For discussion
on 6 May 2003

Paper No. CB(2)1915/02-03(03)

LEGCO PANEL ON SECURITY

3151TB - Installation of Air-conditioning System at the Lo Wu Cross Boundary Footbridge

INTRODUCTION

This paper informs members of our plan to install an air-conditioning system at the Lo Wu Cross Boundary Footbridge (the LW Footbridge).

PROPOSAL

2. The cross-boundary experience of passengers at Lo Wu especially during Hong Kong's often rather hot and humid summer season can be much improved if the LW Footbridge can be made air-conditioned just like the inspection facilities on its two sides. Following consultations between Hong Kong and Mainland authorities, agreement has now been reached on works to enclose and install an air-conditioning system at the LW Footbridge. The opportunity will also be taken to widen the footbridge given that the existing structure of the bridge would in any case have to be strengthened to take on the additional loading arising from the installation of the air-conditioning system.

JUSTIFICATION

3. The cross boundary passenger traffic has increased substantially in recent years. At the Lo Wu Control Point, the passenger throughput reached over 95 million in 2002, which is 70% higher than the 56 million recorded in 1997. The average daily passenger traffic is about 260 000 on weekdays and may exceed 300 000 during weekends or long holidays.

4. The existing LW Footbridge has two levels and straddles across the Shenzhen River joining the Lo Wu Terminal Building on the Hong Kong side and the Luo Hu Joint Inspection Terminal on the Shenzhen side. It is co-owned by both the Shenzhen and Hong Kong Special Administrative Region (HKSAR) Governments. Enclosing it and providing air-conditioning will make the

cross-boundary experience much more pleasant, especially during summer time and when passengers may have to stay on the bridge for a longer than normal time when traffic is heavy. At the Fourth Plenary of the Hong Kong/Guangdong Cooperation Joint Conference held in July 2001, both sides agreed to improve the environment of the LW Footbridge by two phases. Phase I of the improvement included widening of the passenger lanes on the LW Footbridge by realignment of the railings, installation of air conducting fans and replacement of ceiling and floor tiles. Phase I works were completed in February 2002. Phase II of the improvement measures includes enclosure of the LW Footbridge and the installation of an air-conditioning system, and will also result in its widening by another 5.5m, or about 60% of its present width.

PROJECT SCOPE AND NATURE

5. The scope of the project comprises –

(a) construction of independent two-storey structures spanning the whole length of existing LW Footbridge and extension of the existing floor and roof covering (including both sections within Shenzhen and HKSAR);

(b) enclosure of the whole LW Footbridge, and modification and enclosure of the HKSAR's side bridge, with new glazing and claddings;

(c) provision of mechanical ventilation and air conditioning;

(d) provision of fire services installations to the enclosed LW Footbridge together with supporting building services installations; and

(e) modification and improvement works to the passenger signage, hand railings, floor, wall and ceiling finishes of the LW Footbridge.

Enclosures I & II

A site plan and diagrams showing the conceptual design of the bridge upon completion of the construction and installation works are at Enclosure I and II respectively. We have agreed with Mainland authorities that the improvement project will be carried out in accordance with the principle of "uniform design, uniform commissioning of construction works, separate management and cost sharing".

6. The conceptual design of the LW Footbridge has been presented to the Advisory Committee on the Appearance of Bridges and Associated Structures which has found the design acceptable.

7. As the construction works will take place in both the Shenzhen and Hong Kong side of the LW Footbridge, we plan to entrust the design, supervision and construction of the improvement works of our section of the LW Footbridge to the Mainland side because this will minimize the interface problems and will ensure compatibility of the design/ construction standards of the two sides and the construction works. Hong Kong consultants will be required to be involved in the design and supervision of construction works. The construction works will be carried out by one co-ordinating contractor through a tendering process to be agreed, but we will require tenders to be open to appropriately qualified contractors from both HKSAR and the Mainland. We plan to commence construction works in the latter half of 2003 and complete all works by December 2004.

