Organiser

Technology Partner

Partnering Organisations

Smart Transportation Challenge

科技大道通

Briefing Session

THURS 12 NOV 2020 | 11:00am – 12:00noon

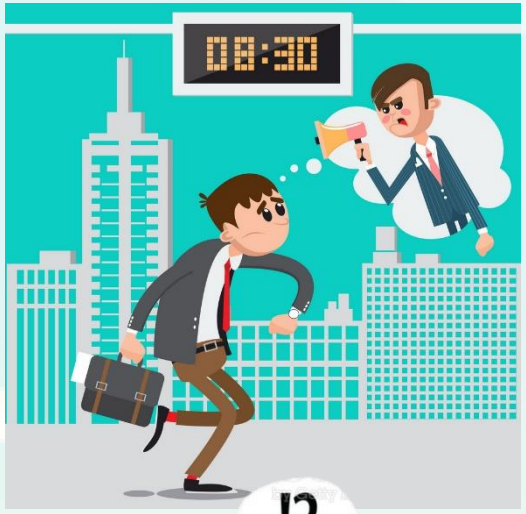
AI PLUG | Online

Agenda

- Challenge Background
- Timeline and Milestones
- Development and Planning of Hong Kong Science Park
- Submission Dates and Requirements
- Final Presentation and Ceremony
- Resources and Support (Insights, Data, and Software)
- ESRI Live Demo

Our Daily Commute Problems

I'm almost there 😁



We Hear You

So much **TIME WASTED** travelling in and out of SP

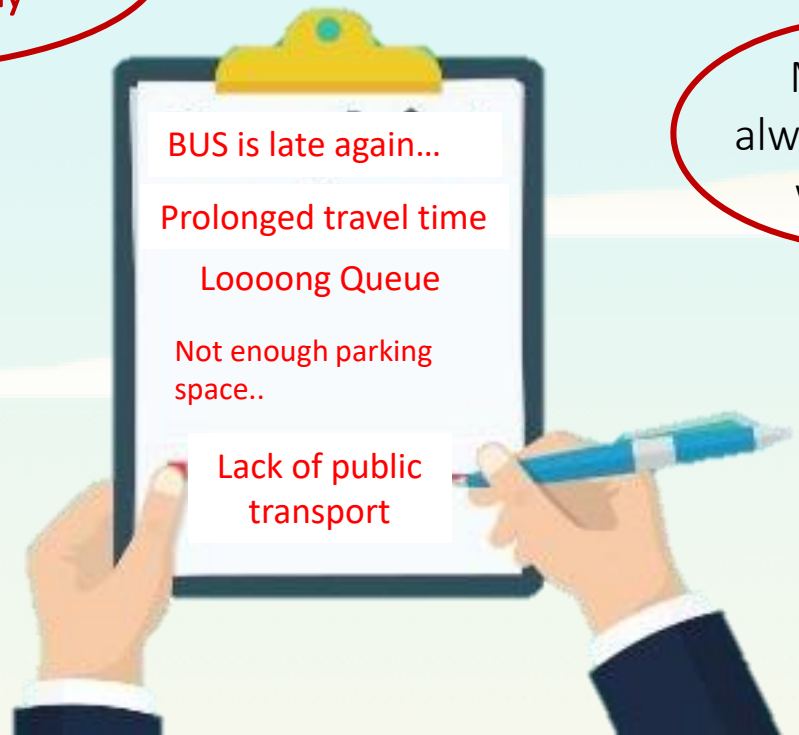
The bus is always **full**..

Cannot catch **dinner** time with my **kids**

Traffic Jam starts from **5:45PM everyday**

LATE to work AGAIN

My **wife** is always **annoyed** with me..



WHY **cancel my BUS** route...

Need to **wake up so EARLY** to avoid traffic

Possible Causes

Change within area. It's happening - FAST!

