

## **GreenWay of Kai Tak Development - Findings of Pilot Project, Study on Design and Implementation and Enhancement Works at Kwun Tong Promenade**

### **PURPOSE**

This paper –

- (i) reports to Members the findings of the Pilot Project on the shared-use pavement for pedestrians and cyclists (the GreenWay) at the Kwun Tong Promenade (KTP);
- (ii) updates Members the on-going study for the design and implementation of the GreenWay; and
- (iii) seeks Members' views on the enhancement works at the KTP for the GreenWay.

### **BACKGROUND**

2. In response to public aspirations for a wider coverage of the cycle track network in Kai Tak Development (KTD) mainly for leisure and recreation purposes, we reviewed the cycle track network and proposed an extension of the network from about 6.6 kilometres (km) to about 13 km mainly situated inside open spaces, so that it could be better connected with the scenic spots in KTD. We completed a feasibility study (FS) in September 2017 to preliminarily look at the alignment, ancillary facilities, implementation strategy, and the operation and management framework for the cycle track network. Seeing the benefits of utilising the nearly 100 hectares of open spaces and waterfront promenades in KTD and allowing better integration of the cycle track with its surroundings, the FS proposed to implement a 13-kilometre GreenWay network in KTD for leisure use. With

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reference to relevant overseas examples and the open space design in KTD, the recommended width of the GreenWay was 6 to 10 metres (m) in general.

3. The proposed GreenWay network<sup>1</sup> and implementation programme is at **Annex 1**. The GreenWay network is being implemented in mainly 2 phases largely according to the delivery programme of various open spaces and infrastructure projects in KTD, with the first phase targeted for completion by phases from 2023 to 2024. The second phase is expected to be completed beyond 2025.

## THE PILOT PROJECT

4. In view that the GreenWay is a new concept in Hong Kong, the FS proposed to conduct a six-month pilot project in KTP (the Pilot Project) to accumulate experience in the management of the GreenWay, to promote its development and to understand the level of acceptance of the concept by the public. We consulted the Harbourfront Commission's Task Force on Kai Tak Harbourfront Development, the respective committees of Kowloon City, Wong Tai Sin and Kwun Tong District Councils and relevant cycling associations in September and October 2017 on the FS recommendations and the proposed Pilot Project, with general support received.

5. The Pilot Project was conducted between July and December 2018. To facilitate the trial, an approximately 1 km-long existing footpath with an average width of more than 4 m at KTP was converted into the GreenWay<sup>2</sup>. The footpath was modified with simple signage and road markings installed. The general opening hours of the GreenWay was 9 am to 6 pm including Public Holidays<sup>3</sup>. To

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1 The Leisure and Cultural Services Department will be responsible for the operation and management of the GreenWay network within parks and promenades under their management.

2 The width of a short section of the GreenWay of about 40 m long behind the Spectator Stand at KTP was less than 4 m.

3 On some special occasions, such as the Hong Kong International Dragon Boat Championships held on 26 to 28 October 2018, the GreenWay was closed on public

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encourage the public to participate in the trial, free bicycle borrowing services with different sizes of bicycles were provided for children and adults. During the opening hours of the GreenWay, bicycle ambassadors were stationed on site to provide guidance and assistance. Furthermore, we invited local schools to take part in community educational activities aiming to introduce to them the concept and etiquette of using the GreenWay.

6. During the Pilot Project, on-site surveys were conducted to collect different types of data and information for analysis, which included daily usage, cyclist type, feedback from users via questionnaires and conflicts between pedestrians and cyclists. Besides, a proof of concept (PoC) trial on real-time incident detection using artificial intelligence technology was preliminary tried out. The Pilot Project was completed on 31 December 2018 as scheduled.

7. The findings of the Pilot Project are in **Appendix A**.

## **STUDY FOR THE DESIGN AND IMPLEMENTATION OF GREENWAY**

8. Although the feasibility of adopting the GreenWay concept was established through the FS and the Pilot Project, the recommendations made under the FS need to be further studied, investigated and devised in details before the full implementation of the GreenWay network in KTD. As such, to proceed with the next stage, we commenced a study for the design and implementation of the GreenWay in KTD in 2021. The study is not only examining the design standards and ancillary facilities, implementation details, safety measures and the management and operation mode for the GreenWay network in KTD, but is also looking into the potential application of various smart initiatives, aiming to enhance the management, user friendliness and attractiveness of the GreenWay in KTD.

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safety and crowd management consideration. Advance announcement was given on site as well as at the GreenWay website.

