

# Measurement and Analysis of Walkability in Hong Kong

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# What is Walkability?

*“The extent to which the built environment is pedestrian friendly.”*

Bad



Good



# Is Hong Kong Walkable?



## Hong Kong Has:

- A High Population Density
- A Large Tourism Industry

## Walking In Hong Kong Is:

- A Major Mode of Transportation
- Difficult
- Unfulfilling

# Walkability Measurements

1. Preliminary District Measurement
2. Perception Measurement
3. In-Depth Route Measurement

# Preliminary Evaluation

Preliminary Area Rubric		
Area:		
Criteria	Approximate Number	Score
Number Of Connections		
Number Of Choke Points		
Number Of Directional Signs/Maps		
Number Of Breakdowns		
<b>NOTES:</b>		

# Connection



# Choke Points



# Breakdowns





# Directional Signs





Tsuen Wan

Tsing Yi

Yau Ma Tei

To Kwa Wan

West Kowloon

Hung Hom

Yau Tong

Sai Ying Pun

Tsim Sha Tsui

Sai Wan Ho

Kennedy Town

Shueng Wan

Island East

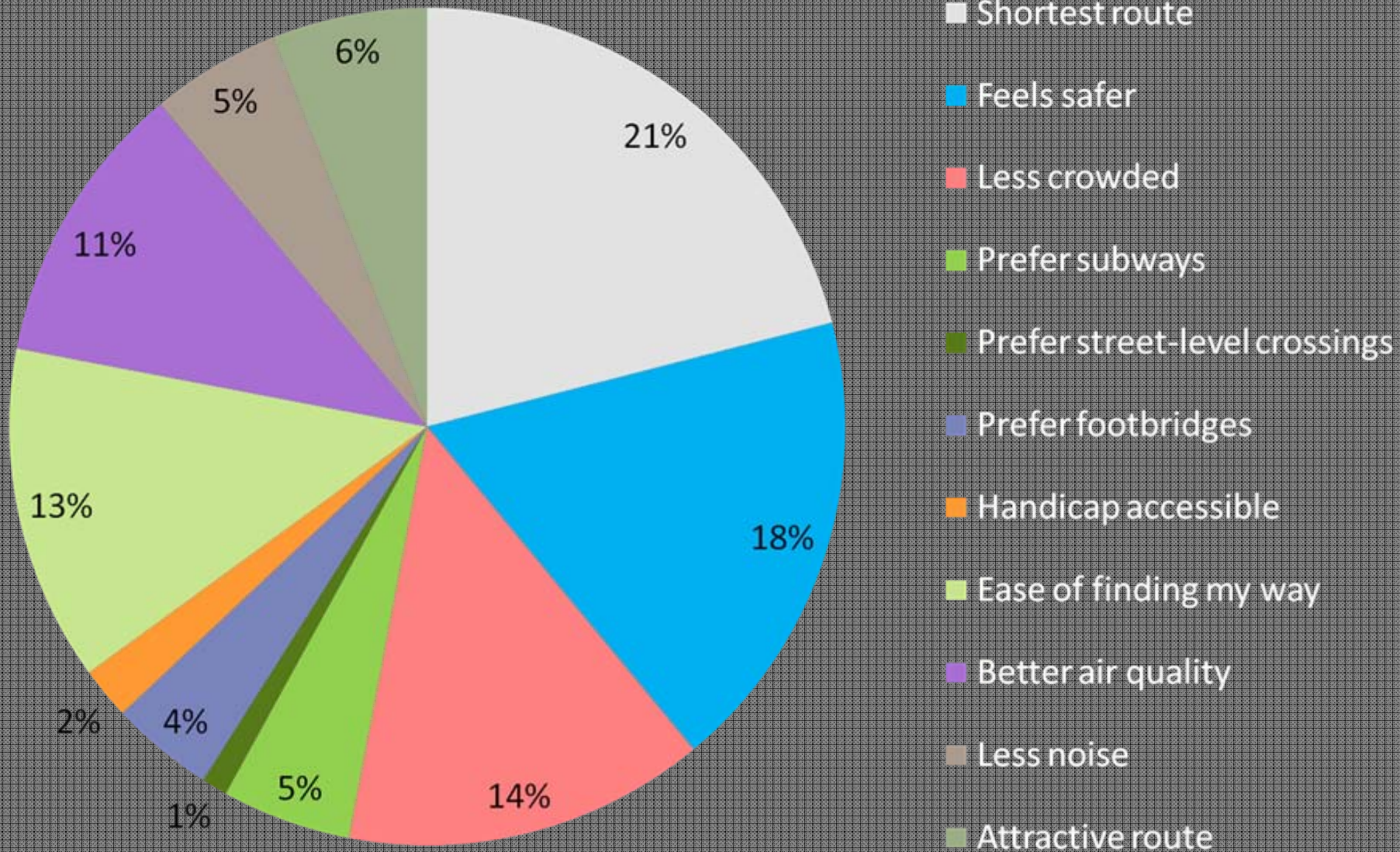
Central

Wan Chai

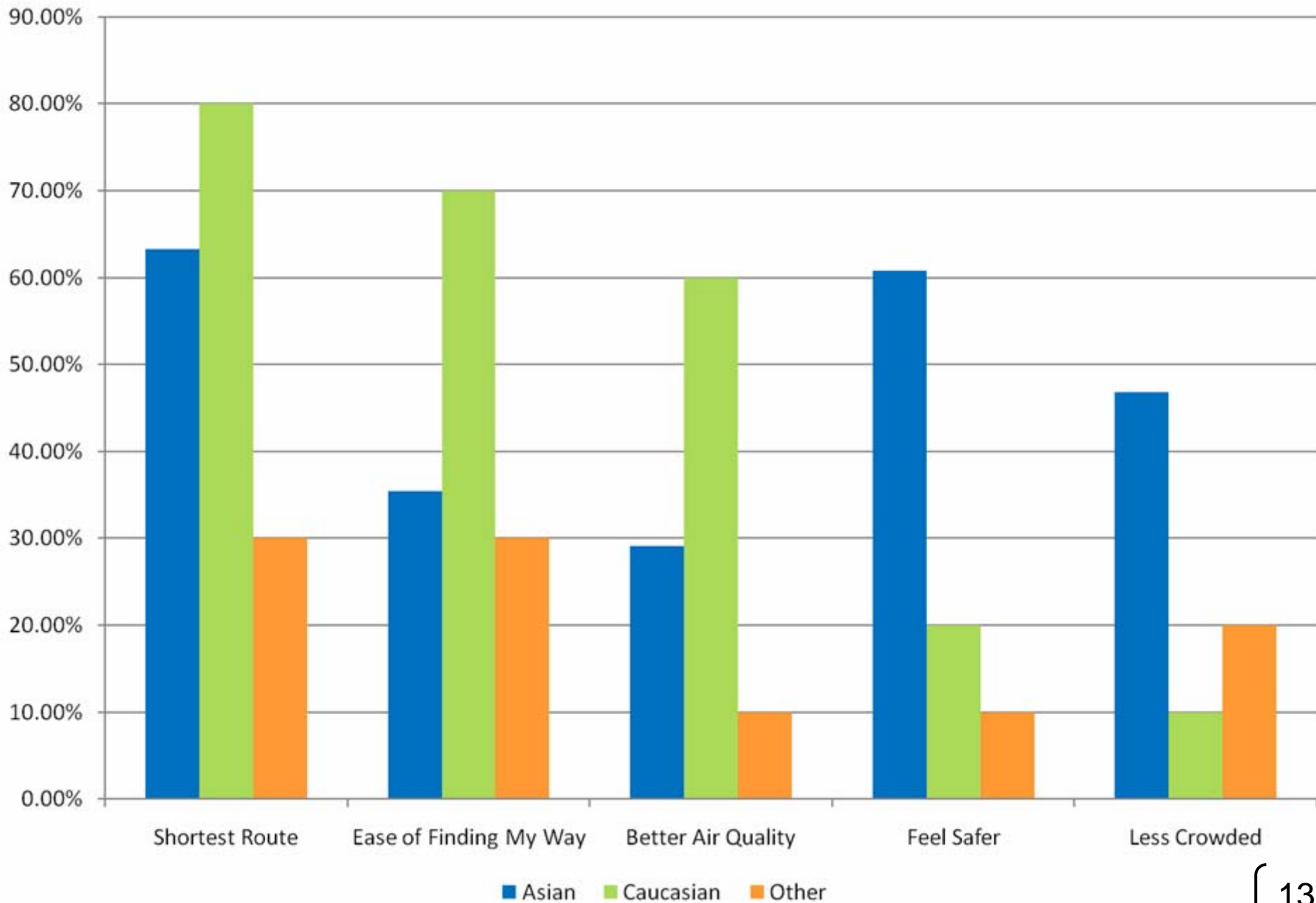
Chai Wan

<b>Yau Ma Tei</b>	Yau Ma Tei has are many unmarked crossings that could easily be remedied and the harbor front has a short, pleasant promenade, the use of which is limited by the lack of connections between the hinterland and harbor front.
<b>Tsim Sha Tsui</b>	Tsim Sha Tsui scored poorly in the "ease of way-finding" category, even though it scored well in the preliminary analysis. This is essential to remedy because of its popularity with both tourists and locals as a commercial district.
<b>Wan Chai</b>	Wan Chai is very confusing to navigate because of the multitude of construction sites and handles a high amount of pedestrian traffic for the Expo Centre promenade and the Star Ferry Pier.
<b>Sai Ying Pun</b>	Sai Ying Pun has a beautiful waterfront promenade in Sun Yat Sin Park but the rest of the waterfront is undeveloped. In addition, the rest of the district is confusing to navigate.

