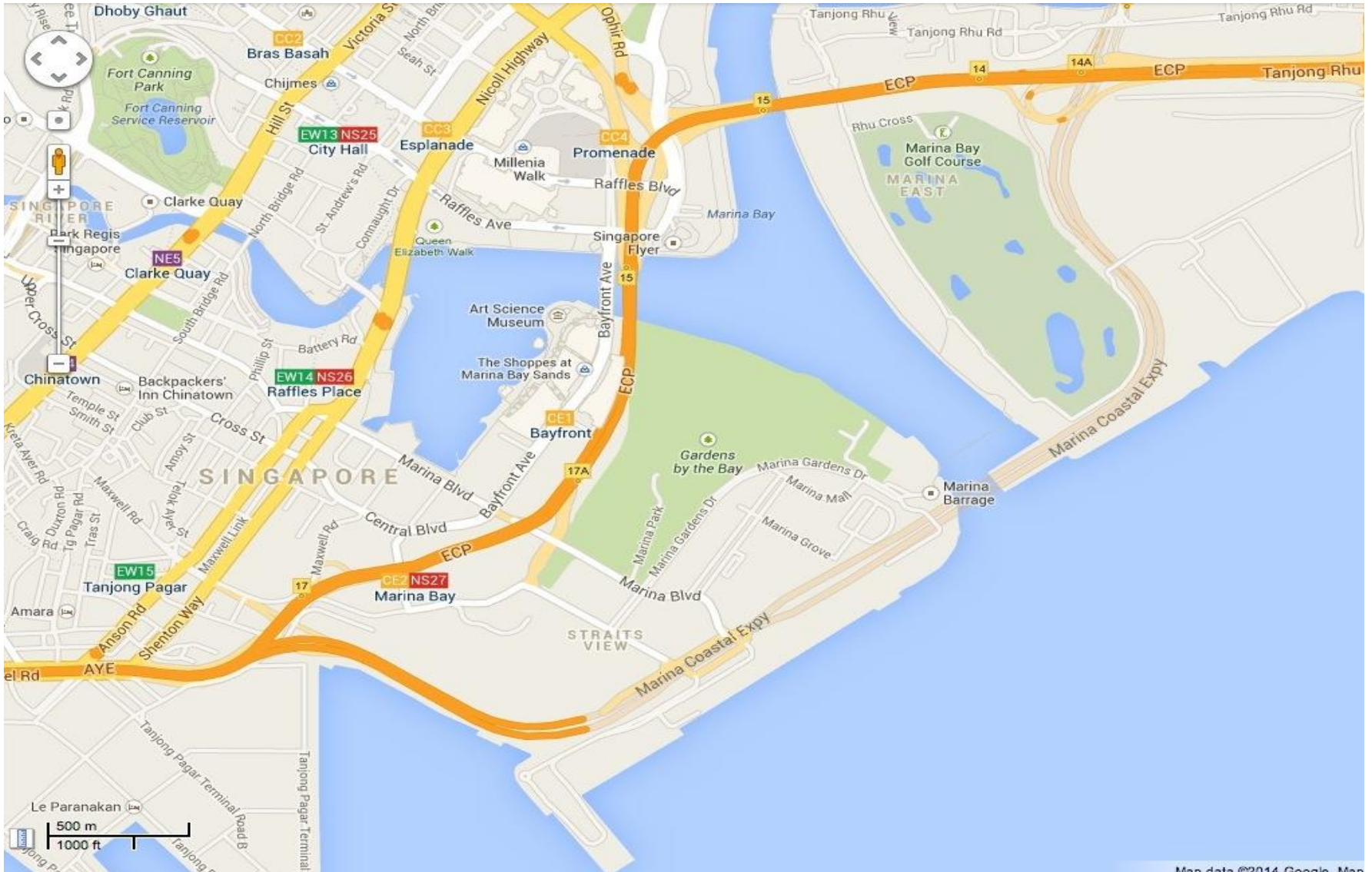


# A Last Mile Problem

## A 'Live' Case Study of Marina Coastal Expressway

This case was prepared by Vignesh Louis Naidu under the guidance of Donald Low, Lee Kuan Yew School of Public Policy (LKY School), National University of Singapore and has been funded by the LKY School. The case does not reflect the views of the sponsoring organisation nor is it intended to suggest correct or incorrect handling of the situation depicted. The case is not intended to serve as a primary source of data and is meant solely for class discussion.

