



Central – Wan Chai Bypass (“CWB”) Tunnel (North Point Section) and Island Eastern Corridor Link

Aesthetic and Landscaping Design for Noise Barriers and Semi-Enclosures, Landscape Deck and Viaduct Planters

Task Force on Harbourfront Developments
on Hong Kong Island/
Harbourfront Commission

30 October 2012

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- Background
- Information on noise mitigation measures
- Design theme – “Urban Floating Oasis”
- Public consultation
- Current progress

General information

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- CWB is:
 - a strategic highway along the northern shore of Hong Kong Island.
 - aiming to alleviate traffic congestion along Connaught Road Central/ Harcourt Road/ Gloucester Road Corridor.
 - including a set of noise mitigation measures on Island Eastern Corridor (IEC), comprising noise barriers and noise semi-enclosures as required in the approved Environmental Impact Assessment (EIA) report.

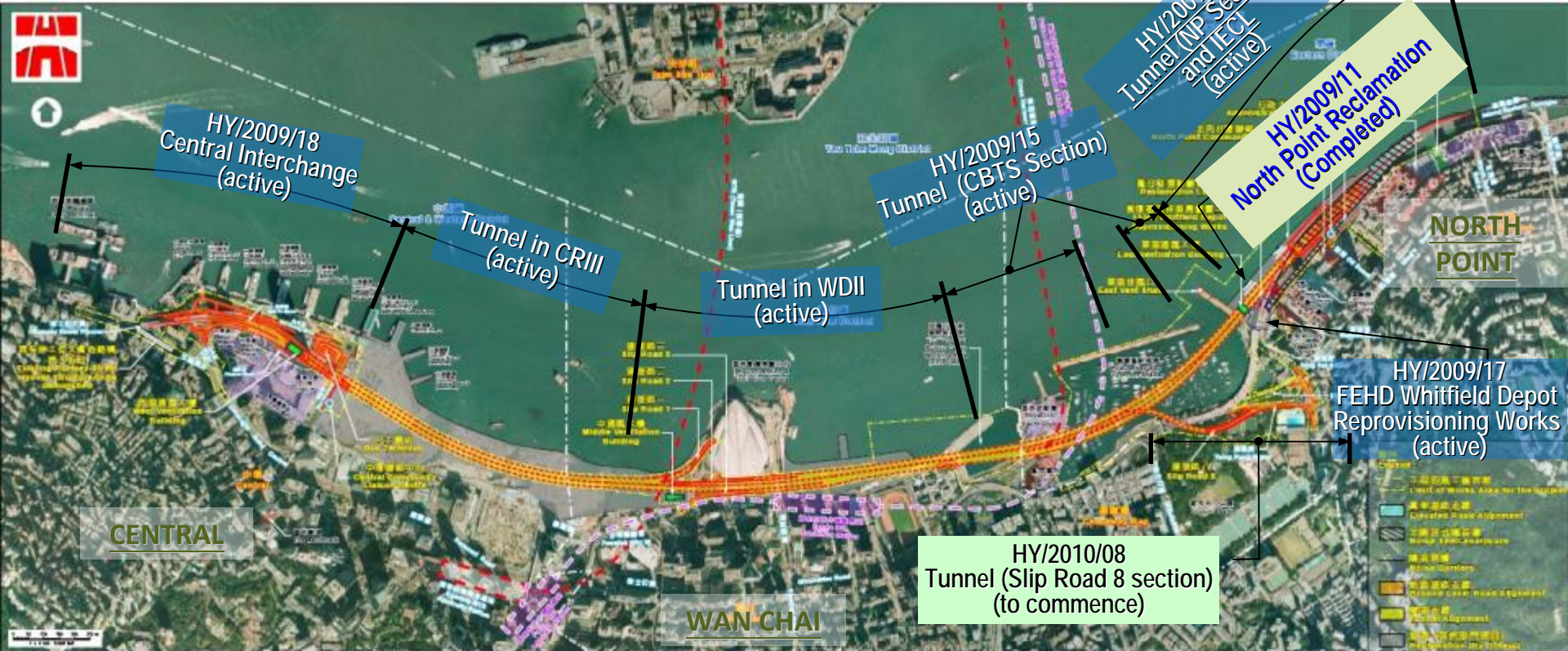
General information

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- Construction of CWB has commenced since December 2009
- Anticipated commissioning year: 2017
- Noise mitigation measures will be provided under :
 - Contract HY/2009/19 “Tunnel (North Point Section) and Island Eastern Corridor Link” (IECL Contract)
 - Commenced in January 2011

