Section C  Sector Design Concepts

C8  Sector 8
Avondale Heights Tunnel

C8.1 Existing situation

Sector 8 refers to the section of the project from the Alan Wood Reserve (southern portal) beneath ‘Avondale Heights’ (the ‘deep tunnels’ section of the project).

C8.1.1 Movement and connectivity

- New North Road is a busy arterial that creates a barrier to north-south pedestrian movement through the open space network.
- The rail line is a further barrier to north-south pedestrian and cycle movement.
- Oakley Creek presents a topographical and physical barrier to east-west movement of all kinds.
- North of New North Road, Oakley Creek separates the neighbourhoods of Avondale Heights to the west and Mount Albert to the east.
- Oakley Creek Walkway connects the north-western cycle way with Phyllis Reserve but east-west connections are hampered by steep slopes.

C8.1.2 Landscape, planting, views

- The landscape in this area is dominated by the incised Oakley Creek Corridor, which runs generally north south between New North Road and its entry to the Waitemata Harbour at the Waterview interchange. The creek, which runs along the western edge of the Mt Albert lava flow represents a recreational, visual and ecological asset for the local community, and includes the tallest waterfall in the city.
- The green open space corridor that follows the creek (comprising Harbutt, Phyllis and Oakley Creek Esplanade reserves) is the largest and most connected portion of the open space network in the study area, in strong contrast with the generally limited provision in nearby areas.
- Vegetation in this area mainly follows typical suburban residential garden and street tree planting, with planting in the Mt Albert area generally more established than the Avondale Heights area to the west of the creek. The Creek valley itself cuts a green swathe across this sector, with the planting being a mix of regenerating native bush and invasive weed species. The waterfall forms somewhat of a break in planting types, with upstream reaches more weed infested, and lower reaches dominated by native planting, largely due to the efforts of a local community group.
- Views to the cone of Mt Albert are numerous throughout this sector – from open spaces, streets and residential properties. The street grid orientation focuses views to the cone from a number of east-west oriented streets. Other significant views are from open spaces and residential areas down into – and across – the vegetated Oakley Creek valley and again, these are numerous throughout the sector.

C8.1.3 Urban setting

- Avondale Heights features a mix of housing types from different eras including stand alone houses and multi-unit buildings. Mount Albert features stand alone dwellings with well vegetated private gardens.
- The large Pak n Save supermarket on New North Road and its car parking dominate the surrounding street environment.

C8.1.4 Structures

- The only structure in this sector to be affected by the works is the existing pedestrian bridge over Oakley Creek immediately west of Phyllis Reserve.
- The bridge is a timber structure that crosses the creek at the bottom of the valley, some 13.5 – 18.5m below adjacent reserve areas east and west. Steep flights of steps lead from adjacent open space to the bridge, with both bridge and steps being very slippery in winter or wet weather.
- Local contours, steps and vegetation limit the suitability of this structure due to safety Crime Prevention Through Environmental Design (CPTED) concerns for users, and accessibility issues for disabled users, those with baby carriages or cyclists.
C8.1.5 Open space amenity

- Amenity of open space in this area is somewhat mixed. The lower reaches of Oakley Creek, below the waterfall have become more attractive in recent years, thanks to the weed clearance and replanting efforts of the Friends of Oakley Creek. While there are still areas of exotic weeds, this area has the appearance of transitioning to a much more natural and attractive state.

- The creek margins above the waterfall however are weed infested, and much of the infrastructure (paths, retaining walls, bridges and pipes) is in very poor condition. A range of path widths and materials contributes to a somewhat uncared for and ‘forgotten’ feel in this area.

- In places, the water quality appears visibly poor, with floating scum, rubbish and aquatic weeds visible, in addition to strong odours in some sections.

- The creek valley has CPTED issues due to a lack of clear sightlines and passive surveillance, however this is an environment where such issues should be expected and users are likely to plan accordingly.

