Gold Coast Rapid Transit

Network Integration Strategy
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1. Introduction

1.1 Purpose

The *Network Integration Strategy* facilitates the efficient integration of the Gold Coast Rapid Transit (GCRT) into the broader transport network. The network integration strategy criteria are such that:

- bus route planning and operations support the staged implementation of the GCRT;
- planning and location of the GCRT stations and access points facilitates convenient access and inter-modal interchange;
- access to GCRT stations is achievable by walking, cycling, taxi, private car and other public transport modes;
- there is integration of the GCRT with the heavy rail network; and
- there is integration of the GCRT with the road network to ensure that planning does not impact adversely on the road network.
2. Gold Coast Public Transport Network

The future need for public transport services across the Gold Coast is proposed to be met through the combination of three core transport modes:

- an improved heavy rail system;
- GCRT system; and
- an expanded bus network.

The heavy rail and the GCRT would provide two key transport infrastructures that together will anchor the public transport system on the Gold Coast and provide a solid base for the development of the bus network. Both systems will provide a linear north-south route with the heavy rail serving the inland areas with connections to Brisbane and the GCRT serving the high-density areas along the coast. An improved bus network will provide connections between the two systems and feeder routes to residential and commercial areas.

The inter-relationship between the heavy rail, GCRT and the bus network is of crucial importance to the successful operation of the Gold Coast public transport network. Efficient integration of these services will supply a seamless transport service with wider access and a much higher standard of service for both residents and visitors than that currently provided. Each mode of transport plays a distinct role in meeting future public transport needs:

- Heavy rail system – The heavy rail system will continue to provide the dominant transport mode for passengers travelling between Brisbane CBD, Brisbane Airport and the Gold Coast and making intra-coastal trips along its corridor. The future extension of this service to Coolangatta (Gold Coast) Airport will also enhance the role of the heavy rail in providing a north-south service for the Gold Coast hinterland and will provide a direct link to the public transport network for passengers travelling directly to the Gold Coast by air;
- GCRT – The GCRT will provide the key public transport service for passengers travelling along the more heavily developed parts of the Gold Coast and making intra-urban and local trips along its corridor. The service between Griffith University and Broadbeach will form the spine for future inter-regional transport needs; and
- Bus network – Parts of the existing bus network will be replaced by the GCRT. Savings from this replacement will be re-invested in bus operations to provide a more frequent service that will be extended to access a wider area. The bus network will provide the connection between the heavy rail and the GCRT as well as providing direct access to both services for passengers by feeder services enabling the provision of a complete public transport system that is readily accessible, fast and reliable.

2.1 TransLink Network Plan

The TransLink network covers South East Queensland (SEQ) from Gympie North/Noosa to Coolangatta and west to Helidon and it is the agency responsible for the infrastructure, planning and coordinating routes and services for all major public transport modes, i.e. buses, trains and ferries in the region.
TransLink is working together with the Queensland Government, Gold Coast City Council (GCCC), Queensland Rail (QR) and private bus operators to improve the integration of these services.

The TransLink Network Plan is a document that outlines the strategy for the development of the public transport network and infrastructure in SEQ for the period 2004–2014. It sets strategic priorities, policies and major improvements to services and infrastructure, and details a rolling four-year and ten-year program of public transport services, infrastructure and planning projects to be delivered by TransLink and its business partners and key stakeholders.

The planning and implementation of the GCRT will need to incorporate the plan's strategies. Figure 9-1 illustrates TransLink's network plan for the Gold Coast.

2.2 Review of the Network Plan for the Gold Coast

The Gold Coast consists of urban areas of Nerang in the west, Coolangatta to the south and developing areas of Coomera and Ormeau in the north. A high priority is placed on improving public transport services in the Gold Coast. The TransLink Network Plan sets out a ten-year programme of service and infrastructural improvement packages for the Gold Coast. An additional review and update of the public transport network plan for the Gold Coast was conducted to establish a new ten-year strategy that identifies the bus network and service changes which will further enhance public transport. The study involved carrying out a review of the existing network and any planning undertaken and using that as a basis for future network development. The study was undertaken in two stages:

- Stage 1: Strategic Network Review; and
- Stage 2: Concept Network Planning.

