaller scale will be provided within the Scheme to maintain the refuse collection operation. The design and layout of both the reprovisioned and temporary RCPs are subject to the acceptance of relevant government departments. Upon completion, the facilities will be handed back to FEHD for management and maintenance.

Reprovisioning of the POS and the 5-a-side soccer pitch

- 1.10 URA proposes to reprovide the 5-a-side soccer pitch of Li Sing Street Playground by reconfiguring the layout of the soccer pitch, adjacent basketball court and a sitting-out area which lies outside the DSP boundary (**Plan 5**). The affected 5-a-side soccer pitch is about 538m² in area. An elongated POS of 538m² (with sitting-out area facilities and part of the 5-a-side soccer pitch will be provided in the western part of the Scheme providing a physical and visual connection between Queen’s Road West and the future soccer pitch.
- 1.11 URA will implement the proposed new layout for the soccer pitch and basketball court as an advance works of the proposed development. The reprovisioned 5-a-side soccer pitch, basketball court and sitting-out area will be handed back to LCSD upon completion.

Provision of an NEC sub-base

- 1.12 URA will reserve a floor area of not less than 120m² IFA to accommodate an NEC sub-base in the proposed development, in response to the request from LWB and SWD. The proposed NEC sub-base will be handed back to SWD upon completion.

Transport and Traffic Arrangement

- 1.13 URA proposes a relaxed parking provision for the proposed development due to the site constraints and close proximity of the Sai Ying Pun MTR station. URA would explore smart-parking measures in the proposed development in order to provide about 15 to 16 parking spaces for private cars in the basement car park (located on lower-ground floor) which will be served by a car lift. The maximum number of

parking spaces to be provided will be subject to the technical feasibility of the proposed smart-parking measures.

- 1.14 One L/UL bay for the future residential and commercial development will be provided on ground floor of the podium, while one L/UL bay will be provided inside the reprovisioned RCP for refuse collection vehicles (RCVs).
- 1.15 The vehicular ingress and egress for the car park will be from Queen's Road West, while that for RCVs to the reprovisioned RCP will be from In Ku Lane.

2 Justifications provided by URA

General

- 2.1 The Scheme will redevelop the old buildings of about 50 years in deteriorating conditions into a new modern residential development with commercial facilities. The living conditions of the existing households in over-crowded and sub-divided flats will be improved. The Scheme will increase the provision of small to medium-sized flats in the urban area.

Rationalisation of Land Uses

- 2.2 The Scheme will rationalise the land uses through reconfiguration and re-planning of the existing recreational and amenity facilities. The existing 5-a-side soccer pitch and the basketball court are currently land-locked, flanked by buildings on all sides. The provision of the elongated POS with direct street frontage can provide visual and physical connectivity between Queen's Road West and Li Sing Street Playground. The re-planning of the facilities can improve air ventilation at the pedestrian level and enhance the standard, diversity, value and utilisation of the Li Sing Street Playground to meet the needs of the community.
- 2.3 The Scheme can improve pedestrian circulation, visibility and connectivity of Li Sing Street Playground through re-planning and reconfiguration of the urban space between Queen's Road West and In Ku Lane.

More efficient use of land

- 2.4 By inclusion of the back lane for redevelopment, land resource can be utilised more efficiently.

Enhancement of government RCP and PT

- 2.5 The Scheme can enhance the environment and the serviceability of the government RCP cum PT through a more integrated design resulting in overall environmental improvement. The reprovisioned RCP cum PT, with a wider entrance and more internal space, will enable more efficient refuse collection operation and allow for additional ancillary facilities to meet the latest operational needs. It also allows better segregation of uses within the RCP, such as placing office and staff room on the upper floor of the RCP to segregate these uses from the refuse collection activities. The future RCP will adopt careful layout design to avoid the vent shafts fronting onto

nearby residential units as far as possible. Modern day exhaust air and odour treatment facilities will be installed.

- 2.6 URA proposes to provide greening elements at the roof of the reprovisioned RCP, which can further improve the visual compatibility of the facility with the surroundings.

Technical Assessments

- 2.7 Technical assessments, including traffic impact assessment (TIA), environmental assessment (EA) and drainage & sewerage impact assessment (DSIA) are submitted by URA to demonstrate that the proposed Scheme would not cause adverse traffic, environmental, drainage and sewerage impacts.

3 Background

- 3.1 The Scheme is included in URA's approved business plan (2017/18). On 16.3.2018, URA published the notification of commencement in the Government Gazette for the Queen's Road West/In Ku Lane Development Scheme under section 23(1) of the URAO. On the same day, URA submitted the draft DSP to the Board for consideration.
- 3.2 According to section 25(6) of the URAO, the Board may deem the draft DSP as suitable for publication, or being suitable for publication subject to such amendments as the Board shall specify, or refuse to deem the draft DSP as being suitable for publication. If the Board deems the draft DSP suitable for publication under section 25(7) of the URAO, the DSP shall be deemed to be a draft plan prepared by the Board for the purposes of the TPO and the provisions of the TPO shall apply accordingly. These include exhibition for public inspection, consideration of representations and comments, and submission of the draft DSP to the Chief Executive in Council for approval.

4 Development Scheme Boundary

- 4.1 According to URA, the Scheme boundary was delineated based on several factors, including building conditions (building structure, fire safety and building services), BH, building age, local environmental conditions, and the desire to achieve better planning and design merits through inclusion of a 5-a-side soccer pitch and the government RCP cum PT for reconfiguration of layout and redevelopment.
- 4.2 According to URA, the tenement buildings within the Scheme are 4 to 6 storeys and were built between 1966 and 1969 and none of them is served by lift. The buildings are mainly residential on the upper floors with commercial premises on the ground floor which are primarily engaging in businesses selling Chinese medicine and dried seafood. Based on URA's building condition survey carried out in August 2017 (**Drawing 1**), the building condition of Wing Cheung Building at 141-151 Queen's Road West and the tenement building at 133 Queen's Road West are categorised as 'varied' with suspected unauthorised building works (UBWs) identified at the lower portion of the rear part of some buildings. The remaining two buildings, i.e. 129-131 Queen's Road West and 135-139 Queen's Road West, have completed building

rehabilitation works, but the suspected UBWs have not been dealt with. The living condition in the Scheme is considered not satisfactory and the buildings are subject to traffic noise and poor air quality from Queen's Road West.

- 4.3 To the north of the tenement buildings are 3 recreational facilities forming part of the Li Sing Street Playground managed by the Leisure and Cultural Services Department (LCSD), namely the 5-a-side soccer pitch that is within the DSP boundary, and a basketball court and sitting-out area which are outside the DSP boundary. These facilities are located in the inner part of the street block and are surrounded by nearby buildings including Ko Shing Building to the north, In Ku Lane RCP cum PT to the east, and tenement buildings on Queen's Road West to the south. Being "land-locked" in the inner part of the street block, these facilities are of low visibility and limited accessibility.
- 4.4 The 2-storey In Ku Lane RCP cum PT within the DSP boundary managed by the Food and Environmental Hygiene Department (FEHD) is a free-standing building structure built in the early 1990s on a similar formation level as the 5-a-side soccer pitch. The standard and design of these facilities are over 25 years old. The access to the RCP is from In Ku Lane. Due to the insufficient internal space of the RCP, the RCVs may sometimes park outside the RCP on the pedestrian precinct. The access to PT is via In Ku Lane or from the sitting-out area.

5 **Social Impact Assessment**

- 5.1 According to section 25(3) of the URAO, an assessment of the likely effect of the implementation of the development scheme should be prepared by URA. In accordance with the guidelines stipulated in the Urban Renewal Strategy, URA should undertake a Stage 1 SIA before publication of any proposed redevelopment project in the Government Gazette and a Stage 2 SIA after the freezing survey to fully assess the social impact of the proposed project and the social re-housing needs of the residents affected. From 16.3.2018 to 18.3.2018, an SIA survey for the Scheme was conducted by URA to survey the opinions of people for planning purposes together with the freezing survey. Follow-up survey visits by appointments were conducted up to 6.4.2018. The SIA (Stage 1) report is at Appendix 5 of **Annex B** and the SIA (Stage 2) report is at **Annex D**.

Domestic Household Impact

- 5.2 A brief summary of the findings of the two stages of SIA is as follows:

| | <u>Development Scheme Area¹</u> | <u>Territorial Level²</u> |
|---|---|---|
| Population and Household Characteristics | | |
| Total population | 90 | 7,336,585 |
| Average household size | 2.4 | 2.8 |
| Age group | | |
| 0-14 | 12% | 11% |
| 15-24 | 7% | 11% |
| 25-64 | 61% | 62% |
| 65 & above | 19% | 16% |

| | <u>Development Scheme Area¹</u> | <u>Territorial Level²</u> |
|---|---|---|
| Socio-economic Characteristics | | |
| Monthly income (per month/household) | | |
| HK\$4,000 – HK\$15,000+ | 37% | 24% |
| below HK\$4,000 | 13% | 6% |
| Nil Response | 50% | - |
| Seeking Job/Unemployed | 10% | 3.4% (March 2016 – May 2016) |
| % of households receiving comprehensive social security assistance (CSSA) | Nil | 5.3% (as at end of 2014) |
| Residing in Hong Kong for less than 7 years | 6% | - |
| Household Type | | |
| Owner-occupiers | 58% (22 households) | 48% |
| Tenants (including principal tenants and sub-tenants) | 42% (16 households) | |
| Groups with Special Needs | | |
| Persons with disability | about 1% (1 resident) | - |
| No. of single-parent families | Nil | - |

Notes:

¹ Based on 38 households successfully interviewed

² Based on the 2016 Population By-census

5.3 The findings of the survey for the redevelopment project are as follows:

- (a) impact on employment – the majority (15 households or 68%) of owner-occupiers and half of the tenants (8 households) considered that the project would have positive impact or no impact; whilst 3 households (14%) of owner-occupiers and 7 households (19%) of tenants considered that there would be negative impact;
- (b) impact on economic conditions – 9 households (41%) of owner-occupiers and 6 households of tenants (37%) considered that there would be positive impact or no impact; whilst 6 households of owner-occupiers (27%) and 6 households of tenants (38%) considered that there would be negative impact; and
- (c) impact on social network – 14 households of owner-occupiers (64%) and 4 households of tenants (25%) considered that their current social networks would not be affected; whilst 7 households of owner-occupiers (32%) and 9 households of tenants (56%) considered that their social network would be affected. The perceived impacts on social network mainly include social networks with neighbours and friends, children and relatives, and medical support.

Business Impact

- 5.4 14 non-domestic premises (including 11 ground floor premises and 3 upper floor premises designated as “Office” for non-domestic uses) were identified in accordance with the General Building Plans. Of the 12 operators who answered the freezing survey, 3 (25%) were owners and 9 (75%) were tenants. Among the interviewed operators, 2 (17%) strongly supported the proposed redevelopment while 5 (42%) did not support the proposed redevelopment. The remaining 5 operators had no comments or gave no response.
- 5.5 As for the future intention of the operators, among the 12 interviewed operators, 5 (33%) responded that they would like to continue their businesses nearby and within the same district, and 1 would close the business. 6 operators (50%) had not yet decided. The major concerns on relocating their businesses to new premises include loss of existing customer base, loss of agglomeration advantage and high rental cost.
- 5.6 According to the Stage 2 SIA report, the Social Service Team (SST) has successfully contacted 22 households and 10 business operators with problems or enquiries related to compensation, rehousing and tenancy. Immediately after the SIA survey, URA had arranged a public briefing session for all the stakeholders and their questions on the freezing survey, planning, acquisition, and compensation and rehousing issues were addressed. URA had also attended 3 resident briefings organised by the district council members/local group. URA has also answered enquiries and provided a hotline service to the affected residents on matters covering Scheme information, acquisition compensation and rehousing as well as household survey.
- 5.7 URA considers that the prevailing compensation and rehousing policies and arrangements, coupled with the services offered by SST, will be sufficient to reasonably mitigate the impact on the majority of the residents/business operators arising from the proposed redevelopment. The major mitigation measures being pursued include, inter alia, organising outreach activities to ensure all affected persons potentially in need are identified, offering assistance in finding public rental housing for eligible persons in need, conducting initial assessment of elderly with low income, disability and other vulnerable groups for eligibility of compassionate housing, providing orientation assistance for those in need after moving home, and providing assistance to identify suitable replacement premises for affected businesses.
- 5.8 The Stage 1 and Stage 2 SIA reports were circulated and no adverse comments were received from concerned government departments.

6 Implementation

- 6.1 As shown in the tentative implementation programme proposed by URA, construction of the project will commence in around 2019 for completion in around 2029.
- 6.2 The URA does not own or lease any land within the boundaries of the draft DSP and will acquire the property within the Scheme by purchase. Documents detailing URA’s principles for acquisition and resumption of affected properties as well as URA’s rehousing and ex-gratia payment packages for domestic and non-domestic tenants are in Appendices 7 and 8 of **Annex B**.

7 The Development Scheme and its Surrounding Areas (Plans 1 to 4, and photos in Plans 9-12)

7.1 The Scheme is:

- (a) located in between Sheung Wan and Sai Ying Pun;
- (b) bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and 153 Queen's Road West and Li Sing Street Playground to the west;
- (c) characterised by 50 years old tenement buildings that are 4-to-6 storeys in height with some of them including cockloft and basement floors. The ground floors of the buildings are mainly engaged in businesses related to Chinese medicine and dried seafood. A 5-a-side soccer pitch and the free-standing building of In Ku Lane RCP cum PT are located in the northern part of the Scheme;
- (d) In Ku Lane is a passageway which connects the Li Sing Street Playground and the In Ku Lane RCP cum PT with Ko Shing Street to the north;
- (e) within walking distance to public transport facilities, including the Sai Ying Pun MTR station and buses along Queen's Road West; and
- (f) is on two platforms with a level difference of about 3.8m. The platform at QRW is higher at about 7.9mPD while the lower platform, which includes the RCP cum PT and football field are at 4.1mPD.

7.2 The surrounding areas have the following characteristics:

- (a) the street block bounded by Ko Shing Street, Wo Fung Street, Queen's Road West and Sutherland Street is predominantly a mixed use area with shops and restaurants on the ground floor and residential use and offices above. The ground floor shops are mainly engaged in businesses selling Chinese medicine and dried seafood;
- (b) to the west is the Li Sing Street Playground managed by LCSD. The playground is divided into western and eastern parts by Sutherland Street. There are a children's playground and a sitting-out area in the western part of the playground, and a basketball court, a 5-a-side soccer pitch (within the DSP boundary) and a sitting-out area in the eastern part of the playground;
- (c) to the south is a mix of old and new residential buildings along Queen's Road West. There are also various G/IC facilities including Tsan Yuk Hospital, Tung Wah Hospital, Sai Ying Pun Jockey Club Polyclinic and two schools;
- (d) to the north are shops dominated by the Chinese medicine and dried seafood trade. Clusters of shops selling Chinese medicine is found along Ko Shing Street while clusters of dried seafood shops are found along the section of Des Voeux Road West located to the north of the Scheme; and
- (e) other URA projects in the area include the Sung Hing Lane/Kwai Heung Street Development Project which commenced in July 2017 and the completed

projects of Island Crest (First Street/Second Street), The Nova (Yu Lok Lane/Centre Street Development Scheme) and Queen's Terrace (Queen's Street) **Plan 1.**

8 Planning Intention

- 8.1 The area covered by the Scheme is currently zoned "R(A)7", "G/IC", "O" and area shown as 'Road' on the OZP. The planning intention of the three zones are as follows:
- (a) "R(A)7": primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
 - (b) "G/IC": primarily for the provision of Government, institution or community facilities serving the needs of the local residents and/or a wider district, region or the territory.
 - (c) "O": primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.
- 8.2 The Scheme Area is proposed to be rezoned mainly to "R(A)23" with the pavement portion shown as 'Road'; the planning intention of the original "R(A)7" zone will be retained and the reprovisioning of the POS, government RCP and PT as well as the provision of an NEC sub-base will be added.

9 Comments from Relevant Government Departments

- 9.1 The following government departments have been consulted and their comments on the draft DSP and URA's responses are in **Annexes E-1** and **E-3**. Their major comments are summarised below.

Land Administration

- 9.1.1 Comments of the Chief Estate Surveyor/Urban Renewal, Lands Department (CES/UR, LandsD):
- (a) should the application be approved by the Board, URA is required to submit land grant application to LandsD for implementation of the development proposal. There is no guarantee that the maximum GFA and other development parameters will be incorporated in the future land grant conditions. Appropriate lease conditions will be considered at a later stage after the planning approval is granted and after the approval of the land resumption application. If land grant is approved by LandsD acting in its capacity as the landlord at its absolute discretion, it will be subject to such terms and conditions, including but not limited to payment of premium, as may be imposed;

- (b) part of the Scheme falls within the Railway Reserve for Control of Building Plan Boundary – West Island Line. Comments from MTR Corporation Ltd., and RDO of HyD should be sought; and
- (c) it is noted that a narrow strip of Government land sandwiched between the existing RCP and Lot No. ML 58 S.D RP & Ext. thereto (i.e. Kam Yu Mansion) falls outside the Scheme (**Plan 2**). It is considered desirable to include the strip of Government land into the Scheme from land management point of view.

9.1.2 Comments of District Lands Officer/Hong Kong West and South, Lands Department (DLO/W&S, LandsD):

- (a) the narrow strip of land sandwiched between the existing RCP and the Kam Yu Mansion (ML 58 s.D RP and Ext, thereto) is a strip of unleased and unallocated Government land (**Plan 2**). It is recommended that the DSP boundary should be extended up to the boundary of Lot No. ML58 SD RP & Ext. include any unallocated and unleased Government land in-between in order to utilise its development potential and to avoid creating a strip of no-man-land in the future. The exact lot boundary of the lot to be granted to URA shall be subject to further checking and survey and shall be dealt with when considering the land grant application when received, and
- (b) from our preliminary checking of the respective leases of the adjoining lots, there is no encumbrances explicitly stated in those lease documents to the concerned strip of unallocated and unleased Government land.

Traffic Aspect

9.1.3 Comments of the Commissioner for Transport (C for T):

- (a) Noting that URA would provide about 15 to 16 ancillary parking spaces using smart-parking technique, there are no further comments from traffic engineering point of view; and
- (b) in view of the scale of the proposed development, C for T has no strong view of the proposed provision of LGV L/UL bay instead of HGV L/UL bay.

9.1.4 Comments of the Chief Highway Engineer/Hong Kong, Highways Department (HyD):

- (a) the Scheme will exclude a portion of land at In Ku Lane currently being maintained by HyD. The treatment of these areas and their future management and maintenance responsibilities should be holistically reviewed.
- (b) to avoid creation of dead-end rear lane caused by the proposed closure of the rear lane behind the existing tenement buildings within the DSP boundary, the following conditions shall be imposed to the proposed POS,

- (i) the POS shall be accessible from/to the remaining rear lane;
- (ii) the POS shall be accessible from/to nearby public footpath; and
- (iii) the POS shall be open to public for unrestricted 24-hour access to/from the rear lane and nearby public footpath.

Building Aspect

9.1.5 Comments of the Chief Building Surveyor/Hong Kong West, Buildings Department (CBS/HKW, BD):

- (a) the government lanes within the Scheme boundary are intended to be included in net site area. For an existing lane to be included in site area for SC and PR calculation, justification is required with reference to criteria stipulated under PNAP APP-73. In this regard, CBS/HKW reserves his position under B(P)R 23(2)(a);
- (b) to obtain GFA concessions for green/amenity features and non-mandatory/non-essential plant rooms and services in a domestic or composite development under PNAP APP-151, it is a pre-requisite to comply with the requirements of PNAP APP-156 on Design and Construction Requirements for Energy Efficiency of Residential Buildings; and
- (c) detailed comments on the proposal could only be made at the formal building plans submission stage.

Environmental Aspect

9.1.6 Comments of the Director of Environmental Protection (DEP):

- (a) no objection on the proposed development scheme;
- (b) DEP concurs with the view that the redevelopment could improve the overall environment of the area, which is beneficial to the existing environmental condition (e.g. air quality and traffic noise from nearby roads) of the residents living in the dilapidated tenement buildings. It is also noted that the rezoning of the development scheme is mainly to rationalise the land uses within the site area (e.g. POS and FEHD's facilities of the RCP and PT);
- (c) URA is advised to note that the RCP should be designed in accordance with the requirements in the Hong Kong Planning Standards and Guidelines (e.g. provide adequate mechanical ventilation and necessary pollution control measures) to minimise potential environmental impact (e.g. odour) to the nearby residents; and
- (d) the construction and demolition materials arising from the demolition of existing structures shall be reused/recycled as far as possible.

Sewerage Aspect

9.1.7 Comments of the Chief Engineer/Hong Kong & Islands, Drainage Services Department (CE/HK&I, DSD):

no comment from drainage point of view, subject to the confirmation of the drainage proposal option, detailed design of new drainage system for the proposed development and the improvement works on existing drainage system should be provided to this office for consideration at the detailed design stage.

Water Supplies Aspect

9.1.8 Comments of the Chief Engineer/Construction, Water Supplies Department (CE/C, WSD)

there are some existing fresh and salt water mains within the site and are affected by the proposed development. Free access should be allowed for WSD at any time to carry out operation and maintenance of these water mains. In case the project proponent considers that diversion of these water mains is required, they should study the feasibility of diverting these water mains. If diversion is considered feasible, the project proponent should submit their proposal for WSD's consideration and approval. The water mains diversion work shall be carried out by the project proponent at their own cost to the satisfaction of WSD. WSD will only carry out the connection works to the existing network and the associated connection cost should be borne by the project proponent.

Fire Safety Aspect

9.1.9 Comments of the Director of Fire Services (D of FS):

- (a) no in-principle objection to the application subject to fire service installations and water supplies for firefighting being provided to the satisfaction of D of FS. EVA arrangement shall comply with Section 6, Part D of the Code of Practice for Fire Safety in Buildings 2011 administered by BD; and
- (b) detailed fire safety requirements will be formulated upon receipt of formal submission of general building plans.

Urban Design, Visual & Air Ventilation Aspect

9.1.10 Comments of CTP/UD&L, PlanD:

- (a) the conceptual layout for the Scheme has generally kept the existing low-rise setting of the RCP and PT, while compensating the loss of "O" zone with a POS of not less than 538m². Under the existing context, the "O" zone is a neighbourhood park surrounded by buildings with access from Sutherland Street off Queen's Road West. The reconfigured open space would have direct frontage onto Queen's Road West improving visual and physical permeability with better visual linkages directing

pedestrians to the open space facilities. Nonetheless, a large portion of the open space would be reprovisioned for the existing football field while the rest would form a linear open space along the residential tower. Opportunity should be taken to create active frontages to the open space with landscaping to soften the public realm. Linkages with Li Sing Street Playground should also be maintained to ensure connection with the local open space network would not be lost;

- (b) in terms of visual impact, it is noted from the indicative scheme that the building block would mainly be situated at the site's south-eastern corner where currently is mainly zoned "R(A)7" and the proposed building height of 130mPD is not significantly higher than the permitted ones in the surroundings. As such, visual impact of the proposed development should not be a main concern; and
- (c) no objection to the proposed development from air ventilation point of view.

9.1.11 Comments of the Chief Architect/Central Management Division 2, Architectural Services Department (CA/CMD2, ArchSD):

the proposed use, development massing and intensity may not be incompatible with adjacent developments with maximum building height ranging from 110mPD to 130mPD. In this regard, there is no comment from visual impact point of view.

Landscape Aspect

9.1.12 Comments of CTP/UD&L, PlanD:

no comment on the submission of draft DSP from landscape planning perspective.

Social Welfare Aspect

9.1.13 Comments of the Secretary for Labour and Welfare (SLW) and Director of Social Welfare (DSW):

- (a) we are glad to know that URA has agreed to reserve an IFA of not less than 120 sq.m for elderly facilities in the project. While we understand that URA has to take account of various factors in planning for the project, any further increase in the reserved area, should future circumstances allow, would be more than welcome given the rising demand for elderly services. SWD will provide the schedule of accommodation and ancillary use requirements for the NEC sub-base within 6 months upon approval of the DSP as requested by URA, and
- (b) it is SWD's usual practice to select a non-governmental organisation (NGO) to operate the NEC sub-base on a subvented basis. According to the standing arrangements, the construction cost for the NEC sub-base will be met by Lotteries Fund. The premises for the NEC sub-base, upon satisfactory completion, will be assigned to the Government as

Government Accommodation and the Government will then lease the premises to the operating NGO by way of a tenancy agreement. Indeed, there were similar examples in past URA developments. As such, SWD would like to follow the existing arrangements in this case.

Rehousing Aspect

9.1.14 Comments of the Director of Housing:

no comment from the re-housing point of view. According to the Memorandum of Understanding signed between URA and Hong Kong Housing Authority (HKHA), HKHA agrees to provide a certain amount of re-housing units to URA annually for the purpose of re-housing the affected clearers. URA shall nominate for the HKHA's approval the allocation of re-housing units to affected clearers who have fulfilled the eligibility requirements. While affected clearers may be offered, subject to availability, a choice of re-housing unit, local re-housing for affected clearers cannot be guaranteed by HKHA.

Reprovision of 5-a-side soccer pitch and Provision of POS

9.1.15 Comments of the Director of Leisure and Cultural Services (DLCS):

- (c) the facilities of the LCSD affected should be re-provided on a "like-to-like" basis, and the design of the new venue should be up to LCSD and its maintenance departments' latest requirements, standards and satisfaction;
- (d) a better landscape design with soft landscape and leisure facilities other than pedestrian circulation in the area should be well demonstrated; and
- (e) URA should consult C&WDC and secure local community support on the proposal and temporary closure of the venue without interim provision of active facilities during the redevelopment works.

Reprovision of Government RCP and PT

9.1.16 Comments of the Director of Food and Environmental Hygiene (DFEH):

- (a) the project proponent should bear all the capital costs of both the demolition and reprovisioning works.
- (b) the RCP cum PT should be constructed/reprovisioned by the project proponent in accordance with the prevailing Handbook on Standard Features for Refuse Collection Points of FEHD, Handbook on Standard Features for Public Toilets of FEHD, the Technical Schedule to be drawn up specifying the technical requirements and the statutory requirements, such as the fire safety and barrier-free requirements of the Fire Services Department and BD, etc.. The layout design and the material/colour schemes of the PT would be subject to the vetting and endorsement of the Working Group on Upgrading of Public Toilets (consisted of members

from the senior management of ArchSD and FEHD) and its Pre-vetting Committee before the design is taken as accepted;

- (c) URA is reminded that the new location of the reprovisioned RCP cum PT necessitated by the Scheme should be subject to the consideration and agreement by FEHD in advance;
- (d) the provision (e.g. the number of toilet compartments) in the reprovisioned RCP cum PT should normally be not less than that of the existing one. The provision vis-a-vis the Schedule of Accommodation of the reprovisioned RCP cum PT would be subject to vetting by the Property Vetting Committee in due course;
- (e) to maintain the service to the public, temporary RCP and toilet provision, such as portable toilets, should be provided by the project proponent throughout the works period until the completion, handover and successful commissioning of the reprovisioned RCP cum PT;
- (f) any local consultation required for the reprovisioning should be carried out by the project proponent;
- (g) if there is any other existing FEHD facility to be affected by the Scheme, prior consent should be obtained from FEHD. Reprovisioning of the affected facilities by the project proponent up to the satisfaction of FEHD is required. The project proponent should bear the capital costs of the reprovisioned facilities to FEHD;
- (h) if FEHD is invited to take up the management of any new/additional facilities arising from the Scheme, FEHD should be consulted and prior written consent from FEHD should be obtained; and
- (i) if provision of street cleansing/street washing/litter-picking service for any roads, carriageways, footpaths, paved areas subway, footbridge, associated lift, lift tower, etc. is required, FEHD should be separately consulted. Prior consent from FEHD should be obtained and sufficient amount of recurrent cost should be provided to FEHD.

Others

9.1.17 Comments of the District Officer (Central and Western), Home Affairs Department:

C&W District Council (DC) members have expressed the following views at the 14th DC meeting on 10.5.2018:

- (i) suggest to preserve the 5-a-side soccer pitch given its high usage rate;
- (ii) suggest to include the whole area of Li Sing Street Playground in its enhancement programme and implement by phases;
- (iii) suggest to enhance protective measures to residents of nearby buildings from possible nuisance, such as smell from RCP, etc.; and

- (iv) suggest to use the second floor as elderly welfare services or for other welfare service provision in order to meet the service demand of the community.

9.1.18 The following government departments have no comment on the draft DSP/URA's responses to departmental comments (**Annexes E-1** and **E-2**):

- (a) Secretary for Development;
- (b) Project Manager (South), Civil Engineering and Development Department;
- (c) Head of Geotechnical Engineering Office, Civil Engineering and Development Department
- (d) Senior Inspector of Road Management Office (Traffic Hong Kong Island), Hong Kong Police Force; and
- (e) District Operations Officer (Central District), Hong Kong Police Force.

9.2 URA's responses to the above departmental comments on the draft DSP are at **Annexes E-1** and **E-2** and briefly highlighted below:

- (a) URA has no objection to include a strip of government land within the DSP as suggested by CES/UR, LandsD, in view of the concerned strip of land is unallocated and unleased government land, and there are no encumbrances for the land;
- (b) URA will consult C&WDC and seek agreement from LCSD on the advanced works of reprovisioning/upgrading of facilities (including the 5-a-side soccer pitch and barrier-free access) of Li Sing Street Playground;
- (c) URA will liaise with FEHD on the design of the RCP and PT in accordance with the prevailing standards. Statutory requirements of BD and FSD will be fulfilled at the GBPs submission stage;
- (d) on the issue about part of the Scheme falling within the Railway Reserve for Control of Building Plan Boundary – West Island Line, URA will seek comments from the MTR Corporation Ltd. and RDO at GBP submission stage; and
- (e) URA will liaise with HyD, LandsD and other relevant departments during the land grant preparation stage regarding the future management, maintenance responsibilities and relevant clauses of the strip of existing footpath at In Ku Lane being maintained by HyD;

10 Public Consultation

- 10.1 Under the administrative arrangements to enhance transparency in the processing of draft DSP submitted after the commencement of the Town Planning (Amendment) Ordinance, the draft DSP (including Stage 1 SIA report) and the Stage 2 SIA report were made available for public inspection/comment in the Planning Enquiry Counters of PlanD starting from 27.3.2018 to 17.4.2018 and from 8.5.2018 to 29.5.2018 respectively.

- 10.2 During the two inspection periods of the draft DSP and Stage 2 SIA report, a total of 27 comments were received. 3 additional comments from individuals were received outside the inspection periods. Among these 30 comments, there are 5 supporting/positive comments, 10 objecting comments on the ground that the RCP cum PT and the soccer pitch would be affected, and 15 comments expressing general views.
- 10.3 There are 25 comments from the general public mainly to request for inclusion into the DSP boundary and expressing views on the proposed development; 2 comments from the Chairman of C&WDC, Mr YIP Wing-shing and C&WDC member Mr KAM Nai-wai to convey members' views expressed in the C&WDC meeting on 10.5.2018; 2 from local concern groups in which one expressed support to the Scheme while one suggested to relocate the proposed building to the west of the Site; and 1 comment from the Incorporated Owners of 163 Queen's Road West to request for inclusion into the DSP boundary. A full set of the public comments received are at **Annex F** for Members' reference
- 10.4 URA has provided responses to the public comments in **Annex E-2**. The main public comments and URA's responses are summarised below:

| Public Comments | URA's responses |
|--|---|
| <i>Planning and Design Concerns</i> | |
| (a) Disagreed to rezone the RCP of G/IC use to residential use. The RCP should retain its zoning of G/IC because it serves not only the needs of residential users, but also the commercial users in the wider C&W district. | The URA intended to reprovide the RCP in the Scheme through rezoning the whole site to "R(A)23" to enable integration of the RCP within the podium of the future residential development so as to improve the overall environment and minimise the visual impact of a free-standing RCP. The reprovisioned RCP will be handed over to FEHD for management and maintenance and will serve the public in the neighbourhood. |
| (b) Opposed to providing car parking spaces in the Scheme; | As explained in the TIA, the site is of severe site constraints while it is served by well-established public transport. |
| (c) the proposed car parking spaces is insufficient. URA should explore to add another floor of basement car park and extending the car park under the playground should be explored. | URA would explore smart parking technique to provide about 15 to 16 parking spaces within 1 level of basement served by a car lift. |
| (d) suggested to provide other community facilities in the development such as library, elderly homes, and food waste recycling facilities; | There is no government department requesting for provision of a library or other facilities within the Scheme. In view of the pressing need of elderly facilities, URA has agreed to provide an NEC sub-base of not less than 120m ² IFA. |

| Public Comments | URA's responses |
|---|---|
| <p>(e) URA's proposal would impede natural wind flow around the site and degrade the daylighting quality at the buildings and at the street level;</p> <p>(f) the view from the new development is also greatly restricted by the surrounding buildings.</p> | <p>The design of the new development will comply with the health standards and regulations as stipulated in the Building (Planning) Regulations (B(P)R) for daylight and ventilation requirements.</p> <p>According to the Expert Evaluation (EE) on the air ventilation assessment, the easterly wind is the prevailing wind throughout the year and easterly and south-westerly wind is the prevailing summer wind. Some wind will enter the site from the north or from the east through the gap between buildings. The axis of the proposed block is parallel to the Queen's Road West so that it will not obstruct the easterly prevailing wind.</p> <p>Besides, a new POS will be opened at Queen's Road West to create a new wind corridor that allows south-west summer prevailing wind to enhance the wind flow to the inner area.</p> |
| <p>(g) An alternative proposal was submitted by the Queen's Road West/In Ku Lane Development Concern Group. The major elements of the proposal are summarised as follows:</p> <p>(i) to locate the new tower to the west end to maintain a more reasonable building separation and reduce the "screen wall" effect brought by the URA's proposal;</p> <p>(ii) the new location can capture an unobstructed view towards King George V Park at its south; and</p> <p>(iii) the public access towards the playground can be achieved by elevating the base of the tower, a shaded public leisure space can be created, which is more useful and favourable to the</p> | <p>A shaded POS under the footprint of the tower would create an open space with no sunlight.</p> <p>The design of the new development will comply with the health standards and regulations as stipulated in the B(P)R for daylight and ventilation requirement.</p> |

| Public Comments | URA's responses |
|---|---|
| <p>public than a bare open-air space as proposed by the URA, especially during summer and raining season.</p> | |
| <i>Requesting for Inclusion into the DSP boundary</i> | |
| <p>(h) Requested to include tenement buildings at 153 to 183 Queen's Road West (odd nos.) into the Scheme due to the following reasons:</p> <p>(i) most of the buildings are old (about or over 50 years) and dilapidated;</p> <p>(ii) poor hygiene;</p> <p>(iii) for better continuity and planning;</p> <p>(iv) more cost effective and beneficial to society</p> | <p>The URA would consider different factors such as building conditions, building age, allocation of resources, ownership status, re-planning and restructuring of land uses to bring planning gains to the community. For the 3 street blocks at 153 to 183 Queen's Road West, some buildings are relatively young, e.g. 29 years for Nos. 159 to 161, 31 years for No. 167 and 34 years for No. 169, and there is a building (No. 153) within the street blocks which is under single ownership.</p> <p>URA recommended the current draft DSP for the Board's consideration. The Board could decide if there should be any amendment to meet the comments to include the concerned buildings into the DSP boundary.</p> |
| <i>Reprovision of In Ku Lane RCP cum PT</i> | |
| <p>(i) Agreed that the existing RCP and PT should be demolished since these facilities are currently affecting the living condition of residents of Kam Yu Mansion.</p> <p>(j) Reprovision of RCP can upgrade the facilities and alleviate the noise and odour problems.</p> <p>(k) Opposed to the redevelopment of the RCP and PT since the reprovision of these facilities would take a few years and would adversely affect the residents in the area.</p> | <p>The URA will reprovide the RCP and PT by integrating these facilities in the podium of the future residential development so as to improve the overall environment and minimise the visual impact. The reprovisioned RCP will be reconfigured and upgraded with improved operation, enhanced standard and improved odour treatment.</p> <p>During the construction phase, a small RCP with agreement with FEHD will be provided to maintain the refuse collection services.</p> |
| <i>Reprovision of 5-a-side soccer pitch and POS at Li Shing Street Playground</i> | |
| <p>(l) The 5-a-side soccer pitch is an important recreation facility for residents/schools in the district, it is also some of the limited open space for air ventilation in the area;</p> | <p>The 5-a-side soccer pitch will be reprovided through rationalising the land use and layout, to provide a POS fronting Queen's Road West, improve the accessibility of Li Sing Street Playground and enhance the utilisation of the POS. The Scheme takes the</p> |

| Public Comments | URA's responses |
|---|--|
| <p>(m) more elderly fitness facilities should be provided; and</p> <p>(n) the connection of In Ku Lane and Queen's Road West through the proposed POS is not necessary. The additional passageway (i.e. the POS) will reduce the area available for use in the neighbourhood.</p> | <p>opportunity to holistically improve the built environment through redevelopment and integration of revitalisation strategy to enhance the Li Sing Street Playground.</p> <p>Subject to the approval of the Scheme and agreement of C&WDC and LCSD, URA proposed to enhance and reconfigure the facilities in Li Sing Street Playground, including the 5-a-side soccer pitch and other new facilities that could meet the needs of the district.</p> |
| <i>URA's Acquisition and Re-housing Policies</i> | |
| <p>(o) property owners who are non-occupier/operators were not surveyed in the SIA, and their views on redevelopment were not taken into account.</p> | <p>The purpose of the SIA is to assess the various social impacts of the proposed project to the affected residents and shop operators and to propose mitigation measures to alleviate the impacts. Other stakeholders who are not living or operating within the Scheme area can submit their views on the redevelopment to the Board for consideration.</p> |
| <p>(p) acquisition through monetary means is inadequate. It is preferred to compensate with property, such as shop-for-shop in the same neighbourhood or in the future development, and may include the right of first refusal or first order.</p> | <p>URA's prevailing compensation policy is based on the decision of Finance Committee of the Legislative Council on "Home Purchase Allowance and Ex-gratia Allowance for Owners and Legal Occupiers of Commercial Properties" in 2001. There is currently no policy on shop-for-shop compensation. Nevertheless, URA will help affected operators to identify suitable premises in the district of the redevelopment project to enable affected shop operators to relocate and continue operation in the same district as far as practicable.</p> <p>For shops with local characteristics, special arrangements similar to the Sung Hing Lane/Kwai Heung Street development project to allow the affected shop operators to continue its operation upon completion of the redevelopment may be considered.</p> |

- 10.5 On 10.5.2018, URA consulted the Central & Western District Council (C&WDC) on the draft DSP. The minutes of the meeting are in **Annex G** and the main comments of members and URA's responses are summarised below:

| C&WDC Members' Comments | URA Responses |
|--|--|
| (a) To preserve the 5-a-side soccer pitch given its high usage rate. | Should the draft DSP be approved and subject to agreement with LCSD, URA proposed to carry out advanced improvement works at part of the Li Sing Street Playground to reprovide the 5-a-side soccer pitch in a "like-to-like" basis through rationalising the layout of the Playground. Subject to the comments of C&WDC and LCSD, URA can consider to enhance the rest of the Li Sing Street Playground in future. It can be implemented under separate revitalisation programme. A POS of not less than 538m ² is proposed within the Scheme to provide direct frontage on Queen's Road West to improve the connectivity, safety and comfort of the users. It also allows better connection with the Li Sing Street Playground. Subject to liaison and agreement with LCSD on the future design of the POS, it will provide both soft and hard landscape and possible elderly facilities to facilitate different users to enjoy the open space. |
| (b) To include the whole area of Li Sing Street Playground in its enhancement programme and implement by phases. | |
| (c) To provide sufficient POS and facilities for different cohorts of citizens. | |
| (d) To enhance protective measures to residents of nearby buildings from possible nuisance, such as smell from RCP, etc. | For the design of the future RCP, it will integrate with the podium of the development to minimise visual and environmental impact to the surrounding residential developments. The design of the RCP and PT will follow their prevailing standards. Statutory requirements of BD and FSD will be fulfilled at GBPs submission stage to improve the existing operation conditions. |
| (e) To use the second floor as elderly welfare services or for other welfare service provision in order to meet service demand of the community. | In view of the pressing need for elderly facilities, URA has no objection to reserve an IFA of not less than 120m ² for the provision of an NEC sub-base within the project. |

11 Planning Department's Views

11.1 For the following reasons, the PlanD has no objection to the draft DSP in general:

- (a) the proposed Scheme can improve the overall environment of the area which will be beneficial to the residents living in the dilapidated tenement buildings. The proposed new layout of the Scheme, which has rationalised the existing land uses in the area including the existing Li Sing Street Playground and the government RCP cum PT. It will also open up the Li Sing Street Playground, which is a 'land-locked' public open space by providing it with a direct street frontage onto Queen's Road West and thus, enhance the accessibility and attractiveness of the public open space to the local community. The reprovisioned RCP cum PT will be provided with modern de-odouring facilities, which will bring improvement to the general environment of the area;
- (b) the proposed zoning of the area to "R(A)23" with a BH restriction of 130mPD is considered appropriate as the resultant development would be generally compatible with the existing character of the area, i.e., developments with the ground and lower floors for non-domestic uses and upper floors for residential uses. The proposed BH of 130mPD is in line with the current BH restriction of the "R(A)7" zone for sites that are larger than 400m²;
- (c) while the draft DSP has a gross site area of 2,046m², the net site area proposed for GFA calculation purposes is only 1,318m² after excluding the 5-a-side soccer pitch and the pavement. The net site area adopted by URA is considered acceptable;
- (d) the reconfiguration of the 5-a-side soccer pitch and the basketball court and the sitting-out area is a 'like-to-like' reprovisioning of existing facilities and is acceptable to DLCS. There is no net loss of public open space. Also, the proposed reprovisioning of the government RCP cum PT is acceptable to DFEH. The facilities, upon completion, will be handed back to the concerned departments for management and maintenance;
- (e) an NEC sub-base of not less than 120m² IFA will be provided by URA in the Scheme. Currently, a number of subvented NECs in the C&W district are undersized and there are no welfare premises or public housing development sites available to accommodate the NEC sub-base. Hence, the proposed NEC sub-base can alleviate the acute demand for the NEC sub-base in the area in particular when the general population is aging; and
- (f) the relevant government departments have been consulted on the draft DSP and their concerns have been satisfactorily addressed by URA.

11.2 There is a strip of land (about 51m²) sandwiched between the existing RCP and Kam Yu Mansion which is confirmed by DLO/HKW to be unallocated and unleased government land, though the exact lot boundary would be subject to survey. As URA has no objection to include it into the DSP boundary, that strip of land is recommended to be included into the DSP boundary in order to put all government land to efficient use.

12 Proposed Amendments to the Approved Sai Ying Pun & Sheung Wan OZP No. S/H3/31

Proposed Amendments to Matters Shown on the OZP (Annex I-1)

- 12.1 If the Board decides to deem the draft DSP as being suitable for publication in accordance with section 25(9) of the URAO, the draft DSP shall, from the date that the exhibition of the draft DSP is first notified in the Gazette, replace or amend according to its tenor, the OZP relating to the area covered by the Scheme. The area covered by the draft DSP will be excised from the OZP.
- 12.2 As there will be some residual land at In Ku Lane that is zoned “G/IC” on the OZP (**Plans 7, 8 and 13**), it is proposed to rezone the residual “G/IC” land to an area shown as ‘Pedestrian Precinct/Street’ (Item A) on the OZP, to tie in with the zoning covering In Ku Lane.
- 12.3 Opportunity will also be taken to make some minor boundary adjustments for the “R(A)7” zone at Kam Yu Mansion to ensure that the zoning boundary and the lot boundary tally with one another.

Proposed Amendments to the Notes of the OZP

- 12.4 There is no need to make amendments to the Notes of the OZP.

Revision to the Explanatory Statement (ES) of the OZP

- 12.5 Relevant paragraphs will be inserted in the Explanatory Statement (ES) of the OZP to take into account the DSP and the corresponding amendments to the planning scheme area of the OZP and the area of land under the “R(A)”, “G/IC” and “O” zoning on the OZP. An extract of the relevant pages of the revised ES for the OZP (with the proposed amendments marked in bold and italics and deletions ~~crossed-out~~) is at **Annex I-2**

Plan Number

- 12.6 Upon exhibition for public inspection, the OZP will be renumbered as S/H3/32.

13 Decision Sought

Draft DSP

- 13.1 The Board is invited to consider whether to include the strip of government land into the DSP boundary. Should the Board agree to include the strip of government land into the Queen’s Road West/In Ku Lane Development Scheme, the Board is invited to consider the following:
- (a) deem the draft URA Queen’s Road West/In Ku Lane DSP No. S/H3/URA3/A (to be renumbered No. S/H3/URA3/1 upon exhibition for public inspection) and the Notes at **Annexes H-1 and H-2** as being suitable for publication as provided for

under section 25(6) of the URAO, so that the draft DSP shall be exhibited for public inspection under section 5 of the TPO;

- (b) endorse the ES of the draft DSP at **Annex H-3** and adopt it as an expression of the Board's planning intention and objectives of the Plan, and agree that the ES as being suitable for public inspection together with the draft DSP;
- (c) agree that the draft DSP, its Notes and ES are suitable for submission to the C&WDC for consultation/information upon exhibition of the DSP; and
- (d) note the Stage 1 and Stage 2 Social Impact Assessment reports of the DSP.

13.2 Alternatively, the Board may refuse to deem the DSP as being suitable for publication.

Proposed Amendments to OZP

13.3 If the Board decides to deem the draft DSP as being suitable for publication as mentioned in paragraph 13.1 above, Members are invited to consider the related amendments to the OZP and to:

- (a) agree to the proposed amendments to the approved Sai Ying Pun & Sheung Wan OZP and that the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/31A at **Annex I-1** (to be renumbered as S/H3/32 upon exhibition) and its Notes are suitable for exhibition under section 5 of the TPO; and
- (b) adopt the revised ES at **Annex I-2** for the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/31A as an expression of the Board's planning intention and objectives for the various land use zones of the OZP, and agree that the revised ES as being suitable for public inspection together with the draft OZP.

14 Attachments

| | |
|------------------|---|
| Annex A | Letter dated 16.3.2018 |
| Annex B | Planning Report |
| Annex C | Letter dated 2.5.2018 |
| Annex D | SIA Stage 2 Report |
| Annex E-1 | Letter dated 14.6.2018 providing responses to comments of Government departments with revised technical assessments |
| Annex E-2 | Letter dated 4.7.2018 providing responses to public comments |
| Annex E-3 | Letter dated 26.7.2018 providing response to comments of Government departments |
| Annex F | Public Comments |
| Annex G | Extracts of Minutes of C&WDC Meeting held on 10.5.2018 |
| Annex H-1 | Draft URA Queen's Road West/In Ku Lane DSP No. S/H3/URA3/A |
| Annex H-2 | Notes of the Draft URA Queen's Road West/In Ku Lane DSP No. S/H3/URA3/A |
| Annex H-3 | ES of the Draft URA Queen's Road West/In Ku Lane DSP No. S/H3/URA3/A |
| Annex I-1 | Draft Sai Ying Pun & Sheung Wan OZP No. S/H3/31A |

| | |
|------------------------|---|
| Annex I-2 | Extract of ES of the Draft Sai Ying Pun & Sheung Wan OZP No. S/H3/31A |
| Drawing 1 | Building Condition |
| Drawing 2 | Block Plan |
| Drawing 3 | Pedestrian Circulation |
| Drawing 4 to 12 | Notional Scheme |
| Drawing 13 | Proposed Access Arrangement |
| Drawing 14 | Pedestrian Connection and Access Arrangement at proposed RCP |
| Plan 1 | Location Plan |
| Plan 2 | Site Plan |
| Plan 3 | Net Site Area |
| Plan 4 | Building Age and Building Height Plan |
| Plan 5 | Comparison of POS Provision |
| Plan 6 to 7 | Proposed Amendments to OZP |
| Plan 8 | Aerial Photo |
| Plan 9-13 | Site Photos |

PLANNING DEPARTMENT
AUGUST 2018

Our File Ref: PDD/C&W-006/18031525

16 March 2018



By Hand

Secretary,
Town Planning Board,
15/F, North Point Government Offices,
333 Java Road,
North Point,
Hong Kong

3 / 95 (TC)

Dear Sir/Madam,

**Submission of the Draft Development Scheme Plan
for the Urban Renewal Authority
Queen's Road West/ In Ku Lane Development Scheme (C&W-006)**

I am pleased to submit 5 copies of the draft Development Scheme Plan (DSP) for the Urban Renewal Authority Queen's Road West/ In Ku Lane Development Scheme (C&W-006) (the Scheme) for Town Planning Board's consideration in accordance with section 25(5) of the URA Ordinance (URAO).

The Scheme was included in the Urban Renewal Authority (URA)'s 16th Business Plan (2017/18) approved by the Financial Secretary for implementation in 2017 / 2018. On 16 March 2018, the URA has published the commencement date of the implementation of the Scheme in the Government Gazette under section 23 of the URAO and subsequently in local newspapers.

The submission booklet for the draft DSP of C&W-006 includes the Planning Report as Part 1 to summarize the planning proposals; the draft DSP, its Notes and Explanatory Statement as Part 2; the supplementary information to support the DSP submission as Part 3, which includes Preliminary Design, Traffic Impact Assessment (TIA), Environment Assessment (EA), Drainage and Sewerage Impact Assessment (DSIA), Stage 1 Social Impact Assessment (SIA) Reports and the implementation programme and URA's compensation policies.

In accordance with the Urban Renewal Strategy, the Stage 2 SIA Report will be included as part of the DSP submission. Based on the Gazette, we will submit the Stage 2 SIA report to the TPB not later than 2 May 2018. We believe that there will still be sufficient time for TPB's consideration for the aforesaid report together with the submitted DSP.

...../P.2





Our File Ref: PDD/C&W-006/18031525

16 March 2018

To facilitate the inspection of the draft DSP by the general public, we are pleased to submit also 5 copies of the Chinese version of the Notes and the Explanatory Statement of the draft DSP, and the Stage 1 SIA Report for your use and consideration.

Should you have any enquiry on the draft DSP submission, please feel free to contact Mable Kwan at 2588 2752. Thank you very much.

Yours sincerely,

Mike Kwan
General Manager
Planning & Design Division

Encl.

c.c. (w/o – by fax)

| | | |
|---------------|--------------------------|----------------------|
| S for Dev | (Attn: Mr. Michael Wong) | (Fax No.: 2151 5303) |
| AD/M, PlanD | (Attn: Ms. Sally Fong) | (Fax No.: 2576 3266) |
| DPO/HK, PlanD | (Attn: Mr. Louis Kau) | (Fax No.: 2895 3957) |

X

Urban Renewal Authority

DEVELOPMENT SCHEME

**Prepared under Section 25 (3)
of the Urban Renewal Authority Ordinance**

**QUEEN'S ROAD WEST / IN KU LANE
(C&W-006)**

PLANNING REPORT

March 2018

PART 1

PLANNING REPORT

Urban Renewal Authority

DEVELOPMENT SCHEME

**Prepared under Section 25 (3)
of the Urban Renewal Authority Ordinance**

**QUEEN'S ROAD WEST / IN KU LANE
(C&W-006)**

PLANNING REPORT

March 2018



EXECUTIVE SUMMARY

1. The Urban Renewal Authority (URA) submits this planning report to seek approval of the Town Planning Board for the draft Development Scheme Plan (DSP) No. S/H3/URA3/A prepared under section 25(5) of the Urban Renewal Authority Ordinance (URAO). The DSP refers to the Development Scheme (the Scheme) designated at Queen's Road West/ In Ku Lane (C&W-006) to be implemented by the way of development scheme under section 25 of the URAO. The Scheme involves a gross site area of about 2,046m², with the Development Scheme Area (the Area) broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and No. 153 Queen's Road West and No. 153 Queen's Road West and Li Sing Street Playground (the Playground) to the west. Pursuant to section 23(1) of the URAO, the URA notified the public in the Government Gazette about the commencement of the Scheme on 16 March 2018.
2. The tenement buildings at Nos.129-151 (odd nos.) Queen's Road West within the Scheme were built between 1966 and 1969, with 4 - 6 storeys in height and none is served by lift. Some of the buildings are in 'varied' condition which is the second worst. Some buildings with suspected unauthorized building structures (UBWs) identified at the lower portion of the rear part of some buildings. The existing buildings are also affected by traffic noise along Queen's Road West (**Plans 1 – 9** refers).
3. The Scheme has included the In Ku Lane Refuse Collection Point (RCP) cum public toilet operated and managed by Food and Environmental Hygiene Department (FEHD). The RCP can be accessed by refuse collection vehicles via In Ku Lane. The public toilet is located within the RCP structure and it can be accessed via In Ku Lane or the Playground (**Plan 10** refers).
4. An existing 5-a-side soccer pitch which is part of the Playground is included in the Scheme. The facility is under the management of Leisure and Cultural Services Department (LCSD). There is no direct access from the main road (e.g. Queen's Road West) and users have to access the Playground through Sutherland Street/ Li Sing Street or In Ku Lane. Surrounded by buildings, the Playground is "land-locked" by adjoining buildings, and thus has low visibility and accessibility.
5. The Scheme seeks the opportunity to improve the overall environment through redevelopment. The key planning intention of the Scheme is to rationalize the land uses and layout within the area by re-planning of the public open space (POS) which will directly fronting Queen's Road West

to improve the connectivity, safety and comfort of the users; it also allows better utilization of the Playground. After redevelopment, the RCP will be integrated into the proposed development whilst at the same time its standard will be upgraded to increase the efficiency of the RCP and to improve its capability to remove odour and minimize visual impact.

6. Subject to the consultation with the Central and Western District Council and agreement with LCSD, the 5-a-side soccer pitch can be re-provisioned through rationalizing the layout of the Playground partly outside the Scheme. URA will carry out advanced improvement work at the Playground to re-plan the 5-a-side soccer pitch and the basketball court through re-alignment of the layout of the two ball courts in the Playground. The Scheme and the proposed advanced improvement work can improve the overall environment including the re-planned POS with amenity value and direct street frontage, with the affected ball courts to be re-planned and upgraded.
7. The existing In Ku Lane RCP cum public toilet will be re-provisioned and integrated in the Scheme for visual enhancement. The re-provisioned RCP will be provided with better facilities and re-planned to enhance its serviceability and allow better maneuvering of refuse collection vehicles within the RCP; avoiding vehicles "tail-back" at In Ku Lane.
8. To enable continued refuse collection services during redevelopment, a small temporary RCP to the satisfaction of FEHD will be provided within the Scheme area to maintain FEHD's operation during redevelopment.
9. The redevelopment of the tenement buildings into a modest residential development with commercial/retail podium could increase the flat supply from existing 50 units (according to General Building Plans (GBPs)) to about 189 units to meet the demand for housing.
10. The DSP is proposed to be zoned as "Residential (Group A) 23" ("R(A)23"), which is primarily for residential use with commercial/retail uses and public convenience (i.e. public toilet) is always permitted on the lowest three floors; and the provision of POS and Government RCP included. Subject to detailed design and prevailing Schedule 1 of the Building (Planning) Regulations, the proposed total Gross Floor Area (GFA) of the Scheme is about 11,290m², which comprises of domestic GFA of about 9,690m² and non-domestic GFA of about 1,600m². Internal parking facilities will be provided at the ground floor and basement level. The proposed uses and development intensity of the residential cum commercial podium development conform to the general uses permitted in an R(A) zoning.

11. Supporting technical assessments including Environmental Assessment (EA), Drainage and Sewage Impact Assessment (DSIA), and Traffic Impact Assessment (TIA) have been carried out and results of these assessments indicate that there will be no insurmountable problem or adverse impact in implementing the proposed Development Scheme.
12. In summary, the Scheme will provide the following benefits:
 - removal of old buildings of about 50 years in dilapidating conditions to improve quality of living through redevelopment;
 - provision of more small to medium-sized flats in the urban area;
 - rationalizing the land uses through reconfiguration of the existing recreation and amenity facilities;
 - create opportunities to enhance the standard, diversity, value and utilization of the Playground to meet the needs of the community;
 - more efficient use of land through extinguishment of back lane serving no useful purpose for redevelopment;
 - improve pedestrian circulation, visibility and connectivity of the Playground through the re-planning and reconfiguration of the urban space connecting Queen' s Road West and In Ku Lane;
 - enhance the environment and the serviceability of the Government RCP cum public toilet through a more integrated design resulting in overall environment improvements; and
 - enhance the townscape for allowing better building disposition and proper landscaping in the area for more comfortable and visual appealing pedestrian walking environment.

行政摘要

1. 市區重建局(市建局)根據《市區重建局條例》第 25(5)條向城市規劃委員會提交發展計劃草圖(編號 S/H3/URA3/A)，名為皇后大道西／賢居里發展計劃 (C&W-006) (該計劃)，建議依據《市區重建局條例》第 25 條以發展計劃方式施行。該計劃的地盤總面積佔地約 2,046 平方米，地盤北面毗連高陞大廈及賢居里，東面毗連金裕大廈及 Largos Residences，南面毗連皇后大道西，西面毗連皇后大道西 153 號及李陞街遊樂場。按照《市區重建局條例》第 23 條，市建局於 2018 年 3 月 16 日出版的政府憲報刊載了公告，向公眾宣布啟動這個「發展計劃」。
2. 皇后大道西 129 至 151 號(單數)的建築物於 1966 至 1969 年間落成，樓高 4-6 層，所有建築物均不設電梯。該計劃範圍內部份樓宇呈「失修」狀況(在樓宇狀況調查中第二最差類別)，而部份樓宇後部的低層亦發現有疑似僭建物。此外，由於該計劃毗鄰皇后大道西，樓宇受到交通噪音影響(參見圖 1 - 9)。
3. 位於該計劃內的賢居里垃圾收集站及公廁，由食物環境衛生署(食環署)管理。現時垃圾車利用賢居里出入該垃圾收集站以進行日常運作。處於該垃圾收集站的公廁可由賢居里或遊樂場進入(參見圖 10)。
4. 該計劃內現時有一個由康樂及文化事務署(康文署)管理、位於李陞街遊樂場(遊樂場)內的五人足球場。該設施不能從主要道路(例如：皇后大道西)進出，使用者須從修打蘭街／李陞街或賢居里進出。由於遊樂場被周邊的建築物包圍，處於相對「內陸」的位置，可達性低，路人不易察覺。
5. 該計劃會藉著重建以改善整體環境，主要規劃意向為透過重新規劃現有公眾休憩用地以理順土地用途及布局，提供一個臨向皇后大道西的公眾休憩用地，加強地方的連接性，可達性和舒適度，亦可提高遊樂場的使用度。政府垃圾收集站將於重建後融合在商住樓宇的發展，重置的政府垃圾收集站同時可改善設施，提升標準以增加運作效率，及加強消除異味和改善外觀。
6. 視乎中西區區議會的意見，及與康文署達成協議，市建局會透過重整部份李陞街遊樂場的布局可重置受影響的五人足球場。市建局將會為遊樂場進行前期改善工程，重新規劃現有於遊樂場內的五人足球場及籃球場布局。該計劃及建議的前期改善工程，包括

公眾休憩用地的重新規劃、美化、增加直接臨街面及提升受影響球場的設施將能改善整體環境。

7. 現有的政府垃圾收集站及公廁將會於該計劃內重置，並融入該計劃的大廈內以改善其視覺環境。重置的垃圾收集站將會優化設施及重新布局以增加其可用性，並可方便垃圾車於垃圾收集站內的轉動，避免車輛於賢居里調頭引致「排起長龍」。
8. 為維持垃圾收集站的服務，該計劃將會在重建期間提供一個按食環署要求的小型臨時垃圾收集站，供食環署於重建期間繼續運作。
9. 透過重建現有樓宇，以現代的住宅發展及商業／零售平台取代，該計劃可由現時 50 個住宅單位（根據一般建築圖則）增至約 189 個，以配合住屋需求。
10. 該發展計劃草圖建議把土地劃為「住宅（甲類）23」地帶，主要作住宅發展，建築物最低三層的商業／零售用途及公廁設施用途屬經常准許的用途；亦會提供公眾休憩用地及政府垃圾收集站設施。根據現時《建築物(規劃)規例》內附表 1 內的規定及詳細設計，該計劃建議的總建築面積約為 11,290 平方米，包括住宅總樓面面積約 9,690 平方米及非住宅總樓面面積約 1,600 平方米。該計劃內將設有地面及地下車輛停泊設施。建議的用途及住宅暨商業平台發展密度將合乎住宅（甲類）地帶的一般許可。
11. 擬備的發展計劃已進行了一些技術評估，包括環境評估、渠務及污水系統影響評估，及交通影響評估等。這些技術評估結果顯示預期落實該計劃不會出現重大問題或對區內環境構成負面影響。
12. 總括而言，該發展計劃將帶來以下的規劃及環境裨益：
 - 清拆樓齡超過 50 年的破落樓宇及透過重建改善居住質素；
 - 於市區提供更多中/小型住宅單位；
 - 透過重整現有康樂及美化設施理順土地用途；
 - 藉此提高遊樂場的標準、多樣性、使用價值及使用率，以滿足社區需要；
 - 透過封閉沒有任可用途的後巷供重建發展以更有效運用土地。
 - 透過重新規劃及重整連接皇后大道西與賢居里的城市空間，改善行人流通及遊樂場的可見度與連接性。

- 政府垃圾收集站及公廁將會於設計上融合發展建議，改善環境及設施的服務性。
- 通過優化建築物的布局及適當的景觀美化以改善城市景觀，令該地域提供舒適與具視覺吸引力的步行環境。

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URBAN RENEWAL AUTHORITY
DEVELOPMENT SCHEME
QUEEN'S ROAD WEST / IN KU LANE
(C&W-006)

1. INTRODUCTION

- 1.1 The Development Scheme (the Scheme) involves a row of old tenement buildings at Nos.129-151 Queen's Road West (odd nos.) together with the 5-a-side soccer pitch (part of the Li Sing Street Playground, the Playground) and the In Ku Lane Refuse Collection Point (RCP) cum public toilet.
- 1.2 The Scheme is included in the URA's 16th Business Plan (2017/18) approved by the Financial Secretary. It is proposed to be processed as a Development Scheme under section 25 of the URA Ordinance (URAO). The URA's Board on 20 December 2016 approved the submission of the Scheme under section 25(5) of the URAO to the Town Planning Board (TPB). The draft Development Scheme Plan (DSP) No. S/H3/URA3/A is prepared for submission to the TPB.
- 1.3 Pursuant to section 23(1) of the URAO, the URA notified the public in the Government Gazette about the commencement of the Scheme on 16 March 2018. The draft DSP is now submitted under section 25(5) of the URAO to the TPB for consideration.
- 1.4 This planning report (being Part 1 of the whole report) is prepared to provide the TPB with the necessary background information and the planning proposal to facilitate its consideration of the draft DSP, as contained in Part 2, submitted under section 25 of the URAO. Supplementary information, including the preliminary design of the proposed development, key technical assessments and social impact assessment (SIA) (Stage 1), and implementation approach are enclosed in Part 3 for reference.

2. THE DEVELOPMENT SCHEME AREA

- 2.1 The Development Scheme Area (the Area) is broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and the adjacent building, No. 153 Queen's Road West and Li Sing Street Playground to the west.
- 2.2 The Scheme has an area of about 2,046m² which includes the 5-a-side soccer pitch and the pavement where the affected buildings overhang. Both will be excluded from plot ratio calculation. The net site area for plot ratio calculation is about 1,318m².
- 2.3 **Plan 1** shows the location of the Scheme while the Area, information on the adjoining properties and streets are shown in **Plan 7**.
- 2.4 The Area is currently zoned "Residential (Group A)7" ("R(A)7"), "Government, Institution or Community" ("GI/C") and "Open Space" ("O") and the pavement area shown as "Road" on the approved Sai Ying Pun and Sheung Wan Outline Zoning Plan (OZP) No. S/H3/31. An extract of the OZP is shown on **Plan 3**.
- 2.5 The Scheme boundary has been delineated based on several factors, which include building conditions (building structure, fire safety and building services), building age, building height, local environmental conditions (**Plan 4, 5 and 6**), and the desire to achieve better planning and design merits through inclusion of the 5-a-side soccer pitch and the Government RCP cum public toilet for re-configuration of layout and redevelopment.

3. BACKGROUND AND EXISTING CONDITIONS

- 3.1 On 16 March 2018, the URA published the Gazette Notice for the commencement of the Development Scheme under s.23 of URAO in the Government Gazette.

Historical Background

- 3.2 Historical map records indicate that the Scheme area was probably situated near the then coastline where old workshops and factories were located. As in most other parts of Central and Western District, dense mass of shop-houses were developed since 1860s, with ground floors for small Chinese businesses and residences on the upper floors. Similar pattern can still be found in existing areas near the Scheme.
- 3.3 In the 1900s, traders of the areas were mostly firewood wholesalers, and small-scale import-export houses, together with salt and rice merchants and a few other specialist importers. With reclamation proceeded northward, the area was gradually occupied by shops selling Chinese

medicinal drugs which later turned into a wholesale trade dominating the streetscape of the area even as today. The area along Ko Shing Street is popularly named as "Herbal Medicine Street" nowadays. Due to its close proximity to the waterfront before reclamation, shops for selling salted fishes were also concentrated at the area. The area of "Haam Yu Laan" ("Haam Yu" means salted fish in Cantonese) was developed which was formerly located nearby Bonham Strand West, extending towards Des Voeux Road West and Mui Fong Street area. As times goes by, most of the salted fish shops also sell other dried seafood as of now. The area is popularly named as "Hoi Mei Street" nowadays.

Existing Uses, Building and Living Conditions

- 3.4 The existing tenement buildings in the Scheme are 4 – 6 storeys in height, with some of them including cockloft and basement floors. All buildings were built between 1966 and 1969 and none of them is served by lift. As shown in the building record plans, the row of tenement buildings is permitted for domestic use on upper floors, storage for cockloft and basement floors and shop for ground floor. The only exception is No. 133 Queen's Road West, of which the upper floors are for office use as permitted in the building record plan. Based on non-obtrusive observation, the buildings within the Area are mainly residential in nature on the upper floors with commercial premises occupying the ground floor. At present, the ground floor of these buildings are primarily engaging in businesses selling Chinese medicine and dried sea food.
- 3.5 Based on the URA's building condition survey carried out by appointed consultant in August 2017, some of the buildings are in 'varied' condition, i.e. the second worst condition (**Plan 6**), with suspected unauthorised building structures (UBWs) identified at the lower portion of the rear part of some of the buildings. Within the Scheme, two buildings have completed building rehabilitation works; one for the Integrated Building Maintenance Assistance Scheme (IBMAS) and the other one has completed the Operation Building Bright (OBB) Scheme (Category 2). The suspected UBWs were not being dealt with after the rehabilitation works. It is also understood that these building rehabilitation schemes comprise mainly repairing defects (e.g. major cracks, spalling) in common or public areas of the buildings, such that repair works to the interior of private units are usually not included. Based on past URA's experience in rehabilitation works, even buildings that have undergone repair works need to undertake comprehensive building rehabilitation every 5-6 years in order to avoid deterioration. The living condition in the Scheme is considered not satisfactory. Besides, the buildings are also subject to traffic noise due to their close proximity to Queen's Road West.
- 3.6 Within and adjacent to the Area, there are 3 recreational facilities, a 5-a-side soccer pitch, a basketball court and a sitting out-area (SOA) forming part of the Li Sing Street Playground (the Playground) managed by Leisure and Cultural Services Department (LCSD). They are all located in a relatively "land-locked" location with low visibility and limited accessibility in the inner part of the street block surrounded by buildings.

The 5-a-side soccer pitch is fenced off, with entrance only from the SOA on the west side of the Scheme.

- 3.7 The In Ku Lane RCP cum public toilet to be included in the Area is a 2-storey self-standing building structure built in early 1990s on a similar formation level as the 5-a-side soccer pitch. The standard and design of these facilities are over 25 years. It is detached with the adjacent tenement buildings and the Playground. The facility is managed by the Food and Environmental Hygiene Department (FEHD). Refuse collection vehicles (RCVs) can only access the RCP via In Ku Lane. RCVs may sometimes park on In Ku Lane. The public toilet is located within the RCP building and is accessible via In Ku Lane or the Playground.

Surrounding Land Uses

- 3.8 The street blocks adjacent to the Scheme are of mix residential and commercial uses and some public open spaces are located to the east and west (**Plan 3**). Given the ground floor shops in the vicinity are mainly selling dried seafood and Chinese medicine, the surrounding area along Des Voeux Road West and Ko Shing Street are popularly named as "Hoi Mei Street" and "Chinese Medicine Street" respectively.
- 3.9 To the immediate west and north of the Scheme are residential buildings, the basketball court and SOA of the Playground.
- 3.10 High rise residential and commercial buildings are concentrated along Des Voeux Road West to the north of the Scheme.
- 3.11 The Scheme is fronting Queen's Road West to the south. Residential buildings and some GIC facilities, including Prince Philip Dental Hospital, Tsan Yuk Hospital, Sai Ying Pun Elderly Health Centre, Tung Wah Hospital, Lok Sin Tong Leung Kau Kui College and SKH Saint Matthew's Primary School, are concentrated to the southern side opposite to Queen's Road West.

Existing Pedestrian Circulation Network

- 3.12 The Scheme is bounded by Ko Shing Street to the north and Queen's Road West to the south. The east-west direction of pedestrian flow of the Scheme is mainly along the Queen's Road West. With the opening of the West Island Line of Mass Transit Railway (MTR), higher pedestrian flow is attracted to and from the two nearby MTR Sai Ying Pun Station entrances, located at Des Voeux Road West and Queen's Road West respectively, within 500m walking distance to the west of the Scheme.
- 3.13 At present, direct pedestrian flow in a north-south direction between Ko Shing Street and Queen's Road West within the Scheme is not possible. The row of tenement buildings along Queen's Road West has blocked

the access to the 5-a-side soccer pitch in the inner area of the street block. Pedestrian access has to be gained via some minor streets further away from the Scheme, i.e. Sutherland Street / Li Sing Street to the west, and Kam U Street / In Ku Lane to the east and north of the Scheme.

Demographic Background

- 3.14 Population of the Scheme is estimated to be 160 in around 75 households. Detailed demographic information of the Scheme will be discussed in the SIA (Stage 2) report.

Ownership Pattern

- 3.15 All the buildings within the Scheme are under multiple ownerships (Plan 8).

4 PLANNING & LAND USE PROPOSALS

Objectives of the Scheme

- 4.1 The Scheme seeks to improve the overall living and environmental conditions, building condition and fire safety in the scheme area, through redevelopment of the existing dilapidated tenement buildings on the site to a quality residential development with modest commercial provisions at podium levels.
- 4.2 The Scheme will rationalise the land uses within the area to bring planning benefits to the community. By re-planning of the existing LCSD's facilities, the proposed reconfiguration will open up the Playground with direct street frontage at Queen's Road West to enhance connectivity and accessibility. The pedestrian circulation between Queen's Road West and Ko Shing Street will also be enhanced. The Scheme will also improve the layout and serviceability of the Government RCP cum public toilet, and offer scope for better integration with the proposed redevelopment, to create environmental and visual enhancements. The above planning gains as stated in Para.5 of the Executive Summary, however, cannot be achieved with piecemeal redevelopment of the tenement buildings in accordance with the current R(A) zone of the OZP.
- 4.3 To take forward the above land use re-configuration to achieve the planning gains, in collaboration with LCSD, the affected basketball court and 5-a-side soccer pitch will be redesigned and included as part of the advanced improvement work to part of the Playground. This will also offer opportunities to the rationalization of the land uses through reconfiguration of the existing recreation and amenity facilities and enhancement of the standard, diversity, value and utilization of the Playground to meet the needs of the community. It also helps to improve

the townscape for allowing better building disposition and proper landscaping in the Area for more comfortable and visual appealing pedestrian walking environment.

Development Intensity

- 4.4 Under the proposed DSP, the Area is proposed to be zoned as "R(A)23" and its associated development parameters are at Table 4.1. Under the Scheme, the intended development is primarily for residential use with an indicative commercial/ retail uses on the lowest two floors (but there is a flexibility to allow commercial/ retail uses on the lowest three floors as stipulated in other R(A) zone), and the provision of POS and a government RCP as stated in the proposed Notes of the "R(A)23" zone.
- 4.5 A Government RCP cum public toilet is proposed to be re-provisioned within the Scheme with frontage at In Ku Lane as of existing situation. Under the proposed notes of the "R(A)23" zoning, the provision of Government RCP is permitted as of right (i.e. a Column 1 use) and public toilet is permitted as of right in the lowest 3 floors of a building. Subject to detailed design and FEHD's acceptance, the government RCP cum public toilet will have a non-domestic GFA of about 860m².
- 4.6 Subject to detailed design and LCSD's acceptance, a POS of not less than 538m², which is permitted as of right under the DSP, is proposed. The area of the POS will be dis-regarded from net site area (NSA) for plot ratio calculation.
- 4.7 The rear lane behind the existing tenement buildings within the Area which serves no useful purpose upon redevelopment will be closed and included for NSA calculation.
- 4.8 Owing to the size and configuration of the site, the intended development will be in the form of one single residential tower on top of a podium comprising commercial / retail floor spaces, private residential clubhouse and podium garden. The proposed total Gross Floor Area (GFA) of the Scheme is about 11,290m², comprises of about 9,690m² of domestic and about 1,600m² (including 860m² for the Government RCP cum public toilet) of non-domestic GFA respectively. To maintain street vibrancy, about 740m² non-domestic GFA will be allocated. The proposed building height of the residential development in the Scheme is 130mPD, which is the building height restriction as stated in the original "R(A)7" zoning of the Area under the OZP.

Conceptual Layout

- 4.9 **Appendix 1** (see **Figure 1.1**) shows the indicative block plan of the Scheme. A residential tower on a podium with commercial / retail floor spaces, private residential clubhouse and podium garden is proposed based on the proposed development parameters for the Scheme. A Government RCP cum public toilet is re-provisioned at the north within the Scheme and a POS is provided at the western portion of the Scheme

integrated with the proposed reconfigured Playground. The proposed development parameters are set out in **Table 4.1** which is subject to adjustments in the detailed design stage.

Table 4.1 Proposed Development Parameters of the Scheme

| Parameters | Details |
|---|--|
| Scheme Area | 2,046m ² |
| Net Site Area * | 1,318m ² (Subject to survey and detailed design) |
| Proposed Zoning | "R(A)23" |
| Proposed Domestic GFA [^] | Around 9,690 m ² (7.35) |
| Proposed Non-domestic GFA [^] | Around 1,600 m ² (1.21) (Including about 740 m ² for retail and 860 m ² for government RCP cum public toilet subject to detailed design and acceptance of FEHD) |
| No. of Residential Tower | 1 residential tower |
| No. of Residential Floor [@] | About 29 floors |
| No. of Flats [@] | About 189 flats |
| Average Flat Size [@] | About 51m ² |
| No. of Retail Floor [@] | About 2 storeys (indicative, not more than 3 storeys as permitted in the Notes of the DSP) |
| Maximum Building Height | 130mPD |
| Internal Transport Facilities | A 1-level basement car park (indicated as "lower-ground level" in plans) with car lift to provide about 10 private car parking spaces for the proposed residential development within the Scheme. 1 L/UL bay for LGV bay to be provided at grade for the proposed residential development within the Scheme. 1 L/UL bay for RCV to be provided at grade within the Government RCP in the Scheme. (Provision subject to agreement with Transport Department) |
| Government Refuse Collection Point (RCP) and Public Toilet | About 860 m ² GFA [RCP: 660 m ² + Public Toilet: 200 m ²] (subject to detailed design and acceptance of FEHD) |
| POS ** | About 538 m ² (subject to detailed design and acceptance of LCSD) |
| Other Proposals: | |
| 1. Advanced Improvement Work at part of the Li Sing Street Playground to re-configure and re-provide LCSD's facilities. | |

2. Interim re-provision of a temporary small RCP within Scheme during construction period to maintain daily operation.
3. Vehicular ingress/egress for the proposed residential development will be on Queen's Road West. Vehicular ingress/ egress of the Government RCP will be on In Ku Lane.

Notes:

- * Net Site Area includes all private lots, the existing In Ku Lane RCP cum public toilet site area and the government lanes within scheme boundary.
- ** POS area will not be used for PR / GFA calculation.
- @ Indicative Only, subject to detailed design at project implementation stage.
- ^ The exact GFA is subject to detailed design and prevailing Schedule 1 of the Building (Planning) Regulations

Internal Parking Provision and Vehicular Access

- 4.10 Due to site constraints and proximity to public transport, especially the MTR services provided by West Island Line (WIL), a relaxed car parking ratio is adopted with the provision of 10 parking spaces for private cars in a basement car park (indicated as Lower-ground level in plans in **Appendix 1**). One Loading / Unloading (L/UL) bay to serve the future residential cum retail podium development of the Scheme will be provided on ground floor of the podium. Since the demand for heavy goods vehicle bay is likely to be negligible due to the small scale retail activities, only light goods vehicle (LGV) bays will be provided. Another L/UL bay is proposed inside the re-provisioned Government RCP to suit its operation, subject to agreement with FEHD.
- 4.11 Vehicular ingress/egress will be gained via Queen's Road West. Refuse collection vehicles will access the re-provisioned Government RCP through In Ku Lane.
- 4.12 The TIA Report (**Appendix 2**) is attached for Transport Department (TD)'s consideration and to obtain agreement of the proposed provision and layout of the internal transport facilities, the related ingress/egress, the proposed lane closure and the traffic impact of the Scheme.

Government Refuse Collection Point cum Public Toilet

- 4.13 Harnessing the opportunity of redevelopment, the existing In Ku Lane RCP cum public toilet will be reconstructed, reconfigured and re-provided within the Scheme. The design and layout of the Government RCP cum public toilet will be improved and better integrated with the proposed development within the Scheme to enhance the visual environment and the serviceability of the facility. The re-provisioned Government RCP cum public toilet with an improved layout will be totally enclosed during refuse collection operation and equipped with FEHD's modern de-odourising installations. The re-provisioned Government RCP, with a wider entrance, will enable easier manoeuvring of RCV inside the RCP. Refuse collection and all loading/ unloading activities will be efficiently carried out within the RCP. More internal space will be

allowed for additional ancillary facilities to meet the latest operation needs of refuse collection activities. It will also allow better segregation of uses within the RCP, such as placing office and staff room on the upper floor of the RCP to segregate from the refuse collection activities. The future RCP will adopt careful layout design to avoid the vent shafts facing towards nearby residential units as far as possible. Modern day exhaust air and odour treatments facilities will be installed, which will be a significant improvement as compared to its existing operation conditions.

- 4.14 Apart from the functional improvement, the integrated RCP will enhance visual improvement for the local area. Subject to detailed design and FEHD's acceptance, the roof top of the re-provisioned Government RCP may have greening elements which can further improve the visual compatibility of the facility with the surroundings.
- 4.15 To enable continuation of refuse collection activities during the redevelopment period, a small Government RCP with size agreeable by FEHD will be provided within the Scheme to maintain and facilitate operation of refuse collection during the construction phase of the new facilities.

Public Open Space

- 4.16 Subject to the consultation with the Central and Western District Council and agreement with LCSD, the 5-a-side soccer pitch will be re-provisioned through rationalizing the layout of the Playground partly outside the Scheme. URA will carry out advanced improvement work at the Playground to re-plan the 5-a-side soccer pitch and the basketball court through re-alignment of the layout of the two ball courts in the Playground. The Scheme and the proposed advanced improvement work can improve the overall environment including the re-planned POS with amenity value and direct street frontage, with the affected ball courts to be re-planned and upgraded.
- 4.17 Under the current notional design (**Appendix 1**), the re-planned open space is proposed to be located on the western position of the Scheme to provide a visual connectivity with the Playground. It serves to provide an inviting visual and physical opening from Queen's Road West to link up the Playground currently still "land-locked" at the inner part of the street block. It will serve to create a breeze corridor in the area to enhance air penetration into the land-locked inner street blocks at pedestrian level. The POS also helps to create visual relief. Subject to detailed design, and agreement with LCSD, and relevant Government Departments, the design of the POS will take into consideration of the sloping gradient of the site to provide necessary stepping and ramps at appropriate locations for convenience and safe walking environment. The POS within the Scheme will not be included as NSA for plot ratio calculation purpose.

Pedestrian Circulation

- 4.18 It is proposed to rationalise the land uses and improve local pedestrian circulation in the area. The re-planned POS proposed within the Scheme create a direct link from Queen's Road West to In Ku Lane enhancing north / south direction pedestrian flow (**Figure 1.2** in **Appendix 1**). Compared with the current situation that the area is blocked by the row of tenement buildings along Queen's Road West, walkability in a north / south connection is much enhanced.

Urban Design Merits

- 4.19 Located within a densely developed area of mixed land uses with sporadic high rise buildings amongst old tenement blocks, the design of the Scheme has taken into account the enhancement of the overall environment and quality of living condition. The design of the Scheme, including the overall layout, building height and disposition, will respond to the established urban form.
- 4.20 The Area is situated on a gradient gradually dropping from about 7.9mPD on Queen's Road West towards about 4.1mPD on In Ku Lane. The notional design is shown in **Appendix 1**.
- 4.21 Possible greening within the Scheme and at the flat roof of the Government RCP, subject to the agreement of FEHD, will be explored to enhance visual compatibility of the RCP with the surroundings including the Playground. The accumulative greenery effect from the Scheme with the adjoining Playground will bring a substantial improvement to the built environment.
- 4.22 Since commercial and retail uses are permitted as of right at the lowest 3 floors of the proposed "R(A)23" zone, flexibility has been built-in for the provision of shops frontage at Queen's Road West to keep street vibrancy.
- 4.23 With the historical background and proper urban design of the area, the integration of the Scheme with the surroundings including the Playground would create a place making opportunity for the community. Upon re-provisioning, the reconfigured orientation of the basketball court and 5-a-side soccer pitch will all be aligned and will allow for greater flexibility in combining the two for multi-functional activities for special events or festival celebration if necessary. Details of the planning and design of the advance improvement work is subject to agreement with LCSD and does not form as part of the DSP.

Technical Assessment

Traffic Impact

- 4.24 A TIA (see **Appendix 2**) has been conducted to assess the traffic impact of the Scheme and the proposed provision and layout of the internal

transport facilities of the proposed development. The TIA demonstrated that the Scheme has no adverse traffic impact on the local traffic network and the proposed provision and layout of the internal transport facilities is acceptable from traffic engineering point of view.

Environmental Aspect

- 4.25 An Environmental Assessment (EA) (see **Appendix 3**) was conducted to study any potential environmental impact / benefit associated with the implementation of the Scheme. The study concluded that the impact on air quality, noise, and waste management was not insurmountable. The URA will ensure that satisfactory environmental standards are being met at the detailed design stage and during implementation.

Drainage and Sewerage Impact

- 4.26 A Drainage and Sewerage Impact Assessment (DSIA) was conducted (see **Appendix 4**). The DSIA report concluded that due to an increase in population along with the proposed development in the Scheme, there will be certain impact on the capacities of the existing drainage and sewerage system. With the upgrading of a few sections of existing drainage and sewerage pipes connecting with the proposed development, the discharge generated from the proposed development in the scheme will be within the capacity and will not have adverse impact to the existing drainage and sewerage systems.

Social Impact

- 4.27 In accordance with the Urban Renewal Strategy (URS), a non-obtrusive SIA (Stage 1) has been conducted and the report is included as **Appendix 5**. The report highlights characteristics of the local population which will need to be prepared for and borne in mind during the implementation of the Scheme. The Stage 2 SIA Report is under preparation based on factual data and opinions collected as part of the freezing survey, which has been conducted on the commencement of the Development Scheme in accordance with section 23(1) of the URAO. The Stage 2 SIA Report will be submitted to TPB separately. The SIA reports are to assess the likely effect of the implementation of the Scheme and to propose mitigation measures to minimise any social impact.

5 PLANNING MERITS

5.1 The Scheme will provide the following planning and environmental benefits:-

- removal of old buildings of about 50 years in dilapidating conditions to improve quality of living through redevelopment;
- provision of more small to medium-sized flats in the urban area;
- rationalization of the land uses through reconfiguration of the existing recreation and amenity facilities;
- enhancement of the standard, diversity, value and utilization of the Playground to meet the needs of the community;
- more efficient use of land through extinguishment of back lane serving no useful purpose for redevelopment;
- improvement of pedestrian circulation, visibility and connectivity of the Playground through the re-planning and reconfiguration of the urban space connecting Queen's Road West and In Ku Lane;
- enhancement of the environment and the serviceability of the Government RCP cum public toilet through a more integrated design resulting in overall environment improvements; and
- enhancement of the townscape for allowing better building disposition and proper landscaping in the Area for more comfortable and visual appealing pedestrian walking environment.

6 IMPLEMENTATION OF THE DEVELOPMENT SCHEME

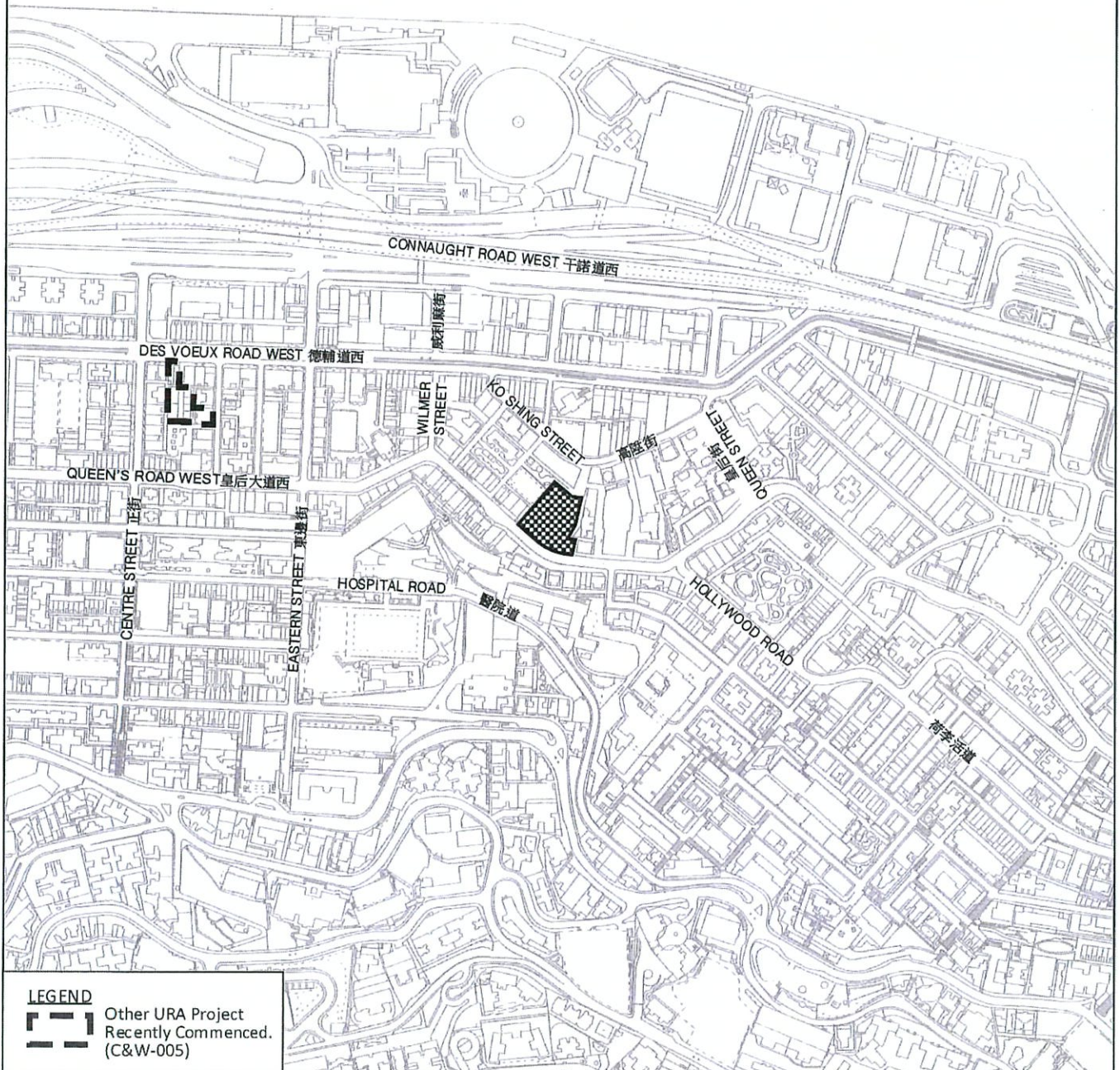
- 6.1 The URA does not own or lease any land within the boundaries of the Scheme and will acquire all the private lots within the Development Scheme boundary. The URA intends to acquire the property within the Scheme boundary by purchase under the current acquisition policy. An owner of domestic and non-domestic property will receive the market value of his property (valued on vacant possession basis). As for the owner-occupier of domestic property, on top of the said market value, the URA will pay a Home Purchase Allowance which is assessed based on a 7-year notional replacement unit of similar size within the same locality.
- 6.2 The URA may also offer "flat-for-flat" (FFF) (subject to any changes in the relevant legislations) in a URA new development in-situ or in the same district or at available site(s) (as URA may select for the purpose provided that necessary approvals / authorization has been obtained at the time of FFF offer) for the affected eligible owner occupiers of domestic units of the Project.
- 6.3 Under current compensation policy, all eligible tenants who are affected by the URA redevelopment projects, and whose landlords sell the property to the URA subject to existing tenancies, will be offered rehousing. Tenants who are not allocated rehousing units due to various reasons may receive ex-gratia payment. Eligible domestic tenants required to move from properties affected by the URA projects will be offered a rehousing unit provided by the Hong Kong Housing Authority or the Hong Kong Housing Society or the URA. Tenants who are rehoused as a result of a URA project will be offered an ex-gratia removal allowance.
- 6.4 Non-domestic tenants whose tenancies are terminated by their landlords are not entitled to any compensation or other payments. However, the URA is prepared to pay 3 times the rateable value of the affected premises as an ex-gratia allowance for non-domestic tenants if such premises are purchased by the URA subject to existing tenancies.
- 6.5 The URA may implement the Scheme in association with one or more parties or implementing the Scheme by itself alone.
- 6.6 Supplementary documents detailing the implementation programme for the Scheme and the URA's rehousing, compensation, acquisition and resumption principles are attached in **Appendices 6, 7 & 8**.
- 6.7 Any information contained in this document relating to compensation and re-housing benefits are with reference to the URA's prevailing policy

on compensation and re-housing benefit ("Compensation Package") offered by the URA to owners/ tenants at the time of issuance of this document. The Compensation Package may be subject to change from time to time upon any review carried out by the URA. The Compensation Package to be offered by the URA to owners/ tenants affected by the URA's project shall be that Compensation Package prevailing at the time of offer. Nothing contained in this document shall constitute any representation or warranty on the part of the URA or give rise to any expectation that the Compensation Package contained in this document will not be changed at the time of implementation of the project.

URBAN RENEWAL AUTHORITY

March 2018

VICTORIA
HARBOUR
維多利亞港



LEGEND



Other URA Project
Recently Commenced.
(C&W-005)



THE SCHEME

EXTRACT PLAN PREPARED ON 30.11.17
BASED ON SURVEY SHEET No.11-SW-2D,
11-SW-3C, 11-SW-7B, 11-SW-7D, 11-SW-8A,
11-SW-8C.

LOCATION PLAN

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

SCALE 1 : 5000

METRES 100 0 100 200 METRES

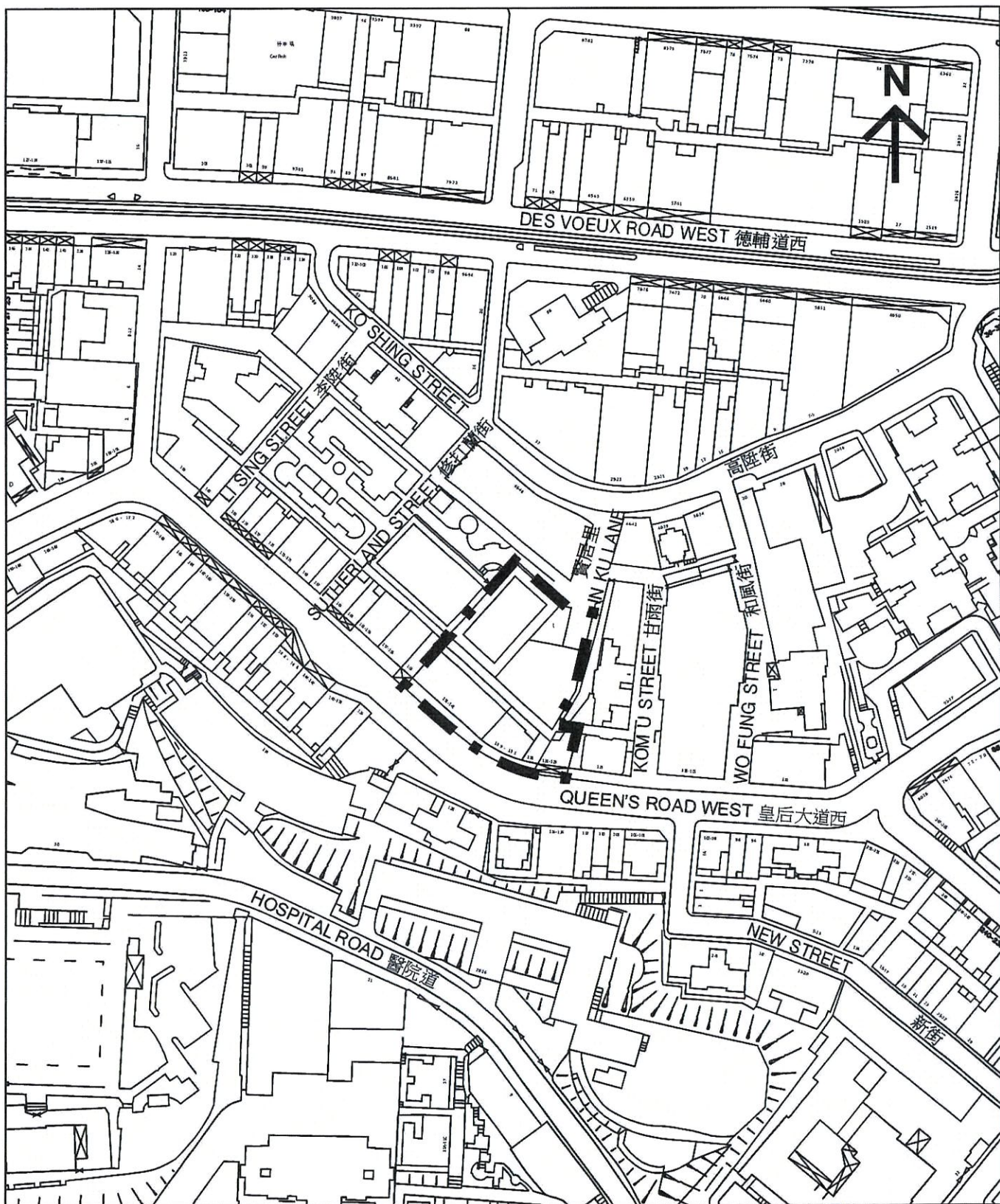


市區重建局
URBAN RENEWAL
AUTHORITY

C&W-006

PLAN

1



THE SCHEME

EXTRACT PLAN PREPARED ON 30.11.17
BASED ON SURVEY SHEET No.11-SW-7B,
11-SW-8A.

SCHEME AREA

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

SCALE 1 : 1500

METRES 15 0 15 30 45 60 75 METRES



市區重建局
URBAN RENEWAL
AUTHORITY

C&W-006

PLAN
2



THE SCHEME

EXTRACT PLAN BASED ON APPROVED
SAI YING PUN & SHEUNG WAN OUTLINE
ZONING PLAN No.S/H3/31

EXISTING ZONING OF DEVELOPMENT

SCHEME

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/ IN KU LANE

SCALE 1:5000

METRES 100 0 100 200 METRES

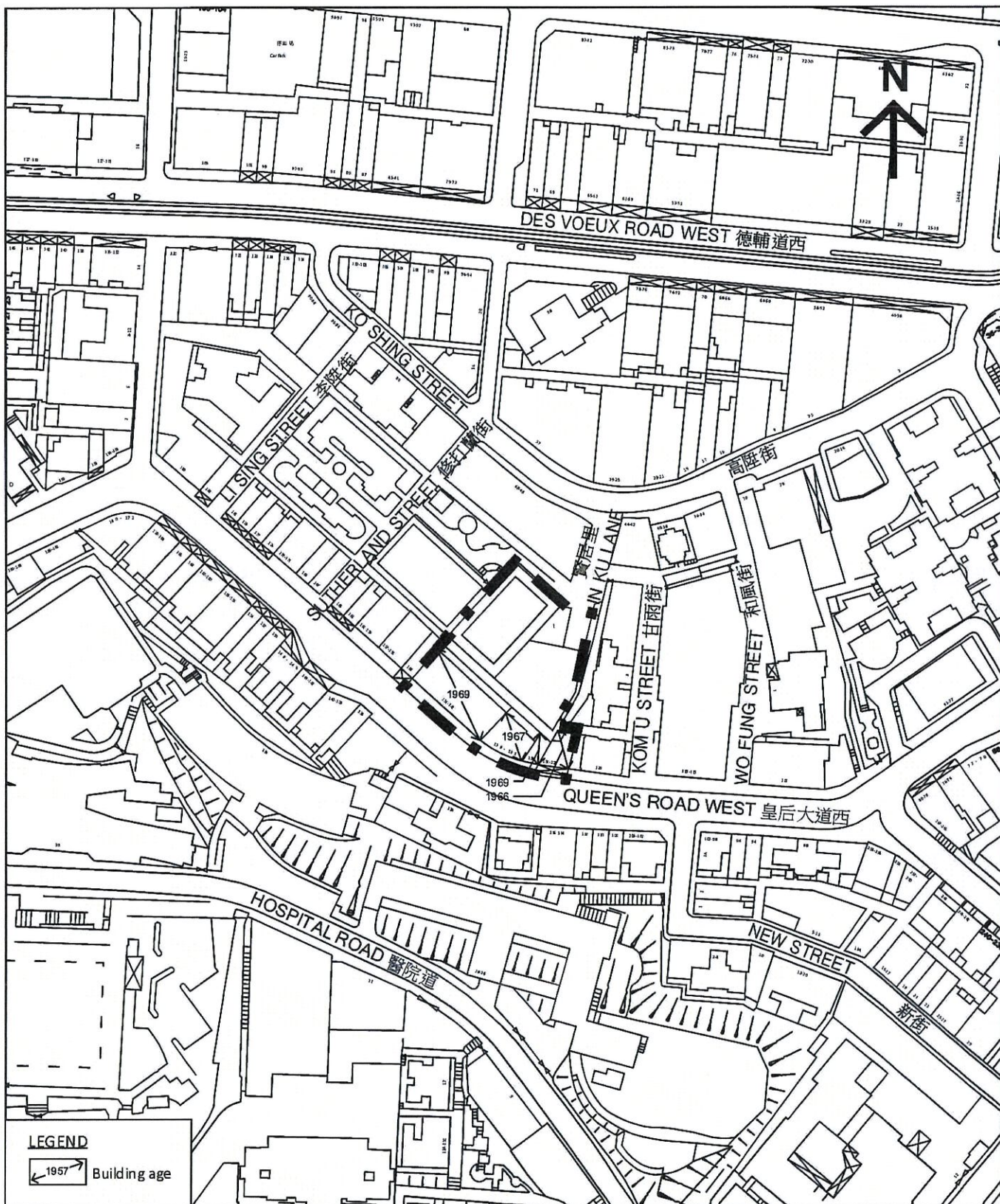


市區重建局
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AUTHORITY

C&W-006

PLAN

3



THE SCHEME

EXTRACT PLAN PREPARED ON 30.11.17
BASED ON SURVEY SHEET No.11-SW-7B,
11-SW-8A.

BUILDING AGE

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

SCALE 1:1500

METRES 15 0 15 30 45 60 75 METRES

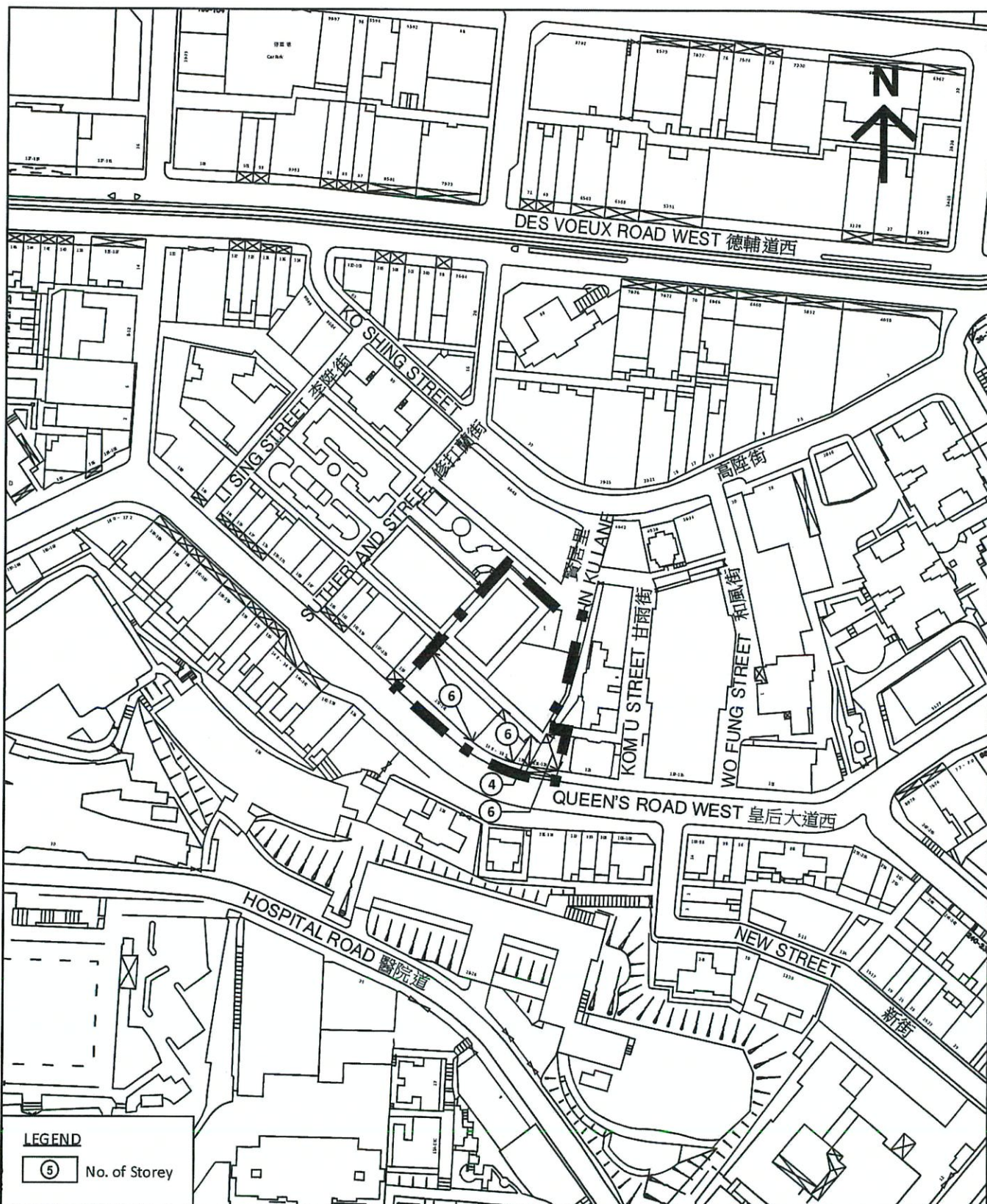


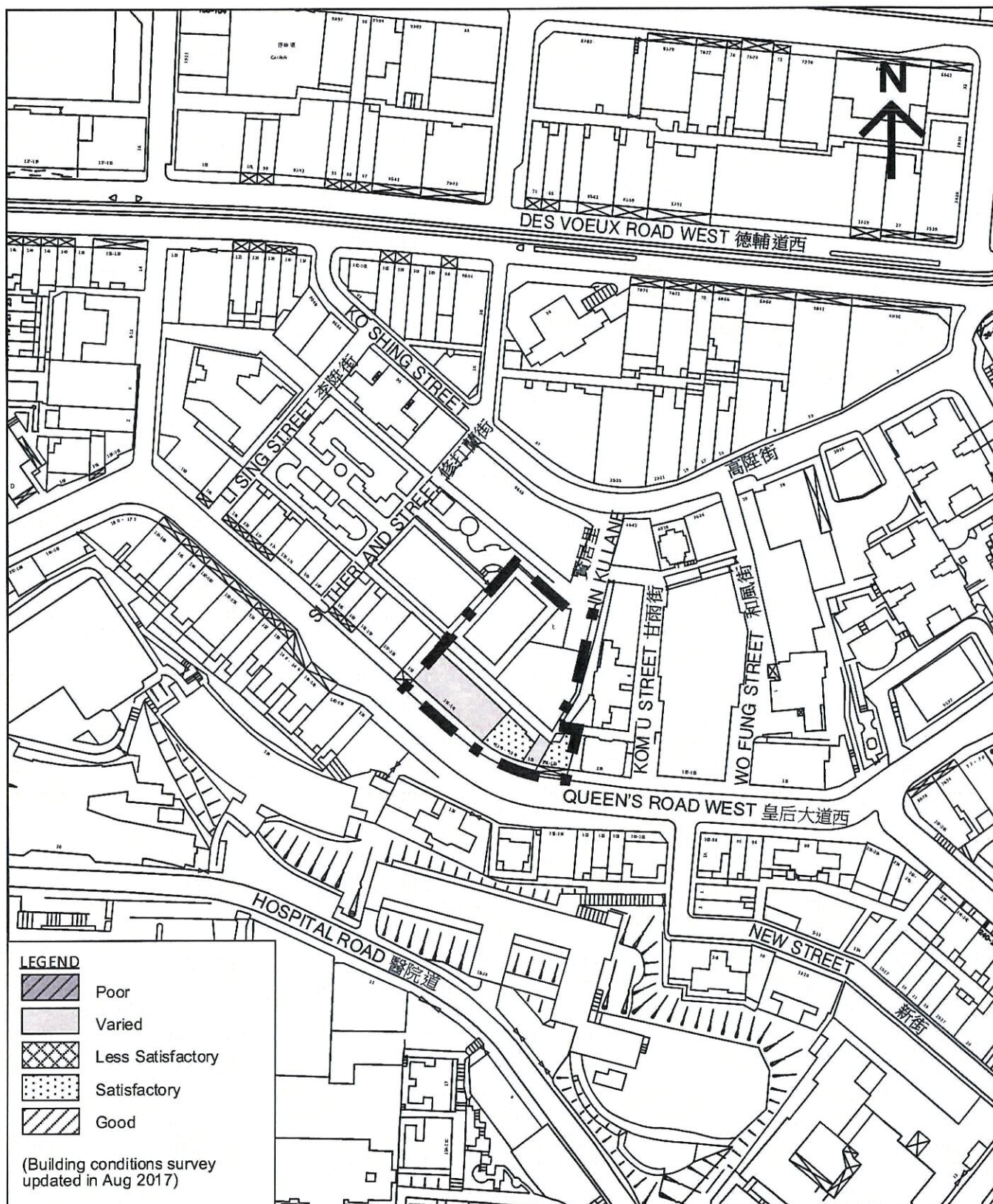
市區重建局
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AUTHORITY

C&W-006

PLAN

4





THE SCHEME

EXTRACT PLAN PREPARED ON 30.11.17
BASED ON SURVEY SHEET No.11-SW-7B,
11-SW-8A.

BUILDING CONDITION

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

SCALE 1 : 1500

METRES 15 0 15 30 45 60 75 METRES

 市區重建局
URBAN RENEWAL
AUTHORITY

C&W-006

PLAN

6

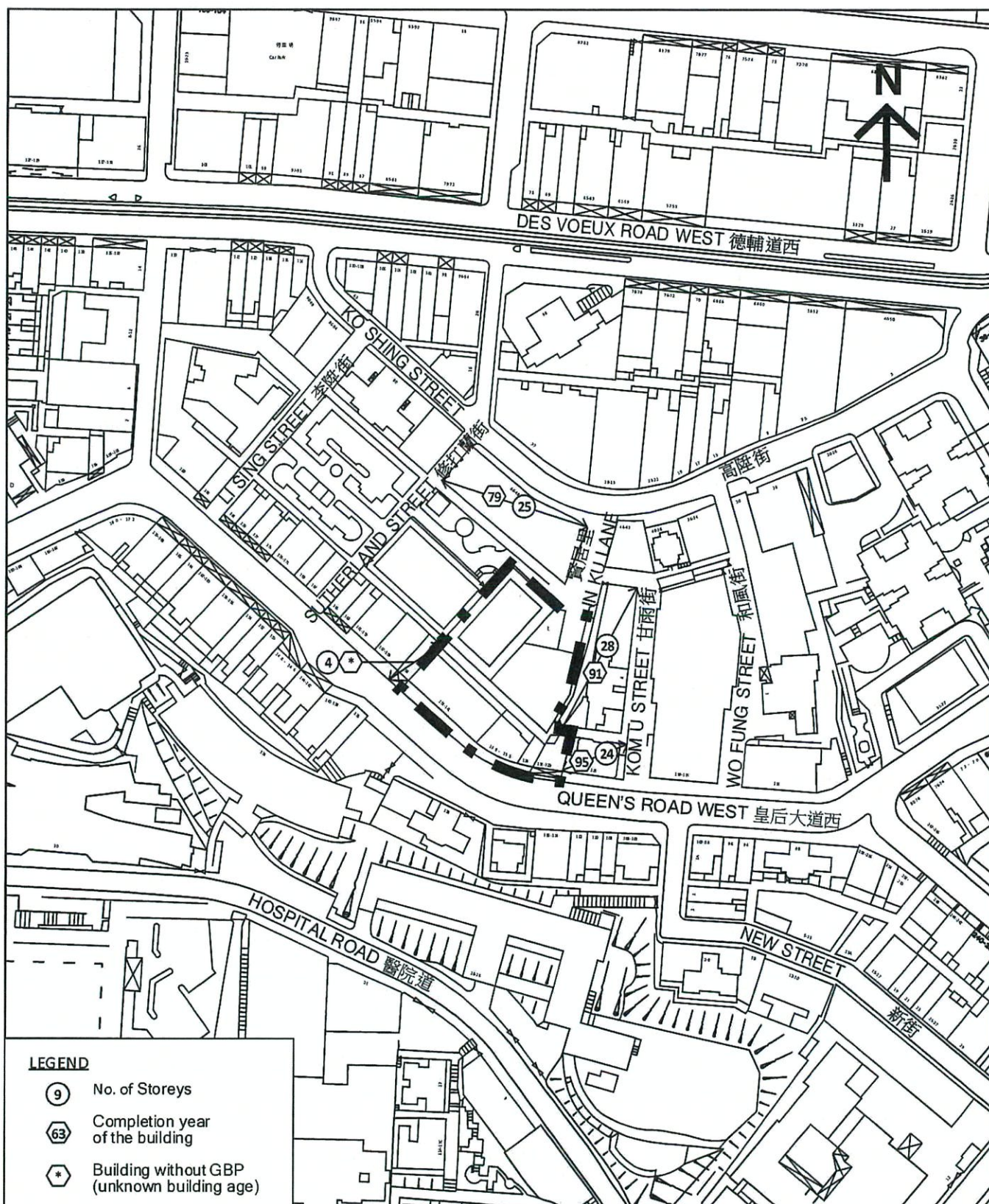




Photo 1: View of the Site from Queen's Road West



Photo 2: View of the Site from Li Sing Street Playground

PHOTOS TAKEN IN
NOVEMBER 2017

SITE PHOTOS OF EXISTING BUILDINGS

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE



C&W-006

PLAN
9

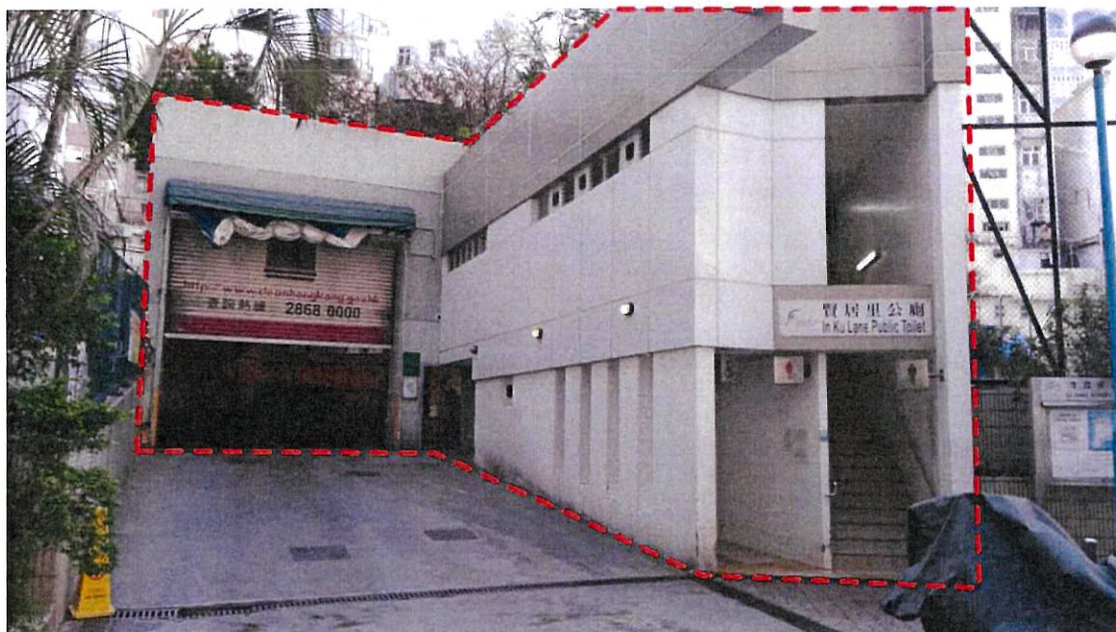


Photo 3



Photo 4

Photos 3-4: The public toilet is located within the RCP structure.

PHOTOS TAKEN IN
JANUARY 2018

THE RCP AND PUBLIC TOILET

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

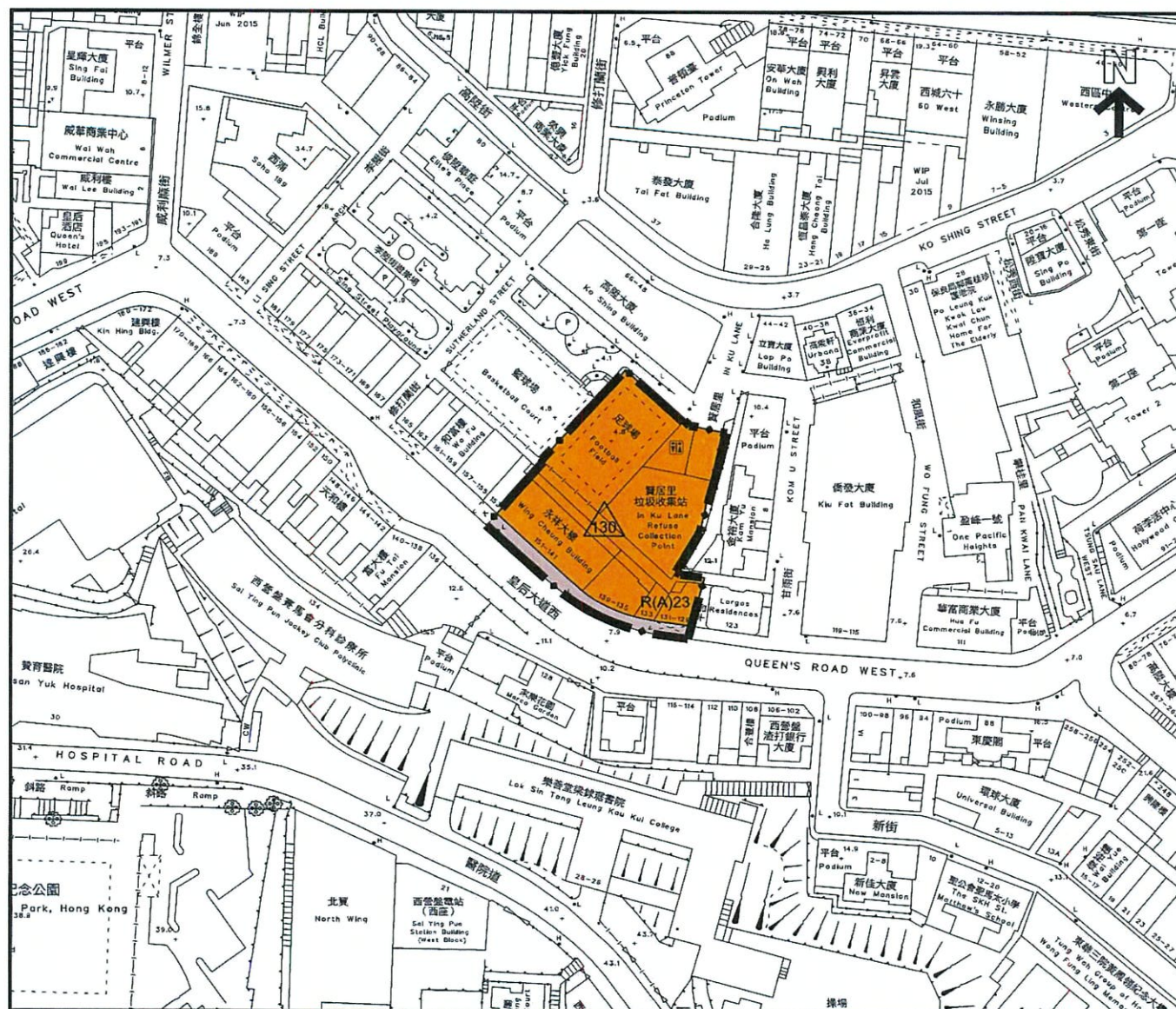


C&W-006

PLAN
10

PART 2

THE DRAFT PLAN



圖例
NOTATION

BOUNDARY OF DEVELOPMENT.....■ ◆ ■.....發展計劃範圍界線
SCHEME

RESIDENTIAL (GROUP A)23.....住宅(甲類)23

MAXIMUM BUILDING HEIGHT.....最高建築物高度
(130 METRES ABOVE PRINCIPAL DATUM) (在主水平基準上130米)

PEDESTRIAN PAVEMENT.....行人路

夾附的<<註釋>>屬這份圖則的一部分

THE ATTACHED NOTES
ALSO FORM PART OF THIS PLAN

2018年 月 日城市規劃委員會根據市區重建條例第25(5)(a)條認為圖則適宜公布，並於2018年 月 日按照城市規劃條例第6條展示。
PLAN DEEMED SUITABLE BY THE TOWN PLANNING BOARD FOR PUBLICATION UNDER SECTION 25(5)(a) OF THE URBAN RENOVATION AUTHORITY ORDINANCE ON 2018 AND EXHIBITED UNDER SECTION 5 OF THE TOWN PLANNING ORDINANCE ON 2018.

香港城市規劃委員會依據城市規劃條例擬備的市區重建局皇后大道西/賢居里發展計劃草圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
DRAFT URBAN RENEWAL AUTHORITY QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME PLAN

依據市區重建局條例第25(3)(a)條擬備
PREPARED UNDER SECTION 25(3)(a) OF THE
URBAN RENEWAL AUTHORITY ORDINANCE

圖則編號
PLAN No. S/H3/URA3/A

SECRETARY, TOWN PLANNING BOARD 城市規劃委員會秘書

SCALE 1:1000 比例尺

米 METRES 10 0 10 20 30 40 50 METRES 米

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

(Being a Draft Plan for the Purposes of the Town Planning Ordinance prepared by the Urban Renewal Authority under section 25 of the Urban Renewal Authority Ordinance)

NOTES

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board (TPB), with or without conditions, on application. Where permission from the TPB for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the TPB, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3)
 - (a) No action is required to make the existing use of any land or building conform to this Plan until there is a material change of use or the building is redeveloped.
 - (b) Any material change of use or any other development (except minor alteration and/or modification to the development of the land or building in respect of the existing use which is always permitted) or redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the TPB.
 - (c) For the purposes of subparagraph (a) above, "existing use of any land or building" means –
 - (i) before the publication in the Gazette of the notice of the first statutory plan covering the land or building (hereafter referred as 'the first plan'),
 - a use in existence before the publication of the first plan which has continued since it came into existence; or

S/H3/URA3/A

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building; and
- (ii) after the publication of the first plan,
- a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected; or
 - a use or a change of use approved under the Buildings Ordinance which relates to an existing building and permitted under a plan prevailing at the time when the use or change of use was approved.
- (4) Except as otherwise specified by the TPB, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the TPB, all permissions granted by the TPB in respect of the site of the use or material change of use or development or redevelopment shall lapse.
- (5) Road widths, road junctions and alignments of roads may be subject to minor adjustments as detailed planning proceeds.
- (6) Temporary uses (expected to be 5 years or less) of any land or building are always permitted as long as they comply with any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, and there is no need for these to conform to the zoned use or these Notes. For temporary uses expected to be over 5 years, the uses must conform to the zoned use or these Notes.
- (7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Schedule of Uses:
- (a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, bus/public light bus stop or lay-by, cycle track, Mass Transit Railway station entrance, Mass Transit Railway structure below ground level, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine; and

S/H3/URA3/A

- (b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government;
- (8) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the TPB:
 - on-street vehicle park, railway track and tram track.
- (9) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.
- (10) In these Notes, "existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.
- (11) Any development not compatible with the Urban Renewal Authority's Development Scheme for the area is prohibited by virtue of section 25(4) of the Urban Renewal Authority Ordinance.

S/H3/URA3/A

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

Schedule of Uses

Page

RESIDENTIAL (GROUP A) 23

1

S/H3/URA3/A

RESIDENTIAL (GROUP A) 23

| Column 1 Uses always permitted | Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board |
|--|---|
| Ambulance Depot | Commercial Bathhouse/ Massage Establishment |
| Flat | Eating Place |
| Government Refuse Collection Point | Education Institution |
| Government Use (not elsewhere specified) | Exhibition or Convention Hall |
| House | Hospital |
| Library | Hotel |
| Market | Institutional Use (not elsewhere specified) |
| Place of Recreation, Sports or Culture | Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances |
| Public Clinic | Office |
| Public Transport Terminus or Station (excluding open-air terminus or station) | Petrol Filling Station |
| Residential Institution | Place of Entertainment |
| School (in free-standing purpose-designed building only) | Private Club |
| Social Welfare Facility | Public Convenience |
| Utility Installation for Private Project | Public Transport Terminus or Station (not elsewhere specified) |
| | Public Utility Installation |
| | Public Vehicle Park (excluding container vehicle) |
| | Religious Institution |
| | School (not elsewhere specified) |
| | Shop and Services |
| | Training Centre |

(Please see next page)

RESIDENTIAL (GROUP A)23 (Cont'd)

In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading / unloading bay and / or plant room:

Eating Place
Educational Institution
Institutional Use (not elsewhere specified)
Off-course Betting Centre
Office
Place of Entertainment
Private Club
Public Convenience
Recyclable Collection Centre
School
Shop and Services
Training Centre

Planning Intention

This zone is intended primarily for a high-density residential development with the provision of public open space and government refuse collection point cum a public toilet. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building height, in terms of metres above Principal Datum, as stipulated on the Plan, or the height of the existing building, whichever is the greater.
- (2) A public open space of not less than 538m² shall be provided for public use. The public open space shall not be used for GFA/ plot ratio calculation.
- (3) A government refuse collection point cum a public toilet of not less than 860m² GFA shall be provided for the Government.

(Please see next page)

RESIDENTIAL (GROUP A) 23 (Cont'd)

S/H3/URA3/A

Remarks (Cont'd)

- (4) Any floor space that is constructed or intended for the use solely as the car park, loading/ unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (5) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction may be considered by the TPB on application under section 16 of the Town Planning Ordinance.

DRAFT URBAN RENEWAL AUTHORITY

QUEEN'S ROAD WEST/IN KU LANE

DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

EXPLANATORY STATEMENT

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

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DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

(Being a Draft Plan for the Purposes of the Town Planning Ordinance prepared by the Urban Renewal Authority under section 25 of the Urban Renewal Authority Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance (the Ordinance), this statement shall not be deemed to constitute a part of the Plan.

1. INTRODUCTION

This explanatory statement is intended to assist an understanding of the draft Urban Renewal Authority (URA) Queen's Road West/In Ku Lane Development Scheme Plan (DSP) No. S/H3/URA3/A. It reflects the planning intention and objectives of the Town Planning Board (the Board) for the area covered by the Plan.

2. AUTHORITY FOR THE PLAN AND PROCEDURES

- 2.1 In the URA's 16th Business Plan (2017/18) approved by the Financial Secretary in early 2017, the Queen's Road West/ In Ku Lane Development Scheme (C&W-006) was proposed to be processed as a Development Scheme under section 25 of the URA Ordinance (URAO).
- 2.2 On 16 March 2018, pursuant to section 23(1) of the URAO, the URA notified in the Government Gazette the commencement of implementation of the Queen's Road West/ In Ku Lane Development Scheme.

- 2.3 On 16 March 2018, the URA submitted the draft URA Queen's Road West/ In Ku Lane DSP to the Board under section 25(5) of the URAO.
- 2.4 On XXXX, the Board, under section 25(6)(a) of the URAO, deemed the draft URA Queen's Road West/ In Ku Lane DSP as being suitable for publication. Under section 25(7) of the URAO, the draft DSP, which the Board has deemed suitable for publication, is deemed to be a draft plan prepared by the Board for the purposes of the Town Planning Ordinance (the Ordinance).
- 2.5 On XXXX, the draft Queen's Road West/ In Ku Lane DSP No. S/H3/URA3/1 (the Plan) was exhibited under section 5 of the Ordinance. By virtue of section 25(9) of the URAO, the Plan has from the date replaced the Approved Sai Ying Pun & Sheung Wan Outline Zoning Plan (OZP) No. S/H3/31 in respect of the area delineated and described herein.

3. OBJECT OF THE PLAN

The Plan illustrates that the Development Scheme Area (the Area) is designated as "Residential (Group A)23" ("R(A)23"). It is planned to be developed by means of the Development Scheme prepared under section 25 of the URAO. The Development Scheme intends to be primarily for a high-density residential development with the provision of a Government Refuse Collection Point cum a public toilet and a public open space. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Area in this zone and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission

under section 16 of the Ordinance allows greater flexibility in land use planning and control of development to meet changing needs.

- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at <http://www.info.gov.hk/tpb>.

5. AREA COVERED BY THE PLAN

- 5.1 The Development Scheme boundary which is shown in heavy broken line on the Plan, covers a total area of about 2,046m². The Area comprises a row of tenement buildings, the In Ku Lane Refuse Collection Point (RCP) cum public toilet and a 5-a-side soccer pitch (being part of the Li Sing Street Playground). The Area is broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and No. 153 Queen's Road West and the Li Sing Street Playground to the west.
- 5.2 The Development Scheme boundary has included a government lane and pavement area.
- 5.3 On the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/31, the Area is zoned "Residential (Group A)7", "Government, Institution or Community" and "Open Space" and an area shown as 'Road' before the exhibition of the Plan.

6. EXISTING CONDITIONS

- 6.1 The buildings within the Area are between 4 and 6 storeys and predominantly residential in nature with commercial/retail shops. The existing buildings are in a dilapidated condition. The residential units of the buildings facing Queen's Road West are exposed to the noise and air pollutants generated from the road traffic.

- 6.2 The 5-a-side soccer pitch within the Area is part of the Li Sing Street Playground managed by the Leisure and Cultural Services Department (LCSD). The 5-a-side soccer pitch is located in a relatively “land-locked” location in the inner part of the street block surrounded by buildings with low visibility and accessibility. It is also formed on a level several meters lower from Queen’s Road West. Since the soccer pitch is fenced off, the only entrance of the soccer pitch is from the sitting-out area of Li Sing Street Playground to the west of the Area.
- 6.3 The In Ku Lane RCP cum public toilet included in the Area is a 2-storey self-standing building structure managed by the Food and Environmental Hygiene Department (FEHD). It is currently in use to carry out daily refuse collection activities to serve the neighbourhood in the district. The RCP is built on a similar formation level as the adjacent 5-a-side soccer pitch. Refuse collection vehicles can only use In Ku Lane to access and leave the RCP for daily operation. The public toilet is located at the ground floor of the RCP structure. The public toilet can be accessed via In Ku Lane or the Li Sing Street Playground.

7. PLANNING AND LAND USE PROPOSALS

- 7.1 On the Plan, the Area is zoned “R(A)23” and the Notes of the Plan indicated broadly the intended land use within the Area.

Uses

- 7.2 The Area is intended for high-density residential development with the provision of public open space and government refuse collection point and a public toilet. Commercial uses are intended on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
- 7.3 No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a height of 130 metres above Principal Datum (mPD) or the height of the existing building, whichever is the greater.

- 7.4 To provide design flexibility, minor relaxation of the building height restriction may be considered by the Board on application under section 16 of the Ordinance taking into account its individual planning and design merits.

Internal Transport Facilities

- 7.5 Ancillary car parking spaces will be provided in a basement car park to serve the residential cum retail/ commercial podium development with vehicular access from Queen's Road West. Loading/unloading bay will be provided within the residential development on the ground floor. Separate loading/ unloading bay will be provided within the RCP for its operational needs.

Government Refuse Collection Point and Public Toilet

- 7.6 A new Government Refuse Collection Point (RCP) and a public toilet will be reprovided within the Area. The design and layout of the Government RCP and public toilet will be improved and better integrated with the podium of the future residential development to enhance the visual environment and the serviceability of the facility. The vehicular access of the new RCP will be maintained at In Ku Lane to minimise disturbance to the surrounding environment.
- 7.7 To maintain the serviceability of the Government RCP during redevelopment, a small temporary RCP will be provided in the interim within the Area during the redevelopment. Detailed arrangement will be worked out with and agreed by FEHD upon approval of the draft DSP of the Development Scheme.

Public Open Space and Pedestrian Circulation

- 7.8 Taking the opportunity of redevelopment, the redevelopment proposal aims to rationalise the land use configuration within the Area to provide a more accessible public open space (POS) for public enjoyment. A POS of about 538m² will be provided in the Area with direct access from Queen's Road West. Visibility of the POS will be improved and this

arrangement will also benefit the public for a more direct access to the rest of the Li Sing Street Playground. It can also enhance the walkability and pedestrian circulation of the area by serving as a connection to and from Queen's Road West and Ko Shing Street with a pleasant walking environment.

- 7.9 The new POS will benefit a wider range of people in the local community. Subject to views and support from the Central and Western District Council and agreement with LCSD and relevant Government departments, a 5-a-side soccer pitch can be re-provided in the Li Sing Street Playground adjoining the Area through improvement work of the Playground.
- 7.10 The existing service lane at the rear of the tenement buildings within the DSP boundary will be closed and extinguished upon redevelopment of the site as it will serve no useful purpose afterwards.

Landscaping and Greening

- 7.11 Landscaping and greening will be provided in the new POS to create a "green pocket" and leisure environment in the area. Landscape design of the POS will take into account the physical sloping terrain of the Area to create a functional and convenient POS for enjoyment. Passive recreational facilities and a sitting out area will be provided within the POS subject to agreement with LCSD.
- 7.12 To echo with the greening in the POS, greening on the podium edge and pedestrian level of the proposed development will be provided as far as practicable in line with the Sustainable Building Design (SBD) Guidelines and to enhance the local streetscape.

8. IMPLEMENTATION OF THE DEVELOPMENT SCHEME

- 8.1 The proposals set out in the Plan form an integral part of the Development Scheme for the Area.
- 8.2 The URA does not own or lease any land within the boundaries of the Development Scheme and intends to acquire the properties within the

Area of the Development Scheme. With respect to any of such properties which cannot be acquired by purchase, the Secretary for Development would consider, upon the application of the URA, recommending to the Chief Executive in Council the resumption of properties under the Lands Resumption Ordinance, if necessary.

- 8.3 All eligible tenants will be offered an ex-gratia payment package in accordance with URA's policy. The URA has already entered into agreement with the Hong Kong Housing Society (HKHS) and the Hong Kong Housing Authority (HKHA) for the purpose of making available rehousing units by HKHS or HKHA to rehouse affected tenants who satisfy the eligibility criteria of HKHS or HKHA.
- 8.4 Non-domestic tenants of properties acquired by URA whose tenancies are terminated by URA due to implementation of the Development Scheme may be offered an ex-gratia allowance to assist in their business relocation.
- 8.5 The URA may implement the Development Scheme on its own or in association with one or more partners.

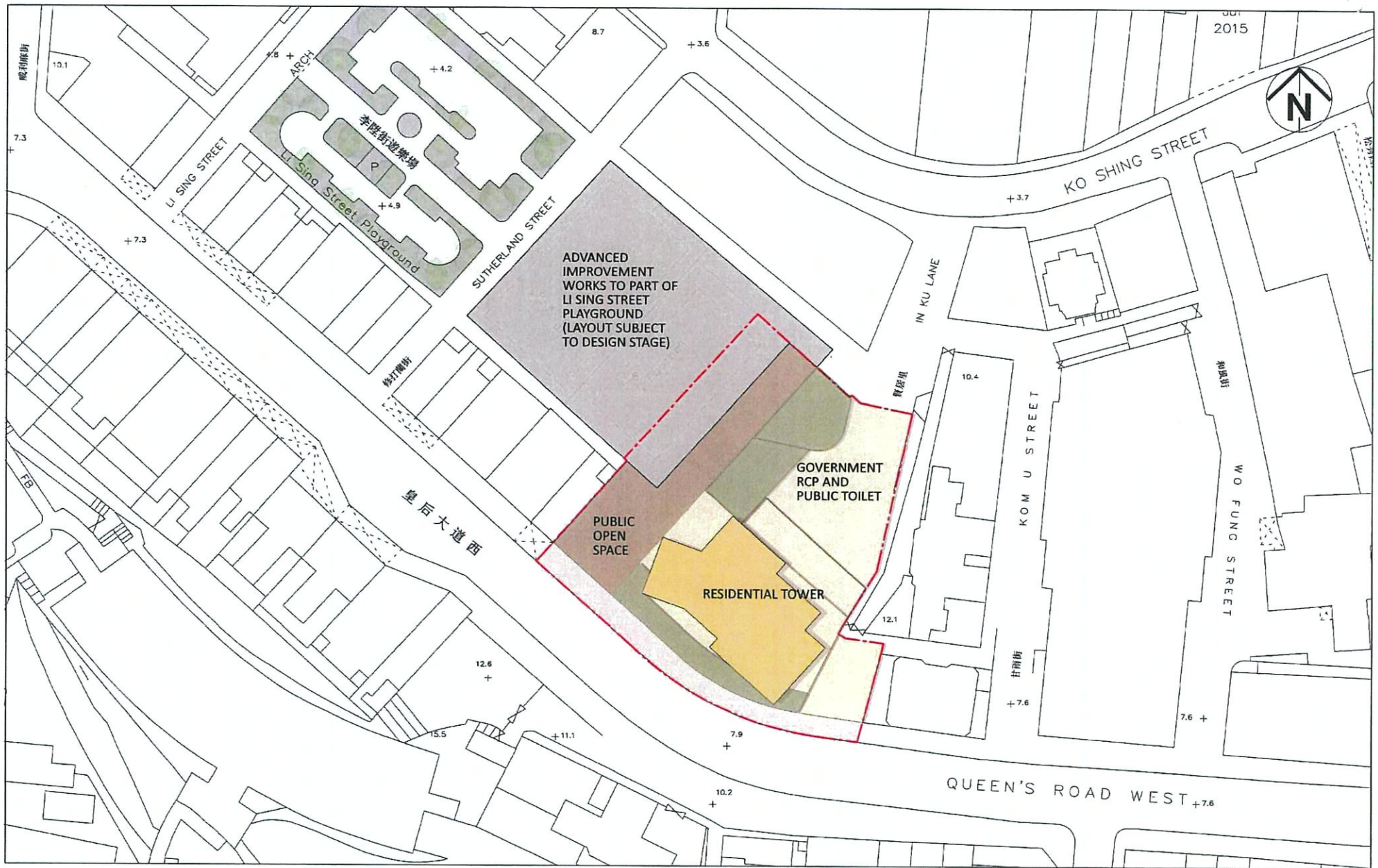
TOWN PLANNING BOARD

XXXX 2018

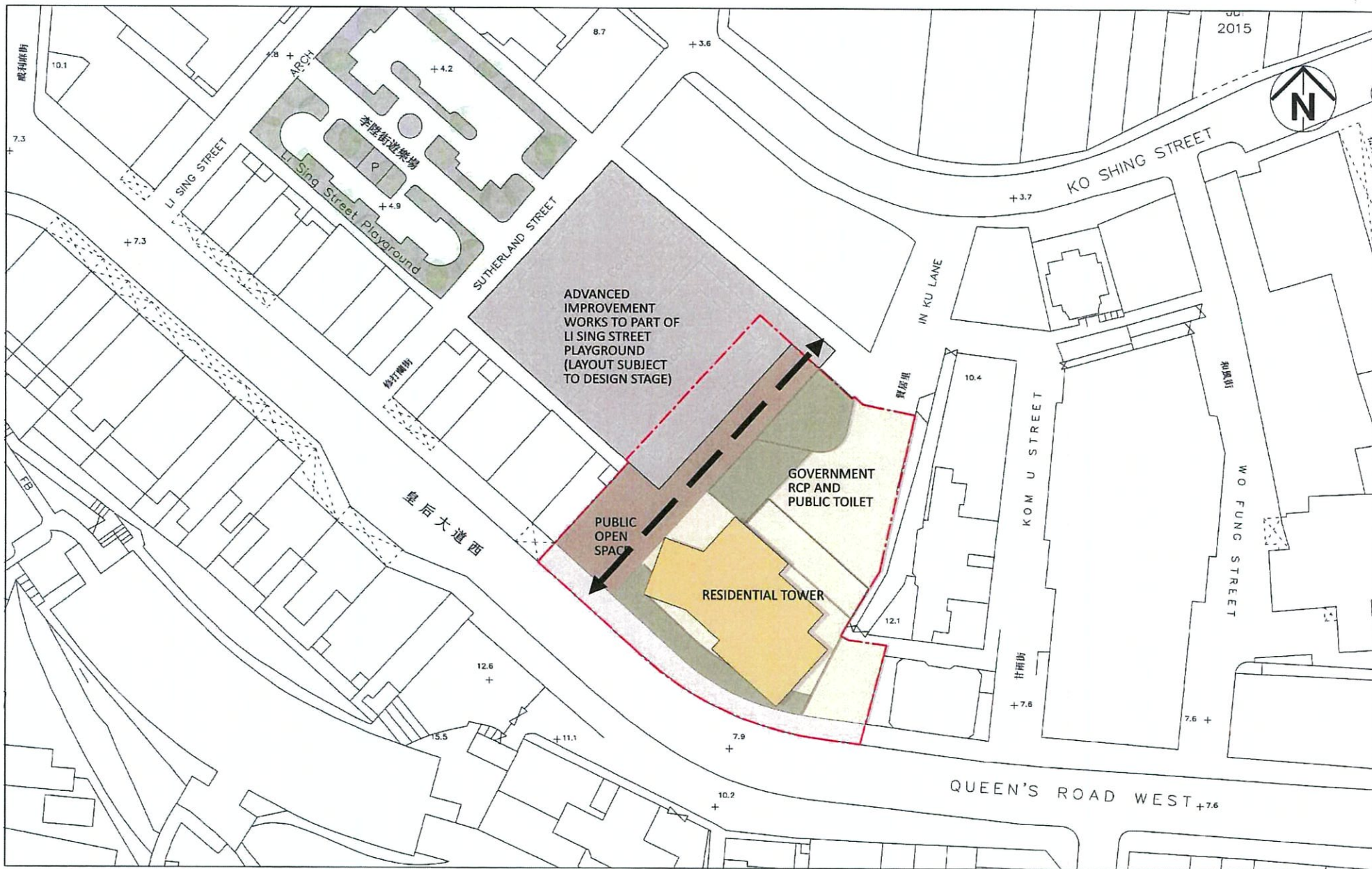
PART 3

**SUPPLEMENTARY
INFORMATION**

Appendix 1 Preliminary Design

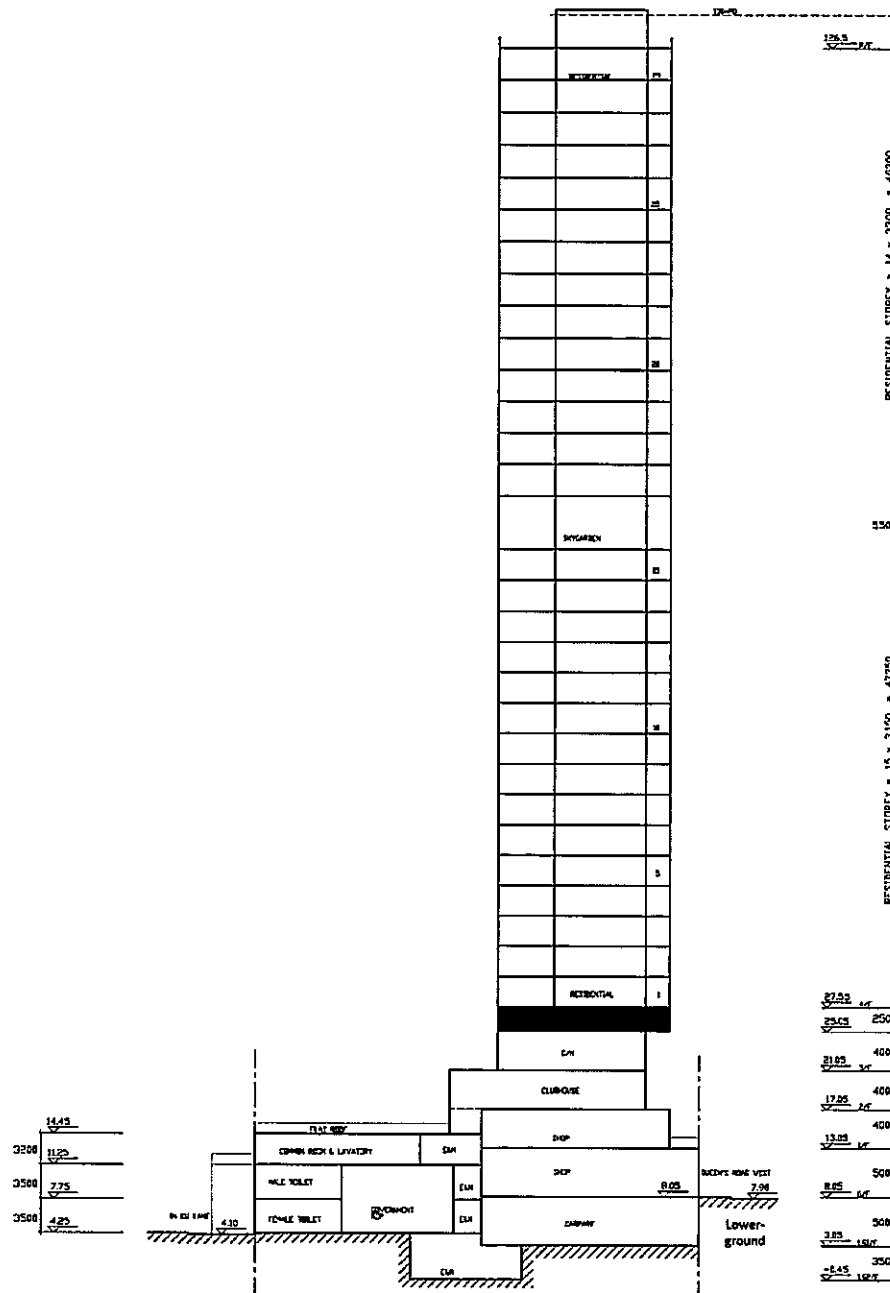


(Notional layout subject to detailed design upon DSP approval.)



(Notional layout subject to detailed design upon DSP approval.)

←-- New Pedestrian Path and Breezeway



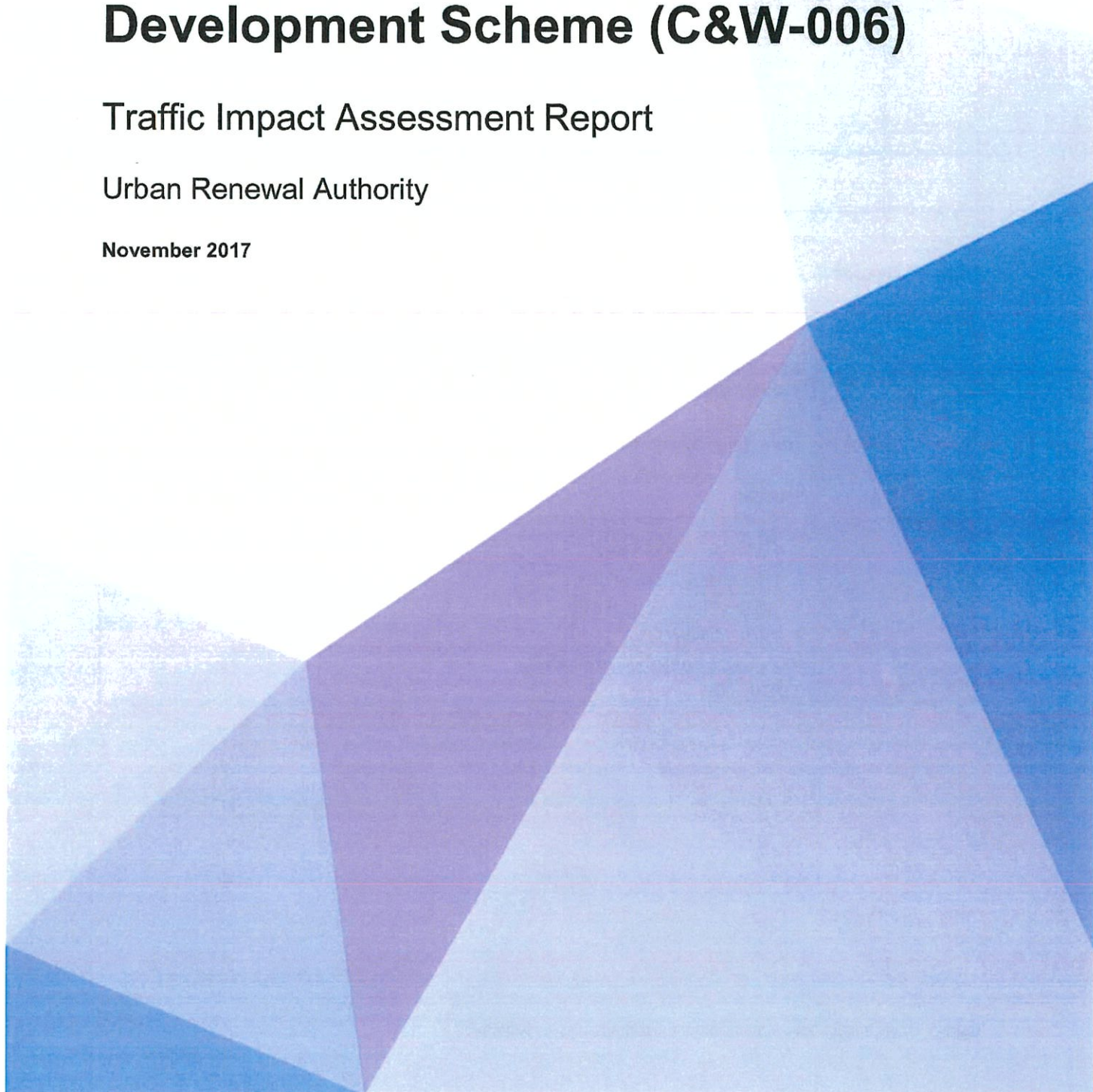
Appendix 2 Traffic Impact Assessment Report

Term Traffic Consultancy Services Service Order No. 001 Development Scheme (C&W-006)

Traffic Impact Assessment Report

Urban Renewal Authority

November 2017



Notice

This document and its contents have been prepared and are intended solely for Urban Renewal Authority's information and use in relation to Section 16 Planning Application

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1. Introduction

1.1. Background

- 1.1.1. The Urban Renewal Authority (URA) has proposed a Development Scheme at Queen's Road West / Ku In Lane.
- 1.1.2. This Traffic Impact Assessment (TIA) is to support the submission of Draft Development Scheme Plan under S25 of Urban Renewal Authority Ordinance (URAO) to redevelop old residential building, reconfigure land use and enhance the layout of existing Government Refuse Collection Point (RCP) & Public Open Space (POS) to the Town Planning Board's consideration as required under S25 of URAO.
- 1.1.3. Atkins China Limited (Atkins) was commissioned by URA to conduct a TIA Study to assess the traffic impact and the proposal of traffic provisions to the proposed Development Scheme at Queen's Road West / In Ku Lane on the surrounding road network.

1.2. Scope

- 1.2.1. The scope of this TIA is outlined as follows:
 - conduct surveys to collect the existing traffic flows within the study area;
 - recommend an appropriate and feasible provision of tentatively internal transport provision under notional design of the proposed Development Scheme;
 - recommend location of run-in/ out to the proposed Development Scheme;
 - estimate the vehicular traffic generated by the proposed Development Scheme;
 - forecast the future vehicular traffic demand in the vicinity at the appropriate design years;
 - examine the traffic impact of the proposed Development Scheme on the surrounding road network; and
 - recommend improvement measures to the problematic roads and junctions, if considered necessary and practicable to the proposed Development Scheme wherever applicable;
 - Review technical feasibility for the proposed traffic provisions, location of run-in/ out and the vehicular access for proposed RCP.

1.3. Report Structure

- 1.3.1. Following this introductory chapter, there are 5 chapters:
 - **Chapter 2** – presents the proposed Development Scheme and internal transport facilities;
 - **Chapter 3** – describes the road network and transport facilities in the vicinity;
 - **Chapter 4** – describes the methodology for traffic forecasting;

- **Chapter 5** – presents the results of the TIA at the adopted design years, and recommends any improvement measures to alleviate the foreseeable traffic problem, if considered necessary; and
- **Chapter 6** – summarizes the findings of the study and presents the conclusion.

2. The Development

2.1. Site Location

- 2.1.1. The subject site is within the street block broadly bounded by Kom U Street at the east, Queen's Road West to the south, Sutherland Street at the west and Ko Shing Street to the north. The subject site consists the residential block, GIC facilities (RCP and public toilet) and a five-a-side soccer pitch (part of Li Sing Street Playground). The proposed residential block and the re-provisioned GIC facilities are located at the southern side and northern side respectively at the subject site. The location the subject site is indicated in **Figure 2.1**.

2.2. Proposed Development

- 2.2.1. The subject site has a net site area of about 1,318m². The proposed Development Scheme will consist of POS, residential development, RCP and basement(s) car park to accommodate proposed traffic provision. The proposed Development Scheme is anticipated to be completed by year 2028. The proposed Development Scheme parameters of the subject site are tabulated in **Table 2.1**.

Table 2-1 Proposed Development Parameters of the Subject Site

| Component | Development Parameters | | |
|---|---|--------------------------|------------------|
| Gross Site Area | 2,046 m ² | | |
| Net Site Area | 1,318 m ² | | |
| Proposed Gross Floor Area (GFA) and Plot Ratio (PR) | Domestic | 9,690 m ² GFA | 7.35 PR |
| | Non-Domestic | 1,600 m ² GFA | 1.21 PR |
| No. of Residential Block | 1 | | |
| Residential | 40m ² GFA ≤ Flat Size | | 89 Flats |
| | 40m ² GFA < Flat Size ≤ 70m ² GFA | | 100 Flats |
| | Total | | 189 Flats |
| Retail | 740 m ² GFA | | |
| GIC | 860 m ² GFA | | |
| POS | About 538 m ² (not counted for GFA / PR calculation) | | |

Note: Subject to change at detailed design stage

2.3. Parking and Servicing Facilities Provision

- 2.3.1. The requirement for parking and servicing facilities are generally provided in according with the Hong Kong Planned Standard and Guidelines (HKPSG). The provision of the parking and servicing facilities are summarized in **Table 2.2**.

Table 2-2 Development Parameters of the Subject Site

| Type | Parking and Servicing Facilities | Parking Provision Requirement | Requirement on Provision (nos.) | Proposed Provision (nos.) |
|--------------------------------|----------------------------------|---|------------------------------------|---------------------------|
| Parking Facilities | | | | |
| The Development | Private Car Parking | Global Parking Standard (GPS): 1 car space for 6-9 flats <u>Demand Adjustment Ratio (R1):</u> i) Flat Size < 40 = 0.4 ii) 40 < Flat Size ≤ 70 = 0.7 <u>Accessibility Adjustment Ratio (R2):</u> Within a 500m- radius of rail station = 0.75 <u>Development Intensity Adjustment Ratio (R3):</u> 5.00 < Plot Ratio ≤ 8.00 = 0.90 Parking Requirement = GPS x R1 x R2 x R3 | i) 89 units, Flat Size < 40 | 3 |
| | | | ii) 100 units, 40 < Flat Size ≤ 70 | 6 |
| | Visitor Car Parking | 1 - 5 nos. per residential block with more than 75 units | 1 - 5 | 1 |
| | Total | | 10 - 18 | 10 |
| | Designated Disable car | 1 for first 50 nos. of Car Parking Space in lot | 1 (Included in above) | |
| | Motorcycle Parking | 1 motorcycle parking space per 100-150 flats | 2 | 2 |
| Retail | Private Car Parking | Nil provision for small road-side retail shops which are mainly serving residents | Nil | Nil |
| Servicing Facilities | | | | |
| Residential | L/UL Bay | 1 bay per 800 flats or Minimum 1 bay for each housing block or as determined by Authority (LGV 7m(L) x 3.5m(W)) | 1 | 1 |
| Retail | | 1 bay for GV for every good vehicle for every 800 - 1,200m ² GFA | Nil | Nil |
| Re-provisioned G/IC Facilities | | Current Provision to suit RCP Operation | 1 | 1 |

- 2.3.2. As shown in **Table 2.2**, the proposed Development Scheme will require about 10 - 18 nos. private car parking spaces, including 1 -5 nos. of visitor car parking spaces, 1 nos. car parking spaces for persons with disabilities, 2 nos. motorcycle parking spaces, 2 nos. loading / unloading bays including 1 nos. re-provision loading / unloading bay for G/IC facilities (the RCP).

2.4. Proposed Relaxation from HKPSG

- 2.4.1. URA aims to facilitate the redevelopment to incorporate Government's guidelines and HKPSG requirements as far as practicable, while achieving the urban renewal objectives to improve the urban living environment and efficient use of land through the proposed Development Scheme.
- 2.4.2. Taking into account the site constraint and the well-established public transport facilities in the area, it is proposed to adopt a lower end provision of the internal parking spaces and relaxed dimension of L/UL bays for the proposed Development Scheme given the following consideration:
- 1) Site Constraint
- 2.4.3. A large portion of the site area (above 50% of Development Scheme) are designated for re-provisioned RCP and open space. The available area at grade for accommodating internal transport facilities is limited.
- 2.4.4. Given the proposed Development Scheme is in a densely built urban context with all buildings surrounding of the subject site, the building disposition has to be carefully designed to meet the current building codes and regulations, such as prescribed window requirement. It is also necessary for the design to accommodate all essential building facilities at ground floor such as a reasonable size lobby, lifts, entrance, staircase, structural walls, E/M facilities in the limited site area and site constraints on building disposition. It has physical constraints and difficulties to provide car park at grade or a traditional car ramp option to the proposed basement car park.
- 2.4.5. The scheme has already taken into account of basement car park which is also restricted by limited footprint area. The POS area in the scheme needs to fulfil LCSD's design and landscaping requirement and therefore car park underneath is not proposed. The remaining footprint area allowed for car park basement is therefore constrained. In view of the site constraint and limited site size at ground floor, car ramp is also not possible. Therefore, car lift instead of car ramp would be proposed to access 1-level basement level car park to accommodate the maximum capacity of car parking spaces for the proposed Development Scheme.
- 2.4.6. Besides, the subject site of net site area of 1,318m² and as RCP have to be re-provisioned. Given the irregular shape of the site, existing built environment and restrictive vehicle access, Heavy Good Vehicle (HGV) loading/unloading bay is not feasible on the ground floor, due to impractical turning requirement of HGV resulted from site and stringent layout of the structural disposition of the development. LGV bay instead of HGV bay is therefore proposed.

- 2.4.7. Maximum capacity of car park within 1-level basement is proposed to meet the minimum car parking requirement of HKPSG. Provision of more than one-level basement is not recommended to avoid extensive bulk excavation. Given that about 7.5m excavation for 2-levels of basement, the operational efficiency of a car lift will be significantly lower/ affected. Besides, additional car lift and waiting spaces are not feasible due to the limited space at ground level. It is anticipated that traffic queue would be occurred at public road due to prolonged waiting time for the car lift leading to 2-levels of basement car park. Based on the above discussion, 1-level basement in view of car lift provision is the best option provided that the area of the site for basement excavation is limited.

2) Low Parking Demand Generated from the Proposed Development Scheme

- 2.4.8. In response to the demand in the mass housing market, the URA will provide small to medium size flats in the proposed Development Scheme, which is considered suitable to meet the socio-economic need from this district as the subject site is not located in high class residential areas.
- 2.4.9. In view of the smaller sized flats to be provided on the site and the economic characteristics of the households in the locality, the level of car ownership and parking demand for this type of flats and households are anticipated to be low.
- 2.4.10. In addition, it is anticipated that HGV loading/unloading demand for smaller sized flats would be low and the proportion of GFA area for non-domestic is also low. Therefore LGV is proposed to serve the general loading/unloading purpose
- 2.4.11. Besides, the proposed retail portion with about 740sq.m. non-domestic GFA in the Development Scheme is intended to provide only neighbourhood-type shops selling daily necessities, convenience goods, household retail service and dining services, etc. It is anticipated that these neighbourhood-type shops would not attract shoppers from other districts but only local residents largely travelled by walking or public transport to the shops. Hence, parking demand generated from these neighbourhood-type shops are envisaged to be low.

3) The Availability of Road based Public Transport and MTR Infrastructure

- 2.4.12. Noting that the subject site is well served by existing public transport facilities, it is anticipated that it would reduce the reliance on using private car for daily travelling.

4) Discourage the Use of Private Car

- 2.4.13. The subject site is located within the busy urban context. In view of the high accessibility of the subject site, the provision of car parking spaces will inevitably attract more private vehicles to the area. It is anticipated add further burden the existing traffic condition in the vicinity and increase conflict between road users. As such, the provision of car parking spaces at lower end could be beneficial to the surrounding road network capacity.

2.5. Summary of Proposed Parking and Servicing Provision

- 2.5.1. Based on consideration as stated in **Section 2.4**, the proposed parking and servicing provision for the proposed Development Scheme will provide 10 nos. private car parking spaces, including 1 nos. of visitor car parking spaces, 1 nos. car parking spaces for persons with disabilities, 2 nos. motorcycle parking spaces, 2 nos. loading / unloading bays including 1 nos. re-provision L/UL bay for G/IC facilities as shown in **Table 2.2**.
- 2.5.2. Besides, due to the site constraint and HGV loading/unloading bay is found technically not feasible, as explained in **Section 2.4.6**, Light Good Vehicle (LGV) loading/unloading bay would be proposed instead for the subject site. Furthermore, LGV requires less manoeuvring space and time while entering and leaving the subject site, hence it would also enhance the operation at run in/out and within the subject site. It is envisaged less congestion would be created at run-in/out.
- 2.5.3. The current notional car park layout and swept path analysis is shown in **Figure 2.2**. As shown in Figure 2.2, swept path analysis was assessed the at the car park, the result shows that there is sufficient manoeuvring space for 5.2m long vehicle within the proposed car park.
- 2.5.4. The proposed parking and servicing provision for the proposed Development Scheme could meet the minimum provision as stated in HKPSG, although only LGV L/UL bay could be provided instead of HGV L/UL due to the limit available space at ground level within the subject site. Nil provision is required for small road-side retail shops under HKPSG and the shops are mainly serving residents in view of the low parking demand

2.6. Vehicular Access Arrangement

- 2.6.1. The proposed run-in/out of the proposed Development Scheme would be located at Queen's Road West forming a "right-in / right-out" arrangement. The schematic layout of the run-in/ out leading to the car lift and L/UL area is illustrated in **Figure 2.3**.
- 2.6.2. As shown in **Figure 2.3**, swept path analysis was assessed the at the run-in/ out. The result shows that there are sufficient manoeuvring spaces for the 7m long vehicle enter and leave the subject site simultaneously.
- 2.6.3. Besides, there is no existing transport service facility to be affected at the location of the proposed run-in/out. Therefore, there is no relocation of transport facility is needed.

2.7. Pedestrian Walkway Network

- 2.7.1. The existing pedestrian walkway network are well-developed in the vicinity of the subject site. Pedestrians can access the subject site via the surrounding footpaths and pedestrian crossings to / from nearby bus, GMB and PLB servicing points as well as to / from Sai Ying Pun MTR Station.
- 2.7.2. Under the proposal of the DSP, a new public open space will be provided. It creates a direct access and provides better segregation between vehicular traffic and pedestrian linking the Queen's Road West and In Ku Lane / Ko Shing Street. The overall pedestrian walkway network within the vicinity of the subject site is therefore further enhanced. The pedestrian connection is shown in **Figure 2.4**.

2.8. Proposed Vehicular Access for Refuse Collection Point

- 2.8.1. The existing vehicular access of the RCP is located at Ko Shing Street via In Ku Lane. It is anticipated that the access arrangement of re-provisioned RCP shall be remained unchanged to minimise the impact to operation of the RCP and to the surrounding urban environment.
- 2.8.2. The proposed RCP is similar in location to the existing and the vehicular access is reviewed as technical feasible. The proposed location of RCP and the access to RCP is shown in **Figure 2.4**. The result shows that there are sufficient manoeuvring spaces for the 10m long refused collection vehicle enter and leave the re-provisioned RCP at once.
- 2.8.3. The internal traffic provision and arrangement will be subjected to further detail design and liaison with FEHD.

3. Traffic Context

3.1. Road Network

- 3.1.1. The local road network in the vicinity is essentially a grid formed by east-west and north-south running roads.
- 3.1.2. The subject site will be served by the primary distributor Queen's Road West and Connaught Road West, district distributors Des Voeux Road West and local roads of Ko Shing Street, Eastern Street, Central Street, Queen's Street and Hollywood Road and.
- 3.1.3. Queen's Road West is a one-way three lanes carriageway runs in west direction providing linkage to Sai Yun Pun area on the west.
- 3.1.4. Connaught Road West runs in east-west direction providing linkage to Hong Kong Island West to the west, Central on the east and Western Harbour Tunnel leading to Kowloon West.
- 3.1.5. Des Voeux Road West runs in east-west direction linking Central Street to the west and Connaught Road West on the east.
- 3.1.6. Ko Shing Street is a one-way carriageway running in the west direction with on-street metered car parking spaces and with vehicular point of existing RCP via In Ku Lane.
- 3.1.7. Eastern Street is a one-way two lanes carriageway runs in a south direction linking High Street, Hospital Road, Queen's Road West and Des Voeux Road West.
- 3.1.8. Central Street is a one-way two lanes carriageway runs in a north direction linking High Street, Hospital Road and Queen's Road West from the south leading to Connaught Road West to the north.
- 3.1.9. Queen's Street is a one-way two lanes carriageway runs in a south direction linking Des Voeux Road West and Queen's Road West, Hollywood Road is a one-way two lanes carriageway runs in an east direction leading to existing local residential and Soho area.
- 3.1.10. These adjacent roads provide access to / from other areas in the territory. It is anticipated that the subject site will be well served by the existing road network in the vicinity.

3.2. Public Transport Services

- 3.2.1. Currently, there are several bus, GMB and PLB routes with servicing points along Des Voeux Road West and Queen's Road West in the vicinity of the subject site. The service details are tabulated in **Table 3.1**. The existing public transport service points are shown in **Figure 3.1**.

Table 3-1 Existing Public Transport Services

| Route No. | | Origin and Destination | Frequency (minutes) | Remark | |
|-----------|-----|------------------------|---|---------|--|
| BUS | CTB | 1 | Felix Villas ↔ Happy Valley (Upper) | 12 – 15 | Daily |
| | | 5B | Kennedy Town ↔ Causeway Bay | 7 – 20 | Daily |
| | | 7 | Shek Pai Wan ↔ Central (Ferry Piers) | 10 – 25 | Daily |
| | | 10 | Kennedy Town ↔ North Point | 7 – 18 | Daily |
| | | 37A | Chi Fu ↔ Central | 6 – 20 | Daily, Circular |
| | | 37B | Chi Fu ↔ Admiralty | 8 – 16 | Daily, Circular |
| | | 71 | Wong Chuk Hang ↔ Central (Wing Wo Street) | 15 – 35 | Daily, Circular |
| | | 71P | Sham Wan → Central (Ferry Piers) | – | Mon – Sat Service at 7:55am only. |
| | | 90B | South Horizons ↔ Admiralty (East) | 10 – 20 | Daily |
| | | 930 | Tsuen Wan - Wan Chai North | 10 – 20 | Daily |
| | | 962 | Causeway Bay (Moreton Terrace) → Tuen Mun (Lung Mun Oasis) | 6 – 20 | Mon – Fri AM / PM Peak and Sat AM Peak |
| | | 962B | Causeway Bay (Moreton Terrace) ↔ Tuen Mun (Chi Lok Fa Yuen) | 10 – 25 | Daily |
| | | 962X | Causeway Bay (Moreton Terrace) ↔ Tuen Mun (Lung Mun Oasis) | 7 – 25 | Daily |
| | | 967 | Admiralty (West) ↔ Tin Shui Wai (Tin Yan Estate) | 6 – 20 | Daily |
| | | 967X | Causeway Bay ↔ Tin Shui Wai (Tin Yan Estate) | 12 – 25 | Mon – Fri AM / PM Peak and Sat AM Peak |
| | | 969 | Causeway Bay (Moreton Terrace) ↔ Tin Shui Wai Town Centre | 7 – 25 | Daily |
| | | 969A | Tin Shui Wai Town Centre → Admiralty | 15 – 20 | Mon – Sat AM Peak only |
| | | | Wan Chai → Tin Shui Wai Town Centre | 10 – 20 | Mon – Fri PM Peak only |
| | | A11 | North Point Ferry Pier ↔ Airport (Ground Transportation Centre) | 15 – 30 | Daily |
| | | E11/E 11A | Tin Hau Station ↔ Asia World-Expo | 15 – 25 | Daily |
| | | N962 | Causeway Bay (Moreton Terrace) ↔ Tuen Mun (Lung Mun Oasis) | 15 – 30 | Daily Night Service |
| | | N969 | Causeway Bay (Moreton Terrace) ↔ Tin Shui Wai Town Centre | 20 – 30 | Daily Night Service |
| | | NA11 | Airport → North Point Ferry Pier | – | Daily Night Service at 1:10am only |
| | | | North Point Ferry Pier → Airport | – | Daily Night Service at 4:50am only |

| Route No. | | | Origin and Destination | Frequency (minutes) | Remark |
|-----------|--------------|------|--|---------------------|---|
| | CTB/ KMB | 981P | Ma On Shan (Yiu On Estate) → Wan Chai | 10 | Mon – Fri AM Peak only |
| | | | Admiralty Station → Ma On Shan (Yiu On Estate) | 15 | Mon – Fri PM Peak only |
| | KMB | 960 | Wan Chai North ↔ Tuen Mun (Kin Sang) | 4 – 20 | Daily |
| | | 961 | Wan Chai ↔ Tuen Mun (Shan King) | 7 – 20 | Daily |
| | | 968 | Causeway Bay (Tin Hau) ↔ Yuen Long West | 3 – 20 | Daily |
| | KMB/ NWFB | 101 | Kennedy Town ↔ Kwun Tong (Yue Man Square) | 3 – 15 | Daily |
| | | 104 | Kennedy Town ↔ Pak Tin Estate | 5 – 17 | Daily |
| | | 113 | Kennedy Town (Belcher Bay) ↔ Choi Hung | 8 – 25 | Daily |
| | | 811 | Sha Tin Racecourse → Kennedy Town | – | Service on Shatin Racing Day only |
| | | 905 | Wan Chai North ↔ Lai Chi Kok | 5 – 18 | Daily |
| | | 905P | Lai Chi Kok → Wan Chai (Harbour Road) | 16 | Mon – Fri AM Peak only |
| | | 914 | Tin Hau Station ↔ Hoi Lai Estate | 10 – 20 | Daily |
| | | 948 | Tsing Yi → Tin Hau Station | 5 – 20 | Daily Morning Service |
| | | | Tin Hau Station → Tsing Yi | 10 – 20 | Daily Afternoon Service |
| | | 980X | Wu Kai Sha Station → Wan Chai | 10 | Mon – Fri AM Peak only |
| | | | Admiralty Station → Wu Kai Sha Station | 12 | Mon – Fri PM Peak only |
| | NWFB | 3A | Central (Star Ferry) → Felix Villas | – | Mon – Fri Service at 7:15am only. |
| | | | Felix Villas → Central (Star Ferry) | 25 – 35 | Mon – Fri Service at 7:45am and PM Peak |
| | | 4 | Wah Fu ↔ Central | 15 – 20 | Daily |
| | | 4X | Wah Fu ↔ Central | 10 – 20 | Mon – Sat Service only |
| | | 26 | Lai Tak Tsuen ↔ Hollywood Road | 8 – 25 | Daily, Circular |
| | | 91 | Ap Lei Chau Estate ↔ Central (Ferry Piers) | 10 – 25 | Daily |
| | | 94 | Lei Tung Estate ↔ Central (Ferry Piers) | 10 – 25 | Mon – Sat AM Peak only |
| | | H1 | Central (Star Ferry) ↔ Tsim Sha Tsui | 30 | Daily |
| | GMB | 55 | Queen Mary Hospital ↔ Central Station | 5 – 8 | Daily |

- 3.2.1. Moreover, Sai Ying Pun MTR Station is also located within 500m walking distance from the subject site to the west.
- 3.2.2. The subject site is well served by a wide range of the existing public transport facilities provided in the vicinity.

3.3. Future Traffic Conditions

- 3.3.1. No major committed highway infrastructure or traffic improvement schemes were identified within 500m catchment of the Project to be implemented in the near future. The traffic analyse is therefore based on the existing road network layouts.

4. Traffic Forecast

4.1. Methodology

- 4.1.1. According to the current programme, the completion of the proposed Development Scheme is anticipated scheduled at year 2028. For the purposes of this study, it has been assumed that full occupation of the proposed Development Scheme will occur in the same year.
- 4.1.2. Therefore, years 2028 (completion year) and 2031 (3 years after completion) would be adopted as the design year for assessment purpose.
- 4.1.3. The background traffic forecasts for the design years were projected by applying a growth factor to the existing traffic flows obtained from traffic surveys taking into account the traffic generations of adjacent planned/committed developments. The growth factor used was derived by referring to the past traffic growth trend on the Annual Traffic Census (ATC) Reports and 2008-based BDTM published by TD.
- 4.1.4. Trip generations by other planned developments in the vicinity were estimated and assigned onto the surrounding road network to produce the reference traffic forecasts at design years.
- 4.1.5. Trip generations of the Project was estimated by using appropriate trip generation rates. Traffic generations were then assigned to the surrounding road network and superimposed onto the reference traffic forecasts to create the design year forecasts for assessment at design years.

4.2. Traffic Survey

- 4.2.1. Manual classified traffic count surveys were conducted to identify the existing traffic flows during the peak hour periods from 07:30 to 09:30 and from 17:30 to 19:30 on a typical weekday, 6 June 2017 (Tuesday). The locations of the surveyed junctions in the vicinity are listed in **Table 4.1** and shown in **Figure 2.1**.

Table 4-1 Location of Critical Junctions

| Index (/) | Junctions | Junction Type |
|-----------|---|---------------|
| J1 | Connaught Road West / Des Voeux Road West / Wing Lok Street | Signal |
| J2 | Des Voeux Road West / Queen Street | Signal |
| J3 | Queen's Road West / Queen Street | Signal |
| J4 | Queen's Road West / New Street | Signal |
| J5 | Queen's Road West / Eastern Street | Signal |
| J6 | Queen's Road West / Centre Street | Signal |
| J7 | Des Voeux Road West / Centre Street | Signal |
| J8 | Des Voeux Road West / Eastern Street | Signal |
| J9 | Des Voeux Road West / Wilmer Street | Signal |

| | | |
|-----|---|--------|
| J10 | Des Voeux Road West / Sutherland Street | Signal |
|-----|---|--------|

Remarks: (1) Refer to Figure 2.1.

- 4.2.2. The morning and evening peak hours were identified as 08:30 – 09:30 and 18:00 – 19:00 respectively. The year 2017 observed traffic flows are presented in Figure 4.1.

4.3. Growth Rate Determination

- 4.3.1. Traffic forecasts for the design years were projected by applying an appropriate growth rate to the year 2017 observed traffic flows. The growth rates were determined with reference to the Annual Traffic Census (ATC) reports and the 2008-based Base District Traffic Models (BDTM) published by Transport Department (TD).

Annual Traffic Census

- 4.3.2. The historical traffic growth trend of the major roads in the vicinity of the subject site was reviewed making reference to the ATC reports. The Annual Average Daily Traffic (AADT) data from year 2008 to year 2015 were extracted. The estimated average annual growth rate of 0.84% per annum (p.a.) are tabulated in Table 4.2.

Table 4-2 Traffic Growth Rate from ATC

| Station No. | Road Name | AADT | | | | | | | | Growth Rate (p.a.) |
|-------------|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------|
| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | |
| 1207 | Connaught Rd C and W (GL) | 33,690 | 33,590 | <i>33,680</i> | <i>33,360</i> | <i>33,360</i> | 29,500 | 31,020 | <i>31,780</i> | 0.84% |
| 1006 | Connaught Rd W | 47,300 | 46,360 | 46,380 | 47,150 | 48,250 | 47,890 | 49,540 | 47,320 | |
| 1839 | Des Voeux Rd W | <i>11,510</i> | <i>11,490</i> | <i>11,250</i> | 11,080 | 10,840 | <i>10,460</i> | <i>10,100</i> | <i>10,300</i> | |
| 1206 | Queen's Rd W | 9,980 | 9,870 | <i>9,890</i> | <i>9,800</i> | <i>9,800</i> | 8,710 | 8,110 | <i>8,310</i> | |
| 2208 | Queen's Rd C | 14,660 | 14,810 | 14,390 | 14,060 | 13,820 | 14,010 | 12,870 | 11,920 | |
| 1019 | Hollywood Rd | 9,790 | 10,140 | 10,000 | 9,900 | 9,880 | 9,870 | 9,140 | 9,720 | |
| 1104 | Wing Lok St | 4,020 | 3,960 | 3,850 | 3,870 | 3,820 | 3,820 | 3,660 | 3,690 | |
| 1860 | Eastern St | <i>4,850</i> | <i>4,850</i> | <i>4,740</i> | 5,510 | 5,520 | <i>5,320</i> | <i>5,140</i> | <i>5,240</i> | |
| 2045 | Eastern St | 5,640 | <i>5,630</i> | <i>5,520</i> | <i>5,490</i> | 5,520 | 8,780 | <i>8,470</i> | <i>8,640</i> | |
| 1248 | Queen St | 3,800 | 4,130 | <i>4,050</i> | <i>4,020</i> | <i>4,100</i> | 4,890 | 4,480 | <i>4,570</i> | |
| Total | | 145,240 | 144,830 | 143,750 | 144,240 | 144,910 | 143,250 | 142,530 | 141,490 | |

Notes: The AADT figures shown in italic are estimated values based on the ATC Reports. Those estimated figures are excluded in calculating the weighted average annual growth rate.

Base District Traffic Models

- 4.3.3. The growth rate was determined with reference to the 2008-based BDTM. The AM and PM peak hours traffic flows of the key road links in Sheung Wan area from year 2008 to year 2021. The estimated growth rates of +1.55% p.a. and +0.91% p.a. for AM and PM peak respectively are tabulated in Table 4.3.

Table 4-3 Traffic Growth Rate from 2008-Based BDTM

| Road Name | AM | | | PM | | |
|---|-------------------------|---------------|--------------------|-------------------------|---------------|--------------------|
| | Traffic Demand (pcu/hr) | | Growth Rate (p.a.) | Traffic Demand (pcu/hr) | | Growth Rate (p.a.) |
| | 2016 | 2021 | | 2016 | 2021 | |
| Bonham Strand West | 7 | 6 | 1.55% | 15 | 9 | 0.91% |
| Centre Street | 427 | 397 | | 471 | 414 | |
| Centre Street | 289 | 284 | | 262 | 268 | |
| Connaught Road West | 443 | 421 | | 386 | 388 | |
| Connaught Road West | 810 | 795 | | 968 | 932 | |
| Connaught Road West | 744 | 800 | | 873 | 1026 | |
| Connaught Road West | 1,371 | 2,372 | | 881 | 1185 | |
| Connaught Road West | 1,270 | 2,216 | | 996 | 1567 | |
| Connaught Road West | 1,436 | 1,399 | | 1,510 | 1,468 | |
| Connaught Road West | 250 | 249 | | 192 | 192 | |
| Connaught Road West | 269 | 266 | | 302 | 313 | |
| Connaught Road West | 701 | 686 | | 881 | 829 | |
| Connaught Road West Flyover | 1,628 | 1,946 | | 2,149 | 2,421 | |
| Connaught Road West Flyover | 1,290 | 1,292 | | 897 | 888 | |
| Connaught Road West Flyover | 1,640 | 1,255 | | 962 | 963 | |
| Connaught Road West Flyover (down ramp) | 1,095 | 1,211 | | 1,277 | 1,333 | |
| Connaught Road West Flyover (up ramp) | 887 | 540 | | 655 | 460 | |
| Des Voeux Road West | 168 | 155 | | 147 | 135 | |
| Des Voeux Road West | 904 | 891 | | 774 | 787 | |
| Eastern Street | 504 | 490 | | 484 | 488 | |
| Eastern Street | 375 | 360 | | 365 | 360 | |
| First Street | 57 | 46 | | 59 | 45 | |
| Hollywood Road | 229 | 222 | | 134 | 129 | |
| New Street | 11 | 10 | | 15 | 12 | |
| Queen Street | 389 | 370 | | 341 | 345 | |
| Queen's Road West | 634 | 563 | | 853 | 681 | |
| Queen's Road West | 635 | 565 | | 670 | 591 | |
| Sutherland Street | 17 | 7 | | 9 | 9 | |
| Western Fire Service Street | 15 | 13 | | 5 | 6 | |
| Western Fire Service Street | 172 | 170 | | 184 | 220 | |
| Wilmer Street | 1 | 1 | | 4 | 2 | |
| Wing Lok Street | 120 | 109 | | 153 | 176 | |
| Total | 18,788 | 20,107 | | 17,874 | 18,642 | |

Adopted Growth Rate

- 4.3.4. Based on the above, a nominal growth rate of +2.0% per annum (p.a.) are adopted for assessment to produce the background traffic flows from year 2017 conservative approach.

4.4. Other Planned Development Trip Generation

4.4.1. There are recently two planned developments in the vicinity of the subject site. They are URA's Kwai Heung Street Development Project and a private development at Chung Ching Street.

4.4.2. Those planned developments have also been considered for the reference traffic flows forecasting, the design parameters for planned developments in the vicinity as stated in Town Planning Board are summarized in **Table 4.4**.

Table 4-4 Design Parameters for Planned Developments

| Developments ⁽¹⁾ | No. of Flats | Development Component |
|---------------------------------|--------------|-----------------------|
| Kwai Heung Street (URA project) | 165 flats | Residential & Retail |
| Chung Ching Street | 240 flats | Residential & Retail |

Remarks: (1) Refer to Figure 2.1 for location of the planned development.

4.4.3. Development trips generated by the planned developments were estimated making reference to the Transport Planning and Design Manual (TPDM) published by TD. Adopted trip rates and traffic generation of the planned / committed developments are summarized in **Table 4.5**.

Table 4-5 Traffic Generations Rates and Demand of Planned Developments

| Developments | Component | Parameters | Adopted Trip Rates (Residential: pcu/hr/flat, Retail: pcu/hr/100m ² GFA) ⁽¹⁾ | | | | Trip Generation (pcu/hr) | | | |
|--------------------|-------------|--------------------|--|--------------------|--------------------|--------------------|--------------------------|--------------------|--------------------|--------------------|
| | | | AM | | PM | | AM | | PM | |
| | | | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ |
| Kwai Heung Street | Residential | 165 flats | 0.0718 | 0.0425 | 0.0286 | 0.0370 | 12 | 7 | 5 | 6 |
| | Retail | 400 m ² | 0.2296 | 0.2434 | 0.3100 | 0.3563 | 1 | 1 | 1 | 1 |
| Chung Ching Street | Residential | 240 flats | 0.0718 | 0.0425 | 0.0286 | 0.0370 | 17 | 10 | 7 | 9 |
| | Retail | 440 m ² | 0.2296 | 0.2434 | 0.3100 | 0.3563 | 1 | 1 | 1 | 2 |

Remarks: (1) Refer to TPDM Vol. 1, Ch. 3, Appendix, Table 1 and Table 2., Adopted the trip rate for private residential development with average flat size of 60m² GFA.

(2) "Gen" means "Generation" and "Att" means Attraction.

Note: Trip Generation is rounded to the nearest digit.

4.4.4. As shown in **Table 4.5**, Kwai Heung Street and Chung Ching Street will produce about 21(13) pcu/hr and 29(19) pcu/hr during AM(PM) peak hours respectively.

4.5. Reference Traffic Flows

4.5.1. The traffic demand generated / attracted by the planned / committed developments will be assigned on the surrounding road network and superimposed onto the years 2028 and 2031 background traffic flows to produce the reference traffic flows. The years 2028 and 2023 reference traffic flows are shown in **Figures 4.2** and **4.3** respectively.

4.6. Traffic Forecast During Construction

- 4.6.1. It is anticipated that the proposed Development Scheme would not involve substantial excavation during the construction phase. The expected volume of construction traffic to be generated would not be significant.
- 4.6.2. Based on the typical building construction works, it is expected that the total volume of construction traffic generation would not exceed 5 vehicles per hour in general. The impact on the road network is therefore considered insignificant.

4.7. Development Traffic Generation

- 4.7.1. Trip generation of the proposed Development Scheme is estimated using the appropriate trip rates given in TPDM. The estimation of traffic trips to be generated by the proposed Development Scheme is summarized in Table 4.6.

Table 4-6 Traffic Generation by the Proposed Development Scheme

| Component | Parameter | Adopted Trip Rates (Residential: pcu/hr/flat; Retail: pcu/hr/100m ² GFA) ⁽¹⁾ | | | | Trip Generation (pcu/hr) | | | |
|-------------|--------------------|--|--------------------|--------------------|--------------------|--------------------------|--------------------|--------------------|--------------------|
| | | AM | | PM | | AM | | PM | |
| | | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ | Gen ⁽²⁾ | Att ⁽²⁾ |
| Residential | 189 flats | 0.0718 | 0.0425 | 0.0286 | 0.0370 | 14 | 8 | 5 | 7 |
| Retail | 740 m ² | 0.2296 | 0.2434 | 0.310 | 0.3563 | 2 | 2 | 2 | 3 |
| Total | | | | | | 15 | 10 | 8 | 10 |

Remarks: (1) Refer to TPDM Vol. 1, Ch. 3, Appendix, Table 1 and Table 2., Adopted the trip rate for private residential development with average flat size of 70m² GFA.

(2) "Gen" means "Generation" and "Att" means Attraction.

Note: * Trip Generation is rounded to the nearest digit.

- 4.7.2. As presented in the above table, the proposed Development Scheme will produce about 25(18) pcu/hr during AM(PM) peak hours respectively.
- 4.7.3. Besides, for operation traffic generation of re-provisioned RCP and public toilet, it is expected that the traffic generated from the re-provisioned RCP would be in similar magnitude as existing.
- 4.7.4. As such, it is anticipated that the background traffic flows had considered the traffic generated from the re-provisioned RCP.

4.8. Design Traffic Flows

- 4.8.1. The estimated development vehicular flows of the proposed Development Scheme were assigned on the surrounding road network and superimposed onto the years 2028 and 2031 reference traffic flows to produce the design traffic flows. Years 2028 and 2031 design traffic flows during the peak hours are shown in Figures 4.4 to 4.5 respectively.

5. Traffic Impact Assessment

5.1. Methodology

- 5.1.1. Junction capacity analysis was conducted for the base year 2017, design years 2028 (completion year) and 2031 (three years after completion) for the junctions which are likely to be affected by the proposed Development Scheme.
- 5.1.2. Capacity analysis was carried out in accordance with the procedures outlined in the Transport Planning and Design Manual (TPDM). The capacity analysis was based on the observed traffic flows at year 2027 and traffic forecasts at design years 2028 and 2031 for Reference Scenario (without proposed Development Scheme) and Design Scenario (with proposed Development Scheme).

5.2. Junction Analysis

- 5.2.1. The results of the capacity analysis for existing year 2017 Observed Scenario, design years 2028 and 2031 Reference and Design Scenarios are summarized in **Tables 5.1 to 5.3** respectively. The calculation sheets are attached in **Appendix A**.

Table 5.1 Junction Performance for Year 2017 Observed Scenario

| Index (1) | Junction | Reserve Capacity (R.C.) | |
|-----------|---|-------------------------|-------|
| | | AM | PM |
| J1 | Connaught Road West / Des Voeux Road West / Wing Lok Street | 90% | 84% |
| J2 | Des Voeux Road West / Queen Street | 88% | >100% |
| J3 | Queen's Road West / Queen Street | >100% | >100% |
| J4 | Queen's Road West / New Street | >100% | >100% |
| J5 | Queen's Road West / Eastern Street | 94% | 84% |
| J6 | Queen's Road West / Centre Street | >100% | >100% |
| J7 | Des Voeux Road West / Centre Street | >100% | >100% |
| J8 | Des Voeux Road West / Eastern Street | >100% | >100% |
| J9 | Des Voeux Road West / Wilmer Street | >100% | >100% |
| J10 | Des Voeux Road West / Sutherland Street | >100% | >100% |

Remarks:

(1) Refer to Figure 2.1.

- 5.2.2. From **Table 5.1**, the results show that all concerned junctions are operating satisfactorily in the existing year 2017 (RC \geq 15%).

Table 5.2 Junction Performance for Year 2028

| Index (1) | Reserve Capacity (R.C.) | | | |
|-----------|-------------------------|-------|--------|-------|
| | Reference | | Design | |
| | AM | PM | AM | PM |
| J1 | 52% | 48% | 52% | 48% |
| J2 | 46% | 81% | 45% | 80% |
| J3 | >100% | >100% | >100% | >100% |
| J4 | >100% | >100% | >100% | >100% |
| J5 | 56% | 48% | 55% | 48% |
| J6 | >100% | >100% | >100% | >100% |
| J7 | >100% | >100% | >100% | >100% |
| J8 | 60% | 76% | 59% | 75% |
| J9 | 79% | >100% | 77% | >100% |
| J10 | >100% | >100% | >100% | >100% |

Remarks:

(1) Refer to Figure 2.1.

Table 5.3 Junction Performance for Year 2031

| Index (1) | Reserve Capacity (R.C.) | | | |
|-----------|-------------------------|-------|--------|-------|
| | Reference | | Design | |
| | AM | PM | AM | PM |
| J1 | 44% | 39% | 43% | 39% |
| J2 | 37% | 70% | 36% | 69% |
| J3 | >100% | >100% | >100% | >100% |
| J4 | >100% | >100% | >100% | >100% |
| J5 | 47% | 40% | 46% | 40% |
| J6 | >100% | >100% | >100% | >100% |
| J7 | >100% | >100% | >100% | >100% |
| J8 | 51% | 65% | 49% | 65% |
| J9 | 68% | 91% | 67% | 90% |
| J10 | 93% | >100% | 91% | >100% |

Remarks:

(1) Refer to Figure 2.1.

- 5.2.3. As shown in Tables 5.2 and 5.3, all concerned junctions would be operating satisfactorily (i.e. $RC \geq 15\%$ or $DFC < 0.85$) in design years 2028 and 2031 even with the proposed Development Scheme.

5.3. Traffic Impact During Construction

- 5.3.1. As mentioned in **Section 4.6**, the expected volume of construction traffic to be generated would not be significant.
- 5.3.2. It is anticipated that the total volume of construction traffic generation would not exceed 5 vehicles per hour in general. The traffic generation is considered insignificant comparing with the background traffic and operation traffic, as stated in **Section 4.7**, in the vicinity of the site. It is considered that the assessment on operation traffic impact (i.e. 25(18) pcu/hr during AM(PM) peak hours respectively) already represent the scenario for the construction traffic impact assessment.
- 5.3.3. It is concluded that the Project would not induce insurmountable traffic impact on the surrounding road network during construction stage.

6. Car Lift Assessment

6.1. Background

- 6.1.1. Due to the site constraint, a car lift is proposed instead of a car ramp to/ from the basement car park with the provision of one car lift within the subject site.
- 6.1.2. In order to avoid any tailing back situation occurred on the public road at any time, sufficient queuing spaces would be provided on ground floor (GF) within the subject site for the car park.
- 6.1.3. Car park for the proposed Development Scheme are located on basement Level 1 (B1) providing a total of 10 nos. of private car parking spaces as mentioned in **Section 2.3.16**.
- 6.1.4. Based on the latest design of the proposed Development Scheme, the details of the car parking floors are summarised in **Table 6.1**.

Table 6.1 Design Detail of the Car Park

| Floor | Level | Parking Provision |
|-----------------------|-----------|-------------------|
| Ground Floor (GF) | +8.05 mPD | - |
| Basement Level 1 (B1) | +3.05 mPD | 10 nos. |

Note: Subject to change at detailed design stage

- 6.1.5. A car lift is proposed to provide vertical circulation for the proposed Development Scheme car park amongst GF and B1.

6.2. Queueing Analysis

- 6.2.1. The analysis is applied the Poisson distribution for arrival pattern and multi-servers queueing (M/M/N) theory to determine the queues induced due to the vehicles waiting for the proposed car lift.
- 6.2.2. The probability that n vehicles are in the car parking system is given by:

$$\text{For } e = \frac{\lambda}{\mu},$$

$$P(n) = \frac{1}{\sum_{n=0}^{N-1} \frac{e^n}{n!} + \frac{e^N}{N! \left(1 - \frac{e}{N}\right)}} \quad \text{for } n = 0$$

$$P(n) = \frac{e^n}{n!} P(0) \quad \text{for } 0 < n \leq N$$

$$P(n) = \frac{e^n}{N^{n-N} N!} P(0) \quad \text{for } n > N$$

where: $P(n)$ = Probability of n vehicles in the system;
 λ = Peak 15-minutes arrival rate;
 μ = Servicing time;
 n = Number of vehicles in the system; and,
 N = Number of car lift.

6.2.3. It is anticipated that the adopted trip generation of the proposed Development Scheme has been considered trips generated/ attracted from car park as well as pick up/ drop off on street. Therefore, the estimated attraction rate during AM peak hour would be adopted for the car park arrival rates for assessment purpose.

6.2.4. Based on the above, the peak 15-minute arrival rates (λ) for the car park should therefore be derived as follows:

λ = No. of Parking Spaces / 4 * 1.2 (peak of peak factor)
 = 10 pcu/hr
 = 3 veh/15-min

6.2.5. With reference to the specification of a traction type car lift, it is assumed that the speed of the car lift is about 0.5 m/s. The travelling time of the car lift between different levels are tabulated as Table 6.2.

Table 6.2 Car Lift Travelling Time

| | Travelling Distance (m) | Travelling Time (sec) |
|---------------|-------------------------|-----------------------|
| From GF to B1 | 5.0 | 10 |

6.2.6. In order to consider the worst-case scenario, it is assumed that when an incoming vehicle arrived and called the car lift, the car lift has just left GF going to B1 due to the use of another incoming vehicle which is going to park on B1. After that vehicle has just left the car lift, the car lift was called by an outgoing vehicle on B1. As such, the outgoing vehicle would enter the car lift for leaving the car park. The incoming vehicle would only be able to use the car lift when the car lift arrived at GF and the outgoing vehicle left the car lift.

6.2.7. Assuming that the machine operation time for the car lift door opening or closing is 5 sec, the time required for a vehicle entering or leaving the car lift in the forward gear is 5 sec with a safety buffer of 2 sec, the anticipated round-trip time for the proposed car lift is summarized in Table 6.3.

Table 6.3 Round-Trip Time of Car Lift

| Activity | Required Time (sec) |
|-------------------------------|---------------------|
| Travelling Time from GF to B1 | 10.0 |
| Door Opening Time at B1 | 5.0 |
| Car Exiting Lift | 5.0 |
| Car Entering Lift | 5.0 |
| Safety Buffer | 2.0 |
| Door Closing Time at B1 | 5.0 |
| Travelling Time from B1 to GF | 10.0 |
| Door Opening Time at GF | 5.0 |
| Car Exiting Lift | 5.0 |

| Activity | Required Time (sec) |
|---|---------------------|
| Safety Buffer | 2.0 |
| Car Entering Lift | 5.0 |
| Door Closing Time at GF | 5.0 |
| Travelling Time from GF to Basement Level 1 | 10.0 |
| Door Opening Time at Basement Level 1 | 5.0 |
| Car Exiting Lift | 5.0 |
| Car Entering Lift | 5.0 |
| Total | 64 |

- 6.2.8. As shown in **Table 5.4**, the overall round-trip time is 64.0 sec. Therefore, the average 15-minute servicing time (μ) is:

$$\begin{aligned}\mu &= 60 / \text{Overall round-trip time} \\ &= 60 / 64.0 \text{ veh / min} \\ &= 0.94 \text{ veh/min} \\ &= 14.06 \text{ veh/15-min}\end{aligned}$$

- 6.2.9. With the application of the peak 15-minute arrival rate (λ) and the average 15-minute servicing rate (μ) to the queuing theory, the number of vehicles in the system and the required queuing spaces can be determined. **Table 6.4** below summarized the results.

