The Open Space Plan proposes an enhanced, interlinked network of green infrastructure by identifying embellishments to existing open space and suggesting additional open space. It addresses future needs and demands and enhances the quality of living for the community.

The Open Space Plan comprises a series of new medium to large parks and linear parks. They provide an opportunity for multifunctional, passive and active recreation that caters for a diverse range of community needs. The linear parks reinforce important green and blue links that connect open spaces and community destinations, providing enhanced amenity for the people living and working in the area.

For the purpose of this report we have illustrated four future typologies of the possible function of proposed open spaces. The four Concept Plans are:

- **Concept Plan 1 Linear Park (Urban)**
  The Linear Park is located towards the southern side of the area and is adjacent to the train carriageway to the west and Lithgow Street to the east. The primary purpose of the proposed design is to enhance the pedestrian and cyclist experience through the existing link by providing additional amenities.

- **Concept Plan 2 Streetscape Canopy (Industrial)**
  Located along Clarendon Street. The street canopy open space reinforces the green and blue connections for pedestrians and cyclists. The primary purpose of the linear park is to provide workers with the opportunity to access open space facilities that would be conclusive to a healthy work/life balance ie. eating lunch, staff BBQs, collaboration etc.

- **Concept Plan 3 Hume Street Park**
  The park is bounded by Clarke Street (south), Hume Lane (east) and Pole Lane (north). The previous concept design for the park has been extended to provide additional open space with deep soil that allows for larger urban tree canopy for shade and passive recreation.

- **Concept Plan 4 Platform Park**
  Located towards the northern side of the St Leonards train station in between Chandos Street and Herbert Street. The park is bounded by residential development on one side and future mixed use on the other side. The primary purpose of the park is to provide multifunctional open space to the surrounding community and wider community.

Note: All additional open spaces proposed are subject to future investigation and feasibility testing with stakeholders. All Concept Plans are indicative only and are subject to community and stakeholder feedback and detailed design.
6.1 REFERENCE PLAN

Figure 12: Concept plans reference plan (Source: AECOM, 2018)
COMMITTED INITIATIVE

The Open Space Plan highlights the importance of providing green and blue links that enhance the community’s needs for active lifestyle. The Linear Park serves primarily as a cycle and pedestrian link adjacent to the train line. With the projected increase in population in the adjacent areas, the park serves for a wide range of ages.

Due to the existing topography, the park celebrates the level changes and proposes an amphitheatre to the south that wraps around the existing tree canopies. The main ramp winds around the site to take cyclists and visitors on a journey of active and passive landscape nooks. These nooks include coffee shop to the north, passive seating areas and active exercise equipments. Consequently this maximises the use of the open space and promotes healthy living for the adjacent and wider community.

The Linear Park is composed of the following main components:

- Two amphitheatre spaces
- Active landscape nooks
- Passive landscape nooks
Figure 13: Linear Park Concept Plan (Source: North Sydney Council and AECOM, 2018)
6.3 CONCEPT PLAN 2 - STREETSCAPE CANOPY (INDUSTRIAL)

VISIONARY INITIATIVE

The Open Space Plan has identified streets to be selected on the basis of enhancing the safety and comfort of workers and visitors to the area. The Street Canopy Concept Plan focuses on providing thermal comfort through the integration of canopy cover and WSUD elements. In addition, the widening of the footpath allows for safer cycling and walking by providing a better quality of journey. The concept reflects the character and accommodates the functionality and needs of the industrial zone.

The Industrial streetscape canopy corridor is characterised with narrow footpaths, wide setbacks, inconsistent verges, sparse urban tree canopy and wide carriageway. The concept design recommends consistent planting and maximum urban tree canopy to provide passive recreation space for workers and connectivity by widening footpath and reducing private setbacks.

It is recommended that the streetscape canopy evolves over time to provide minimal disruption and allowance for funding to be achieved. The short term plan introduces general pedestrian amenity and the long term optimises canopy cover by primarily grounding overhead services.

For the purpose of this Concept Plan we have illustrated the change over time.

The streetscape canopy is crucial to enable the industrial area to improve its worker environment, provide a walkable link to transport and to aid in the reduction of the heat island effect. It is important for the industrial area to play its part in providing quality urban tree canopy.