FINANCIAL IMPLICATIONS

8. We estimate the part of the capital cost of this project to be funded by HKSAR Government to be $50.35 million in money of the day (MOD) prices (see paragraph 9 below), made up as follows -

		$ million	
(a)	Piling	10.0	
(b)	Building	24.5	
(c)	Building services	10.5	
(d)	Entrustment of design and supervision fees	4.5	
(e)	Contingencies	4.5	
	Sub-total	54.0	(in September 2002 prices)
(f)	Provision for price adjustment	(3.65)	
	Total	50.35	(in MOD prices)

The construction floor area (CFA) of 3151TB within HKSAR boundary is about 1,150 square metres (including 420 m^2 newly constructed area and 730 m^2 of existing area requiring construction works). The CFA of the HKSAR's side bridge is about 115 square metres, hence it bears about one tenth of the total expenditure except the piling cost. The estimated construction unit cost, represented by building and building services costs is $30,435 per square metre of CFA in September 2002 prices. The construction unit cost is higher than that of the 72KA – Improvement works at Lo Wu Terminal Building ($15,270 per m^2). This is due to the bridge site being more difficult. The bridge must span over the river without any central support being possible, is a more expensive structure and also carries higher temporary works costs. The ratio of the new wall cladding enclosure areas to that of the CFA is significantly higher than normal. Due to safety and security requirements of maintaining normal boundary clearance operations, most of the works will have to be undertaken at night when the facilities are closed. Additionally, the works must comply with the different requirements of both the HKSAR and the Mainland. As we plan to entrust the design and construction works to the Mainland side, it is expected that a lower unit cost will result.

9. We derive the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2006.

10. We estimate the additional annual recurrent expenditure arising from the project to be $1.1million.

ENVIRONMENTAL IMPLICATIONS

11. The project is not designated under the Environmental Impact Assessment (EIA) Ordinance. We have included in the project estimate the cost of implementing suitable mitigation measures to control short-term environmental impacts.

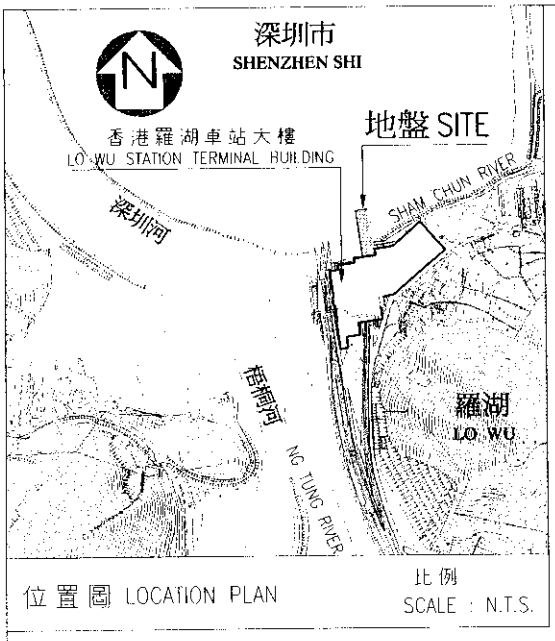
LAND ACQUISITION

12. The project does not require land acquisition.

IMPLEMENTATION

13. We plan to seek funding support from the Public Works Sub-committee and approval from the Finance Committee in June and July respectively.

Security Bureau
April 2003



位置圖 LOCATION PLAN

比例 SCALE : N.T.S.

