

Attachment D

Replacement Pages of Revised Environmental Assessment

Application for Amendment of Plan under Section 12A of the Town Planning Ordinance (Cap. 131), to Rezone the Application Site from “Open Space” to “Residential (Group A)11”, for Proposed Residential Development with Social Welfare Facilities, Religious Institution, and Shop and Services at Sha Tin Town Lot 310 in D.D. 184, Sha Tin, New Territories
(Planning Application No. Y/ST/63)

Proposed Residential Development with Social Welfare Facilities and Religious Institution at Sha Tin Town Lot (STTL) 310, Sha Tin under Section 12A of the Town Planning Ordinance (Cap. 131)

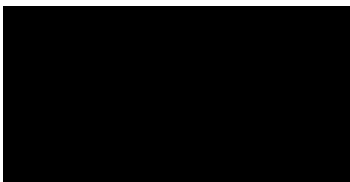
Environmental Assessment

Reference: REP-01-001

Issue 03 | September 2026

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 304537



3. Site Inspection

- 3.1.1.1 Site visit was carried out in February 2025. Photographs taken at the Application Site and the neighbouring areas are given in **Photo 3.1** to **Photo 3.8** below.
- 3.1.1.2 The Application Site (**Photo 3.1**) is currently occupied by Hong Kong Bible Research and Education Centre. The Application Site is bounded by Lion Rock Tunnel Road (**Photo 3.2**) to the west and Tai Chung Kiu Road (**Photo 3.3**) to the south. A farmhouse (**Photo 3.4**) is located immediately to the east of the Application Site. Tsang Tai Uk Recreation Ground (**Photo 3.5**) is located to the south, and The River Park (**Photo 3.6**) and Che Kung Temple Station (**Photo 3.7**) are located to the southwest of the Application Site. Chun Shek Bus Terminus (**Photo 3.8**) is found further away to the southwest of the Application Site.
- 3.1.1.3 Based on site observation, the noise climate in the vicinity of the Application Site was dominated by road traffic noise from Lion Rock Tunnel Road and Tai Chung Kiu Road.

