

**Project Profile for
Sewerage Works for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong**



**Drainage Services Department
The Government of the Hong Kong Special Administrative Region**

Table of Content

1.	BASIC INFORMATION	1
1.1	Project Title	1
1.2	Purpose and Nature of the Project	1
1.3	Name of the Project Proponent.....	1
1.4	Location and Scale of the Project and History of Site.....	1
1.5	Number and Type of Designated Project.....	2
1.6	Name and Telephone Number of Contact Persons.....	2
2.	OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME	3
2.1	Project Planning and Implementation.....	3
2.2	Project Programme	3
2.3	Interactions with Other Projects	3
3.	POSSIBLE IMPACT ON THE ENVIRONMENT	4
3.1	Outline Process Involved.....	4
3.2	Construction Phase	4
3.3	Operation Phase	6
4.	MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT	7
4.1	Existing and Planned Sensitive Receivers Affected by the Project.....	7
4.2	Major Elements of the Surrounding Environment Affecting the Project.....	7
5.	ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED INTO THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS.....	8
5.1	Construction Phase	8
5.2	Operation Phase	10
5.3	Possible Severity, Distribution and Duration of Environmental Effects.....	10
5.4	Further Implications.....	10
6.	USE OF PREVIOUSLY APPROVED EIA REPORTS	12

LIST OF DRAWINGS

DCM/2013/012	Sewerage Works for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong – Key Plan
DCM/2013/013	Sewerage Works for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong – Layout Plan (Sheet 1 of 2)
DCM/2013/014	Sewerage Works for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong – Layout Plan (Sheet 2 of 2)

1. BASIC INFORMATION

1.1 Project Title

The project title is “Sewerage Works for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong” (hereinafter referred to as the Project).

1.2 Purpose and Nature of the Project

The Project originates from the findings of the Study “Review of West Kowloon and Tsuen Wan Sewerage Master Plans” completed by Environmental Protection Department (EPD) in February 2010. The findings of the Study reveal that the sewage from unsewered villages is being discharged to septic tank system or directly to the storm water drainage system and causes water pollution in the downstream drainage system. The purpose of the Project is to provide public sewerage for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong and address water pollution in downstream drainage system.

1.3 Name of the Project Proponent

Consultants Management Division, Drainage Services Department (DSD) of the Government of the Hong Kong Special Administrative Region

1.4 Location and Scale of the Project and History of Site

1.4.1 The Project site covers the areas of Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong which are situated at the Northwest of Tsuen Wan and are the rural areas in Tsuen Wan. The areas are surrounded by Tai Lam and Tai Mo Shan Country Parks at West and North respectively and are occupied by some old villages with scattering village houses. Two historical buildings are found near the Project site with a Tsang Ancestral Hall at Chuen Lung with history dated back to 17th century. Most of the areas are unsewered and sewage from these areas is being discharged to septic tank system or directly to the storm water drainage system and causes water pollution. The Project aims at collecting the sewage generated from the areas and conveying the collected sewage to the existing downstream sewerage system.

1.4.2 The location of the proposed sewers for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong is shown in Drawing nos. DCM/2013/012, 013 & 014. The total length of the public sewers under the Project is about 13 kilometres (km). Sewers in gravity type will

be adopted for the conveyance of sewage to the existing downstream sewerage system. Sewage pumping station should not be required, but this will be confirmed during the EIA study. Sewage treatment works and sewage outfall will not be included in the Project.

1.5 Number and Type of Designated Project

The Project is a Designated Project under Item Q.1, Part I of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) as some of the proposed sewers for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong fall within the Tai Lam and Tai Mo Shan Country Parks.

