

Business Vehicle Trips in Urban Areas

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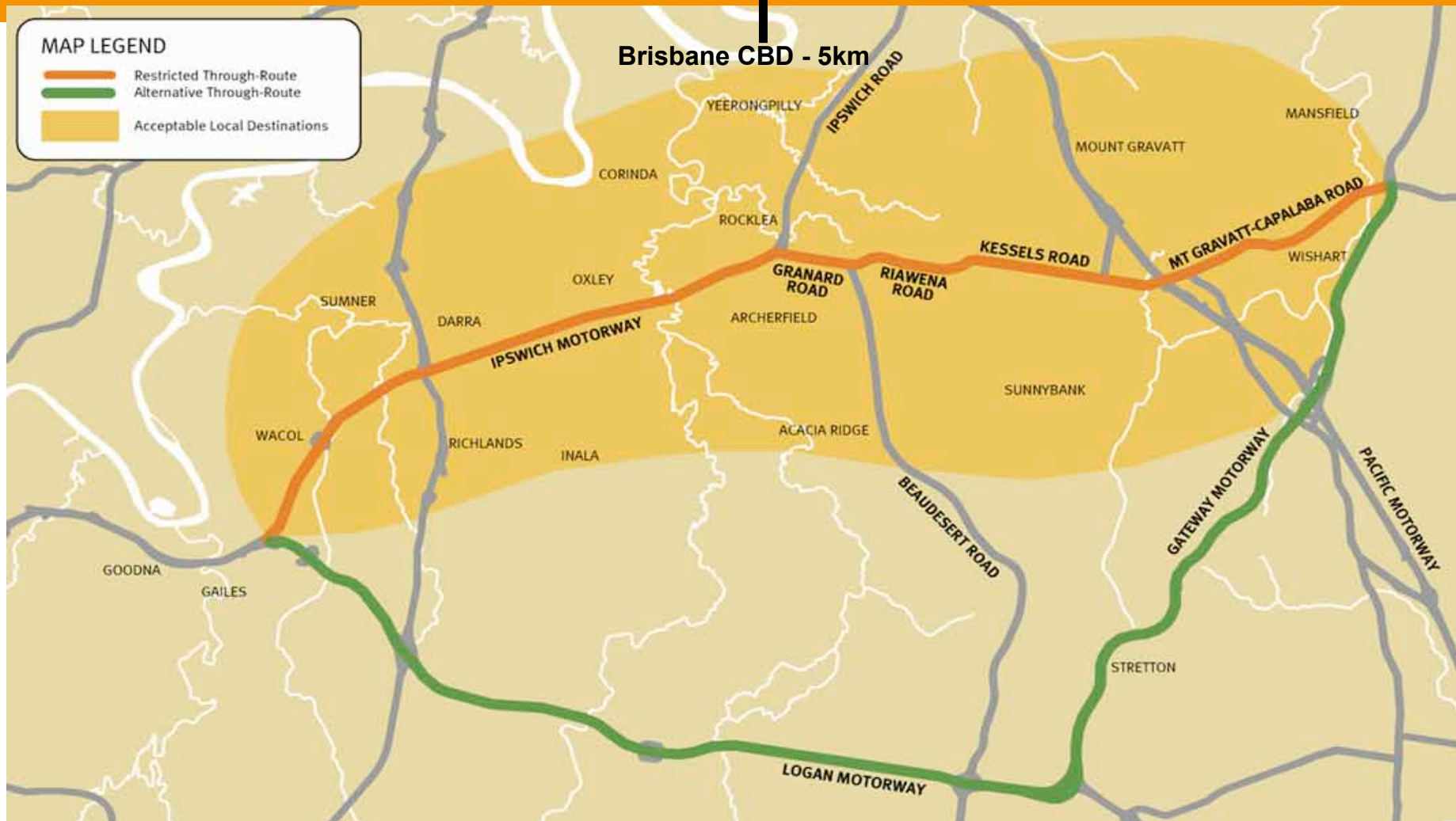
Outline

- Brisbane Urban Corridor
 - 2002-03 Planning Study
 - Through-route Truck Restriction
 - Results of restriction on BUC, local routes and alternative tolled route
- Urban Congestion Management Working Group
 - Business Vehicle Definition
 - Business Vehicle Movements at Goodna
 - Business Vehicle Movements at Salisbury
 - Business Vehicle Trip Patterns