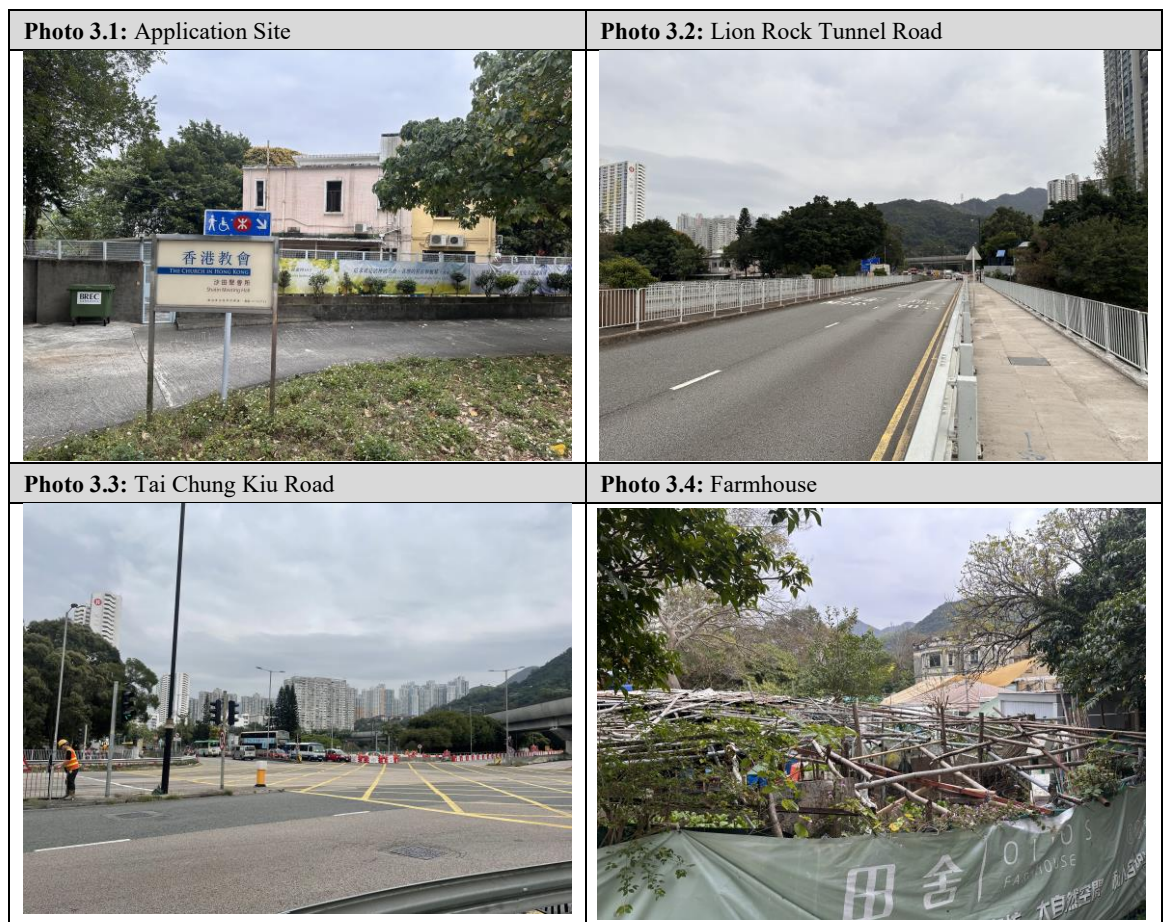
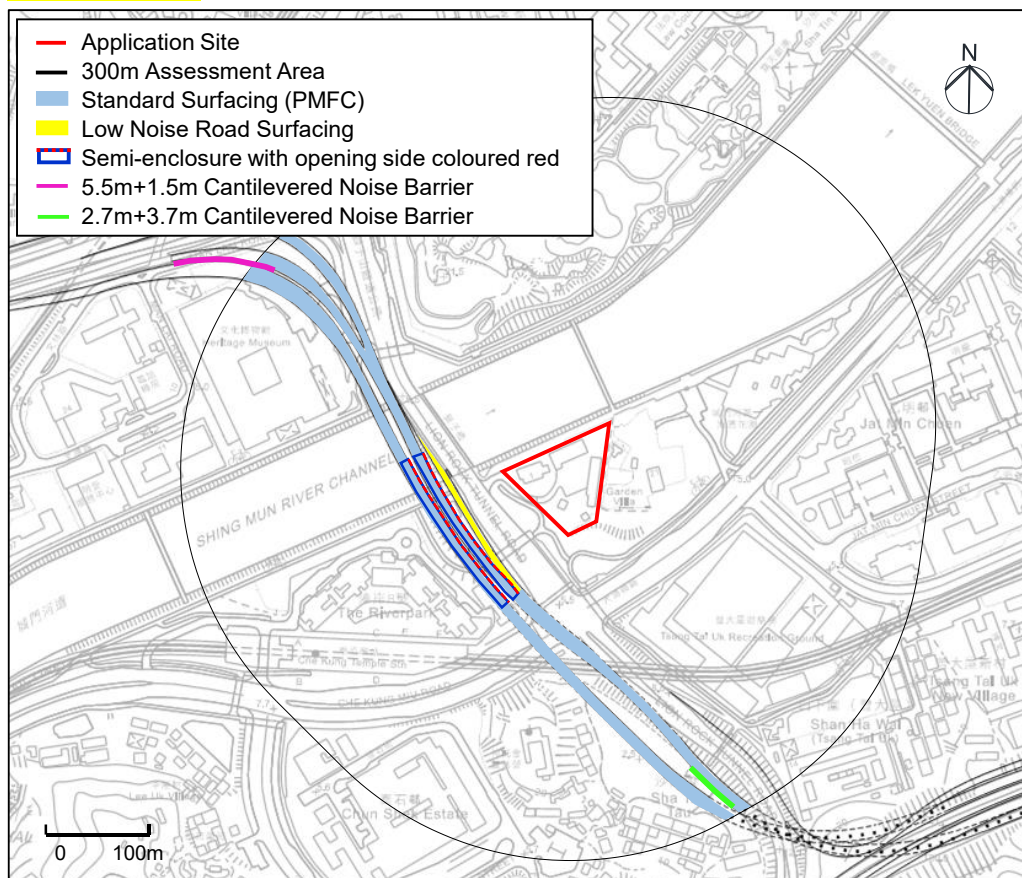