Table 6.4 Car Lift Queuing Analysis Results

| No. of Vehicles in the System, n (nos.) | Probability of Having n Vehicle in the System, $P(n)$ | Required Queuing Spaces (nos.) |
|--|--|--------------------------------|
| 0 | 0.787 | - |
| 1 | 0.168 | 0 |

- 6.2.10. As suggested in **Table 6.4**, there will be only 1 vehicle in the car lift system of the proposed Development Scheme at a 95% level of confidence following the M/M/N queuing theory. Therefore, it is expected no car queuing for the car lift in the proposed Development Scheme. Nevertheless, sufficient space in front of the car lift is allowed for a car waiting for the proposed car lift in the current layout.

7. Summary and Conclusion

7.1. Summary

- 7.1.1. A Traffic Impact Assessment (TIA) Study was carried out to investigate the traffic impact induced by the proposed Development Scheme.

Internal Parking and Serving Provision

- 7.1.2. The proposed Development Scheme will meet the low end of the HKPSG requirement and to be provided a total of 10 nos. private car parking spaces including 1 nos. of visitor car parking spaces, 1 nos. car parking spaces for persons with disabilities and 2 nos. of motorcycle parking spaces. Besides, 1 no. of loading/ unloading bay would be provided at ground level for the proposed Development Scheme. Due to site constraints/technical problem and low demand from development needs, as explained in **Section 2.4.6 and 2.4.10**, a LGV L/UL bay instead of HGV L/UL bay is proposed in the proposed Development Scheme.
- 7.1.3. 1 no. of L/UL bay for the Government RCP would be re-provisioned within new re-provisioned RCP .
- 7.1.4. Swept path analysis is conducted based on the notional layout. The notional layout for the car parking facilities is technically feasible from traffic engineering point of view.
- 7.1.5. The above car park provision will be provided by 1-level basement in view of site limit as car lift provision is the feasible option for the subject site.
- 7.1.6. The proposed location of run-in/out for the proposed Development Scheme and the access arrangement for re-provisioned RCP are both technical feasible from traffic engineering point of view.

Provision of Car Lift

- 7.1.7. A car lift is proposed instead of a car ramp to/ from the basement car park due to the limited available space catering for the residential portion within the subject site, resulted in limited ground floor space and therefore technically infeasible to provide a car ramp within the site.
- 7.1.8. In order to avoid any tailing back situation occurred on the public road at any time, a car lift queuing analysis is assessed.
- 7.1.9. Based on the Poisson distribution for arrival pattern and multi-servers queuing (M/M/N) theory, it is expected no car queuing for the car lift in the proposed Development Scheme at a 95% level of confidence. Nevertheless, sufficient space in front of the car lift is allowed for a car waiting for the proposed car lift in the current layout.

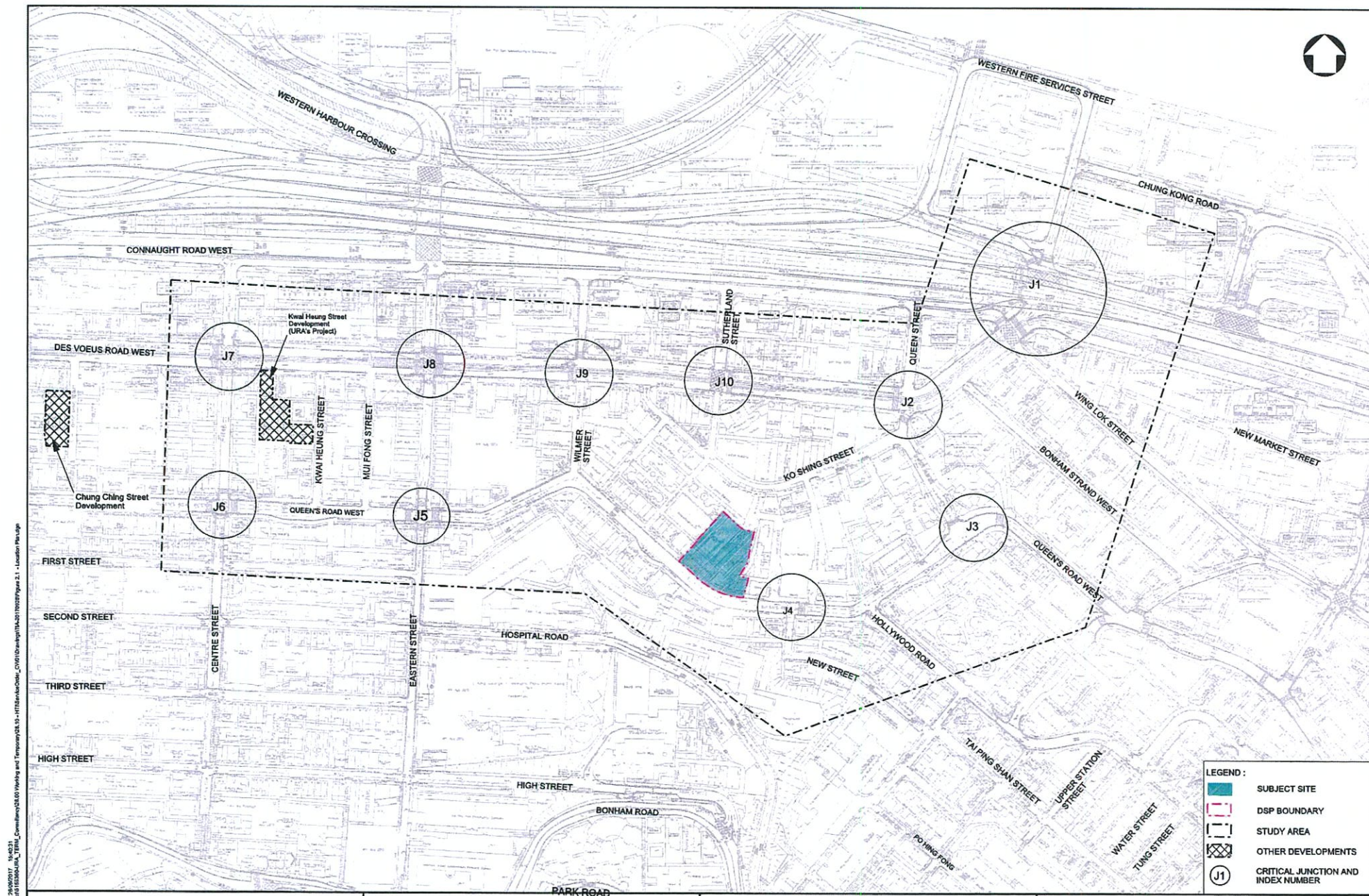
Traffic Impact Assessment

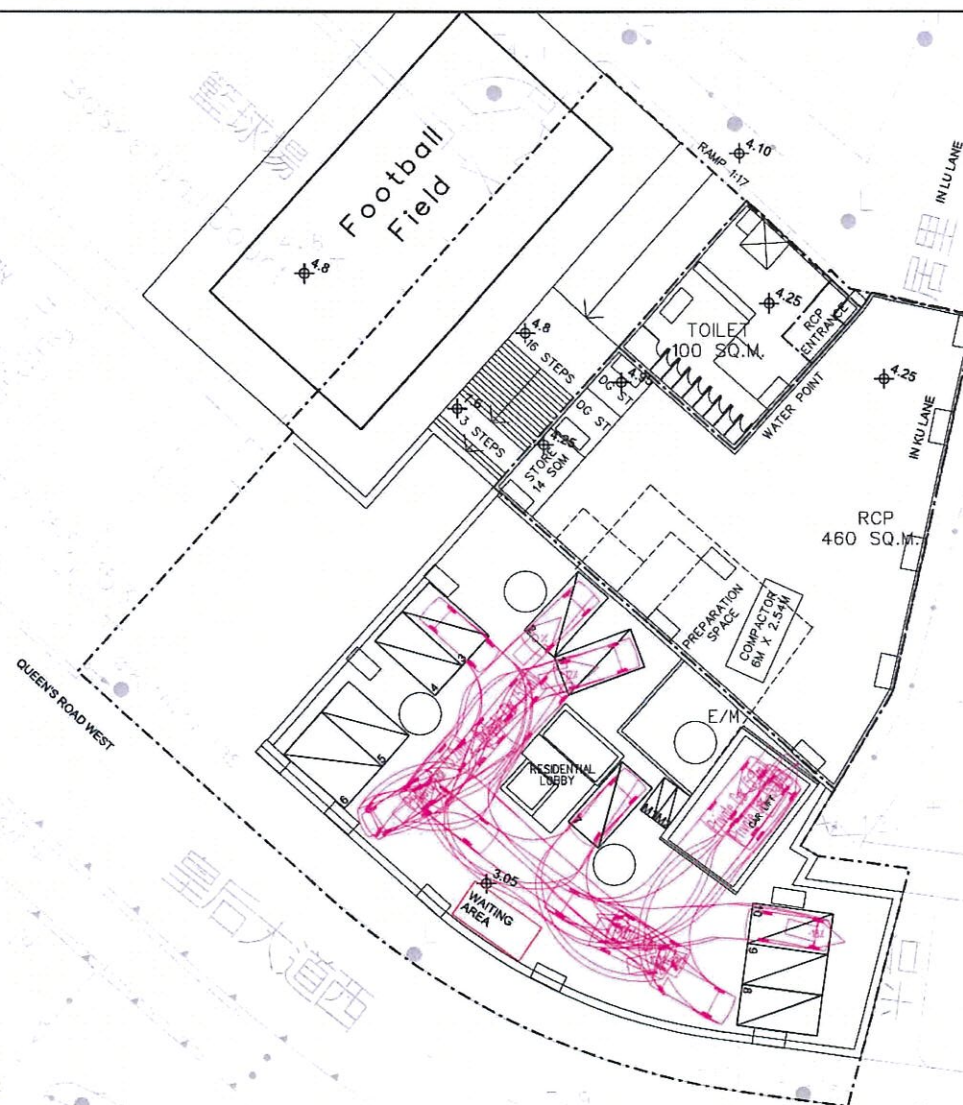
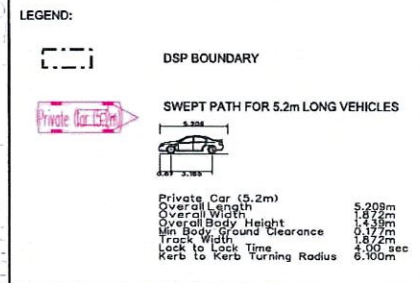
- 7.1.10. Pedestrians can access the subject site via the surrounding footpaths and pedestrian crossings to / from nearby bus, GMB and PLB servicing points as well as to / from Sai Ying Pun MTR Station.
- 7.1.11. The critical road junctions within the study area were assessed with respect to traffic generation of the proposed Development Scheme in design years 2028 (completion year) and 2031 (three years after completion), taking into account the traffic generation by the major planned/ approved developments in the vicinity of the subject site.
- 7.1.12. Based on the assessment results, it was found that all concerned junctions would operate within capacity even with the proposed Development Scheme.

7.2. Conclusion

- 7.2.1. It is concluded that the proposed Development Scheme would not induce insurmountable traffic impact on the surrounding road network.
- 7.2.2. The proposed traffic provision to the Development Scheme, with reference to the notional layout, is considered technically feasible and acceptable.

Figures







LEGEND:

PROPOSED RUN-IN/ OUT

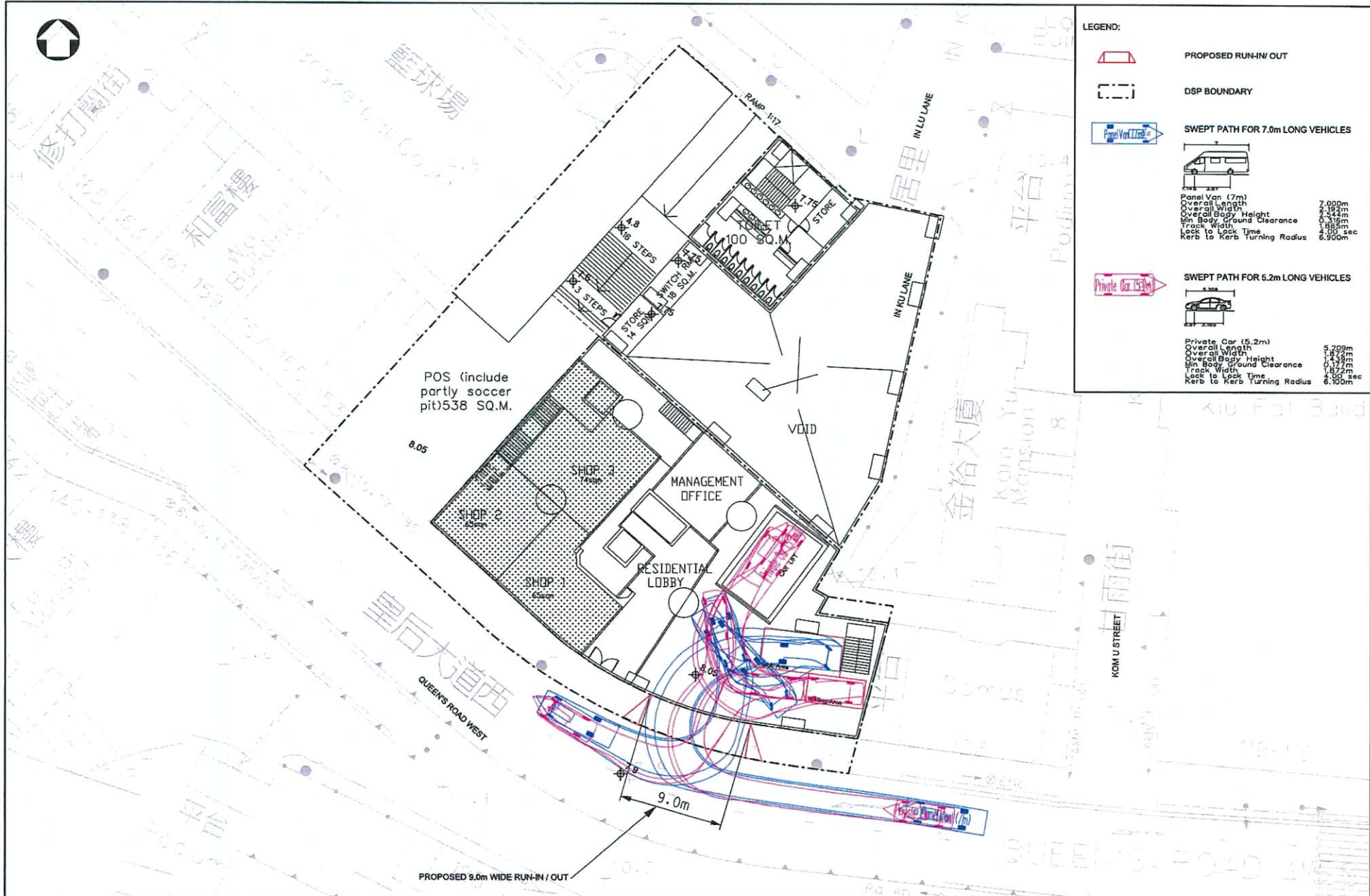
DSP BOUNDARY

SWEPT PATH FOR 7.0m LONG VEHICLES

| | |
|-----------------------------|----------|
| Panel Van (7m) | 7.000m |
| Overall Length | 2.922m |
| Overall Width | 2.442m |
| Overall Body Height | 2.442m |
| Min Body Ground Clearance | 0.316m |
| Track Width | 1.863m |
| Lock to Lock Time | 4.90 sec |
| Kerb to Kerb Turning Radius | 6.900m |

SWEPT PATH FOR 5.2m LONG VEHICLES

| | |
|-----------------------------|----------|
| Private Car (5.2m) | 5.200m |
| Overall Length | 1.872m |
| Overall Width | 1.872m |
| Overall Body Height | 1.872m |
| Min Body Ground Clearance | 0.172m |
| Track Width | 1.872m |
| Lock to Lock Time | 4.00 sec |
| Kerb to Kerb Turning Radius | 6.100m |



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PROJECT: 10/11/2017 10:52:52
DRAWN: 10/11/2017 10:52:52
CHECKED: 10/11/2017 10:52:52
DATE: 10/11/2017 10:52:52



TERM TRAFFIC CONSULTANCY SERVICES
SERVICE ORDER NO. 001

| | | | |
|-----------------------------|---------|------|---------------|
| Title | | | |
| PROPOSED ACCESS ARRANGEMENT | | | |
| Scale at A3 | 1 : 300 | Date | NOVEMBER 2017 |
| Figure No. | 2.3 | | |

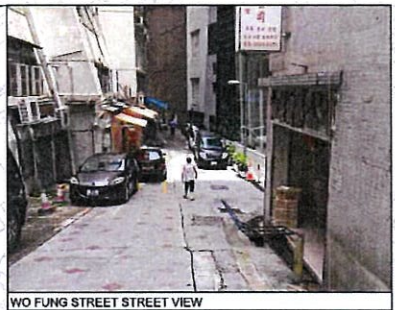
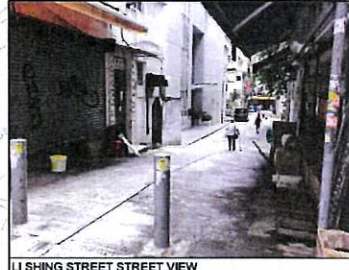


LEGEND:

- PROPOSED RUN-IN/OUT
- DSP BOUNDARY
- EXISTING PEDESTRIAN ROUTING BETWEEN KO SHING STREET AND QUEEN'S ROAD WEST
- PROPOSED ADDITIONAL PEDESTRIAN ROUTING BETWEEN KO SHING STREET AND QUEEN'S ROAD WEST

Refuse Collection Vehicle

| | |
|-----------------------------|----------|
| Overall Length | 10.000m |
| Overall Width | 2.500m |
| Overall Body Height | 3.814m |
| Min Body Ground Clearance | 0.213m |
| Track Width | 2.000m |
| Lock to Lock Time | 4.00 sec |
| Kerb to Kerb Turning Radius | 9.500m |



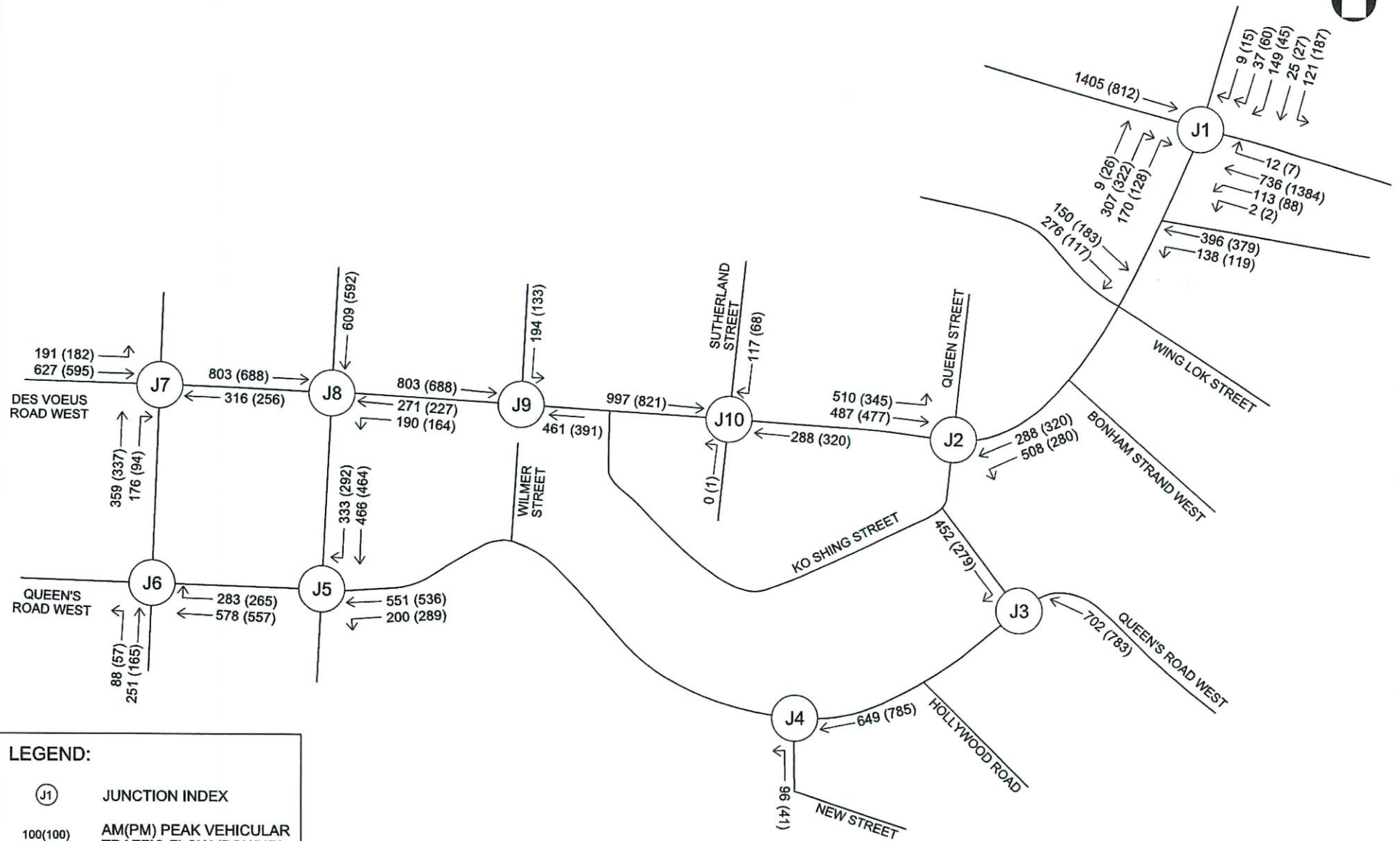
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Checked by: [illegible]
Reviewed by: [illegible]
Date: [illegible]
Project Name: [illegible]
Drawing Title: [illegible]



TERM TRAFFIC CONSULTANCY SERVICES
SERVICE ORDER NO. 001

Title: PEDESTRIAN CONNECTION AND ACCESS ARRANGEMENT AT PROPOSED GOVERNMENT REFUSE COLLECTION POINT

| | | | | | |
|-------------|----------|------|---------------|------------|-----|
| Scale at A3 | 1 : 1000 | Date | NOVEMBER 2017 | Figure No. | 2.4 |
|-------------|----------|------|---------------|------------|-----|



LEGEND:



JUNCTION INDEX

100(100)

AM(PM) PEAK VEHICULAR TRAFFIC FLOW (PCU/HR)



ATKINS

TERM TRAFFIC CONSULTANCY SERVICES
SERVICE ORDER NO. 001

Title

2028 Design Traffic Flows

Scale at A3

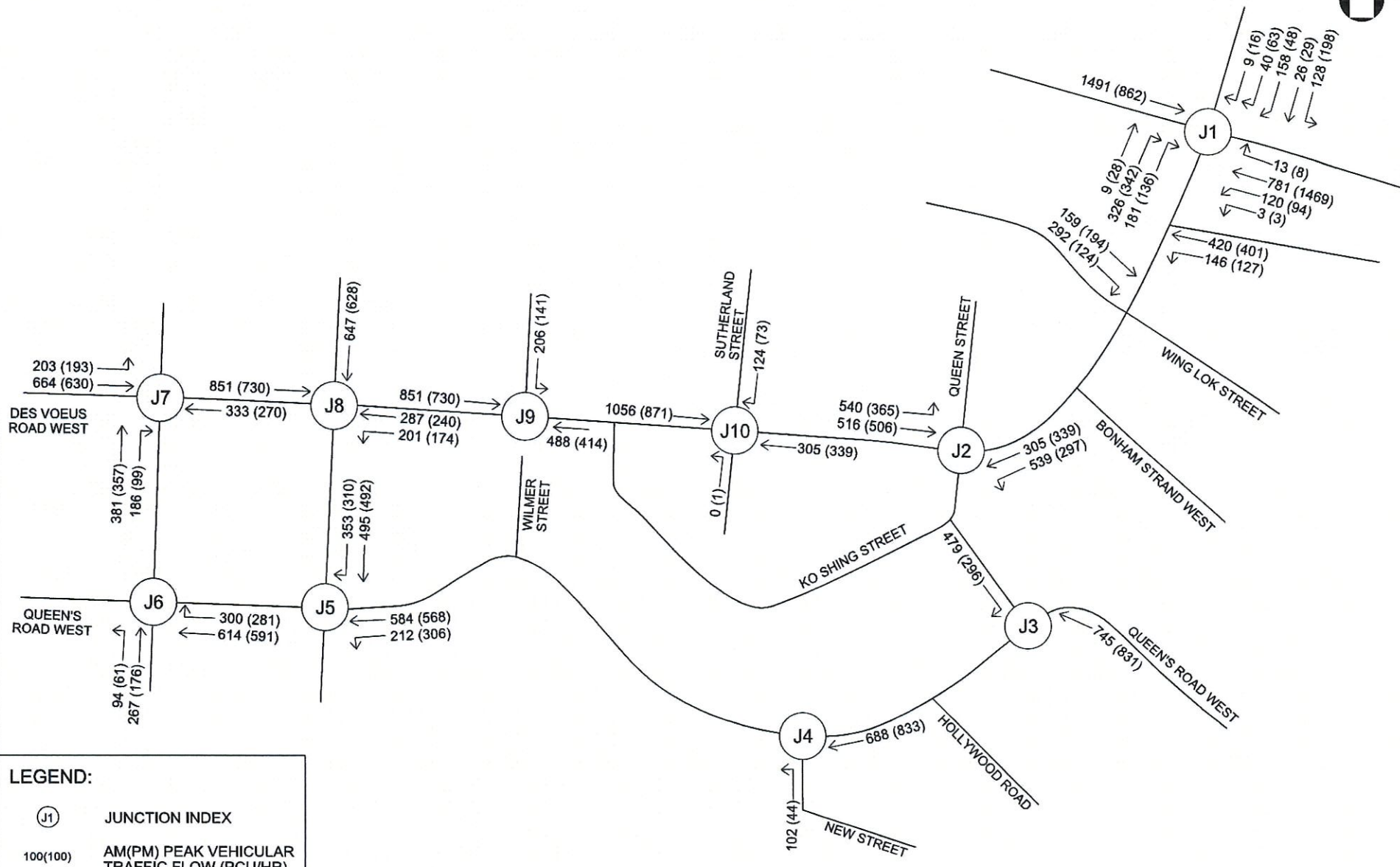
N.T.S

Date

June 2017

Figure No.

4.4



LEGEND:

⊙ JUNCTION INDEX

100(100) AM(PM) PEAK VEHICULAR TRAFFIC FLOW (PCU/HR)

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DATE: 11/11/16
DRAWN BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]



TERM TRAFFIC CONSULTANCY SERVICES
SERVICE ORDER NO. 001

| | | | |
|---------------------------|-------|------|-----------|
| Title | | | |
| 2031 Design Traffic Flows | | | |
| Scale at A3 | N.T.S | Date | June 2017 |
| Figure No. | 4.5 | | |

Appendix A

Junction Calculation Sheets

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

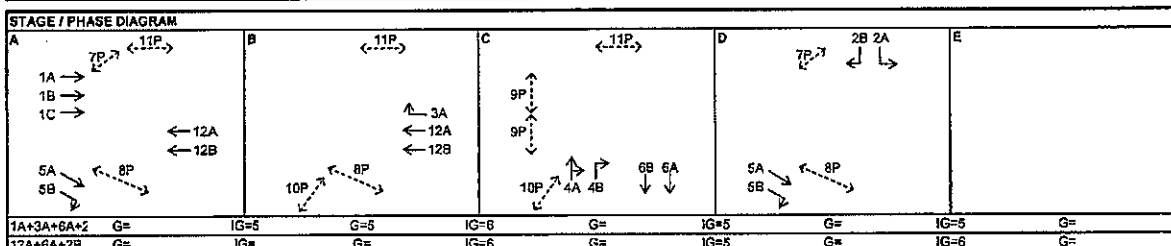
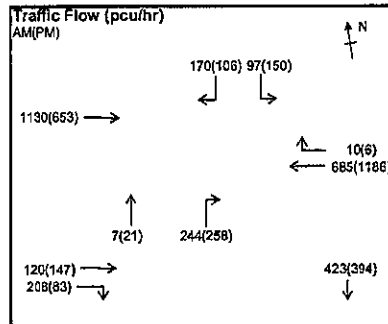
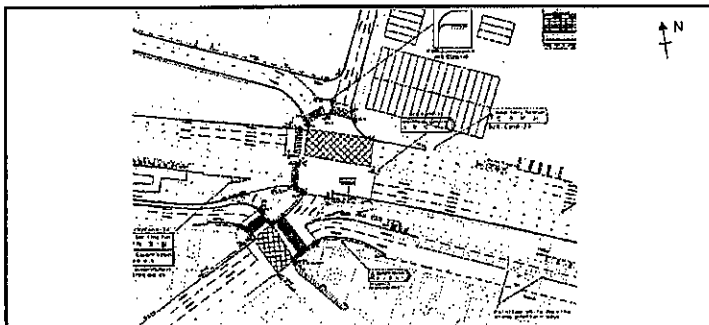
Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

Design Year: 2017

Scheme : 2017 Observed Flow

Designed by: WM

Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Connaught Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.40 | Y | N | | | 334 | | 1760 | 0.190 | 193 | | 1760 | 0.110 |
| 1B | A | 3.40 | N | N | | | 398 | | 2095 | 0.190 | 230 | | 2095 | 0.110 |
| 1C | A | 3.40 | N | N | | | 398 | | 2095 | 0.190 | 230 | | 2095 | 0.110 |
| Western Fire Services St SB | | | | | | | | | | | | | | |
| 2A | D | 3.60 | Y | N | 15 | | 97 | 100% | 1795 | 0.054 | 150 | 100% | 1795 | 0.084 |
| 2B | D | 3.60 | Y | N | 20 | | 170 | 100% | 1835 | 0.093 | 106 | 100% | 1835 | 0.058 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | N | N | 30 | | 10 | 100% | 2015 | 0.005 | 6 | 100% | 2015 | 0.003 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 4A | C | 4.50 | Y | N | 25 | | 123 | 94% | 1955 | 0.063 | 137 | 85% | 1965 | 0.070 |
| 4B | C | 4.50 | N | N | 20 | | 128 | 100% | 2050 | 0.062 | 142 | 100% | 2050 | 0.069 |
| Wing Lok St EB | | | | | | | | | | | | | | |
| 5A | A,D | 4.50 | N | N | | | 120 | | 2205 | 0.054 | 147 | | 2205 | 0.067 |
| 5B | A,D | 4.50 | Y | N | 10 | | 208 | 100% | 1795 | 0.116 | 83 | 100% | 1795 | 0.046 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 6A | C | 4.20 | Y | N | | | 204 | | 2035 | 0.100 | 190 | | 2035 | 0.093 |
| 6B | C | 4.20 | N | N | | | 219 | | 2175 | 0.101 | 204 | | 2175 | 0.094 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 12A | A,B | 3.60 | N | N | | | 343 | | 2115 | 0.162 | 593 | | 2115 | 0.280 |
| 12B | A,B | 3.60 | N | N | | | 342 | | 2115 | 0.162 | 593 | | 2115 | 0.280 |
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Notes:

| AM Peak | 1A+3A+6A+2B | PM Peak | 12A+6A+2B |
|---------------------|-------------|---------------------|-----------|
| Sum of Critical y Y | 0.383 | Sum of Critical y Y | 0.432 |
| Lost Time L (sec) | 23 | Lost Time L (sec) | 14 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.728 | Practical Y Ypr | 0.795 |
| Reserve Capacity RC | 90% | Reserve Capacity RC | 84% |

Date : 21/Sep/17 Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

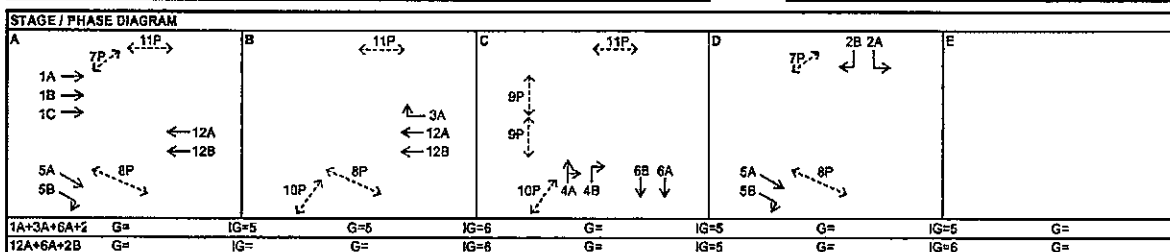
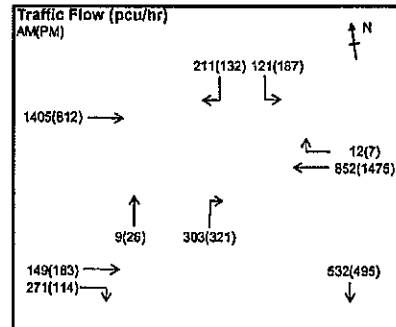
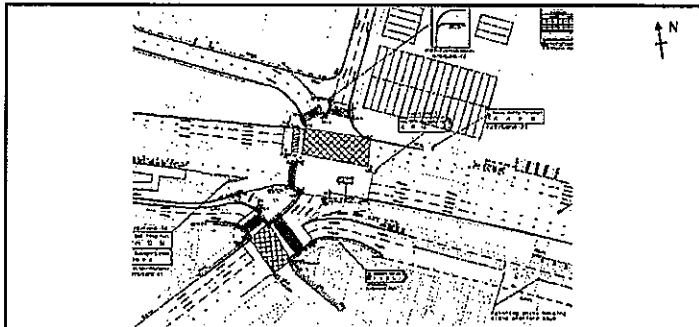
JOB NO. : _____

Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

Design Year: 2028

Scheme : 2028 Reference Flow

Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Connaught Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.40 | Y | N | | | 416 | | 1760 | 0.236 | 240 | | 1760 | 0.136 |
| 1B | A | 3.40 | N | N | | | 494 | | 2095 | 0.236 | 286 | | 2095 | 0.136 |
| 1C | A | 3.40 | N | N | | | 495 | | 2095 | 0.238 | 266 | | 2095 | 0.137 |
| Western Fire Services St SB | | | | | | | | | | | | | | |
| 2A | D | 3.60 | Y | N | 15 | | 121 | 100% | 1795 | 0.067 | 167 | 100% | 1795 | 0.104 |
| 2B | D | 3.60 | Y | N | 20 | | 211 | 100% | 1835 | 0.115 | 132 | 100% | 1835 | 0.072 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | N | N | 30 | | 12 | 100% | 2015 | 0.006 | 7 | 100% | 2015 | 0.004 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 4A | C | 4.50 | Y | N | 25 | | 152 | 94% | 1955 | 0.078 | 170 | 85% | 1965 | 0.087 |
| 4B | C | 4.50 | N | N | 20 | | 160 | 100% | 2050 | 0.078 | 177 | 100% | 2050 | 0.086 |
| Wing Lok St EB | | | | | | | | | | | | | | |
| 5A | A,D | 4.50 | N | N | | | 149 | | 2205 | 0.068 | 183 | | 2205 | 0.083 |
| 5B | A,D | 4.50 | Y | N | 10 | | 271 | 100% | 1795 | 0.151 | 114 | 100% | 1795 | 0.084 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 6A | C | 4.20 | Y | N | | | 257 | | 2035 | 0.126 | 239 | | 2035 | 0.117 |
| 6B | C | 4.20 | N | N | | | 275 | | 2175 | 0.126 | 256 | | 2175 | 0.118 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 12A | A,B | 3.60 | N | N | | | 426 | | 2115 | 0.201 | 737 | | 2115 | 0.348 |
| 12B | A,B | 3.60 | N | N | | | 426 | | 2115 | 0.201 | 738 | | 2115 | 0.349 |
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|--------|---------------------|-------------|---------------------|-----------|
| Notes: | AM Peak | 1A+3A+6A+2B | PM Peak | 12A+6A+2B |
| | Sum of Critical y Y | 0.478 | Sum of Critical y Y | 0.538 |
| | Lost Time L (sec) | 23 | Lost Time L (sec) | 14 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.728 | Practical Y Ypr | 0.795 |
| | Reserve Capacity RC | 52% | Reserve Capacity RC | 48% |

Date : 21/Sep/17 Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. :

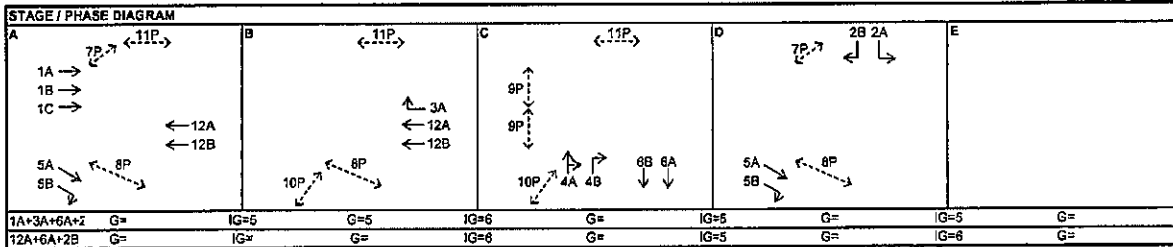
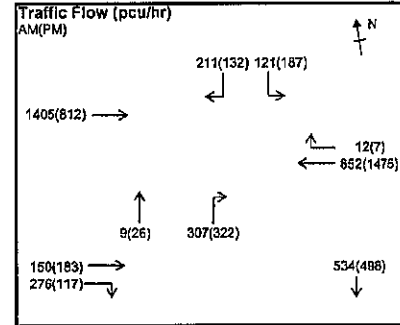
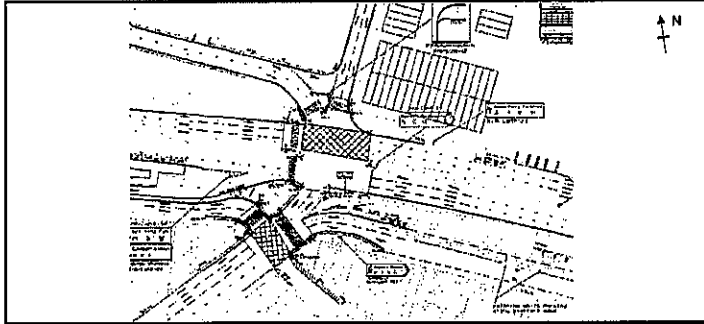
Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

Design Year : 2028

Scheme : 2028 Design Flow

Designed by: WM

Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|----------------------------|----------------------|---------------------|------------------------------------|---------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Connaught Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.40 | Y | N | | | 416 | | 1760 | 0.236 | 240 | | 1760 | 0.136 |
| 1B | A | 3.40 | N | N | | | 494 | | 2095 | 0.238 | 286 | | 2095 | 0.136 |
| 1C | A | 3.40 | N | N | | | 495 | | 2095 | 0.238 | 286 | | 2095 | 0.137 |
| Western Fire Services St SB | | | | | | | | | | | | | | |
| 2A | D | 3.60 | Y | N | 15 | | 121 | 100% | 1795 | 0.067 | 187 | 100% | 1795 | 0.104 |
| 2B | D | 3.60 | Y | N | 20 | | 211 | 100% | 1835 | 0.115 | 132 | 100% | 1835 | 0.072 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | N | N | 30 | | 12 | 100% | 2015 | 0.006 | 7 | 100% | 2015 | 0.004 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 4A | C | 4.50 | Y | N | 25 | | 154 | 94% | 1955 | 0.079 | 171 | 85% | 1965 | 0.087 |
| 4B | C | 4.50 | N | N | 20 | | 162 | 100% | 2050 | 0.079 | 177 | 100% | 2050 | 0.087 |
| Wing Lok St EB | | | | | | | | | | | | | | |
| 5A | A,D | 4.50 | N | N | | | 150 | | 2205 | 0.068 | 183 | | 2205 | 0.083 |
| 5B | A,D | 4.50 | Y | N | 10 | | 276 | 100% | 1795 | 0.154 | 117 | 100% | 1795 | 0.065 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 6A | C | 4.20 | Y | N | | | 258 | | 2035 | 0.127 | 241 | | 2035 | 0.118 |
| 6B | C | 4.20 | N | N | | | 276 | | 2175 | 0.127 | 257 | | 2175 | 0.118 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 12A | A,B | 3.60 | N | N | | | 426 | | 2115 | 0.201 | 737 | | 2115 | 0.348 |
| 12B | A,B | 3.60 | N | N | | | 426 | | 2115 | 0.201 | 738 | | 2115 | 0.349 |
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| Notes: | AM Peak | 1A+3A+6A+2B | PM Peak | 12A+6A+2B |
|---------------------|---------|-------------|---------------------|-----------|
| Sum of Critical y Y | | 0.478 | Sum of Critical y Y | 0.539 |
| Lost Time L (sec) | | 23 | Lost Time L (sec) | 14 |
| Cycle Time c (sec) | | 120 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | | 0.728 | Practical Y Ypr | 0.795 |
| Reserve Capacity RC | | 52% | Reserve Capacity RC | 48% |

Date : 21/Sep/17 Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

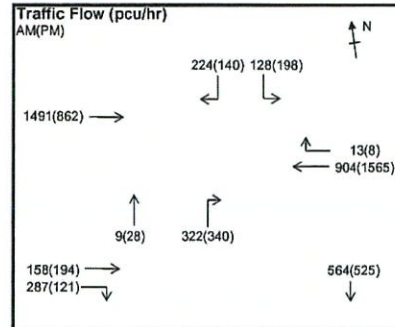
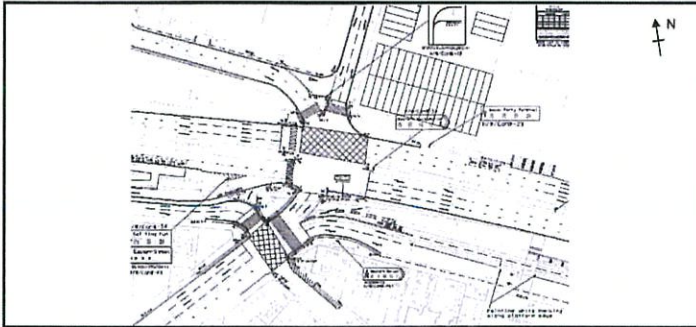
Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

Design Year: 2031

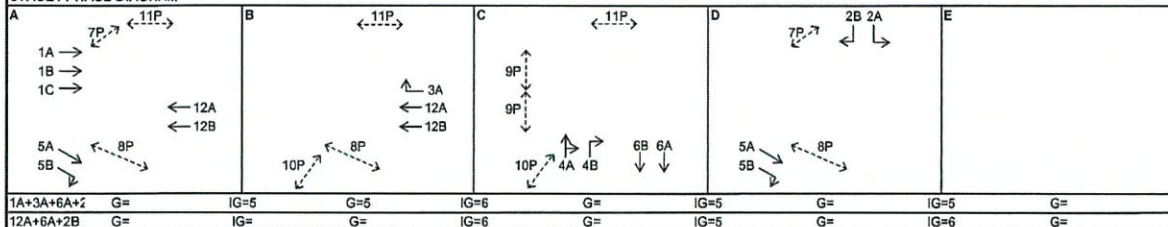
Scheme : 2031 Reference Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Connaught Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.40 | Y | N | | | 441 | | 1760 | 0.251 | 255 | | 1760 | 0.145 |
| 1B | A | 3.40 | N | N | | | 525 | | 2095 | 0.251 | 304 | | 2095 | 0.145 |
| 1C | A | 3.40 | N | N | | | 525 | | 2095 | 0.251 | 303 | | 2095 | 0.145 |
| Western Fire Services St SB | | | | | | | | | | | | | | |
| 2A | D | 3.60 | Y | N | 15 | | 128 | 100% | 1795 | 0.071 | 198 | 100% | 1795 | 0.110 |
| 2B | D | 3.60 | Y | N | 20 | | 224 | 100% | 1835 | 0.122 | 140 | 100% | 1835 | 0.076 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | N | N | 30 | | 13 | 100% | 2015 | 0.007 | 8 | 100% | 2015 | 0.004 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 4A | C | 4.50 | Y | N | 25 | | 162 | 94% | 1955 | 0.083 | 180 | 85% | 1965 | 0.092 |
| 4B | C | 4.50 | N | N | 20 | | 169 | 100% | 2050 | 0.083 | 188 | 100% | 2050 | 0.092 |
| Wing Lok St EB | | | | | | | | | | | | | | |
| 5A | A,D | 4.50 | N | N | | | 158 | | 2205 | 0.072 | 194 | | 2205 | 0.088 |
| 5B | A,D | 4.50 | Y | N | 10 | | 287 | 100% | 1795 | 0.160 | 121 | 100% | 1795 | 0.067 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 6A | C | 4.20 | Y | N | | | 273 | | 2035 | 0.134 | 254 | | 2035 | 0.125 |
| 6B | C | 4.20 | N | N | | | 291 | | 2175 | 0.134 | 271 | | 2175 | 0.125 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 12A | A,B | 3.60 | N | N | | | 452 | | 2115 | 0.214 | 782 | | 2115 | 0.370 |
| 12B | A,B | 3.60 | N | N | | | 452 | | 2115 | 0.214 | 783 | | 2115 | 0.370 |
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| 7P | A,D | | 5GM + | 7FG = | 12 | sec | | | | | | | | |
| 8P | A,B,D | | 5GM + | 14FG = | 19 | sec | | | | | | | | |
| 9P | C | | 6GM + | 9FG = | 15 | sec | | | | | | | | |
| 10P | B,C | | 6GM + | 7FG = | 13 | sec | | | | | | | | |
| 11P | A,B,C | | 8GM + | 8FG = | 16 | sec | | | | | | | | |
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Notes:

| AM Peak | 1A+3A+6A+2B | PM Peak | 12A+6A+2B |
|---------------------|-------------|---------------------|-----------|
| Sum of Critical y Y | 0.507 | Sum of Critical y Y | 0.571 |
| Lost Time L (sec) | 23 | Lost Time L (sec) | 14 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.728 | Practical Y Ypr | 0.795 |
| Reserve Capacity RC | 44% | Reserve Capacity RC | 39% |

Date : 21/Sep/17 Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

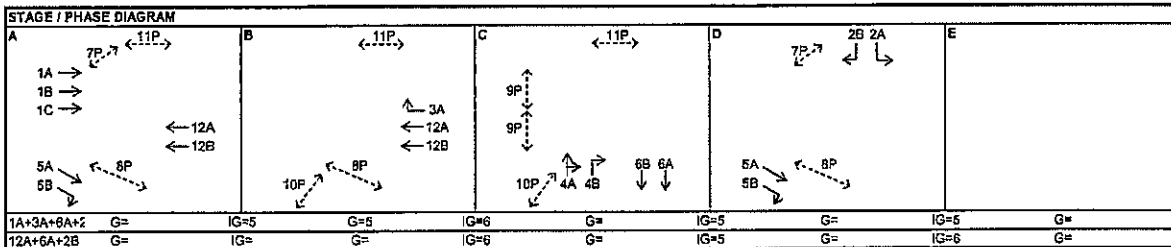
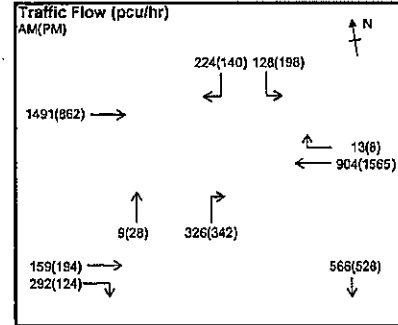
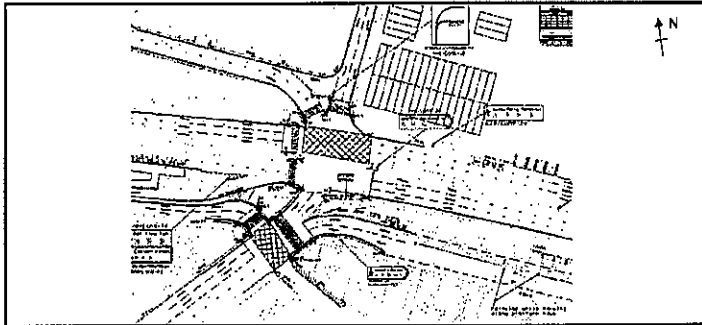
JOB NO. : _____

Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

Design Year: 2031

Scheme : 2031 Design Flow

Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Connaught Rd West EB | | | | | | | 441 | | 1760 | 0.251 | 255 | | 1780 | 0.145 |
| 1A | A | 3.40 | Y | N | | | 525 | | 2095 | 0.251 | 304 | | 2095 | 0.145 |
| 1B | A | 3.40 | N | N | | | 525 | | 2095 | 0.251 | 303 | | 2095 | 0.145 |
| 1C | A | 3.40 | N | N | | | | | | | | | | |
| Western Fire Services St SB | | | | | | | | | | | | | | |
| 2A | D | 3.60 | Y | N | 15 | | 128 | 100% | 1795 | 0.071 | 198 | 100% | 1795 | 0.110 |
| 2B | D | 3.60 | Y | N | 20 | | 224 | 100% | 1835 | 0.122 | 140 | 100% | 1835 | 0.076 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | N | N | 30 | | 13 | 100% | 2015 | 0.007 | 8 | 100% | 2015 | 0.004 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 4A | C | 4.50 | Y | N | 25 | | 164 | 94% | 1955 | 0.084 | 181 | 85% | 1965 | 0.092 |
| 4B | C | 4.50 | N | N | 20 | | 171 | 100% | 2050 | 0.084 | 189 | 100% | 2050 | 0.092 |
| Wing Lok St EB | | | | | | | | | | | | | | |
| 5A | A,D | 4.50 | N | N | | | 159 | | 2205 | 0.072 | 194 | | 2205 | 0.088 |
| 5B | A,D | 4.50 | Y | N | 10 | | 292 | 100% | 1795 | 0.163 | 124 | 100% | 1795 | 0.069 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 6A | C | 4.20 | Y | N | | | 274 | | 2035 | 0.136 | 255 | | 2035 | 0.125 |
| 6B | C | 4.20 | N | N | | | 292 | | 2175 | 0.134 | 273 | | 2175 | 0.125 |
| Connaught Rd West WB | | | | | | | | | | | | | | |
| 12A | A,B | 3.60 | N | N | | | 452 | | 2115 | 0.214 | 782 | | 2115 | 0.370 |
| 12B | A,B | 3.60 | N | N | | | 452 | | 2115 | 0.214 | 783 | | 2115 | 0.370 |
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| Notes: | AM Peak | | PM Peak | |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.507 | Sum of Critical y Y | 0.571 |
| | Lost Time L (sec) | 23 | Lost Time L (sec) | 14 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.728 | Practical Y Ypr | 0.795 |
| | Reserve Capacity RC | 43% | Reserve Capacity RC | 39% |

Date : 21/Sep/17 Junction : Connaught Road West / Des Voeux Road West / Wing Lok Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

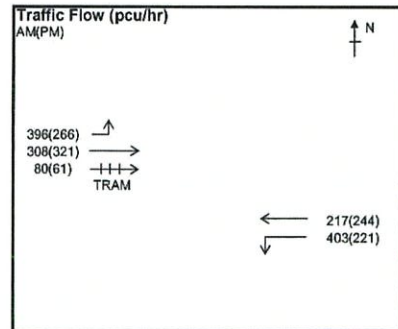
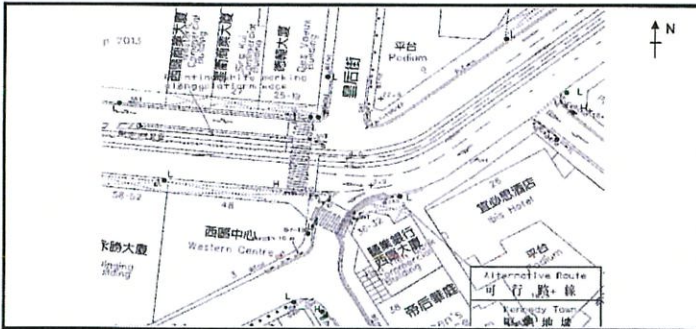
Junction : J2 - Des Voeus Road West / Queen Street

Design Year: 2017

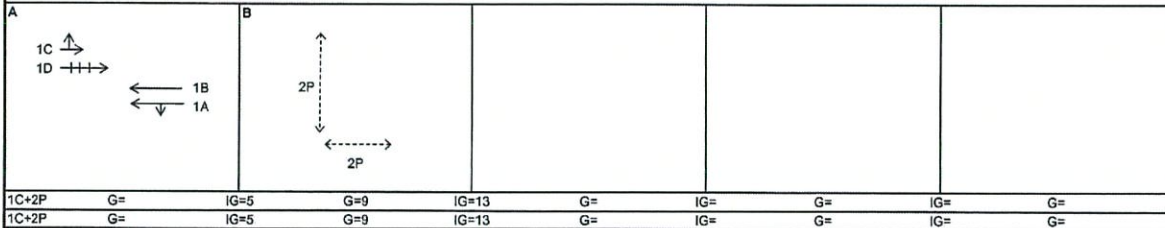
Scheme : 2017 Observed Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|------------------------|-------|----------------------------|----------------------|---------------------|------------------------------------|---------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeus Road West WB | | | | | | | | | | | | | | |
| 1A | A | 4.40 | Y | N | 10 | | 403 | 100% | 1785 | 0.226 | 221 | 100% | 1785 | 0.124 |
| 1B | A | 4.40 | N | N | | | 217 | | 2195 | 0.099 | 244 | | 2195 | 0.111 |
| Des Voeus Road West EB | | | | | | | | | | | | | | |
| 1C | A | 4.20 | Y | N | 10 | | 704 | 56% | 1875 | 0.375 | 587 | 45% | 1905 | 0.308 |
| 1D | A | 2.50 | Y | N | | | 80 | | 1865 | 0.043 | 61 | | 1865 | 0.033 |
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Notes:

| AM Peak | 1C+2P | PM Peak | 1C+2P |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.375 | Sum of Critical y Y | 0.308 |
| Lost Time L (sec) | 26 | Lost Time L (sec) | 26 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 130 |
| Practical Y Ypr | 0.705 | Practical Y Ypr | 0.720 |
| Reserve Capacity RC | 88% | Reserve Capacity RC | 134% |

Date : 21/Sep/17 Junction : J2 - Des Voeus Road West / Queen Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

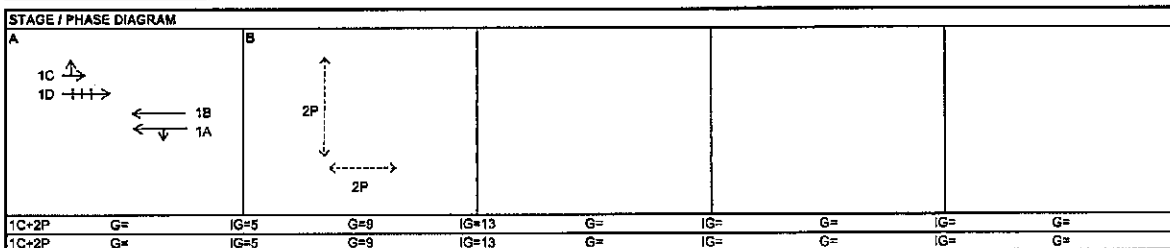
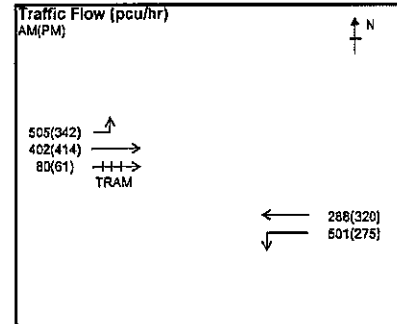
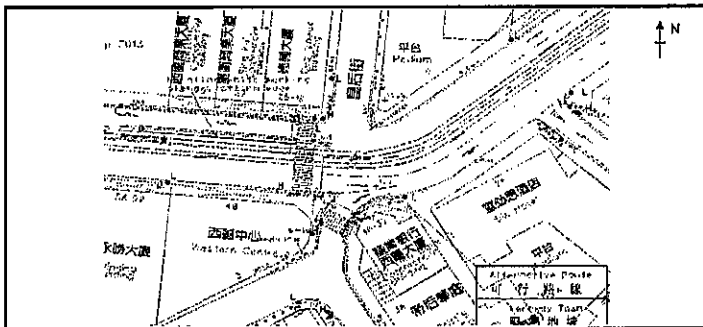
JOB NO. : _____

Junction : J2 - Des Voeus Road West / Queen Street

Design Year: 2028

Scheme : 2028 Reference Flow

Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|------------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeus Road West WB | | | | | | | | | | | | | | |
| 1A | A | 4.40 | Y | N | 10 | | 501 | 100% | 1785 | 0.281 | 275 | 100% | 1785 | 0.154 |
| 1B | A | 4.40 | N | N | | | 288 | | 2195 | 0.131 | 320 | | 2195 | 0.146 |
| Des Voeus Road West EB | | | | | | | | | | | | | | |
| 1C | A | 4.20 | Y | N | 10 | | 907 | 56% | 1880 | 0.482 | 756 | 45% | 1905 | 0.397 |
| 1D | A | 2.50 | Y | N | | | 80 | | 1865 | 0.043 | 61 | | 1865 | 0.033 |
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|--------|---------------------|-------|---------------------|-------|
| Notes: | AM Peak | 1C+2P | PM Peak | 1C+2P |
| | Sum of Critical y Y | 0.482 | Sum of Critical y Y | 0.397 |
| | Lost Time L (sec) | 26 | Lost Time L (sec) | 26 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 130 |
| | Practical Y Ypr | 0.705 | Practical Y Ypr | 0.720 |
| | Reserve Capacity RC | 46% | Reserve Capacity RC | 81% |

Date : 21/Sep/17 Junction : J2 - Des Voeus Road West / Queen Street

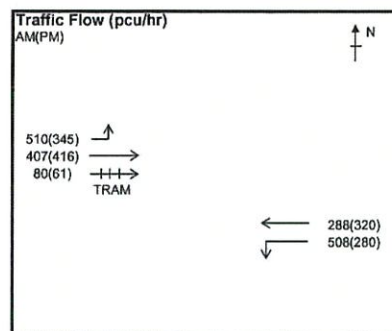
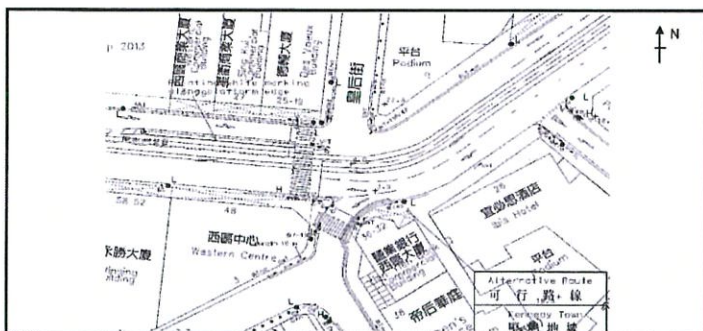
ATKINS CHINA LIMITED

ATKINS

JOB NO. : _____

Design Year: 2028

Designed by: WM Checked by: PK



STAGE 7 PHASE DIAGRAM

| | | | | | | | | | |
|-------|----|------|-----|-------|----|-----|----|-----|----|
| 1C+2P | G= | IG=5 | G=9 | IG=13 | G= | IG= | G= | IG= | G= |
| 1C+2P | G= | IG=5 | G=9 | IG=13 | G= | IG= | G= | IG= | G= |

[illegible]

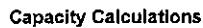
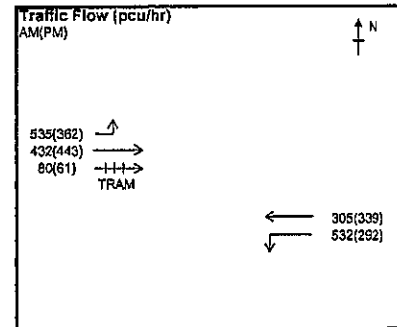
| AM Peak | 1C+2P | PM Peak | 1C+2P |
|----------------------------|-------|----------------------------|-------|
| Sum of Critical γ Y | 0.488 | Sum of Critical γ Y | 0.399 |
| Last Time L (sec) | 26 | Last Time L (sec) | 26 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 130 |
| Practical γ Ypr | 0.705 | Practical γ Ypr | 0.720 |
| Reserve Capacity RC | 45% | Reserve Capacity RC | 80% |

Date : 21/Sep/17 Junction : J2 - Des Voeus Road West / Queen Street

ATKINS CHINA LIMITED

ATKINS

Scheme : 2031 Reference Flow Designed by: WM Checked by: PK



| Notes: | AM Peak | 1C+2P | PM Peak | 1C+2P |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.514 | Sum of Critical y Y | 0.423 |
| | Lost Time L (sec) | 26 | Lost Time L (sec) | 28 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 130 |
| | Practical Y Ypr | 0.705 | Practical Y Ypr | 0.720 |
| | Reserve Capacity RC | 37% | Reserve Capacity RC | 70% |

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

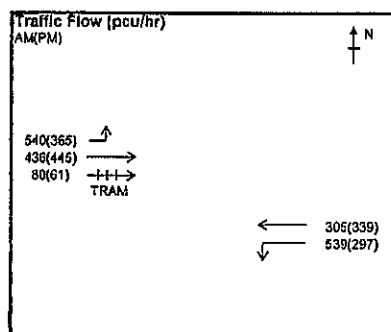
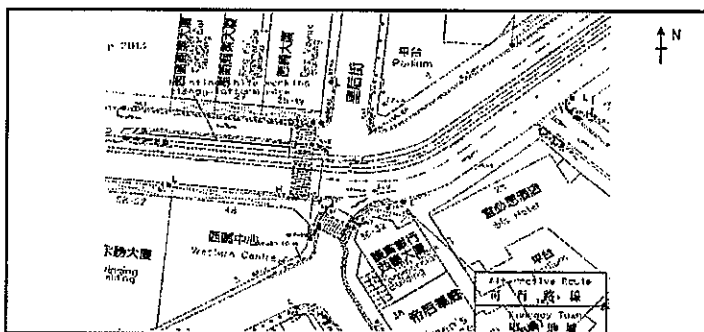
JOB NO. : _____

Junction : J2 - Des Voeus Road West / Queen Street

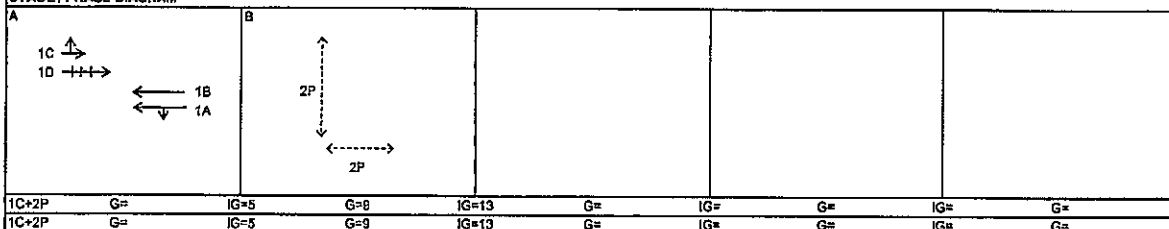
Design Year: 2031

Scheme : 2031 Design Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|------------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|---------------------------|-----------------------------|-------------------------------|------------------|---------------------------|-----------------------------|-------------------------------|------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeus Road West WB | | | | | | | | | | | | | | |
| 1A | A | 4.40 | Y | N | 10 | | 539 | 100% | 1785 | 0.302 | 297 | 100% | 1785 | 0.168 |
| 1B | A | 4.40 | N | N | | | 304 | | 2195 | 0.139 | 339 | | 2195 | 0.154 |
| Des Voeus Road West EB | | | | | | | | | | | | | | |
| 1C | A | 4.20 | Y | N | 10 | | 976 | 55% | 1880 | 0.519 | 810 | 45% | 1905 | 0.425 |
| 1D | A | 2.50 | Y | N | | | 80 | | 1885 | 0.043 | 61 | | 1885 | 0.033 |
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Notes:

| AM Peak | 1C+2P | PM Peak | 1C+2P |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.519 | Sum of Critical y Y | 0.425 |
| Lost Time L (sec) | 26 | Lost Time L (sec) | 26 |
| Cycle time c (sec) | 120 | Cycle time c (sec) | 130 |
| Practical Y Ypr | 0.705 | Practical Y Ypr | 0.720 |
| Reserve Capacity RC | 38% | Reserve Capacity RC | 69% |

Date : 21/Sep/17 Junction : J2 - Des Voeus Road West / Queen Street

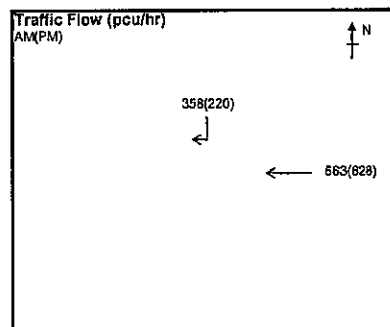
ATKINS CHINA LIMITED

ATKINS

JOB NO.: _____

Design Year: 2017

Designed by: WM Checked by: PK



| STAGE / PHASE DIAGRAM | | | | | | | | | |
|-----------------------|----|-----------------|----|------|----|-----|----|-----|----|
| <p>A</p> | | <p>B</p> | | | | | | | |
| 1A+2A | G= | 1G=11 | G= | 1G=6 | G= | 1G= | G= | 1G= | G= |
| 1B+2B | G= | 1G=11 | G= | 1G=6 | G= | 1G= | G= | 1G= | G= |

[illegible]

| AM Peak | 1A*2A | PM Peak | 1B*2B |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.212 | Sum of Critical y Y | 0.185 |
| Last Time L (sec) | 15 | Last Time L (sec) | 15 |
| Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| Practical Y Ypr | 0.731 | Practical Y Ypr | 0.731 |
| Reserve Capacity RC | 245% | Reserve Capacity RC | 256% |

Date : 21/Sep/17 Junction : J3 - Queen's Road West / Queen Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

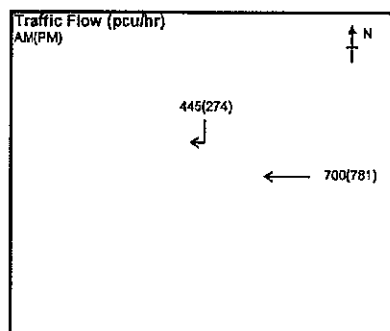
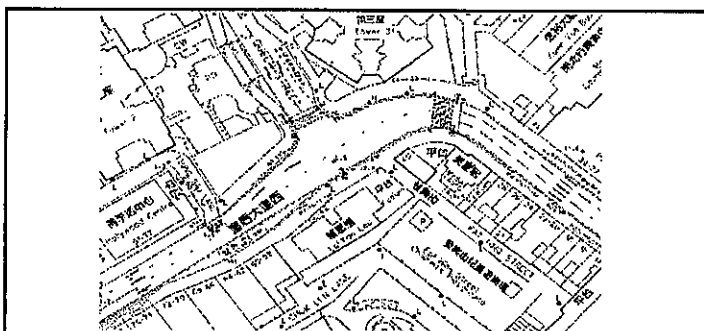
Junction : J3 - Queen's Road West / Queen Street

Design Year: 2028

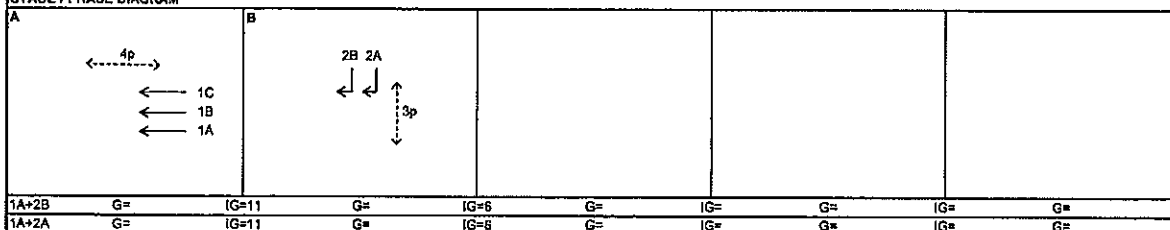
Scheme : 2028 Reference Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.70 | Y | N | | | 228 | | 1695 | 0.135 | 254 | | 1695 | 0.150 |
| 1B | A | 2.70 | N | N | | | 244 | | 1825 | 0.134 | 273 | | 1825 | 0.150 |
| 1C | A | 2.70 | Y | N | | | 228 | | 1695 | 0.135 | 254 | | 1695 | 0.150 |
| Queen Street SB | | | | | | | | | | | | | | |
| 2A | B | 3.20 | Y | N | 15 | | 227 | 100% | 1760 | 0.129 | 140 | 100% | 1760 | 0.080 |
| 2B | B | 3.20 | Y | N | 10 | | 218 | 100% | 1685 | 0.129 | 134 | 100% | 1685 | 0.079 |
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Notes:

| Notes: | AM Peak | | PM Peak | |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.264 | Sum of Critical y Y | 0.229 |
| | Lost Time L (sec) | 15 | Lost Time L (sec) | 15 |
| | Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| | Practical Y Ypr | 0.731 | Practical Y Ypr | 0.731 |
| | Reserve Capacity RC | 177% | Reserve Capacity RC | 219% |

Date : 21/Sep/17 Junction : J3 - Queen's Road West / Queen Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

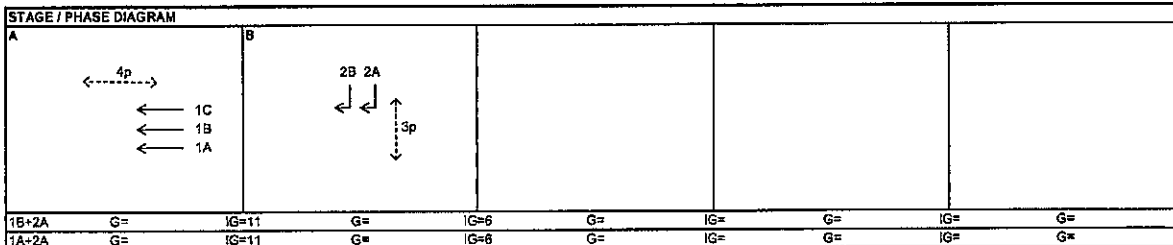
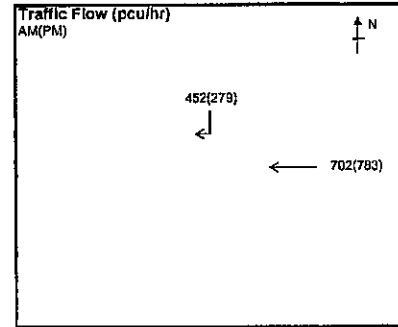
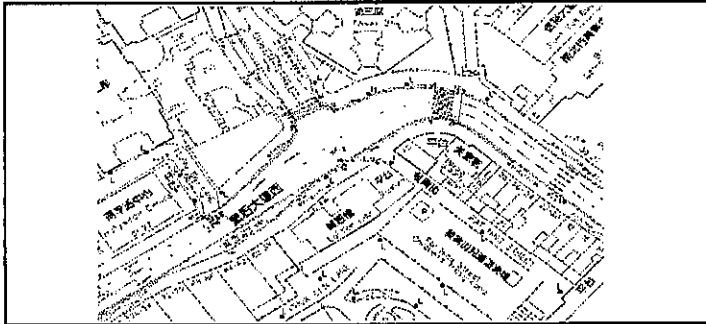
Junction : J3 - Queen's Road West / Queen Street

Design Year: 2028

Scheme : 2028 Design Flow

Designed by: WM

Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.70 | Y | N | | | 228 | | 1695 | 0.135 | 255 | | 1695 | 0.150 |
| 1B | A | 2.70 | N | N | | | 248 | | 1825 | 0.135 | 273 | | 1825 | 0.150 |
| 1C | A | 2.70 | Y | N | | | 228 | | 1695 | 0.135 | 255 | | 1695 | 0.150 |
| Queen Street SB | | | | | | | | | | | | | | |
| 2A | B | 3.20 | Y | N | 15 | | 231 | 100% | 1760 | 0.131 | 143 | 100% | 1760 | 0.081 |
| 2B | B | 3.20 | Y | N | 10 | | 221 | 100% | 1685 | 0.131 | 136 | 100% | 1685 | 0.081 |
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|--------|---------------------|--------------|---------------------|--------------|
| Notes: | AM Peak | 1B+2A | PM Peak | 1A+2A |
| | Sum of Critical y Y | 0.266 | Sum of Critical y Y | 0.232 |
| | Lost Time L (sec) | 15 | Lost Time L (sec) | 15 |
| | Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| | Practical Y Ypr | 0.731 | Practical Y Ypr | 0.731 |
| | Reserve Capacity RC | 175% | Reserve Capacity RC | 216% |

Date : 21/Sep/17 Junction : J3 - Queen's Road West / Queen Street

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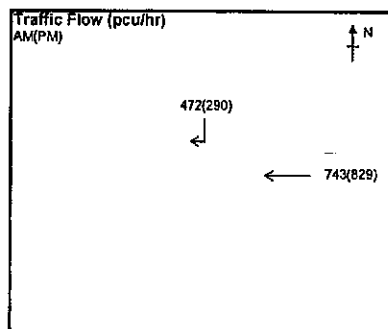
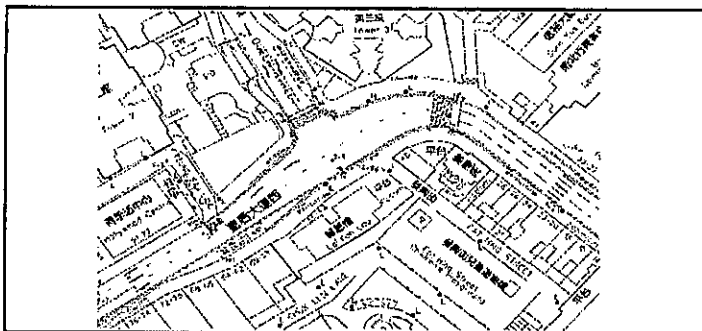
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Junction : J3 - Queen's Road West / Queen Street

Design Year: 2031

Scheme: 2031 Reference Flow

Designed by: WM Checked by: PK



STAGE 7 PHASE DIAGRAM

| A | | B | | | | | | | |
|-------|----|-------|----|------|----|-----|----|-----|----|
| | | | | | | | | | |
| 1B+2B | G= | 1G=11 | G= | 1G=6 | G= | 1G= | G= | 1G= | G= |
| 1B+2B | G= | 1G=11 | G= | 1G=6 | G= | 1G= | G= | 1G= | G= |

[illegible]

| AM Peak | 1B+2B | PM Peak | 1B+2B |
|-----------------------|-------|-----------------------|-------|
| Sum of Critical y Y | 0.280 | Sum of Critical y Y | 0.244 |
| Last Time L (sec) | 15 | Last Time L (sec) | 15 |
| Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| Practical Y Ypr | 0.731 | Practical Y Ypr | 0.731 |
| Reserve Capacity RC | 161% | Reserve Capacity RC | 200% |

Date : 21/Sep/17 Junction : J3 - Queen's Road West / Queen Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

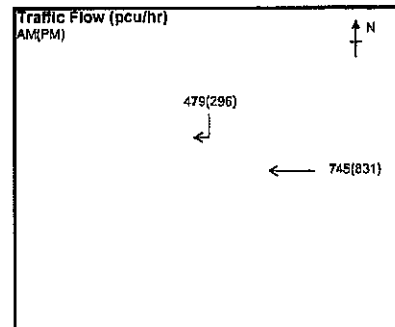
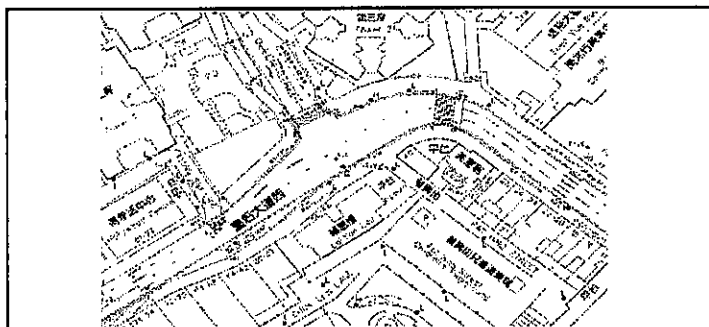
Junction : J3 - Queen's Road West / Queen Street

Design Year: 2031

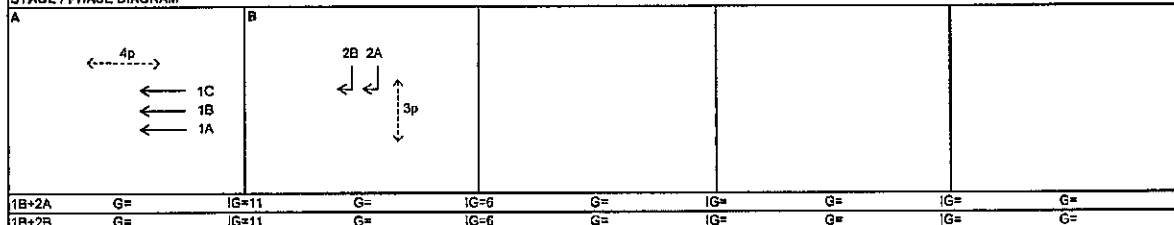
Scheme : 2031 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.70 | Y | N | | | 242 | | 1695 | 0.143 | 270 | | 1695 | 0.159 |
| 1B | A | 2.70 | N | N | | | 261 | | 1825 | 0.143 | 291 | | 1825 | 0.159 |
| 1C | A | 2.70 | Y | N | | | 242 | | 1695 | 0.143 | 270 | | 1695 | 0.159 |
| Queen Street SB | | | | | | | | | | | | | | |
| 2A | B | 3.20 | Y | N | 15 | | 245 | 100% | 1780 | 0.139 | 151 | 100% | 1760 | 0.086 |
| 2B | B | 3.20 | Y | N | 10 | | 234 | 100% | 1686 | 0.139 | 145 | 100% | 1685 | 0.086 |
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|--------|---------------------|-------|---------------------|-------|
| Notes: | AM Peak | 1B+2A | PM Peak | 1B+2B |
| | Sum of Critical y Y | 0.282 | Sum of Critical y Y | 0.245 |
| | Lost Time L (sec) | 15 | Lost Time L (sec) | 15 |
| | Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| | Practical Y Ypr | 0.731 | Practical Y Ypr | 0.731 |
| | Reserve Capacity RC | 159% | Reserve Capacity RC | 198% |

Date : 21/Sep/17 Junction : J3 - Queen's Road West / Queen Street

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TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

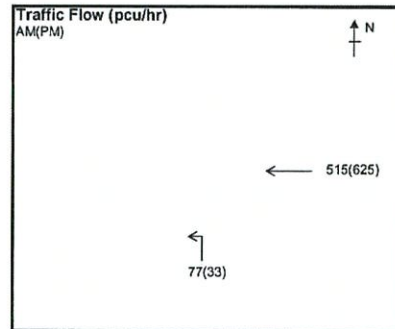
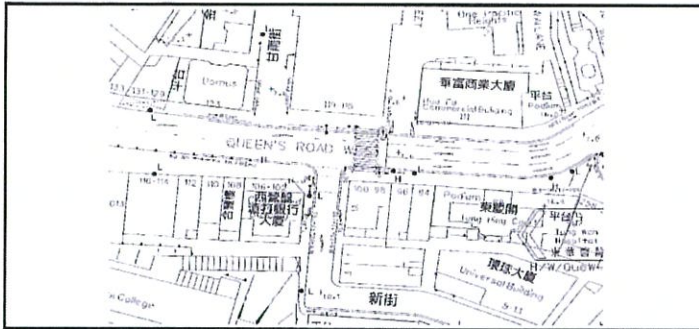
JOB NO. : _____

Junction : J4 - Queen's Road West / New Street

Design Year: 2017

Scheme : 2017 Observed Flow

Designed by: WM Checked by: PK



| STAGE / PHASE DIAGRAM | | | | | | | | | |
|-----------------------|----|------|------|------|----|-----|----|-----|----|
| A | | B | | | | | | | |
| | | | | | | | | | |
| 1A+2A | G= | IG=8 | G= | IG=6 | G= | IG= | G= | IG= | G= |
| 1B+3p | G= | IG=6 | G=15 | IG=6 | G= | IG= | G= | IG= | G= |

Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|---------------------------|-----------------------------|-------------------------------|------------------|---------------------------|-----------------------------|-------------------------------|------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.80 | Y | N | | | 162 | | 1705 | 0.095 | 196 | | 1705 | 0.115 |
| 1B | A | 2.80 | N | N | | | 173 | | 1830 | 0.095 | 211 | | 1830 | 0.115 |
| 1C | A | 2.80 | Y | N | | | 180 | | 1895 | 0.095 | 218 | | 1895 | 0.115 |
| New Street NB | | | | | | | | | | | | | | |
| 2A | B | 5.50 | Y | N | 10 | | 77 | 100% | 1885 | 0.041 | 33 | 100% | 1885 | 0.018 |
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Notes:

| AM Peak | 1A+2A | PM Peak | 1B+3p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.136 | Sum of Critical y Y | 0.115 |
| Lost Time L (sec) | 12 | Lost Time L (sec) | 26 |
| Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| Practical Y Ypr | 0.765 | Practical Y Ypr | 0.608 |
| Reserve Capacity RC | 463% | Reserve Capacity RC | 427% |

Date : 21/Sep/17 Junction : J4 - Queen's Road West / New Street

ATKINS CHINA LIMITED

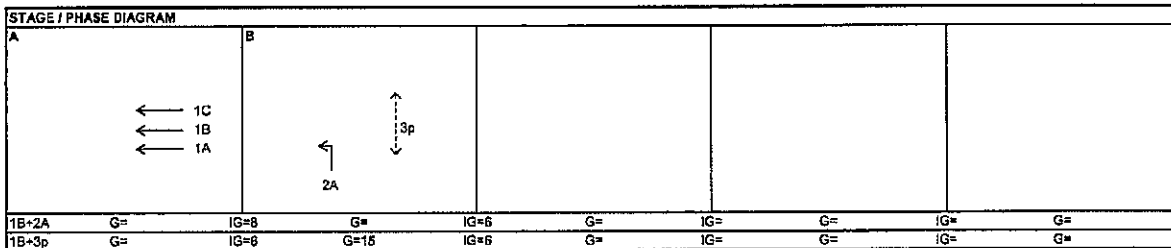
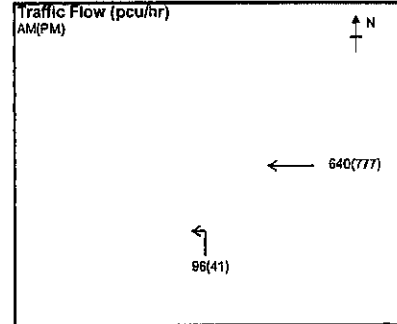
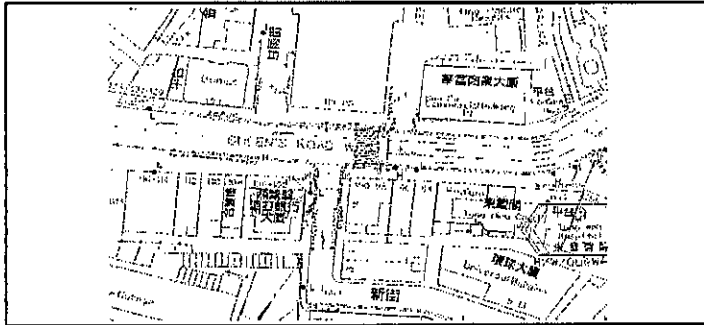
TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

Junction : J4 - Queen's Road West / New Street Design Year: 2028

Scheme : 2028 Reference Flow Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.80 | Y | N | | | 201 | | 1705 | 0.118 | 244 | | 1705 | 0.143 |
| 1B | A | 2.80 | N | N | | | 216 | | 1830 | 0.118 | 262 | | 1830 | 0.143 |
| 1C | A | 2.80 | Y | N | | | 223 | | 1895 | 0.118 | 271 | | 1895 | 0.143 |
| New Street NB | | | | | | | | | | | | | | |
| 2A | B | 5.50 | Y | N | 10 | | 96 | 100% | 1885 | 0.051 | 41 | 100% | 1885 | 0.022 |
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| Notes: | AM Peak | | PM Peak | |
|--------|---------|-------|---------------------|---------------------|
| | 1B+2A | 1B+3p | Sum of Critical y Y | Sum of Critical y Y |
| | 0.169 | 0.143 | Lost Time L (sec) | Lost Time L (sec) |
| | 12 | 26 | Cycle Time c (sec) | Cycle Time c (sec) |
| | 80 | 80 | Practical Y Ypr | Practical Y Ypr |
| | 0.765 | 0.608 | Reserve Capacity RC | Reserve Capacity RC |
| | 353% | 324% | | |

Date : 21/Sep/17 Junction : J4 - Queen's Road West / New Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

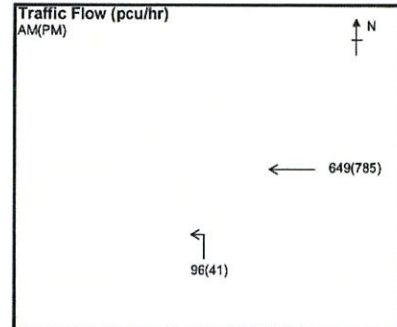
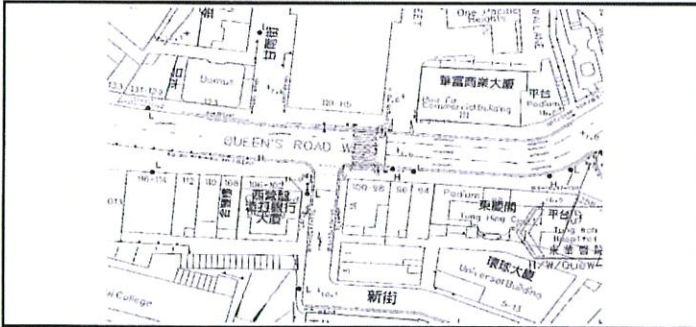
JOB NO. : _____

Junction : J4 - Queen's Road West / New Street

Design Year: 2028

Scheme : 2028 Design Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM

| A | | B | | | | | | | |
|-------|----|------|------|------|----|-----|----|-----|----|
| | | | | | | | | | |
| 1B+2A | G= | IG=8 | G= | IG=6 | G= | IG= | G= | IG= | G= |
| 1B+3p | G= | IG=6 | G=15 | IG=6 | G= | IG= | G= | IG= | G= |

Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|----------------------|---------------------|------------------------------------|---------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.80 | Y | N | | | 204 | | 1705 | 0.120 | 246 | | 1705 | 0.144 |
| 1B | A | 2.80 | N | N | | | 219 | | 1830 | 0.120 | 265 | | 1830 | 0.145 |
| 1C | A | 2.80 | Y | N | | | 226 | | 1895 | 0.119 | 274 | | 1895 | 0.145 |
| New Street NB | | | | | | | | | | | | | | |
| 2A | B | 5.50 | Y | N | 10 | | 96 | 100% | 1885 | 0.051 | 41 | 100% | 1885 | 0.022 |
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Notes:

| AM Peak | 1B+2A | PM Peak | 1B+3p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.171 | Sum of Critical y Y | 0.145 |
| Lost Time L (sec) | 12 | Lost Time L (sec) | 26 |
| Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| Practical Y Ypr | 0.765 | Practical Y Ypr | 0.608 |
| Reserve Capacity RC | 349% | Reserve Capacity RC | 319% |

Date : 21/Sep/17 Junction : J4 - Queen's Road West / New Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

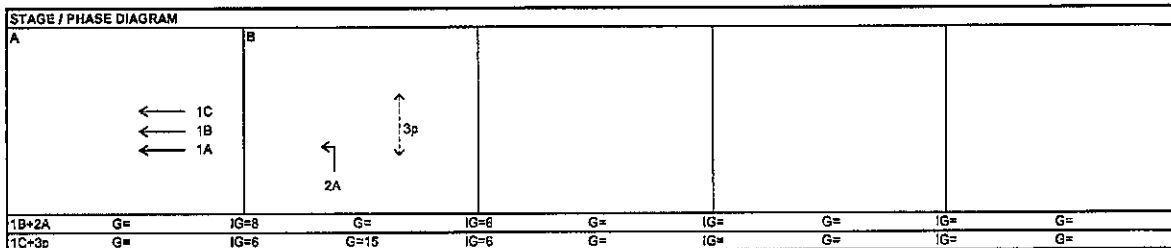
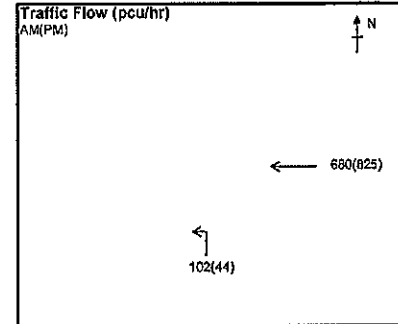
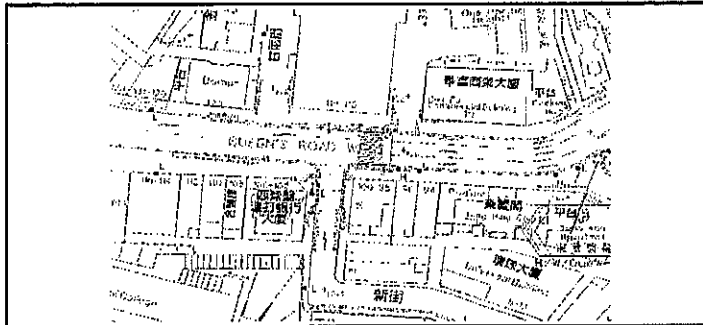
JOB NO. : _____

Junction : J4 - Queen's Road West / New Street

Design Year: 2031

Scheme : 2031 Reference Flow

Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>F</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 2.80 | Y | N | | | 213 | | 1705 | 0.125 | 259 | | 1705 | 0.152 |
| 1B | A | 2.80 | N | N | | | 230 | | 1830 | 0.125 | 278 | | 1830 | 0.152 |
| 1C | A | 2.80 | Y | N | | | 237 | | 1895 | 0.125 | 288 | | 1895 | 0.152 |
| New Street NB | | | | | | | | | | | | | | |
| 2A | B | 5.50 | Y | N | 10 | | 102 | 100% | 1885 | 0.054 | 44 | 100% | 1885 | 0.023 |
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| Notes: | AM Peak | | PM Peak | |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.179 | Sum of Critical y Y | 0.152 |
| | Lost Time L (sec) | 12 | Lost Time L (sec) | 26 |
| | Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| | Practical Y Ypr | 0.765 | Practical Y Ypr | 0.608 |
| | Reserve Capacity RC | 327% | Reserve Capacity RC | 300% |

Date : 21/Sep/17 Junction : J4 - Queen's Road West / New Street

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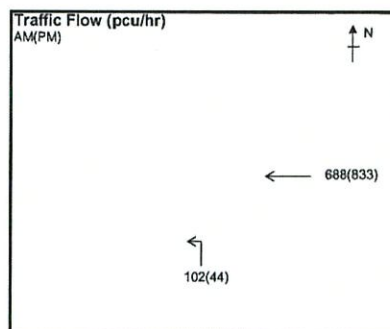
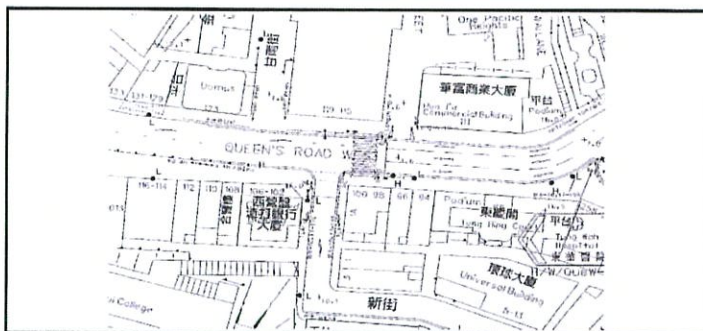
ATKINS

Junction : J4 - Queen's Road West / New Street

Design Year: 2031

Scheme : 2031 Design Flow

Designed by: WM Checked by: PK



STAGE 7 PHASE DIAGRAM

| | | | | | | | | | |
|-------|----|------|------|------|----|-----|----|-----|----|
| 1B+2A | G= | IG=8 | G= | IG=6 | G= | IG= | G= | IG= | G= |
| 1B+3p | G= | IG=6 | G=15 | IG=6 | G= | IG= | G= | IG= | G= |

[illegible]

| | | | | |
|--------|------------------------|-------|------------------------|-------|
| Notes: | AM Peak | 1B+2A | PM Peak | 1B+3p |
| | Sum of Critical y Y | 0.181 | Sum of Critical y Y | 0.154 |
| | Lost Time L (sec) | 12 | Lost Time L (sec) | 26 |
| | Cycle Time c (sec) | 80 | Cycle Time c (sec) | 80 |
| | Practical Y Y_{pr} | 0.765 | Practical Y Y_{pr} | 0.608 |
| | Reserve Capacity RC | 323% | Reserve Capacity RC | 295% |

Date : 21/Sep/17 Junction : J4 - Queen's Road West / New Street

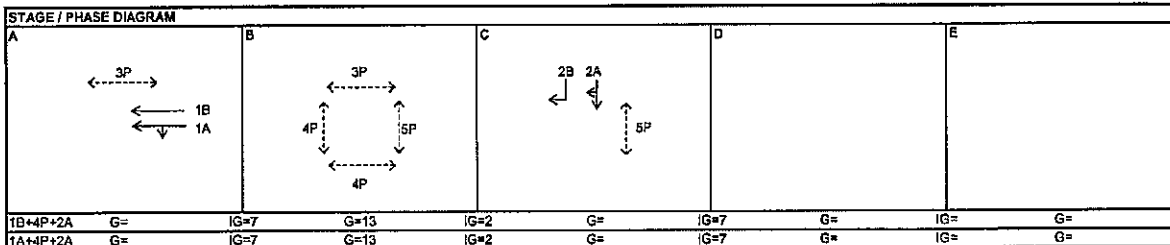
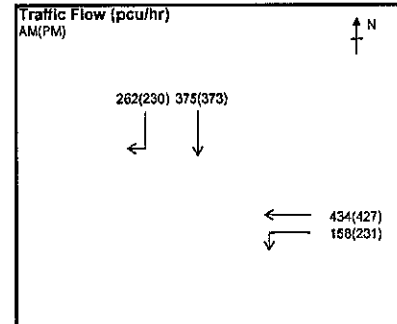
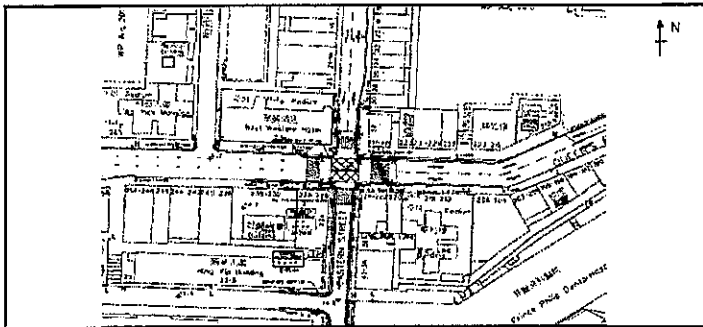
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ATKINS

JOB NO. : _____

Junction: J5 - Queen's Road West / Eastern Street Design Year: 2017

Scheme : 2017 Observed Flow Designed by: WM Checked by: PK



Capacity Calculations

[illegible]

| Notes: | AM Peak | 1B+4P+2A | PM Peak | 1A+4P+2A |
|--------|---------------------|----------|---------------------|----------|
| | Sum of Critical y Y | 0.350 | Sum of Critical y Y | 0.368 |
| | Lost Time L (sec) | 27 | Lost Time L (sec) | 27 |
| | Cycle Time c (sec) | 110 | Cycle Time c (sec) | 110 |
| | Practical Y Ypr | 0.679 | Practical Y Ypr | 0.679 |
| | Reserve Capacity RC | 34% | Reserve Capacity RC | 84% |

Date: 21/Sep/17 Junction: J5 - Queen's Road West / Eastern Street

ATKINS CHINA LIMITED

ATKINS

JOB NO. :_____

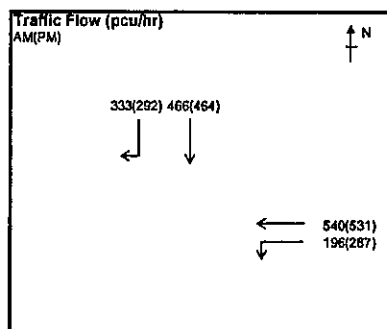
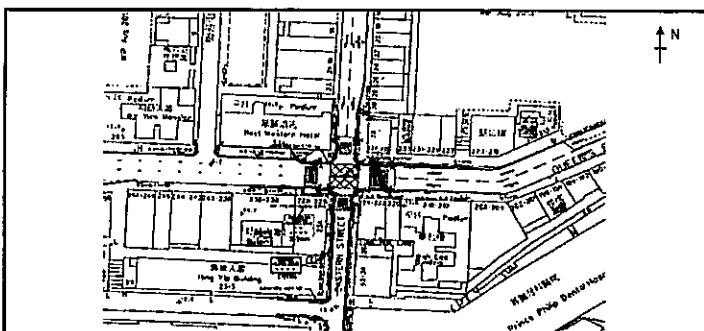
Junction : J5 - Queen's Road West / Eastern Street

Design Year: 2028

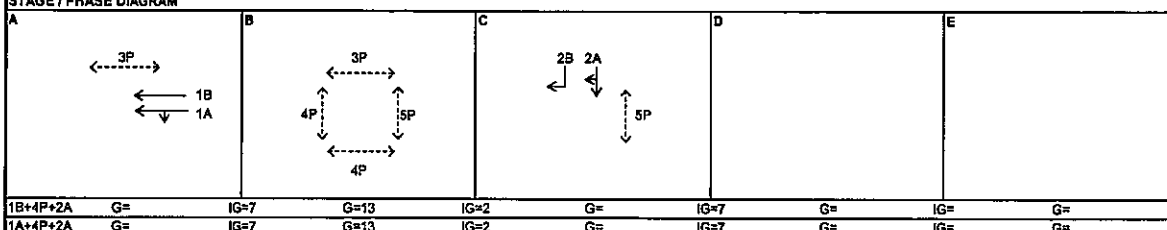
Scheme : 2028 Reference Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| AM Peak | 1B+4P+2A | PM Peak | 1A+4P+2A |
|----------------------------|----------|----------------------------|----------|
| Sum of Critical γ Y | 0.435 | Sum of Critical γ Y | 0.458 |
| Last Time L (sec) | 27 | Last Time L (sec) | 27 |
| Cycle Time c (sec) | 110 | Cycle Time c (sec) | 110 |
| Practical Y Ypr | 0.679 | Practical Y Ypr | 0.679 |
| Reserve Capacity RC | 56% | Reserve Capacity RC | 48% |

Date : 21/Sep/17 Junction : J5 - Queen's Road West / Eastern Street

ATKINS CHINA LIMITED

ATKINS

JOB NO. : _____

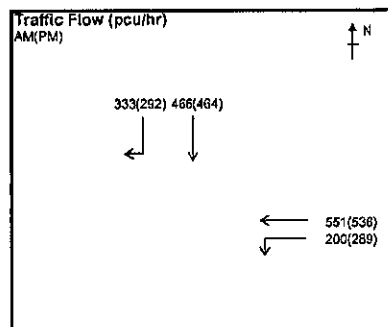
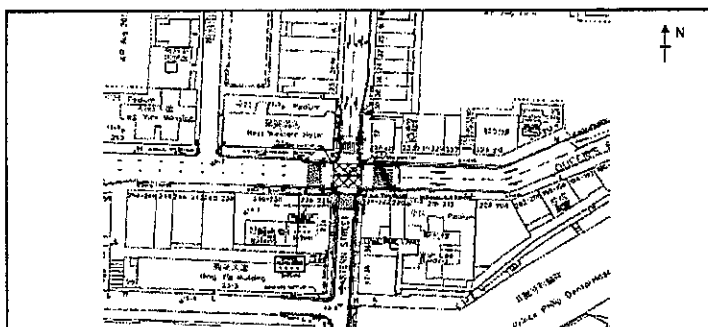
Junction : J5 - Queen's Road West / Eastern Street

Design Year: 2028

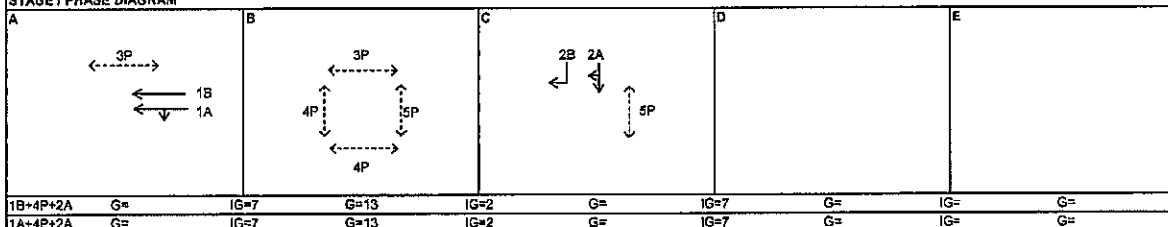
Scheme : 2028 Design Flow

Designed by: WM

Checked by: _____ PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| AM Peak | 1B+4P+2A | PM Peak | 1A+4P+2A |
|------------------------|----------|------------------------|----------|
| Sum of Critical y Y | 0.438 | Sum of Critical y Y | 0.460 |
| Lost Time L (sec) | 27 | Lost Time L (sec) | 27 |
| Cycle Time c (sec) | 110 | Cycle Time c (sec) | 110 |
| Practical Y Y_{pr} | 0.678 | Practical Y Y_{pr} | 0.679 |
| Reserve Capacity RC | 55% | Reserve Capacity RC | 48% |

Date: 21/Sep/17 Junction: J5 - Queen's Road West / Eastern Street

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ATKINS

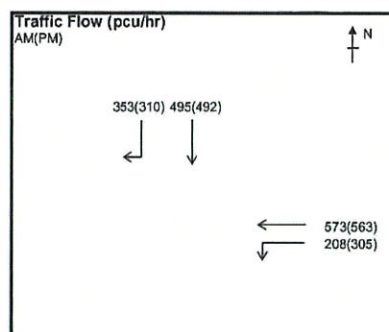
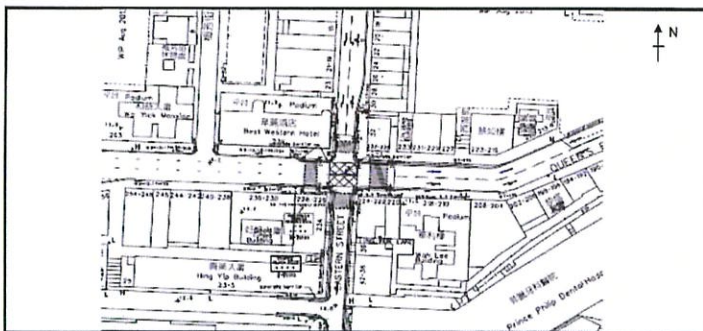
JOB NO. :

Junction : J5 - Queen's Road West / Eastern Street

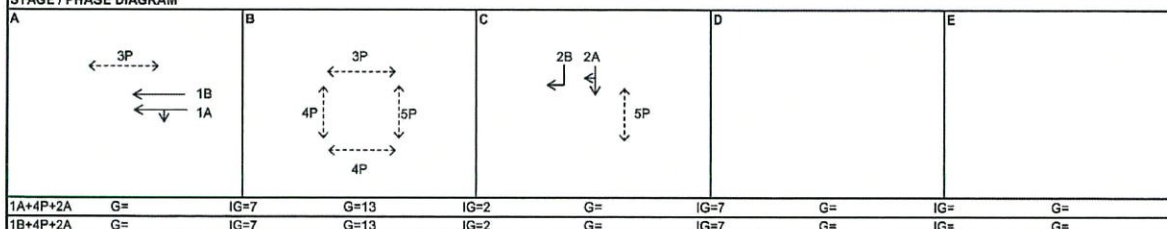
Design Year: 2031

Scheme : 2031 Reference Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| AM Peak | 1A+4P+2A | PM Peak | 1B+4P+2A |
|----------------------------|----------|----------------------------|----------|
| Sum of Critical γ Y | 0.462 | Sum of Critical γ Y | 0.485 |
| Last Time L (sec) | 27 | Last Time L (sec) | 27 |
| Cycle Time c (sec) | 110 | Cycle Time c (sec) | 110 |
| Practical γ Ypr | 0.679 | Practical γ Ypr | 0.679 |
| Reserve Capacity RC | 47% | Reserve Capacity RC | 40% |

Date : 21/Sep/17 Junction : J5 - Queen's Road West / Eastern Street

ATKINS CHINA LIMITED

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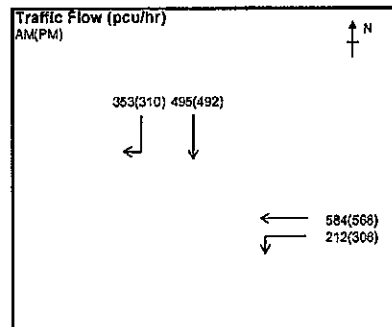
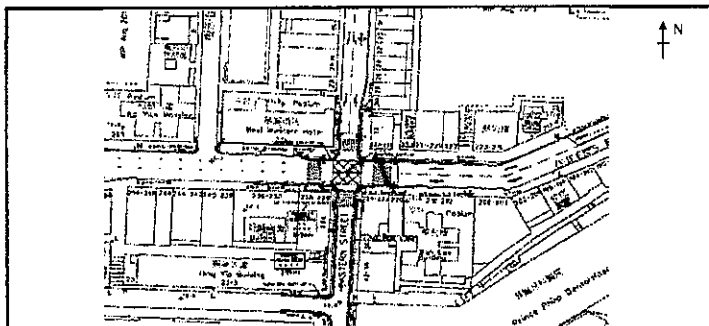
JOB NO.: _____

Junction : J5 - Queen's Road West / Eastern Street

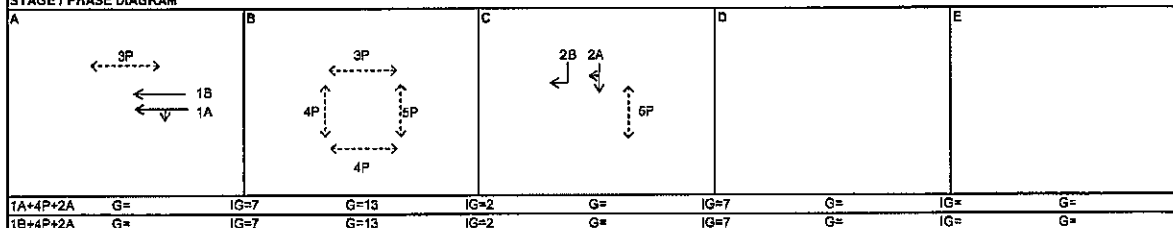
Design Year: 2031

Scheme: 2031 Design Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]**Notes:**

| AM Peak | 1A+4P+2A | PM Peak | 1B+4P+2A |
|---------------------|----------|---------------------|----------|
| Sum of Critical y Y | 0.466 | Sum of Critical y Y | 0.487 |
| Last Time L (sec) | 27 | Last Time L (sec) | 27 |
| Cycle Time c (sec) | 110 | Cycle Time c (sec) | 110 |
| Practical Y Ypr | 0.679 | Practical Y Ypr | 0.679 |
| Reserve Capacity RC | 46% | Reserve Capacity RC | 40% |

Date : 21/Sep/17 Junction : J5 - Queen's Road West / Eastern Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

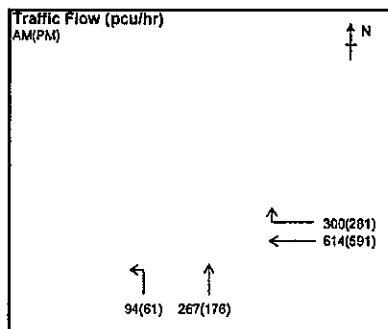
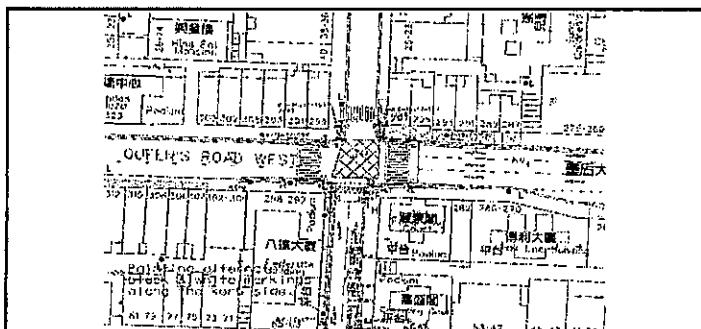
Junction : J6 - Queen's Road West / Centre Street

Design Year: 2031

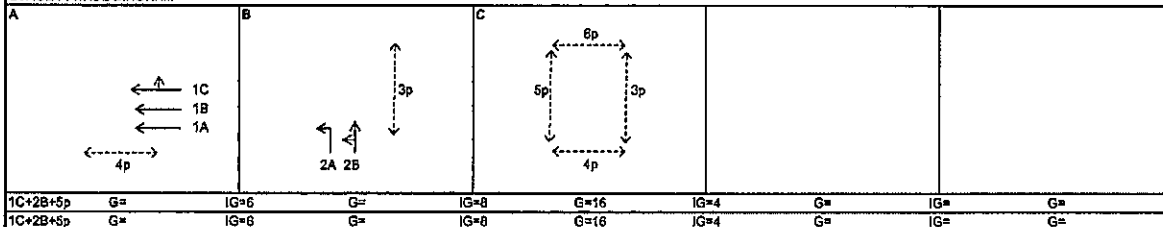
Scheme : 2031 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
|----------------------|-------|----------------------------|----------------------|---------------------|------------------------------------|---------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|
| Queen's Road West WB | | | | | | | | | | | | | | |
| 1A | A | 3.20 | Y | N | | | 296 | | 1935 | 0.153 | 285 | | 1935 | 0.147 |
| 1B | A | 3.20 | N | N | | | 318 | | 2075 | 0.153 | 306 | | 2075 | 0.147 |
| 1C | A | 3.20 | Y | N | 10 | | 300 | 100% | 1680 | 0.179 | 281 | 100% | 1685 | 0.167 |
| Centre Street NB | | | | | | | | | | | | | | |
| 2A | B | 3.30 | Y | N | 10 | | 93 | 100% | 1690 | 0.055 | 60 | 100% | 1690 | 0.038 |
| 2B | B | 3.30 | Y | N | 15 | | 267 | 0% | 1945 | 0.137 | 176 | 0% | 1945 | 0.090 |
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Notes:

| AM Peak | 1C+2B+5p | PM Peak | 1C+2B+5p |
|---------------------|----------|---------------------|----------|
| Sum of Critical y Y | 0.316 | Sum of Critical y Y | 0.257 |
| Lost Time L (sec) | 32 | Lost Time L (sec) | 32 |
| Cycle Time c (sec) | 110 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.638 | Practical Y Ypr | 0.660 |
| Reserve Capacity RC | 102% | Reserve Capacity RC | 157% |

Date : 21/Sep/17 Junction : J6 - Queen's Road West / Centre Street

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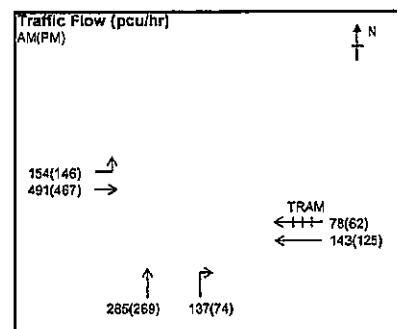
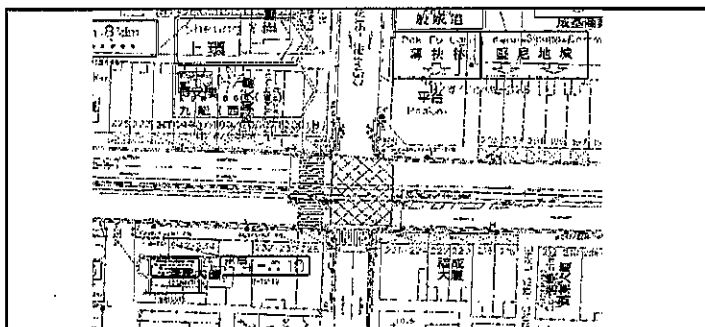
JOB NO. : _____

Junction : J7 - Des Voeus Road West / Centre Street

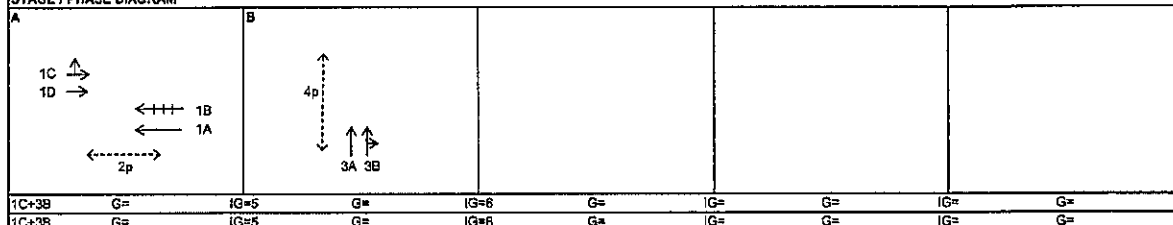
Design Year: 2017

Scheme : 2017 Observed Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| Notes: | AM Peak | 1C+3B | PM Peak | 1C+3B |
|--------|-------------------------|-------|-------------------------|-------|
| | Sum of Critical y Y | 0.273 | Sum of Critical y Y | 0.242 |
| | Lost Time L (sec) | 9 | Lost Time L (sec) | 9 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| | Practical Y Y_{pr} | 0.833 | Practical Y Y_{pr} | 0.833 |
| | Reserve Capacity RC | 205% | Reserve Capacity RC | 244% |

Date: 21/Sep/17 Junction: J7 - Des Voeus Road West / Centre Street

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TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

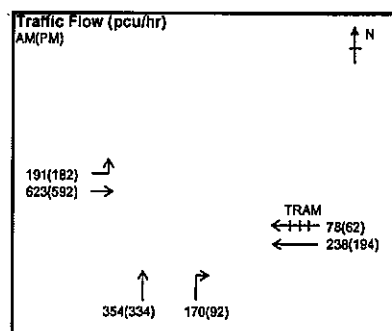
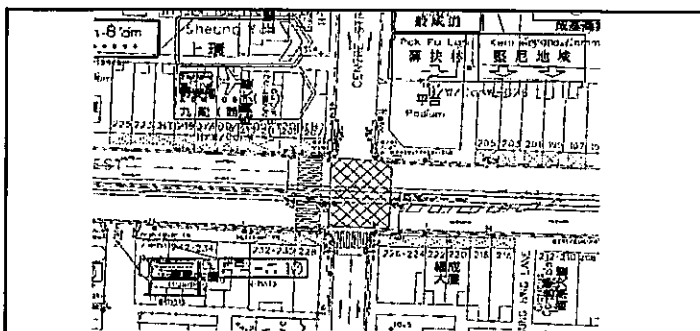
JOB NO. : _____

Junction : J7 - Des Voeux Road West / Centre Street

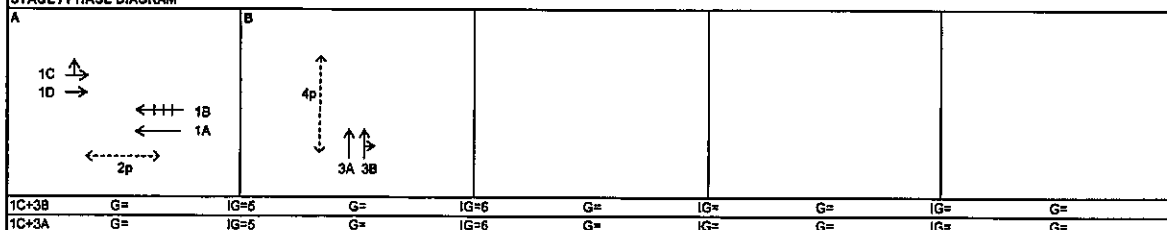
Design Year: 2028

Scheme : 2028 Reference Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|---------------------------|-----------------------------|-------------------------------|------------------|---------------------------|-----------------------------|-------------------------------|------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | R | | | 238 | | -2067935 | 0.000 | 194 | | -2067935 | 0.000 |
| 1B | A | 2.60 | N | N | | | 78 | | 1815 | 0.043 | 62 | | 1815 | 0.034 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | 10 | | 379 | 51% | 1875 | 0.202 | 360 | 50% | 1875 | 0.192 |
| 1D | A | 4.00 | N | N | | | 435 | | 2155 | 0.202 | 413 | | 2155 | 0.192 |
| Centre Street NB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | Y | N | | | 275 | | 1975 | 0.139 | 220 | | 1975 | 0.112 |
| 3B | B | 3.60 | Y | N | 10 | | 250 | 58% | 1790 | 0.140 | 206 | 45% | 1850 | 0.111 |
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Notes:

| AM Peak | 1C+3B | PM Peak | 1C+3A |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.342 | Sum of Critical y Y | 0.304 |
| Lost Time L (sec) | 9 | Lost Time L (sec) | 9 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.833 | Practical Y Ypr | 0.833 |
| Reserve Capacity RC | 144% | Reserve Capacity RC | 174% |

Date : 21/Sep/17 Junction : J7 - Des Voeux Road West / Centre Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

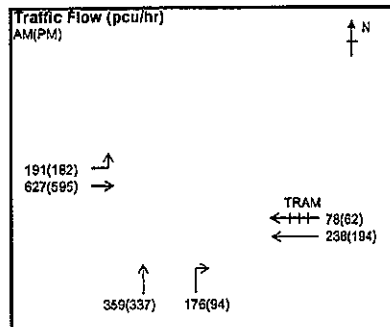
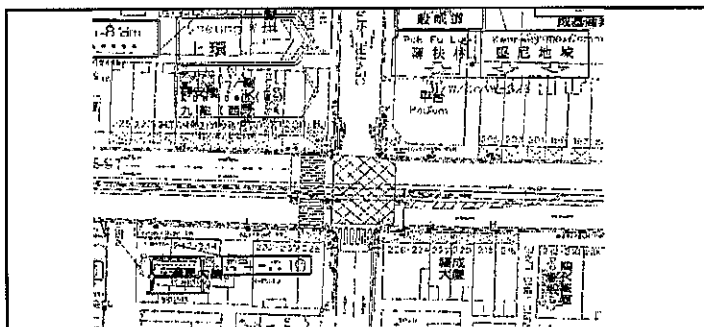
Junction : J7 - Des Voeux Road West / Centre Street

Design Year: 2028

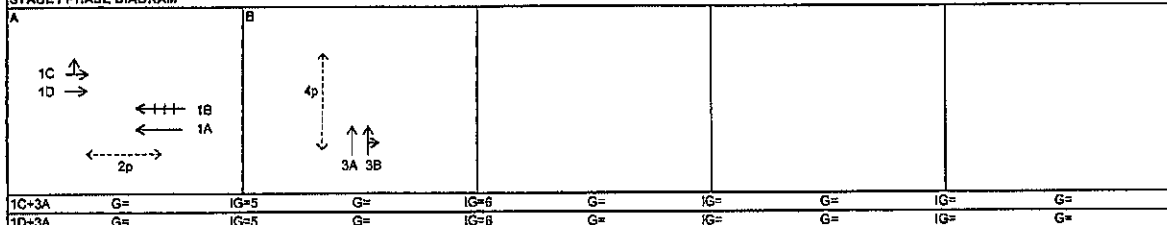
Scheme : 2028 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient In % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | N | | | 238 | | 1860 | 0.128 | 194 | | 1860 | 0.104 |
| 1B | A | 2.60 | N | N | | | 78 | | 1815 | 0.043 | 62 | | 1815 | 0.034 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | 10 | | 361 | 50% | 1875 | 0.203 | 361 | 50% | 1875 | 0.193 |
| 1D | A | 4.00 | N | N | | | 437 | | 2155 | 0.203 | 415 | | 2155 | 0.193 |
| Centre Street NB | | | | | | | | | | | | | | |
| 3A | B | 3.60 | Y | N | | | 281 | | 1975 | 0.142 | 222 | | 1975 | 0.113 |
| 3B | B | 3.60 | Y | N | 10 | | 254 | 69% | 1790 | 0.142 | 208 | 45% | 1850 | 0.112 |
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| Notes: | AM Peak | 1C+3A | PM Peak | 1D+3A |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.345 | Sum of Critical y Y | 0.305 |
| | Lost Time L (sec) | 9 | Lost Time L (sec) | 9 |
| | Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.833 | Practical Y Ypr | 0.833 |
| | Reserve Capacity RC | 141% | Reserve Capacity RC | 173% |

Date : 21/Sep/17 Junction : J7 - Des Voeux Road West / Centre Street

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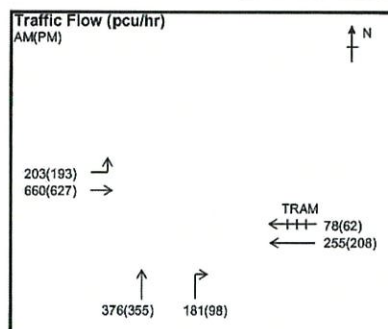
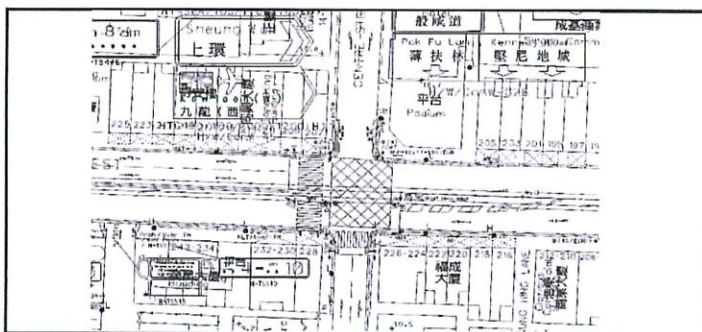
JOB NO. : _____

Junction : J7 - Des Voeus Road West / Centre Street

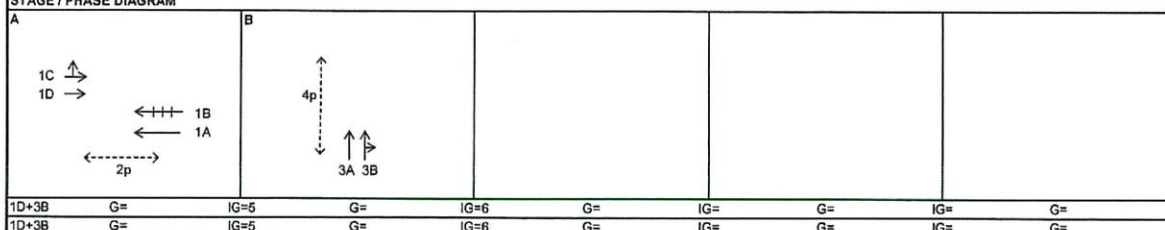
Design Year: 2031

Scheme : 2031 Reference Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| AM Peak | 1D+3B | PM Peak | 1D+3B |
|----------------------------|-------|----------------------------|-------|
| Sum of Critical γ Y | 0.363 | Sum of Critical γ Y | 0.322 |
| Last Time L (sec) | 9 | Last Time L (sec) | 9 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| Practical γ Ypr | 0.833 | Practical γ Ypr | 0.833 |
| Reserve Capacity RC | 130% | Reserve Capacity RC | 159% |

Date : 21/Sep/17 Junction : J7 - Des Voeus Road West / Centre Street

ATKINS CHINA LIMITED

ATKINS

JOB NO.: _____

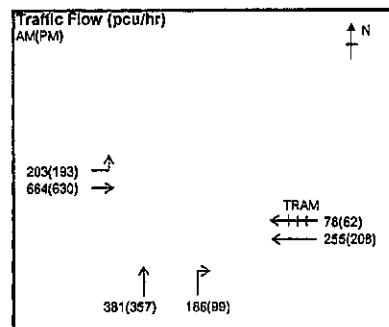
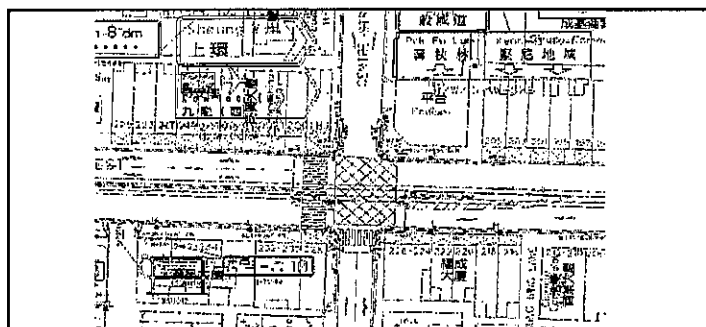
Junction : J7 - Des Voeus Road West / Centre Street

Design Year: 2031

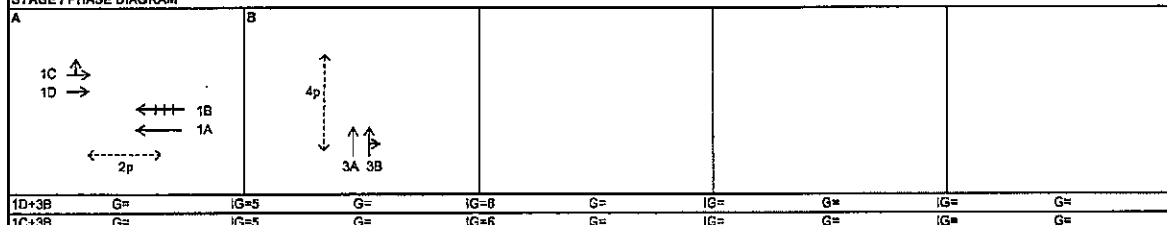
Scheme : 2031 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

[illegible]

Notes:

| AM Peak | 1D+3B | PM Peak | 1C+3B |
|------------------------------|-------|------------------------------|-------|
| Sum of Critical γ Y | 0.366 | Sum of Critical γ Y | 0.324 |
| Last Time L (sec) | 9 | Last Time L (sec) | 9 |
| Cycle Time c (sec) | 120 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.833 | Practical Y Ypr | 0.893 |
| Reserve Capacity RC | 127% | Reserve Capacity RC | 157% |

Date: 21/Sep/17 Junction: J7 - Des Voeus Road West / Centre Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

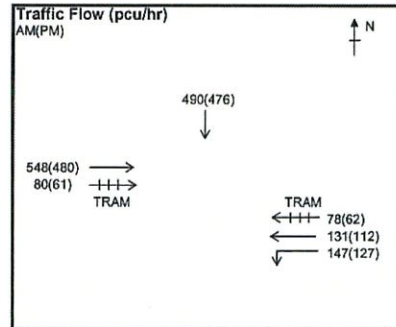
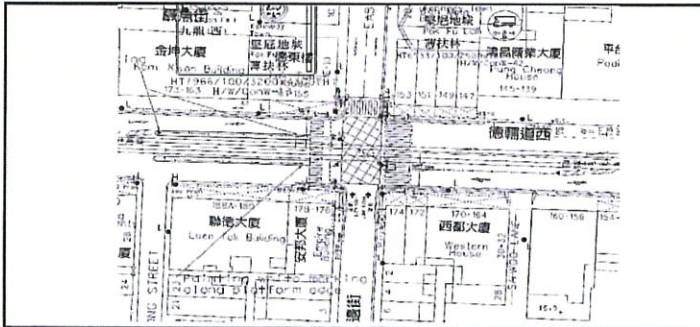
Junction : J8 - Des Voeux Road West / Eastern Street

Design Year: 2017

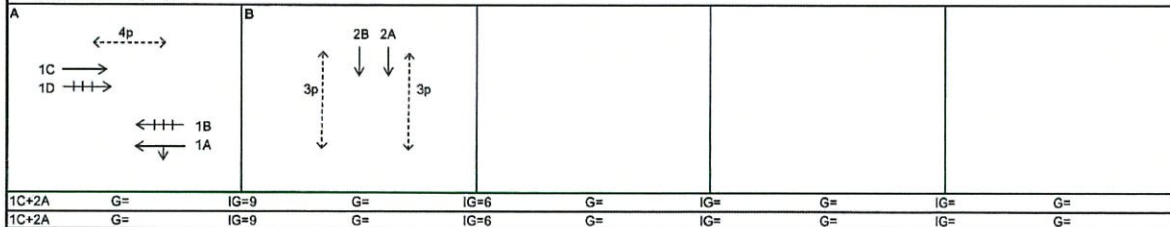
Scheme : 2017 Observed Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|----------------------|---------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | N | 10 | | 278 | 53% | 1915 | 0.145 | 239 | 53% | 1915 | 0.125 |
| 1B | A | 3.50 | N | N | | | 78 | | 2105 | 0.037 | 62 | | 2105 | 0.029 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | | | 548 | | 2015 | 0.272 | 480 | | 2015 | 0.238 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Eastern Street SB | | | | | | | | | | | | | | |
| 2A | B | 4.00 | Y | N | | | 245 | | 2015 | 0.122 | 238 | | 2015 | 0.118 |
| 2B | B | 4.00 | Y | N | | | 245 | | 2015 | 0.122 | 238 | | 2015 | 0.118 |
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|--------|---------------------|-------|---------------------|-------|
| Notes: | AM Peak | 1C+2A | PM Peak | 1C+2A |
| | Sum of Critical y Y | 0.394 | Sum of Critical y Y | 0.356 |
| | Lost Time L (sec) | 13 | Lost Time L (sec) | 13 |
| | Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.810 | Practical Y Ypr | 0.803 |
| | Reserve Capacity RC | 106% | Reserve Capacity RC | 125% |

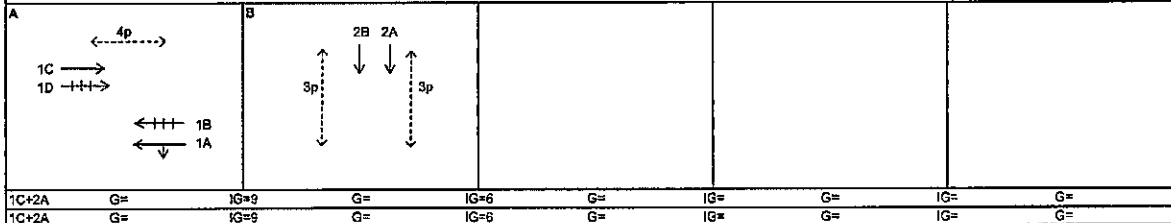
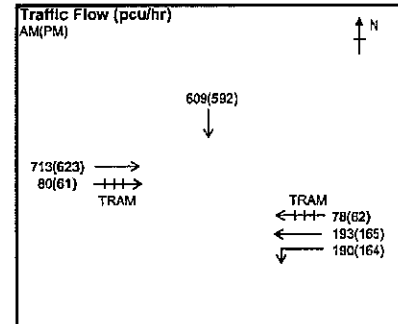
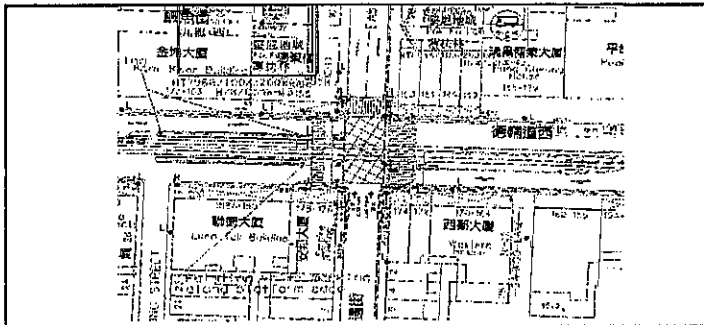
Date : 21/Sep/17 Junction : J8 - Des Voeux Road West / Eastern Street

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Junction : J8 - Des Voeus Road West / Eastern Street Design Year: 2028

Scheme : 2028 Reference Flow Designed by: WM Checked by: PK



AM Peak

[illegible]

AM Peak

| | | | | |
|--------|---------------------|-------|---------------------|-------|
| Notes: | AM Peak | 1C+2A | PM Peak | 1C+2A |
| | Sum of Critical y Y | 0.505 | Sum of Critical y Y | 0.456 |
| | Lost Time L (sec) | 13 | Lost Time L (sec) | 13 |
| | Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.810 | Practical Y Ypr | 0.803 |
| | Reserve Capacity RC | 60% | Reserve Capacity RC | 76% |

Date : 21/Sep/17 Junction : J8 - Das Voeus Road West / Eastern Street

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TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

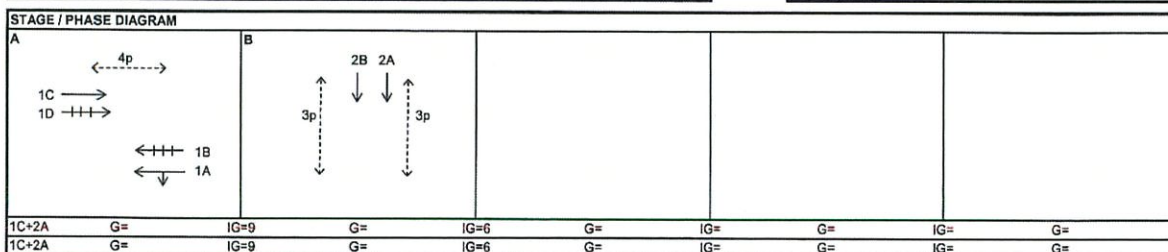
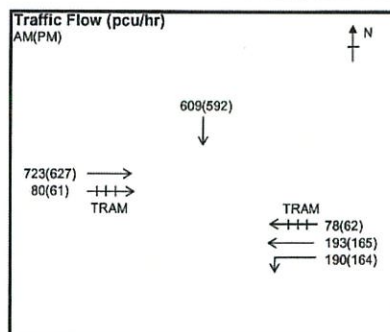
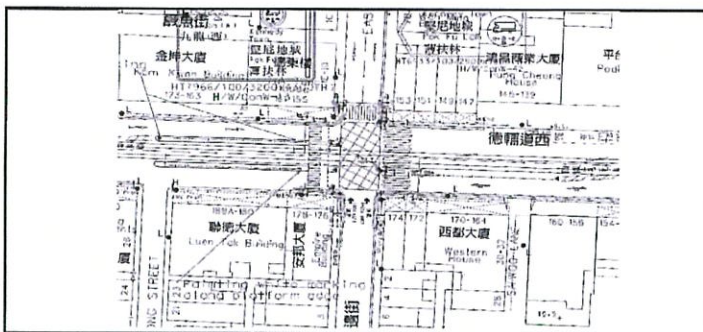
JOB NO. : _____

Junction : J8 - Des Voeux Road West / Eastern Street

Design Year: 2028

Scheme : 2028 Design Flow

Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | N | 10 | | 383 | 50% | 1920 | 0.199 | 329 | 50% | 1920 | 0.171 |
| 1B | A | 3.50 | N | N | | | 78 | | 2105 | 0.037 | 62 | | 2105 | 0.029 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | | | 723 | | 2015 | 0.359 | 627 | | 2015 | 0.311 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Eastern Street SB | | | | | | | | | | | | | | |
| 2A | B | 4.00 | Y | N | | | 305 | | 2015 | 0.151 | 296 | | 2015 | 0.147 |
| 2B | B | 4.00 | Y | N | | | 304 | | 2015 | 0.151 | 296 | | 2015 | 0.147 |
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| Notes: | AM Peak | | PM Peak | |
|--------|---------------------|-------------|---------------------|-------------|
| | Sum of Critical y Y | 1C+2A 0.510 | Sum of Critical y Y | 1C+2A 0.458 |
| | Lost Time L (sec) | 13 | Lost Time L (sec) | 13 |
| | Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.810 | Practical Y Ypr | 0.803 |
| | Reserve Capacity RC | 59% | Reserve Capacity RC | 75% |

Date : 21/Sep/17 Junction : J8 - Des Voeux Road West / Eastern Street

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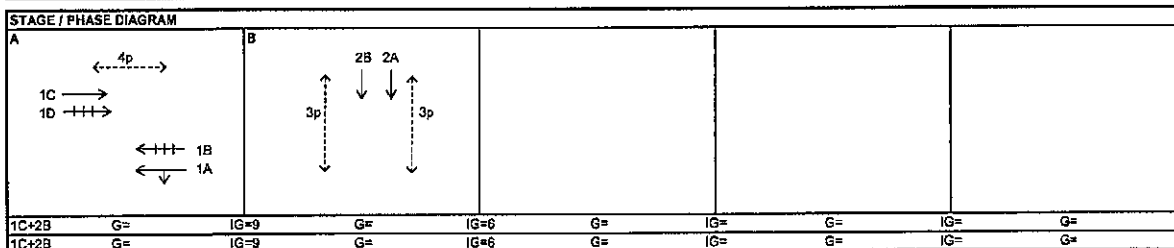
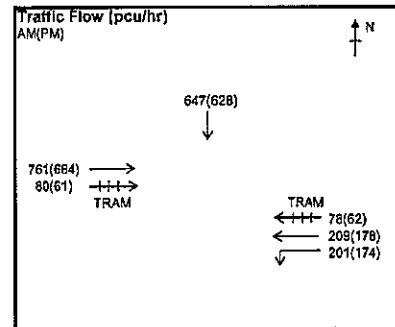
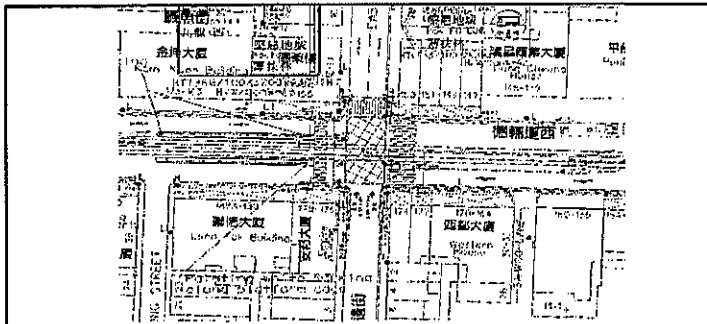
TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

Junction : J8 - Des Voeux Road West / Eastern Street Design Year: 2031

Scheme : 2031 Reference Flow Designed by: WM Checked by: PK



| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|---------------------|-----------------------|---------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Neuroside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | N | 10 | | 410 | 49% | 1925 | 0.213 | 352 | 49% | 1925 | 0.183 |
| 1B | A | 3.50 | N | N | | | 78 | | 2105 | 0.037 | 62 | | 2105 | 0.029 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | | | 761 | | 2015 | 0.378 | 664 | | 2015 | 0.329 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Eastern Street SB | | | | | | | | | | | | | | |
| 2A | B | 4.00 | Y | N | | | 323 | | 2015 | 0.160 | 314 | | 2015 | 0.156 |
| 2B | B | 4.00 | Y | N | | | 324 | | 2015 | 0.161 | 314 | | 2015 | 0.156 |
| 3p | B | | 14GM + | 12FG = | 26 | sec | | | | | | | | |
| 4p | A | | 10GM + | 10FG = | 20 | sec | | | | | | | | |

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|--------|---------------------|-------|---------------------|-------|
| Notes: | AM Peak | 1C+2B | PM Peak | 1C+2B |
| | Sum of Critical y Y | 0.538 | Sum of Critical y Y | 0.485 |
| | Lost Time L (sec) | 13 | Lost Time L (sec) | 13 |
| | Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| | Practical Y Ypr | 0.810 | Practical Y Ypr | 0.803 |
| | Reserve Capacity RC | 51% | Reserve Capacity RC | 65% |

Date : 21/Sep/17 Junction : J8 - Des Voeux Road West / Eastern Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

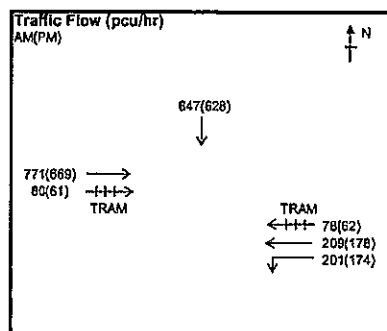
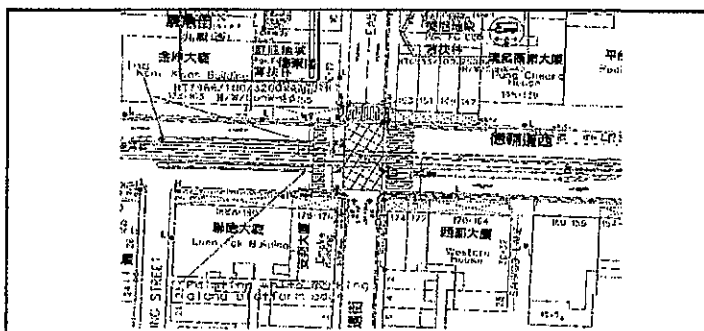
Junction : J8 - Des Voeux Road West / Eastern Street

Design Year: 2031

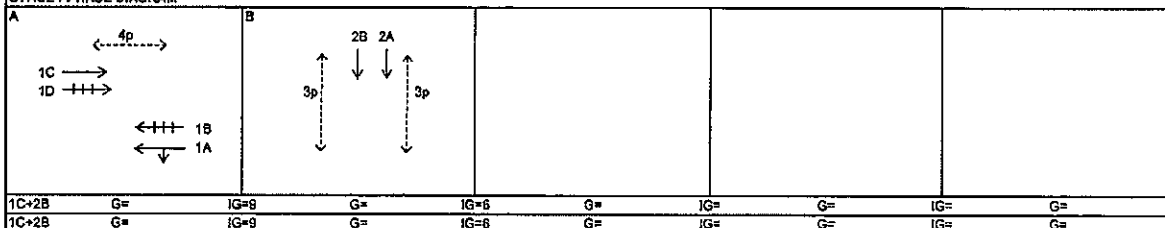
Scheme : 2031 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.50 | Y | N | 10 | | 410 | 49% | 1925 | 0.213 | 352 | 49% | 1925 | 0.183 |
| 1B | A | 3.50 | N | N | | | 78 | | 2105 | 0.037 | 62 | | 2105 | 0.029 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 4.00 | Y | N | | | 771 | | 2015 | 0.382 | 669 | | 2015 | 0.332 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Eastern Street SB | | | | | | | | | | | | | | |
| 2A | B | 4.00 | Y | N | | | 323 | | 2015 | 0.160 | 314 | | 2015 | 0.156 |
| 2B | B | 4.00 | Y | N | | | 324 | | 2015 | 0.161 | 314 | | 2015 | 0.156 |
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Notes:

| AM Peak | | PM Peak | |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.543 | Sum of Critical y Y | 0.488 |
| Lost Time L (sec) | 13 | Lost Time L (sec) | 13 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.810 | Practical Y Ypr | 0.803 |
| Reserve Capacity RC | 48% | Reserve Capacity RC | 65% |

Date : 21/Sep/17 Junction : J8 - Des Voeux Road West / Eastern Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

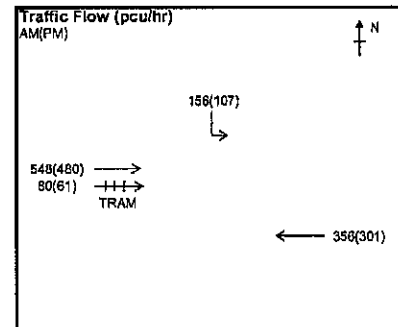
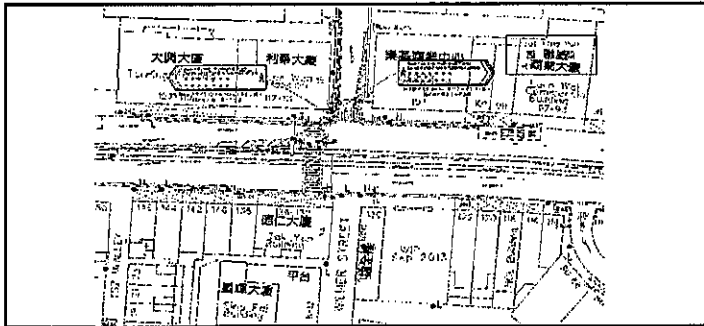
Junction : J9 - Des Voeux Road West / Wilmer Street

Design Year: 2017

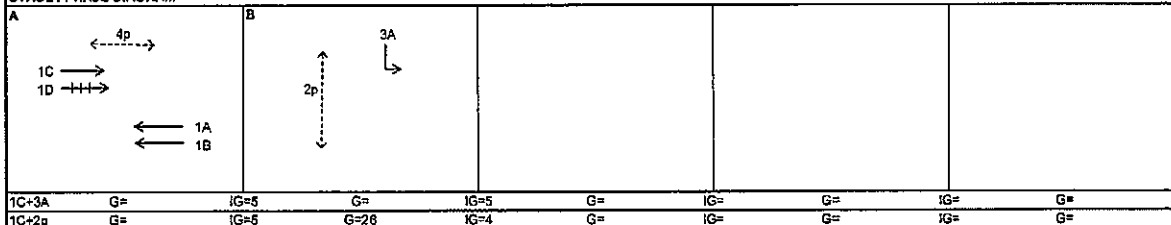
Scheme : 2017 Observed Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phaso | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.00 | Y | N | | | 172 | | 2015 | 0.085 | 145 | | 2015 | 0.072 |
| 1B | A | 4.00 | N | N | | | 184 | | 2155 | 0.085 | 156 | | 2155 | 0.072 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 3.50 | Y | N | | | 548 | | 1965 | 0.279 | 480 | | 1965 | 0.244 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Wilmer St SB | | | | | | | | | | | | | | |
| 3A | B | 4.50 | Y | N | 10 | | 156 | 100% | 1795 | 0.087 | 107 | 100% | 1795 | 0.060 |
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Notes:

| AM Peak | 1C+3A | PM Peak | 1C+2p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.366 | Sum of Critical y Y | 0.244 |
| Lost Time L (sec) | 8 | Lost Time L (sec) | 34 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.845 | Practical Y Ypr | 0.645 |
| Reserve Capacity RC | 131% | Reserve Capacity RC | 164% |

Date : 21/Sep/17 Junction : J9 - Des Voeux Road West / Wilmer Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

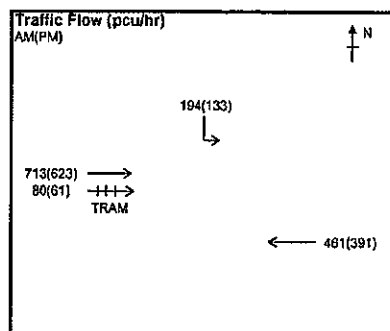
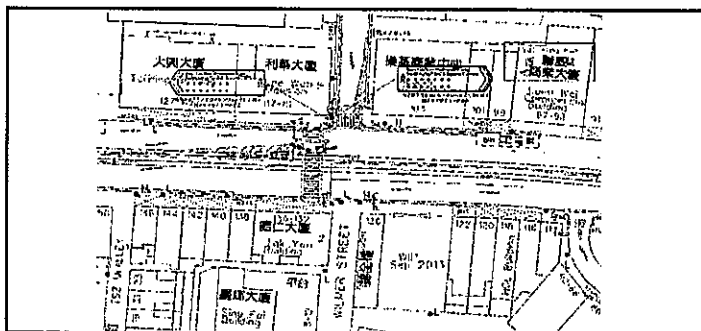
JOB NO. : _____

Junction : J9 - Des Voeux Road West / Wilmer Street

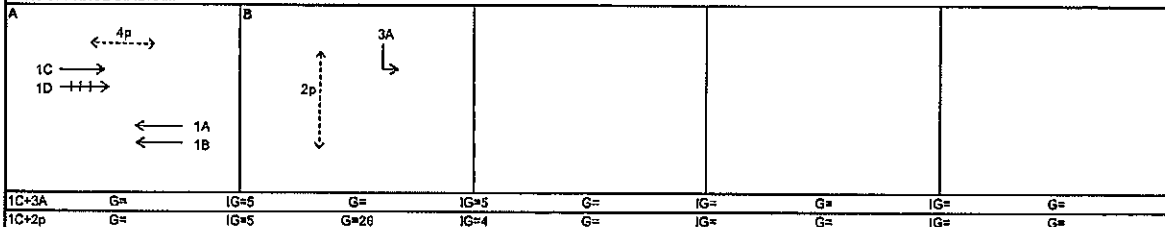
Design Year: 2028

Scheme : 2028 Reference Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|-------------------------|------------------------|-----------------------------|--------------------|---------------------------|-----------------------------|-------------------------------|------------------|---------------------------|-----------------------------|-------------------------------|------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.00 | Y | N | | | 223 | | 2015 | 0.111 | 189 | | 2015 | 0.094 |
| 1B | A | 4.00 | N | N | | | 238 | | 2155 | 0.110 | 202 | | 2155 | 0.094 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 3.50 | Y | N | | | 713 | | 1965 | 0.363 | 623 | | 1965 | 0.317 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Wilmer St SB | | | | | | | | | | | | | | |
| 3A | B | 4.50 | Y | N | 10 | | 194 | 100% | 1795 | 0.108 | 133 | 100% | 1795 | 0.074 |
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Notes:

| AM Peak | 1C+3A | PM Peak | 1C+2p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.471 | Sum of Critical y Y | 0.317 |
| Lost Time L (sec) | 8 | Lost Time L (sec) | 34 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.845 | Practical Y Ypr | 0.645 |
| Reserve Capacity RC | 79% | Reserve Capacity RC | 104% |

Date: 21/Sep/17 Junction: J9 - Des Voeux Road West / Wilmer Street

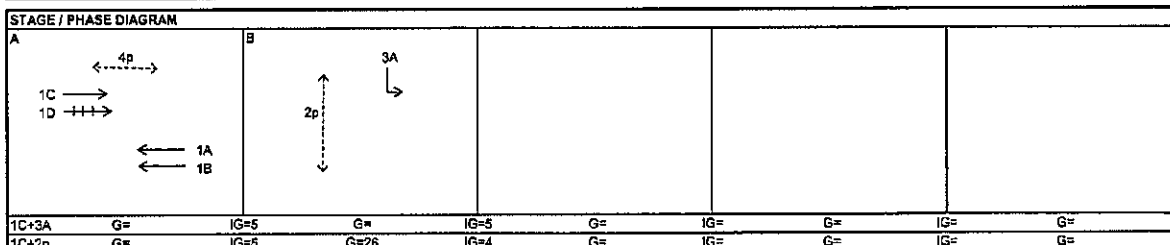
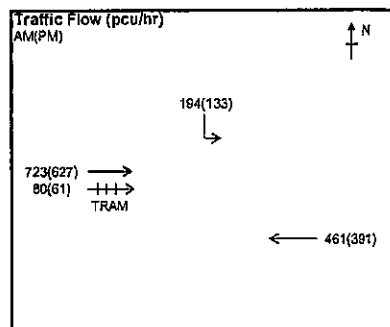
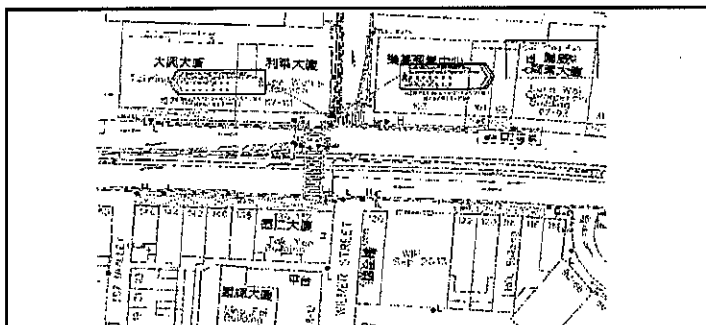
ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

Junction : J9 - Des Voeux Road West / Wilmer Street Design Year: 2028
 Schema : 2028 Design Flow Designed by: WM Checked by: PK



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient In % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.00 | Y | N | | | 223 | | 2015 | 0.111 | 189 | | 2015 | 0.094 |
| 1B | A | 4.00 | N | N | | | 238 | | 2155 | 0.110 | 202 | | 2155 | 0.094 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 3.60 | Y | N | | | 723 | | 1965 | 0.368 | 627 | | 1965 | 0.319 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Wilmer St SB | | | | | | | | | | | | | | |
| 3A | B | 4.50 | Y | N | 10 | | 194 | 100% | 1795 | 0.109 | 133 | 100% | 1795 | 0.074 |
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Notes:

| AM Peak | 1C+3A | PM Peak | 1C+2p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.476 | Sum of Critical y Y | 0.319 |
| Lost Time L (sec) | 8 | Lost Time L (sec) | 34 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.845 | Practical Y Ypr | 0.645 |
| Reserve Capacity RC | 77% | Reserve Capacity RC | 102% |

Date : 21/Sep/17 Junction : J9 - Des Voeux Road West / Wilmer Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

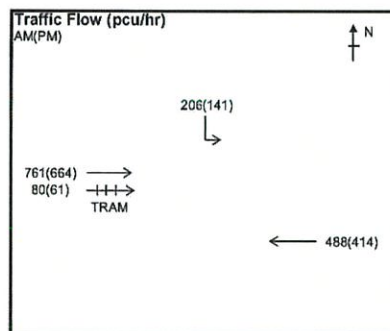
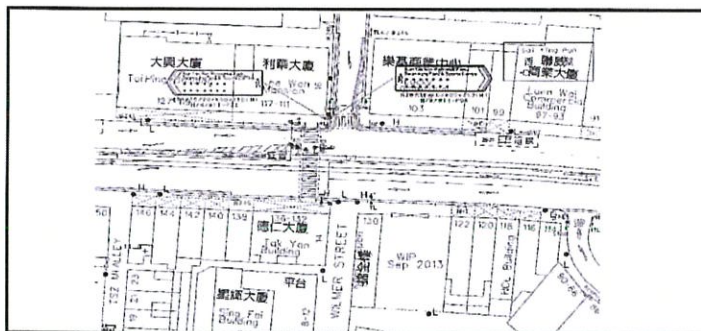
Junction : J9 - Des Voeux Road West / Wilmer Street

Design Year: 2031

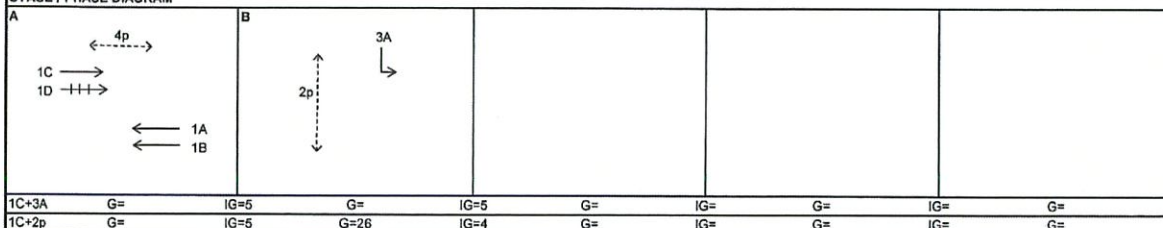
Scheme : 2031 Reference Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|----------------------|---------------------|------------------------------------|---------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 1A | A | 4.00 | Y | N | | | 236 | | 2015 | 0.117 | 200 | | 2015 | 0.099 |
| 1B | A | 4.00 | N | N | | | 252 | | 2155 | 0.117 | 214 | | 2155 | 0.099 |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1C | A | 3.50 | Y | N | | | 761 | | 1965 | 0.387 | 664 | | 1965 | 0.338 |
| 1D | A | 2.50 | N | N | | | 80 | | 2005 | 0.040 | 61 | | 2005 | 0.030 |
| Wilmer St SB | | | | | | | | | | | | | | |
| 3A | B | 4.50 | Y | N | 10 | | 206 | 100% | 1795 | 0.115 | 141 | 100% | 1795 | 0.079 |
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Notes:

| AM Peak | 1C+3A | PM Peak | 1C+2p |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.502 | Sum of Critical y Y | 0.338 |
| Lost Time L (sec) | 8 | Lost Time L (sec) | 34 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical Y Ypr | 0.845 | Practical Y Ypr | 0.645 |
| Reserve Capacity RC | 68% | Reserve Capacity RC | 91% |

Date : 21/Sep/17 Junction : J9 - Des Voeux Road West / Wilmer Street

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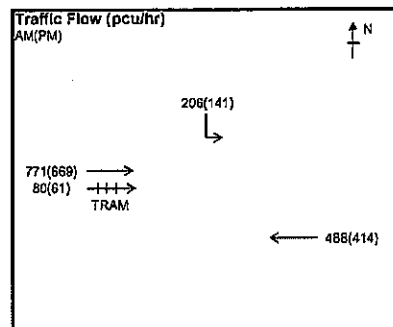
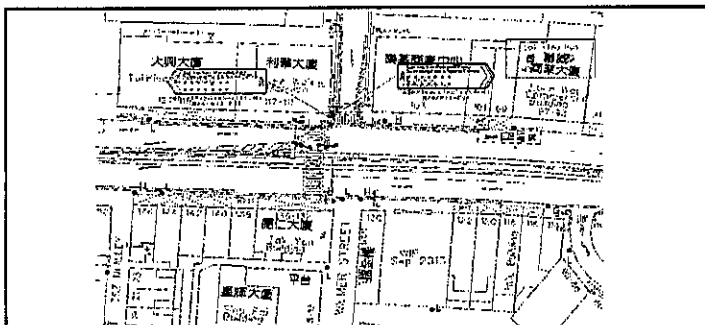
JOB NO. : _____

fonction : J9 - Des Voeux Road West / Wilmer Street

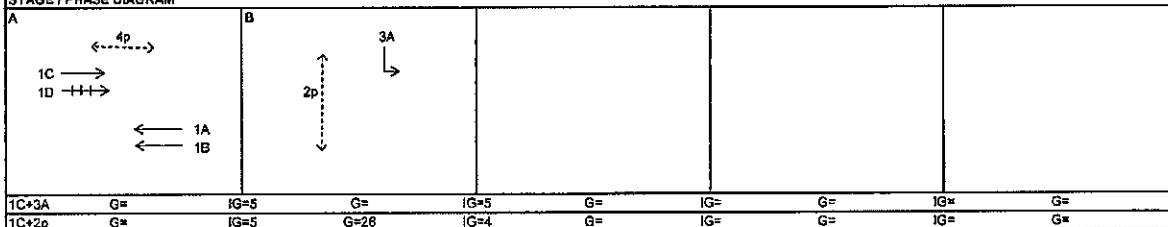
Design Year: 2031

Scheme: 2031 Design Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



AM Peak

PM Peak

[illegible]

Notes:

| AM Peak | 1C+3A | PM Peak | 1C+2p |
|--------------------------|-------|--------------------------|-------|
| Sum of Critical γ | 0.507 | Sum of Critical γ | 0.340 |
| Last Time L (sec) | 8 | Last Time L (sec) | 34 |
| Cycle Time c (sec) | 130 | Cycle Time c (sec) | 120 |
| Practical γ Ypr | 0.845 | Practical γ Ypr | 0.645 |
| Reserve Capacity RC | 67% | Reserve Capacity RC | 90% |

Date : 21/Sep/17 Junction : J9 - Des Voeus Road West / Willmer Street

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TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

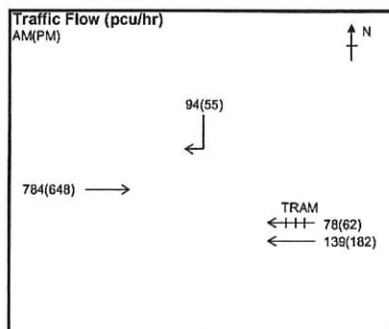
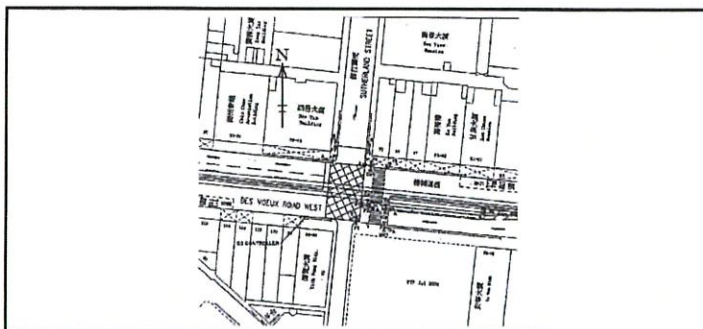
JOB NO. : _____

Junction : J10 - Des Voeux Road West / Sutherland Street

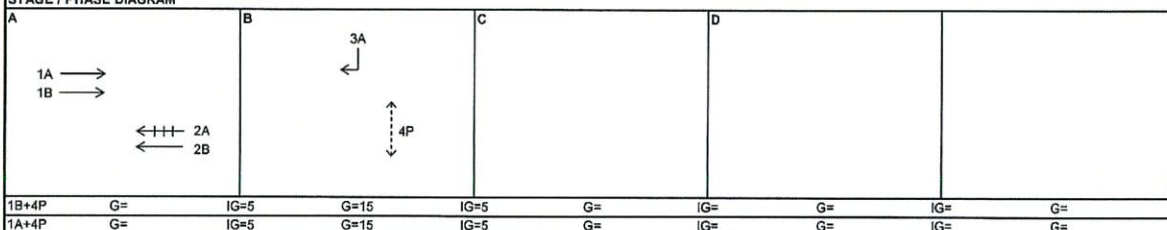
Design Year: 2017

Scheme : 2017 Observed Flow

Designed by: WM Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|----------------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) <i>w</i> | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.80 | Y | N | | | 510 | | 1995 | 0.256 | 422 | | 1995 | 0.212 |
| 1B | A | 3.80 | N | N | | | 274 | | 1070 | 0.256 | 226 | | 1070 | 0.211 |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 2A | A | 3.00 | N | N | | | 78 | | 2055 | 0.038 | 62 | | 2055 | 0.030 |
| 2B | A | 4.30 | Y | N | | | 139 | | 2045 | 0.068 | 182 | | 2045 | 0.089 |
| Sutherland St SB | | | | | | | | | | | | | | |
| 3A | B | 3.50 | Y | N | 15 | | 94 | 100% | 1785 | 0.053 | 55 | 100% | 1785 | 0.031 |
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Notes:

| AM Peak | 1B+4P | PM Peak | 1A+4P |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.256 | Sum of Critical y Y | 0.212 |
| Lost Time L (sec) | 24 | Lost Time L (sec) | 24 |
| Cycle Time c (sec) | 90 | Cycle Time c (sec) | 95 |
| Practical Y Ypr | 0.660 | Practical Y Ypr | 0.673 |
| Reserve Capacity RC | 158% | Reserve Capacity RC | 218% |

Date : 21/Sep/17 Junction : J10 - Des Voeux Road West / Sutherland Street

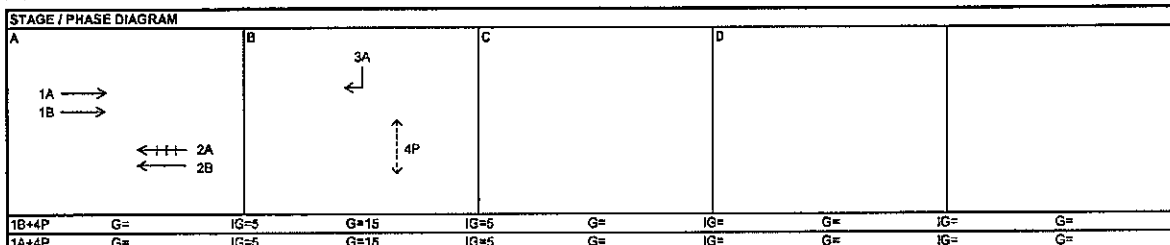
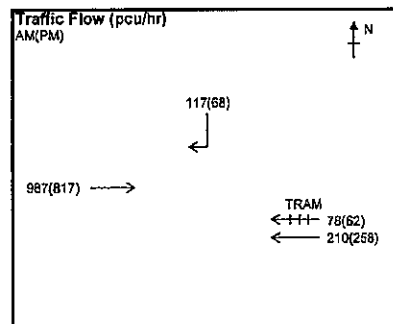
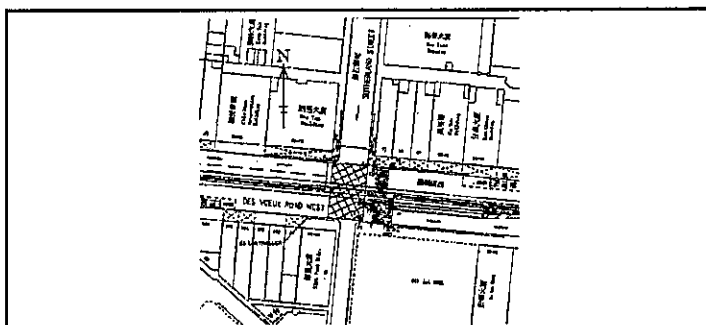
ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

Junction : J10 - Des Voeux Road West / Sutherland Street Design Year: 2028
 Scheme : 2028 Reference Flow Designed by: WM Checked by: PK



| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|---------------------|----------------------|---------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.80 | Y | N | | | 642 | | 1995 | 0.322 | 532 | | 1995 | 0.267 |
| 1B | A | 3.80 | N | N | | | 345 | | 1070 | 0.322 | 285 | | 1070 | 0.266 |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 2A | A | 3.00 | N | N | | | 78 | | 2055 | 0.038 | 62 | | 2055 | 0.030 |
| 2B | A | 4.30 | Y | N | | | 210 | | 2045 | 0.103 | 258 | | 2045 | 0.126 |
| Sutherland St SB | | | | | | | | | | | | | | |
| 3A | B | 3.50 | Y | N | 15 | | 117 | 100% | 1785 | 0.065 | 68 | 100% | 1785 | 0.038 |
| 4P | B | | SGM + | 10FG = | 15 | sec | | | | | | | | |

| Notes: | AM Peak | | PM Peak | |
|--------|---------------------|-------|---------------------|-------|
| | 1B+4P | 1A+4P | 1B+4P | 1A+4P |
| | Sum of Critical y Y | 0.322 | Sum of Critical y Y | 0.267 |
| | Lost Time L (sec) | 24 | Lost Time L (sec) | 24 |
| | Cycle Time c (sec) | 90 | Cycle Time c (sec) | 95 |
| | Practical Y Ypr | 0.660 | Practical Y Ypr | 0.673 |
| | Reserve Capacity RC | 105% | Reserve Capacity RC | 152% |

Date : 21/Sep/17 Junction : J10 - Des Voeux Road West / Sutherland Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

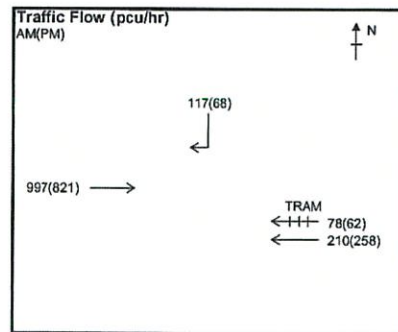
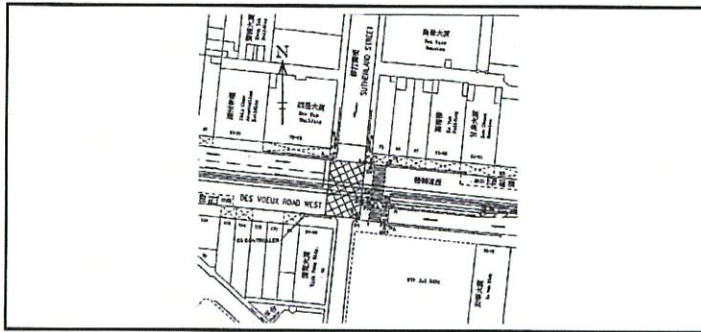
Junction : J10 - Des Voeux Road West / Sutherland Street

Design Year: 2028

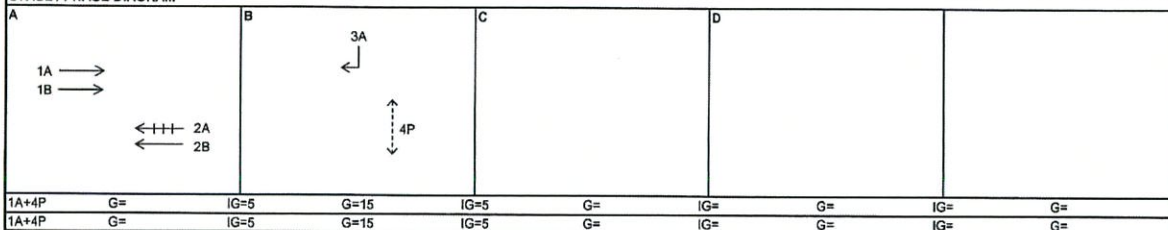
Scheme : 2028 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|-------------------------|------------------------|------------------------------------|---------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|----------------------------------|------------------------------------|--------------------------------------|-------------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) <i>r</i> | Gradient in % <i>g</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> | Design Flow <i>q</i> (pcu/hr) | Proportion turning (%) <i>f</i> | Saturation flow <i>S</i> (pcu/hr) | Flow factor <i>y</i> |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.80 | Y | N | | | 649 | | 1995 | 0.325 | 535 | | 1995 | 0.268 |
| 1B | A | 3.80 | N | N | | | 348 | | 1070 | 0.325 | 286 | | 1070 | 0.268 |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 2A | A | 3.00 | N | N | | | 78 | | 2055 | 0.038 | 62 | | 2055 | 0.030 |
| 2B | A | 4.30 | Y | N | | | 210 | | 2045 | 0.103 | 258 | | 2045 | 0.126 |
| Sutherland St SB | | | | | | | | | | | | | | |
| 3A | B | 3.50 | Y | N | 15 | | 117 | 100% | 1785 | 0.065 | 68 | 100% | 1785 | 0.038 |
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Notes:

| AM Peak | 1A+4P | PM Peak | 1A+4P |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.325 | Sum of Critical y Y | 0.268 |
| Lost Time L (sec) | 24 | Lost Time L (sec) | 24 |
| Cycle Time c (sec) | 90 | Cycle Time c (sec) | 95 |
| Practical Y Ypr | 0.660 | Practical Y Ypr | 0.673 |
| Reserve Capacity RC | 103% | Reserve Capacity RC | 151% |

Date : 21/Sep/17 Junction : J10 - Des Voeux Road West / Sutherland Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

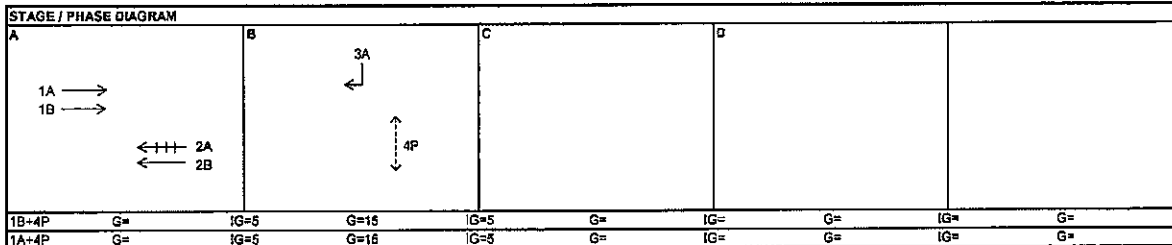
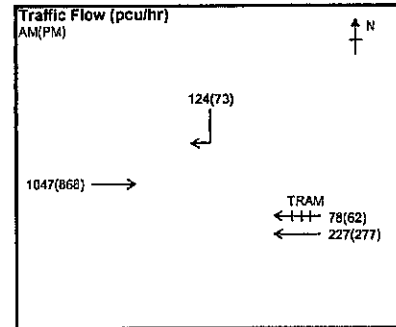
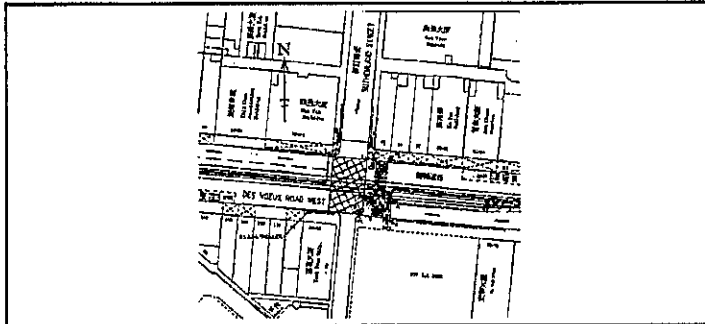
Junction : J10 - Des Voies Road West / Sutherland Street

Design Year: 2031

Scheme : 2031 Reference Flow

Designed by: WM

Checked by: PK



| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------------|-------|---------------------|----------------------|---------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|---------------|------------------------|-----------------------------|----------------------------|---------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voies Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.80 | Y | N | | | 881 | | 1995 | 0.341 | 584 | | 1995 | 0.283 |
| 1B | A | 3.80 | N | N | | | 366 | | 1070 | 0.342 | 302 | | 1070 | 0.282 |
| Des Voies Rd West WB | | | | | | | | | | | | | | |
| 2A | A | 3.00 | N | N | | | 78 | | 2055 | 0.038 | 62 | | 2055 | 0.030 |
| 2B | A | 4.30 | Y | N | | | 227 | | 2045 | 0.111 | 277 | | 2045 | 0.135 |
| Sutherland St SB | | | | | | | | | | | | | | |
| 3A | B | 3.50 | Y | N | 15 | | 124 | 100% | 1785 | 0.069 | 73 | 100% | 1785 | 0.041 |
| 4P | B | | 5GM + | 10FG = | 15 | sec | | | | | | | | |

| Notes: | AM Peak | 1B+4P | PM Peak | 1A+4P |
|--------|---------------------|-------|---------------------|-------|
| | Sum of Critical y Y | 0.342 | Sum of Critical y Y | 0.283 |
| | Lost Time L (sec) | 24 | Lost Time L (sec) | 24 |
| | Cycle Time c (sec) | 90 | Cycle Time c (sec) | 95 |
| | Practical Y Ypr | 0.660 | Practical Y Ypr | 0.673 |
| | Reserve Capacity RC | 93% | Reserve Capacity RC | 138% |

Date : 21/Sep/17 Junction : J10 - Des Voies Road West / Sutherland Street

ATKINS CHINA LIMITED

TRAFFIC SIGNAL CALCULATION SHEET

ATKINS

JOB NO. : _____

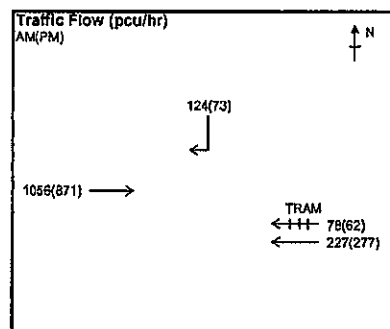
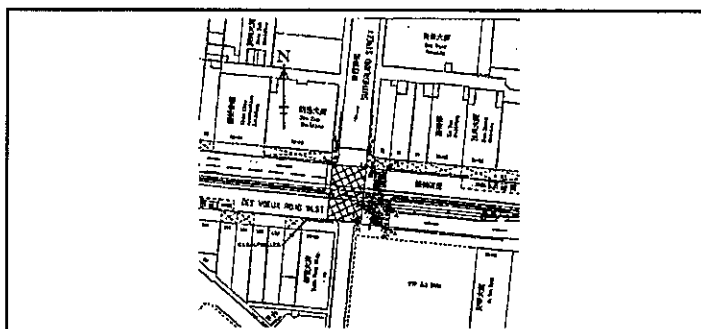
Junction : J10 - Des Voeux Road West / Sutherland Street

Design Year: 2031

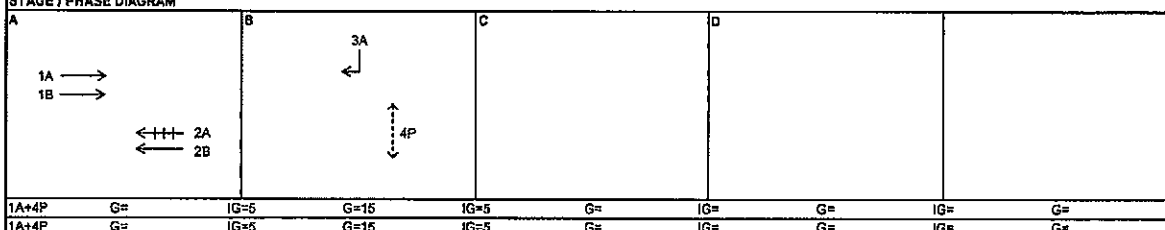
Scheme : 2031 Design Flow

Designed by: WM

Checked by: PK



STAGE / PHASE DIAGRAM



Capacity Calculations

| Capacity Calculations | | | | | | | AM Peak | | | | PM Peak | | | |
|-----------------------|-------|---------------------|----------------------|---------------------|-----------------------------|--------------------|------------------------|-----------------------------|----------------------------|------------------|------------------------|-----------------------------|----------------------------|------------------|
| Phase | Stage | Lane Width (m) w | Nearside lane? (Y/N) | Opposed turn? (Y/N) | Radius for turning (m) r | Gradient in % g | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y | Design Flow q (pcu/hr) | Proportion turning (%) f | Saturation flow S (pcu/hr) | Flow factor y |
| Des Voeux Rd West EB | | | | | | | | | | | | | | |
| 1A | A | 3.80 | Y | N | | | 688 | | 1995 | 0.345 | 587 | | 1995 | 0.284 |
| 1B | A | 3.80 | N | N | | | 368 | | 1070 | 0.344 | 304 | | 1070 | 0.284 |
| Des Voeux Rd West WB | | | | | | | | | | | | | | |
| 2A | A | 3.00 | N | N | | | 78 | | 2055 | 0.038 | 62 | | 2055 | 0.030 |
| 2B | A | 4.30 | Y | N | | | 227 | | 2045 | 0.111 | 277 | | 2045 | 0.135 |
| Sutherland St SB | | | | | | | | | | | | | | |
| 3A | B | 3.50 | Y | N | 15 | | 124 | 100% | 1785 | 0.069 | 73 | 100% | 1785 | 0.041 |
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Notes:

| AM Peak | 1A+4P | PM Peak | 1A+4P |
|---------------------|-------|---------------------|-------|
| Sum of Critical y Y | 0.345 | Sum of Critical y Y | 0.284 |
| Lost Time L (sec) | 24 | Lost Time L (sec) | 24 |
| Cycle Time c (sec) | 90 | Cycle Time c (sec) | 95 |
| Practical Y Ypr | 0.660 | Practical Y Ypr | 0.673 |
| Reserve Capacity RC | 91% | Reserve Capacity RC | 137% |

Date : 21/Sep/17 Junction : J10 - Des Voeux Road West / Sutherland Street

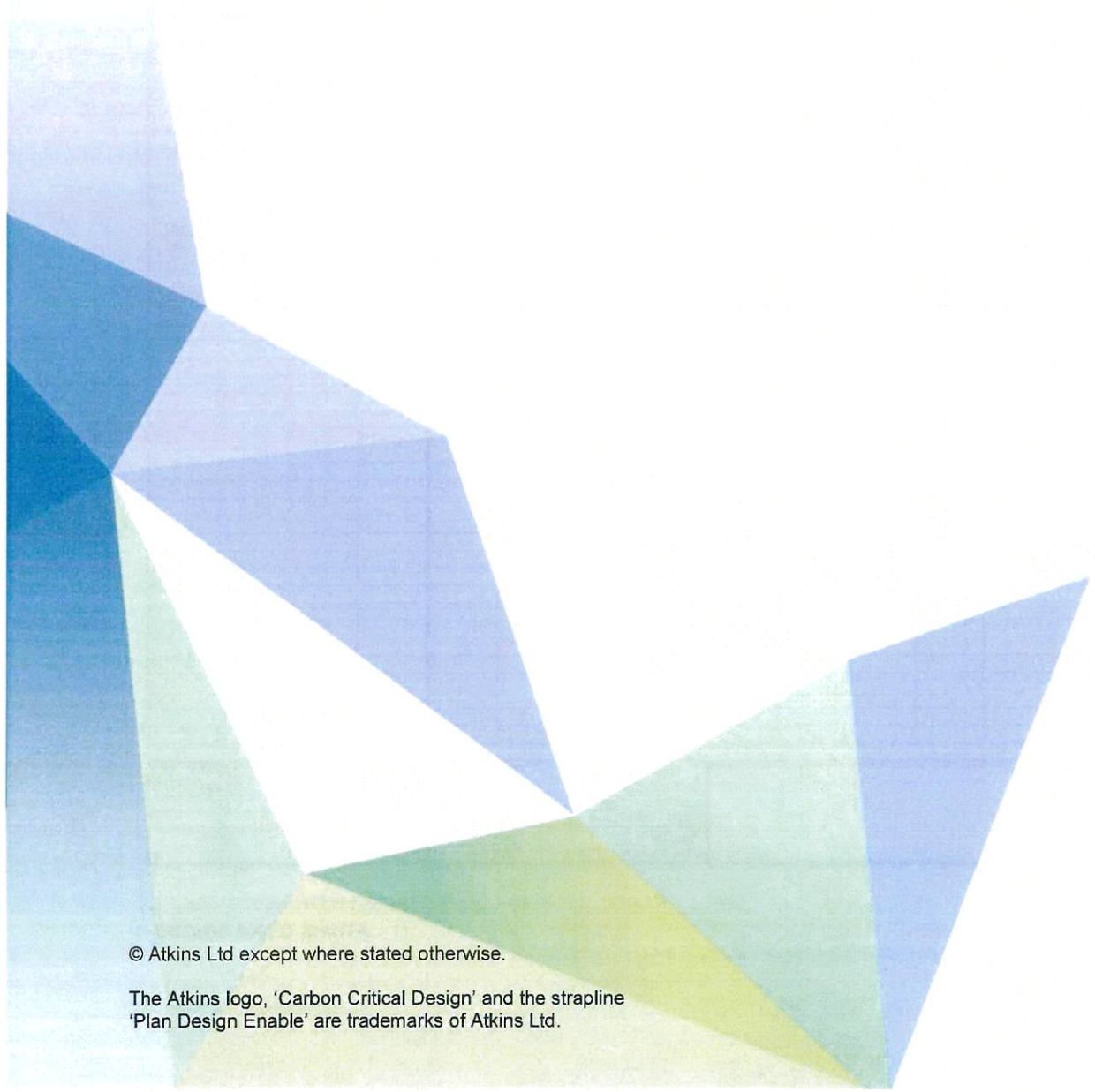
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Appendix 3 Environmental Assessment Report

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Environmental
Assessment Report**
(v1.5)

March 2018

Approved By



(Project Director: Dr. H.F. Chan)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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1 INTRODUCTION

Background

- 1.1. The Urban Renewal Authority (URA) has proposed a Development Scheme at Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). This Environmental Assessment (EA) is to support the submission of a draft Development Scheme Plan (DSP) with its planning proposal to the Town Planning Board (TPB) for consideration.
- 1.2. The proposed Development Scheme (the Scheme) is located between Queen's Road West and Ko Shing Street. The site is zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" and "Open Space" on the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site comprises a line of tenement buildings facing Queen's Road West, a Government Refuse Collection Point (RCP) cum a public toilet, and a 5-a-side soccer pitch (part of Li Sing Street Playground). The location of the site is shown in **Figure 1.1**.
- 1.3. The Scheme intends to demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (odd numbers) for redevelopment into new residential cum retail development; to reprovision the existing In Ku Lane Government RCP cum public toilet; and to replace the soccer pitch by a new public open space through re-configuration of the land uses within the Scheme.
- 1.4. Cinotech Consultants Limited was commissioned by URA to carry out an Environmental Assessment (EA) to assess and envisage any potential environmental impact on the implementation of the proposed development and to recommend mitigation measures as necessary.

Purpose and Scope of Report

- 1.5. This EA is prepared to assess the potential environmental impact/benefit associated with the implementation of the Scheme in supporting the submission of the draft DSP to TPB's consideration. It has been undertaken with reference to the guidance for environmental considerations provided in Chapter 9 "Environment" of the Hong Kong Planning Standards and Guidelines (HKPSG).
- 1.6. This EA presents the study of the potential environmental impacts of the following aspects:
 - Air Quality
 - Noise
 - Land Contamination
 - Waste Management
 - Air Ventilation

2 DESCRIPTION OF THE ENVIRONMENT

- 2.1. The site is located between Queen's Road West and Ko Shing Street. The gross site area is about 2,046sq.m.
- 2.2. Within the site, the southern side consists of a line of 4 to 6 storeys tenement buildings facing Queen's Road West. The north-eastern part of the site is a Government RCP cum a public toilet operated and maintained by Food and Environmental Hygiene Department (FEHD). In Ku Lane is the access road connecting the RCP and Ko Shing Street. Refuse Collection Vehicles will use the In Ku Lane to access the RCP for daily operation. A 5-a-side soccer pitch, which is part of Li Sing Street Playground managed by Leisure and Cultural Services Department (LCSD), forms the northwest corner of the site. The soccer pitch is fenced off on four sides with its only entrance from the sitting-out area of Li Sing Street playground on the west.
- 2.3. The site is located on a sloping ground with the high level at Queen's Road West of about 7.8mPD and gradually down to about 4.1mPD at In Ku Lane.
- 2.4. The site is surrounded by residential and commercial buildings and hotels to the north and east, a basketball court & sitting-out area of the Li Sing Street Playground and a row of old tenement buildings are situated to the west of the site. The southern side of the site is bounded by Queen's Road West, with a row of residential buildings and hospitals and clinics located further behind.

3 THE PROPOSED DEVELOPMENT

- 3.1. The gross site area of the Scheme is about 2,046 m², with a net site area of about 1,318 m². The area in the draft DSP is proposed to be zoned as "R(A)23", with the proposed total Gross Floor Area ("GFA") is of around 11,290 m². The proposed development of the Scheme will compose of three main elements: (1) a residential tower of about 29 residential storeys on a 3-level podium with commercial/retail facilities, private residential clubhouse and podium garden on the podium roof; (2) a 3-storey Government RCP and public toilet complex; (3) a public open space. The notional layout is shown in **Figure 3.1a – 3.1h**.
- 3.2. If the draft DSP is approved by Chief Executive-in-Council (CE in C), the URA will commence property acquisition and compensation. Upon completion of clearance of the site, the existing buildings will be demolished and subsequent construction of the proposed development.
- 3.3. Existing dwellings in low rise tenement buildings immediately adjoin Queen's Road West. In comparison, residents in the future development of the Scheme will be both vertically and horizontally more distant from Queen's Road West, which is the main noise and air pollution source. This will provide a much better environment than its current condition.
- 3.4. A new public open space (POS) in a linear shape of about 11m width is proposed within the Scheme, in a north-south direction connecting In Ku Lane and Queen's Road West. It will open up a wide wind/air ventilation corridor in the local area, which was previously blocked by a row of tenement buildings on the southern side of the Scheme. The new POS shall enhance the local air ventilation as compared to the existing built environment with the soccer pitch being 'land-locked' among tall buildings in the surroundings.
- 3.5. The Government RCP cum public toilet will be re-provisioned within the Scheme through an integrated design with the future residential development. Compared to the existing standalone RCP, the layout and design of the new RCP will be better blended in with the surrounding environment and improve the overall visual impacts. To address the operational needs, an interim RCP of smaller size will be provided within the site during the construction period of the redevelopment, so that refuse collection services will not be affected.

4 AIR QUALITY IMPACT ASSESSMENT

Introduction

- 4.1 This section was prepared to evaluate the potential impact on the air quality from the following aspects: (i) Construction Phase - the potential air quality impact generated from the construction activities of the proposed development to the surroundings; (ii) Operation Phase - road traffic emission and nearby activities to the proposed developments in the Scheme; and the potential air quality impact from the proposed re-provisioned RCP to the surroundings. It also recommends appropriate mitigation measures to the potential impacts if any.

Identification of Key Air Pollution Sources

- 4.2 The concerned air pollutants during the construction phase are the Respirable Suspended Particulates (RSP) and Fine Suspended Particulates (FSP) arising from the construction work of the Project.
- 4.3 The air pollutants generated from the traffic induced by the future development will be negligible compared with the background traffic. No major emission source is anticipated during the operation phase of the development.

Construction Phase Air Quality Impact Assessment

- 4.4 Major dust emitting construction activities will be the demolition of existing structures and excavation for basement construction and foundation works. Fugitive dust would be generated.
- 4.5 Dust control measures under the Air Pollution Control (Construction Dust) Regulation (Cap. 311R) and good site practice shall be implemented to mitigate dust impact arising from demolition work by preventing dust generation and by screening, suppressing and removing dust generated:
- Enclose the whole wall of the building to a height of at least 1m higher than the highest level of the structure to be demolished with impervious dust screens or sheeting on façade abutting or fronting upon a street
 - Existing structures are proposed to be demolished by non-percussive equipment such as hydraulic crusher to reduce dust emission
 - Water or a dust suppression chemical shall be sprayed immediate prior to, during and immediately after demolition/excavation works
 - Cover stockpile or dusty materials with tarpaulin to prevent wind erosion
 - Store cement bags in shelter with 3 sides and the top covered by impervious materials if the stack exceeds 20 bags
 - Maintain a reasonable height when dropping excavated materials to limit dust generation

- Limit vehicle speed within site to 10 km/h and confine vehicle movement in haul road
 - Minimize exposed earth after completion of work in a certain area by hydroseeding, vegetating or soil compacting
 - Cover materials on trucks before leaving the site to prevent dropping or being blown away by wind
 - Regular maintenance of plant equipment to prevent black smoke emission
 - Throttle down or switch off unused machines or machine in intermittent use
- 4.6 The net site area is only about 1,318 m². Given the small scale of work (on-site demolition of 4 to 6 storeys buildings and excavation for basement and foundation), no significant dust impact on the surrounding air sensitive receivers (ASRs) is expected with proper implementation of mitigation measures. No quantitative construction dust assessment is considered necessary.
- 4.7 Operation of Powered Mechanical Equipment (PME) during demolition/construction work would emit air pollutants such as nitrogen dioxide (NO₂) via fuel burning. According to Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, only approved or exempted non-road mobile machinery (NRMM) with a proper label are allowed to be used in specified activities and locations including construction sites. Supportive information and documents (e.g. third-party emission certificates, model and serial numbers of machines and engines, etc.) for each NRMM would be provided to EPD to prove that the concerned NRMM is in line with the prescribed emission standards. Since the number of PME expected to be used on-site will be much less than vehicles travelled on surrounding roads (e.g. Queen's Road West), no significant impact is anticipated.

Operation Phase Air Quality Impact Assessment

- 4.8 As the development consists of residential building and public facilities only, no major emission will be produced during its operation phase. Residential flats, the public open space and fresh air intakes of shops, clubhouse and lift lobby are considered as ASRs.
- 4.9 The dwellings of the existing residential buildings have a vertical distance of about 4m to 20m from Queen's Road West. The distance between the windows of the existing buildings and the traffic road is only about 1m. In contrast, the future residential tower will be built on a podium, with the first floor of sensitive receiver having at least 20m vertical separation from the Queen's Road West. Besides, the residential tower will be further set back from the site boundary which creates a wider horizontal separation from Queen's Road West. In view of such, it is considered that the future residential development will have a better environmental condition than the existing residential buildings, and will not be subject to unacceptable air quality impact generated from the road traffic. **Figure 4.1** is a section plan showing the vertical and horizontal distance from Queen's Road West.

- 4.10 It is proposed that the shops, clubhouse and lift lobby of the podium will be fitted with non-openable windows and central air-conditioning. The air-intake shall be located at the top of the podium and avoid direct facing to Queen's Road West which is the major air pollution source generated from the traffic.
- 4.11 As required in EPD Practice Note for Professional Persons ProPECC PN 2/96 on *Control of Air Pollution in Car Parks*, the exhaust of the ventilation system provided in the carpark will be directed away from the residence and the nearby ASRs. The exact location will be determined in the detailed design.
- 4.12 While the POS will be provided in front of Queen's Road West to open up the area for more convenient access and enjoyment for the public as well as improve the local air ventilation, only passive recreational uses will be proposed at the area fronting Queen's Road West; active recreational uses will be remained at the inner area to maintain a buffer distance from the main traffic road.
- 4.13 The proposed development is surrounded by residential buildings, commercial buildings and 2 hospitals and 1 clinic nearby. The only odour source identified is the existing Government RCP at the north-eastern part of the site. Site visits were conducted to assess if there is any existing odour nuisance caused by the RCP to its neighbourhood. It is concluded that no odour nuisance was encountered during the visits.
- 4.14 Under the current Scheme, the Government RCP will be re-provided in the same location of its existing site within the Scheme area. The environment impact resulted from the proposed RCP shall be similar to the existing condition of which no insurmountable/significant impacts from RCP to surrounding environment and the ASRs are identified in current situation. Subject to liaison with FEHD in designing the future layout of the RCP, mitigation measures such as a ventilation system to extract the air inside the RCP to an odour removal system (e.g. chemical scrubbers) for treatment before exhaust can be explored to avoid odour emission. Given these considerations, it is considered that no significant odour impact is expected to the proposed development and the surroundings. **Figure 4.2** shows the location of the existing and the future RCP.

Conclusion

- 4.15 In terms of the air quality, dust emissions during demolition and construction works of the Project can be minimized to an acceptable level by implementation of mitigation measures as guided by Government Regulations and good on-site practices, such as the use of non-percussive equipment during demolition works, use of dust screens and implementation of dust suppression measures.

- 4.16 No major air pollutant emission will be produced from the proposed development in the Scheme during its operation phase. While the existing land uses of the site and the surroundings will be maintained in general, the air quality impact generated from the road traffic will be largely reduced compared to its existing conditions, given the distance between the ASRs of the proposed residential development and Queen's Road West will be increased. It is envisaged that the environmental condition in terms of air quality upon completion of the project will be similar to, if not better than, the existing situation. It is considered that no insurmountable air quality impact is anticipated for the proposed development.

5 NOISE IMPACT ASSESSMENT

Introduction

- 5.1 This noise impact assessment section is to evaluate the potential noise impact associated with the Project and to recommend appropriate mitigation measures for the residual noise impact.
- 5.2 During the construction phase, the potential noise impact would be the construction noise arising from the project. In the operation phase, traffic noise from nearby road networks and fixed noise sources from the neighbourhood may have noise impact on the residential flats of the development. With the proposed mitigation measures, the anticipated noise impact to the Project would be minimized and reduced to a level that no insurmountable noise impact is expected.

Standards and Guidelines

Road Traffic Noise

- 5.3 The Hong Kong Planning Standards and Guidelines (HKPSG) provide guidance on acceptable road traffic noise levels at the openable windows of various types of noise sensitive buildings. The relevant criteria are shown in Table 5.1.

Table 5.1 HKPSG Road Traffic Noise Planning Criteria

| Uses | Road Traffic Noise L ₁₀ , (1hr) dB(A) |
|--|---|
| Domestic Premises | 70 |
| Hotel and Hostels | 70 |
| Offices | 70 |
| Educational institutions | 65 |
| Hospital & Clinics | 55 |
| Places of public worship and courts of law | 65 |

Note: The above criteria apply to noise sensitive uses which rely on opened window for ventilation.

