1.0 Introduction

The Fairfield RDS Dwelling Model identified that 60% of the 24,000 additional dwelling target should be located in the eastern half of the LGA. The eastern half of the LGA is benefited by a high level of community services, public transport infrastructure and an older dwelling stock suitable for redevelopment.

The structure planning of the six eastern centres confirmed that there is capacity for these six centres to provide an additional 14,400 dwellings within the centre catchments. The structure planning allows for 42% of dwellings within eastern centre catchments to be medium density and 44% high density, significantly improving dwelling mix and choice.

This report provides a traffic assessment due to the increase and change in residential mix in the 6 centres.

2.0 Factors influencing future travel characteristic of residents

2.1 Population projections

The review of the future population projections for Fairfield LGA has revealed the following issues which will have implications for future housing in the LGA:

- Future population growth will be minimal with only an additional 1,219 people anticipated by 2031 bringing the total population to 188,372 people.
- The population of Fairfield LGA will continue to age, further reducing the proportion of younger people and increasing the proportion of older people. This has a range of implications on the types of dwellings and services required by the future population.
- Future dwelling demand will be stimulated by a decreasing household size as there will be minimal population growth and a decreased number of younger people.
- The dwelling target of 24,000 additional dwellings by 2031 is in line with anticipated dwelling demand, which sees average household size declining to 2.3 people per household by 2031.

2.2 Household Types in 2031

The existing trends in household formation are expected to continue into the future and have an impact on the household composition of dwellings through to 2031. The key trends are summarised as follows:

- Decreasing share of couples with children households
- Increase in proportion of one parent families
- Increase in single / lone person households
- Increase in proportion of couples without children

2.3 Future travel characteristics

Minimal population growth and the ageing community will change the travel mode split away from private vehicle potentially reducing the number of car trips, particularly in the peak periods.

The change in household demographics will also reduce car ownership levels. This will be encouraged by the medium and higher density residential developments which will provide less car parking per unit when compared with low density housing.

Improved public transport through higher frequency and greater availability throughout the day will be required to support this as will improved pedestrian facilities.

3.0 Future Traffic Generation

If a traditional traffic generation approach is used, then adoption of the typical Roads and Traffic Authority traffic generation rates for residential development in Sydney can be applied to the proposed future residential densities for each of the centres. These are provided in Table 1.

Table 1: Residential Traffic Generation Rates - RTA Guide to Traffic Generating Developments

Residential dwelling type	Peak hour vehicle trips
Suburban dwelling houses (low density)	0.85 / dwelling
Residential flat buildings (medium density)	0.50 / dwelling
Residential flat buildings in centres (high density)	0.29 / dwelling
Housing for the aged	0.1-0.2 / dwelling

The rates in Table 1 for low, medium and high density residential dwellings have been applied to the existing and the potential future residential development in the centres to allow a comparison to be made. This is particularly relevant because much of the higher traffic generating low density housing will be converted to higher density housing with a lower traffic generation rate.

