Southern Redlands High-Capacity Transport Corridor

Pre-feasibility Investigation Report

September 2026

This report is devised as a submission to Economic Development Queensland (EDQ) during the public notification period for the proposed Development Scheme for the Southern Thornlands Priority Development Area.

This report is an independently prepared conceptual pre-feasibility investigation. It has not been commissioned, endorsed or technically verified by the Queensland Government, Redland City Council or a transport delivery agency.

Executive summary

This pre-feasibility investigation report examines the long-term need for a high-capacity transport corridor in the Southern Redlands and recommends immediate corridor preservation through the Southern Thornlands Priority Development Area (PDA) and adjoining growth areas. The report has been prepared as a submission to Economic Development Queensland during consultation on the Southern Thornlands PDA Development Scheme and seeks to ensure that future transport opportunities are not lost as urban development proceeds.

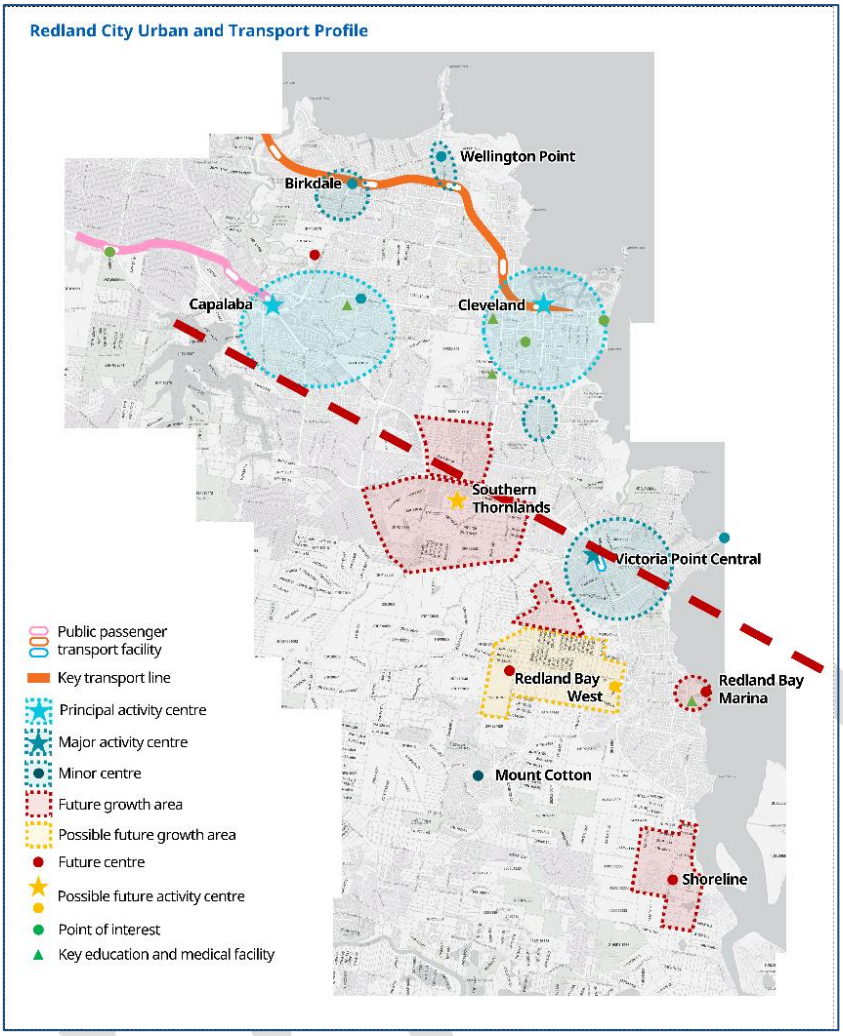
Key Findings

Preservation of a future transport infrastructure corridor between Thornlands and Southern Redland Bay.

- Southern Redlands population growth is becoming concentrated between Thornlands and Southern Redland Bay.
- Existing public transport initiatives improve accessibility but may not provide sufficient long-term capacity.
- A continuous transport corridor between Capalaba and Southern Redland Bay is feasible.
- Corridor preservation is required immediately to avoid future sterilisation by development.

The investigation is driven by the significant growth forecast for the Southern Redlands, including the Southern Thornlands PDA, Shoreline community, Victoria Point West and potential Redland Bay West development areas. Together, these developments have the potential to accommodate more than 60,000 additional residents in a long-term horizon, ushering in development to the extent to fundamentally change the urban character of the sub-region. The report identifies a growing disconnect between this concentration of development in the south and the location of planned high-capacity transport infrastructure, which remains focused on the Northern Redlands.

This study accepts currently proposed transport initiatives as the short-term transport foundation for the region. These include the Brisbane Metro Bus Rapid Transit (BRT) expansion to Capalaba, upgrades to the Cleveland heavy rail line, and the delivery of a high-frequency feeder bus network. While these projects are considered essential, the investigation concludes that they may not adequately address the longer-term transport needs of the Southern Redlands as growth continues beyond the mid-2030s.

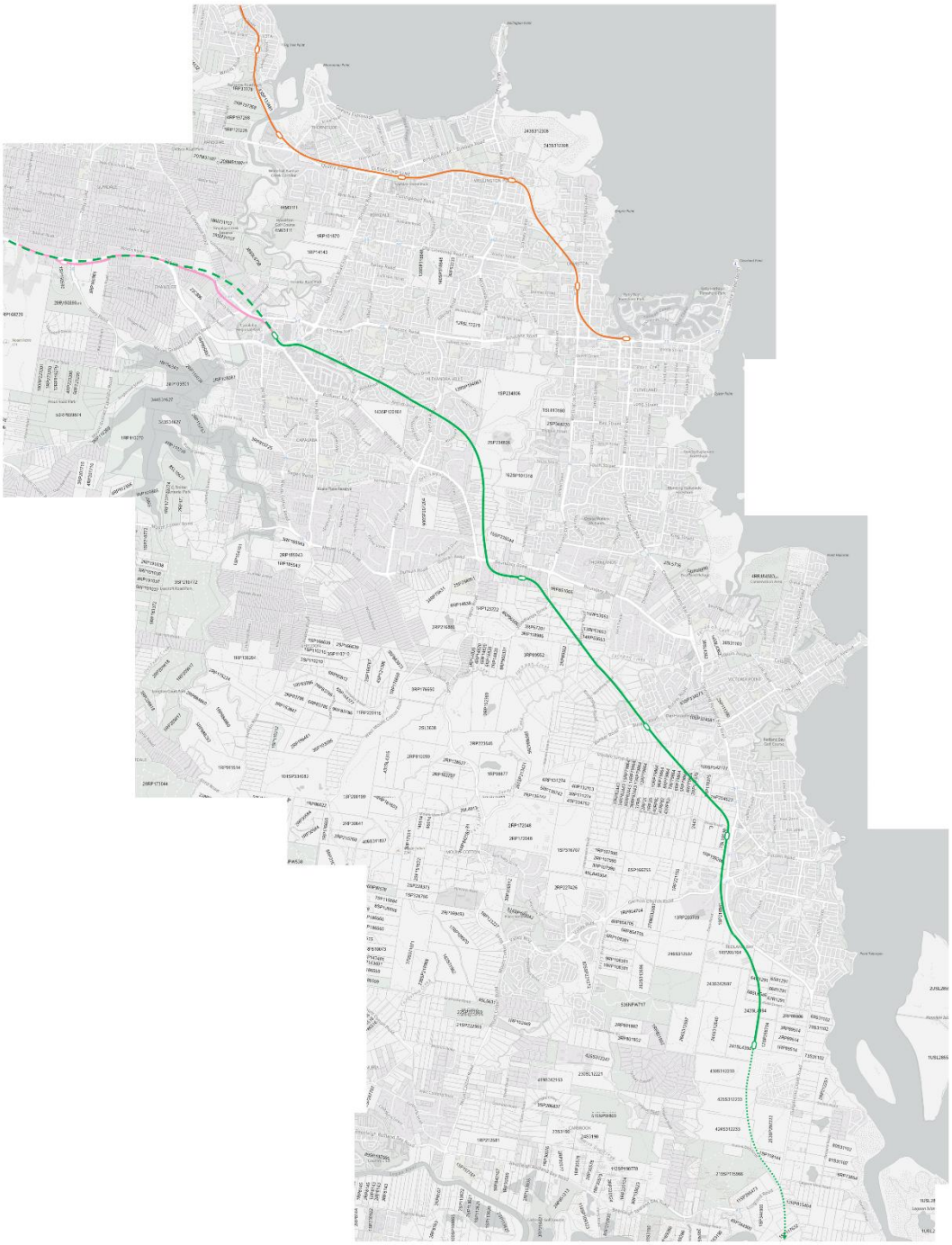


A broad range of strategic transport options were evaluated, including extensions or branch lines from existing heavy rail infrastructure, Brisbane Metro BRT expansion, new heavy rail corridors and a separate metro rail concept.

Importantly, the report concludes that immediate delivery of high-capacity rail infrastructure is not currently justified by demand. However, it finds that preserving a future transport corridor is a low-regret planning measure that will maintain flexibility for future generations as demand grows. The investigation therefore focuses on identifying and protecting a corridor that could ultimately accommodate a range of transport technologies, including bus rapid transit, metro rail or heavy rail.

Detailed corridor investigations were undertaken across the Southern Redlands, assessing alignment options between Capalaba, Thornlands, Victoria Point and Southern Redland Bay. Through evaluation of transport outcomes, travel time competitiveness, constructability, environmental impacts, land acquisition requirements, capital expenditure and urban renewal potential, a preferred continuous corridor was identified.

Preferred corridor alignment for Southern Redlands high-capacity transport

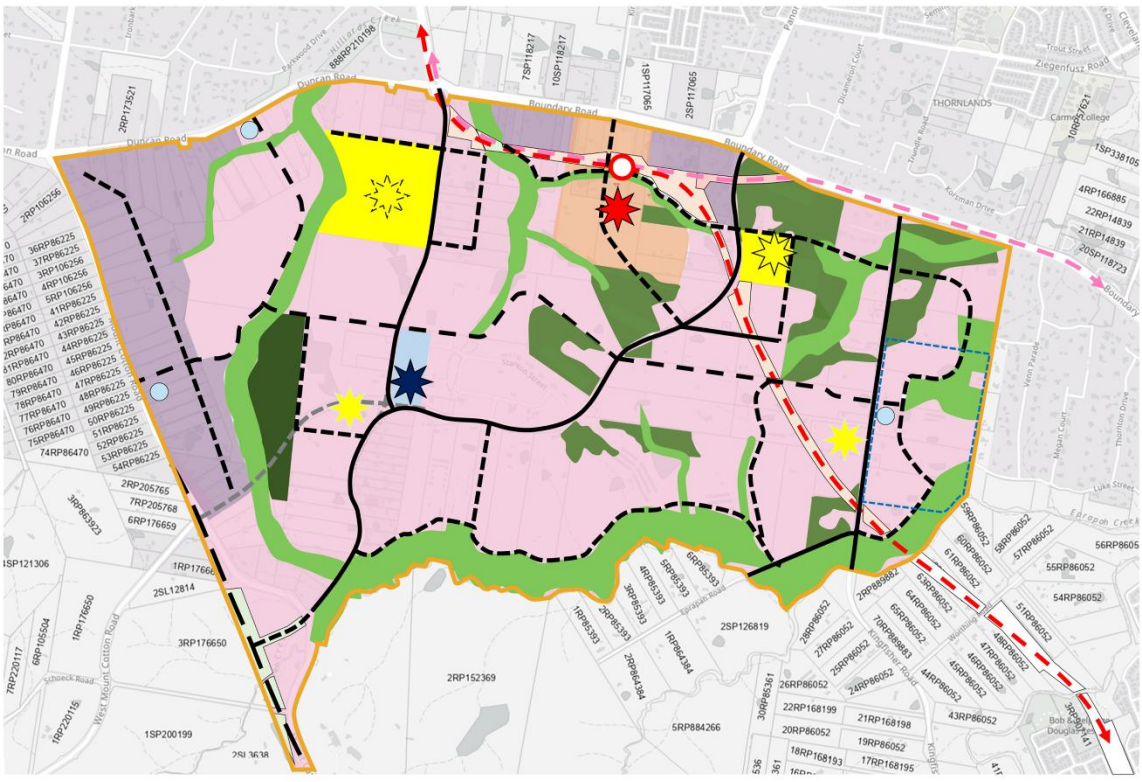


The recommended alignment follows the Capalaba-Cleveland Infrastructure Corridor through northern sections before connecting to a preferred corridor through the Southern Thornlands PDA and continuing south via a Bunker Road and Giles Road interchange alignment toward Southern Redland Bay. This option demonstrated the strongest balance of strategic benefits, growth-area integration, interchange opportunities and construction feasibility. This preferred corridor is proposed to be preserved as the Southern Redlands High-Capacity Transport Corridor.

The central finding of the investigation is that once urban development occurs, future land acquisition costs and physical constraints may make delivery of high-capacity public transport prohibitively expensive or impossible. As a result, the report recommends protecting the preferred corridor immediately through planning mechanisms associated with the Southern Thornlands PDA and future structure planning processes.

The report outlines that the preferred corridor be incorporated into the final Southern Thornlands PDA Development Scheme, supported by transport investigation overlays, future station precinct planning and provisions that prevent development from compromising future transport infrastructure. It also recommends detailed transport modelling, environmental assessments, engineering investigations and ongoing monitoring of population growth to inform future decisions regarding transport mode and project delivery.

Illustrative potential integration with the Southern Thornlands PDA Development Scheme
Southern Redlands High-Capacity Transport Corridor



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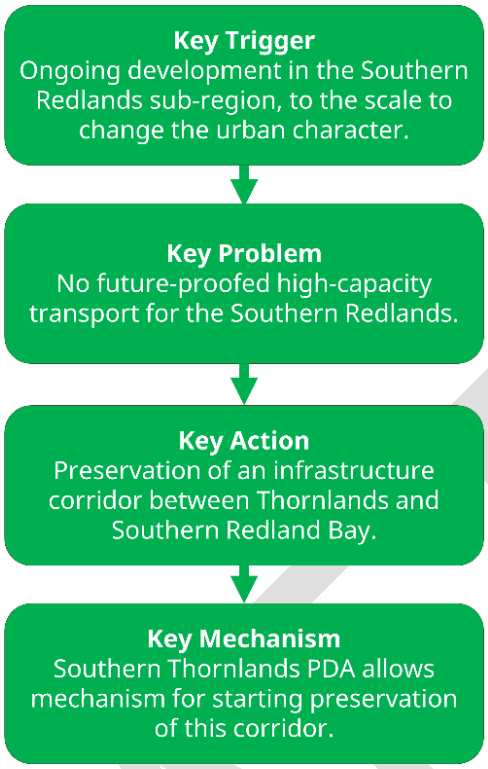


The investigation identifies a critical opportunity to preserve a continuous Southern Redlands High-Capacity Transport Corridor connecting Capalaba, Southern Thornlands and Southern Redland Bay. While future demand, mode selection and funding arrangements may be uncertain, the preservation of this corridor is considered a vital planning action available today. Failure to secure the corridor before urban development proceeds risks permanently limiting future public transport options for one of South East Queensland's potential long-term growth areas.

Decision sought

1. recognise the potential need for a future high-capacity transport corridor for the Southern Redlands;
2. identify a transport investigation corridor and potential station precinct in the final Southern Thornlands PDA Development Scheme;
3. ensure development in the route of the corridor does not impact future corridor options; and
4. refer the matter for coordinated investigation with relevant state and local transport and planning agencies.

Front cover: Concept Thornlands Town Centre anchored by a high-capacity, cross-modal station facility. Illustrative potential integration with the Southern Thornlands PDA Development Scheme.

Contents

1 Introduction

1.1 Purpose of the report

The purpose of this report is to provide a pre-feasibility investigation into transport options for the Southern Redlands. With the Southern Thornlands Priority Development Area as a catalyst for this research, the feasibility for preserving a new corridor emerges. With all components being necessitated through reasoning in this report, a long-term vision for transport in the Redlands emerges from a high-capacity passenger transport corridor.

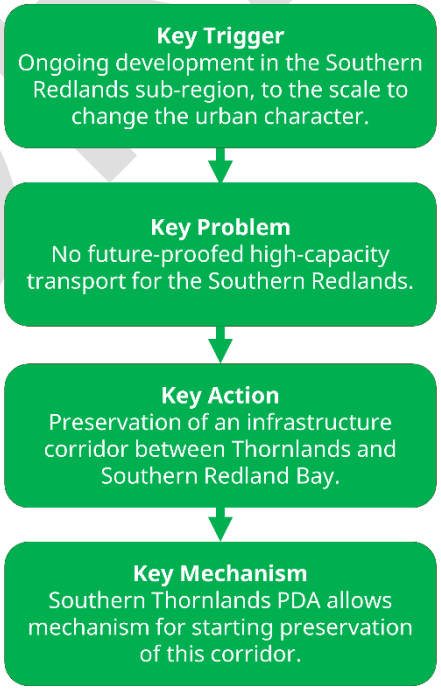
In summary, this report provides a preliminary look into:

- background for the Redland City region through the context of Southern Thornlands PDA and future development in the southern sub-region,
- existing passenger transport initiatives for the Redland City region and the limitations of these,
- high-capacity, regional transport options for the Southern Redlands, including potential route options and mode options, and
- evaluation of options for providing transport to the Southern Redlands.

1.2 Background and key problem

The primary challenge addressed in this investigation is the need for high-capacity transport for the Southern Redlands. Currently characterised by a peri-urban landscape, this sub-region is poised for rapid, large-scale urban development that demands early, structured planning.

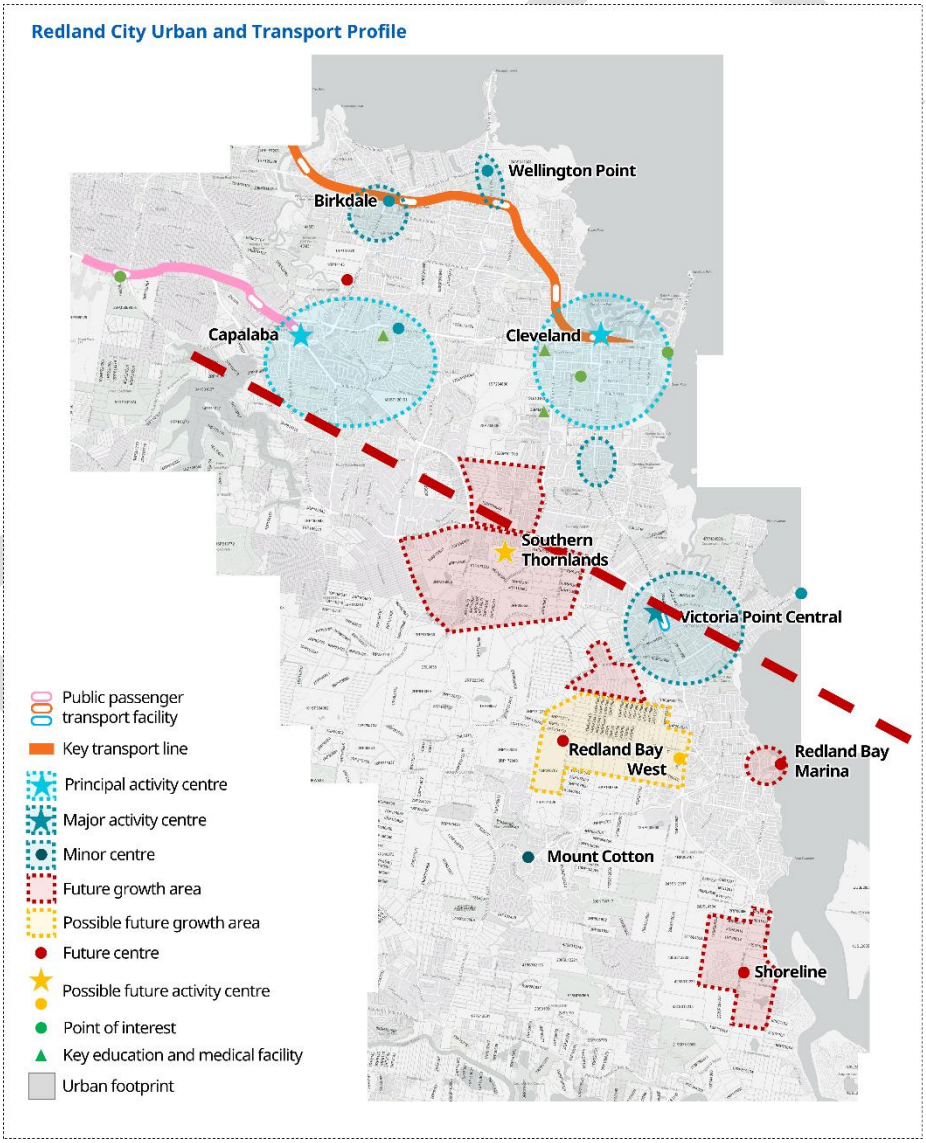
Figure 1. Infographic illustrating the genesis of this investigation.



Throughout the last-half of the twentieth and into the twenty-first-century, major development of suburbia occurred in the Northern Redlands; Capalaba, Alexandra Hills, Cleveland, Ormiston, Wellington Point. The prominence of private vehicle travel from this time, combined with ongoing investment in major road infrastructure, drove car-centric suburban expansion.

Key passenger transport upgrades and planning, such as the reopening of the Cleveland line and the planning of the Eastern Busway to Capalaba, represent initiatives that cater to this development of the northern sub-region. This fits with the overall urban character and development structure of the City, that being, a more suburban character to the Northern Redlands, and a semi-rural character to the Southern Redlands, with development main occurring on the coastline.

Figure 2. Redland City urban and transport profile, representing issues with high-capacity transport in the region.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

However, in *ShapingSEQ* (the South East Queensland Regional Plan), southern Thornlands was opened up as a major expansion area within the urban footprint, allowing large-scale development in the southern sub-region. Declared as an 890-hectare Priority Development Area (PDA) in April 2025, it is projected to develop greenfield land into a master-planned community of over 24,000 residents and 100 hectares of dedicated industry, business and enterprise land over a multi-decade horizon. This, as well as ongoing developments at Victoria Point West and the *Shoreline* community at Southern Redland Bay, represent a new urban character for this sub-region through in-land development.

Mapping out the existing passenger transport initiatives, current development as well as future proposed and possible development, a disparity between these two sub-regions is revealed. As seen in Figure 2, gap is created between the planned transport connections and upgrades for the northern region, and the proposed and ongoing developments in the Southern Redlands. In this way, a transport infrastructure access gap begins to exist.

Creating the majority of indicative population growth at almost 35,000 new residents in the next twenty years (with room for major new developments within and beyond that), the Southern Redlands has the potential to become a rapidly changing area in South East Queensland. Meeting this demand sustainably and providing responsible land use outcomes requires early, future-proofed transport planning. With this sub-region's current agricultural and undeveloped rural landscape, as well as the mechanisms within the PDA designation borders, an ideal opportunity to establish a new benchmark for proactive development emerges.

This represents the genesis of the problem explored in this investigation.

In the 2023 SEQ Regional Transport Plan, two key points on meeting these issues were already devised.

- A3.19 Capalaba to Redland Bay transport planning
- A3.20 Eastern Brisbane and Redlands Coast area transport investigation

These medium-long-term actions aimed to investigate options for transport in the region, and develop a multi-modal transport strategy. Moreover, *ShapingSEQ* directly mandates greenfield development must minimise private vehicle dependence through integration of high-capacity, high-frequency public transport from the outset of planning (Department of State Development, Infrastructure, Local Government and Planning, 2023).

Understanding these key problems, an investigation into high-capacity transport options for the Southern Redlands, and their integration into a wider transport network must be devised. This is the topic of this report.

1.3 Scope of the pre-feasibility investigation report

This investigation considers high-capacity transport options through a conceptual pre-feasibility assessment. The findings of this investigation take a preliminary stage where only basic merit is determined. This report does not assess detailed spatial, engineering or operational constraints. This investigation does however apply preliminary estimates to identify fatal flaws, rank options and report solutions that may be feasible for high-capacity passenger transport in the Southern Redlands.

From the outset, this investigation adopts existing planned transport initiatives as the short-term base case for the region. This report observes the following projects identified by Redland City Council as preferred transport upgrades to be committed to with the Southern Thornlands PDA, including:

- completion of planning and delivery of the full Eastern Busway extension to Capalaba,
- finalisation of planning investigations to improve rail services, including duplication of the Cleveland train line between Manly and Cleveland, and
- high-frequency public transport connections linking Capalaba, Cleveland, Victoria Point, Southern Redland Bay, and Logan Hyperdome (Redland City Council , 2025).