# Preferences Based On Street Survey

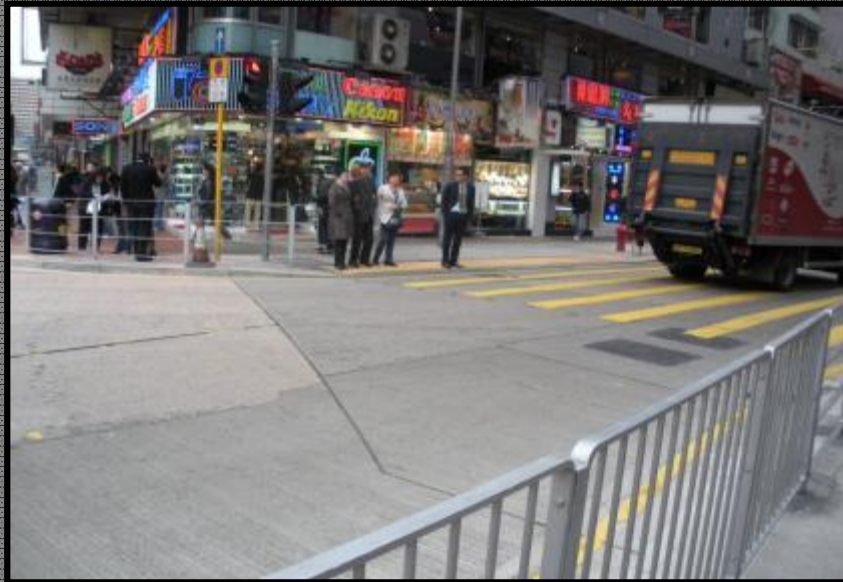


# Route Preferences By Race



<b>District:</b>		<b>Route:</b>			
<b>Connections</b>					
<b>Zebra</b>	<b>Total</b>	<b>Subways</b>	<b>Total</b>	<b>Footbridges</b>	<b>Total</b>
Tallies:		Tallies:		Tallies:	
<b>Unmarked Crossings</b>	<b>Total</b>	<b>Subway Connection Signs</b>	<b>Total</b>	<b>Footbridge Connection Signs</b>	<b>Total</b>
Tallies:		Tallies:		Tallies:	
<b>Informal Crossings</b>	<b>Total</b>				
Tallies:					
<b>Handicap Accessibility</b>			<b>Weather</b>		
<b>Handicap Connections</b>	<b>Total</b>	<b>Signs for Handicap Accessibility</b>	<b>Total</b>	<b>Sheltered Path</b>	<b>Total</b>
Tallies:		Tallies:		Tallies:	
<b>Choke Points</b>					
<b>Breakdowns</b>	<b>Total</b>	<b>Parking Garages</b>	<b>Total</b>		
Tallies:		Tallies:			
<b>Attractions &amp; Amenities</b>					
<b>Parks/ Recreation</b>	<b>Total</b>	<b>Public Transit Stops</b>	<b>Total</b>		<b>Yes/No</b>
Tallies:		Tallies:		<b>Access To Harbor Front</b>	
				<b>Access To H.F Promenade</b>	
	<b>Percentage</b>		<b>Beginning</b>	<b>Middle</b>	<b>End</b>
<b>Quality of Route</b>		<b>Public Toilets</b>			
<b>Visual Aesthetics</b>		<b>Signs for Public Toilets</b>			
<b>Construction</b>		<b>Seating Area</b>			
<b>Directional Signs (H.F &amp; P.T)</b>					