Photo 3.5: Tsang Tai Uk Recreation Ground	Photo 3.6: The River Park
 A photograph of the Tsang Tai Uk Recreation Ground. In the foreground, there is a paved walkway with a green metal fence and a tall palm tree on the right. In the background, several high-rise residential buildings are visible under a cloudy sky.	 A photograph of The River Park, showing two tall, modern high-rise buildings with glass facades. The buildings are surrounded by greenery and a river is visible in the distance under a cloudy sky.
Photo 3.7: Che Kung Temple Station	Photo 3.8: Chun Shek Bus Terminus
 A photograph of the Che Kung Temple Station. The station is a large, modern building with a curved roof and glass facade. It is surrounded by palm trees and other greenery. High-rise buildings are visible in the background.	 A photograph of the Chun Shek Bus Terminus. The image shows a paved road with yellow and white markings, leading to a bus stop area. Several buses are parked at the terminus. The area is bordered by buildings and trees.

Figure 4.8: Extent of proposed noise mitigation measures on revised trunk road T4 within 300m assessment area



4.5.2.3 The existing and planned noise mitigation measures on road sections within the 300m assessment area of the proposed development as described above have been incorporated into the base case of the traffic noise model of the present study.

4.6 Traffic Flow Data for Assessment

4.6.1.1 As advised by the Traffic Consultant, the maximum traffic flow within 15 years upon population intake of the residential development will occur in Year 2047. Traffic Impact Assessment (TIA) including the methodology on the traffic forecast for the EAS has been submitted to Transport Department (TD) for endorsement. Reply from TD is yet to be provided at the time of preparing this report and will be supplemented in later stage. The traffic consultant had checked and confirmed the validity of the traffic data, which was derived based on the traffic forecast methodology submitted to TD.

4.6.1.2 The roads surrounding the Site and the predicted peak hourly traffic flows are presented in **Figure 4.9** and **Table 4.2** respectively. The traffic flow data for all roads is given in **Appendix 4.2**.

Pollutant	Parameter	Concentrations (µg/m ³) ^{[1] [2] [3] [4]}						AQOs (µg/m ³)
		2021	2022	2023	2024	2025	5-year mean	
Ozone (O ₃)	10 th highest 8-hour	157	177	159	167	164	165 [103%]	160 (9)
	Peak Season	94	103	101	109	104	102 [102%]	100 (N/A)
RSP	10 th highest 24-hour	58	46	51	53	50	52 [69%]	75 (9)
	Annual	25	21	22	21	20	22 [73%]	30 (N/A)
FSP	19 th highest 24-hour	31	30	26	31	28	29 [78%]	37.5 (18)
	Annual	14	13	13	13	12	13 [87%]	15 (N/A)

Note:

[1] Number of exceedance allowed under the AQO is shown in (), % of the AQO is shown in []

[2] Monitoring results exceeding the AQO are bolded.

[3] N/M = Not Measured.

[4] The concentrations shown in the table are rounded values. If the rounded value remains within the AQO, the value will not be shown in bold

9.3.2 Future Ambient Air Quality

9.3.2.1 In order to predict the future ambient air quality taking into account the emission reduction plan for Pearl River Delta (PRD) region up to Year 2030, **PATHv3.0** (Pollutants in the Atmosphere and their Transport over Hong Kong), a regional air quality model, has been developed by EPD to simulate air quality over Hong Kong against the PRD as background. The proposed development would tentatively operate by Year 2035. The pollutant concentrations predicted by **PATHv3.0** for Year for 2035 for Level 1 (0-17m) for the concerned PATH grids are summarised in **Table 9.5**. It is predicted all AQO parameters would be below the AQOs, except for O₃ which is a regional air pollutant not directly emitted from any pollution source.