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9. The main scope of the on-going study includes –
- (i) formulating design standards and making recommendations on the provision of bicycle parking and ancillary facilities for the GreenWay in KTD;
  - (ii) making recommendations on the management model and operation arrangement as well as safety measures for the GreenWay network in KTD, including the estimation of necessary recurrent resources (costs and manpower requirements) for its management and operation;
  - (iii) examining the arrangement for provision of rental bicycles and making recommendations on the technical and financial feasibility and implementation strategy;
  - (iv) studying the possible application and procurement approach of smart initiatives and carry out necessary field trials and design;
  - (v) formulating detailed implementation strategy and programme for the GreenWay in KTD taking into consideration the development programme of and interface with the various open spaces in KTD; and
  - (vi) formulating public engagement, education campaign and publicity strategy and plan for promoting the GreenWay network in KTD, and arranging implementation of related activities.
10. Although the study is still on going, some preliminary recommendations of the study, such as the proposed GreenWay connection at the Kai Tak River Walk and the proposed number of bicycle parking spaces for the GreenWay in KTD are presented in

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**Annex 2.** These recommendations are preliminary and are subject to review and refinement in consultation with relevant stakeholders.

## **ENHANCEMENT WORKS AT KWUN TONG PROMENADE**

11. In general, the GreenWay is being implemented together with the open space project in which the GreenWay in KTD is located, except for the section at the existing KTP where the Pilot Project was implemented. It is necessary therefore to carry out enhancement works to the approximately 1 km of footpath at the KTP for the implementation of the GreenWay there. The main objective of the enhancement works is to widen the existing footpath to provide an approximately 6m wide GreenWay as far as possible while the impacts on the existing facilities are minimised and the existing greening ratio of the KTP is maintained. Due to physical constraints, some isolated sections of the GreenWay in KTD will be narrower than 6m. Appropriate safety features will be implemented at these narrower sections to enhance safety.

12. The main scope of the enhancement works includes the widening of the existing footpath by relocating existing features such as light poles, benches and planting, erection of signage, provision of bicycle parking facilities, installation of special pavers to delineate the GreenWay in KTD and various safety features such as tactile pavers and protection pads to enhance the safety of both cyclists and pedestrians.

13. In addition, existing ancillary facilities such as water dispensers will be upgraded and compensatory greening will be implemented to offset the loss of planting affected by the footpath widening work.

14. The phasing of enhancement works will be optimised to minimise the impact on the public, and the work area will be fenced off with barriers with alternative pedestrian routes during construction. Details of enhancement work are summarised in **Annex 3**. We target to commence the enhancement works at KTP in Q1 2023 for

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completion in Q3/Q4 2023.

15. We have taken into account the following Harbour Planning Principles when drawing up the design of the KTP enhancement works–

**(a) Sustainable Development**

The enhancement works embrace the principles of sustainable development. Existing features and street furniture such as light poles, benches and pavers will be retained as far as practicable subject to their actual conditions. Compensatory greening will be provided to maintain the existing greening ratio of the KTP.

**(b) Integrated Planning and Public Enjoyment**

The provision of GreenWay in KTD for shared use by cyclist, pedestrians and others instead of a dedicated cycle track will allow better utilization of the open spaces for public enjoyment. Upon completion, the KTP GreenWay will provide a pleasant environment for the public of all age groups to meander along the promenade.

**(c) Vibrant and Accessible Harbour**

According to latest planning, the GreenWay along KTP will link up the Cha Kwo Ling Promenade through Kwun Tong Action Area at the southeast, as well as the promenade outside the re-development site of the existing Kowloon Godown and Kerry D.G. Warehouse in the northwest. The KTP GreenWay will enhance connectivity amongst the various open spaces and waterfront areas in KTD, and thus, it will foster circulation to the harbour and render a vibrant atmosphere at the Harbourfront.

**(d) Preserving Victoria Harbour**

The enhancement works will not involve any reclamation or

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pollutant discharge which may affect the Victoria Harbour and/or its seabed, marine ecology and water quality.

## ***(e) Stakeholder Engagement***

In formulating the scope of the KTP enhancement, we have liaised and coordinated with relevant government bureaux/departments and project proponents to gather various comments and views and resolve any potential interface issues. We will consult Kwun Tong District Council to seek comments and supports on the enhancement works, and will continue to coordinate and collaborate with relevant bureaux/departments and other stakeholders in implementing the GreenWay network in KTD.

## **WAY FORWARD**

16. We will continue with the study on the design and implementation of GreenWay and will report on further findings and recommendations of the study in due course.

## **VIEWS SOUGHT**

17. Members are invited to comment on the proposed enhancement works at the KTP. Members' views on the preliminary recommendations of the study on the design and implementation of the GreenWay are also welcome.

