For information

Legislative Council Panel on Development

99WC – Water supply to Northwestern Tuen Mun

PURPOSE

This paper informs Members of our proposal to upgrade part of **99WC – "Water supply to Northwestern Tuen Mun**" to Category A at an estimated cost of $87.9 million in money-of-the-day (MOD) prices for laying water mains to provide fresh and salt water supplies to proposed developments in Area 54, Tuen Mun.

PROJECT SCOPE

2. The part of **99WC** which we propose to upgrade to Category A comprises laying of the following water mains along Ming Kum Road, Hing Fu Street and two new roads, namely Road L54A and Road L54D:

(a) about 2.1 kilometres (km) fresh water mains ranging from 150 millimetres (mm) to 600 mm in diameter; and
(b) about 2.1 km salt water mains ranging from 80 mm to 300 mm in diameter.

3. Layout plans showing the above proposed water mains and the proposed developments to be served by them are at **Enclosure**.

4. Subject to the funding approval of the Finance Committee (FC), we plan to commence construction of the proposed water mains in August 2015 for completion in August 2019.

5. We will retain the remainder of **99WC** comprising the laying of about 4 km fresh and salt water mains for other proposed developments planned in Area 54, Tuen Mun in Category B. Funding for the remainder of **99WC** will be sought at a later stage.

JUSTIFICATION

6. Area 54 of Tuen Mun is being developed in phases. The Civil Engineering and Development Department (CEDD) will upgrade part of **666CL -"Formation, roads and drains in Area 54, Tuen Mun - phase 1"** and **681CL -"Formation, roads and drains in Area 54, Tuen Mun - phase 2"** to Category A for the site formation and associated infrastructure works for proposed

developments in Area 54, Tuen Mun including two housing sites namely Site 1 & 1A and Site 3/4 (East). Housing Department aims to provide about 4 000 public housing flats for population intake in 2020-21 and 3 000 public housing flats for population intake in 2021-22 in these two sites. In addition, there is a site to be formed for the proposed community hall/sports center at Site 4A (West).

7. Fresh and salt water supplies to the proposed developments are to be provided through laying new water mains from the existing water mains at Ming Kum Road. The proposed water mains laying works fall mainly within the boundaries of CEDD's projects **666CL** and **681CL**. In order to match with the development programmes and to avoid interfacing problems arising from two contractors working on the same site and repeated road openings, we plan to entrust the water mains laying works to CEDD for implementation in conjunction with their works under **666CL** and **681CL.**

FINANCIAL IMPLICATIONS

8. We estimate the cost of the proposed works to be $87.9 million in MOD prices, made up as follows –

			$ million
(a)	Laying of fresh water mains		38.3
	(i) conventional method[1]	31.8	
	(ii) trenchless method[2]	6.5	
(b)	Laying of salt water mains		25.6
	(i) conventional method[1]	21.6	
	(ii) trenchless method[2]	4.0	

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[1] Conventional method refers to laying pipelines in trench. It involves opening up the road surface for laying the whole lengths of the pipelines. We estimated that around 97% of the fresh water mains and salt water mains under this project will be laid by conventional method. The actual percentage will depend on the site conditions.

[2] Trenchless method (sometimes referred to as 'minimum dig' or 'reduced dig' method) refers to the use of pipe jacking, micro-tunnelling or boring techniques to construct underground pipelines without opening up the road surface for the whole lengths of the pipelines. This method will be employed when the conventional method is not feasible due to site constraints such as unacceptable traffic conditions. We have assumed that around 3% of the fresh water mains and salt water mains under this project will be laid by trenchless method. The actual percentage will depend on the site conditions.

		$ million	
(c)	Environmental mitigation measures	1.6	
(d)	Contingencies	6.5	
	Sub-total	72.0	(in September 2014 prices)
(e)	Provision for price adjustment	15.9	
	Total	87.9	(in MOD prices)

PUBLIC CONSULTATION

9. We consulted the Environment, Hygiene and District Development Committee (EHDDC) of the Tuen Mun District Council (TMDC) in September 2014. The Committee had no objection to the proposed works.

ENVIRONMENTAL IMPLICATIONS

10. This is not a designated project under the Environmental Impact Assessment Ordinance (Cap 499). The works will not have any major environmental impact. We have included in paragraph 8(c) above a sum of $1.6 million (in September 2014 prices) in the project estimate for the implementation of standard pollution control measures to mitigate environmental impacts during construction. These measures include frequent watering of the site, provision of wheel-washing facilities, covering of materials on trucks and use of silenced construction plant.

11. At the planning and design stages, we have considered the design of the proposed works and the construction sequence to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste at public fill reception facilities[3]. We will encourage the contractor to maximize the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of

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[3] 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.

construction waste.

12. At the construction stage, we will 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

13. We estimate that the project will generate in total about 9 800 tonnes of construction waste. Of these, we will reuse about 3 920 tonnes (40%) of inert construction waste on site and deliver 4 900 tonnes (50%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 980 tonnes (10%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfills is estimated to be $254,800 for this project (based on a unit charge rate of $27 per tonne for disposal at public fill reception facilities and $125 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

14. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

15. The proposed water mains laying works will mainly be implemented within the project boundaries of **661CL** and **681CL**. All necessary land resumption under the two projects was completed in July 2014 and clearance is underway.