A conceptual network plan was developed from an understanding of the base network and land use assumptions provided in the Strategic Network Review. The resulting Concept Network Plan included:

- a set of assumptions regarding the base network and land use;
- a service hierarchy and corresponding set of operating characteristics and minimum standards reviewed and adopted from the TransLink Network Plan;
- a review of suitable existing and future corridors for supporting a bus network system;
- a network layout showing the location of service types and service coverage;
- a description of the supporting infrastructure (stations and stops) which included a defined hierarchy signifying each element's importance to the system; and
- an implementation and priority strategy by the relevant transport authorities.
FIGURE 9 - 1

Source: TransLink Network Plan Southeast Queensland, July 2007

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Not to Scale
3. Integration of the GCRT with the Public Transport Network

3.1 Heavy Rail Network

3.1.1 Existing Heavy Rail Service
The Robina Line provides heavy rail service between the Gold Coast and Brisbane with existing stations at Ormeau, Coomera, Helensvale, Nerang and Robina. Existing average inbound and outbound service frequencies are:
- weekday am and pm peak periods: 23 to 40 minutes;
- weekday off peak: 30 minutes; and
- weekends: 30 minutes all day.

3.1.2 Future Expansion
Plans are underway to upgrade and extend the rail line with dual tracking of the existing single line and an extension of the corridor from Robina to Gold Coast Airport. Five new stations are planned for:
- Varsity Lakes;
- Tallebudgera;
- Elanora;
- Tugun; and
- Gold Coast Airport at Coolangatta.
The targeted completion dates for the upgrade and extension are as follows:
- Helensvale to Robina – completion by August 2008 (upgrade) (QR, 2008);
- Robina to Varsity Lakes – completion by February 2010 (extension) (QR, 2008);
- Varsity Lakes to Tallebudgera – completion around 2014-15 (extension) (SEQ IPP 2006-2026);
- Tallebudgera to Elanora – completion around 2025-26 (extension) (SEQ IPP 2006-2026);
- Elanora to Coolangatta (Gold Coast) Airport – completion by 2025-26 (extension) (SEQ IPP 2006-2026).
The locations of the existing and future railway stations are shown in Figure A1 of Appendix A.

3.1.3 Integration of the Heavy Rail Service with the GCRT
The proposed heavy rail upgrades are expected to enable increased service frequencies at Helensvale, Nerang, Robina and Varsity Lakes stations as follows:
- By 2011: 15 mins peak periods and 30 mins off-peak; and
- By 2016: 10 mins peak periods and 15 mins off-peak.
Integration of the heavy rail with the GCRT will be achieved by the provision of bus feeder services, which will link the two systems and will be timed to match the arrivals and departures of connecting services. The introduction of the feeder services may progressively extend southwards as the heavy rail is extended towards the Gold Coast Airport.

3.2 Bus Network

3.2.1 Existing Bus Network and Service

The bus services in the GCRT catchment are provided by Surfside Buslines who operate over 60 bus routes across the Gold Coast area. The majority of these routes carry services between the Gold Coast rail line and the coastal development. There are limited bus services provided to the west of the Gold Coast rail line.

Currently up to 30,000 bus-kilometres per day are provided with around 900 services daily on weekdays, and 450 services daily at weekends. The services comprise a mixture of line haul services along the coastal strip and local feeder services. School bus services, community and specialist theme park services also operate in the catchment.

While the Gold Coast Highway provides the main north-south arterial within the road network, carrying the bulk of the bus services along the coastline, east-west routes provide connectivity across the catchment. The major east-west arterials carrying significant bus services are: Musgrave Avenue/Stevens Street, Smith Street Motorway/North Street, Nerang Street and Cotlew Street.

The north-south line haul routes, along densely developed coastal areas, are heavily patronised by both local residents and visitors. A high-frequency public transport corridor is achieved by the range of bus services on the Gold Coast Highway, which provide an average service frequency of less than 10 minutes. These services carry around half of all bus patronage in the coastal area.

Local and feeder routes connect residential areas to key activity centres and to rail services from Southport to Helensvale, Surfers Paradise to Nerang and Coolangatta to Robina. Most local routes operate at service frequencies between 30 and 60 minutes, however frequencies on some of the longer routes are up to 120 minutes. Bus routes connecting to the heavy rail stations are:

- **Ormeau**: routes 567, 727;
- **Helensvale**: routes 3, 14, 16, 709, 715, 725, 726, 727, 728, TX5;
- **Coomera**: routes 725, 726, TX5;
- **Nerang**: routes 20, 20A, 21, 745, 748; and
- **Robina**: routes 748, 750, 751, 752, 755, 756, 758, 759, 765.