白石角小巴站排長龍時，居民需花費不少時間候車。

白石角多個住宅屋苑相繼落成，料提供8,000多個單位。

科學園有近3萬人上班，亦將有新大樓落成。

創新斗室落實採用「組裝合成」建築法，有關工程預計可於2020年年底竣工。

Increase in Residentials

Expansion of Science Park's Working Population

Increased Traffic

The Challenge

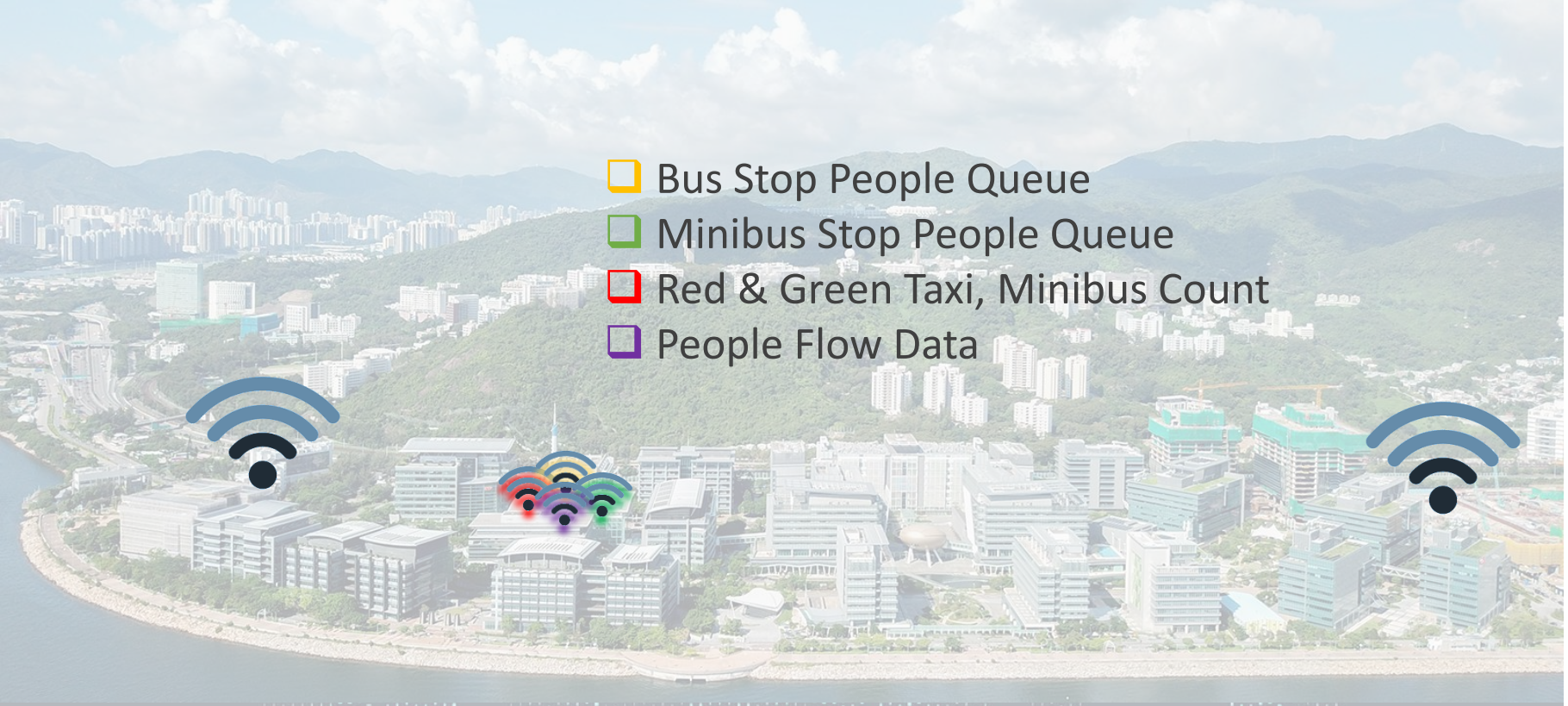
Forecast

and

Improve

traffic conditions

within Science Park



- Bus Stop People Queue
- Minibus Stop People Queue
- Red & Green Taxi, Minibus Count
- People Flow Data

