

**Upgrading of Remaining Sections of
Kam Tin Road and Lam Kam Road**

Project Profile

Highways Department

September 2007

UPGRADING OF REMAINING SECTIONS OF KAM TIN ROAD AND LAM KAM ROAD

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Figure 1 Location of the Project

Figure 2 Locations of Sensitive Receivers

1. BASIC INFORMATION

Project Title

- 1.1 The title of this project is known as “Upgrading of Remaining Sections of Kam Tin Road and Lam Kam Road” (which is hereafter referred to as the “Project”).

Purpose and Nature of Project

- 1.2 The remaining unimproved sections of Kam Tin Road and Lam Kam Road are Kam Tin Road section between section between Kam Tin Bypass and Lam Kam Road; and Lam Kam Road section between Kam Tin Road and Kadoorie Farm. These remaining sections are single two-lane carriageway with substandard width. Road safety problems are compounded by fast vehicular traffic, sharp bends, hidden accesses, sub-standard gradients, inadequate lateral clearance, frequent usage of heavy vehicles, insufficient pedestrian crossing facilities and lack of bus-bays.
- 1.3 The Project is to upgrade the remaining sections of Kam Tin Road and Lam Kam Road to a standard width single two-lane carriageway, with the associated improvement of pedestrian facilities and public transport laybys.

Name of Project Proponent

- 1.4 The Project Proponent is the Highways Department.

Location and Scale of Project

- 1.5 The Project is located at Kam Tin Road section between Kam Tin Bypass and Lam Kam Road; and Lam Kam Road section between Kam Tin Road and Kadoorie Farm. Figure 1 shows the location of the Project.
- 1.6 The scope of the Project includes the following:
- (a) upgrading of the about 5.2 km long road section into standard width single two-lane carriageway;
 - (b) provision of laybys at suitable locations to accommodate the activities of buses and mini-buses;
 - (c) provision of appropriate crossing facilities to meet pedestrian crossing demand; and

- (d) associated slope and drainage works, traffic aids and street lighting modification, landscaping works and environmental mitigation measures if required.

Number and Types of Designated Projects to be Covered by the Project Profile

- 1.7 The Project Profile only covers the Project. Kam Tin Road and Lam Kam Road are rural roads. The proposed upgrading works do not include 100 m long road bridge, 800 m long road tunnel, additional traffic lane, or road extension. However, the proposed upgrading works marginally encroach upon existing conservation areas. The Project is hence classified as Designated Project under Schedule 2 Part 1 Category Q.1 of the Environmental Impact Assessment Ordinance (EIAO) Cap. 499 and it requires an environmental permit before works commencement.

Contact Person

- 1.8 For details of the Project, please contact:

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2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

Project Planning and Implementation

- 2.1 The Project is to be delivered by in-house resources of the Highways Department with specialist consultants conducting impact assessment studies.

Project Timetable

- 2.2 According to the tentative programme, the Environmental Impact Assessment (EIA) study and other impact assessment studies are to be carried out between early 2008 and end 2008; detailed design between early 2009 and early 2010; tendering of construction works in mid 2010; and construction works between end 2010 and end 2013.

Interaction with Other Projects

- 2.3 The Project may have interaction with the following projects:
- (a) WSD project 9236WF – Mainlaying between Kam Tin Shi and Route Twisk Roundabout
 - (b) WSD project 9182WC – Replacement and Rehabilitation of Water Mains, Stage 2
 - (c) DSD project 4235DS – Yuen Long and Kam Tin Sewerage and Sewage Disposal
- 2.4 The above list of projects is not exhaustive and will be reviewed during the EIA study.

3. POSSIBLE IMPACT ON THE ENVIRONMENT

Potential Environmental Impacts

Air Quality

- 3.1 During construction, dust is the potential air quality impact which would be generated from construction activities such as material handling, excavation, vehicle movement, and erosion of unpaved area and stockpiles. The potential air quality impact however is anticipated to be short-term and be controlled through appropriate design and good site practice.
- 3.2 As the Project will not increase the number of traffic lanes, it will not generate additional traffic as well as an increase in the amount of exhaust emissions from vehicles. Hence, no major operational air impact is expected.

