

Harbourfront Commission

Presentation

Sep 2020

New Acute Hospital

at Kai Tak Development Area



醫院管理局
HOSPITAL
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MEINHARDT

WSP

RLB Rider
Levett
Bucknall

Agenda

1.0 Project Background & Development Parameters

2.0 Urban Design Framework

3.0 Connectivity Enhancement

4.0 Waterfront Promenade Design

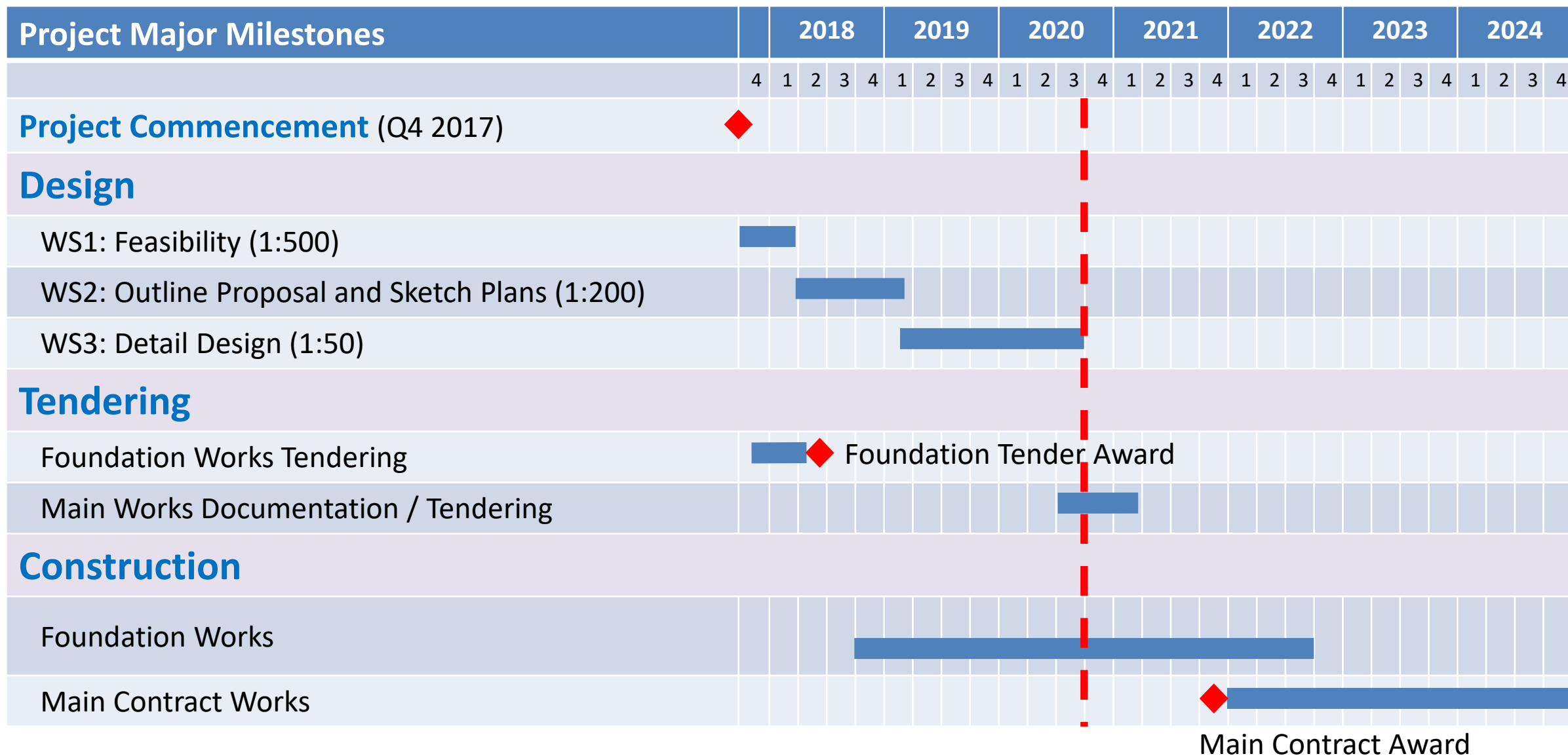
5.0 Harbour Planning Principles



Project Background & Development Parameters **1.0**



Master Programme



Summary of comments in the briefing session to KTTF on 7 July 2020

1. Connectivity

- Pedestrian connectivity between the two sections abutting waterfront promenade HKCH and NAH should be reviewed.

2. Permeability

- G/F accommodation of the buildings at Site B should be supplemented
- Building edge treatment of Site B, fence wall detailed design at the interfacing boundary should be supplemented

3. Waterfront Promenade Design

- Detailed design for service block, drinking fountain, seating, pavilion and lighting should be supplemented



Project Scope

- **2 400 in-patient and day beds**
- **37 operating theatres**
- **Neuroscience centre**
- **Oncology centre**
- **Specialist outpatient clinics**
- **A capacity of 1,410,000 annual outpatient clinic attendance**

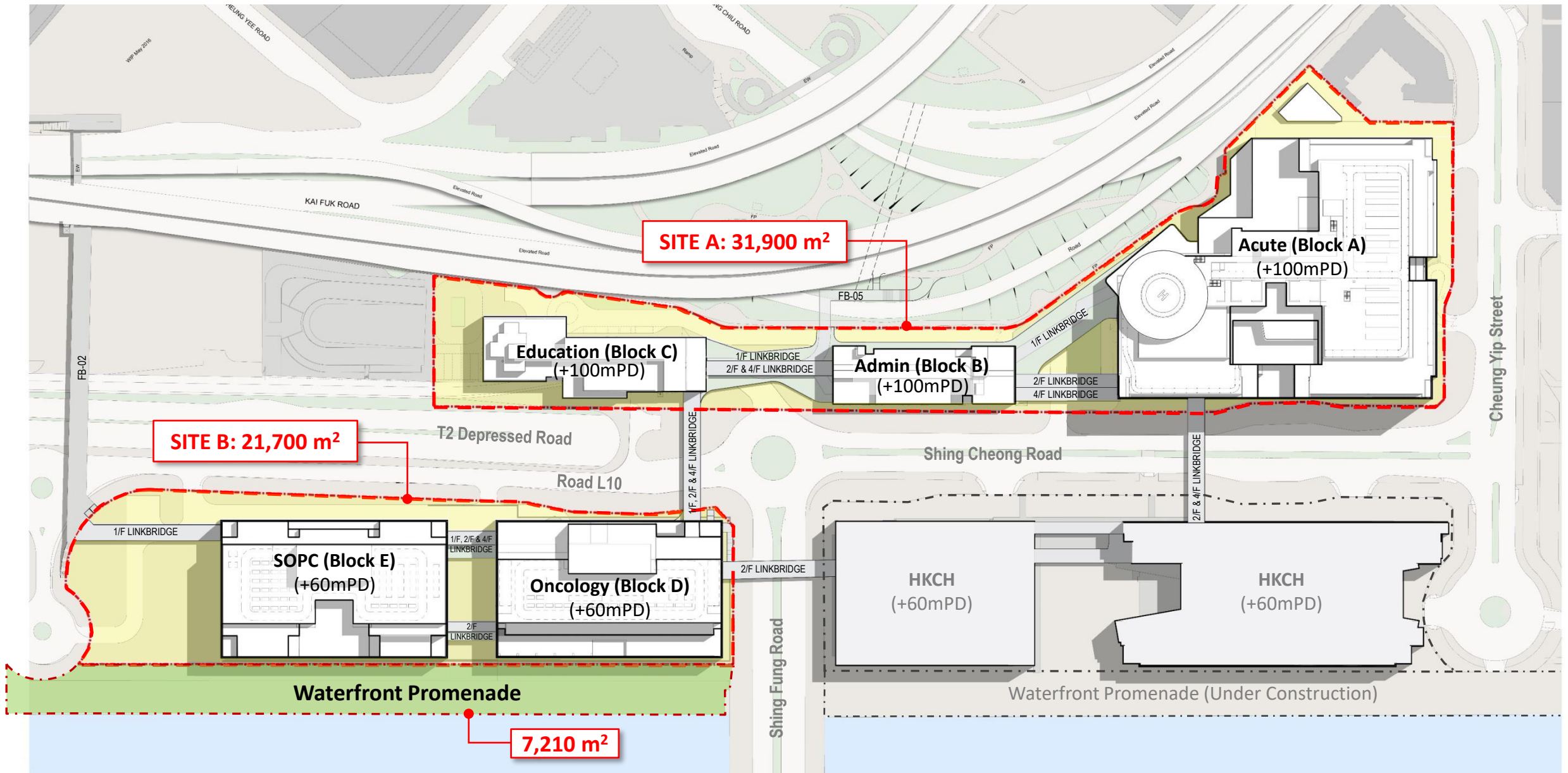
1. Accident and emergency department
2. Administration services
3. Ambulatory and day procedure
4. Cardiac catheterisation laboratory
5. Cardiothoracic service
6. Catering services
7. Clinical laboratory services
8. Community health care unit
9. Central sterilizing services unit
10. Custodial ward
11. Day surgery and endoscopy
12. Diagnostic radiology & imaging
13. Education and training
14. Supporting services
15. Facilities management
16. Front of house
17. High dependency unit
18. Hyperbaric oxygen therapy unit
19. Information and communication technologies
20. Inpatient wards
21. Intensive care unit
22. Labour and delivery
23. Logistics and supply
24. Medical records
25. Mortuary
26. Neonatal intensive care unit & special care baby unit
27. Neuroscience centre
28. Nuclear medicine
29. Oncology centre
30. Oral maxillofacial surgery & dental unit
31. Peri-operative centre (inc. Anesthesiology)
32. Pharmacy
33. Rehabilitation, other allied health & social work services
34. Security
35. Specialty outpatient clinics
36. Staff amenities and accommodation



Site Location



Master Plan – Campus-wide



Development Parameters

Development Requirements

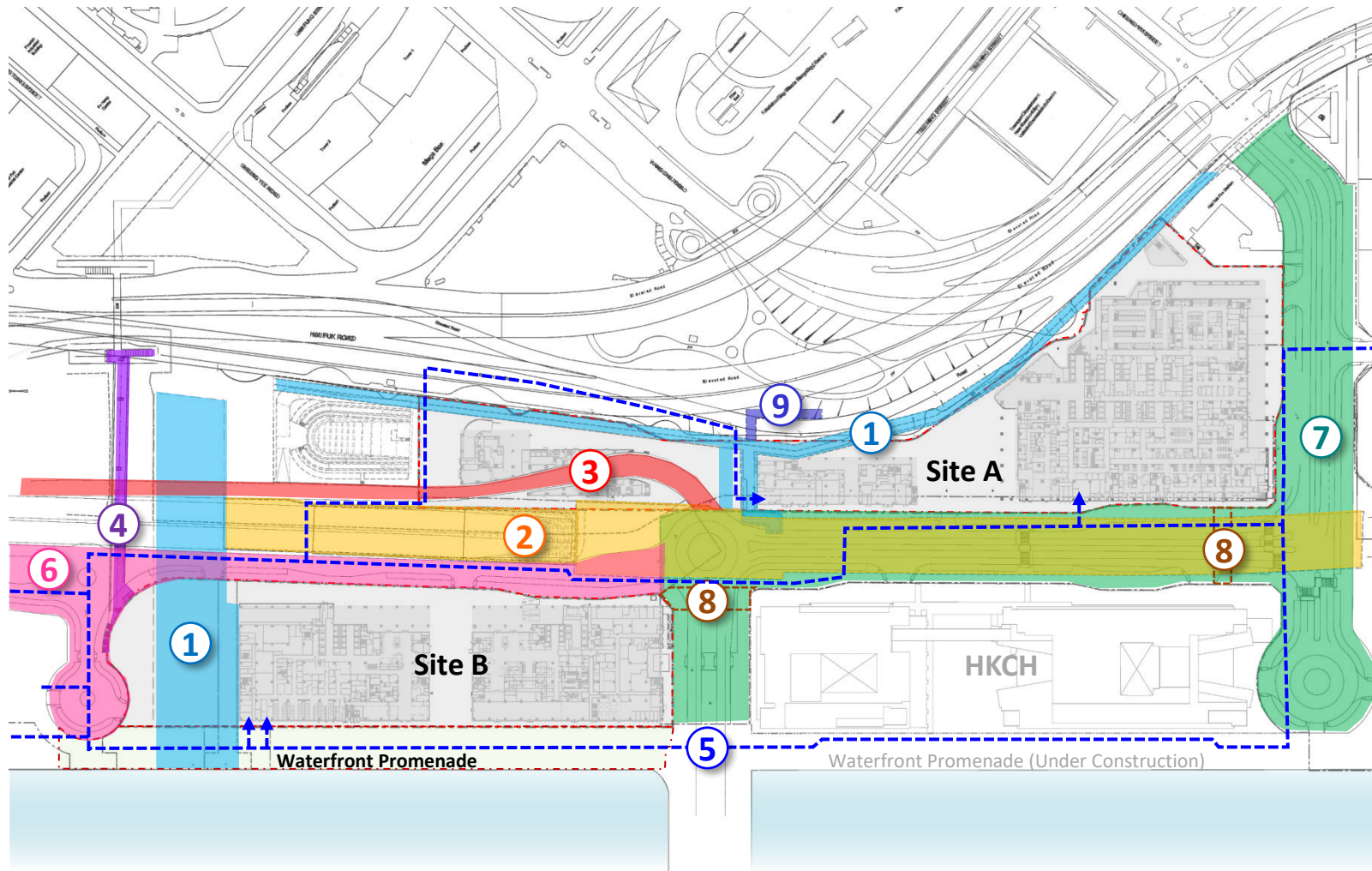
- **OZP** Height Limit (Site A: 100mPD, Site B: 60mPD)
- **Kai Tak Urban Design Guidelines**
- **SBD** Guidelines APP-151 & 152
- **LCSD** Requirements for **Waterfront Promenade** at Site B
- **Greenery** Area Coverage Compliance

Engineering Conditions

- Height of **Linkbridges** and **Subways** above the required Hong Kong Principal Datum
- **Vehicular Access** in the Designated Locations
- No Structural Obstruction at the **Drainage & Waterworks Reserve**
- Achieving the Required **Greening Ratio**
- Construction of **Linkbridges** and **Subways** between the Blocks
- Within **Height Restriction** for Site A and Site B
- Accommodating for **S5 Road** Design
- Deferred Possession of Certain Parcels



Site Parameters & Interfacing with Other Infrastructure Projects



- ① Drainage & Waterworks Reserve Zone
- ② Trunk Road T2
(by CEDD)
- ③ Slip Road S5 of Central Kowloon Route
(by HyD)
- ④ Future Footbridge Connection to Site B
(by CEDD)
- ⑤ District Cooling System
(by EMSD)
- ⑥ Kai Tak Development Stage 5
(by CEDD)
- ⑦ Kai Tak Development Stage 3
(by CEDD)
- ⑧ Subway Connections Between NAH & HKCH
(by CEDD)
- ⑨ Future Footbridge Connection to Site A
(by CEDD)

Urban Design Framework 2.0



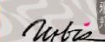
Urban Design Principles

OZP & KTDA Masterplan Context

- Promote **pedestrian friendly** & **vibrant KTDA neighbourhood**
- Optimize **building separation**
- Maximize **ground floor glass frontage**
- **Landscaped foreground** as welcoming arrival node
- **Building setbacks** with landscaping from waterfront promenade
- **Vertical green** & terraces for massing articulation
- Create **patient-centered experience**

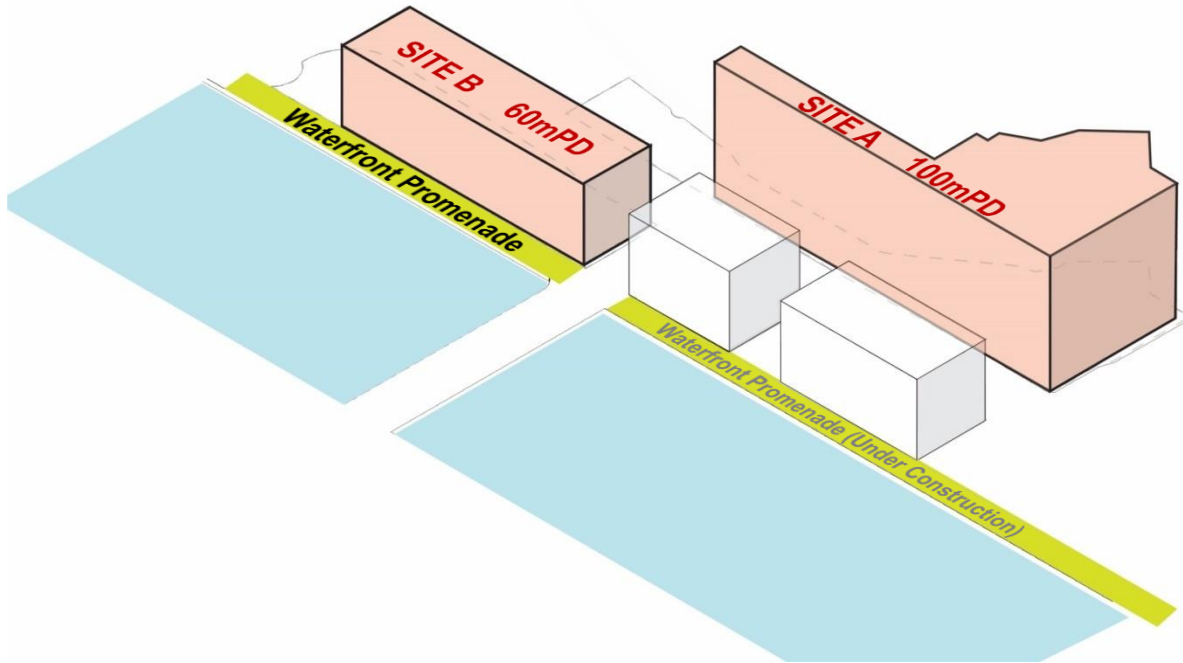
KTD Urban Design Guidelines

- Design parameters in **engineering conditions**
- Urban Design Guidelines **recommendation** of **best practice**

