

## Legislative Council Panel on Housing

### PWP Item Nos. 566CL & 126WC –

### Development at Anderson Road and the associated Mainlaying Works

#### Purpose

This paper seeks Members' support for the Administration's proposal -

- (a) to upgrade **PWP Item No. 566CL (566CL)**, "Development at Anderson Road", to Category A for carrying out the site formation and associated infrastructure works for the future development of public housing, other government, institution or community facilities and district open spaces at Anderson Road in East Kowloon; and
- (b) to part-upgrade **PWP Item No. 126WC (126WC)**, "Mainlaying within development at Anderson Road", to Category A for carrying out the proposed mainlaying works within the project boundary of **566CL**.

#### Project Scope

- 2. The scope of works under **566CL** comprises -
  - (a) formation of about 20 hectares of land platforms and construction of associated slopes and retaining walls;
  - (b) roadworks of about 4 700 metres (m) in length, including associated footways and road junction improvement works;
  - (c) road bridges, footbridges and pedestrian subway;
  - (d) drainage and sewerage works, including an underground stormwater storage tank;

- (e) landscaping works; and
- (f) environmental mitigation measures, including implementation of an environmental monitoring and audit (EM&A) programme for the works mentioned in paragraphs (a) to (e) above.

— A site plan showing the proposed works is at **Annex 1**.

3. The scope of works under **126WC** comprises the provision of water supply facilities to serve the development at Anderson Road (DAR). The part of **126WC** proposed to be upgraded to Category A concerns the implementation of mainlaying works within the project boundary of **566CL**. The scope of the part to be upgraded comprises -

- (a) laying of about 4 800 m of fresh water mains of diameters ranging from 300 millimetres (mm) to 900 mm; and
- (b) laying of about 4 800 m of salt water mains of diameters ranging from 150 mm to 400 mm.

— A site plan showing the proposed works to be part-upgraded is at **Annex 2**.

4. We plan to commence the proposed site formation and mainlaying works described in paragraphs 2 and 3 above in January 2008 and end 2010 respectively, and for completion in early 2014. The associated infrastructure works mentioned in paragraph 2 above are scheduled to start in early 2011, for completion by December 2014.

5. The remainder of **126WC** provides other facilities necessary to complete the water supply system to serve DAR. It comprises the construction of a fresh water service reservoir, a salt water service reservoir, a fresh water pumping station, installation of pumpsets, and laying of about 300 m of fresh water mains of diameters ranging from 300 mm to 900 mm and about 1 000 m of salt water mains of diameters ranging from 250 mm to 400 mm.

## **Justifications**

6. A steady and sufficient supply of land for further development is necessary for meeting the public housing demand in the long term. In October 1998, we completed the “Planning and Engineering Feasibility Study for DAR” (the Study). In January 2007, we conducted a review of the findings of the Study, which confirmed the feasibility of the proposed public housing development at Anderson Road. Upon completion, the proposed development will provide about 16 100 public housing flats for a population of about 48 000, in phases between 2015 and 2016.

7. To meet the above housing development programme, the Housing Authority plans to start the construction of the public housing flats in end 2011. To ensure timely commencement of the construction project, we need to commence the site formation works in January 2008.

8. To meet the water demand arising from DAR, we need to construct the water supply facilities described in paragraphs 3 and 5 above.

9. The Civil Engineering and Development Department (CEDD) is responsible for implementing the site formation and the associated infrastructure for DAR under **566CL**, while the Water Supplies Department is taking charge of the provision of water supply facilities to serve DAR under **126WC**. As the proposed mainlaying works described in paragraph 3 above fall within the project boundary of **566CL** and to avoid interface problems arising from having two contractors working on the same site, we have incorporated the proposed mainlaying works into the site formation and associated infrastructure contract to be awarded by CEDD under **566CL**.

10. We have completed the detailed design and initiated the works-related tendering procedures for the proposed site formation and associated infrastructure and mainlaying works.