- On the raised terrace east of the creek valley, both Phyllis and Harbutt Reserves are built on former landfills, and are generally flat, grassed reserve areas.

- Phyllis Reserve is home of the Metro Soccer Club and features three soccer fields and two softball fields. As with many of the public spaces in this area, the facilities are somewhat run-down, although clear sightlines and multiple escape routes mean that this park does not suffer from the CPTED issues facing other local open spaces.

- A track running west from Phyllis Reserve across Oakley Creek provides a connection to Great North Road and across to Heron Park, although it has access / visibility issues.

- Harbutt Reserve has a popular playground at its entry, but the rest of the reserve runs in a tapering form down to a dead end at the rail line. The reserve past the entry is undeveloped save for a maintenance track accessing limited native planting areas. It presents very little in the way of open space function in its current configuration, and usage appears correspondingly low.

- Harbutt Reserve has limited passive surveillance, no through-circulation and limited escape routes, creating a generally unsafe open space. Its creek margins are heavily weed infested and there are no views to the creek itself from the flat reserve area.

- Across Great North Road from Phyllis Reserve and the Oakley Creek corridor, Heron Park is a large sloping open space that leads down to the coast. It is generally an open grassed space, with some native revegetation planting along the coastal section.
Section C  ▶ Sector Design Concepts

Figure C-8.1: Photo 8–1 expansive views over Heron Park towards the Waitakere ranges

Figure C-8.2: Photo 8–2 Access from Oakley Creek to Great North Road and Heron Park is narrow with limited surveillance

Figure C-8.3: Photo 8–3 Phyllis Reserve is a large grassed active recreation reserve built on a former landfill site

Figure C-8.4: Photo 8–4 The existing pathway network through Phyllis Reserve is narrow and suffering from erosion in places
Figure C-8.5: Phyllis Reserve existing plan
Figure C-8.7: Phyllis Reserve – Concept Option B (Council preferred option)
C8.2 Design concept

C8.2.1 Movement and connectivity

- A north/south continuous cycleway is one of ACC’s aspirations for linking the green corridors in or adjacent to the project area. A cycleway through the Oakley Creek corridor in this area could improve both north/south and east/west connectivity. It would require upgrades of existing paths, and some new sections of paths, in addition to bridge structures to cross the creek and rail lines.

- While a cycleway in this vicinity is outside the core WRR – Waterview Connection project, it is included in the design concept plans as a future stakeholder and community aspiration.

- Two pedestrian/cycleway bridges are needed to complete the cycleway:
  - Soljak Bridge, crossing the western rail line at the end of Soljak Place, connecting to Harbutt Reserve; and
  - Phyllis Bridge, replacing the existing Oakley Creek bridge with a high level bridge, improving safety and access for users, and linking the Waterview community with open space at Phyllis Reserve.

- Soljak Bridge, as part of the cycleway link, is outside the core project, but could be pursued by Auckland City Council in partnership with the NZTA.

- Phyllis Bridge is outside the core project but could be pursued by Auckland City Council in partnership with NZTA.

C8.2.2 Landscape, planting, views

- There are no visible motorway elements in this sector. Nevertheless the Framework identifies positive open space and cycleway improvements consistent with the wider vision for the area.

- Phyllis Reserve is shown upgraded to create extra senior field to offset loss of Waterview Park playing surface. Junior fields run across senior fields to give net increase in number of local playing fields although there will be limitations on hours of use for some of the junior fields. Further capacity for junior fields exists at Harbutt or Alan Wood reserves.

- Phyllis Reserve entry is shown improved. This is an important strategic link, as it provides walking access from Waterview to Phyllis Reserve, where the sports fields replacing Waterview Park are to be housed. Proposed improvements are:
  - The reserve frontage is widened, improving both safety and visibility of the reserve.
  - A high level pedestrian/cycle bridge replaces the existing low-level bridge, connecting with the SH20 cycleway route.