Transport Data

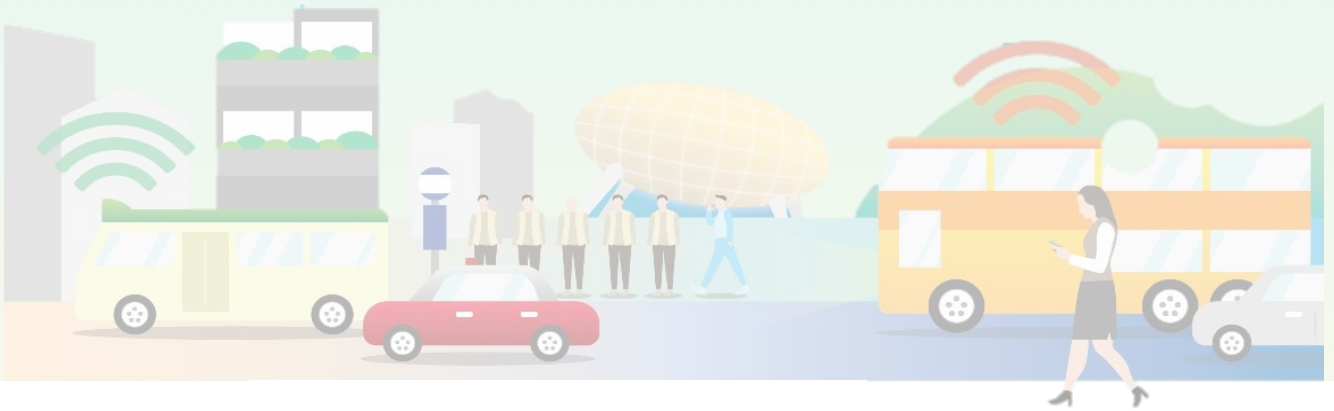
Real-time & Historical Data

Digital Twin

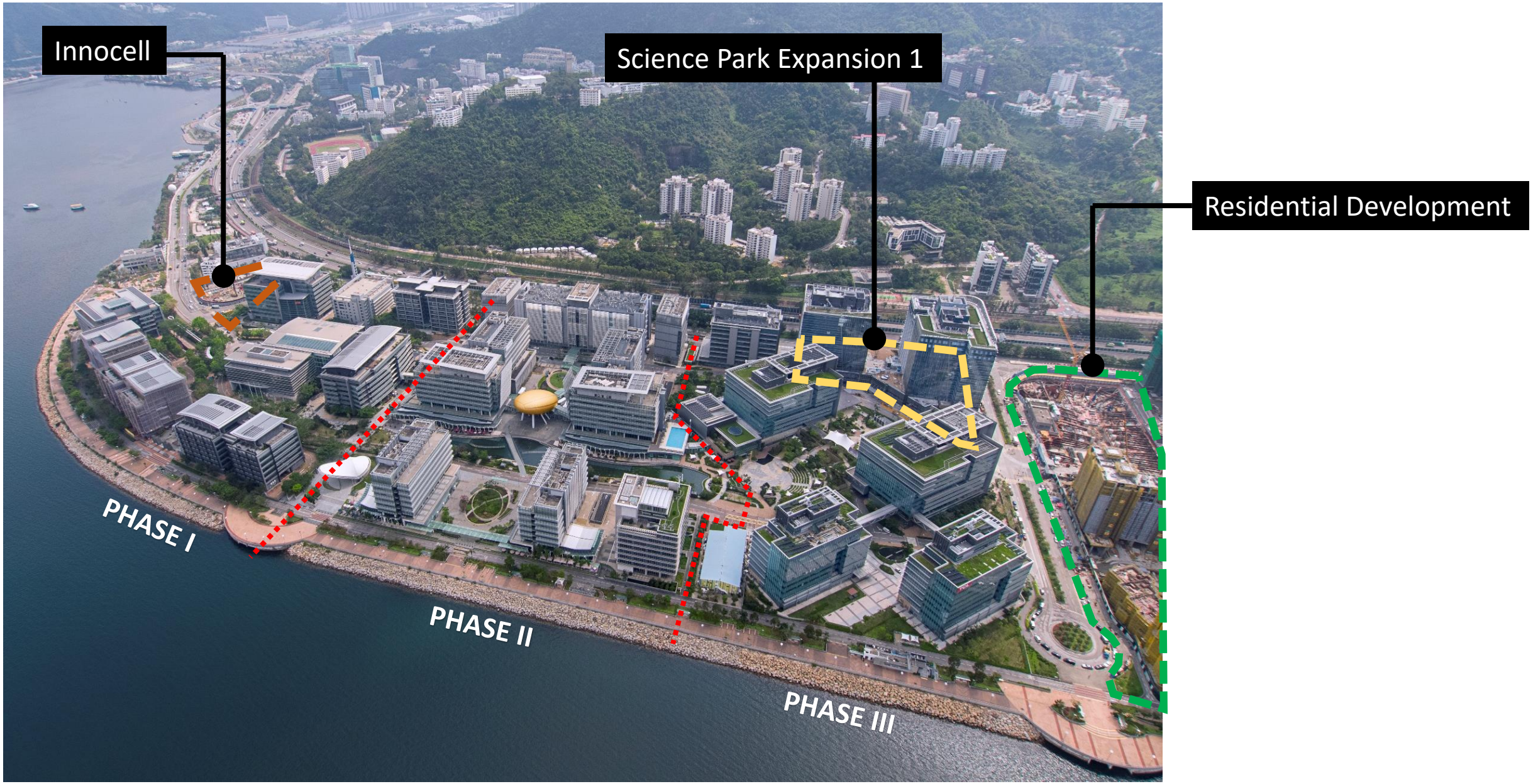
Geospatial Data

Geographic Data

Development and Planning
of
Hong Kong Science Park

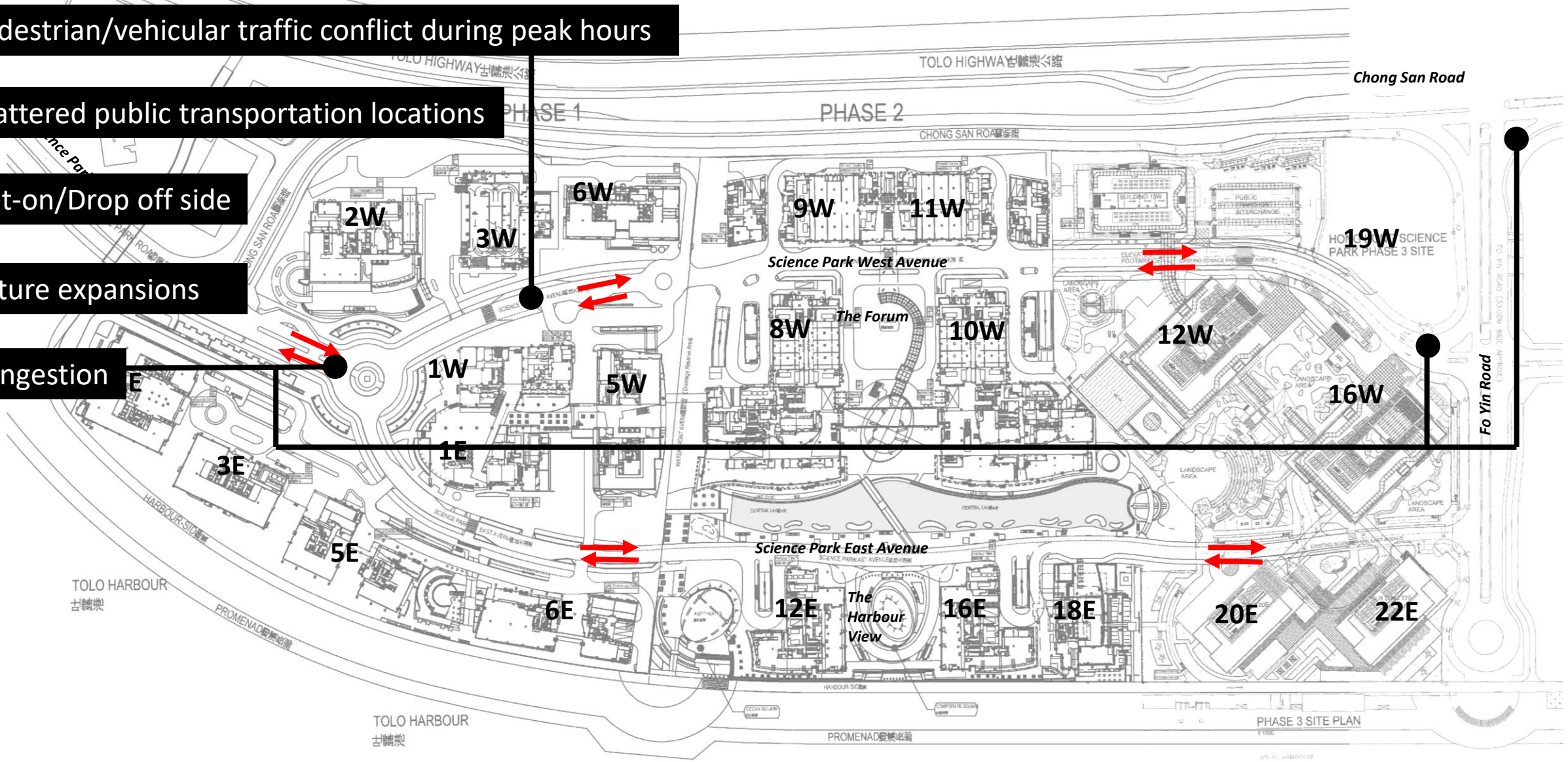


Overview

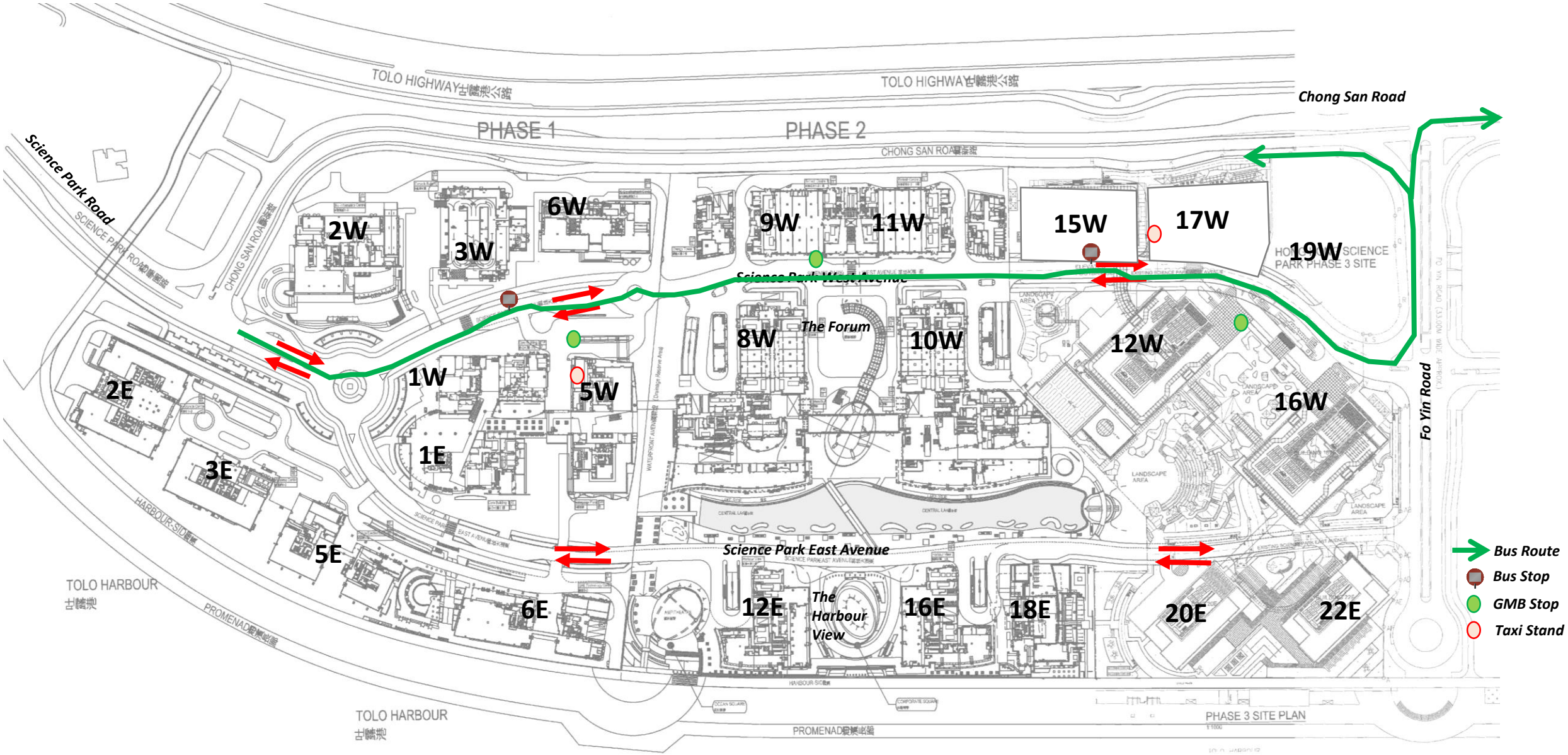