This investigation will not re-evaluate these short-term projects. Bearing in mind the context of the Southern Thornlands PDA, and other major developments in the Southern Redlands, these will comprise the base case for transport in the region.

Table 1. Short-term transport projects for the Redlands region.

Short-term transport projects for the Redlands region
STP1. Brisbane Metro BRT expansion to Capalaba
STP2. Cleveland line upgrade
STP3. High-frequency bus network

Further, this investigation accepts from the outset that these transport projects and upgrades will not service the emerging and future demand of the Southern Redlands, as seen in Figure 2, thus necessitating this investigation and the need for dedicated high-capacity passenger transport for the sub-region.

Broad, potential initiatives can be canvased for meeting this need, noted as:

- improvement of existing services,
- expansion of eastern BRT services as rapid transport or local mass transport options,

- rapid high-capacity, regional passenger transport, forming a transport spine for the Southern Redlands, or
- new, local mass transport projects in the Redland City region.

In order to implement parts of these broad initiatives, it can be assumed that BRT services or local mass transport can utilise existing state and major road corridors. However, an appropriate route for regional high-capacity transport may need a dedicated corridor. From this, the need for the preservation of a new transport infrastructure corridor in the southern sub-region becomes the primary subject of this report, with other initiatives considered as supporting an integrated transport context.

Figure 3. Study areas within this preliminary investigation.

Concept alignments and annotations: author analysis. Base map: © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025 | © State of Queensland (Department of Resources) 2024

In providing high-capacity, regional transport for the Southern Redlands, the concept purpose can be assumed at the outset using conclusive travel data. In 2020, around 51% of people who work outside the Redlands commute to Brisbane compared to around 3% commuting to the Gold Coast and 7% to Logan LGA (Redland City Council, 2020). Thus, Southern Redland Bay is treated as the operational endpoint for this investigation. Southward continuation to the Logan River is shown only as a long-term consideration and is not assessed as a project recommendation. It is assumed that high-capacity transport for the Southern Redlands acts as an inter-regional connection to Brisbane CBD via the Eastern Suburbs, and local mass transport feeds this system.

With this in mind, a broad route was devised across seven study areas. This report focuses on Study Areas A, B and C, constituting the Redlands region, with corridors connecting to other areas, that being Brisbane but also the Gold Coast, being explored through Study Areas D, E, F and G. Moreover, corridors outside of these study areas will not be explored; once again, understanding the context of providing an inter-regional connection to Brisbane CBD, servicing the Southern Redlands.

1.4 Objectives

This report fulfills a multipurpose objective, identifying a Southern Redlands High-Capacity Transport Corridor whilst outlining proposed context and localised urban design elements to facilitate its implementation.

It is the key purpose of this report to be the initial discussion of such a concept, and support demonstration of the benefits of further investigation into the concepts devolved within.

Study Area/section	Points discussed
Strategic context	What plans exist and are these adequate for a new urban character in the Southern Redlands? What routes exist within the Redlands for new passenger transport?
High-capacity regional transport context (Study Areas B-F)	What is a possible context for getting high-capacity transport to the Southern Redlands?
Southern Redlands high-capacity transport corridor (Study Areas A-C & G)	What are possible corridors for high-capacity in the Southern Redlands?
Corridor preservation strategy and implementation	How can a corridor be preserved in the Southern Redlands?

1.5 Methodology

1.5.1 Multi-criteria assessment

This investigation adopts a structured multi-criteria assessment (MCA) framework to evaluate strategic transport projects and corridor alignments for the Southern Redlands. The MCA has been designed to compare options against a consistent set of transport, planning, environmental and economic objectives.

Recognising the strategic nature of this investigation, the MCA does not seek to replace detailed business case assessment, engineering design, environmental studies, or

transport modelling. Instead, it provides a transparent framework for identifying corridor and project options that warrant further investigation.

1.5.2 Criterion-specific scoring

Each option is assessed against seven criteria using a five-point scoring scale. Criterion-specific scoring definitions have been adopted to improve consistency and reproducibility.

The scoring method reflects the conceptual pre-feasibility status of this investigation. Scores may represent comparative author judgement based on the evidence and assumptions available at the time of assessment. They do not constitute verified engineering, environmental, financial or operational findings. Where an option falls between two definitions, the lower score should generally be applied unless sufficient evidence supports the higher score. Where evidence is insufficient to distinguish between scores, the uncertainty should be recorded in the MCA evidence register.

Table 2. Criterion-specific MCA scoring.

Strategic transport outcomes (30%)		
Assesses the extent to which an option could improve regional connectivity, support identified growth areas and integrate with existing or future transport networks.		
Score	Rating	Scoring definition
1	Poor	Provides limited regional connectivity, weakly serves identified growth areas and has poor integration with the wider transport network.
2	Fair	Provides some local or regional benefit but serves few strategic destinations or depends on significant unresolved network connections.
3	Moderate	Provides a useful regional connection, serves some identified growth areas and can integrate with parts of the existing or future network.
4	Good	Provides strong regional connectivity, serves several identified growth areas or activity centres and integrates well with planned transport initiatives.
5	Excellent	Provides a direct regional transport spine, serves the principal identified growth areas and activity centres, and delivers substantial network-wide integration or capacity benefits.
Travel time competitiveness (20%)		
Assesses indicative journey-time performance relative to other public transport options and private-vehicle travel.		
Score	Rating	Scoring definition
1	Poor	Indicative journey time is substantially slower than private-vehicle travel and offers little improvement over existing public transport.
2	Fair	Indicative journey time remains materially slower than private-vehicle travel or requires substantial transfers or indirect routing.
3	Moderate	Indicative journey time is broadly competitive with peak-period private-vehicle travel but remains slower under uncongested conditions.
4	Good	Indicative journey time is competitive with private-vehicle travel across a reasonable range of conditions and improves materially on existing public transport.

5	Excellent	Indicative journey time is comparable with or faster than private-vehicle travel and provides a direct, limited-stop regional connection.

Constructability (15%)

Assesses preliminary engineering complexity, including topography, structures, tunnelling, corridor interfaces and unresolved physical constraints.

Score	Rating	Scoring definition
1	Poor	Requires extensive tunnelling, multiple major structures or resolution of potentially critical engineering constraints.
2	Fair	Requires substantial tunnelling, major structures or complex network interfaces, with significant constraints remaining unresolved.
3	Moderate	Requires a mix of conventional works and moderate structural intervention, with constraints considered potentially manageable through further design.
4	Good	Can be delivered primarily through conventional surface, elevated or subgrade works, with limited major structures and no apparent critical constraint at this stage.
5	Excellent	Predominantly uses an existing, preserved or readily protectable corridor and appears to require minimal major structural intervention.

Land acquisition and development impacts (10%)

Assesses the likely extent of property acquisition, corridor reservation, displacement, severance and disruption to existing or approved development.

Score	Rating	Scoring definition
1	Poor	Requires extensive acquisition or displacement across developed land and would cause substantial development or community disruption.
2	Fair	Requires significant acquisition, affects numerous developed properties or creates substantial severance and access impacts.
3	Moderate	Requires some acquisition or corridor dedication, but impacts may be manageable through alignment refinement and planning controls.
4	Good	Primarily uses existing road, transport, public or undeveloped land, with limited acquisition and manageable development impacts.
5	Excellent	Predominantly uses an existing protected corridor or land capable of reservation through current structure planning, with minimal acquisition or displacement.

Environmental impacts (10%)

Assesses preliminary potential for effects on conservation areas, waterways, wetlands, habitat, ecological corridors and other environmental assets.

Score	Rating	Scoring definition
1	Poor	Directly affects major protected or highly sensitive environmental assets and appears to have limited avoidance opportunities.
2	Fair	Has substantial potential impacts on multiple sensitive areas, waterways or ecological corridors and may require significant mitigation.
3	Moderate	Has identifiable environmental constraints, but avoidance, design refinement or mitigation may be possible.
4	Good	Has limited interaction with sensitive environmental areas and appears capable of avoiding or managing most effects through design.
5	Excellent	Uses an existing disturbed corridor or developed land and has minimal apparent interaction with significant environmental assets.

Financial considerations (10%)		
Assesses relative capital-cost scale, delivery complexity and exposure to major cost drivers.		
Score	Rating	Scoring definition
1	Poor	Very high relative cost, driven by extensive tunnelling, cross-river works, major structures, underground stations or creation of a new system.
2	Fair	High relative cost arising from substantial tunnelling, complex interfaces, significant structures or major network upgrades.
3	Moderate	Moderate to high relative cost, involving a combination of new corridor works, structures and system integration.
4	Good	Lower relative cost, consisting primarily of surface infrastructure, conventional structures or staged upgrades to existing systems.
5	Excellent	Very low relative cost, relying predominantly on minor upgrades or existing infrastructure with limited major capital works.
Land use outcomes (5%)		
Assesses the potential to support activity centres, compact development, station precincts, mixed uses and integration of land-use and transport planning.		
Score	Rating	Scoring definition
1	Poor	Offers little opportunity to support activity centres, station precinct development or improved land-use integration.
2	Fair	Offers limited renewal or development opportunities, generally outside identified strategic centres or growth areas.
3	Moderate	Supports at least one meaningful station precinct, growth area or local land-use integration opportunity.
4	Good	Supports multiple activity centres or growth areas and provides strong opportunities for coordinated station-precinct planning.
5	Excellent	Directly supports major planned growth areas or activity centres and enables substantial transit-oriented or mixed-use development outcomes.

1.5.3 Interpretation and shortlisting

Based off the results of the MCA, the following definitions can be applied to the feasibility outcomes.

Table 3. Interpretation of outcomes.

Term	Meaning in this investigation
Screened option	An option included in the initial comparative assessment.
Shortlisted option	An option demonstrating sufficient comparative merit to warrant further investigation.
Preferred investigation option	The highest-performing option or performance group under the adopted assumptions.
Secondary investigation option	An option retained to provide flexibility if the preferred option encounters significant constraints.
Not shortlisted	An option that performs comparatively less strongly under the adopted assumptions and is not recommended for priority investigation.

Final alignment or mode	Not determined by this report. Requires subsequent technical assessment and decision-making.

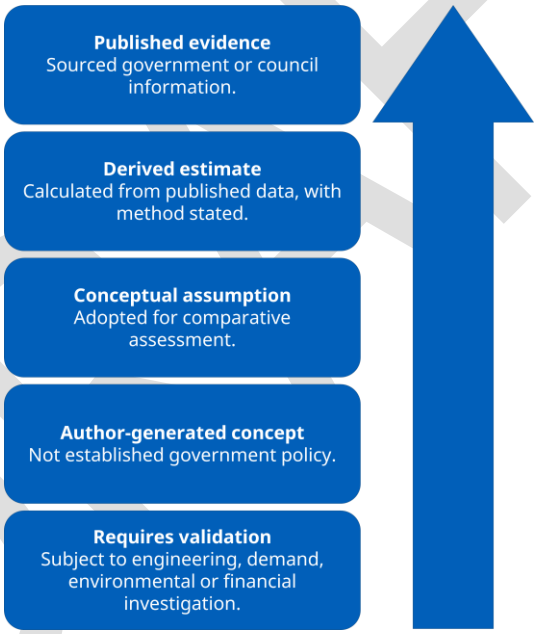
The MCA does not establish technical feasibility, environmental acceptability, funding priority or project approval. Its purpose is to provide a transparent and consistent basis for comparative screening at the conceptual pre-feasibility stage.

1.6 Assumptions and evidence limitations

This report is an independently prepared conceptual pre-feasibility investigation. It draws on published planning and transport information, preliminary spatial analysis and author-developed assumptions to compare strategic transport options and identify corridors that may warrant preservation and further investigation.

The level of evidence available varies between different components of the assessment. To ensure the findings are interpreted appropriately, information used throughout the report is classified according to the following evidence hierarchy.

Figure 4. Hierarchy of accuracy for information conveyed in this report.



Published evidence is assumed to include information sourced from published Queensland Government, Australian Government, Redland City Council or other recognised organisational documents. This may include adopted planning instruments, population projections, transport data and publicly available project information. Published evidence provides the principal basis for the report's strategic context. However, publication by an agency does not necessarily demonstrate that an initiative is funded, committed or approved. The status of each source and initiative should therefore be considered separately.

Derived estimates in this report include estimates calculated or interpreted from published information for the purposes of this investigation. Derived estimates may include indicative travel times, population catchments, distances, comparative capacity

measures or other values produced by combining published data with stated calculation assumptions. Where a derived estimate is used, the source information and calculation method should be stated where practicable.

Conceptual assumptions are adopted to enable strategic comparison where detailed information is unavailable.

Conceptual assumptions may relate to:

- route configuration,
- station spacing,
- service patterns,
- infrastructure form,
- network interfaces,
- corridor width,
- operating characteristics or
- delivery sequencing.

These assumptions provide a consistent basis for preliminary assessment. They have not been confirmed through detailed transport planning, engineering design, operational modelling or agency consultation and may change substantially through further investigation.

Some routes, alignments, station locations, network configurations, land-use responses or infrastructure concepts are developed specifically for this report. Author-generated concepts illustrate potential planning outcomes and provide a basis for identifying opportunities and constraints. These concepts are not established Queensland Government or Redland City Council policy. They should not be interpreted as approved alignments, committed projects, final designs or proposed construction works.

Some findings or assumptions that cannot be confirmed within the scope of this investigation require further assessment. This may include:

- transport demand and patronage modelling;
- concept and detailed engineering;
- geotechnical investigation;
- environmental and ecological assessment;
- flooding, drainage and hydrological assessment;
- property, tenure and land-acquisition analysis;
- utility and infrastructure investigations;
- network-capacity and operational modelling;
- economic and financial assessment;
- consultation with government agencies, landowners and affected communities; and
- statutory planning and development assessment.

Items requiring validation may be suitable for comparative screening at the conceptual stage but should not be relied upon for project approval, land acquisition, funding commitments or construction decisions.

The multi-criteria assessment undertaken in this report represents comparative judgement based on the information available at the time of preparation. The assessment is intended to identify potentially suitable options, distinguish comparatively constrained alternatives and support recommendations for further investigation. Terms such as preferred, feasible and shortlisted refer only to the comparative outcomes of this conceptual investigation. They do not indicate that an option has been technically verified, environmentally approved, funded or adopted by a government agency. The preferred corridor should therefore be interpreted as a preferred investigation corridor, rather than a final engineered alignment.

This report is not a substitute for or operating with the façade of a detailed business case, options analysis, engineering feasibility study, environmental impact assessment or other such planning process.

1.7 Investigation focus

The focus of this investigation is to determine whether a future high-capacity transport corridor should be identified and preserved through the Southern Thornlands PDA to begin with and adjoining future growth areas. Decisions concerning the ultimate transport mode, final alignment, timing, funding and delivery mechanism are outside the scope of this report and would require subsequent investigation.

2 Strategic context

2.1 Purpose of this section

What plans exist and are these adequate for a new urban character in the Southern Redlands?

What routes exist within the Redlands for new passenger transport?

This section sets out the context of development and transport in the Redlands City region, with an emphasis on new developments in the Southern Redlands, including the aforementioned Southern Thornlands PDA. By understanding the context of this development, and the identification of current initiates and schemes, the key infrastructure problems in regards to transport in the Southern Redlands can be more readily investigated.

2.2 Regional profile

Redlands City is a bayside region in South East Queensland (SEQ) located about 30 kms east of Brisbane CBD, encompassing approximately 537 square kilometres.

Currently, the Redland City region can be divided into two distinct sub-regions as was seen in Figure 2.

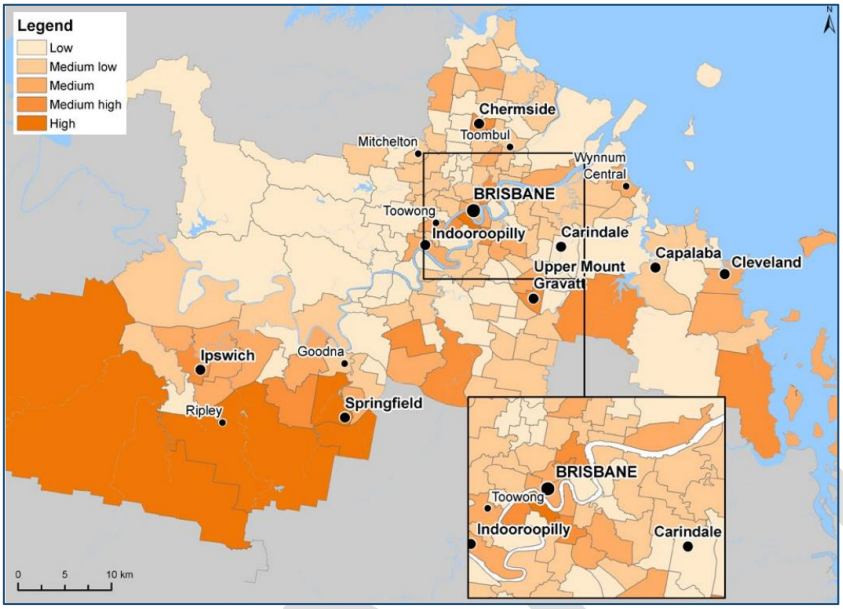
- Northern Redlands – developed as low-density urban living through the second half of the last century, key principal activity centres of Capalaba and Cleveland, and key enterprise, industrial and commercial areas.
- Southern Redlands – semi-rural character, low-density urban living developed along the shoreline areas in the last thirty years, major activity centre at Victoria Point Central, and some enterprise and commercial areas.

While northern nodes like Capalaba and Cleveland function as dense commercial anchors, the Southern Redlands, including areas such as Thornlands, Victoria Point and Redland Bay, feature rural and agricultural land uses in inland areas and low-density suburban profile in the bayside areas (Redland City Council, 2020).

However, under the state's *Shaping SEQ* planning framework, the Southern Redlands sub-region has shifted into a critical development corridor (Department of State Development, Infrastructure, Local Government and Planning, 2023). This is underscored by the declaration of the 890-hectare Southern Thornlands PDA, which aims to inject an influx of 24,000 residents, and the *Shoreline* community at Southern Redland Bay, housing an estimated 10,000 residents. Moreover, ongoing infill development around key nodes in this sub-region, as well as in other key centres in the Redlands, means that the projected population of the area is expected to grow to around 212,000 residents by 2046. This represents, at a minimum, nearly 40,000 new

residents over a twenty-year period from 172,000 in 2026 (Economic Development Queensland, 2026).

Figure 5. Metropolitan total projected population growth, 2016-2041 (Department of Transport and Main Roads, 2021).



Source: Queensland Government Statistician's Office. (2018). Queensland Government Population projections: 2018 edition (medium series)

Based on this regional profile, the following key nodes and future growth areas are identified and displayed in Figure 6. A 'belt' of development emerges extending in the from Thornlands to Southern Redland Bay, representing the majority balance of population growth for the region. This is concentrated in the areas displayed in Table 4.

Table 4. Growth assumptions and status.

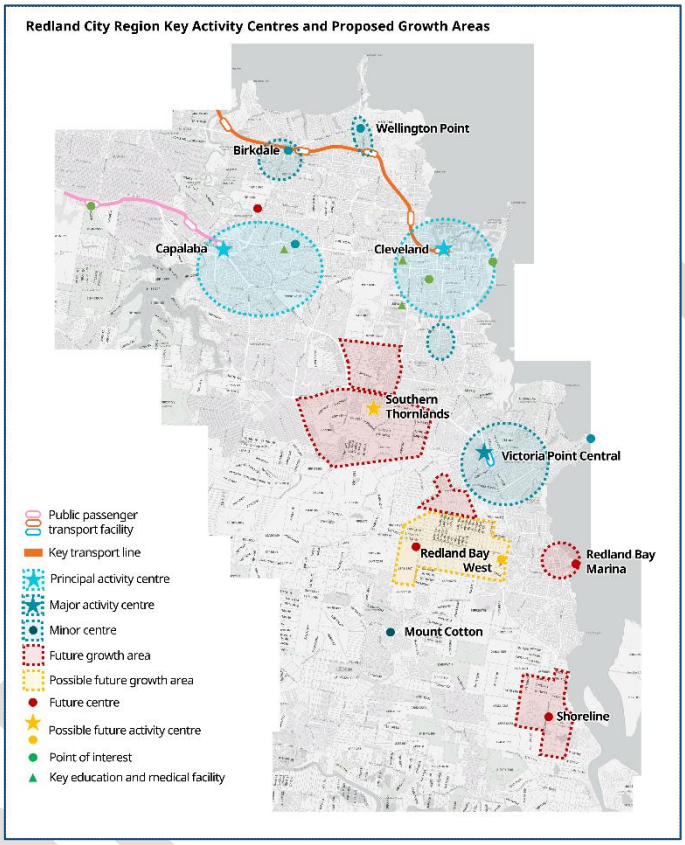
Growth area	Population figure	Status	Horizon	Source
Southern Thornlands PDA	24,000	Published PDA projection	State horizon	Full source
Shoreline community	10,000	Development estimate	Project horizon	Full source
Victoria Point West	10,000	Scenario assumption	Not established	Basis required
Redland Bay West	25,000+	Development potential	Long term	Basis required
Coastal infill	Up to 5,000	Scenario assumption	Long term	Basis required

These figures are scenario assumptions for corridor-planning purposes and should not be interpreted as adopted population forecasts. Development at Redland Bay West as identified in Figure 6 assumes a similar level as the Southern Thornlands PDA. Further, the Victoria Point West catchment assumes higher-density infill west of Victoria Point

Central activity centre as well as low-density development in the identified Victoria Point West growth area.

This results in an emerging transport catchment extending from Capalaba to Southern Redland Bay. The justification for future high-capacity transport can be linked to travel demand in these regions.

Figure 6. Key activity centres and proposed growth areas.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

2.3 Key centres

From the regional profile displayed in Figure 6, the following key centres relevant to this investigation have been identified.

Table 5. Key centres and points of interest in the Redland City region.

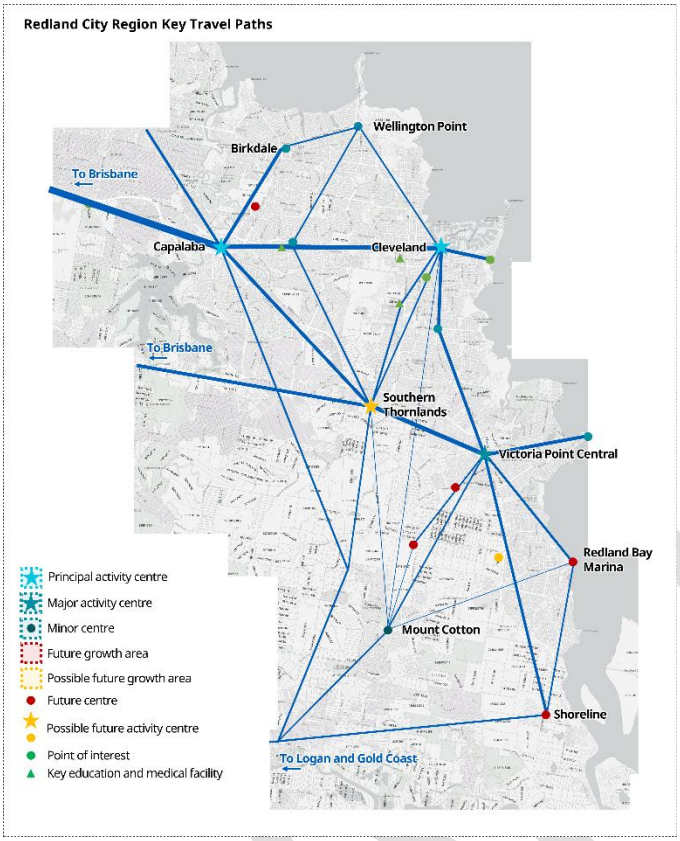
Centre	Centre profile	Points of interest	Current transport connections
Cleveland	Principal regional activity centre	• Cleveland Central Shopping Centre • Cleveland Library	• Cleveland station, served by Cleveland line • Bus services 250, 270 and local bus services

Centre	Centre profile	Points of interest	Current transport connections
Capalaba	Principal regional activity centre • Ongoing town centre masterplan rejuvenation	• Capalaba Central Shopping Centre • Capalaba Park Shopping Centre • Capalaba Library	• Capalaba bus station • Capalaba bus interchange • Bus services 250, 270 and local bus services
Alexandra Hills (TAFE Queensland Alexandra Hills)	•	• Capalaba Central Shopping Centre • Capalaba Park Shopping Centre Capalaba Library	• Capalaba bus station • Capalaba bus interchange • Bus services 250, 270
Redland Hospital	Health and Community Node	• Redland Hospital campus • Mater Private Hospital Redlands • Allied health services	• No major public passenger transport facility • Low frequency bus services
Toondah Harbour	Major Marine Transport Hub and Priority Development Area	• North Stradbroke Island (Minjerribah) • Ferry Terminals	• Direct water taxi and vehicle ferry services to North Stradbroke Island • Local bus connections
Southern Thornlands	Future growth area, Priority Development Area	None	None
Victoria Point Central	Major regional Activity Centre	• Victoria Point Shopping Centre • Victoria Point Town Centre • Victoria Point Library	• Victoria Point Central station • Trunk bus routes 250, 270 and 280, and local bus services
Redland Bay Marina	Major Marine Transport Hub	• Redlands Satellite Health Centre • Local boat ramps	• Weinman Creek Ferry Terminal • Trunk bus routes connections
Victoria Point (West)	Growth area	• Residential	None
Redland Bay (West)	No development, proposed future growth area	None	None
Southern Redland Bay (*Shoreline*).	Master-Planned Residential Community	• Residential • Local centre	• Trunk bus route 280

2.4 Current transport issues

Understanding that around 90% of journeys-to-work trips in the Redland City region are made by private vehicle travel (compared to 4% by public transport) (Redland City Council, 2020), a way of determining popular travel paths may be through analysing road census data. The following key travel paths are illustrated in Figure 7.

