

20. Scope of the Concept Plan and approval

20.1 Outline of the SWRL

On 7 April 2006, the Minister for Planning made an order declaring the South West Rail Link Project (SWRL) to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies. The Ministerial Order described the SWRL in general terms as follows:

The construction and operation of the South West Rail Link being:

- a heavy railway off the East Hills line generally between the Glenfield station area and Leppington; and
- associated infrastructure including stations, train stabling, roadways, car parks, bus interchanges, public amenities and intermodal facilities.

The SWRL is described in further detail in Chapters 7 and 8. It is the subject of the Environmental Assessment set out in Part D. The description of the SWRL reflects the level of design development completed to date.

The SWRL, as described and assessed in this document, comprises two stages (Stage A and Stage B). The stages are outlined in the following sections.

20.2 Stage A

Stage A of the SWRL comprises the project components described below. This stage of the project is well defined and is considered likely to have a low risk of significant environmental impacts and can be effectively managed through the Statement of Commitments and Construction Environmental Management Plan; although some further environmental assessment is required to confirm this (see Section 20.4).

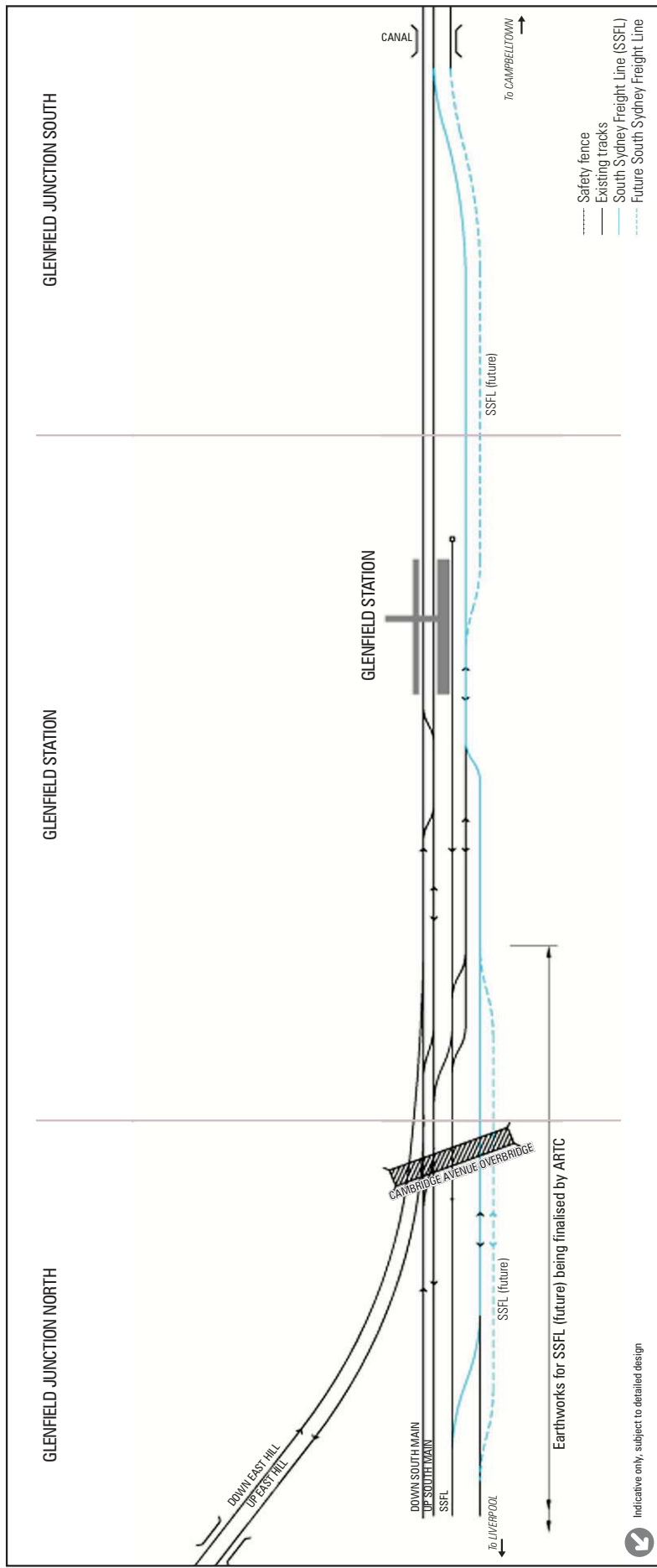
The results of this further assessment would be provided in the Submissions Report and, if required, the Preferred Project Report for the SWRL project.

20.2.1 Glenfield Junction early works (Glenfield North Junction and Glenfield South Junction, Stages 1–4)

Commencement of early works (Stages 1 to 4) at Glenfield North Junction and Glenfield South Junction are proposed as part of the Stage A works, as shown in Figures 20-1a to d.