## Financial Implications

11. We estimate the capital cost of the proposed site formation and associated infrastructure works under **566CL** to be \$3,467.2 million in money-of-the-day (MOD) prices, made up as follows -

	<b>\$ million</b>	
(a) Earthworks	1,604.2	
(b) Slopes and retaining walls	744.8	
(c) Roadworks	58.0	
(d) Bridgeworks and subway	232.9	
(e) Drainage and sewerage works	141.3	
(f) Landscaping works	46.7	
(g) Environmental mitigation measures	20.7	
(h) Consultants' fees	219.0	
(i) construction supervision and contract administration	8.0	
(ii) resident site staff costs	201.0	
(iii) EM&A programme	10.0	
(i) Contingencies	242.0	
	Sub-total	3,309.6 (in September 2007 prices)
(j) Provision for price adjustment	157.6	
	Total	<u>3,467.2</u> (in MOD prices)

12. We estimate the capital cost of the proposed mainlaying works to be part-upgraded under **126WC** to be \$103.8 million in MOD prices, made up as follows -

	<b>\$ million</b>	
(a) Mainlaying	79.4	
(b) Environmental mitigation measures	0.7	
(c) Consultants' fees	8.1	
(i) construction supervision and contract administration	0.5	
(ii) resident site staff costs	7.6	
(d) Contingencies	8.8	
	Sub-total	97.0 (in September 2007 prices)
(e) Provision for price adjustment	6.8	
	Total	<u>103.8</u> (in MOD prices)

## **Public Consultation**

### **A. 566CL**

13. At the Kwun Tong Provisional District Board and the Sai Kung Provisional District Board meetings in October 1998, we presented the findings and recommendations of the Study (see paragraph 6 above) for the proposed development. Members had no objection in principle to the development.

14. On 28 May 1999, the draft Kwun Tong (North) Outline Zoning Plan (OZP) was exhibited for public inspection under the Town Planning Ordinance. During the two-month exhibition period, we received two valid objections mainly on the grounds of high development intensity, traffic impacts and the potential visual impact to the ridgeline of Tai Sheung Tok. After considering the objections, the

Town Planning Board decided to propose amendments to the draft OZP to partially meet the objections by sub-dividing the five “Residential (Group A)” (“R(A)”) zones for the proposed development into seven sub-zones and incorporating maximum building height restrictions for the “R(A)” sub-zones in the Notes of the draft OZP. The Chief Executive in Council approved the OZP on 10 October 2000.

15. At the Kwun Tong District Council (KTDC) meetings on 10 April and 5 June 2000, we presented a proposal of the road and sewerage schemes for the development. Members had no objection in principle to the schemes, but some were concerned about the capacities of the roads in coping with the additional traffic to be generated. We explained that a traffic impact assessment study had been completed, which indicated that with the improvement works at several road junctions, there would not be any unacceptable impact on the existing road network. A plan showing the locations of the proposed road improvement works, which will form part of the project, is at Annex 3.

16. At the Sai Kung District Council (SKDC) meeting on 11 April 2000, we presented a proposal of the road and sewerage schemes for the development. Members had no objection in principle to the project, but some were concerned about the capacity of the road junctions at Clear Water Bay Road/Anderson Road and Po Lam Road/Anderson Road in coping with the additional traffic to be generated. We explained that with the proposed improvement works as recommended in the traffic impact assessment study, both junctions would have adequate capacity to cater for future traffic demand to be generated from the proposed development.

17. We gazetted the proposed roadworks under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 22 September 2000. Eight objections were received. After discussions with the objectors, six of them withdrew their objections. The remaining two objectors maintained their objections concerning the resumption of their private land. Having considered these two unresolved objections, the Chief Executive in Council authorised the road scheme on 19 March 2002, with a minor modification to address the concern of one of the objectors. The notice of authorisation was gazetted on 4 April 2002.