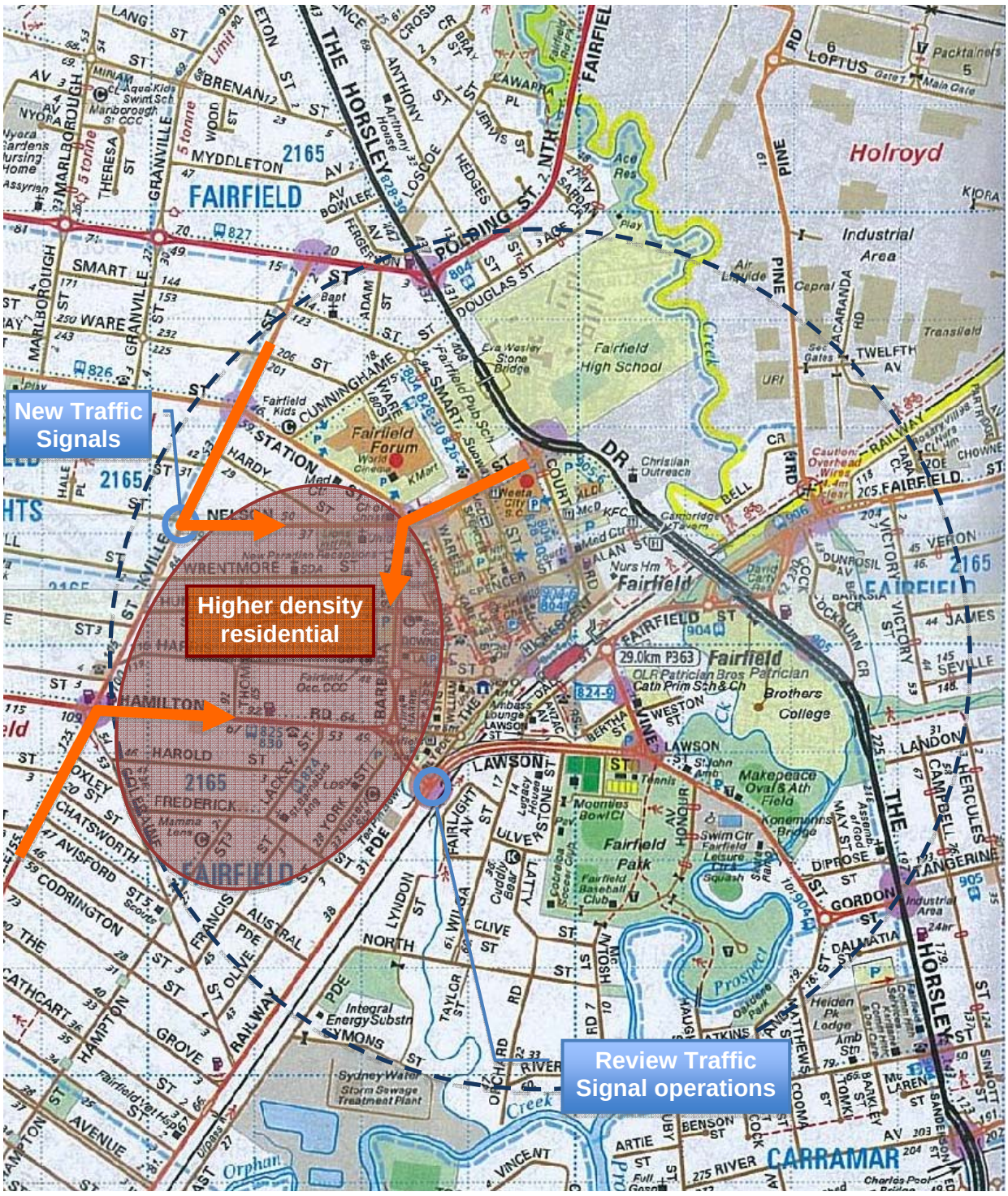
The results of the analysis for each of the centres is shown in Table 2. For the 6 centres combined, the number of car trips made in the peak hours reduces by 4,051 for low density housing, increases by 2,674 trips for the medium density housing and increases by 4,033 for the high density housing. This equates to an overall increase of 2,655 car trips from 8,205 to 10,861 - a 32% increase. This could be considered to be an upper limit if the factors influencing future travel characteristic of residents discussed in Section 2 are taken into account. In particular, the traffic generation rate in the peak hour for the aged, as provided in Table 1, is much lower, but has not been applied here.

Table 2: Dwelling Mix and Peak Hour Traffic Generation - Eastern Centres

FAIRFIELD RESIDENTIAL NUMBERS					PEAK HOUR TRAFFIC GENERATION (VEH/HOUR)			
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	1845	557	1097	3499	1568	279	318	2165
Future	792	175	4749	5716	673	88	1377	2138
+ constrained	0	0	2147	2147	0	0	623	623
Difference	*-1053*	*-382*	*5799*	4364	-895	-191	1682	596
CABRAMATTA RESIDENTIAL NUMBERS								
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	2839	811	856	4506	2413	406	248	3067
Future	19	1685	2495	4199	16	842	724	1582
+ constrained	0	42	4166	4208	0	21	1208	1229
Difference	*-2820*	*916*	*5805*	3901	-2397	458	1684	-256
CANLEY VALE RESIDENTIAL NUMBERS								
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	473	125	302	900	402	63	88	552
Future	469	530	353	1353	399	265	103	766
Difference	*-4*	*405*	*51*	453	-3	203	15	214
CANLEY HEIGHTS RESIDENTIAL NUMBERS								
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	1014	221	13	1248	862	111	4	976
Future	695	1774	914	3383	591	887	265	1743
Difference	*-319*	*1553*	*901*	2135	-271	777	261	767
FAIRFIELD HEIGHTS RESIDENTIAL NUMBERS								
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	847	389	12	1248	720	195	3	918
Future	493	2342	560	3395	419	1171	162	1753
Difference	*-354*	*1953*	*548*	2147	-301	976	159	835
VILLAWOOD RESIDENTIAL NUMBERS								
	Low	Medium	High	Total	Low	Medium	High	Total
Existing	546	38	153	737	464	19	44	527
Future	329	941	954	2224	280	470	277	1027
Difference	*-217*	*903*	*801*	1487	-185	451	232	499
EASTERN CENTRES RESIDENTIAL NUMBERS TOTALS								
	Low	Medium	High	TOTAL	Low	Medium	High	Total
Existing	7564	2141	2433	12138	6429	1071	706	8205
Future	2798	7488	16339	26625	2378	3744	4738	10861
Difference	*-4766*	*5347*	*13906*	14487	-4051	2674	4033	2655
EASTERN CENTRES PERCENTAGES								
	Low	Medium	High	TOTAL	Residential Density (Look up table for traffic generation rates)			Peak hour traffic generation rate/dwelling
Existing	62%	18%	20%	100%	Low			0.85
Future	11%	28%	61%	100%	Medium			0.5
Difference	*-33%*	*37%*	*96%*	*100%*	High			0.29

