



Auckland Motorway Management System

Ramp Signaling Project Update

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Project Purpose

- fully collaborative project
- improved network management
- deal with congestion
- consistent travel times
- reduce user costs & emissions
- better safety
- easier travel

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Collaboration

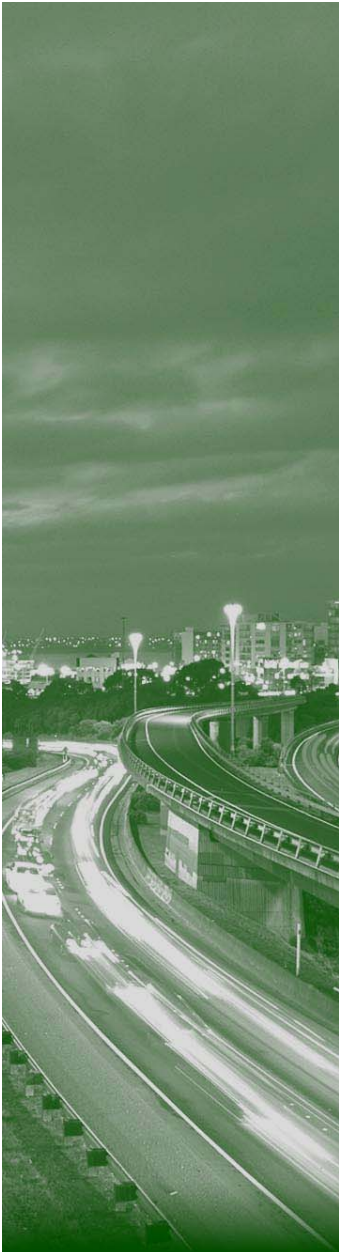
- this is a fully collaborative project involving Transit with all Auckland TLA's
- committed to mutually supportive outcomes
- includes shared provisions to enable selected bus and HOV priorities
- open access to operational and performance data and cameras
- agreed operating protocols, service levels and key performance indicators

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Ramp Signaling

- smooths entry flow to motorway
 - spaces incoming vehicles evenly
 - increases merge efficiency
 - prevents flow breakdown at merge
 - more convenient, better safety
 - includes selected priority bypass lanes
 - continual monitoring of queue lengths and wait times
 - operates only when useful, otherwise remains turned off
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Design Development

- ensure robust and flexible
- best international practice
- integrated with adjoining roads
- support public transport and increased vehicle occupancy
- include driver information
- deliver better safety, improved convenience

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Briefing

- progress so far
- performance to date
- commissioning this month
- what next

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Current Position

- all funding approvals completed
- contractor appointed
 - civil works well advanced
 - 13 sites operating
- Southern Motorway
 - all 31 on-ramps
 - next 8 due October & November
 - complete first quarter 08
- then Northwestern and Northern Motorways, and Western Ring Route >>

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Commissioned to Date

Western Ring Route SH20

- Rimu Road nb

1

Southern Motorway

- Hobson, Symonds, Grafton, Khyber, St Marks
- Greenlane, Ellerslie-Panmure sb
- Takanini, Papakura

5

2

2

Northern Motorway

- Wellington Street, N.W/Port to North nb
- Curran Street nb

2

1

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13

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Forward Programme

Southern Motorway

November 2007

- Princes, Highbrook sb
- East Tamaki, Mt Wellington sb
- Princes, Highbrook nb

January 2008

- Takanini, Papakura nb

February 2008

- Te Irirangi, East Tamaki nb

March 2008





- all remaining completed

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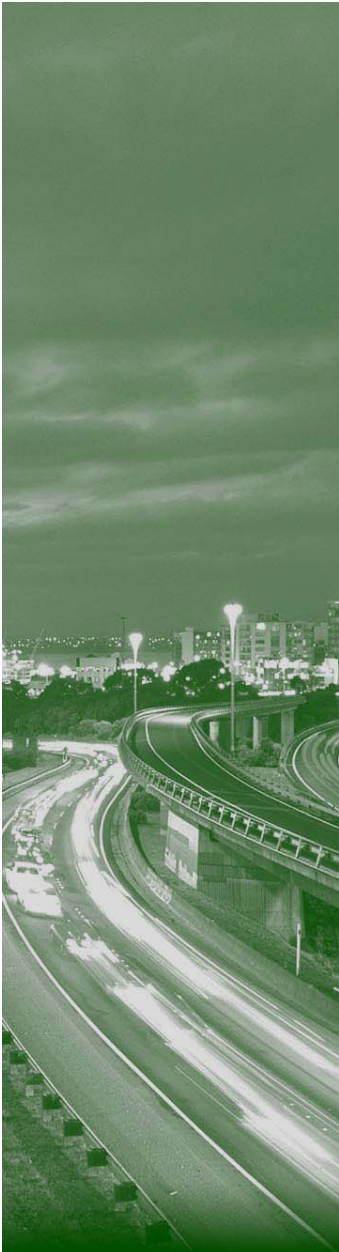
Forward Programme