# Original East-West Route

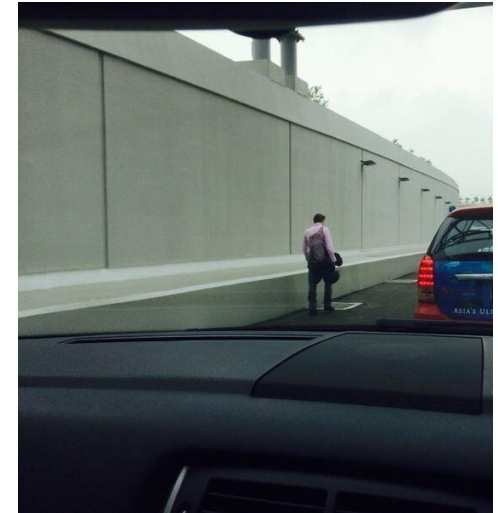


# Marina Coastal Expressway



# The Last Mile Problem

- Opened on 29<sup>th</sup> Dec 2013 (Sunday)
- On 30<sup>th</sup> Dec 2013
  - Jams and gridlock
  - Insufficient road signs
  - Drivers stopping to ask traffic wardens for directions, contributing to bottlenecks



# The Last Mile Problem

- Commuters were very unhappy with the situation
  - Complaints on social media sites
  - Taxi drivers unfamiliar with the new route



# LTA's Original Communication Efforts

## *Public Video*



<http://www.youtube.com/watch?v=HUihpEZuzx8>

# LTA's Original Communication Efforts

## Travel Advisory

A Better City

With **The Marina Coastal Expressway (MCE)**

Opening on 29 December 2013, from 9am

Singapore's **tenth expressway**, the MCE, will open to traffic from 9.00am on Sunday, 29 December 2013. It will be the **strategic east-west high capacity road link** between the Kallang-Paya Lebar Expressway (KPE), East Coast Parkway (ECP) and the Ayer Rajah Expressway (AYE). Spanning **5km**, some 3.6km or three quarters of the MCE is underground, including a **420m-long tunnel below the seabed** – a first of its kind in Singapore.

“Besides improving road connectivity and accessibility into the Marina downtown, more importantly, the MCE will allow us to fulfil the vision of creating a better city.”

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### EXCITING OPPORTUNITIES FOR MARINA DOWNTOWN

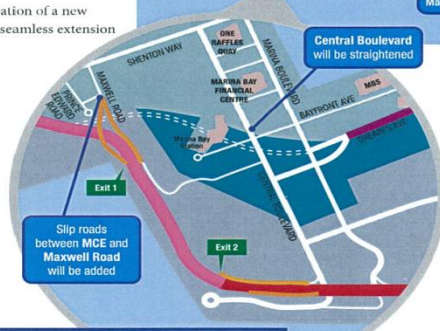
Built in anticipation of the future development of the Marina Bay area, the MCE will help enhance it into a quality live-work-play precinct. How so? The MCE allows the freeing up of valuable land space currently occupied by the ECP that has potential for many other exciting possibilities in the Marina downtown area.

This freed-up land allows for the creation of a new CBD, with the Marina Bay area as a seamless extension of the existing financial district.

### CROSS-ISLAND COMMUTE MADE EASIER

A five-lane expressway in both directions, besides offering motorists a smoother connection between the eastern and western parts of the island, the MCE will also provide them with a direct access to the heart of the downtown at Marina South through new connections with Central Boulevard, Marina Boulevard and Maxwell Road.

Final Road Network in Marina South to be completed in 3rd Quarter 2014.