4.0 Implications for the Centres

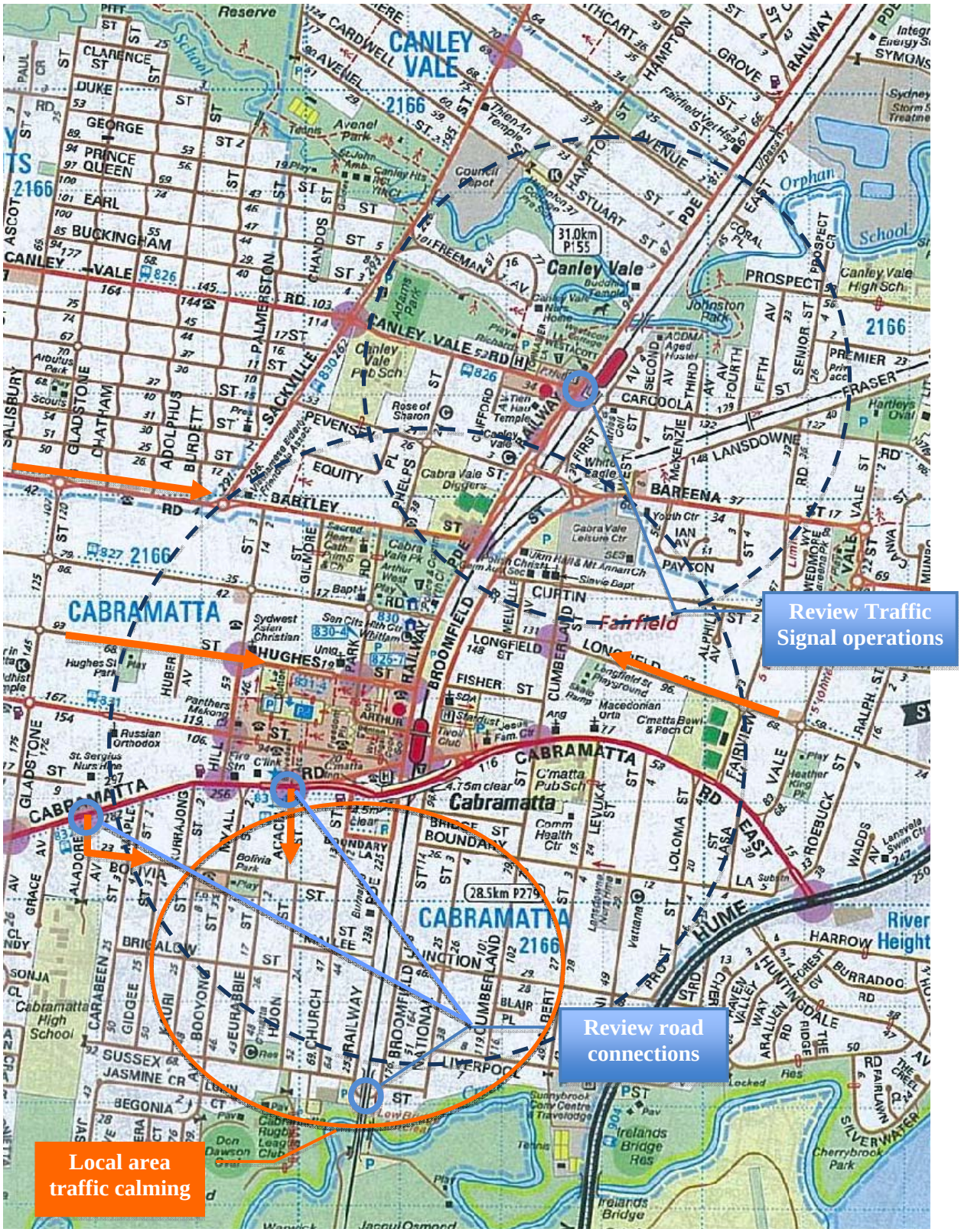
Study Area 1 Fairfield



Transport Assessment – Area 1 Fairfield	
Accessibility	- Good accessibility centred on the train station for metropolitan travel and good bus linkages with surrounding districts. - The Fairfield city centre is skirted by a collector status ring road system and The Horsley Drive provides north south arterial road travel bypassing the city centre.
Constraints	- On-street parking is heavily utilised and suffers from employee/commuter parking, particularly relating to train commuters.
Predicted traffic change	- 596 additional peak hour movements.
Suitable access points for residential precincts	- Nelson Street, Hamilton Road and Sackville Street all provide good connections into the proposed higher density area in the western part of the Fairfield centre.
General comment	- The additional traffic can be accommodated on the road system.

