

# Congestion Pricing Experiences in Singapore

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# Congestion Pricing – just one component of a Transport Strategy

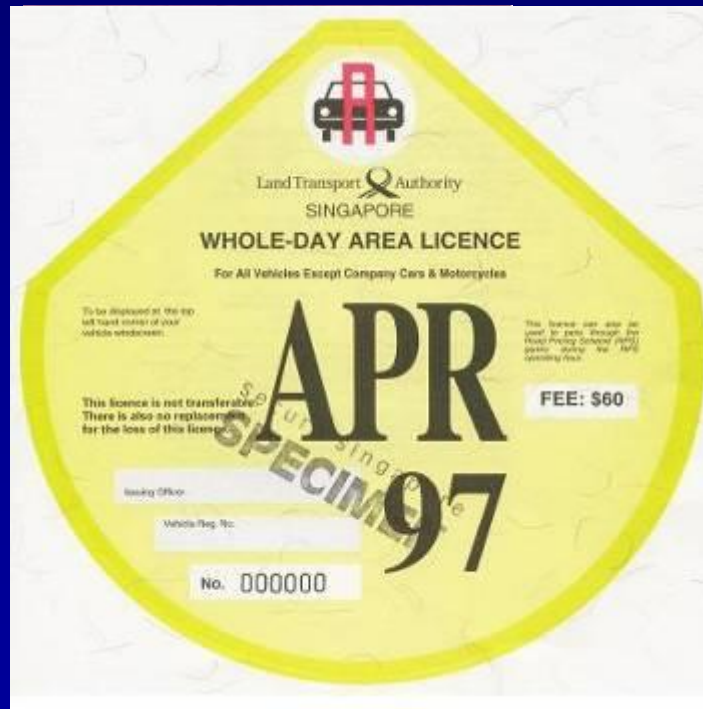
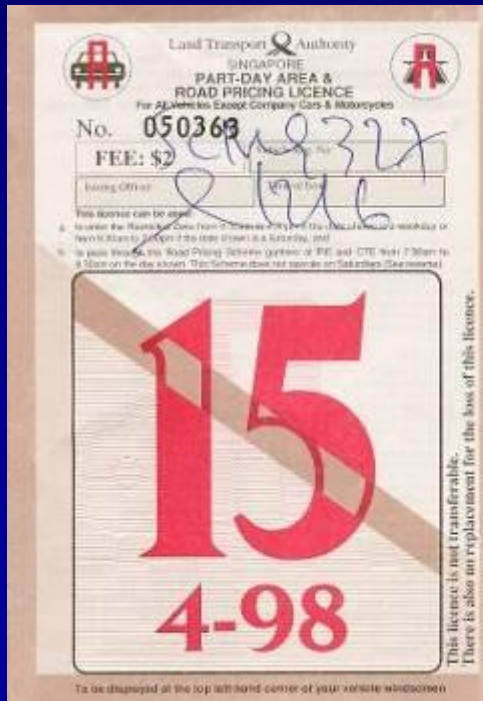
- Cannot work on its own
- Singapore:
  - ◆ Public Transport is key alternative
  - ◆ A Traffic Management Tool – Not for revenue generation

# Area Licensing Scheme



# Area Licensing Scheme

- Daily and monthly paper licences.





# Area Licensing Scheme

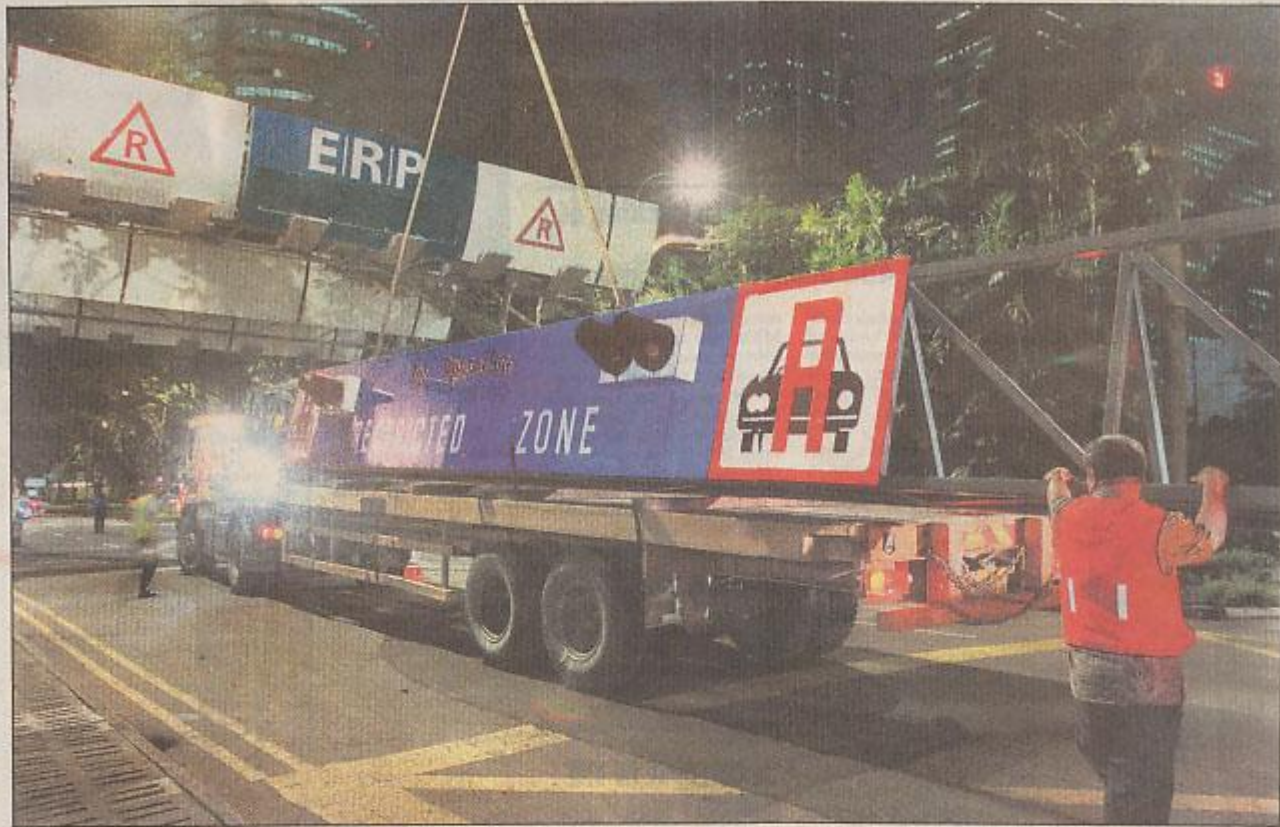
- Manually enforced.



# Area Licensing Scheme

- Cordon-based marked by gantries
- Paper licences (for payment on entries)
- Enforcement - manual

# The Change-over to ERP



LAI HOOK KONG

Marking the end of an era, a manual pricing gantry is taken down. Electronic road pricing begins islandwide today.

## Goodbye ALS, hello ERP

**By GERALDINE YEO**  
TWENTY manual road pricing gantries are being dismantled today.

And instead of signs showing the scheme in operation, motorists will be greeted by ERP signboards

change at various times of the day.

The LTA also reminded motorists to insert Cash-

pricing means the paper licence sale booths will no longer be used.