### ROAD CHANGES FOR A BETTER CITY

#### Marina Downtown

- Removal of a section of the ECP from Marina Boulevard to Prince Edward Road
- Conversion of a stretch of the ECP west of Benjamin Sheares Bridge to a major arterial road and renamed as Sheares Avenue – this will bring traffic from the ECP directly into the CBD and connect with Central Boulevard and Marina Boulevard

#### Fort Road

- Use Fort Road interchange to connect directly to the MCE to travel to the city or to the west
- Existing connection to the ECP (towards City) from Fort Road to be removed due to insufficient distance for safe filtering into the expressway when the MCE opens

- Consider other alternatives, such as via Nicoll Highway, or travel on the East Coast Park Service Road to make a U-turn to join the ECP further east

#### Ophir Road

- Those using Ophir Road to get to Sheares Avenue will first have to enter the CBD, before they can get to the MCE

- Motorists exiting MCE to Central Boulevard, and using Sheares Avenue to connect to the Rochor Road exit will also have to enter the CBD first

Depending on their eventual destinations, motorists can consider alternative routes around the CBD cordon to rejoin the expressway.

# LTA's Original Communication Efforts

## Travel Advisory

### Motorists' Handy Guide

#### Travelling Between Expressways

From	To	Routes	From	To	Routes
KPE	AYE	KPE – MCE – AYE	AYE	ECP	AYE – MCE – Exit 5 – ECP
ECP		ECP – Exit 14B – MCE – AYE		KPE	AYE – MCE – KPE

#### Travelling in and out of the CBD

From	To	Routes	From	To	Routes
AYE	Marina Bay Financial Centre (MBFC) area	AYE – MCE – Exit 2 – Central Blvd	ECP/KPE	Marina Bay Financial Centre (MBFC) area	KPE – MCE – Exit 3 – Central Blvd
		AYE – Exit 2B (AYE) – Keppel Rd – Anson Rd			KPE – Exit 1 – ECP – Sheares Ave – Central Blvd
		AYE – CTE – Exit 2 (CTE) – Merchant Rd			ECP – Sheares Ave – Central Blvd
	Raffles Place/ Shenton Way	AYE – MCE – Exit 2 – Central Blvd		KPE – MCE – Exit 3 – Central Blvd	
AYE – Exit 2B (AYE) – Keppel Rd – Anson Rd		KPE – Exit 1 – ECP – Sheares Ave – Central Blvd			
AYE – CTE – Exit 2 (CTE) – Merchant Rd		ECP – Sheares Ave – Central Blvd			
Suntec/ Marina Centre	AYE – MCE – Exit 2 – Central Blvd – Bayfront Ave	Suntec/ Marina Centre	ECP – Exit 15 – Rochor Rd – Temasek Blvd	ECP – Exit 1 – ECP – Exit 15 – Rochor Rd – Temasek Blvd	
Maxwell Rd	No change in travel routes	Maxwell Rd	KPE – MCE – Exit 1 – Maxwell Rd	ECP – Exit 14B – MCE – Exit 1 – Maxwell Rd	
Marina Bay Financial Centre (MBFC) area	AYE	Marina Blvd – MCE – AYE	Marina Bay Financial Centre (MBFC) area	ECP/KPE	Marina Blvd – MCE – Exit 5 – ECP (Changi)
		Shenton Way – Keppel Rd – AYE			Marina Blvd – MCE – KPE
		Merchant Rd – CTE – AYE			Marina Blvd – Sheares Ave – ECP – ECP (Changi) or KPE
Raffles Place/ Shenton Way		Marina Blvd – MCE – AYE	Marina Blvd – MCE – Exit 5 – ECP (Changi)		
	Shenton Way – Keppel Rd – AYE	Marina Blvd – MCE – KPE			
	Merchant Rd – CTE – AYE	Marina Blvd – Sheares Ave – ECP – ECP (Changi) or KPE			
Suntec/ Marina Centre	Bayfront Ave – Marina Blvd – MCE – AYE	Suntec/ Marina Centre	Republic Blvd – Ophir Rd – ECP – ECP (Changi) or KPE		
Maxwell Rd	No change in travel route	Maxwell Rd	Maxwell Rd – MCE – Exit 5 – ECP (Changi)		
			Maxwell Rd – MCE – KPE		