Recommended Improvements	**Indicative Cost**
New traffic signals at Nelson Street/Sackville Street	$250,000
Review traffic signal operations at Railway Parade/Barbara Street.	$100,000
Introduce parking controls in streets where an improved balance is needed between rail commuter parking and local parking demands.	$50,000
Traffic calming to be considered on streets providing access to higher density housing.	$300,000
Total	**$700,000**

Study Area 2 Cabramatta and Study Area 3 Canley Vale



Transport Assessment – Area 2 Cabramatta	
Accessibility	- Cabramatta has strong connectivity with Canley Vale which is located directly to the north along the railway line. The catchment of Cabramatta is 800m, which overlaps with the Canley Vale catchment. - Good accessibility centred on the train station for metropolitan travel and good bus linkages with surrounding districts. - The Cabramatta city centre is skirted by a collector status ring road system and Cabramatta Road provides east west arterial road travel bypassing the city centre.
Constraints	- On-street parking is heavily utilised and suffers from employee/commuter parking and heavy shopping and restaurant parking demand.
Predicted traffic change	- A reduction of 256 peak hour movements.
Suitable access points for residential precincts	- John Street, Hughes Street and St Johns Road from the west, Railway Parade from the south, and Longfield Street from the east all provide good connections into the proposed higher density areas.
General comment	- No additional traffic on the road system.

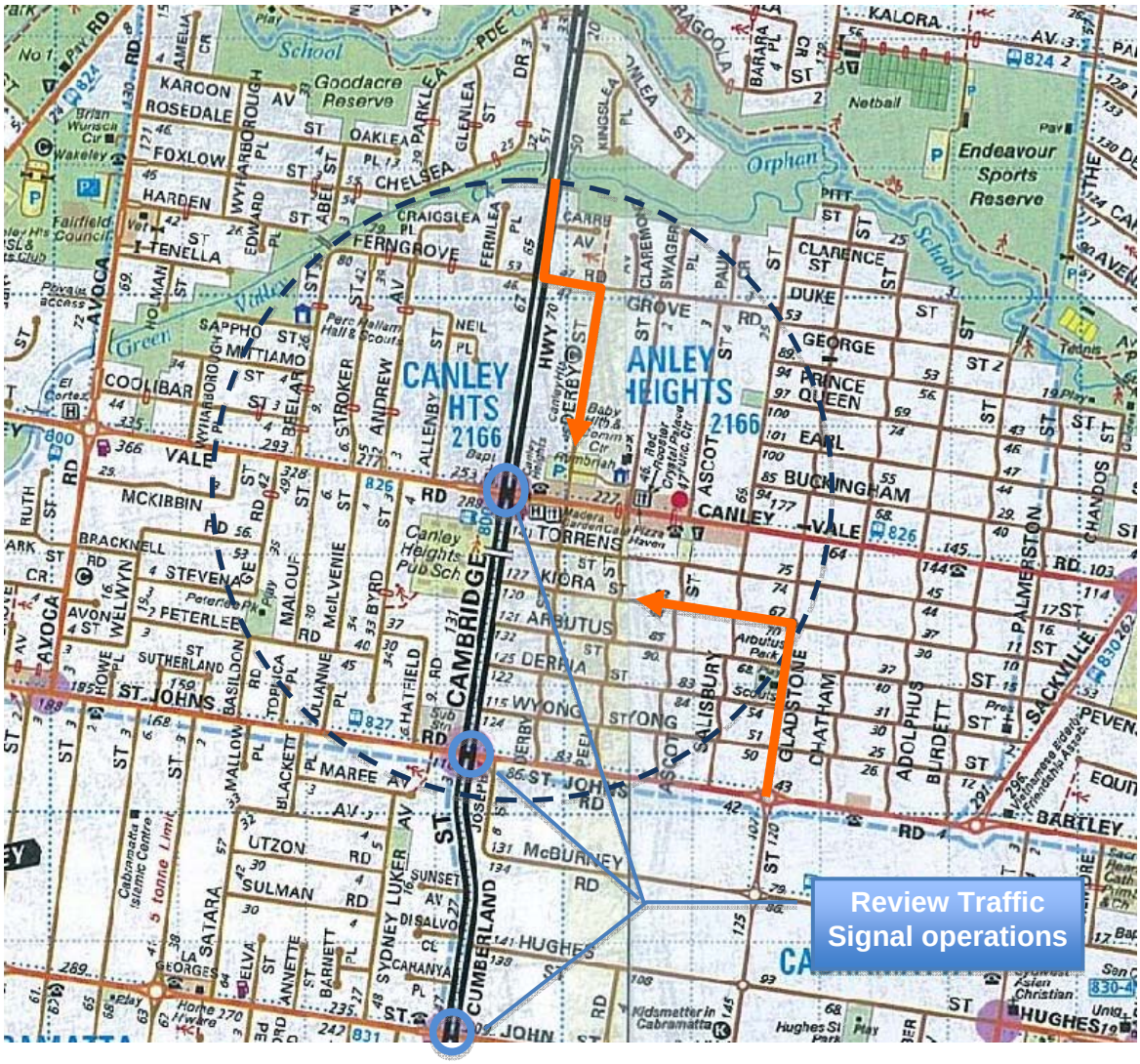
Recommended Improvements	**Indicative Cost**
Pedestrian network improvements	$200,000
Introduce parking controls in streets where an improved balance is needed between rail commuter parking and local parking demands.	$50,000
Introduce local area traffic calming on access streets to higher residential density areas.	$300,000
Review road connections in the southern part of the Cabramatta catchment.	$200,000
Total	**$750,000**