Fixed Noise Sources

- 5.4 HKPSG also provides guidance on the operational noise emitted from the fixed sources. The level of the intruding noise at the façade of the sensitive use should be at least 5dB(A) below the appropriate Acceptable Noise Levels (ANL) shown in Table 2 of the *Technical Memorandum for the Assessment of Noise from Places Other than Domestic Premises, Public Places or Construction Sites* (IND-TM), or in the cases of the background being 5dB(A) lower than the ANL, should not be higher than the background. According to IND-TM, the ANLs for different Area Sensitivity Ratings (ASRs) are given in Table 5.2.

Table 5.2 Acceptable Noise Levels (ANLs), dB(A), L_{eq} , (30mins)

| Time Period | ASR A | ASR B | ASR C |
|------------------------------|-------|-------|-------|
| Day (0700 to 1900 hours) | 60 | 65 | 70 |
| Evening (1900 to 2300 hours) | | | |
| Night (2300 to 0700 hours) | 50 | 55 | 60 |

- 5.5 The project site is located in the urban area of Western District. There is no industrial area or major road with daily traffic more than 30,000 affecting the site. Therefore the site is considered not affected by any Influencing Factor (IF) and the ASR of the site would be "B". As the site is subject to traffic noise impact from the Queen's Road West, it is expected that the prevailing background noise level would be higher than ANL by 5 dB or more. The planning criteria would be 60 dB(A) for day and evening time and 50 dB(A) for night time.

Construction Noise Impact Assessment

- 5.6 Major noise emitting activities will be the demolition of existing structures and foundation works of future development.
- 5.7 The use of powered mechanical equipment (PME) will generate construction noise nuisance to the nearby Noise Sensitive Receivers (NSRs). As the site is small and situated in a well-developed urban area, the number of PME that it can accommodate is limited. To minimize noise generation, non-percussive equipment such as hydraulic crusher is proposed for demolishing existing building and structure. Also, adoption of non-percussive piling method for foundation work is also recommended. As these activities would only last for a short period of time, significant noise impact on sensitive receivers is not expected with proper implementation of mitigation measures:
- Adopt good site practice, such as throttle down or switch off equipment unused or intermittently used between works
 - Regular maintenance of equipment to prevent noise emission due to impairment
 - Position mobile noisy equipment in locations away from nearby NSRs and point the noise sources to directions away from NSRs
 - Make good use of other structures for noise screening
 - Use of quiet plants and working methods to mitigate at source
 - Use of mobile noise barriers/enclosures along the path of noise propagation
 - Schedule work to minimize concurrent activity and duration of impact

Operation Noise Impact Assessment

- 5.8 No significant noise will be generated during operation phase from the residential tower and its podium. Noise impact due to sources outside the Project Site to potential receivers in the development are considered in the following assessment.

Noise Sensitive Receivers

- 5.9 Under the current notional design, there will be a 29-storey residential tower, with 189 flats divided into low zone and high zone. All flats of the future residential tower were included as Noise Sensitive Receivers according to the nature of use. No other building in the Project is identified as receivers. Shops and the clubhouse in the podium will be provided with air-conditioning systems and will not rely on openable windows for ventilation and thus not considered as NSRs.
- 5.10 The NSRs were located 1.2m above the slab level and 1m away from the façade. All windows of all the flats are included. Their locations are listed in **Table 5.3** and shown in **Figures 5.1a & 5.1b**.

Table 5.3 Noise Sensitive Receivers in Operation Phase

| Zone | Floors | Flat | Room | Zone | Floors | Flat | Room |
|------|------------|------|----------|------|-------------|------|----------|
| Low | 1/F - 15/F | A | living | High | 16/F - 29/F | A | living |
| Low | 1/F - 15/F | A | bedroom1 | High | 16/F - 29/F | A | bedroom1 |
| Low | 1/F - 15/F | A | bedroom2 | High | 16/F - 29/F | A | bedroom2 |
| Low | 1/F - 15/F | B | bedroom | High | 16/F - 29/F | B | bedroom |
| Low | 1/F - 15/F | B | living | High | 16/F - 29/F | B | living |
| Low | 1/F - 15/F | C | bedroom1 | High | 16/F - 29/F | C | bedroom1 |
| Low | 1/F - 15/F | C | bedroom2 | High | 16/F - 29/F | C | bedroom2 |
| Low | 1/F - 15/F | C | living | High | 16/F - 29/F | C | living |
| Low | 1/F - 15/F | D | bedroom | High | 16/F - 29/F | D | bedroom1 |
| Low | 1/F - 15/F | D | living | High | 16/F - 29/F | D | bedroom2 |
| Low | 1/F - 15/F | E | living | High | 16/F - 29/F | D | living |
| Low | 1/F - 15/F | E | bedroom | High | 16/F - 29/F | E | living |
| Low | 1/F - 15/F | F | bedroom | High | 16/F - 29/F | E | bedroom1 |
| Low | 1/F - 15/F | F | living | High | 16/F - 29/F | E | bedroom2 |
| Low | 1/F - 15/F | G | bedroom | High | 16/F - 29/F | F | bedroom1 |
| Low | 1/F - 15/F | G | living | High | 16/F - 29/F | F | bedroom2 |
| - | - | - | - | High | 16/F - 29/F | F | living |

Assessment MethodologyRoad Traffic Noise

- 5.11 An in-house noise model (MARC) was used to predict the traffic noise levels arising from the road network. It adopts the methodology provided in the UK Department of Transport's *Calculation of Road Traffic Noise (CRTN)* 1988, which is stipulated in Chapter 9, Section

4.2.7 of the HKPSG for assessing road traffic noise impact. Road traffic noise levels are presented in terms of noise levels exceeded for 10% of the one-hour period for the hour having the peak traffic flow [L_{10} (1-hour) dB(A)].

- 5.12 The assessment was based on the projected peak hour flows for the worst year within 15 years after completion of the Project in Year 2028. Based on the traffic forecast provided by the traffic consultant, the PM peak hour flows in Year 2043 will be the maximum projected peak hour traffic flow within 15 years from the completion of the Project. The major roads within 300m from the boundary of the Project have been included in the assessment and are shown in **Figure 5.2**.
- 5.13 Two scenarios have been considered in the traffic noise impact assessment. The first one is a base scenario which only includes careful disposition of layout such as the building/ flat orientation and location of the windows are considered, and building setback. The second scenario is a mitigated scenario with incorporation of some noise mitigation instruments in the development, such as acoustic windows and balconies, which can result in achieving a higher noise compliance rate with respect to the relevant criterion.

Fixed Noise Sources

- 5.14 Site visits have been organized to identify major fixed noise sources in the neighbourhood of the site. The sources are anticipated to have fixed noise impact to the site, which has been assessed according to standard acoustics principles and technique. Calculations are based on the following standard formula:

$$SPL = SWL - DC + FC$$

where

SPL – Sound Pressure Levels at receiver, in dB(A)

SWL – Sound Power Levels of Fixed Noise Sources, in dB(A)

DC – Distance Correction, in dB by $DC = 20 \times \log_{10}(D) + 8$, D is the slant distance between the NSR and noise source location in metres

FC – Façade Correction of 3 dB

- 5.15 The sound power level in Appendix III of EPD's *Good Practices on Ventilation System Noise Control* (hereafter "Good Practices") have been used for the assessment. Reference was also made to the specifications of the plant available in the market.

Impact Identification and Assessment

Road Traffic Noise

- 5.16 The peak hour traffic flow of individual roads in the assessment year (Year 2043) are listed in **Appendix 5.1**. The traffic prediction will be submitted to the Transport Department for their

endorsement. The reply from Transport Department on no comment to the traffic forecast is attached as **Appendix 5.2**.

a) Base Scenario: Careful Building Disposition and Building Setback

5.17 In the base scenario, a setback of about 5m from the road curb has been adopted for the proposed residential tower in order to reduce the traffic noise impact from Queen's Road West. The 3-storey podium would also act as a noise barrier for lower levels. No acoustic window, acoustic balcony and acoustic fin was included in this scenario.

5.18 The traffic noise for both AM and PM peak hours were calculated. The details of the results are presented in **Appendix 5.3**. About 82% residential flats comply with the noise criteria of 70 dB(A). The non-compliance residential units are all located in the low zone of particular Flats A, F & G. The predicted maximum noise level for residential NSRs is 75 dB(A).

b) Mitigated Scenario: With Further Mitigation Measure / Instruments

5.19 In order to further mitigate the traffic noise impact to the residential units exceeding 70 dB(A) in the base scenario, noise mitigation measures and instruments were proposed and are described as follows. Locations of these mitigation measures are shown in **Figure 5.3**.

5.20 Acoustic balconies, similar to the type adopted in Providence Peak at Pak Shek Kok, were proposed for the low zone (1/F to 15/F) living rooms facing Queen's Road West (those belongs to Flats A, F and G). The acoustic balcony shall be more than 1m deep and has a solid parapet of at least 1.2m high. An acoustic lining is proposed on the ceiling of the balcony to prevent reflection of the traffic noise. The balcony doors are self-closing doors and are not for ventilation purpose. A typical section of the acoustic balcony is provided in **Figure 5.4a**. 2 dB(A) noise reduction is expected for the acoustic balcony in this project and used in the calculation.

5.21 Acoustic windows (top-hung type), similar to the type adopted in Hong Tsuen Road Residential Development at Sai Kung (Park Mediterranean), were proposed for the low zone (1/F to 15/F) bedrooms facing Queen's Road West (those belongs to Flat A and Flat G). The acoustic window consists of 3 major components:

- 1) The first component is the top-hung openable window at the top for natural ventilation. The top-hung window is installed with a micro-perforated absorbers (MPA) panel on the inner side of the window to minimize the noise reflection and a curtain box after the top-hung window to limit the noise entering.
- 2) Directly below the openable top-hung window, a horizontal acoustic fin was used to block the road traffic noise entering through the openable window.

- 3) Fixed window/self-closing glass door would be installed below the fin for natural daylight access but not for the ventilation purpose.

5.22 The ratio of the vertical distance from the bottom of curtain box to the bottom of the top-hung window to the length of the aluminium acoustic fin (aspect ratio) shall be less than the aspect ratio (0.55) of the acoustic window in Hong Tsuen Road Residential Development at Sai Kung (Park Mediterranean). A typical section of the top-hung type acoustic window is provided in **Figure 5.4b**. The dimensions of window design will be decided at the detail design stage and shall fulfil the requirements of Buildings Department (e.g. ventilation requirements). Future changes to either the building layout or the acoustic design shall not compromise the acoustic performance. The traffic noise impact assessment shall be updated to demonstrate the noise compliance in such cases. 5 dB(A) noise reduction is expected for the acoustic window in this project and used in the calculation.

5.23 Both the proposed acoustic balcony and acoustic window have been applied in other projects and are proven to achieve the said noise mitigation results. With these noise mitigation designs and measures in place, about 95% of the residential flats are expected to comply with the 70 dB(A) traffic noise criterion. The anticipated mitigated noise levels are presented in **Appendix 5.4**.

Fixed Noise Sources

5.24 The ventilation exhaust of RCP may induce noise impact to nearby sensitive uses. To avoid causing odour impact, it shall be directed away from nearby air sensitive receivers. Its noise impact should also be reduced in such disposition. Mitigation measures such as acoustic louvers shall be considered in the detailed design stage. Since the location of the future RCP is similar to that of the existing one, no insurmountable noise impact is expected from the reprovisioning of the RCP.

5.25 Site visits to the neighbourhood of the site identified 4 chillers and 6 cooling towers on the roof of the Sai Ying Pun Jockey Club Polyclinic and the Prince Philip Dental Hospital respectively. They are considered as the major fixed noise sources that would induce impact to future NSRs of the project. Their locations are shown in **Figure 5.5**. Some photos of these plants are provided in **Appendix 5.5**.

5.26 Information of the 4 chillers has been obtained from the Department of Health. The reply from the department is provided in **Appendix 5.6**. **Appendix 5.7** provides a catalogue of chillers of the same brand showing the sound power levels of chillers with similar cooling capacities. The corresponding sound power levels were adopted in this assessment.

- 5.27 No response has been received from Prince Philip Dental Hospital regarding the information of the cooling towers. The sound power level of the cooling towers was assumed to be 105 dB(A), which is the maximum level in Table 7b of EPD's Good Practices. The cooling towers were found to be installed inside partial enclosures for noise reduction. The Good Practices suggests a 10 to 20 dB(A) reduction for such remediation. A mid-level 15 dB(A) reduction was used for this assessment.
- 5.28 After applying distance corrections and façade corrections, the predicted noise level at the worst affected NSR due to identified fixed noise sources is 56 dB(A). Detailed calculations of the noise level at the NSR are provided in **Appendix 5.8**.
- 5.29 The predicted noise impact from fixed noise sources on the Project shall comply with the daytime and evening time criteria. As Prince Philip Dental Hospital and Jockey Club Polyclinic do not operate during night time, no night time noise impact is expected from these fixed noise sources.

Conclusion

- 5.30 The overall noise impact during the construction phase is considered insignificant. Mitigation measures shall be implemented in accordance with relevant code of practices and guidelines during construction to minimize construction noise impact on the nearby NSRs.
- 5.31 Traffic noise impact assessment of the proposed development was assessed as per **Section 5.16–5.18 and 5.24–5.28**. With careful disposition of the notional layout, the residential tower can achieve 82% compliance of 70 dB(A) traffic noise assessment criteria as demonstrated in the base scenario. Subject to liaison with EPD in balancing the market demand and environmental consideration, the future joint venture partnership/URA can further enhance the noise compliance up to 95% with proposed mitigation measures which is acceptable and in accordance with the requirement of HKPSG. It is therefore considered that the proposed residential development in the Scheme will not face adverse traffic noise impact.
- 5.32 Based on reasonable assumptions to the noise levels of fixed sources in the vicinity of the Site, the fixed plant noise impact would comply with the daytime and evening time criteria. No night time fixed noise impact is anticipated to the residential flats. In this regard, it is considered that no adverse fixed plant noise impact on the proposed residential development is anticipated.

6 LAND CONTAMINATION ASSESSMENT

Introduction

- 6.1 This section identifies and evaluates potential impact due to land contamination of the Project. Mitigations measures would be recommended with reference to the applicable legislation and guidelines where necessary.

Legislations, Standards & Guidelines

- 6.2 Legislations and guidelines related to land contamination are given below:
- Environmental Impact Assessment Ordinance (Cap. 499), Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM), Annex 19;
 - Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C);
 - Dangerous Goods Ordinance (Cap 295);
 - Practice Guide for Investigation and Remediation of Contaminated Land;
 - Guidance Note for Contaminated Land Assessment and Remediation; and
 - Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management.

Potential Land Contamination Impact

- 6.3 According to *Guidance Note for Contaminated Land Assessment and Remediation* and EIAO-TM Annex 19, the following industrial uses may result in land contamination:
- oil installations including oil depots and petrol filling stations
 - gas works
 - power plants
 - shipyards/boatyards
 - chemical manufacturing/processing plants
 - steel mills/metal workshops
 - car repairing and dismantling workshops
 - dumping ground and landfill
 - scrap yards

Assessment Methodology

- 6.4 In order to identify and evaluate the potential contamination impacts associated with the Project, a desktop study has been conducted to review the historical and current land uses. Aerial photographs from Lands Department have been reviewed. Site appraisals have been carried out to identify any contamination hotspots and the site condition of the industrial operations, if any. Records from Environmental Protection Department (EPD) and Fire

Services Department (FSD) shall also be reviewed to identify any accidents, fires, explosions, spillage and any pollution incidents occurred at the site.

Impact Assessment and Evaluation

Historical and Current Land Uses of Site

- 6.5 Historical aerial photographs covering the site that are available at Lands Department were reviewed to evaluate any land use changes associated with potential contamination implication within the site boundary demarcated in **Figure 1.1**. The oldest aerial photo available dated back to 1949. The list of aerial photos reviewed is shown in **Table 6-1**.

Table 6-1 List of Aerial Photos Reviewed

| Year | Photo No. |
|------|----------------|
| 1949 | 6026 (81A/144) |
| 1949 | 6027 (81A/144) |
| 1963 | 7159 |
| 1969 | 1503 |
| 1972 | 1825 |
| 1973 | 3981 |
| 1976 | 15089 |
| 1976 | 15090 |
| 1976 | 15091 |
| 1986 | A04062 |
| 1987 | A08878 |
| 1989 | A16433 |
| 1993 | CN4717 |

- 6.6 Historically, the site and its nearby area were residential buildings, shops and public facilities. The site has been a built area since 1949. 1 to 2 storey houses occupied the current Li Sing Street Playground and the RCP. These houses were demolished by 1992. The existing RCP, public toilet and the Playground were then built in 1993. The Kam Yu Mansion and its podium next to the project site was built between 1989 and 1993. No industrial activity that has risk of land contamination was identified near the site.
- 6.7 Site appraisals were carried out to identify the latest land use and any contamination hotspots within the site boundary. There are shops at the ground floor of the tenement buildings facing Queen's Road West. A majority of the shops sells traditional Chinese Medicines, dried seafood and tonic foods. They are considered as part of the famous herbal medicine trading area extending from Ko Shing Street. In general, area within the site boundary did not

experience much landscape alternation since the construction of the existing Government RCP and the soccer pitch in the 1990s.

- 6.8 Aerial photos and site visits showed that no industrial activity listed under the Guidance Notes or ELAO-TM was conducted in the vicinity of the project site. Given no industrial activity has been found at the site, no land contamination within the project site is anticipated. As such, no potential hazard is expected due to handling, collection, transportation and re-use/disposal of excavated soil during construction period is anticipated.

Enquiries with Government Departments

- 6.9 Information shall be requested from Fire Services Department (FSD) and Environmental Protection Department (EPD) on the history of operation and land use of the site. The EPD shall be consulted with regard to any records of chemical waste producer (CWP). The FSD shall be consulted with regard to any records of dangerous good license(s). Both departments shall also be inquired on any reported accidents or spillage/leakage incidents within the project area. The correspondences from FSD and EPD will be documented in **Appendix 6.1**. The correspondences shall confirm that neither records of dangerous good license nor incidents of spillage/leakage of dangerous goods have been found in the project site. Records from EPD and FSD shall be sought to confirm that there was no chemical waste producer, dangerous goods store nor chemical spillage record at the project site and in the vicinity of the site.

Conclusion

- 6.10 Based on review of historical aerial photos, site appraisals and government records, it is concluded that land contamination within the site boundary is highly unlikely.

7 AIR VENTILATION ASSESSMENT

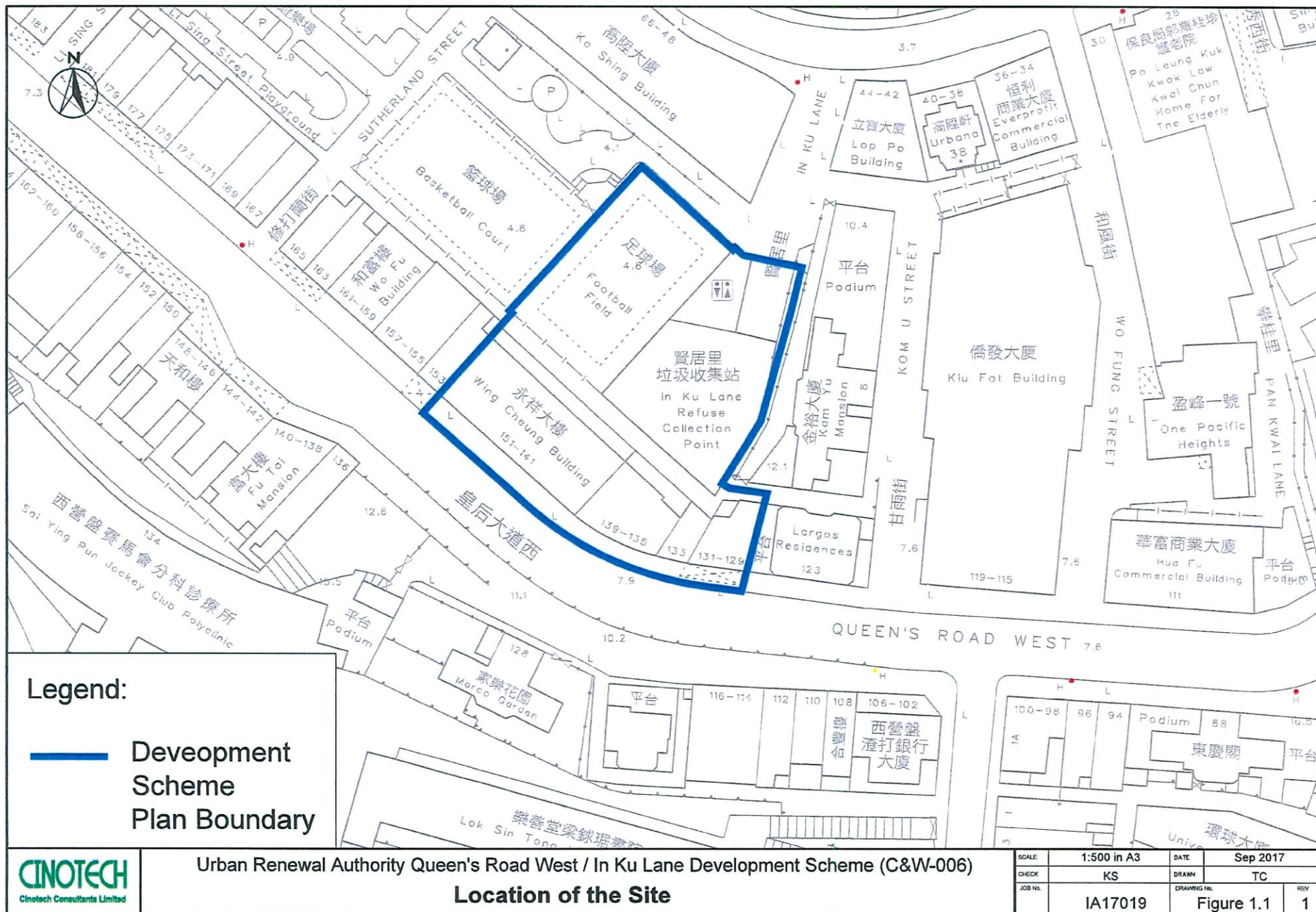
- 7.1 The wind environment of the site has been reviewed. Based on the available RAMS wind data from PlanD, the prevailing wind is from the E, ENE & ESE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind also comes from the SW, SSW & S directions. Please refer to **Appendix 7.1** for the detailed Expert Evaluation Report. Under annual condition, the wind that entering the Project site is mainly from the main road, i.e. Queen's Road West, in the south. Some wind will also enter the site through the roads from the north direction and the gap between buildings from the east.
- 7.2 The buildings to the immediately south (S) of the Project site are generally lower than 30m above ground thus the wind path from the south is secured. In the east (E) and north (N) directions, there are several existing high rise buildings near the Project. The wind from the east and north are already largely blocked by the existing high rise buildings and therefore not considered as the major wind path to be improved.
- 7.3 The proposed redevelopment includes a new elongated shaped POS adjoining Queen's Road West. The width of the POS is about 11m. It can serve as a new NE/SW direction wind corridor when the prevailing wind come from S to SW directions during summer. Compared to the existing environment where a row of tenement buildings of 4-6 storeys high has blocked the prevailing wind from SW and SSW, the new POS corridor can largely improve the local ventilation in the area. It can open up an air path to further enhance the at grade air circulation from the POS towards the adjoining Li Sing Street playground in the inner part of the street block.
- 7.4 Given the presence of dense and compact built environment of the surrounding, it is expected that the narrow streets and back lanes in the surrounding area are not efficient air paths. The existing major roads, namely Queen's Road West and Ko Shing Street, are the only major wind paths of the area. The proposed POS in the Scheme will serve as another major wind path which shall improve the air ventilation in the area.
- 7.5 A residential tower of about 30 storeys on top of a 3-storey podium is proposed in the Scheme which will locate on the south-eastern side of the Site, with no obstruction to the air space above the POS and the Queen's Road West. In addition, terraced podium design is adopted to enhance air circulation at pedestrian level of Queen's Road West compared to the existing situation. Sky garden is proposed in the current layout which enhances the permeability of the building block in the high zone.
- 7.6 The proposed building height of the residential tower conforms to the maximum building height of the R(A)7 zoning in the area. Therefore, the height of the proposed residential tower is not anticipated to induce significant air ventilation impact to the surrounding area.

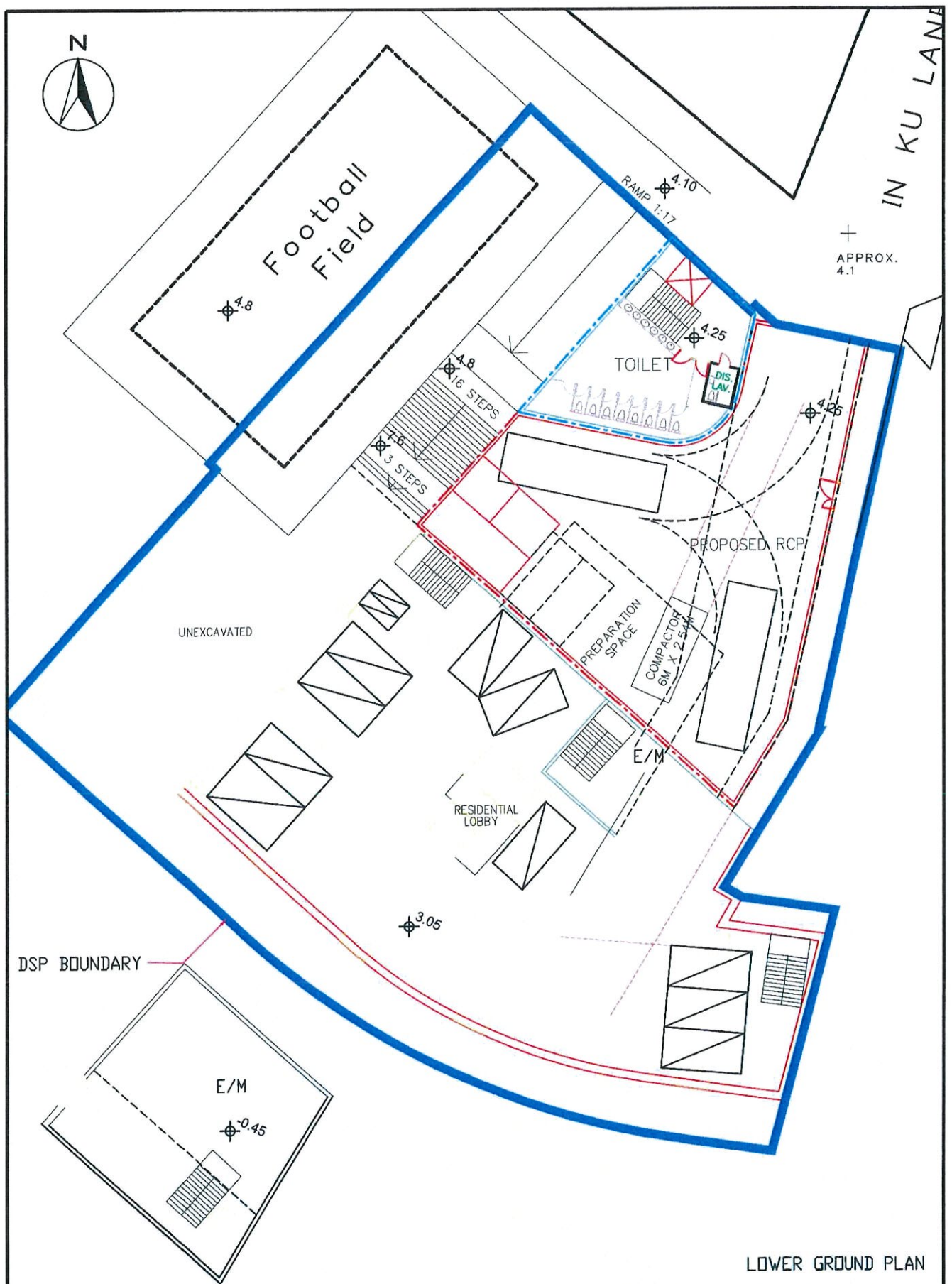
- 7.7 Consider the ventilation of the development itself, the residential tower is higher than its surrounding buildings thus its wind capturing potential is secured. In addition, judicious disposition of the residential tower allows capturing the upstream wind from the east through the gap between buildings.
- 7.8 In conclusion, various air ventilation related issues have been considered during the early design stage and no adverse air ventilation impact on the local wind environment due to the proposed development is anticipated.

8 CONCLUSION

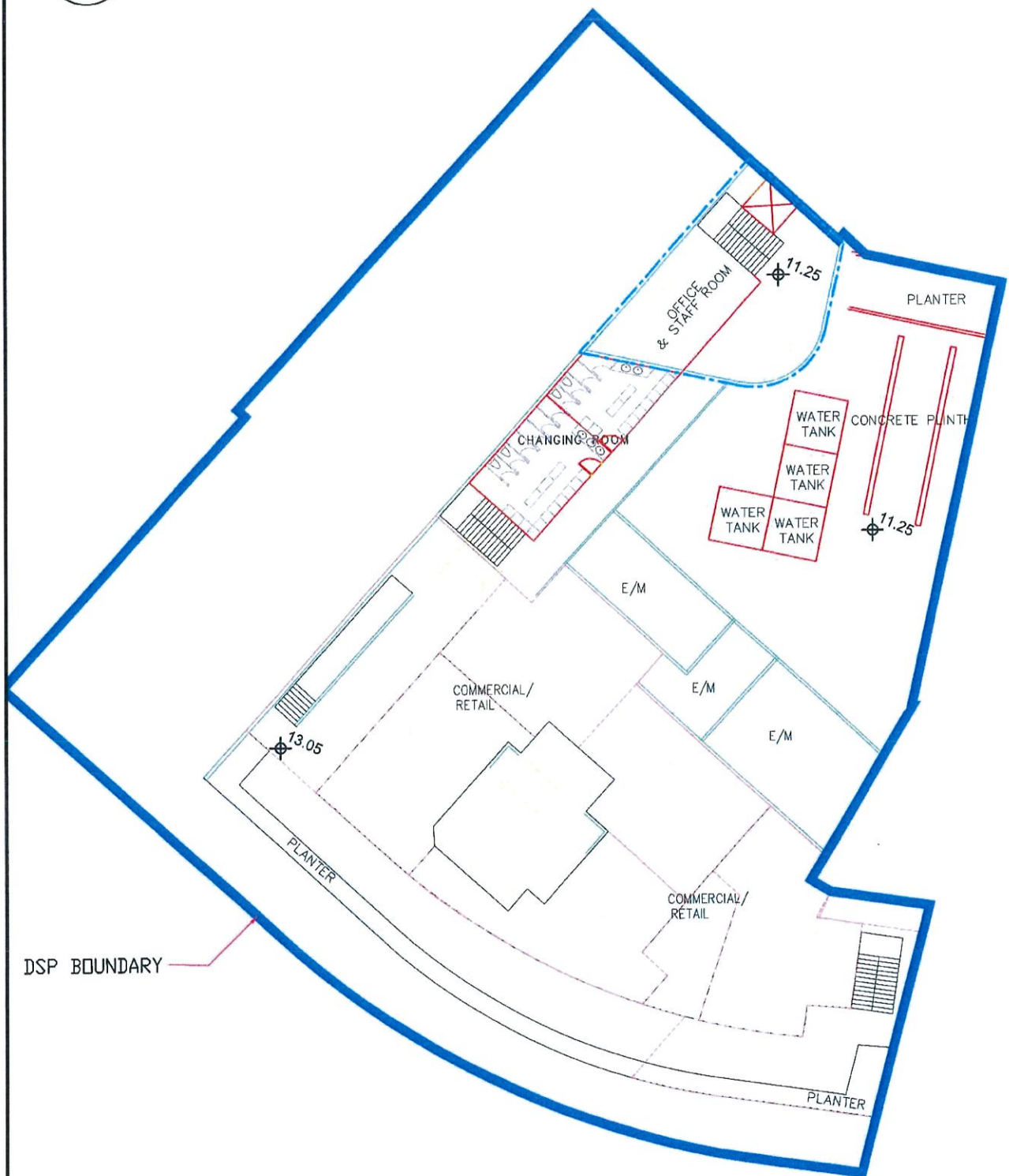
- 8.1 An Environmental Assessment has been carried out to evaluate the potential environmental benefits and impacts likely to arise from the proposed Development Scheme Plan. The key environmental issues associated with the Project are construction dust impact, construction noise impact and waste management during the construction phase and potential air quality and noise impact during the operational phase. Potential sewerage impact, land contamination impact and air ventilation impact are also assessed to support the Development Scheme.
- 8.2 Heavy foundation work is not anticipated for the Project as its scale is small. With the implementation of dust suppression measures stipulated under the Air Pollution Control (Construction Dust) Regulation and the adoption of good site practice, no adverse air quality impact associated with the construction works is expected.
- 8.3 The development is not considered as an air pollution source during its operation. The air quality impact generated from the road traffic will be largely reduced compared to its existing conditions, given the distance between the ASRs of the proposed residential development and Queen's Road West will be increased. The existing land uses of the site and the surroundings will be maintained in general. It is considered that no insurmountable air quality impact is anticipated.
- 8.4 With the implementation of the recommended mitigation measures, construction noise impact will be minimized. Construction noise impact is considered insignificant. Fixed noise from nearby sources has been assessed and the predicted noise level at the future residential unit complies with the relevant noise criterion.
- 8.5 Road traffic noise impact has been assessed for a base scenario and a mitigated scenario. With the proposed mitigation measures, adverse road traffic noise impact on the Project is not anticipated.
- 8.6 No risk of land contamination has been identified near the site after reviewing historical and current land uses and government records. No potential land contamination land contamination within the project site is expected.
- 8.7 Air ventilation assessment indicated that various air ventilation related issue have been considered during the early design stage thus no adverse air ventilation impact on the local wind environment due to the proposed development is anticipated.

FIGURES

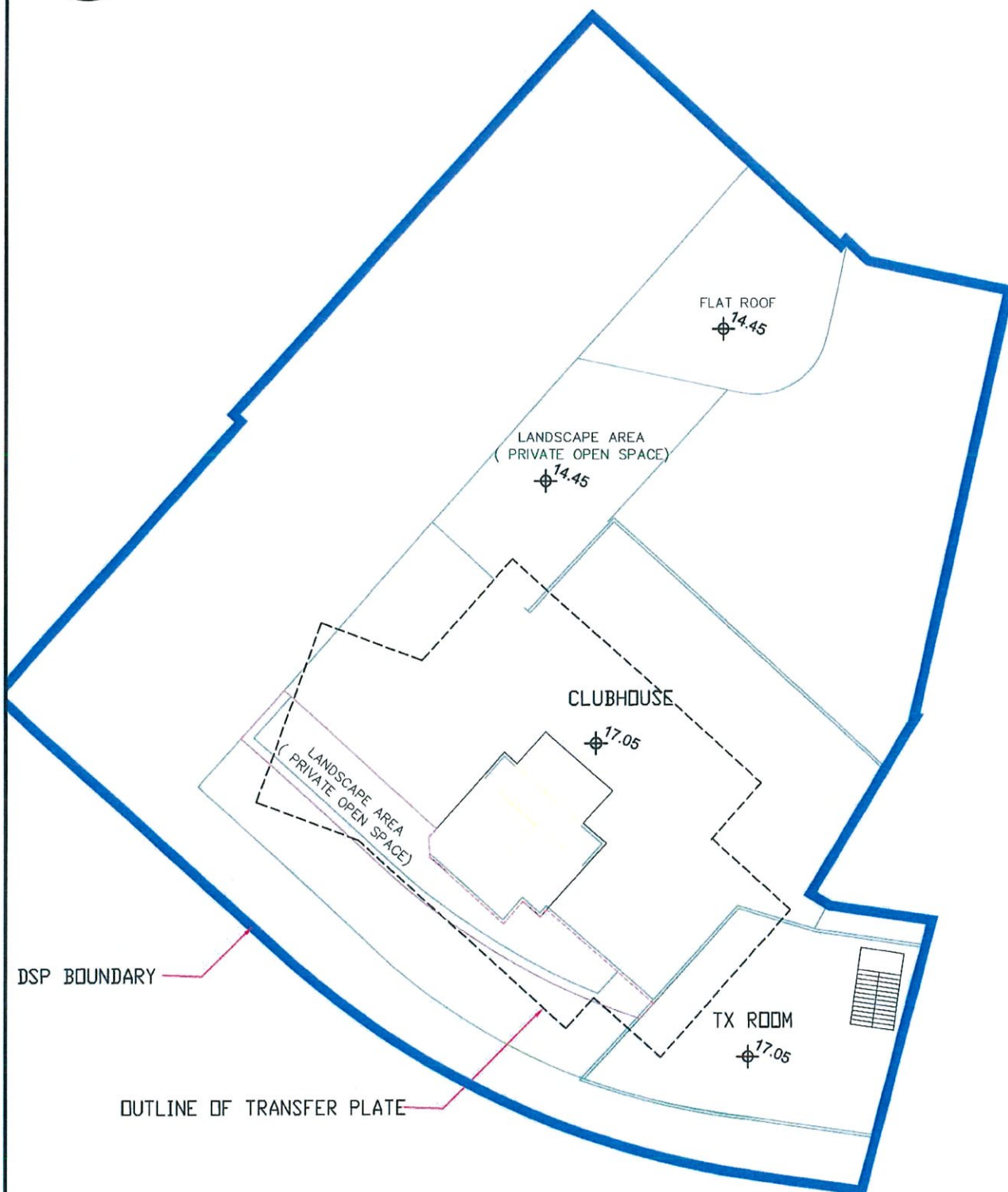




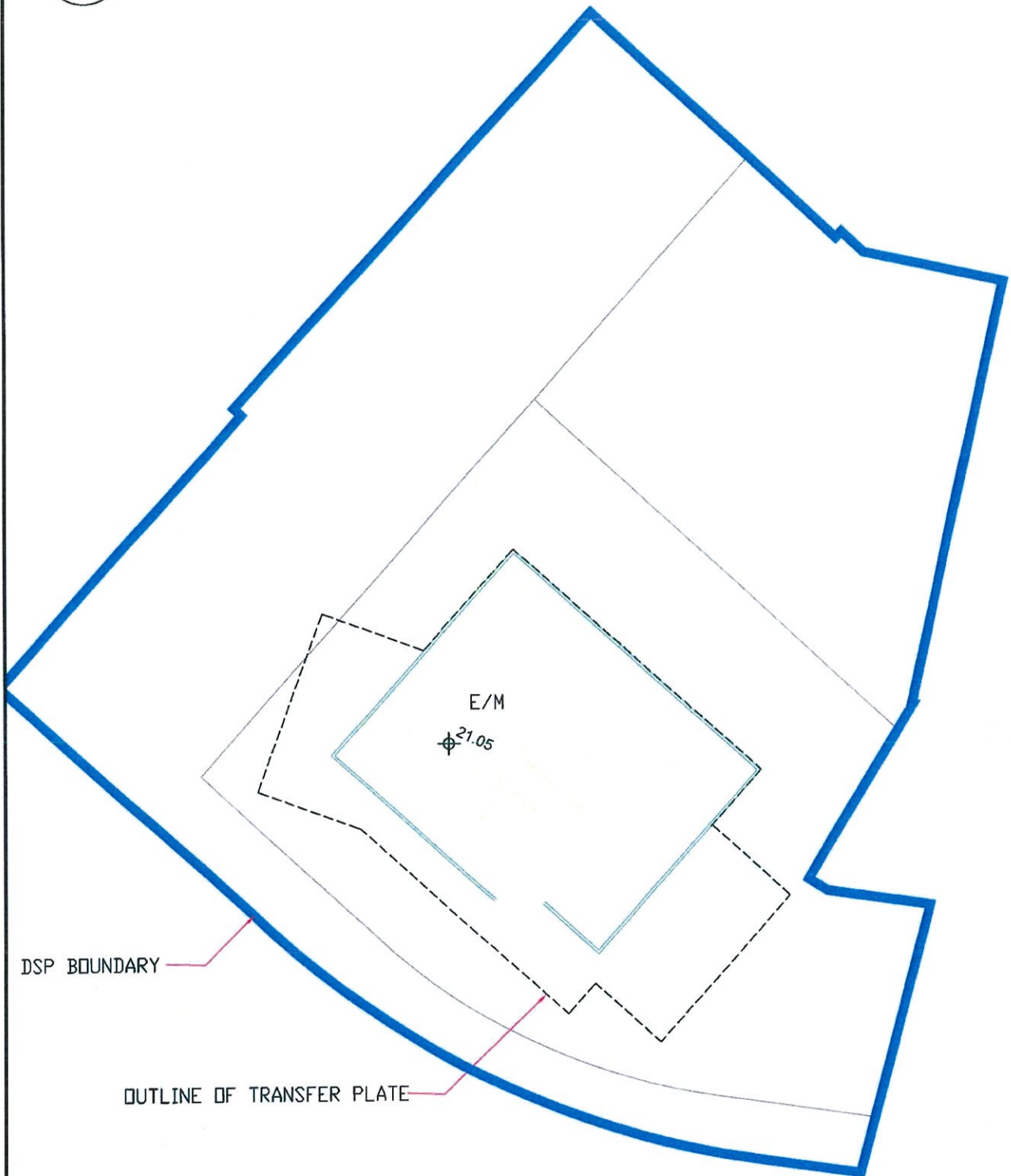
LOWER GROUND PLAN



1F PLAN



2F PLAN



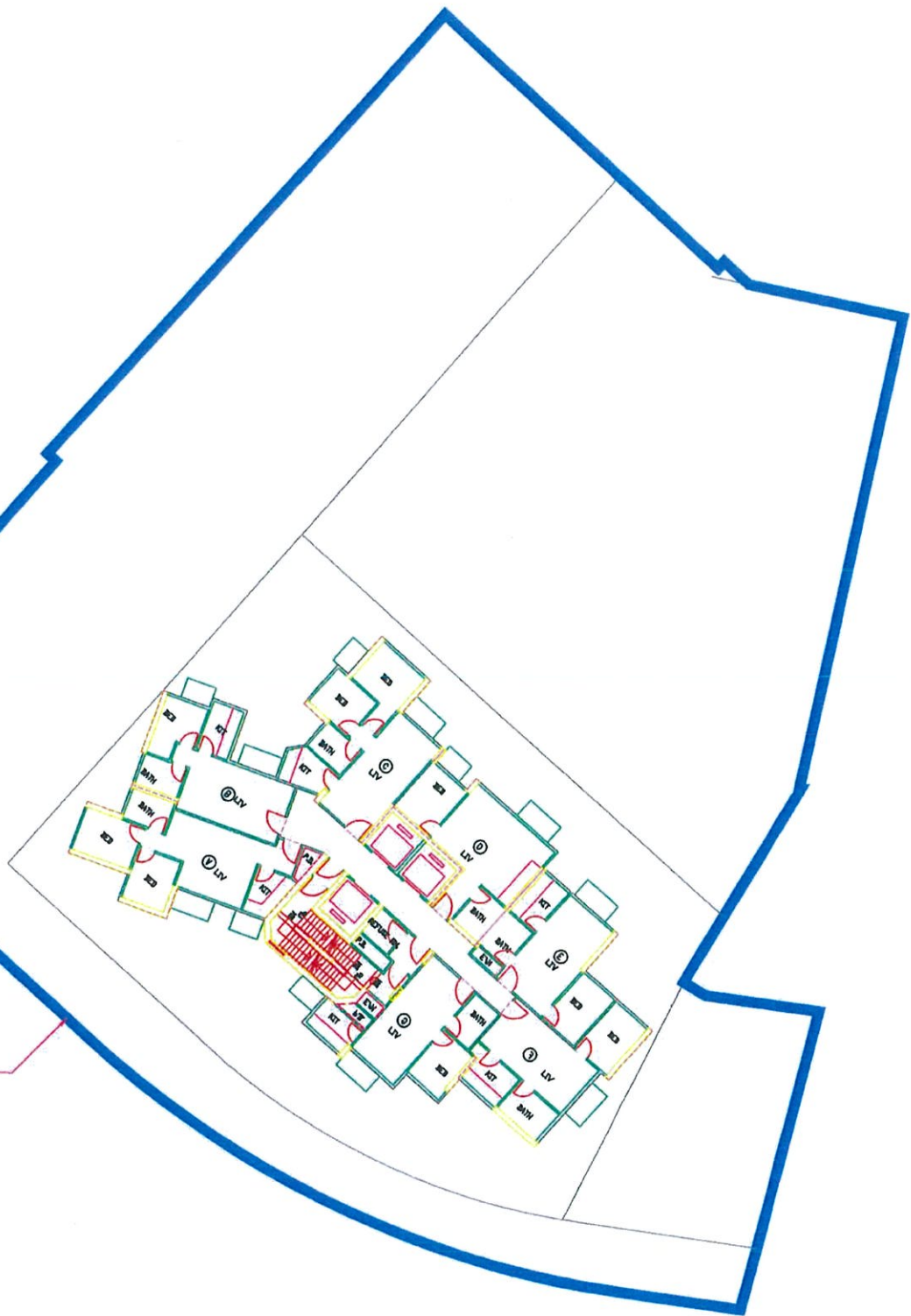
DSP BOUNDARY

OUTLINE OF TRANSFER PLATE

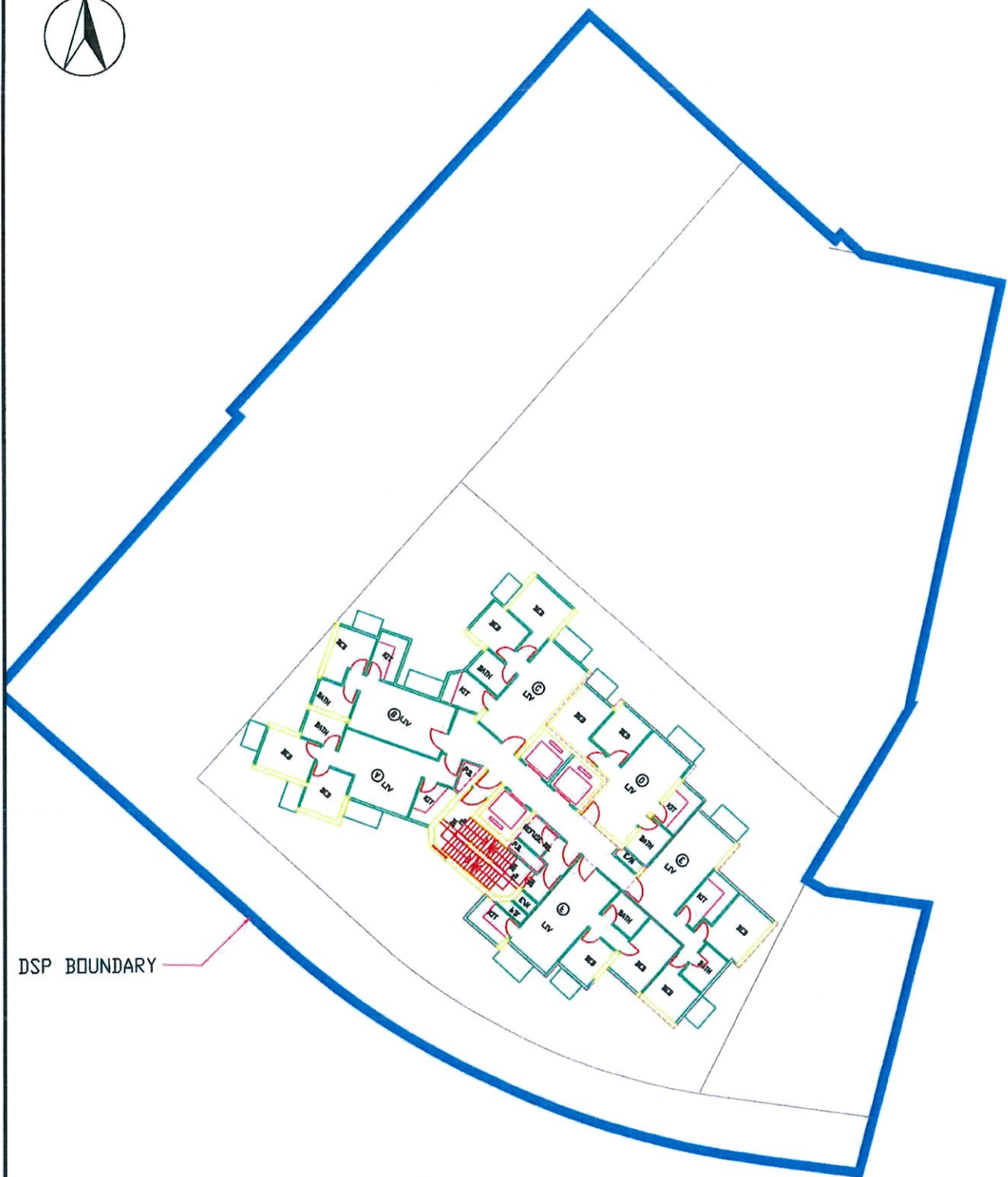
3F PLAN



DSP BOUNDARY

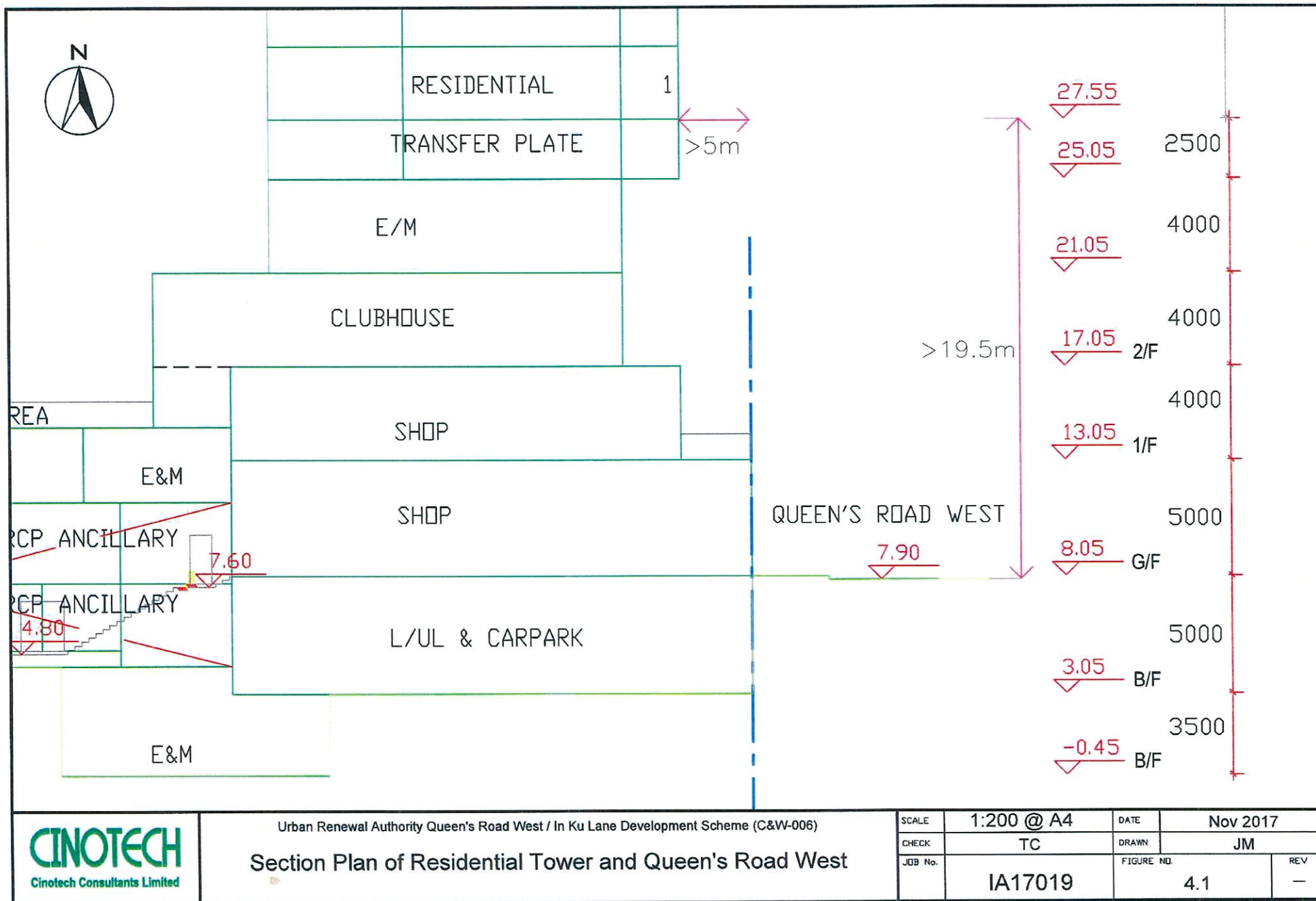


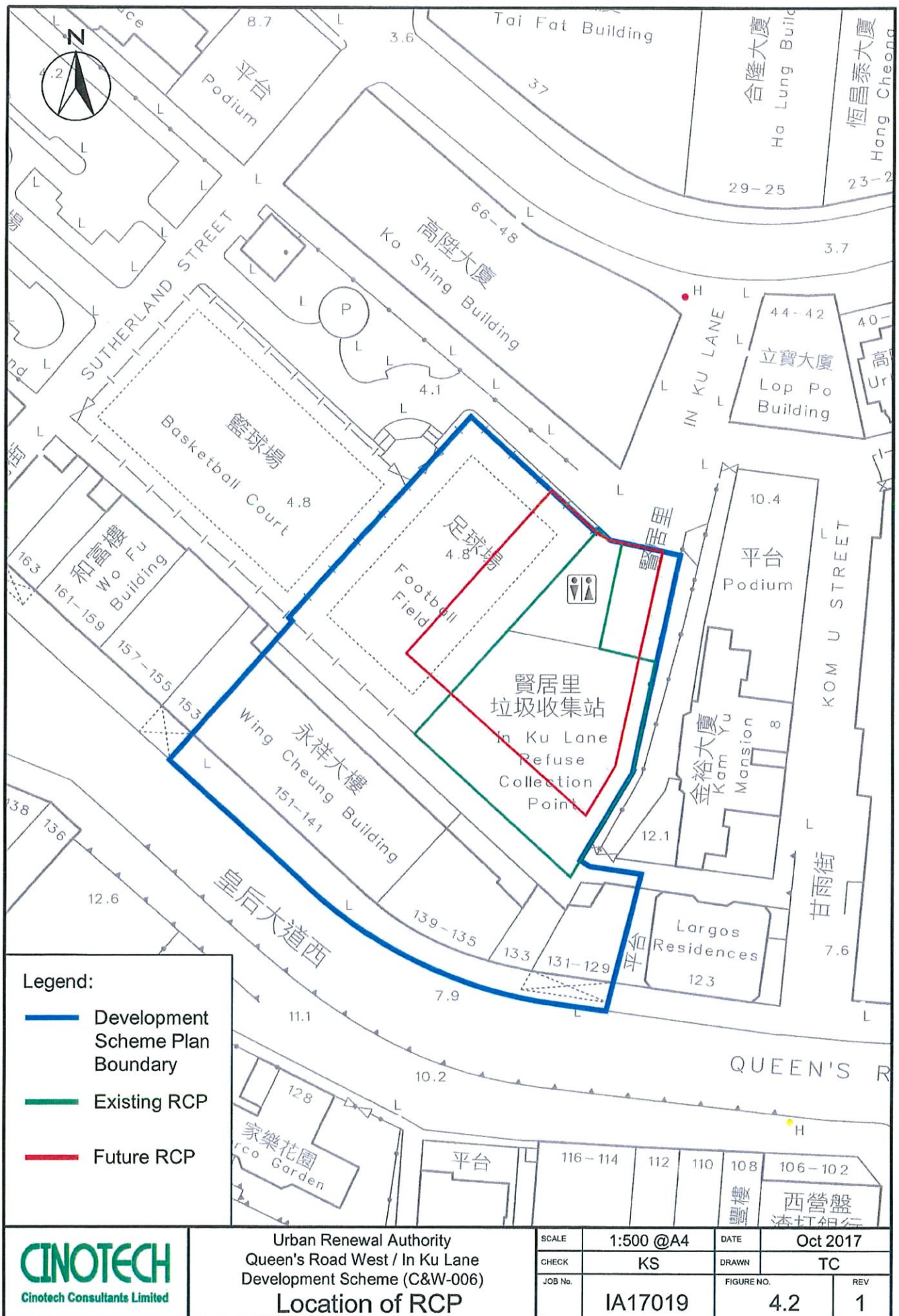
TYPICAL FLOOR PLAN
(LOW ZONE)

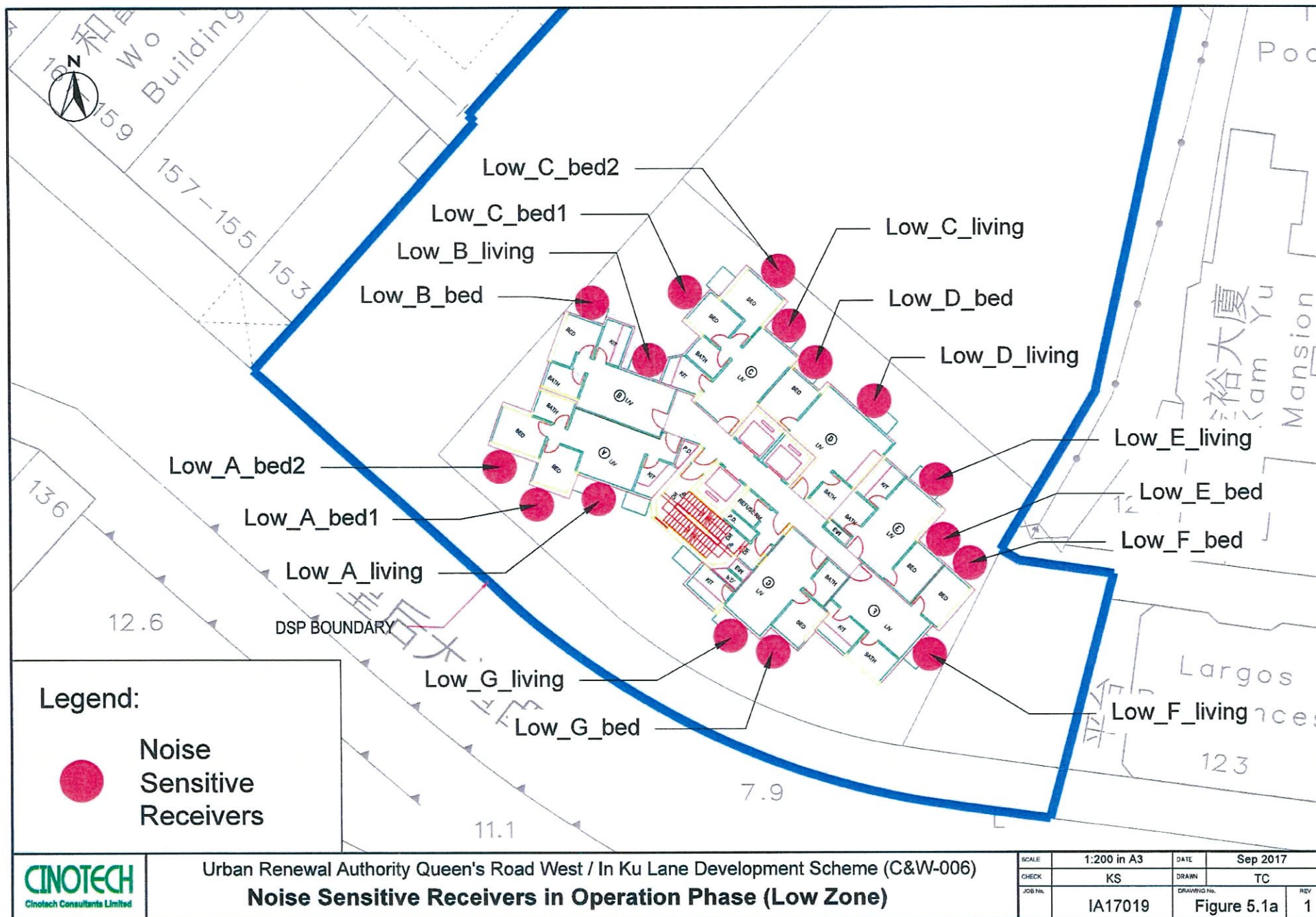


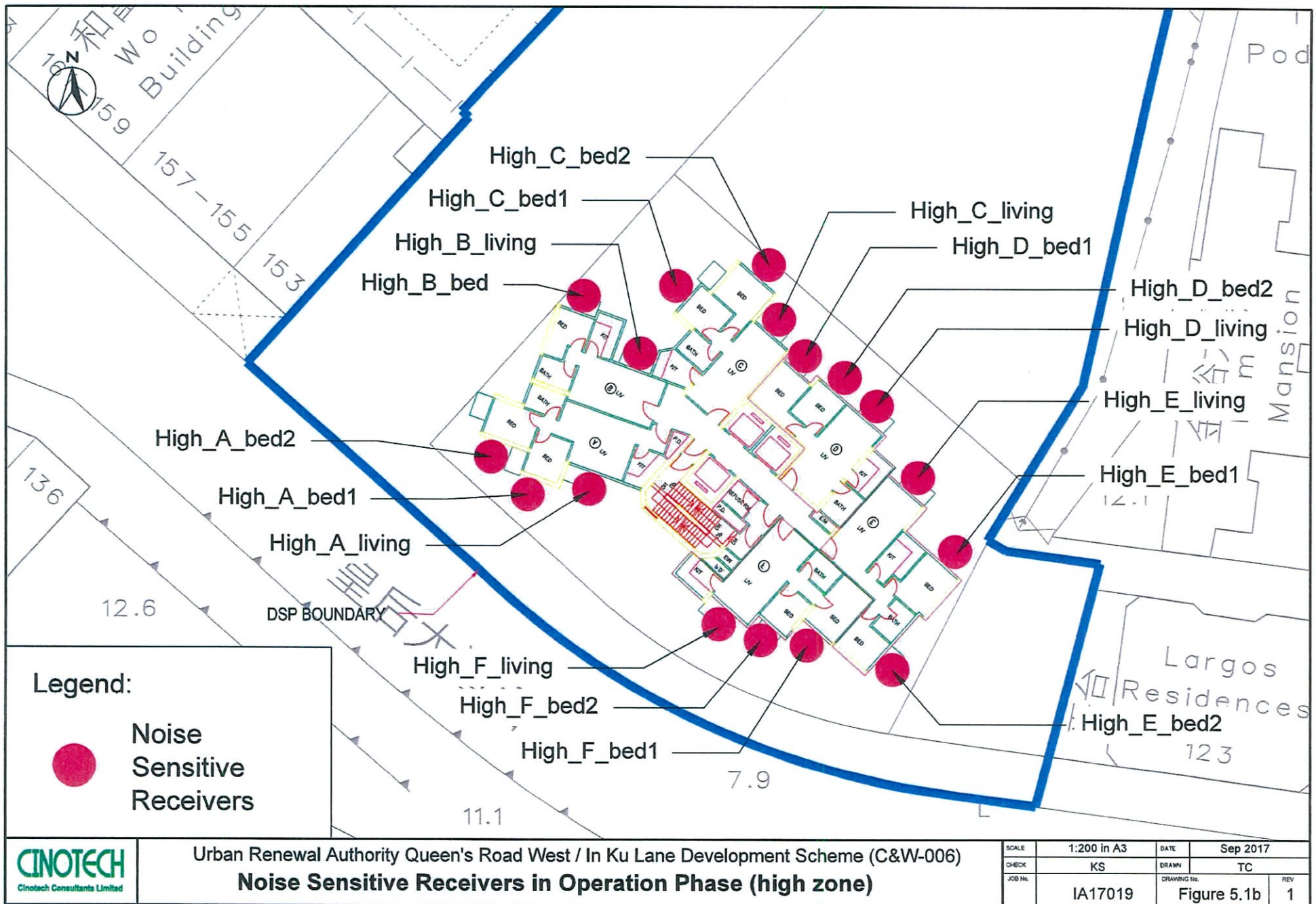
DSP BOUNDARY

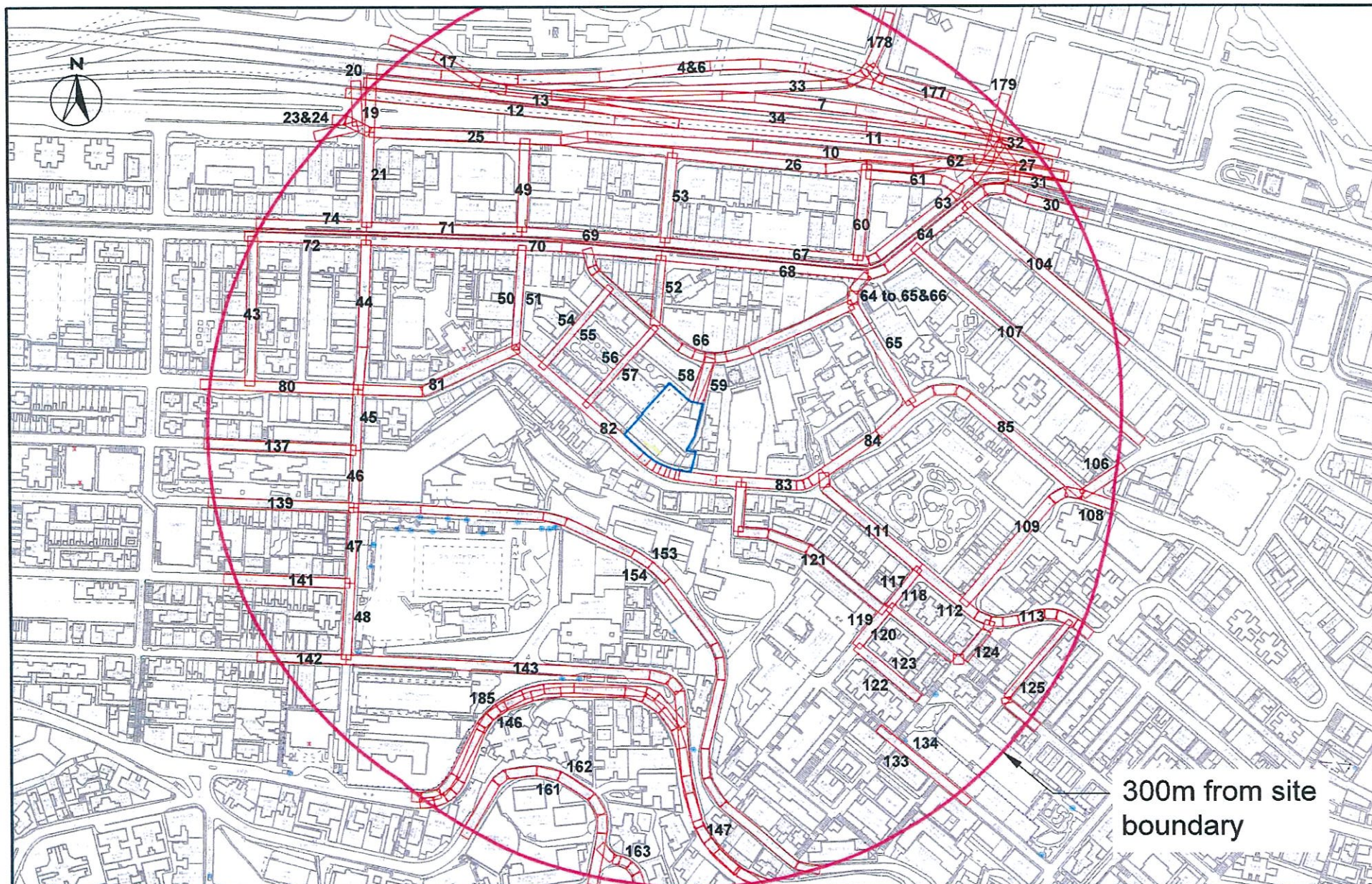
TYPICAL FLOOR PLAN
(HIGH ZONE)











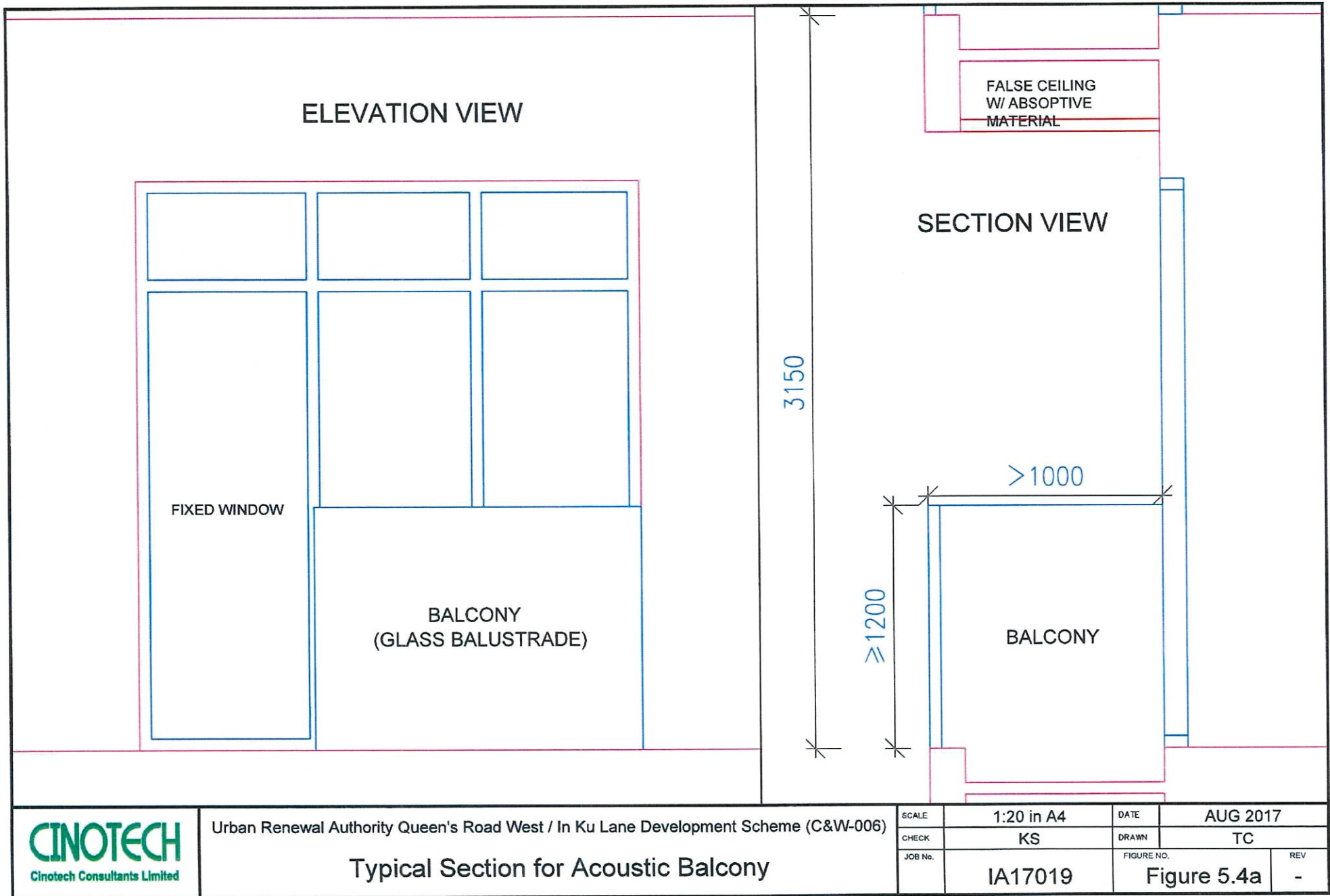
300m from site
boundary

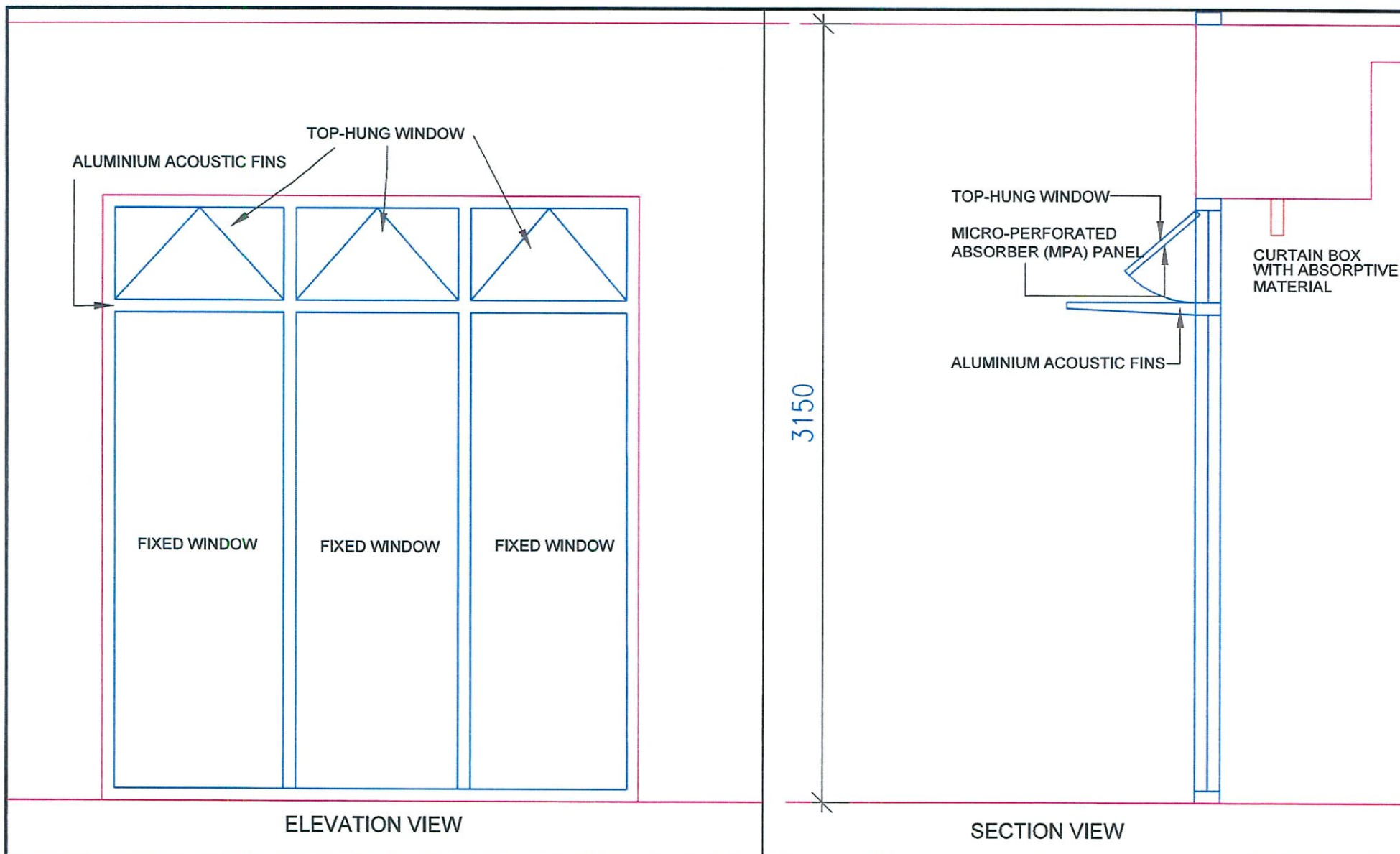


Legend:

- Fixed Glazing
- Acoustic Windows (Top-hung type)
- Basic Acoustic Balcony









| | | | |
|---------|-------------|-------------|------------|
| SCALE | 1:500 in A3 | DATE | Sep 2017 |
| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | DRAWING No. | Figure 5.5 |
| | | | REV 1 |

APPENDIX 5.1

**PREDICTED TRAFFIC FLOW
AT PEAK HOUR IN YEAR 2043**

| Road Section ID | Road / Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|---|--------------------------|-------|---------------------|------|---------------------------|
| | | AM | PM | AM | PM | |
| 4&6 | Connaught Road West Flyover | 2,350 | 3,200 | 7.5 | 12.2 | 80 |
| 7 | Connaught Road West Flyover (up ramp) | 550 | 600 | 15.8 | 24.2 | 80 |
| 10 | Connaught Road West Flyover (down ramp) | 1,600 | 1,500 | 7.9 | 9.9 | 50 |
| 11 | Connaught Road West Flyover | 2,900 | 2,400 | 6.7 | 8.5 | 80 |
| 12 | Connaught Road West Flyover (down ramp) | 2,150 | 1,400 | 7.4 | 8.5 | 50 |
| 13 | Connaught Road West Flyover | 750 | 1,000 | 7.6 | 9.5 | 80 |
| 17 | Connaught Road West | 2,100 | 3,350 | 15.9 | 24.3 | 50 |
| 19 | Eastern Street North | 750 | 900 | 22.5 | 27.8 | 50 |
| 20 | Connaught Road West | 450 | 350 | 21.9 | 28.6 | 50 |
| 21 | Eastern Street | 550 | 500 | 15.5 | 22.9 | 50 |
| 23&24 | Connaught Road West | 2,900 | 2,650 | 17.7 | 18.8 | 50 |
| 25 | Connaught Road West | 2,550 | 2,300 | 12.3 | 14.4 | 50 |
| 26 | Connaught Road West | 1,050 | 900 | 18.9 | 21.1 | 50 |
| 27 | Connaught Road West | 800 | 750 | 17.9 | 19.9 | 50 |
| 30 | Connaught Road West | 300 | 250 | 41.6 | 42.8 | 50 |
| 31 | Connaught Road West | 100 | 100 | 100 | 100 | 50 |
| 32 | Connaught Road West | 1,550 | 2,300 | 19.7 | 27.7 | 50 |
| 33 | Connaught Road West | 200 | 300 | 12.2 | 21.8 | 50 |
| 34 | Connaught Road West | 1,350 | 2,300 | 17.4 | 25.6 | 50 |
| 43 | Kwai Heung Street | 10 | 10 | 11.3 | 18.2 | 50 |
| 44 | Eastern Street | 860 | 600 | 20.3 | 25.6 | 50 |
| 45 | Eastern Street | 710 | 550 | 5.4 | 10.1 | 50 |
| 46 | Eastern Street | 500 | 550 | 5.4 | 10.1 | 50 |
| 47 | Eastern Street | 250 | 250 | 14 | 19.3 | 50 |
| 48 | Eastern Street | 50 | 50 | 11 | 17.2 | 50 |
| 49 | Wilmer Street | 50 | 50 | 0.3 | 4.8 | 50 |
| 50 | Wilmer Street | 10 | 50 | 0 | 0 | 50 |
| 51 | Wilmer Street | 10 | 50 | 0 | 3.3 | 50 |
| 52 | Sutherland Street | 50 | 50 | 8.2 | 16.9 | 50 |
| 53 | Sutherland Street | 10 | 10 | 21.9 | 30.7 | 50 |
| 54 | Li Shing Street | 10 | 10 | 0 | 4.8 | 50 |
| 55 | Li Shing Street | 10 | 50 | 0 | 0 | 50 |
| 56 | Sutherland Street | 10 | 10 | 0 | 4.8 | 50 |
| 57 | Sutherland Street | 10 | 50 | 0 | 0 | 50 |
| 58 | In Ku Lane | 10 | 10 | 0 | 0 | 50 |

| Road Section ID | Road / Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|----------------------|--------------------------|-----|---------------------|------|---------------------------|
| | | AM | PM | AM | PM | |
| 59 | In Ku Lane | 10 | 10 | 0 | 0 | 50 |
| 60 | Queen Street | 450 | 550 | 12.7 | 21.5 | 50 |
| 61 | Connaught Road West | 500 | 500 | 11 | 19.1 | 50 |
| 62 | Connaught Road West | 1,050 | 900 | 21.9 | 24 | 50 |
| 63 | Des Voeux Road West | 350 | 250 | 42 | 48.2 | 50 |
| 64 | Des Voeux Road West | 550 | 550 | 26.1 | 28.3 | 50 |
| 64 to 65&66 | Des Voeux Road West | 450 | 700 | 15.2 | 23.3 | 50 |
| 65 | Queen Street | 200 | 250 | 12 | 20.2 | 50 |
| 66 | Ko Shing Street | 250 | 450 | 17.8 | 25 | 50 |
| 67 | Des Voeux Road West | 700 | 800 | 40.9 | 48.1 | 50 |
| 68 | Des Voeux Road West | 250 | 250 | 46.6 | 48.5 | 50 |
| 69 | Des Voeux Road West | 750 | 800 | 40.9 | 48.1 | 50 |
| 70 | Des Voeux Road West | 500 | 700 | 46.5 | 48.5 | 50 |
| 71 | Des Voeux Road West | 700 | 800 | 40.9 | 48.1 | 50 |
| 72 | Des Voeux Road West | 250 | 550 | 82.9 | 83.5 | 50 |
| 74 | Des Voeux Road West | 750 | 800 | 41 | 48.3 | 50 |
| 80 | Queen's Road West | 900 | 700 | 42.2 | 47.4 | 50 |
| 81 | Queen's Road West | 750 | 600 | 31.5 | 35.3 | 50 |
| 82 | Queen's Road West | 760 | 600 | 32.2 | 36.1 | 50 |
| 83 | Queen's Road West | 750 | 500 | 37.9 | 41.4 | 50 |
| 84 | Queen's Road West | 900 | 800 | 24.1 | 28.2 | 50 |
| 85 | Queen's Road West | 750 | 550 | 31.5 | 35.1 | 50 |
| 104 | Wing Lok Street | 200 | 100 | 17.8 | 22.3 | 50 |
| 106 | Bonham Strand | 100 | 250 | 7.6 | 13 | 50 |
| 107 | Bonham Strand West | 100 | 50 | 9 | 14.6 | 50 |
| 108 | Queen's Road Central | 1,000 | 850 | 22.3 | 26.4 | 50 |
| 109 | Possession Street | 350 | 550 | 6.1 | 11.3 | 50 |
| 111 | Hollywood Road | 200 | 300 | 6.6 | 10.3 | 50 |
| 112 | Hollywood Road | 100 | 300 | 6.1 | 9.7 | 50 |
| 113 | Hollywood Road | 550 | 800 | 5.5 | 9.1 | 50 |
| 117 | Po Yan Street | 10 | 50 | 4.1 | 4.1 | 50 |
| 118 | Po Yan Street | 10 | 50 | 2.8 | 8.5 | 50 |
| 119 | Po Yan Street | 50 | 0 | 6.7 | 0 | 50 |
| 120 | Po Yan Street | 20 | 50 | 1.7 | 5.1 | 50 |

| Road Section ID | Road / Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|-----------------------------|--------------------------|-----|---------------------|------|---------------------------|
| | | AM | PM | AM | PM | |
| 121 | New Street | 10 | 100 | 9.3 | 6.9 | 50 |
| 122 | Po Yee Street | 20 | 0 | 0 | 0 | 50 |
| 123 | Po Yee Street | 10 | 0 | 0 | 0 | 50 |
| 124 | Tai Ping Shan Street | 50 | 10 | 0 | 20 | 50 |
| 125 | Upper Station Street | 50 | 50 | 4.8 | 4.4 | 50 |
| 133 | Po Hing Fong | 50 | 50 | 5.7 | 5 | 50 |
| 134 | Po Hing Fong | 50 | 50 | 2.6 | 7.8 | 50 |
| 137 | First Street | 210 | 250 | 19.8 | 27.3 | 50 |
| 139 | Second Street | 550 | 750 | 12.1 | 15.7 | 50 |
| 141 | Third Street | 200 | 200 | 15.4 | 18.9 | 50 |
| 142 | High Street | 200 | 250 | 7.5 | 11.2 | 50 |
| 143 | High Street | 100 | 200 | 6.6 | 10.3 | 50 |
| 146 | Bonham Road | 200 | 200 | 86.5 | 91.6 | 50 |
| 147 | Bonham Road | 600 | 850 | 17 | 24.8 | 50 |
| 153 | Hospital Road | 350 | 300 | 1.8 | 12.4 | 50 |
| 154 | Hospital Road | 200 | 200 | 8 | 20.4 | 50 |
| 161 | Park Road | 600 | 600 | 1.5 | 11.6 | 50 |
| 162 | Park Road | 250 | 250 | 23.9 | 32.2 | 50 |
| 163 | Breezy Path | 200 | 250 | 6.4 | 16.7 | 50 |
| 177 | Western Fire Service Street | 50 | 50 | 8.9 | 18 | 50 |
| 178 | Western Fire Service Street | 250 | 350 | 5.9 | 13.4 | 50 |
| 179 | Western Fire Service Street | 300 | 450 | 12.3 | 23.1 | 50 |
| 185 | Bonham Road | 500 | 700 | 30.6 | 37.1 | 50 |

APPENDIX 5.2

**ENDORSEMENT OF
TRAFFIC FORECAST FROM
TRANSPORT DEPARTMENT**

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APPENDIX 5.3

**TRAFFIC NOISE ASSESSMENT
RESULTS (BASE CASE)**

Urban Renewal Authority Queen's Road West/
In Ku Lane Development Scheme (CW-01)

| | |
|-----------------------|-----------|
| Assessment Year: | 2043 |
| AM/PM: | AM peak |
| Scenario: | Base Case |
| Flat Compliance Rate: | 85% |

| Flat | Room | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A | living | 72 | 72 | 72 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 |
| A | bedroom1 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| A | bedroom2 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| B | bedroom | 63 | 63 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 |
| B | living | 50 | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 55 | 55 | 55 | 56 |
| C | bedroom1 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 62 | 62 | 62 |
| C | bedroom2 | 55 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 59 | 59 | 59 |
| C | living | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 |
| D | bedroom | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 57 |
| D | living | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| E | living | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| E | bedroom | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 |
| F | bedroom | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 |
| F | living | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| G | bedroom | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 |
| G | living | 74 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 |
| | | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F | |
| A | living | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| A | bedroom1 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| A | bedroom2 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| B | bedroom | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| B | living | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | |
| C | bedroom1 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| C | bedroom2 | 60 | 61 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | |
| C | living | 56 | 56 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | |
| D | bedroom1 | 58 | 58 | 58 | 59 | 59 | 60 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | |
| D | bedroom2 | 60 | 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | |
| D | living | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | |
| E | living | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | |
| E | bedroom1 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | |
| E | bedroom2 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| F | bedroom1 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 68 | 68 | |
| F | bedroom2 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| F | living | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |

Appendix 5.3 - Traffic Noise Assessment Results (Base Case)

Urban Renewal Authority Queen's Road West/
In Ku Lane Development Scheme (CW-01)

Traffic Noise Assessment Results

Assessment Year: 2043
AM/PM: PM peak
Scenario: Base Case
Flat Compliance Rate: 82%

| Flat | Room | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A | living | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 |
| A | bedroom1 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 |
| A | bedroom2 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 |
| B | bedroom | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 |
| B | living | 46 | 47 | 48 | 48 | 49 | 49 | 49 | 50 | 50 | 51 | 51 | 51 | 52 | 52 | 52 |
| C | bedroom1 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | 61 | 62 | 62 |
| C | bedroom2 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | 57 | 58 |
| C | living | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 52 | 52 |
| D | bedroom | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 |
| D | living | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| E | living | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| E | bedroom | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 |
| F | bedroom | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 |
| F | living | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 68 |
| G | bedroom | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 70 | 70 |
| G | living | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 |
| | | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F | |
| A | living | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| A | bedroom1 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| A | bedroom2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| B | bedroom | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| B | living | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 57 | 58 | 59 | 59 | 60 | 60 | 60 | 60 |
| C | bedroom1 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| C | bedroom2 | 59 | 59 | 60 | 60 | 61 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 65 |
| C | living | 53 | 53 | 53 | 54 | 55 | 57 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 |
| D | bedroom1 | 55 | 55 | 56 | 56 | 57 | 58 | 60 | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 |
| D | bedroom2 | 58 | 58 | 58 | 59 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 63 |
| D | living | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 64 | 64 |
| E | living | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 |
| E | bedroom1 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 |
| E | bedroom2 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | bedroom1 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | bedroom2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | living | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |

APPENDIX 5.4

**TRAFFIC NOISE ASSESSMENT
RESULTS (MITIGATED CASE)**

Mitigation Applied:

Acoustic Windows (Top-hung type) only
Basic Acoustic Balcony only

| Flat | Room | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A | living | 70 | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 66 | 66 |
| A | bedroom1 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| A | bedroom2 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| B | bedroom | 63 | 63 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 |
| B | living | 50 | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 55 | 55 | 55 | 55 |
| C | bedroom1 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 62 | 62 | 62 |
| C | bedroom2 | 55 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 59 | 59 | 59 |
| C | living | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 |
| D | bedroom | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 57 |
| D | living | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| E | living | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| E | bedroom | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 |
| F | bedroom | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 |
| F | living | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 66 | 66 | 66 |
| G | bedroom | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 |
| G | living | 72 | 72 | 72 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| | | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F | |
| A | living | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| A | bedroom1 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | |
| A | bedroom2 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| B | bedroom | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| B | living | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | |
| C | bedroom1 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| C | bedroom2 | 60 | 61 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | |
| C | living | 56 | 56 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | |
| D | bedroom1 | 58 | 58 | 58 | 59 | 59 | 60 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | |
| D | bedroom2 | 60 | 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | |
| D | living | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | |
| E | living | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | |
| E | bedroom1 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | |
| E | bedroom2 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| F | bedroom1 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 68 | 68 | |
| F | bedroom2 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| F | living | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |

Urban Renewal Authority Queen's Road West/
In Ku Lane Development Scheme (CW-01)

Mitigation Applied:

Acoustic Windows (Top-hung type) only

Basic Acoustic Balcony only

| Flat | Room | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A | living | 71 | 71 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 |
| A | bedroom1 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 |
| A | bedroom2 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 |
| B | bedroom | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 |
| B | living | 46 | 47 | 48 | 48 | 49 | 49 | 49 | 50 | 50 | 51 | 51 | 51 | 52 | 52 | 52 |
| C | bedroom1 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | 61 | 62 | 62 |
| C | bedroom2 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | 57 | 58 |
| C | living | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 52 | 52 |
| D | bedroom | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 |
| D | living | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| E | living | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| E | bedroom | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 |
| F | bedroom | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 |
| F | living | 71 | 71 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 |
| G | bedroom | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 65 | 65 |
| G | living | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 69 |
| | | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F | |
| A | living | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| A | bedroom1 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 |
| A | bedroom2 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| B | bedroom | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| B | living | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | 62 |
| C | bedroom1 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| C | bedroom2 | 60 | 61 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 66 |
| C | living | 56 | 56 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| D | bedroom1 | 58 | 58 | 58 | 59 | 59 | 60 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 |
| D | bedroom2 | 60 | 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 65 |
| D | living | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 |
| E | living | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 |
| E | bedroom1 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 |
| E | bedroom2 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | bedroom1 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 68 | 68 |
| F | bedroom2 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | living | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |

APPENDIX 5.5

**PHOTOS OF IDENTIFIED MAJOR
FIXED NOISE SOURCES**

Cooling Towers on the roof of Prince Philip Dental Hospital:



Chillers on the roof of Sai Ying Pun Jockey Club Polyclinic:



APPENDIX 5.6

**INFORMATION OF CHILLERS AT
SAI YING PUN JOCKEY CLUB
POLYCLINIC**

Re: Request for Information of Sai Ying Pun Jockey Club Polyclinic

Subject: Re: Request for Information of Sai Ying Pun Jockey Club Polyclinic

From: ha_hk@dh.gov.hk

Date: 2017/09/29 17:48

To: Toby Cheng <toby.cheng@cinotech.com.hk>

CC: Lee Ks <ks.lee@cinotech.com.hk>, eo_per3@dh.gov.hk, rosemary_wong@dh.gov.hk

Dear Mr. CHENG,

I refer to your preceding email of 25.9.2017 requesting for the information of Sai Ying Pun Jockey Club Polyclinic (SYPJCP) under the Code on Access to Information.

2. As per your request and our discussion over the phone, please find the information of SYPJCP as follows and attached:

- (1) There are four sets of chillers at SYPJCP.
- (2) The brand of the chillers is 'Hitachi' and the models are RCUG150ASYZ (one set), RCUG75ASYZ (one set) and RCUG100ASYZ (two sets).
- (3) A copy of the layout plan showing the location of chillers is attached.
- (4) The cooling capacities of the chillers (per set) are 398kW (RCUG150ASYZ), 199kW (RCUG75ASYZ) and 288kW (RCUG100ASYZ).
- (5) There are no remedies/mitigation installed for noise impact.
- (6) The operation hours or schedules of the chillers are:-
Weekdays: 0700 hrs to 2200 hrs
Saturday: 0700 hrs to 1300 hrs
Sunday and Public Holiday: Off

Regards,
Evon LAU
Hospital Administrator I (Hong Kong)
Clinic Administration & Planning Section (Branch Office)
Department of Health
Tel: 2158 5125

From: Toby Cheng <toby.cheng@cinotech.com.hk>
To: eo_per3@dh.gov.hk
Cc: Lee Ks <ks.lee@cinotech.com.hk>
Date: 25/09/2017 17:23
Subject: Request for Information of Sai Ying Pun Jockey Club Polyclinic

Dear Miss Law,

Re: Request for Information of Sai Ying Pun Jockey Club Polyclinic

We, Cinotech Consultants Ltd., are conducting an environmental assessment for a redevelopment project near the Sai Ying Pun Jockey Club Polyclinic. We would like to seek your kind assistance to access information regarding the noisy plants on the roof of the Polyclinic. You may refer to the attached letter for the details. A hard copy of the letter will be sent to your office.

Please feel free to contact me for any query. Thank you for your time and attention.

Regards,
Toby Cheng
Cinotech Consultants Limited
Tel: 21512079

--Attachments:-----

| | |
|--|--------|
| DepartmentOfHealth_ks170925_Information Request for Chillers.pdf | 430 kB |
| SYPJCC chiller layout plan.pdf | 691 kB |

APPENDIX 5.7

**REFERENCE CATALOGUE OF
CHILLERS**

Hitachi Air Conditioning

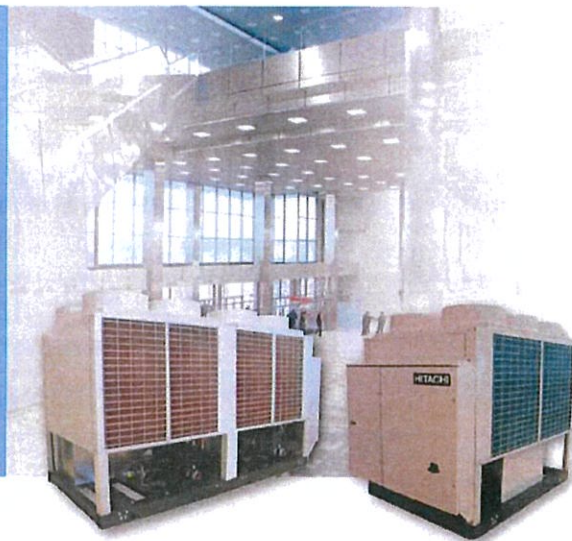
Engineered for tomorrow.



Samurai RCU2E-AG2 Air Cooled Cooling Only, Samurai RHU2E-AG2 Air Cooled Heat Pump

The Samurai range of chillers offer world-renowned reliability – thanks to our own twin screw compressors – and incorporate the latest developments in screw compressor technology for excellent partial load performance and high seasonal efficiencies.

Our Chillers are ideally suited for Industrial and process applications: data centres, shopping centres, airports, hotels, hospitals and offices.



Features and Benefits

- ✓ RCU2E-AG2 Air Cooled Cooling only - capacities from 40HP to 400HP (112kW to 1030kW)
- ✓ RHU2E-AG2 Air Cooled Heat Pump - capacities from 40HP to 240HP (106kW to 585kW)
- ✓ ESEER of up to 3.52
- ✓ Control outlet water temperature to $\pm 0.5^{\circ}\text{C}$ independent of cooling load
- ✓ Continuous capacity control provides 15% to 20% energy saving compared to step control
- ✓ STAR DELTA starting system reduces the maximum starting current
- ✓ Excellent partial load performance
- ✓ Low noise and vibration
- ✓ Very small installation space

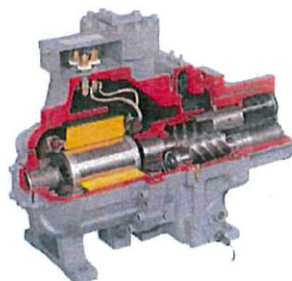
Thanks to meticulous design of each component, it is possible to achieve exceptionally high cooling capacity values per square metre

Optional recovery system

Recover 30% of the output power in cooling mode by heating the water in a dedicated circuit with outlet temperatures up to 70°C at maximum working conditions.

Hydraulic Module Option - Single and Dual Pump Models

Hitachi Hydraulic modules are a compact design integrated inside the Chiller unit. They are assembled with all interconnecting piping and wiring during manufacture ready for installation. Available with or without buffer tank.



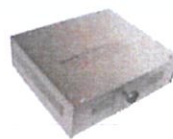
World Renowned Reliability with Hitachi's Twin Screw Compressor

With few moving parts, it is highly reliable with very low noise level and low vibration

Optional Control Systems



- ✓ **CSC 5S**
Central controller
(up to 8 Samurai Chillers)



- ✓ **CS Net Web**
Web based controller

BMS Interfaces



- ✓ **Modbus CHL-MBS-01**
Can control up to 8 RCU2E-AG2 chillers (Chiller modules >3 cycles are counted as 2 Chillers)



- ✓ **Lonworks® HARC-70CE1 (OP)**
Control and monitor
up to 4 Samurai chillers

www.hitachiaircon.com | www.hitachiheating.com

HITACHI
Inspire the Next



RCU2E-AG2



RHU2E-AG2



Air Cooled Cooling Only

| | | RCU2E 40AG2 | RCU2E 50AG2 | RCU2E 60AG2 | RCU2E 70AG2 | RCU2E 80AG2 | RCU2E 100AG2 | RCU2E 120AG2 | RCU2E 140AG2 | RCU2E 160AG2 | RCU2E 180AG2 | RCU2E 210AG2 | RCU2E 240AG2 | RCU2E 280AG2 | RCU2E 320AG2 | RCU2E 360AG2 | RCU2E 400AG2 |
|---|-------|---|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Cooling Capacity ¹ | Kw | 112 | 130 | 156 | 178 | 206 | 260 | 312 | 356 | 412 | 468 | 534 | 618 | 712 | 824 | 890 | 1030 |
| Power Input | Kw | 38.6 | 44.7 | 53 | 61 | 70 | 89.4 | 106 | 122 | 140 | 159 | 183 | 210 | 244 | 280 | 305 | 350 |
| EER | | 2.9 | 2.91 | 2.94 | 2.92 | 2.94 | 2.91 | 2.94 | 2.92 | 2.94 | 2.94 | 2.92 | 2.94 | 2.92 | 2.94 | 2.92 | 2.94 |
| ESEER | | 3.48 | 3.49 | 3.52 | 3.5 | 3.52 | 3.49 | 3.52 | 3.5 | 3.52 | 3.52 | 3.5 | 3.52 | 3.5 | 3.52 | 3.5 | 3.52 |
| Sound Power Level (Std/LN/SLN) | dB(A) | 82/80/78 | 83/81/79 | 84/82/80 | 85/83/81 | 85/83/81 | 86/84/82 | 87/85/83 | 88/86/84 | 88/86/84 | 89/87/85 | 91/89/87 | 91/89/87 | 92/90/88 | 92/90/88 | 94/92/90 | 94/92/90 |
| Sound Pressure Level (Std/LN/SLN) ² | dB(A) | 52/50/48 | 53/51/49 | 54/52/50 | 55/53/51 | 55/53/51 | 55/53/51 | 56/54/52 | 57/55/53 | 57/55/53 | 57/55/53 | 58/56/54 | 58/56/54 | 59/57/55 | 59/57/55 | 60/58/56 | 60/58/56 |
| Height | mm | 2430 | | | | | | | | | | | | | | | |
| Width | mm | 1900 | | | | | | | | | | | | | | | |
| Depth | mm | 2190 | | | | 2790 | | | | 4090 | | | | 5290 | | | |
| Net Weight | Kg | 1430 | 1470 | 1560 | 1760 | 1820 | 2830 | 3000 | 3420 | 3550 | 4450 | 5070 | 5250 | 6750 | 7000 | 8450 | 8750 |
| Capacity Control | - | Continuous Capacity Control | | | | | | | | | | | | | | | |
| | % | 15 ~ 100 | | | | | | | | | | | | | | | |
| Number of Circuits | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| Water Pipe Connection | in | 3" Victaulic (1 x Inlet / 1 x Outlet) per Circuit | | | | | | | | | | | | | | | |
| | in | Common Water Pipe Connection Option available | | | | | | | | | | | | | | | |
| Leaving Water Outlet Temperature | °C | 5 ~ 15 (-10 option) | | | | | | | | | | | | | | | |
| Ambient Temperature | °C | -15 ~ 46 | | | | | | | | | | | | | | | |

Air Cooled Heat Pump

| | | RHU2E 40AG2 | RHU2E 50AG2 | RHU2E 60AG2 | RHU2E 70AG2 | RHU2E 80AG2 | RHU2E 100AG2 | RHU2E 120AG2 | RHU2E 140AG2 | RHU2E 160AG2 | RHU2E 180AG2 | RHU2E 210AG2 | RHU2E 240AG2 |
|---|-------|---|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Cooling Capacity ¹ | Kw | 106 | 123 | 148 | 169 | 195 | 246 | 296 | 338 | 390 | 444 | 507 | 585 |
| Heating Capacity ² | Kw | 110 | 127 | 152 | 185 | 185 | 254 | 304 | 370 | 370 | 456 | 555 | 555 |
| Power Input (Cooling) | Kw | 37.9 | 42.7 | 52 | 60 | 70 | 85.4 | 104 | 120 | 140 | 156 | 180 | 210 |
| Power Input (Heating) | Kw | 40.7 | 44.5 | 54 | 68 | 68 | 89 | 108 | 136 | 136 | 162 | 204 | 204 |
| EER | | 2.80 | 2.88 | 2.85 | 2.82 | 2.79 | 2.88 | 2.85 | 2.82 | 2.79 | 2.85 | 2.82 | 2.79 |
| COP | | 2.70 | 2.85 | 2.81 | 2.72 | 2.72 | 2.85 | 2.81 | 2.72 | 2.72 | 2.81 | 2.72 | 2.72 |
| ESEER | | 3.36 | 3.45 | 3.42 | 3.38 | 3.34 | 3.45 | 3.42 | 3.38 | 3.34 | 3.42 | 3.38 | 3.34 |
| Sound Power Level | dB(A) | 82/80/78 | 83/81/79 | 84/82/80 | 85/83/81 | 85/83/81 | 86/84/82 | 87/85/83 | 88/86/84 | 88/86/84 | 89/87/85 | 91/89/87 | 91/89/87 |
| Sound Pressure Level (Std/LN/SLN) ² | dB(A) | 52/50/48 | 53/51/49 | 54/52/50 | 55/53/51 | 55/53/51 | 55/53/51 | 56/54/52 | 57/55/53 | 57/55/53 | 57/55/53 | 58/56/54 | 58/56/54 |
| Height | mm | 2430 | | | | | | | | | | | |
| Width | mm | 1900 | | | | | | | | | | | |
| Depth | mm | 2190 | | | | 2790 | | | | 4090 | | | |
| Net Weight | Kg | 1550 | 1600 | 1670 | 1880 | 1950 | 3050 | 3250 | 3670 | 3780 | 4780 | 5440 | 5650 |
| Capacity Control | - | Continuous Capacity Control | | | | | | | | | | | |
| | % | 15 ~ 100 | | | | | | | | | | | |
| Number of Circuits | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Water Pipe Connection | in | 3" Victaulic (1 x Inlet / 1 x Outlet) per Circuit | | | | | | | | | | | |
| | in | Common Water Pipe Connection Option available | | | | | | | | | | | |
| Leaving Water Outlet Temperature (Cool) | °C | 5 ~ 15 (-10 option) | | | | | | | | | | | |
| Leaving Water Outlet Temperature (Heat) | °C | 35 ~ 55 | | | | | | | | | | | |
| Ambient Temperature | °C | -15 ~ 46 Cooling / -10 ~ 15.5wb Heating | | | | | | | | | | | |

NOTES:

- The nominal cooling capacities are based on the European Standard EN14511.
Chilled Water Inlet / Outlet Temperature: 12 / 7°C
Condenser Inlet Air Temperature: 35°C

- The nominal heating capacities are based on the European Standard EN14511.
Heated Water Inlet / Outlet Temperature: 40 / 45°C
Evaporator Air Inlet Temperature: 6°C wb

- Sound Pressure level measured at 10m

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APPENDIX 5.8

**DETAILED CALCULATIONS OF NOISE
FROM FIXED SOURCES**

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A)* | Distance to nearest NSR, m | Corrections | | | Sound Pressure Level (SPL), dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) |
|-------------------------------------|-----------------|---|----------------------------|-------------|------------|----------|-----------------------------------|----------------------|-------------------------|
| | | | | C-enclosure | C-distance | C-façade | | | |
| Sai Ying Pun Jockey Club Polyclinic | Chiller | 87 | 45 | 0 | -41.1 | 3 | 48.9 | 54 | 56 |
| | Chiller | 85 | 50 | 0 | -42.0 | 3 | 46.0 | | |
| | Chiller | 87 | 50 | 0 | -42.0 | 3 | 48.0 | | |
| | Chiller | 88 | 55 | 0 | -42.8 | 3 | 48.2 | | |
| Prince Philip Dental Hospital | Cooling Tower | 105 | 95 | -15 | -47.6 | 3 | 45.4 | 52 | |
| | Cooling Tower | 105 | 100 | -15 | -48.0 | 3 | 45.0 | | |
| | Cooling Tower | 105 | 105 | -15 | -48.4 | 3 | 44.6 | | |
| | Cooling Tower | 105 | 110 | -15 | -48.8 | 3 | 44.2 | | |
| | Cooling Tower | 105 | 115 | -15 | -49.2 | 3 | 43.8 | | |
| | Cooling Tower | 105 | 120 | -15 | -49.6 | 3 | 43.4 | | |

*The sound power level of Cooling Tower is adopted from "Good Practices on Ventilation System Noise Control", issued by EPD, April 2006.

APPENDIX 6.1

**CORRESPONDENCES AND RECORDS
FROM EPD AND FSD**

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APPENDIX 7.1

**AIR VENTILATION ASSESSMENT –
EXPERT EVALUATION REPORT**

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Air Ventilation Assessment
Expert Evaluation Report**

December 2017

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 The Urban Renewal Authority (URA) will commence the Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). A draft URA Development Scheme Plan (DSP) of C&W-006 with its planning proposal is required to submit to the Town Planning Board (TPB) for consideration.
- 1.1.2 The Development Scheme site (the Site) is located at Queen's Road West. The Site is currently zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" (G/IC) and "Open Space" (O) on the Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site location and the existing zoning are shown in **Figure 1-1 & 1-2** respectively. The Scheme proposes to rezone the site to R(A)23 which is primarily for residential use with commercial/retail uses on the lowest three floors with public open space (POS) and Government RCP cum public toilet included.
- 1.1.3 The Scheme will demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (even numbers) including the existing In Ku Lane Government Refuse Collection Point (RCP) cum a public toilet and an existing 5-a-side soccer pitch (part of the Li Sing Street Playground).
- 1.1.4 The Gross Site Area of the Site is about 2,046 m², with a net site area of about 1,318 m². The proposed total Gross Floor Area ("GFA") is around 11,290 m². The development will be composed of three main parts: (1) a single residential tower of about 29 residential storeys on a 3-level podium with commercial/retail facilities, and private residential clubhouse; (2) a 3-storey re-provisioned RCP and public toilet complex; (3) a public open space (POS). The notional layout of a typical floor and the section view are shown in **Figure 1-3 to 1-4**, respectively. The notional layout of all floors of development can be referred to EAS report.
- 1.1.5 Cinotech Consultants Limited was commissioned by URA to carry out an Air Ventilation Assessment (AVA) for the Scheme. The purpose of the study is to assess and envisage any potential air ventilation impact on the implementation of the proposed development and to recommend mitigation measures if necessary.

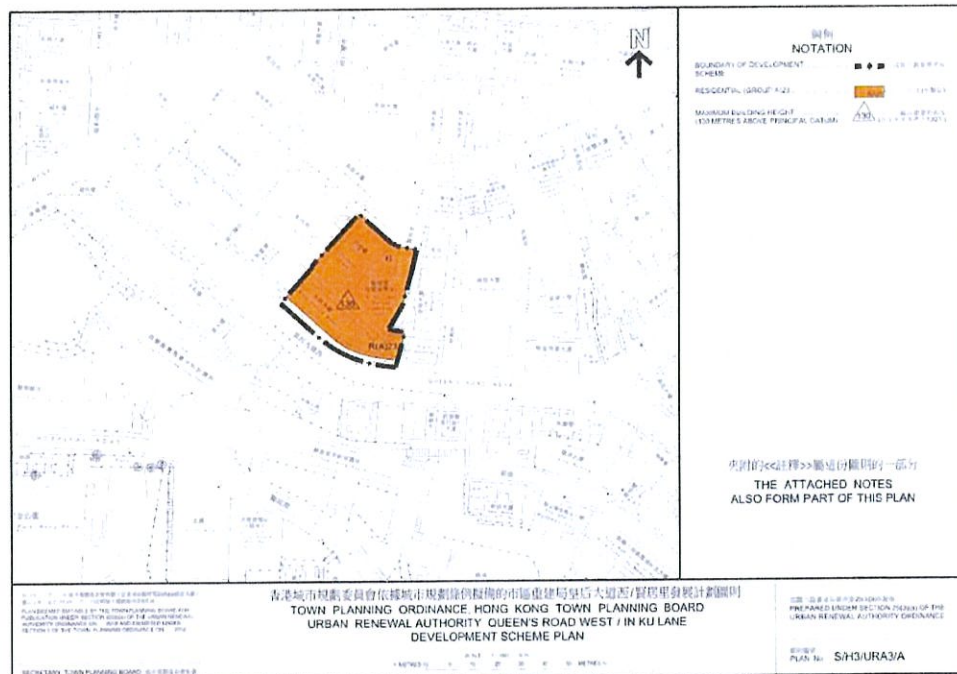


Figure 1-1 Site Location

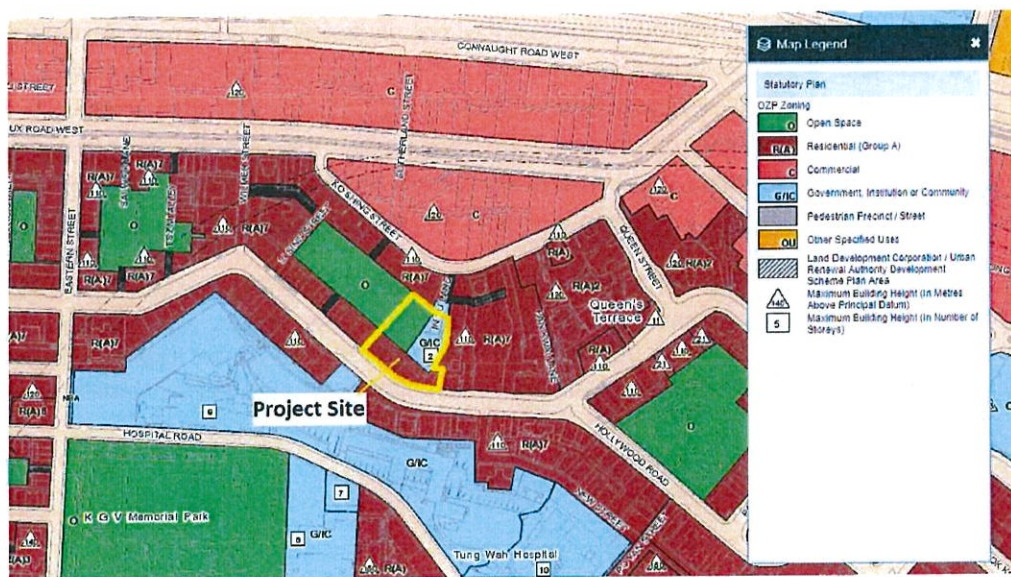


Figure 1-2 Existing Zoning Use (Capture from OZP draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30)

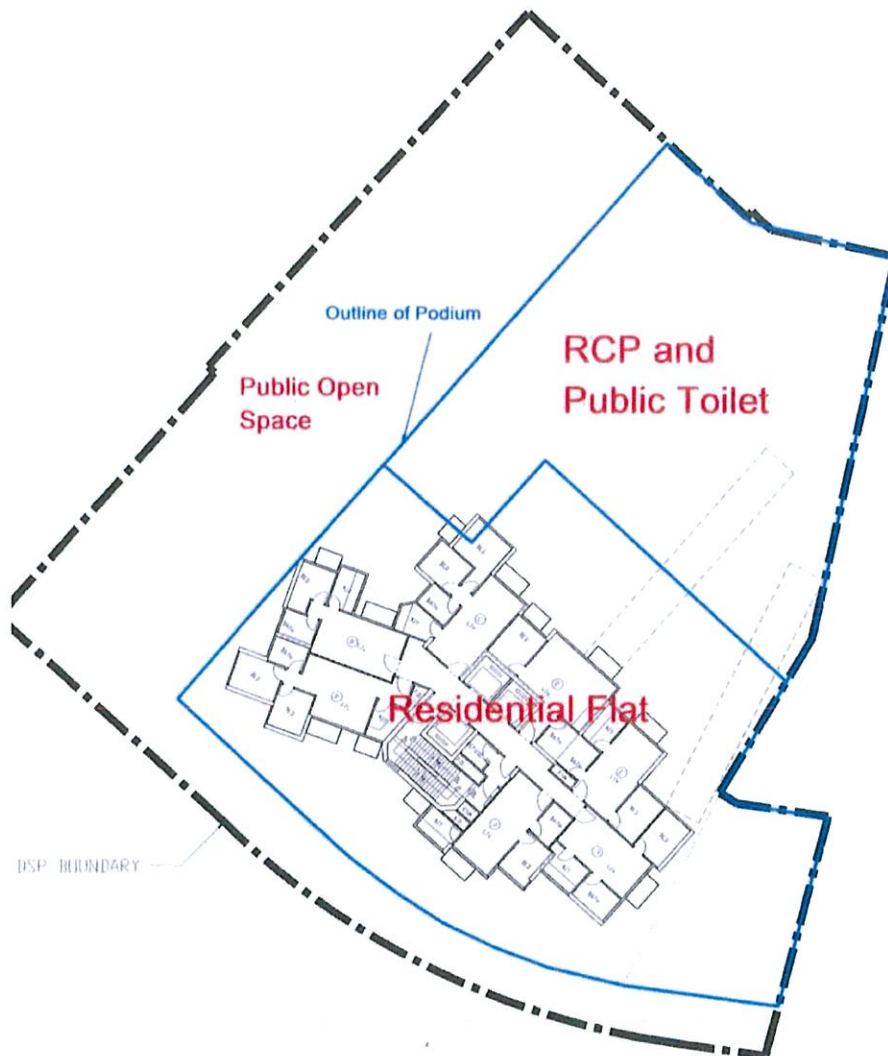
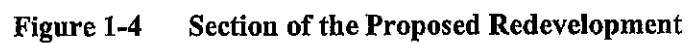


Figure 1-3 Notional Layout of the Typical Floor Plan (Low Zone)



1.2 Scope of Study

1.2.1 The assessment has covered the following major aspects:

- Initially assesses the wind availability (V_{∞}) and wind data of the Site and identify obvious problem areas of the site based on available source of information/government-used base data/ model.
- Provide Expert Evaluation based on desk-top review and study, provide recommendation on the master layout plan development to optimize local and regional air ventilation performance.
 - Recommend good design features with reference to Chapter 11 of HKPSG.
 - Identify the constraints associated with the project and recommend mitigation measures to improve the prevailing situation and resolve / mitigate the air ventilation impact.

2 THE WIND ENVIRONMENT

2.1 Introduction

2.1.1 The wind availability (V_{∞}) and wind data of the Site will be described and evaluated in this chapter. Three source of wind data will be presented in this chapter.

- Measured Data from Hong Kong Observatory (HKO) weather station¹
- Calculated results from Meso-Scale Model Regional Atmospheric System (RAMS)²
- Measurement from Wind Tunnel Test³

2.1.2 The obvious problem areas of the Site will be identified based on the available wind data.

2.2 Measured Data from HKO Weather Station

2.2.1 HKO weather station provided reliable wind data in Hong Kong. The closest weather station that providing wind data statistic are shown in **Figure 2-1**. The closest weather station is HKO thus their measured data will be adopted.

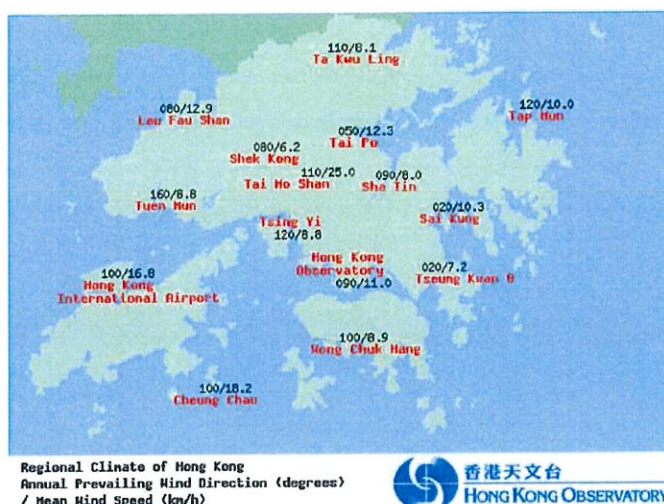


Figure 2-1 HKO Weather Stations (Capture from HKO on 9 Oct 2017)

¹ http://www.hko.gov.hk/cis/region_climat/HKO/HKO_windrose_year_e.htm

² http://www.pland.gov.hk/pland_en/p_study/comp_s/InceptionReport_webpage_11-12/index.html

³ http://www.pland.gov.hk/pland_en/info_serv/site_wind/wwwtf009_2007_final.pdf

- 2.2.2 The wind rose at HKO for the annual average and individual month in summer are presented in the **Figure 2-2 & 2-3**. The monthly means wind speed and prevailing wind direction can be found in **Table 2-1**.
- 2.2.3 According to the HKO Weather Station' data, under annual condition, more than 40% wind are come from E direction. The wind from ENE & W also contribute around 10% respectively to the annual average.
- 2.2.4 In summer, the Easterly wind is still the major wind direction. Different from the annual condition, the much larger proportion of the summer wind is come from W & WSW direction.
- 2.2.5 It should be noted that although HKO is the nearest weather station to the Site, it is still far away from the Site and the surrounding environment are different. The wind data at HKO should be used with caution.

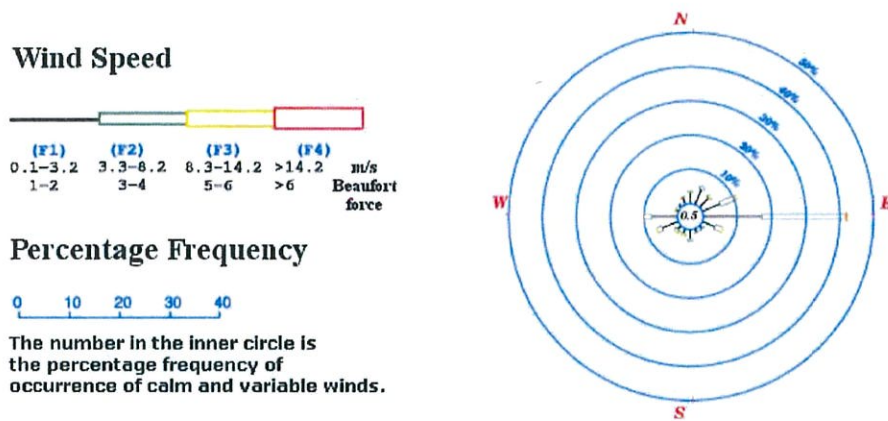


Figure 2-2 The Annual Wind Roses for Hong Kong Observatory, 1981-2010

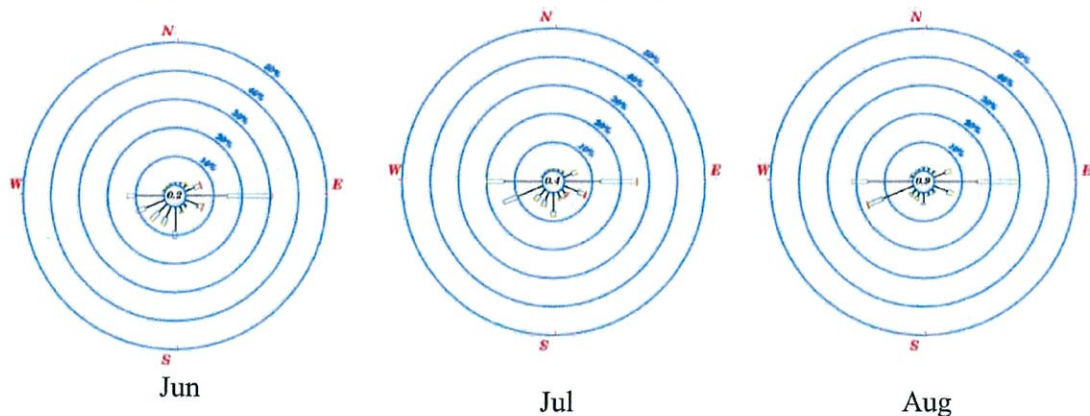


Figure 2-3 The Monthly Wind Roses in Summer (Jun-Aug) for Hong Kong Observatory, 1981-2010

Table 2-1 Monthly Means Wind Speed and Prevailing Wind Direction for Hong Kong Observatory, 1981-2010

| Month | Prevailing Wind Direction (degrees) | Wind Speed (km/h) |
|-----------|-------------------------------------|-------------------|
| January | 90 | 10.6 |
| February | 90 | 11.7 |
| March | 90 | 12 |
| April | 90 | 11.5 |
| May | 90 | 10.7 |
| June | 90 | 10.6 |
| July | 260 | 10.7 |
| August | 90 | 10.2 |
| September | 90 | 11.4 |
| October | 90 | 12.1 |
| November | 90 | 11 |
| December | 90 | 10 |

2.3 Calculated Results from RAMS

- 2.3.1 Planning Department (PlanD) have conducted a Consultancy Study on Establishment of Simulated Site Wind Availability Data for Air Ventilation Assessments in Hong Kong⁴. The simulated results are available via the PlanD's website⁵.
- 2.3.2 Unlike the data from HKO's weather station, the model provide detailed wind data for every location in Hong Kong with grid size of 500m x 500m. Localized wind profile due to the surrounding terrain can be obtained thus the wind data from the model is best suited for the local planning.
- 2.3.3 The results of the corresponding grid for the Site (074,035), has been adopted in this assessment. The wind roses at 200m, 300m & 500m elevation are shown in **Figure 2-4 & 2-5 for annual and summer respectively**. Please refer to PlanD's website for detailed results.
- 2.3.4 The PlanD's simulated results show that the major annual wind direct is E, followed by ENE and ESE. In summer, the most occurrence wind directions are SW, SSW, and E.

⁴ http://www.pland.gov.hk/pland_en/p_study/comp_s/InceptionReport_webpage_11-12/index.html

⁵ http://www.pland.gov.hk/pland_en/info_serv/site_wind/site_wind/index.html

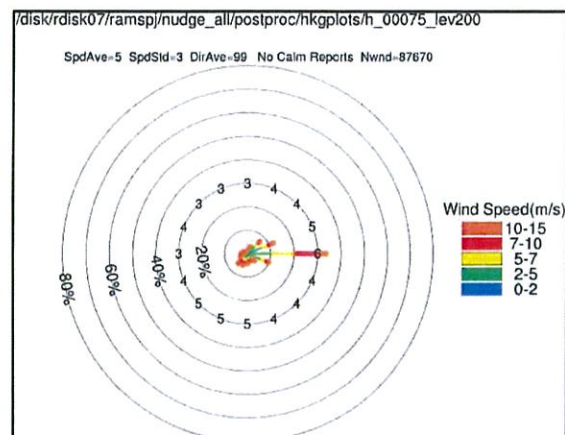
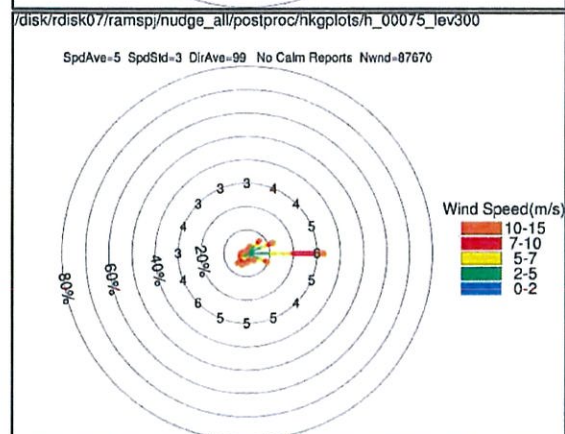
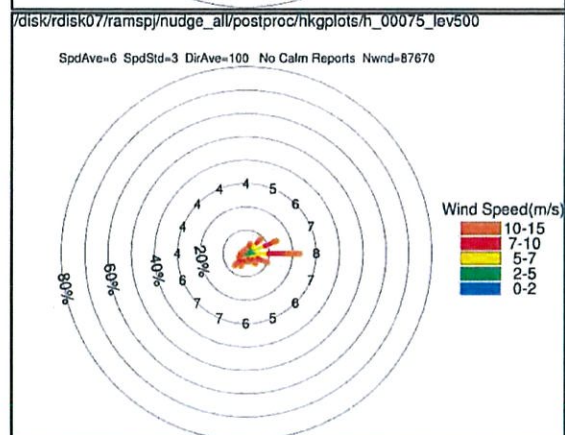
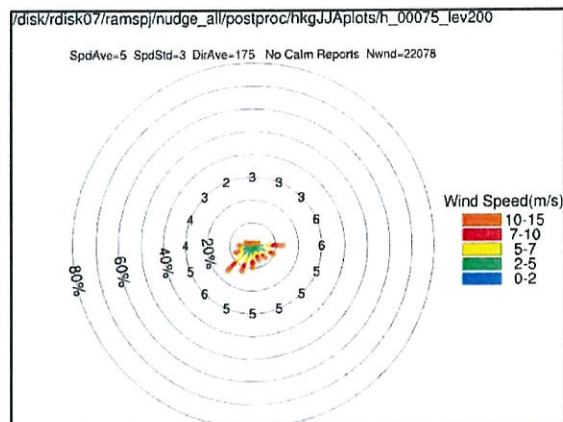
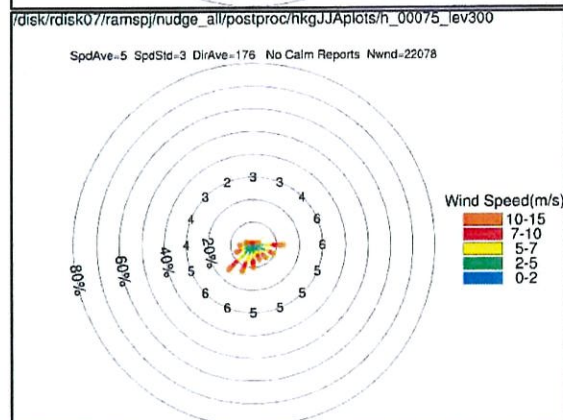
Annual
@ 200mAnnual
@ 300mAnnual
@ 500m

Figure 2-4 The Wind Roses at grid [074,035] under Annual Condition from Meso-Scale Model

Summer
(Jun -Aug)
@ 200m



Summer
(Jun -Aug)
@ 300m



Summer
(Jun -Aug)
@ 500m

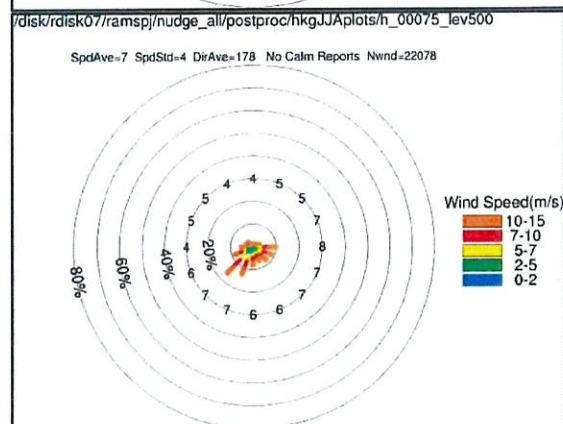


Figure 2-5 The Wind Roses at grid [074,035] under Summer Condition from Meso-Scale Model

2.4 Measurement from Wind Tunnel Test

2.4.1 Chinese University of Hong Kong had conducted a series of wind tunnel tests named “Urban Climate Map and Standards for Wind Environment – Feasibility Study” on the behalf of PlanD.

- 2.4.2 The results for Sheung Wan⁶, which is the closest studied location, had been used in this assessment for reference. As the studied location have some distance from the Site, and the flow within the urban roughness sublayer is highly inhomogeneous, only the flows corrected to 500m elevation are considered. The wind roses corrected to 500m elevation of the wind tunnel study are shown in Figure 2-6 & 2-7.
- 2.4.3 The major annual wind direction is E, followed by ENE and N. In summer, the major wind directions are SW, E, WSW & S.

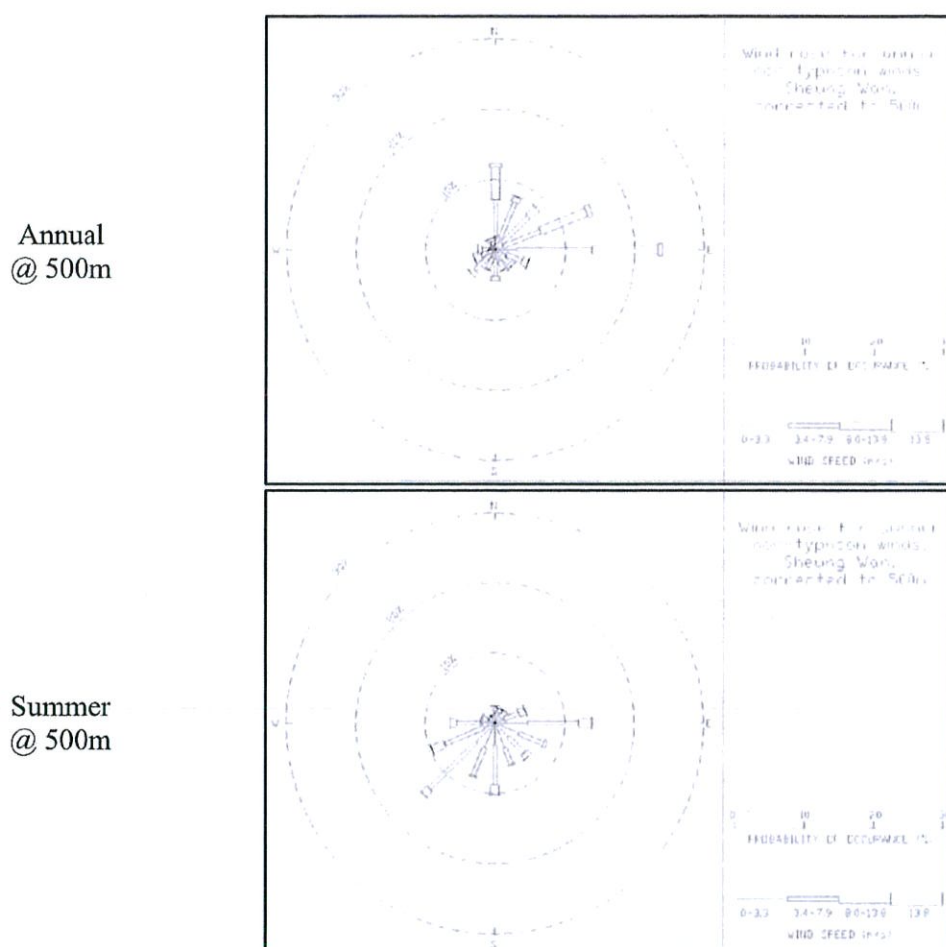


Figure 2-6 The Wind Roses Corrected to 500m from Wind Tunnel Tests

2.5 Downhill Air Movement

- 2.5.1 It should be noted that there is a vegetated hill slope (Victoria Peak) to the South of the Site. However, there vegetated hill slope and the Site are separated by

⁶ http://www.pland.gov.hk/pland_en/info_serv/site_wind/wwtf009_2007_final.pdf

multiple layers of high rise building thus the effect of downhill air movement to the Site is not anticipated.

2.6 Summary of Prevailing Wind

- 2.6.1 The wind direction are summarized in **Table 2-2**. As stated in the previous sections, the measurement location of weather station and the studied area of the wind tunnel test are relative far from the Site. The result from weather station and wind tunnel test should be applied with caution. The most suitable data for this assessment is from the meso-scale model in PlanD web-site.
- 2.6.2 The prevailing wind of the Site have been illustrated in **Figure 2-7**. In general, the Site is under Easterly prevailing wind. In summer, prevailing wind also come from S to SW directions.

Table 2-2 Summary of Prevailing Wind Direction

| | Annual | Summer |
|-------------------------------|-------------|---------------|
| HKO weather station (HKO) | E, ENE, W | E, W, WSW |
| PlanD's RAMS - Grid [074,035] | E, ENE, ESE | SW, SSW, E |
| Wind Tunnel Test (Sheung Wan) | E, ENE, N | SW, E, SWS, S |

2.7 Existing Condition & Air Paths

- 2.7.1 The Site is within a developed area and the whole region consists of closely packed buildings. A mix of old low rise buildings and high rise towers could be found around the Site. The surrounding buildings are highlighted in **Figure 2-8**.
- 2.7.2 The buildings in the immediately south to the Site are generally lower than 30m above ground thus the air paths from the south is secured. In the east and north directions, there are several high rise buildings blocking the air paths. There are some open spaces to the north-west of the Site thus the ventilation should be good in the north-west direction of the Site.
- 2.7.3 The existing buildings within the Site consists of some adjoined tenement buildings. As those adjoining buildings are also adjoined to other tenement buildings along the section of Queen's Road West forming an impermeable barrier blocking the wind flow at pedestrian level from Queen's Road West to POS of the LCSD's playground as well as the downstream area.
- 2.7.4 It should be noted that the area to the south of the Site is a steep upward slope. The wind flow is unlikely going uphill when other air paths are available.

- 2.7.5 There are two prevailing wind flow scenarios to be considered in this assessment. The first scenario is the easterly wind scenario (also include NEN & ESE winds) that occurs throughout the whole year. The second scenario is the south-westerly wind scenario (also include SSW & S winds) that only occurs during summer.
- 2.7.6 Major roads/streets in parallel with or less than 30 degrees to the prevailing wind directions together with open spaces and low-rise buildings can form air paths. The air paths of the two prevailing wind flow scenarios are shown in **Figure 2-9 & 2-10**.
- 2.7.7 Under Prevailing Winds from E, ENE & ESE, the wind that entering the Site are mainly coming from the main road in the south (Queen Road West). Some fresh air will also enter the Site from the north through the roads (Ko Shing Street and In Ku Lane) or from the east through the gap between buildings.
- 2.7.8 Under Prevailing Winds from SW, SSW & S, the wind that entering the Site does not rely on the main roads due to the relatively low buildings in the south. Sufficient building separations area also available in the upwind direction.
- 2.7.9 The ventilation within the Site during operation phase and the effect of the proposed redevelopment to the downstream area should rely on the design of the redevelopment and will be discussed in the next chapter.

2.8 Summary

- 2.8.1 The wind environment at the Site and its surrounding area have been studied. Generally, the prevailing wind is from the E, ENE & ESE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind is also come from the SW, SSW & S direction.
- 2.8.2 Under annual condition, the wind that entering the Site is mainly come from main road in the south. Some wind will also enter the Site from the north through the roads or from the east through the gap between buildings.
- 2.8.3 During summer, the wind that entering the Site is easily available as the buildings in the south are relatively low.

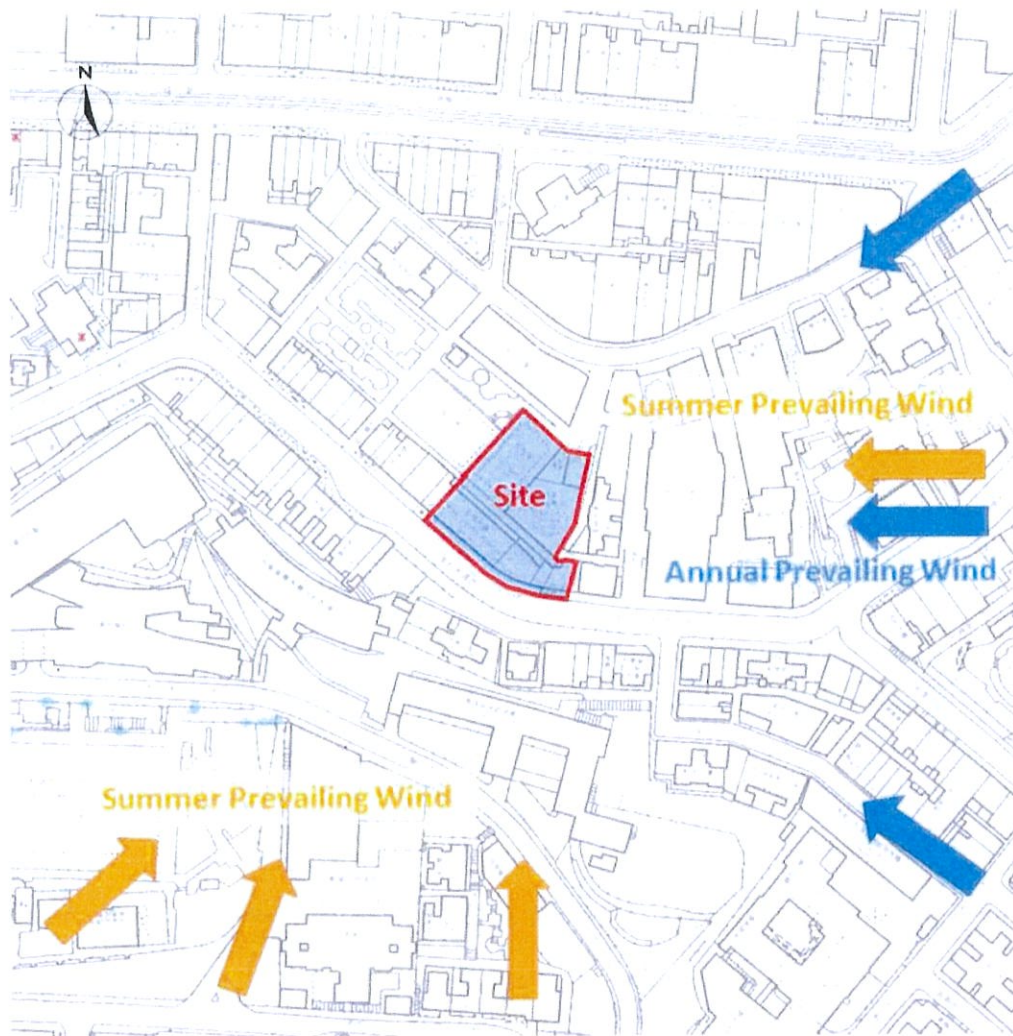


Figure 2-7 Prevailing Wind of the Site

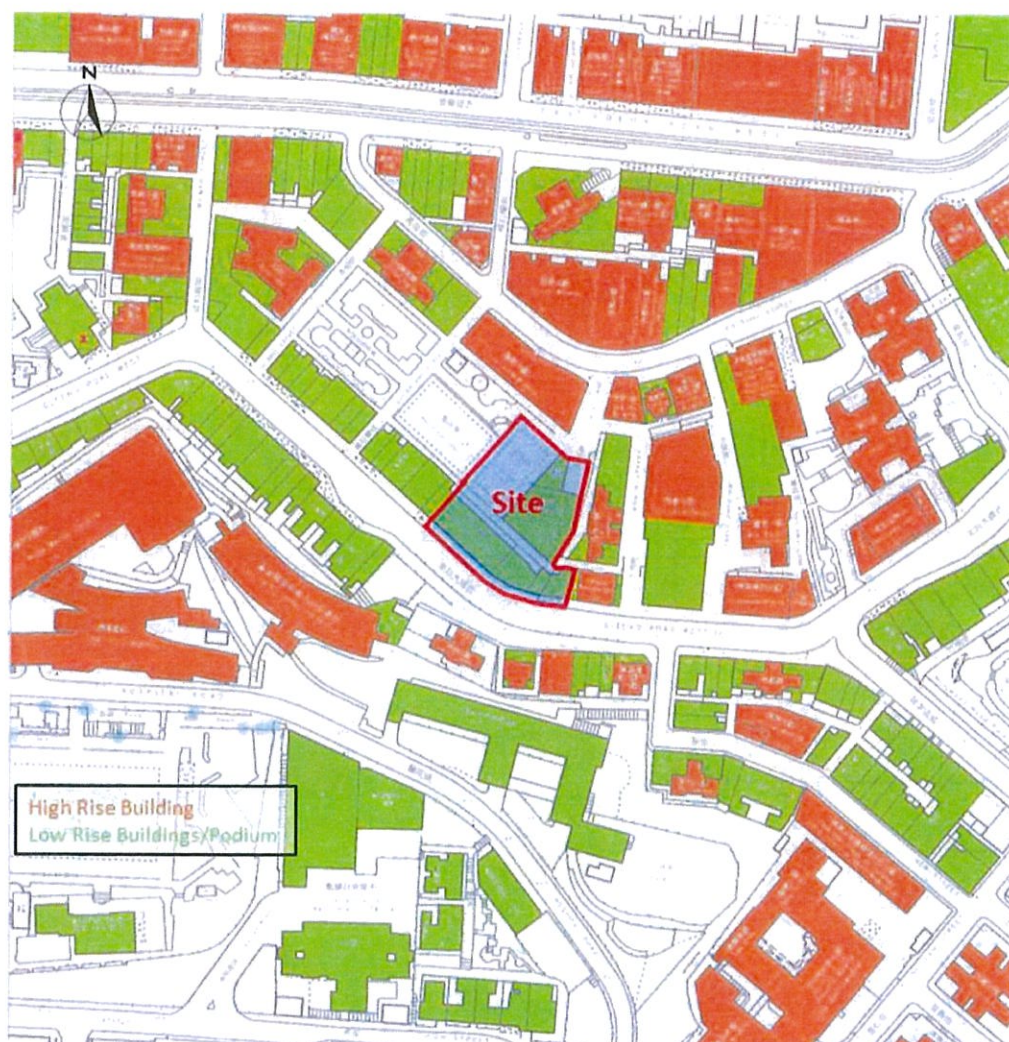


Figure 2-8 Buildings around the Site

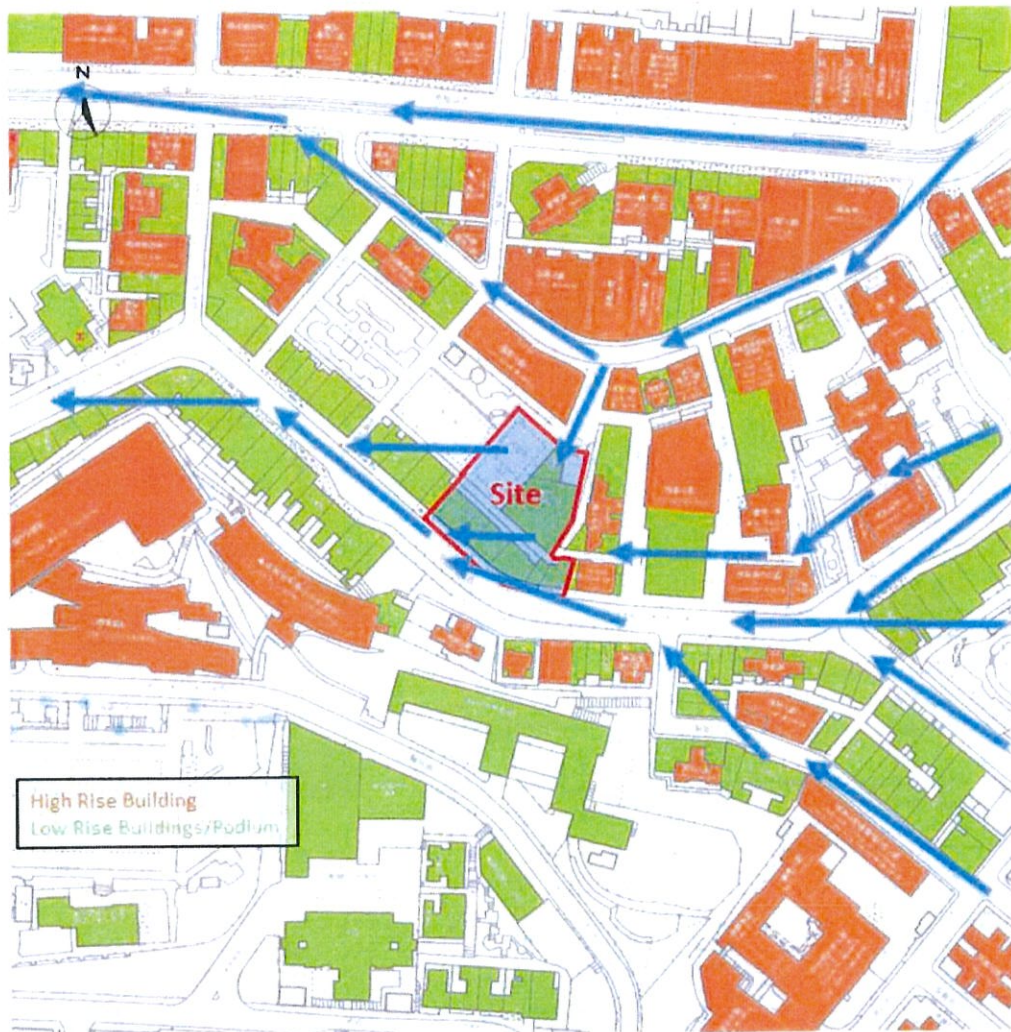


Figure 2-9 Wind Flow around the Site under Prevailing Winds from E, ENE & ESE

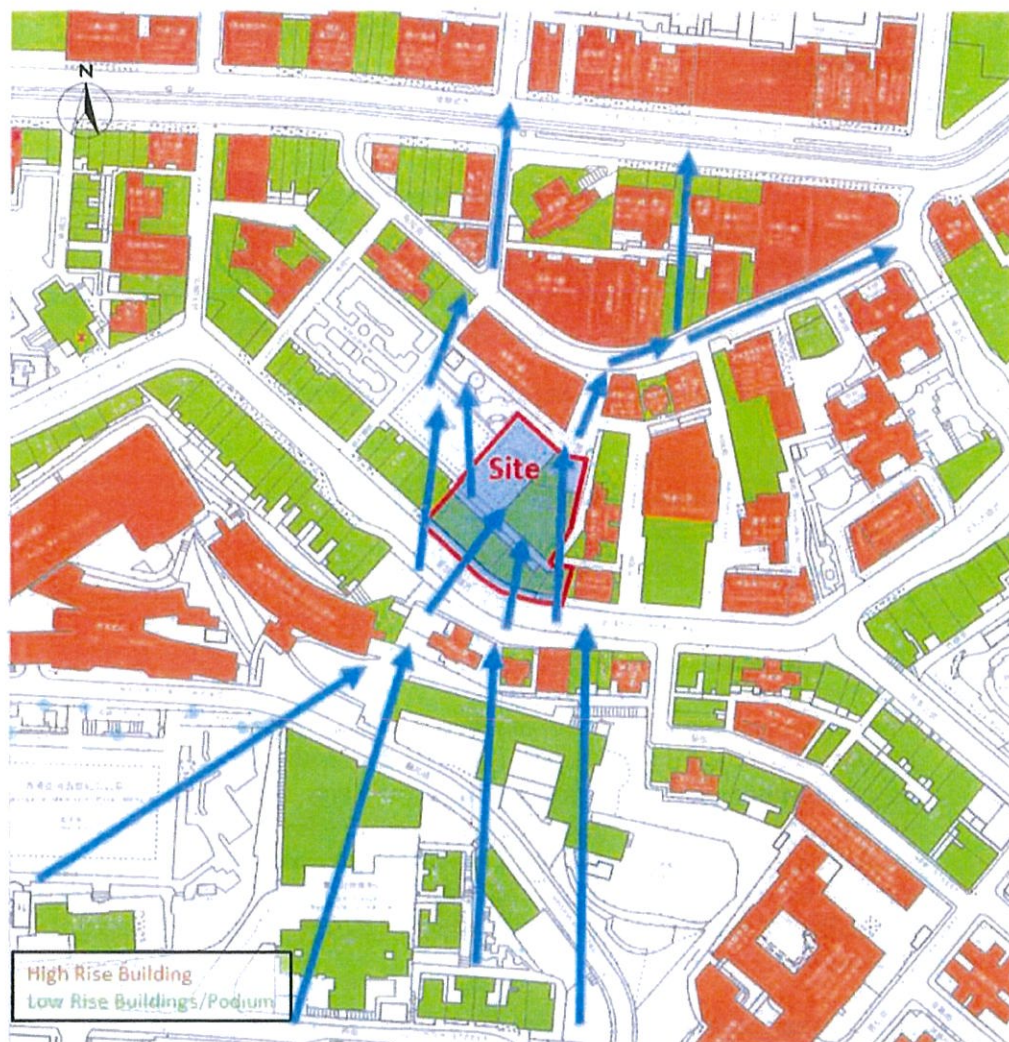


Figure 2-10 Wind Flow around the Site under Prevailing Winds from SW, SSW & S

3 EXPERT EVALUATION OF THE REDEVELOPMENT SCHEME

3.1 Introduction

3.1.1 The AVA study has assessed the wind performance of the Site. The wind environment and the air paths around the Site can be found in **Chapter 2**. As the Site is small and URA cannot control over the surrounding development, the assessment will be focused on site level instead of district level. The assessment in this study is based on the notional design of the redevelopment.

3.1.2 The following areas will be discussed in this chapter:

- Podium Structure
- Building Disposition and Permeability
- Building Height
- Landscaping and Cool Materials

3.2 Podium Structure

3.2.1 To enhance air circulation for dispersing heat and pollutants, thus improving comfort and air quality of the pedestrian environment, it is critical to increase the permeability of the urban fabric at the street levels. HKPSG recommends the podium structure that impedes air movement should be avoided where practicable, it is also recommended to reduce site coverage of the podium to allow more open space at grade (**Figure 3-1**). HKPSG also recommends a terraced podium design to direct downward airflow to the pedestrian level (**Figure 3-2**).

3.2.2 The existing adjoined tenement buildings along the section of Queen's Road West forming an impermeable barrier blocking the wind flow at pedestrian level, as stated in **Section 2.7.3**, that should be avoided in the proposed redevelopment.

3.2.3 In the notional of the redevelopment, a space in the western part of the Site is designed for pedestrian pathway / POS as highlighted in **Figure 3-3**. The width of the open space is about 11m and it serves as air pathway which can greatly increase the permeability at pedestrian level of the proposed development. Terraced podium design is adopted on the podium facing the Queen's Road West direction (**Figure 1-4**).

3.2.4 As the prevailing wind in summer is mostly from SW to S direction, it is expected that with a new corridor between Queen's Road West and In Ku Lane being provided, ventilation at pedestrian level of the Site as well as the nearby downstream area will be improved compared to the existing condition. The air ventilation at the pedestrian level of Queen's Road West should also be improved as the north/south wind is more likely entering the street canyon.

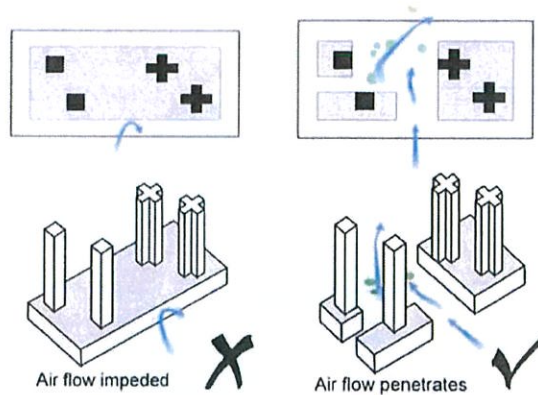


Figure 3-1 The Effect of Reducing Site Coverage of the Podium

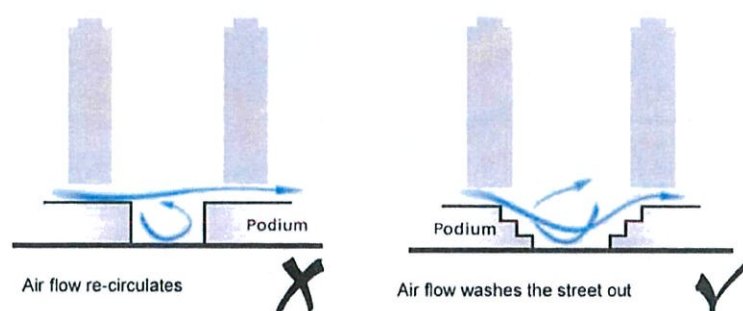


Figure 3-2 The Effect of Terraced Podium Design

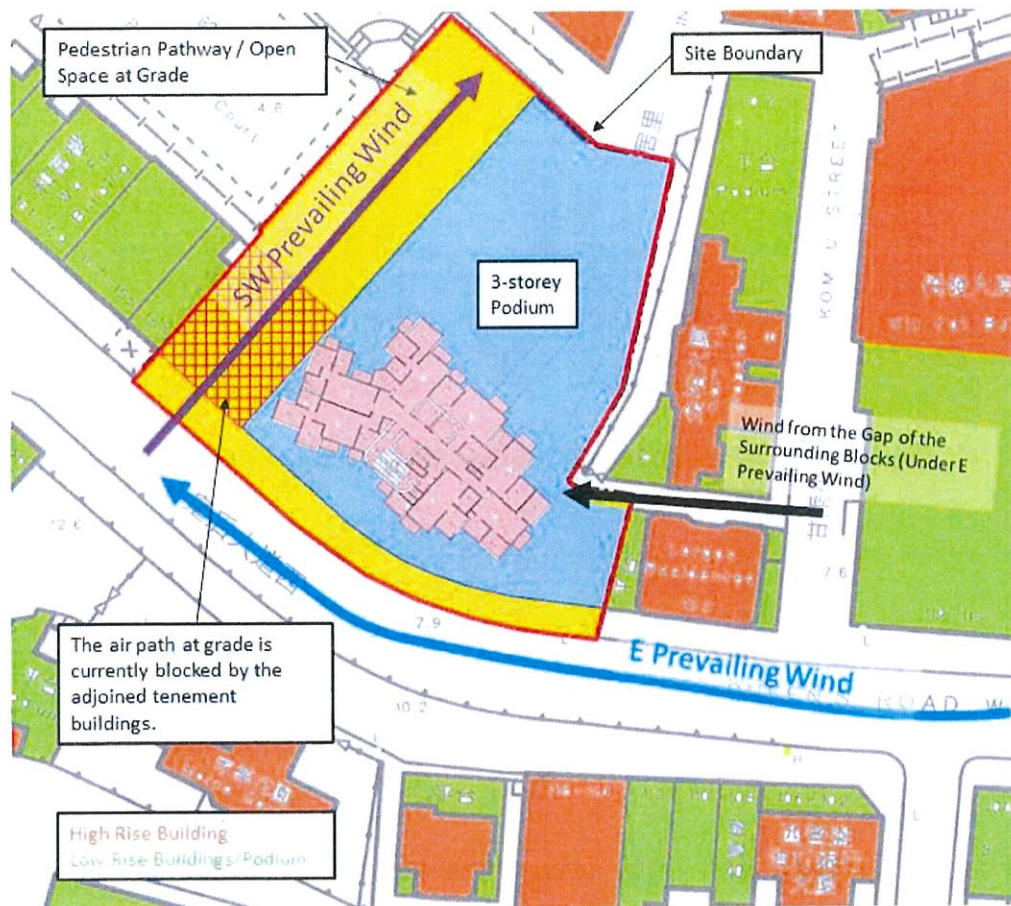


Figure 3-3 Air Paths around the Proposed Redevelopment

3.3 Building Disposition and Permeability

3.3.1 HKPSG recommends the following consideration regarding to the building disposition:

- Providing wide gaps between blocks to maximize the air permeability of the development and minimize its impact on wind capturing potential of adjacent developments.
- Adjusting the axis of the building block to minimize obstruction of the flow.
- Applying staggered arrangement in order to allow the block behind to receive the wind penetrated flow.

3.3.2 As the proposed redevelopment only consists of a single block, the focus will be put on the location and orientation of the proposed block.

3.3.3 The configuration of the proposed development and the surrounding blocks are illustrated in **Figure 3-3**. The nearest residential blocks (Largos Residences and Kam Yu Mansion) are about 11m from the proposed block. The axis of the proposed block is parallel to the Queen's Road West so that it will not obstruct the easterly prevailing wind, which is the primary prevailing wind throughout the year. Open space with a new corridor between Queen's Road West and In Ku Lane being provided is provided in order to allowing SW prevailing Wind, which occurring in summer, penetrating the Site. Sky garden (refuge floor) is provided in between 15/F & 16/F (**Figure 1-4**) improving permeability of the proposed block. In addition, the proposed block is located in staggered location (relative to the upstream blocks) thus the proposed block can enjoy the penetrated flow.

3.3.4 It is expected the air permeability of the proposed development is high and impact on wind capturing potential of adjacent developments is not significant.

3.4 Building Height

3.4.1 A varying height profile with strategic disposition of low-rise and tall buildings in the dense urban context can help instigate wind flowing throughout the district. The best situation occurs when the height variation across the district with decreasing heights towards the direction where the prevailing wind comes from (**Figure 3-4**).

3.4.2 Although the project only consist of a single residential tower, the stepping building height concept can still applied to help optimize the wind capturing potential of development itself (**Figure 3-5**).

3.4.3 The neighbouring area to the southern / south-western of the Site are relatively open and the buildings are much lower than the proposed residential tower. The height variation shall not be a concern in this direction.

- 3.4.4 Two high rise buildings (Largos Residences and Kam Yu Mansion) stand at the immediate east of the Site, blocking the Easterly prevailing wind. The height of these two blocks are both around 90mPD. As the height of the proposed block is around 130mPD, which is higher than those two blocks, the proposed block have the potential to capture the wind at higher elevation and benefit the surrounding pedestrian area.

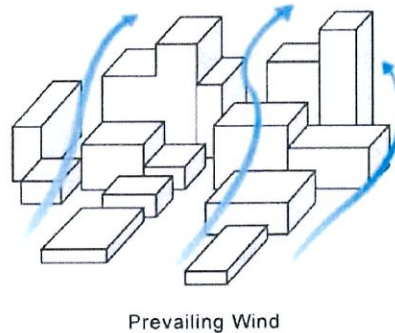


Figure 3-4 Varying Height Profile with Decreasing Heights towards the Prevailing Wind Direction

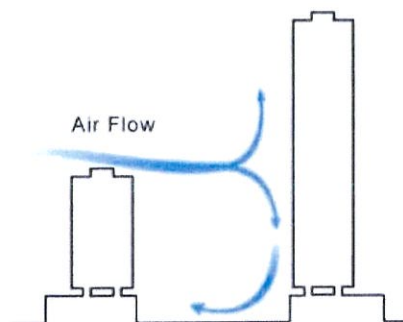


Figure 3-5 The Effect of Stepping Building Height on Wind Capturing Potential

3.5 Landscaping and Cooling Material

- 3.5.1 The Site is located in a closely packed urban area adjacent to major road (Queen's Road West) and surrounded by closely packed buildings. The Site may adversely affected by traffic emission as well as urban heat island effect leading to pedestrian health and comfort issues.

- 3.5.2 One of the solution is to maximise the green open space as it can reduce radiation gain and serve as "filter" for polluted air. Another solution is to use high solar reflectivity/emissivity material for pavements to reduce the absorption of solar radiation. Tall tree with wide and dense canopy planted on entrance plazas can also provide shading for improving pedestrian comfort.
- 3.5.3 Adjacent to the proposed building, there is a POS of the LCSD's playground. Considering the scale of the project, the adjoining POS together with the new POS within is sufficient to relieve the pedestrian health and comfort issues.
- 3.5.4 Within the proposed building, some planters and landscape areas will be provided on the open area on 1/F & 2/F (**Figure 3-6**).
- 3.5.5 Although the use of high solar reflectivity/emissivity material on building facades, podium and building roofs do not have direct impact on the pedestrian level, reducing solar radiation absorption of the building can in turn reduce the heat ejection through the air conditioners that in turn reduce the temperature in the adjacent area, with an extra benefit of reducing energy use. The use of cooling material should be considered in the detailed design stage to enhance the cooling effect.



Figure 3-5 Green Area of 1/F and 2/F (Podium Floor) of the Proposed Redevelopment

4 CONCLUSION


- 4.1.1 The current notional layout of the proposed developments in the Scheme show that various air ventilation related issue have been considered during the early design stage.
- 4.1.2 The wind environment of the site has been reviewed. Generally, the prevailing wind is from the E, ENE & ESE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind also comes from the SW, SSW & S direction.
- 4.1.3 Under annual condition, the wind that entering the Project site is mainly from the main road, i.e. Queen's Road West, in the south. Some wind will also enter the site from the north direction through the roads and from the east through the gap between buildings.
- 4.1.4 Compared to the existing situation that the air path at grade between the Queen's Road West and the LCSD's playground is blocked by the adjoined tenement buildings, the proposed elongated shaped POS in the Scheme can serve as a NE/SW direction wind corridor to enhance the local ventilation.
- 4.1.5 The proposed residential tower in the Scheme will be on the south-eastern side of the Site, with no obstruction to the air space above the POS and the Queen's Road West. The upstream wind from the east through the gap between buildings is also considered for the disposition of the residential tower. The height of the residential tower is higher than its surrounding buildings thus the wind capturing potential of development itself is secured.
- 4.1.6 The proposed redevelopment is adjacent to green open area of the LCSD's playground thus the air quality and pedestrian comfort is not a concern. In addition, terraced podium design is adopted which can enhance air circulation at pedestrian level of Queen's Road West compared to the existing situation.
- 4.1.7 Finally, the use of cooling material for the building facades, podium and roof is recommended to further improve the surrounding environment.
- 4.1.8 In conclusion, various air ventilation related issue have been considered during the early design stage thus no significant adverse air ventilation impact to the local wind environment is anticipated due to the proposed development.

Appendix 4 – Drainage & Sewerage Impact Assessment

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Drainage Impact Assessment
(v1.0)**

March 2018

| | |
|-------------|---|
| Approved By |  (Project Director: Dr. H.F. Chan) |
|-------------|---|

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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1 INTRODUCTION

Background

- 1.1. The Urban Renewal Authority (URA) has proposed a Development Scheme at Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). This Environmental Assessment (EA) is to support the submission of a draft Development Scheme Plan (DSP) with its planning proposal to the Town Planning Board (TPB) for consideration.
- 1.2. The proposed Development Scheme (the Scheme) is located between Queen's Road West and Ko Shing Street. The site is zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" and "Open Space" on the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site comprises a line of tenement buildings facing Queen's Road West, a Government Refuse Collection Point (RCP) cum a public toilet, and a 5-a-side soccer pitch (part of Li Sing Street Playground). The location of the site is shown in **Figure 1.1**.
- 1.3. The Scheme intends to demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (odd numbers) for redevelopment into new residential cum retail development; to re-provision the existing In Ku Lane Government RCP cum public toilet; and to replace the soccer pitch by a new public open space through re-configuration of the land uses within the Scheme.
- 1.4. Cinotech Consultants Limited was commissioned by URA to carry out a Sewerage Impact Assessment (SIA) to assess and envisage any potential environmental impact on the implementation of the proposed development and to recommend mitigation measures as necessary.

2 DESCRIPTION OF THE ENVIRONMENT

- 2.1. The site is located between Queen's Road West and Ko Shing Street. The gross site area is about 2,046sq.m.
- 2.2. Within the site, the southern side consists of a line of 4 to 6 storeys tenement buildings facing Queen's Road West. The north-eastern part of the site is a Government RCP cum a public toilet operated and maintained by Food and Environmental Hygiene Department (FEHD). In Ku Lane is the access road connecting the RCP and Ko Shing Street. Refuse Collection Vehicles will use the In Ku Lane to access the RCP for daily operation. A 5-a-side soccer pitch, which is part of Li Sing Street Playground managed by Leisure and Cultural Services Department (LCSD), forms the northwest corner of the site. The soccer pitch is fenced off on four sides with its only entrance from the sitting-out area of Li Sing Street playground on the west.
- 2.3. The site is located on a sloping ground with the high level at Queen's Road West of about 7.8mPD and gradually down to about 4.1mPD at In Ku Lane.
- 2.4. The site is surrounded by residential and commercial buildings and hotels to the north and east, a basketball court & sitting-out area of the Li Sing Street Playground and a row of old tenement buildings are situated to the west of the site. The southern side of the site is bounded by Queen's Road West, with a row of residential buildings and hospitals and clinics located further behind.

3 DRAINAGE IMPACT ASSESSMENT

Introduction

- 3.1 The site is currently occupied by residential buildings, a mini soccer pitch, a building complex comprised of Refuse Collection Point (RCP) and a public toilet. After development, the site will have a 29-storey residential tower with podium, re-provisioned public toilet and RCP, and public open space (POS) connecting Queens Road West to In Ku Lane. The whole site would remain as hard-paved and impermeable to surface water as existing condition. Therefore no additional drainage discharge from the proposed development is anticipated. Options of drainage connections from the project site to public drainage system are explored to suit the new layout of the Site.
- 3.2 This chapter identifies and evaluates the drainage impact of the Development Scheme by estimating the drainage loading and discharge distribution to the public drainage system. The drainage system surrounding the proposed development is also reviewed.

Review of Existing Drainage System

- 3.3 According to DSD records, the site is not within any of DSD flooding black spots and there is no record of minor flooding near the site over the past 10 years.
- 3.4 The surrounding public manholes from the proposed development are:
- SMH7060084 to the West along the scavenging lane;
 - SMH7028122 to the North at the junction of In Ku Lane and Ko Shing Street;
 - Box culvert on Sutherland Street via back lane of Ko Shing Building;
 - SMH7028092 to the Southwest on Queen's Road West; and
 - SMH7028127 at In Ku Lane.
- 3.5 The public drainage network in the close vicinity of the Site is shown in **Figure 3.1**.
- 3.6 Drainage from residential buildings in the southern side of the Site currently discharges to the drainage system along the scavenging lane. The existing public drainages pipes from manholes SMH7028097 to SMH7060084 shall be demolished as those pipes no longer serve for the new development.
- 3.7 Drainage from the existing In Ku Lane Public Toilet and RCP currently discharges to public manhole SMH7028122 via a 150mm pipe. The existing drainage system for the nearby playground (football court) and Public Toilet and RCP is shown in **Appendix 3.1**.
- 3.8 The hydraulic calculation of the maximum flow capacities of the existing public network is shown in **Table 3.1**. The detailed calculation can be found in **Appendix 3.2**. The invert levels from manholes SMH7060084 to SMH7028078, which is along the scavenging lane, are not recorded in the drainage record plan, thus they are not included in the calculation.

Table 3.1 Summary of Public Drainage Pipes

| Drainage Pipe No. | From Manhole | To Manhole | Diameter (mm) | Full Capacity ¹ (l/s) |
|-------------------|--------------|------------|---------------|----------------------------------|
| Ko Shing Street | | | | |
| Pipe01 | SMH7028122 | SMH7059962 | 375 | 152 |
| Pipe02 | SMH7059962 | SMH7028070 | 375 | 152 |
| Queen's Road West | | | | |
| Pipe03 | SMH7028092 | SMH7028067 | 225 | 86 |
| Pipe04 | SMH7028067 | SMH7028066 | 450 | 261 |
| Pipe05 | SMH7028066 | SMH7028065 | 450 | 276 |
| Pipe06 | SMH7028065 | SMH7028078 | 450 | 721 |

[1] Calculated by Colebrook-White Equation for Slimed drains under poor condition. The detailed calculation is shown in Appendix 3.2.

Drainage Discharge from Project

- 3.9 The overall disposition of the 3 different uses of the proposed development – POS, Public Toilet and RCP, Residential Tower and Podium, which are shown in Figure 3.2. As the Public Toilet and RCP will be handed over to Food and Environmental Hygiene Department (FEHD) and POS will be handed over to Leisure and Cultural Services Department (LCSD), the drainage system should be separated from the residential tower. It is recommended the connection of each terminal manhole corresponding to each proposed use shall be connected separately to the public/existing drainage system as far as practicable. The catchment areas within the project site are 738 m² for residential tower, 580 m² for Public Toilet and RCP, and 538 m² for POS.
- 3.10 “Stormwater Drainage Manual – Planning, Design and Management”, Fourth Edition May 2013, (hereafter called “the DSD Manual”) prepared by the DSD provides guidelines for the design of the drainage system. According to Table 10 of the DSD Manual, the recommended design return period based on flood levels for urban drainage branch systems is 50 years. Run-off coefficient of 0.90 is used for the paved area in the calculation.
- 3.11 Table 3.2 shows the total surface run-off from the Project Site.

Table 3.2 Estimation of Non-residential Population

| Zone | Catchment Area (m ²) | Paved Ratio | Total Surface Runoff (l/s) |
|---------------------|----------------------------------|-------------|----------------------------|
| Residential Tower | 816 | 100% | 59.9 |
| Public Toilet & RCP | 526 | 100% | 38.4 |
| POS | 538 | 100% | 41.9 |

Drainage Connection Proposal for POS / In Ku Lane Public Toilet and RCP / Residential Tower and Podium

POS

- 3.12 As POS will be handed over to LCSD, the drainage pipes for the POS within the project site area would be discharged to the drainage system of the existing playground. The re-provisioned drainage system of the playground will directly connect to the 500×600mm box culvert as the existing layout. No addition drainage impact is expected because no increase of catchment area is included.

In Ku Lane Public Toilet and RCP

- 3.13 The drainage system connecting the public toilet and RCP to public drainage system will be re-provisioned along In Ku Lane similar to the existing layout since the re-provisioned public toilet and RCP would have a similar disposition and location as the existing one, no additional drainage impact is expected (see **Figure 3.2**). The drainage from public toilet and RCP would be connected to public manhole SMH7028122 as the existing drainage layout (see **Appendix 3.1**).

Residential Tower and Podium

Base Option – Connect to Manhole SMH7060084 (West Scavenging Lane)

- 3.14 One of the options (base option) for the drainage from residential tower and podium may be collected by a terminal manhole (TMHB1), and discharged along the scavenging lane (from manhole SMH7060084 to SMH7028078) as shown in **Figure 3.4a**, which is similar to the existing condition.
- 3.15 The capacity of pipes along the scavenging lane is unknown due to insufficient information on the manhole invert levels in DSD's drainage record plan; therefore detail survey is required to verify the capacity and condition of pipes between SMH7060084 to SMH7028078.
- 3.16 However, this drainage proposal shall be subjected to further liaison with LCSD since the portion of underground drainage connection and terminal manhole falls into the POS area which will be handed over to LCSD (see **Figure 3.4**). Therefore alternative options of drainage discharge are studied in the following sections.
- 3.17 To demonstrate the feasibility of other discharging alternative options, drainage flow from the neighbourhood catchment areas as shown in **Figure 3.3** was also included in the assessment (see **Appendix 3.2**).

Option 1 – Connect to Manhole SMH7028122 (Ko Shing Street)

- 3.18 The drainage discharge from the residential tower and podium is proposed to be collected by a terminal manhole (TMH01) and discharge to the public drainage system via a $\phi 300$ mm pipe, P01, with a slope of 1:100. The location of the terminal manhole and the proposed pipes are shown in **Figure 3.4b**. The capacities of the proposed new pipes are shown in **Table 3.3** below and the detailed calculation can be found in **Appendix 3.2**.

Table 3.3 Capacity of Pipes (Option 1)

| Segment | Pipe Diameter (mm) | Full Capacity (L/s) | Discharge Loading (L/s) | Discharge loading to full capacity (%)* |
|---|--------------------|---------------------|-------------------------|---|
| Proposed New Drains from TMH01 to public drains | | | | |
| PP11 | 300 | 72 | 59.9 | 83% |
| PP12 | 300 | 72 | 59.9 | 83% |
| PP13 | 300 | 98 | 59.9 | 61% |
| Existing Public Drains along Ko Shing Street | | | | |
| Existing Pipe01 | 375 | 152 | 636 | 418% |
| Existing Pipe02 | 375 | 152 | 636 | 418% |
| Proposed Upgrading Drains along Ko Shing Street | | | | |
| Proposed Pipe01 | 675 | 720 | 636 | 88% |
| Proposed Pipe02 | 675 | 720 | 636 | 88% |

***Bold** for exceedance.

- 3.19 The existing public Pipe01 and Pipe02 should be upgraded from $\phi 375$ mm to $\phi 675$ mm to cater the required stormwater surface runoff.

Option 2 – Connect to Box Culvert (Sutherland Street)

- 3.20 The proposed drainage system of Option 2 (see **Figure 3.4c**) is similar to that of Option 1. The stormwater surface runoff from the residential tower is also collected by a new terminal manhole (TMH01) but discharge to box culvert along Sutherland Street near Ko Shing Building. The capacities of the proposed new pipes are shown in **Table 3.4** and the detailed calculation can be found in **Appendix 3.2**.

Table 3.4 Capacity of Pipes (Option 2)

| Segment | Pipe Diameter (mm) | Full Capacity (L/s) | Discharge Loading (L/s) | Discharge loading to full capacity (%)* |
|---------|--------------------|---------------------|-------------------------|---|
| PP21 | 300 | 72 | 59.9 | 83% |
| PP22 | 300 | 72 | 59.9 | 83% |
| PP23 | 300 | 72 | 59.9 | 83% |
| PP24 | 300 | 72 | 59.9 | 83% |
| PP25 | 375 | 144 | 90.0 | 62% |

- 3.21 The original public pipes from manhole SMH7028077 to the Box Culvert, which is presently cater the stormwater from Ko Shing Building, is likely to be removed to provide a sufficient space for the new pipe (PP25). Therefore, new PP25 should also be able to cater the stormwater from Ko Shing Building.

Option 3 – Connect to Manhole SMH7028067 (Queen's Road West)

- 3.22 Option 3 is that stormwater surface runoff from residential tower is proposed to be collected by terminal manhole (TMH02) and discharge to the public manhole SMH7028067 in Queen's Road West via a $\phi 300$ mm pipe (see **Figure 3.4d**). The capacities of the proposed new pipes are shown in **Table 3.5** below and the detailed calculation can be found in **Appendix 3.2**.

Table 3.5 Capacity of Pipes (Option 3)

| Segment | Pipe Diameter (mm) | Full Capacity (L/s) | Discharge Loading (L/s) | Discharge loading to full capacity (%)* |
|---|--------------------|---------------------|-------------------------|---|
| Proposed New Drains from TMH02 to public drains | | | | |
| PP31 | 300 | 72 | 59.9 | 83% |
| Existing Public Drains along Queen's Road West | | | | |
| Existing Pipe04 | 450 | 264 | 314 | 119% |
| Existing Pipe05 | 450 | 279 | 345 | 124% |
| Existing Pipe06 | 450 | 728 | 477 | 65% |
| Proposed Upgrading Drains along Queen's Road West | | | | |
| Proposed Pipe04 | 525 | 397 | 314 | 79% |
| Proposed Pipe05 | 525 | 419 | 345 | 82% |

***Bold** for exceedance.

- 3.23 The existing public Pipe 04 and Pipe 05 should be upgraded from $\phi 450$ mm to $\phi 525$ mm to cater the required stormwater surface runoff.

Option 4 – Connect to Manhole SMH7028127 (back lane of Kam Yu Mansion)

- 3.24 This manhole is located at In Ku Lane as shown in **Figure 3.1**. However, a section of downstream pipe is under private land of Lop Po Building and is unable to be identified. It is not recommended for drainage connection through this manhole SMH7028127.

Evaluation

- 3.25 **Table 3.6** shows the comparisons of different options for the drainage system of the proposed residential tower.

Table 3.6 Evaluation on Connection to Public Drainage

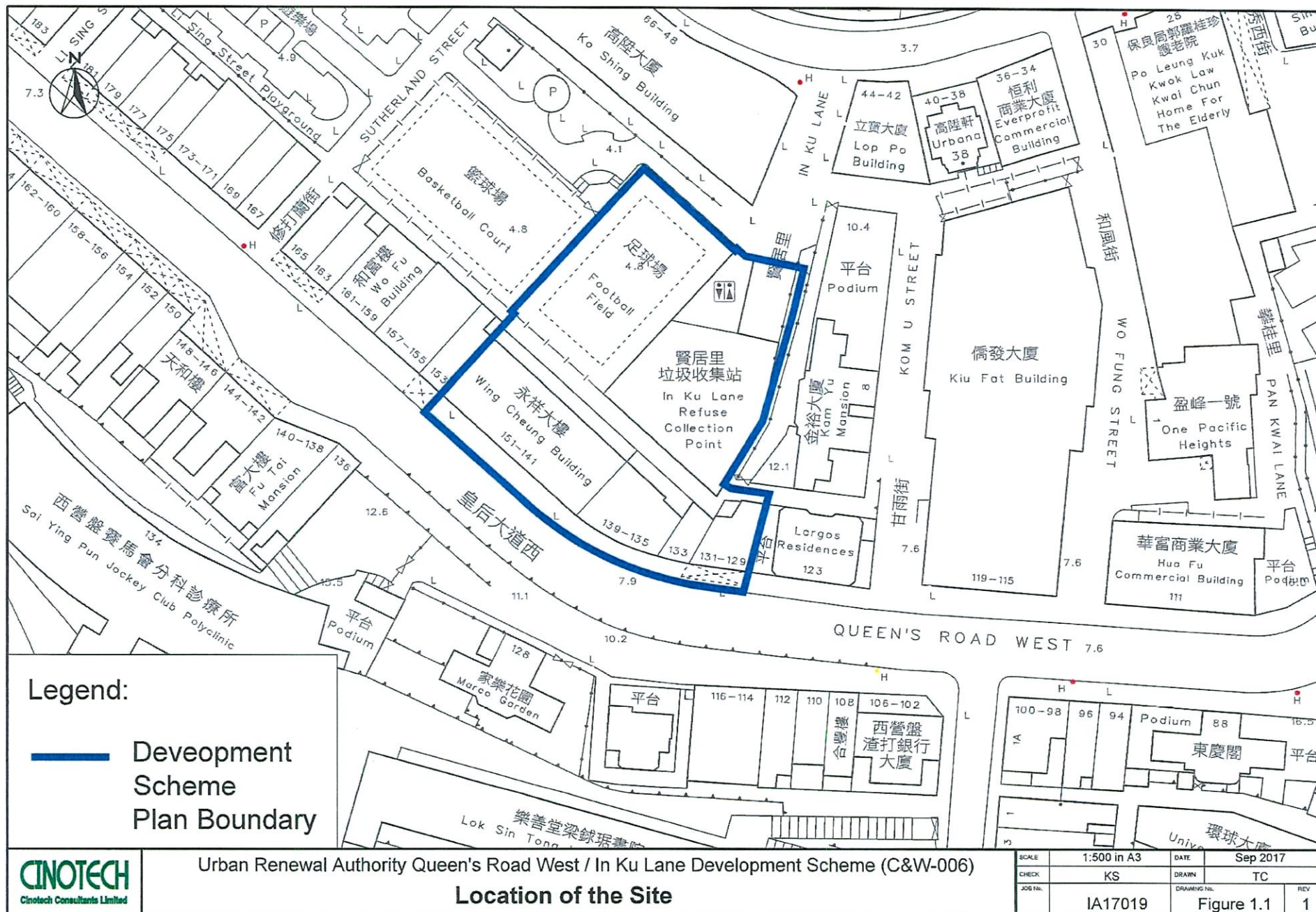
| Connection Option | Proposed Works | Remark |
|--|---|---|
| Base option – Connect to Manhole SMH7060084 (scavenging lane) | <ul style="list-style-type: none"> Detail survey of pipes between SMH7060084 and SMH7028078 to verify the capacity and condition, upgrading if necessary. | <ul style="list-style-type: none"> Feasible, subject technical verification and detail design A drainage reserve in POS shall be granted subject to agreement with LCSD for the part of residential underground drainage pipes and manhole within POS |
| Option 1 – Connect to Manhole SMH7028122 (Ko Shing Street) | <ul style="list-style-type: none"> 70 m $\phi 300$mm new pipe from own site terminal manhole to the public manhole upgrade 47m public pipes from $\phi 375$ mm to $\phi 675$ mm Construction works might disturb In Ku Lane & Ko Shing Street for associated upgrading works | <ul style="list-style-type: none"> Feasible, subject to technical verification and detail design |
| Option 2 – Connect to Box Culvert (Sutherland Street near Ko Shing Building) | <ul style="list-style-type: none"> 98.2 m $\phi 300$mm new pipe from own site terminal manhole to the public drainage system remove 8 m public pipes and construct new pipe PP25 | <ul style="list-style-type: none"> Feasible, subject to technical verification and detail design |
| Option 3 – Connect to Manhole SMH7028067 (Queen's Road West) | <ul style="list-style-type: none"> 13.8 m $\phi 300$mm new pipe from own site terminal manhole to the public manhole upgrade 38m public pipes from $\phi 450$ mm to $\phi 525$ mm The invert level of the terminal manhole higher than the lower ground level of the proposed building, extra pumping is necessary. Construction works might disturb the busy Queen's Road West. | <ul style="list-style-type: none"> Not recommended |
| Option 4 – Connect to Manhole SMH7028127 | <ul style="list-style-type: none"> A section of downstream pipe is under private land of Lop Po Building. | <ul style="list-style-type: none"> Not Recommended |

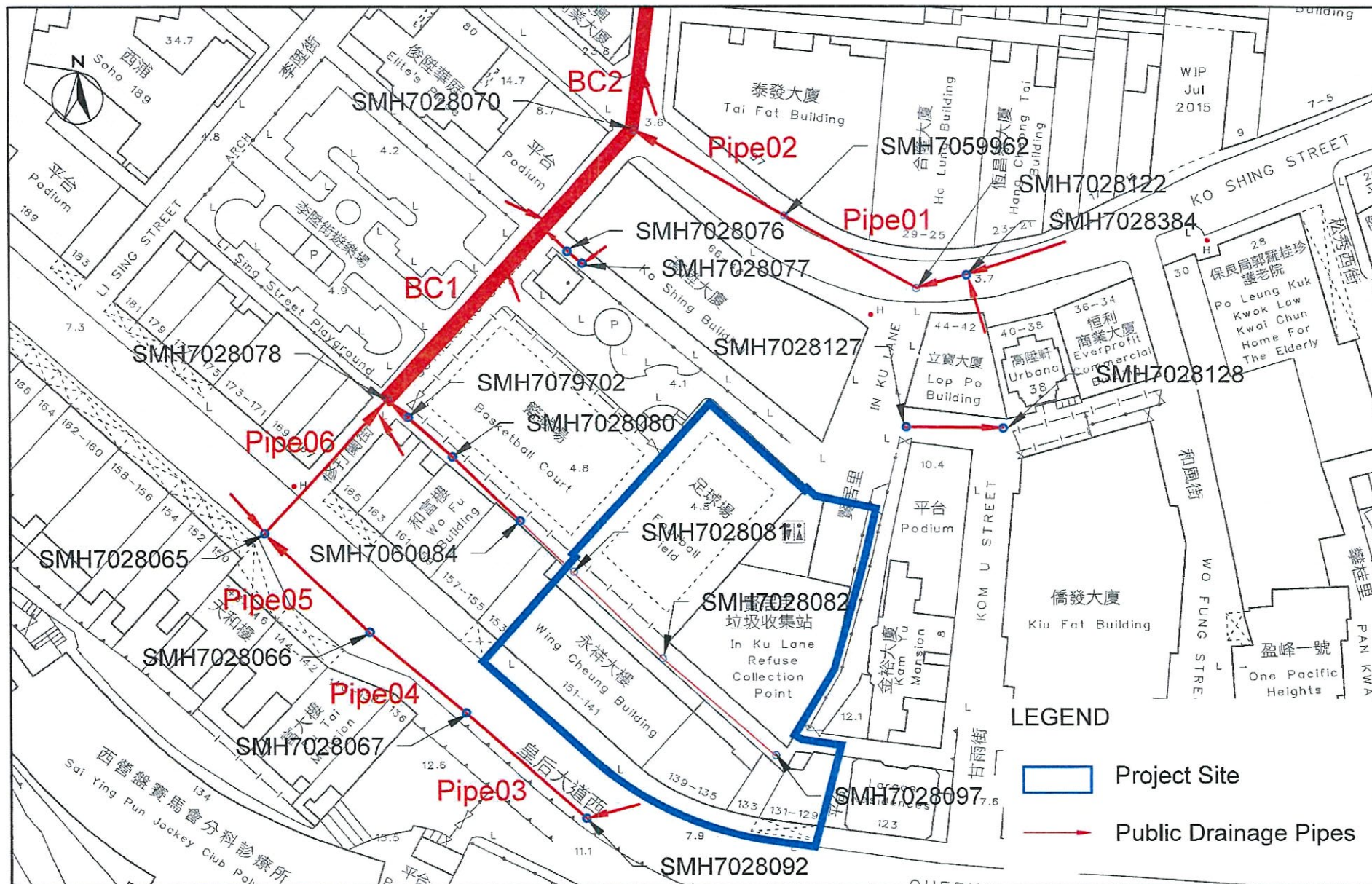
3.26 From the initial evaluation in Table 3.6, Option 3 and 4 have technical difficulties with greater implications and therefore not recommended. The other 3 options are considered feasible subject to further verification at detail design stage and related agreement with concerned government departments on a drainage reserve to be granted for base option.

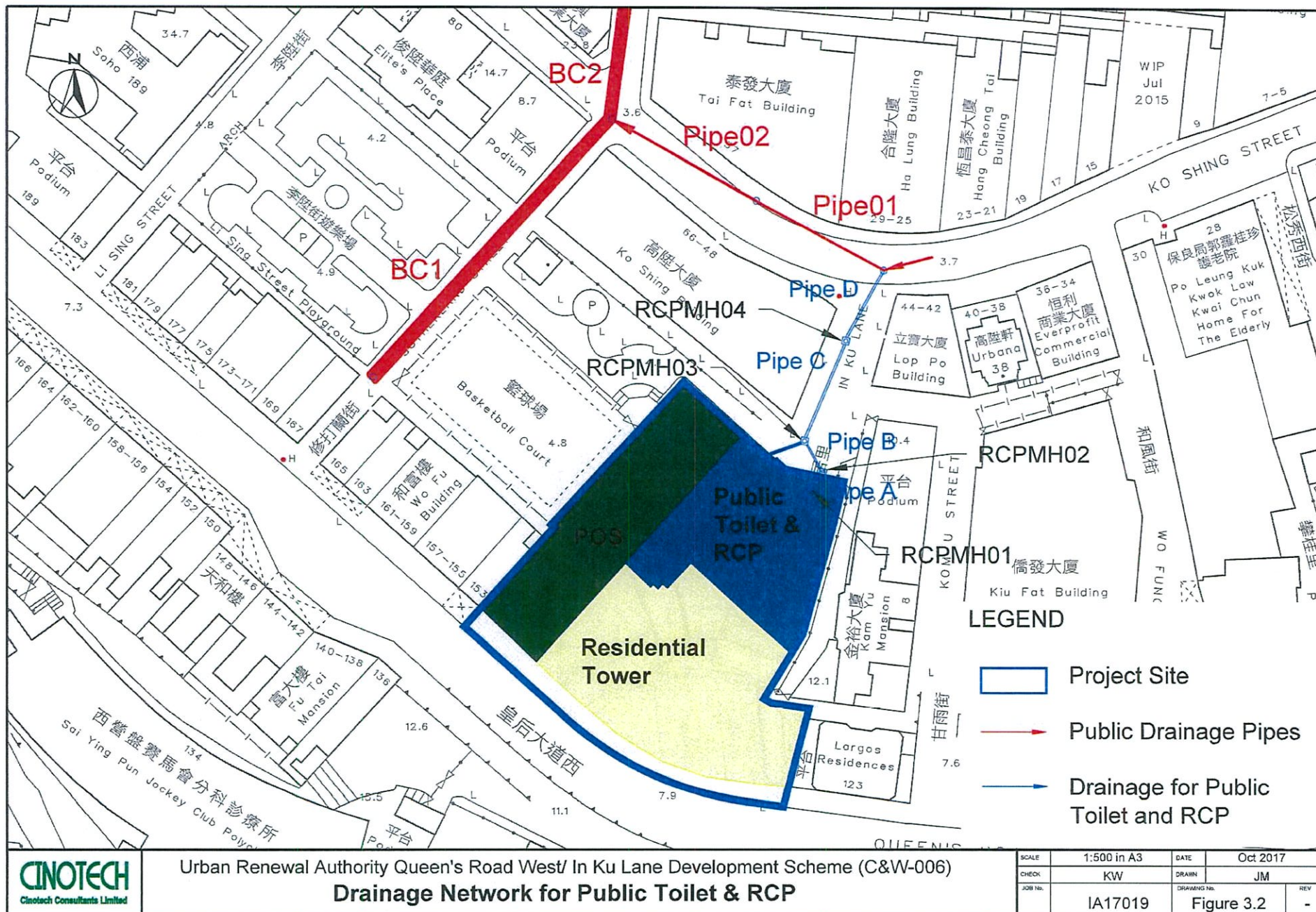
4 CONCLUSION

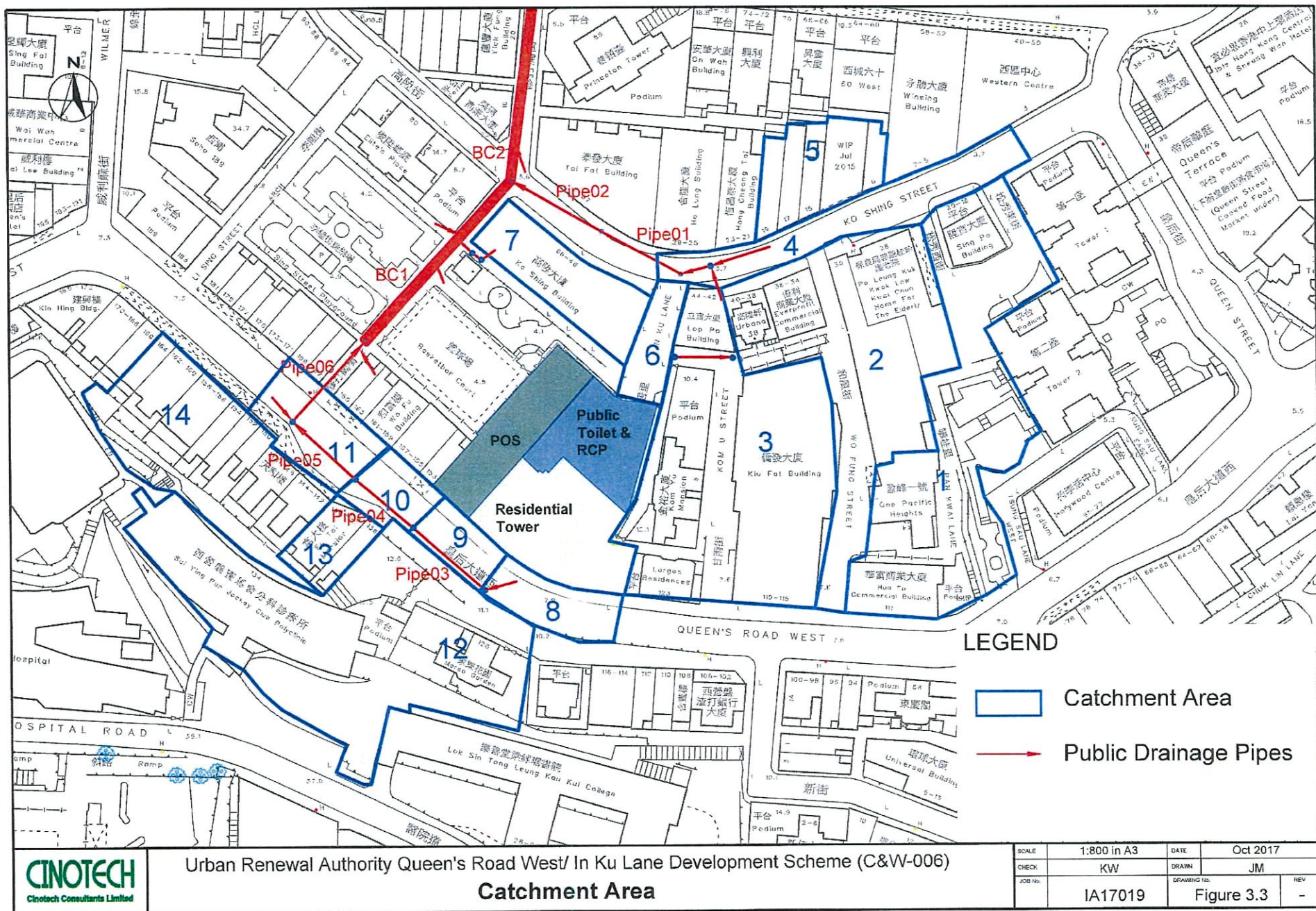
- 4.1 The whole site would remain as hard-paved and impermeable to surface water as existing condition; therefore no additional drainage discharge from the proposed development will be anticipated.
- 4.2 As the proposed development consists of different uses and administrators for each building component, it is recommended one terminal manhole corresponding to each component shall be connected separately to the public/existing drainage system as far as practicable.
- 4.3 Drainage from POS shall be collected to the drainage system of the existing playground.
- 4.4 Drainage from re-provisioned In Ku Lane Public Toilet and RCP would discharge to the public drainage via manhole SMH7028122, similar to the existing drainage system along In Ku Lane.
- 4.5 Options of drainage connection for the residential tower and podium are studied and evaluated. The existing drainage in the vicinity will cater for the expected drainage flows from the proposed use of the site; however, as referred to Table 3.6, base option and option 1 and 2 have different requirements for drainage upgrading works outside the site boundary to increase the capacities of pipes for discharging to the public drainage system.
- 4.6 Subject to further verification and detail design of drainage system for the proposed development, the final drainage proposal for the residential portion will then be determined. It is concluded no adverse impact on the existing drainage system is anticipated in view of drainage connection feasibility with associated proposal of upgrading works.