**Civil Engineering and Development Department  
Leisure and Cultural Services Department  
October 2022**

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## **Attachment**

- Appendix A Findings of Pilot Project
- Annex 1 Proposed GreenWay network and implementation programme
- Annex 2 Preliminary recommendations on bicycle parking provision and potential connectivity for the GreenWay
- Annex 3 Details of enhancement works at Kwun Tong Promenade
- Annex 4 Survey Results - Usage
- Annex 5 Survey Results – Questionnaire
- Annex 6 Community Educational Activities



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## **Appendix A**

### **Findings of Pilot Project**

#### (i) Key Statistics

##### Usage

1. A total of over 11,000 attendance used the bicycle borrowing services during the Pilot Project. As shown in **Annex 4**, the average daily bicycle borrowing rate was higher in the weekends than weekdays. In addition, the majority of the users using the bicycle borrowing services were at the age of below 10 and between 31 to 60 (**Annex 4**). The results suggested that predominantly family groups used the bicycle borrowing services, which was in line with the key positioning of the cycle track network of KTD as a leisure and recreation facility. Only one accident involving minor injury occurred on the GreenWay<sup>1</sup>.

##### Questionnaire Results

2. During the Pilot Project, we conducted over 12,000 questionnaire surveys on both pedestrians and cyclists. As shown in **Annex 5**, 95% of the respondents were satisfied or had no comment on the Pilot Project. While the satisfaction rate was inspiring, over half of the respondents considered that there should be more promotion to explain the use of the GreenWay (**Annex 5**). Other frequent comments received included provision of longer GreenWay with greater width and more signage, as well as arrangement for longer opening hours.

##### Community Educational Activities

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<sup>1</sup> The minor accident occurred on 30 December 2018, in which a jogger had minor injury on the knees after collision with a bicycle ridden by a child from opposite direction.

3. As part of the promotion for the GreenWay, we invited various local schools to take part in the community educational activities, during which students, teachers and parents experienced cycling on the GreenWay and participated in various game activities to appreciate the spirit of mutual respect amongst GreenWay users. The participants were generally supportive of the implementation of the GreenWay and agreed that the shared-path concept will help utilise the open spaces better. Snapshots of the community educational activities are at **Annex 6**.

(ii) Findings

Feasibility and Acceptance of the GreenWay

4. The successful completion of the Pilot Project had established further the feasibility of implementing the GreenWay in KTD. The positive feedback from users also gave us confidence in developing the full GreenWay network in KTD. The experience gained through the Pilot Project will help us optimise the planning and implementation of the future GreenWay network.

Importance of Promotion and Education

5. The Pilot Project had given the public the opportunity to familiarise themselves with the etiquette of using the GreenWay and exercise the spirit of mutual respect amongst different users. Through the feedback gained from the Pilot Project, we appreciated the importance of promotion and education to the public on the adoption and use of the GreenWay to encourage behavioural change from the use of conventional dedicated form of cycle tracks. We will continue to arrange public engagement and educational activities for promoting the GreenWay to dovetail with its implementation programme.