Officers from the Urban

### Call us

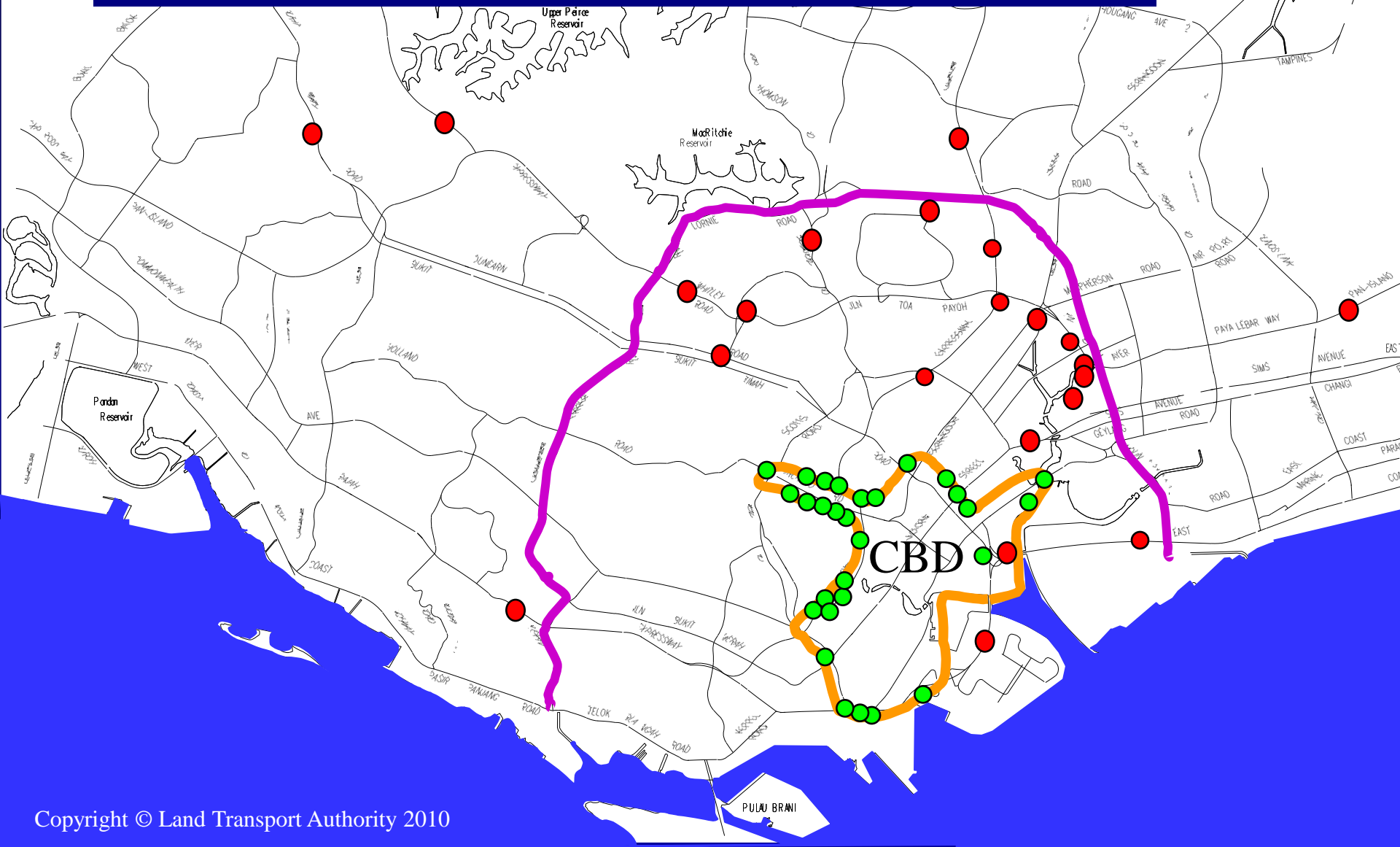
THE Electronic Road Pricing scheme goes islandwide from

# Singapore's Electronic Road Pricing

- Cordon-based marked by gantries
- Electronic In-Vehicle Unit with smart-card (for payment on entries)
- Enforcement – camera images
- Back-end Central Control System



Started in 1998 with 33 gantries  
Increased over the years – presently 66 gantries



# Road Pricing Charges

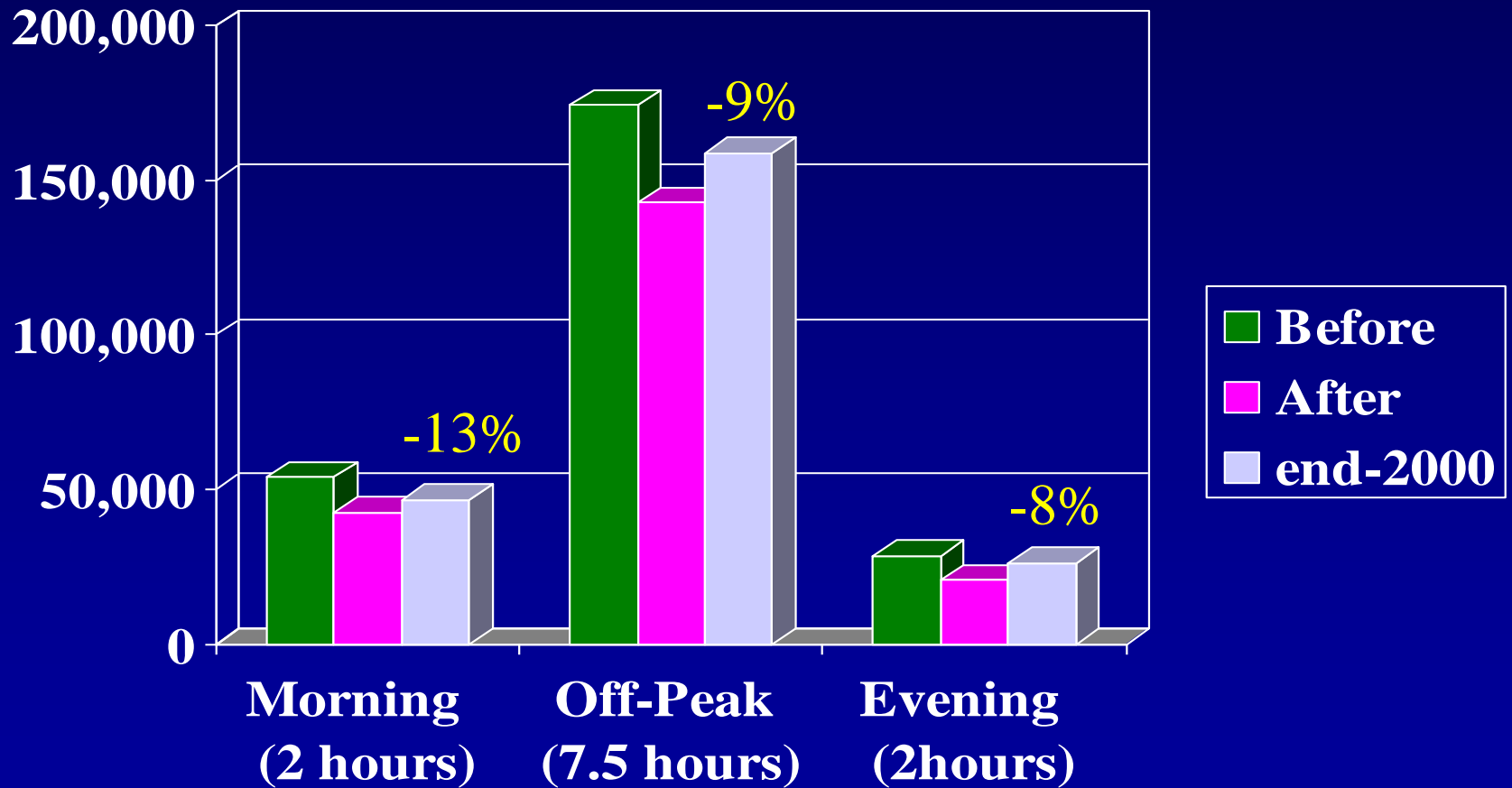
- ❑ Varies by vehicle type
- ❑ Varies by location of gantry
- ❑ Varies by time of day - ranges from S\$0.50 to S\$4.00 per pass