Brisbane Urban Corridor

- Corridor includes Mount Gravatt-Capalaba Road, Kessels Road, Riawena Road and Granard Road
- Forms part of the Auslink network
- Connects the Ipswich Motorway to the Gateway Motorway

MainRoads



2002 - 03 Planning Study

- Corridor characteristics
 - Major east-west connector (22km) in Southern part of Brisbane
 - Industrial land use at western end
 - Residential and commercial use at eastern end
 - Up to 38,900 vpd of which 12-15% are HVs
- Planning study identified non local trucks as largest single issue and recommended that technology be installed to monitor the movement of trucks and to identify those that could use alternative route

Through-Route Truck Restriction

- Stage 1 - Monitored use by heavy vehicles and estimated number of heavy vehicles that could use the Logan Motorway (860 heavy vehicles/day)
- Stage 2 - Developed an enforcement system to identify heavy vehicles with no local destination and which could use the Logan Motorway as an alternative

Through-Route Truck Restriction

- “Through-route Truck”
 - Does not have a destination/origin/delivery on the corridor
 - Takes 35 mins or less to travel the entire route
- Penalty Offence
 - \$375 for a corporation (5 penalty units)
 - \$75 for an individual (1 penalty unit)
 - 3 demerit points
 - Max court penalty of \$1500

Through-Route Truck Restriction

Image Capture Technology - Automatic Number Plate Recognition (ANPR)