Figure 7. Redland City region key travel paths.

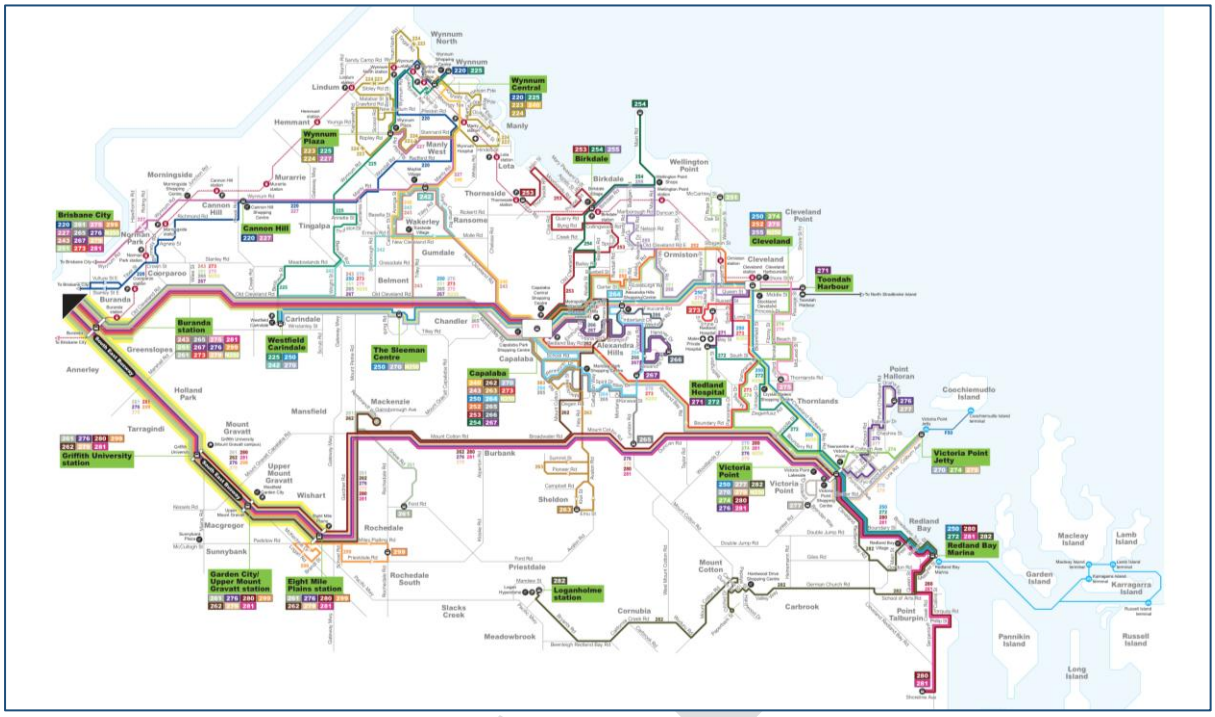


Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025. Data source: Traffic census data, Department of Transport and Main Roads, 2025

When contrasting these critical movement corridors with the existing public transport network, a stark and unsustainable preference for private vehicle travel emerges.

This car-dependant structure is enforced by the current bus network, displayed in Figure 8, with journeys between key activity centres requiring circuitous routing, ill-located transfers and wait times caused by low frequency. Consequently, private vehicle travel remains the only viable mode for competitive travel time, leading to severe peak-hour congestion at critical junctions.

Figure 8. Current Redlands bus network. (Translink, 2026)



Due to geographic reasons, Four principal corridors provide access to or from the Redlands:

- Eastern Corridor (Cleveland Sub-Arterial and Brisbane-Redland roads);
- Redland Sub-Arterial Road;
- Beenleigh-Redland Bay Road; and
- Rickertt/Quarry roads (no passenger transport services).

All passenger transport, with the exception of the Category A ROW of the Cleveland line, utilise these three corridors. At current, no bus priority measures exist on these roads. In this way, current infrastructure, paired with outdated network design, cannot support improved passenger transport services.

2.5 Current initiatives

As identified at the outset of this report, three existing transport initiatives are assumed to be completed in a short-term horizon in order to allow improvement to passenger transport services.

2.5.1 Brisbane Metro BRT expansion to Capalaba (STP1)

The Brisbane Metro BRT expansion projects represent a recontextualisation of the busway network extension plans.

The expansion to Capalaba moves the eastern corridor from standard public transport to high-capacity transit. This initiative intends to expand the high-frequency metro services to the Capalaba business district, establishing a link ahead of the Brisbane 2032 Olympic and Paralympic Games. By utilising bi-articulated vehicles along

dedicated priority on Old Cleveland Road, this initiative will provide a second trunk transport line for the Northern Redlands (Infrastructure Australia , 2026).

This project was identified as a national priority by Infrastructure Australia in 2026, and was listed as a potential future investment opportunity within the 2–4-year pipeline.

In this investigation, this project is assumed to be completed as:

- Brisbane Metro service expansion on partially separated bus priority corridor between Langlands Park station and Capalaba, including
- high-capacity passenger facilities at Coorparoo Square, Camp Hill, Carina, Carindale, Chandler and Capalaba.
- This report accepts the potential for the service to be extended to Birkdale station in the initial stage, with ROW on Birkdale Road servicing the Redland Whitewater Centre.
- Infrastructure is assumed to be built in stages, with commitment for whole package to be completed in a 5-7-year horizon. Moreover, first service on any interim priority is assumed to commence before 2032.

2.5.2 Cleveland line upgrade project (STP2)

The Cleveland line upgrade project addresses long-standing single-track bottlenecks. This will aim to increase the reliability, speed and frequency of heavy rail services on the line.

By upgrading infrastructure between Brisbane and Cleveland, this project provides high-frequency reliability to the Cleveland line, allowing it to perform its function as an inter-regional transport spine.

In this investigation, this project is assumed to be completed as:

- duplication of the heavy rail line between Manly and Cleveland, including ancillary station upgrades in that span.
- Track straightening at key sections such as Norman Park, and
- potential third track electrification from Boggo Road to Lindum with triplication to Manly may also assumed in this report.
- Level crossing removal works including potential projects like elevation of the line in the Wynnum/Manly span.
- As outlined in *SEQ Rail Connect*, the upgrade is assumed to be completed in the immediate five years following Cross River Rail opening (Department of Transport and Main Roads, 2022).

2.5.3 High-frequency local and feeder bus network (STP3)

A high-frequency local and feeder bus network interconnects the previous two trunk lines in the Redlands transport network. This ensures better service coverage and access to major transport interchanges.

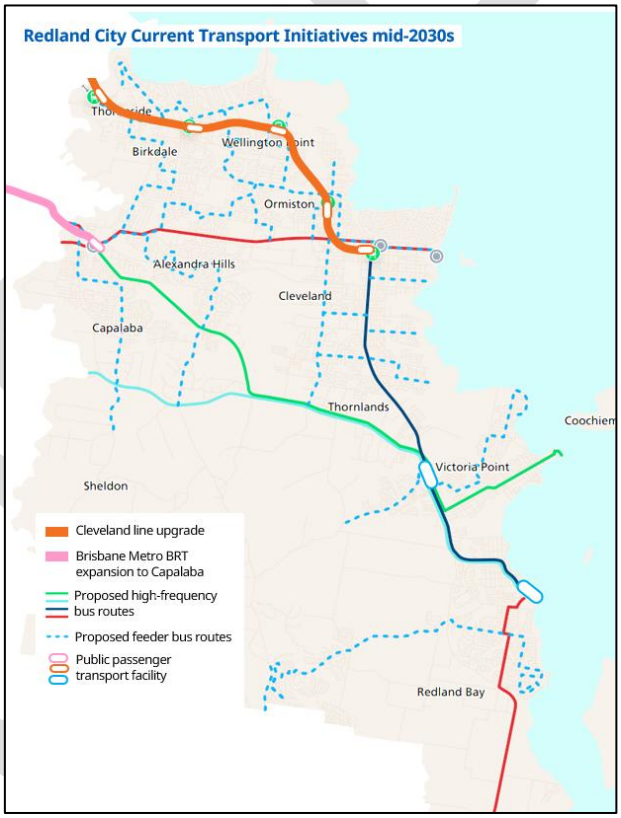
In this investigation, this project is assumed to be completed in such a way as to offer:

- improved, high-frequency bus services between Capalaba, Cleveland, Victoria Point, Southern Redland Bay, Loganholme and Gold Coast/Beenleigh line,
- comprising a service on key corridors like Redland Bay, Cleveland-Redland Bay or Capalaba-Cleveland roads at least every 15 minutes, 6am-6pm on weekdays.
- Re-evaluation of the region's feeder bus network should be undertaken to meet with the Cleveland line and Brisbane Metro BRT.
- Upgraded public passenger transport facilities are assumed to be explored for key corridors, including connections to active transport initiatives and select bus lanes and signal priority.
- This report assumes a 0-4-year horizon on bus network review for the Redlands.

2.5.4 Current transport vision

These current transport initiatives are mapped out in Figure 9, showing a concept network of the mid-2030s.

Figure 9. Transport initiatives by the mid-2030s, with bus routes proposed by Redland City Council in the Redlands Coast Transport Strategy. (Redland City Council, 2020)



Source: Redland City Council, adapted by author from Redlands Coast Transport Strategy, 2020

The concept future network in Figure 9 presents a situation where two terminus stations are fed into by high-frequency buses. Whilst this does provide a new transport corridor from the Brisbane Metro BRT expansion to Capalaba, it does not allow for any clear priority past these Cleveland/Capalaba northern hubs. While these projects improve public transport accessibility, they do not establish a continuous strategic transport spine through the Southern Redlands.

2.6 Need for Southern Redlands high-capacity transport

Noting the current initiatives, the Southern Redlands will rely on high-frequency buses for passenger transport. For the purposes of this pre-feasibility assessment, three demand thresholds are identified. These have been adopted to support preliminary comparison between broad transport responses. The thresholds require validation against corridor-specific operating conditions, service design, vehicle capacity and applicable guidance.

Table 6. Demand thresholds for high-capacity transport to the Southern Redlands.

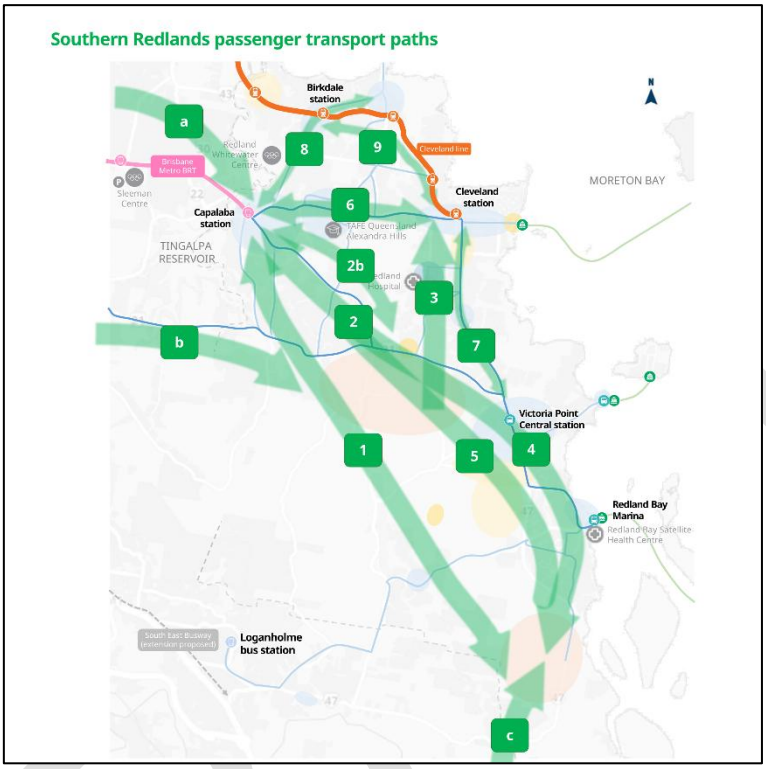
Threshold 1 - Enhanced Bus Network
Suitable when peak directional passenger volumes remain below 2,000 passengers per hour. Characteristics: • High-frequency bus services • Intersection priority • Limited dedicated right-of-way
Threshold 2 - Bus Rapid Transit (Brisbane Metro BRT extension)
Suitable when demand exceeds conventional bus capacity and reaches approximately 2,000-5,000 passengers per hour. Characteristics: • Dedicated corridors • Limited-stop operations • Major interchange facilities
Threshold 3 – High-Capacity Category A Transport
Suitable when long-term demand exceeds approximately 5,000 passengers per hour and strong transit-oriented development opportunities exist. Characteristics: • Fully segregated right-of-way • High-capacity rolling stock • Long-term regional transport spine

This investigation accepts that the Southern Redlands is unlikely to require Threshold 3 infrastructure immediately. However, corridor preservation decisions must occur before development removes future opportunities. For this reason, corridor preservation can be justified independent of immediate project delivery.

2.7 Solution initiative routes

Understanding the lack of a coherent, transport spine in the Southern Redlands, and its necessity in creating an integrated network, a preliminary look into key corridors in this region must be explored. In Figure 10, some conceptual paths were devised.

Figure 10. Conceptual paths for regional high-capacity transport for the Southern Redlands.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

The paths identified in Figure 10 utilise existing preserved corridors or state-controlled roads for their majority path in Study Area B. These existing corridors include:

- Capalaba-Cleveland Infrastructure Corridor
- Redland Bay Road
- Redlands Sub-Arterial and Redland Bay roads
- Cleveland-Redland Bay Road
- Wellington St/Panorama Drive
- Northern Arterial Road preserved infrastructure corridor

From this the following paths were determined:

- 1. Western new corridor
- 2. Capalaba-Victoria Point Road corridor or similar
- 2b. Capalaba-Cleveland Infrastructure Corridor
- 3. Wellington St corridor
- 4. Redland Bay Road/ Cleveland-Redland Bay Road corridor or similar

- 5. Central new corridor
- 6. Capalaba-Cleveland Road corridor
- 7. Cleveland-Redland Bay Road corridor (Bloomfield St)
- 8. Birkdale Road corridor
- 9. Northern Arterial Road preserved infrastructure corridor

It should be noted the context for regional transport identified in the scope of this report, that being an inter-regional connection to Brisbane CBD. With this in mind, spines originating from *line c* will not be looked at in this analysis, however, it will be explored for a future connection from this point. Further, due to the need for passenger transport to deliver travel times better than private vehicle travel, routes like *line 8* (Birkdale Rd), *line 9* (Northern Arterial Road preserved infrastructure corridor), *line 6* (Capalaba-Cleveland Road) or *line 7* (Cleveland-Redland Bay Rd) will not be considered for a trunk purpose, and may be better suited to local mass transport. Routes connecting to the network via line b (Redlands Sub-Arterial Road/South Coast Motorway route) or similar will not be considered further. Therefore, all routes are assumed to originate at line a, providing a connection to the Brisbane CBD via the Eastern Corridor or similar.

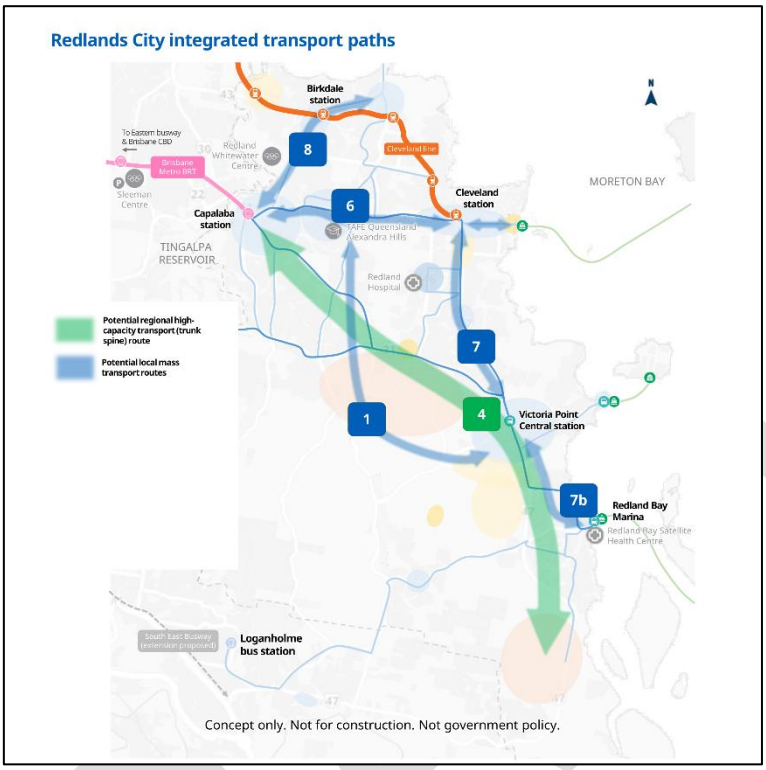
From the paths identified in Figure 10, the following conceptual transport spines emerge.

- Spine 1. Western concept trunk corridor
- Spine 2,4. Coastal concept trunk corridor 1
- Spine 2b/4. Coastal concept trunk corridor 2
- Spine 3,4. Coastal concept trunk corridor 3
- Spine 2,5. Central concept trunk corridor 1
- Spine 2b,5. Central concept trunk corridor 2
- Spine 3,5. Central concept trunk corridor 3.

Each of these spine corridors may be feasible for high-capacity regional transport for the Southern Redlands.

Taking the corridors that were unfeasible for regional transport but potential for local mass transport, a general integrated plan for the region can be devised and displayed in Figure 11.

Figure 11. Conceptual paths for high-capacity regional transport and local mass transport in Redland City.



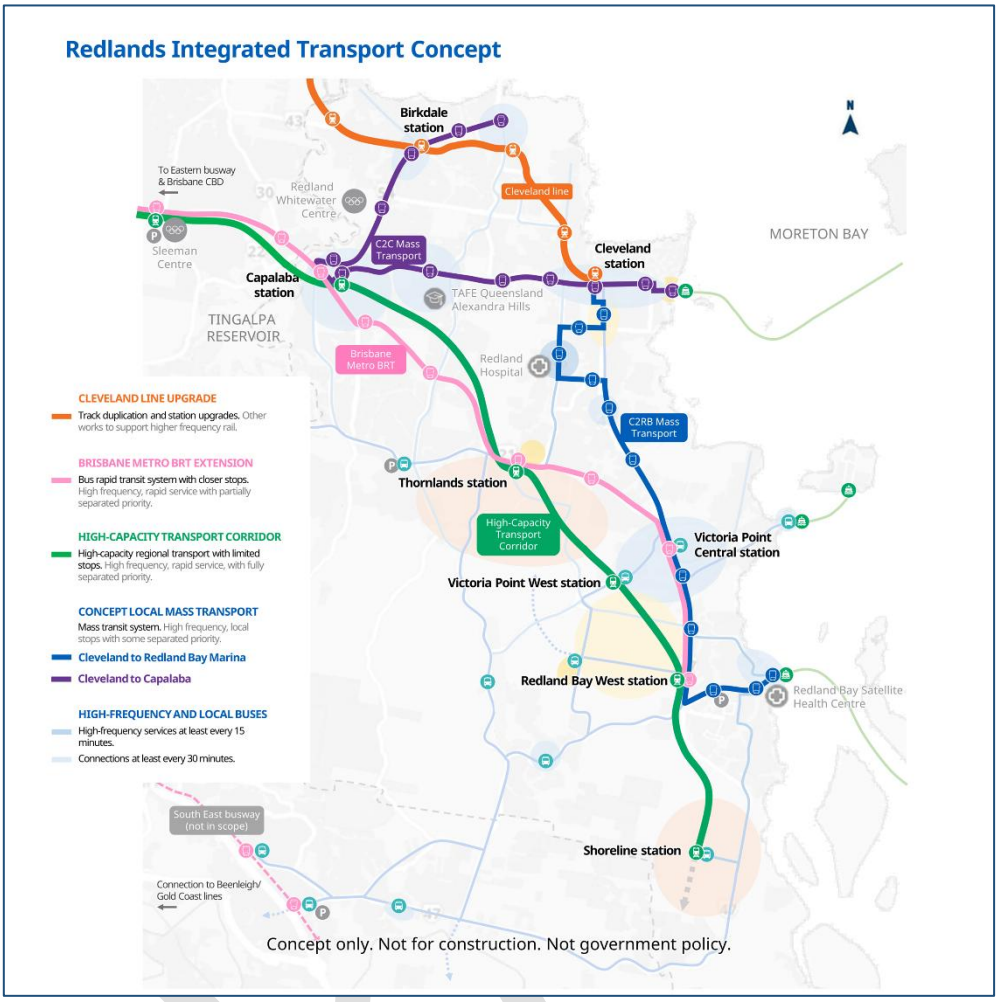
Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

With these spine routes, and utilising other key corridors for conceptual mass transport projects, a concept vision for the Redlands region emerges from a Southern Redlands High-Capacity Transport Corridor.

Figure 12 illustrates a potential long-term integrated transport network for the Redlands region. The concept combines currently proposed initiatives, including the Brisbane Metro BRT expansion to Capalaba, Cleveland line upgrades and high-frequency bus improvements. Future solution initiatives devised as local mass transport and a Southern Redlands High-Capacity Transport Corridor. The concept demonstrates how future transport investments may operate as an integrated system serving both regional and local travel demands.

This figure illustrates one potential long-term integrated transport network. It is not government policy and does not represent approved routes, service patterns, station locations or project commitments.

Figure 12. Long-term integrated transport vision for the Redlands region.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

2.8 Conclusion to this section

The Southern Redlands is transitioning from a predominantly peri-urban sub-region to a major growth area within South East Queensland. Development within the Southern Thornlands PDA, Shoreline, Victoria Point West and potential future growth areas at Redland Bay West will progressively extend the region's urban footprint and create a substantial transport catchment between Capalaba and Southern Redland Bay.

Existing and proposed initiatives, including the Brisbane Metro BRT expansion to Capalaba, upgrades to the Cleveland line and improvements to the local and feeder bus network, are essential components of the region's future transport system. However, these initiatives remain principally focused on existing northern centres or rely on road-based services operating through corridors with limited dedicated priority. In isolation, they may not establish the continuous, high-capacity, regional transport spine required to support the Southern Redlands over the longer term.

The conceptual routes identified in this section demonstrate that a future transport spine could connect the Southern Redlands with Capalaba and the wider Brisbane transport network. These routes could operate alongside local mass transport and high-frequency feeder services as part of an integrated regional network, as illustrated in the proposed network vision map.

In this way, further investigation of high-capacity transport options is warranted.

The following section evaluates the potential projects and route combinations capable of connecting the Southern Redlands with Brisbane, with particular consideration given to strategic transport outcomes, travel time competitiveness, constructability, land requirements, environmental impacts, indicative capital expenditure and urban renewal opportunities.