# Payment Modes

- Deducted at point of use from smart-card
- Post-payment with administrative charges
- Credit card payment

# Impact - Traffic Volume (CBD)

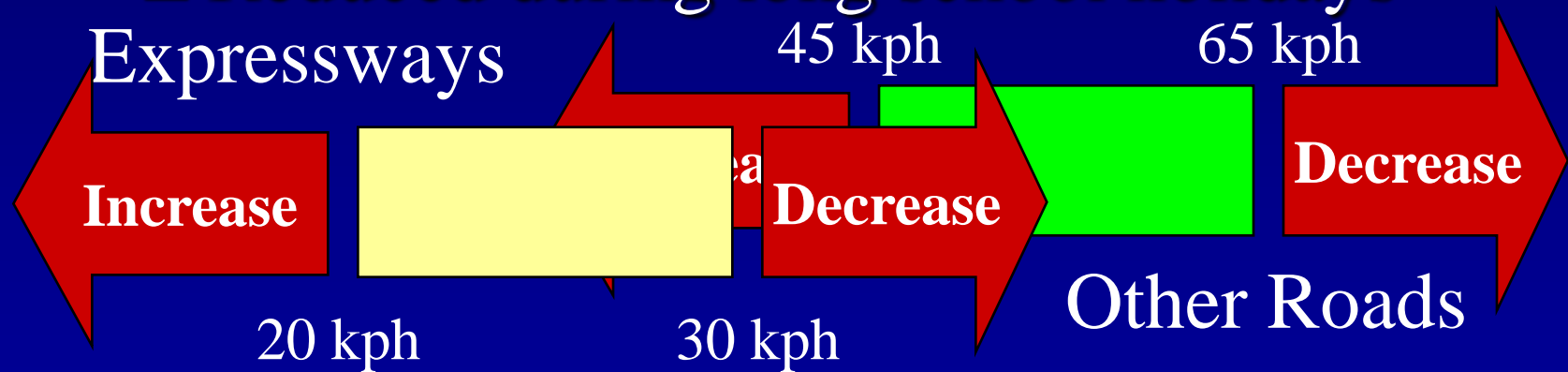
Peak Period Flow





# Adjustment of ERP Charges

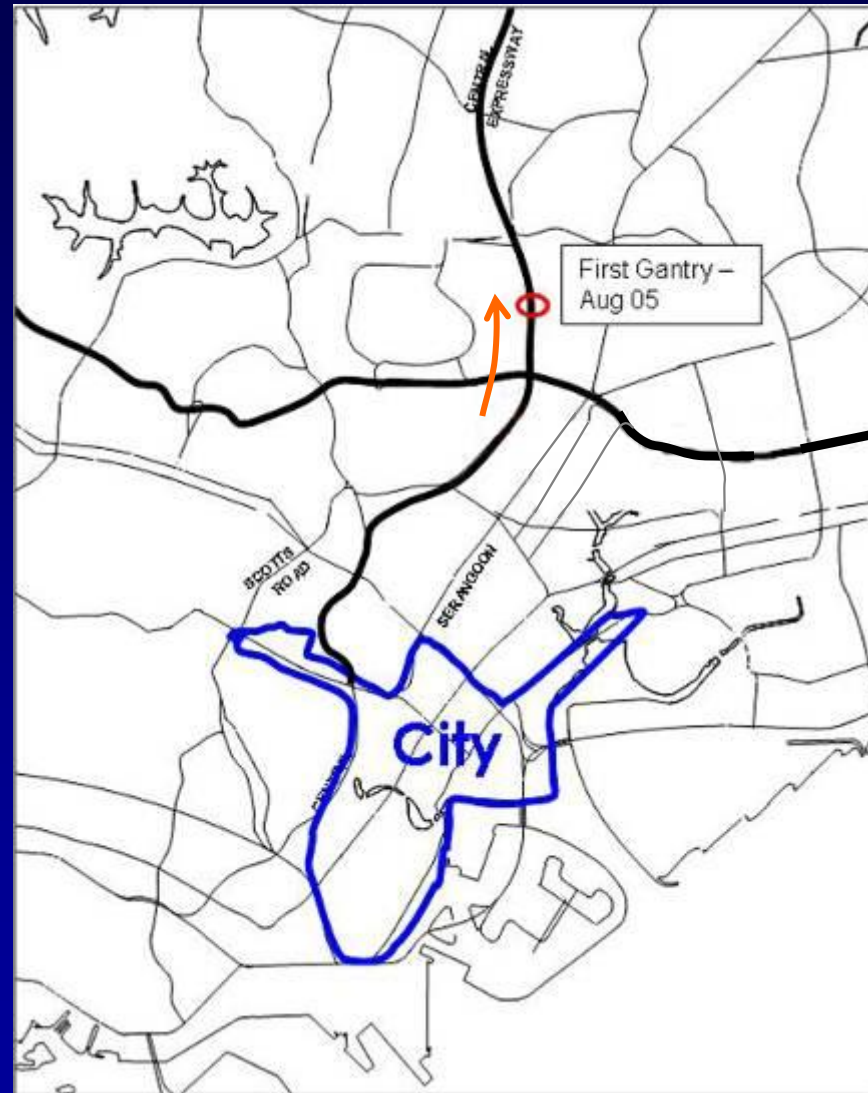
- To ensure use of road space is optimised
- Review at 3-monthly intervals
- Reduced during long school holidays



# Extending the Singapore's Electronic Road Pricing

- Aug 05 – ERP extended to manage evening peak hour congestion for home-bound trips (on the Central Expressway, CTE)

# Evening ERP for home-bound trips



# Evening ERP for home-bound trips

- Aug 05 – ERP extended to manage evening peak hour congestion for home-bound trips (on the Central Expressway, CTE)
- Travel time between 6 – 8 pm improved.
- Motorists have a choice.



# Smooth flow as

## Alternative routes pleasant

THE road less travelled turned out to be a pleasant ride when The Straits Times tried out two alternative routes to the Central Expressway (CTE) last Thursday and Friday.

One entailed getting off the CTE heading towards Ang Mo Kio at the Pan-Island Expressway/Upper Serangoon Road exit.

At first, the car got stuck in a bottleneck before that slip road. But that was soon negotiated and it was a breeze from then.

The car bowled along Upper Serangoon Road, stopping only at two traffic lights. There were few vehicles on the road, and even fewer when the car took the Serangoon Viaduct at 70kmh. It took nine minutes to travel the 5km from the slip road to the junction of Upper Serangoon and Boundary roads, towards Hougang.

Getting to that point took the same amount of time when we took the tradi-

tional route — exiting a little later, at Ang Mo Kio Avenue 1, which is after the new gantry, and then driving along Lorong Chuan and Boundary Road.

The distance travelled on both routes was the same too. But the extra distance driven on the CTE felt more stressful. Vehicles crowded all five lanes of the highway.

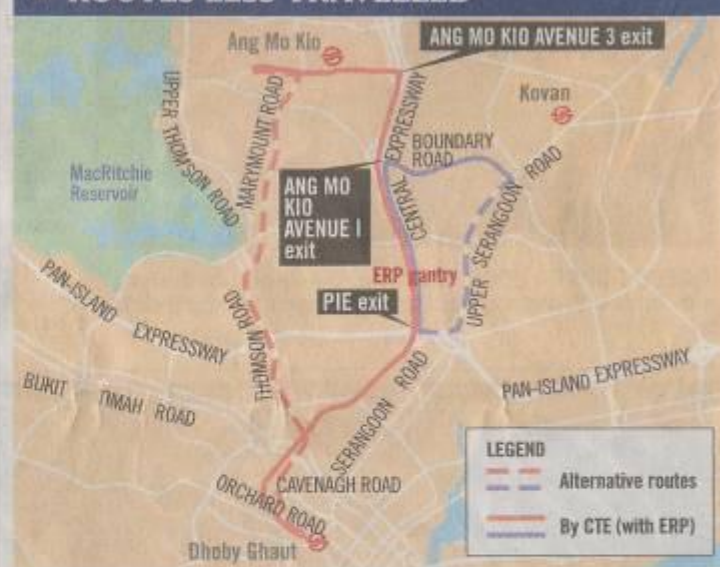
The Straits Times had a similar experience travelling from Dhoby Ghaut to Ang Mo Kio Avenue 1. With and without using the CTE, the journey was 10.8km and took 25 minutes.