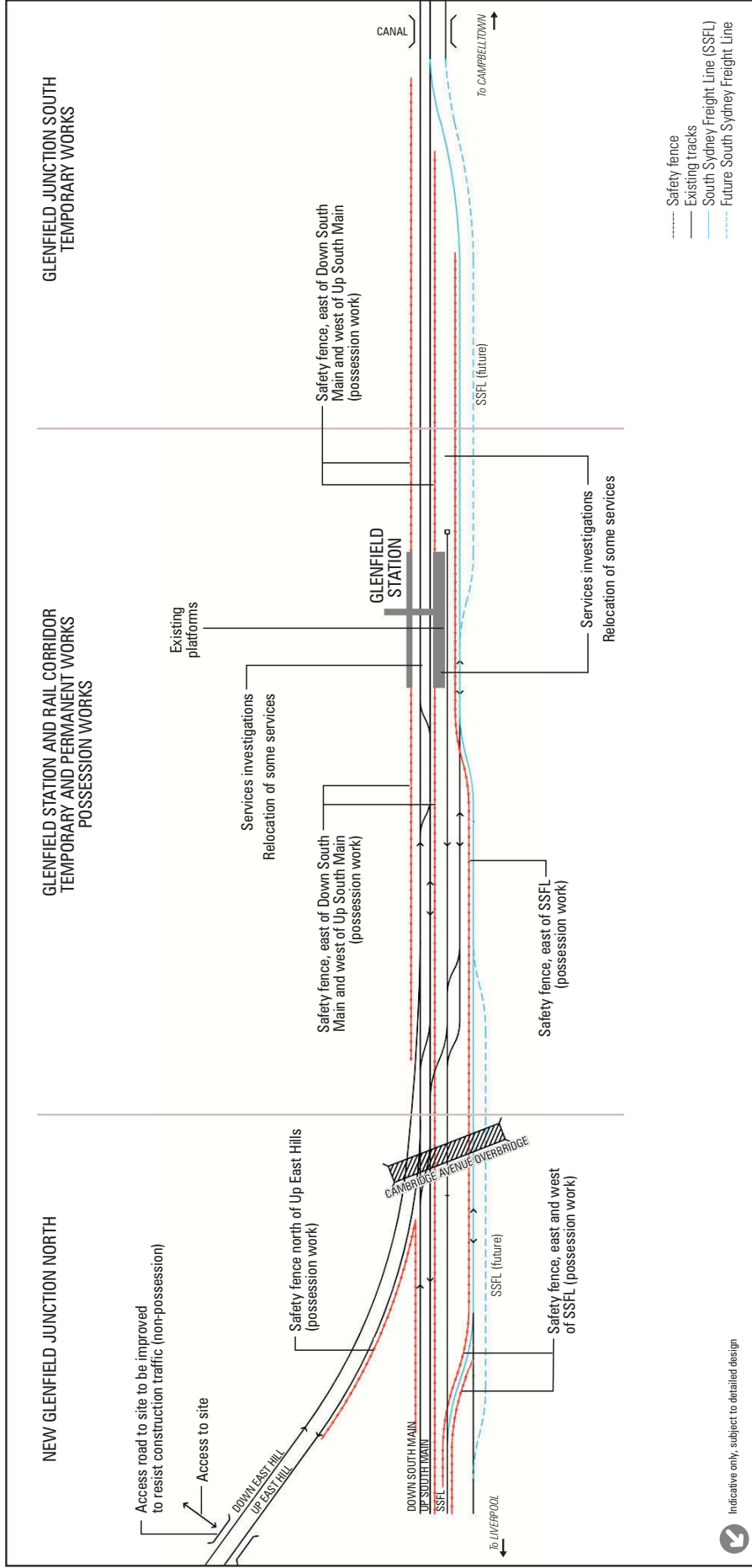
Stages 1 to 4 include construction of:

- safety fences, services investigations and relocations
- Glenfield North Junction flyover works: piling, pile caps, substructure and precast superstructure
- Glenfield South Junction flyover works: piles, pile caps and substructure
- track and crossover works
- earthworks and drainage for the future SSFL track.