深圳市
SHENZHEN SHI

羅湖行人橋
LO WU FOOTBRIDGE

深圳河 SHAM CHUN RIVER

邊界道路 BORDER ROAD

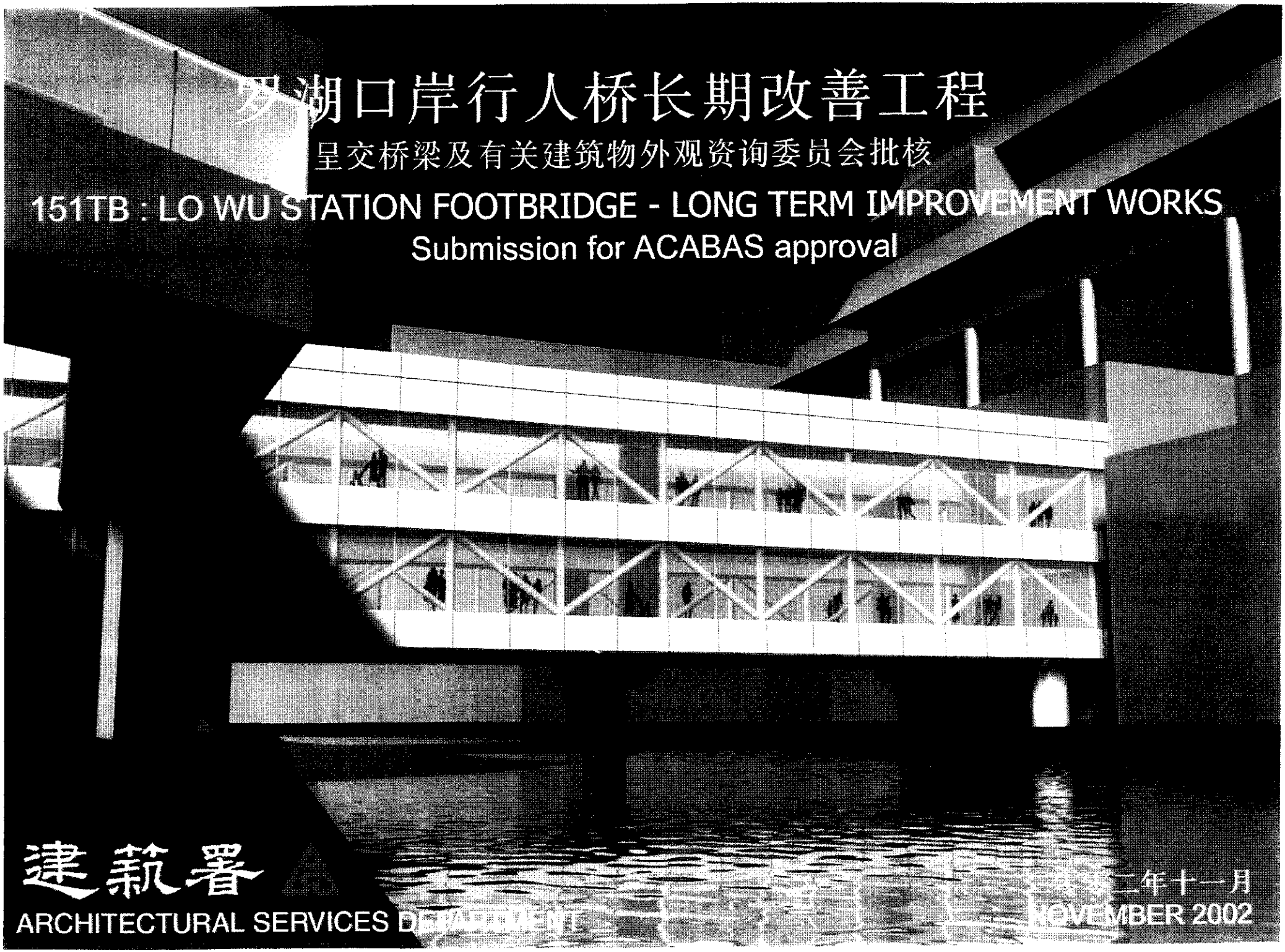
香港羅湖車站大樓
LO WU STATION TERMINAL BUILDING