Noise

- 3.3 During construction, the source of noise nuisance is primarily from the use of powered mechanical equipment on site and the temporary increase of road traffic due to construction vehicles. The construction activities involve the use of plant for piling, excavation, concreting, etc. and the traffic traveling to and from the sites. Construction noise impact is anticipated to be short-term and can be reduced to an acceptable level with the implementation of proper mitigation measures.

- 3.4 As the Project will not generate additional traffic, no major operational traffic noise impact is expected.

Water Quality

- 3.5 The key potential water quality impact resulting from the construction works will be mainly related to construction site runoff; drainage, debris, refuse and liquid spillages from general construction activities; and sewage effluent from the construction workforce. The potential water quality impact is anticipated to be short-term and be readily mitigated with the adoption of good site management practices.
- 3.6 As the Project will not increase the number of traffic lanes, there will be no significant change in the road drainage system. Hence, no major operational water impact is expected.

Waste Disposal

- 3.7 Construction and demolition waste would be generated from the construction activities, vehicle and plant maintenance. Waste generation will first be avoided and reduced following by reusing materials on-site in order to minimize the off-site waste disposal as far as practicable. With proper waste management, adverse impact from the Project is unlikely.

Ecology

- 3.8 Filling, excavation and drainage works are the key construction activities having the potential to affect the local ecology. Surface excavation may result in the loss of terrestrial habitats and deterioration in surface water quality, which can affect aquatic ecosystems. Drainage works in general may affect the flow regime impacting on aquatic ecosystems and wetland habitats. Dust generation can smother plants and limiting growth; and noise and vibration generation can disturb and/or discourage wildlife, particularly birds.
- 3.9 The Project will be planned to minimise the extent of the unavoidable encroachment upon conservation areas. The proposed upgrading works only marginally encroach upon existing conservation areas. It is anticipated that there is no major operational impact to ecological features.

Landscape and Visual

- 3.10 The potential sources of landscape and visual impacts associated with the construction phase of the proposed works include site clearance and

excavation works that involve the removal of existing vegetation and trees.

- 3.11 As there is no significant change to the existing location of Kam Tin Road and Lam Kam Road, there is unlikely to have a significant visual impact on the concerned area.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 4.1 Sensitive receivers are scattered along the route. They consist mostly of low rise developments. While detailed identification will be carried out in the EIA study, the Project may affect the following sensitive receivers. The locations of these receivers are shown in Figure 2:

<u>No.</u>	<u>Sensitive Receiver</u>
SR1	Kiu Tau Tsuen
SR2	Pang Ka Tsuen
SR3	Kam Tin Clinic
SR4	Shek Kong San Tsuen
SR5	A church within Shek Kong Barracks
SR6	An education centre within Shek Kong Barracks
SR7	Seasons Villas
SR8	Leung Uk Tsuen
SR9	Green Villa
SR10	Wang Toi Shan Yau Uk Tsuen
SR11	Wang Toi Shan San Tuen
SR12	Wang Toi Shan Lo Uk Tsuen
SR13	Home for aged named Evergreen International (HK) Association
SR14	Wang Toi Shan Ho Lik Pui
SR15	Pine Hill Villa
SR16	Wong Chuk Yuen
SR17	Kadoorie Farm
SR18	Rivers or stream courses
SR19	Conservation area

5. ENVIRONMENTAL PROTECTION MEASURES AND ENVIRONMENTAL IMPLICATIONS

Environmental Protection Measures at Construction Phase

Air Quality

- 5.1 Dust suppression measures set out in the Air Pollution Control (Construction Dust) Regulation will be applied, such as

- (a) Vehicle wheel and body washing facilities at site exits;
- (b) Reduction of vehicular speed on site roads;
- (c) Regular wetting of the site to reduce dust;
- (d) Careful planning of earthmoving activities including transportation to and from site; and
- (e) Use of Ultra Low Sulphur Diesel, as defined in Schedule 1 of the Air Pollution Control (Motor Vehicle Fuel) Regulation, for all construction plants powered by diesel fuel.

Noise

5.2 Construction noise will be abated by the following measures:

- (a) Application of properly designed silencers, mufflers, acoustically dampened panels and acoustic sheds or shields, etc.;
- (b) Use of temporary acoustic barriers and acoustic machinery enclosures;
- (c) Noisy emitting plant shall be placed at maximum distance from noise sensitive receivers;
- (d) Utilisation of construction noise specification and clauses;
- (e) Use of appropriately powered equipment; and
- (f) Regular maintenance of site plant/equipment.

