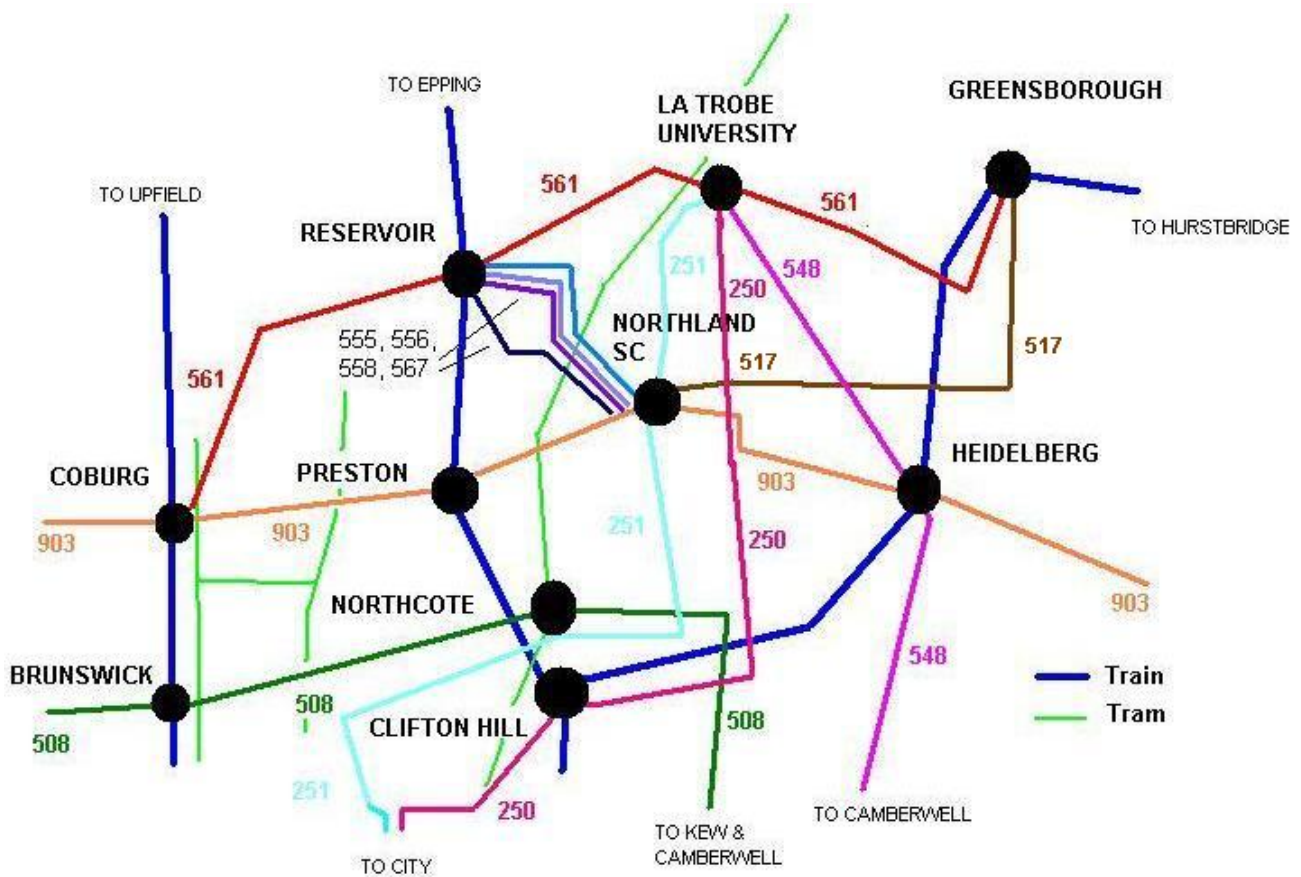


# SUBMISSION

## Review of Buses in Banyule, Darebin & Moreland

PROPOSED MAJOR ROUTE NETWORK FOR REVIEW AREA



**Peter Parker**

**November 2009**

## Introduction

The recently-announced area reviews of metropolitan bus services are welcome. They potentially present a 'once in a generation' opportunity to make public transport a mode of choice for the sixty per cent of Melburnians beyond walking distance of fixed rail services.

Of all the bus review areas examined so far, Banyule, Darebin and Moreland provide some of the most exciting possibilities for improvement.

This is because the area has major trip generators with high patronage potential. Especially in Darebin and Moreland the demographics are favourable for high patronage and there is established use of trains and trams for north-south trips.

Service frequencies on some routes are already quite high. More than any other area reviewed to date, there are many short routes and service duplications. The legibility of the current network is poor and the area has its fair share of route deviations.

Accordingly this submission proposes a simpler network of major, local and special routes.

Each route has an assigned purpose and status to assist planning its appropriate service level.

Fewer variations in service levels and holiday arrangements would exist. Those that remain would depend on the routes purpose and status; for example direct routes along main roads would run more frequently and over longer hours than local routes that do not serve major trip generators.

Connections and frequencies would improve though headway harmonisation with trains and co-scheduling related routes along corridors to provide a frequent combined service.

Routes need to be simpler and more direct. Because resources are limited the number of new routes created is minimised, as this makes it harder to boost service levels on existing routes.

Many existing routes in the area are very short and terminate in quiet industrial or residential areas. Joining routes so that each end is a major terminu reduces the need to transfer.

While individual routes have changed over time, I found that the network as a whole did not fully meet modern travel needs and existing routes could be confusing to passengers.

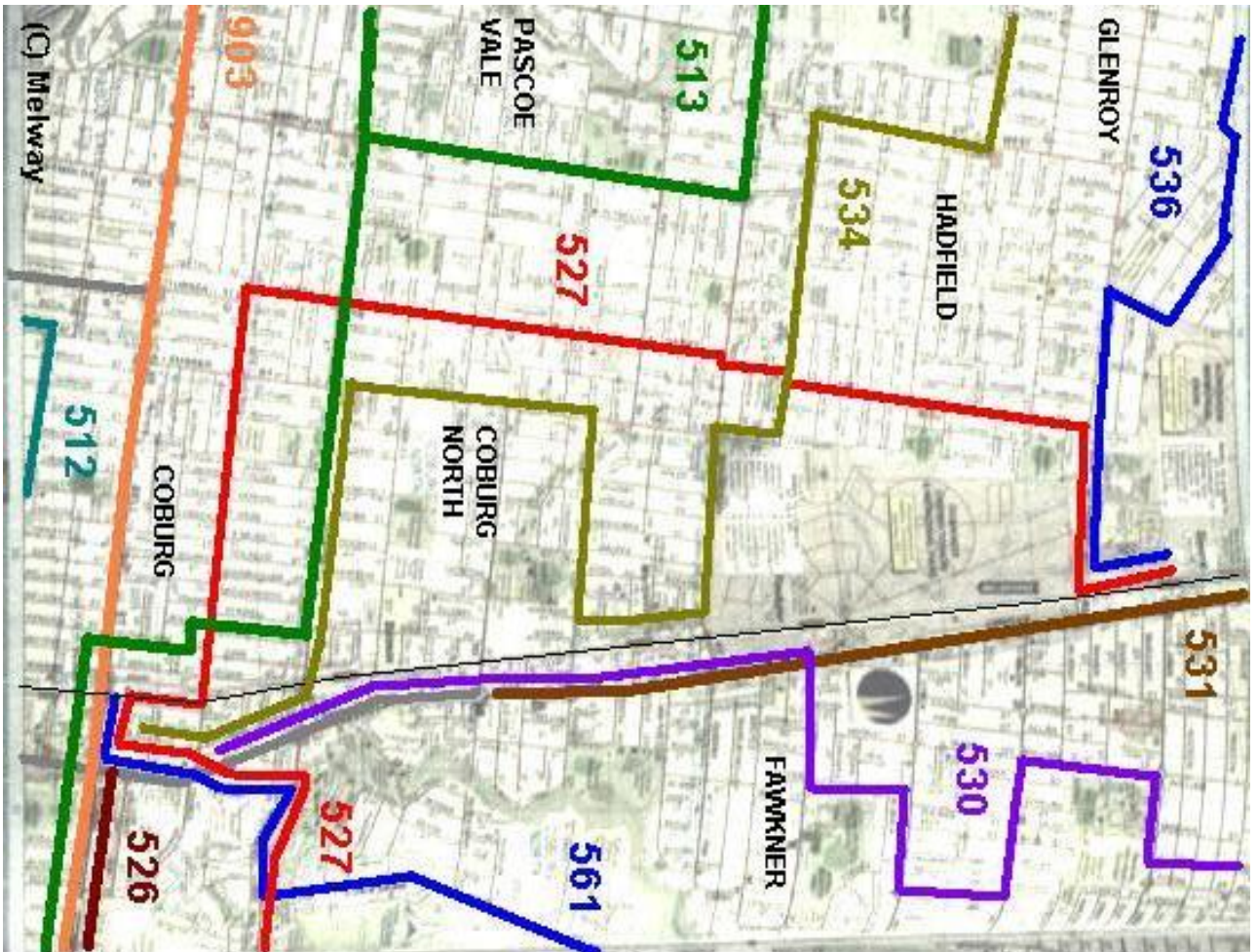
To assist planning, a modern frequent service network of high-quality direct services between major trip generators was developed (see cover). Some links already exist while others were created by redirecting or extending existing routes.

