

## 2 PROJECT DESCRIPTION

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### 2.1 General Description of the Project

2.1.1.1 The proposed elevated pedestrian corridor is located in the vicinity of Yuen Long Town Nullah. Its alignment would generally follow the nullah, and connects West Rail Long Ping Station to the south of the Kau Yuk Road. The proposed elevated pedestrian corridor will be in form of a footbridge and will be connected to at-grade footpath via a total of six pedestrian interchanges (comprising staircases / lifts / escalators) located along both sides of the nullah. The location and layout of the Project is shown in **Figure 2.1**.

2.1.1.2 As described in the EIA SB, the scope of the Project includes:

- construction of a covered footbridge of about 540m in length and 6m clear width with staircases / lifts / escalators along Yuen Long Town Nullah from West Rail Long Ping Station to the south of the Kau Yuk Road;
- connection of the footbridge with West Rail Long Ping Station;
- connection of the footbridge with at-grade footways in Yuen Long On Ling Road, Castle Peak Road – Yuen Long Section and Kau Yuk Road;
- provision at the southern end of the footbridge to allow for future extension;
- measures for mitigating drainage impact for the sections of Yuen Long Town Nullah underneath the footbridge;
- landscaping and streetscape works of the footpaths along both sides of Yuen Long Town Nullah between West Rail Long Ping Station and Kau Yuk Road; and
- associated civil, road, drainage, geotechnical, traffic aids, utility, diversion street lighting, landscaping, E&M works and environmental mitigation measures and temporary traffic arrangement during construction stage.

2.1.1.3 The proposed footbridge will provide a north-south connection in Yuen Long Town by connecting West Rail Long Ping Station and Kau Yuk Road. Six pedestrian interchange will be provided on both sides of Yuen Long On Ning Road, Castle Peak Road - Yuen Long Section and Kau Yuk Road adjacent to existing vehicular bridges to integrate effectively with the existing pedestrian network and facilitate the access to and from various areas along the nullah. Pedestrians can cross the existing vehicular bridge via the proposed footbridge more directly and swiftly instead of taking longer routes to detour around. The walking time and distance can be largely reduced with the provision of the proposed footbridge. Therefore, the proposed footbridge can enhance the pedestrian connectivity within the Yuen Long Town Centre. Each proposed pedestrian interchange will consist of a box structure on pile foundation and will be equipped with staircase, escalator and lift for connection with the deck of the footbridge. Plantation areas would also be included within these pedestrian interchanges. The schematic arrangement of these six pedestrian interchanges are shown in **Figure 2.2 and 2.3**. Other than the pedestrian interchanges, the proposed footbridge will also be designed to have four viewing platforms which would allow the pedestrians to enjoy the views along the corridor.

## 2.2 Designated Project

- 2.2.1.1 The Project involves construction of an elevated pedestrian corridor of about 540m in length and 6m clear width footbridge along Yuen Long Town Nullah and six pedestrian interchanges. It would also require the construction of pile foundation for the footbridge and box structure on piles for the pedestrian interchanges within the Yuen Long Town Nullah.
- 2.2.1.2 The Project involves construction works at the Yuen Long Town Nullah which eventually discharges into the Mai Po Marshes, a Site of Special Scientific Interest (SSSI). Hence, the Project is classified as a Designated Project (DP) under Item I.1(b)(i) under Part I of the Schedule 2 of the EIAO - A drainage channel or river training and diversion works which discharges or discharge into an area which is less than 300m from the nearest boundary of an existing or planned site of special scientific interest. Therefore, a detailed EIA for approval by the Director of Environmental Protection (DEP) is therefore required to apply the environmental permit (EP) for the construction and operation of the Project.

## 2.3 Background and History of the Project

### 2.3.1 General Increase in Population in Yuen Long District

- 2.3.1.1 As mentioned in **Section 1.1**, there are numbers of residential and commercial developments in Yuen Long over the last decades, especially in the vicinity of Yuen Long Town. Currently, there is a total of 16 public housing estates, Yuen Long Industrial Estate, and many private developments and villages etc., in Yuen Long District. While these developments have contributed to the urban transformation and economic vibrancy of the district as a whole, the population within Yuen Long District has also experienced a rapid growth.
- 2.3.1.2 According to the Population Census in Year 2011, the population in Yuen Long District has increased from 449,070 in Year 2001 to 578,529 in Year 2011, which is equivalent to approximately a 29% increase within 10 years. When compared to other Districts, Yuen Long District is one of those districts that has been experiencing a rapid growth in population.