Application of Smart Initiatives

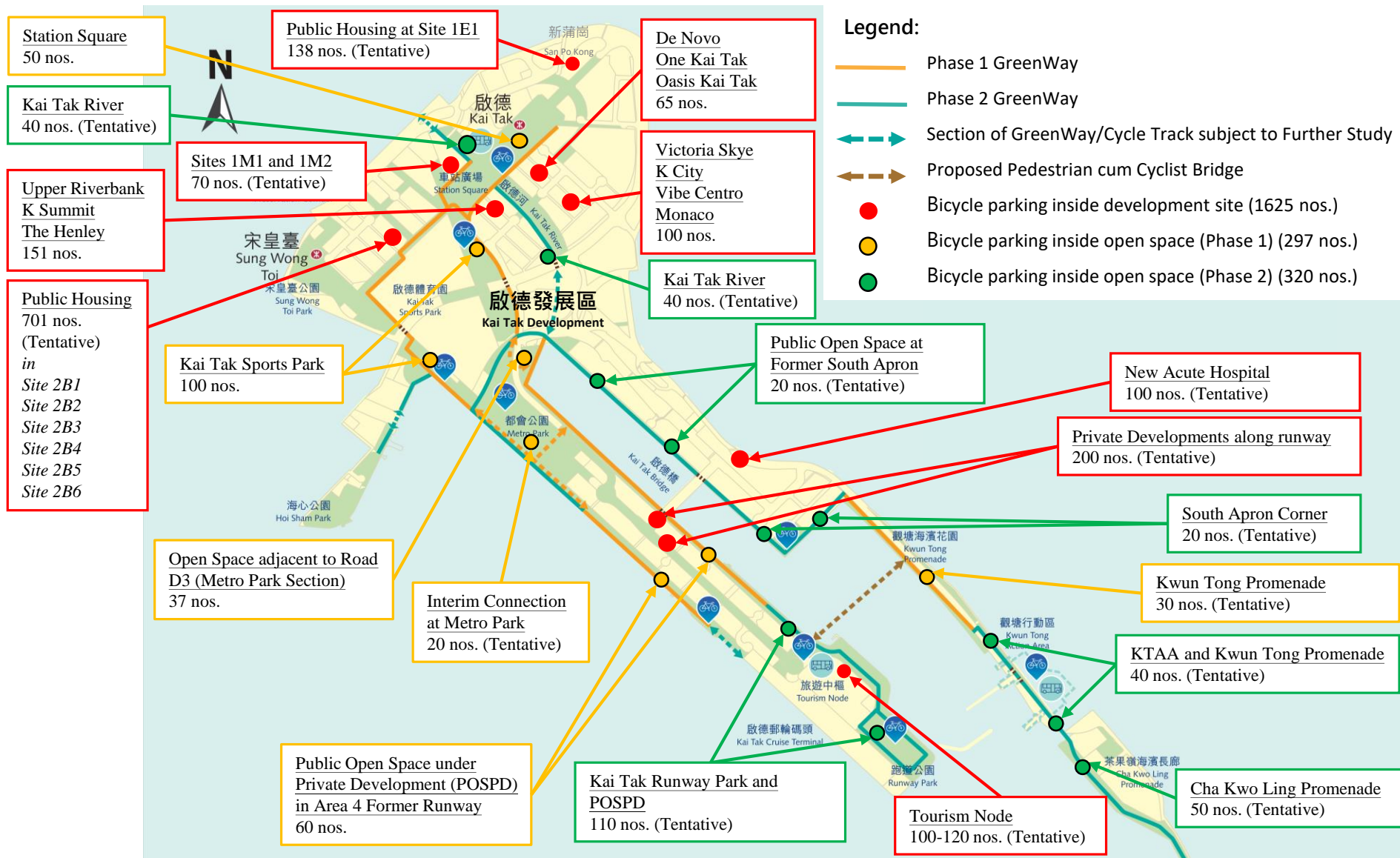
6. The Pilot Project had preliminarily studied, through the PoC

trial, the adoption of real-time incident detection using artificial intelligence technology. The PoC trial was found successful in which the system was able to automatically detect the simulated incidents occurred on the GreenWay, for examples collisions between cyclists and pedestrians and cyclists felling down, and provided instant alert to the bicycle ambassadors stationed on site. The PoC also briefly looked into the feasibility of collecting real-time data on both pedestrian and cyclist flows as a crowd management tool. The PoC trial has suggested that the application of smart initiatives has great potential on enhancing the management, safety and operation of the GreenWay network in KTD in future. Nonetheless, the feasibility of its full application will require a more detailed investigation especially in the areas of data management and privacy issue that need to be examined very carefully, including exploring different technologies in lieu of image recording.