1.6 Name and Telephone Number of Contact Persons

Name : Mr. SEIT Kin-fun, Raymond
Post : Senior Engineer, Consultants Management Division, DSD
Tel : 2594 7292
Fax : 2827 8526

Name : Mr. LEI Kuok-kun
Post : Engineer, Consultants Management Division, DSD
Tel : 2594 7594
Fax : 2827 8526

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Planning and Implementation

Consultants will be engaged by the project proponent to undertake investigation, impact assessments, design and construction supervision of the Project. DSD will operate and maintain the completed works. It is planned to appoint the consultants in December 2013 with a view to commencing the construction works in 2018.

2.2 Project Programme

Investigation and impact assessments for the Project are targeted to commence in December 2013 and the design is targeted to complete in 2017. Construction works is to be commenced in 2018 for completion before end 2023.

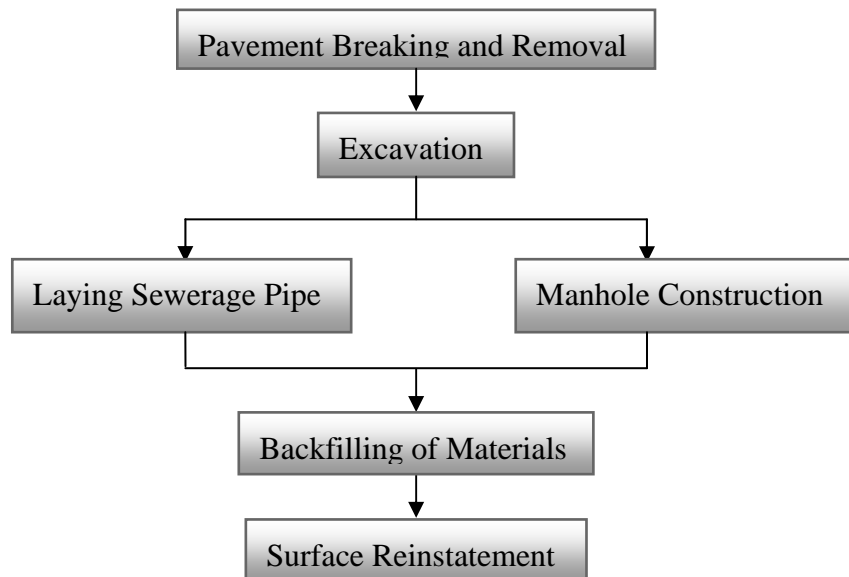
2.3 Interactions with Other Projects

The Project may have interfaces with other projects which are currently under planning or construction. Close liaisons will be maintained with relevant project teams to address the interfacing issues. The interfaces between the Project and other projects will be reviewed during the EIA study.

3. POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Outline Process Involved

The Project comprises the construction of public sewers and associated sewer facilities. Its potential environmental impacts are associated with construction and operation. The process flow diagram for the typical sewerage construction works is illustrated as follows:



3.2 Construction Phase

3.2.1 Air Quality

Dust emissions would be resulted from wind erosion of works areas and construction activities such as pavement breaking and removal, excavation, stockpiling of excavated material, backfilling of material and surface reinstatement.

3.2.2 Noise

Noise would be generated from construction activities such as pavement breaking, trench excavation, pipe laying, backfilling and reinstatement through the use of conventional construction plant and equipment, like air compressors and excavators.

3.2.3 Water Quality

Runoff from the site during construction may contain sediments and silts arising from

excavation, backfilling of materials, and oil/lubricants from construction vehicles and plant. Muddy water may also be generated from construction activities such as dust suppression sprays, dewatering during excavation and washing of construction equipment.

3.2.4 Waste Generation

Waste generated during the construction phase may include:-

- Waste spoil from site clearance, site preparation and earthworks;
- Waste material such as wood, metal scraps and concrete generated from the construction process and also from demolition of existing structures;
- General waste from workers; and
- Chemical waste from maintenance of construction plant and equipment such as lubrication oil.

