



Harbourfront Commission
Task Force on Kai Tak Harbourfront Development

Upgrading of Kwun Tong
Preliminary Treatment Works
&
Enhancement Works for Kwun
Tong Sewage Pumping Station





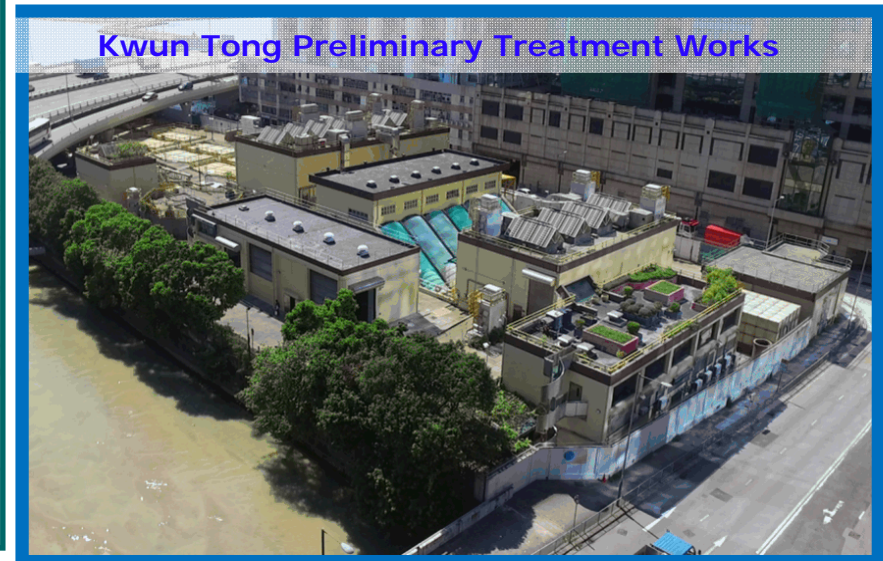
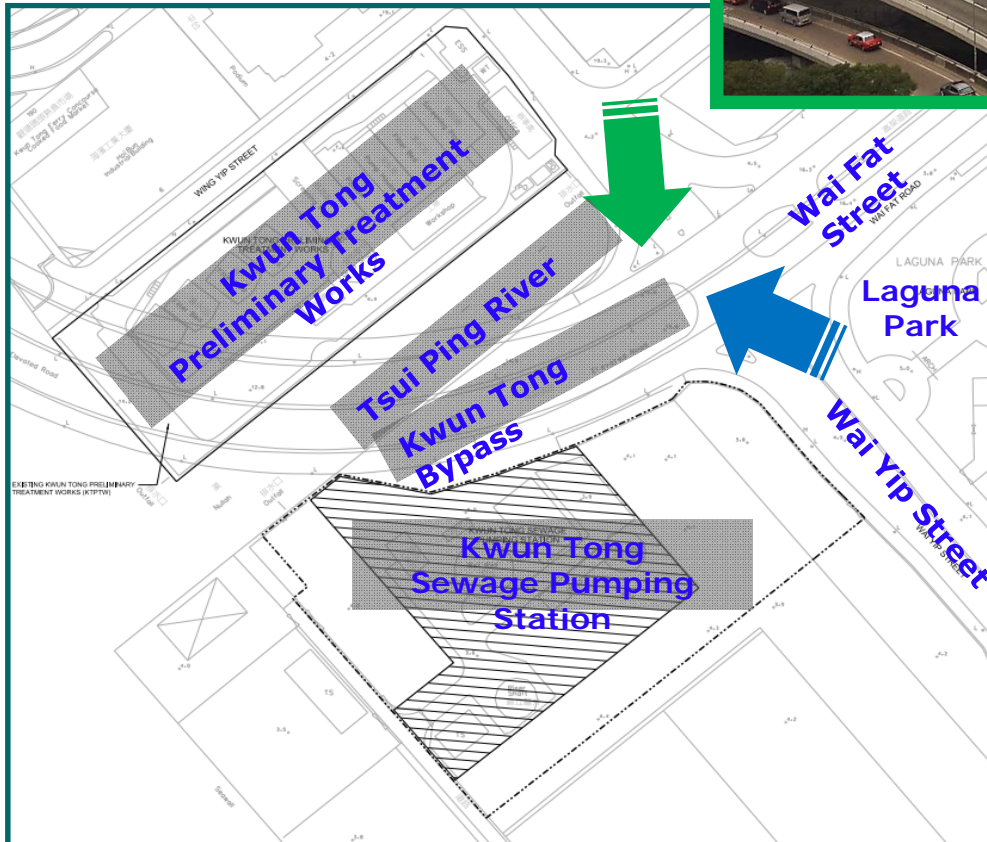
PRESENTATION OUTLINE

- **Project Background**
- **Scope of Works**
- **Architectural and Landscaping Design**
- **Transformation to a Public Garden**
- **Works Programme**



PROJECT BACKGROUND

Existing Site Condition





PROJECT BACKGROUND

- Forecast increase in sewage flow from the committed and planned developments in the East Kowloon
- Government plans to go ahead with:
 - On-site upgrading of existing Kwun Tong Preliminary Treatment Works (KTPTW) to increase treatment from 10.92 m³/s to 13.13 m³/s
 - Construction of a balancing tank next to the Kwun Tong Sewage Pumping Station (KTSPS)
 - Work to minimize the visual and odour impacts to the vicinity