This frequent (but coarse) network is supplemented by a finer grid of local services that put a bus within ten minutes walk of most people's homes. Effort has again been made to improve directness and legibility. Routes that try to do too many things at once were shortened while others were extended where justified by trip generators and patronage potential.

This submission has three parts. The first provides maps of the suggested network. The second reviews the characteristics, existing network and transport needs of each suburb in the review. The third lists lists the proposed changes by route.

## Part 1: Maps of proposed network

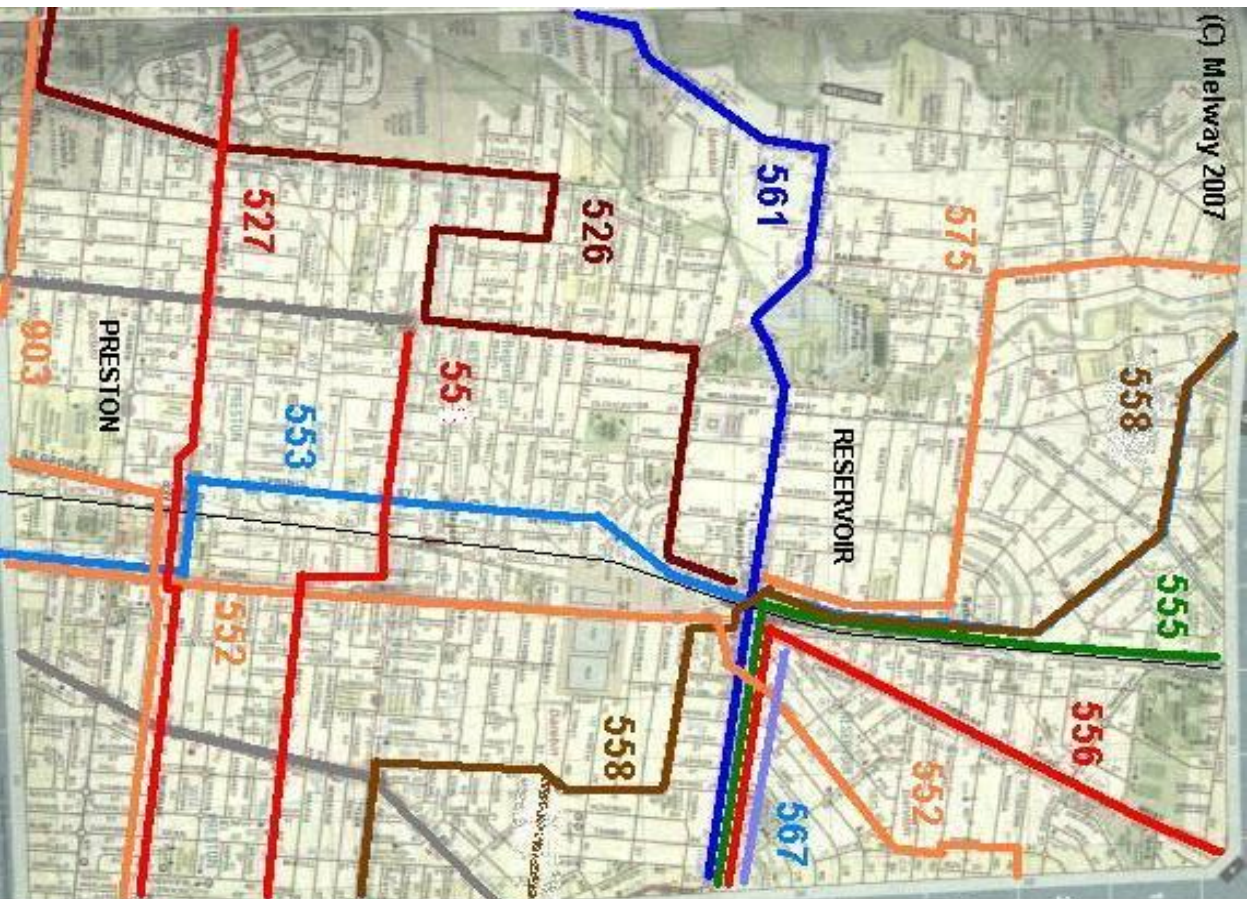
This section contains maps showing the proposed bus network for the review area.



### Coburg proposed bus network

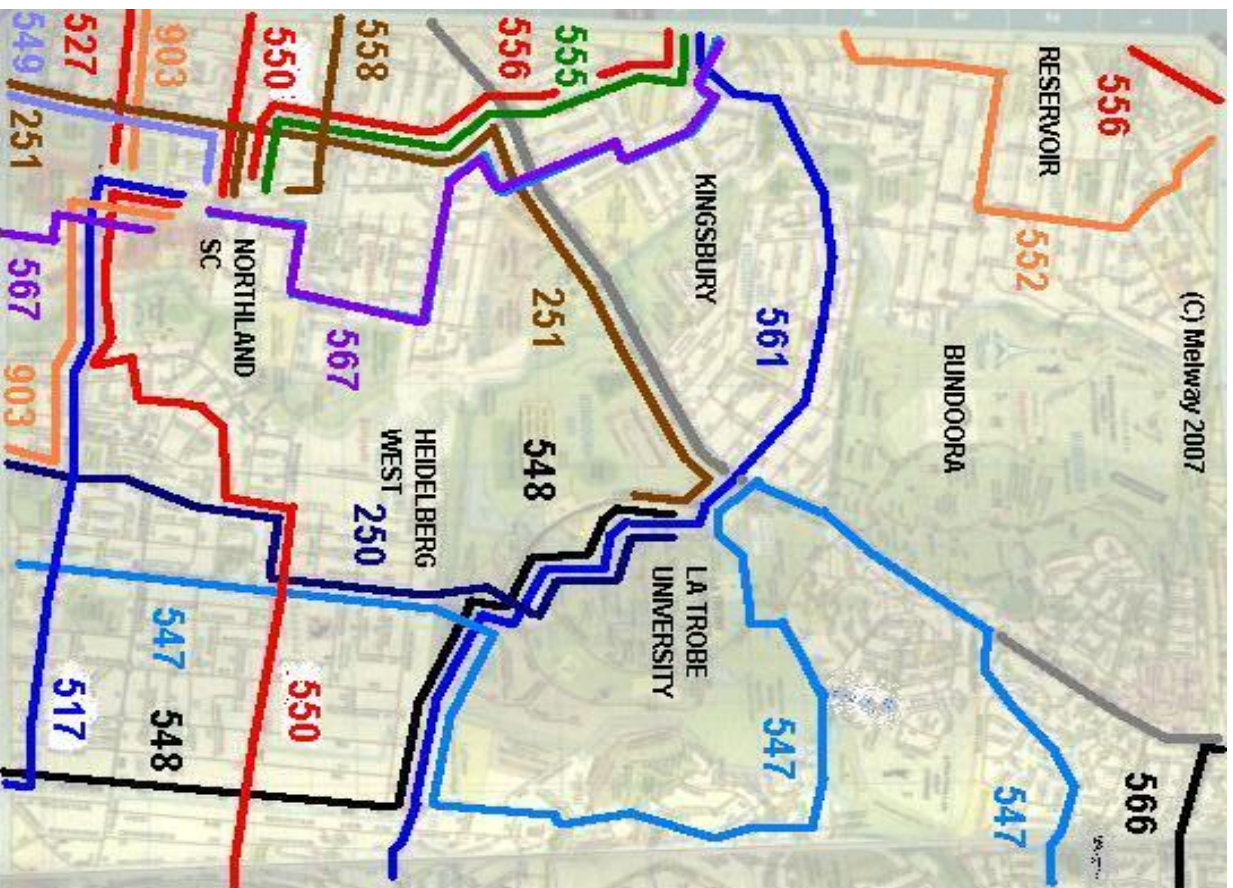
- 512: Proposed extension to DFO and Niddrie.
- 513: Rerouted via Gaffney St to reduce duplication with 903 on Bell St. Extended via Pascoe Vale Station to provide new east-west link.
- 525: Deleted. Replaced by extended 561.
- 526: Rerouted to operate via Bell St and Elizabeth St for improved directness. (ie swapped with 527). Extended to Reservoir Station via Gilbert and Henty St.
- 527: Rerouted via Murray Rd to serve Coburg Swimming Pool and Pentridge development. Also reduces duplication with 903 SmartBus. Elizabeth St remains served by rerouted 526.
- 530: No change (covered in previous review)
- 531: No change (covered in previous review)
- 534: No change (covered in previous review)
- 536: Remove deviation by operating via Ewell St (Glenroy) at all times. (covered in previous review)
- 561: Major route. Direct route to Greensborough via Reservoir and Latrobe Uni. Replaces 525.
- 903: No change