#### Drive Safely in the MCE Tunnel



Keep within the speed limit of 80 kmh



Switch on your headlights & Turn on your radio (Local/BBC)



Avoid tailgating



Heavy vehicles keep left



Stay in lane



Don't drive on road shoulder



Don't stop your vehicle in tunnel

During emergency, contact LTA at **1800-CALL LTA (1800-2255 582)**.



Log on to [www.lta.gov.sg](http://www.lta.gov.sg) or scan this QR code for more information.

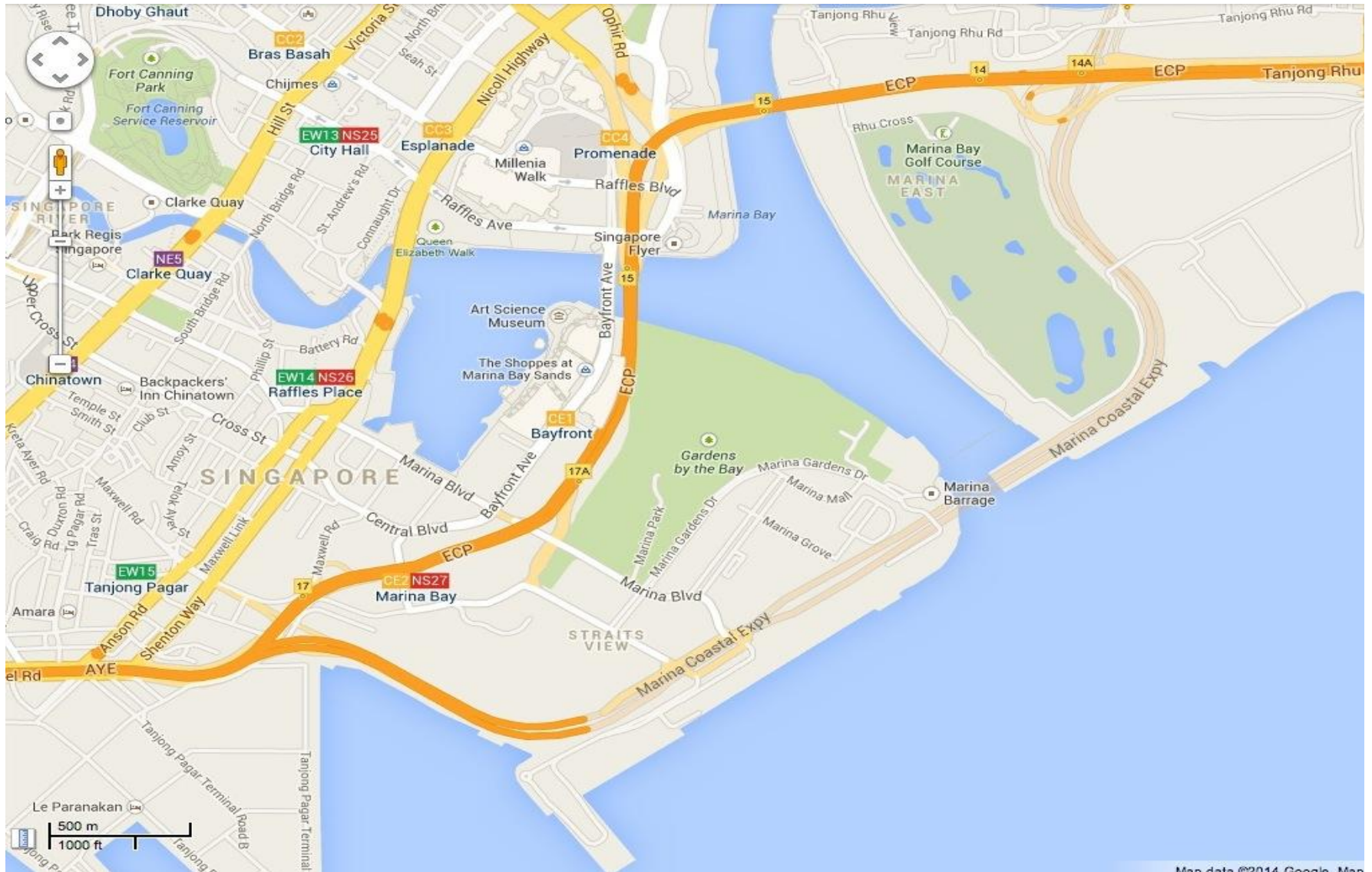


# The Last Mile Problem

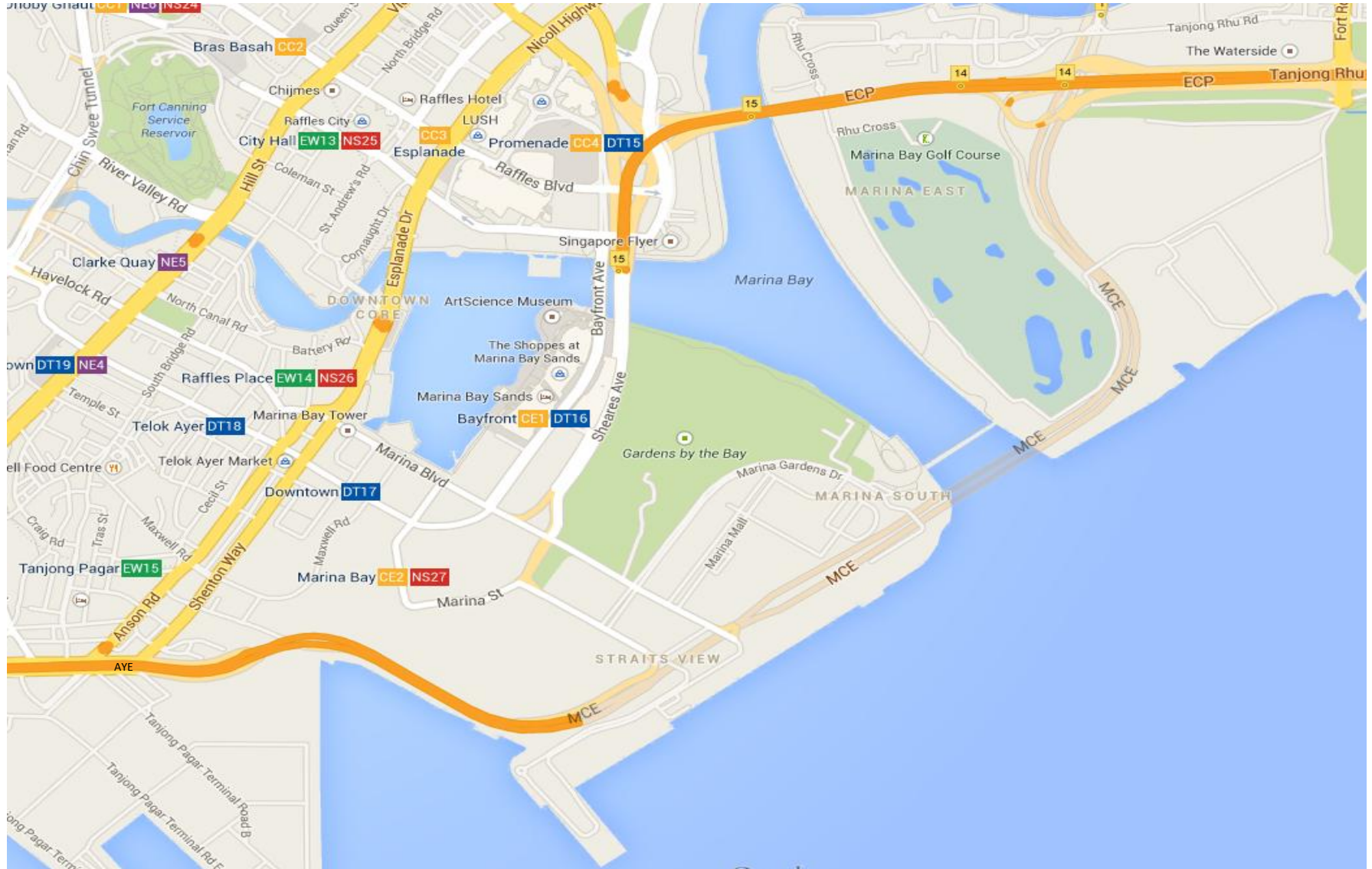
- What was wrong or inadequate about LTA's communication efforts?
  