3 High-capacity transport corridor context

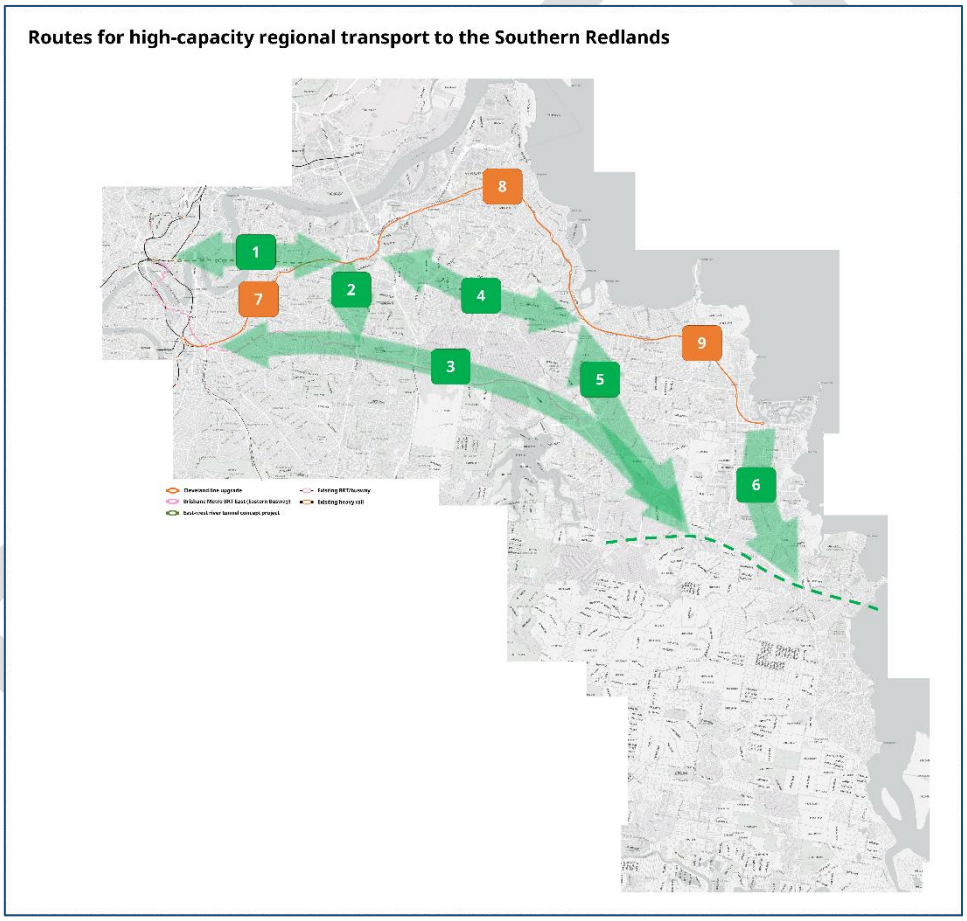
3.1 Purpose of this section

What is a feasible context for getting high-capacity transport to the Southern Redlands?

This section sets out the route options for getting high-capacity transport to the Southern Redlands from Study Areas D-F. Through the identification of potential route paths and the analysis of the composition of these routes for proposed projects, a pre-feasibility evaluation can be completed.

3.2 Route options

Figure 13. Paths for high-capacity transport to the Southern Redlands



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Bearing in mind the proposed purpose of high-capacity transport for the Southern Redlands being an inter-regional connection to the Brisbane CBD via the Eastern Suburbs and its short-listed paths devised in the previous section, a basic route

investigation was conducted in Figure 13. From this, several paths for getting high-capacity transport to the Southern Redlands in Study Areas B-F emerge.

The following path sections were identified in Figure 13.

1. East-west cross river tunnel (Brisbane to Cannon Hill/Morningside)
2. Cannon Hill/Morningside to Carindale path
3. Boggo Road/Buranda to Southern Redlands via Eastern Corridor path
4. Wynnum/Manly bypass path
5. Lota/Thorneside to Southern Redlands path
6. Cleveland line extension
7. Boggo Road/Buranda to Cannon Hill/Morningside on the Cleveland line
8. Cannon Hill/Morningside to Thorneside/Lota on the Cleveland line
9. Thorneside/Lota to Cleveland on the Cleveland line

3.3 Route options investigation

Looking at these path sections, each lend itself to integration with other high-capacity transport, like the heavy rail network or the busway network, or construction as a new, standalone line. These path combinations and their potential project options are displayed in Table 7.

In determining potential project options for different paths, certain modes were not considered. In the case of paths which for their majority utilise the Cleveland line alignment, it is assumed that these are heavy rail only options. In the same case, if a path interfaces with the network at Path 7, for example, it is assumed to be a heavy rail branch line, and not require a new ROW, for a new mode, into the Brisbane CBD.

The option of a light rail line with high-capacity rolling stock was excluded from consideration due to significant alignment and network constraints, bearing in mind the short-term delivery of the Brisbane Metro BRT expansion. Utilisation of the greenfield corridor in Study Area A also restricts the mode's primary advantages, like urban renewal and integration into surrounding streetscapes. Further, establishment of a route into the Brisbane CBD would require construction a new, dedicated ROW or mixed running on the busway. It is also identified that the Victoria Bridge or Story Bridge may lack the structural capacity to safely support light rail infrastructure and rolling stock.

Table 7. Paths and potential projects for high-capacity regional transport to the Southern Redlands.

Path	Description	Potential project options
Path 1,2,3.	Direct East project Route 1 East-west cross river crossing (Brisbane to Cannon Hill/Morningside)	Heavy rail line. • Interfacing to the network via a new east-west river tunnel from Brisbane CBD to Cannon Hill/Morningside. • Interchange existing lines at Cannon Hill/Morningside.

Path	Description	Potential project options
	then Creek Road then Eastern corridor (Old-Cleveland Road) route	• Tunnel from Cannon Hill/Morningside to Carindale. • Tunnel from Carindale to Gateway Motorway. • Old-Cleveland Road corridor from Belmont to Capalaba. Metro rail line. • Interchanging with the network at Cannon Hill or at new underground platforms at Roma Street. • Necessitating a new river crossing as tunnel or bridge. • Tunnel from Cannon Hill/Morningside to Carindale. • Tunnel from Carindale to Gateway Motorway. • Old-Cleveland Road corridor from Belmont to Capalaba.
Path 1,4,5.	Direct East project Route 2 East-west cross river crossing (Brisbane to Cannon Hill/Morningside) then Wynnum/Manly bypass then Lota/Thorneside to Southern Redlands	Heavy rail line. • Interfacing to the network via a new east-west river tunnel from Brisbane CBD to Cannon Hill/Morningside. • Interchange existing lines at Cannon Hill/Morningside. • Corridor alignment investigation between at Cannon Hill/Morningside and Lota/Thorneside. • Tingalpa Creek or Birkdale Road corridor Metro rail line. • Interfacing to the network via a new east-west river crossing from Brisbane CBD to Cannon Hill/Morningside. • Interchange heavy rail network at Cannon Hill/Morningside and Lota/Thorneside. • Corridor alignment investigation between at Cannon Hill/Morningside and Lota/Thorneside. • Tingalpa Creek or Birkdale Road corridor
Path 3	Direct East project Route 3 Boggo Road/Buranda to Southern Redlands via Eastern Corridor path	Heavy rail line. • Interfacing to the network at Boggo Road/Buranda. • Tunnel from Boggo Road/Buranda to Belmont via Coorparoo Square and Carindale. • Old-Cleveland Road corridor from Belmont to Capalaba. BRT extension, with high-capacity vehicles. • Extension of Brisbane Metro BRT from Capalaba.
Path 7,2,3.	Direct East project Route 4 Boggo Road/Buranda to Cannon Hill/Morningside on the Cleveland line	Heavy rail line. • Interface with existing lines at Cannon Hill/Morningside. • Tunnel from Cannon Hill/Morningside to Carindale. • Tunnel from Carindale to Gateway Motorway.

Path	Description	Potential project options
	then Cannon Hill/Morningside to Carindale path then Boggo Road/Buranda to Southern Redlands via Eastern Corridor path	• Old-Cleveland Road corridor from Belmont to Capalaba.
Path 1,4,5.	Direct East project Route 5 East-west cross river crossing (Brisbane to Cannon Hill/Morningside) then Wynnum/Manly bypass path then Lota/Thorneside to Southern Redlands path	Heavy rail line. • Interfacing to the network via a new east-west river tunnel from Brisbane CBD to Cannon Hill/Morningside. • Corridor alignment investigation between Cannon Hill/Morningside and Lota/Thorneside. • Tingalpa Creek or Birkdale Road corridor
Path 7,4,5.	Branch line (with bypass) Boggo Road/Buranda to Cannon Hill/Morningside on the Cleveland line then Wynnum/Manly bypass path then Lota/Thorneside to Southern Redlands path	Heavy rail line. • Interface with existing lines at Cannon Hill/Morningside. • Corridor alignment investigation between Cannon Hill/Morningside and Lota/Thorneside. • Tingalpa Creek or Birkdale Road corridor
Path 7,8,5.	Branch line Route 1 Boggo Road/Buranda to Cannon Hill/Morningside on the Cleveland line then Cannon Hill/Morningside to Thorneside/Lota on the Cleveland line then Lota/Thorneside to Southern Redlands path	Heavy rail (Cleveland line branch). • Upgrades to Cleveland line. • Interface with existing lines at Thorneside/Lota • Tingalpa Creek or Birkdale Road corridor
Path 1,8,5.	Branch line Route 2 East-west cross river crossing (Brisbane to Cannon Hill/Morningside) then Cannon Hill/Morningside to Thorneside/Lota on the	Heavy rail (Cleveland line branch). • Interfacing to the network via a new east-west river crossing from Brisbane CBD to Cannon Hill/Morningside. • Upgrades to Cleveland line. • Interface with existing lines at Thorneside/Lota. • Tingalpa Creek or Birkdale Road corridor

Path	Description	Potential project options
	Cleveland line then Lota/Thorneside to Southern Redlands path	
Path 7,8,9,6.	Cleveland line extension Route 1 Cleveland line from Boggo Road/Buranda to Cleveland then Cleveland to Southern Redlands path	Heavy rail extension. • Upgrades to Cleveland line. • Extension of the Cleveland line from Cleveland to Southern Redlands via corridor alignment investigation.
Path 1,8,9,6.	Cleveland line extension Route 2 East-west cross river crossing (Brisbane to Cannon Hill/Morningside) then Cannon Hill/Morningside to Thorneside/Lota on the Cleveland line then Thorneside/Lota to Cleveland on the Cleveland line then Cleveland to Southern Redlands path	Heavy rail extension. • Upgrades to Cleveland line. • New east-west river crossing from Milton to Cannon Hill/Morningside for Cleveland and Ipswich lines. • Extension of the Cleveland line from Cleveland to Southern Redlands via corridor alignment investigation.
Path 1,4,9,6.	Cleveland line extension Route 3 East-west cross river crossing (Brisbane to Cannon Hill/Morningside) then Wynnum/Manly bypass path then Thorneside/Lota to Cleveland on the Cleveland line then Cleveland to Southern Redlands path	Heavy rail extension. • New east-west river crossing from Milton to Cannon Hill/Morningside for Cleveland and Ipswich lines. • Upgrades to Cleveland line. • Corridor alignment investigation between at Cannon Hill/Morningside and Lota/Thorneside. • Extension of the Cleveland line from Cleveland to Southern Redlands via corridor alignment investigation.
Path 7,4,9,6.	Cleveland line extension Route 4 Boggo Road/Buranda to Cannon Hill/Morningside on the Cleveland line then Wynnum/Manly bypass path then Thorneside/Lota to Cleveland on the	Heavy rail extension. • Upgrades to Cleveland line. • Corridor alignment investigation between at Cannon Hill/Morningside and Lota/Thorneside. • Extension of the Cleveland line from Cleveland to Southern Redlands via corridor alignment investigation.

Path	Description	Potential project options
	Cleveland line then Cleveland to Southern Redlands path	

3.4 Route options analysis

Looking at the options in Table 7, four key project options emerge, those being:

- a new direct eastern line (heavy rail or metro rail),
- Brisbane Metro BRT extension, with high-capacity vehicles,
- Branch line (heavy rail), or
- Cleveland line extension (heavy rail).

3.4.1 Path Section 1. East-west cross river tunnel (Brisbane to Cannon Hill/Morningside)

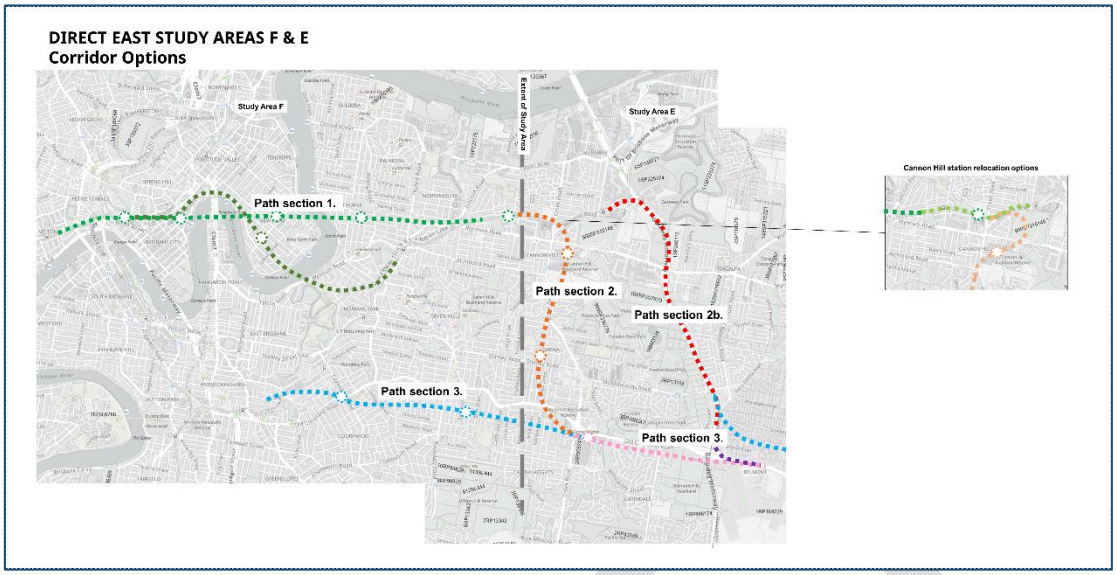
This path section was devised for use by rail-based modes, in this case heavy rail network expansion or a new metro rail line, and was not considered for bus rapid transport options.

Understanding that an end state for the network in South East Queensland is sectorisation through individual corridors, for any expansion to occur existing track capacity constraints must be resolved. Whilst the possibility of a new rail tunnel from Boggo Road to Belmont is recognised (Path 3), the benefits of this concept are less integrated compared to linking with a new river crossing, which would be paired with an existing western line. This thus solves track capacity restraints within the network, whilst also providing a more direct alignment compared to Boggo Road-Roma Street via Merivale.

Currently the network experiences its most severe restraints in the western corridor. Between Corinda and Milton, the corridor is comprised of four tracks, producing a nominal capacity of 48 trains per hour (tph). However, these merge into two tracks in the inner-city mains sector between Roma Street and Bowen Hills. *The Minerva Plan*, an independently compiled rail strategy for SEQ, asserts that this structure throttles this corridors capacity to 20tph (or potential of 24tph with the introduction of ETCS signalling). (Minerva Transport Planning Company Limited, 2020).

In 2008, the *Inner City Rail Capacity Study* (*ICRCS)* proposed the current north-south Cross River Rail project, and petitioned the need for an east-west tunnel to be constructed a decade after the north-south crossing (2016 and 2026) (Queensland Transport, 2008). Whilst in the *ICRCS* this line is implied to connect to northern lines, in the aforementioned *Minerva Plan*, this corridor is coined to connect to the Cleveland line.

Figure 14. Direct East projects, route options Study Areas F & E



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

A summary from *The Minerva Plan* of the reasoning for pairing a new east-west river crossing with the Cleveland line can be found in Appendix 1.

Therefore, for a heavy rail option in the Path 1 section, a dedicated river crossing is assumed to be built as a double track, east-west tunnel, following an alignment of Cannon Hill/Morningside to Milton via Roma Street station (Minerva Transport Planning Company Limited, 2020). For metro rail options, this is assumed to be a new river crossing, with potential to connect to a new western line.

3.4.2 Path Section 2. Cannon Hill/Morningside to Carindale path

This path section was devised for use by rail-based modes and was not considered for bus rapid transport options. A reference project for Path Section 2 may be the Epping to Chatswood rail link in the northern suburbs of Sydney.

In Figure 14, two versions of Path Section 2 can be observed. Path Section 2b was identified as an alternative to tunnelling between Cannon Hill/Morningside and Carindale. However, this negates any benefits of building passenger transport in this section, as it skips creating a key interchange at Carindale. Therefore, a tunnel version of Path Section 2 (Creek Road tunnel) was considered for this investigation.

As assumed for Path Section 1 a cross river tunnel would connect to the network at either Cannon Hill/Morningside. Cannon Hill will be assumed to be this station, due to creating a more direct alignment to Brisbane CBD, additional station facilities at Hawthorne and Eagle St, and allowing Cannon Hill continuing to act as a major interchange and activity centre.

At Cannon Hill station, there are several preliminary options for connecting an east-west river crossing of Path Section 1 and a tunnel in Path Section 2.

1. Two new above ground platforms at Cannon Hill. East-west river crossing eastern tunnel portal emerges north of Wynnum Road overpass, before Cannon Hill station. Northern tunnel portal for Path Section 2 to be located between Barrack and Creek roads.
2. Underground platforms at Cannon Hill. east-west river crossing eastern tunnel portal located between Barrack and Creek roads. Stubs for breakaway to Path Section 2 tunnel to be constructed at time of east-west cross river tunnel. Path Section 2 tunnel to be constructed off these.

From the east-west river crossing tunnel, a Creek Road tunnel would extend south in an alignment similar to that shown in Figure 14. This could allow underground station facilities at Cannon Hill Shopping Centre and a location similar to Stanley Road near the Carina Leagues Club.

3.4.3 Path Section 3. Boggo Road/Buranda to Southern Redlands via Eastern Corridor path (Brisbane to Belmont section)

For Path Section 3 within Study Area F, it is assumed that a heavy rail mode would connect to the network at Path Section 7, between Buranda/Coorparoo stations, as seen in Figure 14. This would necessitate a tunnel between the Cleveland line and Carindale, running south of Old-Cleveland Road. This allows two or more underground station facilities at Coorparoo Square and in the vicinity of Camp Hill or similar. The construction of this tunnel would not deliver any rail capacity benefits like an east-west river crossing tunnel would. This option relies on utilising gained capacity on the Merivale Bridge due to the commencement of the Cross River Rail sector.

The outlined options for a Carindale station would be the same for both an Old-Cleveland Road tunnel or a Creek Road tunnel, being underground platforms in the area of Carindale principal activity centre. This would then continue via a tunnel to the Cleveland Sub-Arterial Road corridor. The western/southern tunnel portal for this is assumed to be east of the Gateway Motorway.

For a BRT mode in this path section, it is assumed to follow the base case outcomes for the Brisbane Metro expansion to Capalaba project outlined in 1.3 Scope of the pre-feasibility investigation report.

3.4.4 Path Section 3. Boggo Road/Buranda to Southern Redlands via Eastern Corridor path (Belmont to Capalaba section) and Path Section 4. Wynnum/Manly bypass path (Study Area D)

Path Section 4 was devised as an option for delivering additional track capacity for the Cleveland line. This may negate the need for a third track to Lota. Given a clear constraint of no clear corridor within this section, it is considered for this path to be a combination of tunnel, at-grade and sub-grade alignment. There is also the capacity

for at least two station facilities, assumed to be underground platforms, at locations on this line. This would either connect to the Cleveland line (PS4b) to act as a Wynnum/Manly bypass, or a Direct East project (PS4a), which may be elevated for its span. This path section was not considered for BRT mode.

Figure 15. Route options for Path Sections 3, 4 and 5 in Study Area E & D

Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

For Path Section 3 between Belmont and Capalaba, it was devised for a rail project to follow Cleveland Sub-Arterial Road or similar. This could allow a station facility at the Sleeman Centre, Chandler. The span of the line from the tunnel portal at Belmont to after Chandler station is considered to be sub-grade/at-grade, with the remainder of the line into Capalaba (PS3a and PS3b) be elevated due to preliminary technical factors.

For a BRT mode in the span of Path Section 3 between Belmont and Capalaba, it is assumed to follow the base case outcomes for the Brisbane Metro expansion to Capalaba project outlined in 1.3 Scope of the pre-feasibility investigation report, following Cleveland Sub-Arterial Road.

3.4.5 Path Section 5. Lota/Thorneside to Southern Redlands path

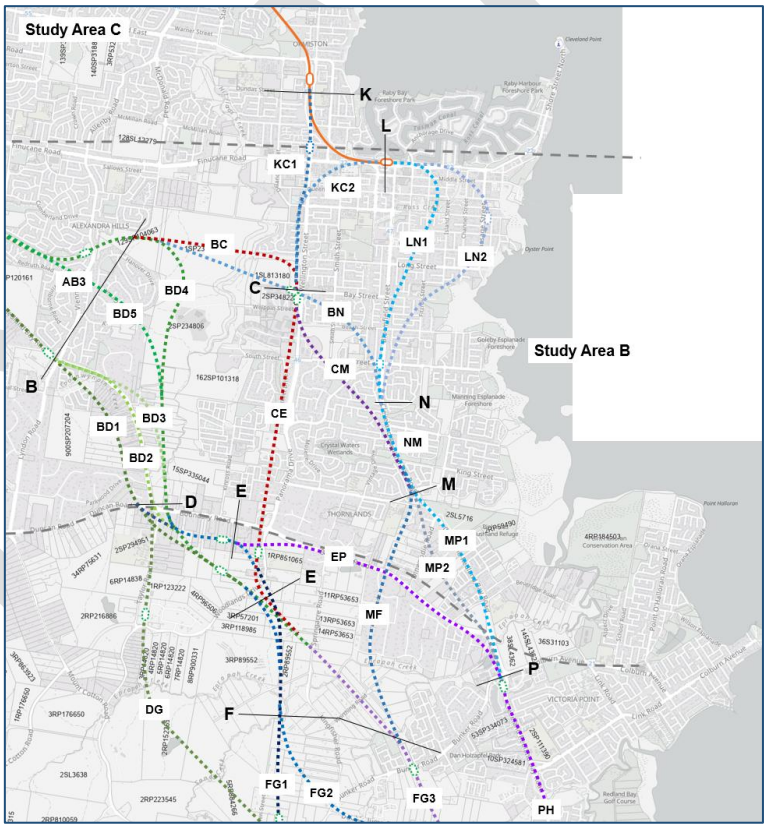
The route of this path, earmarked in Figure 15, is considered to be elevated for its entire length. This investigation does observe potential environmental factors associated with this span.

3.4.6 Path Section 6. Cleveland line extension

An obvious solution to high-capacity transport is an extension of the Cleveland line to Victoria Point or Redland Bay.

Identifying potential routes, it can be noted that extended tunnelled sections may be required. As seen in Figure 16, two main routes emerge, that being a Wellington Street or Cleveland-Redland Bay Road alignment. In the latter route, it can be noted that the line would need to be tunnelled for its whole length to Point P and provide an underground station at Victoria Point Central. From there, as it utilises narrow portions of Cleveland-Redland Bay Road, tunnelling would be necessitated past this point until at least Giles Road. Utilising the Wellington Street corridor (segment CE), it is proposed for Cleveland station to be elevated or similar, and cross over Black Swamp wetlands (segment KC2), and continue elevated along the road corridor. Another option would be to tunnel from Ormiston station, relocating Cleveland station as underground platforms at Wellington Street/Capalaba-Cleveland Road intersections, and continuing tunnelled to Redlands Sub-Arterial Road. Both of these general corridor options would require extended tunnelling, which may make the project cost prohibitive.

Figure 16. Possible alignments for extending the Cleveland heavy rail line.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Further, the Cleveland line is noted for an extremely circuitous route, tracing the coastline for its length. In this way, journey times on the line blowout to around 60

minutes from Cleveland to Roma Street station (all stops). As was assumed at this outset of this report, this can be reduced if a third track was available between Boggo Road and Lota. In this case, a service pattern for Cleveland terminating services of Roma Street to Boggo Road, then express from Boggo Road to Lota, stopping only at Cannon Hill and Wynnum/Manly, then all stops from Thorneside to Cleveland may be assumed. With a 30 second dwell time at all stops and track straightening at key segments such as Norman Park and Lota to Manly, this would only save around 6-7 minutes in best case scenarios. Although this would be marginally faster than driving in peak, which can take 60 minutes or more, off-peak private vehicle travel is still about 15 minutes faster than the heavy rail line. This type of service would be unlikely to attract a sufficient mode share without further service or infrastructure improvements.

An extension to Southern Redland Bay, for example, would add another 14 to 16 minutes to the total journey time with five additional stations.

An option identified above in Path 1,4,9,6. Cleveland line extension Route 3 may be a solution to providing faster journey times. Assuming two stations are built on Path Section 4, a journey time of around 45 minutes from Cleveland to Roma Street may be possible. With an extension to Southern Redland Bay, the whole line would then be brought down to just under 60 minutes. It is noted this is still 15 minutes slower than driving in off-peak.