18. We gazetted the proposed sewerage works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) as applied by section 26 of the Water Pollution Control (Sewerage) Regulation on 1 December 2000. One objection was received. After our discussion with the objector, he maintained his objection concerning the resumption of private land. Having considered the unresolved objection, the Chief Executive in Council authorised the sewerage scheme without

modification on 19 March 2002. The notice of authorisation was gazetted on 3 May 2002.

19. At the Kowloon City District Council (KCDC) meeting on 11 July 2002 and the KTDC meeting on 30 July 2002, we presented a proposal for the disposal of surplus excavated materials by trucks during the construction phase of the project. Whilst KTDC members had no objection in principle to the disposal arrangement, KCDC members expressed concerns about the possible traffic and environmental impacts arising from the disposal operations. We explained that based on the findings of the traffic and environmental assessment studies, the impact during the construction phase of the project and the disposal operations would be acceptable. We assured that appropriate mitigation measures would be implemented to contain the environmental impact within the established standards and guidelines.

20. We consulted the KTDC on 19 January 2006 on the proposed clearance of four temples (Shing Wong Temple, Kwun Yam Temple, Tai Shing Temple and Hoi Kwok Tin Hau Leung Leung Temple) within the development. These temples, which will inevitably be affected by the proposed construction works, are tolerated structures within the project boundary and have no legal right for their re-provisioning upon clearance. Members generally expressed support for the early implementation of the project, but requested the Administration to handle the temple clearance issue in a legitimate and reasonable manner. Taking into account the long history of these temples, their services provided to the community and the strong local support for the services, the Administration agreed to assist the temple operators to relocate the four temples to a nearby site at Po Lam Road. The existing temple structures would be cleared by December 2007<sup>1</sup> to allow for timely commencement of the site formation works in January 2008. At this juncture, the rezoning application for the Po Lam Road site to facilitate the relocation of the four temples is being processed under the Town Planning Ordinance.

21. At the KTDC meeting on 15 March 2007, we reported the latest progress of the project including the proposed construction methods, the safety measures for rock blasting and the arrangement for the disposal of surplus excavated materials. Members supported the project, with some expressing concerns about the truck routes for the disposal of surplus excavated materials. At the request of the KTDC, we consulted the Traffic and Transport Committee (T&TC) of the KTDC on 12 April 2007 on the proposed haulage routes. Members had no adverse comment on the proposed disposal arrangement.

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<sup>1</sup> To cater for the latest progress in relocation of the temples, clearance of the temple structures is re-scheduled for early 2008. Provision has been made in the site formation and infrastructure contract to allow for late possession of the temple sites and phased commencement of land formation works near the temple areas after January 2008.

22. We consulted the Food and Environmental Hygiene Committee of the KCDC on 12 April 2007 on the proposal of setting up a set of temporary barging points at the former Kai Tak Runway. These barging points serve to facilitate the transit of surplus excavated materials generated from the project to other receptor sites by marine transportation. Whilst members had no adverse comment on the proposal, some expressed concerns about the potential environmental impact on the surrounding areas, including the possible generation of dust and noise during the transit operations. To address their concerns, we advised that the project would not utilise the former Kai Tak Runway for stockpiling purpose, except for a small buffer area within the barging points which was designated for emergency piling only. We also undertook to erect enclosures for the barging points and implement mitigation measures to suppress the generation of dust and noise.

23. We consulted the T&TC of Wong Tai Sin District Council on 29 May 2007 concerning one of the proposed truck routes along New Clear Water Bay Road for the disposal of surplus excavated materials generated from the project. Members had no adverse comment on the proposal.

#### **B. 126WC (part-upgrade)**

24. We consulted the KTDC through an information paper in June 2007 about the proposed mainlaying works within the project boundary of **566CL**. Members had no objection to the proposed works.