Several bus interchange facilities provide a connection between the east-west routes allowing patrons to change services at key locations. The interchanges are located at:

- **Southport (Australia Fair)**;
- **Broadbeach (Pacific Fair)**;
- **Runaway Bay**;

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Surfside Buslines also operates bus services between northern New South Wales and the Queensland border, however as this is outside TransLink’s management area, changes to the operating times and routes do not form part of the Concept Design Impact Management Plan (CDIMP).

The current bus system provides overall good coverage across the developed areas of the Gold Coast and an acceptable level of service for a good proportion of residents and businesses. However, many of the existing routes are quite circuitous and operate infrequently, resulting in long journey times. Traffic congestion along key bus routes also results in late running and bus overcrowding causing patrons to miss train and other bus connections. Although a reasonable level of service is provided during the day, the services during early morning, late night and weekends are infrequent or not at all.

There is no clear hierarchy of routes within the existing public transport system. To address this, a strategic network has been developed that will provide a clear route hierarchy and classification system. The classification system will ensure that each route has a service level and an operating characteristic.

### 3.2.2 Proposed Bus Network and Service Strategy

The proposed bus network and service strategy will service the key activity centres and urban catchments within the Gold Coast as well as act as a feeder for rapid transit and heavy rail systems. The bus network is structured into a hierarchy of services, comprising of the following three service tiers:

1. Line-haul services;
2. Cross-town services;
3. Local services; and
4. Theme Park Services.

The level of service (hours of operation and service frequencies) for each tier has been based on the network planning standards contained in the TransLink Network Plan.

Figure 9-2 shows the service hierarchy proposed for the bus network following the introduction of the rapid transit system.
Service Kilometres
The current Gold Coast bus network operates approximately 10.8 million annual in-service kilometres. Subject to funding, TransLink plan to introduce an additional 5.8 million annual (15,400 daily) in-service kilometres to the network during the four-year period to 2011. These additional in-service kilometres are planned to be incorporated into the bus network prior to the opening of the GCRT system through service enhancements and network improvements in accordance with the TransLink Network Plan.

The proposed bus network for implementation at the time of opening the GCRT system will operate approximately 16.6 million annual in-service kilometres. Proposed changes at this time to ensure the bus network supports the rapid transit system include:

- introduction of new bus routes to improve the access of existing and new urban areas with the rapid transit system;
- extensions and modifications to bus route alignments to improve connectivity with key activity centres and rapid transit interchange hubs;
- increases to service frequencies to improve level of service and transfers with the rapid transit and heavy rail systems;
- truncation of bus routes that feed into the rapid transit system at the point where routes duplicate the function of the rapid transit system. For example, routes which feed into Southport and then continue along the Gold Coast Highway are intended to be truncated at Southport (Nerang Street); and
- discontinuation of redundant bus routes that duplicate the function of the rapid transit system. For example, some routes operating between:
  - Helensvale Station and Southport; and
  - Southport and Broadbeach via the Gold Coast Highway.

Following the introduction of the GCRT system, the bus routes and service frequencies will be periodically reviewed and adjusted to accommodate demand. Network planning for the periods after opening has made allowance for increasing in-service kilometres through service frequency improvements on cross-town and local routes. Line-haul routes will be introduced with high service frequencies and are not forecast to require further augmentation during the planning period.

Based on the estimates of this bus network integration strategy, in 2016 the proposed strategy is intended to be capable of operating approximately 19.5 million annual in-service kilometres. This level of increase would represent an increase of approximately 6 percent per annum or an increase of approximately 8.6 million annual in-service kilometres between 2006 and 2016. Similarly, in 2026 the proposed bus network strategy would be capable of operating approximately 24.8 million annual in-service kilometres. This level of increase would equate to an increase of approximately 3 percent per annum or an increase of approximately 5.3 million annual in-service kilometres between 2016 and 2026.

Line-haul Routes
Line-haul routes are all-stop services that form the backbone of the bus network. They are intended to operate along a direct route, be used for medium to long distance journeys and service high demand corridors.
The proposed bus network following the opening of the GCRT includes four line-haul routes that operate between:

- Helensvale and Southport via Helensvale Station (Route 709);
- Broadbeach and Seaworld via Surfers Paradise (Route 750B);
- Broadbeach and Robina/Mudgeeraba via Robina Station (Route 750A); and
- Coolangatta and Broadbeach via Burleigh Heads (Route 701).