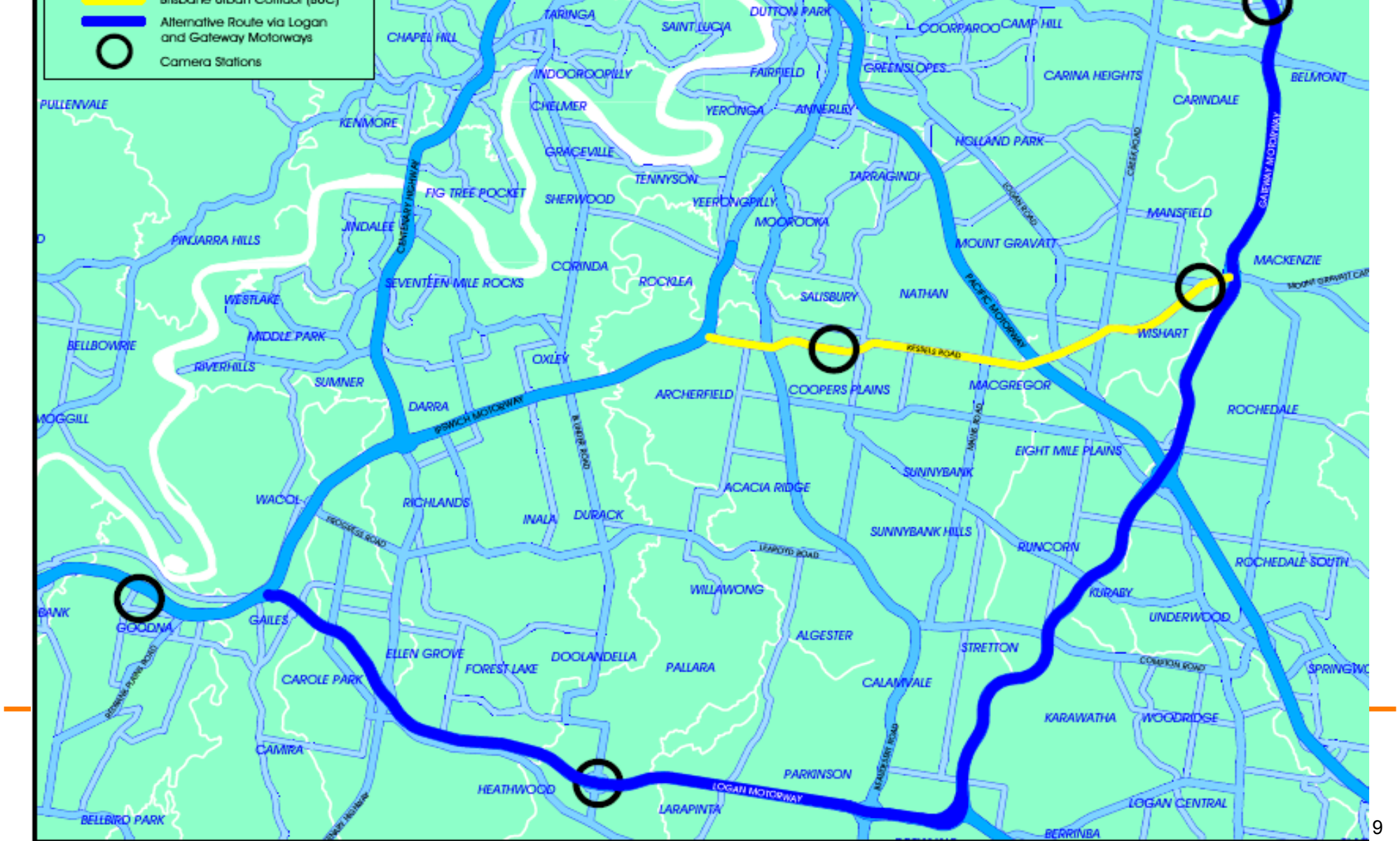


MainRoads

MAP SHOWING CAMERA STATIONS

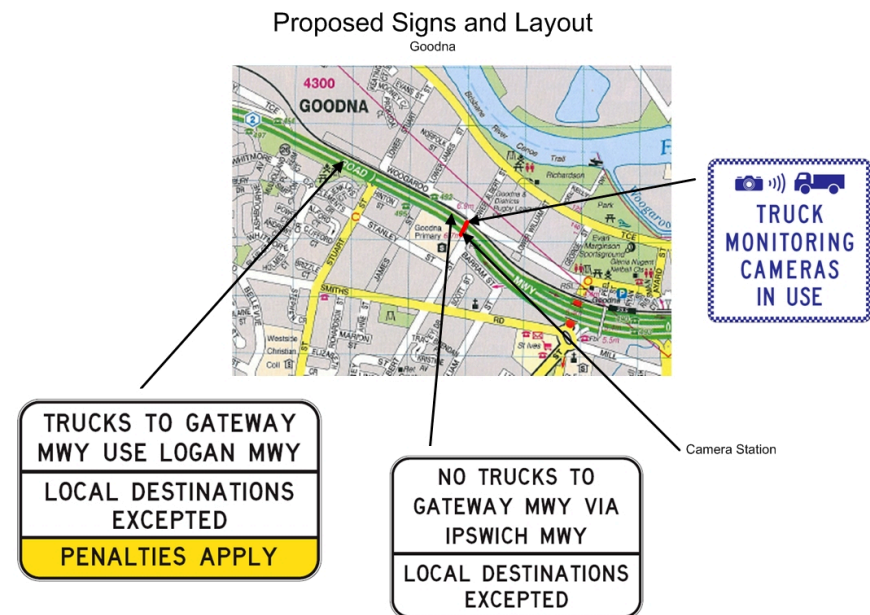
Brisbane Urban Corridor (BUC)

WEST END HIGHGATE HILL EAST BRISBANE CARINA



Through-Route Truck Restriction

- 13 April 2007 restriction officially commenced
- Electronic enforcement using ANPR system commenced 30 July 2007