### **Environmental Implications**

25. **566CL** is a designated project under Schedule 3 to the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). The proposed road widening works at Po Lam Road, which form part of **566CL**, is also a Schedule 2 designated project under the EIA Ordinance. An EIA report (covering the proposed mainlaying works entrusted to CEDD) was approved with conditions by Environmental Protection Department (EPD) on 2 March 1999. The report concluded that the environmental impact of the project could be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process. We will implement the recommendations of the approved EIA report, including planting of not less than 13.4 hectares of woodland on soft cut slopes using native species. An Environmental Permit was issued by EPD on 18 June 2002 for the proposed road widening works at Po Lam Road, including improvement to an existing roadside noise barrier.



26. We will require the contractor to implement measures to control noise, dust and site run-off nuisances to within the established standards and guidelines through stipulating suitable provisions in the relevant contract, such as the use of temporary noise barriers and silenced construction plant to reduce noise generation and water-spraying to reduce emission of fugitive dust. We estimate the costs of implementing the environmental monitoring and mitigation measures for the proposed works under **566CL** and **126WC** (part-upgrade) to be \$20.7 million and \$0.7 million (in September 2007 prices) respectively. We have included these costs in the project estimates. We will also implement an EM&A programme to ensure timely and effective implementation of the recommended mitigation measures.

27. We have optimized the design of the levels and layout of the proposed site formation works, and the levels and alignments of the proposed roads and water mains in the planning and design stages to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse suitable excavated materials on site as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities<sup>2</sup>. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

28. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

29. We estimate that **566CL** will generate in total about 11.4 million tonnes of construction waste. Of these, we will reuse about 1.4 million tonnes (12.3%) of inert construction waste on site and deliver about 10.0 million tonnes (87.6%) of inert construction waste to other projects or public fill reception facilities for subsequent reuse. In addition, we will dispose of about 7 000 tonnes (0.1%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be about

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<sup>2</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

\$200 million (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne at landfills<sup>3</sup>).

30. We estimate that **126WC** (part-upgrade) will generate about 40 000 tonnes of C&D materials. Of these, we will reuse about 4 700 tonnes (11.7%) on site and deliver about 35 270 tonnes (88.2%) to other projects or public fill reception facilities for subsequent reuse. In addition, we will dispose of about 30 tonnes (0.1%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be about \$1 million (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne at landfills<sup>3</sup>).

31. Of the about 4 470 trees within the project boundary, about 1 760 trees will be preserved. The proposed site formation and associated infrastructure works under **566CL** will involve the removal of about 2 710 trees including about 2 670 trees to be felled and 40 trees to be transplanted within the project site. All the trees to be removed are not important trees<sup>4</sup>. We will incorporate planting proposal as part of the project, including estimated quantities of 50 000 trees and 20 000 shrubs. As the proposed works under **126WC** (part-upgrade) will be implemented within the project boundary of **566CL**, the mainlaying project itself will not involve any tree removal or planting.

## Land Acquisition

32. Resumption of private land within the area of the proposed works under **566CL** has been completed and the private lots were reverted to Government on 16 August 2002. Site clearance for **566CL** is on-going and involves 76 structures including four temples, and six families with nine persons and agricultural crops.

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<sup>3</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

<sup>4</sup> "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria -

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

The estimated land acquisition and clearance costs of \$49 million are charged to **Head 701** “Land Acquisition” **Subhead 1100CA** “Compensation and *ex-gratia* allowances in respect of projects in the Public Works Programme”.

33. As the proposed works under **126WC** (part-upgrade) will be implemented within the project boundary of **566CL**, the mainlaying project itself does not require any land acquisition.

### **Employment Opportunities**

34. The proposed works under **566CL** will create about 1 135 jobs (920 for labourers and another 215 for professional/technical staff) providing a total employment of 74 000 man-months.