Table 9.5: Summary of Year 2035 background from **PATHv3.0**

Pollutant	Parameter	Concentrations in various PATH grids (µg/m ³) ^[1]				AQOs ^[2] (µg/m ³)
		41_39	41_40	42_39	42_40	
RSP	10 th highest 24-hour	48	48	49	49	75 (9)
	Annual	19	19	19	19	30
FSP	19 th highest 24-hour	28	28	28	29	37.5 (18)
	Annual	12	12	11	12	15
NO ₂	19 th highest 1-hour	61	56	55	59	200 (18)
	10 th highest 24-hour	27	25	25	26	120 (9)
	Annual	12	12	10	12	40
SO ₂	4 th highest 10-minute	23	23	23	22	500 (3)
	4 th highest 24-hour	7	7	7	7	40 (3)
O ₃	10 th highest 8-hour	170	171	167	170	160 (9)
	Peak season	120	120	119	120	N/A
CO	Max. 1-hour	526	525	525	528	30,000 (0)
	Max. 8-hour	484	488	478	488	10,000 (0)
	Max 24-hour	453	452	449	454	4,000 (0)

Note:

[1] Concentration in PATH grid exceeding the AQO are bolded.

[2] Values in () indicate numbers of exceedances allowed under the AQOs.

Year	Description
	No significant change in historical land use was observed at the rest of the Site.
2023	- New low-rise structures were added to the cluster of low-rise structures at the southern side of the Site. - No significant change in historical land use was observed at the rest of the Site. - New low-rise structures has been constructed near the village houses and open area to the east of the Site.

- 10.2.1.2 Based on review of historical aerial photographs, no historical land use/ activities which may cause land contamination was identified.

10.3 Desktop Review and Site Survey Findings

- 10.3.1.1 Site survey was conducted in February 2025 to identify any existing land uses within the Site and the adjoining sites which may have potential for causing land contamination. During the site survey, site access was restricted. Photo record of the site survey is given in **Appendix 10.2**, and the site walkover checklist is given in **Appendix 10.3**. The site is primarily occupied by Hong Kong Bible Research and Education Center with several low-rise structures and open space based on site observation. Based on desktop review, the low-rise structure within the Site was previously managed by Ecclesia Theological Seminary since 1953. It has then been used by religious institutions across decades. Considering the operations and activities of religious institutions, potential land contamination activities were not identified. Based on peripheral site observations, chemicals and dangerous goods (DGs) were not found within the site. No potential land contamination issue was observed during the site visits.

10.4 Information from Relevant Government Departments

10.4.1 Fire Services Department

- 10.4.1.1 An information request was sent to FSD regarding any Dangerous Goods (DGs) licenses registered and any records of DGs spillage/leakage incidents within the Site. As per FSD's response in March 2025, there are no records of DGs licenses nor spillage/leakage incidents within the Site. The correspondence with FSD is enclosed in **Appendix 10.4**.

10.4.2 Environmental Protection Department

- 10.4.2.1 An information request was sent to EPD regarding any registered Chemical Waste Producers (CWP), and any record of chemical spillage/leakage incidents recorded within the Site. As per EPD's response in March 2025, there are no records of chemical spillage/leakage incidents within the Site. In addition, the register of CWPs was inspected in March 2025, no CWPs are registered within the Site. The correspondence with EPD is enclosed in **Appendix 10.5**.

- 11.2.5.4 The contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the construction site should be considered for such segregation and storage.
- 11.2.5.5 To enhance management of C&D materials and minimise C&D materials generation at source, Buildings Department's "Practice Notes for Authorised Persons and Registered Structural Engineers" (PNAP) ADV-19 has introduced enhancement measures such as requiring the contractor to prepare Waste Management Plan (WMP) and submit to Project Proponent for agreement.