![Existing Conditions Concept Plan](Source: AECOM, 2018)

![Existing Conditions Indicative Section](Source: AECOM, 2018)
PROPOSED - INDUSTRIAL STREETSCAPE CANOPY (SHORT TERM)

- New road central median to minimise industrial character and provide visual buffer
- Provide consistent planting in the verge and small trees to comply with overhead power lines

PROPOSED - PROPOSED STREETSCAPE CANOPY (LONG TERM)

- Indented parking to formalise parking and integrate WSUD
- Increase footpath to 3m to allow for better shared pedestrian, cyclist amenity and furniture

Figure 16: Streetscape Canopy Short Term Concept Plan (Source: AECOM, 2018)

Figure 17: Streetscape Canopy Short Term Indicative Section (Source: AECOM, 2018)

Figure 18: Streetscape Canopy Long Term Concept Plan (Source: AECOM, 2018)

Figure 19: Streetscape Canopy Long Term Indicative Section (Source: AECOM, 2018)
VISIONARY INITIATIVE

The Open Space Plan highlights the importance of providing open space that is multifunctional and addresses a wide range of uses and users. The Hume Street Park builds on a previous concept design undertaken for the North Sydney Council by JMD design. The extension concept design is a vision that focuses on providing open space that is flexible, adaptable and comfortable. This is achieved by providing two kick about spaces; the green space to the north enables passive recreation with activities for the elderly, such as bocce. The space to the south provides area for lunching and passive recreational activities such as table games which may include chess tables. The space is activated by proposed dual facing shops spilling out to Hume Lane.

In addition, Hume Street Park plays an important role in connecting the proposed new metro station to the west and Willoughby Road to the east.

Hume Street Park is composed of the following main components:

- Underground basketball and multifunctional playing courts
- Childrens playground
- Two large pen lawn spaces
- Water feature for water harvesting and cooling
Figure 20: Hume Street Park Concept Plan (Source: North Sydney Council and AECOM, 2018)
6.5 CONCEPT PLAN 4 - PLATFORM PARK

VISIONARY INITIATIVE

The Open Space Plan highlights the importance of providing open space that is multifunctional and addresses a wide range of uses and users. Previous social infrastructure studies identify a lack of facilities within the area for the ageing community. The Platform Park focuses on providing an open space that is adaptable and comfortable. This is achieved by providing two kick about spaces; one space enables sporting activities and the other becomes a space for different demographics such as elderly and/or children for active use.

In addition, the Platform Park plays an important role in connecting the two disjointed parks; Gore Hill Oval to the south west of the park and Naremburn Park to the north east.

The Platform Park is composed of the following main components:

- Extension of the St Leonards Plaza.
- Terraced green steps.
- Sheltered barbecue area.
- Two large flexible open spaces.
Figure 21: Platform Park Concept Plan (Source: AECOM, 2018)

Figure 22: Platform Park Indicative Section (Source: AECOM, 2018)
7.0 CONCLUSION

OPEN SPACE

The Green Plan has determined that the existing public open space provision needs to be increased however there is limited available space to achieve this.

The Green Plan proposes a total of 8.57 hectares of new open spaces to be added to the 21 hectares of existing open space, achieving **29.58 hectares of overall open space** within St Leonards and Crows Nest. Approximately half of this new open space needs to come from the utilisation of road reserves and air space over the rail corridor. This requires innovative approaches to creating urban green spaces to maximise the available opportunities.

This recommendation is aspirational and is to be used as a guide for the future provision of open space over time. This can be achieved through acquisitions by negotiations, through various other funding opportunities and through the SIC plan. This recommendation is not binding and will be subject to ongoing revision and feasibility assessments of suitability and cost effectiveness.

URBAN TREE CANOPY

The following assumptions have been considered to develop the Urban Tree Canopy Plan:

- The area has been subdivided within three future areas: industrial, urban and heritage residential. Within each area, a minimum urban tree canopy has been targeted of 15, 25 and 25% respectively.
- The Urban Tree Canopy Plan suggests possible interventions on public land only under the control of public agencies while also measuring urban tree canopy in the private domain.