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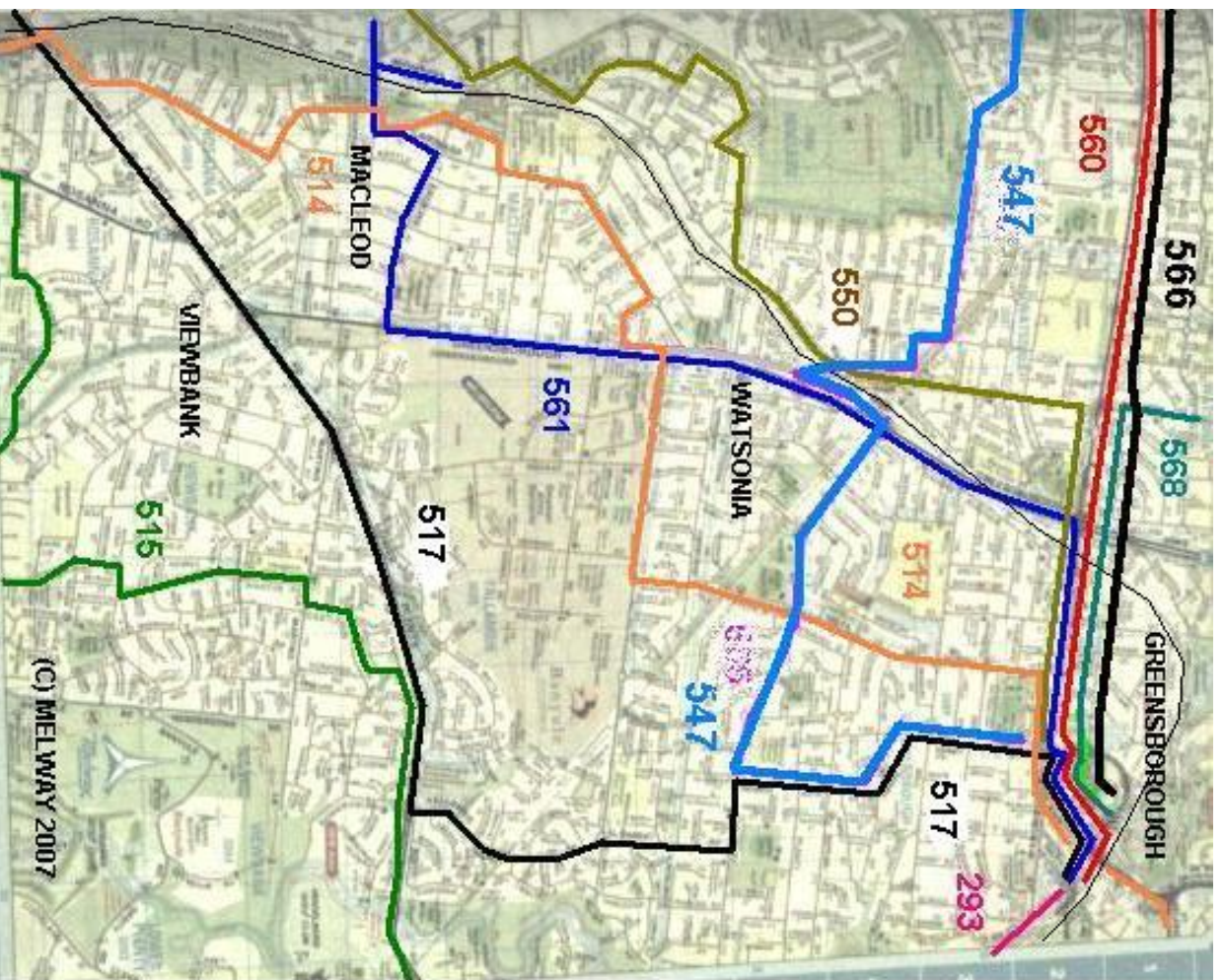
## Reservoir proposed bus network

- 525: Deleted. Replaced with extended 561.
- 526: Extended to Reservoir via Gilbert Rd and Henry St to provide Reservoir service to Big 4 Caravan Park residents. Replaces 553 in area. Via all of Elizabeth St.
- 527: Straightened via Murray Rd to serve Coburg pool, Pentridge development and reduce duplication with 903 along Bell St. Elizabeth St served by rerouted 526.
- 550: New route to Northland, Watsonia and Greensborough to replace deleted portions of 553 and 567 in area. New coverage of Regent St and Wood St.
- 552: Extended to Thornastown via Settlement Rd to provide industrial area service and more useful terminus. Rerouted to replace portion of 561 in Reservoir.
- 553: Edwardes St and Gilbert Rd portion deleted, replaced by 526, 550 and 561. Routed past Preston station to improve interchange with 527 & 903.
- 555: Straightened to run to Northland via Broadway and Albert St as per 556. Oakhill Ave service provided by extended 558.
- 556: No change. Provides frequent Reservoir - Northland service with 555.
- 558: Straightened and extended both ends. Runs between K-Mart Campbellfield, Reservoir and Northland to replace existing 555 in Oakhill Ave.
- 561: Major route. Extended to operate Greensborough - Coburg via Macleod, La Trobe Uni and Reservoir. Provides high quality through service and replaces 525.
- 563, 566: Deleted in this area. 566 becomes Greensborough - Epping only.
- 567: Modified to operate to Thornbury via Northland, Chifley Dr and Dundas St.
- 575: Extended to Reservoir to cover Broadhurst Ave & Massey Av.
- 903: No change