Line-haul routes operating along the Gold Coast Highway, namely Route 701 and 750B, are intended to complement the operations of the GCRT. Route 750B is intended to operate between Broadbeach and Seaworld on a ten minute frequency throughout the day. Route 701 is intended to operate on a five minute frequency throughout the day and act as an extension of the GCRT from Broadbeach and Coolangatta. Route 709 and 750A are intended to operate on 30 minute frequencies throughout the day.

**Cross-town Routes**

Cross-town routes are all-stop services that connect residential areas, major activity centres and major transit hubs along key corridors. The proposed bus network following the opening of the GCRT includes 13 cross-town routes that operate between:

- Helensvale (Helensvale Station) and Seaworld via Southport (Route 715);
- Southport and Broadbeach via Bundall (Route 18);
- Southport and Broadbeach via Nerang (including Nerang Station) (Route 743);
- Southport and Helensvale Station via Griffith University (Route 724);
- Nerang and Surfers Paradise via Nerang Station (Route 741);
- Nerang Station and Robina Station via Nerang and Mudgeeraba (Route 748);
- Broadbeach and Runaway Bay via Labrador and Griffith University (Route 738 and 739);
- Broadbeach and Nerang, including Nerang Station (Route 740 and 742);
- Burleigh Heads and Coolangatta (Route 756 and 757);
- Robina, including Robina Station, and Broadbeach via Merrimac and Varsity Lakes (Route 771 and 755); and
- Robina (including Robina Station) and Burleigh Heads (Route 751).

In 2011 cross-town routes are to typically operate on 30 minute frequencies in the peak and either 30 or 60 minute frequencies in the off-peak. In 2016 and 2026 cross-town routes are to typically operate on 30 minute frequencies throughout the day.

**Local Routes**

Local routes are all-stop services that provide a connection between residential areas and activity centre. Local routes also provide access to transit hubs and act as a feeder to cross-town and line-haul bus routes as well as the heavy rail and rapid transit systems. The proposed bus network following the opening of the rapid transit system includes 32 local routes that will service the following areas:
In 2011 and 2016, bus routes are to typically operate on 30 to 60 minute frequencies in the peak and 60 minute frequencies in the off-peak. Some services are intended to operate at frequencies more than 30 minutes in the peak and 30 minute off-peak.

In 2026 bus routes are intended to typically operate on 30 minute service frequencies throughout the day. Some services in high demand areas are intended to operate on service frequencies better than 30 minutes in the peak and off-peak. Several routes will also retain 30 minute peak and 60 minute off-peak service frequencies.

**Theme Park Routes**

Three routes service the theme parks located along the Pacific Highway at Coomera. These routes operate between:

- Coomera Station and Burleigh Heads via Nerang, Dream World, Movie World and Wet-n-Wild Broadbeach (Route TX1);
- Coomera Station and Tweed Heads via Southport, Dream World, Movie World and Wet-n-Wild, Broadbeach and Burleigh Heads (Route TX2); and
- Coomera Station and Helensvale Station via Dream World, Movie World and Wet-n-Wild (Route TX5).

The existing operating strategy of Route TX1, TX2 and TX3 is intended to be retained in future years.

### 3.3 Gold Coast Bus / High Occupancy Vehicle Priority Measures

To ensure the reliability of bus services, bus priority measures will be implemented. These priority measures will be of increasing importance as traffic volumes increase along with the associated increase in traffic congestion. Corridors and sub-corridors for bus and High Occupancy Vehicle (HOV) priority treatments have been identified from previous studies by Maunsell and BITZIOS. These corridors generally link into the Coastal Priority Public Transport Corridor for bus services via the major east-west arterials.
Improved bus priority measures and HOV lanes, including those where funding has been committed and those which are currently under detailed investigation, are proposed for the following locations:

- Bus Lanes – Gold Coast Highway between Miami and Burleigh Heads;
- HOV lanes – Gold Coast Highway between Discovery Drive and Hollywell Road;
- HOV lanes – Gold Coast Highway between Burleigh Heads and Thrower Drive;
- HOV lanes – Nerang-Broadbeach Road between the Pacific Motorway and Rio Vista Boulevard. This includes the widened section of Nerang-Broadbeach Road through Carrara and HOV priority in the vicinity of the Carrara Markets;
- HOV lanes – Southport-Nerang Road between Kamholtz Court in Ashmore and Queen Street in Southport (subject to the outcomes of a supplementary investigation of the section from Wardoo Street to Queen Street);
- HOV lanes – Ross Street between Ashmore Road and Nerang-Broadbeach Road; and
- HOV lanes – Reedy Creek Road between Pacific Motorway in Stephens and Tabilban Street in Burleigh Waters.