# Proposed GreenWay Network and Implementation Programme



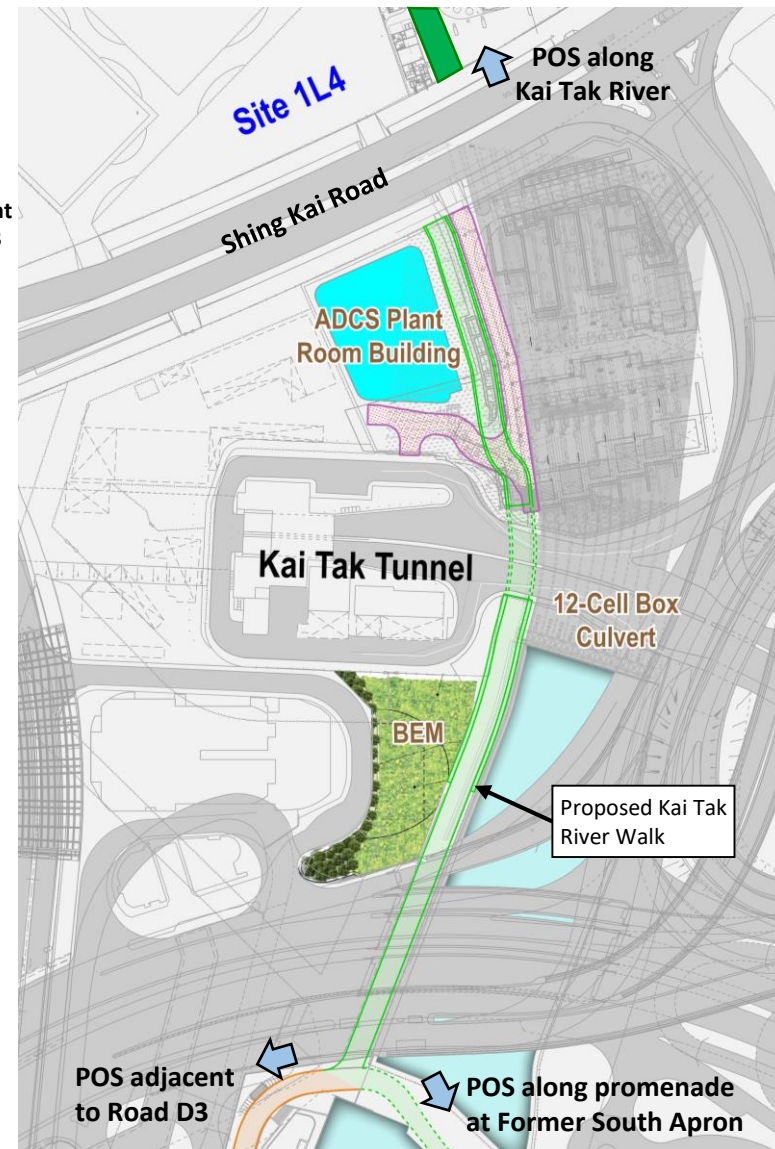
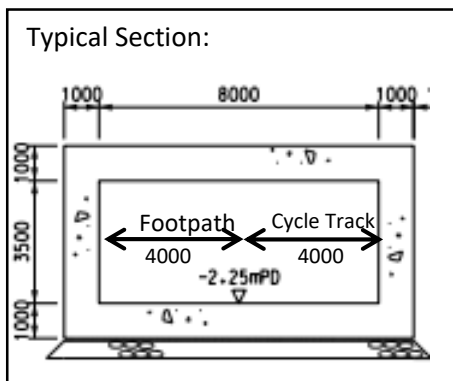
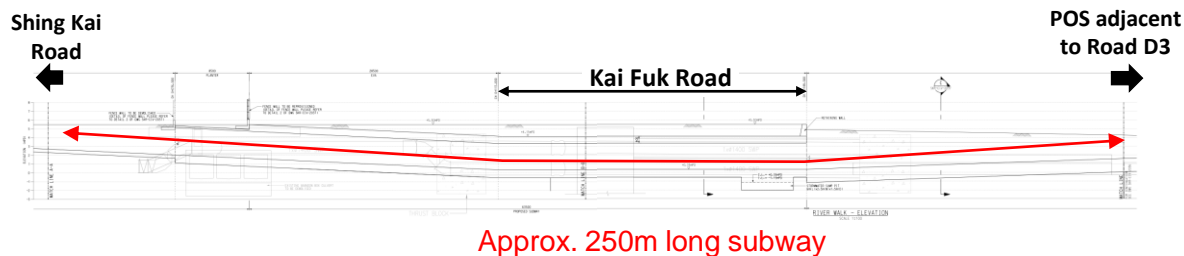
# Preliminary Recommendations on Bicycle Parking Provision and Potential Connectivity for GreenWay



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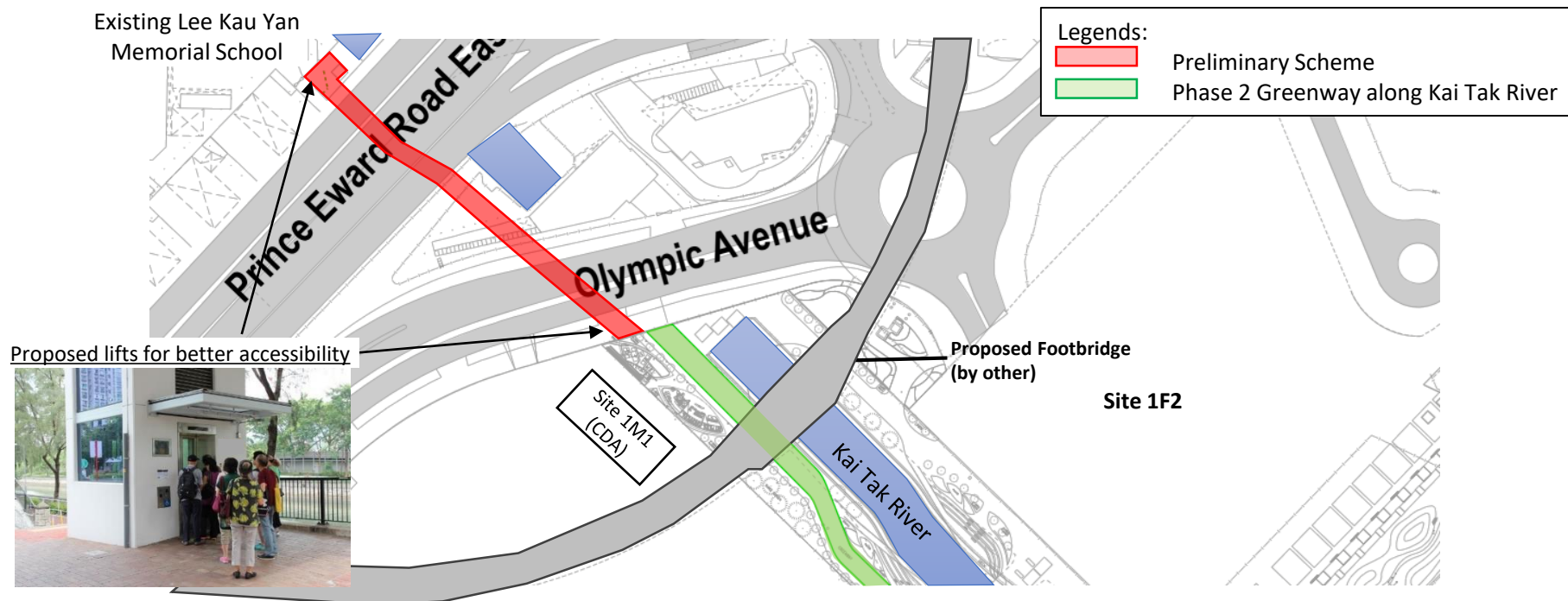
## Preliminary Scheme of Kai Tak River Walk