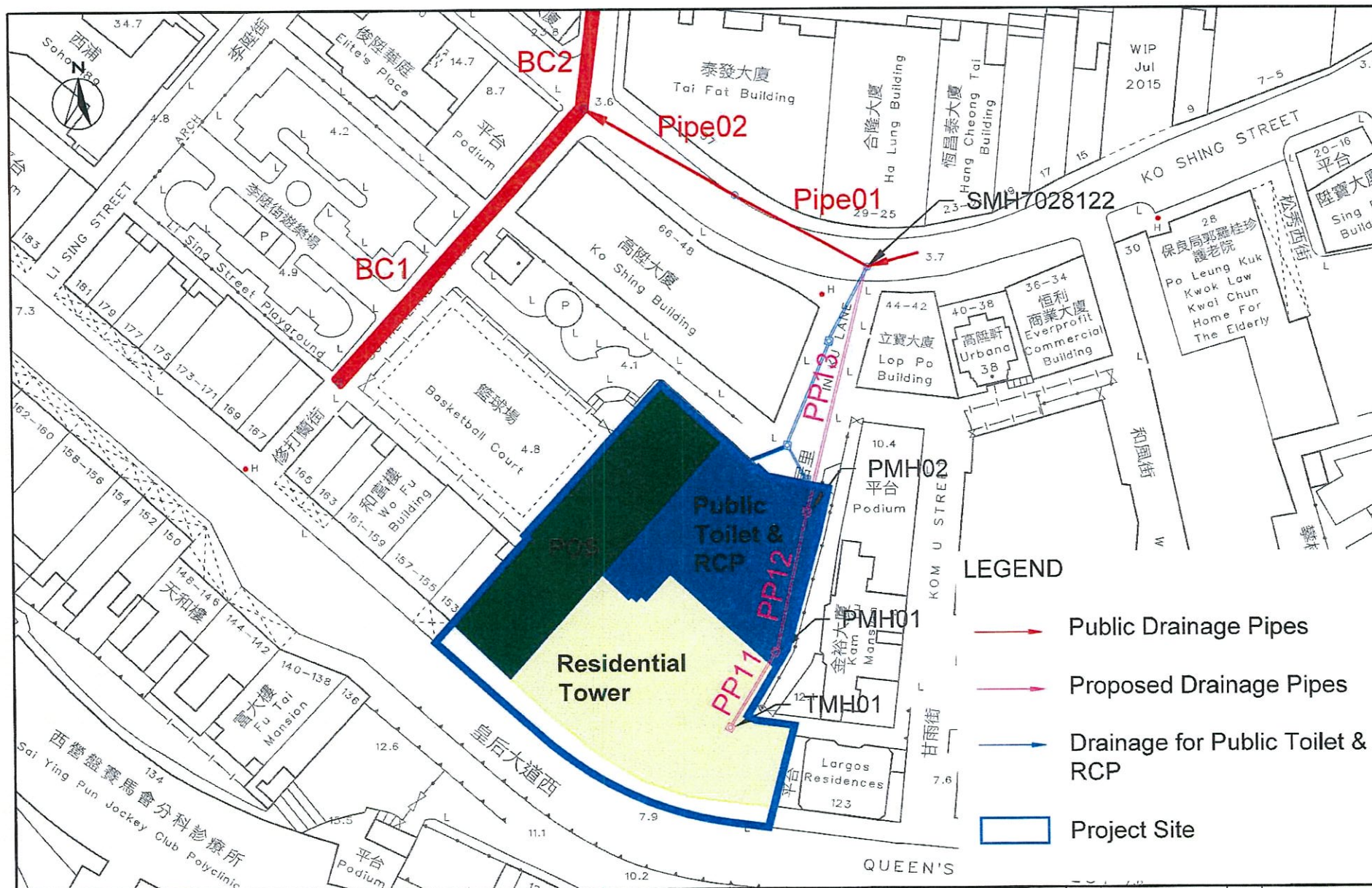
FIGURES

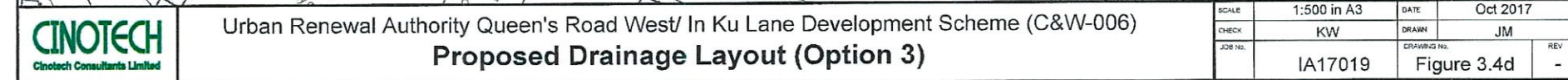












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|---------|-------------|-------------|-------------|
| SCALE | 1:500 in A3 | DATE | Oct 2017 |
| CHECK | KW | DRAWN | JM |
| JOB NO. | IA17019 | DRAWING NO. | Figure 3.4d |
| | | | REV - |

APPENDIX 3.1

EXISTING SITE DRAINAGE LAYOUT

APPENDIX 3.2

DETAILED CALCULTIONS

Detailed Calculation of Pipes Capacities

Existing Pipes

| Pipe No. | Upstream Manhole No. | Downstream Manhole No. | Upstream invert level (m P.D.) | Downstream invert level (m P.D.) | Length (m) | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) | Velocity (m/s) | Full Capacity (l/s) |
|----------|----------------------|------------------------|--------------------------------|----------------------------------|------------|--------------|------------------------|----------------------|-------|---|----------------------------------|----------------|---------------------|
| Pipe01 | SMH7028122 | SMH7059962 | 1.86 | - | 21.2 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.38 | 152 |
| Pipe02 | SMH7059962 | SMH7028070 | - | 1.52 | 24.7 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.38 | 152 |
| Pipe03 | SMH7028092 | SMH7028067 | 6.43 | 5.63 | 22.2 | 0.225 | 0.040 | 0.056 | 0.036 | 1.14E-06 | 0.0015 | 2.18 | 87 |
| Pipe04 | SMH7028067 | SMH7028066 | 5.63 | 5.48 | 17.7 | 0.450 | 0.159 | 0.113 | 0.008 | 1.14E-06 | 0.0015 | 1.66 | 264 |
| Pipe05 | SMH7028066 | SMH7028065 | 5.48 | 5.29 | 20.1 | 0.450 | 0.159 | 0.113 | 0.009 | 1.14E-06 | 0.0015 | 1.75 | 279 |
| Pipe06 | SMH7028065 | SMH7028078 | 5.29 | 3.65 | 25.5 | 0.450 | 0.159 | 0.113 | 0.064 | 1.14E-06 | 0.0015 | 4.58 | 728 |

*The hydraulic roughness of concrete slined drains (0.0015m) is adopted for the velocities more than 1.2m/s, otherwise 0.003m.

Proposed Pipe

| Pipe No. | Upstream Manhole No. | Downstream Manhole No. | Upstream invert level (m P.D.)# | Downstream invert level (m P.D.)# | Length (m)# | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) | Velocity (m/s) | Full Capacity (l/s) |
|-----------------|----------------------|------------------------|---------------------------------|-----------------------------------|-------------|--------------|------------------------|----------------------|-------|---|----------------------------------|----------------|---------------------|
| Option 1 | | | | | | | | | | | | | |
| PP11 | TMH01 | PMH01 | 3.00 | 2.92 | 12.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP12 | PMH01 | PMH02 | 2.92 | 2.78 | 20.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP13 | PMH02 | SMH7028122 | 2.78 | 2.40 | 38.1 | 0.300 | 0.071 | 0.075 | 0.010 | 1.14E-06 | 0.0015 | 1.39 | 98 |
| Pipe01 | SMH7028122 | SMH7059962 | 1.86 | - | 21.2 | 0.675 | 0.358 | 0.169 | 0.007 | 1.14E-06 | 0.0015 | 2.01 | 720 |
| Pipe02 | SMH7059962 | SMH7028070 | - | 1.52 | 24.7 | 0.675 | 0.358 | 0.169 | 0.007 | 1.14E-06 | 0.0015 | 2.01 | 720 |
| Option 2 | | | | | | | | | | | | | |
| PP21 | TMH01 | PMH01 | 3.00 | 2.91 | 12.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP22 | PMH01 | PMH02 | 2.91 | 2.78 | 20.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP23 | PMH02 | PMH03 | 2.78 | 2.73 | 6.4 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP24 | PMH03 | PMH04 | 2.73 | 2.39 | 51.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP25 | PMH04 | box culvert | 2.39 | 2.34 | 7.0 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.31 | 144 |
| Option 3 | | | | | | | | | | | | | |
| PP31 | TMH02 | SMH7028067 | 5.72 | 5.63 | 13.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| Pipe04 | SMH7028067 | SMH7028066 | 5.63 | 5.48 | 17.7 | 0.525 | 0.216 | 0.131 | 0.008 | 1.14E-06 | 0.0015 | 1.83 | 397 |
| Pipe05 | SMH7028066 | SMH7028065 | 5.48 | 5.29 | 20.1 | 0.525 | 0.216 | 0.131 | 0.009 | 1.14E-06 | 0.0015 | 1.94 | 419 |

*The hydraulic roughness of concrete slined drains (0.0015m) is adopted for the velocities more than 1.2m/s, otherwise 0.003m.

#The invert level and pipe length are subject to detailed design.

[3] Rainfall intensity is based on 1:50 year return period.

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.18 | Slope, H ⁽²⁾ (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|----------------------|-----------------------|---------------------------------|-------------|--|--|---|-------|--------------------------------|-------------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio | Paved Area (m ²) ⁽¹⁾ | Unpaved Area (m ²) ⁽¹⁾ | | | | | Q _{paved} | Q _{unpaved} | Q _{Total} |
| Proposed Development | Residential | 816 | 100% | 816 | 0 | 0.4000 | 38 | 3.4 | 293 | 59.9 | 0.00 | 59.9 |
| | RCP | 526 | 100% | 526 | 0 | 0.4000 | 37 | 3.5 | 292 | 38.4 | 0.00 | 38.4 |
| | POS | 538 | 100% | 538 | 0 | 5.8824 | 45 | 2.4 | 311 | 41.9 | 0.00 | 41.9 |

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|-----------------------|-----------------------|------------------------------|--------------------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio ¹ | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 86 | 7.6 | 244 | 50 | 0.00 | 50 |
| | RCP | 526 | 100% | 526 | 0 | 0.40 | 64 | 5.9 | 260 | 34 | 0.00 | 34 |
| Surrounding Catchment | C01 | 2577 | 100% | 2577 | 0 | 0.40 | 179 | 14.20 | 202 | 130 | 0.00 | 130 |
| | C02 | 2304 | 100% | 2304 | 0 | 0.40 | 128 | 10.30 | 224 | 129 | 0.00 | 129 |
| | C03 | 2853 | 100% | 2853 | 0 | 0.40 | 84 | 6.60 | 253 | 181 | 0.00 | 181 |
| | C04 | 826 | 100% | 826 | 0 | 0.40 | 90 | 8.00 | 240 | 50 | 0.00 | 50 |
| | C05 | 630 | 100% | 630 | 0 | 0.40 | 62 | 5.60 | 264 | 42 | 0.00 | 42 |
| | C06 | 273 | 100% | 273 | 0 | 0.77 | 32 | 2.80 | 304 | 21 | 0.00 | 21 |
| Total | | 10805 | | | | | | | | 636 | 0 | 636 |

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|-----------------------|------------------------------|----------------------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio ^(b) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{paved} | Q _{unpaved} | Q _{total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 119 | 10.6 | 222 | 45 | 0.00 | 45 |
| Surrounding Catchment | C07 | 646 | 100% | 646 | 0 | 0.40 | 49 | 4.50 | 277 | 44.76 | 0.00 | 45 |
| Total | | 1462 | | | | | | | | 90 | 0 | 90 |

Option 3 - Connect to Manhole SMH7028092 (Queen's Road West)

Pipe 4

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|-----------------------|-----------------------|---------------------------------|--------------------|---------------------------------|-----------------------------------|--------------------------|-------|-----------------------------------|----------------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 52 | 4.6 | 276 | 56 | 0.00 | 56 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.02 | 57 | 4.50 | 277 | 27 | 0.00 | 27 |
| | C09 | 249 | 100% | 249 | 0 | 1.02 | 24 | 2.00 | 319 | 20 | 0.00 | 20 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 126 | 5.10 | 269 | 211 | 0.00 | 211 |
| Total | | 4584 | | | | | | | | 314 | 0 | 314 |

Pipe 5

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|-----------------------|-----------------------|---------------------------------|--------------------|---------------------------------|-----------------------------------|--------------------------|-------|-----------------------------------|----------------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 69 | 6.2 | 257 | 52 | 0.00 | 52 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.05 | 74 | 5.9 | 260 | 25 | 0.00 | 25 |
| | C09 | 249 | 100% | 249 | 0 | 1.05 | 42 | 3.4 | 293 | 18 | 0.00 | 18 |
| | C10 | 275 | 100% | 275 | 0 | 1.05 | 24 | 2.0 | 319 | 22 | 0.00 | 22 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 144 | 5.8 | 261 | 205 | 0.00 | 205 |
| | C13 | 298 | 100% | 298 | 0 | 0.40 | 30 | 2.9 | 302 | 23 | 0.00 | 23 |
| Total | | 5157 | | | | | | | | 345 | 0 | 345 |

Pipe 6

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|-----------------------|-----------------------|---------------------------------|--------------------|---------------------------------|-----------------------------------|--------------------------|-------|-----------------------------------|----------------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 95 | 8.4 | 237 | 48 | 0.00 | 48 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.05 | 100 | 7.90 | 241 | 23 | 0.00 | 23 |
| | C09 | 249 | 100% | 249 | 0 | 1.05 | 67 | 5.50 | 265 | 17 | 0.00 | 17 |
| | C10 | 275 | 100% | 275 | 0 | 1.05 | 50 | 4.00 | 284 | 20 | 0.00 | 20 |
| | C11 | 537 | 100% | 537 | 0 | 1.05 | 35 | 2.70 | 305 | 41 | 0.00 | 41 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 170 | 6.80 | 251 | 197 | 0.00 | 197 |
| | C13 | 298 | 100% | 298 | 0 | 0.40 | 56 | 5.50 | 265 | 20 | 0.00 | 20 |
| | C14 | 1559 | 100% | 1559 | 0 | 0.40 | 47 | 3.90 | 286 | 111 | 0.00 | 111 |
| Total | | 7253 | | | | | | | | 477 | 0 | 477 |

Catchment Zones for Drainage Pipes & Calculation of Stormwater Runoff

For Existing Pipes

| Manhole No. | Downstream Pipe No. | Pipe Diameter (mm) | Catchment | Discharge Loading | Full Capacity (l/s) | % |
|---|---------------------|--------------------|--------------------------------------|-------------------|---------------------|------|
| Option 1 - Connect to Manhole SMH7028122 (Ko Shing Street) | | | | | | |
| SMH7028122 | Pipe01 | 375 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 152 | 418% |
| SMH7059962 | Pipe02 | 375 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 152 | 418% |
| Option 3 - Connect to Manhole SMH7028092 (Queen's Road West) | | | | | | |
| SMH7028092 | Pipe03 | 225 | R, C08 | 88 | 87 | 102% |
| SMH7028067 | Pipe04 | 450 | R, C08, C09, C12 | 314 | 264 | 119% |
| SMH7028066 | Pipe05 | 450 | R, C08, C09, C10, C12, C13 | 345 | 279 | 124% |
| SMH7028065 | Pipe06 | 450 | R, C8, C9, C10, C11, C12, C13, C14 | 477 | 728 | 65% |

For Proposed Upgrading Pipes

| Manhole No. | Downstream Pipe No. | Pipe Diameter (mm) | Catchment | Discharge Loading | Full Capacity (l/s) | % |
|---|---------------------|--------------------|--------------------------------------|-------------------|---------------------|-----|
| Option 1 - Connect to Manhole SMH7028122 (Ko Shing Street) | | | | | | |
| SMH7028122 | Pipe01 | 675 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 720 | 88% |
| SMH7059962 | Pipe02 | 675 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 720 | 88% |
| Option 3 - Connect to Manhole SMH7028092 (Queen's Road West) | | | | | | |
| SMH7028067 | Pipe04 | 525 | R, C08, C09, C12 | 314 | 397 | 79% |
| SMH7028066 | Pipe05 | 525 | R, C08, C09, C10, C12, C13 | 345 | 419 | 82% |
| SMH7028065 | Pipe06 | 450 | R, C8, C9, C10, C11, C12, C13, C14 | 477 | 728 | 65% |

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Sewerage Impact Assessment
(v1.0)**

March 2018

Approved By



(Project Director: Dr. H.F. Chan)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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1 INTRODUCTION

Background

- 1.1. The Urban Renewal Authority (URA) has proposed a Development Scheme at Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). This Environmental Assessment (EA) is to support the submission of a draft Development Scheme Plan (DSP) with its planning proposal to the Town Planning Board (TPB) for consideration.
- 1.2. The proposed Development Scheme (the Scheme) is located between Queen's Road West and Ko Shing Street. The site is zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" and "Open Space" on the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site comprises a line of tenement buildings facing Queen's Road West, a Government Refuse Collection Point (RCP) cum a public toilet, and a 5-a-side soccer pitch (part of Li Sing Street Playground). The location of the site is shown in **Figure 1.1**.
- 1.3. The Scheme intends to demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (odd numbers) for redevelopment into new residential cum retail development; to re-provision the existing In Ku Lane Government RCP cum public toilet; and to replace the soccer pitch by a new public open space through re-configuration of the land uses within the Scheme.
- 1.4. Cinotech Consultants Limited was commissioned by URA to carry out a Sewerage Impact Assessment (SIA) to assess and envisage any potential environmental impact on the implementation of the proposed development and to recommend mitigation measures as necessary.

2 DESCRIPTION OF THE ENVIRONMENT

- 2.1. The site is located between Queen's Road West and Ko Shing Street. The gross site area is about 2,046sq.m.
- 2.2. Within the site, the southern side consists of a line of 4 to 6 storeys tenement buildings facing Queen's Road West. The north-eastern part of the site is a Government RCP cum a public toilet operated and maintained by Food and Environmental Hygiene Department (FEHD). In Ku Lane is the access road connecting the RCP and Ko Shing Street. Refuse Collection Vehicles will use the In Ku Lane to access the RCP for daily operation. A 5-a-side soccer pitch, which is part of Li Sing Street Playground managed by Leisure and Cultural Services Department (LCSD), forms the northwest corner of the site. The soccer pitch is fenced off on four sides with its only entrance from the sitting-out area of Li Sing Street playground on the west.
- 2.3. The site is located on a sloping ground with the high level at Queen's Road West of about 7.8mPD and gradually down to about 4.1mPD at In Ku Lane.
- 2.4. The site is surrounded by residential and commercial buildings and hotels to the north and east, a basketball court & sitting-out area of the Li Sing Street Playground and a row of old tenement buildings are situated to the west of the site. The southern side of the site is bounded by Queen's Road West, with a row of residential buildings and hospitals and clinics located further behind.

3 SEWERAGE IMPACT ASSESSMENT

Introduction

- 3.1 This chapter identifies and evaluates the sewerage impact of the Development Scheme by estimating the potential sewage loading and discharge distribution to the public sewer. As there will be an increase in population, the associated sewage generation arising from the proposed development is expected to increase. The sewerage system surrounding the proposed development is reviewed.

Review of Existing Sewerage System

- 3.2 The surrounding public manholes from the proposed development are:

- FMH7026299 at In Ku Lane;
- FMH7026327 to the North at the junction of In Ku Lane and Ko Shing Street;
- FMH7026258 at In Ku Lane;
- FMH7026251 to the East;
- FMH7026383 to the Southwest on Queen's Road West; and
- FMH7026294 to the West.

These manholes are illustrated in **Figure 3.1**.

- 3.3 Sewage from residential buildings in the southern side of the Site currently discharges to the sewerage system along the scavenging lane and Sutherland Street. The existing sewers from manholes FMH7026289 to FMH7026294 shall be demolished as those pipes no longer serve for the new development.
- 3.4 Sewage from the existing In Ku Lane Public Toilet and Refuse Collection Point currently discharges to public manhole FMH7026327 via a 150mm pipe. The existing sewerage system for the Public Toilet and RCP is shown in **Appendix 3.1**.

Sewerage Discharge from Project

- 3.5 The project consists of a multi-storey non-residential podium (planning for 8 shops and a club house), 29-storey of residential flats (total 189 units), re-provisioned In Ku Lane Public Toilet and RCP. The notional layout of the proposed development is shown in Figure 3.1a-3.1h.
- 3.6 As the Public Toilet and RCP will be taken over by the government, its sewerage system should be separated from that of the residential tower. Therefore 2 terminal manholes are proposed for the Project Site.

Residential Tower and Podium

- 3.7 Based on Population By-census 2016, the average domestic household size in Sheung Wan District Council Constituency Area is 2.2 persons. Therefore the design residential population is about 416 persons (189 flats \times 2.2). The population from the Project is summarised in Table 3.1 below.

Table 3.1 Estimation of Residential Population

| No. of Floors | Total No. of Flats | No. of person per flat ^[1] | Predicted Total Population |
|---------------|--------------------|---------------------------------------|----------------------------|
| 29 | 189 | 2.2 | 416 |

[1] The average domestic household size is 2.2 persons for Sheung Wan district according to Population By-census 2016. Hence, the number of persons per household for this proposed development is assumed to be 2.2.

- 3.8 The proposed use of the clubhouse is a gymnasium. As the uses of shops are not confirmed, half of the shops are assumed to be "Restaurant" and the other half as "Retail". The population and the number of employees are estimated according to the usable floor area per person and the occupancy factor from Code of Practice for Fire Safety in Buildings 2011, published by Buildings Department. Table 3.2 shows the population calculation of the clubhouse and shops, the detailed calculation is shown in Appendix 3.2.

Table 3.2 Estimation of Non-residential Population

| Non-residential Use | UFA (m ²) | Occupancy Factor (m ² per head) | Total No. of Occupancy | No. of Employee |
|---------------------|-----------------------|--|------------------------|-----------------|
| Retail | 370 | 3 | 123 | 13 |
| Restaurant | 370 | 1 | 370 | 37 |
| Club House | 477 | 3 | 159 | 16 |

[1] Occupancy factors for the corresponding type of accommodation are from Table B1 of Code of Practice for Fire Safety in Buildings 2011.

[2] No. of Occupants = Usable Floor Area (m²) / Occupancy Factor

[3] A staff to occupant ratio of 1:10 is assumed for coffee shop and clubhouse to estimate the number of employees.

- 3.9 The estimated population and peak sewage flow from the residential tower and podium are summarized in Table 3.3. The total dry weather daily average flow is 178.9 m³/day. The peak flow is 16.6 L/s, applying the peaking factor including stormwater allowance of 8 for a contribution population of <1,000 persons.

Table 3.3 Sewage Flow from Residential Tower and Podium

| Type | Unit Flow Factors ^[1] (m ³ /day/person) | No. of Employees/ Residents | Flow Rate (m ³ /day) | Peak Flow ^[2] (L/s) |
|--------------|--|--------------------------------|------------------------------------|-----------------------------------|
| Residential | 0.27 | 416 | 112.3 | - |
| Retail | 0.28 | 37 | 3.6 | - |
| Restaurant | 1.58 | 13 | 58.5 | - |
| Club House | 0.28 | 16 | 4.5 | - |
| Total | - | - | 178.9 | 16.6 |

[1] EPD's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 defining unit flow factors.

[2] The contribution population is $178.9 \text{ m}^3/\text{day} / 0.27 = 663$ and peaking Factor of 8 for contribution population less than 1,000 persons is adopted. 24 operation hours per day is adopted for peak flow calculation. i.e. Peak Flow = $178.9 \times 1000 \times 8 \times 1 / 24 / 3600 = 16.6 \text{ L/s}$.

- 3.10 The sewerage discharge from the residential tower and podium is proposed to be collected by a terminal manhole (PTMH-01). The terminal manhole will be connected to the public sewerage system via a $\phi 150\text{mm}$ pipe, P01, with a slope of 1:50. The capacity of the proposed new pipe is shown in Table 3.4 below and the detailed calculation can be found in Appendix 3.6.

Table 3.4 Capacity of Proposed Pipe from Residential Tower and Podium

| Pipe | Terminal Manhole | Diameter (mm) | Slope | Pipe Capacity (L/s) |
|------|------------------|---------------|-------|---------------------|
| P01 | PTMH01 | 150 | 1:50 | 25.2 |

In Ku Lane Public Toilet and RCP

- 3.11 The sewerage system connecting the existing public toilet and RCP to the Manhole FMH7026327. The existing design is shown in Appendix 3.1.
- 3.12 Sewage from In Ku Lane Public Toilet and RCP would be collected by a new terminal manhole (PTMH-02) and discharge to existing manhole (M.H.4) and then public manhole (FMH7026327), the design would be similar to the existing condition, and the pipe would be the same as the current pipe with 150mm diameter. No additional sewerage impact is expected as adopting a similar design of public toilet & RCP and drainage pipe disposition. The condition of existing pipe running from M.H.4 to FMH7026327 will be verified during construction stage. The capacity of the proposed new pipe is shown in Table 3.5 below and the detailed calculation can be found in Appendix 3.6.

Table 3.5 Capacity of Pipes from Public Toilet and RCP

| Pipe | Terminal Manhole | Downstream Manhole | Diameter (mm) | Pipe Capacity (L/s) |
|------|------------------|--------------------|---------------|---------------------|
| P04 | PTMH02 | M.H.4 | 150 | 22.6 |

Connection between Terminal Manholes and Public Sewerage System

- 3.13 As mentioned in Section 7.2, there are 6 sewer manholes surrounding the Site as shown in Figure 3.1.
- 3.14 Table 3.6 below discusses the feasibility of residential portion connection to each public manhole surrounding the Site.

Table 3.6 Evaluation on Residential Portion Connection to Public Manhole

| Public Manhole | Evaluation | Recommendation |
|--|---|---|
| FMH7026251 (Scavenging Lane in the East of Boundary connecting to Kom U Street) | A section of downstream pipe (downstream of manhole FMH7026258) is under private land of Lop Po Building. | Not Recommended |
| FMH7026258 (In Ku Lane) (Scavenging Lane in the East of Boundary connecting to Kom U Street) | A section of downstream pipe (downstream of manhole FMH7026258) is under private land of Lop Po Building. | Not Recommended |
| FMH7026294 (Scavenging Lane in the West of Boundary connecting to Sutherland Street) | The sewage from existing residential buildings discharges to the sewers along the scavenging lane. However as the public open space area will be owned by LCSD, it is not desirable to install an underground pipe in the POS area. | Feasible unless drainage reserve in POS area is granted. Further technical verification and detail design is required. |
| FMH7026299 (In Ku Lane) | Currently no sewage pipe is connecting to this manhole; Ko Shing Building is discharging at the downstream. | Feasible, further technical verification and detail design is required. |
| FMH7026327 (Ko Shing Street) | According to Appendix 3.1, the sewage from public toilet and RCP currently discharges to this manhole. | It is proposed to remain as the same sewerage system layout for the re-provisioned RCP and public toilet as no additional sewage is induced. Also feasible for sewage from residential tower, further technical verification and detail design is required. |
| FMH7026383 (Queen's Road West) | FMH7026383 is located on Queen's Road West which is a primary distributor with busy traffic and public transports. | Not Recommended |

| Public Manhole | Evaluation | Recommendation |
|----------------|--|----------------|
| | By on-site observation, there are telecommunication facilities along the pavement along the Southern side of the Project Site; construction of new sewers might be difficult as there might not be sufficient depth for required invert level. | |
| | It is also noticed that the new sewer might encounter a section of drainage pipe (from manhole SMH7028067 to SMH7028066) as the drain is of similar invert levels as the public sewer manhole. | |

Impact Assessment

- 3.15 The sewage from the residential tower with podium will be collected by a single terminal manhole (PTMH-01) and discharged to the public sewerage system. As discussed in **Table 3.6** above, 3 public manholes are feasible for the sewage discharge from the residential building, namely FMH7026299, FMH7026327 and FMH7026294.
- 3.16 The vicinity of the site is served by existing public sewer as shown in **Figures 7.2a & 7.2b**.
- 3.17 The hydraulic assessment is conducted from the Project Site to FSH7000061 located on Connaught Road West. The capacities of the existing foul sewers are calculated using Colebrook-White Equation. The capacities of existing public sewers are shown in **Table 3.7** below; detailed calculation is shown of the existing pipes in **Appendix 3.3**.

Table 3.7 Capacities of Existing Foul Sewers

| Segment | Upstream Manhole | Downstream Manhole | Full Capacity (L/s) ^[1] |
|---|------------------|--------------------|------------------------------------|
| Route 1: FMH7026299 (In Ku Lane) | | | |
| IKL01 | FMH7026299 | FMH7026300 | 8.54 |
| IKL02 ^[2] | FMH7026300 | FMH7026303 | 28.39 |
| IKL03 | FMH7026303 | FMH7064168 | 53.59 |
| Route 2: FMH7026327 (Ko Shing Street) | | | |
| KSS01 ^[3] | FMH7026327 | FMH7064209 | - |
| KSS02 | FMH7064209 | FMH7064210 | 263.26 |
| KSS03 | FMH7064210 | FMH7064211 | 305.74 |
| KSS04 | FMH7064211 | FMH7064164 | 353.47 |
| KSS05 | FMH7064164 | FMH7064165 | 441.27 |
| KSS06 | FMH7064165 | FMH7064166 | 444.48 |
| KSS07 | FMH7064166 | FMH7064167 | 233.37 |
| KSS08 | FMH7064167 | FMH7064168 | 347.48 |
| Route 3: FMH7026294 (West Scavenging Lane) | | | |
| WSL01 | FMH7026294 | FMH7028295 | 28.00 |
| WSL02 | FMH7028295 | FMH7026297 | 15.32 |
| WSL03 | FMH7026297 | FMH7026298 | 22.49 |
| WSL04 | FMH7026298 | FMH7026303 | 50.27 |
| WSL05 | FMH7026303 | FMH7064168 | 53.59 |
| Downstream: from FMH7064168 to FSH7000061 | | | |
| Pipe01 | FMH7064168 | FMH7064169 | 541.44 |
| Pipe02 | FMH7064169 | FMH7064170 | 373.46 |
| Pipe03 | FMH7064170 | FMH7064171 | 334.26 |
| Pipe04 | FMH7064171 | FMH7064180 | 336.36 |
| Pipe05 | FMH7064180 | FMH7064181 | 322.16 |
| Pipe06 | FMH7064181 | FMH7064182 | 173.17 |
| Pipe07 | FMH7064182 | FMH7064187 | 274.12 |
| Pipe08 | FMH7064187 | FMH7064188 | 372.15 |
| Pipe09 | FMH7064188 | FMH7049442 | 434.38 |
| Pipe10 | FMH7049442 | FMH7049443 | 1633.31 |
| Pipe11 | FMH7049443 | FMH7000061 | 1726.47 |

[1] The pipe capacity are calculated by Colebrook-White Equation and detailed in Appendix 3.2.

[2] An average slope is assumed between manholes FMH7026300 and FMH7026303.

[3] The capacity of KSS01 cannot be determined as no record of upstream invert level on drainage record plan.

3.18 The sewage from surrounding developments is reviewed to estimate the overall impact on the public sewerage system. Table 3.8 below shows the sewage discharge from each development. The types of ground floor shops are recorded from on-site observation. The population and detailed calculation of flow rate are presented in Appendix 3.4.

Table 3.8 Daily Flow Rate from Surrounding Development

| Developments | Use | Flow Rate (m ³ /day) |
|--|-----------------------------|---------------------------------|
| Queens Road West 153-165 | Residential with G/F shops | 30.8 |
| Queens Road West 167-181 | Residential with G/F shops | 30.5 |
| Podium of Elite's Place (swimming pool)* | Residential (swimming pool) | 16.2L/s |
| Ko Shing Building | Residential with G/F shops | 104.3 |
| Largos Residences | Residential | 25.5 |
| Kiu Fat Building | Residential with G/F shops | 117.5 |
| Kam Yu Mansion | Residential with G/F shops | 70.9 |
| Lop Po Building | Residential with G/F shops | 24.0 |
| Urbana 38 | Residential with G/F shops | 27.8 |
| Everprofit Commercial Building | Commercial | 26.8 |
| Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly | Social | 23.2 |
| Shing Po Building | Residential with G/F shops | 12.4 |
| Winsing Building | Residential with G/F shops | 31.6 |
| Ko Shing Street 15-19 | Residential with G/F shops | 7.9 |
| Hang Cheong Tai Building, 21-23 Ko Shing Street | Residential with G/F shops | 24.3 |
| Ha Lung Building | Residential with G/F shops | 20.7 |
| Tai Fat Building | Residential with G/F shops | 47.7 |
| Wing Hing Commercial Building | Commercial | 43.7 |
| Princeton Tower | Residential with G/F shops | 93.5 |
| Yick Fung Building | Commercial | 14.9 |
| Kam Chuen Building | Residential with G/F shops | 12.4 |
| Ka Yu Building | Residential with G/F shops | 25.4 |
| Des Voeux Road West 69, 71 | Residential with G/F shops | 6.4 |
| Sea View Mansion | Residential with G/F shops | 130.1 |
| Guangdong Finance Building | Commercial | 156.9 |

* The discharge flow rate from podium of Elite's Place is assumed to be the full capacity (16.2L/s) of pipe between manholes FMH7040240 and FMH7040241, calculated by Colebrook-White's equation.

- 3.19 The surrounding developments are sectioned into different catchments based on the existing sewerage system. **Figures 7.3a-7.3c** shows the sewage catchment areas in the vicinity via different routes and **Table 3.9** shows the developments in the catchment area and the total flow rate from each catchment.

Table 3.9 Catchment Area for Vicinity Developments

| Development | Route 1: FMH7026299 (In Ku Lane) | Route 2: FMH7026327 (Ko Shing Street) | Route 3: FMH7026294 (West Scavenging Lane) |
|---|--|---|--|
| Queens Road West 153-165 | Catchment 2 (61.2m³/day) | Catchment 2 (165.5m³/day) | Catchment 1 (30.8m³/day) |
| Queens Road West 167-181 | | | Catchment 2 (30.5m³/day) |
| Podium of Elite's Place (swimming pool)* | | | Catchment 3 (104.3m³/day) |
| Ko Shing Building | Catchment 1 (104.3m³/day) | | |
| Largos Residences | Catchment 3 (391.8m³/day) | Catchment 1 (391.8m³/day) | Catchment 4 (391.8m³/day) |
| Kiu Fat Building | | | |
| Kam Yu Mansion | | | |
| Lop Po Building | | | |
| Urbana 38 | | | |
| Everprofit Commercial Building | | | |
| Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly | | | |
| Shing Po Building | | | |
| Winsing Building | | | |
| Ko Shing Street 15-19 | | | |
| Hang Cheong Tai Building, 21-23 Ko Shing Street | | | |
| Downstream: from FMH7064168 to FSH7000061 | | | |
| Ha Lung Building | Catchment A (68.4m³/day) | | |
| Tai Fat Building | | | |
| Wing Hing Commercial Building | Catchment B (43.7m³/day) | | |
| Princeton Tower | Catchment C (108.4m³/day) | | |
| Yick Fung Building | | | |
| Kam Chuen Building | Catchment D (174.4m³/day) | | |
| Ka Yu Building | | | |
| Des Voeux Road West 69, 71 | | | |
| Sea View Mansion | | | |
| Guangdong Finance Building | Catchment E (156.9m³/day) | | |

* The discharge flow rate from podium of Elite's Place is 16.2L/s which is not included in the residential / commercial daily flow rate above.

3.20 Table 3.10 shows a summary of the discharge loading from the Project and surrounding catchment areas to each segment of pipe, detailed calculation is shown in Appendix 3.5.

Table 3.10 Discharge Contribution to the Downstream Pipes

| Segment | Catchment | Discharge Loading (L/s) | Full Capacity (L/s) | Upgrading required? |
|---|---|-------------------------|---------------------|---------------------|
| Route 1: FMH7026299 (In Ku Lane) | | | | |
| IKL01 | Residential Tower | 16.6 | 8.5 | yes |
| IKL02 | Residential Tower+Catchment1 | 19.7 | 28.4 | no |
| IKL03 | Residential Tower+Catchment1, 2 | 35.9 | 53.6 | no |
| Route 2: FMH7026327 (Ko Shing Street) | | | | |
| KSS01# | Residential Tower+RCP&Public Toilet | 39.2 | - | yes |
| KSS02 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 263.3 | no |
| KSS03 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 305.7 | no |
| KSS04 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 353.5 | no |
| KSS05 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 441.3 | no |
| KSS06 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 444.5 | no |
| KSS07 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 233.4 | no |
| KSS08 | Residential Tower+RCP&Public Toilet+ Catchment1 | 62.2 | 347.5 | no |
| Route 3: FMH7026294 (West Scavenging Lane) | | | | |
| WSL01 | Residential Tower | 16.6 | 28.0 | no |
| WSL02 | Residential Tower+Catchment 1 | 19.4 | 15.3 | yes |
| WSL03 | Residential Tower+Catchment 1 | 19.4 | 22.5 | no |
| WSL04 | Residential Tower+Catchment 1+2 | 22.2 | 50.3 | no |
| WSL05 | Residential Tower+Catchment 1+2 | 40.1 | 53.6 | no |

| Segment | Catchment | Discharge Loading (L/s) | Full Capacity (L/s) | Upgrading required? |
|--|--------------------------------------|-------------------------|---------------------|---------------------|
| Downstream: from FMH7064168 to FSH7000061 | | | | |
| Pipe01 | Project+Upstream | 77.5 | 541.4 | no |
| Pipe02 | Project+Upstream+Catchment A | 82.3 | 373.5 | no |
| Pipe03 | Project+Upstream+Catchment A+B | 85.3 | 334.3 | no |
| Pipe04 | Project+Upstream+Catchment A+B+C | 92.8 | 336.4 | no |
| Pipe05 | Project+Upstream+Catchment A+B+C | 92.8 | 322.2 | no |
| Pipe06 | Project+Upstream+Catchment A+B+C | 92.8 | 173.2 | no |
| Pipe07 | Project+Upstream+Catchment A+B+C+D | 104.9 | 274.1 | no |
| Pipe08 | Project+Upstream+Catchment A+B+C+D+E | 115.8 | 372.2 | no |
| Pipe09 | Project+Upstream+Catchment A+B+C+D+E | 115.8 | 434.4 | no |
| Pipe10 | Project+Upstream+Catchment A+B+C+D+E | 115.8 | 1633.3 | no |
| Pipe11 | Project+Upstream+Catchment A+B+C+D+E | 115.8 | 1726.5 | no |

***Bold** for surcharging pipes.

The capacity of KSS01 cannot be determined as no record of upstream invert level on drainage record plan.

Impact Evaluation

3.21 Table 3.11 below summaries the assessment result and the corresponding upgrading works required for each connection option.

Table 3.11 Summary of Assessment Result and Evaluation on Connection Options

| Connection to Public Manhole | Assessment Result | Upgrading Works |
|---------------------------------|---|---|
| FMH7026299 (In Ku Lane) | IKL01 has insufficient capacity to cater sewage discharge from the proposed residential tower and podium. | IKL01 would need to be upgraded from 150mm to 225mm diameter circular pipe with original slope; IKL02 would also need to be upgraded to 225mm pipe to avoid backflow. In total about 45m of pipes requires upgrading. |
| FMH7026327 (Ko Shing Street) | Sewage from RCP and public toilet discharges to this manhole as existing condition, no additional sewage impact is expected from RCP and public toilet. As the capacity of KSS01 (FMH7026327 to FMH7064209) is unknown, it might require upgrading. | As no upstream invert level can be found in DSD's drainage record plan for KSS01, the capacity cannot be determined. Detail survey before construction is required to confirm KSS01 has sufficient capacity for the proposed residential tower with podium; otherwise KSS01 is proposed to be upgraded. |

| Connection to Public Manhole | Assessment Result | Upgrading Works |
|---|---|---|
| FMH7026294 (Scavenging Lane at West of Boundary connecting to Sutherland Street) | WSL02 has insufficient capacity to cater sewage discharge from the proposed residential tower and podium. | WSL02 would need to be upgraded from 150mm to 225mm diameter circular pipe with original slope; WSL03 would also need to be upgraded to 225mm pipe to avoid backflow. In total about 23m of pipes requires upgrading. In addition, drainage reserve in POS shall be granted if a new pipe is installed beneath POS area. |

*Existing sewerage network refer to **Appendix 3.1**.

- 3.22 From the assessment result, it is found the public manhole FMH7026294 at the scavenging lane to the West of Site is the nearest manhole from the residential tower; however, liaison with relevant governmental departments is necessary and a drainage reserve shall be granted before constructing a new sewer through the public open space area.
- 3.23 It is recommended to connect the terminal manhole from residential tower (PTMH-01) to FMH7026327 which is located at Ko Shing Street as it requires the least upgrading work at the public sewerage system. Furthermore, the peak flow, which includes contribution from the Project, occupies less than 30% of the full capacities in the downstream of FMH7026327 (as shown in **Appendix 3.5**).
- 3.24 Therefore, the sewage discharge from the residential tower and the podium is proposed to be discharged to manhole FMH7026327, whilst the sewage from public toilet and RCP also connects to the same manhole but via a different sewerage system. The proposed layout of sewerage system is presented in **Figure 3.4**.
- 3.25 The discharge loading of the proposed pipes are summarized in **Table 3.12**. The detailed calculation is shown in **Appendix 3.6**.

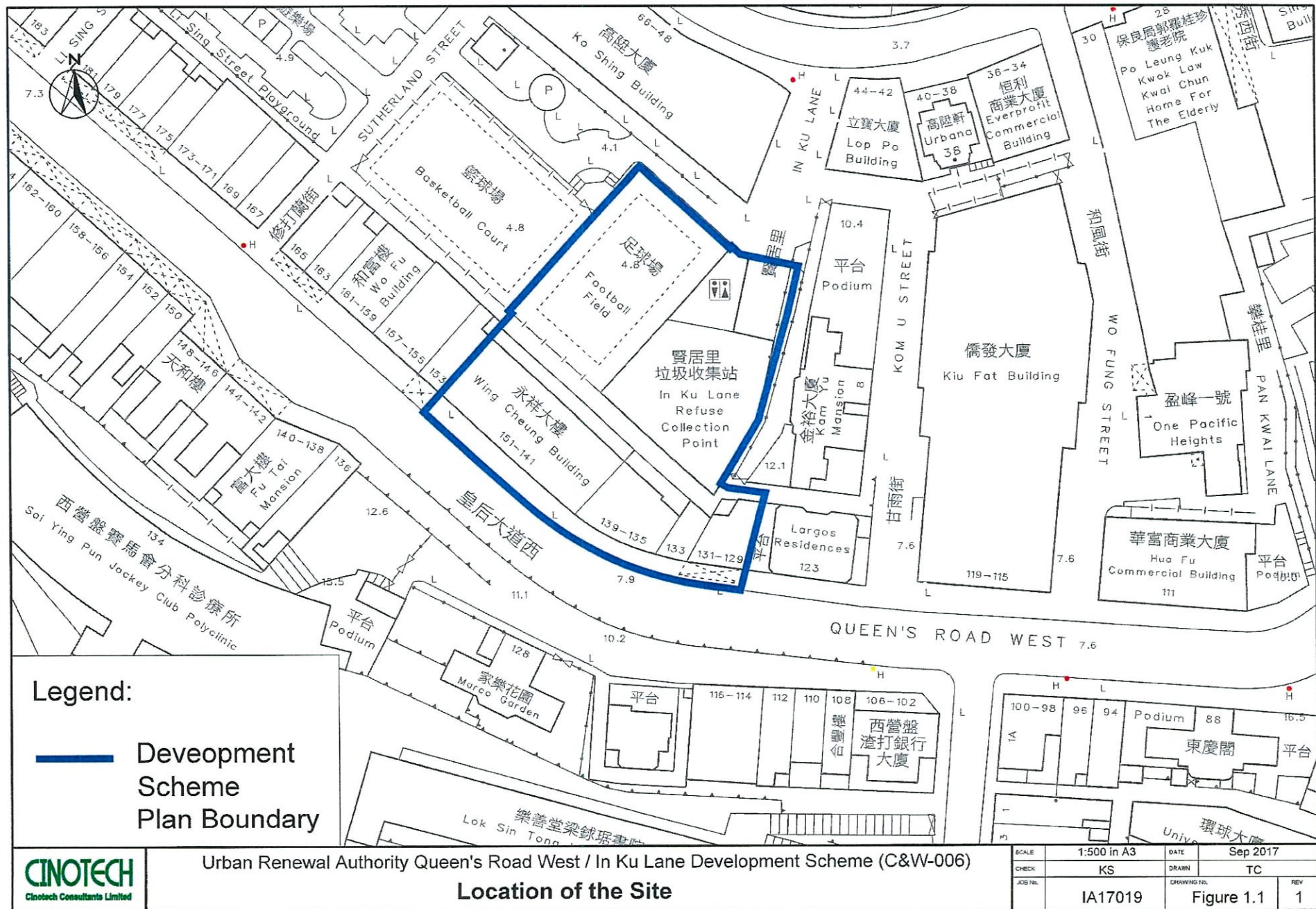
Table 3.12 Proposed Sewerage Pipes

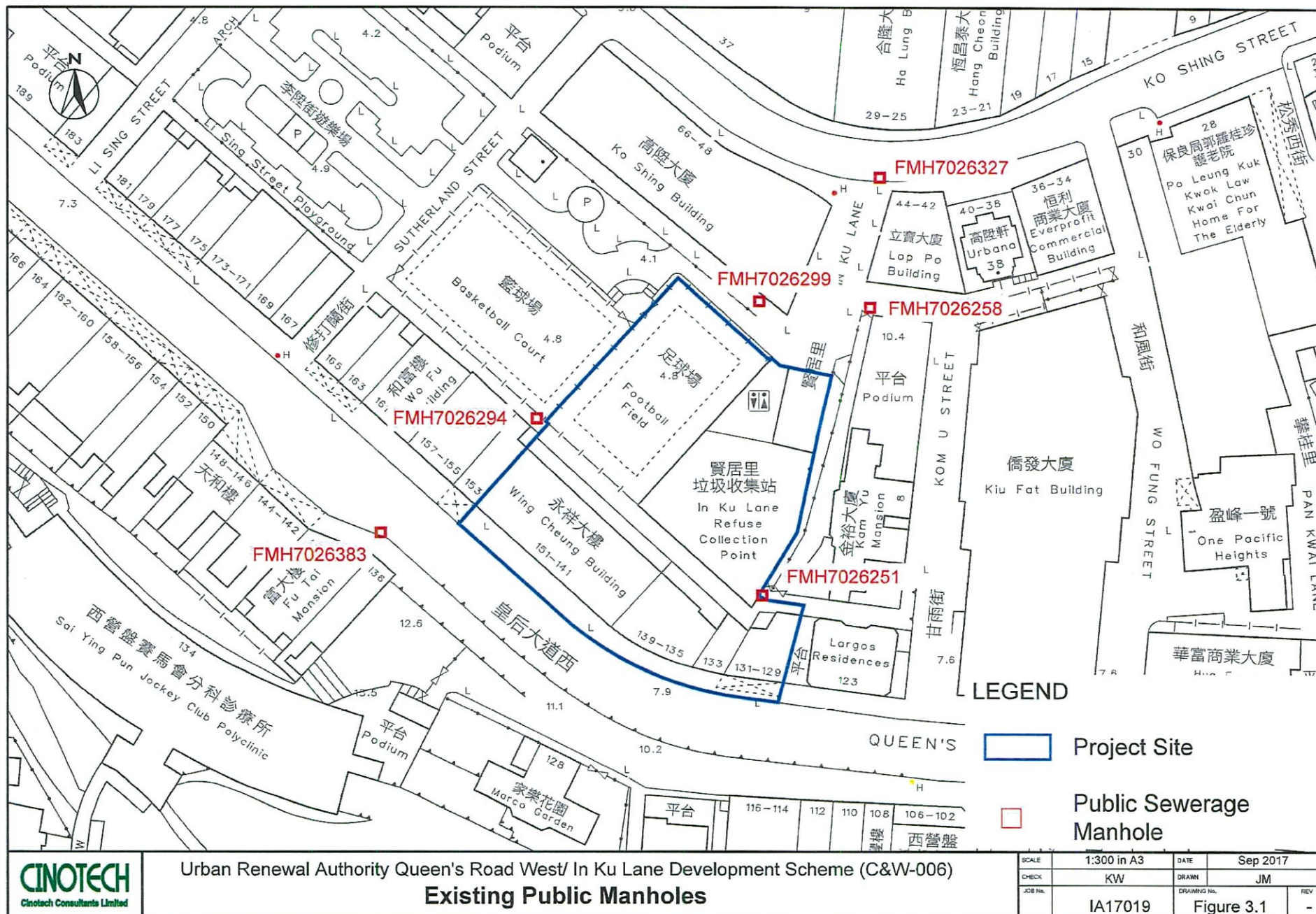
| Segment | Proposed Pipe Diameter (mm) | Full Capacity (L/s) | Estimated Discharge Loading (L/s) | Discharge loading to full capacity (%) |
|-----------------------------------|-----------------------------|---------------------|-----------------------------------|--|
| Sewers from Residential Tower | | | | |
| P01 | 150 | 25.2 | 16.6 | 66% |
| P02 | 150 | 25.2 | 16.6 | 66% |
| P03 | 150 | 25.2 | 16.6 | 66% |
| KSS01 | 225 | 73.7 | 16.6 | 22% |
| Sewers from Public Toilet and RCP | | | | |
| P04 | 150 | 22.6 | - | - |

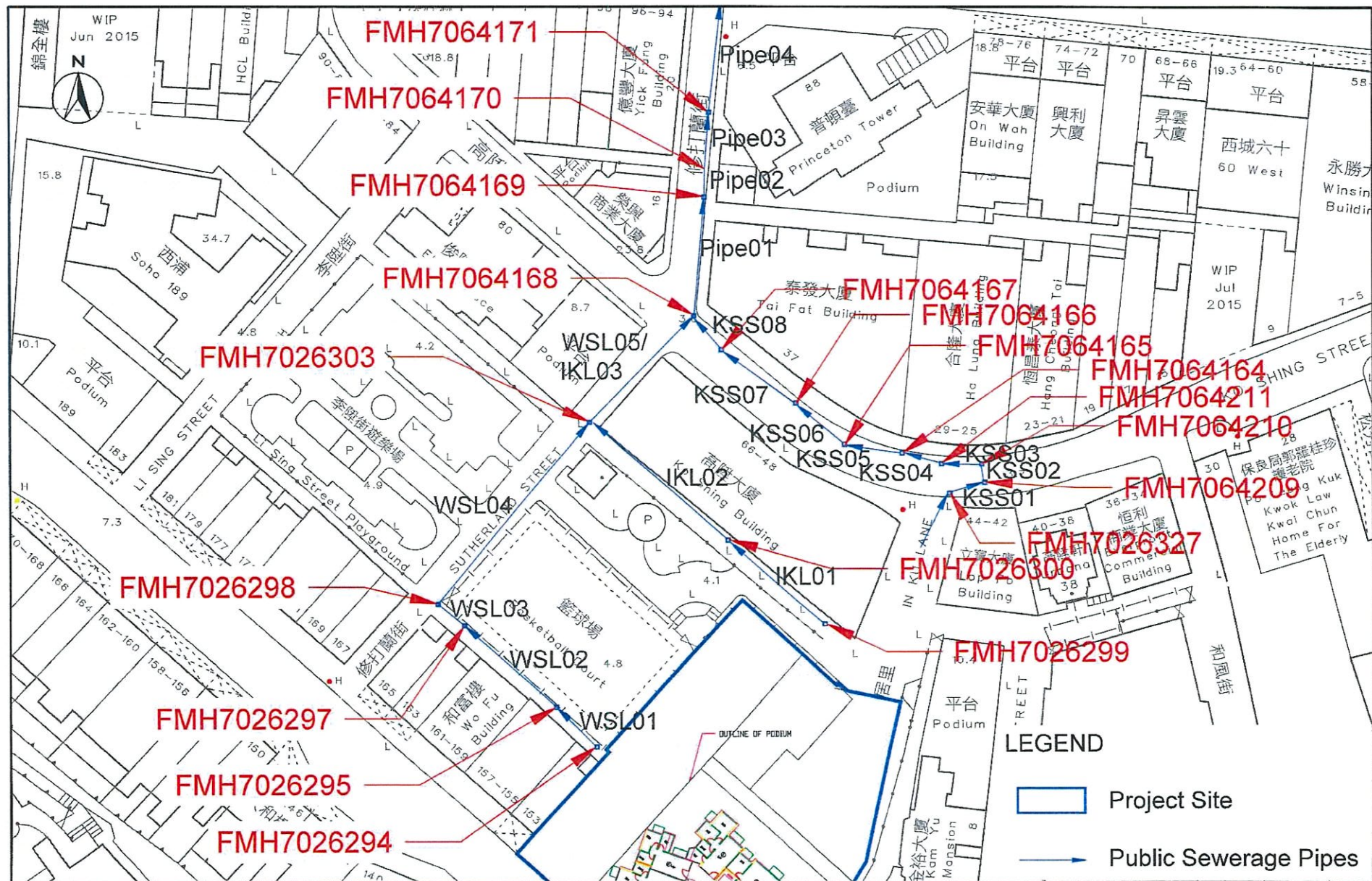
4 CONCLUSION

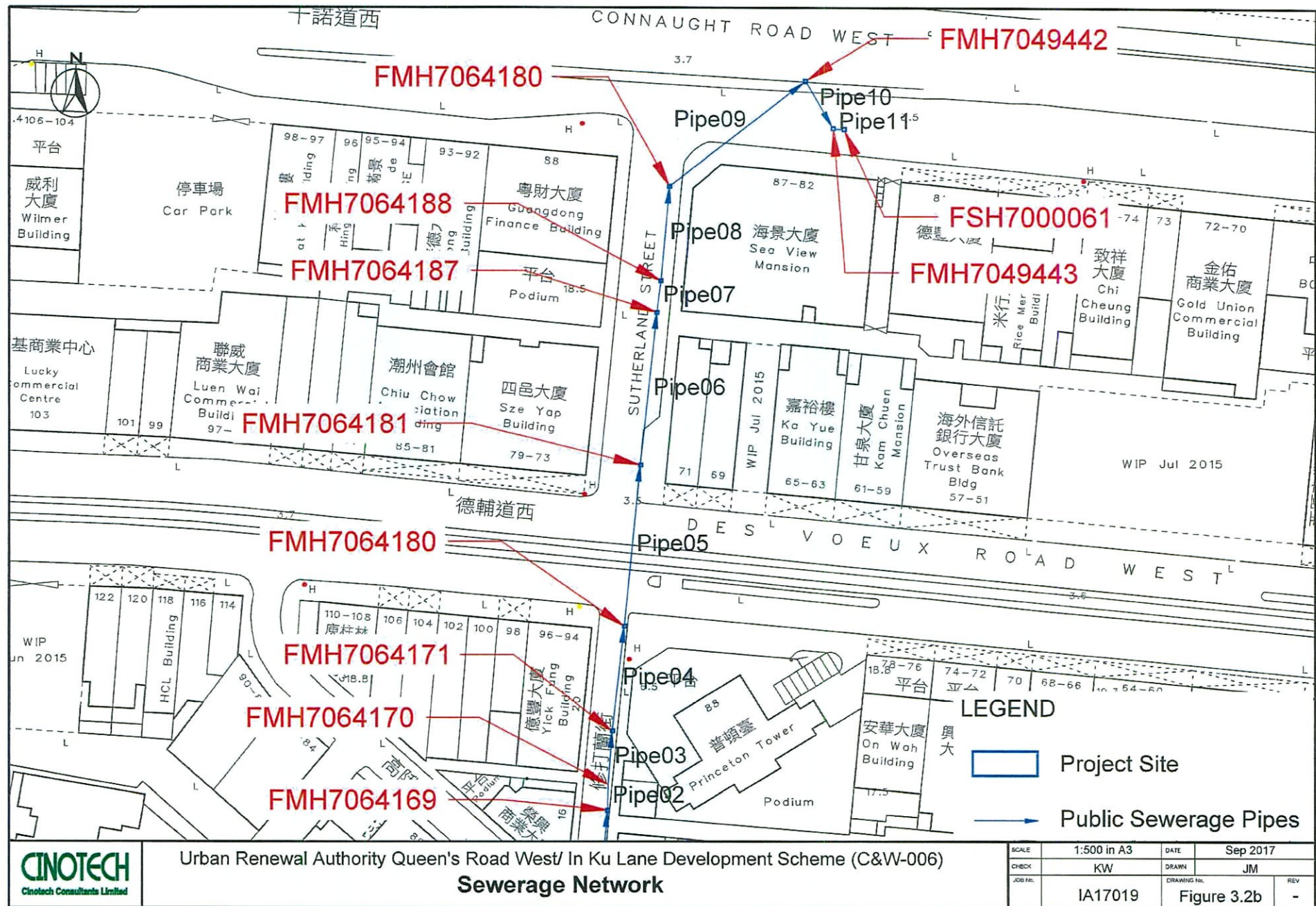
- 4.1 The project consists of a multi-storey non-residential podium, 29-storey of residential flats, re-provisioned In Ku Lane Public Toilet and RCP. As the Public Toilet and RCP will be taken over by the government, the sewerage system should be separated from that of the residential tower. Therefore 2 terminal manholes are proposed for the Project Site.
- 4.2 Subject to future technical verification and detail design, 3 options for residential portion connection to public sewerage system are considered feasible. In this SIA, it is proposed that a terminal manhole (PTMH-01) would collect all sewerage discharge from the residential tower with podium within the Project boundary and discharge to the public sewer (manhole FMH7026327) via a $\phi 150\text{mm}$ pipes with slope of 1:50.
- 4.3 Sewage from re-provisioned Public Toilet and RCP would be collected by a terminal manhole (PTMH-02) and discharge to the public sewerage system via manhole FMH702327, which is similar to the existing condition.
- 4.4 The existing foul sewers in the vicinity would cater for the expected sewage flows from the proposed use of the site; however, since the capacity of pipe connecting manholes FMH7026327 and FMH7064209 (KSS01) is unknown due to insufficient information on drainage record plan, detail survey is shall be conducted during construction stage to confirm the pipe capacity; otherwise, it is proposed to be upgraded to a slope of 1:50.
- 4.5 Overall, the proposed works related to sewerage system are as follow:
- New terminal manhole from residential tower (PTMH-01);
 - New pipes connecting to public manhole FMH7026327 from PTMH-01, P01 – P03;
 - Re-provision of terminal manhole for public toilet and RCP (PTMH-02); and
 - Re-provision of pipe (P04) from PTMH-02 connecting to M.H.4.
- 4.6 Detail design of sewerage system for the proposed development shall subject to the detailed drainage layout. No adverse impact on the existing sewage system is anticipated in view of sewage connection feasibility with associated proposal of upgrading works.

FIGURES





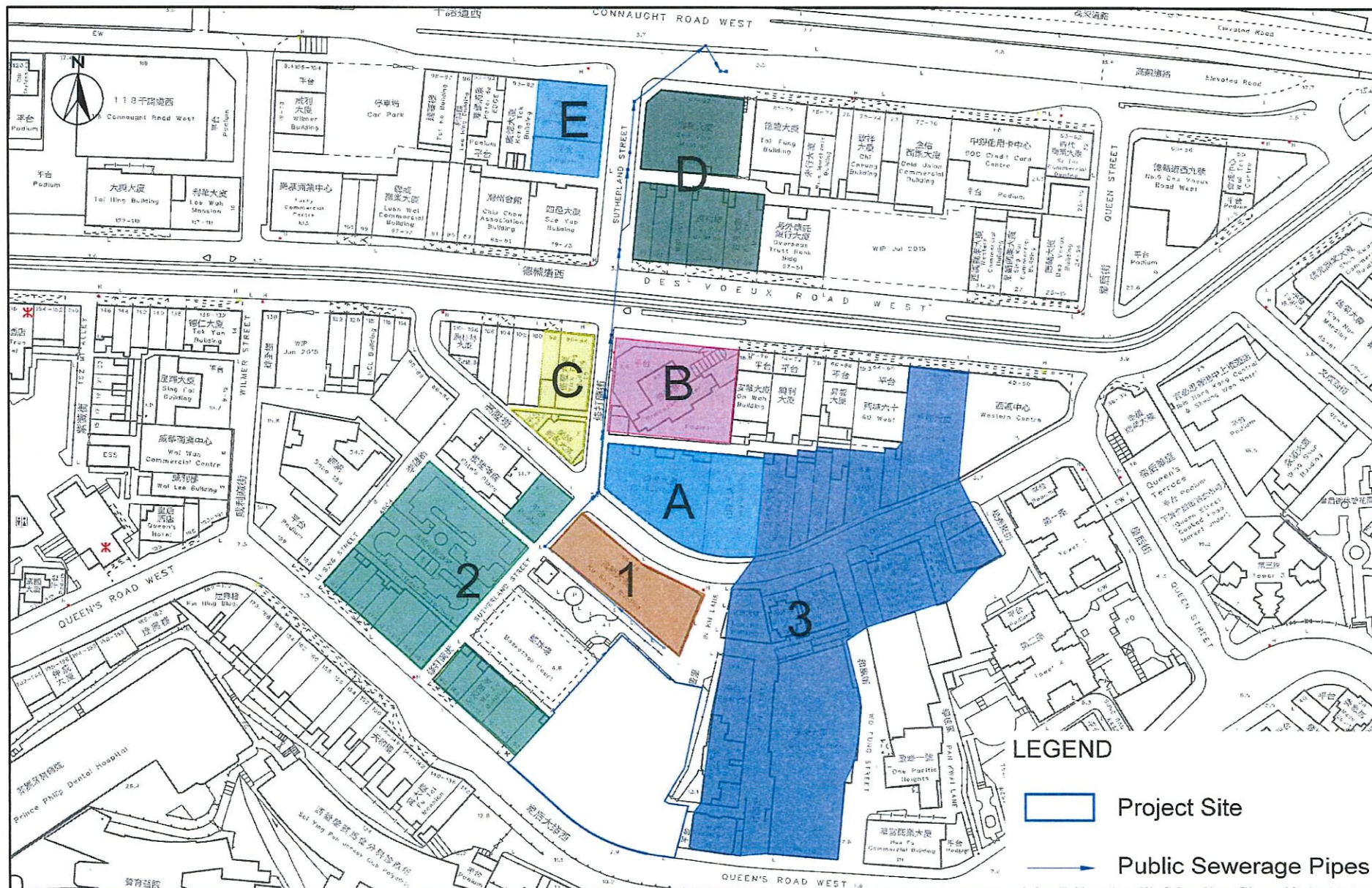


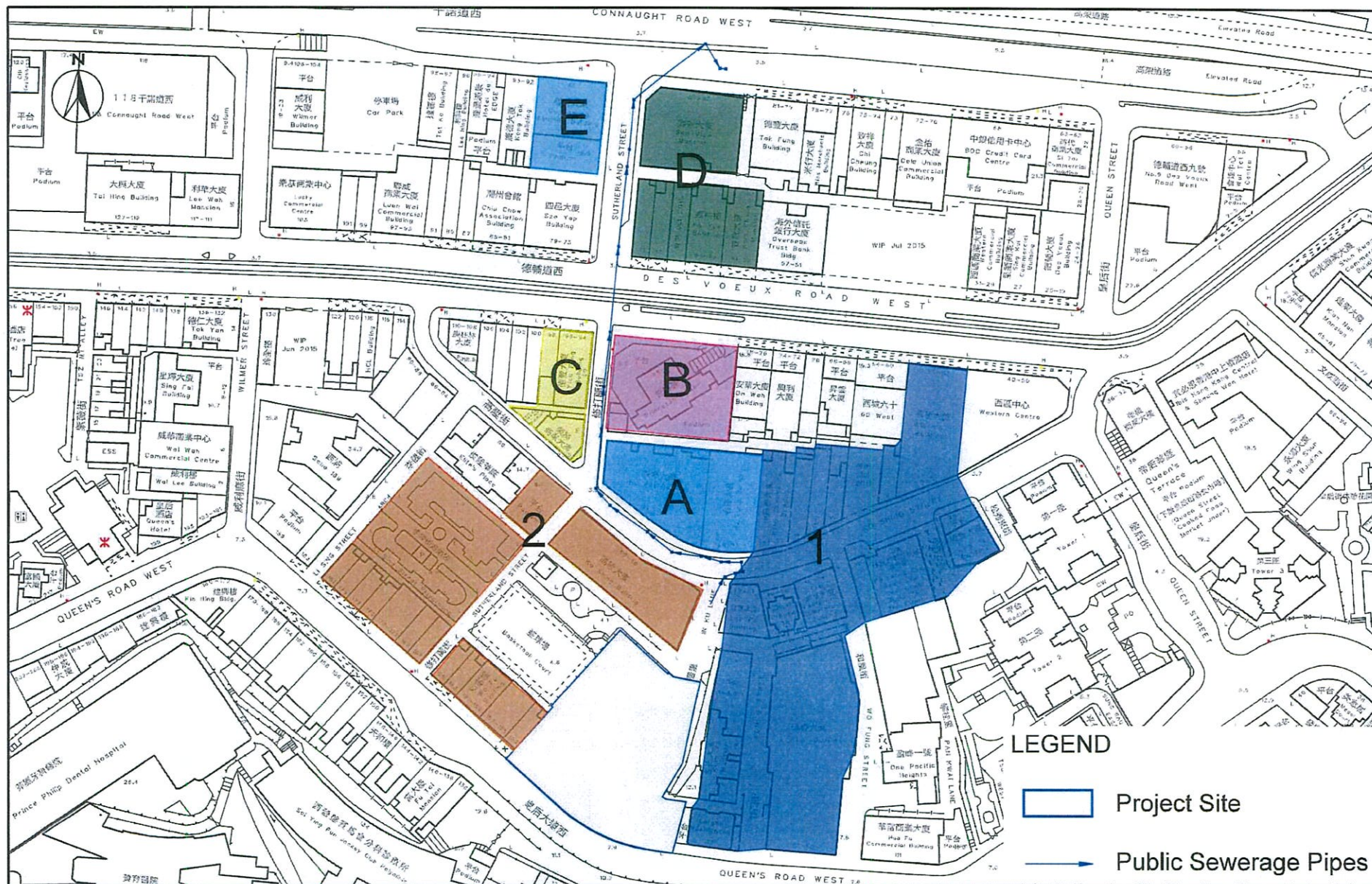


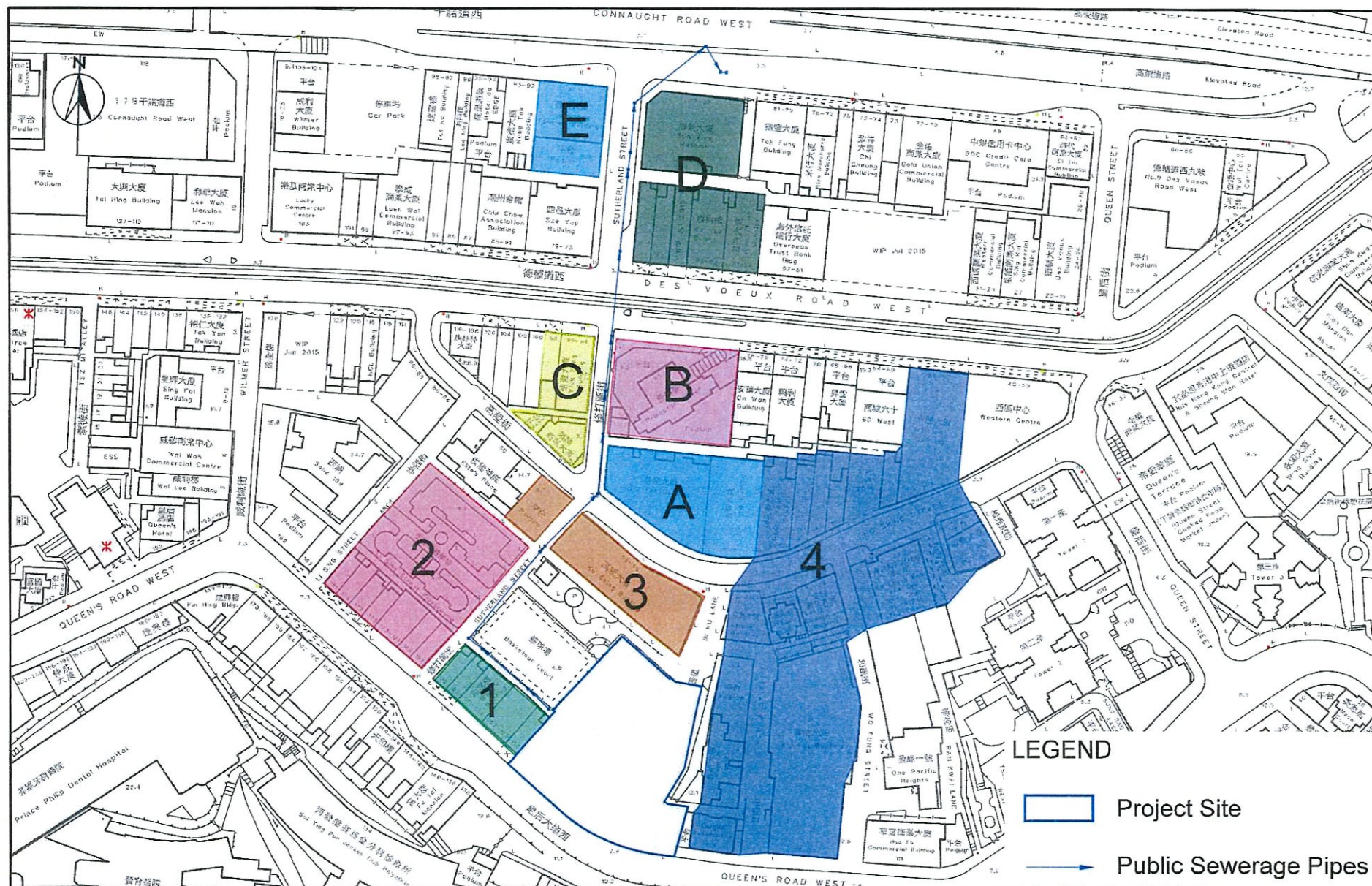
Urban Renewal Authority Queen's Road West/ In Ku Lane Development Scheme (C&W-006)

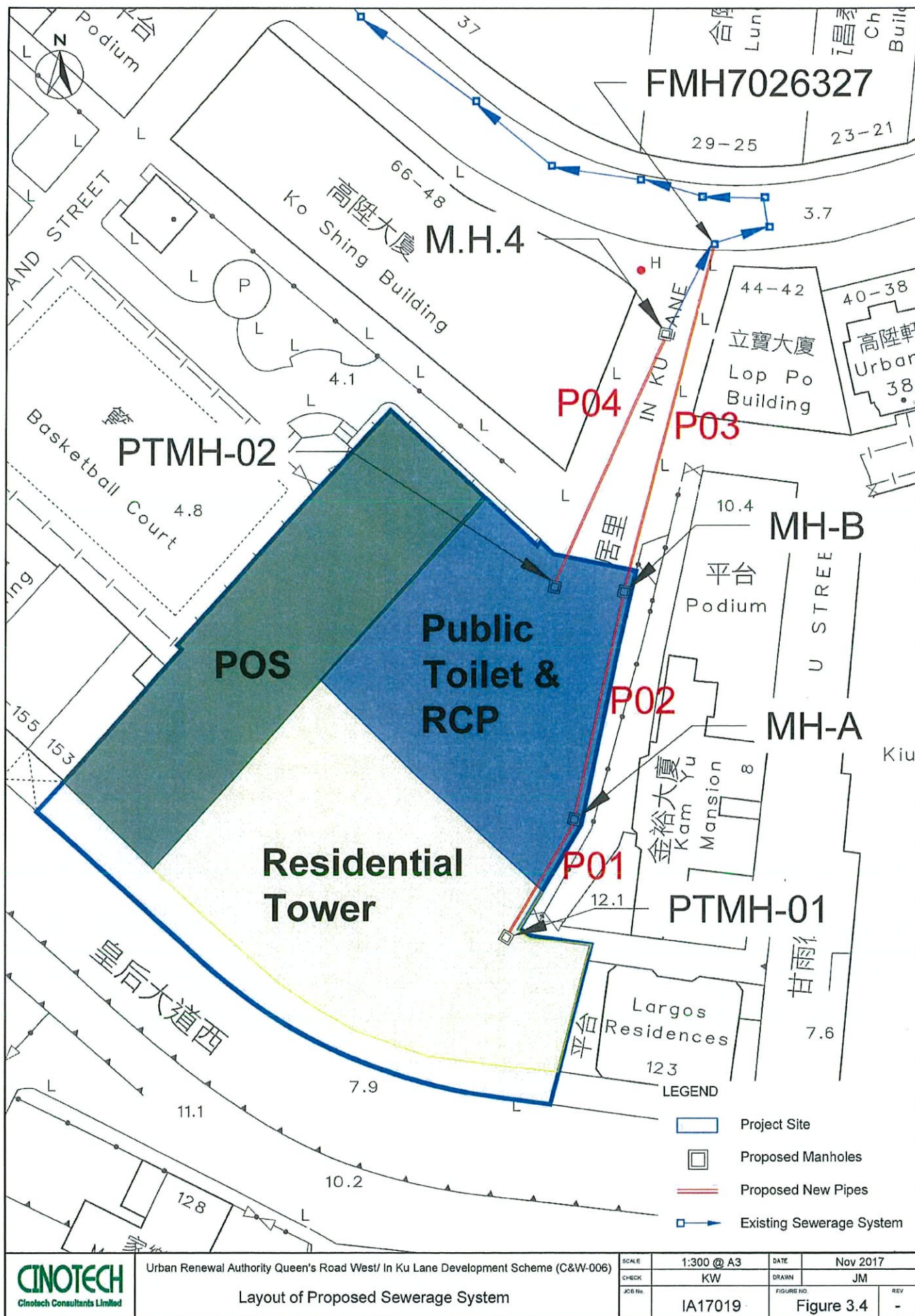
Sewerage Network

| | | | |
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| JOB NO. | IA17019 | DRAWING NO. | Figure 3.2b |
| | | REV | - |



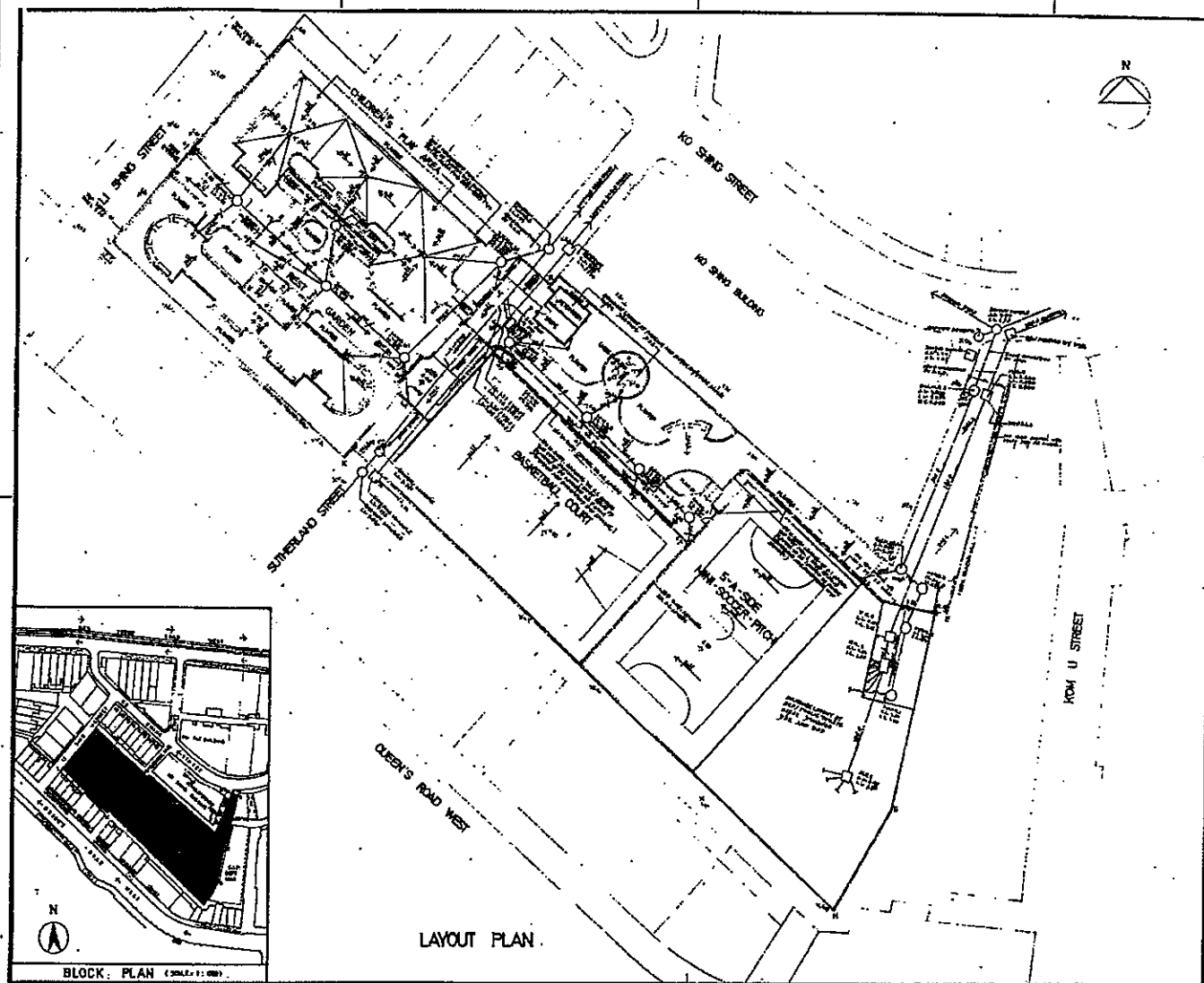






APPENDIX 3.1

EXISTING SITE DRAINAGE LAYOUT



LAYOUT PLAN

| <p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>AS-BUILT DRAWING</td> <td>10/10/2004</td> </tr> </tbody> </table> | | NO. | DESCRIPTION | DATE | 1 | AS-BUILT DRAWING | 10/10/2004 |
|---|-------------------------|------------|-------------|------|---|------------------|------------|
| NO. | DESCRIPTION | DATE | | | | | |
| 1 | AS-BUILT DRAWING | 10/10/2004 | | | | | |
| <p>URBAN SERVICES DEPARTMENT</p> | | | | | | | |
| <p>AS-BUILT DRAWING</p> | | | | | | | |
| <p>Spence Robinson Ltd. 斯賓塞羅賓遜有限公司 106 OR BARNES & ROBERTS AT 170, KOWLOON STREET AND IN KU LANE</p> | | | | | | | |
| <p>SITE DRAINAGE LAYOUT</p> | | | | | | | |
| <p>SCALE: 1:500</p> | <p>DATE: 10/10/2004</p> | | | | | | |
| <p>2064</p> | <p>D01</p> | | | | | | |

APPENDIX 3.2

DISCHARGE FROM PROJECT

Discharge from Project

| Residential Use | | Remarks |
|---|-------|--|
| No. of Units | 189 | Reference to Appendix @@@. |
| Average Household Size (persons/unit) | 2.2 | According to the Population By-census 2016, the average domestic household size in Sheung Wan District is 2.2 persons. |
| Population | 416 | $=189 \times 2.2$ |
| Unit Flow Factor (m ³ /day/person) | 0.27 | EPD's Guidelines for Estimating Sewage Flows for Infrastructure Planning defining sewage flow parameter. |
| Flow Rate (m ³ /day) | 112.3 | $=416 \times 0.27$ |

| Non-residential Use | | Remarks |
|---|------|--|
| Retail | | |
| Total of UFA for retail use (m ²) | 370 | The area of non-domestic use is 740m ² according to the planning design, half of the area is assumed to be retail shops and the other half restaurants. |
| Occupancy Factor (m ² per head) | 3 | Occupancy factor for retail shops is from Table B1 of Code of Practice for Fire Safety in Buildings 2011. |
| No. of Occupant | 123 | $=370/3$ |
| No. of Staff | 13 | A staff to occupant ratio of 1:10 is assumed to estimate the number of employees. |
| Unit Flow Factor (m ³ /day/person) | 0.28 | EPD's Guidelines for Estimating Sewage Flows for Infrastructure Planning defining sewage flow parameter. |
| Flow Rate (m ³ /day) | 3.6 | $=13 \times 0.28$ |
| Restaurant | | |
| Total of UFA for restaurant (m ²) | 370 | The area of non-domestic use is 740m ² according to the planning design, half of the area is assumed to be retail shops and the other half restaurants. |
| Occupancy Factor (m ² per head) | 1 | Occupancy factor for restaurant is from Table B1 of Code of Practice for Fire Safety in Buildings 2011. |
| No. of Occupant | 370 | $=370/1$ |
| No. of Staff | 37 | A staff to occupant ratio of 1:10 is assumed to estimate the number of employees. |
| Unit Flow Factor (m ³ /day/person) | 1.58 | EPD's Guidelines for Estimating Sewage Flows for Infrastructure Planning defining sewage flow parameter. |
| Flow Rate (m ³ /day) | 58.5 | $=37 \times 1.58$ |
| Clubhouse | | |
| Total of UFA for clubhouse (m ²) | 477 | |
| Occupancy Factor (m ² per head) | 3 | The nature of the clubhouse is gymnasium. Occupancy factor for Gymnasium is from Table B1 of Code of Practice for Fire Safety in Buildings 2011. |
| No. of Occupant | 159 | $=477/3$ |
| No. of Staff | 16 | A staff to occupant ratio of 1:10 is assumed to estimate the number of employees. |
| Unit Flow Factor (m ³ /day/person) | 0.28 | EPD's Guidelines for Estimating Sewage Flows for Infrastructure Planning defining sewage flow parameter. |
| Flow Rate (m ³ /day) | 4.5 | $=16 \times 0.28$ |

Total Sewage Flow from Project

| Type | Flow Rate (m ³ /day) |
|-------------|---------------------------------|
| Residential | 112.3 |
| Commercial | 3.6 |
| Restaurant | 58.5 |
| Clubhouse | 4.5 |
| Total | 178.9 |

APPENDIX 3.3

PIPE CAPACITY

Pipe Capacity

| Pipe | Upstream Manhole | Downstream Manhole | Upstream Invert Level (mPD) | Downstream Invert Level (mPD) | Length (m) | Diameter (mm) | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) ^[1] | Velocity (m/s) | Full Capacity (L/s) |
|--|------------------|--------------------|-----------------------------|-------------------------------|------------|---------------|--------------|------------------------|----------------------|--------|---|---|----------------|---------------------|
| Upstream | | | | | | | | | | | | | | |
| Route 1: FMH7026299 (Ta Ku Lane) | | | | | | | | | | | | | | |
| IKL01 | FMH7026299 | FMH7026300 | 3.34 | 3.27 | 17.9 | 150 | 0.15 | 0.018 | 0.0375 | 0.004 | 0.00000114 | 0.003 | 0.5 | 8.5 |
| IKL02 ^[2] | FMH7026300 | FMH7026303 | 3.27 | 2.6 | 26.4 | 150 | 0.15 | 0.018 | 0.0375 | 0.025 | 0.00000114 | 0.0006 | 1.6 | 28.4 |
| IKL03 | FMH7026303 | FMH7064168 | 2.60 | 2.37 | 21.6 | 225 | 0.225 | 0.040 | 0.05625 | 0.0106 | 0.00000114 | 0.0006 | 1.3 | 53.6 |
| Route 2: FMH7026327 (Kao Shing Street) | | | | | | | | | | | | | | |
| KSS01 ^[3] | FMH7026327 | FMH7064209 | - | 1.41 | 5.2 | 225 | 0.225 | 0.040 | 0.056 | - | 0.00000114 | - | - | - |
| KSS02 | FMH7064209 | FMH7064210 | 1.05 | 1.04 | 2.6 | 500 | 0.5 | 0.196 | 0.125 | 0.0038 | 0.00000114 | 0.0006 | 1.3 | 263.3 |
| KSS03 | FMH7064210 | FMH7064211 | 1.04 | 1.01 | 5.8 | 500 | 0.5 | 0.196 | 0.125 | 0.0052 | 0.00000114 | 0.0006 | 1.6 | 305.7 |
| KSS04 | FMH7064211 | FMH7064164 | 1.01 | 0.97 | 5.8 | 500 | 0.5 | 0.196 | 0.125 | 0.0069 | 0.00000114 | 0.0006 | 1.8 | 353.5 |
| KSS05 | FMH7064164 | FMH7064165 | 0.97 | 0.88 | 8.4 | 500 | 0.5 | 0.196 | 0.125 | 0.0107 | 0.00000114 | 0.0006 | 2.2 | 441.3 |
| KSS06 | FMH7064165 | FMH7064166 | 0.88 | 0.78 | 9.2 | 500 | 0.5 | 0.196 | 0.125 | 0.0109 | 0.00000114 | 0.0006 | 2.3 | 444.5 |
| KSS07 | FMH7064166 | FMH7064167 | 0.78 | 0.74 | 13.2 | 500 | 0.5 | 0.196 | 0.125 | 0.0030 | 0.00000114 | 0.0006 | 1.2 | 233.4 |
| KSS08 | FMH7064167 | FMH7064168 | 0.74 | 0.7 | 6 | 500 | 0.5 | 0.196 | 0.125 | 0.0067 | 0.00000114 | 0.0006 | 1.8 | 347.5 |
| Route 3: FMH7026294 (West Seaweping Lane) | | | | | | | | | | | | | | |
| WSL01 | FMH7026294 | FMH7026295 | 3.51 | 3.31 | 8.1 | 150 | 0.15 | 0.018 | 0.0375 | 0.0247 | 0.00000114 | 0.0006 | 1.6 | 28.0 |
| WSL02 ^[2] | FMH7026295 | FMH7026297 | 3.31 | 3.09 | 17.6 | 150 | 0.15 | 0.018 | 0.0375 | 0.0125 | 0.00000114 | 0.003 | 0.9 | 15.3 |
| WSL03 | FMH7026297 | FMH7026298 | 3.09 | 3.01 | 5.0 | 150 | 0.15 | 0.018 | 0.0375 | 0.0160 | 0.00000114 | 0.0006 | 1.3 | 22.5 |
| WSL04 | FMH7026298 | FMH7026303 | 3.00 | 2.68 | 34.1 | 225 | 0.225 | 0.040 | 0.05625 | 0.0094 | 0.00000114 | 0.0006 | 1.3 | 50.3 |
| WSL05 | FMH7026303 | FMH7064168 | 2.60 | 2.37 | 21.6 | 225 | 0.225 | 0.040 | 0.05625 | 0.0106 | 0.00000114 | 0.0006 | 1.3 | 53.6 |
| Downstream: from FMH7064168 to FSH7000061 | | | | | | | | | | | | | | |
| Pipe01 | FMH7064168 | FMH7064169 | 0.70 | 0.42 | 17.4 | 500 | 0.5 | 0.196 | 0.125 | 0.0161 | 0.00000114 | 0.0006 | 2.8 | 541.4 |
| Pipe02 | FMH7064169 | FMH7064170 | 0.42 | 0.39 | 3.9 | 500 | 0.5 | 0.196 | 0.125 | 0.0077 | 0.00000114 | 0.0006 | 1.9 | 373.5 |
| Pipe03 | FMH7064170 | FMH7064171 | 0.17 | 0.12 | 8.1 | 500 | 0.5 | 0.196 | 0.125 | 0.0062 | 0.00000114 | 0.0006 | 1.7 | 334.3 |
| Pipe04 | FMH7064171 | FMH7064180 | 0.12 | 0.02 | 16.0 | 500 | 0.5 | 0.196 | 0.125 | 0.0063 | 0.00000114 | 0.0006 | 1.7 | 336.4 |
| Pipe05 | FMH7064180 | FMH7064181 | 0.02 | -0.12 | 24.4 | 500 | 0.5 | 0.196 | 0.125 | 0.0057 | 0.00000114 | 0.0006 | 1.6 | 322.2 |
| Pipe06 | FMH7064181 | FMH7064182 | -0.12 | -0.18 | 23.4 | 500 | 0.5 | 0.196 | 0.125 | 0.0026 | 0.00000114 | 0.003 | 0.9 | 173.2 |
| Pipe07 | FMH7064182 | FMH7064187 | -0.18 | -0.20 | 4.8 | 500 | 0.5 | 0.196 | 0.125 | 0.0042 | 0.00000114 | 0.0006 | 1.4 | 274.1 |
| Pipe08 | FMH7064187 | FMH7064188 | -0.20 | -0.31 | 14.4 | 500 | 0.5 | 0.196 | 0.125 | 0.0076 | 0.00000114 | 0.0006 | 1.9 | 372.2 |
| Pipe09 | FMH7064188 | FMH7049442 | -0.73 | -1.00 | 26.0 | 500 | 0.5 | 0.196 | 0.125 | 0.0104 | 0.00000114 | 0.0006 | 2.2 | 434.4 |
| Pipe10 | FMH7049442 | FMH7049443 | -1.51 | -1.98 | 8.4 | 600 | 0.6 | 0.283 | 0.15 | 0.0560 | 0.00000114 | 0.0006 | 5.8 | 1633.3 |
| Pipe11 | FMH7049443 | FSH7000061 | -2.90 | -3.00 | 1.6 | 600 | 0.6 | 0.283 | 0.15 | 0.0625 | 0.00000114 | 0.0006 | 6.1 | 1726.5 |

Note:

[1] Roughness coefficient for stimed clayware sewer under poor conditon is adopted; the ks values are 0.6mm for velocities greter than 1.2m/s, otherwise 3mm.

[2] The capacity of this section of pipes is calculated by an averged slope as some part has a zero or negative slope.

[3] The upstream invert level can not be found in the drainage record plan.

APPENDIX 3.4

**DISCHARGE FROM SURROUNDING
CATCHMENT**

Discharge from Surrounding Catchment

| Developments | Use | Floor Area | | Residential ^[1] | | Ground Floor Shop ^[2] | | Population ^[3,4,5] | | | Flow Rate (m ³ /day) ^[6] | | | |
|---|-----------------------------|-----------------|----------------|---|--------------|----------------------------------|------------|-------------------------------|-------------------------|----------------------|--|-------------------------|----------------------|-------------------|
| | | ft ² | m ² | No. of Floors (excluding G/F) | No. of Units | Retail | Restaurant | Residents | Staff for Retail/Office | Staff for Restaurant | Resident | Staff for Retail/Office | Staff for Restaurant | Development Total |
| Queens Road West 153-165 | Residential with G/F shops | | | 5 | 30 | 6 | 1 | 66 | 18 | 5 | 17.8 | 5.0 | 7.9 | 30.8 |
| Queens Road West 167-181 | Residential with G/F shops | | | 5 | 40 | 8 | - | 88 | 24 | - | 23.8 | 6.7 | 0 | 30.5 |
| Podium of Elite's Place (swimming pool) | Residential (swimming pool) | | | assume full pipe capacity from Elite's Place ^[7] | | | | - | - | - | 0 | 0 | 0 | 16.2L/s |
| Ko Shing Building | Residential with G/F shops | | | 23 | 160 | 11 | - | 352 | 33 | - | 95.0 | 9.2 | 0 | 104.3 |
| Largos Residences | Residential | | | 23 | 43 | - | - | 95 | - | - | 25.5 | 0 | 0 | 25.5 |
| Kiu Fat Building | Residential with G/F shops | | | - | 195 | 2 | - | 429 | 6 | - | 115.8 | 1.7 | 0 | 117.5 |
| Kam Yu Mansion | Residential with G/F shops | | | 27 | 108 | 8 | - | 238 | 24 | - | 64.2 | 6.7 | 0 | 70.9 |
| Lop Po Building | Residential with G/F shops | | | 13 | 39 | 1 | - | 86 | 3 | - | 23.2 | 0.8 | 0 | 24.0 |
| Urbana 38 | Residential with G/F shops | | | 22 | 44 | 2 | - | 97 | 6 | - | 26.1 | 1.7 | 0 | 27.8 |
| Everprofit Commercial Building | Commercial | 1694 | 157.4 | 11 | - | 3 | - | - | 96 | - | 0 | 26.8 | 0 | 26.8 |
| Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly ^[8] | Social | | | - | - | - | - | 86 | - | - | 23.2 | 0 | 0 | 23.2 |
| Shing Po Building | Residential with G/F shops | | | 9 | 18 | 2 | - | 40 | 6 | - | 10.7 | 1.7 | 0 | 12.4 |
| Winsing Building | Residential with G/F shops | | | 8 | 49 | 3 | - | 108 | 9 | - | 29.1 | 2.5 | 0 | 31.6 |
| Ko Shing Street 15-19 | Residential with G/F shops | | | 3 | 9 | 3 | - | 20 | 9 | - | 5.3 | 2.5 | 0 | 7.9 |
| Hang Cheong Tai Building, 21-23 Ko Shing Street | Residential with G/F shops | | | 19 | 38 | 2 | - | 84 | 6 | - | 22.6 | 1.7 | 0 | 24.3 |
| Ha Lung Building | Residential with G/F shops | | | 16 | 32 | 2 | - | 70 | 6 | - | 19.0 | 1.7 | 0 | 20.7 |
| Tai Fat Building | Residential with G/F shops | | | 15 | 69 | 8 | - | 152 | 24 | - | 41.0 | 6.7 | 0 | 47.7 |
| Wing Hing Commercial Building | Commercial | 1317 | 122.4 | 25 | 25 | 1 | - | - | 156 | - | 0 | 43.7 | 0 | 43.7 |
| Princeton Tower | Residential with G/F shops | | | 39 | 156 | 1 | - | 343 | 3 | - | 92.7 | 0.8 | 0 | 93.5 |
| Yick Fung Building | Commercial | 630 | 58.5 | 13 | 13 | 5 | - | - | 53 | - | 0 | 14.9 | 0 | 14.9 |
| Kam Chuen Building | Residential with G/F shops | | | 9 | 18 | 2 | - | 40 | 6 | - | 10.7 | 1.7 | 0 | 12.4 |
| Ka Yu Building | Residential with G/F shops | | | - | 40 | 2 | - | 88 | 6 | - | 23.8 | 1.7 | 0 | 25.4 |
| Des Voeux Road West 69, 71 | Residential with G/F shops | | | 4 | 8 | 2 | - | 18 | 6 | - | 4.8 | 1.7 | 0 | 6.4 |
| Sea View Mansion | Residential with G/F shops | | | 23 | 184 | 6 | 2 | 405 | 18 | 10 | 109.3 | 5.0 | 15.8 | 130.1 |
| Guangdong Finance Building | Commercial | 3500 | 325.2 | 33 | - | 8 | - | - | 561 | - | 0 | 156.9 | 0 | 156.9 |

Note:

[1] For residential buildings, the number of units is referenced to data from Centadata, Midland Realty or Ricacorp.

[2] The number and type of ground floor shops are recorded during on-site study.

[3] According to the Population By-census 2016, the average domestic household size in Sheung Wan District is 2.2 persons. No. of Residents = No. of Units × 2.2

[4] For commercial buildings, an area ratio of 20m² per worker is adopted according to Table 2 : Guidelines for Worker Densities in Hong Kong Planning Standards and Guidelines by Planning Department.

[5] 3 staff is assumed for each retail shop and 5 staff for restaurant on G/F.

[6] The Unit Flow Factor is 0.27 for residents, 0.28 for staff for retail/office and 1.58 for staff for restaurant. Flow rate = population × UFF

[7] The full capacity of pipe between manhole no. FMH7040240 and FMH7040241 is 16.2L/s, calculated by Colebrook-White's equation.

[8] The number of bed places is obtained from the official website of Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly.

| Developments | Route 1: FMH7026299 (In Ku Lane) | | Route 2: FMH7026327 (Ko Shing Street) | | Route 3: FMH7026294 (West Scavenging Lane) | |
|--|----------------------------------|--------------------------|---------------------------------------|--------------------------|--|--------------------------|
| | Catchment | Catchment Total (m³/day) | Catchment | Catchment Total (m³/day) | Catchment | Catchment Total (m³/day) |
| Queens Road West 153-165 | Catchment 2 | 61.2 | Catchment 2 | 165.5 | Catchment 1 | 30.8 |
| Queens Road West 167-181 | | | | | Catchment 2 | 30.5 |
| Podium of Elite's Place (swimming pool) | | | | | Catchment 3 | 104.3 |
| Ko Shing Building | Catchment 1 | 104.3 | | | | |
| Largos Residences | Catchment 3 | 391.8 | Catchment 1 | 391.8 | Catchment 4 | 391.8 |
| Kiu Fat Building | | | | | | |
| Kam Yu Mansion | | | | | | |
| Lop Po Building | | | | | | |
| Urbana 38 | | | | | | |
| Everprofit Commercial Building | | | | | | |
| Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly | | | | | | |
| Shing Po Building | | | | | | |
| Winsing Building | | | | | | |
| Ko Shing Street 15-19 | | | | | | |
| Hang Cheong Tai Building, 21-23 Ko Shing Street | | | | | | |
| Ha Lung Building | Catchment A | 68.4 | Catchment A | 68.4 | Catchment A | 68.4 |
| Tai Fat Building | Catchment B | 43.7 | Catchment B | 43.7 | Catchment B | 43.7 |
| Wing Hing Commercial Building | | | | | | |
| Princeton Tower | Catchment C | 108.4 | Catchment C | 108.4 | Catchment C | 108.4 |
| Yick Fung Building | | | | | | |
| Kam Chuen Building | Catchment D | 174.4 | Catchment D | 174.4 | Catchment D | 174.4 |
| Ka Yu Building | | | | | | |
| Des Voeux Road West 69, 71 | | | | | | |
| Sea View Mansion | | | | | | |
| Guangdong Finance Building | Catchment E | 156.9 | Catchment E | 156.9 | Catchment E | 156.9 |

APPENDIX 3.5

**DETAILED CALCULATION OF PIPE
LOADING**

Detailed Calculation of Pipe Loading

| Pipe | Upstream Manhole | Downstream Manhole | Full Capacity (L/s) | Catchment | Total Flowrate (m ³ /day) | Contributing Population | Peaking Factor ^[1] | Peak Flow (L/s) | Peak flow/ Full capacity (%) | Project Contribution to Pipe Capacity (%) |
|---|------------------|--------------------|---------------------|---|--------------------------------------|-------------------------|-------------------------------|-----------------|------------------------------|---|
| Upstream | | | | | | | | | | |
| Route 1: FMH7026299 (In Ku Lane) | | | | | | | | | | |
| IKL01 | FMH7026299 | FMH7026300 | 8.54 | Residential Tower | 178.9 | 662.6 | 8 | 16.6 | 194% | 194% |
| IKL02 | FMH7026300 | FMH7026303 | 28.39 | Residential Tower+ Catchment1 | 283.2 | 1048.8 | 6 | 19.7 | 69% | 58% |
| IKL03 | FMH7026303 | FMH7064168 | 53.59 | Residential Tower+ Catchment1+2 | 283.2 | 1048.8 | 6 | 35.9 | 67% | 31% |
| Route 2: FMH7026327 (Ko Shing Street) | | | | | | | | | | |
| KSS01 ^[2] | FMH7026327 | FMH7064209 | - | Residential Tower+RCP&Public Toilet | 178.9 | 662.6 | 8 | 39.2 | - | - |
| KSS02 | FMH7064209 | FMH7064210 | 263.26 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 24% | 6% |
| KSS03 | FMH7064210 | FMH7064211 | 305.74 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 20% | 5% |
| KSS04 | FMH7064211 | FMH7064164 | 353.47 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 18% | 5% |
| KSS05 | FMH7064164 | FMH7064165 | 441.27 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 14% | 4% |
| KSS06 | FMH7064165 | FMH7064166 | 444.48 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 14% | 4% |
| KSS07 | FMH7064166 | FMH7064167 | 233.37 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 27% | 7% |
| KSS08 | FMH7064167 | FMH7064168 | 347.48 | Residential Tower+RCP&Public Toilet+ Catchment1 | 570.7 | 2113.8 | 6 | 62.2 | 18% | 5% |
| Route 3: FMH7026294 (West Seavenging Lane) | | | | | | | | | | |
| WSL01 | FMH7026294 | FMH7026295 | 28.00 | Residential Tower | 178.9 | 662.6 | 8 | 16.6 | 59% | 59% |
| WSL02 | FMH7026295 | FMH7026297 | 15.32 | Residential Tower+ Catchment 1 | 209.7 | 776.5 | 8 | 19.4 | 127% | 108% |
| WSL03 | FMH7026297 | FMH7026298 | 22.49 | Residential Tower+ Catchment 1 | 209.7 | 776.5 | 8 | 19.4 | 86% | 74% |
| WSL04 | FMH7026298 | FMH7026303 | 50.27 | Residential Tower+ Catchment 1+2 | 240.1 | 889.4 | 8 | 22.2 | 44% | 33% |
| WSL05 | FMH7026303 | FMH7064168 | 53.59 | Residential Tower+ Catchment 1+2+3 | 344.4 | 1275.6 | 6 | 40.1 | 75% | 31% |
| Downstream: from FMH7064168 to FSH7000061 | | | | | | | | | | |
| Pipe01 | FMH7064168 | FMH7064169 | 541.4 | Project+Upstream | 557.4 | 2064.3 | 6 | 77.5 | 14% | 3% |
| Pipe02 | FMH7064169 | FMH7064170 | 373.5 | Project+Upstream+ Catchment A | 625.8 | 2317.6 | 6 | 82.3 | 22% | 4% |
| Pipe03 | FMH7064170 | FMH7064171 | 334.3 | Project+Upstream+ Catchment A+B | 669.4 | 2479.3 | 6 | 85.3 | 26% | 5% |
| Pipe04 | FMH7064171 | FMH7064180 | 336.4 | Project+Upstream+ Catchment A+B+C | 777.8 | 2880.6 | 6 | 92.8 | 28% | 5% |
| Pipe05 | FMH7064180 | FMH7064181 | 322.2 | Project+Upstream+ Catchment A+B+C | 777.8 | 2880.6 | 6 | 92.8 | 29% | 5% |
| Pipe06 | FMH7064181 | FMH7064182 | 173.2 | Project+Upstream+ Catchment A+B+C | 777.8 | 2880.6 | 6 | 92.8 | 54% | 10% |
| Pipe07 | FMH7064182 | FMH7064187 | 274.1 | Project+Upstream+ Catchment A+B+C+D | 952.2 | 3526.5 | 6 | 104.9 | 38% | 6% |
| Pipe08 | FMH7064187 | FMH7064188 | 372.2 | Project+Upstream+ Catchment A+B+C+D+E | 1109.1 | 4107.8 | 6 | 115.8 | 31% | 4% |
| Pipe09 | FMH7064188 | FMH7049442 | 434.4 | Project+Upstream+ Catchment A+B+C+D+E | 1109.1 | 4107.8 | 6 | 115.8 | 27% | 4% |
| Pipe10 | FMH7049442 | FMH7049443 | 1633.3 | Project+Upstream+ Catchment A+B+C+D+E | 1109.1 | 4107.8 | 6 | 115.8 | 7% | 1% |
| Pipe11 | FMH7049443 | FSH7000061 | 1726.5 | Project+Upstream+ Catchment A+B+C+D+E | 1109.1 | 4107.8 | 6 | 115.8 | 7% | 1% |

*Bold for exceedance (Peak flow > Full Capacity of pipe)

Note:

[1] Peaking Factors for sewers are adopted from Table T-5 of Guidelines for Estimating Sewage Flows issued by EPD. For contributing population of <1000, peaking factor is 8; for population of 1000 - 5000, peaking factor is 6.

[2] The capacity cannot be determined as the upstream invert level can not be found in the drainage record plan.

[3] The sewage discharge from public toilet and RCP is assumed to be the full capacity of the existing pipe (22.6L/s), calculation is shown in Appendix 7.6.

APPENDIX 3.6

PROPOSED PIPE CAPACITY

Proposed Pipe Capacity

| Pipe | Upstream Manhole | Downstream Manhole | Upstream Invert Level (mPD) ^[1] | Downstream Invert Level (mPD) ^[1] | Length (m) | Diameter (mm) | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope ^[1] | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) ^[2] | Velocity (m/s) | Full Capacity (L/s) | Peak Flow (L/s) | Peak flow/ Full capacity (%) |
|--|------------------|--------------------|--|--|------------|---------------|--------------|------------------------|----------------------|----------------------|---|---|----------------|---------------------|-----------------|------------------------------|
| Sewers from Residential Tower | | | | | | | | | | | | | | | | |
| P01 | PTMH-01 | MH-A | 2.79 | 2.56 | 11.5 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| P02 | MH-A | MH-B | 2.56 | 2.16 | 20.3 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| P03 | MH-B | FMH7026327 | 2.16 | 1.51 | 32.1 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| KSS01 | FMH7026327 | FMH7064209 | 1.51 | 1.41 | 5.2 | 225 | 0.225 | 0.040 | 0.056 | 0.02 | 0.00000114 | 0.0006 | 1.9 | 73.7 | 16.6 | 22% |
| Sewers from Public Toilet and RCP | | | | | | | | | | | | | | | | |
| P04 ^[3] | PTMH-02 | M.H.4 | 3.12 | 2.65 | 29.1 | 150 | 0.15 | 0.018 | 0.038 | 0.016151 | 0.00000114 | 0.0006 | 1.28 | 22.6 | | |

Note:

[1] 1:50 slope is adopted and the invert level and pipe length are subjected to detailed design.

[2] Roughness coefficient for slimed clayware sewer under poor condition is adopted; the ks values are 0.6mm for velocities greater than 1.2m/s, otherwise 3mm.

[3] The proposed pipe, P04, from public toilet and RCP is reprovisioned, the invert level is the same as existing layout (see Appendix 7.1)

**Appendix 5 Social Impact Assessment
(Stage 1) Report**

Queen's Road West / In Ku Lane

Development Scheme (C&W-006)



Stage 1 Social Impact Assessment

March 2018

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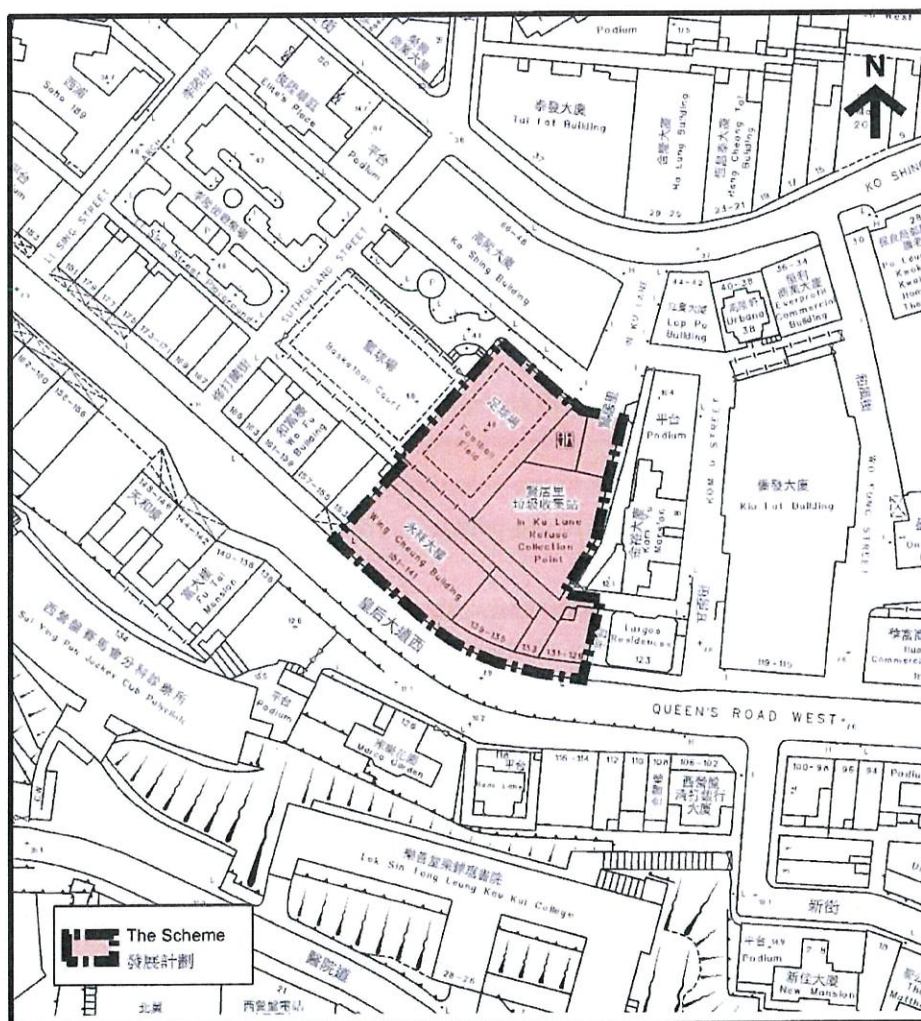
1. INTRODUCTION

- 1.1 In the new Urban Renewal Strategy (URS) issued by the Government in February 2011, the Urban Renewal Authority (URA) will carry out Social Impact Assessment (SIA) studies in the form of "a *Stage 1 social impact assessment before the publication of any proposed redevelopment project in the Government Gazette*"; and "a *Stage 2 social impact assessment after the proposed project has been published in the Government Gazette*".
- 1.2 The URS also states "*Early social impact assessments will be initiated and conducted by the DURF (District Urban Renewal Forum) before redevelopment is recommended as the preferred option. The URA will update these assessments by DURF before implementing any specific redevelopment project.*" In the absence of a DURF in the Central and Western (C&W) District, there is no early SIA conducted by DURF which the URA could update for this Development Scheme.
- 1.3 According to the URS, the main elements of the Stage 1 SIA conducted by the URA before publication of a proposed project should include: -
- the population characteristics of the proposed project area;
 - the socio-economic characteristics of the area;
 - the housing conditions in the area;
 - the characteristics of local business activities, including small shops and street stalls;
 - the degree of overcrowding in the area;
 - the availability of amenities, community and welfare facilities in the area;
 - the historical background of the area;
 - the cultural and local characteristics of the area;
 - an initial assessment of the potential social impact of the proposed project; and
 - an initial assessment of the mitigation measures required.
- 1.4 The Stage 2 SIA to be conducted after publication of the project will use factual information collected as part of the freezing survey to be conducted upon project commencement. The URS stipulates URA should submit the reports of both the Stage 1 and Stage 2 SIAs to the Town Planning Board (TPB) when it submits a development project under section 25 of the Urban Renewal Authority Ordinance (URAO). It also stipulates the URA should release the reports for public information.

2. THE SCHEME AREA

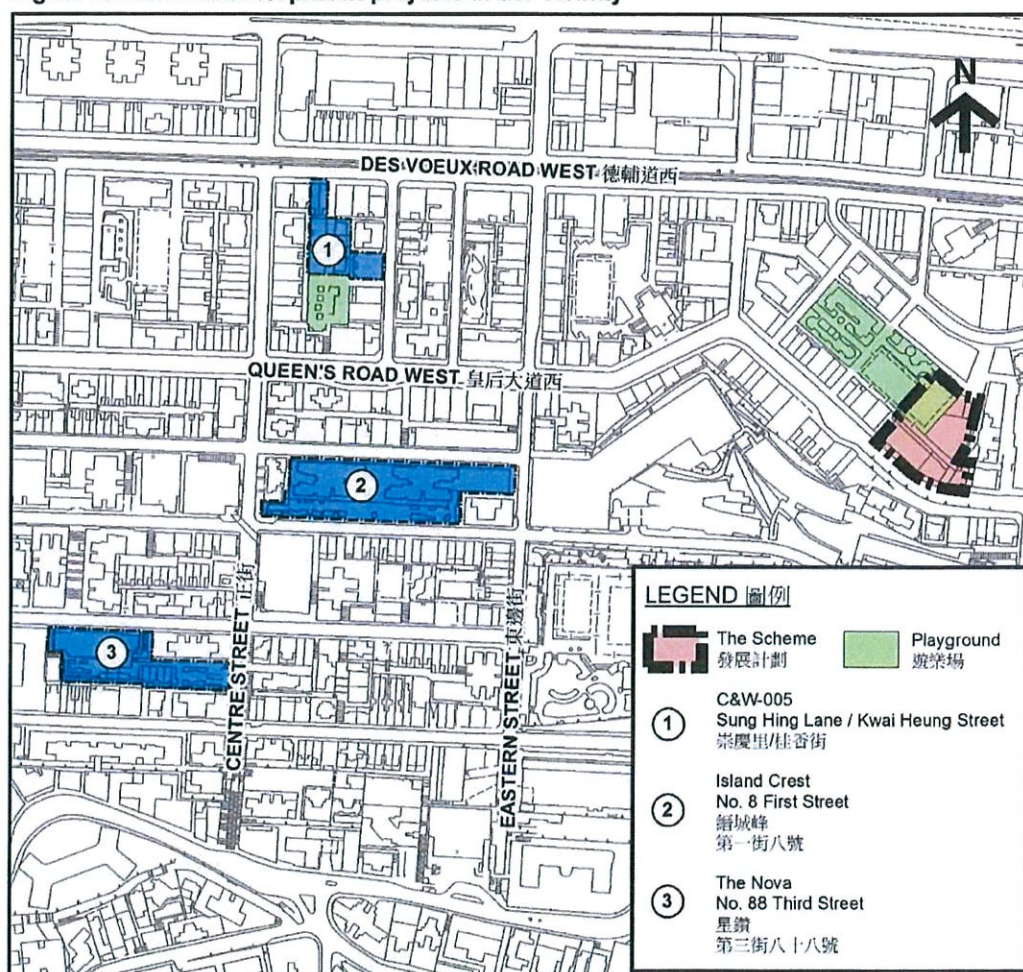
- 2.1 The proposed Development Scheme (the Scheme) comprises a row of old tenement building located at Nos.129-151 Queen's Road West (odd nos.) together with a 5-a-side soccer pitch (part of the Li Sing Street Playground) and the In Ku Lane Refuse Collection Point (RCP) cum public toilet. (**Figure 2.1**).
- 2.2 The Scheme is broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and No. 153 Queen's Road West and Li Sing Street Playground (the Playground) to the west. It covers an area of about 2,046 m², which includes the 5-a-side soccer pitch and the pavement where the affected buildings overhang. Both will be excluded from plot ratio calculation. Subject to detailed design, the net site area for plot ratio calculation is about 1,318 m².

Figure 2.1 Location Plan



- 2.3 The Mass Transit Railway (MTR) opened the West Island Line (WIL) in late 2014, forming an extension from Sheung Wan to Kennedy Town. The Scheme is located in close proximity to the Sai Ying Pun Station of WIL and through the reconfiguration of various land uses within the Scheme, accessibility and connections of the area will be further improved. These are in line with the holistic renewal planning approach under the URS, where "restructuring and replanning of concerned urban areas" is being one of the main objectives stipulated.
- 2.4 There are two completed URA redevelopment projects in proximity to the Scheme, i.e. 'Island Crest' (縉城峰) at No. 8 First Street, and 'The Nova' (星鑽) at No. 88 Third Street, both located to the southwest of the Scheme. In July 2017, URA also commenced the Sung Hing Lane / Kwai Heung Street Development Project (C&W-005) to the west of the Scheme (Figure 2.2), which is also serving to enhance the accessibility and connectivity of the land-locked open space, Sung Hing Lane Children's Playground, and to improve walkability of the area pertaining to capitalise the WIL completion.

Figure 2.2 URA redevelopment projects in the vicinity

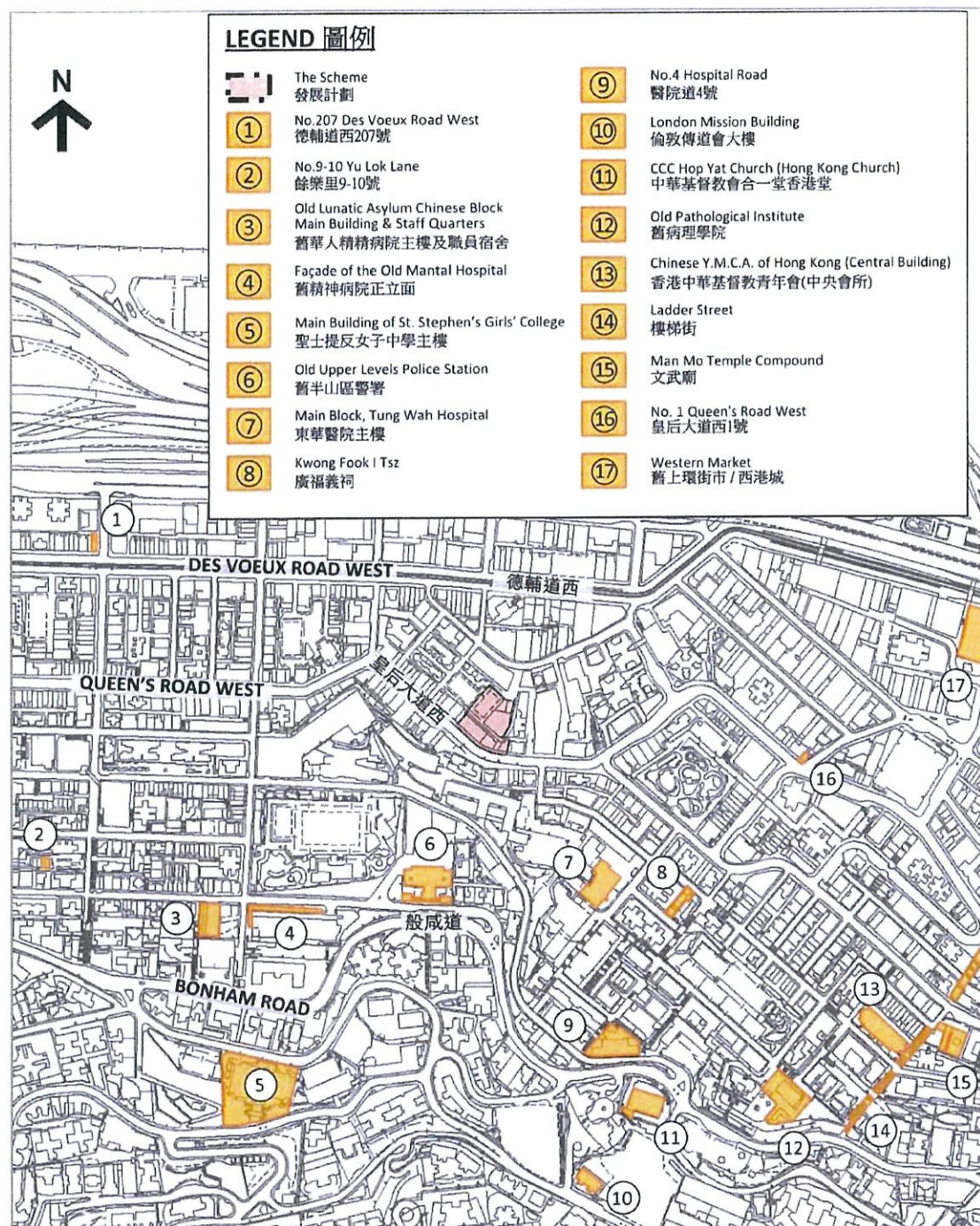


3. HISTORICAL BACKGROUND

- 3.1 Historical map records indicate that the Scheme was probably situated near the former coastline where old workshops and factories were located. As in most other parts of Central and Western districts, dense mass of shop-houses was developed since 1860s, with ground floors for small Chinese businesses and residences in the upper floors. Similar pattern can still be found in existing areas near the Scheme.
- 3.2 In the 1900s, traders of the areas were mostly firewood wholesalers, and small-scale import-export houses, together with salt and rice merchants and a few other specialist importers. With reclamation proceeded northward, the area was gradually occupied by shops selling Chinese medicinal drugs which later turned into a wholesale trade even as today. The area along Ko Shing Street is popularly named as "Herbal Medicine Street" nowadays. Due to its close proximity to the waterfront before reclamation, shops for selling salted fishes were also concentrated at the area. The area of "Haam Yu Laan" ("Haam Yu" means salted fish in Cantonese) was developed which was formerly located nearby Bonham Strand West, extending towards Des Voeux Road West and Mui Fong Street area. Gradually, most of the shops started selling other dried seafood, and the area is popularly named as "Hoi Mei Street" nowadays.
- 3.3 As located nearby the harbour, many dockyards and warehouses were once situated in the area. At that time, most of the rice was imported from the former Triangle Harbour (approximately located between the existing Sheung Wan Fire Station and Queen's Street). Many dock workers (also known as "coolies" at that time) worked there to unload goods, and therefore forming different gang groups. The dock workers mainly originated from Chiu Chow and this, to a certain extent, explains the large number of Chiu Chow restaurants/food stalls located in the Sai Ying Pun and Sheung Wan area, even up to nowadays.
- 3.4 The curved building along the slope at 130 Queen's Road West is the Sai Ying Pun Jockey Club Clinic (the Clinic). It was formerly the Government Civil Hospital, the first public hospital in Hong Kong. Prior to this, the site was occupied by the Seamen's Hospital, which was built in 1843, and it was the first hospital where surgical operation in Hong Kong took place. There is a stone arch bridge on the slope that leads to the entrance of the Clinic, which has been commonly known as the "Bird Bridge" as it used to be a focus area for bird hawkers. In the late 1990s, the government demolished part of the stone bridge during road re-establishment. An underground public toilet was built beneath the Bird Bridge in 1911 and was closed later in 1990. The public toilet was sealed with a granite stone wall which five sealed windows are still remained.

- 3.5 Since its early development, the area has been predominantly used for residential settlement. Most of the tenement houses, particularly those fronting narrow lanes, had been used for residential uses and this has remained till nowadays. Due to redevelopment over the years, the existing building typology and streetscape of the area in proximity to the Scheme is varied and inconsistent in style and building ages, with buildings aged from 1950's to post-2000's. High rise commercial and residential developments, intermittent with lower rise tenement buildings are found in the area.
- 3.6 The In Ku Lane RCP cum public toilet are included in a 2-storey self-standing building structure built in early 1990s. The standard and design of these facilities are over 25 years. It is detached with the adjacent tenement buildings and the Playground. The facility is managed by the Food and Environmental Hygiene Department (FEHD). Refuse collection vehicles (RCVs) can only access the RCP via In Ku Lane. RCVs may sometimes park on In Ku Lane. The public toilet is located within the RCP building and is accessible mainly via In Ku Lane or at far northeast corner via the Playground.
- 3.7 The 5-a-side soccer pitch located on a similar formation level as RCP, together with the basketball court and a sitting out-area (SOA) forming part of the Playground which is operated and managed by Leisure and Cultural Services Department (LCSD). The Playground is located in a relatively "land-locked" location with low visibility and limited accessibility. There is no direct access from the main road (e.g. Queen's Road West) and users have to access the Playground through Sutherland Street/ Li Sing Street or In Ku Lane. The 5-a-side soccer pitch is fenced off, with entrance only from the SOA on the west side of the Scheme.
- 3.8 Due to its rich history, a number of graded historical buildings are located within the area (Figure 3.1). The façade of the Old Mental Hospital at No. 2 High Street, Sai Ying Pun is a declared monument and is currently used as the Sai Ying Pun Community Complex.
- 3.9 With the opening of the MTR WIL in late 2014, extending the MTR Island Line from Sheung Wan to Kennedy Town, and subsequent opening of the Sai Ying Pun station in 2015, it has largely increased the accessibility of the area, and at the same time opened up new potential for development site.

Figure 3.1 Places with Historical Background and Local Character in the area (Graded Historical Buildings)



Source: Leisure and Cultural Services Department's website: Geographic Information System on Hong Kong Heritage, as of February 2018.

4. POPULATION & SOCIO-ECONOMIC CHARACTERISTICS

- 4.1 To assess the population and socio-economic characteristics of the Scheme, a combination of sources has been used, including the 2016 Population By-census, past experience from other URA redevelopment projects, and for the accommodation assessment, approved General Building Plans (GBP) and on-site non-obtrusive inspection. Given the background of the (general and non-obtrusive nature) source of the data available to carry out this Stage 1 SIA, the assessments derived should only be considered as indicative and for reference use only.
- 4.2 The Census and Statistics Department's (C&SD) website provides the 2016 Population By-census result and the information is down to Constituency Area, Tertiary Planning Unit (TPU), Large Street Block Group (LSBG) or Small Street Block Group (SSBG) levels.
- 4.3 The Scheme falls within the Sheung Wan Constituency (A12) of the C&W District (**Figure 4.1**). It lies within Tertiary Planning Unit (TPU) 113, LSBG 11305 and SSBG 11305 (the LSBG and SSBG have the same boundaries). (**Figure 4.2**).

Figure 4.1 Boundary of Sheung Wan Constituency (A12) of the Central & Western District and Tertiary Planning Unit (TPU) 113

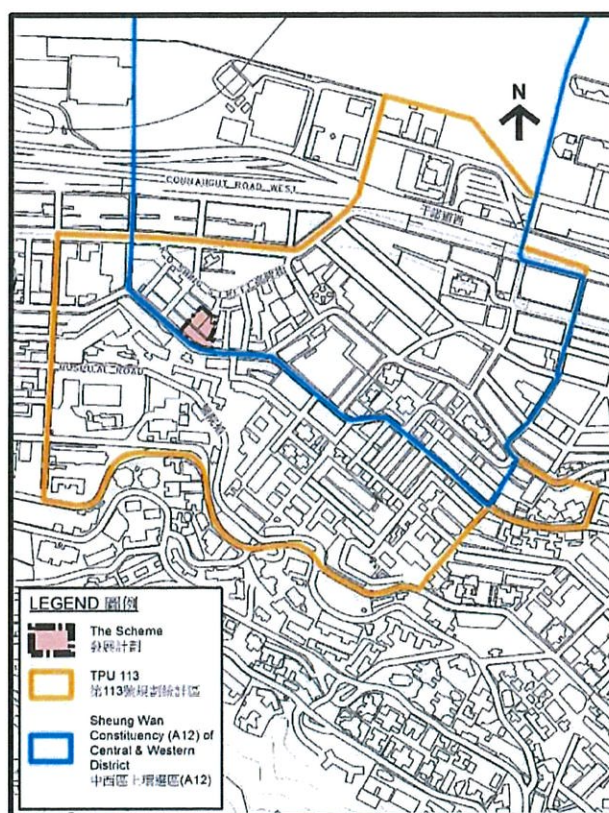
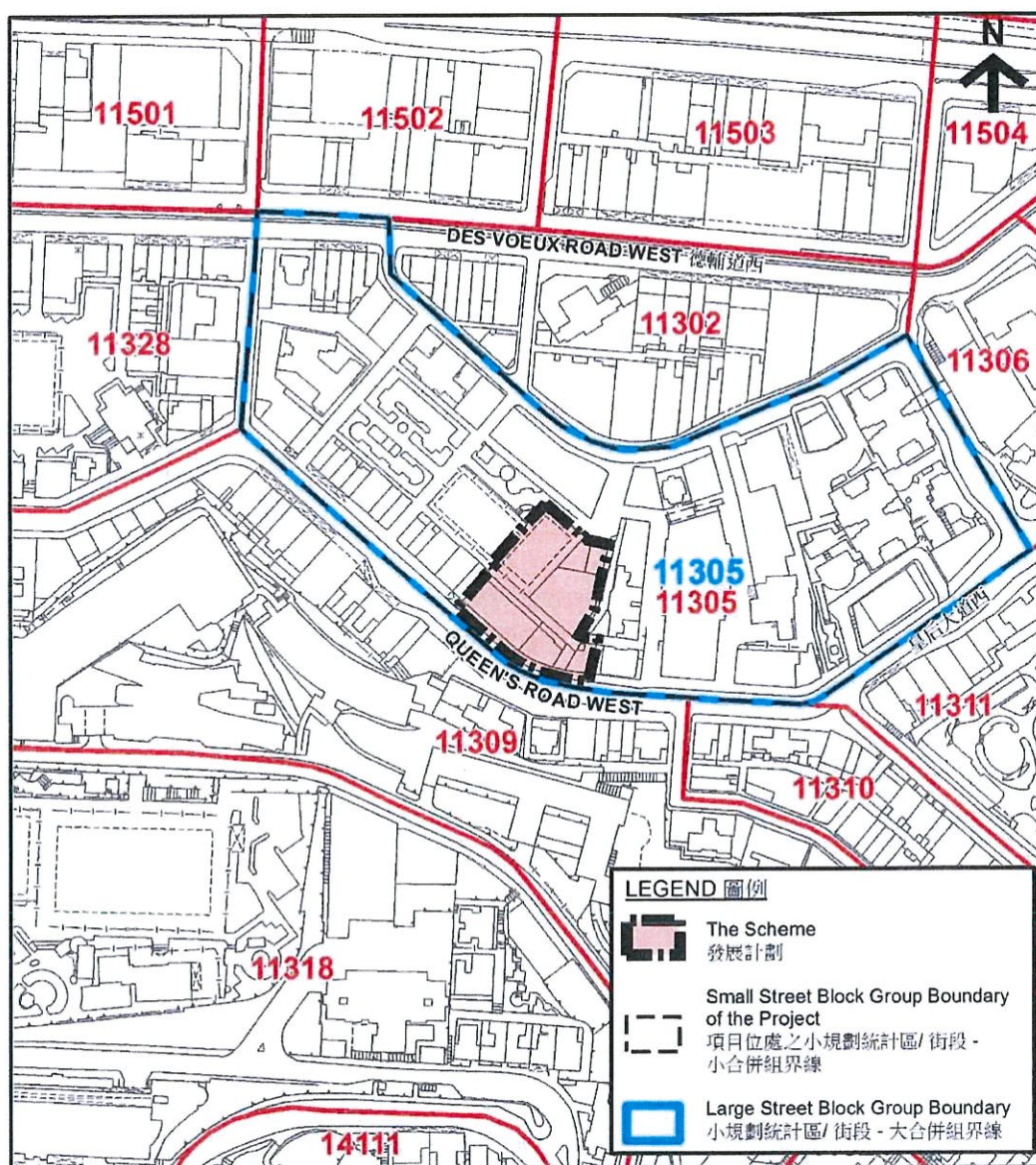


Figure 4.2 Large Street Block Group (LSBG) and Small Street Block Group (SSBG) Boundaries of the Scheme (LSBG: 11305 and SSBG: 11305).



- 4.4 Based on past URA experience, the average household size of those within the Scheme is estimated to be around 2.1. A tenure split of about 30% owner-occupied and 70% tenanted households is assumed in the preparation of this report.

Overview of Housing & Population Characteristics of Central and Western District

- 4.5 As revealed in the 2016 By-census, the C&W District has a population of about 243,266. In terms of monthly household income, the C&W District has a median monthly Domestic Household income of \$36,000, which is higher than the average of the whole Territory (i.e. \$25,000).

- 4.6 According to the 2016 By-census, the majority of the living quarters in C&W District are private permanent housing (about 95%); only about 3% of living quarters are in public rental housings / subsidized home ownership housings. The remaining living quarters (about 2%) are in other types of housing.

Household Composition

- 4.7 According to the approved GBP, there are 50 residential units within the Scheme. According to Census data, the degree of sharing of living quarters (or the "average number of domestic households per unit of quarters") of the C&W District is about 1. However, based on past URA experience for these GBP units, the degree of sharing in URA redevelopment projects is normally around 1.5 due to the existence of sub-division of units. Hence the Scheme is estimated to have about 75 households. This will be confirmed at the Freezing Survey to be reported in the Stage 2 SIA.
- 4.8 Applying the Census LSBG proportion of singleton (30%), doubletons (36.5%) and 3-person or above households (33.5%), it gives a distribution of 22 singleton households, 28 doubleton households and 25 3-person or above households in the Scheme. The proportion of singleton households (30%) is higher than the territorial ratio (18%) and the doubleton households (36.5%) estimated from the LSBG data is higher than the territorial ratio (27%). On the other hand, the proportion of 3-person or above households (33.5%) is much lower than the territorial ratio (55%).
- 4.9 Based on the assumption as stated in Para. 4.4 above, the average household size of those within the Scheme is estimated to be around 2.1, which is lower than the average household sizes of the C&W District (2.7) and the territory (2.8). This 'smaller' household size compared to district and territorial data could be a result of the presence of sub-divided units and/or cubicle apartments in URA redevelopment projects as found in the past, which shall be verified in the Stage 2 SIA.

Population

- 4.10 With the estimation of 75 households and an average household size of 2.1 in the Scheme, the population is estimated to be around 160 persons. The actual number of households, living quarters and population affected will all be verified by the results of the Stage 2 SIA.

- 4.11 Based on the LSBG data, the working population accounts for about 51% of the population of LSBG 11305, which is the same as the proportion of the territory (about 51%) but slightly lower than the proportion for Sheung Wan Constituency (54%) and C&W District (57%).
- 4.12 The LSBG data indicates a slightly higher percentage of elderly residents over 65 (18%) than both the C&W District and the whole territory figures (16%). This will be confirmed by the freezing survey, and the needs of this elderly group are expected to be manageable in view of the scale of the Scheme and extra attention would be paid to them.

Tenure of Accommodation

- 4.13 As explained in **Para. 4.4** above, the assumption adopted is that about 30% of the households will be owner-occupiers and 70% be tenants. This assumption is based on URA's past experience in many redevelopment projects which contained sub-divided units and were rented out. The LSBG data (which covers the Scheme and other residential buildings nearby) shows 58% of owner-occupiers, which is higher than the C&W District data (55%) and the territorial data (48%). The higher owner-occupier ratio may be due to the presence of other newer residential developments in the LSBG, which tend to have higher owner-occupiers rate.
- 4.14 The median monthly domestic household rent in the Sheung Wan Constituency area is \$11,800, while that in C&W District and the whole territorial are \$14,000 and \$2,180 respectively. The rent for the Constituency area is slightly lower than the C&W District. The much higher median rent for the Constituency area as compared with the territory is as expected due to the presence of public rental housings in the Territory and the buildings within the Constituency area are all private developments.
- 4.15 In conclusion, the socio-economic characteristics derived from the LSBG and the Constituency area in the latest available Census result may not totally reflect the characteristics of those residing within this Scheme as the figures are limited by the inclusion of a large number of buildings in the LSBG and the Constituency area.
- 4.16 The Stage 2 SIA to be conducted upon project commencement will give clearer and more accurate information concerning those living and working within the Scheme.

5. HOUSING & ENVIRONMENTAL CONDITIONS

Building Age

- 5.1 The Scheme involves 12 street numbers of buildings range from 4 to 6 storeys high and do not have lift service. The buildings were completed between 1966 and 1969.

Building and Living Condition

- 5.2 The living condition in the Scheme is considered not satisfactory. Except the RCP cum public toilet, in the absence of proper building design, the buildings within the Scheme are subject to traffic noise due to their close proximity to Queen's Road West. All the buildings within the Scheme are under multiple ownerships (based on records in the Land Registry as of 27 February 2018). Based on the search in Land Registry's "*Index of Owners' Corporations*" and Home Affairs Department "*Database of Private Buildings in Hong Kong*" in February 2018, Nos. 129 -131, 135-139, 145 & 147 Queen's Road West, have Owners' Corporations (OCs). The rest of the buildings do not have OC for building management.
- 5.3 According to URA's Building Condition Survey (BCS) conducted in February 2018, some of the buildings within the Scheme are in 'varied' condition, i.e. the second worst condition, with suspected unauthorised building structures (UBWs) identified at the lower portion at the rear part of some of the buildings.
- 5.4 Within the Scheme, two buildings have completed building rehabilitation works, Nos. 135-139 Queen's Road West has completed the Integrated Building Maintenance Assistance Scheme (IBMAS) in 2016 whilst Nos. 141-151 Queen's Road West has completed the Operation Building Bright (OBB) Scheme (Category 2) in 2015. Based on past URA's experience in rehabilitation works, even buildings that have undergone repair works need to undertake comprehensive building rehabilitation every 5-6 years in order to avoid deterioration. Based on the Lands Registry record as of February 2018, some buildings (including 141, 143 & 151 Queen's Road West) within the Scheme have outstanding building orders.

Existing Uses

- 5.5 Based on non-obtrusive site observation, the ground floor units within the Scheme are mainly used for non-domestic purposes (Para. 6.4 refers). At present, they are primarily engaging in businesses selling Chinese medicine and dried sea food. The upper floor units appear to be used mainly for domestic purpose, however, non-domestic uses were also observed, in particular No. 133 Queen's Road West, of which the upper floors are for office use as permitted in the building record plan. Detail uses within the Scheme will be verified in the freezing survey and to be reported in the SIA Stage 2 as far as practicable.

Degree of Overcrowding

- 5.6 The degree of sharing of living quarters of the C&W District as revealed in the Census is about 1. As stated in **Para. 4.8**, this is not expected to be representative of the situation in the Scheme. The degree of sharing of about 1 for C&W district is because of the district has relatively newer private residential blocks completed after the 1980s, which tend to have only "one household per living quarter". Based on past URA experience, the degree of sharing in URA redevelopment projects for these approved GBP units is estimated to have the degree of sharing of around 1.5 subject to SIA2 findings.

6. CULTURAL & LOCAL CHARACTERISTICS, AND CHARACTERISTICS OF LOCAL BUSINESS ACTIVITIES

- 6.1 The Scheme is located at the street blocks with a mix of residential, commercial uses, GIC facilities and public open space. It is also observed that the ground floor shops in the vicinity, especially those shops along both Des Voeux Road West and Ko Shing Street, are mainly selling dried seafood and Chinese medicine, and are named as "Hoi Mei Street" and "Chinese Medicine Street" respectively.
- 6.2 About 10 ground floor shops were observed within the Scheme on the days of non-obtrusive visits in February 2018. The shops have direct frontage on Queen's Road West. The majority of shops are currently doing retail and/or wholesale trading businesses in relation to grocery / dried food and Chinese medicine. The location and nature of the business activities of the ground floor shop premises are listed in **Table 6.1**. Non-domestic uses were also observed on the upper floors of the buildings, in particular No. 133 Queen's Road West, of which the upper floors are for office use as permitted in the building record plan.
- 6.3 According to the new URS, if requested, the URA will help identify suitable premises in the district of the redevelopment projects to enable the affected shop operators to relocate and continue operation in the same district as far as practicable. Based on previous project experiences, special shop arrangement with local characteristics shops can be considered, if appropriate. For example, a special shop arrangement was proposed for K28 for local sports shops and as proposed in C&W005 (upon SDEV's authorisation) for dried seafood shops, with a view to allow the affected shop operators to continue its operation upon completion of the redevelopment. Details uses on both the ground floor and upper floors of the buildings will be recorded in the Freezing Survey upon project commencement and reported in the Stage 2 SIA.

Table 6.1 Ground Floor Business Activities within the Scheme

| | Address | Current Use by Observation |
|-----|---|---|
| 1. | G/F, Nos. 129 -131 Queen's Road West | Wholesale and Retail (Grocery, Dried Food, Chinese Medicine) |
| 2. | G/F, No. 133 Queen's Road West | Wholesale and Retail (Dried Food, Chinese Medicine) |
| 3. | G/F, No. 135 Queen's Road West | Wholesale and Retail (Grocery, Dried Food, Chinese Medicine) |
| 4. | G/F, Nos. 137-139 Queen's Road West | Trading Company (Dried Food) |
| 5. | G/F, No. 141 Queen's Road West | Trading Company (Dried Food) |
| 6. | G/F, No. 143 Queen's Road West | Trading Company (Dried food, Chinese Medicine) |
| 7. | G/F, No. 145 Queen's Road West | Trading Company (Dried Food) |
| 8. | G/F, No. 147 Queen's Road West | Wholesale and Retail (Grocery) |
| 9. | G/F, No. 149 Queen's Road West | Wholesale and Retail (Grocery) |
| 10. | G/F, No. 151 Queen's Road West | Wholesale and Retail (Dried Food) |

(Based on non-obtrusive site visit conducted in February 2018)

7. RECREATIONAL, AMENITY & COMMUNITY AND WELFARE FACILITIES

- 7.1 In the Playground, which part of it located within the Scheme, includes 3 recreational facilities, a 5-a-side soccer pitch, a basketball court and a sitting out-area (SOA) forming part of the Playground managed by LCSD. They are all located in a relatively "land-locked" location with low visibility and limited accessibility in the inner part of the street block surrounded by buildings. The 5-a-side soccer pitch is fenced off, with entrance only from the SOA on the west side of the Scheme.
- 7.2 Within the Scheme there is the In Ku Lane RCP cum public toilet which is a 2-storey self-standing building structure built in early 1990s. The facility is managed by the FEHD, with daily refuse collection activities.
- 7.3 In addition to the open space and GIC facilities within the Scheme, **Figure 7.1** shows the location of other government, institution and community (GIC) facilities and public open spaces within the 500m radius area of the Scheme Area. Apart from the Playground, there are also a number of public open spaces near the Scheme Area, namely the Sun Yat Sen Memorial Park, King George V Memorial Park, Hollywood Road Park, Shing Sai Park, Queen Street Rest Garden, Sung Hing Lane Children's Playground, Sai On Lane Children's Playground and Sitting-out Area, Sai Woo Lane Playground, Third Street Playground, Rose Lane's Children's Playground, and sitting-out area and Children's Playground at Mui Fong Street, etc.
- 7.4 The major GIC facilities within 500m radius of the Scheme includes the Sai Ying Pun Community Complex, and many educational facilities, including primary schools and secondary schools in proximity of the Scheme, such as King's College.
- 7.5 A wide range of existing social welfare facilities and services (refer to **Table 7.1**) are found in close proximity to the Scheme including hospitals, family and child welfare services, social security services, services for the elderly, rehabilitation and medical social services, and services for young people.
- 7.6 Given the large variety of social services, educational, recreational and amenity facilities provided in the area, it is envisaged that the existing open space and GIC facilities and services can absorb the demand generated from the future residents of the Scheme. As far as the existing residents within the Scheme are concerned, some of them may need to look for their required GIC facilities in other location(s)/district(s) after their relocation. The Stage 2 SIA will look at this issue in detail.

Table 7.1: Social Welfare Facilities within 500m Radius of the Scheme Area

| Service Unit | Operator | Address |
|---|--|---|
| A. Family and Child Welfare | | |
| <u><i>Multi-purpose Crisis Intervention and Support Centre</i></u> | | |
| 1. TWGHs CEASE Crisis Centre | Tung Wah Group of Hospitals | 6/F, Wong Fung Ling Mem Building, 12 Po Yan Street, Sheung Wan, Hong Kong |
| <u><i>Integrated Children & Youth Service Centre</i></u> | | |
| 2. BGCA Jockey Club Sheung Wan Children & Youth Integrated Service Centre | The Boys' and Girls Club Association of Hong Kong | 11/F, Sheung Wan Municipal Services Building, 345 Queen's Road Central, Sheung Wan, Hong Kong |
| <u><i>Extended Hours Child Care Service</i></u> | | |
| 3. ELCHK Amazing Grace Nursery School | ELCHK, Social Service Head Office | 3/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| 4. HKSPC Thomas Tam Nursery School (OCCS) | Hong Kong Society for the Protection of Children | King George V Memorial Park, Hospital Road, Sai Ying Pun, Hong Kong |
| 5. Yan Chai Hospital Kwok Chi Leung Child Care Centre (OCCS),(EHS) | Yan Chai Hospital | UG/F (South), 9 High Street, Sai Ying Pun, Hong Kong |
| <u><i>Integrated Family Service Centre</i></u> | | |
| 6. High Street Integrated Family Service Centre | Social Welfare Department | G/F, Sai Ying Pun Community Complex, No.2 High Street, Sai Ying Pun, Hong Kong |
| <u><i>Hotline and Outreaching Service Team</i></u> | | |
| 7. TWGHs Hotline and Outreaching Service Team | Tung Wah Group of Hospitals | 6/F, Wong Fung Ling Mem Building, 12 Po Yan Street, Sheung Wan, Hong Kong |
| <u><i>Neighbourhood Support Child Care Project</i></u> | | |
| 8. TTMHK Reedfield Growth Centre | Tsung Tsin Mission of Hong Kong Social Service (The) | Rm 1102, 11/F, Kingdom Power Commercial Bldg., 32-36 Des Voeux Road West, Sheung Wan, Hong Kong |

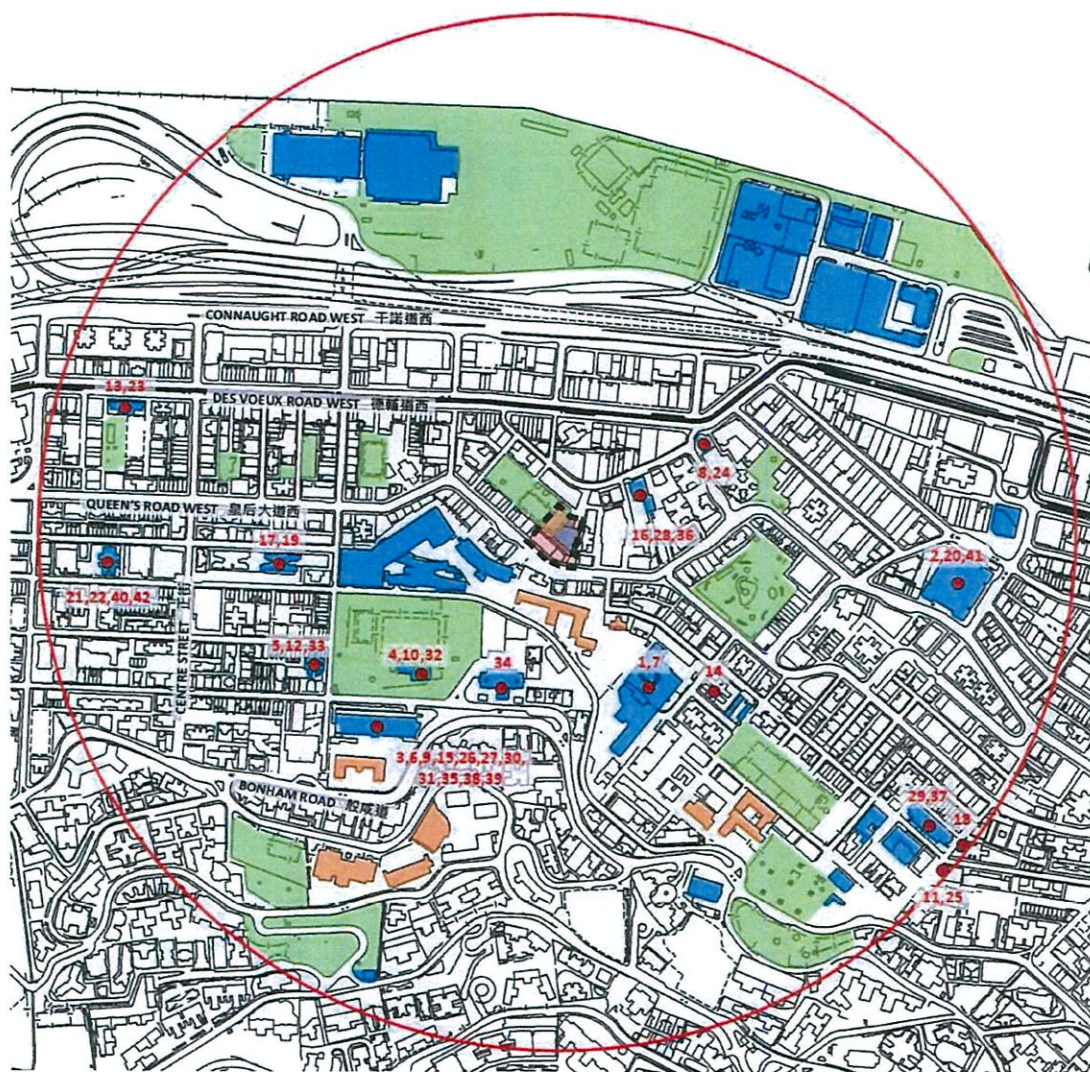
| Service Unit | Operator | Address |
|---|--|--|
| <u>Occasional Child Care Service</u> | | |
| 9. ELCHK Amazing Grace Nursery School | ELCHK, Social Service Head Office | 3/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| 10. HKSPC Thomas Tam Nursery School (OCCS) | Hong Kong Society for the Protection of Children | King George V Memorial Park, Hospital Road, Sai Ying Pun, Hong Kong |
| 11. Women's Welfare Club - West Day Nursery, Hong Kong | Women's Welfare Club Western District | G/F, 1/F & 3/F, 60 Bridges Street, Sheung Wan, Hong Kong |
| 12. Yan Chai Hospital Kwok Chi Leung Child Care Centre (OCCS),(EHS) | Yan Chai Hospital | UG/F (South), 9 High Street, Sai Ying Pun, Hong Kong |
| B. Social Security Services | | |
| 13. Central & Western/Islands Social Security Field Unit | Social Welfare Department | 3/F, Tung Che Commercial Ctr, 246 Des Voeux Road West, Sai Ying Pun, Hong Kong |
| C. Services for the Elderly | | |
| <u>Care & Attention Homes for the Elderly</u> | | |
| 14. TWGHs Hui Mok Tak Yu Care & Attention Home | Tung Wah Group of Hospitals | 1/F-4/F, Tower 125, 11 Po Yan Street, Sheung Wan, Hong Kong |
| <u>Contract Home</u> | | |
| 15. Caritas Evergreen Home | Caritas - Hong Kong | Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| 16. PLK Kwok Law Kwai Chun Home for the Elderly | Po Leung Kuk | G/F - 4/F and Portion of Roof, 28 Ko Shing Street, Sheung Wan, Hong Kong |
| 17. PLK Sai Ying Pun Home for the Elderly cum Day Care Centre for the Elderly | Po Leung Kuk | 2/F-5/F, No.8 First Street, Sai Ying Pun, Hong Kong |

| Service Unit | Operator | Address |
|---|--|--|
| <u>Day Care Centre / Unit for the Elderly</u> | | |
| 18. PLK Sai Ying Pun Home for the Elderly cum Day Care Centre for the Elderly | Po Leung Kuk | 2/F-5/F, No.8 First Street, Sai Ying Pun, Hong Kong |
| 19. TWGHs Anita Mui Day Care Centre for the Elderly | Tung Wah Group of Hospitals | G/F., Tung Shing Terrace, 39 Bridges Street, Sheung Wan, Hong Kong |
| <u>Integrated Home Care Services (Agency and District-based)</u> | | |
| 20. HKFWS Hong Kong Western Centre | Hong Kong Family Welfare Society | Western Garden, 80A First Street, Sai Ying Pun, Hong Kong |
| 21. SJS Central & Western Integrated Home Care Services Team | St. James Settlement | 11/F, Sheung Wan Municipal Bldg., 345 Queen's Road Central, Hong Kong |
| <u>Neighbourhood Elderly Centre</u> | | |
| 22. AVS Western Garden Neighbourhood Elderly Centre | Agency for Volunteer Service | G/F, Western Garden, 82 First Street, Sai Ying Pun, Hong Kong |
| 23. AVS Western Garden Neighbourhood Elderly Centre - Sub-office | Agency for Volunteer Service | 2307, Tung Che Commercial Centre, 246 Des Voeux Road West, Hong Kong |
| 24. Hong Kong Sheng Kung Hui St. Matthew's Neighbourhood Elderly Centre | Hong Kong Sheng Kung Hui Welfare Council Limited | Unit B, 2/F, 38 Des Voeux Road West, Sheung Wan, Hong Kong |
| 25. Women's Welfare Club Western District Hong Kong Chung Hok Elderly Centre | Women's Welfare Club Western District Hong Kong | 3/F, 60 Bridges Street, Sheung Wan, Hong Kong |
| D. Rehabilitation and Medical Social Services | | |
| <u>Day Activity Centre</u> | | |
| 26. NCL Sai Ying Pun Day Activity Centre | Nesbitt Centre Limited (The) | LG/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |

| Service Unit | Operator | Address |
|---|--|---|
| 27. SJS Parkside Residence and Parkside Integrated Service Team | St. James' Settlement | 5/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| <u>Hostel for Moderately Mentally Handicapped Persons</u> | | |
| 28. Yan Chai Hospital Sheung Wan Rehabilitation Services Centre | Yan Chai Hospital | 5/F & 6/F, 28 Ko Shing Street, Sheung Wan, Hong Kong |
| <u>Hostel for Moderately Mentally Handicapped Persons (paired up with Sheltered Workshop or Integrated Vocational Rehabilitation Services Centre)</u> | | |
| 29. YMCA Home of Love Hostel (Bridges Street) (to be paired up with Home of Love SW) | Chinese Young Men's Christian Association of Hong Kong | 51 Bridges Street, Sheung Wan, H.K. |
| <u>Hostel for Severely Mentally Handicapped Persons</u> | | |
| 30. SJS Parkside Residence and Parkside Integrated Service Team | St. James' Settlement | 5/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| <u>Integrated Programme in Kindergarten-cum-Child Care Centre</u> | | |
| 31. ELCHK Amazing Grace Nursery School | ELCHK, Social Service Head Office | 3/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| 32. HKSPC Thomas Tam Nursery School (OCCS) | Hong Kong Society for the Protection of Children | King George V Memorial Park, Hospital Road, Sai Ying Pun, Hong Kong |
| 33. Yan Chai Hospital Kwok Chi Leung Child Care Centre (OCCS),(EHS) | Yan Chai Hospital | UG/F (South), 9 High Street, Sai Ying Pun, Hong Kong |
| <u>Medical Social Services</u> | | |
| 34. MSSU/Western Psychiatric Centre | Social Welfare Department | G/F, South Wing, David Trench Reh. Ctr., 1F High Street, Hong Kong |
| <u>Residential Respite Service</u> | | |
| 35. SJS Parkside Residence and Parkside Integrated Service Team | St. James' Settlement | 5/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |

| Service Unit | Operator | Address |
|--|--|---|
| <u>Supported Employment</u> | | |
| 36. Yan Chai Hospital Sheung Wan Rehabilitation Services Centre | Yan Chai Hospital | 5/F & 6/F, 28 Ko Shing Street, Sheung Wan, Hong Kong |
| <u>Supported Hostel</u> | | |
| 37. YMCA Home of Love Hostel (Bridges Street) (to be paired up with Home of Love SW) | Chinese Young Men's Christian Association of Hong Kong | 51 Bridges Street, Sheung Wan, H.K. |
| 38. SJS Parkside Residence and Parkside Integrated Service Team | St. James' Settlement | 5/F, Sai Ying Pun Community Complex, 2 High Street, Sai Ying Pun, Hong Kong |
| E. Services for Young People | | |
| <u>District Youth Outreaching Social Work Teams</u> | | |
| 39. HKYWCA Central, Western and Islands District Youth Outreaching Social Work Team | Hong Kong Young Women's Christian Association | G/F, Sai Ying Pun Community Complex, No.2 High Street, Sai Ying Pun, Hong Kong |
| <u>School Social Work Service (provided for all secondary schools and administered by offices shown below)</u> | | |
| 40. HKFWS Hong Kong Western Centre | Hong Kong Family Welfare Society | Western Garden, 80A First Street, Sai Ying Pun, Hong Kong |
| F. Clinical Psychology Service | | |
| <u>After School Care Programme</u> | | |
| 41. BGCA Jockey Club Sheung Wan Children & Youth Integrated Service Centre | The Boys' and Girls Club Association of Hong Kong | 11/F, Sheung Wan Municipal Services Building, 345 Queen's Road Central, Sheung Wan, Hong Kong |
| 42. HKFWS Hong Kong Western Centre | Hong Kong Family Welfare Society | Western Garden, 80A First Street, Sai Ying Pun, Hong Kong |

Source: Social Welfare Department's website: Local District Service Profile: Welfare Service Units Managed or Funded by Social Welfare Department (Central & Western District), as of February 2018.



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LEGEND 圖例

- 500m radius from Project Area
計劃500米半徑範圍
- The Scheme
發展計劃
- Social Welfare Service Facilities
社會福利設施
- GIC Facilities
政府、機構或社區設施
- Public Open Space
公眾休憩用地
- Educational Facilities
教育設施

Figure 7.1 GIC and Amenity Facilities Within 500m Radius of the Scheme Area

圖 7.1 計劃500米半徑範圍內的政府、機構或社區設施及公眾休憩用地

8. INITIAL ASSESSMENT OF POTENTIAL SOCIAL IMPACT, AND MITIGATION MEASURES

Potential Social Impact

- 8.1 The living condition within the Scheme is considered unsatisfactory in general. There are suspected UBWs identified at the lower portion of the rear part of some of the buildings. The proposed redevelopment offers a chance of improving the living environment of the affected households, and continues the general renewal of the local area. The redevelopment will re-configure the open space to provide a direct street frontage on Queen's Road West to make it more accessible. The RCP cum public toilet will be re-provisioned to enhance the visual integration with the surroundings and to enhance the standard of the facilities. Through restructuring and replanning of land uses and layout in the Scheme, the Scheme can improve the living environment and accessibility of the area.
- 8.2 The Scheme, if implemented, will inevitably affect the domestic and non-domestic occupants within the Scheme. Generally, the most vulnerable resident groups in the Scheme are the elderly, the disabled, single parent families, low-income households, and those who rely heavily on their social network (including receiving support/care from their friends/relatives who live nearby). Upon implementation of the Scheme, the existing residents will be displaced to areas where they have to rebuild their social networks, whereas the existing shops will have to move to other locations to continue their businesses, depending on individual operator's needs.
- 8.3 During the freezing and SIA surveys, needy cases such as households with single elderly, elderly couples, family members with disability or new immigrants worried about the impact of redevelopment on employment, living expenses and social network etc will be identified. The Social Service Team (SST) commissioned by the Urban Renewal Fund (URF) will provide assistance to those in need. This SST is independent of the URA.

Mitigation Measures and Prevailing Compensation & Rehousing Policies

- 8.4 Upon implementation, compensation based on the prevailing URA Policy would be offered to the affected owners. For affected tenanted households, rehousing or ex-gratia allowance would be offered. Shortly after the Freezing and SIA Surveys, the URA will carry out briefing sessions to the owners and tenants to explain the URA compensation and rehousing policies.

- 8.5 If affected residents and/or business operators are not clear about the URA compensation and rehousing policies or future arrangement, the SST will endeavour to clarify their doubts with full support from the URA.
- 8.6 In handling problems related to different kinds of livelihood problems, the SST, apart from offering counselling, will mobilise different community resources to liaise closely with Government departments and work with the URA to resolve the residents' and operators' problems and reduce their anxiety. The SST will also provide orientation assistance for those in needs after moving home such as familiarisation with new neighbourhood, accommodation and local facilities.
- 8.7 For the vulnerable groups (including the elderly, disabled and single parent families), arrangements for assistance such as child care/ foster services, domestic help services, etc. offered by the Social Welfare Department, and other social service agencies would be made. For the low-income households, arrangement could be made with the Hong Kong Housing Authority or the Hong Kong Housing Society on public rental housing allocation if they are eligible. In addition, if practicable, those vulnerable groups would be re-housed on compassionate ground.

Prevailing Measures

- 8.8 The URA will offer an owner-occupier of domestic property the market value (valued on vacant possession basis) of his property plus an ex-gratia allowance, namely Home Purchase Allowance (HPA), for purchase of the property. The assessment of HPA is based on the unit rate of a notional replacement flat, which is defined as a hypothetical seven-year-old flat in a building of comparable quality, situated in a similar locality in terms of characteristics and accessibility, and located at the middle floor with average orientation. The HPA is the difference between the value of the notional replacement flat and the market value of the property being acquired.
- 8.9 The URA may also offer "flat-for-flat" (FFF) (subject to any changes in the relevant legislations) in a URA new development in-situ or in the same district or at available site(s) (as URA may select for the purpose provided that necessary approvals / authorization has been obtained at the time of FFF offer), as an additional choice to cash compensation to owner-occupiers of domestic units. The amount of cash compensation and ex-gratia payment offered to an owner-occupier will not be changed by his/her choice of using that amount, or part of it, to join the flat-for-flat arrangement or otherwise.

- 8.10 According to the new URS, the URA will offer an ex-gratia allowance to eligible elderly owners of tenanted domestic properties on compassionate ground in exceptional circumstances such as elderly owners who rely on the rental income from their properties for a living.
- 8.11 Eligible domestic tenants affected by URA's redevelopment projects are provided with rehousing, if eligible, or Ex-gratia Allowance (EGA), which is calculated with a sliding scale that begins with the first \$10,000 of the rateable value multiplied by 9, the second \$10,000 of the rateable value multiplied by 8, and so on. The EGA for eligible domestic tenants will be subject to a minimum amount of \$160,000 for one-person household and \$180,000 for two-person or larger household. The minimum amount is subject to annual review.
- 8.12 Tenants who are not provided re-housing due to various reasons or who decline re-housing, will be offered ex-gratia allowances. The amount of ex-gratia allowance will be dependent on, amongst other things, whether the tenants have been living in the project area before and since the first date of the freezing survey and have no alternative accommodation.
- 8.13 In case where tenants were notified that their tenancies would not be renewed, URA will explain to their owners that they would not get more compensation by evicting the tenants. The URA has also introduced the "Domestic Tenants Compassionate Assistance Programme" to take care of those domestic tenants whose tenancies commenced before the Freezing Survey of this Project and moved out from the properties because they have been required to move out from their properties by their landlords upon expiry or termination of their tenancies and before URA purchases the properties. In general, eligible domestic tenants who meet the criteria under this programme will be offered special ex-gratia allowance based on the sliding scale as mentioned in paragraph 8.11, or public housing, if eligible, or units at URA's rehousing blocks, subject to meeting URA's requirements.
- 8.14 For owner-occupied non-domestic premises, the market value of the affected property plus an ex-gratia allowance of 4 times the rateable value or 35% of the market value of the affected property, whichever is the higher, will be offered. Owner-occupiers may lodge a claim for business loss in lieu of both the ex-gratia allowance and the Ex-gratia Business Allowance (EGBA) as stated in the next paragraph. For owners of tenanted or vacant non-domestic properties, the market value of the affected property plus an ex-gratia allowance of 1 time the rateable value or 10% of the market value of the affected property, whichever is the higher, will be offered.

- 8.15 For non-domestic tenants of non-domestic premises, an ex-gratia allowance of 3 times the rateable value of the affected premises will be offered. An additional payment of EGBA is also payable to tenants who commenced occupying the premises for business before the date of freezing survey. The amount is subject to a minimum of \$110,000 and a maximum of \$700,000, depending on the number of years of continuous operation by the tenant-operator as business owner in the property. The EGBA arrangement will also be applicable to non-domestic owner-operators occupying the properties for their own businesses. Those non-domestic tenant-operators who have occupied the properties before Freezing Survey and are evicted by their landlords before acquisition of the properties by the URA, can apply for the Special EGBA. The minimum payment of EGBA will be subject to annual review.
- 8.16 According to the new URS, if requested, the URA will help identify suitable premises in the district of the redevelopment projects to enable the affected shop operators to relocate and continue operation in the same district as far as practicable. For the shops with special characteristics, special arrangements similar to C&W-005 (for dried seafood shops) may be considered subject to the findings of SIA2 and the approval of URA Board.
- 8.17 Details of the current acquisition, compensation and rehousing policies are published on the URA's website and will be communicated to affected persons when acquisition of property interests for this Scheme commences. Prevailing policies relating to property acquisition, rehousing and ex-gratia allowances will be reviewed by the URA from time to time.
- 8.18 The Stage 2 SIA to be conducted after the Freezing Survey will further assess the impact of the Scheme in detail on both domestic and non-domestic occupants and propose mitigation measures. It may also be able to highlight the psychological stress and worry for some of the affected within the Scheme. Special measures may have to be adopted under exceptional circumstances.

9. CONCLUSION

- 9.1 The local community and the surrounding neighbourhoods are likely to experience gains and losses due to the proposed redevelopment. Residents, business operators and their employees within the Scheme will be affected in different ways and to various degrees depending on their particular circumstances. Those who currently live in the dilapidated condition or poor serviceability within the Scheme may welcome the opportunity to improve their living environment through cash compensation or rehousing if eligible; whilst others (e.g. some business operators) may prefer to remain undisturbed and maintain the status quo. The various degrees of concerns and social impacts to the affected residents, business operators and their employees within the Scheme will be assessed in the Stage 2 SIA in details.
- 9.2 This Stage 1 SIA study can only provide a general profile of the Scheme. The assumptions in this report will be verified by the Stage 2 SIA to be carried out after the freezing survey as far as practicable. The needs of the affected households will be assessed and appropriate arrangements to minimise major adverse social impact, if any, from the Scheme will be proposed in the Stage 2 SIA.
- 9.3 For the non-domestic uses, a number of ground floor shops are witnessed in the Scheme, whereas situations of the upper floor non-domestic uses are to be confirmed in the freezing survey upon project commencement under section 23 of the URAO. The ground floor business activities are commonly found in the surrounding area. It is possible for most of them to be relocated to other areas where the respective uses are permissible in both lease and planning terms, and in compliance with the DMC of the buildings. The needs of the affected non-domestic occupants will be assessed in the Stage 2 SIA.

URBAN RENEWAL AUTHORITY

March 2018

Appendix 6 Tentative Implementation Programme

**C&W-006 URA Queen's Road West/ In Ku Lane Development Scheme
Tentative Implementation Programme**

[illegible]

**Appendix 7 Acquisition and Resumption
of Affected Properties**

Principles Adopted by the Urban Renewal Authority in Property Acquisition (Other than Industrial Properties)

This leaflet briefly outlines the Urban Renewal Authority ("URA")'s principles in the acquisition of properties (other than industrial properties) from owners affected by URA's urban renewal projects.

Domestic Properties

1. URA will offer an owner-occupier of domestic property the market value (valued on vacant possession basis) of his property plus an ex-gratia allowance, namely Home Purchase Allowance ("HPA"), for purchase of the property. The amount of HPA payable to individual owners is the difference between the value of a notional replacement flat and the market value of the property being acquired. The notional replacement flat is based on a seven-year-old flat of a size similar to the resumed flat and in the same locality. The notional replacement flat is assumed to be in a comparable quality building, situated in a similar locality in terms of characteristics and accessibility. The notional replacement flat will be situated at the middle floor of a notional building with average orientation, i.e. not facing south or west, and without sea view.
2. "Owner-occupier" here means an owner who occupies his property as his sole residence. If an owner does not reside in his property as his sole residence, the occupancy status of his property will be treated as "Vacant" and will be offered Supplementary Allowance ("SA") instead of HPA. SA is a percentage of HPA. The criteria for determining whether an owner occupies his property as his "sole residence" will be determined by URA according to URA's prevailing policy.
3. An owner-occupier is entitled to receive HPA for no more than three properties in a redevelopment project. (Please see Appendix I for example of calculation of HPA and Appendix II for HPAs available in different scenarios.)
4. Property used as sole residence by an owner's "immediate family members" will be treated as being occupied by the owner himself as sole residence for the purpose of ascertainment of his eligibility to HPA. "Immediate family members" of an owner means parents, children, dependent brothers and sisters, grandparents, grandchildren, stepparents, spouse's parents and spouse's stepparents.
5. An owner who leaves his property vacant will be offered the market value (valued on vacant possession basis) of his property plus SA.
6. An owner who lets his property out will be offered the market value (valued on vacant possession basis) of his property plus SA.
7. An owner of tenanted or vacant properties is entitled to receive SA for no more than two properties in a redevelopment project. (Please see Appendix I for examples of calculation of SA and Appendix II for different SAs available in different scenarios.)
8. If a property is owned by joint owners (whether as joint tenants or tenants in common) / a company, each joint owner / shareholder of that company will be subject to the same principles applicable to individual owners. The HPA and SA will be calculated

pro rata to the shares of each joint owner and the shareholdings of each shareholder in the company.

9. In addition to HPA or SA, URA will offer an incidental cost allowance to owners of domestic properties to assist payment of removal expenses and expenditure relating to the purchase of a replacement property. The actual amount of this allowance shall be determined and announced by URA as and when an offer to purchase is made for each individual project.
10. If the amount of actual expenses reasonably incurred by an owner of domestic property in purchasing a replacement property including (i) removal cost; (ii) stamp duty; (iii) agency fee; and (iv) legal cost exceeds the amount of incidental cost allowance offered by URA, the owner may be reimbursed with the difference, provided that the owner has accepted the initial acquisition offer within the validity period of the offer and the reimbursement claim is made within 12 months after the property is sold to URA.

For the avoidance of doubt, the reimbursable amount for stamp duty and agency fee of a replacement property would be subject to a maximum amount to be calculated on the basis of 110% of the market value plus the sum of HPA/SA of the initial acquisition offer. Subject to the production of invoices / receipts proving payments actually incurred by the owner on condition that the payments are of a reasonable amount, the removal cost and legal cost would be reimbursed by URA to the owner in the purchase of a replacement property. For the avoidance of doubt, URA reserves the right to determine the final amount of the reasonable expenses for purchasing a replacement property in each case.

11. If a property has been sub-divided into several flats ("sub-divided flat") and an owner of a sub-divided flat elects not to receive the HPA, subject to eligibility criteria and other requirements, the owner will be offered re-housing.
12. The HPA is payable to an owner-occupier of non-domestic property which has been issued with an occupation permit other than for domestic use but nevertheless has been used for domestic purpose for a long time (generally about 10 years) provided that such use is not prohibited under the Government lease of the property.
13. For URA redevelopment projects which are commenced after the promulgation of the new Urban Renewal Strategy on 24 February 2011:
 - (i) Subject to the conditions and provisions contained in the "Urban Renewal Authority Flat-for-Flat Pamphlet" ("the Pamphlet"), domestic owner-occupiers of properties in the redevelopment projects, who are entitled to receive HPA, can opt to participate in URA's "Flat-for-Flat" Scheme ("the Scheme"). Please refer to the Pamphlet for details of the Scheme.

For redevelopment projects implemented under Demand-led Redevelopment Project (Pilot Scheme), URA will provide the details and option under the Scheme to eligible domestic owner-occupiers only upon the fulfillment of the conditions precedent stipulated in the conditional acquisition offers; and

- (ii) Elderly owners of tenanted domestic properties in the redevelopment project will be offered an Elderly Domestic Owner-Landlords Compassionate Allowance ("Allowance"), in addition to the market values of their properties

and SA as described in Paragraph 6 above, by URA subject to the elderly owners concerned meeting the eligibility criteria set by URA. Eligible elderly owners can apply for the Allowance after they have accepted the initial acquisition offer from URA both unconditionally and within the validity period of the offer. Please refer to the pamphlet of "Elderly Domestic Owner-Landlords Compassionate Allowance" for details of the eligibility criteria and the arrangement.

For redevelopment projects implemented under Demand-led Redevelopment Project (Pilot Scheme), URA will release the Allowance to the eligible elderly owners of tenanted domestic properties only upon satisfactory proof of the elderly owners' eligibility to the Allowance and the fulfillment of the conditions precedent stipulated in the conditional acquisition offers.

Non-domestic Properties (Other than Industrial Properties)

14. An owner of non-domestic property (other than industrial property) will receive the market value of his property (valued on vacant possession basis). URA will also pay the owner an allowance. The allowance for tenanted or vacant non-domestic property (other than industrial property) is 10% of its market value (valued on vacant possession basis) or one time its Rateable Value, whichever is higher. The allowance for owner-occupied non-domestic property (other than industrial property) is 35% of its market value (valued on vacant possession basis) or 4 times its Rateable Value, whichever is higher. "Owner-occupier" here means an owner who occupies and operates his business at the property.
15. In addition to the allowance described in Paragraph 14 above, an additional payment of ex-gratia business allowance ("EGBA") is payable to any owner-occupier of non-domestic property (other than industrial property) who had commenced occupying the premises for business use before the date of Freezing Survey of the project and have accepted the initial acquisition offer from URA both unconditionally and within the validity period of the offer. The amount is directly proportional to the number of years of continuous operation by the owner-occupier as business owner in the property. In calculating the number of years of continuous operation, the expiry date of continuous operation is 2 years from the date which URA issues initial acquisition offer to property owners. The amount of the EGBA is payable at a rate of 0.1 times the Rateable Value for each year that the owner-occupier has operated the business as the business owner in the property concerned, subject to a maximum of 30 years. For an incomplete year, the amount of EGBA is calculated on a pro-rata basis to the nearest month. The amount of EGBA is subject to a maximum amount of \$700,000 and a minimum amount as described in the table below:

| Years of Continuous Operation | Minimum EGBA |
|---|--|
| 10 years or less | HK\$110,000 (amount is subject to annual review) |
| More than 10 years (maximum of 30 years) | Additional HK\$10,000 for each completed year |

In the application for EGBA, the owner-occupier is required to substantiate the period of continuous operation in the property as business owner.

For redevelopment projects implemented under Demand-led Redevelopment Project (Pilot Scheme), URA will release the EGBA to eligible owner-occupiers of non-

domestic property (other than industrial property) only upon satisfactory proof of the owner-occupiers' eligibility to the EGBA and the fulfillment of the conditions precedent stipulated in the conditional acquisition offers.

16. An owner-occupier may choose to claim for business loss as an alternative to the above two allowances.

For redevelopment projects implemented under Demand-led Redevelopment Project (Pilot Scheme), if an owner-occupier of non-domestic property interest (other than industrial property) has accepted the conditional acquisition offer from URA within the validity period of the conditional acquisition offer and has entered into a legally binding agreement for sale and purchase of the property with URA, the owner shall be taken as not having chosen to claim for business loss as an alternative to the above two allowances.

Domestic Properties being used for Non-domestic Purposes

17. If a property with an occupation permit for domestic use is used for non-domestic purpose, an owner-occupier will be offered market value (valued on vacant possession basis) of his property and the allowance for Non-domestic Properties (Other than Industrial Properties) or SA, whichever is higher. An owner of tenanted property will be offered market value (valued on vacant possession basis) of his property and the allowance for Non-domestic Properties (Other than Industrial Properties) or SA less 3 times the Rateable Value of the property, whichever is higher.

Separate Roof Top Interest (Not ancillary to any Domestic/Non-Domestic Property)

18. The title of the rooftop property must be legal. An owner of tenanted or vacant rooftop property will be offered the market value of the property on an open roof basis (disregarding any illegal structure or any rent passing) plus an allowance at 10% of the said market value.
19. An owner-occupier of a rooftop property will be offered the market value of the property on an open roof basis (disregarding any illegal structure). If the owner-occupier meets the normal Hong Kong Housing Authority and Hong Kong Housing Society eligibility criteria, he may elect for re-housing. However, if he does not elect for re-housing, URA will also pay the owner an allowance at 10% of the said market value.

Buildings in Single Ownership

20. A building in single ownership is valued either on (i) its existing use value plus ex-gratia allowances for shops and HPA/SA and incidental cost allowance for domestic units in multiple ownership (whichever is applicable) or (ii) its redevelopment value (assuming redevelopment of the building on its own) plus an ex-gratia allowance of 5%, whichever is higher.

Vacant Sites

21. A vacant site is valued on its redevelopment value basis (assuming redevelopment of the site on its own). URA will also pay the owner 5% of the redevelopment value of a vacant site as ex-gratia allowance.

Other General Rules

22. Calculation of the market value of a property is based on the saleable area of the property. The definition of saleable area shall follow the Code of Measuring Practice issued in March 1999 and the Supplement to the Code of Measuring Practice issued in July 2014 by the Hong Kong Institute of Surveyors. Subject always to the owner having good title to the property or any part thereof, area calculations may be based on the boundary of the property as delineated on the assignment plan and the area as measured from the latest relevant building plans approved by the Buildings Department (if any).
23. For the purpose of calculating the value of the notional replacement flat, URA will appoint seven professional surveyor firms to provide the assessment.
24. URA will provide an allowance to the owners, who have employed the services of a professionally qualified surveyor to assess the market value of his/her property interest (which shall not include any ex-gratia allowance, such as Home Purchase Allowance and Supplementary Allowance etc.) as a subsidy for the owner's surveyor's fees for the services. Please refer to the pamphlet of "Allowance for Surveyor's Fees" for details of the arrangement.
25. If an owner only purchased his property in the project after the date of the Freezing Survey, URA will not pay to the new owner any HPA / SA, Elderly Domestic Owner-Landlords Compassionate Allowance, Allowance for Non-Domestic Use, EGBA, Allowance for Separate Roof Interest, Allowance for Single-owned Building on its Redevelopment Value Basis or Allowance for Vacant Site on its Redevelopment Value Basis, whichever is applicable.
26. URA will consider acquiring property from a holder with valid adverse possessory order granted by the Court in favour of him. Depending on the circumstances of individual cases, URA may impose appropriate additional requirements to safeguard the interest of URA when acquiring properties with adverse possessory title.
27. URA will not purchase a structure which is not erected in compliance with the Buildings Ordinance or the terms of the Government lease and no value, compensation or allowance will be paid by URA in respect of such structure.
28. If an owner is found to have given false or misleading information to URA, URA reserves the right to revise its offers and/or take legal action against such owner and/or report the matter to relevant enforcement authorities.
29. URA's offer to purchase is made by reference to the occupancy status of an owner's property on the date of Freezing Survey of the project and in accordance with the URA's prevailing principles and practice for property acquisition. One of such prevailing principles is that an owner whose property was owner-occupied on the date of Freezing Survey but is let out at the time URA's offer to purchase is made will only be offered allowances for the acquisition of his property on a tenanted basis.
30. Particularly, URA would draw the attention to owners whose properties had been tenanted out on the date of Freezing Survey that URA will not consider offering a higher offer to them to acquire their properties in the following situations: -
 - (a) properties being left vacant; or

- (b) owners entering into new tenancies, whether with the existing tenants or new tenants; or
 - (c) owners occupying their properties for their own self-use [URA will not offer HPA to owners in this situation. Such owners will be offered SA].
31. URA would remind owners that it is an offence for a landlord to unlawfully deprive a tenant of occupation of property or to make an unwarranted demand with menaces with a view to gain for himself or others or to defraud against URA. URA will report to the enforcement authorities on all cases of suspected criminal offences.

This leaflet is issued for the purpose of general reference only. The information contained herein is with reference to the principles and practice of the Urban Renewal Authority prevailing at the date of issue of this leaflet. It shall not constitute any representation on the part of the Urban Renewal Authority or give rise to any expectation whatsoever and shall not be relied on as such. Each case will be considered on its own merits having regard to all factors and circumstances. The terms of acquisition to be offered are subject to the principles and practice of the Urban Renewal Authority prevailing at the time the offer of acquisition is made and are subject to review from time to time as the Urban Renewal Authority shall at its absolute discretion consider appropriate. The Urban Renewal Authority's right to add to, amend or delete the whole or any part of this leaflet is hereby reserved.

For enquiries, please call URA External Relations Department:
Hotline: 2588 2333
Fax: 2827 0176
Address: 26/F, COSCO Tower, 183 Queen's Road Central, Hong Kong

December 2017

Appendix I

Examples (Domestic Properties)

(Figures are based on assumption and for reference only)

Assuming the market value of a domestic flat on vacant possession (VP) basis is HK\$800,000 and the value of a notional replacement flat is HK\$2,000,000. The HPA will then assume to be HK\$1,200,000.

Example One

An owner of the above domestic flat who lets out the entire flat

This owner will get the market value of his flat (on vacant possession basis) of HK\$800,000 and SA of HK\$600,000 (HK\$1,200,000 x 50%). In total, this owner will receive HK\$1,400,000.

Example Two

An owner of the above domestic flat who occupies half of the flat and leases out the other half

This owner will get the market value of his flat (on vacant possession basis) of HK\$800,000 and HPA of HK\$600,000 for the owner-occupied portion and SA of HK\$450,000 (HK\$600,000 x 75%) for the tenanted portion. In total, this owner will receive HK\$1,850,000.

Example Three

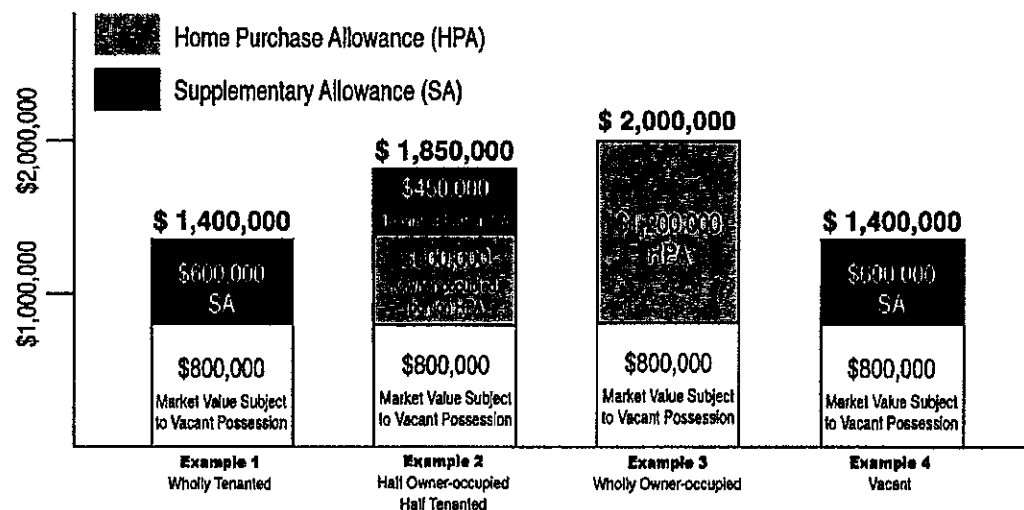
An owner of the above domestic flat who occupies the entire flat for his own use

This owner will get the market value of his flat (VP), which is HK\$800,000, plus HPA which is HK\$1,200,000. In total, this owner will receive HK\$2,000,000.

Example Four





An owner of the above domestic flat who leaves the entire flat vacant

The owner will get the market value of his flat (VP), which is HK\$800,000, plus SA of HK\$600,000 (HK\$1,200,000 x 50%). In total, this owner will receive HK\$1,400,000.

















Appendix II : Domestic Properties - Diagrammatic Illustration of HPA, SA & EUV

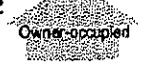

















One Flat
















| Occupation Status | HPA | SA | Market Value |
|--|-------------------------------|------------------------|--------------|
| 1  Owner-occupied | 100% | | EUV(VP) |
| 2  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 3  Wholly Tenanted | | 50% | EUV(VP) |
| 4  Vacant | | 50% | EUV(VP) |

Two Flats

| Occupation Status | HPA | SA | Market Value |
|--|-------------------------------|------------------------|--------------|
| 5  Owner-occupied | 100% | | EUV(VP) |
|  Owner-occupied | 100% | | EUV(VP) |
| 6  Owner-occupied | 100% | | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 7  Owner-occupied | 100% | | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
| 8  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 9  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
| 10  Wholly Tenanted | | 50% | EUV(VP) |
|  Wholly Tenanted | | 25% | EUV(VP) |
| 11  Vacant | | 50% | EUV(VP) |
|  Vacant | | 25% | EUV(VP) |

Three Flats

| Occupation Status | HPA | SA | Market Value |
|--|-------------------------------|------------------------|--------------|
| 12  Owner-occupied | 100% | | EUV(VP) |
|  Owner-occupied | 100% | | EUV(VP) |
|  Owner-occupied | 100% | | EUV(VP) |
| 13  Owner-occupied | 100% | | EUV(VP) |
|  Owner-occupied | 100% | | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 14  Owner-occupied | 100% | | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 15  Owner-occupied | 100% | | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
| 16  Owner-occupied | 100% | | EUV(VP) |
|  Owner-occupied | 100% | | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
| 17  Owner-occupied | 100% | | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
|  Wholly Tenanted | | 25% | EUV(VP) |

| Occupation Status | HPA | SA | Market Value |
|---|-------------------------------|------------------------|--------------|
| 18  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
| 19  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
| 20  Partially Owner-occupied & Partially Tenanted | Owner-occupied portion : 100% | Tenanted portion : 75% | EUV(VP) |
|  Wholly Tenanted | | 50% | EUV(VP) |
|  Wholly Tenanted | | 25% | EUV(VP) |
| 21  Wholly Tenanted | | 50% | EUV(VP) |
|  Wholly Tenanted | | 25% | EUV(VP) |
|  Wholly Tenanted | | | EUV(VP) |
| 22  Vacant | | 50% | EUV(VP) |
|  Vacant | | 25% | EUV(VP) |
|  Vacant | | | EUV(VP) |

Abbreviations:

HPA Home Purchase Allowance
SA Supplementary Allowance
EUV Existing Use Value
VP Vacant Possession

Appendix 8 – Rehousing and Ex-Gratia Payment Package

Principles Adopted by the Urban Renewal Authority for Tenant Re-housing and Ex-gratia Allowance for Projects announced under the Urban Renewal Authority Ordinance (Not applicable to Tenants of Industrial Premises)

This leaflet briefly outlines the current principles and policies adopted by the Urban Renewal Authority ("URA") for providing re-housing and ex-gratia allowance to affected tenants of projects announced by the URA under the Urban Renewal Authority Ordinance ("URAO") (other than tenants of industrial premises).

(A) Re-housing for Domestic Tenants

(I) Public Rental Housing ("PRH")

Re-housing Arrangement

1. Eligible domestic tenants living in acquired properties of the URA will be re-housed in units provided by the Hong Kong Housing Authority ("HKHA") or the Hong Kong Housing Society ("HKHS"). In addition, they may opt for other subsidized housing schemes provided by the HKHA and the HKHS, if available.

Re-housing Eligibility

2. Domestic tenants must have been genuinely living in the project area before and since the first day of Freezing Survey of the project ("the date of Freezing Survey") conducted by the URA and have no alternative accommodation.
3. Domestic tenants must fulfill the prevailing eligibility criteria for PRH of the HKHA and the HKHS.

Re-housing Eligibility of Illegal Rooftop Structure Occupiers

4. Since there is no difference between the illegal rooftop structures within the URA's redevelopment project areas and the illegal rooftop structures in other domestic buildings, the re-housing eligibility of illegal rooftop structure occupiers for PRH of the HKHA is the same as the eligibility criteria adopted by the HKHA in re-housing the illegal rooftop structure occupiers in domestic buildings affected by the enforcement actions taken by the Buildings Department. Therefore, in addition to the general eligibility criteria for PRH of the HKHA, occupiers of illegal rooftop structures have to satisfy that they have been genuinely living in the

structures within the project area two years before the date of Freezing Survey and that the structures were built on or before 1 June 1982 in order to be eligible for PRH of the HKHA.

5. Occupiers of the illegal rooftop structures who can only fulfill the requirement of having been genuinely living in the relevant illegal rooftop structures before and since the date of Freezing Survey will be eligible for re-housing in the PRH of the HKHS subject to meeting the eligibility criteria for PRH of the HKHS.

(II) URA Re-housing Block

Re-housing Arrangement

1. Domestic tenants living in URA acquired properties, who due to various reasons are not provided PRH re-housing as described in Part (A)(I) above, may be re-housed in units of Re-housing Block provided by the URA subject to fulfillment of the following eligibility criteria of the URA.

Re-housing Eligibility

2. Tenants must have been genuinely living in the project area before and since the date of Freezing Survey and have no alternative accommodation.
3. All members of tenants must be legally residing in Hong Kong without any conditions of stay (excluding a time limit of stay).
4. All members of tenants, whether personally or through a company, must not own nor have any interest in any domestic property in Hong Kong.
5. Both total monthly income and total net assets of all members of tenants must not exceed the prevailing Subsidy Income Limits and Net Assets Limits under the Policy on Safeguarding Rational Allocation of Public Housing Resources of the HKHA (the special condition that the net assets limits for a 1-person to 3-persons household with all members aged over 55 is treated the same as that of a 4-persons household does not apply in this criterion).
6. Tenants, who are eligible for registration on the Application for PRH of the HKHA, must make the application accordingly.
7. Allocation of re-housing unit is governed by the prevailing policy of the URA on household composition.

(III) Ex-gratia Removal Allowance

1. Domestic tenants who accepted rehousing arrangement will be offered an ex-gratia removal allowance. These allowances are in line with the HKHA's rates. Tenants will be informed of the allowance receivable individually according to their household size and the prevailing rates.

(IV) Compassionate Re-housing

1. Domestic tenants who do not fulfill the above rehousing eligibility criteria may be re-housed on compassionate grounds if they have genuine hardship arising from factors such as ill health, disability or special family circumstances.

(B) Ex-gratia Allowances

(I) Domestic Tenants

1. According to Landlord and Tenant (Consolidation) Ordinance, domestic tenants are required to move out from the properties and are not entitled to any compensation or forms of payments if their tenancies are terminated and are not renewed. However, for tenants of the URA acquired properties who decline re-housing as described in Part (A) above or who are not provided re-housing due to various reasons and agreed to move out from the properties, the URA will still offer to them an appropriate amount of ex-gratia allowances as described below.

Tenants who commenced occupying the properties before the date of Freezing Survey

2. Subject to the exceptions described in Paragraph 4 below, the URA will offer an ex-gratia allowance to tenants who had commenced occupying the properties under valid tenancies before the date of Freezing Survey. Based on the rateable value of the properties concerned, the ex-gratia allowance is calculated according to the method as listed in Table 1 below:

Table 1

| Rateable Value ("RV") | Ex-gratia Allowance |
|--------------------------------------|---------------------|
| 1 st HK\$10,000 | 9 times RV |
| 2 nd HK\$10,000 | 8 times RV |
| 3 rd HK\$10,000 | 7 times RV |
| 4 th HK\$10,000 | 6 times RV |
| 5 th HK\$10,000 | 5 times RV |
| 6 th HK\$10,000 | 4 times RV |
| 7 th HK\$10,000 | 3 times RV |
| 8 th HK\$10,000 | 2 times RV |
| 9 th HK\$10,000 and above | 1 times RV |

3. Subject to the exceptions described in Paragraph 4 below, the total amount of ex-gratia allowance is subject to a minimum amount of HK\$160,000 for an one-person household and a minimum amount of HK\$180,000 for a two-person or larger household. The minimum amount is subject to annual review.
4. The ex-gratia allowance described in Paragraph 2 above and the minimum amount described in Paragraph 3 above do not apply to tenants who,
 - (i) have alternative accommodation; or
 - (ii) are not genuinely residing in their properties within the project.

Tenants who fall under any of these circumstances will be offered an ex-gratia allowance equal to 3 times the prevailing ex-gratia allowance offered by the Lands Department on resumption by the Government ("Government EGA"). However, if the tenants are not legal Hong Kong residents holding valid Hong Kong Identity Card ("HKIC"), they will only be offered 2 times the Government EGA.

Tenants who commenced occupying the properties on or after the date of Freezing Survey

5. Subject to the exceptions described in Paragraph 6 below, the URA will only offer an ex-gratia allowance equal to 2 times Government EGA to tenants who had commenced occupying the properties under valid tenancies on or after the date of Freezing Survey.
6. The ex-gratia allowance described in Paragraph 5 above does not apply to tenants who,
 - (i) have alternative accommodation; or
 - (ii) are not genuinely residing in their properties within the project; or

- (iii) have received from the URA within two years prior to the date of Freezing Survey or at any time after the date of Freezing Survey any of the following allowances or arrangement: -
 - (a) allowances for owners of domestic properties but excluding the incidental cost allowance; or
 - (b) Ex-gratia allowances for domestic tenant being higher than Government EGA; or
 - (c) Relocation Assistance; or
 - (d) re-housing; or
- (iv) are not legal Hong Kong residents holding valid HKIC.

Tenants who fall under any of these circumstances will only be offered an ex-gratia allowance equal to 1 times Government EGA.

Principal Tenants

- 7. Subject to the exceptions described in Paragraph 8 below, for principal tenants who had commenced occupying their properties and whose tenancies commenced before the date of Freezing Survey, the URA will offer to them an ex-gratia allowance equal to the ex-gratia allowance described in Paragraph 2 above subject to a minimum amount described in Paragraph 3 above, plus an additional ex-gratia allowance equal to 24 months' profit rent (i.e. rent received from the sub-tenants after deduction of the rent payable by them to their landlords).
- 8. The ex-gratia allowance and minimum amount described in Paragraph 7 above does not apply to principal tenants who,
 - (i) have alternative accommodation; or
 - (ii) are not genuinely residing in their properties within the project.

Principal tenants who fall under any of these circumstances will be offered an ex-gratia allowance equal to 3 times Government EGA plus 24 months' profit rent. However, if the principal tenants are not legal Hong Kong residents holding valid HKIC, they will only be offered 2 times the Government EGA plus 24 months' profit rent.

- 9. Principal tenants occupying the properties and whose tenancies commenced on or after the date of Freezing Survey will be offered an ex-gratia allowance according to Paragraphs 5 or 6 above, whichever is applicable.
- 10. For those principal tenants who do not occupy their properties and whose tenancies commenced before the date of Freezing Survey, they will be offered a minimum amount of HK\$20,000 (amount is subject to annual review), or 24 months' profit rent, whichever is the higher. No ex-gratia

allowance will be offered to principal tenants whose tenancies commenced on or after the date of Freezing Survey.

11. Principal tenants will be offered rental reduction from the URA. Where any sub-tenant surrenders his leased portion to the URA before the principal tenant delivers vacant possession, the rent payable by principal tenant will be reduced accordingly.

(II) Non-domestic Tenants (Other than Tenants of Industrial Premises)

Ex-gratia Allowance

1. According to the Landlord and Tenant (Consolidation) Ordinance, non-domestic tenants are required to move out from their properties and are not entitled to any compensation or other payments if their tenancies are terminated and are not renewed. However, the URA will still offer an ex-gratia allowance equals to 3 times the RV of the affected properties to non-domestic tenants (other than tenants of industrial premises) who agreed to move out from their properties.
2. In addition to the ex-gratia allowance described in Paragraph 1 above, additional payment of ex-gratia business allowance ("EGBA") is payable to any tenant-operator of non-domestic property (other than tenants of industrial premises) who had commenced occupying their properties for business use before the date of Freezing Survey and have accepted the ex-gratia allowance offer from the URA both unconditionally and within the validity period of the offer and agreed to move out from their properties. The amount is directly proportional to the number of years of continuous operation by the tenant-operator as business owner in the property. In calculating the number of years of continuous operation, the expiry date of continuous operation is 2 years from the date which the URA issues initial acquisition offers to property owners. The amount of EGBA is payable at a rate of 0.1 times the RV for each year, subject to a maximum of 30 years. For an incomplete year, the amount of EGBA is calculated on a pro-rata basis to the nearest month. The amount of EGBA is subject to a maximum amount of \$700,000 and a minimum amount as described in Table 2 below.

Table 2

| Years of Continuous Operation | Minimum EGBA |
|--|--|
| 10 years or less | HK\$110,000 (amount is subject to annual review) |
| More than 10 years (maximum of 30 years) | Additional HK\$10,000 for each completed year |

3. In the application for EGBA, the Tenant-operator is required to substantiate the period of continuous operation in the property as business owner. "Tenant-operator" here means a tenant who occupies his property, which is a legal premises, for his own business.
4. A tenant-operator may choose to claim for business loss as an alternative to the above two allowances (if applicable).

(C) Payment Arrangement

1. All applicable allowance mentioned above, half will be paid upon the execution of surrender agreement and the remaining half will be paid after the delivery of vacant possession.