3.2.5 Ecology

Some of the proposed sewers for Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong fall within the Tai Lam and Tai Mo Shan Country Parks. The Project site has a wide variety of natural habitats including agricultural land, woodland, and streamcourses. Some of these natural habitats may serve as habitats for species with conservation interests which include but not limited to fish, amphibian, reptile as well as butterfly species. Construction activities such as pavement breaking, trench excavation and backfilling may have impacts on the natural habitats within the Project site.

3.2.6 Landscape and Visual

The proposed sewerage works fall within the area classified with “high landscape value” in the consultancy study “Landscape Value Mapping of Hong Kong” commissioned by Planning Department. Temporary or permanent landscape and visual impacts during the construction phase may arise as a result of disturbance to the existing landscape of the Project site by the presence of construction plant and temporary works.

3.2.7 Cultural Heritage

The Project is not close to sites of archaeological interest and declared monuments. There are two historic buildings namely Main Building of Kai Yuen (Nil Grade) in Ha Fa Shan and Tsang Ancestral Hall (Grade 3) in Chuen Lung. The concerned buildings are about 30-50 m away from the nearest proposed sewers and their respective locations are

shown in drawing nos. DCM/2013/013 & 014. There may be boulder trackways located within the Project area. Construction activities such as pavement breaking and trench excavation may have impacts on the historic buildings and boulder trackways.

3.3 Operation Phase

It is not expected that the Project will generate any significant environmental impacts in the operation phase.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Existing and Planned Sensitive Receivers Affected by the Project

The Study “Review of West Kowloon and Tsuen Wan Sewerage Master Plans” completed by EPD in February 2010 had included a preliminary environmental assessment for the unsewered areas in West Kowloon and Tsuen Wan. The Study identified that the noise sensitive receiver (NSR) is Sai Chuk Lam Temple and the air sensitive receivers (ASRs) are Sai Chuk Lam Temple and Ha Fa Shan Children’s Playground and they are village-type residential and community premises. Other than those identified in the Study, the villagers of Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong also are the NSRs and ASRs.

4.1.1 Within the Project, the Study identified that the natural streams in Ha Fa Shan, Kiu Tau Village, Wang Lung and Ma Tong are the water sensitive receivers (WSRs). Locations of the NSRs, ASRs and WSRs are shown in drawing nos. DCM/2013/013 & 014. The NSRs, ASRs and WSRs are not exhaustive and will be reviewed during the EIA study.

4.1.2 The Project site has a wide variety of natural habitats including agricultural land, woodland and streamcourses. Some of these natural habitats may serve as habitats for species with conservation interests which include but not limited to fish, amphibian, reptile as well as butterfly species. Ecological disturbance may arise as a result of construction activities. The ecological value of the habitats involved will be evaluated and the impacts on ecology will be assessed in details with necessary means such as surveys and aerial photos during the EIA Study.

4.2 Major Elements of the Surrounding Environment Affecting the Project

The proposed sewerage works will be carried out mainly on footpath and access roads of the unsewered villages and therefore the effects on the Project from the surrounding environment and land use will be insignificant.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED INTO THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Construction Phase

5.1.1 Air Quality

The extent of dust generation from the construction works is expected to be insignificant with the implementation of dust suppression measures as stipulated in the Air Pollution Control (Construction Dust) Regulation of Air Pollution Control Ordinance (APCO). These measures will be incorporated into the specifications of the works contracts.

5.1.2 Noise

The majority of the sewer alignments will be small size pipes and located within village areas. Such small-scale construction will have minimal potential construction noise impact to the nearby NSRs. Furthermore, the contractor for the works will have to comply with the provisions of the Noise Control Ordinance. The contractor will be required to follow good site practices, such as use of silenced plant near sensitive receivers, careful scheduling of activities and use of temporary acoustic barriers and acoustic machinery enclosures to reduce noise impact.