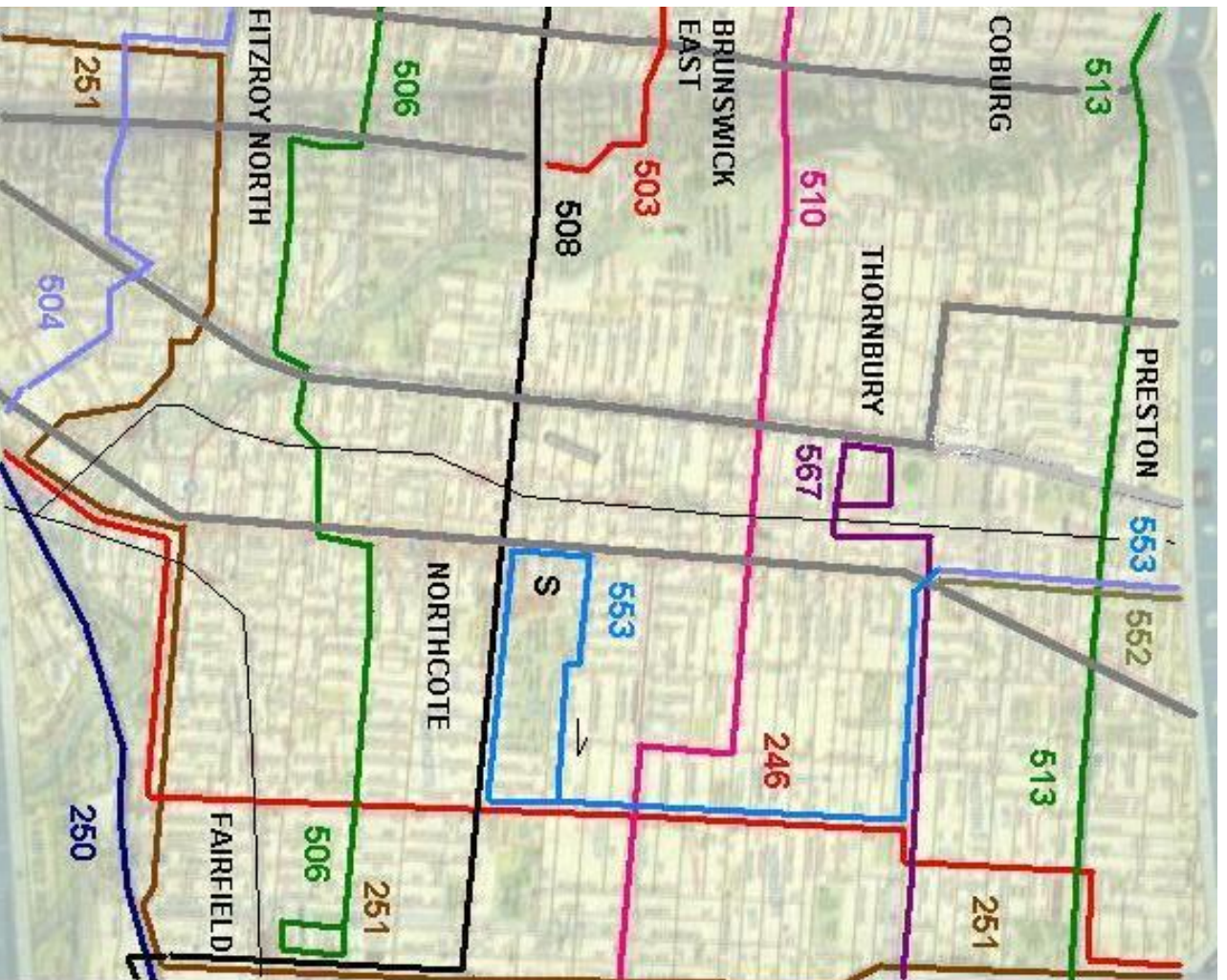
## Bundoorra proposed bus network

- 246: Rerouted to terminate at Northland SC. 'Same stop' transfer to La Trobe Uni via 251.
- 250: Major route. No changes in area but made more direct elsewhere.
- 251: Major route. Extended to La Trobe Uni. Replaces 567 as main route via Albert St.
- 340/350: Deleted. Replaced by improved routes 250, 251, 548 and 561.
- 517: Modified and made more direct. Major route to Greensborough via Rosanna.
- 527: Straightened in Coburg area to run entire length of Murray Rd.
- 547: New route. Heidelberg - La Trobe Uni - Greensborough. Replaces deleted portions of routes 548, 550, 551 and 566 along Greenwood Dr to Greensborough.
- 548: Major route. Straightened to operate via Waiora Rd to Heidelberg and then Burke Rd to Camberwell. Springthorpe Bvd served by 547 to Heidelberg and Greensborough.
- 549: No change in area. Extended to Iwanhoe East.
- 550: Modified. Extended to run Regent - Northland - Macleod - Watsonia - Greensborough. Replaces 561 and 566 in Macleod/Watsonia area with improved coverage in Heidelberg West and new Greensborough connection.
- 551: Deleted. Adequate coverage from other routes.
- 555, 556, 558, 567: Form frequent combined service between Northland and Reservoir.
- 561: Major route. Extended to provide direct services to Greensborough and Coburg.
- 563: Deleted. Duplicates tram.
- 566: Truncated. Greensborough - Epping only. Replaced in area by 547 and 567.
- 567: Modified to run Reservoir - Northland - Thornbury. Replaces parts of 552 and 566.



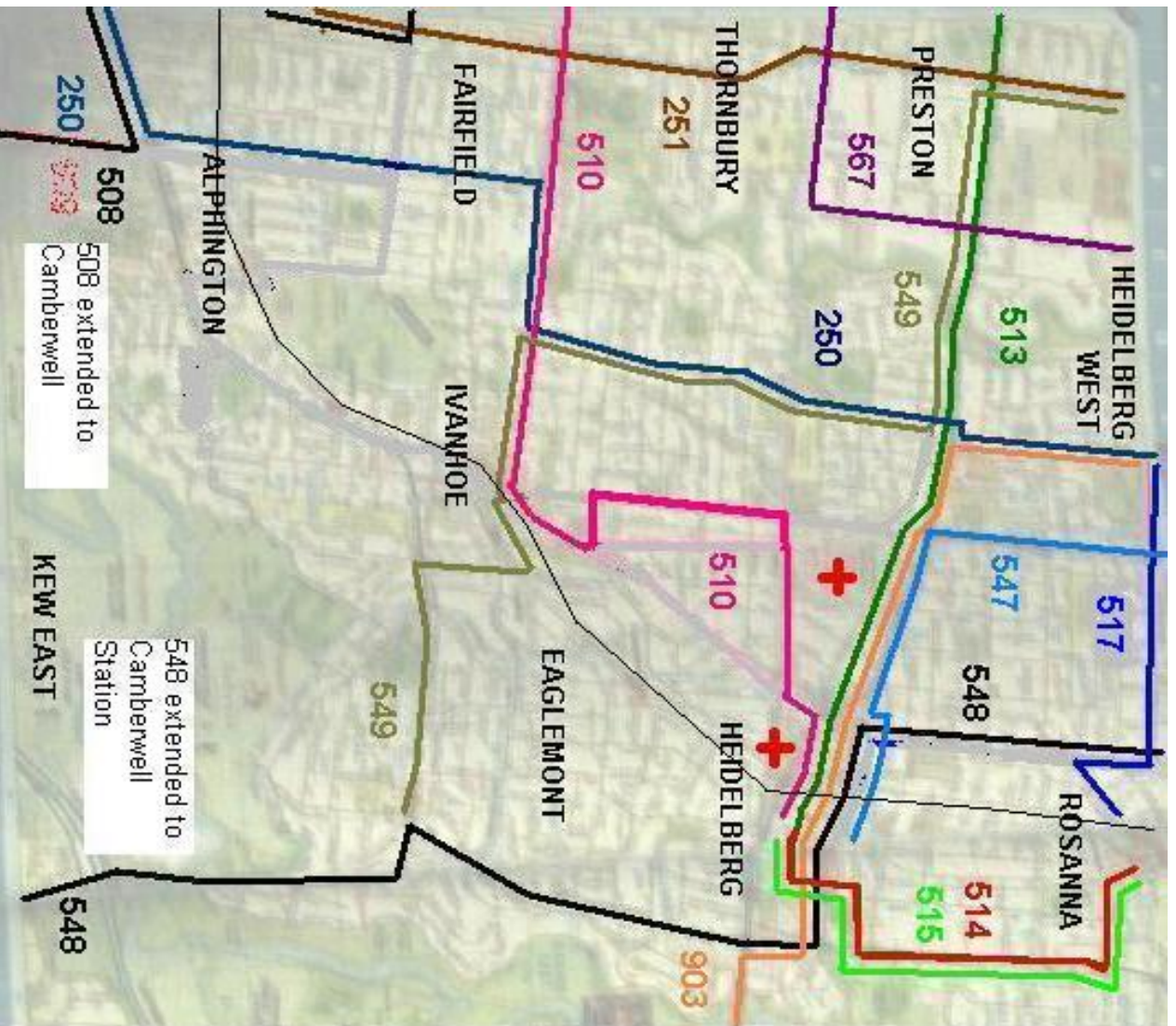
### Watsonia Proposed Bus Network

- 293: No change
- 513: Route split at Heidelberg. Replaced in area by new routes 514 and 515 and extended 517 & 561.
- 514: Heidelberg - Greensborough - Eitham. Current route 513 modified to cover Macleod and Yallambie Rd.
- 515: Heidelberg - Lower Plenty - Eitham. Current route 513 modified to cover deleted 517 in Viewbank and serve Bolton St in Eitham.
- 517: Major route. Provides new direct service between Northland SC and Greensborough via Heidelberg West, Rosanna Station and portions of existing route 513. Viewbank portion replaced by proposed 515.
- 550: Extended from Northland SC replaces 561 in Dunvegan Cres area and provides new link to Greensborough.
- 560: No change. Proposed SmartBus orbital.
- 561: Major route. Provides new direct service between Coburg, Reservoir, LaTrobe University, Macleod and Greensborough. Replaces portion of 513 in area.
- 566: Truncated to run Greensborough - Epping only. Greenwood Dr served by 547 to La Trobe & Heidelberg
- 568: New Telebus-style service to Watsonia North, Plenty Road and north Bundoora.



### Thornbury Proposed Bus Network

- 246: Straightened up Victoria Rd and run to Northland SC. (could be renumbered 252)
- 250: Major route straightened to replace 546 via Heidelberg Rd and run via Grange Rd.
- 251: Major route straightened to replace 567 along Station St and extended to LaTrobe Uni. Provides direct city access.
- 503 & 504: No change
- 506: Extended to Fairfield to replace 567 and provide new east-west link.
- 508: Major route modified to run via Fairfield and Chandler Hwy to Kew, Glenferrie & Camberwell.
- 510: Major route extended to Heidelberg via hospitals.
- 513: Major route. No change in this area.
- 546: Deleted. Replaced by rerouted 250.
- 552: Deleted south of Dundas St. Replaced by 246 in Northcote and 567 in Dundas St.
- 553: Replaces 552 near Northcote SC
- 567: Replaced by 251 along Albert and Station St and 506 along Bastings Rd. Replaces 552 via Dundas St, providing new coverage of Chifley Dr and a direct service to Northland SC. Scope to extend to Coburg by joining with 512.



### Ivanhoe Proposed Bus Network

- 250: Major route rerouted via Grange Rd to replace 340 & 350.
- 251: Major route replaces 567 via Albert St. Extended to Latrobe Uni via Plenty Rd.
- 340/350: Deleted. Replaced by 250.
- 508: Major route extended to Kew, Glenferrie and Camberwell.
- 510: Major route extended to Heidelberg.
- 513: Split at Heidelberg. Operates as routes 514 and 515 to Eltham.
- 548: Deleted. Replaced by portions of: 250, 508, 548 & 549.
- 547: New route Latrobe Uni - Heidelberg. Replaces portion of 548.
- 548: Modified. Major route Latrobe Uni - Camberwell via Heidelberg. Portions replaced by 547 & 549.
- 549: Straightened and extended to Ivanhoe East. Replaces portion of 548.
- 551: Deleted in this area. Replaced by rerouted 548.
- 567: Modified. Provides coverage of Chiffley Dr. Replaces portions of 251, 552 and 566.
- 609: Deleted. Replaced by extended 508.

## **Part 2: Review of each area's local network and rationale for revised routes**

### **Pascoe Vale, Coburg and Brunswick**

Few parts of these established areas are remote from some public transport service. Local streets form a grid pattern and bus routes are generally direct. Hence the key issues are service levels and connectivity rather than coverage.