- Views into the creek valley would be uninterrupted along the proposed cycleway in the southern section between the two proposed bridges. Views of both the creek and Mt Albert are available from the Phyllis Reserve bridge, as well as the reserve itself.

- Planting improvements should be carried out as part of the Phyllis Reserve upgrade works, including specimen tree planting to the reserve itself and ecological restoration around the new bridge area, to restore those areas damaged by construction.

C8.2.3 Structures

- An emergency smoke egress was considered in a location around the midpoint of the tunnel. This stack would be around 4m square and 20m high above adjacent ground level, and would vent smoke only infrequently, in the event of a tunnel fire.

- A number of potential locations was explored by the urban and landscape team. The preferred option if a stack were required would be to co-locate the stack with another use / structure, for example a rebuilt Metro Soccer club within Phyllis Reserve. This would allow the stack to be integrated into a larger, unrelated building such as a future club or community use, reducing its visual impact.

- The requirement for a central stack has not yet been determined.

C8.2.4 Open space amenity

- Design options for Phyllis Reserve were developed in consideration of the loss of Waterview Park and the need for open space mitigation. Two indicative concept layouts are illustrated in Figures C-8.6 and C-8.7. These options are no longer relevant as the current proposal is to extend Waterview Park, thus providing replacement open space in the same location, rather than enhance open space elsewhere.

- The options are however included in the Framework because they illustrate a Council aspiration that includes development of the open space for active recreation, with pedestrian and cycle connections linking it to surrounding communities.
C8.2.4 Structures

- The key structures in this sector that form part of the core project include:
  - Two deep tunnels to provide sub-surface alignment through the sector
  - Minimal ‘above ground’ structures
  - NOTE: the southern ventilation building and portal are described in Sector 9 following.

- Structures or elements that are outside the project scope but may be constructed in the future to complete the north/south pedestrian / cycle network as per ACC’s Future Planning Framework aspirations are:
  - cycle path
  - Soljak Bridge
  - Phyllis pedestrian bridge across Oakley Creek.

C8.2.5 Phyllis pedestrian bridge

The Phyllis bridge is a high level footbridge crossing well above the Oakley Creek gully. It offers the opportunity for a continuous ‘flow’ to the pedestrian and cycle journey from Heron Park through to Phyllis Reserve and a new experience of and views over the Oakley Creek environment. Because it is not required to cross over a motorway or rail track, and due to the topography on either side of the gully, it provides a near-flat crossing and is highly accessible.

The bridge is designed to have minimal impact on the sensitive environment, as a multi span bridge with twin steel beam structure supported on tall piers.

Figures C-8.8 – C-8.11 are photomontages showing how the future bridge could fit into its landscape setting.
Section C  Sector Design Concepts

Figure C-8.12: Harbutt Reserve existing plan

Figure C-8.13: Photo 8–5 Harbett Reserve suffers from a lack of connectivity and passive surveillance

Figure C-8.14: Photo 8–6 The western rail line looking towards Mt Albert Pak n Save

Figure C-8.15: Photo 8–7 View over the western rail line towards the proposed Soljak Place Overbridge
D8.2.6 Soljak pedestrian bridge

- The Soljak bridge provides a critical cycle and pedestrian link in the continuous North-western Cycleway, once the cycleway is completed. The proposed structure:
  - bridges the existing rail lines running parallel to New North Road
  - provides a link for pedestrians between Harbutt Reserve and Hendon Park, as a continuation of the SH20 cycleway that joins the SH16 cycleway at Waterview
  - can link to a future cycle / pedestrian path through Harbutt Reserve.

- While the Soljak bridge is outside the core project it may be pursued in the future by ACC in partnership with NZTA.
Figure C-8.17: Soljak Pedestrian Bridge – future view 1 north over rail line

Figure C-8.18: Soljak Pedestrian Bridge – future view 2 along Soljak Place

Figure C-8.19: Soljak Pedestrian Bridge – future view 3 south through Harbutt Reserve