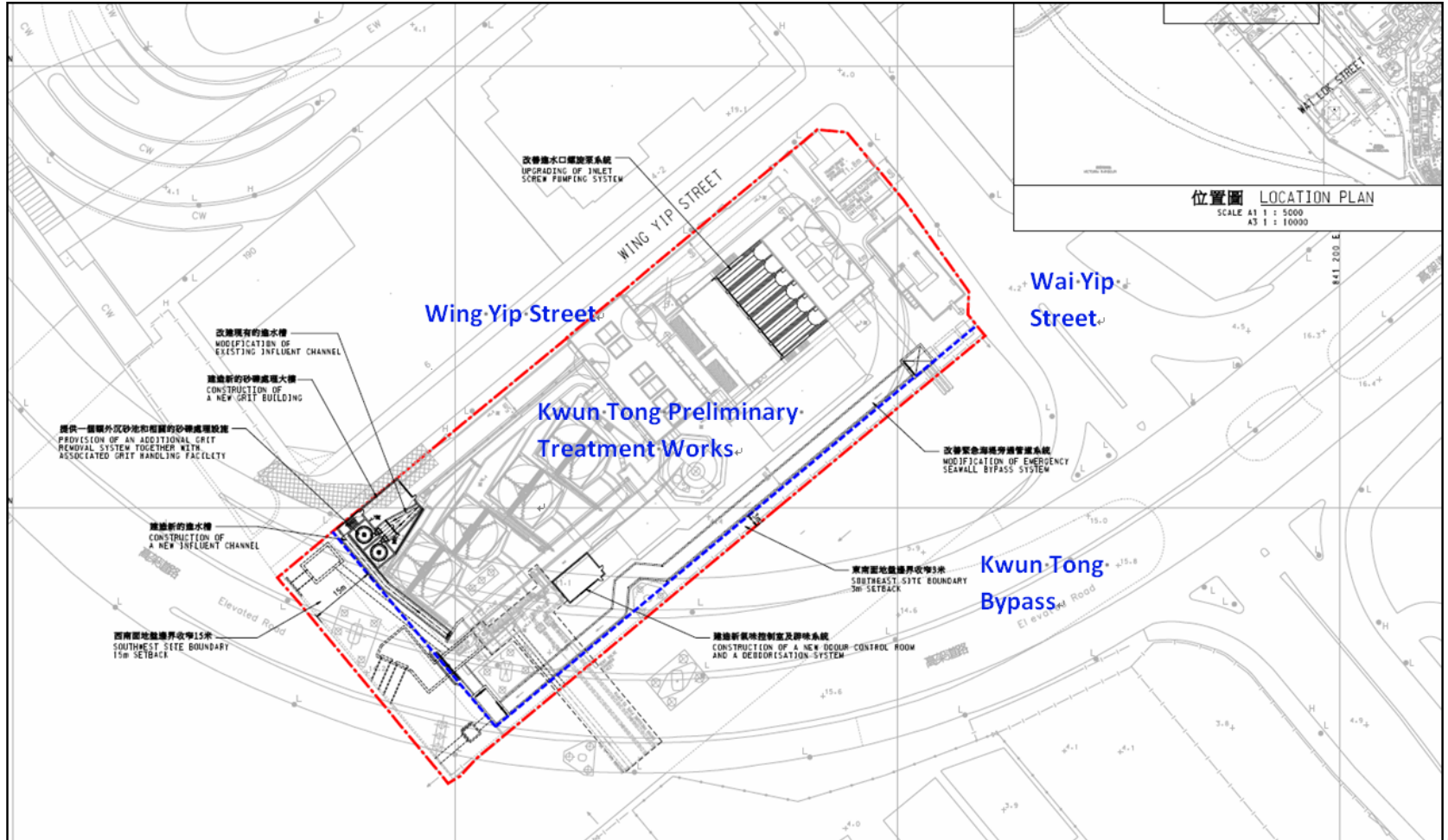
SCOPE OF WORKS

Upgrading of Kwun Tong Preliminary Treatment Works

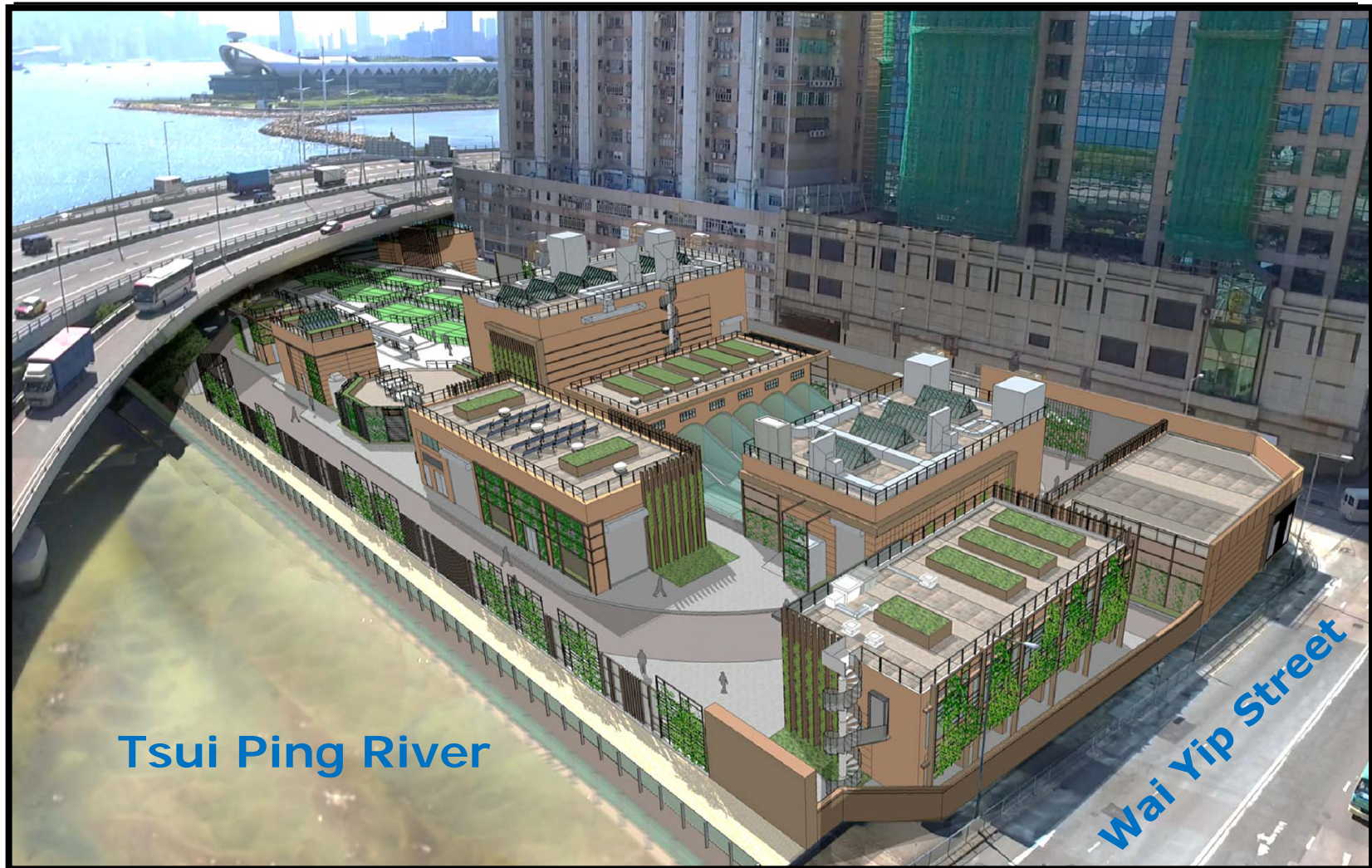
- Upgrade of inlet screw pumping system
- Provide additional grit removal system, associated grit handling facility and deodorization system
- Add one new grit building and one odour control room
- Modify existing influent channel and construct a new influent channel
- Modify emergency seawall bypass system
- Carry out architectural and landscaping works
- Other ancillary works