On the CTE, the car encountered heavy traffic in the tunnel. It was the same thing near the Ang Mo Kio Avenue 1 exit. But on the alternative route, via Cavenagh, Kampong Java, Thomson and Marymount roads, through Ang Mo Kio Avenue 6 and Ang Mo Kio Avenue 3, traffic appeared lighter.

However, motorists will have to pass 14 traffic lights here.



### » ROUTES LESS TRAVELLED



intervals on the expressway can also automatically collect information on traffic flow and speeds.

The LTA hopes the new charges will raise average travel speeds during the evening peak from below 40kmh, to between 45kmh and 65kmh.

The new levy will affect commuters who take taxis, who also have to pay more from today on almost all cabs if they get stuck in a jam.

The meter will go up by 10 cents for every 25 seconds the vehicle does not move, instead of every 30 seconds previously.

The Land Transport Authority (LTA) will monitor traffic conditions for a week before commenting on whether the evening toll had simply shifted the congestion to these other roads.

A Straits Times check of real-time traffic conditions

managing 65kmh, a speed that surprised even the cabby himself.

Said Mr Poh Leong Wan, 58: "This is the fastest trip I've taken along the CTE at peak hours."

He pulled in at the interchange at 7.03pm, while the

new: "If I can't leave the office on time, I'd rather pay the toll than go one big round. Traffic will be transferred to the other roads and they will be congested."

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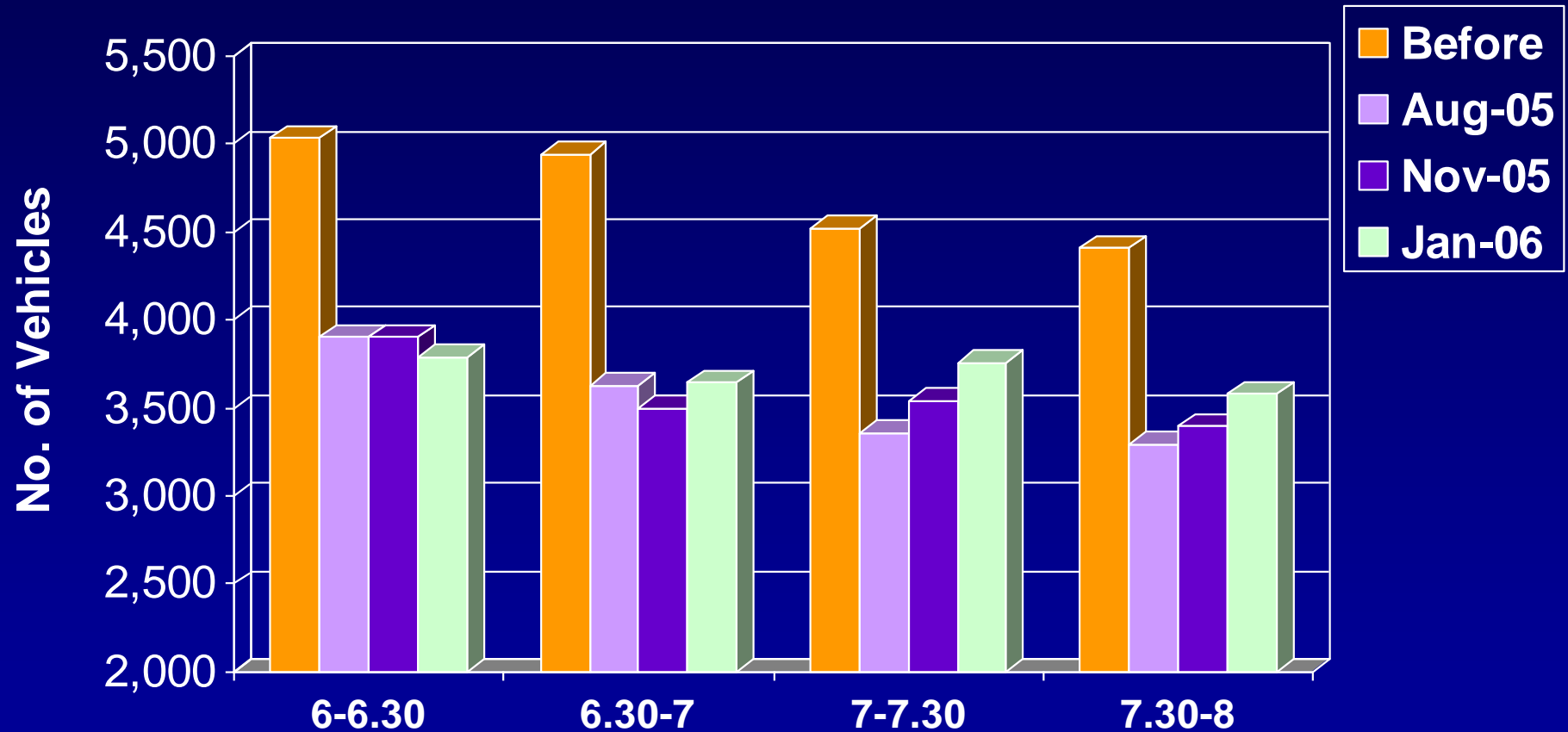
ADDITIONAL REPORTING BY LIM WEI CHEAN AND ARTHUR POON

One, took an extra five minutes yesterday for public relations executive Tan Su Mien. She took a new route home to Seran-

However, the mother of two is not convinced that getting off at the Pan-Island Expressway for a longer journey home is worth the effort.

Said Ms Tan, 32, whose daughters await her return home daily: "I might just pay the 50 cents to get home earlier."

