Widening of Gascoigne Road Flyover

Project Profile

September 2006

Highways Department

1. BASIC INFORMATION

- 1.1 Project Title
- 1.2 Purpose and Nature of the Project
- 1.3 Name of Project Proponent
- 1.4 Location and Scale of Project and History of Site
- 1.5 Number and Types of Designated Projects
- 1.6 Name and Telephone Number of Contact Person(s)

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

- 2.1 Project Planning and Implementation
- 2.2 Project Timetable
- 2.3 Interactions with Other Projects

3. IDENTIFICATION OF POSSIBLE IMPACTS ON THE ENVIRONMENT

- 3.1 Introduction
- 3.2 Construction Phase
- 3.3 Operation Phase

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Existing and Planned Developments

5. ENVIRONMENTAL PROTECTION MEASURES AND FURTHER ENVIRONMENTAL IMPLICATIONS

- 5.1 Noise
- 5.2 Air Quality
- 5.3 Water Quality
- 5.4 Waste
- 5.5 Possible Severity, Distribution and Duration of Environmental Effects

6. USE OF PREVIOUSLY APPROVED ENVIRONMENTAL IMPACT ASSESSMENT REPORTS

Drawings

HMW6803TH-SK0001-A	Preliminary Layout Plan
HMW6803TH-SK0002	Representative Sensitive Receivers

1. BASIC INFORMATION

1.1 Project Title

Widening of Gascoigne Road Flyover.

1.2 Purpose and Nature of the Project

- 1.2.1 The existing Gascoigne Road Flyover is about 1.2 km long. It operates mainly as a two-way road with one traffic lane in each direction. Traffic is very congested during peak hours. It is therefore proposed to widen the Gascoigne Road Flyover to a dual 2-lane carriageway to increase its capacity.
- 1.2.2 At present, heavy weaving movements are observed between the eastbound traffic from Gascoigne Road Flyover and ground level Gascoigne Road at Gascoigne Road Flyover/Gascoigne Road/Chatham Road South. The Project will also improve the traffic arrangements at this location to minimize the weaving movements.
- 1.3 Name of Project Proponent

Highways Department, HKSAR Government

- 1.4 Location and Scale of Project and History of Site
- 1.4.1 The Project is located along Kansu Street and Gascoigne Road in Yau Ma Tei. A location plan of the Project is shown in Drawing No. HMW6803TH-SK0001-A.
- 1.4.2 The scope of the proposed Project includes the following:
 - (a) Widening of Gascoigne Road Flyover between the West Kowloon Corridor at Ferry Street and the up ramp at Jordan Road junction by demolition of the existing flyover structure and construction of a flyover of dual 2-lane carriageway with central dividers;
 - (b) Provision of an additional eastbound lane from Jordan Road to Chatham Road South;
 - (c) Demolition of the existing eastbound up ramp and the westbound down ramp immediately east of Jordan Road, and reprovision of a 2-lane eastbound up ramp and a 1-lane westbound down ramp for the widened Gascoigne Road Flyover, with the down ramp extended to Jordan Road;
 - (d) Widening of ground level Gascoigne Road carriageway between Pak Hoi Street and Chatham Road South, and Jordan Road carriageway between Gascoigne Road and Cox's Road to accommodate the widened Gascoigne Road Flyover and the ramps as described in (a), (b) & (c) above;;
 - (e) Associated ground level works for modification of junctions at Jordan Road/Queen Elizabeth Hospital access road/Gascoigne Road and Wylie Road/Gascoigne Road, and for modification of the staircase of the existing

pedestrian subway at north side of Gascoigne Road near Chatham Road South; and

(f) Other associated works such as environmental, geotechnical, landscape and traffic engineering works.

1.5 Number and Types of Designated Projects

Gascoigne Road is a primary distributor in accordance with "The Annual Traffic Census 2005" prepared by the Transport Department. The proposed widening of Gascoigne Road Flyover and associated ground level roads covered in this Project Profile is a major improvement to the existing road, and is classified as a single Designated Project under Category A.1 in Part I of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO).

1.6 Name and Telephone Number of Contact Person(s)

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2. OUTLINE OF THE PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Planning and Implementation

Investigation study (including EIA), preliminary design and detailed design of the Project will be carried out by consultants.

2.2 Project Timetable

According to the tentative project programme, the investigation study, environmental impact assessment (EIA) and preliminary design for the project are anticipated to commence in early 2007. Construction works are expected to commence in 2011 for completion in 2015.