UPGRADING OF KWUN TONG PRELIMINARY TREATMENT WORKS

PROJECT LAYOUT PLAN



PERSPECTIVE VIEW FOR UPGRADED KTPTW





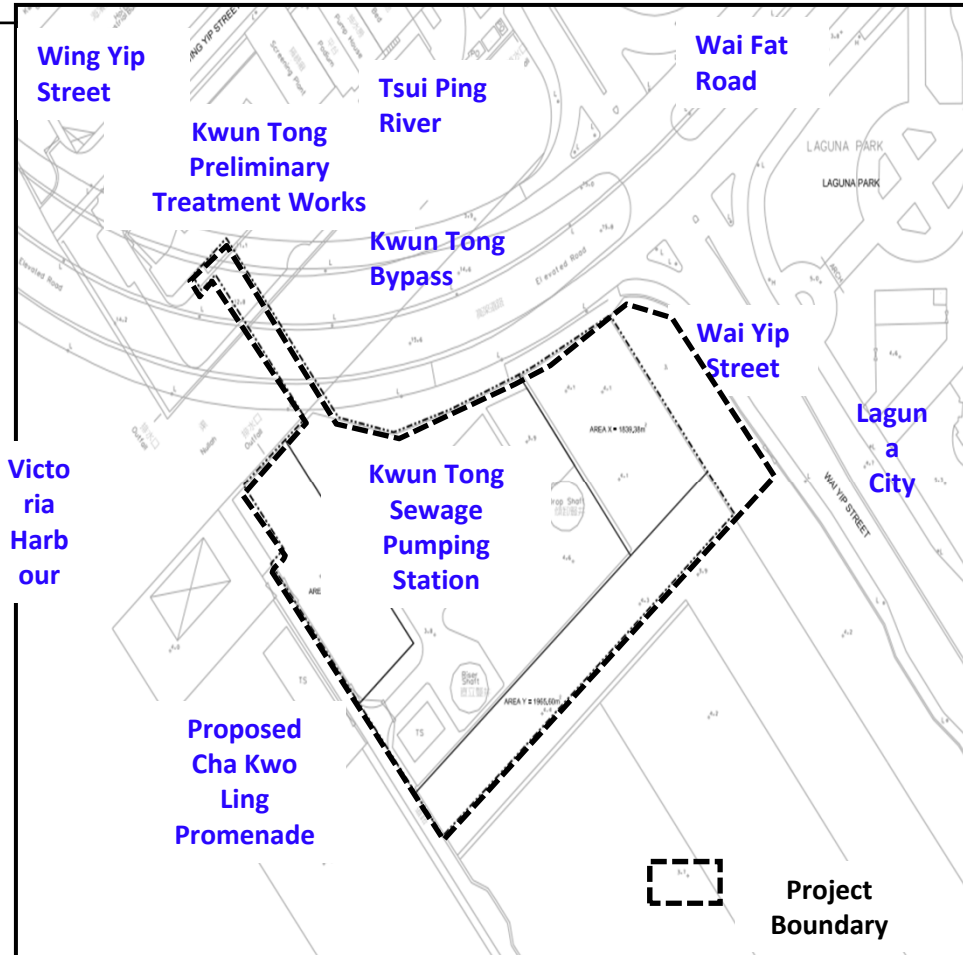
SCOPE OF WORKS


Enhancement Works for Kwun Tong Sewage Pumping Station

- Construct a balancing tank (16,000m³) to temporarily retain excess preliminarily treated sewage during the peak flow period
- Enclose balancing tank and KTSPS with a plant house with ventilation and deodorization systems
- Construct a landscaped deck at roof of plant house
- Other ancillary works.

ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

PROJECT LAYOUT PLAN





ARCHITECTURAL & LANDSCAPING DESIGN



ARCHITECTURAL AND LANDSCAPING DESIGN

“Industrial Oasis (工業綠洲)” Concept

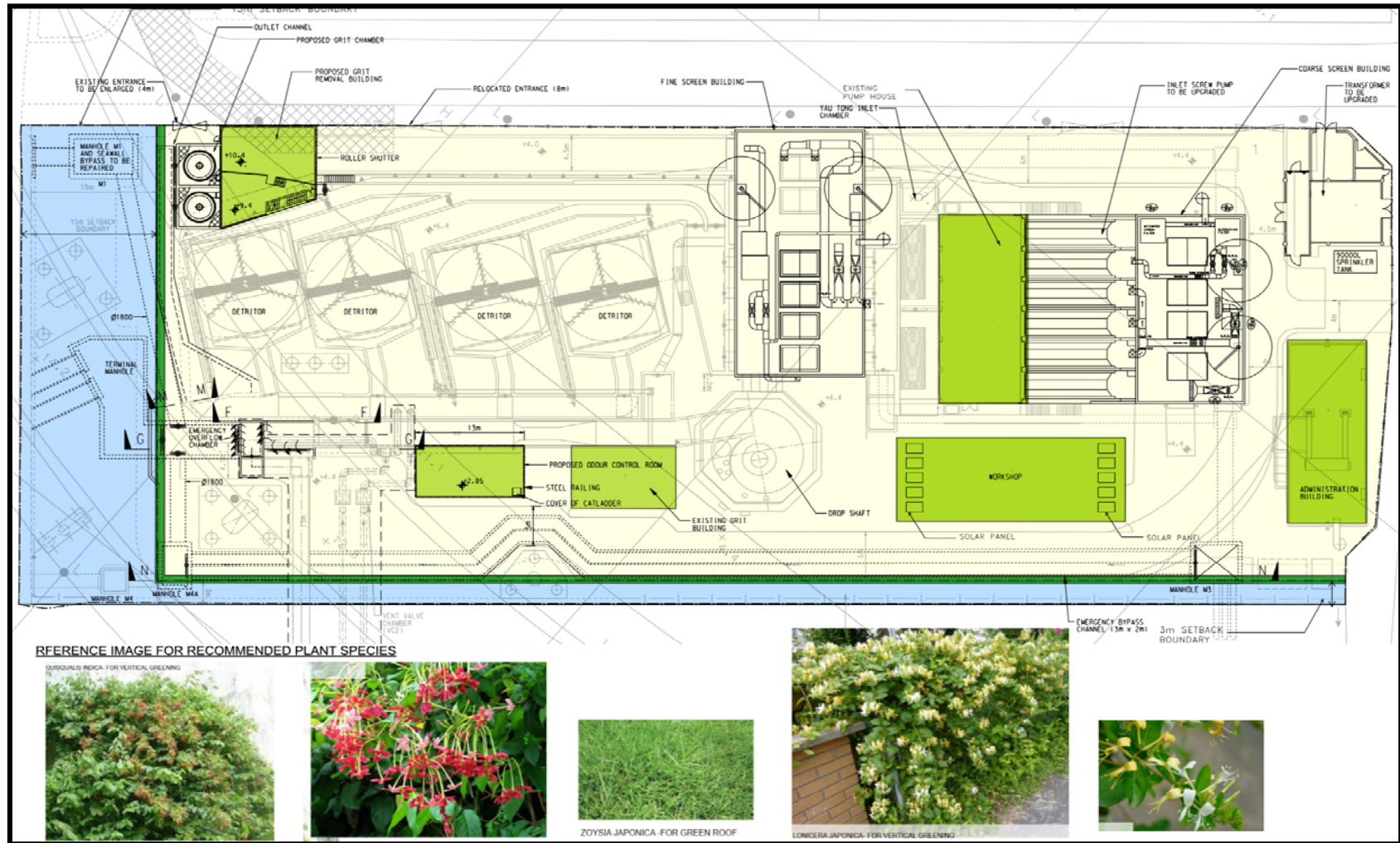
- **Holistic approach** to both existing and new KTPTW buildings
- Emphasis on **aesthetic** of buildings and **coherence** with nearby environment
- **Facade treatment** integrated to the parameters of the basic structures and architectural treatment
- **Greening features** for:
 - ✓ better ambiance to users
 - ✓ healthier working environment



ARCHITECTURAL AND LANDSCAPING DESIGN

- **Avoid excessive visual impact** due to over-design of upgrading works of KTPTW
- **On-site upgrading** approach: facility replacement or upgrading inside KTPTW existing buildings
- **Least new** facilities and buildings
- Release part of existing site for the construction of a proposed **waterfront promenade** and a **footpath** near Tsui Ping River to improve connectivity between Kwun Tong and harbourfront

CONCEPTUAL AESTHETIC DESIGN



- 15m and 3m SETBACK BOUNDARIES (Constructed by others)
- GREEN ROOF COVERING PART OF THE ROOF
- VERTICAL GREENING COVERING PART OF THE FENCE WALL

MATERIAL/FINISHES/COLOR SCHEMES



PAINT FINISH SHADE COMBINATION

OPTION 1

| | | |
|-----------------|-------|--------------|
| | | |
| Imperial Yellow | Amber | Light Copper |

OPTION 2

| | | |
|--------------|----------------|---------|
| | | |
| Mustard Gold | October Bronze | Rustica |