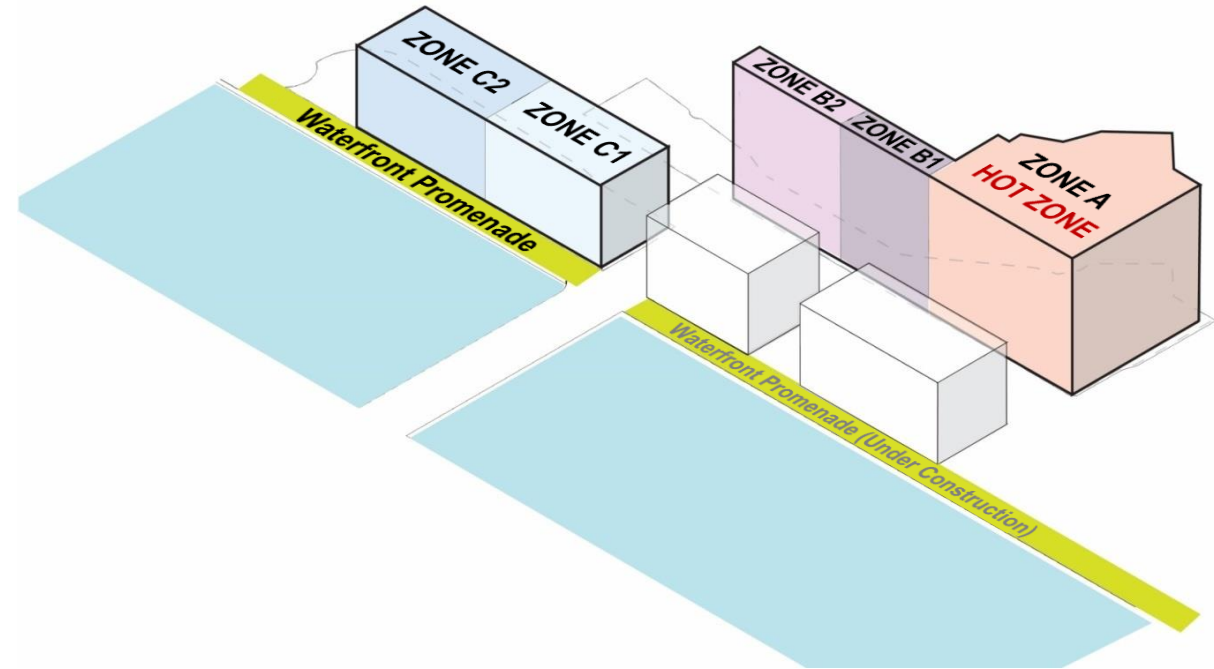


Urban Design Framework

- Height Limit

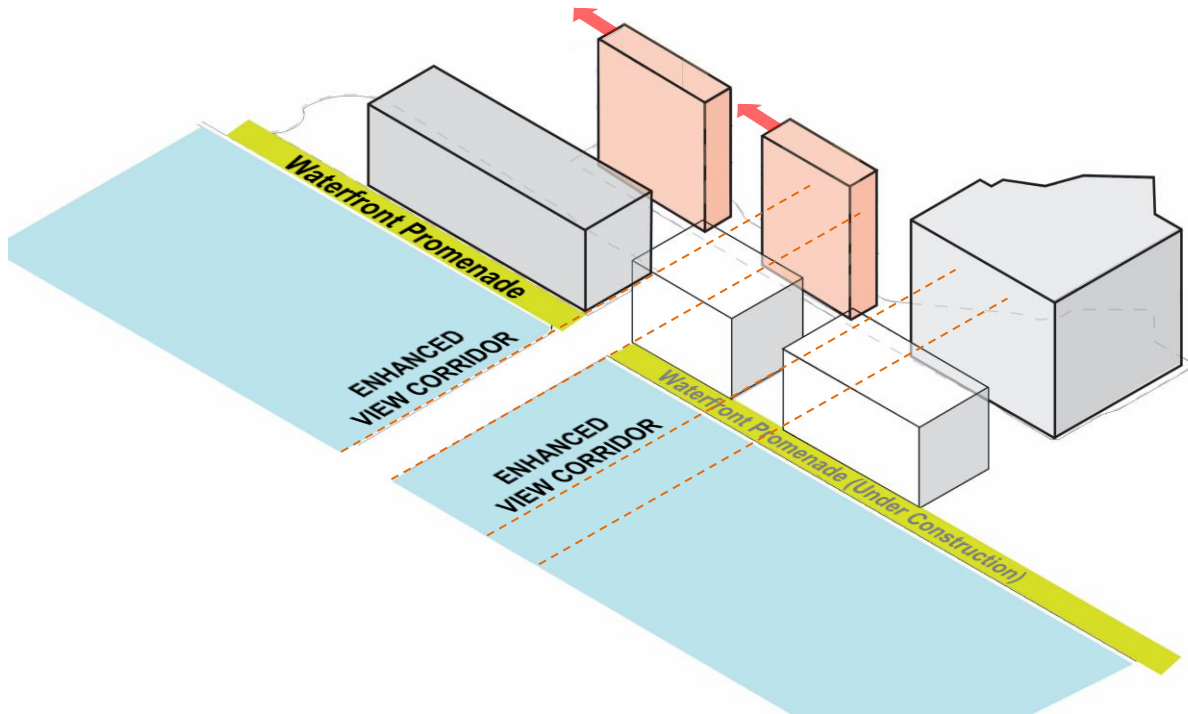


- Compact & Efficient Medical Planning

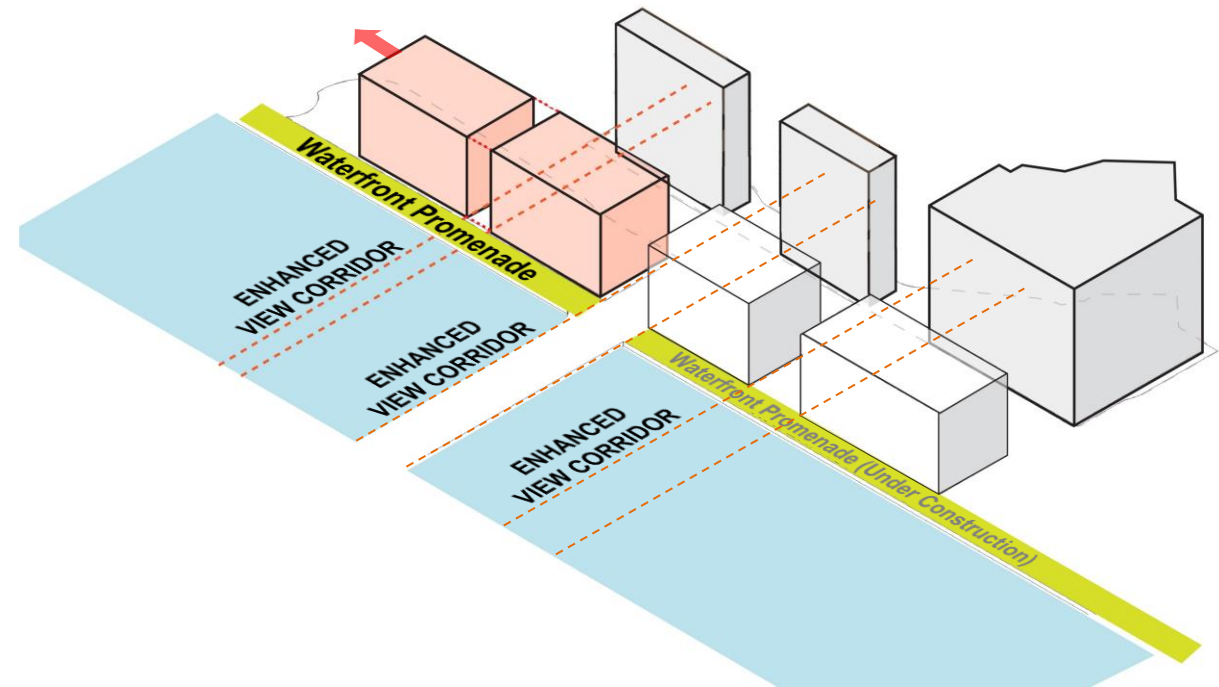


Urban Design Framework

- Permeability Enhancement by Separation of Building Mass

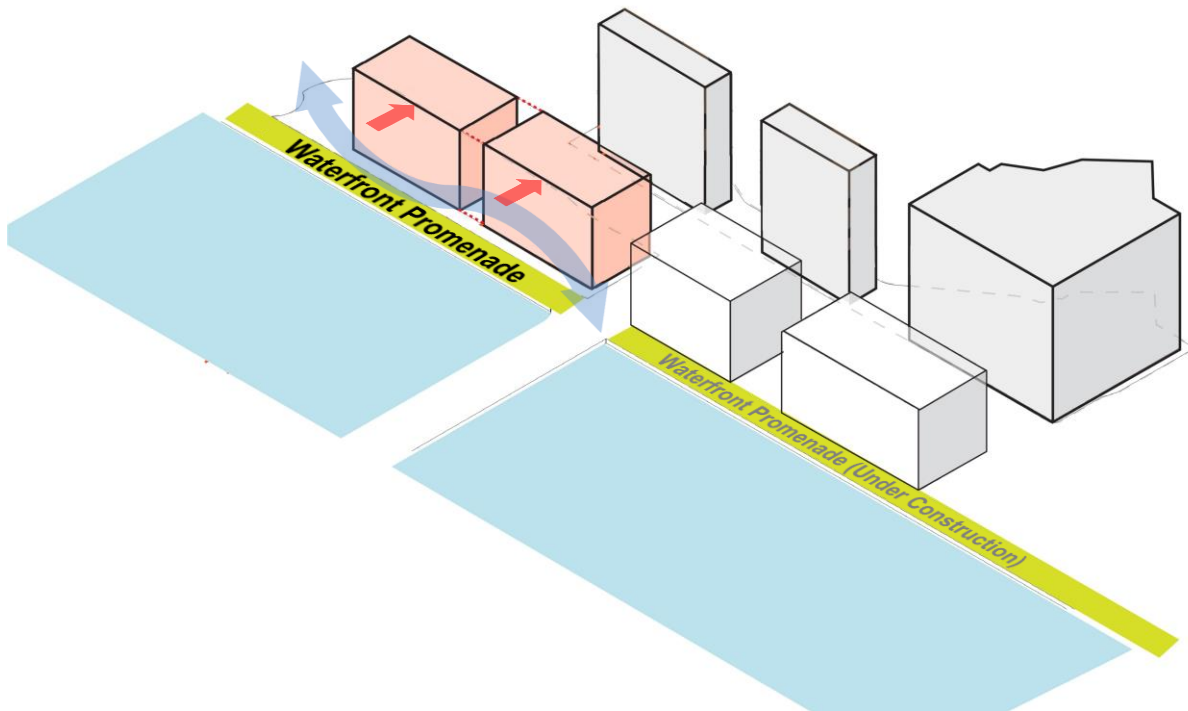


- Permeability Enhancement by Separation of Building Mass & Podium-free Approach

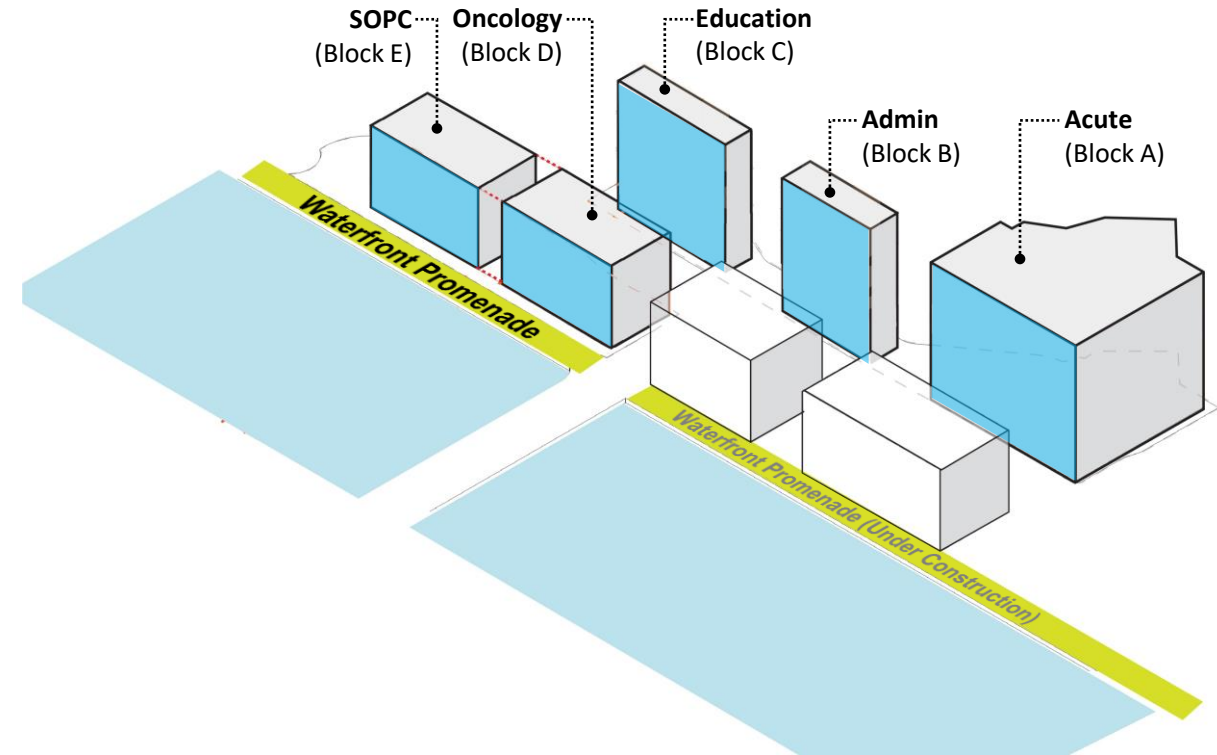


Urban Design Framework

- Promenade Enjoyment Enhancement by Building Setback



- Façade Design Response to Waterfront



Connectivity Enhancement **3.0**



Public Transportation & Vehicular Network


 MTR Station


Existing Vehicular Network

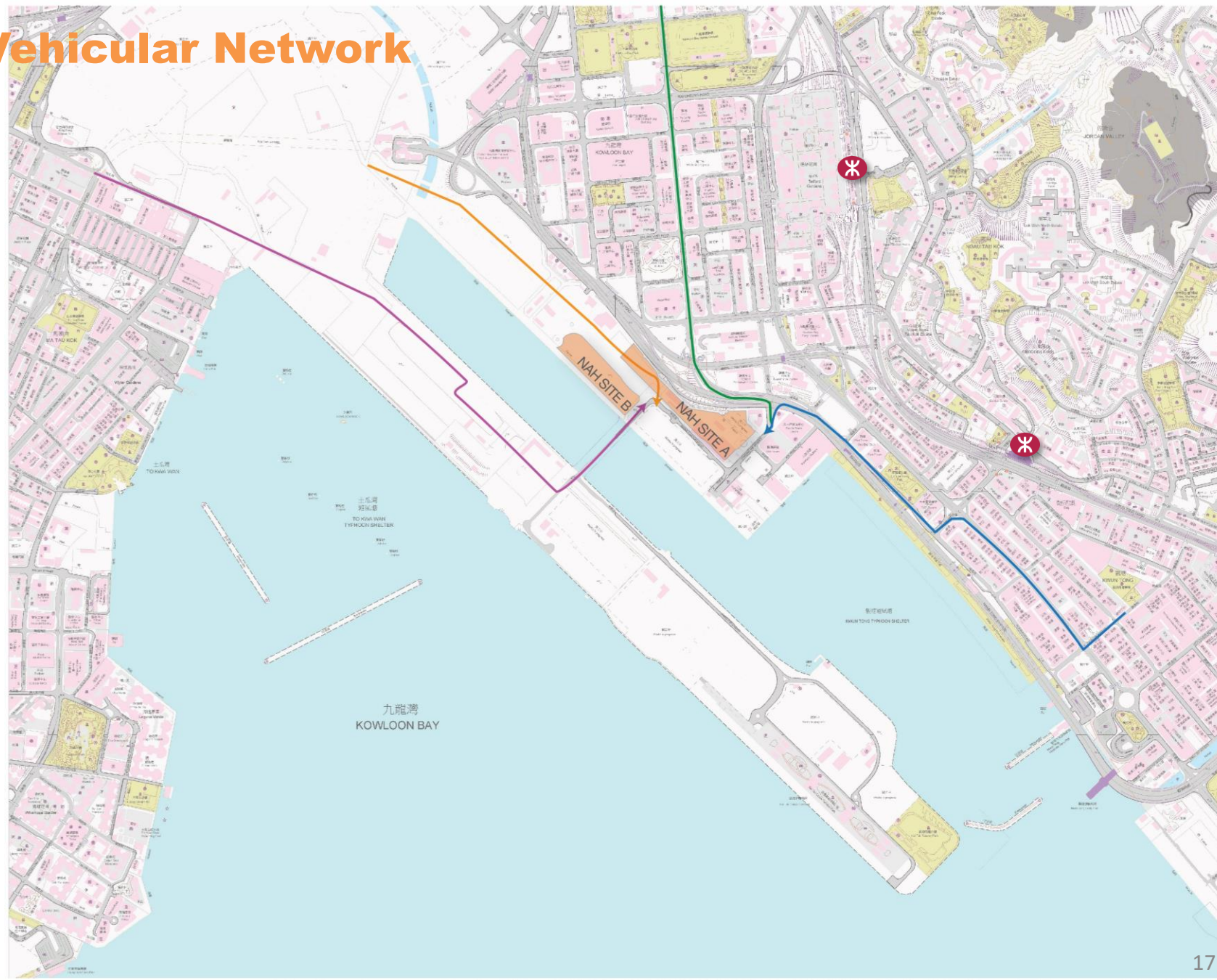
 From Kwun Tong

 From Wong Tai Sin







Future Vehicular Network

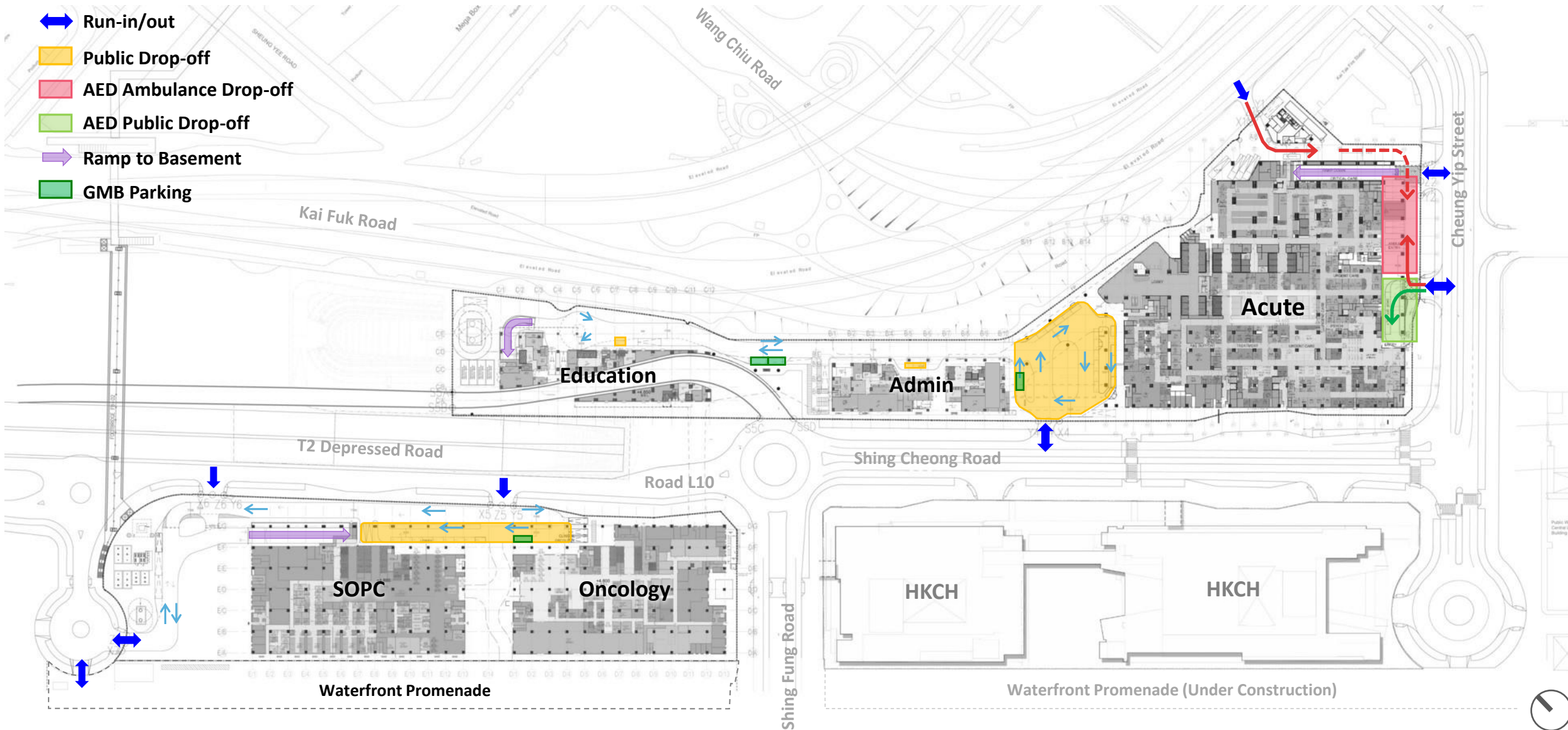
 From Yau Ma Tei
(via Central Kowloon Route,
scheduled by early 2025)

 From Kowloon City
(via Shing Kai Road & Road D3,
scheduled by 2023)










Vehicular Access to NAH and the Waterfront Promenade

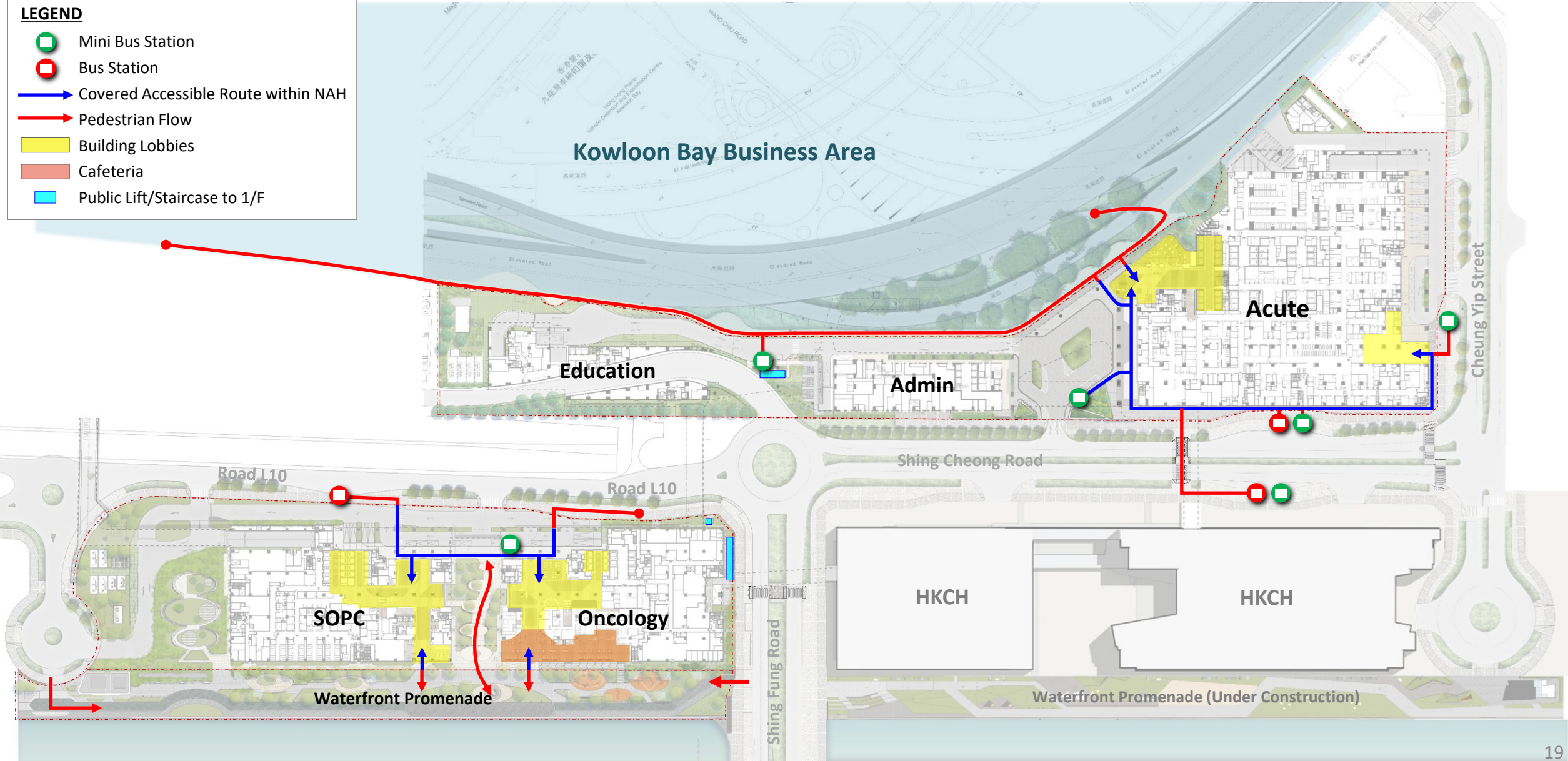
-  Run-in/out
-  Public Drop-off
-  AED Ambulance Drop-off
-  AED Public Drop-off
-  Ramp to Basement
-  GMB Parking



At-Grade Pedestrian Access – Campus-wide





LEGEND

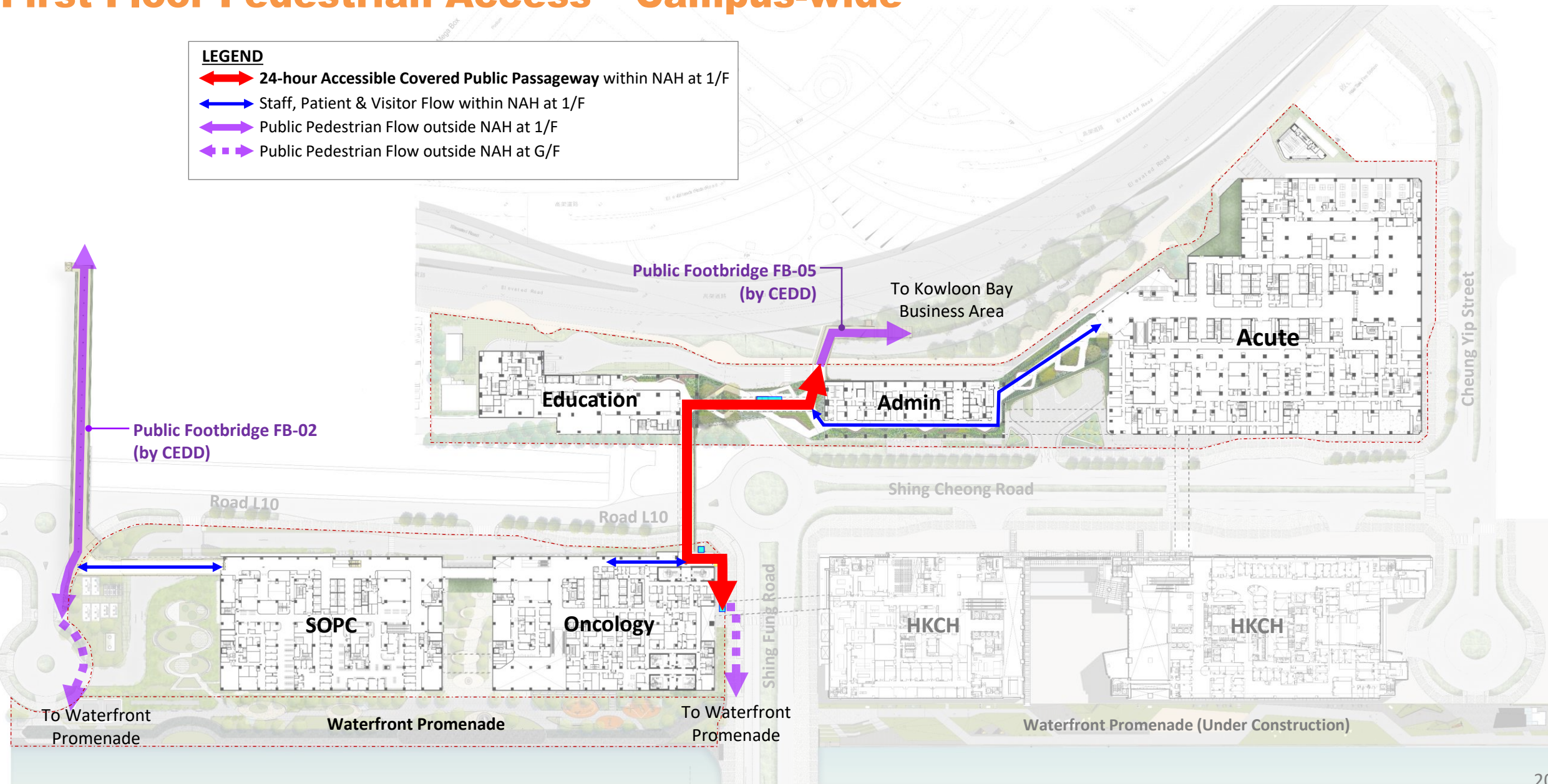
-  Mini Bus Station
-  Bus Station
-  Covered Accessible Route within NAH
-  Pedestrian Flow
-  Building Lobbies
-  Cafeteria
-  Public Lift/Staircase to 1/F



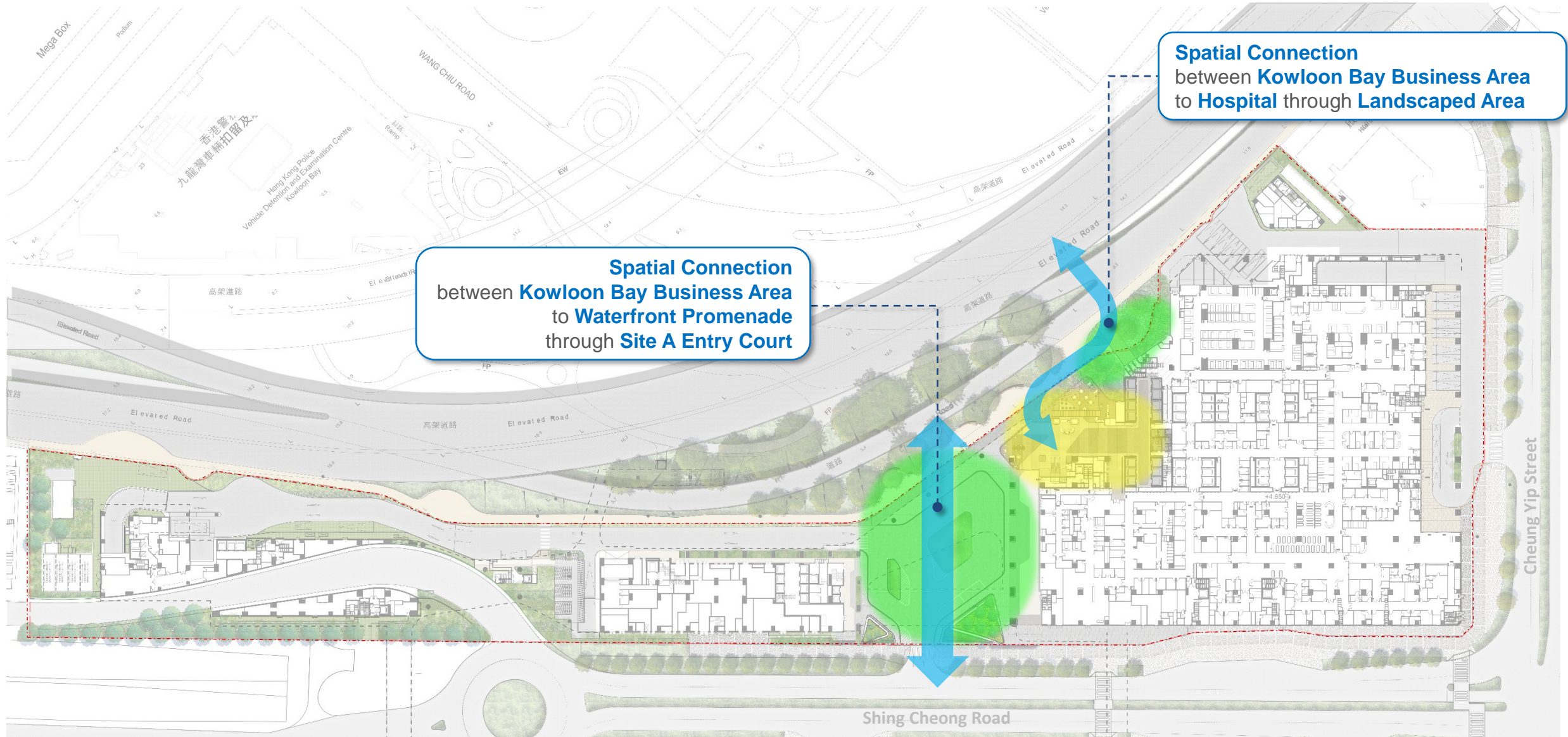
First Floor Pedestrian Access – Campus-wide

LEGEND

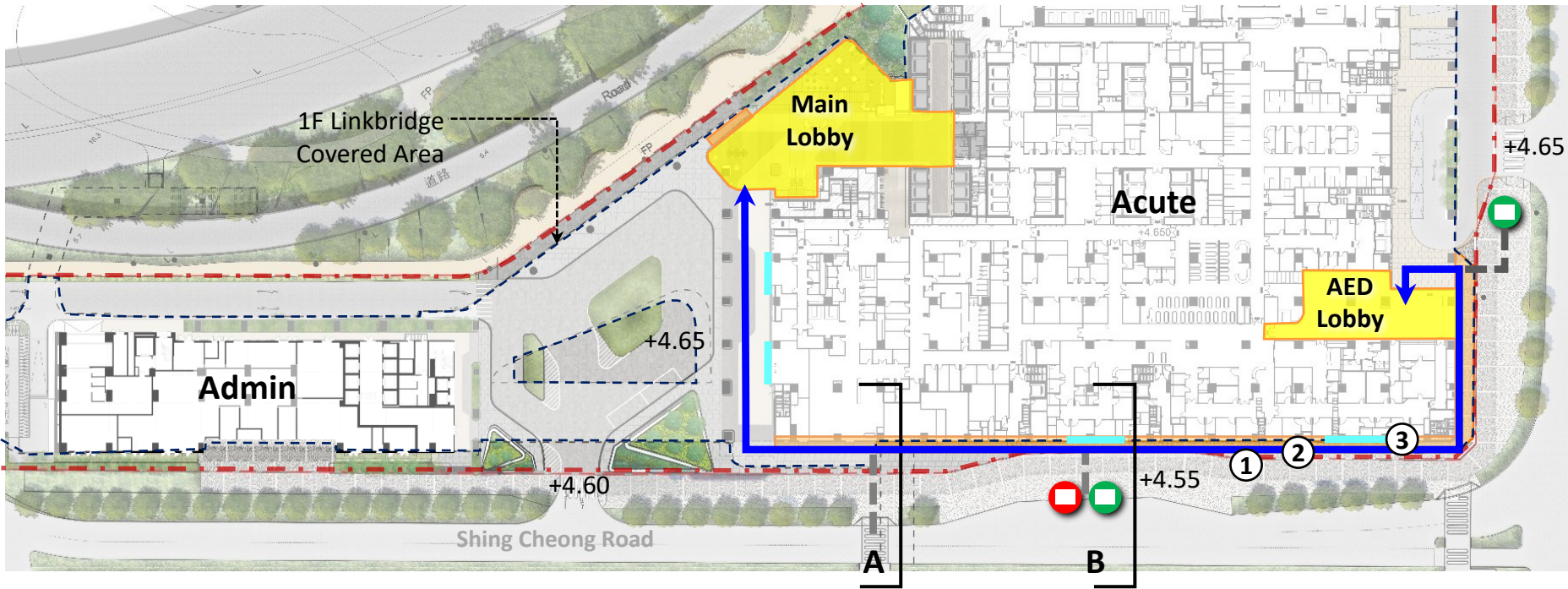
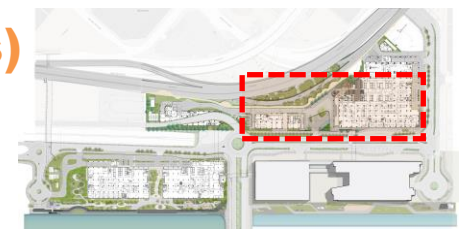
-  24-hour Accessible Covered Public Passageway within NAH at 1/F
-  Staff, Patient & Visitor Flow within NAH at 1/F
-  Public Pedestrian Flow outside NAH at 1/F
-  Public Pedestrian Flow outside NAH at G/F



At-Grade Boundary Interfacing – Site A Overview



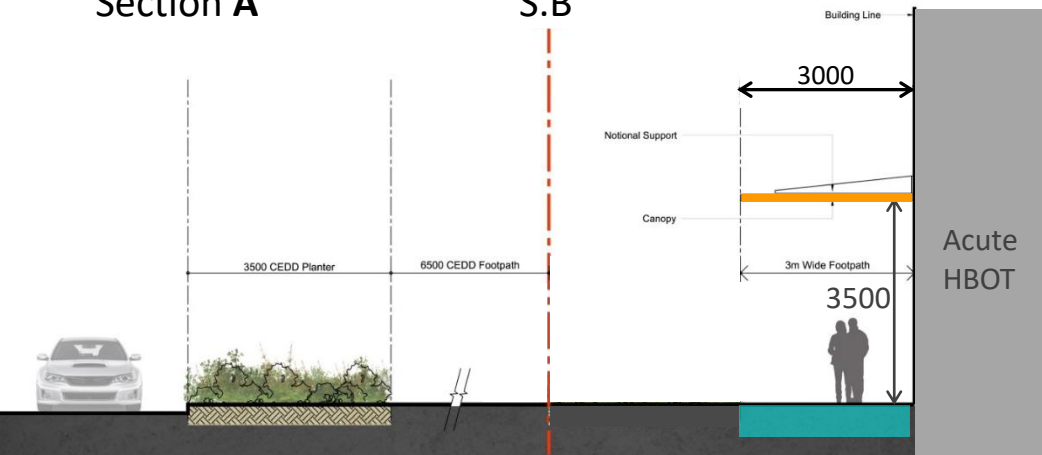
At-Grade Boundary Interfacing – Site A (East & South Public Streets)



- ① Proposed Canopy ■
- ② Covered Accessible Route ■
- ③ Seating Provisions ■
(Location and details to be further developed in WS3)