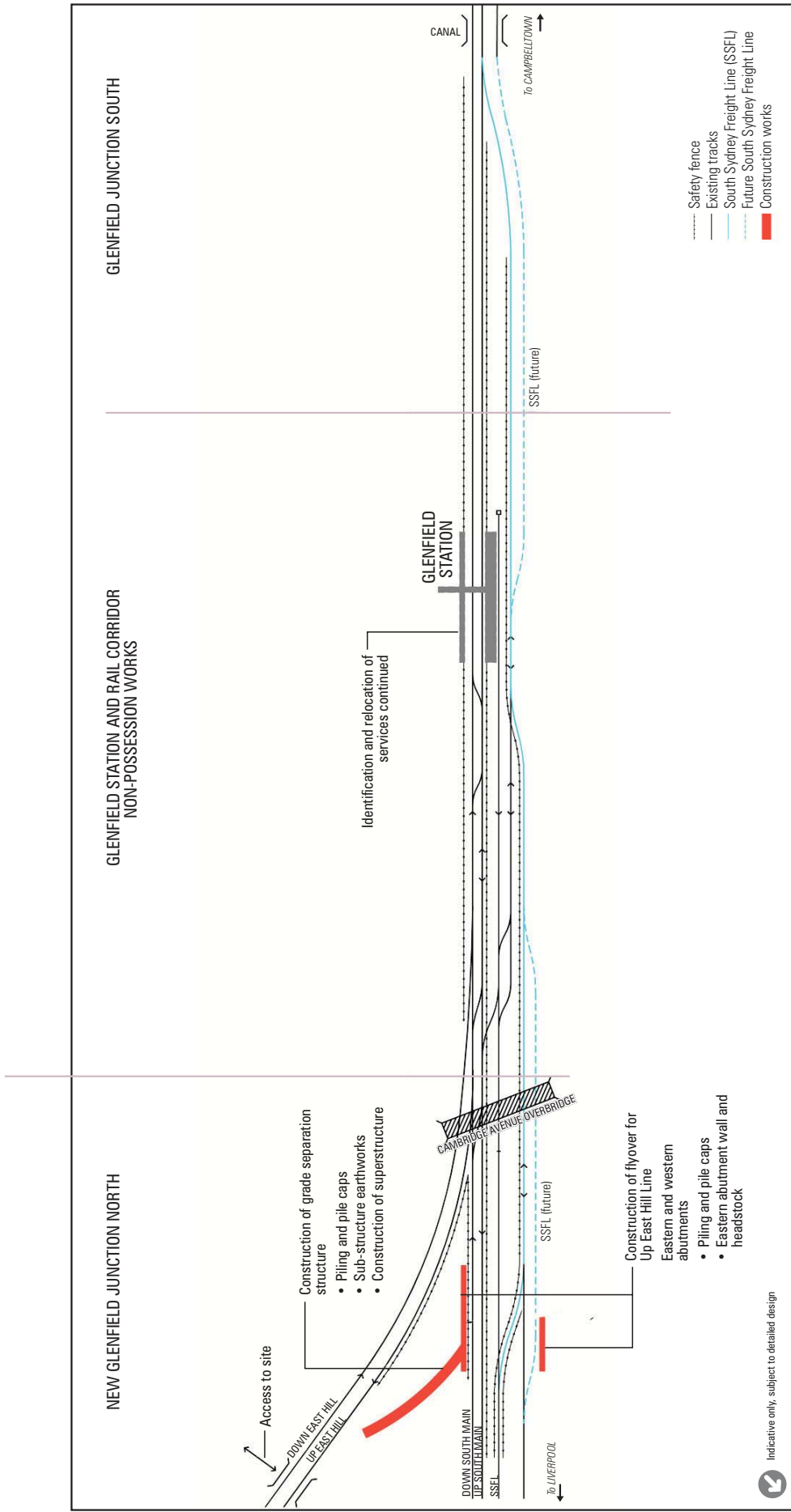
Source: Tenix (2006)

Figure 20-1a Glenfield Junction early works (Stage 1)
(2008 initial layout)