Progress of the works

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HY/2009/16
Provision and Laying
of Private Moorings
In ABDTS
(completed)

HY/2011/08
Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning
(to commence)

Landscape deck/ noise enclosures/ barriers under IECL Contact

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Objective

- To protect nearby residents from nuisance caused by excessive traffic noise arising from the IECL

Location

- IECL from Victoria Centre to the Hong Kong Baptist Church Henrietta Secondary School

Composition

- 270-meter noise semi-enclosures with landscaped deck
 - Above the eastern tunnel portal
- 580-meter noise barriers
 - On the new eastbound slip road bridge
- 730-meter noise semi-enclosures
 - On the elevated bridge structure of the future IECL

Henrietta
Secondary
School

City Garden

Harbour
Heights

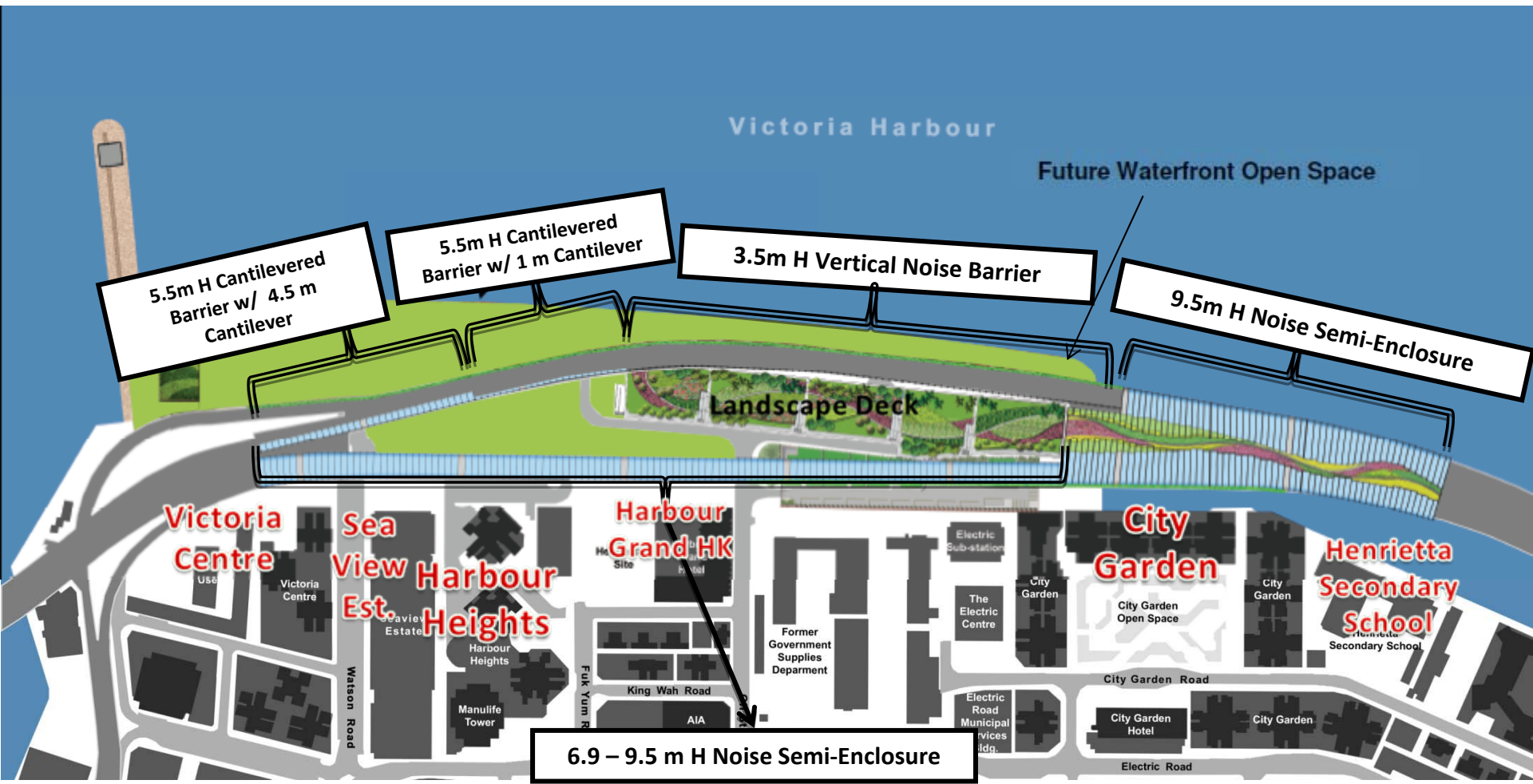
Victoria
Centre



Location plan

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Plan view



Needs and functions of the landscape deck/ noise enclosures/ barriers

- ❑ CWB is a designated project under the Environmental Impact Assessment Ordinance (EIAO), which requires all major new roads to follow the statutory EIA process to ensure that traffic noise can be alleviated to an acceptable level. According to the EIAO and related technical guidelines, noise level at sensitive receivers such as residence and schools have been assessed and measured.