5.1.3 Water Quality

The construction activities in the Project would include pavement breaking and removal, excavation, and backfilling materials. Necessary silt removal facilities will be provided to remove any silt before the discharge of site runoff into the nearby stormwater drains. The design of temporary on-site drainage and silt removal facilities will comply with the guidelines stipulated in EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). Construction activities which fall within water gathering grounds shall comply with "Conditions of Working within Water Gathering Ground" and "Conditions of Working in the Vicinity of Waterworks Installations" issued by WSD, and shall also comply with the Waterworks Ordinance. Separate approval from WSD shall be obtained for works falling within 120m of WSD tunnel reserve. Relevant precautionary measures will be reviewed during the EIA Study and mitigation measures will be incorporated into the specifications of the works contracts.

5.1.4 Waste Management

Consideration will be taken during the design phase to minimize the generation of construction and demolition (C&D) materials by maximizing its re-use on site. The inert C&D materials such as concrete arising from the construction of the Project will be sorted on-site. The Contractor will be required to sort all C&D materials and waste into different categories for re-use on site and disposal at public filling, landfills, or recycling facilities as appropriate. General refuse will be stored in enclosed bins and separated from C&D material.

5.1.5 Ecology

Construction works areas will be planned with measures to control construction runoff and drainage to minimize impacts on the water quality of the surrounding area, and thereby minimizing the potential for resulting ecological impacts. Pollution control measures will also be undertaken to alleviate the ecological impacts arising from dust and noise generated by the construction activities. Construction activities such as pavement breaking, trench excavation and backfilling will be confined mainly on footpath and access roads of the unsewered villages to minimise impacts to the habitats of the country parks. Mitigation measures to address potential ecological impacts including those focusing on minimizing impacts to the habitats and species concerned such as by avoiding vegetated areas and disturbance to trees and other vegetations, and replanting, will be developed during the EIA Study and incorporated into the specifications of the works contracts. Seasonality of species occurrence will be taken into consideration for the preparation of construction and implementation programme at ecologically sensitive areas. Consents from Country and Marine Parks Authority will be sought before implementation of the proposed sewerage works within Country Parks.

Trenchless installation method for laying the proposed sewer passing through Tai Mo Shan Country Park from Wang Lung to Route Twist will be considered to minimise impacts to the well-wooded natural slope. The installation methods will be reviewed during the EIA study for incorporation into the specifications of the works contracts as necessary.

5.1.6 Landscape and Visual

Visual impacts from construction activities will be of very short durations. Proper

control over site cleanliness and the stockpiling of materials will be exercised to alleviate visual intrusion. Landscape and visual impacts during construction will be minimised by regulation of working hours and minimisation of the duration of works. Trees and shrubs to be retained within or adjacent to the works areas will be carefully protected to avoid damage by machinery as well as to prevent dumping of materials or compaction of soil around the tree roots. The potential adverse impacts on temporary/permanent landscape and visual aspects will further be reviewed in details during EIA study and the respective mitigation measures will be formulated in the study and incorporated into the specifications of the works contracts.

5.1.7 Cultural Heritage

The potential impact on the historic buildings and boulder trackways will further be reviewed in details during EIA study. Mitigation measures will be applied as necessary such that no disturbance or physical damage would be made to the historic buildings and boulder trackways in the vicinity of works sites during the construction phase.

5.2 Operation Phase

Mitigation measures are not required during operation phase of the Project as adverse environmental impacts are not anticipated.

5.3 Possible Severity, Distribution and Duration of Environmental Effects

The Project will improve the environment by providing sewers to the unsewered areas and addressing water pollution in the existing downstream drainage system. It is anticipated that most potential environmental impacts identified will be last for the duration of the construction period, and be temporary and localised. With the implementation of appropriate mitigation measures, there will have no adverse environmental impacts induced from the project.

5.4 Further Implications

5.4.1 Public Consultation

Consultation with the Tsuen Wan Rural Committee (TWRC) on the proposed sewerage works recommended under the Study “Review of West Kowloon and Tsuen Wan Sewerage Master Plans” was carried out on 17 September 2009. No adverse comments

were received during that consultation. Further public consultations will be carried out in subsequent stages of the Project.