# Zebra Crossing



# Unmarked Connection





# Informal Connection



# Subway Connections and Signage



# Footbridge Connections and Signage



# Handicap Accessibility and Signage



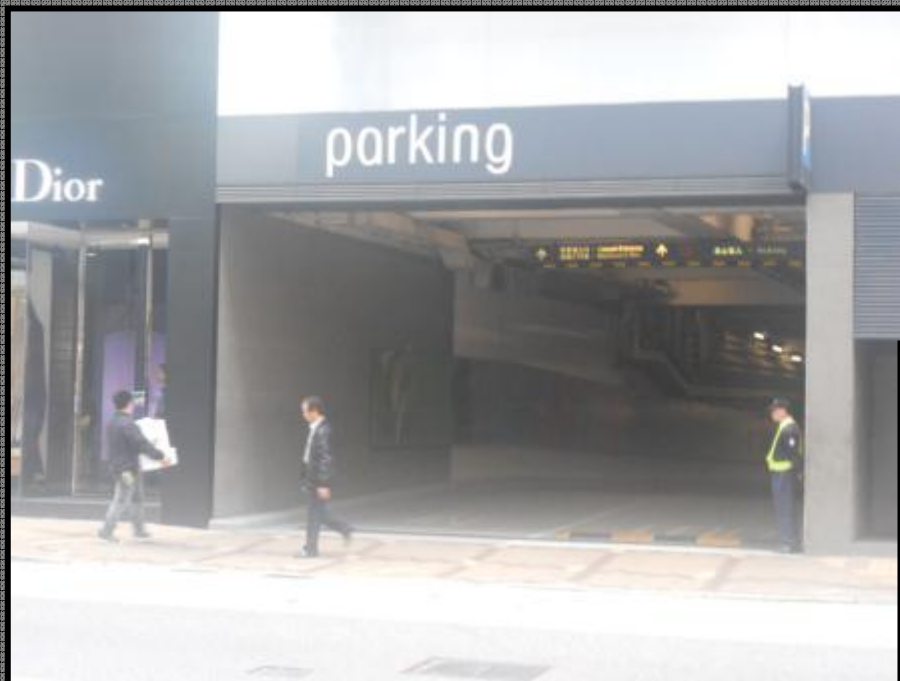
# Sheltered Path



# Breakdown



# Parking Garage



# Park/Recreation

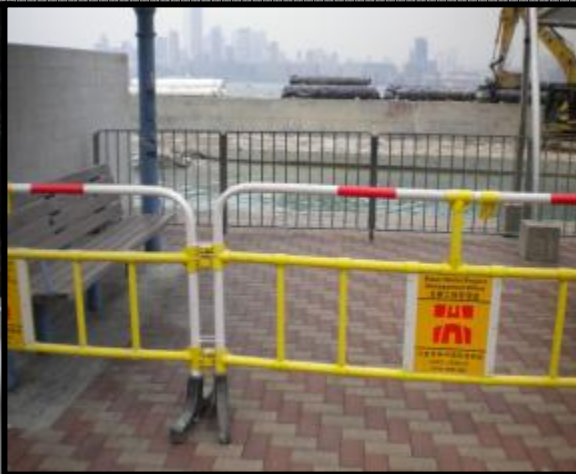




# Public Transit Stops



# Harbor Front Access and Promenade



# Public Toilets and Signage



# Seating Area



# Visual Aesthetics



# Construction



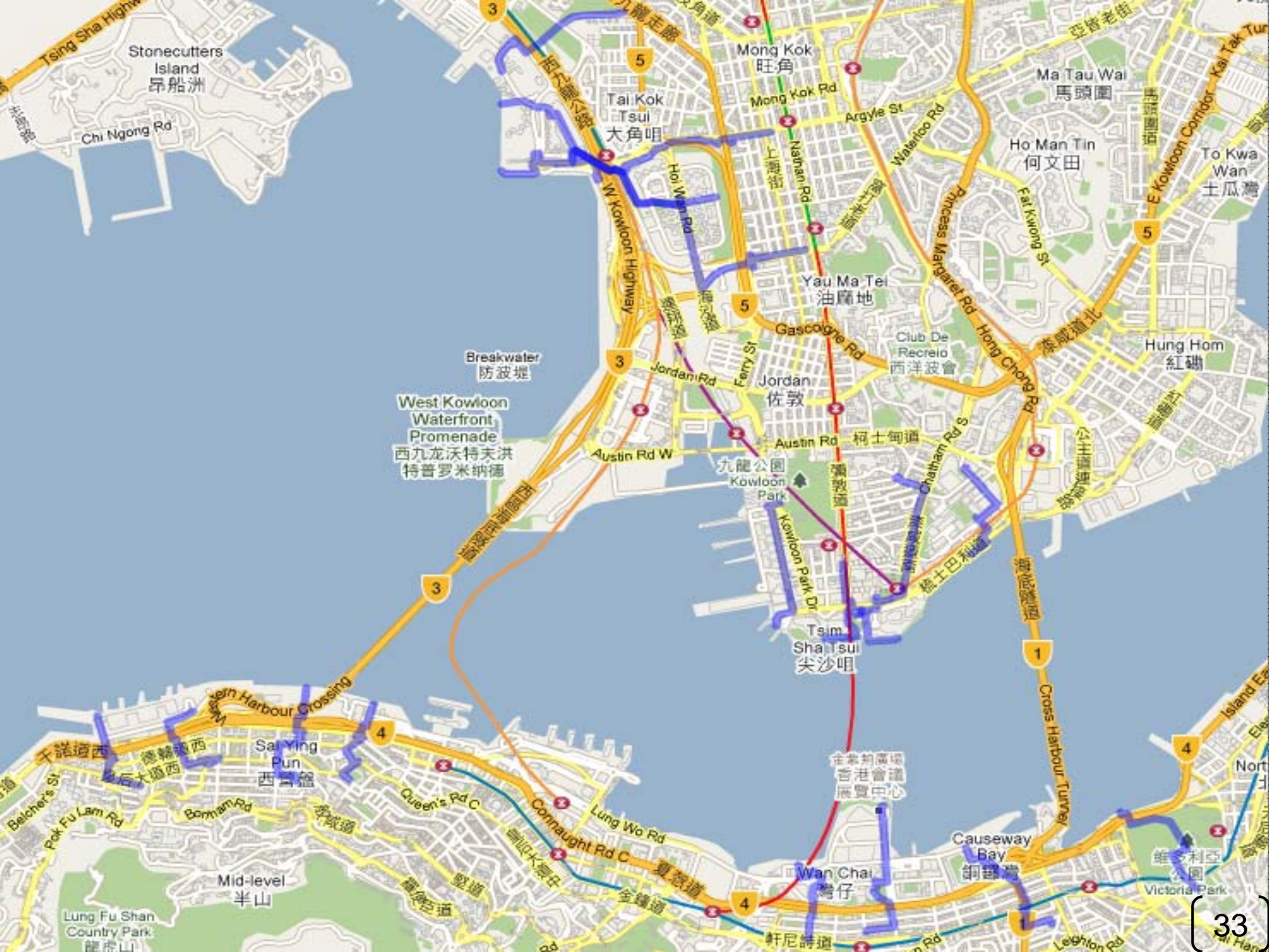
# Directional Signage



# Route Quality







Stonecutters Island  
昂船洲

Chi Ngong Rd

Sal Ying Pun  
西營盤

Lung Fu Shan  
龍虎山

Mong Kok  
旺角

Tai Kok Tsui  
大角咀

Jordan  
佐敦

West Kowloon Waterfront Promenade  
西九龍沃特夫洪特普罗米纳德

Queen's Rd C

Coronaught Rd C

Mid-level  
半山

Mong Kok Rd

Nathan Rd

Jordan Rd

Austin Rd W

九龍公園  
Kowloon Park

Kowloon Park Dr

Queen's Rd C