Ramp Signalling Project

	2006/7	2007/8	2008/9
Southern			
Northwestern			
Northern			
Western SH20			

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St Mark's southbound



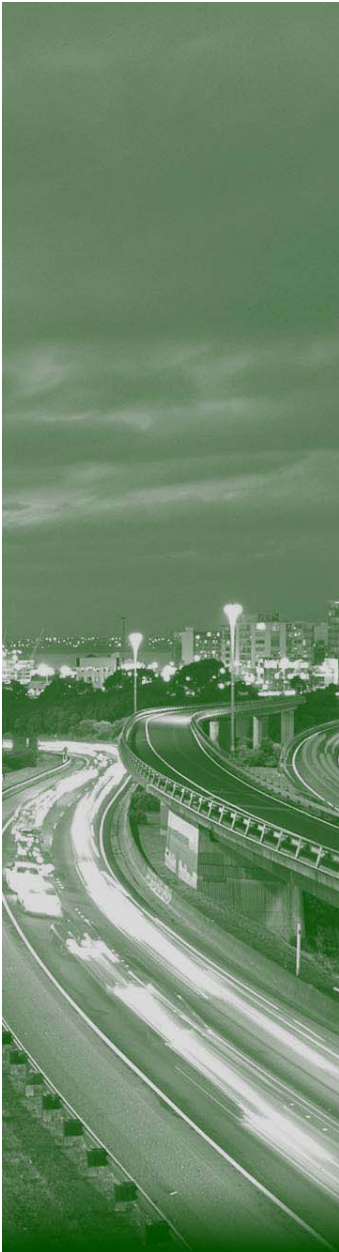
Khyber Pass southbound



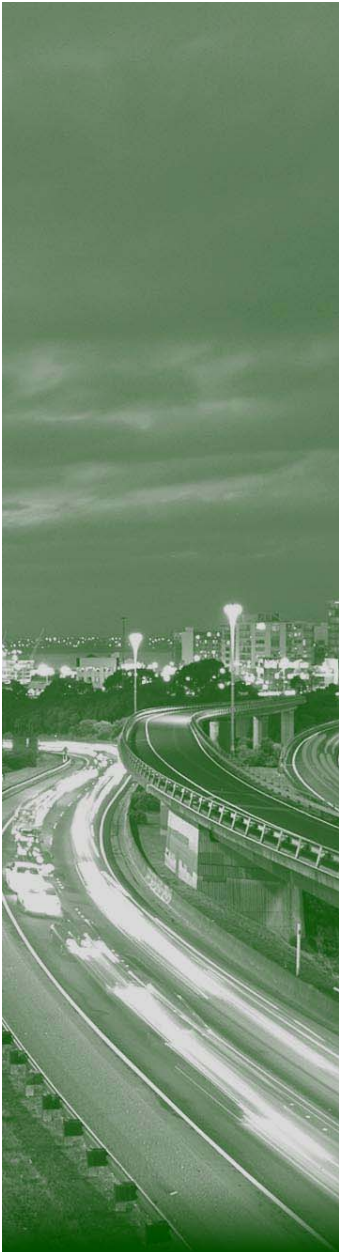
Grafton Gully southbound



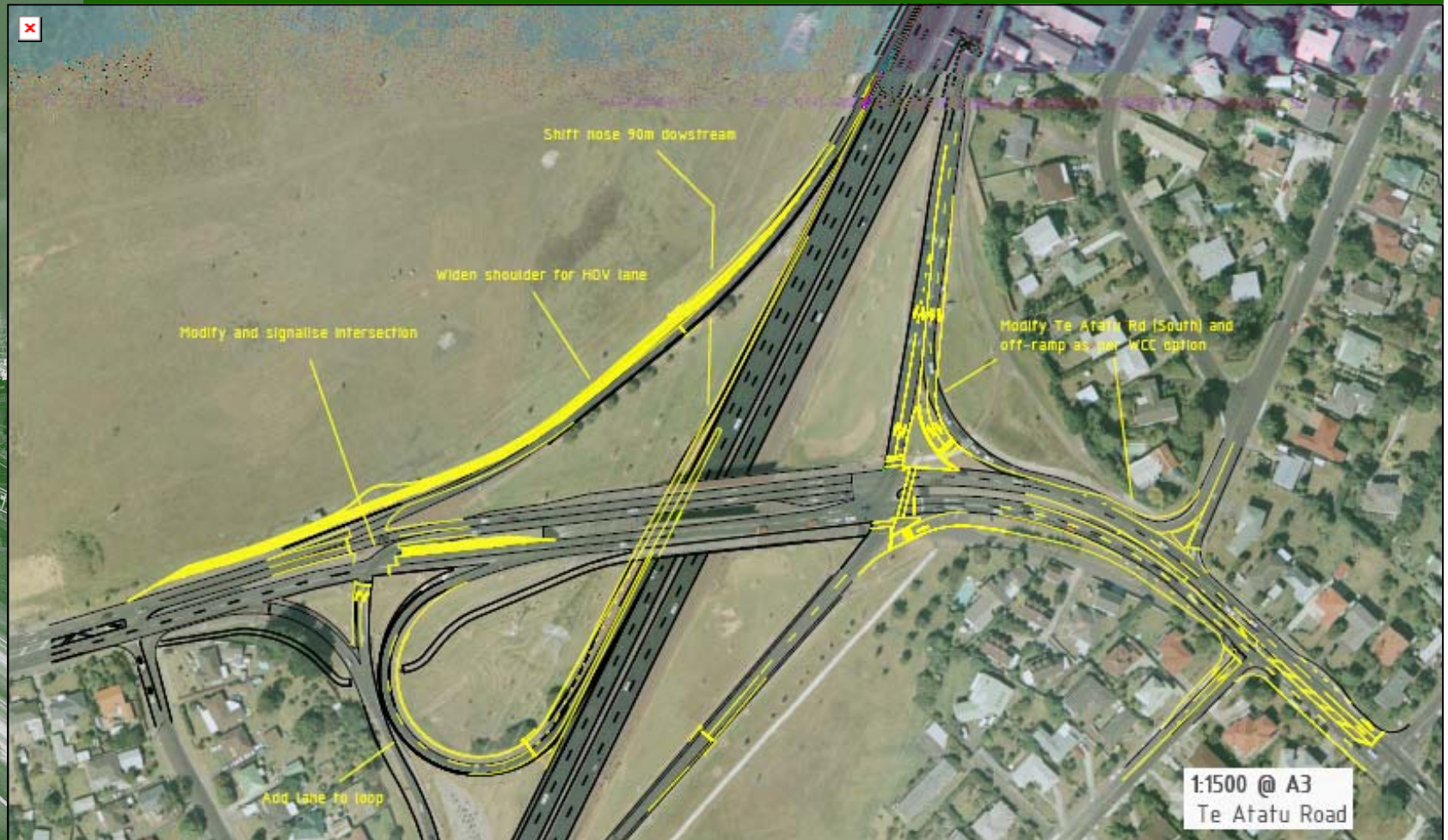
Symonds Street southbound



Hobson Street southbound



Te Atatu Road Interchange



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Lincoln Road Interchange



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Ramp Signaling Video



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Monash Freeway



Warrigal Road Interchange

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Performance Data

Wellington Street Northbound and NW-Port to North Ramps

- increased throughput +230 vph (+6%)
- improved travel speed +3 km/h (+4.5%)
- wait times range 1 to 7 minutes, average 2.5 minutes
- clear northbound incidents up to 15 minutes faster
- good compliance
- better operating safety
- will further improve as system extends