2.3 Interactions with Other Projects

There are interactions with the Central Kowloon Route (CKR) project. The section of existing Gascoigne Road Flyover between the West Kowloon Corridor and Nathan Road will be affected by the proposed CKR. The CKR project will require the demolition of the Yau Ma Tei Multi-storey Car Park Building, thus removing one of the major restraints on the Project. The interface issues will be studied at the preliminary design stage, with regards to programme, land, environmental and engineering issues.

3. IDENTIFICATION OF POSSIBLE IMPACTS ON THE ENVIRONMENT

3.1 Introduction

This section identifies the likely environmental impact of the proposed works in both the construction and operation phases.

3.2 Construction Phase

3.2.1 Dust

The major pollutant emission during construction phase of the Project is particulate matter. The dust will arise from various construction activities including the handling and stockpiling of excavated materials, demolition works, site erosion, concreting works and construction traffic movements on unpaved roads. These activities will increase the levels of airborne particulates in the vicinity.

3.2.2 Gaseous Emissions

Vehicle and plant exhaust emissions from the site are not considered to constitute a significant source of air pollutants.

3.2.3 Noise

The use of powered mechanical equipment during the construction phase will generate increased noise levels. Major noise sources include such construction activities as breaking road surface, excavation and filling works, demolition works, road surfacing and concreting works. These activities will contribute to the already high background noise levels generated by major roads. The cumulative impact arising from the Central Kowloon Route project should also be considered. This will be studied in the EIA. It is not known at this stage whether any night-time construction activities will be required and the EIA will assess the impacts if night-time construction activities are found necessary.

3.2.4 Traffic

Construction traffic will add to the overall traffic volume on and around the site but significant impact is not expected.

3.2.5 Solid Waste

Waste generated will comprise excavated materials, construction and demolition waste, and general refuse. However, waste disposal is not considered to be an insurmountable environmental constraint.

3.2.6 Storage, Handling, Transport and Disposal of Hazardous Materials or Wastes

No hazardous chemicals will be used or generated from the widening of the flyover and ground level roads.

3.2.7 Water Quality

During the construction phase, possible impacts would arise from the discharge of construction wastewater into storm drains, site run-off and sewerage from on-site construction workforce. The prevention of impacts from discharge of construction wastewater into the drainage systems needs to be addressed.

3.2.8 Visual Appearance

The flyover and road widening works will take approximately four years during which the visual appearance will be affected.

3.2.9 Ecological Impacts

The project area is not located within a recognised site of conservation importance. The existing environment of the project area is predominantly busy roads in an urban setting. It does not encroach upon or affect important habitats, and no species of conservation importance are present in the area.

3.2.10 Cultural Heritage Impacts

The project area is in proximity of some graded buildings including Yau Ma Tei Police Station, Tin Hau Temple, Old South Kowloon District Court, Kowloon Union Church and Gun Club Hill Barracks, and other structures, which have heritage value, such as Diocesan Girls' School, Indian Club, Club De Recreio, buildings at 22, Gascoigne Road and 2, Jordan Road.

3.2.11 Land Contamination

No potential land contamination source is identified along the flyover.

3.3 Operation Phase

3.3.1 Gaseous Emissions

During the operation phase of the project, local road traffic will be the main source of gaseous emissions. It is expected that the gaseous emissions will increase due to the increase in traffic volumes along the flyover and associated roads.

3.3.2 Particulates

The particulates will be generated from vehicle emissions during the operation phase.

3.3.3 Noise

The noise from the traffic along the flyover and associated ground level roads will be dominant in the vicinity. It is expected that the traffic noise impact would be significant as there would be high volumes of traffic using the flyover.

3.3.4 Traffic

Traffic flow after the completion of the project will be improved, resulting in reduced congestion.

3.3.5 Visual Appearance

Upon completion of the project, the visual appearance of the area will be slightly affected due to the blocking of views by the widened flyover.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Existing and Planned Developments

The developments in the Project area include recreational areas, schools, commercial buildings, hospitals and residential buildings. The existing and planned representative sensitive receivers, which would likely be affected during the construction/operation phase of the Project are summarised in Table 4.1. The locations of these receivers are shown in Drawing No. HMW6803TH-SK0002.

Ref. No.	Area	SR Type	Current Status
1.	School of General Nursing	Educational	Existing
2.	Land Tribunal	Courts of Law	Existing
3.	Diocesan Girls' School	Educational	Existing
4.	Methodist School	Educational	Existing
5.	Methodist College	Educational	Existing
6.	95, Temple Street	Residential	Existing
7.	228, Shanghai Street	Residential	Existing
8.	217-225, Shanghai Street	Residential	Existing
9.	Kum Lam Building, Kansu Street	Residential	Existing
10.	Tak Cheong Building, Kansu Street	Residential	Existing
11.	Dickson Building, Kansu Street	Residential	Existing
12.	Prosperous Garden	Residential	Existing
13.	Clubs/ sports facilities adjacent to Gascoigne Road near Wylie Road	Recreational	Existing
14.	Hospital in Gun Club Hill Barracks	Hospital	Existing
15.	Clubs/sports facilities in Gun Club Hill Barracks	Recreational	Existing
16.	Queen Elizabeth Hospital	Hospital	Existing
17.	Hong Kong Polytechnic University	Educational	Existing

Table 4.1 : Representative Sensitive Receivers (SR)

Note: This list is not intended as exhaustive and should be reviewed during the course of the EIA study.