- ❑ According to the noise assessment in the EIA, the road noise levels at new roads will exceed the statutory limit of 70 dB and lead to the overall noise level increased by at least 1 dB. Hence noise mitigation measures are required, including installation of noise barriers and semi-enclosures, to alleviate the traffic noise impacts on affected residential flats.
- ❑ Noise barrier is designed according to requirement under Chapter 499 of EIAO, confirmed upon detailed analysis and assessment, as well as approval of Environmental Protection Department.
- ❑ A section of IEC affected by CWB works will be demolished for construction of IECL.



Urban Floating Oasis

Design features and benefits

Design concept and vision

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Urban Floating Oasis

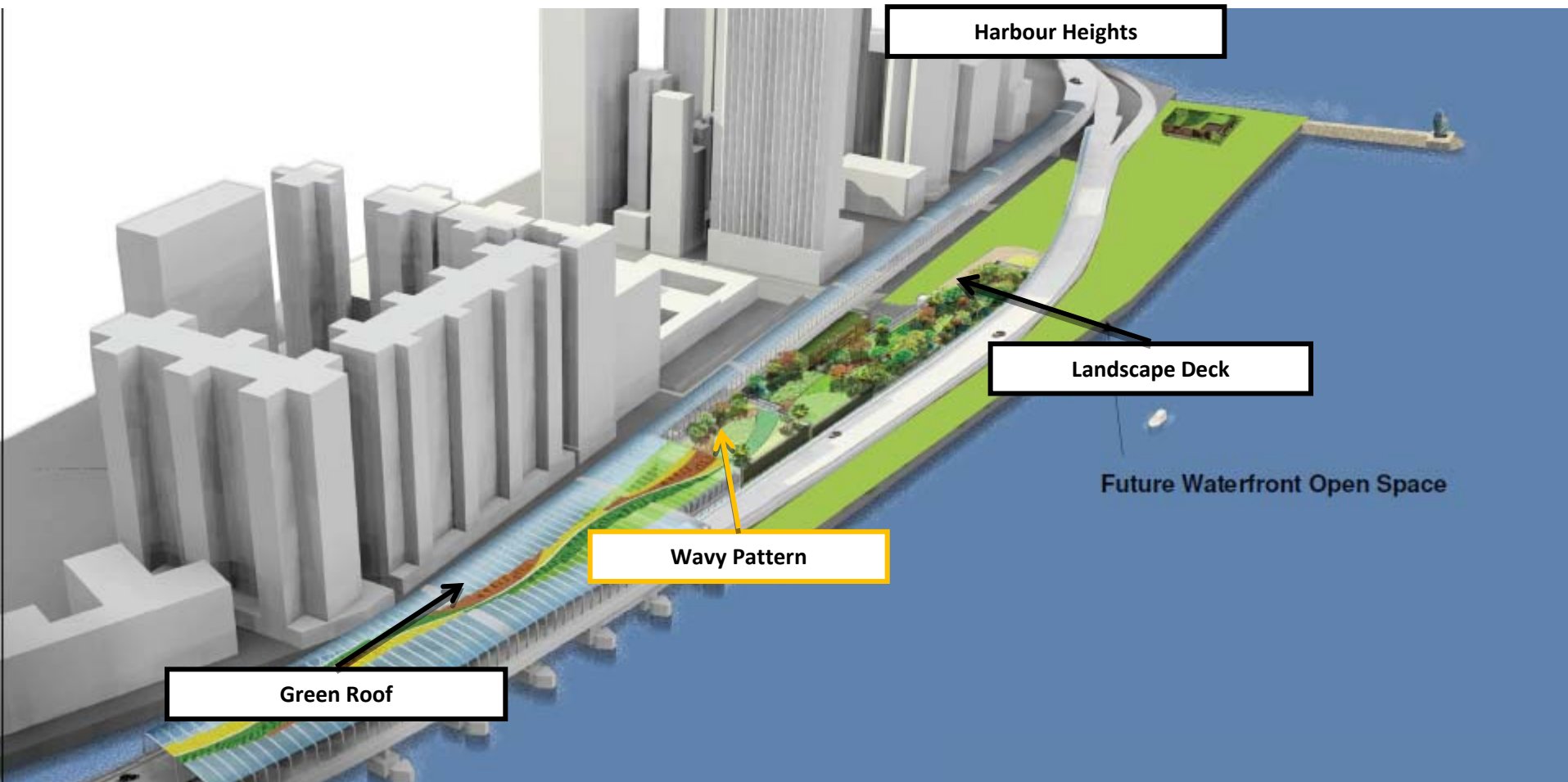
- Inspired by the form of ocean waves
- Soften the rigid and bulkiness of the bridge
- Add vibrancy to the harbour-front
- Enhance the harbour view and blend with the community
- “Green” the waterfront of Victoria Harbour East
- Allow smooth integration with the future harbour-front open space development
- Apply a wavy pattern: weaving ribbon of greeneries floating on the sky