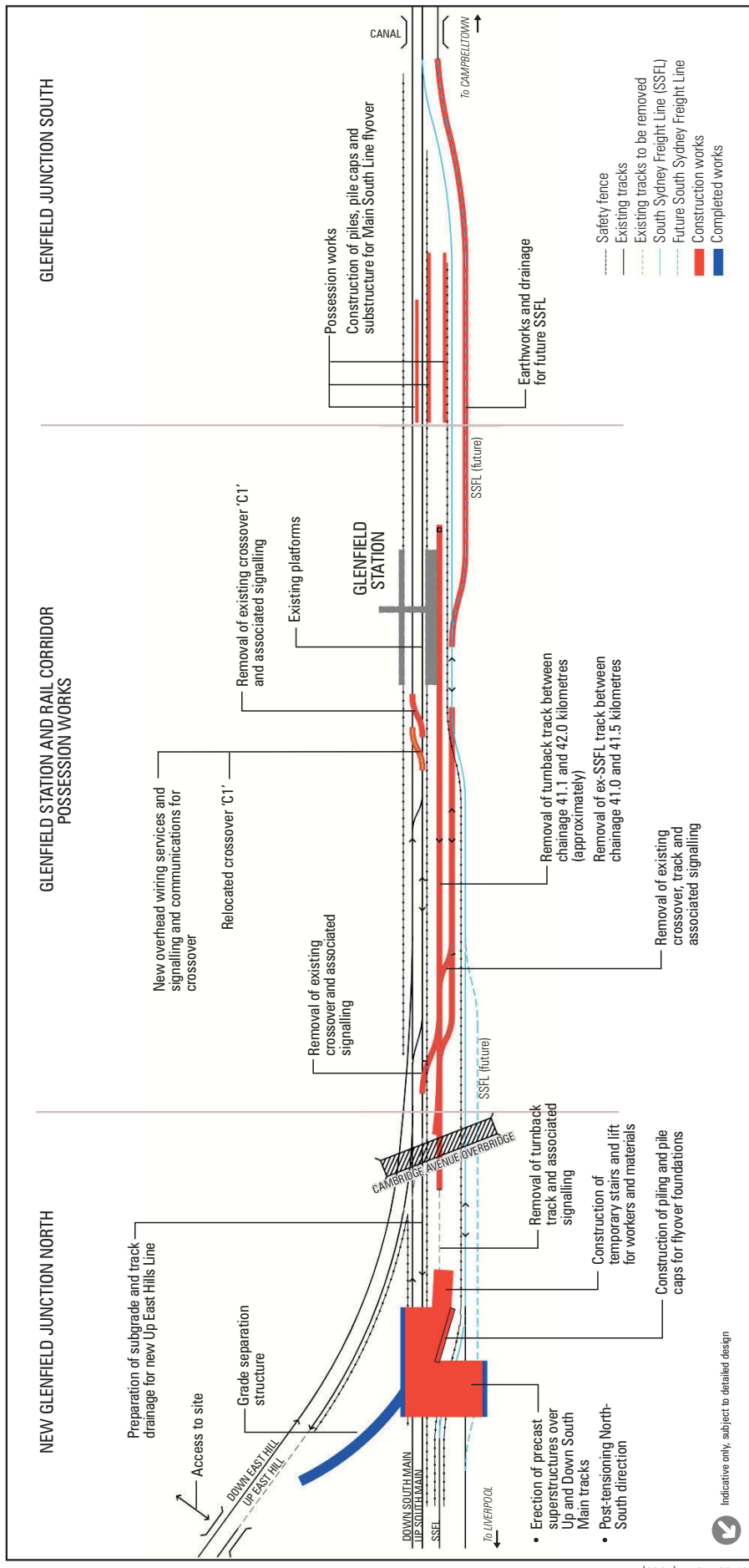
Source: Tenix (2006)

Figure 20-1b Glenfield Junction early works (Stage 2)



Source: Tenix (2006)

Figure 20-1c Glenfield Junction early works (Stage 3)



Source: Tenix (2006)

Figure 20-1d Glenfield Junction early works (Stage 4)

The Stage A works do not include works at Glenfield Station and associated infrastructure (e.g. interchange commuter car parking). These subsequent works form part of Stage B of the SWRL project and require further design development and environmental assessment (see Section 20.3).

The commencement of early works at Glenfield Junction would provide significant program advantages for the SWRL project, as the works at Glenfield are on the critical path for project delivery.

20.2.2 Establishment of construction work sites

Stage A requires the establishment and use of construction work sites, including the establishment of access tracks, located at Glenfield (excluding the construction site along Railway Parade) and the James Meehan Estate. These work sites are also required for the completion of Stage B. These sites are identified in Figure 8-2.

20.3 Stage B

Elements of Stage B of the SWRL are based on preliminary design and environmental assessment and further design development and environmental assessment of this stage is needed.

The additional design and environmental assessments proposed for Stage B are outlined below in Section 20.5.

20.3.1 Rail lines within a defined corridor

The SWRL would involve the construction and operation of rail lines that would be 13.1 kilometres in length over lands to the south and west of the existing Glenfield Junction (Main South and East Hills Line) and associated infrastructure. The rail lines and associated infrastructure would be within a rail corridor that is generally 40 metres wide between stations and 60 metres wide at the station locations. The proposed horizontal alignment of the rail corridor and an indicative vertical alignment of the rail lines are shown in Figures 20-2a to d.

Establishment of the rail corridor is essential to ongoing planning of the South West Growth Centre and associated infrastructure and would enable property acquisition to continue.