The proposed bus/HOV lane priority corridors are shown in Figure 9-3.
2026 Visionary Network Map

- Key Activity Centre
- Activity Centre
- Train Station
- Bus Station
- Rapid Transit Station
- High Priority Corridor
- Alternate Route (under investigation)
- Medium Priority Corridor
- Low Priority Corridor


FIGURE 9-3

TransLink
Gold Coast Rapid Transit

FINAL CDIMP

PROPOSED BUS/HOV PRIORITY CORRIDORS

FIGURE 9-3
3.4 Bus and GCRT Interchanges

Major bus interchanges between the GCRT and local bus services will be developed at Southport and Broadbeach South. These interchanges will provide for the efficient transfer of passengers between the two transport modes. Both interchanges will provide the following features:

- the GCRT station and bus interchange will be positioned as close as possible to each other within the constraints of available width and the need to minimise impact on property;
- the GCRT will have a separate corridor to all other traffic;
- the bus interchanges and GCRT station will be in ‘line of sight’ of each other; and
- buses will be able to safely ingress/egress the bus interchange.

Detailed design of the interchanges will incorporate the following parameters:

- the interchange will have adequate capacity and be able to cater for future articulated buses;
- the interchange passenger waiting area will be at least 4.5 metres wide;
- pedestrian provision will be adequate to accommodate the expected high volumes resulting from transiting passengers combining with other pedestrians. Footpaths will generally not be less than 3.5 metres wide and signalised pedestrian crossings at intersections linking the interchanges will be at least 3.0 metres wide;
- traffic lane widths will be at least 3.2 metres wide; and
- GCRT interchange platform lengths will be a minimum of 45 metres for the LRT and 50 metres for the BRT with an additional allowance provided for ramps and vehicle/pedestrian interface.

3.5 Park and Ride Facilities

Due to the level of development of the GCRT corridor between Griffith University and Broadbeach there are no Park and Ride facilities proposed. A high level of accessibility to the GCRT will be achieved by locating stations generally between 400 metres and 800 metres apart along the full length of the corridor. The spacing and the provision of improved feeder bus routes and schedules will allow most passengers to access the service either by foot or bus.

TransLink has not formalised its policy regarding Park and Ride, however; the drafting of this policy is focused on provision for Park and Ride at (heavy) railway stations. The GCRT is not heavy rail infrastructure and therefore Park and Ride facilities have not been proposed. This position is consistent with the TransLink provision of Park and Ride facilities with Busway stations developed to date.

Passenger drop-off/pick-up or ‘kiss and ride’ facilities can encourage use of public transport. Because of the limited availability of suitable land and the number of passengers within the walk-up catchment only nominal provision has been made for these facilities close to the GCRT stations. However, kiss and ride lay-bys will be provided at the following locations where they can be readily accommodated:

- Southport Station – Davenport Street and Scarborough Street;
- Broadwater Station – Queen Street;
- Main Beach Station – Breaker Street, near Tedder Avenue intersection;
Surfers Paradise Station – Clifford Street, near the Surfers Paradise Boulevard; and
Florida Gardens Station – Monaco Street and First Avenue, near the Gold Coast Highway intersection.

### 3.6 Road Network

Implementation of the GCRT will require modification to some elements of the existing road network including a number of intersections. These modifications and the manner in which they will be managed are discussed in detail in Volume 2, Chapter 8 titled Traffic and Transport Impacts. The main issues are summarised below.

The modifications range from the reconstruction of traffic lanes to the implementation of changed traffic operations such as the introduction of one-way traffic in some locations. The affected roads are:

- Queen Street between Wardoo Street and Nerang Street;
- Nerang Street between Queen Street and Scarborough Street;
- Scarborough Street between Nerang Street and Queen Street;
- Queen Street between Scarborough Street and Brighton Parade;
- Gold Coast Highway between Admiralty Drive and Ferny Avenue and between Surfers Paradise Boulevard and Hooker Boulevard;
- Cypress Avenue between Ferny Avenue and Surfers Paradise Boulevard; and
- Surfers Paradise Boulevard between Cypress Avenue and Remembrance Drive.