Transport Assessment – Area 3 Canley Vale	
Accessibility	- Cabramatta has strong connectivity with Canley Vale which is located directly to the north along the railway line. - Good accessibility centred around the train station for metropolitan travel and good bus linkages with surrounding districts. - The Cabramatta city centre is skirted by a collector status ring road system and Cabramatta Road provides east west arterial road travel bypassing the city centre.
Constraints	- East-west movement within Canley Vale is highly restricted by the two railway lines. - The land between the two railway lines is isolated with limited access in or out of this area. - On-street parking is heavily utilised and suffers from employee/commuter parking.
Predicted traffic change	- An increase of 214 peak hour movements.
Suitable access points for residential precincts	- Pevensey Street and Phelps Street provide good connections into the proposed higher density areas.
General comment	- Minimal additional traffic on the road system.

Recommended Improvements	**Indicative Cost**
Pedestrian network improvements	$200,000
Review traffic signal operations at Canley Vale Road/Railway Parade which is predicted to become oversaturated with current development on north side of Canley Vale Road.	$100,000
Possible new road link to service high density residential housing and to provide additional road capacity in the town centre. Road provided by developer of this parcel of land. Signal cost only included.	$250,000
Introduce parking controls in streets where an improved balance is needed between rail commuter parking and local parking demands.	$50,000
Total	**$600,000**

Possible new road link (image courtesy Google Maps)