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Performance Data

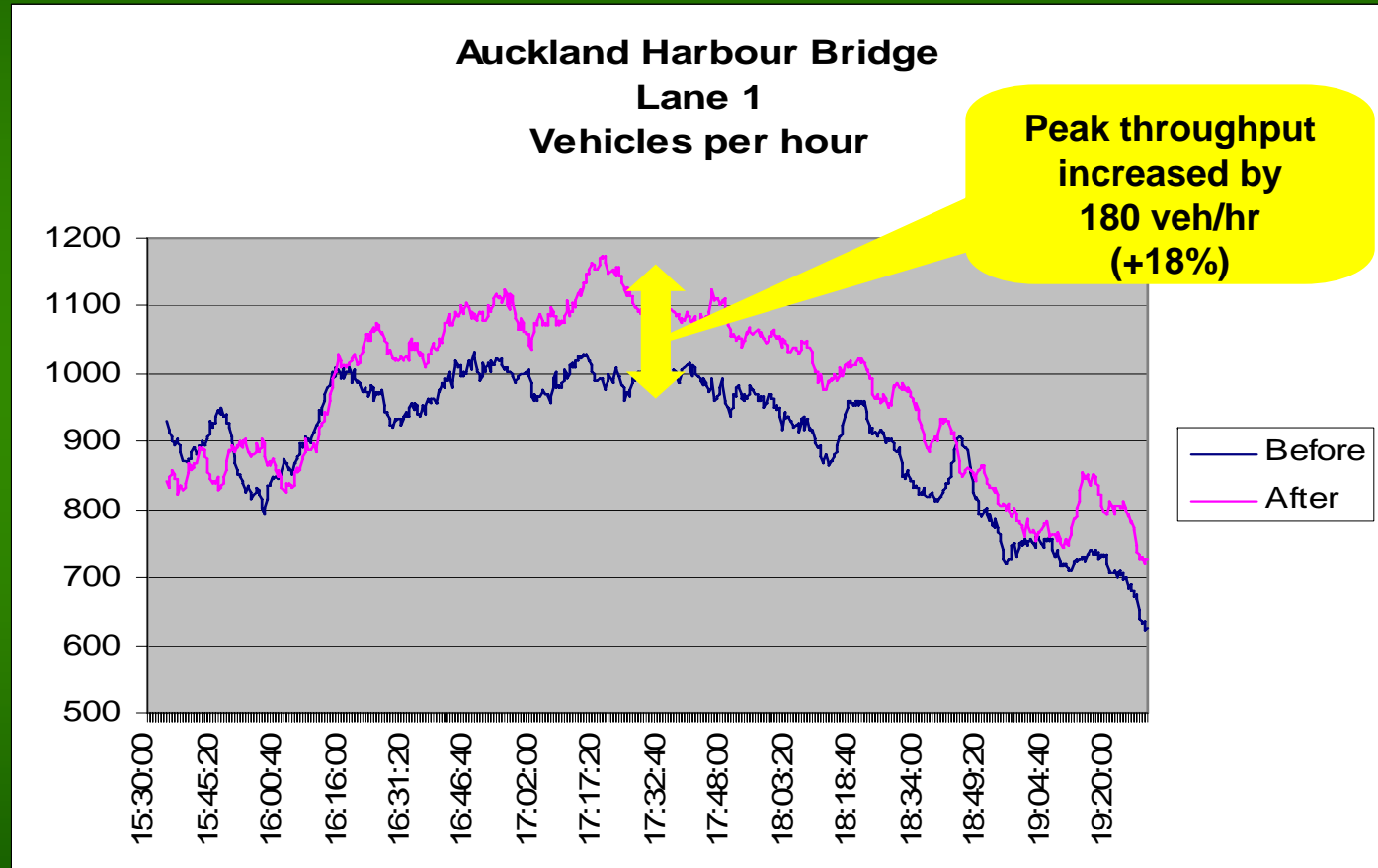
Curran Street northbound

- produces noticeable improvement in northbound flows within the clip-on lanes on Harbour Bridge
- increased throughput by up to +180 vph (+18%)
- and improved travel speeds by 13 km/h (+12%)
- wait times range 2 to 7 minutes, average 2.8 minutes
- reasonable compliance, easier merging >>