BACKGROUND INFORMATION

16. The project **99WC** was included in Category B in February 2000.

17. On 11 May 2012, we upgraded part of **99WC** to Category A as **193WC** entitled “Water supply to Northwestern Tuen Mun, stage 1” at an approved project estimate of $ 30.3 million for the laying of fresh and salt water mains along San Fuk Road and near Kei Lun Wai for new developments in Area 54, Tuen Mun. The construction works commenced in October 2012 for completion in March 2016.

18. We have substantially completed the detailed design of the proposed water mains laying works using in-house resources.

19. The proposed water mains laying works will not involve any tree removal or planting proposals as the water mains will be laid on sites and roads to be formed under projects **666CL** and **681CL**.

20. We estimate that the proposed works will create about 20 jobs (17 for labourers and 3 for professional/technical staff) providing a total employment of 840 man-months.

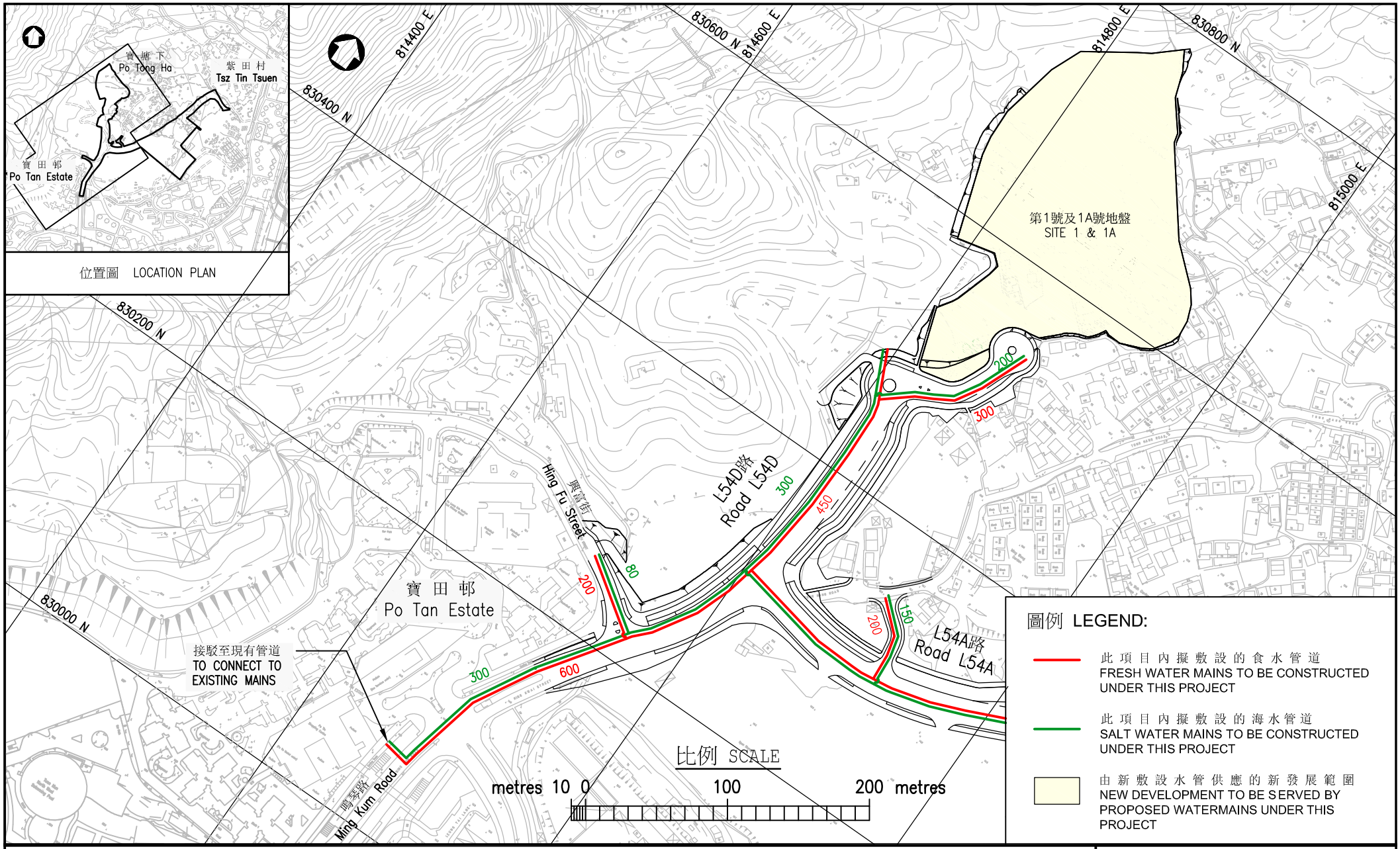
21. The CEDD manages the projects **666CL** and **681CL**, which comprises site formation for public housing, school and government, institutional and community facilities developments, construction of roads, drainage, sewerage, slopes and landscaping works, provision of noise mitigation measures and other ancillary works in Area 54, Tuen Mun.