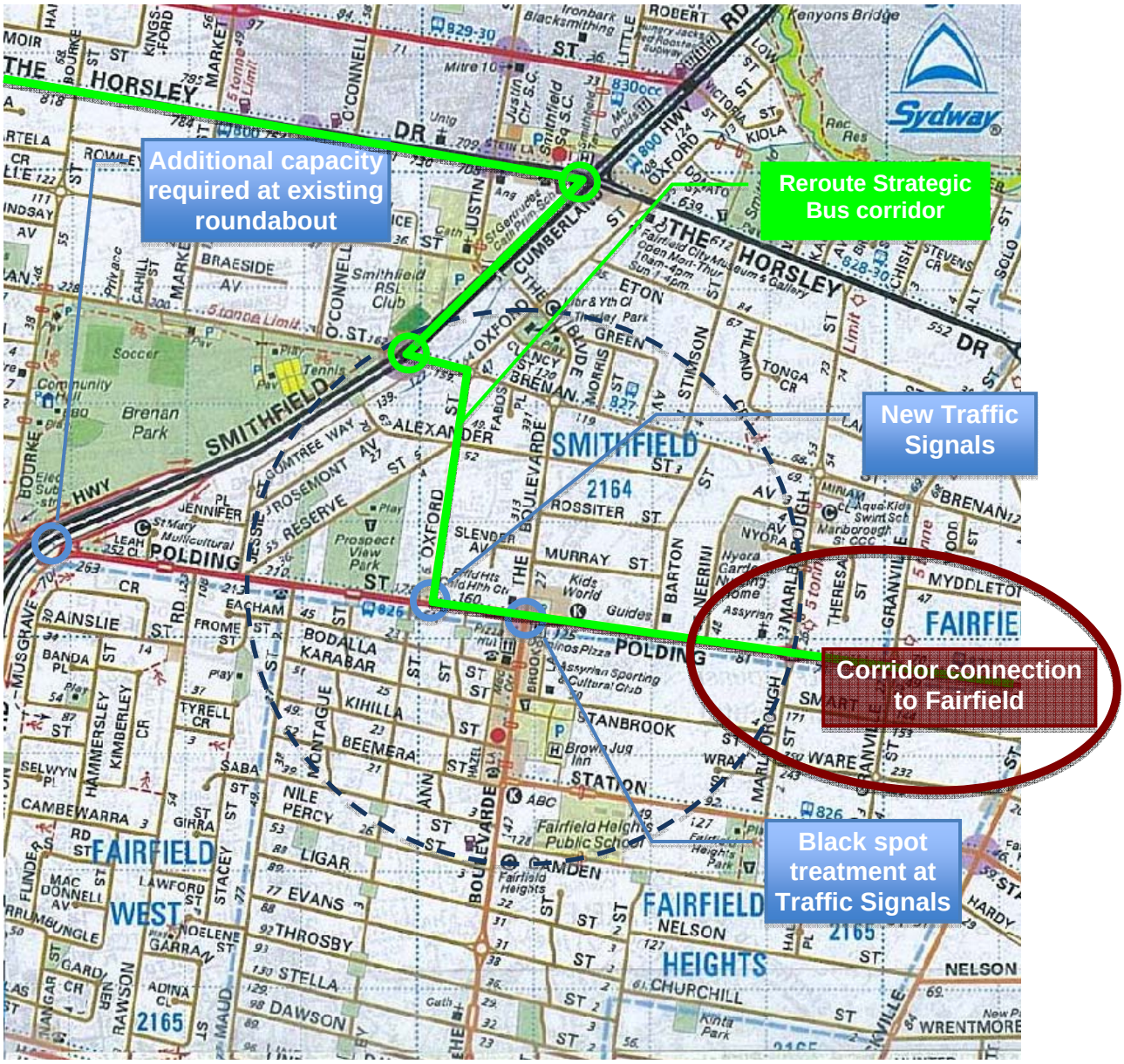
Study Area 4 Canley Heights



Transport Assessment – Area 4 Canley Heights	
Accessibility	- Good accessibility from all directions. - Good bus linkages with surrounding districts.
Constraints	- The Cumberland Highway provides a main north south arterial road through the centre which means traffic crossing points are limited to the east west collector roads Canley Vale Road and St Johns Road. - Canley Vale Road through the shopping precinct is constrained by parking activity, pedestrian crossings and turning traffic.
Predicted traffic change	- An increase of 767 peak hour movements.
Suitable access points for residential precincts	- The medium and high density development is spread around the centre allowing access from all directions on a grid pattern of local streets. This will spread the traffic load.
General comment	- Acceptable levels of additional traffic on the road system.

Recommended Improvements	**Indicative Cost**
Pedestrian network improvements	$200,000
Review traffic signal operations along Cumberland Highway at each of the traffic signal controlled intersections of Canley Vale Road, St Johns Road and Johns Road. Right turn controls may be required.	$300,000
Total	**$500,000**