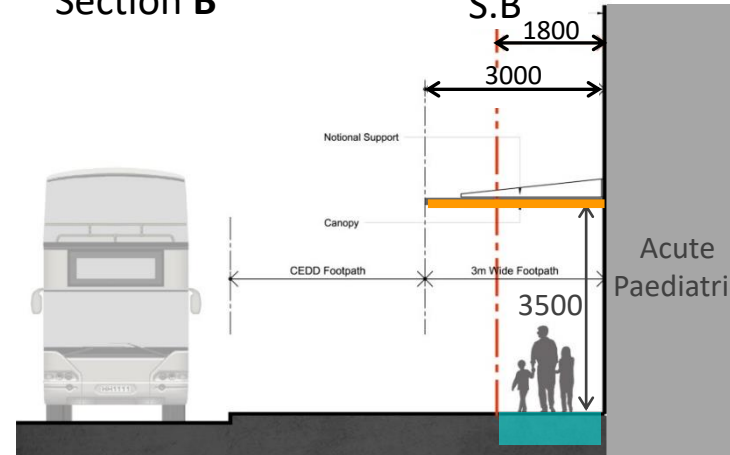
Section A

S.B



Section B

S.B



Note: Exemption will be applied for canopy beyond NAH site boundary

- Mini Bus Station
- Bus Station
- 1F Linkbridge Covered Area
- Uncovered Pedestrian Route

At-Grade Boundary Interfacing – Site B Overview

Spatial Connection
between **Hospital Visitors/Staff**
to **Waterfront Promenade**
through **Landscaped Garden**

SOPC

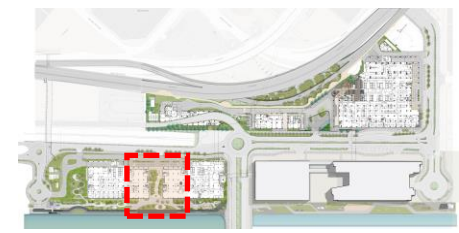
Oncology

Waterfront Promenade

Spatial Connection
between **SOPC & Oncology Main Lobby**
to **Waterfront Promenade**

Shing Fung Road

At-Grade Boundary Interfacing – Site B (North Public Street)

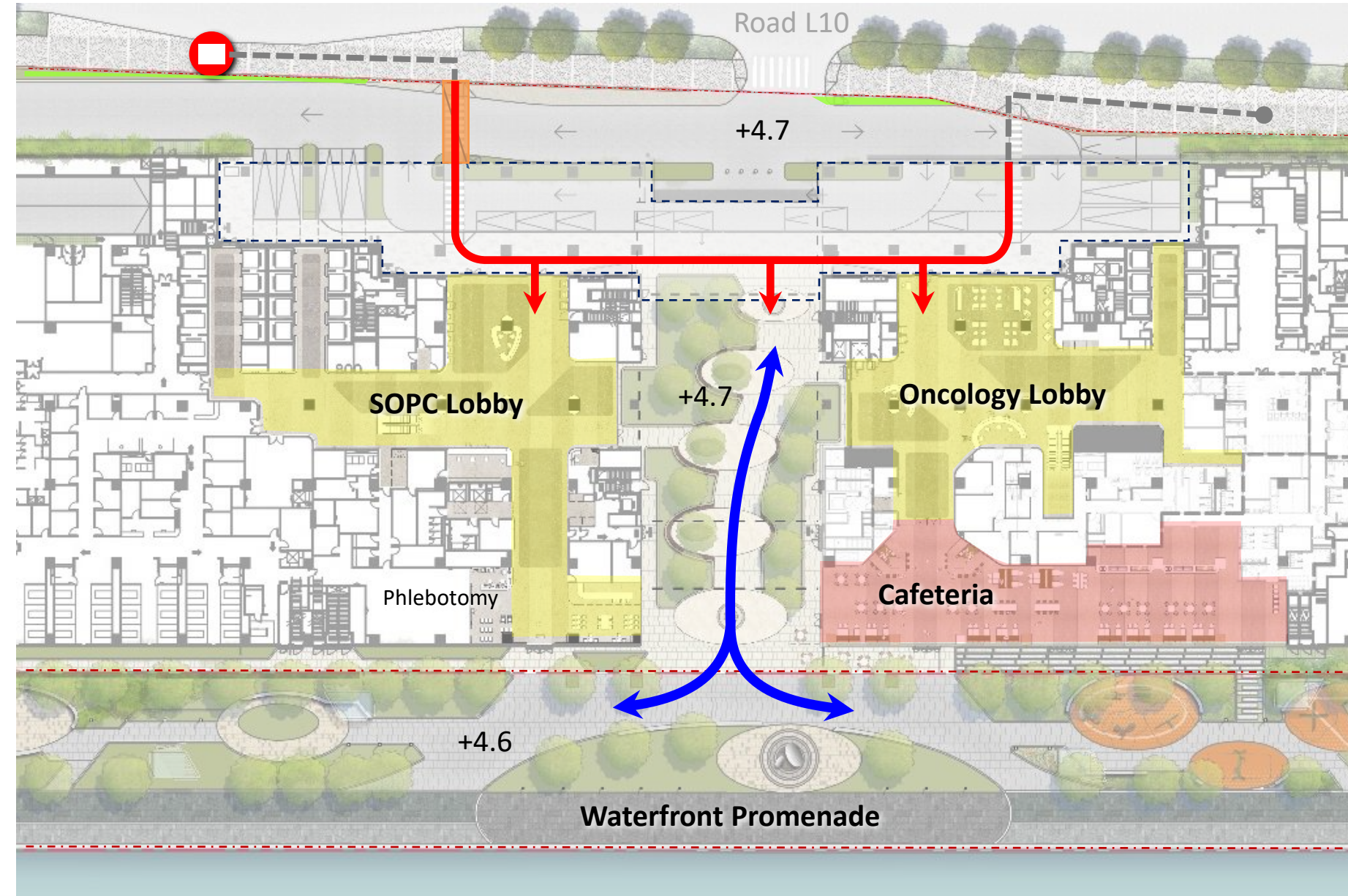


Interfacing area creates inviting public space & direct access to Site B entry court

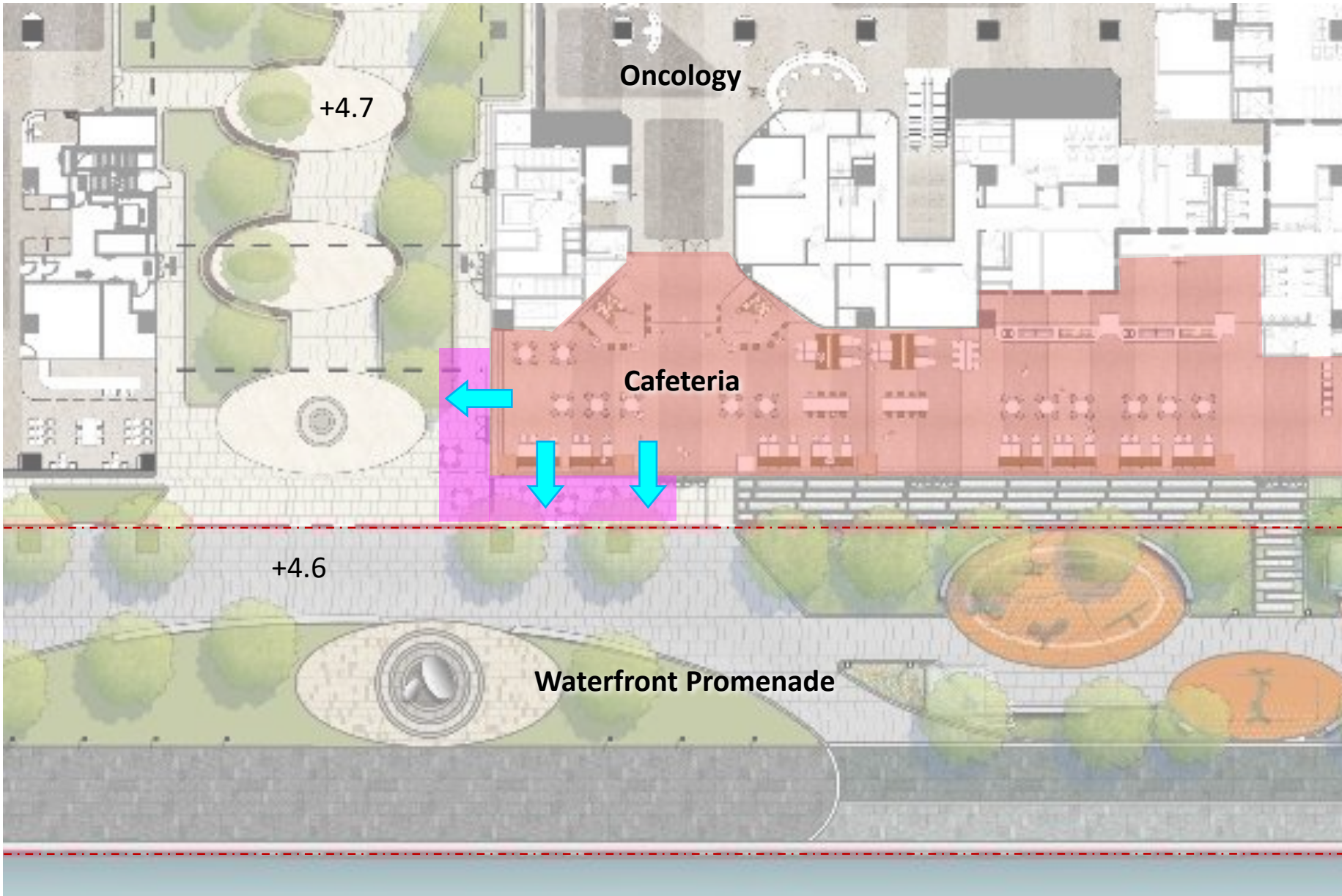
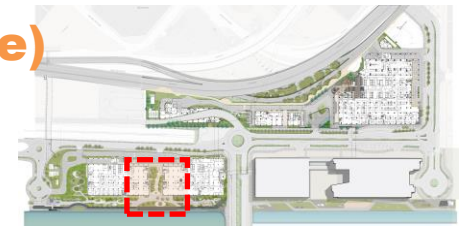
- ① Proposed Canopy █
- ② Covered Accessible Route █
- ③ NAH Greenery █

The hard and soft landscape (stepping stone concept) on the south boundary interface creates inviting public space from waterfront promenade to Onco & SOPC plaza

- ◻ Bus Station
- Covered Area
- Uncovered Pedestrian Route
- ↔ Public Access



At-Grade Boundary Interfacing – Site B (South Waterfront Promenade)

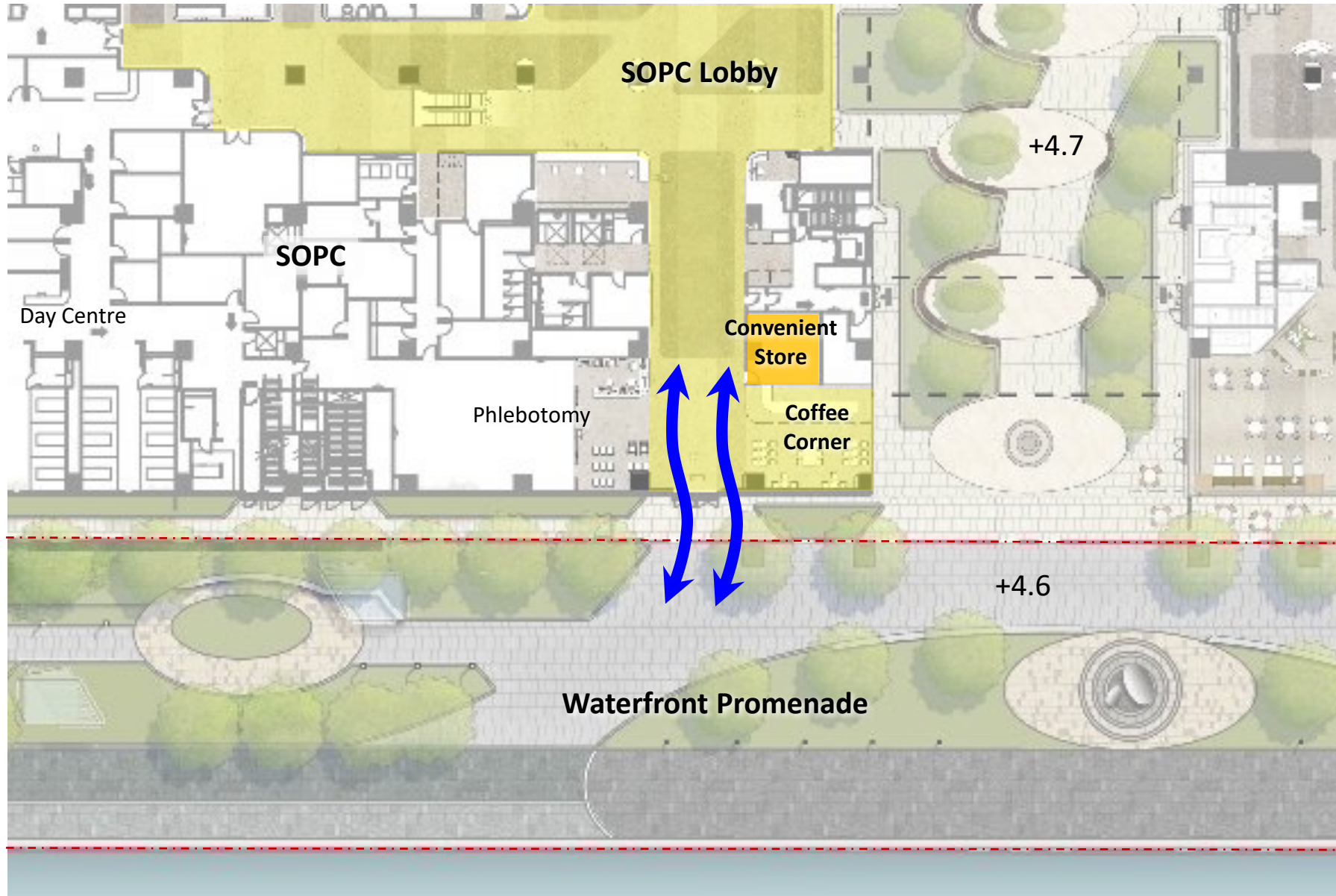
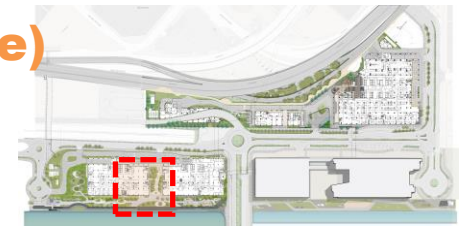


The seating area on Oncology block south boundary interface spills people out from the cafeteria



- Outdoor Seating Area
- People spilt out from Onco cafeteria

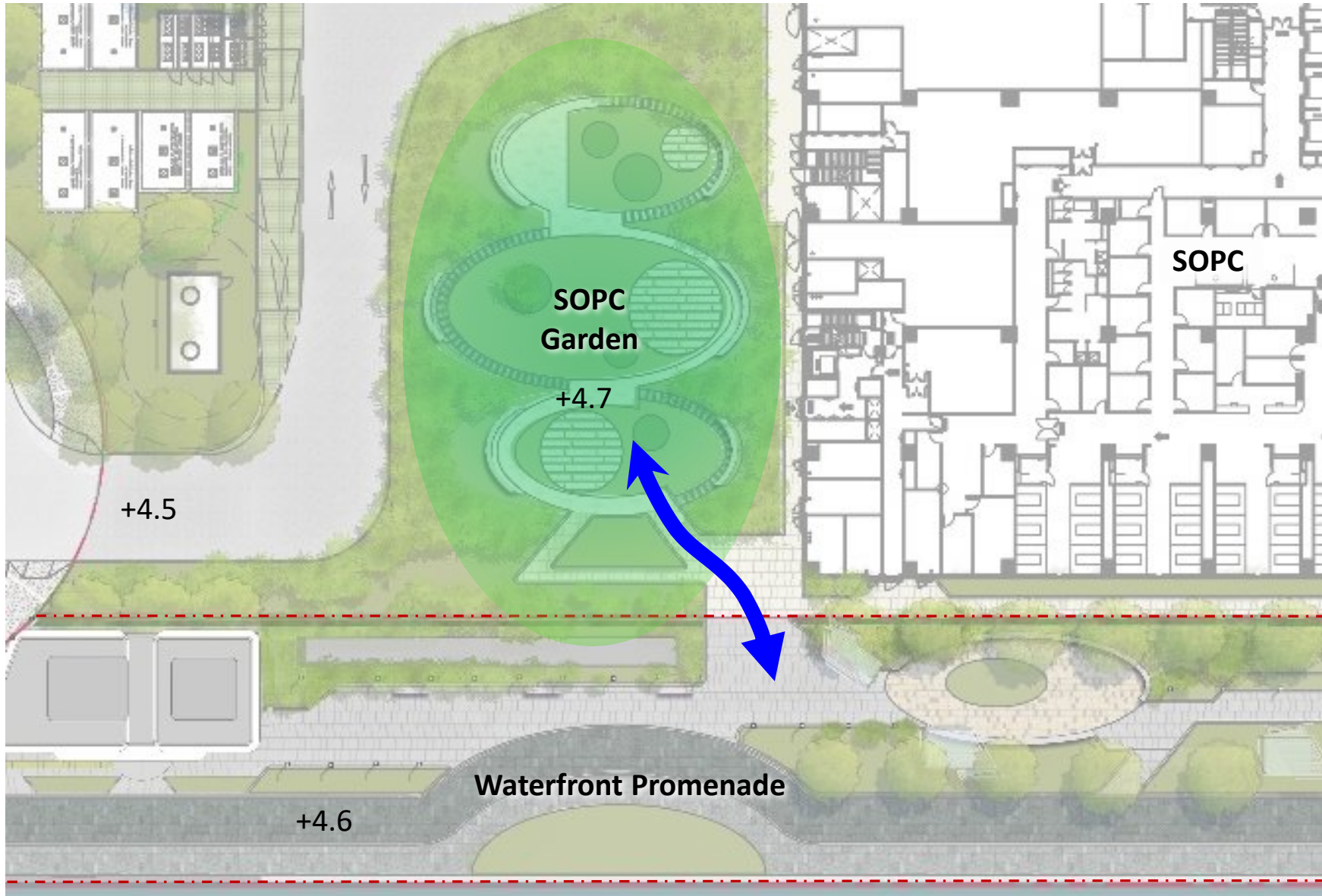
At-Grade Boundary Interfacing – Site B (South Waterfront Promenade)



The hard and soft landscape on SOPC south interface creates direct access between waterfront promenade and SOPC lobby coffee corner & convenient store

← Public Access

At-Grade Boundary Interfacing – Site B (South Waterfront Promenade)



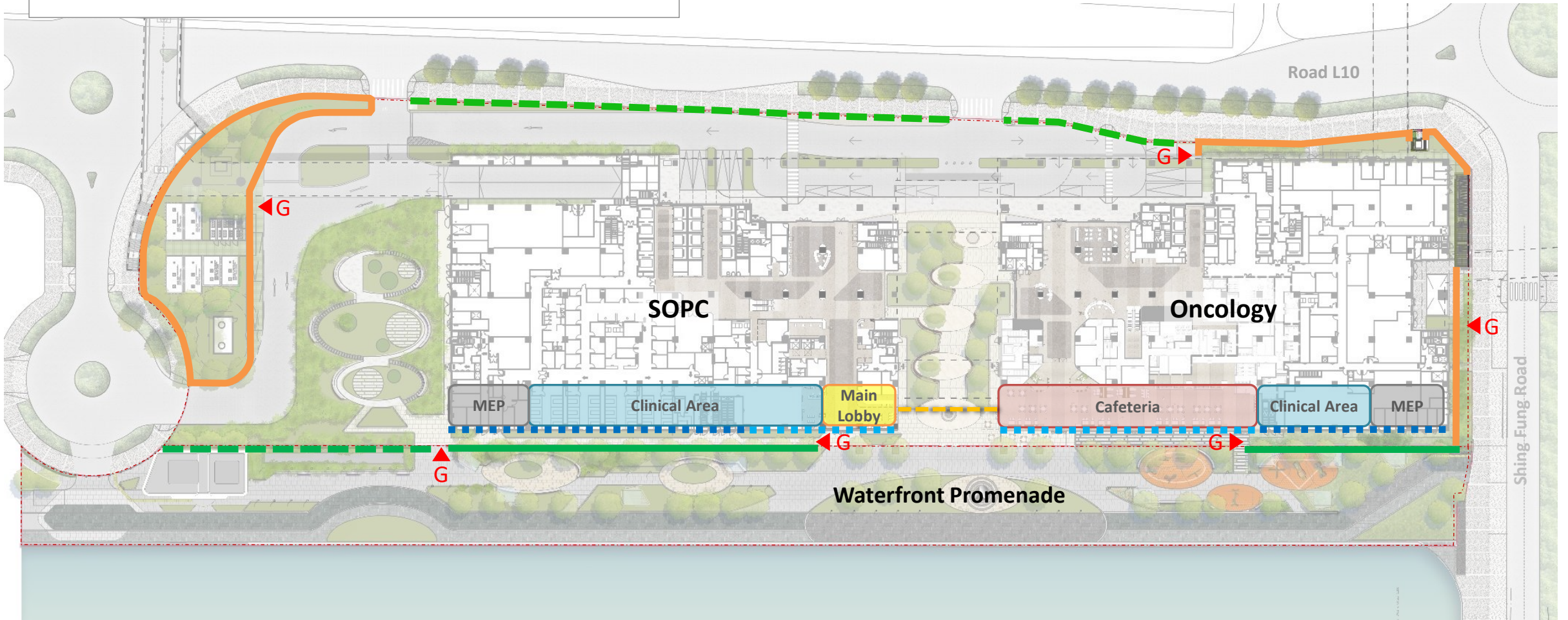
The hard landscape on S OPC west interface creates direct access from Promenade to S OPC garden

← Public Access

At-Grade Boundary Interfacing – Site B Overview

LEGEND

- Proposed 2.1m H Vertical Greening
- - - Proposed Low Level Planting Barrier
- Proposed 2.1m H Metal Fencing
- - - Proposed Low Level Barrier during Outbreak
- G ▶ Proposed Metal Gate
- ■ ■ ■ Glass Wall Façade
- ■ ■ ■ Metal Fins Façade



Waterfront Promenade Design 4.0



Kai Tak Promenade Conceptual Master Plan – Design Guideline for Kai Tak Promenade 2018

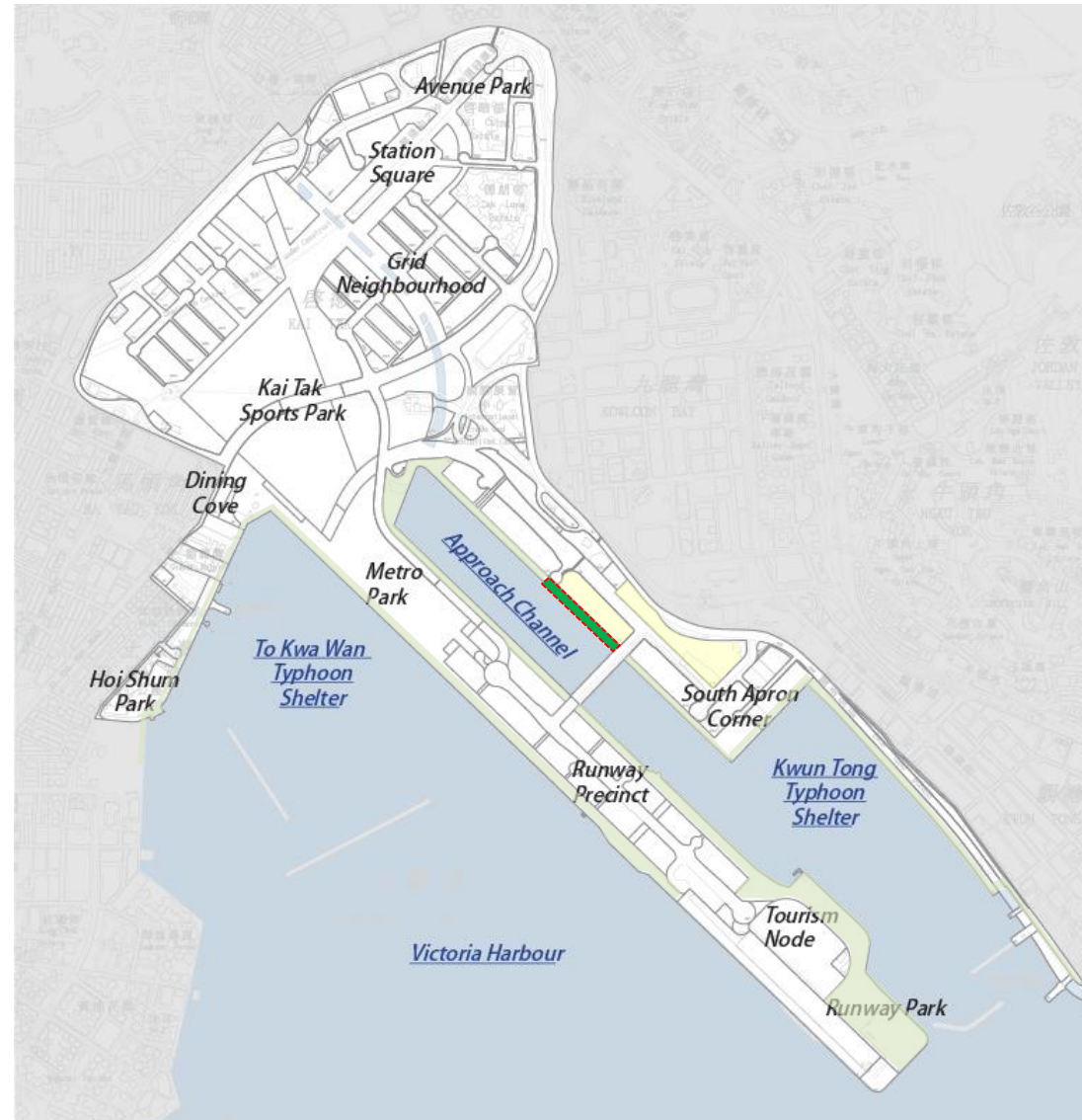
LEGEND



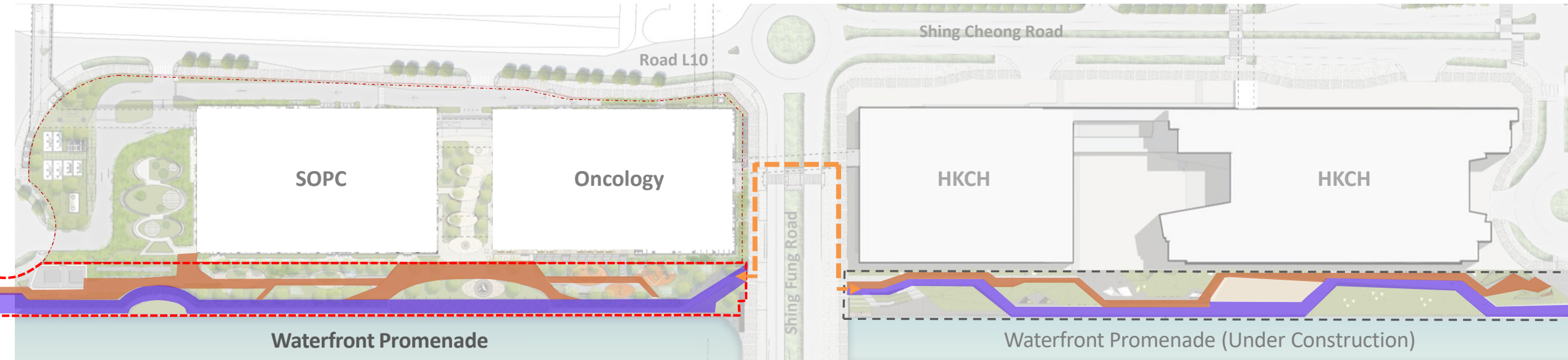
Waterfront Promenade under this submission





Overall Kai Tai promenade with continuous Greenway



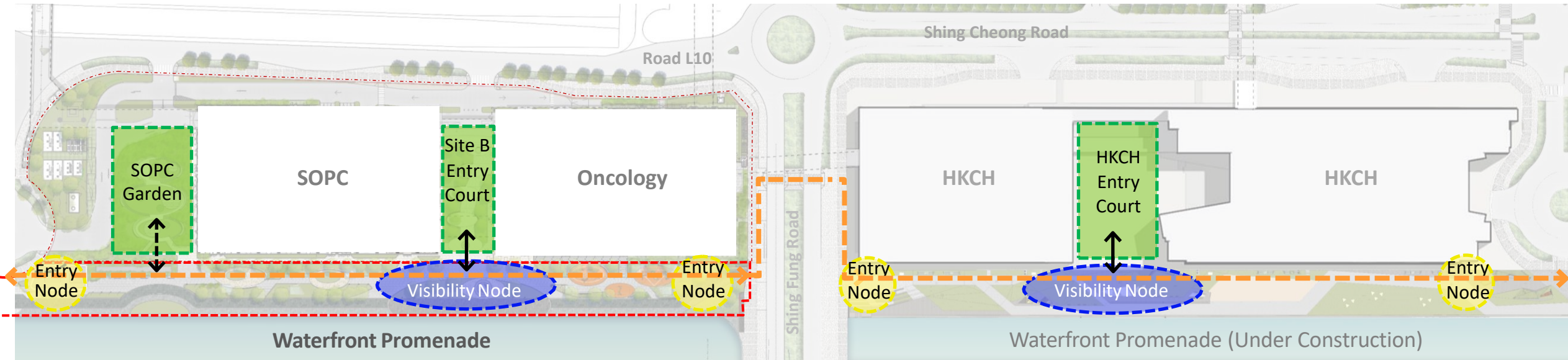
Promenade Connectivity – NAH & HKCH Overview