  
  
  
  
  
  
  
  
  
  
  
  
- Using behavioural insights, what would you have done differently?

End of Part 1

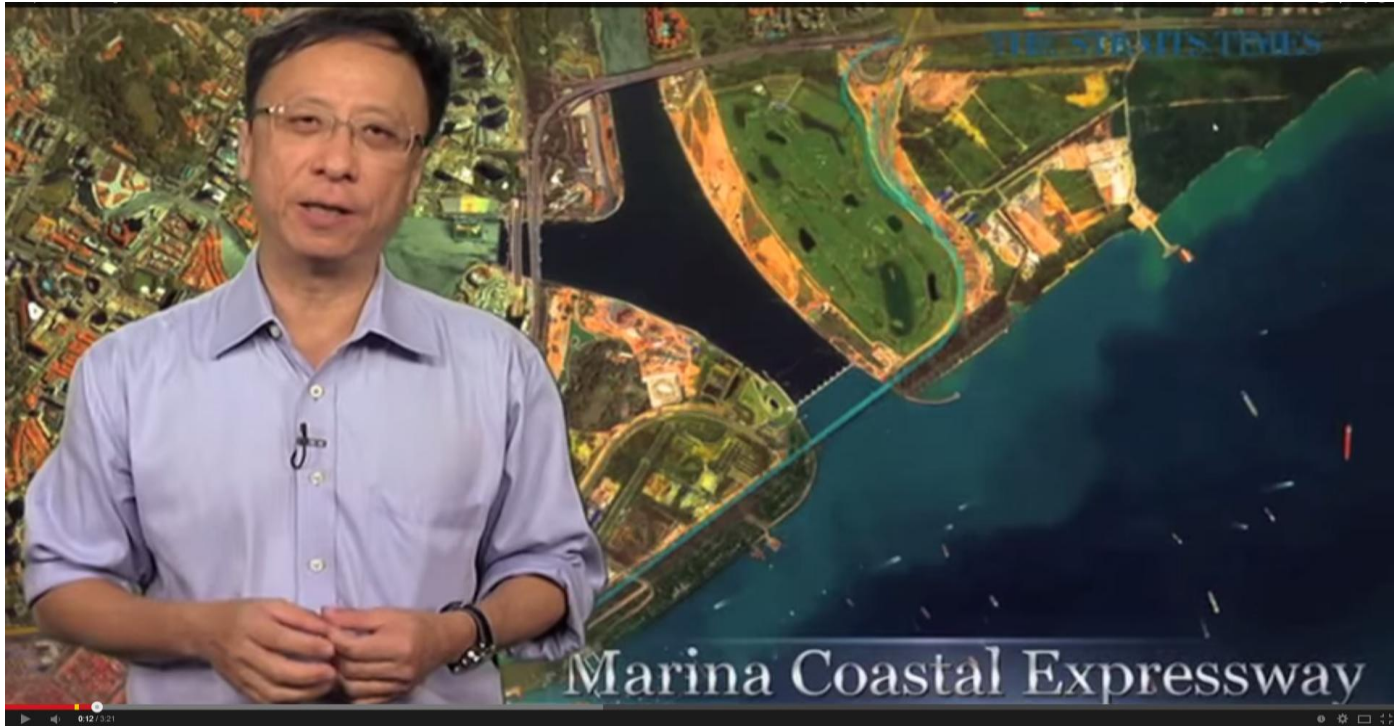
# Original East-West Route



# New Route: where would you expect motorists to be confused?



# A Motoring Journalist's Opinion



<http://www.youtube.com/watch?v=6xr3jreE9QQ>

# LTA's Recovery Efforts

## 31<sup>st</sup> Dec 2013

- Expansion of a stretch of Central Boulevard from 2 to 4 lanes
- Posting of more visible (and salient) temporary road signs
- Continued deployment of traffic wardens to help direct motorists
- Revised travel advisory published in all major newspapers (in all 4 national languages)



Lui Tuck Yew

31 December 2013 · Singapore, Singapore · 🌐

Traffic flow along the MCE was smoother yesterday evening and this morning, partly helped by the lower traffic volume today and motorists becoming more familiar with the MCE. LTA also made some immediate adjustments and these have helped. A short stretch of Central Boulevard has been converted from two to four lanes, improvements were made to signages and the timing of some traffic lights has been adjusted to facilitate traffic flow.