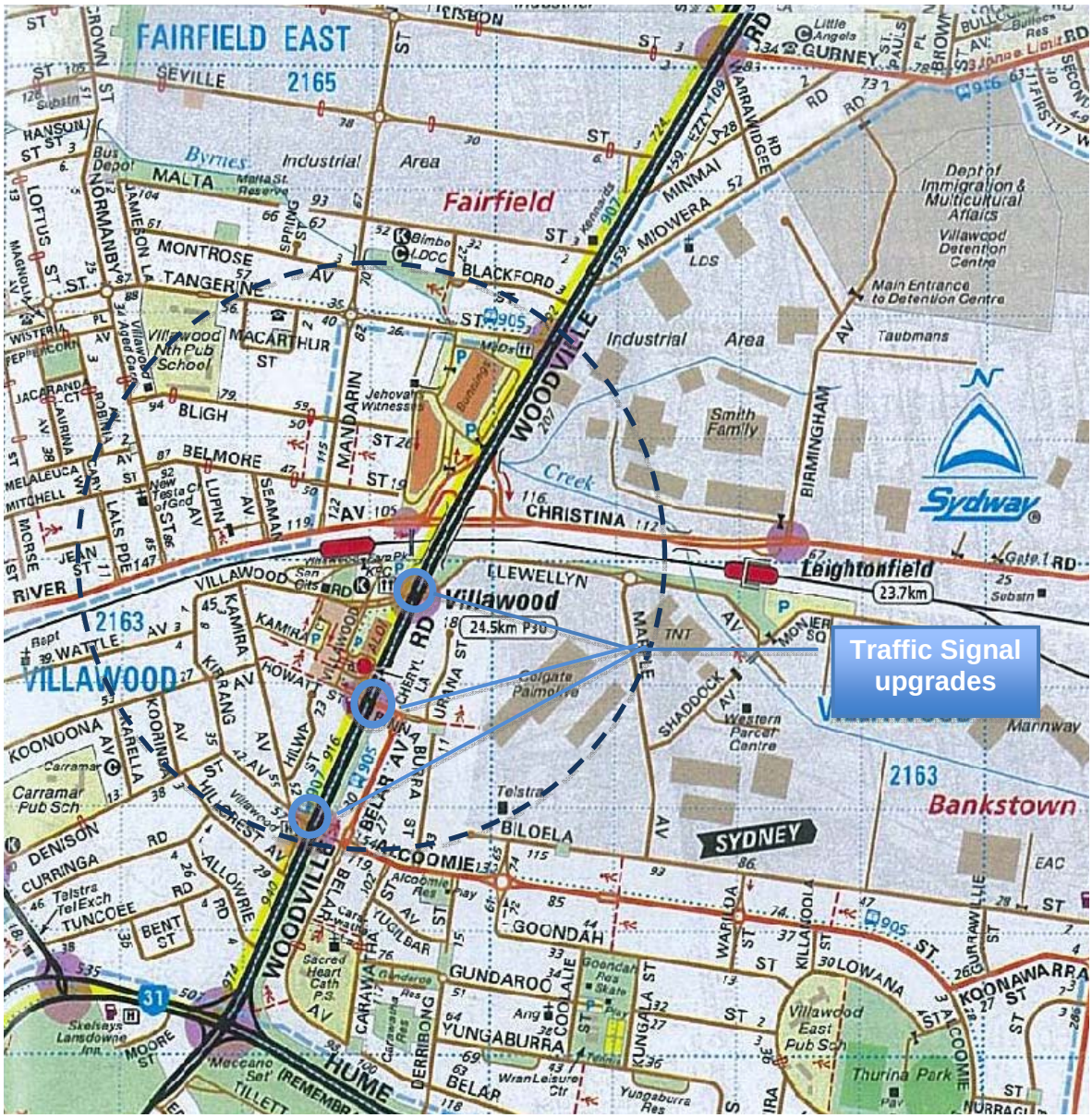
Study Area 5 Fairfield Heights



Transport Assessment – Area 5 Fairfield Heights	
Accessibility	- Good accessibility from all directions. - Good bus linkages with surrounding districts.
Constraints	- The Cumberland Highway provides a main north south arterial road adjacent to the centre which means there is some traffic intrusion due to constraints at the Polding Street interchange
Predicted traffic change	- An increase of 835 peak hour movements.
Suitable access points for residential precincts	- The medium and high density development is spread around the centre allowing access from all directions on a grid pattern of local streets. This will spread the traffic load.
General comment	- Acceptable levels of additional traffic on the road system.

Recommended Improvements	**Indicative Cost**
New traffic signals at Polding Street/Oxford Street to improve access into the northern precinct.	$250,000
Additional capacity needed at the Polding Street 5 leg roundabout at the Cumberland Highway interchange.	$250,000
Blackspot treatment required at the Polding Street/The Boulevarde traffic signals.	$150,000
Reroute Strategic Bus corridor which requires right turn phases to be introduced at two intersections on the Cumberland Highway.	$200,000
Total	**$850,000**

Study Area 6 Villawood



The traffic signals located at Kirrang Street provide access into the local residential precinct. It is an advantage that the Howatt Street traffic signals provide a direct connection into the shopping precinct but are not connected through into the local precinct. This minimises any traffic intrusion by parkers or traffic accessing the shopping centre through the local street network. The good pedestrian connections through the park encourage local residents to walk to the Villawood centre and railway station.