### 2.3.2 Traffic Congestion in Yuen Long Town Centre

- 2.3.2.1 All the existing and new population would inevitably generate traffic that would commute within the district or travel to other districts as necessary. For those commuting within the district, Yuen Long Town Centre is one of the mostly visited area where most of the commercial activities are located (e.g. along Yuen Long On Ning Road, Castle Peak Road – Yuen Long Section, etc), and where the West Rail Long Ping Station is also located. Other than road-based traffic, the existing and new population would also generate significant pedestrian movements at road levels. The traffic flow and pedestrian flow are much higher especially during morning and afternoon peaks, and public holidays.
- 2.3.2.2 Given the existing issue on road-based traffic and pedestrian movements, it would be beneficial to have a convenient north-south pedestrian corridor connecting West Rail Long Ping Station to Yuen Long Town Centre, which would help reducing the needs of the road-based traffic by encouraging the use of West Rail and improving the pedestrian condition by diverting pedestrian flow from at-grade footpath to the proposed elevated pedestrian corridor.

### 2.3.3 Existing Constraints in Yuen Long Town Centre

- 2.3.3.1 As the Yuen Long Town Centre has been developed for decades, some sections of the existing infrastructures such as roads, footpaths and pedestrian crossing facilities may be facing issues in handling the current circumstances. As a result, issues on traffic congestion and vehicle-pedestrian conflicts within the Yuen Long Town Centre have been identified and discussed in Yuen Long District Council (DC).
- 2.3.3.2 During meetings of Yuen Long DC in recent years (e.g. 7<sup>th</sup> DC meeting in Year 2012, 2<sup>nd</sup> DC meeting in Year 2013, 2<sup>nd</sup> DC meeting in Year 2014, etc), many DC members agreed that there were serious traffic congestion and vehicle-pedestrian conflicts problem within Yuen Long Town Centre. The circumstances were more serious at Castle Peak Road – Yuen Long Section and Kau Yuk Road, as well as footpaths along them, especially during peak hours, weekends and public holidays. The existing relatively narrow footpaths (e.g. Castle Peak Road, Kau Yuk Road, Yuen Long On Ning Road, etc) were not capable to cope with the high pedestrian flow and hence resulting in safety concern, especially for those requiring special considerations including the elderly, wheelchair users and baby cart users etc. For example, there are about 10 bus stops and LRT stations located long the Castle Peak Road – Yuen Long Road. During the peak hour, the passengers of the buses or shuttle buses have occupied certain space of the existing narrow footpaths and causing blockages of the footpaths. Similarly, there are numbers of schools within Yuen Long Town Centre. Narrow footpaths near the schools are occupied by the students during peak hour and thus blockage of footpaths were observed.
- 2.3.3.3 Besides, Yuen Long Town Centre has been already developed with numbers of residential buildings in high density. Hence, there is limited space for widening the footpaths unless expanding towards the roads. In fact, expanding the footpaths toward the roads will further exacerbate the existing traffic congestion problem.

### 2.3.4 Public Supports

- 2.3.4.1 The Chief Executive has pledged in his 2008-2009 Policy Address to improve the pedestrian environment in business districts, shopping centres and leisure areas with heavy pedestrian flows as to minimize vehicle-pedestrian conflicts and improve roadside air quality. Amongst other areas with heavy pedestrian flows, Yuen Long Town is selected as one of the key locations.
- 2.3.4.2 The first public engagement for developing pedestrian environmental improvement schemes was commenced in July 2009 and the proposed elevated pedestrian corridor was presented to Yuen Long District Council Meeting on 24 September 2010.
- 2.3.4.3 At the same time, HyD commissioned a Feasibility Study (FS) “*CE 4/2011 (HY) - Improvements to Pedestrian Environment in Yuen Long Town*” which recommended a number of improvement schemes to formulate potential solutions to the vehicle-pedestrian conflicts issues. The FS recommended an elevated pedestrian corridor along Yuen Long Town Nullah connecting with the West Rail Long Ping Station.
- 2.3.4.4 During the public engagement conducted in March and April 2013, the public and Yuen Long DC expressed strong support for the proposed elevated pedestrian corridor and urged its early implementation. In addition, some DC members have requested early implementation of the proposed an elevated pedestrian corridor

during the first special meeting of Traffic and Transport Committee under Yuen Long DC (DC Paper No. 65/2013).