Water Quality

5.3 Water pollution associated with construction activities will be prevented or minimized by adopting good site practices as recommended in the Practice Note for Professional Persons 1/94 issued by the Environmental Protection Department. The practices include, but not limited to, the following:

- (a) Discharge of surface run-off into storm drains via adequately designed sand/silt removal facilities;
- (b) Covering temporary exposed slope surfaces (e.g. by tarpaulin) and protecting temporary access roads by crushed stone or gravel;

- (c) Earthworks final surfaces be well compacted and the subsequent permanent work or surface protection be carried out in due course to prevent erosion caused by rainstorms;
- (d) Covering open stockpiles of construction materials on site (e.g. by tarpaulin);
- (e) Water used in boring and/or drilling as far as possible be recirculated after sedimentation; and finally discharged into storm drains via adequately designed sand/silt removal facilities; and
- (f) Provision of proper temporary toilet facilities to workers with sewage discharged into foul sewer, septic tank, or soakaway system.

Waste Disposal

5.4 Proper waste management will be set up to reduce and to minimise the generation of construction and demolition materials in execution of construction works. The waste management will include, but not limited to, the following measures:

- (a) Sorting wastes properly on site;
- (b) Recycling metal waste;
- (c) Recovering paper, plastic bottles and aluminium cans;
- (d) Ensuring no inert construction and demolition materials be illegally dumped; and
- (e) Dispose of chemical and oily wastes generated from the construction activities, vehicle and plant maintenance as chemical waste in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulation.

Ecology

5.5 Measures to preserve and protect the ecology during construction include:

- (a) Minimizing unavoidable disturbance to any flora/fauna and habitats of conservation interest arising from temporary works and construction plants;
- (b) Minimising indirect construction disturbance, such as fencing off work

sites; and

- (c) All measures described above to mitigate air quality, noise and water quality impacts.

Landscape and Visual

- 5.6 Effective mitigation measures such as litter control, prevention of mud on roads, minimizing works site areas, screening of works located near particularly sensitive uses will be adopted to reduce the visual impacts of construction works.

Environmental Protection Measures at Operation Phase

- 5.7 Compensatory planting will be provided under the Project.

Environmental Monitoring and Audit

- 5.8 This Project Profile has outlined the potential environmental impacts which would arise from the construction and operation of the project and has introduced briefly some possible environmental mitigation measures that can be incorporated into the Project. An environmental monitoring and audit programme, for the construction and/or operational phase of the Project, will be developed in the EIA study.

Possible Severity, Distribution and Duration of Environmental Effects

- 5.9 Potential environmental impacts identified will mainly be associated with the construction period (a period of about 36-month). As such, the effects are considered to be temporary and short-term. With the implementation and monitoring of appropriate mitigation measures, no unacceptable environmental impacts are expected.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

- 6.1 No previously approved EIA reports have been referred to in the preparation of this Project Profile.



50mm SCALE 1 : 1
40
30
20
10
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圖例 LEGEND :