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Curran Street Ramp Signal

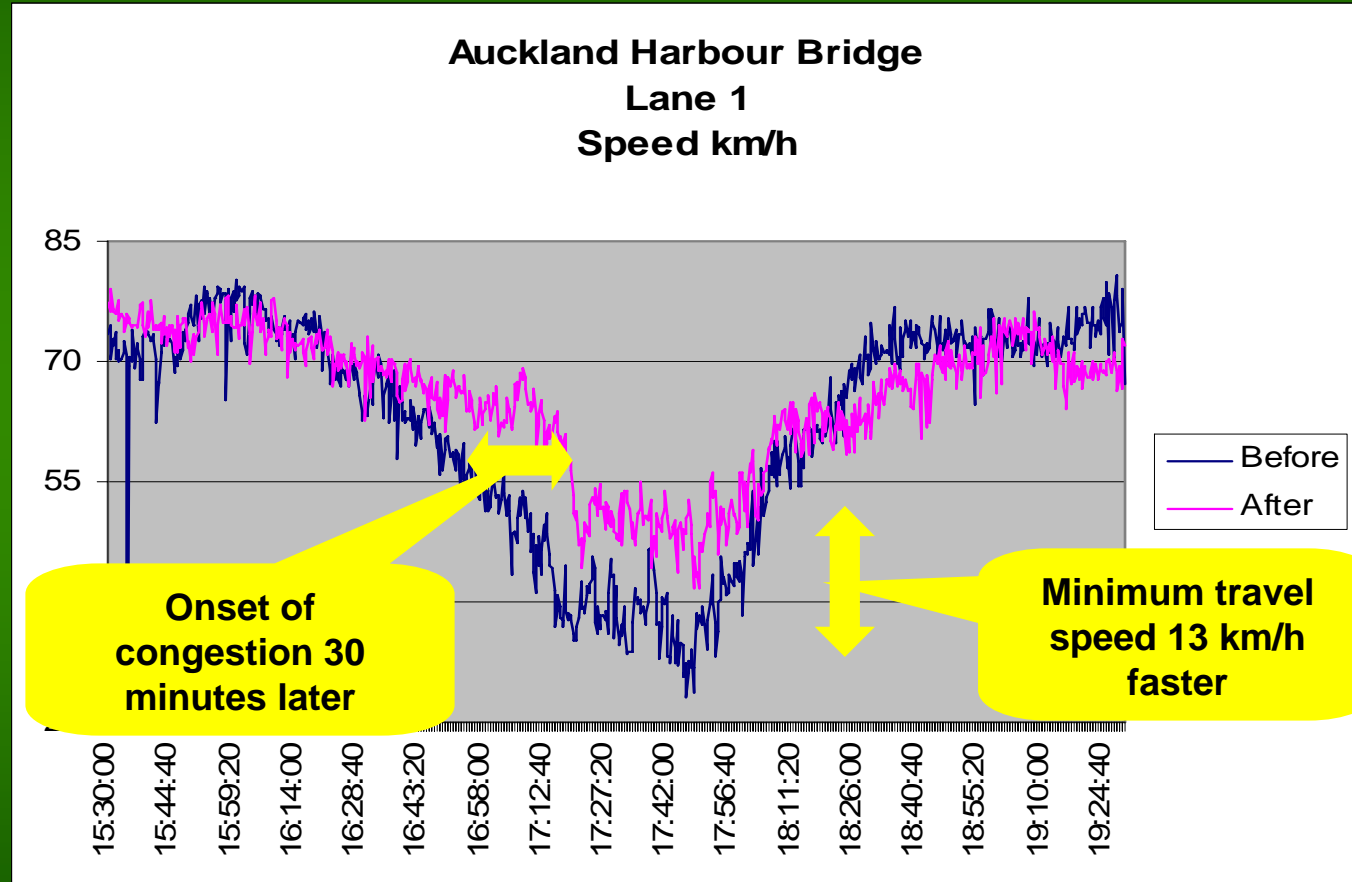
Benefits to Auckland Harbour Bridge Traffic Operations Lane 1 Throughput - vehicles per hour



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Curran Street Ramp Signal

Benefits to Auckland Harbour Bridge Traffic Operations
Lane 1 Travel Speed – kilometres per hour



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St Mark's Avenue southbound

- regular spacing gives much improved weave
- peak flow rates at Market Road bottleneck increased by +600vph
- sustained 6000vph throughput in three lanes for 1½ hrs
- access times 20 to 110 seconds, average 25 seconds