Key bus network issues in the area include:

- (i) Lack of a direct service to Reservoir and La Trobe University.
- (ii) Routes that terminate in quiet residential or industrial areas rather than continue to the nearest major trip generator (eg 525 and 526).
- (iii) Service duplication in some areas (eg 527 Murray Rd and 513 Bell St) since the introduction of Route 903 while other areas (eg Pentridge development and Coburg Pool) have limited service.
- (iv) The absence of feeder buses along Gaffney St to Pascoe Vale Station (despite its superior train services compared to Coburg)
- (v) The lack of a direct service to Highpoint Shopping Centre from (say) Brunswick.
- (vi) Limited operating days and spans on east-west routes

This submission recommends the following major improvements in the area:

- (i) Commencing Route 561 at Coburg to serve as a major route to Reservoir, La Trobe University and Greensborough (replaces Route 525)
- (ii) Reducing duplication between 527 and 903 by routing 527 via Murray Rd instead of Bell St in Coburg area (this improves coverage of Coburg Pool and Pentridge area, while the swap with the extended 526 along Elizabeth St straightens that route on its way to Reservoir).
- (iii) Reducing duplication between 513 and 903 along Bell St by operating 513 via Gaffney Street west of Coburg Station.
- (iv) Operating 513 along Gaffney Street to serve Pascoe Vale Station and provide a fast link between the Craigieburn and Upfield lines (this should be faster than Route 903, which operates via DFO between Coburg and Essendon)
- (v) New links to the east (506 Fairfield, 508 Kew/Camberwell and 510 Heidelberg via hospitals).

### **Clifton Hill, Northcote, Fairfield and Alphington**

These inner suburbs are well served by train and tram, with buses dominant in the north and east. The main destination for public transport is the CBD, with a small part of Northcote having two train lines, two tram routes and two bus routes serving the city. Services are less dense to the north and east, where buses prevail. The area has higher than average housing densities with many blocks of units and houses on small blocks along a dense street grid.

Key bus network issues identified included:

- (i) Uneven service and poor legibility along some roads. For example Victoria Rd (Northcote) has three routes (246, 250 and 251) when one higher quality route would be more legible. Likewise Grange Rd in Alphington, while showing three routes on the map has no weekend bidirectional service as routes (340/350) do not run. Other routes with poor legibility in the area are 552 and 567.
- (ii) Poor recognition of Albert St and Station St as the area's major north-south corridor without a tram. Despite their importance it is served continuously only by Route 567. This corridor's route lacks legibility (as it does other things at each end) and offers a lower service than the parallel Victoria Road offers via routes 246, 250 and 251.
- (iii) Lack of significant service across the Yarra to the Kew and Camberwell areas (existing Route 609 runs only a few times a day)
- (iv) Weak terminus for Route 506, which terminates away from the main Northcote shopping strip.
- (v) Poor legibility for some routes (eg 552 and 567)

The major change recommended is rationalisation of routes 246, 250, 251, 340 and 350 to provide more legible north-south services in the area. Five separate routes is too many when only three are required to provide a simpler service. This could be done along the lines of the following:

- (i) Route 246 to operate between Clifton Hill and Northland SC, straightened to operate operating full length of Victoria St and Victoria Rd. Adequate connections to La Trobe Uni are provided from Northland or earlier. This route could operate independently of the Punt Rd route (existing 246) and be given another number, eg 252. This service would operate 7 days a week to minimum service standards (noting that 250 and 251 no longer overlap along Victoria St).
- (ii) Route 250 straightened to operate along Queens Pde to Clifton Hill Station, ie not via Princes Hill. It would then operate via Heidelberg Rd (not Westgarth St) to replace deleted 546 until Grange Rd (Alphington) and speed travel. Route would then head north via Grange Rd and Oriel Rd to La Trobe University. This would be a major route and replace deleted 340 and 350 in area (which do not provide sufficient coverage or speed to justify continuation).
- (iii) Route 251 operates via existing alignment until Westgarth St. Instead of turning at Victoria Rd it continues to Station Street (Fairfield). The service operates via Station St and Albert St to Northland Shopping Centre, Albert St and Plenty Rd to La Trobe University. This would be a major route and would provide a much stronger service along this corridor than the existing 567 (deleted in area).

The other major change is to Route 508. Instead of extending to Alphington via Grange Rd, this route is truncated at Fairfield (Station St) which is a stronger destination. It is hoped that this slightly shorter route will allow the weekday service to be improved from 16 minutes to 15 minutes, providing a clockface timetable. Every second service could extend to Kew Junction, Glenferrie and Camberwell, servicing a 'missing link' across the Yarra (in place of the infrequent Route 609).

Simplification is proposed for some local routes. 567 is deleted, replaced by 506 extended to Fairfield and the already discussed 251. 552 is replaced by 553 around Northcote Plaza, with the service forming a loop, serving the Aquatic Centre, library and shopping centre.

## Thornbury and Preston

This area's trip generation is dominated by the large shopping centre at Northland and long shopping strips along High Street. Preston also has a well-located TAFE campus and an industrial area. There is significant unit development and light industrial uses around Chifley Drive.

The western areas of the suburb have three closely-spaced rail lines while the eastern portion receives bus service only. The area has favourable demographics for public transport usage with a significant number of unit dwellers in smaller households that do not always have cars.

Key bus service issues are as follows:

- (i) Uneven service levels, even along the same corridor. As an example Victoria Road has a much higher service south of Darebin Rd (4 routes) than north of it (2 routes).
- (ii) The potential for Station St and Albert St to be a potential high-service corridor and an axis for a major City – Northland route. Currently it is served by Route 567 that is weakened by other functions at either end and not running to the city.
- (iii) Lack of a direct service to Reservoir shops from parts of West Preston.
- (iv) Poor legibility for some routes eg 552 and 567
- (v) Generally good service coverage except for some light industrial areas such as Chifley Drive.
- (vi) Desirability for Thornbury (and Moreland) to have a direct link to Heidelberg and its hospitals.
- (vii) Lack of Sunday services on some Northland Shopping Centre routes (despite Sunday trading) and outdated timetables with reduced service after noon Saturdays.
- (viii) Opportunity to better exploit overlapping 527 and 903 as frequent feeders between Preston Station/Tram 86 and Northland Shopping Centre. (This is an example of useful duplication due to 903's poor weekend service frequency).

The following are suggested to improve the local bus network

- (i) Straightening and upgrading of Route 251 to form a major route from the city, Fairfield Station, Station St and Albert St to Northland and La Trobe University. This provides the eastern portion of Thornbury and Preston with a legible and direct route similar to that provided by the tram along High St and Plenty Rd. This would replace the existing Route 567 in the area.
- (ii) An extra connection to Northland for Victoria St (Thornbury), formed by extending Route 246 along Victoria St to Northland (instead of La Trobe University). This service could run 7 days instead of 5 days as at present, with other routes providing the La Trobe University connection.
- (iii) Reform of Route 552 and 553 to improve directness and introduce new connections to Campbellfield and industrial areas near Thomastown. Route 553 could replace 552 at Northcote Plaza and be modified to pass Preston Station and Murray Rd to serve more of Spring Street.
- (iv) Improved coverage of industrial areas of Preston through an altered Route 567 serving all of

Chifley Drive. This would also provide a Dundas Street service linked to Thornbury Railway Station and Northland Shopping Centre.

- (v) Swapping Routes 526 and 527 to reduce duplication between Route 527 and 903. This would straighten 527 along Murray Rd (including service to Coburg Pool) and allow 526 to serve more of Elizabeth Street. Furthermore, extension of Route 526 would provide a new link to Reservoir that is currently missing.
- (vi) Various improvements to Northland services, including direct services to Thornbury (246 via Victoria Rd), Thornbury (251 down Albert St/Station Rd), Dundas St (rerouted 567), more of Coburg (527 straightened along Murray St), Reservoir (a combined frequent services on routes 555, 556, 558, 567), Ivanhoe East (extended 549), Greensborough (a more direct 517), Heidelberg Heights, Macleod and Watsonia (rerouted and extended 550) and north-west Reservoir (558). In addition Route 251 would form a major route between the City, Northland and La Trobe University, as outlined above.

### **Reservoir/Regent**

One of Melbourne's largest suburbs with three railway stations and frequent buses along High Street serving the central part of the suburb. Frequent trams serve the southern part of the suburb (Regent) while the north-western part of the suburb has a limited bus service only.

Despite being a smaller commercial centre than Preston, Reservoir is the area's major bus hub, probably due to the depot of the local bus operator. Reservoir is home to a large number of elderly low-income one or two person households living in postwar units and is a convenient suburb for students attending La Trobe University and RMIT. These represent favourable demographics for public transport and indicate that improved services will be well-used.

The main bus service issues for the area are:

- (i) Routes that terminate in quiet residential or industrial areas rather than link major trip generators. Examples include routes 525, 526, 552 and 558.
- (ii) Indirect routes (eg 553), confusing deviations (eg 553, 555, 558) and single-directional running (558 and 567).
- (iii) The lack of direct services from Reservoir to Coburg, the Big 4 Caravan Park, and Fawkner.
- (iv) The need for improved access between northern Reservoir and nearby industrial areas and K-Mart Campbellfield.
- (v) Poor coverage in north-western Reservoir with only one limited service route available
- (vi) Scheduling issues such non-clockface schedules, timetables based on obsolete 1pm Saturday closings and headways that don't mesh with trains.