22. The CEDD will seek FC's approval for upgrading part of **666CL** and **681CL** to Category A for the site formation and associated infrastructure works at Site 1 & 1A, Site 3/4 (East) and Site 4A (West) in Area 54, Tuen Mun.

WAY FORWARD

23. We plan to seek the support of the Public Works Subcommittee for the proposed part-upgrading of **99WC** to Category A with a view to seeking funding approval from the FC subsequently.

Development Bureau
Water Supplies Department
February 2015



工務計劃項目99WC號 --- 屯門西北區供水計劃
P.W.P. Item No. 99WC ---- Water Supply to Northwestern Tuen Mun

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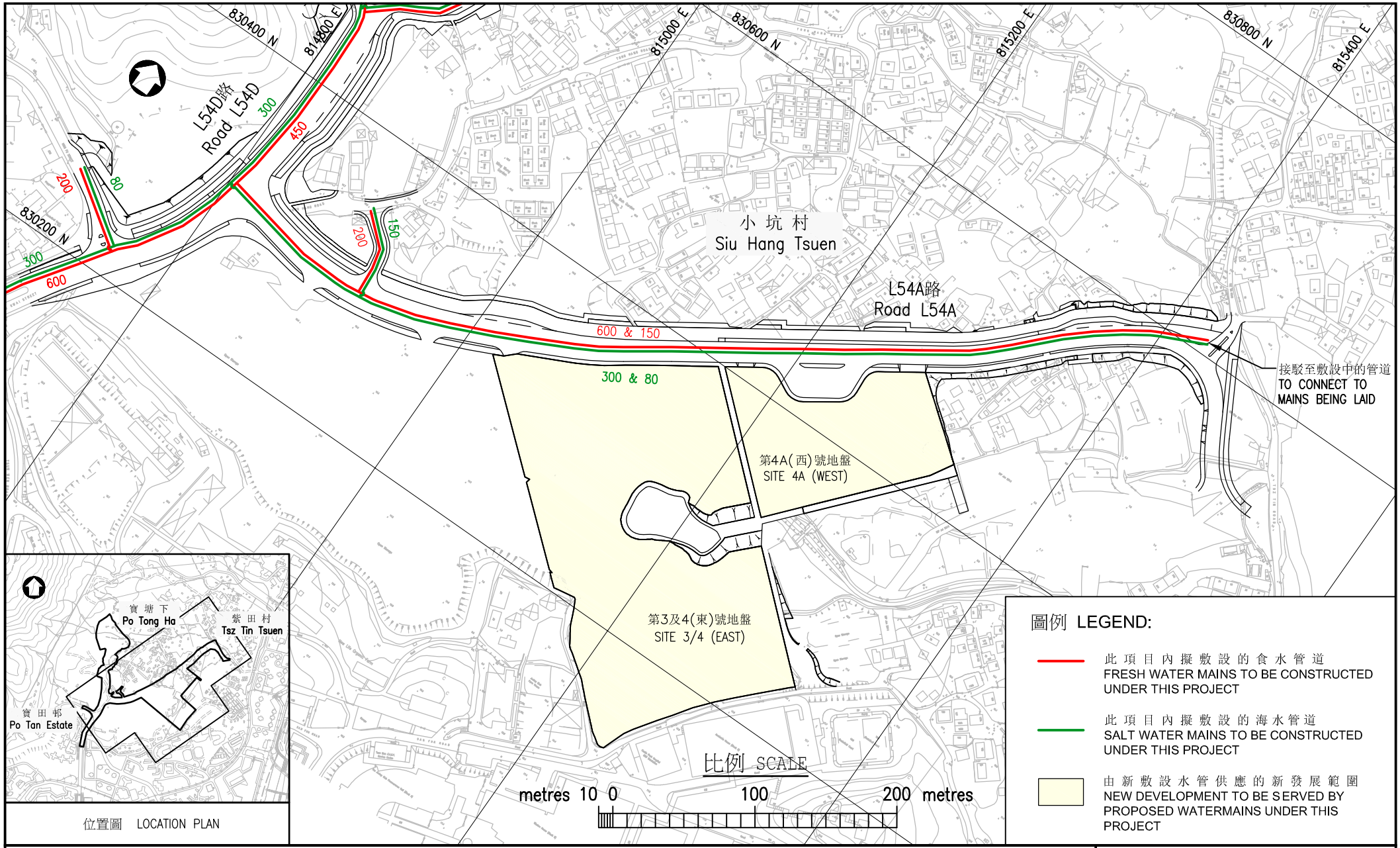
WATER SUPPLIES DEPARTMENT

草圖編號 SKETCH NO. G14-353

REF. G14-353_Rev02.DWG

附件(第1頁) Enclosure (Sheet 1)



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附件(第2頁) Enclosure (Sheet 2)

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