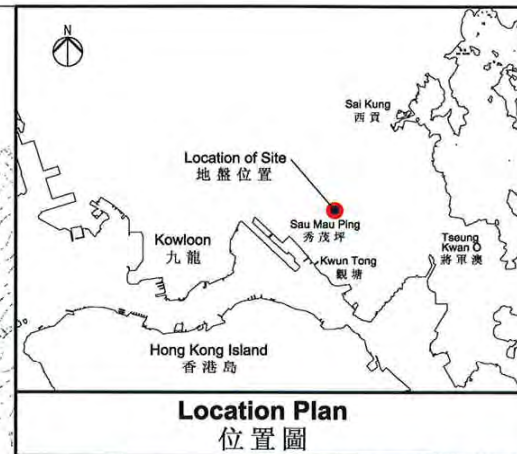
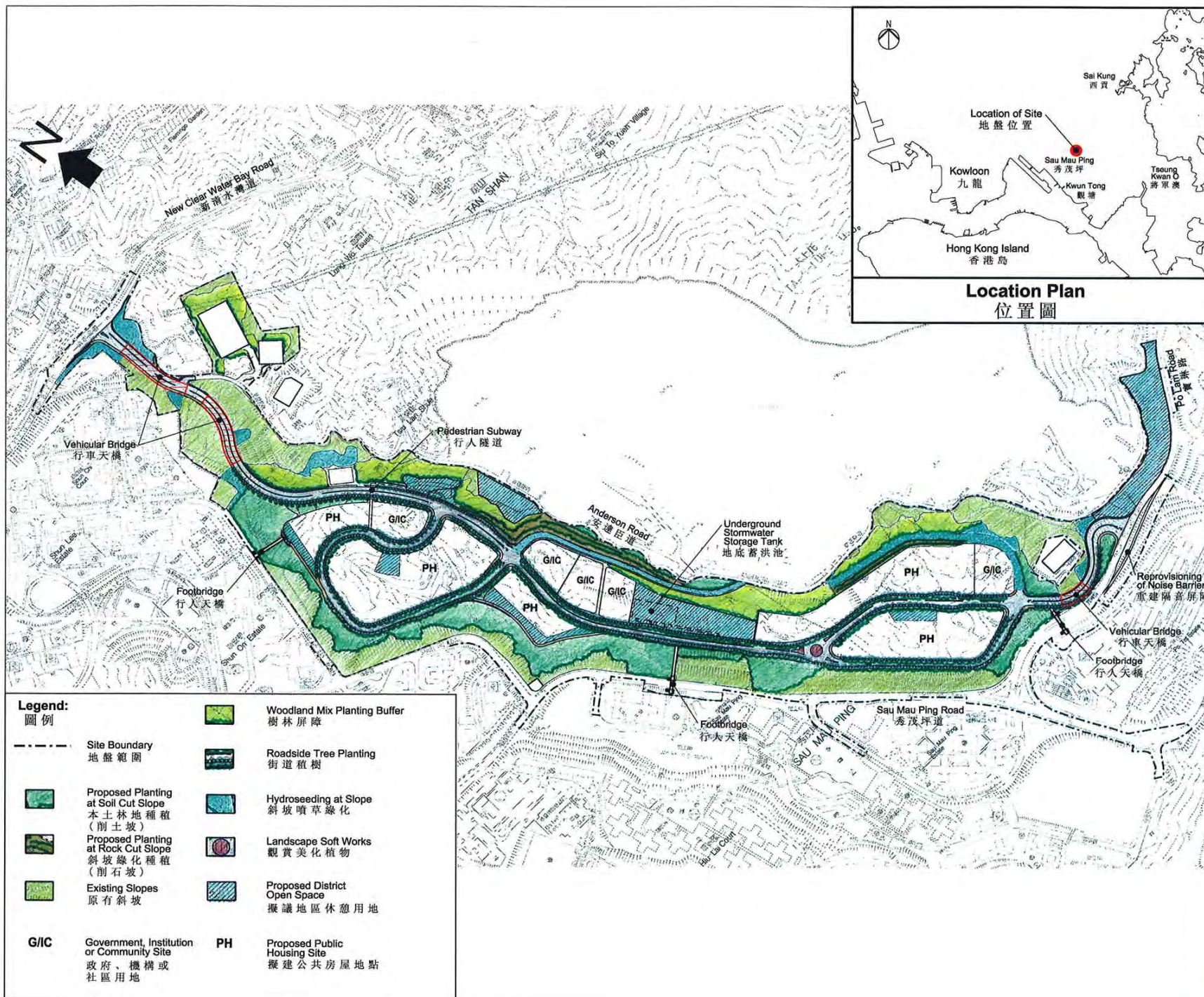
35. The proposed works under **126WC** (part-upgrade) will create about 45 jobs (36 for labourers and another 9 for professional/technical staff) providing a total employment of 1 600 man-months.