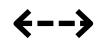
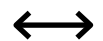
LEGEND

-  Pedestrian Walkway for Elderly & Wheelchair Users
-  Promenade Greenway (6-10m)

Promenade Zoning – NAH & HKCH Overview






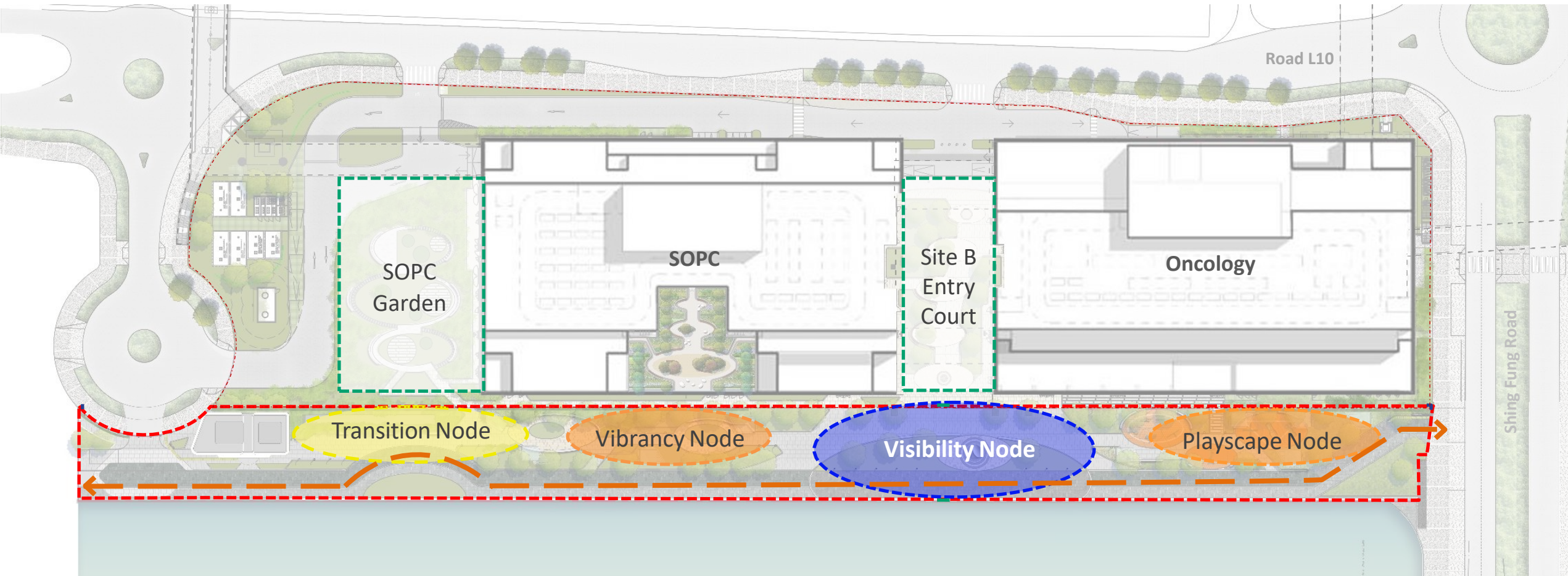
LEGEND

-  Main Circulation & Linkage to Adjacent Areas
-  Mainly Visual Linkage
-  Physical Linkage

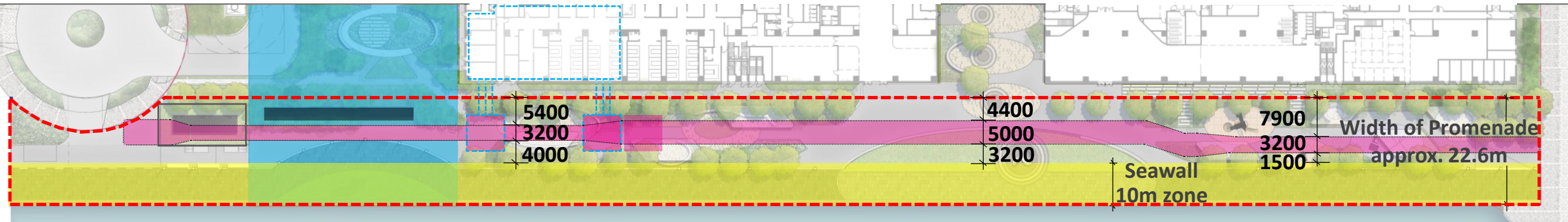
Promenade – Spatial Zoning

LEGEND

-  Connectivity & Walkability
-  Pocket Landscape Spaces with a Variety of Uses
-  Main Nodal Point



Promenade – Site Constraints



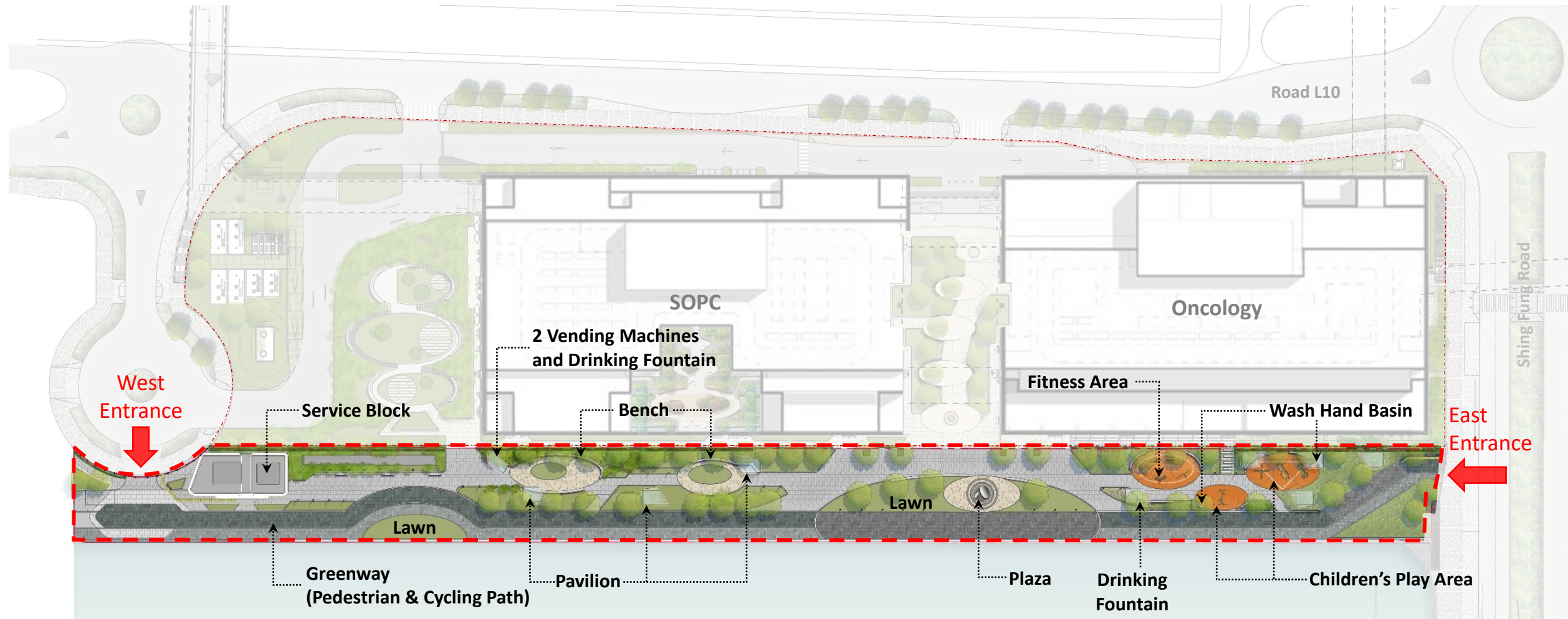
LEGEND

- Seawall 10m Zone
- Drainage Reserve Area
- EMSD DCS Pipe Alignment
- DSD Stoplog

Promenade – User Requirement

LCSD Design Requirement	Proposed Landscape design
1. Separate walkway for disables.	1. Minimum walkway width is 2500mm. with a clear path for disables at 1500mm. (2 wheelchairs)
2. Sitting-out areas - no quantity nor area specification.	2. 4-5 seating areas and benches along the planter edge
3. Rain shelter/Pavilion - no quantity nor area specification.	3. 7 Rain shelters/Pavilions are designed.
4. Seating benches (height 400-450 mm. depth 460 - 490mm) along with trees and edges of Greenway, 50% of which with backrest & shelters	4. Seating benches with 450 mm. height & 490mm depth with backrest is provided. More than 50% of the seating areas are covered.
5. Greenway 6-10m. width.	5. Greenway 6 m. width is provided.
6. Lawn area 350sq.m.	6. The main lawn area* is currently 360 sq.m. (*not including an additional lawn area)
7. Children's play area 180sq.m.	7. Children's play areas are, in total, larger than 183sq.m. in all options.
8. Wash hand basin at the children's play area.	8. 2 wash hand basins located closed to the children's play areas
9. 2 sets of duo drinking fountain. (one for children/wheelchair & one for adults.	9. 2 sets of duo drinking fountain are provided. One is located close to the toilet block. Second one is located close to children's play areas
10. Fitness (adult & elderly) area 100sq.m.	10. Fitness (adult & elderly) areas are, in total, larger than 105sq.m. in all options
11. Arbour with minimum 1 wheelchair space.	11. Arbour is provided together with the gateway design/canopy design.
12. Promenade boundary demarcation.	12. Promenade boundary is defined by planting area and paving colour. Including small gates, stainless steel banding and levelled shrub.
13. Vending machine - no quantity nor area specification.	13. A vending machine is provided near the toilet block area.

Promenade – Master Plan



Features

- 40% Greenery of Site Area
- Main Lawn Area
- Seating Areas
- Pavilions
- Fitness Area
- Children's Play Area
- 2 nos. Wash Hand Basin (near Children's Play Area)
- 2 sets of Drinking Fountains
- 1 set of Vending Machines

NAH Landscape Concept



Flow

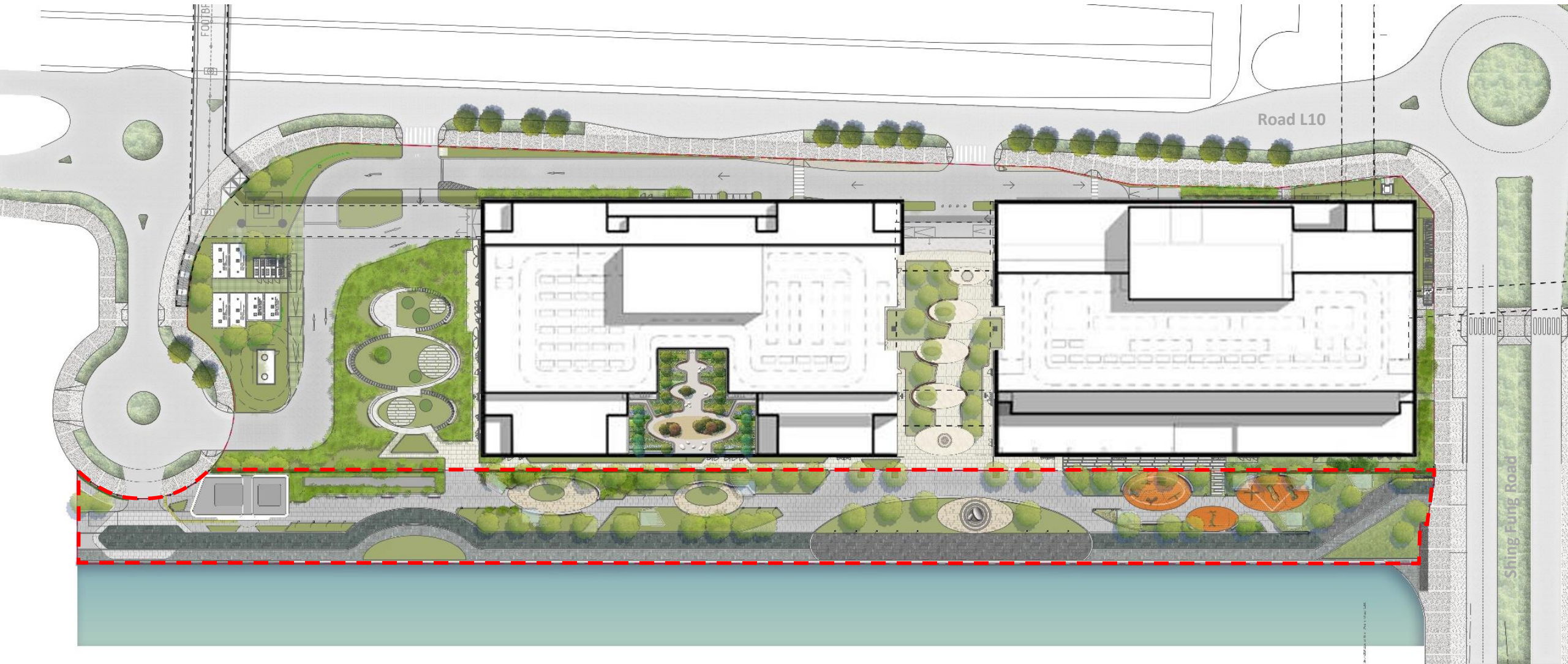


Floating

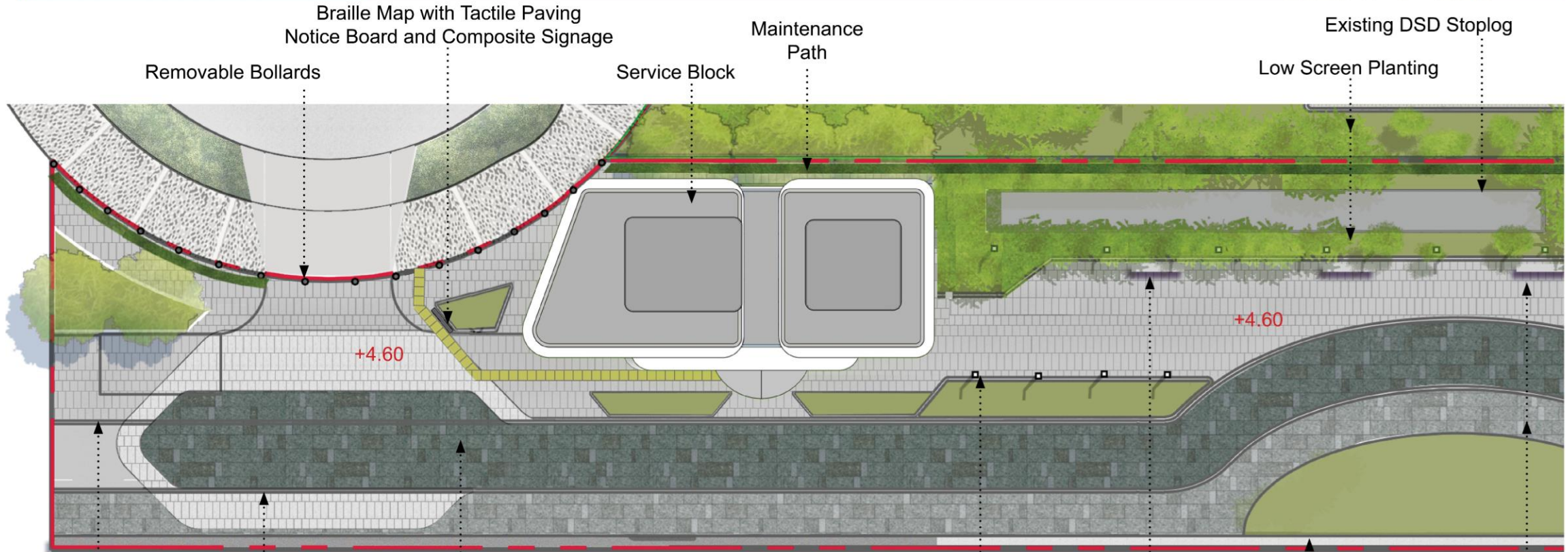
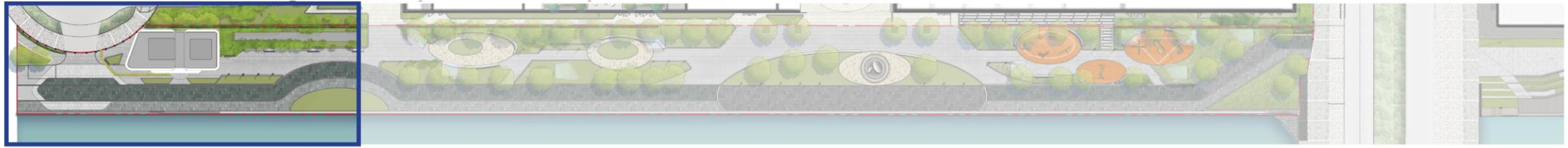


Skipping Stones

Promenade – Landscape Plan



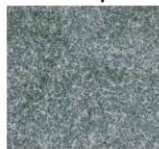
Promenade – Entry Node



Light Gray Granite



White Granite



Grayish Green Granite



Light Gray Granite

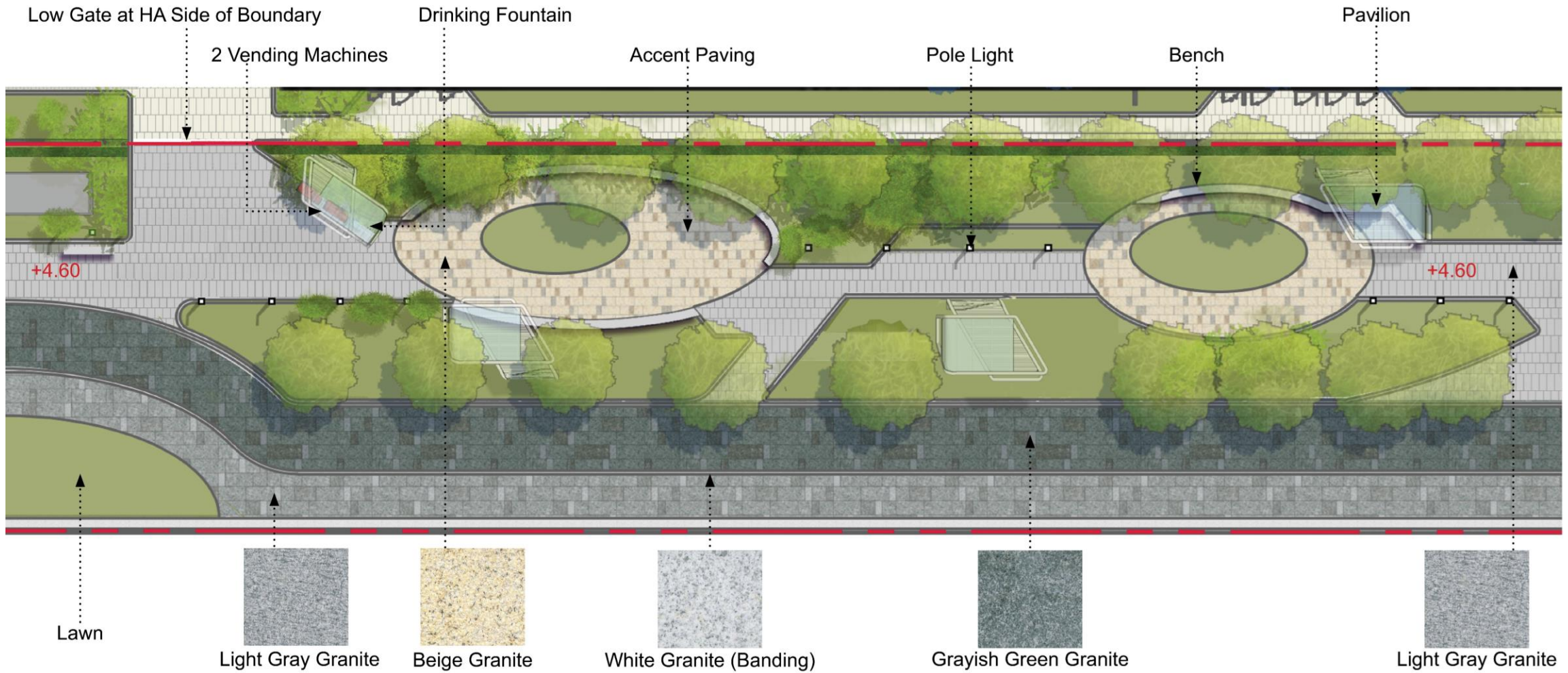
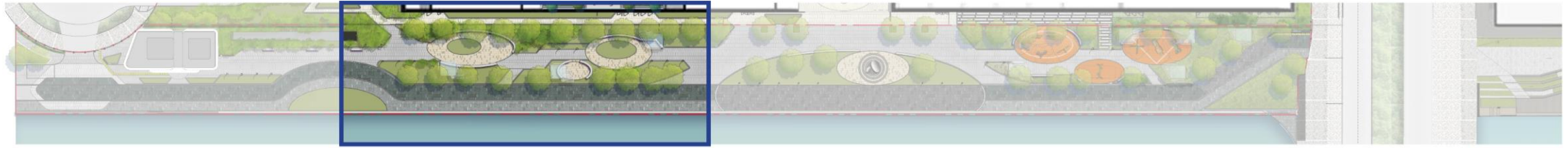
Pole Light

Bench

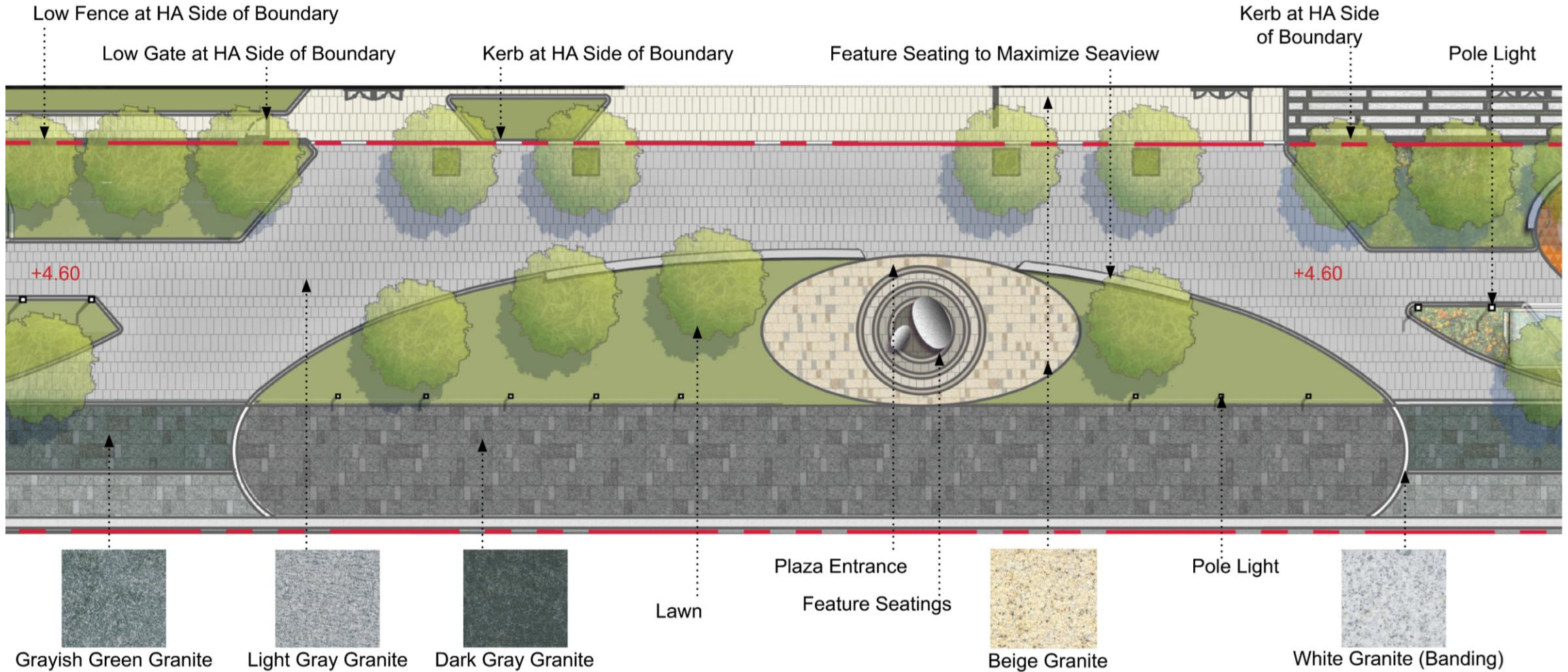
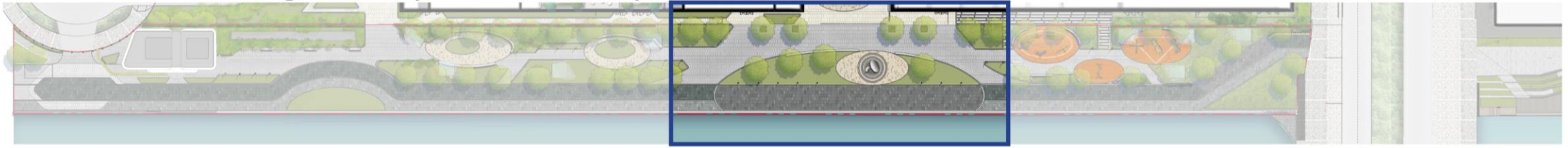
Seawall (1m. wide)



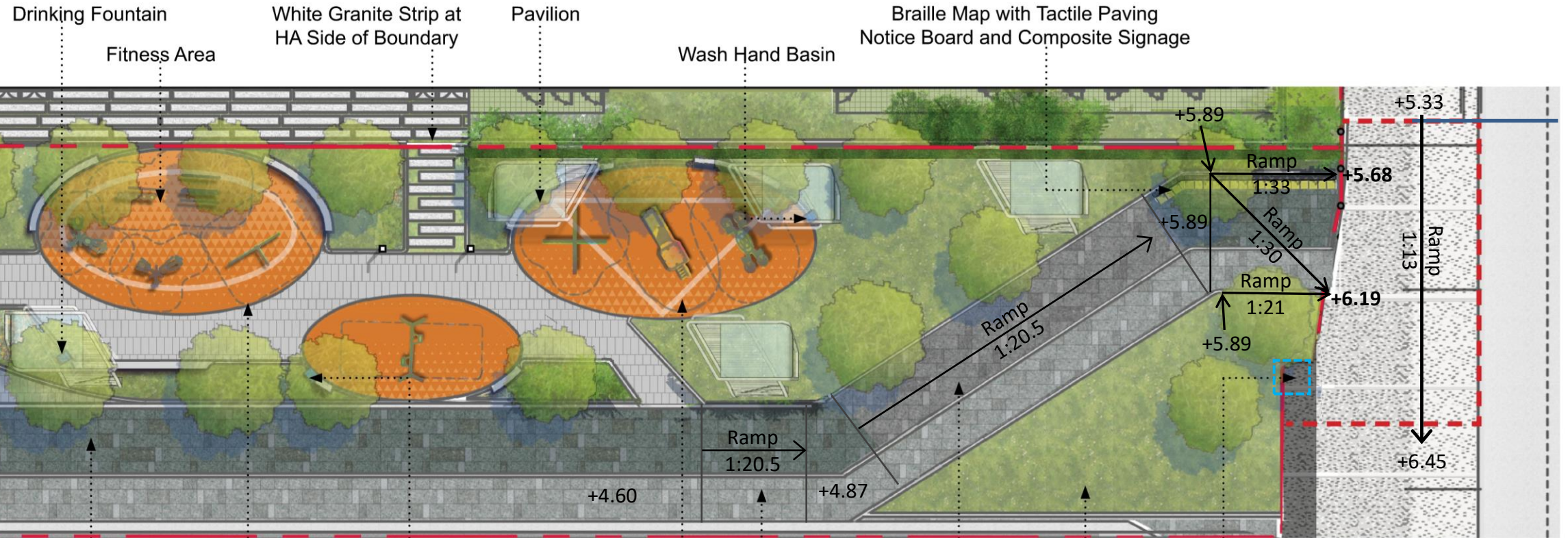
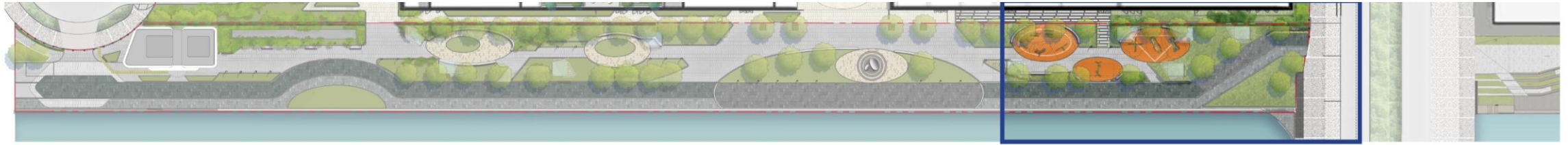
Promenade – Vibrancy Node