STEEL MESH

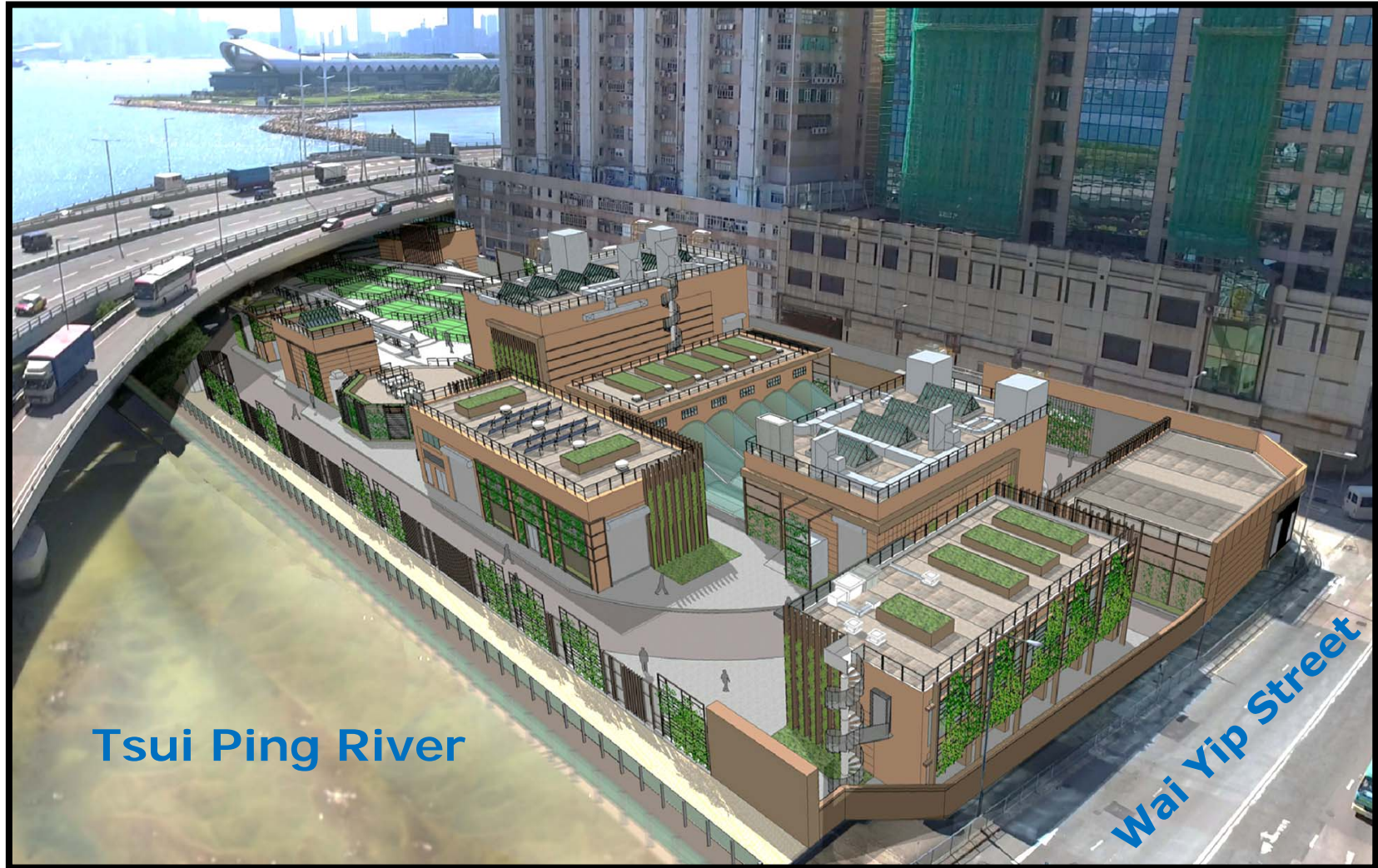
STEEL FRAMES FOR CLIMBERS

ROOF COVERING TILES

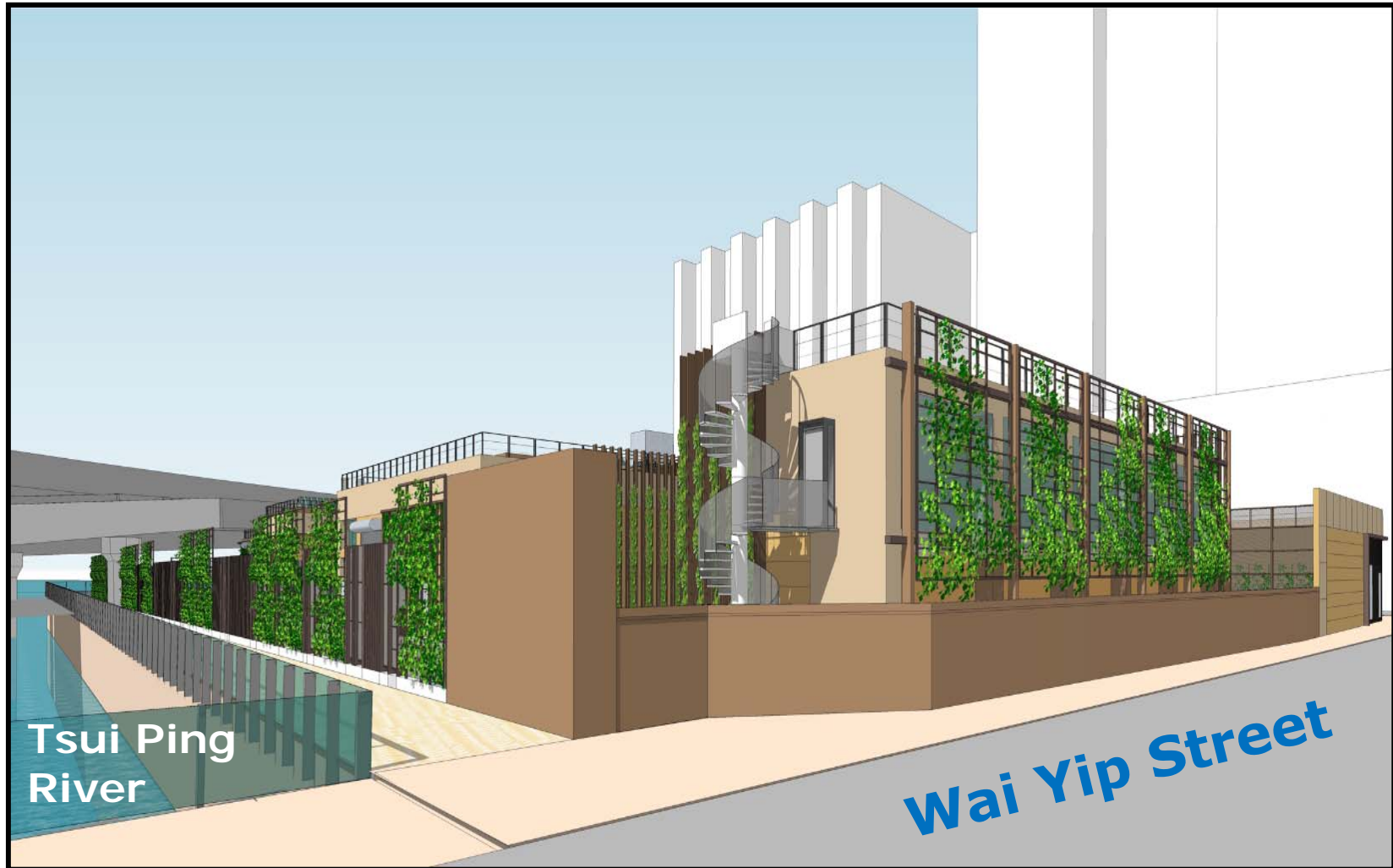
ARTIFICIAL TIMBER FINIS

VERTICAL GREENING SYSTEM

PHOTOMONTAGES FOR UPGRADED KTPTW



UPGRADED KTPTW PERSPECTIVE VIEW FROM WAI YIP STREET



UPGRADED KTPTW PERSPECTIVE VIEW FROM HARBOURFRONT



UPGRADED KTPTW

INTERNAL PERSPECTIVE VIEW AT KTPTW

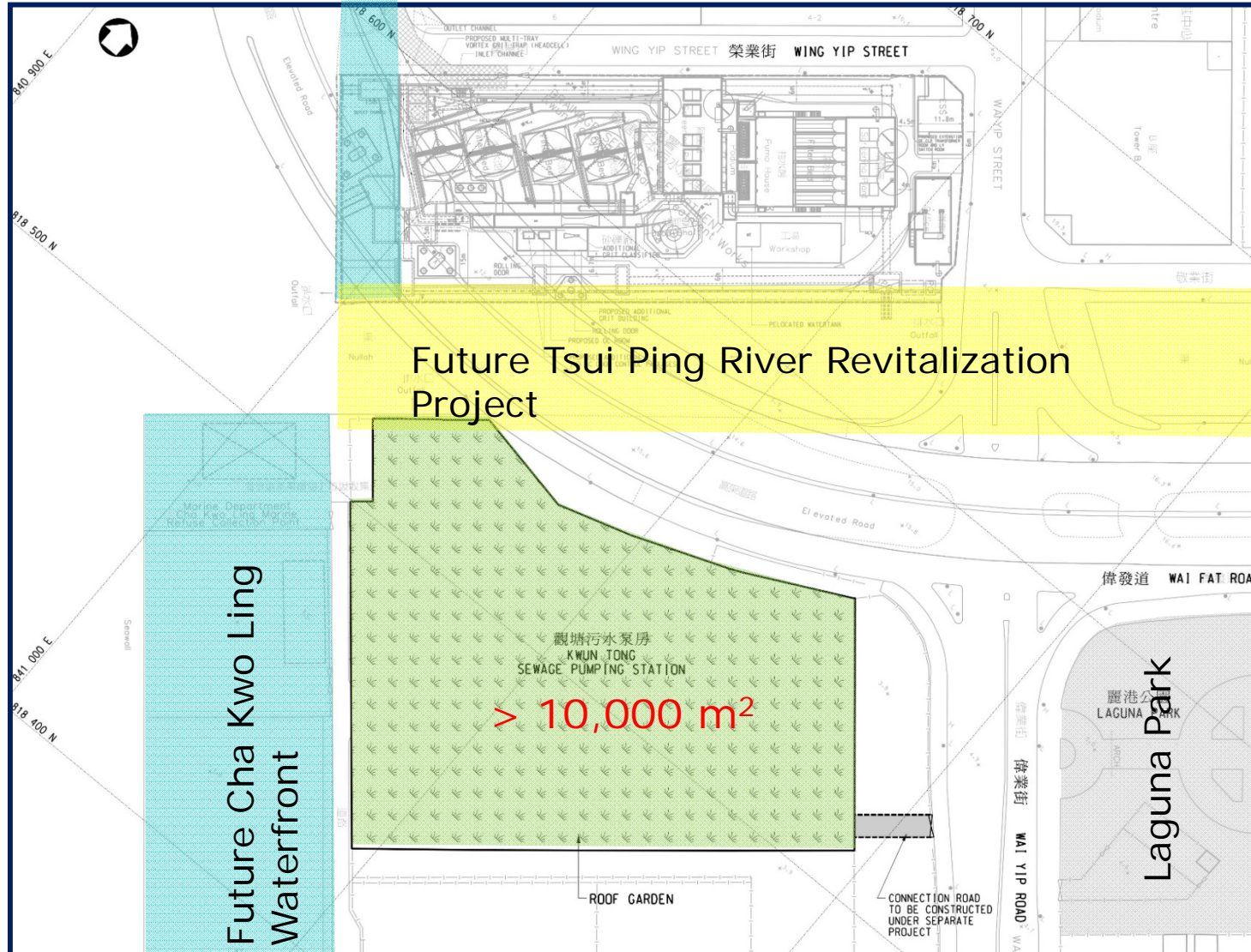




TRANSFORMATION TO A PUBLIC GARDEN

ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

PROJECT LAYOUT PLAN





ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

- **Original plant house design**
 - a big structure with a flat green roof
 - Incoherent design with waterfront
 - Disconnecting the adjoining amenity areas
 - Poor utilization of open space
- Transform the proposed landscaped deck to a **garden opened for public enjoyment** with enhanced connectivity
- Without sacrificing its primary objective as sewerage facilities



ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

Design constraints

- Height restriction (+15 mPD) & minimum headroom requirement underneath the landscaped deck
- Limited loading on the deck
- Waterproofing vs leakage

Compromises

- No extensive structures / water facilities on the deck
- Minimal modification to original design



ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

“Dancing Ribbon (舞動色帶)” Architectural Design Concept

- **Two functional levels:**
 - **Ground Floor – functional level serving as pumping station**
 - **Upper Floor – garden for public enjoyment**
- **Public open space with shades, seating and play facilities**
- **Adjoining existing and planned public leisure facilities e.g. Shing Yip Street Rest Garden, Laguna Park, future Cha Kwo Ling Promenade**
- **Release northwest site boundary for the construction of a footpath leading to future waterfront promenade**