### Elevation view:



# Preliminary Recommendations on Bicycle Parking Provision and Potential Connectivity for GreenWay

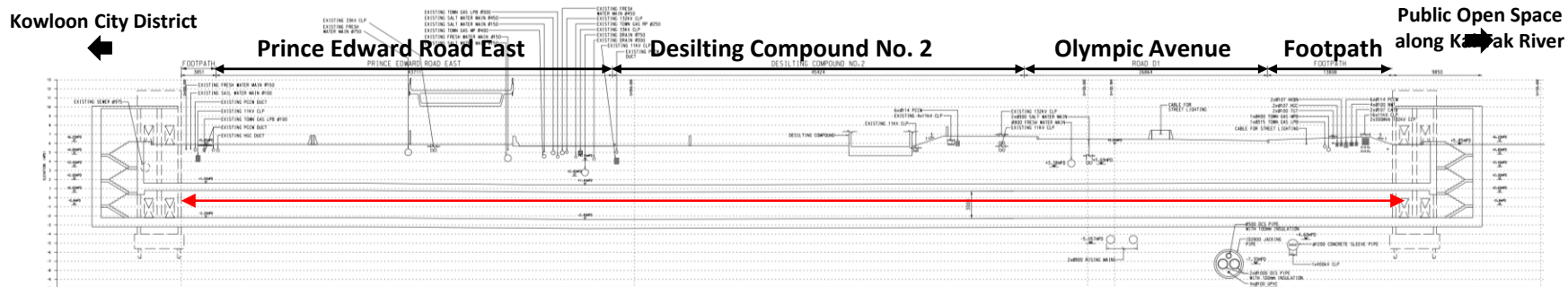
## Preliminary Scheme of Kai Tak River Subway