11.2.6 Chemical Waste

- 11.2.6.1 The contractor shall identify any alternatives for the use of chemical to minimise the generation of chemical waste. The ordering of chemicals should be well planned to avoid excess inventory.
- 11.2.6.2 If chemical wastes are produced at the construction site, the contractors should register with EPD as chemical waste producers. Chemical wastes should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes. Containers used for storage of chemical wastes should:
- be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;
 - have a capacity of less than 450 L unless the specification has been approved by EPD; and
 - display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.
- 11.2.6.3 The storage area for chemical wastes should:
- be clearly labelled and used solely for the storage of chemical wastes;
 - be enclosed on at least 3 sides;
 - has an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical wastes stored in the area, whichever is greatest;
 - have adequate ventilation;
 - be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical wastes, if necessary); and
 - be arranged so that incompatible materials are adequately separated.
- 11.2.6.4 Disposal of chemical wastes should:
- be via a licensed waste collector; and
 - be to a facility licensed to receive chemical wastes, such as the CWTC which also offers a chemical waste collection service and can supply the necessary storage containers; or

11.4 Recommended Practices for Operational Phase

11.4.1 Waste Collection and Disposal

- 11.4.1.1 An effective and efficient waste handling system is essential in order to minimize potential adverse environmental impacts during waste storage, collection and transport, such impacts may include odour if waste is not collected frequently; water quality if waste enters storm water drains; aesthetics and vermin problems if the waste storage area is not well maintained and cleaned regularly. The waste handling system may also facilitate materials recovery and recycling.
- 11.4.1.2 A refuse collection room would be installed at the ground floor for localized refuse collection. To avoid potential odour nuisance during transport of waste, enclosed waste collection trucks should be used and the collection route and time should be properly planned. At least daily collection should be arranged by the waste collector. The collected waste should be ultimately disposed to the EPD's landfills such as the West New Territories (WENT) or North East Territories (NENT) landfills.

11.4.2 Waste Recycling

- 11.4.2.1 In order to facilitate recycling, a 4-bin recycling system for paper, metals, plastics and glass should be adopted together with a general refuse bin. They should be placed in prominent places to promote waste separation at source. All recyclable materials should be collected by recyclers. Food waste recycling bins should be set up at a designated location to collect food waste during operational phase. The collected food waste should be delivered to the EPD's food waste recycling facilities (i.e. Organic Resources Recovery Centre (ORRC)) for turning into energy or resources.

12.1.6 Hong Kong Planning Standards and Guidelines (HKPSG)

- 12.1.6.1 Chapter 9 of the HKPSG outlines environmental requirements that need to be considered in land use planning. The recommended guidelines, standards and guidance cover the selection of suitable locations for the developments and sensitive uses, provision of environmental facilities, and design, layout, phasing and operational controls to minimize the adverse environmental impacts. It also lists out environmental factors influencing land use planning and recommended buffer distances for land uses.

12.2 Description of the Environment

12.2.1 Marine Water

- 12.2.1.1 The baseline conditions of marine water were referred to the marine water quality monitoring data routinely collected by EPD. The closest marine water quality monitoring station would be Tolo Harbour & Channel WCZ (Station TM2), which is located around 5km away from the Project Site.
- 12.2.1.2 The details of the recent water quality monitoring data from the nearest monitoring station in that WCZ (Station TM2) in Year 2025 are presented in **Table 12.2**.

Table 12.2: Summary of EPD's Routine Marine Water Quality Data for Tolo Harbour & Channel Water Control Zone in Year 2025

Parameters		Tolo Harbour & Channel WCZ
		TM2
Temperature (°C)		24.7 (17.6 - 31.5)
Salinity		29.8 (24.5 - 32.7)
Dissolved Oxygen (mg/L)	Depth Averaged	7.4 (3.8 - 10.2)
	Bottom	7.4 (3.0 - 10.3)
Dissolved Oxygen (% Saturation)	Depth Averaged	105 (55 - 150)
	Bottom	104 (45 - 151)
pH		8.0 (7.4 - 8.3)
Secchi Disc Depth (m)		1.8 (1.0 - 2.8)
Turbidity (NTU)		1.5 (0.3 - 5.3)
Suspended Solids (mg/L)		4.0 (1.5 - 8.4)
5-day Biochemical Oxygen Demand (mg/L)		2.0 (0.2 - 4.0)
Ammonia Nitrogen (mg/L)		0.066 (0.019 - 0.235)
Unionised Ammonia (mg/L)		0.003 (<0.001 - 0.019)
Nitrite Nitrogen (mg/L)		0.006 (<0.002 - 0.022)
Nitrate Nitrogen (mg/L)		0.069 (0.004 - 0.345)
Total Inorganic Nitrogen (mg/L)		0.14 (0.03 - 0.52)
Total Kjeldahl Nitrogen (mg/L)		0.33 (0.21 - 0.62)
Total Nitrogen (mg/L)		0.40 (0.23 - 0.65)