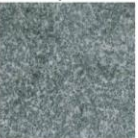

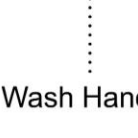



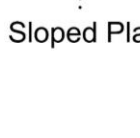
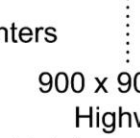


Promenade – Visibility Node



Promenade – Playscape Node

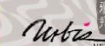
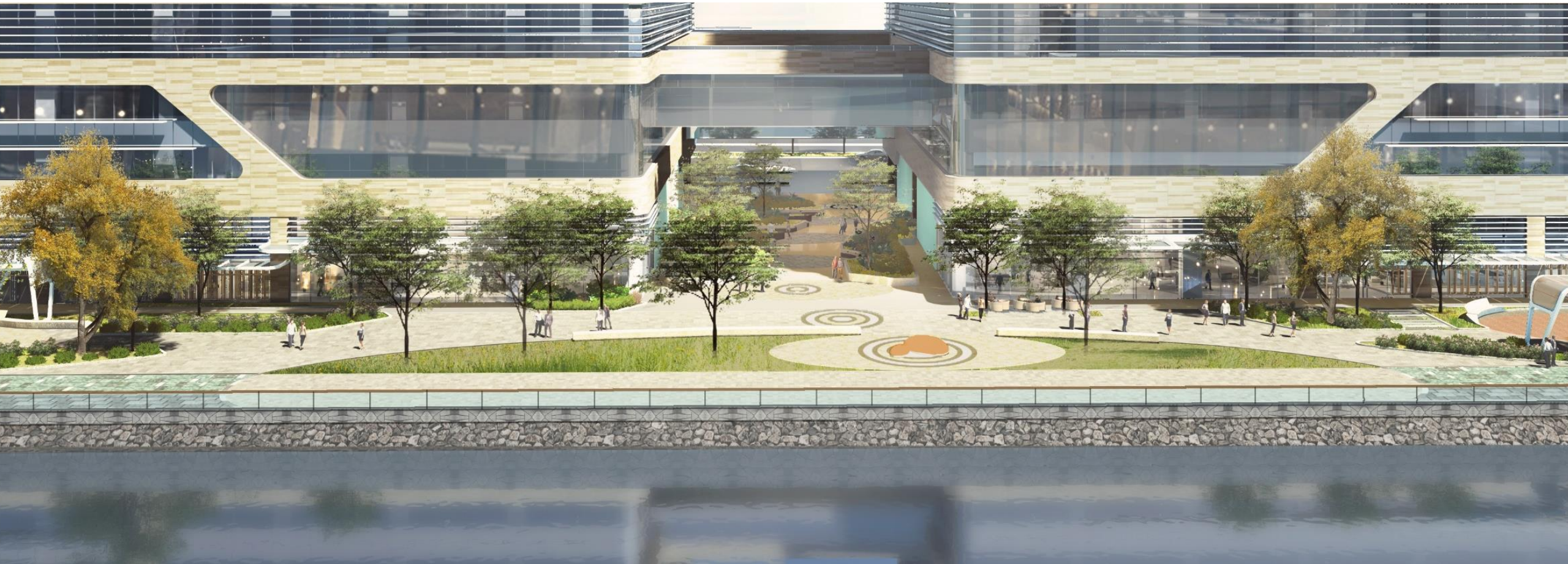


							
Grayish Green Granite	Safety Mat	Wash Hand Basin	Children's Play Area	Light Gray Granite	Dark Gray Granite	Sloped Planters	900 x 900 mm Highway Maintenance Zone

Promenade Overview



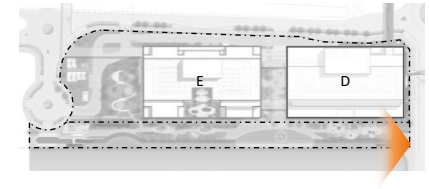
Promenade Central Plaza



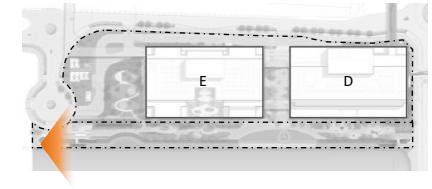
Promenade Central Plaza



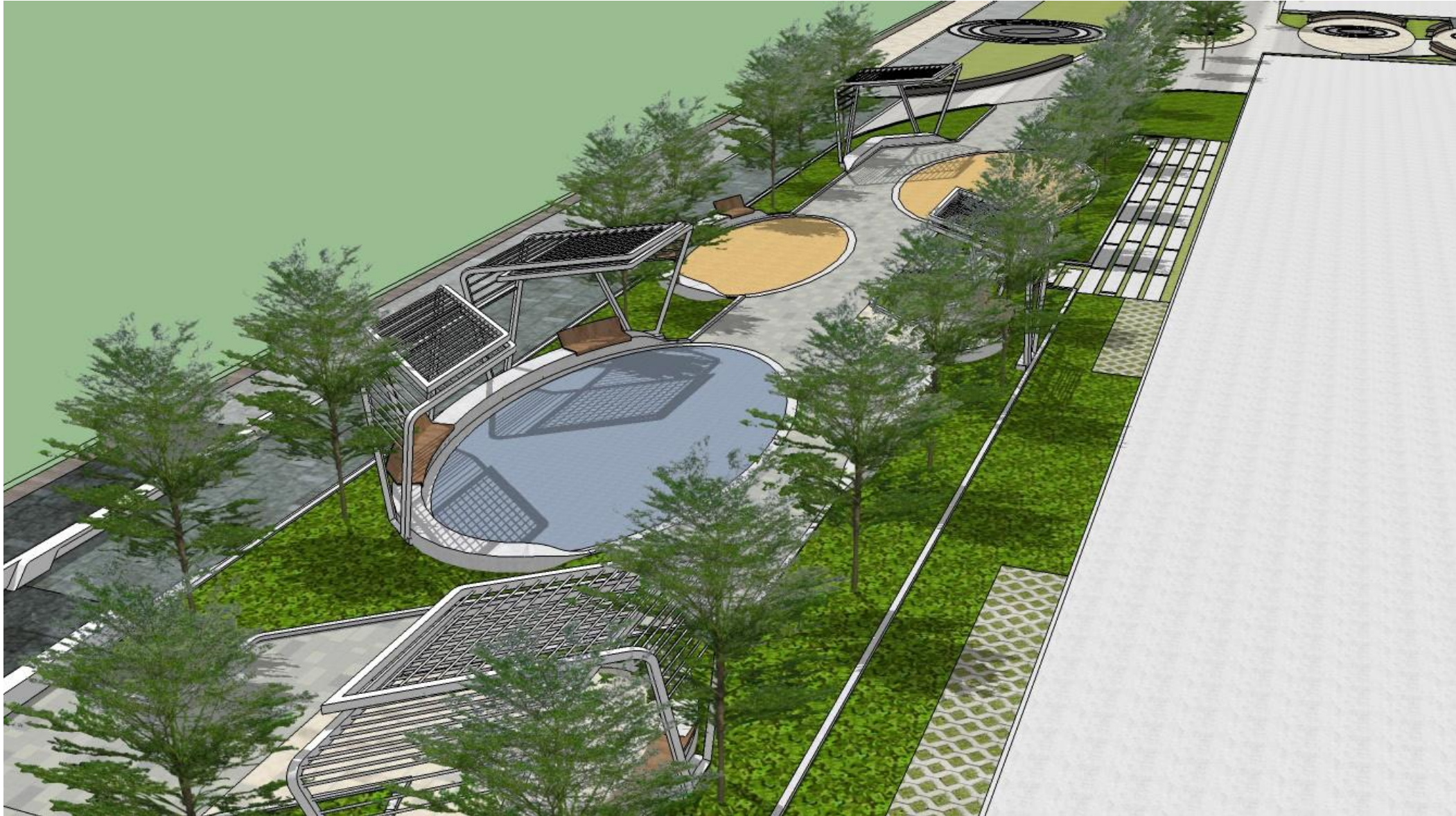
Promenade East Entrance



Promenade West Entrance



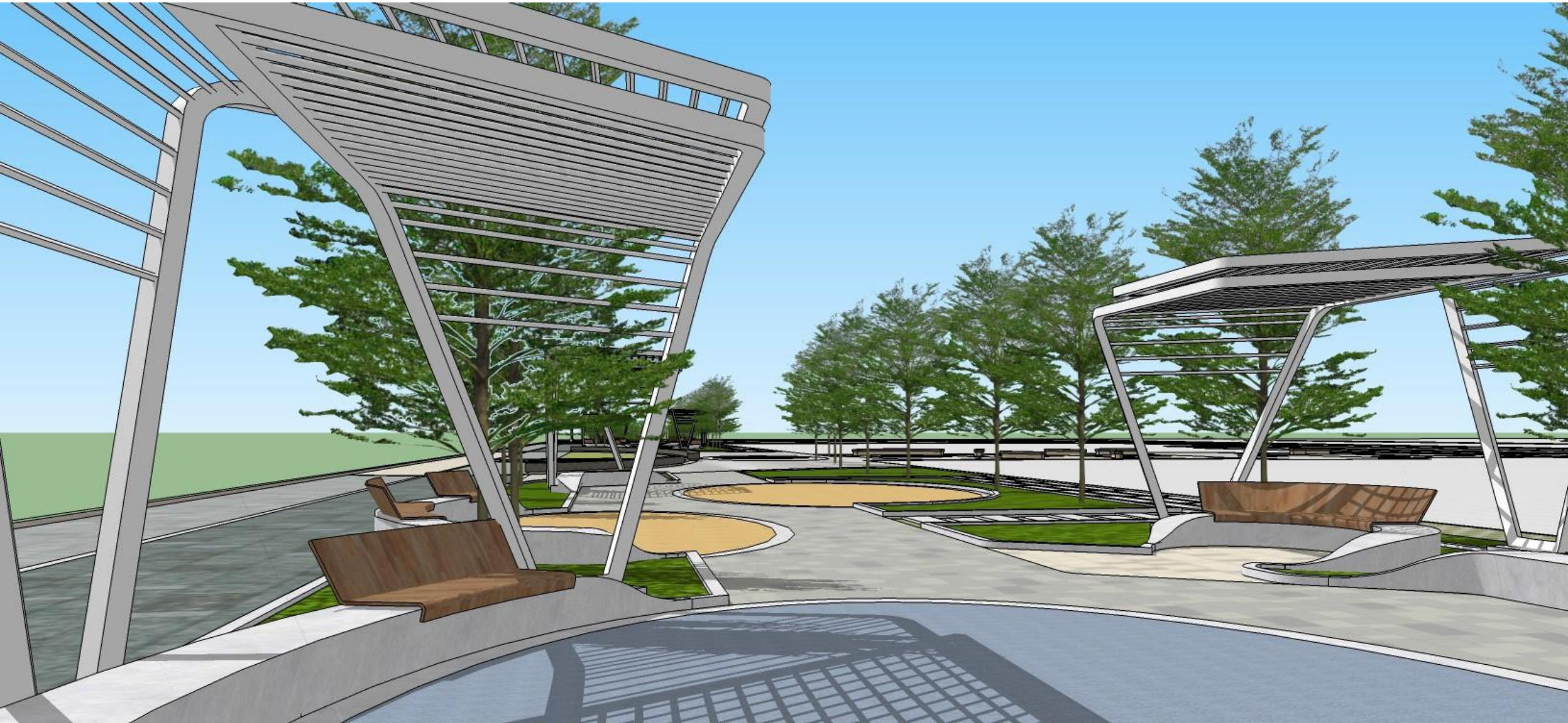
Promenade – Pavilion & Seating Area



Promenade – Pavilion & Seating Area



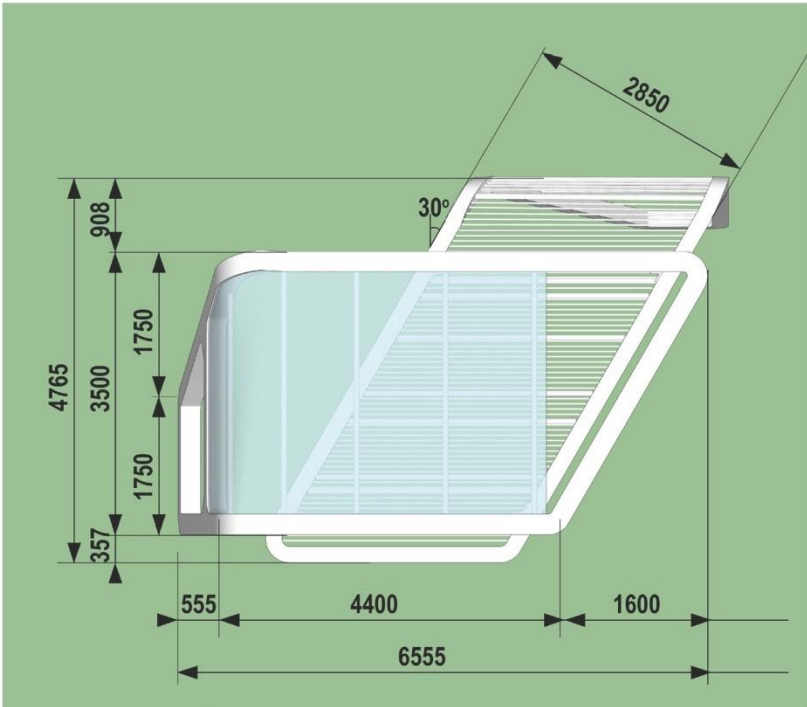
Promenade – Pavilion & Seating Area



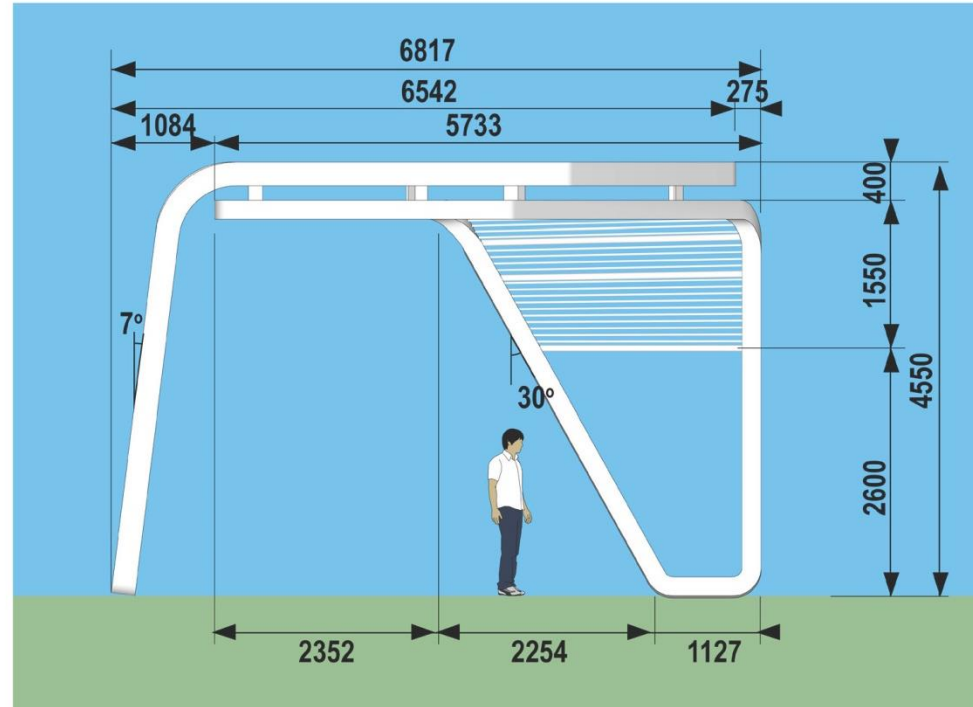
Promenade – Pavilion & Seating Area



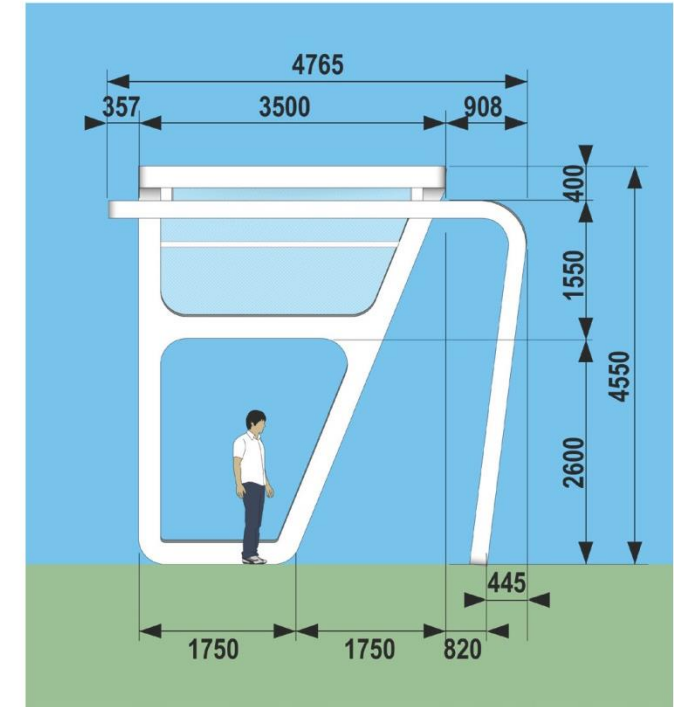
Plan



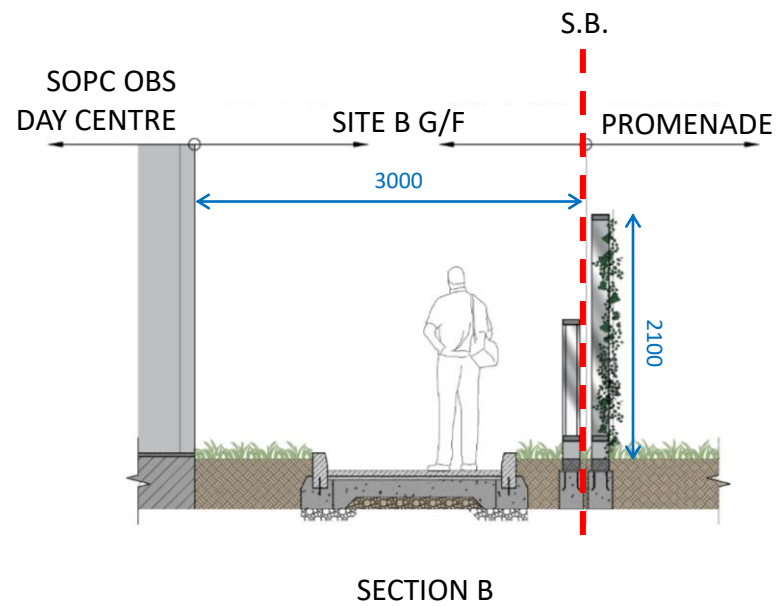
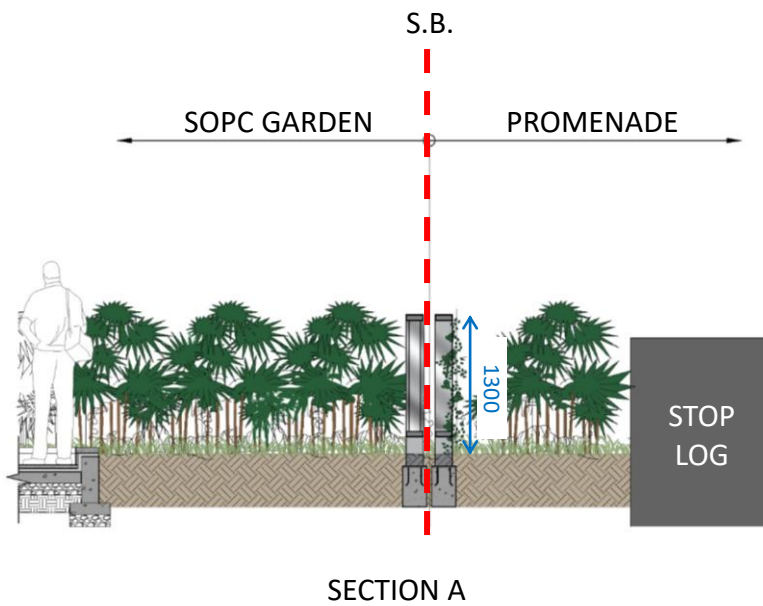
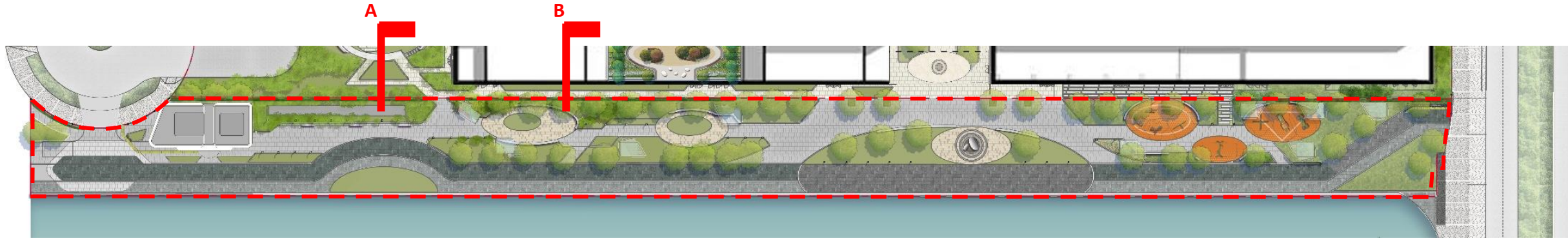
Elevation 1



Elevation 2

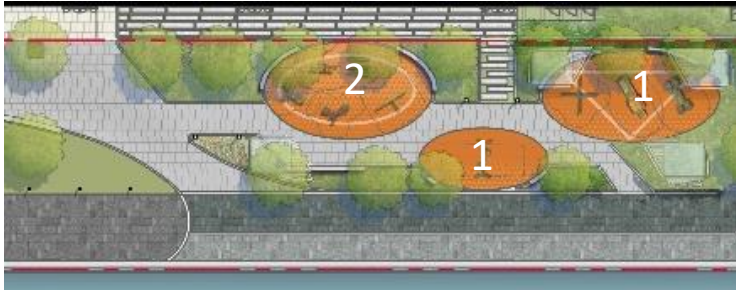


Promenade – Vertical Greening Design Concept

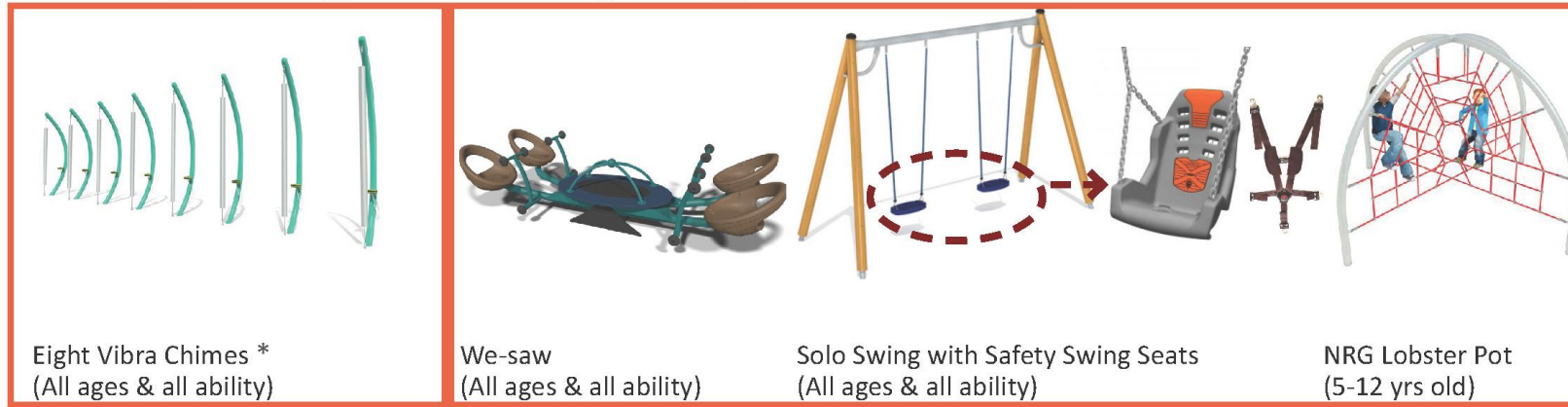


Reference Image

Promenade – Children Play & Fitness Area – Theme: All into Geometric



1 The Rectangular - Playground The Triangle - Playground



Eight Vibra Chimes *
(All ages & all ability)

We-saw
(All ages & all ability)

Solo Swing with Safety Swing Seats
(All ages & all ability)

NRG Lobster Pot
(5-12 yrs old)

*Subject to further review for active children play equipment

2 The Oval - Fitness



Parallel Bars

Balance steps

Gym Tibas

Gym Flexo

Assisted Row Push-up

For reference only and subject to future main contractor's proposal



Promenade Play & Fitness Area – Theme: All into Geometric



Parallel Bars

- Whole body balance
- Suitable for physical therapy
- Suitable for Elderly, adult & teenager



Balance steps

- Whole body balance
- Suitable for physical therapy
- Suitable for Elderly, adult & teenager



Gym Tibas

- Whole body cardio
- Multi-users
- Suitable for Elderly, adult & teenager



Gym Flexo

- Whole body cardio
- Multi-users
- Suitable for Elderly, adult & teenager



Assisted Row Push-up

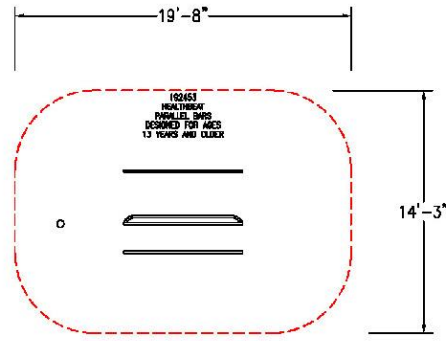
- Whole body strength
- Multi-users
- Suitable for Elderly, adult & teenager

For reference only and subject to future main contractor's proposal

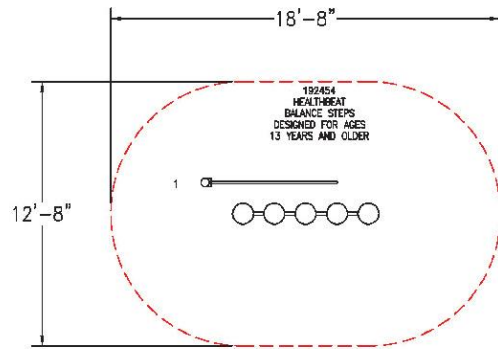


Promenade Play & Fitness Area – Theme: All into Geometric

Parallel Bars



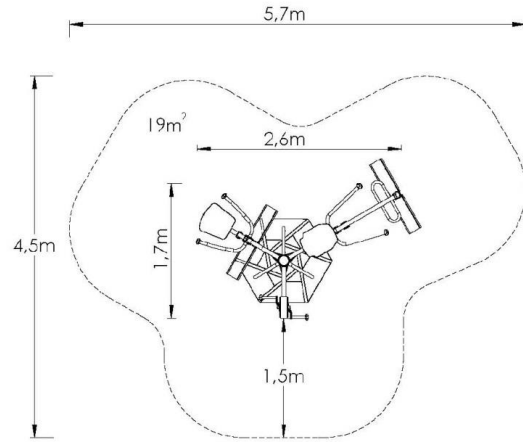
Balance steps



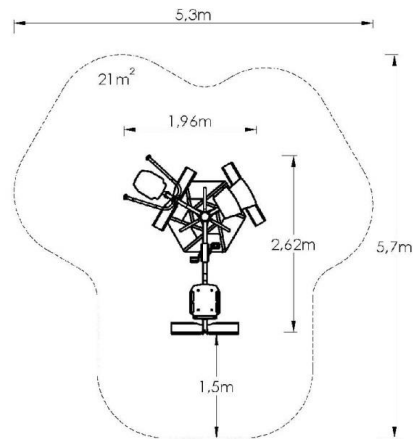
For reference only and subject to future main contractor's proposal