(D) Other General Rules

1. Trespassers occupying properties (domestic or non-domestic) in the project, who move in on or after the date of Freezing Survey, will be required to move out without any allowance or re-housing.
2. In cases where the property is occupied for domestic and non-domestic uses simultaneously, the URA will determine whether the tenancy is domestic or non-domestic in accordance with the provisions of the Landlord and Tenant (Consolidation) Ordinance.
3. If tenants (domestic or non-domestic) refuse to accept ex-gratia allowance or re-housing offer or execute surrender documents, the URA will recover vacant possession of their properties in accordance with the laws.
4. Domestic tenants whose tenancy commenced before the date of Freezing Survey and who was requested by their landlord to move out from the affected properties due to the expiry or termination of their tenancies before the URA acquired the affected properties successfully and who are unable to receive the ex-gratia allowances according to Part (B)(I) (the "affected domestic tenants") can apply for the URA's "Domestic Tenants Compassionate Assistance Programme" ("DTCAP"). The affected

domestic tenants should submit application to the URA with tenancy agreement, rent receipts, termination notice served by the landlord to the affected domestic tenants and residential proof etc., at least 1 month before moving out from the affected properties, to facilitate the URA to conduct initial assessment on their eligibility of receiving Special Ex-gratia Allowance or Special Re-housing. The Special Ex-gratia Allowance is equal to the ex-gratia allowance described in Paragraph 2 and Paragraph 3 of Part (B)(I) above.

5. To become eligible for DTCAP, the affected domestic tenants should fulfill the following eligibility criteria:
- (i) they have been genuinely residing with valid tenancy in the affected properties before and since the date of Freezing Survey and have been genuinely residing in the affected properties for at least 6 months before moving out from the affected properties; and
 - (ii) they do not have alternative accommodation elsewhere; and
 - (iii) they are required to leave the affected properties not because of their breach of tenancy on their part; and
 - (iv) after the expiry of their tenancies, they have not refused to renew their tenancies due to unreasonable grounds and circumstances; and
 - (v) they have not received any compensation or other payment from their landlords for vacating the affected properties; and
 - (vi) they are legal Hong Kong residents holding valid HKIC; and
 - (vii) their landlords have not served the termination notice to them before the date of Freezing Survey; and
 - (viii) they have registered on the Application for PRH of the HKHA; and
 - (ix) if Special Re-housing is to be offered, they have to fulfill the eligibility criteria of PRH laid down by the HKHA and/or HKHS or of URA re-housing.

Tenants who moved in on or after the date of Freezing Survey are not eligible for DTCAP.

6. If the affected domestic tenants are eligible for DTCAP, the URA will pay Special Ex-gratia Removal Allowance in advance. The amount is equal to the ex-gratia removal allowance as described in Part (A)(III) above. The pre-paid amount will be deducted from the future payment of Special Ex-gratia Allowance.

After completion of the acquisition or government resumption of the affected properties, the URA will assess the eligibility of the affected domestic tenants in receiving the Special Ex-gratia Allowance or Special Re-housing.

Appendix 3
(URAO Project)

7. Domestic tenants, who undergo the same situation as mentioned in Paragraph 4 above and are not eligible for DTCAP, can apply for the URA's Relocation Assistance. The affected domestic tenants must fulfill the eligibility criteria mentioned in items (i) to (vi) of Paragraph 5 above, and should submit application and provide sufficient evidence to the URA at least 1 month before moving out from the affected properties for URA's verification and assessment.
8. The URA will pay Relocation Assistance to the affected domestic tenants after they have moved out from the affected properties. Affected domestic tenants who have received Relocation Assistance are not eligible to apply for DTCAP described in Paragraph 4 above in the same project.
9. Domestic tenants who opt for receiving any ex-gratia allowance of a total amount more than 1 times the Government EGA (but excluding the 24 months' profit rent) or Relocation Assistance as described in Paragraph 7 above have to agree to give up their rights to public housing assistance for the next 2 years. Such tenants are only allowed to submit fresh applications for PRH and other public housing assistance after the expiry of the 2-years period.
10. Non-domestic tenant-operator (except tenants of industrial premises) whose tenancy commenced before the date of Freezing Survey and who was requested by their landlord to move out from the affected properties due to the expiry or termination of their tenancies before the URA acquired the affected properties successfully and moving out from the affected non-domestic properties after the date of Freezing Survey and who are unable to receive the ex-gratia allowances according to Part (B)(II) (the "affected non-domestic tenants") can apply for the URA's Special EGBA. The amount is equal to EGBA as described in Paragraph 2 of Part (B)(II) above. The affected non-domestic tenants should provide sufficient evidence of business operation, including tenancy agreements, rental receipts, termination notice served by their landlord and other relevant documents, at least 1 month before moving out from the affected non-domestic properties, to facilitate the URA to conduct initial assessment on their eligibility of receiving Special EGBA.
11. To become eligible for Special EGBA, the affected non-domestic tenants should fulfill the following criteria:
 - (i) they are operating in a legal premises; and
 - (ii) they have commenced operating business in the affected properties with valid tenancy before and since the date of Freezing Survey and have been in operation for at least 6 months before moving out from the affected properties; and
 - (iii) they are required to leave the affected properties not because of his/her breach of tenancy terms; and

- (iv) the tenancy is terminated or not renewed by the landlord and they have not terminated the tenancy early at their own will; and
- (v) they have received no compensation or other payment from their landlord for vacating the affected properties; and
- (vi) after the expiry of the tenancy, they have not refused to renew their tenancy due to unreasonable grounds and circumstances.

After completion of the acquisition or government resumption of the affected properties, the URA will assess the eligibility of the affected non-domestic tenants in receiving the Special EGBA.

12. The URA has drawn to the attention of landlords whose properties had been tenanted out on the date of Freezing Survey that the URA will not consider making a higher offer to them to acquire their properties in the following situations: -
 - (i) properties being left vacant; or
 - (ii) landlords entering into new tenancies, whether with the existing tenants or new tenants; or
 - (iii) landlords occupying their properties for their own use.
13. The URA would remind landlords / tenants that it is an offence for landlords to unlawfully deprive a tenant of occupation of property or to make an unwarranted demand with menaces with a view to gain for himself or others or to defraud against the URA. The URA will report to the enforcement authorities on all cases of suspected criminal offences.
14. The information contained in this leaflet applies to projects announced by the URA under the URAO only (i.e. not applicable to tenants of industrial premises). The URA reserves the right to adopt different policies and procedures for its other projects.
15. The principles for rehousing and ex-gratia allowance contained in this leaflet applies to the following types of tenants only:
 - (i) tenants who are, on 13 June 2017, still in occupation of the relevant property in redevelopment projects which have been published for implementation under the URAO and acquisition has already commenced before 13 June 2017; and
 - (ii) tenants of property in redevelopment projects which have been published for implementation under the URAO before 13 June 2017 but acquisition has not yet commenced; and
 - (iii) tenants of property in redevelopment projects to be published for implementation under the URAO after 13 June 2017.

This leaflet is issued for the purpose of general reference only. The information contained herein is with reference to the principles and practice of the Urban Renewal Authority prevailing at the date of issue of this leaflet. It shall not constitute any representation on the part of the Urban Renewal Authority or give rise to any expectation whatsoever and shall not be relied on as such. Each case will be considered on its own merits having regard to all factors and circumstances. The terms of re-housing and/or ex-gratia allowance to be offered are subject to the principles and practice of the Urban Renewal Authority prevailing at the time the offer of re-housing and/or ex-gratia allowance is made and are subject to review from time to time as the Urban Renewal Authority shall at its absolute discretion consider appropriate. The Urban Renewal Authority's right to add to, amend or delete the whole or any part of this leaflet is hereby reserved.

For enquiries, please call URA External Relations Department:
Hotline: 2588 2333
Fax: 2827 0176
Address: 26/F, COSCO Tower, 183 Queen's Road Central, Hong Kong

June 2017



Our Ref: PDD/C&W-006/18042161

By Hand

2 May 2018

Secretary to the Town Planning Board
15/F North Point Government Offices
333 Java Road, North Point,
Hong Kong.

Dear Sir/ Madam,

**Submission of Stage 2 Social Impact Assessment Report
for the Urban Renewal Authority
Queen's Road West/ In Ku Lane Development Scheme (C&W-006)**

We refer to the captioned Development Scheme which was commenced on 16 March 2018 and the draft Development Scheme Plan submission (DSP) was made to Town Planning Board (TPB) on the same date.

In accordance with the Gazette Notice published on 16 March 2018, the URA will submit a Stage 2 Social Impact Assessment (SIA) Report to the TPB as part of the submission.

We enclose a total of 90 English copies of the Stage 2 SIA report for your use and consideration. In addition, 10 Chinese copies are submitted to facilitate the public inspection. As stated in the Gazette Notice, the Stage 2 SIA Report shall be made for public inspection at the two Planning Enquiry Counters from the date as determined by the TPB. In addition, the report in both Chinese and English is uploaded to URA website at: www.ura.org.hk for public inspection until the TPB considers the DSP at its meeting.

Should you have any enquiry on the submission, please feel free to contact our Ms. Mable Kwan at 2588 2752. Thank you very much.

Yours sincerely,

Mike Kwan
General Manager, Planning and Design



Encl.

c.c.: (w/o encl. – by fax)
DPO/HK, PlanD (Attn: Mr. Louis Kau) (Fax No.: 2895 3957)



Queen's Road West / In Ku Lane

Development Scheme (C&W-006)



Stage 2 Social Impact Assessment

May 2018

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Appendix 1 : Non-Domestic Ground Floor Premises within the Scheme Area

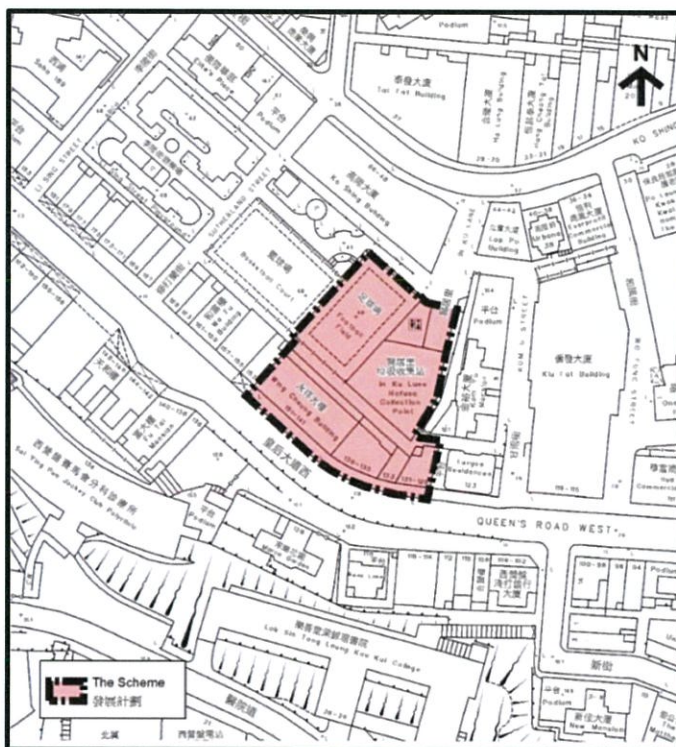
1. INTRODUCTION

- 1.1 The new Urban Renewal Strategy (URS) issued by the Government in February 2011 states that the Urban Renewal Authority (URA) will carry out Social Impact Assessment (SIA) studies in the form of *"a Stage 1 social impact assessment before the publication of any proposed redevelopment project in the Government Gazette"*, and *"a Stage 2 social impact assessment after the proposed project has been published in the Government Gazette"*.
- 1.2 URA published in the Government Gazette the commencement of the Queen's Road West / In Ku Lane Development Scheme C&W-006 (the Scheme) on 16 March 2018. On the same day the Stage 1 SIA was submitted to the Town Planning Board. This Stage 2 SIA report is based on the factual data and opinions collected as part of the freezing survey for this Scheme conducted from 16 March 2018 to 18 March 2018, and from the follow-up survey visits by appointments conducted up to 6 April 2018.
- 1.3 This report covers the elements listed in paragraph 37 of the URS for the affected residents, families and businesses within the Scheme, including:
- (a) the population characteristics of the residents affected by the proposed Scheme;
 - (b) the socio-economic characteristics of the affected residents;
 - (c) the rehousing needs of the affected tenants;
 - (d) the relocation needs of the affected shop operators;
 - (e) the housing preferences of the affected owners and tenants;
 - (f) the employment status of the affected owners and tenants;
 - (g) the place of work of the affected owners and tenants;
 - (h) the social networks of the affected owners and tenants;
 - (i) the educational needs of children of the affected families;
 - (j) the special needs of the elderly;
 - (k) the special needs of the disabled;
 - (l) the special needs of single-parent families, particularly those with small children;
 - (m) a detailed assessment of the potential social impact of the proposed Scheme; and
 - (n) a detailed assessment of the mitigation measures required.
- 1.4 The Christian Family Service Centre has been commissioned by the Urban Renewal Fund to act as the Social Service Team (SST) for this Scheme. They are tasked to provide assistance and advice to residents and operators affected by the Scheme. Cases requesting assistance and those identified in the course of the SIA analysis as requiring assistance have been referred to the SST for their follow-up action.

2. BACKGROUND

- 2.1 The proposed Development Scheme (the Scheme) comprises buildings located at Nos.129-151 Queen's Road West (odd nos.) with 4 to 6-storey high built between 1966 and 1969 and are not equipped with lifts, together with a 5-a-side soccer pitch (part of the Li Sing Street Playground) and the In Ku Lane Refuse Collection Point (RCP) cum public toilet. (**Figure 2.1**)

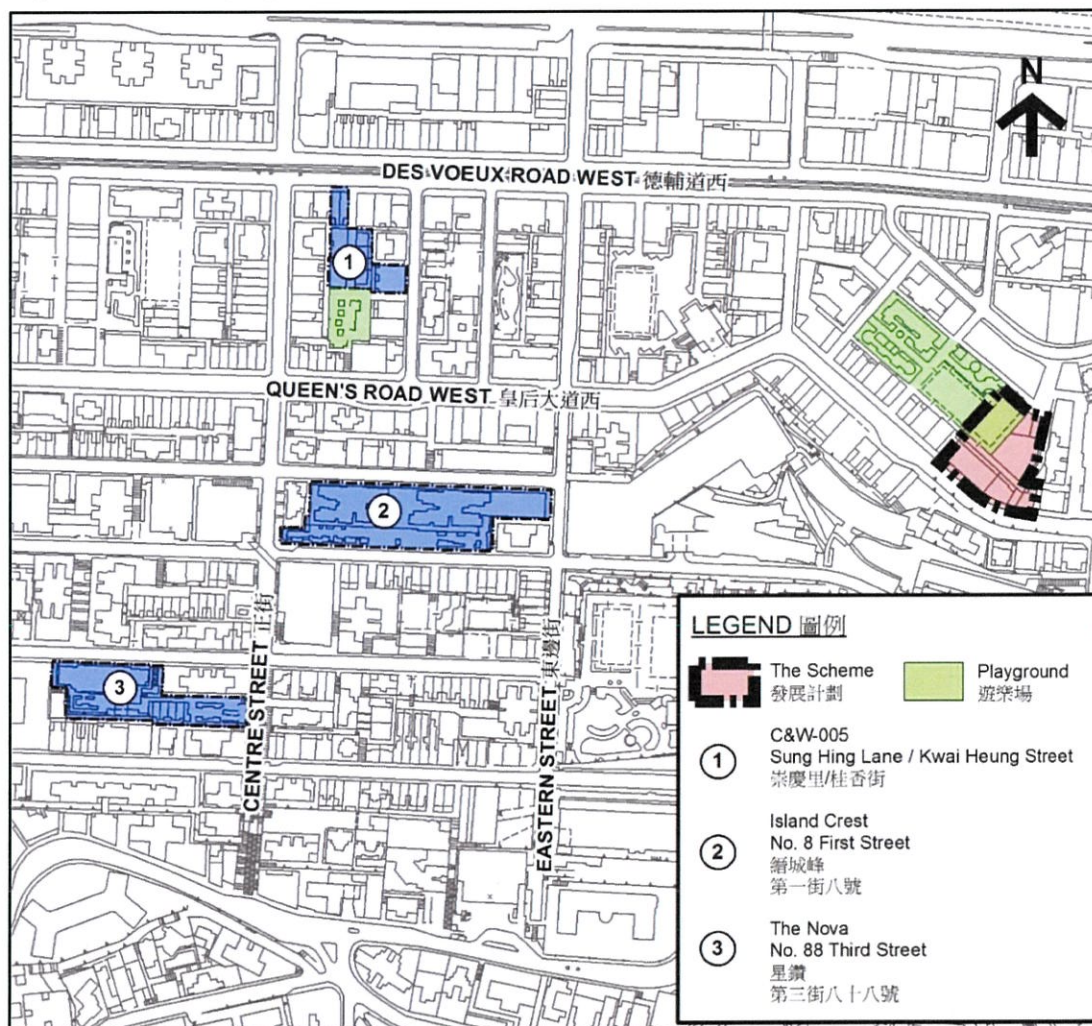
Figure 2.1 Location Plan



- 2.2 The Scheme is broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and No. 153 Queen's Road West and Li Sing Street Playground (the Playground) to the west. It covers an area of about 2,046 m², which includes the 5-a-side soccer pitch and the pavement where the affected buildings overhang. Both will be excluded from plot ratio calculation. Subject to detailed design, the net site area for plot ratio calculation is about 1,318 m².
- 2.3 The Scheme intends to open up the land-locked open space through reconfiguration of various land uses. A new public open space of about 538 square metres connecting Queen's Road West and In Ku Lane will be provided, enhancing greatly the accessibility and connectivity of the playground, and hence, better utilisation of the open space with improved neighbourhood walkability. The existing In Ku Lane Refuse Collection Point cum public toilet, which will be re-provisioned in-situ and integrated within the future development, will be upgraded with better serviceability.

- 2.4 There are two completed URA redevelopment projects in proximity to the Scheme, i.e. 'Island Crest' (縉城峰) at No. 8 First Street, and 'The Nova' (星鑽) at No. 88 Third Street, both located to the southwest of the Scheme. In July 2017, URA also commenced the Sung Hing Lane / Kwai Heung Street Development Project (C&W-005) to the west of the Scheme (**Figure 2.2**), which is also serving to enhance the connectivity of the land-locked open space, Sung Hing Lane Children's Playground, and to improve the built environment and the accessibility in the area for the community benefits.

Figure 2.2 URA projects in the vicinity



Distribution of Units and Households

- 2.5 According to the approved General Building Plans (GBP) for the buildings within the Scheme, there are 50 units at upper floors for domestic uses. As such, a total of 50 domestic units will be adopted as the original GBP units for this Social Impact Assessment (SIA) report; whilst the results of the Freezing Survey (FS) will reflect the current occupancy status within the Scheme.
- 2.6 The FS successfully surveyed 38 domestic households (up to 6 April 2018). The detailed breakdowns and the unsurveyed units will be illustrated in Section 3. The total of 38 households will form the basis for the assessment in Sections 4 to 10. All the 38 successfully surveyed households have answered both FS and SIA forms. Those who refused to answer particular questions in the SIA questionnaire or had chosen "no response" in particular questions, will be categorized as "Nil Response" in the report. **Table 2.1** shows the results of FS and SIA surveys within the Scheme.

Table 2.1 Results of FS and SIA surveys within the Scheme

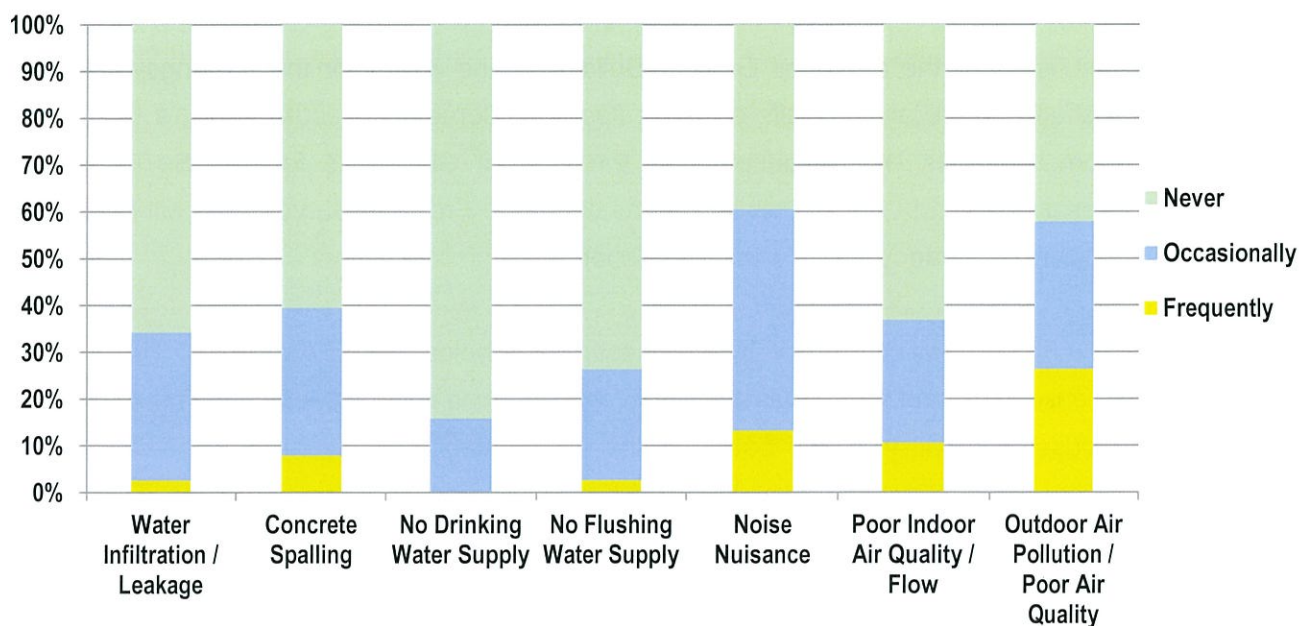
| | No. of Households |
|---|-------------------|
| Total No. of surveyed households | 38 |
| Successfully responded to both FS (successfully surveyed) and SIA questionnaire (successfully interviewed). | 38 |

Business Operators and Non-domestic Premises

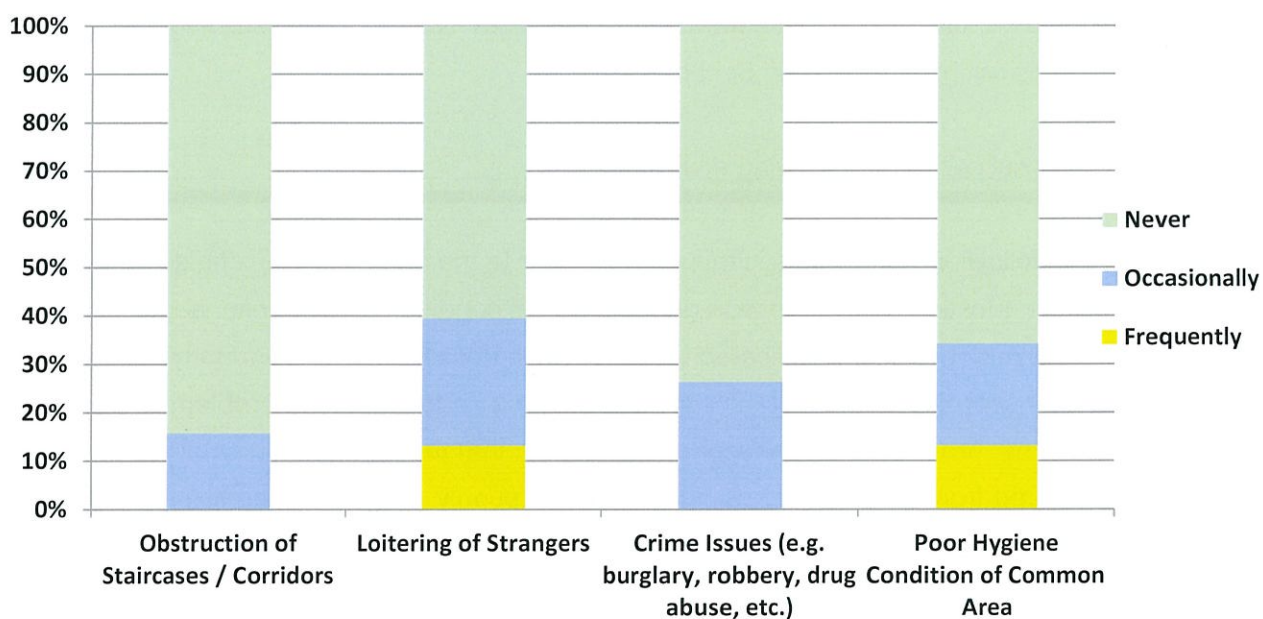
- 2.7 Regarding non-domestic uses, the FS successfully surveyed 12 operators (up to 6 April 2018) occupying 13 premises (including 11 ground floor premises, 1 upper floor domestic unit and 1 basement unit (suspected Unauthorized Building Works). The details will be illustrated in Section 11.

Physical condition and living environment

- 2.8 The following paragraphs in this Section refer to the domestic households. In response to the question on their opinion on the physical condition of their units, about 34% of the surveyed households indicated that their units occasionally or frequently suffered from water seepage and about 39% indicated the same frequency of problem with concrete spalling. Around 26% of households indicated that their units occasionally or frequently suffered from problems of no flushing water supply. Regarding the living environment within the units, 60%, 37% and 58% of the respondents indicated that they occasionally or frequently suffered from problems of noise nuisance, poor indoor and outdoor air quality respectively. **Figure 2.3** shows the opinions of the surveyed households on the physical condition and the living environment within their units.

Figure 2.3 Opinions on the Physical Conditions and Living Environment of their Units

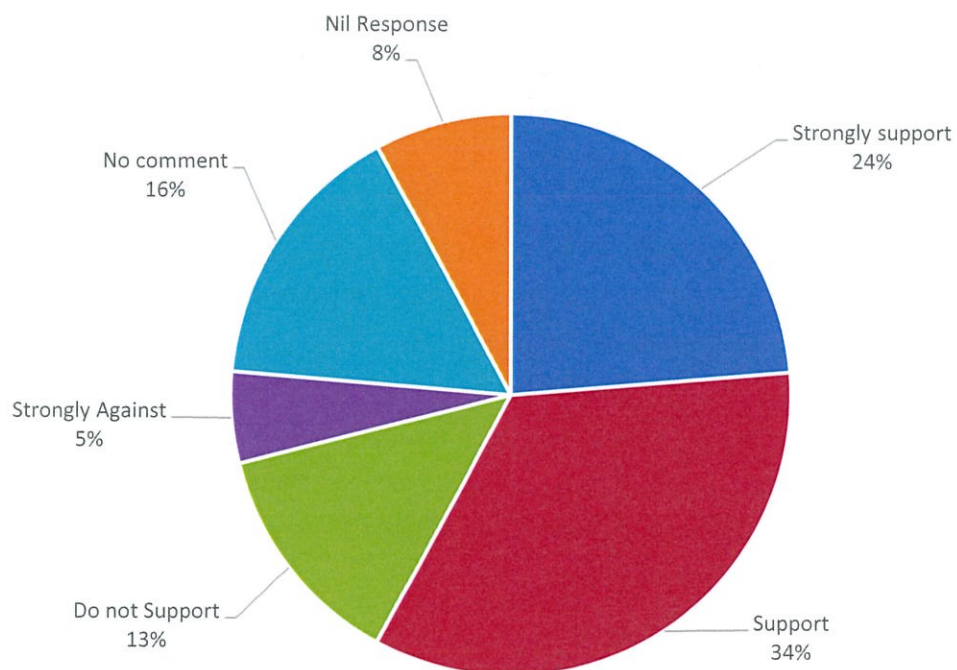
2.9 On the question of fire safety and hygiene concerns, about 16% of the surveyed households commented that they occasionally or frequently suffered from problem of obstruction of staircases / corridors. About 34% of households responded that they suffered of poor hygiene condition of common areas (e.g. in yards, staircases, corridors, etc). On security matters, about 39% and 26% of surveyed households expressed that they experienced occasionally or frequently loitering of strangers, and crime events, e.g. burglary, robbery, drug abuse, respectively. **Figure 2.4** shows the opinions of the surveyed households on the living environment of their units in terms of fire safety, hygiene and security issues.

Figure 2.4 Opinions on the Living Environment of their Units

Views on redevelopment

- 2.10 Of the total 38 households, 22 households (about 58%) of respondents support or strongly support the redevelopment. Six (6) households (about 16%) had no comment, and 7 households (around 18%) did not support or strongly against the redevelopment (Figure 2.5).

Figure 2.5 Domestic Households' Views on Redevelopment (38 Households)



3. POPULATION & HOUSEHOLD CHARACTERISTICS

- 3.1 Except stated otherwise, the territorial average numbers used for comparison in this report is based on the 2016 Population By-census, which is the latest available results published by the Census and Statistics Department; and the assessments will be based on the latest available information for comparison where appropriate.
- 3.2 The total number of households and population surveyed within the Scheme is 38 households and 90 persons. It results in an average household size of 2.4 persons. It reflects a lower average household size in the Scheme as compared to the territorial average of 2.8 person per household. This lower than average household size may be due to the presence of relatively large number of singletons and doubletons (25 households), which account for about 66% of the total number of households in the Project. This percentage is higher than the territorial level of 45% according to the 2016 Population By-census
- 3.3 Of the 50 original GBP domestic units, only 2 units were found to be sub-divided into 7 self-contained units. In addition, 2 cubicles (sharing toilet and kitchen) were found in 1 unit and 2 households were inhabiting in this unit.
- 3.4 On the other hand, there is an upper floor premise designated as "office" for non-domestic use but found to be occupied for domestic use. **Table 3.1** shows the details of the sub-division of units for the domestic use. **Figure 3.1** shows the percentage of sub-division of approved GBP units of the Scheme.
- 3.5 Of the 50 original GBP domestic units, 36 units were successfully surveyed, together with the 1 non-domestic premise being used for domestic purpose, there is a total of 37 units. These 37 units were found to be subdivided into 42 units and comprising 38 households, the degree of sharing (or the "average number of domestic households per unit of quarters") in the Scheme is 0.9 (38 households / 42 living units), which is lower than the territory-wide average of 1.0 for private permanent housing in the 2016 Population By-census .

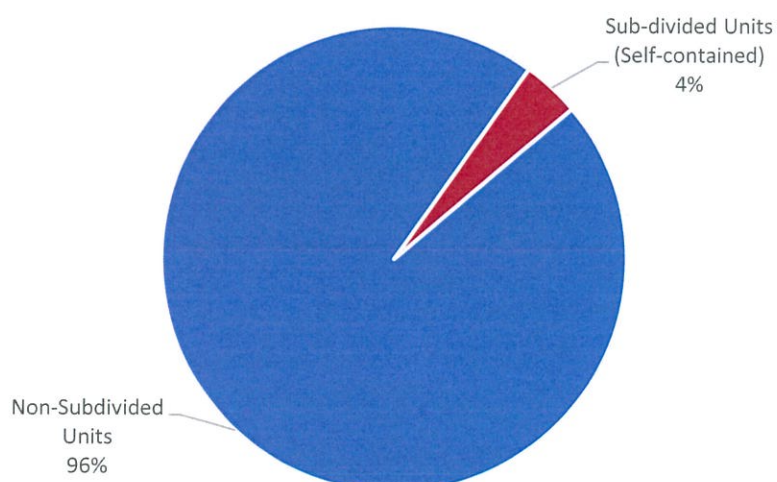
Table 3.1 Sub-division of domestic units

| | | | According to Original GBP | Actual Found | Households (for Domestic use only) |
|----------|--|--|------------------------------|-------------------|---------------------------------------|
| Surveyed | Non-Subdivided | Surveyed units for Domestic use | 33 | 33 | 33 |
| | | Surveyed units for Domestic use (cubicle) | 1 | 1 (2 cubicles) | 2 * |
| | Sub-divided | Surveyed units for Domestic use (self-contained units with independent facilities) | 2 | 7 | 2 ** |
| | Sub-total | | 36 | 41 | 37 |
| | Non-domestic units (office) used for Domestic purpose: | | N/A | 1 | 1 |
| | Surveyed Domestic units (according to GBP) used for Non-domestic use | | 1 | N/A | N/A |
| | Sub-total | | 37 | 42 | 38 |
| | | Unsurvey Domestic Unit | | 13 *** | - |
| | Total No. of Units for Domestic use found in the Scheme | | 50 | - | - |

REMARKS: * 2 households live in 2 cubicles in 1 GBP unit.

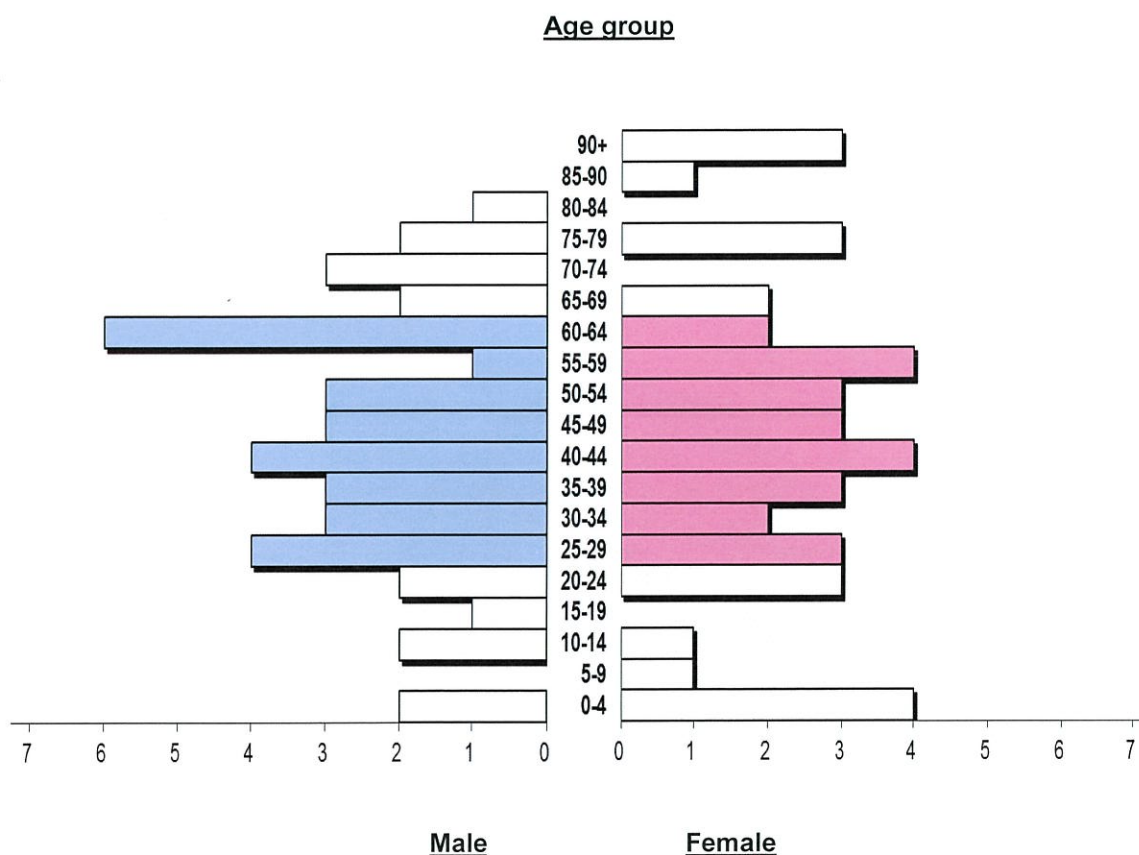
** 5 Sub-divided units are of no contact / refused to be surveyed.

*** 13 original GBP units are of no contact / refused to be surveyed.

Figure 3.1 Percentage of Sub-division of Approved General Building Plans (GBP) units

- 3.6 A total of 90 residents were recorded in the Freezing Survey, 47 were male and 43 were female. There are 6 residents did not provide age information. The distribution gives a ratio of about 93 female residents to every 100 male residents.
- 3.7 Among the 84 residents who provided both gender and age information, the economically active age group of 25 to 64 is the majority (about 61%) of the total population. Percentage of persons in this age group is lower than the corresponding territory-wide level of 62%, while the youth age group of 15-24 (about 7%) is also lower than the territory-wide level of 11%. The age group of 0-14 (about 12%) is slightly higher than the corresponding territory-wide level of 11%. The elderly group, aged 65 or above, representing about 19% of the total population in the Scheme, is higher than the corresponding territory-wide level of 16%. The findings of the survey show that the number of children (10) is not particularly high in the total population. It is anticipated that the assistance required to support this more vulnerable group should be manageable. However the percentage share of the number of elderly is higher than the territory-wide level, the URA and the SST could offer assistance to those in need of help, in particular elderly with age 85 or above. **Figure 3.2** showed the age structure of the Scheme.

Figure 3.2 Age Structure

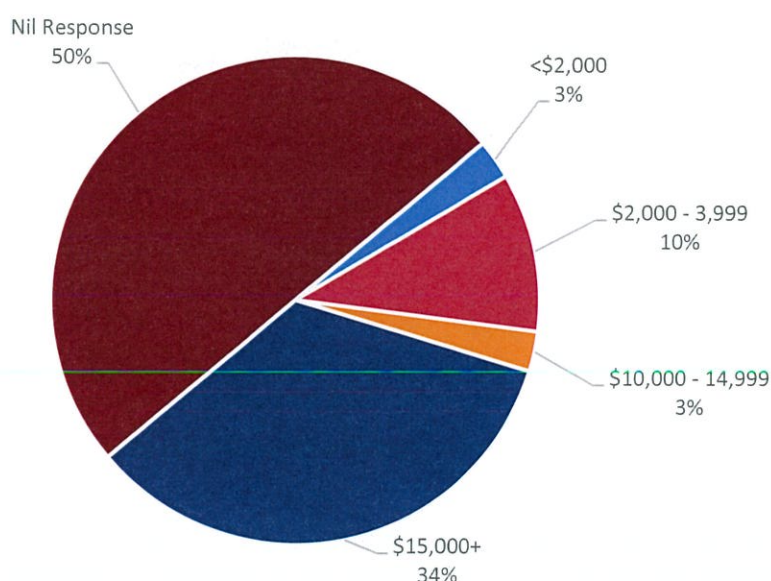


4. SOCIO-ECONOMIC CHARACTERISTICS

Income Level

- 4.1 From this Section onward to Section 10, the analysis will be based on 38 households and 90 residents surveyed (up to 6 April 2018) as the basis for analysis, where applicable. The monthly income of 19 households (50%) are recorded and analyzed and the remaining 19 households (50%) gave no response to this question. As shown in **Figure 4.1**, approximately 13% of the households have monthly income less than HK\$4,000 per month, which is higher than the territory-wide average of about 6% as reported in the 2016 Population By-census. A higher proportion of interviewed households (34%) have monthly income of more than HK\$15,000 per month.

Figure 4.1 Household Income (HK\$ per month)

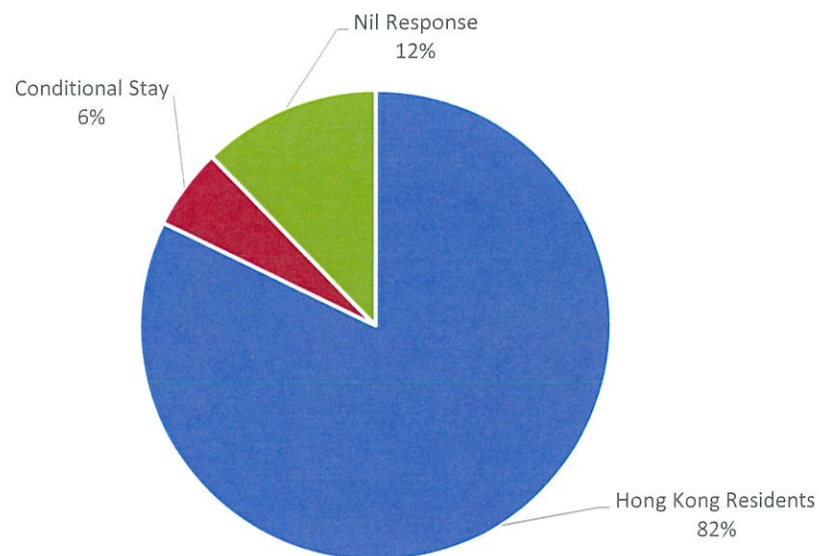


- 4.2 Out of the 38 households, none of the households was recorded as currently receiving Comprehensive Social Security Assistance (CSSA). 1 household did not answer this question. The URA and the SST could offer assistance to those in need of help and refer them to relevant services and practical assistance from various Government Departments and services providers.

Residence

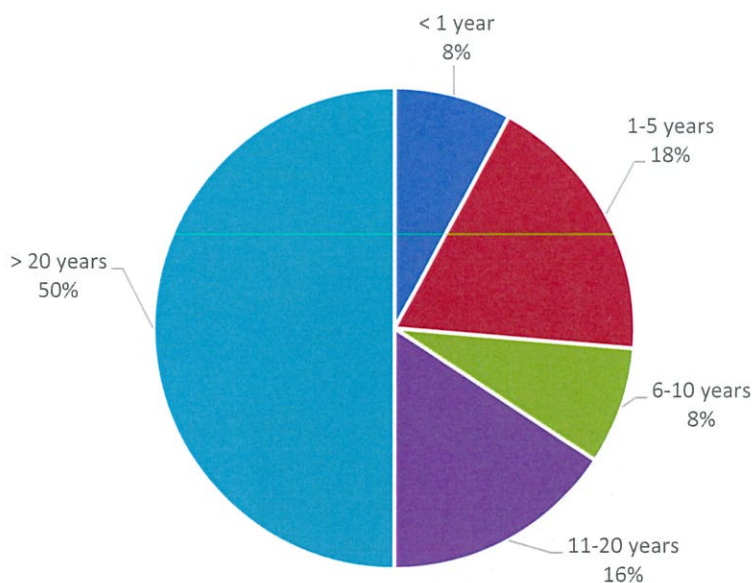
- 4.3 There were 5 out of 90 residents (about 6%) replied that they were subject to conditions of stay in Hong Kong, as shown in **Figure 4.2**. All the residents in this conditional stay group could not meet the eligibility criteria for public rental housing as applied by the Hong Kong Housing Authority (HKHA) and the Hong Kong Housing Society (HKHS). Subject to the merits of individual cases, some may be considered under special circumstances by the URA and the SST, and rehousing may be offered on genuine compassionate grounds. Assistance will also be provided, if requested, in finding potential suitable premises at affordable rent in the private market.

Figure 4.2 HKSAR Resident Status (total 90 residents)



- 4.4 As shown in **Figure 4.3**, 10 out of 38 households (26%) have lived in the Scheme for not more than 5 year, of which 3 households (8%) lived less than a year. Nineteen (19) households (about 50%) have lived within the Scheme for over 20 years, of which 9 households (about 47%) had elderly family members. This elderly group might find it more difficult to adjust to a new living environment. Please refer to **Figure 4.3** for the information of the remaining households. The assistance of the SST in providing orientation services and holding community gatherings will be important in helping these residents adapt to their new environment.

Figure 4.3 Period of Residence at Current Premises (total 38 households)

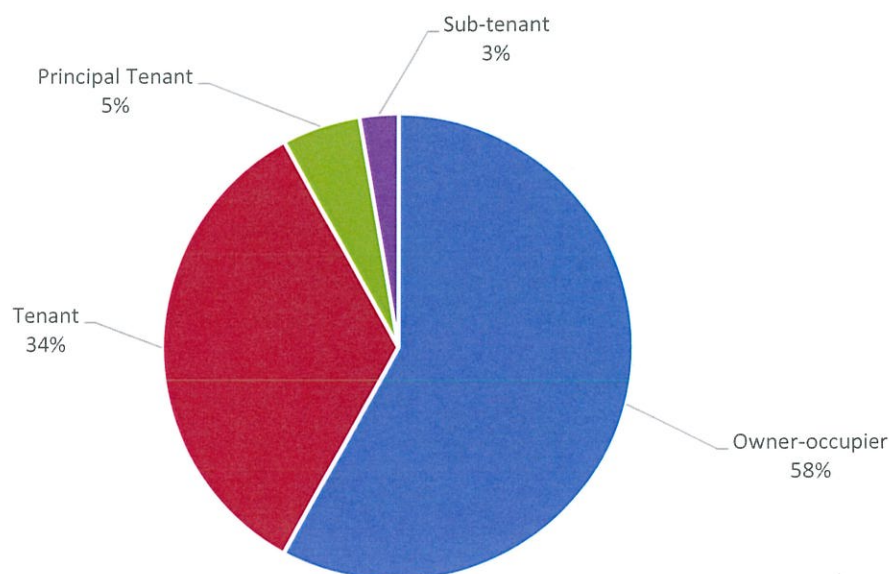


5. HOUSING

Re-housing Needs and Location Preference

- 5.1 Out of the 38 households, owner-occupiers accounted for about 58% (22 households)² of households in the survey (**Figure 5.1**). This rate of owner occupancy is higher than the territory-wide average of 48%. Tenants (including principal tenant and sub-tenant) accounted for about 42% of households surveyed (16 households). The tenants in the Scheme may generate a demand for rehousing services should the Scheme be approved by Chief Executive in Council (CE-in-C) for implementation and subject to their eligibility for rehousing. No household was found living on the rooftops. According to the approved GBP, the roof of all the buildings in the Scheme should be open roofs without approved domestic units.

Figure 5.1 Occupancy Status of Households (38 surveyed households)



Affected Owner-occupiers

- 5.2 Among the 22 surveyed owner-occupiers, 16 (about 73%) indicated their preference of finding alternative accommodations in the same district as where they are living, i.e. Central and Western District. Four (4) (about 18%) owner-occupiers responded that they had yet to decide. One (1) owner-occupiers responded that they would look for alternative accommodation in other districts, and 1 owner-occupier did not respond to the question.

² The actual occupancy status of the 22 owner-occupiers has not been verified. All responses related to owner-occupiers are based on the questionnaire surveys only.

- 5.3 Among the 22 surveyed owner-occupiers when looking for new accommodation, 13 owner-occupiers (about 59%) indicated that they would prefer to look for flats with comparable size to the present flat, 5 owner-occupiers (about 22%) preferred bigger flats, and 2 owner-occupiers (about 9%) preferred smaller flats. One (1) owner-occupier had not yet decided and 1 owner-occupier did not respond to the question.
- 5.4 Among the 22 surveyed owner-occupiers, none of them expressed intention to move to a flat of similar age or older than their existing premises. The majority (19 owner-occupiers or about 86%) preferred newer flats, and 1 owner-occupier preferred first-hand new flats, 1 owner-occupier prefers other building age but did not specify, and 1 owner-occupier did not respond to the question.
- 5.5 About 90% of the surveyed owner-occupiers wanted their alternative accommodation to be newer than the current abode. Subject to the authorization by the CE-in-C to implement the Scheme, URA will offer an owner-occupier of domestic property the market value, plus an ex-gratia allowance (namely home purchase allowance). It is believed that the affected owner-occupiers will be able to buy a newer flat of similar size in the same district. For those affected owner occupiers expressing their desire to move to a new flat, URA will offer 'Flat-for-Flat' (FFF) option for them to choose to buy a new flat in-situ or in the same district or at available site(s), as an additional option to cash compensation.

Affected Tenants

- 5.6 Out of the 16 tenant households surveyed, 7 households (about 44%) expressed their preference for moving into public rental housing, in which 6 of them preferred to choose Hong Kong Island, and only 1 preferred Kowloon West. The preference for Hong Kong Island is understandable. None expressed their preference for URA's rehousing blocks. Seven (7) households (about 44%) choose private housing whilst 1 choose other preference but did not specify the type of public housing and 1 had no response. However, as stated in **Paragraph 4.3** above, those residents who are subject to conditional stay may not be eligible for public rental housing. Rehousing may only be considered for very special circumstances and on compassionate grounds.

- 5.7 According to the agreement made between the URA and the Hong Kong Housing Authority (HKHA) and the Hong Kong Housing Society (HKHS), the HKHA and HKHS will provide flats within their estates for rehousing eligible tenants. The URA will liaise with HKHA and HKHS to reserve flats in available estates to cater for the potential demand. Subject to the availability of rehousing flats, the URA will endeavour to arrange allocation of rehousing flats for the eligible tenants in the same district (eg. Central and Western District) or adjacent districts (eg. Wan Chai, Eastern or Southern Districts) as far as practicable.

Affected Rooftop Residents

- 5.8 No rooftop residents were found within the Scheme.

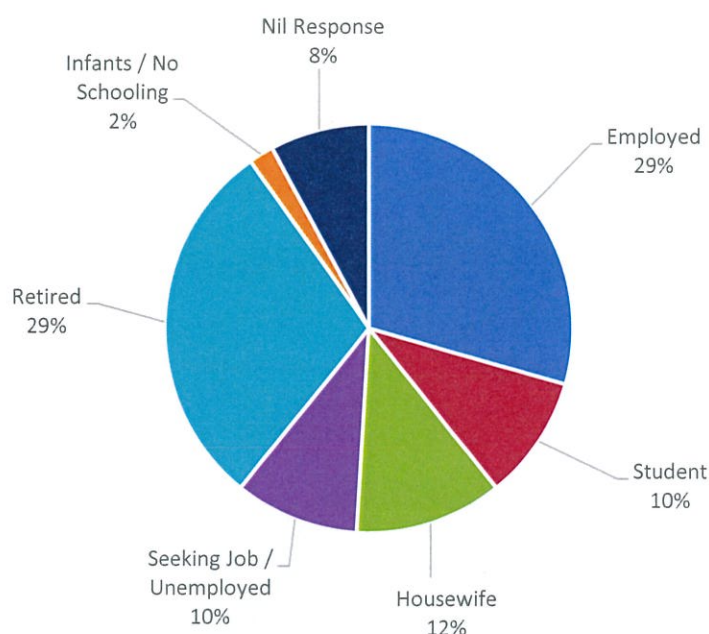
6. EMPLOYMENT STATUS AND PLACE OF WORK

6.1 Around 41% of the population (37 residents out of a total of 90 residents) within the Scheme was employed. Job seeking / unemployed persons (5) accounted for about 5%. The employment status of the affected owners and tenants are analyzed in paragraphs 6.2 to 6.7 below.

Affected Owner-occupiers (22 households)

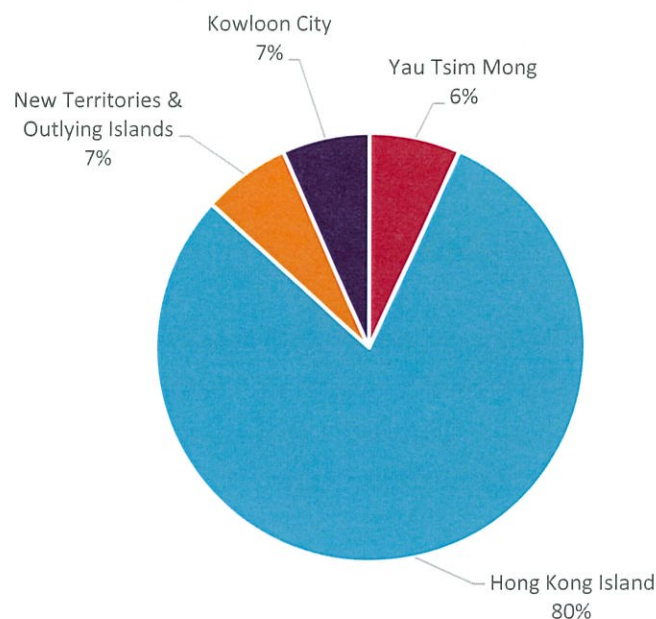
6.2 A total of 51 residents from the 22 owner-occupier households were recorded in the survey. About 29% (15) of this type of residents was employed, whereas about 10% (5) were job seeking / unemployed. **Figure 6.1** shows details of employment status of the family members of owner-occupier households.

Figure 6.1 Employment Status of Affected Owner-occupiers' Family Members (51 residents)



6.3 About 80% of the employed residents in the owner-occupier households were working in Hong Kong Island, in which 40% of them in Central and Western District. Around 7% in Kowloon City area, another 7% in the New Territories and Outlying Islands while 6% in Yau Tsim Mong. **Figure 6.2** shows the percentage share of different places of work of the employed persons of the owner-occupier households.

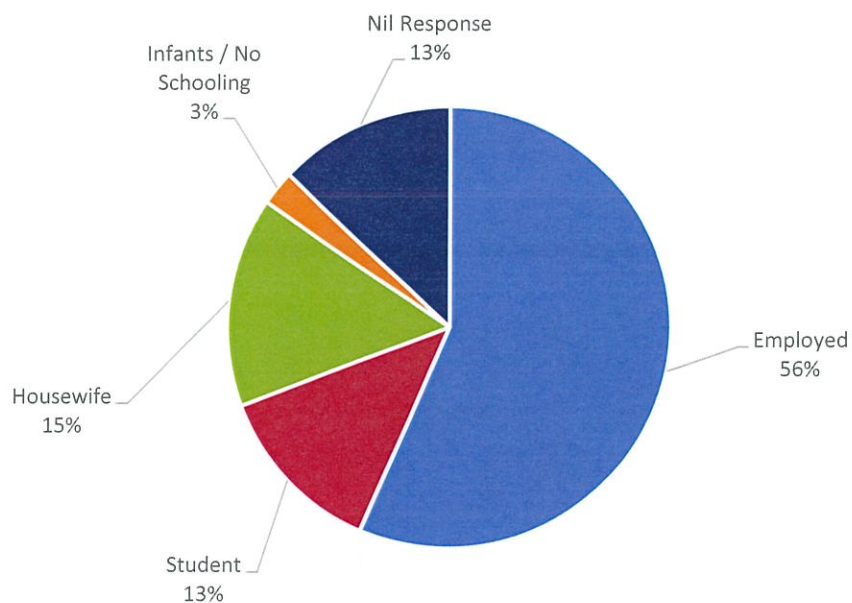
**Figure 6.2 Place of Work of Affected Owner-occupiers' Family Members
(51 residents)**



Affected Tenants (16 households)

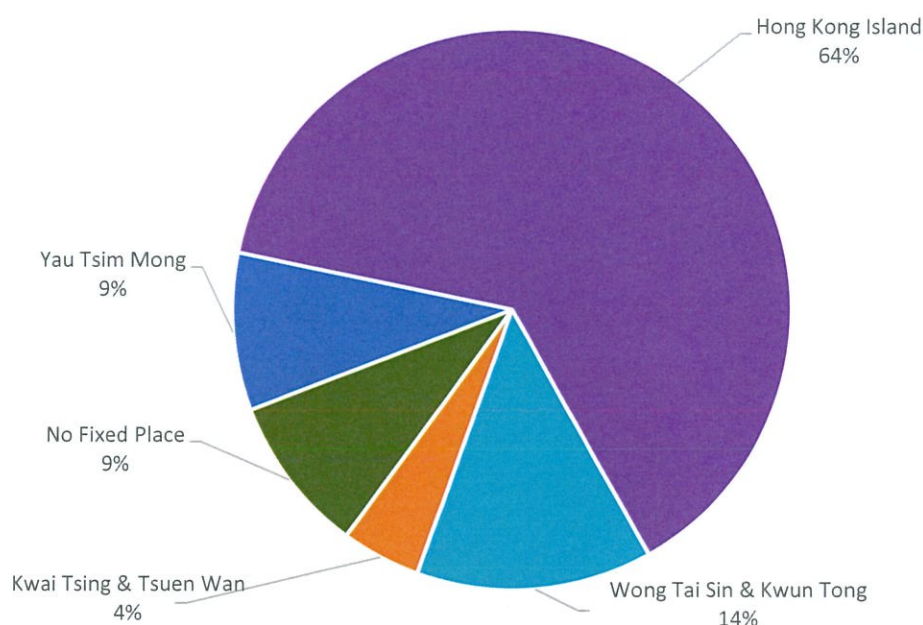
- 6.4 Among the 16 affected tenant households, there are 39 residents. In which, about 56% (22) had employment (**Figure 6.3**).

**Figure 6.3 Employment Status of Affected Tenants' Family Members
(39 residents)**



- 6.5 Among the 22 tenanted residents who were employees, about 64% were working in the Hong Kong Island, in which 55% were working in the Central and Western District and about 9% were working in the neighboring districts Wan Chai and Southern Districts. About 14% were working in Wong Tai Sin & Kwun Tong Districts, about 9% were working in the Yau Tsim Mong Districts and about 4% were working in the Kwai Tsing & Tsuen Wan Districts. About 9% of residents had no fixed location of work. **Figure 6.4** shows the places of work of the tenant residents.

Figure 6.4 Place of Work of Affected Tenants' Family Members (39 residents)



- 6.6 For those employee tenants who are working in Hong Kong Island, there would be economic concerns arising from higher transportation cost if they were to be relocated away from the Scheme area. The URA will endeavor to meet the locational preferences of residents for public rental housing from the HKHA and the HKHS subject to their eligibilities and the availability of flats at that time. The SST will investigate the needy cases as identified and depending on justifications, may make recommendations for rehousing on compassionate grounds.
- 6.7 The findings of the survey show that the unemployment rate of the family members of the owner-occupier households (10%), which is higher than the territory-wide figure of 2.9% [for the period from December 2017 to February 2018³]. There may be financial difficulty for this group of unemployed residents in the Scheme. If the Scheme is to be implemented, the eligible households will be subject to the URA's prevailing compensation policies.

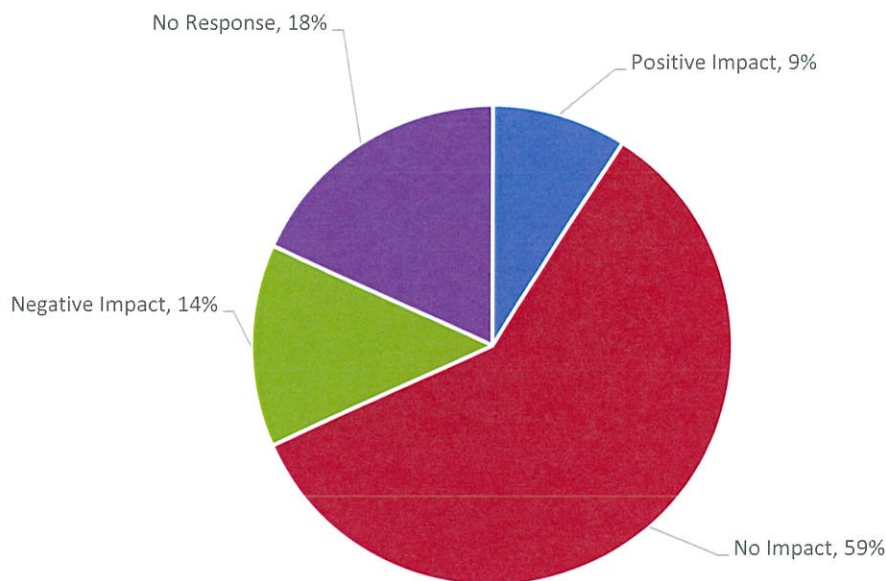
³ Information from website of Census and Statistic Department as of 19 March, 2018.

7. ECONOMIC AND EMPLOYMENT IMPACTS

Affected Owner-occupiers (22 households)

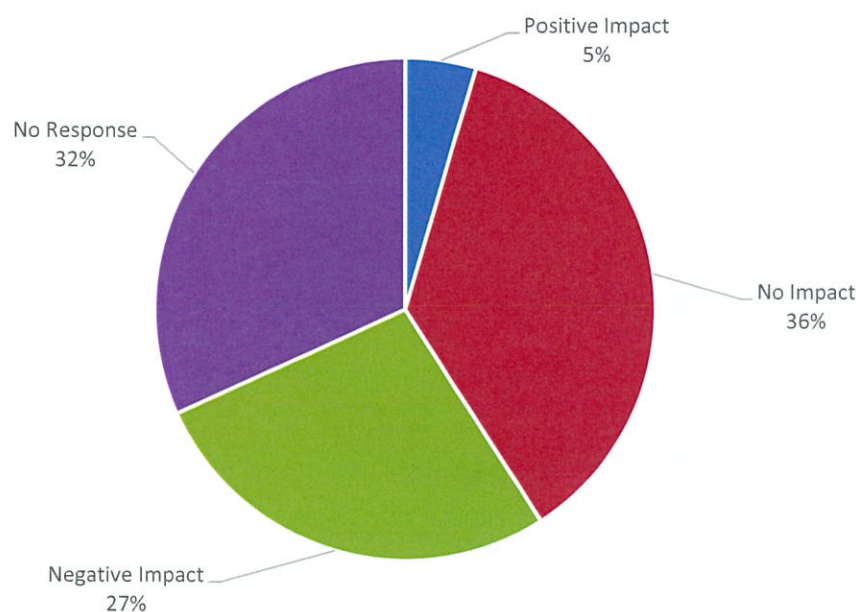
- 7.1 **Figure 7.1** summarizes the impact of the redevelopment on employment condition as anticipated by the 22 surveyed domestic owner-occupier households. Thirteen (13) households (about 59%) considered that it would have no impact and 2 households (about 9%) has positive impact. Three (3) households (about 14%) considered there would be negative impact whilst 4 households (about 18%) gave no response.

Figure 7.1 Impact on Employment to Affected Owner-occupiers (22 households)



- 7.2 The expected impact on family finances of the 22 interviewed owner-occupiers is summarized in **Figure 7.2**. One (1) household considered that there would be positive impact on their financial condition, 8 households (about 36%) considered that there would not be any impact, and 6 households (about 27%) expected negative impacts. The remaining 7 affected owner households (about 32%) gave no response to this question.

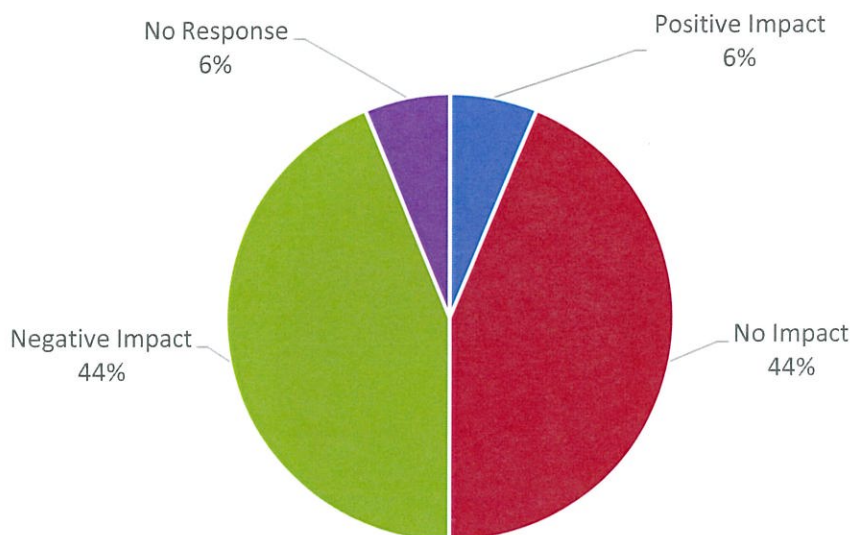
**Figure 7.2 Impact on Economic Condition to Affected Owner-occupiers
(22 households)**



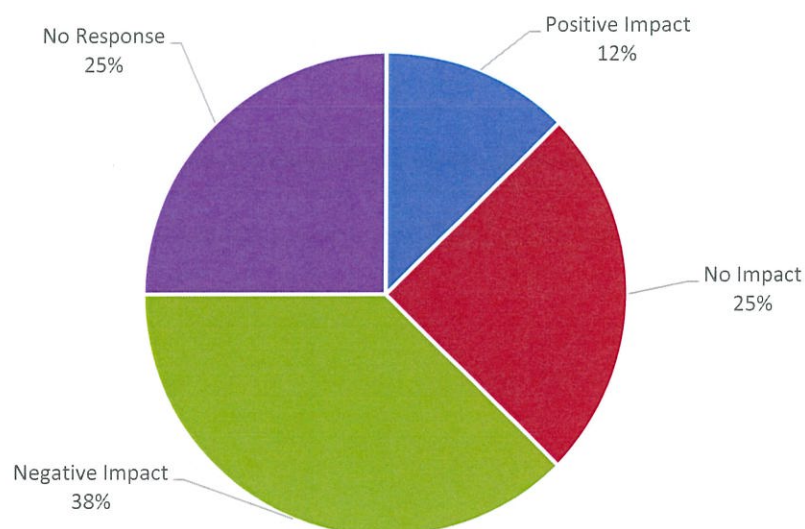
- 7.3 The 1 interviewed owner-occupier household expecting positive financial impact cited more savings and better cash flow as the major advantages. Among the 6 owner-occupier households who considered having negative impact, most of them cited more expenditure (e.g. management fee), less savings, less cash flow, and may lead to more debt burden (each household can express more than one concern) as the negative impacts resulting from the Scheme.

Affected Tenants (16 households)

- 7.4 The expected impact on employment condition as reflected by the 16 interviewed tenant households is summarized in **Figure 7.3**. One (1) household considered there would be positive impact to their employment whilst 7 households (about 44%) considered there would not be any impact. Seven (7) households (44%) expected negative impacts. Another 1 household gave no response to this question.

Figure 7.3 Impact on Employment to Affected Tenants (16 households)

7.5 The expected impact on family finance as reflected by interviewed tenants is summarized in **Figure 7.4**. Two (2) (about 12%) tenant households considered there would be positive impact to their finance condition due to the Scheme. Four (4) households (about 25%) considered there would not be any impact, whilst 6 households (about 38%) expected negative financial impact and 4 households (about 25%) gave no response to this question.

Figure 7.4 Impact on Economic Condition to Affected Tenants (16 households)

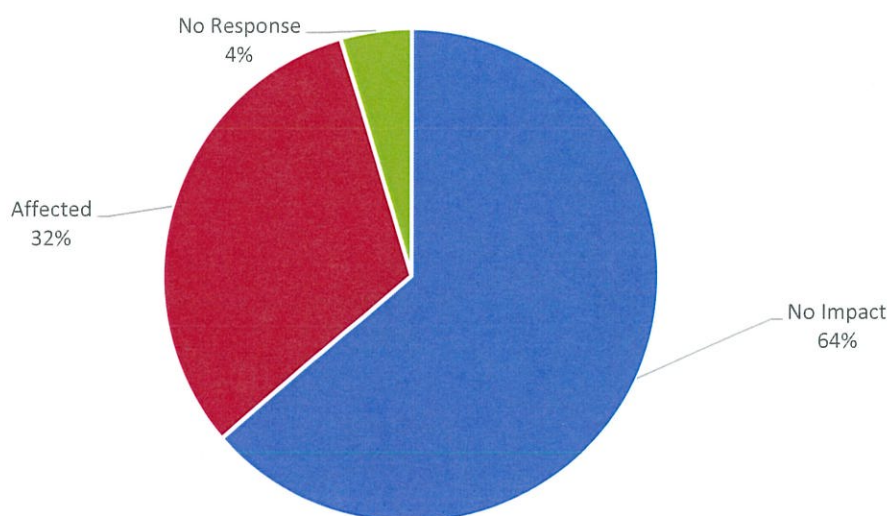
- 7.6 For those 6 interviewed tenant households which considered the proposed redevelopment project would have negative financial impact, all of them anticipated that their living expenditure would increase due to the Scheme. Two (2) tenant households anticipated that they would have less savings, 1 tenant household anticipated that they would have less cash flow and other concerns include the increase rent in the future (each household can express more than one concern).
- 7.7 After the Freezing Survey, URA has organised a public briefing session to the affected owners and tenants to explain the prevailing policies on compensation and rehousing to alleviate their concerns. If the Scheme is to be implemented, the eligible owner-occupier households and tenant households will be subject to the URA's prevailing compensation policies.

8. SOCIAL NETWORK

Affected Owners (22 households)

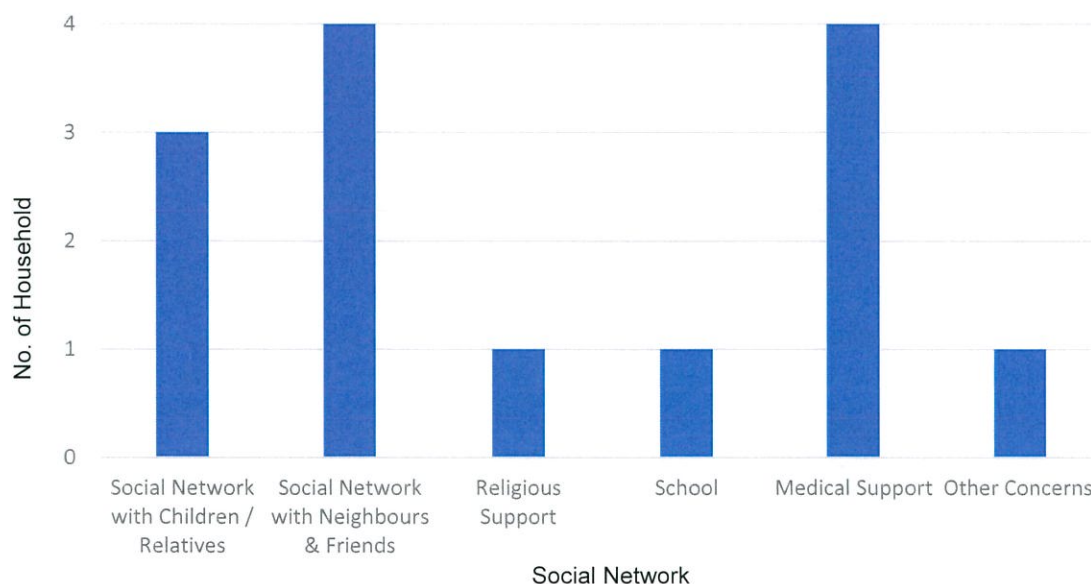
- 8.1 When asked about the likely impact of the proposed redevelopment on their social network, 7 (about 32%) of the 22 interviewed owner-occupier households answered that their current social network would be affected, whilst 14 households (about 64%), considered that their network would not be affected; 1 household (about 4%) gave no response to this question. The distribution pattern is shown in **Figure 8.1**.

Figure 8.1 Redevelopment Effect on Social Network to Affected Owner-occupiers (22 households)



- 8.2 Of those respondents who were concerned about the possible adverse effects of the Scheme on their social network (about 32% of the owner-occupiers), the perceived impacts on social network (each respondent can choose more than one concern) related to children and relatives (3 households), neighbours and friends (4 households) and medical support (4 households), were cited as their three major concerns. Religious support, school matters and other concern like location of employment were also concerned (1 household). The distribution pattern is shown in **Figure 8.2**.

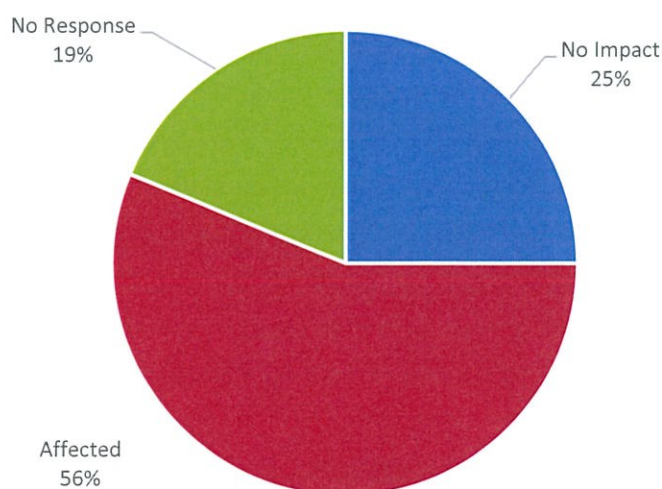
Figure 8.2 Nature of effect on Social Network to Affected Owner-occupiers (can choose more than one concern)



Affected Tenants (16 households)

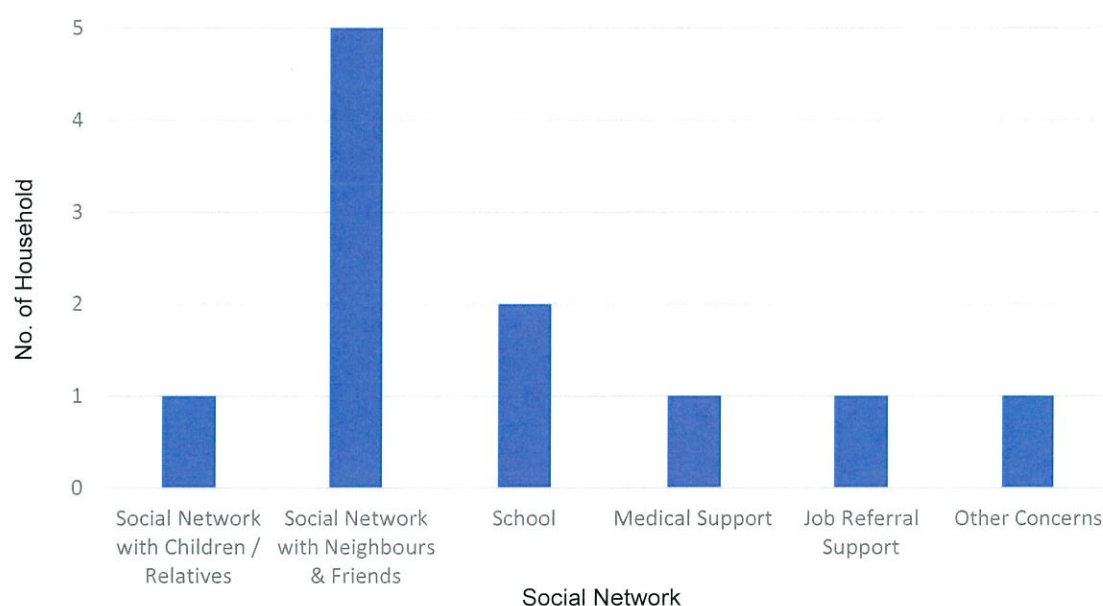
- 8.3 When asked about the likely impact of the proposed redevelopment on their social network, 9 (about 56%) of the 16 surveyed tenant households answered that their current social network would be affected. Four (4) (about 25%) responded that their network would not be affected. Three (3) households (about 19%) gave no response to this question (**Figure 8.3**).

Figure 8.3 Redevelopment Effect on Social Network to Affected Tenants (16 household)



- 8.4 Of those tenant households who were concerned about the possible adverse effects of the Scheme on their social network, the perceived impacts on network related to neighbours and friends (5 households) and school (2 households) as their major concerns. Other possible effects including social network related to children and relatives, and medical support (1 household), job referral support (1 household) and other employment related matters were also concerned (1 household) as other possible adverse effects of the Scheme (respondent could choose more than one concern). The distribution pattern is shown in **Figure 8.4**.

Figure 8.4 Nature of effect on Social Network to Affected Tenants (can choose more than one concern)

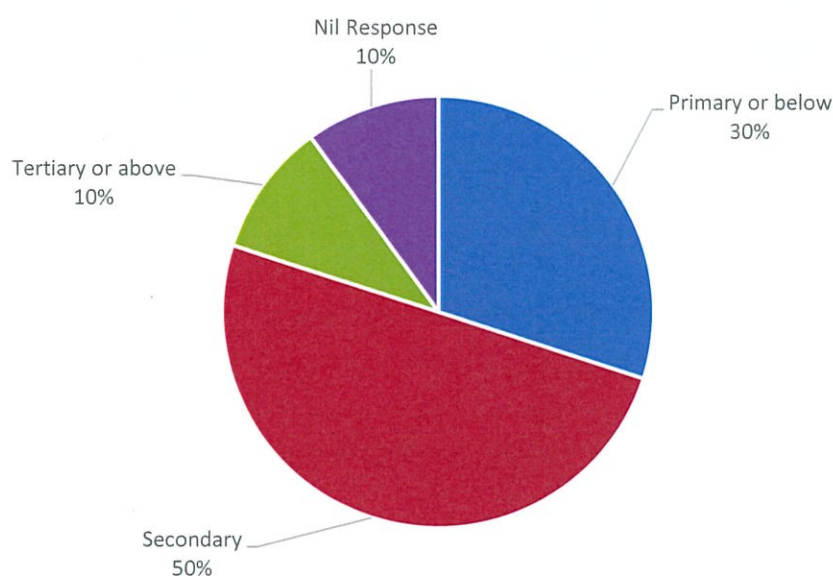


- 8.5 The SST will provide orientation sessions before and after rehousing to help the affected residents adapt to their new homes and introduce various community resources available in the area, including medical support, NGO services and community facilities. It will help them to identify suitable medical/ social service providers and religious institutions in the new residence setting. However, the social support from children/ relatives may take longer to establish/ re-establish in a new environment. If such residents prefer to live close to their relatives to retain social support, the URA will endeavour to arrange rehousing, subject to the availability of public rental flats, and their eligibility for rehousing based on their locational preference as far as practicable. The URA will also offer FFF option (in-situ, in the same district or at available site(s)) for those eligible domestic owner-occupiers to choose to buy so that different owner-occupiers can purchase the same building/adjacent buildings in a same FFF site. Thus, it will minimize the effect on their intrinsic social networks.

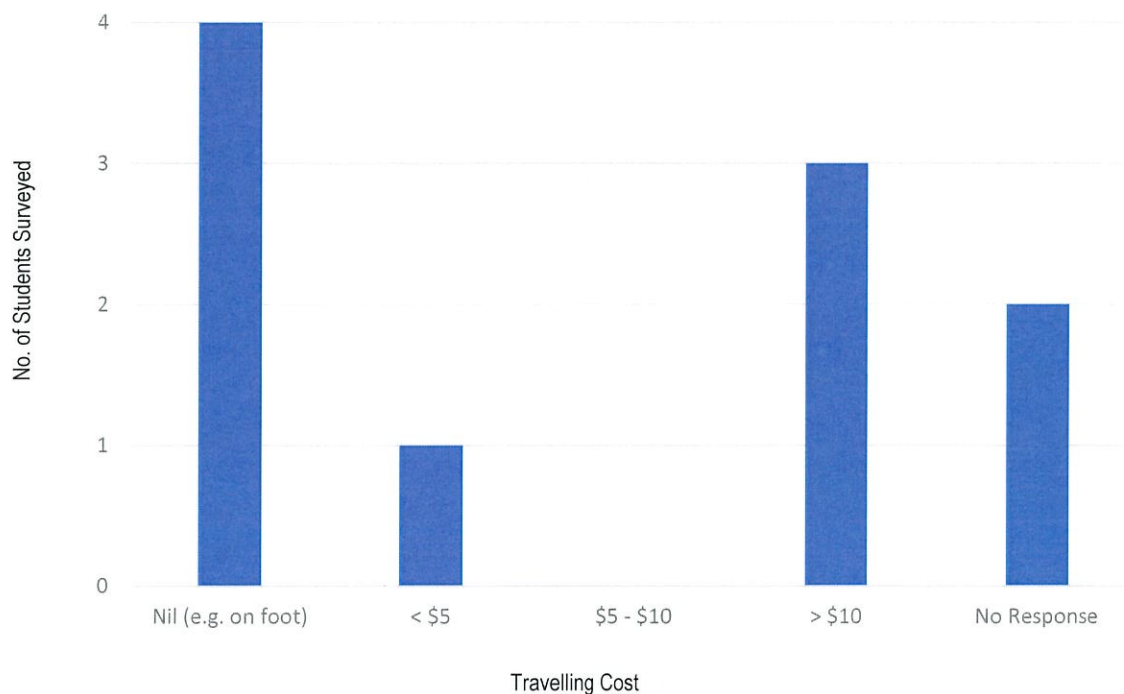
9. EDUCATION NEEDS OF CHILDREN

- 9.1 The survey has identified 10 students within the Scheme. Of them, 5 (50%) students were recorded from 5 owner-occupiers households whilst another 5 (50%) students were recorded from 3 tenanted households. Among these students, 3 (30%) were primary or kindergarten students, 5 (about 50%) were secondary students and 1 student (about 10%) was Tertiary or above levels whilst 1 student (10%) did not respond to this question. **Figure 9.1** shows the type of schools attended by the students residing in the Scheme.

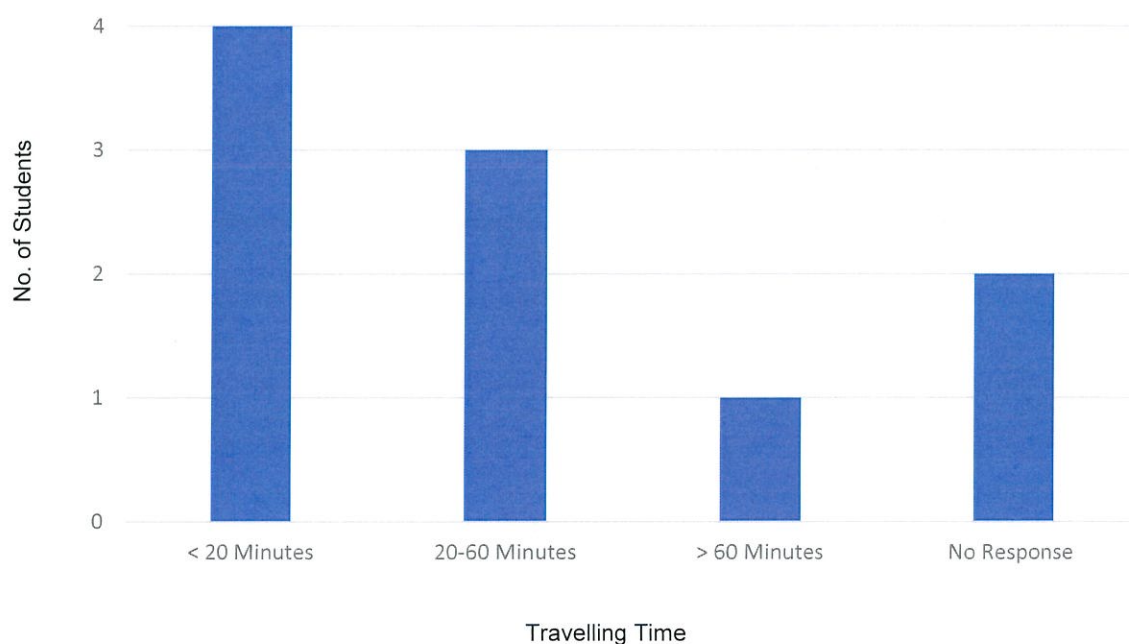
Figure 9.1 Educational Level of Student (10 students)



- 9.2 According to the FS, there were 4 students (about 40%) studying in schools in Central and Western districts. Two (2) students (20%) studied elsewhere on Hong Kong Island. One (1) student (10%) studied in Kwun Tong and 3 (30%) was studying outside of Hong Kong. Given the preponderance of students studying locally, it is not surprising that 4 students (about 40%) did not need to pay for transport to school. One (1) student (about 10%) spent less than HK\$5 per trip travelling to school and 3 students (about 30%) incurred relatively higher travelling costs of over HK\$10 per trip. 2 students (about 20%) did not respond to this question. **Figure 9.2** shows the transport costs of the students in the interviewed households.

Figure 9.2 Travelling Cost to School – Single Trip

9.3 **Figure 9.3** shows the students' travelling time to school. Four (4) students (40%) spent 20 minutes or less travelling to their schools. Three (3) students (30%) students spent 20 to 60 minutes. One (1) student (10%) spent over 60 minutes travelling to school whilst 2 students (20%) did not respond to this question.

Figure 9.3 Travelling Time to School – Single Trip

- 9.4 One (1) student who identified from the tenant household is studying in primary school or kindergarten. Impact of the Scheme on this group of student may need to change to another school if the family chose to move to public rental housing estates in other areas. It is understandable that parents generally wish their children to continue in their present schools. Relocation away from this area may cause inconvenience especially for primary and kindergarten students. The URA with the assistance of the SST, will assist the affected families during the acquisition and rehousing stages to meet the educational needs of their children as much as possible. If necessary, appropriate assistance, resources and services from relevant Government departments will be sought.

10. GROUPS WITH SPECIAL NEEDS

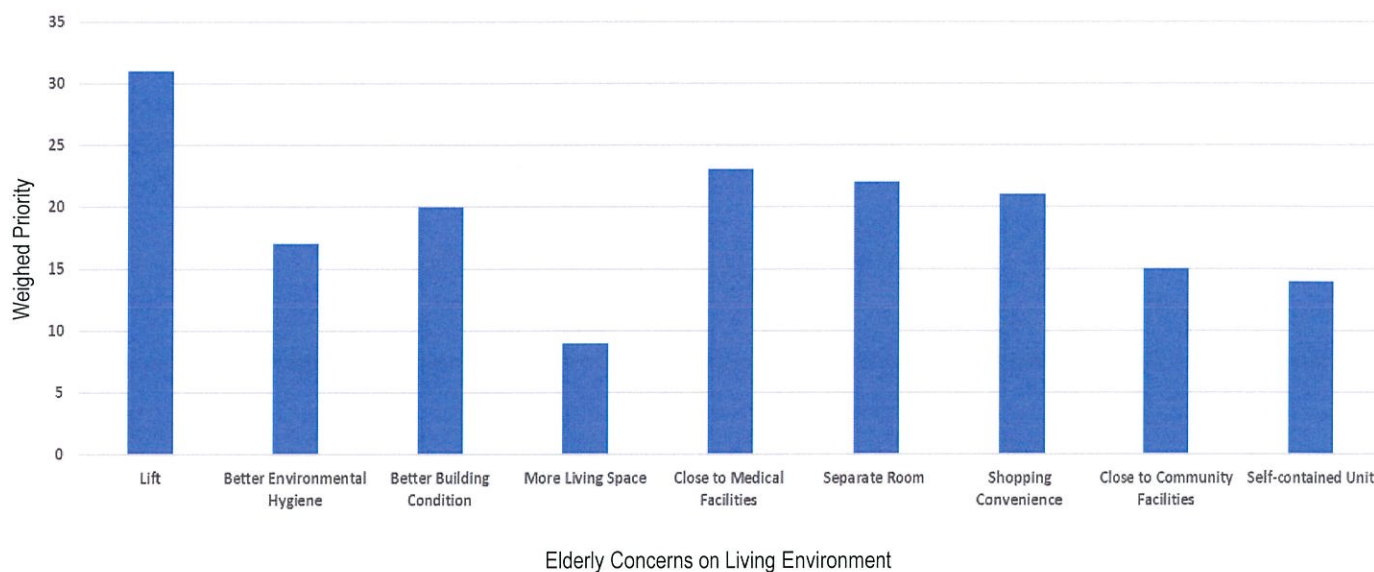
10.1 An assessment has been made on the special needs of the elderly, persons with disability, single-parent families and ethnic minority identified in the survey.

Elderly Persons (65 years and above)

10.2 The FS has identified a total of 17 elderly residents in 12 owner-occupier households and 1 tenanted household within the Scheme. Of these, there was not singleton household, but 6 elderly persons in 3 doubleton households, whilst the remaining 11 elderly residents were living with family members from 10 households.

10.3 The presence of elderly population within the Scheme has implications on types of re-housing and other age-related concerns such as accessibility to medical facilities. It is generally understood that elderly persons may have more difficulty adapting to their new environment once rehoused. The URA and the SST will make effort to alleviate their anxiety by providing information on the arrangement of rehousing and the new environment surrounding the estate. **Figure 10.1** shows the aspirations of the elderly when questioned about the improvements they would like to see in their new home.

Figure 10.1 Elderly Concerns on Living Environment (based on the first three priorities chosen, can choose more than one concern)



Persons with Disability

- 10.4 One (1) resident with disability (about 1%) was recorded in the survey. The disability is related to visual impairment and medical support is being the primary concern. Rehousing for disabilities may be considered on compassionate grounds if they are not eligible under the normal eligibilities.

Single-parent Families

- 10.5 There is no single parent household recorded.

Ethnic Minority Group

- 10.6 According to the 38 households, 4 households recorded to be ethnic minority groups. These households come from Philippines, India , Sri Lanka and Nepal, respectively.
- 10.7 All 4 households of ethnic minority were tenant households. Of these, 1 household would like to have private housing as their new accommodations, and 3 households would like to be allocated in a public rental housing. In relation to potential impacts on their social network, 1 household considered there would be no impact on his/her social network, 2 households considered there would be impacts on their social network with neighbours and friends, and 1 household considered there would be impacts on their social network with children and relatives, school and religious support.
- 10.8 Among these 4 households, 3 households had expressed willingness to meet the SST, and 1 household was not willing to meet the SST. The SST will provide assistance to the households to mitigate the adverse impacts. URA will endeavor to arrange rehousing as far as practicable, subject to the availability of public rental flats and their eligibility.

11. BUSINESS IMPACT

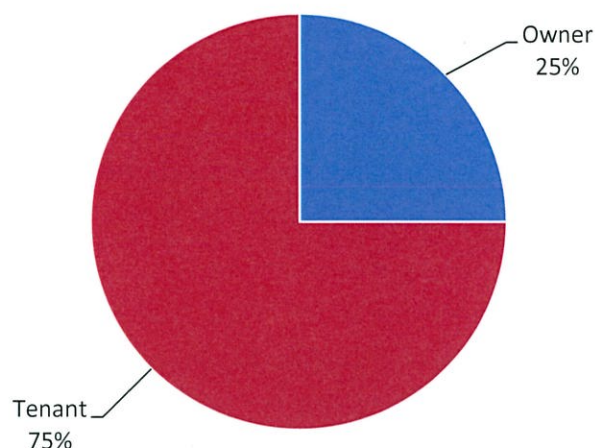
- 11.1 According to the GBP, there are 11 ground floor premises and 3 upper floor premises designated as "Office" for non-domestic uses.
- 11.2 According to the FS, 13 non-domestic premises were successfully surveyed within the Scheme, including 11 ground floor premises, 1 upper floor unit originally designated for domestic use and 1 basement unit (suspected Unauthorized Building Works). For the 3 upper floor office premises as mentioned above, 1 was used for domestic purpose and 2 were unsurveyed.
- 11.3 Among these 13 surveyed non-domestic premise, 12 business operators were identified because 1 particular operator was occupying 2 premises. The occupancy status, nature of businesses, premise size, reasons for operating in current premises, length and performance of business and etc. are based upon the answers of the 12 business operators in the FA/SIA. **Table 11.1** shows the number of non-domestic premises and business operators identified in the Scheme.

Table 11.1 Number of non-domestic premises and business operators identified in the Scheme

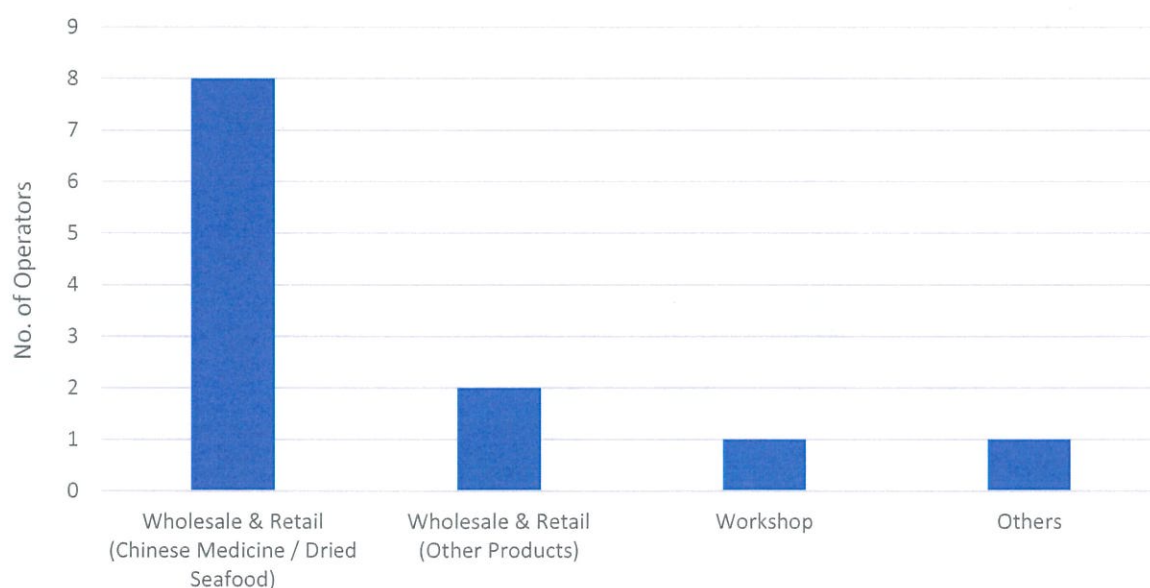
| | Successfully responded to both FS and SIA | Non-domestic premises | Business operators |
|----------|--|------------------------------|---------------------------|
| Surveyed | Non-domestic (GBP) Ground Floor Premises | 11* | 10* |
| | Domestic (GBP) Units for Non-domestic Use | 1 | 1 |
| | Basement Suspected Unauthorized Building Works | 1 | 1 |
| | Sub-Total | 13 | 12 |
| | Unsurvey Non-domestic Premises (upper floor) | 2 | Unknown |
| | Total | 15 | Unknown |

* 1 particular business operator occupying 2 premises.

- 11.4 Of those 12 operators who answered FS questions regarding their occupancy status, 3 (about 25%) were owner operators, 9 (about 75%) were tenant operators. (**Figure 11.1**)

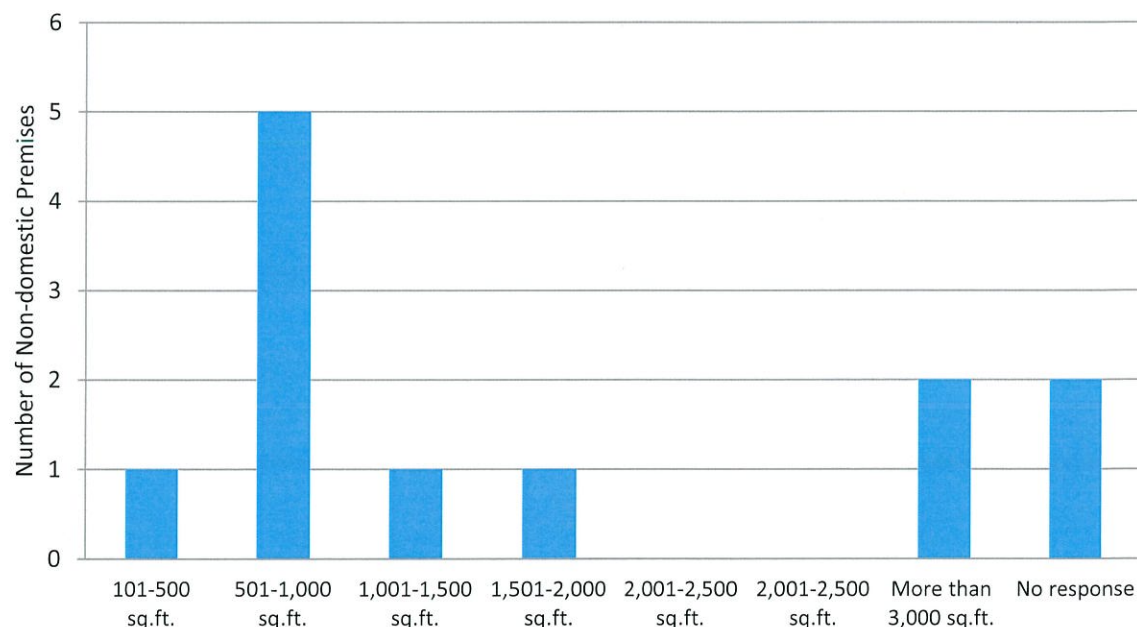
Figure 11.1 Occupancy Status of Business Operators (12 Operators)

- 11.5 The nature of existing businesses of the 12 operators is shown in **Figure 11.2**. Eight (8) businesses (67%) were mainly related to wholesale and retail business of Chinese medicine and dried seafood, 2 (17%) wholesale and retail businesses for other products, 1 business was related to workshop for herbs processing, and 1 other for storage.

Figure 11.2 Classification of Non-domestic Uses

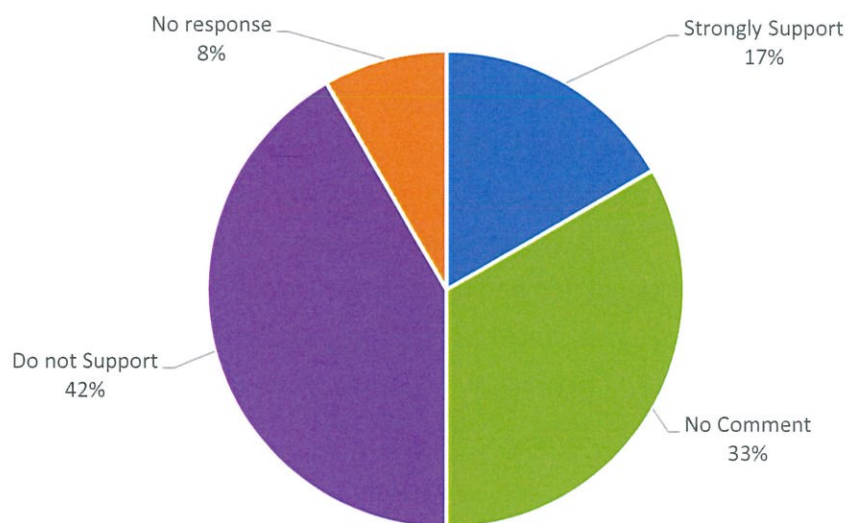
- 11.6 A number of the businesses within the Scheme were found to be related to Chinese medicine and dried seafood wholesale and retail, and there is also a concentration of similar businesses in the vicinity. According to the new URS, if requested, the URA will help identify suitable premises in the district of the redevelopment project to enable the affected shop operators to relocate and continue operation in the same district as far as practicable.
- 11.7 Out of the 12 operators, none of the operator indicated that their shop is a chain store or has other branches.
- 11.8 Among the 12 SIA forms on premise size, 1 premise was between 101sq.ft. and 500sq.ft., 5 premises (about 42%) were between 501sq.ft. and 1000sq.ft., 1 premise was between 1001sq.ft. and 1500sq.ft., 1 premise was between 1501sq.ft. and 2000sq.ft., 2 premises (about 17%) was over 3,000sq.ft., and 2 operators gave no response. The size distribution of the non-domestic premises are shown in **Figure 11.3**. [NB: The exact size of the premises can only be confirmed subject to detailed survey after CE-in-C authorization of the Scheme].

Figure 11.3 Size of Non-domestic Premises as claimed by operators

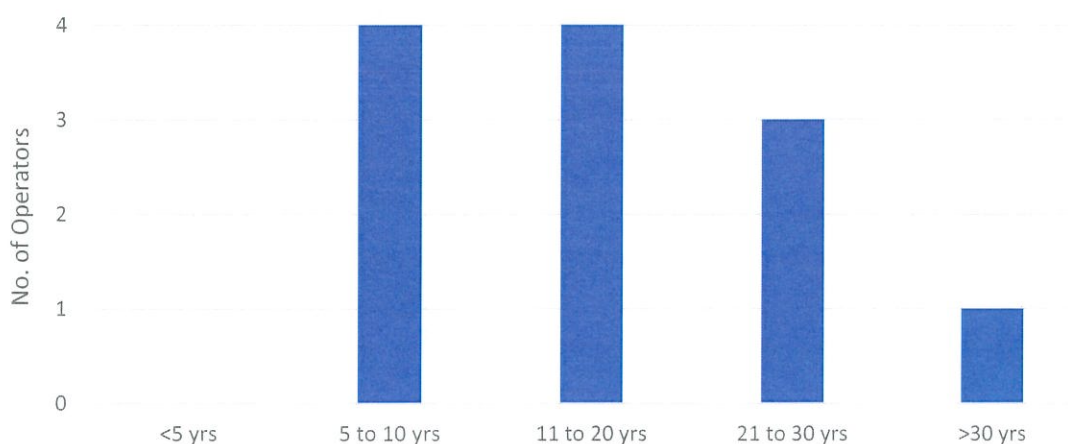


- 11.9 Among the 12 interviewed business operators, 2 operators (about 17%) strongly supported the proposed redevelopment. 4 operator (about 33%) had no comments and 5 operators (about 42%) did not support the proposed development, whilst 1 operator gave no response. Those who supported the Scheme mainly considered that the local environment could be improved through redevelopment. If the Scheme proceeds, 1 operator would consider continue the business nearby. Those not supporting the Scheme mainly responded that the Scheme would affect their business operations and out of which, 2 operators worry about the inadequacy of compensation. **Figure 11.4** shows the views of the business operators to the proposed redevelopment.

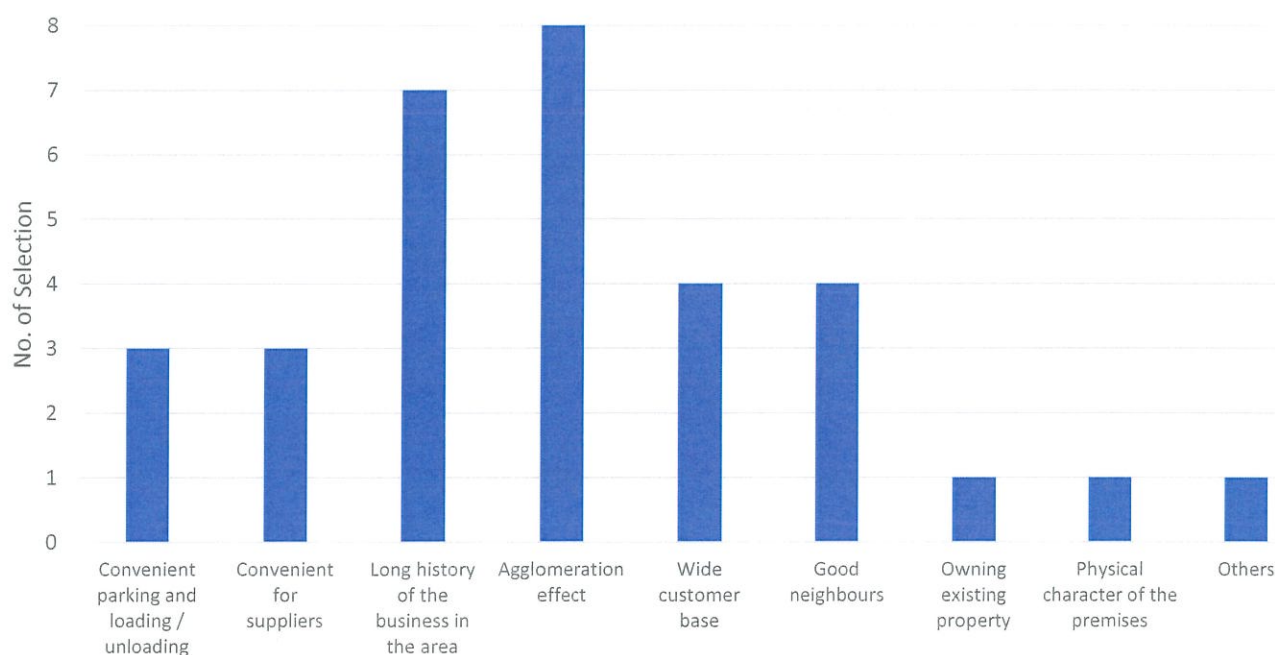
Figure 11.4 View of Business Operators to the Proposed Redevelopment (12 Operators)



- 11.10 Seven (7) operators (about 58%) out of the 12 interviewed business operators mentioned that they had operated their businesses in other districts before moving to the current premises. It is anticipated that these operators may find it easier to relocate to other premises given their experiences operating in other districts.
- 11.11 In terms of years of operation of their existing businesses, among the 12 interviewed operators, 4 operators (about 33%) have been operating in the current premises between 5 and 10 years; 4 operators (about 33%) between 11 and 20 years; and 3 operator (about 25%) between 21 and 30 years and 1 operator have been operating in the current premises for over 30 years. (**Figure 11.5**).

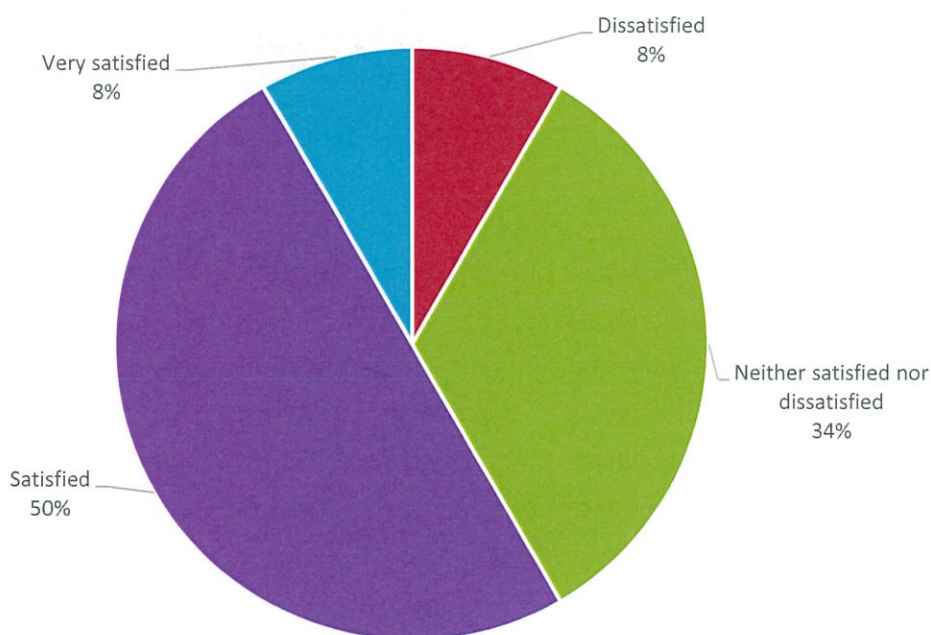
Figure 11.5 Year of Business Operation in the Current Premises

11.12 **Figure 11.6** shows the reasons of 12 interviewed operators for operating their businesses at the existing premises (operators can choose more than one reason). Eight (8) operators chose agglomeration effect whilst 7 operators chose long history of the business in the area as one of their reasons for operating in the current premises. Good neighborhood relationship and wide customer base were considered by 4 operators as the reasons of operating their businesses at the existing premises, whilst convenient parking and loading/unloading and convenient for suppliers was considered by 3 operators as their reasons, and 1 operator chose owning the existing property and 1 operator chose physical characters of the premises as their reason. One (1) operator cited that living nearby as the other reason.

Figure 11.6 Reasons for Businesses Operating in the Current Premises (can choose more than one reason)

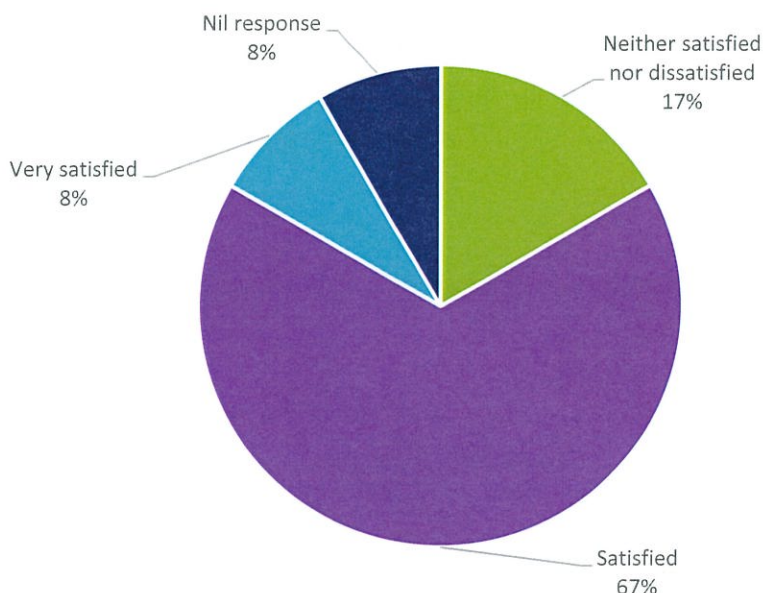
11.13 In terms of the satisfaction level of their business / business performance of the 12 interviewed operators, 6 operators (about 50%) responded that they were satisfied; 1 operators (about 8%) were very satisfied; 4 operators (about 34%) indicated they were neither satisfied nor dissatisfied with the performance; and 1 operator (about 8%) was dissatisfied with the performance (**Figure 11.7**). In summary, more than half of the operators (about 58%) were satisfied with their current business performance.

Figure 11.7 Satisfaction of Business Performance in Existing Premises (12 Operators)



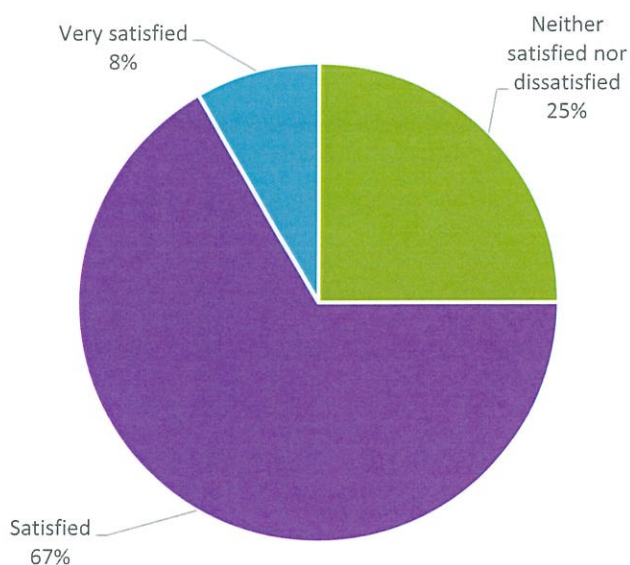
11.14 On the opinion of interpersonal relationship built from the existing business of the 12 interviewed operators, 1 operator (about 8%) was very satisfied, 8 operators (about 67%) were satisfied and 2 operators (about 17%) were neither satisfied nor dissatisfied with the interpersonal relationship built from existing business whilst 1 operator (about 8%) gave nil response. It can be observed that large amount of operators (75%) considered themselves as having a relatively good interpersonal network in the area. (Figure 11.8).

Figure 11.8 Satisfaction of Interpersonal Relation Built from the Existing Business (12 Operators)



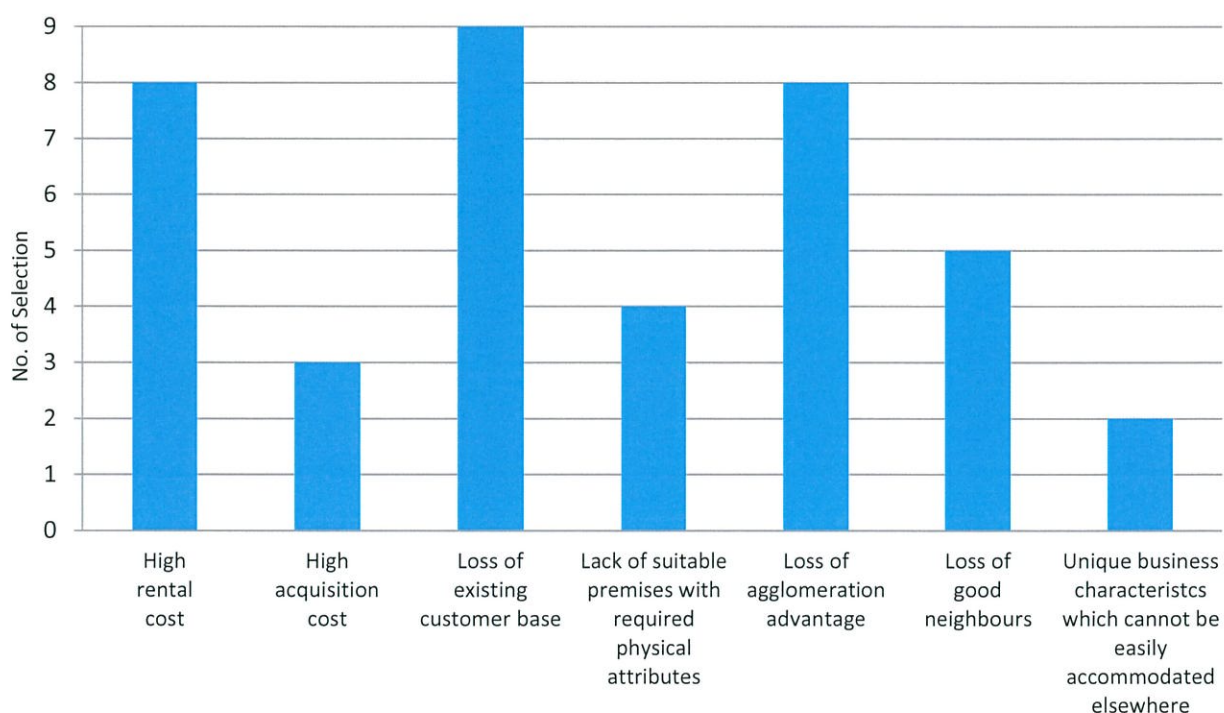
11.15 On the opinion of business network established from the existing shops, e.g. customer base, number of suppliers and etc., among the 12 interviewed operators, 1 operator (about 8%) was very satisfied and 8 operators (about 67%) were satisfied with the aspect of business network. 3 operators (about 25%) responded that they are neither satisfied nor dissatisfied with the aspect of business network established from the existing shops. In summary, most of the operators (about 75%) were satisfied with the built-up business network. (Figure 11.9)

Figure 11.9 Business Network Built up by Operators in Existing Premises (12 Operators)



- 11.16 On the future intention of the operators if the proposed Scheme is implemented, among the 12 interviewed operators, 4 operators (about 33%) responded that they would like to continue their businesses nearby, 1 operator responded that they would like to continue their businesses within the same district, and 1 operator would close the business. Six (6) operators (about 50%) replied that they had not decided yet.
- 11.17 Among the 12 interviewed operators, the three major concerns on looking for alternative accommodation for continuing their businesses (operators can choose more than one concern), including 9 operators were concerned that relocation would result in the loss of existing customer base, and the loss of agglomeration advantage and the possibility of higher rental cost after relocation were separately concerned by 8 operators. **Figure 11.10** shows the major concerns on relocation.

Figure 11.10 Major Concerns on Relocating to New Premises (can choose more than one concern)



- 11.18 Among the 12 interviewed operators, 9 operators (about 75%) indicated they would like the URA to assist them in finding new premises to continue their businesses. The remaining 3 operators (about 25%) gave no response.

- 11.19 Among the 12 interviewed operators, 4 operators expressed their willingness to meet the URA and the SST whilst 4 operators did not want any assistance. Four (4) operators gave no response.
- 11.20 Three (3) interviewed business operators (about 25%) had expressed that their employees had no major concern on the Scheme. Seven (7) operators (about 58%) provided information on employees who expressed their concerns on employment uncertainty and less convenient to come to work after relocation of the business arising from the Scheme. Two (2) operators (about 17%) have chosen "Nil Response" in this question.
- 11.21 Two (2) interviewed business operators (about 17%) had other opinions concerning the development project. One (1) operator was concerned if the rent will be increased or forced to leave by the landlord and there is not sufficient policy to protect the tenant. One (1) operator stated again that they would like to have assistant on looking for new shop.

12. MITIGATION MEASURES REQUIRED

Social Service Team

- 12.1 In accordance with the new URS, the URF has been set up to, inter alia, fund the SST who provides assistance to residents and operators affected by URA-implemented redevelopment projects. The SST reports directly to the Board of the URF. The SST is expected to play a co-ordinating role in assisting the residents to access the services they need from relevant Government departments and/ or other service providers. For instance, the help of the HKHA and the HKHS will be sought in the rehousing process, the Education Bureau in providing school places for children affected by home removal, the Social Welfare Department and various social organisations for counseling services, the Hospital Authority and Department of Health in medical assistance, etc. As at 6 April 2018, the SST has successfully contacted 22 households and 10 business operators. A breakdown of the Cases (Contacts) by client groups is listed in **Table 12.1**.

Table 12.1 Breakdown of SST Cases (Contacts) by Client Groups

| Client Group | No. of Cases / Total No. of Households or Operators |
|---------------------|--|
| Domestic Tenants | 8 |
| Domestic Owners | 14 |
| Business Operators | 10 |

12.2 The nature of the problems identified is summarized as follows:

Table 12.2 Nature of Problems Identified Among the Cases (Contacts)

| Problem or Enquiry Nature | No. of Enquires From Households / Shop Operators* |
|--|--|
| <i>Domestic Tenants</i> | |
| a) Unclear on compensation and rehousing policies | 8 |
| b) Evicted by owners / outrageous rent rise | 0 |
| c) Worry about eviction, termination of tenancy or outrageous rent rise in future | 8 |
| <i>Domestic Owners</i> | |
| a) Unclear on compensation policies | 14 |
| b) Worry about compensation not enough to purchase another flat in the same district | 14 |
| <i>Business Operators</i> | |
| a) Unclear on compensation policies | 10 |
| b) Worry about compensation not enough to resume their businesses in the same district | 10 |

* Each household / shop operator may lodge more than 1 enquiry

12.3 The SST is expected to adopt a proactive approach to identify individuals at risk early through home and shop visits and to deliver prompt assistance to the residents and operators in need. For residents with no imminent needs, such a proactive approach can also enable the SST to establish a rapport with the clients and facilitate cooperation or engagement in future.

Public Briefing

12.4 The URA has arranged a public briefing on 22 March 2018 to inform all the stakeholders, including owners, tenants and business operators affected, the details of the Scheme, and to obtain public views on the Scheme. The total attendance of the public briefing was about 82 persons. Questions on Freezing Survey, planning, acquisition and compensation and rehousing issues were addressed at the meeting. The URA has also attended resident briefings which were organized by District Council members / local group on 20 March, 11 April, and 25 April 2018.

Enquiries and Hotline Services

- 12.5 The URA also answers enquiries and provides hotline services to residents within the redevelopment area. About 21 enquiries had been received between 16 March 2018 and 6 April 2018. The subject matters of the enquiries are summarised in **Table 12.3**.

Table 12.3 Nature of Enquiries

| <u>Subject Matters of Enquiries</u> | <u>Percentage</u> |
|---|--------------------------|
| Scheme information, progress, timetable and planning procedures | 17.4% |
| Acquisition Compensation and rehousing policies | 78.3% |
| Household Survey (e.g. registration arrangement) | 4.3% |
| Total | 100% |

- 12.6 Based on past experience with implementation of redevelopment projects, the URA is confident that the prevailing compensation and rehousing policies and arrangements, with the services offered by the SST and the URA will be sufficient to reasonably mitigate the impact on the majority of the residents / business operators arising from the proposed redevelopment. In summary, the principal mitigation measures being pursued include:-
- (i) outreach activities by the SST to ensure that all affected persons potentially in need are identified on top of those who were already identified in the SIA survey;
 - (ii) assistance in finding public rental rehousing for eligible persons in need;
 - (iii) conducting initial assessment of the elderly with low incomes or disability and other vulnerable groups for eligibility for compassionate housing;
 - (iv) providing orientation assistance for those in need after moving home such as familiarisation with new neighbourhood, accommodation and local facilities; and
 - (v) providing assistance to identify suitable replacement premises for affected businesses.
- 12.7 As revealed by the survey, 58% of the interviewed households either supported or strongly supported the Scheme as some of them considered that they would have more savings and less expenditure through the URA's prevailing compensation and rehousing policies. In addition, 16% of the households had neutral or no comment on the Scheme. Only around 18% of the interviewed households did not support or was strongly against the Scheme. (**Paragraph 2.10 & Figure 2.5** refers). Those households who did not support the Scheme considered that the redevelopment would have negative impacts on the social network and their family finance. With regard to

the view of business operators, 17% of the interviewed operators indicated strongly support for the Scheme. The operators supporting the Scheme considered that the building condition was poor and the building should be redeveloped to bring better local environment. About 42% of operators indicated not support or strongly against to the proposed redevelopment. They considered that the Scheme would affect their business operations, destroy the social network, and inadequacy of compensation. The remaining 33% of operators had no comments or gave no response (**Paragraph 11.9 & Figure 11.4** refers).

12.8 The URA will assist displaced elderly owner-occupiers to find replacement flats within urban Hong Kong. Redevelopment will inevitably affect the existing social network of some residents in the Scheme. The SST will follow up their cases for 6 months after their relocation to a new accommodation. In helping "the affected residents in maintaining and rebuilding social support network", the team will also conduct below activities:-

- (i) after resettled, the displaced residents have contacted at least once after their old acquaintance in Central and Western District, e.g. through organizing a re-union gathering for displaced residents;
- (ii) the displaced residents have established connections in their new neighbourhood, e.g. programs on getting to know the local facilities in new community and visitation to the social service providers in the new neighbourhood.

12.9 The URA together with the SST will ensure that the requisite services and practical assistance by relevant Government Departments and/or service providers are made available to the community in need, and that social and livelihood problems relating to the Scheme are presolved in a timely manner.

Prevailing Acquisition, Compensation and Rehousing Policy

12.10 At the public meetings held on 22 March 2018, compensation, rehousing or ex-gratia payment based on the URA's prevailing policy for the affected owners and tenants were fully explained.

Domestic Properties

12.11 The URA will offer an owner-occupier of domestic property the market value (valued on vacant possession basis) of his property plus an ex-gratia allowance, namely Home Purchase Allowance (HPA), for purchase of the property. The assessment of HPA is based on the value of a notional replacement flat, which is defined as a seven-year-old

flat in a building of comparable quality, situated in a similar locality in terms of characteristics and accessibility, and located at the middle floor with average orientation. The HPA is the difference between the value of the notional replacement flat and the market value of the property being acquired. The URA will offer an owner of tenanted or vacant domestic property the market value (valued on vacant possession basis) of his property plus a Supplementary Allowance (SA), where applicable, up to 50% of the HPA above mentioned. In addition to HPA or SA, URA will offer an incidental cost allowance to owners of domestic properties to assist payment of removal expenses and expenditure relating to the purchase of a replacement property.

- 12.12 According to the new URS, and as far as relevant legislation allows, the URA will offer "flat for flat" (FFF) arrangement to eligible owner-occupiers of domestic properties. Under such arrangement, new flats will be made available in a URA new development in-situ or in the same district or at available site(s) (subject to changes in the relevant legislation and regulations) (as URA may select for the purpose provided that necessary approvals / authorization has been obtained at the time of FFF offer), as an additional option to cash compensation to such owner-occupiers. As this is an additional option, the amount of cash compensation offered to an owner-occupier will not be affected by his/her choice of joining the FFF Scheme.
- 12.13 Affected eligible domestic tenants will be re-housed in units provided by the HKHA or the HKHS or the URA. Tenants who are re-housed will be offered an ex-gratia removal allowance. The allowance is in line with the HKHA's rates. The amount receivable will be according to the size of the household and the rates prevailing at the time.
- 12.14 Tenants who are not allocated re-housing due to various reasons or who decline re-housing, may receive ex-gratia allowances. Details of the ex-gratia allowances for domestic tenants can be obtained from www.ura.org.hk.
- 12.15 According to the new URS, the URA will adopt a compassionate approach in assessing the eligibility of owners of tenanted domestic units for ex-gratia allowance in exceptional circumstances such as elderly owners who rely on the rental income from their properties for a living.
- 12.16 In case where tenants were threatened not to have their tenancies renewed, the URA will explain to the owners that they would not get higher offers by evicting the tenants. The URA has also introduced the "Domestic Tenants Compassionate Assistance Programme" ("DTCAP") to take care of those domestic tenants whose tenancies commenced before the freezing survey of this Scheme and moved out from the properties because they have been required to move out from their properties by their landlords upon expiry or termination of their tenancies and before URA purchases

the properties. In general, eligible domestic tenants who meet the criteria under this programme will be offered, after acquisition or Government resumption of the properties concerned, special ex-gratia allowance based on the rateable value of the properties concerned, the ex-gratia allowance is calculated according to the method as listed in **Table 12.4** below subject to a minimum amount of HK\$160,000 (for an one-person household) and HK\$180,000 (for a two-person or larger household). Domestic tenants, who undergo the same situation as mentioned above and are not eligible for DTCAP, can apply for the URA's Relocation Assistance.

Table 12.4: Calculation of Special Ex-gratia Allowance for Domestic Tenants Compassionate Assistance Programme"

| Rateable Value ("RV") | Special Ex-gratia Allowance |
|--------------------------------------|------------------------------------|
| 1 st HK\$10,000 | 9 times RV |
| 2 nd HK\$10,000 | 8 times RV |
| 3 rd HK\$10,000 | 7 times RV |
| 4 th HK\$10,000 | 6 times RV |
| 5 th HK\$10,000 | 5 times RV |
| 6 th HK\$10,000 | 4 times RV |
| 7 th HK\$10,000 | 3 times RV |
| 8 th HK\$10,000 | 2 times RV |
| 9 th HK\$10,000 and above | 1 time RV |

Non-domestic Properties

- 12.17 For owner-occupied non-domestic premises, the market value of the affected property (valued on vacant possession basis) plus an ex-gratia allowance of 4 times the rateable value or 35% of the market value of the affected property, whichever is the higher, will be offered. Owner-occupiers of non-domestic premises may choose to claim for business loss as an alternative to both ex-gratia allowance mentioned above and Ex-gratia Business Allowance (EGBA) mentioned in **Paragraph 12.18** below. For owners of tenanted or vacant non-domestic properties, the market value (valued on vacant possession basis) of the affected property plus an ex-gratia allowance of 1 time the rateable value or 10% of the market value of the affected property, whichever is the higher, will be offered.

- 12.18 For non-domestic tenants of non-domestic premises, an ex-gratia allowance of 3 times the rateable value of the affected premises will be offered. An additional payment of EGBA is also payable to tenants and owner-occupiers who commenced occupying the premises for business before the date of freezing survey. In calculating the number of years of continuous operation, the expiry date of continuous operation is 2 years from the date which URA issues initial acquisition offer to property owners. The amount is calculated at a rate of 0.1 times the rateable value for each year that the affected premises has been in operation up to a maximum of 30 years. For an incomplete year, the amount of EGBA is calculated on a pro-rata basis to the nearest month. The amount of EGBA is subject to a maximum amount of \$700,000 and a minimum amount as described in **Table 12.5** below.

Table 12.5: Calculation of EGBA

| <u>Years of Continuous Operation</u> | <u>Minimum EGBA</u> |
|---|--|
| 10 years or less | HK\$110,000 (amount is subject to annual review) |
| More than 10 years (maximum of 30 years) | Additional HK\$10,000 for each completed year |

- 12.19 According to the new URS, if requested, the URA will help identify suitable premises in the district of the redevelopment project to enable the affected shop operators to relocate and continue operation in the same district as far as practicable. The URA Board has given special approval for a nearby project at Sung Hing Lane / Kwai Heung Street, to assist operators selling the dried seafood businesses within the project C&W-005 to continue their operation in the district to preserve the local character. For the shops in this project (C&W-006), constitute a recognized local characters, subject to the authorization by the CE-in-C to implement the Scheme, understand the views of those operators and the approval of the URA Board, similar arrangements can be considered.
- 12.20 Details of the current acquisition and compensation policies are published on the URA's website and will be communicated to affected persons when acquisition of property interests for this Scheme commences. Prevailing policies relating to property acquisition, rehousing and ex-gratia allowances will be reviewed by the URA from time to time.

Appendix 1: Non-domestic Ground Floor Premises within the Scheme Area

| | | |
|---|---|---|
|  |  |  |
| G/F, 129-131 Queen's Road West | G/F, 133 Queen's Road West | G/F, 135 Queen's Road West |
|  |  |  |
| G/F, 137-139 Queen's Road West | G/F, 141 Queen's Road West | G/F, 143 Queen's Road West |
|  |  |  |
| G/F, 145 Queen's Road West | Basement, 145 Queen's Road West | G/F, 147 Queen's Road West |

| | |
|---|---|
|  |  |
| G/F, 149 Queen's Road West | G/F, 151 Queen's Road West |



Our Ref: PDP/C&W-006/18061180

14 June 2018

By Hand (letter and encl.) & By Fax (letter only)
Fax No. 2877 0245

Secretary to the Town Planning Board
15/F North Point Government Offices
333 Java Road, North Point,
Hong Kong.

Dear Sir / Madam,

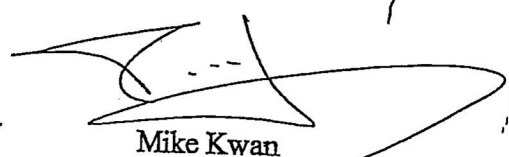
**Draft Development Scheme Plan
for the Urban Renewal Authority
Queen's Road West / In Ku Lane Development Scheme (C&W-006)
- Responses to Departmental Comments -**

We refer to our submission of the captioned draft Development Scheme Plan (DSP) dated 16 March 2018, Planning Department's letter dated June 8 2018 and the Departmental comments received via emails dated April 23, April 25, May 9, May 17, May 24 and June 8 of 2018 respectively. We would like to enclose our responses to comments (R to C) to the Government Departments for your necessary action.

Please note no fundamental change has been proposed to the submitted draft DSP under URAO s.25, i.e. no change on the proposed boundaries of the DSP, the site area, the overall development parameters nor planning intention. The information as contained in this letter is mainly technical clarifications to address various Departmental comments, which are minor in nature. We look forward to your prompt processing and consideration on the R to C along with your ongoing preparation work for TPB's consideration.

Should you have any enquiry, please feel free to contact me at 2588 2630 or our Ms. Mable Kwan at 2588 2752. Thank you very much.

Yours faithfully,


Mike Kwan
General Manager
Planning & Design



encl.

c.c.: (w/o encl. - by fax)

DPO/HK, PlanD (Attn: Mr. Louis Kau) (Fax No.: 2895 3957)



URA Queen's Road West/In Ku Lane Development Scheme (C&W-006)
Responses to Comments from Government Departments on Draft DSP submission

| Government Department | Comments | Responses |
|--|---|---|
| Architectural Services Department | <ol style="list-style-type: none"> 1. It is noted that proposed development has 1 residential tower with a building height of 130mPD. The proposed use, development massing and intensity may not be incompatible with adjacent developments with maximum building height ranging from 110mPD to 130mPD. In this regard, we have no comment from visual impact point of view. 2. 20% greenery area shall be provided in accordance with PNAP APP-152. | <ol style="list-style-type: none"> 1. Noted. 2. Noted. Subject to CE in C's approval, detailed design will comply with statutory requirements and meeting the requirements set out in SBD Guidelines under PNAP APP-152 wherever applicable. |
| Buildings Department | <ol style="list-style-type: none"> (a) Covered areas, if any, within the Public Open Space shall be included in the gross floor area (GFA) and plot ratio (PR) calculations under B(P)R 21. (b) Noting from the Block Plan (Figure 1.1) attached in the Planning Report, the pavement abutting | <ol style="list-style-type: none"> (a) Noted. The site area of the POS in the DSP is not included for PR calculation. The design of the POS will be subject to liaison and agreement with LCSD who will take over the POS for management and maintenance in future. Requirements will be followed at GBP submission stage. (b) The pavement along Queen's Road West is not included for site area, site coverage nor PR calculation under the current scheme. |

| Government Department | Comments | Responses |
|------------------------------|--|--|
| | <p>Queen's Road West appears to be within site boundary. Under Building (Planning) Regulation 23(2)(a), no account of any part of any street shall be taken for site coverage (SC) and PR calculation. In this regard, I reserve my position under B(P)R 23(2)(a).</p> <p>(c) Noting from paragraph 4.7 of the Planning Report, the government lanes within the scheme boundary are intended to be included in Net Site Area. For an existing lane to be included in site area for SC and PR calculation, justification is required with reference to criteria stipulated under PNAP APP-73. In this regard, I reserve my position under B(P)R 23(2)(a).</p> <p>(d) To obtain GFA concessions for green/ amenity features and non-mandatory/ non-essential plant rooms and services in a domestic or composite development under PNAP APP-151, it is a pre-requisite to comply with the requirements of PNAP APP-156 on Design and Construction Requirements for Energy Efficiency of Residential Buildings.</p> | <p>(c) Noted. The existing lane is proposed to be closed permanently as it serves no useful purpose upon redevelopment. Should the draft DSP be approved by CE in C, liaison with Lands Department and justification on the proposed lane closure will be provided at the subsequent land grant stage.</p> <p>(d) Noted. Subject to CE in C's approval, detailed design will comply with statutory requirements and meeting the requirements set out in SBD Guidelines under PNAP APP-152 and APP-156 wherever applicable.</p> |
| Drainage Services Department | <p>(a) Existing performance of the public drains between SMH 7060084 to SMH 7028078 should be assessed under Base Option and improvement drainage works should be proposed if any deficiency is found on the existing condition /</p> | <p>(a) Noted and revised. The public drains between SMH7060084 to SNH7028078 would have insufficient capacity to cater the upstream stormwater and therefore it should be upgraded if Base Option is adopted.</p> |

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| | <p>capacity of the drains.</p> <p>(b) Detailed design of the drainage system for the proposed development should be provided during detailed design stage for our consideration.</p> <p>(c) Since the sewage generated from the proposed development may be larger than that from the previous premises within the concerned lot areas as a result of the development and impose impact on the sewerage system downstream to the development, the applicant should be required to prepare detailed Sewage Impact Assessment (SIA) of the development for EPD's approval, as the planning authority of sewerage infrastructure, and implement the sewerage improvement measures identified therein to the satisfaction of the Director of Drainage Services.</p> | <p>Please refer to Table 3.1 and Table 3.3 in the revised DIA.</p> <p>However, as the Base Option is hypothetical as a comparison scenario, hence, no improvement work is proposed for this part of network for implementation of the Scheme.</p> <p>(b) Noted.</p> <p>(c) Noted. The SIA was also circulated to EPD. Comments from EPD on the SIA will be addressed separately.</p> <p>If the future development parameters change at the detailed design stage, SIA will be revised to tally with the change for EPD approval.</p> |

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| Environmental Protection Department | <p>2. We concur with the view that the redevelopment could improve the overall environmental of the existing tenement building. However, we are unable to form a view at this stage as there is some <u>missing information</u> in the Environmental Assessment (EA) report did <u>not</u> address the management of construction and demolition (C&D) materials generated from the demolition of tenement buildings and construction of proposed residential building. There is still headroom that the URA/ consultant can explore further mitigation measures to minimize the traffic noise impact so that all the planned residential premises could fully comply with the road traffic noise criteria (i.e. 70dB(A)). Our detailed technical comments on the EA report & SIA report are given in Annex 1.</p> | <p>2. Noted and revised.</p> <p>Section for Management of construction and demolition (C&D) materials has been included in Chapter 7 the EA report.</p> <p>The mitigation measures for traffic noise have been revised. The NSRs can comply with the road traffic noise criteria with the mitigation measures implemented. Please refer to S.5.28-5.33 and Appendix 5.4. However, the adoption of mitigation measures is subject to detailed design in consideration of the various factors.</p> |
| Environmental Protection Department (Annex 1 of EPD's comments) | <p>Comments on Environment Assessment (EA)</p> <p>Air Quality</p> <p>1. Section 4.13, the applicant should conduct site survey(s) to assess and confirm if there are any chimneys from nearby sources (e.g. hospital, etc.) located close to the proposed residential development, i.e., within a study area of 200m, and if necessary, propose mitigation measures in case ASRs would be affected.</p> | <p>1. Noted and revised.</p> <p>There are 4 groups of existing chimneys identified within 200m from the boundary of development scheme plan. However, no adverse impact to the proposed development is anticipated.</p> <p>Please refer to Sections 4.12-4.13 for details.</p> |

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| | <p>2. Section 4.14, please confirm whether the proposed RCP meets the relevant requirements as stipulated in Section 3.3.8 Chapter 9 of HKPSG.</p> <p>Noise</p> <p>3. The URA/consultant should explore further measures to minimize the traffic noise impact. We are not satisfied that the EA report has met the requirements under the HKPSG as it appears that further noise mitigation measures are available, such as better building orientation/layout, noise sensitive uses with openable windows not directly facing major noise sources (i.e. Queen's Road West) or use of more effective acoustic windows.</p> | <p>2. Noted and revised.</p> <p>The proposed RCP can meet the relevant requirements stated in the HKPSG since it will be re-provided at the same location as it currently locates and open space will be provided in the Scheme which enables ample open space right next to the RCP.</p> <p>The proposed RCP will be designed with adequate mechanical ventilation and necessary pollution control measures subject to agreement with FEHD.</p> <p>Please refer to Section 4.17-4.18 for details.</p> <p>3. The current TNIA of the proposed development demonstrated that with the incorporation of measures including careful building layout and orientation and acoustic windows/ balconies, the current notional scheme can comply with HKPSG requirements.</p> <p>With all traffic noise exceedances are found at the façade facing Queen's Road West and with a maximum exceedance of 5dB, further mitigation measures can be made to achieve HKPSG compliance, by considering to adopt complexed top-hung acoustic windows (5dB noise reduction). In</p> |

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| | <p>4. The proposed development will be subject to fixed noise impact from nearby fixed sources, including the ventilation exhaust of RCP. However, the consultant has not assessed such noise impact in the EA report. In addition, the consultant has not assessed the fixed noise impact from the proposed development (e.g. fixed noise sources from the shops and clubhouse at the podium) on the nearby NSRs.</p> <p>5. The consultant has assessed the traffic noise impact on the proposed development, including</p> | <p>order to apply the same acoustic performance to the balcony with top-hung type acoustic windows, noise absorptive ceiling and auto-close door will be considered for the balcony.</p> <p>The design and the proposed mitigation measures has taken into consideration of balancing the market demand and environmental consideration.</p> <p>Please refer to Figure 5.1b for the notional layout of the balcony and Figure 5.3 for the location of the proposed mitigation.</p> <p>Given the proposed development is a notional layout subject to approval of CE in C of the DSP, detailed design will be carried out at later stage.</p> <p>4. Noted. Noise impact from fixed sources have been assessed in the EA report. Given the proposed development is a notional layout, assumption was made on sound power level of the plants. Please refer to Chapter 5 of the EA report for details.</p> <p>5. Noted and revised.</p> |

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| | <p>base and mitigated scenarios. However, there are discrepancies between the assessment results in Appendices 5.3 and 5.4 and the model results. Please refer to our below specific comments for details in Annex 1b.</p> <p>Waste Management and Land Contamination</p> <p>6. Section 1.6 – It is stated that this EA represents the study of the potential environmental impacts of the following aspects: air quality, noise, land contamination, waste management and air ventilation. Please address the waste management implications arising from the Project in relevant section of the EA report.</p> <p>7. Section 6.5 – Please attach in the Appendix the aerial photos which have been reviewed.</p> <p>8. Section 6.7 – It is stated that “Site appraisals were carried out the identify the latest land use and...”. Please clarify when these site appraisals were conducted and provide relevant records of the site appraisals (e.g. site photos, site walkover</p> | <p>The AM and PM traffic flows in Appendix 5.1 in EA report v1.5 have been fixed.</p> <p>However, no discrepancy is found between the models and Appendix 5.3 & 5.4 (result tables). However, the Appendix 5.3 & 5.4 have been revised for better presentation. The associate spreadsheets have also been revised accordingly.</p> <p>More NSRs have been added to the traffic noise impact assessment to demonstrate compliance.</p> <p>6. Noted. Waste management has been included in Chapter 7 of the EA.</p> <p>7. Noted. Please refer to Appendix 6.1 for the aerial photos.</p> <p>8. Noted. The “Site appraisals” has been conducted on 17th Aug 2017. The checklist and the on-site photos are included in Appendix 6.2 & 6.3 respectively.</p> |

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| | <p>checklist).</p> <p>9. Section 6.9 – It is mentioned that information would be requested from the Fire Services Department (FSD) and Environmental Protection Department (EPD) on the history of operation and land use of the site and the relevant correspondences will be documented in Appendix 6.1. Please clarify when the correspondences from FSD and EPD will be available. Please also note that without the said information/ correspondences, the statement made in Sections 6.10 and 8.6 that “Based on review of historical aerial photos, site appraisals and government records, it is concluded that no potential land contamination within the project site is expected.” is not valid.</p> <p>Comments on Sewerage Impact Assessment (SIA)</p> <p>10. It is noted that three different disposal routes are studies in the SIA report and Route 2 (via discharge to Manhole No. FMH7026327) is selected. For simplicity, it is suggested to include only the selected disposal option in the SIA report.</p> <p>11. For Appendix 3.3, it is noted that the pipe capacities of some existing sewer sections are calculated using a roughness coefficient of 0.0006m. Please verify with DSD if this assumption is in line with the existing situations.</p> | <p>9. Noted. Requests for inquiries of chemical leakage record and dangerous goods leakage record have been made to EPD and FSD respectively, and their responses are still pending. Please refer to Appendix 6.4 for the copies of the inquiry letters to EPD and FSD.</p> <p>10. Noted. The several options are for comparative assessment purposes. The recommended disposal option Route 2 (via discharge to Manhole No. FMH7026327) is recommended and stated in paragraph 3.23 to 3.25 of the SIA report.</p> <p>11. Noted. The roughness coefficient used in the calculation of pipe capacities are based on Table 5 “Recommended Roughness Values k_s” of DSD’s Sewerage Manual”</p> |

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| | <p>12. For Appendix 3.4, the existing buildings of No. 98 Des Voeux Road West and Western Centre is missing in the tables. In addition, it is shown in the second table that Catchment C includes Princeton Tower and Yick Fung Building. However, in Figure 3.3a, 3.3b and 3.3c, Catchment B is shown to include Princeton Tower while Catchment C includes Wing Hing Commercial Building, No. 98 Des Voeux Road West and Yick Fung Building. Please clarify.</p> <p>13. For the first table in Appendix 3.4, the staff population for retail and for office should be separately considered since they have different unit flow factor (0.28m³/day/person and 0.08m³/day/person respectively). Please revise.</p> <p>14. For the table in Appendix 3.5, the total flowrate, contributing population and peak flow for pipe sections from IKL01 to IKL03 and from Pipe01 to Pipe11 are incorrect. Please revise.</p> <p>15. In Table 3.11, there are upgrading works proposed for individual pipe sections identified with</p> | <p>considering slimed clayware pipe under poor condition.</p> <p>The SIA was circulated to DSD and it had no comment on the SIA report on this aspect.</p> <p>12. Noted and Appendix 3.4 is revised. For clarification, the Catchment IDs were re-numbered and please refer to Figure 3.3a, 3.3b and 3.3c.</p> <p>13. Noted and revised. Please refer to the Appendix 3.4 of the revised SIA report.</p> <p>14. Noted and revised.</p> <p>15. Noted. Please refer to Table 3.11 and Appendix 3.6 in the revised SIA report.</p> |

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| | insufficient capacities. Please include assessments to demonstrate the sufficiency of the proposed mitigation measures. | |
| Environmental Protection Department (Specific Comments on Noise) (Annex 1b in EPD's comments) | <p>(1) S5.4 and S5.5 Prevailing background noise survey should be conducted in order to define the noise criteria, whether it should be ANL -5 or background noise level.</p> <p>(2) S5.10, Table 5.3, Figure 5.1a & 5.1b It should read "Representative noise sensitive receivers in operation phase"</p> <p>(3) Figure 5.1a & 5.1b & 5.3 The figures are unclear to show the building structure (eg. windows and walls).</p> <p>For a room with windows on more than one facade, at</p> | <p>(1) Noted. Please refer to Section 5.10.</p> <p>As the site is subject to traffic noise impact from the Queen's Road West, it is expected that the prevailing background noise level would be higher than ANL - 5 dB for both daytime and night-time, thus ANL-5 dB has been adopted as the fixed noise sources criterion. The planning criteria would be 60 dB(A) for day and evening time and 50 dB(A) for night time.</p> <p>Detail TNIA to include background noise survey will be carried out if required during the detailed design stage.</p> <p>(2)Noted and revised.</p> <p>(3)Noted. Figure 5.1a, 5.1b & 5.4 have been revised to show the NSR clearly.</p> <p>As the current design is notional and the detailed</p> |

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| | least one assessment point should be assigned to the worst affected window on each facade. | locations of windows are not yet available at this planning stage. In order to identify the worst scenario of façade design and its level of exceedance, assessment points have been added to represent all potential windows locations. |
| | <p>(4) Figure 5.3 Locations of representative NSRs are missing</p> <p>(5) Figure 5.4b Please show the dimensions of the window configuration (e. g. horizontal fin and window opening etc.)</p> <p>(6) S5.12 and Appendix 5.2 TD's endorsement on the traffic forecast data is outstanding. It is uncertain whether PM peak hour flow in year 2043 will be the maximum projected peak hour traffic flow.</p> <p>(7) S5.16, Appendix 5.1 and noise model The AM traffic flow in the noise model is not consistent with that in Appendix 5.1 (e.g. Road segment ID 116).</p> | <p>(4)Noted and revised. Please refer to Figure 5.4.</p> <p>(5)Please noted that the current design is notional and subject to change. Detailed dimensions are not available at this planning stage and will only be available at detailed design stage. Instead, constraints of the size of horizontal fin and window opening have been given.</p> <p>(6)TD is on the departmental circulation list of the DSP and no comment on the traffic forecast data at the moment. URA will seek TD's endorsement on the traffic forecast data.</p> <p>(7)It is found that the AM and PM traffic flows in Appendix 5.1 in EA report v1.5 have been swapped. The traffic flows in Appendix 5.1 have been fixed.</p> |

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| | <p>(8) S5.18, Appendix 5.3 and noise model Compliance rate obtained from noise model of about 61% is not consistent with that in S 5.18 and Appendix 5.3 of about 82%.</p> <p>(9) S5.22 For any change to the building layout or window / balcony design, there should be a mechanism to update the traffic noise assessment based on the latest building design.</p> <p>(10) S5.23, Appendix 5.4 and noise model Compliance rate obtained from noise model of about 75% is not consistent with that in S 5.23 and Appendix 5.4 of about 95%.</p> <p>Predicted noise levels of High Zone as shown Appendix 5.4 are not consistent with those, obtained from noise model.</p> | <p>(8) Please note that we found no discrepancy between the models in Appendix 5.3 & 5.4.</p> <p>The Appendix 5.3 & 5.4 have been revised for better presentation. The noise level for each residential flat, in addition to noise level for each NSR, have also provided for checking. The associate spreadsheets have also been revised accordingly.</p> <p>More NSRs have been added to the traffic noise impact assessment to demonstrate compliance.</p> <p>(9) Noted and Section 5.34 has been revised accordingly.</p> <p>Given the proposed development is a notional layout, the traffic noise impact assessment will be updated and revised in detailed design stage if required. Any changes to either the building layout or the acoustic design that affecting the acoustic performance of the buildings shall be addressed if required.</p> <p>(10) Please note that we found no discrepancy between the models and Appendix 5.3 & 5.4.</p> <p>The compliance rate is expressed in terms of number of flats, instead of the number of assessment points.</p> |

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| | <p>(11) S5.24 Without quantitative fixed noise impact assessment, no insurmountable noise impact from the RCP on the proposed development is uncertain. See our related comment above.</p> <p>(12) S5.29 Please obtain written confirmation to prove that Prince Philip Dental Hospital do not operate during night time.</p> <p>(13) S5.30 what "relevant code of practices and guidelines" are referring to.</p> <p>(14) S5.31 See our related comments above</p> <p>(15) S5.29 & S5.32 2nd sentence: The relevant part should read "No adverse fixed noise impact at night time is anticipated ...".</p> <p>(16) Appendix 5.8 Please include the fixed noise impact from RCP for assessment.</p> <p>Please add a remark to specify the location of the worst</p> | <p>(11)Noted and revised. Quantitative fixed noise impact assessment has been included in Chapter 5.</p> <p>(12)Noted. The water towers of Prince Philip Dental Hospital do not operate after 17:30. Please refer to the reply from Prince Philip Dental Hospital enclosed with this RTC.</p> <p>(13)Please refer to ProPECC PN 2/93 "Noise from Construction Activities - Non-statutory Controls" for the recommended practice.</p> <p>(14)Noted.</p> <p>(15)Noted. Please refer to Section 5.40.</p> <p>(16)Noted and revised. Please refer to Appendix 5.6. The fixed noise impact from RCP has been included.</p> <p>Representative NSRs of the proposed development and</p> |

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| | <p>affected NSR.</p> <p>Please add a column for the noise criterion of day & evening and nighttime</p> | <p>in the surroundings are included. The expected noise level from fixed sources are also summarized in Table 5.6.</p> |
| Fire Services Department | <p>Please be advised that I have no in-principle objection to the captioned application subject to fire service installations and water supplies for firefighting being provided to the satisfaction of this Department. EVA arrangement shall comply with Section 6, Part D of the Code of Practice for Fire Safety in Building 2011 administered by Buildings Department.</p> <p>Detailed fire safety requirements will be formulated upon receipt of formal submission of general building plans.</p> | <p>Noted. Statutory requirements will be complied at GBP submission stage.</p> |
| Food and Environmental Hygiene Department | <p>Please note that our comments given on the pre-submission are still valid. As the drawings showing the reprovisioned refuse collection point ("RCP") and public toilet ("PT") in the present planning report are only notional layouts, we will provide further comments when more detailed design and drawings are available. Moreover, I would like to reiterate that the RCP and PT should be constructed/reprovisioned by the project proponent in accordance with the prevailing Handbook on Standard Features for Refuse Collection Points of FEHD, the Technical Schedule to be drawn up specifying the technical requirements and the statutory requirements, such</p> | <p>Noted.</p> <p>Upon approval of the draft DSP by CE in C and gazette of the approved DSP, URA will further liaise with FEHD on the design of the RCP and PT in accordance with their corresponding prevailing standards. Statutory requirements of BD and FSD will be fulfilled at GBP submission stage.</p> |

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| | as the fire safety and barrier-free requirements of the Fire Services Department and Buildings Department. | |
| Home Affairs Department District Officer (Central & Western) | <p>3. C&W District Council members have expressed views at the 14th DC meeting on 10th May 2018, thus we would like to bring them to your attention, they are summarized as follows:</p> <ul style="list-style-type: none"> (i) Suggest to reserve the 5-a-side soccer pitch given its high usage rate; (ii) Suggest to include the whole area of Li Sing Street Playground in its enhancement programme and implement by phases; (iii) Suggest to provide sufficient public open space and facilities for different cohorts of citizens; (iv) Suggest to enhance protective measures to residents of nearby buildings from possible nuisance, such as smell from refuse collection points, etc.; and (v) Suggest to use the second floor as elderly welfare services or for other welfare service provision in order to meet service demand of the community. | <p>Should the draft DSP be approved and subject to agreement with LCSD, URA proposed to carry out advanced improvement work at part of the Li Sing Street Playground to reprovide the 5-a-side soccer in a “like-to-like” scale through rationalizing the layout of the Playground.</p> <p>Subject to the comments of C&WDC and LCSD, URA can consider to enhance the rest of Li Sing Street Playground in future. It can be implemented under separate revitalization programme.</p> <p>A public open space of not less than 538sq.m. is proposed within the Scheme to provide direct frontage on Queen’s Road West to improve the connectivity, safety and comfort of the users; it also allows better connection with the Li Sing Street Playground. Subject to liaison and agreement with LCSD on the future design of the open space, it will provide both soft and hard landscape and possible elderlies facilities to facilitate different users to enjoy the open space.</p> <p>For the design of future RCP, it will integrate with the podium of the development to minimize visual and environment impact to surrounding residential developments. The design of the RCP and PT will</p> |

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| | | <p>follow their corresponding prevailing standards such as those specified in the prevailing Handbook on Standard Features for Refuse Collection Points of FEHD. Statutory requirements of BD and FSD will be fulfilled at GBP submission stage to improve existing operation conditions.</p> <p>Based on the SIA2, there are Chinese medicine and dried seafood shops in the Scheme which have local characters. URA will consider to allow these shops to continue their businesses in the development. Given the above consideration and site constraint, priority will be firstly given to these shops to preserve the local community. If relevant departments or TPB considers it is not necessary to reserve space for local character shops and sustain the local community and character, URA would consider incorporating an elderly centre be operated by nominated NGO.</p> |
| Housing Department | Please note that we have no comment from the re-housing point of view. According to the Memorandum of Understanding signed between the Urban Renewal Authority (URA) and Hong Kong Housing Authority (HKHA), HKHA agrees to provide a certain amount of re-housing units to the URA annually for the purpose of re-housing the affected clearers. The URA shall nominate for the HKHA's approval the allocation of re-housing units to affected clearers who have fulfilled the eligibility requirements. While affected clearers may be offered, subject to availability, a choice of re- | Noted. Liaison will be made with HA on the rehousing arrangement for affected residents upon commencement of acquisition stage. |

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| | housing unit, local re-housing for affected clearerees cannot be guaranteed by the HKHA. | |
| Highways Department | <p>(Please see Annex 2 for the concerned plan):</p> <p>2. The proposed development will exclude a portion of land at In Ku Lane within the existing GLA-HK668 boundary. There is also a strip of existing footpath at In Ku Lane being maintained by HyD. Please refer to the attached GLA-HK668 boundary plan and marked-up sketch for your ease of reference.</p> <p>3. The treatment to the above-mentioned areas and their future management and maintenance responsibilities should be holistically reviewed in view of the proposed development.</p> | <p>2. Noted.</p> <p>3. Noted. The future management, maintenance responsibilities and relevant clauses will be liaised and dealt with the relevant departments including HyD and LandsD during the land grant preparation stage.</p> |
| Urban Renewal Section of Lands Department | <p>(a) The Scheme comprises 17 private lots and Government land. The Government land involved affects the following land status:-</p> <ul style="list-style-type: none"> - GLA-HK668 allocated to the then USD for the purpose of refuse collection point, public toilet and open space; - Railway Reserve for Control of Building Plan Boundary – West Island Line; and - Unallocated Government land. | (a) Noted. |

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| | <p>(b) Should the application be approved by the Town Planning Board, the Urban Renewal Authority (URA) is required to submit land grant application to LandsD for implementation of the development proposal. There is no guarantee that the maximum GFA and other development parameters will be incorporated in the future land grant conditions. Appropriate lease conditions will be considered at a later stage after the planning approval is granted and after the approval of the land resumption application. If the land grant is approved by LandsD acting in its capacity as the landlord at its absolute discretion, it will be subject to such terms and conditions, including but not limited to payment of premium, as may be imposed.</p> <p>(c) Since part of the Scheme (i.e. the existing GLA-HK668 falls within the Railway Reserve for Control of Building Plan Boundary – West Island Line), please seek comment from MTR Corporation Ltd. And RDO, HyD.</p> <p>(d) It is noted that a narrow strip of Government land sandwiched between the existing RCP and Lot No. ML 58 s.D RP & Ext. thereto (i.e. Kam Yu Mansion) falls outside the Scheme. URA is required to consider if it is feasible to include the</p> | <p>(b) Noted. Liaison will be made with LandsD at land grant application stage after approval of the draft DSP by CE in C.</p> <p>(c) Noted. HyD is in the departmental circulation list of the draft DSP. Comments from MTR Corporation Limited and RDO will be sought at GBP submission stage where detailed design is formulated.</p> <p>(d) URA would propose no change to the boundary as the draft DSP is prepared in accordance with the boundary approved in the 17th Business Plan by Financial Secretary. There is provision under</p> |

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| | strip of Government land into the Scheme from better land management point of view. | Section 5 of the Town Planning Ordinance for TPB to amend the boundaries of the draft DSP. |
| Planning Department (Landscape Unit) | 2. According to the site photos in the draft Development Scheme Plan (DSP) submission and our aerial photo dated 26.7.2017, existing trees are found adjacent to the football court and In Ku Lane public toilet. There is insufficient information in the submission to illustrate the baseline condition of existing landscape elements. The potential impact on them arising from the proposed development therefore cannot be ascertained. In support of the concerned DSP, a brief landscape assessment of the potential impact and associated mitigation measure, if any, on the existing landscape elements should be provided in future submission. | 2. Noted. There are a row of small trees and planters along the two sides of the football court. Upon CE in C's approval of the draft DSP, URA will liaise with relevant departments including LCSD and FEHD on the future arrangement of the affected planters. Landscape assessment and mitigation measures will be provided if necessary. |
| Planning Department (Urban Design Unit) | <p><u>Urban Design/ Visual Impact Comments</u></p> <p>2. The proposal is for a draft DSP which proposes to rezone the development scheme (the Scheme) area from "Open Space" ("O"), "Government, Institution or Community" ("G/IC"), "Residential (Group A)7" ("R(A)7") and area shown as 'Road' to "R(A)23" stipulated with maximum building height of 130mPD and requirement for a public open space of not less than 538m² and a government refuse collection point (RCP) cum public toilet of not less than 860m².</p> | 2. Noted. |

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| | <p>3. In terms of the wider cityscape, it is generally accepted that “O” zones offer valuable spatial and visual relief in densely built-up urban areas. Furthermore, developments on “G/IC” zone, particularly those which are low-rise, serve to provide visual and spatial relief to the densely built-up environment of the Sai Ying Pun and Sheung Wan Area as given in the Explanatory Statement of the approved Sai Ying Pun and Sheung Wan OZP No. S/H3/31. The loss of “O” and “G/IC” zones for development uses would permanently deprive the built environment of much needed spatial and visual reliefs.</p> <p>4. Notwithstanding the above, the conceptual layout for the proposed Scheme area has generally kept the existing low-rise setting of the RCP and public toilet, while compensating the loss of “O” zone with a public open space of not less than 538m². Under the existing context, the “O” zone is a neighbourhood park surrounded by buildings with access from Sutherland Street off Queen’s Road West. The reconfigured open space would have direct frontage onto Queen’s Road West improving visual and physical permeability with better visual linkages directing pedestrians to the open space facilities. Nonetheless, a large portion of the open space would be re-provisioning for the existing football field while the rest would form a linear open space along the residential tower.</p> | <p>3. Noted. There will be no loss of open space in the draft DSP as a new open space of about 538sq.m. as same size as the current football court will be provided within the draft DSP. It will maintain spatial and visual relief of the area with more soft landscaping as compared to the current football court. The GIC facilities, i.e. the RCP and the public toilet, will be re-provided in-situ and integrated into the podium of the new development which is about 3 storeys height to maintain the spatial and visual relief.</p> <p>4. Noted. Detailed design of the open space and opportunity to create active frontage with soft landscaping would be explored with LCSD and relevant departments in future if the draft DSP is approved for implementation. It is the intention of the draft DSP to provide a more accessible open space with direct frontage at Queen’s Road West and connection with the rest of Li Sing Street Playground to improve the overall open space network.</p> |

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| | <p>Opportunity should be taken to create active frontages to the open space with landscaping to soften the public realm. Linkages with Li Sing Street Playground should also be maintained to ensure connection with the local open space network would not be lost.</p> <p>5. In terms of visual impact, the proposal involves rezoning of a large part of the Scheme area from non-development use a development use. There are insufficient illustrations in the current submission to demonstrate the visual implications of the proposal on the surrounding area. The applicant's attention is drawn to the provisions in the Town Planning Board Guidelines No. 41.</p> | <p>5. According to TPB Guidelines No. 41 para. 2.3 (f), any proposal involving "rezoning of a site from non-development use to development use which will result in loss of visual openness on-site or off-site from key public viewing points; ..." will require VIA. The affected area in the draft DSP is a built environment. The proposal in the draft DSP is to redevelop the existing tenement buildings into new modern building and re-provision the existing RCP in-situ. The football court will be redeveloped as new open space. The site area of the public open space will not be used for GFA calculation. There is no non-developed area within the Scheme area. Besides, the proposed parameters and proposed R(A) zoning generally align with the original zonings of the area, VIA is therefore considered not necessary.</p> |
| Planning Department (Urban Design Unit) | <p><u>Major Comments on the Air Ventilation Assessment- Expert Evaluation and the planning report</u></p> <p>1. Wind data – The selected HKO weather station is not the nearest weather station to the Project site.</p> | <p>1. Noted and revised. The nearest available weather station is at Central</p> |

| Government Department | Comments | Responses |
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| | <p>2. There is an areawise Expert Evaluation Report for Sai Ying Pun and Sheung Wan Area. The consultant should make reference on that. https://www.pland.gov.hk/pland_en/info_serv/ava_register/ProjInfo/AVRG46_AVA_FinalReport.pdf</p> <p>3. Figure 2-9 and 2-10 – The illustration of the potential wind flow is doubtful. The level of the potential wind flow around the site is not specified. Please be reminded that AVA is about the pedestrian wind environment. The illustrated wind flow is misleading.</p> <p>4. In general, directional analysis of potential wind flow on how the prevailing wind entering the site, penetrating through the site and reaching the downstream area should be included in both Baseline Scheme and Proposed Scheme.</p> <p>5. Section 3 – The potential impact of the proposed development is not addressed.</p> <p>Regarding the nature of the project, based on the Expert Evaluation on Sai Ying Pun & Sheung Wan Area (SYPSW EE) (PLNQ37/2007) dated May 2010, the “G/IC” and “O” zones in the Area are recommended to</p> | <p>Pier.</p> <p>2. Noted. Both the prevailing wind direction and recommendation in the expert evaluation report (SYPSW EE) have been considered.</p> <p>Please refer to Section 2.6.3 & Section 3.1.1 for details.</p> <p>3. Noted and revised. Only the wind paths at pedestrian level are shown in the revised Figures 2-12 & 2-13.</p> <p>4. Noted and revised. Please refer to Sections 2.8 & 3.3 for directional analysis of potential wind flow for the existing and proposed scheme respectively.</p> <p>5. Noted and revised.</p> |

| Government Department | Comments | Responses |
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| | <p>be maintained as they provide useful “lungs” of air spaces in the Area. They should not be further developed with tall buildings or re-zoned for bulky developments.</p> <p>It is noted from the notional scheme of the proposed development that (1) a public open space of not less than 538m² will be re-provided connecting the Queen’s Road West and the Li Sing Street Playground at grade; and (2) the 3 storey podium will be at the original “G/IC” site with BHR of 2 storeys. As such, the notional scheme basically conforms with the recommendations as stated in the SYPSW EE report.</p> <p>In view of the above and the relatively small scale of the proposed development (site area < 2ha, GFA<100,000 square meters), it is considered that the proposed development would not cause significant adverse impact on the surrounding pedestrian wind environment.</p> | |
| Planning Department (District Planning Officer/Hong Kong) | <p>Draft DSP Submission <u>Public Open Space (POS)</u></p> <p>(a) It is noted that the existing sitting-out area (SOA) of Li Sing Street Playground will be affected by the advance improvement works for realignment of the basketball court and 5-a-side soccer pitch. The preliminary design and layout of the proposed</p> | <p>(a) The advanced improvement work of Li Sing Street Playground aims to rationalize and re-plan the uses/facilities in the Playground to reprovide the 5-a-side soccer pitch as well as upgrading the existing facilities in the Playground. Should the</p> |

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| | <p>POS are not available in the submission, please advise if the SOA of similar size will be reprovided within the proposed POS. According to the previous comments on the pre-submission from LCSD, the facilities affected should be reprovided on "like-to-like" basis.</p> <p>(b) As shown in the notional layout (Figure no. 3.1b of the Environmental Assessment), a ramp and staircases will be provided to overcome the level difference between In Ku Lane and Queen's Road West. Please advise if there is other barrier-free access from In Ku Lane to be provided to the POS.</p> <p><u>Inclusion of Strip of Government land</u></p> <p>(c) Further to comment (g) from the Urban Renewal Section of the Lands Department, please consider to include the concerned strip of Government land into the draft DSP. Please be advised that the GFA/PR calculation may be affected due to changes to the site area, if the strip of Government land would be included into the DSP area.</p> <p>Stage 2 Social Impact Assessment</p> <p>(d) Para.3.5: According to 2016 By-census, the "degree</p> | <p>advanced improvement work be carried out, the facilities and design of the Playground will be subject to consultation with C&WDC and agreement with LCSD.</p> <p>(b) In view of the level difference between In Ku Lane and Queen's Road West, the preliminary design of the POS will include ramp and staircases design. Should the advanced improvement work be carried out, the facilities and detailed design of the Playground, including any barrier-free access will be dealt with during detailed design stage, -subject to consultation with C&WDC and agreement with LCSD.</p> <p>(c) Please refer to comment (d) of Urban Renewal Section of LandsD.</p> <p>(d) The degree of sharing in this SIA was calculated by dividing the total number of domestic</p> |

| Government Department | Comments | Responses |
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| | <p>of sharing" is calculated by dividing the total number of domestic households by the total number of quarters occupied by domestic households, while "subdivided units" (SDUs) are formed by splitting a unit of quarters into two or more. The calculation of the degree of sharing has adopted the number of units surveyed (i.e. 42 units) which has included the 7 subdivided units, instead of the number of quarters surveyed (i.e. 37 units). Please clarify the differences between the calculation and the definitions.</p> <p>(e) Para.3.5: The degree of sharing of the Scheme is 0.9 which implies that some households are occupying more than 1 unit. In light of the existence of SDUs in the units surveyed, the degree of sharing should be above 1. Besides, both the "households" and "living units" in the calculation should adopt the same basis by including or excluding the 5 unsurveyed subdivided units. Please review and clarify.</p> | <p>households (38) by the total number of living units found (42). The unsurveyed GBP units (13) has not been adopted. By using the actual surveyed total number of household and living units, it will better reflect the actual situation of the degree of sharing for the project. It is also noticed that from the result of the Freezing Survey, the current situation of "subdivided units" is insignificant for this project.</p> <p>(e) The degree of sharing is slightly lower than the territory-wide average of 1, as the 5 sub-divided units found in the surveyed original GBP units that included in the calculation are vacant.</p> |
| LCSD | <p>(a) The facilities of LCSD affected should be reprovisioned on "like-to-like" basis, and design of the new venue should be up to LCSD and it's maintenance departments' latest requirements, standards and satisfaction.</p> <p>(b) A better landscape design with soft landscape and leisure facilities other than pedestrian circulation</p> | <p>(a) Noted. Subject to approval of the draft DSP by CE in C, URA will liaise with LCSD as well as consulting C&W District Council on the provision and standards of the LCSD facilities.</p> <p>(b) Noted. Please refer to Point (a).</p> |

| Government Department | Comments | Responses |
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| | <p>in the area should be well demonstrated.</p> <p>(c) URA should consult C&WDC and secure local community support on the proposal and temporary closure of the venue without interim provision of active facilities during the redevelopment works.</p> <p>(d) LCSD reserves the right to provide further comments during the formal stage of consultation following established mechanism.</p> | <p>(c) Noted. Please refer to Point (a).</p> <p>(d) Noted.</p> |
| Social Welfare Department | <p>We note that our previously proposed NEC Sub-base (IFA: 197sq m) has not been incorporated in the URA's latest development plan. Please be informed that our previous bid is still valid. Grateful if you would liaise with URA to incorporate it into its development plan in view of the service need in the district.</p> | <p>In accordance with the established Government circular, SWD should first confirm that there are committed funding under RAE before requesting the provision of the NEC.</p> <p>Under the current draft DSP, a public open space, a refuse collection point (RCP) and a public toilet will be provided within the Scheme to the satisfaction of LCSD and FEHD for the use of the community. Subject to the consultation with C&WDC and LCSD, URA will also explore the possibility to upgrade the remaining part of the Li Sing Street Playground to provide some elderly play equipment under separate revitalization initiative.</p> <p>Based on the SIA2, there are Chinese medicine and dried seafood shops in the Scheme which have local characters. URA will consider to allow these shops to</p> |

| Government Department | Comments | Responses |
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| | | <p>continue their businesses in the development. Given the above consideration and site constraint, priority will be firstly given to these shops to preserve the local community. If relevant departments or TPB considers it is not necessary to reserve space for local character shops and sustain the local community and character, URA would consider incorporating an elderly centre be operated by nominated NGO.</p> |
| Transport Department | <p>(i) We consider that 20 private car parking spaces among which five are for visitors, and two motorcycle parking spaces should be provided in accordance with the HKPSG. Your current proposal of 10 private car parking spaces is considered too low in view of the traffic condition adjacent the proposed development. You may explore utilizing the underground area underneath the RCP and open space for providing the parking spaces. If such provision of parking spaces cannot be fulfilled, strong justifications have to be provided.</p> | <p>(i) Please be advised that the requested provision of parking spaces cannot be fulfilled with the following constraints: The proposed parking provision of 10 private car parking spaces met the low end provision as recommended in the HKPSG for the proposed development. As explained in the TIA section 2.4, the subject site is of severe site constraints and the site is served by well-established public transport network in the vicinity, it is therefore proposed to adopt the low end provision.</p> <p>Given the POS and RCP in the Scheme will be handed over to LCSD and FEHD respectively for management and maintenance in future, the ownership of the area is under the respective authorities. Any parking provision underneath would be subject to agreement with the two departments as well as LandsD on the future land status arrangement and management and maintenance responsibilities of the underground</p> |

| Government Department | Comments | Responses |
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| | <p>(ii) In view of the scale of the proposed development, we have no strong view for the proposed provision of LGV L/UL bay instead of HGV L/UL bay.</p> <p>(iii) Please advise the assumed vehicle size accessing to the RCP and seek FEHD's comment from operational point of view.</p> <p>(iv) We are concerned that the queue for car lift during peak hours will affect the traffic condition of Queen's Road West adjoining the proposed development. In particular, the assumptions of three vehicles assessing the car park during the peak 15 mins and the round-trip operation time of 64 seconds are too optimistic. Moreover, the scenario when the car lift is out-of-service or requires maintenance has not been considered. The use of car lift for this proposed development is not supported unless all risks of affecting adjoining public roads due to the car lift can be satisfactorily addressed.</p> | <p>space.</p> <p>(ii) Noted.</p> <p>(iii) Typical 10.0m long Refuse Collection Vehicle (RCV) (Rigid Vehicle) have been adopted in the swept path analysis as show in the attached Figure 2.4. FEHD noted the assumption of using 10m RCV for the development and have no comment initially. Further comments from FEHD will be sought from operational point of view at detailed design stage after CE in C's approval of the draft DSP.</p> <p>(iv) The limited area/space for the configuration of ground floor space is constrained by the provision of POS of which underground space cannot be used for the internal transport facilities of the proposed residential development. Thus the car ramp option is not feasible within the limited site layout. Car lift is considered as the only possible option given the site constraint.</p> <p>Currently one car lift is proposed for only 10 parking spaces in 1-level basement car park which is considered sufficient and commonly adopted in other developments with similar scale of parking</p> |

| Government Department | Comments | Responses | | | | | | | | | | | | | | | | | | | | |
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| | | <p>provision. The car lift queuing analysis was carried out and demonstrated that no car queuing was expected at a 95% of confidence. In case there is operational need, a waiting space is provided within site for car waiting. In view of the low possibility of car queuing and provision of waiting space, 1 car lift is proposed instead of car ramp given the site constraints and all risks assessed. Further elaboration on the assumptions on the operation time and car lift analysis is explained below.</p> <p>Based on the observed car park inventory and traffic generation of the existing developments in the vicinity of the subject site, the peak15-mins traffic generation within 06:30 – 09:30 hours and 19:00 – 21:00 hours during AM and PM peak periods of Kwan Yick Building Phase 2 and Phase 3 car parks are shown in Table 1.</p> <p>Table 1: Traffic Generation of Kwan Yick Building Phase 2 and Phase 3</p> <table><tr><th rowspan="3">Location</th><th rowspan="3">Total Car Parking Spaces</th><th colspan="4">Traffic Generation (veh/15mins)</th></tr><tr><th colspan="2">AM</th><th colspan="2">PM</th></tr><tr><th>In</th><th>Out</th><th>In</th><th>Out</th></tr><tr><td>Kwan Yick Building Phase 2</td><td>112</td><td>7</td><td>2</td><td>2</td><td>2</td></tr></table> | Location | Total Car Parking Spaces | Traffic Generation (veh/15mins) | | | | AM | | PM | | In | Out | In | Out | Kwan Yick Building Phase 2 | 112 | 7 | 2 | 2 | 2 |
| Location | Total Car Parking Spaces | Traffic Generation (veh/15mins) | | | | | | | | | | | | | | | | | | | | |
| | | AM | | | PM | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | | | | | | | | | | | | | | | | | |
| Kwan Yick Building Phase 2 | 112 | 7 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | |

| Government Department | Comments | Responses | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | <table><tr><td>Kwan Yick Building Phase 3</td><td>98</td><td>2</td><td>2</td><td>2</td><td>2</td></tr></table> | | | | | | Kwan Yick Building Phase 3 | 98 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | |
| | | Kwan Yick Building Phase 3 | 98 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>Based on Table 1, the trip rate the Kwan Yick Building Phase 2 and Phase 3 car parks during AM and PM peak 15-mins are shown in Table 2.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Table 2: Trip Rate of Kwan Yick Building Phase 2 and Phase 3</p> <table><tr><th rowspan="3">Location</th><th rowspan="3">Total Car Parking Spaces</th><th colspan="4">Trip Rate (veh/15mins/space)</th></tr><tr><th colspan="2">AM</th><th colspan="2">PM</th></tr><tr><th>In</th><th>Out</th><th>In</th><th>Out</th></tr><tr><td>Kwan Yick Building Phase 2</td><td>112</td><td>0.0616</td><td>0.0161</td><td>0.0134</td><td>0.0134</td></tr><tr><td>Kwan Yick Building Phase 3</td><td>98</td><td>0.0184</td><td>0.0184</td><td>0.0214</td><td>0.0214</td></tr></table> | | | | | | Location | Total Car Parking Spaces | Trip Rate (veh/15mins/space) | | | | AM | | PM | | In | Out | In | Out | Kwan Yick Building Phase 2 | 112 | 0.0616 | 0.0161 | 0.0134 | 0.0134 | Kwan Yick Building Phase 3 | 98 | 0.0184 | 0.0184 | 0.0214 | 0.0214 |
| Location | Total Car Parking Spaces | Trip Rate (veh/15mins/space) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | AM | | PM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kwan Yick Building Phase 2 | 112 | 0.0616 | 0.0161 | 0.0134 | 0.0134 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kwan Yick Building Phase 3 | 98 | 0.0184 | 0.0184 | 0.0214 | 0.0214 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <p>Based on Table 2, it is noted that the assumed 3 no. of vehicles to be generated by the proposed Development Scheme during peak 15-mins, with trip rate about 0.3000, is anticipated as a conservative approach compare with the existing residential developments in the vicinity of the</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|---|--|--|---|--------------------------------|---|-------|---|---|-------|---|---|-------|---|
| | | <p>subject site.</p> <p>The round-trip operation time of the proposed car lift have been reviewed to 84 seconds. The car exiting and entering to the car lift have been increased from 5 seconds to 10 seconds for assessment.</p> <p>Same methodology as stated in the TIA Report was applied with the updated round-trip operation time of the proposed car lift. The Car Lift Queueing Analysis Results is shown in Table 3.</p> <p style="text-align: center;">Table 3: Car Lift Queueing Analysis Results</p> <table border="1"> <thead> <tr> <th>No. of Vehicles in the System, n (nos)</th><th>Probability of Having n Vehicle in the System, P(n)</th><th>Required Queueing Spaces (nos)</th></tr> </thead> <tbody> <tr> <td>0</td><td>0.720</td><td>-</td></tr> <tr> <td>1</td><td>0.202</td><td>0</td></tr> <tr> <td>2</td><td>0.056</td><td>1</td></tr> </tbody> </table> <p>As suggested in Table 3, there will be 2 vehicles in the car lift system of the proposed Development Scheme at a 95% level of confidence following the M/M/N queueing theory. Therefore, it is expected 1 no. of car queueing for the car lift in the proposed Development Scheme. Therefore, it is anticipated that 1 no, of car waiting area is sufficient for the proposed car lift in current layout</p> <p>Regarding the potential impact on the surrounding during the incidental malfunctioning or requires maintenance of</p> | No. of Vehicles in the System, n (nos) | Probability of Having n Vehicle in the System, P(n) | Required Queueing Spaces (nos) | 0 | 0.720 | - | 1 | 0.202 | 0 | 2 | 0.056 | 1 |
| No. of Vehicles in the System, n (nos) | Probability of Having n Vehicle in the System, P(n) | Required Queueing Spaces (nos) | | | | | | | | | | | | |
| 0 | 0.720 | - | | | | | | | | | | | | |
| 1 | 0.202 | 0 | | | | | | | | | | | | |
| 2 | 0.056 | 1 | | | | | | | | | | | | |

| Government Department | Comments | Responses |
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| | | <p>the proposed car lift, it is observed that there are about 8 nos. of on-street car parking spaces at Ko Shing Street and New Street respectively. Besides, it is noted that there is a public car park at 118 Connaught Road West, which is located within approximately 500m distance from the proposed Development Scheme, providing about 142 nos. monthly and hourly car parking spaces. Based on the scale of the proposed parking provision of the proposed Development Scheme, for 10 nos. of parking spaces, it is expected that car parking spaces could be accommodated vehicles from the proposed Development Scheme in case of emergency.</p> <p>Sections 6.2.7-6.2.10, 6.3 and 7.1.9-7.1.10 have been revised accordingly.</p> |
| | (v) Please explain why the latest sets of BDTM data and AADT data have not been adopted in the TIA. | <p>(v) Please be advised that the latest set of available BDTM, i.e. 2008-based BDTM, data have been adopted.</p> <p>Regarding the AADT data, please be advised that the latest 2016 Annual Traffic Census (ATC) was not available during the preparation of the Traffic Impact Assessment Report. Therefore, the latest set AADT data from ATC was incorporated in the TIA Report by the time of its preparation.</p> <p>Nevertheless, the latest 2016 AADT data has been incorporated and considered.</p> <p>Section 4.3.2 and Table 4-2 have been revised accordingly.</p> |

| Government Department | Comments | Responses |
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| Water Supplies Department | <p>Please find attached partprints of our mains record plan showing the existing and proposed water mains within and in the vicinity of the captioned site for your information. Please note that the alignments of the water mains are indicative only. The exact lines and levels of our water mains should be established by hand dug trial pits on site if they are of significance to your works. Some changes might have been made to the information shown on the drawings in the course of time and that digging of trial holes to ascertain the exact alignment and depth of water mains would still be necessary before any road excavation.</p> <p>Please note that there are some existing fresh and salt water mains within the site and are affected by the proposed development. Free access should be allowed for WSD at any time to carry out operation and maintenance of these water mains. In case the project proponent considers that diversion of these water mains is required, they should study the feasibility of diverting these water mains. If diversion is considered feasible, the project proponent should submit their proposal for WSD's consideration and approval. The water mains diversion work shall be carried out by the project proponent at their own cost to satisfaction of WSD. WSD will only carry out the connection works to the existing network and the associated connection cost should be borne by the project proponent.</p> | Noted. Relevant studies will be carried out at the detailed design stage. |
| Labour and Welfare | 2. We understand that SWD has on earlier | Please refer to the responses to SWD. |

| Government Department | Comments | Responses |
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| Bureau | <p>occasion proposed that a Neighbourhood Elderly Centre (NEC) Sub-base (IFA: 197 sq m) be incorporated into URA's development plan in view of the service need in the district, but note that this has not been taken on board by URA in its latest development plan. We have to stress that there is an acute demand for such facility in the district in view of the ageing population and the current provision of NEC services in the Central and Western (C&W) district. As a matter of fact quite a number of the subvented NECs in the C&W district are undersized and there are no welfare premises or public housing development sites available to accommodate the provision of NEC sub-base. Hence, the current URA development project provides the rare opportunity for the much needed premises to meet the keen service demand. We would therefore have to reiterate our above proposal again.</p> <p>3. Apart to meet the service need in the district, the proposal would also have a gender perspective, as the inclusion of elderly facilities (and indeed child care facilities as well) are conducive to relieving the burden of the carers who are usually women, and facilitate them to join/stay in the workforce.</p> | |

URA noted the following departments have no comment.

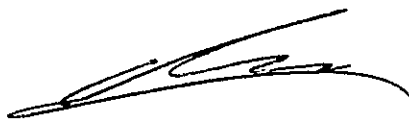
- CEDD
- RMO of HKPF
- DLO of LandsD

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Environmental
Assessment Report**
(v2.0)

May 2018

Approved By



(Project Manager: K.S. Lee)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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1 INTRODUCTION

Background

- 1.1. The Urban Renewal Authority (URA) has proposed a Development Scheme at Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). This Environmental Assessment (EA) is to support the submission of a draft Development Scheme Plan (DSP) with its planning proposal to the Town Planning Board (TPB) for consideration.
- 1.2. The proposed Development Scheme (the Scheme) is located between Queen's Road West and Ko Shing Street. The site is zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" and "Open Space" on the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site comprises a line of tenement buildings facing Queen's Road West, a Government Refuse Collection Point (RCP) cum a public toilet, and a 5-a-side soccer pitch (part of Li Sing Street Playground). The location of the site is shown in **Figure 1.1**.
- 1.3. The Scheme intends to demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (odd numbers) for redevelopment into new residential cum retail development; to re-provision the existing In Ku Lane Government RCP cum public toilet; and to replace the soccer pitch by a new public open space through re-configuration of the land uses within the Scheme.
- 1.4. Cinotech Consultants Limited was commissioned by URA to carry out an Environmental Assessment (EA) to assess and envisage any potential environmental impact on the implementation of the proposed development and to recommend mitigation measures as necessary.

Purpose and Scope of Report

- 1.5. This EA is prepared to assess the potential environmental impact/benefit associated with the implementation of the Scheme in supporting the submission of the draft DSP to TPB's consideration. It has been undertaken with reference to the guidance for environmental considerations provided in Chapter 9 "Environment" of the Hong Kong Planning Standards and Guidelines (HKPSG).
- 1.6. This EA presents the study of the potential environmental impacts of the following aspects:
 - Air Quality
 - Noise
 - Land Contamination
 - Waste Management
 - Air Ventilation

2 DESCRIPTION OF THE ENVIRONMENT

- 2.1. The site is located between Queen's Road West and Ko Shing Street. The gross site area is about 2,046sq.m.
- 2.2. Within the site, the southern side consists of a line of 4 to 6 storeys tenement buildings facing Queen's Road West. The north-eastern part of the site is a Government RCP cum a public toilet operated and maintained by Food and Environmental Hygiene Department (FEHD). In Ku Lane is the access road connecting the RCP and Ko Shing Street. Refuse Collection Vehicles is using the In Ku Lane to access the RCP for daily operation. A 5-a-side soccer pitch, which is part of Li Sing Street Playground managed by Leisure and Cultural Services Department (LCSD), forms the northwest corner of the site. The soccer pitch is fenced off on four sides with its only entrance from the sitting-out area of Li Sing Street playground on the west.
- 2.3. The site is located on a sloping ground with the high level at Queen's Road West of about 7.8mPD and gradually down to about 4.1mPD at In Ku Lane.
- 2.4. The site is surrounded by residential and commercial buildings and hotels to the north and east, a basketball court & sitting-out area of the Li Sing Street Playground and a row of old tenement buildings are situated to the west of the site. The southern side of the site is bounded by Queen's Road West, with a row of residential buildings and hospitals and clinics located further behind.

3 THE PROPOSED DEVELOPMENT

- 3.1. The gross site area of the Scheme is about 2,046 m², with a net site area of about 1,318 m². The area in the draft DSP is proposed to be zoned as "R(A)23", with the proposed total Gross Floor Area ("GFA") is of around 11,290 m². The proposed development of the Scheme will compose of three main elements: (1) a residential tower of about 29 residential storeys on a 3-level podium with commercial/retail facilities, private residential clubhouse and podium garden on the podium roof; (2) a 3-storey Government RCP and public toilet complex; (3) a public open space. The notional layout is shown in **Figure 3.1a – 3.1h**.
- 3.2. If the draft DSP is approved by Chief Executive-in-Council (CE in C), the URA will commence property acquisition and compensation. Upon completion of clearance of the site, the existing buildings will be demolished and subsequent construction of the proposed development.
- 3.3. Existing dwellings in low rise tenement buildings immediately adjoin the Queen's Road West Road. In comparison, residents in the future development of the Scheme will be both vertically and horizontally more distant from Queen's Road West, which is the main noise and air pollution source. This will provide a much better environment than its current condition.
- 3.4. A new public open space (POS) in a linear shape of about 11m width is proposed within the Scheme, in a north-south direction connecting In Ku Lane and Queen's Road West. It will open up a wide wind/air ventilation corridor in the local area, which was previously blocked by a row of tenement buildings on the southern side of the Scheme. The new POS shall enhance the local air ventilation as compared to the existing built environment with the soccer pitch being 'land-locked' among tall buildings in the surroundings.
- 3.5. The Government RCP cum public toilet will be re-provisioned within the Scheme through an integrated design with the future residential development. Compared to the existing standalone RCP, the layout and design of the new RCP will be better blended in with the surrounding environment and improve the overall visual impacts. To address the operational needs, an interim RCP of smaller size will be provided within the site during the construction period of the redevelopment, so that refuse collection services will not be affected.

4 AIR QUALITY IMPACT ASSESSMENT

Introduction

- 4.1 The purpose of this chapter is to demonstrate the air sensitive receivers (ASRs) of the proposed development will not impose adverse air quality impact to the surrounding area during the construction phase and will not receive insurmountable air quality impact from the surrounding area during operation phase according to the notional layout plan.
- 4.2 This chapter assessed the potential air quality impact from the following aspects: (i) Construction Phase - the potential air quality impact generated from the construction activities of the proposed development to the surroundings; (ii) Operation Phase - road traffic emission and nearby industrial chimneys to the proposed developments in the Scheme; and the potential air quality impact from the proposed re-provisioned RCP to the surroundings. It also recommends appropriate mitigation measures to the potential impacts if any.

Identification of Key Air Pollution Sources

- 4.3 The concerned air pollutants during the construction phase are the Respirable Suspended Particulates (RSP) and Fine Suspended Particulates (FSP) arising from the construction work of the Project.
- 4.4 The concerned air pollutants during the operation phase are the traffic emission from the nearby roads, chimneys emissions from the nearby hospitals, and the odour from the re-provisioned RCP.
- 4.5 Air pollutants generated from the traffic induced by the development will be negligible compared with that from the background traffic. Besides the potential odour impact, no major emission source is anticipated during the operation phase of the development.
- 4.6 Other fixed emission sources are identified in the region surrounding the project site. There are chimneys in the Tsan Yuk Hospital and the Tung Wah Hospital that locates within 200m from the project site boundary.

Construction Phase Air Quality Impact Assessment

- 4.7 Major dust emitting construction activities will be the demolition of existing structures and excavation for basement construction and foundation works. Fugitive dust would be generated.
- 4.8 Dust control measures under the Air Pollution Control (Construction Dust) Regulation (Cap. 311R) and good site practice shall be implemented to mitigate dust impact arising from demolition work by preventing dust generation and/or by screening, suppressing and removing dust generated:

- Enclose the whole wall of the building to a height of at least 1m higher than the highest level of the structure to be demolished with impervious dust screens or sheeting on façade abutting or fronting upon a street
 - Existing structures are proposed to be demolished by non-percussive equipment such as hydraulic crusher to reduce dust emission
 - Water or a dust suppression chemical shall be sprayed immediate prior to, during and immediately after demolition/excavation works
 - Cover stockpile or dusty materials with tarpaulin to prevent wind erosion
 - Store cement bags in shelter with 3 sides and the top covered by impervious materials if the stack exceeds 20 bags
 - Maintain a reasonable height when dropping excavated materials to limit dust generation
 - Limit vehicle speed within site to 10 km/h and confine vehicle movement in haul road
 - Minimize exposed earth after completion of work in a certain area by hydroseeding, vegetating or soil compacting
 - Cover materials on trucks before leaving the site to prevent dropping or being blown away by wind
 - Regular maintenance of plant equipment to prevent black smoke emission
 - Throttle down or switch off unused machines or machine in intermittent use
- 4.9 The net site area is about 1,318 m². Given the small scale of work (on-site demolition of 4 to 6 storeys buildings and excavation for basement and foundation), no significant dust impact on the surrounding air sensitive receivers (ASRs) is expected with proper implementation of mitigation measures. No quantitative construction dust assessment is considered necessary.
- 4.10 Operation of Powered Mechanical Equipment (PME) during demolition/construction work would emit air pollutants such as nitrogen dioxide (NO₂) via fuel burning. According to Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, only approved or exempted Non-Road Mobile Machinery (NRMM) with a proper label are allowed to be used in specified activities and locations including construction sites. Supportive information and documents (e.g. third-party emission certificates, model and serial numbers of machines and engines, etc.) for each NRMM would be provided to EPD to prove that the concerned NRMM is in line with the prescribed emission standards. Since the number of PME expected to be used on-site will be much less than vehicles travelled on surrounding roads (e.g. Queen's Road West), no significant impact is anticipated.

Operation Phase Air Quality Impact Assessment

The Residential, Shops and Commercial Area

- 4.11 During operation phase, no major emission is anticipated from the residential and commercial component of the proposed development. However, the residential flats and fresh air intakes of shops, clubhouse and lift lobby are considered as ASRs.

- 4.12 The windows of the existing residential buildings within the boundary of the draft DSP have a vertical distance of about 4m to 20m, and horizontal distance of about 1m from Queen's Road West. In contrast, the future residential tower will be built on a podium, with the first floor of sensitive receiver having at least 20m vertical separation from the traffic emission sources. Besides, the residential tower will be further set back from the site boundary which provides a wider horizontal separation from Queen's Road West. The section plan of the proposed development is illustrated in **Figure 3.1h** & **Figure 4.1**. The horizontal set back of the residential tower is illustrated in **Figure 4.2**. The proposed residential flats will be benefited from the wider separation from the road traffic. Comparing to the existing residential buildings, a reduction in air quality impact due to traffic emission is anticipated in the future residential development. It is proposed that the shops, clubhouse and lift lobby of the podium will be fitted with non-openable windows and central air-conditioning. The air-intake shall be located at the top of the podium and avoid direct facing to Queen's Road West, which its traffic emission is a major air pollution source.
- 4.13 Four group of chimneys were identified within 200m from the site boundary. All identified chimneys are on the roof of hospitals. The source of emission and operation schedule are collected from the hospitals via Code on Access to Information. The chimneys are list in **Table 4.1** and illustrated in **Figure 4.3**. Photographic records can be found in **Appendix 4.1**.

Table 4.1 List of Nearby Chimneys

| ID | Location | Exhaust Height (mPD) | Horizontal Distance from the Project Boundary (m) | Number of Chimneys | Source of Emission | Operation Hour |
|------|-------------------|----------------------|---|--------------------|--------------------|------------------------|
| EP-1 | Tsan Yuk Hospital | 62 | 75 | 3 | Boiler | 1 Hour / Week |
| EP-2 | Tsan Yuk Hospital | 62 | 78 | 1 | Generator | Not Normally Operating |
| EP-3 | Tung Wah Hospital | 60 | 136 | 1 | Generator | Not Normally Operating |
| EP-4 | Tung Wah Hospital | 73 | 197 | 2 | Boiler | Normally Operating |

- 4.14 Two groups of chimneys are serving the emergency generators (EP-2 & EP-3), which are not operate during normal circumstance. The nearest and operating chimneys are located on roof of Tsan Yuk Hospital (EP-1), which are around 75m from the project boundary. As the associate boiler of EP-1 only operate 1 hour per week, no adverse impact is anticipated. The

chimneys for the boiler of Tung Wah Hospital (EP-4) are barely within 200m from the project boundary, and the façades of the residential flat of the proposed development are more than 200m away from the EP-4. As the vertical separation between the podium of the proposed development and the exhaust of EP-4 is more than 40m, the required buffer distance from the chimneys is only 10m thus no constraints to the fresh intake of shops and clubhouse of the proposed development is necessary.

Parking Area

- 4.15 Parking area are provided on the lower ground floor of the proposed developed. The air quality within the carpark is regulated by Practice Note for Professional Persons ProPECC PN 2/96 on *Control of Air Pollution in Car Parks*. Sufficient mechanical ventilation with automatic adjusted ventilation system with the real-time CO concentration monitoring system will be provided according to PN 2/96. No air quality impact within the carpark is anticipated with the measures mentioned in PN 2/96 are implemented.
- 4.16 The exhaust of the carpark ventilation system will be provided on the podium's façade facing Queen's Road West. Considering the scale of the carpark and the exhaust location, no air quality impact to the ASRs of the proposed development and the surrounding is anticipated.

Re-provisioned Refuse Collection Point

- 4.17 Under the current Scheme, the Government RCP will be re-provided in the same location of its existing site within the Scheme area (**Figure 4.4**). The re-provision government RCP is considered a major odour source. Site visits has been conducted and found that there is no odour nuisance caused by the existing RCP to its neighbourhood.
- 4.18 The development scheme integrates the RCP to the residential development. The public open space in the DSP and the existing Li Sing Street Playground provide the desired open space in Clause 3.3.8 of Chapter 9 of the HKPSG for the RCP. Adequate mechanical ventilation and necessary pollution control measures has been provided for the existing RCP and will be provided for the re-provisioned RCP to avoid odour accumulation. The detail design and future layout of the re-provisioned RCP is subjected to liaison with FEHD. With implementation of the aforementioned mitigation measures, the expected odour impact resulted from the re-provisioned RCP shall be similar to the existing condition and no insurmountable impacts from the re-provisioned RCP to the ASRs of the proposed development and the surrounding is anticipated.

Public Open Space

- 4.19 POS will be provided on the western portion of the site (please refer to **Figure 3.1b**) for public assess and as a means for improving local air ventilation. Only passive recreational uses will be proposed near Queen's Road West; active recreational uses will be remained at the inner area to maintain a buffer distance from the main traffic road as suggested by HKPSG.

Conclusion

- 4.20 The air quality impact arising from the proposed development to the surround area and air quality impact from the surrounding area to the proposed development have been assessed.
- 4.21 During construction phase, the key air pollutant sources are the dust emitted during construction activities. Considering the scale of the project site, with implementation of mitigation measures and good site practice, no adverse air quality impact is anticipated.
- 4.22 During operation phase, the only pollution source within the proposed DSP is the re-provisioned RCP. With proper mitigation measure such as sufficient ventilation and odour removal facility, no air quality impact arising from the proposed DSP is anticipated.
- 4.23 The major air quality impact for the ASRs of the proposed development is the traffic emission. With the separation provided between the traffic emission and the ASRs, adverse air quality impact from the nearby traffic to the proposed development is not anticipated. The nearby chimneys are not imposing air quality impact as they are mainly served as backup purpose and are rarely used.
- 4.24 It is envisaged that the air quality upon completion of the project will be similar to, if not better than, the existing situation and no insurmountable air quality impact is anticipated.

5 NOISE IMPACT ASSESSMENT

Introduction

5.1 The purpose of this chapter is to demonstrate the noise sensitive receivers (NSRs) of the proposed DSP shall comply with the noise criteria.

5.2 As described in **Chapter 3**, the proposed development consists of:

- Carparks on lower ground floor,
- Re-provisioned RCP on ground floor,
- Commercials & Retails on G/F and 1/F,
- Club House on 2/F, and
- 29 floors (excluding the sky garden) of Residential Flats.

The notional layout is illustrated in **Figure 3.1a - 3.1h**.

5.3 The major fixed noise source of the proposed development are the exhaust system of the RCP and carpark. As unity windows type and/or split type air-conditioner system without central exhaust fan are planned for the club house, commercials & retails, as well as the residential flats, no noise impact arising from the club house, commercials & retails, and residential portion of the proposed development is anticipated.