Results of restriction on BUC



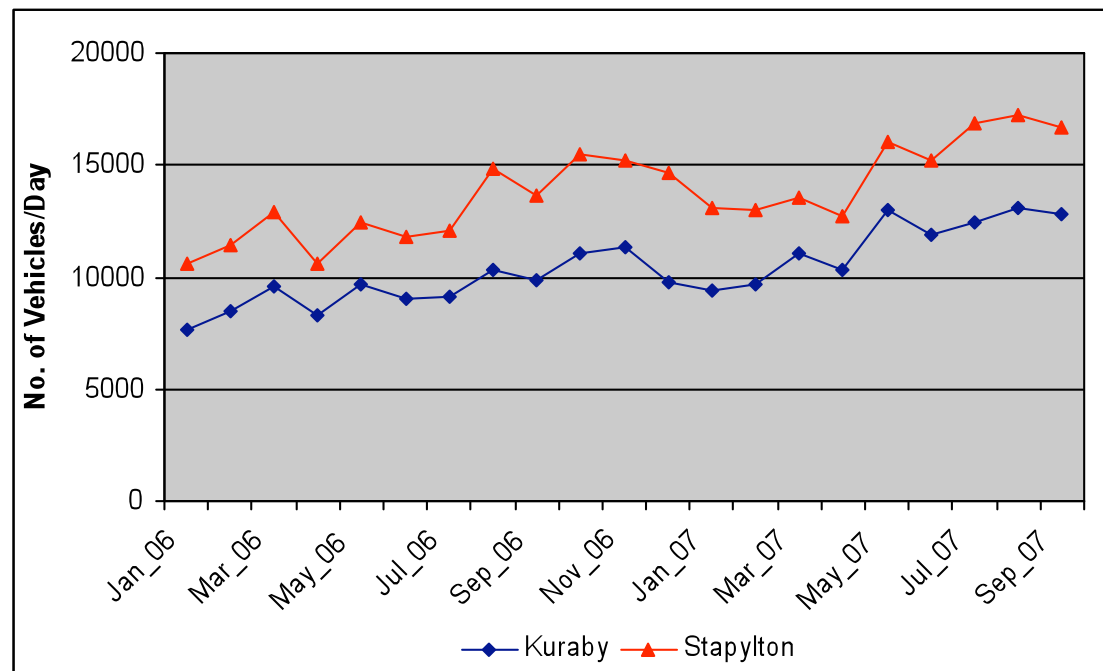
Kessels Road Heavy Vehicle Volumes

Note: 4700 Heavy Vehicles per day in 2008 – all classes

Results of restriction on local routes

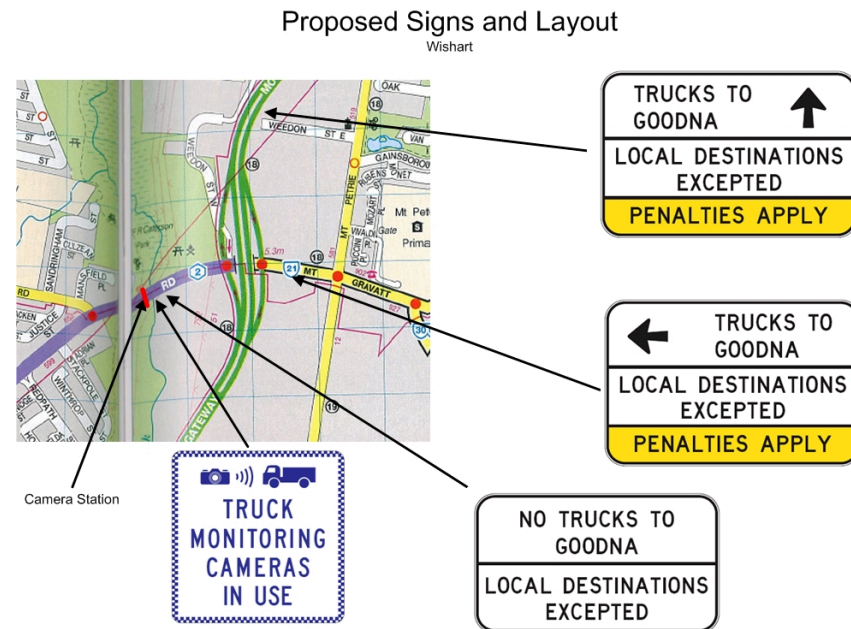


Results of restriction on alternative tolled route



Summary of Results

- Truck volumes on BUC reduced by almost 500 vpd
- The heavy vehicle volumes at Toll Plazas on Logan Mwy increased by over 800 vpd
- Heavy vehicle volumes on local alternate routes decreased
- Throughout 2008 there were approximately 15 infringement notices/day