The current urban tree canopy covers:

- 6.92% of the industrial area.
- 21.4% of the urban area.
- 40% of the suburban area.
- 27% of the heritage residential area

The Urban Tree Canopy Plan takes into account the proposed changes to land uses and development controls and therefore it shows an updated zoning between the industrial, urban, suburban areas and heritage residential areas.

Considering the new zoning, the Urban Tree Canopy Plan *proposes a total of 2,038 new trees* to be added to public areas within St Leonards and Crows Nest in order to achieve:

- 16% tree canopy in public and private areas in the industrial area
- 25.7% tree canopy in public and private areas in the urban area
- 32.7% tree canopy in public and private areas in the heritage residential area.
7.1 NEXT STEPS

Suggested next steps to be taken by the Department are:

- Undertake detailed analysis of viability for the areas selected as future parks and Green and Blue Links including acquisition, public ownership and right of ways/access, costing, detailed planning and design and method for delivery.
- Ensure public agency engagement for whole of Government problem-solving to facilitate delivery.
- Support long term strategic planning by agencies - e.g. services to enable tree canopy delivery or to open up public land for open space and access.
- Develop an investigation mechanism for upgrading existing Open Space.
- DPE to assist in the coordination of the DCPs regarding the management of the tree canopy in the private domain.
- Review Council’s street tree policy to enable canopy planting.
- DPE to undertake a review of the planning controls (LEP), development control plans (DCP), civil works standards, development contributions (Section 94 plans) and voluntary planning agreement (VPA) policies to investigate ways to encourage creation of public open space and tree canopy within the study area.
8.0 GLOSSARY

A
Accessibility: ease of access is critical to the community to enjoy and use public open and recreation facilities.

B
Biodiversity: is the foundation of ecosystem services to which human well-being is intimately linked.
Biodiversity corridors: are areas of vegetation that allow animals to travel from one patch of native forest to another.
Built Environment: comprises the extent of our human-made environment, as distinguished from the natural environment. It includes all aspects of our surroundings made by people that provide the place for human activity. The built environment can be understood to include cities and towns, neighbourhoods, parks, roads, buildings and even utilities like water and electricity.

C
Canopy: the layer of leaves, branches, and stems of trees that cover the ground when viewed from above.
Connectivity: creating an interconnected network of open space.
Context: the physical, social, cultural, economic, environmental and geographic circumstances that form the setting for a place or building.

D
Diversity: the range of open space setting types within a given area will determine the diversity of recreation opportunity for a community.
Distribution: the spread of supply of open space and tree canopy.

E
Equitable: a built environment that is fair and accessible for all citizens.

G
Green and Blue Link: selected road connecting several open spaces within a continuous walkable network of footpaths, laneways, pedestrian bridges and undercrossing. This link will define a major route for bikes, pedestrians, water management and biodiversity, therefore, possible further enhancement of streetscape amenity, verge vegetation, water sensitive urban design strategies and setback treatment will be encouraged.
Green Plan: The framework assessing open space and tree canopy proposed in .

Greater Sydney: is defined as the 33 local government areas of Bayside, Blacktown, Blue Mountains, Burwood, Camden, Campbelltown, Canada Bay, Canterbury, Bankstown, Cumberland, Fairfield, Georges River, Hawkesbury, Hornsby, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Liverpool, Mosman, Northern Beaches, North Sydney, Parramatta, Penrith, Randwick, Ryde, Strathfield, Sutherland, and The City of Sydney.
Green Grid: strategic planning document for the greater Sydney region, and a precursor to the Greener Places policy comprising a cohesive map of green assets across metropolitan Sydney.
Green Infrastructure: describes the network of parks, trees and water systems that deliver multiple environmental, economic and social values and benefits to urban communities. Refer to Section 1.1 of this document for entire definition.
Green Space: an area of grass, trees, and other vegetation set apart for recreational or aesthetic purposes in an urban environment.
Grey Infrastructure: refers to the human-engineered infrastructure for water resources such as water and wastewater treatment systems, piped drainage and reservoirs.

H
Healthy: a place or space that promotes positive social, emotional and physical health for its people.