Promenade Play & Fitness Area – Theme: All into Geometric

Gym Tibas



Gym Flexo

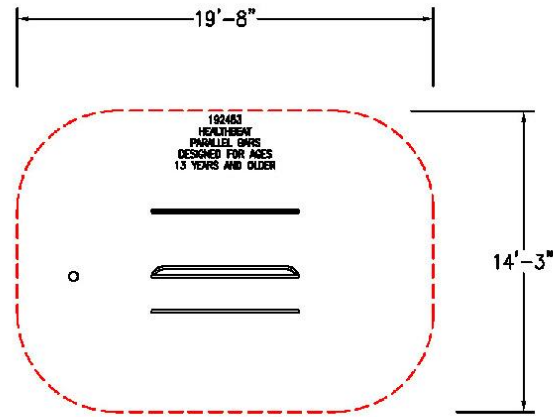


For reference only and subject to future main contractor's proposal



Promenade Play & Fitness Area – Theme: All into Geometric

Assisted Row Push-up



For reference only and subject to future main contractor's proposal



Promenade Play & Fitness Area – Theme: All into Geometric

Eight Vibra Chimes*

Plan



3D model



Reference Image



Color options



*Subject to further review for active children play equipment

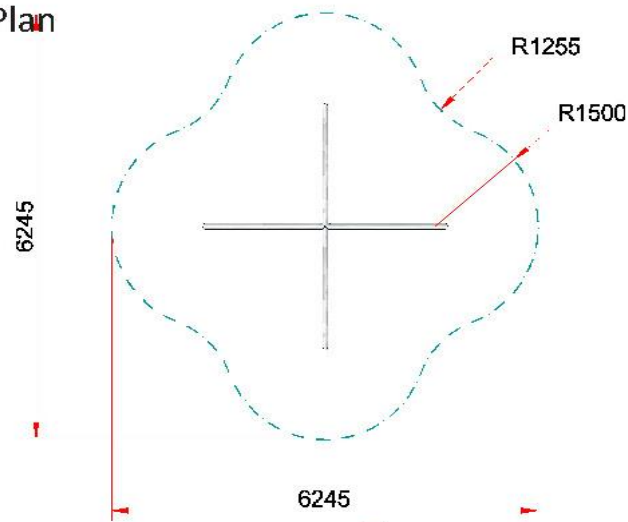
For reference only and subject to future main contractor's proposal



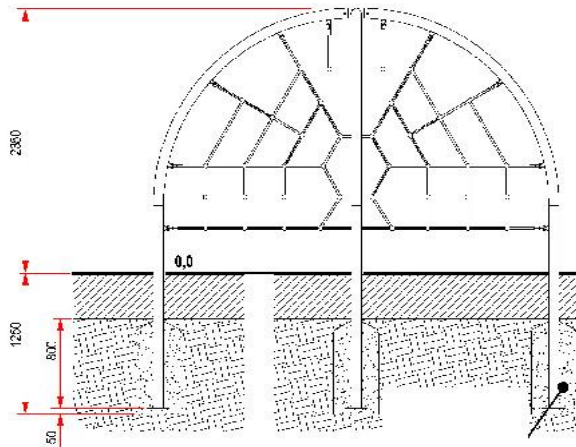
Promenade Play & Fitness Area – Theme: All into Geometric

Roller

Plan



Elevation



3D model



Reference Image



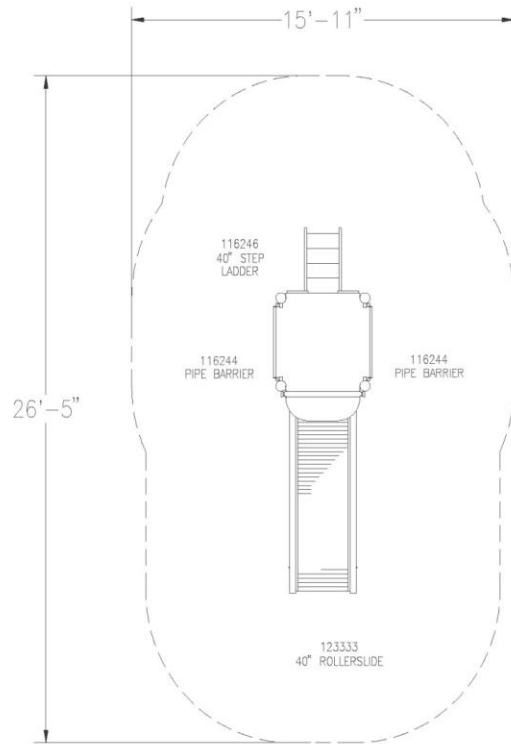
For reference only and subject to future main contractor's proposal



Promenade Play & Fitness Area – Theme: All into Geometric

We-saw

Plan



Color options



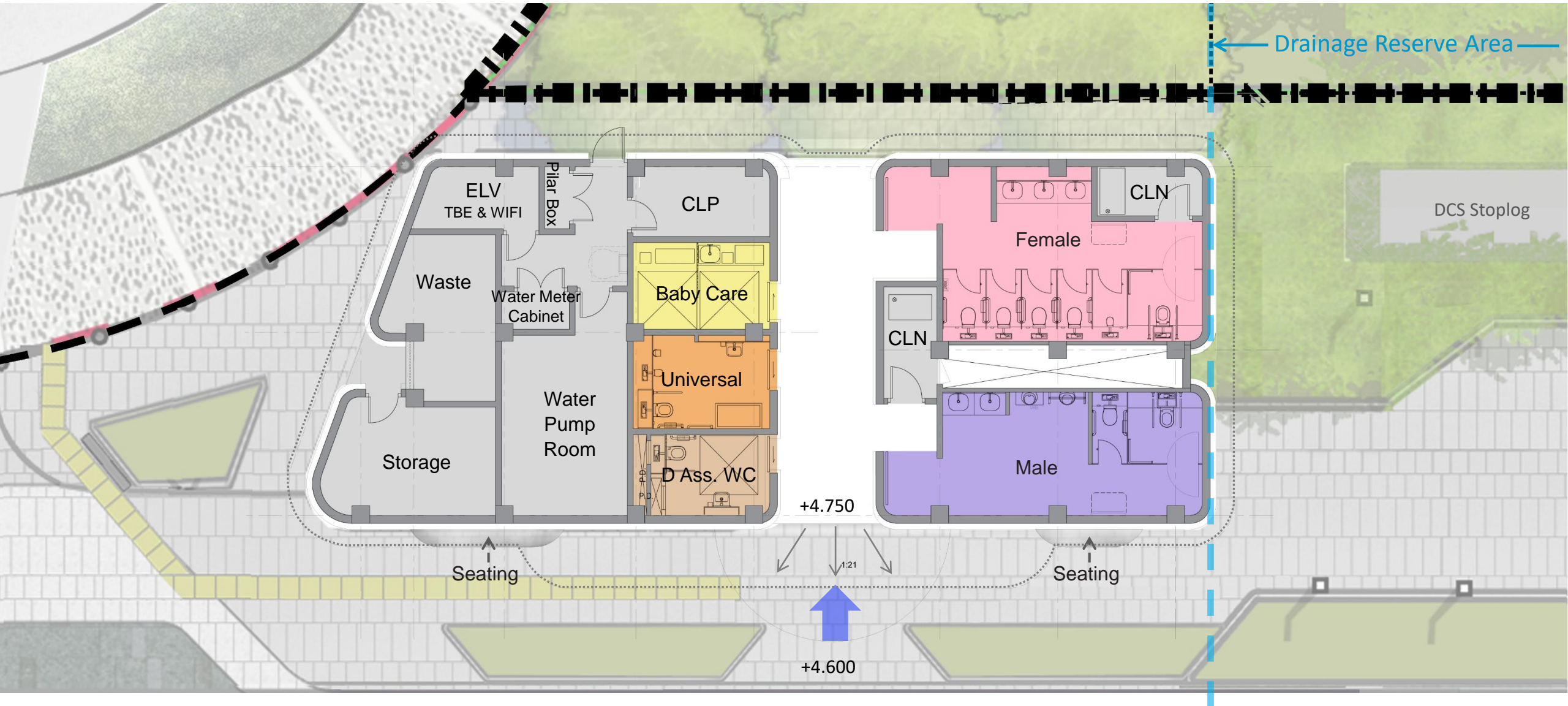
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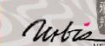
For reference only and subject to future main contractor's proposal



Promenade – Service Block



Promenade – Service Block



Promenade – User Requirement

Toilet Type & Associated Facilities Required in LCSD SoA

Toilet Type & Associated Facilities	No. of Unit	Area Req. (m ²)	No. of Wash Basins			No. of Urinals		No. of WC			Remarks
			Standard	Disable	Children	Standard	Disable + Children	Standard	Disable + Eldly	Children	
Male	1	As appropriate	1	-	1	1	1	1	1	-	Larger toilet compartment for Disable + Eldly refer to Type B
Female	1	As appropriate	2	-	1	-	-	4	1	1	Larger toilet compartment for Disable + Eldly refer to Type B
Accessible	1	As appropriate	-	1	-	-	-	-	1	-	BFA
Universal	1	As appropriate	-	1	-	-	-	-	1	1	Type E Pedestal type W.C.
Cleaner's Storage	2	5	-	-	-	-	-	-	-	-	Inside male toilet and female toilet respectively
Baby Care Room	1	7.5	1	-	-	-	-	-	-	-	
General Store Room	1	10	-	-	-	-	-	-	-	-	
Waste Collection Chamber	1	10	-	-	-	-	-	-	-	-	
Total	9	-	4	2	2	1	1	5	4	2	
			8			2		11			

MEP Prelim Provision

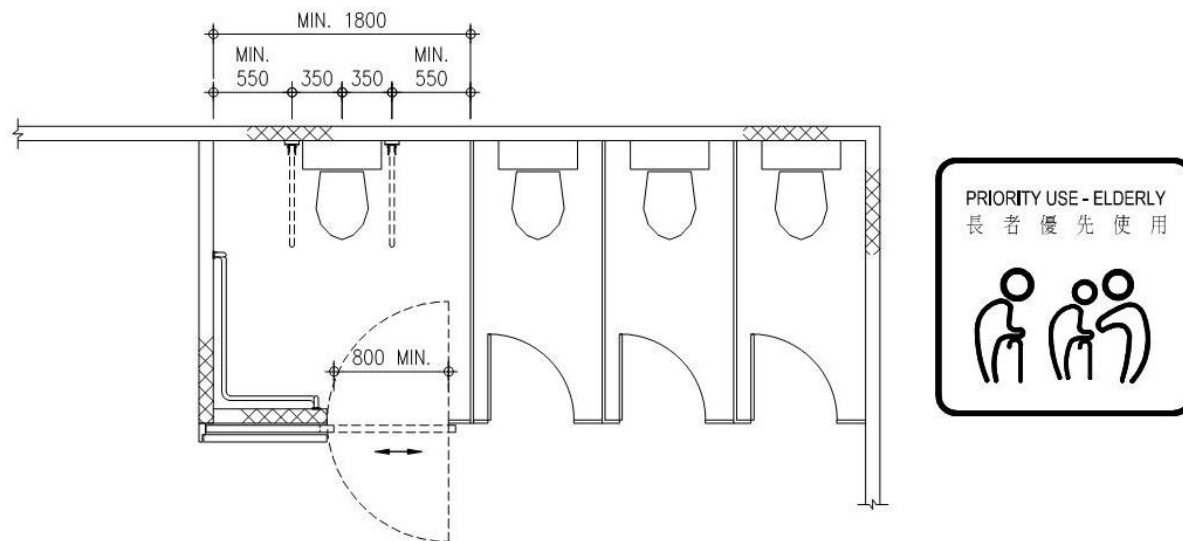
MEP Rooms		No. of Unit	Area Req. (m ²)	Clear Headroom (m)	Proposed Location
Electrical System	CLP Meter Kiosk	1	4m (L) x 1.2m (W)	2.5m	Adjacent Toilet Block
	Pillar Box	1	1.6m (L) x 0.8m (W)	1.5m	Evenly Distribution by Zoning
	Underground Cable Draw Pit	1	0.8m (L) x 0.8m (W) x 0.8m (D)	N/A	-
	ELV Room	1	3m (L) x 2m (W)	3.5m	Adjacent Toilet Block
Plumbing System	Water Meter Cabinet	1	2m (L) x 2m (W) x 0.8m (D)	N/A	Adjacent Toilet Block
	Water Pump Room	1	5m (L) x 3m (W)	3.5m	Adjacent Toilet Block
	Flushing Water Tank (Fibreglass)	1	250L water tank	N/A	Roof of Toilet Block
	Cleansing Water Tank (Fibreglass)	1	250L water tank	N/A	Roof of Toilet Block

Promenade – User Requirement

Design Guidelines for Universal Toilets in ArchSD Projects

TYPE B: ELDERLY FRIENDLY TOILET COMPARTMENT-2

- COMPARTMENT WITH SPACE PROVIDED ON BOTH SIDES OF THE WC, THE ELDERLY CAN BE ASSISTED ON EITHER SIDE OR BOTH SIDES OF THE WC.
- FOR USE BY THE ELDERLY WITH OR WITHOUT ACCOMPANYING HELPER(S).



NOTE: LAYOUT AND SIGNAGE DESIGN FOR REFERENCE ONLY

LEGEND ALL DIMENSIONS ARE IN mm.

- | | |
|--|--|
| <ul style="list-style-type: none"> - POWER OPERATED SLIDING DOOR IS PREFERRED OVER SWING DOOR - FOR SWING DOORS, OUT-SWINGING DOOR IS PREFERRED OVER IN-SWINGING DOOR - IF IN-SWINGING DOOR IS REQUIRED DUE TO SITE CONSTRAINTS, DOOR HARDWARE (INCLUDING LOCKS AND HINGE) SHOULD ALLOW READILY REMOVAL/ OUT-SWINGING OF THE DOOR IN CASE OF EMERGENCY. | <ul style="list-style-type: none"> - HORIZONTAL GRAB RAIL, DIA. 32-40 AT 725-750 H. - FOLDABLE GRAB RAIL, 725-750 H. - VERTICAL GRAB RAIL, DIA.32-40 & L>600 |
|--|--|

LCSD SoA

Male Toilet

- (a) Male toilet with pedestal type cubicles and urinals including larger elderly friendly cubicles (Type B design of Design Guidelines for Universal Toilets in ArchSD Projects) and urinal

Female Toilet

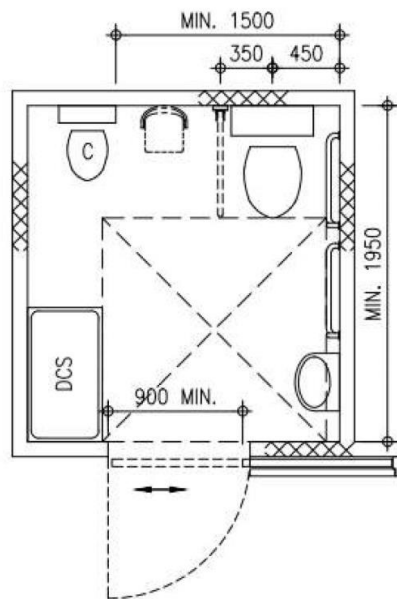
- (a) Same provision as in male section except that urinal bowls

Promenade – User Requirement

Design Guidelines for Universal Toilets in ArchSD Projects

TYPE E: ACCESSIBLE ELDERLY AND FAMILY FRIENDLY TOILET-1

- ACCESSIBLE TOILET WITH DIAPER CHANGING STATION, BABY SAFETY SEAT AND CHILDREN WC.
- FOR USE BY THE ELDERLY WITH OR WITHOUT ACCOMPANYING HELPER(S), PERSONS WITH A DISABILITY, PERSONS WITH DIFFERENT SEXUAL ORIENTATIONS, FAMILY, CHILDREN, BABY CARE AND WHEELCHAIR USERS WHO NEED TO TAKE CARE OF BABIES OR CHILDREN.



LEGEND ALL DIMENSIONS ARE IN mm.

 POWER OPERATED SLIDING DOOR IS PREFERRED OVER SWING DOOR
 SWING DOOR SHOULD BE OPENABLE OUTWARD

 VERTICAL GRAB RAIL, DIA.32-40 & L>=600
 HORIZONTAL GRAB RAIL, DIA. 32-40 AT 725-750 H.

 FLAP-TYPE BABY SAFETY SEAT
 FOLDABLE GRAB RAIL, 725-750 H.


 DIAPER CHANGING STATION MIN.900x500 AT 680-750 FROM F.F.L.

 WASH BASIN WITH NOTCHES AT BASIN COUNTER EDGE

 CHILDREN FRIENDLY WASH BASIN

 1500 X 1500 WHEELCHAIR MANOEUVRING SPACE

 CHILDREN WC

 SMALL WASH BASIN FOR WHEELCHAIR USER

 FLM FULL LENGTH MIRROR

LCSD SoA

Universal Toilet

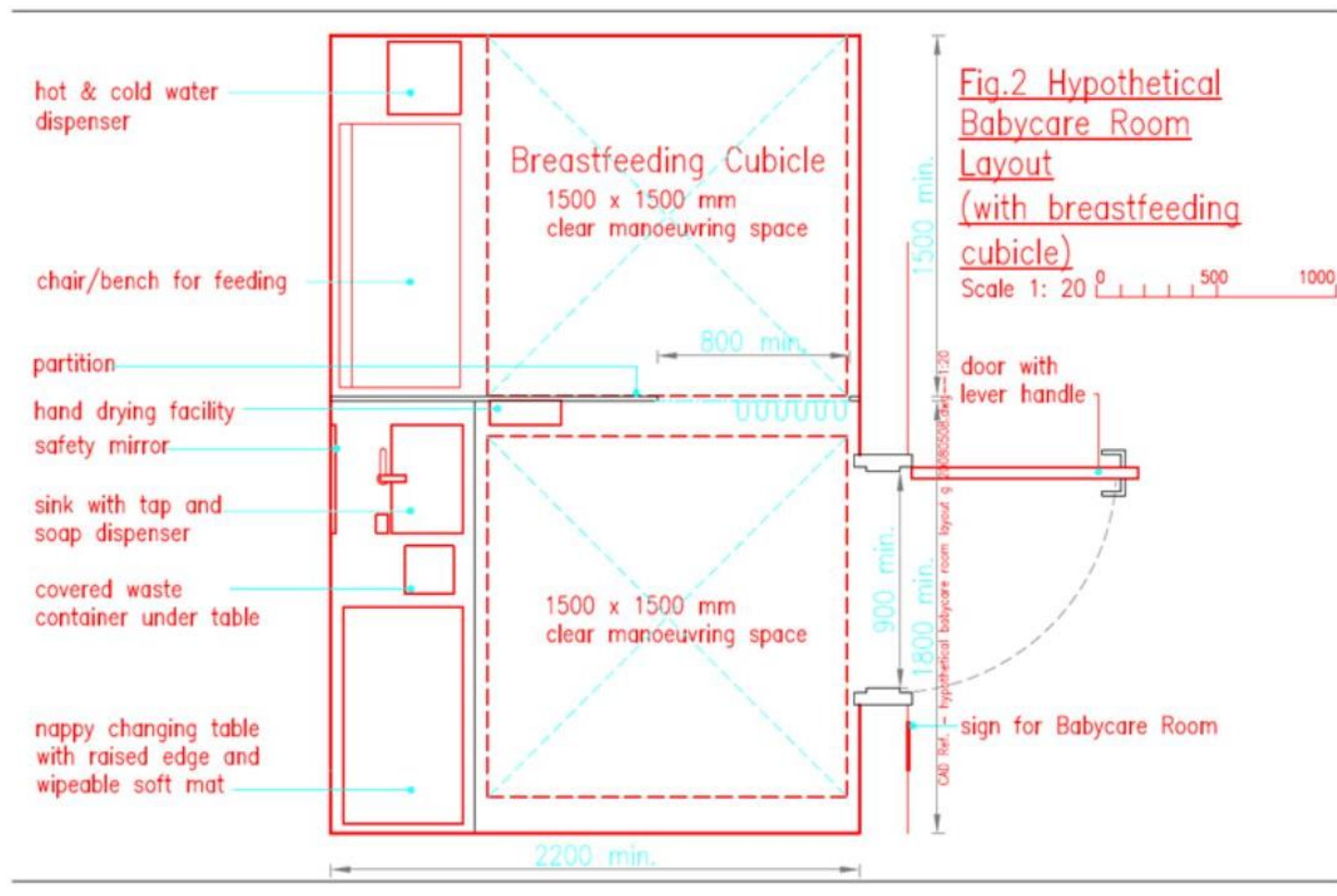
(a) Design of the universal toilet shall follow Type E design of the Design Guidelines for Universal Toilets in ArchSD Project.

Promenade – User Requirement

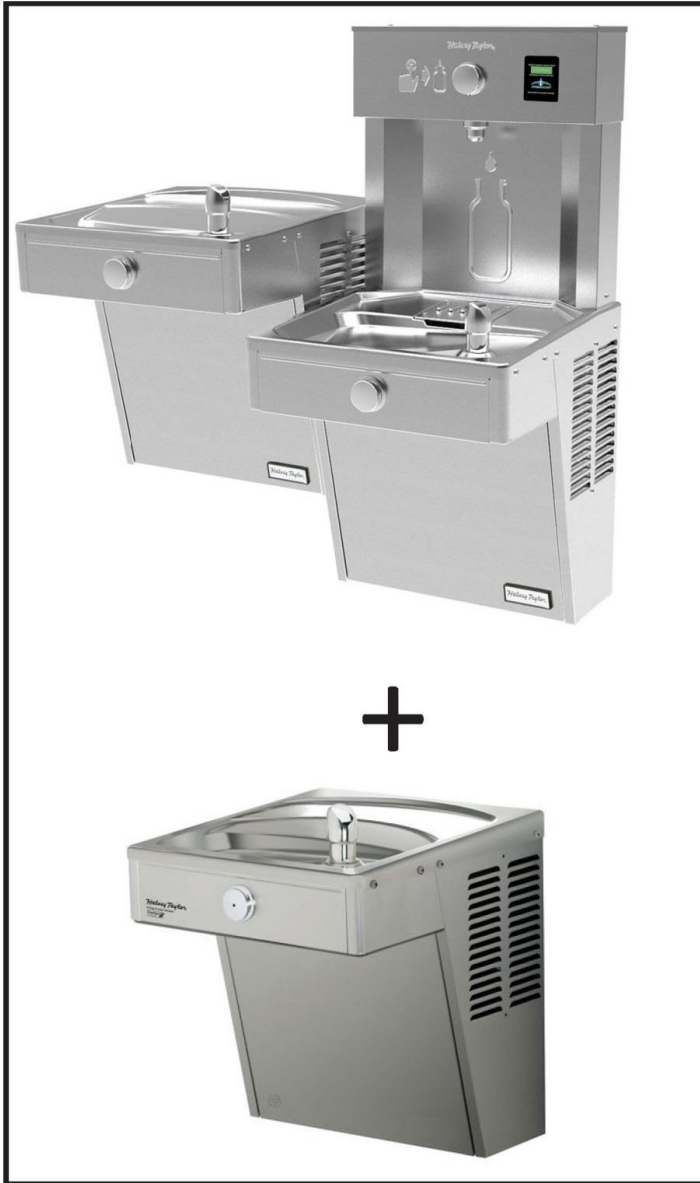
Guidance Notes for Provision of Babycare Facilities in LCSD Leisure Venues

Annex II

Plan A - Babycare Room with breastfeeding cubicle

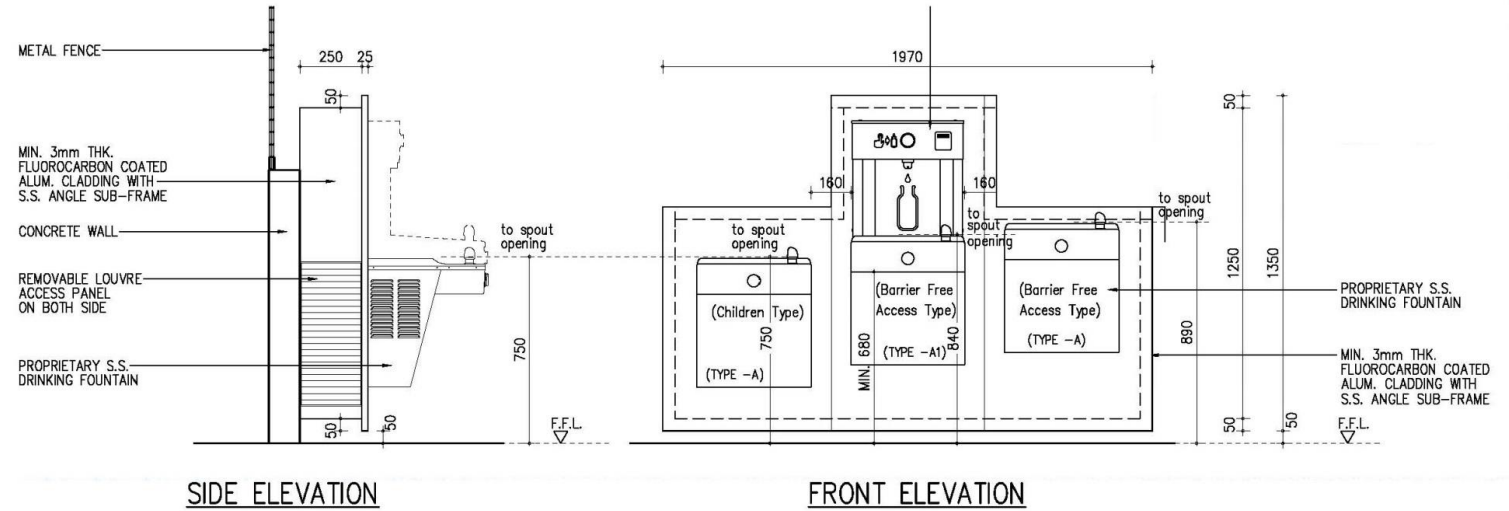
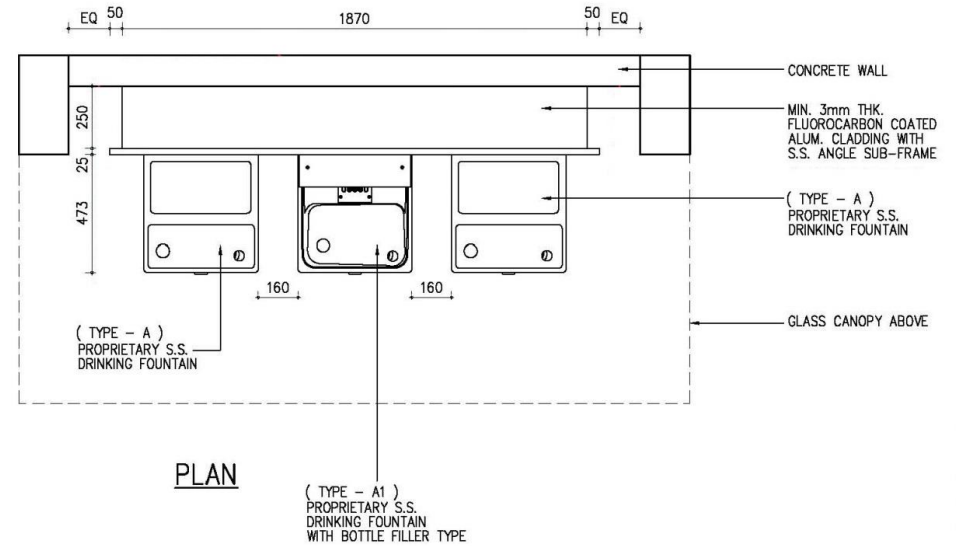


Promenade – Drinking Fountain

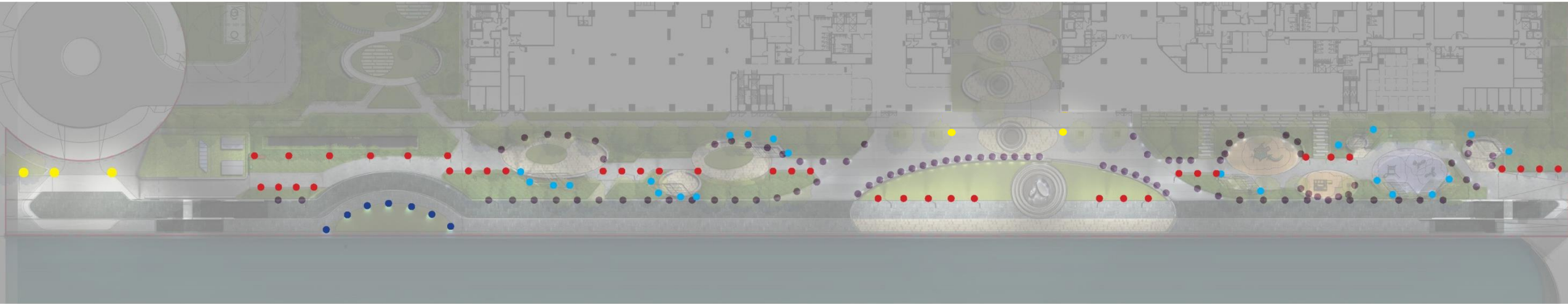


NOTES :

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY TO BE VERIFIED ON SITE AND SUBJECT TO DETAILS.
2. ALL LEVELS REFER TO GENERAL FLOOR PLAN.
3. ALL R.C.C. WORKS REFER TO STRUCTURAL DETAIL DRAWING.
4. ALL E/M WORKS REFER TO BUILDING SERVICES DETAIL DRAWING.
5. ALL FINISHING OF EXTERNAL WALL REFER TO FINISHES SCHEDULE.
6. ALL WELDED JOINTS / METAL WORKS TO BE 6mm THK. FILLET WELDING & TO GRIND SMOOTH.
7. ALL METAL WORKS & FIXED DETAILS TO BE VERIFIED AND CONFIRMED BY CONSULTANT ENGINEER.
8. CONTRACTOR MUST SUBMIT SHOP DRAWING TO THE ARCHITECT'S AND STRUCTURAL ENGINEER FOR APPROVAL BEFORE FABRICATION.