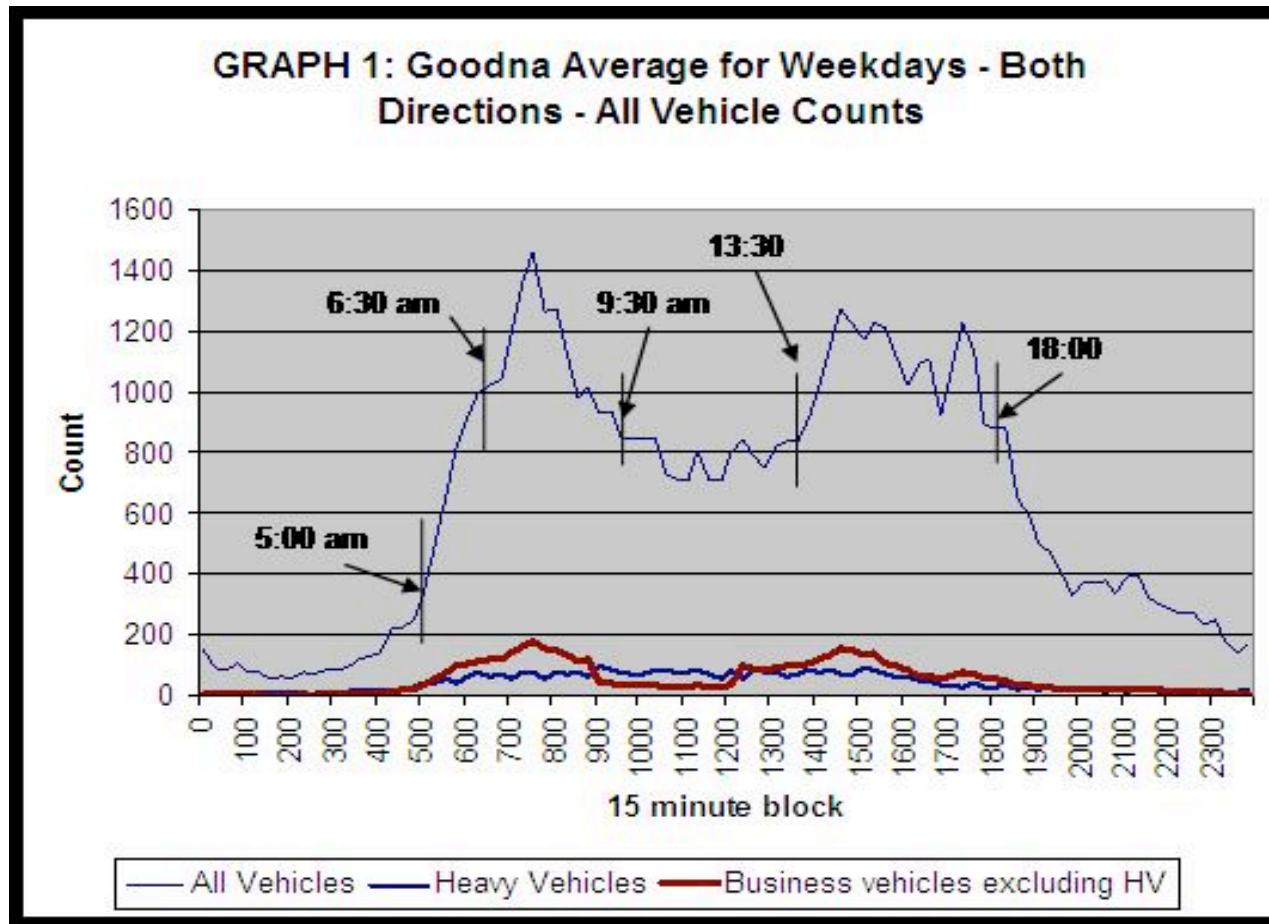
Urban Congestion Management Working Group

- Working Group established under ATC and SCOT
- Urban congestion report to COAG acknowledged:
 - the growing importance of freight distribution, services (utilities, commercial and household repairs and so on) and business travel
 - BTRE report on congestion costs (April 2007) foreshadowed 90% growth in Capital city light commercial vehicle traffic 2005-2020
 - UCMWG considered that the impact of growing urban congestion on business sector transport was not well understood
- Utilise BUC Truck Restriction System to better understand business sector travel patterns