Innocell
Science Park Expansion 1
Residential Development
PHASE I
PHASE II
PHASE III

Challenges

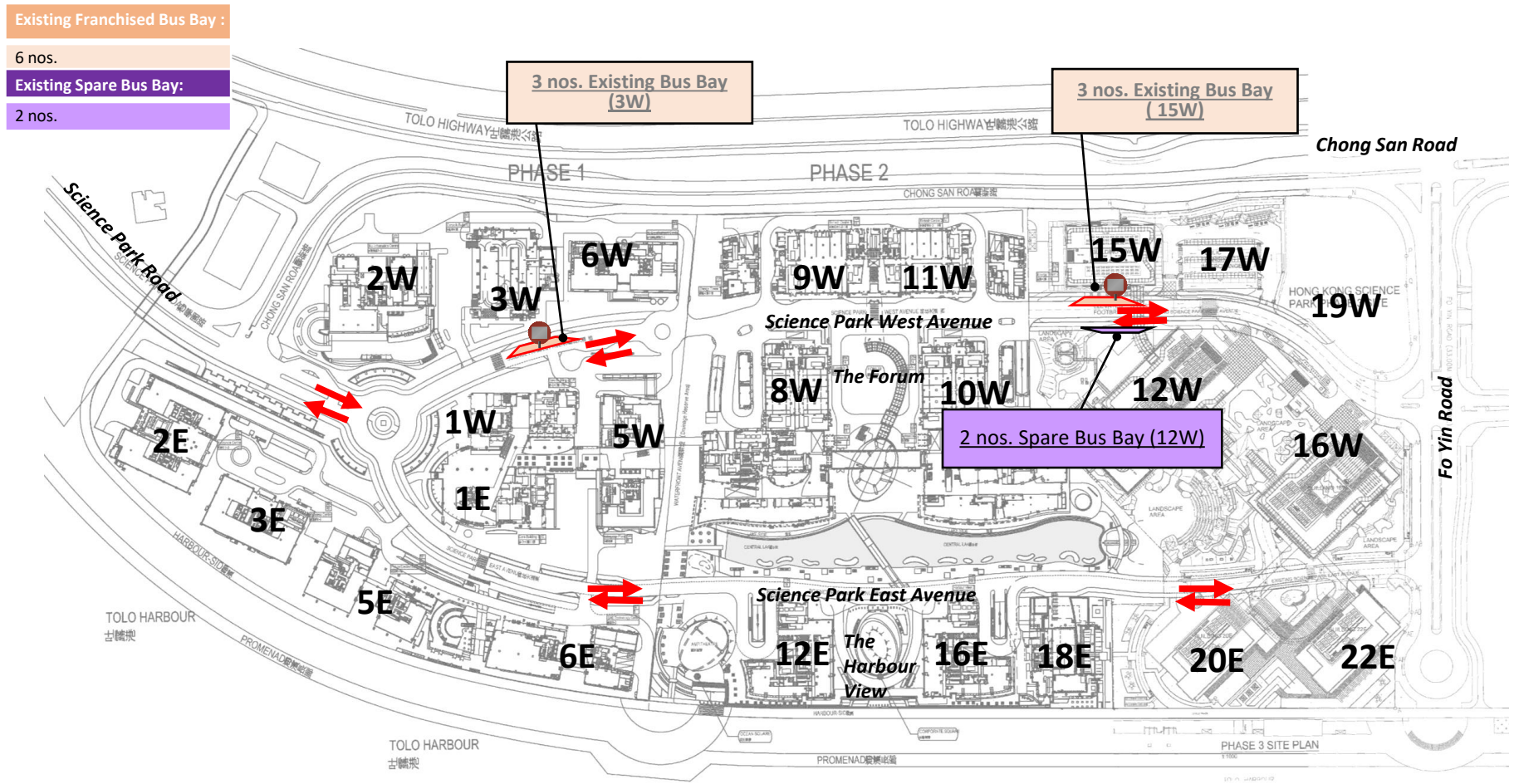
- Pedestrian/vehicular traffic conflict during peak hours
- Scattered public transportation locations
- Get-on/Drop off side
- Future expansions
- Congestion