# Impact on Traffic Flows (Aug 05)



# Evening ERP for home-bound trips



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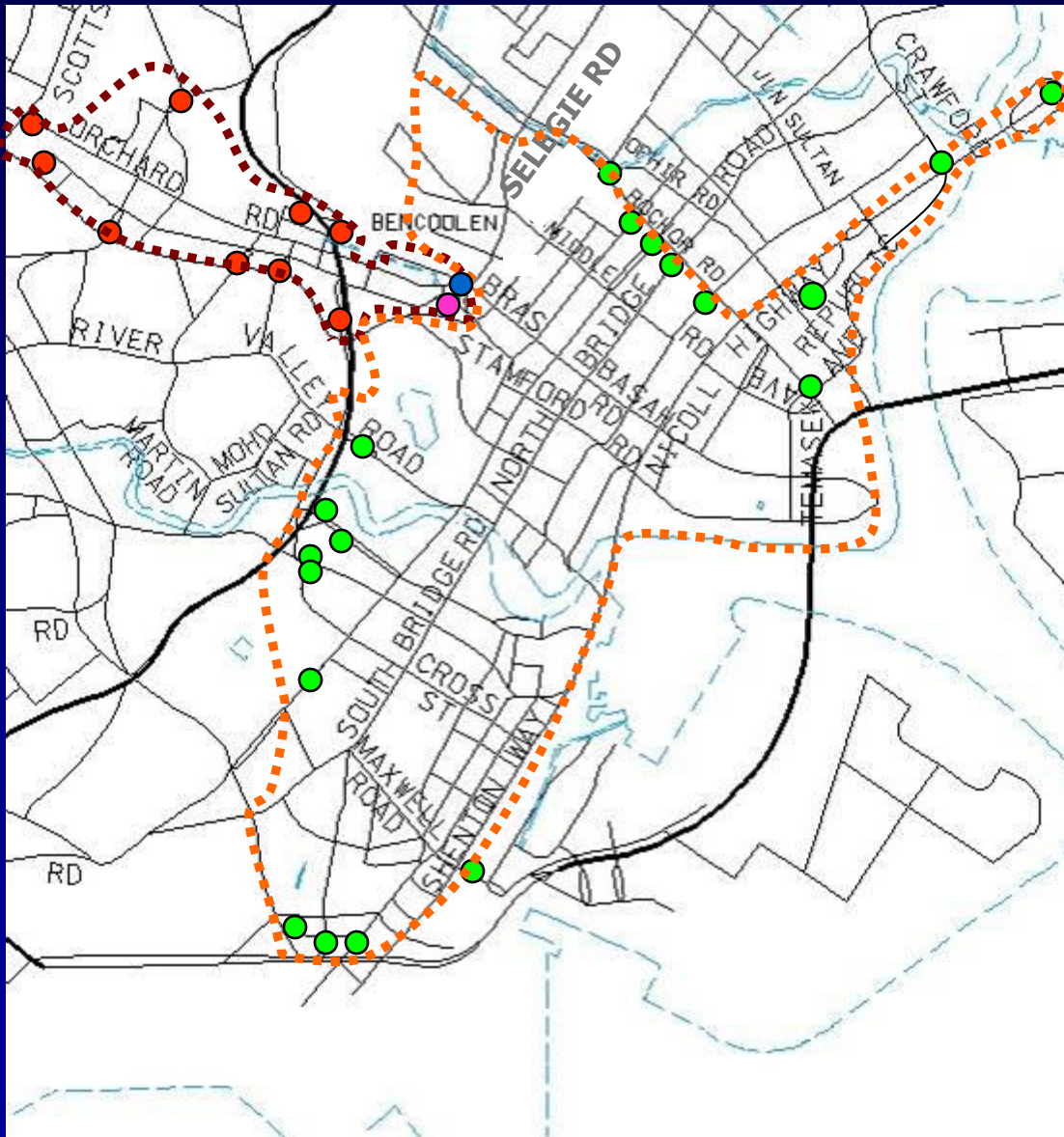




# Extending the Singapore's Electronic Road Pricing

- Oct 05 – Two distinct pricing cordons in city – Orchard and CBD with different operating hours and charges
- Orchard cordon has different traffic characteristics
- Intent is to reduce through traffic on Orchard corridor

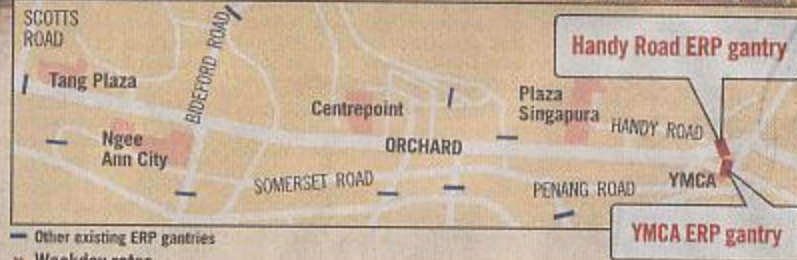
# ERP for Orchard Cordon



- Additional
- Gantries
- Orchard
- CBD



# » NEW PRICE TAGS FOR SHOPPING BELT



Other existing ERP gantries

## » Weekday rates

Time	AM					PM				
Handy Road gantry (leaving Orchard)	8	8.30	9	9.30	10	12	12.30	5.30	6	6.30
	\$2	\$2.50	\$2	\$1		\$0.50	\$1		\$0.50	
YMCA gantry (entering Orchard)									\$0.50	
Other gantries (entering Orchard)						\$0.50	\$1.50	\$2	\$1	\$0.50
Saturday rates (at all gantries)									\$0.50	

## Orchard ERP: Many caught unawares

BY MARCEL LEE PEREIRA & GOH CHIN LIAN

THE launch of noon-to-8pm electronic road pricing (ERP) in Orchard Road yesterday was smooth, but the new timing caught many drivers off guard.

Some could be seen hastily inserting CashCards into their card readers just before the new gantries next to the YMCA and near Handy Road. Motorcyclists even stopped by the roadside to fumble for their cards.

not cause much increase in traffic yesterday morning.

It also said the flow of vehicles into Orchard Road remained smooth but increased slightly after 8pm, easing shortly after.

Meanwhile, Fort Canning Road has been converted from a one-way to a two-way street so that motorists, like those coming out of the Registry of Marriages or Fort Canning Park, can stay within the restricted zone.

But motorists have pointed out that the narrow road will become more hazardous and there

Canning Rise instead. But when The Straits Times visited Fort Canning Road yesterday evening, there was bumper-to-bumper traffic outside the church towards Clemenceau Avenue.

Some drivers who tried to turn right into the YMCA car-park opposite the church were confused as the entrance had been changed to accommodate vehicles from the other direction.

Said irate churchgoer Chua Kay Lee, 35: "This whole thing is a mess. It took me 10 minutes longer to get here".

The LTA said it will look into the situation there.

Though the ERP timing was extended from 7pm to 8pm to ease traffic jams, at least two shopping malls — Park Mall and Centpoint — are offering

## ADVERTISEMENT

the Orchard Road area



With the separation of the Orchard Road area from the CBD, ERP rates for the two cordons will be priced separately to better reflect traffic conditions in the area. This will improve traffic flow and make visiting the Orchard Road area more pleasant.



Two new gantries will be installed near Handy Road and after the YMCA to separate the Orchard Road area from the CBD. For a start, there will be no ERP charges for the Orchard Road area on weekday mornings, while the CBD continues to be charged.