5.4 All of the residential flats of the proposed development are considered as NSRs as their windows are designed for ventilation purpose. Club house, commercials & retails in the podium will be provided with air-conditioning systems and will not rely on openable windows for ventilation thus not considered as NSRs. Representative NSRs in the surrounding area have been identified for the assessment of the fixed noise sources.

5.5 The potential noise impact from the following aspects have been assessed: (i) Construction Noise - the potential noise impact generated from the construction activities of the proposed development to the surroundings; (ii) Traffic noise - the potential noise impact generated from the nearby road networks to the proposed development during operation phase; (iii) Fixed noise sources - the potential noise impact generated from the fixed noise sources to both the proposed development and surroundings during operation phase.

- 5.6 Effective mitigations and recommendations have been proposed to mitigate the excessive noise level to compliance level. As the notional layout and the design of the major noise sources in the DSP are tentative and subjected to be changed in later stage, the current noise impact assessment is used for demonstrating the feasibility of complying all of the noise related criteria as part of the planning application. And the details noise impact assessment should be revisited in later stage.

Standards and Guidelines

Road Traffic Noise

- 5.7 The Hong Kong Planning Standards and Guidelines (HKPSG) provide guidance on acceptable road traffic noise levels at the openable windows of various types of noise sensitive buildings. The relevant criteria are shown in Table 5.1.

Table 5.1 HKPSG Road Traffic Noise Planning Criteria

| Uses | Road Traffic Noise $L_{10}(1hr)$ dB(A) |
|--|---|
| Domestic Premises | 70 |
| Hotel and Hostels | 70 |
| Offices | 70 |
| Educational institutions | 65 |
| Hospital & Clinics | 55 |
| Places of public worship and courts of law | 65 |

Note: The above criteria apply to noise sensitive uses which rely on opened window for ventilation.

Fixed Noise Sources

- 5.8 HKPSG also provides guidance on the operational noise emitted from the fixed sources. The level of the intruding noise at the façade of the sensitive use should be at least 5dB(A) below the appropriate Acceptable Noise Levels (ANL) shown in Table 2 of the *Technical Memorandum for the Assessment of Noise from Places Other than Domestic Premises, Public Places or Construction Sites* (IND-TM), and should not be higher than the background. According to IND-TM, the ANLs for different Area Sensitivity Ratings (ASRs) are given in Table 5.2.

Table 5.2 Acceptable Noise Levels for Fixed Noise Impact (ANLs), dB(A), L_{eq} , (30mins)

| Time Period | ASR A | ASR B | ASR C |
|------------------------------|-------|-------|-------|
| Day (0700 to 1900 hours) | 60 | 65 | 70 |
| Evening (1900 to 2300 hours) | | | |
| Night (2300 to 0700 hours) | 50 | 55 | 60 |

- 5.9 The project site is located in the urban area of Western District. There is no industrial area or major road with daily traffic more than 30,000 affecting the site. Therefore, the site is considered not affected by any Influencing Factor (IF) and the ASR of the site would be "B".
- 5.10 As the site is subject to traffic noise impact from the Queen's Road West, it is expected that the prevailing background noise level would be higher than ANL - 5 dB for both daytime and night-time, thus ANL-5 dB has been adopted as the fixed noise sources criterion. The planning criteria would be 60 dB(A) for day and evening time and 50 dB(A) for night time.
- 5.11 Nevertheless, background noise measurement will be conducted in the land grant stage as a part of a detailed noise impact assessment.

Construction Noise Impact Assessment

- 5.12 The use of powered mechanical equipment (PME) will generate construction noise nuisance to the nearby Noise Sensitive Receivers (NSRs). The major noise emitting activities will be the demolition of existing structures and foundation works of future development.
- 5.13 Although the site is small and situated in a well-developed urban area, thus the number of PME that it can accommodate is limited, the noise from construction activities may still be a nuisance if the construction works are not planned and arranged properly.
- 5.14 The "Practice Note for Professional *Persons* Environmental Consultative Committee" (ProPECC) "Noise from Construction Activities –Non-statutory Controls" (PN 2/93) suggests some practical noise abatement measures to reduce the construction noise.
- 5.15 To minimize noise generation, non-percussive equipment such as hydraulic crusher is proposed for demolishing existing building and structure. Also, adoption of non-percussive piling method for foundation work is also recommended. As these activities would only last for a short period of time, significant noise impact on sensitive receivers is not expected with proper implementation of mitigation measures:
- Adopt good site practice, such as throttle down or switch off equipment unused or intermittently used between works
 - Regular maintenance of equipment to prevent noise emission due to impairment
 - Position mobile noisy equipment in locations away from nearby NSRs and point the noise sources to directions away from NSRs
 - Make good use of other structures for noise screening
 - Use of quiet plants and working methods to mitigate at source
 - Use of mobile noise barriers/enclosures along the path of noise propagation
 - Schedule work to minimize concurrent activity and duration of impact

- 5.16 With the aforementioned mitigation measures implemented in during construction phase, no adverse noise impact arising from the construction activities is expected.

Operation Noise Impact Assessment

Representative Noise Sensitive Receivers during Operation Phase

- 5.17 Under the current notional design, the residential portion of the project will be a 29-storey residential tower, with 189 flats divided into low zone and high zone. All flats of the residential tower were included as NSRs according to the nature of use. Shops and the clubhouse in the podium will be provided with air-conditioning systems and will not rely on openable windows for ventilation, and thus not considered as NSRs.
- 5.18 The NSRs were located 1.2m above the slab level and 1m away from the façade. All potential windows locations of all residential flats are covered. Their locations are listed in **Table 5.3** and illustrated in **Figures 5.1a & 5.1b**.

Table 5.3 Representative Noise Sensitive Receivers of the Project

| Zone | Floors | Flat | NSR ID | | | |
|------|-------------|------|---------------|--------------|---------------|---------------|
| Low | 1/F - 15/F | A | Low_A_living | Low_A_bed1 | Low_A_bed2 | Low_A_bed3 |
| | | B | Low_B_bed1 | Low_B_bed2 | Low_B_living | |
| | | C | Low_C_bed1 | Low_C_bed2 | Low_C_bed3 | Low_C_living |
| | | D | Low_D_bed | Low_D_living | | |
| | | E | Low_E_living | Low_E_bed | | |
| | | F | Low_F_bed1 | Low_F_bed2 | Low_F_living | |
| | | G | Low_G_bed | Low_G_living | | |
| High | 16/F - 29/F | A | High_A_living | High_A_bed1 | High_A_bed2 | High_A_bed3 |
| | | B | High_B_bed1 | High_B_bed2 | High_B_living | |
| | | C | High_C_bed1 | High_C_bed2 | High_C_bed3 | High_C_living |
| | | D | High_D_bed1 | High_D_bed2 | High_D_living | |
| | | E | High_E_living | High_E_bed_1 | High_E_bed_2 | High_E_bed_3 |
| | | F | High_F_bed1 | High_F_bed2 | High_F_living | |

- 5.19 The Project Site is surrounded by both high-rise and low-rise residential/commercial buildings. The representative NSRs has been identified. The locations of representative NSRs in the surrounding are listed in **Table 5.4** and shown in **Figure 5.2**. It should be noted that the Largos Residences, which located at the immediately south-east of the project site, is not considered as NSR because it does not rely on openable windows for ventilation. Photos of the representative NSRs in the surrounding area are illustrated in **Appendix 5.7**.

Table 5.4 Representative Noise Sensitive Receivers of the Surrounding

| NSR ID | Description | Horizontal Distance from the Project Boundary (m) |
|--------|---------------------------|---|
| NSR01 | 153 Queen's Road West | 0 |
| NSR02 | Ko Sing Building | 6 |
| NSR03 | Lop Po Building | 15 |
| NSR04 | Kam Yu Mansion | 4 |
| NSR05 | 116-114 Queen's Road West | 14 |
| NSR06 | Marco Garden | 17 |
| NSR07 | 136 Queen's Road West | 12 |

Assessment Methodology*Road Traffic Noise*

- 5.20 An in-house noise model (MARC) was used to predict the traffic noise levels arising from the road network. It adopts the methodology provided in the UK Department of Transport's *Calculation of Road Traffic Noise* (CRTN) 1988, which is stipulated in Chapter 9, Section 4.2.7 of the HKPSG for assessing road traffic noise impact. Road traffic noise levels are presented in terms of noise levels exceeded for 10% of the one-hour period for the hour having the peak traffic flow [L_{10} (1-hour) dB(A)].
- 5.21 The assessment was based on the projected peak hour flows for the worst year within 15 years after completion of the Project in Year 2028. Based on the traffic forecast provided by the traffic consultant, the PM peak hour flows in Year 2043 will be the maximum projected peak hour traffic flow within 15 years from the completion of the Project. The major roads within 300m from the boundary of the Project have been included in the assessment and are shown in **Figure 5.3**.
- 5.22 Two scenarios have been considered in the traffic noise impact assessment. The first one is a base scenario which only includes careful disposition of layout such as the building orientation and setback. The second scenario is a mitigated scenario with incorporation of some noise mitigation instruments in the development, such as acoustic windows and balconies with noise absorptive ceiling, which can result in achieving a 100% compliance rate.

Fixed Noise Sources

- 5.23 Site visits have been organized to identify major fixed noise sources in the neighbourhood of the site. The sources are anticipated to have fixed noise impact to the site, which has been assessed according to standard acoustics principles and technique. Calculations are based on the following standard formula:

$$\text{SPL} = \text{SWL} - \text{DC} + \text{FC}$$

where

SPL – Sound Pressure Levels at receiver, in dB(A)

SWL – Sound Power Levels of Fixed Noise Sources, in dB(A)

DC – Distance Correction, in dB by $\text{DC} = 20 \times \log_{10}(D) + 8$, D is the slant distance between the NSR and noise source location in metres

FC – Façade Correction of 3 dB

- 5.24 The sound power level in Appendix III of EPD's *Good Practices on Ventilation System Noise Control* (hereafter "Good Practices") have been used for the assessment. Reference was also made to the specifications of the plant available in the market.

Impact Identification and Assessment

Road Traffic Noise

- 5.25 The peak hour traffic flow of individual roads in the assessment year (Year 2043) are listed in **Appendix 5.1**. The traffic prediction will be submitted to the Transport Department for their endorsement. The reply from Transport Department on no comment to the traffic forecast is attached as **Appendix 5.2**.

a) Base Scenario: Careful Building Disposition and Building Setback

- 5.26 In the base scenario, a setback of about 5m from the road curb has been adopted for the proposed residential tower in order to reduce the traffic noise impact from Queen's Road West. The 3-storey podium would also act as a noise barrier for lower levels. No acoustic window, acoustic balcony and acoustic fin was included in this scenario.

- 5.27 The traffic noise for both AM and PM peak hours were calculated. The details of the results are presented in **Appendix 5.3**. About 82% of residential flats comply with the noise criteria of 70 dB(A). The non-compliance residential units are all located in the low zone of facing Queen's Road West (Flats A, F & G). The maximum exceedance is 5 dB.

b) Mitigated Scenario: With Acoustic Windows and Noise Absorptive Material

- 5.28 In order to completely eliminate the traffic noise impact to the residential units. Mitigation measures that can provide a 5 dB noise reduction were proposed to the windows and balcony of the non-complied NSRs. Acoustic windows (top-hung type), similar to the type adopted in Hong Tsuen Road Residential Development at Sai Kung (Park Mediterranean), were proposed for the windows of the non-complied flats in low zone (windows of Flats A, F & G of 1/F to 15/F that facing Queen's Road West). Locations of these mitigation measures are shown in **Figure 5.4**.

- 5.29 A typical section for the proposed acoustic windows is illustrated in **Figure 5.5a**. The detailed dimensions of the windows will be decided at the detailed design stage and shall fulfil the ventilation, noise and natural lighting requirements.
- 5.30 The acoustic window consists of three major components:
- 1) The first component is the top-hung openable window at the top for natural ventilation. The top-hung window is installed with a micro-perforated absorbers (MPA) panel on the inner side of the window to minimize the noise reflection and a curtain box after the top-hung window to limit the noise entering.
 - 2) Directly below the openable top-hung window, a horizontal acoustic fin was used to block the road traffic noise entering through the openable window.
 - 3) Fixed window would be installed below the fin for natural daylight access but not for the ventilation purpose.
- 5.31 In order to achieve a noise reduction value of 5dB, the size of the effective windows area is restricted by the length of the horizontal acoustic fin. The vertical distance from the bottom of curtain box to the bottom of the top-hung window shall not be higher than 55% of the length of the aluminium acoustic fin¹.
- 5.32 For the balcony that require noise mitigation measure, the same type of acoustic windows is proposed on the façade. A typical section for the proposed acoustic windows with balcony is illustrated in **Figure 5.5b**. As the door of the balcony and the ceiling of the balcony may increase the traffic noise level affecting the NSR, two additional components are required for the balcony that associated with acoustic windows in order to achieve a 5dB noise reduction:
- 1) Self-closing glass door would be installed.
 - 2) Noise absorptive material would be provided on the ceiling of the balcony.
- 5.33 With the proposed mitigation measures, all façades that require noise mitigation for traffic noise impact can achieve a noise reduction of 5 dB, thus the compliance rate will reach 100%. The detailed predicted noise levels in the mitigated scenario is presented in **Appendix 5.4**.
- 5.34 Given the proposed development is a notional layout subject to approval of CE in C of the DSP, the traffic noise impact assessment shall be reviewed in detailed design state. Any changes to either the building layout or the acoustic design that affecting the acoustic performance of the buildings shall be addressed.

¹ Refer to the acoustic window in Hong Tsuen Road Residential Development at Sai Kung (Park Mediterranean).

Fixed Noise Sources

- 5.35 There are three groups of fixed noise sources considered in this assessment. They are the noise emitting plants in:
- 1) the re-provisioned RCP;
 - 2) the proposed development excluding RCP are; and
 - 3) the surroundings area.
- 5.36 For the NSRs of the proposed development, only fixed noise sources from the RCP and the surrounding area are considered in the noise assessment. On the other hand, the fixed noise sources in the surrounding area is not consider in the noise assessment for the surrounding NSRs.
- 5.37 The major fixed noise sources of the proposed development and in the surrounding are summarised in **Table 5.5**, illustrated in **Figure 5.6** and detailed in **Appendix 5.5**. It should be noted that the fixed noise sources in the surroundings, i.e. chillers of the hospital, do not operate during night time thus those plants are considered for day and evening time only.

Table 5.5 Major fixed Noise Sources

| | Type of Plant | Noise Emitting Location |
|--------------------------------------|---------------|---|
| Re-provisioned RCP | Exhaust Fan | Roof of the RCP |
| Car park of the proposed development | Exhaust Fan | South Façade of the Proposed Development |
| Surround Building | Chiller | Roof of Sai Ying Pun Jockey Club Polyclinic |
| | Chiller | Roof of Prince Philip Dental Hospital |

- 5.38 Representative NSRs have been selected for demonstrating the compliance. For the dwelling of the proposed development, the Flat A & C on the low zone have been identified as the worst affected NSRs. For the surrounding, all representative NSRs have been used for demonstrating the impact of fixed noise sources from the proposed development in each direction. The location of the representative NSRs and their distance to the noise sources are illustrated in **Figure 5.7** & **Figure 5.8**.
- 5.39 According to "Good Practices on Ventilation System Noise Control " (EPD, 2006), silencer is suitable measure for reducing fan noise in ductwork by 10 dB. The use of silencer is proposed for the ventilation system of carpark and RCP and a 10 dB noise reduction is adopted in the calculation.

- 5.40 The predicted noise from fixed sources for each representative NSR have been listed in **Table 5.6**. The detailed calculation can be found in **Appendix 5.6**. With silencers equipped in the exhaust system of carpark and RCP, the predicted noise levels from fixed sources are all complied with the criteria. No adverse impact is anticipated from fix noise sources from both the proposed development and the surroundings.

Table 5.6 Predicted Noise Level from Fixed Sources

| Noise Criteria | Day and Evening Time, dB(A) | Night Time, dB(A) |
|-------------------------------------|-----------------------------|-------------------|
| | 60 dB(A) | 50 dB(A) |
| NSR ID | | |
| Predicted Noise Level, dB(A) | | |
| Low A | 59 | 37 |
| Low C | 57 | 50 |
| NSR01 | 44 | |
| NSR02 | 44 | |
| NSR03 | 41 | |
| NSR04 | 47 | |
| NSR05 | 44 | |
| NSR06 | 42 | |
| NSR07 | 43 | |

Conclusion

- 5.41 The overall noise impact during the construction phase is considered insignificant. Mitigation measures shall be implemented in accordance with ProPECC PN 2/93 during construction to minimize construction noise impact on the nearby NSRs.
- 5.42 Traffic noise impact assessment of the proposed development was assessed. Traffic noise impact has been taken into consideration when designing the notional layout of the residential development. 82% of residential flats complies with the 70 dB(A) traffic noise assessment criteria as demonstrated in the base scenario. The future joint venture partnership/URA can further enhance the noise compliance up to 100% with the proposed mitigation measures. The layout and mitigation measures are subjected to changes in the detailed design stage. The changes will be subjected to EPD's approval to ensure that the traffic noise impact will be in accordance with the requirements of HKPSG. It is therefore considered that the proposed residential development in the Scheme will not be subjected to adverse traffic noise impact.

- 5.43 The noise from the fixed noise sources of the proposed development and in the surroundings have been assessed based on reasonable assumptions on the noise levels of fixed sources within and in the vicinity of the Site. With noise mitigation measure implemented to the exhaust system of the car park and RPC, no adverse noise impact arising from the fixed noise sources is anticipated.

6 LAND CONTAMINATION ASSESSMENT

Introduction

- 6.1 This chapter identifies and evaluates potential impact due to land contamination of the Project. Mitigations measures would be recommended with reference to the applicable legislation and guidelines where necessary.

Legislations, Standards & Guidelines

- 6.2 Legislations and guidelines related to land contamination are given below:
- Environmental Impact Assessment Ordinance (Cap. 499), Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM), Annex 19;
 - Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C);
 - Dangerous Goods Ordinance (Cap 295);
 - Practice Guide for Investigation and Remediation of Contaminated Land;
 - Guidance Note for Contaminated Land Assessment and Remediation; and
 - Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management.

Potential Land Contamination Impact

- 6.3 According to *Guidance Note for Contaminated Land Assessment and Remediation* and EIAO-TM Annex 19, the following industrial uses may result in land contamination:
- oil installations including oil depots and petrol filling stations
 - gas works
 - power plants
 - shipyards/boatyards
 - chemical manufacturing/processing plants
 - steel mills/metal workshops
 - car repairing and dismantling workshops
 - dumping ground and landfill
 - scrap yards

Assessment Methodology

- In order to identify and evaluate the potential contamination impacts associated with the Project, a desktop study has been conducted to review the historical and current land uses. Aerial photographs from Lands Department have been reviewed. Site appraisals have been carried out to identify any contamination hotspots and the site condition of the industrial operations, if any. Records from Environmental Protection Department (EPD) and Fire Services Department (FSD)

shall also be reviewed to identify any accidents, fires, explosions, spillage and any pollution incidents occurred at the site.

Impact Assessment and Evaluation

Historical and Current Land Uses of Site

- 6.4 Historical aerial photographs covering the site that are available at Lands Department were reviewed to evaluate any land use changes associated with potential contamination implication within in the site boundary demarcated in **Figure 1.1**. The oldest aerial photo available dated back to 1949. The list of aerial photos reviewed is shown in **Table 6.1** and the related aerial photos are provided in **Appendix 6.1** for reference.

Table 6.1 List of Aerial Photos Reviewed

| Year | Photo No. | Descriptions |
|------|-----------|---|
| 1963 | 7159 | The area is developed and residential shacks are seen within the Site location. |
| 1976 | 15090 | The existing buildings on 129-151 Queen's Road West can be found. |
| 1986 | A04062 | No change can be seen within the Site. |
| 1992 | A30879 | The area where the existing football field and the RCP is shown to be cleared. |
| 1993 | CN4717 | The completed RCP can be seen within the Site boundary. |
| 2017 | E030018 | The area is developed as existing situation. |

- 6.5 Historically, the site and its nearby area were residential buildings, shops and public facilities. The site has been a built-up area since 1949. There were one to two-storey houses occupying the current Li Sing Street Playground football field and the RCP. These houses were demolished by 1992. The existing buildings within the Site on Queen's Road West were built around 1969 and the existing RCP, public toilet and the football field were then built around 1993. The Kam Yu Mansion and its podium next to the project site was built between 1989 and 1993. No industrial activity that has risk of land contamination was identified near the site.
- 6.6 Site appraisal was carried out on 17th Aug 2017 to identify the latest land use and any contamination hotspots within the site boundary. The site walkover checklist and photos of the inspection can be found in **Appendix 6.2** and **Appendix 6.3** respectively. There are shops at the ground floor of the tenement buildings facing Queen's Road West. A majority of the shops sells traditional Chinese Medicines, dried seafood and tonic foods. They are considered as part of the famous herbal medicine trading area extending from Ko Shing Street. In general, area within the site boundary did not experience much landscape alternation since the construction of the existing Government RCP and the soccer pitch in the 1990s.

- 6.7 Aerial photos and site visits showed that no industrial activity listed under the Guidance Notes or EIAO-TM was conducted in the vicinity of the project site. Given no industrial activity has been found at the site, no land contamination within the project site is anticipated. As such, no potential hazard is expected due to handling, collection, transportation and re-use/disposal of excavated soil during construction period is anticipated.

Enquiries with Government Departments

- 6.8 Information shall be requested from Fire Services Department (FSD) and Environmental Protection Department (EPD) on the history of operation and land use of the site. The EPD shall be consulted with regard to any records of chemical waste producer (CWP). The FSD shall be consulted with regard to any records of dangerous good license(s). Both departments shall also be inquired on any reported accidents or spillage/leakage incidents within the project area. The correspondences from FSD and EPD are documented in **Appendix 6.4**. The correspondences shall confirm that neither records of dangerous good license nor incidents of spillage/leakage of dangerous goods have been found in the project site. Records from EPD and FSD shall be sought to confirm that there was no chemical waste producer, dangerous goods store nor chemical spillage record at the project site and in the vicinity of the site.

Conclusion

- 6.9 Based on review of historical aerial photos, site appraisals and government records, it is concluded that land contamination within the site boundary is highly unlikely.

7 WASTE MANAGEMENT

Legislation and Requirement

- 7.1 In general, sustainable approaches to waste management should be adopted to produce less waste and reuse or recover value from waste.
- 7.2 Waste collection and disposal is covered by the Waste Disposal Ordinance (Cap. 354) (WDO). This provides a licensing system for the disposal of certain wastes and for the control of certain wastes by regulation. All wastes should be properly stored and disposed in accordance with relevant waste management regulations and guidelines.

Construction Phase

Waste Types

- 7.3 The demolition and construction activities to be carried out for the proposed development would generate a variety of waste that can be divided into distinct categories based on their composition and ultimate method of disposal. The identified waste types include:
- Construction and demolition (C&D) materials, comprising inert and non-inert materials, from the demolition and construction works;
 - Potential asbestos containing materials
 - Chemical waste from any maintenance of construction plant and equipment; and
 - General refuse from the workforce.

Inert and non-inert C&D Materials

- 7.4 Inert C&D Materials includes construction debris, soil, rock and concrete, should be re-used on-site as filling materials or off-site as public fill at public fills reception facilities. C&D Waste (non-inert C&D material) includes metal from the existing structures, wood from formwork, equipment parts, and materials and equipment wrappings, etc. should be re-used or recycled as far as possible. C&D Waste is not suitable for public fill and requires disposal to licensed landfill facilities. It is recommended that different types of wastes should be segregated, stored, transported and disposed of separately in accordance with EPD's required procedure.
- 7.5 As the Scheme involves demolition of existing buildings and construction of one floor of basement, there will be generation of inert C&D materials during construction. It is estimated that about 10,000 m³ excavated materials would be generated and about 3,000 m³ would be

suitable for backfilling during site formation stage. It is also estimated that about 3,600 m³ C&D materials will be generated during the demolition work.

- 7.6 To account the quantity of C&D materials to be generated from construction of the new building, C&D materials generation rate of 0.1 m³ per m² of GFA constructed is adopted in accordance with the "Reduction of Construction Waste Final Report, Hong Kong Polytechnic University (March 1993)". The total GFA of the proposed future development from the Project will be approximately 11,290 m². The C&D materials will be generated from superstructure construction is approximately 1,130 m³. The volume of C&D materials from building construction is relatively small and not expected to induce adverse waste management issue.
- 7.7 The volume of C&D Waste, such as maintenance and packaging waste being generated by the Project will be subject to specific construction procedures and site practices. The estimated amount of C&D wastes generated during site clearance and construction of superstructure works would be minimal with careful design, planning, good site management and control of ordering procedures etc.
- 7.8 The estimated quantities of inert and non-inert C&D material generated from the construction of the Project are presented in Table 7.1.

Table 7.1 Estimated Quantities of C&D materials to be Generated, Reused and Disposed of

| Construction Activities | C&D material (m ³) | C&D material to be Reused On-site (m ³) | C&D material to be disposed of (m ³) | |
|----------------------------------|--------------------------------|---|--|--------------------|
| | | | Inert | Non-inert |
| Excavation | 10,000 | 3,000 | 7,000 | - |
| Demolition of existing buildings | 3,600 | - | 3,240 | 360 |
| Superstructure construction | 1,130 | - | 1,020 ^(a) | 110 ^(a) |

Note:

- (a) Approximately ratio for (inert waste) : (non-inert waste) is 9:1 according to "Monitoring of Solid Waste in Hong Kong, 2014" by EPD

- 7.9 Detailed design of the foundation works and building construction is not yet available at this stage. A preliminary estimation of the amount of inert C&D materials arising from the Scheme should be reviewed in the Environmental Management Plan (EMP) and should be submitted by the Contractor prior to the commencement of construction works.

Chemical Waste

- 7.10 Chemical waste, such as spent lubricants for equipment or waste battery, may be generated. As far as the scale of the works is small, the quantity of chemical waste generated would be

minimal. It is expected that the approximate quantity of the lubrication oil is about 100L/month and hence approximately 6 m³ of chemical waste will be generated during construction period of 60 months. A licensed collector should be employed to handle and dispose of the chemical waste. Furthermore, the chemical waste should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste. The Works Contractor should register as a Chemical Waste Producer under the WDO.

- 7.11 Since the existing structures were built in 1960s, asbestos containing materials may be present at the existing structures which would be demolished. Asbestos investigation would be carried out before the commencement of demolition works. Asbestos investigation and asbestos abatement plan will be made in accordance with the relevant statutory requirements if any asbestos is found in the Site. In addition, other chemical waste, if any, to be generated during the demolition works will be handled and disposed of in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste. For asbestos wastes, if any, will be handled and disposed of in accordance with the Code of Practice on the Handling, Transportation and Disposal of Asbestos Wastes. With the implementation of proper waste management measures, no adverse environmental impacts are expected.
- 7.12 No hazardous materials or hazardous wastes are expected to be generated during the construction of the Site.

General Refuse

- 7.13 General refuse such as food scraps, waste paper, empty containers, etc would be generated from construction workforce during construction phase. Such refuse should be properly managed so intentional or accidental release to the surrounding environment does not occur. Effective collection of site wastes would be required to prevent waste materials being blown around by wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problem. Waste storage areas should be well maintained and cleaned regularly.
- 7.14 With the implementation of good waste management practices at the site, adverse environmental impacts are not expected to arise from the storage, handling and transportation of general refuse generated by construction workers.
- 7.15 A tentative estimated timing of waste arising from construction phase is shown in Table 7.2.

Table 7.2 Tentative Estimated Timing of Waste Arising from Construction Phase

| Type of Waste | Timing |
|----------------|---|
| C&D Material | 2 nd Quarter 2023 to 1 st Quarter 2025 |
| C&D Waste | |
| Chemical Waste | 2 nd Quarter 2023 to 1 st Quarter 2028 (Entire construction phase) |
| General Refuse | |

Mitigation Measures

- 7.16 Prior to the commencement of the construction works, the constructor will identify the types and amount of waste generated and its associated mitigation measures according to the requirements as stipulated in ETWB TCW No. 19/2005.
- 7.17 The Contractor should adopt good housekeeping practices such as waste segregation prior to disposal. Stockpiling and segregating areas should be provided at site. Effective collection of site wastes would be required to prevent waste materials being blown around by wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problems. Waste storage areas should be well maintained and cleaned regularly.
- 7.18 Whenever there are excess recyclable construction materials, including bricks, plastics and metals, re-use and recycling should be carried out as far as practicable for waste minimisation. Other inert non-recyclable materials such as concrete, asphalt, etc. should be treated as public fill. Non-inert and non-recyclable wastes should be disposed at designated landfill site.
- 7.19 General refuse should be stored in enclosed bins or compaction units separate from C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the Site, separately from C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of “wind-blown” light materials.
- 7.20 Provided that good site practices are strictly followed, there would be no adverse impacts related to waste management during construction phase.

Waste Management Implications

- 7.21 Domestic wastes will be expected as the major type of waste from the redevelopment, including food residues, plastic and metal products, and paper. No chemical or hazardous waste is anticipated. Wastes generated will be collected and disposed of on a regular basis. Wastes generated from the Site will also include recyclable wastes such as paper, plastics and metals. Reuse and recycling of such wastes is encouraged in line with Government policy in view of

clear environmental benefits. The volumes of wastes likely to be generated by the proposed development are considered to be insignificant.

- 7.22 Domestic waste that cannot be reused or recycled is disposed of as general refuse. It is proposed to be taken to the collection point near the Site, however, where necessary appropriately licensed and respectable waste collectors should be employed to collect the various waste types generated at the development. With strict implementation of good site practices, good management and controls to reduce the generation of waste amounts, adverse impacts due to waste management will not be anticipated.
- 7.23 Provided that all recommended measures and legislations are strictly followed, there would be no adverse impacts related to waste management during operation phase.

Conclusions

- 7.24 A variety of wastes including inert C&D material, C&D waste, chemical waste and general refuse would be generated during the construction phase and domestic waste during occupation phase. Provided that the wastes generated would be managed with appropriate measures, no adverse environmental impacts arising from the handling, storage, transportation or disposal of the wastes generated during the occupation of the Scheme would be envisaged.

8 AIR VENTILATION ASSESSMENT

- 8.1 The wind environment of the site has been reviewed. Based on the available RAMS wind data from PlanD and measured wind data from Hong Kong Observatory, the prevailing wind is from the E, NE & SE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind also comes from the SW & S directions. Please refer to **Appendix 8.1** for the detailed Expert Evaluation Report. Annually, the wind that entering the Site is mainly come from main roads via the building gaps and scavenging lanes.
- 8.2 The buildings to the immediately south (S) of the Project site are generally lower than 30m above ground thus the wind path from the south is secured. In the east (E) and north (N) directions, there are several existing high rise buildings near the Project. The wind from the east and north are already largely blocked by the existing high rise buildings and therefore not considered as the major wind path to be improved.
- 8.3 The notional layout of the proposed developments does not violate the recommendation given by Prof. Ng in Expert Evaluation on Sai Ying Pun & Sheung Wan Area Report in 2010.
- 8.4 The proposed redevelopment includes a new elongated shaped POS adjoining Queen's Road West. The width of the POS is about 11m. It can serve as a new NE/SW direction wind corridor when the prevailing wind come from S to SW directions during summer. Compared to the existing environment where a row of tenement buildings of 4-6 storeys high has blocked the prevailing wind from SW and S, the new POS corridor can largely improve the local ventilation in the area. It can open up an air path to further enhance the at grade air circulation from the POS towards the adjoining Li Sing Street playground in the inner part of the street block.
- 8.5 Given the presence of dense and compact built environment of the surrounding, it is expected that the narrow streets and back lanes in the surrounding area are not efficient air paths. The existing major roads, namely Queen's Road West and Ko Shing Street, are the only major wind paths of the area. The proposed POS in the Scheme will serve as another major wind path which shall improve the air ventilation in the area.
- 8.6 A residential tower of about 30 storeys on top of a 3-storey podium is proposed in the Scheme which will locate on the south-eastern side of the Site, with no obstruction to the air space above the POS and the Queen's Road West. In addition, terraced podium design is adopted to enhance air circulation at pedestrian level of Queen's Road West compared to the existing situation. Sky garden is proposed in the current layout, which enhances the permeability of the building block in the high zone.

- 8.7 The proposed building height of the residential tower conforms to the maximum building height of the R(A)7 zoning in the area. Therefore, the height of the proposed residential tower is not anticipated to induce significant air ventilation impact to the surrounding area.
- 8.8 Consider the ventilation of the development itself, the residential tower is higher than its surrounding buildings thus its wind capturing potential is secured. In addition, judicious disposition of the residential tower allows capturing the upstream wind from the east through the gap between buildings.
- 8.9 In conclusion, various air ventilation related issues have been considered during the early design stage and no adverse air ventilation impact on the local wind environment due to the proposed development is anticipated.

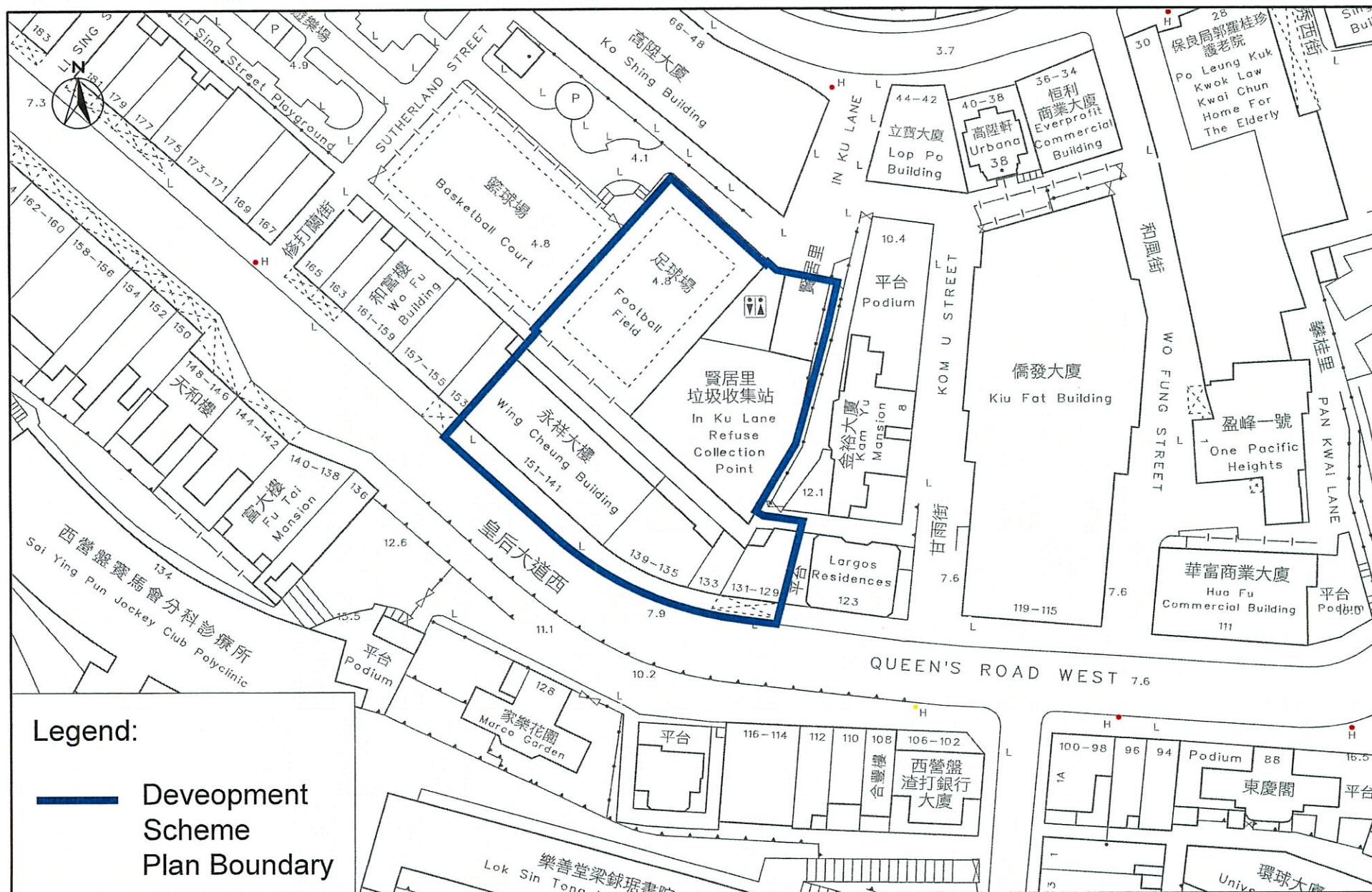
9 CONCLUSION

- 9.1 An Environmental Assessment has been carried out to evaluate the potential environmental benefits and impacts likely to arise from the proposed Development Scheme Plan. The key environmental issues associated with the Project are construction dust impact, construction noise impact and waste management during the construction phase and potential air quality and noise impact during the operational phase. Potential sewerage impact, land contamination impact and air ventilation impact are also assessed to support the Development Scheme.
- 9.2 Heavy foundation work is not anticipated for the Project as its scale is small. With the implementation of dust suppression measures stipulated under the Air Pollution Control (Construction Dust) Regulation and the adoption of good site practice, no adverse air quality impact associated with the construction works is expected.
- 9.3 The only air pollution source within the proposed DSP is the re-provisioned RCP during operation phase. With proper mitigation measure such as sufficient ventilation and odour removal facility, no air quality impact arising from the proposed DSP is anticipated. Adverse air quality impact from the nearby traffic to the proposed development is not anticipated with the increased separation provided between the traffic emission and the ASRs. The nearby chimneys are not imposing air quality impact as they are mainly served as backup purpose and are rarely used. The air quality upon completion of the project will be similar to, if not better than, the existing situation and no insurmountable air quality impact is anticipated.
- 9.4 Construction noise impact is considered insignificant as the site is small thus the number of PME that it can accommodate is limited. With the implementation of the recommended mitigation measures, construction noise impact will be further minimized.
- 9.5 Traffic noise impact has been taken into consideration when designing the notional layout of the residential development. With specially designed windows and balcony, adverse road traffic noise impact on the Project is not anticipated. The noise from the fixed noise sources of the proposed development and in the surroundings have been assessed. With noise mitigation measure implemented to the exhaust system of the car park and RPC, no adverse noise impact arising from the fixed noise sources is anticipated.
- 9.6 No risk of land contamination has been identified near the site after reviewing historical and current land uses and government records. No potential land contamination land contamination within the project site is expected.
- 9.7 A variety of wastes including inert C&D material, C&D waste, chemical waste and general refuse would be generated during the construction phase and domestic waste during occupation phase. Provided that the wastes generated would be managed with appropriate measures, no

adverse environmental impacts arising from the handling, storage, transportation or disposal of the wastes generated during the occupation of the Scheme would be envisaged.

- 9.8 Air ventilation assessment indicated that various air ventilation related issues have been considered during the early design stage thus no adverse air ventilation impact on the local wind environment due to the proposed development is anticipated.

FIGURES



Legend:

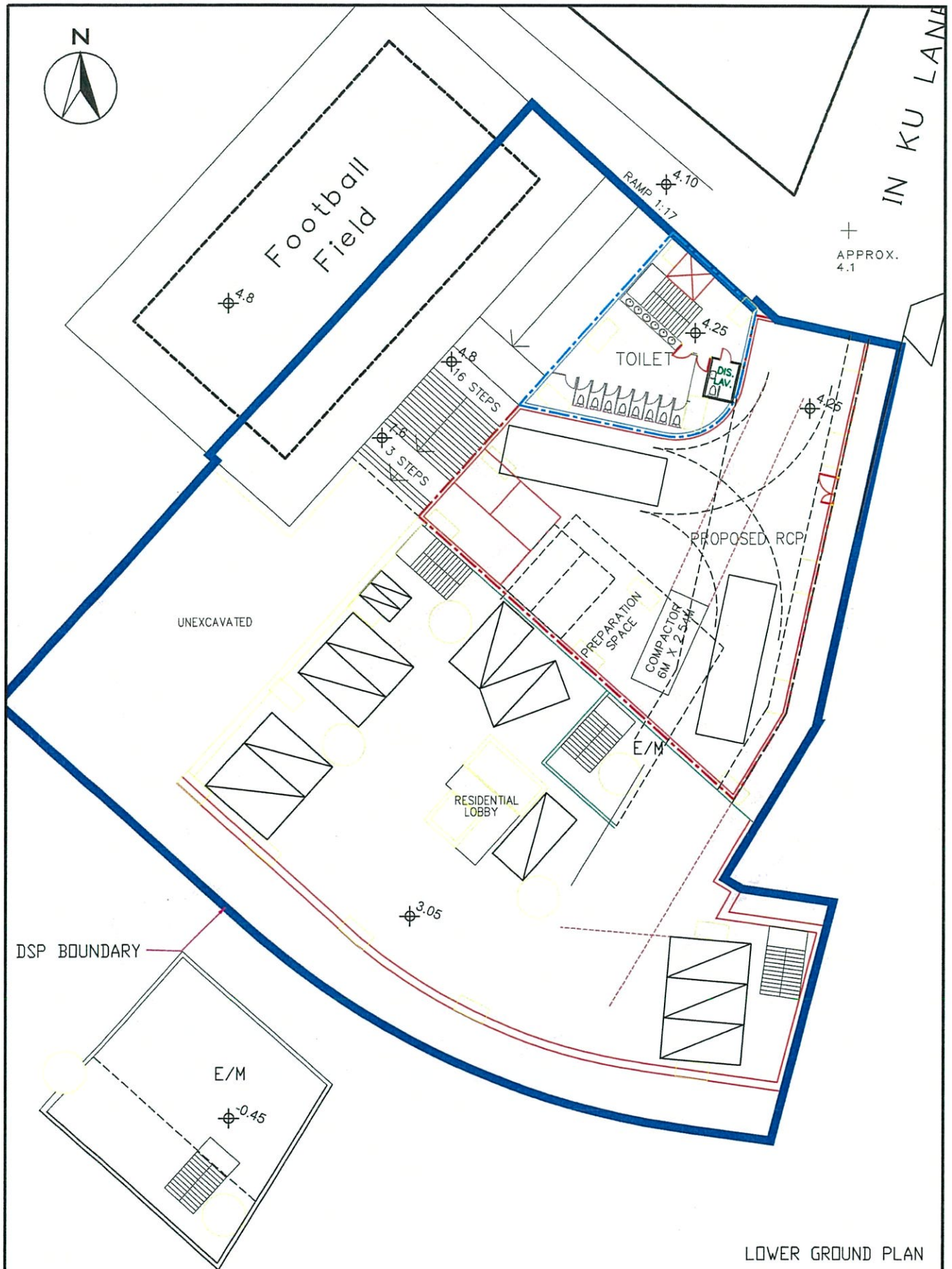
— Development Scheme Plan Boundary

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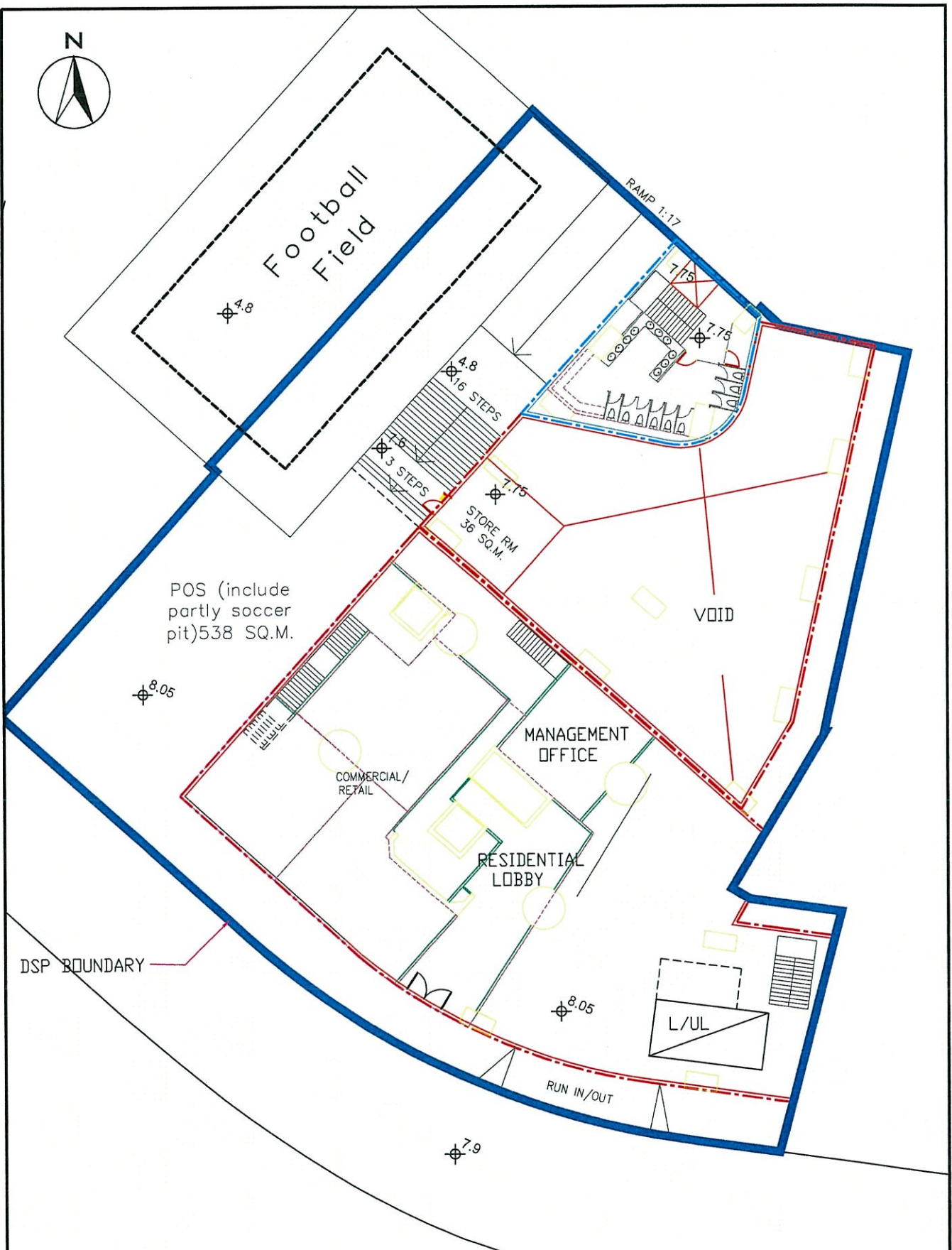
Urban Renewal Authority Queen's Road West / In Ku Lane Development Scheme (C&W-006)

Location of the Site

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| JOB No. | IA17019 | DRAWING No. | Figure 1.1 |
| | | REV | 1 |



LOWER GROUND PLAN

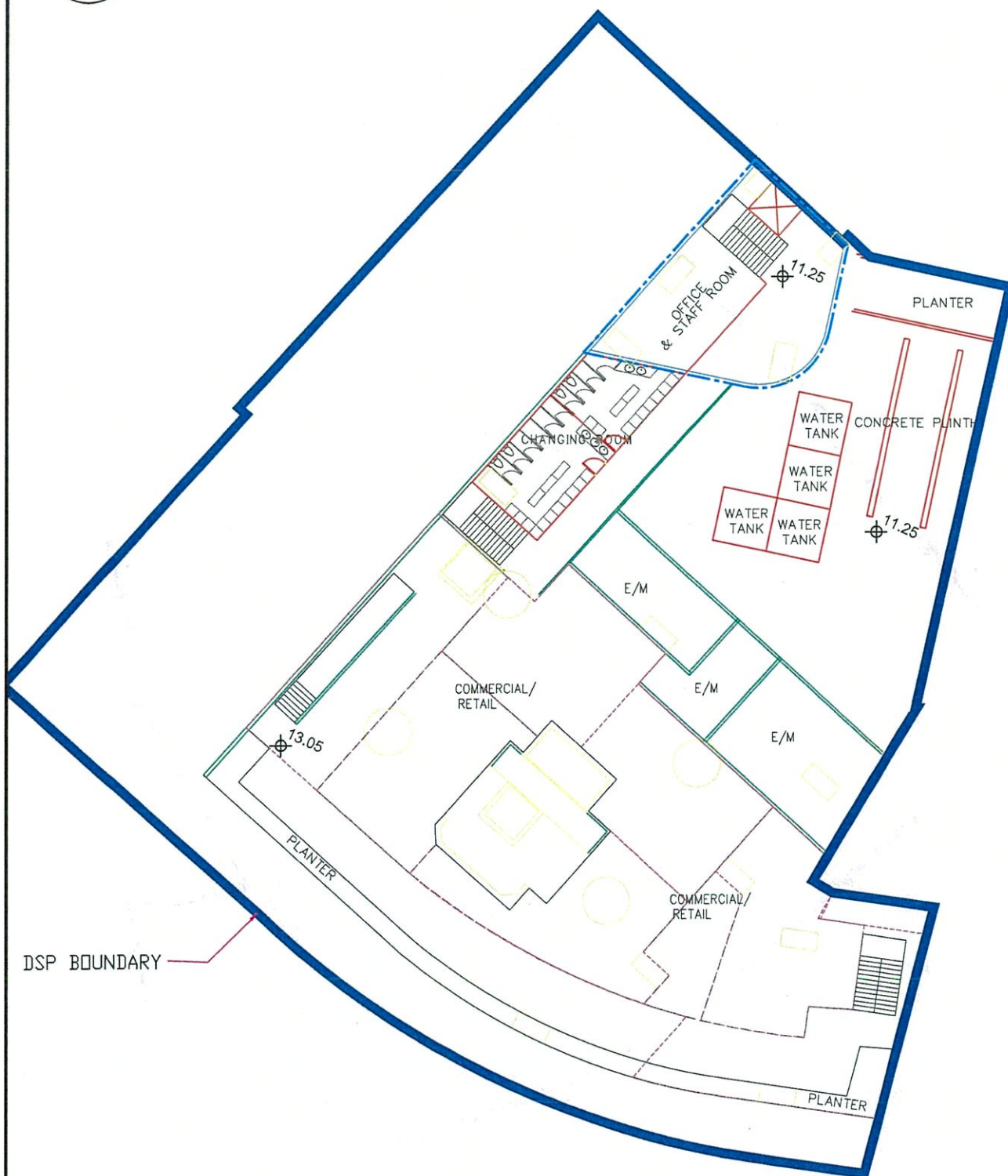


GF PLAN



Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

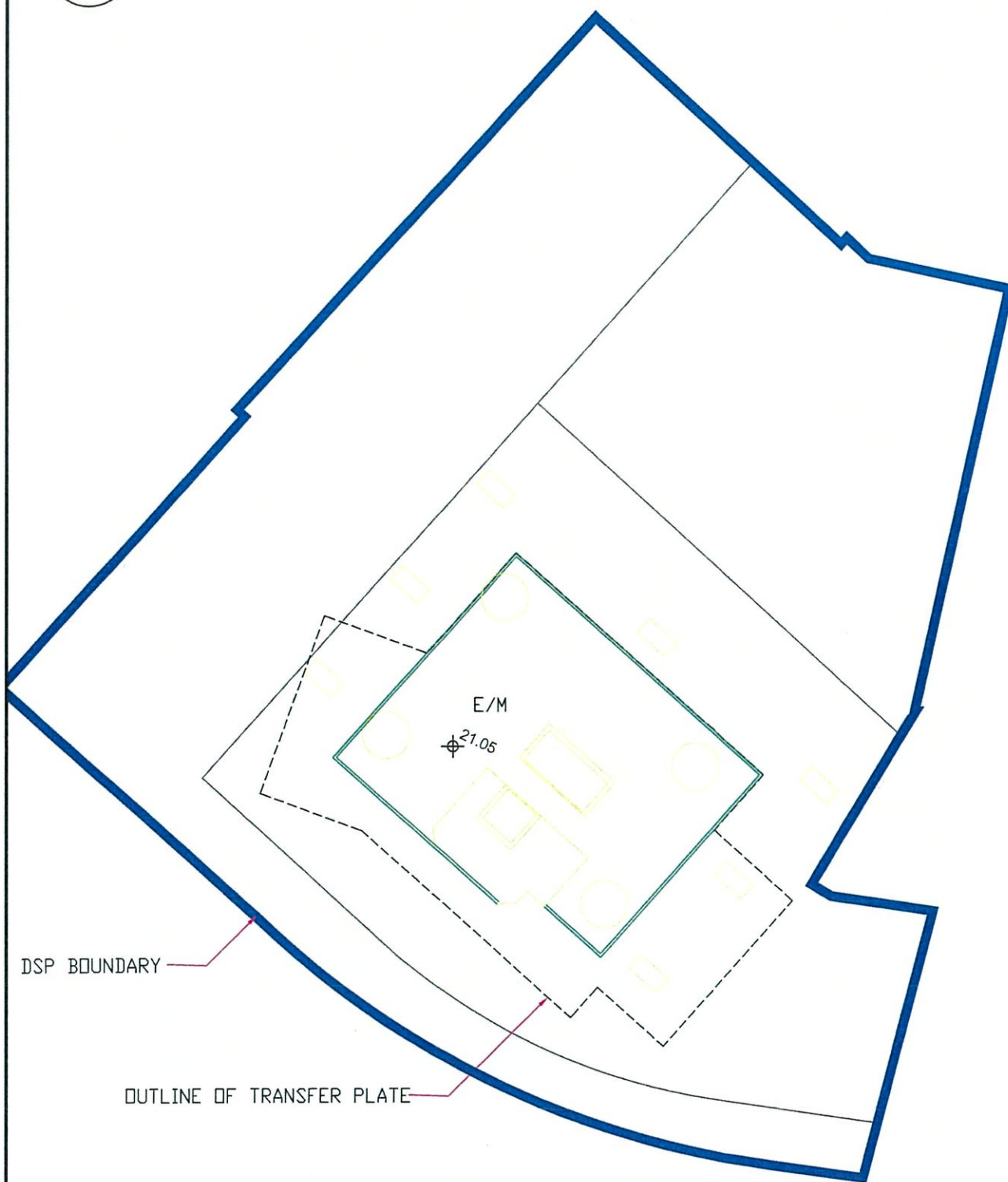
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| | | REV | 1 |



1F PLAN



2F PLAN



3F PLAN

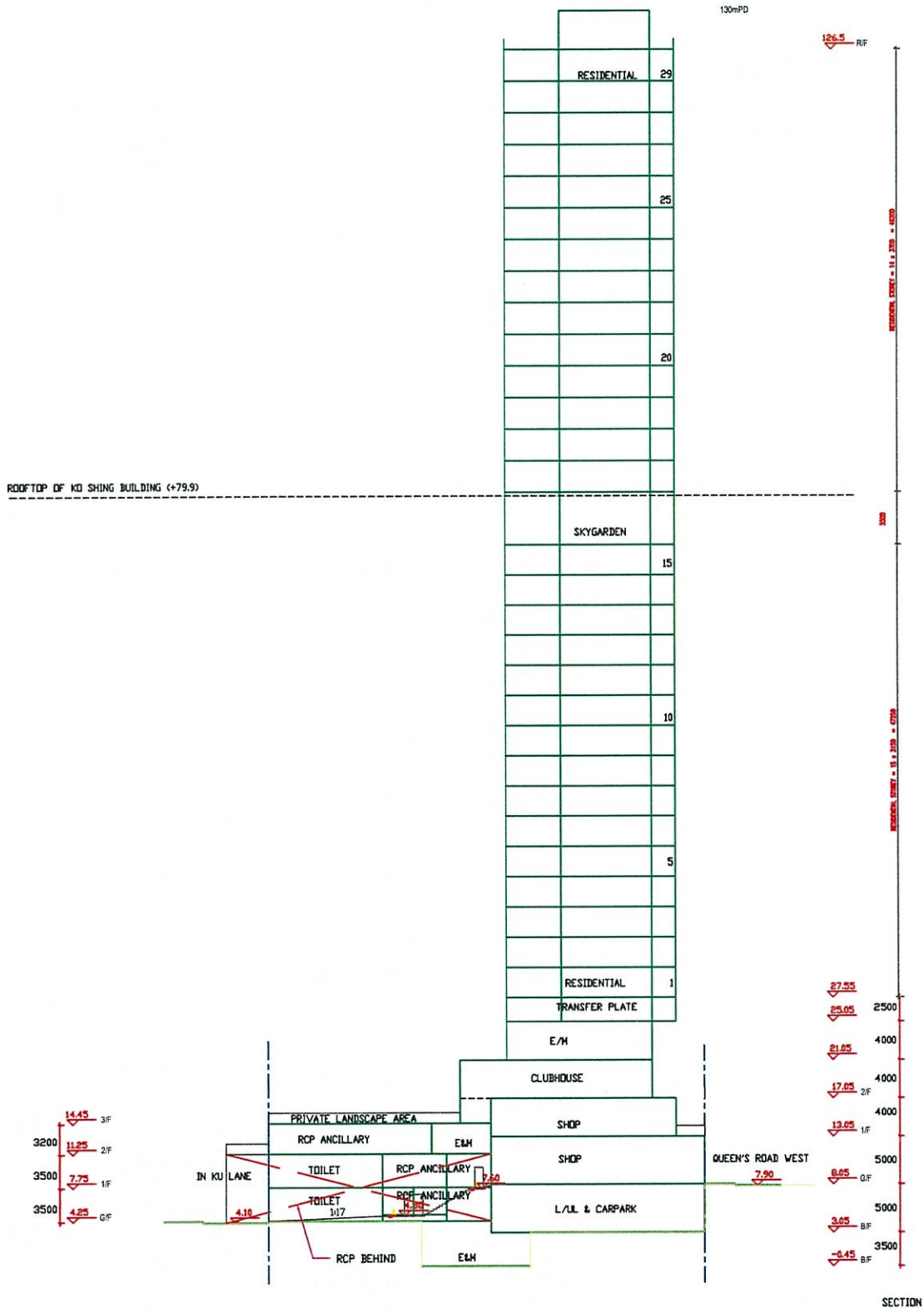


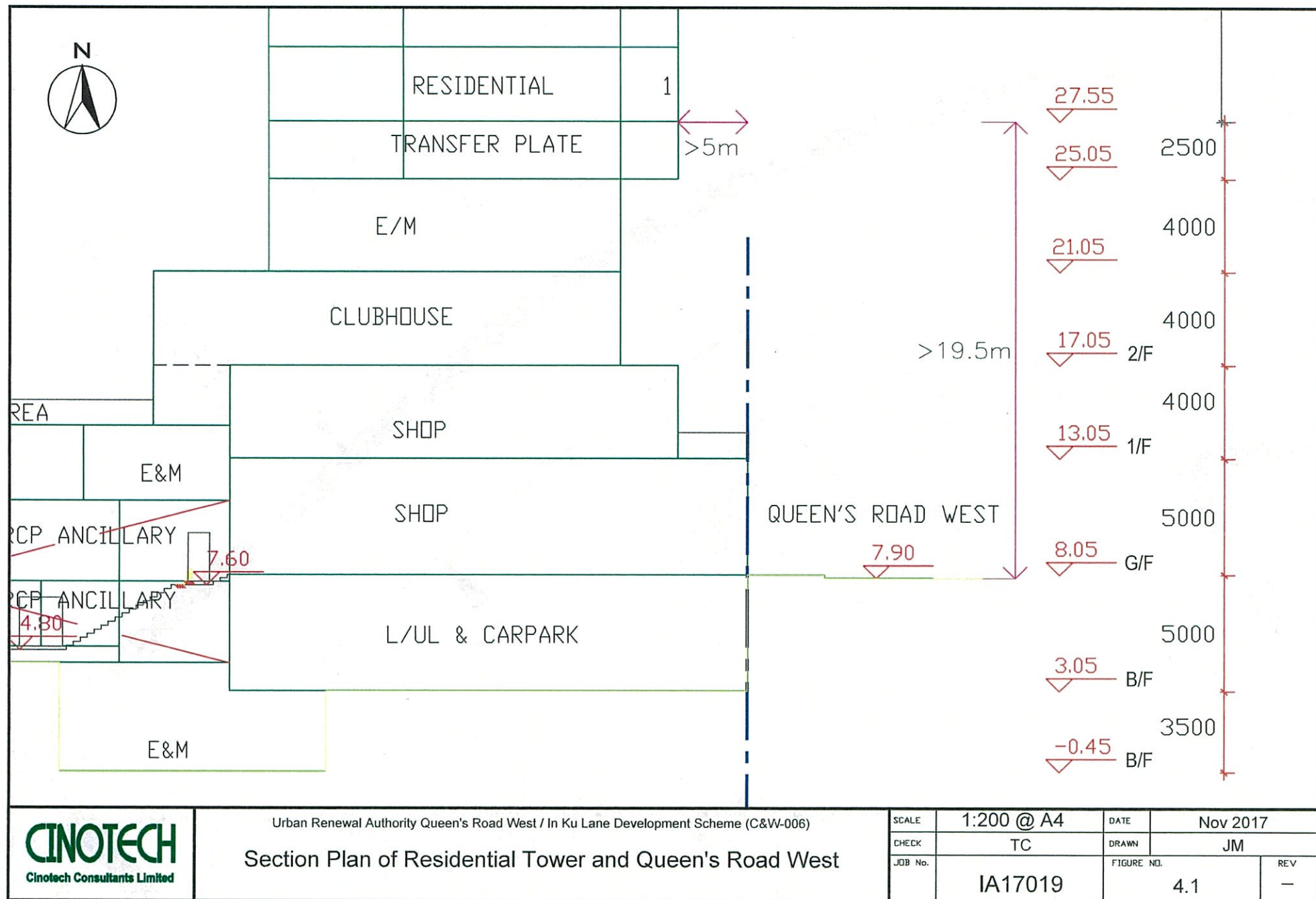
DSP BOUNDARY

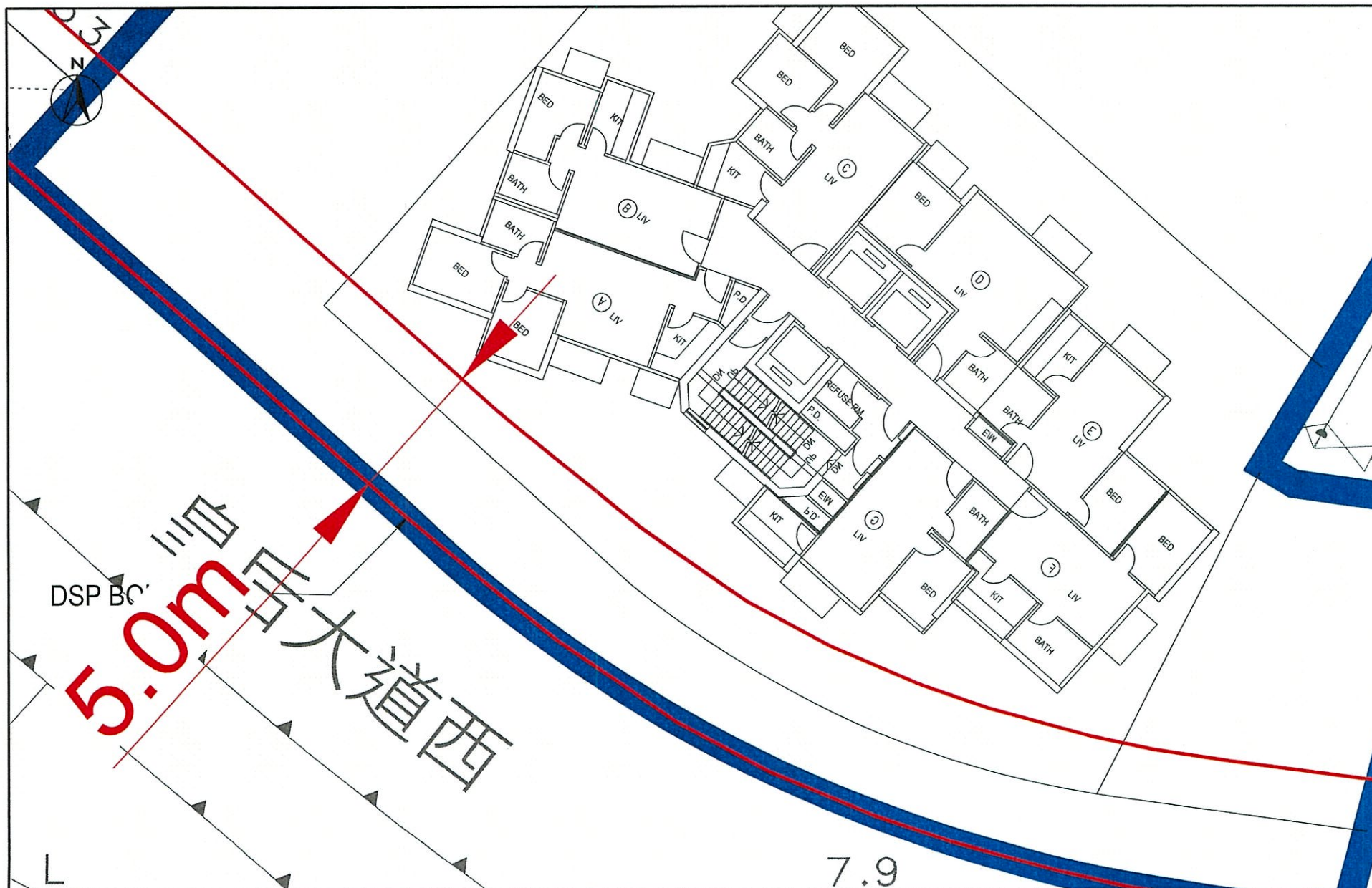
TYPICAL FLOOR PLAN
(LOW ZONE)

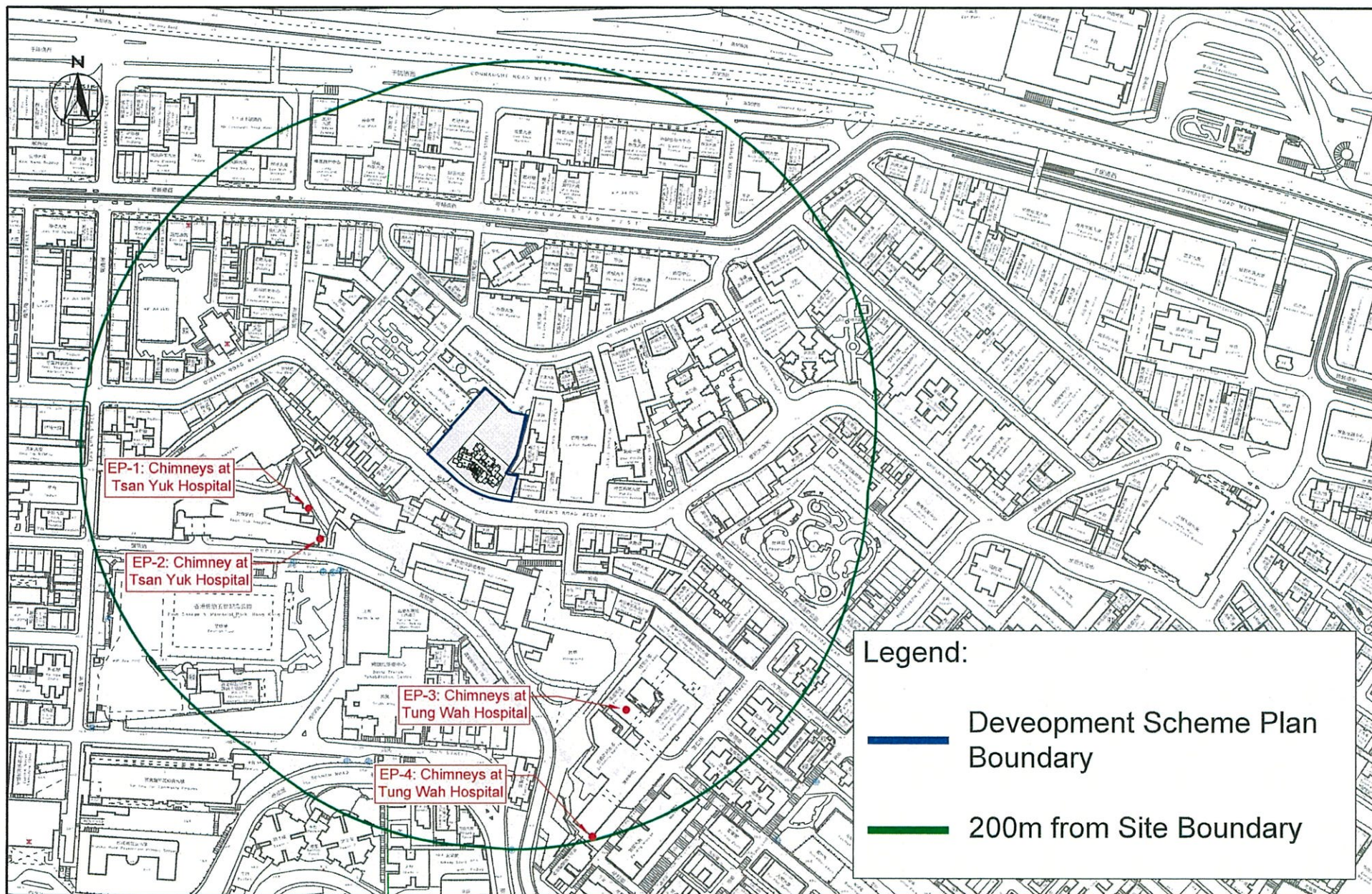


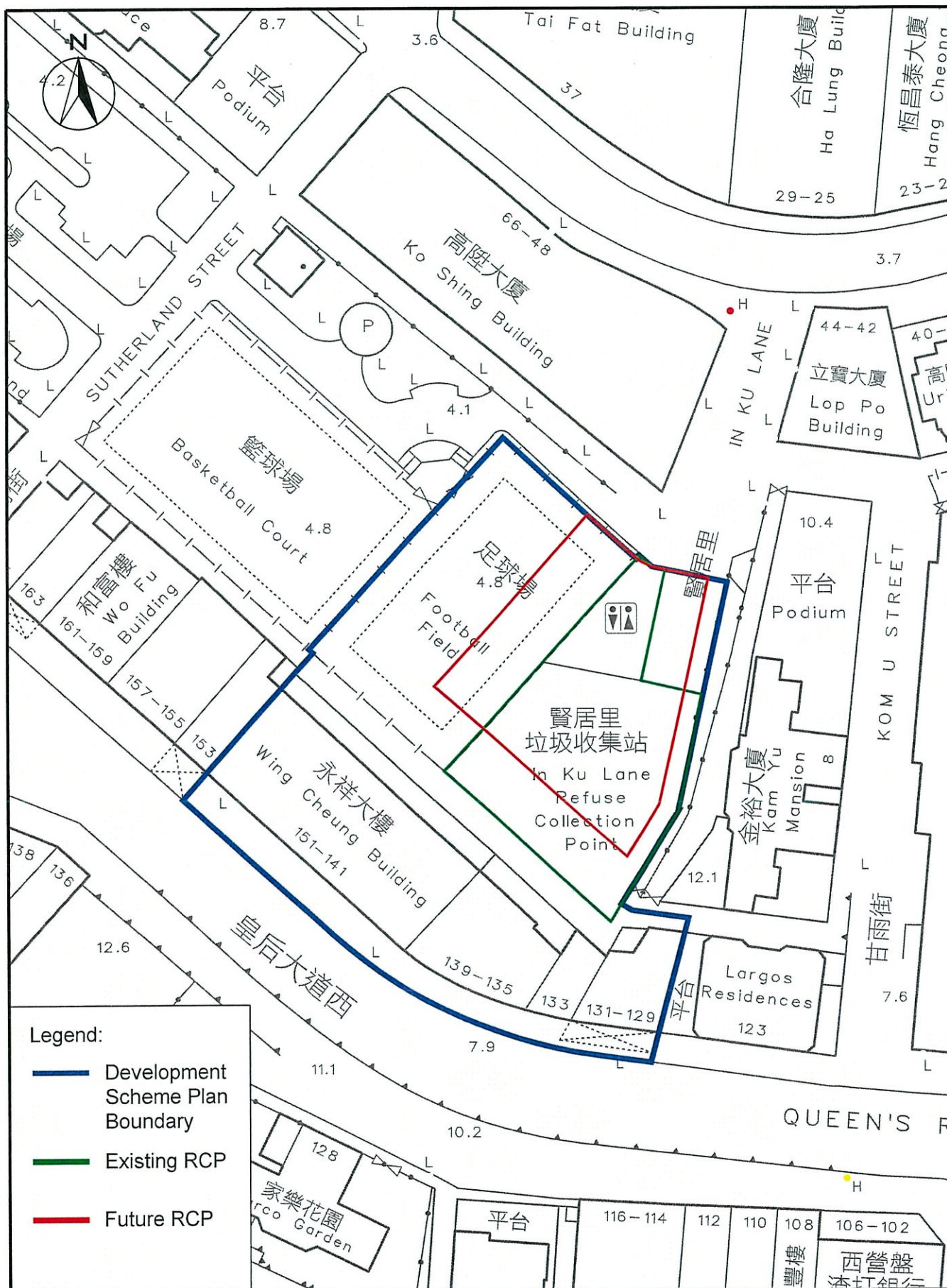
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| | Development Scheme (C&W-006) | JOB No. | IA17019 | FIGURE NO. | 3.1g |
| | Notional Layout | | | | 1 |











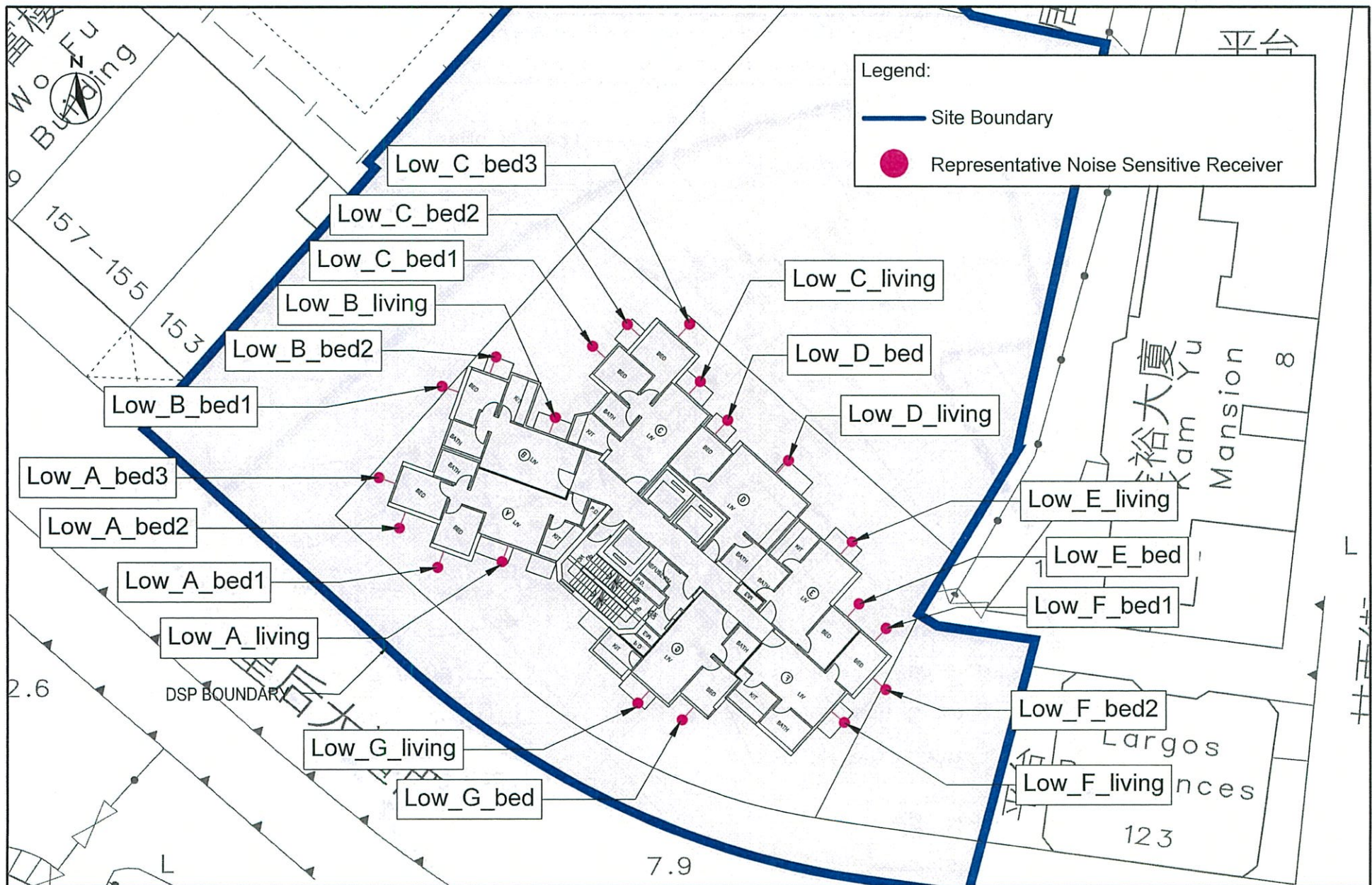
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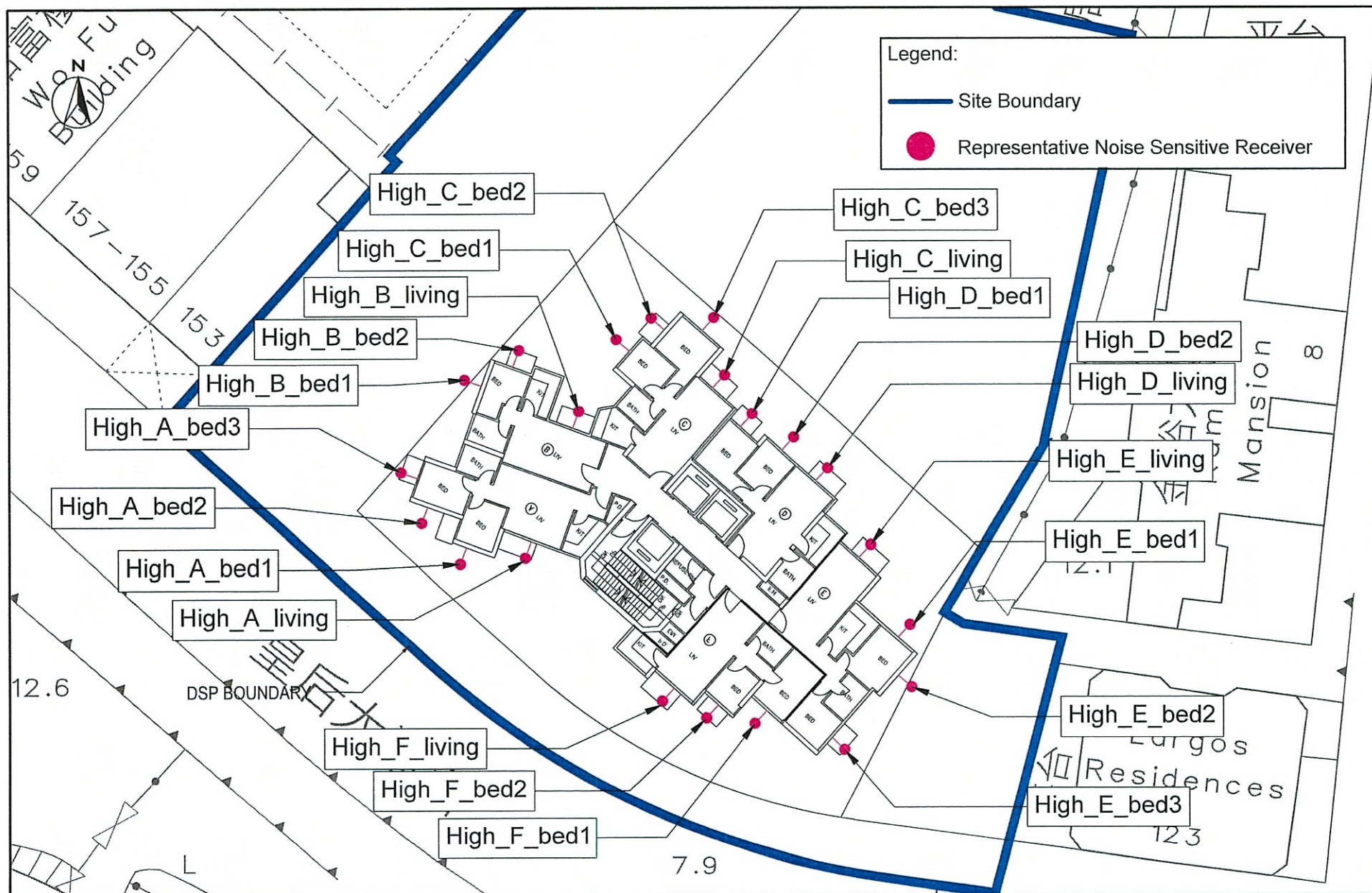
- Development Scheme Plan Boundary
- Existing RCP
- Future RCP

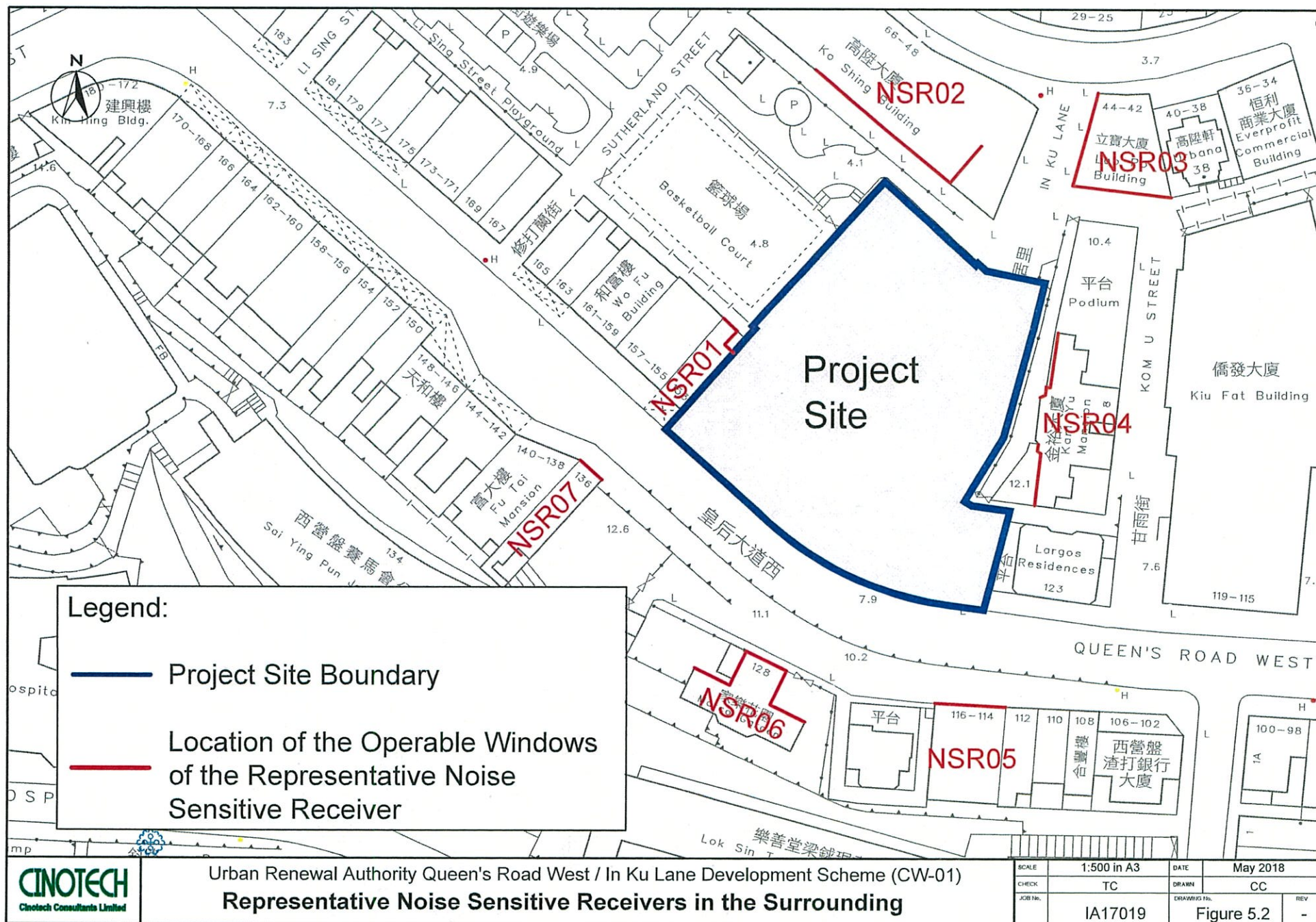
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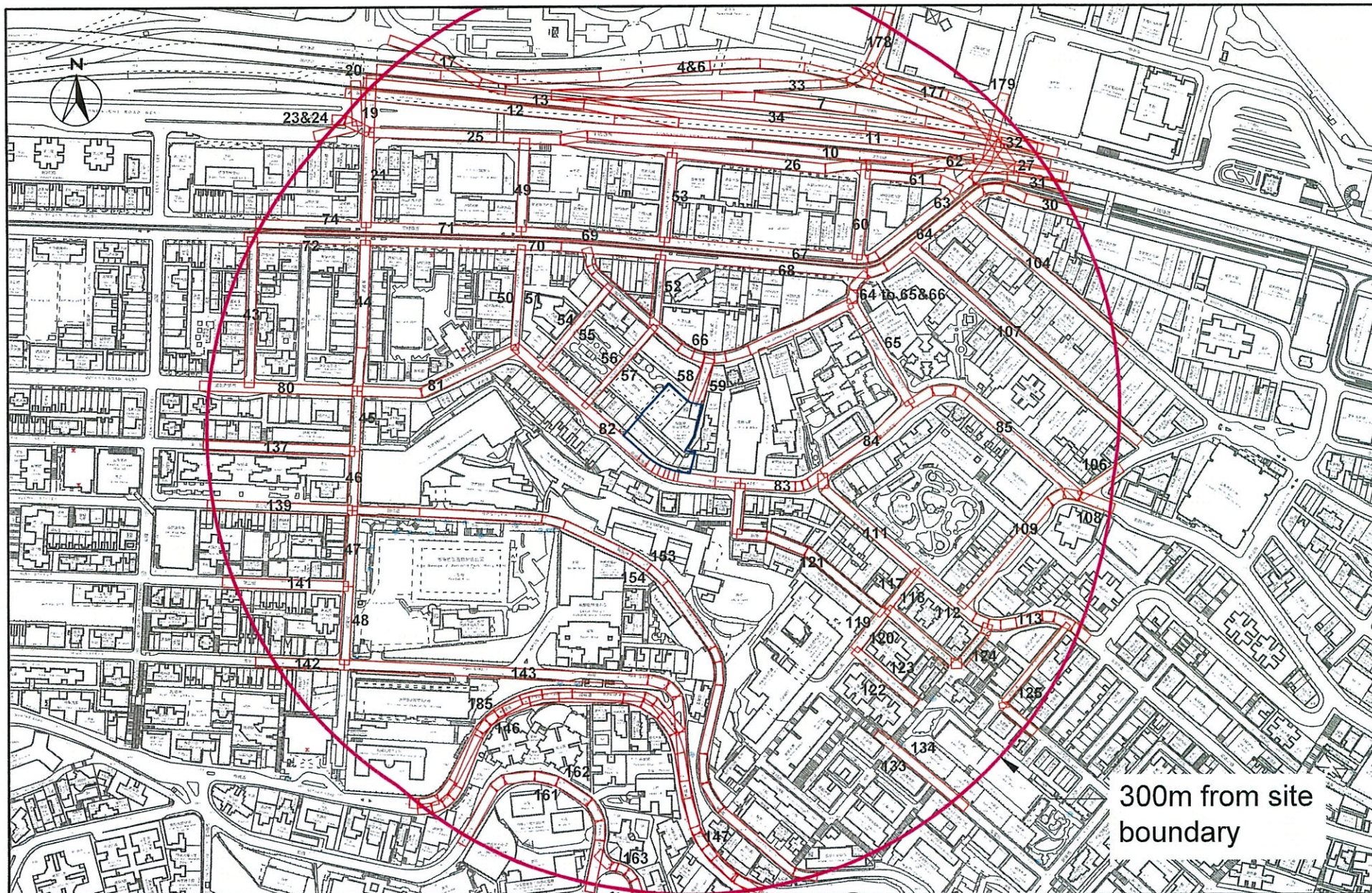
Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Location of RCP

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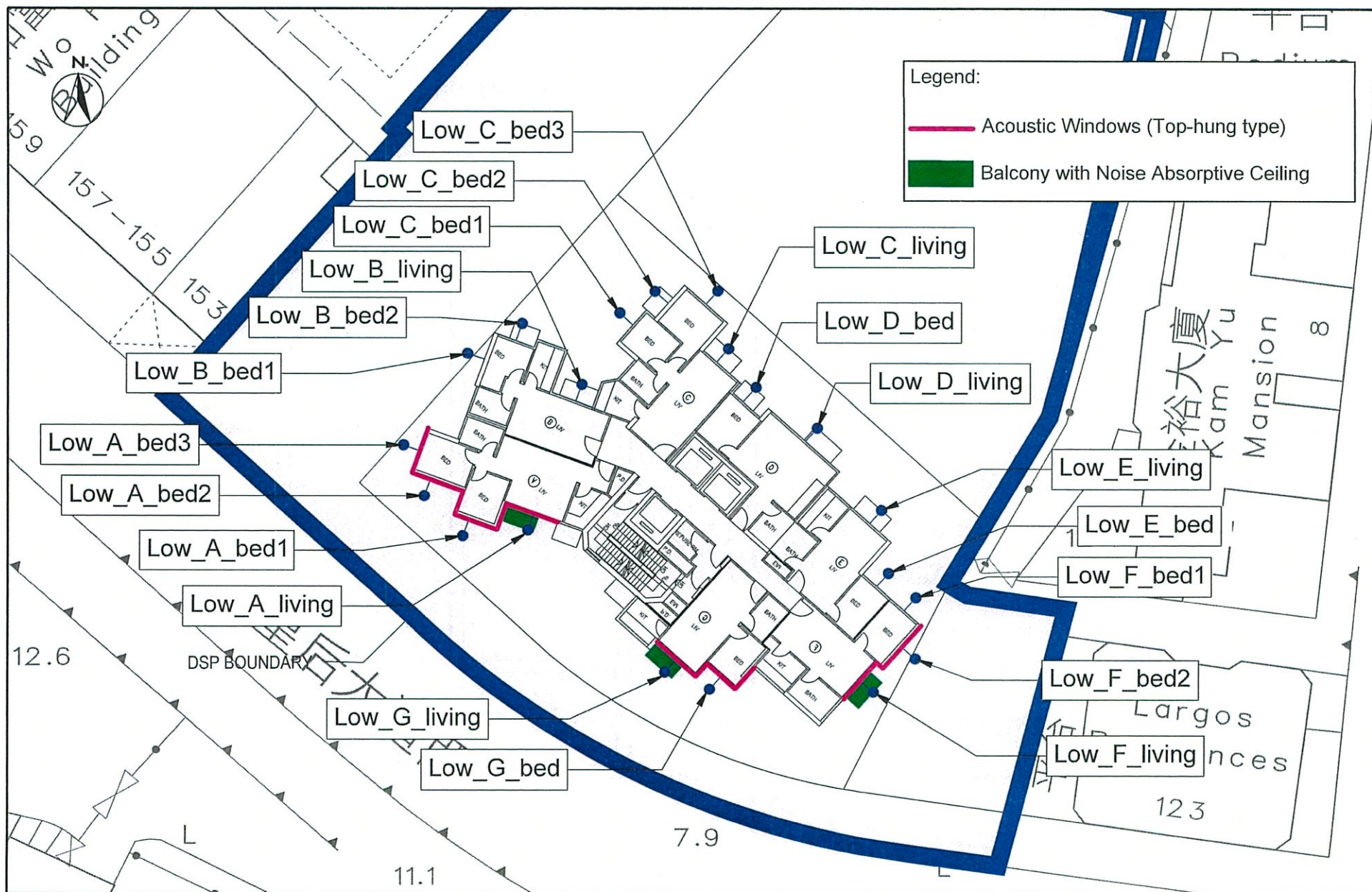


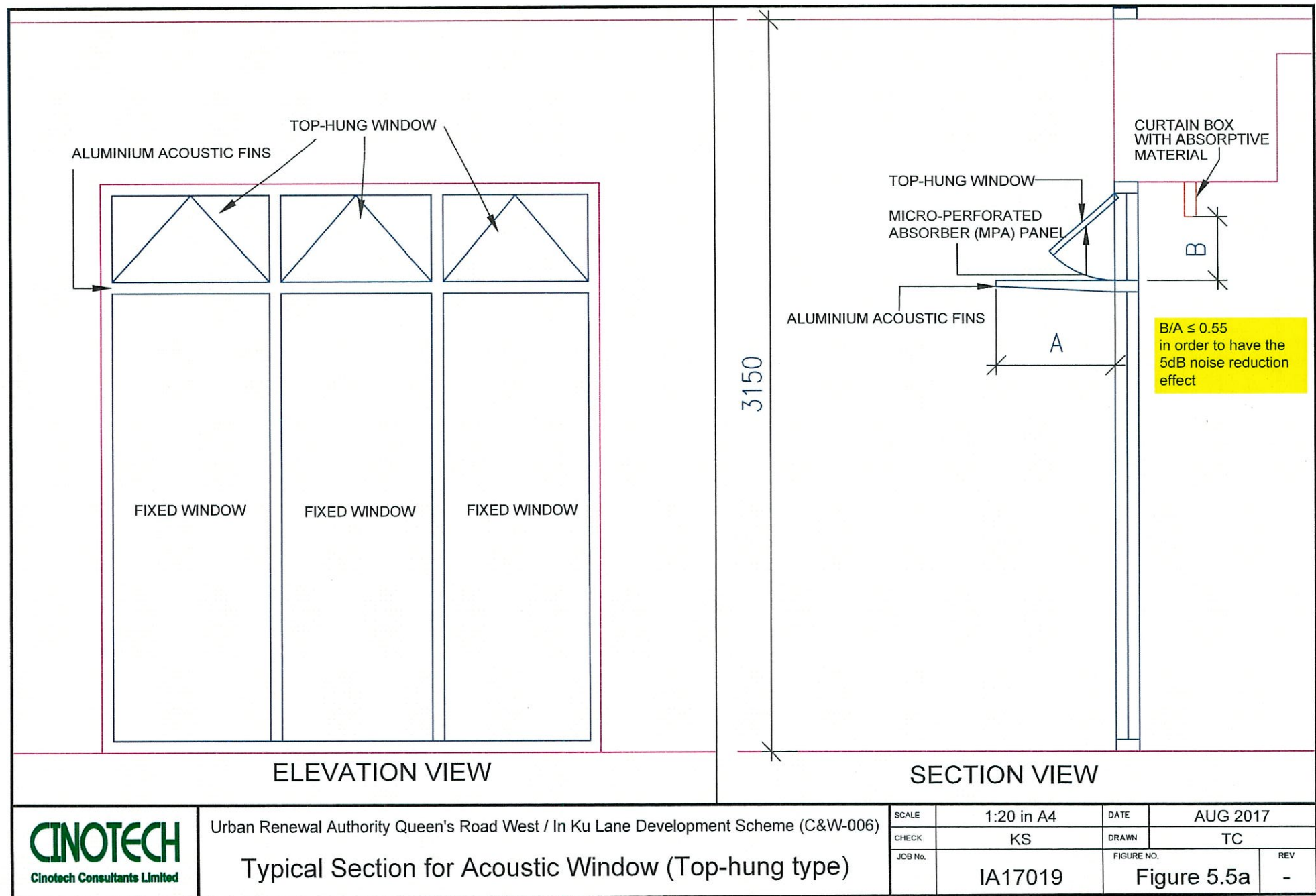


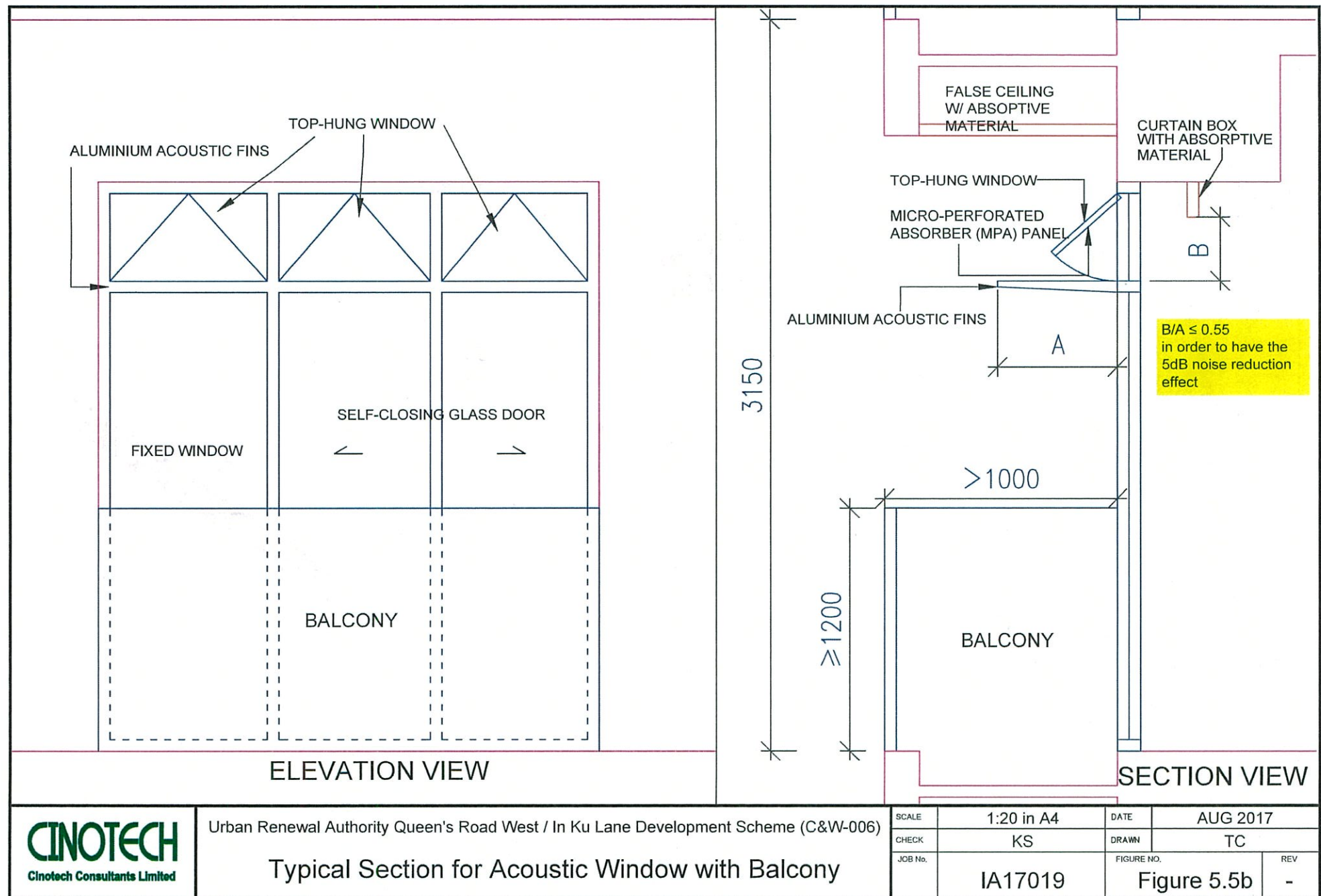


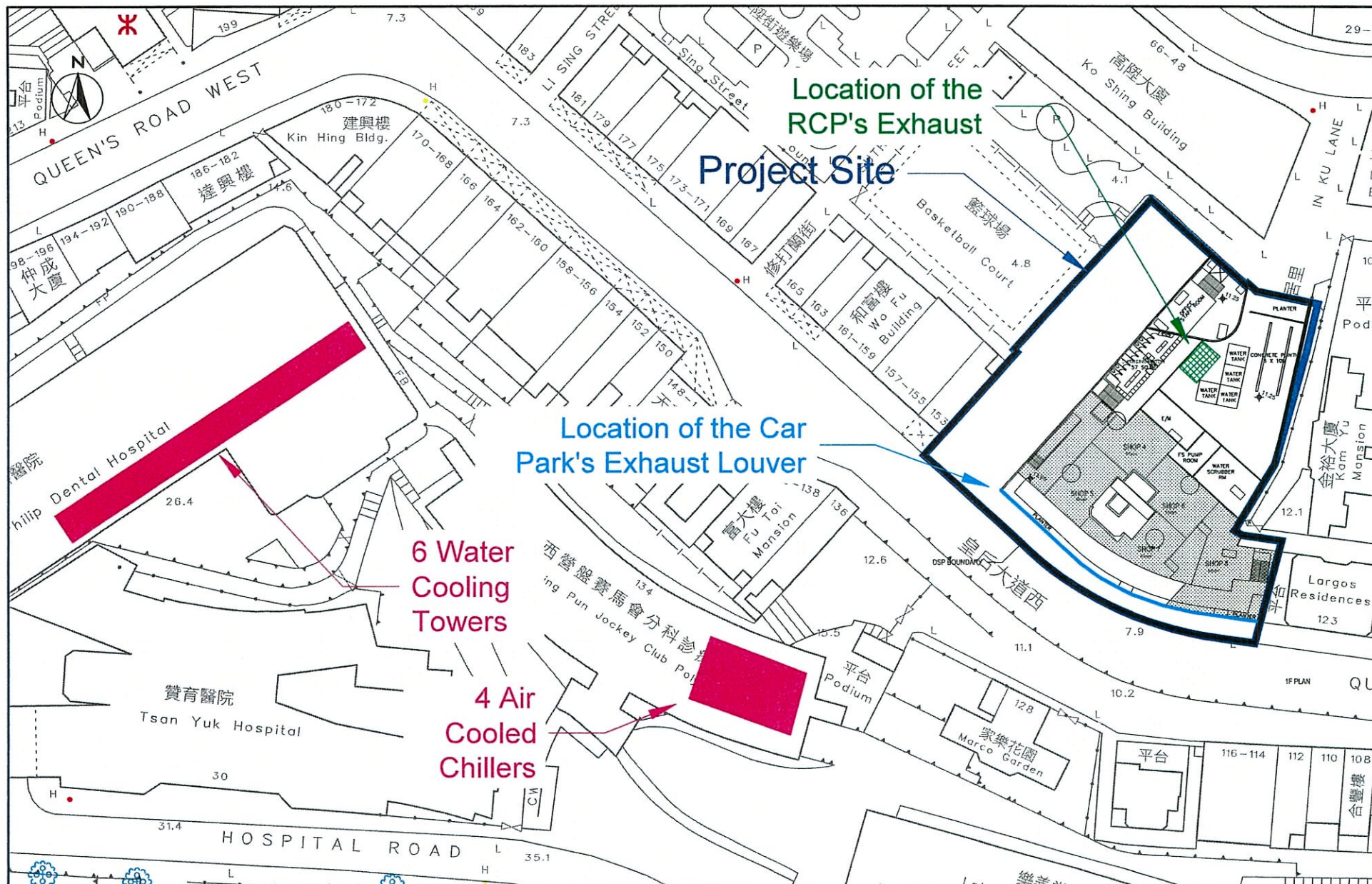


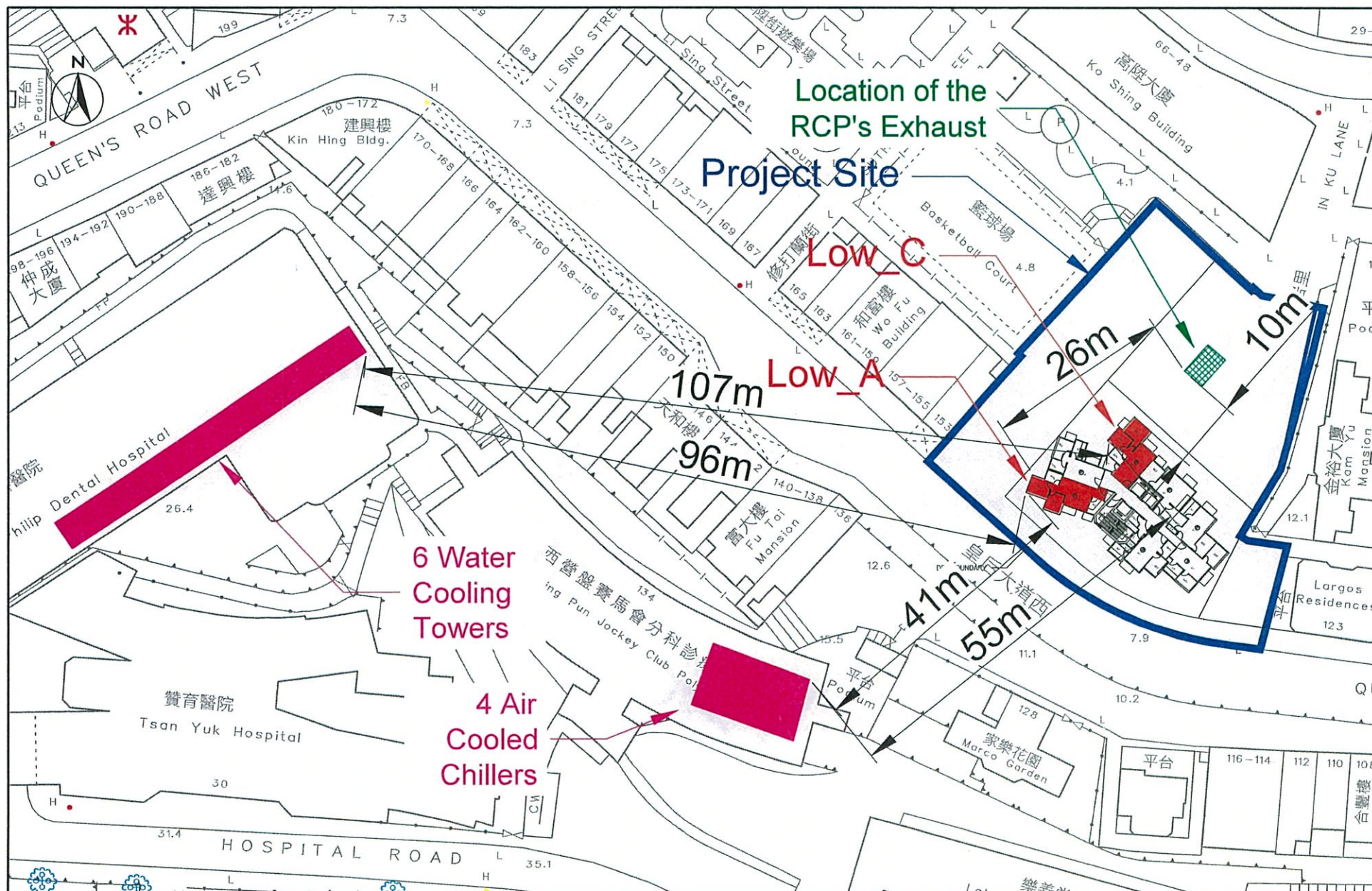
300m from site
boundary

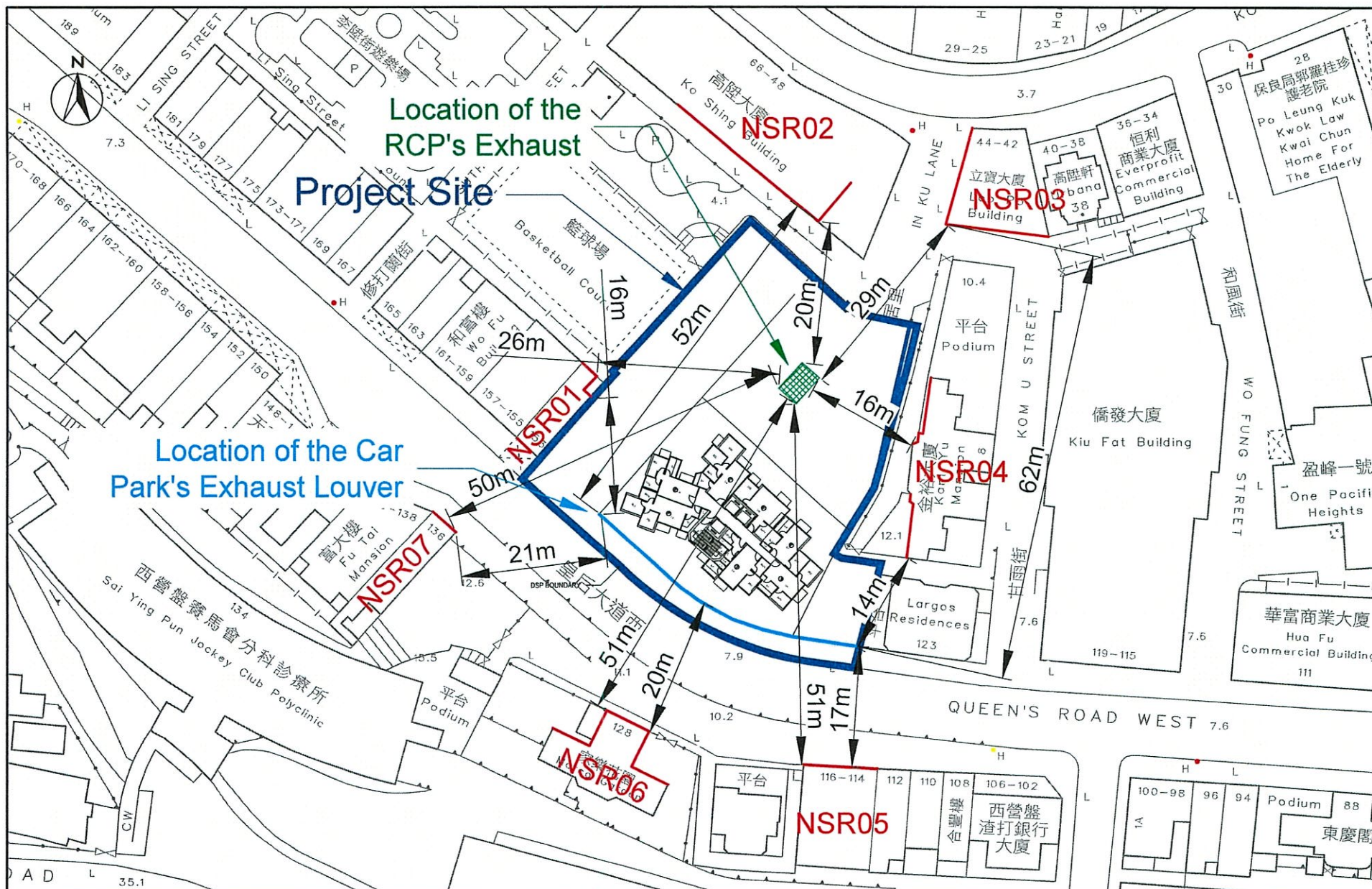








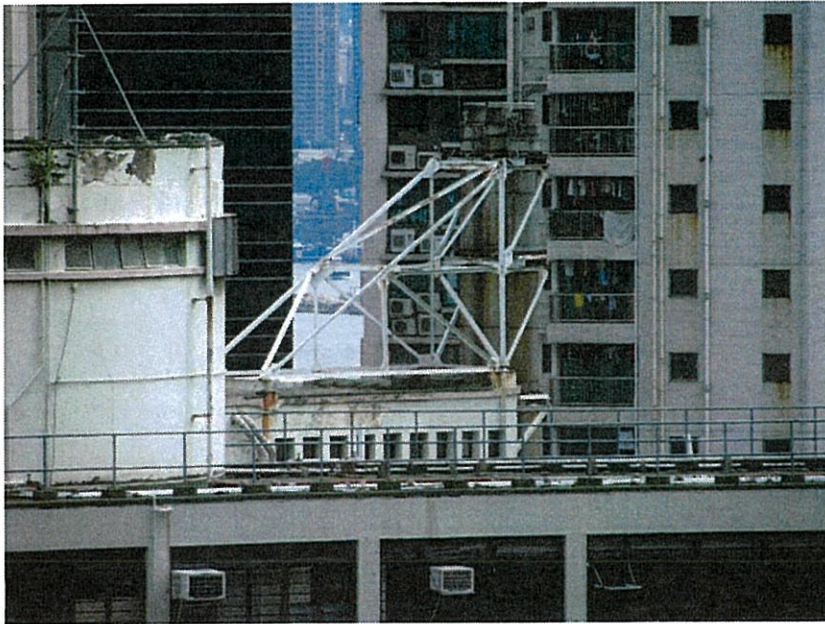




APPENDIX 4.1

Photos of Identified Chimneys

EP-1: Tsan Yuk Hospital (Boiler)



EP-2: Tsan Yuk Hospital (Generator)



EP-3: Tung Wah Hospital (Generator)



EP-4: Tung Wah Hospital (Boiler)



APPENDIX 5.1

**Predicted Traffic Flow at Peak Hour in Year
2043**

| Road Section ID | Road/Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|---|--------------------------|-------|---------------------|-------|---------------------------|
| | | AM | PM | AM | PM | |
| 4&6 | Connaught Road West Flyover | 3,200 | 2,350 | 12.2 | 7.5 | 80 |
| 7 | Connaught Road West Flyover (up ramp) | 600 | 550 | 24.2 | 15.8 | 80 |
| 10 | Connaught Road West Flyover (down ramp) | 1,500 | 1,600 | 9.9 | 7.9 | 50 |
| 11 | Connaught Road West Flyover | 2,400 | 2,900 | 8.5 | 6.7 | 80 |
| 12 | Connaught Road West Flyover (down ramp) | 1,400 | 2,150 | 8.5 | 7.4 | 50 |
| 13 | Connaught Road West Flyover | 1,000 | 750 | 9.5 | 7.6 | 80 |
| 17 | Connaught Road West | 3,350 | 2,100 | 24.3 | 15.9 | 50 |
| 19 | Eastern Street North | 900 | 750 | 27.8 | 22.5 | 50 |
| 20 | Connaught Road West | 350 | 450 | 28.6 | 21.9 | 50 |
| 21 | Eastern Street | 500 | 550 | 22.9 | 15.5 | 50 |
| 23&24 | Connaught Road West | 2,650 | 2,900 | 18.8 | 17.7 | 50 |
| 25 | Connaught Road West | 2,300 | 2,550 | 14.4 | 12.3 | 50 |
| 26 | Connaught Road West | 900 | 1,050 | 21.1 | 18.9 | 50 |
| 27 | Connaught Road West | 750 | 800 | 19.9 | 17.9 | 50 |
| 30 | Connaught Road West | 250 | 300 | 42.8 | 41.6 | 50 |
| 31 | Connaught Road West | 100 | 100 | 100.0 | 100.0 | 50 |
| 32 | Connaught Road West | 2,300 | 1,550 | 27.7 | 19.7 | 50 |
| 33 | Connaught Road West | 300 | 200 | 21.8 | 12.2 | 50 |
| 34 | Connaught Road West | 2,300 | 1,350 | 25.6 | 17.4 | 50 |
| 43 | Kwai Heung Street | 10 | 10 | 18.2 | 11.3 | 50 |
| 44 | Eastern Street | 600 | 860 | 25.6 | 20.3 | 50 |
| 45 | Eastern Street | 550 | 710 | 10.1 | 5.4 | 50 |
| 46 | Eastern Street | 550 | 500 | 10.1 | 5.4 | 50 |
| 47 | Eastern Street | 250 | 250 | 19.3 | 14.0 | 50 |
| 48 | Eastern Street | 50 | 50 | 17.2 | 11.0 | 50 |
| 49 | Wilmer Street | 50 | 50 | 4.8 | 0.3 | 50 |
| 50 | Wilmer Street | 50 | 10 | 0.0 | 0.0 | 50 |
| 51 | Wilmer Street | 50 | 10 | 3.3 | 0.0 | 50 |
| 52 | Sutherland Street | 50 | 50 | 16.9 | 8.2 | 50 |
| 53 | Sutherland Street | 10 | 10 | 30.7 | 21.9 | 50 |
| 54 | Li Shing Street | 10 | 10 | 4.8 | 0.0 | 50 |
| 55 | Li Shing Street | 50 | 10 | 0.0 | 0.0 | 50 |

| Road Section ID | Road/Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|----------------------|--------------------------|-------|---------------------|------|---------------------------|
| | | AM | PM | AM | PM | |
| 56 | Sutherland Street | 10 | 10 | 4.8 | 0.0 | 50 |
| 57 | Sutherland Street | 50 | 10 | 0.0 | 0.0 | 50 |
| 58 | In Ku Lane | 10 | 10 | 0.0 | 0.0 | 50 |
| 59 | In Ku Lane | 10 | 10 | 0.0 | 0.0 | 50 |
| 60 | Queen Street | 550 | 450 | 21.5 | 12.7 | 50 |
| 61 | Connaught Road West | 500 | 500 | 19.1 | 11.0 | 50 |
| 62 | Connaught Road West | 900 | 1,050 | 24.0 | 21.9 | 50 |
| 63 | Des Voeux Road West | 250 | 350 | 48.2 | 42.0 | 50 |
| 64 | Des Voeux Road West | 550 | 550 | 28.3 | 26.1 | 50 |
| 64 to 65&66 | Des Voeux Road West | 700 | 450 | 23.3 | 15.2 | 50 |
| 65 | Queen Street | 250 | 200 | 20.2 | 12.0 | 50 |
| 66 | Ko Shing Street | 450 | 250 | 25.0 | 17.8 | 50 |
| 67 | Des Voeux Road West | 800 | 700 | 48.1 | 40.9 | 50 |
| 68 | Des Voeux Road West | 250 | 250 | 48.5 | 46.6 | 50 |
| 69 | Des Voeux Road West | 800 | 750 | 48.1 | 40.9 | 50 |
| 70 | Des Voeux Road West | 700 | 500 | 48.5 | 46.5 | 50 |
| 71 | Des Voeux Road West | 800 | 700 | 48.1 | 40.9 | 50 |
| 72 | Des Voeux Road West | 550 | 250 | 83.5 | 82.9 | 50 |
| 74 | Des Voeux Road West | 800 | 750 | 48.3 | 41.0 | 50 |
| 80 | Queen's Road West | 700 | 900 | 47.4 | 42.2 | 50 |
| 81 | Queen's Road West | 600 | 750 | 35.3 | 31.5 | 50 |
| 82 | Queen's Road West | 600 | 760 | 36.1 | 32.2 | 50 |
| 83 | Queen's Road West | 500 | 750 | 41.4 | 37.9 | 50 |
| 84 | Queen's Road West | 800 | 900 | 28.2 | 24.1 | 50 |
| 85 | Queen's Road West | 550 | 750 | 35.1 | 31.5 | 50 |
| 104 | Wing Lok Street | 100 | 200 | 22.3 | 17.8 | 50 |
| 106 | Bonham Strand | 250 | 100 | 13.0 | 7.6 | 50 |
| 107 | Bonham Strand West | 50 | 100 | 14.6 | 9.0 | 50 |
| 108 | Queen's Road Central | 850 | 1,000 | 26.4 | 22.3 | 50 |
| 109 | Possession Street | 550 | 350 | 11.3 | 6.1 | 50 |
| 111 | Hollywood Road | 300 | 200 | 10.3 | 6.6 | 50 |
| 112 | Hollywood Road | 300 | 100 | 9.7 | 6.1 | 50 |

| Road Section ID | Road/Street | Traffic Flow (veh/hr) | | Heavy Vehicles % | | Speed limit (km/hr) |
|-----------------------|-----------------------------|--------------------------|-----|---------------------|------|---------------------------|
| | | AM | PM | AM | PM | |
| 113 | Hollywood Road | 800 | 550 | 9.1 | 5.5 | 50 |
| 117 | Po Yan Street | 50 | 10 | 4.1 | 4.1 | 50 |
| 118 | Po Yan Street | 50 | 10 | 8.5 | 2.8 | 50 |
| 119 | Po Yan Street | 0 | 50 | 0.0 | 6.7 | 50 |
| 120 | Po Yan Street | 50 | 20 | 5.1 | 1.7 | 50 |
| 121 | New Street | 100 | 10 | 6.9 | 9.3 | 50 |
| 122 | Po Yee Street | 0 | 20 | 0.0 | 0.0 | 50 |
| 123 | Po Yee Street | 0 | 10 | 0.0 | 0.0 | 50 |
| 124 | Tai Ping Shan Street | 10 | 50 | 20.0 | 0.0 | 50 |
| 125 | Upper Station Street | 50 | 50 | 4.4 | 4.8 | 50 |
| 133 | Po Hing Fong | 50 | 50 | 5.0 | 5.7 | 50 |
| 134 | Po Hing Fong | 50 | 50 | 7.8 | 2.6 | 50 |
| 137 | First Street | 250 | 210 | 27.3 | 19.8 | 50 |
| 139 | Second Street | 750 | 550 | 15.7 | 12.1 | 50 |
| 141 | Third Street | 200 | 200 | 18.9 | 15.4 | 50 |
| 142 | High Street | 250 | 200 | 11.2 | 7.5 | 50 |
| 143 | High Street | 200 | 100 | 10.3 | 6.6 | 50 |
| 146 | Bonham Road | 200 | 200 | 91.6 | 86.5 | 50 |
| 147 | Bonham Road | 850 | 600 | 24.8 | 17.0 | 50 |
| 153 | Hospital Road | 300 | 350 | 12.4 | 1.8 | 50 |
| 154 | Hospital Road | 200 | 200 | 20.4 | 8.0 | 50 |
| 161 | Park Road | 600 | 600 | 11.6 | 1.5 | 50 |
| 162 | Park Road | 250 | 250 | 32.2 | 23.9 | 50 |
| 163 | Breezy Path | 250 | 200 | 16.7 | 6.4 | 50 |
| 177 | Western Fire Service Street | 50 | 50 | 18.0 | 8.9 | 50 |
| 178 | Western Fire Service Street | 350 | 250 | 13.4 | 5.9 | 50 |
| 179 | Western Fire Service Street | 450 | 300 | 23.1 | 12.3 | 50 |
| 185 | Bonham Road | 700 | 500 | 37.1 | 30.6 | 50 |

APPENDIX 5.2

Endorsement of Traffic Forecast from Transport Department

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APPENDIX 5.3

Traffic Noise Assessment Results (Base Case)

Traffic Noise Assessment Result (Base Case, AM)

By NSR ID

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------------|--------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| | Height (mPD) | | | | | | | | | | | | | | |
| | 28.75 | 31.9 | 35.05 | 38.2 | 41.35 | 44.5 | 47.65 | 50.8 | 53.95 | 57.1 | 60.25 | 63.4 | 66.55 | 69.7 | 72.85 |
| Low A living | 72 | 72 | 72 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| Low A bed1 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| Low A bed2 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| Low A bed3 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 |
| Low B bed1 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| Low B bed2 | 63 | 63 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 |
| Low B living | 50 | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 55 | 55 | 55 | 56 |
| Low C bed1 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 62 | 62 | 62 |
| Low C bed2 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 | 62 | 62 |
| Low C bed3 | 55 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 59 | 59 | 59 |
| Low C living | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 |
| Low D bed | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 57 |
| Low D living | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| Low E living | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Low E bed | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 |
| Low F bed1 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 |
| Low F bed2 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| Low F living | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| Low G bed | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 |
| Low G living | 74 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 |

| NSR ID | Floor | | | | | | | | | | | | | | |
|---------------|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F | |
| | Height (mPD) | | | | | | | | | | | | | | |
| | 81.5 | 84.8 | 88.1 | 91.4 | 94.7 | 98 | 101.3 | 104.6 | 107.9 | 111.2 | 114.5 | 117.8 | 121.1 | 124.4 | |
| High A living | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| High A bed1 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| High A bed2 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| High A bed3 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| High B bed1 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| High B bed2 | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| High B living | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | |
| High C bed1 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | |
| High C bed2 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | |
| High C bed3 | 60 | 61 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | |
| High C living | 56 | 56 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | |
| High D bed1 | 58 | 58 | 58 | 59 | 59 | 60 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | |
| High D bed2 | 60 | 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | |
| High D living | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | |
| High E living | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | |
| High E bed 1 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | |
| High E bed 2 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | |
| High E bed 3 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| High F bed1 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 68 | 68 | |
| High F bed2 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |
| High F living | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | |

By Flat

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| A | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| B | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| C | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 | 62 | 62 |
| D | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| E | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| F | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| G | 74 | 74 | 74 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 |

| NSR ID | Floor | | | | | | | | | | | | | |
|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F |
| A | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| B | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| C | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| D | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | 65 |
| E | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |

Number of Flat Exceeding 70dB (A): 28
 Total Number of Flat: 189
 Compliance rate: 85%

Traffic Noise Assessment Result (Base Case, PM)

By NSR ID

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------------|--------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| | Height (mPD) | | | | | | | | | | | | | | |
| | 28.75 | 31.9 | 35.05 | 38.2 | 41.35 | 44.5 | 47.65 | 50.8 | 53.95 | 57.1 | 60.25 | 63.4 | 66.55 | 69.7 | 72.85 |
| Low A living | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 |
| Low A bed1 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 |
| Low A bed2 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 |
| Low A bed3 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 |
| Low B bed1 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| Low B bed2 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 |
| Low B living | 46 | 47 | 48 | 48 | 49 | 49 | 49 | 50 | 50 | 51 | 51 | 51 | 52 | 52 | 52 |
| Low C bed1 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | 61 | 62 | 62 |
| Low C bed2 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 | 62 |
| Low C bed3 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | 57 | 58 |
| Low C living | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 52 | 52 |
| Low D bed | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 |
| Low D living | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| Low E living | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| Low E bed | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 |
| Low F bed1 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 |
| Low F bed2 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 |
| Low F living | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 68 |
| Low G bed | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 70 | 70 |
| Low G living | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 |

| NSR ID | Floor | | | | | | | | | | | | |
|---------------|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F |
| | Height (mPD) | | | | | | | | | | | | |
| | 81.5 | 84.8 | 88.1 | 91.4 | 94.7 | 98 | 101.3 | 104.6 | 107.9 | 111.2 | 114.5 | 117.8 | 121.1 |
| High A living | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| High A bed1 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 |
| High A bed2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 |
| High A bed3 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High B bed1 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| High B bed2 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| High B living | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 57 | 58 | 59 | 59 | 60 | 60 |
| High C bed1 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 |
| High C bed2 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 |
| High C bed3 | 59 | 60 | 60 | 60 | 61 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 65 |
| High C living | 53 | 53 | 53 | 54 | 55 | 57 | 59 | 60 | 61 | 61 | 61 | 62 | 62 |
| High D bed1 | 55 | 55 | 56 | 56 | 57 | 58 | 60 | 61 | 61 | 62 | 62 | 63 | 63 |
| High D bed2 | 58 | 58 | 58 | 59 | 59 | 60 | 61 | 61 | 62 | 62 | 63 | 63 | 63 |
| High D living | 60 | 61 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 64 |
| High E living | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 64 |
| High E bed 1 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 |
| High E bed 2 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| High E bed 3 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F bed1 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F bed2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 |
| High F living | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 |

By Flat

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| A | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 |
| B | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| C | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 | 62 |
| D | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| E | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| F | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 68 |
| G | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 |

| NSR ID | Floor | | | | | | | | | | | | |
|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F |
| A | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 |
| B | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| C | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 |
| D | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 |
| E | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 |

Number of Flat Exceeding 70dB (A): 34
 Total Number of Flat: 189
 Compliance rate: 82%

APPENDIX 5.4

Traffic Noise Assessment Results (Mitigated Case)

Bv NSR ID

| NSR ID | Floor | | | | | | | | | | | | | |
|---------------|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F |
| | Height (mPD) | | | | | | | | | | | | | |
| | 81.5 | 84.8 | 88.1 | 91.4 | 94.7 | 98 | 101.3 | 104.6 | 107.9 | 111.2 | 114.5 | 117.8 | 121.1 | 124.4 |
| High A living | None | | | | | | | | | | | | | |
| High A bed1 | None | | | | | | | | | | | | | |
| High A bed2 | None | | | | | | | | | | | | | |
| High A bed3 | None | | | | | | | | | | | | | |
| High B bed1 | None | | | | | | | | | | | | | |
| High B bed2 | None | | | | | | | | | | | | | |
| High B living | None | | | | | | | | | | | | | |
| High C bed1 | None | | | | | | | | | | | | | |
| High C bed2 | None | | | | | | | | | | | | | |
| High C bed3 | None | | | | | | | | | | | | | |
| High C living | None | | | | | | | | | | | | | |
| High D bed1 | None | | | | | | | | | | | | | |
| High D bed2 | None | | | | | | | | | | | | | |
| High D living | None | | | | | | | | | | | | | |
| High E living | None | | | | | | | | | | | | | |
| High E bed 1 | None | | | | | | | | | | | | | |
| High E bed 2 | None | | | | | | | | | | | | | |
| High E bed 3 | None | | | | | | | | | | | | | |
| High F bed1 | None | | | | | | | | | | | | | |
| High F bed2 | None | | | | | | | | | | | | | |
| High F living | None | | | | | | | | | | | | | |

By NSR ID

[illegible]

Traffic Noise Assessment Result (Mitigated Case, AM)

By NSR ID

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------------|--------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| | Height (mPD) | | | | | | | | | | | | | | |
| | 28.75 | 31.9 | 35.05 | 38.2 | 41.35 | 44.5 | 47.65 | 50.8 | 53.95 | 57.1 | 60.25 | 63.4 | 66.55 | 69.7 | 72.85 |
| Low A living | 67 | 67 | 67 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 |
| Low A bed1 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| Low A bed2 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| Low A bed3 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 |
| Low B bed1 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| Low B bed2 | 63 | 63 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 |
| Low B living | 50 | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 55 | 55 | 55 | 56 |
| Low C bed1 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | 62 | 62 | 62 |
| Low C bed2 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 | 62 | 62 |
| Low C bed3 | 55 | 55 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 58 | 58 | 58 | 59 | 59 | 59 |
| Low C living | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 |
| Low D bed | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 57 | 57 | 57 | 57 |
| Low D living | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| Low E living | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Low E bed | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 |
| Low F bed1 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 |
| Low F bed2 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 63 |
| Low F living | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 | 63 |
| Low G bed | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 |
| Low G living | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 |

| NSR ID | Floor | | | | | | | | | | | | | |
|---------------|--------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F |
| | Height (mPD) | | | | | | | | | | | | | |
| | 81.5 | 84.8 | 88.1 | 91.4 | 94.7 | 98 | 101.3 | 104.6 | 107.9 | 111.2 | 114.5 | 117.8 | 121.1 | 124.4 |
| High A living | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| High A bed1 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High A bed2 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High A bed3 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High B bed1 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| High B bed2 | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 |
| High B living | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 59 | 60 | 61 | 61 | 61 | 62 | 62 |
| High C bed1 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 |
| High C bed2 | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| High C bed3 | 60 | 61 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 |
| High C living | 56 | 56 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 |
| High D bed1 | 58 | 58 | 58 | 59 | 59 | 60 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 64 |
| High D bed2 | 60 | 60 | 60 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 64 | 64 | 65 | 65 |
| High D living | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 |
| High E living | 61 | 61 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 65 |
| High E bed 1 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 |
| High E bed 2 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 |
| High E bed 3 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F bed1 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 68 | 68 |
| High F bed2 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F living | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |

By Flat

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| | 1/F | 2/F | 3/F | 4/F | 5/F | 6/F | 7/F | 8/F | 9/F | 10/F | 11/F | 12/F | 13/F | 14/F | 15/F |
| A | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| B | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| C | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 | 62 | 62 |
| D | 56 | 56 | 57 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| E | 62 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| F | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 | 63 |
| G | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 |

| NSR ID | Floor | | | | | | | | | | | | | |
|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 16/F | 17/F | 18/F | 19/F | 20/F | 21/F | 22/F | 23/F | 24/F | 25/F | 26/F | 27/F | 28/F | 29/F |
| A | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| B | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| C | 63 | 63 | 63 | 63 | 64 | 64 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| D | 61 | 62 | 62 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | 65 |
| E | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |

Number of Flat Exceeding 70dB (A): 0
Total Number of Flat: 189
Compliance rate: 100%

Note:

The predicted noise level is not the actual noise level at the external façade after the application of acoustic window (top-hung type). These predicted noise level are the equivalent noise level at 1 m from the external façade after accounting the reduction in noise levels inside flats offered by the proposed acoustic window (top-hung type).

Traffic Noise Assessment Result (Mitigated Case, PM)

By NSR ID

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------------|--------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | #1/F | #2/F | #3/F | #4/F | #5/F | #6/F | #7/F | #8/F | #9/F | #10/F | #11/F | #12/F | #13/F | #14/F | #15/F |
| | #28.75 | #31.9 | #35.05 | #38.2 | #41.35 | #44.5 | #47.65 | #50.8 | #53.95 | #57.1 | #60.25 | #63.4 | #66.55 | #69.7 | #72.85 |
| | Height (mPD) | | | | | | | | | | | | | | |
| Low A living | 68 | 68 | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 |
| Low A bed1 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 |
| Low A bed2 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 |
| Low A bed3 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 |
| Low B bed1 | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| Low B bed2 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 |
| Low B living | 46 | 47 | 48 | 48 | 49 | 49 | 49 | 50 | 50 | 51 | 51 | 51 | 52 | 52 | 52 |
| Low C bed1 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | 61 | 62 | 62 |
| Low C bed2 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 | 62 |
| Low C bed3 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | 57 | 58 |
| Low C living | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 52 | 52 | 52 |
| Low D bed | 51 | 51 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 54 | 55 |
| Low D living | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| Low E living | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| Low E bed | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 |
| Low F bed1 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 |
| Low F bed2 | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 | 63 |
| Low F living | 68 | 68 | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 63 |
| Low G bed | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 65 | 65 |
| Low G living | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 |

| NSR ID | Floor | | | | | | | | | | | | | | |
|---------------|--------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| | #16/F | #17/F | #18/F | #19/F | #20/F | #21/F | #22/F | #23/F | #24/F | #25/F | #26/F | #27/F | #28/F | #29/F | |
| | #81.5 | #84.6 | #88.1 | #91.4 | #94.7 | #98.2 | #101.3 | #104.6 | #107.9 | #111.2 | #114.5 | #117.8 | #121.1 | #124.4 | |
| | Height (mPD) | | | | | | | | | | | | | | |
| High A living | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 68 | 68 |
| High A bed1 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| High A bed2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| High A bed3 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High B bed1 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| High B bed2 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| High B living | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 57 | 58 | 59 | 59 | 60 | 60 | 60 | 60 |
| High C bed1 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 |
| High C bed2 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| High C bed3 | 59 | 60 | 60 | 60 | 61 | 62 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 65 |
| High C living | 53 | 53 | 53 | 54 | 55 | 57 | 59 | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 |
| High D bed1 | 55 | 55 | 56 | 56 | 57 | 58 | 60 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 |
| High D bed2 | 58 | 58 | 58 | 59 | 59 | 60 | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 |
| High D living | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 |
| High E living | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 |
| High E bed 1 | 63 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 |
| High E bed 2 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| High E bed 3 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F bed1 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F bed2 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| High F living | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |

By Flat

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------|-------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| | #1/F | #2/F | #3/F | #4/F | #5/F | #6/F | #7/F | #8/F | #9/F | #10/F | #11/F | #12/F | #13/F | #14/F | #15/F |
| A | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 |
| B | 70 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| C | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 | 62 |
| D | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 |
| E | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 |
| F | 68 | 68 | 67 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 63 |
| G | 70 | 70 | 69 | 69 | 68 | 68 | 68 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 |

| NSR ID | Floor | | | | | | | | | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| | #16/F | #17/F | #18/F | #19/F | #20/F | #21/F | #22/F | #23/F | #24/F | #25/F | #26/F | #27/F | #28/F | #29/F | |
| A | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |
| B | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| C | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| D | 60 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 |
| E | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| F | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 |

Number of Flat Exceeding 70dB (A): 0
Total Number of Flat: 189
Compliance rate: 100%

Note:

The predicted noise level is not the actual noise level at the external façade after the application of acoustic window (top-hung type). These predicted noise level are the equivalent noise level at 1 m from the external façade after accounting the reduction in noise levels inside flats offered by the proposed acoustic window (top-hung type).

APPENDIX 5.5

Summary of The Identified Fixed Noise Sources

Existing Fixed Noise Source in the Surrounding Area

According to the site visit and the information required via Code on Access to Information, 4 chillers and 6 cooling towers on the roof of the Sai Ying Pun Jockey Club Polyclinic and the Prince Philip Dental Hospital are identified respectively.

| Location | Noise Source | Quantity | Operation Schedule ^[1] | Sound Power Level, dB(A) |
|---|--|----------|--|--------------------------|
| Roof of Sai Ying Pun Jockey Club Polyclinic | Hitachi Air Cooled Chiller RCUG150ASYZ | 1 | Weekdays: 07:00-22:00 Saturday: 07:00-13:00 Sunday and Public Holiday: Off | 88 ^[2] |
| | Hitachi Air Cooled Chiller RCUG75ASYZ | 1 | | 87 ^[2] |
| | Hitachi Air Cooled Chiller RCUG100ASYZ | 2 | | 85 ^[2] |
| Roof of Prince Philip Dental Hospital | FWS Water Cooling Tower FWS-200-11 | 6 | Weekdays: 07:30-17:30 Saturday: 08:00-11:30 Sunday and Public Holiday: Off | 93 |

[1] The Operation Schedule have been simplified, covering the longest operation period.

[2] Sound Power Level of similar model have been adopted.



Cooling Towers on the roof of Prince Philip Dental Hospital



Chillers on the roof of Sai Ying Pun Jockey Club Polyclinic

Existing Fixed Noise Source in the Surrounding Area

According to the site visit and the information required via Code on Access to Information, 4 chillers and 6 cooling towers on the roof of the Sai Ying Pun Jockey Club Polyclinic and the Prince Philip Dental Hospital are identified respectively.

| Location | Noise Source | Quantity | Operation Schedule ^[1] | Sound Power Level, dB(A) |
|---|--|----------|--|--------------------------|
| Roof of Sai Ying Pun Jockey Club Polyclinic | Hitachi Air Cooled Chiller RCUG150ASYZ | 1 | Weekdays: 07:00-22:00 Saturday: 07:00-13:00 Sunday and Public Holiday: Off | 88 ^[2] |
| | Hitachi Air Cooled Chiller RCUG75ASYZ | 1 | | 87 ^[2] |
| | Hitachi Air Cooled Chiller RCUG100ASYZ | 2 | | 85 ^[2] |
| Roof of Prince Philip Dental Hospital | FWS Water Cooling Tower FWS-200-11 | 6 | Weekdays: 07:30-17:30 Saturday: 08:00-11:30 Sunday and Public Holiday: Off | 93 |

[1] The Operation Schedule have been simplified, covering the longest operation period.

[2] Sound Power Level of similar model have been adopted.



Cooling Towers on the roof of Prince Philip Dental Hospital



Chillers on the roof of Sai Ying Pun Jockey Club Polyclinic

Fixed Noise Source in the Proposed Development

Re-provisioned RCP

Exhaust Fan will be provided on the roof of the re-provisioned RCP as a part of odour removal system. At this stage, a tentative ventilation rate based on 6 ACH is adopted for noise level estimation.

The required ventilation rate is around 14,000m³/h. As the duct of the odour removal system is expected to be simple and short, the flow resistance is expected to be small. According to "Good Practices on Ventilation System Noise Control " (EPD, 2006), the noise level of fan with 17,000m³/h at 125 Pa is 85dB(A).

The exhaust of the RCP will be located on the roof of the RCP.

Car Park

According to the ProPECC PN 2/96, it is necessary to maintain the CO and NO₂ concentration below certain level by the mean of mechanical ventilation. However, there is no recommendation for the ventilation rate provided in the note.

According to ASHRAE 62.1-2007, the minimum exhaust rate for "Parking Garages" is 3.7L/s/m² thus the required exhaust rate for the carpark is around 2200 L/s (~8000m³/h). Similar to the fans of RCP, the ventilation duct network is expected to be simple and short thus flow resistance is expected to be small. According to "Good Practices on Ventilation System Noise Control " (EPD, 2006), the noise level of fan with 8,600m³/h at 125 Pa is 83dB(A).

The exhaust of the car park will be located on the south façade the podium of the proposed development.

| Serving | Location | Noise Source | Operation Schedule | Sound Power Level, dB(A) |
|--------------------|--|--------------|--------------------|--------------------------|
| Re-provisioned RCP | Roof of the Re-provisioned RCP | Exhaust Fan | Normally Operating | 85 |
| Car Park | South façade of the podium of the proposed development | Exhaust Fan | Normally Operating | 83 |

Hitachi Air Conditioning

Engineered for tomorrow.



Samurai RCU2E-AG2 Air Cooled Cooling Only, Samurai RHU2E-AG2 Air Cooled Heat Pump

The Samurai range of chillers offer world-renowned reliability – thanks to our own twin screw compressors – and incorporate the latest developments in screw compressor technology for excellent partial load performance and high seasonal efficiencies.

Our Chillers are ideally suited for Industrial and process applications: data centres, shopping centres, airports, hotels, hospitals and offices.



Features and Benefits

- ✓ RCU2E-AG2 Air Cooled Cooling only - capacities from 40HP to 400HP (112kW to 1030kW)
- ✓ RHU2E-AG2 Air Cooled Heat Pump - capacities from 40HP to 240HP (106kW to 585kW)
- ✓ ESEER of up to 3.52
- ✓ Control outlet water temperature to $\pm 0.5^{\circ}\text{C}$ independent of cooling load
- ✓ Continuous capacity control provides 15% to 20% energy saving compared to step control
- ✓ STAR DELTA starting system reduces the maximum starting current
- ✓ Excellent partial load performance
- ✓ Low noise and vibration
- ✓ Very small installation space

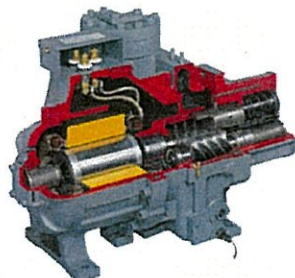
Thanks to meticulous design of each component, it is possible to achieve exceptionally high cooling capacity values per square metre

- ✓ Optional recovery system

Recover 30% of the output power in cooling mode by heating the water in a dedicated circuit with outlet temperatures up to 70°C at maximum working conditions.

Hydraulic Module Option - Single and Dual Pump Models

Hitachi Hydraulic modules are a compact design integrated inside the Chiller unit. They are assembled with all interconnecting piping and wiring during manufacture ready for installation. Available with or without buffer tank.



World Renowned Reliability with Hitachi's Twin Screw Compressor

With few moving parts, it is highly reliable with very low noise level and low vibration

Optional Control Systems



- ✓ **CSC 5S**
Central controller
(up to 8 Samurai Chillers)



- ✓ **CS Net Web**
Web based controller

BMS Interfaces



- ✓ **Modbus CHL-MBS-01**
Can control up to 8 RCU2E-AG2 chillers (Chiller modules >3 cycles are counted as 2 Chillers)



- ✓ **Lonworks® HARC-70CE1 (OP)**
Control and monitor
up to 4 Samurai chillers

www.hitachiaircon.com | www.hitachiheating.com

HITACHI
Inspire the Next



RCU2E-AG2



RHU2E-AG2



Sai Ying Pun Jockey Club Polyclinic

Air Cooled Cooling Only

| | | RCU2E 40AG2 | RCU2E 50AG2 | RCU2E 60AG2 | RCU2E 70AG2 | RCU2E 80AG2 | RCU2E 100AG2 | RCU2E 120AG2 | RCU2E 140AG2 | RCU2E 160AG2 | RCU2E 180AG2 | RCU2E 210AG2 | RCU2E 240AG2 | RCU2E 280AG2 | RCU2E 320AG2 | RCU2E 350AG2 | RCU2E 400AG2 |
|---|-------|---|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Cooling Capacity ¹ | Kw | 112 | 130 | 156 | 178 | 206 | 260 | 312 | 356 | 412 | 468 | 534 | 618 | 712 | 824 | 890 | 1030 |
| Power Input | Kw | 38.6 | 44.7 | 53 | 61 | 70 | 89.4 | 106 | 122 | 140 | 159 | 183 | 210 | 244 | 280 | 305 | 350 |
| EER | | 2.9 | 2.91 | 2.94 | 2.92 | 2.94 | 2.91 | 2.94 | 2.92 | 2.94 | 2.94 | 2.92 | 2.94 | 2.92 | 2.94 | 2.92 | 2.94 |
| ESEER | | 3.48 | 3.49 | 3.52 | 3.5 | 3.52 | 3.49 | 3.52 | 3.5 | 3.52 | 3.52 | 3.5 | 3.52 | 3.5 | 3.52 | 3.5 | 3.52 |
| Sound Power Level (Std/LN/SLN) | dB(A) | 82/80/78 | 83/81/79 | 84/82/80 | 85/83/81 | 85/83/81 | 86/84/82 | 87/85/83 | 88/86/84 | 88/86/84 | 89/87/85 | 91/89/87 | 91/89/87 | 92/90/88 | 92/90/88 | 94/92/90 | 94/92/90 |
| Sound Pressure Level (Std/LN/SLN) ³ | dB(A) | 52/50/48 | 53/51/49 | 54/52/50 | 55/53/51 | 55/53/51 | 55/53/51 | 56/54/52 | 57/55/53 | 57/55/53 | 57/55/53 | 58/56/54 | 58/56/54 | 59/57/55 | 59/57/55 | 60/58/56 | 60/58/56 |
| Height | mm | 2430 | | | | | | | | | | | | | | | |
| Width | mm | 1900 | | | | | | | | | | | | | | | |
| Depth | mm | 2190 | | | | 2790 | | 4090 | | 5290 | | 5990 | | 7790 | | 10290 | |
| Net Weight | Kg | 1430 | 1470 | 1560 | 1760 | 1820 | 2830 | 3000 | 3420 | 3550 | 4450 | 5070 | 5250 | 6750 | 7000 | 8450 | 8750 |
| Capacity Control | - | Continuous Capacity Control | | | | | | | | | | | | | | | |
| | % | 15 ~ 100 | | | | | | | | | | | | | | | |
| Number of Circuits | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| Water Pipe Connection | in | 3" Victaulic (1 x Inlet / 1 x Outlet) per Circuit | | | | | | | | | | | | | | | |
| | in | Common Water Pipe Connection Option available | | | | | | | | | | | | | | | |
| Leaving Water Outlet Temperature | °C | 5 ~ 15 (-10 option) | | | | | | | | | | | | | | | |
| Ambient Temperature | °C | -15 ~ 46 | | | | | | | | | | | | | | | |

Air Cooled Heat Pump

| | | RHU2E 40AG2 | RHU2E 50AG2 | RHU2E 60AG2 | RHU2E 70AG2 | RHU2E 80AG2 | RHU2E 100AG2 | RHU2E 120AG2 | RHU2E 140AG2 | RHU2E 160AG2 | RHU2E 180AG2 | RHU2E 210AG2 | RHU2E 240AG2 |
|---|-------|---|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Cooling Capacity ¹ | Kw | 106 | 123 | 148 | 169 | 195 | 246 | 296 | 338 | 390 | 444 | 507 | 585 |
| Heating Capacity ² | Kw | 110 | 127 | 152 | 185 | 185 | 254 | 304 | 370 | 370 | 456 | 555 | 555 |
| Power Input (Cooling) | Kw | 37.9 | 42.7 | 52 | 60 | 70 | 85.4 | 104 | 120 | 140 | 156 | 180 | 210 |
| Power Input (Heating) | Kw | 40.7 | 44.5 | 54 | 68 | 68 | 89 | 108 | 136 | 136 | 162 | 204 | 204 |
| EER | | 2.80 | 2.88 | 2.85 | 2.82 | 2.79 | 2.88 | 2.85 | 2.82 | 2.79 | 2.85 | 2.82 | 2.79 |
| COP | | 2.70 | 2.85 | 2.81 | 2.72 | 2.72 | 2.85 | 2.81 | 2.72 | 2.72 | 2.81 | 2.72 | 2.72 |
| ESEER | | 3.36 | 3.45 | 3.42 | 3.38 | 3.34 | 3.45 | 3.42 | 3.38 | 3.34 | 3.42 | 3.38 | 3.34 |
| Sound Power Level | dB(A) | 82/80/78 | 83/81/79 | 84/82/80 | 85/83/81 | 85/83/81 | 86/84/82 | 87/85/83 | 88/86/84 | 88/86/84 | 89/87/85 | 91/89/87 | 91/89/87 |
| Sound Pressure Level (Std/LN/SLN) ³ | dB(A) | 52/50/48 | 53/51/49 | 54/52/50 | 55/53/51 | 55/53/51 | 55/53/51 | 56/54/52 | 57/55/53 | 57/55/53 | 57/55/53 | 58/56/54 | 58/56/54 |
| Height | mm | 2430 | | | | | | | | | | | |
| Width | mm | 1900 | | | | | | | | | | | |
| Depth | mm | 2190 | | | | 2790 | | 4090 | | 5290 | | 5990 | |
| Net Weight | Kg | 1550 | 1600 | 1670 | 1880 | 1950 | 3050 | 3250 | 3670 | 3780 | 4780 | 5440 | 5650 |
| Capacity Control | - | Continuous Capacity Control | | | | | | | | | | | |
| | % | 15 ~ 100 | | | | | | | | | | | |
| Number of Circuits | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Water Pipe Connection | in | 3" Victaulic (1 x Inlet / 1 x Outlet) per Circuit | | | | | | | | | | | |
| | in | Common Water Pipe Connection Option available | | | | | | | | | | | |
| Leaving Water Outlet Temperature (Cool) | °C | 5 ~ 15 (-10 option) | | | | | | | | | | | |
| Leaving Water Outlet Temperature (Heat) | °C | 35 ~ 55 | | | | | | | | | | | |
| Ambient Temperature | °C | -15 ~ 46 Cooling / -10 ~ 15.5wb Heating | | | | | | | | | | | |

NOTES:

- The nominal cooling capacities are based on the European Standard EN14511.
Chilled Water Inlet / Outlet Temperature: 12 / 7°C
Condenser Inlet Air Temperature: 35°C

- The nominal heating capacities are based on the European Standard EN14511.
Heated Water Inlet / Outlet Temperature: 40 / 45°C
Evaporator Air Inlet Temperature: 6°C wb
- Sound Pressure level measured at 10m

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HITACHI
Inspire the Next



RYOWO COOLING TOWER

FWS

SERIES

Low Noise Cross Flow Type



| Model | Nominal Water Flow M ³ /hr | Dimension | | | | Fan Power kW | Fan Dia mm | Piping | | | | | Sound Power Level | Weight | |
|--------------|--|-----------|---------|---------|---------|-----------------|---------------|----------|-----------|----------|----------|----------|-------------------|------------|------------|
| | | L mm | W mm | h mm | H mm | | | In mm | Out mm | Fv mm | Of mm | Dr mm | | 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 | | | | 4785 | 7.5 | | | | | | | 91 | 2195 | 4000 |
| FWS-200-11 | 215 | 4600 | 2600 | 4145 | 4865 | 11 | 2400 | 125x2 | 200 | 40 | 80 | 50 | 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 | | | | | | | 98 | 7225 | 15200 |
| FWS-800-45 | 880 | | | | 7405 | 45 | 4200 | 150x4 | 350 | 50 | 80 | 50 | 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°C and 32.2°C, Max. Entering Water Temp. 51.7°C, Min. Range of 2.2°C and Min. Approach of 2.8°C.

2/The nominal water flows are based upon 37°C HWT, 32°C CWT, 28°C WBT, 32°C 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.

APPENDIX 5.6

Detailed Calculations of Noise from Fixed Sources

Appendix 5.6 - Detailed Calculations of Noise from Fixed Sources

For the Proposed Residential Tower

Low_A - Flat A of Low Zone of the proposed development

Day & Evening Time

| Source Location | Type of machine | Sound Power Level (SWL) adapted, dB(A) | Quantity | Distance to nearest receptor, m | Correction [1] | Correction [2] | Correction [3] | Correction [4] | Sound Pressure Level (SPL), dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-------------------------------------|-----------------|--|----------|---------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|----------------------|-------------------------|-----------------------|
| Sai Ying Pun Jockey Club Polyclinic | Chiller | 85 | 1 | 41 | 0 | 0 | -40.3 | 3 | 47.7 | 56 | 59 | 60 |
| | | 87 | 1 | 41 | 0 | 0 | -40.3 | 3 | 49.7 | | | |
| | | 88 | 2 | 41 | 0 | 0 | -40.3 | 3 | 53.8 | | | |
| Truax Plump Dental Hospital | Cooling Tower | 93 | 6 | 96 | 0 | 0 | -47.6 | 3 | 56.1 | 56 | | |
| RCP | Exhaust Fan | 85 | 1 | 26 | -10 | -5 | -36.3 | 3 | 36.7 | 37 | | |

Night Time

| Source Location | Type of machine | Sound Power Level (SWL) adapted, dB(A) | Quantity | Distance to nearest receptor, m | Correction [1] | Correction [2] | Correction [3] | Correction [4] | Sound Pressure Level (SPL), dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|---------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|----------------------|-------------------------|-----------------------|
| RCP | Exhaust Fan | 85 | 1 | 26 | -10 | -5 | -36.3 | 3 | 36.7 | 37 | 37 | 50 |

Low_C - Flat C of Low Zone of the proposed development

Day & Evening Time

| Source Location | Type of machine | Sound Power Level (SWL) adapted, dB(A) | Quantity | Distance to nearest receptor, m | Correction [1] | Correction [2] | Correction [3] | Correction [4] | Sound Pressure Level (SPL), dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-------------------------------------|-----------------|--|----------|---------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|----------------------|-------------------------|-----------------------|
| Sai Ying Pun Jockey Club Polyclinic | Chiller | 85 | 1 | 55 | 0 | -5 | -42.8 | 3 | 40.2 | 48 | 57 | 60 |
| | | 87 | 1 | 55 | 0 | -5 | -42.8 | 3 | 42.2 | | | |
| | | 88 | 2 | 55 | 0 | -5 | -42.8 | 3 | 46.2 | | | |
| Truax Plump Dental Hospital | Cooling Tower | 93 | 6 | 107 | 0 | 0 | -48.6 | 3 | 55.2 | 55 | | |
| RCP | Exhaust Fan | 85 | 1 | 10 | -10 | 0 | -28.0 | 3 | 50.0 | 50 | | |

Night Time

| Source Location | Type of machine | Sound Power Level (SWL) adapted, dB(A) | Quantity | Distance to nearest receptor, m | Correction [1] | Correction [2] | Correction [3] | Correction [4] | Sound Pressure Level (SPL), dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|---------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|----------------------|-------------------------|-----------------------|
| RCP | Exhaust Fan | 85 | 1 | 10 | -10 | 0 | -28.0 | 3 | 50.0 | 50 | 50 | 50 |

[1] The sound power level should be refer to Appendix 5.5.

[2] A 10 dB noise level reduction for silencer is applied to the exhaust of Carpark and RCP.

[3] A 5 dB noise level reduction is applied for no direct view situation.

Appendix 5.6 - Detailed Calculations of Noise from Fixed Sources

For the NSRs of Surrounding

NSR01

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 26 | -10 | 0 | -36.3 | 3 | 41.7 | 42 | 44 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 16 | -10 | -5 | -32.1 | 3 | 38.9 | 39 | | 50 (Night) |

NSR02

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 20 | -10 | 0 | -34.0 | 3 | 44.0 | 44 | 44 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 52 | -10 | -5 | -42.3 | 3 | 28.7 | 29 | | 50 (Night) |

NSR03

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 29 | -10 | 0 | -37.2 | 3 | 40.8 | 41 | 41 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 62 | -10 | -5 | -43.8 | 3 | 27.2 | 27 | | 50 (Night) |

NSR04

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 16 | -10 | 0 | -32.1 | 3 | 45.9 | 46 | 47 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 14 | -10 | -5 | -30.9 | 3 | 40.1 | 40 | | 50 (Night) |

NSR05

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 51 | -10 | 0 | -42.2 | 3 | 35.8 | 36 | 44 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 17 | -10 | 0 | -32.6 | 3 | 43.4 | 43 | | 50 (Night) |

NSR06

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 51 | -10 | -5 | -42.2 | 3 | 30.8 | 31 | 42 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 20 | -10 | 0 | -34.0 | 3 | 42.0 | 42 | | 50 (Night) |

NSR07

| Source Location | Type of machine | Sound Power Level (SWL) adopted, dB(A) | Quantity | Distance to nearest NSR, m | Correction | Correction | Correction | Correction | Sound Pressure Level (SPL) dB(A) | Sub Total SPL, dB(A) | Total SPL at NSR, dB(A) | Noise Criteria, dB(A) |
|-----------------|-----------------|--|----------|----------------------------|--------------|------------|------------|------------|----------------------------------|----------------------|-------------------------|-----------------------|
| | | | | | C-mitigation | C-view | C-distance | C-terrain | | | | |
| RCP | Exhaust Fan | 85 | 1 | 50 | -10 | 0 | -42.0 | 3 | 36.0 | 36 | 43 | 60 (Day & Evening) |
| Carpark | Exhaust Fan | 83 | 1 | 21 | -10 | 0 | -34.4 | 3 | 41.6 | 42 | | 50 (Night) |

[1] The sound power level should refer to Appendix 5.5.

[2] A 10 dB noise level reduction for silencer is applied to the exhaust of Carpark and RCP.

[3] A 5 dB noise level reduction is applied for no direct view situation.

APPENDIX 5.7

Photos of the Representative NSRs in the Surrounding Area



NSR-01 - 153 Queen's Road West



NSR-02 - Ko Sing Building



NSR-03 - Lop Po Building



NSR-04 - Kam Yu Mansion



116-114 Queen's Road West



NSR-06 - Marco Garden



NSR-07 - 136 Queen's Road West

APPENDIX 6.1

Aerial Photos

Appendix 6.1 - Aerial Photos

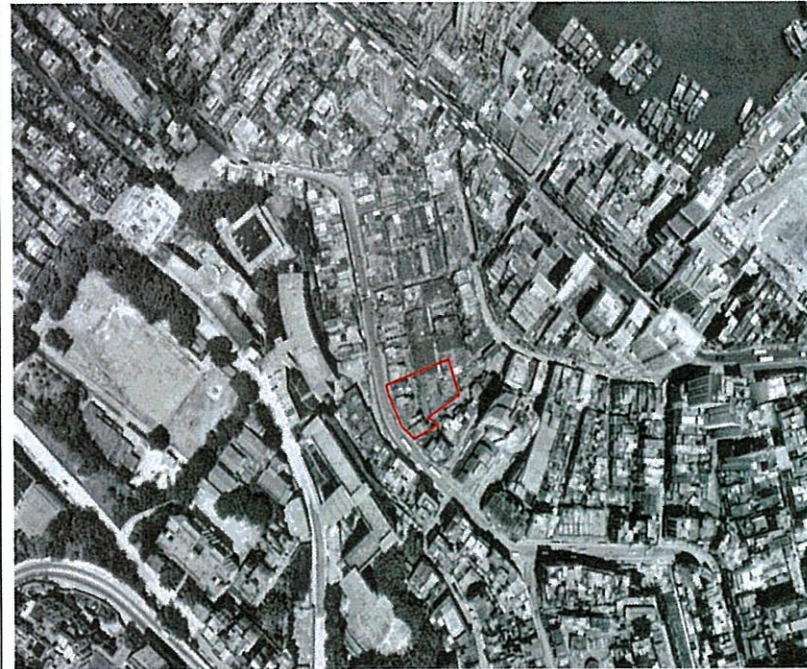


Year: 1963

Photo No. 7159

Description:

The area is developed and residential shacks are seen within the Site location.



Year: 1976

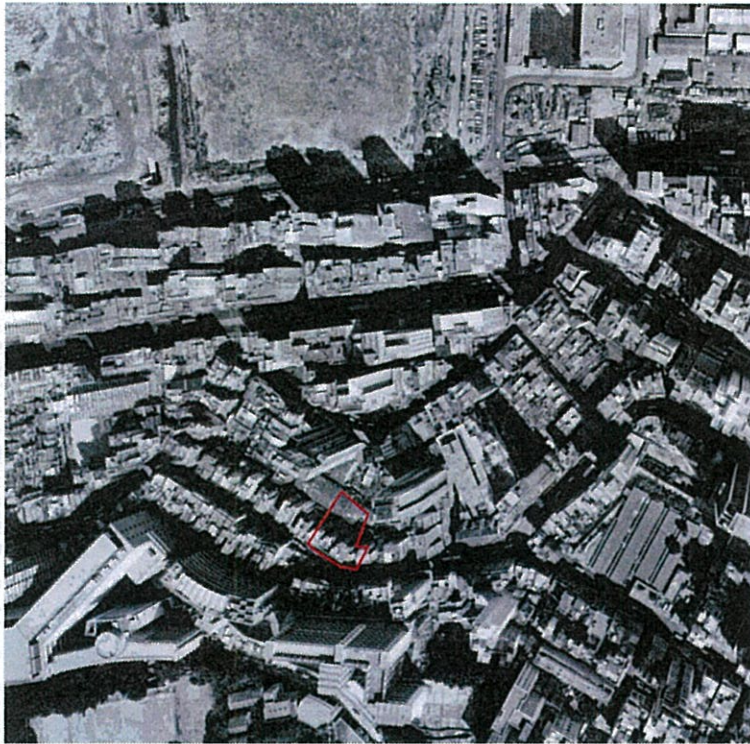
Photo No. 15090

Description:

The existing buildings on 129-151 Queen's Road West can be found.

— Project Site

Appendix 6.1 - Aerial Photos



Year: 1986

Photo No. A04062

Description:

No change can be seen within the Site.



Year: 1992

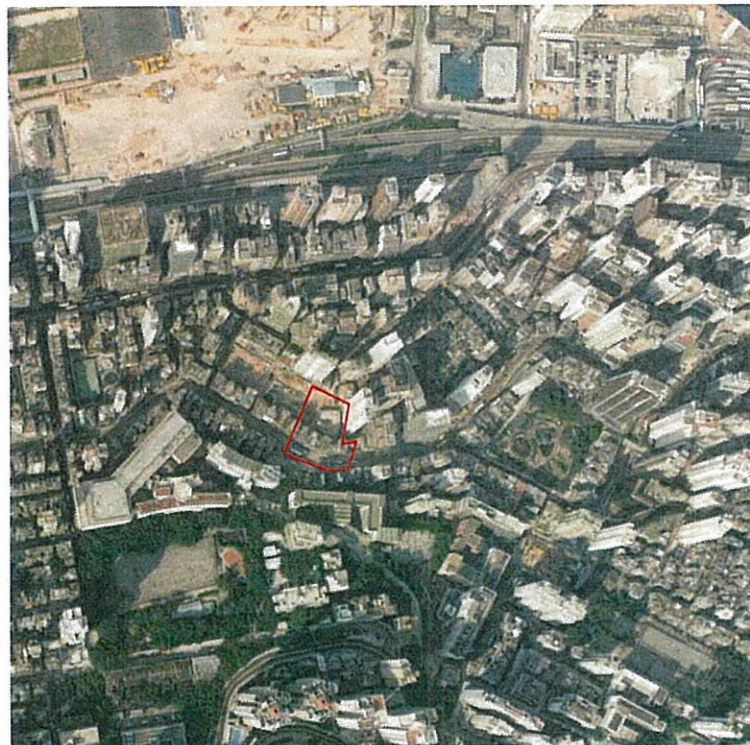
Photo No. A30879

Description:

The area where the existing football field and the RCP is shown to be cleared.

— Project Site

Appendix 6.1 - Aerial Photos

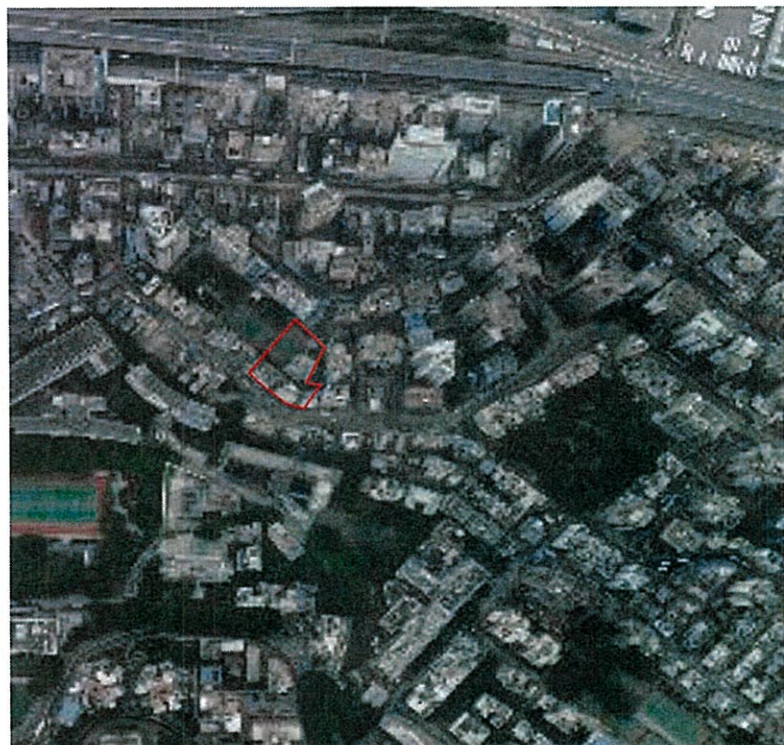


Year: 1993

Photo No. CN4717

Description:

The completed RCP can be seen within the Site boundary.



Year: 2017

Photo No. E030018

Description:

The area is developed as existing situation.

— Project Site

APPENDIX 6.2

Site Walkover Checklist

Site Walkover Checklist (17th Aug 2017)

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

The site is located on a sloping ground.

State the size and location of the nearest residential communities.

The site is located within a residential community and the size is approximately 20,000m².

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

No.

Questionnaire with Existing/Previous Site Owner or Occupier

| | Yes/No | Notes |
|--|--------|-------|
| 1. What are the main activities/operations at the above address? | - | N/A |
| 2. How long have you been occupying the site? | - | N/A |
| 3. Were you the first occupant on site? If yes, what was the usage of the site prior to occupancy?) | - | N/A |
| 4. Prior to your occupancy, who occupied the site? | - | N/A |
| 5. What were the main activities/operations during their occupancy? | - | N/A |
| 6. Have there been any major changes in operations carried out at the site in the last 10 years? | - | N/A |
| 7. Have any polluting activities been carried out in the vicinity of the site in the past? | - | N/A |
| 8. To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage? | - | N/A |
| 9. Are there any boreholes/wells or natural springs either on the site or in the surrounding area? | - | N/A |
| 10. Do you have any registered hazardous installations as defined under relevant ordinances? If yes, please provide details.) | - | N/A |
| 11. Are any chemicals used in your daily operation? (If yes, please provide details.) | - | N/A |
| • Where do you store these chemicals? | - | N/A |
| 12. Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?) | - | N/A |
| 13. Has the facility produced a separate hazardous substance inventory? | - | N/A |

| | | |
|--|---|-----|
| 14. Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.) | - | N/A |
| 15. How are material received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, vaults and cylinders)? | - | N/A |
| 16. Do you have any underground storage tanks? (If yes, please provide details.) | - | N/A |
| • How many underground tanks do you have on site? | - | N/A |
| • What are the tanks constructed of? | - | N/A |
| • What are the contents of these tanks? | - | N/A |
| • Are the pipelines above or below ground? | - | N/A |
| • If the pipelines area below ground, has any leakage and integrity testing been performed? | - | N/A |
| • Have there been any spills associated with these tanks? | - | N/A |
| 17. Are there any disused underground storage tanks? | - | N/A |
| 18. Do you have ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.) | - | N/A |
| 19. How are the wastes disposed of? | - | N/A |
| 20. Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.) | - | N/A |
| 21. Have any spills occurred on site? (If yes, please provide details.) | - | N/A |
| • When did the spill occur? | - | N/A |
| • What were the substances spilled? | - | N/A |
| • What was the quantity of material spilled? | - | N/A |
| • Did you notify the relevant departments of the spill? | - | N/A |
| • What were the actions taken to clean up the spill? | - | N/A |
| • What were the areas affected? | - | N/A |
| 22. Do you have any records of major renovation of your site or rearrangement of underground utilities, pipework/underground tanks (If yes, please provide details.) | - | N/A |
| 23. Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)? | - | N/A |
| 24. Are there any known contaminations on site? (If yes, please provide details.) | - | N/A |
| 25. Has the site ever been remediated? (If yes, please provide details.) | - | N/A |

Observations

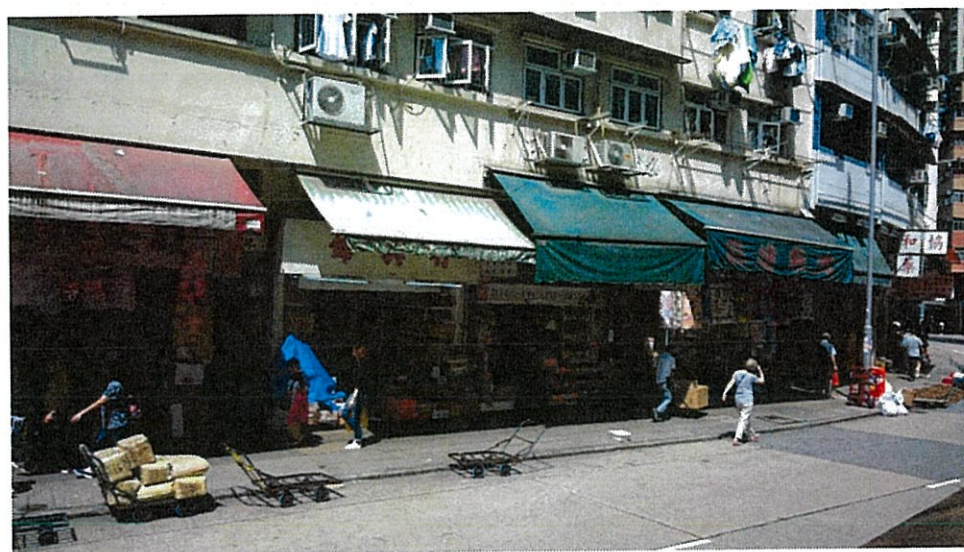
| | Yes/No | Notes |
|--|--------|---|
| 1. Are chemical storage areas provided with secondary containment (i.e. bund walls and floor)? | No | - |
| 2. What are the conditions of the bund walls and floors? | - | - |
| 3. Are any surface water drains located near to drum storage and unloading areas? | No | - |
| 4. Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.) | No | - |
| 5. Is there a storage site for the waste? | Yes | The site is partly used as a refuse collection point. |
| 6. Is there an on-site landfill? | No | - |
| 7. Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please provide details.) | No | - |
| 8. Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.) | No | - |
| 9. Are there any potential off-site sources of contamination? | No | - |
| 10. Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)? | No | - |
| 11. Are there any sumps, efficient pits, interceptors or lagoons on site? | No | - |
| 12. Any noticeable odours during site walkover? | Yes | Faint smell of odour. |
| 13. Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluid, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam? | Yes | Detergents are stored in a store room inside the RCP for cleaning purposes. |

APPENDIX 6.3

Site Photos

Appendix 6.3 – Site Photos

Photo No. 1



Description:

The ground floor shops in Wing Chueng Building, 129-151 Queen's Road West.

Appendix 6.3 – Site Photos

Photo No. 2



Description:

The football field in Li Sing Street Playground.

Photo No. 3



Description:

The interior of the In Ku Lane Refuse Collection Point.

Appendix 6.3 – Site Photos

Photo No. 4



Description:

In Ku Lane Public Toilet.

APPENDIX 6.4

**Correspondences and Records From EPD
and FSD**

Our Ref: CCL/IA17019/ks180508

Environmental Protection Department
Environmental Compliance Division
Regional Office (South)
Central & Western
3rd floor, Chinachem Exchange Square
1 Hoi Wan Street, Quarry Bay, Hong Kong

By Mail
8 May 2018

Attn.: Mr. Tsang Heung Wing

Dear Mr. Tsang,

**Environmental Assessment for Queen's Road West/ In Ku Lane Development Scheme
Enquiry on Record of Land Contamination**

We, Cinotech Consultants Ltd., have been commissioned by the Urban Renewal Authority (URA) to conduct a Land Contamination Assessment to investigate the environmental acceptability of a site for redevelopment at Queen's Road West/In Ku Lane.

The project a Development Scheme Plan commenced under Section 25 of the Urban Renewal Authority Ordinance (URAO). The existing tenement buildings located at the Site, as shown in the Figure in the attachment, shall be demolished and replaced by residential-cum-retail development.

I am writing to enquire if there is any past record of registered chemical waste producers and reported accidents of chemical leakage or spillage within or in the vicinity of the proposed works.

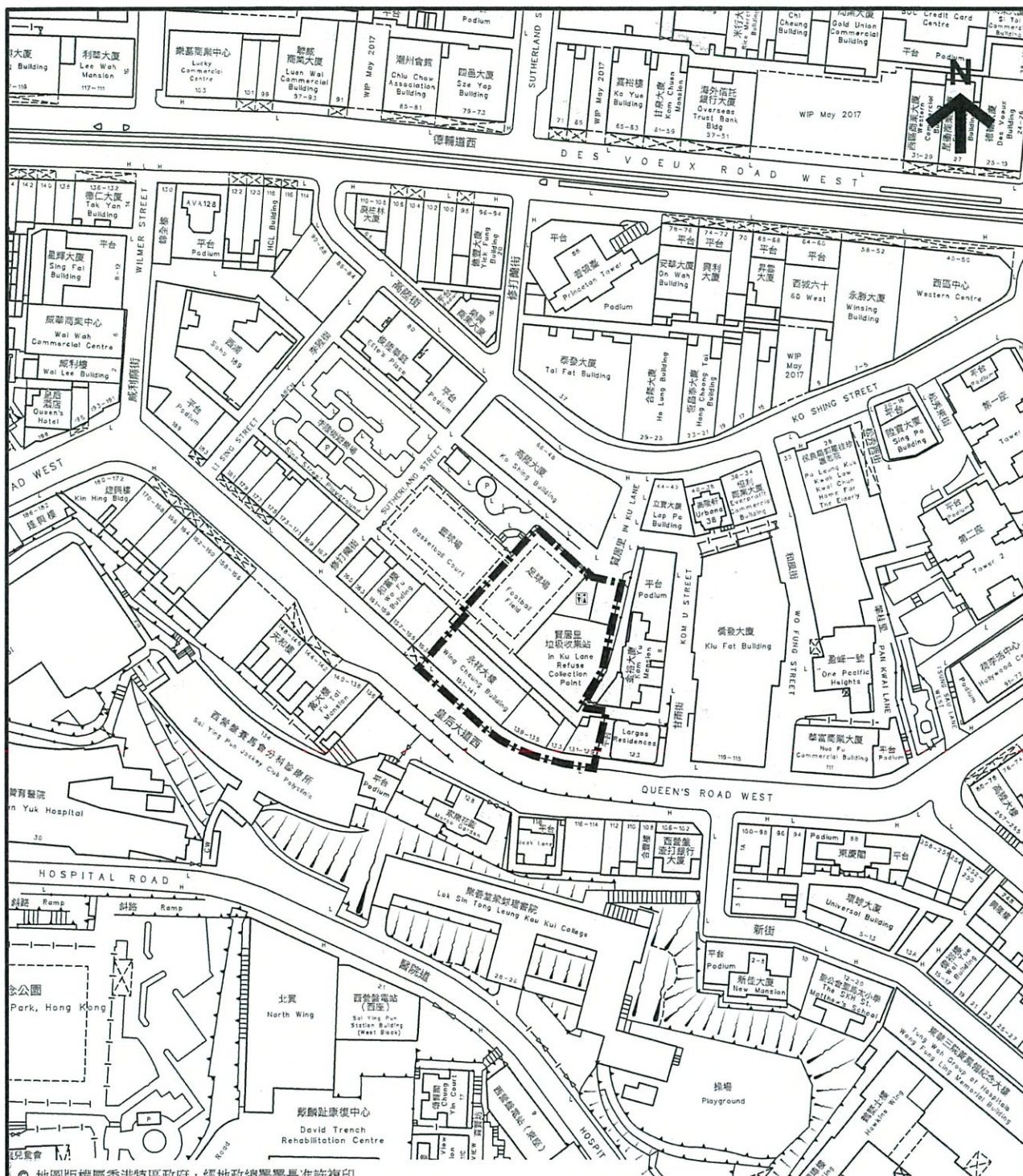
Your reply by 21 May 2018 will be much appreciated. If you need any further clarification, please contact our Toby Cheng at 2151 2079 or the undersigned at 2151 2091.

Yours sincerely,



KS Lee
Project Manager

Encl. Figure - Site Plan of the Existing Structures
c.c. URA Mr Adrian Chiu Sung Ngai (by e-mail)



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Scheme Boundary
計劃界線

市區重建局皇后大道西/賢居里發展計劃

URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME



市區重建局
URBAN RENEWAL
AUTHORITY

EXTRACT PLAN PREPARED ON 23/02/18
BASED ON SURVEY SHEET No. 11-SW-7B
& 11-SW-8A

Scale 1:1,500
METERS 15 0 15 30 45 60 75

PLAN NO. 圖則編號
URA/C&W-006

Our Ref: CCL/IA17021/ks180508

Fire Services Department
Fire Services Headquarters Command
Management Group (MG)
9th Floor, Fire Services Headquarters Building
1 Hong Chong Road, Tsim Sha Tsui East, Kowloon

By Mail
8 May 2018

Attn.: To whom it may concern

Dear Sir/Madam,

**Environmental Assessment for Queen's Road West/ In Ku Lane Development Scheme
Enquiry on Record of Land Contamination**

We, Cinotech Consultants Ltd., have been commissioned by the Urban Renewal Authority (URA) to conduct a Land Contamination Assessment to investigate the environmental acceptability of a site for redevelopment at Queen's Road West/In Ku Lane.

The project is a Development Scheme Plan commenced under Section 25 of the Urban Renewal Authority Ordinance. The existing tenement buildings located at the site, as shown in the Figure in the attachment, shall be demolished and replaced by residential-cum-retail development.

I am writing to enquire if there is any past record of dangerous goods license and reported accidents of dangerous goods leakage or spillage within or in the vicinity of the proposed works.

Your reply by 21 May 2018 will be much appreciated. If you need any further clarification, please contact our Toby Cheng at 2151 2079 or the undersigned at 2151 2091.

Yours faithfully,



KS Lee
Project Manager

Encl. Figure - Site Plan of the Existing Structures
c.c. URA Mr Adrian Chiu Sung Ngai (by e-mail)

APPENDIX 8.1

Air Ventilation Assessment – Expert Evaluation Report

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Air Ventilation Assessment
Expert Evaluation Report**

May 2018

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

CINOTECH CONSULTANTS LIMITED

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18 On Lai Street

Shatin, NT, Hong Kong

Tel: (852) 2151 2083 Fax: (852) 3107 1388

Email: info@cinotech.com.hk

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 The Urban Renewal Authority (URA) will commence the Queen's Road West/In Ku Lane Development Scheme (C&W-006) (the Scheme) under section 25 of the Urban Renewal Authority Ordinance (URAO). A draft URA Development Scheme Plan (DSP) of C&W-006 with its planning proposal is required to submit to the Town Planning Board (TPB) for consideration.
- 1.1.2 The Development Scheme site (the Site) is located at Queen's Road West. The Site is currently zoned as "Residential (Group A)7" (R(A)7), "Government, Institution or Community" (G/IC) and "Open Space" (O) on the Sai Ying Pun & Sheung Wan OZP No. S/H3/30. The site location and the existing zoning are shown in **Figure 1-1 & 1-2** respectively. The Scheme proposes to rezone the site to R(A)23 which is primarily for residential use with commercial/retail uses on the lowest three floors with public open space (POS) and Government RCP cum public toilet included.
- 1.1.3 The Scheme will demolish the existing old tenement buildings on Nos. 129-151 Queen's Road West (odd numbers) including the existing In Ku Lane Government Refuse Collection Point (RCP) cum a public toilet and an existing 5-a-side soccer pitch (part of the Li Sing Street Playground).
- 1.1.4 The Gross Site Area of the Site is about 2,046 m², with a net site area of about 1,318 m². The proposed total Gross Floor Area ("GFA") is around 11,290 m². The development will be composed of three main parts: (1) a single residential tower of about 29 residential storeys on a 3-level podium with commercial/retail facilities, and private residential clubhouse; (2) a 3-storey re-provisioned RCP and public toilet complex; (3) a public open space (POS). The notional layout of a typical floor and the section view are shown in **Figure 1-3 to 1-4**, respectively. The notional layout of all floors of development can be referred to EAS report.
- 1.1.5 Cinotech Consultants Limited was commissioned by URA to carry out an Air Ventilation Assessment (AVA) for the Scheme. The purpose of the study is to assess and envisage any potential air ventilation impact on the implementation of the proposed development and to recommend mitigation measures if necessary.

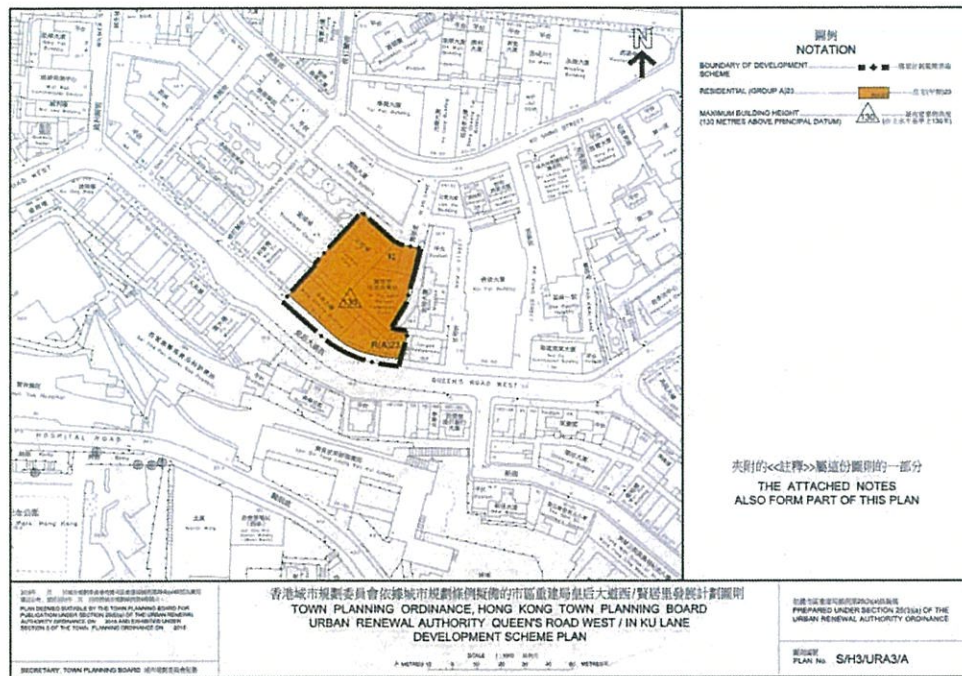


Figure 1-1 Site Location

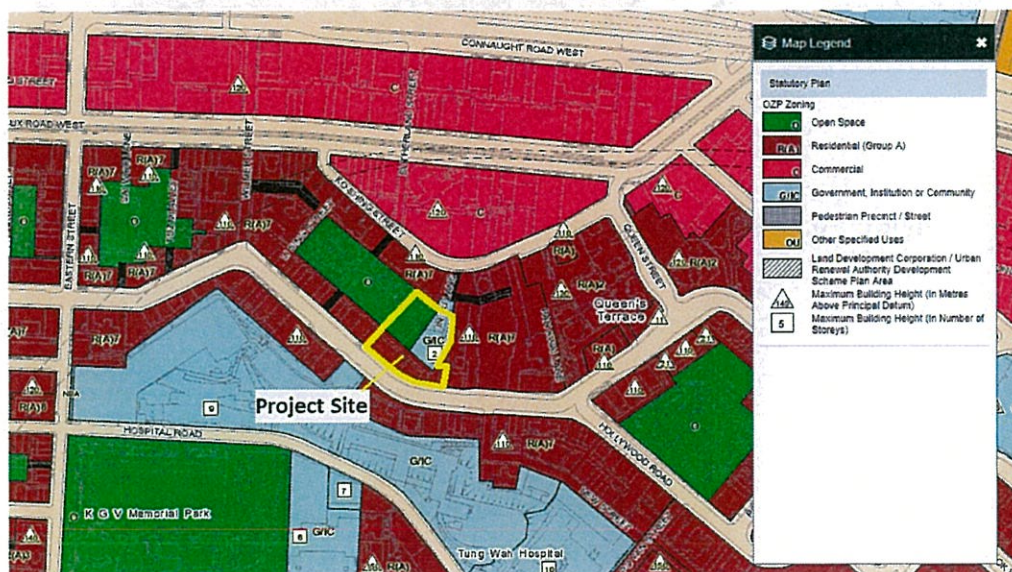


Figure 1-2 Existing Zoning Use (Capture from OZP draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30)

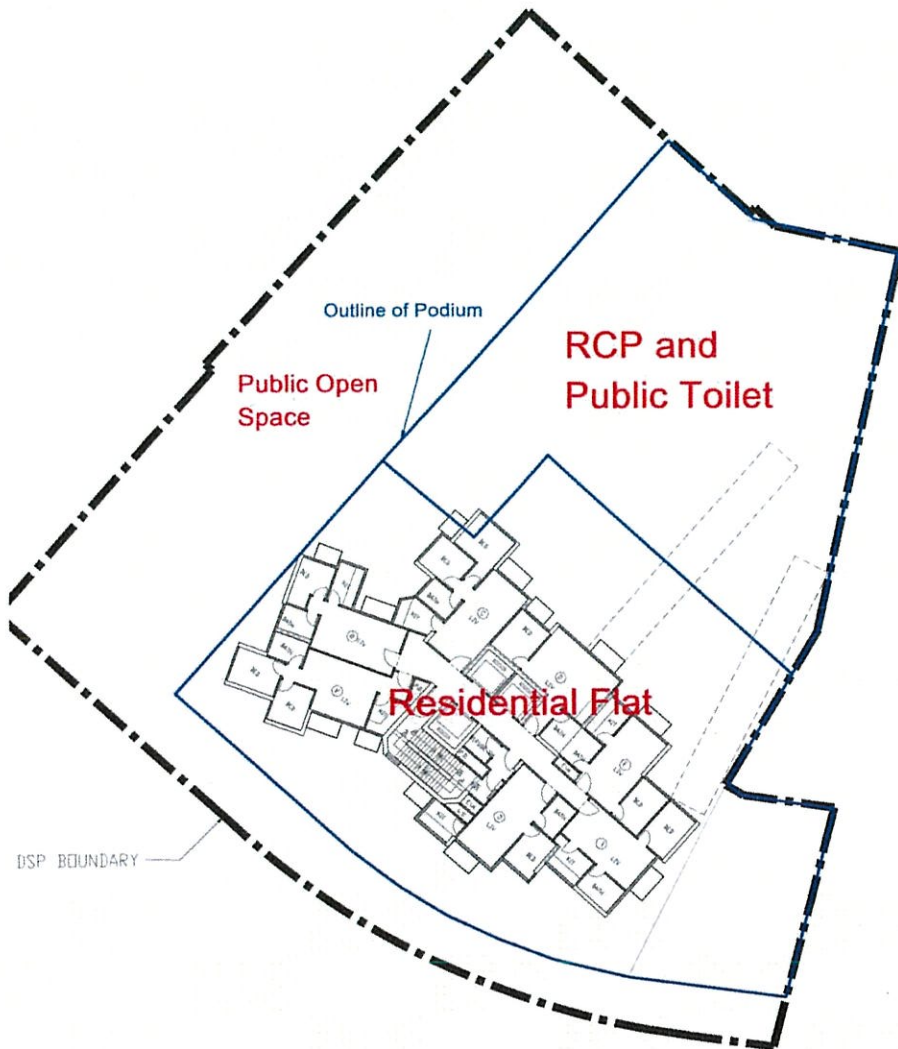


Figure 1-3 Notional Layout of the Typical Floor Plan (Low Zone)

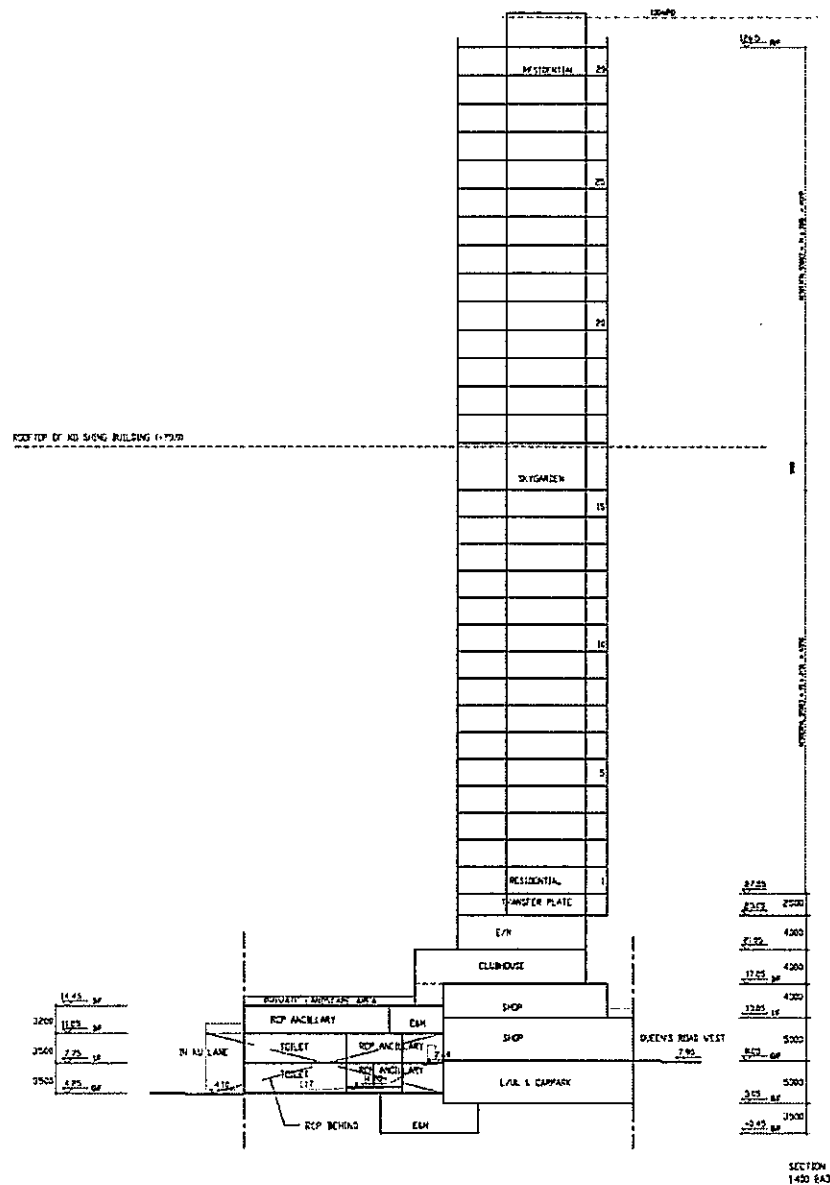


Figure 1-4 Section of the Proposed Redevelopment

1.2 Scope of Study

1.2.1 The assessment has covered the following major aspects:

- Initially assesses the wind availability (V_{∞}) and wind data of the Site and identify obvious problem areas of the site based on available source of information/government-used base data/ model.
- Provide Expert Evaluation based on desk-top review and study, provide recommendation on the master layout plan development to optimize local and regional air ventilation performance.
 - Recommend good design features with reference to Chapter 11 of HKPSG.
 - Identify the constraints associated with the project and recommend mitigation measures to improve the prevailing situation and resolve / mitigate the air ventilation impact.

2 THE WIND ENVIRONMENT

2.1 Introduction

2.1.1 The wind availability (V_{∞}) and wind data of the Site will be described and evaluated in this chapter. Three sources of wind data will be presented in this chapter.

- Measured Data from Hong Kong Observatory (HKO) weather station¹
- Calculated results from Meso-Scale Model Regional Atmospheric System (RAMS)²
- Measurement from Wind Tunnel Test³

2.1.2 The obvious problem areas of the Site will be identified based on the available wind data.

2.2 Measured Data from HKO Weather Station

2.2.1 HKO weather station provided reliable wind data in Hong Kong. Although the closest weather station is at Central Pier, which is about 1 km from the project site, its measured wind profile is likely affected by the local topography and buildings thus the wind data should be applied with caution. On the other hand, the wind station at Waglan Island is relatively open thus the measured wind data at Waglan Island is normally used to represent the overall wind environment of Hong Kong that unaffected by the Hong Kong's complex topography. The weather stations that providing wind data statistic are shown in **Figure 2-1**.

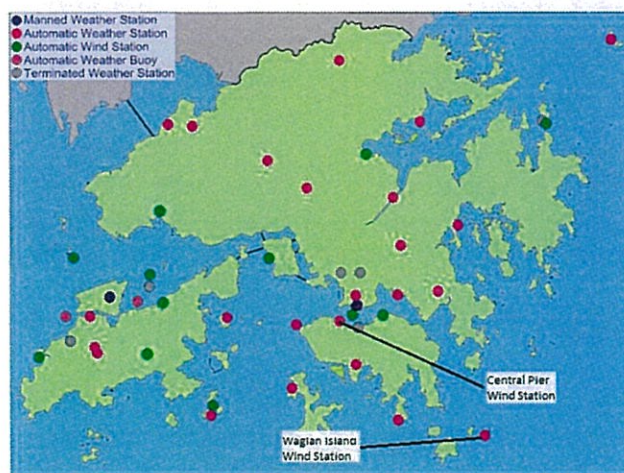


Figure 2-1 HKO Wind Stations (Capture from HKO web site on 24 May 2018)

¹ <http://www.hko.gov.hk>

² http://www.pland.gov.hk/pland/en/p_study/comp_s/InceptionReport_webpage_11-12/index.html

³ http://www.pland.gov.hk/pland/en/info_serv/site_wind/wwtf009_2007_final.pdf

- 2.2.2 The wind roses at Waglan Island are presented in the **Figure 2-2, 2-3 & 2-4**. The breakdown of daily wind prevailing wind direction according to the data from the HKO's web site⁴ are listed in **Table 2-1**.
- 2.2.3 In general, the tendency of the prevailing wind at Waglan Island over the years remain unchanged and the NE wind dominate the annual prevailing wind direction. During the Summer, the prevailing wind direction shifted to the SW direction.
- 2.2.4 The breakdown of prevailing wind direction shows that around 24% of the daily prevailing wind is coming from ENE (50-70 degree); around 21% is come from NNE (20-40 degree); and around 17% is coming from E (80-100 degree).
- 2.2.5 In Summer (June-August), the major prevailing wind direction shifted to SW. Around 24% of the daily prevailing wind is coming from SSW (200-220 degree); around 22% is coming from WSW (230-250 degree) and around 11% is coming from ESE (110-130 degree).
- 2.2.6 The wind roses at Central Pier are presented in the **Figure 2-5 & 2-6**. The breakdown of daily wind prevailing wind direction according to the data from the HKO's web site⁵ are listed in **Table 2-2**.
- 2.2.7 Unlike the Waglan Island, the wind measured at Central Pier is dominated by E & E wind over the years. The breakdown of prevailing wind direction shows that around 80% of the daily prevailing wind is coming from E (80-100) and W (260-280 degree) for both annual and summer condition.