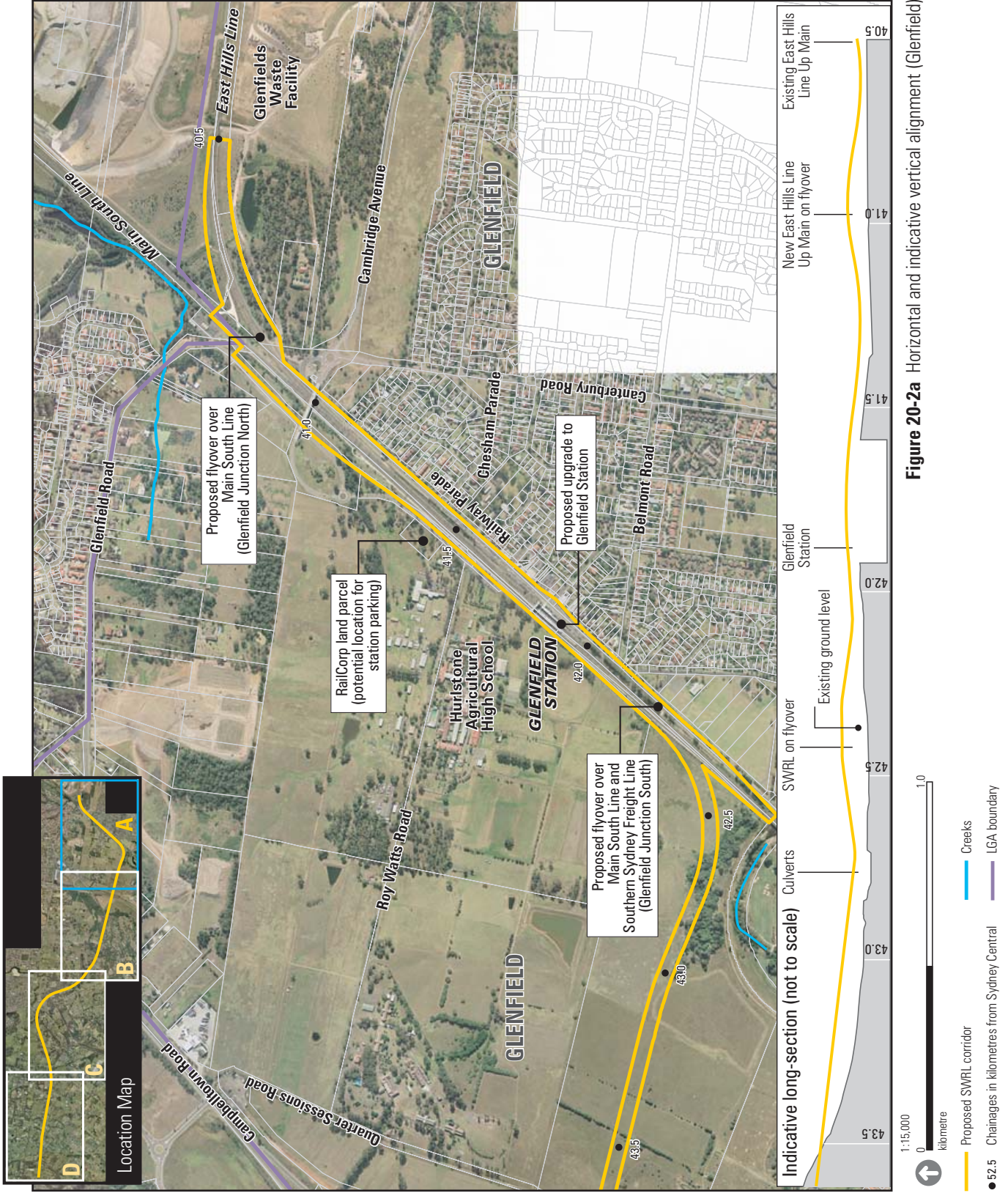




Figure 20-2b Horizontal and indicative vertical alignment (Edmondson Park east)

- Proposed SWRL Rail corridor
- 52.5 Chainages in kilometres from Sydney Central
- LGA boundary