Design overview

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Urban Floating Oasis



Design features and benefits

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- Colour
- Pattern
- Greening

Colour

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- Optimum transparency noise insulation panels will be used along the residential zone.



- Jumble coloured patterns will run along the non-residential zone to add vibrancy.



Colour

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Green sound insulation panels
(matt, translucent)



Sky blue sound insulation panels
(matt, translucent)



Light grey frames



Noise double semi-enclosure – View from within

*The colours shown are for reference only.

Light transmittance and lighting

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- Design of the roof of the noise double semi-enclosures (near City Garden) features greening and translucent panels.

Two major considerations :

- Maximize use of daylight for eco-friendliness
- Minimize impact on motorists and ensure traffic safety

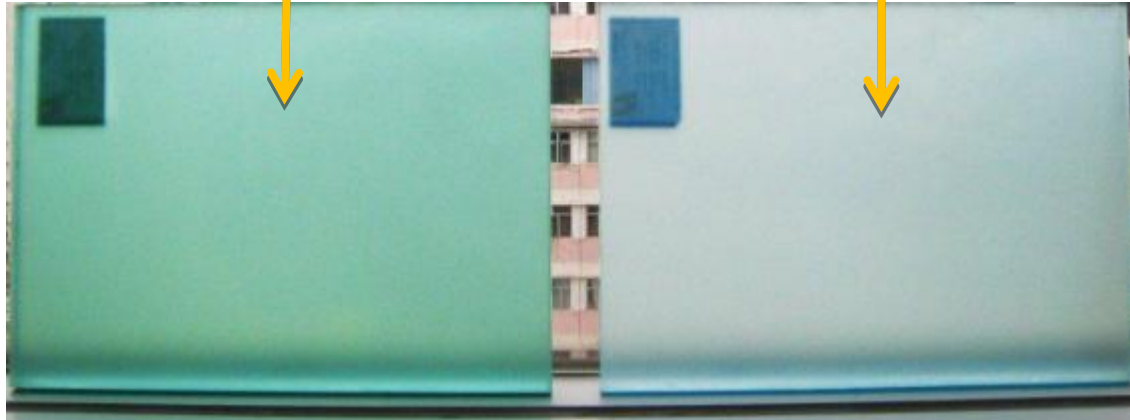
Noise barrier panel material

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Green translucent sound insulation panel (matt finish)

Sky blue translucent sound insulation panel (matt finish)