3.5 Travel times comparison

Travel time competitiveness is a critical factor in determining whether public transport can successfully attract mode share from private vehicle travel. For the purposes of this investigation, indicative travel times for some options have been compared against existing private vehicle journeys.

The analysis focuses on journeys between Southern Redland Bay and Brisbane CBD, representing the dominant commuter pattern identified in the investigation. Approximately 51% of external work trips from Redland City are Brisbane-oriented.

Table 8 provides these travel times derived from existing network characteristics, route geometry and operating assumptions.

Table 8. Indicative travel times comparison

Mode / Option	Estimated Travel Time (Southern Redland Bay to Brisbane CBD)	Relative Competitiveness
Private Vehicle (Off-Peak)	40-45 min	Very High
Private Vehicle (Peak)	55-70 min	High
Existing Cleveland line (via Cleveland)	60-70 min	Low

Cleveland line extension	70-85 min	Very Low
Brisbane Metro BRT extension	55-65 min	Moderate
Direct East Route 3 Heavy Rail	40-45 min	High
Direct East Route 1 Heavy Rail	38-45 min	Very High
Direct East Route 1 Metro Rail	38-45 min	Very High
Direct East Route 5 Heavy Rail	42-52 min	High

The travel times above have been developed for comparative purposes using indicative route geometry, station spacing and operating assumptions. They have not been validated through detailed service planning, operational simulation or multimodal door-to-door travel-time modelling. Private vehicle and public transport estimates may not incorporate equivalent access, parking, transfer, waiting and interchange components and should therefore be interpreted as preliminary indicators only.

The comparison indicates that Cleveland Line extension options generally perform poorly due to the indirect nature of the existing alignment. While capable of providing high-capacity transport, these options are unlikely to provide a substantial travel time advantage over private vehicle travel in most circumstances. Direct East alignments perform strongest due to their more direct route to the Brisbane CBD and limited station spacing. Brisbane Metro BRT extension options perform reasonably well, particularly when operating on dedicated priority infrastructure, but remain constrained by lower operating speeds compared to rail-based alternatives.

The travel time comparison supports high-capacity transport serving the Southern Redlands should aim to achieve end-to-end journey times comparable or better than with private vehicle travel.

3.6 Preliminary demand context

Detailed patronage modelling is beyond the scope of this investigation. This section considers the scale and distribution of potential future development to determine whether preservation of a transport corridor warrants further investigation. It does not forecast patronage, peak-hour demand, mode share or service requirements. However, a preliminary assessment can be undertaken to determine whether future transport demand may justify preservation of a dedicated corridor.

The combined scale of identified and potential growth areas indicates that future demand may warrant investigation of rapid high-capacity transport. However, detailed land-use, demographic, travel-behaviour and patronage modelling is required before a capacity threshold or preferred transport response can be determined.

Bearing in mind the current low public transport mode share, future integrated land-use and transport planning has the capacity to increase use of public transport. For

planning purposes, demand thresholds have been grouped into three broad categories.

Demand Level	Potential Solution
<2,000 passengers/hour	Enhanced Bus Network
2,000-5,000 passengers/hour	Bus Rapid Transit
>5,000 passengers/hour	Metro Rail or Heavy Rail

This preliminary assessment suggests that current demand levels do not justify construction of high-capacity transport infrastructure. However, future growth may reasonably warrant investigation of these solutions. Accordingly, this investigation concludes that corridor preservation may be justified even though ultimate mode selection remains uncertain.

3.7 Preliminary cost assessment

Detailed cost estimation is beyond the scope of this pre-feasibility investigation. However, an understanding of relative project costs is necessary when comparing strategic transport options. For this reason, options have been classified according to indicative order-of-magnitude cost categories.

These cost categories are intended only to compare the likely relative scale and delivery complexity of options. They are not project cost estimates and have not been developed through quantity assessment, reference design, risk analysis or independent cost verification. The classifications do not include a defined base year, escalation methodology, contingency allowance or consistent treatment of land, rolling stock, depots and associated network works.

Table 9. Cost classifications.

Category	Indicative Capital Cost
Low	Less than $1 billion
Moderate	$1-5 billion
High	$5-15 billion
Very High	Greater than $15 billion

Bearing in mind the route alignment considerations identified in Table 7, indicative capital expenditure for the following key options has been identified.

	Cost Category	Cost Drivers

Option		
Brisbane Metro BRT extension	Low	Predominantly surface infrastructure
Branch line options	Moderate-High	New corridor and rail interfaces
Cleveland line extension	High	Tunnelling and station infrastructure
Direct East Route 3 heavy rail	High	Long tunnel sections and major structures
Direct East Route 1 heavy rail	Very High	Cross-river tunnel and new rail corridor
Direct East Route 1 metro rail	Very High	New rapid transit system and tunnels
Direct East Route 5 heavy rail	Very High	Cross-river tunnel and bypass works

3.8 Options evaluation

Bearing in mind the points identified above, the paths listed in Table 7 have been evaluated using the criteria in Error! Reference source not found., and displayed below.

Scores represent comparative judgement within the scope of this report. They have not been independently moderated or validated through detailed technical studies. Score differences should therefore be interpreted as indicators of comparative performance rather than precise measurements. Options with similar weighted scores should be treated as forming a comparable performance group unless subsequent investigations establish a material difference.

Table 10. Multi-criteria evaluation of projects for high-capacity transport to the Southern Redlands.

Option		Strategic (30%)	Travel Time (20%)	Constructability (15%)	Land (10%)	Environment (10%)	Cost (10%)	Urban Renewal (5%)	MCA Score
Direct East project Route 1 Path 1,2,3.	Heavy rail option.	5	5	2	2	3	1	4	3.70
	Metro rail option.	5	5	2	2	3	1	5	3.75
Direct East project Route 2 Path 1,4,5.	Heavy rail option.	4	4	2	3	3	1	3	3.15
	Metro rail option.	4	4	2	3	3	1	4	3.20
Direct East project Route 3 Path 3	Heavy rail option.	4	4	3	3	3	2	4	3.45
	Brisbane Metro BRT extension	3	3	4	4	4	4	3	3.50
Direct East project Route 4 Path 7,2,3.	Heavy rail line.	3	4	2	3	3	2	3	3.00

Option		Strategic (30%)	Travel Time (20%)	Constructability (15%)	Land (10%)	Environment (10%)	Cost (10%)	Urban Renewal (5%)	MCA Score
Direct East project Route 5 Path 1,4,5.	Heavy rail option.	4	5	2	3	3	1	4	3.45
Branch line (with bypass) Path 7,4,5.	Heavy rail option.	3	3	3	4	4	3	2	3.15
Branch line Route 1 Path 7,8,5.	Heavy rail (Cleveland line branch).	2	2	4	4	4	3	2	2.75
Branch line Route 2 Path 1,8,5.	Heavy rail (Cleveland line branch).	3	3	3	4	4	2	2	3.00
Cleveland line extension Route 1 Path 7,8,9,6.	Heavy rail extension.	2	2	2	2	3	2	3	2.15
Cleveland line extension Route 2 Path 1,8,9,6.	Heavy rail extension.	3	3	2	2	3	1	3	2.55
Cleveland line extension Route 3 Path 1,4,9,6.	Heavy rail extension.	4	4	2	2	3	1	3	3.00
Cleveland line extension Route 4 Path 7,4,9,6.	Heavy rail extension.	3	3	2	2	3	2	3	2.65

Table 11. Ranked options for projects for high-capacity transport to the Southern Redlands.

Rank	Option	Score
1	Direct East Route 1 Metro Rail	3.75
2	Direct East Route 1 Heavy Rail	3.70
3	Brisbane Metro BRT Extension	3.50
4	Direct East Route 3 Heavy Rail	3.45
5	Direct East Route 5 Heavy Rail	3.45
6	Direct East Route 2 Metro Rail	3.20
7	Direct East Route 2 Heavy Rail	3.15
8	Branch Line (Bypass)	3.15

9	Direct East Route 4 Heavy Rail	3.00
10	Branch Line Route 2	3.00
11	Cleveland Line Extension Route 3	3.00
12	Branch Line Route 1	2.75
13	Cleveland Line Extension Route 4	2.65
14	Cleveland Line Extension Route 2	2.55
15	Cleveland Line Extension Route 1	2.15

3.9 Shortlisted project options

The multi-criteria assessment indicates that the highest-performing options are the Direct East Route 1 corridor via Path Sections 1, 2 and 3, operating as either a metro rail or heavy rail system. These options performed strongly due to their strategic transport benefits, travel time competitiveness and ability to support future growth throughout the Eastern Brisbane and Southern Redlands corridors.

The Brisbane Metro BRT Extension also performed strongly despite lower transport capacity outcomes. This was largely attributable to favourable constructability, lower capital costs and reduced environmental and property impacts. The assessment suggests this option may represent the most achievable medium-term transport improvement while preserving future opportunities for higher-capacity infrastructure.

Branch line and Cleveland line extension options generally scored lower due to indirect routing, poorer travel time competitiveness and the substantial engineering works required to overcome existing network limitations. While some options remain worthy of future investigation, particularly Cleveland Line Extension Route 3, they are not considered preferred solutions for long-term growth in the Southern Redlands.

Accordingly, the MCA identifies the following shortlist for further investigation:

- Direct East Route 1 (metro rail)
- Direct East Route 1 (heavy rail)
- Brisbane Metro BRT Extension
- Direct East Route 3 (heavy rail).
- Direct East Route 5 (heavy rail).

These options form the basis of future corridor preservation planning and subsequent feasibility investigations.

3.10 Conclusion to this section

This section evaluated the broader project and route options for providing high-capacity transport between Brisbane and the Southern Redlands.

The assessment found that direct eastern alignments generally provide the strongest long-term strategic and travel-time outcomes. Direct East Route 1, operating as either metro rail or heavy rail, achieved the highest multi-criteria assessment scores because of its direct connection to Brisbane, potential network-capacity benefits and ability to serve growth and activity centres across Eastern Brisbane and the Southern Redlands. Direct East Routes 3 and 5 also demonstrated sufficient merit to warrant further investigation.

The Brisbane Metro BRT extension achieved a comparatively strong result due to its lower indicative capital cost, more favourable constructability and reduced environmental and property impacts. It may therefore represent an achievable medium-term transport response, particularly if delivered with dedicated priority and integrated with a high-frequency feeder network. Its inclusion in the shortlist does not preclude the longer-term use of higher-capacity transport technologies. Branch line and Cleveland line extension options generally performed less strongly. The indirect alignment of the Cleveland line, limited travel-time competitiveness and the extent of upgrading, tunnelling and network-interface works required reduced the relative performance of these options.

The assessment therefore shortlists Direct East Route 1 metro rail, Direct East Route 1 heavy rail, the Brisbane Metro BRT extension, Direct East Route 3 heavy rail and Direct East Route 5 heavy rail for further investigation. At this stage, the assessment does not recommend the selection or immediate construction of a particular transport technology. Instead, it demonstrates that credible options exist and supports investigation of a mode-flexible corridor through the Southern Redlands.

4 Southern Redlands high-capacity transport corridor investigation

4.1 Purpose of this section

What are feasible corridors for high-capacity transport in the Southern Redlands?

The purpose of this section is to investigate corridors for high-capacity transport for the Southern Redlands in Study Areas A and B. Through the detailed analysis of alignments and preliminary identification of corridor limitations, preferred options for a Southern Redlands Public Transport Corridor are proposed.

4.2 Corridor investigation

Understanding the factors identified and evaluated in Table 7 and Table 10, the shortlisted transport projects have been further investigated to determine a preferred

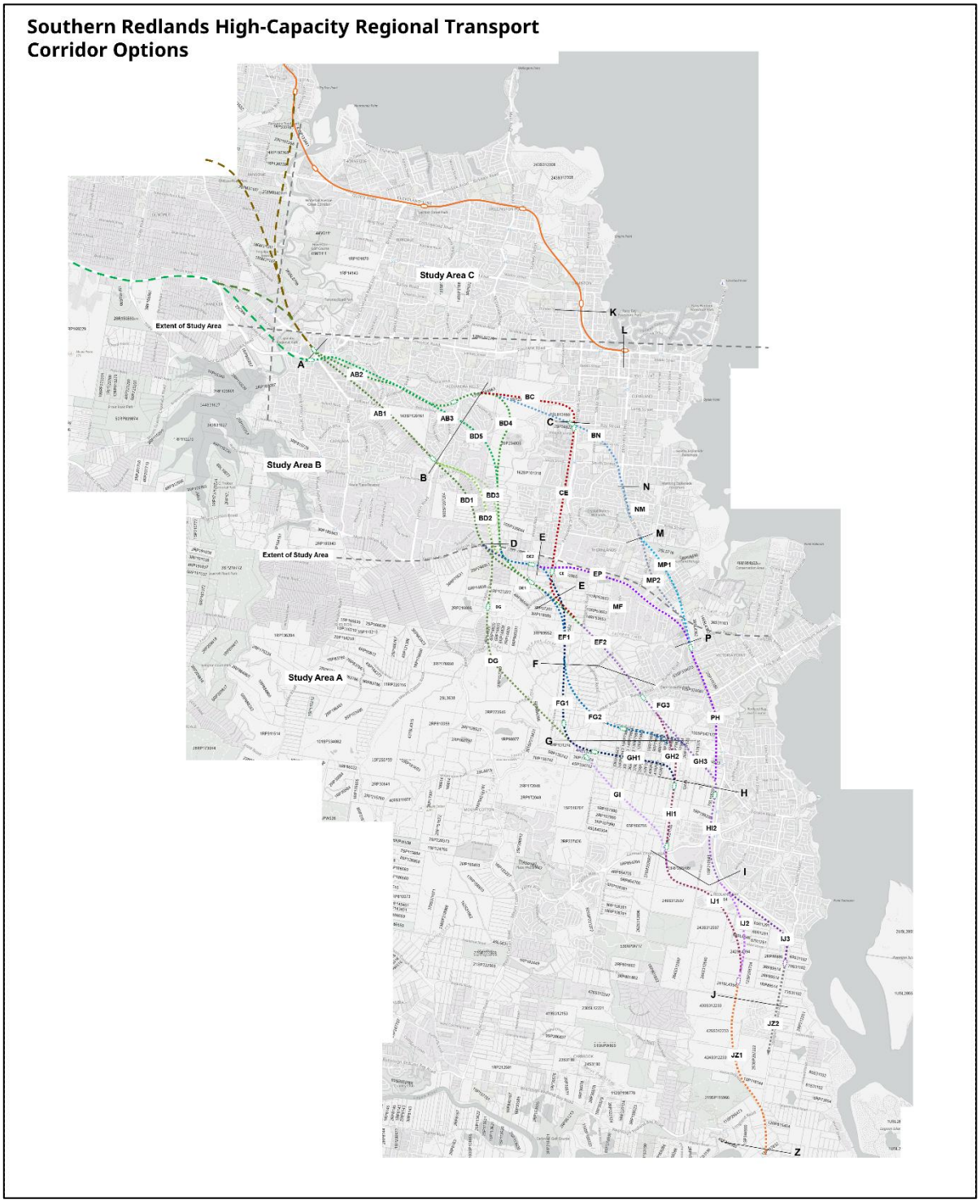
alignment in Study Areas A and B. Detailed score justifications for all shortlisted strategic projects and corridor alignments are contained within the MCA Evidence Register (Appendix 2). The appendix should be read alongside the criterion-specific scoring framework in Section 1.5.

Looking at the options shortlisted in the previous section, it is observed that either a Direct East project or branch line project will provide a station at the Capalaba activity centre. In this way, all corridors in Study Areas A & B will commence from this point at Capalaba (Point A in Figure 17).

The following corridors were not considered.

- Corridors south of Capalaba-Victoria Point Road due to reduced corridor width, environmental factors and lack of major activity centres or future growth areas. The possibility of opening the land on the western side of the state-controlled road corridor from Windemere Road intersection to Lyndon Road via a state mechanism for the forced preservation of a corridor was explored. However, this is not presented due to bisecting the Redlands Indigiscapes Centre.
- Corridors east of Cleveland-Redland Bay Rd outside of those presented due to reduction in station catchment area and major corridor limitations requiring extended tunnelled sections.
- Any new corridors requiring large land resumptions or tunnelling outside of those presented.
- Tunnelling from Capalaba to Option BD4 or BD5 via Alexandra Hills activity centre due to circuitous routing and proximity to Capalaba-Cleveland Road, which was determined at the outset of the investigation to be better suited to local mass transport options.
- Any corridors in Study Area A west of those presented due to reduced station catchment area.

Figure 17. Corridor options for Southern Redlands high-capacity transport.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

4.3 Capalaba to Thornlands corridor (Study Area B)

The corridor for a high-capacity transport in the Capalaba to Thornlands section presents several alignment options.

4.3.1 Corridor options

The following corridor options were identified for Study Area B in Figure 17.

- Option AB1,BD1/2/3 (Capalaba-Victoria Point Road option)
- Option AB2,BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)
- Option AB2,BC,CE (Capalaba-Cleveland/Wellington St option)
- Option AB3,BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)
- Option AB2,BC,CM,MP (Thornlands tunnel, Victoria Point Central option)
- Option AB2,BC,CM,MF (Thornlands tunnel, Victoria Point West option)
- Option AB2,BN,MP (Scribbly Gums tunnel, Victoria Point Central option)
- Option AB2,BN,MF (Scribbly Gums tunnel, Victoria Point West option)

Two Capalaba station locations were devised in the corridor investigation, on Redland Bay Road near Capalaba bus station and at Capalaba park'n'ride.

4.3.2 Corridor analysis

Several factors of these corridors can be identified.

Elevation profiles and infrastructure treatments are indicative only and are based on preliminary surface-level information. Tunnel portals, gradients, structure types and vertical alignments have not been verified through survey, geotechnical investigation or engineering design.

Option AB1,BD1/2/3 (Capalaba-Victoria Point Road option)
• Terrain restraints between Neys Rd, Capalaba and Lyndon Rd/Vienna Rd, Capalaba (AB1) may require extended tunnelled sections. • Tunnelling has been assumed between Capalaba station and Windemere Rd, Capalaba (AB1) because an at-grade alignment appears constrained. Alternative engineering treatments have not been excluded. • Road corridor between Windemere Rd, Capalaba and Point B, Thornlands is wide enough to accommodate rail corridor in median or facilitate construction of a cut and cover tunnel. • Potential for a station facility at near Vienna Road, Alexandra Hills (South). • Tunnelling has been assumed on northern half of section BD1. May require subgrade station at Point B (Vienna Road, Alexandra Hills (South)). • Tunnelling has been assumed at intersection of Capalaba–Victoria Point Rd/Redland Sub-Arterial Road due to terrain restrictions. • Most direct route between Capalaba and Thornlands but does not intersect any key activity centres or points of interest. • Preservation of corridor on existing properties for Option B1 and BD2 assumed.
Option AB2,BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)

- Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded.
- Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor.
- Local resident concerns due to proximity to dwellings in the Alexandra Hills area.
- Potential for station facility at Vienna Road, Alexandra Hills.
- Terrain concerns at section BD4 which may require tunnelled portion.
- Tunnelling has been assumed at intersection of Capalaba–Victoria Point Rd/Redland Sub-Arterial Road due to severe terrain restrictions.
- Indirect route between Capalaba and Thornlands but does not intersect key activity centres or points of interest.

Option AB2,BC,CE (Capalaba-Cleveland/Wellington St option)

- Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded.
- Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor (AB2) and its alignment through Scribbly Gums Conservation Area (BC).
- Local resident concerns due to proximity to dwellings in the Alexandra Hills area.
- Wellington St corridor (CE) would require extended tunnel sections or large land resumption between South St and Redland Bay Road.
- Wellington St corridor (CE) would require utility infrastructure works if elevated or at-grade.
- Construction of at least one additional station at Redlands Hospital was identified (CE), which could be elevated or subgrade.
- Indirect route between Capalaba and Thornlands but does intersect key point of interest (Redland Hospital).

Option AB3,BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)

- Elevated station at Capalaba near Capalaba park'n'ride or similar.
- Elevated section on Capalaba to Cleveland Infrastructure Corridor.
- Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor.
- Local resident concerns due to proximity to dwellings in the Alexandra Hills area.
- Potential for station facility at Vienna Road, Alexandra Hills.
- Tunnel portal assumed between Windemere and Vienna roads.
- Tunnelling has been assumed between Vienna Road and BD3. Alternative engineering treatments have not been excluded.
- Tunnelling has been assumed at intersection of Capalaba–Victoria Point Rd/Redland Sub-Arterial Road due to severe terrain restrictions.

Option AB2,BC,CM,MP (Thornlands tunnel, Victoria Point Central option)

- Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded.
- Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor (AB2) and its alignment through Scribbly Gums Conservation Area (BC).
- Local resident concerns due to proximity to dwellings in the Alexandra Hills area.
- Wellington St corridor (CE) would require extended tunnel sections or large land resumption between South St and Redland Bay Road.
- Wellington St corridor (CE) would require utility infrastructure works if elevated or at-grade.
- Construction of at least one additional station at Redlands Hospital was identified (CE), which could be elevated or subgrade.
- Indirect route between Capalaba and Thornlands but does intersect key point of interest (Redland Hospital).
- Approx. 2.2 km tunnel section assumed between Redlands Hospital and Point M (segment CM).
- Tunnelled or subgrade assumed sections at MP1 and MP2.
- Underground station assumed at Victoria Point Central.

Option AB2,BC,CM,MF (Thornlands tunnel, Victoria Point West option)

- Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded.
- Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor (AB2) and its alignment through Scribbly Gums Conservation Area (BC).
- Local resident concerns due to proximity to dwellings in the Alexandra Hills area.
- Wellington St corridor (CE) would require extended tunnel sections or large land resumption between South St and Redland Bay Road.
- Wellington St corridor (CE) would require utility infrastructure works if elevated or at-grade.
- Construction of at least one additional station at Redlands Hospital was identified (CE), which could be elevated or subgrade.
- Indirect route between Capalaba and Thornlands but does intersect key point of interest (Redland Hospital).
- Approx. 2.2 km tunnel section assumed between Redlands Hospital and Point M (segment CM).
- Tunnelled or subgrade assumed sections for segment MF.
- No station located at Victoria Point Central, the justification for the tunnel would be weakened.

Option AB2,BN,MP (Scribbly Gums tunnel, Victoria Point Central option)

- Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded.

• Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor (AB2) and its alignment through Scribbly Gums Conservation Area (BC). • Local resident concerns due to proximity to dwellings in the Alexandra Hills area. • Approx. 4 km tunnel section assumed for span of BM. • Underground or subgrade station assumed at Redlands Hospital. • Tunnelled or subgrade assumed sections at MP1 and MP2. • Underground station assumed at Victoria Point Central. • Route close to Cleveland line in this section. May not maximise station catchment.
Option AB2,BN,MF (Scribbly Gums tunnel, Victoria Point West option)
• Tunnelling has been assumed between Capalaba station and Windemere Road in section AB2. Alternative engineering treatments have not been excluded. • Environmental concerns regarding the Capalaba to Cleveland Infrastructure Corridor (AB2) and its alignment through Scribbly Gums Conservation Area (BC). • Local resident concerns due to proximity to dwellings in the Alexandra Hills area. • Approx. 4 km tunnel section assumed for span of BM. • Underground or subgrade station assumed at Redlands Hospital. • Tunnelled or subgrade sections assumed for segment MF. • No underground station assumed at Victoria Point Central, but reasoning of tunnelling from Redlands Hospital to Thornlands is defunct without this. • Route close to Cleveland line in this section. May not maximise station catchment.

4.3.3 Corridor evaluation

The Study Area B corridor options were assessed using the criterion-specific scoring framework in Section 1.5.

Weighted scores are indicators of comparative performance rather than precise measurements. Options with similar scores are treated as belonging to a comparable performance group.

Table 12. Multi-criteria evaluation of corridors analysed for Study Area B.

Option	Strategic (30%)	Travel Time (20%)	Constructability (15%)	Land (10%)	Environment (10%)	Cost (10%)	Urban Renewal (5%)	MCA Score
AB1-BD1/2/3 Capalaba-Victoria Point Road	5	5	3	2	4	3	3	3.85
AB2-BD4 Infrastructure Corridor Option 1	4	4	3	4	3	4	3	3.70
AB2-BC-CE Wellington Street Option	4	3	1	1	2	1	5	2.45
AB3-BD5 Infrastructure Corridor Option 3	4	4	4	4	3	3	4	3.85
AB2-BC-CM-MP Thornlands Tunnel (Victoria Point Central)	5	4	1	3	4	1	5	3.20
AB2-BC-CM-MF Thornlands Tunnel (Victoria Point West)	3	3	1	2	4	1	2	2.20
AB2-BN-MP Scribbly Gums Tunnel (Victoria Point Central)	4	4	2	3	3	2	5	3.20
AB2-BN-MF Scribbly Gums Tunnel (Victoria Point West)	3	3	2	2	3	2	2	2.35

Table 13. Ranking of corridors analysed for Study Area B.