Coronaught Rd C

Wan Chai  
灣仔

Argyle St

Waterloo Rd

Ferry St

Austin Rd

九龍公園  
Kowloon Park

Kowloon Park Dr

Queen's Rd C

Coronaught Rd C

Wan Chai  
灣仔

Ma Tau Wai  
馬頭圍

Ho Man Tin  
何文田

Club De Recreio  
西洋波會

Club De Recreio  
西洋波會

Club De Recreio  
西洋波會

Queen's Rd C

Coronaught Rd C

Causeway Bay  
銅鑼灣

To Kwa Wan  
土瓜灣

Hung Hom  
紅磡

Club De Recreio  
西洋波會

Club De Recreio  
西洋波會

Club De Recreio  
西洋波會

Queen's Rd C

Coronaught Rd C

Causeway Bay  
銅鑼灣



1

2

3

4

# Walkability Analysis Tool

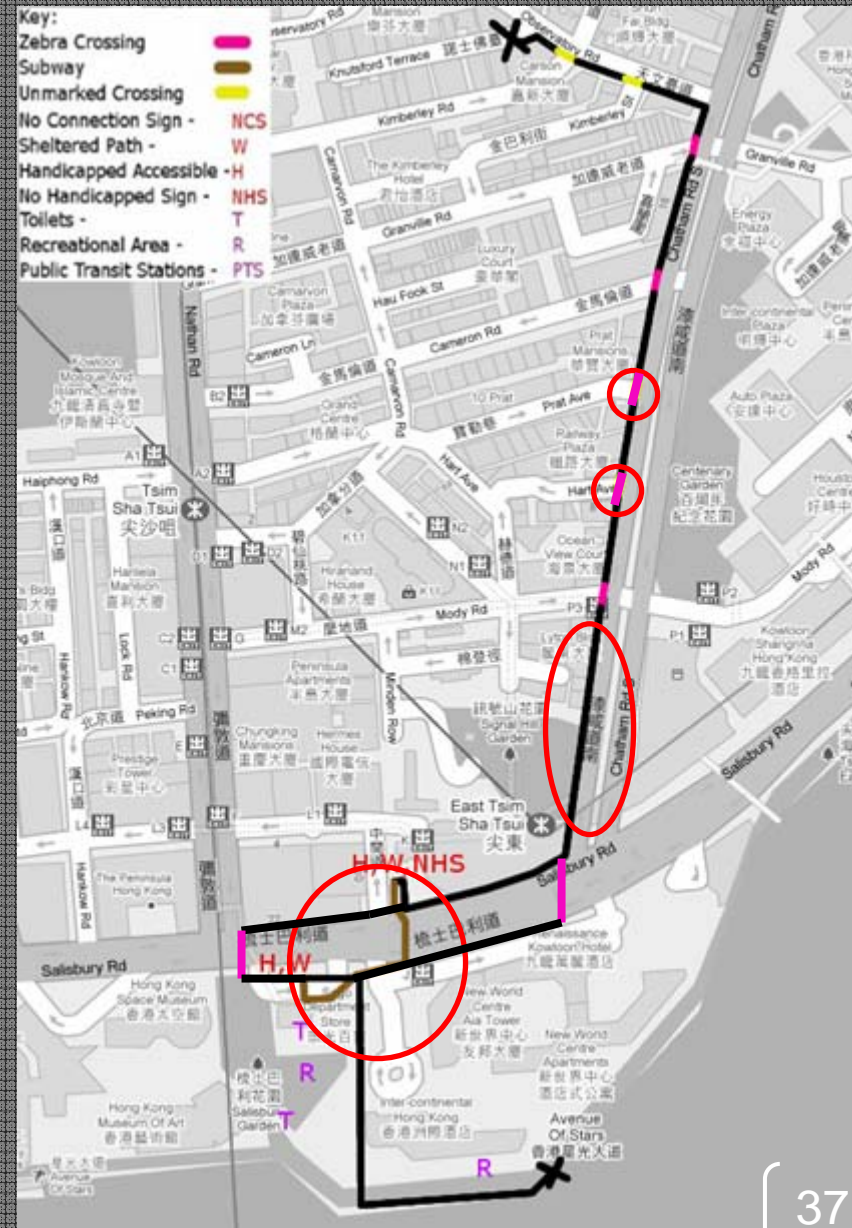
<b>District: Tsim Sha Tsui</b>		<b>Route: Knutsford Terrace to Avenue of Stars</b>			
<b>Connections</b>					
<b>Zebra</b>	<b>Total</b>	<b>Subways</b>	<b>Total</b>	<b>Footbridges</b>	<b>Total</b>
Tallies:	3	Tallies:	1	Tallies:	0
<b>Unmarked Crossings</b>	<b>Total</b>	<b>Subway Connection Signs</b>	<b>Total</b>	<b>Footbridge Connection Signs</b>	<b>Total</b>