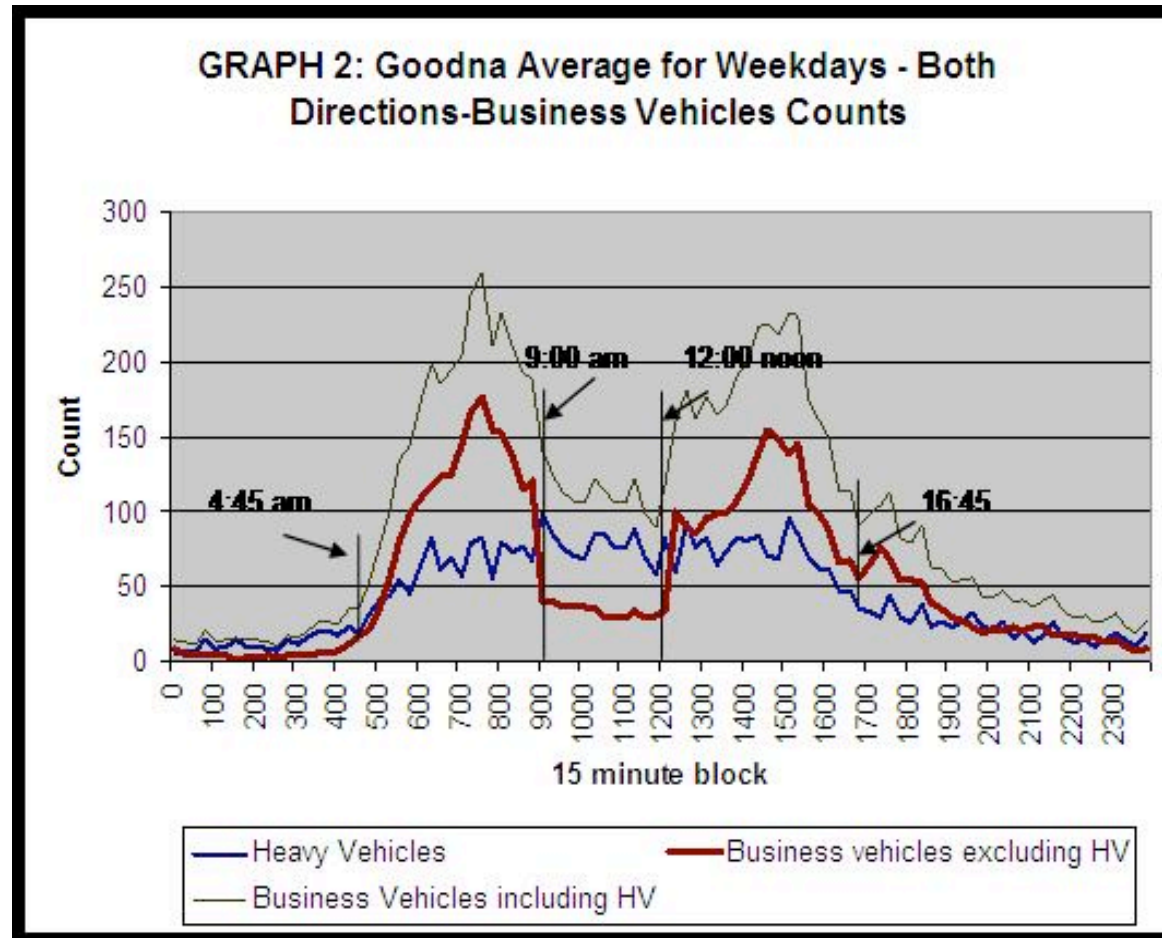
Business Vehicle Definition

- Vehicle maintained on Motor Vehicle Registry
- Primary purpose of use as business
- Includes heavy vehicle (vehicle that has TARE weight of 4.5 tonne or greater)