Rank	Option	Score
1	AB1-BD1/2/3 Capalaba-Victoria Point Road	3.85
1	AB3-BD5 Infrastructure Corridor Option 3	3.85
3	AB2-BD4 Infrastructure Corridor Option 1	3.70
4	AB2-BC-CM-MP Thornlands Tunnel (Victoria Point Central)	3.20
4	AB2-BN-MP Scribbly Gums Tunnel (Victoria Point Central)	3.20
6	AB2-BC-CE Wellington Street Option	2.45
7	AB2-BN-MF Scribbly Gums Tunnel (Victoria Point West)	2.35
8	AB2-BC-CM-MF Thornlands Tunnel (Victoria Point West)	2.20

4.3.4 Options not shortlisted

The following options were not shortlisted for priority investigation at this conceptual stage:

- Option AB2,BC,CM,MP (Thornlands tunnel, Victoria Point Central option)
- Option AB2,BC,CM,MF (Thornlands tunnel, Victoria Point West option)
- Option AB2,BN,MF (Scribbly Gums tunnel, Victoria Point West option)
- Option AB2,BC,CE (Capalaba-Cleveland/Wellington St option)

The key factor of Option AB2,BC,CM,MF (Thornlands tunnel, Victoria Point West option) and Option AB2,BN,MF (Scribbly Gums tunnel, Victoria Point West option) was the corridor section MF, which follows Dinwoodie Road and then meets section FG3 at Victoria Point West. This section (MF) would require extended tunnelled sections from Point M to Redland Bay Road, and then property resumptions from Redland Bay Road to Point F. It would also require tunnelled section CM, despite not providing a station at the Victoria Point Central activity centre, a purpose of running further east. These two corridor options also encountered the issue of exaggerated capital expenditure, due to tunnelled and underground station factors.

Option AB2,BC,CM,MP (Thornlands tunnel, Victoria Point Central option) was evaluated somewhat higher, for the reason of including a station facility at Victoria Point Central major activity centre. It is noted that this would be an underground station, with the sections CM and MP1 considered to be tunnelled for the entire length. It is identified the possibility for sub-grade running in section MP2, however this would require property resumptions. This corridor option was considered unfeasible due to preliminary technical factors and comparatively high indicative capital cost.

It is noted that these three corridors negate also the benefits of preserving a corridor through the Southern Thornlands PDA in Study Area A, and for that reason, will not be further considered in this investigation.

Option AB2,BC,CE (Capalaba-Cleveland/Wellington St option) utilises the Capalaba-Cleveland Infrastructure Corridor for its span until Point B. This option would not require a tunnel section, as it utilises the preserved section of the corridor through Scribbly Gums Conservation Area. Running the line sub-grade through this area, and then sub-grade into near Redland Hospital would allow for the construction of station facilities there. In contrast to the initial segments, Segment CE presents significant engineering and land-use hurdles. To extend the line past the hospital either extended tunnelling or severe property resumptions may be required. Other alignments like sub-grade or at-grade treatments would result in further expenditure.

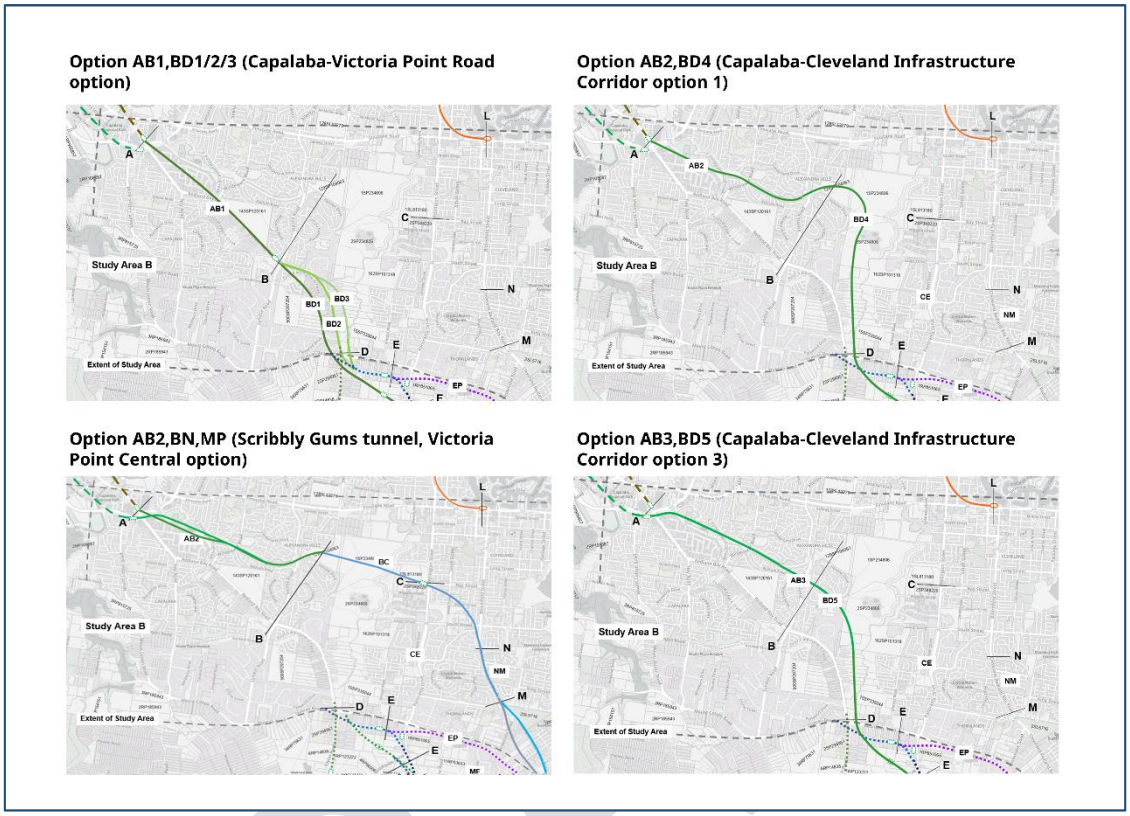
4.3.5 Shortlisted options

Through the multi-criteria process, the following corridors were shortlisted for Study Area B.

- Option AB1,BD1/2/3 (Capalaba-Victoria Point Road option)

- Option AB2,BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)
- Option AB3,BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)

Figure 18. Shortlisted corridor options in Study Area B

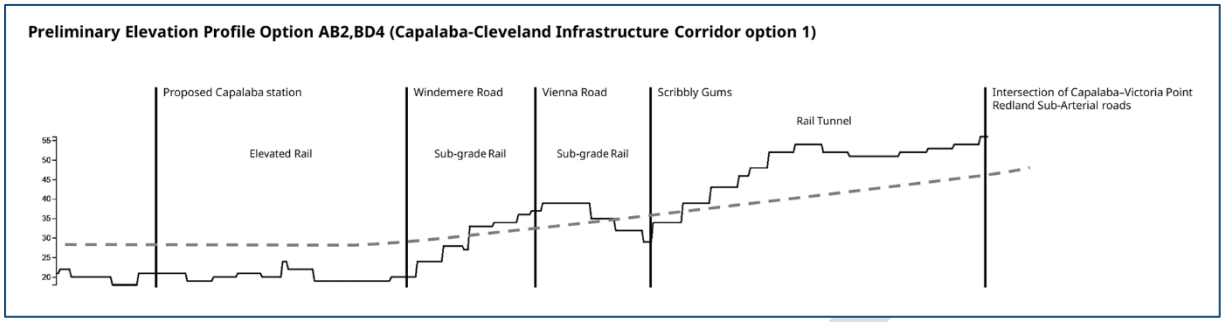


Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Looking briefly at the technical feasibility of this option, it is observed that a tunnel may be required for the majority of the span BD4. For this reason, a second option, here as Capalaba-Cleveland Infrastructure Corridor option 3 was devised. This was on the basis of if constructing a tunnel, it should intersect an urban area in such a way to deliver urban renewal potential to this precinct. As mentioned above, this investigation does recognise the potential for a tunnel to be routed via the Alexandra Hills activity centre and provide a station there, however, this was excluded due to indirect route.

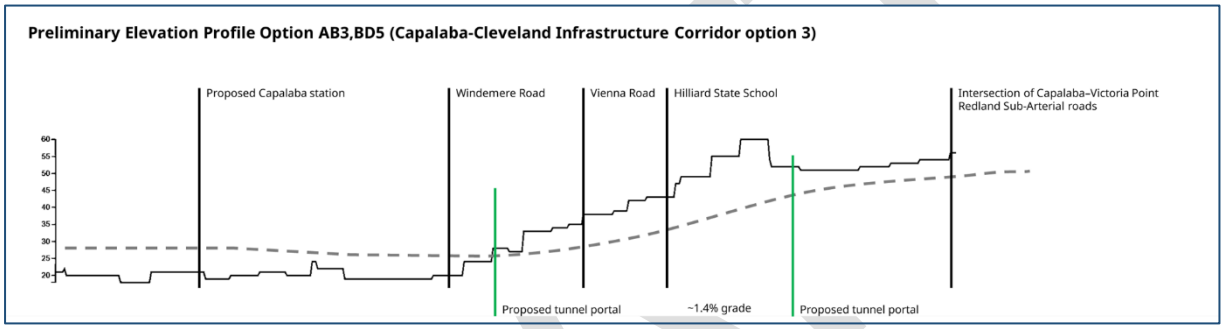
Preliminary elevation profiles for these two options are displayed below.

Figure 19. Preliminary elevation profile Option AB2,BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)



Concept alignments and annotations: author analysis.

Figure 20. Preliminary elevation profile Option AB3,BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)



Concept alignments and annotations: author analysis.

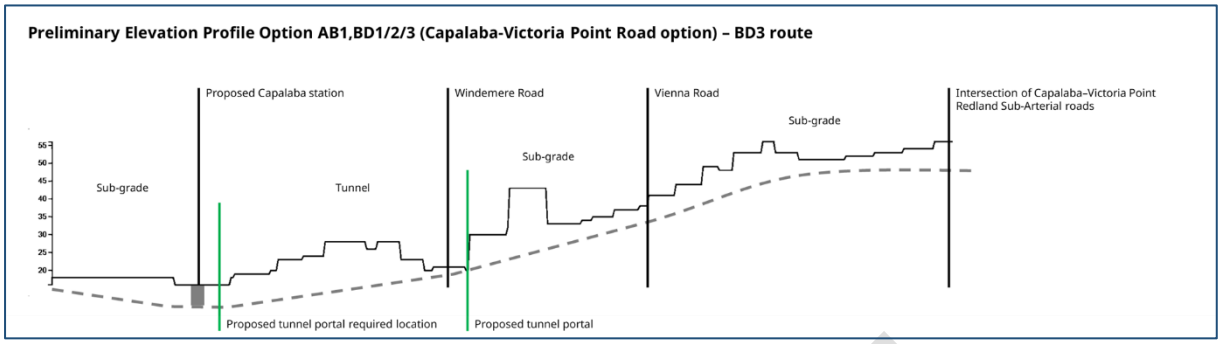
Option AB1-BD1/2/3 performed strongly due to its direct alignment, travel time competitiveness and transport outcomes. However, lower scores were recorded for land acquisition impacts due to the requirement for corridor preservation through existing properties. Option AB3-BD5 achieved an equivalent overall score by balancing strong strategic performance with improved constructability outcomes. The option allows tunnelling to be focused in areas where greater urban renewal opportunities may be realised while reducing some of the property acquisition issues associated with other alignments.

Option AB2-BD4 also performed strongly and benefits from the utilisation of the preserved Capalaba-Cleveland Infrastructure Corridor. While slightly less direct than other options, it presents fewer property acquisition requirements and lower indicative delivery risk.

Tunnel-based options serving Victoria Point Central achieved strong strategic and urban renewal outcomes but were significantly affected by constructability and capital expenditure factors associated with extensive tunnelling and underground station infrastructure.

Accordingly, the MCA identifies AB1-BD1/2/3, AB3-BD5 and AB2-BD4 as the preferred corridor preservation options for further investigation in Study Area B.

Figure 21. Preliminary elevation profile Option AB1,BD1/2/3 (Capalaba-Victoria Point Road option) – BD3 route



Concept alignments and annotations: author analysis.

4.4 Thornlands to Southern Redland Bay corridor (Study Area A & G)

This section of a high-capacity transport route would require immediate corridor preservation, as there is a clear greenfield corridor from Thornlands to Southern Redland Bay.

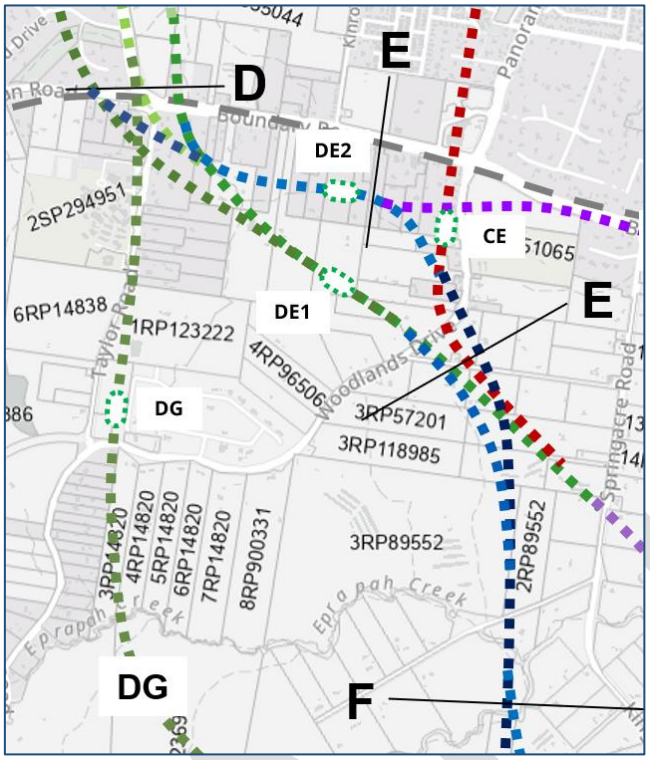
4.4.1 Thornlands station options

Looking at the initial investigation in Figure 17, four key locations for a station precinct in the Southern Thornlands PDA emerge.

- Taylor Road station (Option DG)
- Link Road station (Option DE1)
- Boundary Road-adjacent station (Option DE2)
- Woodlands Drive station (Option CE)

Bearing in mind the outcomes for preferred corridors in Study Area B, it can be assumed that all routes in this section begin on the eastern line at Point D. It is also assumed that the alignment enters Study Area A sub-grade, passing under Redland Bay Road. Woodlands Drive station (Option CE) will not be considered as the preceding corridor was determined to be unfeasible.

Figure 22. Options for a Thornlands station precinct



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Taylor Road station (Option DG)
• The station would be located at the proposed district centre in Southern Thornlands PDA draft Development Scheme. • Platforms proposed to be sub-grade. • Central location in PDA with potential for high-density town centre development.
Link Road station (Option DE1)
• Platforms proposed to be sub-grade. • Central location in PDA with potential for high-density town centre development.
Boundary Road-adjacent station (Option DE2
• Devised to allow multi-modal transport interchange with dedicated platforms for services from Redland Bay/Redlands Sub-Arterial roads. • Platforms proposed to be sub-grade. • Northern location in PDA with potential for high-density town centre development and integration with medium density on the northern side of Redland Bay Road.
Woodlands Drive station (Option CE)
• Platforms proposed to be sub-grade. • The station would require a pedestrian footbridge over Redland Bay Road to allow interchange with other services from Redland Bay/Redlands Sub-Arterial roads.

- Would require the Wellington St corridor (CE) be tunnelled on the southern end to transition into the underground station.

4.4.2 Corridor options

A variety of greenfield corridor options emerge for a transport corridor in Study Area A. At the outset, a direct corridor between the Thornlands station location and *Shoreline* at Southern Redland Bay is interrupted by the Redlands Business Park west of Cleveland-Redland Bay Road. For this reason, corridors are proposed to follow the road corridor or similar in this section, with the possibility of a corridor bisecting this existing development not explored.

As corridors utilising a Victoria Point Central underground station at Point P and subsequently tunnelled to Redland Bay were considered unfeasible due to their high capital expenditure cost and negation of preservation of a corridor, segment EP and PH will not be considered.

These corridors fit into three broad categories, similar to those identified at the start of this investigation.

Central corridor:

- Option EF2,FG3,GH3,HI2,IJ2/3 (Bunker Road station, Giles Road interchange option)
- Option EF2,FG3,GH2,HI1,IJ1 (Bunker Road station, German Church Road bisect option)

Western corridor:

- Option DG,GI,IJ1 (Taylor Road station, western option)

Hybrid corridor:

- Option EF1,FG2,GH3,HI2,HI2,IJ2/3 (Double Jump Road station, Giles Road interchange option)
- Option EF1,FG2,GH2,HI1,IJ1 (Double Jump Road station, German Church Road bisect option)
- Option EF1,FG1,GH1,HI1,IJ1 (Heineman Road north station, German Church Road bisect option)
- Option EF1,FG1,GI,IJ1 (Heineman Road south station option, western direct option)

4.4.3 Corridor analysis

Several factors in these alignment options can be identified.

Elevation profiles and infrastructure treatments are indicative only and are based on preliminary surface-level information. Tunnel portals, gradients, structure types and

vertical alignments have not been verified through survey, geotechnical investigation or engineering design.

Option EF2,FG3,GH3,HI2,IJ2/3 (Bunker Road station, Giles Road interchange option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Utilises undeveloped properties at Victoria Point West. • Existing road at Bunker Road proposed to be heightened. Road over rail assumed at Bunker Road and at-grade Victoria Point West station at Bunker Road. • Redland Bay West station located at intersection of Cleveland-Redland Bay and Giles roads. Allows for interchange with local mass transport. • Follows existing road corridor or similar between Giles Road and Southern Redland Bay. • Option IJ3 allows subgrade station at Shoreline community. Tunnelling has been assumed any extension south due to existing developments (JZ2) • Option IJ2 follows the edge of the Kidd Street Conservation Area. Allows for elevated station at Kidd Street. Corridor may continue through conservation areas to Logan River (JZ1) • Environmental concerns regarding conservation areas.
Option EF2,FG3,GH2,HI1,IJ1 (Bunker Road station, German Church Road bisect option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Utilises undeveloped properties at Victoria Point West. • Existing road at Bunker Road assumed to be heightened. Road over rail at Bunker Road and at-grade Victoria Point West station at Bunker Road. • Two possible station locations at Giles Road or German Church Road. Only one is assumed. • Extreme terrain factors at segment HI1/IJ1 may create assumption of extended tunnelled sections. • Environmental concerns regarding conservation areas.
Option DG,GI,IJ1 (Taylor Road station, western option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Requires selection of Taylor Road station option at Southern Thornlands. • Allows for elevated station at Heinemann/Giles roads intersection. • Extreme terrain factors at segment GI/IJ1 may create assumption of extended tunnelled sections. • Environmental concerns regarding conservation areas.
Option EF1,FG2,GH3,HI2,HI2,IJ2/3 (Double Jump Road station, Giles Road interchange option)
• Redland Bay West station located at intersection of Cleveland-Redland Bay and Giles roads. Allows for interchange with local mass transport. • Follows existing road corridor or similar between Giles Road and Southern Redland Bay. • Option IJ3 allows subgrade station at Shoreline community. Tunnelling has been assumed any extension south due to existing developments (JZ2)

• Option IJ2 follows the edge of the Kidd Street Conservation Area. Allows for elevated station at Kidd Street. Corridor may continue through conservation areas to Logan River (JZ1) • Environmental concerns regarding conservation areas.
Option EF1,FG2,GH2,HI1,IJ1 (Double Jump Road station, German Church Road bisect option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Extreme terrain factors at segment HI1/IJ1 may create assumption of extended tunnelled sections. • Environmental concerns regarding conservation areas.
Option EF1,FG1,GH1,HI1,IJ1 (Heineman Road north station, German Church Road bisect option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Provision for station at Heineman Road (north). • Extreme terrain factors at segment HI1/IJ1 may create assumption of extended tunnelled sections. • Environmental concerns regarding conservation areas.
Option EF1,FG1,GI,IJ1 (Heineman Road south station option, western direct option)
• Elevated sections assumed over Eprapah Creek extreme terrain. • Allows for elevated station at Heinemann/Giles roads intersection. • Allows for elevated station at Double Jump Road near Warren Street. • Extreme terrain factors at segment GI/IJ1 may create assumption of extended tunnelled sections.

4.4.4 Corridor evaluation

The corridors analysed above were evaluated using the criteria in Section 1.5.

Scores represent comparative judgement within the scope of this report. They have not been independently moderated or validated through detailed technical studies. Score differences should therefore be interpreted as indicators of comparative performance rather than precise measurements. Options with similar weighted scores should be treated as forming a comparable performance group unless subsequent investigations establish a material difference.

Table 14. Multi-criteria evaluation of corridors analysed for Study Area A.

Option	Strategic (30%)	Travel Time (20%)	Constructability (15%)	Land (10%)	Environment (10%)	Cost (10%)	Urban Renewal (5%)	MCA Score
EF2-FG3-GH3-HI2-IJ2/3 Bunker Road Station, Giles Road Interchange	5	5	4	4	3	4	4	4.30
EF2-FG3-GH2-HI1-IJ1 Bunker Road Station, German Church Road Bisect	4	4	1	3	3	1	2	2.75
DG-GI-IJ1 Taylor Road Station, Western Option	3	3	1	3	3	2	3	2.45
EF1-FG2-GH3-HI2-IJ2/3 Double Jump Road Station, Giles Road Interchange	4	4	4	4	3	4	4	3.95
EF1-FG2-GH2-HI1-IJ1 Double Jump Road Station, German Church Road Bisect	3	3	1	3	3	1	3	2.45
EF1-FG1-GH1-HI1-IJ1 Heinemann Road North Station Option	3	3	2	3	3	2	3	2.75
EF1-FG1-GI-IJ1 Heinemann Road South Station, Western Direct Option	3	4	2	3	3	2	3	2.90

Table 15. Ranking of corridors analysed for Study Area A.

Rank	Option	Score
1	EF2-FG3-GH3-HI2-IJ2/3 Bunker Road Station, Giles Road Interchange	4.30
2	EF1-FG2-GH3-HI2-IJ2/3 Double Jump Road Station, Giles Road Interchange	3.95
3	EF1-FG1-GI-IJ1 Heinemann Road South Station, Western Direct Option	2.90
4	EF2-FG3-GH2-HI1-IJ1 Bunker Road Station, German Church Road Bisect	2.75
4	EF1-FG1-GH1-HI1-IJ1 Heinemann Road North Station Option	2.75
6	DG-GI-IJ1 Taylor Road Station, Western Option	2.45

7	EF1-FG2-GH2-HI1-IJ1 Double Jump Road Station, German Church Road Bisect	2.45

The MCA evidence register demonstrates that the preferred Giles Road interchange options performed consistently strongly across all assessment categories, whereas lower-ranked alternatives were heavily influenced by constructability constraints and indicative capital expenditure assumptions.

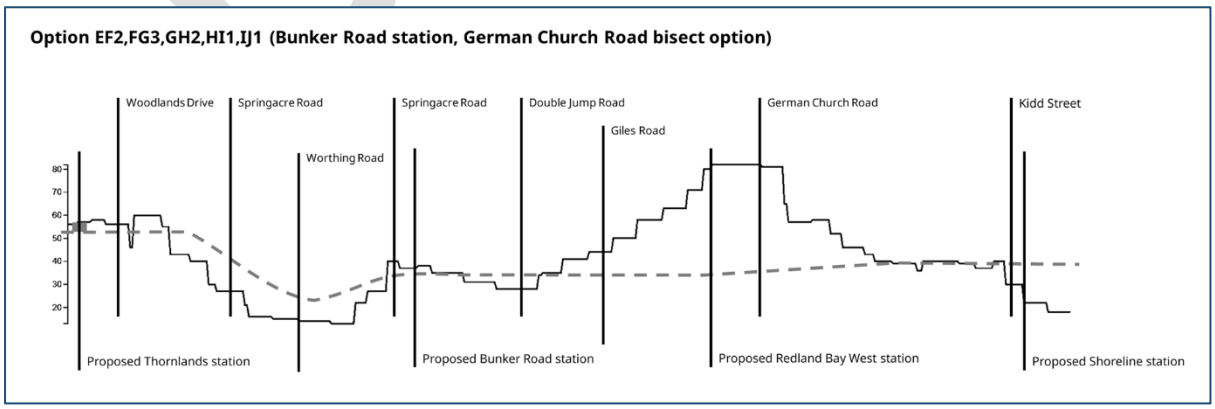
4.4.5 Options not shortlisted

Based on the conceptual assessment and the evidence available at this stage, the following options were not shortlisted for priority investigation. These options are not determined to be technically infeasible, rather, they performed less strongly because of their indicative results in the MCA.