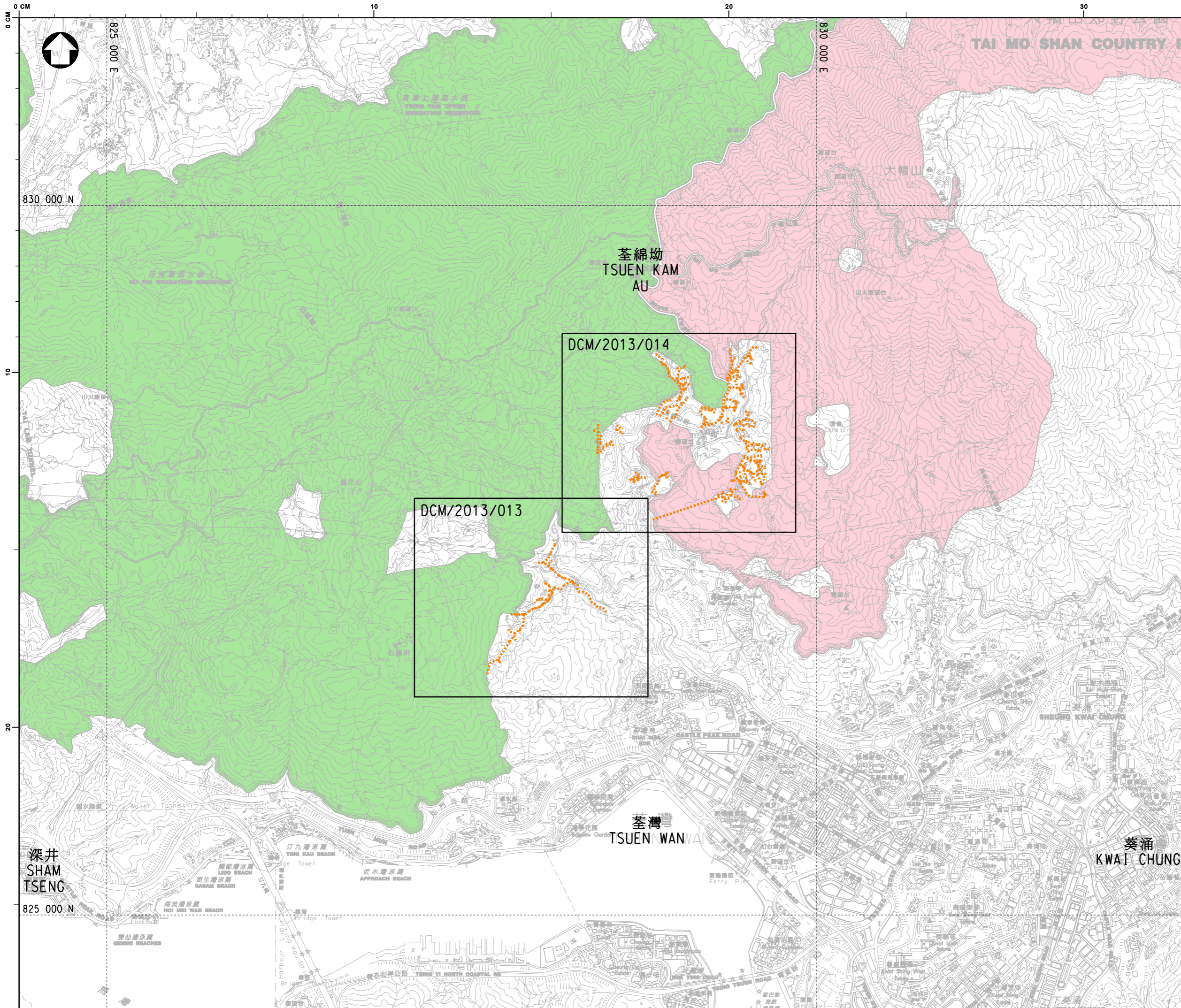
5.4.2 History of Similar Projects

The Project is similar to other public sewerage projects completed or currently under construction in the villages in New Territories.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

There is no EIA report already approved under the EIA Ordinance for this Project. Also, no similar EIA reports were approved in the vicinity of the Project.