Promenade – Lighting Plan

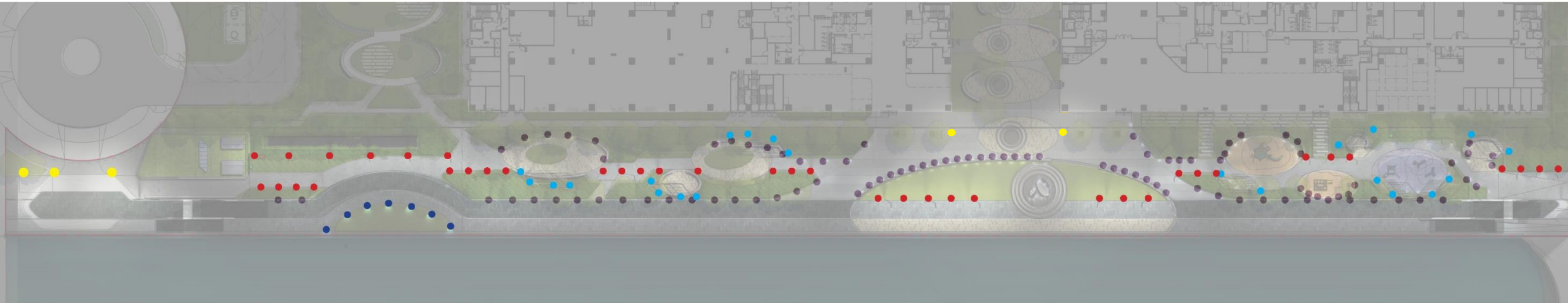


LCSD Requirements on Promenade Lighting

Area, location or task	Typical illuminance (lux)
Main pathways	10 - 15
Secondary pathways	5 - 10
Steps	50
Trees/bushes (for highlighting)	10 - 20
Focal points (large)	100
Focal points (small)	200
Children playground	30 - 50
Elderly corner	30 - 50
Promenade	5 - 15
Jogging tail	10 - 20



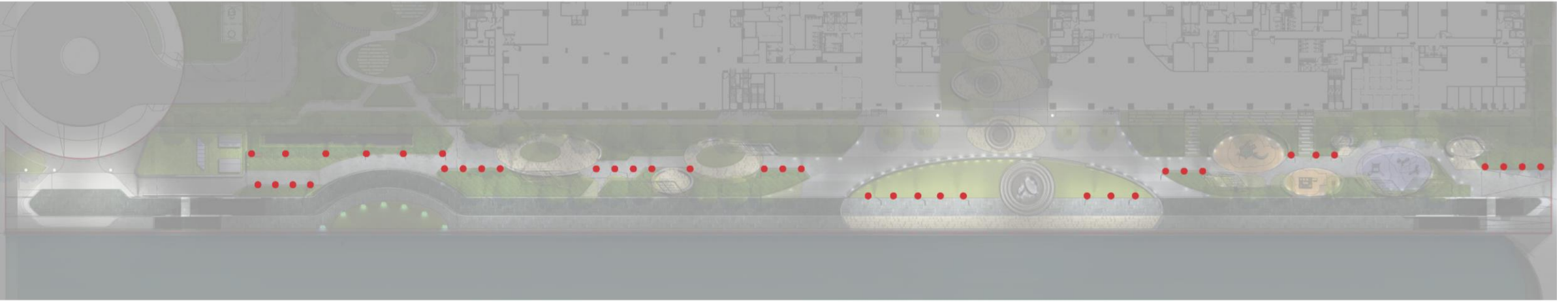
Promenade – Lighting Plan



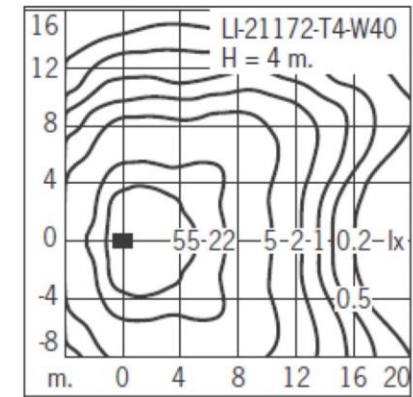
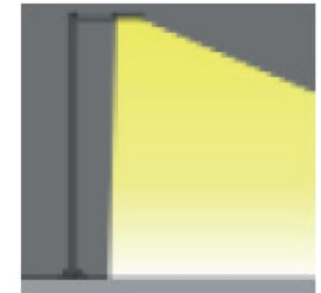
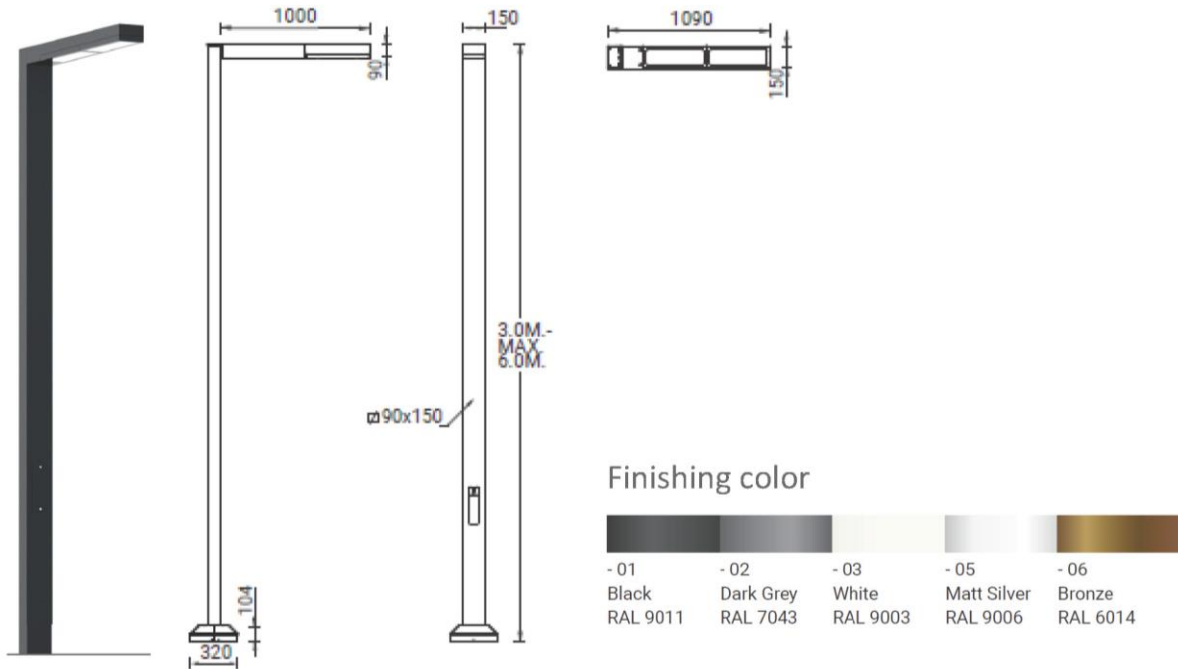
- Pole lighting
- Bollard lighting
- Recessed wall lighting (attached to planter kerb)
- Surface Downlight (attached to structure)
- Area lighting



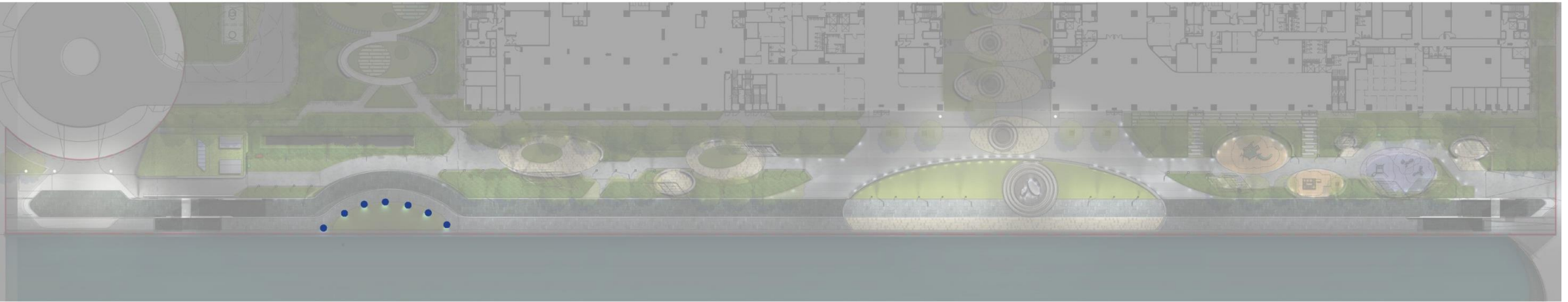
Promenade – Lighting Plan



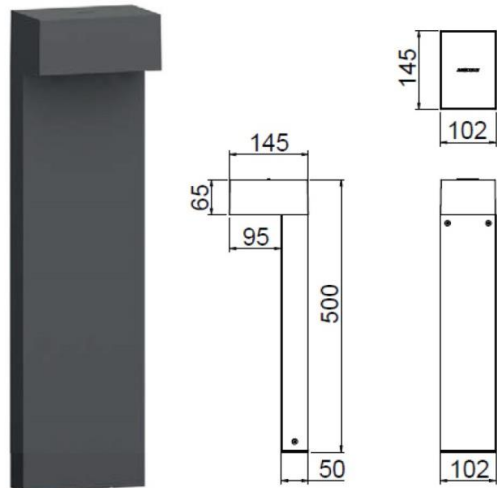
● Pole lighting



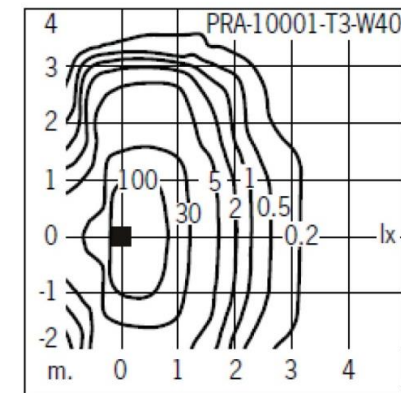
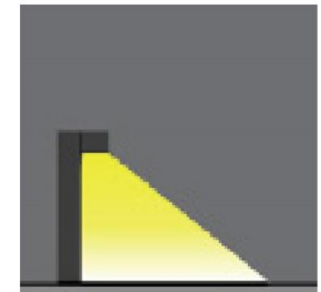
Promenade – Lighting Plan



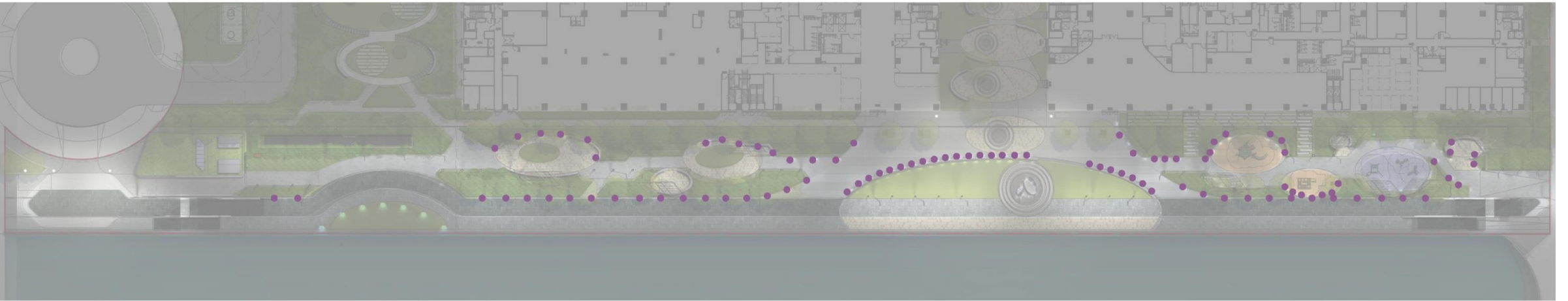
● Bollard lighting (Subject to further review & consideration for greenway user)



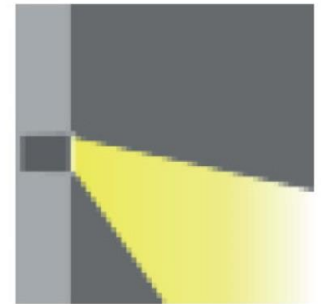
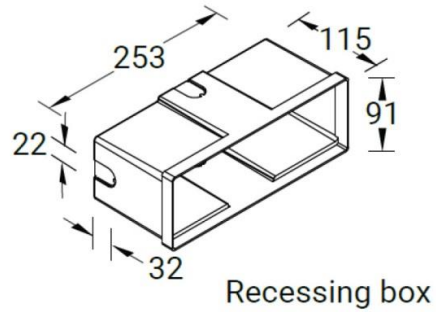
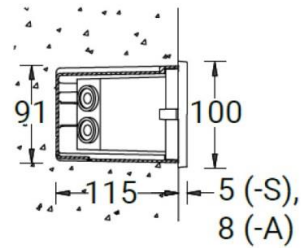
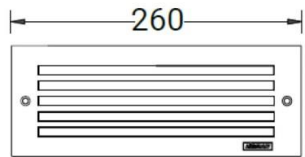
Finishing color



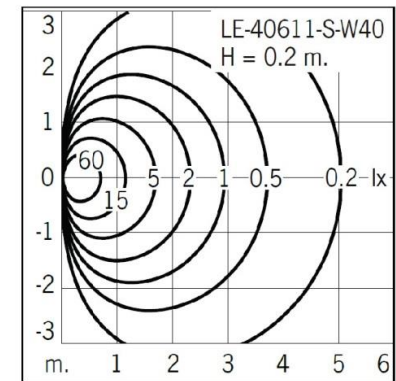
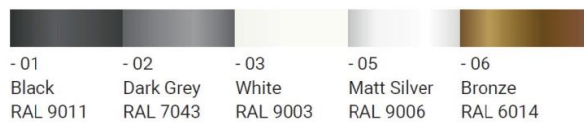
Promenade – Lighting Plan



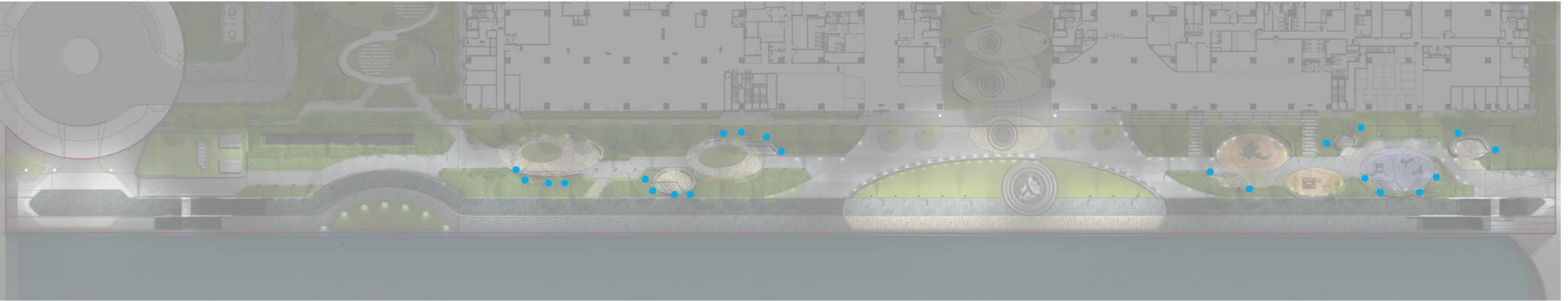
● Recessed wall lighting (attached to planter kerb)



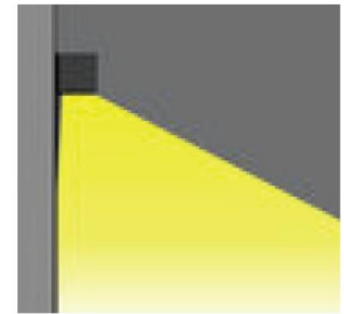
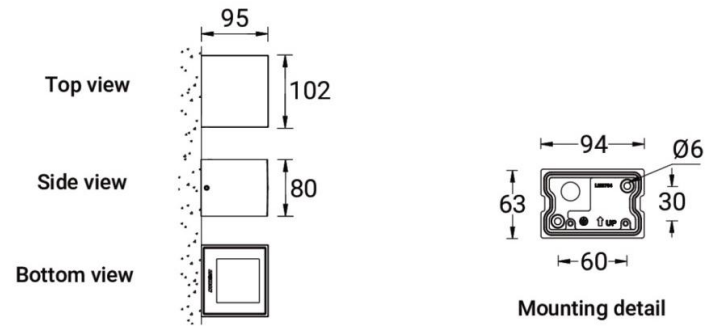
Finishing color



Promenade – Lighting Plan



● Surface Downlight (attached to structure)



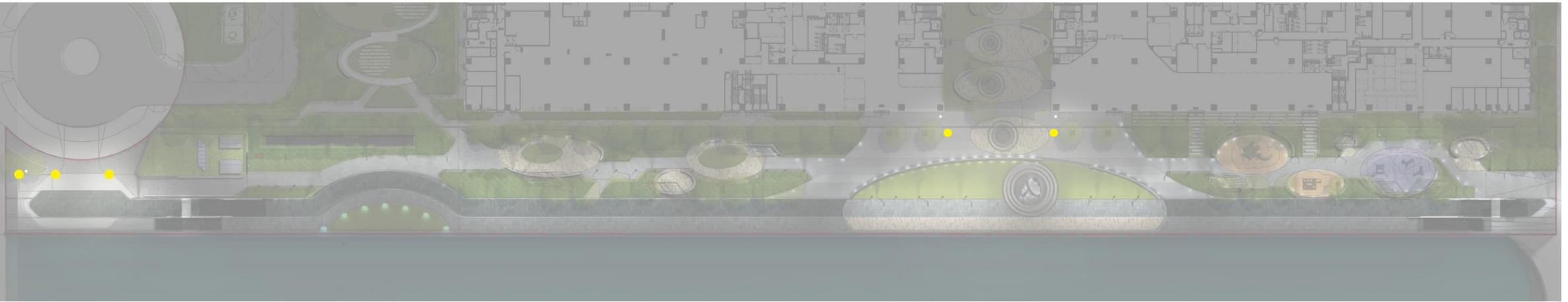
Finishing color



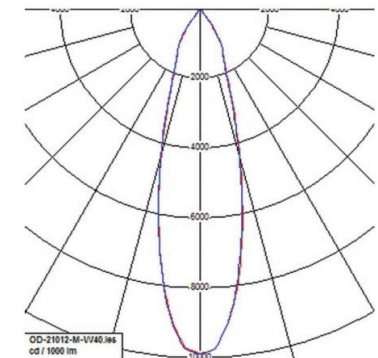
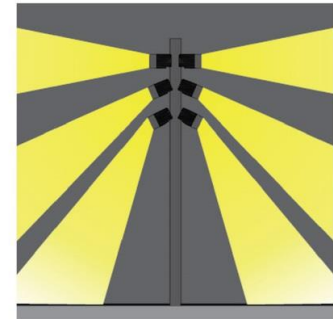
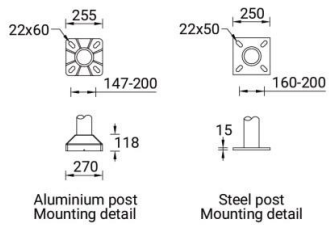
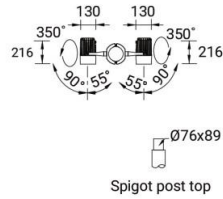
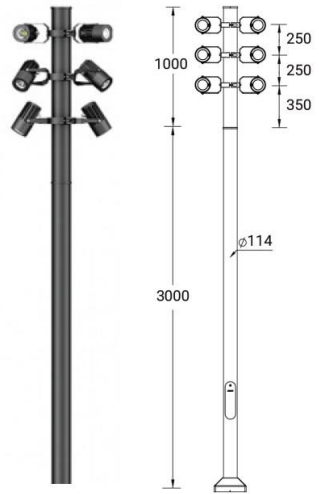
Accessories



Promenade – Lighting Plan



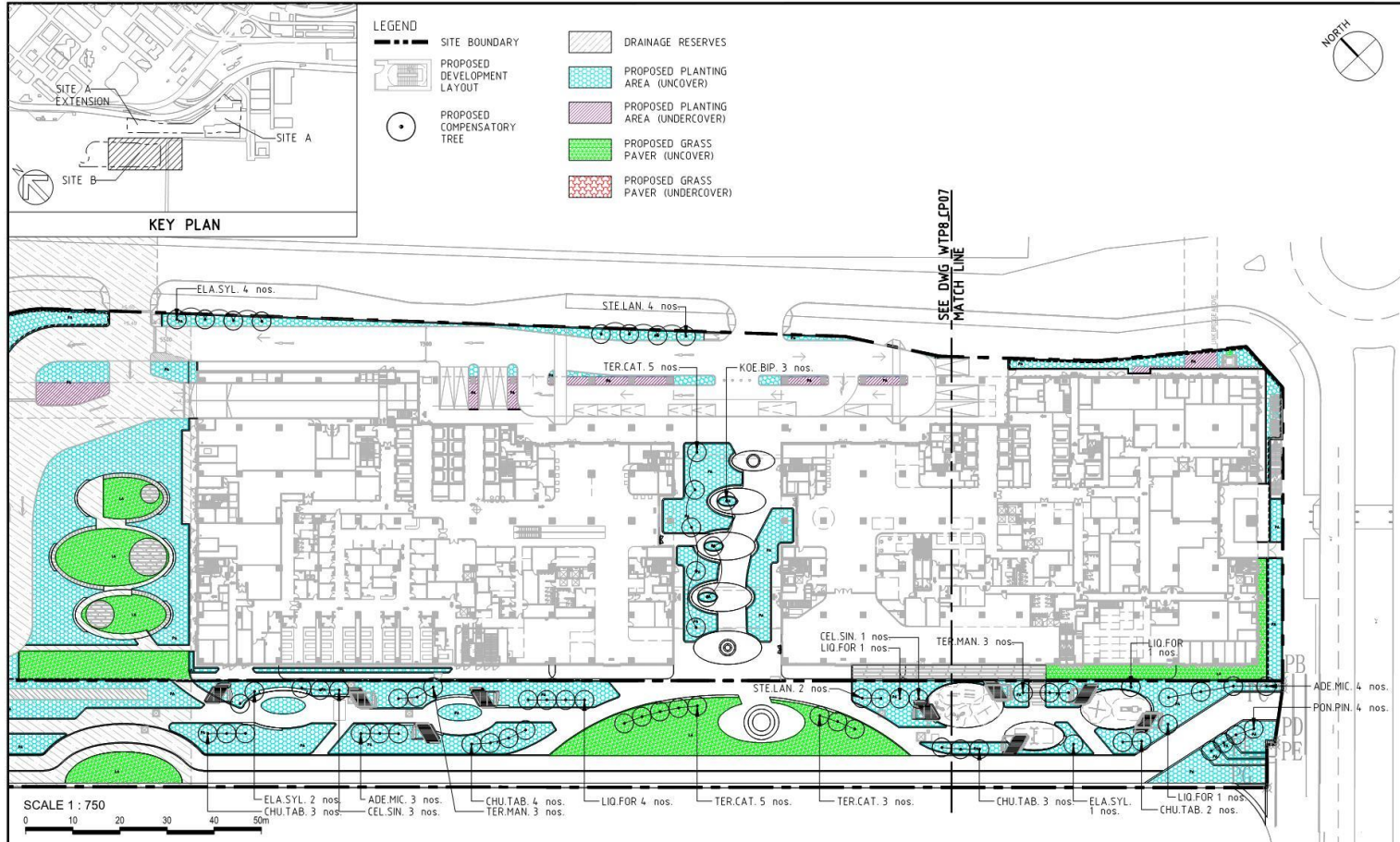
● Area lighting



Finishing color

-01	-02	-03	-05	-06
Black	Dark Grey	White	Matt Silver	Bronze
RAL 9011	RAL 7043	RAL 9003	RAL 9006	RAL 6014

Promenade Tree Planting Proposal



Amendment No.	Date	Description	Drawn by	Checked by	Approved by	Drawn by	Checked by	Approved by	Date	Job No.	WTP8
D	02-08-2020	UPDATE ARCH. LAYOUT, SITE BOUNDARY & TREE SPECIES	BT	DK	IH						
C	26-10-2018	UPDATE ARCHITECTURE LAYOUT	KL	MKK	IH						
B	11-10-2018	GENERAL REVISION	KL	MKK	IH						
A	06-02-2018	GENERAL REVISION	SAN	DC	IH						
-	27-11-2017	FIRST SUBMISSION	SAN	DC	IH						

Job Title	Drawing No.
PROPOSED NEW ACUTE HOSPITAL AT THE KAI TAK DEVELOPMENT AREA	WTP8_CP08
Drawing Title	Scale
COMPENSATORY TREE PLANTING PLAN (SITE B - G/F - SHEET 2 OF 2)	1:750@A3

AED. MIC. *Adenanthera microsperma* RED SANDALWOOD - 海虹豆, 孔雀豆



- Habit :**
- Native
 - Deciduous
- Specified size :** 5m(H) x 2.5m(S)
- Mature size :** 18m(H) x 14m(S)
- Spacing :** 4.5m(c-c)
- Feature :**
- Yellow flower (April - July)
 - Small leaves
- Selection criteria for this project :**
- Native species
 - Provide light shade
 - See through crown
 - Wind tolerant
 - Ecological value

CHU. TAB. *Chukrasia tabularis* CHITTAGONG CHICKRASSY - 麻楸



- Habit :**
- Exotic
 - Evergreen
- Specified size :** 5m(H) x 2.5m(S)
- Mature size :** 20m(H) x 15m(S)
- Spacing :** 4m(c-c)
- Feature :**
- Flower display
 - Pale yellow/cream flowers (Apr-May)
 - Interesting leave shape
 - Open crown
- Selection criteria for this project :**
- Low maintenance
 - Interesting leaves
 - Wind & pollution tolerant

LIQ. FOR. *Liquidambar formosana* SWEET GUM TREE, CHINESE SWEET GUM - 枫香



- Habit :**
- Native
 - Deciduous
- Specified size :** 5m(H) x 2.5m(S)
- Mature size :** 25m(H) x 18m(S)
- Spacing :** 5m(c-c)
- Feature :**
- Uniform tree shape
 - Slow growing
- Selection criteria for this project :**
- Native species
 - Provide good shade
 - Low maintenance
 - Wind & pollution tolerant
 - Narrow & tall habit

CEL. SIN. *Celtis sinensis* CHINESE HACKBERRY - 朴树



- Habit :**
- Native
 - Deciduous
- Specified size :** 3m(H) x 2m(S)
- Mature size :** 20m(H) x 15m(S)
- Spacing :** 4m(c-c)
- Feature :**
- Uniform tree form
 - Dense crown
 - Hardy to get in poor condition
- Selection criteria for this project :**
- Native species
 - Provide good shade
 - Low maintenance
 - Uniform appearance
 - Slow growing