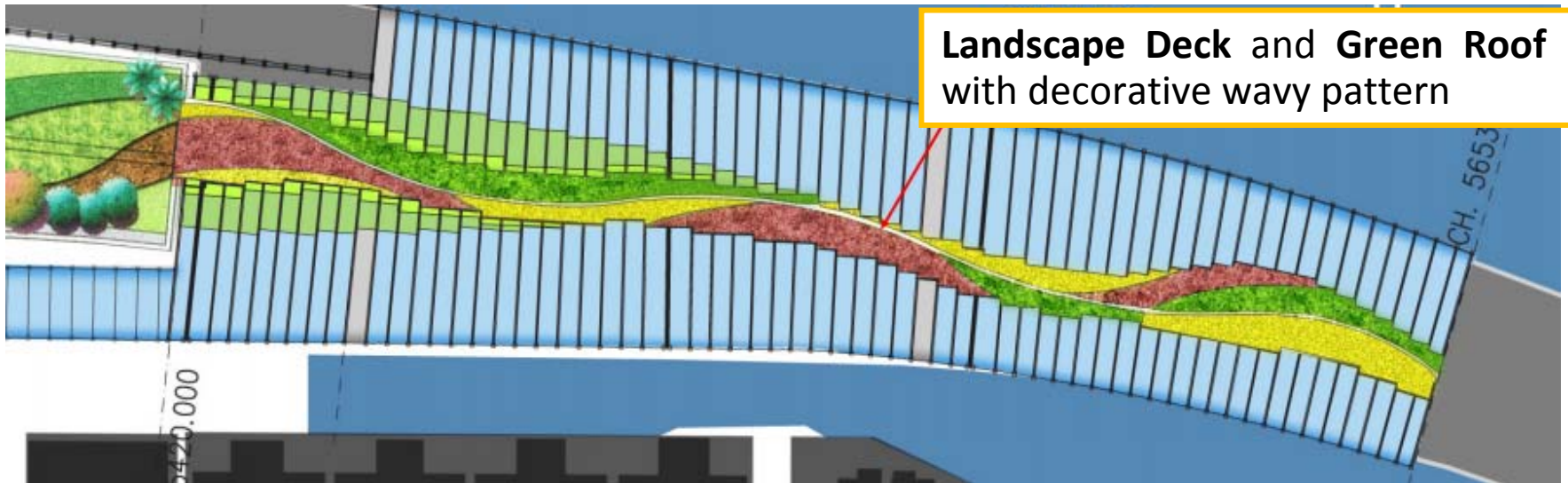
Transparent sound insulation panel (Clear)



Pattern

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- The wavy pattern and jumble colours symbolize dynamic and vibrant harbourfront and waves of the Victoria Harbour.



Landscape Deck and Green Roof
with decorative wavy pattern



Noise insulation panels away from residence printed with jumble colours

Greening - two locations

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Landscape deck

- Different varieties of plants are introduced to provide abundant seasonal scenery.

Green roof

- The design seeks to balance technical requirement such as lighting, aesthetic and impact on residents' views.
- Taking into consideration environmental and maintenance factors, the designer has selected shrubs and groundcover species that are **more wind, salt-spray and drought tolerant.**

Along viaduct planters outside the bridge

- Plants with drooping quality and fine texture

Greening

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Green Roof with variety of shrubs and groundcover

Future Waterfront Open Space

Landscape Deck with variety of tree and palms



Public consultation (Nov 2011 to Mid 2012)

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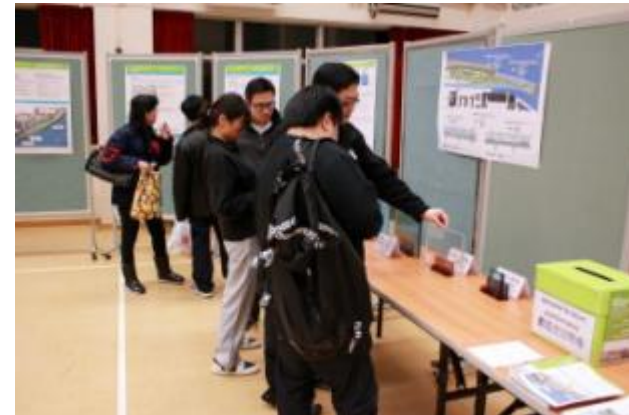
Activity	Date & Venue	Participants	Result
Briefing Session for City Garden	29 November 2011 Club House, City Garden	City Garden -Management Office -Owners' Committee/residents	Support
Focus Group Meeting for Victoria Centre	1 December 2011 CWB North Point Community Liaison Centre	Victoria Centre -Management Office -Owners' Committee/residents	Support
Focus Group Meeting for Harbour Heights	7 December 2011 CWB North Point Community Liaison Centre	Harbour Heights -Management Office -Owners' Committee/residents	Support



Public consultation (Nov 2011 to Mid 2012)

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Activity	Date & Venue	Participants	Result
Community Forum	15 January 2012 Causeway Bay Community Centre	Public members in North Point District and other parts of the territories	Support
Meeting with Eastern District Council (EDC)	1 March 2012	EDC members	Support



Current progress

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- The Contractor is working with the project architect to fine-tune the design.
- Fabrication of the structural components is being arranged.
- Construction of the landscape deck and noise mitigation measures will commence in phases from 2013 onwards.
- Schedule for completion in 2017.



Members' views are welcome.