- END OF TEXT -



註 NOTES :

圖例 LEGEND :

- 擬建污水渠
PROPOSED SEWERS
- 大欖郊野公園
TAI LAM COUNTRY PARK
- 大帽山郊野公園
TAI MO SHAN COUNTRY PARK

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		姓名 name	日期 date
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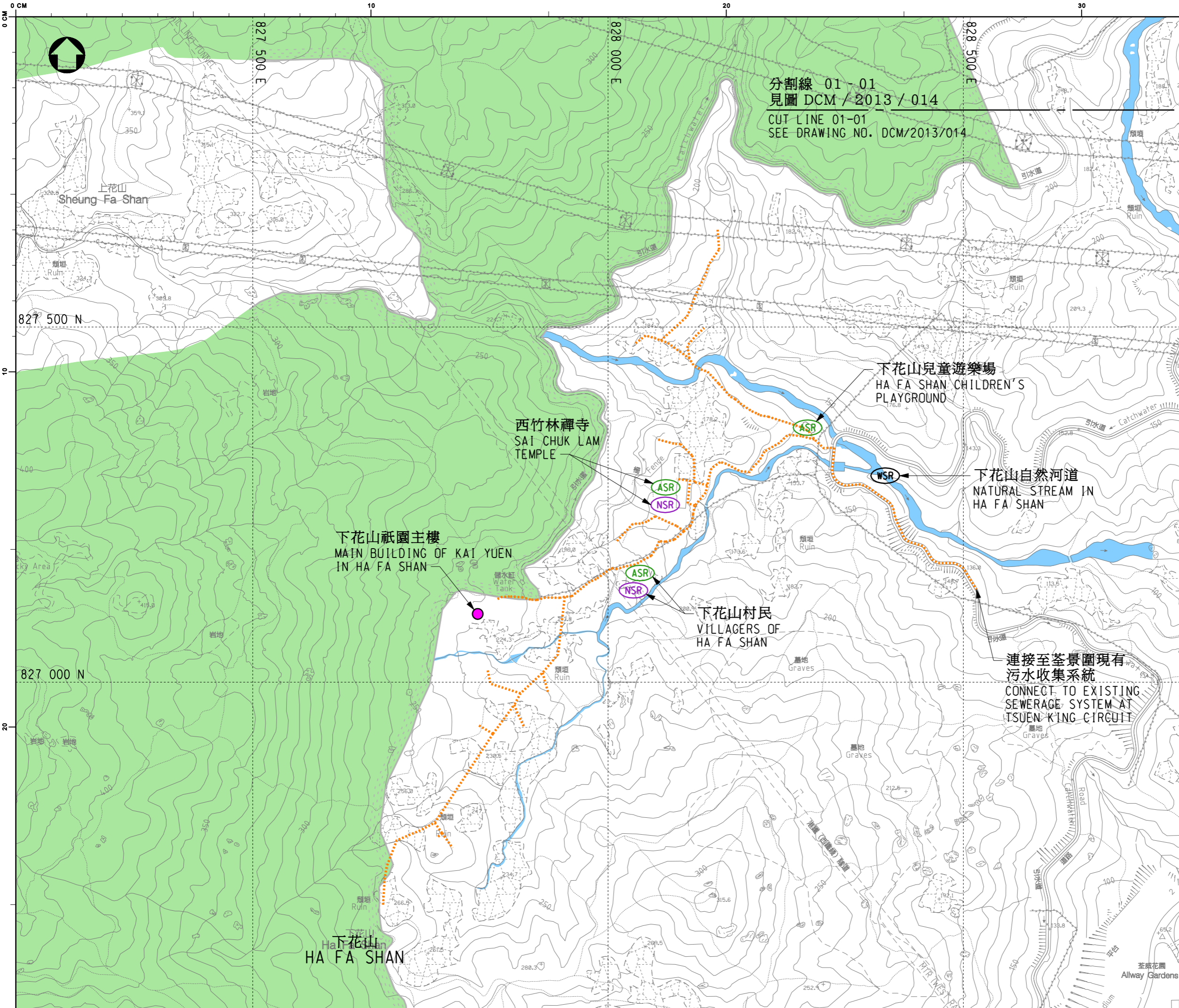
圖則名稱 drawing title
 下花山、橋頭村、橫龍及馬塘污水收集系統工程 - 索引圖
 SEWERAGE WORKS FOR HA FA SHAN, KIU TAU VILLAGE, WANG LUNG AND MA TONG - KEY PLAN