羅湖道 LO WU ROAD

梧桐河 NG TUNG RIVER

羅湖
LO WU

151TB 羅湖行人橋加裝空調工程 AIR CONDITIONING OF LO WU FOOTBRIDGE	drawn by K.H. CHAN	date 04 2003	drawing no. AB/6478/XA101	scale 1:1500
	approved K.C. IAM	date 04-2003		
	office ARCHITECTURAL BRANCH II		ARCHITECTURAL SERVICES DEPARTMENT	



羅湖口岸行人桥长期改善工程

呈交桥梁及有关建筑物外观资询委员会批核

151TB : LO WU STATION FOOTBRIDGE - LONG TERM IMPROVEMENT WORKS

Submission for ACABAS approval

建築署

ARCHITECTURAL SERVICES DEPARTMENT

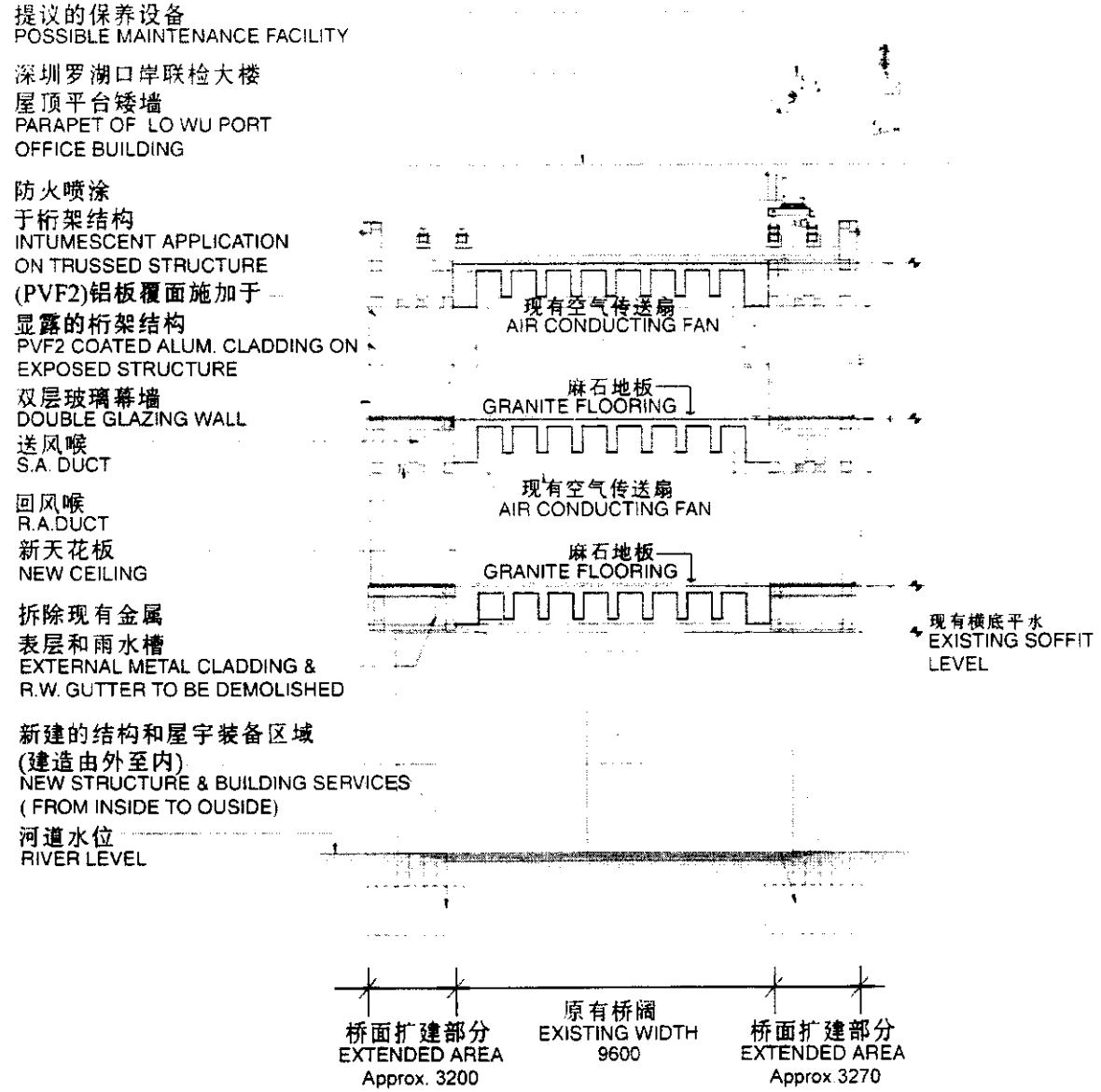
二零零二年十一月

NOVEMBER 2002

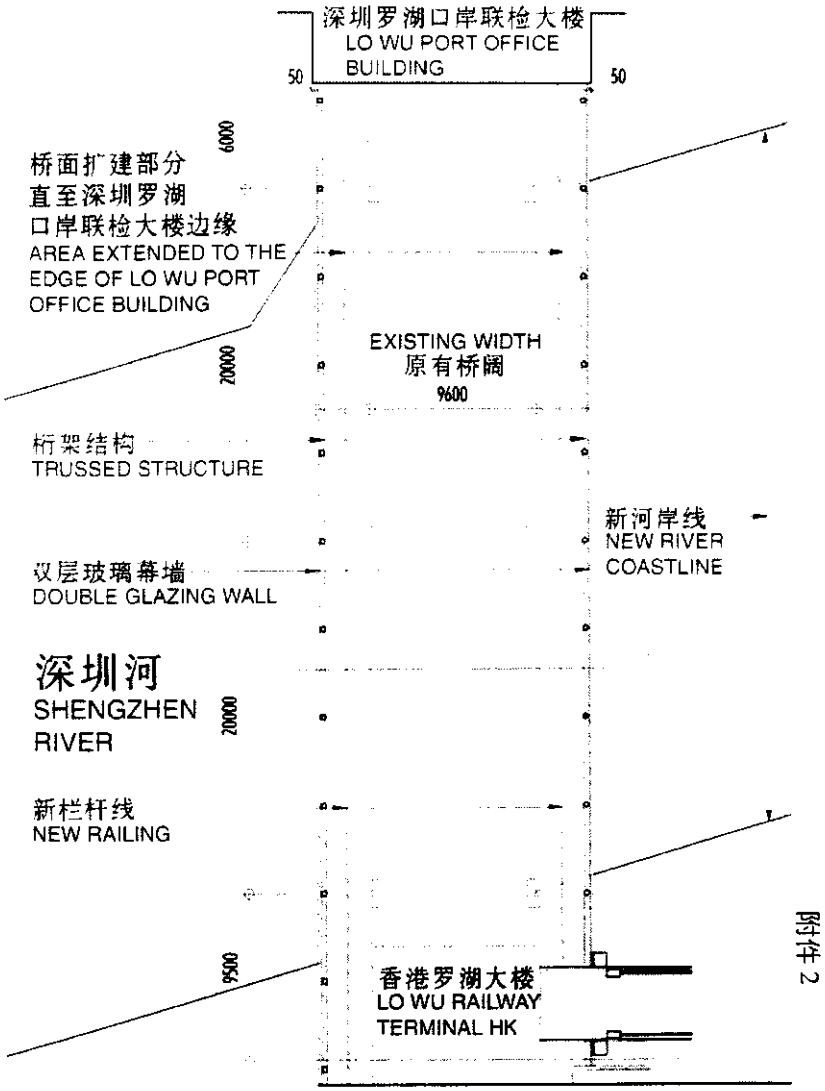
附件 2

Enclosure 2

典型横切面图A-A SECTION A-A 1 : 150



平面图A-A PLAN A-A 1 : 300



附件 2

Enclosure 2