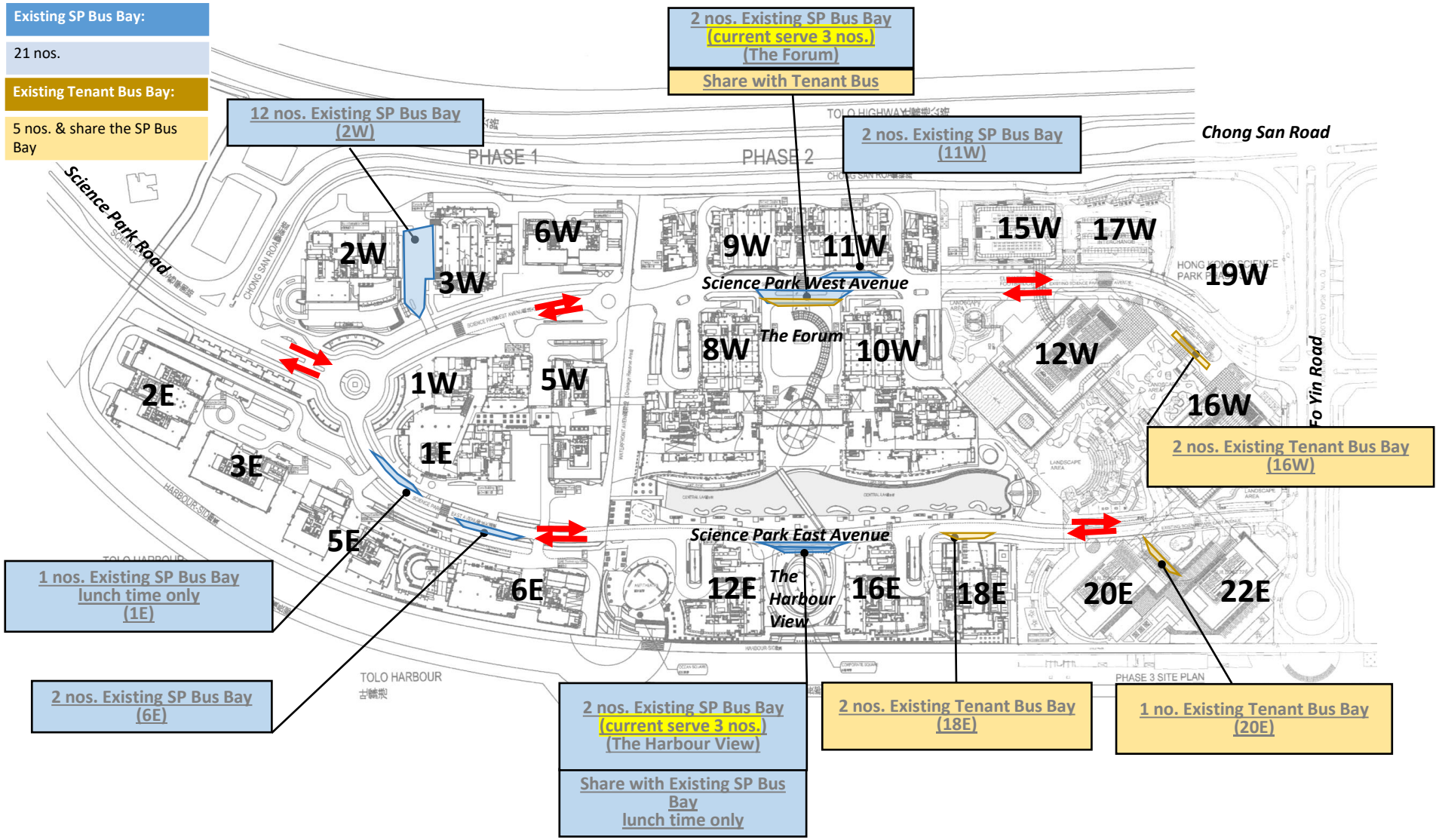
Existing Transportation Arrangement



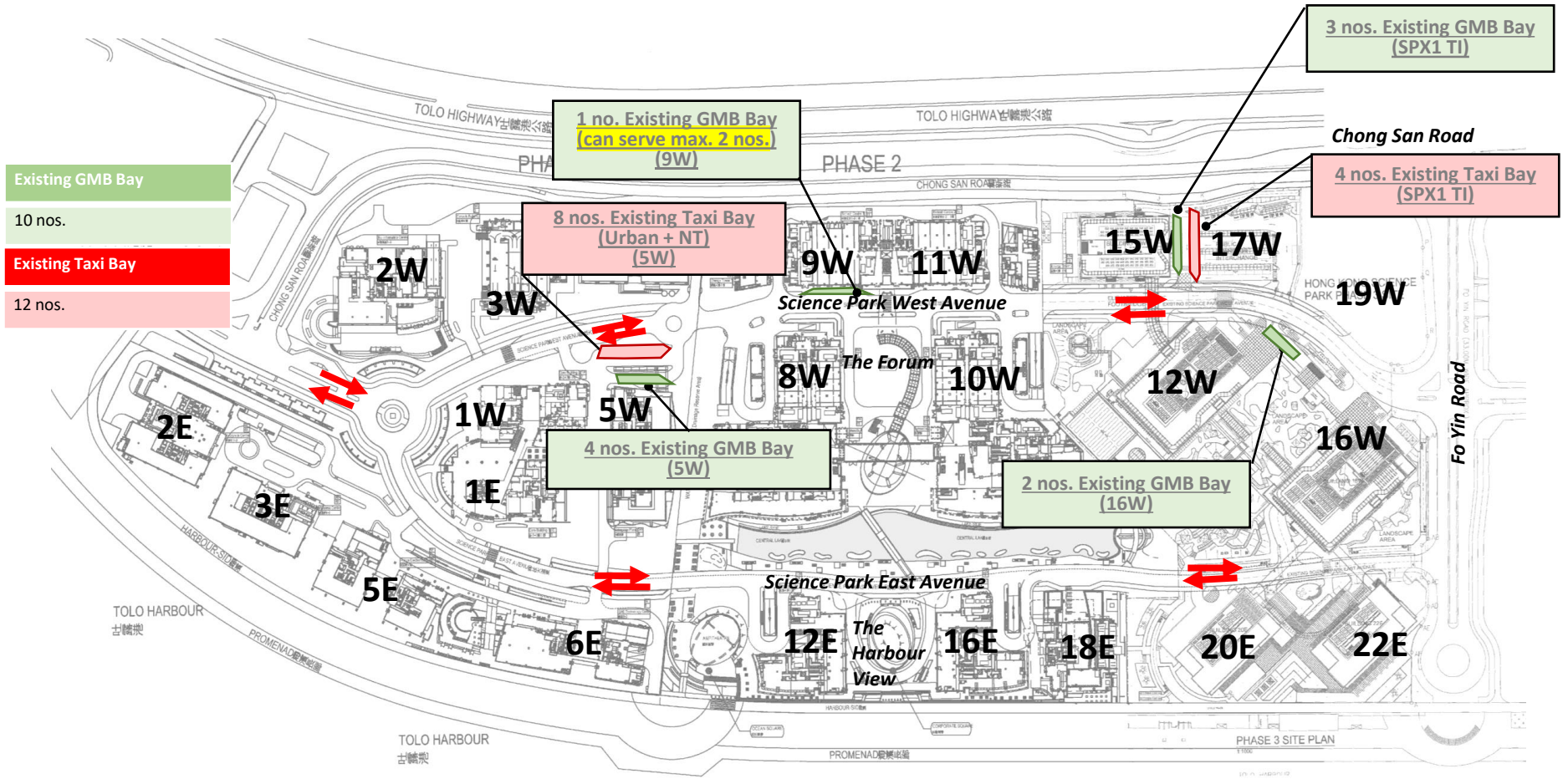
Franchised Bus Bay (8 Franchised Bus Bay)