Over the next few days, LTA will continue to make further improvements. It will put out more advisories through multiple channels to guide motorists on the best way to reach their destinations. In order to minimise last minute weaving action that slows down traffic, it will also give motorists more information on how far the next exit / turn-off is and which lanes to take.

LTA will continue to monitor the traffic situation along MCE and put in more resources to ensure that traffic will be smooth on 2 Jan when work and school resume. To help all of us become more familiar with the changes, let me share a short video clip that LTA released a few months back.

<http://www.youtube.com/watch?v=HUihpEZuzx8>.

Finally, let me wish all commuters, cyclists and motorists Happy New Year and safe and reliable journeys in 2014.



### Marina Coastal Expressway

Marina Coastal Expressway (MCE) is Singapore's 10th expressway and our first undersea tunnel! MCE will provide motorists with a seamless and direct connectio...

YOUTUBE.COM

Share

👍 8 people like this.

↪️ 2 shares

# LTA's Original Communication Efforts

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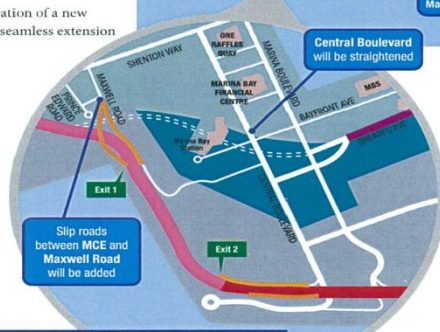
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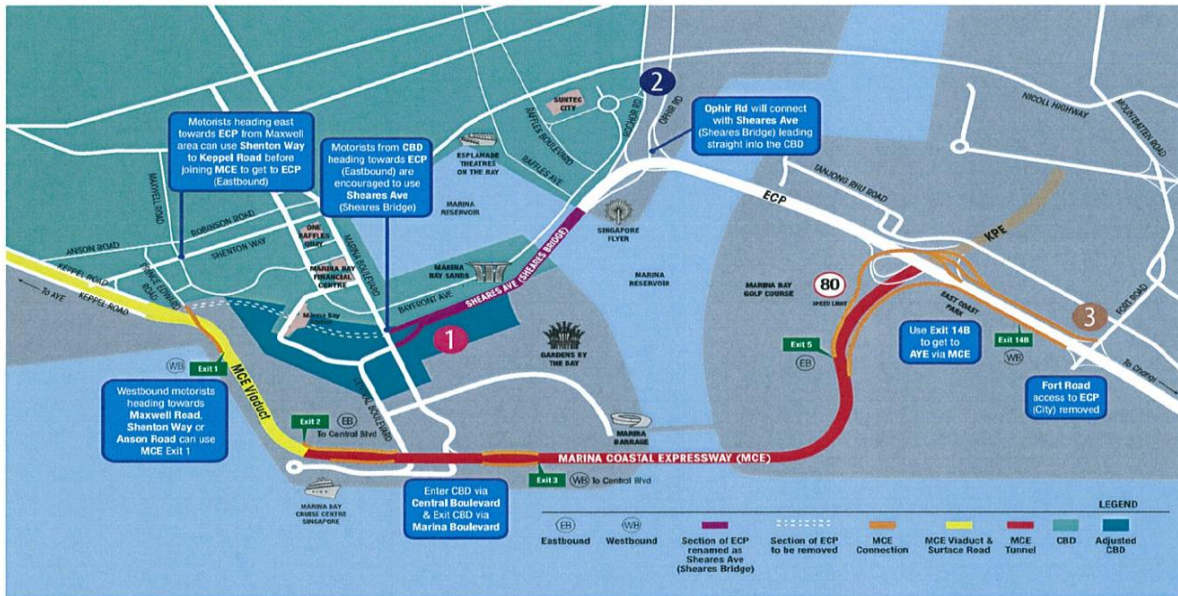
# LTA's Recovery Efforts