Priority will be provided to the GCRT at intersections to ensure that the system is able to operate relatively independently from other traffic and that passengers are provided with a high standard of service that is efficient and reliable. This will be achieved by means of the Transit Signal Priority System (TSPS), which will generate priority requests from the GCRT vehicle to allow for travel time efficiency. In accordance with a set of predefined parameters and conditions, priority will be given to the GCRT vehicle by means of a separate signal phase.

To accommodate this, the following intersections will require modifications:

- Queen Street with Wardoo Street, Beale Street, Nerang Street, Scarborough Street and Ada Bell Way;
- Nerang Street with High Street, Davenport Street and Scarborough Street;
- Scarborough Street with Lawson Street and Short Street;
- Gold Coast Highway with Waterways Drive, Tedder Avenue, Admiralty Drive, Fern Street, Wharf Road, Cannes Avenue, Monaco Avenue, St Kilda Avenue, Australia Avenue, Convention Centre, TE Peters Drive, Elizabeth Avenue, Hooker Boulevard and Pacific Fair Drive;
- Ferny Avenue with Surfers Paradise Boulevard and Cypress Avenue; and
- Surfers Paradise Boulevard with Cypress Avenue, Elkhorn Avenue, Cavill Avenue, Beach Road, Hanlan Street, Clifford Street, Hamilton Avenue, Markwell Avenue, Enderley Avenue, Vista Street and Remembrance Drive.
Changes to intersection configurations are not expected to have a significant impact on motorists, however changed traffic arrangements on Queen Street and Surfers Paradise Boulevard will require motorists to take alternative routes to some destinations. The routes affected and the alternative routes available are described further in Volume 2, Chapter 8 titled Traffic and Transport Impacts.
4. Integration with the Pedestrian and Cycle Network

4.1 Pedestrian Access

Direct, safe and efficient pedestrian links to and from all GCRT stations are essential to ensure a high level of utilisation for the overall system. The GCRT alignment is set at the same elevation as the existing roadway for approximately a third of the corridor and is mainly aligned along the centre of the roadways, such as Queen Street, Nerang Street, Scarborough Street, Ferny Avenue, Cypress Avenue, Surfers Paradise Boulevard and the Gold Coast Highway. Stations are located near intersections so that pedestrians can access the GCRT by use of existing footpaths and signalised pedestrian crossings. Staged pedestrian crossings and wider crosswalk widths will be implemented along the GCRT alignment to accommodate pedestrian demand where required. This is particularly important at high demand locations such as the Hooker Boulevard / Gold Coast Highway intersection, Cavill Avenue / Surfers Paradise Boulevard intersection and the signalised pedestrian crossing across Nerang Street to the Gold Coast Hospital. Specific additions to the existing pedestrian facilities are described below:

- in the Southport business centre a mall environment will be created around the rapid transit station. This pedestrian friendly environment will complement the future Southport Station in Nerang Street West and vehicle access, including buses, will be prohibited except for necessary service vehicles and local buses will not be permitted in the mall;

- the existing pedestrian crossing located at the Broadwater Station will be upgraded to signalised control. The intersections of Nerang Street/Davenport Street and Scarborough Street/Short Street/Lawson Street are being upgraded to signalised control as part of the GCRT, which will include pedestrian crossings on all approaches;

- at the Cavill Avenue Station, an additional signalised pedestrian crossing facilities will be provided north of the platform and will be aligned to ensure continuity of east-west pedestrian movements from the walkway from Circle on Cavill;

- at the Surfers Paradise Station, the northbound platform will be provided as an extension of the existing footpath along Surfers Paradise Boulevard to facilitate easy access for boarding and alighting passengers; and

- at the Broadbeach North Station, signalised pedestrian crossing facilities are provided north (full crossing) and south (partial crossing) of the platform. The signalised pedestrian crossing south of the platform is on the northbound traffic lane only. This is in anticipation of peak pedestrian demands during events in the Gold Coast Convention and Exhibition Centre.