This submission recommends a new bus network for Reservoir based on faster and more direct routes between major trip generators. Its salient points include:

- (i) A major trunk route across the northern suburbs based on an extended Route 561, providing new links between Reservoir, Coburg, LaTrobe University and Greensborough.

- (ii) A direct high-frequency corridor between Reservoir and Northland SC based on the existing Route 556 and a modified Route 555.
- (iii) New routes to Coburg and the Big 4 Caravan Park via extended routes 526 and 561.
- (iv) More destinations for northern Reservoir passengers by extending Route 552 to Thomastown, 558 to Campbellfield Plaza and Northland SC and extending 575 from Edgars Rd (Thomastown).
- (v) Other changes to speed, simplify and straighten routes (notably 553, 555 and 558)

### **La Trobe University Bundoora**

This is a major educational institution attracting both local and international students. It is a large trip generator and transit hub in the area.

Access issues identified were as follows:

- (i) Desirability of a strong east-west service to areas slightly further than the existing 561 termini, eg Coburg and Greensborough
- (ii) Desirability of a stronger and more direct link to Heidelberg
- (iii) Desirability for university services to exist on major north-south corridors such as Plenty Rd, Albert St, Oriel Rd, Waterdale Rd and Waiora Rd.
- (iv) The need to retain a high-quality direct service to Northland
- (v) Poor access from inner-eastern suburbs such as Kew and Camberwell
- (vi) Poor legibility, especially on routes towards the city. There are currently 4 routes (246, 250, 340, 350) but only one (250) has a suitable span to qualify as 'full service'.

The following changes, comprising four designated major routes and altered local routes, are suggested to strengthen the network at La Trobe University:

- (i) Extension of Route 561 to operate between Coburg and Greensborough via La Trobe University. A basic 20 minute frequency is suggested along the length of the route, supplemented by extra services between Reservoir and Macleod to provide a combined 10 minute service during peak times. Route 563, which largely duplicates the tram, would be deleted with resources used to extend 561. Suggested as a major route.
- (ii) The incorporation of routes 246, 250, 340 and 350 along Oriel Rd to form an enhanced Route 250 to provide a more legible service. Travel time and interchange possibilities could be improved by operating Route 250 directly to Clifton Hill Station and then via Heidelberg Rd instead of via Princes Hill and Westgarth St.
- (iii) The extension of the modified Route 251 from Northland to La Trobe University via Plenty Road is suggested. This would provide a strong north-south route via Fairfield, Station St and Albert St. 251 would also be a major route.

- (iv) A revamp of Route 548 to form a major route to Camberwell via Heidelberg. This would provide a useful link that is currently weak or missing. Route 547 would replace portions of 548 and 566 and contribute to the legibility and directness of both.
- (v) Deletion of 550 and 551 as La Trobe University routes. These routes currently operate to Northland and Heidelberg respectively. Replaced by routes 251, 547 and 548.

### **Bundoora, Macleod, Watsonia, Yallambie and Greensborough**

These are established mostly middle-class suburbs. The major two trip generators are La Trobe University and Greensborough Shopping Centre, with Northland (outside these suburbs) also generating demand. Youth and seniors are the dominant passenger groups as car ownership and use in the middle age groups is high, especially away from the railway stations and university.

The following were identified as the main local issues with the current bus network:

- (i) Poor legibility of some routes (eg 513 and 566) and duplication with the tram on others (563)
- (ii) Lack of coverage in Yallambie, Watsonia North (Cameron Pde) and the northern part of Bundoora.
- (iii) Potential for more direct services to La Trobe University and Northland Shopping Centre.
- (iv) A limited range of destinations available from bus services at Macleod.

Suggested responses to these issues are as follows:

- (i) A major new service from Greensborough to La Trobe University, Reservoir and Coburg formed by extending Route 561 from Macleod to Greensborough via Watsonia. This route would have a fast run via Greensborough Rd and replace the existing Route 563 (which largely duplicates Tram 86). An extended route 550 would replace 561 in parts of Macleod.
- (ii) A straighter Route 517, which would form a major service between Northland, Rosanna, Lower Plenty Rd, Henry St and Greensborough. This would reduce travel time between these major trip generators. Viewbank could remain served by the redirected 513/proposed 515.
- (iii) The splitting of Route 566 in two at Greensborough to remove a major source of confusion. Route 566 would be shortened to operate along a direct route between Greensborough and Epping only. The remainder of Route 566 could form part of a new route 547 to Heidelberg via Diamond Village Shopping Centre, Watsonia, Greenwood Drive and La Trobe University.
- (iv) Splitting and renumbering Route 513 at Heidelberg would remove the area's second major illegibility, as the 'via Lower Plenty' and 'via Greensborough' services would have different route numbers. 514 and 515 are suggested, with Route 515 operating via Viewbank in place of the straightened 517. 514 would provide a service along Yallambie Rd, connecting this unserved area to Heidelberg, Rosanna, Diamond Village and Greensborough.
- (v) An extended Route 550 from Northland could run to Macleod and thence to Watsonia and Greensborough. This would replace parts of the straightened routes 561 and 566 and better serve some local trips.

- (vi) A new route 568 Telebus-type service is recommended for the large area north of Cameron Parade in Watsonia North. This could operate as a fixed route service via Sellars St and Macorna St (as per current 566) but become demand responsive in the area north of Cameron Parade. It could also extend beyond Bundoora Square Shopping Centre to serve Greenhills Rd (Bundoora) which also lacks service. While these areas have sufficient populations to support their own fixed route, the street layout makes this impractical, which is why a Telebus is recommended.

### **Heidelberg, Heidelberg Heights, Heidelberg West, Rosanna and Viewbank**

These are established residential areas with a major retail and health hub at Heidelberg. Demographics in the area vary. Most housing comprises separate houses, but duplex houses exist in the west. The eastern areas along the railway line are comfortable and affluent with an ageing population.

Incomes drop in Heidelberg West and the area is dominated by ex-commission homes built for the 1956 Olympics. Heidelberg West is solely served by buses and service provision (and demand) is above-average, especially on north-south routes to the city, and more recently along Route 903 to Heidelberg and Northland. In contrast Viewbank has high car ownership and relatively low patronage.

Key transport issues in the area include:

- (i) Poor route legibility. Oriel Rd in particular is served by four routes that go to or near the city and La Trobe University. Of these only one can be considered a 'full service' route, operating seven days a week. Rosanna also suffers due to Route 513 splitting there.
- (ii) Short meandering routes exist while other areas are unserved. Some routes are very short (eg 550 and 551) while coverage of other areas (eg Dougharty Rd) is limited. Short routes also reduce the number of destinations that can be served without a transfer.
- (iii) Access to Northland Shopping Centre. Not all areas (eg Macleod and parts of Heidelberg Heights) have a direct service to this major local trip generator.
- (iv) Access to Heidelberg. Not all areas have a direct service to Heidelberg, which has assumed increasing importance due to its hospitals and status as a transport interchange (especially since Route 903 started). In particular most of Waterdale Rd and Waiora Rd lack a direct Heidelberg service. La Trobe University already has a limited service to Heidelberg but this needs to be made more direct and more frequent.
- (v) Access to hospitals at Heidelberg, especially from areas not served by Route 903.
- (vi) Limited access to area from eastern suburbs (eg Camberwell) without going via the city (Route 548 does not run Sundays or evenings and runs from Ivanhoe, not Heidelberg).

This submission recommends a revised bus network in the area based on the following:

- (i) Rerouting of Route 548 as a major 7-day service between La Trobe University and Camberwell via Heidelberg. Heidelberg is a larger trip generator than Ivanhoe so this change should attract patronage. The proposed 547 provides another link to Heidelberg and Greensborough with better legibility and directness compared to existing routes.
- (ii) Extension of Route 510 from Ivanhoe to Heidelberg. This provides a stronger terminus for this

route and improves access to two large hospitals.

- (iii) The replacement of Route 513 between Heidelberg and Eltham with routes 514 and 515 to reduce confusion at Rosanna caused by essentially different routes sharing the one route number.
- (i) Development of Route 250 as the major route along Oriel Rd (Heidelberg West) and the deletion of routes 246, 340 and 350 along this road.
- (ii) Use of Route 517 to form a major route linking Heidelberg West with Northland, Rosanna and Greensborough with improved directness. Part of this involves a straightening and a substitution of routes in the Viewbank area but no loss of coverage is involved.
- (iii) Rerouting and extension of Route 550 to provide a new east-west route serving Dougharty Rd, Northland, Macleod and Greensborough. Route 551 could be deleted to release resources for this improvement.

### **Eaglemont, Ivanhoe, Ivanhoe East**

Like the three Heidelbergs, this is again a diverse area with exclusive housing to the east and pockets of postwar ex-commission homes in the west. It has shopping strips near the station and at Ivanhoe East, a well-known grammar school on Lower Heidelberg Road and an aquatic centre on Waterdale Rd.