**Legends:**

- █ Preliminary Scheme
- █ Phase 2 Greenway along Kai Tak River

### Elevation view:

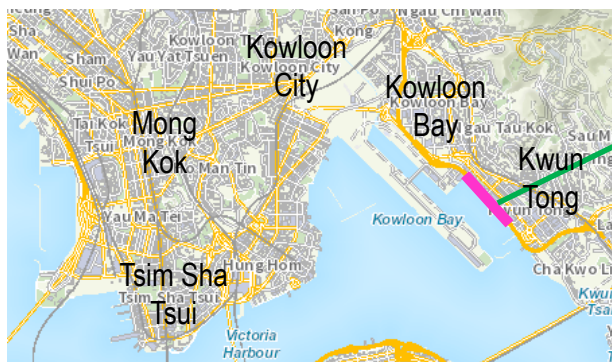


## Details of enhancement works at Kwun Tong Promenade

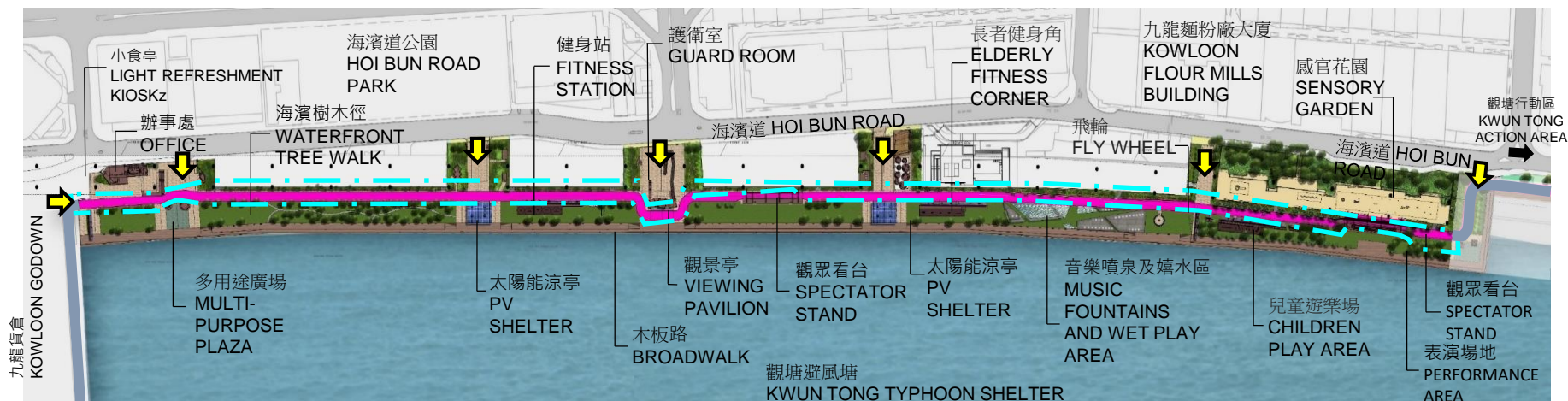
- Overall approximate 1km of GreenWay would be implemented at Kwun Tong Promenade
- The enhancement works for GreenWay would be carried out in 2023 Q1 for target completion in 2023 Q3/Q4.

圖例 LEGEND:

-  擬建共融通道  
PROPOSED GREENWAY
-  行人及無障礙出入口  
PEDESTRIAN AND BARRIER-FREE  
ENTRANCE / EXIT
-  施工範圍  
WORKS BOUNDARY
-  第2階段共融通道  
PHASE 2 GREENWAY