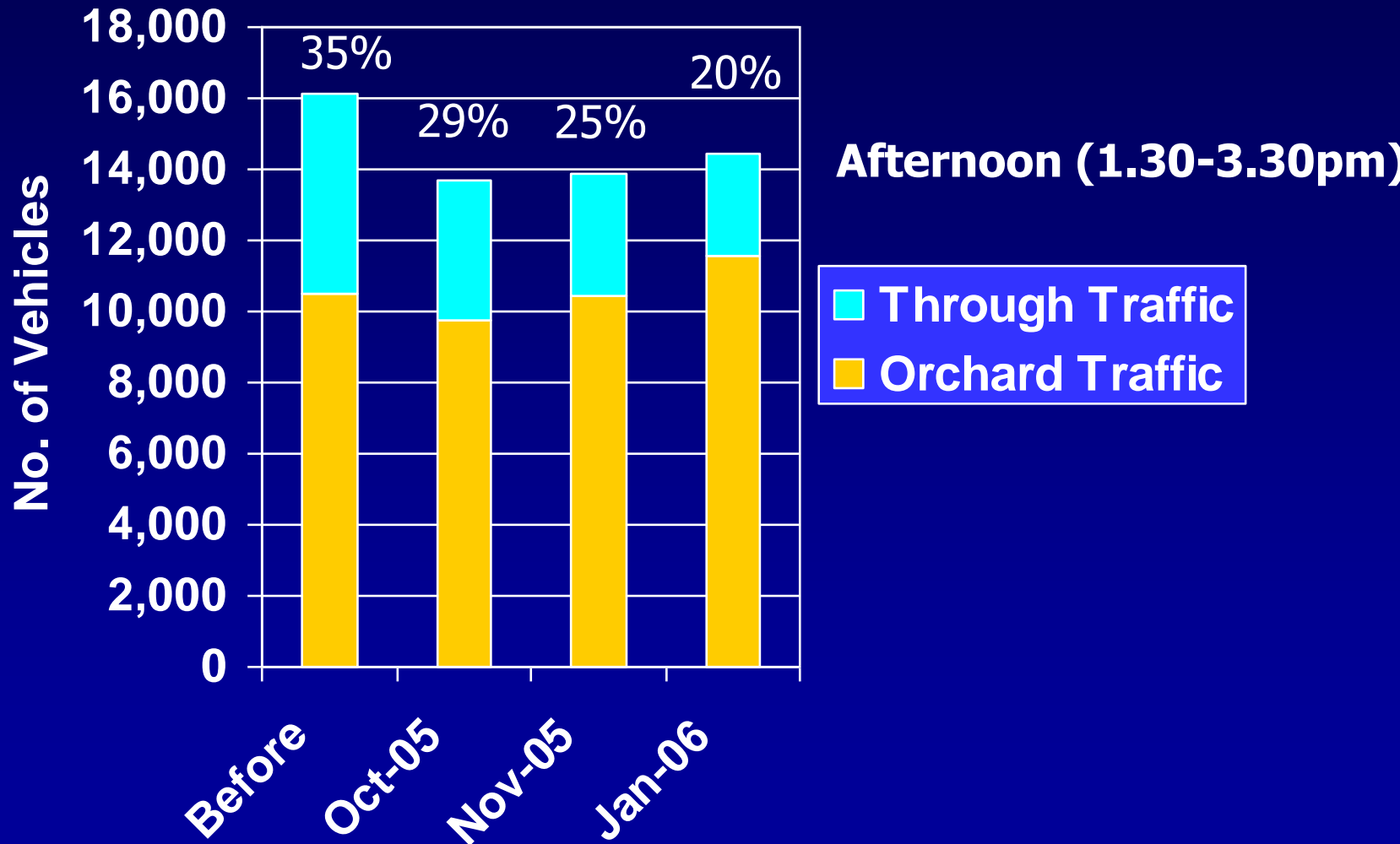


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- Motorists head to use alternat