Tallies:	4	Tallies:	2	Tallies:	0
<b>Informal Crossings</b>	<b>Total</b>				
Tallies:	0				
<b>Handicap Accessibility</b>			<b>Weather</b>		
<b>Handicap Connections</b>	<b>Total</b>	<b>Signs for Handicap Accessibility</b>	<b>Total</b>	<b>Sheltered Path</b>	<b>Total</b>
Tallies:	1	Tallies:	1	Tallies:	1
<b>Choke Points</b>					
<b>Breakdowns</b>	<b>Total</b>	<b>Parking Garages</b>	<b>Total</b>		
Tallies:	0	Tallies:	0		
<b>Attractions &amp; Amenities</b>					
<b>Parks/ Recreation</b>	<b>Total</b>	<b>Public Transit Stops</b>	<b>Total</b>		
Tallies:	3	Tallies:	4		
				<b>Access To Harbor Front</b>	<b>Yes</b>
				<b>Access To H.F Promenade</b>	<b>Yes</b>
		<b>Percentage</b>	<b>Beginning</b>	<b>Middle</b>	<b>End</b>
<b>Quality of Route</b>	50%	<b>Public Toilets</b>	0	1	1
<b>Visual Aesthetics</b>	60%	<b>Signs for Public Toilets</b>	0	1	0
<b>Construction</b>	30%	<b>Seating Area</b>	0	1	0
<b>Directional Signs (H.F &amp; P.T)</b>	100%				