Kwun Tong Promenade

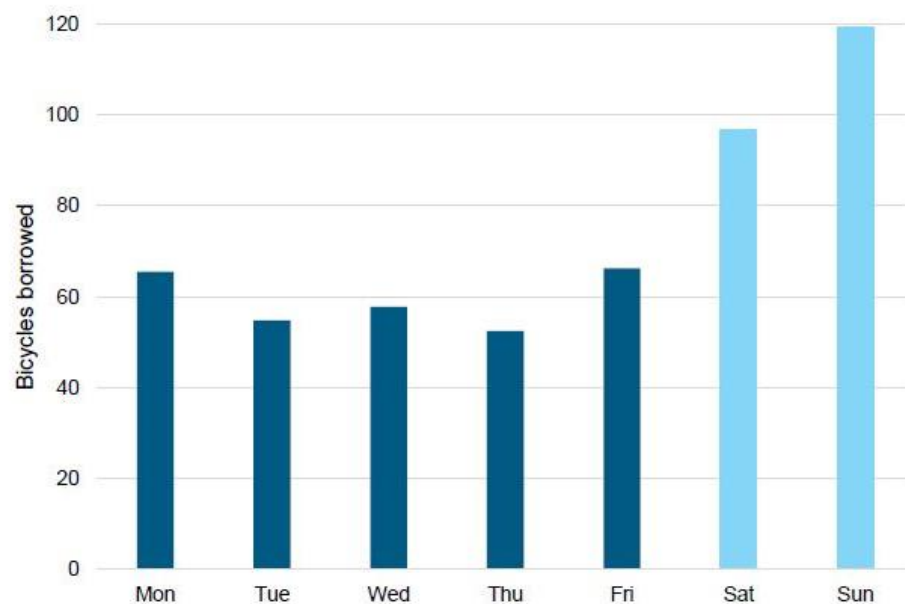




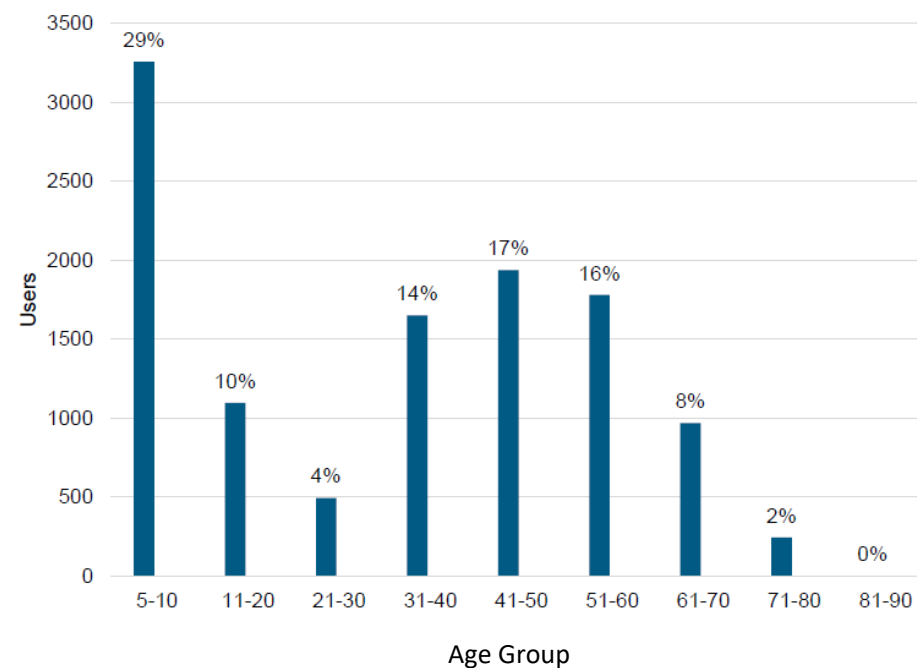
## Survey Results - Usage

- Over 11 000 attendance

**Average daily bicycle borrowing rate during Pilot Project**

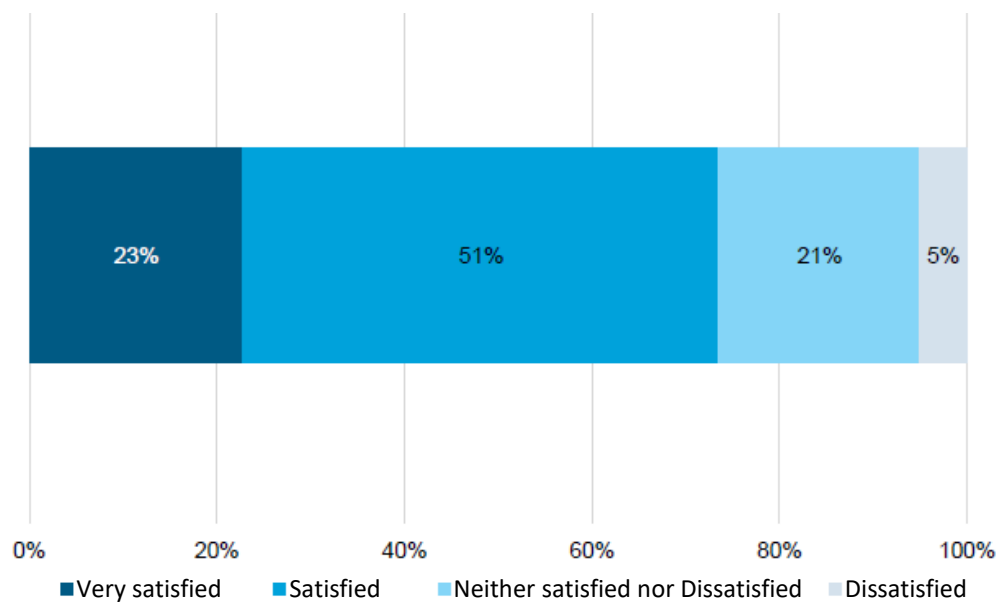


**Age group distribution on bicycle borrowers during Pilot Project**

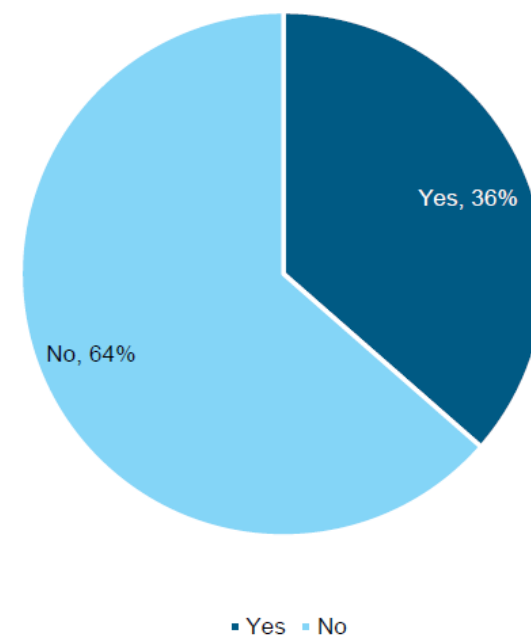


# Survey Results - Questionnaire

### Satisfaction rate of the Pilot Project



### Respondents' views on sufficiency of promotion on the Pilot Project



## Community educational activities