Generally, a minimum footpath width of 3.5 metres has been adopted in the Concept Design in accordance with GCCC Standards. To reduce property impacts, minimum footpath widths have not been met at some locations along the alignment. Locations where the minimum standards cannot be satisfied are detailed in Volume 6 Reference Project Design Book.

4.2 Cycle Access

Due to the nature of the GCRT and the need to maximise passenger capacity and to minimise station dwell times, bicycles would not be permitted to be carried on board. Cycle facilities, such as cycle
access paths and end of trip facilities would be provided allowing ease of access to the GCRT. This will serve to attract patronage by those who prefer to use their cycles or are not well served by feeder services.

Station and corridor design has incorporated cycle provision where possible and end of trip facilities, such as cycle racks and drinking fountains would be provided at regional stations. This will be developed further during the detailed design phase. The provision of cycle facilities within the GCRT Project is fully detailed in Volume 7 Technical Report titled *Cycle Network Report*. 
5. Summary

The future need for public transport access across the Gold Coast is proposed to be met through the combination and integration of three core transport modes:

- an improved heavy rail system;
- an expanded and improved bus network; and
- the GCRT system.

Each mode of transport plays a distinct role in meeting future public transport needs. The Network Integration Strategy is proposed to facilitate the efficient integration of the GCRT into the broader transport network.

Plans are underway to upgrade and extend the rail line with dual tracking of the existing single line and an extension of the corridor from Robina to Coolangatta (Gold Coast) Airport. The proposed heavy rail upgrades are expected to enable increased service frequencies. Integration of the heavy rail with the GCRT will be achieved by the provision of bus feeder services, which will link the two systems and will be timed to match the arrivals and departures of connecting services. The introduction of the feeder services may progressively extend southwards as the heavy rail is extended towards Gold Coast Airport.

An improved bus network and service strategy would be developed to service the key activity centres and urban catchments within the Gold Coast as well as act as a feeder for rapid transit and heavy rail systems. Bus route planning and operations would support the staged implementation of the GCRT. The bus network would be structured into a hierarchy of line-haul, cross-town and local services with levels of service based on TransLink’s network planning standards. Additional in-service kilometres are planned to be incorporated into the bus network prior to the opening of the GCRT system through service enhancements and network improvements in accordance with the TransLink Network Plan.

Parts of the existing bus network will be replaced by the GCRT system. Savings from this replacement will be re-invested in bus operations to provide a more frequent service that will be extended to access a wider area. To ensure the reliability of bus services, bus priority and HOV measures will be implemented.

The location of the GCRT stations and access points would facilitate convenient access and inter-modal interchange. Major bus interchanges between the GCRT and local bus services will be developed at Southport and Broadbeach South. These interchanges will provide for the efficient transfer of passengers between these transport modes.

Access to GCRT stations would be achievable by walking, cycling, taxi, private car and other public transport modes. ‘Kiss and Ride’ facilities are proposed at Southport Station, Broadwater Station, Main Beach Station, Surfers Paradise Station and Florida Gardens Station. Due to the level of development of the rapid transit corridor between Griffith University and Broadbeach, there are no Park and Ride facilities proposed.

Staged pedestrian crossings and wider crosswalk widths will be implemented at a number of the intersections along the GCRT alignment to accommodate the pedestrian demand. New pedestrian crossings will also be introduced to ensure safe movement of the pedestrians between the station platforms and the adjacent pedestrian network.
Due to the need to maximise passenger capacity and minimise station dwell times, bicycles will not be permitted on board the GCRT. Cycle facilities such as cycle access paths and end of trip facilities will be provided to allow ease of access to the GCRT. This will serve to attract patronage by those who prefer to use their cycles or are not well served by feeder services.

The implementation of the GCRT will require modification to some elements of the existing road network including changes to traffic arrangements and intersection layouts. These modifications are necessary to ensure that priority is given to the GCRT and a high standard of service is provided. Traffic management measures will be implemented to ensure that the impact on the road network is minimised.

All elements of the GCRT including operations and corridor infrastructure would be integrated and managed from the Operations Management and Control System centre which is to be located in the GCRT depot. This centre will coordinate with other agencies including Queensland Transport, QR, TransLink, the Department of Main Roads (DMR), the GCCC, police and other emergency services.

The proposed Network Integration Strategy will be further developed in parallel with the detailed design and construction phase of the GCRT. The information developed as part of the CDIMP will be used as the basis for developing the design to ensure that it meets the future operating and interfacing needs of the GCRT.