ELA. SYL. *Elaeocarpus sylvestris* WOODLAND ELAEOCARPUS - 山杜英



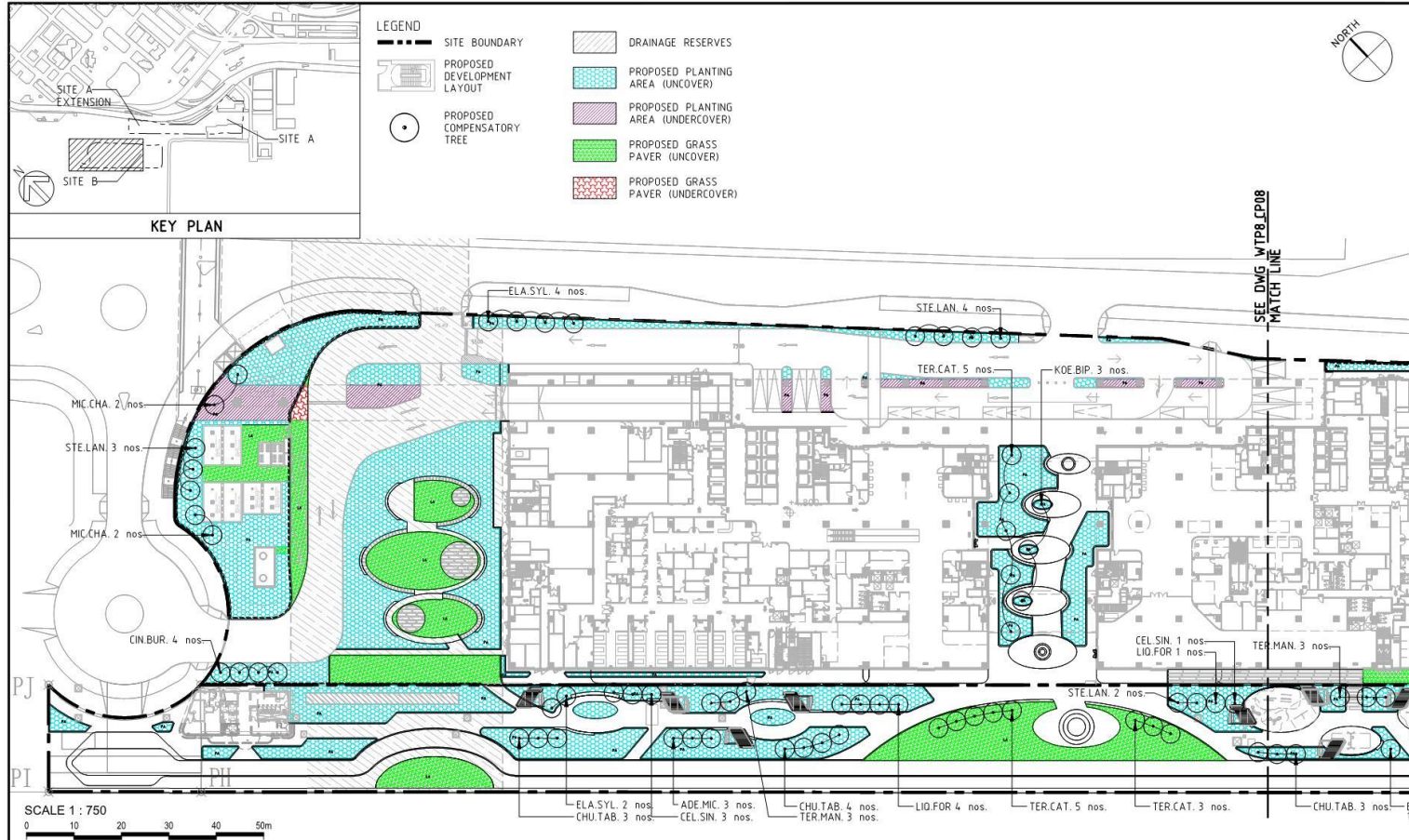
- Habit :**
- Native
 - Evergreen
- Specified size :** 5m(H) x 2m(S)
- Mature size :** 16m(H) x 11m(S)
- Spacing :** 4m(c-c)
- Feature :**
- Fruit attractive to birds
 - Old leaves turn to red color
 - Uniform tree shape
 - Dense crown
- Selection criteria for this project :**
- Native species
 - Provide good shade
 - Low maintenance
 - Interesting red leave colour
 - Wind tolerant

TER. CAT. *Terminalia catappa* INDIAN ALMOND - 榄仁树



- Habit :**
- Exotic
 - Deciduous
- Specified size :** 6m(H) x 3m(S)
- Mature size :** 20m(H) x 10m(S)
- Spacing :** 5m(c-c)
- Feature :**
- Architectural tree form (layer effect)
 - Small leaves
 - Leaves turn red in winter
 - Salt tolerant
- Selection criteria for this project :**
- Low maintenance
 - Architectural tree form
 - See through crown
 - Provide good shade all year round
 - Wind & pollution tolerant
 - Salt tolerant

Promenade Tree Planting Proposal



Amendment No.	Date	Description	Drawn by	Checked by	Approved by	Drawn by	Checked by	Approved by	Date	Job No.	WTP8
D	02-08-2020	UPDATE ARCH LAYOUT, SITE BOUNDARY & TREE SPECIES	BT	DK	IH						
C	26-10-2018	UPDATE ARCHITECTURE LAYOUT	KL	MKK	IH						
B	11-10-2018	GENERAL REVISION	KL	MKK	IH						
A	08-02-2018	GENERAL REVISION	SAN	DC	IH						
-	27-11-2017	FIRST SUBMISSION	SAN	DC	IH						

Job Title	Drawing No.
PROPOSED NEW ACUTE HOSPITAL AT THE KAI TAK DEVELOPMENT AREA	WTP8_CP07
Drawing Title	Scale
COMPENSATORY TREE PLANTING PLAN (SITE B - G/F - SHEET 1 OF 2)	1:750@A3

Planning, Urban Design, Landscape, Golf & Environmental Consultants
 WSP Limited, 11/F, 5/F, 3/F, 2/F, 1/F, 10/F, 11/F, 12/F, 13/F, 14/F, 15/F, 16/F, 17/F, 18/F, 19/F, 20/F, 21/F, 22/F, 23/F, 24/F, 25/F, 26/F, 27/F, 28/F, 29/F, 30/F, 31/F, 32/F, 33/F, 34/F, 35/F, 36/F, 37/F, 38/F, 39/F, 40/F, 41/F, 42/F, 43/F, 44/F, 45/F, 46/F, 47/F, 48/F, 49/F, 50/F, 51/F, 52/F, 53/F, 54/F, 55/F, 56/F, 57/F, 58/F, 59/F, 60/F, 61/F, 62/F, 63/F, 64/F, 65/F, 66/F, 67/F, 68/F, 69/F, 70/F, 71/F, 72/F, 73/F, 74/F, 75/F, 76/F, 77/F, 78/F, 79/F, 80/F, 81/F, 82/F, 83/F, 84/F, 85/F, 86/F, 87/F, 88/F, 89/F, 90/F, 91/F, 92/F, 93/F, 94/F, 95/F, 96/F, 97/F, 98/F, 99/F, 100/F

AED. MIC. *Adenanthera microsperma* RED SANDALWOOD - 海红豆, 孔雀豆



- Habit :**
- Native
 - Deciduous
- Specified size :** 5m(H) x 2.5m(S)
- Mature size :** 18m(H) x 14m(S)
- Spacing :** 4.5m(c.c)
- Feature :**
- Yellow flower (April - July)
 - Small leaves
- Selection criteria for this project :**
- Native species
 - Provide light shade
 - See through crown
 - Wind tolerant
 - Ecological value

CHU. TAB. *Chukrasia tabularis* CHITTAGON CHICKRASSY - 麻楝



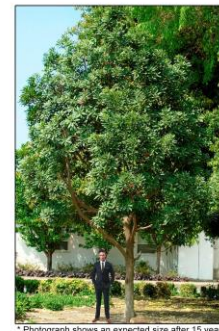
- Habit :**
- Exotic
 - Evergreen
- Specified size :** 5m(H) x 2.5m(S)
- Mature size :** 20m(H) x 15m(S)
- Spacing :** 4m(c.c)
- Feature :**
- Pale yellow/cream flowers (Apr-May)
 - Interesting leave shape
 - Open crown
- Selection criteria for this project :**
- Flower display
 - Low maintenance
 - Interesting leaves
 - Wind & pollution tolerant

CEL. SIN. *Celtis sinensis* CHINESE HACKBERRY - 朴树



- Habit :**
- Native
 - Deciduous
- Specified size :** 3m(H) x 2m(S)
- Mature size :** 20m(H) x 15m(S)
- Spacing :** 4m(c.c)
- Feature :**
- Uniform tree form
 - Dense crown
 - Hardy to get in poor condition
- Selection criteria for this project :**
- Native species
 - Provide good shade
 - Low maintenance
 - Uniform appearance
 - Slow growing

ELA. SYL. *Elaeocarpus sylvestris* WOODLAND ELAEOCARPUS - 山杜英



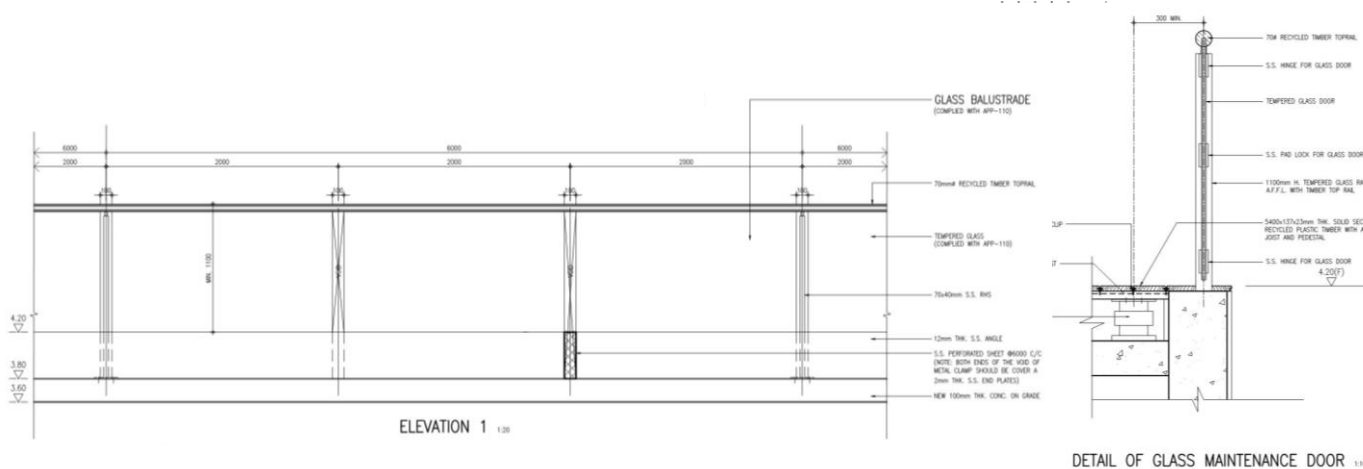
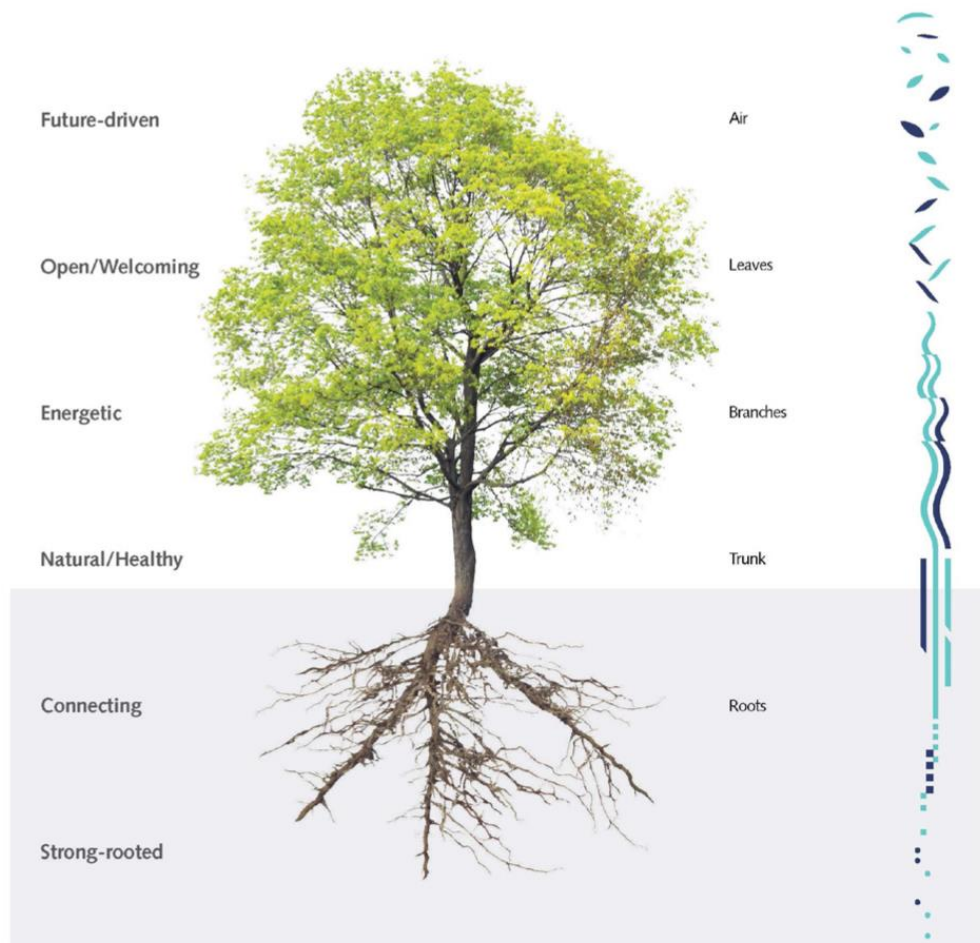
- Habit :**
- Native
 - Evergreen
- Specified size :** 5m(H) x 2m(S)
- Mature size :** 16m(H) x 11m(S)
- Spacing :** 4m(c.c)
- Feature :**
- Fruit attractive to birds
 - Old leaves turn to red color
 - Uniform tree shape
 - Dense crown
- Selection criteria for this project :**
- Native species
 - Provide good shade
 - Low maintenance
 - Interesting red leave colour
 - Wind tolerant

STE. LAN. *Sterculia lanceolata* LANCE-LEAVED STERCULIA, SCARLET STERCULIA - 假蒺藜, 七姐果

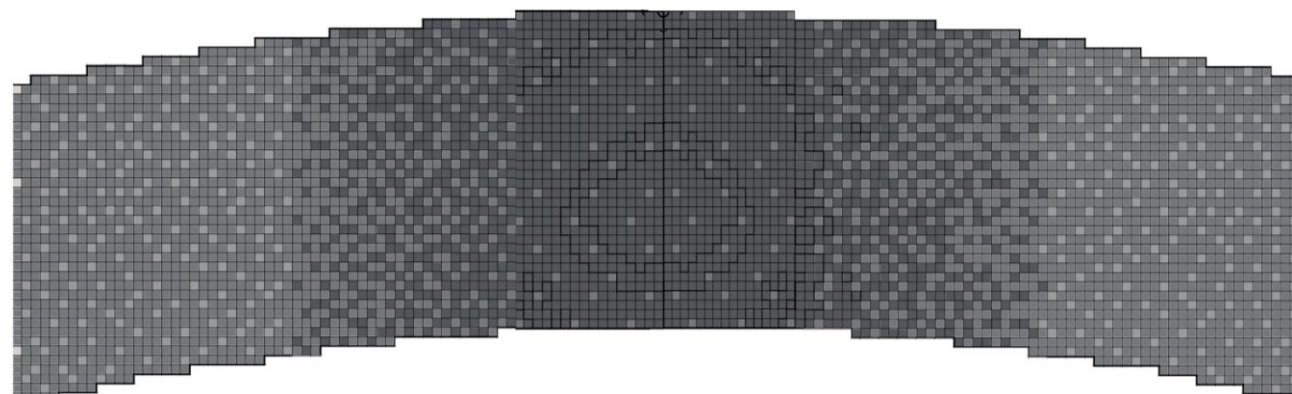


- Habit :**
- Native
 - Evergreen
- Specified size :** 6m(H) x 3m(S)
- Mature size :** 15m(H) x 8m(S)
- Spacing :** 4m(c.c)
- Feature :**
- Red flower (Apr-May)
 - Dense crown
- Selection criteria for this project :**
- Native species
 - Low maintenance
 - Provide good shade with feature flowers
 - Pollution tolerant
 - Narrow crown

Design Guidelines for Kai Tak Promenade



HKCH/ Kwun Tong Glass Balustrade



Paving at Greenway

啟德 KAI TAK

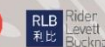


New Acute Hospital at Kai Tak Development Area

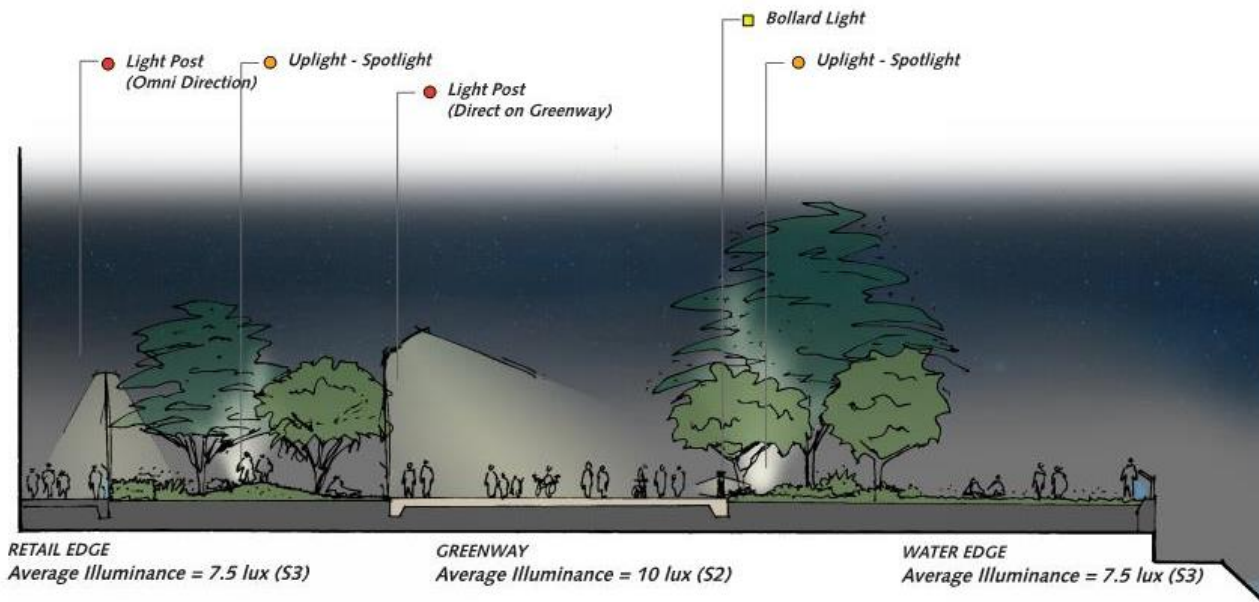
ARUP



WONG TUNG & PARTNERS LIMITED ARCHITECTS & PLANNERS



Design Guidelines for Kai Tak Promenade



LAMP POST

- Light up greenway



UP LIGHT - SPOTLIGHT

- Lighting for Trees



BOLLARD LIGHT

- At greenway to create regular rhythm along major circulation space



Fig. A-50 Recommended external lighting arrangement at Promenade

- Provide simple landscape lighting along the promenade including bollard and street lighting. Ambient lighting level for the Promenade shall be around 40 lux.

Table 2-5 Lighting Classes for Footpaths and Cycle Tracks

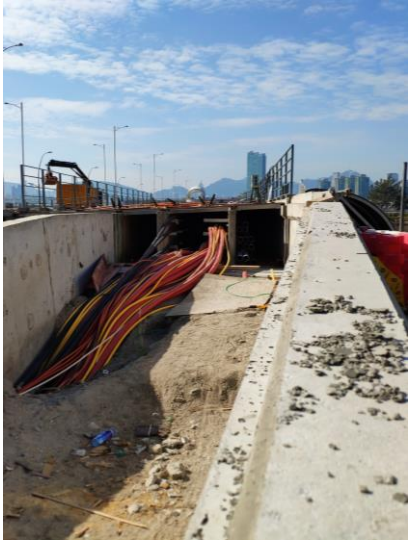
Lighting Class	Locations	Maintained Average Illuminance (lux)	Maintained Minimum Illuminance (lux)
S1	Footpaths at prestigious and crowded pedestrian areas	15.0	3.0
S2	Footpaths/cycle tracks at amenity areas where nighttime public utilization is moderate to high, e.g. places associated with amenities such as shopping precincts, footpaths/cycle tracks near train stations or town centres	10.0	2.0
S3	Footpaths/cycle tracks at amenity areas where nighttime public utilization is moderate	7.5	1.5
S4	Footpaths where nighttime public utilization is low	5.0	1.0
S5	Footpaths where nighttime public utilization is very low	3.0	0.6

*Average Illuminance based on Table 2-5 of Public Lighting Design Manual issued by Highways Department

ANNEX A / RUNWAY PRECINCT PROMENADE



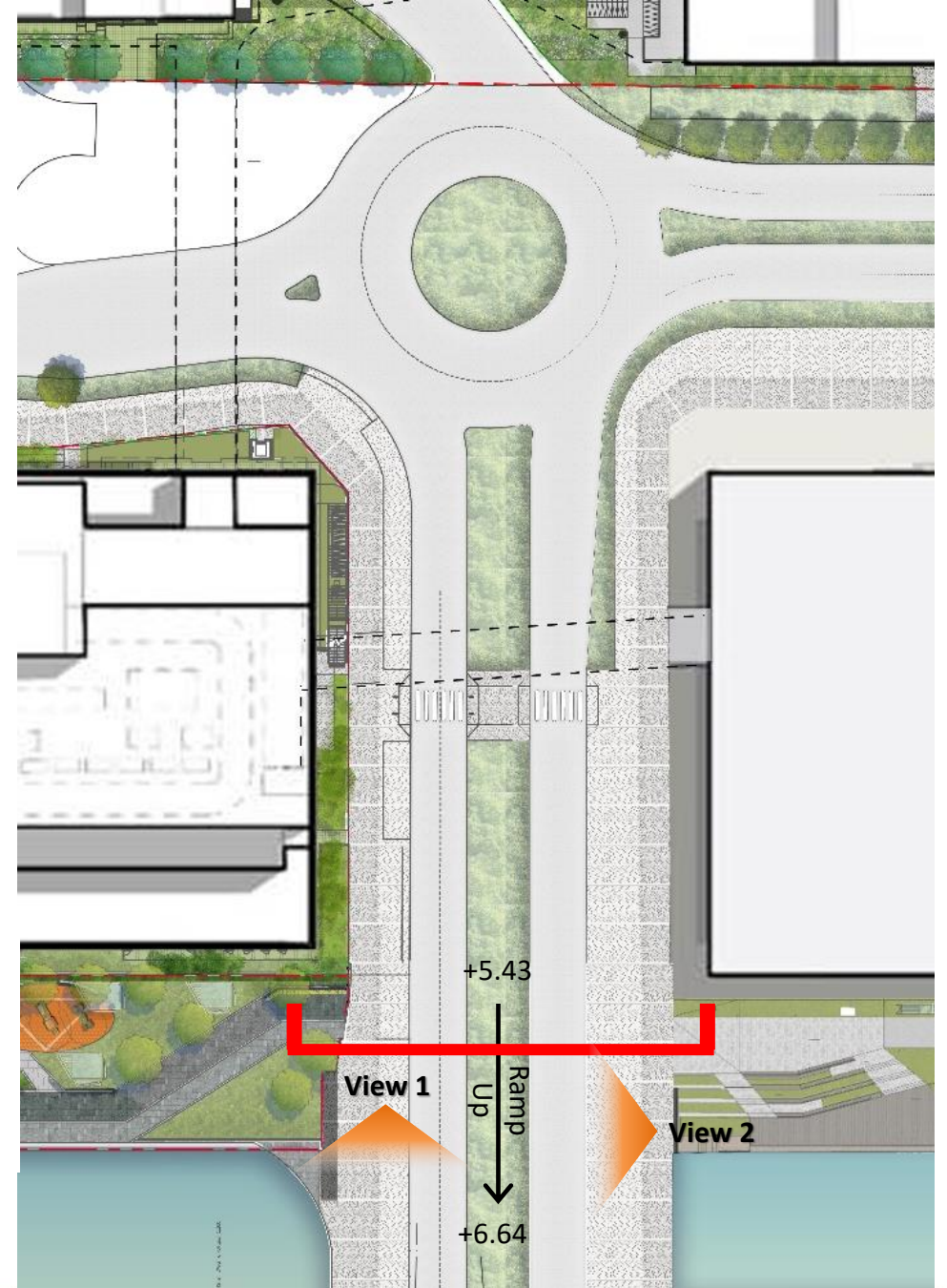
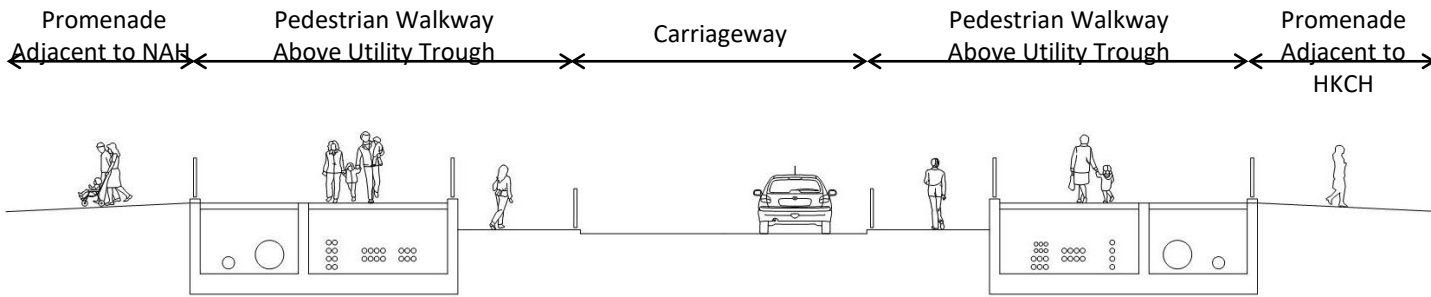
Promenade – D4 Road Crossing



View 1



View 2



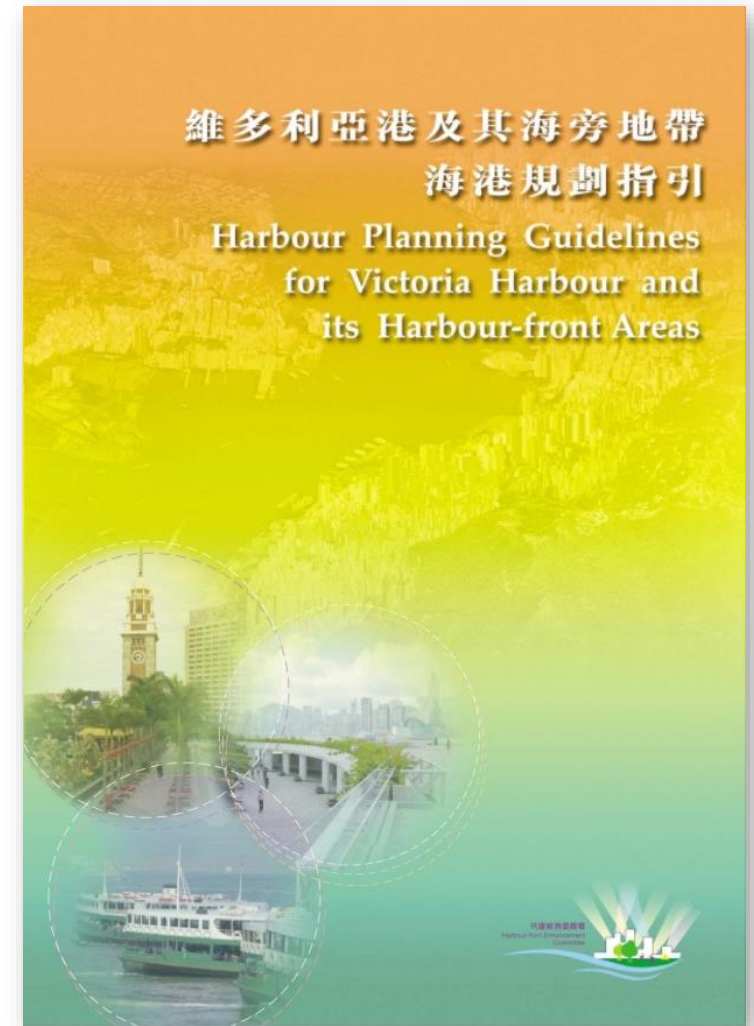
Harbour Planning Principles **5.0**



Harbour Planning Principles

The NAH proposal aligns with the Harbour Planning Principles in the following aspects:

- **Sustainable Development** - Urban Design
- **Integrated Planning** - Interfacing with Infrastructure
- **Accessible Harbour** - Physical Connectivity
- **Vibrant Harbour** - Spatial Connectivity
- **Proactive Harbour Enhancement** - Visual Connectivity
- **Public Enjoyment** - Setback
- **Stakeholder Engagement** - District Council Consultation



THANK YOU