### **Way Forward**

36. We reinstated **566CL** and upgraded **126WC** to Category B in September 2005. Subject to Members’ support, we will seek funding approval from the Public Works Sub-committee and Finance Committee of the Legislative Council in November and December 2007 respectively for upgrading **566CL** and part-upgrading **126WC** to Category A, so that the site formation and associated mainlaying works can commence in January 2008 and 2010 respectively.

**Transport & Housing Bureau**

**November 2007**



	姓名 Name	簽署 Initial	日期 date
繪圖 drawn	W.S. MAK	SIGNED	14 SEPT 2007
核對 checked	L.P. LAM	SIGNED	14 SEPT 2007
核准 approved	C.B. YUNG	SIGNED	14 SEPT 2007

2007年至2008年年度工務小組委員會文件  
PWSC Submission 2007 - 2008

項目編號 Item no.	566 CL
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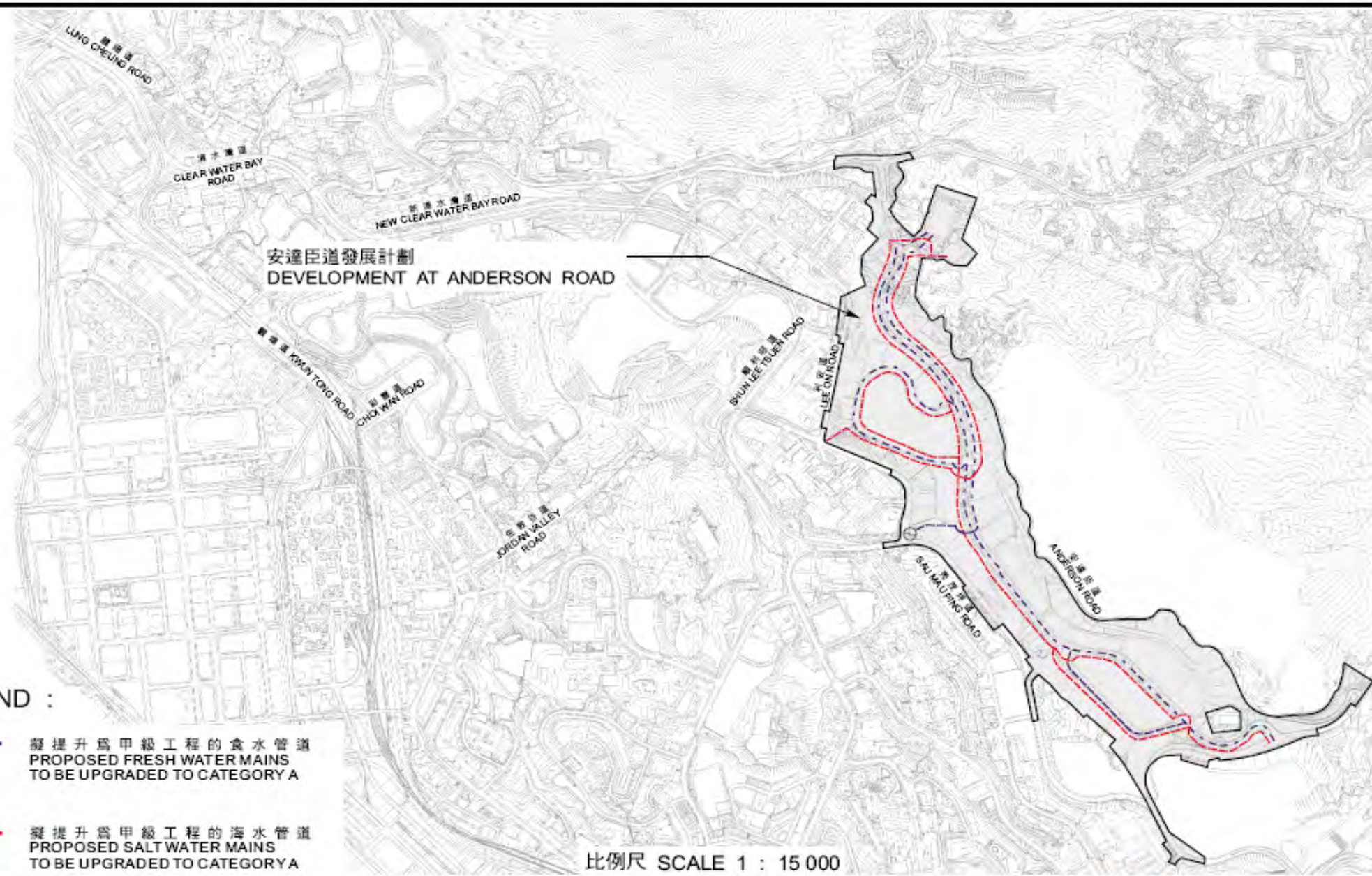
圖則名稱 drawing title	
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安達臣道發展計劃：  
總平面圖  
Anderson Road Development :  
General Layout Plan