SP Bus / Tenant Bus (21 SP Bus Bay/ 5 Tenant Bus Bay = Total 26 Bus Bay)



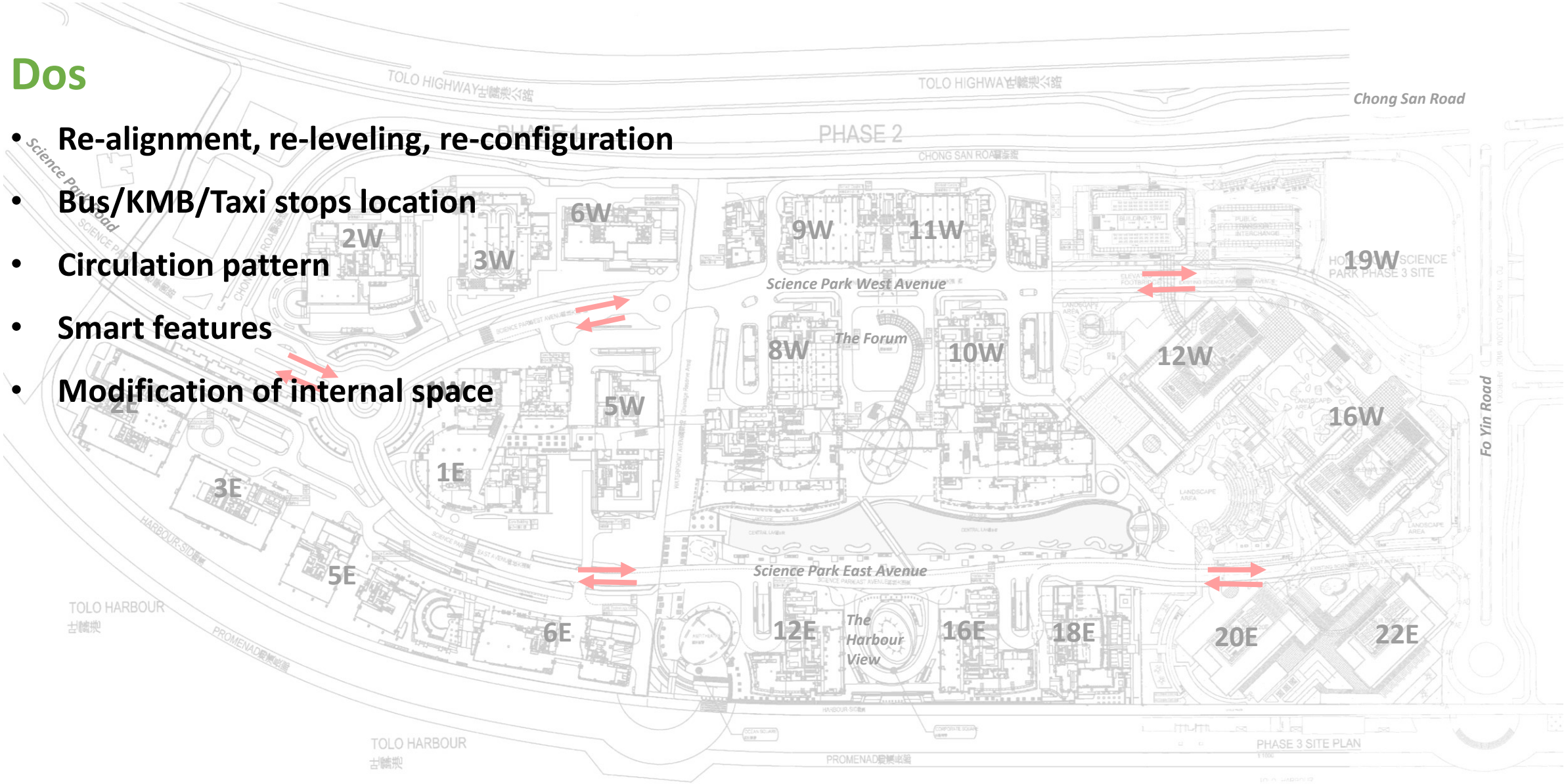
Existing traffic condition at HKSP (10 GMB Bay/ 12 Taxi Bay)



Dos and Don'ts

Dos

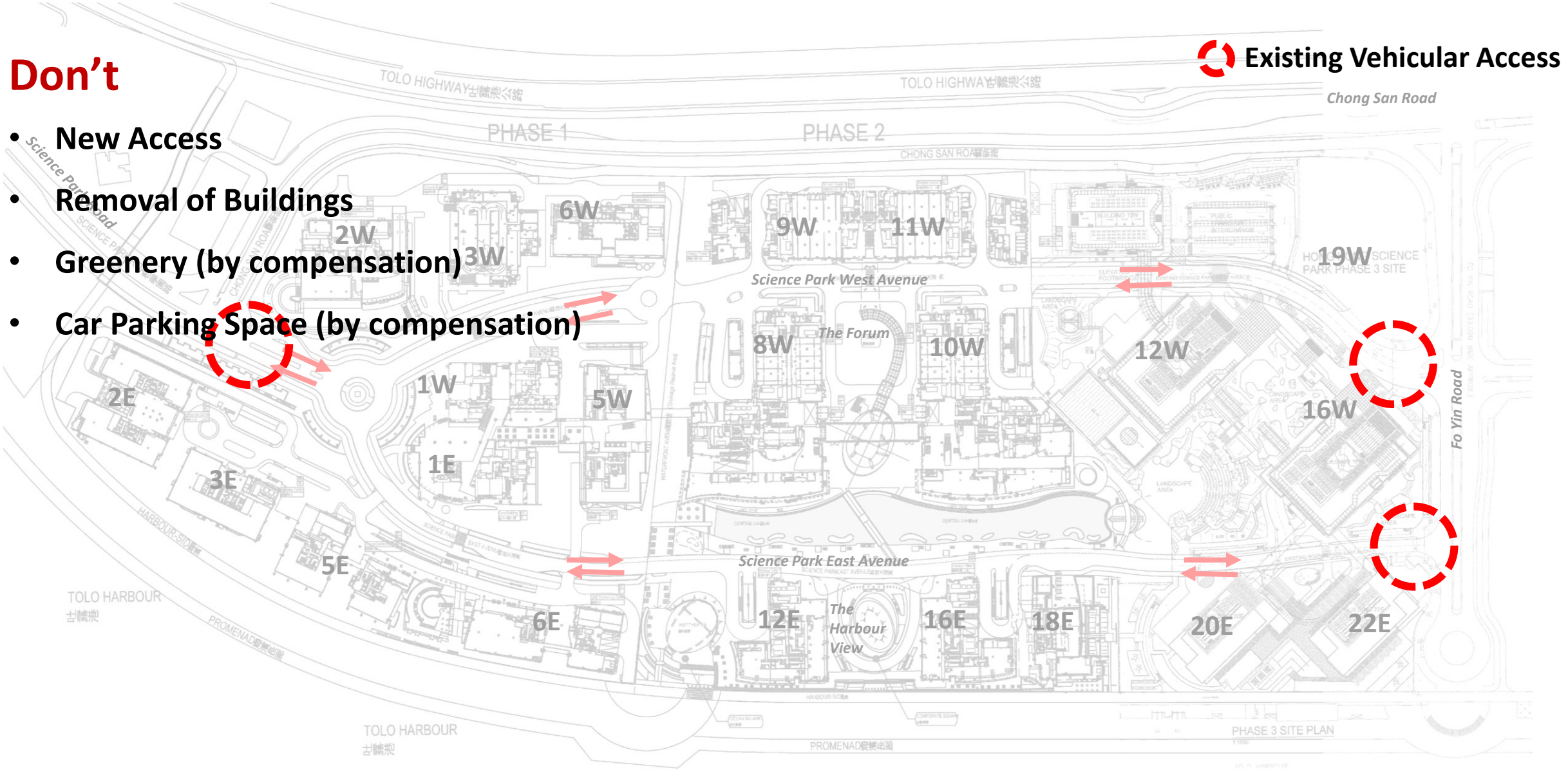
- Re-alignment, re-leveling, re-configuration
- Bus/KMB/Taxi stops location
- Circulation pattern
- Smart features
- Modification of internal space