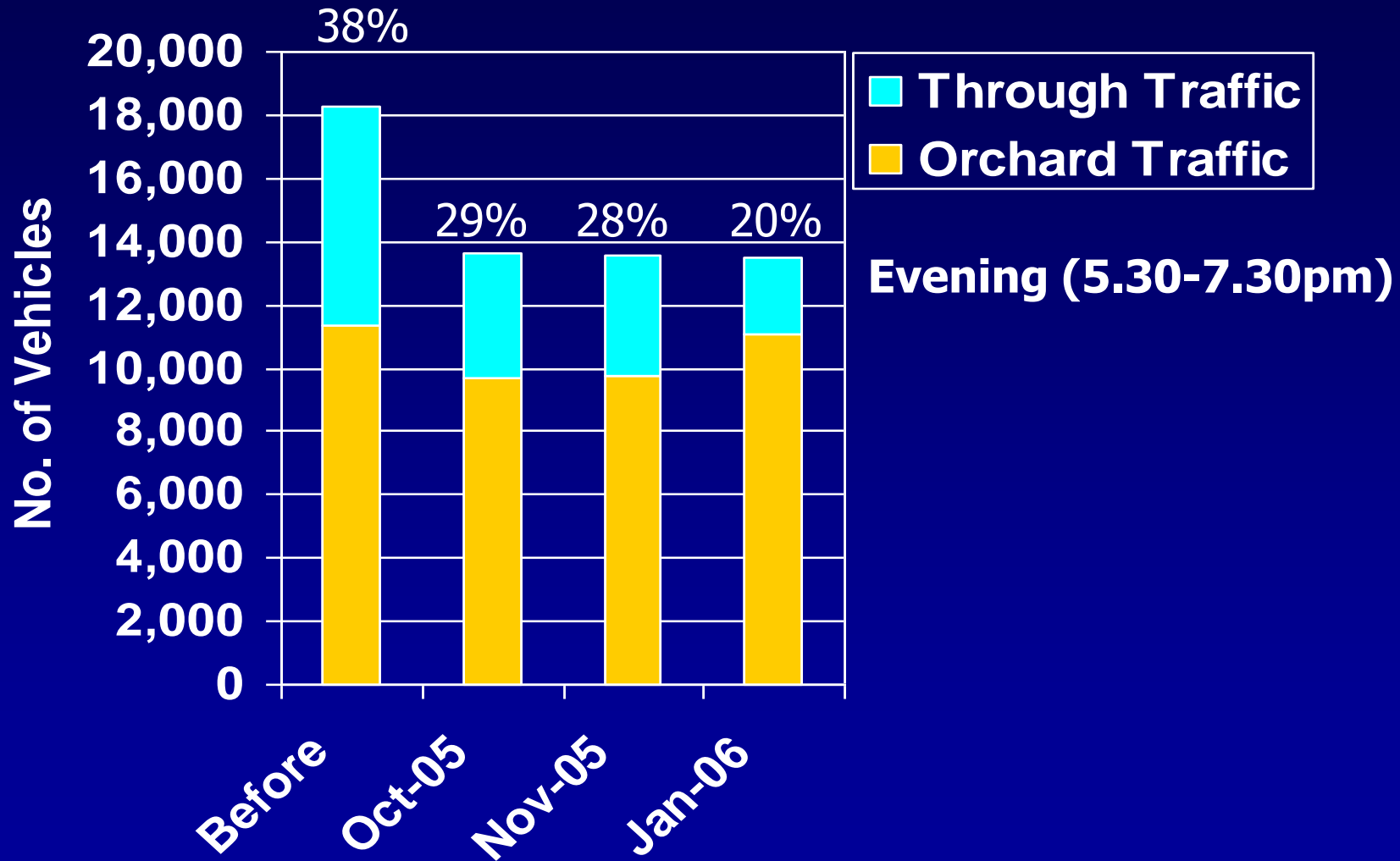


# ERP on Orchard Rd - Weekday

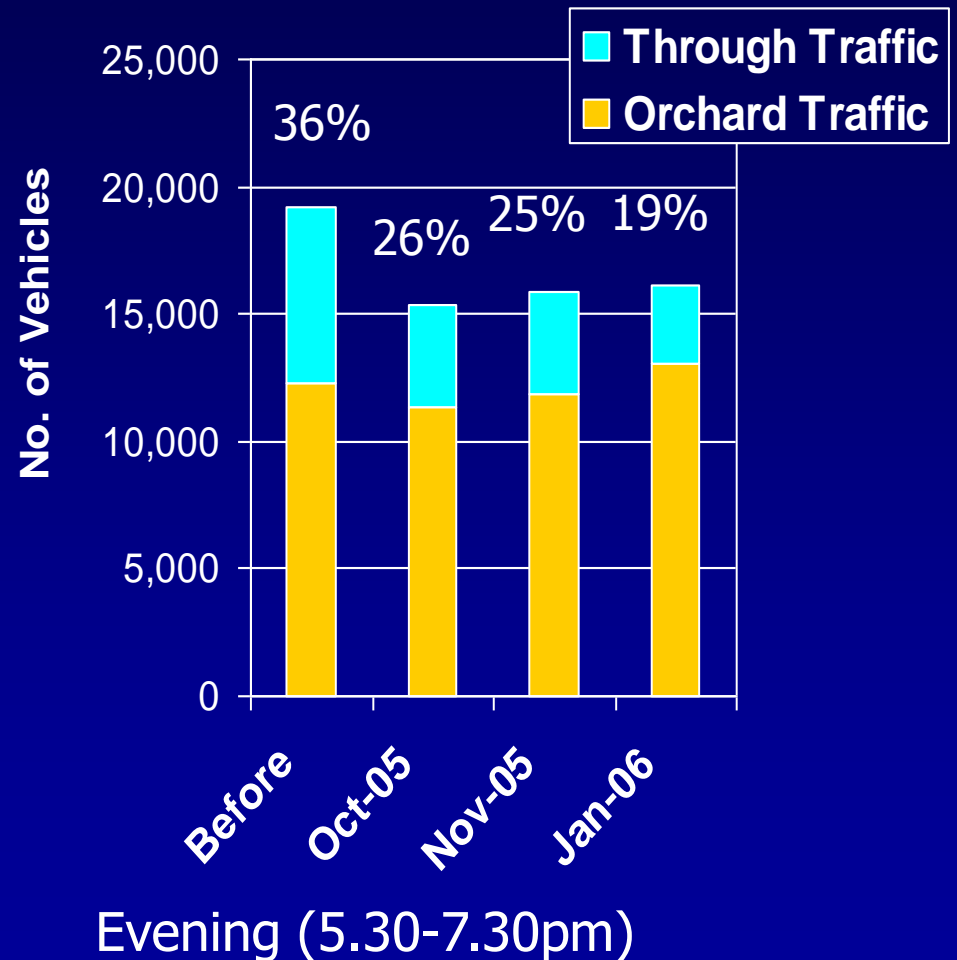
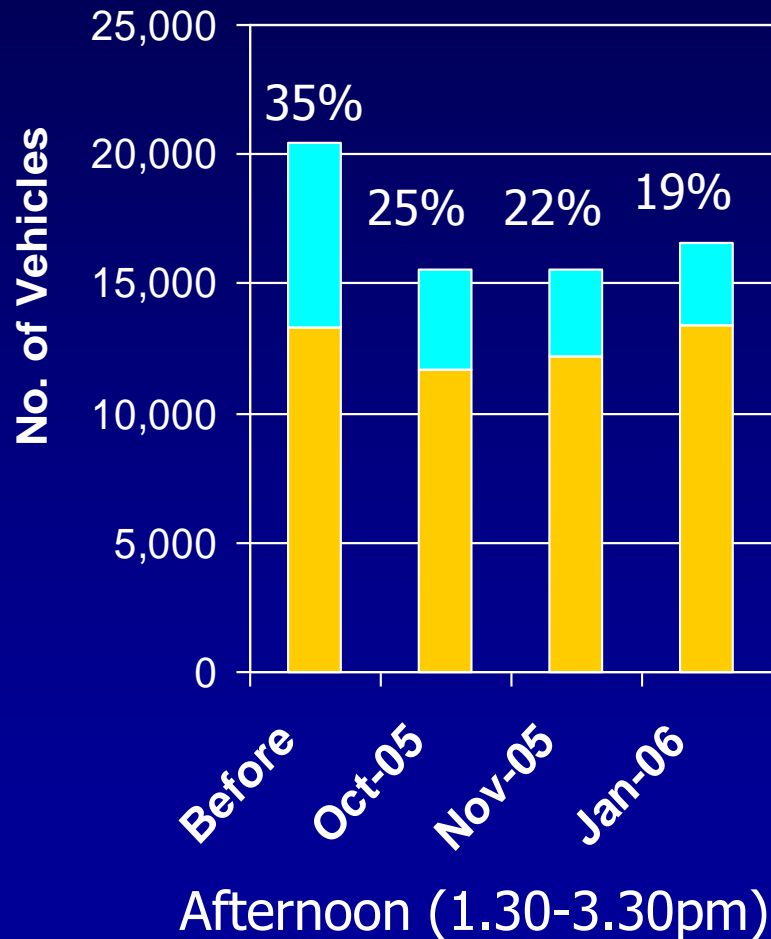