 擬議改善的路段
ROAD SECTION TO BE UPGRADED

圖則名稱 drawing title

**工程項目地點
LOCATION OF THE PROJECT**

工程名稱 project title

**錦田公路及林錦公路餘段改善工程
UPGRADING OF REMAINING SECTIONS OF
KAM TIN ROAD AND LAM KAM ROAD**

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比例 scale
1 : 20000

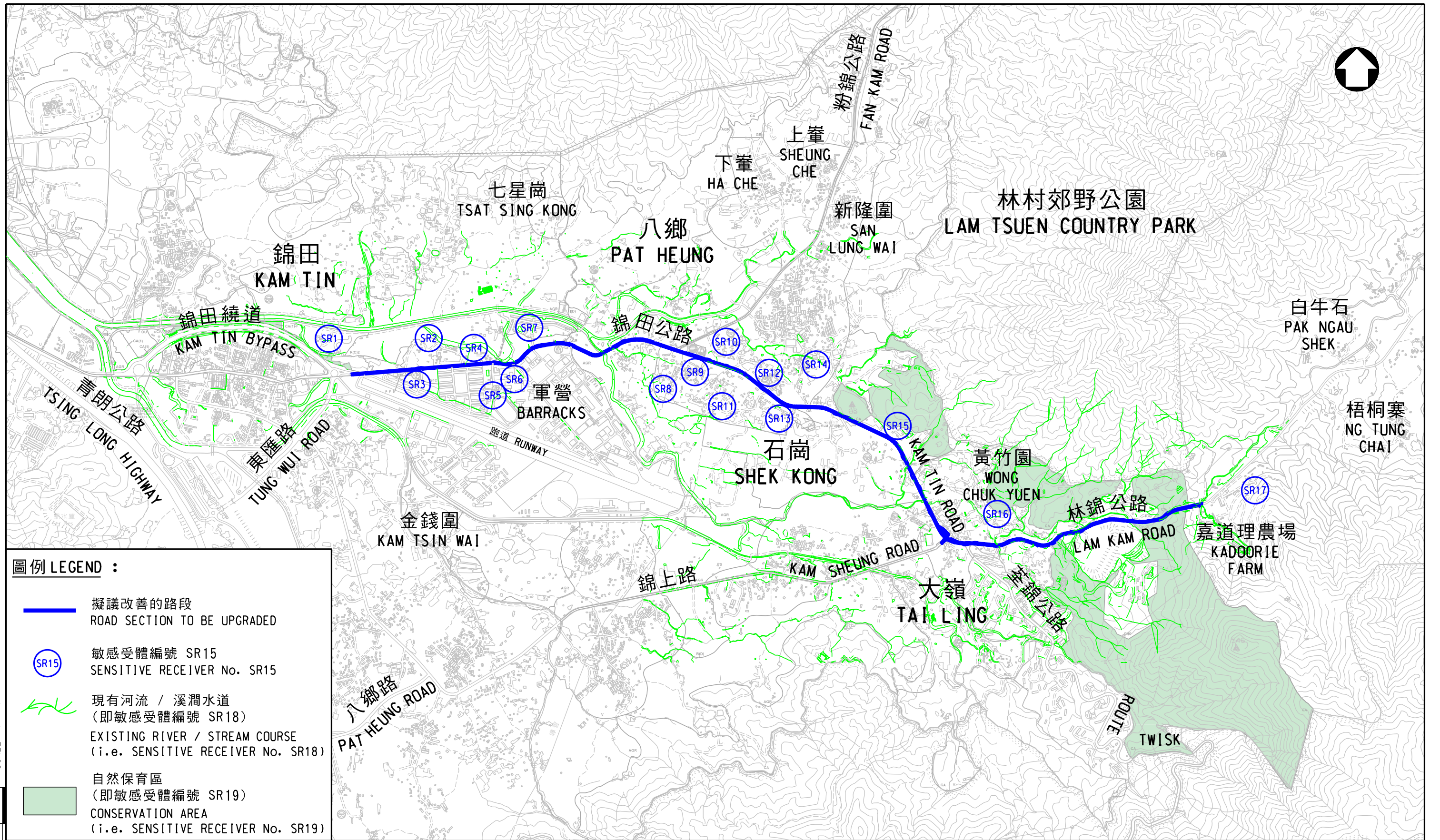
辦事處
office

**工程
部
WORKS DIVISION**

圖則編號 drawing no.

圖一 FIGURE 1

 **HIGHWAYS
DEPARTMENT
HONG KONG** 路
政
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圖例 LEGEND :

- 擬議改善的路段
ROAD SECTION TO BE UPGRADED
- SR15 敏感受體編號 SR15
SENSITIVE RECEIVER No. SR15
- ~ 現有河流 / 溪澗水道
(即敏感受體編號 SR18)
EXISTING RIVER / STREAM COURSE
(i.e. SENSITIVE RECEIVER No. SR18)
- 自然保育區
(即敏感受體編號 SR19)
CONSERVATION AREA
(i.e. SENSITIVE RECEIVER No. SR19)

圖則名稱 drawing title

敏感受體位置
LOCATIONS OF SENSITIVE RECEIVERS

工程名稱 project title

錦田公路及林錦公路餘段改善工程
UPGRADING OF REMAINING SECTIONS OF KAM TIN ROAD AND LAM KAM ROAD

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1 : 20000

圖則編號 drawing no.
圖二 FIGURE 2

HIGHWAYS DEPARTMENT 路
HONG KONG 政 署

50mm SCALE 1 : 1