### 2.3.5 Purposes of the Proposed Elevated Pedestrian Corridor Connecting to Long Ping Station

- 2.3.5.1 The key purpose of the proposed elevated pedestrian corridor are to 1) provide a north-south pedestrian corridor within Yuen Long Town Centre to divert the pedestrian flow from the ground level footpaths; 2) provide a convenient access to the West Rail Long Ping Station with ancillary facilities (e.g. elevators); and 3) act as a convenient pedestrian crossing facilities across busy roads within Yuen Long Town Centre.
- 2.3.5.2 After completion of the Project, this will help relieving the traffic and pedestrian congestion situation at ground level as well as minimizing vehicle-pedestrian conflicts, hence significantly improve the walking environment in the area.

#### **Environmental Benefits of the Project**

##### *Minimizing the Potential Nuisance from Vehicular Emission and Noise on the Pedestrian*

- 2.3.5.3 The Project can minimize the potential nuisance from vehicular emission and noise by providing an alternative access connecting the West Rail Long Ping Station and the southern part of the Yuen Long Town Centre, such as residential buildings and schools along Kau Yuk Road and Castle Peak Road – Yuen Long Section. Besides, it could alleviate the existing conflicts between pedestrians and vehicles.
- 2.3.5.4 Under the current situation, there are three major existing north-south pedestrian routes in Yuen Long Town Centre from Kau Yuk Road to West Rail Long Ping Station, including (1) along Hong Lok Road and eastern side of the nullah, (2) along Kik Yeung Road and western side of the nullah, and (3) along Fung Nin Road, On Shun Street and Chun Yin Square. According to the latest traffic study, the footpaths across Castle Peak Road - Yuen Long Section and Kau Yuk Road are the busiest sections of these three pedestrian routes. The estimated maximum pedestrian flow of these sections ranged from about 1750 to 7310 per hour in Year 2022. With the proposed elevated pedestrian corridor, the maximum pedestrian flow of these three pedestrian routes would be reduced to about 760 to 4,640 per hour. There are in general over 50% of the pedestrian flow of most of the sections at the north-south at-grade pedestrian routes will be diverted to the proposed elevated pedestrian corridor. The Project can therefore minimize the potential nuisance from vehicular emission and noise by diverting pedestrian on the at-grade footpaths to the proposed elevated pedestrian corridor.

##### *Enhanced Visual and Landscape Resources at Street Level*

- 2.3.5.5 The existing Yuen Long Nullah is a view corridor in north-south direction and is a visual resource within Yuen Long Town Centre. However, the visual amenity of the existing nullah is generally less satisfactory due to the hard concrete surface and channelization.
- 2.3.5.6 As part of this Project, landscape and streetscape works will be conducted at the footpaths along both side of Yuen Long Town Nullah between West Rail Long Ping Station and Kau Yuk Road. With the provision of these landscape and streetscape works, the visual and landscape resources along the nullah at the street level will be enhanced and provide beneficial visual impact to the pedestrians.

## 2.3.6 Scenarios without Project

- 2.3.6.1 As discussed in **Section 2.3.1**, there has been a significant increase in various developments in the vicinity of Yuen Long Town Centre and the situation would likely to continue. This has increased both road-based traffic and pedestrian flow within the district. The existing traffic congestion and vehicle-pedestrian conflicts within Yuen Long Town Centre will be further exacerbated if there is no improvement works.
- 2.3.6.2 If the Project is not implemented, the pedestrian will need to access the West Rail Long Ping Station by crossing numbers of busy roads. Due to the increased pedestrian at the ground level and road traffic activities, the congestion problem and vehicle-pedestrian conflicts in the area would continue and cause safety concern. Besides, the pedestrian will not be able to enjoy the benefits of using the elevated corridor which is further away from the roads and hence less nuisance caused by the noise and emission from road based vehicles.
- 2.3.6.3 Furthermore, the degree of convenience to access the West Rail Long Ping Station will also affect the choice of transportation method. If the Project is not implemented, the pedestrian will need to cross numbers of roads and hence spend more time before arriving the train station. As a result, some of the local residents, especially those living to the south of the Castle Peak Road – Yuen Long Section may choose other transportation modes rather than the more environmental railway system. This increase in road-based traffic will contribute to the traffic congestion problem and associated environmental nuisance in the area.
- 2.3.6.4 To summarise, the “Without-project” option is not preferred due to the consideration of the environmental impacts associated with the traffic congestion problems and pedestrian safety issues associated with vehicle-pedestrian conflicts.