- Option EF2,FG3,GH2,HI1,IJ1 (Bunker Road station, German Church Road bisect option)
- Option DG,GI,IJ1 (Taylor Road station, western option)
- Option EF1,FG2,GH2,HI1,IJ1 (Double Jump Road station, German Church Road bisect option)
- Option EF1,FG1,GH1,HI1,IJ1 (Heineman Road north station, German Church Road bisect option)
- Option EF1,FG1,GI,IJ1 (Heineman Road south station option, western direct option)

Corridors utilising the German Church Road bisect alignment generally performed poorly. While strategically feasible, these options were heavily impacted by constructability and cost considerations arising from significant terrain constraints and the likelihood of extensive tunnelled sections between Redland Bay West and Southern Redland Bay. Similarly, western options achieved lower scores due to weaker integration with identified growth areas, reduced opportunities for public transport interchange and greater uncertainty regarding future land-use outcomes.

Figure 23. Preliminary elevation profile Option EF2,FG3,GH2,HI1,IJ1 (Bunker Road station, German Church Road bisect option)



4.4.6 Shortlisted options

The assessment identified Option EF2-FG3-GH3-HI2-IJ2/3 (Bunker Road Station, Giles Road Interchange option) as the highest-performing corridor within Study Area A, achieving a weighted score of 4.30.

This option performed strongly due to:

- direct integration with identified growth areas,
- favourable opportunities for future multi-modal interchange at Redland Bay West,
- reduced tunnelling requirements compared to western alternatives,
- strong compatibility with future corridor preservation objectives, and
- comparatively lower indicative capital expenditure.

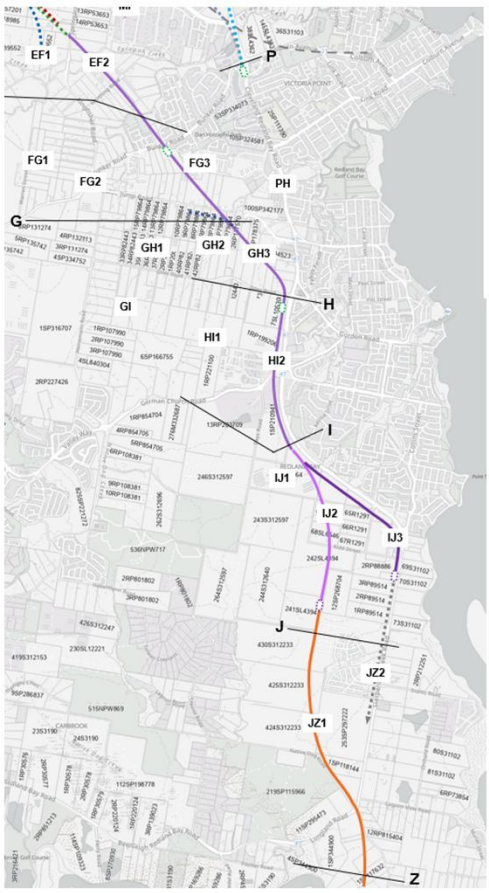
Option EF1-FG2-GH3-HI2-IJ2/3 (Double Jump Road Station, Giles Road Interchange option) also performed strongly, achieving a score of 3.95. This corridor shares many of the advantages of the highest-ranked option, although it creates slightly weaker strategic integration with longer-term development and interchange functions.

Detailed score justifications for the shortlisted corridors are provided in Appendix 2. The evidence register indicates that the preferred Bunker Road-Giles Road option achieves a stronger overall balance between strategic outcomes, constructability and future development integration than competing alternatives.

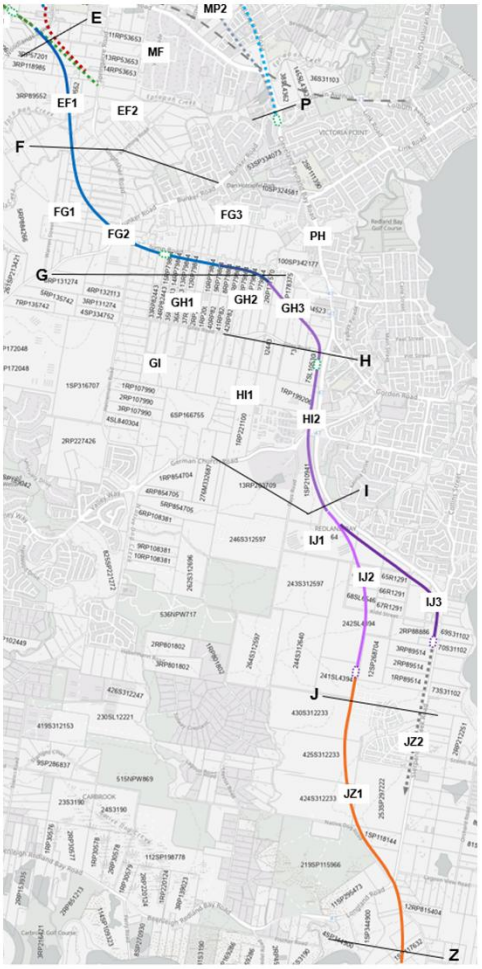
Accordingly, the assessment concludes that the two Giles Road interchange options represent the preferred corridor preservation alignments for Study Area A, with Option EF2-FG3-GH3-HI2-IJ2/3 (Bunker Road Station, Giles Road Interchange option) identified as the preferred alignment for future protection and detailed investigation.

Figure 24. Feasible corridor options in Study Area A.

Option EF2,FG3,GH3,HI2,IJ2/3 (Bunker Road station, Giles Road interchange option)

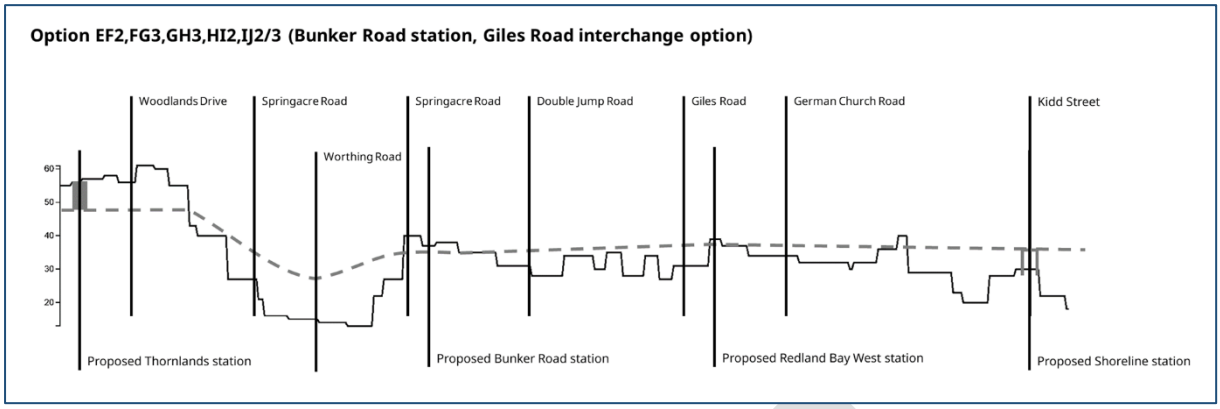


Option EF1,FG2,GH3,HI2,HI2,IJ2/3 (Double Jump Road station, Giles Road interchange option)



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Figure 25. Preliminary elevation profile Option EF2,FG3,GH3,HI2,IJ2/3 (Bunker Road station, Giles Road interchange option).



Concept alignments and annotations: author analysis.

4.5 Conclusion for this section

This section assessed potential alignments for a continuous high-capacity transport corridor between Capalaba and Southern Redland Bay.

Within Study Area B, the assessment identified Option AB3-BD5, the Capalaba-Cleveland Infrastructure Corridor Option 3, as the preferred alignment. This option achieved an equal highest multi-criteria assessment score and was preferred because it combines strong strategic performance with comparatively favourable constructability, reduced property impacts and compatibility with the preferred corridor through Study Area A. Option AB2-BD4 remains a secondary alignment that could provide flexibility during more detailed investigation.

Within Study Area A, Option EF2-FG3-GH3-HI2-IJ2/3, comprising the Bunker Road Station and Giles Road Interchange alignment, achieved the highest multi-criteria assessment score. The alignment provides strong integration with identified growth areas, supports a potential multi-modal interchange at Redland Bay West and reduces reliance on the assumed tunnelling associated with western and German Church Road alternatives. Option EF1-FG2-GH3-HI2-IJ2/3, incorporating the Double Jump Road Station and Giles Road Interchange alignment, remains a secondary option for further consideration.

Together, the preferred alignments establish a continuous conceptual corridor extending from Capalaba through the Southern Thornlands PDA and Victoria Point West to Redland Bay West and Southern Redland Bay. The investigation demonstrates that preservation of such a corridor remains possible, although its boundaries, engineering form and environmental impacts require refinement through detailed technical investigations.

5 Corridor preservation strategy

5.1 Corridor preservation objectives

How can a corridor be preserved in the Southern Redlands?

The principal outcome of this investigation is not the immediate delivery of a transport project, but the preservation of a future transport corridor through the growth areas of the Southern Redlands. The corridor preservation strategy seeks to ensure that future transport options remain available as urban development proceeds.

The objectives of corridor preservation detailed herein are to:

- preserve opportunities for future high-capacity public transport infrastructure;
- minimise future property acquisition and resumption requirements;
- support the objectives of *ShapingSEQ* and related state planning frameworks;
- facilitate integrated land-use and transport planning outcomes;
- enable future transit-oriented development opportunities;
- provide flexibility for future mode selection, including bus rapid transit, metro rail or heavy rail technologies; and
- ensure transport infrastructure can be delivered at a future date without significant disruption to established communities.

The preservation of a high-capacity transport corridor represents a low-regret planning initiative regardless of whether a future project ultimately proceeds.

5.2 Preservation timing

A key finding of this investigation is that corridor preservation must occur significantly earlier than project delivery. The Southern Thornlands PDA represents a major bisection of such a corridor. Once development occurs, future acquisition of the corridor may become prohibitively expensive or impracticable.

Accordingly, corridor preservation should occur during the strategic planning and development approval phases of the Southern Thornlands PDA as opposed to if transport demand reaches the level requiring project construction.

The timing relationship can be broadly described as follows:

Corridor protection and reservation	Immediate
Detailed transport investigations	Short-medium term
Demand monitoring and transport modelling	Ongoing
Mode selection and business case development	Medium-long term

Infrastructure delivery	Long term

This investigation therefore concludes that preservation of the corridor should not be dependent upon confirmation of a future mode, funding source or delivery timeframe.

5.3 Corridor requirements

A preserved corridor should be sufficiently flexible to accommodate multiple future transport modes.

Indicative corridor requirements are outlined below. These dimensions are indicative and require refinement through detailed engineering investigations.

Table 16. Indicative corridor size by mode.

Mode	Indicative corridor width
Busway (BRT mode)	20-30m
Heavy rail	25-35m
Metro rail	25-40m

In addition to transport infrastructure, a corridor could allow for:

- active transport facilities;
- utility relocations and servicing corridors;
- station precinct development opportunities;
- environmental mitigation measures; and
- future grade-separated intersections where required.

The preferred corridor for preservation should therefore be protected at a width sufficient to accommodate higher-capacity rail infrastructure, ensuring flexibility for future technology or transport needs.

5.4 Preferred corridor alignment

The corridor assessment undertaken in Study Areas A and B identified preferred alignments capable of providing a continuous north-south transport spine through the Southern Redlands.

Study Area B
Preferred alignment: Option AB3-BD5 (Capalaba-Cleveland Infrastructure Corridor Option 3) This alignment performed strongly across the multi-criteria assessment due to: • strong strategic transport outcomes;

- favourable constructability characteristics;
- opportunities for future station development;
- reduced property acquisition impacts compared with alternative corridors; and
- compatibility with preferred alignments in Study Area A.

Study Area A

Preferred alignment: Option EF2-FG3-GH3-HI2-IJ2/3 (Bunker Road Station, Giles Road Interchange Option)

This alignment achieved the highest overall corridor assessment score and demonstrated:

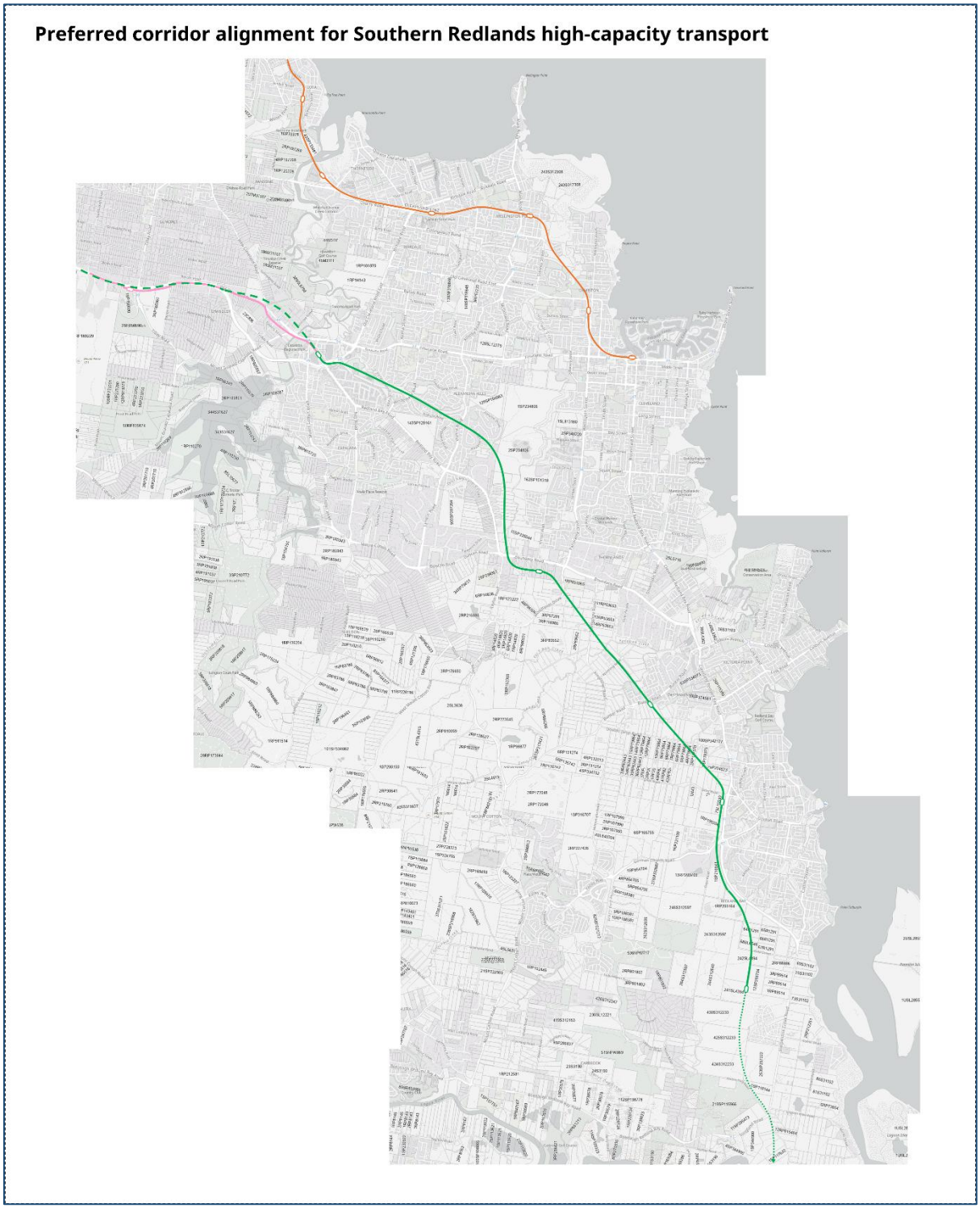
- strong integration with future growth areas;
- opportunities for future multi-modal interchange at Redland Bay West;
- reduced tunnelling requirements;
- strong support for transit-oriented development outcomes; and
- reasonable construction feasibility.

The resulting alignment establishes a continuous Southern Redlands High-Capacity Transport Corridor extending from Capalaba through Southern Thornlands and ultimately toward Southern Redland Bay.

The preferred preservation corridor generally follows the alignment illustrated below.

It should be noted that the investigation corridor alignment is an author-generated conceptual corridor identified through this assessment. The mapped alignment and station locations are not final and require validation.

Figure 26. Preferred corridor alignment for Southern Redlands high-capacity transport.



Concept alignments and annotations: author analysis. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

The report also identifies Option AB2-BD4 and Option EF1-FG2-GH3-HI2-IJ2/3 as secondary preservation alignments should additional flexibility be required through future planning processes.

5.5 Protection mechanisms

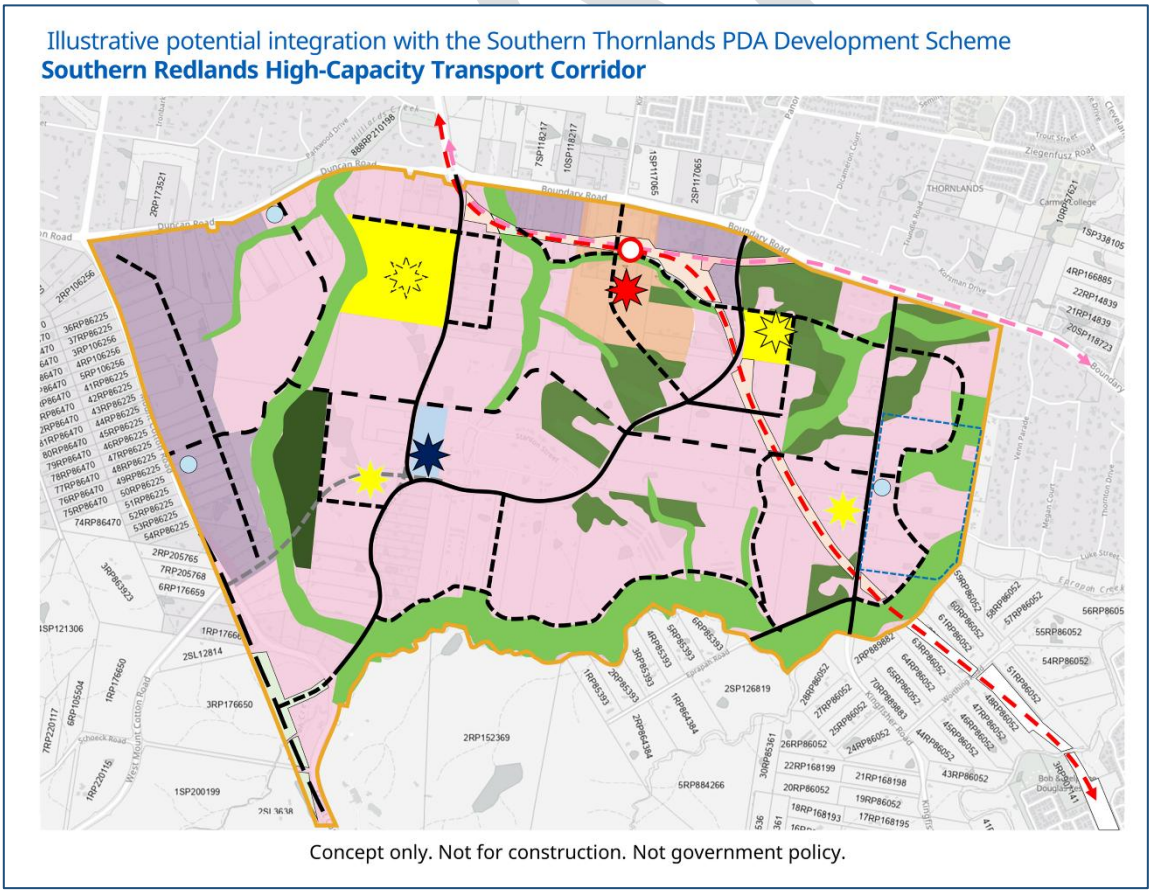
At the preliminary stage, a variety of planning mechanisms may be utilised to preserve the preferred transport corridor. Given the strategic significance of the Southern Thornlands PDA, multiple protection mechanisms may be applied simultaneously to ensure future transport options are not compromised.

5.5.1 Southern Thornlands PDA

The most immediate and effective protection measure is incorporation of the preferred corridor into the final Southern Thornlands PDA Development Scheme.

The preferred corridor should be identified and protected within the Scheme. This may include designation of a transport investigation area, reservation of land for future transport infrastructure such as Thornlands station and supplementary corridors for integration of local mass transport. Further, zoning around the future station location is provided to be designated as a high-density town centre with mixed use development. In this way, the future line is a catalyst for more sustainable land use in the PDA.

Figure 27. Illustrative potential integration of the preferred investigation corridor with the Southern Thornlands PDA Development Scheme.



Concept alignments and annotations: author analysis adapted from Southern Thornlands PDA draft Development Scheme. Base map: Department of Resources, DESI, Esri, TomTom, Garmin, METI/NASA, USGS | ©

As the PDA is currently progressing through the planning process, this mechanism presents the greatest opportunity to preserve the corridor before development occurs. Potential amendments to the development scheme are shown below. This figure illustrates one potential method of integrating a transport investigation corridor and station precinct with the PDA. It does not constitute proposed statutory mapping, a development approval or an amendment endorsed by EDQ.

5.5.2 Structure planning

Future structure planning for development precincts intersecting the corridor should explicitly recognise the transport corridor.

Structure plans should:

- identify the corridor alignment;
- require development to accommodate the corridor;
- establish minimum setback requirements;
- preserve opportunities for future grade separations;
- protect potential station precinct locations; and
- prevent encroachment that would compromise future transport infrastructure.

Where the corridor traverses privately developed land, subdivision layouts should be designed to ensure future transport infrastructure can be integrated with minimal disruption.

5.5.3 State planning mechanisms

The Queensland Government may apply additional protection through regional and state planning instruments.

Potential mechanisms include:

- future transport infrastructure reservations;
- strategic transport corridor designations;
- regional transport investigations;
- infrastructure planning overlays;
- State Interest Mapping updates; and
- incorporation into future updates of regional transport planning documents.

Recognition of the corridor within regional planning frameworks would significantly strengthen its long-term protection.

5.5.4 Development assessment

Development applications within proximity to the corridor should be assessed against corridor preservation objectives. Applications should demonstrate that proposed development does not sterilise future transport infrastructure opportunities and maintains appropriate access to future station locations. Once again, this should aim to avoid introducing unnecessary future property acquisition requirements. This

approach allows development to proceed while maintaining future infrastructure flexibility.

5.5.5 Strategic land acquisition

In some locations corridor preservation may require strategic land acquisition. Whilst most land required for the corridor should be opened up for development through mandatory preservation within those development plans, some land resumption or acquisition may be required. This may include station precincts station precincts where development-led corridor dedication may not occur like Victoria Point West and Redland Bay West.

5.5.6 Recommended protection approach

This investigation recommends a tiered protection strategy, consisting of:

1. Immediate identification of the preferred corridor within the Southern Thornlands PDA Development Scheme;
2. Incorporation of the corridor into future structure plans and development assessment processes;
3. Recognition of the corridor within future regional transport planning investigations; and
4. Progressive land acquisition at critical locations where future constraints may emerge.

The application of these combined mechanisms allows the preservation of a continuous Southern Redlands High-Capacity Transport Corridor from Capalaba to Southern Redland Bay, whilst maintaining flexibility regarding future mode selection and project timing.

5.6 Planning outcome

The primary recommendation arising from this investigation is that a continuous Southern Redlands High-Capacity Transport Corridor should be preserved through the Southern Thornlands PDA and adjoining growth areas as a matter of priority. The recommendation applies irrespective of future mode selection.

This investigation has demonstrated that population growth is increasingly concentrated in the Southern Redlands whilst existing transport initiatives may not fully address long-term regional demand.

Therefore, feasible corridor alignments have been identified in this report and should be preserved before urban development has occurred. Accordingly, the corridor should be incorporated into the final Southern Thornlands PDA Development Scheme to begin with and protected from development in its span.

Future decisions regarding mode can then be made through subsequent transport investigations as travel demand, land-use patterns and broader network requirements evolve.

6 Findings and recommendations

6.1 Key findings

This investigation explored the emerging transport needs of the Southern Redlands and evaluated options for providing future high-capacity transport to these emerging growth areas, particularly the Southern Thornlands PDA, Victoria Point West and Southern Redland Bay.