Bus service issues in the area include:

- (i) Few routes that operate 7 days per week, with Eaglemont and Ivanhoe East having no 7-day coverage at all.
- (ii) Poor legibility along Oriel Rd, with three part-time routes (246, 340, 350) and one full-time route (250) serving this corridor. All go to or near the city and one (340/350) has confusing express stopping patterns.

The following bus network revisions are proposed:

- (i) An improved 7-day service to La Trobe University and Heidelberg via a rerouted 548 which also serves Ivanhoe East and Camberwell. This major route replaces portions of the deleted 546 in Eaglemont.
- (ii) An extended route 549 to Ivanhoe East. This provides a direct connection to Northland Shopping Centre and replaces Route 546 in Ivanhoe East. Straightening along Oriel Rd is also proposed.
- (iii) Extension of Route 510 eastwards to Heidelberg via Waterdale Rd and Banksia St. Apart from replacing Route 548 in the area, this change improves coverage of Banksia St, provides direct services to the aquatic centre and two hospitals and a stronger destination for Route 510.
- (iv) Simplification of routes along the Oriel Rd corridor, with the deletion of Route 246, 340 and 350. Route 250 could be upgraded to retain weekday frequency.

## Part Three: Recommendations by route

The following are this submission's proposals in a more detailed route-by-route form.

Route	Purpose	Status*	Recommendations
246 MODIFY	Redefine as local service between Clifton Hill and Northland SC, serving Victoria St/Victoria Rd.	S	<p>Operate as per existing route from Clifton Hill to Victoria Rd. Then continue via Victoria St and Bell St to terminate at Northland SC.</p> <p>Travel to La Trobe Uni is available by transferring to 251 at Northland or the revised Route 250 at Clifton Hill.</p> <p>Operate 7 days per week independently from existing 246 and assign new route number (252).</p>
250 MODIFY	Retain current purpose as City – LaTrobe Uni route but alter route between Carlton North and Alphington.	P	<p>Reroute via Queens Parade, Clifton Hill Station and Heidelberg Rd to improve directness, speed travel and replace deleted 546.</p> <p>Straighten route by running via Grange Rd (Alphington) to replace deleted 340/350 and allow interchange at Chandler Highway to proposed new Kew/Camberwell route (extended 508).</p> <p>Increase service levels, using resources from deleted routes 340, 350 and 546.</p>
251 MODIFY	Retain current purpose as City – Northland route but alter to travel via Fairfield Station.	P	<p>Operate as per existing route from City to Westgarth Street and straighten via Station and Albert Street to Northland SC. Then extend to LaTrobe University via Plenty Road.</p> <p>Proposed alignment replaces 567 along Station St (Fairfield) and improves connectivity to other routes such as the rerouted 508 to Camberwell.</p> <p>Increase service levels, using resources from deleted routes 340, 350 and 546.</p>
340 DELETE	Currently a part-time route operating between City and LaTrobe University in conjunction with 350.	-	<p>Delete route as it contributes to poor service legibility along Oriel Road and saves minimal travel time.</p> <p>Coverage of area is provided by enhanced 250.</p> <p>Use resources saved to improve service on other La Trobe routes such as 250, 251 and 561.</p>
350 DELETE	Currently a part-time route operating between City and LaTrobe University in conjunction with 340.  Has pick-up and set-down restrictions.	-	<p>Delete route as it contributes to poor service legibility along Oriel Road and saves minimal travel time.</p> <p>Coverage of area is provided by enhanced 250.</p> <p>Use resources saved to improve service on other La Trobe routes such as 250, 251 and 561.</p>
503 RETAIN	Retain current purpose as East Brunswick – Essendon local service	S	<p>No change to route.</p> <p>Upgrade to minimum standards.</p>
504	Retain current purpose as	S	Upgrade to minimum standards.

Route	Purpose	Status*	Recommendations
RETAIN	Clifton Hill - Moonee Ponds local service		
506 MODIFY	Currently defined as Westgarth - Moonee Ponds local service  Retain current purpose with Fairfield extension.	S	Straighten to operate via Dawson St instead of Smith St (Brunswick West) to improve directness.  Extend to Station St (Fairfield) via Northcote and Bastings Street.  This replaces deleted 567 in area and connects with services to Camberwell and Northland SC.  Upgrade to minimum standards.
508 MODIFY	Currently defined as Moonee Ponds – Brunswick – Northcote - Alphington service  Redefine as Moonee Ponds – Brunswick – Northcote – Fairfield – Kew – Camberwell service.	P	Shorten basic route to terminate at Station Street (Fairfield) instead of Alphington. This provides a stronger terminus and may allow basic weekday frequency to be upgraded from a non-clockface 16 minutes to a clockface 15 minutes.  Then extend every second service from Fairfield to Camberwell via Chandler Hwy and Princess St to Kew and then via Burwood Hwy and Camberwell Rd to Camberwell.  Replaces current infrequent route 609, providing missing cross-suburban link.
509 RETAIN	Currently defined as Sydney Road - West Brunswick  Retain existing purpose.	S	No change to route.  Frequency and span upgrade not recommended.
510 MODIFY	Currently defined as Essendon – Ivanhoe route  Retain existing purpose with additional hospital and Heidelberg connection functions.	P	Extend to Heidelberg Station via Waterdale Rd and Banksia St to strengthen this east-west link.  Provides a useful cross-suburban link to two major hospitals and replaces the rerouted 548 in the Ivanhoe area.  Also serves Ivanhoe Aquatic Centre and Seniors Village on Waterdale Rd.
512 RETAIN	Currently defined as Strathmore - East Coburg local service  Retain existing purpose.	S	No change to route in review area.  Moonee Valley review recommendation to extend to DFO and Niddrie is supported.
513 MODIFY	Currently defined as Glenroy – Eltham via Lower Plenty & Greensborough service.  Redefine as Glenroy – Pascoe Vale – Coburg – Heidelberg service serving Gaffney Street and Bell Street.	P	Terminate route at Heidelberg to improve legibility (currently routes alternate between Greensborough and Lower Plenty). Renumber Heidelberg – Eltham portions as 514 and 515.  Reroute via Gaffney Street (Pascoe Vale) to reduce duplication with route 903 SmartBus.  Operate via Pascoe Vale Station to provide direct link to Coburg and currently missing rail feeder function (Note that Pascoe Vale has many more peak trains than Coburg).
514	Defined as local service	S	Operates from Heidelberg to Eltham via

Route	Purpose	Status*	Recommendations
NEW (RENUMBERED)	between Heidelberg, Greensborough and Eltham (currently 513)		Greensborough to perform role of 513(Gr).  Additional coverage of Yallambie Rd improves connections to Diamond Village SC and Greensborough.  Greensborough Rd near Watsonia Station remains served by new 547 and proposed extended 561.
515  NEW (RENUMBERED)	Defined as local service between Heidelberg, Viewbank and Eltham (currently 513 & 517).	S	Operates from Heidelberg to Eltham via Rosanna, Banyule Rd, Winston Rd, Lower Plenty Rd, Main Rd, Bolton St, Bridge St and Main St to Eltham.  Incorporates Lower Plenty portion of 513 (513LP) and part of straightened Route 517.
517  MODIFY	Currently defined as St Helena – Northland service.  Redefined as major Greensborough – Rosanna – Northland service.	P	A rerouted service from Northland SC to Greensborough providing a faster service via Lower Plenty Rd (instead of Viewbank).  Viewbank remains served by proposed 515 (513LP replacement) to Greensborough and Heidelberg.  Resources for improved frequency on this route to come from deleted 563.
525  DELETE	Currently defined as Coburg - West Reservoir peak route.	-	Delete.  Replaced by extended 561, serving Coburg, Reservoir, Macleod and Greensborough.
526  MODIFY	Currently defined as Coburg - West Preston via Elizabeth Street local service  Redefine as Coburg North local service linking Coburg and Reservoir.	S	Modified.  Swapped with 527 in Coburg area to operate full length of Elizabeth Street.  Extended to Reservoir via Gilbert Rd and Henty St to provide Reservoir service to Big 4 caravan park. Also replaces deleted portion of 553 in area.
527  MODIFY	Defined as Gowrie – Coburg – Northland local service  Retain existing purpose with stronger coverage of Murray Rd.	S	Modified to reduce duplication with Route 903.  Rerouted to operate full length of Murray Rd to serve Pentridge development and swimming pool. Elizabeth St is served by rerouted 526.
546  DELETE	Defined as Heidelberg - Melbourne University feeder route.	-	Delete.  Inner part of route is served by rerouted 250. Other parts are served by rerouted 251, 548 and 549. Remainder of route near Alphington is within walking distance of railway station.  Use resources saved to improve and extend Route 548 to Camberwell.
547  NEW (RENUMBERED)	Defined as Heidelberg – Latrobe Uni – Greensborough local service	S	New local route via Springthorpe Bvd and Greenwood Drive to replace deleted 548 variation and shortened 566 in Bundoora area.  Passes along Elder St (Greensborough) to provide new direct service to La Trobe University and replace