圖則編號 drawing no.	24711/SK/259	比例 scale	N.T.S.
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辦事處 office  
土木工程處  
CIVIL ENGINEERING OFFICE

土木工程拓展署  
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT



LEGEND :

- 擬提升為甲級工程的食水管  
PROPOSED FRESH WATER MAINS  
TO BE UPGRADED TO CATEGORY A
- 擬提升為甲級工程的海水管  
PROPOSED SALT WATER MAINS  
TO BE UPGRADED TO CATEGORY A

比例尺 SCALE 1 : 15 000

核准 APPROVED

  
總工程師/顧問工程師 CEOM

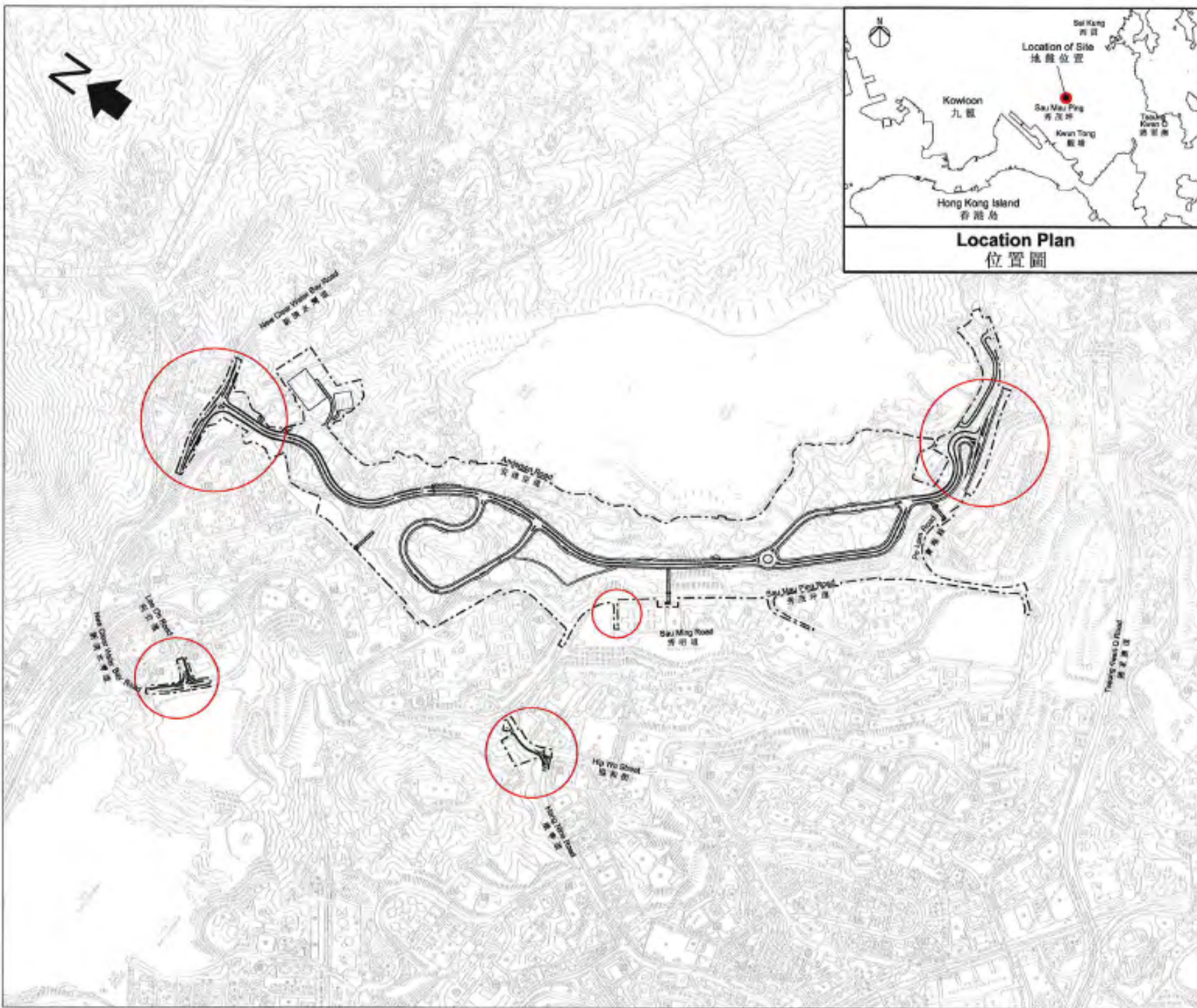
14 / 6 / 2007

工務計劃項目第126WC號 (提升為甲級工程的部分) -  
安達臣道發展計劃範圍內的水管敷設工程  
PWP ITEM NO. 126WC (PART UPGRADING) -  
MAINLAYING WITHIN DEVELOPMENT AT ANDERSON ROAD



水務署  
WATER SUPPLIES DEPT.

草圖編號 SKETCH NO. SK 62007 / 047



**圖例 LEGEND:**

- 地段範圍  
Site Boundary
- 擬建道路交界處改善工程的位置  
Location of Proposed Road Junction Improvement Works

	姓名 Name	簽署 Initial	日期 Date
繪圖 drawn	W.S. MAK	SIGNED	14 SEPT 2007
核對 checked	L.P. LAM	SIGNED	14 SEPT 2007
核准 approved	C.B. YUNG	SIGNED	14 SEPT 2007

2007年至2008年年度工務小組委員會文件  
PWSC Submission 2007 - 2008

項目編號 Item no.	588 CL
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圖則名稱 drawing title  
**安達臣道發展計劃：  
道路交界處改善工程位置圖**  
**Anderson Road Development :  
Location of Proposed Road  
Junction Improvement Works**

圖則編號 drawing no.	24711/SK/258	比例 scale	1:10 000
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土木工程處  
CIVIL ENGINEERING OFFICE