The investigation identified a growing disparity between the concentration of planned transport infrastructure in the Northern Redlands and the location of future population growth in the Southern Redlands. While projects such as the Brisbane Metro BRT expansion to Capalaba, Cleveland line upgrades and improvements to the bus network will improve public transport accessibility, these initiatives alone may not provide sufficient long-term transport capacity for the southern sub-region.

Assessment of strategic transport options demonstrated that a variety of future technologies may be capable of servicing the Southern Redlands, including:

- bus rapid transit,
- metro rail,
- heavy rail,
- branch line connections, and
- extensions of existing transport infrastructure.

The revised multi-criteria assessment identified the highest-performing strategic transport projects as:

- Direct East Route 1 (Metro Rail),
- Direct East Route 1 (Heavy Rail),
- Brisbane Metro BRT Extension,
- Direct East Route 3 (Heavy Rail, and
- Direct East Route 5 (Heavy Rail).

The assessment also demonstrated that Brisbane Metro BRT expansion may provide a viable medium-term transport solution whilst preserving opportunities for future higher-capacity infrastructure. However, the investigation found that mode selection remains secondary to the preservation of strategic transport opportunities.

The corridor investigations undertaken in Study Areas A and B identified several feasible alignments capable of supporting future high-capacity transport. The highest-performing corridor preservation alignments were:

Study Area B
Preferred alignment: Option AB3-BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)

Secondary alignment: Option AB2-BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)
Study Area A
Preferred alignment: Option EF2-FG3-GH3-HI2-IJ2/3 (Bunker Road Station, Giles Road Interchange option) Secondary alignment: Option EF1-FG2-GH3-HI2-IJ2/3 (Double Jump Road Station, Giles Road Interchange option)

The preferred alignment is illustrated in the corridor investigations for Study Areas A and B in Figure 17.

The investigation concluded that a continuous transport corridor can be accommodated between Capalaba and Southern Redland Bay and that the preservation of this corridor represents the most important planning outcome arising from the assessment.

6.2 Recommendations

The following recommendations are provided from this pre-feasibility investigation.

Recommendation 1: Preservation of the preferred corridor

The preferred high-capacity transport corridor should be protected through the Southern Thornlands PDA to begin with, and then adjoining growth areas as a matter of priority. Corridor preservation should occur regardless of future mode selection and should not be delayed pending detailed transport modelling or business case development.

Recommendation 2: Incorporation of the corridor into the final Southern Thornlands PDA Development Scheme

The preferred corridor alignment should be identified within the final PDA Development Scheme and protected from development that may compromise future transport infrastructure.

This should include aspects like:

- corridor reservation provisions,
- future station precinct planning,
- transport investigation overlays, and
- integration with local mass transport projects.

Recommendation 3: Undertake detailed transport modelling

Future investigations should undertake research like network modelling, ridership forecasts, peak-period demand analysis, travel time assessment and scenario testing.

These studies should determine when future capacity thresholds may be reached and when infrastructure investment may become warranted.

Recommendation 4: Undertake environmental and engineering investigations

Future investigations should assess:

- environmental impacts,
- flood and drainage considerations,
- geotechnical constraints.
- utility conflicts.
- property acquisition requirements. and
- potential station precinct opportunities.

This work should support refinement of corridor boundaries and infrastructure requirements.

Recommendation 5: Monitor Growth and Review the Corridor Periodically

Population growth, development activity and transport demand within the Southern Redlands should be regularly monitored. A review of the corridor should be undertaken at least every five years, ensuring planning assumptions remain aligned with regional growth forecasts and emerging transport needs.

6.3 Risks and uncertainties

As a strategic pre-feasibility investigation, several uncertainties remain regarding future transport demand, infrastructure requirements and project delivery.

Table 17. Preliminary risk register.

Risk	Cause	Consequence	Likelihood	Consequence Rating	Proposed Treatment	Residual Uncertainty	Investigation Required
Corridor preservation causes property blight	Identification of a future transport corridor across private land	Reduced landowner confidence, reduced development activity and community opposition	Medium	Moderate	Clearly communicate that preservation does not imply project approval or construction. Utilise structure planning rather than premature acquisition where possible.	Public perception cannot be fully predicted	Stakeholder engagement and property impact assessment
Over-reservation of land	Corridor width exceeds future infrastructure requirements	Unnecessary planning restrictions and reduced development potential	Low-Medium	Moderate	Preserve only the land required for the maximum likely transport envelope and review periodically.	Final mode remains uncertain	Corridor design and engineering investigations
Environmental conflict	Preferred corridor intersects waterways, conservation corridors or ecological assets	Increased project complexity, cost and potential environmental impacts	Medium	High	Prioritise avoidance where possible and refine alignments through environmental assessment.	Environmental constraints not fully understood	Ecological, hydrological and environmental investigations
Fragmented land ownership	Corridor traverses multiple	Increased complexity of	Medium	Moderate	Integrate preservation into structure	Future ownership	Land tenure and cadastral investigations

	private properties and development areas	preservation and future acquisition			planning and future development approvals.	patterns unknown	
Incompatibility between future mode requirements	Bus rapid transit, metro rail and heavy rail require different corridor footprints and design standards	Corridor may not accommodate future preferred mode	Medium	High	Preserve a corridor width capable of accommodating higher-capacity rail technologies.	Future mode selection unknown	Concept engineering and transport modelling
Station locations distort land-use planning before demand is validated	Development focuses around conceptual station precincts that may ultimately change	Suboptimal land-use outcomes and reduced planning certainty	Medium	Moderate	Treat station locations as investigation areas rather than final locations.	Future station requirements uncertain	Demand modelling and station planning investigations
Reliance on non-committed projects	Strategic options assume delivery of projects such as Brisbane Metro BRT expansion and Cleveland Line upgrades	Future network performance may differ from assumptions	Medium	High	Assess corridor preservation independently of delivery timing for other projects.	Government investment priorities may change	Ongoing review of planning assumptions

Public misunderstanding of corridor preservation	Corridor preservation perceived as commitment to immediate construction	Community concern and stakeholder resistance	Medium	Moderate	Clearly communicate that preservation retains future options only.	Public response difficult to predict	Community consultation and communications planning
Duplication with future state-led investigations	Future State transport investigations identify alternative corridors or solutions	Corridor preservation recommendations may require amendment	Medium	Moderate	Maintain flexibility through secondary alignments and periodic review.	Future investigations unknown	Ongoing coordination with State planning processes
Lower than anticipated population growth	Development occurs more slowly than projected	Delayed demand for higher-capacity transport	Medium	Moderate	Preserve corridor regardless of delivery timeframe and review periodically.	Long-term population trends uncertain	Population and demand monitoring
Higher than anticipated population growth	Development exceeds current projections	Corridor becomes constrained before detailed planning occurs	Medium	High	Preserve corridor as early as possible through the PDA planning process.	Ultimate scale of growth unknown	Periodic corridor review and demand forecasting
Demand remains suitable for bus-based solutions	Public transport demand does not reach higher-capacity thresholds	Rail-based infrastructure may never be required	Medium	Moderate	Maintain mode neutrality and stage decision-making based on evidence.	Future travel behaviour uncertain	Patronage modelling and scenario testing

Future transport technologies alter corridor requirements	Changes in vehicle technology or operating models	Corridor geometry may require amendment	Low	Moderate	Preserve a flexible corridor envelope rather than a mode-specific alignment.	Technology evolution cannot be predicted	Periodic review of corridor requirements
Funding not secured	High-capacity transport remains lower priority than competing projects	Extended delay to infrastructure delivery	High	Moderate	Separate corridor preservation from funding and delivery decisions.	Future investment priorities unknown	Business case development and government review

The risks identified in Table 17 are preliminary and reflect the conceptual pre-feasibility status of this investigation. The assessment is intended to identify key strategic uncertainties associated with corridor preservation rather than quantify project risks. Subsequent transport, environmental, engineering, land-use and community investigations should refine the likelihood and consequence ratings and identify additional mitigation measures.

Accordingly, the preservation of the preferred corridor is considered the key recommendation arising from this investigation.

6.4 Alternative scenarios and counter-case

Whist this investigation concludes that the preservation of a Southern Redlands High-Capacity Transport Corridor represents an appropriate planning action, it is recognised that alternative future scenarios may reduce or alter the need for higher-capacity transport infrastructure.

A range of factors could materially influence future transport demand, infrastructure requirements and corridor priorities.

Demand may remain supportable by enhanced bus services
Population growth within the Southern Redlands may not generate demand levels sufficient to justify construction of dedicated high-capacity infrastructure. Improvements to local bus services, expansion of Brisbane Metro BRT services and enhanced feeder networks may provide an adequate transport outcome for a considerably longer period than currently anticipated. If this were to occur, higher-capacity infrastructure such as metro rail or heavy rail may not be required within the planning horizon considered by this investigation. However, preservation of a transport corridor would continue to provide flexibility should demand patterns change in future.
Remote and hybrid work may alter travel behaviour
Changes in employment patterns following the expansion of remote and hybrid work arrangements may reduce peak-period commuting demand to Brisbane CBD. A reduction in traditional five-day commuting could delay the need for substantial transport infrastructure investments. However, the Southern Redlands is expected to accommodate a broader range of travel purposes including education, health, recreation and local business activity. Consequently, future transport demand may not be solely dependent on commuter travel to Brisbane.

Existing transport initiatives may outperform expectations

The Brisbane Metro BRT expansion, Cleveland line improvements and future bus-network reforms may prove more effective than currently anticipated. Improved travel times, increased service frequency and better interchange opportunities may substantially improve public transport mode share without requiring additional infrastructure.

In this scenario, preservation of a future corridor would remain appropriate because it would not preclude the continued operation or expansion of these services. Rather, it would preserve an option should these initiatives ultimately encounter capacity constraints.

Future local mass transport projects may reduce the need for high-capacity transport

Future development of dedicated Category B mass transport systems, including bus rapid transit or light rail, on the corridors in Figure 11 may satisfy long-term demand without requiring a Category A right-of-way higher-capacity corridor. These mass transport initiatives could be similar to those identified in Figure 12.

Population growth may occur more slowly or in different locations

The growth assumptions used in this investigation include several future development opportunities that remain subject to planning decisions, market conditions and government policy. Population growth may occur at a slower rate or be distributed differently from current assumptions. The timing and staging of future transport investment may change. However, corridor preservation remains significantly more achievable before urban development occurs than after development has been completed.

Environmental or engineering constraints may alter the preferred corridor

Subsequent investigations may identify ecological, hydrological, geotechnical or engineering constraints that materially affect the preferred alignment. Environmental considerations associated with areas such as Eprapah Creek, Scribbly Gums Conservation Area and other environmental corridors may require refinement of the preferred route or adoption of an alternative alignment.

For this reason, the preferred alignment identified in this report should be interpreted as a preferred investigation corridor rather than a final engineered solution.

Corridor preservation opportunity costs

Preserving land for future transport infrastructure may reduce the area available for development, constrain some planning outcomes and potentially affect landowner expectations. The reservation of a corridor also creates a risk that infrastructure is never ultimately constructed.

Whilst these opportunity costs are recognised, the investigation considers them to be less significant than the long-term consequences of corridor sterilisation. Once development occurs, future transport options may become prohibitively expensive or impossible to deliver.

The assessment of these alternative scenarios demonstrates that uncertainty largely affects when high-capacity transport infrastructure may be required rather than whether preserving future opportunities has value. Importantly, corridor preservation is fundamentally different from project commitment. Preservation does not determine transport mode, funding source, construction timing or delivery responsibility. Instead, it ensures that future governments retain the ability to respond to changing growth patterns, demand forecasts and transport technologies.

Consequently, even under lower-growth or lower-demand scenarios, preservation of a transport corridor remains a comparatively low-regret planning measure. Conversely, should future growth proceed as currently anticipated and no corridor be preserved, opportunities for future high-capacity transport may be significantly constrained or permanently lost.

The investigation concludes that preservation of the preferred Southern Redlands High-Capacity Transport Corridor remains justified across a broad range of plausible future scenarios.

7 Conclusion

This pre-feasibility investigation has examined whether a future high-capacity transport corridor should be identified and preserved through the Southern Redlands.

It has found that forecast development within the Southern Thornlands PDA and adjoining growth areas will progressively create a substantial urban and transport catchment between Capalaba and Southern Redland Bay. Existing and proposed public transport initiatives will provide important short-to-medium-term improvements, but may not preserve the infrastructure opportunities required to accommodate longer-term regional growth.

The assessment does not establish a final mode or project. Instead, it confirms that multiple credible transport technologies could require a continuous, protected corridor through the Southern Redlands. The subsequent corridor investigation identified

feasible alignments between Capalaba and Southern Redland Bay and established preferred and secondary corridor options across Study Areas A and B. Although these alignments require further assessment, the investigation demonstrates that a continuous corridor can be accommodated while substantial greenfield development opportunities remain.

The central conclusion of this report is therefore not that metro rail, heavy rail or bus rapid transit should be constructed immediately. It is that the opportunity to deliver high-capacity transport in the future must be preserved today.

The Southern Thornlands PDA provides a significant opportunity to protect a strategic transport corridor before urban development limits or permanently removes that option.

This preferred corridor should be incorporated into the final Southern Thornlands PDA Development Scheme and protected through subsequent structure planning, development assessment and regional infrastructure planning processes. Detailed transport modelling and technical investigations should then refine the corridor, assess future demand thresholds and inform decisions regarding mode, timing, funding and delivery. Preservation of the Southern Redlands High-Capacity Transport Corridor will retain the ability of future governments and communities to respond to population growth, changing travel demand and evolving transport technologies. Failure to protect the corridor during the current planning process risks leaving one of the areas with the most potential in South East Queensland without a practical pathway to long-term high-capacity public transport.

8 References

Department of State Development, Infrastructure, Local Government and Planning. (2023). *Shaping SEQ: South East Queensland Regional Plan 2023.* Queensland Government. Retrieved from https://www.planning.qld.gov.au/__data/assets/pdf_file/0024/86145/shapingseq-2023-Low.pdf

Department of Transport and Main Roads. (2021). *Regional transport plans: South East Queensland.* Queensland Government. Retrieved from https://www.tmr.qld.gov.au/regionaltransportplans

Department of Transport and Main Roads. (2022). *SEQ Rail Connect.*

Department of Transport and Main Roads. (2025). *Traffic census for the Queensland state-declared road network.* Retrieved from https://www.data.qld.gov.au/dataset/traffic-census-for-the-queensland-state-declared-road-network

Economic Development Queensland. (2026). *Southern Thornlands Priority Development Area Proposed Development Scheme For Public Consultation.* Queensland Government. Retrieved from https://hdp-au-prod-app-edq-hysdsdilgp-files.s3.ap-southeast-2.amazonaws.com/7817/8631/8323/Proposed_Southern_Thornlands_PDA_Development_Scheme.pdf

Infrastructure Australia . (2026). *Infrastructure Priority List.* Retrieved from https://www.infrastructureaustralia.gov.au/ipl/brisbane-metro-expansions

Minerva Transport Planning Company Limited. (2020). *The Minerva Plan: a rail strategy for Southeast Queensland.*

Queensland Transport. (2008). *Inner City Rail Capacity Study: Pre-feasibility report.* Maunsell-Parsons Brinckerhoff Consortium. Retrieved from https://backontrack.org/docs/icrcs/icrcs2008.pdf

Redland City Council . (2025). *Southern Thornlands Priority Development Area (PDA).* Redland City Council . Retrieved from https://www.redland.qld.gov.au/Business-and-investment/Priority-Development-Areas/Southern-Thornlands-Priority-Development-Area-PDA

Redland City Council. (2020). *Redlands Coast Transport Strategy.* Redland City Council. Retrieved from https://www.redland.qld.gov.au/files/assets/public/v/1/roads-and-marine/transport-planning/redlands_coast_transport_strategy_final_high_res__a4378996_.pdf

Sydney Metro. (n.d.). *About Sydney Metro.* NSW Government. Retrieved from https://www.sydneymetro.info/

Translink. (2026). *Redlands Network Map.*

9 Appendices

Appendix 1. Summary of the "Clevewich" east-west river crossing heavy rail tunnel from The Minerva Plan, pages 56-57 (Minerva Transport Planning Company Limited, 2020)

In order to double the capacity on the western corridor, it would be sufficient to simply provide an appropriate turnback station in the CBD (e.g. under Roma Street) as a terminus. This would technically allow the full capacity of 24tph to be reached on the new line, however it would deficient as an end state for a number of reasons. Firstly, terminating a high number of services at the edge of the CBD would result in a very large number – conceivably more than 20,000 per hour – of passengers transferring onto other lines, further decreasing their capacity and somewhat shifting the problem. Secondly, a terminus would limit the value inherent in developing a new tunnel, as effectively only 24tph of capacity would be used – whereas if the tunnel were made into a through operation, it could cater twice that amount by the inclusion of trains coming the other way. It is therefore meritorious to consider whether there is an appropriate through connection in the long term.

At this stage all track pairs have their own dedicated route through the CBD with the exception of the Doomben line (which has been truncated), the Airport line (which is capacity constrained regardless), the Shorncliffe and Ferny Grove lines (sharing the inner city Suburbans from the north), and the Cleveland and Flagstone lines (sharing the inner city Suburbans from the South). The Airport and Doomben lines are immediately discounted due to their capacity constraints and limited long-term demand. For the reasons outlined above, the Shorncliffe and Ferny Grove lines – effectively capable of running a 4-minute frequency on each – are not the best candidates for significantly increased capacity, and a corridor connecting to either of them would have limited land use benefits by needing to largely follow the existing inner city corridor.

This leaves the Flagstone and Cleveland lines as candidates. While the Cleveland line has only moderate potential for growth, it is conceivable that the Flagstone line could reach relatively high numbers of passengers and start to exhaust the capacity of the Suburbans again. Connecting to the Flagstone line could 56 be a reasonable approach, however given the need to connect from somewhere adjacent to Roma Street to somewhere in the vicinity of Park Road would obviously conflict with – and potentially duplicate – the Cross River Rail alignment in this area. Not only would this not open up any land use opportunities, but the complications around Park Road stemming from the current version of Cross River Rail would make the connection to the existing network very challenging. Through process of elimination, this leaves the Cleveland line as the remaining candidate.

Appendix 2. MCA evidence

This appendix records the principal reasoning used to allocate scores within the multi-criteria assessments undertaken in this investigation. Scores represent comparative judgement based on available information and remain subject to validation through transport modelling, engineering design, environmental assessment and further planning investigations.

Project options context

Table 9-1. Direct East Route 1 Metro Rail (Score 3.75)

Criterion	Score	Primary justification
Strategic outcomes	5	Direct connection between Southern Redlands and Brisbane CBD serving multiple growth areas and strategic centres.
Travel time	5	Indicative travel times competitive with private vehicle travel.
Constructability	2	Requires major tunnelling, new river crossing and completely new rapid transit infrastructure.
Land impacts	2	Significant corridor acquisition and station infrastructure likely required.
Environment	3	Environmental impacts apparent but potentially manageable through corridor selection and design.
Cost	1	Very high capital expenditure due to tunnelling and establishment of a new transit system.
Urban renewal	5	Significant opportunity for transit-oriented development and station precinct renewal.

Table 9-2. Direct East Route 1 Heavy Rail (Score 3.70)

Criterion	Score	Primary justification
Strategic outcomes	5	High-capacity regional connection with network-capacity benefits.
Travel time	5	Direct alignment with highly competitive travel times.
Constructability	2	Major tunnelling and river crossing infrastructure assumed.
Land impacts	2	New corridor and station infrastructure required.
Environment	3	Potential corridor impacts but no fatal constraints identified at concept stage.
Cost	1	High cost associated with tunnel and heavy-rail infrastructure.
Urban renewal	4	Strong potential around new stations although less transformational than metro rail.

Table 9-3. Brisbane Metro BRT Extension (Score 3.50)

Criterion	Score	Primary justification
Strategic outcomes	3	Extends rapid transport deeper into the Redlands but does not create a dedicated regional spine.
Travel time	3	Competitive in peak periods but slower than rail-based alternatives.
Constructability	4	Predominantly surface infrastructure and road-corridor upgrades.

Land impacts	4	Limited acquisition requirements relative to rail options.
Environment	4	Generally follows existing transport corridors.
Cost	4	Lower delivery cost compared with rail-based solutions.
Urban renewal	3	Moderate redevelopment opportunities at major interchange locations.

Table 9-4. Direct East Route 3 Heavy Rail (Score 3.45)

Criterion	Score	Primary justification
Strategic outcomes	4	Direct regional connection serving key growth areas.
Travel time	4	Competitive with private vehicle travel.
Constructability	3	Significant tunnel sections but less complex than Route 1.
Land impacts	3	Moderate corridor and station requirements.
Environment	3	Environmental interactions remain uncertain.
Cost	2	High cost due to tunnelling and structures.
Urban renewal	4	Strong opportunities around major station locations.

Table 9-5. Direct East Route 5 Heavy Rail (Score 3.45)

Criterion	Score	Primary justification
Strategic outcomes	4	Strong regional connectivity.
Travel time	5	Highly competitive travel times.
Constructability	2	Significant structures and bypass infrastructure required.
Land impacts	3	Corridor acquisition required.
Environment	3	Alignment may affect sensitive areas.
Cost	1	Major civil-works expenditure assumed.
Urban renewal	4	Supports future growth-area integration.

Study Area B corridor options

Table 9-6. Option AB1,BD1/2/3 (Capalaba-Victoria Point Road option)

Criterion	Score	Primary justification
Strategic outcomes	5	Most direct regional corridor.
Travel time	5	Shortest alignment and strongest travel-time performance.
Constructability	3	Tunnel assumptions required but generally achievable corridor geometry.
Land impacts	2	Significant corridor reservation through existing properties.
Environment	4	Limited identified major environmental conflicts.
Cost	3	Moderate corridor development requirements.
Urban renewal	3	Limited major station or activity-centre opportunities.

Table 9-7. Option AB2,BD4 (Capalaba-Cleveland Infrastructure Corridor option 1)

Criterion	Score	Primary justification
Strategic outcomes	4	Strong connection between Capalaba and Southern Thornlands.
Travel time	4	Competitive alignment.
Constructability	3	Existing infrastructure corridor and manageable tunnel assumptions.
Land impacts	4	Reduced property impacts compared with alternatives.
Environment	3	Some corridor and environmental constraints remain.
Cost	3	Moderate delivery complexity.
Urban renewal	4	Better urban-renewal opportunities than direct road options.

Table 9-8. Option AB3,BD5 (Capalaba-Cleveland Infrastructure Corridor option 3)

Criterion	Score	Primary justification
Strategic outcomes	4	Effective corridor using preserved infrastructure alignment.
Travel time	4	Competitive but not as direct as AB1-BD1/2/3.
Constructability	3	Tunnelling assumptions still required.
Land impacts	4	Lower acquisition requirements.
Environment	3	Environmental constraints remain uncertain.
Cost	4	Lower relative implementation complexity.
Urban renewal	3	Moderate station-development potential.

Study Area A corridor options

Table 9-9. Option EF2-FG3-GH3-HI2-IJ2/3 (Bunker Road Station, Giles Road Interchange option)

Criterion	Score	Primary justification
Strategic outcomes	5	Strong integration with Southern Thornlands, Victoria Point West and Redland Bay West.
Travel time	5	Direct regional corridor alignment.
Constructability	4	Utilises greenfield corridor opportunities with limited tunnelling assumptions.
Land impacts	4	Significant portions can be preserved through future planning.
Environment	3	Conservation-area interfaces require further assessment.
Cost	4	More efficient than tunnel-based alternatives.
Urban renewal	4	Supports future station precincts and activity centres.

Table 9-10. Option EF1-FG2-GH3-HI2-IJ2/3 (Double Jump Road Station, Giles Road Interchange option)

Criterion	Score	Primary justification
Strategic outcomes	4	Strong corridor performance but less direct integration than Bunker Road option.
Travel time	4	Competitive alignment.
Constructability	4	Similar constructability to preferred option.
Land impacts	4	Greenfield preservation opportunities available.

Environment	3	Similar environmental considerations to preferred option.
Cost	4	Moderate delivery complexity.
Urban renewal	4	Strong station and activity-centre opportunities.

Table 9-11. Not shortlisted corridor options for Study Area A

Option	Primary reason not shortlisted
Bunker Road-German Church Road	Extensive tunnelling assumptions and higher cost.
Taylor Road-Western Option	Weaker integration with identified growth areas.
Double Jump Road-German Church Road	High constructability constraints.
Heinemann Road North	Lower strategic and interchange outcomes.
Heinemann Road South	Reduced integration with growth areas and lower overall performance.