Route	Purpose	Status*	Recommendations
			<p>existing Route 513.</p> <p>Also provides direct Heidelberg and Greensborough connections to some areas that previously didn't have them.</p> <p>Resources to come from deleted portion of 566.</p>
548 MODIFY	<p>Currently defined as Latrobe University – Kew.</p> <p>Redefined as major north-south route between La Trobe University, Heidelberg and Camberwell.</p>	P	<p>Remove confusing Springthorpe Bvd deviation – all services to now operate via Kingsbury Drive. New route 547 to provide Springthorpe Bvd service.</p> <p>Reroute via Heidelberg instead of Ivanhoe to provide a direct La Trobe Uni – Heidelberg service (replaces 551) and a stronger trip generator for the route.</p> <p>Extend from Heidelberg to Camberwell via Burke Rd for strong north-south link not currently provided.</p> <p>Note: Routes 510, 547 and 549 replace 548 in the Ivanhoe/Heidelberg West area.</p>
549 MODIFY	<p>Currently defined as Northland - Ivanhoe local service.</p> <p>Retain existing purpose with extension to Ivanhoe East.</p>	S	<p>Extend route along Lower Heidelberg Rd to Ivanhoe East to replace deleted 546 and rerouted 548.</p> <p>Straighten to operate along Oriel Rd instead of Bond St (Ivanhoe). All of Bond Street is near 549 and extended route 510.</p> <p>Remove duplication with Route 903 along Oriel Rd by operating along Bell Street to Northland instead of Southern Rd.</p>
550 MODIFY	<p>Currently defined as Northland - La Trobe University service via West Heidelberg.</p> <p>Redefine as local east-west route between North Preston, Northland, Macleod, Watsonia and Greensborough.</p>	S	<p>An east-west service that 'mops up' areas bypassed by other routes that have been straightened, truncated or redirected.</p> <p>Commences at tram 112 terminus at North Preston and operates via Regent, Northland, Ramu Pde, Dougharty Rd, Macleod West, Watsonia and Greensborough.</p> <p>Replaces 567 in Regent area, 550 in Heidelberg West, 561 in Macleod West and 566 in Watsonia.</p> <p>Benefits include added coverage of Dougharty Rd (Heidelberg West) and a direct Northland and Greensborough service from Macleod West.</p> <p>Resources for this route's extension to come from deleted 551.</p>
551 DELETE	<p>Currently defined as local Heidelberg - La Trobe University route.</p>	-	<p>Delete</p> <p>Route deleted as adequate coverage is provided by other services in area.</p>
552 MODIFY	<p>Currently defined as Northcote Plaza - North East Reservoir service</p> <p>Define as local route along</p>	S	<p>Delete portion south of and including Dundas St to improve legibility of route (area served by modified 553 – see below).</p> <p>Northern terminus is currently 'in middle of nowhere'.</p>

Route	Purpose	Status*	Recommendations
	High St Preston with connection to Thomastown.		Extend to Thomastown to provide coverage of currently unserved industrial area at Settlement Rd.  Review currently high service levels on route – other routes may need it more.
553 MODIFY	Currently defined as Preston - West Preston  Define as Northcote SC to Reservoir route, providing a local service to Spring St.	S	An extremely confusing route west of Reservoir Station. Some services deviate around Edwardes Lake. Three recommendations made, as follows:  Terminate route at Reservoir Station, deleting West Preston portion (replaced by extended routes 526, 550 and 561).  Route via full length of Spring St (instead of High St) to aid coverage of Spring St and allow improved interchange with trains and buses 527 and 903 at Coburg Station.  Extend to Northcote Plaza via Victoria Rd to form clockwise loop via indoor pool, library and shopping centre (replaces deleted portion of 552).
555 MODIFY	Currently defined as Epping - Northland via High Street.  Retain existing role but co-route and co-schedule with Route 556 to provide frequent service between Reservoir and Northland.	S	Improve speed and directness by operating all trips (not just some) via High St instead of Allenby Av (this is served by rerouted 558).  Provide a direct 'frequent service corridor' between Reservoir and Northland SC by operating route as per 556 along Broadway and Boldrewood Pde (instead of Howard St and Oakhill Ave).  Howard St and Oakhill Ave remains served by extended Route 558.
556 RETAIN	Defined as Epping - Northland via Dalton Road  Retain existing role.	S	No change to route proposed.  Provide a direct 'frequent service corridor' between Reservoir and Northland SC by scheduling in conjunction with Route 555.
558 MODIFY	Defined as north west Reservoir local route.  Redefine as Northland – Reservoir – north west Reservoir – Campbellfield local route.	S	A dysfunctional route that tries to cover too big an area. Has confusing single-directional running, inconsistent routing and terminates 2km short of a potential trip generator.  Extend to Campbellfield Plaza/K-Mart Campbellfield.  Extend to Northland SC via Howard St, Mendip Rd, Oakhill Ave and Tyler St to replace rerouted 555 and deleted 563.
560 RETAIN	Currently defined as Broadmeadows – Greensborough service	P	No recommendation (proposed SmartBus orbital).
561 MODIFY	Currently defined as Macleod – Reservoir via La Trobe University.  Redefine as major east-west route between Coburg,	P	An extended route between Coburg and Greensborough incorporating portions of 525, 561 and 513.  Provides a major link across the northern suburbs centred on LaTrobe University. A 20 minute base

Route	Purpose	Status*	Recommendations
	Reservoir, La Trobe Uni, Macleod and Greensborough.		frequency, supplemented by Reservoir – Macleod trips every 10 minute during peak times is suggested.  Macleod West remains serviced via extended route 550.  Resources for extension to come from deleted routes 525 and 563.
563 DELETE	Defined as Greensborough – Northland service	-	Delete route.  Duplicates other services including tram.  Resources used to extend routes 550 and 561 to Greensborough to provide high-quality services from Northland SC and La Trobe University (see above).
566 MODIFY	Currently defined as Lalor - Greensborough – Northland  Redefine as major route between Greensborough and Epping only.	P	A confusing route that unsuccessfully serves two travel corridors. The following are recommended:  Split route at Greensborough and retain 566 number for service towards Lalor/Epping.  Renumber Greensborough – Latrobe service, incorporating service in proposed Route 547 from Heidelberg (see above). Macorna St is served by proposed 568.  Change terminus to Epping instead of Lalor as it is a stronger trip generator (refer to Whittlesea review).
567 MODIFY	Currently defined as Northcote – Regent route via Northland SC.  Redefine as local route providing 'infill' coverage between Thornbury, Northland SC and Reservoir.	S	A route that tries to combine service of a major corridor (Station St/Albert St) with local purposes at Northcote and Regent.  Reroute to commence at Thornbury and operate via Dundas St, Chifley St (to serve industrial area), Northland SC, Seston St, Clingin St, Summerhill Village SC, Reservoir East, and Broadway to Reservoir.  Replaces portions of 552, 251 and 566.  Service on existing route replaced by extended 506 in Northcote area and rerouted 251 via Station St/Albert St.
568 NEW	Defined as demand-responsive service serving northern Bundoora and Watsonia based at Greensborough.	T	New Telebus-type service to cover large area currently without coverage between Settlement Rd/Cameron Pde and Metropolitan Ring Road.  Operates between Greensborough and Bundoora via Macorna St, Cameron Pde and McLeans Rd. Driver will deviate via side streets on request (similar to Route 490).  Also replaces existing 566 deviation via Macorna St which will no longer operate.
575	Currently defined as Thomastown – Epping -	S	Extend route southwards to Reservoir Station via Edgars Rd, Massey Ave and Broadhurst Ave. This

Route	Purpose	Status*	Recommendations
MODIFY  (OUTSIDE REVIEW AREA)	Epping North local route  Redefine as Reservoir – Epping – Epping North local route		improves coverage of north west Reservoir and provides a direct Reservoir service to Thomastown West.  Extension would provide symmetry with 556 (serving Thomastown East), improve access to industrial areas off Edgars Rd and permit a new connection to proposed orbital SmartBus at Mahoneys Rd.  Reservoir is also a stronger destination than Thomastown due to its larger shopping strip and large number of connecting buses.  Thomastown Station remains adequately served by recently improved 554 and 557 services.
609  DELETE	Defined as Royal Talbot – Fairfield service with extension to Hawthorn.	-	Route deleted.  Replaced by Route 508, with every second service extending from Fairfield to Camberwell via Kew.
903  RETAIN	Red Orbital SmartBus	P	No change proposed.

**(\*) Status key: P = primary, S = secondary, T = tertiary. Where routes are in a group the overall service status recommended generally relates the the entire group rather than each constituent route.**

## Conclusion

A revised bus network for Banyule, Darebin and Moreland has been proposed.

Its centrepiece is a new frequent network to allow fast direct access between all major trip generators.

In addition local routes have been streamlined to provide a simpler network of higher frequency services within reasonable access of all.

Seven routes (340, 350, 525, 546, 551, 563, 609) are recommended for deletion while only one entirely new route (568) is proposed. Most remaining routes have been truncated, extended or renumbered to improve legibility, directness and links to trip generators.