Dos and Don'ts

Don’t

- New Access
- Removal of Buildings
- Greenery (by compensation)
- Car Parking Space (by compensation)



OUR OBJECTIVE

Improve Traffic problem

Improve Quality of Living

Increase Satisfaction of workforce in Science Park

Support a harmonious community nearby

Timeline and Milestones

Basic Workshops
& Clinic

Final Pitch &
Award Ceremony

Shortlisting
(Top 3)

1-Feb
Final Model
Submission

Shortlisting
(Top 10)

12 Nov
Briefing

Recruitment

Road to POC

Nov 2020

Nov 2020

Data Collection

Dec 2020

14-Dec
Submission of
1st Proposal

Jan 2021

Advanced Training
&
Clinic

Feb 2021

Model Simulation

Mar 2021

VISUALISE

Category and Awards

Startup | Corporate | Self-formed

Secondary | Undergrad

Awards and Prizes

- Free subscription of **ArcGIS for Personal Use** license for one year for Champion in Open Group (Public)
- Free subscription of **Esri Partner Network – Bronze** for one year for Champion in Open Group (Organisation)
- Free subscription of **ArcGIS Online** for one year for Champion in Student Group (Tertiary & Secondary)
- **POC** opportunity on **Science Park premises**

HKSTP 香港科技園

SmartCampus

1st Submission

Submission Requirement: 5 Presentation Slides in PPT and PDF format based on the below judging criteria

IMPACT
Traffic Improvement

PRACTICALITY
Environmental Impact, Resilience, Implementation & Operation

BUSINESS
Cost Effectiveness

THE TEAM
Capability and Experience

1st Submission Deadline: 14th Dec 2020
Screening Results: 24th Dec 2020
Maximum: 10+10

2nd Submission & Presentation

Submission Requirement: Presentation Slides and Presentation

IMPACT

Traffic Improvement

PRACTICALITY

Environmental Impact, Resilience, Implementation & Operation

BUSINESS

Cost Effectiveness

THE TEAM

Capability and Experience

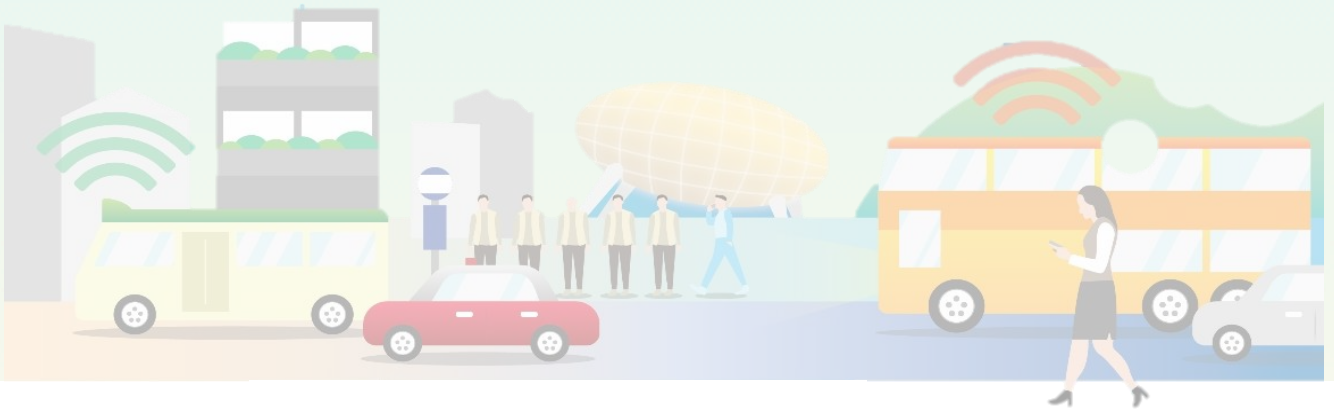
TO BE ANNOUNCED

2nd Submission Deadline: 1st Feb 2021

Announcement of Results: 10th Feb 2021

How to start?