⁴ Only wind data in 2006-2017 has been used.

http://www.hko.gov.hk/cis/awsDailyElement_e.htm?stn=WGL&ele=PREV_DIR&y=2017

⁵ Only wind data in 2006-2017 has been used.

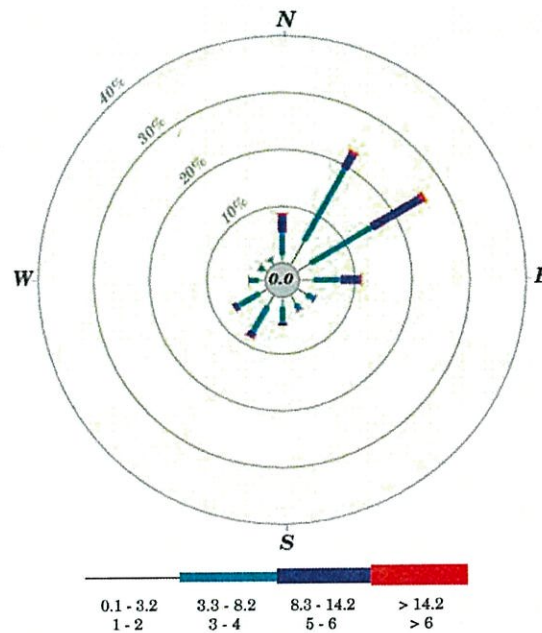
http://www.hko.gov.hk/cis/awsDailyElement_e.htm?stn=CP1&ele=PREV_DIR&y=2017

Table 2-1 Breakdown of Prevailing Wind Direction at Waglan Island, 2006-2017

| Wind Direction (Degree) | Annual | Summer (Jun-Aug) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------------------|--------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| N 350-010 | 6.4% | 1.8% | 1.3% | 0.6% | 0.3% | 0.4% | 0.2% | 0.1% | 0.1% | 0.3% | 0.7% | 0.3% | 0.7% | 1.3% |
| NNE 020-040 | 20.5% | 4.1% | 3.6% | 3.1% | 2.9% | 1.7% | 0.9% | 0.3% | 0.3% | 0.4% | 0.7% | 1.4% | 1.8% | 3.4% |
| ENE 050-070 | 24.2% | 7.4% | 3.2% | 2.5% | 3.5% | 2.6% | 1.5% | 0.5% | 0.6% | 0.9% | 1.4% | 1.9% | 2.5% | 3.1% |
| E 080-100 | 16.9% | 8.7% | 0.3% | 1.2% | 0.9% | 1.6% | 1.9% | 0.7% | 0.6% | 0.9% | 2.1% | 3.5% | 2.7% | 0.6% |
| ESE 110-130 | 4.9% | 11.4% | 0.0% | 0.1% | 0.0% | 0.0% | 0.4% | 0.9% | 1.1% | 0.9% | 0.8% | 0.6% | 0.1% | 0.0% |
| SSE 140-160 | 3.1% | 6.8% | 0.0% | 0.1% | 0.2% | 0.2% | 0.3% | 0.5% | 0.7% | 0.5% | 0.4% | 0.2% | 0.0% | 0.0% |
| S 170-190 | 3.9% | 7.7% | 0.0% | 0.1% | 0.1% | 0.6% | 0.7% | 0.8% | 0.7% | 0.5% | 0.3% | 0.0% | 0.0% | 0.0% |
| SSW 200-220 | 9.4% | 23.7% | 0.0% | 0.1% | 0.2% | 0.9% | 1.5% | 2.7% | 2.1% | 1.3% | 0.4% | 0.1% | 0.0% | 0.0% |
| WSW 230-250 | 7.7% | 21.6% | 0.0% | 0.0% | 0.1% | 0.4% | 1.0% | 1.7% | 2.0% | 1.9% | 0.6% | 0.0% | 0.0% | 0.0% |
| W 260-280 | 1.9% | 4.9% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.1% | 0.6% | 0.6% | 0.4% | 0.1% | 0.0% | 0.0% |
| WNW 290-310 | 0.7% | 1.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.3% | 0.2% | 0.1% | 0.0% | 0.0% |
| NNW 320-340 | 0.4% | 0.3% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% |

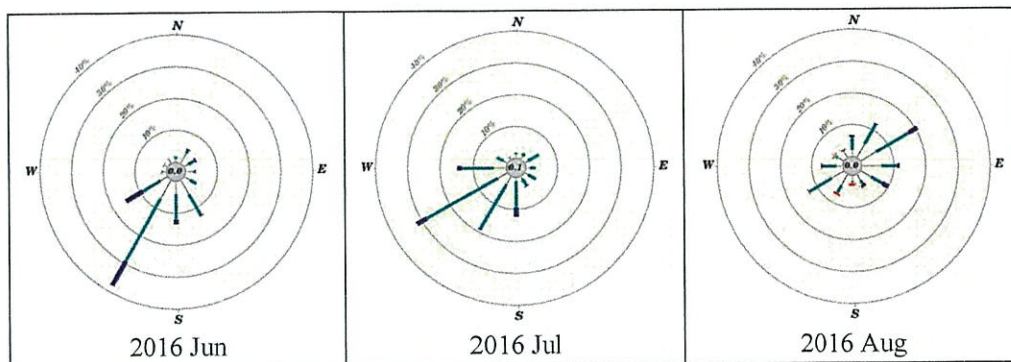
Table 2-2 Breakdown of Prevailing Wind Direction at Central Pier, 2006-2017

| Wind Direction (Degree) | Annual | Summer (Jun-Aug) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------------------|--------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| N 350-010 | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| NNE 020-040 | 3.2% | 0.2% | 0.5% | 0.2% | 0.3% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.4% | 0.7% | 0.9% |
| ENE 050-070 | 3.2% | 3.3% | 0.2% | 0.2% | 0.2% | 0.4% | 0.5% | 0.3% | 0.2% | 0.3% | 0.2% | 0.2% | 0.2% | 0.3% |
| E 080-100 | 62.6% | 42.9% | 5.7% | 5.9% | 6.6% | 5.8% | 5.0% | 3.5% | 3.8% | 3.8% | 5.1% | 6.5% | 5.6% | 5.5% |
| ESE 110-130 | 2.2% | 3.3% | 0.1% | 0.1% | 0.3% | 0.2% | 0.3% | 0.4% | 0.3% | 0.2% | 0.2% | 0.1% | 0.1% | 0.1% |
| SSE 140-160 | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| S 170-190 | 0.8% | 2.2% | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.4% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| SSW 200-220 | 0.1% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| WSW 230-250 | 1.7% | 4.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 0.5% | 0.4% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% |
| W 260-280 | 19.8% | 39.3% | 1.4% | 0.9% | 0.4% | 1.2% | 1.9% | 3.0% | 3.6% | 3.5% | 2.1% | 0.5% | 0.4% | 0.7% |
| WNW 290-310 | 3.7% | 4.3% | 0.2% | 0.2% | 0.5% | 0.4% | 0.3% | 0.3% | 0.2% | 0.6% | 0.4% | 0.3% | 0.2% | 0.2% |
| NNW 320-340 | 2.6% | 0.3% | 0.6% | 0.3% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.3% | 0.4% | 0.6% |



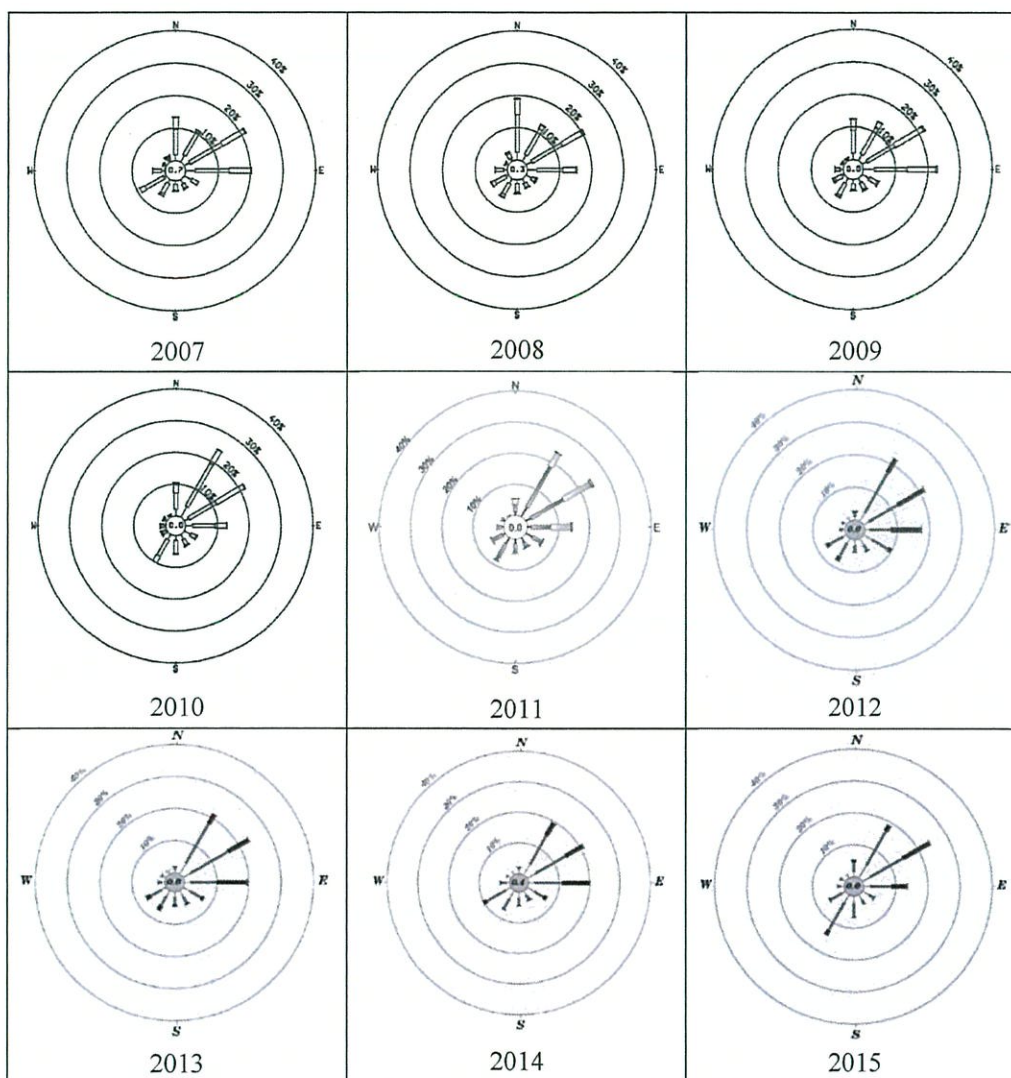
The Wind Roses are captured from "Summary of Meteorological and Tidal Observations in Hong Kong" <http://www.hko.gov.hk/publica/pubsmo.htm>

Figure 2-2 The Annual Wind Roses at Waglan Island, 2016



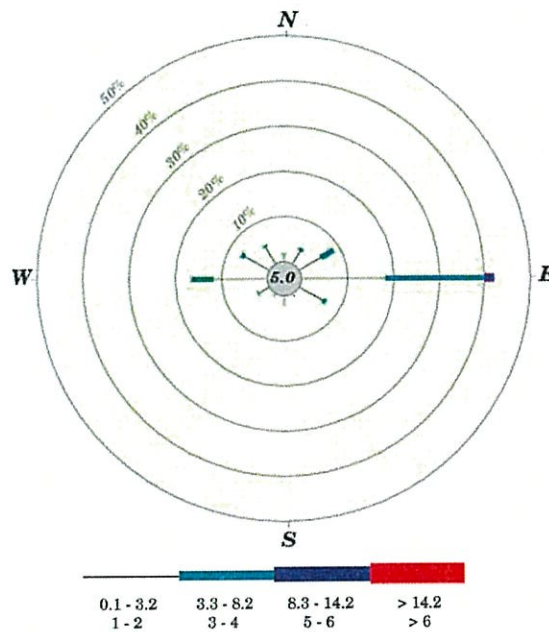
The Wind Roses are captured from "Summary of Meteorological and Tidal Observations in Hong Kong" <http://www.hko.gov.hk/publica/pubsmo.htm>

Figure 2-3 The Monthly (Jun-Aug) Wind Roses at Waglan Island, 2016



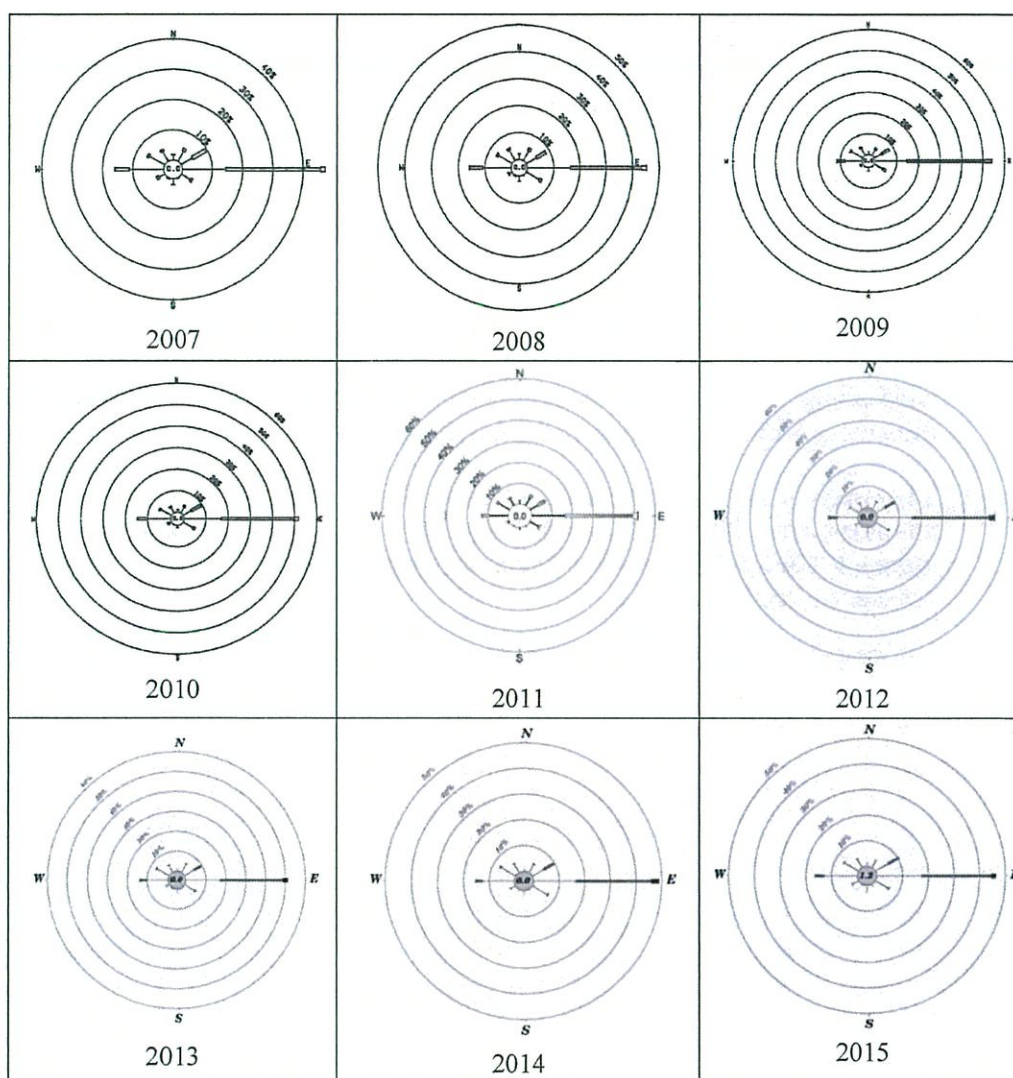
The Wind Roses are captured from "Summary of Meteorological and Tidal Observations in Hong Kong". <http://www.hko.gov.hk/publica/pubsmo.htm>

Figure 2-4 The Annual Wind Roses at Waglan Island, 2007-2015



The Wind Roses are captured from "Summary of Meteorological and Tidal Observations in Hong Kong"
<http://www.hko.gov.hk/publica/pubsmo.htm>

Figure 2-5 The Annual Wind Roses at Central Pier, 2016



The Wind Roses are captured from "Summary of Meteorological and Tidal Observations in Hong Kong". <http://www.hko.gov.hk/publica/pubsmo.htm>

Figure 2-6 The Annual Wind Roses at Central Pier, 2007-2015

2.3 Calculated Results from RAMS

- 2.3.1 Planning Department (PlanD) have conducted a Consultancy Study on Establishment of Simulated Site Wind Availability Data for Air Ventilation Assessments in Hong Kong⁶. The simulated results are available via the PlanD's website⁷.
- 2.3.2 Unlike the data from HKO's weather station, the model provides detailed wind data for every location in Hong Kong with grid size of 500m x 500m. Localized wind profile due to the surrounding terrain can be obtained thus the wind data from the model is best suited for the local planning.
- 2.3.3 The results of the corresponding grid for the Site (074,035), has been adopted in this assessment. The wind roses at 200m, 300m & 500m elevation are shown in **Figure 2-7 & 2-8 for annual and summer respectively**. Please refer to PlanD's website for detailed results.
- 2.3.4 The PlanD's simulated results show that the major annual wind direct is E, followed by ENE and ESE. In summer, the most prevalent wind directions are SW, SSW, and E.

⁶ http://www.pland.gov.hk/pland_en/p_study/comp_s/InceptionReport_webpage_11-12/index.html

⁷ http://www.pland.gov.hk/pland_en/info_serv/site_wind/site_wind/index.html

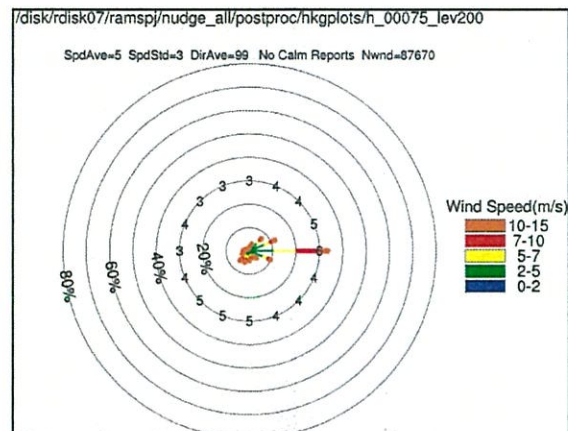
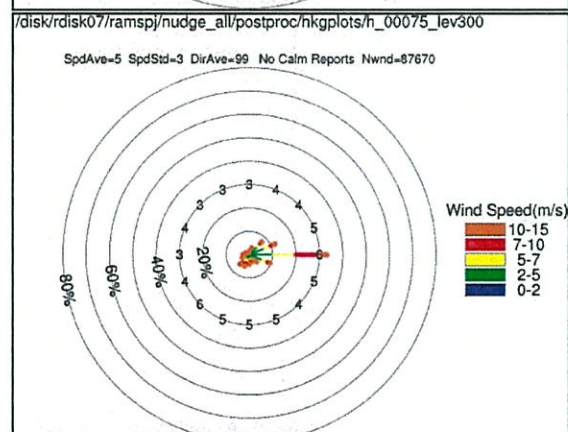
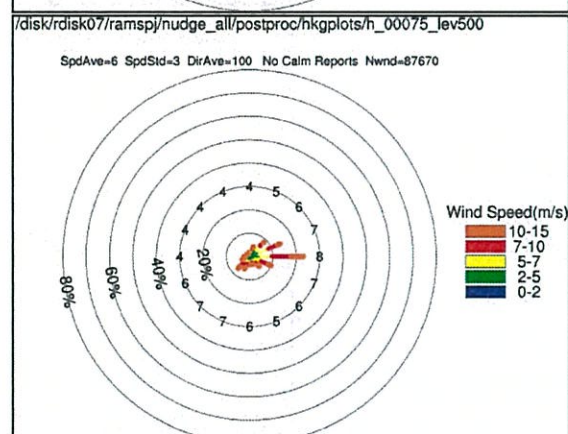
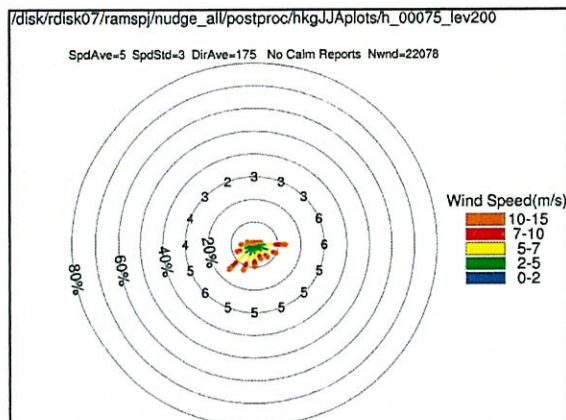
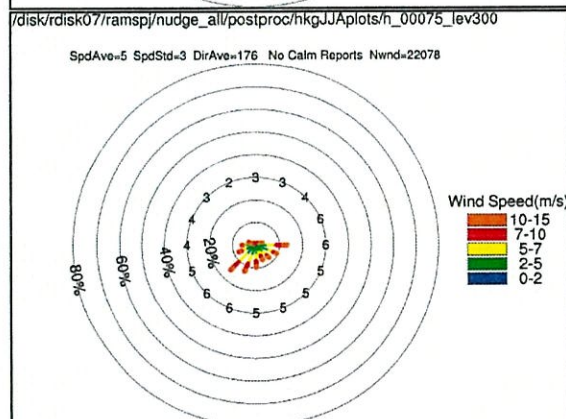
Annual
@ 200mAnnual
@ 300mAnnual
@ 500m

Figure 2-7 The Wind Roses at grid [074,035] under Annual Condition from Meso-Scale Model

Summer
(Jun -Aug)
@ 200m



Summer
(Jun -Aug)
@ 300m



Summer
(Jun -Aug)
@ 500m

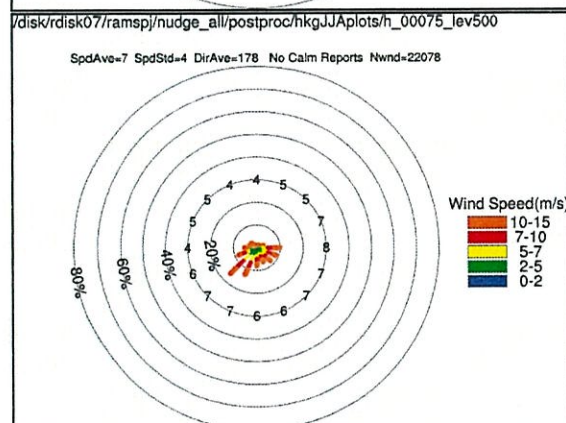


Figure 2-8 The Wind Roses at grid [074,035] under Summer Condition from Meso-Scale Model

2.4 Measurement from Wind Tunnel Test

2.4.1 Chinese University of Hong Kong had conducted a series of wind tunnel tests named "Urban Climate Map and Standards for Wind Environment – Feasibility Study" on the behalf of PlanD.

2.4.2 The results for Sheung Wan⁸, which is the closest studied location, had been used in this assessment for reference. As the studied location have some distance from the Site, and the flow within the urban roughness sublayer is highly inhomogeneous, only the flows corrected to 500m elevation are considered. The wind roses corrected to 500m elevation of the wind tunnel study are shown in **Figure 2-9**.

2.4.3 The major annual wind direction is E, followed by ENE and N. In summer, the major wind directions are SW, E, WSW & S.

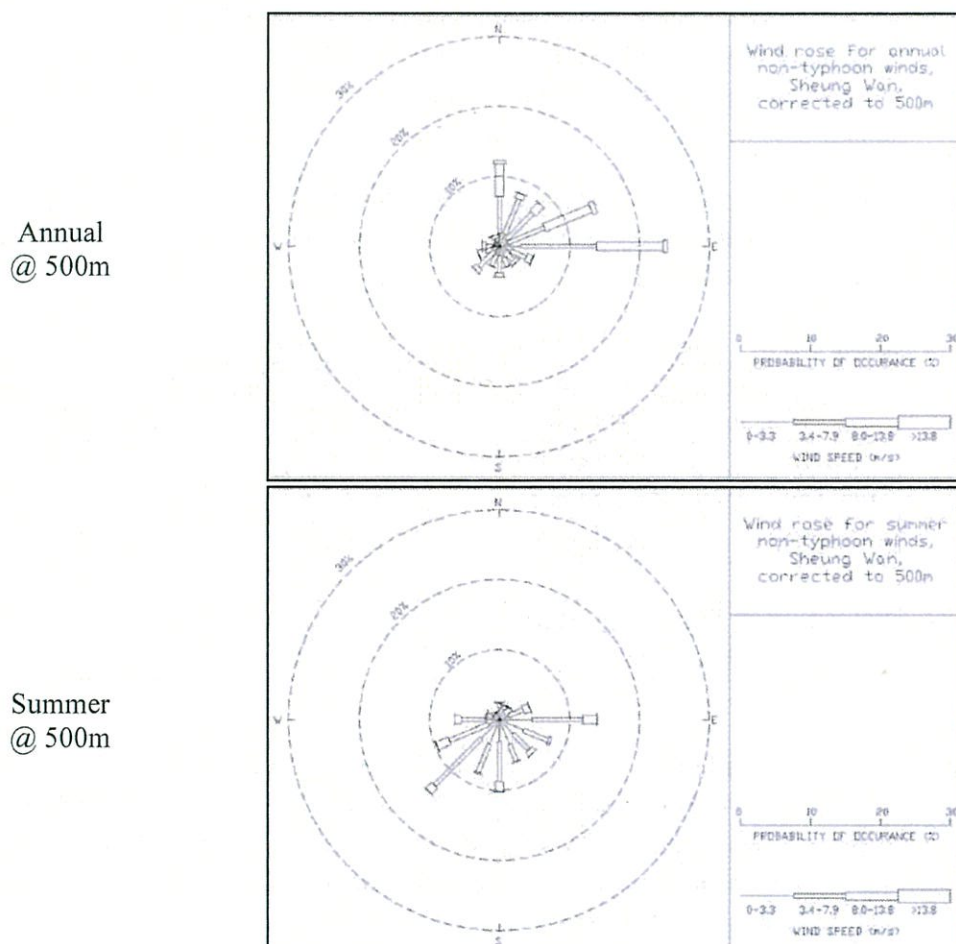


Figure 2-9 The Wind Roses Corrected to 500m from Wind Tunnel Tests

2.5 Downhill Air Movement

2.5.1 It should be noted that there is a vegetated hill slope (Victoria Peak) to the South of the Site. But since the vegetated hill slope and the Site are separated by

⁸ http://www.pland.gov.hk/pland_en/info_serv/site_wind/wwtf009_2007_final.pdf

multiple layers of high rise buildings, the downhill air movement shall not affect the Site.

2.6 Summary of Prevailing Wind

- 2.6.1 The prevailing wind directions are summarized in **Table 2-3**. As stated in the previous sections, the measurement data at Central Pier and the measure data in the wind tunnel test may not be representative. The result from Central Pier wind station and wind tunnel test should be applied with caution. Instead, the suitable data for this assessment is from the measurement data of Waglan Island wind station and the meso-scale model in PlanD web-site.
- 2.6.2 The prevailing wind of the Site have been illustrated in **Figure 2-10**. In general, the Site is under Easterly prevailing wind. In summer, prevailing wind also come from S to SW directions.

Table 2-3 Summary of Prevailing Wind Direction

| | Annual | Summer |
|---|-------------|---------------|
| Waglan Island (HKO) | ENE, NNE, E | SSW, WSW |
| Central Pier Wind station (HKO) | E, W | E, W |
| PlanD's RAMS - Grid [074,035] | E, ENE, ESE | SW, SSW, E |
| Wind Tunnel Test (Sheung Wan) | E, ENE, N | SW, E, SWS, S |
| Adopted Prevailing Wind directions | NE, E, SE | SW, S, SE, E |

- 2.6.3 Expert Evaluation on Sai Ying Pun & Sheung Wan Area⁹ (SYPSW EE) (PLNQ37/2007) have been made by Prof. Ng in 2010. Although SYPSW EE analyse the prevailing wind with older wind data and with difference meso-scale model, the adopted prevailing wind directions in SYPSW EE (Figure 3.27) is similar to that of this report.

2.7 Existing Condition & Air Paths

- 2.7.1 The Site is within a developed area and the whole region consists of closely packed buildings. A mix of old low rise buildings and high rise towers could be found around the Site. The surrounding buildings are highlighted in **Figure 2-8**.

⁹ https://www.pland.gov.hk/pland_en/info_serv/ava_register/ProjInfo/AVRG46_AVA_FinalReport.pdf

- 2.7.2 The buildings in the immediately south to the Site are generally lower than 30m above ground thus the air paths from the south is secured. In the east and north directions, there are several high rise buildings blocking the air paths. There are some open spaces to the north-west of the Site (Li Sing Street Playground) thus the ventilation should be good in the north-west direction of the Site.
- 2.7.3 The existing buildings within the Site consist of some adjoined tenement buildings. As those adjoining buildings are also adjoined to other tenement buildings along the section of Queen's Road West forming an impermeable barrier blocking the wind flow at pedestrian level from Queen's Road West to POS of the LCSD's playground as well as the downstream area.
- 2.7.4 It should be noted that the area to the south of the Site is a steep upward slope. The wind flow is unlikely going uphill when other air paths are available.
- 2.7.5 There are two prevailing wind flow scenarios to be considered in this assessment. The first scenario is the easterly wind scenario (also include NE & SE winds) that occurs throughout the whole year. The second scenario is the south-westerly wind scenario (also include S winds) that mostly occurs during summer.
- 2.7.6 Major roads/streets in parallel within 30 degrees from the prevailing wind directions together with open spaces and low-rise buildings can form air paths. The existing air paths at pedestrian level of the two prevailing wind flow scenarios are shown in **Figure 2-9 & 2-10**.
- 2.7.7 Under prevailing winds from E, NE & SE, the approaching wind on the pedestrian level are mainly coming from the Queen Road West and Ko Shing Street via the building gaps and scavenging lanes. Within the site area, the wind can penetrate the site through the open area (existing football pitch) and/or the gap between the RCP and the buildings to reach the downstream open area (Li Sing Street Playground).
- 2.7.8 Under Prevailing Winds from SW & S, the approaching wind on the pedestrian level are mainly coming from the buildings gaps on the opposite site of Queen's Road West. As the adjoined tenement buildings in the south portion of the project site have formed an impermeable barrier blocking the wind flow at pedestrian level, the approaching wind from south can hardly penetrate the project site on the pedestrian level. Since the approaching wind is from a downhill slope and the tenement buildings in the south portion of the project site are relatively short, part of the approaching wind can go over the roof level of the tenement buildings and reach the pedestrian level of the open area in the site then reach Ko Shing Street via In Ku Lane.
- 2.7.9 The change in air paths due to the proposed development will be discussed in the next chapter.

2.8 Summary

- 2.8.1 The existing wind environment at the Site and its surrounding area have been studied. Generally, the prevailing wind is from the E, NE & SE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind is mainly come from the SW & S direction.
- 2.8.2 Under annual condition, the wind that entering the Site is mainly come from main roads via the building gaps and scavenging lanes. During summer, the approaching wind from south at pedestrian level is blocked by the adjoined tenement buildings. However, some of the approaching wind can go over the roof level of the tenement buildings and reach the pedestrian level of the open area in the site.

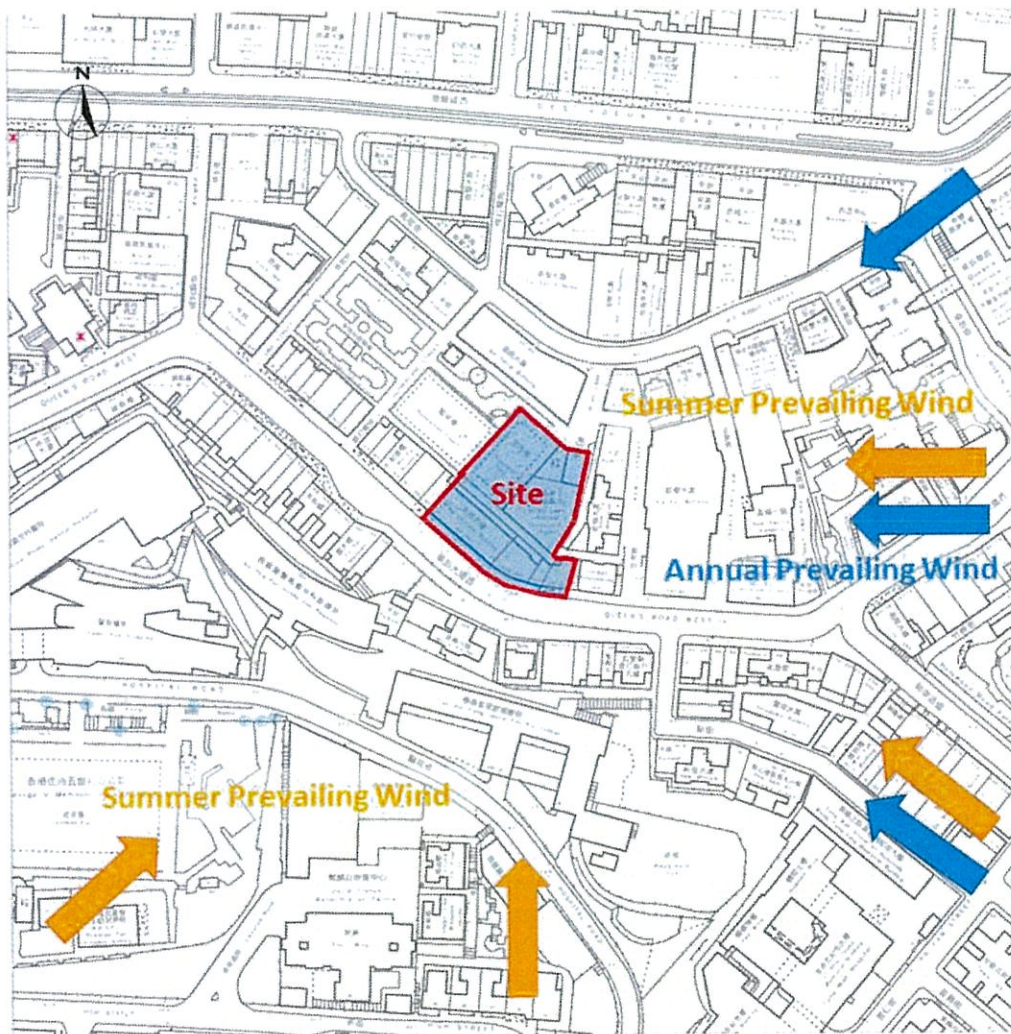


Figure 2-10 Prevailing Wind of the Site

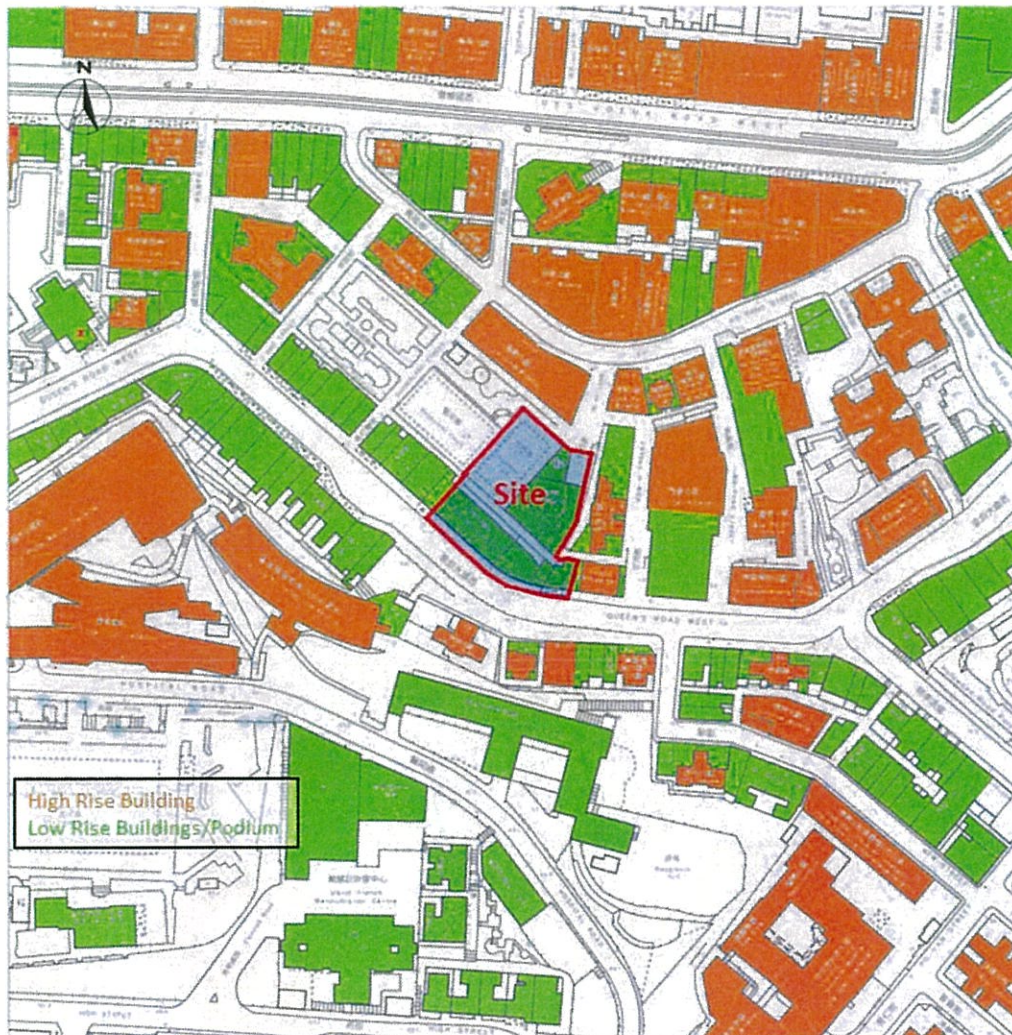


Figure 2-11 Buildings around the Site

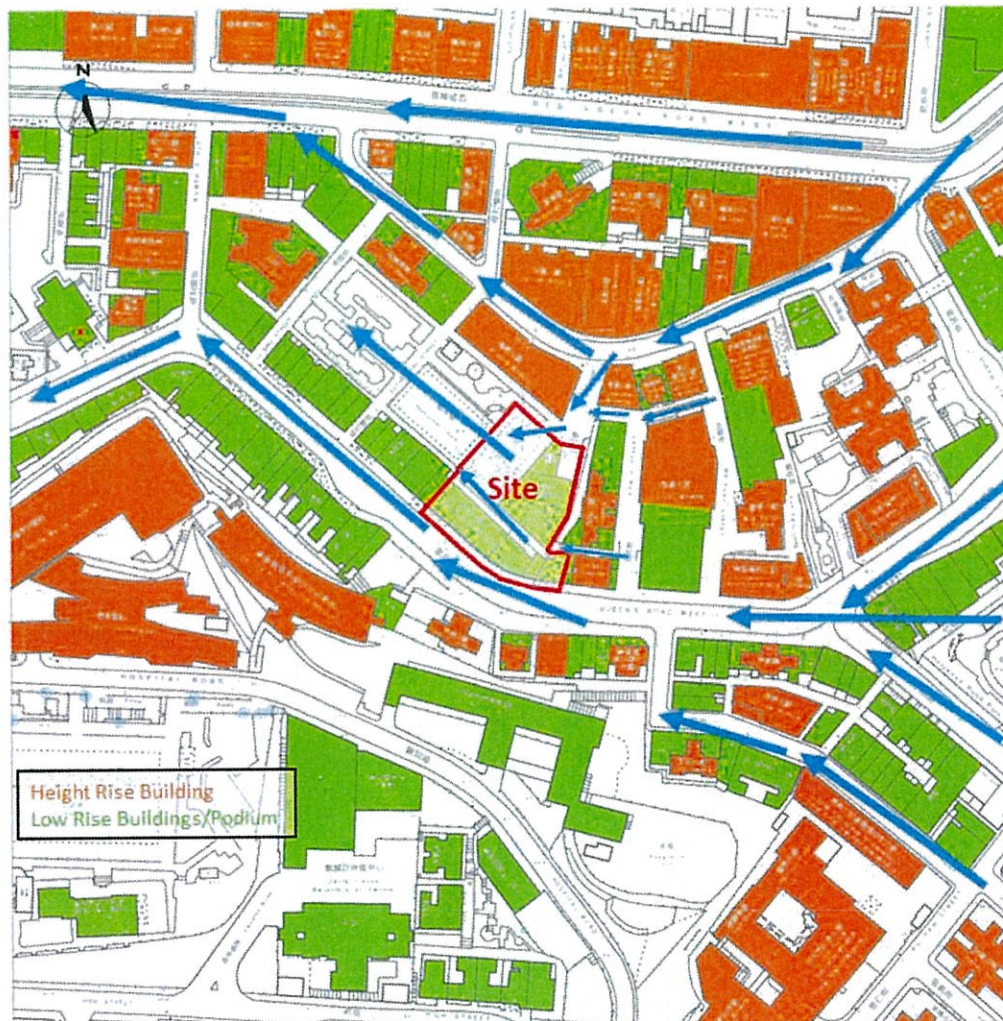


Figure 2-12 Existing Wind Paths around the Site under Prevailing Winds from E, NE & SE

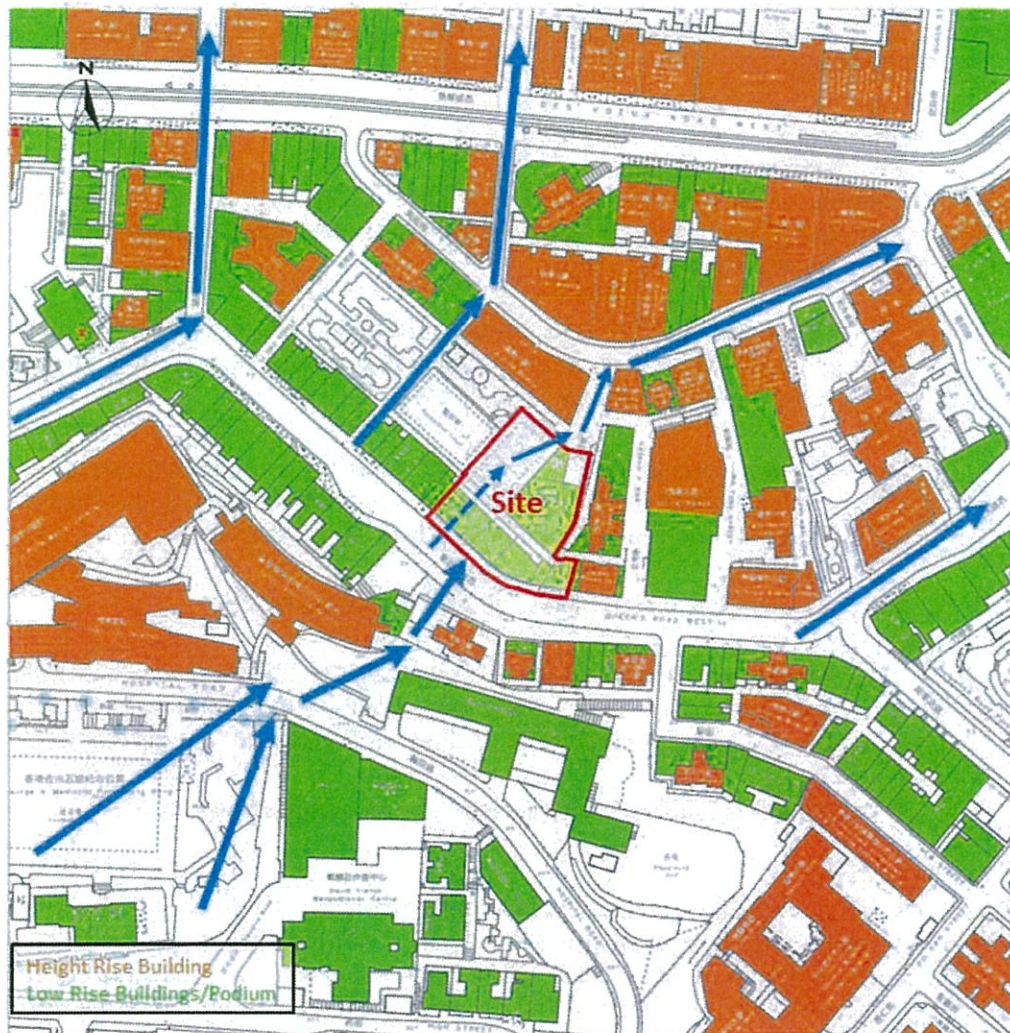


Figure 2-13 Existing Wind Paths around the Site under Prevailing Winds from SW & S

3 EXPERT EVALUATION OF THE REDEVELOPMENT SCHEME

3.1 Introduction

3.1.1 According to the Section 5.6.6 of SYPSW EE Report¹⁰, the following five recommendations have been suggested for the re-development in the Sai Ying Pun & Sheung Wan Area.

- The “G/IC” and “O” zones in the area should not be further developed with tall buildings or re-zoned for bulky development as they provide useful “lungs” of air spaces in the area.
- Air paths should be provided by designating non-building areas. It is recommended that air paths be strategically incorporated in the area as a whole, and for each development site as far as possible.
- The scale and size of the podium should be restricted.
- Towers must not be designed to occupy the full frontage of the site. Appropriate gaps between the towers, and within the towers must be provided as far as practicable to allow air ventilation through them.
- Greeneries and landscaping should be encouraged and enhanced.

3.1.2 The AVA study has assessed the wind performance of the Site according to the suggestions and recommendations in Chapter 11 of HKPSG as well as SYPSW EE. As the Site is small and URA cannot control over the surrounding development, the assessment will be focused on site level instead of district level. The assessment in this study is based on the notional design of the redevelopment. The wind environment and the air paths around the Site can be found in **Chapter 2**.

3.1.3 The following areas will be discussed in this chapter:

- Existing G/IC and O Zones in the Development
- Wind Paths at Pedestrian Level
- Podium Structure
- Building Disposition and Permeability
- Building Height
- Landscaping and Cool Materials

¹⁰ https://www.pland.gov.hk/pland_en/info_serv/ava_register/ProjInfo/AVRG46_AVA_FinalReport.pdf

3.2 Existing G/IC and O Zones in the Development

- 3.2.1 SYPSW EE suggests the "G/IC" and "O" zones in the area should not be further developed with tall buildings or re-zoned for bulky development as they provide useful "lungs" of air spaces in the area.
- 3.2.2 In the draft DPS, 538 m² of "G/IC" zone area and 538 m² of "O" zone area is included. The "G/IC" zone includes the existing In Ku Lane Government RCP and the public toilet ("G/IC" zone area); the "O" zone includes an existing 5-a-side soccer pitch.
- 3.2.3 According to notional layout, the future Government RCP and the public toilet will be incorporated into the podium of the re-developed building with a max height of around 14 mPD (upper roof slab level).
- 3.2.4 The location and the maximum height of the redeveloped RCP will be similar to the existing design (upper roof slab level at around 14mPD). Open area of 538 m² will be provided for pedestrians assess and air ventilation purpose.
- 3.2.5 In view of such, no adverse impact is anticipated to the "lungs" of air spaces in the area.

3.3 Wind Paths at Pedestrian Level

- 3.3.1 Although the notional layout fulfils the recommendation of SYPSW EE, the proposed development will change the local wind environment inevitably.
- 3.3.2 The expected wind paths according to the national layout are illustrated in Figures 3-1 & 3-2.
- 3.3.3 Same as the existing condition, under Prevailing Winds from E, NE & SE, the approaching wind on the pedestrian level are mainly coming from the Queen Road West and Ko Shing Street via the building gaps and scavenging lanes. Within the site area, the wind can penetrate the site through the open area (the POS) but the existing gap between the RCP and the buildings have been removed thus the permeability at pedestrian level for easterly wind will be reduced. However, considering the width of the existing gap (around 3m) and the net site area (around 1318 m²), the potential impact of removing the gap should be minimal.
- 3.3.4 Under Prevailing Winds from SW & S, the approaching wind on the pedestrian level are mainly coming from the buildings gaps on the opposite site of Queen's Road West. As the POS will connect the Queen's Road West and the Li Sing Street Playground at grade, it is expected that the POS will be become a major wind path for the site and downstream area.
- 3.3.5 In short, the wind flow around the site under annual condition will be slightly reduced compared to existing condition due to the podium of the redeveloped building. On the other hand, the POS will provide a new wind path for SW wind which is the major wind direction in summer. Considering the need of ventilation in summer is much greater than that in other seasons, the current

national layout should not have more adverse impact to surrounding air ventilation as compared to the existing condition.

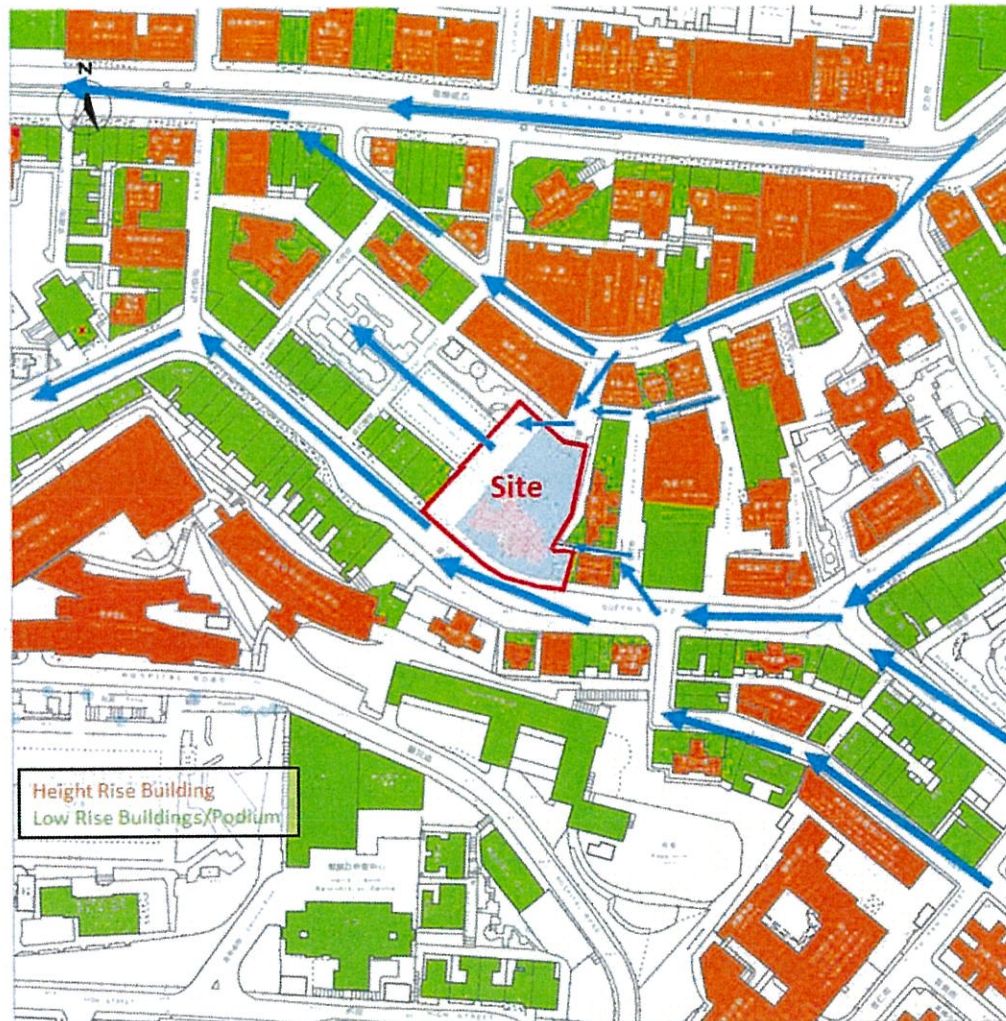


Figure 3-1 Expected Wind Paths around the Redeveloped Site under Prevailing Winds from E, NE & SE

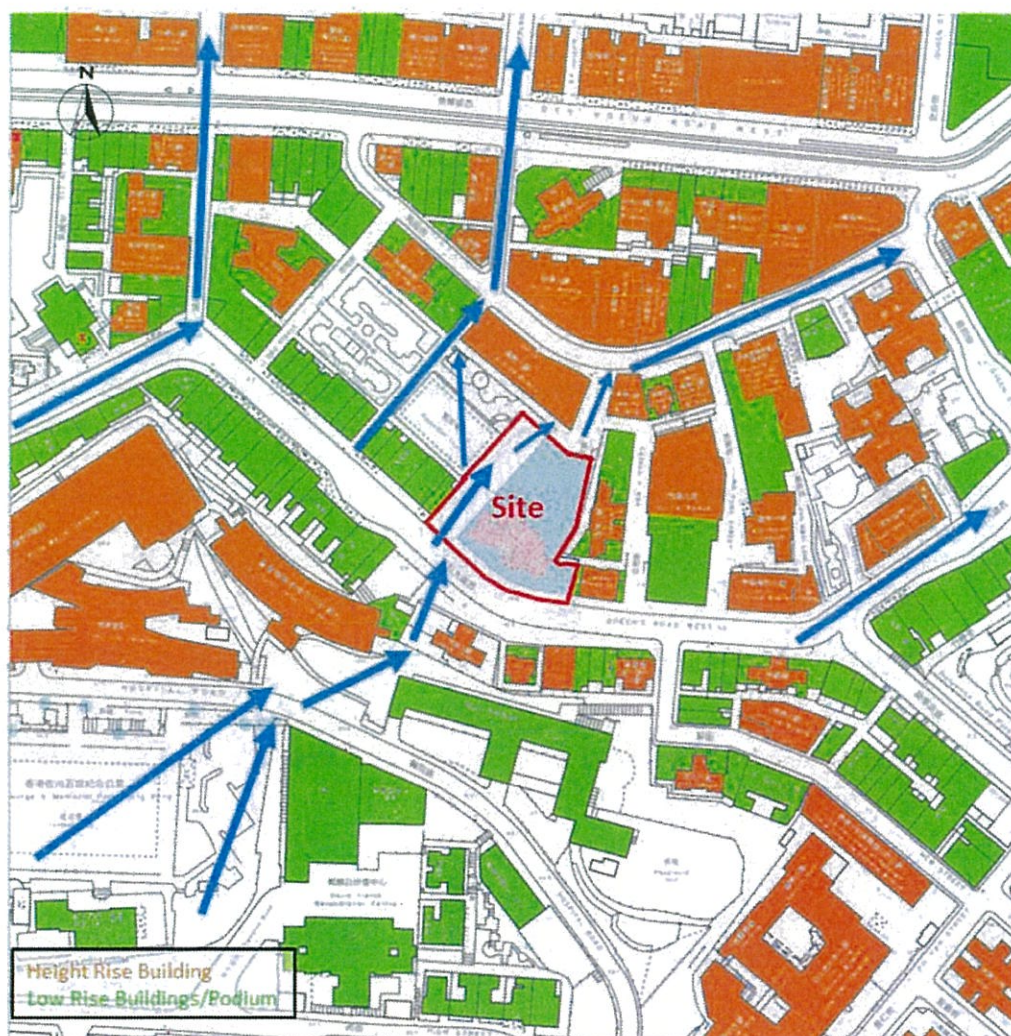


Figure 3-2 Expected Wind Paths around the Redeveloped Site under Prevailing Winds from SW & S

3.4 Podium Structure

- 3.4.1 To enhance air circulation for dispersing heat and pollutants thus improving comfort and air quality of the pedestrian environment, it is critical to increase the permeability of the urban fabric at the street levels. HKPSG recommends that the podium structure that impedes air movement should be avoided where practicable, and that site coverage of the podium should be reduced to allow more open space at grade (**Figure 3-3**), which is consistent with the recommendation from SYPSW EE. HKPSG also recommends that a terraced podium design to direct downward airflow to the pedestrian level (**Figure 3-4**).
- 3.4.2 The existing adjoined tenement buildings along the section of Queen's Road West forms an impermeable barrier blocking the wind flow at pedestrian level,

as stated in **Section 2.7.3**, and similar design should be avoided in the proposed redevelopment.

- 3.4.3 In the notional of the redevelopment, a space in the western part of the Site is designed for pedestrian pathway / POS as highlighted in **Figure 3-5**. The width of the open space is about 11m and it serves as an air pathway, increasing the permeability greatly at pedestrian level of the proposed development. Terraced podium design is adopted on the podium facing the Queen's Road West direction (**Figure 1-4**).
- 3.4.4 As the prevailing wind in summer is mostly from SW to S direction, it is expected that with the new corridor between Queen's Road West and In Ku Lane (**Figure 3-5**), ventilation at pedestrian level of the Site as well as the nearby downstream area will be improved compared to the existing condition especially during summer. The air ventilation at the pedestrian level of Queen's Road West section should also be improved as the north/south wind is more likely entering the street canyon comparing to the existing skimming flow regime liked condition.
- 3.4.5 Although there is a potential impact that the easterly wind shall be blocked by the site on pedestrian level, the benefit of the new wind path provided by the POS is more favourable to the surrounding especially for summer, thus the current national layout should not inflict more adverse impact on surrounding air ventilation as compared to the existing condition.

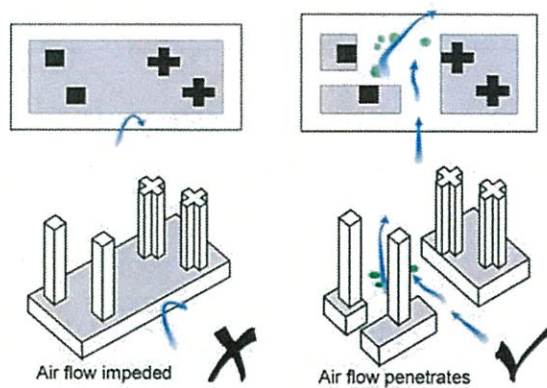


Figure 3-3 The Effect of Reducing Site Coverage of the Podium

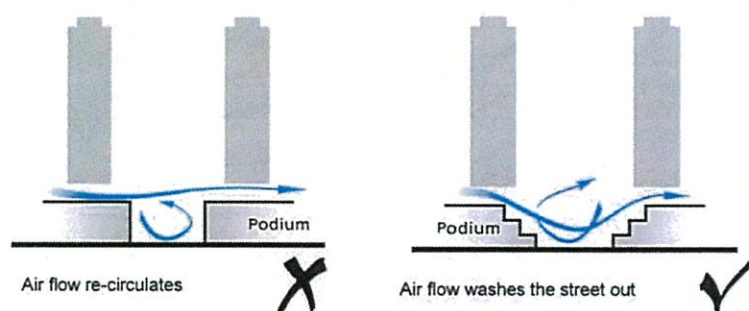


Figure 3-4 The Effect of Terraced Podium Design

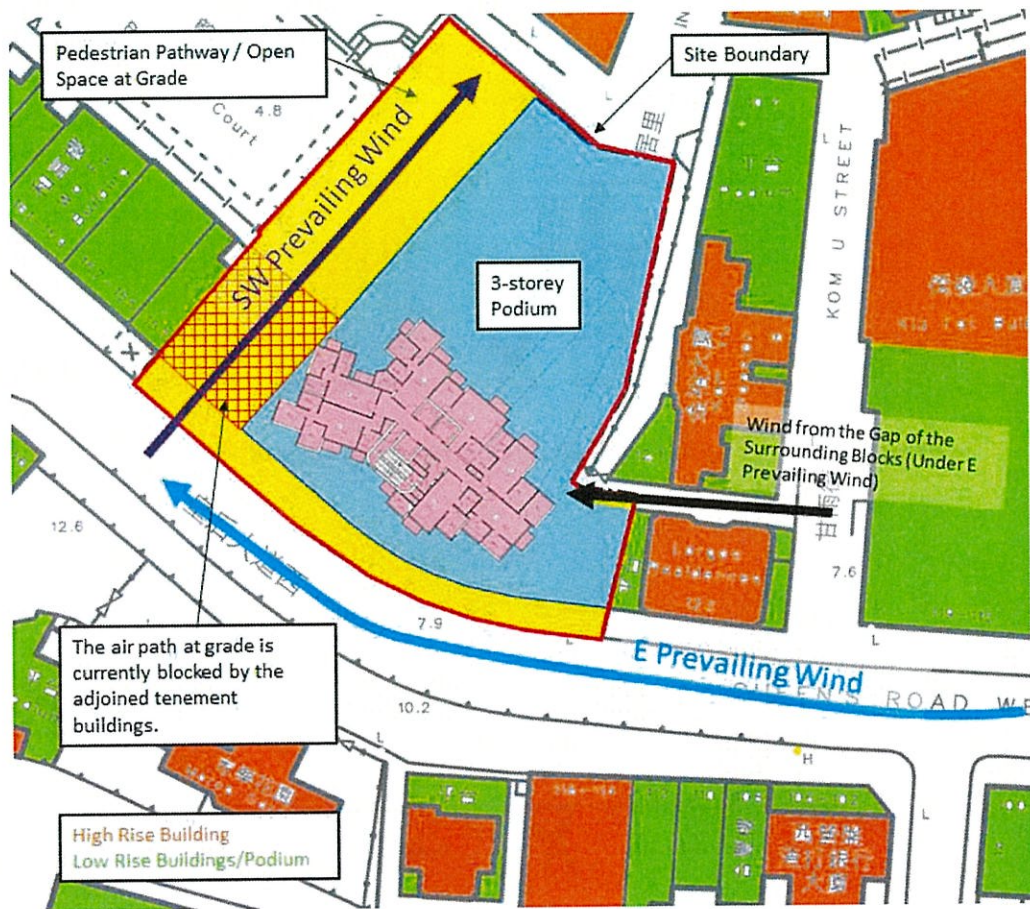


Figure 3-5 Air Paths around the Proposed Redevelopment

3.5 Building Disposition and Permeability

3.5.1 HKPSG recommends the following consideration regarding to the building disposition:

- Providing wide gaps between blocks to maximize the air permeability of the development and minimize its impact on wind capturing potential of adjacent developments.
- Adjusting the axis of the building block to minimize obstruction of the flow.
- Applying staggered arrangement in order to allow the block behind to receive the wind penetrated flow.

3.5.2 Similar recommendation has also been recommended by SYPSW EE. As the proposed redevelopment only consists of a single block, the focus will be put on the location and orientation of the proposed block.

3.5.3 The configuration of the proposed development and the surrounding blocks are illustrated in **Figure 3-5**. The nearest residential blocks (Largos Residences and Kam Yu Mansion) are about 11m from the proposed block. The axis of the proposed block is parallel to the Queen's Road West so that it will not obstruct the easterly prevailing wind, which is the primary prevailing wind throughout the year. Open space with a new corridor between Queen's Road West and In Ku Lane being provided is provided in order to allowing SW prevailing Wind, which occurring in summer, penetrating the Site. Sky garden (refuge floor) is provided in between 15/F & 16/F (**Figure 1-4**) improving permeability of the proposed block. In addition, as the location of the proposed block and upstream blocks are staggered, the proposed block can enjoy the penetrated wind.

3.5.4 It is expected the air permeability of the proposed development is high and impact on wind capturing potential of adjacent developments is not significant.

3.6 Building Height

3.6.1 A varying height profile with strategic disposition of low-rise and tall buildings in the dense urban context can help instigate wind flowing throughout the district. The best situation occurs when the height variation across the district with decreasing heights towards the direction where the prevailing wind comes from (**Figure 3-6**).

3.6.2 Although the project only consists of a single residential tower, the stepping building height concept can still apply to help optimize the wind capturing potential of development itself (**Figure 3-7**).

3.6.3 The neighbouring area to the southern / south-western of the Site are relatively open and the buildings are much lower than the proposed residential tower. The height variation shall not be a concern in this direction.

- 3.6.4 Two high rise buildings (Largos Residences and Kam Yu Mansion) stand at the immediate east of the Site, blocking the Easterly prevailing wind. The height of these two blocks are both around 90mPD. As the height of the proposed block is around 130mPD, which is higher than those two blocks, the proposed block have the potential to capture the wind at higher elevation and benefit the surrounding pedestrian area.

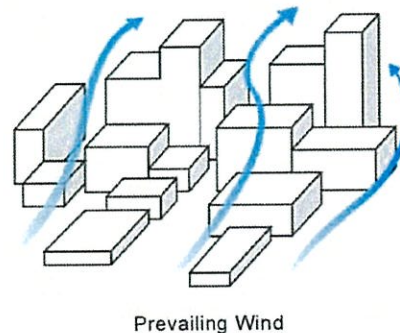


Figure 3-6 Varying Height Profile with Decreasing Heights towards the Prevailing Wind Direction

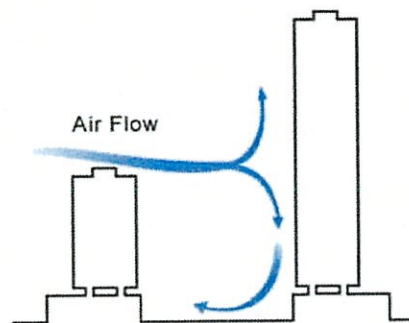


Figure 3-7 The Effect of Stepping Building Height on Wind Capturing Potential

3.7 Landscaping and Cooling Material

- 3.7.1 The Site is located in a closely packed urban area adjacent to major road (Queen's Road West) and surrounded by closely packed buildings. There is a potential impact on pedestrian health and comfort due to the traffic emission as well as urban heat island effect.

- 3.7.2 One of a mitigation measure is to maximise the green open space as it can reduce radiation gain and serve as "filter" for polluted air. Another mitigation measure is to use high solar reflectivity/emissivity material for pavements to reduce the absorption of solar radiation. Tall tree with wide and dense canopy planted on entrance plazas can also provide shading for improving pedestrian comfort.
- 3.7.3 The POS of the LCSD's playground is adjacent to the proposed building. Considering the scale of the project, the adjoining POS together with the new POS should be sufficient for relieving the pedestrian health and comfort issues.
- 3.7.4 Within the proposed building, some planters and landscape areas will be provided on the open area on 1/F & 2/F (**Figure 3-8**).
- 3.7.5 Although the use of high solar reflectivity/emissivity material on building facades, podium and building roofs do not have direct impact on the pedestrian level, reducing solar radiation absorption of the building can reduce the heat ejection from the air conditioners that in turn reduce the temperature in the adjacent area, with an extra benefit of reducing energy use. The use of cooling material should be considered in the detailed design stage to enhance the cooling effect.



Figure 3-8 Green Area of 1/F and 2/F (Podium Floor) of the Proposed Redevelopment

4 CONCLUSION

- 4.1.1 The current notional layout of the proposed developments in the Scheme show that various air ventilation related issues have been considered during the early design stage.
- 4.1.2 The wind environment of the site has been reviewed. Generally, the prevailing wind is from the E, NE & SE directions throughout the whole year. In the summer, besides the easterly wind, the prevailing wind also comes from the SW & S directions.
- 4.1.3 Under annual condition, the wind that entering the Site is mainly come from main roads via the building gaps and scavenging lanes. During summer, the approaching wind from south at pedestrian level is blocked by the existing adjoined tenement buildings. However, some of the approaching wind can go over the roof level of the tenement buildings and reach the pedestrian level of the open area in the site.
- 4.1.4 The current notional layout of the proposed developments does not violate the recommendation given by Prof. Ng in in SYPSW EE Report in 2010. Compared to the existing situation that the air path at grade between the Queen's Road West and the LCSD's playground which is blocked by the adjoined tenement buildings, the proposed elongated shaped POS in the Scheme can serve as a NE/SW direction wind corridor to enhance the local ventilation.
- 4.1.5 The proposed residential tower in the Scheme will be on the south-eastern side of the Site, with no obstruction to the air space above the POS and the Queen's Road West. The upstream wind from the east through the gap between buildings is also considered for the disposition of the residential tower. The height of the residential tower is higher than its surrounding buildings thus the wind capturing potential of development itself is secured.
- 4.1.6 The proposed redevelopment is adjacent to green open area of the LCSD's playground thus the air quality and pedestrian comfort is not a concern. In addition, terraced podium design is adopted which can enhance air circulation at pedestrian level of Queen's Road West compared to the existing situation.
- 4.1.7 Finally, the use of cooling material for the building facades, podium and roof is recommended to further improve the surrounding environment.
- 4.1.8 In conclusion, various air ventilation related issues have been considered during the early design stage thus no significant adverse air ventilation impact to the local wind environment is anticipated due to the proposed development.

Term Traffic Consultancy Services Service Order No. 001 Development Scheme in Sheung Wan (C&W-006)

Traffic Impact Assessment Report (Revision 1)

Urban Renewal Authority

May 2018

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- 4.2.2. The morning and evening peak hours were identified as 08:30 – 09:30 and 18:00 – 19:00 respectively. The year 2017 observed traffic flows are presented in Figure 4.1.

4.3. Growth Rate Determination

- 4.3.1. Traffic forecasts for the design years were projected by applying an appropriate growth rate to the year 2017 observed traffic flows. The growth rates were determined with reference to the Annual Traffic Census (ATC) reports and the 2008-based Base District Traffic Models (BDTM) published by Transport Department (TD).

Annual Traffic Census

- 4.3.2. The historical traffic growth trend of the major roads in the vicinity of the subject site was reviewed making reference to the ATC reports. The Annual Average Daily Traffic (AADT) data from year 2008 to year 2016 were extracted. The estimated average annual growth rate of 0.97% per annum (p.a.) are tabulated in Table 4.2.

Table 4-2 Traffic Growth Rate from ATC

| Station No. | Road Name | AADT | | | | | | | | | Growth Rate (p.a.) |
|-------------|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------------|
| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| 1207 | Connaught Rd C and W (GL) | 33,690 | 33,590 | 33,680 | 33,360 | 33,360 | 29,500 | 31,020 | 31,780 | 31,810 | 0.97% |
| 1006 | Connaught Rd W | 47,300 | 46,360 | 46,380 | 47,150 | 48,250 | 47,890 | 49,540 | 47,320 | 48,050 | |
| 1839 | Des Voeux Rd W | 11,510 | 11,490 | 11,250 | 11,080 | 10,840 | 10,460 | 10,100 | 10,300 | 9,400 | |
| 1206 | Queen's Rd W | 9,980 | 9,870 | 9,890 | 9,800 | 9,800 | 8,710 | 8,110 | 8,310 | 8,320 | |
| 2208 | Queen's Rd C | 14,660 | 14,810 | 14,390 | 14,060 | 13,820 | 14,010 | 12,870 | 11,920 | 11,290 | |
| 1019 | Hollywood Rd | 9,790 | 10,140 | 10,000 | 9,900 | 9,880 | 9,870 | 9,140 | 9,720 | 9,100 | |
| 1104 | Wing Lok St | 4,020 | 3,960 | 3,850 | 3,870 | 3,820 | 3,820 | 3,660 | 3,690 | 3,610 | |
| 1860 | Eastern St | 4,850 | 4,850 | 4,740 | 5,510 | 5,520 | 5,320 | 5,140 | 5,240 | 7,740 | |
| 2045 | Eastern St | 5,640 | 5,630 | 5,520 | 5,490 | 5,520 | 8,780 | 8,470 | 8,640 | 8,350 | |
| 1248 | Queen St | 3,800 | 4,130 | 4,050 | 4,020 | 4,100 | 4,890 | 4,480 | 4,570 | 4,420 | |
| Total | | 145,240 | 144,830 | 143,750 | 144,240 | 144,910 | 143,250 | 142,530 | 141,490 | 142,090 | |

Notes: The AADT figures shown in *italic* are estimated values based on the ATC Reports. Those estimated figures are excluded in calculating the weighted average annual growth rate.

Base District Traffic Models

- 4.3.3. The growth rate was determined with reference to the 2008-based BDTM. The AM and PM peak hours traffic flows of the key road links in Sheung Wan area from year 2008 to year 2021. The estimated growth rates of +1.55% p.a. and +0.91% p.a. for AM and PM peak respectively are tabulated in Table 4.3.

Table 4-3 Traffic Growth Rate from 2008-Based BDTM

| Road Name | AM | | Growth Rate (p.a.) | PM | | Growth Rate (p.a.) |
|---|-------------------------|--------|--------------------|-------------------------|--------|--------------------|
| | Traffic Demand (pcu/hr) | | | Traffic Demand (pcu/hr) | | |
| | 2016 | 2021 | | 2016 | 2021 | |
| Bonham Strand West | 7 | 6 | 1.55% | 15 | 9 | 0.91% |
| Centre Street | 427 | 397 | | 471 | 414 | |
| Centre Street | 289 | 284 | | 262 | 268 | |
| Connaught Road West | 443 | 421 | | 386 | 388 | |
| Connaught Road West | 810 | 795 | | 968 | 932 | |
| Connaught Road West | 744 | 800 | | 873 | 1026 | |
| Connaught Road West | 1,371 | 2,372 | | 881 | 1185 | |
| Connaught Road West | 1,270 | 2,216 | | 996 | 1567 | |
| Connaught Road West | 1,436 | 1,399 | | 1,510 | 1,468 | |
| Connaught Road West | 250 | 249 | | 192 | 192 | |
| Connaught Road West | 269 | 266 | | 302 | 313 | |
| Connaught Road West | 701 | 686 | | 881 | 829 | |
| Connaught Road West Flyover | 1,628 | 1,946 | | 2,149 | 2,421 | |
| Connaught Road West Flyover | 1,290 | 1,292 | | 897 | 888 | |
| Connaught Road West Flyover | 1,640 | 1,255 | | 962 | 963 | |
| Connaught Road West Flyover (down ramp) | 1,095 | 1,211 | | 1,277 | 1,333 | |
| Connaught Road West Flyover (up ramp) | 887 | 540 | | 655 | 460 | |
| Des Voeux Road West | 168 | 155 | | 147 | 135 | |
| Des Voeux Road West | 904 | 891 | | 774 | 787 | |
| Eastern Street | 504 | 490 | | 484 | 488 | |
| Eastern Street | 375 | 360 | | 365 | 360 | |
| First Street | 57 | 46 | | 59 | 45 | |
| Hollywood Road | 229 | 222 | | 134 | 129 | |
| New Street | 11 | 10 | | 15 | 12 | |
| Queen Street | 389 | 370 | | 341 | 345 | |
| Queen's Road West | 634 | 563 | | 853 | 681 | |
| Queen's Road West | 635 | 565 | | 670 | 591 | |
| Sutherland Street | 17 | 7 | | 9 | 9 | |
| Western Fire Service Street | 15 | 13 | | 5 | 6 | |
| Western Fire Service Street | 172 | 170 | | 184 | 220 | |
| Wilmer Street | 1 | 1 | | 4 | 2 | |
| Wing Lok Street | 120 | 109 | | 153 | 176 | |
| Total | 18,788 | 20,107 | | | 17,874 | |

Adopted Growth Rate

- 4.3.4. Based on the above, a nominal growth rate of +2.0% per annum (p.a.) are adopted for assessment to produce the background traffic flows from year 2017 conservative approach.

where: $P(n)$ = Probability of n vehicles in the system;

λ = Peak 15-minutes arrival rate;

μ = Servicing time;

n = Number of vehicles in the system; and,

N = Number of car lift.

6.2.3. It is anticipated that the adopted trip generation of the proposed Development Scheme has been considered trips generated/ attracted from car park as well as pick up/ drop off on street. Therefore, the estimated attraction rate during AM peak hour would be adopted for the car park arrival rates for assessment purpose.

6.2.4. Based on the above, the peak 15-minute arrival rates (λ) for the car park should therefore be derived as follows:

$$\begin{aligned}\lambda &= \text{No. of Parking Spaces} / 4 * 1.2 \text{ (peak of peak factor)} \\ &= 10 \text{ pcu/hr} \\ &= 3 \text{ veh/15-min}\end{aligned}$$

6.2.5. With reference to the specification of a traction type car lift, it is assumed that the speed of the car lift is about 0.5 m/s. The travelling time of the car lift between different levels are tabulated as **Table 6.2**.

Table 6.2 Car Lift Travelling Time

| | Travelling Distance (m) | Travelling Time (sec) |
|---------------|-------------------------|-----------------------|
| From GF to B1 | 5.0 | 10 |

6.2.6. In order to consider the worst-case scenario, it is assumed that when an incoming vehicle arrived and called the car lift, the car lift has just left GF going to B1 due to the use of another incoming vehicle which is going to park on B1. After that vehicle has just left the car lift, the car lift was called by an outgoing vehicle on B1. As such, the outgoing vehicle would enter the car lift for leaving the car park. The incoming vehicle would only be able to use the car lift when the car lift arrived at GF and the outgoing vehicle left the car lift.

6.2.7. Assuming that the machine operation time for the car lift door opening or closing is 5 sec, the time required for a vehicle entering or leaving the car lift in the forward gear is 5 sec with a safety buffer of 2 sec, the anticipated round-trip time for the proposed car lift is summarized in **Table 6.3**.

Table 6.3 Round-Trip Time of Car Lift

| Activity | Required Time (sec) |
|-------------------------------|---------------------|
| Travelling Time from GF to B1 | 10.0 |
| Door Opening Time at B1 | 5.0 |
| Car Exiting Lift | 10.0 |
| Car Entering Lift | 10.0 |
| Safety Buffer | 2.0 |
| Door Closing Time at B1 | 5.0 |
| Travelling Time from B1 to GF | 10.0 |
| Door Opening Time at GF | 5.0 |
| Car Exiting Lift | 10.0 |

| Activity | Required Time (sec) |
|---|---------------------|
| Safety Buffer | 2.0 |
| Car Entering Lift | 10.0 |
| Door Closing Time at GF | 5.0 |
| Travelling Time from GF to Basement Level 1 | 10.0 |
| Door Opening Time at Basement Level 1 | 5.0 |
| Car Exiting Lift | 5.0 |
| Car Entering Lift | 5.0 |
| Total | 84 |

6.2.8. As shown in Table 5.4, the overall round-trip time is 84.0 sec. Therefore, the average 15-minute servicing time (μ) is:

$$\begin{aligned}\mu &= 60 / \text{Overall round-trip time} \\ &= 60 / 84.0 \text{ veh / min} \\ &= 0.71 \text{ veh/min} \\ &= 10.71 \text{ veh/15-min}\end{aligned}$$

6.2.9. With the application of the peak 15-minute arrival rate (λ) and the average 15-minute servicing rate (μ) to the queuing theory, the number of vehicles in the system and the required queuing spaces can be determined. Table 6.4 below summarized the results.

Table 6.4 Car Lift Queuing Analysis Results

| No. of Vehicles in the System, n (nos.) | Probability of Having n Vehicle in the System, $P(n)$ | Required Queuing Spaces (nos.) |
|--|--|--------------------------------|
| 0 | 0.720 | - |
| 1 | 0.202 | 0 |
| 2 | 0.056 | 1 |

6.2.10. As suggested in Table 6.4, there will be 2 vehicles in the car lift system of the proposed Development Scheme at a 95% level of confidence following the M/M/N queuing theory. Therefore, it is expected 1 no. of car queuing for the car lift in the proposed Development Scheme. Therefore, it is anticipated that 1 no. of car waiting area is sufficient for the proposed car lift in current layout

6.3. Car Lift Breaks Down

- 6.3.1. The potential impact on the surrounding during the incidental malfunctioning or requires maintenance of the proposed car lift have been assessed.
- 6.3.2. It is observed that there are about 8 nos. of on-street car parking spaces at Ko Shing Street and New Street respectively. Besides, it is noted that there is a public car park at 118 Connaught Road West, which is located within approximately 500m distance from the proposed Development Scheme, providing about 142 nos. monthly and hourly car parking spaces.
- 6.3.3. Based on the scale of the proposed parking provision of the proposed Development Scheme, for 10 nos. of parking spaces, it is expected that car parking spaces could be accommodated vehicles from the proposed Development Scheme in case of emergency.
- 6.3.4. It is suggested the shortlisted of car lift manufacturers should commit a set of requirements to shorten the time period for repairing in order to minimise the traffic disturbance in the vicinity. It is therefore expected that the usage of the nearby public car parks for temporary accommodation would only be a contingency measure.

7. Summary and Conclusion

7.1. Summary

- 7.1.1. A Traffic Impact Assessment (TIA) Study was carried out to investigate the traffic impact induced by the proposed Development Scheme in Sheung Wan.

Internal Parking and Serving Provision

- 7.1.2. The proposed Development Scheme will meet the low end of the HKPSG requirement and to be provided a total of 10 nos. private car parking spaces including 1 nos. of visitor car parking spaces, 1 nos. car parking spaces for persons with disabilities and 2 nos. of motorcycle parking spaces. Besides, 1 no. of loading/ unloading bay would be provided at ground level for the proposed Development Scheme. Due to site constraints/technical problem and low demand from development needs, as explained in **Section 2.4.6 and 2.4.10**, a LGV L/UL bay instead of HGV L/UL bay is proposed in the proposed Development Scheme.
- 7.1.3. 1 no. of L/UL bay for the Government RCP would be re-provisioned within new re-provisioned RCP .
- 7.1.4. Swept path analysis is conducted based on the notional layout. The notional layout for the car parking facilities is technically feasible from traffic engineering point of view.
- 7.1.5. The above car park provision will be provided by 1-level basement in view of site limit as car lift provision is the feasible option for the subject site.
- 7.1.6. The proposed location of run-in/out for the proposed Development Scheme and the access arrangement for re-provisioned RCP are both technical feasible from traffic engineering point of view.

Provision of Car Lift

- 7.1.7. A car lift is proposed instead of a car ramp to/ from the basement car park due to the limited available space catering for the residential portion within the subject site, resulted in limited ground floor space and therefore technically infeasible to provide a car ramp within the site.
- 7.1.8. In order to avoid any tailing back situation occurred on the public road at any time, a car lift queuing analysis is assessed.
- 7.1.9. Based on the Poisson distribution for arrival pattern and multi-servers queuing (M/M/N) theory, it is expected 1 no. of car queuing for the car lift in the proposed Development Scheme. Therefore, it is anticipated that 1 no. of car waiting area is sufficient for the proposed car lift in current layout

7.1.10. Besides, it is expected that car parking spaces could be accommodated vehicles from the proposed Development Scheme in case of emergency based on the scale of the proposed parking provision of the proposed Development Scheme, for 10 nos. of parking spaces.

7.1.11. It is suggested the shortlisted of car lift manufacturers should commit a set of requirements to shorten the time period for repairing in order to minimise the traffic disturbance in the vicinity. It is therefore expected that the usage of the nearby public car parks for temporary accommodation would only be a contingency measure.

Traffic Impact Assessment

7.1.12. Pedestrians can access the subject site via the surrounding footpaths and pedestrian crossings to / from nearby bus, GMB and PLB servicing points as well as to / from Sai Ying Pun MTR Station.

7.1.13. The critical road junctions within the study area were assessed with respect to traffic generation of the proposed Development Scheme in design years 2028 (completion year) and 2031 (three years after completion), taking into account the traffic generation by the major planned/ approved developments in the vicinity of the subject site.

7.1.14. Based on the assessment results, it was found that all concerned junctions would operate within capacity even with the proposed Development Scheme.

7.2. Conclusion

7.2.1. It is concluded that the proposed Development Scheme at Sheung Wan would not induce insurmountable traffic impact on the surrounding road network.

7.2.2. The proposed traffic provision to the Development Scheme, with reference to the notional layout, is considered technically feasible and acceptable.

Figures



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TERM TRAFFIC CONSULTANCY SERVICES
 SERVICE ORDER NO. 001

PEDESTRIAN CONNECTION AND
 ACCESS ARRANGEMENT AT PROPOSED
 GOVERNMENT REFUSE COLLECTION POINT

Scale at A3 1:1000 Date MAY 2018 Figure No. 2.4

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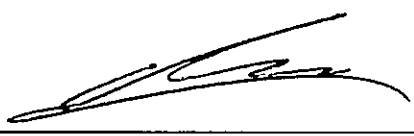
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**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Drainage Impact Assessment
(v2.0)**

May 2018

| | |
|-------------|---|
| Approved By |  (Project Manager: Mr. KS Lee) |
|-------------|---|

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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same from SMH7028097 to SMH7028078, the slop of Pipe 00 is calculated from the invert level of exit for Manholes SMH7028097 and MH7028078.

Table 3.1 Summary of Public Drainage Pipes

| Drainage Pipe No. | From Manhole | To Manhole | Diameter (mm) | Full Capacity ¹ (l/s) |
|--------------------------|--------------|------------|---------------|----------------------------------|
| Scavenging Lane | | | | |
| Pipe00 | SMH7060084 | SMH7028078 | 225 | 41 |
| Ko Shing Street | | | | |
| Pipe01 | SMH7028122 | SMH7059962 | 375 | 152 |
| Pipe02 | SMH7059962 | SMH7028070 | 375 | 152 |
| Queen's Road West | | | | |
| Pipe03 | SMH7028092 | SMH7028067 | 225 | 86 |
| Pipe04 | SMH7028067 | SMH7028066 | 450 | 261 |
| Pipe05 | SMH7028066 | SMH7028065 | 450 | 276 |
| Pipe06 | SMH7028065 | SMH7028078 | 450 | 721 |

[1] Calculated by Colebrook-White Equation for Slimed drains under poor condition. The detailed calculation is shown in Appendix 3.2.

Drainage Discharge from Project

- 3.9 The overall disposition of the 3 different uses of the proposed development – POS, Public Toilet and RCP, Residential Tower and Podium, which are shown in **Figure 3.2**. As the Public Toilet and RCP will be handed over to Food and Environmental Hygiene Department (FEHD) and POS will be handed over to Leisure and Cultural Services Department (LCSD), the drainage system should be separated from the residential tower. It is recommended the connection of each terminal manhole corresponding to each proposed use shall be connected separately to the public/existing drainage system as far as practicable. The catchment areas within the project site are 738 m² for residential tower, 580 m² for Public Toilet and RCP, and 538 m² for POS.
- 3.10 “Stormwater Drainage Manual – Planning, Design and Management”, Fourth Edition May 2013, (hereafter called “the DSD Manual”) prepared by the DSD provides guidelines for the design of the drainage system. According to Table 10 of the DSD Manual, the recommended design return period based on flood levels for urban drainage branch systems is 50 years. Run-off coefficient of 0.90 is used for the paved area in the calculation.
- 3.11 **Table 3.2** shows the total surface run-off from the Project Site.

Table 3.2 Estimation of Non-residential Population

| Zone | Catchment Area (m ²) | Paved Ratio | Total Surface Runoff (l/s) |
|---------------------|-------------------------------------|----------------|-------------------------------|
| Residential Tower | 816 | 100% | 59.9 |
| Public Toilet & RCP | 526 | 100% | 38.4 |
| POS | 538 | 100% | 41.9 |

Drainage Connection Proposal for POS / In Ku Lane Public Toilet and RCP / Residential Tower and Podium

POS

- 3.12 As POS will be handed over to LCSD, the drainage pipes for the POS within the project site area would be discharged to the drainage system of the existing playground. The re-provisioned drainage system of the playground will directly connect to the 500×600mm box culvert as the existing layout. No addition drainage impact is expected because no increase of catchment area is included.

In Ku Lane Public Toilet and RCP

- 3.13 The drainage system connecting the public toilet and RCP to public drainage system will be re-provisioned along In Ku Lane similar to the existing layout since the re-provisioned public toilet and RCP would have a similar disposition and location as the existing one, no additional drainage impact is expected (see **Figure 3.2**). The drainage from public toilet and RCP would be connected to public manhole SMH7028122 as the existing drainage layout (see **Appendix 3.1**).

Residential Tower and Podium

Base Option – Connect to Manhole SMH7060084 (West Scavenging Lane)

- 3.14 One of the options (base option) for the drainage from residential tower and podium may be collected by a terminal manhole (TMHB1), and discharged along the scavenging lane (from manhole SMH7060084 to SMH7028078) as shown in **Figure 3.4a**, which is similar to the existing condition.
- 3.15 The capacity of pipes along the scavenging lane is unknown due to insufficient information on the manhole invert levels in DSD's drainage record plan; therefore detail survey is required to verify the capacity and condition of pipes between SMH7060084 to SMH7028078. The capacities of the proposed new pipes are shown in **Table 3.3** below and the detailed calculation can be found in **Appendix 3.2**. The existing public Pipe00 should be upgraded from $\phi 225$ mm to $\phi 375$ mm to cater the required stormwater surface runoff if this option will be adopted.

Table 3.3 Capacity of Pipes (Base Case)

| Segment | Pipe Diameter (mm) | Full Capacity (L/s) | Discharge Loading (L/s) | Discharge loading to full capacity (%)* |
|---|--------------------|---------------------|-------------------------|---|
| Proposed New Drains from TMHB1 to public drains | | | | |
| PP00 | 300 | 98 | 59.9 | 61% |
| Existing Public Drains along Ko Shing Street | | | | |
| Existing Pipe00 | 225 | 41 | 87 | 214% |
| Proposed Upgrading Drains along Ko Shing Street | | | | |
| Proposed Pipe00 | 375 | 178 | 87 | 49% |

***Bold** for exceedance.

- 3.16 However, this drainage proposal shall be subjected to further liaison with LCSD since the portion of underground drainage connection and terminal manhole falls into the POS area which will be handed over to LCSD (see **Figure 3.4**). Therefore alternative options of drainage discharge are studied in the following sections.
- 3.17 To demonstrate the feasibility of other discharging alternative options, drainage flow from the neighbourhood catchment areas as shown in **Figure 3.3** was also included in the assessment (see **Appendix 3.2**).

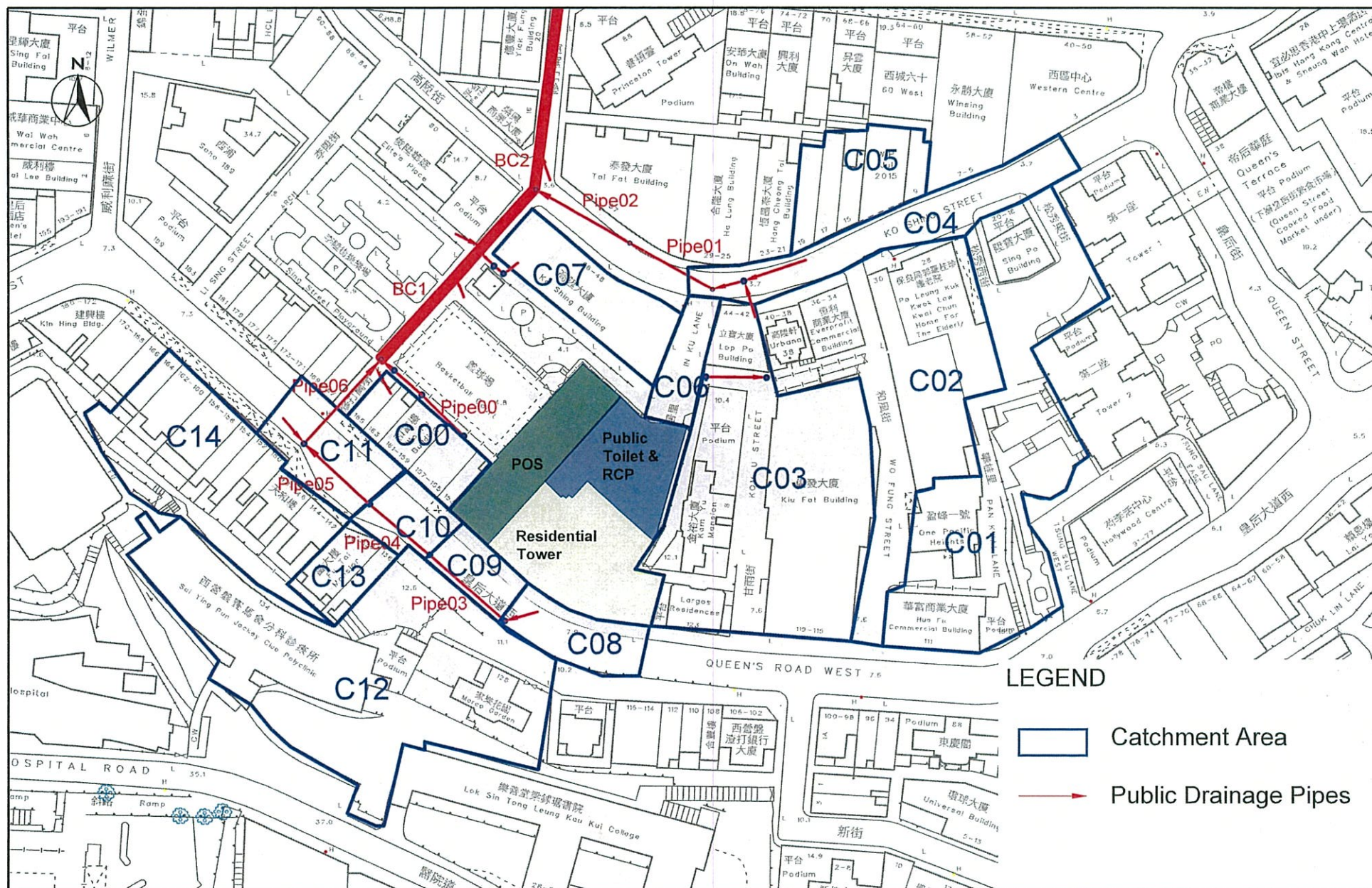
Option 1 – Connect to Manhole SMH7028122 (Ko Shing Street)

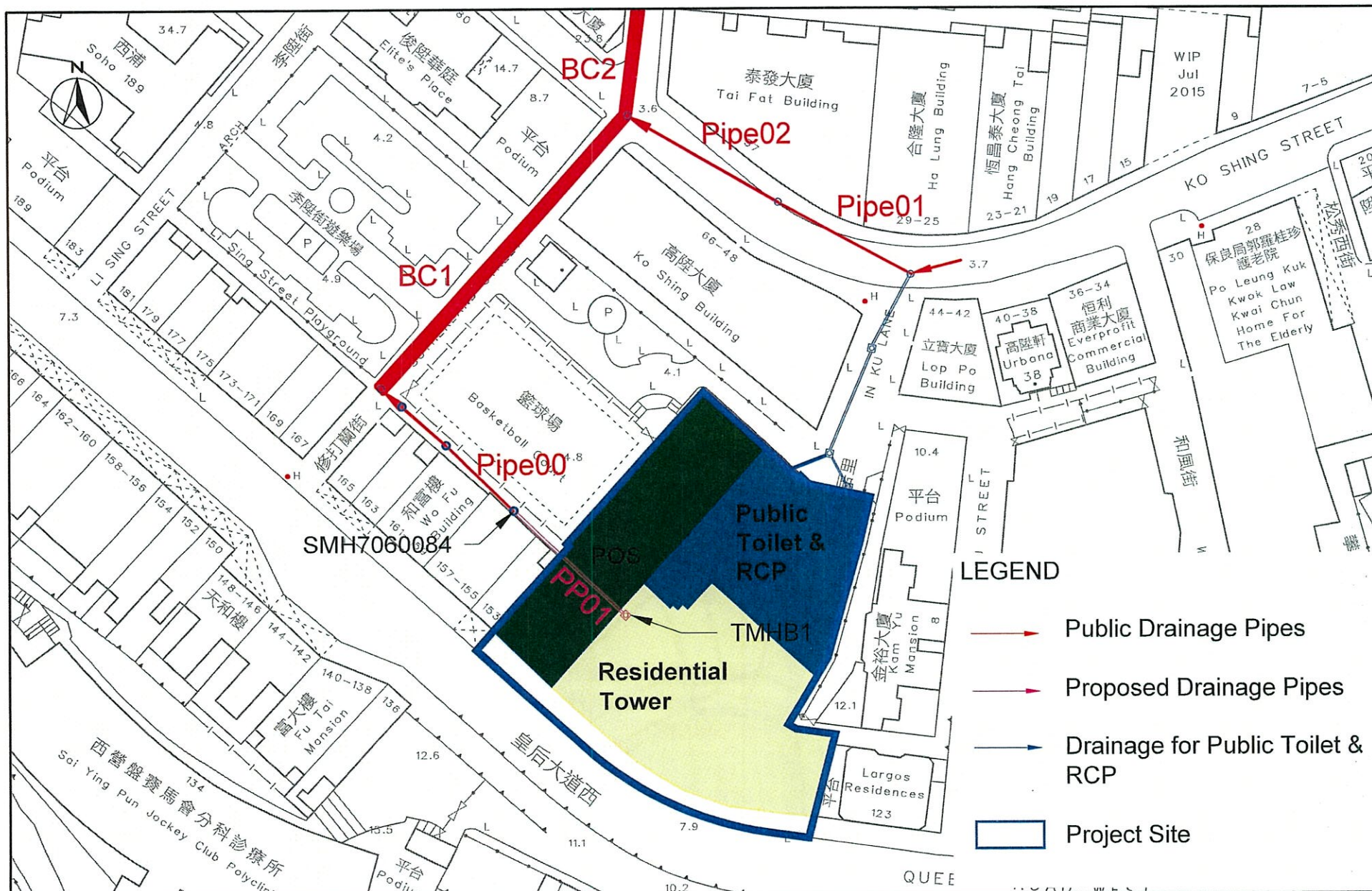
- 3.18 The drainage discharge from the residential tower and podium is proposed to be collected by a terminal manhole (TMH01) and discharge to the public drainage system via a $\phi 300\text{mm}$ pipe, P01, with a slope of 1:100. The location of the terminal manhole and the proposed pipes are shown in **Figure 3.4b**. The capacities of the proposed new pipes are shown in **Table 3.4** below and the detailed calculation can be found in **Appendix 3.2**.

Table 3.4 Capacity of Pipes (Option 1)

| Segment | Pipe Diameter (mm) | Full Capacity (L/s) | Discharge Loading (L/s) | Discharge loading to full capacity (%)* |
|---|--------------------|---------------------|-------------------------|---|
| Proposed New Drains from TMH01 to public drains | | | | |
| PP11 | 300 | 72 | 59.9 | 83% |
| PP12 | 300 | 72 | 59.9 | 83% |
| PP13 | 300 | 98 | 59.9 | 61% |
| Existing Public Drains along Ko Shing Street | | | | |
| Existing Pipe01 | 375 | 152 | 636 | 418% |
| Existing Pipe02 | 375 | 152 | 636 | 418% |
| Proposed Upgrading Drains along Ko Shing Street | | | | |
| Proposed Pipe01 | 675 | 720 | 636 | 88% |
| Proposed Pipe02 | 675 | 720 | 636 | 88% |

FIGURES





APPENDIX 3.2

DETAILED CALCULTIONS

Detailed Calculation of Pipes Capacities

Existing Pipes

| Pipe No. | Upstream Manhole No. | Downstream Manhole No. | Upstream Invert level (m P.D.) | Downstream Invert level (m P.D.) | Length (m) | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) ^(U) | Velocity (m/s) | Full Capacity (l/s) |
|-----------------------|----------------------|------------------------|--------------------------------|----------------------------------|------------|--------------|------------------------|----------------------|-------|---|---|----------------|---------------------|
| Pipe00 ^[2] | SMH7060084 | SMH7028078 | - | - | 25.8 | 0.225 | 0.040 | 0.056 | 0.010 | 1.14E-06 | 0.003 | 1.03 | 41 |
| Pipe01 ^[3] | SMH7028122 | SMH7059962 | 1.86 | - | 21.2 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.38 | 152 |
| Pipe02 ^[3] | SMH7059962 | SMH7028070 | - | 1.52 | 24.7 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.38 | 152 |
| Pipe03 | SMH7028092 | SMH7028067 | 6.43 | 5.63 | 22.2 | 0.225 | 0.040 | 0.056 | 0.036 | 1.14E-06 | 0.0015 | 2.18 | 87 |
| Pipe04 | SMH7028067 | SMH7028066 | 5.63 | 5.48 | 17.7 | 0.450 | 0.159 | 0.113 | 0.008 | 1.14E-06 | 0.0015 | 1.66 | 264 |
| Pipe05 | SMH7028066 | SMH7028065 | 5.48 | 5.29 | 20.1 | 0.450 | 0.159 | 0.113 | 0.009 | 1.14E-06 | 0.0015 | 1.75 | 279 |
| Pipe06 | SMH7028065 | SMH7028078 | 5.29 | 3.65 | 25.5 | 0.450 | 0.159 | 0.113 | 0.064 | 1.14E-06 | 0.0015 | 4.58 | 728 |

[1] The hydraulic roughness of concrete slined drains (0.0015m) is adopted for the velocities more than 1.2m/s, otherwise 0.003m.

[2] The invert levels of the upstream and downstream are not available for Pipe 00. Assuming the slope of the drainage pipes are the same from SMH7028097 to SMH7028078, the slope of Pipe 00 is calculated from the invert level of exit for Manholes SMH7028097 and SMH7028078 (4.37-3.676=0.01)

[3] Part of the invert levels for Pipe 1 & Pipe 2 are not available. The slope of the drainage pipes are assumed the same from SMH7028122 to SMH7028070 and applied for the calculation of the capacities of Pipe01 and Pipe02.

Proposed Pipe

| Pipe No. | Upstream Manhole No. | Downstream Manhole No. | Upstream Invert level (m P.D.)# | Downstream Invert level (m P.D.)# | Length (m)# | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) [*] | Velocity (m/s) | Full Capacity (l/s) |
|------------------|----------------------|------------------------|---------------------------------|-----------------------------------|-------------|--------------|------------------------|----------------------|-------|---|---|----------------|---------------------|
| Base Case | | | | | | | | | | | | | |
| PP00 | TMHB1 | SMH7060084 | - | - | 25.8 | 0.300 | 0.071 | 0.075 | 0.010 | 1.14E-06 | 0.0015 | 1.39 | 98 |
| Pipe00 | SMH7060084 | SMH7028078 | - | - | 25.8 | 0.375 | 0.110 | 0.094 | 0.010 | 1.14E-06 | 0.0015 | 1.61 | 178 |
| Option 1 | | | | | | | | | | | | | |
| PP11 | TMH01 | PMH01 | 3.00 | 2.92 | 12.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP12 | PMH01 | PMH02 | 2.92 | 2.78 | 20.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP13 | PMH02 | SMH7028122 | 2.78 | 2.40 | 38.1 | 0.300 | 0.071 | 0.075 | 0.010 | 1.14E-06 | 0.0015 | 1.39 | 98 |
| Pipe01 | SMH7028122 | SMH7059962 | 1.86 | - | 21.2 | 0.675 | 0.358 | 0.169 | 0.007 | 1.14E-06 | 0.0015 | 2.01 | 720 |
| Pipe02 | SMH7059962 | SMH7028070 | - | 1.52 | 24.7 | 0.675 | 0.358 | 0.169 | 0.007 | 1.14E-06 | 0.0015 | 2.01 | 720 |
| Option 2 | | | | | | | | | | | | | |
| PP21 | TMH01 | PMH01 | 3.00 | 2.91 | 12.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP22 | PMH01 | PMH02 | 2.91 | 2.78 | 20.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP23 | PMH02 | PMH03 | 2.78 | 2.73 | 6.4 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP24 | PMH03 | PMH04 | 2.73 | 2.39 | 51.5 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| PP25 | PMH04 | box culvert | 2.39 | 2.34 | 7.0 | 0.375 | 0.110 | 0.094 | 0.007 | 1.14E-06 | 0.0015 | 1.31 | 144 |
| Option 3 | | | | | | | | | | | | | |
| PP31 | TMH02 | SMH7028067 | 5.72 | 5.63 | 13.8 | 0.300 | 0.071 | 0.075 | 0.007 | 1.14E-06 | 0.003 | 1.01 | 72 |
| Pipe04 | SMH7028067 | SMH7028066 | 5.63 | 5.48 | 17.7 | 0.525 | 0.216 | 0.131 | 0.008 | 1.14E-06 | 0.0015 | 1.83 | 397 |
| Pipe05 | SMH7028066 | SMH7028065 | 5.48 | 5.29 | 20.1 | 0.525 | 0.216 | 0.131 | 0.009 | 1.14E-06 | 0.0015 | 1.94 | 419 |

*The hydraulic roughness of concrete slined drains (0.0015m) is adopted for the velocities more than 1.2m/s, otherwise 0.003m.

#The invert level and pipe length are subject to detailed design.

[3] Rainfall intensity is based on 1:50 year return period.

| Assessment Area | Runoff Coefficient (C) | | | 0.9 | 0.25 | Slope (ft ²) (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff (Q) (L/s) | | |
|----------------------|------------------------|------------------------------|-------------|------------------------------|--------------------------------|--|-------|-----------------------------|----------------------------|--------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{paved} | Q _{unpaved} | Q _{total} |
| Proposed Development | Residential | 816 | 100% | 816 | 0 | 0.4000 | 38 | 3.4 | 293 | 59.9 | 0.00 | 59.9 |
| | RCP | 526 | 100% | 526 | 0 | 0.4000 | 37 | 3.5 | 292 | 38.4 | 0.00 | 38.4 |
| | POS | 538 | 100% | 538 | 0 | 5.8824 | 45 | 2.4 | 311 | 41.9 | 0.00 | 41.9 |

| Assessment Area | Runoff Coefficient (C) | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|------------------------|------------------------------|-----------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{paved} | Q _{unpaved} | Q _{total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 61 | 5.4 | 266 | 54 | 0.00 | 54 |
| Surrounding Catchment | C00 | 450 | 100% | 450 | 0 | 0.40 | 35 | 3.3 | 295 | 33 | 0.00 | 33 |
| Total | | 1266 | | | | | | | | 87 | 0 | 87 |

| Assessment Area | Runoff Coefficient (C) | | | S | | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (L/s) | | |
|-----------------------|------------------------|------------------------------|-----------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 86 | 7.6 | 244 | 50 | 0.00 | 50 |
| | RCP | 526 | 100% | 526 | 0 | 0.40 | 64 | 5.9 | 260 | 34 | 0.00 | 34 |
| Surrounding Catchment | C01 | 2577 | 100% | 2577 | 0 | 0.40 | 179 | 14.20 | 202 | 130 | 0.00 | 130 |
| | C02 | 2304 | 100% | 2304 | 0 | 0.40 | 128 | 10.30 | 224 | 129 | 0.00 | 129 |
| | C03 | 2853 | 100% | 2853 | 0 | 0.40 | 84 | 6.60 | 253 | 181 | 0.00 | 181 |
| | C04 | 826 | 100% | 826 | 0 | 0.40 | 90 | 8.00 | 240 | 50 | 0.00 | 50 |
| | C05 | 630 | 100% | 630 | 0 | 0.40 | 62 | 5.60 | 264 | 42 | 0.00 | 42 |
| | C06 | 273 | 100% | 273 | 0 | 0.77 | 32 | 2.80 | 304 | 21 | 0.00 | 21 |
| Total | | 10805 | | | | | | | | 636 | 0 | 636 |

| Assessment Area | Runoff Coefficient (C) | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|------------------------|------------------------------|--------------------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio ^a | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 119 | 10.6 | 222 | 45 | 0.00 | 45 |
| Surrounding Catchment | C07 | 646 | 100% | 646 | 0 | 0.40 | 49 | 4.50 | 277 | 44.76 | 0.00 | 45 |
| Total | | 1462 | | | | | | | | 90 | 0 | 90 |

Option 3 - Connect to Manhole SMH7028092 (Queen's Road West)

Pipe 4

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|-----------------------|------------------------------|-----------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 52 | 4.6 | 276 | 56 | 0.00 | 56 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.02 | 57 | 4.50 | 277 | 27 | 0.00 | 27 |
| | C09 | 249 | 100% | 249 | 0 | 1.02 | 24 | 2.00 | 319 | 20 | 0.00 | 20 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 126 | 5.10 | 269 | 211 | 0.00 | 211 |
| Total | | 4584 | | | | | | | | 314 | 0 | 314 |

Pipe 5

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|-----------------------|------------------------------|-----------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 69 | 6.2 | 257 | 52 | 0.00 | 52 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.05 | 74 | 5.9 | 260 | 25 | 0.00 | 25 |
| | C09 | 249 | 100% | 249 | 0 | 1.05 | 42 | 3.4 | 293 | 18 | 0.00 | 18 |
| | C10 | 275 | 100% | 275 | 0 | 1.05 | 24 | 2.0 | 319 | 22 | 0.00 | 22 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 144 | 5.8 | 261 | 205 | 0.00 | 205 |
| | C13 | 298 | 100% | 298 | 0 | 0.40 | 30 | 2.9 | 302 | 23 | 0.00 | 23 |
| Total | | 5157 | | | | | | | | 345 | 0 | 345 |

Pipe 6

| Assessment Area | Runoff Coefficient, C | | | 0.9 | 0.25 | Slope, H (m per 100m) | L (m) | Time of Concentration (min) | Rainfall Intensity (mm/hr) | Surface Runoff, Q (l/s) | | |
|-----------------------|-----------------------|------------------------------|-----------------|------------------------------|--------------------------------|-----------------------|-------|-----------------------------|----------------------------|-------------------------|----------------------|--------------------|
| | Zone | Total Area (m ²) | Paved Ratio (%) | Paved Area (m ²) | Unpaved Area (m ²) | | | | | Q _{Paved} | Q _{Unpaved} | Q _{Total} |
| Project | Residential | 816 | 100% | 816 | 0 | 0.40 | 95 | 8.4 | 237 | 48 | 0.00 | 48 |
| Surrounding Catchment | C08 | 386 | 100% | 386 | 0 | 1.05 | 100 | 7.90 | 241 | 23 | 0.00 | 23 |
| | C09 | 249 | 100% | 249 | 0 | 1.05 | 67 | 5.50 | 265 | 17 | 0.00 | 17 |
| | C10 | 275 | 100% | 275 | 0 | 1.05 | 50 | 4.00 | 284 | 20 | 0.00 | 20 |
| | C11 | 537 | 100% | 537 | 0 | 1.05 | 35 | 2.70 | 305 | 41 | 0.00 | 41 |
| | C12 | 3134 | 100% | 3134 | 0 | 11.1 | 170 | 6.80 | 251 | 197 | 0.00 | 197 |
| | C13 | 298 | 100% | 298 | 0 | 0.40 | 56 | 5.50 | 265 | 20 | 0.00 | 20 |
| | C14 | 1559 | 100% | 1559 | 0 | 0.40 | 47 | 3.90 | 286 | 111 | 0.00 | 111 |
| Total | | 7253 | | | | | | | | 477 | 0 | 477 |

Catchment Zones for Drainage Pipes & Calculation of Stormwater Runoff

For Existing Pipes

| Manhole No. | Downstream Pipe No. | Pipe Diameter (mm) | Catchment | Discharge Loading | Full Capacity (l/s) | % |
|---|---------------------|--------------------|--------------------------------------|-------------------|---------------------|------|
| Base Case - Connect to Manhole SMH7060084 (Scavenging Lane) | | | | | | |
| SMH7060084 | Pipe00 | 225 | R, C00 | 87 | 41 | 214% |
| Option 1 - Connect to Manhole SMH7028122 (Ko Shing Street) | | | | | | |
| SMH7028122 | Pipe01 | 375 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 152 | 418% |
| SMH7059962 | Pipe02 | 375 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 152 | 418% |
| Option 3 - Connect to Manhole SMH7028092 (Queen's Road West) | | | | | | |
| SMH7028092 | Pipe03 | 225 | R, C08 | 88 | 87 | 102% |
| SMH7028067 | Pipe04 | 450 | R, C08, C09, C12 | 314 | 264 | 119% |
| SMH7028066 | Pipe05 | 450 | R, C08, C09, C10, C12, C13 | 345 | 279 | 124% |
| SMH7028065 | Pipe06 | 450 | R, C8, C9, C10, C11, C12, C13, C14 | 477 | 728 | 65% |

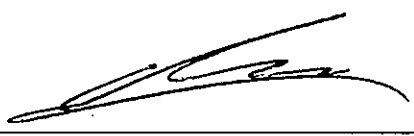
For Proposed Upgrading Pipes

| Manhole No. | Downstream Pipe No. | Pipe Diameter (mm) | Catchment | Discharge Loading | Full Capacity (l/s) | % |
|---|---------------------|--------------------|--------------------------------------|-------------------|---------------------|-----|
| Base Case - Connect to Manhole SMH7060084 (Scavenging Lane) | | | | | | |
| SMH7060084 | Pipe00 | 300 | R, C00 | 87 | 178 | 49% |
| Option 1 - Connect to Manhole SMH7028122 (Ko Shing Street) | | | | | | |
| SMH7028122 | Pipe01 | 675 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 720 | 88% |
| SMH7059962 | Pipe02 | 675 | R, RCP, C01, C02, C03, C04, C05, C06 | 636 | 720 | 88% |
| Option 3 - Connect to Manhole SMH7028092 (Queen's Road West) | | | | | | |
| SMH7028067 | Pipe04 | 525 | R, C08, C09, C12 | 314 | 397 | 79% |
| SMH7028066 | Pipe05 | 525 | R, C08, C09, C10, C12, C13 | 345 | 419 | 82% |
| SMH7028065 | Pipe06 | 450 | R, C8, C9, C10, C11, C12, C13, C14 | 477 | 728 | 65% |

**Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)**

**Sewerage Impact Assessment
(v2.0)**

May 2018

| | |
|-------------|---|
| Approved By |  (Project Manager: Mr. KS Lee) |
|-------------|---|

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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Table 3.11 Proposed Sewerage Pipes

| Segment | Proposed Pipe Diameter (mm) | Full Capacity (L/s) | Estimated Discharge Loading (L/s) | Discharge loading to full capacity (%) |
|--|-----------------------------|---------------------|-----------------------------------|--|
| Sewers from Public Toilet and RCP (Re-provision) | | | | |
| P04 ^[1] | 150 | 22.6 | - | - |
| Route 1 | | | | |
| IKL01 | 225 | 25.4 | 16.6 | 65% |
| IKL02 | 225 | 83.0 | 19.7 | 24% |
| Route 2 (Recommended) | | | | |
| P01 ^[2] | 150 | 25.2 | 16.6 | 66% |
| P02 ^[2] | 150 | 25.2 | 16.6 | 66% |
| P03 ^[2] | 150 | 25.2 | 16.6 | 66% |
| KSS01 | 225 | 73.7 | 16.6 | 22% |
| Route 3 | | | | |
| WSL02 | 225 | 45.5 | 19.4 | 43% |

[1] As the discharge flow from Public toilet and RCP

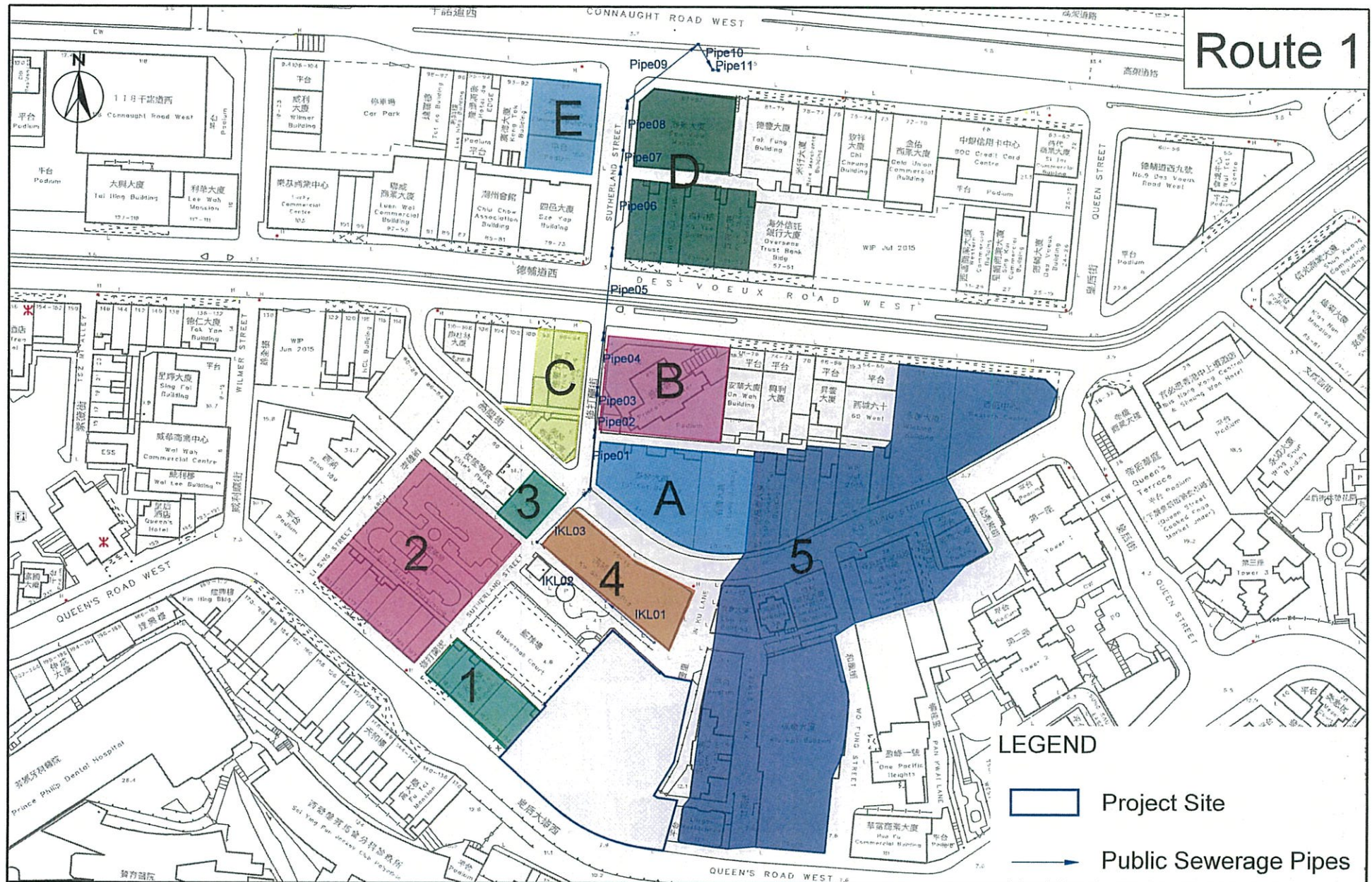
[2] The pipes P01, P02 & P03 are sewers from Residential Tower connecting to manhole FMH7026327 as shown in Figure 3.4.

4 CONCLUSION

- 4.1 The project consists of a multi-storey non-residential podium, 29-storey of residential flats, re-provisioned In Ku Lane Public Toilet and RCP. As the Public Toilet and RCP will be taken over by the government, the sewerage system should be separated from that of the residential tower. Therefore 2 terminal manholes are proposed for the Project Site.
- 4.2 Subject to future technical verification and detail design, 3 options for residential portion connection to public sewerage system are considered feasible. In this SIA, it is proposed that a terminal manhole (PTMH-01) would collect all sewerage discharge from the residential tower with podium within the Project boundary and discharge to the public sewer (manhole FMH7026327) via a $\phi 150$ mm pipes with slope of 1:50.
- 4.3 Sewage from re-provisioned Public Toilet and RCP would be collected by a terminal manhole (PTMH-02) and discharge to the public sewerage system via manhole FMH702327, which is similar to the existing condition.

FIGURES

Route 1



LEGEND

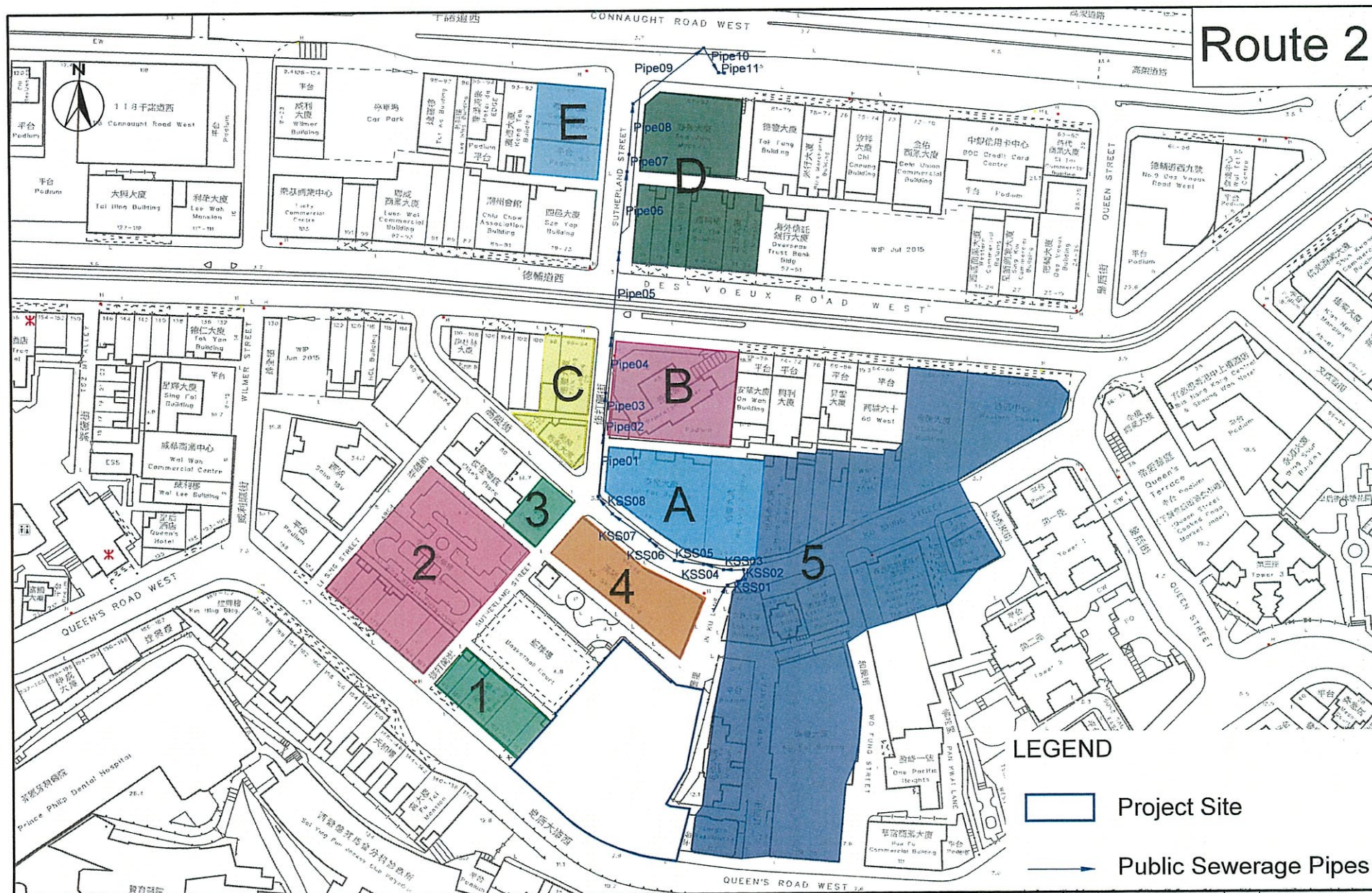


Project Site



Public Sewerage Pipes

Route 2



LEGEND



Project Site



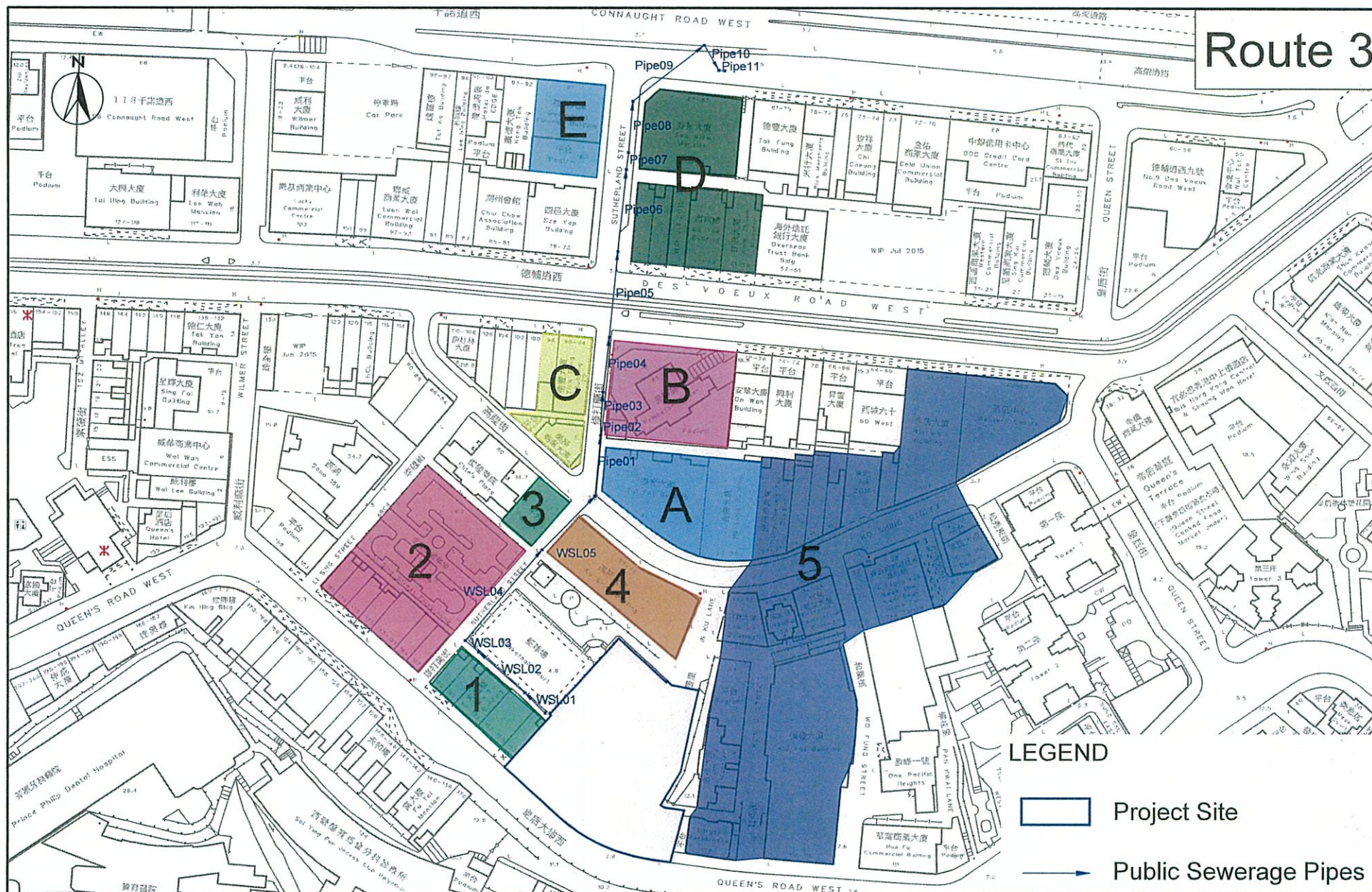
Public Sewerage Pipes

CINOTECH
Cinotech Consultants Limited

Urban Renewal Authority Queen's Road West/ In Ku Lane Development Scheme (C&W-006)
Catchment Area (via Ko Shing Street)

| | | | |
|---------|--------------|-------------|-------------|
| SCALE | 1:1000 in A3 | DATE | May 2018 |
| CHECK | KW | DRAWN | JM |
| JOB No. | IA17019 | DRAWING No. | Figure 3.3b |
| | | REV | - |

Route 3



APPENDIX 3.4

**DISCHARGE FROM SURROUNDING
CATCHMENT**

Appendix 3.4 Discharge from Surrounding Catchment

| Developments | Use | Floor Area | | Residential [1] | | Ground Floor Shop [2] | | Population [3,4] | | | | Flow Rate (m ³ /day) [5] | | | | | Catchment ID | Total Discharge for Each Catchment (m ³ /day) |
|--|-----------------------------|--|----------------|-------------------------------|--------------|-----------------------|------------|------------------|------------------|------------------|----------------------|-------------------------------------|------------------|------------------|----------------------|-------------------|--------------|--|
| | | m ² | m ² | No. of Floors (excluding G/F) | No. of Units | Retail | Restaurant | Residents | Staff for Retail | Staff for Office | Staff for Restaurant | Resident | Staff for Retail | Staff for Office | Staff for Restaurant | Development Total | | |
| Queens Road West 153-165 | Residential with G/F shops | | | 5 | 30 | 6 | 1 | 66 | 18 | 0 | 5 | 17.8 | 5.0 | 0.0 | 7.9 | 30.8 | 1 | 30.8 |
| Queens Road West 167-181 | Residential with G/F shops | | | 5 | 40 | 8 | - | 88 | 24 | 0 | - | 23.8 | 6.7 | 0.0 | 0 | 30.5 | 2 | 30.5 |
| Podium of Elite's Place (swimming pool) | Residential (swimming pool) | assume full pipe capacity from Elite's Place [7] | | | | | | - | 0 | 0 | - | 0 | 0.0 | 0.0 | 0 | 16.2L/s | 3 | 16.2L/s |
| Ko Shing Building | Residential with G/F shops | | | 23 | 160 | 11 | - | 352 | 33 | 0 | - | 95.0 | 9.2 | 0.0 | 0 | 104.3 | 4 | 104.3 |
| Largos Residences | Residential | | | 23 | 43 | - | - | 95 | - | 0 | - | 25.5 | 0 | 0.0 | 0 | 25.5 | 5 | 428.6 |
| Kiu Fat Building | Residential with G/F shops | | | - | 195 | 2 | - | 429 | 6 | 0 | - | 115.8 | 1.7 | 0.0 | 0 | 117.5 | | |
| Kam Yu Mansion | Residential with G/F shops | | | 27 | 108 | 8 | - | 238 | 24 | 0 | - | 64.2 | 6.7 | 0.0 | 0 | 70.9 | | |
| Lop Po Building | Residential with G/F shops | | | 13 | 39 | 1 | - | 86 | 3 | 0 | - | 23.2 | 0.8 | 0.0 | 0 | 24.0 | | |
| Urbana 38 | Residential with G/F shops | | | 22 | 44 | 2 | - | 97 | 6 | 0 | - | 26.1 | 1.7 | 0.0 | 0 | 27.8 | | |
| Everprofit Commercial Building | Commercial | 1694 | 157.4 | 11 | - | 3 | - | - | 9 | 87 | - | 0 | 2.5 | 6.9 | 0 | 9.4 | | |
| Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly [8] | Social | | | - | - | - | - | 86 | - | 0 | - | 23.2 | 0 | 0.0 | 0 | 23.2 | | |
| Shing Po Building | Residential with G/F shops | | | 9 | 18 | 2 | - | 40 | 6 | 0 | - | 10.7 | 1.7 | 0.0 | 0 | 12.4 | | |
| Winsing Building | Residential with G/F shops | | | 8 | 49 | 3 | - | 108 | 9 | 0 | - | 29.1 | 2.5 | 0.0 | 0 | 31.6 | | |
| Western Centre | Commercial | | 400 | 19 | - | - | 1 | - | - | 380 | 15 | 0 | 0 | 30.4 | 23.7 | 54.1 | | |
| Ko Shing Street 15-19 | Residential with G/F shops | | | 3 | 9 | 3 | - | 20 | 9 | 0 | - | 5.3 | 2.5 | 0.0 | 0 | 7.9 | A | 68.4 |
| Hang Cheong Tai Building, 21-23 Ko Shing Street | Residential with G/F shops | | | 19 | 38 | 2 | - | 84 | 6 | 0 | - | 22.6 | 1.7 | 0.0 | 0 | 24.3 | | |
| Ha Lung Building | Residential with G/F shops | | | 16 | 32 | 2 | - | 70 | 6 | 0 | - | 19.0 | 1.7 | 0.0 | 0 | 20.7 | | |
| Tai Fat Building | Residential with G/F shops | | | 15 | 69 | 8 | - | 152 | 24 | 0 | - | 41.0 | 6.7 | 0.0 | 0 | 47.7 | | |
| Princeton Tower | Residential with G/F shops | | | 39 | 156 | 1 | - | 343 | 3 | 0 | - | 92.7 | 0.8 | 0.0 | 0 | 93.5 | | |
| Wing Hing Commercial Building | Commercial | 1317 | 122.4 | 25 | 25 | 1 | - | - | 3 | 153 | - | 0 | 0.8 | 12.2 | 0 | 13.1 | B | 93.5 |
| No.98 Des Voeux Road West | Residential with G/F shops | | | 5 | 5 | 1 | - | 11 | 3 | 0 | - | 3.0 | 0.8 | 0.0 | 0.0 | 3.8 | C | 24.1 |
| Yick Fung Building | Commercial | 630 | 58.5 | 13 | 13 | 5 | - | - | 15 | 38 | - | 0 | 4.2 | 3.0 | 0 | 7.2 | D | 174.4 |
| Kam Chuen Building | Residential with G/F shops | | | 9 | 18 | 2 | - | 40 | 6 | 0 | - | 10.7 | 1.7 | 0.0 | 0 | 12.4 | | |
| Ka Yu Building | Residential with G/F shops | | | - | 40 | 2 | - | 88 | 6 | 0 | - | 23.8 | 1.7 | 0.0 | 0 | 25.4 | | |
| Des Voeux Road West 69, 71 | Residential with G/F shops | | | 4 | 8 | 2 | - | 18 | 6 | 0 | - | 4.8 | 1.7 | 0.0 | 0 | 6.4 | | |
| Sea View Mansion | Residential with G/F shops | | | 23 | 184 | 6 | 2 | 405 | 18 | 0 | 10 | 109.3 | 5.0 | 0.0 | 15.8 | 130.1 | | |
| Guangdong Finance Building | Commercial | 3500 | 325.2 | 33 | - | 8 | - | - | 24 | 537 | - | 0 | 6.7 | 42.9 | 0 | 49.6 | E | 49.6 |

Note:

[1] For residential buildings, the number of units is referenced to data from Centadata, Midland Realty or Ricapcorp.

[2] The number and type of ground floor shops are recorded during on-site study.

[3] According to the Population By-census 2016, the average domestic household size in Sheung Wan District is 2.2 persons. No. of Residents = No. of Units × 2.2

[4] For commercial buildings, an area ratio of 20m² per worker is adopted according to Table 2 : Guidelines for Worker Densities in Hong Kong Planning Standards and Guidelines by Planning Department.

[5] 3 staff is assumed for each retail shop and 5 staff for restaurant on G/F except Lin Heung Kui which is located in Western Centre.

[6] The Unit Flow Factor is 0.27 for residents, 0.28 for staff of retail, 0.08 for staff of office and 1.58 for staff for restaurant. Flow rate = population × UFF

[7] The full capacity of pipe between manhole no. FMH7040240 and FMH7040241 is 16.2L/s, calculated by Colebrook-White's equation.

[8] The number of bed places is obtained from the official website of Po Leung Kuk Kwok Law Kwai Chan Home for The Elderly.

APPENDIX 3.6

PROPOSED PIPE CAPACITY

Appendix 3.6 Proposed Pipe Capacity

| Pipe | Upstream Manhole | Downstream Manhole | Upstream Invert Level (mPD) ^[1] | Downstream Invert Level (mPD) ^[1] | Length (m) | Diameter (mm) | Diameter (m) | Area (m ²) | Hydraulic Radius (m) | Slope ^[1] | Kinematic Viscosity (m ² /s) | Hydraulic Pipeline Roughness (m) ^[2] | Velocity (m/s) | Full Capacity (l/s) | Peak Flow (l/s) | Peak flow/Full capacity (%) |
|--|------------------|--------------------|--|--|------------|---------------|--------------|------------------------|----------------------|----------------------|---|---|----------------|---------------------|-----------------|-----------------------------|
| Sewers from Public Toilet and RCP (Re-provision) | | | | | | | | | | | | | | | | |
| P04 ^[3] | PTMH-02 | M.H.4 | 3.12 | 2.65 | 29.1 | 150 | 0.15 | 0.018 | 0.038 | 0.0162 | 0.00000114 | 0.0006 | 1.28 | 22.6 | | |
| Route 1 | | | | | | | | | | | | | | | | |
| IKL01 | FMH7026299 | FMH7026300 | 3.34 | 3.27 | 17.9 | 225 | 0.225 | 0.040 | 0.05625 | 0.004 | 0.00000114 | 0.003 | 0.6 | 25.4 | 16.6 | 65% |
| IKL02 | FMH7026300 | FMH7026303 | 3.27 | 2.6 | 26.4 | 225 | 0.225 | 0.040 | 0.05625 | 0.025 | 0.00000114 | 0.0006 | 2.1 | 83.0 | 19.7 | 24% |
| Route 2 (recommended) | | | | | | | | | | | | | | | | |
| P01 ^[4] | PTMH-01 | MH-A | 2.79 | 2.56 | 11.5 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| P02 ^[4] | MH-A | MH-B | 2.56 | 2.16 | 20.3 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| P03 ^[4] | MH-B | FMH7026327 | 2.16 | 1.51 | 32.1 | 150 | 0.15 | 0.018 | 0.038 | 0.02 | 0.00000114 | 0.0006 | 1.4 | 25.2 | 16.6 | 66% |
| KSS01 | FMH7026327 | FMH7064209 | 1.51 | 1.41 | 5.2 | 225 | 0.225 | 0.040 | 0.056 | 0.02 | 0.00000114 | 0.0006 | 1.9 | 73.7 | 16.6 | 22% |
| Route 3 | | | | | | | | | | | | | | | | |
| WSL02 | FMH7026295 | FMH7026297 | 3.31 | 3.09 | 17.6 | 225 | 0.225 | 0.040 | 0.05625 | 0.013 | 0.00000114 | 0.003 | 1.1 | 45.5 | 19.4 | 43% |

Note:

[1] 1:50 slope is adopted and the invert level and pipe length are subjected to detailed design.

[2] According to Table 5 of DSD's "Sewerage Manual", Roughness coefficient for slied clayware sewer under poor condition is adopted; the ks values are 0.6mm for velocities greter than 1.2m/s, otherwise 3mm.

[3] The proposed pipe, P04, from public toilet and RCP will be reprovisioned, the invert level will be the same as existing layout as shown in Appendix 3.1.

[4] The pipes P01, P02 & P03 are sewers from Residential Tower connecting to manhole FMH7026327 as shown in Figure 3.4.



Our Ref: PDP/C&W-006/18070137

4 July 2018

By Post (letter and encl.) & By Fax (letter only)
Fax No. 2877 0245

Secretary to the Town Planning Board
15/F North Point Government Offices
333 Java Road, North Point,
Hong Kong.

Dear Sir / Madam,

**Draft Development Scheme Plan
for the Urban Renewal Authority
Queen's Road West / In Ku Lane Development Scheme (C&W-006)
- Responses to Public Comments -**

We refer to our submission of the captioned draft Development Scheme Plan (DSP) dated 16 March 2018 and the public comments received via emails dated 23 April and 8 June of 2018 from the Planning Department. We would like to enclose our responses to comments (R to C) to the public comments for your necessary action.

We look forward to your prompt processing and consideration on the R to C along with your ongoing preparation work for TPB's consideration.

Should you have any enquiry, please feel free to contact me at 2588 2630 or our Ms. Mable Kwan at 2588 2752. Thank you very much.

Yours faithfully,

Mike Kwan
General Manager
Planning & Design

encl.

c.c.: by post (with encl.) and by fax (w/o encl.)
DPO/HK, PlanD (Attn: Mr. Louis Kau) (Fax No.: 2895 3957)

Urban Renewal Authority 市區重建局

Queen's Road West / In Ku Lane Development Scheme 皇后大道西 / 賢居里發展計劃 (C&W-006)

Responses to Public Comments 回應公眾意見 (Consultation Period 諮詢日期 27.3.2018 – 17.4.2018)

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|--|--|
| 1-3, 10-14 | <ul style="list-style-type: none"> 對 129 至 151 號(單數)皇后大道西重置無意見 但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街附近居民非常重要，會帶來嚴重影响。 五人足球場是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心 足球場作為本區重要康樂休憩用地，是附近居民的稀有公共空間，能增加空氣流通，減低溫室效應 另外垃圾房和公廁是附近居民的重要設施，反對收回後要在若干年才重置 賢居里不需要連接皇后大道西，因經李陞街和甘雨街進出也很方便 | <p>市建局並非收回賢居里垃圾收集站及公廁，只是作出重新規劃及重置。市建局了解居民對項目範圍內社區設施的關注，並已在規劃報告內的重置方案建議有關設施。</p> <p>市建局會重置有關設施及融入新建大廈的平台內，以改善環境及外觀。重置的垃圾收集站將會重新布局及優化設備，改善運作、提升標準和加強消除異味。在重建期間，市建局會提供一個按照食環署要求的小型臨時垃圾收集站，維持當區垃圾收集站的服務。</p> <p>就計劃範圍包括現時的五人足球場，市建局希望藉著重建計劃以重新規劃及理順土地用途及布局，提供一個臨向皇后大道西的公眾休憩用地，加強李陞街遊樂場的可達性以提升該公眾休憩用地的使用。至於受影響的五人足球場，在項目核准後，市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他符合該區需要的新設施。</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|---|--|
| 4 | <p>本人乃金裕大廈業主，就上述重建計劃作出以下意見：</p> <ol style="list-style-type: none"> 1. 同意拆卸垃圾站及公廁：現垃圾站及公廁靠近我廈，衛生情況嚴重影響我們的生活。 2. 不同意重置並縮小李陞街遊樂場五人足球場。另外，該場地較適合年紀較小的朋友踢足球，減少與成人碰撞，安全之至。 3. 同意重建一幢約 30 層高的商住廈，但反對興建車位。 4. 同意新建設：請考慮設立大型圖書館。雖然鄰近石塘咀設有兩層的圖書館，但這並不足夠，懇請多加考慮。 | <ol style="list-style-type: none"> 1. 賢居里垃圾收集站及公廁將於重建後融合在商住樓宇的平台，以改善環境及外觀。重置的垃圾收集站將會重新布局及優化設備，改善運作、提升標準和加強消除異味。 2. 市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他符合該區需要的新設施，而重置後的有關設施面積將會跟現時相若。 3. 本計劃的停車場泊位數目仍根據《香港規劃標準與準則》所建議而制定，停車場泊位數目最後需要得到運輸署的同意。 4. 市建局備悉有關意見。然而由於計劃範圍內將會提供一個公眾休憩用地及需要重置賢居里垃圾收集站及公廁，可發展土地有限。加上相關政府部門並沒有提出有需要設立大型圖書館的要求，因此本計劃範圍內並不會設有相關設施。 |
| 5 | <p>作為重建區附近居民，本人十分滿意現有發展計劃及設計，請勿擴大相關範圍。</p> | <p>市建局備悉有關意見。</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|--|--|
| 6, 8, 9 | <p>希望皇后大道西 153-183 號(單數) 樓宇納入發展範圍內。</p> <p>香港皇后大道西 153-183 (單數) 樓宇 於 1964 年先後落成，大部份亦是 5 層高，樓宇毗連是未來發展計劃地盤及部份李陞街遊樂場。</p> <p>另外，李陞街遊樂場的樹木伸展至民居的外牆，樹葉每天跌落民居的後巷及天井的渠口，弄至淤塞李陞街遊樂場的設計是有需要全部重新重置！環境衛生惡劣，臭氣冲天，苦不堪言。將此樓宇一併納入發展計劃，達至改善環境衛生。</p> <p>政府以合理價錢收購，市民及業主一定支持方案，而且很多上述樓宇的業主都希望將舊樓重建。</p> | <p>市建局在制定重建計劃時會考慮不同的因素，包括樓宇狀況、樓齡、資源分配、業權狀況及重建能否創造重整及重新規劃的契機，令市區更新能對社區帶來的裨益等。因此，考慮以上原因，市建局重建現時的項目範圍。提意見者希望加入的樓宇分佈在 3 個街道地塊，部份樓齡較新，皇后大道西 159-161 號樓只有 29 年；皇后大道西 167 及 169 號樓齡為 31 及 34 年，當中亦有單一業權樓宇。在公眾諮詢期間，提意見者希望加入的街號內，部份樓宇並沒有表示希望加入重建。</p> <p>市建局備悉市民對李陞街遊樂場設計的意見。市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施。</p> |
| 7, 15 | <p>As inspired by a talk/consultation meeting of Mr. Kam Nai-wai (Central and Western District Council), it hope that the Scheme can be extended beyond the lot from 129-151 Queen's Road West to include 153-183 Queen's Road West, on the same side of the road.</p> <p>The reasons for extending the redevelopment area are as follows:</p> <ul style="list-style-type: none"> • Most of the buildings from 153-183 Queen's Road West are old (close to or more than fifty years). • To extend the redevelopment zone will establish new buildings of better continuity and planning. • Expanding this redevelopment may be more cost effective and beneficial to the society. | <p>In considering a boundary of development scheme, the URA would take into considerations of different factors, e.g. building conditions, building age, allocation of resources, ownership status, replanning and restructuring of land uses to have planning gains to the community, etc. For the street numbers (located in 3 street blocks) that the commenters wish to include for redevelopment, some buildings are relatively young, e.g. 29 years for Nos. 159 – 161 Queen's Road West (QRW), 31 years for No. 167 QRW and 34 years for No. 169 QRW. In addition, there is a building within the street blocks which is single-owned. During the public consultation period, some of the buildings within these 3 street blocks did not ask for inclusion.</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|---|--|
| | <ul style="list-style-type: none"> • More speculators may start to bulk invest into the vicinity of the announced redevelopment area after knowing the compensation of this round. • As far as I know, more owners from 153-183 Queen's Road West will be interested to be included under this redevelopment project. | <p>URA has recommended the current boundary of the Scheme for consideration by the Town Planning Board (TPB). Public can express their views to the TPB. The TPB will consider the draft DSP is deemed suitable or to be amended for gazettal under S. 5 of TPO.</p> |

Urban Renewal Authority 市區重建局

Queen's Road West / In Ku Lane Development Scheme 皇后大道西 / 賢居里發展計劃 (C&W-006)

Responses to Public Comments 回應公眾意見 (Consultation Period 諮詢日期 8.5.2018 – 29.5.2018)

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|--|---|
| 1 | Please consider including building blocks on number 153 to number 183 (both numbers inclusive but odd number only) on Queen Road West. | In considering a redevelopment scheme, the URA would take into considerations of different factors, e.g. building conditions, building age, allocation of resources, ownership status, replanning and restructuring of land uses to bring planning gains to the community, etc. For the street numbers (located in 3 street blocks) that the commenters wish to include for redevelopment, some buildings are relatively young, e.g. 29 years for Nos. 159 – 161 Queen's Road West (QRW), 31 years for No. 167 QRW and 34 years for No. 169 QRW. In addition, there is a building within the street blocks which is single-owned. During the public consultation period, some of the buildings within these 3 street blocks did not ask for inclusion. URA proposed the current draft DSP for TPB's consideration. TPB will consider the draft DSP to decide if there should be any amendment to meet the comment to include the said buildings into the project. |
| 2, 4, B1 | 強烈支持進行重建 | 市建局備悉有關意見。 |
| 3, 5, 7 | 請將皇后大道西 153-183 號單數樓宇納入項目內，一併重建，理由如下： 1. 樓齡已經超過 50 年 2. 環境衛生惡劣 3. 李陞街遊樂場設計失誤 | 市建局在制定重建計劃時會考慮不同的因素，包括樓宇狀況、樓齡、資源分配、業權狀況及重建能否創造重整及重新規劃的契機，令市區更新能對社區帶來的裨益等。 提意見者希望加入的樓宇分佈在 3 個街道地塊，部份樓齡較新，皇后大道西 159 – 161 號樓只有 29 年; 皇后大道西 167 及 169 號樓 |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
|-------------------|--|--|
| | <p>4. 市建局推出業主先導計劃時候，曾查詢 4 幢相連樓宇(175 至 181 號單數)申請計劃，市建局告知面積不符合最低計劃面積要求</p> <p>5. 項目地舖以經營中藥批發及零售為主，海味次要。高陞街樓宇以蔘茸為主，形成這一帶的中藥批發及零售的地標羣體</p> <ul style="list-style-type: none"> • 區區有特色 • 支持重建，合理賠償及日後發展計劃（恢復本區特色），這要加上大面積舊唐樓重建，才可實現 <p>整個李陞街遊樂場納入項目內，一併重建，收善社區環境及符合公眾利益。</p> | <p>齡為 31 及 34 年，當中亦有單一業權樓宇。在公眾諮詢期間，提意見者希望加入的街號內，部份樓宇並沒有表示希望加入重建。市建局建議把目前的項目範圍供城規會考慮，城規會可審議決定是否修改有關草圖配合提意見者希望把樓宇納入於項目範圍內的意見。</p> <p>市建局備悉市民對李陞街遊樂場設計的意見。市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他乎合該區需要的新設施。</p> |
| 6, 8 | <p>區議會及議員意見撮要:</p> <ul style="list-style-type: none"> • 必須重置李陞街公園五人足球場 • 應全面優化整個李陞街公園 • 設立社區需要的社區設施，如圖書館、安老院舍、廚餘收集 • 停車場十個車位，是沒有必要的 • 重建的建築物不應過高，垃圾站高度會影響金裕大廈低層的住戶 | <p>市建局備悉區議會對李陞街遊樂場整體改善的訴求。市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他乎合該區需要的新設施。</p> <p>基於本計劃的第二階段社會影響評估，計劃範圍內有一些地區特色商舖，售賣中藥及海味。本計劃的非住宅樓面是希望預留作該等地區特色商舖繼續經營，若城規會認為不需要作出預留，二樓的非住宅樓面可考慮用作老人中心，給予推薦的非政府組織營運。</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| | | <p>本計劃的停車場泊位數目仍根據《香港規劃標準與準則》所建議而制定，停車場泊位數目最後需要得到運輸署的同意。</p> <p>至於樓宇高度，本計劃設有高限為 130 米 (水平基準)，與周邊住宅(甲類)地帶高限相同。</p> |
| 9 | <ol style="list-style-type: none"> 1. 改善西營盤交通擠塞問題 2. 賢居里垃圾站重置後，設施更為現代化，改善噪音及臭味等問題 3. 增設長者健體設施 | <p>市建局備悉市民對發展計劃的意見。本計劃已由交通顧問就發展建議作出交通影響評估報告，指出該計劃不會對鄰近交通網絡造成負面影響，但以計劃的規模，難以整體改善西營盤交通擠塞問題。</p> <p>賢居里垃圾收集站及公廁將於重建後融合在商住樓宇的平台，以改善環境及外觀。重置的垃圾收集站將會重新布局及優化設備，改善運作、提升標準和加強消除異味。</p> <p>市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他乎合該區需要的新設施。</p> |
| 10 | <ul style="list-style-type: none"> • Considered the building as part of her family legacy and its building condition is satisfactory (Nos. 135 – 139 Queen's Road West). | <p>Apart from improving the standard of housing as stated in the URAO, as stated in the URS, the main objectives of the urban renewal include restructuring and replanning of urban areas, and rationalising land uses. The Scheme seeks the opportunity to holistically improve the built environment through redevelopment of the proposed area.</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| | <ul style="list-style-type: none"> Non-occupier/operator property owners were not surveyed in the SIA. Their views on redevelopment were not taken into account. | <p>The purpose of the SIA is to assess the various social impacts of the proposed project to the affected residents and shop operators and to propose mitigation measures to alleviate the impacts. Other stakeholders who are not living or operating within the Scheme area can submit their views on redevelopment to TPB for consideration through their system.</p> |
| | <ul style="list-style-type: none"> Acquisition through monetary means is inadequate. Property is gold. I prefer to be compensated with property, such as shop-for-shop in the same neighbourhood or in the future development, and may include the right of first refusal or first offer. | <p>URA's prevailing compensation policy is based on the decision of Finance Committee of the Legislative Council on "Home Purchase Allowance and Ex gratia Allowance for Owners and Legal Occupiers of Commercial Properties" in 2001. There is currently no policy on shop-for-shop. Nevertheless, according to URS, URA will help affected operator to identify suitable premises in the district of the redevelopment project to enable affected shop operators to relocate and continue operation in the same district as far as practicable.</p> <p>For the shops with local characteristics, special arrangements similar to C&W-005 to allow the affected shop operators to continue its operation upon completion of the redevelopment may be considered</p> |
| | <ul style="list-style-type: none"> Building age, building height and building condition of the RCP structure are not given in Plan 4, 5 and 6 respectively of the Planning Report. The characteristics of the RCP shall be taken into equally-weighted consideration just like private buildings. | <p>The said information of the RCP was provided in paragraph 3.7 of the Planning Report despite it was not specified in the said Plans. It is the URA's planning intention to reprovide and integrate the RCP with the new development at the podium to create environmental and visual enhancements.</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| | <ul style="list-style-type: none"> Views from FEHD, LCSD and neighbours of the project were not included in the SIA2 report. Encourage URA and TPB to seek LCSD the reservation data for the football field. | <p>Views from FEHD and LCSD were submitted for TPB's consideration through the departmental circulation. URA has also consulted C&W District Council to collect their views about the Scheme. TPB has also specified the period for public to submit comments on the draft DSP of the Scheme for consideration.</p> |
| | <ul style="list-style-type: none"> Adding a seventh entrance to the playground area is superfluous. The construction of the additional passageway reduces the net floor area available for use in the neighbourhood. | <p>As stated in the URS, the main objectives of the urban renewal include restructuring and replanning of urban areas, and rationalising land uses. The Scheme seeks the opportunity to holistically improve the built environment through redevelopment and integration of revitalization strategy to enhance the Li Sing Street Playground.</p> |
| | <ul style="list-style-type: none"> Disagree with the URA's plan to rezone the government refuse collection point to residential. The RCP should retain its zoning of G/IC because it serves not only the needs of residential users, but also the commercial users in the wider Central & Western District. | <p>It is the URA's intention to reprovide the RCP in the Scheme through rezoning of the whole site to "R(A)23" to enable integration of the RCP within the podium of the future residential development so as to improve the overall environment and minimise the visual impact of a standalone RCP according to its existing condition. The re-provisioned RCP will be handed over to FEHD for management and maintenance and will serve the public in the neighbourhood.</p> |
| | <ul style="list-style-type: none"> Current carpark design is rather small. Ten carpark spaces is quite few, considering that there is shortage of spaces in C&W District. | <p>The proposed parking provision of 10 private car parking spaces met the provision as recommended in the HKPSG for the proposed development. As explained in the TIA section 2.4, the subject site is of severe site constraints while the site is served by well-established public transport network in the vicinity, it is therefore proposed to adopt the low-end provision.</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| 11 | Comments on URA's Proposal (Scheme 1): | |
| | <ul style="list-style-type: none"> Building separation between the new development and existing tower is just around 10m. URA's proposal would impede natural wind flow around the site and degrade the daylighting quality at the buildings as well as at the street level. | <p>URA has appointed the environmental consultant to carry out an Expert Evaluation (EE) on the air ventilation assessment for the notional scheme of the draft DSP and the report was included in the appendix 7.1 of the Planning Report submitted.</p> <p>According to the EE, the easterly wind is the prevailing wind throughout the year and easterly and south-westerly wind is the prevailing summer wind. Some wind will enter the site from the north or from the east through the gap between buildings as illustrated in Figure 3-3. The axis of the proposed block is parallel to the Queen's Road West so that it will not obstruct the easterly prevailing wind.</p> <p>Besides, a new public open space will be opened in front of Queen's Road West to create a new wind corridor that allows SW summer prevailing wind to enhance the wind flow to the inner area.</p> |
| | <ul style="list-style-type: none"> The view from the new development is also greatly restricted by the surrounding buildings. | <p>The design of the new development will comply with the health standards and regulations as stipulated in the Building (Planning) Regulations for daylight and ventilation requirement.</p> |
| | Commenter's Suggestion (Scheme 2, with the residential tower relocated to the western portion of the Scheme area): | |
| | <ul style="list-style-type: none"> Locate the new tower to the west end to maintain more reasonable building separation, better wind flow, daylighting quality and unobstructed view. | <p>A shaded public open space under tower footprint as suggested by the commenter (Scheme 2) would create an open space with no sunlight.</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| | <ul style="list-style-type: none"> To elevate the base of the tower to provide a shaded public leisure space on the ground floor, an example as Island Crest. | <p>The design of the new development will comply with the health standards and regulations as stipulated in the Building (Planning) Regulations for daylight and ventilation requirement.</p> <p>A. shaded public open space would create an open space with no sunlight.</p> |
| B2, B3, B4 | <p>對 129 至 151 號(單數)皇后大道西重建無意見</p> <p>但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，反對拆卸李陞街遊樂場五人足球場，此 3 項設施對賢居里、高陞街、李陞街、甘雨街附近居民非常重要，如撤去會帶來嚴重影响。</p> <ul style="list-style-type: none"> 五人足球場 <ul style="list-style-type: none"> 是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心 附近的學校均以此足球場作訓練校隊之用，影响本區發展足球運動 本區人口稠密，樓宇遍佈密集，足球場作為本區重要康樂休憩用地，是附近居民的稀有公共空間，能增加空氣流通，減低溫室效應 垃圾房和公廁是附近居民的重要設施，反對收回後要在若干年才重置，因短期會帶來附近居民不便 | <p>市建局並非收回賢居里垃圾收集站及公廁，只是作出重新規劃及重置。市建局了解居民對項目範圍內社區設施的關注，並已在規劃報告內的重置方案建議有關設施。</p> <p>賢居里垃圾收集站及公廁將於重建後融合在商住樓宇的平台，以改善環境及外觀。重置的垃圾收集站將會重新布局及優化設備，改善運作、提升標準和加強消除異味。在重建期間，市建局會提供一個按照食環署要求的小型臨時垃圾收集站，維持當區垃圾收集站的服務。</p> <p>就計劃範圍包括現時的五人足球場，市建局希望藉著重建計劃以重新規劃及理順土地用途及布局，提供一個臨向皇后大道西的公眾休憩用地，加強李陞街遊樂場的可達性以提升該公眾休憩用地的使用。至於受影響的五人足球場，在項目核准後，市建局如得到中西區區議會及康文署的同意及支持，已建議透過融合「活化」的都市更新策略，優化及重整園內設施，包括一個五人足球場及其他符合該區需要的新設施。</p> |

| Ref. Nos. 參考編號 | Comments 意見 | Responses 回應 |
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| | <ul style="list-style-type: none"> • 不需要連接皇后大道西至賢居里的行人通道，因經李陞街及甘雨街進出也很方便。 | |



Our Ref: PDD/C&W-006/18072301

26 July 2018

By Fax & By Post
Fax No. 2877 0245

Secretary to the Town Planning Board
15/F North Point Government Offices
333 Java Road, North Point,
Hong Kong.

Dear Sir / Madam,

**Draft Development Scheme Plan
for the Urban Renewal Authority
Queen's Road West / In Ku Lane Development Scheme (C&W-006)
- Responses to Further Departmental Comments -**

We refer to our submission of the captioned draft Development Scheme Plan (DSP) dated 16 March 2018, our responses dated 4 July 2018 and subsequent further departmental comments on our responses received between 6 July and 18 July of 2018. We would like to enclose our further responses to comments (R to C) to the Government Departments for your necessary action.

Please note no fundamental change has been proposed to the submitted draft DSP under URAO s.25, i.e. no change on the proposed boundaries of the DSP, the site area, the overall development parameters nor planning intention. The information as contained in this letter is mainly technical clarifications to address various Departmental comments, which are minor in nature. We look forward to your prompt processing and consideration on the R to C along with your ongoing preparation work for TPB's consideration.

Should you have any enquiry, please feel free to contact our Ms. Mable Kwan at 2588 2752. Thank you very much.

Yours faithfully,



Mike Kwan
General Manager
Planning & Design

X
encl.

c.c.: (w/o encl. - by fax)

DPO/HK, PlanD (Attn: Mr. Louis Kau) (Fax No.: 2895 3957)



URA Queen's Road West/In Ku Lane Development Scheme (C&W-006)
Further Responses to Departmental Comments received between 6 July – 18 July 2018

| Government Department | Comments | Responses |
|-------------------------------------|--|--|
| Architectural Services Department | <ul style="list-style-type: none"> Based on the "Responses to Comments" table and information provided, it is noted that the issue of 20% greenery area stated in our memo dated 12.4.2018 has been satisfactory addressed. In this regard, we have no further comment. | <ul style="list-style-type: none"> Noted. |
| Buildings Department | <ul style="list-style-type: none"> Detailed comments on the proposal could only be made at formal building plans submission stage. | <ul style="list-style-type: none"> Noted. |
| Drainage Services Department | <ul style="list-style-type: none"> I refer to your above quoted memo regarding the captioned and seeking comments on the responses to departmental comments. Please note that we have no further comment on the responses-to-comments from drainage point of view. Subject to the confirmation of the drainage proposal option, detailed design of new drainage system for the proposed development and the improvement works on existing drainage system should be provided to this office during detailed design stage for our consideration. | <ul style="list-style-type: none"> Noted. |
| Environmental Protection Department | <ol style="list-style-type: none"> Having reviewed the application and the above submissions, it is noted that the URA's development scheme provides an opportunity to improve the overall environment of the subject site, which is beneficial to the existing environmental condition (e.g. air quality and traffic noise from nearby roads) of the residents living in the dilapidated tenement | <ul style="list-style-type: none"> Noted. |

| Government Department | Comments | Responses |
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| | <p>buildings. We also noted that the rezoning of the development scheme mainly to rationalize the land uses within the site area (e.g. Public Open Space and FEHD's facilities (Government Refuse Collection Point (RCP) and Public Toilet)). Hence, we have no objection on the proposed development scheme. No approval condition is required.</p> <p>3. Notwithstanding the above, the following advisory clauses are suggested in the TPB paper that the URA is reminded to observe the followings in planning and designing the development scheme:-</p> <p>(i) The RCP shall be designed in accordance with HKPSG requirement (e.g. provide adequate mechanical ventilation and necessary pollution control measures) to minimize potential environmental impact (e.g. odour) to the nearby residents; and</p> <p>(ii) The construction and demolition (C&D) materials arising from the demolition of existing structures shall be reused/recycled as far as possible.</p> | |
| Highways Department | <p>2. Please be advised that our comments provided in our previous memo ref. (HSM2A) HyD UHK/13-8/2/54 dated 4 April 2018 are still valid.</p> | <ul style="list-style-type: none"> Noted. As mentioned in our last responses to comment, the issue will be dealt with the relevant departments including HyD and LandsD during the land grant preparation stage should the DSP be approved. |

| Government Department | Comments | Responses |
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| Urban Renewal Section of Lands Department | <p>(a) It is considered desirable to include the narrow strip of Government land sandwiched between the existing RCP and Lot No. ML58 s.D RP & Ext. there(s) (i.e. Kam Yu Mansion) into the Scheme from land management point of view. URA is required to consider its feasibility.</p> <p>URA has advised that "There is provision under Section 5 of the Town Planning Ordinance for TPB to amend the boundaries of the draft DSP". I leave it to your office to consider under which provision of the Town Planning Ordinance the boundaries of the draft DSP can be amended if amendments to the boundaries of the draft DSP are considered necessary.</p> <p>(b) This office is not in position to confirm that there are no encumbrances in the concerned strip of Government land. You may wish to seek comments from DLO/HKW&S and other relevant Government departments in this respect.</p> <p>(c) For other various technical assessments, I would rely on other concerned departments to provide their expert comments on the proposal/ assessments respectively.</p> | <p>URA holds the view of not to change the boundaries of the draft DSP.</p> <p>The strip of land is currently locked up by a gale and occupied by unknown user(s). As LandsD cannot confirm 100% on ownership and possession status and it has no guarantee on "no encumbrances" for that strip of land, URA should not unnecessarily include it in the Scheme. Under Section 5 of the Town Planning Ordinance, the occupier(s)/ user(s) or any concerned person(s) of this strip of land can submit their representations to propose the amendment of the boundaries of the draft DSP if needed.</p> |
| District Land Officer of Lands Department | <p>We share CES/UR's view and strongly recommend that this strip of land should be included in the rezoning proposal and the future URA scheme boundary in order to utilize its development potential and to avoid creating a strip of no-man-land in the future.</p> | <ul style="list-style-type: none"> • Same response as to Urban Renewal Section of Lands Department. |

| Government Department | Comments | Responses |
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| Planning Department (Landscape Unit) | <ul style="list-style-type: none"> As stated in the response-to-comments, there are row of small trees and planters along the two sides of the football court. In support of the concerned DSP, a brief description on the condition of existing landscape resources within the site with photo records should be provided. Also, please state if there are OVT and/or significant mature trees within the site and if affirmative, whether they will be affected by the proposed development; and if there are any changes of open space provision for the area due to the proposed development, it should be clearly stated as well. | <ul style="list-style-type: none"> There are shrubs with less than 1m (height) in the planters along the two sides of the football court. There is another wild tree growing at the service lane of the building at the southern side of the football court. According to the GeoInfo Map of the Lands Department, there is no OVT within the site. Please refer to <u>Annex 1</u> for the photo record. There will be no loss of open space due to the proposed development in the draft DSP. A new open space of about 538sq.m, same size as the current football court, will be provided within the draft DSP. Subject to agreement with LCSD and support from C&WDC, the football court can be reprovided in the western part of Li Sing Street Playground through improvement work by URA. |
| Planning Department (Urban Design Unit) | <p><u>Visual Impact Comments:</u></p> <ul style="list-style-type: none"> It is noted from the indicative scheme that the building block would mainly be situated at the site's south-eastern corner where currently is mainly zoned "R(A)7" and the proposed building height of 130mPD is not significantly higher than the permitted ones in the surroundings. As such, visual impact of the proposed development should not be a main concern. Nevertheless, if the prospective developer in future adopts a less sensitive design (e.g. a slab block encompassing the public open space to the west), visual impact | <ul style="list-style-type: none"> Noted. |

| Government Department | Comments | Responses |
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| | <p>to the public might exist. The prospective developer is advised to adopt sensitive design to minimize any potential visual impact arising from the proposed development.</p> <p><u>Air Ventilation Comments:</u></p> <p>3. Based on the Expert Evaluation on Sai Ying Pun & Sheung Wan Area (SYPSW EE) (PLNQ37/2007) dated May 2010, the "Government, Institution or Community" ("G/IC") and "O" zones in the Area are recommended to be maintained as they provide useful "lungs" of air spaces in the Area. They should not be further developed with tall buildings or re-zoned for bulky developments.</p> <p>4. Nevertheless, it is noted from the notional scheme that (1) a public open space of not less than 538m² will be re-provided connecting Queen's Road West and Li Sing Street Playground at grade; and (2) the 3-storey podium will be at the original "G/IC" site with building height restriction of 2 storeys. As such, the notional scheme basically conforms with the recommendation as stated in the SYPSW EE report.</p> <p>5. In view of the above and the relatively small scale of the proposed development (site area of less than 2ha, GFA less than 100,000m²), it is considered that the proposed development would not causes significant adverse impact on the surrounding pedestrian wind environment.</p> | <p>3. - 6. Noted. Should the DSP be approved, the detailed design of the proposed development would make reference with the departments' comments on the Air Ventilation EE report so that it would not cause significant adverse impact on the surrounding pedestrian wind environment.</p> |

| Government Department | Comments | Responses |
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| | <p>6. Nonetheless, the quality of the report is still far from satisfactory and the consultant should note the following major comments, some of which have been raised in our previous comment. Should further revision be submitted, the consultant is advised to thoroughly review the report to avoid abortive work.</p> <p>a) <u>Annual and summer wind directions</u>: With reference to Table 2-3, the selected prevailing wind directions are not consistent with the prevailing wind directions from the various sources of wind data.</p> <p>b) In general, directional analysis of potential wind flow on how the prevailing wind entering the site, penetrating through the site and reaching the downstream area should be included in both Existing Condition and Proposed Scheme.</p> <p>c) <u>Section 3</u>: The potential impact of the proposed development is not addressed.</p> | |
| Transport Department | <p>2. We have the following further comments on the response-to-comments:</p> <p>(i) Unless there is strong justification, we still consider that at least 20 private car parking spaces among which five are for visitors, and two motorcycle parking spaces should be provided. As</p> | <p>2. URA would like to propose a relaxed parking provision due to the following consideration:</p> <ul style="list-style-type: none"> Due to a large portion of area in the Scheme (over 50%) are designated for RCP and open space provision, the remaining construction area for |

| Government Department | Comments | Responses |
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| | <p>mentioned in URA's response-to-comments, URA should liaise with LCSD, FEHD and LandsD for the possibility to utilize the underground area underneath the POS and RCP for providing the parking spaces for the proposed development.</p> <p>(ii) As the number of parking spaces provided is yet to be agreed, we reserve our comments on the proposed car lift arrangement at the moment.</p> | <p>residential development is very small (< 600sq.m.). It is unlikely that the site can accommodate 2 car lifts to serve a 2 level basement car park. Such provision is also considered not efficient and effective in such a small site. The provision of only 1 car lift for 2-level basement car park is also considered not desirable.</p> <ul style="list-style-type: none"> • In view of such, URA would like to propose to explore smart-parking technique in the future development of the Scheme, which is estimated to be able to accommodate about 15 – 16 parking spaces within 1-level basement car park served by 1 car lift. The maximum number of the parking spaces within 1 level basement car park will be subject to technical feasibility on the smart-parking measures in future. • URA noted TD's advice on exploring the underground space underneath POS and RCP for public car park. If TD considers it an opportunity to provide underground public car park via URA's possible revitalisation works at Li Sing Street Playground with LCSD, URA would liaise among TD and relevant Departments to explore such opportunity after CE in C's approval of the draft DSP. |

| Government Department | Comments | Responses |
|---------------------------|--|---|
| Labour and Welfare Buresu | <ul style="list-style-type: none"> We have already stressed for a couple of times that there is an acute demand for the proposed Neighbourhood Elderly Centre (NEC) sub-base in the district in view of the ageing population and the current inadequate provision of NEC services in the Central and Western (C&W) district. As a matter of fact, quite a number of the subvented NECs in the C&W district are undersized and there are no welfare premises or public housing development sites available to accommodate the provision of NEC sub-base. Specifically, the NEC concerned which requires the proposed sub-base is currently undersized by 50% in internal floor area (IFA) against the standard provision of 394 sq. meters. The shortfall of area has significantly hindered the NECs to deliver the existing social and support services to the elderly persons, not to mention the new 2017 PA initiatives to be implemented by NECs from 2018-19 onwards, e.g. enhanced care and support for elderly persons with dementia and their caregivers and enhanced outreaching services to support needy caregivers of elderly persons. In addition, it is noted that the development scheme area, now proposed to be rezoned as "Residential (Group A)23", is originally zoned as "Residential (Group A)7", "Government, Institution or Community" (G/IC), "Open Space" and a strip of land zoned "Road". In this light, we consider it more appropriate to retain some GFA for the provision of G/IC facilities, i.e. NEC sub-base in this case. In fact, we are aware that members of the C&W District Council also enquired about the feasibility of including | <ul style="list-style-type: none"> There is no loss of GIC facilities due to the proposed development. In the proposed DSP scheme, the affected RCP cum public toilet will be re-provisioned within the DSP area, which is about 860sq.m. of GFA to be retained for such GIC facilities in the DSP. In view of the pressing need of elderly centre, URA has no objection to reserve an IFA of not less than 120 sq. meters for elderly facilities in the project. Should TPB accepts the proposal and subject to the approval of the DSP by CE-in-C, relevant departments have to provide the detailed Schedule of Accommodations (SoA) and ancillary use requirements within 6 months upon approval of the DSP so that URA can proceed with the land grant preparations. URA will voluntarily run the facilities. |

| Government Department | Comments | Responses |
|-----------------------|--|-----------|
| | <p>elderly services facilities given that there will be 2 to 3 storeys of retail floors available. This further reflects the district's demand for elderly services, which should be taken into consideration. Therefore, we would like to reiterate our earlier proposal. While we understand that URA intends to reserve space for local character shops to preserve the local community, we wonder if an NEC sub-base with an IFA of less than the previously proposed 197 sq. meters (but not less than 120 sq. meters) would facilitate the incorporation of the NEC sub-base by URA. Please advise URA of our strong demand to incorporate the NEC sub-base in the subject development.</p> <ul style="list-style-type: none"> • Under the prevailing funding mechanism, the capital cost of welfare facilities to be incorporated in URA developments are to be met under Lotteries Fund (LF). In accordance with the established practice, we would seek endorsement from Lotteries Fund Advisory Committee (LFAC) of the LF funding for the construction of the proposed welfare facilities only after the details of the project, including the design layout and estimated rough indication of cost of the proposed welfare facilities are confirmed and agreed by SWD, followed by seeking formal funding approval from FSTB. Under normal circumstances, funding will be secured right before the land grant is executed/confirmation of LandsD's binding basic term offer. In this light, given that URA has yet to confirm the details of the proposed welfare facility (i.e. the NEC sub-base | |

| Government Department | Comments | Responses |
|--|--|---|
| | concerned) to be incorporated in the subject site, we are not in the position to confirm funding for the construction of the proposed welfare facility at this juncture. | |
| Social Welfare Department | <ul style="list-style-type: none"> • Same comments as Labour and Welfare Bureau | <ul style="list-style-type: none"> • Please refer to URA's responses to Labour and Welfare Bureau. |
| Water Supplies Department | <ul style="list-style-type: none"> • I refer to your above quoted memo and would like to advise you that we have no comment on the response-to-comments from water supply planning point of view. | <ul style="list-style-type: none"> • Noted |
| Food and Environmental Hygiene Department | <ul style="list-style-type: none"> • No further comments. | <ul style="list-style-type: none"> • Noted. |
| Home Affairs Department District Officer (Central & Western) | <ul style="list-style-type: none"> • No further comments. | <ul style="list-style-type: none"> • Noted. |
| LCSD | <ul style="list-style-type: none"> • No further comments. | <ul style="list-style-type: none"> • Noted. |

GovHK 香港政府一站通
地政總署 LANDS DEPARTMENT

Find buildings, facilities, addresses and places...etc. Search Options

Search Map Tools Category

Old and Valuable Trees

Search for : [District - Central & Western]

Result 41 - 60 of 115 Record(s)

Registration No.: ARCHSD CW/5
District: Central & Western
Location: Blake Garden, on the slope no. 11SW-A/R16 facing Pound Lane

Registration No.: ARCHSD CW/6
District: Central & Western
Location: Hong Kong Zoological and Botanical Gardens, on the slope no. 11SW-B/FR241 facing Albany Road

Registration No.: ARCHSD CW/7
District: Central & Western
Location: Victoria Road, near Kennedy Town Bus Terminus

Registration No.: ARCHSD CW/8
District: Central & Western
Location: Victoria Road, near Kennedy Town Bus Terminus

Registration No.: ARCHSD CW/9
District: Central & Western
Location: Ka Wai Man Road Garden, near Cayman Rise

Registration No.: DOJ CW/1
District: Central & Western
Location: Central Government Offices Compound

Registration No.: FSD CW/1
District: Central & Western
Location: Central Fire Station

Registration No.: HYD CW/1
District: Central & Western
Location: Hospital Road near Lamp post 33561

Registration No.: HYD CW/2
District: Central & Western
Location: High Street facing Lamp Post 48560

Registration No.: HYD CW/3
District: Central & Western

GeolInfo Map 地理資訊地圖

Powered by HKSARG Geospatial Information

Map showing the area around Sai Ying Pun Station, King George V Memorial Park, HK, and various buildings and streets. A dashed line indicates the site boundary.

Legend | Data Source | User Manual | FAQ

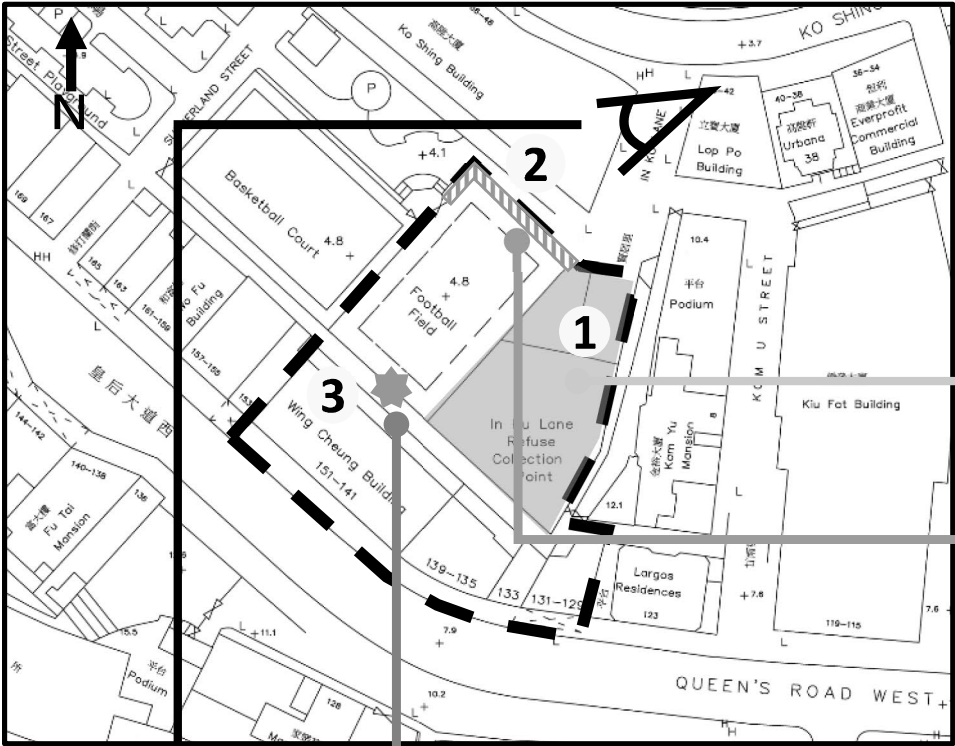
http://www.map.gov.hk

About "GeoInfo Map" | Terms and Conditions | Privacy Policy | IP Rights Notice | Report a map issue.

No OVT within the site according to the GeolInfo Map

<http://www2.map.gov.hk/gih3/view/index.jsp>

Development Scheme
C&W-006



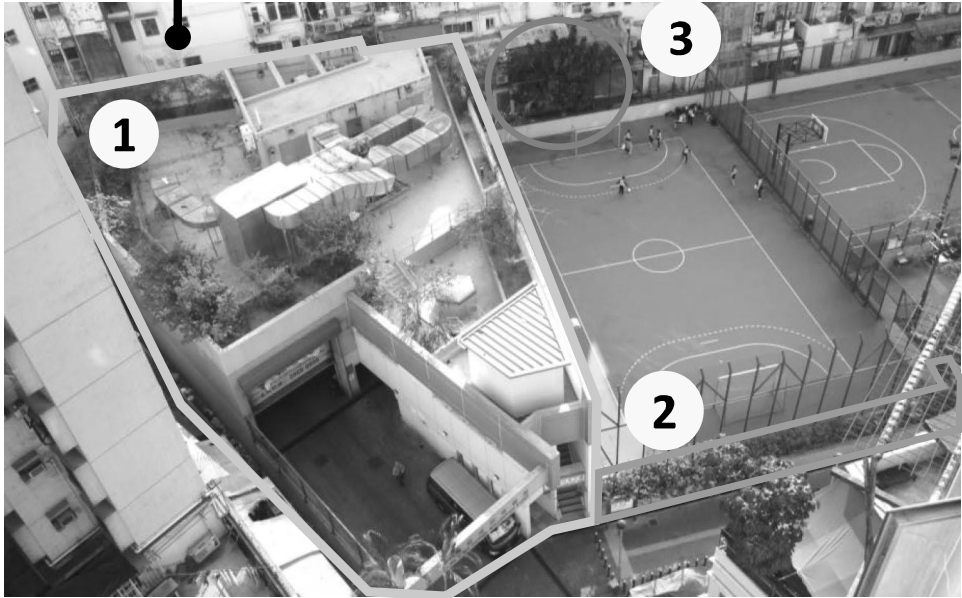
1

In Ku Lane Refuse Collection Point cum Public Toilet



2

Planters along the football court (at northeast)



3

Wild tree/ vegetation growing at the service lane of the building (at south of football court)

就規劃申請提出意見
Comments on Planning Application

| | | |
|---------------------------------|--------------------|--|
| 請勿填寫此欄 For Official Use Only | 檔案編號 Reference No. | |
| | 收到日期 Date Receive | |

致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates

意見詳情

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-006)』意見如下：

對 129 至 151 號(單數) 皇后大道西重置無意見

但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街附近居民非常重要，會帶來嚴重影响。

- 尤其五人足球場是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心
- 附近的學校均以此足球場作訓練校隊之用，影响本區發展足球運動
- 本區人口稠密，樓宇遍佈密集，足球場作為本區重要康樂休憩用地，是附近居民的稀有公共空間，能增加空氣流通，減低溫室效應
- 另外垃圾房和公廁是附近居民的重要設施，反對收回後要在若干年才重置
- 賢居里不需要連接皇后大道西，因經李陞街和甘雨街進出也很方便

附近居民:

呂蘭

27/3/2018

就規劃申請提出意見

Comments on Planning Application

| | | |
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有關的規劃申請編號 The application no. to which the comment relates

意見詳情

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附近居民: 

呂蘭 

27/3/2018

就規劃申請提出意見

Comments on Planning Application

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致城市規劃委員會秘書：

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傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates

意見詳情

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-006)』意見如下：

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- 賢居里不需要連接皇后大道西，因經李陞街和甘雨街進出也很方便

附近居民：

日期：鄭達雄

TEL: [REDACTED]

29/3/2018

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180411-143636-00719

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

11/04/2018 14:36:36

發展計劃草圖名稱

Name of Draft Development Scheme Plan:

皇后大道西/賢居里

Queen's Road West/ In Ku Lane

「提意見人」姓名/名稱

Name of person making this comment:

林依敏

意見詳情

Details of the Comment :

更正意見 皇后大道西／賢居里發展計劃 (C&W-006) 意見書 本人乃金裕大廈業主，就上述重建計劃作出以下意見：1. 同意拆卸垃圾站及公廁：－ 現垃圾站及公廁靠近我廈，有關的蚊蟲、鼠患、雀鳥、垃圾、廁味等，衛生情況嚴重影響我們的生活，還請設置新垃圾站離我廈越遠越好。－ 就本人家居的空氣作出相關測試，現時家具內外的空氣指數為：8,318,520CF（請查閱附件一），僅次於每時每刻正吸食三支煙的分量，還請盡快搬離我廈。2. 不同意重置並縮小李陞街遊樂場五人足球場：－ 上環區卜公花園、香港佐治五世紀念公園雖設有七人硬地足球場；中山紀念公園亦設有人造草七人足球場；西湖里遊樂場又設有（較小的）五人足球場，但這些足球場並不足夠五人足球運動的發展。－ 李陞街遊樂場的五人足球場一向作為鄰近學校之五人足球校隊訓練和比賽場地，一經重置並縮小便不適合校隊訓練和比賽，更可能導致校隊解散，消滅孩童的興趣和夢想。－ 雖然五人足球比賽連球證在場只有11人，但替接的球員連教練數量可能超過一倍，西湖里遊樂場內的五人足球場面積較小，根本不適合用作該運動的比賽場地，請取消縮小該場地。－ 另外，該場地較適合年紀較小的朋友踢足球，減少與成人碰撞，安全之至。3. 同意重建一幢約30層高的商住廈，但反對興建車位：－ 本人明白香港寸金尺土，興建高樓大廈乃形勢所趨，請就樓宇間之屏風效應問題作出研究。－ 本人不同意興建車位，因車輛排放出來的廢氣將會引致另一種空氣污染，影響我們的健康。4. 同意新建設：－ 請考慮設立大型圖書館 ～ 由於上環區幼稚園、小學、中學林立，唯獨欠缺大型圖書館給孩童借閱圖書及參考書籍；長者們亦欠缺閱報、閱讀的地方。雖然鄰近石塘咀設有兩層的圖書館，但這並不足夠上環、西營盤、西環等小朋友、學生和居民的閱讀需要，懇請多加考慮。此致 謝意！

金裕大廈業主簽字：林依敏 （附件一未能附上）如須圖片，請聯絡本人。

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180411-095627-75897

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

11/04/2018 09:56:27

發展計劃草圖名稱

Name of Draft Development Scheme Plan:

皇后大道西/賢居里
Queen's Road West/ In Ku Lane

「提意見人」姓名/名稱

Name of person making this comment:

LAM YEE MAN

意見詳情

Details of the Comment :

皇后大道西/賢居里市區重建計劃意見書 本人乃金裕大廈業主，就上述重建計劃作出以下意見：1. 同意拆卸垃圾站：— 現垃圾站靠近我廈，有關的蚊蟲、鼠患、雀鳥、臭味及衛生情況大大影響我們的生活，更望新垃圾站離我廈越遠越好。— 就本人家居的空氣作出相關測試，現時家具內外的空氣指數為：8,318,520CF（請查閱附件一），僅次於每時每刻正吸食三支煙的分量，懇請盡快搬離我廈。2. 不同意拆卸五人足球場：— 上環區卜公花園、香港佐治五世紀紀念公園雖設有七人硬地足球場；中山紀念公園亦設有人做草七人足球場；西湖里遊樂場又設有（較小的）五人足球場，但這些足球場並不足夠五人足球運動的發展，此區對該運動還欠缺適當的訓練和比賽場地。— 李陞街遊樂場的五人足球場一直以來多作鄰近學校之五人足球校隊訓練和比賽場地，一經拆卸校隊成員便難以訓練和比賽，更可能導致校隊解散，消滅孩童的興趣和夢想。— 再者，該場地較適合小朋友踢球，減少與成人碰撞，安全之至。3. 同意重建一幢約30層高的商住廈，但反對興建車位：— 本人明白香港寸金尺土，興建高樓大廈是適合之至，但請就樓宇間之屏風效應問題作出研究。— 本人不同意興建車位，因車輛排出的廢氣將會引致另一種空氣污染，影響我們的健康。4. 同意新建設：— 請考慮設立大型圖書館～由於上環區幼稚園、小學、中學林立，唯獨欠缺大型圖書館給孩童借閱圖書及參考書籍；長者們亦欠缺閱報、閱讀的地方。雖然鄰近石塘咀設有兩層的圖書館，但這並不足夠上環、西營盤、西環等小朋友、學生和居民的閱讀需要，懇請多加考慮。此致 謝意！

金裕大廈 業主

= 14

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180416-235948-25647

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

16/04/2018 23:59:48

發展計劃草圖名稱

Name of Draft Development Scheme Plan: Queen's Road West/ In Ku Lane

皇后大道西/賢居里

「提意見人」姓名/名稱

Name of person making this comment:

鄭家怡

意見詳情

Details of the Comment :

作為重建區附近居民，本人十分滿意現有發展計劃設計，請勿擴大相關範圍。

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180416-161311-95311

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

16/04/2018 16:13:11

發展計劃草圖名稱

Name of Draft Development Scheme Plan:

皇后大道西/賢居里

Queen's Road West/ In Ku Lane

「提意見人」姓名/名稱

Name of person making this comment:

劉康華

意見詳情

Details of the Comment :

本人為 皇后大道西 179號 唐二樓業主 劉康華 本人十分關心 賢居里發展計劃 (C&W-006) 雖然今次市區重建局沒有把我的物業 歸納為 重建範圍。 但希望四年後可以納入重建範圍。

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180412-135127-16452

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

12/04/2018 13:51:27

發展計劃草圖名稱

Name of Draft Development Scheme Plan:

皇后大道西/賢居里

Queen's Road West/ In Ku Lane

「提意見人」姓名/名稱

Name of person making this comment:

Kelvin Chu

意見詳情

Details of the Comment :

My mother is the owner of [REDACTED] Queen's road West, HK She is living there with husband and daughter for over 40years, she has the interest to be included in the draft development scheme plan of 賢居里.

寄件者: lee linglingl [REDACTED]
寄件日期: 13日04月2018年星期五 16:24
收件者: inquiry@mail1.ura.org.hk; tpbpd@pland.gov.hk; docw@had.gov.hk
主旨: 規劃申請提出意見：皇后大道西 / 賢居里發展計劃(C&W-006) · 為何153-181號〈單數〉樓宇不納入發展範圍內

致：市區重建局
城市規劃委員會
中西區民政事務專員

規劃申請提出意見：皇后大道西／賢居里發展計劃(C&W-006)，為何 153-181 號〈單數〉樓宇不納入發展範圍內

2018 年 3 月 16 日，市區重建局公佈皇后大道西／賢居里發展計劃 C&W-006（下稱發展計劃），範圍包括香港皇后大道西 129-151 號〈單數〉，3 月 16 日呈交城市規劃委員會作第 1 次評估報告。

香港皇后大道西 153-181 號〈單數〉樓宇（下稱樓宇）於 1964 年先後落成，大部分亦是 5 層高，樓宇毗連是未來發展計劃地盤及部份李陞街遊樂場。

另外，李陞街遊樂場的樹木伸展至民居的外牆，樹葉每天跌落民居的後巷及天井的渠口，弄至淤塞李陞街遊樂場的設計是有需要全部重新重置！晚上更有人在巷內小便，蓄意放置貓飯等等，流浪貓數目不斷增加，環境衛生惡劣，臭氣沖天，苦不堪言，還要不斷維修樓宇。

將此樓宇一併納入發展計劃，達至改善環境衛生，更可以打造成中西區地標之一。

政府以合理價錢收購，市民及業主一定支持方案，而且很多上述樓宇的業主都希望將舊樓重建。

請市區重建局及城市規劃委員會考慮將上述樓宇納入發展計劃，請有關政府部門直接落區聽取樓宇業主心聲。

謝謝！

李艷玲小姐謹上
2018.04.13

本法團為皇后大道西 163 號之業主立案法團，我們日前得知市區重建局將於皇后大道西/賢居里有一項發展計劃(C&W-006)。並收購一帶舊樓宇及公共設施，進行發展工程。我們建議推動進一步的收購計劃，將皇后大道西 137-181 號(單數)立入重建項目及跟一帶業主商討收購事項。此建議可大大增加土地的實用性，而且可以進一步解決香港市民居住的問題，原業主也可以不用擔心日後的大廈保養維修問題，一舉三得。



李元徽
(秘書)

就規劃申請提出意見

Comments on Planning Application

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致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-006)』意見如下：

對 129 至 151 號(單數) 皇后大道西重置無意見

但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街、甘雨街附近居民非常重要，如撤去會帶來嚴重影響。

- 五人足球場
 - 是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心
 - 附近的學校均以此足球場作訓練校隊之用，影響本區發展足球運動
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- 不需要連接皇后大道西至賢居里賢居里的行人通道，因經李陞街和甘雨街進出也很方便
- 其他：

就規劃申請提出意見

Comments on Planning Application

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電郵：tpbpd@pland.gov.hk

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-005)』意見如下：

對 129 至 151 號(單數) 皇后大道西重置無意見

但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街、甘雨街附近居民非常重要，如撤去會帶來嚴重影响。

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- 其他：

簽署：

日期：

13-4-2018

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致城市規劃委員會秘書：

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傳真：2877 0245 或 2522 8426

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敬啟者：


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簽署：



日期：

就規劃申請提出意見

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- 其他：

簽署：丁國強

1 / 2 / 2018
日期：

就規劃申請提出意見

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15-APR-2018 18:07

P.002

就規劃申請提出意見

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傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

敬啟者：

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- 不需要連接皇后大道西至賢居里賢居里的行人通道，因經李陞街和甘雨街進出也很方便
- 其他：

簽署：



日期：

17-4-17

寄件者: Ma C [REDACTED]
寄件日期: 17日04月2018年星期二 11:09
收件者: tpbpd@pland.gov.hk
主旨: To include the redevelopment zone from 129-151 Queen' s Road West.

As inspired by a talk/consultation meeting of Mr.Kam Nai-wai (甘乃威 Central and Western District Council) that even residents out of the area can express their opinion, I write to agree on the project but hope it can be extended beyond the lot from 129-151 Queen' s Road West to include 153-183 Queen' s Road West, on the same side of the road.

During the talk/consultation meeting, I was surprised to see there were residents nearly from every block of 153-183 attended and owners' corporation have been established in most of these buildings. Although they cannot fully represent all the residents, it can be reflected at least many of the residents in this zone had express their interest to include their flats for redevelopment.

My reasons for extending the redevelopment area are as follows:

- Most of the buildings from 153-183 Queen' s Road West are old (close to or more than fifty years) and can develop more or less structural problems that is a potential danger in the near future.
- To extend the redevelopment zone will establish new buildings of better continuity and planning, instead of different individual buildings of different height, style and appearances.
- Expanding this redevelopment may be more cost effective and beneficial to the society, if more owners are willing to do so. At least this will help, if not alleviate, the severe housing shortage in Hong Kong.
- More speculators may started to bulk invest into the vicinity of the announced redevelopment area after knowing the compensation of this round. If 153-183 Queen' s Road West is included and consolidation of residents is done close to this original redevelopment project, this may be prevented.
- Personal reasons (that requires lengthy paragraphs to elaborate).

Although I am the secretary of an owners' corporation (175), This time I express my opinion as an individual owner, because the deadline of this consultation is on 17 April 18 but it requires at least 14 days to call for a meeting in order to obtain the point of view from all owners.

As far as I know, more owners from 153-183 Queen' s Road West will be interested to be included under this redevelopment project. I believe owners of ground floors may also be negotiable under reasonable compensations because I am the one.

If it is required, please contact me with the provided email.

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180417-145825-97704

提交限期

Deadline for submission:

17/04/2018

提交日期及時間

Date and time of submission:

17/04/2018 14:58:25

發展計劃草圖名稱

Name of Draft Development Scheme Plan: 皇后大道西/賢居里
Queen's Road West/ In Ku Lane

「提意見人」姓名/名稱

Name of person making this comment:

吳炳基

意見詳情

Details of the Comment :

我是皇后大道西 [REDACTED] 的業主代表, 我支持我的大廈納入皇后大道西/賢居里重建區的範圍。

就市區重建局發展計劃草圖提出意見

Making Comment on Draft Urban Renewal Authority Development Scheme Plan

參考編號

Reference Number:

180511-181454-91932

提交限期

Deadline for submission:

29/05/2018

提交日期及時間

Date and time of submission:

11/05/2018 18:14:54

發展計劃草圖名稱

Name of Draft Development Scheme Plan:

皇后大道西/賢居里: 就第二階段社會影響評估報告提出意見

Queen's Road West/ In Ku Lane :
Making Comments on Stage 2
Social Impact Assessment Report

「提意見人」姓名/名稱

Name of person making this comment:

SUN Shun Kei

意見詳情

Details of the Comment :

To have a better and comprehensive redevelopment, please consider including building blocks on number 153 to number 183 (both numbers inclusive but odd numbers only) on Queen Road West, which are similar heights and were built in the similar years. It seemed that it is no reason from the public interest to exclude these building blocks next to the proposed development site.