## Revised Travel Advisory

### Traffic Advisory For Motorists

## Using The Marina Coastal Expressway (MCE)

LTA has been monitoring traffic conditions since the opening of the MCE and making adjustments to improve traffic circulation in the road network adjoining MCE. More signs have been placed at key approaches to guide motorists. Motorists may also find the guide below useful when planning their journey.



#### CHANGES TO ROAD NETWORK:

##### MARINA DOWNTOWN

1

- Removal of a section of the ECP from Marina Boulevard to Prince Edward Road
- Conversion of a stretch of the ECP west of Benjamin Sheares Bridge to a major arterial road and renamed as Sheares Avenue – this will bring traffic from the ECP directly into the CBD and connect with Central Boulevard and Marina Boulevard

##### OPHIR / ROCHOR ROAD

2

- Those using Ophir Road to get to Sheares Avenue (Sheares Bridge) will first have to enter the CBD, before they can get to the MCE
- Motorists exiting MCE to Central Boulevard, and using Sheares Avenue (Sheares Bridge) to connect to the Rochor Road exit will also have to enter the CBD first
- Depending on their eventual destinations, motorists can consider alternative routes around the CBD cordon to rejoin the expressway

##### FORT ROAD

3

- Use Fort Road interchange to connect directly to the MCE to travel to the city or to the west
- The connection to the ECP (towards City) from Fort Road has been removed due to insufficient distance for safe filtering into the expressway
- Consider other alternatives, such as via Nicoll Highway, or travel on the East Coast Park Service Road to make a U-turn to join the ECP further east

WESTBOUND MOTORISTS	
Travelling from ECP to AYE	
From ECP	To AYE Join MCE at Exit 14B near Fort Road
Travelling from ECP to MCE to CBD	
From ECP To MCE	To Shenton Way or Anson Road Use MCE Exit 1 to Maxwell Road
	To Marina South Use MCE Exit 3 to Central Boulevard or Sheares Ave (Sheares Bridge)
Travelling from Ophir Road to AYE	
From Ophir Road	To AYE Use other arterial roads or CTE to connect with AYE
EASTBOUND MOTORISTS	
Travelling from AYE to ECP	
From AYE	To ECP Continue journey on MCE to join ECP (Changi) at Exit 5
Travelling from AYE to CBD	
From AYE	To Shenton Way or Anson Road Exit AYE at Exit 2B and use Keppel Road / Anson Road
	Alternatively Use CTE and take Exit 2 to Merchant Road
	To Marina South Exit MCE at Exit 2 to Central Boulevard
Travelling from CBD to ECP	
From CBD (Marina South)	To ECP Use Sheares Ave (Sheares Bridge) to access the ECP
From CBD (Maxwell Road / Shenton Way)	Use Keppel Road to enter MCE and join ECP at Exit 5



# Discussion