## Route Focus Areas

Metrics Considerations	Focus Areas
Connections Crossed	Direct Route
Unmarked Connections	Amount Of Unmarked Connections Is Unsatisfactory
Informal Connections	No Informal Crossings
Subway Signs	All Subways Have Minimum Proper Signage
Footbridge Signs	No Footbridges
Handicap Accesibility	All Connections Have Handicap Access
Handicap Signs	Handicap Access Missing Signs
Sheltered Connections	No Footbridges
Breakdowns	No Breakdowns
Parking Garages	No Parking Garages
Pedestrian Experience	Focus Areas
Parks/Recreation	Not Enough Parks/Recreation
Public Tansit Stops	Enough Public Tranist Stops
Quality of Route	Quality Of Route Could Use Improvements
Visual Aesthetics	Visual Aesthetics Are Satisfactory
Construction	Check Safety And Route Obstructions
Directional Signs (HF,PT)	Route Signage Is Excellent
Harbor Front Access	Satisfactory Harbor Front Access
Harbor Front Promenade	Satisfactory Harbor Front Promenade
Sitting Areas	Needs More Seating Areas
Promenade Seating	Needs Seating At Promenade
Public Toilets	Satisfactory Amount Of Public Toilets
Public Toliet Signs	Missing Public Toilet Signs

# Route Recommendations

- Too Many Unmarked Crossings
- Large Section of Dangerous Construction
- Lack of Visual Aesthetics and Amenities
- Confusing Subway System



# General Recommendations

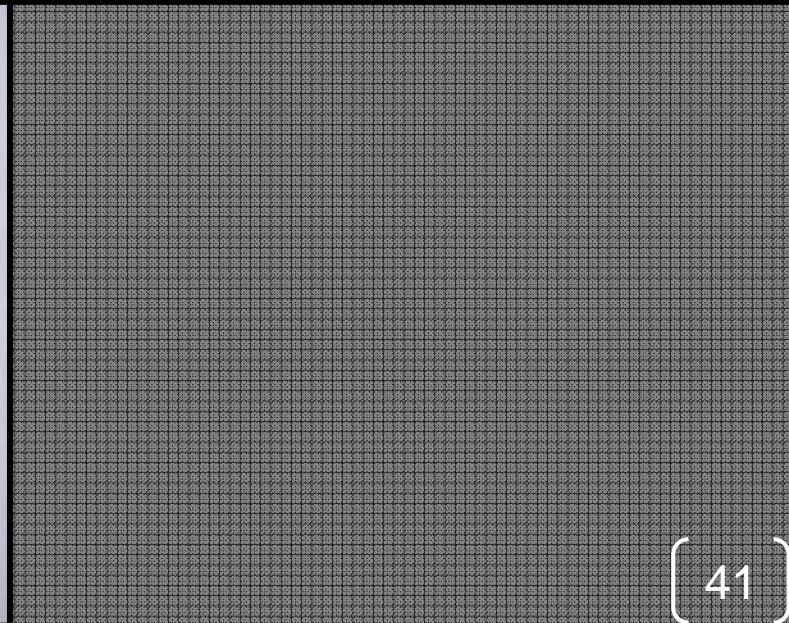
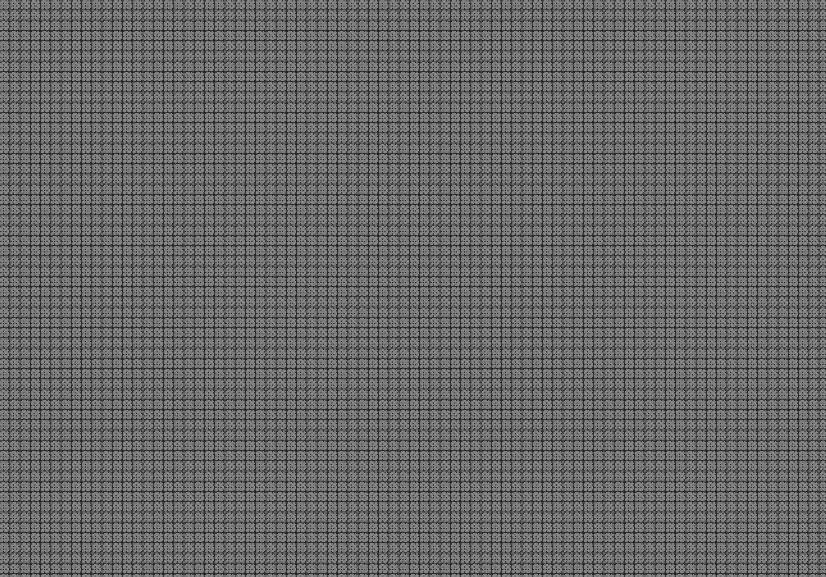