5. ENVIRONMENTAL PROTECTION MEASURES AND FURTHER ENVIRONMENTAL IMPLICATIONS

- 5.1 Noise
- 5.1.1 Construction Phase

A number of different types of plant will be used during the construction including breakers, excavators, air compressors, mixers and cranes, all of which contribute to construction noise. To mitigate the noise impacts from this equipment, the following should be considered:

- The use of silenced equipment;
- The use of alternative breaking equipment;
- The siting of equipment;
- The careful scheduling of work, especially near the educational institutions where attention should be paid to examination times;
- The use of temporary acoustic barriers;
- The proper maintenance of equipment; and
- Adequate site supervision to ensure that every practical means is utilised to minimise the noise levels generated.

5.1.2 Operation Phase

To reduce the traffic noise during the operation phase, the following measures should be considered:

- Vertical or cantilever noise barriers at appropriate locations alongside widened Gascoigne Road Flyover;
- Noise enclosures or partial enclosure at appropriate locations on the widened Gascoigne Road Flyover; and
- Noise reducing road surfacing.

5.2 Air Quality

5.2.1 Construction Phase

The following dust control measures are recommended to minimise dust nuisance:

• The site should be wetted (using water bowsers, sprays or vapour mists) to reduce air impact from debris;

- Provision of adequate wheel/vehicle washing facilities;
- Monitoring of dust generated during construction/pavement breaking is also recommended to check that the dust criterion is met;
- Earthmoving activities should be well planned to include transportation routes as well as protective measures such as water spraying and tarpaulin sheets to suppress dust generated during and after excavation; and
- Reduce speeds and limit movement of vehicles.

5.2.2 Operation Phase

It is expected that air quality would comply with the Air Quality Objectives, thus mitigation measures would not be necessary. However, it is recommended that further assessment should be undertaken to identify the impacts and mitigation requirements where necessary.

5.3 Water Quality

5.3.1 Construction Phase

Temporary drainage systems with interceptor manholes and appropriate sediment settlement measures will be required to trap oil pollutants and debris prior to discharge into the storm drains. The following mitigation measures should also be considered:

- Before commencing any demolition work, all sewer and drainage connections should be sealed to prevent debris from entering public sewers/drains;
- Wastewater generated from concreting, cleaning of machinery and similar activities should not be discharged into the stormwater drains. This waste should instead be discharged into foul sewers, after appropriate treatment;
- Open stockpiles should be covered with tarpaulin to avoid erosion which may wash solid waste into stormwater drainage systems; and
- Wash-water from wheel washing should have sand and silt removed before discharge into storm drains.

5.3.2 Operation Phase

During the operation phase, pollutants will be generated by the increased traffic flow. The following mitigation measures will be considered to reduce storm water runoff:

- Provision of silt traps to reduce the concentration of silt/sediments in storm water runoff; and
- Regular inspection and maintenance of the drainage system should be conducted to ensure that sediment traps and other pollutant removal facilities are cleared and in good working order.

5.4 Waste

5.4.1 Construction Phase

The main source of solid waste during the construction phase will be excess excavated spoil. Damaged materials, surplus construction materials, used products and municipal type waste will also be generated, all of which should be disposed of in accordance with environmental guidelines. Chemical waste will be handled in accordance with the Waste Disposal Ordinance and its regulations.

To minimise impact, the following measures should be taken into consideration:

- Construction vehicles to and from the site should be routed to avoid sensitive receivers where possible;
- Solid materials and waste should be removed from site and taken to a designated disposal site; and
- Construction waste generated should be sorted on site into inert and non-inert materials. Non-inert waste should be disposed of at landfill sites, while inert material should be disposed of at public filling areas and other appropriate areas.
- 5.4.2 Operation Phase

No solid waste in excess of normal road-side urban litter will be produced during the operation phase.

5.5 Possible Severity, Distribution and Duration of Environmental Effects

With proper implementation and monitoring of the mitigation measures, adverse environmental effects can be minimised during the construction and operation phases.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

No previously approved EIA report exists for the proposed project.

Drawings



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