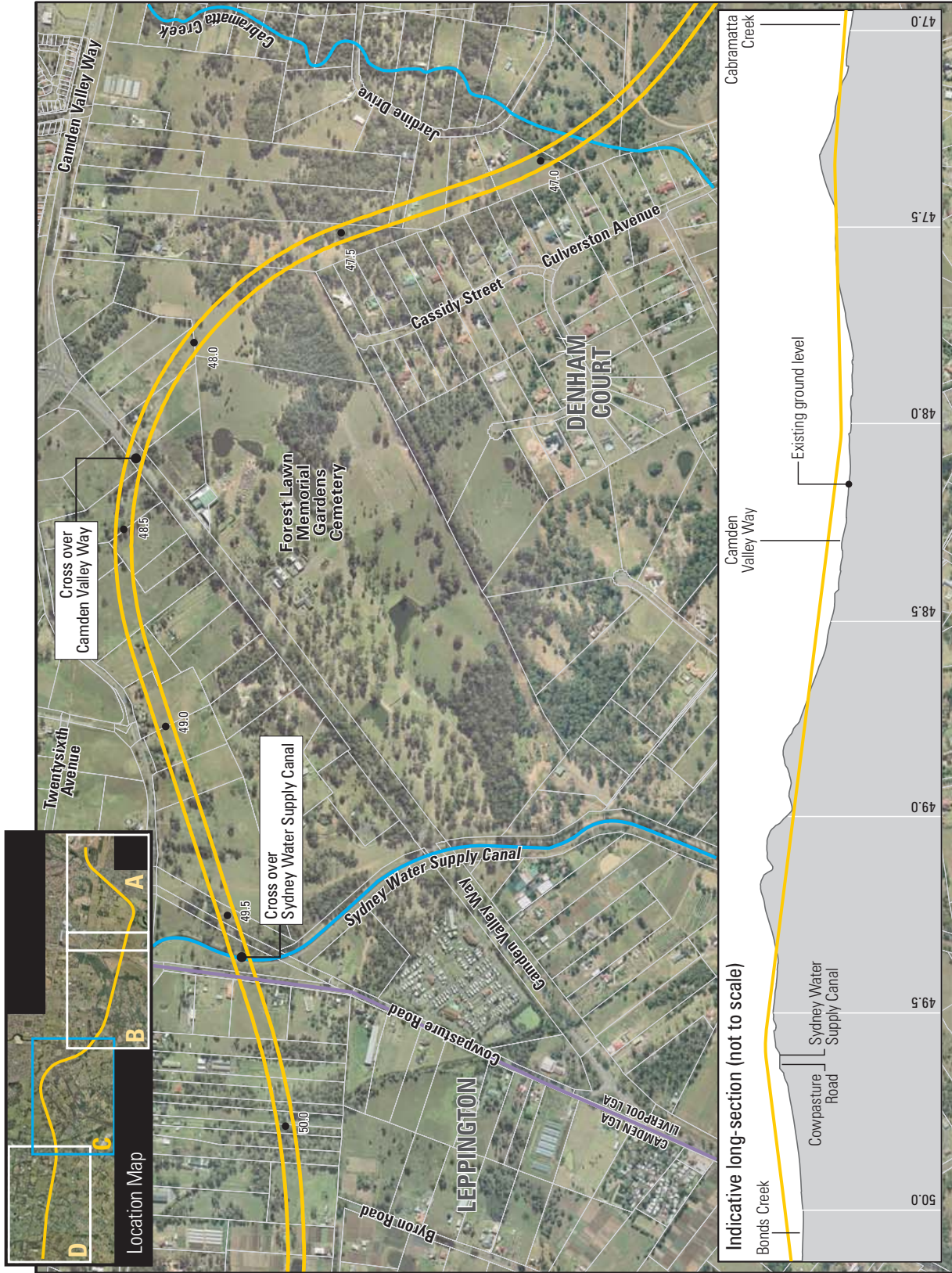






Figure 20-2c Horizontal and indicative vertical alignment (Edmondson Park west to Leppington east)

-  Proposed SWRL rail corridor
-  Creeks
-  Chainages in kilometres from Sydney Central
-  LGA boundary