“Dancing Ribbon (舞動色帶)” Architectural Design Concept



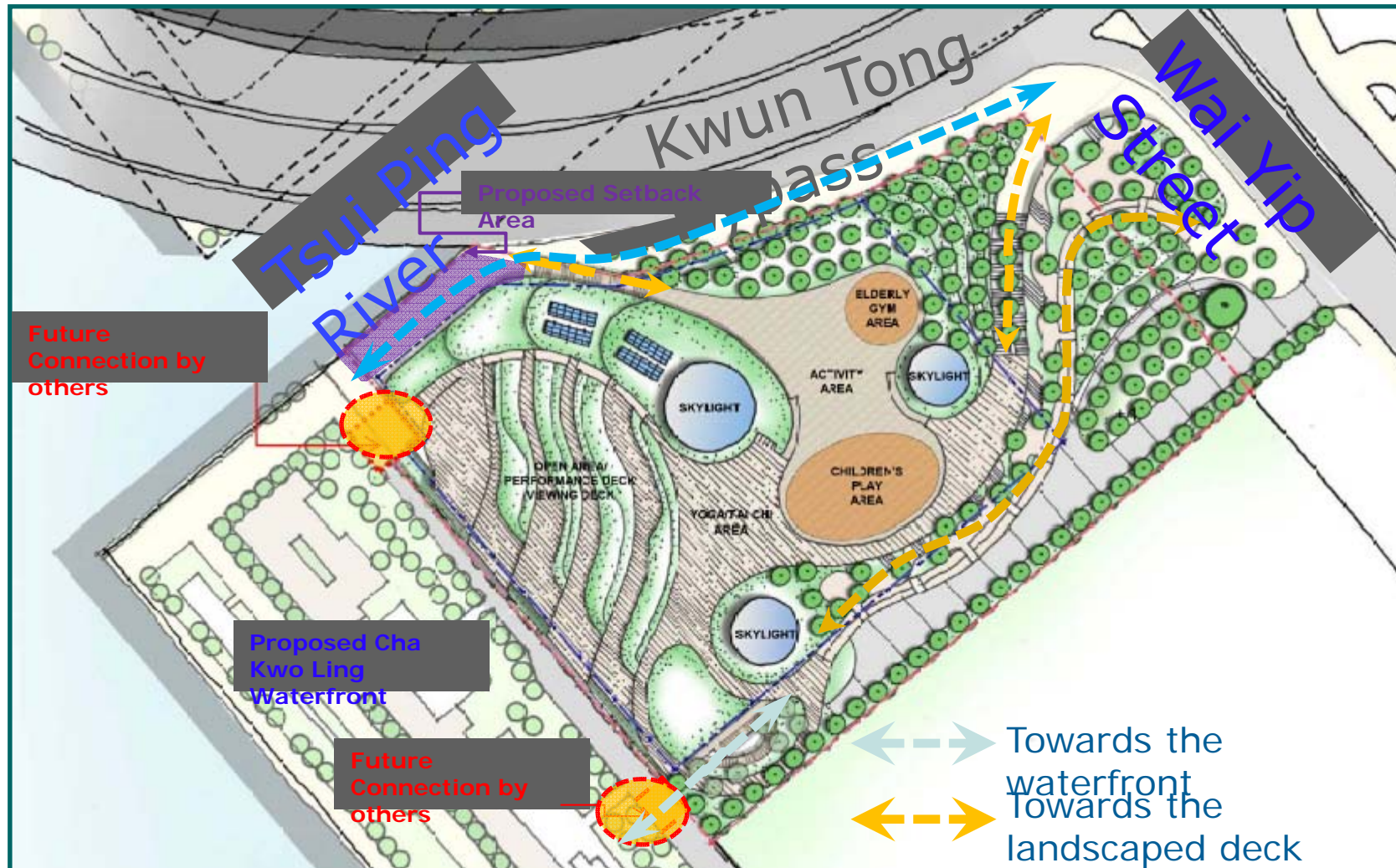


ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION

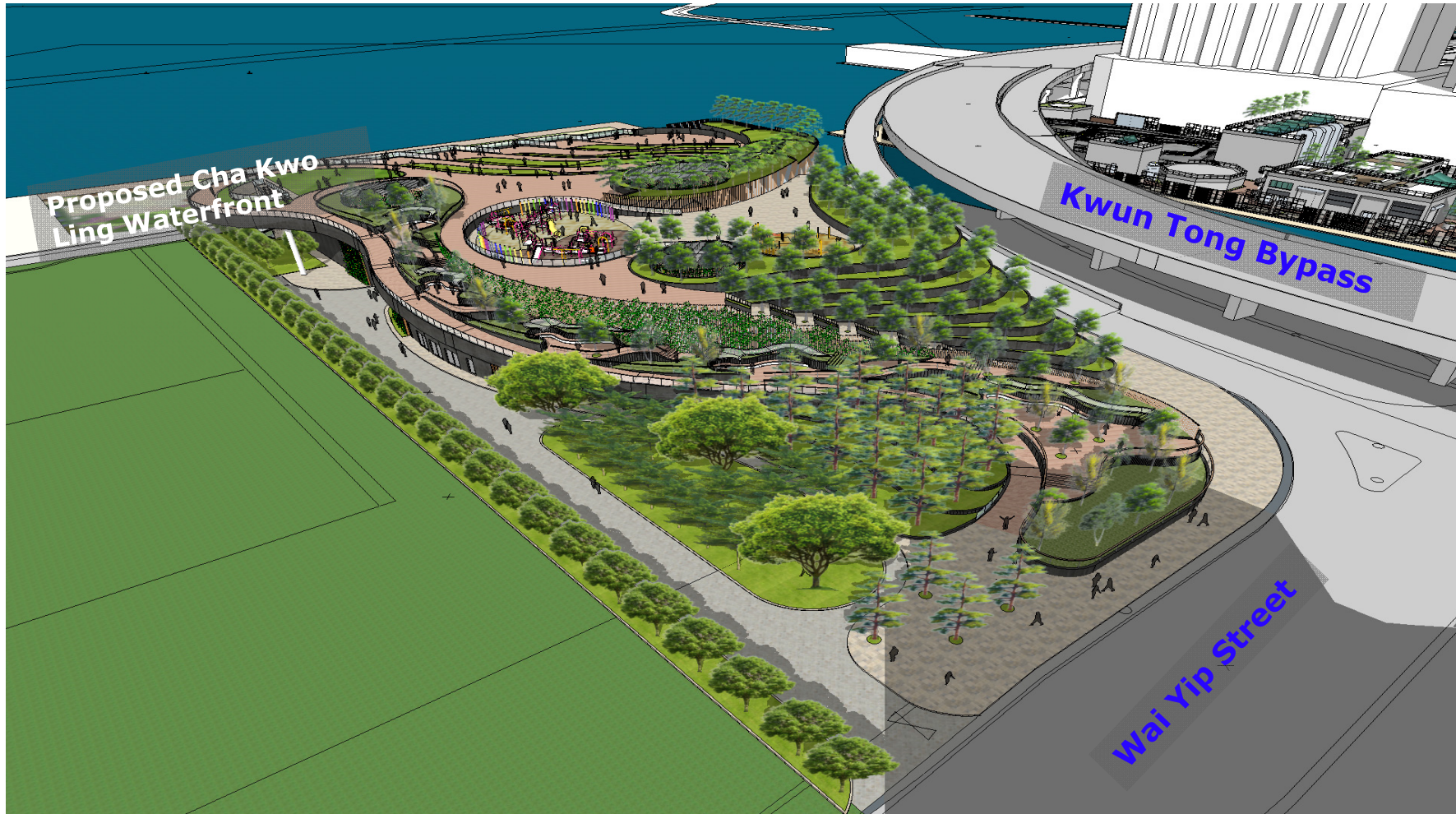
Open Garden concept:

- Full support of Energizing Kowloon East Office
- In-principle agreement of LCSD on future operation and maintenance
- Clearing with EPD on environmental concerns:
 - Odour and air quality impacts to garden users
 - Tree relocation to provide open space on garden

ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION Open Garden



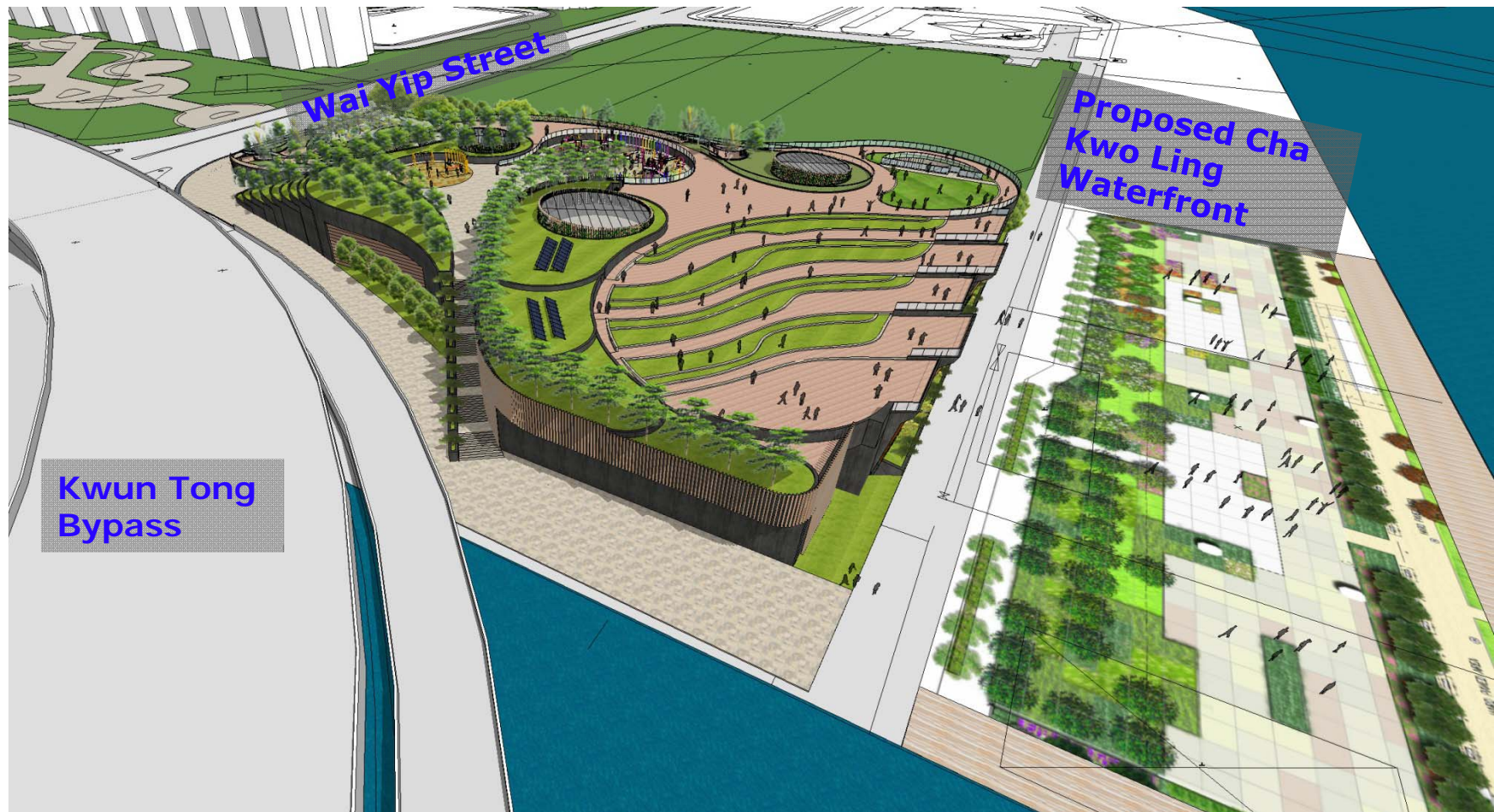
ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION Open Garden



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ENHANCEMENT WORKS FOR KWUN TONG SEWAGE PUMPING STATION Open Garden





WORKS PROGRAMME



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- **Consult Legislative Council Panel on Environmental Affairs in Jan 2017**
- **Seek funding approval of Legislative Council Finance Committee in mid 2017**
- **Target to commence construction in late 2017 for completion by end 2022**



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Views/Comments are welcomed

THANK YOU