圖則編號 drawing no.	比例 scale
DCM/2013/012	1 : 25 000

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 SPECIAL ADMINISTRATIVE REGION



註 NOTES:
 1. 本圖擬建污水管約長 2500 米。
 APPROXIMATE LENGTH OF PROPOSED
 SEWER IN THIS DRAWING IS 2500
 METRES.

- 圖例 LEGEND :
- 擬建污水渠
PROPOSED SEWERS
 - 大欖郊野公園
TAI LAM COUNTRY PARK
 - 大帽山郊野公園
TAI MO SHAN COUNTRY PARK
 - 天然河道
NATURAL STREAM
 - 歷史建築
HISTORICAL BUILDING
 - ASR 空氣敏感受體
AIR SENSITIVE RECEIVER (ASR)
 - NSR 噪音敏感受體
NOISE SENSITIVE RECEIVER (NSR)
 - WSR 水敏感受體
WATER SENSITIVE RECEIVER (WSR)

分割線 01-01
 見圖 DCM / 2013 / 014
 CUT LINE 01-01
 SEE DRAWING NO. DCM/2013/014

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	姓名 name	日期 date	
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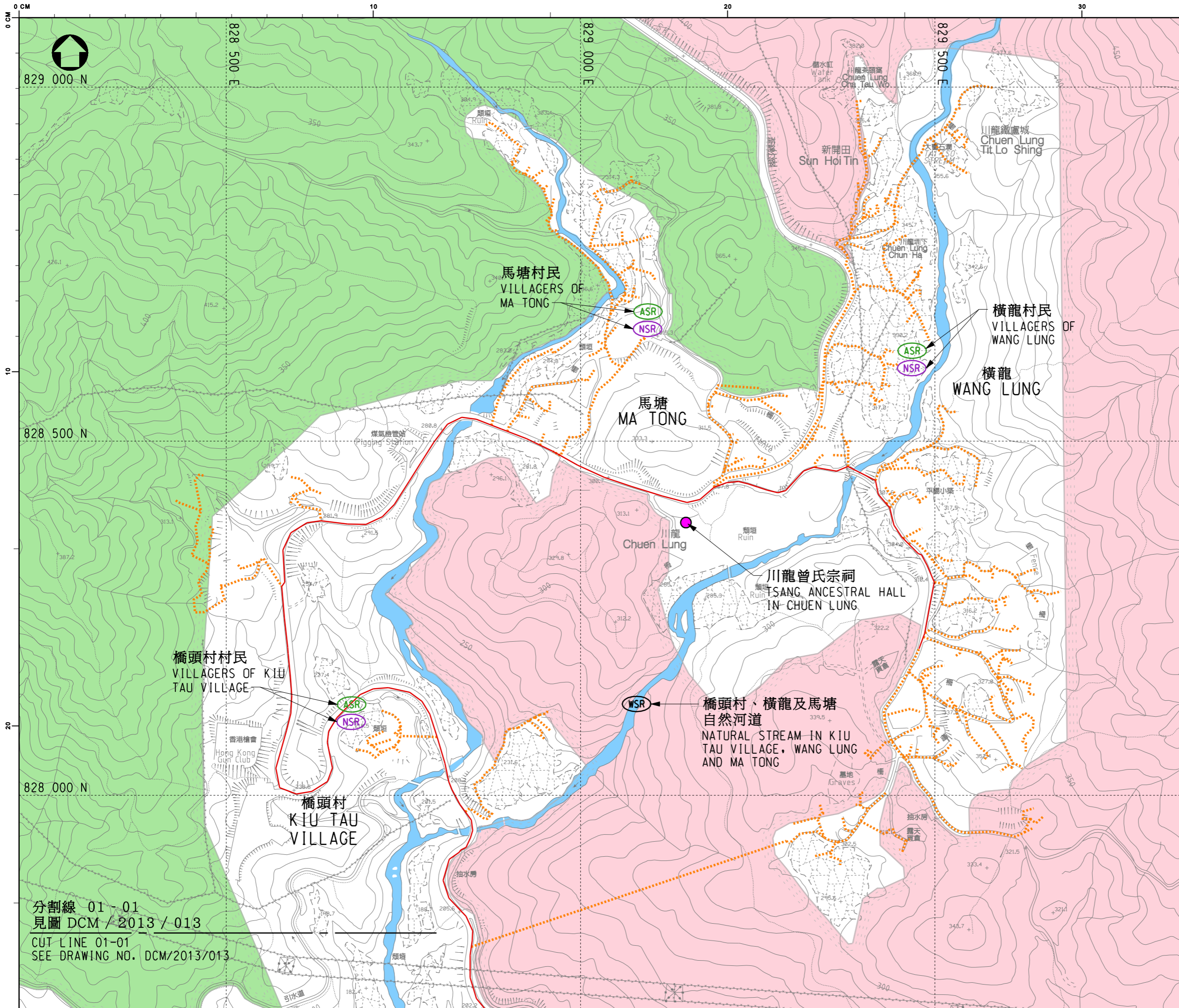
圖則名稱 drawing title
 下花山、橋頭村、橫龍及馬塘污水收集系統工程
 - 平面布置圖 (全二張其一)
 SEWERAGE WORKS FOR HA FA SHAN, KIU TAU
 VILLAGE, WANG LUNG AND MA TONG
 - LAYOUT PLAN (SHEET 1 OF 2)