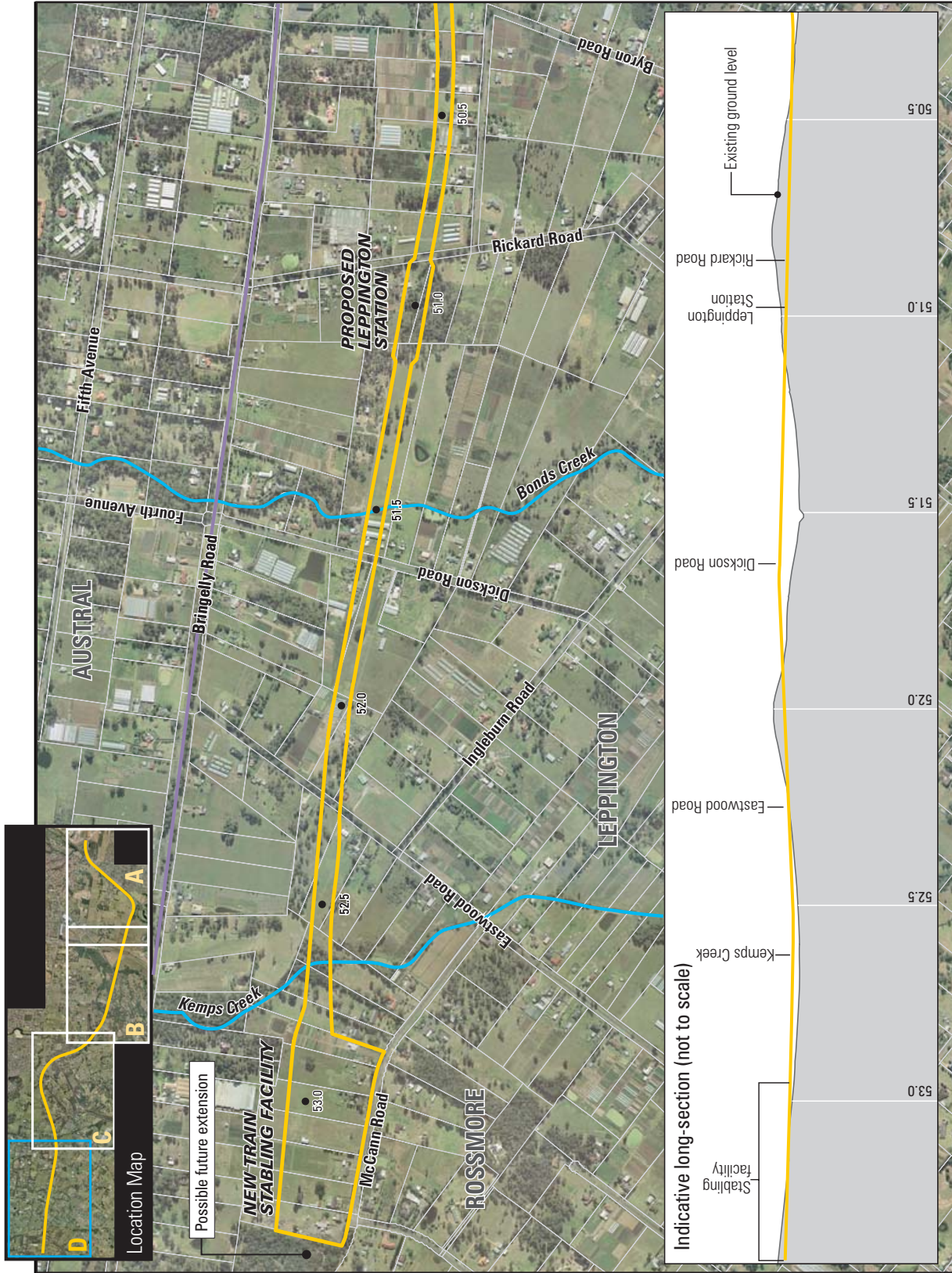
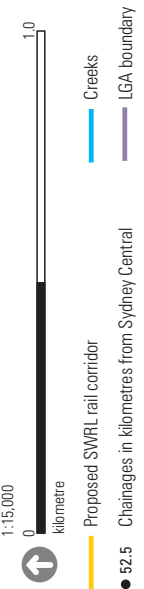


Figure 20-2d Horizontal and indicative vertical alignment (Leppington to Rossmore)



20.3.2 Glenfield Station upgrade works

Reconfiguration of Glenfield Station is required to accommodate the SWRL.

These works would involve:

- completion of works to Glenfield North Junction and Glenfield South Junction (Stage 5 through to 10 as outlined in Chapter 8)
- reconfiguration of Glenfield Station to accommodate two island platforms and upgrading of the station to provide easy access, including a new high level pedestrian concourse.
- Modifications along Railway Parade, including roadworks and footpaths, relocation and replacement of affected commuter car parking facilities to an alternate location and new bus interchange facilities.

Further design development is proposed for the station upgrade works, and elements of the station precincts directly related to the project (refer to Section 20.4 below). Some of these permanent works (i.e. commuter car parks) would be outside of the rail corridor.

Approval of the Glenfield Station upgrading concept would enable further design development of the Station to proceed based on appropriate urban design principles, as identified in Technical Paper 4, and ensure integration with the surrounding precinct.

20.3.3 Edmondson Park and Leppington Stations

The SWRL would involve construction and operation of two new stations at Leppington and Edmondson Park. The location of the two new rail stations is shown in Figures 20-2b and 20-2d. Both the stations are located within cuttings to optimise integration within new town centre developments and provide for easy transport interchange.

The key features of the stations include:

- Edmondson Park Station would contain an overhead concourse with stairs and lifts, and staff and ticketing facilities. The platform would be a single 170 metre long island platform, with design provision for future extension to 210 metres.
- Leppington Station would consist of two island platforms served by an overhead concourse with stairs and lifts, and staff and ticketing facilities.

The new rail stations would also include interchange and car parking facilities and other associated infrastructure.

The approval of the location and general form of the stations would establish basic principles to enable locality planning (around the stations) and precinct planning to proceed. Further design development is proposed for the stations, and elements of the station precincts directly related to the SWRL (see Section 20.5 below). Some of these permanent works (i.e. commuter car parks) would be outside of the rail corridor. The extent of these works would be defined in more detail as part of the further design work proposed.