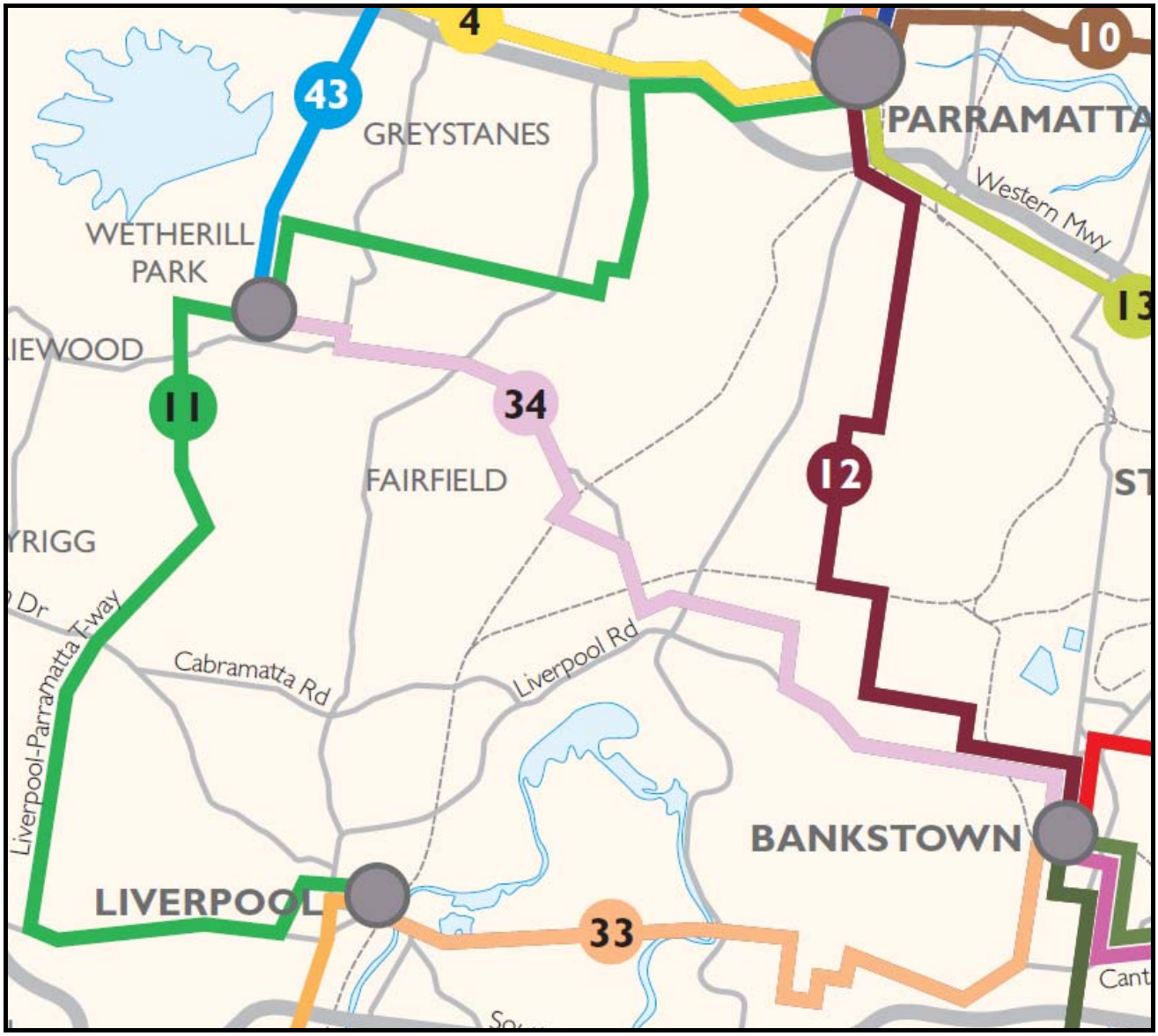
Transport Assessment – Area 6 Villawood	
Accessibility	- Woodville Road provides primary access north south. - Villawood is serviced by rail providing regional access. - Good bus linkages with surrounding districts.
Constraints	- Woodville Road provides a main north south arterial road through the centre which means traffic crossing points are limited to the east west collector road River Avenue – Christina Road. - Mandarin Street provides a local north south road into the precinct.
Predicted traffic change	- An increase of 499 peak hour movements.
Suitable access points for residential precincts	- The medium and high density development is spread around the centre allowing access from all directions which will spread the traffic load.
General comment	- Acceptable levels of additional traffic on the road system.

Recommended Improvements	Indicative Cost
Pedestrian network improvements.	$200,000
Review traffic signal operations along Woodville Road at each of the traffic signal controlled intersections of Villawood Road, Howatt St and Kirrang Avenue to include possible right turn phases to improve local access.	$300,000
Total	**$500,000**

Sydney Strategic Bus Corridors

Route 34 – Bankstown to Wetherill Park, passes through the Fairfield LGA skirting the southern edge of the Villawood catchment on Kirrang Avenue, passing through the Fairfield City Centre catchment and routed along The Horsley Drive to the north of the Fairfield Heights catchment.

The greatest potential for influence would result from rerouting via Polding Street to pass through the Fairfield Heights catchment to service potential medium and high density residential development along this route.



TIDC Commuter Car Park Program

The Premier of NSW announced the construction of 29 commuter car parking facilities ranging from small at-grade car parks to large multi-deck car parks. The program is to complete most by 2010 and all by 2011.

In the vicinity of the Fairfield LGA there is a multi deck car park proposed at Warwick Farm. This is unlikely to have any impact on commuter car parking in Fairfield because it is located south of the Fairfield LGA border