Phase ONE
Dataset | Tools | Workshop | Clinic



Phase ONE

Basic Workshops
& Clinic

Recruitment

Nov 2020

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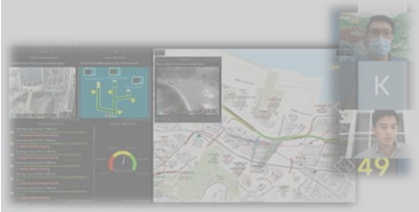

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(Top 3)

Feb 2021

Model Simulation

VISUALISE

Final Pitch &
Award Ceremony

Mar 2021

Road to POC

PHASE I

Data Provision

RESIDENTIAL & TAI PO

UNIVERSITY & TOLO

TOLO HIGHWAY

Science Park

On-premise Smart Campus & FM historical data
- Bus Stop and Minibus People Queue
- Vehicle count on Red Taxi, Green Taxi, Minibus
- People Flow Data
- Road monitoring at roundabouts, car parks, etc

https://smart-transportation-datastudio.hub.arcgis.com/

Considered Data

Lands Department Data
- Map API
- Visualisation Map
- Basemap

Transport Department Data (with history)
- Traffic Snapshot Images from CCTV
- Traffic Speed Map
- Special Traffic News
- Journey Time Indicators
- Traffic Flow Census
- Routes and Fares of Public Transport

Public Transport Data
- MTR train information
- Real-time “Next” arrival time and related data of KMB

No limitation on referencing External Data

Welcome to search for more to enhance your solution

Planning Department Data
- Projections of Population Distribution 2019-2028
- 2016 Population by-census

Town Planning Board
- Planning Applications Considered
- General Papers

HK Observatory Data
- 9-day weather forecast
- Rainfall Distribution Map
- Rainfall lightning Nowcast

Phase ONE Support and Resources

Esri China (Hong Kong) Limited

Lands Department
地政總署

Transport Department
運輸署

Smart Campus@HKSTP

GIS Tools

GIS Software training & workshops
How to visualise your proposals

Software Training & Department Sharing

Intelligent transportation planning
Sharing on transportation related applications
Insight from the Data

Technical Clinic

Professional commenting
Sharing experience on specific topics

Website

PHASE ONE - Basic Training and Workshop

Phase One workshops are eligible to all contestants

Wed, 18 Nov | Webinar

Lands Department & Transport Department Workshop

More

Mon, 09 Nov | Watch Online

Esri Technical Training

Part One

Part Two

Technical Clinic

Phase One Technical Clinics are eligible to all contestants

esri China HONG KONG

Technical Clinic by Esri

Happening every Wednesday in November

RVSP

運輸署 Transport Department

Technical Clinic by Transport Department

Join us on 25 Nov

Coming Soon

地政總署 Lands Department

Technical Clinic by Lands Department

Join us on 25 Nov and 9 Dec

Coming Soon

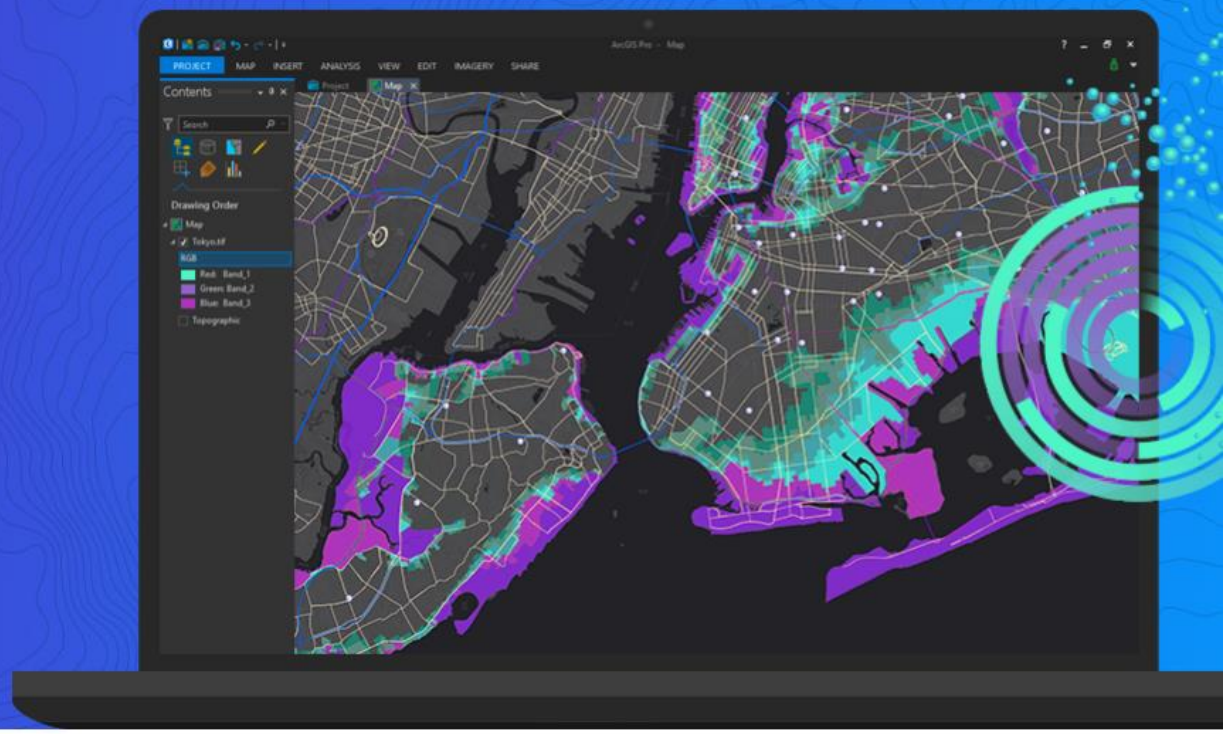
Refer to the event website for more workshop schedule and registration!

Software Tools and Training

ArcGIS

The mapping and analytics platform

ArcGIS is the heart of the Esri Geospatial Cloud.



Phase TWO

Basic Workshops
& Clinic

Recruitment

Nov 2020

9-Nov
Briefing

Nov 2020

Data Collection

Dec 2020

14-Dec
Submission of
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(Top 10)

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Model Simulation

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Award Ceremony

Mar 2021

Road to POC

VISUALISE

PHASE II

What Next?

Phase TWO

Advanced **Training | *Professional* Insights | *More* Data | *In depth* Clinic**

Phase TWO Support and Resources

Esri China (Hong Kong) Limited

Smart Campus@HKSTP

Lands Department
地政總署

Transport Department
運輸署

The Kowloon Motor Bus
九龍巴士

MTR
港鐵

Advanced Training on GIS Tools

Data Analytics and Workshop

Technical Clinic

Networking Opportunities

... and more!

HOW TO VISUALISE YOUR PROPOSAL?

Final Presentation

Basic Workshops
& Clinic

Recruitment

Nov 2020

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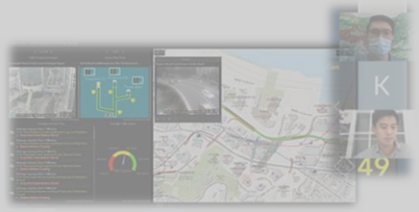

Shortlisting
(Top 3)

Feb 2021

Model Simulation

Mar 2021

18 Mar 2021
Final Pitch &
Award Ceremony

Road to POC

VISUALISE

FINAL


FINAL PRESENTATION
WITH
SIMULATION

Q&A