20.3.4 Stabling facility

The SWRL would include the construction and operation of a stabling facility (including associated infrastructure, access roads, staff facilities, etc.) within an area of land approximately 500 metres long and 200 metres wide as indicated in Figure 20-2d.

The stabling facility would provide for stabling of 12 eight-car sets on opening, with future provision within the identified footprint to allow for expansion to 20 eight-car or 10-car sets in the future. Facilities within the yard would include cleaning/light maintenance facilities, ablutions, administration offices, staff car parking and train wash facilities. The facility would be flood lit and fenced for security.

The approval of the location of this stabling facility would allow for additional land use planning around the site and for design development to progress. Some of the permanent works would be outside the identified corridor (i.e. access, facilities and train wash). The extent of these works would be defined in more detail as part of the future design development.

20.3.5 Ancillary facilities

Ancillary facilities, including power supply, sectioning huts, signalling structures, access roads and other infrastructure are required for the operation and maintenance of the rail services and infrastructure.

The majority of ancillary facilities would be contained within the rail corridor. Further design development, scoping requirements and assessment is required to determine these requirements for the SWRL in more detail.

Approval of ancillary facilities will enable infrastructure development and planning to proceed.

20.3.6 Construction work sites

In addition to the construction sites identified for Stage A (see Section 20.2.2) eight construction sites have been identified as being required for construction works associated with Stage B. The need for these sites for construction is based on the constructability assessment and preliminary design work.

The construction sites associated with Stage B are shown in Figure 8-2 and may be subject to refinement in terms of location and size as a result of further design work.

20.4 Additional assessments proposed for Stage A

The additional assessment required to determine the extent of potential impacts of the Stage A works includes (as a minimum):

- further consultation with Aboriginal stakeholders to determine any potential extent of Aboriginal heritage impacts
- targeted surveys for *Pimelea spicata* to determine its presence at Glenfield Junction and the significance of biodiversity impacts if present
- the feasibility and reasonableness of providing noise barriers on the Down side of the railway corridor near Glenfield
- clarification of potential local traffic and transport impacts at Glenfield of the Stage A works
- further assessment of the potential impacts on the Glenfield Waste Facility (integrity of the landfill and the presence of any contaminated/hazardous materials) and the development of design and other management measures.

The investigations will be undertaken and detailed in the Submissions Report and, if required, the Preferred Project Report.

20.5 Additional design and assessments proposed for Stage B

Subject to the terms of any Concept Plan approval, additional design and environmental assessment would be undertaken for the following elements of Stage B of the SWRL.

20.5.1 SWRL corridor design development and infrastructure

The vertical alignment and horizontal alignment of the SWRL corridor has been identified (see Chapter 7). However, further design development is required to better define some elements of the rail infrastructure within and, in some cases, outside of the corridor, including where necessary:

- structures, including rail overbridges, waterway crossings (bridges and reinforced concrete box culverts), retaining walls and noise walls
- earthworks — embankments and cuttings
- gantry structures and electrical infrastructure
- adjustments and relocation of utility services
- trackwork.

More detailed designs for the rail alignment and associated infrastructure and (where relevant) architectural designs would be prepared.

20.5.2 Glenfield Station upgrade works

It is proposed that additional design and environmental assessment is undertaken for the station upgrade works incorporating the following elements:

- engineering and architectural design of station buildings and associated structures
- temporary works during construction
- bicycle and pedestrian facilities including easy access facilities
- landscaping and urban design
- transport interchange facilities — access, parking, bus bays and kiss-and-ride
- trackwork
- adjustments and relocation of utility services
- ticket barriers, staff amenities and other facilities.

20.5.3 Stations (Leppington and Edmondson Park)

The SWRL would involve construction of two new stations at Leppington and Edmondson Park.

It is proposed that additional design and environmental assessment is undertaken for each of the stations incorporating the following elements:

- engineering and architectural design of station buildings and associated structures
- trackwork in the vicinity of the stations
- bicycle and pedestrian facilities including easy access facilities
- landscaping and urban design
- transport interchange facilities — access, parking, bus bays and kiss-and-ride
- utility services modification and relocation
- ticket barriers, staff amenities and other facilities
- construction work sites
- temporary works during construction
- road crossings
- diversions of watercourses where appropriate.

20.5.4 Stabling facility

The size and location of the train stabling facility has been determined. However, additional assessment is proposed for the stabling facility to cover future design work, including where necessary:

- location, engineering and architectural design of buildings and associated structures
- location and engineering design of train wash facility
- yard lay-out, trackwork and signalling
- potential noise barriers and other mitigation measures
- retaining wall structures
- landscaping and urban design
- access and parking facilities.

20.5.5 Construction sites

The Concept Plan identifies eight additional construction sites to enable completion of the Stage B works. Additional assessment is required to confirm the exact location, number, footprint and layout of the proposed construction sites.