圖則編號 drawing no.	比例 scale
DCM/2013/013	1 : 5000

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註 NOTES:
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 APPROXIMATE LENGTH OF PROPOSED
 SEWER IN THIS DRAWING IS 10500
 METRES.

- 圖例 LEGEND :
- - - - - 擬建污水渠
PROPOSED SEWERS
 - 現有污水渠
EXISTING SEWERS
 - 大欖郊野公園
TAI LAM COUNTRY PARK
 - 大帽山郊野公園
TAI MO SHAN COUNTRY PARK
 - 天然河道
NATURAL STREAM
 - 歷史建築
HISTORICAL BUILDING
 - ASR 空氣敏感受體
AIR SENSITIVE RECEIVER (ASR)
 - NSR 噪音敏感受體
NOISE SENSITIVE RECEIVER (NSR)
 - WSR 水敏感受體
WATER SENSITIVE RECEIVER (WSR)

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圖則名稱 drawing title
 下花山、橋頭村、橫龍及馬塘污水收集系統工程
 - 平面布置圖 (全二張其二)
 SEWERAGE WORKS FOR HA FA SHAN, KIU TAU
 VILLAGE, WANG LUNG AND MA TONG
 - LAYOUT PLAN (SHEET 2 OF 2)

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分割線 01-01
 見圖 DCM / 2013 / 013
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