Parameters	Tolo Harbour & Channel WCZ
	TM2
Orthophosphate Phosphorus (mg/L)	0.011 (<0.002 - 0.053)
Total Phosphorus (mg/L)	0.08 (0.03 - 0.17)
Silica (as SiO ₂) (mg/L)	1.17 (<0.05 - 4.85)
Chlorophyll- <i>a</i> (µg/L)	8.1 (1.3 - 19.5)
<i>E. coli</i> (count/100mL)	31 (1 - 2500)
Faecal Coliforms (count/100mL)	150 (8 - 12000)

Note:

[1] The table above is extracted from the Annual Report of Marine Water Quality in Hong Kong in 2025.

[2] Unless otherwise specified, data presented are depth-averaged (A) values calculated by taking the means of three depths: Surface (S), Mid-depth (M), Bottom (B).

[3] Data presented are annual arithmetic means of the depth-averaged results except for *E. coli* and faecal coliforms, which are annual geometric means.

[4] Data in brackets indicate the ranges.

12.2.2 River Water

12.2.2.1 The baseline conditions of river water were referred to the river water quality monitoring data routinely collected by EPD. The closest representative river water quality monitoring station would be Shing Mun Main Channel (Station TR19I), which is located around 1.6km away from the Project Site.

12.2.2.2 The details of the recent water quality monitoring data from the closest representative monitoring station (Station TR19I) in Year 2025 are presented in **Table 12.3**.

Table 12.3: Summary of EPD's Routine River Water Quality Data for Shing Mun Main Channel in Year 2025

Parameters	Shing Mun Main Channel ^{[1][2][3][4]}
	TR19I
Dissolved oxygen (mg/L)	7.3 (5.0 - 8.0)
pH	7.8 (7.7 - 8.6)
Suspended solids (mg/L)	4.6 (1.9 - 8.5)
5-day Biochemical Oxygen Demand (mg/L)	2.4 (1.1 - 4.4)
Chemical Oxygen Demand (mg/L)	21 (8 - 53)
Oil & grease (mg/L)	<0.5 (<0.5 - <0.5)
<i>E. coli</i> (counts/100mL)	164 (10 - 2 200)
Faecal coliforms (counts/100mL)	1 093 (150 - 9 000)
Ammonia-nitrogen (mg/L)	0.094 (0.038 - 0.210)
Nitrate-nitrogen (mg/L)	0.160 (0.060 - 0.350)

Parameters	Shing Mun Main Channel ^{[1][2][3][4]}
	TR19I
Total Kjeldahl nitrogen (mg/L)	0.35 (0.19 - 0.57)
Orthophosphate Phosphorus (mg/L)	0.036 (0.009 - 0.074)
Total Phosphorus (mg/L)	0.09 (0.04 - 0.20)
Sulphide (mg/L)	<0.02 (<0.02 - <0.02)
Aluminium (µg/L)	<50 (<50 - <50)
Cadmium (µg/L)	<0.1 (<0.1 - 0.2)
Chromium (µg/L)	2 (<1 - 3)
Copper (µg/L)	5 (4 - 7)
Lead (µg/L)	<1 (<1 - <1)
Zinc (µg/L)	<10 (<10 - 20)
Flow (m³/s)	NM

Notes:

[1] Data presented are in annual medians of monthly samples; except those for *E. coli* and faecal coliforms which are in annual geometric means.

[2] Figures in brackets are annual ranges.

[3] NM indicates no measurement taken.

[4] Extracted from EPD River Water Quality in Hong Kong in 2025.

12.3 Water Sensitive Receivers

12.3.1.1 Water Sensitive Receivers (WSRs) within 500m from the Site are identified and presented in **Figure 12.1**. Major WSRs are listed in **Table 12.4**.

Table 12.4: Water sensitive receivers

ID	WSRs	Status	Distance from WSR
WSR 1	Shing Mun River	Channelized watercourse	13m
WSR 2	Channel near Sha Tin Tau Village	Channelized watercourse	115m