# ERP on Orchard Rd - Weekday

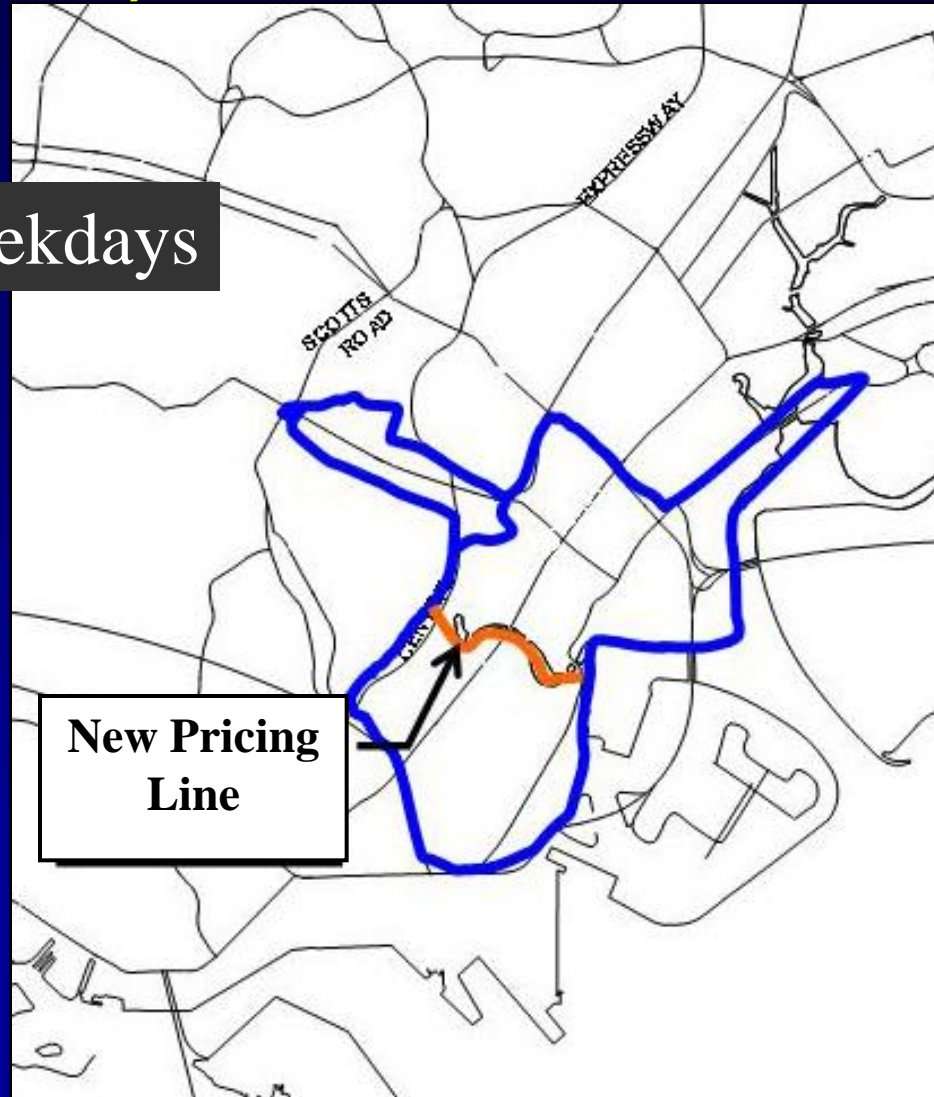


# ERP on Orchard Rd - Saturday

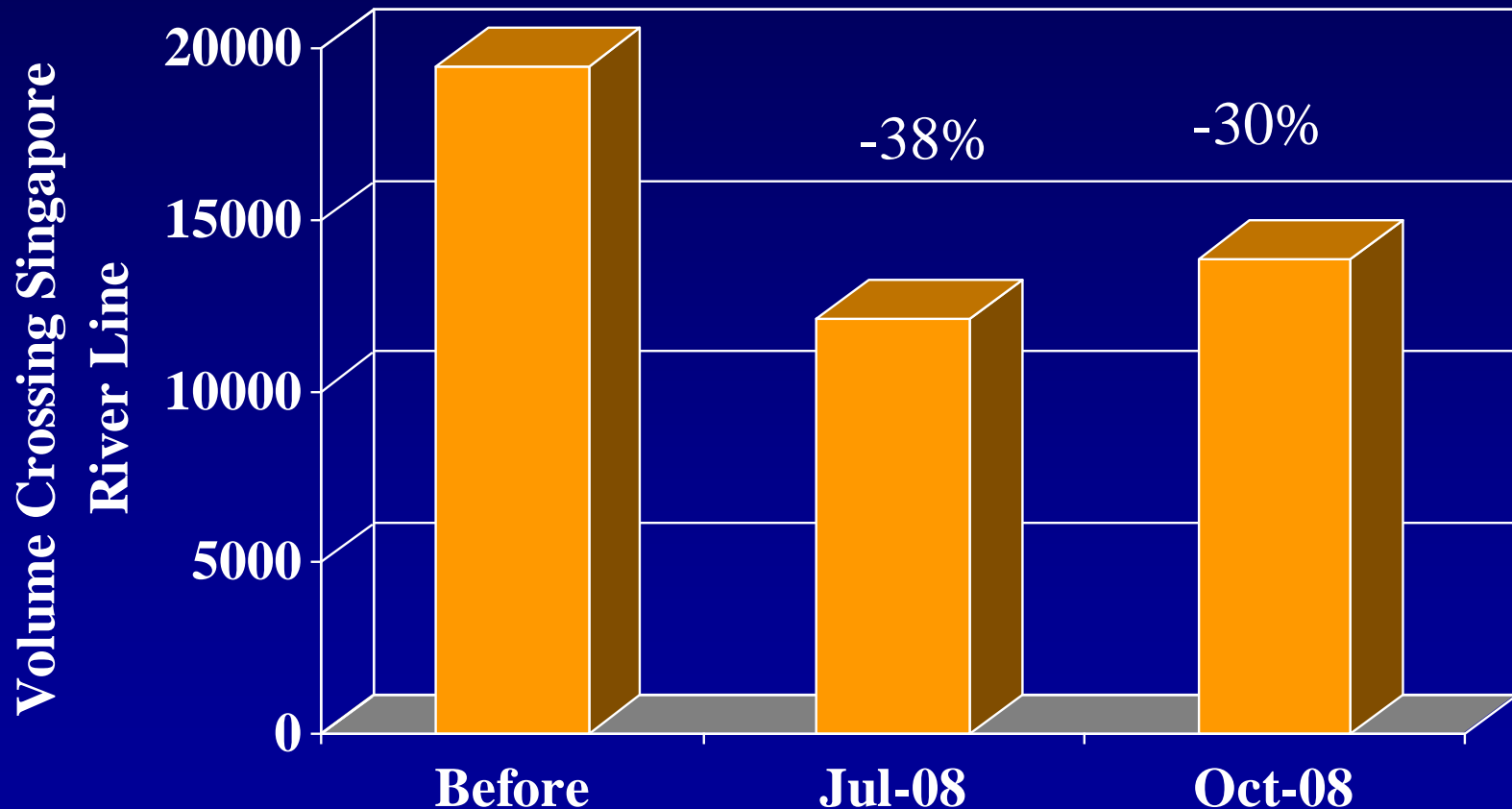


# Pricing intra-city traffic in the City (July 08)

Operates 6-8pm weekdays

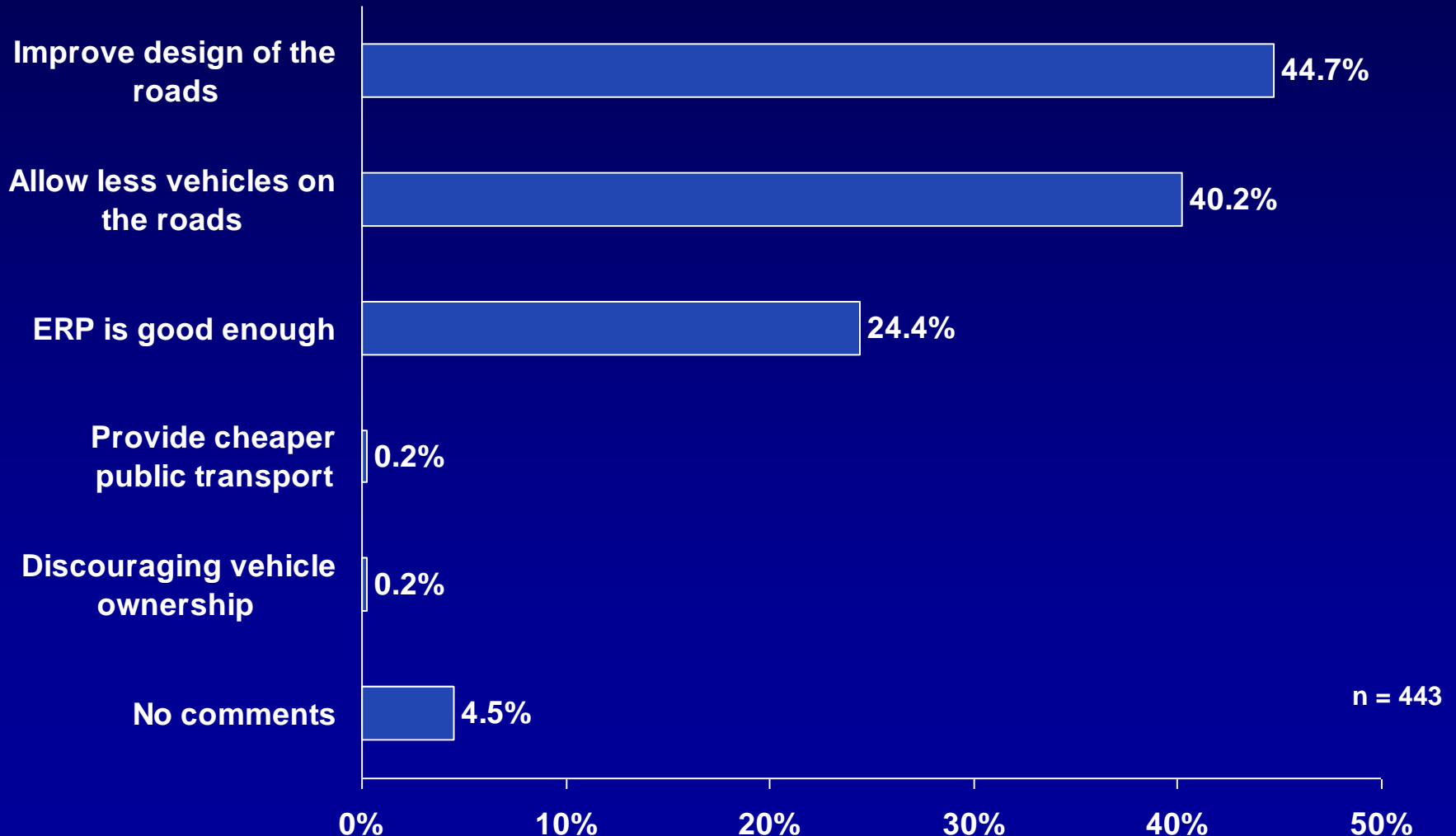


# Pricing intra-city traffic in the City (July 08)



# Managing Traffic

**What other measures should be used to complement ERP in addressing traffic congestion?**



# Lessons

- Pricing Strategy to be flexible and relevant
- ERP complements other transport tools
  - land-use planning, road building, use of technology, traffic & incident mgmt
- Viable Travel Alternatives Needed
- Keep Scheme and Pricing Simple
- Not to generate revenue for Government
- Communications is never enough
- Not just a fiscal measure but to change behaviour

# Making ERP Rates Visible





# Thank You