Start from zero







# Deliverables

- 16 Walking Maps
- Walkability Analysis Tool
- Recommendations for each of the 16 routes

# Acknowledgements

We would like to thank the following people:

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- The Harbour Business Forum
- The Business Environment Council
  
- Our Audience

# Questions?



District	Objective (RAW Score)	Subjective (Perception Score)	Total Score
Chai Wan	10	6.65	16.65
Yau Ma Tei	9	7.98	16.98
Yau Tong	8	10.64	18.64
To Kwa Wan	9	10.64	19.64
Kennedy Town	13	6.65	19.65
Sai Ying Pun	14	6.65	20.65
Tsuen Wan	12	11.97	23.97
Wan Chai	14	10.64	24.64
Hung Hom	12	13.30	25.30
Central	16	10.64	26.64
West Kowloon	13	14.63	27.63
Island East	13	15.96	28.96
Tsing Yi	12	17.29	29.29
Sheung Wan	15	17.29	32.29
Tsim Sha Tsui	17	15.96	32.96
Sai Wan Ho	18	15.96	33.96

<b>Metrics Considerations</b>	<b>Cutoff</b>
<b>Connections Crossed</b>	Total Conn./Min. Connections = 1; Total Connections/Min. Conn. = 2;
<b>Unmarked Connections</b>	Unmarked Conn./Route Length = < 0; Unmarked Conn./Route Length = 4;
<b>Informal Connections</b>	Informal Connections > 0;
<b>Subway Signs</b>	Subway Signs = 2*Subway Connections;
<b>Footbridge Signs</b>	Footbridge Signs = 2*Subway Connections;
<b>Handicap Accessibility</b>	Handicap Accessibility = Footbridge Connections + Subway Connections
<b>Handicap Signs</b>	Handicap Signs = 2*Handicap Accessibility
<b>Sheltered Connections</b>	Sheltered Connections = Footbridge Connections
<b>Breakdowns</b>	Breakdowns = 0
<b>Parking Garages</b>	Parking Garages/ Length of Route = 0; Parking Garages = 4;
<b>Pedestrian Experience</b>	Cutoff
<b>Parks/Recreation</b>	Parks/Recreation/Length of Route = 4;
<b>Public Transit Stops</b>	Public Transit Stops/Length of Route = 4;
<b>Quality of Route</b>	Quality of Route = 30%; Quality of Route = 50%; Quality of Route = 70%
<b>Visual Aesthetics</b>	Visual Aesthetic = 30%; Visual Aesthetic = 50%; Visual Aesthetic = 70%
<b>Construction</b>	Construction = 0%; Construction = 50%
<b>Directional Signs (HF,PT)</b>	Directional Signs = 50%; Directional Signs = 70%
<b>Harbor Front Access</b>	Harbor Front Access = Yes
<b>Harbor Front Promenade</b>	Harbor Front Promenade = Yes
<b>Sitting Areas</b>	Sitting Areas/Length of Route = 4
<b>Promenade Seating</b>	Promenade Seating = Yes
<b>Public Toilets</b>	Public Toilets/Length of Route = 4
<b>Public Toilet Signs</b>	Public Toilet Signs = Public Toilets

### Route Data

<b>District:</b>	Tsim Sha Tsui		
<b>Route:</b>	Knutsford Terrace to Avenue of Stars		
<b>Length of Route (miles)</b>	0.92		
<b>Connections</b>			
	<b>Number</b>		
Minimum Needed	8		
Zebra Crossings	3		
Subways	1		
Footbridges	0		
Unmarked	4		
Informal	0		
Subway Signs	2		
Footbridge Signs	0		
<b>Total</b>	<b>8</b>		
<b>Handicap</b>			
Accessible Connections	1		
Signs	1		
<b>Weather Proof</b>			
	<b>Number</b>		
Sheltered Connections	1		
<b>Choke Points</b>			
	<b>Number</b>		
Breakdowns	0		
Parking Garages	0		
<b>Amenities</b>			
	<b>Number</b>		
Parks/ Recreation	3		
Public Transit Stops	4		
<b>Attractive View</b>			
	<b>% of Route</b>		
Quality of Route	50%		
Visual Aesthetics	60%		
Construction	30%		
Directional Signs (HF,PT)	100%		
Harbor Front Access	Yes		
Harbor Front Promenade	Yes		
	<b>Beginning</b>	<b>Middle</b>	<b>End</b>
Sitting Areas	0	1	0
Public Toilets	0	1	1
Public Toilet Sign	0	1	0