致城市規劃委員會秘書：

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傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

To: Secretary, Town Planning Board

By hand or post: 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong

By Fax: 2877 0245 or 2522 8426

By e-mail: tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates 市建局皇后大道西/賢居里
發展計劃草圖

意見詳情（如有需要，請另頁說明）

Details of the Comment (use separate sheet if necessary)

本人強烈、強烈支持進行重建，其過去住所經常
出現的問題：2年前大廈做完維修後，再出現，
石屎剝落、滲水、漏水，屋內牆身每處都有裂紋
出現，無水沖廁。
- 過去大廈大部份樓層都出租，有兩層釐成兩、三間房出
租，高層做成賓館，每次出入都遇到陌生人，近期我的住
所被偷竊，石屎鬆大門，大廈治安做成問題。
- 居住環境很差，樓棟被租客吸煙和留下到
處都是煙頭，最利害有次在樓間大小二便，臭氣滿
天，要業主去清潔，同時舊樓買不到保險，發生意外，要業主
出錢賠償，慘無人道！因強烈支持進快重建，謝謝！😊😊😊

「提意見人」姓名／名稱 Name of person/company making this comment

簽署 Signature

Fuyi Li

日期 Date

馮熾熾

10.5.2018

致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

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有關的規劃申請編號 The application no. to which the comment relates 市建局皇后大道西/賢居里
發展計劃草圖

意見詳情（如有需要，請另頁說明）

Details of the Comment (use separate sheet if necessary)

本人是皇后大道西 163 號 █████ 業主，知悉市建局即將展開皇后大道西/賢居里重建項目，由於本樓宇已建成 50 年，雖然外牆維修已完竣，但室內裂縫也不少，若再維修樓宇花費甚高。所有拆去矮的樓宇，建設較高的大廈，更多的單位，增加住屋需求，希望城規會考慮，本人居住的樓宇納入與皇后大道西/賢居里重建項目一併重建，相信更能改善社區環境，符合公眾利益。

此致

城市規劃委員會

「提意見人」姓名／名稱 Name of person/company making this comment

謝宅

簽署 Signature

TSE

日期 Date

24 May 2018

致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

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有關的規劃申請編號 The application no. to which the comment relates 市建局皇后大道西/賢居里
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意見詳情（如有需要，請另頁說明）

Details of the Comment (use separate sheet if necessary)

本人強烈支持該發展計劃及其發展計劃草圖。本人居住西營盤多年，由於現時沒有行人路直達李堅街足球場，很不方便帶家人享用有關設施。透過該發展項目，一方面可以改善重建區內的行人路網連接，另一方面也可大大優化週邊環境及公共設施。本人看見重建區內住了不少長者，由於需經常覆診或進出醫院，上落樓梯很吃力。另外，重建區內居住環境不佳，經常受噪音影響。因此，本人十分支持盡快推動該重建項目，重整及重新規劃現有的工地用途，導致重建區住戶、李堅街遊樂場使用者及行人三贏局面。

「提意見人」姓名／名稱 Name of person/company making this comment 張國明

簽署 Signature 張國明 日期 Date 17-5-2018

寄件者: lee linglingl [REDACTED]
 寄件日期: 21日05月2018年星期一 9:08
 收件者: inquiry@mail1.ura.org.hk; tpbpd@pland.gov.hk; docw@had.gov.hk
 主旨: 懇請將皇后大道西153-181號單數樓宇納入皇后大道西 / 賢居里重建項目內，一併重建

致：城市規劃委員會
 市區重建局
 中西區民政事務專員

懇請將皇后大道西 153-181 號單數樓宇納入皇后大道西／賢居里重建項目內，一併重建

本人〈李小姐〉是香港皇后大道西 179 號業主之一，知悉市區重建局〈下稱市建局〉將展開皇后大道西／賢居里重建項目〈下稱項目〉，懇請將皇后大道西 153-181 號單數樓宇納入項目內，一併重建，理由如下：

1. 皇后大道西 153 號至 181 號單數樓宇的樓齡，已經超過 50 年，本人所住樓宇於 1964 年入伙。
2. 環境衛生惡劣，很多樓宇的渠時常淤塞及滲漏，影響居民健康，其中，每次屋宇署／食環署協助處理本樓宇後，再向各業戶收取費用，不停支付費用外，還要維修樓宇屋內的費用，但沒有成效。
3. 李陞街遊樂場〈下稱遊樂場〉設計失誤，遊樂場以 1 圍牆分隔唐樓後巷，外觀上，後巷業權屬於唐樓，但其中部份後巷（皇后大道西 167, 171 及 173 號）業權是屬於政府的。
 樹木種植在遊樂場圍牆旁邊，樹木生長跨越圍牆至後巷及貼近民居外牆，樓宇外牆長樹木，影響排水渠破損，污水像瀑布流出後巷，又要更換渠及砍外牆樹。
 樹葉散落在後巷內；民居樓梯內；屋內及天井渠口，後巷沒有人清潔，樹葉引致渠口塞，導致積水蚊患等，關閉窗戶，又引致空氣不流通。
 樹枝時常折斷，懸掛半空，曾經有樹木完全倒塌，遊樂場的設計，深藏危機，滋擾居民日常生活，危害市民安全及健康，遊樂場需要重新設計！！將樹木重新設置適當位置。
4. 市建局推出業主先導計劃〈下稱計劃〉時候，本人曾查詢 4 幢相連樓宇(175 至 181 號單數)申請計劃，市建局告知面積不符合最低計劃面積要求。
5. 項目地舖以經營中藥批發及零售為主，海味只是次要，閣樓／樓上單位／地庫以至僭建物大多數是用作中藥工場及儲存中藥貨物。
 以往高陞街樓宇重建，商戶將中藥批發及零售搬遷至現在重建項目位置及伸延至 181 號單數樓宇，重建後的高陞街樓宇則以蔘茸為主，形成這一帶的中藥批發及零售的地標羣體。

區區有特色，本區特色最多及集中，與周邊批發香燭及紙料札作，德輔道西（以批發及零售海味／臘味／鹹魚及雜貨為主）及西區副食品市場（以批發海產／生果／蔬菜為主）連成一起，吸引遊客及區外市民來參觀及消費，成為推動本區經濟之一。

現在政府重演高陞街歷史〈重建部份〉，這些商戶又可以再搬遷到哪裡？又如何找到閣樓／地庫／樓上單位作中藥工場及儲存藥材呢？政府間接將這中藥地標羣體破壞，使其漸漸消失，而附近的雙數樓宇，已被私人地產收購，批發香燭及紙料札作為主的商舖，1 間又 1 間逐漸消失，失去本區特色。

居民支持重建舊區樓宇，合理賠償及日後發展規劃（恢復本區特色），只有在政府的人力物力及規劃下，加上大面積舊唐樓重建，才可實現。

懇請城規會，市建局及中西區民政事務署將皇后大道西 153 號— 181 號單數樓宇及整個李陞街遊樂場納入項目內，一併重建，收善社區環境及符合公眾利益。

謝謝！

皇后大道西 179 號業主

李小姐謹上

2018.05.21

寄件者: Kam Nai-wai [REDACTED]
寄件日期: 29日05月2018年星期二 11:07
收件者: tpbpd@pland.gov.hk
主旨: 就上環皇后大道西 / 賢居里重建計劃表達意見
附件: 皇后大道西 / 賢居里計劃意見書.doc

本人是中西區區議員就上環皇后大道西／賢居里重建計劃表達意見，請見附件。

甘乃威

本人是中西區區議會上環區民選區議員，現就市區重建局皇后大道西／賢居里重建計劃提供意見。

意見如下：－

1. 必須重置李陞街公園五人足球場。

2. 如果只重置部分李陞街公園，會令公園失卻一致性，加上李陞街公園已經建立超過二十年，應全面優化李陞街公園，包括設立現代化的長者及兒童使用設施、籃球場、涼亭、飲水機及設立綠化及園藝花卉。但公園重置期間不應全面關閉公園，應分期進行優化工程，使區內居民在工程期間仍可以享用公園部份的設施。

3. 應該在重建區的建築物內設立社區需要的社區設施，包括公共圖書館或安老院舍。上環區居民要求設立圖書館已經超過二十年，但區內難覓公營地方設立公共圖書館，而社區也欠缺志願機構營運的安老院舍，舊區重建是一個難得的機會有公共空間設立這些社區設施。

4. 重建區重建後設立兩層的商舖是不切合當區的環境，因為區內商舖均在地下，如果商舖設在二樓人流將會十分低，不合符效益。而且依據市建局的社會評估影響報告，只有三戶是業主自行經營的店舖，相信重建十年後店舖的營運者要求原址經營的需求不高，因此應取消兩層商舖位置設計，將這些樓宇面積改為設立社區設施。

5. 重建後的樓宇內設地庫停車場十個車位，這也是沒有必要的。第一，該停車場入口設計在皇后大道西一個彎位，易生危險。第二，十個車位也未能滿足住戶的需求（如果有需要的話）。其實，重建區十分鄰近西營盤地鐵站出口，居民出入區內外已經十分方便，因此建議取消十個車位的設計，將位置用作社區設施。

6. 過去垃圾站對附近的居民造成滋擾，而居民也憂慮重建的垃圾站高度會影響金裕大廈低層的住戶。要求未來設計的垃圾站的高度不應高於現有的垃圾站，而垃圾站的通風系統的出口也不應該面對金裕大廈或附近的大廈居民。

7. 重建的建築物不應過高，應限制樓宇的高度，以免影響附近居民的景觀。

甘乃威
中西區區議員

2018年5月29日

本人是皇后大道西 [REDACTED] 的業主，知悉市建局即將展開皇后大道西／賢居里重建項目，由於本人的樓宇已經建成 50 年，樓宇的狀況甚差，如要維修樓宇花費甚高。如果城規會考慮將本人居住的樓宇納入與皇后大道西／賢居里重建項目一併重建，相信更能改善社區環境，合符公眾的利益。

此致
城市規劃委員會

皇后大道西 [REDACTED]

業主姓名： 王美順

簽名： [Signature]

日期： 23/5/2018

中西區區議會



CENTRAL & WESTERN DISTRICT COUNCIL

檔 號： C&WDO
電 話： 2852 3550
傳真號碼： 3691 8024 / 2542 2696

香港中環統一碼頭道 38 號
海港政府大樓 11 樓

電郵及傳真信件 (共 6 頁)
(傳真信件：2877 0245 / 2522 8426)

城市規劃委員會
甯漢豪主席及各委員

甯主席及各位委員：

市區重建局在中西區的项目匯報 —
皇后大道西／賢居里發展計劃 (C&W-006)

中西區區議會曾於二〇一八年五月十一日舉行的第十四次會議上，討論「皇后大道西／賢居里發展計劃 (C&W-006)」的文件。席間，本會議員表達了不少意見。現隨信附上本區議會對有關計劃提出的意見(見會議紀錄擬稿)，以供貴委員會參閱。如有任何查詢，請聯絡本會秘書楊顯珊女士(電話：2852 3550)。

中西區區議會主席



葉永成

附件：

中西區區議會第十四次會議記錄擬稿(節錄)

副本分送 (以電郵傳送)：

市區重建局 規劃及設計總監

區俊豪先生

二〇一八年五月二十八日

8

中西區區議會
第十四次會議紀錄

(擬稿)

日期：二〇一八年五月十日(星期四)

時間：下午二時三十分

地點：香港中環統一碼頭道 38 號
海港政府大樓 14 樓
中西區區議會會議室

出席者：

主席

葉永成議員,BBS,MH,JP (下午 2 時 30 分至下午 5 時 47 分)

副主席

陳學鋒議員,MH,JP*

議員

陳捷貴議員,BES,JP (下午 2 時 30 分至下午 6 時 02 分)

陳財喜議員,MH (下午 2 時 30 分至下午 6 時 17 分)

鄭麗琼議員 (下午 2 時 32 分至會議結束)

張國鈞議員,JP (下午 4 時 08 分至下午 4 時 54 分)

許智峯議員 (下午 2 時 30 分至下午 4 時 53 分)

甘乃威議員,MH*

李志恒議員,MH*

盧懿杏議員,MH (下午 2 時 30 分至下午 3 時 47 分及
下午 4 時 52 分至會議結束)

伍凱欣議員*

吳兆康議員*

楊開永議員*

楊學明議員*

楊哲安議員*

註： * 出席整個會議的議員
() 議員出席時間

第 5(ii)項及第 6 項

區俊豪先生

市區重建局 規劃及設計總監

關以輝先生

市區重建局 規劃及設計總經理

列席者：

呂錦豪先生

香港警務處 中區指揮官

梁彥文先生

香港警務處 警民關係主任(中區)

曾立權先生

土木工程拓展署 高級工程師/8(南)

李子華先生

食物環境衛生署 中西區環境衛生總監

林婷婷女士

康樂及文化事務署 中西區康樂事務經理

梁國民先生

運輸署 高級運輸主任/中西區

黃何詠詩女士,JP

中西區民政事務專員

王雪兒女士

中西區民政事務助理專員

莫智健先生

中西區民政事務處 高級行政主任(地區管理)

卜憬珣女士

中西區民政事務處 一級行政主任(區議會)

秘書

楊穎珊女士

中西區民政事務處 高級行政主任(區議會)

常設事項

第 5 (ii)項：市區重建局在中西區的项目匯報 — 皇后大道西／賢居里發展計劃 (C&W-006)

(中西區區議會文件第 47/2018 號)

(下午 4 時 52 分至 5 時 17 分)

第 6 項：關注市區重建局的皇后大道西／賢居里發展計劃

(中西區區議會文件第 51/2018 號)

1. 主席表示兩份相關文件將會進行合併討論，並歡迎市區重建局(市建局)代表出席會議作出簡介。

2. 市區重建局規劃及設計總監區俊豪先生表示，市建局於本年 3 月 16 日就開展本發展計劃刊登憲報，並即日在發展計劃範圍內進行凍結人口調查。於 3 月 22 日，市建局舉辦了公眾簡佈會，為受影響的業主、租客及持份者，解釋有關重建計劃的內容及收集公眾意見。本發展計劃是根據《市區

重建局條例》第 25 條進行，與「崇慶里／桂香街」發展項目根據《市區重建局條例》第 26 條的規劃程序有所不同，因當中涉及土地用途的改變。是次計劃並非只是進行舊樓重建，而是依據 2011 年《市區重建策略》，履行市區更新的主要目標，包括重整和重新規劃、確保土地用途能互相配合及以園林景觀和城市設計美化市容等，使土地用途配合得更好，譬如改善垃圾站的位置和提高公園的可達性。一如之前展開的「崇慶里／桂香街」發展項目，把崇慶里兒童遊樂場的可達性提高，改善城市設計。市建局在構思本發展計劃時亦有相同的想法，並且希望可以改善公共空間，從而使相關設施更為切合社區的需要。區先生補充，上址現時有一個被一排舊樓遮擋的足球場，毗鄰設有一個已運作二十多年的垃圾站，相關設施有待改善。市建局期望在進行重建時能夠改善樓宇和公共空間的設計，並使皇后大道西能直達公園，以及把垃圾站融入新建築物之內，從而改善整體空間的運用，亦藉此機會改善垃圾站。除了把垃圾站融入計劃的大廈內，亦可安裝新的設備以進行減臭和改善排氣，以及可以考慮進行天台綠化。整個計劃涉及 12 個街號，在完成的第二階段社會影響評估報告中，共訪問了 38 個住戶和 12 個商舖的營運者。發展計劃只會興建一棟提供中小型單位的住宅樓宇，高度將會根據城市規劃委員會(城規會)在該地帶原有及附近的高度限制之內。計劃並預留部份非住宅的樓面面積，考慮供具地區特色商店，例如售賣中藥有關用途的店舖使用。由於本發展計劃只是剛剛展開，如果計劃在獲得批准推行後，市建局將會考慮安排讓有關商戶返回原址營運，但就發展計劃進行期間如何處理有關商戶的營運安排，則需要再作研究。就發展計劃的公共空間方面，範圍將會包括一個五人足球場，而該足球場將不會計算入地積比率之內，此外亦會提供不少於現有面積的公共空間。就發展計劃的規劃程序方面，市建局已於 3 月 16 日將發展計劃草圖及第一階段社會影響評估報告提交城規會，城規會亦已在 3 月 27 日至 4 月 17 日期間收集公眾意見。市建局在 5 月 2 日已經把第二階段社會影響評估報告提交城規會，而城規會於 5 月 8 日至 5 月 29 日收集公眾意見。市建局在提交相關報告時已把文件上載互聯網供公眾瀏覽，直至城規會開會考慮發展計劃草圖為止。在城規會收集和處理所有意見之後，城規會將會決定何時把市建局的發展計劃草圖，根據《城市規劃條例》第 5 條的規定作為期兩個月的公眾諮詢。當完成所有法定規劃程序和公眾諮詢後，城規會將會把發展計劃草圖，交由行政長官會同行政會議批准，相關程序一般需時 18 個月或以上。待有關批准後，市建局才能向受影響的業主提出收購建議。

3. 主席請各位議員發表意見。各議員的發言重點如下：

- (a) 甘乃威議員表示曾參與數次居民會議，以聽取居民的意見，總括來說居民對發展計劃有以下意見，第一是居民認為有需要保留計劃將會拆卸的五人足球場。第二是從圖則顯示，計劃只是重置其中一半的李陞街遊樂場，餘下隔着修打蘭街的另一半李陞街遊樂場則不會

進行重質。甘議員表示如果市建局希望優化公園，便應該分階段把整個公園一併作出改善，在優化期間仍然能提供部份公園地方繼續供市民使用。第三是有關垃圾站方面，根據圖則居民發現重建後的垃圾站將有三層，而現時的垃圾站則只有一、兩層高，所以毗鄰垃圾站的金裕大廈低層住戶對加高垃圾站存有意見，因此希望市建局可以把垃圾站的高度減低。第四是發展計劃內預留了十個車位，以及兩層商舖，就此甘議員認為十個車位只是杯水車薪，對二百個單位來說是並不足夠，用處有限，因此建議善用相關位置。此外，甘議員指出上址在晚上六、七時後使人跡罕至，在該處的二樓設置商舖沒有意義，日後亦只能作儲物室之用。甘議員表示不反對在該處設有數間地舖，但在二樓開設商舖是沒有必要，所以建議在樓上加設安老院舍，並指出若在重建時不加建安老院舍，日後亦難以在區內設置安老院舍。甘議員亦表示根據第二階段社區影響評估報告，在受訪的 12 個商戶中，只有三個商舖作為自用及五個商戶預計會於同區經營，認為商戶不可能等候十年之後在 2027 年把商舖搬回上址。

- (b) 楊學明議員表示在聆聽市建局的簡介和與居民開了數次會議後，希望向市建局反映意見，他指除了甘乃威議員剛才提及的意見外，亦關注重建計劃後的樓宇的樓層會阻擋附近大廈的景觀，希望市建局在進行重建時能把樓宇座向的設計做好，避免與附近大廈如金裕大廈的距離太過接近。除了重質五人足球場之外，楊議員建議可以加大休憩空間和在公園內加設長者設施，例如把地舖的空間縮小以騰出更多公共空間供市民使用。他亦反映居民希望把整個李陞街遊樂場一併進行重建，使設施配套更為完善。
- (c) 鄭麗琼議員表示自從西營盤港鐵站啟用後，吸引了市建局在該區進行重建。她指出區內的足球場數量有限，在重建項目進行期間區內將會缺乏足球場設施，區內亦沒有其他足球場可以作為代替。由於該足球場深受市民歡迎，因此不希望足球場被納入重建範圍內，並希望將來的休憩用地和設施的設計能更創新。此外，鄭議員希望市建局研究在地底興建垃圾站和供社區使用的停車場，達至地盡其用。此外，她表示於該處興建安老院舍較設置商舖更為適合，並表示區內有很多長者很急切尋找安老院舍宿位，認為市建局在進行重建時應該把從社區收集到的土地用於社區。
- (d) 吳兆康議員表示認同鄭麗琼議員的意見，指出區內的運動設施不足，李陞街遊樂場五人足球場與卜公花園七人足球場起着互補作用，因此希望保留李陞街遊樂場五人足球場，並認為發展計劃除了要落實足球場重質之外，亦要確保將來的足球場適合居民使用。

4. 市建局區先生回覆議員的意見，他理解議員對李陞街遊樂場五人足球場的關注，表示在計劃開始之前曾與相關政府部門商討，如得到議會支持，期望藉此發展機會提供區內公園所需設施，例如是長者設施或足球場，市建局願意在本計劃獲得批准之後，以活化方式分階段改善公園，以及配合將來連接公園的通道。參考以往百子里和閣麟街等個案的例子，市建局期望與有關政府部門包括民政事務處、康樂及文化事務署和食物環境衛生署，聯同區議會成立專責督導小組推行有關活化美化計劃。由於本計劃獲批需時，落實尚有一段時間，市建局期望在計劃獲得批准後，與區議會及民政事務處跟進相關事宜，就活化美化公園的範圍及細節可以再作討論。由於完成後的公園將交由康樂及文化事務署管理，屆時局方需與署方討論有關細節，而垃圾站亦須配合食物環境衛生署以供使用。回應有關興建地底垃圾站的建議，區先生表示不排除將來有機會實行，但現階段就設施的設計須符合食物環境衛生署的要求和現行的標準，他指發展計劃現時尚在初步的規劃程序，任何設施的細部設計須待計劃獲得批准後才能作進一步研究。回覆有關取消停車場的意見，區先生表示運輸署對任何發展項目須提供最少車位數目設有既定的標準，市建局須滿足相關標準的要求。回應有關在二樓取消商店的意見，區先生表示在進行第二階段社會影響評估之後，也發現商戶對返回原址經營的興趣不大，並表示由於市建局尚未開始進行收購，對於考慮預留多少地方予具地區特色的商戶返回繼續經營，仍然言之尚早，當發展計劃獲得批准後，屆時可與議會再作討論。此外，市建局亦會研究把一些樓面面積交給非政府機構營運社區設施，他希望可以作出平衡。區先生表示由於城規會現時正就計劃進行公眾諮詢，建議議員可考慮把相關意見提交城規會。

5. 甘乃威議員指出未來的安老院舍供應十分短缺，期望市建局在所有重建項目均考慮加設安老院舍，並建議主席把會議紀錄的有關部份提交城規會，以反映區議會的意見。此外，甘議員表示未得悉市建局就會否把整個李陞街遊樂場一併發展提供回覆，希望市建局確實告知議會，並作出承諾。

6. 李志恒議員表示既然項目涉及重置一個垃圾站的規劃，詢問市建局可否考慮在設施內處理廚餘收集，並指出香港的太廈缺乏廚餘收集設施，如果能夠在市建局的樓宇內率先推行，可以作示範作用。

7. 市建局區先生回覆表示市建局會考慮在其他地區的项目研究處理收集廚餘的設施。回覆甘乃威議員的提問，區先生表示如果項目在獲得批准之後，市建局希望成立專責小組再作討論，若屆時認為有需要把李陞街遊樂場一併活化美化，市建局是可以作出配合。

8. 主席表示將會把會議紀錄提交城規會，並結束相關議題的討論。

寄件者: tsz kwan [REDACTED]
寄件日期: 29日05月2018年星期二 23:36
收件者: tpbpd@pland.gov.hk
主旨: 皇后大道西/賢居里：就第二階段社會影響評估報告提出意見(大道西/賢居里重建項目居民組)

名稱：大道西/賢居里重建項目居民組

聯絡人：梁耀石先生

通訊地址：[REDACTED]

意見詳情：

- 1) 希望可以藉著重建項目，改善西營盤交通擠塞問題；
- 2) 賢居里垃圾站重置後，設施更為現代化，改善噪音及臭味等問題，或將垃圾站遷至海皮地帶；
- 3) 於公眾休憩用地增設長者健體設施。

tpbpd

寄件者: G Tang
寄件日期: 29日05月2018年星期二 23:49
收件者: tpbpd@pland.gov.hk
主旨: Comments on SIA2 of URA C&W-006

If possible, please kindly confirm receipt of this comment form.

To: Secretary, Town Planning Board
15/F, North Point Government Offices
333 Java Road, North Point, Hong Kong

Fax: 2877 0245 or 2522 8426
Email: tpbpd@pland.gov.hk

Comments on Planning Application

Reference No.

Date Received: 2018-05-29

The application no. to which the comment relates:
URA C&W-006 - Queen's Road West / In Ku Lane

Details of the Comment:

Dear Sir/Madam:

I represent the views of the owner of the ground floor non-domestic premises at 135-139 Queen's Road West. I bring to your attention several points regarding the Urban Renewal Authority's Draft Development Scheme Plan C&W-006 for Queen's Road West / In Ku Lane (the Scheme). It appears the Urban Renewal Authority (URA) is too involved with satisfying domestic tenants and business operators within the Scheme boundary, and neglecting the views of other affected members of the community.

My father rebuilt this property in 1967 from land he inherited from his grandmother in the 1950s. The building is a part of the family legacy, and also a reminder of the hardships that my family went through during the 1967 riots. Fifty-one years later, the building remains in satisfactory condition, much better than other buildings in the vicinity; its structural integrity should remain sturdy for many years of use to come.

It seems to me that the HKSAR government, Urban Renewal Authority (URA), and Town Planning Board (TPB) do not consider non-occupier/operator property owners to have a stake in the redevelopment process. Owners who are not occupiers were not surveyed, not having the ability to take part in the Social Impact Assessment questionnaire. Their views on redevelopment were not taken into account. I urge the URA and TPB to gain the views of non-occupier/operator property owners about this Scheme.

The URA's current policy on acquisition compensation (resumption) through monetary means is inadequate. Property, not money, is gold. If the scheme were to move forward, I prefer to be compensated with property, such as a direct exchange for another property (shop-for-shop) in the same neighborhood or in the future development, and may include the rights of first refusal or first offer.

If the URA were to compensate the owner through paying cash, the owner is still subject to taxes. These taxes would be applied unfairly if the owner were to accept, not of his own free will, the URA's offer

Because of potential pressure from the use of the Lands Resumption Ordinance (Cap. 124). Some methods of tax exemption would be welcome, similar to the terms offered to owner-occupiers of domestic premises.

I also take issue with many points regarding the public open space and refuse collection point (RCP).

Oddly enough, unlike the privately-owned buildings in the Scheme, the Building Age, Building Height, and Building Condition of the RCP structure are not given in Plans 4, 5, and 6, respectively, of the Planning Report. Shouldn't the characteristics of the RCP be taken into equally-weighted consideration just like the private buildings? Even though residents may complain about foul smells from the RCP, it is not fair-minded of the URA to propose demolishing the private structures but to only superficially improve the public structure within the Scheme.

Under paragraph 37(m) of the Urban Renewal Strategy (URS), the URA is to identify the potential social impact of the Scheme in Stage 2 of the Social Impact Assessment (SIA2). The views of the Food and Environmental Hygiene Department (FEHD), Leisure and Cultural Services Department (LCSD), nor the neighbors who would be considered the clients of the FEHD and LCSD have their views represented in the SIA2 report. The tenants in the adjacent buildings have commented on constant use of the football field, citing the difficulty in booking the field through LCSD. I encourage the URA and TPB to seek from LCSD the reservation data for that field.

The URA is going against the spirit of the statutory regulations in creating a special zoning subcategory for the sole purpose of this Scheme, making provisions for the RCP and public open space in the remarks, rather than retaining the existing zoning requirements. I respectfully believe that the URA is omitting the true purpose of the public open space: to reduce the negative impacts of the RCP on residents.

The URA proposes to rezone the Scheme area as "Residential (Group A) 23" use. The remarks section states:

"A public open space of not less than 538m² shall be provided for public use. The public open space shall not be used for GFA/plot ratio calculation" (Development Scheme Plan No. S/H3/URA3/A to amend Statutory Plan (Outline Zoning Plan) S/H3/31).

I believe that the stated intention of the Scheme to "open up the land-locked open space through reconfiguration of various land uses. A new public open space of about 538 square metres ... will be provided, enhancing the accessibility and connectivity of the playground and improved neighbourhood walkability" is poor reasoning for the URA to specifically add the arbitrary 538 square metres of open space in the new zoning requirements. The existing six passageways are more than sufficient. Adding a seventh entrance to the playground area is superfluous; it is ridiculous to have seven entrances spaced every 40 meters to a 3000 square meter, 248-meter-long perimeter recreational area. (This would be equivalent to suggesting that seven equally-spaced public entrances should be installed at the ground floor of the General Post Office in Central. The General Post Office shares similar dimensions as Li Sing Street Playground.) The construction of the additional passageway reduces the possible net floor area available for use in the neighborhood.

I disagree with the URA's plan to rezone the "government refuse collection point cum a public toilet" from the current zoning of Government, Institution or Community (G/IC) to Residential (Group A) 23. Although permitted under Column 2 of Residential (Group A) ("R(A)") zoning, it is contrary to the stated planning intention. The RCP should retain its zoning of G/IC because it serves not only the needs of residential users, but also the commercial users in the wider Central & Western District (Statutory Plan (Outline Zoning Plan) S/H3/31).

Lastly, if a carpark were to be built, the current design seems to be rather small. Ten carpark spaces is quite few, especially considering that there is also a shortage of spaces in Central and Western District. Since a car lift is already proposed for the Scheme, I would like the consultants to consider (1) adding

Another floor of basement car park spaces and (2) extending the car park under the public space and playground, and submit an addendum to the Traffic Impact Assessment Report.

Should you have any questions or comments, please do not hesitate to reach out.

Regards,

Name of person making this comment: Grace TANG

Signature: Grace Tang

Date: May 29, 2018

Particulars of Commenter

Postal Address:

Tel No.

Fax No.

E-mail address:



Comments to Queen's Road West/ In Ku Lane Development Scheme

To whom it may concern,

URA's Proposal (Scheme 1)

There are multiple drawbacks of URA's current proposal. One of the major issues is the building separation. The distance between the new tower and existing tower is just around 10m, this is a very awkward planning strategy, it doesn't only degrade the quality of the new development, the quality of the existing neighbourhood is also greatly affected.

Such short building separation would impede natural wind flow around the site, further enhance the heat island effect, degrade the daylighting quality at the buildings as well as at the street level. Moreover, the view from the new development is also greatly restricted by the surrounding buildings.

Our Suggestion (Scheme 2)

By location the new tower to the west end, a more reasonable building separation can be maintained. The big "screen wall" effect can be greatly reduced. Natural wind flow, daylighting quality around the site can be maintained. The new development can also capture an unobstructed view towards King George V Park at its south.

The public access towards the playground can be done by elevating the base of the tower, a shaded public leisure space can be created, which is much more useful and favorable to the public than a bare open-air space, especially during summer and rainy season. Similar example can be found at Island Crest.

Attached is a series of study we conducted with architectural and planning professionals. We urge the Town Planning Board & URA to reconsider the whole development layout plan based on our suggestion (Scheme 2).

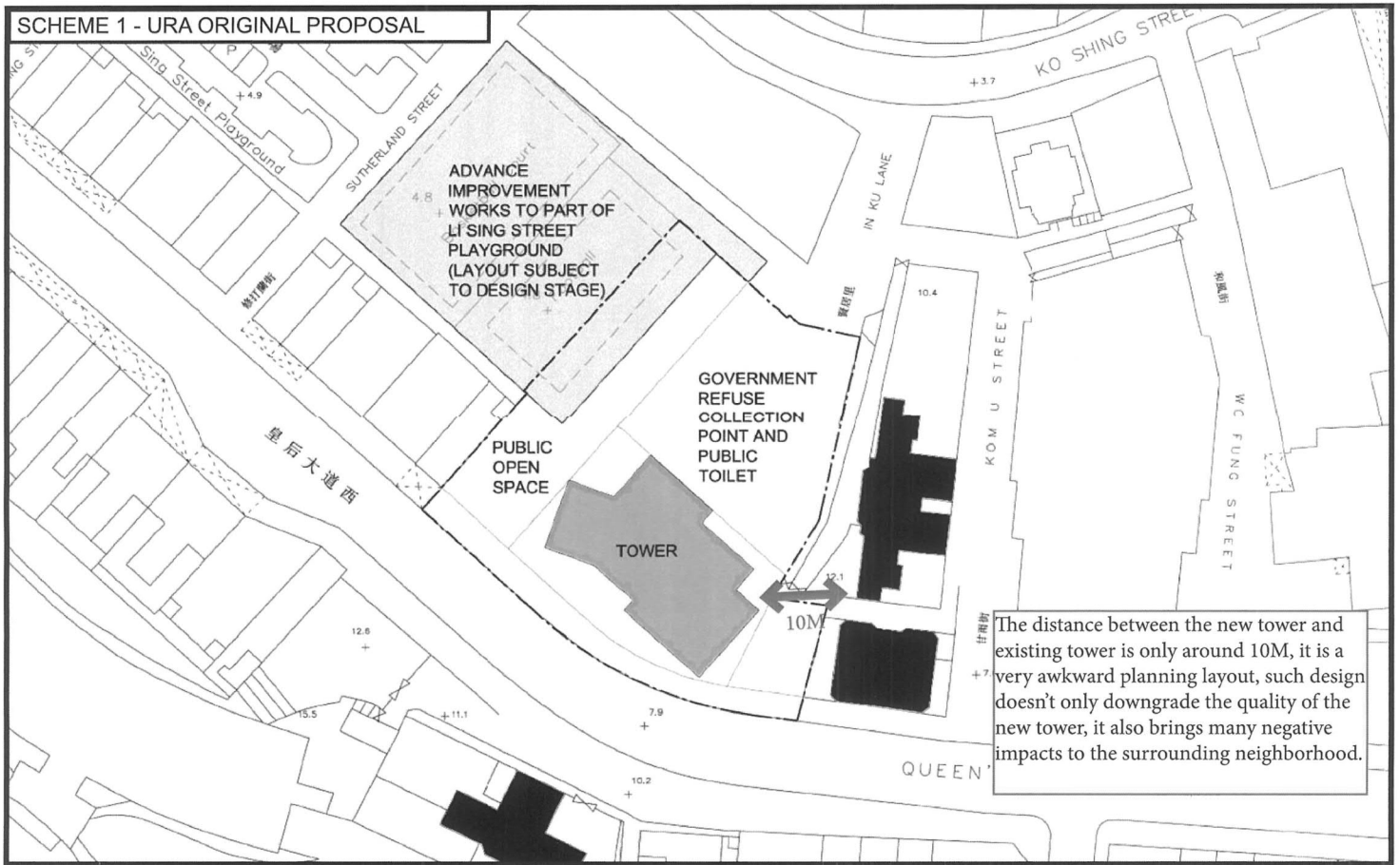
Regards,

Ben Chan

Representative of Queen's Road West/ In Ku Lane Development Concern Group

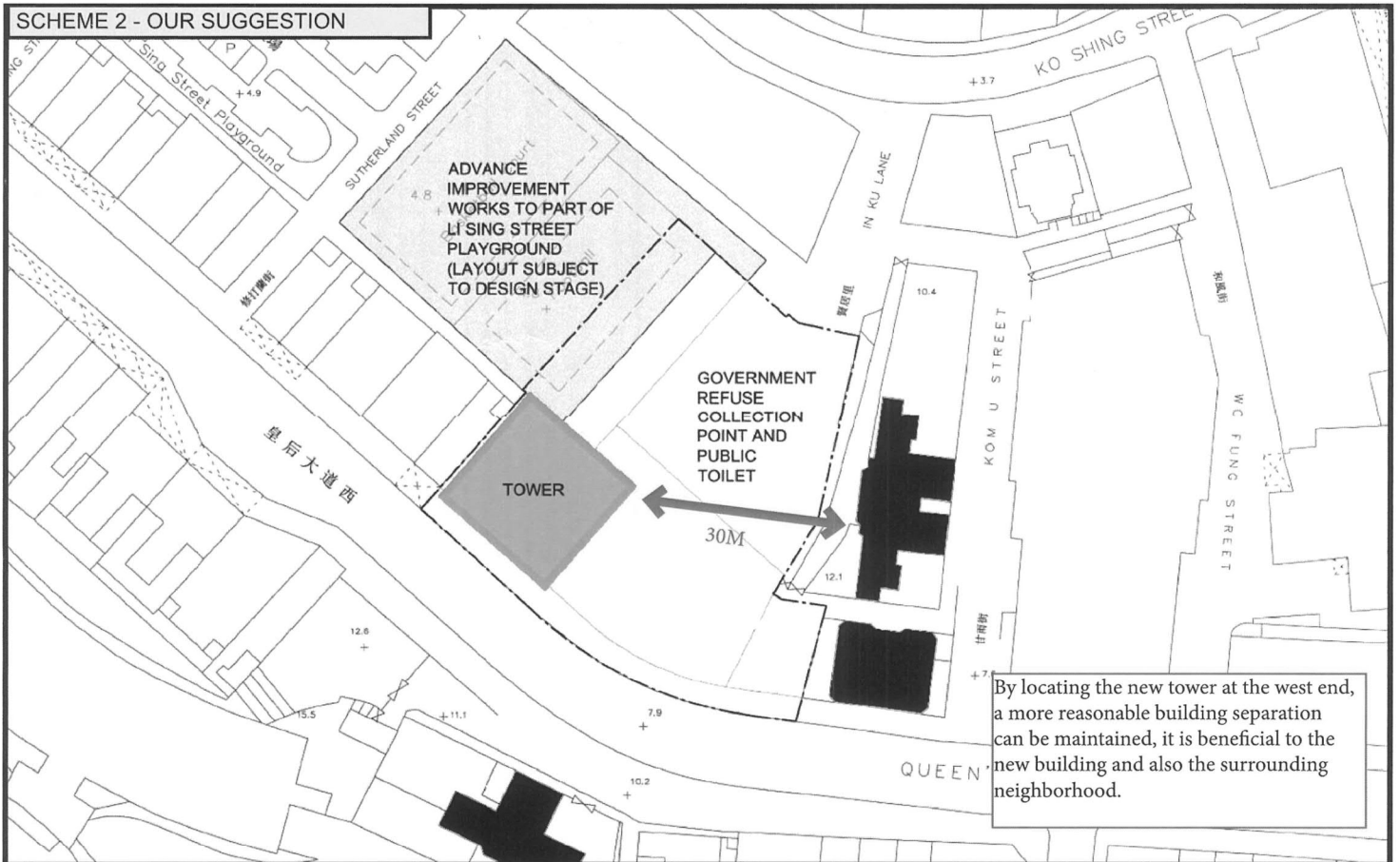
[Redacted Signature]

SCHEME 1 - URA ORIGINAL PROPOSAL

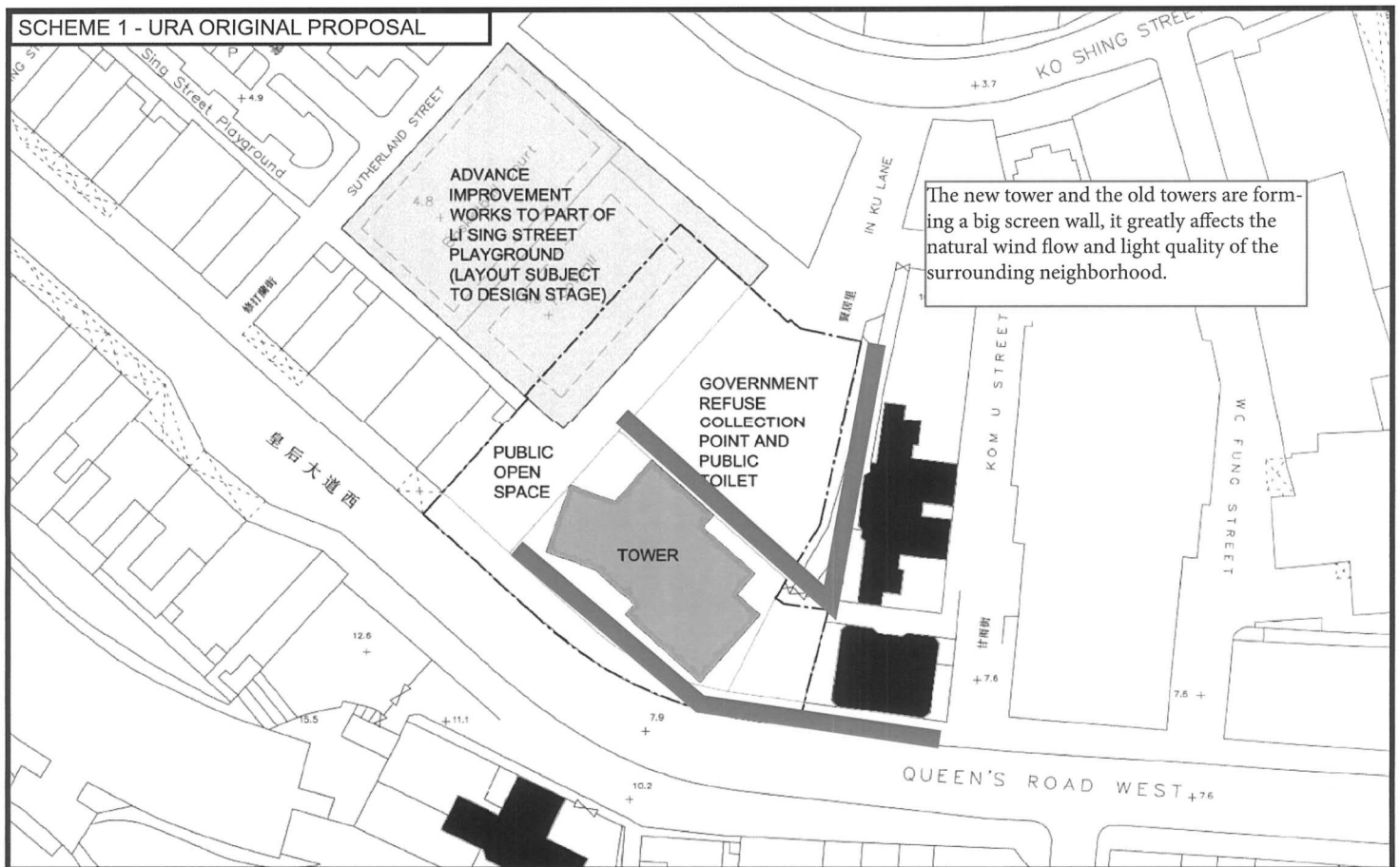


■ SURROUNDING TALL TOWERS

SCHEME 2 - OUR SUGGESTION

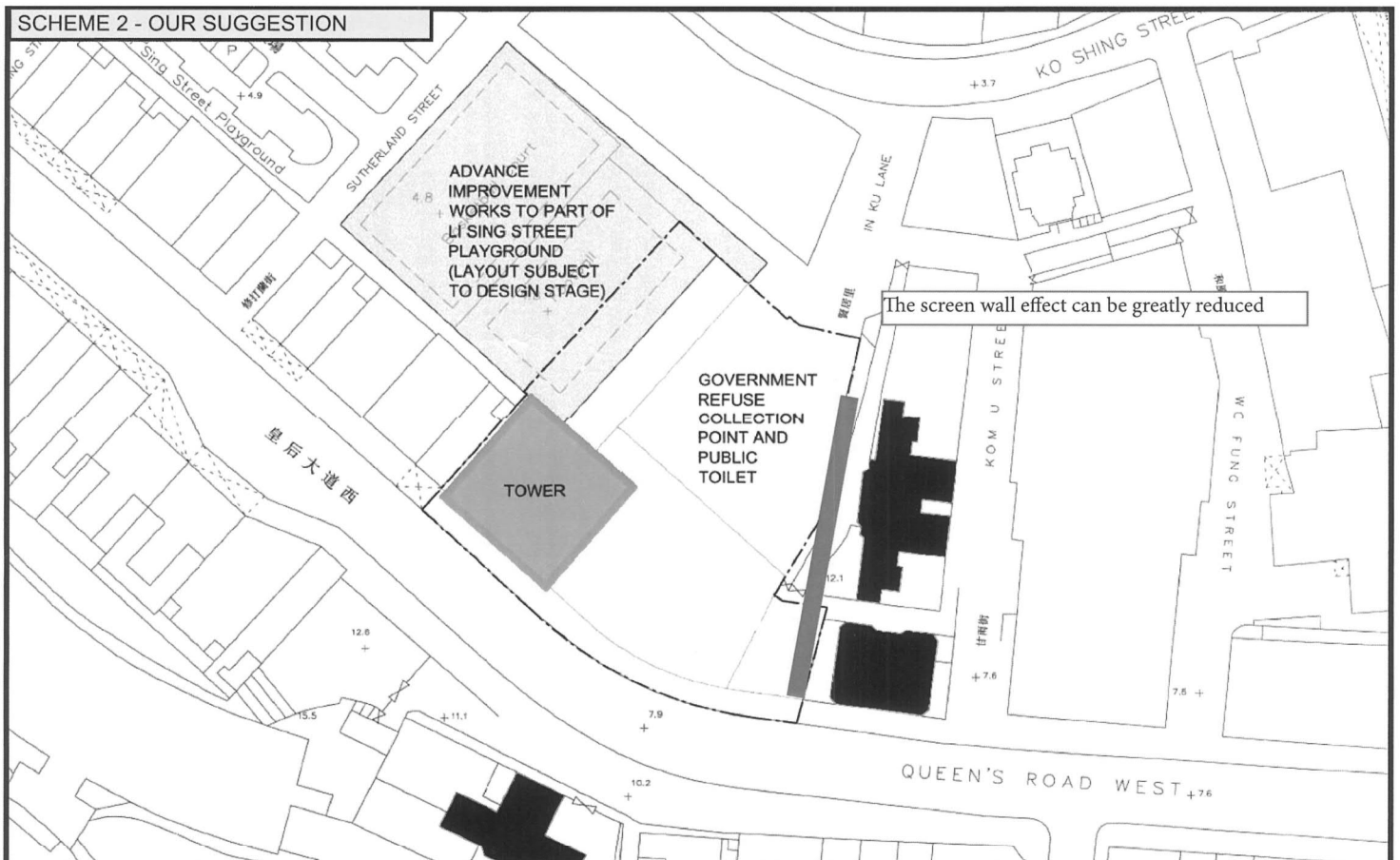


SCHEME 1 - URA ORIGINAL PROPOSAL

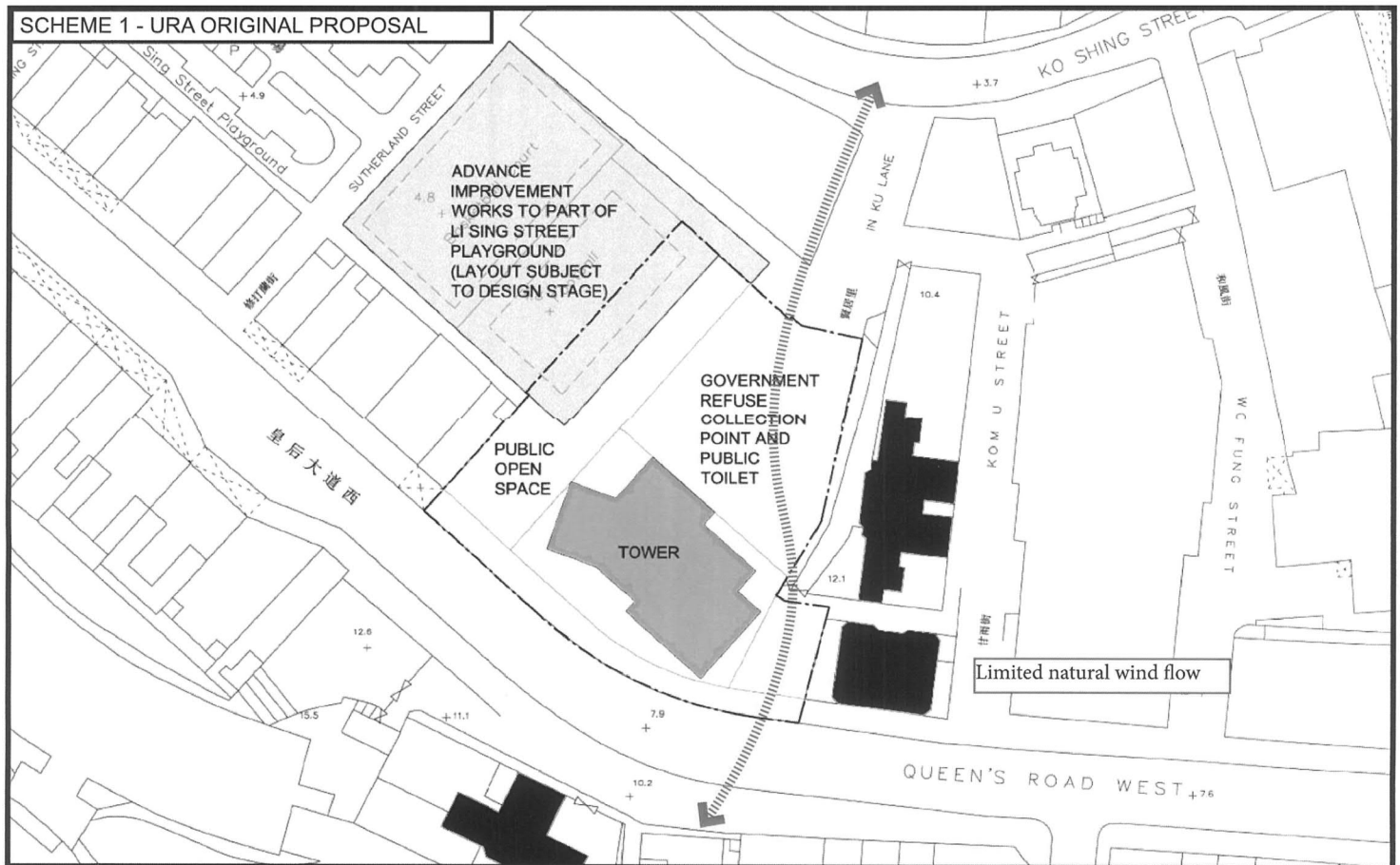


■ SURROUNDING TALL TOWERS

SCHEME 2 - OUR SUGGESTION

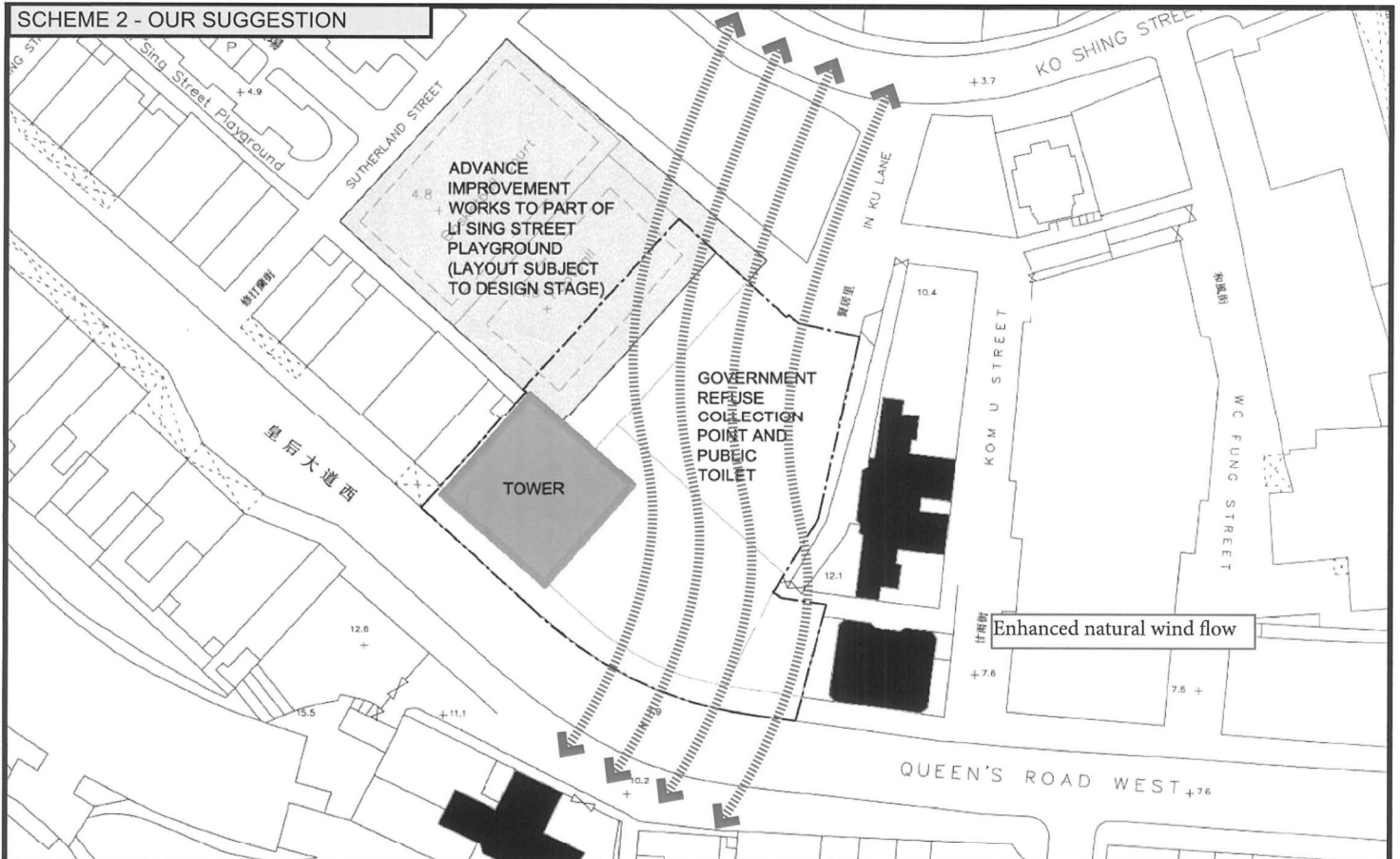


SCHEME 1 - URA ORIGINAL PROPOSAL

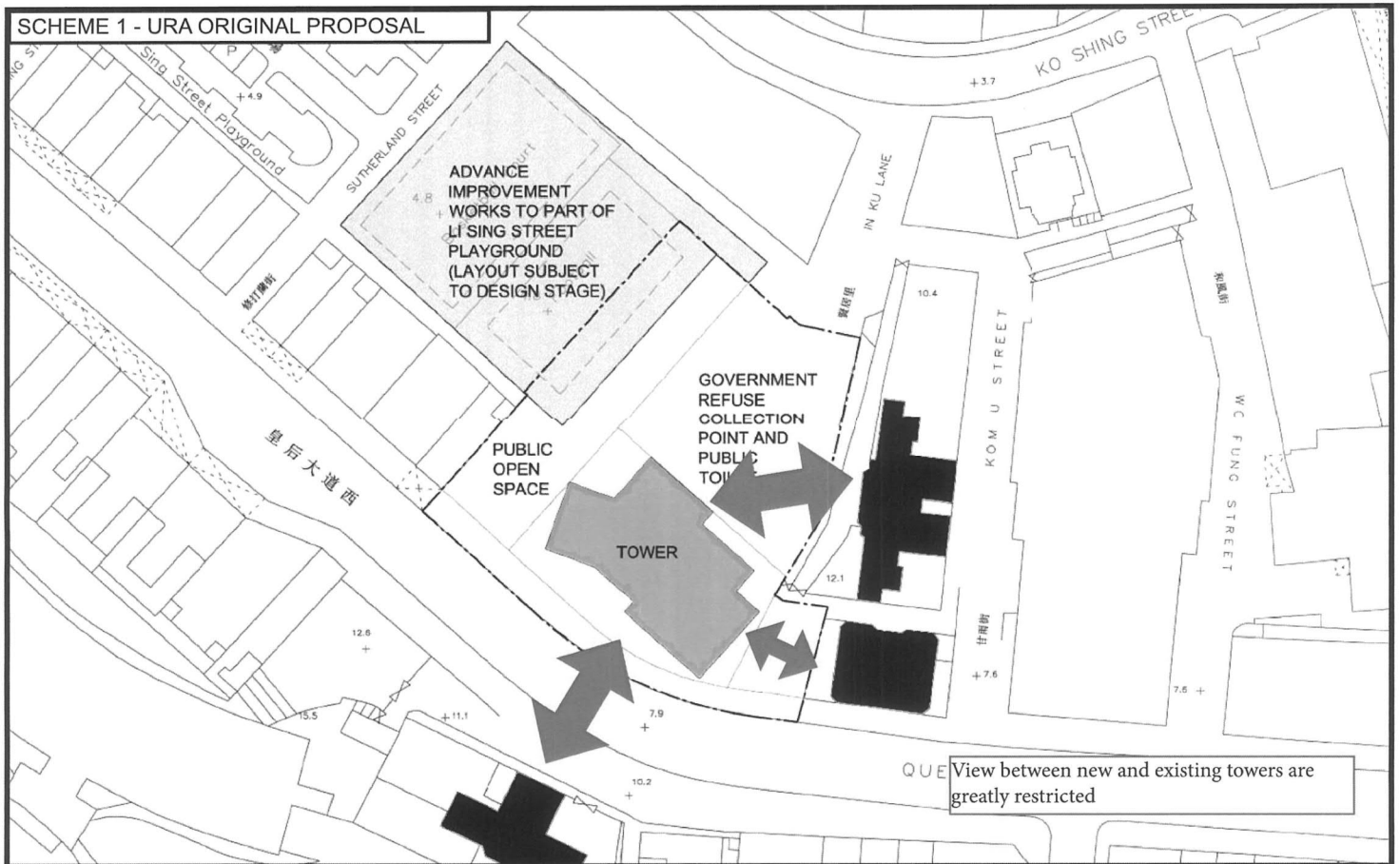


SURROUNDING TALL TOWERS

SCHEME 2 - OUR SUGGESTION

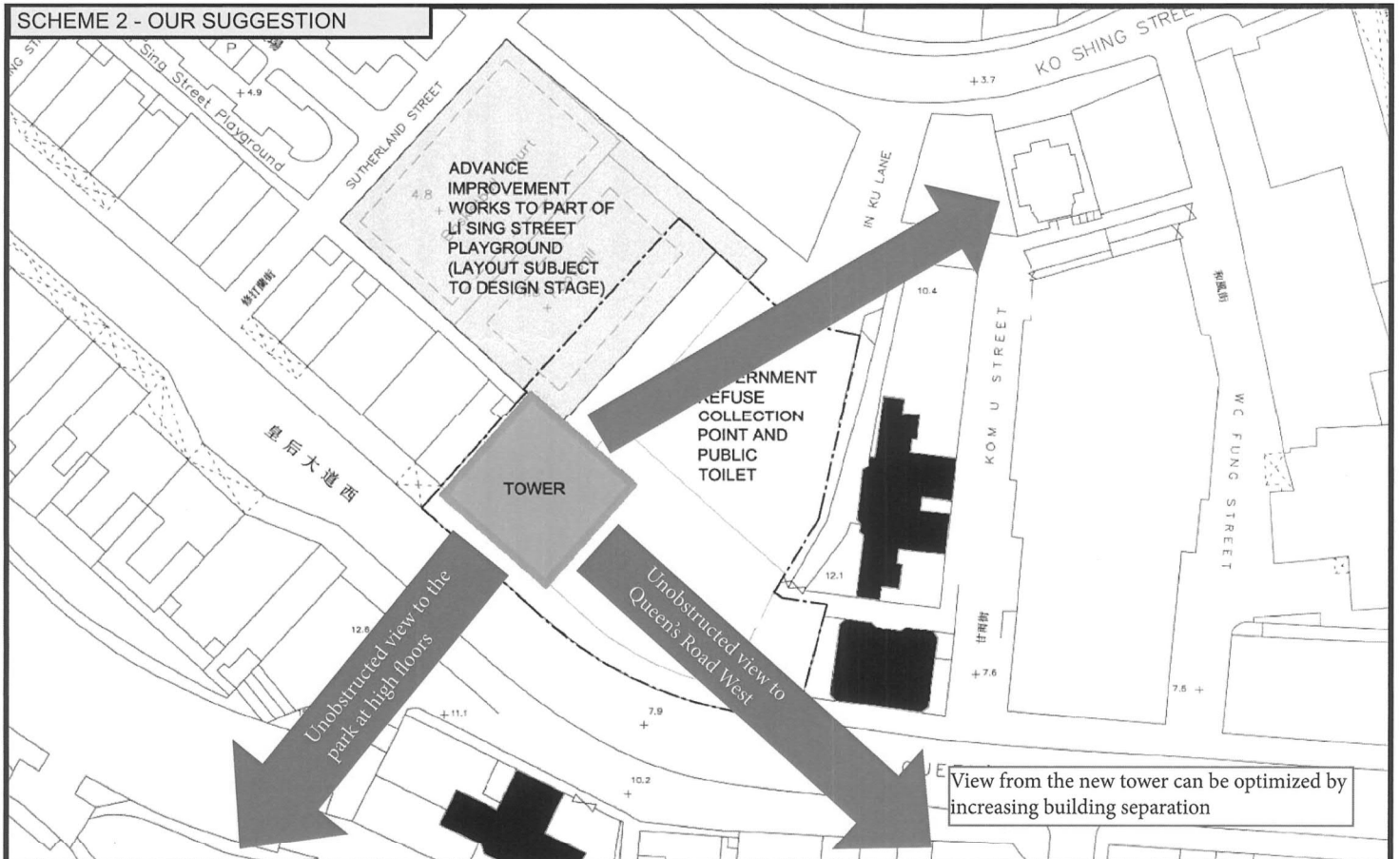


SCHEME 1 - URA ORIGINAL PROPOSAL

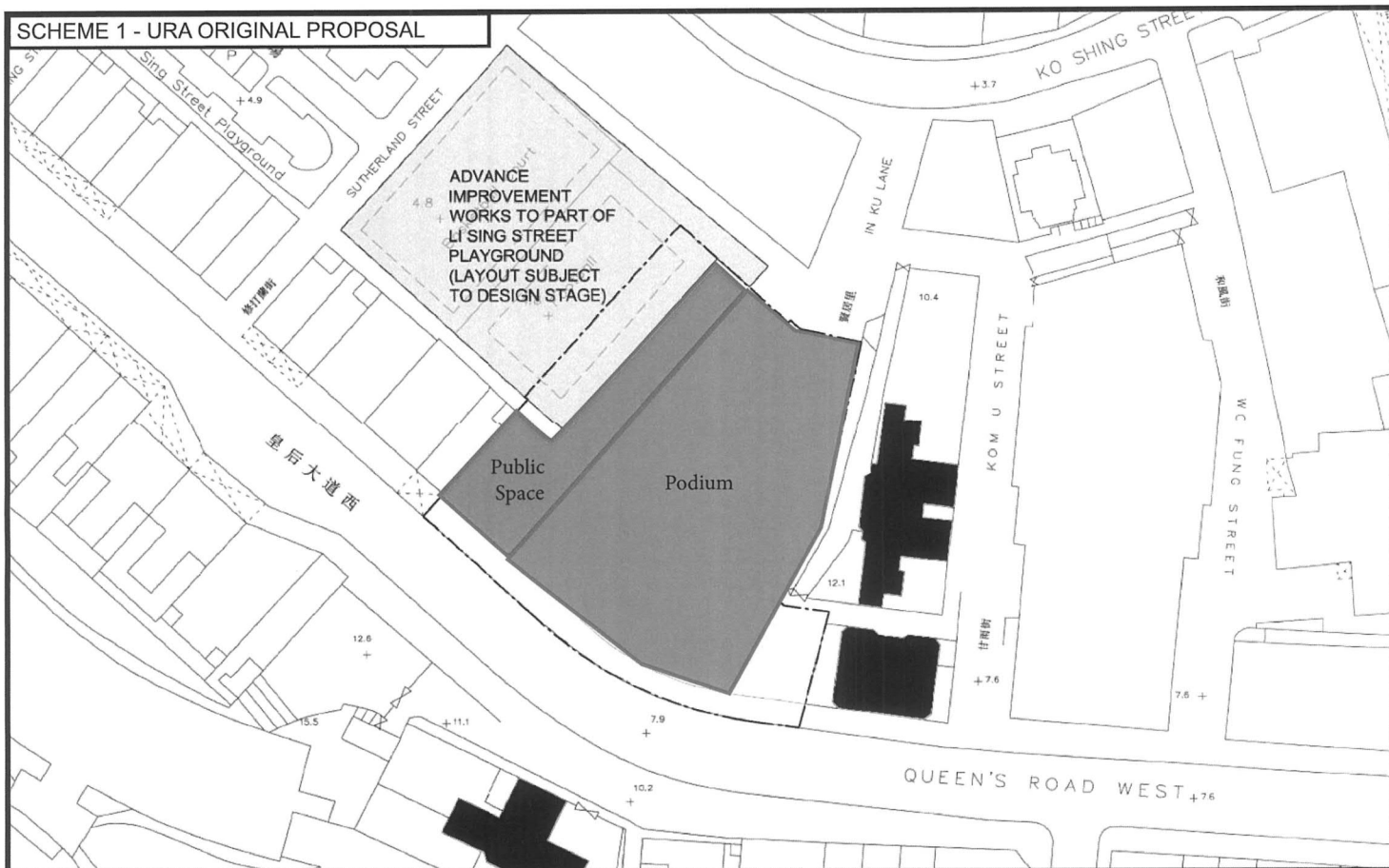


SURROUNDING TALL TOWERS

SCHEME 2 - OUR SUGGESTION



SCHEME 1 - URA ORIGINAL PROPOSAL



■ SURROUNDING TALL TOWERS

SCHEME 2 - OUR SUGGESTION



Island Crest Covered Public Space

ADVANCE
IMPROVEMENT
WORKS TO PART OF
LI SING STREET
PLAYGROUND
(LAYOUT SUBJECT
TO DESIGN STAGE)

Covered
Public
Space

Podium

The tower base can be elevated, leaving the ground level open as public space, the tower can provide shading for the public space, and forms a gateway to the park behind. Similar example can be found at Island Crest.

A shaded public space is much more useful and favorable to the public than a bare open-air space especially during summer and rainy season.

Tower

Covered
Public
Space

Podium

Section A

SCHEME 1 - URA ORIGINAL PROPOSAL



SCHEME 2 - OUR SUGGESTION



附件一

| |
|-------------------------|
| URBAN RENEWAL AUTHORITY |
| RECEIVED |
| 20 APR 2018 |
| 432494 |
| CENTRAL MAILING |

您好!本人梁煊是皇后大道西 137 號 字樓的業主。對市建局公佈期內，任何人如認為對他/她將會受有關發展項目所影響，反對該項目的建議有保留?本人不明白 貴局方為何接受那些人的意見作準則?如果接受甘雨街金裕大廈的住客建議的?這項目一定不能發展，因為多少會影響金裕大廈的景觀。如果接受重建大廈的業主或住客的意見?這項目會很快進行!第一個理由是大部分業主都超過七十至八十歲或者已將物業轉為兒女名下，如果這項目不能發展?超過七十或八十歲的業主每天就需要繼續上五、六層樓梯。第二個理由是香港可發展的空地已經很少。如果連清拆舊樓、重建新樓等香港多些樓宇供應的項目不能發展?況且該些樓宇都已經超過五十年樓齡。最近該些樓宇還要做消防和電力工程，那些七、八十歲的業主，已經退休，沒有收入，還要付十幾、二十萬元用作樓宇維修、消防和電力工程。所以如果接受該些樓宇業主的意見，百分之一百贊成發展這個項目!

梁煊

18-4-2018

就規劃申請提出意見

Comments on Planning Application

| | | |
|---------------------------------|--------------------|--|
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致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-006)』意見如下：

對 129 至 151 號(單數) 皇后大道西重置無意見

但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街、甘雨街附近居民非常重要，如撤去會帶來嚴重影響。

- 五人足球場
 - 是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心
 - 附近的學校均以此足球場作訓練校隊之用，影響本區發展足球運動
 - 本區人口稠密，樓宇遍佈密集，足球場作為本區重要康樂休憩用地，是附近居民的稀有公共空間，能增加空氣流通，減低溫室效應
- 垃圾房和公廁是附近居民的重要設施，反對收回後要在若干年後才重置，因短期會帶來附近居民不便
- 不需要連接皇后大道西至賢居里賢居里的行人通道，因經李陞街和甘雨街進出也很方便
- 其他：

簽署：

何國明

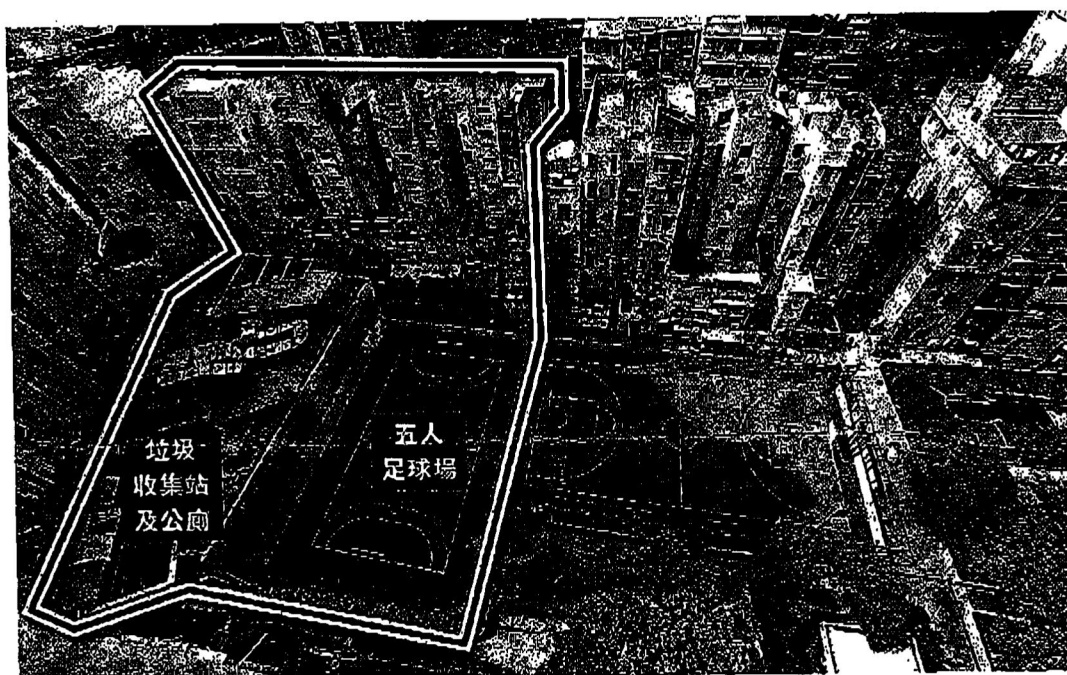
16-4-2018

日期：

致：金雨大廈街坊

本人呂蘭或叫我陳太，是金裕大廈[REDACTED]的業主，3月中市建局宣佈重建上環皇后大道西/賢居里項目，涉及皇后大道西 129 至 151 號、賢居里垃圾收集站及公廁，以及位於李陞街遊樂場內的五人足球場。

重建後將提供一棟約 30 層 200 個住宅單位，內設 3 層商場和 10 個車位的大廈，李陞街遊樂場五人足球場位置，將打通改為行人通道，連接皇后大道西至賢居里，所以李陞街遊樂場五人足球場可能未必保留。



所以我在此作出呼籲，希望大家齊聲向城規會提出意見，反對拆卸李陞街遊樂場五人足球場，本人已撰寫了信件(請參看附頁)，只要簽署及填好背頁資料，傳真或電郵給城規會便可，請大家於 4 月 17 日前向城規提出意見。

另外，甘乃威議員會於 5 月初約市建區來解釋有關重建安排，敬請密切留意。

如有問題，請致電本人 [REDACTED] 聯絡。

謝謝!

[REDACTED] 業主：呂蘭

就規劃申請提出意見

Comments on Planning Application

| | | |
|-----------------------|--------------------|--|
| 請勿填寫此欄 | 檔案編號 Reference No. | |
| For Official Use Only | 收到日期 Date Receive | |

致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

敬啟者：

本人對『皇后大道西／賢居里發展計劃 (C&W-006)』意見如下：

對 129 至 151 號(單數) 皇后大道西重置無意見

但對收回賢居里垃圾收集站及公廁，和李陞街遊樂場內的五人足球場強烈反對，此 3 項設施對賢居里、高陞街、李陞街、甘雨街附近居民非常重要，如撤去會帶來嚴重影响。

- 五人足球場
 - 是附近居民唯一稍具規模的足球場，附近居民在均在此做運動舒展身心
 - 附近的學校均以此足球場作訓練校隊之用，影响本區發展足球運動
 - 本區人口稠密，樓宇遍佈密集，足球場作為本區重要康樂休憩用地，是附近居民的稀有公共空間，能增加空氣流通，減低溫室效應
- 垃圾房和公廁是附近居民的重要設施，反對收回後要在若干年後才重置，因短期會帶來附近居民不便
- 不需要連接皇后大道西至賢居里賢居里的行人通道，因經李陞街和甘雨街進出也很方便
- 其他：如只对 129 至 151 号皇后大道西重置，而不重置隔離的同一排唐樓，根本對環境改善或一体化沒有重大改善。而且建一棟 30 層的住宅樓宇，在垃圾房和足球場，已對金禧大廈造成屏風效應，我絕對反對此建議。

簽署：

林景奎

日期：1-5-2018

Extract of Minutes of C&WDC Meeting on 10.5.2018

第 5 (ii)項：市區重建局在中西區的項目匯報 — 皇后大道西／賢居里發展計劃 (C&W-006)

(中西區區議會文件第 47/2018 號)

(下午 4 時 52 分至 5 時 17 分)

第 6 項：關注市區重建局的皇后大道西／賢居里發展計劃

(中西區區議會文件第 51/2018 號)

49. 主席表示兩份相關文件將會進行合併討論，並歡迎市區重建局(市建局)代表出席會議作出簡介。

50. 市區重建局規劃及設計總監區俊豪先生表示，市建局於本年 3 月 16 日就開展本發展計劃刊登憲報，並即日在發展計劃範圍內進行凍結人口調查。於 3 月 22 日，市建局舉辦了公眾簡佈會，為受影響的業主、租客及持份者，解釋有關重建計劃的內容及收集公眾意見。本發展計劃是根據《市區重建局條例》第 25 條進行，與「崇慶里／桂香街」發展項目根據《市區重建局條例》第 26 條的規劃程序有所不同，因當中涉及土地用途的改變。是次計劃並非只是進行舊樓重建，而是依據 2011 年《市區重建策略》，履行市區更新的主要目標，包括重整和重新規劃、確保土地用途能互相配合及以園林景觀和城市設計美化市容等，使土地用途配合得更好，譬如改善垃圾站的位置和提高公園的可達性。一如之前展開的「崇慶里／桂香街」發展項目，把崇慶里兒童遊樂場的可達性提高，改善城市設計。市建局在構思本發展計劃時亦有相同的想法，並且希望可以改善公共空間，從而使相關設施更為切合社區的需要。區先生補充，上址現時有一個被一排舊樓遮擋的足球場，毗鄰設有一個已運作二十多年的垃圾站，相關設施有待改善。市建局期望在進行重建時能夠改善樓宇和公共空間的設計，並使皇后大道西能直達公園，以及把垃圾站融入新建築物之內，從而改善整體空間

的運用，亦藉此機會改善垃圾站。除了把垃圾站融入計劃的大廈內，亦可安裝新的設備以進行減臭和改善排氣，以及可以考慮進行天台綠化。整個計劃涉及 12 個街號，在完成的第二階段社會影響評估報告中，共訪問了 38 個住戶和 12 個商舖的營運者。發展計劃只會興建一棟提供中小型單位的住宅樓宇，高度將會根據城市規劃委員會(城規會)在該地帶原有及附近的高度限制之內。計劃並預留部份非住宅的樓面面積，考慮提供具地區特色商店，例如售賣中藥有關用途的店舖使用。由於本發展計劃只是剛剛展開，如果計劃在獲得批准推行後，市建局將會考慮安排讓有關商戶返回原址營運，但就發展計劃進行期間如何處理有關商戶的營運安排，則需要再作研究。就發展計劃的公共空間方面，範圍將會包括一個五人足球場，而該足球場將不會計算入地積比率之內，此外亦會提供不少於現有面積的公共空間。就發展計劃的規劃程序方面，市建局已於 3 月 16 日將發展計劃草圖及第一階段社會影響評估報告提交城規會，城規會亦已在 3 月 27 日至 4 月 17 日期間收集公眾意見。市建局在 5 月 2 日已經把第二階段社會影響評估報告提交城規會，而城規會於 5 月 8 日至 5 月 29 日收集公眾意見。市建局在提交相關報告時已把文件上載互聯網供公眾瀏覽，直至城規會開會考慮發展計劃草圖為止。在城規會收集和處理所有意見之後，城規會將會決定何時把市建局的發展計劃草圖，根據《城市規劃條例》第 5 條的規定作為期兩個月的公眾諮詢。當完成所有法定規劃程序和公眾諮詢後，城規會將會把發展計劃草圖，交由行政長官會同行政會議批准，相關程序一般需時 18 個月或以上。待有關批准後，市建局才能向受影響的業主提出收購建議。

51. 主席請各位議員發表意見。各議員的發言重點如下：

- (a) 甘乃威議員表示曾參與數次居民會議，以聽取居民的意見，總括來說居民對發展計劃有以下意見，第一是居民認為有需要保留計劃將會拆卸的五人足球場。第二是從圖則顯示，計劃只是重置其中一半的李陞街遊樂場，餘下隔着修打蘭街的另一半李陞街遊樂場則不會進行重置。甘議員表示如果市建局希望優化公園，便應該分階段把整個公園一併作出改善，在優化期間仍然能提供部份公園地方繼續供市民使用。第三是有關垃圾站方面，根據圖則居民發現重建後的垃圾站將有三層，而現時的垃圾站則只有一、兩層高，所以毗鄰垃圾站的金裕大廈低層住戶對加高垃圾站存有意見，因此希望市建局可以把垃圾站的高度減低。第四是發展計劃內預留了十個車位，以及兩層商舖，就此甘議員認為十個車位只是杯水車薪，對二百個單位來說是並不足夠，用處有限，因此建議善用相關位置。此外，甘議員指出上址在晚上六、七時後便人跡罕至，在該處的二樓設置商舖沒有意義，日後亦只能作儲物室之用。甘議員表示不反對在該處設有數間地舖，但在二樓開設商舖是沒有必要，所以建議在樓上加設安老院舍，並指出若在重建時不建安老院舍，日後亦難以在區

內設置安老院舍。甘議員亦表示根據第二階段社區影響評估報告，在受訪的 12 個商戶中，只有三個商舖作為自用及五個商戶預計會於同區經營，認為商戶不可能等候十年之後在 2027 年把商舖搬回上址。

- (b) 楊學明議員表示在聆聽市建局的簡介和與居民開了數次會議後，希望向市建局反映意見，他指除了甘乃威議員剛才提及的意見外，亦關注重建計劃後的樓宇的樓層會阻擋附近大廈的景觀，希望市建局在進行重建時能把樓宇座向的設計做好，避免與附近大廈如金裕大廈的距離太過接近。除了重置五人足球場之外，楊議員建議可以加大休憩空間和在公園內加設長者設施，例如把地舖的空間縮小以騰出更多公共空間供市民使用。他亦反映居民希望把整個李陞街遊樂場一併進行重建，使設施配套更為完善。
- (c) 鄭麗琼議員表示自從西營盤港鐵站啟用後，吸引了市建局在該區進行重建。她指出區內的足球場數量有限，在重建項目進行期間區內將會缺乏足球場設施，區內亦沒有其他足球場可以作為代替。由於該足球場深受市民歡迎，因此不希望足球場被納入重建範圍內，並希望將來的休憩用地和設施的設計能更創新。此外，鄭議員希望市建局研究在地底興建垃圾站和供社區使用的停車場，達至地盡其用。此外，她表示於該處興建安老院舍較設置商舖更為適合，並表示區內有很多長者很急切尋找安老院舍宿位，認為市建局在進行重建時應該把從社區收集到的土地用於社區。
- (d) 吳兆康議員表示認同鄭麗琼議員的意見，指出區內的運動設施不足，李陞街遊樂場五人足球場與卜公花園七人足球場起着互補作用，因此希望保留李陞街遊樂場五人足球場，並認為發展計劃除了要落實足球場重置之外，亦要確保將來的足球場適合居民使用。

52. 市建局區先生回覆議員的意見，他理解議員對李陞街遊樂場五人足球場的關注，表示在計劃開始之前曾與相關政府部門商討，如得到議會支持，期望藉此發展機會提供區內公園所需設施，例如是長者設施或足球場，市建局願意在本計劃獲得批准之後，以活化方式分階段改善公園，以及配合將來連接公園的通道。參考以往百子里和閣麟街等個案的例子，市建局期望與有關政府部門包括民政事務處、康樂及文化事務署和食物環境衛生署，聯同區議會成立專責督導小組推行有關活化美化計劃。由於本計劃獲批需時，落實尚有一段時間，市建局期望在計劃獲得批准後，與區議會及民政事務處跟進相關事宜，就活化美化公園的範圍及細節可以再作討論。由於完成後的公園將交由康樂及文化事務署管理，屆時局方需與署方討論有關細節，而垃圾站亦須配合食物環境衛生署以供使用。回應有關興建地

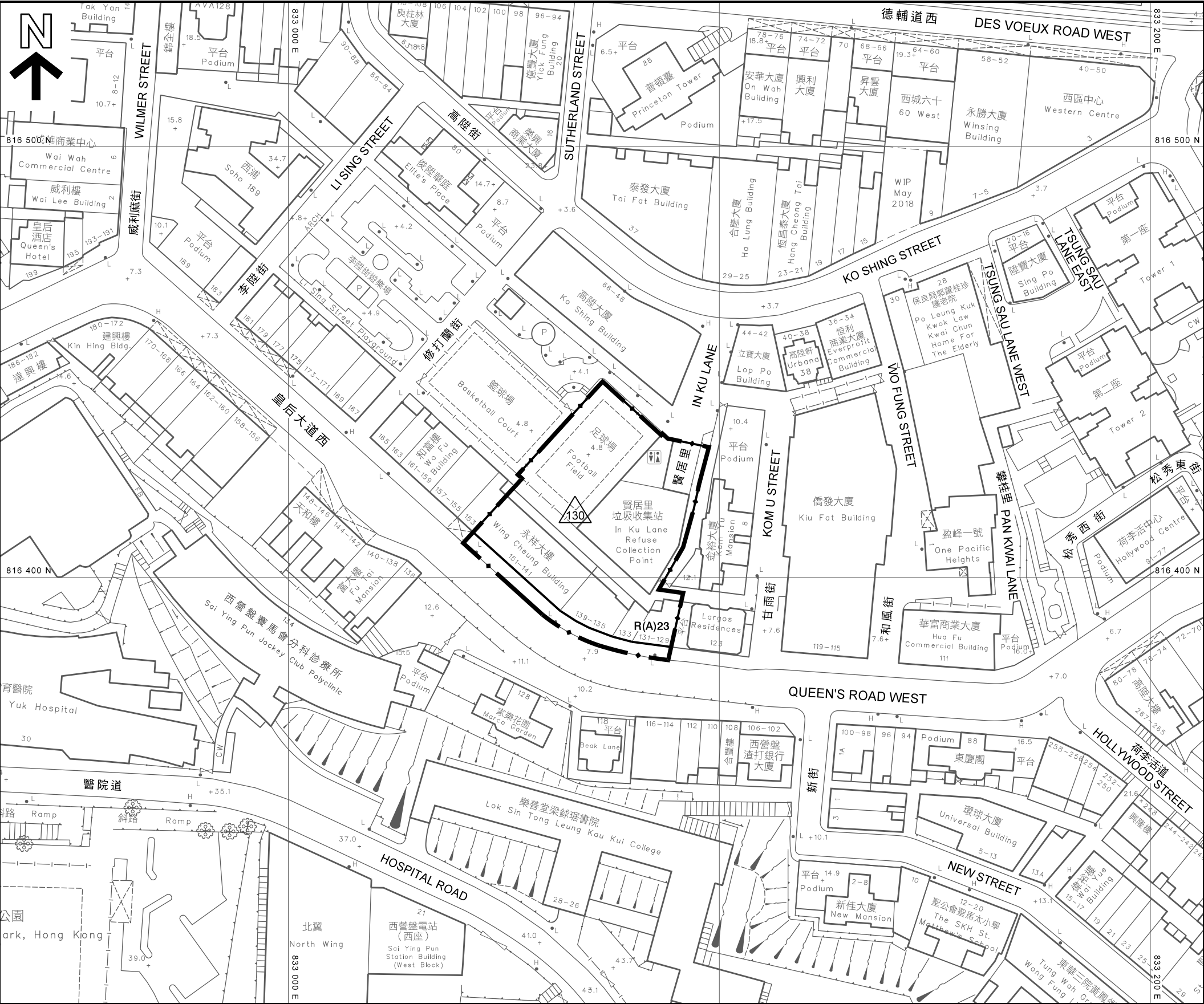
底垃圾站的建議，區先生表示不排除將來有機會實行，但現階段就設施的設計須符合食物環境衛生署的要求和現行的標準，他指發展計劃現時尚在初步的規劃程序，任何設施的細部設計須待計劃獲得批准後才能作進一步研究。回覆有關取消停車場的意見，區先生表示運輸署對任何發展項目須提供最少車位數目設有既定的標準，市建局須滿足相關標準的要求。回應有關在二樓取消商店的意見，區先生表示在進行第二階段社會影響評估之後，也發現商戶對返回原址經營的興趣不大，並表示由於市建局尚未開始進行收購，對於考慮預留多少地方予具地區特色的商戶返回繼續經營，仍然言之尚早，當發展計劃獲得批准後，屆時可與議會再作討論。此外，市建局亦會研究把一些樓面面積交給非政府機構營運社區設施，他希望可以作出平衡。區先生表示由於城規會現時正就計劃進行公眾諮詢，建議議員可考慮把相關意見提交城規會。

53. 甘乃威議員指出未來的安老院舍供應十分短缺，期望市建局在所有重建項目均考慮加設安老院舍，並建議主席把會議紀錄的有關部份提交城規會，以反映區議會的意見。此外，甘議員表示未得悉市建局就會否把整個李陞街遊樂場一併發展提供回覆，希望市建局確實告知議會，並作出承諾。

54. 李志恒議員表示既然項目涉及重置一個垃圾站的規劃，詢問市建局可否考慮在設施內處理廚餘收集，並指出香港的大廈缺乏廚餘收集設施，如果能夠在市建局的樓宇內率先推行，可以作示範作用。

55. 市建局區先生回覆表示市建局會考慮在其他地區的項目研究處理收集廚餘的設施。回覆甘乃威議員的提問，區先生表示如果項目在獲得批准之後，市建局希望成立專責小組再作討論，若屆時認為有需要把李陞街遊樂場一併活化美化，市建局是可以作出配合。

56. 主席表示將會把會議紀錄擬稿提交城規會，並結束相關議題的討論。

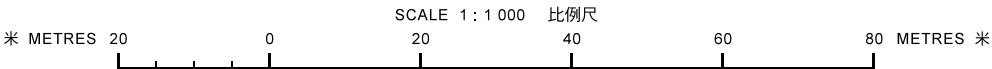


圖例
NOTATION

- BOUNDARY OF DEVELOPMENT SCHEME — ◆ — 發展計劃範圍界線
- RESIDENTIAL (GROUP A) 23 R(A)23 住宅(甲類) 23
- MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM) 130 最高建築物高度 (在主水平基準上若干米)

夾附的《註釋》屬這份圖則的一部分
THE ATTACHED NOTES
ALSO FORM PART OF THIS PLAN

香港城市規劃委員會依據城市規劃條例擬備的市區重建局皇后大道西/賢居里發展計劃圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
URBAN RENEWAL AUTHORITY QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME PLAN



依據市區重建局條例第25(3)(a)條擬備
PREPARED UNDER SECTION 25(3)(a) OF THE
URBAN RENEWAL AUTHORITY ORDINANCE

圖則編號
PLAN No. S/H3/URA3/A

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

(Being a Draft Plan for the Purposes of the Town Planning Ordinance prepared by the Urban Renewal Authority under section 25 of the Urban Renewal Authority Ordinance)

NOTES

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board (TPB), with or without conditions, on application. Where permission from the TPB for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the TPB, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3)
 - (a) No action is required to make the existing use of any land or building conform to this Plan until there is a material change of use or the building is redeveloped.
 - (b) Any material change of use or any other development (except minor alteration and/or modification to the development of the land or building in respect of the existing use which is always permitted) or redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the TPB.
 - (c) For the purposes of subparagraph (a) above, “existing use of any land or building” means –
 - (i) before the publication in the Gazette of the notice of the first statutory plan covering the land or building (hereafter referred as ‘the first plan’),
 - a use in existence before the publication of the first plan which has continued since it came into existence; or

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building; and
- (ii) after the publication of the first plan,
- a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected; or
 - a use or a change of use approved under the Buildings Ordinance which relates to an existing building and permitted under a plan prevailing at the time when the use or change of use was approved.
- (4) Except as otherwise specified by the TPB, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the TPB, all permissions granted by the TPB in respect of the site of the use or material change of use or development or redevelopment shall lapse.
- (5) Road widths, road junctions and alignments of roads may be subject to minor adjustments as detailed planning proceeds.
- (6) Temporary uses (expected to be 5 years or less) of any land or building are always permitted as long as they comply with any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, and there is no need for these to conform to the zoned use or these Notes. For temporary uses expected to be over 5 years, the uses must conform to the zoned use or these Notes.
- (7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Schedule of Uses:
- (a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, bus/public light bus stop or lay-by, cycle track, Mass Transit Railway station entrance, Mass Transit Railway structure below ground level, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine; and

S/H3/URA3/A

- (b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government;
- (8) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the TPB:

on-street vehicle park, railway track and tram track.
- (9) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.
- (10) In these Notes, “existing building” means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.
- (11) Any development not compatible with the Urban Renewal Authority’s Development Scheme for the area is prohibited by virtue of section 25(4) of the Urban Renewal Authority Ordinance.

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

Schedule of Uses

Page

RESIDENTIAL (GROUP A) 23

1

RESIDENTIAL (GROUP A) 23

| Column 1 Uses always permitted | Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board |
|--|---|
| Ambulance Depot | Commercial Bathhouse/ Massage |
| Flat | Establishment |
| Government Refuse Collection Point | Eating Place |
| Government Use (not elsewhere specified) | Education Institution |
| House | Exhibition or Convention Hall |
| Library | Hospital |
| Market | Hotel |
| Place of Recreation, Sports or Culture | Institutional Use (not elsewhere specified) |
| Public Clinic | Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances |
| Public Transport Terminus or Station (excluding open-air terminus or station) | Office |
| Residential Institution | Petrol Filling Station |
| School (in free-standing purpose-designed building only) | Place of Entertainment |
| Social Welfare Facility | Private Club |
| Utility Installation for Private Project | Public Convenience |
| | Public Transport Terminus or Station (not elsewhere specified) |
| | Public Utility Installation |
| | Public Vehicle Park (excluding container vehicle) |
| | Religious Institution |
| | School (not elsewhere specified) |
| | Shop and Services |
| | Training Centre |

(Please see next page)

RESIDENTIAL (GROUP A)23 (Cont'd)

In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading / unloading bay and / or plant room:

Eating Place
Educational Institution
Institutional Use (not elsewhere specified)
Off-course Betting Centre
Office
Place of Entertainment
Private Club
Public Convenience
Recyclable Collection Centre
School
Shop and Services
Training Centre

Planning Intention

This zone is intended primarily for a high-density residential development with the provision of public open space, a government refuse collection point cum public toilet and a neighbourhood elderly centre sub-base. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building height, in terms of metres above Principal Datum, as stipulated on the Plan, or the height of the existing building, whichever is the greater.
- (2) A public open space of not less than 538m² shall be provided for public use. The public open space shall not be used for GFA/ plot ratio calculation.
- (3) A government refuse collection point cum public toilet of not less than 860m² GFA and a neighbourhood elderly centre sub-base as required by the Government shall be provided.

(Please see next page)

RESIDENTIAL (GROUP A) 23 (Cont'd)

Remarks (Cont'd)

- (4) Any floor space that is constructed or intended for the use solely as the car park, loading/ unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (5) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction may be considered by the TPB on application under section 16 of the Town Planning Ordinance.

DRAFT URBAN RENEWAL AUTHORITY

QUEEN'S ROAD WEST/IN KU LANE

DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

EXPLANATORY STATEMENT

DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

| | <u>Contents</u> | <u>Page</u> |
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DRAFT URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST/IN KU LANE
DEVELOPMENT SCHEME PLAN NO. S/H3/URA3/A

(Being a Draft Plan for the Purposes of the Town Planning Ordinance prepared by the Urban Renewal Authority under section 25 of the Urban Renewal Authority Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance (the Ordinance), this statement shall not be deemed to constitute a part of the Plan.

1. INTRODUCTION

This explanatory statement is intended to assist an understanding of the draft Urban Renewal Authority (URA) Queen's Road West/In Ku Lane Development Scheme Plan (DSP) No. S/H3/URA3/A. It reflects the planning intention and objectives of the Town Planning Board (the Board) for the area covered by the Plan.

2. AUTHORITY FOR THE PLAN AND PROCEDURES

- 2.1 In the URA's 16th Business Plan (2017/18) approved by the Financial Secretary in early 2017, the Queen's Road West/ In Ku Lane Development Scheme (C&W-006) was proposed to be processed as a Development Scheme under section 25 of the URA Ordinance (URAO).
- 2.2 On 16 March 2018, pursuant to section 23(1) of the URAO, the URA notified in the Government Gazette the commencement of implementation of the Queen's Road West/ In Ku Lane Development Scheme.

- 2.3 On 16 March 2018, the URA submitted the draft URA Queen's Road West/ In Ku Lane DSP to the Board under section 25(5) of the URAO.
- 2.4 On XXXX, the Board, under section 25(6)(a) of the URAO, deemed the draft URA Queen's Road West/ In Ku Lane DSP as being suitable for publication. Under section 25(7) of the URAO, the draft DSP, which the Board has deemed suitable for publication, is deemed to be a draft plan prepared by the Board for the purposes of the Town Planning Ordinance (the Ordinance).
- 2.5 On XXXX, the draft Queen's Road West/ In Ku Lane DSP No. S/H3/URA3/1 (the Plan) was exhibited under section 5 of the Ordinance. By virtue of section 25(9) of the URAO, the Plan has from the date replaced the Approved Sai Ying Pun & Sheung Wan Outline Zoning Plan (OZP) No. S/H3/31 in respect of the area delineated and described herein.

3. OBJECT OF THE PLAN

The Plan illustrates that the Development Scheme Area (the Area) is designated as "Residential (Group A)23" ("R(A)23"). It is planned to be developed by means of the Development Scheme prepared under section 25 of the URAO. The Development Scheme intends to be primarily for a high-density residential development with the provision of a Government Refuse Collection Point (RCP) cum public toilet (PT), a Neighbourhood Elderly Centre (NEC) sub-base and a public open space. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Area in this zone and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission

under section 16 of the Ordinance allows greater flexibility in land use planning and control of development to meet changing needs.

- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at <http://www.info.gov.hk/tpb>.

5. AREA COVERED BY THE PLAN

- 5.1 The Development Scheme boundary which is shown in heavy broken line on the Plan, covers a total area of about 2,046m². The Area comprises a row of tenement buildings, the In Ku Lane RCP cum PT, a 5-a-side soccer pitch (being part of the Li Sing Street Playground), government lanes and pavement area. The Area is broadly bounded by Ko Shing Building and In Ku Lane to the north, Kam Yu Mansion and Largos Residences to the east, Queen's Road West to the south and No. 153 Queen's Road West and the Li Sing Street Playground to the west.
- 5.2 On the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/31, the Area is zoned "Residential (Group A)7", "Government, Institution or Community" and "Open Space" and an area shown as 'Road' before the exhibition of the Plan.

6. EXISTING CONDITIONS

- 6.1 The buildings within the Area are between 4 and 6 storeys and predominantly residential in nature with commercial/retail shops. The existing buildings are in a dilapidated condition. The residential units of the buildings facing Queen's Road West are exposed to the noise and air pollutants generated from the road traffic.
- 6.2 The 5-a-side soccer pitch within the Area is part of the Li Sing Street Playground managed by the Leisure and Cultural Services Department (LCSD). The 5-a-side soccer pitch is located in a relatively "land-locked" location in the inner part of the street block surrounded by

buildings with low visibility and accessibility. It is also formed on a level a few meters below Queen's Road West. Since the soccer pitch is fenced off, the only entrance of the soccer pitch is from the sitting-out area of Li Sing Street Playground to the west of the Area.

- 6.3 The In Ku Lane RCP cum PT included in the Area is a 2-storey self-standing building structure managed by the Food and Environmental Hygiene Department (FEHD). It is currently in use to carry out daily refuse collection activities to serve the neighbourhood in the district. The RCP is built on a similar formation level as the adjacent 5-a-side soccer pitch. Refuse collection vehicles can only use In Ku Lane to access and leave the RCP for daily operation. The PT is located at the ground floor of the RCP structure. The PT can be accessed via In Ku Lane or the Li Sing Street Playground.

7. PLANNING AND LAND USE PROPOSALS

- 7.1 On the Plan, the Area is zoned "R(A)23" and the Notes of the Plan indicated broadly the intended land use within the Area. The area of the "R(A)23" zone is 1,880m².

Uses

- 7.2 The Area is intended for high-density residential development with the provision of public open space (POS), a government RCP cum PT and an NEC sub-base. Commercial uses are intended on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
- 7.3 No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a height of 130 metres above Principal Datum (mPD) or the height of the existing building, whichever is the greater.
- 7.4 To provide design flexibility, minor relaxation of the building height restriction may be considered by the Board on application under

section 16 of the Ordinance taking into account its individual planning and design merits.

Internal Transport Facilities

- 7.5 Ancillary car parking spaces will be provided in a basement car park to serve the residential cum retail/ commercial podium development with vehicular access from Queen's Road West. Loading/unloading bay will be provided within the residential development on the ground floor. Separate loading/ unloading bay will be provided within the RCP for its operational needs.

Government Refuse Collection Point and Public Toilet

- 7.6 A new Government RCP cum PT will be reprovided within the Area. The design and layout of the Government RCP and PT will be improved and better integrated with the podium of the future residential development to enhance the visual environment and the serviceability of the facility. The vehicular access of the new RCP will be maintained at In Ku Lane to minimise disturbance to the surrounding environment.
- 7.7 To maintain the serviceability of the Government RCP during redevelopment, a small temporary RCP will be provided in the interim within the Area during the redevelopment. Detailed arrangement will be worked out with and agreed by FEHD.

Public Open Space and Pedestrian Circulation

- 7.8 Taking the opportunity of redevelopment, the redevelopment proposal aims to rationalise the land use configuration within the Area to provide a more accessible POS for public enjoyment. A POS of about 538m² will be provided in the Area with direct access from Queen's Road West. Visibility of the POS will be improved and this arrangement will also benefit the public for a more direct access to the rest of the Li Sing Street Playground. It can also enhance the walkability and pedestrian circulation of the area by serving as a

connection to and from Queen's Road West and Ko Shing Street with a pleasant walking environment.

- 7.9 The new POS will benefit a wider range of people in the local community. The 5-a-side soccer pitch will be re-provided through improvement work of the Li Sing Street Playground adjoining the Area and the POS. The re-arranged layout of the 5-a-side soccer pitch and basketball court would be implemented as advance works of the proposed project.
- 7.10 The existing service lane at the rear of the tenement buildings within the DSP boundary will be closed and extinguished upon redevelopment of the site as it will serve no useful purpose afterwards.

Neighbourhood Elderly Centre sub-base

- 7.11 An NEC sub-base of about 120m² Internal Floor Area (IFA) would be provided within the commercial podium of the proposed development.

Landscaping and Greening

- 7.12 Landscaping and greening will be provided in the new POS to create a "green pocket" and leisure environment in the area. Landscape design of the POS will take into account the physical sloping terrain of the Area to create a functional and convenient POS for enjoyment. Passive recreational facilities and a sitting out area will be provided within the POS subject to agreement with LCSD.
- 7.13 To echo with the greening in the POS, greening on the podium edge and pedestrian level of the proposed development will be provided as far as practicable in line with the Sustainable Building Design Guidelines and to enhance the local streetscape.

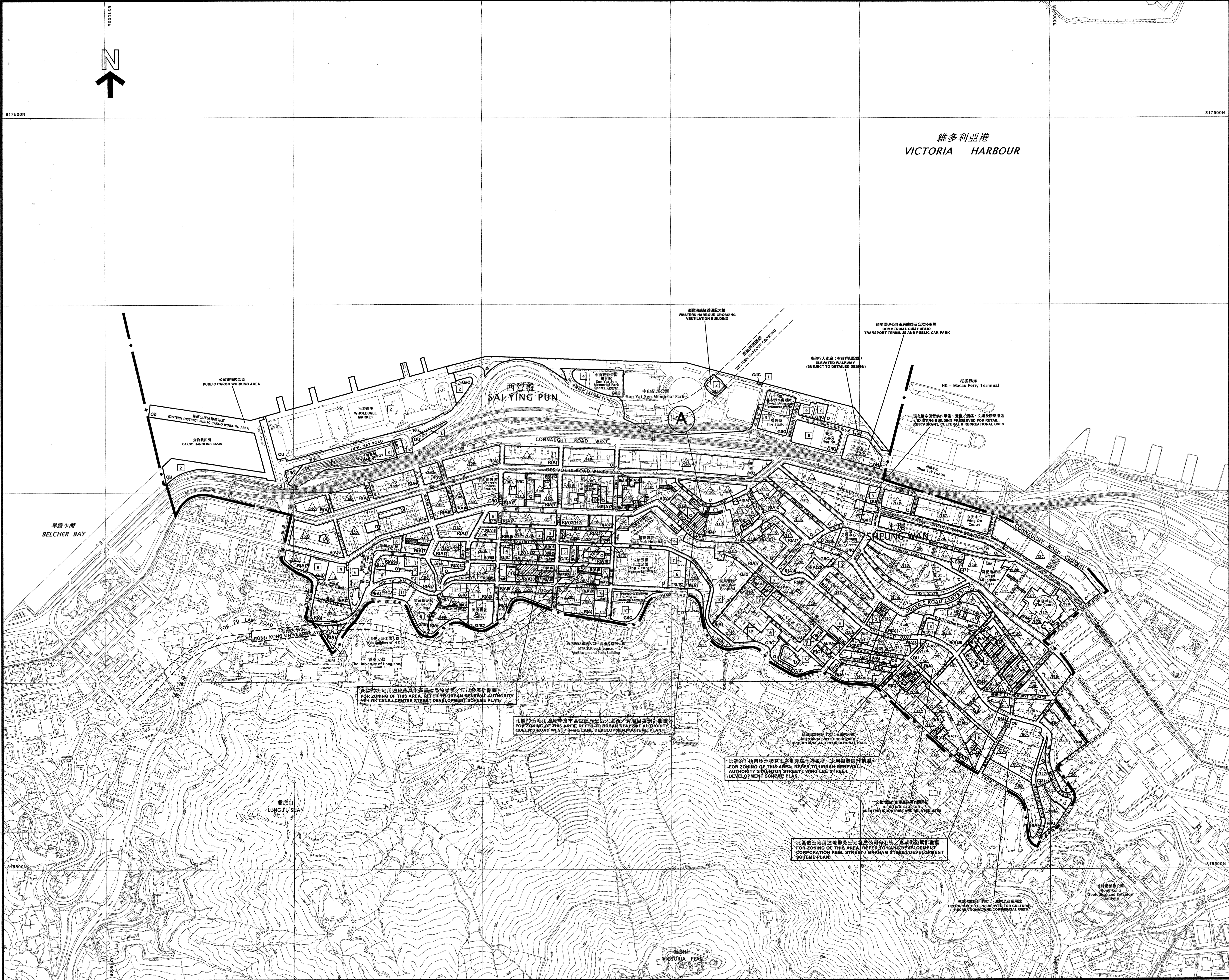
8. IMPLEMENTATION OF THE DEVELOPMENT SCHEME

- 8.1 The proposals set out in the Plan form an integral part of the Development Scheme for the Area.

- 8.2 The URA does not own or lease any land within the boundaries of the Development Scheme and intends to acquire the properties within the Area of the Development Scheme. With respect to any of such properties which cannot be acquired by purchase, the Secretary for Development would consider, upon the application of the URA, recommending to the Chief Executive in Council the resumption of properties under the Lands Resumption Ordinance, if necessary.
- 8.3 All eligible tenants will be offered an ex-gratia payment package in accordance with URA's policy. The URA has already entered into agreement with the Hong Kong Housing Society (HKHS) and the Hong Kong Housing Authority (HKHA) for the purpose of making available rehousing units by HKHS or HKHA to rehouse affected tenants who satisfy the eligibility criteria of HKHS or HKHA.
- 8.4 Non-domestic tenants of properties acquired by URA whose tenancies are terminated by URA due to implementation of the Development Scheme may be offered an ex-gratia allowance to assist in their business relocation.
- 8.5 The URA may implement the Development Scheme on its own or in association with one or more partners.

TOWN PLANNING BOARD

XXXX 2018



圖例
NOTATION

| ZONES | | 地帶 |
|--------------------------------------|------|----------|
| COMMERCIAL | C | 商業 |
| COMPREHENSIVE DEVELOPMENT AREA | CDA | 綜合發展區 |
| RESIDENTIAL (GROUP A) | R(A) | 住宅 (甲類) |
| RESIDENTIAL (GROUP C) | R(C) | 住宅 (丙類) |
| GOVERNMENT, INSTITUTION OR COMMUNITY | GIC | 政府、機構或社區 |
| OPEN SPACE | O | 休憩用地 |
| OTHER SPECIFIED USES | OU | 其他指定用途 |

| COMMUNICATIONS | | 交通 |
|-----------------------------------|--|------------|
| RAILWAY AND STATION (UNDERGROUND) | | 鐵路及車站 (地下) |
| MAJOR ROAD AND JUNCTION | | 主要道路及路口 |
| ELEVATED ROAD | | 高架道路 |
| PEDESTRIAN PRECINCT / STREET | | 行人專用區或街道 |

| MISCELLANEOUS | | 其他 |
|--|-------|----------------------|
| BOUNDARY OF PLANNING SCHEME | | 規劃範圍界線 |
| LAND DEVELOPMENT CORPORATION/ URBAN RENEWAL AUTHORITY DEVELOPMENT SCHEME PLAN AREA | | 土地發展公司/市區重建局發展計劃範圍 |
| BUILDING HEIGHT CONTROL ZONE BOUNDARY | | 建築物高度管制區界線 |
| MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM) | | 最高建築物高度 (在主水平基準上若干米) |
| MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS) | | 最高建築物高度 (樓層數目) |
| PETROL FILLING STATION | P F S | 加油站 |
| NON-BUILDING AREA | NBA | 非建築用地 |

土地用途及面積一覽表
SCHEDULE OF USES AND AREAS

| USES | 大約面積及百分比 APPROXIMATE AREA & % | | 用途 |
|--|----------------------------------|--------|--------------------|
| | 公頃 HECTARES | % 百分比 | |
| COMMERCIAL | 21.04 | 14.41 | 商業 |
| COMPREHENSIVE DEVELOPMENT AREA | 0.07 | 0.05 | 綜合發展區 |
| RESIDENTIAL (GROUP A) | 38.46 | 26.34 | 住宅 (甲類) |
| RESIDENTIAL (GROUP C) | 0.26 | 0.18 | 住宅 (丙類) |
| GOVERNMENT, INSTITUTION OR COMMUNITY | 13.23 | 9.06 | 政府、機構或社區 |
| OPEN SPACE | 13.18 | 9.03 | 休憩用地 |
| OTHER SPECIFIED USES | 12.98 | 8.90 | 其他指定用途 |
| PEDESTRIAN PRECINCT / STREET | 0.39 | 0.26 | 行人專用區或街道 |
| RAILWAY | 0.14 | 0.10 | 鐵路 |
| MAJOR ROAD ETC. | 45.11 | 30.89 | 主要道路等 |
| LAND DEVELOPMENT CORPORATION/ URBAN RENEWAL AUTHORITY DEVELOPMENT SCHEME PLAN AREA | 1.13 | 0.78 | 土地發展公司/市區重建局發展計劃範圍 |
| TOTAL PLANNING SCHEME AREA | 145.99 | 100.00 | 規劃範圍總面積 |

夾附的《註釋》屬這份圖則的一部分，
現經修訂並按照城市規劃條例第5條展示。
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN
AND HAVE BEEN AMENDED FOR EXHIBITION UNDER
SECTION 5 OF THE TOWN PLANNING ORDINANCE

核准圖編號 S/H 3 / 3 1 的修訂
AMENDMENT TO APPROVED PLAN No. S/H3/31

AMENDMENT EXHIBITED UNDER SECTION 5
OF THE TOWN PLANNING ORDINANCE

AMENDMENT ITEM A

(參看附表)
(SEE ATTACHED SCHEDULE)

香港城市規劃委員會依據城市規劃條例擬備的西營盤及上環 (港島規劃區第3區) 分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
HONG KONG PLANNING AREA No. 3 - SAI YING PUN & SHEUNG WAN - OUTLINE ZONING PLAN

SCALE 1:5,000 比例尺
0 100 200 300 400 500 600 700 800 METRES 米

規劃署遵照城市規劃委員會指示擬備
PREPARED BY THE PLANNING DEPARTMENT UNDER
THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號
PLAN No. S/H3/31A

- 2.16 On 12 October 2012, the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/28 incorporating the amendments mainly to rezone the terraces and the stepped streets including U Lam Terrace, Rozario Street and Ladder Street to area shown as ‘Road’ as well as to incorporate a completed development previously covered by the approved Land Development Corporation (LDC) First Street/Second Street DSP No. S/H3/LDC5/2, was exhibited for public inspection under section 5 of the Ordinance. During the exhibition period, a total of 21 representations were received. On 21 December 2012, the Board published the representations for 3 weeks for public comments. A total of 12 comments were received. After giving consideration to the representations and comments on 22 March 2013, the Board decided not to uphold the representations.
- 2.17 On 10 September 2013, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Sai Ying Pun & Sheung Wan OZP, which was subsequently renumbered as S/H3/29. On 27 September 2013, the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/29 was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.18 On 30 August 2016, the CE in C referred the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/29 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 9 September 2016 under section 12(2) of the Ordinance.
- 2.19 On 21 October 2016, the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/30 incorporating amendment to rezone a site at 122A to 130 Hollywood Road from “G/IC” to “G/IC(2)” was exhibited for public inspection under section 5 of the Ordinance. During the exhibition period, a total of 635 representations were received. When the representations were published, no comment was received. After giving consideration to the representations on 21 April 2017, the Board decided to propose amendments to the Plan to partially meet the representations. On 12 May 2017, the proposed amendments were published under section 6C(2) of the Ordinance. The proposed amendments were related to rezoning the site from “G/IC(2)” to “G/IC” and to amending the Notes of the “G/IC” zone. During the publication period, 41 further representations were received. After giving consideration to further representations, on 18 August 2017, the Board decided that the draft OZP No. S/H3/30 should be amended by the proposed amendments under section 6G of the Ordinance.
- 2.20 On 5 December 2017, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Sai Ying Pun & Sheung Wan OZP, which was renumbered as S/H3/31. On 15 December 2017, the approved Sai Ying Pun & Sheung Wan OZP No. S/H3/31 ~~(the Plan)~~ was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.21 *On _____ 2018, the CE in C referred the approved Sai Ying Pun & Sheung Wan OZP to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the gazette on _____ 2018 under section 12(2) of the Ordinance.*
- 2.22 *On _____ 2018, the draft Sai Ying Pun & Sheung Wan OZP No. S/H3/32 (the Plan), indicating an area of the Plan replaced by the draft URA*

Queen's Road West and In Ku Lane Development Scheme Plan (DSP) No. S/H3/URA3/1, was exhibited for public inspection under section 5 of the Ordinance.

3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land use zonings and major transport networks so that development and redevelopment within the Planning Scheme Area can be subject to statutory planning control.
- 3.2 The Plan is to illustrate the broad principles of development within the Planning Scheme Area. It is a small-scale plan and the transport alignments and boundaries between the land use zones may be subject to minor adjustments as detailed planning proceeds.
- 3.3 Since the Plan is to show broad land use zoning, there would be situations in which small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted for garden, slope maintenance and access road purposes, are included in the residential zones. The general principle is that such areas should not be taken into account in plot ratio and site coverage calculations. Development within residential zones should be restricted to building lots carrying development right in order to maintain the character and amenity of the Sai Ying Pun and Sheung Wan area and not to overload the road network in the area.

4. NOTES OF THE PLAN

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Area and in particular zones and which may be permitted by the Board with or without conditions, on application. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land use planning and control of development to meet changing needs.
- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at <http://www.info.gov.hk/tpb>.

5. THE PLANNING SCHEME AREA

- 5.1 The Planning Scheme Area (the Area) is located in the north-western part of the Hong Kong Island. It is bounded by Hill Road to the west; Bonham Road and Caine Road to the south; and Jubilee Street, Pottinger Street, D'Aguilar Street and Glenealy to the east. To the north, the Area fronts onto Victoria Harbour. The boundaries are shown in a heavy broken line on the Plan. The size of the Area is about 146 hectares.
- 5.2 The original shore-line was about mid-way between Queen's Road West and

Wong Street, has an area of about 699m². Built in the late 1950's, the existing tenement buildings on Wing Lee Street are of Chinese tenement style with Art Deco influence and are special in terms of their rather uniform design and contextual setting on a terrace. The buildings at 17 and 19 Shing Wong Street, built in the same period, form an integral part of the cluster. The "CDA" zone is intended primarily to preserve the existing character and ambience of the Wing Lee Street area. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development. Any development/redevelopment for residential and/or commercial uses should be planned in a comprehensive manner. Residential use and ground floor shop and services use in an existing building are always permitted. The following planning controls are applicable for this zone:

- (a) any new development or redevelopment, except alteration and/or modification to an existing building and new structure(s) for facilities that are ancillary and directly related to the always permitted uses, requires permission from the Town Planning Board in the form of Master Layout Plan submission under section 16 of the Town Planning Ordinance. Planning permission should be obtained before demolition of any existing building;
- (b) a maximum building height of 4 storeys which generally reflects the existing building height; and
- (c) to provide flexibility for innovative design, minor relaxation of the building height restriction may be considered by the Board on application, and each application will be considered on its own merits.

8.3 Residential (Group A) ("R(A)") : Total Area ~~38.52ha~~ **38.46ha**

- 8.3.1 This zone is intended primarily for high-density residential developments. Commercial uses such as shop and services and eating place are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building. Commercial uses on any upper floor above the lowest three floors or the purpose-designed non-residential portion will require planning permission from the Board. Offices and hotel development may also be permitted upon application to the Board.
- 8.3.2 Areas zoned for this purpose cover established residential neighbourhoods bounded by Connaught Road West and Des Voeux Road West to the north, Centre street to the east, Queen's Road Central and Hollywood Road to the northeast, and Caine Road and Bonham Road to the south.
- 8.3.3 The "Residential (Group A)1" site at 123 Hollywood Road covers the Hollywood Terrace redeveloped by the HKHS. It has an area of about 0.43ha and was previously zoned "CDA" for a residential development with a public open space of 1,560m². The redevelopment comprises two residential blocks and was completed in October 1999.

8.3.20 The “Residential (Group A)22” site at First Street/Second Street comprises the URA development known as the “Island Crest”. It covers an area of about 0.35 ha and was previously zoned “CDA” on the approved LDC First Street/Second Street DSP No. S/H3/LDC5/2. The redevelopment comprises two residential blocks with commercial use and GIC facilities provided on the lower floors. A public open space of 700m² is also provided on the southern side of the site with access from Second Street. The redevelopment was completed in 2009.

8.3.21 Minor relaxation of the gross floor area and building height restrictions, and the non-building area restrictions and setback requirements may be considered by the Board on application. Each application will be considered on its own merits.

8.4 Residential (Group C) (“R(C)”) : Total Area 0.26ha

8.4.1 This zone is intended for low to medium-rise residential developments subject to specific plot ratio and building height restrictions to preserve the local character and to avoid adverse visual, air ventilation and traffic impacts from more intensive development.

8.4.2 The “R(C)” zone covers sites in U Lam Terrace/Ladder Street Terrace and Wa In Fong East which are well-preserved terraced area located next to Ladder Street and Shing Wong Street respectively. The sites are enclosed and tranquil residential area. The streetscape and low to medium-rise residential developments in the area possess a human scale and create a different urban form in contrast with the high-rise mixed developments in the vicinity. The generally low-rise character of the area also facilitates southerly downhill wind penetrating into Sheung Wan.

8.4.3 The sites in U Lam Terrace/Ladder Street Terrace and Wa In Fong East are inaccessible by vehicular traffic and is connected to Caine Road via the stepped Ladder Street and Shing Wong Street respectively. Cumulative effect of more intensive developments would aggravate the existing traffic problems.

8.4.4 Given the special local character of the area, the stepped street areas at U Lam Terrace/Ladder Street Terrace and Wa In Fong East are zoned “R(C)” in order to restrict development/redevelopment within these areas to residential use only with a maximum plot ratio of 5 or the plot ratio of the existing building whichever is the greater, and a maximum building height of 12 storeys or the height of the existing building whichever is the greater.

8.4.5 Notwithstanding the above restrictions, consideration may be given to minor relaxation of the plot ratio and building height restrictions, and each proposal will be considered on its individual planning merits.

8.5 Government, Institution or Community (“G/IC”) : Total Area ~~13.30ha~~ 13.23ha

restrictions and setback requirement may be considered by the Board on application. Each application will be considered on its own merits.

8.6 Open Space (“O”) : Total Area ~~13.25ha~~ **13.18ha**

- 8.6.1 This zone is intended primarily for the provision of outdoor open-air space for active and/or passive recreational uses serving the needs of local residents as well as the general public.
- 8.6.2 Major existing open space include Blake Garden at Po Hing Fong, King George V Memorial Park at High Street and Hollywood Road Garden. Active recreational facilities are provided in these open spaces.
- 8.6.3 The Area has a shortage of open space. To relieve the shortfall in open space provision, a waterfront site with an area of about 5.9 ha on the Western Reclamation has been developed into a district open space called Sun Yat Sen Memorial Park. Land is also reserved for the development of a continuous waterfront promenade to the east and west of the Park. The total area of the waterfront open space amounts to about 7.9 ha.
- 8.6.4 Local open spaces are also distributed throughout the Area to provide neighbourhood leisure facilities for local residents.

8.7 Other Specified Uses (“OU”) : Total Area 12.98ha

This zone is intended primarily to provide/reserve land for purposes as specified below. Development and redevelopment in the “OU” zones are subject to maximum building height in terms of mPD or number of storeys as stipulated on the Plan/in the Notes, or the height of the existing building, whichever is the greater. Such developments, particular for those which are low-rise, serve to provide visual and spatial relief to the densely built-up environment of the Area. Minor relaxation of the building height restrictions may be considered by the Board on application. Each application will be considered on its own merits.

- (a) The Western District Public Cargo Working Area of about 1.92 ha is located at the western end of the Western Reclamation.
- (b) A site of about 6.5 ha, located at the western portion of Western Reclamation, has been developed as the Western Wholesale Market.
- (c) A site of about 1.1 ha, part of which is located underneath the Hill Road Flyover at the western end of Western Reclamation, is used as a tram depot.
- (d) A site of about 0.13 ha at the junction of Fung Mat Road and Water Street is used as a liquefied petroleum gas filling station.
- (e) A site of about 0.2 ha near the waterfront on Western Reclamation has been developed as a ventilation building serving the WHC.

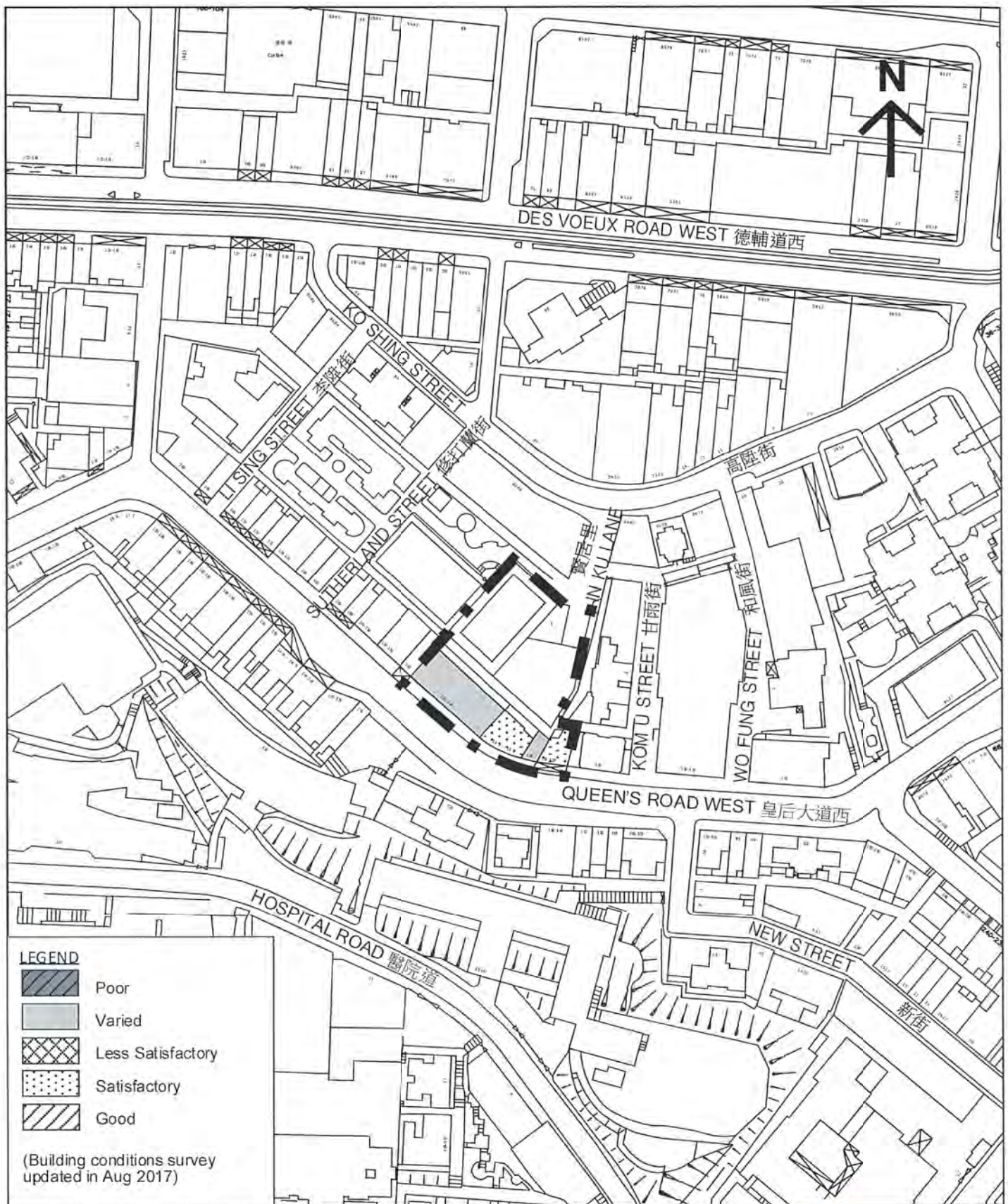
9. **LAND DEVELOPMENT CORPORATION (LDC)/URBAN RENEWAL AUTHORITY (URA) DEVELOPMENT SCHEME PLAN (DSP) AREAS : Total Area 0.94ha-1.13ha**

- 9.1 The URA was established on 1 May 2001 to replace the LDC and to take over the on-going urban renewal projects from LDC.
- 9.2 ***Four*** ~~Three~~ areas have been designated as “LDC DSP Area” and/or “URA DSP Area”. The land use zonings of the areas are depicted on the relevant LDC/URA DSPs and they will be implemented by the URA.
- 9.3 The DSP for Peel Street/Graham Street covers an area of 0.52 ha. URA intends to redevelop this area for commercial/residential uses to include public open space and GIC facilities. The LDC Peel Street/Graham Street DSP No. S/H3/LDC4/2 was approved by the CE in C on 9 November 1999.
- 9.4 The DSP for Staunton Street/Wing Lee Street covers an area of 0.2ha. URA intends to redevelop this area for commercial/residential uses to include a public open space. The URA Staunton Street/Wing Lee Street DSP No. S/H3/URA1/4 was approved by the CE in C on 8 May 2012.
- 9.5 The DSP for Yu Lok Lane/Centre Street covers an area of 0.22 ha. URA intends to redevelop this area for residential and retail uses to include a public open space. The URA Yu Lok Lane/Centre Street DSP No. S/H3/URA2/2 was approved by the CE in C on 27 March 2007.
- 9.6 ***The DSP for Queen’s Road West/In Ku Lane covers an area of 0.2 ha. URA intends to redevelop this area for residential and commercial/retail uses to include a government refuse collection point, public toilet, a neighbourhood elderly centre sub-base and a public open space. The draft URA Queen’s Road West/In Ku Lane DSP No. S/H3/URA3/1 was gazetted under section 25(9) of the Urban Renewal Authority Ordinance (Chapter 563) on _____.***

10. **COMMUNICATIONS**

10.1 **Mass Transit Railway (MTR)**

The MTR service has been extended to Sheung Wan in May 1986. The WIL was authorized by the CE in C under the Railways Ordinance (Chapter 519) on 10 March 2009. The construction works of WIL commenced in July 2009 and was commissioned on 28 December 2014 with HKU and Kennedy Town Stations. The Sai Ying Pun Station of WIL was opened to the public on 29 March 2015. Pursuant to section 13A of the Town Planning Ordinance, the railway scheme authorized by the CE in C under the Railways Ordinance shall be deemed to be approved under the Town Planning Ordinance. The railway alignment, stations and structures (including station entrances, ventilation and plant buildings in Sai Ying Pun and University Stations) within the area, as described in the authorized railway scheme, are shown on the Plan for information only.



LEGEND

-  Poor
-  Varied
-  Less Satisfactory
-  Satisfactory
-  Good

(Building conditions survey updated in Aug 2017)



THE SCHEME

EXTRACT PLAN PREPARED ON 30.11.17
BASED ON SURVEY SHEET No.11-SW-7B,
11-SW-8A.

BUILDING CONDITION

DEVELOPMENT SCHEME
AT QUEEN'S ROAD WEST/IN KU LANE

SCALE 1:1500
METRES 15 0 15 30 45 60 75 METRES



市區重建局
URBAN RENEWAL
AUTHORITY

C&W-006

PLAN

6

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
1

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)



(Notional layout subject to detailed design upon DSP approval.)



URA Queen's Road West / In Ku Lane
Development Scheme (C&W-006)

Block Plan

Figure 1.1

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
2



(Notional layout subject to detailed design upon DSP approval.)

←-- New Pedestrian Path and Breezeway



URA Queen's Road West / In Ku Lane
Development Scheme (C&W-006)

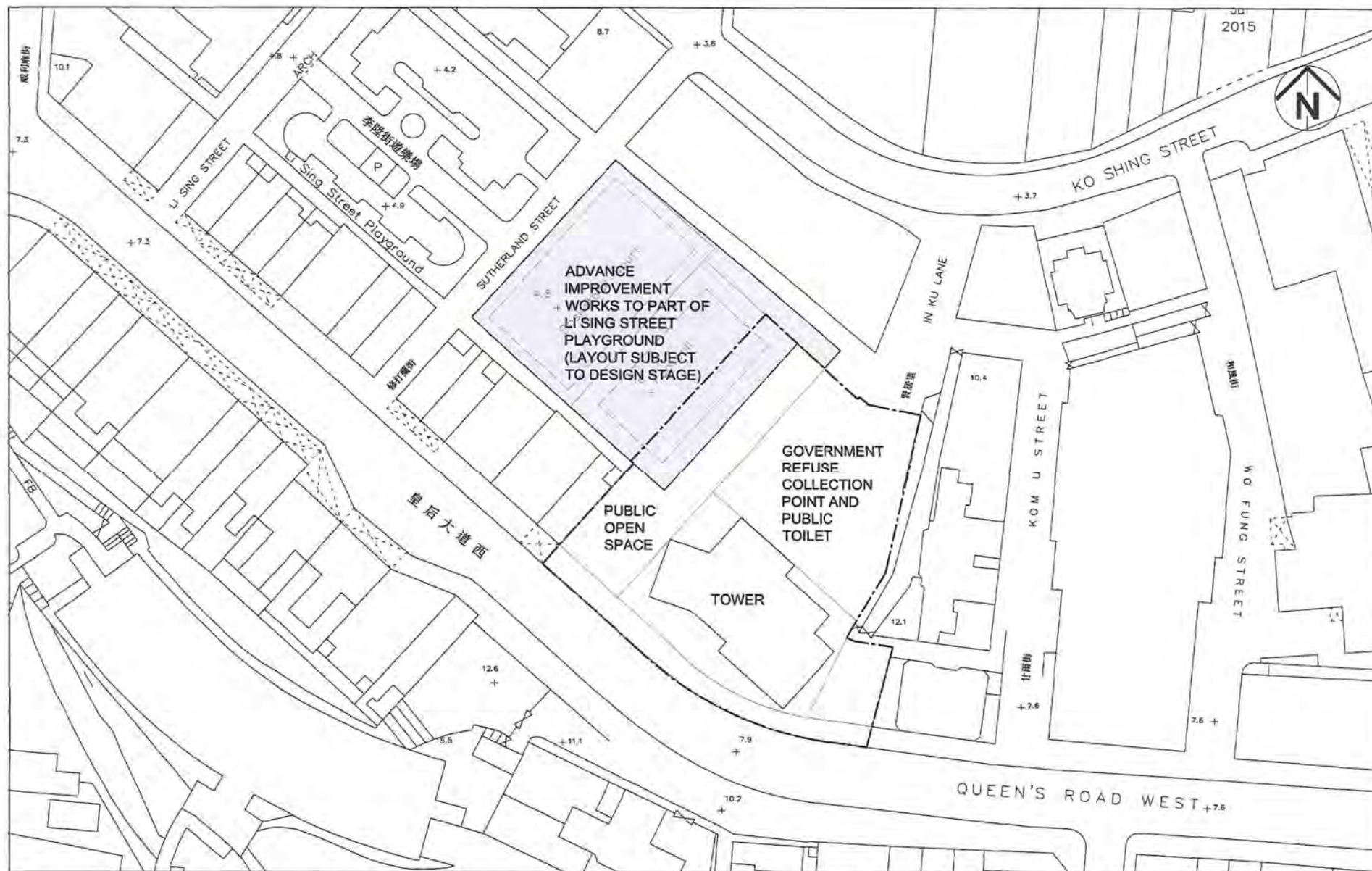
Pedestrian Circulation

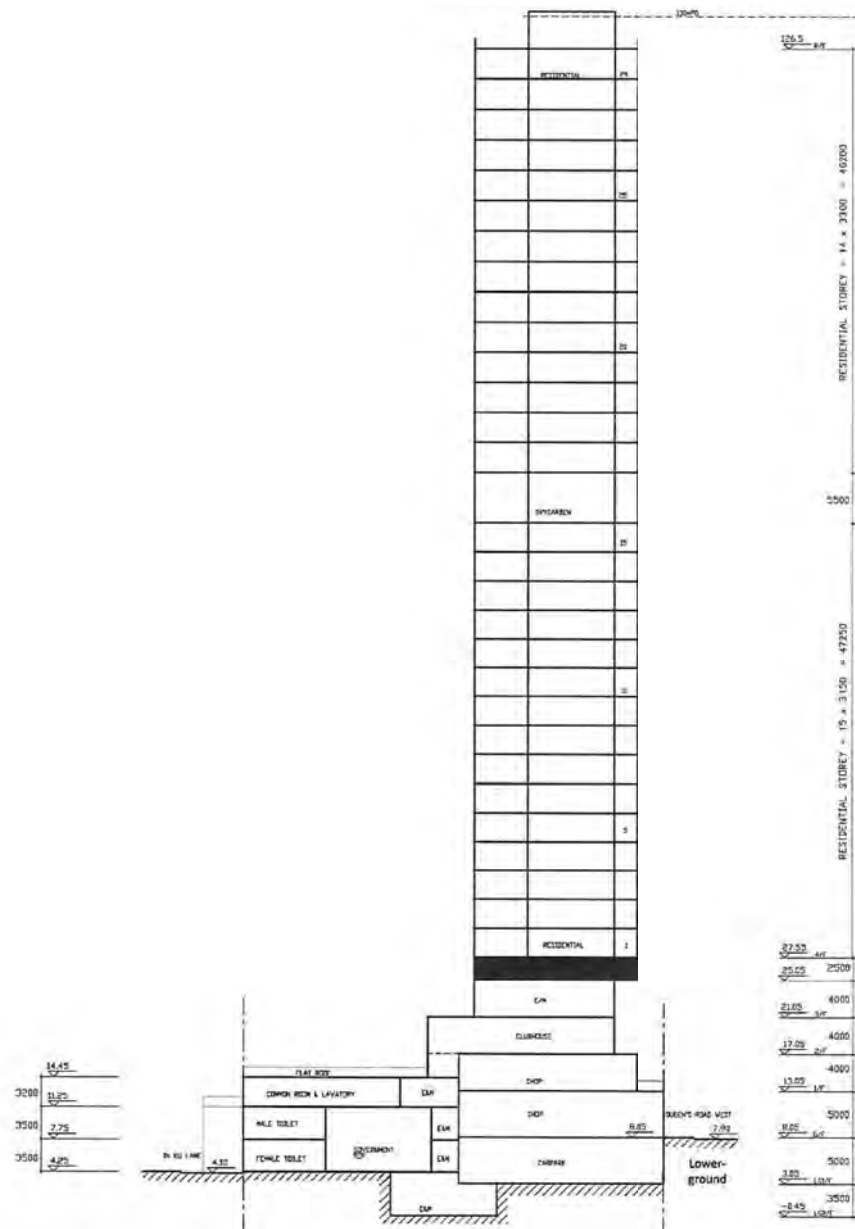
Figure 1.2

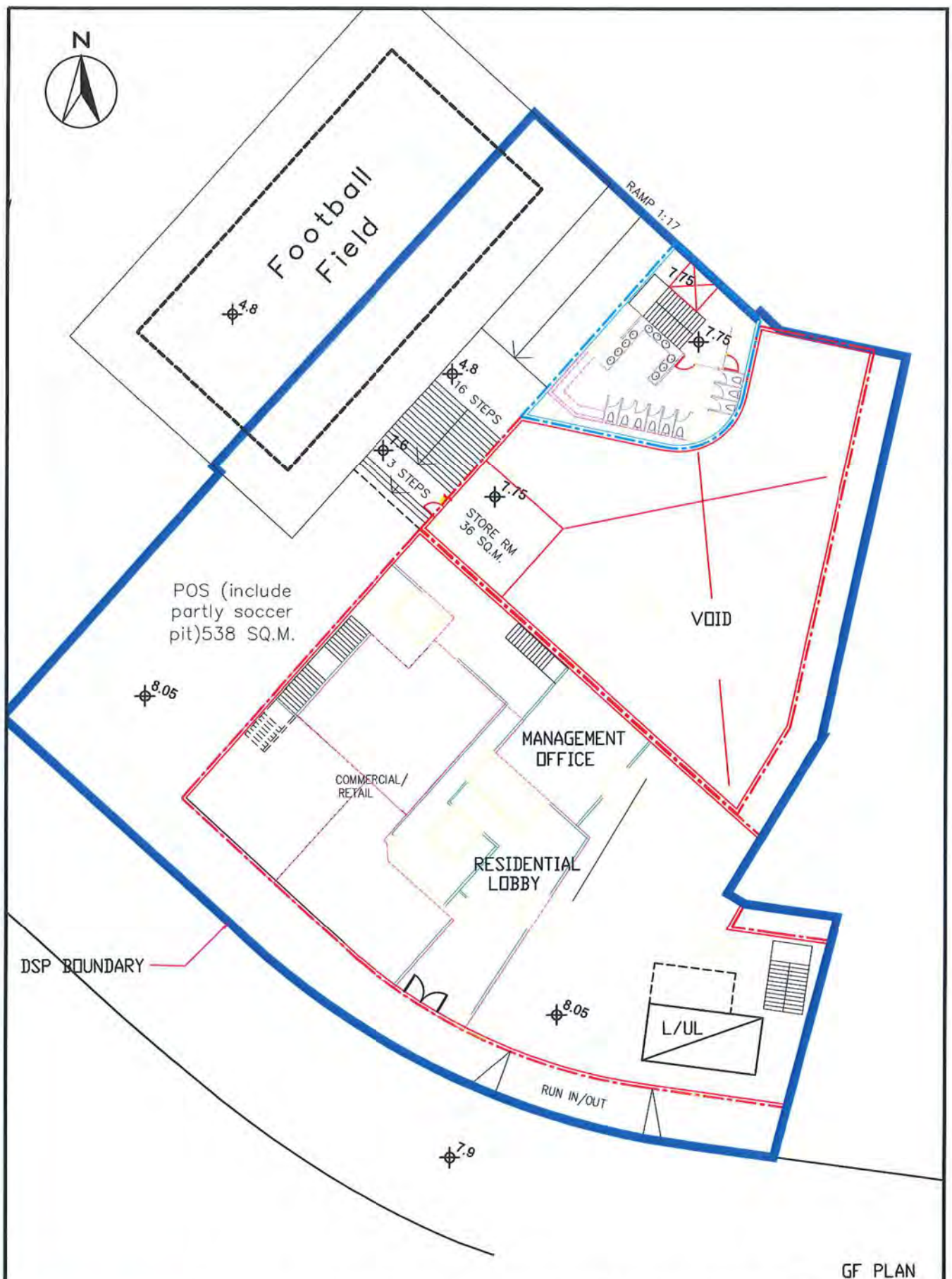
參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
3

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)







GF PLAN

CINOTECH
Cinotech Consultants Limited

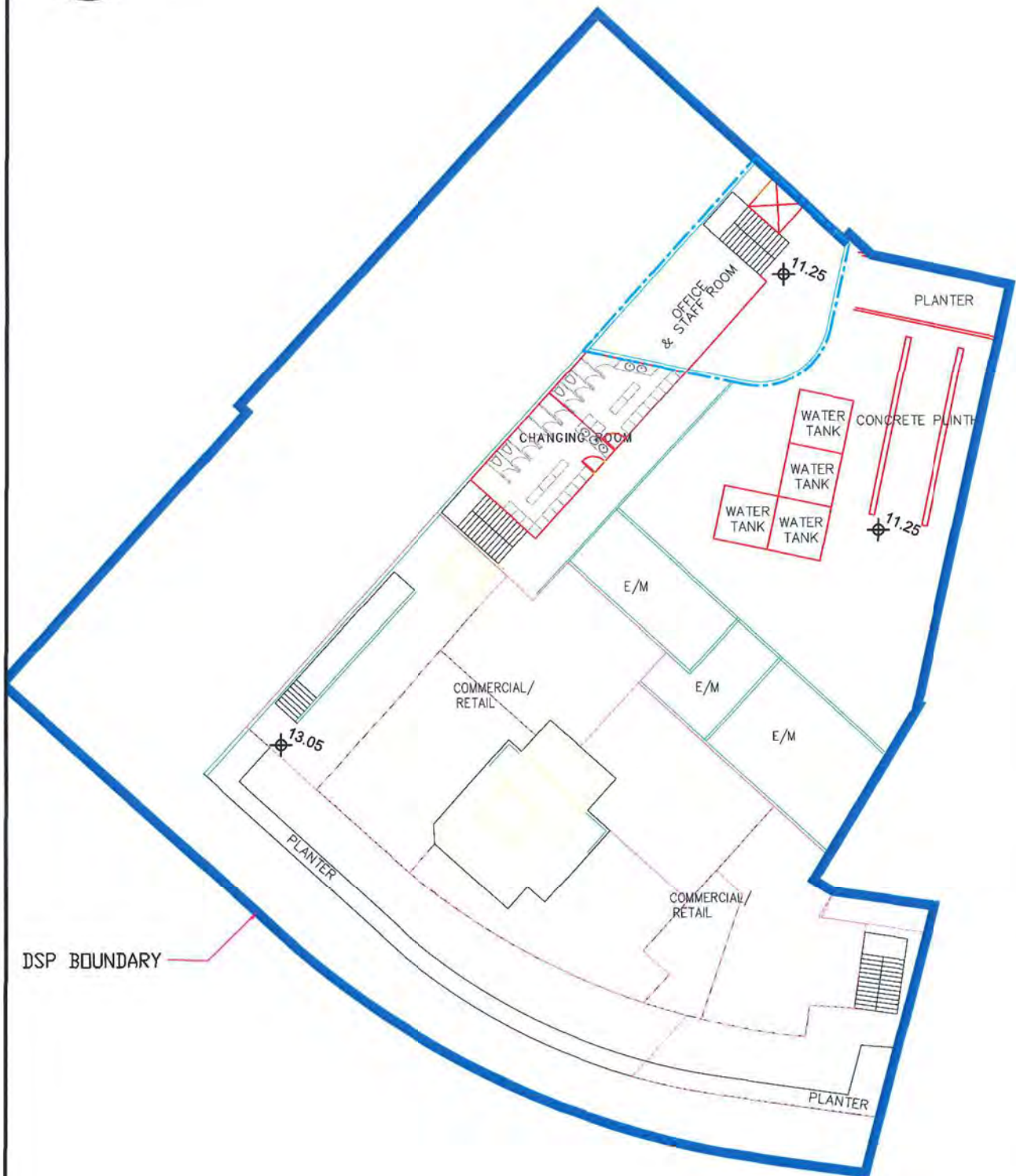
Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

| | | | |
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| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | FIGURE NO. | 3.1b |
| | | REV | 1 |

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
7



1F PLAN



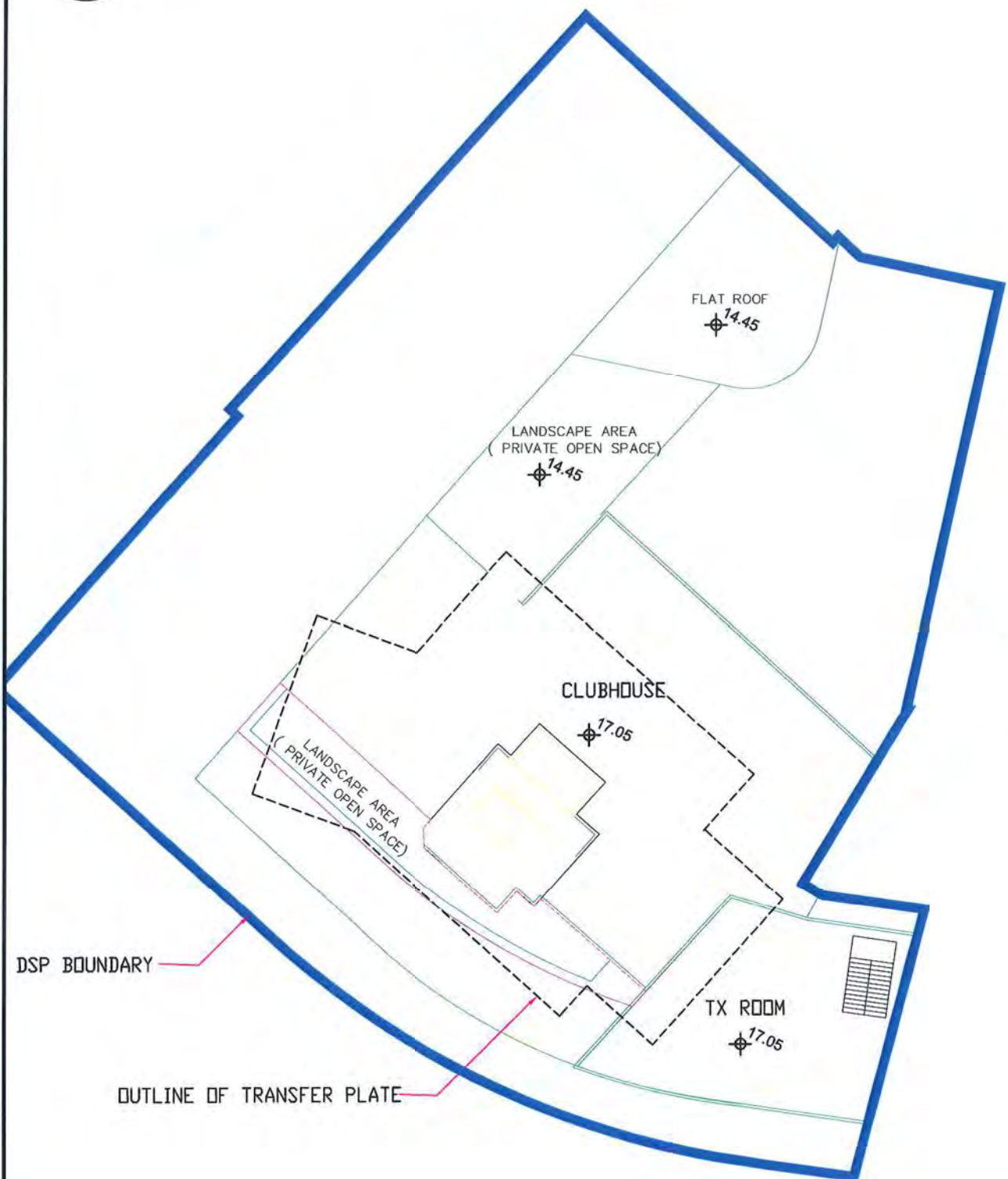
Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

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| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | FIGURE NO. | 3.1c |
| | | REV | 1 |

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
8



2F PLAN

CINOTECH
Cinotech Consultants Limited

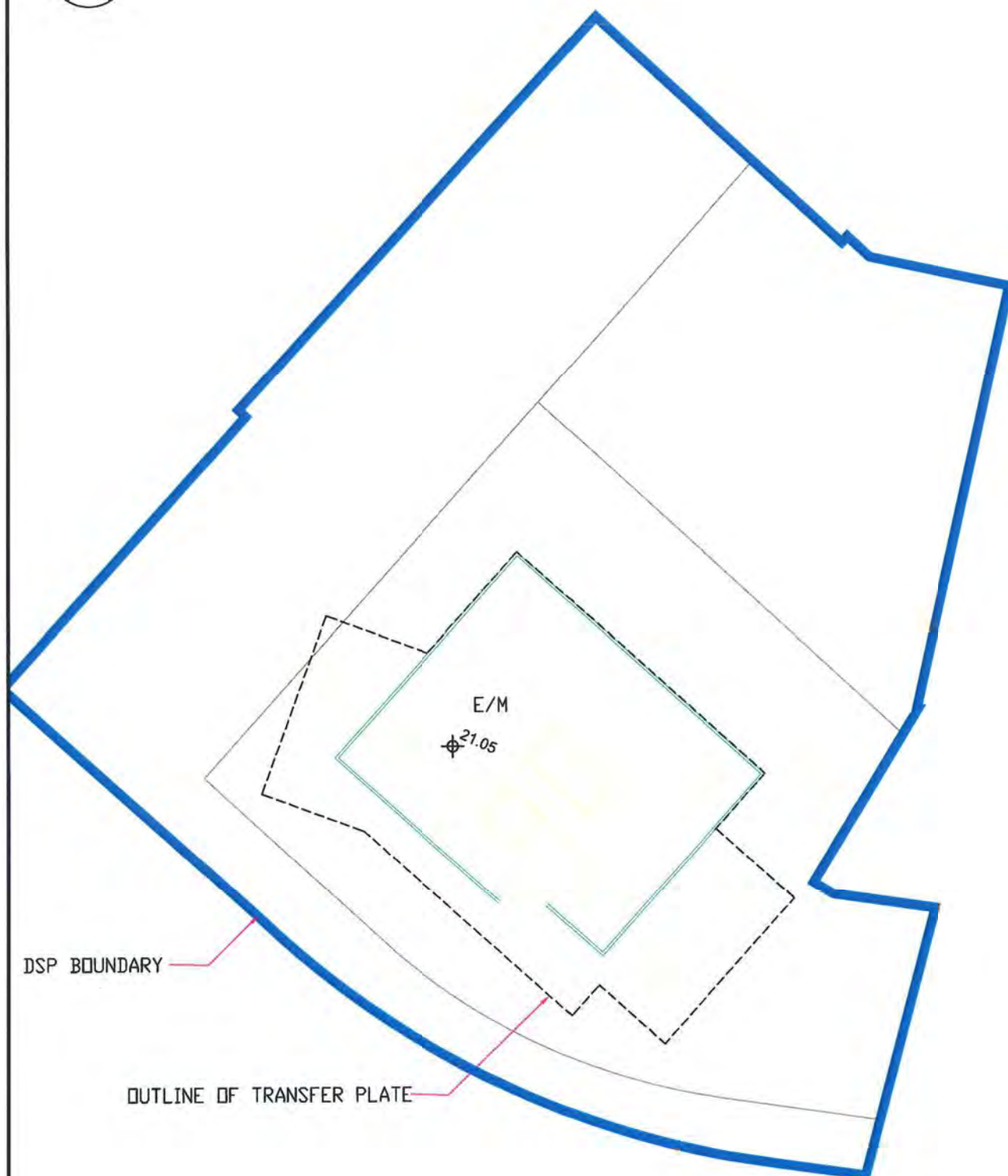
Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

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| CHECK | KS | DRAWN | TC |
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| | | REV | 1 |

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
9



3F PLAN

CINOTECH
Cinotech Consultants Limited

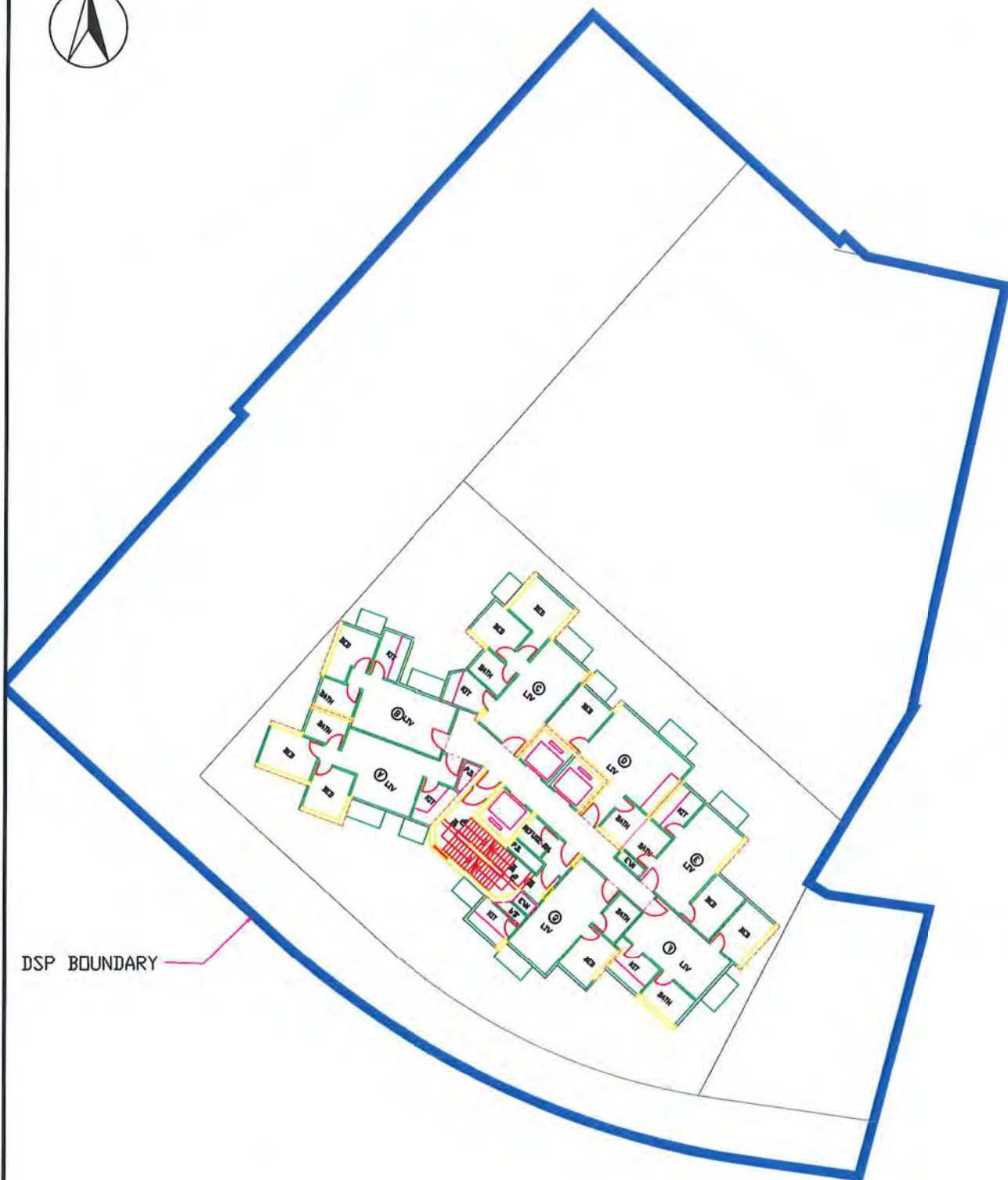
Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

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|---------|-----------|------------|----------|
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| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | FIGURE NO. | 3.1e |
| | | REV | 1 |

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
10



DSP BOUNDARY

TYPICAL FLOOR PLAN
(LOW ZONE)



Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

| | | | |
|---------|-----------|------------|----------|
| SCALE | 4:300 @A4 | DATE | Oct 2017 |
| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | FIGURE NO. | 3.1f |
| | | REV | 1 |

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
11

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)



DSP BOUNDARY



TYPICAL FLOOR PLAN
(HIGH ZONE)

CINOTECH
Cinotech Consultants Limited

Urban Renewal Authority
Queen's Road West / In Ku Lane
Development Scheme (C&W-006)
Notional Layout

| | | | |
|---------|-----------|------------|----------|
| SCALE | 4:300 @A4 | DATE | Oct 2017 |
| CHECK | KS | DRAWN | TC |
| JOB No. | IA17019 | FIGURE NO. | 3.1g |
| | | REV | 1 |

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
12



LI SHING STREET STREET VIEW



SUTHERLAND STREET STREET VIEW



WO FUNG STREET STREET VIEW



ATKINS

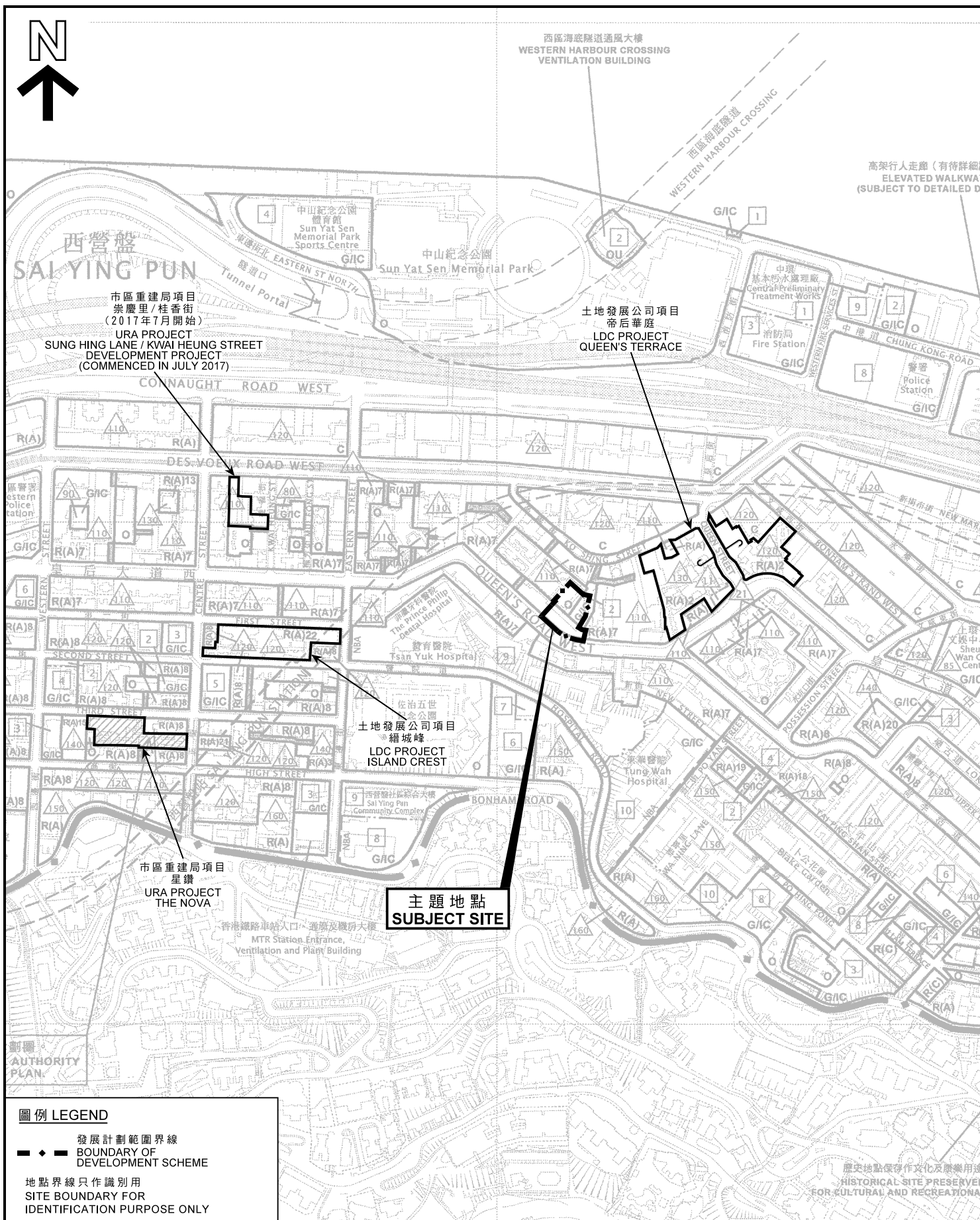
TERM TRAFFIC CONSULTANCY SERVICES
SERVICE ORDER NO. 001

| PEDESTRIAN CONNECTION AND ACCESS ARRANGEMENT AT PROPOSED GOVERNMENT REFUSE COLLECTION POINT | | | |
|---|--------|------|----------|
| Scale at A3 | 1:1000 | Date | MAY 2018 |
| Figure No. | 2.4 | | |

參考編號
REFERENCE No.
M/H3/18/12

繪圖
DRAWING
14

(資料來源：由申請人提供)
(SOURCE : SUBMITTED BY THE APPLICANT)



圖例 LEGEND

- 發展計劃範圍界線
BOUNDARY OF DEVELOPMENT SCHEME
- 地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

位置圖 LOCATION PLAN

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

本摘要圖於2018年8月21日擬備，
所根據的資料為於2017年12月5日
核准的分區計劃大綱圖編號S/H3/31
EXTRACT PLAN PREPARED ON 21.8.2018
BASED ON OUTLINE ZONING PLAN No.
S/H3/31 APPROVED ON 5.12.2017

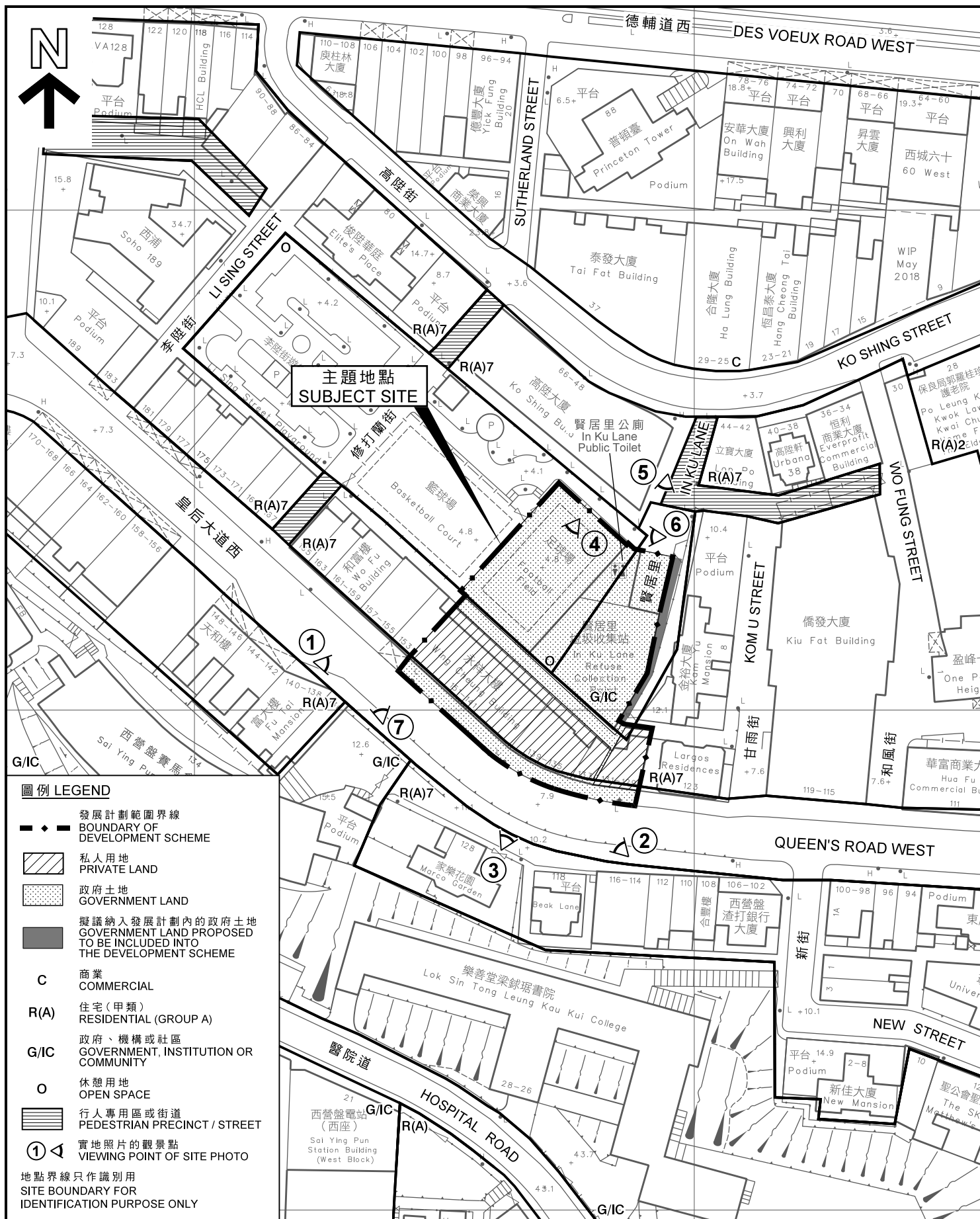
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METRES METRES

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
1



平面圖 SITE PLAN

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

本摘要圖於2018年8月21日擬備，
所根據的資料為測量圖編號
11-SW-7B及8A
EXTRACT PLAN PREPARED ON 21.8.2018
BASED ON SURVEY SHEETS No.
11-SW-7B & 8A

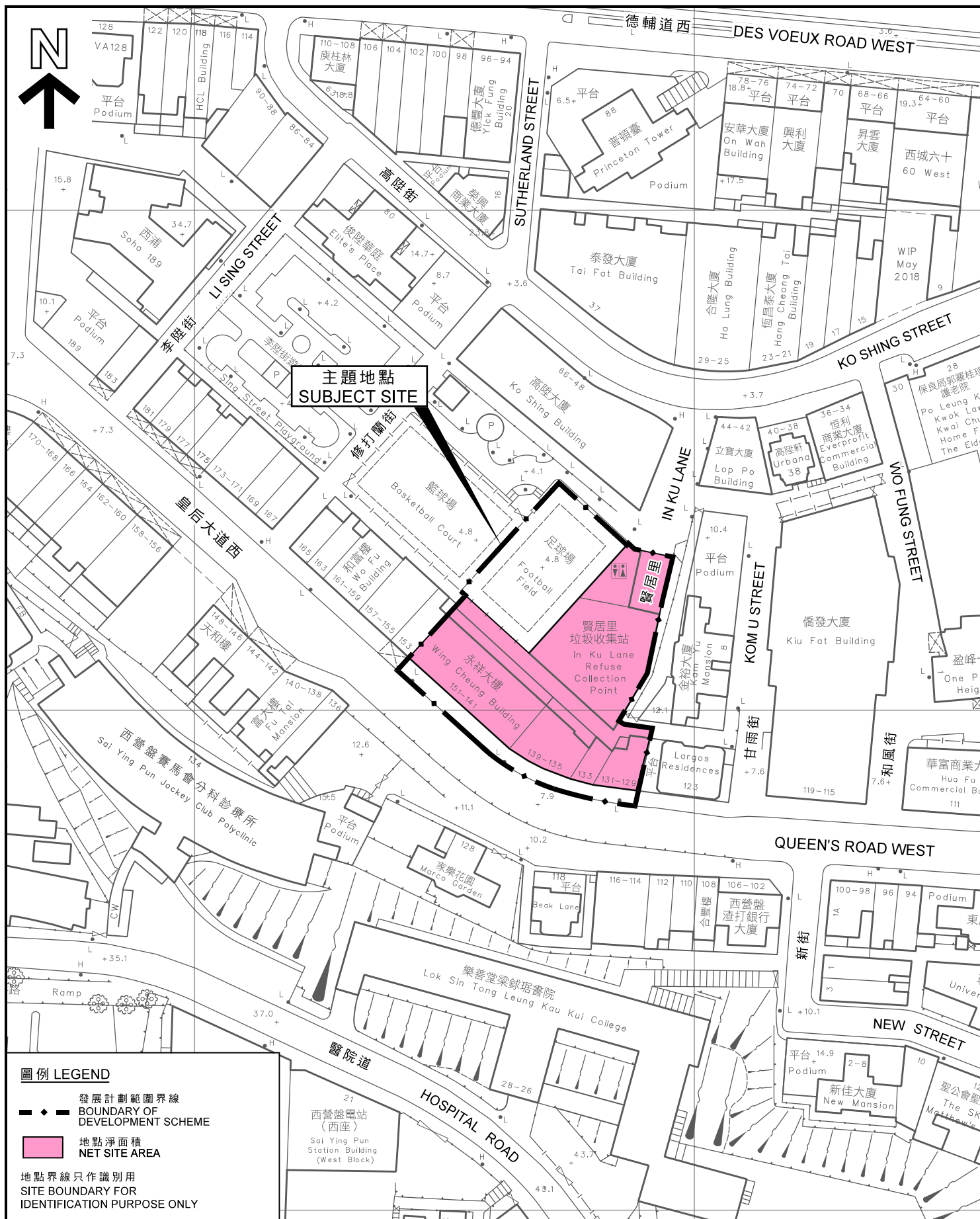
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規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
2



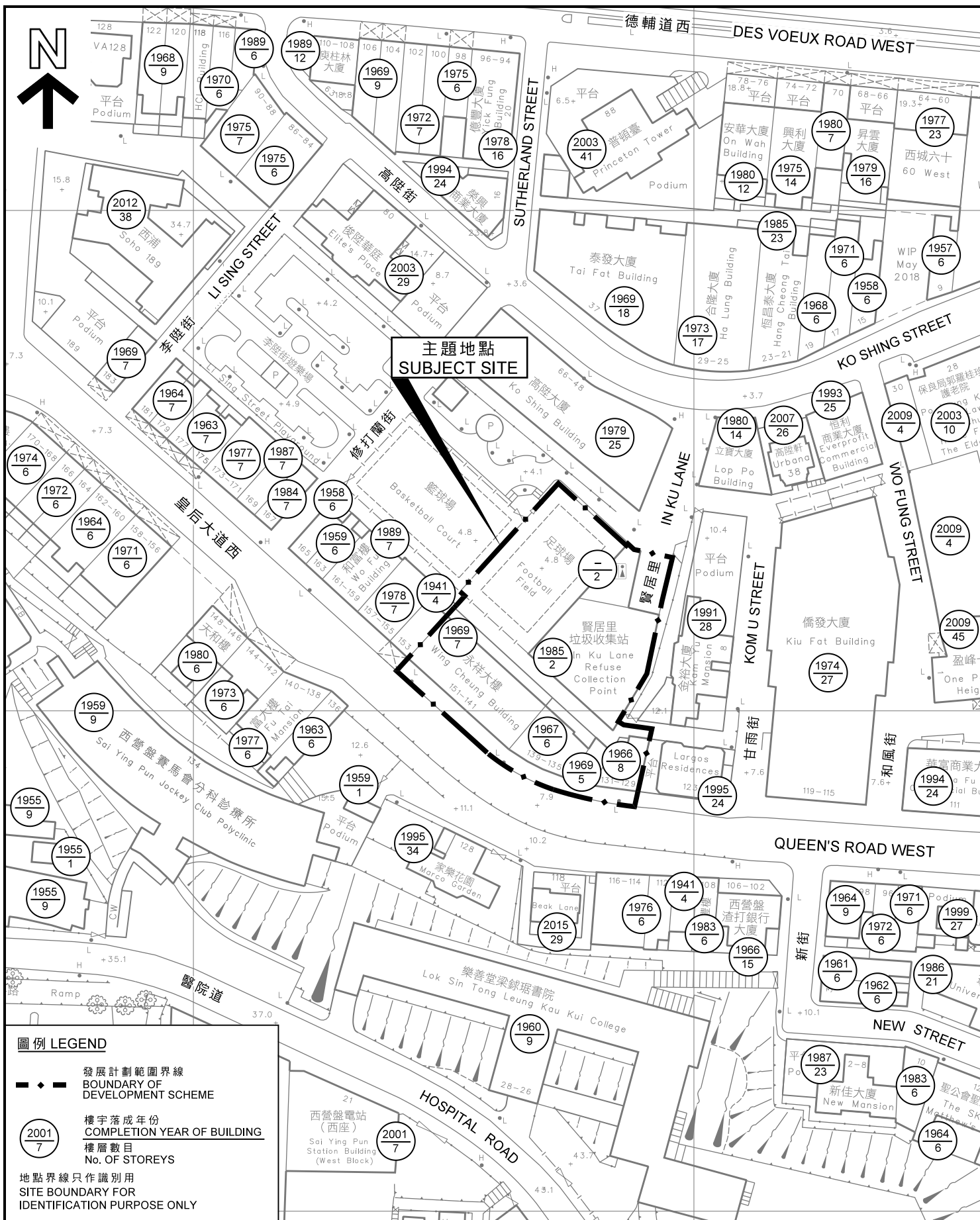
本摘要圖於2018年8月21日擬備，
所根據的資料為測量圖編號
11-SW-7B及8A
EXTRACT PLAN PREPARED ON 21.8.2018
BASED ON SURVEY SHEETS No.
11-SW-7B & 8A

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
3



平面圖 SITE PLAN

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

本摘要圖於2018年8月20日擬備，
所根據的資料為測量圖編號
11-SW-7B及8A
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SURVEY SHEETS No.
11-SW-7B & 8A

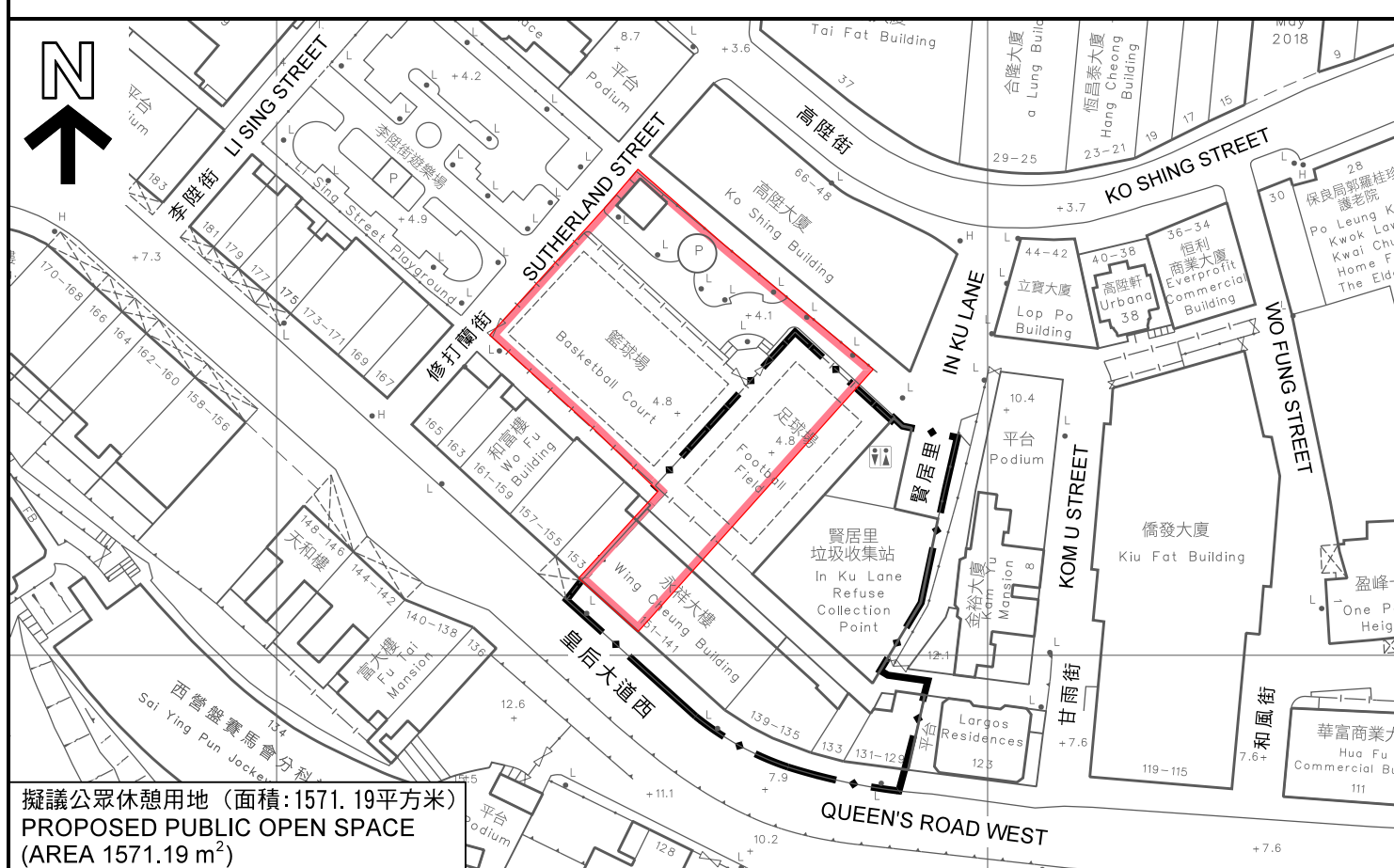
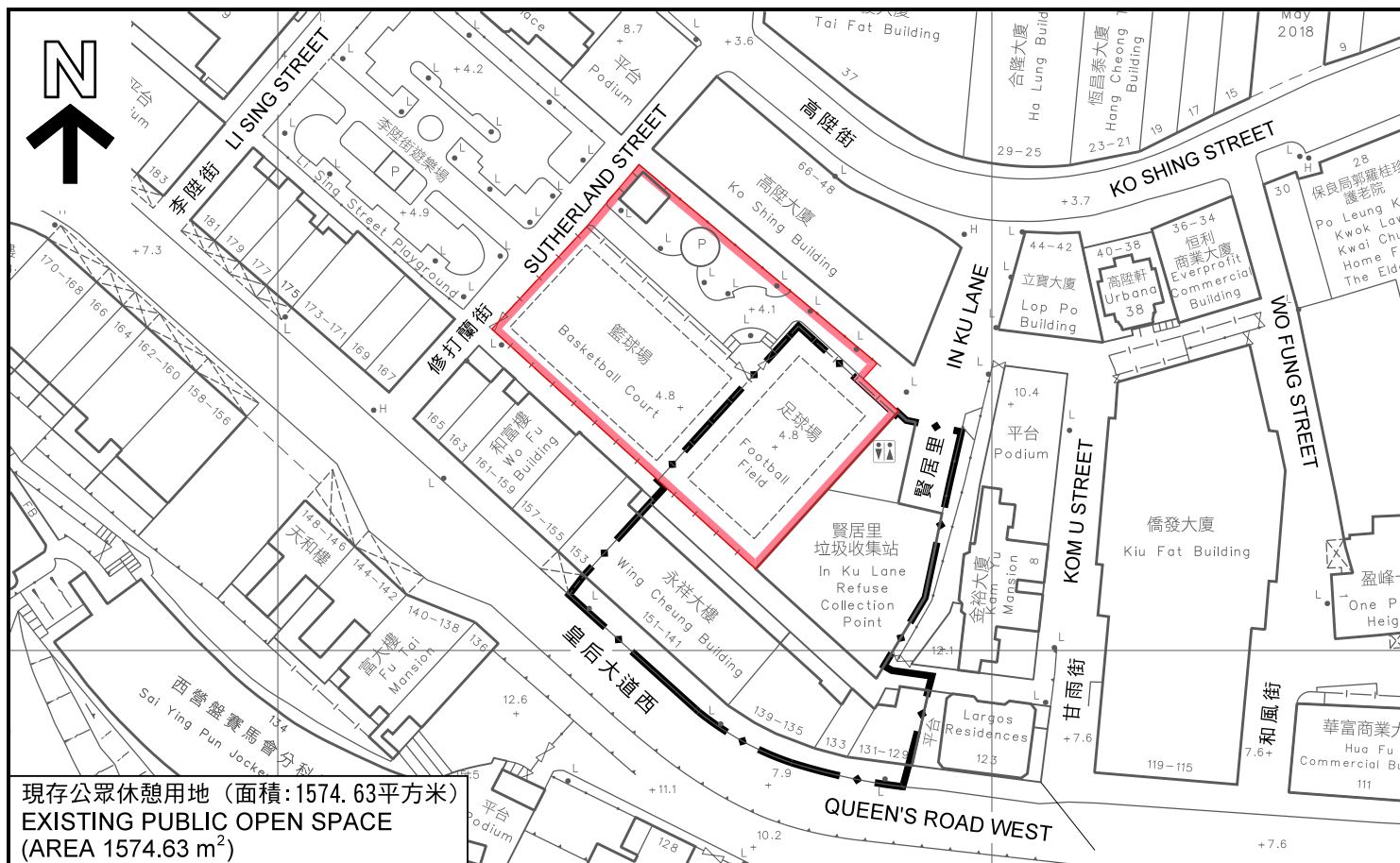
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規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
4



平面圖 SITE PLAN

重置公眾休憩用地之比較 COMPARISON OF PUBLIC OPEN SPACE PROVISION

本摘要圖於2018年8月21日擬備，
所根據的資料為測量圖編號
11-SW-7B及8A
EXTRACT PLAN PREPARED ON 21.8.2018
BASED ON SURVEY SHEETS No.
11-SW-7B & 8A

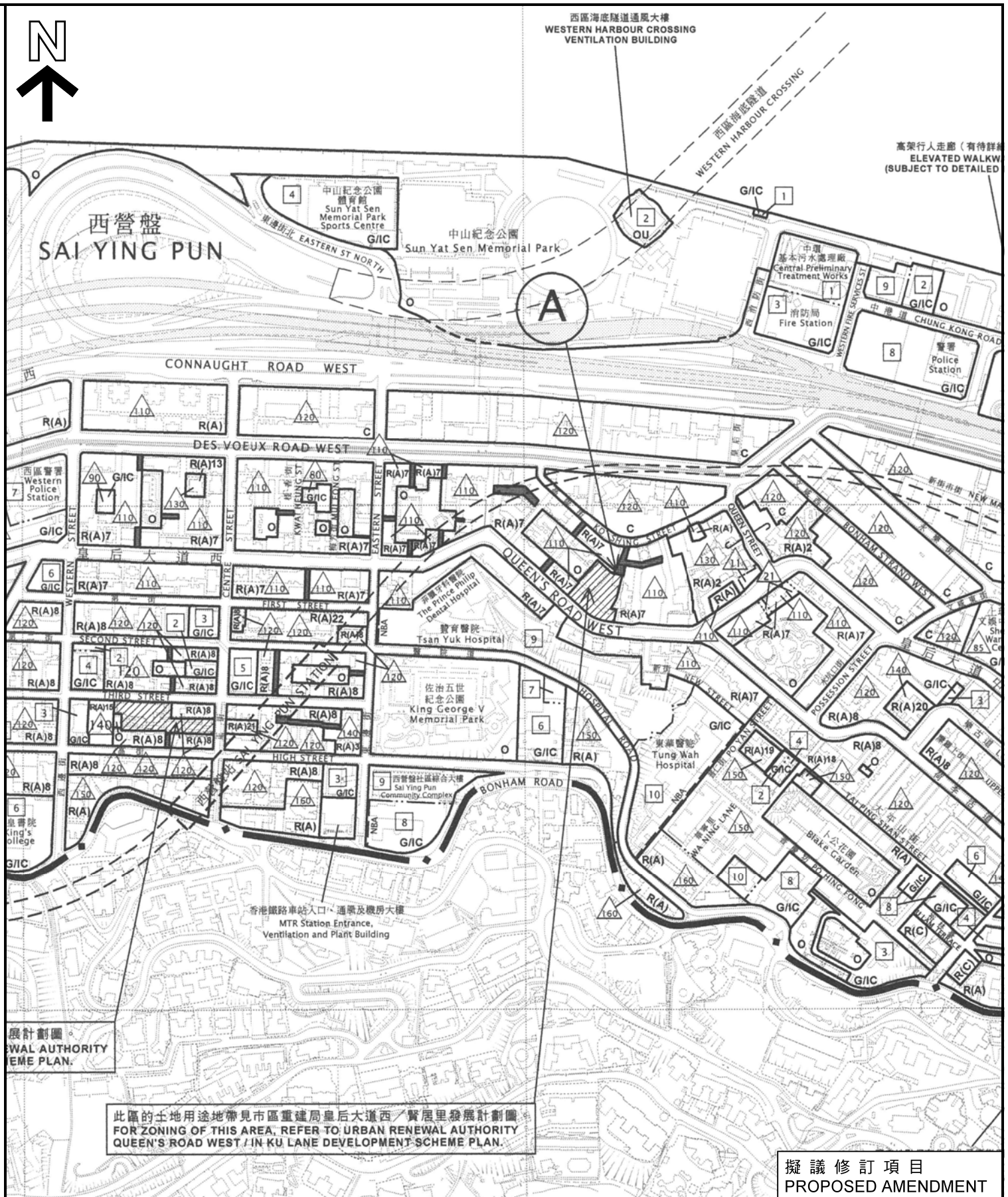
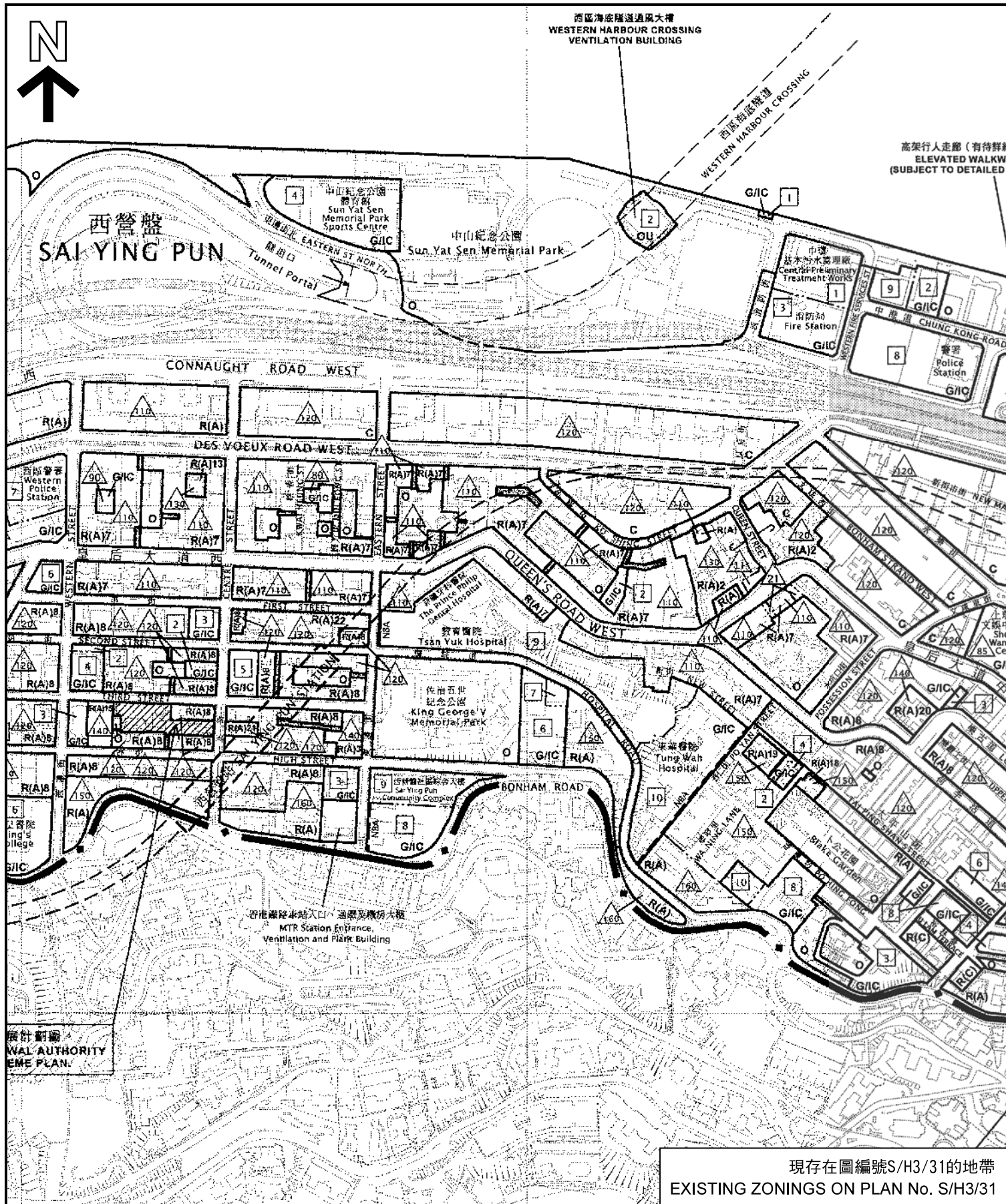
SCALE 1:1 000 比例尺
米 20 0 20 40 米
METRES

規劃署
PLANNING
DEPARTMENT

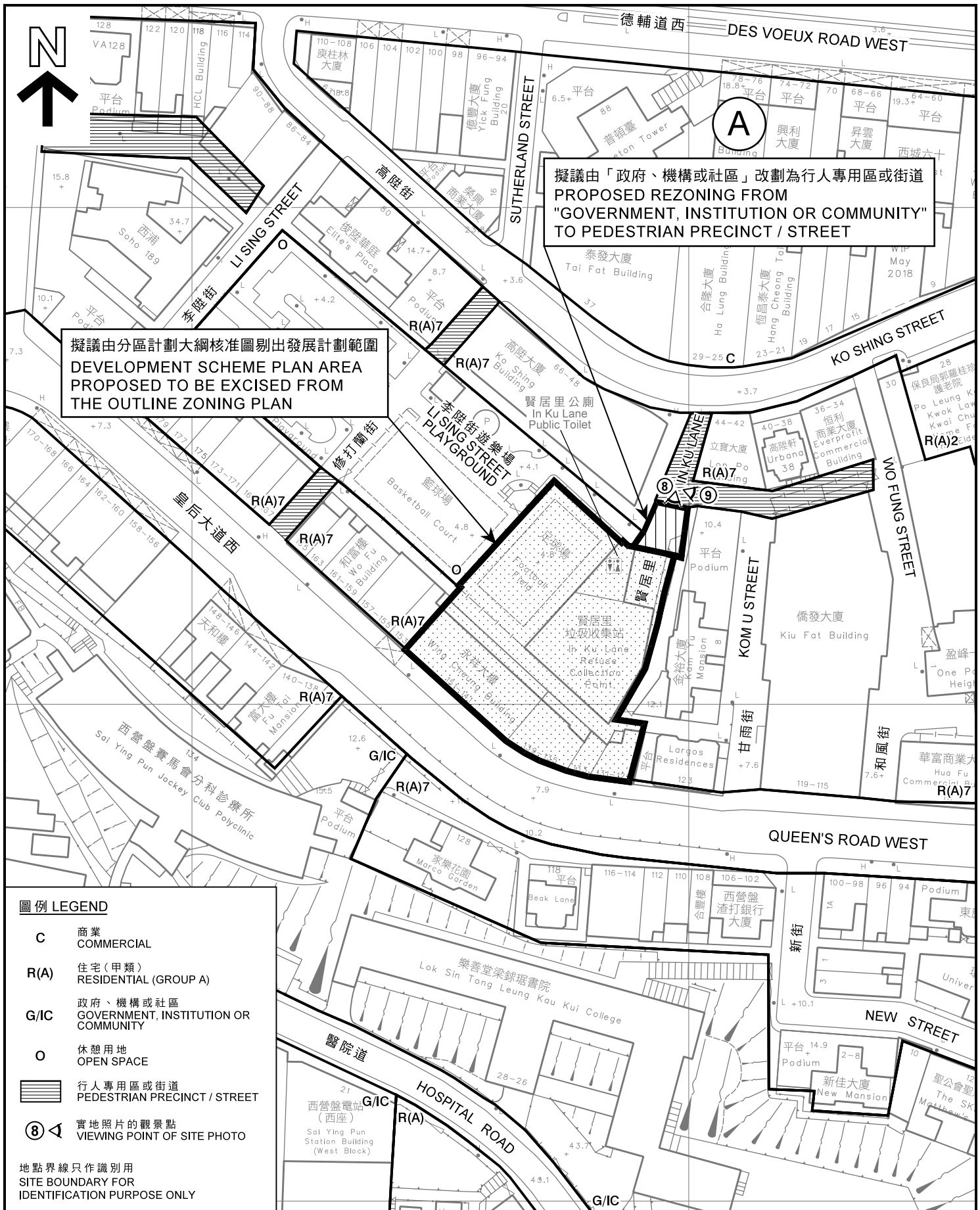


參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
5



| | | |
|---|--|---|
| <p>本摘要圖於2018年8月21日擬備，所根據的資料為於2017年12月5日核准的分區計劃大綱圖編號S/H3/31</p> <p>EXTRACT PLAN PREPARED ON 21.8.2018 BASED ON OUTLINE ZONING PLAN No. S/H3/31 APPROVED ON 5.12.2017</p> | <p>分區計劃大綱圖上現有與擬議用途地帶的比較</p> <p>COMPARISON OF EXISTING AND PROPOSED ZONINGS ON THE OZP</p> <p>西營盤及上環分區計劃大綱核准圖編號S/H3/31的擬議修訂項目</p> <p>PROPOSED AMENDMENT TO APPROVED SAI YING PUN & SHEUNG WAN OZP No. S/H3/31</p> <p>SCALE 1:5 000 比例尺</p> <p>米 100 0 100 200 300 400 米</p> <p>METRES</p> | <p>規劃署</p> <p>PLANNING DEPARTMENT</p> <p>參考編號</p> <p>REFERENCE No.</p> <p>M/H3/18/12</p> <p>圖 PLAN</p> <p>6</p> |
|---|--|---|



平面圖 SITE PLAN

西營盤及上環分區計劃大綱核准圖
編號S/H3/31的擬議修訂項目
PROPOSED AMENDMENTS TO THE
APPROVED SAI YING PUN & SHEUNG WAN
OZP No. S/H3/31

SCALE 1 : 1 000 比例尺

米 20 0 20 40 米
METRES

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.

M/H3/18/12

圖 PLAN

7

本摘要圖於2018年8月20日擬備，
所根據的資料為測量圖編號
11-SW-7B及8A
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SURVEY SHEETS No.
11-SW-7B & 8A



擬議由「政府、機構或社區」改劃為行人專用區或街道
PROPOSED REZONING FROM
"GOVERNMENT, INSTITUTION OR COMMUNITY"
TO PEDESTRIAN PRECINCT / STREET

擬議由分區計劃大綱核准圖剔出發展計劃範圍
DEVELOPMENT SCHEME PLAN AREA
PROPOSED TO BE EXCISED FROM
THE OUTLINE ZONING PLAN

地點界線只作識別用
SITE BOUNDARY FOR
IDENTIFICATION PURPOSE ONLY

航攝照片 AERIAL PHOTO

本摘要圖於2018年8月20日擬備，所根據的資料為地政總署於2017年9月14日拍得的航攝照片編號E030018C
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON AERIAL PHOTO No.E030018C
TAKEN ON 14.9.2017 BY
LANDS DEPARTMENT

西營盤及上環分區計劃大綱核准圖
編號S/H3/31的擬議修訂項目
PROPOSED AMENDMENTS TO THE
APPROVED SAI YING PUN & SHEUNG WAN
OZP No. S/H3/31

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
8



地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTOS

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
9

本圖於2018年8月20日擬備，所根據的資料為攝於2018年4月6日的實地照片
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SITE PHOTOS TAKEN ON 6.4.2018



地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTOS

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
10

本圖於2018年8月20日擬備，所根據的資料為攝於2018年4月6日(上)及2018年4月17日(下)的實地照片
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SITE PHOTOS TAKEN ON 6.4.2018 (UPPER) & 17.4.2018 (LOWER)



地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTOS

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
11

本圖於2018年8月20日擬備，所根據的資料為攝於2018年4月6日(上)及2018年4月10日(下)的實地照片
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SITE PHOTOS TAKEN ON 6.4.2018 (UPPER) & 10.4.2018 (LOWER)



地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTO

本圖於2018年8月20日擬備，所根據的
資料為攝於2018年8月8日的實地照片
EXTRACT PLAN PREPARED ON 20.8.2018
BASED ON SITE PHOTO TAKEN ON 8.8.2018

市區重建局皇后大道西/賢居里發展計劃
URBAN RENEWAL AUTHORITY
QUEEN'S ROAD WEST / IN KU LANE
DEVELOPMENT SCHEME

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.

M/H3/18/12

圖 PLAN

12



地點界線只作識別用
SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

實地照片 SITE PHOTOS

本圖於2018年8月17日擬備，所根據的資料為攝於2018年4月10日(左)及2018年6月19日(右)的實地照片
EXTRACT PLAN PREPARED ON 17.8.2018
BASED ON SITE PHOTOS TAKEN ON 10.4.2018 (LEFT) & 19.6.2018 (RIGHT)

西營盤及上環分區計劃大綱核准圖
編號S/H3/31的擬議修訂項目
PROPOSED AMENDMENTS TO THE
APPROVED SAI YING PUN & SHEUNG WAN
OZP No. S/H3/31

規劃署
PLANNING
DEPARTMENT



參考編號
REFERENCE No.
M/H3/18/12

圖 PLAN
13