All Vehicle Movements at Goodna

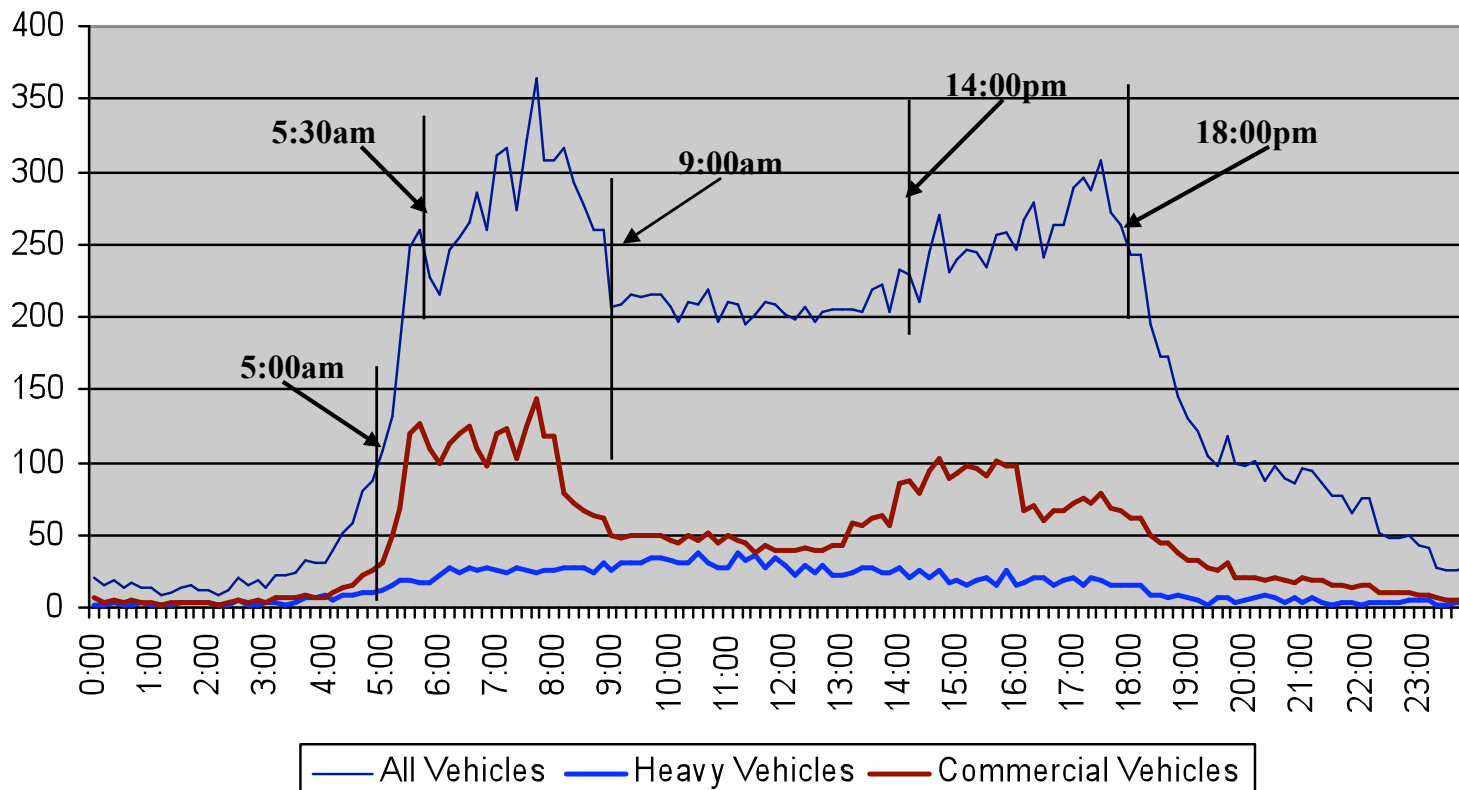


Business Vehicle Movements at Goodna



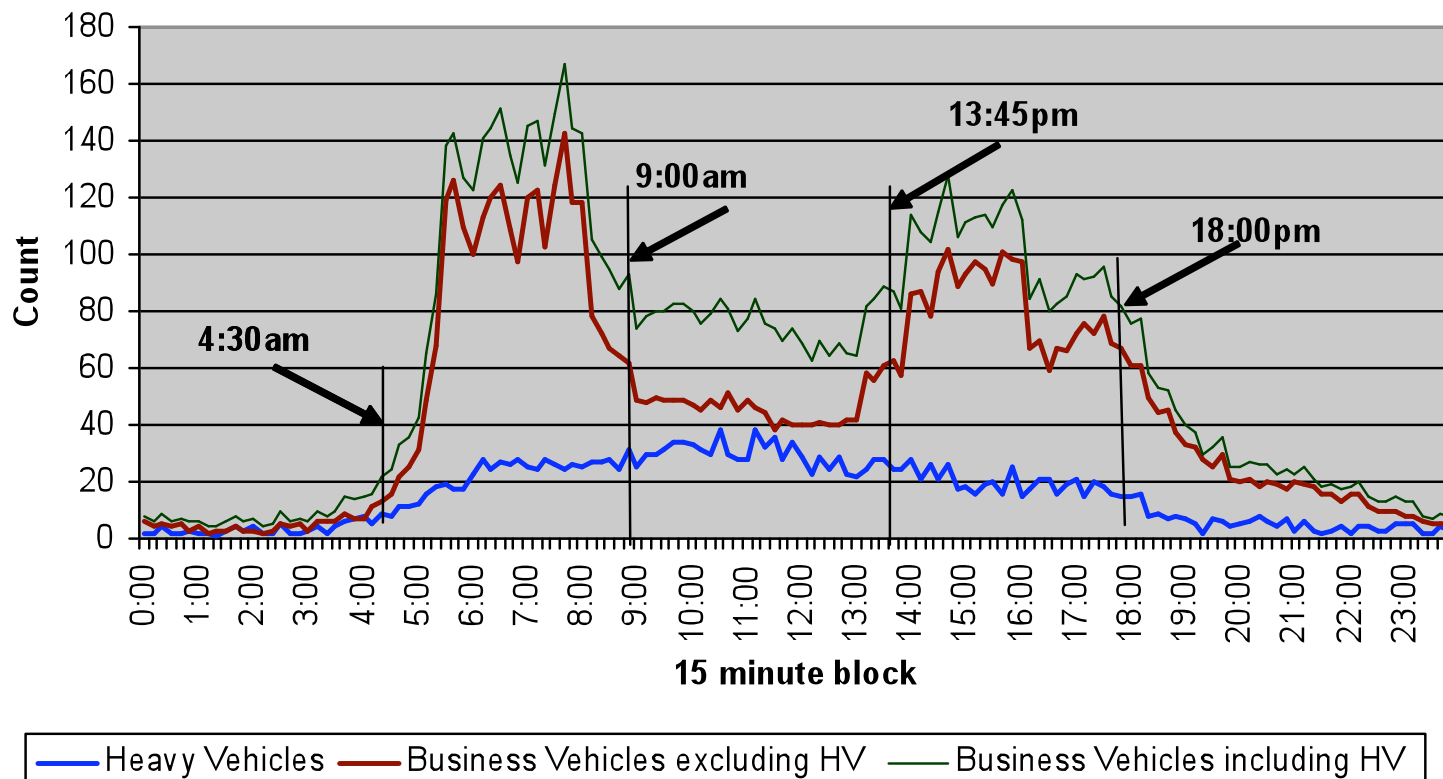
All Vehicle Movements at Salisbury

GRAPH 3: Riaweena Average for Weekdays - Both Directions - All Vehicle Counts



Business Vehicle Movements at Salisbury

**GRAPH 4: Riaweena Average for Weekdays - Both Directions
Business Vehicle Counts**



Business Vehicle Trip Patterns

- Morning peak period travel for business vehicles starts earlier than the general peak and ends half an hour earlier
- Business vehicle volumes drop off significantly at the end of the morning peak but volumes increase from lunch time onwards - a couple of hours before the afternoon peak period for “all vehicles” on the Ipswich Motorway.

Finding: Most Business Vehicle trips in the morning would appear to have a commuting function. Afternoon congestion may be a more critical issue for business.

Business Vehicle Trip Patterns

- The volume of Heavy Vehicles gradually increases from the beginning of the morning peak through to the end of the afternoon peak with the largest number travelling in the middle of the day. However, the hourly volumes are relatively steady throughout the day.
- Heavy Vehicles appear to try and avoid peak travel but cannot entirely achieve this.

Finding: There is a significant difference between Heavy Vehicle travel and other Business related travel patterns. Levels of congestion in both the morning and afternoon peak are important to heavy vehicle travel.

Corridor Findings

- Ipswich Motorway performs a proportionally larger commuter function (85%) as compared to the BUC (57%) during peak periods
- BUC has almost balanced bi-directional flows in peaks which reflects its significant surrounding industrial and commercial land use patterns and linking role to the Port of Brisbane.
- The afternoon peak travel on the Ipswich motorway occurs earlier than the BUC.
- The function of the BUC also results in a much less distinctive afternoon peak

Finding: When considering the impacts of congestion on business related travel the function of the road is an important consideration

Conclusion

- The BUC Through-truck restriction scheme did remove longer distance through truck movements on the corridor
- The System has enabled us to learn more about heavy vehicle and business vehicle movements on that part of the network and more generally
- As most of us have probably assumed there are different impacts arising from general congestion impacts on heavy vehicles and business related travel