High Performing Green Space / High Quality Green Space: are multifunctional spaces designed to produce concurrent ecological, social, environmental and economic benefits.
Integration: combining green space with urban development and grey infrastructure.

I
Liveable: a built environment which supports and responds to people’s patterns of living, and is suitable and appropriate for habitation, promoting enjoyment, safety and prosperity.

M
Master Plan: a framework document showing how development will occur in a given place and includes building parameters like height, density, shadowing and environmental concerns. It is a visual document that details a clear strategy or plan for the physical transformation of a place, supported by financial, economic, and social policy documents which outline delivery mechanisms and implementation strategies.
**Multifunctionality:** the ability of Green Infrastructure to deliver multiple ecosystem services simultaneously, providing added value, and improved health and well-being.

**Open space:** land that has no buildings or other built structures, which is accessible to the public, including green space.

**Park - Pocket:** defines parks with maximum area 0.4 hectare and with a walking catchment area of 300 metres.

**Park - Local:** defines parks with areas varying from 0.4 to 1 hectare and with a walking catchment area of 400 metres.

**Park - Neighbourhood:** defines parks with areas varying from 1 to 5 hectare and a walking catchment area of 800 metres.

**Participation:** the involvement of stakeholders in the development and implementation of neighbourhood, local, district and regional Green Infrastructure policies and actions.

**Place:** is a social and a physical concept—a physical setting, point or area in space conceived and designated by people and communities. In this sense, place can describe different scales of the built environment—for example, a town is a place, as well as a building can be a place.

**Place Making:** proposes a multi-faceted approach to the planning, design and management of public spaces. ‘Place Making’ looks at understanding the local community with the intention of creating public spaces that promote health and well-being.

**Priority Growth Areas:** The Priority Growth Areas Greater Sydney are identified by the NSW Government as major greenfield development areas. Information about Priority Growth Areas is available at http://www.planning.nsw.gov.au/

**Priority s:** areas that have a wider social, economic or environmental significance for the community or have redevelopment potential on a scale that is important in implementing the State’s planning objectives. Priority s are envisaged as larger areas, usually made up of multiple land holdings, capable of delivering significant additional growth and requiring coordination from State and local governments to realise their potential.

**Public Realm:** is the collective, communal part of cities and towns, with shared access for all. It is the space of movement, recreation, gathering, events, contemplation and relaxation. The public realm includes streets, pathways, rights of way, parks, accessible open spaces, plazas and waterways that are physically and visually accessible regardless of ownership.

**Quality:** the standard of something, measured comparatively against things of a similar kind.

**Quantity:** the amount or number of open space or abstract thing not usually estimated by spatial measurement.

**Recreation - Active:** activities that require physical exertion and considerable expenditure of energy; such as football and soccer.

**Recreation - Passive:** activities that require minimum physical exertion; such as reading and relaxing.

**Resilient:** place or space that can withstand or recover from difficult conditions.

**Scale:** the relative size or extent of something—scale is a device used to quantify objects in a sequence by size; for example a city scale, or a building scale. In architecture, scale is also used to describe a ratio of size in a map, model, drawing, or plan.

**State Environmental Planning Policy (SEPP):** is a statutory plan, typically prepared by the Department of Planning and Environment and endorsed by the Minister for Planning. It can be a spatial plan for particular land in NSW, and/or it can set policy which applies to particular land or all land in NSW.

**Strategic Plan:** document that guides the implementation of a strategy for a particular area.

**Statutory Plan:** is part of the planning process that is concerned with the regulation and management of changes to land use and development.

**Sustainable:** relates to the endurance of systems, buildings, spaces and processes—their ability to be maintained at a certain rate or level, which contributes positively to environmental, economic and social outcomes.

**Urban Forest:** the layer of trees and tree populations that exist in urban settings.

**Urban Tree Canopy:** the layer of leaves, branches, and stems of trees that cover the ground when viewed from above.

**Water Sensitive Urban Design (WSUD):** is the sustainable integration of water cycle management into planning, design and construction of the built environment. It is the term given to the replication of natural processes into treatment of water in an urbanised environment and is relevant to all built environments from highly urbanised to rural settings.
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