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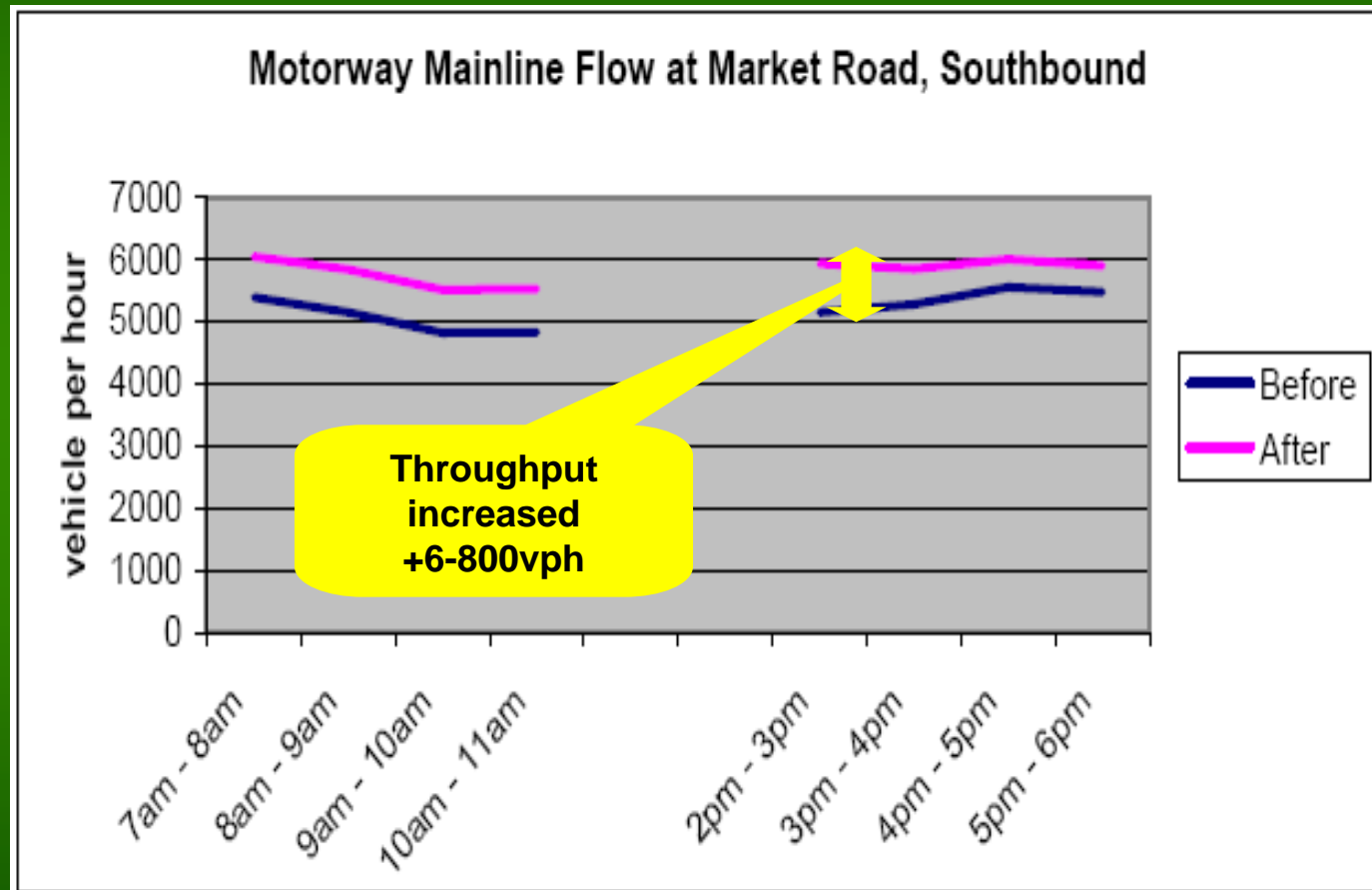
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Khyber Pass southbound

- immediate improvement, consistent speeds
- smoother flow, increased throughput
- access times 22 to 110 seconds, average 43 seconds
- routinely cleared every cycle, no intersection blocking
- Newmarket Viaduct +350vph, speeds +4.5 to 6 km/h
- usual congestion at Viaduct merge much reduced
- operation of Southern Link noticeably better >>

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St Mark's Avenue and Khyber Pass southbound



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The End

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